

GENERAL NOTES

- The property delineated on this plan is owned by the City of Winchester, Virginia and is located at the end of Woodstock Lane just outside the limits of the City of Winchester, Virginia. The developer intends to construct a Prototype Burn Building for demonstrations and practice of fire fighting techniques on the site of the Fire Department training center.
- Property Owner :
City of Winchester, Virginia
15 North Cameron Street
Winchester, Virginia 22601
Contact: Mr. Perry Eisenach, P.E.
Telephone: (540) 667-1815

Project Representative:
Winchester Fire & Rescue Department
231 East Piccadilly Street, Suite 330
Winchester, Virginia 22601
Contact: Mr. Scott E. Kensinger
Telephone: (540) 662-2298

Engineer:
PAINTER-LEWIS, P.L.C.
817 Cedar Creek Grade, Suite 120
Winchester, Virginia 22601
Contact: Mr. Timothy G. Painter, P.E.
Telephone: (540) 662-5792

Surveyor:
PAINTER-LEWIS, P.L.C.
817 Cedar Creek Grade, Suite 120
Winchester, Virginia 22601
Contact: Mr. David F. Spriggs, LS
Telephone: (540) 662-5792
- Topographic information, shown on these plans, was taken from a field survey performed by the Survey Division of Painter-Lewis, P.L.C. and an aerial survey performed by Air Surveys to provide a general existing conditions plan for the design of this project.
- Site Data:
Tax Map: No. 54-A-122
Parcel Area: 9.613 Acres
Zoning (Current): RP Residential Performance District
Magisterial District: Red Bud Magisterial District
Existing Use: Fire Department: Winchester Regional Fire Training Center
Proposed Use: Fire Department: Winchester Regional Fire Training Center

ZONING DISTRICT:
Use: RP Residential Performance District
Non-residential Use
Fire Department Station: Regional Fire Training Center
- DEVELOPMENT DATA:
Project: 9.613 acres
Fire Department Regional Fire Training Center
Addition of a Prototype I Burn Building
1,007.22 Sq. Ft. of Gross Footprint Area
(Area of Disturbance shall be less than 0.67 acre.)

Setbacks:
Front: 35'
Rear: 50'
Side: 15'

Building Height: 45'-0" Maximum

Greenspace: Total Greenspace Required: 15% Min.
(Non-Residential 2 Developments)
- Off-Street Parking:
Fire Station: Required: 1.5 spaces per On-site Employee
Office Space: 1 space per 250 Sq. Ft.
1 space per company or stored vehicle

Parking Required: Required: 1.5 spaces per On-site Employee
1.5 x 6 = 9 spaces => 9 Spaces
Office Space: (None) => 0 Spaces
Company or Stored Vehicle => 10 Spaces
Total Parking Required: 19 Spaces

Parking: Provided: 24 Regular Parking Spaces
with 2 HDPC Spaces (Van Accessible)
- Landscaping and Screening:
General Greenspace: Required: 15% of land for Commercial Developments
Foundation Landscaping: Required: For each building
Parking Lot Landscaping: Required: 1 tree per 2000 sq. ft. of parking area
Screening: Required: Headlight Vegetative Screening against adjacent parcels & Rights-of-Way.
(See Plan)
- General Greenspace:
Coverage: 15% Required
Ex. Buildings: 2,912.84 Sq. Ft.
Pr. Buildings: 1,007.22 Sq. Ft.
Ex. Parking & Drive Aisles: 22,922.25 Sq. Ft.
Pr. Parking & Drive Aisles: 8,855.75 Sq. Ft.
Ex. Concrete & Gravel: 1,323.25 Sq. Ft.
Pr. Concrete: 3,081.69 Sq. Ft.
Total: 40,103.00 Sq. Ft. (0.921 Ac.)

Greenspace: Provided: 8.692 Ac. (90.4%)
- Foundation Landscaping: Required: None
Parking Lot Landscaping: Required: 1 tree per 2000 sq. ft. of parking area
8,855.75 Sq. Ft./2000 => 4.43 Trees
Provided: 5 Trees
- Screening: Required: Headlight Vegetative Screen
Provided: None Required
- Buffering: Required: Evergreen Screening per Proffers
Provided: None Required
- All water mains and sanitary sewer lines shall be connected to existing City of Winchester public utilities.
- Storm water runoff shall be controlled by a proposed open air storm water management system. The area of disturbance is less than one acre so no storm water quality measures are required or proposed for this phase of the development.
- All utilities connected to this development shall be underground.
- No Dumpster is needed or proposed for this development.
- No activities will occur at night and the site is locked when not in use, so no site lighting is needed or proposed for this development.

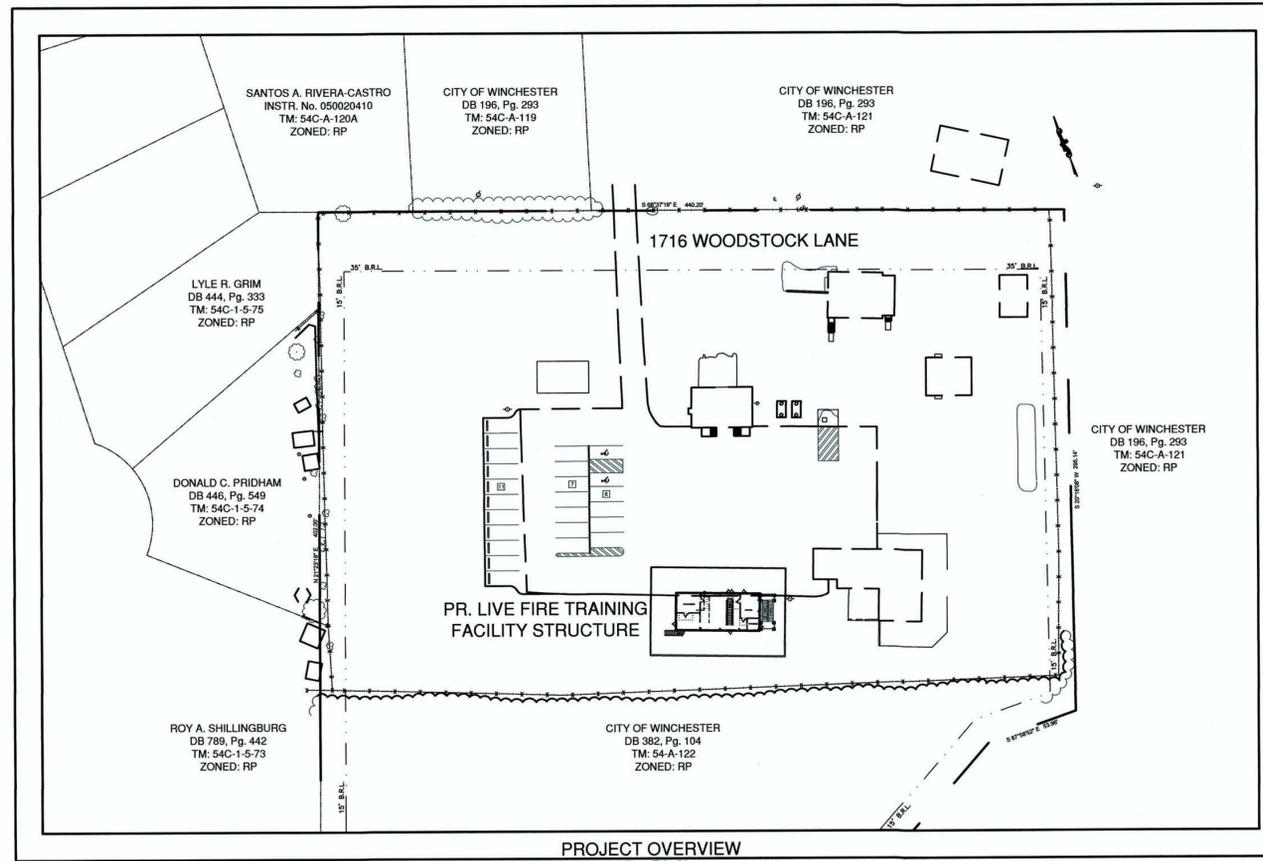
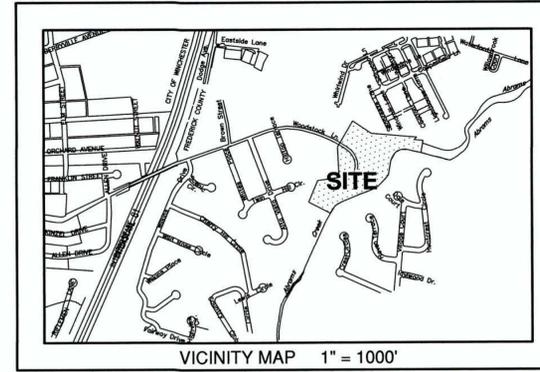
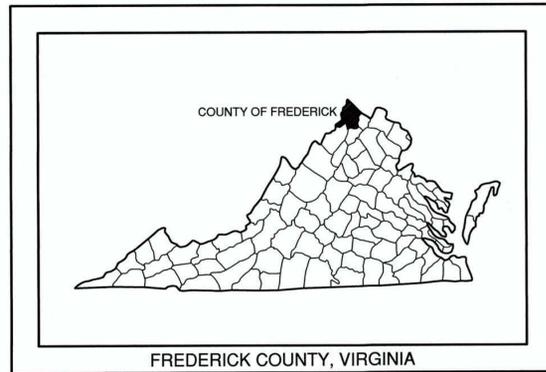
CITY OF WINCHESTER - DEPT. OF FIRE PROGRAMS

