

RENNIA ENGINEERING DESIGN, PLLC

CIVIL & ENVIRONMENTAL ENGINEERING

6 Dover Village Plaza, Suite 5, P.O. Box 400, Dover Plains, NY 12522
Tel: (845) 877-0555 Fax: (845) 877-0556

August 21, 2014

Town of Amenia Planning Board
Amenia Town Hall
4988 Route 22
Amenia, NY 12501

Attn: Norm Fontaine, Chairperson

**Re: Amenia Fish & Game
4623 Route 22
Parcel ID: 132000-7066-00-854868**

Dear Mr. Fontaine and Planning Board Members,

This letter is written to provide the planning board with confirmation that this office is currently working with the Amenia Fish & Game Club to develop an underground target range. This underground target range will replace the current above ground shooting range that is present on their existing parcel. We expect to be able to install the new range in the same exact location as it is now and to install the necessary structure with the approximate footprints of the existing structures.

Our services will include the design of sound dissipating baffles, ventilation, lighting, shooting bench area, and bullet collection area.

Please contact me with any questions at (845) 877-0555.

Sincerely,

Richard Rennia, Jr., P.E.
Principal

Amenia Fish & Game Underground Shooting Range Project Narrative

The Amenia Fish & Game Club proposes to develop an underground shooting range for the use of its members. The underground shooting range will replace the existing above ground shooting range that is present on their existing parcel. The underground range will utilize several underground structures for shooting and bullet collection. These structures will be connected by concrete pipes, which will act as a conduit for the bullet to travel the desired distance from the shooter to the target. This type of underground facility will create a safer and quieter atmosphere for both the users and the general public.

The main shooting structure will consist of one open room that is approximately 16-ft wide by 33-ft long (529-sf) with 5 shooting tubes penetrating the long wall. There will be three independent target and bullet collection rooms located at the opposite end of the shooting tubes. Each of the three rooms will be located 100-yd, 50-yd, and 25 yd down range of the main shooting room to create 3 unique ranges, rifle, shotgun, and pistol. Each room will be approximately 10-ft by 10-ft in size (100-sf).

The underground shooting range will include backstops, shooting booths, target carrier system, firing range control, as well as space related to cleaning, and assembly of firearms.

Adequate volume and direction of air movement will be provided through a positive exhaust system that will remove fumes and dust released during firing. The exhaust system will provide a slight negative air pressure within the range to continuously change the air.

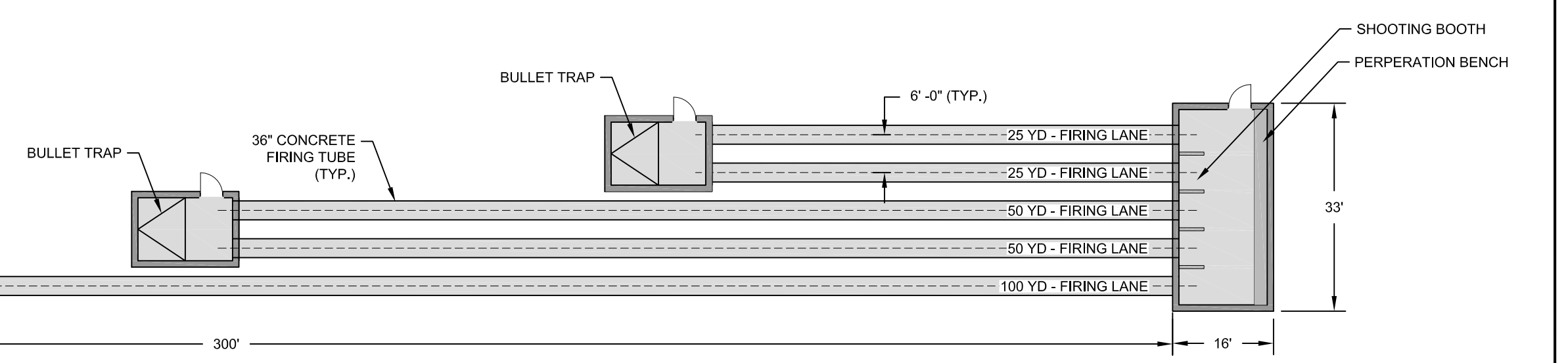
Acoustical controls will be installed within the structures to reduce both noise in the range and noise transmission out of the range. Heavy masonry walls provide mass to control noise to the outside and absorptive acoustical surfacing will reduce the noise level in the range.

To prevent ricochets and trap bullets special bullet backstops made of sand filled polymer sacks and CMU's with sacrificial cladding in the zone directly behind the firing lanes will be provided.

