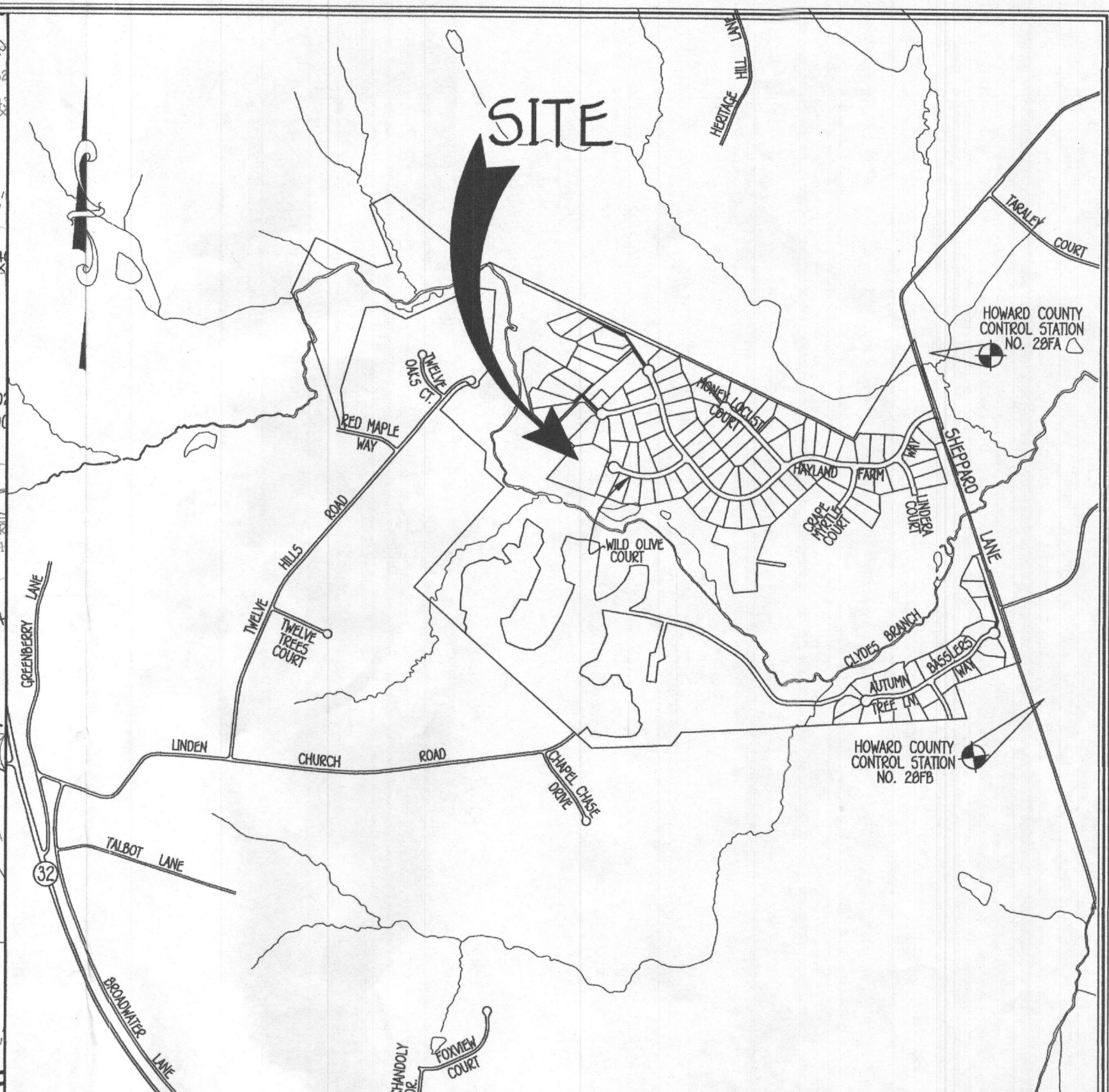


1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. THE WELL ON 5000 WILD OLIVE COURT HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
4. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.



VICINITY MAP  
SCALE: 1" = 1200'

ADC MAP No. 14, E2

Approved Septic System Plan  
Howard County Health Department  
Install 2000 Septic Tank  
Connect back line to existing  
back line to Distribution Box  
Signature: *R. Bueler* Date: 9/12/19  
B19002540



PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME  
AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 02/22/2021.

Signature: *Michael J. Bueler* Date: 9/12/19  
Signature Of Professional Engineer

SEPTIC SYSTEM  
INSTALLATION SITE PLAN  
5000 WILD OLIVE COURT  
ZONED: RC-DEO  
TAX MAP NO.: 28 GRID NO.: 11 PARCEL NO.: 50 & 49  
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: 1"=30' DATE: SEPTEMBER 10, 2019  
SHEET 1 OF 2

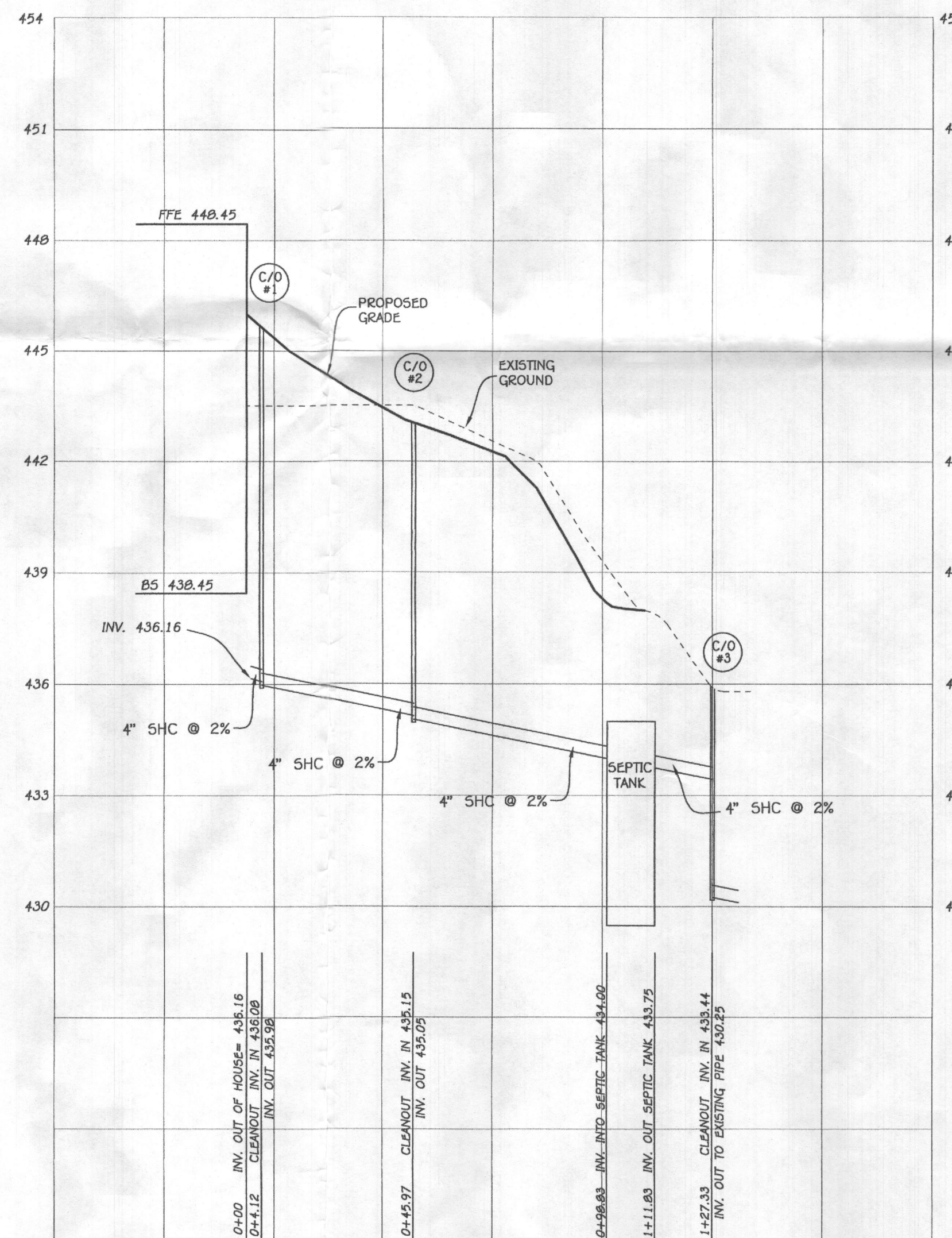
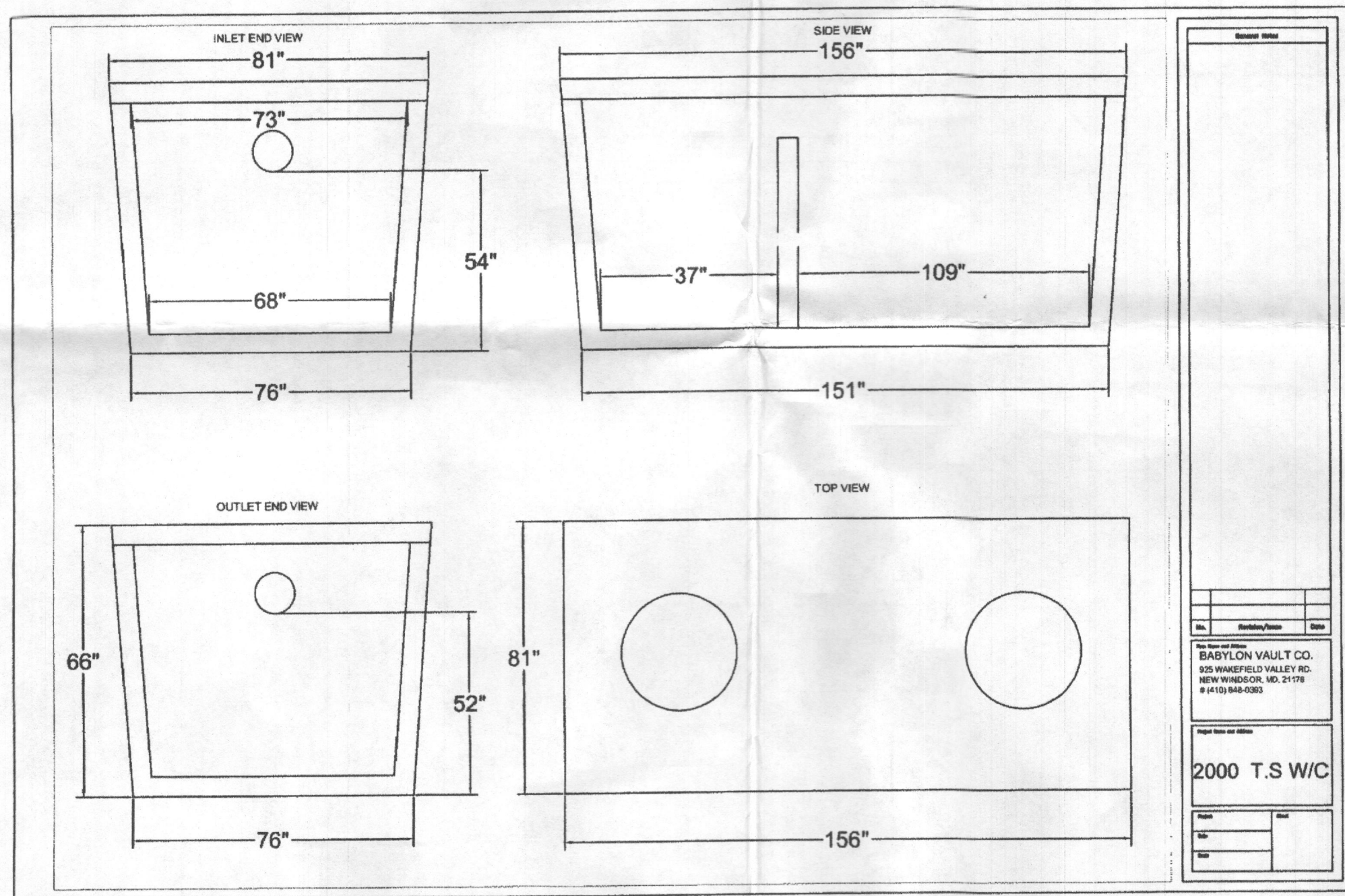
FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELICOTT CITY, MARYLAND 21042  
(410) 461-1999

OWNER  
NARINDER P. CHADHA  
& KIRTI KHANNA  
5000 WILD OLIVE COURT  
ELICOTT CITY, MARYLAND 21042  
PHONE: C/O CHRISTOPHER BARTH: 303-486-8423

BUILDER/DEVELOPER  
ZIBERTY INC.  
1766 PROFFIT ROAD  
VIENNA, VIRGINIA 22182  
PHONE: 703-486-8423

PLAN  
SCALE: 1" = 30'





FFE 448.45  
BSE 438.45  
INV. OUT OF HOUSE = 436.16  
PROP. GROUND AT CLEANOUT #1 = 445.8  
INV. INTO CLEANOUT #1 = 436.08  
INV. OUT OF CLEANOUT #1 = 435.98  
PROP. GROUND AT CLEANOUT #2 = 442.90  
INV. INTO CLEANOUT #2 = 435.15  
INV. OUT OF CLEANOUT #2 = 435.05  
EX. GROUND AT SEPTIC TANK = 438.00  
PROP. GRADE ABOVE SEPTIC TANK = 438.00  
TOP OF SEPTIC TANK = 435.00  
INV. INTO SEPTIC TANK = 434.00  
INV. OUT OF SEPTIC TANK = 433.75  
PROP. GROUND AT CLEANOUT #3 = 435.8  
INV. INTO CLEANOUT #3 = 433.44  
INV. OUT OF CLEANOUT #3 TO EXISTING PIPE = 430.25  
CLEANOUT #3 TOP = EXISTING GROUND ELEV.