LIVE FIRE TRAINING STRUCTURE

1716 WOODSTOCK LANE

WINCHESTER, VIRGINIA 22602

SP: #14-16



ABBREVIATIONS

ASSEMBLY FLOOR	ASSEMBLY FLOOR
BLOCK	BLOCK
BOTTOM OF CURB	BOTTOM OF CURB
BUILDING MOUNTED LIGHT	BUILDING MOUNTED LIGHT
BREAK POINT	BREAK POINT
BASEBOARD	BASEBOARD
VDOT CURB	VDOT CURB
VDOT CURB & GUTTER	VDOT CURB & GUTTER
CAST IN PLACE CONCRETE	CAST IN PLACE CONCRETE
CLASS	CLASS
CONCRETE MONUMENT FOUND	CONCRETE MONUMENT FOUND
CORRUGATED POLYETHYLENE PIPE	CORRUGATED POLYETHYLENE PIPE
CORRUGATED METAL PIPE	CORRUGATED METAL PIPE
CORRUGATED METAL PIPE ARCH	CORRUGATED METAL PIPE ARCH
CLEAN OUT	CLEAN OUT
DIA. or Ø	DIA. or Ø
DOWNSPOUT	DOWNSPOUT
EDGE OF PAVEMENT	EDGE OF PAVEMENT
EDGE OF GRAVEL	EDGE OF GRAVEL
EXISTING	EXISTING
FIRST FLOOR	FIRST FLOOR
FIRST FLOOR ELEVATION	FIRST FLOOR ELEVATION
FIRE DEPARTMENT CONNECTION	FIRE DEPARTMENT CONNECTION
FACE OF GUTTER	FACE OF GUTTER
FIRE HYDRANT	FIRE HYDRANT
FIRE LANE SIGN	FIRE LANE SIGN
FLOOD LIGHT	FLOOD LIGHT
GAUGE	GAUGE
GAS METER	GAS METER
GAS VALVE or GATE VALVE	GAS VALVE or GATE VALVE
HANDICAP RAMP	HANDICAP RAMP
HOSE BIB	HOSE BIB
6" HEADER CURB	6" HEADER CURB
HIGH POINT	HIGH POINT
HEATER	HEATER
INCREASER	INCREASER
INVERT	INVERT
IRON PIPE FOUND	IRON PIPE FOUND
IRON PIPE SET	IRON PIPE SET
LOW POINT	LOW POINT
LIGHT	LIGHT
METAL LIGHT POLE	METAL LIGHT POLE
MULTI-PRODUCT DISPENSER	MULTI-PRODUCT DISPENSER
METAL POST	METAL POST
MANHOLE	MANHOLE
NOSE DOWN CURB	NOSE DOWN CURB
NO LEFT TURN	NO LEFT TURN
NO RIGHT TURN	NO RIGHT TURN
NOT TO SCALE	NOT TO SCALE
OVERHEAD ELECTRIC	OVERHEAD ELECTRIC
OVERHEAD TELEPHONE	OVERHEAD TELEPHONE
POST INDICATOR VALVE	POST INDICATOR VALVE
PROPERTY LINE	PROPERTY LINE
POWER POLE	POWER POLE
PROPOSED	PROPOSED
PAVEMENT	PAVEMENT
REINFORCED CONCRETE PIPE	REINFORCED CONCRETE PIPE
ROOF DRAIN	ROOF DRAIN
REDUCER	REDUCER
ROCK OUTCROP	ROCK OUTCROP
SANITARY	SANITARY
SEWER	SEWER
STANDARD	STANDARD
TO BE DEMOLISHED	TO BE DEMOLISHED
TO BE REMOVED or TO BE REMOVED & RELOCATED	TO BE REMOVED or TO BE REMOVED & RELOCATED
TO BE PRESERVED or PROTECTED	TO BE PRESERVED or PROTECTED
THRUST BLOCK	THRUST BLOCK
TOP OF CURB	TOP OF CURB
TELEPHONE	TELEPHONE
TELEPHONE RISER BOX	TELEPHONE RISER BOX
TELEVISION RISER BOX	TELEVISION RISER BOX
TYPICAL	TYPICAL
UNDERGROUND ELECTRIC	UNDERGROUND ELECTRIC
UNDERGROUND GAS	UNDERGROUND GAS
UNDERGROUND CABLE T.V.	UNDERGROUND CABLE T.V.
UNDERGROUND TELEPHONE	UNDERGROUND TELEPHONE
ELECTRIC TRANSFORMER	ELECTRIC TRANSFORMER
WATERLINE	WATERLINE
WATER METER	WATER METER
WOOD POWER POLE	WOOD POWER POLE
WOOD TELEPHONE POLE	WOOD TELEPHONE POLE
WATER VALVE	WATER VALVE
RADIUS IN FEET	RADIUS IN FEET
PROPOSED SPOT ELEVATION	PROPOSED SPOT ELEVATION
EXISTING SPOT ELEVATION	EXISTING SPOT ELEVATION
HATCHING INDICATES REVERSED PITCH IN THE GUTTER:	HATCHING INDICATES REVERSED PITCH IN THE GUTTER:
PITCH SHALL BE 1/2"=0", TRANSITION GUTTER OVER A 10' LENGTH (Typ.)	PITCH SHALL BE 1/2"=0", TRANSITION GUTTER OVER A 10' LENGTH (Typ.)

LIST OF DRAWINGS:

SHEET 1/7:	COVER SHEET
SHEET 2/7:	EXISTING CONDITIONS & DEMOLITION PLAN
SHEET 3/7:	SITE LAYOUT PLAN
SHEET 4/7:	SITE GRADING PLAN
SHEET 5/7:	SITE EROSION AND SEDIMENT CONTROL PLAN
SHEET 6/7:	EROSION AND SEDIMENT CONTROL NARRATIVE AND DETAILS
SHEET 7/7:	MISCELLANEOUS CONSTRUCTION DETAILS

ZONING ADMINISTRATOR DATE
APPROVED: COUNTY OF FREDERICK, VIRGINIA

SITE PLAN EXPIRES FIVE (5) YEARS FROM DATE OF APPROVAL
CITY OF WINCHESTER DEPARTMENT OF FIRE PROGRAMS
LIVE FIRE TRAINING STRUCTURE: SITE PLAN
1716 WOODSTOCK LANE
WINCHESTER, VIRGINIA 22602

PAINTER-LEWIS, P.L.C.
 817 CEDAR CREEK GRADE, SUITE 120
 WINCHESTER, VIRGINIA 22601
 Telephone: (540) 662-5792
 Facsimile: (540) 662-5793
 Email: office@painterlewis.com
 JOB NO.: 1511018
 JANUARY 25, 2016
 LATEST REVISION: MARCH 18, 2019

