

**CLARKE COUNTY PLANNING COMMISSION  
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 January 26, 2022 Board of Septic Appeals Meeting Packet**

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**BOARD OF SEPTIC AND WELL APPEALS**  
**AGENDA**  
**January 26, 2022**  
**10:00 A.M.**  
**GOVERNMENT CENTER, 101 CHALMERS COURT**  
**(Main meeting room)**

1. Call to order – Clerk, Board of Septic & Well Appeals
2. Election of Officers
  - ❖ Chair
  - ❖ Vice Chair
3. Approval of Agenda
4. Approval of Meeting Minutes: August 11, 2020
5. BSA-22-01 Blasting Plan  
H&W Construction Company (William Aikens) is requesting a blasting plan approval per Clarke County Code Chapter 86 “Explosives” (Article II County-wide) in order to use explosives on the property identified as Tax Map Parcel #29-A-36A located at 1812 John Mosby Highway, Boyce, VA, (VDOT owned Waterloo Park and Ride) White Post Election District, zoned Agricultural/Open Space/Conservation (AOC).
6. Unauthorized blasting activity on Starley property / Blasting plan requirements.
7. Adjournment

# Clarke County

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## **BOARD OF SEPTIC AND WELL APPEALS MEETING MINUTES - **DRAFT** TUESDAY, August 11, 2020**

A meeting of the Board of Septic and Well Appeals of Clarke County, Virginia, was held at the Town-County Government Center (101 Chalmers Court, Berryville VA), on Tuesday, August 11, 2020.

### **ATTENDANCE**

**Members Present:** Matt Bass, Joe Blatz (Chair), and George L. Ohrstrom, II (by phone)

**Staff Present:** Ryan Fincham, Senior Planner/Zoning Administrator

**Others:** Brook Middleton, Applicant

### **CALLED TO ORDER**

Chair Blatz called the meeting to order at 10:00 AM.

### **APPROVAL OF AGENDA**

The Board approved the agenda as presented.

**Yes:** Bass (moved), Blatz (seconded), and Ohrstrom

**No:** No one

### **APPROVAL OF MINUTES**

The Board voted to approve the minutes of May 14, 2020

**Yes:** Ohrstrom (seconded) and Blatz (seconded)

**No:** No one

**Abstain:** Bass

### **SEPTIC ORDINANCE VARIANCE REQUEST (BSA-20-01)**

Stond's Mill, LC is requesting to amend a previously approved variance (BSA-93-07) to Clarke County Code Chapter 143 "Septic Systems". The purpose of the request is to change the location and treatment type of the previously approved variance allowing the installation of an alternative onsite sewage disposal system in the floodway portion of the Flood Plain District (§143-9-C), and a new variance is also requested to allow the placement of a sewer line within 50 feet of an intermittent stream (§143-9 Table 1), on the property identified as Tax Map #23-A-16 located at 1600 Lockes Mill Road, Berryville, VA, Buckmarsh Election District, zoned Agricultural-Open Space-Conservation (AOC).

Mr. Fincham presented the entire staff report (see BSA-20-01 Planning Department File). Mr. Fincham indicated that there were two phone calls from neighbors inquiring about the variance request.

Chair Blatz asked for clarification on any existing wells on the property or any requests for a private well. Mr. Fincham advised that there is no well or water supply on the property, nor is one being requested at this time. Therefore, there is no well site proposed or being reviewed just as was the case in the 1993 variance case.

Mr. Fincham further clarified that if a restroom is to be added to the Mill through renovation in the future, then proper Zoning, Health Department, and Building Department approvals would be required at that time. He noted that according to the Clarke County Building Code Official, an approved water supply would be required for a building permit application for a restroom in the structure.

Mr. Ohrstrom asked why a septic system site could not be found which is outside of the flood plain that also meets all state and county requirements. Mr. Fincham further clarified the flood zone line on the survey plat is at the Lockes Mill Road location so essentially the entire property is located in the flood plain.

Mr. Ohrstrom asked if it is within the BSA purview to require the well to be addressed at this time as well as more information regarding the septic area and flood plain. Mr. Fincham said that would be at the Board's discretion, but the Health Department has reviewed it and has no issues. Mr. Fincham said that if a water supply is proposed in the future, it most likely will require a location variance from the BSA.

Mr. Fincham stated that Staff recommends approval of the variance request to change the location and treatment type of the previously approved variance allowing the installation of an alternative onsite sewage disposal system in the floodway portion of the Flood Plain District (§143-9-C) and for a new variance to allow the placement of a sewer line within 50 feet of an intermittent stream (§143-9 Table 1), on the subject property with approval conditions as outlined by the Board of Septic and Well Appeals. He noted that the Clarke County Septic Ordinance requires fencing of alternative septic areas and that the State Code requires operation maintenance and monitoring of alternative septic systems.

Chair Blatz asked if the request provided a 100% septic reserve area, and Mr. Fincham replied yes, and added that the installed system will be low-pressure distribution and the 100% reserve area will be drip dispersal. Chair Blatz also asked for clarifications on the intermittent streams and the mill race. Staff deferred to the Applicant.

Mr. Bass asked about the potential uses of the structure. Mr. Fincham yielded to the Applicant to answer that question.

Brook Middleton, Applicant, addressed the Board. He provided a brief history of the Mill and indicated that the Mill will be a light use where school kids can come and witness grain being milled. He said that kids already come there, and they may be using the trees on the property for their needs, which is what eventually they wish to remedy. He said that he believes Chair Blatz is correct that a mill race is what is shown as the second intermittent stream on the site sketch.

Chair Blatz indicated that he is concerned with the lack of water supply. Mr. Middleton said that the stream may be used for water for non-potable sources, but they are researching it. He said that they must get the variance for the septic system first, and they will work with the Health Department for a water supply. Mr. Ohrstrom said that he does not think that a creek or a spring could be used as a water supply. Mr. Middleton noted that statement. Mr. Fincham said it most likely may not be used a potable water supply, but the water use requirements would be decided by the Health Department and the Building Department.

Mr. Bass asked about the previous variance six conditions and what conditions, if any, should be applied today. Mr. Fincham indicated that state and county regulations have changed since 1993 which would impact the conditions applied today. The Board, Staff, and the Applicant all reviewed and discussed the previous conditions line by line. Mr. Ohrstrom also asked about if the water supply should be addressed as a condition. Mr. Fincham indicated that the water supply would have to be addressed if ever proposed but adding a condition regarding the water supply is at the Board's discretion.

The Board discussed possible precedent and felt the unique circumstances presented in this request provided no future precedent.

Chair Blatz officially opened and closed the public hearing as there was no public present.

After brief discussion with Staff and the Board, Chair Blatz called for a motion, On motion of Mr. Bass, seconded by Chair Blatz, the Board approved the request on condition that the septic system is designed in a manner to keep it as upslope as possible from the river, that the system meet the State Operation and Maintenance requirements at all times, that the system area be fenced, and that the above ground components of the system be screened from view.

**Yes:** Bass (moved), Blatz (seconded), Ohrstrom.

(Chair Blatz noted that if Mr. Ohrstrom's vote is not allowed by phone, as the electronic policy was not fully understood at that time, the motion is still approved unanimously.)

**No:** No one

On motion by Mr. Bass and seconded by Mr. Ohrstrom the meeting was adjourned at 10:50AM.

Prepared by Ryan Fincham, Staff.

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Joseph Blatz, Chair

**BLASTING PLAN REQUEST (BSA-22-01)**  
**H&W Construction Company (Applicant) / Virginia Department of Transportation**  
**(Property Owner)**  
**Board of Septic and Well Appeals Meeting**  
**STAFF REPORT -- Department of Planning**

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The purpose of this staff report is to provide information to the Board of Septic and Well Appeals members to assist them in reviewing this proposed blasting plan request. It may be useful to members of the general public interested in this proposed request.

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**Case Summary**

**Applicant(s):**

H&W Construction Company (Applicant)  
Virginia Department of Transportation (Property Owner)

**Location:**

- Subject property is located at 8153 John Mosby Highway
- Tax Map Parcel #29-A-36A
- White Post Election District
- Zoned: Agricultural -Open Space -Conservation (AOC)

**Request:**

- H&W Construction Company (William Aikens) is requesting a blasting plan approval per Clarke County Code Chapter 86 “Explosives” (Article II County-wide) in order to use explosives on the property identified as Tax Map #29-A-36A located at 1812 John Mosby Highway, (VDOT owned Waterloo Park and Ride), White Post Election District, zoned Agricultural/Open Space/Conservation (AOC).

