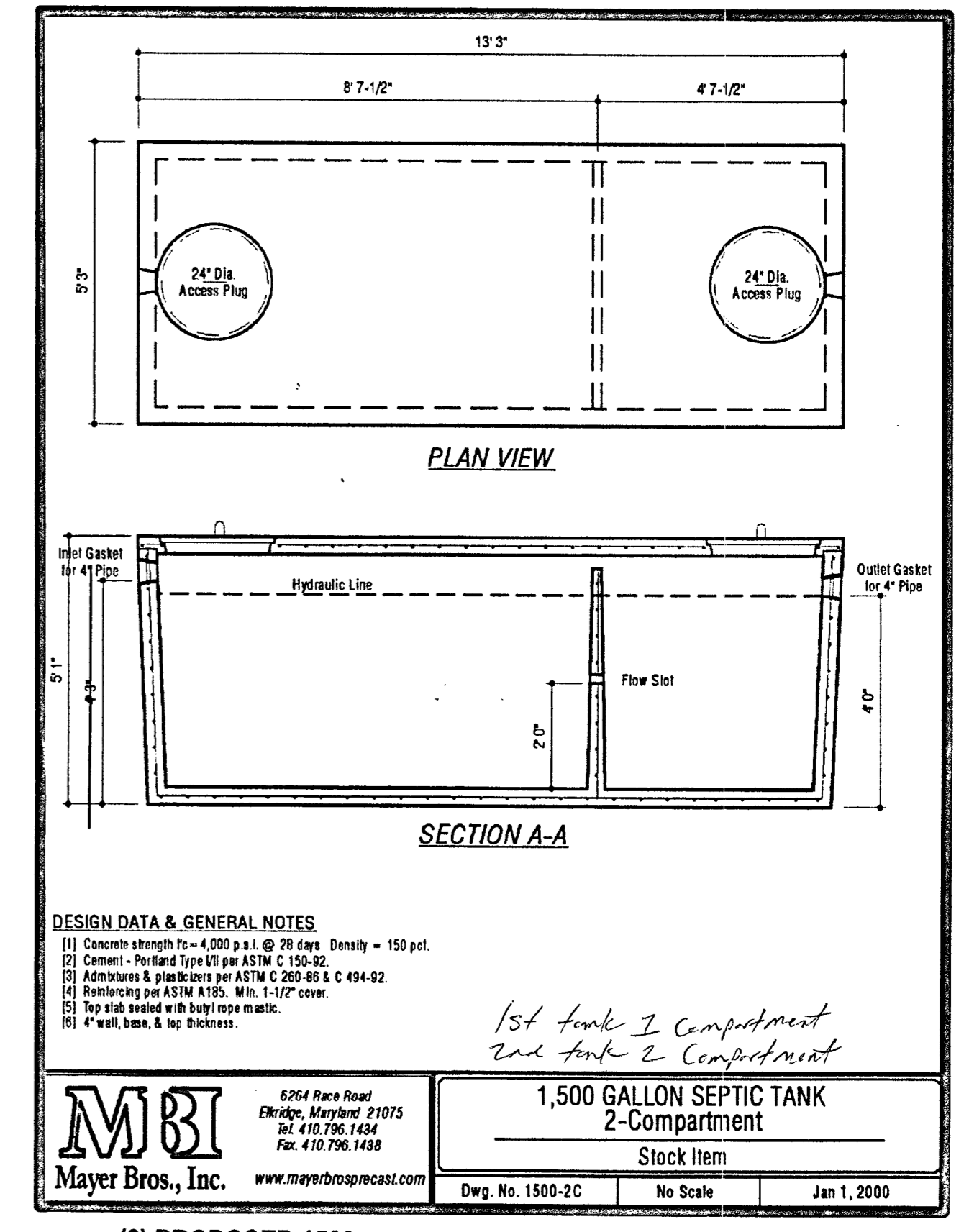
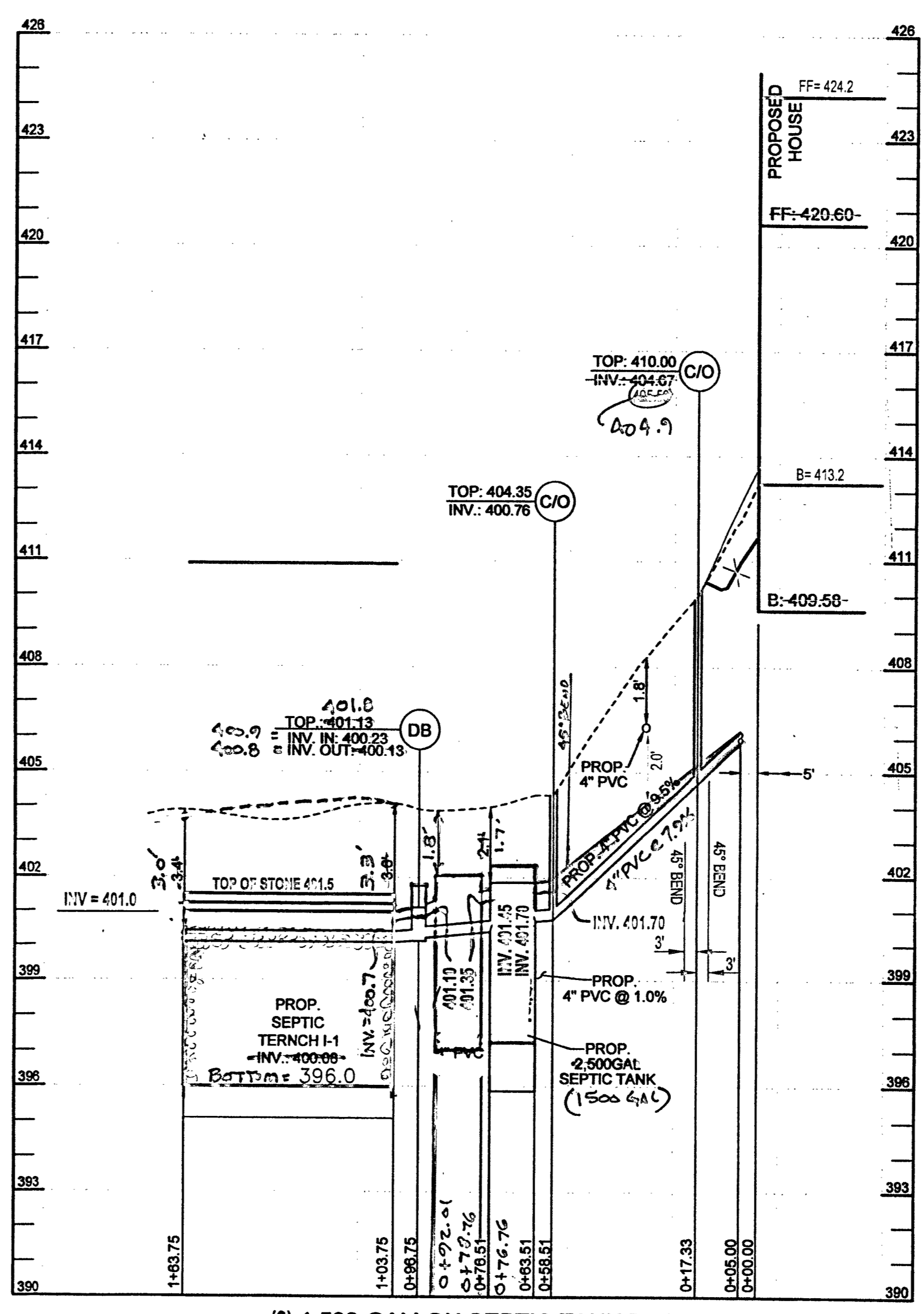
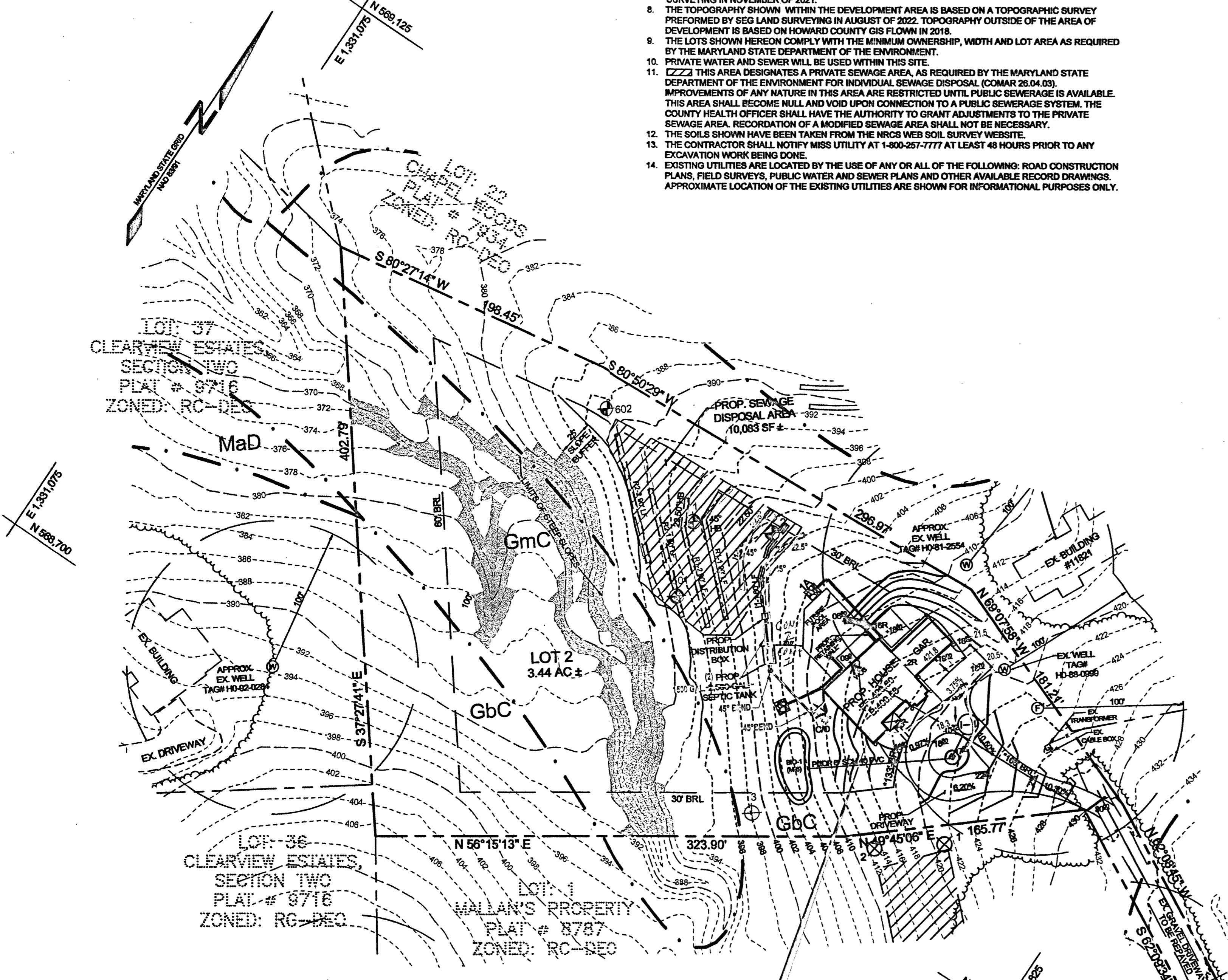
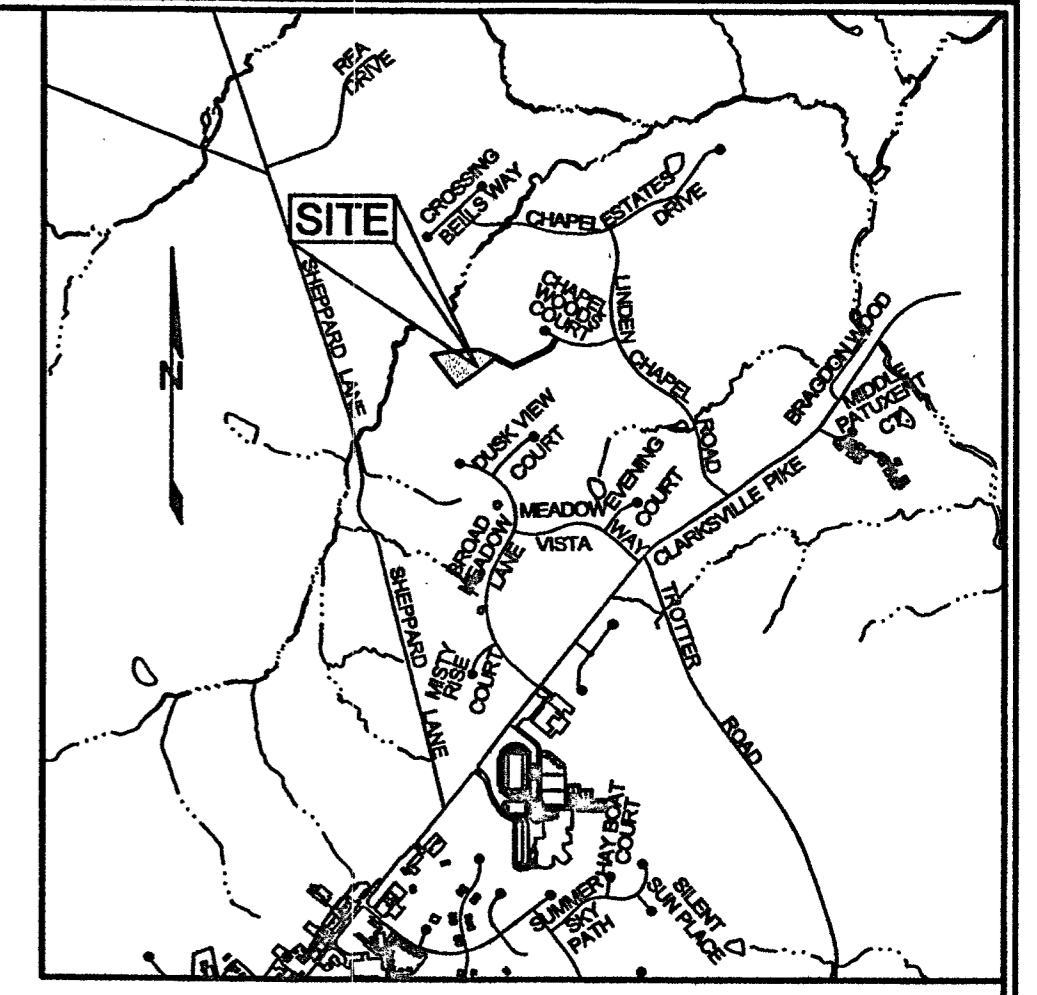
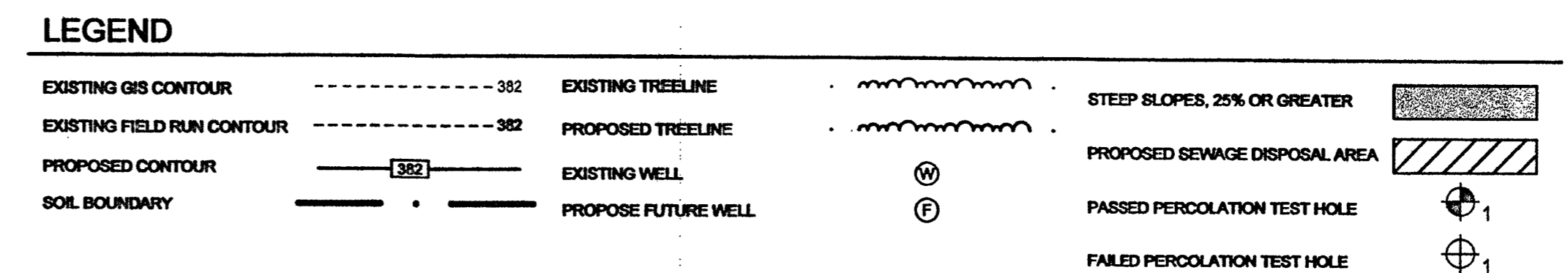


SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	K FACTOR
GmC	GLENELG LOAM, 0 TO 3 PERCENT SLOPES	A	0.28
GmD	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	C	0.43
GmB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	C/D	0.37
GmE	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	A	0.28

NOTES:
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, WEBB SOIL SURVEY.
 2) HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K' GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

GENERAL NOTES

- SUBJECT PROPERTY ZONED RC-DEO IN ACCORDANCE WITH THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- TOTAL AREA OF PROPERTY = 3.44 ACRES±
- PROPERTY ADDRESS: 11813 CHAPEL WOODS COURT, CLARSKVILLE MD 21029
- PLAT REFERENCE: PLAT #8777
- DEED REFERENCE: LIBERTY 3743 FOLIO 00571
- PREVIOUS HOWARD COUNTY FILE NUMBERS: STATE OF MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER AND SCIENCE ADMINISTRATION AUTHORIZATION NUMBER 20-MT-3094/202000742.
- THE BOUNDARY SHOWN HERE ON IS BASED ON A BOUNDARY SURVEY PERFORMED BY SEG LAND SURVEYING IN NOVEMBER OF 2021.
- THE TOPOGRAPHY SHOWN WITHIN THE DEVELOPMENT AREA IS BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY SEG LAND SURVEYING IN AUGUST OF 2022. TOPOGRAPHY OUTSIDE OF THE AREA OF DEVELOPMENT IS BASED ON HOWARD COUNTY GIS FLOWN IN 2018.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP, WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- PRIVATE WATER AND SEWER WILL BE USED WITHIN THIS SITE.
- ZZZ THIS AREA DESIGNATES A PRIVATE SEWAGE AREA, AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.04.02). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS AREA SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE AREA. RECORDATION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.
- THE SOILS SHOWN HAVE BEEN TAKEN FROM THE NRCS WEBB SOIL SURVEY WEBSITE.
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- EXISTING UTILITIES ARE LOCATED BY THE USE OF ANY OR ALL OF THE FOLLOWING: ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER PLANS AND OTHER AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.