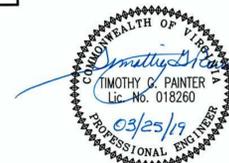
CONSULTING ENGINEERS

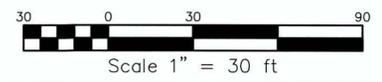
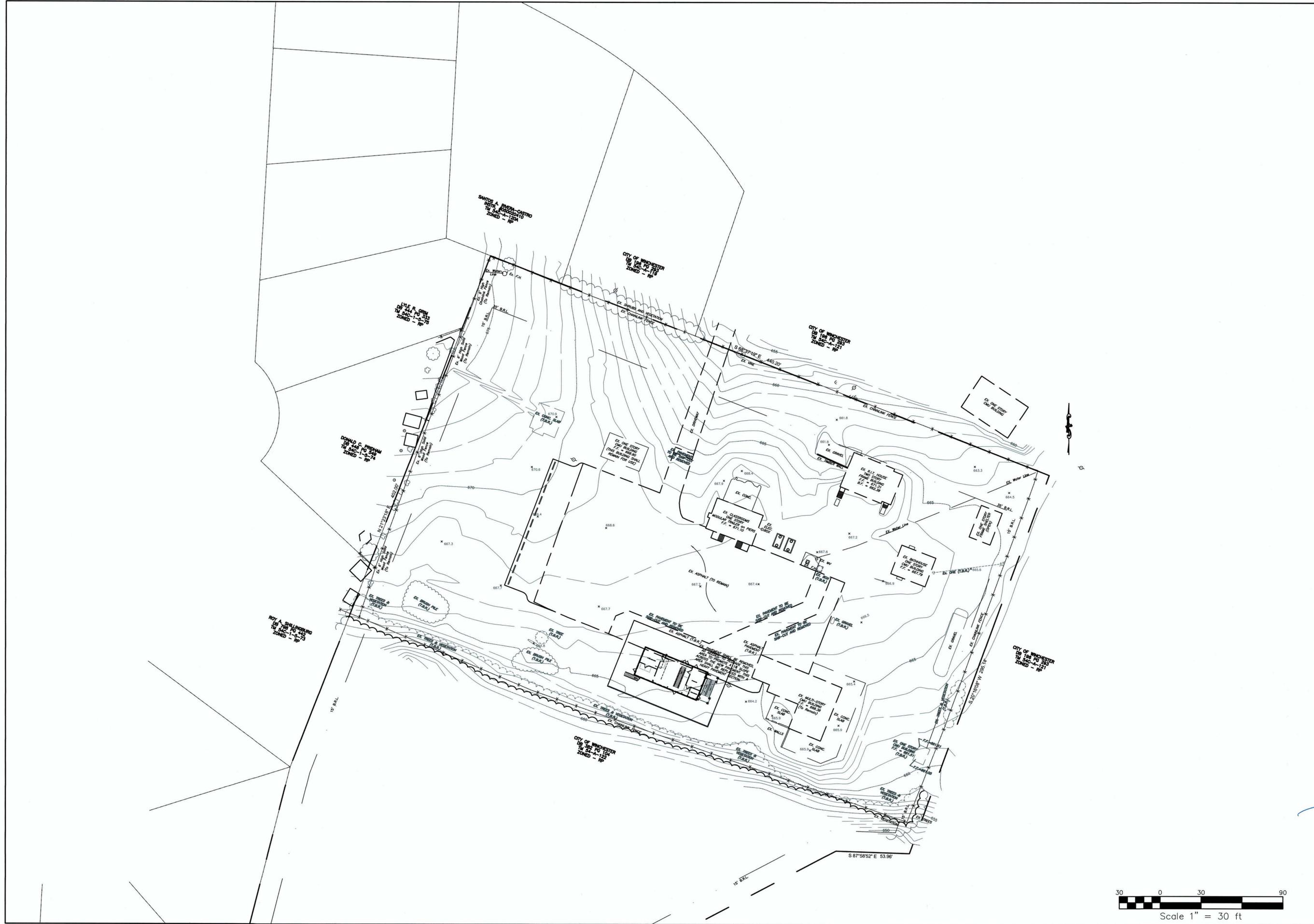
SHEET: **1/7**

RESPONSIBLE LAND DISTURBER

NAME: _____
 CERTIFICATION #: _____
 DATE: _____

THE RESPONSIBLE LAND DISTURBER IS THE PARTY RESPONSIBLE FOR CONSTRUCTION & MAINTENANCE OF ALL THE LAND DISTURBING ACTIVITIES AS SET FORTH IN THESE PLANS.





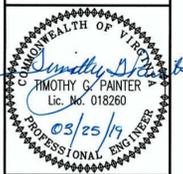
REVISIONS			
NO.	DATE	AGENCY COMMENTS	DESCRIPTION
2	03-18-19	BURN BUILDING RELOCATION	TGP
1	05-16-16	AGENCY COMMENTS	TGP

TITLE:
EXISTING CONDITIONS and DEMOLITION PLAN

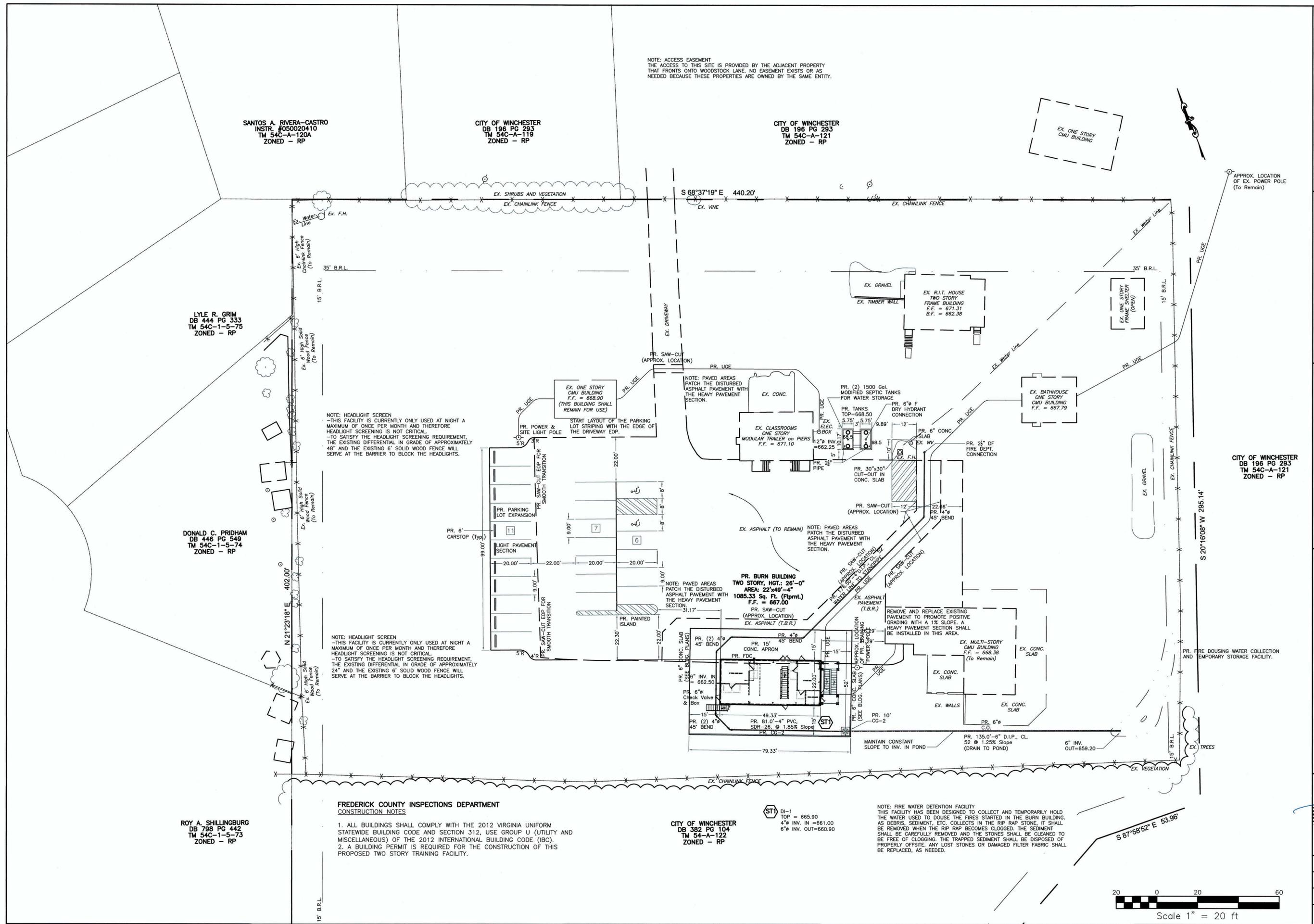
PROJECT:
**CITY OF WINCHESTER
 DEPARTMENT OF FIRE PROGRAMS
 LIVE FIRE TRAINING STRUCTURE
 1716 WOODSTOCK LANE
 WINCHESTER, VIRGINIA 22602**

PAINTER-LEWIS, P.L.C.
 817 CEDAR CREEK GRADE, SUITE 120
 WINCHESTER, VIRGINIA 22601
 Telephone: (540) 662-5792
 Facsimile: (540) 662-5793
 Email: office@painterlewis.com

CONSULTING ENGINEERS



SURVEY:	C.I.:
PL-PLC	2'
DRAWN BY:	JOB NO.:
TGP	1511018
SCALE:	DATE:
1"=30.0'	01/25/16
SHEET:	
	2/7



NOTE: ACCESS EASEMENT
 THE ACCESS TO THIS SITE IS PROVIDED BY THE ADJACENT PROPERTY
 THAT FRONTS ONTO WOODSTOCK LANE. NO EASEMENT EXISTS OR AS
 NEEDED BECAUSE THESE PROPERTIES ARE OWNED BY THE SAME ENTITY.

SANTOS A. RIVERA-CASTRO
 INSTR. #050020410
 TM 54C-A-120A
 ZONED - RP

CITY OF WINCHESTER
 DB 196 PG 293
 TM 54C-A-119
 ZONED - RP

CITY OF WINCHESTER
 DB 196 PG 293
 TM 54C-A-121
 ZONED - RP

LYLE R. GRIM
 DB 444 PG 333
 TM 54C-1-5-75
 ZONED - RP

DONALD C. PRIDHAM
 DB 446 PG 549
 TM 54C-1-5-74
 ZONED - RP

ROY A. SHILLINGSBURG
 DB 798 PG 442
 TM 54C-1-5-73
 ZONED - RP

NOTE: HEADLIGHT SCREEN
 -THIS FACILITY IS CURRENTLY ONLY USED AT NIGHT A
 MAXIMUM OF ONCE PER MONTH AND THEREFORE
 HEADLIGHT SCREENING IS NOT CRITICAL.
 -TO SATISFY THE HEADLIGHT SCREENING REQUIREMENT,
 THE EXISTING DIFFERENTIAL IN GRADE OF APPROXIMATELY
 48" AND THE EXISTING 6" SOLID WOOD FENCE WILL
 SERVE AS THE BARRIER TO BLOCK THE HEADLIGHTS.