**Compliance with County Code:**

County Code Chapter 86 Explosives (Article II County-wide) requires a Blasting Plan to be submitted to, reviewed and approved by the Board of Well and Septic Appeals if blasting is proposed within 500’ of private wells, sewage disposal systems, public water or sewer systems, or perennial springs. In this case there are Clarke County Sanitary Authority utility lines within the 500 feet perimeter of the proposed blast site.

**Staff Discussion/Analysis:**

The proposal is to blast for needed storm water infrastructure in conjunction with the continued development of commercial lots. The Plan and the materials submitted with the request were sent to and reviewed by the County engineering consultant, Michael C Sun, PE (CTL Engineering, Inc.). He has reviewed the plan, spoken with the Applicant, and worked with Staff and has provided a review including conclusions and recommendations found on page 2 of the document. In their report, CTL Engineering, Inc. identified that an underground structure (force main of sanitary sewer) is located approximately 75 feet from the blast area, but that a pre-blast survey of this structure was not applicable because it is not possible to survey an underground structure. The County review engineer does not anticipate excessive vibrations from this planned blast.

Also included in the review are copies of all submitted materials from the Applicant. The Applicant has provided the requested insurance document, explosives permits, and assured compliance via email of recommended pre-blast surveys and blast controls. Permission to blast was provided by email dated January 3, 2022 from Bobby Boyce, Land Development Engineer for the Virginia Department of Transportation. Applicant must also comply with any other applicable State or Federal regulations.

**Recommendation:**

Staff recommends approval of the blasting request contingent upon compliance with the conclusions and recommendations outlined by the County review engineer.



PO Box 2468  
Winchester, VA 22604  
(540) 667-3752  
Hwconstructioncompany.com

**December 22, 2021**  
**Attn: Mathew Anderson**  
**Job: Handy Lane – Storm Sewer Installation**  
**Blaster: Claude Finneyfrock**  
**540-836-6909**

## **Blasting Plan and Procedures**

### **INTRODUCTION**

This Blasting Plan describes the blasting operations that may occur during construction of the **Handy Lane Extension Located South of the park and ride on Route 50**. The purpose of this Blasting Plan is to provide project-specific information concerning blasting procedures, including the safe use and storage of explosives, and the measures and best management practices (BMPs) that will be implemented to prevent potential adverse impacts to human health, safety, and the environment from the use of explosives during blasting activities. Contractor shall comply with all conditions within this plan as well as all specifications detailed in **Mitigation Measure 4.10-2** in the Mitigation Measure tracking table for this project. Additionally, during any blasting, Contractor shall ensure full compliance of the Fire Prevention and Suppression Plan for this project.

### **REGULATORY OVERVIEW**

The Federal Occupational Safety and Health Administration (OSHA) and numerous state and local jurisdictions regulate the use of explosives. The Federal Bureau of Alcohol, Tobacco, and Firearms (BATF) regulates explosives storage and commerce under the Organized Crime Control Act of 1970, Title XI (Public Law 91-452). The major provisions of this federal law are discussed in BATF publication P 5400.7 ATF-Explosives Law and Regulations (1990). The U.S. Department of Transportation (USDOT) also has laws pertaining to the storage of explosives, as well as the packaging, labeling, materials compatibility, driver qualifications, and safety of transported explosives. Provisions applicable to this project are included in this plan. State and local laws governing explosives may be more restrictive than the BATF regulations. Liberty Utilities' Prime Construction Contractor(s) and any pertinent sub-contractors will comply with the most stringent provisions of applicable federal, state, and local laws that pertain to use and storage of explosives.



## **OVERVIEW OF BLASTING OPERATIONS**

### **Blasting Location and Survey**

Blasting will be limited to areas located on the blasting map attached. A diagramed location for site specific area of work has been defined on the map as a clouded area. These areas are underlain by un-weathered volcanic bedrock or other hard, massive, or un-fractured geologic formations and have been test drilled using Furukawa 1100 drill. Traditional excavation and earth moving equipment are not adequate to meet project specifications without blasting.

- There are zero Structures located within the 500 foot blast zone. The nearest two locations to the blast area are a house that sits approx. 939 feet away and self storage units that are located on the other side of route 50 at approx. 721 ft
- Existing Utilities - Miss Utility has been notified and it has been identified that the nearest existing Utility is a force main that sites approx. 75 feet from the last manhole to be shot
- Blasting location sits along Route 50 and Route 340. Considerations should be made to stop traffic at the time of the blast. Blast site is approx. 417 feet
- Blasting operations will be monitored with a Minimate Seismograph and will only take place during the hours of 8am and 5pm
- Blasting area is limited to only the area defined on the map. Area consists of approximately 184 holes. Blasting pattern will be two rows spaced at five foot on center spacing. We will only be blasting the 460 feet of storm sewer as outlined on attached plan. We anticipate using approximately 1500 to 2000 lbs. of explosives to break the rock.
- Notice will be given to the following business locations listed below 3 days prior to any blasting taking place
  - Royal Oak Tavern
  - Apple Valley Self Storage
  - Handymart
- No Preblast surveys have been required due to scaled distance requirements are greater than 500 feet
- Blasting permit has been applied for from the state Fire Marshall.

### **Procedures**

H&W Construction has employed only qualified, experienced, and licensed blasters that will perform blasting using current and professionally accepted methods, products, and procedures to maximize safety during blasting operations. Blasting procedures will be carried out according to and in compliance with applicable laws.

## **SAFETY MEASURES**

Safe storage and use of explosive materials will be a top priority during construction. The safety measures discussed in this section are intended to prevent theft and/or vandalism of the explosive materials, protect them against fire, and to prevent personal injury and property damage. These measures are intended as general guidelines. For specific information on blasting safety, refer to Chapters 25 and 27 and Appendix B of the Blasters Handbook (ETI, 1980), and other pertinent regulations. Protection of environmental resources during blasting is discussed in the Environmental Protection Measures section.

### **Day box storage requirements while on the construction job**

As described above, many federal, state, and local agencies have laws pertaining to the storage of explosives. Additional storage facility requirements concerning construction specifications and locations are defined for various classes of explosive materials in the BATF publication P 5400.7 (1990).

At a minimum, the following storage requirements will be implemented:

- Explosives must be stored in an approved structure (magazine);
- Explosives storage facilities will be bullet-resistant, weather-resistant, and fire resistant;
- Day box will be kept within eye site of the blaster at all times, and be kept cool, dry, and well ventilated, and will be properly labeled and signed;
- Detonators will be stored separately from other explosive materials;
- Only the appropriate approved employees will be allowed near blasting material while on site
- Boxes will stay locked until the intended loading of the shot and any excess will remain in the day box and locked after the shot is loaded.
- Both the quantity and duration of on-site explosives storage will be minimized.

### **Personal Safety, Protection of Property, and Notification**

All personnel responsible for handling explosives and present in and around blasting sites will be fully informed and trained in applicable safety precautions/procedures. H&W Construction will ensure project personnel's safety by requiring the Blaster to provide safety training to its personnel, provide experienced supervisors, use safety equipment, practice good communication, and adhere to notification procedures (including pre-blast and emergency notification). If an electrical storm approaches during blasting preparation, the Blaster will follow the appropriate regulatory procedures and delay or reschedule the blast, as necessary.

The Blaster will use a signaling system to alert workers of an impending blast. The signaling system will be comprised of the following components:

- **Warning Signal:** 5 minutes prior to the blasting signal, a 1-minute series of long, audible signals will be sounded at the blast site.
- **Blasting Signal:** 1 minute prior to a blast, a series of short, audible signals will be sounded at the blast site.
- **All-clear Signal:** Following inspection of the blast area, a prolonged, audible signal will be sounded at the blast site.

The Blaster will post signs explaining the signaling protocol at construction staging areas and other appropriate locations. All active blast zones will have clear warning signs located at key access points to ensure the public does not accidentally enter a blast zone. Before blasting, the Blasting Supervisor will make sure the blasting area is clear and access in and around the blasting area will be restricted to prevent people from entering the blasting area. Following detonation, the blasting area will be inspected for undetonated or misfired explosives. The blasting area will also be inspected for hazards. Once the area has been inspected and these issues have been addressed, the “all-clear” signal will sound, and personnel will be able to safely re-enter the blast zone.

Additional safety precautions will be developed to address site-specific conditions at the time of the blast. Special attention will be given to preventing potential hazards in the blasting area resulting from flying rock, destabilized walls, structures, presence of low flying aircraft, dispersion of smoke and gases, etc., as discussed in the Environmental Protection Measures section.

#### **Misfire Procedure**

When blasting misfires occur or are suspected, the misfire procedures plan should be initiated. The Blaster should determine the affected area.

