



Building Permit Application

Howard County Maryland
Department of Inspections, Licenses and Permits
3430 Court House Drive
Permits: 410-313-2455
www.howardcountymd.gov

Date Received: _____

Permit No.: 614001516

Building Address: 15216 Tilden Way
City: Woodbine State: MD Zip Code: 21797
Suite/Apt. #: _____ SDP/WP/BA #: _____
Subdivision: Fountain Farm
Lot: 28 Tax Map: 8 Parcel: 8

Existing Use: SD
Proposed Use: SD w/ proposed tank
Estimated Construction Cost: \$ 8000

Description of Work:
Install 1000 gallon underground
propane tank

Occupant/Tenant Name: _____
Was tenant space previously occupied? ☐ Yes ☐ No
Contact Name: _____
Address: Owner
City: _____ State: _____ Zip Code: _____
Phone: _____ Fax: _____
Email: _____

Property Owner's Name: Dennis Egan
Address: 15216 Tilden Way
City: Woodbine State: MD Zip Code: 21797
Phone: 410-313-2455 Fax: _____
Email: _____

Applicant's Name & Mailing Address, (if other than stated herein)
Applicant's Name: Micah Egan
Address: 15216 Tilden Way
City: Woodbine State: MD Zip Code: 21797
Phone: 410-313-2455 Fax: _____
Email: megan@applied.com

Contractor Company: FEELER
Contact Person: Dennis Egan
Address: 15216 Tilden Way
City: Woodbine State: MD Zip Code: 21797
License No.: 81215
Phone: 410-313-2455 Fax: _____
Email: _____

Engineer/Architect Company: _____
Responsible Design Prof.: Contractor
Address: _____
City: _____ State: _____ Zip Code: _____
Phone: _____ Fax: _____
Email: _____

Commercial Building Characteristics	Residential Building Characteristics
Height:	<input type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhouse
No. of stories:	Depth Width
Gross area, sq. ft./floor:	1 st floor:
	2 nd floor:
Area of construction (sq. ft.):	Basement:
	<input type="checkbox"/> Finished Basement
Use group:	<input type="checkbox"/> Unfinished Basement
	<input type="checkbox"/> Crawl Space
Construction type:	<input type="checkbox"/> Slab on Grade
<input type="checkbox"/> Reinforced Concrete	No. of Bedrooms:
<input type="checkbox"/> Structural Steel	Multi-family Dwelling
<input type="checkbox"/> Masonry	No. of efficiency units:
<input type="checkbox"/> Wood Frame	No. of 1 BR units:
<input type="checkbox"/> State Certified Modular	No. of 2 BR units:
	No. of 3 BR units:
	Other Structure:
	Dimensions:
Roadside Tree Project Permit	Footings:
<input type="checkbox"/> Yes <input type="checkbox"/> No	Roof:
Roadside Tree Project Permit #	<input type="checkbox"/> State Certified Modular
	<input type="checkbox"/> Manufactured Home

Utilities
Electric: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Gas: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Water Supply
<input type="checkbox"/> Public
<input checked="" type="checkbox"/> Private
Sewage Disposal
<input type="checkbox"/> Public
<input checked="" type="checkbox"/> Private
Heating System
<input type="checkbox"/> Electric <input type="checkbox"/> Oil
<input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane Gas
Other:
Sprinkler System:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Grading Permit Number:
Building Shell Permit Number:

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Applicant's Signature: Micah Egan Print Name: Micah Egan
Email Address: megan@applied.com Date: 10/24/18
Title/Company: Permit #13

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY
PLEASE WRITE NEATLY & LEGIBLY
FOR OFFICE USE ONLY

AGENCY	DATE	SIGNATURE OF APPROVAL
State Highways		
Building Officials		
PSZA (Zoning)		
PSZA (Engineering)		
Health	<u>10/24/18</u>	<u>[Signature]</u>

Is Sediment Control approval required for issuance? ☐ Yes ☐ No
☐ CONTINGENCY CONSTRUCTION START

DPZ SETBACK INFORMATION
Front:
Rear:
Side:
Side St.:
All minimum setbacks met? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is Entrance Permit Required? <input type="checkbox"/> Yes <input type="checkbox"/> No
Historic District? <input type="checkbox"/> Yes <input type="checkbox"/> No
Lot Coverage for New Town Zone:
SDP/Red-line approval date:

Filing Fee	\$
Permit Fee	\$
Tech Fee	\$
Excise Tax	\$
PSFS	\$
Guaranty Fund	\$
Add'l per Fee	\$
Total Fees	\$
Sub- Total Paid	\$
Balance Due	\$
Check	#