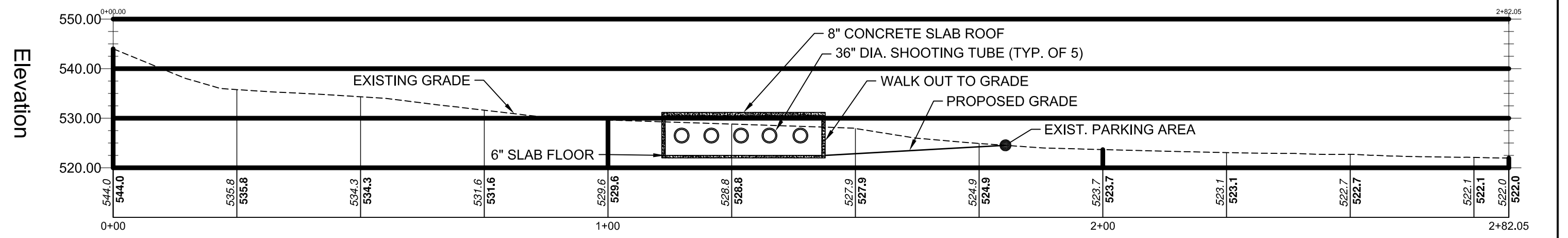
Energy-efficient fluorescent lighting fixtures will be used to provide ambient and targeted lighting in the Firing Range. The lights will also be connected to a firing range control system to notify the outside that the range is in use and to notify the shooting room when the target room is occupied.



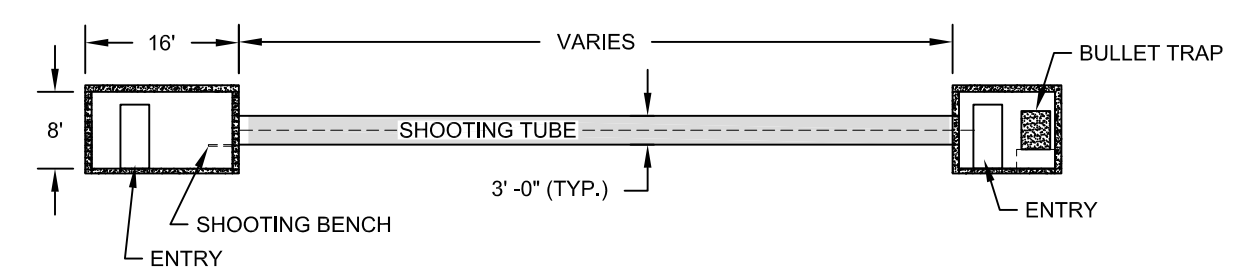
PLAN VIEW
SCALE: 1" = 40'



FIRING RANGE LAYOUT DETAIL
SCALE: 1" = 20'