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 -THIS FACILITY IS CURRENTLY ONLY USED AT NIGHT A
 MAXIMUM OF ONCE PER MONTH AND THEREFORE
 HEADLIGHT SCREENING IS NOT CRITICAL.
 -TO SATISFY THE HEADLIGHT SCREENING REQUIREMENT,
 THE EXISTING DIFFERENTIAL IN GRADE OF APPROXIMATELY
 24" AND THE EXISTING 6" SOLID WOOD FENCE WILL
 SERVE AS THE BARRIER TO BLOCK THE HEADLIGHTS.

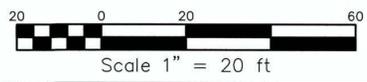
FREDERICK COUNTY INSPECTIONS DEPARTMENT
CONSTRUCTION NOTES

1. ALL BUILDINGS SHALL COMPLY WITH THE 2012 VIRGINIA UNIFORM STATEWIDE BUILDING CODE AND SECTION 312, USE GROUP U (UTILITY AND MISCELLANEOUS) OF THE 2012 INTERNATIONAL BUILDING CODE (IBC).
2. A BUILDING PERMIT IS REQUIRED FOR THE CONSTRUCTION OF THIS PROPOSED TWO STORY TRAINING FACILITY.

CITY OF WINCHESTER
 DB 382 PG 104
 TM 54-A-122
 ZONED - RP

DI-1
 TOP = 665.90
 4" INV. IN = 661.00
 6" INV. OUT = 660.90

NOTE: FIRE WATER DETENTION FACILITY
 THIS FACILITY HAS BEEN DESIGNED TO COLLECT AND TEMPORARILY HOLD
 THE WATER USED TO DOUSE THE FIRES STARTED IN THE BURN BUILDING.
 AS DEBRIS, SEDIMENT, ETC. COLLECTS IN THE RIP RAP STONE, IT SHALL
 BE REMOVED WHEN THE RIP RAP BECOMES CLOGGED. THE SEDIMENT
 SHALL BE CAREFULLY REMOVED AND THE STONES SHALL BE CLEANED TO
 BE FREE OF CLOGGING. THE TRAPPED SEDIMENT SHALL BE DISPOSED OF
 PROPERLY OFFSITE. ANY LOST STONES OR DAMAGED FILTER FABRIC SHALL
 BE REPLACED, AS NEEDED.

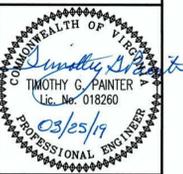


NO.	DATE	AGENCY COMMENTS	TGP	BY
1	05-18-16			
2	03-18-19	BURN BUILDING RELOCATION	TGP	

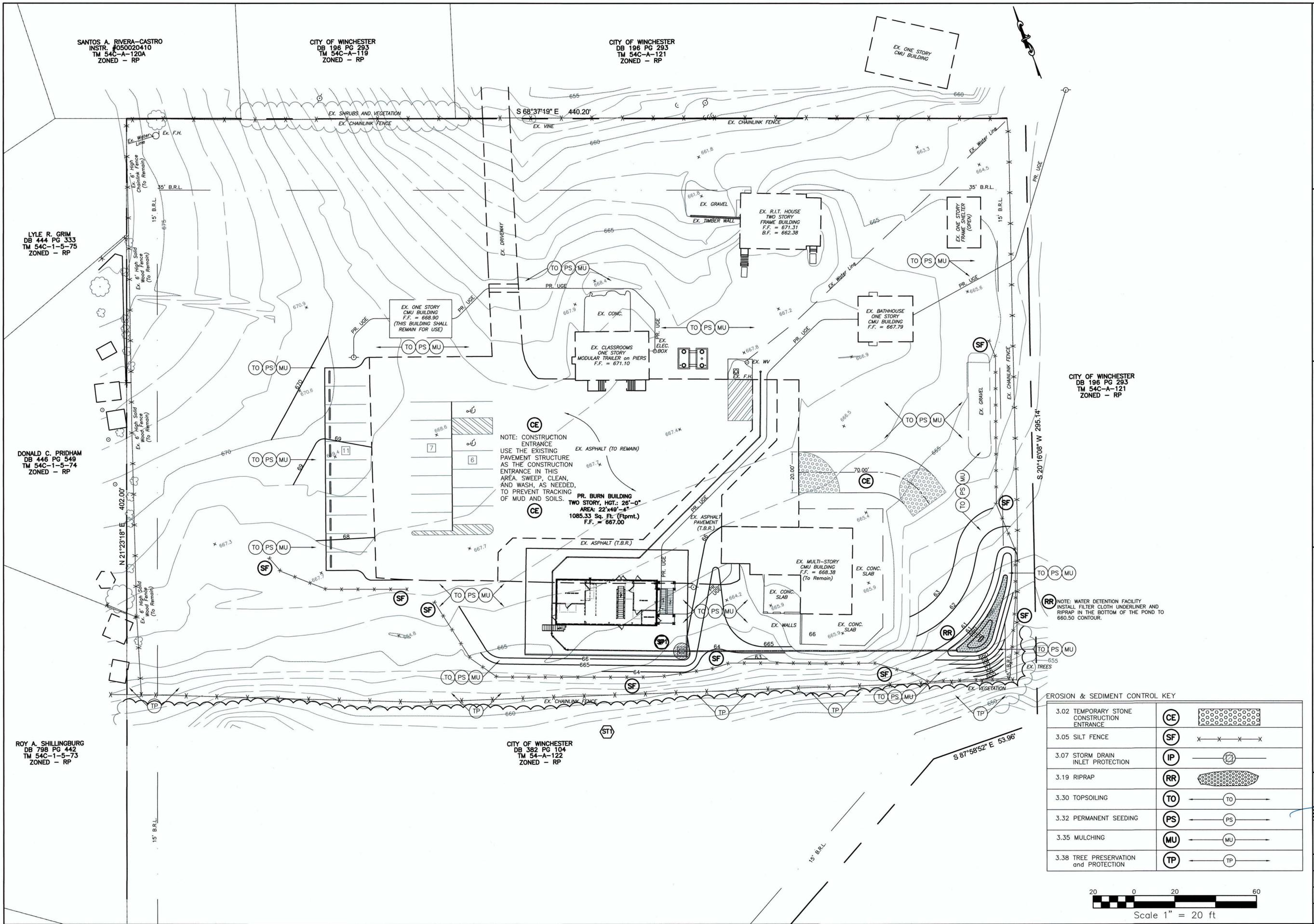
TITLE:
SITE LAYOUT PLAN

PROJECT:
**CITY OF WINCHESTER
 DEPARTMENT OF FIRE PROGRAMS
 LIVE FIRE TRAINING STRUCTURE
 1716 WOODSTOCK LANE
 WINCHESTER, VIRGINIA 22602**

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SURVEY:	C.I.:
PL-PLC	2'
DRAWN BY:	JOB NO.:
TGP	1511018
SCALE:	DATE:
1"=20.0'	01/25/16
SHEET:	



SANTOS A. RIVERA-CASTRO
INSTR. #050020410
TM 54C-A-120A
ZONED - RP

CITY OF WINCHESTER
DB 196 PG 293
TM 54C-A-119
ZONED - RP

CITY OF WINCHESTER
DB 196 PG 293
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TM 54C-1-5-75
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TM 54C-1-5-74
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CITY OF WINCHESTER
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ZONED - RP

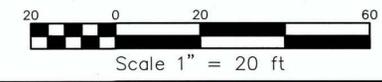
NOTE: CONSTRUCTION ENTRANCE USE THE EXISTING PAVEMENT STRUCTURE AS THE CONSTRUCTION ENTRANCE IN THIS AREA. SWEEP, CLEAN, AND WASH, AS NEEDED, TO PREVENT TRACKING OF MUD AND SOILS.

PR. BURN BUILDING
TWO STORY, HGT.: 28'-0"
AREA: 22'x49'-4"
1085.33 Sq. Ft. (Ftprnt.)
F.F. = 667.00

NOTE: WATER DETENTION FACILITY INSTALL FILTER CLOTH UNDERLINER AND RIPRAP IN THE BOTTOM OF THE POND TO 660.50 CONTOUR.