OWNER/DEVELOPER

IN HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21046
410-379-5956

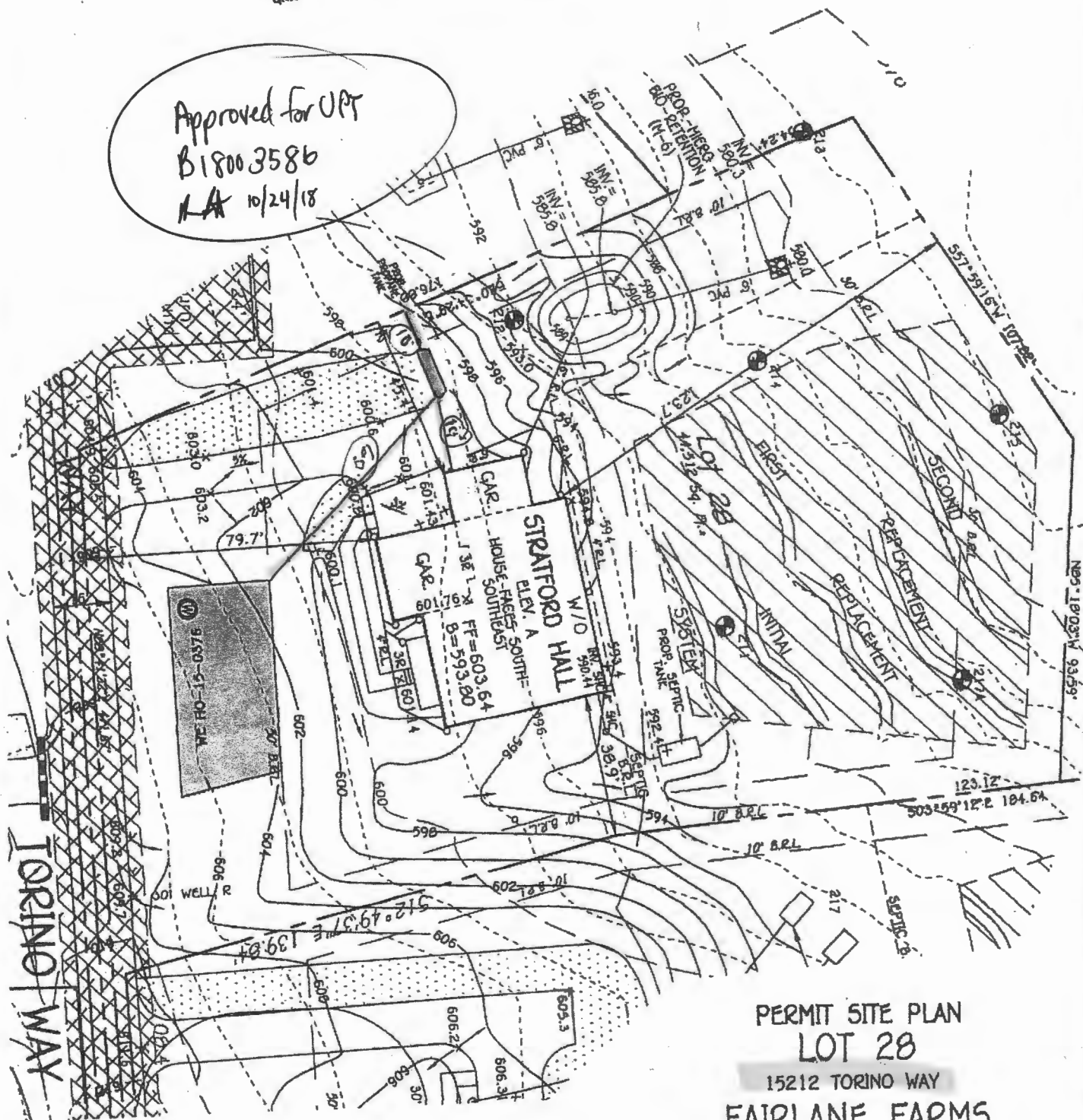
STORMWATER MANAGEMENT NOTES:

STORMWATER MANAGEMENT FOR LOT 28 IS BEING PROVIDED BY A COMBINATION OF NON-ROOFTOP DISCONNECTION (N-2) FOR THE DRIVEWAY AREA AND A MICRO-BIORETENTION FACILITY (M-6), FOR THE ROOF AREAS OF THE PROPOSED HOUSE.

NOTE: THE EXISTING WELL SHOWN ON THIS PLAN, HO-15-0376, HAS BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC., PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.



Approved for UPT
B18003586
LA 10/24/18



PERMIT SITE PLAN

LOT 28

15212 TORINO WAY

FAIRLANE FARMS

PHASE TWO

ZONED: RC-DEO

TAX MAP NO.: 8 GRID NO.: 2 PARCEL NO.: 8

5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: 1" = 40' DATE: AUGUST 13, 2018

SHEET 1 OF 1

PLAN

SCALE: 1" = 40'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

CENTINEL SQUARE OFFICE PARK - 10072 BALTIMORE NATIONAL PKWY
ELICOTT CITY, MARYLAND 21042
(410) 461-2899

11000 GAL Under Ground.



Health

Building Permit Application

Howard County Maryland
Department of Inspections, Licenses and Permits
3430 Court House Drive
Permits: 410-313-2455
www.howardcountymd.gov

Date Received: _____

Permit No.: **B18003159**

Building Address: **15212 Torino Way**
City: **Woodbine** State: **MD** Zip Code: **21797**
Suite/Apt. #: _____ SDP/WP/BA #: **GP 18-35**
Census Tract: _____ Subdivision: **Fairlane Farm**
Section: _____ Area: _____ Lot: **28**
Tax Map: _____ Parcel: _____ Grid: _____
Zoning: **RC** Map Coordinates: _____ Lot Size: _____

Existing Use: **Vacant lot**
Proposed Use: **Single family house**
Estimated Construction Cost: \$ **230,000**
Description of Work: **New 2 story "Stratford Hall" with BW 'A', 2 car garage, 1 car side attached garage, and finished lower level (Rec. RM, Bath, Bedroom)**
Occupant or Tenant: _____
Was tenant space previously occupied? ☐ Yes ☐ No
Contact Name: _____
Address: _____
City: _____ State: _____ Zip Code: _____
Phone: _____ Fax: _____
Email: _____