- No one is to enter this area for at least 30 minutes.
- Only the minimum required people should enter the area to safely re-fire or recover the unshot explosives
- Record the location of any potentially undetonated explosives on the blast report.
- Expand the blast security area if flyrock potential is increased when misfires are reblasted

## **Accidents**

As with any accident dependent on the severity a 911 call should be considered. If the accident is non-life threatening a supervisor should report the accident immediately to the office at 540-667-3752 and should speak with Teresa Wolf our HR coordinator and seek medical treatment. Any accident should be noted on the daily blast report.

## **Fire Safety**

The presence of explosive materials on the project site could potentially increase the risk of fire during construction. **As with any project risk of fire is of highest concern.** All blasting work will be conducted in compliance with the Project Fire Prevention Plan and all pertinent fire prevention laws and regulations. Special precautions will be taken to minimize this risk, including but not limited to:

- Prohibiting ignition devices within 50 feet of an explosives storage area;
- Properly maintaining magazine sites so that they are clear of fuels and combustible materials, are well ventilated, and are fire-resistant;
- Posting fire suppression personnel at the blast site during high fire danger periods; and
- Prohibiting blasting during extreme fire danger periods.

## **Transportation of Explosives**

Transportation of explosives will comply with all applicable federal, state, and local laws including Title 49 of the Code of Federal Regulations, Chapter III. These regulations are administered by the USDOT and govern the packaging, labeling, materials compatibility, driver qualifications, and safety of transported explosives.

In general, these regulations require that:

- Vehicles carrying explosive materials must be well maintained, properly marked with placards, and have a non-sparking floor.
- Prior to loading a vehicle with explosives, the vehicle must be fully fueled and inspected to ensure its safe operation.
- Materials in contact with the explosives will be non-sparking and the load will be covered with a fire- and water-resistant tarpaulin.
- Vehicles must be equipped with fire extinguishers and a copy of the Emergency Response Guidebook (USDOT).

H&W Construction will also implement the following restrictions on vehicles carrying explosives:

- Refueling of vehicles carrying explosives will be avoided.
- Smoking will be prohibited during the loading, transporting, or unloading of explosives.
- Vehicles carrying explosives will not be parked or left unattended except in designated parking areas with approval of the State Fire Marshall.

The following restrictions will apply to the transport of other items in vehicles carrying explosives:

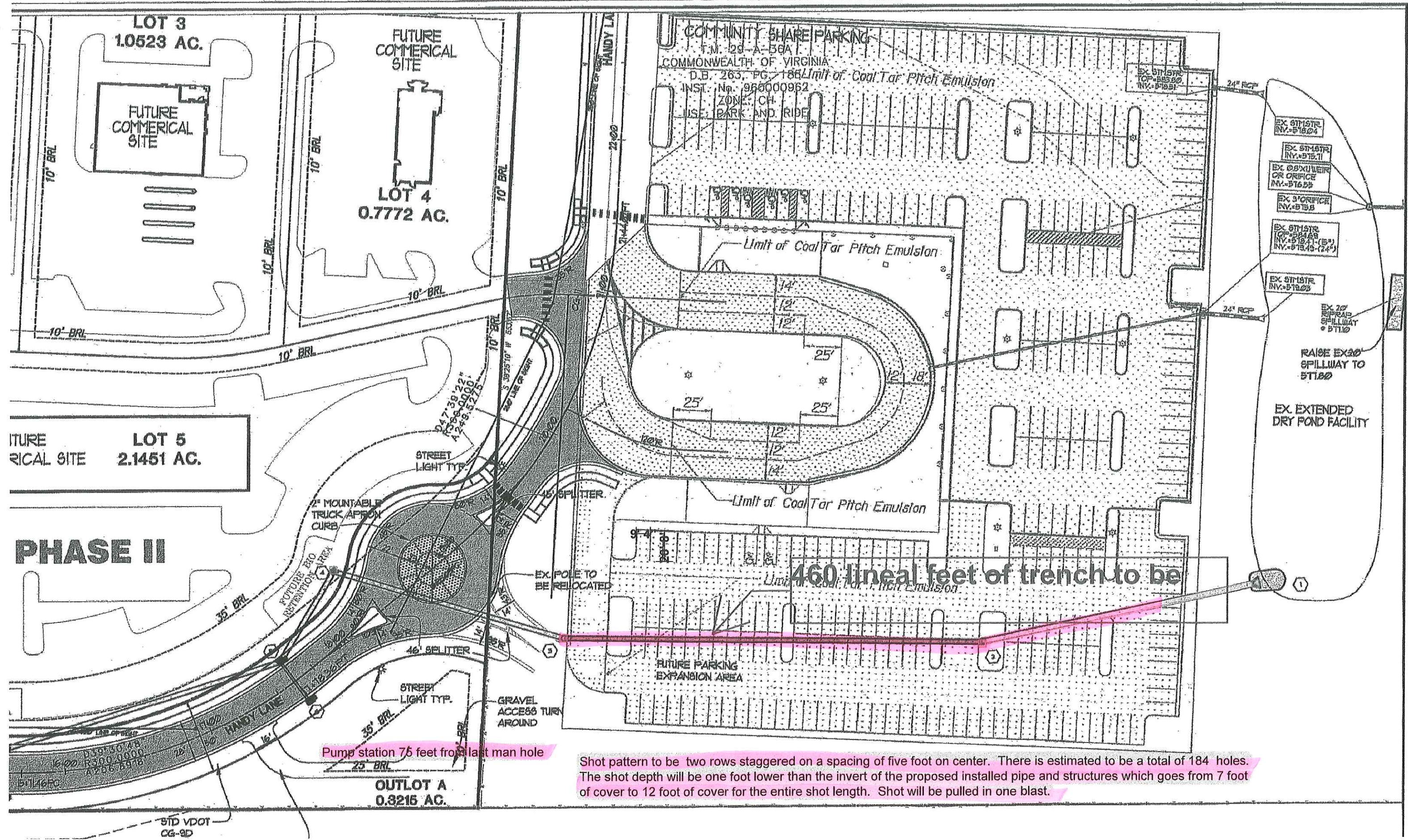
- Tools may be carried in the vehicle, but not in the cargo compartment.
- Detonation devices can, in some cases, be carried in the same vehicle as the explosives, but they must be stored in specifically constructed compartments.
- Batteries and firearms may never be carried in a vehicle with explosives.
- Vehicle drivers must comply with the specific laws related to the materials being transported.

Every effort will be made to minimize transportation of explosives through congested or heavily populated areas.

#### **ENVIRONMENTAL PROTECTION MEASURES**

- The area has been explored and there are no wells within 500 feet of the intended area of construction
- If any material would be mishandled and clean up would be necessary call ChemTel at 1-888-255-3924 and reference contract number MIS3928802









# STORM SEWER PROFILE



You are currently running an experimental version of Earth.

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Google Earth

Imagery date: 5/16/17-newer

200 m

Camera: 1,451 m 39°04'47"N 78°04'52"W 180 m



**CLARKE COUNTY**  
**LAND DEVELOPMENT APPLICATION**



Applicant H&W Construction Company Inc.  
Applicant's Address 1025 Martinsburg Pike  
Winchester VA 22603  
City State Zip Code  
Applicant's E-Mail Address william@aikensgroup.com  
Agent (Contact Person) William Aikens Phone 540-974-2739  
Agent's Company \_\_\_\_\_  
Agent's Address \_\_\_\_\_  
Current Property Owner HN Funkhouser and Company  
Owner's Address 2150 South Loudoun Street Winchester VA 22601 Phone \_\_\_\_\_  
Correspondence to be sent to:  Applicant  Owner  Agent  Other  
Tax Map Parcel Number TM-((A))-20A Magisterial District \_\_\_\_\_  
General Project Location see attached plan and google map Site size (gross/net acreage) 4600 sqft or .11 acres

Check Appropriate Request:

**PLANNING COMMISSION**

- Major Subdivision
- Minor Subdivision (1 or 2 lots)
- Administrative Subdivision (parcels > 100 acres)
- Boundary Line Adjustment
- Site Plan
- Site Plan Amendment
- Erosion & Sediment Plan
- Storm Water Plan
- Maximum Lot Size Exception

**PLANNING COMMISSION & BOARD of SUPERVISORS**

- Rezoning
- Special Use Permit
- Comprehensive Plan Amendment
- Zoning Ordinance Text Amendment
- Subdivision Ordinance Text Amendment
- Other Blasting Application

**BOARD OF ZONING APPEALS**

- Administrative Appeal
- Variance
- Special Exception

**BOARD OF SEPTIC & WELL APPEALS**

- Administrative Appeal
- Variance

**BERRYVILLE AREA DEVELOPMENT AUTHORITY**

- Site Plan
- Site Plan Amendment

**HISTORIC PRESERVATION COMMISSION**

- Certificate of Appropriateness

Complete as applicable:

Name of Subdivision, Development, or Proposal Handy Lane Extention behind park and ride on Rt50 - Handymart 8153 John Mosby  
Proposal/Request Blasting Permit Needed  
Existing Zoning \_\_\_\_\_ Proposed Zoning \_\_\_\_\_ # of Proposed Lots \_\_\_\_\_

Applicant: The information provided is accurate to the best of my knowledge. I acknowledge that any percolation tests, topographic studies, or other requirements of the Health Official or Zoning Administrator will be carried out at my expense. I understand that the County may deny, approve, or conditionally approve that for which I am applying. I certify that all property corners have been clearly staked and flagged. Applicant's Signature william aikens Date 12-22-2021

Owner: I have read this completed application, understand its intent, and freely consent to its filing. If this application is for the purpose of subdivision, I understand that further subdivision of this property will not be permitted within twelve (12) months of approval of this action, unless an Exploratory Sketch Plan is submitted with this application. Furthermore, I grant permission to the Planning Department and other authorized government agents to enter the property and make such investigations and test as they deem necessary. Owner's Signature \_\_\_\_\_ Date \_\_\_\_\_

101 Chalmers Court  
Berryville, VA 22611

[www.clarkecounty.gov](http://www.clarkecounty.gov)

(540) 955-5132  
Fax (540) 955-5180

**THIS PAGE IS FOR OFFICE USE ONLY.**

Application Received by: \_\_\_\_\_ Date \_\_\_\_\_  
Receipt No. \_\_\_\_\_  
Date Application Complete: \_\_\_\_\_

**Recommending/Approving Authority:**

	Public Hearing	Recommendation	Approval
_____ Staff	_____	_____	_____
_____ Planning Commission	_____	_____	_____
_____ Board of Supervisors	_____	_____	_____
_____ Septic & Well Appeals	_____	_____	_____
_____ Board of Zoning Appeals	_____	_____	_____
_____ Historic Pres. Commission	_____	_____	_____

**Proposed Lot Configuration: (Boundary Line Adjustments, and Subdivisions)**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## NOTICE OF CLEARANCE

### for individuals transporting, shipping, receiving, or possessing explosive materials.

**ISSUED TO:** H&W CONSTRUCTION CO INC

Federal Explosives license/permit no.: 1-VA-840-33-3M-90256

**NOTICE DATE:** 08/05/2021

Expiration Date: **December 1, 2023**

**EXPIRATION DATE:** This Notice expires when superseded by a newer Notice which will list all current responsible persons and employee possessors, or when the license or permit expires - whichever comes first.

Explosives License/Permit Type: 33-USER OF EXPLOSIVES

- 1 **WARNING.** Only those individuals listed below as RESPONSIBLE PERSONS and EMPLOYEE POSSESSORS with a background clearance status of "CLEARED" or "PENDING" are authorized to transport, ship, receive, or possess explosive materials in the course of employment with you.
- 2 **"DENIED" STATUS.** If an employee possessor has a background clearance status of "DENIED", you MUST take immediate steps to remove the employee from a position requiring the transporting, shipping, receiving, or possessing of explosive materials. Also, if the employee has been listed as a person authorized to accept delivery of explosive materials, you MUST remove the employee from such list and immediately, and in no event later than the second business day after such change, notify distributors of such change, as stated in 27 CFR 555.33(a).
- 3 **CHANGE IN RESPONSIBLE PERSONS.** You MUST report any change in responsible persons to the Chief, Federal Explosives Licensing Center, within 30 days of the change and new responsible persons MUST include "appropriate identifying information" as defined in 27 CFR 555.11. Fingerprints and photos are NOT required, however they will be required upon renewal of the license or permit.
- 4 **CHANGE OF EMPLOYEES.** You MUST report any change of employee/possessors to the Chief, FELC, within 30 days. Reports relating to newly hired employees must be submitted on ATF Form 5400.28 for EACH employee.

**Premises Address:** 1025 MARTINSBURG PIKE  
WINCHESTER, VA 22604

**Mailing Address:**  
H&W CONSTRUCTION CO INC  
PO BOX 2468 ATTN WILLIAM AIKENS  
WINCHESTER, VA 22604

This 'Notice of Clearance' is provided to you as required by 18 U.S.C. 843(h) and MUST be retained as part of your permanent records and be made available for examination or inspection by ATF officers as required by 27 CFR 555.121. If you receive a Notice subsequent to this Notice, this Notice will no longer be valid.

In accordance with 27 CFR 555.33, Background Checks and Clearances, and 27 CFR 555.57, Change of Control, Change in Responsible Persons, and Change of Employees, ATF's Federal Explosives Licensing Center (FELC) has conducted background checks on the individual(s) you identified as a responsible person(s) and an employee/possessor(s) on your application, or reported after the issuance of your license/permit.

The following is a SUMMARY of the results of the background checks conducted on the individuals you reported as responsible persons and employee/possessors. ATF will be notifying ALL individuals listed on this document of their respective status by separate letter mailed to their residence address.

**PLEASE BE ADVISED THAT IT IS UNLAWFUL FOR ANY PERSON REFLECTING A STATUS OF "DENIED" TO TRANSPORT, SHIP, RECEIVE, OR POSSESS EXPLOSIVE MATERIALS.**

Please carefully review this Notice to ensure that all the information is accurate. If this Notice is incorrect, please return the Notice to the Chief, FELC, with a statement showing the nature of the error(s). The Chief, FELC, shall correct the error, and return a corrected Notice.

1-VA-840-33-3M-90256-EXPLOSIVES-LICENSING-CENTRE-VA-2021-08-05

<b>Number of RESPONSIBLE PERSON(S) :</b> 2	
<b>Number of EMPLOYEE POSSESSOR(S):</b> 3	
<b>LAST NAME, First Name, Middle Name</b>	<b>Clearance Status</b>
<b>RESPONSIBLE PERSONS:</b>	
	<b>2</b>
0001 AIKENS, WALTER HARRISON	Cleared
0002 AIKENS, WILLIAM HARRISON	Cleared
<b>EMPLOYEE POSSESSORS:</b>	
	<b>3</b>
0001 COLEMAN, TRAVIS ALAN	Cleared
0002 DIXON, MARLIN LEROY JR	Cleared
0003 FINNEYPROCK, CLAUDE GILBERT	Cleared

continued

LAST NAME, First Name, Middle Name	Clearance Status

In accordance with the provisions of Title XI, Organized Crime Control Act of 1970, and the regulations issued thereunder (27 CFR Part 555), you may engage in the activity specified in this license or permit within the limitations of Chapter 40, Title 18, United States Code and the regulations issued thereunder, until the expiration date shown. **THIS LICENSE IS NOT TRANSFERABLE UNDER 27 CFR 555.53.** See "WARNINGS" and "NOTICES" on reverse.

Direct ATF Correspondence To	ATF - Chief, FELC 244 Needy Road Martinsburg, WV 25405-9431	License/Permit Number	<b>1-VA-840-33-3M-90256</b>
Chief, Federal Explosives Licensing Center (FELC)	<i>Mama Howard</i>	Expiration Date	<b>December 1, 2023</b>

Name  
**H&W CONSTRUCTION CO INC**

Premises Address (Changes? Notify the FELC at least 10 days before the move.)  
**1025 MARTINSBURG PIKE  
WINCHESTER, VA 22604**

Type of License or Permit  
**33-USER OF EXPLOSIVES**

**Purchasing Certification Statement**  
The licensee or permittee named above shall use a copy of this license or permit to assist a transferor of explosives to verify the identity and the licensed status of the licensee or permittee as provided by 27 CFR Part 555. The signature on each copy must be an original signature. A faxed, scanned or e-mailed copy of the license or permit with a signature intended to be an original signature is acceptable. The signature must be that of the Federal Explosives Licensee (FEL) or a responsible person of the FEL. I certify that this is a true copy of a license or permit issued to the licensee or permittee named above to engage in the business or operations specified above under "Type of License or Permit."