Approved Septic System Plan  
Howard County Health Department  
Install 2000-gal Septic Tank  
Connect back line to  
existing back line.  
Signature: *[Signature]* Date: 9/12/19  
B1900 2540

**INITIAL SYSTEM INSTALLED**  
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR  
5 BEDROOMS  
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD  
APPLICATION RATE = 0.7  
EFFECTIVE SIDEWALL BEGINS AT 5.5 FEET  
TRENCH DEPTH = 10.5 FEET  
TRENCH WIDTH (W) = 2 FEET  
EFFECTIVE DEPTH (D) = 5 FEET  
SF OF DRAINFIELD = 750 GPD / 0.7 = 1071.42 SF  
COEFFICIENT OF REDUCTION OF TRENCH LENGTH =  
(W+2)/(W+1+2D)=(2+2)/(2+1+(2x5))=0.31  
TRENCH LENGTH = 535.71 SF x 0.31 = 166.07 FEET  
(USE 3 TRENCHES AT 55.36 L.F.)  
TRENCH SPACING = 2D+W = ((2x3) + 2) = 12' USE 12'

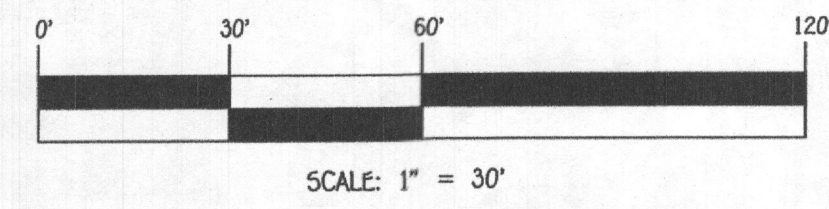
**2ND REPLACEMENT SYSTEM**  
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR  
5 BEDROOMS (PERMIT FOR 4 BEDROOMS)  
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD  
APPLICATION RATE = 0.8  
EFFECTIVE SIDEWALL BEGINS AT 4 FEET  
TRENCH DEPTH = 8 FEET  
TRENCH WIDTH (W) = 2 FEET  
EFFECTIVE DEPTH (D) = 4 FEET  
SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF  
COEFFICIENT OF REDUCTION OF TRENCH LENGTH =  
(W+2)/(W+1+2D)=(2+2)/(2+1+(2x4))=0.36  
TRENCH LENGTH = 468.75 SF x 0.36 = 168.75 FEET  
(USE 3 TRENCHES AT 56.25 L.F.)  
TRENCH SPACING = 2D+W = ((4x2) + 2) = 10' USE 10'

**1ST REPLACEMENT SYSTEM**  
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR  
5 BEDROOMS (PERMIT FOR 4 BEDROOMS)  
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD  
APPLICATION RATE = 0.8  
EFFECTIVE SIDEWALL BEGINS AT 3 FEET  
TRENCH DEPTH = 8 FEET  
TRENCH WIDTH (W) = 2 FEET  
EFFECTIVE DEPTH (D) = 5 FEET  
SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF  
COEFFICIENT OF REDUCTION OF TRENCH LENGTH =  
(W+2)/(W+1+2D)=(2+2)/(2+1+(5x2))=0.31  
TRENCH LENGTH = 468.75 SF x 0.31 = 145.31 FEET  
(USE 3 TRENCHES AT 48.44 L.F.)  
TRENCH SPACING = 2D+W = ((2x5) + 2) = 12' USE 12'

**SEPTIC SYSTEM  
INSTALLATION SITE PLAN  
5000 WILD OLIVE COURT**  
ZONED: RC-DEO  
TAX MAP NO.: 28 GRID NO.: 11 PARCEL NO.: 50 & 49  
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: 1"=30' DATE: SEPTEMBER 10, 2019  
SHEET 2 OF 2



**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME  
AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 02/22/2021.  
Signature of Professional Engineer: *[Signature]* DATE: 9/12/19



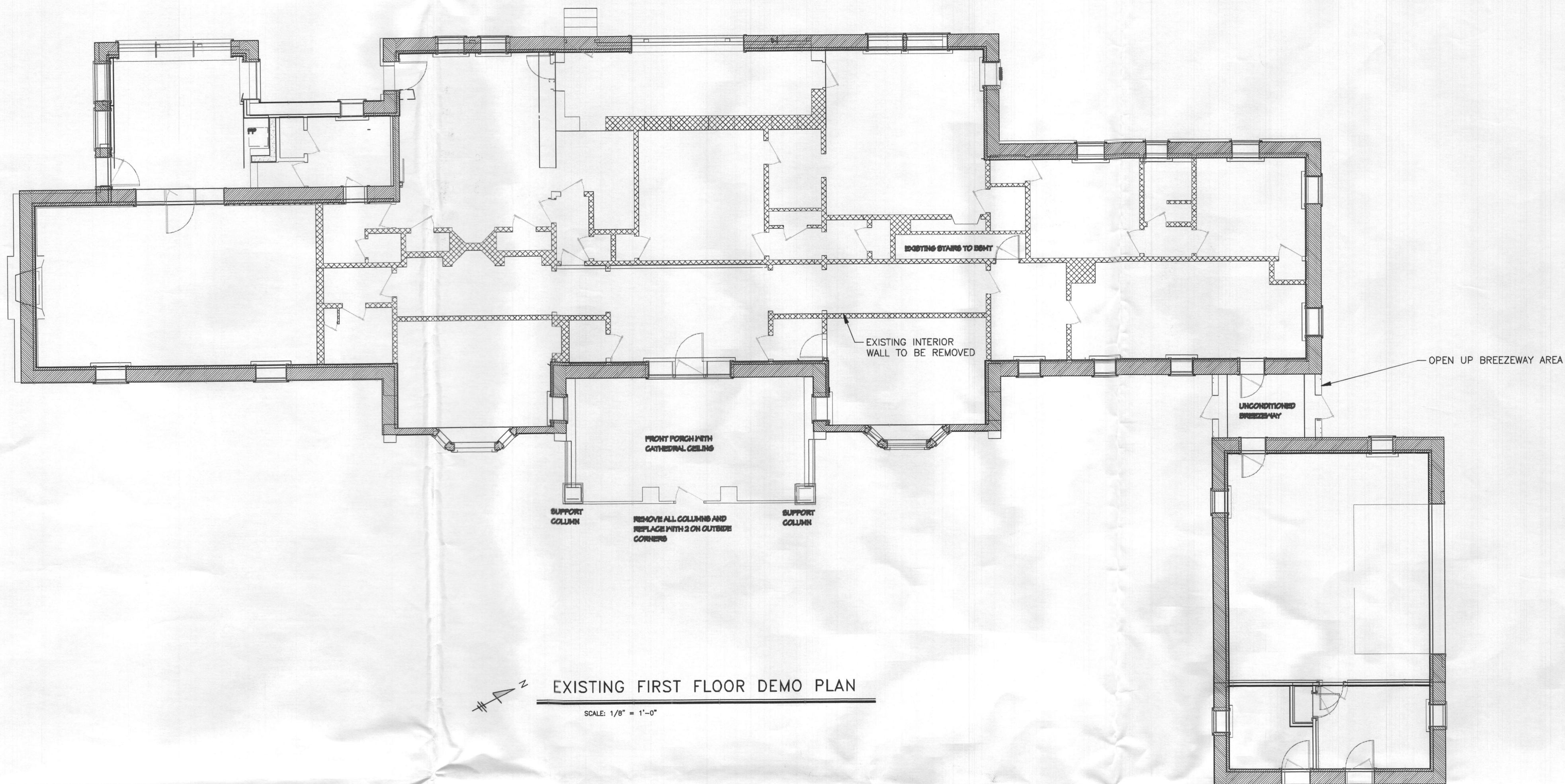
**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10222 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MARYLAND 21042  
(410) 461-2895

**OWNER**  
NABENDRA P. CHADHA  
& KIRTI KHANNA  
5000 WILD OLIVE COURT  
ELLICOTT CITY, MARYLAND 21042  
PHONE: C/O CHRISTOPHER BARTH: 703-488-8423

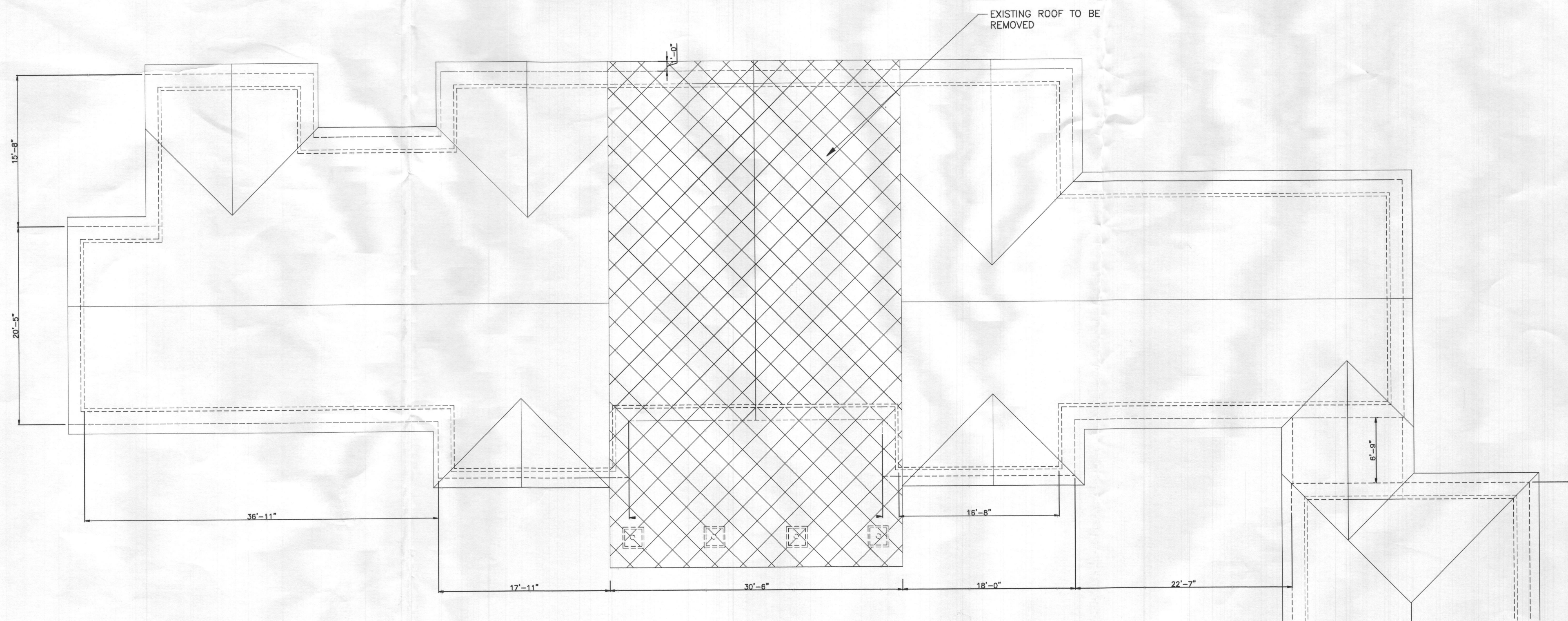
**BUILDER/DEVELOPER**  
ZIBERTY INC.  
1766 PROFFIT ROAD  
VIENNA, VIRGINIA 22182  
PHONE: 703-488-8423

I:\2004\04001\04001\PHASE THREE\FINALS\04001-3007 Mobey Septic Install Plan.dwg, Sheet 1 of 1





EXISTING FIRST FLOOR DEMO PLAN  
SCALE: 1/8" = 1'-0"



FIRST FLOOR DEMO PLAN  
SCALE: 1/8" = 1'-0"

#### NOTES

1. FOR GENERAL NOTES SEE DRAWING A-1.
2. ALL EXISTING NON STRUCTURAL WALLS SHALL BE REMOVED.
3. ALL EXISTING EXTERIOR STONE WALL SHALL REMASIN AS IT IS.
4. ALL EXISTING DOORS AND WINDOWS SHALL BE REMOVED AND REPLACED WITH NEW ONE AS SHOWN ON PROPOSED PLAN.
5. ALL EXISTING BATHROOMS AND KITCHEN SHALL BE REMOVED AND REPLACE WITH NEW KITCHEN AND BATHROOMS.
6. EXISTING ROOF IN MIDDLE AREA SHALL BE REMOVED AND REPLACED WITH NEW PRE ENGINEERED ROOF TRUSS AS SHOWN ON PROPOSED ROOF PLAN. SEE STRUCTURAL DRAWINGS FOR FRAMING PLANS AND DETAILS.

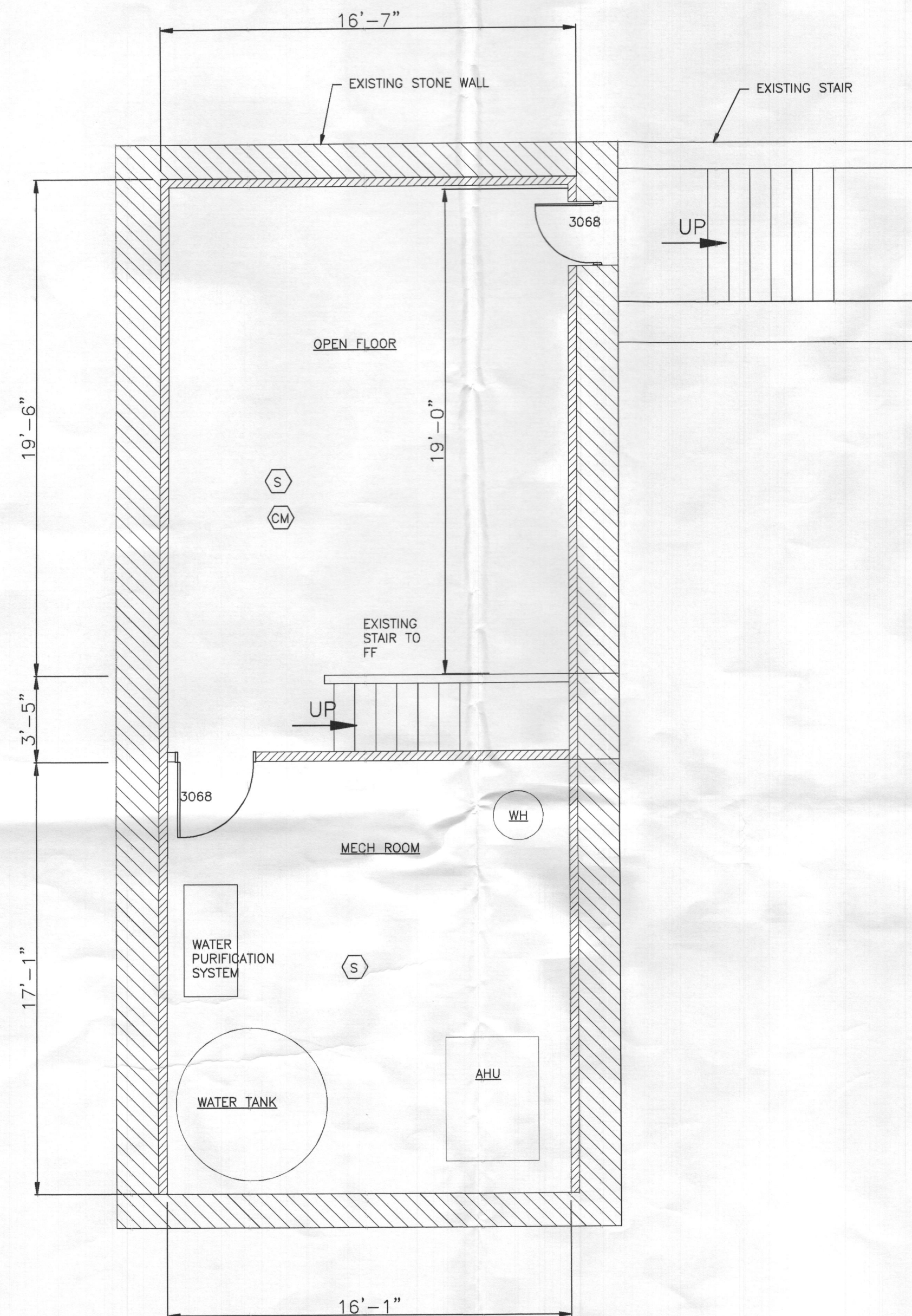
#### WALL SYMBOLS

TYPE	DESCRIPTION
	EXISTING STONE WALL
	EXISTING WALLS
	PROPOSED STUD WALL
	NEW CONCRETE WALL
	DEMOLITION WALLS



<b>PROJECT</b> <b>SINGH RESIDENCE</b> <b>5000 WILD OLIVE CT</b> <b>ELICOTT CITY, MD 21042</b>	
<b>ARENCO LLC</b> 12430 HILL CREST PULMON, MD 20799 TEL. (301) 418-1390 • FAX (800) 274-0418 ARCHITECTS ENGINEERS CONSTRUCTION MANAGERS	
<b>PROJECT TITLE</b> <b>RENOVATION</b> <b>PROJECT ADDRESS</b> <b>5000 WILD OLIVE CT</b> <b>ELICOTT CITY, MD 21042</b>	<b>SHEET TITLE</b> <b>DEMOLITION PLANS</b>
<b>DISCLAIMER</b> PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23081 EXPIRATION DATE: 04/29/2021	
<b>PROJECT NUMBER</b> <b>2020-233</b>	
<b>DRAWN BY</b> <b>RP</b>	
<b>APPROVED BY</b> <b>PP</b>	
<b>DATE</b> <b>07-12-20</b>	
<b>ORIGINAL SHEET SIZE</b> <b>36"X48"</b> <b>SHOULD MEASURE 1"</b>	
<b>SCALE</b> <b>AS SHOWN</b>	
<b>DRAWING</b> <b>D1</b>	





PROPOSED BASEMENT PLAN  
SCALE: 1/4" = 1'-0"

- NOTES
- FOR GENERAL NOTES SEE DRAWING A-1.
  - FINISH EXISTING BASEMENT WITH NEW 2X4 STUD WALLS AND DRY WALLS AND CEILINGS.