EROSION & SEDIMENT CONTROL KEY

3.02 TEMPORARY STONE CONSTRUCTION ENTRANCE	CE	
3.05 SILT FENCE	SF	
3.07 STORM DRAIN INLET PROTECTION	IP	
3.19 RIPRAP	RR	
3.30 TOPSOILING	TO	
3.32 PERMANENT SEEDING	PS	
3.35 MULCHING	MU	
3.38 TREE PRESERVATION and PROTECTION	TP	



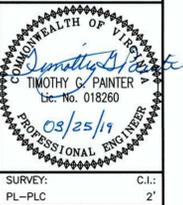
REVISIONS

NO.	DATE	AGENCY COMMENTS	DESCRIPTION	BY
2	03-18-19	BURN BUILDING RELOCATION	TGP	
1	05-16-16	AGENCY COMMENTS	TGP	

TITLE:
SITE EROSION AND SEDIMENT CONTROL PLAN

PROJECT:
CITY OF WINCHESTER
DEPARTMENT OF FIRE PROGRAMS
LIVE FIRE TRAINING STRUCTURE
1716 WOODSTOCK LANE
WINCHESTER, VIRGINIA 22602

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SURVEY: PL-PLC C.I.: 2'
DRAWN BY: TGP JOB NO.: 1511018
SCALE: 1"=20.0' DATE: 01/25/16
SHEET: 5/7

SVAC25-840-40 MINIMUM STANDARDS 1-19:

A VESCP must be consistent with the following criteria, techniques and methods:

- Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven days to denuded areas that may not be final grade but will remain dormant for longer than 140 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.
- During construction of the project, soil stockpiles and borrow areas shall be stabilized or protected with sediment trapping measures. The applicant shall be responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as borrow areas and soil intentionally transported from the project site.
- A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved that is uniform, mature enough to survive and will inhibit erosion.
- Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land-disturbing activity and shall be made functional before uplope land disturbance takes place.
- Stabilization measures shall be applied to earthen structures such as dams, dikes and diversions immediately after installation.
- Sediment traps and sediment basins shall be designed and constructed based upon the total drainage area to be served by the trap or basin.
 - The minimum storage capacity of a sediment trap shall be 134 cubic yards per acre of drainage area and the trap shall only control drainage areas less than three acres.
 - Surface runoff from disturbed areas that is comprised of flow from drainage areas greater than or equal to three acres shall be controlled by a sediment basin. The minimum storage capacity of a sediment basin shall be 134 cubic yards per acre of drainage area. The outfall system shall, at a minimum, maintain the structural integrity of the basin during a 25-year storm of 24-hour duration. Runoff coefficients used in runoff calculations shall correspond to a bare earth condition or those conditions expected to exist while the sediment basin is utilized.
- Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion. Slopes that are found to be eroding excessively within one year of permanent stabilization shall be provided with additional slope stabilizing measures until the problem is corrected.
- Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume or slope drain structure.
- Whenever water seeps from a slope face, adequate drainage or other protection shall be provided.
- All storm sewer systems that are made operable during construction shall be protected so that sediment-laden water cannot enter the conveyance system without first being filtered or otherwise treated to remove sediment.
- All storm sewer inlets that are made operable during construction shall be protected so that sediment-laden water cannot enter the conveyance system without first being filtered or otherwise treated to remove sediment.
- Before newly constructed stormwater conveyance channels or pipes are made operational, adequate outlet protection and any required temporary or permanent channel lining shall be installed in both the conveyance channel and receiving channel.
- When work in a live watercourse is performed, precautions shall be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction. Non-erodible material shall be used for the construction of causeways and cofferdams. Earthen fill may be used for these structures if armored by non-erodible cover materials.
- When a live watercourse must be crossed by construction vehicles more than twice in any six-month period, a temporary vehicular stream crossing constructed of non-erodible material shall be provided.
- All applicable federal, state and local regulations pertaining to working in or crossing live watercourses shall be met.
- The bed and banks of a watercourse shall be stabilized immediately after work in the watercourse is completed.
- Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria:
 - No more than 500 linear feet of trench may be opened at one time.
 - Excavated material shall be placed on the uphill side of trenches.
 - Effluent from dewatering operations shall be filtered or passed through an approved sediment trapping device, or both, and discharged in a manner that does not adversely affect flowing streams or off-site property.
 - Material used for backfilling trenches shall be properly compacted in order to minimize erosion and promote stabilization.
 - Restabilization shall be accomplished in accordance with these regulations.
 - Applicable safety regulations shall be complied with.
- Where construction vehicle access routes intersect paved or public roads, provisions shall be made to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or public road surface, the road surface shall be cleaned thoroughly at the end of each day. Sediment shall be removed from the roads by showing or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after sediment is removed in this manner. This provision shall apply to individual development lots as well as to larger land-disturbing activities.
- All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed, unless otherwise authorized by the VESCP. Trapped sediment and the disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation.
- Properties and waterways downstream from development sites shall be protected from sediment deposition, erosion and damage due to increases in volume, velocity and peak flow rate of stormwater runoff for the stated frequency storm of 24-hour duration in accordance with the following standards and criteria. Stream restoration and relocation projects that incorporate natural channel design concepts are not man-made channels and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels:
 - Concentrated stormwater runoff leaving a development site shall be discharged directly into an adequate natural or man-made receiving channel, pipe or storm sewer system. For those sites where runoff is discharged into a pipe or pipe system, downstream stability analyses at the outfall of the pipe or pipe system shall be performed.
 - Adequacy of all channels and pipes shall be verified in the following manner:
 - The applicant shall demonstrate that the total drainage area to the project in question; or
 - (a) Natural channels shall be analyzed by the use of a two-year storm to verify that stormwater will not overtop channel banks nor cause erosion of channel bed or banks; and
 - (b) All previously constructed man-made channels shall be analyzed by the use of a ten-year storm to verify that stormwater will not overtop its banks and by the use of a two-year storm to demonstrate that stormwater will not cause erosion of channel bed or banks; and
 - (c) Pipes and storm sewer systems shall be analyzed by the use of a ten-year storm to verify that stormwater will be contained within the pipe or system.
 - If existing natural receiving channels or previously constructed man-made channels or pipes are not adequate, the applicant shall:
 - Improve the channels to a condition where a ten-year storm will not overtop the banks and a two-year storm will not cause erosion to the channel bed or banks; or
 - Improve the pipe or pipe system to a condition where the ten-year storm is contained within the appurtenances;
 - Develop a site design that will not cause the pre-development peak runoff rate from a two-year storm to increase when runoff outfalls into a natural channel or will not cause the pre-development peak runoff rate from a ten-year storm to increase when runoff outfalls into a man-made channel; or
 - Provide a combination of channel improvement, stormwater detention or other measures which is satisfactory to the VESCP authority to prevent downstream erosion.
 - The applicant shall provide evidence of permission to make the improvements.
 - All hydrologic analyses shall be based on the existing watershed characteristics and the ultimate development of the subject project.
 - If the applicant chooses an option that includes stormwater detention, he shall obtain approval from the VESCP of a plan for maintenance of the detention facilities. The plan shall set forth the maintenance requirements of the facility and the person responsible for performing the maintenance.
 - Outfall from a detention facility shall be discharged to a receiving channel, and energy dissipators shall be placed at the outfall of all detention facilities as necessary to provide a stabilized transition from the facility to the receiving channel.
 - All on-site channels must be verified to be adequate.
 - Increased volumes of sheet flows that may cause erosion or sedimentation on adjacent property shall be diverted to a stable outlet, adequate channel, pipe or pipe system, or to a detention facility.
 - In applying these stormwater management criteria, individual lots or parcels in a residential, commercial or industrial development shall not be considered to be separate development projects. Instead, the development, as a whole, shall be considered to be a single development project. Hydrologic parameters that reflect the ultimate development condition shall be used in all engineering calculations.
 - All measures used to protect properties and waterways shall be employed in a manner which minimizes impacts on the physical, chemical and biological integrity of rivers, streams and other waters of the state.
 - Any plan approved prior to July 1, 2014, that provides for stormwater management that addresses any flow rate capacity and velocity requirements for natural or man-made channels shall satisfy the flow rate capacity and velocity requirements for natural or man-made channels if the practices are designed to (i) detain the water quality volume and to release it over 48 hours; (ii) detain and release over a 24-hour period the expected rainfall resulting from the one year, 24-hour storm; and (iii) reduce the allowable peak flow rate resulting from the 1.5, 2, and 10-year, 24-hour storms to a level that is less than or equal to the peak flow rate from the site assuming it was in a good forested condition, achieved through multiplication of the forested peak flow rate by a reduction factor that is equal to the runoff volume from the site when it was in a good forested condition divided by the runoff volume from the site in its proposed condition, and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels as defined in any regulations promulgated pursuant to 62.1-44.15-54 or 62.1-44.15-55 of the Act.
 - For plans approved on and after July 1, 2014, the flow rate capacity and velocity requirements of 62.1-44.15-52A of the Act and this subsection shall be satisfied by compliance with water quantity requirements in the Stormwater Management Act (62.1-44.15-24 et seq. of the Code of Virginia) and attendant regulations, unless such land disturbing activities are in accordance with SVAC25-870-40 of the Virginia Stormwater Management Program (VSM) Regulations. n. Compliance with the water quality standards set out in SVAC25-870-66 of the Virginia Stormwater Management Program (VSM) Regulations shall be deemed to satisfy the requirements of subdivision 19 of this subsection.

EROSION AND SEDIMENT CONTROL GENERAL NOTES:

- All work shall be done in accordance with the current edition of the Virginia Erosion and Sediment Control Handbook and the standards and specifications of the County of Frederick, Virginia.
- A Frederick County Grading Permit and permit fee are required for this project. A pre-construction meeting with the local program administrator is required prior to commencement of construction of this project.
- The local program administrator shall be given a one (1) week notice prior to the pre-construction conference, the commencement of any land disturbing activity, and to the final inspection.
- The contractor is responsible for the installation of any additional erosion control measures as may be deemed necessary by the local program administrator.