**Mailing Address (Changes? Notify the FELC of any changes.)**  
H&W CONSTRUCTION CO INC  
PO BOX 2468 ATTN WILLIAM AIKENS  
WINCHESTER, VA 22604

Licensee/Permittee Responsible Person Signature	Position/Title	Printed Name	Date

Previous Edition is Obsolete **H&W CONSTRUCTION CO INC 1025 MARTINSBURG PIKE 22604 1-VA-840-33-3M-90256 December 1, 2023 33-USER OF EXPLOSIVES**

ATF Form 5400 14-5400.15 Part I  
Revised September 2011

**Federal Explosives License (FEL) Customer Service Information**

Federal Explosives Licensing Center (FELC)  
244 Needy Road  
Martinsburg, WV 25405-9431

Toll-free Telephone Number: (877) 283-3352  
Fax Number: (304) 616-4401  
E-mail: FELC@atf.gov

ATF Homepage: [www.atf.gov](http://www.atf.gov)

**Change of Address (27 CFR 555.54(a)(1)).** Licensees or permittees may during the term of their current license or permit remove their business or operations to a new location at which they intend regularly to carry on such business or operations. The licensee or permittee is required to give notification of the new location of the business or operations not less than 10 days prior to such removal with the Chief, Federal Explosives Licensing Center. The license or permit will be valid for the remainder of the term of the original license or permit. **(The Chief, FELC, shall, if the licensee or permittee is not qualified, refer the request for amended license or permit to the Director of Industry Operations for denial in accordance with § 555.54.)**

**Right of Succession (27 CFR 555.59).** (a) Certain persons other than the licensee or permittee may secure the right to carry on the same explosive materials business or operations at the same address shown on, and for the remainder of the term of, a current license or permit. Such persons are: (1) The surviving spouse or child, or executor, administrator, or other legal representative of a deceased licensee or permittee; and (2) A receiver or trustee in bankruptcy, or an assignee for benefit of creditors. (b) In order to secure the right provided by this section, the person or persons continuing the business or operations shall furnish the license or permit for for that business or operations for endorsement of such succession to the Chief, FELC, within 30 days from the date on which the successor begins to carry on the business or operations.

(Continued on reverse side)

**Cut Here ✂**

**Federal Explosives License/Permit (FEL) Information Card**

License/Permit Name: **H&W CONSTRUCTION CO INC**

Business Name:

License/Permit Number: **1-VA-840-33-3M-90256**

License/Permit Type: **33-USER OF EXPLOSIVES**

Expiration: **December 1, 2023**

Please Note: Not Valid for the Sale or Other Disposition of Explosives.  
**January 26, 2022 Board of Septic and Well Appeals Meeting**

Virginia State Fire Marshal's Office



**Certified Blaster**  
Unrestricted

Name:	Finneyfrock, Claude G.
Certification # :	A63423753
Effective Date :	August 03, 2019
Expiration Date :	August 03, 2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).


<b>PRODUCER</b> McGriff Insurance Services 38 Rouss Avenue Suite 100 Winchester, VA 22601 540 662-3865	<b>CONTACT NAME:</b> Shannon Grogg <b>PHONE (A/C, No, Ext):</b> 540 437-1338 <b>FAX (A/C, No):</b> 888-746-8791 <b>E-MAIL ADDRESS:</b> SLGrogg@McGriff.com														
<b>INSURED</b> H&W Construction Co Inc PO Box 2468 Winchester, VA 22604-1668	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">INSURER(S) AFFORDING COVERAGE</th> <th style="text-align: left;">NAIC #</th> </tr> </thead> <tbody> <tr> <td><b>INSURER A :</b> Evanston Insurance Company</td> <td>35378</td> </tr> <tr> <td><b>INSURER B :</b> Starstone Specialty Insurance Company</td> <td>44776</td> </tr> <tr> <td><b>INSURER C :</b> Amerisure Insurance Company</td> <td>19488</td> </tr> <tr> <td><b>INSURER D :</b></td> <td></td> </tr> <tr> <td><b>INSURER E :</b></td> <td></td> </tr> <tr> <td><b>INSURER F :</b></td> <td></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	<b>INSURER A :</b> Evanston Insurance Company	35378	<b>INSURER B :</b> Starstone Specialty Insurance Company	44776	<b>INSURER C :</b> Amerisure Insurance Company	19488	<b>INSURER D :</b>		<b>INSURER E :</b>		<b>INSURER F :</b>	
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<b>INSURER D :</b>															
<b>INSURER E :</b>															
<b>INSURER F :</b>															

**COVERAGES**                                      **CERTIFICATE NUMBER:**                                      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> <b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> <b>BI/PP Ded:5,000</b>  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			MKLV2PBC000638	04/01/2021	04/01/2022	EACH OCCURRENCE     \$ <b>1,000,000</b> DAMAGE TO RENTED PREMISES (Ea occurrence)     \$ <b>100,000</b> MED EXP (Any one person)     \$ PERSONAL & ADV INJURY     \$ <b>1,000,000</b> GENERAL AGGREGATE     \$ <b>2,000,000</b> PRODUCTS - COMP/OP AGG     \$ <b>2,000,000</b> \$
C	<input checked="" type="checkbox"/> <b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Drive Oth Car			CA21004830401	04/01/2021	04/01/2022	COMBINED SINGLE LIMIT (Ea accident)     \$ <b>1,000,000</b> BODILY INJURY (Per person)     \$ BODILY INJURY (Per accident)     \$ PROPERTY DAMAGE (Per accident)     \$ \$
B	<input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED    RETENTION \$			79997C210AL	04/01/2021	04/01/2022	EACH OCCURRENCE     \$ <b>5,000,000</b> AGGREGATE     \$ <b>5,000,000</b> \$
C	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <span style="float: right;">Y/N</span> (Mandatory In NH) If yes, describe under DESCRIPTION OF OPERATIONS below <span style="float: right;">N</span> N/A			WC21004850401	04/01/2021	04/01/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT     \$ <b>500,000</b> E.L. DISEASE - EA EMPLOYEE     \$ <b>500,000</b> E.L. DISEASE - POLICY LIMIT     \$ <b>500,000</b>

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  
**RE: HandyLane Extension**

<b>CERTIFICATE HOLDER</b>  Clarke County c/o Berryville-Clarke County Gov't Center 101 Chalmers Ct, Ste B Berryville, VA 22611	<b>CANCELLATION</b>  SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE  
-----------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



# COMMONWEALTH of VIRGINIA

## Virginia Department of Fire Programs

**Issue Date**  
**05-JAN-2022**

**EXPLOSIVES USAGE PERMIT**  
**PERMIT NUMBER: 2021USS59**

**Expiration Date**  
**05-JUL-22**

***This Permit is Valid Only in the County of : Clarke, Handy Lane John Mosby Highway,  
GPS N39.079714 – W78.081980***

***VALID ONLY WHEN USED BY CURRENT VIRGINIA CERTIFIED BLASTERS***

**ID NUMBER: 54-0928137**



**H & W Construction Co. Inc.**  
**1025 Martinsburg Pike**  
**Winchester, VA 22603**

**5 Day Notice must be given prior to  
Any usage of explosives under this permit  
Hourly Rates Apply to Inspection Visits**



PO Box 2468  
Winchester, VA 22604  
(540) 667-3752  
hwconstructioncompany.com

December 29, 2021

Attn: Jeff Feaga  
Preservation Planner / GIS Coordinator  
Clarke County Planning Department  
101 Chalmers Court, Suite B  
Berryville, VA 22611

Dear Mr. Feaga,

Please accept this letter as notification that H&W Construction is in the process of receiving approval from VDOT (property owner) at the Handy Lane Extension project at 8153 John Mosby Highway, Boyce, VA 22620.

Documentation will be submitted as soon as it is received.

Best regards,

A handwritten signature in blue ink, appearing to read 'L. Boles', is written over a light blue horizontal line.

Luke Boles  
Project Manager



Zimbra

bstidham@clarkecounty.gov

**RE: Clarke-Rte340-Handy Lane**

**From :** Arthur Boyce <bobby.boyce@vdot.virginia.gov> Mon, Jan 03, 2022 11:27 AM  
**Subject :** RE: Clarke-Rte340-Handy Lane 📎 1 attachment  
**To :** Brandon Stidham <bstidham@clarkecounty.gov>  
**Cc :** Jeffrey Feaga <jfeaga@clarkecounty.gov>, Travis Duncan <travis.duncan@vdot.virginia.gov>, Riggleman, Bradley <bradley.riggleman@vdot.virginia.gov>, Rhonda Funkhouser <rhonda.funkhouser@vdot.virginia.gov>, William Aikens <william@aikensgroup.com>

Brandon,  
 This is to be the VDOT authorization letter.

Sincerely,

*Bobby Boyce*

VDOT- Land Development Engineer  
 Shenandoah, Frederick, Clarke, & Warren Counties  
 14031 Old Valley Pike  
 Edinburg, VA 22824  
 (540) 534-3211

**From:** Brandon Stidham <[bstidham@clarkecounty.gov](mailto:bstidham@clarkecounty.gov)>  
**Sent:** Monday, January 3, 2022 11:17 AM  
**To:** Arthur Boyce, VDOT <[bobby.boyce@vdot.virginia.gov](mailto:bobby.boyce@vdot.virginia.gov)>  
**Cc:** Jeffrey Feaga <[jfeaga@clarkecounty.gov](mailto:jfeaga@clarkecounty.gov)>  
**Subject:** Re: Clarke-Rte340-Handy Lane

Bobby,

Since H&W Construction proposes to blast on VDOT property, we will need consent from an authorized VDOT official as the property owner. Will this be coming separately or should we consider your email to be the authorization?