REVISED - RED LINED PLAN
 BUILDING PERMIT B24000366
 REDLINE REVISIONS BY:
 RTF ASSOCIATES, INC.
 (JOHN LEMMERMAN, MDE #00678)
 142 EAST MAIN STREET
 WESTMINSTER, MARYLAND 21157
 410-848-2040, 410-876-1222

REVISED: COUNTY COMMENTS = 04-29-2025
 REVISED: (2) SEPTIC TANKS = 04-11-2025
 REVISED: COUNTY COMMENTS = 04-07-2025
 REVISED FLOOR ELEVATIONS = 03-19-2025

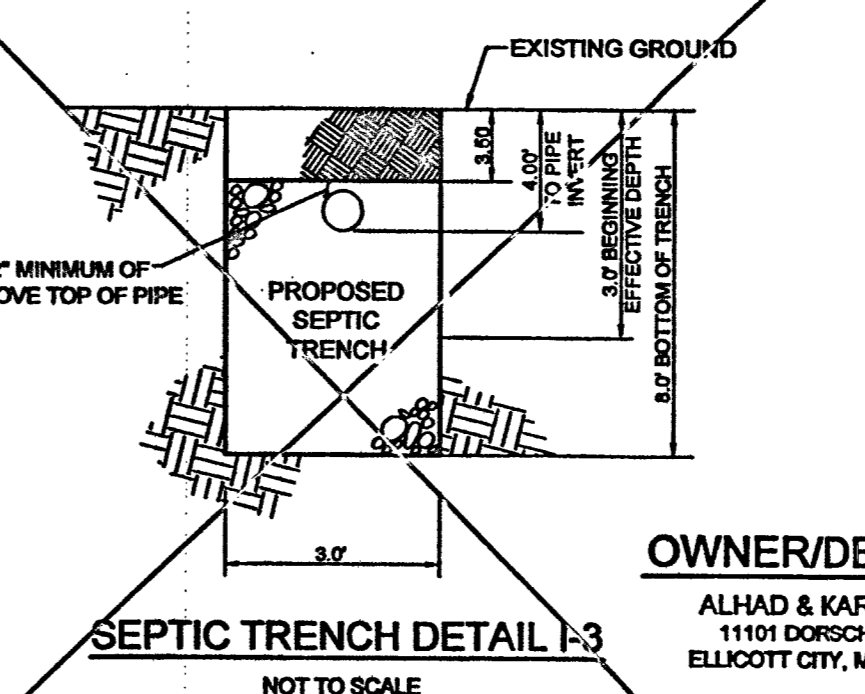
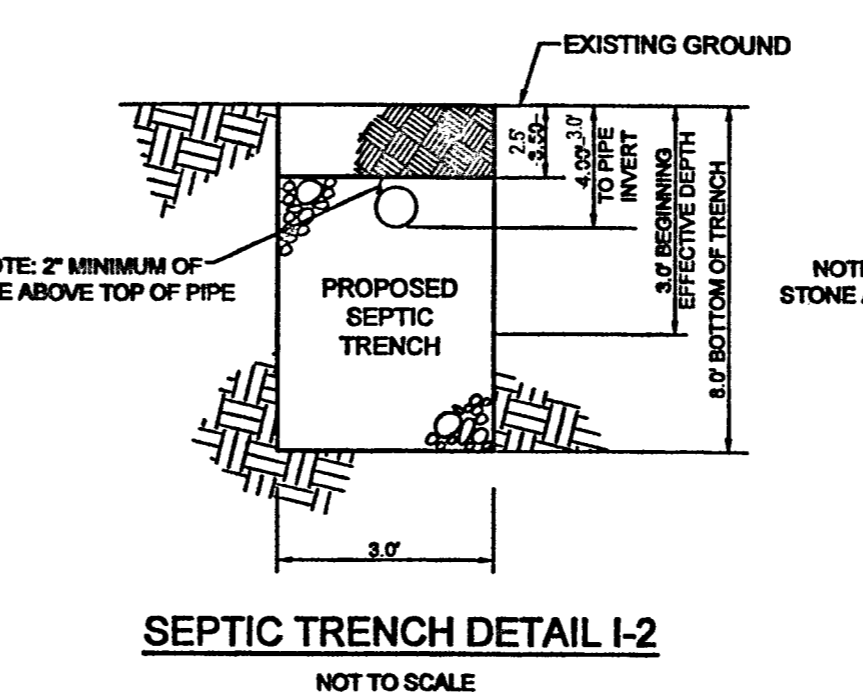
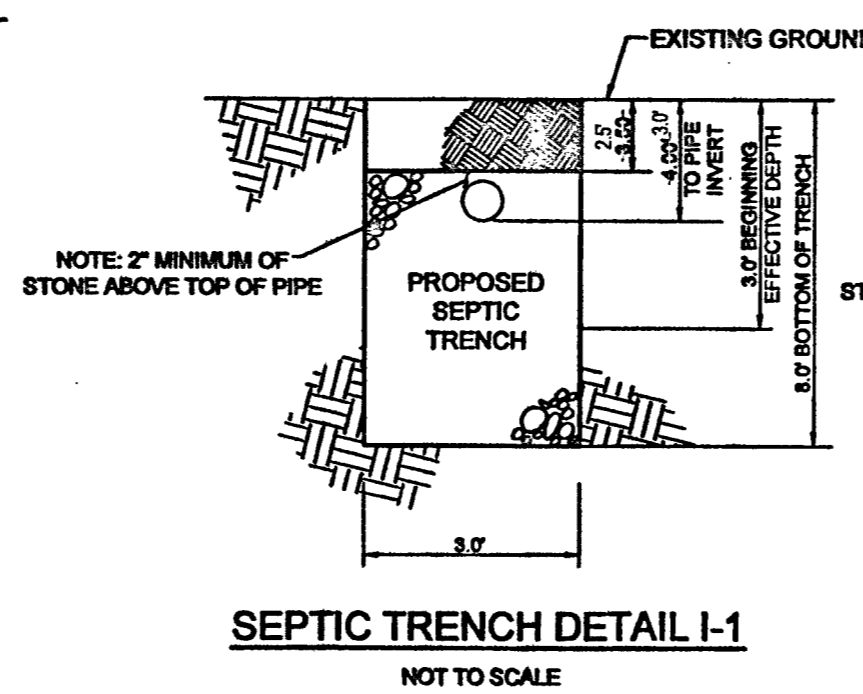
GRAPHIC SCALE
 (IN FEET)
 1 INCH = 50 FEET

Approved Septic System Plan
 Howard County Health Department

Signature: *[Signature]* Date: 5/5/25

SEPTIC SYSTEM TRENCH DESIGN SPECIFICATIONS

- INITIAL SYSTEM SYSTEM:**
 - APPLICATION RATE: 1.2
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
 - FIRST REPLACEMENT SYSTEM:**
 - APPLICATION RATE: 0.8
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
 - SECOND REPLACEMENT SYSTEM:**
 - APPLICATION RATE: 0.8
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
- DESIGN FLOW:
 - 8 BEDROOMS AT 150 GALLONS PER DAY (GPD)
 - 8 X 150 GPD = 1,200 GPD
 - SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:
 - DESIGN FLOW (1,200 GPD) / APPLICATION RATE (1.2) = 1,000 SF
 - SIDEWALL REDUCTION CREDIT:
 - TRENCH WIDTH (W) = 3.0'
 - TRENCH EFFECTIVE DEPTH (D) = 5.0'
 - (W+2) / (W+2D) X 100 = 36%
 - LINEAR LENGTH OF TRENCH REQUIRED:
 - DRAIN FIELD SQUARE FOOTAGE (1,000) X SIDEWALL REDUCTION CREDIT (36%) / TRENCH WIDTH (3.0) = 120'
 - LINEAR LENGTH OF TRENCH PROVIDED = 120'
 - TWO TRENCHES AT 60 LF EACH
6. EXISTING GROUND: TRENCH 1: 403.7 - 404.0
 INVERT: TRENCH 1: 400.7 - 401.0
 EXISTING GROUND: TRENCH 1: 402.0 (TRENCH 1) 2
 INVERT: TRENCH 1: 399.0 (TRENCH 1) 399.0



ONSITE SEWAGE DISPOSAL SYSTEM PLAN
CHANDE PROPERTY
 11813 CHAPEL WOODS COURT
 LOT 2 MALLAN'S PROPERTY

TAX MAP 29 GRID 13
 5TH ELECTION DISTRICT

PARCEL 36 LOT 2
 HOWARD COUNTY, MARYLAND

OWNER/DEVELOPER
 ALHAD & KAREN CHANDE
 1100 DORCH FARM ROAD
 ELLICOTT CITY, MARYLAND 21042

DESIGN BY: PS
 DRAWN BY: ZS
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: APRIL 8, 2024
 PROJECT #: 20-087
 SHEET #: 1 of 1

16005 Frederick Road, 2nd Floor
 Woodbine, Maryland 21797
 Phone: 443.325.5076
 Fax: 410.696.2022
 Email: info@silengineering.com
 Civil Engineering for Land Development

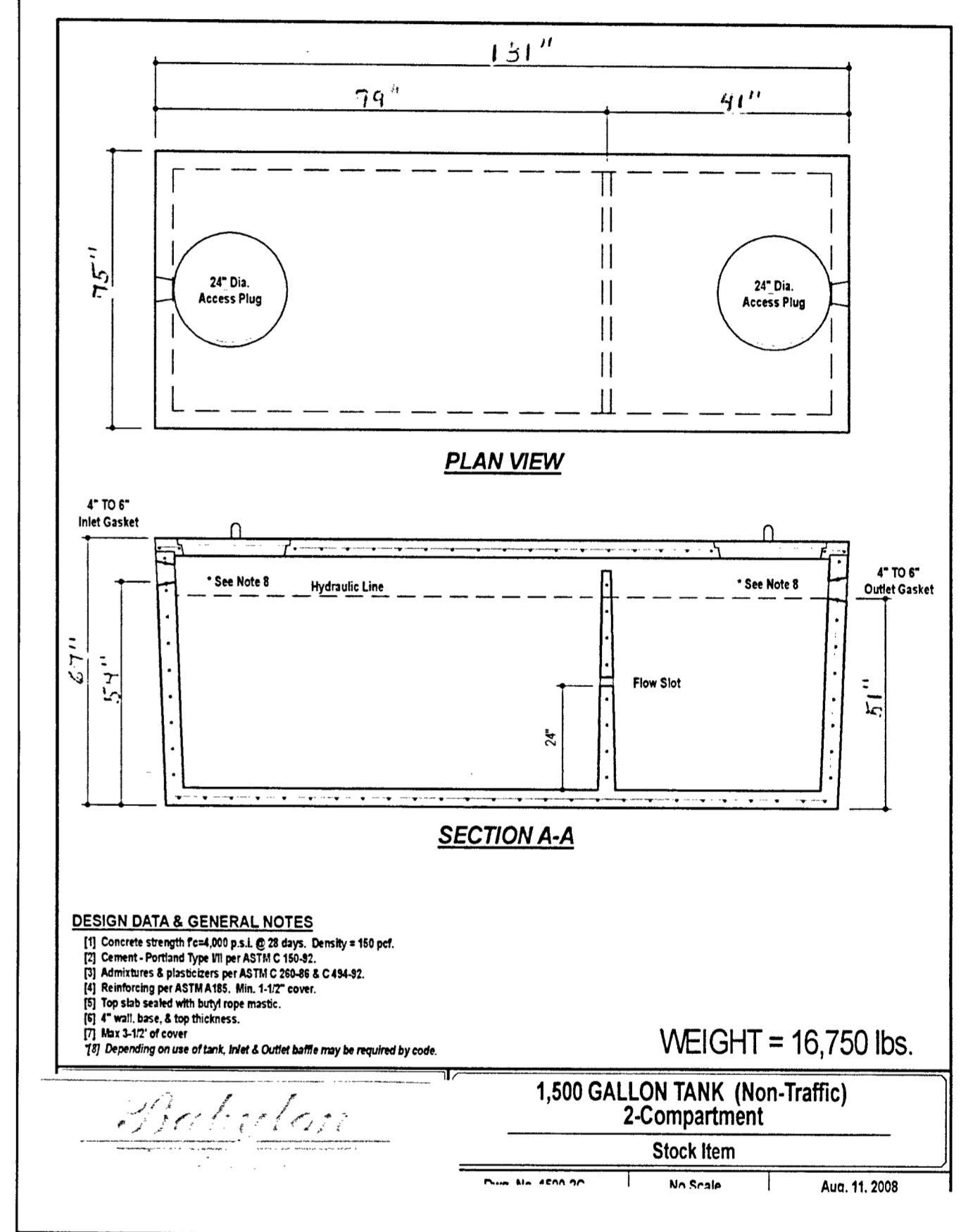
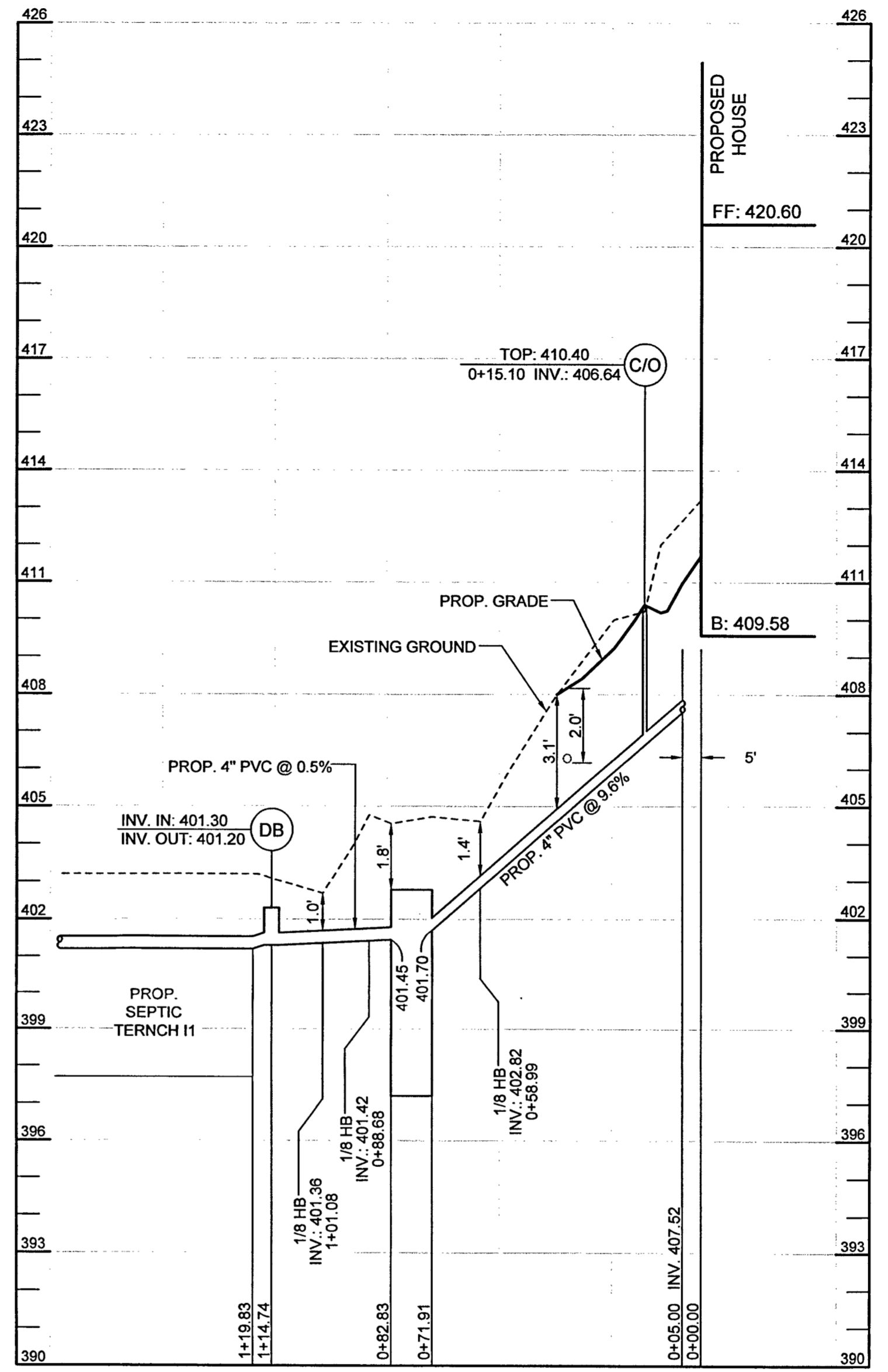
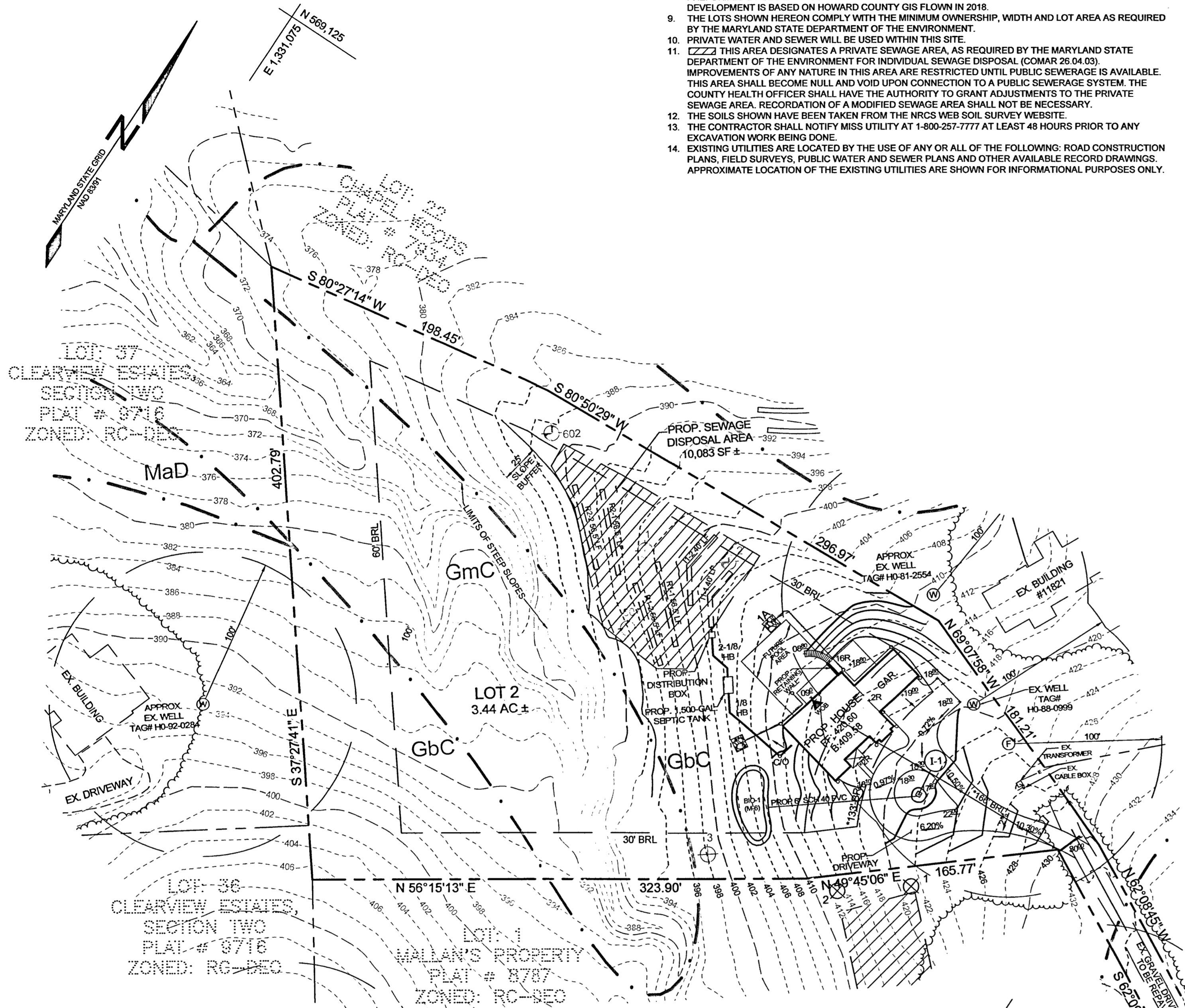
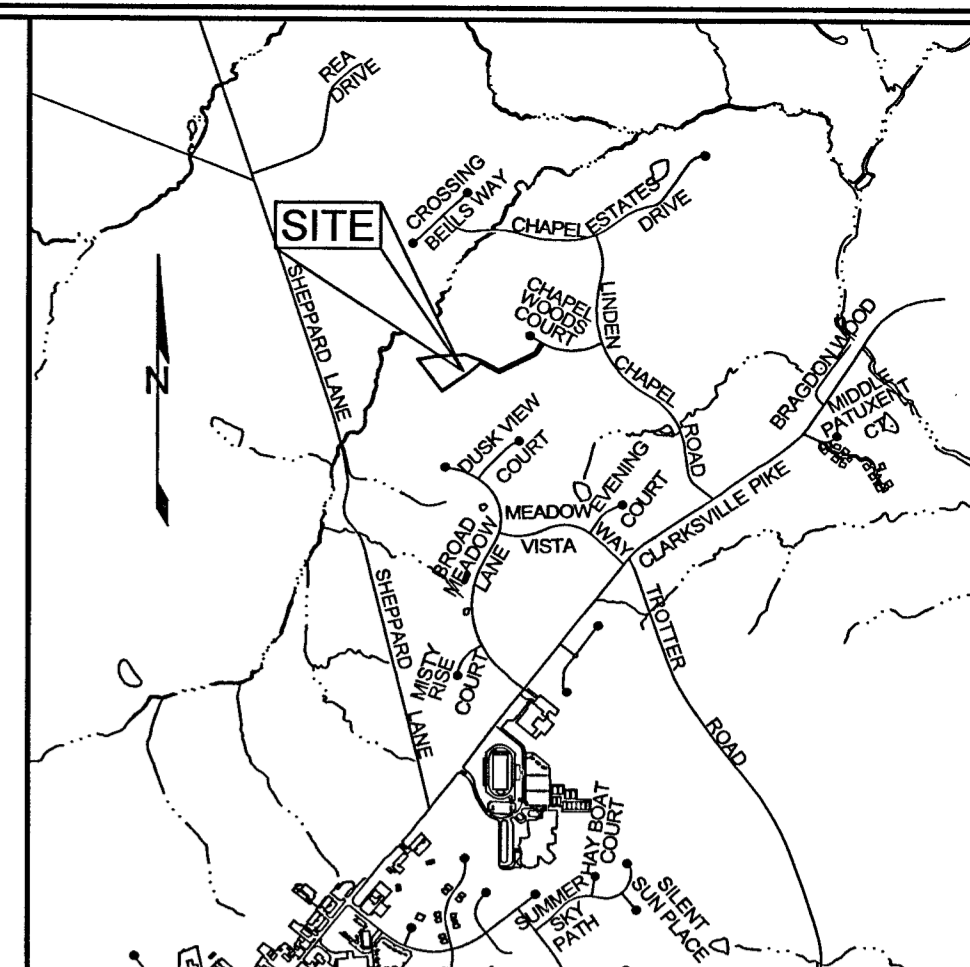
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32023, EXPIRATION DATE JUNE 30, 2025