SEDIMENT AND EROSION CONTROL NARRATIVE:

1. Project Description:

The development of this 9.613 acre tract consists of an addition to the existing fire training facility. This phase of the site development will include the construction of a Prototype 1 Burn Building, an expansion of the existing parking lot, and fire line extension utilities related to the Burn Building, and related site landscaping. The work shall include layout of the building and the parking facility, grading, erosion and sediment control, extension of the water mains for fire training, and installation of the site landscaping.

2. Existing Conditions:

This project consists of a partially developed, open lot consisting of 9.613 acres, that is irregularly shaped. The parcel has been developed with several small buildings and a relatively small parking lot and vehicle storage area. The remainder of the lot is natural or maintained grass with a few sparse trees and shrubs on the site. This lot has no direct road frontage on Woodstock Lane. A driveway access has been established to provide access to the site. The existing parcel is moderately sloped in the area of the current and proposed development. The remainder of the site is rolling and moderately to steeply sloped. The grading of the site breaks in the general area of the proposed Burn Building and existing parking lot. The proposed areas of disturbance for this site are adjacent to the existing parking parking. The Burn Building will be located to the eastern side of the parking area and the parking lot expansion shall be installed on the western side of the existing paved area. The total area of disturbance shall be approximately 0.67 acres. With the disturbed area being less than one acre, no storm water quality measures are proposed.

3. Adjacent Areas:

The site is bounded on north by an existing Volvo car dealership. An undeveloped lot lies to the east of this lot and western boundary is coincident with the Valley Pike right-of-way. The southern boundary is bound by the existing bank facility.

4. Soils:

The soils map of Frederick County indicates the following soil types exist within this project area. On-site soils have been disturbed previously by the development of the existing building facility.

1B: Berks channery silt loam: (2%-7% slopes).
Hydrologic soil group C, Class III Soils.
(Approx. 25% of this site)

41D: Welkert-Berks channery silt loam: (15%-25% slopes).
Hydrologic soil group C, Class III Soils.
(Approx. 15% of this site)

41E: Welkert-Berks channery silt loam: (25%-65% slopes).
Hydrologic soil group C/D, Class III Soils.
(Approx. 60% of this site)

5. Erosion and Sediment Control Measures:

a. Erosion and Sediment Control Measures shall be installed prior to any land disturbing activities. The work shall be confined to the designated limits of construction. For this project, the limits of construction are defined as the fence lines along the property boundaries and through the site.

b. No disturbed areas shall be denuded for more than thirty (30) days. The contractor shall stabilize all exposed areas within seven (7) days after the end of construction of that phase of the work. If possible, all natural vegetation and/or mulching shall be used to protect areas exposed during development of the site. The existing vegetation along the property lines shall remain in place and be protected during the construction process to the greatest possible extent.

c. Soil stockpiles must be stabilized or protected with sediment trapping measures to prevent soil loss. Utility trenches located outside of paved areas shall be seeded and mulched within two (2) weeks of backfilling.

d. Upon completion of construction, all permanent erosion and sediment control measures shall be installed. After stabilization, the temporary erosion control measures shall be removed, as approved by the local program administrator. All vegetative cover shall be checked regularly and any damaged areas shall be repaired, fertilized, replanted, and mulched, as needed.

e. All properties adjacent to the site shall be protected from sediment deposition. This shall be accomplished by installing perimeter controls such as silt fence barriers, diversion dikes, filters or check dams, the silt traps, or a combination of such measures, as indicated on the plans.

f. The contractor shall be responsible for the installation and maintenance of all erosion and sediment control measures.

6. Construction Sequencing:

PHASE I:
1. Site Preparation:
Hand dig test pits over existing utilities to determine their depth and actual locations.

Phase I Controls:
a. Construction of Erosion and Sediment Control Measures:
a. Construction of the construction entrance using the existing paved driveways and the new construction entrance at the Burn Building.
b. Installation of the silt fence along the adjacent property lines, as indicated on the plans.

PHASE II:
3. Site Construction Sequencing:
a. Removal and on-site disposal of the existing topsoil to its full depth, as needed.
b. Rough grading of site to the appropriate finish and subgrade elevations, as indicated on these plans.
c. Building construction.
d. Installation of the proposed utilities.
e. If necessary, installation of the inlet protection measures.

Phase II Controls:
f. Finish grading of site.
g. Stabilization of all lawn and slope areas.
h. Installation of subbase, base, and surface course bituminous concrete materials.
i. Restoration and stabilization of unpaved areas.
j. Removal of all temporary erosion and sediment control measures, as directed by the inspector.

7. Maintenance:

The contractor shall be responsible for the installation and maintenance of all erosion and sediment control measures. Erosion and Sediment Control Measures shall be installed prior to any land disturbing activities. The work shall be confined to the designated limits of clearing and grading. For this project, the limits of clearing and grading are defined as the fence lines along the property boundaries and through the property. All perimeter sediment control devices shall be erected prior to any land disturbing activities and shall remain in place until the site is fully stabilized. All measures shall be inspected daily and after each significant rainfall by the site superintendent or his representative. Any damaged structures shall be repaired or replaced by the end of work that day.

a. The construction entrance shall be maintained so as to control the amount of soil materials that may get caught in the stone bed. If the stone becomes clogged with soil and mud, it shall be cleaned, or removed and replaced, as may be deemed necessary. A trash rack shall be installed as part of the construction entrance construction. If this measure fails to properly clean the construction vehicles, then a wash rack must be installed as directed by the local program administrator.

b. All properties adjacent to the site shall be protected from sediment deposition. This shall be accomplished by installing perimeter controls such as silt fence barriers, diversion dikes, filters or check dams, or a combination of such measures, as indicated on the plans.

c. Soil stockpiles must be stabilized or protected with sediment trapping measures to prevent soil loss. Utility trenches located outside of paved areas shall be seeded and mulched within two (2) weeks of backfilling.

d. The contractor shall perform overtop grading to provide positive drainage and preclude ponding of water. All off site grading and construction is to be done with the property owner's consent.

e. Cut and fill slopes shall be graded at a maximum of 3 horizontal to 1 vertical unless otherwise indicated on these plans.

f. Upon completion of construction, all permanent erosion and sediment control measures shall be installed. After stabilization, the temporary erosion control measures shall be removed, as approved by the local program administrator.

g. All seeded and sodded areas shall be checked regularly to ensure that a good strand of grass is maintained. Areas shall be repaired, fertilized, and reseeded or resodded, as required.

8. Erosion and Sediment Control Measures:

3.02 A 20' by 70' temporary stone construction entrance will be constructed off of Valley Pike (U. S. Route 11). The entrance shall be maintained in a condition which will prevent tracking or flow of soil or mud onto the public rights-of-way. This may require periodic top dressing with additional stone or the washing and reworking of existing stone, as conditions demand, and repair or cleanout of any structures used to trap sediment. All materials spilled, dropped, washed, or tracked from vehicles onto roadways or into storm drains must be removed immediately. The use of water trucks to remove materials dropped, washed, or tracked onto roadways will not be permitted under any circumstances.

3.05 Silt fence will be installed in selected locations downstream from the construction areas as a first measure of construction. Silt fence will be installed around the downstream side of topsoil stockpiles. Silt fences shall be inspected after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately. Damaged, decomposed or otherwise ineffective silt fence shall be replaced immediately. Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier. Any sediment deposits remaining in place after the silt fence is no longer needed shall be dressed to conform with the existing grade and stabilized.

3.07 A gravel and wire mesh drop inlet sediment filter will be installed around each of the existing storm water drop inlets. The structures shall be inspected after each rain and repairs made as needed. Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to one half the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode. Structures shall be removed and the area stabilized when the remaining drainage area has been properly stabilized.

3.31 Temporary seeding, as indicated below, will be applied to the topsoil stock pile and all areas which will not be brought to final grade within 30 days. Embankment or excavated slopes denuded for a period of greater than 30 days shall be temporarily seeded and mulched. All temporary seeding areas will be mulched in accordance with the schedule included herein.

3.32 All disturbed areas will be stabilized by permanent seeding in accordance with the schedule included herein. The anticipated time for construction is Fall 2015.

3.35 All seeded areas will be mulched in accordance with the schedule included herein.

3.36 If applicable, all cut slopes and fill slopes along the proposed road will be stabilized with matting to promote the establishment of a vegetative cover. The mat areas will be inspected after each significant rainfall event and repairs will be made as required.