Thanks much,  
 ~Brandon Stidham

**From:** "Arthur Boyce, VDOT" <[bobby.boyce@vdot.virginia.gov](mailto:bobby.boyce@vdot.virginia.gov)>  
**To:** "Jeffrey Feaga" <[jfeaga@clarkecounty.gov](mailto:jfeaga@clarkecounty.gov)>, "Luke Boles" <[luke.b@aikensgroup.com](mailto:luke.b@aikensgroup.com)>  
**Cc:** "Brandon Stidham" <[bstidham@clarkecounty.gov](mailto:bstidham@clarkecounty.gov)>, "william" <[william@aikensgroup.com](mailto:william@aikensgroup.com)>, "Travis Duncan" <[travis.duncan@vdot.virginia.gov](mailto:travis.duncan@vdot.virginia.gov)>, "Rhonda Funkhouser, VDOT" <[rhonda.funkhouser@vdot.virginia.gov](mailto:rhonda.funkhouser@vdot.virginia.gov)>, "Bradley Riggleman" <[bradley.riggleman@vdot.virginia.gov](mailto:bradley.riggleman@vdot.virginia.gov)>  
 January 26, 2022 Board of Septic and Well Appeals Meeting Packet

Page 24 of 36

<[bradley.riggleman@vdot.virginia.gov](mailto:bradley.riggleman@vdot.virginia.gov)>

**Sent:** Monday, January 3, 2022 11:08:16 AM

**Subject:** Clarke-Rte340-Handy Lane

Mr. Feaga,

We have no objections to the County issuing a permit for the blasting contractor to shoot the area shown on the above plan for installation of new storm sewer for Handy Lane construction.

If you have any questions, please give me a call.

Luke,

Please coordinate the blasting schedule with Travis Duncan.

Sincerely,

*Bobby Boyce*

VDOT- Land Development Engineer  
Shenandoah, Frederick, Clarke, & Warren Counties  
14031 Old Valley Pike  
Edinburg, VA 22824  
(540) 534-3211

**From:** Luke Boles <[luke.b@aikensgroup.com](mailto:luke.b@aikensgroup.com)>

**Sent:** Thursday, December 30, 2021 4:51 PM

**To:** Arthur Boyce <[bobby.boyce@vdot.virginia.gov](mailto:bobby.boyce@vdot.virginia.gov)>

**Cc:** William Aikens <[william@aikensgroup.com](mailto:william@aikensgroup.com)>

**Subject:** RE: Blasting Info for Handy Lane

Bobby,

We are willing to blast on a Saturday. It would eliminate the problem of cars in the lot.

Thank you,

Luke Boles  
Project Manager & Estimator  
540-974-6967 Mobile  
540-667-3752 Office



**From:** Arthur Boyce <[bobby.boyce@vdot.virginia.gov](mailto:bobby.boyce@vdot.virginia.gov)>

**Sent:** Thursday, December 30, 2021 3:15 PM

**To:** Luke Boles <[luke.b@aikensgroup.com](mailto:luke.b@aikensgroup.com)>

January 26, 2022 Board of Septic and Well Appeals Meeting Packet

**Cc:** William Aikens <[william@aikensgroup.com](mailto:william@aikensgroup.com)>

**Subject:** RE: Blasting Info for Handy Lane

Luke,

Is there a certain day of the week or time that you intend to blast? I'm thinking about the park-n-ride users. Do you plan to block off any of the parking areas on the day of the blast or anything? Do you have any idea what percentage of the lot is being used during the day? Maybe we can block off the back section or do it on a weekend.

Thanks,  
Bobby

**From:** Luke Boles <[luke.b@aikensgroup.com](mailto:luke.b@aikensgroup.com)>

**Sent:** Thursday, December 30, 2021 2:30 PM

**To:** [bobby.boyce@vdot.virginia.gov](mailto:bobby.boyce@vdot.virginia.gov)

**Cc:** Jeffrey Feaga <[jfeaga@clarkecounty.gov](mailto:jfeaga@clarkecounty.gov)>; [bstidham@clarkecounty.gov](mailto:bstidham@clarkecounty.gov); William Aikens <[william@aikensgroup.com](mailto:william@aikensgroup.com)>

**Subject:** Blasting Info for Handy Lane

Bobby,

Thank you for contacting me today. I have attached a diagram of distances, trench profile and site plan for your review. Please let me know if there is any further information needed.

Have a great new year,

Luke Boles  
Project Manager & Estimator  
540-974-6967 Mobile  
540-667-3752 Office



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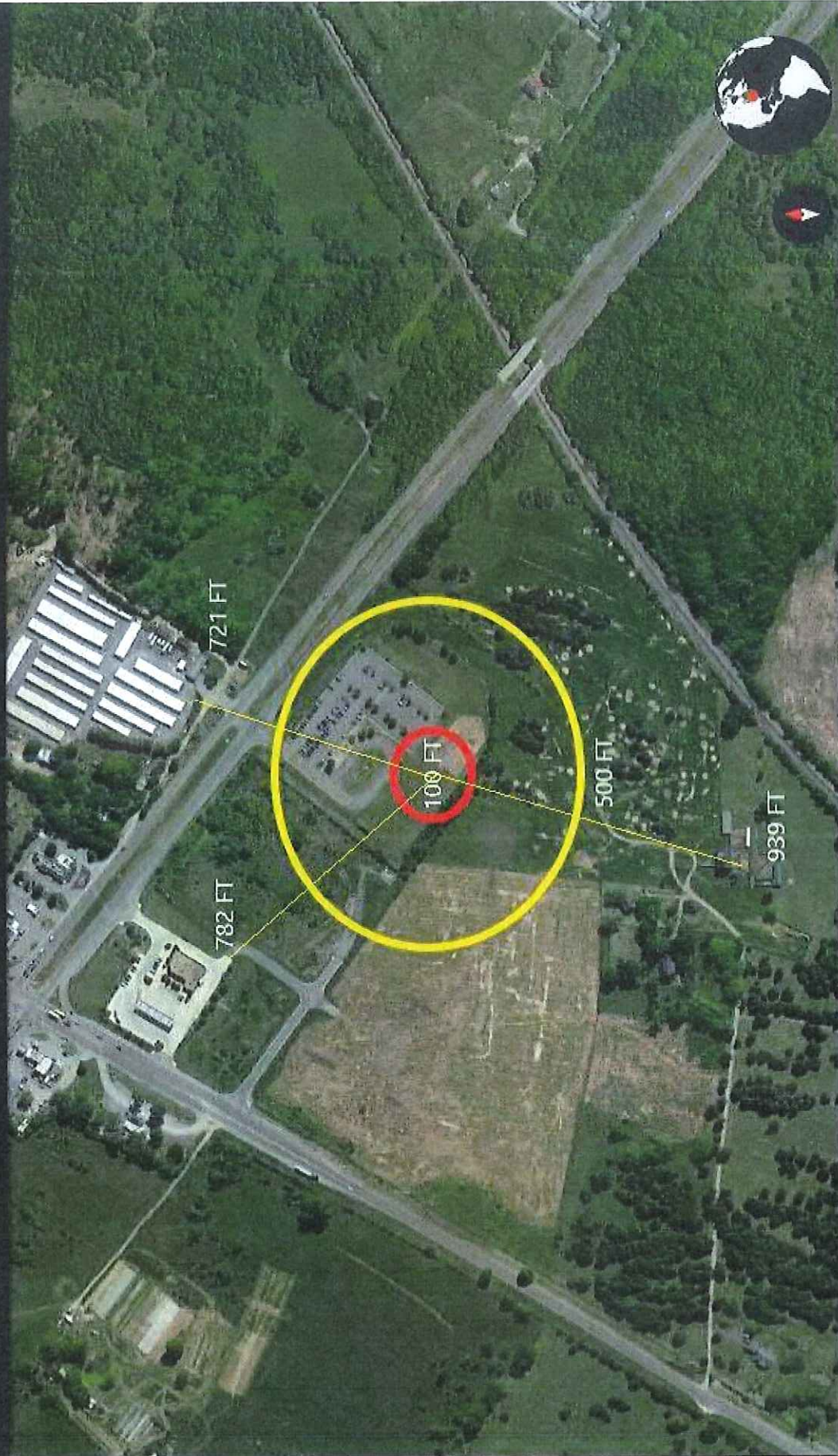
Brandon Stidham  
Director of Planning  
Clarke County  
101 Chalmers Court, Suite B  
Berryville, VA 22611  
(540) 955-5130



You are currently running an experimental version of Earth.