Commercial Building Characteristics	Residential Building Characteristics
Height: _____	<input checked="" type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhouse
No. of stories: _____	Depth _____ Width _____
Gross area, sq. ft./floor: _____	1 st floor: 54 x 54
Area of construction (sq. ft.): _____	2 nd floor: 48 x 54
Use group: _____	Basement: 54 x 54
Construction type: _____	<input checked="" type="checkbox"/> Finished Basement
<input type="checkbox"/> Reinforced Concrete	<input type="checkbox"/> Unfinished Basement
<input type="checkbox"/> Structural Steel	<input type="checkbox"/> Crawl Space
<input type="checkbox"/> Masonry	<input type="checkbox"/> Slab on Grade
<input type="checkbox"/> Wood Frame	No. of Bedrooms: 6
<input type="checkbox"/> State Certified Modular	Multi-family Dwelling
➤ Roadside Tree Project Permit	No. of efficiency units: _____
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	No. of 1 BR units: _____
Roadside Tree Project Permit # _____	No. of 2 BR units: _____
	No. of 3 BR units: _____
	Other Structure: _____
	Dimensions: _____
	Footings: _____
	Roof: _____
	<input type="checkbox"/> State Certified Modular
	<input type="checkbox"/> Manufactured Home

Property Owner's Name: **NVR Inc**
Address: **9720 Patuxent Woods Drive**
City: **Columbia** State: **MD** Zip Code: **21046**
Phone: **410-379-5956** Fax: _____
Email: _____

Applicant's Name & Mailing Address, (If other than stated herein)
Applicant's Name: **Decatur Building Services**
Address: **PO Box 552**
City: **Woodbine** State: **MD** Zip Code: **21797**
Phone: **443-309-7792** Fax: _____
Email: **Jim@DecaturbuildingServices.com**

Contractor Company: **NV Homes**
Contact Person: **Glenn Cagle**
Address: **9720 Patuxent Woods Drive**
City: **Columbia** State: **MD** Zip Code: **21046**
License No.: **SL**
Phone: **410-379-5956** Fax: _____
Email: **CCagle@NVR-Inc.com**

Engineer/Architect Company: _____
Responsible Design Prof.: _____
Address: _____
City: _____ State: _____ Zip Code: _____
Phone: _____ Fax: _____
Email: _____

Utilities	
Water Supply	
<input type="checkbox"/> Public	
<input checked="" type="checkbox"/> Private	
Sewage Disposal	
<input type="checkbox"/> Public	
<input checked="" type="checkbox"/> Private	
Electric: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Gas: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Heating System	
<input checked="" type="checkbox"/> Electric <input type="checkbox"/> Oil	
<input type="checkbox"/> Natural Gas <input checked="" type="checkbox"/> Propane Gas	
<input type="checkbox"/> Other: _____	
Sprinkler System:	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Grading Permit Number: G180002	
Building Shell Permit Number: _____	

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Applicant's Signature: **Jim Kerwin**
Print Name: **Jim Kerwin**
Email Address: **Jim@DecaturbuildingServices.com**
Date: **9/4/2018**
Title/Company: **AGENT NV Homes**

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY
PLEASE WRITE NEATLY & LEGIBLY
-FOR OFFICE USE ONLY-

AGENCY	DATE	SIGNATURE OF APPROVAL
State Highways		
Building Officials		
PSZA (Zoning)		
PSZA (Engineering)		
Is Sediment Control approval required for issuance?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
CONTINGENCY CONSTRUCTION START		

DPZ SETBACK INFORMATION
Front: _____
Rear: _____
Side: _____
Side St.: _____
All minimum setbacks met? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is Entrance Permit Required? <input type="checkbox"/> Yes <input type="checkbox"/> No
Historic District? <input type="checkbox"/> Yes <input type="checkbox"/> No
Lot Coverage for New Town Zone: _____
SDP/Red-line approval date: _____

Filing Fee	\$ 100
Permit Fee	\$
Tech Fee	\$
Excise Tax	\$
PSFS	\$
Guaranty Fund	\$ 50
Add'l per Fee	\$
Total Fees	\$
Sub-Total Paid	\$
Balance Due	\$
Check #	21027

Hi Dave:

Good morning. These two files were in my inbox this morning. I plan to review them this morning. I will keep you posted.

Thanks,

Hank

From: Dave Harward, III [<mailto:DaveH@fcc-eng.com>]
Sent: Tuesday, September 18, 2018 7:13 AM
To: Oswald, Hank
Cc: Tony Fertitta
Subject: Fairlane Farms Lots 28 & 33

Good
Morning
Hank,

Re:
15212 Torino Way **B18003159 Lot 28**

1039 Thunderbird Dr **B18003160 Lot 33**

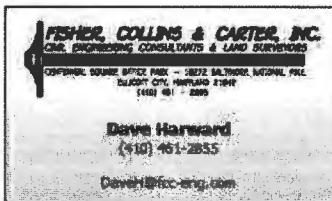
We need your help on these. These have not been signed off on yet. You had emailed Tony with a question about some angled lines showing outside of the septic area on Lot 33 (which he mentioned to you were structural fill lines, that we normally don't show on the OSDS plans). You suggested to Tony that he label them next time (we'll leave them off from now on). But it sounded like you were going to approve the plan as it was.

Lot 28 we submitted on Aug. 13, and mentioned in the transmittal that we had adjusted the septic tank location and were able to get gravity sewer service for the basement.