Temporary Seeding:

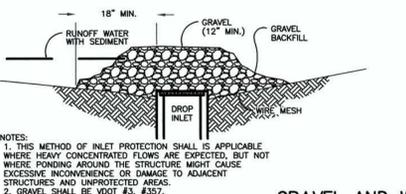
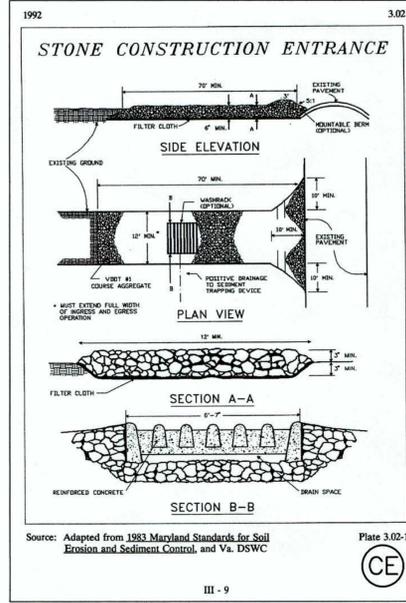
SEED TYPE	RATE	MIN. PURITY(%)	MIN. GERM.(%)
Sept 1 - Feb 15: Annual Ryegrass	50 lb/oc	98	85
Winter Rye	50 lb/oc	98	85
May 1 - Aug 31: German Millet or Feb 16 - Apr 30: Annual ryegrass	50 lb/oc	98	85
Annual ryegrass	75 lb/oc	98	85
Mulch:	1.5 ton/oc small grass straw		
Fertilizer:	1000 lb/oc 10-10-10		

Permanent Stabilization:
The contractor shall stabilize all denuded land within 7 days after the end of construction. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year. During construction of the project, soil stockpiles shall be stabilized or protected with sediment trapping measures. The contractor is responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as soil intentionally transported from the project site. No soil testing is required. The contractor shall establish vegetation on all areas not otherwise stabilized according the following specification:

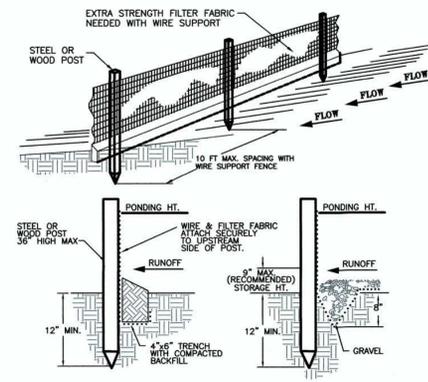
Seedbed Preparation:

- Scarify top 1" to 2" of soil after final grades have been achieved.
- Add 3 tons per acre pulverized agricultural limestone(140lb/1000sf)

SEED TYPE	RATE	MIN. PURITY(%)	MIN. GERM.(%)
Tall fescue	60 lb/oc	97	85
Red clover	8 lb/oc	95	65
Ladino clover	8 lb/oc	95	65
Nurse Grass (season dependent)			
Sept 1 - Feb 15: Annual Ryegrass	12 lb/oc	98	85
Winter Rye	12 lb/oc	98	85
May 1 - Aug 31: German Millet	12 lb/oc	98	85
Annual ryegrass	12 lb/oc	98	85
Mulch:	1.5 ton/oc small grass straw		
Fertilizer:	1000 lb/oc 10-10-10		



NOTES:
1. THIS METHOD OF INLET PROTECTION SHALL BE APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCUMBRANCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.
2. GRAVEL SHALL BE #3, #57, OR #8 COURSE AGGREGATE.

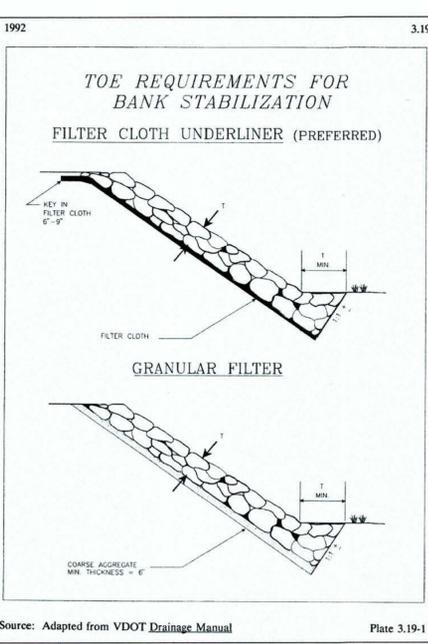
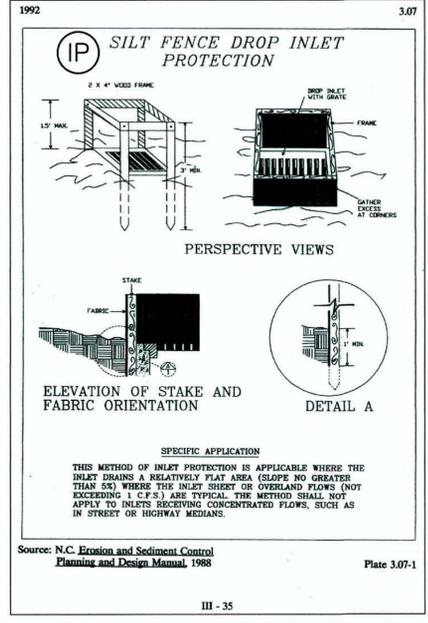


STANDARD DETAIL
TRENCH WITH NATIVE BACKFILL

ALTERNATE DETAIL
TRENCH WITH GRAVEL

- NOTE:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

SILT FENCE DETAIL WITH WIRE SUPPORT
NOT TO SCALE ADAPTED FROM: 1992 VA E&S CONTROL HANDBOOK 3.05



Source: Adapted from VDOT Drainage Manual Plate 3.19-1

FOR EROSION AND SEDIMENT CONTROLS ONLY!

REVISIONS	NO.	DATE	AGENCY COMMENTS	TOP	BY
	1	03-18-19	BURN BUILDING RELOCATION		
	2	05-16-16	AGENCY COMMENTS		

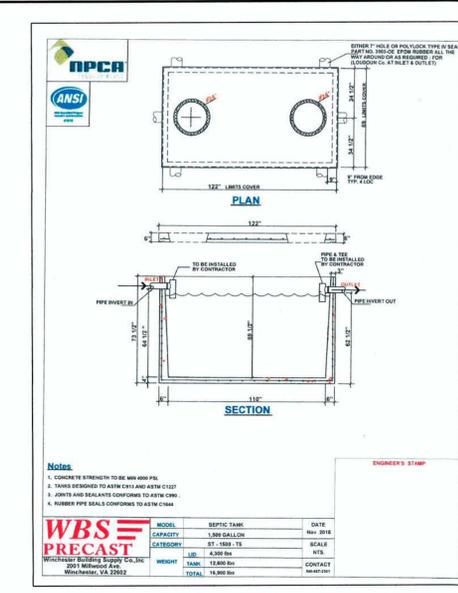
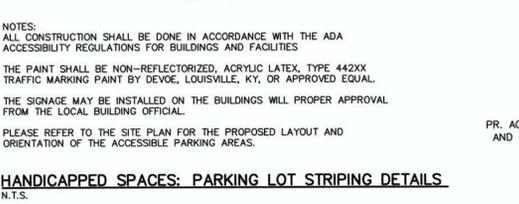
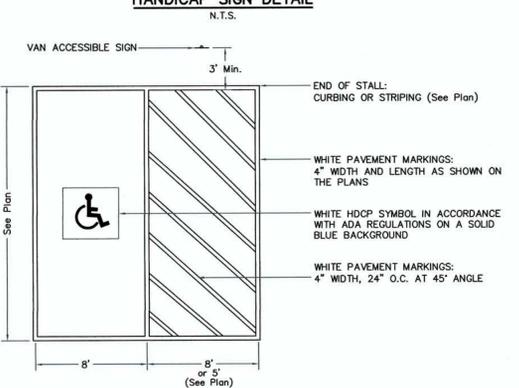
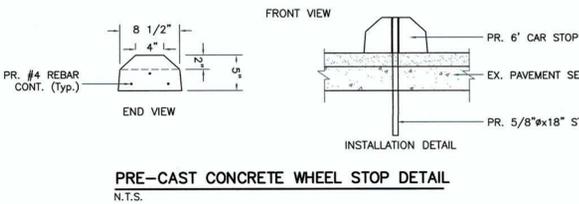
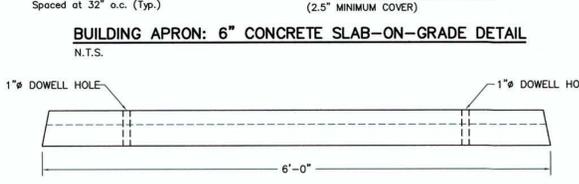
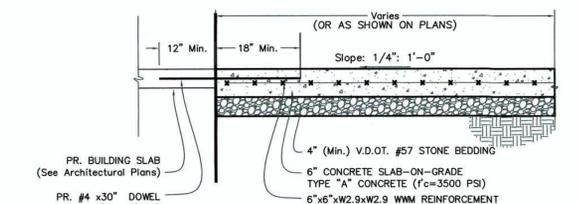
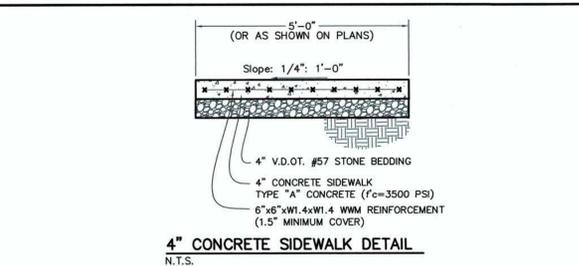
TITLE:
EROSION AND SEDIMENT CONTROL NARRATIVE and DETAILS