GENERAL NOTES

- SUBJECT PROPERTY ZONED RC-DEO IN ACCORDANCE WITH THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN
- TOTAL AREA OF PROPERTY = 3.44 ACRES±
- PROPERTY ADDRESS: 11813 CHAPEL WOODS COURT, CLARKSVILLE MD 21029
- PLAT REFERENCE: PLAT #8787
- DEED REFERENCE: LIBER 3743 FOLIO 00571
- PREVIOUS HOWARD COUNTY FILE NUMBERS: STATE OF MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER AND SCIENCE ADMINISTRATION AUTHORIZATION NUMBER 20-NT-3094/2020060742.
- THE BOUNDARY SHOWN HERE ON IS BASED ON A BOUNDARY SURVEY PERFORMED BY SEG LAND SURVEYING IN NOVEMBER OF 2021.
- THE TOPOGRAPHY SHOWN WITHIN THE DEVELOPMENT AREA IS BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY SEG LAND SURVEYING IN AUGUST OF 2022. TOPOGRAPHY OUTSIDE OF THE AREA OF DEVELOPMENT IS BASED ON HOWARD COUNTY GIS FLOWN IN 2018.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP, WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- PRIVATE WATER AND SEWER WILL BE USED WITHIN THIS SITE.
- THIS AREA DESIGNATES A PRIVATE SEWAGE AREA, AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.04.03). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS AREA SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE AREA. RECREATION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.
- THE SOILS SHOWN HAVE BEEN TAKEN FROM THE NRCS WEB SOIL SURVEY WEBSITE.
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- EXISTING UTILITIES ARE LOCATED BY THE USE OF ANY OR ALL OF THE FOLLOWING: ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER PLANS AND OTHER AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.

LEGEND

- EXISTING GIS CONTOUR - - - - - 382
- EXISTING FIELD RUN CONTOUR - - - - - 382
- PROPOSED CONTOUR - - - - - 382
- SOIL BOUNDARY - - - - -
- EXISTING TREELINE - - - - -
- PROPOSED TREELINE - - - - -
- EXISTING WELL - - - - -
- PROPOSE FUTURE WELL - - - - -
- STEEP SLOPES, 25% OR GREATER - - - - -
- PROPOSED SEWAGE DISPOSAL AREA - - - - -
- PASSED PERCOLATION TEST HOLE - - - - -
- FAILED PERCOLATION TEST HOLE - - - - -



SEPTIC SYSTEM TRENCH DESIGN SPECIFICATIONS

- INITIAL SYSTEM SYSTEM:**
 - APPLICATION RATE: 1.2
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
- DESIGN FLOW:**
 - 5 BEDROOMS AT 150 GALLONS PER DAY (GPD)
 - 5 X 150 GPD = 750 GPD
- SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:**
 - DESIGN FLOW (750 GPD) / APPLICATION RATE (1.2) = 625 SF
- SIDEWALL REDUCTION CREDIT:**
 - TRENCH WIDTH (W) = 3.0'
 - TRENCH EFFECTIVE DEPTH (D) = 5.0'
 - (W+2) / (W+1+2D) X 100 = 36%
- LINEAR LENGTH OF TRENCH REQUIRED:**
 - DRAIN FIELD SQUARE FOOTAGE (625) X SIDEWALL REDUCTION CREDIT (36%) / TRENCH WIDTH (3.0) = 75'
- LINEAR LENGTH OF TRENCH PROVIDED = 80'**
- TWO TRENCHES AT 40 LF EACH:**
- EXISTING GROUND:**
 - TRENCH 11: 403.2
 - TRENCH 11: 401.2
 - TRENCH 11: 400.7
 - TRENCH 11: 398.7
- FIRST REPLACEMENT SYSTEM:**
 - APPLICATION RATE: 0.8
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
- DESIGN FLOW:**
 - 5 BEDROOMS AT 150 GALLONS PER DAY (GPD)
 - 5 X 150 GPD = 750 GPD
- SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:**
 - DESIGN FLOW (750 GPD) / APPLICATION RATE (0.8) = 937.5 SF
- SIDEWALL REDUCTION CREDIT:**
 - TRENCH WIDTH (W) = 3.0'
 - TRENCH EFFECTIVE DEPTH (D) = 5.0'
 - (W+2) / (W+1+2D) X 100 = 36%
- LINEAR LENGTH OF TRENCH REQUIRED:**
 - DRAIN FIELD SQUARE FOOTAGE (937.5) X SIDEWALL REDUCTION CREDIT (36%) / TRENCH WIDTH (3.0) = 112.5'
- LINEAR LENGTH OF TRENCH PROVIDED = 112'**
- TWO TRENCHES 56.5 LF EACH:**
- EXISTING GROUND:**
 - TRENCH R1-1: 397.9
 - TRENCH R1-1: 395.9
 - TRENCH R1-2: 394.9
 - TRENCH R1-2: 392.9
- SECOND REPLACEMENT SYSTEM:**
 - APPLICATION RATE: 0.8
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
- DESIGN FLOW:**
 - 5 BEDROOMS AT 150 GALLONS PER DAY (GPD)
 - 5 X 150 GPD = 750 GPD
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- LINEAR LENGTH OF TRENCH PROVIDED = 113'**
- TWO TRENCHES 56.5 LF EACH:**
- EXISTING GROUND:**
 - TRENCH R2-1: 392.8
 - TRENCH R2-1: 390.8
 - TRENCH R2-2: 390.5
 - TRENCH R2-2: 388.5

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GmC	GLENELG LOAM, 0 TO 3 PERCENT SLOPES	A	0.28
GmC	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	C	0.43
GmB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	C/D	0.37
GmB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	A	0.28

NOTES:
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE; NATURAL RESOURCES CONSERVATION SERVICE; WEB SOIL SURVEY.
 2) HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K' GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

ONSITE SEWAGE DISPOSAL SYSTEM PLAN

CHANDE PROPERTY
 11813 CHAPEL WOODS COURT
 LOT 2 MALLAN'S PROPERTY
 HOWARD COUNTY, MARYLAND

TAX MAP 29 GRID 13
 5TH ELECTION DISTRICT

DESIGN BY: PS
 DRAWN BY: TB
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: FEBRUARY 1, 2023
 PROJECT #: 20-067
 SHEET #: 1 of 1

SILL ENGINEERING GROUP, LLC
 16005 Frederick Road, 2nd Floor
 Woodbine, Maryland 21797
 Phone: 443.325.5076
 Fax: 410.696.2022
 Email: info@sillengineering.com
 Civil Engineering for Land Development

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. 32025, EXPIRATION DATE: JUNE 30, 2028.