Please check on these, since NV is needing this sign-off for their permit.

Thanks Hank,

Dave.



Oswald, Hank

From: Dave Harward, III <DaveH@fcc-eng.com>
Sent: Tuesday, September 18, 2018 8:15 AM
To: Oswald, Hank
Cc: Tony Fertitta; Cagle, Clint (ccagle@nvrinc.com)
Subject: RE: Fairlane Farms Lots 28 & 33

That's great. We will make sure (on Lot 28) that the discharge pipe is installed at least 25 ft. away from the SDA. And I'll let NV Homes know about the basement room issue (and have them pass along that information to the homebuyer's).

Thanks Hank !

From: Oswald, Hank [<mailto:hoswald@howardcountymd.gov>]
Sent: Tuesday, September 18, 2018 8:08 AM
To: Dave Harward, III
Cc: Tony Fertitta; Cagle, Clint (ccagle@nvrinc.com)
Subject: RE: Fairlane Farms Lots 28 & 33

Hello Dave:

Lot 28 – *the building permit has been approved* but please make sure the invert out/discharge from the bio-retention pond is installed at least 25 feet from the SDA.

Lot 33 - *the building permit has been approved* but I must mention that if the future homeowners should want to install a wall adjacent the full bathroom in the basement (making it bedroom # 6 with a window), they will have to make **upgrades to the system** first (since the septic system only sized for 5 bedrooms).

Have a good day.

Hank

From: Dave Harward, III [<mailto:DaveH@fcc-eng.com>]
Sent: Tuesday, September 18, 2018 7:43 AM
To: Oswald, Hank
Cc: Tony Fertitta
Subject: RE: Fairlane Farms Lots 28 & 33

OK, Thank You.

From: Oswald, Hank [<mailto:hoswald@howardcountymd.gov>]
Sent: Tuesday, September 18, 2018 7:42 AM
To: Dave Harward, III
Cc: Tony Fertitta
Subject: RE: Fairlane Farms Lots 28 & 33

**FINAL
STORMWATER MANAGEMENT
REPORT**

Fairlane Farms, Lot 28

GP-18-35

*Zoned: RC-DEO
Howard County, Maryland
Sixth Election District
Tax Map #8 Grid 2 & 3 Parcel 8 & 17*

Thursday, August 09, 2018

Builder:

NV Homes
9720 Patuxent Woods Drive
Columbia, MD 21046
410-379-5956

Prepared By:

Fisher, Collins and Carter, Inc.
Centennial Square Office Park
10272 Baltimore National Pike
Ellicott City, Maryland 21042
410-461-2855
w.o. #12036

**Professional Certification: I hereby certify that these documents were prepared by me and that I am a duly Licensed Professional Surveyor under the laws of the State of Maryland.
License No. 20748, Expiration Date: 2/22/19.**



TABLE OF CONTENTS

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I. NARRATIVE

Introduction:

This report will demonstrate how the criteria set forth in the Maryland Stormwater Design Manual, Volumes I and II (effective October 2000, revised May 2009) will be satisfied on this project. The goal of creating hydrology similar to that of "Woods in Good Condition" will be accomplished through the use of the practices contained within Chapter 5 of said manual. The achievement of this goal will remove the requirement of providing Channel Protection Volume.

General Site Conditions:

"This Property is zoned RC-DEO and consist of Parcels 8 & 17 located on both Tax Map 3 & Tax Map 8 of the Howard County, Maryland Tax Map Database System. Parcel 8 which is 69.2 acres in size borders Morgan Station Road and Old Frederick Road. Parcel 17 consist of three separate portions of land. One portion which is 28.0 acres in size is adjacent to the aforementioned Parcel 8 and also borders Old Frederick Road. Located to the northeast of this portion is another area of Parcel 17 that is 4.83 in size. The final piece is 36.71 acres and borders the South Branch of the Patapsco River. These three portions of Parcel 17 total 69.4 acres in size. Parcel 8 and the portion of Parcel 17 that border Old Frederick Road create the developable area where improvements have been proposed. The other portions of Parcel 17 (totaling 41.5) along with a proposed contiguous parcel that meanders through the developable area created by Parcels 8 & 17 (totaling 36.7) are planned to be in presentation by the design of this project. The total area of preservation that is currently proposed by this development is approximately 78.2 acres.

The developable area mostly contains 'B' Soils with some 'C' soils located in the area of the wetland, which no disturbance is proposed. Several existing drainage swales travel from the south to the north and develop into two streams, which discharge into the South Branch of the Patapsco River. "

I. Natural Resource Protection:

To ensure the protection of natural resources located on this site, all buffers will be honored by locating improvements away from environmentally sensitive areas.

II. Maintenance of Natural Flow Patterns:

It is the intent of the proposed design to discharge runoff similar to the characteristics and direction of this site prior to any of the proposed improvements.

III. Reduction of impervious areas through better site design, alternative surfaces and Nonstructural Practices

This project maintains the original design provided by F-15-054.

IV. Integration of Erosion and Sediment Controls into Stormwater Strategy:

Erosion Control Matting is being used in the proposed swale and super silt fence as shown on the approved GP plans.

V. Implementation of ESD Planning Techniques and practices to the Maximum Extent Practicable (MEP)

The full required ESD volume is being provided.

VI. Request for Design Manual Waiver:

No waivers are expected to be required on this project.