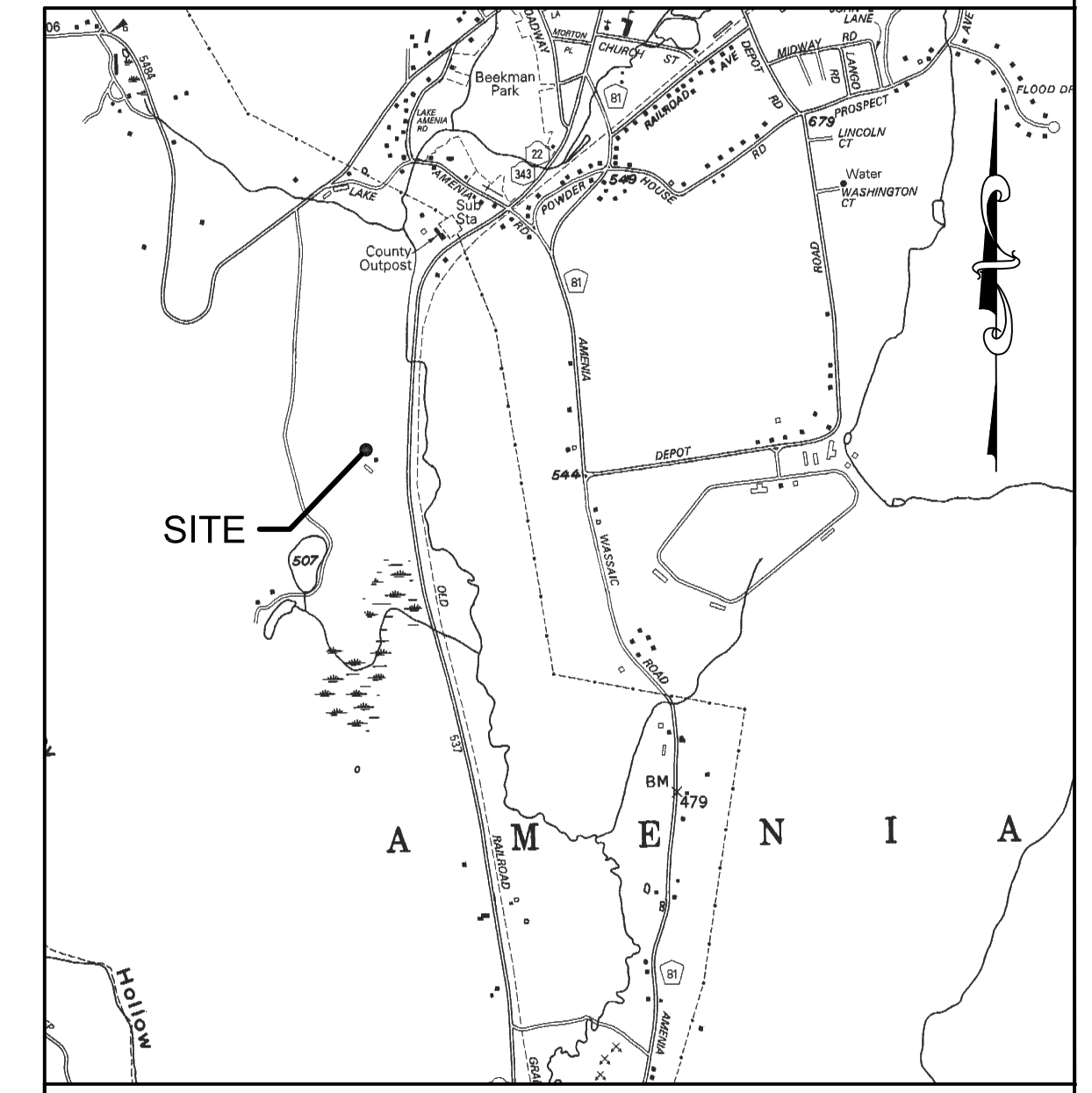
CROSS-SECTION A-A
SCALE: 1" = 20' HORIZ.
1" = 10' VERT.



LONGITUDINAL SECTION
SCALE: 1" = 20'

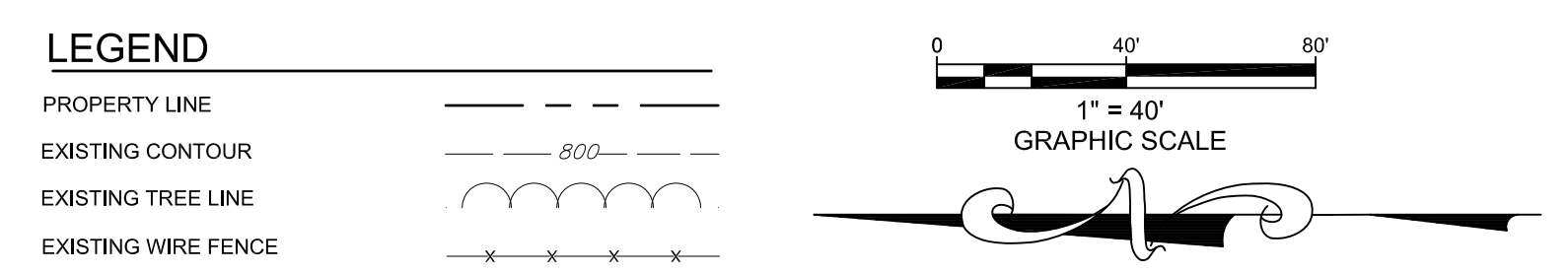
SITE DATA

ZONING DISTRICT: RA
 LOT SIZE: ±6.4 ACRES
 TAX GRID No.: 132000-7066-00-854868
 PROPERTY ADDRESS: 4623 ROUTE 22
 AMENIA, NY 12501
 PROPERTY OWNER: AMENIA FISH & GAME
 ADDRESS: P.O. BOX 149
 AMENIA, NY 12501



AREA MAP
SCALE: 1" = 2000'

PRELIMINARY



DATE	REVISION

ENGINEERING, DESIGN, & PLANS PREPARED BY:
RENNIA ENGINEERING DESIGN, PLLC
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AMENIA FISH & GAME					
TOWN OF AMENIA			DUTCHESS COUNTY, NY		
CONCEPTUAL UNDERGROUND FIRING RANGE					
DATE	SCALE	DESIGNED BY:	DRAWN BY:	CHECKED BY:	JOB NO.
8/21/14	AS NOTED	RED	RED	RAR	#13-018
					SHEET NO.
					1 of 1