### WALL SYMBOLS

TYPE	DESCRIPTION
[Symbol]	EXISTING STONE WALL
[Symbol]	EXISTING WALLS
[Symbol]	PROPOSED STUD WALL
[Symbol]	NEW CONCRETE WALL
[Symbol]	DEMOLITION WALLS

- [Symbol] HARDWIRED AND INTERCONNECTED SMOKE ALARM
- [Symbol] HARDWIRED AND INTERCONNECTED CARBON MONOXIDE ALARM -UL 2034

### WINDOWS SCHEDULE:

MARK	WIDTH	HEIGHT	HEADER	NOTES
CXW165	3'-0"	5'-5"	2-2X10	-
CX135	2'-8"	3'-5"	2-2X10	-
CXW15	3'-0"	3'-5"	2-2X10	-
P4060	4'-0"	6'-0"	2-2X10	FIXED

### NEW DOORS SCHEDULE:

MARK	WIDTH	HEIGHT	HEADER	NOTES
3068	3'-0"	6'-8"	2-2X10	FRONT ENTRANCE DOUBLE DOORS
2668	2'-6"	6'-8"	2-2X10	-
2668P	2'-6"	6'-8"	2-2X10	POCKET DOOR
6068	6'-0"	6'-8"	2-2X10	DOUBLE DOOR



PROJECT

SINGH RESIDENCE

5000 WILD OLIVE CT

ELLCOTT CITY, MD 21042

ARENCO LLC

12480 HILL CREST

FULTON, MD 20759

ARCHITECTS

ENGINEERS

CONSTRUCTION MANAGERS

TEL (301) 418 1389 . FAX (800) 374 5418

PROJECT TITLE

RENOVATION

PROJECT ADDRESS

5000 WILD OLIVE CT

ELLCOTT CITY, MD 21042

SHEET TITLE

PROPOSED BASEMENT PLAN

DISCLAIMER

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23081 EXPIRATION DATE: 04/24/2021

PROJECT NUMBER

2020-233

DRAWN BY

RP

APPROVED BY

PP

DATE

07-12-20

ORIGINAL SHEET SIZE

36X24

SHOULD MEASURE 1":

[Scale Bar]

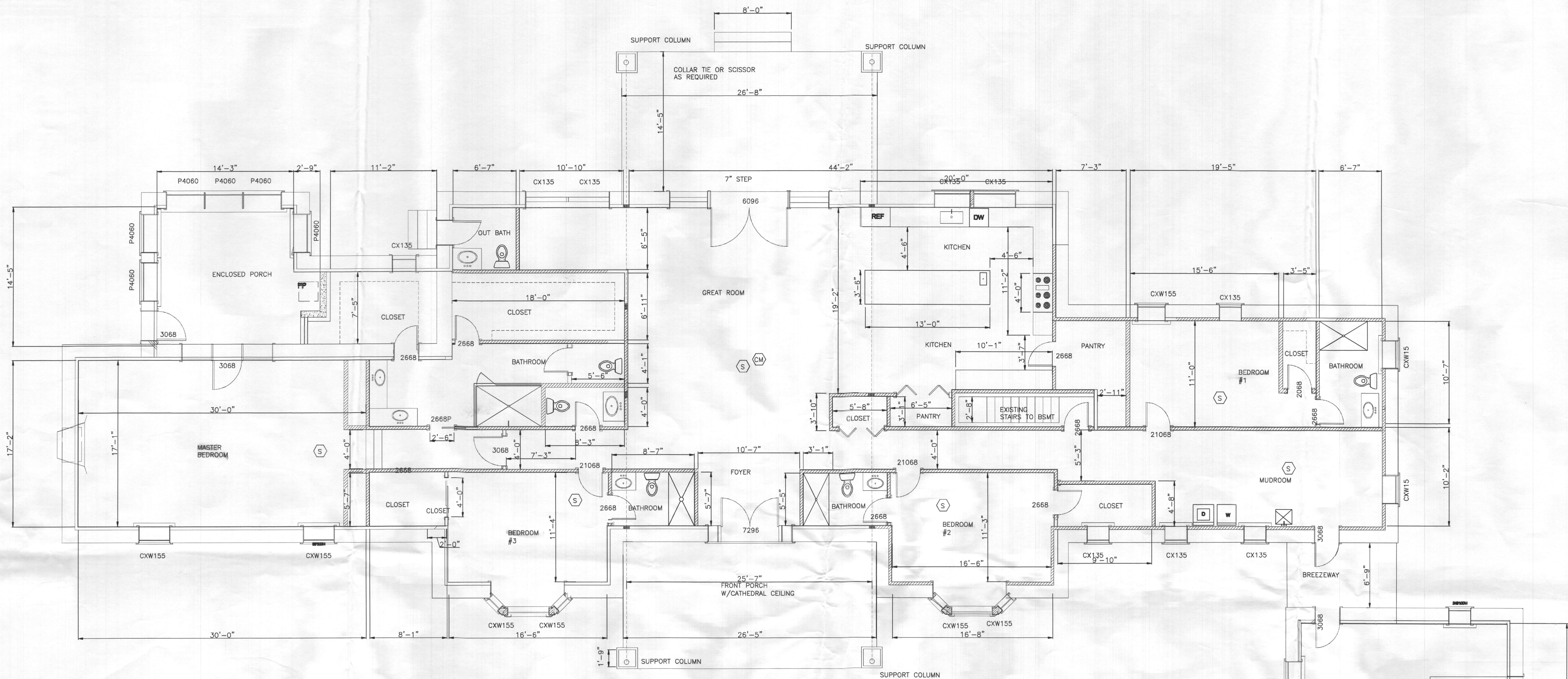
SCALE

AS SHOWN

DRAWING

A2





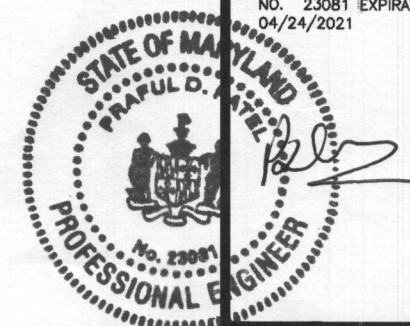
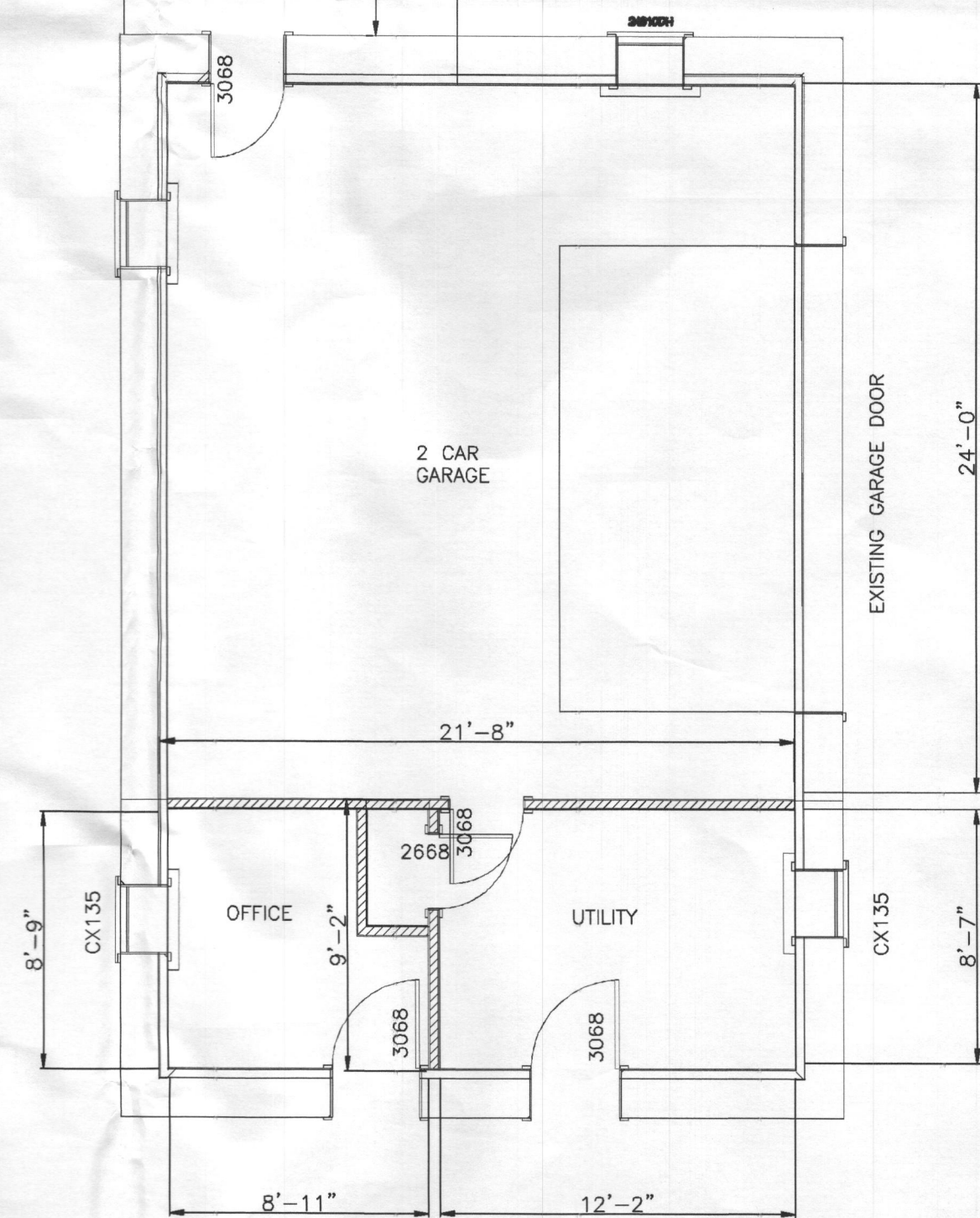
# WALL SYMBOLS

TYPE	DESCRIPTION
[Symbol]	EXISTING STONE WALL
[Symbol]	EXISTING WALLS
[Symbol]	PROPOSED STUD WALL
[Symbol]	NEW CONCRETE WALL
[Symbol]	DEMOLITION WALLS

- [S] HARDWIRED AND INTERCONNECTED SMOKE ALARM
- [CM] HARDWIRED AND INTERCONNECTED CARBON MONOXIDE ALARM - UL 2034

**PROPOSED FIRST FLOOR PLAN**  
SCALE: 3/16" = 1'-0"

- NOTES**
1. FOR GENERAL NOTES SEE DRAWING A-1.
  2. ALL NEW INTERIOR NON LOAD BEARING WALLS SHALL BE 2X4 STUDS WITH 1/2" GB ON EACH FACE.
  3. SEE STRUCTURAL DRAWINGS FOR PARTIAL NEW ROOF FRAMING.



**DISCLAIMER**  
PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 22061 EXPIRATION DATE 04/24/2021

<b>PROJECT NUMBER</b> 2020-233
<b>DRAWN BY</b> RP
<b>APPROVED BY</b> PP
<b>DATE</b> 07-12-20
<b>ORIGINAL SHEET SIZE</b> 36X24 SHOULD MEASURE 1":
<b>SCALE</b> AS SHOWN
<b>DRAWING</b> A3

**PROJECT TITLE**  
RENOVATION  
PROJECT ADDRESS  
5000 WILD OLIVE CT  
ELLCOTT CITY, MD 21042  
**SHEET TITLE**  
PROPOSED FIRST FLOOR PLAN

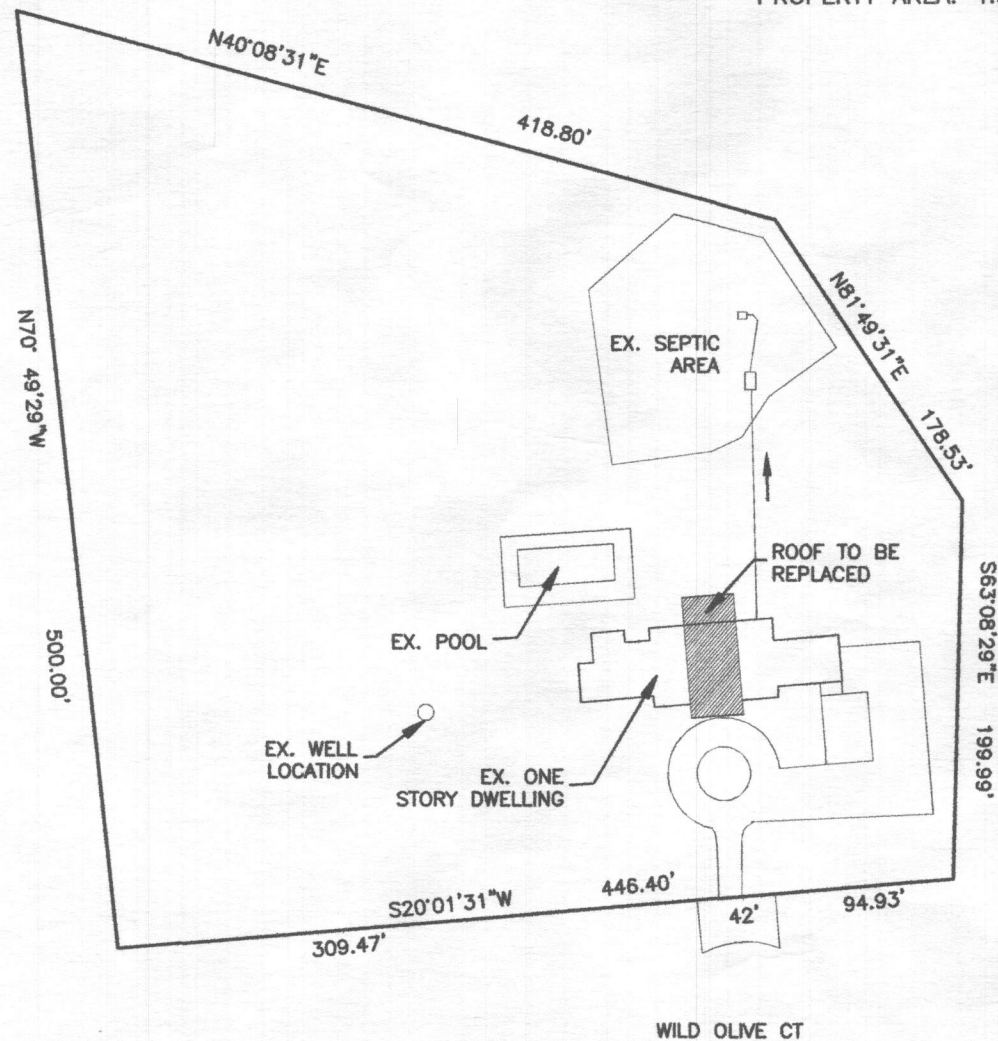
**ARENCO LLC**  
ARCHITECTS  
CONSTRUCTION MANAGERS

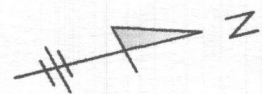
12430 HILL CREST  
FULTON, MD 20759  
TEL (301) 415-1339 FAX (301) 374-5410