II. CHAPTER 5 TABLE 5.2
SUMMARY OF
SITE STRATEGIES

Table 5.2 Summary of Site Development Strategies

Better Site Design Technique	MDE Recommendations	Proposed Strategies
Using narrower, shorter streets, rights of ways and sidewalks	Streets may be as narrow as 22-feet in neighborhoods serving low traffic volumes; open space designs and clustering will reduce street lengths; rights-of-ways can be reduced by minimizing sidewalk width, providing sidewalks on one side of the road, and reducing the border width between the street and sidewalk	N/A
Cul-de-sacs	Allow for smaller radii for turn around as low as 35-feet; use a landscaped island in the center of the Cul-de-sac and design these areas to treat stormwater runoff.	N/A
Open vegetated channels	Allow grass channels or biofilters for residential street drainage and stormwater treatment.	N/A
Parking ratios, parking codes, parking lots, and structured parking	Parking ratios should be interpreted as maximum number of spaces; use shared parking arrangements; minimum parking stall width should be less than 9-feet and stall length less than 18-feet; parking garages are encouraged rather than surface lots.	N/A
Roadway Runoff	Runoff from proposed roadways will be Open Section with offset filter areas located on Open Space Lots.	N/A
Open Space	Flexible design criteria should be provided to developers who wish to use cluster development and open space designs	N/A
Setbacks and frontages	Relax setbacks and allow narrower frontages to reduce total road length; eliminate driveways	N/A
Driveways	Allow for shared driveways and alternative impervious surfaces	Disconnection
Rooftop runoff	Direct to pervious surfaces	Micro-bioretenention Facility
Buffer systems	Designate a minimum buffer width and provide mechanisms for long-term protection	N/A
Clearing and grading	Clearing, grading, and earth disturbance should be limited to that required to develop lot.	Smaller LOD
Tree conservation	Provide long-term protection of large tracts of contiguous forested areas; promote the use of native plantings.	Forest Conservation addressed by F-01 191.
Conservation incentives	Provide incentives for conserving natural areas through density compensation, property tax reduction, and flexibility in the design process.	N/A

**III. SITE DATA
FOR PROJECT**

LOT 19, STORMWATER MANAGEMENT CONCEPT SUMMARY

Site Data:

Total Site Area: 1.02 acres

LOD (Limit of Disturbance): 28,152 SqFt. or .65 Acres.

Soil Condition: 0% "A", 100% "B", 0% "C", 0% "D"

Measured Impervious Area: 4,459 SqFt. or 0.10 Acres+/-

IV. CHAPTER 5
SWM
COMPUTATIONS

Stormwater Management Requirements

Initial Site Assessment (Site Data):

1. Existing Conditions

Total L.O.D: 28,152sq.ft. or 0.65acres +/-
Soil Types: 100% B Soil
Land Use: Residential
Lot Size 44,512 sq.ft.

2. Proposed Conditions

Impervious Cover: 4,459 sq.ft. or 0.10 acres +/-.
(1,522 sq.ft. Paving + 2,937 sq.ft. Rooftop = 4,459 sq.ft. = 0.10 acre)

RCN's for Wooded Conditions: Target Pe Using Table 5.3

% Impervious: 0.10 acres/0.64 acres (LOD) = "I" = 0.158 USE 16%

Using Table 5.3 and applying 16% Impervious

Pe Target for ESD Practices: 1.0 inches

ESD Targets

Impervious Area 16%

$$\begin{aligned} R_v &= 0.05 + 0.009 (I) \\ &= 0.05 + 0.009 (16) \\ &= 0.19 \end{aligned}$$

$$\begin{aligned} ESD_v &= \frac{(P_e)(R_v)(A)}{12} \\ &= \frac{(1.0)(0.19)(28,152)}{12} \end{aligned}$$

Minimum Required ESDv = 455.12

Use 456 cu.ft.

ESDv Provided - Disconnection of Non-Rooftop Runoff

ESDv provided by N-2 (28) Non-Rooftop Runoff Lot : 136 cu.ft.

Determine Treatment for the proposed driveway: 1,522 SqFt. of Driveway

A non-rooftop disconnect area has been proposed along the driveway, The following calculations reflect the most extream of the the disconnectuin area.

Impervious Ratio = 100.0%

Disconnection Length / Impervious Length = 20.0/14.0

Using Table 5.7(page 5.62) the PE treatment provided based on a 1:1 ratio is 1.0"

Pervious ratio = Disconnection Length / Contribution Length = N/A

Using Table 5.7 (page 5.62) the PE treatment provided based one a 1:1 ratio is 1.0" Using a treated Pe of 1.0" Environmental Site Design has been provided.

$$ESDv = \frac{(Pe)(Rv)(A)}{12}$$

$$ESDv \text{ Required: } (1.0)(0.95)(1,522)/12 = 120.49 \text{ cu.ft.}$$

ESDv Provided - Micro Bio retention

ESDv provided by Micro-Bioretenction M-6 (1): 336 cu.ft.

Drainage Area: 2937 sq.ft.

Impervious Area: 2937 sq.ft. or 100% Impervious

$$\begin{aligned} R_v &= 0.05 + 0.009 (I) \\ &= 0.05 + 0.009 (100) \\ &= .95 \end{aligned}$$

$$ESD_v = \frac{(P_e)(R_v)(A)}{12}$$

$$ESD_v \text{ Required: } (1.0)(0.95)(2937)/12 = 232.51 \text{ cu.ft.}$$

This Bio Retention Facility has the total storage potential of 336 CuFt. Provided by a surface area of 258 SqFt having a perimeter of 52' and a depth of 1'. This is beyond the required 174.38 CuFt (232.51 CuFt x 0.75) needed to store at least 75% of overall ESDv within the surface area. The remaining 25% of ESDv is accounted for within the stone reservoir at the bottom of the facility. In summary 100% of the required ESDv is being provided within the proposed facility.