OWNER/DEVELOPER
 ALHAD & KAREN CHANDE
 11101 DORSCH FARM ROAD
 ELLICOTT CITY, MARYLAND 21042

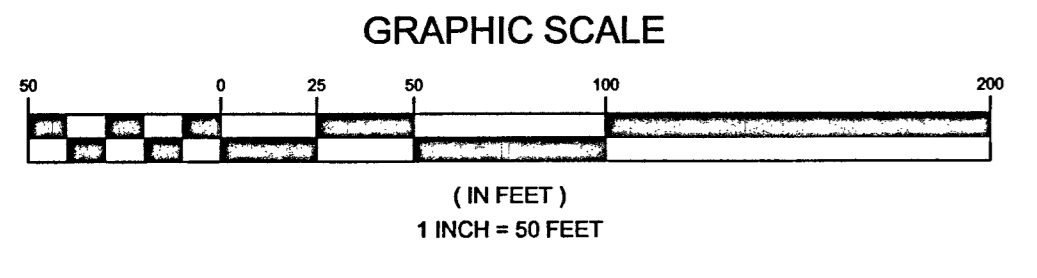
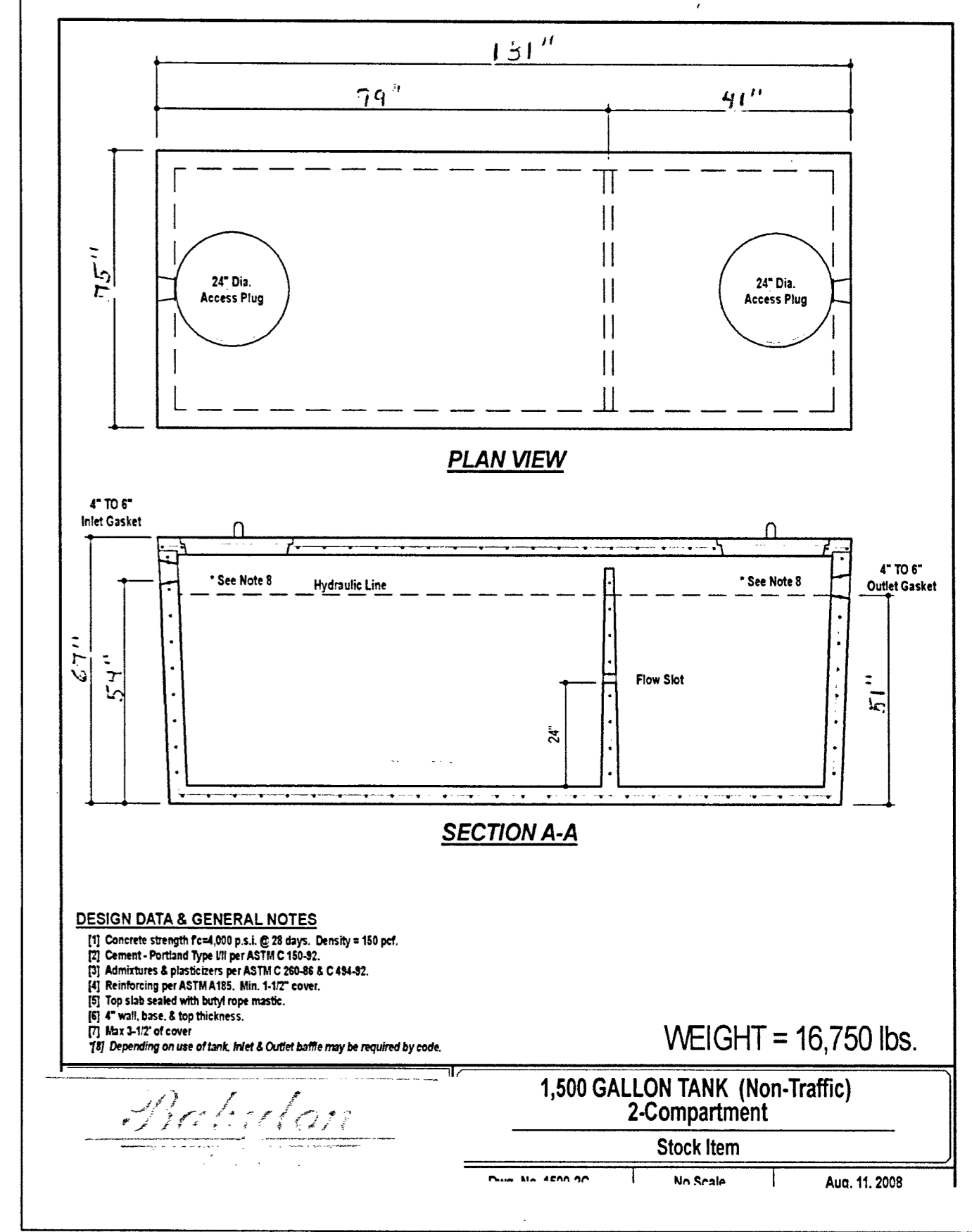
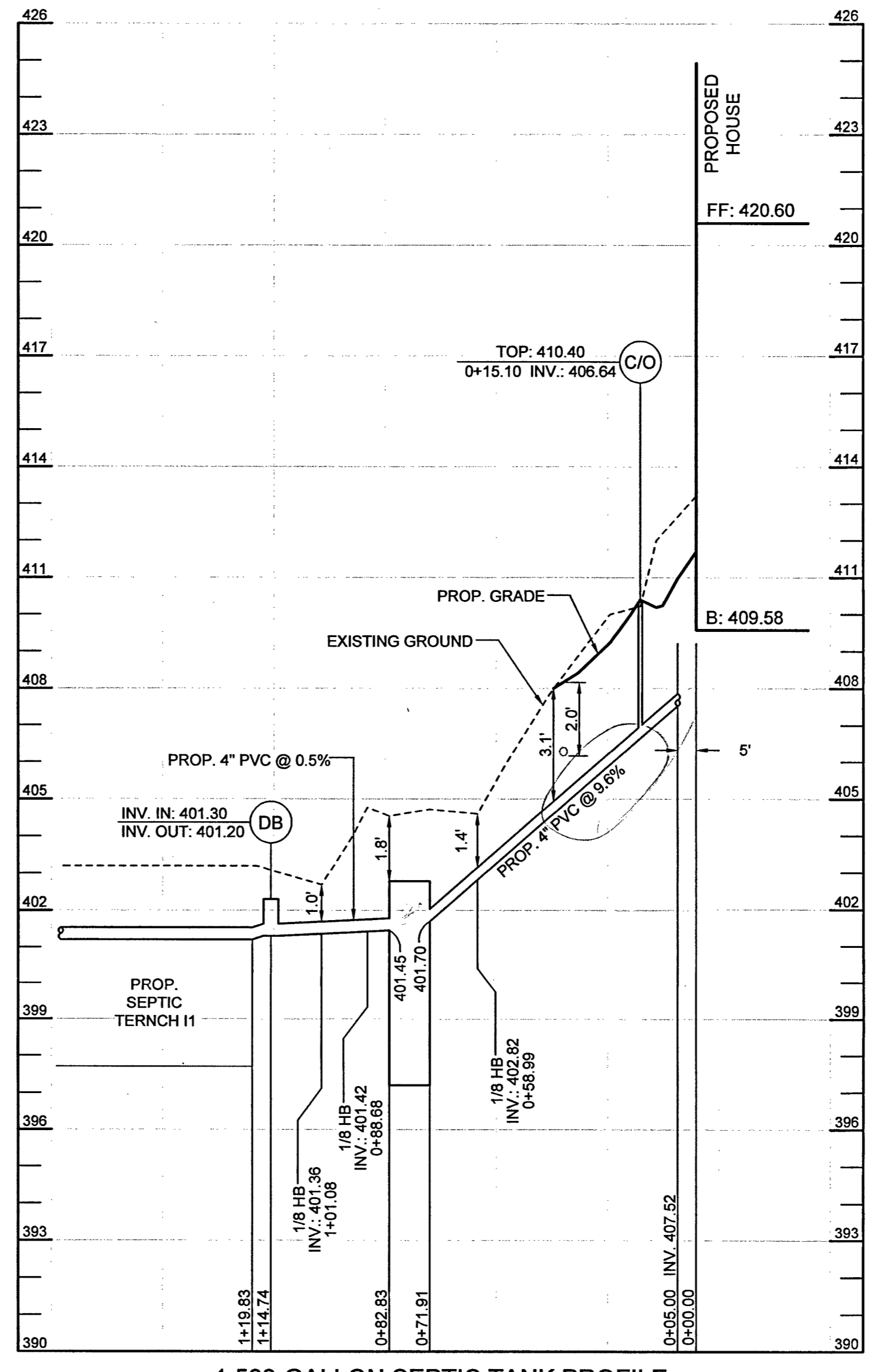
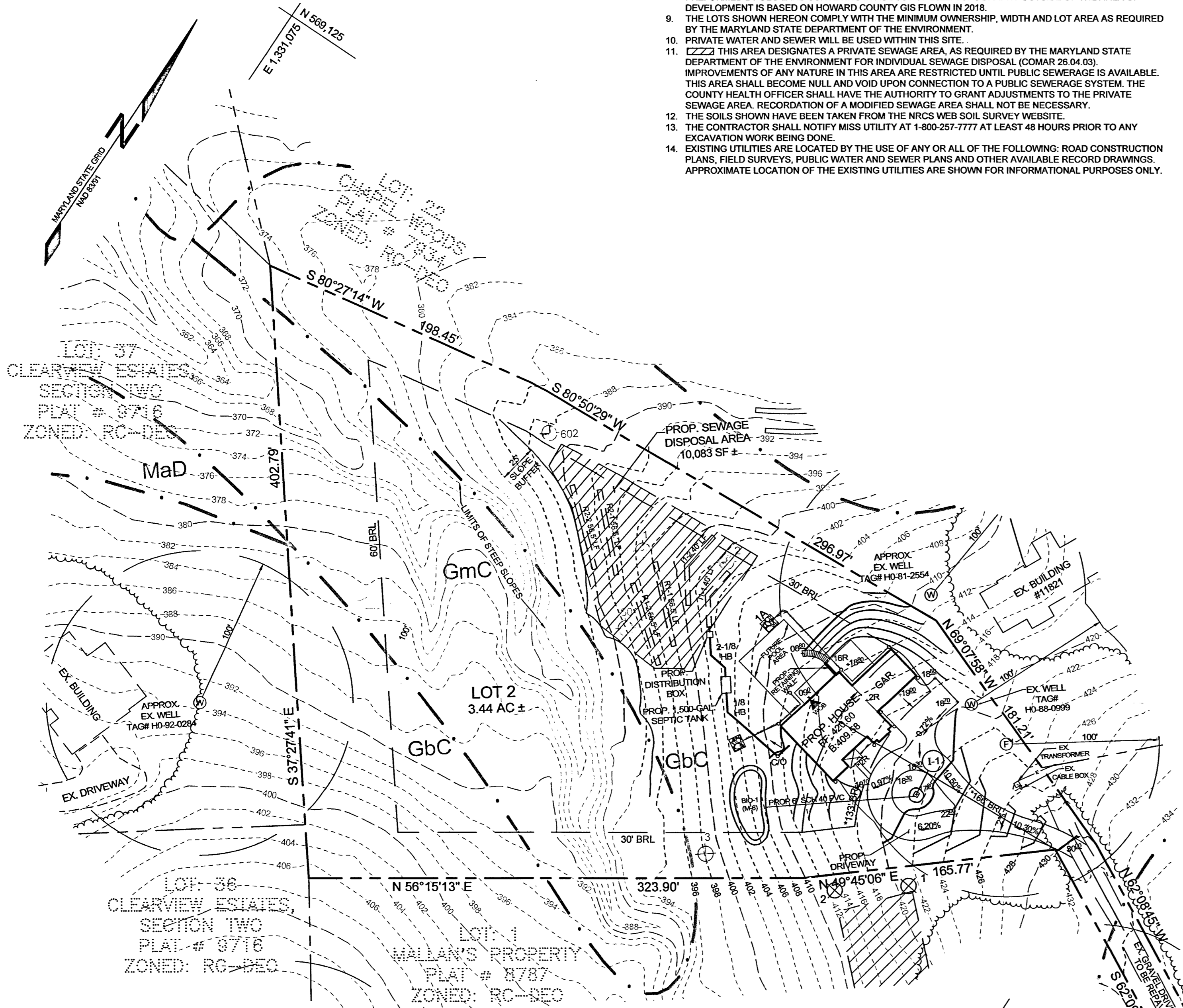
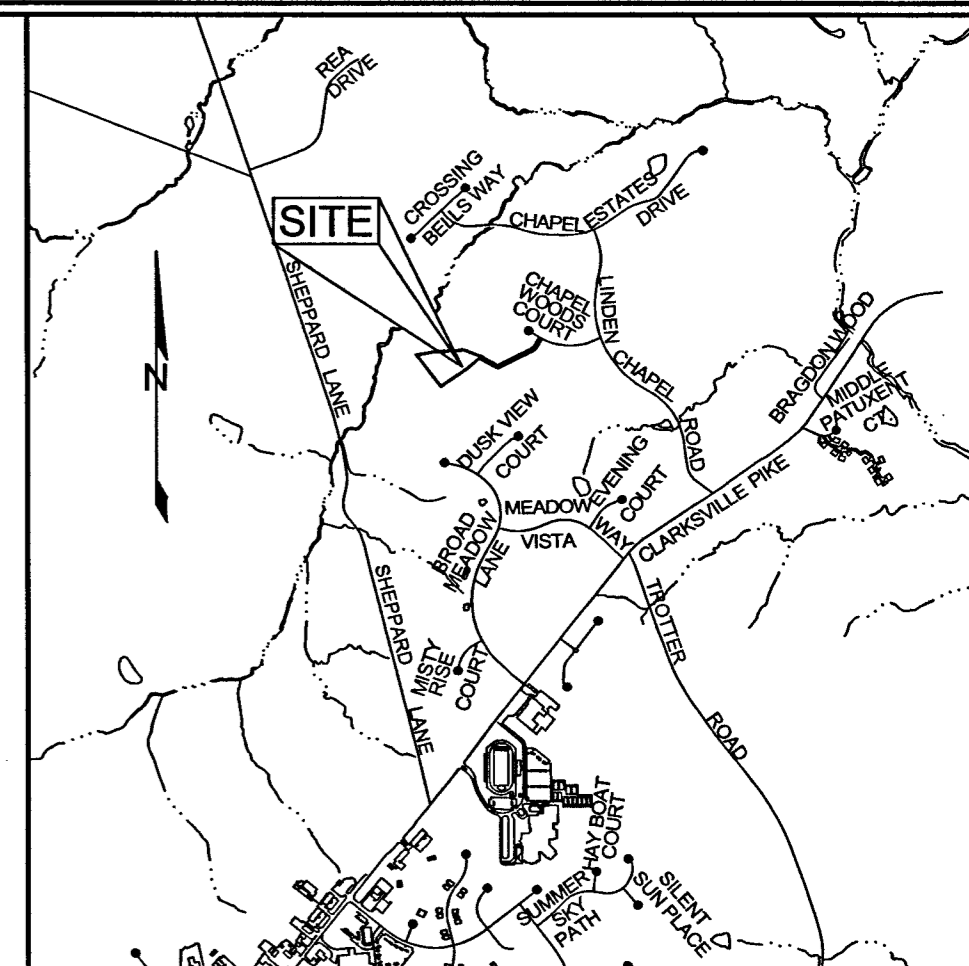
Approved Septic System Plan
 Howard County Health Department
 [Signature]
 Date: 3-15-23

GENERAL NOTES

- SUBJECT PROPERTY ZONED RC-DEO IN ACCORDANCE WITH THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN
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- PLAT REFERENCE: PLAT #8787
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LEGEND

- EXISTING GIS CONTOUR --- 382
- EXISTING FIELD RUN CONTOUR --- 382
- PROPOSED CONTOUR --- 382
- SOIL BOUNDARY ---
- EXISTING TREELINE ---
- PROPOSED TREELINE ---
- EXISTING WELL ---
- PROPOSE FUTURE WELL ---
- STEEP SLOPES, 25% OR GREATER ---
- PROPOSED SEWAGE DISPOSAL AREA ---
- PASSED PERCOLATION TEST HOLE ---
- FAILED PERCOLATION TEST HOLE ---



SEPTIC SYSTEM TRENCH DESIGN SPECIFICATIONS

- INITIAL SYSTEM SYSTEM:**
 - APPLICATION RATE: 1.2
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
- DESIGN FLOW:**
 - 5 BEDROOMS AT 150 GALLONS PER DAY (GPD)
 - 5 X 150 GPD = 750 GPD
- SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:**
 - DESIGN FLOW (750 GPD) / APPLICATION RATE (1.2) = 625 SF
- SIDEWALL REDUCTION CREDIT:**
 - TRENCH WIDTH (W) = 3.0'
 - TRENCH EFFECTIVE DEPTH (D) = 5.0'
 - (W+2) / (W+1+2D) X 100 = 36%
- LINEAR LENGTH OF TRENCH REQUIRED:**
 - DRAIN FIELD SQUARE FOOTAGE (625) X SIDEWALL REDUCTION CREDIT (36%) / TRENCH WIDTH (3.0) = 75'
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 - TWO TRENCHES AT 40 LF EACH:
- EXISTING GROUND:**
 - TRENCH I1: 403.2
 - INVERT: TRENCH I1: 401.2
 - EXISTING GROUND: TRENCH I1: 400.7
 - INVERT: TRENCH I1: 398.7
- FIRST REPLACEMENT SYSTEM:**
 - APPLICATION RATE: 0.8
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
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 - TRENCH R1-1: 397.9
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 - INVERT: TRENCH R2-1: 390.8
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 - INVERT: TRENCH R2-2: 388.5

SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GbC	GLENELG LOAM, 0 TO 3 PERCENT SLOPES	A	0.28
GmC	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	C	0.43
GmB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	C/D	0.37
GbB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	A	0.28

NOTES:
 1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, WEB SOIL SURVEY.
 2) HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K' GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

OWNER/DEVELOPER
 ALHAD & KAREN CHANDE
 1101 DORSCH FARM ROAD
 ELLICOTT CITY, MARYLAND 21042

ONSITE SEWAGE DISPOSAL SYSTEM PLAN
CHANDE PROPERTY
 11813 CHAPEL WOODS COURT
 LOT 2 MALLAN'S PROPERTY
 HOWARD COUNTY, MARYLAND

TAX MAP 29 GRID 13
 5TH ELECTION DISTRICT

DESIGN BY: PS
 DRAWN BY: TB
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: FEBRUARY 1, 2023
 PROJECT #: 20-067
 SHEET #: 1 of 1

SILL ENGINEERING GROUP, LLC
 16005 Frederick Road, 2nd Floor
 Woodbine, Maryland 21797
 Phone: 443.325.5076
 Fax: 410.696.2022
 Email: info@sillengineering.com
 Civil Engineering for Land Development

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. 30225, EXPIRATION DATE, JUNE 30, 2023.

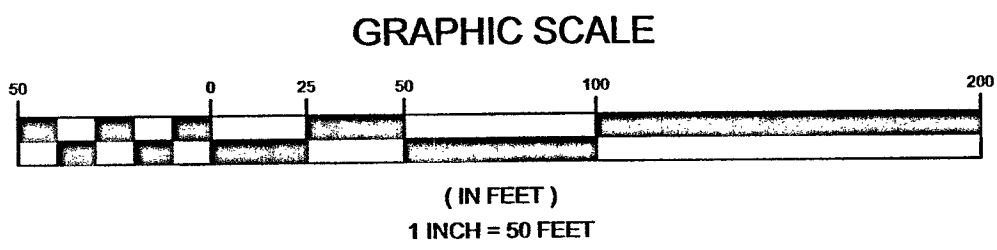
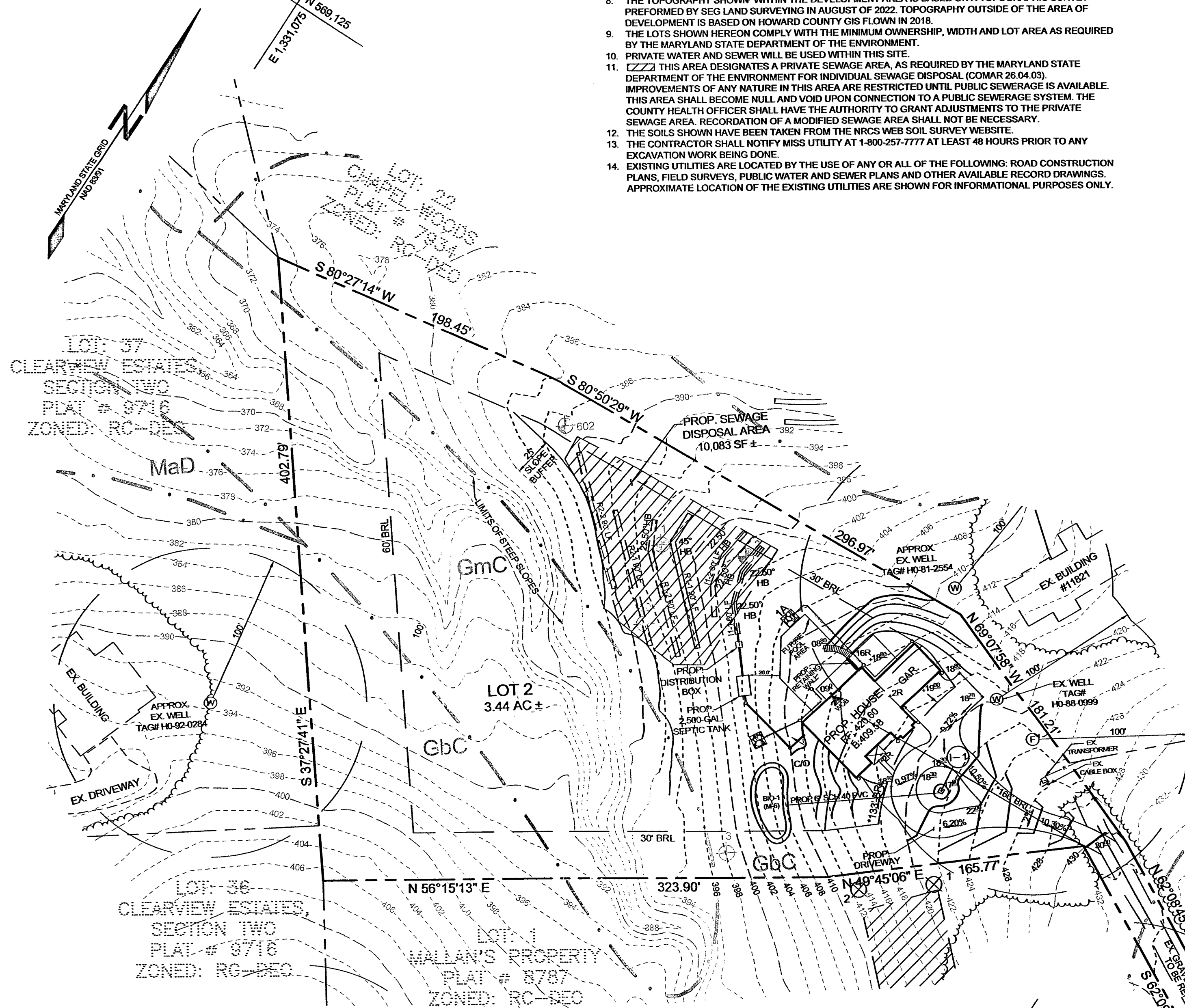
Approved Septic System Plan
 Howard County Health Department
 Signature: *D. Bernal*
 Date: 3-15-23

SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GBC	GLENELG LOAM, 0 TO 3 PERCENT SLOPES	A	0.28
GmC	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	C	0.43
GmB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	CD	0.37
GbB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	A	0.28

NOTES:
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GENERAL NOTES

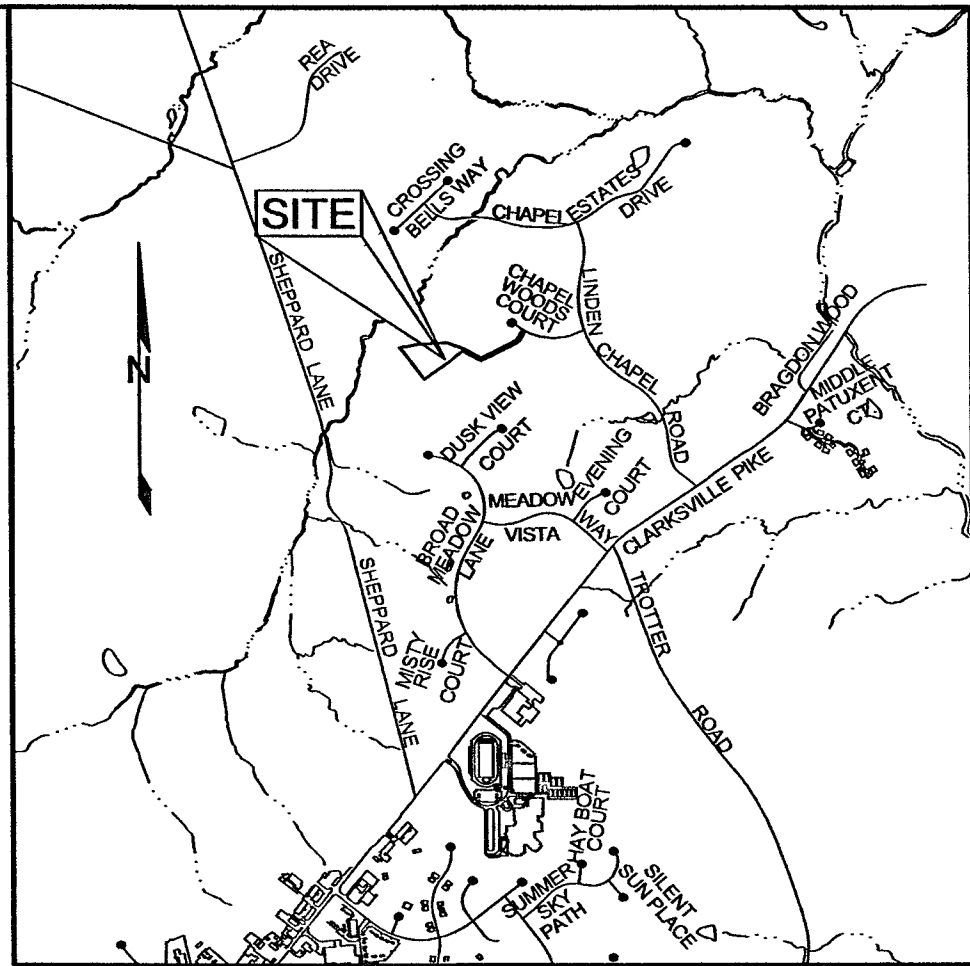
- SUBJECT PROPERTY ZONED RC-DEO IN ACCORDANCE WITH THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- TOTAL AREA OF PROPERTY = 3.44 ACRES±
- PROPERTY ADDRESS: 11813 CHAPEL WOODS COURT, CLARKSVILLE MD 21029
- PLAT REFERENCE: PLAT #8787
- DEED REFERENCE: LIBER 3743 FOLIO 00571
- PREVIOUS HOWARD COUNTY FILE NUMBERS: STATE OF MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER AND SCIENCE ADMINISTRATION AUTHORIZATION NUMBER 20-NT-3094/2020060742.
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- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
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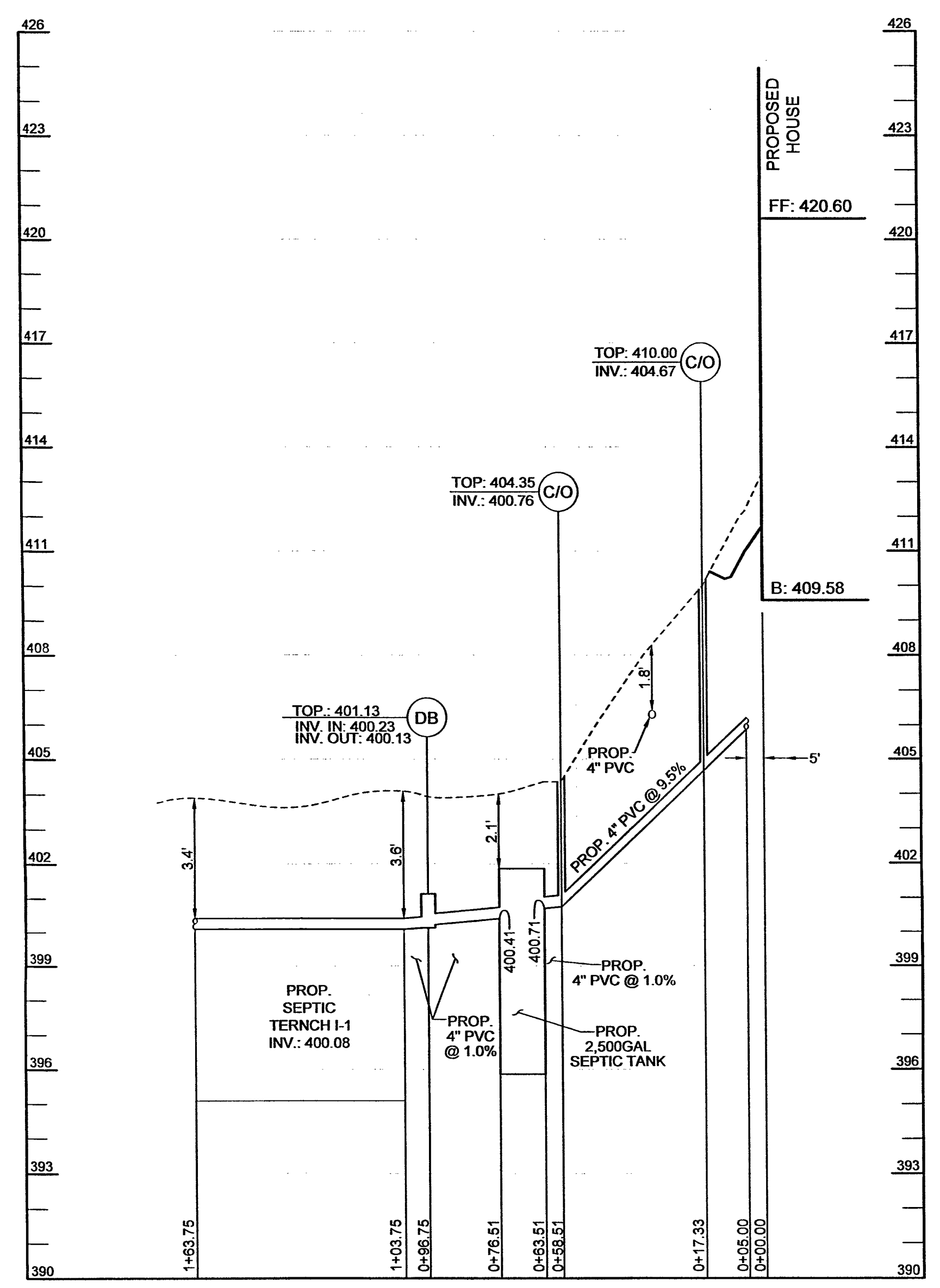
PLAN VIEW
SCALE: 1"=50'

LEGEND

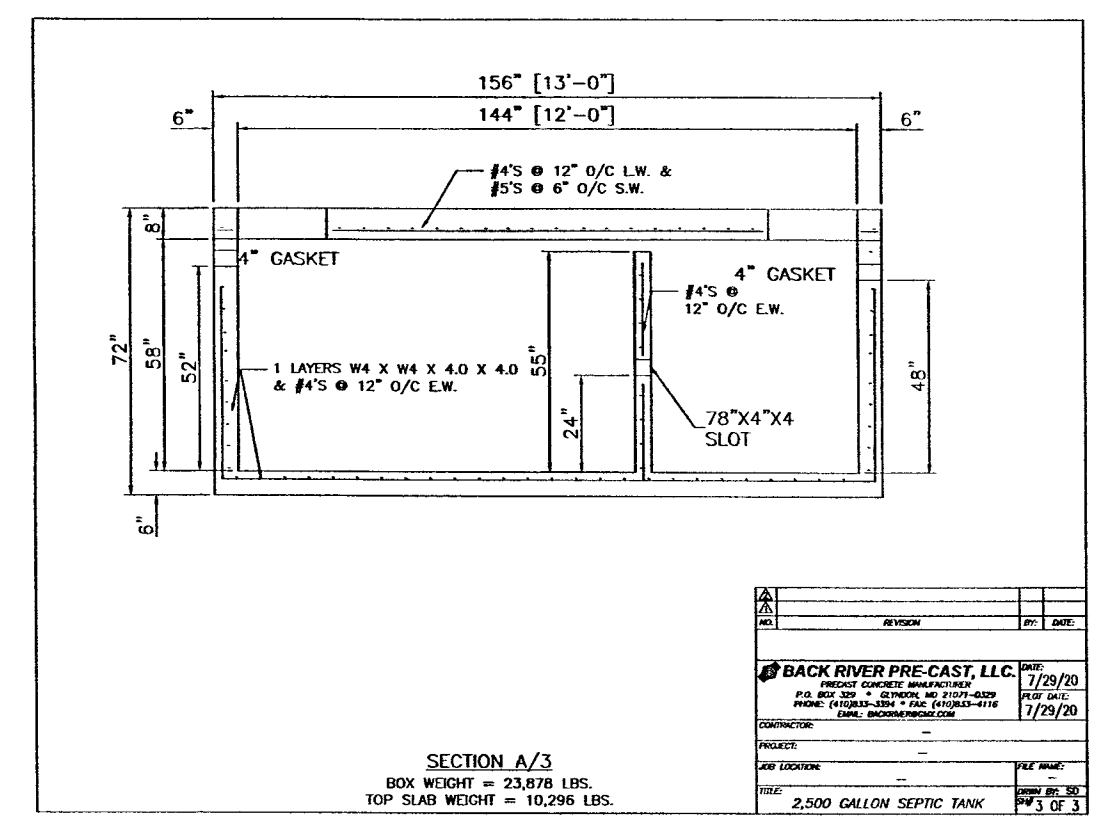
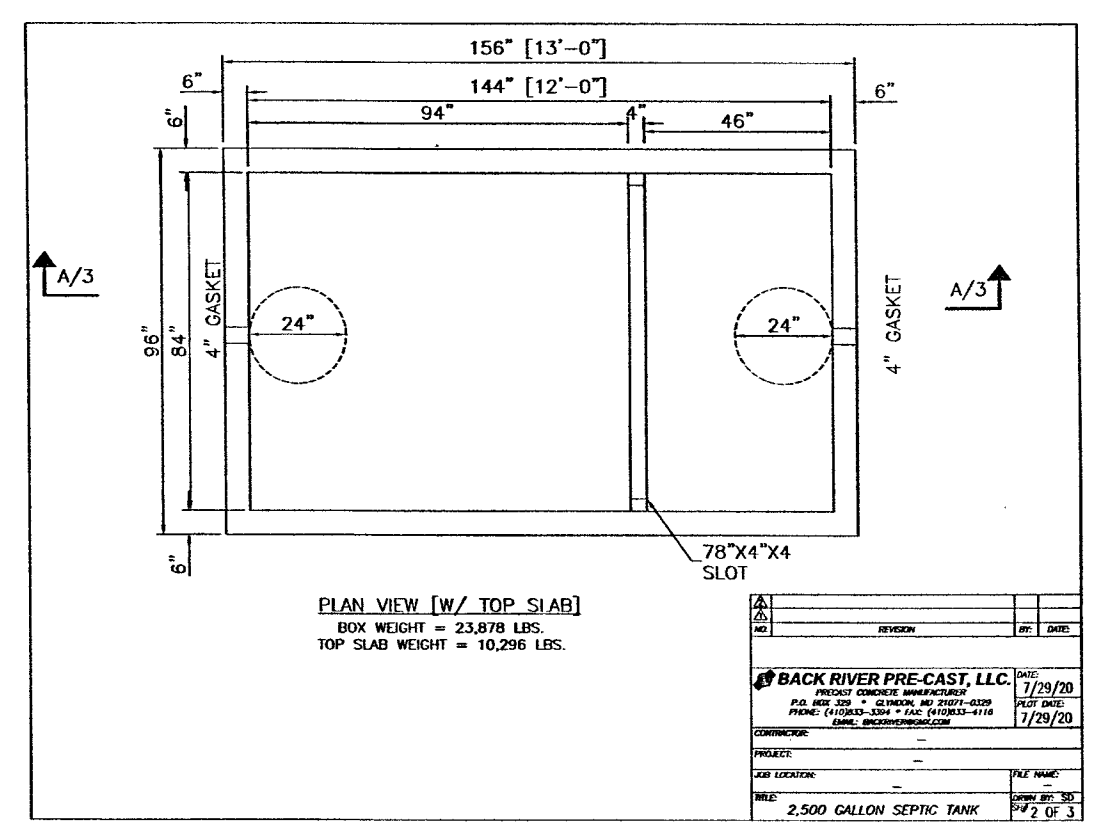
- EXISTING GIS CONTOUR: Dashed line with elevation (e.g., 382)
- EXISTING FIELD RUN CONTOUR: Solid line with elevation (e.g., 382)
- PROPOSED CONTOUR: Solid line with elevation (e.g., 382)
- SOIL BOUNDARY: Dashed line
- EXISTING TREELINE: Wavy line
- PROPOSED TREELINE: Dashed wavy line
- EXISTING WELL: Circle with 'W'
- PROPOSE FUTURE WELL: Circle with 'F'
- STEEP SLOPES, 25% OR GREATER: Stippled area
- PROPOSED SEWAGE DISPOSAL AREA: Hatched area
- PASSED PERCOLATION TEST HOLE: Circle with 'P'
- FAILED PERCOLATION TEST HOLE: Circle with 'F'



VICINITY MAP
SCALE: 1"=2000'



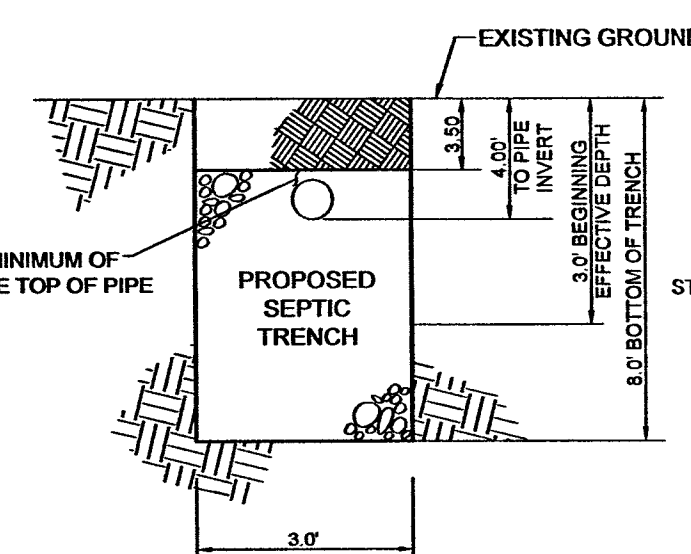
1,500-GALLON SEPTIC TANK PROFILE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'