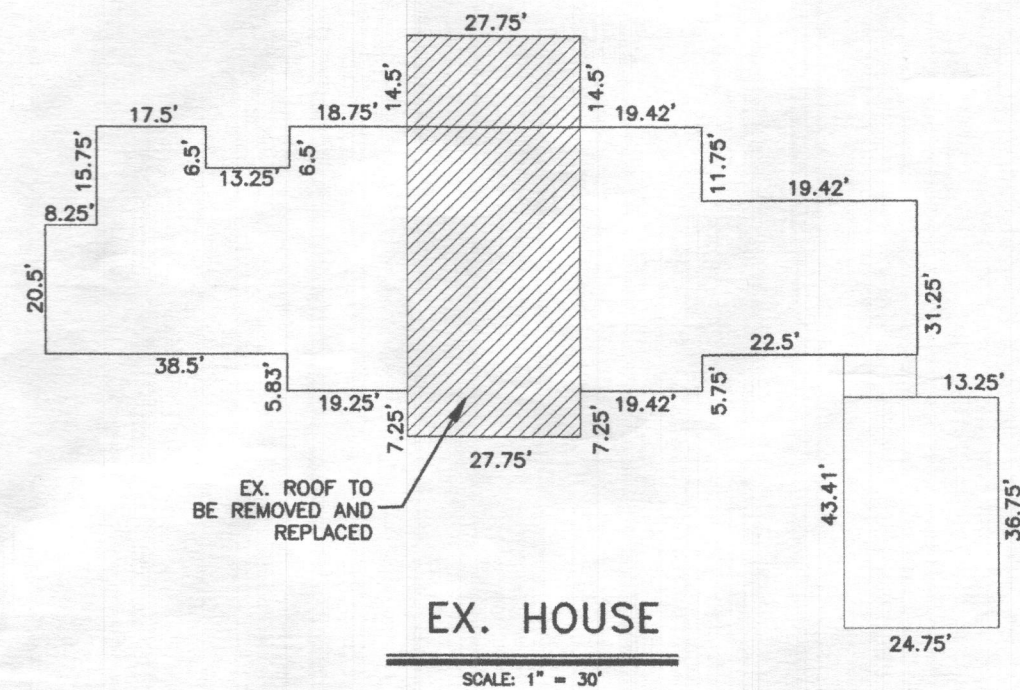
**PROJECT**  
SINGH RESIDENCE  
5000 WILD OLIVE CT  
ELLCOTT CITY, MD 21042



ADDRESS: 5000 WILD OLIVE CT  
ELLICOTT CITY, MD 20759  
MAP: 0028  
DEED REFERENCE: /18342/00474  
PROPERTY AREA: 4.303 AC



 **SITE PLAN**  
SCALE: 1" = 100'



**EX. HOUSE**

SCALE: 1" = 30'

THIS PERMIT APPLICATION IS FOR INTERIOR RENOVATION EXISTING HOUSE.  
EXISTING SEPTIC SYSTEM IS DESIGNED FOR 5 BEDROOM HOUSE AND NEW REVISED RENOVATION FLOOR PLAN FOR EXISTING HOUSE WILL BE 4 BEDROOM HOUSE.  
THERE IS NO CHANGE IN EXISTING CONDITION OUTSIDE OF THE HOUSE AND ALL EXISTING SEPTIC SYSTEM AND TANK REMAIN UNTOUCHED IN THE GROUND.



5000 WILD OLIVE DT  
ELLICOTT CITY, MD 21042  
RENOVATION

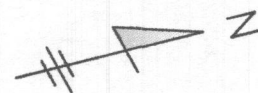
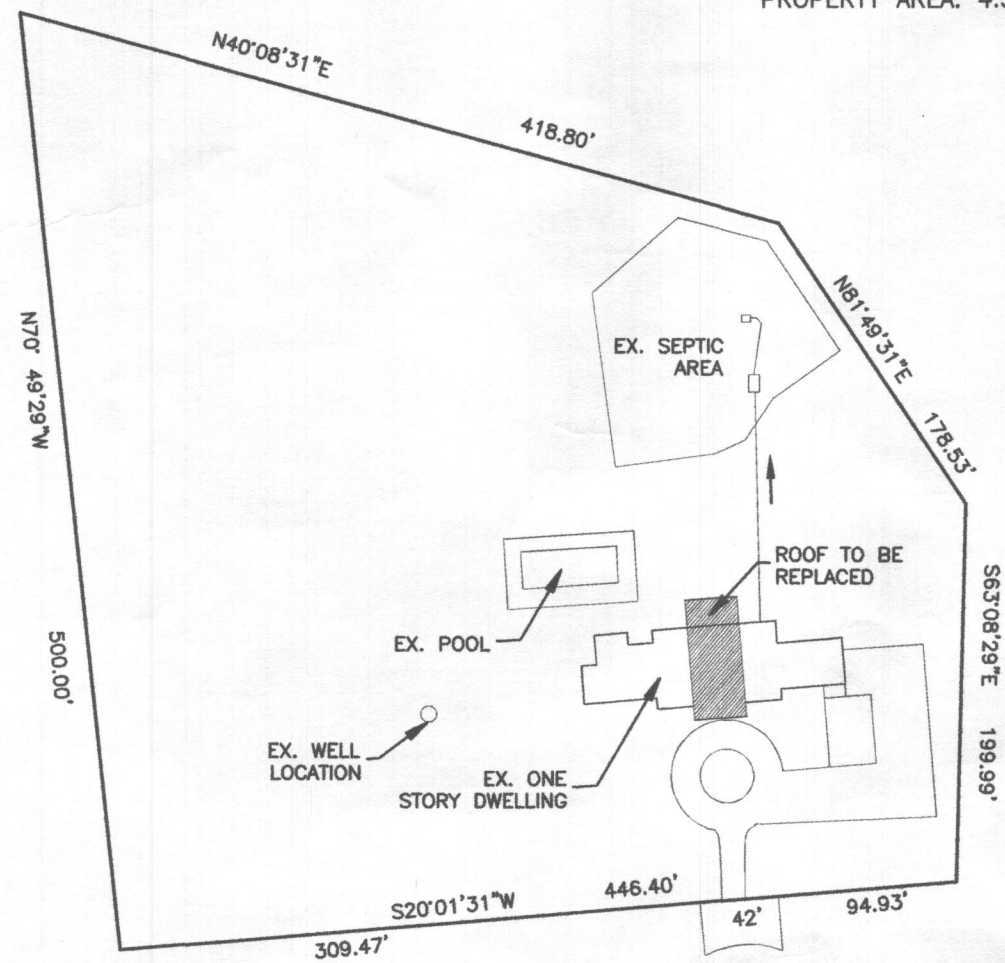
C1

**SITE PLAN**  
**ARENCO, LLC**  
ARCHITECTURAL ENGINEERING CONSULTANTS  
12430 HILL CREST  
FULTON, MD 20759

SCALE 1" = 100'	WORK REQUEST # 20-233	SHEET 1 OF 1	DRAWING NO. 20-233-01
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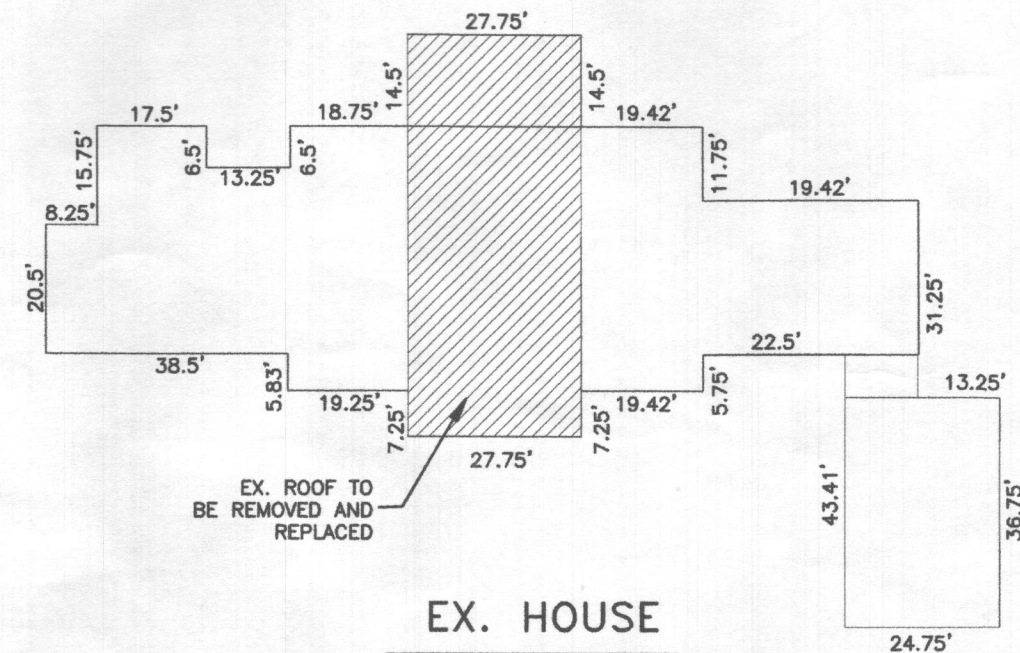


ADDRESS: 5000 WILD OLIVE CT  
ELLICOTT CITY, MD 20759  
MAP: 0028  
DEED REFERENCE: /18342/00474  
PROPERTY AREA: 4.303 AC



SITE PLAN

SCALE: 1" = 100'



EX. HOUSE

SCALE: 1" = 30'

THIS PERMIT APPLICATION IS FOR INTERIOR RENOVATION EXISTING HOUSE.  
EXISTING SEPTIC SYSTEM IS DESIGNED FOR 5 BEDROOM HOUSE AND NEW REVISED RENOVATION FLOOR PLAN FOR EXISTING HOUSE WILL BE 4 BEDROOM HOUSE.  
THERE IS NO CHANGE IN EXISTING CONDITION OUTSIDE OF THE HOUSE AND ALL EXISTING SEPTIC SYSTEM AND TANK REMAIN UNTOUCHED IN THE GROUND.



5000 WILD OLIVE DT  
ELLICOTT CITY, MD 21042  
RENOVATION

C1

SITE PLAN  
ARENCO, LLC  
ARCHITECTURAL ENGINEERING CONSULTANTS  
12430 HILL CREST  
FULTON, MD 20759

SCALE 1" = 100'	WORK REQUEST # 20-233	SHEET 1 OF 1	DRAWING NO. 20-233-01
--------------------	--------------------------	-----------------	--------------------------



SINGH RESIDENCE  
5000 WILD OLIVE CT  
ELLICOTT CITY, MD 21042  
RENOVATION



5000 WILD OLIVE CT  
ELLICOTT CITY, MD 21042

5000 Wild Olive Court  
16 min drive - home

MAP  
NOT TO SCALE

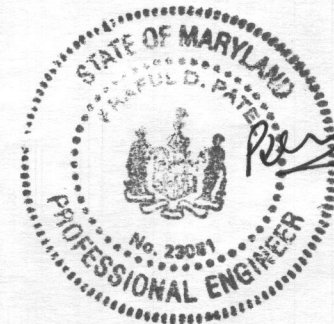


TABLE OF CONTENTS

- G1 COVER SHEET
- D1 DEMOLITION PLANS
- A1 GENERAL NOTES
- A2 PROPOSED BASEMENT FLOOR PLAN
- A3 PROPOSED FIRST FLOOR PLAN
- A4 ELEVATIONS
- A5 SECTIONS AND DETAILS
- S1 STRUCTURAL NOTES
- S2 FOUNDATION PLAN
- S3 ROOF FRAMING PLAN

BUILDING SUMMARY::

- EXISTING BASEMENT FLOOR AREA = 650 SF
- EXISTING FIRST FLOOR AREA = 4344 SF

SCOPE OF WORK:

- INTERIOR RENOVATION OF EXISTING BASEMENT AND FIRST FLOOR WITH PARTIAL ROOF REPLACEMENT IN MIDDLE OF THE HOUSE WITH PRE-ENGINEERED ROOF TRUSSES AND LVL SUPPORT BEAMS
- ALL NEW INTERIOR ELECTRICAL, PLUMBING AND HVAC AND KITCHEN
- ALL WORK SHALL BE IN ACCORDANCE WITH IRC 2018 AND HOWARD COUNTY CODE REQUIREMENTS.

PROJECT  
SINGH RESIDENCE  
5000 WILD OLIVE CT  
ELLICOTT CITY, MD 21042

ARENCO LLC  
ARCHITECTS  
CONSTRUCTION MANAGERS

28400 DELL CREST  
FARM  
ELLICOTT CITY, MD 21042  
TEL (840) 418 1308 • FAX (840) 274 5418

PROJECT TITLE  
RENOVATION  
5000 WILD OLIVE CT  
ELLICOTT CITY, MD 21042

SHEET TITLE  
COVER SHEET

DISCLAIMER

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE  
DOCUMENTS WERE PREPARED OR  
APPROVED BY ME AND THAT I AM  
A FULLY LICENSED PROFESSIONAL  
ENGINEER IN THE STATE OF MARYLAND, LICENSE  
NO. 23081, EXPIRATION DATE:  
04/24/2021

PROJECT NUMBER  
2020-233

DRAWN BY  
RP

APPROVED BY  
PP

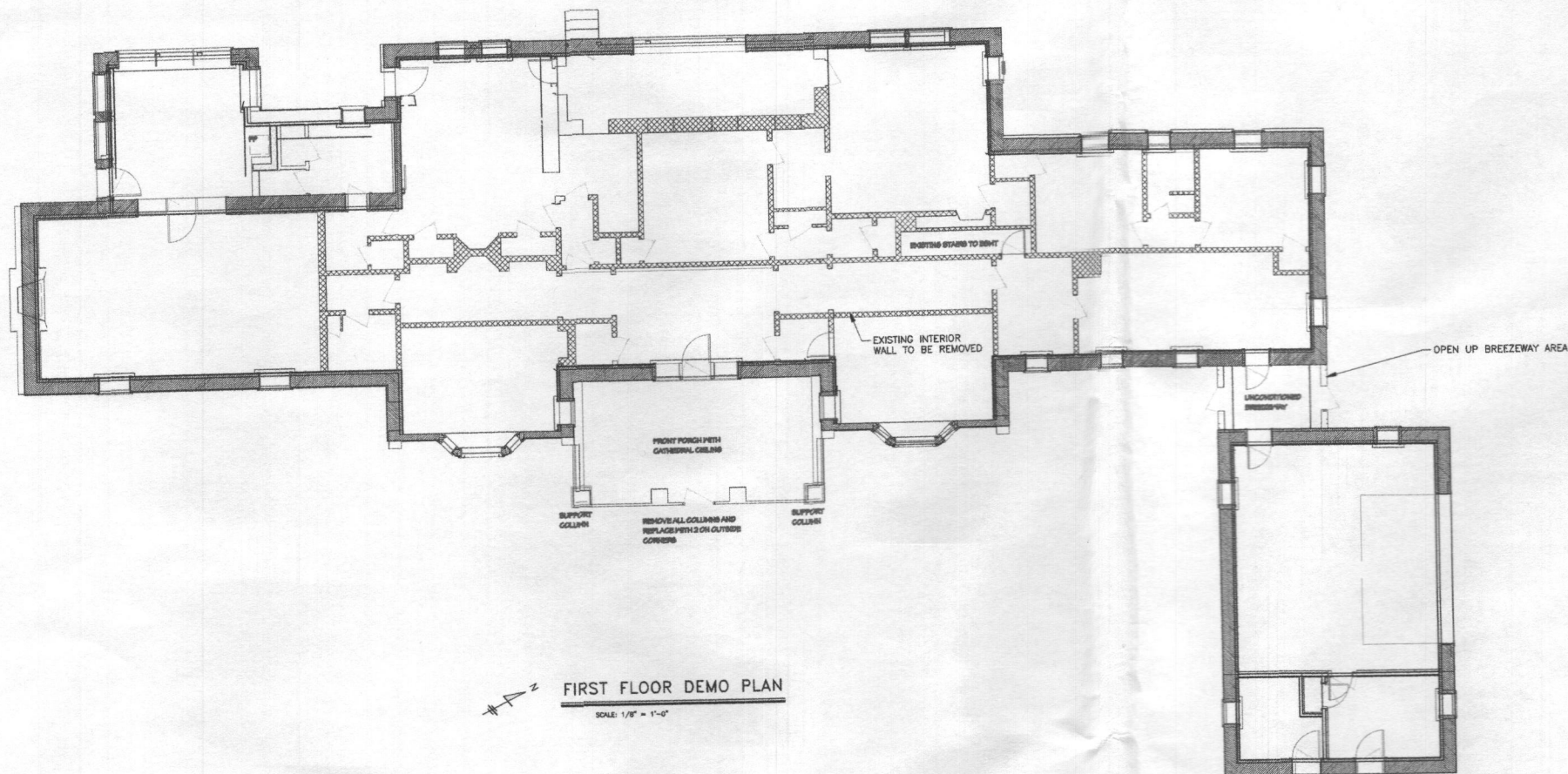
DATE  
07-12-20

ORIGINAL SHEET SIZE  
36"X48"  
SHOULD MEASURE 1"