PROJECT:
**CITY OF WINCHESTER
DEPARTMENT OF FIRE PROGRAMS
LIVE FIRE TRAINING STRUCTURE
1716 WOODSTOCK LANE
WINCHESTER, VIRGINIA 22602**

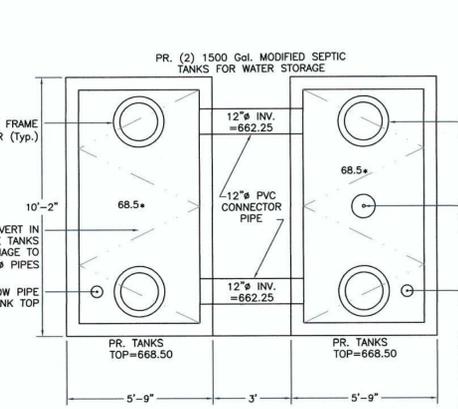
PAINTER-LEWIS, P.L.C.
817 CEDAR CREEK GRADE, SUITE 120
WINCHESTER, VIRGINIA 22601
Telephone: (540) 662-5792
Facsimile: (540) 662-5793
Email: office@painterlewis.com

THOMAS G. PAINTER
Lic. No. 018260
PROFESSIONAL ENGINEER

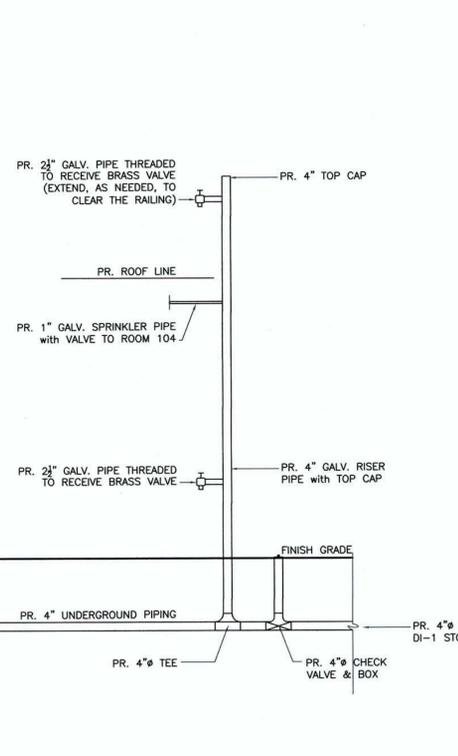
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SCALE: DATE:
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SHEET: 6/7



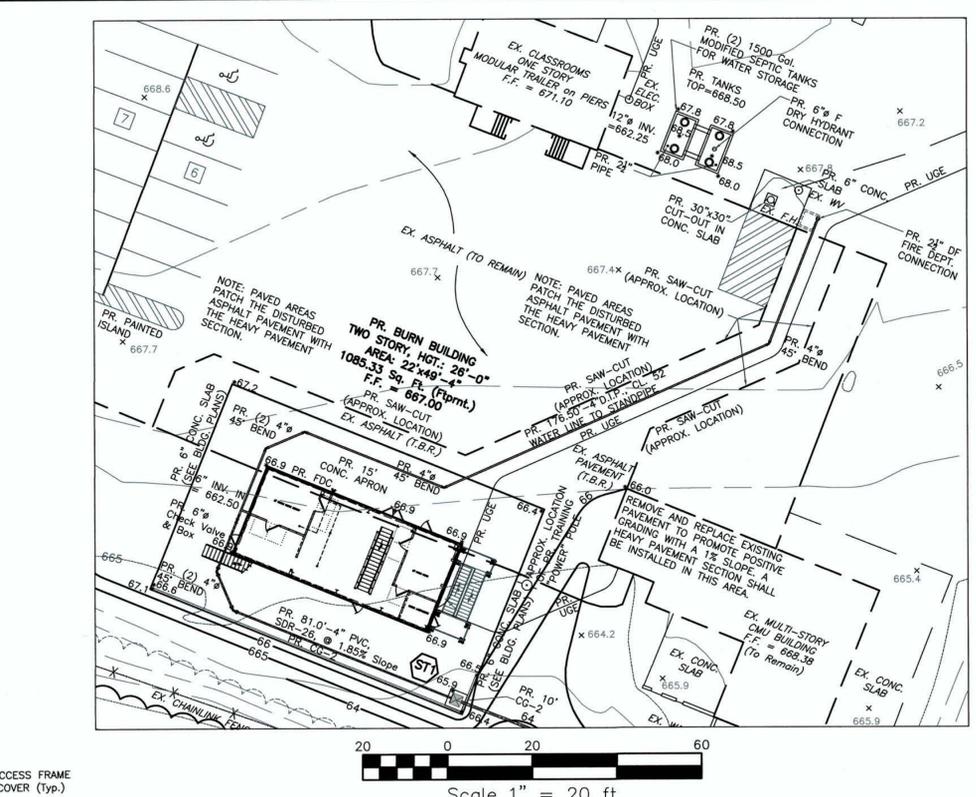
WATER STORAGE TANKS: TYPICAL DETAIL
N.T.S.



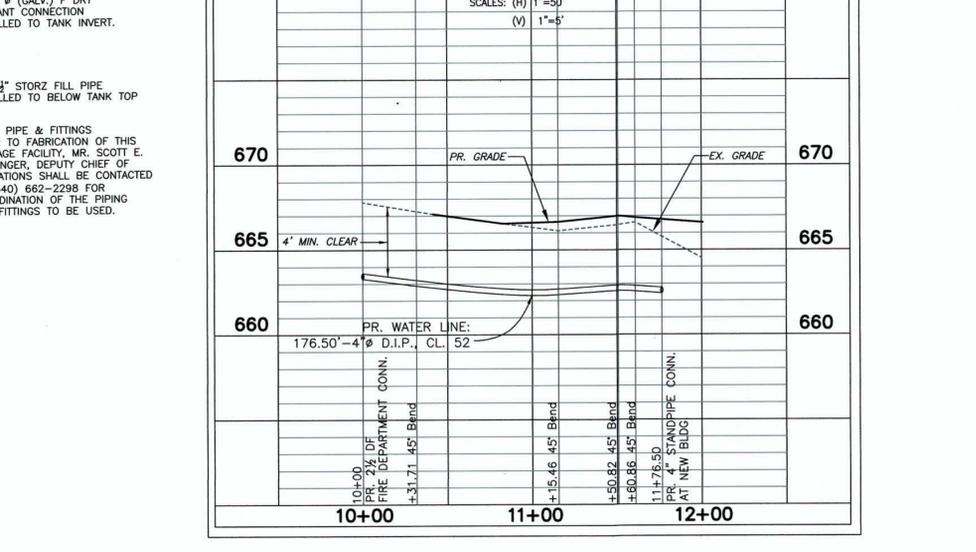
WATER STORAGE TANKS DETAIL: PLAN VIEW
N.T.S.



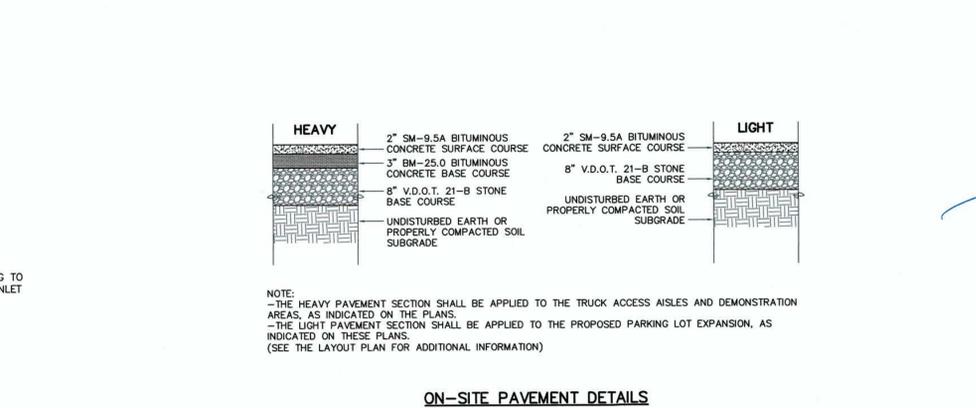
WATER STORAGE TANKS AND SUPPLY LINES SCHEMATIC DETAIL
N.T.S.



Scale 1" = 20 ft



WATER MAIN PROFILE
N.T.S.



ON-SITE PAVEMENT DETAILS
N.T.S.

REVISIONS

NO.	DATE	AGENCY COMMENTS	TOP	BY
2	03-18-19	BURN BUILDING RELOCATION	TOP	
1	05-16-16	AGENCY COMMENTS	TOP	

TITLE: MISCELLANEOUS CONSTRUCTION DETAILS

PROJECT: CITY OF WINCHESTER
DEPARTMENT OF FIRE PROGRAMS
LIVE FIRE TRAINING STRUCTURE
1716 WOODSTOCK LANE
WINCHESTER, VIRGINIA 22602

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PROFESSIONAL ENGINEER
TIMOTHY G. PAINTER
Lic. No. 018260
03/25/19

SURVEY: C.I.
PL-PLC
DRAWN BY: JOB NO.:
TOP 1511018
SCALE: DATE:
1"=20.0' 01/25/16
SHEET: 7/7