[Learn more](#)

[Send feedback](#)



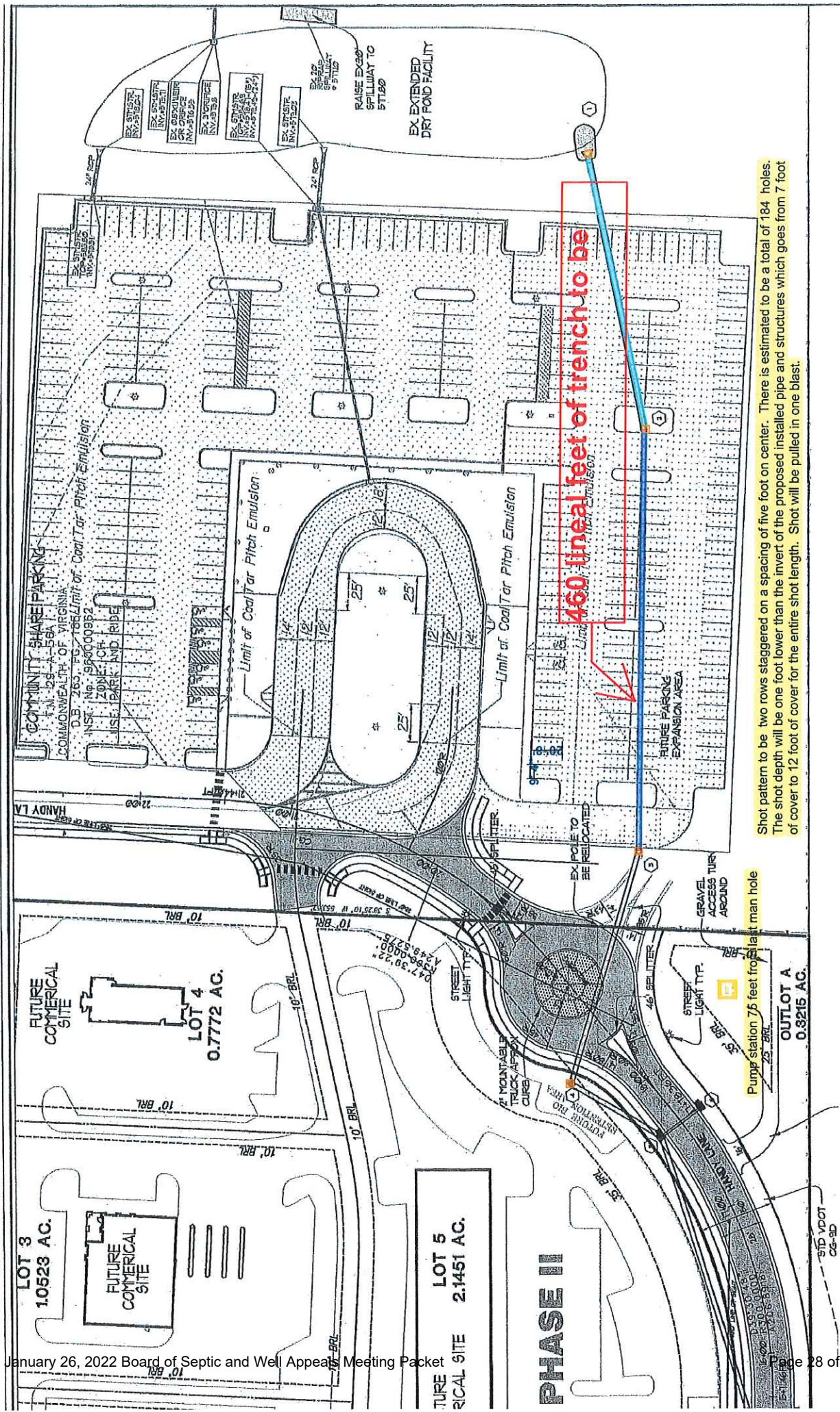
Google Earth

Imagery date: 5/16/17—newer

200 m

Camera: 1,451 m 39°04'47"N 78°04'52"W 180 m





Shot pattern to be two rows staggered on a spacing of five foot on center. There is estimated to be a total of 184 holes. The shot depth will be one foot lower than the invert of the proposed installed pipe and structures which goes from 7 foot of cover to 12 foot of cover for the entire shot length. Shot will be pulled in one blast.



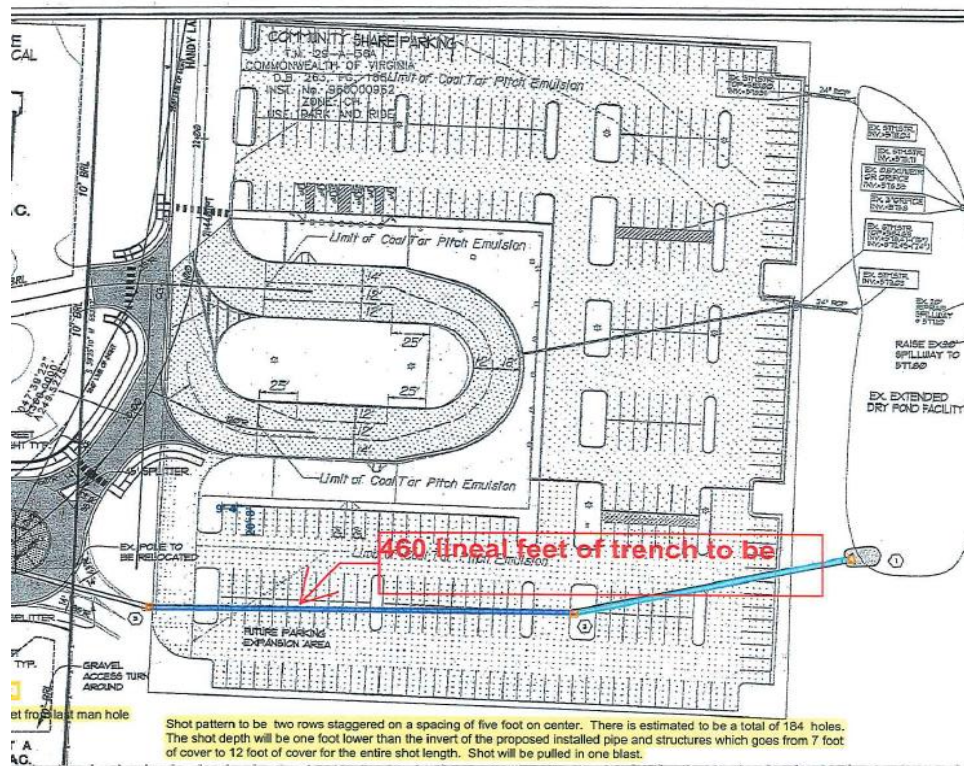
January 14, 2022

Brandon Stidham  
Director of Planning  
Clarke County  
101 Chalmers Court, Suite B  
Berryville, VA 22611

Re: Blasting Plan Review, BSA-22-01, H&W Construction Co. (updated)  
Handy Lane Extension – Storm Sewer Project  
VDOT Waterloo Park & Ride lot  
Boyce, Clarke County, VA  
CTL Project No. 22050001VIRA

Dear Mr. Stidham,

This report is in response to your request for CTL to review the above referenced Blast Plan submitted to your office for the proposed Storm Sewer Project in Boyce, VA. The project is located on property owned by VDOT and will be located within the existing Waterloo Park and Ride lot adjacent to US Rt. 50, John S. Mosby Highway. The general project location is shown below:



The details identified in the blasting plan are as follows:

**Blasting area is limited to only the area defined on the map. Area consists of approximately 184 holes. Blasting pattern will be 2 rows spaced at five feet on center spacing. We will only be blasting the 460 feet of storm sewer as outlined on the attached plan. We anticipate using approximately 1500 to 2000 lbs. of explosives to break the rock.**

**We will be performing the blast with one shot using blasting caps from Orica. We will be using 25 milsec surface delay caps in combination with 500 milsec downhole caps into ½lb booster in a 3 ½” predrilled hole. Each hole will have one cap and one booster with one delay. The shot will be wired continuous from hole to hole, pulling the shot from the existing pump station to the east where the current ditch line is exposed. Surface delays total 4,600 milsec which is approx. 4.6 sec.**

As planned, the blasting operation will be detonating less than 20 lbs. per delay period which will significantly reduce the vibrations that will be propagated from the blast area. The nearest underground and above ground structures to the blast area is reported to be approximately 75 and 721 feet away, respectively. Using recognized blasting research and regulations, the safe detonation levels for a structure at the above-mentioned distance away would be approximately 125 lbs. per delay period. Therefore, we do not anticipate excessive vibrations from this planned blast. However, given the shallow nature of the blast, less than 15 feet deep, provisions for controlling flyrock should be considered.