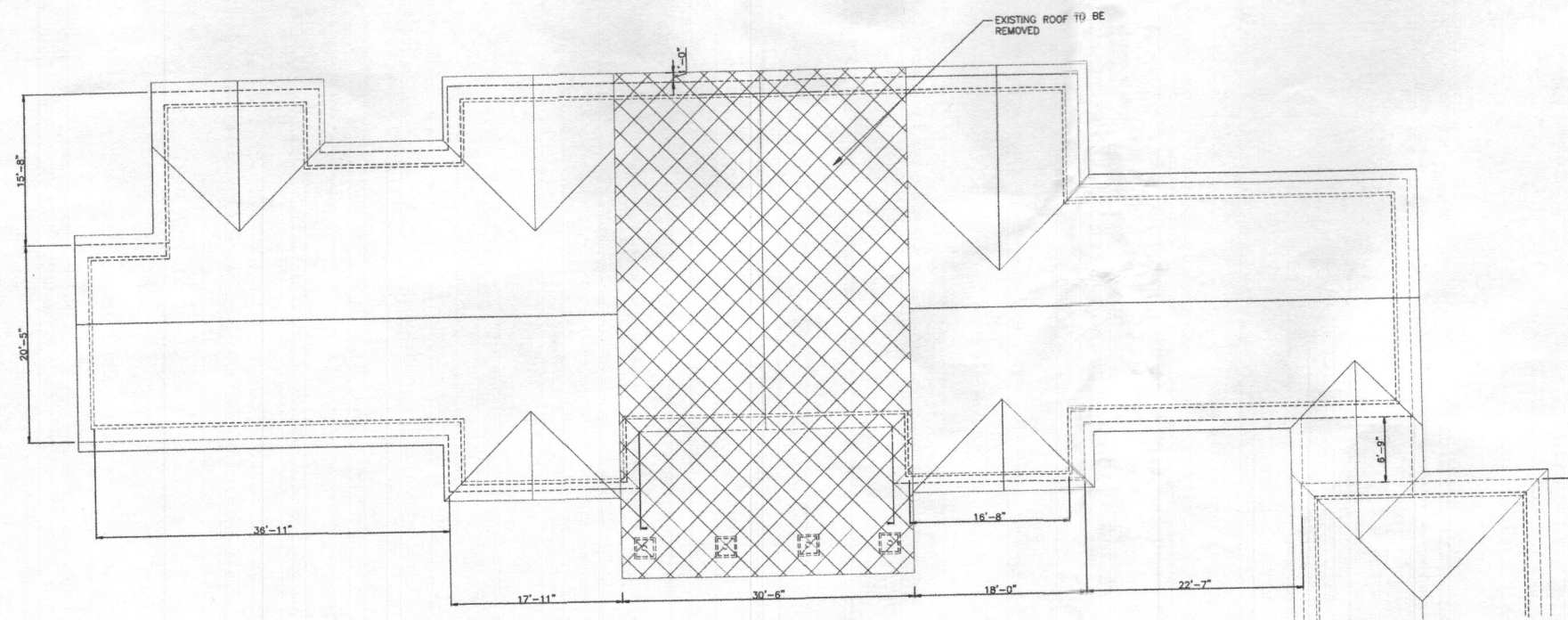
SCALE  
AS SHOWN

DRAWING  
G1





**FIRST FLOOR DEMO PLAN**  
SCALE: 1/8" = 1'-0"



**FIRST FLOOR DEMO PLAN**  
SCALE: 1/8" = 1'-0"

**NOTES**

1. FOR GENERAL NOTES SEE DRAWING A-1.
2. ALL EXISTING NON STRUCTURAL WALLS SHALL BE REMOVED.
3. ALL EXISTING EXTERIOR STONE WALL SHALL REMAIN AS IT IS.
4. ALL EXISTING DOORS AND WINDOWS SHALL BE REMOVED AND REPLACED WITH NEW ONE AS SHOWN ON PROPOSED PLAN.
5. ALL EXISTING BATHROOMS AND KITCHEN SHALL BE REMOVED AND REPLACE WITH NEW KITCHEN AND BATHROOMS.
6. EXISTING ROOF IN MIDDLE AREA SHALL BE REMOVED AND REPLACED WITH NEW PRE ENGINEERED ROOF TRUSS AS SHOWN ON PROPOSED ROOF PLAN. SEE STRUCTURAL DRAWINGS FOR FRAMING PLANS AND DETAILS.

**WALL SYMBOLS**

TYPE	DESCRIPTION
[Symbol]	EXISTING STONE WALL
[Symbol]	EXISTING WALLS
[Symbol]	PROPOSED STUD WALL
[Symbol]	NEW CONCRETE WALL
[Symbol]	DEMOLITION WALLS



**PROJECT**  
SINGH RESIDENCE  
5000 WILD OLIVE CT  
ELLICOTT CITY, MD 21042

**ARENCO LLC**  
16480 HILL CREST  
FARMERS, MD 21048  
ARCHITECTS  
CONSTRUCTION MANAGERS  
TEL: (301) 417-1388 • FAX: (301) 374-6418

**PROJECT TITLE**  
RENOVATION  
PROJECT ADDRESS  
5000 WILD OLIVE CT  
ELLICOTT CITY, MD 21042  
**SHEET TITLE**  
DEMOLITION PLANS

**DISCLAIMER**  
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**PROJECT NUMBER**  
2020-233

**DRAWN BY**  
RP

**APPROVED BY**  
PP

**DATE**  
07-12-20

**ORIGINAL SHEET SIZE**  
30X24  
SHOULD MEASURE 1":

**SCALE**  
AS SHOWN

**DRAWING**  
D1



CODE:  
1. INTERNATIONAL RESIDENTIAL BUILDING CODE-- 2015 EDITION

GENERAL NOTES:

1. WINDOWS IN ALL BEDROOMS ARE DOUBLE HUNG. WHEN THE LOWER SASH IS RAISED FROM INSIDE THESE WINDOWS THEY PROVIDE EMERGENCY AND RESCUE OPENINGS THAT ARE AT LEAST 24 INCHES IN HEIGHT AND 20 INCHES WIDE.
2. SMOKE DETECTOR AND CARBON MONOXIDE DETECTOR LOCATIONS ARE AS SHOWN ON PLANS.
3. ALL NEW EXTERIOR LOAD BEARING WALLS ARE 2X6" STUDS @ 16" O/C WITH 5/8" SHEATHING BOARDS ON EXTERIOR AND 1/2" GB ON INSIDE FACE.
4. ALL INTERIOR NON LOAD BEARING WALLS ARE 2"x4" STUDS @ 16" O/C WALLS WITH 1/2" GB ON EACH FACE EXCEPT NOTED OTHERWISE.
5. NEW SECOND FLOOR AND ROOF AS SHOWN ON STRUCTURAL PLAN.
6. SEE STRUCTURAL DRAWINGS FOR FLOOR FARMING INCLUDING LOAD BEARING WALLS LOCATIONS.
7. ALL NEW DOORS AND WINDOWS ARE AS SHOWN ON PLANS AND FRAMING CONTRACTOR SHALL PROVIDE OPENING INTO WALLS WITH HEADERS AND JAMS PER CODE AND DETAILS.
8. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS PRIOR TO CONSTRUCTION.
5. ALL DIMENSIONS, LOCATIONS AND ELEVATIONS OF STRUCTURES SHOWN ON THE CONTRACT DRAWINGS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
10. ALL WORK SHALL BE DONE ACCORDANCE WITH HOWARD COUNTY BUILDING CODE.
11. THE CONTRACTOR SHALL HOLD HARMLESS THE ARCHITECT/ENGINEER FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES INCLUDING ATTORNEY'S FEE ARISING FROM THE PERFORMANCE OF THE WORK DONE BY THE CONTRACTOR.
12. ALL WORK AND MATERIALS SHALL MEET THE REQUIREMENTS OF THE LOCAL AND STATE BUILDING CODES AND THE SPECIFICATIONS OF THE NATIONAL BOARD OF UNDERWRITERS. THE DRAWINGS SHOWING THE GENERAL AGREEMENTS AND EXTENT OF WORK. AS THE WORK PROGRESSES THE CONTRACTOR AT NO EXTRA COST SHALL MAKE MODIFICATIONS TO MAKE PART ALIGN.
13. CHANGES TO THE PLAN BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE PERSONS MAKING SUCH CHANGES. CONTRACTOR SHALL CHECK AND VERIFY ALL PLAN DIMENSIONS AND CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.
14. DO NOT SCALE DRAWINGS. ALL WRITTEN DIMENSIONS SHALL GOVERN.
15. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE PROPER INSTALLATION OF ALL METAL FASTENERS PER MANUFACTURER'S SPECIFICATIONS.
16. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT ON ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
17. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION AND NOTIFY ARCHITECT OF DISCREPANCIES AND CONFLICTS.
18. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETE IN ACCORDANCE WITH THE PLANS.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISIONS/AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

2018 IECC CODE COMPLIANCE

- R301.1 CLIMATE ZONE 4A
- R401.2 COMPLIANCE METHOD:  
MANDATORY AND PRESCRIPTIVE PROVISIONS
- R402.1.1 VAPOR RETARDER:  
WALL ASSEMBLIES IN THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH VAPOR RETARDER REQUIREMENTS OF SECTION R702.7 OF THE INTERNATIONAL RESIDENTIAL CODE, 2015 EDITION.
- R402.1.2 ATTIC INSULATION: RAISED HEEL TRUSSES  
R-49 R-38
- R402.1.2 WOOD FRAME WALL:  
R-20 OR R13 + R5 CONTINUOUS INSULATION.
- R402.1.2 BASEMENT WALL INSULATION:  
R-13/R-10 FOIL FACED CONTINUOUS, U  
NINTERRUPTED BATTS FULL HEIGHT
- R402.1.2 CRAWL SPACE WALL INSULATION:  
R-13/R-10 FOIL FACED CONTINUOUS BATTS  
FULL HEIGHT EXTENDING FROM FLOOR ABOVE TO  
FINISH GRADE LEVEL AND THEN VERTICALLY OR  
HORIZONTALLY AN ADDITIONAL 2' -0".
- R402.1.2 FLOOR INSULATION OVER UNCONDITIONED SPACE:  
R-19 BATT INSULATION.
- R402.1.2 WINDOW U-VALUE/SHGC  
.35 (U-VALUE)  
.40 (SHGC)
- R402.2.10 SLAB ON GRADE FLOORS LESS THAN 12" BELOW  
GRADE:  
R-10 RIGID FOAM BOARD UNDER SLAB EXTENDING  
EITHER 2' -0" HORIZONTALLY OR 2'-0"  
VERTICALLY
- R402.2.4 ATTIC ACCESS:  
ATTIC ACCESS SCUTTLE WILL BE  
WEATHERSTRIPPED AND INSULATED R-49
- R402.4 BUILDING THERMAL ENVELOPE (AIR LEAKAGE):  
EXTERIOR WALLS AND PENETRATIONS WILL BE  
SEALED PER THIS SECTION OF THE 2015 IECC  
WITH CAULK, GASKETS, WEATHERSTRIPPING OR AN  
AIR BARRIER OF SUITABLE MATERIAL. SEALING  
METHODS BETWEEN DISSIMILAR MATERIALS SHALL  
ALLOW SEALING FOR DIFFERENTIAL EXPANSION  
AND CONTRACTION.
- R402.4.1.2 BUILDING THERMAL ENVELOPE TIGHTNESS TEST:  
BUILDING ENVELOPE SHALL BE TESTED AND  
VERIFIED AS HAVING AN AIR LEAKAGE RATE OF  
NOT EXCEEDING 3 AIR CHANGES PER HOUR.  
TESTING SHALL BE CONDUCTED IN ACCORDANCE  
WITH ASTM E 779 OR ASTM E 1827 WITH  
(BLOWER DOOR) AT A PRESSURE OF 0.2 INCHES  
W.G. (50 PASCALS). TESTING SHALL BE  
CONDUCTED BY AN APPROVED THIRD PARTY. A  
WRITTEN REPORT OF THE RESULTS OF THE TEST  
SHALL BE SIGNED BY THE PARTY CONDUCTING  
THE TEST AND PROVIDED TO THE BUILDING  
INSPECTOR.
- R402.4.2 FIREPLACES: NEW WOOD BURNING FIREPLACES  
WILL HAVE TIGHT-FITTING FLUE DAMPERS OR  
DOORS, AND OUTDOOR COMBUSTION AIR.  
FIREPLACE DOORS SHALL BE LISTED AND LABELED  
IN ACCORDANCE WITH UL 127 (FACTORY BUILT  
FIREPLACE) AND UL 907 (MASONRY FIREPLACE).
- R402.4.4 ROOMS CONTAINING FUEL-BURNING APPLIANCES  
WHERE OPEN COMBUSTION AIR DUCTS PROVIDE  
COMBUSTION AIR TO OPEN COMBUSTION FUEL  
BURNING APPLIANCES, THE APPLIANCES AND  
COMBUSTION AIR SHALL BE LOCATED OUTSIDE  
THE BUILDING THERMAL ENVELOPE OR ENCLOSED  
IN A ROOM ISOLATED FROM INSIDE THE THERMAL  
ENVELOPE.

EXCEPTIONS: 1. DIRECT VENT APPLIANCES WITH BOTH  
INTAKE AND EXHAUST PIPES INSTALLED  
CONTINUOUS TO THE OUTSIDE.  
2. FIREPLACES AND STOVES COMPLYING WITH  
SECTION R402.4.2 AND SECTION R1006 OF THE  
IRC.

R402.4.5 RECESSED LIGHTING  
RECESSED LUMINAIRES INSTALLED IN THE BUILDING THERMAL  
ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE.

R403.1.1 THERMOSTAT  
ALL DWELLING UNITS WILL HAVE AT LEAST (1) PROGRAMMABLE  
THERMOSTAT FOR EACH SEPARATE HEATING AND COOLING  
SYSTEM PER 2015 IECC SECTION 403.1.1.

R403.1.2 WHERE A HEAT PUMP SYSTEM HAVING SUPPLEMENTARY ELECTRIC  
RESISTANCE HEAT IS USED THE THERMOSTAT SHALL PREVENT  
THE SUPPLEMENTARY HEAT FROM COMING ON WHEN HEAT PUMP  
CAN MEET HEATING LOAD.

R403.3.1 MECHANICAL DUCT INSULATION  
SUPPLY AND RETURN DUCTS IN ATTIC R-8 MINIMUM, R-6 WHEN  
LESS THAN 3 INCHES.  
SUPPLY AND RETURN DUCTS OUTSIDE OF CONDITIONED SPACES  
R-8 MINIMUM.  
ALL OTHER DUCTS EXCEPT THOSE LOCATED COMPLETELY INSIDE  
THE BUILDING THERMAL ENVELOPE R-6 MINIMUM. DUCTS  
LOCATED UNDER CONCRETE SLABS MUST BE R-6 MINIMUM.

R403.3.2 DUCT SEALING  
ALL DUCTS, AIR HANDLERS, FILTER BOXES WILL BE SEALED.  
JOINTS AND SEAMS WILL COMPLY WITH SECTION M1601.4.1 OF  
THE IRC.

A DUCT TIGHTNESS TEST ("DUCT BLASTER" DUCT TOTAL LEAKAGE  
TEST) WILL BE PERFORMED ON ALL HOMES AND SHALL BE  
VERIFIED BY EITHER A POST CONSTRUCTION TEST OR A  
ROUGH-IN TEST. DUCT TIGHTNESS TEST IS NOT REQUIRED  
IF THE AIR HANDLER AND ALL DUCTS ARE LOCATED  
WITHIN THE CONDITIONED SPACE.