Total ESDv required: 456 CuFt.

-ESDv credit provided by N-2 Disconnection of Non-Rooftop Runoff: 136 CuFt.

Total ESDv remaining: 320 Cu.Ft.

Required ESDv storage $(320 \text{ Cu.Ft.} \times .75) = 240 \text{ Cu.Ft.}$

-ESDv storage provided by M-6 Micro-Bioretentention: 336 CuFt.

Total ESDv storage provided 472 CuFt.

VIII. CONCLUSION

VI. Conclusion:

Contained within this SWM report, we have attempted to demonstrate the ability to mimic the runoff characteristics of "woods in good condition" through approved MDE Chapter V practices. It is this firm's opinion that Environmental Site Design (ESD) to the Maximum Extent Practicable (MEP) has been achieved through the use of one micro-bioretenment facility & non-rooftop disconnection, to meet and exceed the required ESD volume.

Fairlane Farm
Lot 28
15212 Torino Way

STRATFORD HALL

Health Dept



NVR, Inc.
Architectural Services
Architects
5285 Westview Drive, Suite 100
Frederick, MD 21703

	FULL BASEMENT												STANDARD DETAILS
	STD. DINGS												
OPTIONS	OP-1												AD-1
SPEC SHEET	SS-1												AD-1b
ELEVATIONS	4												FD-1
FOUNDATIONS	14												FD-2
FOUNDATION HOLD DOWNS	22, 23, 24, 25												FD-2b
PLUMBING	26												FD-3
BASEMENT FLOOR PLAN	27												GB-1
FIRST FLOOR PLAN	29												JT-1
SECOND FLOOR PLAN	32, 1												JT-3
BUILDING SECTIONS	34, 36												JT-3b
STAIR SECTIONS	38												RF-1
KITCHEN - BATHS	41, 42, 43, 44												RF-1b
BASEMENT ELECTRICAL	45												ET-1
FIRST FLOOR ELECTRICAL	47												ET-1b
SECOND FLOOR ELECTRICAL	50												ET-1c
FIRST FLOOR FRAMING	52												ET-1e
SECOND FLOOR FRAMING	54												ET-1f
ROOF FRAMING	55, 56												ET-2
TRUSS BRACING	61												ET-2b
WALL BRACING LAYOUT	63												MD-1
HVAC LAYOUT	67												MD-2
HVAC LAYOUT	68												MD-3
HVAC LAYOUT	69												DR-1
HVAC LAYOUT	70												DR-2
HVAC LAYOUT	71												DR-3
HVAC LAYOUT	72												FP-1
HVAC LAYOUT	73												IT-1
HVAC LAYOUT	74												IT-1b
													IT-1c
													IT-2
													ST-1
													ST-2
													MS-1
													KT-1
													SP-1
													SP-2
													SP-3
													SEP-1
													SEP-2
													SEP-3
													SEP-4
													F-1
													FA-1
													FC-1
													FC-2
													FC-4
													MB-1
													MB-2
													DH-2