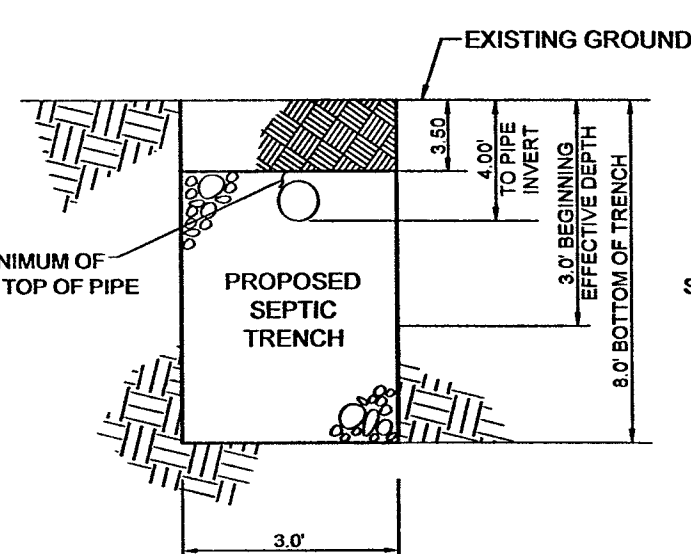
PROPOSED 2,500-GALLON SEPTIC TANK DETAIL
NOT TO SCALE

SEPTIC SYSTEM TRENCH DESIGN SPECIFICATIONS

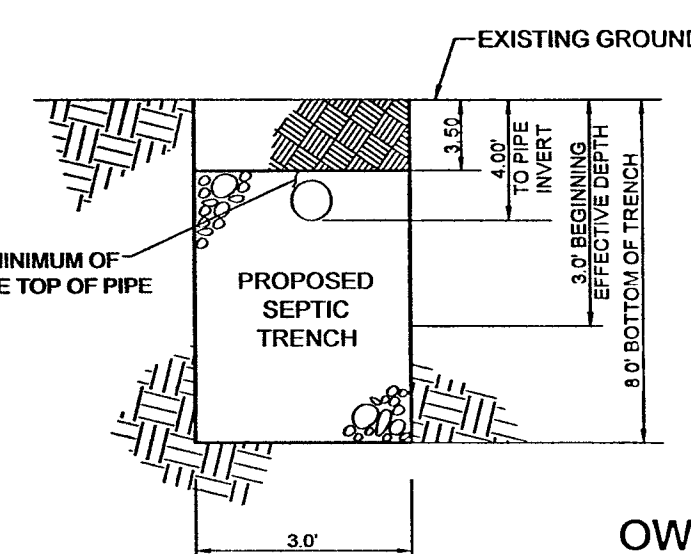
- INITIAL SYSTEM SYSTEM:**
 - APPLICATION RATE: 1.2
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
- DESIGN FLOW:**
 - 8 BEDROOMS AT 150 GALLONS PER DAY (GPD)
 - 8 X 150 GPD = 1,200 GPD
- SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:**
 - DESIGN FLOW (1,200 GPD) / APPLICATION RATE (1.2) = 1,000 SF
- SIDEWALL REDUCTION CREDIT:**
 - TRENCH WIDTH (W) = 3.0'
 - TRENCH EFFECTIVE DEPTH (D) = 5.0'
 - (W+2) / (W+1+2D) X 100 = 36%
- LINEAR LENGTH OF TRENCH REQUIRED:**
 - DRAIN FIELD SQUARE FOOTAGE (1,000) X SIDEWALL REDUCTION CREDIT (36%) / TRENCH WIDTH (3.0') = 120'
- LINEAR LENGTH OF TRENCH PROVIDED = 120'**
- TWO TRENCHES AT 60 LF EACH:**
- EXISTING GROUND:**
 - TRENCH I1: 403.7
 - TRENCH I1: 400.7
 - EXISTING GROUND: TRENCH I1: 402.0
 - TRENCH I1: 398.0
- FIRST REPLACEMENT SYSTEM:**
 - APPLICATION RATE: 0.8
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
- DESIGN FLOW:**
 - 8 BEDROOMS AT 150 GALLONS PER DAY (GPD)
 - 8 X 150 GPD = 1,200 GPD
- SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:**
 - DESIGN FLOW (1,200 GPD) / APPLICATION RATE (0.8) = 1,500 SF
- SIDEWALL REDUCTION CREDIT:**
 - TRENCH WIDTH (W) = 3.0'
 - TRENCH EFFECTIVE DEPTH (D) = 5.0'
 - (W+2) / (W+1+2D) X 100 = 36%
- LINEAR LENGTH OF TRENCH REQUIRED:**
 - DRAIN FIELD SQUARE FOOTAGE (1,500) X SIDEWALL REDUCTION CREDIT (36%) / TRENCH WIDTH (3.0') = 180'
- LINEAR LENGTH OF TRENCH PROVIDED = 180'**
- TWO TRENCHES 90 LF EACH:**
- EXISTING GROUND:**
 - TRENCH R1-1: 398.0
 - TRENCH R1-1: 394.0
 - EXISTING GROUND: TRENCH R1-2: 396.0
 - TRENCH R1-2: 392.0
- SECOND REPLACEMENT SYSTEM:**
 - APPLICATION RATE: 0.8
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
- DESIGN FLOW:**
 - 8 BEDROOMS AT 150 GALLONS PER DAY (GPD)
 - 8 X 150 GPD = 1,200 GPD
- SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:**
 - DESIGN FLOW (1,200 GPD) / APPLICATION RATE (0.8) = 1,500 SF
- SIDEWALL REDUCTION CREDIT:**
 - TRENCH WIDTH (W) = 3.0'
 - TRENCH EFFECTIVE DEPTH (D) = 5.0'
 - (W+2) / (W+1+2D) X 100 = 36%
- LINEAR LENGTH OF TRENCH REQUIRED:**
 - DRAIN FIELD SQUARE FOOTAGE (1,500) X SIDEWALL REDUCTION CREDIT (36%) / TRENCH WIDTH (3.0') = 180'
- LINEAR LENGTH OF TRENCH PROVIDED = 180'**
- TWO TRENCHES 90 LF EACH:**
- EXISTING GROUND:**
 - TRENCH R2-1: 392.0
 - TRENCH R2-1: 388.0
 - EXISTING GROUND: TRENCH R2-2: 390.0
 - TRENCH R2-2: 386.0



SEPTIC TRENCH DETAIL I-1
NOT TO SCALE



SEPTIC TRENCH DETAIL I-2
NOT TO SCALE



SEPTIC TRENCH DETAIL I-3
NOT TO SCALE

ONSITE SEWAGE DISPOSAL SYSTEM PLAN
CHANDE PROPERTY
 11813 CHAPEL WOODS COURT
 LOT 2 MALLAN'S PROPERTY
 TAX MAP 29 GRID 13
 5TH ELECTION DISTRICT
 PARCEL 36 LOT 2
 HOWARD COUNTY, MARYLAND

SILL ENGINEERING GROUP, LLC
 16005 Frederick Road, 2nd Floor
 Woodbine, Maryland 21797
 Phone: 410.325.5076
 Fax: 410.696.2022
 Email: info@sillengineering.com
 Civil Engineering for Land Development

DESIGN BY: PS
 DRAWN BY: ZS
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: APRIL 8, 2024
 PROJECT #: 20-057
 SHEET #: 1 of 1

OWNER/DEVELOPER
 ALHAD & KAREN CHANDE
 11101 DORSCH FARM ROAD
 ELLICOTT CITY, MARYLAND 21042

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. 38025, EXPIRATION DATE JUNE 20, 2025

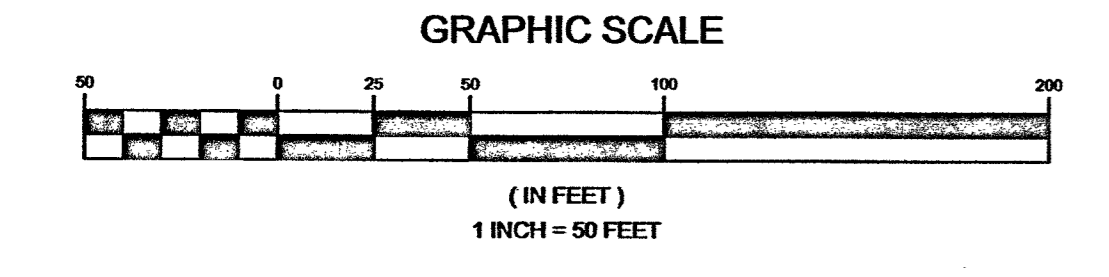
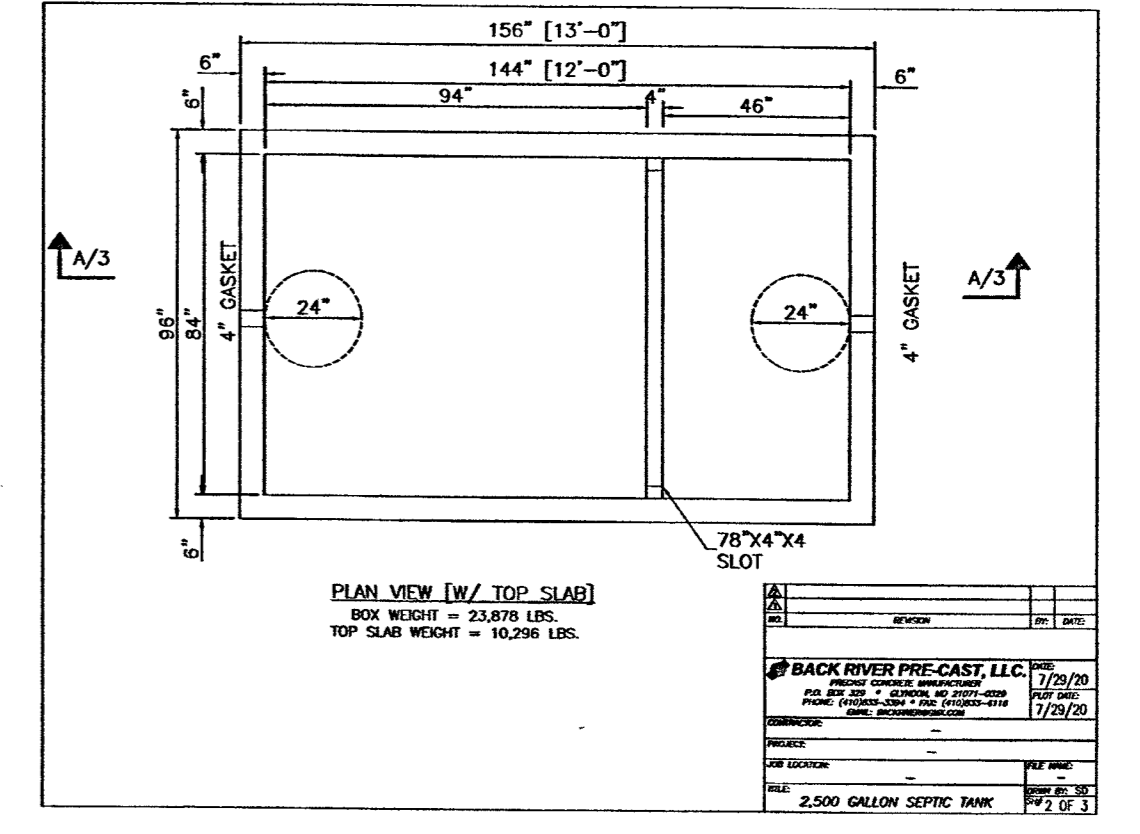
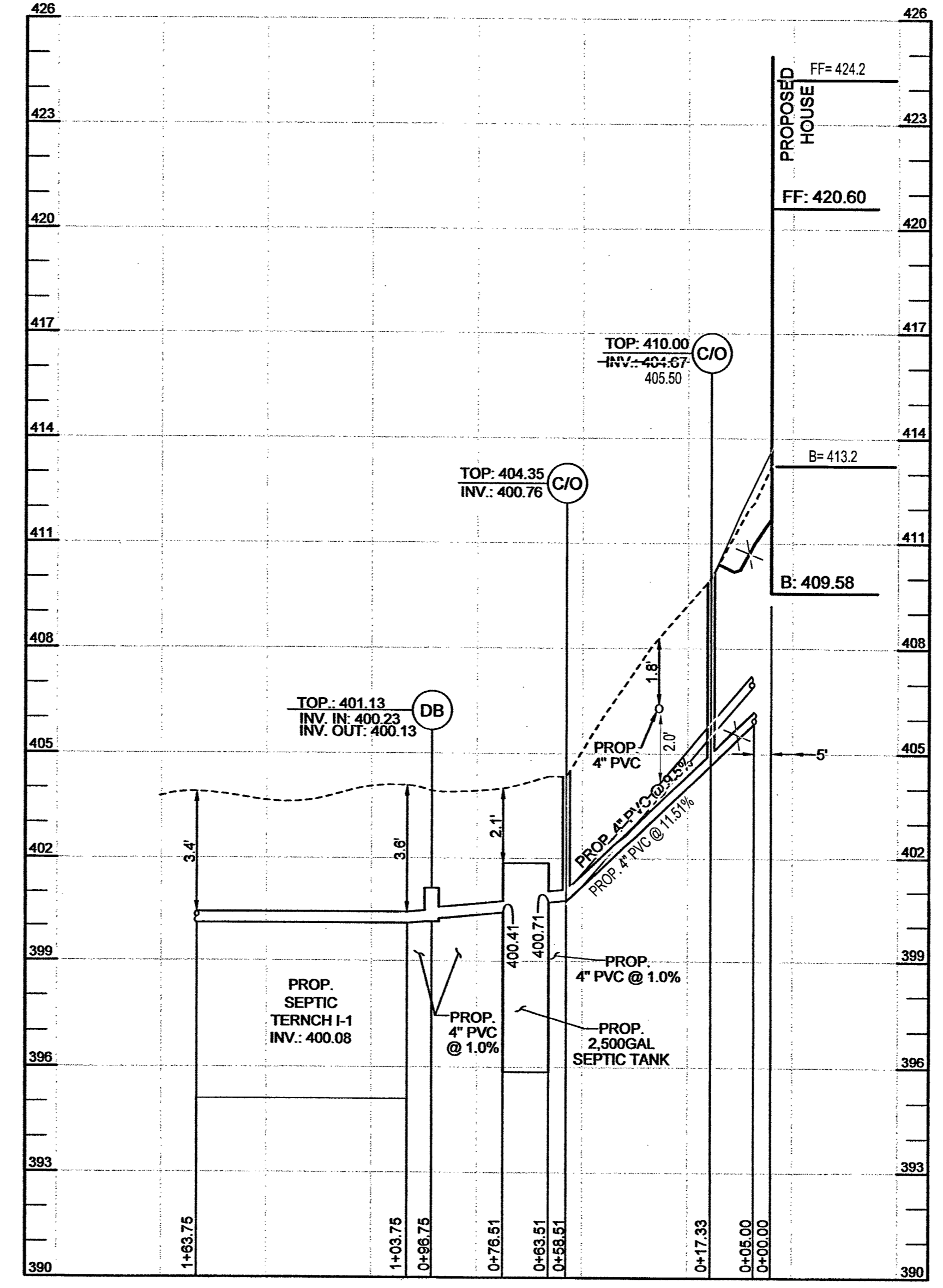
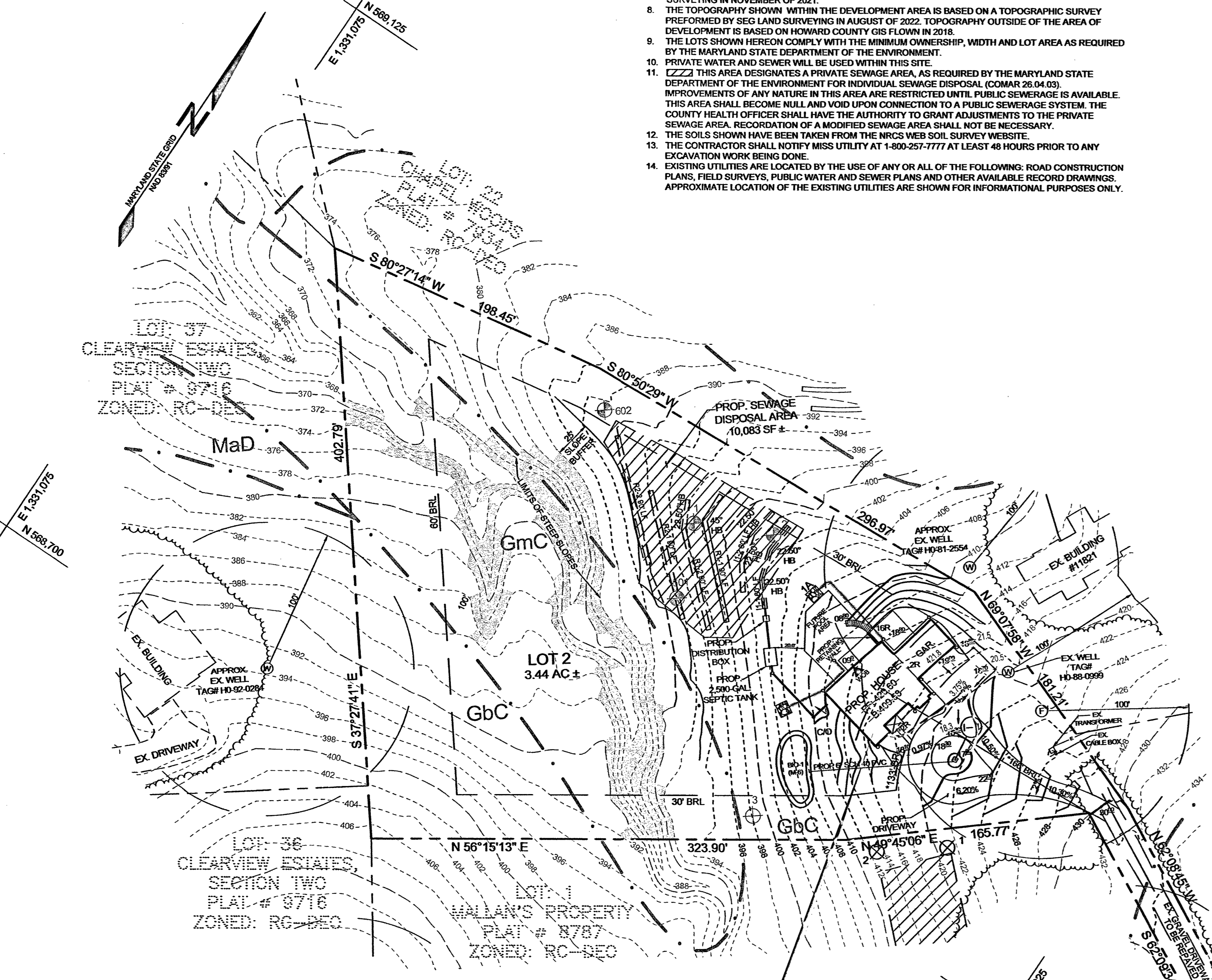
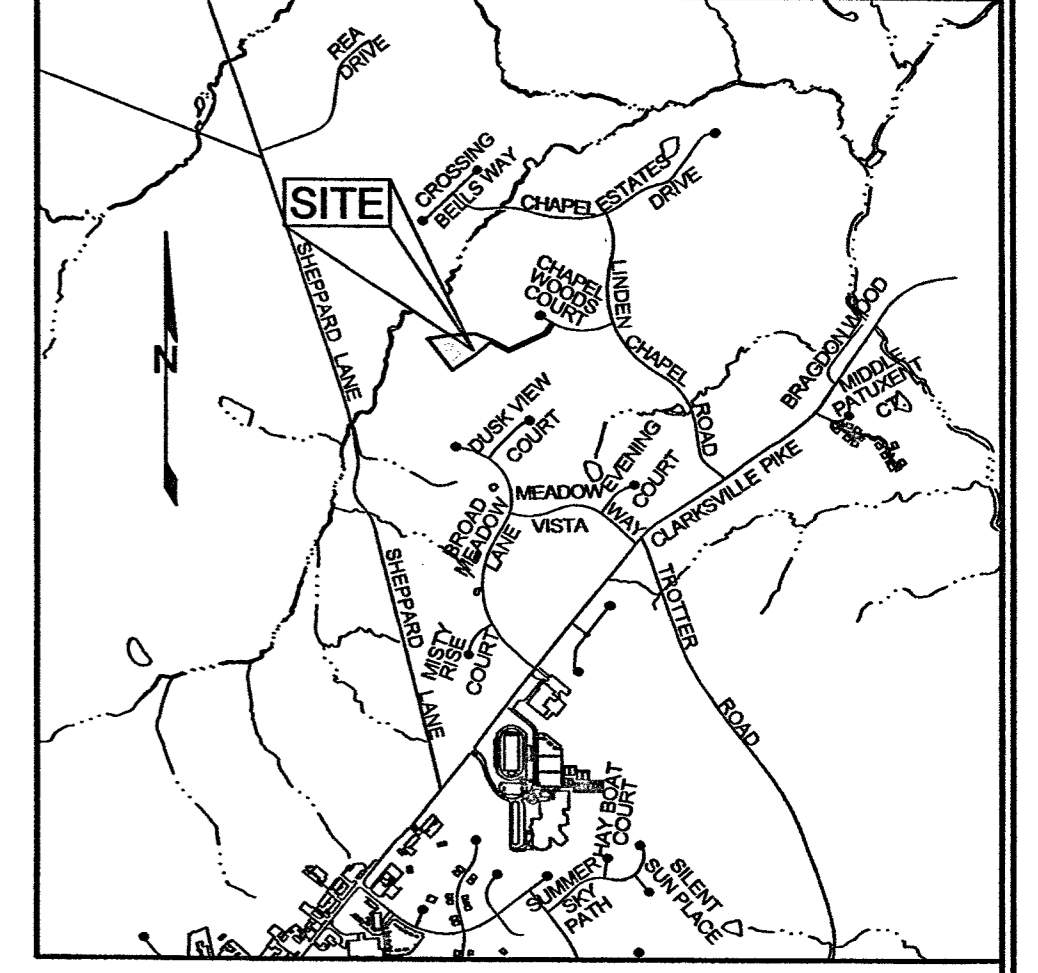
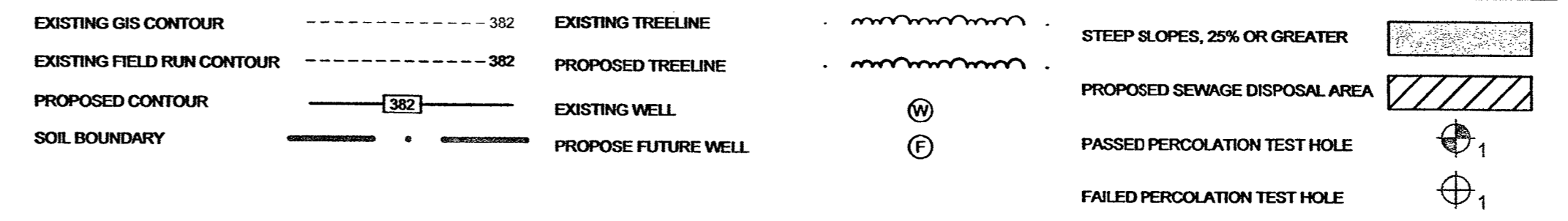
SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	"K" FACTOR
GmC	GLENELG LOAM, 0 TO 3 PERCENT SLOPES	A	0.28
GmC	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	A	0.43
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GmB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	A	0.28