R403.6 MECHANICAL VENTILATION  
OUTDOOR (MAKE-UP AND EXHAUSTS) AIR DUCTS TO BE  
PROVIDED WITH AUTOMATIC OR GRAVITY DAMPER THAT CLOSE  
WHEN THE VENTILATION SYSTEM IS NOT OPERATING.

R403.6.1 WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FAN EFFICIENCY  
TO COMPLY WITH TABLE R403.6.1.

R403.7 EQUIPMENT SIZING SHALL COMPLY WITH R403.7.

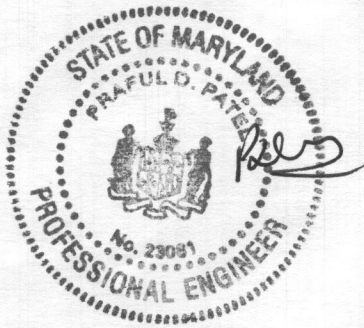
R404.1 LIGHTING EQUIPMENT  
A MINIMUM OF 75% OF ALL LAMPS (LIGHTS) MUST BE  
HIGH-EFFICACY LAMPS.

THIS CONTRACTOR ALSO RESPONSIBLE FOR GENERATING  
CERTIFICATE OF COMPLIANCE AND AFFIXING TO ELECTRICAL  
PANEL OR WITHIN 6 FEET OF THE ELECTRICAL PANEL AND BE  
READILY VISIBLE.

R-VALUE AND U-FACTOR

ELEMENT	MAIN HOUSE	SUNROOM
U-FACTOR		
DOORS/WINDOWS	0.35	0.50
R-VALUE		
CEILINGS	49	30
WALLS (WOOD FRAMED)	19	19
WALLS (CONCRETE)	13	19
FLOORS	19	-
BASEMENT WALLS	13	13
SLAB ON GRADE	10	-

\* INSULATION MUST EXTEND FROM THE SLAB EDGE TO A  
LENGTH OF 24" VERTICALLY AND/OR HORIZONTALLY.



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NO. 23081 EXPIRATION DATE:  
04/04/2021

PROJECT NUMBER  
2020-233

DRAWN BY  
RP

APPROVED BY  
PP

DATE  
07-12-20

ORIGINAL SHEET SIZE  
36X48  
(SHOULD MEASURE 1")

SCALE  
AS SHOWN

DRAWING  
A1

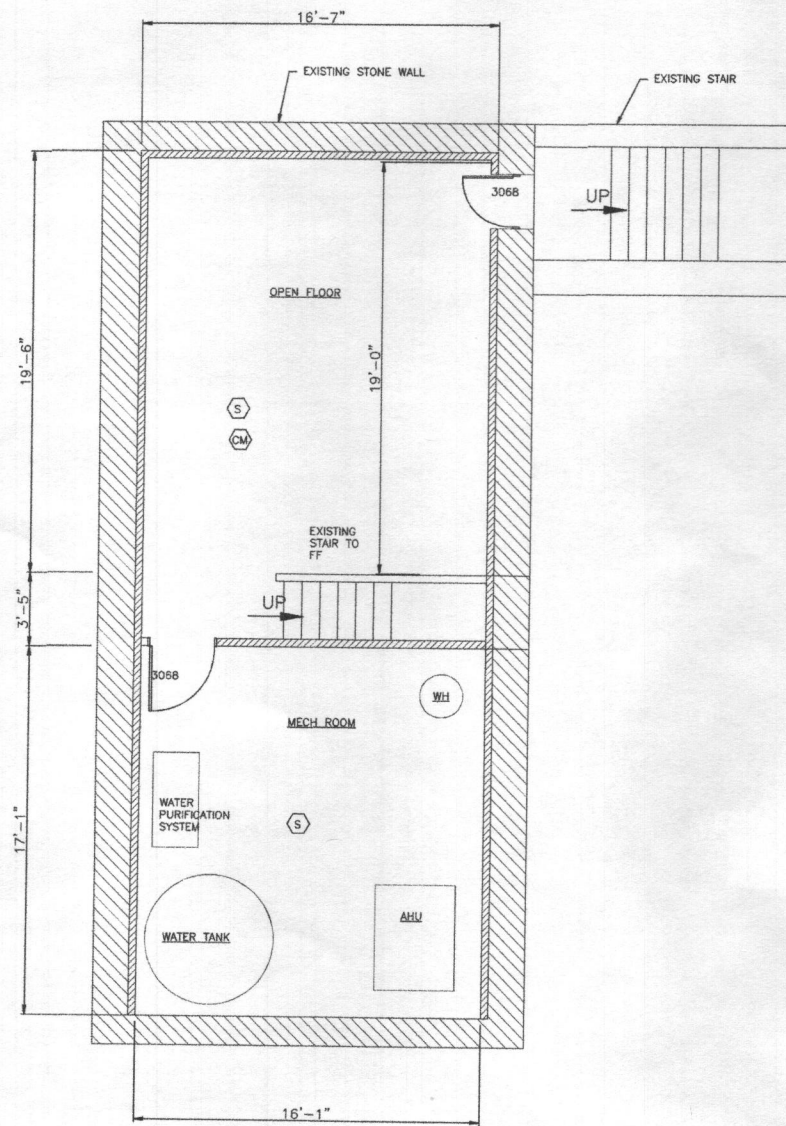
ARENCO LLC

18430 HILL CREST  
FULTON, MD 20760  
TEL: (301) 415-1389 FAX: (800) 374-5410  
ARCHITECTS  
ENGINEERS  
CONSTRUCTION MANAGERS

PROJECT TITLE  
RENOVATION  
PROJECT ADDRESS  
5000 WILD OLIVE CT  
ELLICOTT CITY, MD 21042  
SHEET TITLE  
GENERAL NOTES

PROJECT  
SINGH RESIDENCE  
5000 WILD OLIVE CT  
ELLICOTT CITY, MD 21042





PROPOSED BASEMENT PLAN  
SCALE: 1/4" = 1'-0"

- NOTES
- FOR GENERAL NOTES SEE DRAWING A-1.
  - FINISH EXISTING BASEMENT WITH NEW 2X4 STUD WALLS AND DRY WALLS AND CEILINGS.

WALL SYMBOLS

TYPE	DESCRIPTION
[Symbol]	EXISTING STONE WALL
[Symbol]	EXISTING WALLS
[Symbol]	PROPOSED STUD WALL
[Symbol]	NEW CONCRETE WALL
[Symbol]	DEMOLITION WALLS

- [Symbol] HARDWIRED AND INTERCONNECTED SMOKE ALARM
- [Symbol] HARDWIRED AND INTERCONNECTED CARBON MONOXIDE ALARM -UL 2034

WINDOWS SCHEDULE:

MARK	WIDTH	HEIGHT	HEADER	NOTES
CXW185	3'-0"	5'-5"	2-2X10	-
CX135	2'-8"	3'-5"	2-2X10	-
CXW15	3'-0"	3'-5"	2-2X10	-
P4080	4'-0"	6'-0"	2-2X10	FIXED

NEW DOORS SCHEDULE:

MARK	WIDTH	HEIGHT	HEADER	NOTES
3068	3'-0"	6'-8"	2-2X10	FRONT ENTRANCE DOUBLE DOORS
2808	2'-6"	6'-8"	2-2X10	-
2808P	2'-6"	6'-8"	2-2X10	POCKET DOOR
6088	6'-0"	6'-8"	2-2X10	DOUBLE DOOR



PROJECT  
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ELLICOTT CITY, MD 21042  
SHEET TITLE  
PROPOSED BASEMENT PLAN

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07-12-20

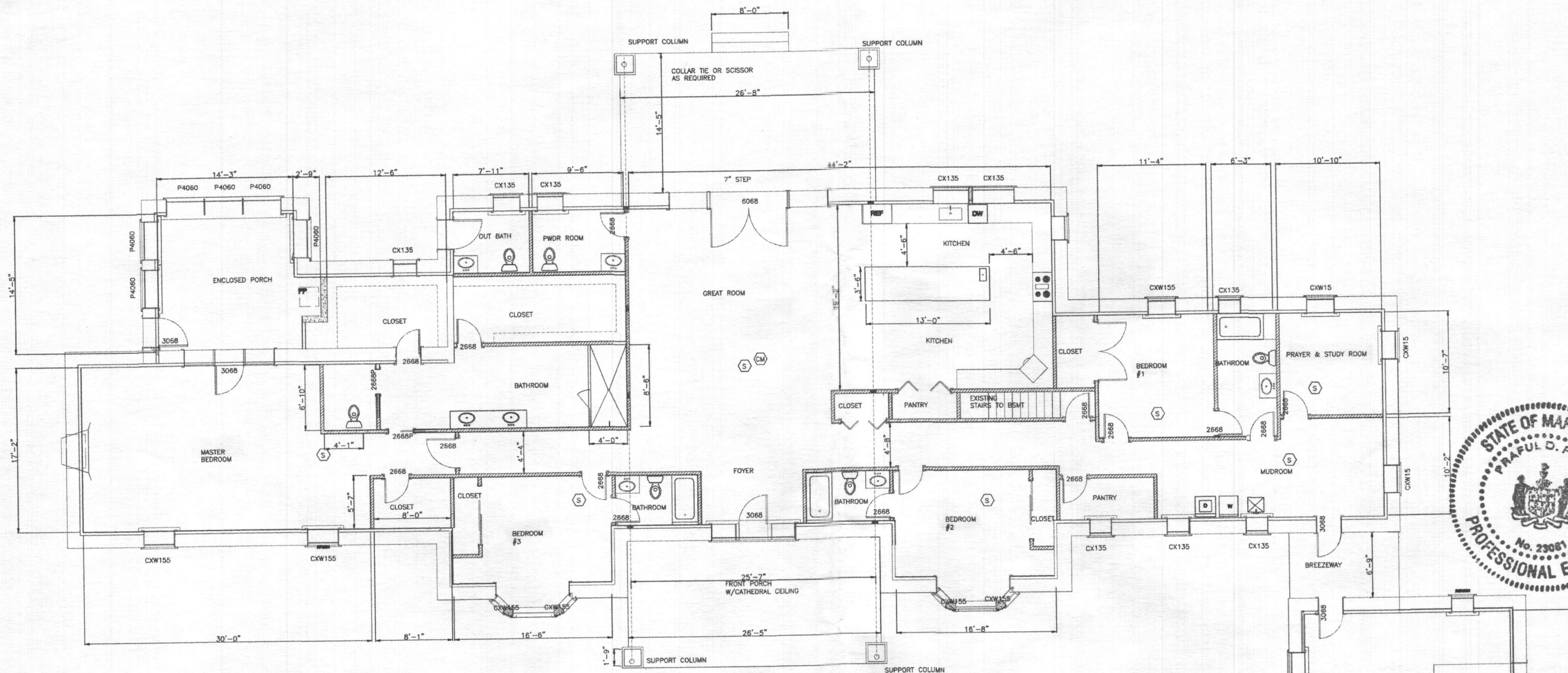
ORIGINAL SHEET SIZE  
20X24  
SHOULD MEASURE 1":  
[Scale bar]

SCALE  
AS SHOWN

DRAWING

A3





# WALL SYMBOLS

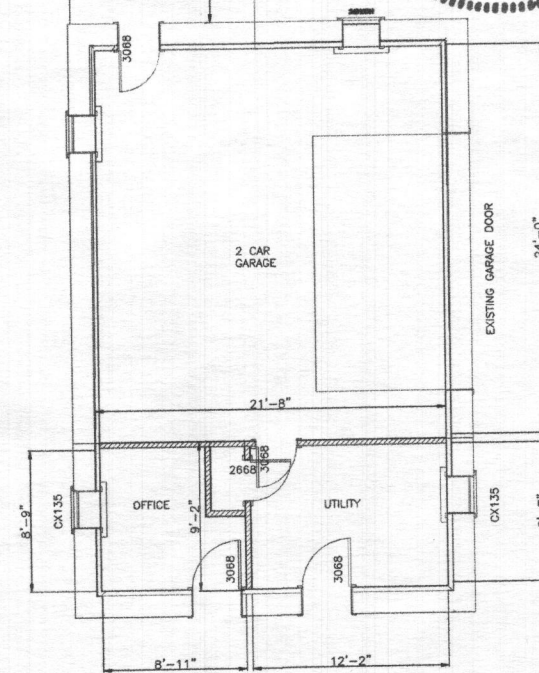
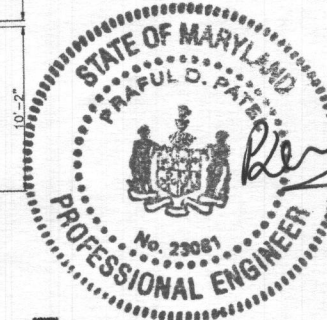
TYPE	DESCRIPTION
[Symbol]	EXISTING STONE WALL
[Symbol]	EXISTING WALLS
[Symbol]	PROPOSED STUD WALL
[Symbol]	NEW CONCRETE WALL
[Symbol]	DEMOLITION WALLS

PROPOSED FIRST FLOOR PLAN  
SCALE: 3/16" = 1'-0"

[Symbol] HARDWIRED AND INTERCONNECTED SMOKE ALARM  
[Symbol] HARDWIRED AND INTERCONNECTED CARBON MONOXIDE ALARM -UL 2034

## NOTES

- FOR GENERAL NOTES SEE DRAWING A-1.
- ALL NEW INTERIOR NON LOAD BEARING WALLS SHALL BE 2X4 STUDS WITH 1/2" GB ON EACH FACE.
- SEE STRUCTURAL DRAWINGS FOR PARTIAL NEW ROOF FRAMING.