**CLARK CO. CODE CHAPTER 86 MINIMUM PLAN REQUIREMENTS**

<b><u>CODE CHAPTER 86 PLAN SUBMITTAL</u></b>	<b><u>MIN REQUIREMENT COMPLIANCE</u></b>
• Necessity / least intense blast plan	YES
• Pre-blast survey 500 feet	N/A
• Location, size, schedule of blasting	YES
• Licensed Blaster	YES
• Federal, State, Local permits	YES
• Insurance	YES

This blasting plan is comprehensive in details pertaining to the use and storage of the materials and provides for compliance with the applicable federal, state and local requirements. Separate approvals must be obtained from the State Fire Marshal’s office and VDOT. It is our understanding that the appropriate approvals have been or will be obtained prior to the blasting being conducted. We find that this blasting plan is acceptable for its intended use and meets industry standards for the safe use of blasting techniques.



We hold our opinions to a reasonable degree of scientific certainty and/or probability, and we also reserve the right to modify this report based upon receipt of new information that differs from that used in preparing this report. We appreciate the opportunity to be of service and if you have any questions, please call.

Respectfully submitted,

CTL ENGINEERING, INC.



Patrick E. Gallagher, PE, PS, CPGS  
Project Consultant



Michael C. Sun, PE  
Branch Manager





## Chapter 86 Explosives

### Article I Prospect Hill Spring

- § 86-1. *Purpose* Prospect Hill Spring is the public water source for the Town of Boyce and the communities of Millwood, Waterloo, and White Post. Use of explosives is hereby limited within the area of Prospect Hill Spring so as to protect the quality and quantity of spring water.
- § 86-2. *Definition* For the purpose of this ordinance “explosive” shall be as defined in § 59.1-137. Explosives Definition, Code of Virginia.
- § 86-3. *Prohibited Area* Use of explosives is prohibited within the Spring Conservation Overlay District as described in § 3-E-2 of the Clarke County Zoning Ordinance.
- § 86-4. *Limited Area* Within the area described below and outside the Spring Conservation Overlay District, the use of explosives is allowed after submission and approval by the Clarke County Board of Supervisors (the Board) of a Blasting Plan that addresses the potential impact of the proposed blasting activity on the geology within this area:
- Beginning at the intersection of Virginia Route 620 and the Norfolk Southern Railroad right of way near the intersection of Virginia Route 620 with US Route 340;
  - thence southwest along the south boundary of the Norfolk Southern Railroad right of way to Virginia Route 723;
  - thence southeast along the northeast boundary of Virginia Route 723 to the intersection of Route 723 with the southeast boundary of present Tax Parcel 29-A-16A;
  - thence northeast along the southeast boundary of Tax Parcel 29-A-16A to its eastern corner;
  - thence in a straight line from the east corner of Parcel 29-A-16A to the corner of the intersection of the boundaries of present Tax parcel 30-A-1B and present Tax Parcel 30-A-7;
  - thence northeast along the common boundary of Parcels 30-A-1B and 30-A-7 to Virginia Route 620;
  - thence north along the west boundary of Virginia Route 620 to the point of beginning.
- § 86-5. *Blasting Plan* The Blasting Plan shall include the following elements:
- a. Demonstration that the proposed improvements, including

construction of buildings, earthwork operations, road construction, utility installation, and storm drainage/storm water management facilities, for which blasting is to occur are located and designed so as to require the least intensive degree of blasting necessary and that it is necessary to remove the rock rather than relocating development improvements, changing elevations, etc.;

- b. Geotechnical investigation evaluating the impact of the proposed blasting on the quantity and quality of groundwater recharging Prospect Hill Spring. The investigation shall include electrical resistivity and/or seismic refraction testing to show the limits, hardness and characteristics of rock, location of voids, groundwater levels, etc. Test pit evaluation where improvements are planned may be required by the Board after its initial review and approval;
- c. A program for a pre-blast survey of existing water quality and quantity of Prospect Hill Spring and public utilities within the area defined in section 4 above;
- d. A blasting schedule identifying the location, size, and time period of blasting activities;
- e. A statement indicating that:
  - i) all blasting shall be done by licensed blasters and the contractor shall conform to all federal, state, and local laws and regulation regarding transportation, storage, and use of explosives; and
  - ii) the contractor shall be fully responsible and liable for all damage incurred to publicly owned facilities as a result of the contractor's use of explosives and blasting operations regardless of whether or not the contractor had complied with such federal, state, or local laws and regulations.
- f. A monitoring plan conducted by a independent third party,
- g. Blasting work shall be performed in the presence of a licensed blaster;
- h. Other requirements that in the opinion of the Board ensures protection of Prospect Hill Spring.

§ 86-6. *Insurance*

The contractor shall take out and maintain, during the period of blasting operations plus 30 days, special liability and property damage insurance for all personal and property damage incurred as a result of the contractor's use of explosives and blasting operations. The Board shall

approve the coverage and amount of such insurance. No explosives shall be delivered to the site until proof of such insurance coverage is delivered to the Board. If the coverage or amount of insurance is not deemed sufficient, a special bond covering the blasting operations may be required by the Board and the bond's costs shall be paid by the contractor.

§ 86-7. *Notice* All governmental agencies as required by law, including the Board, shall be notified before the period of blasting commences.

§ 86-8. *Review Costs* The Contractor shall pay the county's costs for professional consultant review of the Blasting Plan.

## **Article II County-wide**

§ 86-9. *Purpose* More than 3,000 existing dwellings in Clarke County rely on private wells and septic systems for their water source and sewage disposal systems. In addition, portions of public water and sewer systems traverse areas of the county outside of town corporate limits. Use of explosives is hereby limited near:

- a. private wells so as to protect the quality and quantity of private well water,
- b. private septic systems so as to insure their effectiveness in processing sewage and the potential contamination of the groundwater, and
- c. public waterworks and sewer system and treatment works so as to ensure such facilities are not damaged.

§ 86-10. *Definitions* For the purpose of this ordinance "explosive" shall be as defined in § 59.1-137. Explosives Definition, Code of Virginia. For the purpose of this ordinance "perennial spring" shall be as defined in § 143 and § 184 of the Code of Clarke County

§ 86-11. *Prohibited Area* Except in incorporated towns and the Berryville Annexation Area, use of explosives is prohibited within 100 feet of private wells, public waterworks, private sewage disposal systems, public sewerage system and treatment works, and perennial springs.

§ 86-11. *Limited Area* Between 100 feet and 500 feet of private wells, public waterworks, private sewage disposal systems, public sewerage system and treatment works, and perennial springs the use of explosives is allowed only after submission and approval by the Clarke County Board of Septic and Well Appeals (the Board) of a Blasting Plan that addresses the potential impact of the proposed blasting activity on such facilities.

§ 86-12. *Blasting Plan*

The Blasting Plan shall include the following elements:

- a) Demonstration that the proposed improvements, including construction of buildings, earthwork operations, road construction, utility installation, and storm drainage/stormwater management facilities, for which blasting is to occur are located and designed so as to require the least intensive degree of blasting necessary and that it is necessary to remove the rock rather than relocating development improvements, changing elevations, etc.;
- b) A program for a pre-blast survey of all existing above and below ground facilities within 500 feet of the site proposed for the use of explosives;
- c) A blasting schedule identifying the location, size, and time period of blasting activities;
- d) A statement indicating that:
  - i) all blasting shall be done by licensed blasters and the contractor shall conform to all federal, state, and local laws and regulation regarding transportation, storage, and use of explosives; and
  - ii) the contractor shall be fully responsible and liable for all damage incurred to publicly owned facilities as a result of the contractor's use of explosives and blasting operations regardless of whether or not the contractor had complied with such federal, state, or local laws and regulations.
- e) A statement that blasting work shall be performed in the presence of a licensed blaster;
- f) Other requirements that in the opinion of the Board ensures protection of wells, water works, drain fields, and sewage disposal systems.

§ 86-13. *Insurance*

The contractor shall take out and maintain, during the period of blasting operations plus 30 days, special liability and property damage insurance for all personal and property damage incurred as a result of the contractor's use of explosives and blasting operations. The Board shall approve the coverage and amount of such insurance. No explosives shall be delivered to the site until proof of such insurance coverage is delivered to the Board. If the coverage or amount of insurance is not deemed sufficient, a special bond covering the blasting operations may be required by the Board and the bond's costs shall be paid by the

contractor.

§ 86-14. *Notice* All governmental agencies as required by law, including the Board, shall be notified before the period of blasting commences.

§ 86-15. *Review Costs* The Contractor shall pay the county's costs for professional consultant review of the Blasting Plan.

**Amendments Chapter  
86**

2003-04-08 Adopted Article I Prospect Hill Spring Explosives Ordinance. Chapter number assigned by staff.

2003-12-16 Added Article II County-wide Explosives Ordinance. Number assigned by staff.