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GENERAL NOTES

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- TOTAL AREA OF PROPERTY = 3.44 ACRES.
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- PLAT REFERENCE: PLAT #8787
- DEED REFERENCE: LIBER 3743 FOLIO 00571
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LEGEND



PLAN VIEW
SCALE: 1"=50'

AS-BUILT
FIRST FLOOR = ELEV. 424.2
BASEMENT FLOOR = ELEV. 413.2

1,500-GALLON SEPTIC TANK PROFILE

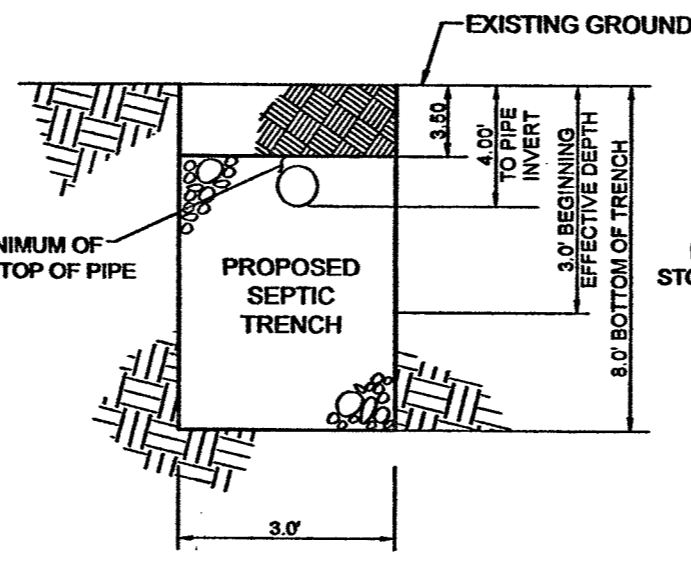
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'

PROPOSED 2,500-GALLON SEPTIC TANK DETAIL

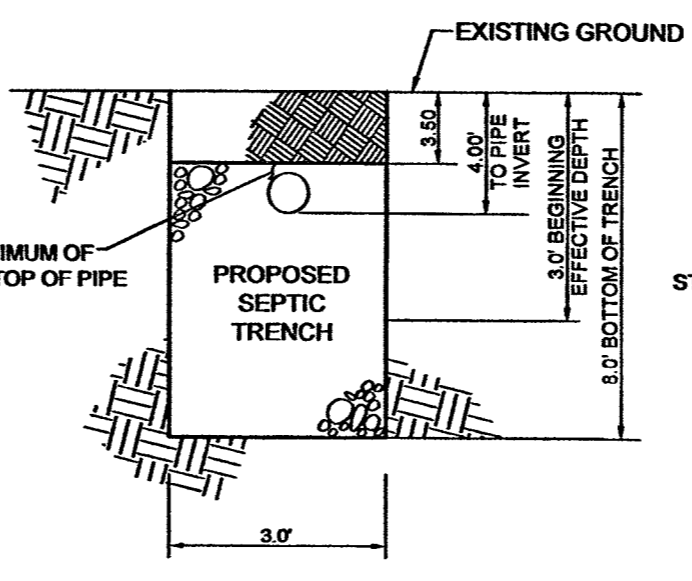
NOT TO SCALE

SEPTIC SYSTEM TRENCH DESIGN SPECIFICATIONS

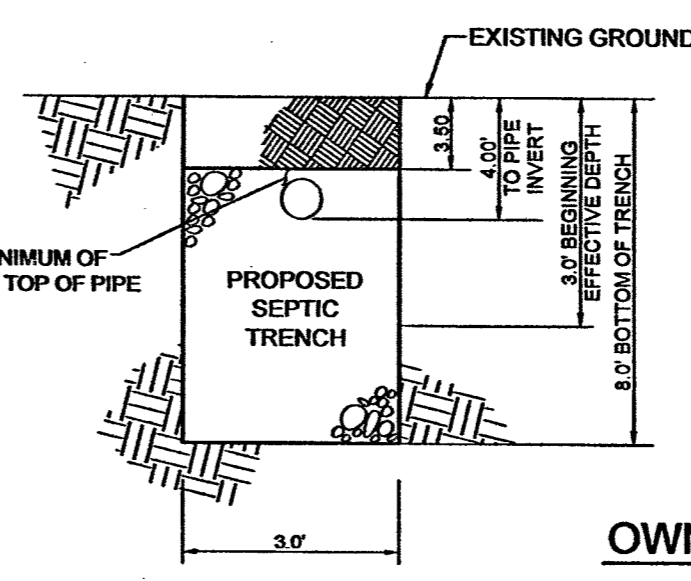
- INITIAL SYSTEM SYSTEM:**
 - APPLICATION RATE: 1.2
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
 - FIRST REPLACEMENT SYSTEM:**
 - APPLICATION RATE: 0.8
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
 - SECOND REPLACEMENT SYSTEM:**
 - APPLICATION RATE: 0.8
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
- DESIGN FLOW:
 - 8 BEDROOMS AT 150 GALLONS PER DAY (GPD)
 - 8 X 150 GPD = 1,200 GPD
 - SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:
 - DESIGN FLOW (1,200 GPD) / APPLICATION RATE (1.2) = 1,000 SF
 - SIDEWALL REDUCTION CREDIT:
 - TRENCH WIDTH (W) = 3.0'
 - TRENCH EFFECTIVE DEPTH (D) = 5.0'
 - (W+2) / (W+2D) X 100 = 36%
 - LINEAR LENGTH OF TRENCH REQUIRED:
 - DRAIN FIELD SQUARE FOOTAGE (1,000) X SIDEWALL REDUCTION CREDIT (36%) / TRENCH WIDTH (3.0) = 120'
 - EXISTING GROUND:
 - TRENCH 1: 403.7
 - INVERT: TRENCH 1: 400.7
 - EXISTING GROUND: TRENCH 1: 402.0
 - INVERT: TRENCH 1: 398.0



SEPTIC TRENCH DETAIL I-1
NOT TO SCALE



SEPTIC TRENCH DETAIL I-2
NOT TO SCALE



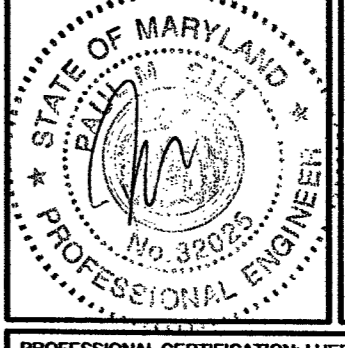
SEPTIC TRENCH DETAIL I-3
NOT TO SCALE

ONSITE SEWAGE DISPOSAL SYSTEM PLAN

CHANDE PROPERTY

11813 CHAPEL WOODS COURT
LOT 2 MALLAN'S PROPERTY

TAX MAP 29 GRID 13
5TH ELECTION DISTRICT
PARCEL 36 LOT 2
HOWARD COUNTY, MARYLAND



SILL ENGINEERING GROUP, LLC
 16005 Frederick Road, 2nd Floor
 Woodbine, Maryland 21797
 Phone: 443.325.5076
 Fax: 410.696.2022
 Email: info@sillengineering.com
 Civil Engineering for Land Development

DESIGN BY: PS
 DRAWN BY: ZS
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: APRIL 8, 2024
 PROJECT #: 20-067
 SHEET #: 1 of 1

REVISED - RED LINED PLAN
 BUILDING PERMIT B24000366
 REDLINE REVISIONS BY:
 RTF ASSOCIATES, INC.
 142 EAST MAIN STREET
 WESTMINSTER, MARYLAND 21157
 410-848-2040, 410-876-1222

REVISED FLOOR ELEVATIONS = 03-19-2025

OWNER/DEVELOPER
 ALHAD & KAREN CHANDE
 1101 DORSCH FARM ROAD
 ELLICOTT CITY, MARYLAND 21042

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A QUALY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 30225, EXPIRATION DATE JUNE 20, 2025

SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GbC	GLENELG LOAM, 0 TO 3 PERCENT SLOPES	A	0.28
GmC	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	C	0.43
GmB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	GD	0.37
GbB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	A	0.28

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LEGEND

EXISTING GIS CONTOUR --- 382 --- EXISTING TREELINE [Symbol]

EXISTING FIELD RUN CONTOUR - - - 382 - - - PROPOSED TREELINE [Symbol]

PROPOSED CONTOUR [Symbol] EXISTING WELL [Symbol]