PROJECT

SINGH RESIDENCE

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PROJECT TITLE

RENOVATION

PROJECT ADDRESS

5000 WILD OLIVE CT

ELLCOTT CITY, MD 21042

SHEET TITLE

PROPOSED FIRST FLOOR PLAN

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RP

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DATE

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ORIGINAL SHEET SIZE

3004

SHOULD MEASURE 1":

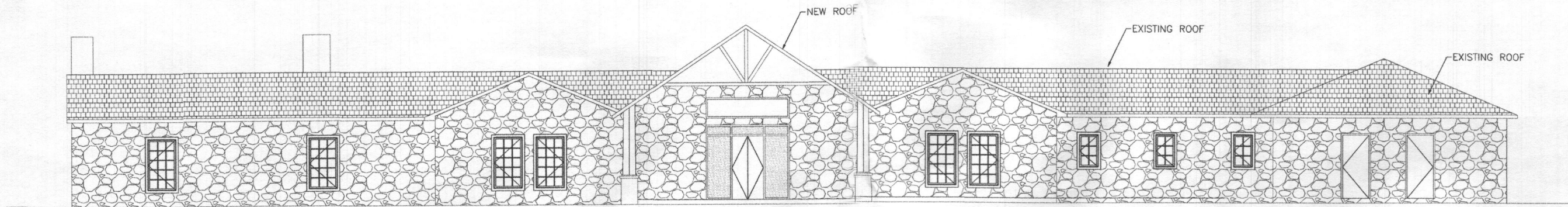
SCALE

AS SHOWN

DRAWING

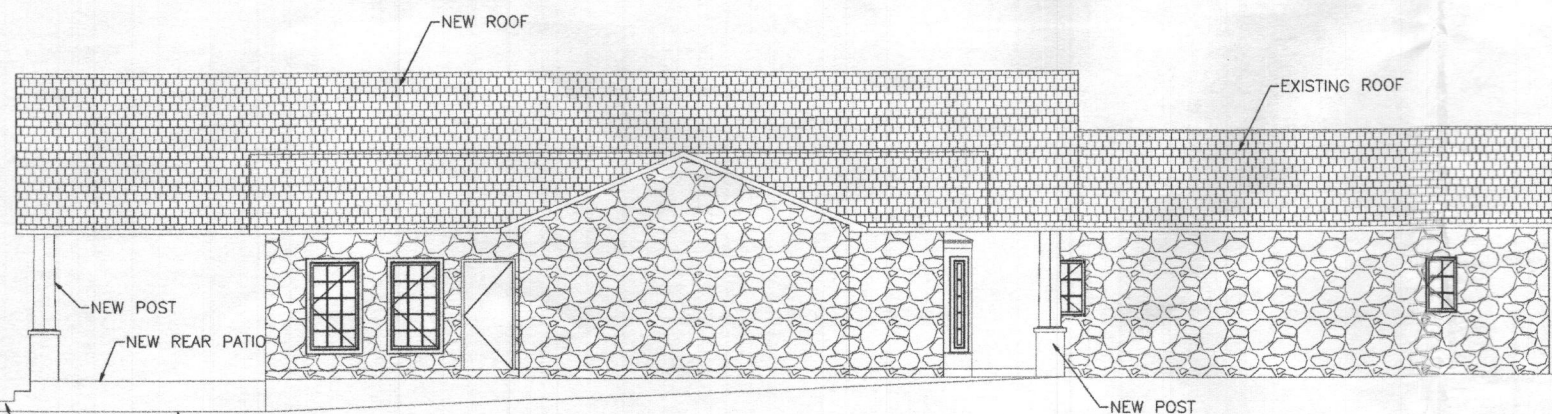
A3





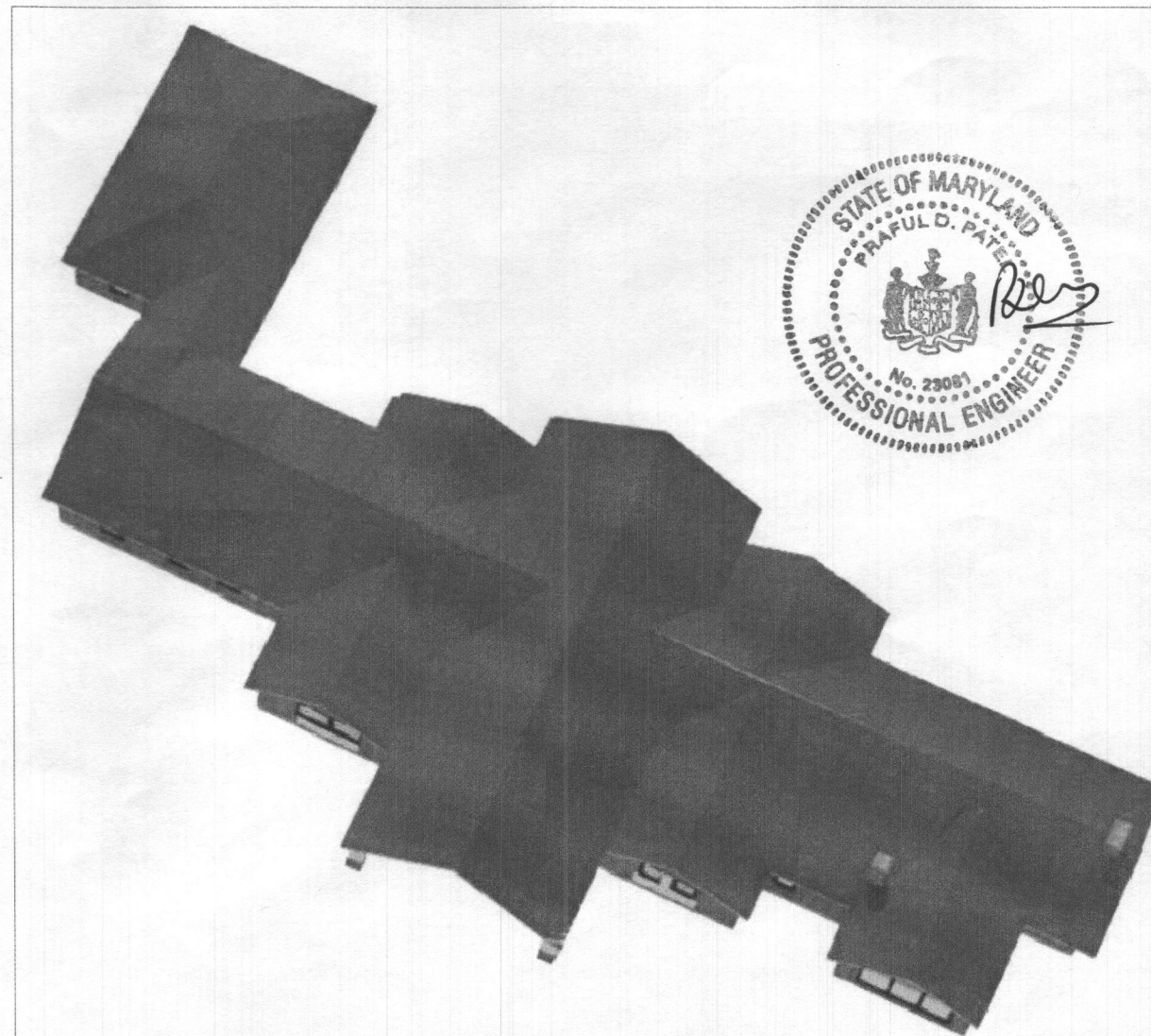
FRONT ELEVATION

SCALE: 3/16" = 1'-0"



LEFT SIDE ELEVATION

SCALE: 3/16" = 1'-0"



ROOF VIEW

NOT TO SCALE

PROJECT  
SINGH RESIDENCE  
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ELICOTT CITY, MD 21042

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ARCHITECTS  
CONSTRUCTION MANAGERS

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TEL: (301) 418-1339 FAX: (301) 974-5419

PROJECT TITLE  
RENOVATION  
PROJECT ADDRESS  
5000 WILD OLIVE CT  
ELICOTT CITY, MD 21042  
SHEET TITLE  
ELEVATION-1

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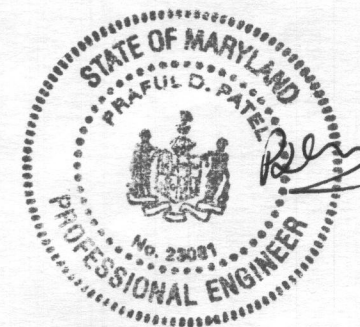
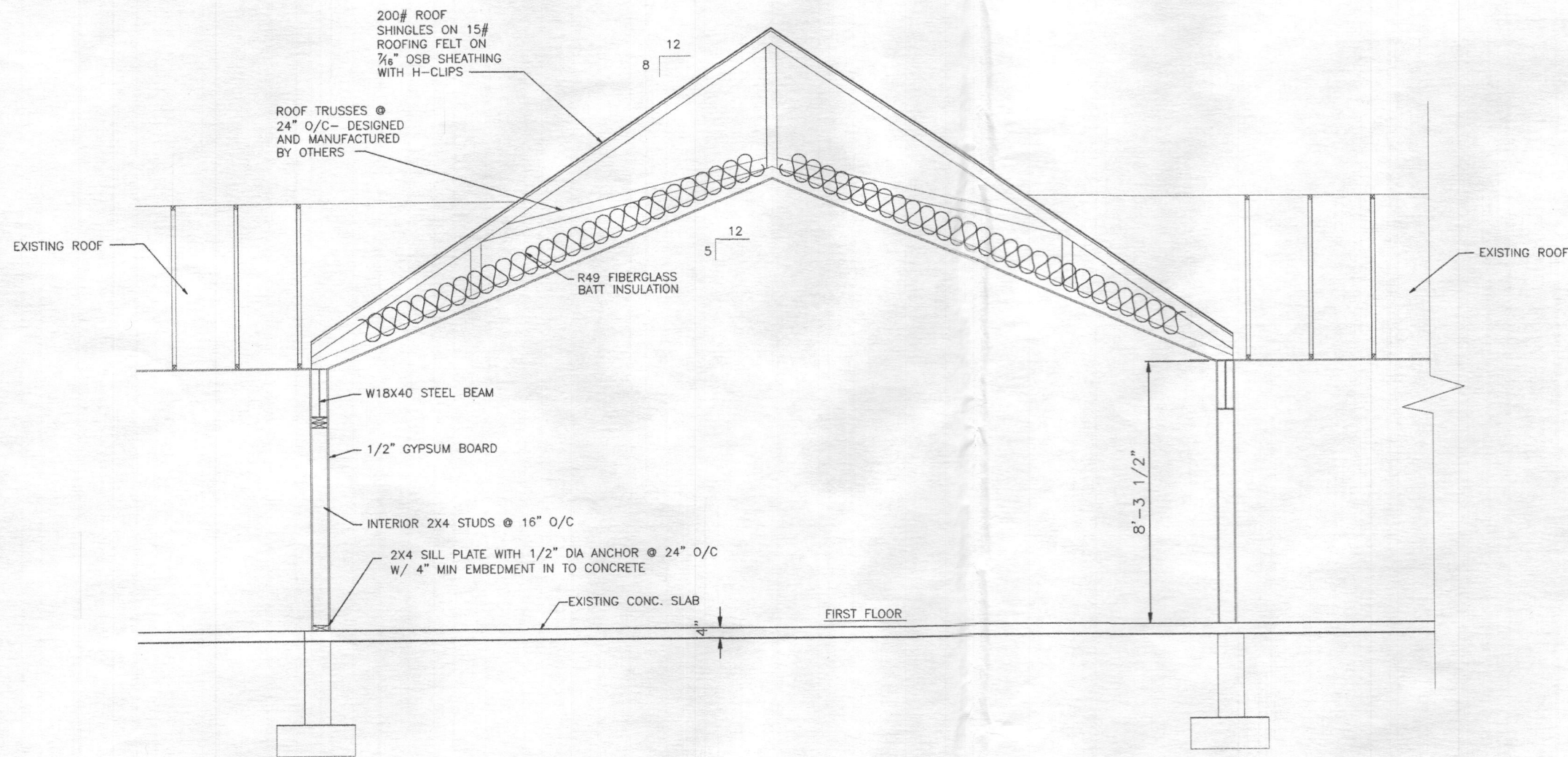
ORIGINAL SHEET SIZE  
36x24  
SHOULD MEASURE 1":

SCALE  
AS SHOWN

DRAWING

A4





PROJECT  
SINGH RESIDENCE  
5000 WILD OLIVE CT  
ELLICOTT CITY, MD 21042

ARENCO LLC

13430 BELLS CREEK  
PULVER, MD 20796  
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TEL (301) 438 1300 FAX (301) 438 5418  
CONSTRUCTION MANAGERS

PROJECT TITLE  
RENOVATION  
PROJECT ADDRESS  
5000 WILD OLIVE CT  
ELLICOTT CITY, MD 21042  
SHEET TITLE  
SECTIONS DETAILS

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07-12-20

ORIGINAL SHEET SIZE  
36X24  
SHOULD MEASURE 1"

SCALE  
AS SHOWN

DRAWING

A5



CONCRETE:

1. REINFORCED CONCRETE SHALL BE DETAILED AND CONSTRUCTED IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE, (ACI 301) "SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
2. NEW CONCRETE FOR FOOTING AND FILLED IN CMU SHALL BE MINIMUM OF 3000 PSI AT 28 DAYS.
3. ALL REINFORCEMENT SHALL CONFORM TO ASTM SPECIFICATION A185.
4. NEW FOOTING AND SLAB SHALL BE POURED ON 4" GRAVEL OR CR6 AS SHOWN ON SECTION.
5. NEW ROOF SHALL BE CONSTRUCTED ACCORDING WITH STRUCTURAL FRAMING PLAN AND ARCHITECTURAL DETAILS.
6. THE OWNER SHALL RETAIN THE SERVICES OF A SOIL CONSULTANT APPROVED BY THE ARCHITECT TO CHECK AND VERIFY THE REQUIRED SOIL BEARING PRESSURE OF EACH FOOTING.
7. ALL CONTINUOUS REINFORCING SHALL BE SPLICED WITH "B" SPLICE STAGGERED, UNLESS NOTED OTHERWISE. FOOTING AND OTHER CONCRETE POURED AGAINST EARTH -3"
8. FORMED CONCRETE EXPOSED TO EARTH -2" FOR BEARS LARGER THAN #5, 1/2" FOR #5 AND SMALLER BARS.
9. WHERE DISCREPANCIES EXIST BETWEEN THE STANDARD COMMENTS, NOTES FROM THE DESIGN PROFESSIONAL OR THE CODE, THE MOST RESTRICTIVE SHALL APPLY. ALL CONSTRUCTION SHALL COMPLY WITH THE 2015 INTERNATIONAL RESIDENTIAL CODE (IRC).
10. FOUNDATION WALLS ENCLOSING BASEMENTS OR OTHER HABITABLE SPACE SHALL BE DAMPPROOFED PER IRC - WHERE A HIGH WATER TABLE OR OTHER SEVERE WATER CONDITION EXISTS, THE WALLS SHALL BE WATERPROOFED.
11. PROVIDE A MINIMUM 4-INCH PERFORATED DRAIN AROUND USABLE SPACE BELOW GRADE OR OTHER EQUIVALENT MATERIALS PER IRC. THE PIPE SHALL BE COVERED WITH NOT LESS THAN 6 INCHES OF WASHED GRAVEL OR CRUSHED ROCK. THE DRAIN SHALL DAYLIGHT TO THE EXTERIOR BELOW THE FLOOR LEVEL OR TERMINATE IN A MINIMUM 20-GALLON SUMP PIT.
12. INTERIOR BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB.
13. AT WALKOUTS THE FOUNDATION WALL SHALL BE INSULATED WITH A MINIMUM R-13 INSULATION FOR A MINIMUM OF 3 FEET BELOW THE BOTTOM OF THE SLAB.
14. ANCHOR BOLTS - MINIMUM 1/2-INCH ANCHOR BOLTS WITH 7" EMBEDMENT AT MAXIMUM 6 FEET O.C. AND WITHIN 6 INCHES OF THE END OF EACH SILL PLATE.
15. WHERE FLOOR JOISTS ARE PARALLEL TO THE FOUNDATION WALL, THE WALL SHALL BE SUPPORTED Laterally AT THE TOP BY SOLID BLOCKING FOR A MINIMUM OF TWO JOIST SPACES, SPACED NOT MORE THAN 2'-10" FEET O.C.

WOOD NOTES:

1. FRAMING LUMBER SHALL BE KILN DRIED OR MC-15, AND GRADED AND MARKED IN COMFORMANCE WITH WCLIB STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17, LATEST EDITION. ALL WOOD FRAME CONSTRUCTION SHALL CONFORM TO THE STANDARDS OR THE IBC AS A MINIMUM REQUIREMENT. FURNISH THE FOLLOWING MINIMUM STANDARDS:  
JOISTS: (2X8 AND SMALLER) HEM-FIR NO. 2  
MINIMUM BASE VALUE, FB=850 PSI  
  
BEAMS AND STRINGERS: DOUGLAS FIR NO. 1  
(2X10 AND LARGER) MINIMUM BASE VALUE, FB=1350 PSI  
  
POSTS AND TIMBERS: DOUGLAS FIR NO. 2  
(4X4 AND LARGER) MINIMUM BASE VALUE, FB=1200 PSI  
  
STUDS, PLATES & MISC. FRAMING: DOUGLAS FIR OR HEM-FIR  
STANDARD GRADE  
  
TOP AND BOTTOM PLATES DOUGLAS FIR-LARCH CONSTRUCTION  
AT BEARING WALLS GRADE  
  
2X6 STUDS AND PLATES: HEM-FIR NO.3/ STUD GRADE
2. ENGINEERED LUMBER SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
3. ENGINEERED LUMBER MEMBERS SHALL BE MANUFACTURED UNDER A PROCESS BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NATIONAL RESEARCH BOARD NUMBER, AND THE QUALITY CONTROL AGENCY. ALL LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPROPRIATE NER REPORT AND GLUED WITH A WATERPROOFING ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER.  
  