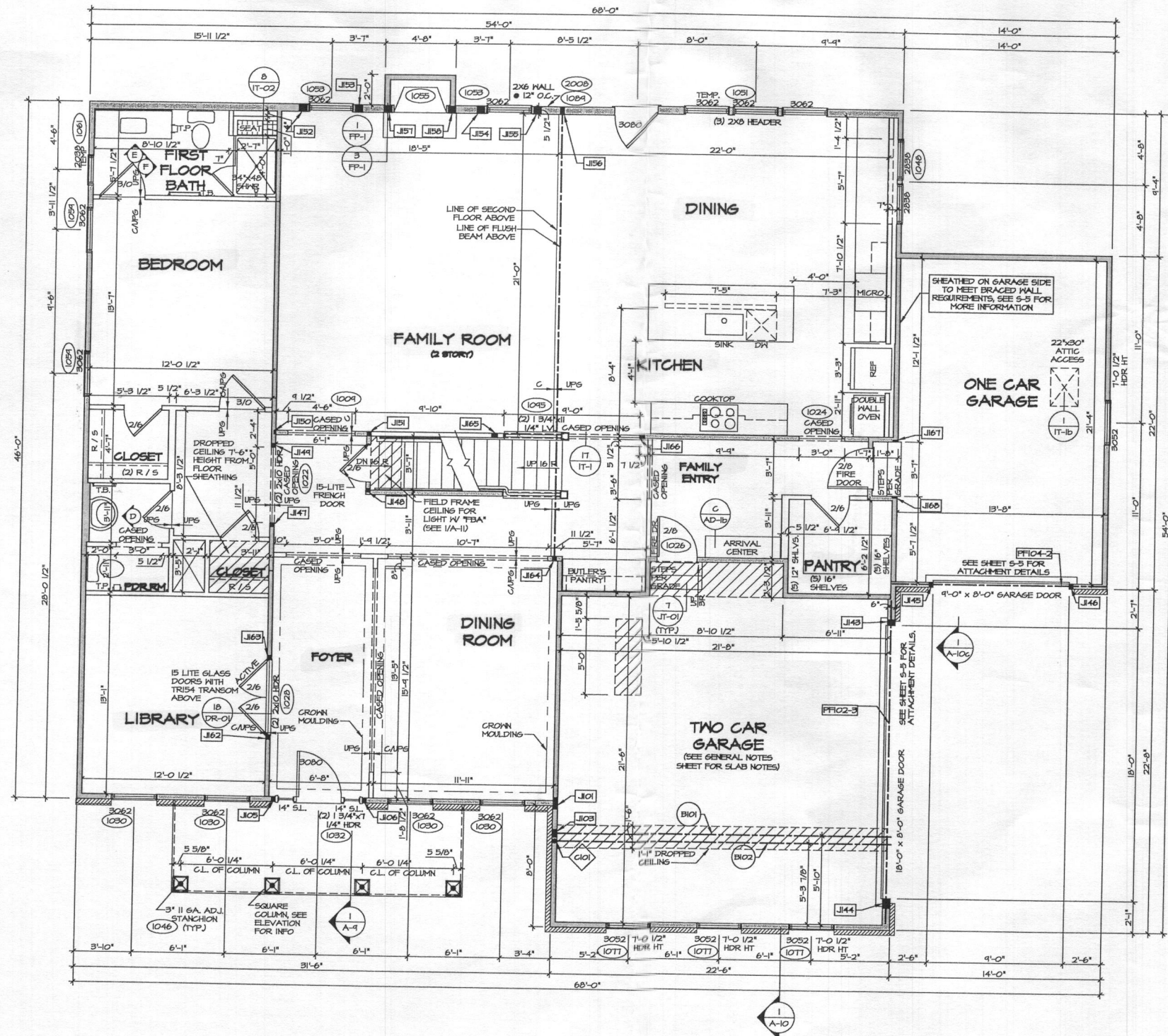
FIRST FLOOR SQUARE FOOTAGE	
DESCRIPTION	TOTAL SQ. FT.
1ST FLOOR (BASE SF)	2151 SF
	2151 SF
SECOND FLOOR SQUARE FOOTAGE	
DESCRIPTION	TOTAL SQ. FT.
2ND FLOOR (BASE SF)	2133 SF
	2133 SF
GARAGE SQUARE FOOTAGE	
DESCRIPTION	TOTAL SQ. FT.
TWO CAR GARAGE ELEV. 'A' OR 'K' OR 'R'	501 SF
ONE CAR SIDE ATTACHED GARAGE (ADD. SF)	314 SF
	821 SF
BASEMENT SQUARE FOOTAGE	
DESCRIPTION	TOTAL SQ. FT.
FINISHED BASEMENT	1451 SF
FINISHED BASEMENT AREA #2 (ADD. SF)	429 SF
	1880 SF
UNFINISHED SQUARE FOOTAGE	
DESCRIPTION	TOTAL SQ. FT.
MECHANICAL ROOM	245 SF
	245 SF
TOTAL FINISHED SQUARE FOOTAGE	
DESCRIPTION	TOTAL SQ. FT.
1ST FLOOR (BASE SF)	2151 SF
2ND FLOOR (BASE SF)	2133 SF
FINISHED BASEMENT	1451 SF
FINISHED BASEMENT AREA #2 (ADD. SF)	429 SF
	6164 SF

SET - VERSION

11900 - 01

CS-1

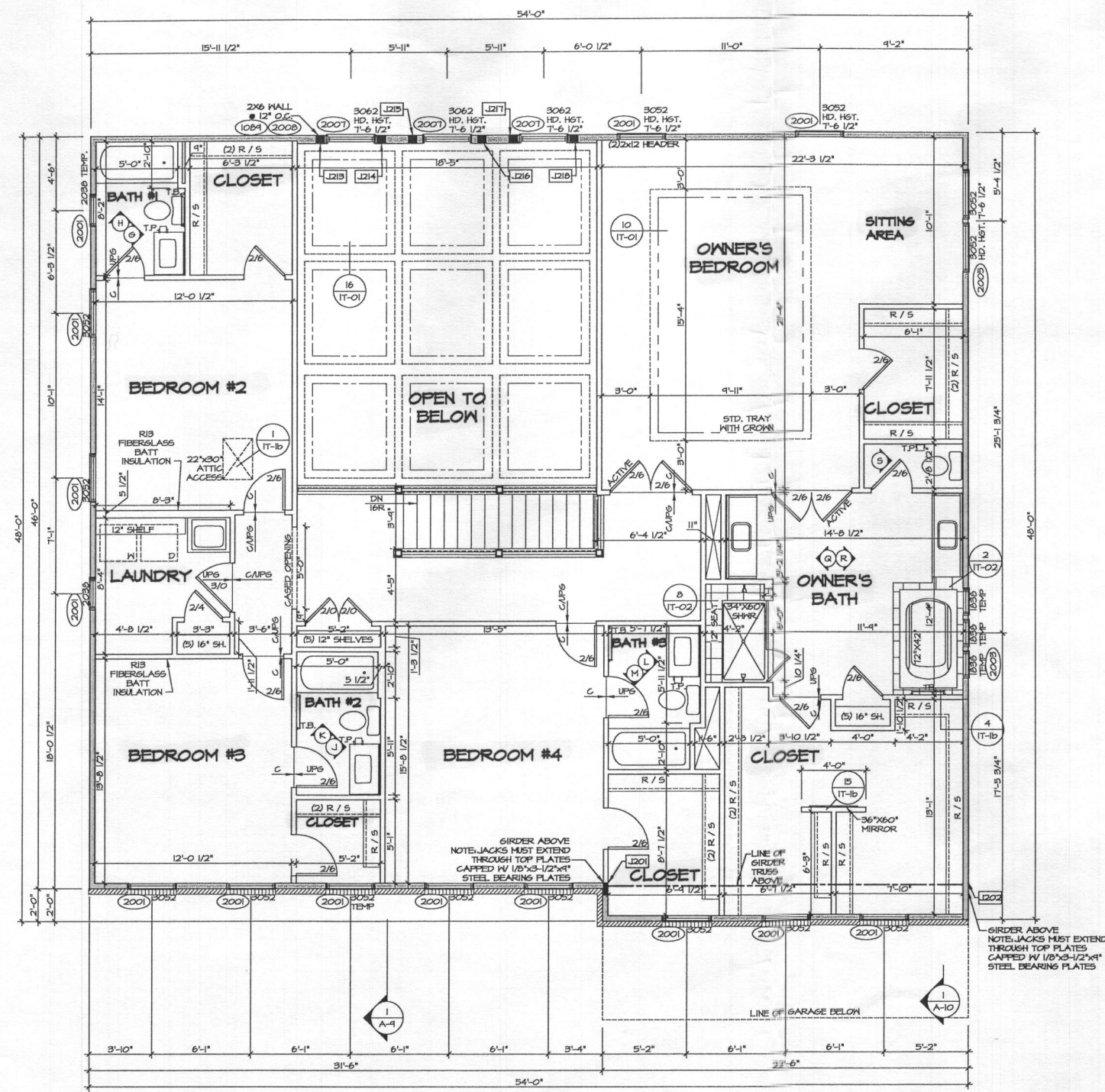
C:\NVR\Solinas\STRATFORD HALL_11900_01\WDE-FP-0028\908556\Sheets\Lot_Specific\CS-1_COVERSHEET.dwg 08/19/18 - 2:23 pm



FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

FOR NOTES AND SCHEDULES SEE PAGE A-7b

SHEET NO.		MODEL		SET NO. 11400		VERSION 01		DRAWN BY ZDM		DATE: 9/16/16		OPTION	
A-7		STRATFORD HALL		DRAWING TITLE		FIRST FLOOR PLAN							
29				OPTION DESCRIPTION									
<div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></d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1 SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"

- FLOOR PLAN NOTES**
1. ALL HEADERS ARE (2) 2x6 W/ 2x4 WALLS OR (3) 2x6 W/ 2x6 WALLS, UNLESS OTHERWISE NOTED.
 2. ALL HEADERS TO HAVE (1) 2x4 OR 2x6 JACK EACH END, UNLESS OTHERWISE NOTED.
 3. ALL EXTERIOR WALLS TO BE 4" AND ALL INTERIOR WALLS TO BE 3 1/2", UNLESS OTHERWISE NOTED.
 4. HATCHED AREAS INDICATE DROPPED CEILINGS. ALL DROPPED CEILINGS ARE 12" UNLESS OTHERWISE NOTED.
 5. SEE "BRACED WALL PANEL DETAIL SHEET" FOR SPECIAL WALL FRAMING LOCATIONS AND HEADER SIZES, IF APPLICABLE.
 6. SEE STANDARD DETAIL CATEGORY "T" SHEETS FOR INTERIOR TRIM DETAILS.
 7. SEE ARCHITECTURAL DETAIL SHEET "AD" FOR HOUSE SPECIFIC INTERIOR TRIM OPTION TABLE.
 8. ALL WINDOWS HAVE T-O 1/2" HEADER HEIGHT UNLESS OTHERWISE NOTED.
 9. ALL CASED OPENINGS AT T-11", UNLESS OTHERWISE NOTED.

- LEGEND**
- BEARING WALL
 - NON BEARING WALL
 - INDICATES BEARING FROM POINT-LOAD ABOVE
 - JACKS
 - BEAM/HEADER
 - PAD FOOTING
 - STEEL COLUMN
 - PORTAL FRAME
 - JOIST/TRUSS
 - LVL
 - ENGINEERING PAGE NUMBER
- SEE FG DETAILS FOR FRAMING CONNECTORS

SECOND FLOOR JACK SCHEDULE				
IDENTIFIER	DESCRIPTION	OPTIONS	ENG. NUM.	REMARKS
J201	JACK - (6) 2X4 SPP#		2008	
J202	JACK - (6) 2X4 SPP#		2008	
J213	JACK - (4) 2X6 SPP #2 STUD GRADE		2007	FULL HEIGHT STUDS
J214	JACK - (4) 2X6 SPP #2 STUD GRADE		2007	FULL HEIGHT STUDS
J215	JACK - (4) 2X6 SPP #2 STUD GRADE		2007	FULL HEIGHT STUDS
J216	JACK - (4) 2X6 SPP #2 STUD GRADE		2007	FULL HEIGHT STUDS
J217	JACK - (4) 2X6 SPP #2 STUD GRADE		2007	FULL HEIGHT STUDS
J218	JACK - (4) 2X6 SPP #2 STUD GRADE		2007	FULL HEIGHT STUDS

REVISIONS

REV.	NO.	DATE	DESCRIPTION
1	01/24/17	17	STANDARD DETAILS 9.2

REMARKS

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SET NO. 11000
VERSION 01
DRAWN BY BIM
DATE:
OPTION

MODEL
STRATFORD HALL
DRAWING TITLE
SECOND FLOOR PLAN
OPTION DESCRIPTION

SHEET NO.
A-8
92.1