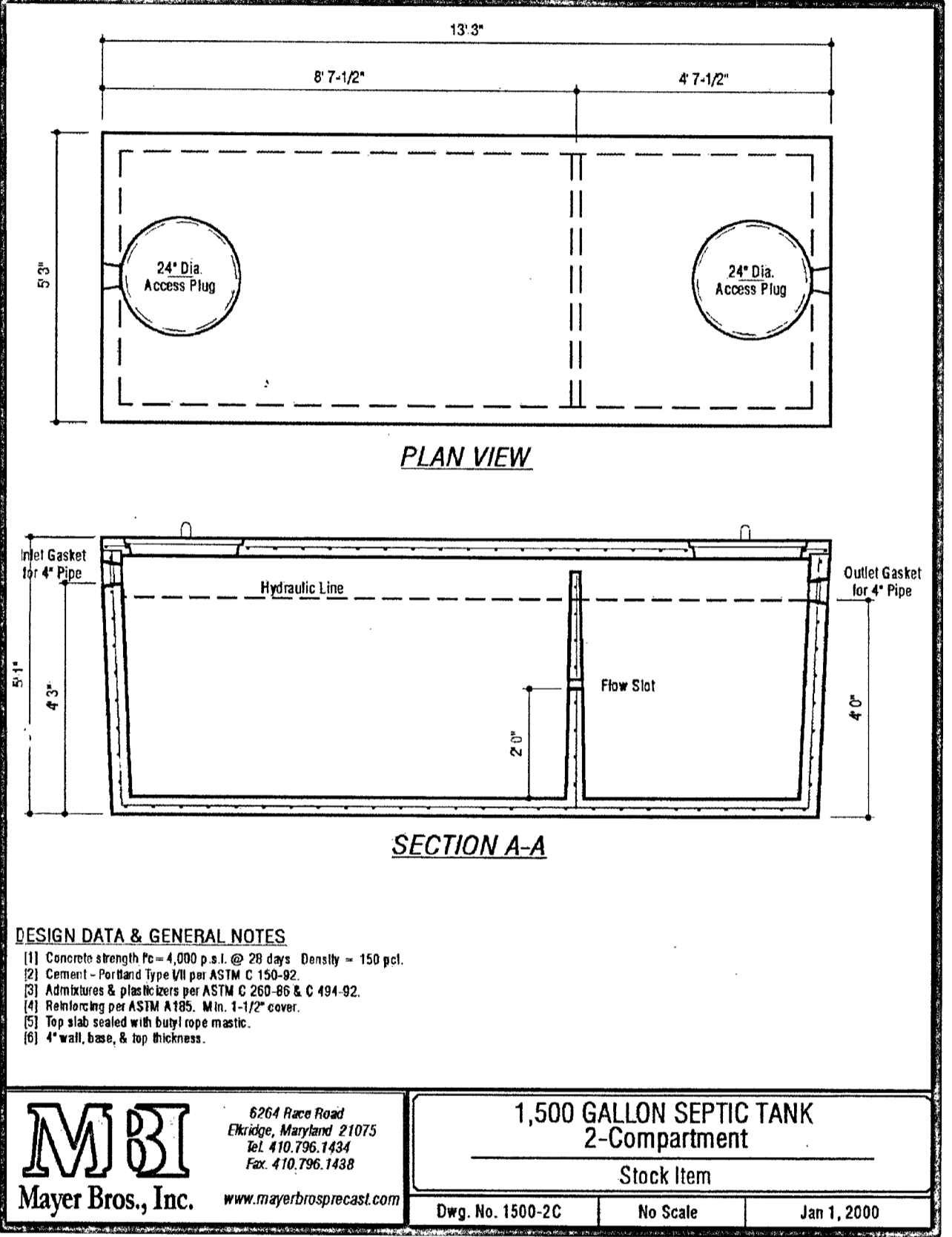
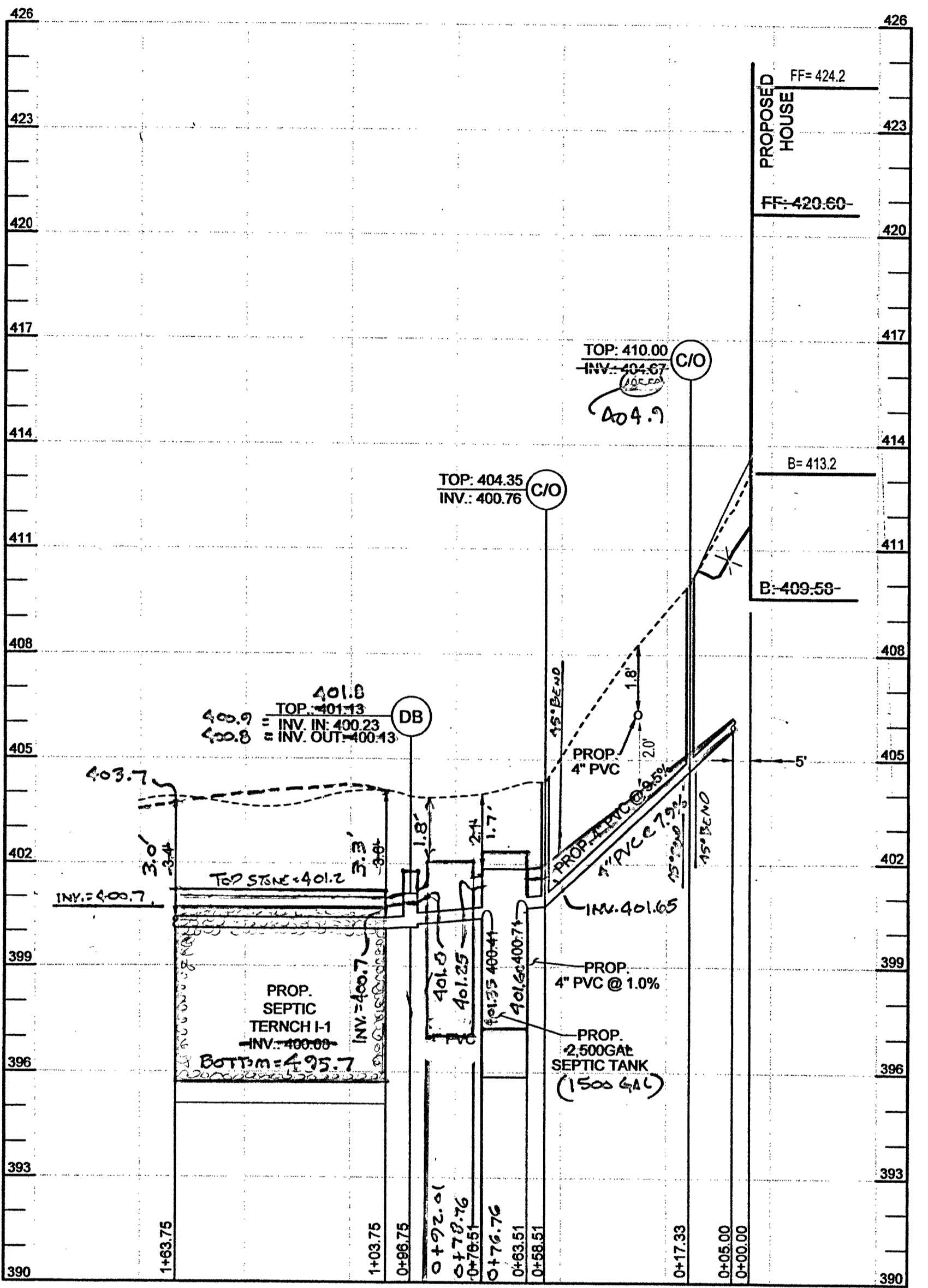
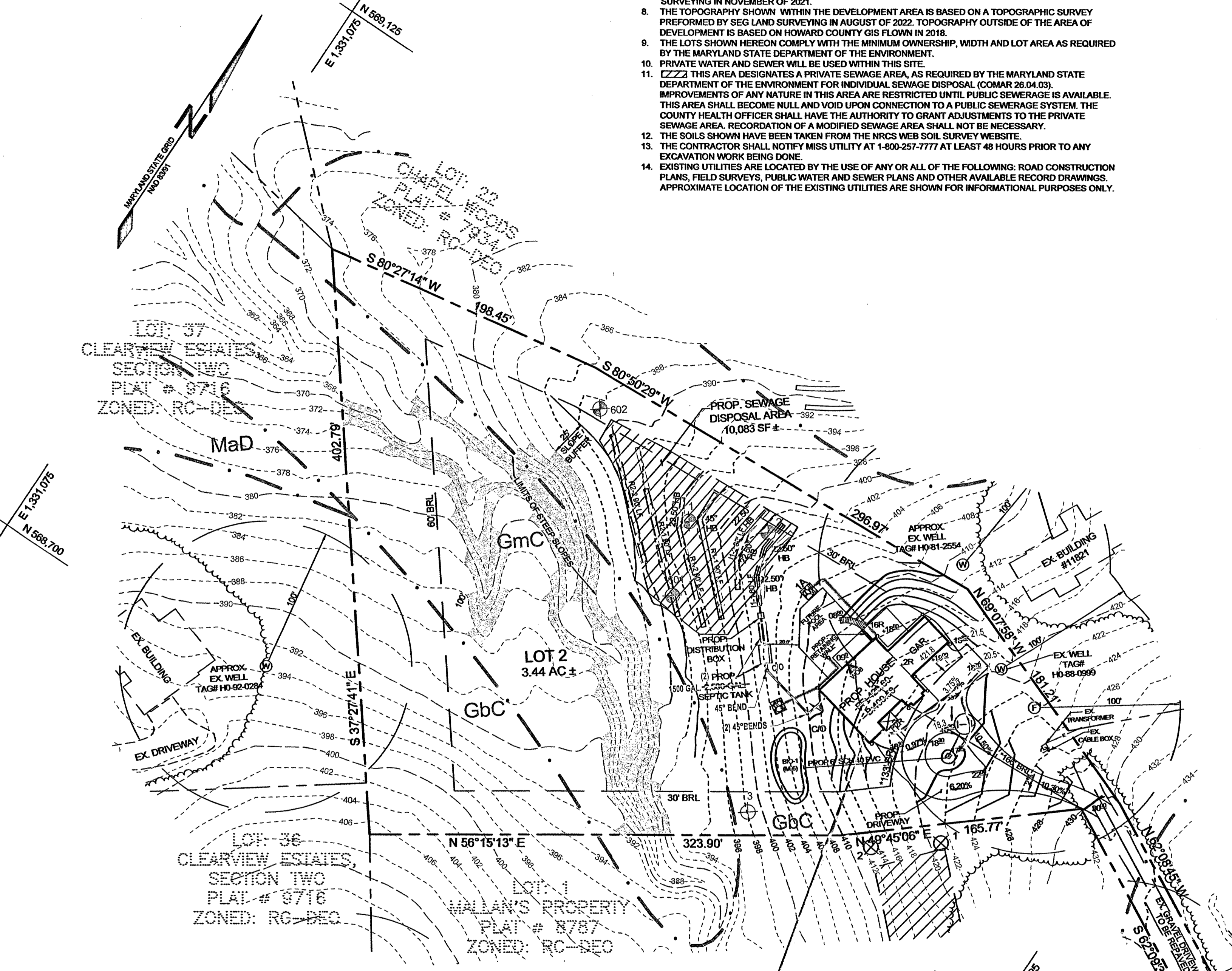
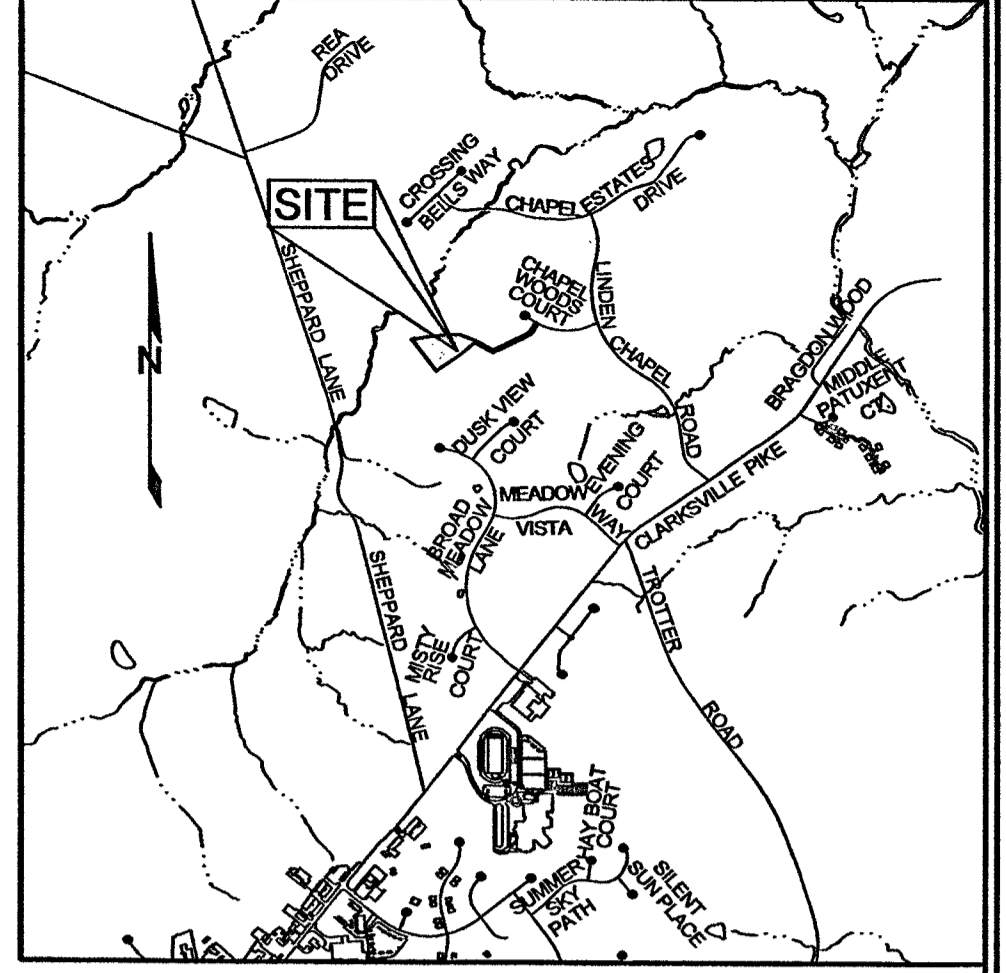
SOIL BOUNDARY [Symbol] PROPOSED FUTURE WELL [Symbol]

STEEP SLOPES, 25% OR GREATER [Symbol]

PROPOSED SEWAGE DISPOSAL AREA [Symbol]

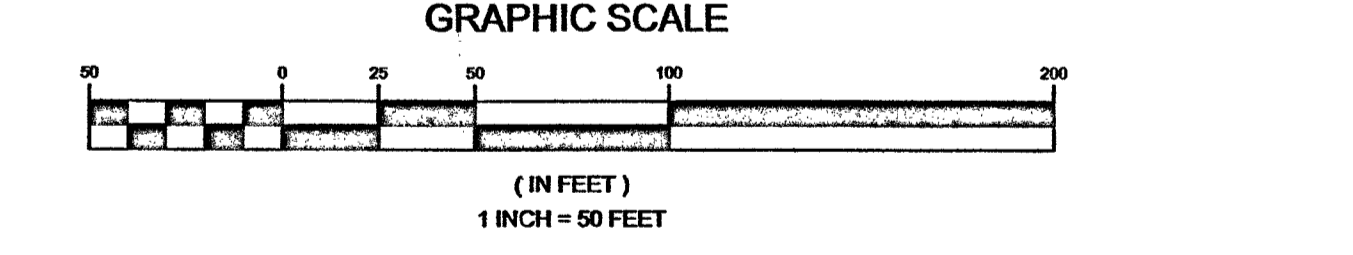
PASSED PERCOLATION TEST HOLE [Symbol]

FAILED PERCOLATION TEST HOLE [Symbol]



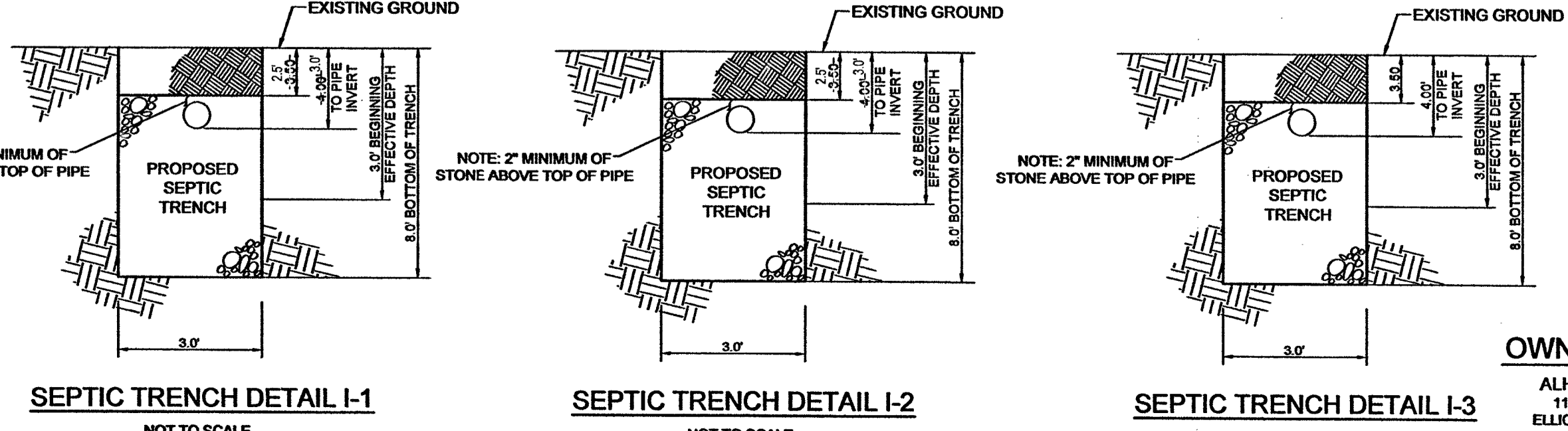
REVISED - RED LINED PLAN BUILDING PERMIT B24000366
 REDLINE REVISIONS BY:
 RTF ASSOCIATES, INC.
 (JOHN LEMMERMAN, MDE #00678)
 142 EAST MAIN STREET
 WESTMINSTER, MARYLAND 21157
 410-848-2040, 410-876-1222

REVISED: (2) SEPTIC TANKS = 04-11-2025
 REVISED: COUNTY COMMENTS = 04-07-2025
 REVISED FLOOR ELEVATIONS = 03-19-2025



SEPTIC SYSTEM TRENCH DESIGN SPECIFICATIONS

- INITIAL SYSTEM SYSTEM:**
 - APPLICATION RATE: 1.2
 - EFFECTIVE AREA BEGINNING DEPTH: 3.0'
 - BOTTOM MAXIMUM DEPTH: 8.0'
- DESIGN FLOW:**
 - 8 BEDROOMS AT 150 GALLONS PER DAY (GPD)
 - 8 X 150 GPD = 1,200 GPD
- 2. SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:**
 - DESIGN FLOW (1,200 GPD) / APPLICATION RATE (1.2) = 1,000 SF
- 3. SIDEWALL REDUCTION CREDIT:**
 - TRENCH WIDTH (W) = 3.0'
 - TRENCH EFFECTIVE DEPTH (D) = 6.0'
 - (W+2) / (W+1+2D) X 100 = 36%
- 4. LINEAR LENGTH OF TRENCH REQUIRED:**
 - DRAIN FIELD SQUARE FOOTAGE (1,000) X SIDEWALL REDUCTION CREDIT (36%) / TRENCH WIDTH (3.0') = 120'
- 5. LINEAR LENGTH OF TRENCH PROVIDED = 120'**
- TWO TRENCHES AT 60 LF EACH:**
 - TRENCH R1-1: 403.7
 - TRENCH R1-2: 398.0
 - TRENCH R2-1: 402.0
 - TRENCH R2-2: 399.0
- 6. EXISTING GROUND:**
 - INVERT: TRENCH R1-1: 403.7
 - EXISTING GROUND: TRENCH R1-1: 402.0 (TRENCH 1)
 - INVERT: TRENCH R1-2: 398.0
 - EXISTING GROUND: TRENCH R1-2: 399.0 (TRENCH 2)



ONSITE SEWAGE DISPOSAL SYSTEM PLAN

CHANDE PROPERTY

11813 CHAPEL WOODS COURT
 LOT 2 MALLAN'S PROPERTY
 HOWARD COUNTY, MARYLAND

TAX MAP 29 GRID 13
 5TH ELECTION DISTRICT
 PARCEL 36 LOT 2

OWNER/DEVELOPER
ALHAD & KAREN CHANDE
 11101 DORSCH FARM ROAD
 ELLICOTT CITY, MARYLAND 21042

DESIGN BY: PS
 DRAWN BY: ZS
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: APRIL 8, 2024
 PROJECT #: 20-067
 SHEET #: 1 OF 1

SILL ENGINEERING GROUP, LLC
 16005 Frederick Road, 2nd Floor
 Woodbine, Maryland 21797
 Phone: 410.325.5076
 Fax: 410.696.2022
 Email: info@sillingengineering.com
 Civil Engineering for Land Development

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. 32005, EXPIRATION DATE: APRIL 8, 2025