PSL FB=2900 PSI E=2000 PSI FV =290 PSI NER-292  
LVL FB=2600 PSI E=1900 PSI FV =285 PSI NER-126  
LSL FB=1700 PSI E=1300 PSI FV =150 PSI NER-481
4. DESIGN SHOWN ON PLANS IS BASED ON LUMBER MANUFACTURED BY THE GEORGIA-PACIFIC. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE ICBO APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH MEMBERS PROVIDED.

5. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ANSI/AITC A190.1 AND ASTM D3737. EACH MEMBER SHALL BEAR AND AITC IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN ATTIC CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FOR COMINATION 24F-V4, FB=2400 PSI, FV=190 PSI. CAMBER ALL GLULAM BEAMS TO A 2,000 FOOT RADIUS UNLESS NOTED OTHERWISE ON THE PLANS.
6. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY. ALL WOOD EXPOSED TO WEATHER WITHOUT THE ADEQUATE PROTECTION OF A ROOF OR EAVE SHALL BE APPROVED WOOD OF NATURAL RESISTANCE TO DECAY OR PRESSURE TREATED. SUCH MEMBERS INCLUDE HORIZONTAL MEMBERS SUCH AS GIRDERS, JOISTS, DECKING, OR VERTICAL MEMBERS SUCH AS POSTS, POLES AND COLUMNS.
7. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE SHALL BE IN CONFORMANCE WITH APA STANDARDS. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.
8. FLAT 2X BLOCKING AT ALL UNFRAMED PLYWOOD PANEL EDGES AND NAIL WITH EDGE NAILING SPECIFIED.
9. FLOOR SHEATHUNG SHALL BE 3/4" (NOM) WITH SPAN RATING 40/20
10. WALL SHEATHING SHALL BE 1/2" (NOM) WITH SPAN RATING 24/0
11. PLYWOOD OOF AND FLOOR SHEATHING TO BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED WITH 8D NAILS AT 6" O.C. TO FRAMED PANEL EDGES AND OVER STUD WALLS AS SHOWN ON PLANS AND AT 12" O.C. TO INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE. PROVIDE APPROVED PLYWOOD EDGE CLIPS AT 16" O.C. AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. TOENAIL BLOCKING TO SUPPORTS WITH 16D @ 12" O.C. UNLESS NOTED OTHERWISE. AT BLOCKED FLOOR AND ROOF DIAPHRAGMS PROVIDE FLAT 2X BLOCKING AT ALL UNFRAMED PLYWOOD PANEL EDGES AND NAIL WITH EDGE NAILING SPECIFIED.
12. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING JOINTS, TOENAIL JOISTS TO SUPPORTS WITH TWO 16D NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS.
13. ALL COLUMNS AND POSTS SUPPORTING BEAMS NOT SPECIFIED FOR SIZE ON PLAN SHALL CONSIST OF 2 STUDS SPIKE LAMINATED TOGETHER WITH 16D NAILS AT 9" O/C.

WOOD FRAMING:

1. FRAMING LUMBER FOR BEAMS AND JOISTS SHALL HAVE FB= 1100 PSI, E=1,300.00, AND FOR STUDS AND POSTS, FC= 500 PSI, E = 1,200.000 PSI
2. PROVIDE 2-2 X 6 @ EACH SIDE OF OPENINGS UNLESS NOTED OTHERWISE.
3. ALL WOOD LINTEL SHALL BE 2-2 X 8 UNLESS OTHERWISE NOTED.
4. PROVIDED CROSS-BRIDGING FOR JOISTS AT 8'-0" INTERVALS.
5. WOOD JOISTS AND BEAMS SHALL NOT BE CUT OR DRILLED UNLESS SO AUTHORIZED BY THE ARCHITECT.
6. PROVIDE APPROVED HURRICANE CONNECTIONS BETWEEN FRAMING MEMBERS.
7. LUMBER IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE TREATED AGAINST DECAY.
8. PROVIDED DOUBLE JOISTS BELOW NON-BEARING PARTITIONS PARALLEL TO JOISTS.
9. FRAMING LUMBER SHALL HAVE 19% MAXIMUM MOISTURE CONTENT.
10. BRUSH PRESERVATIVE SOLUTION ON ALL EDGES THAT ARE CUT IN MEMBERS THAT ARE IN CONTACT WITH CONCRETE OR MASONRY.
11. PROVIDE MANUFACTURERS' STANDARD JOIST OR STANDARD BEAM HANGERS AT WALL WOOD TO WOOD CONNECTIONS THAT REQUIRE JOISTS OR BEAMS FRAMING INTO THE SIDE OR FACE OF THE SUPPORTING MEMBER. THE CAPACITY OF THE HANGER SHALL BE FOR THE MAXIMUM SHEAR CAPACITY OF THE JOISTS OR BEAM.

PLYWOOD SHEATHING:

1. ALL PLYWOOD SHEATHING SHALL BE CD-GRADE, UNLESS OTHERWISE SHOWN, WITH EXTERIOR GLUE MANUFACTURED IN ACCORDANCE WITH PRODUCT STANDARD PS183, LATEST ADDITION, ROOF AND WALL SHEATHING.
2. PLYWOOD SHEATHING SHALL BE LAID WITH END JOINT STAGGERED.
3. BLOCK ALL WALL SHEATHING WITH 2X4 FLAT BLOCKING AT ALL EDGES.
4. LAYOUT PLYWOOD TO ELIMINATED ANY WIDTH LESS THAN 1'-0"

DESIGN LOADS:

FLOOR LIVE LOAD = 40 PSF  
FLOOR DEAD LOAD = 10 PSF  
STAIR LIVE LOAD = 100 PSF  
DECKS LIVE LAOD = 40 PSF  
ROOF LIVE LOAD = 40 PSF  
ROOF DEAD LOAD = 10 PSF  
GROUND SNOW LOAD = 30 PSF  
WIND SPEED - 120 MPH MAX  
HANDRAIL - 200 LB CONCENTRATED  
LATERAL LOAD

SOIL BEARING CAPACITY = 1500 PSF



PROJECT  
SINGH RESIDENCE

5000 WILD OLIVE CT  
ELLICOTT CITY, MD 21042

ARENCO LLC

18400 BELLA CREST  
POTOMAC, MD 20854  
TEL: (301) 410-1998 FAX: (301) 974-6418

ARCHITECTS  
BROOKHURST  
CONSTRUCTION MANAGERS

PROJECT TITLE  
RENOVATION  
PROJECT ADDRESS  
5000 WILD OLIVE CT  
ELLICOTT CITY, MD 21042

SHEET TITLE  
STRUCTURAL NOTES

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NO. 23081 EXPIRATION DATE:  
04/24/2021

PROJECT NUMBER  
2020-233

DRAWN BY  
RP

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PP

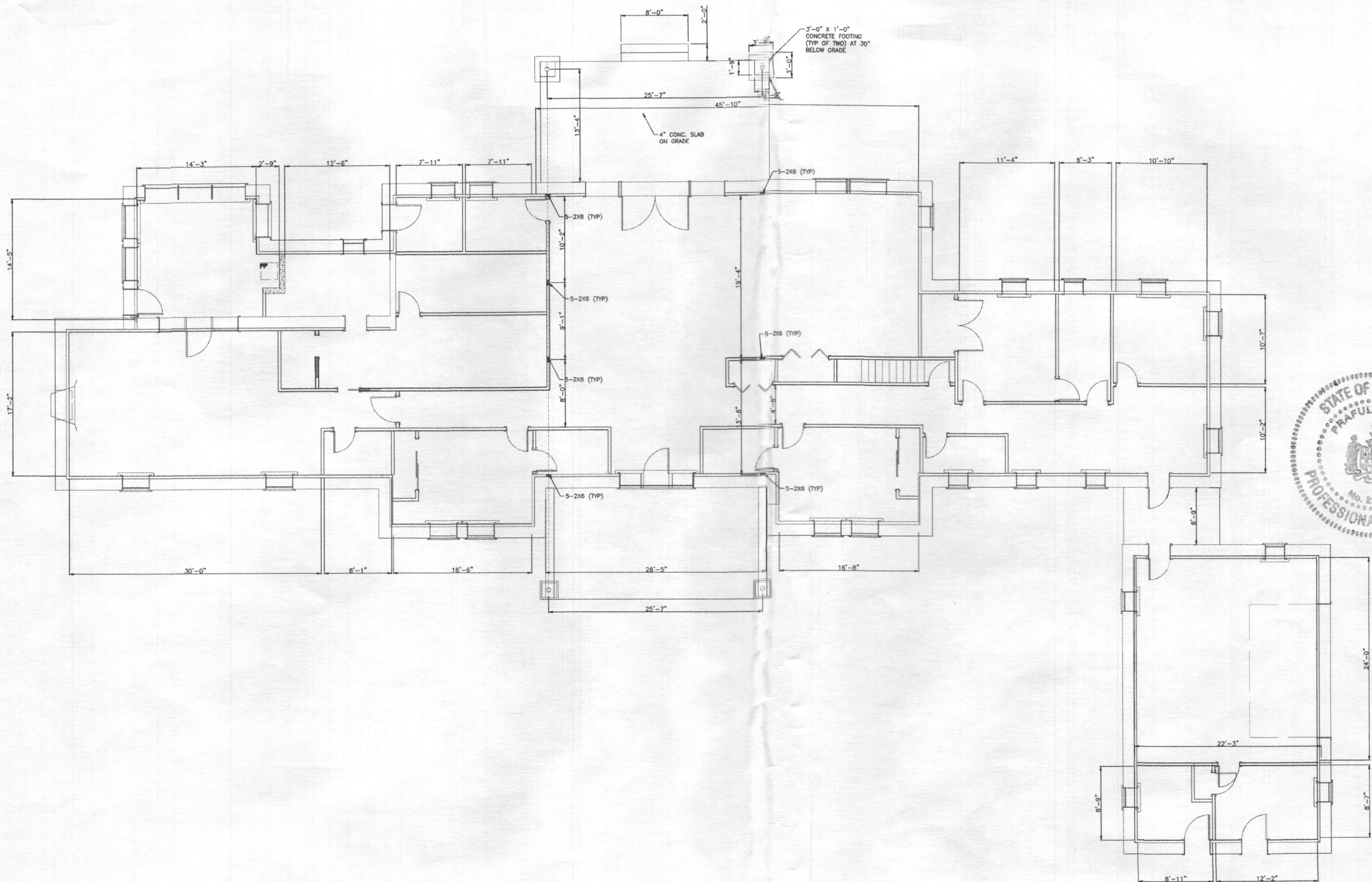
DATE  
07-12-20

ORIGINAL SHEET SIZE  
36X24  
SHOULD MEASURE 1":  
[Scale Bar]

SCALE  
AS SHOWN

DRAWING  
S1





FOUNDATION PLAN  
SCALE: 3/16" = 1'-0"

NOTES:

1. FOR GENERAL NOTES SEE DRAWING S1.
2. NEW CONCRETE FOR THE COLUMN FOOTING SHALL BE 3000 PSI AT 28 DAYS.



PROJECT  
SINGH RESIDENCE  
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PROJECT TITLE  
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SHEET TITLE  
FOUNDATION PLAN

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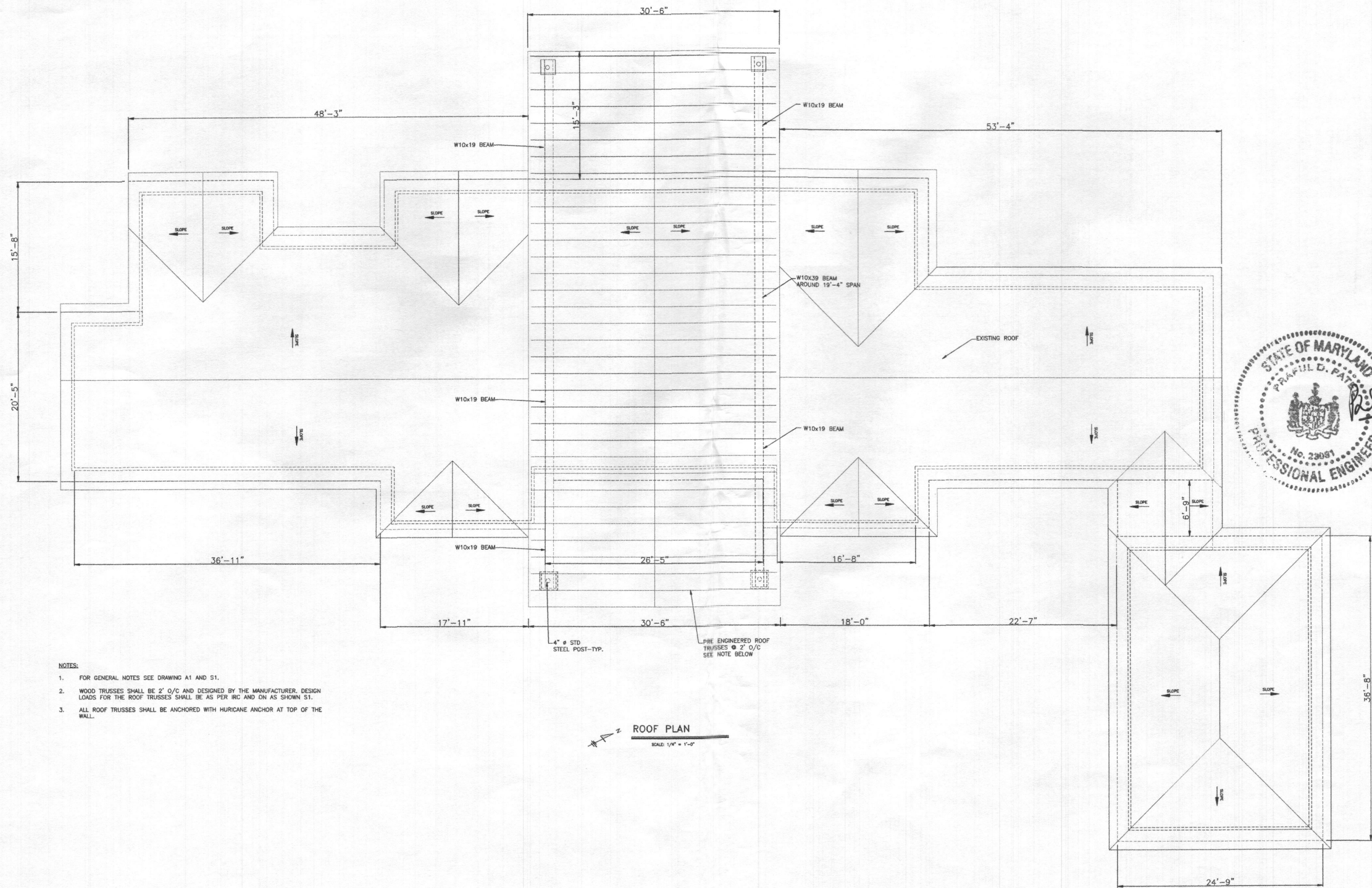
DATE  
07-12-20

ORIGINAL SHEET SIZE  
36X48  
SHOULD MEASURE 1":  
1" = 1"

SCALE  
AS SHOWN

DRAWING  
S2





NOTES:

1. FOR GENERAL NOTES SEE DRAWING A1 AND S1.
2. WOOD TRUSSES SHALL BE 2' O/C AND DESIGNED BY THE MANUFACTURER. DESIGN LOADS FOR THE ROOF TRUSSES SHALL BE AS PER IRC AND ON AS SHOWN S1.
3. ALL ROOF TRUSSES SHALL BE ANCHORED WITH HURICANE ANCHOR AT TOP OF THE WALL.

ROOF PLAN  
SCALE: 1/4" = 1'-0"



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SHEET TITLE  
ROOF PLAN

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NO. 23081 EXPIRATION DATE:  
04/24/2021

PROJECT NUMBER  
2020-233

DRAWN BY  
RP

APPROVED BY  
PP

DATE  
07-12-20

ORIGINAL SHEET SIZE  
36"X48" (SHOULD MEASURE 1")

SCALE  
AS SHOWN

DRAWING

S3