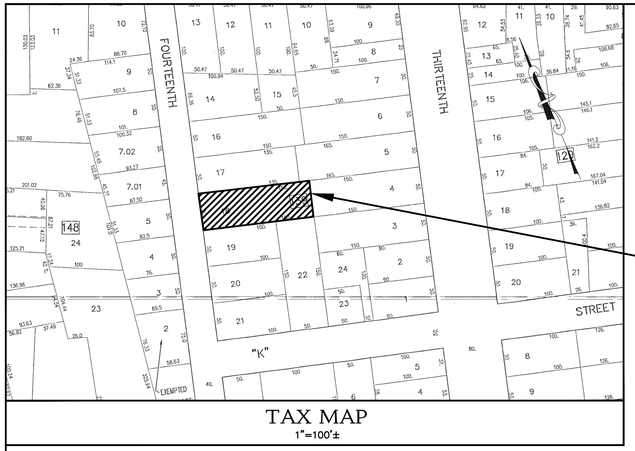
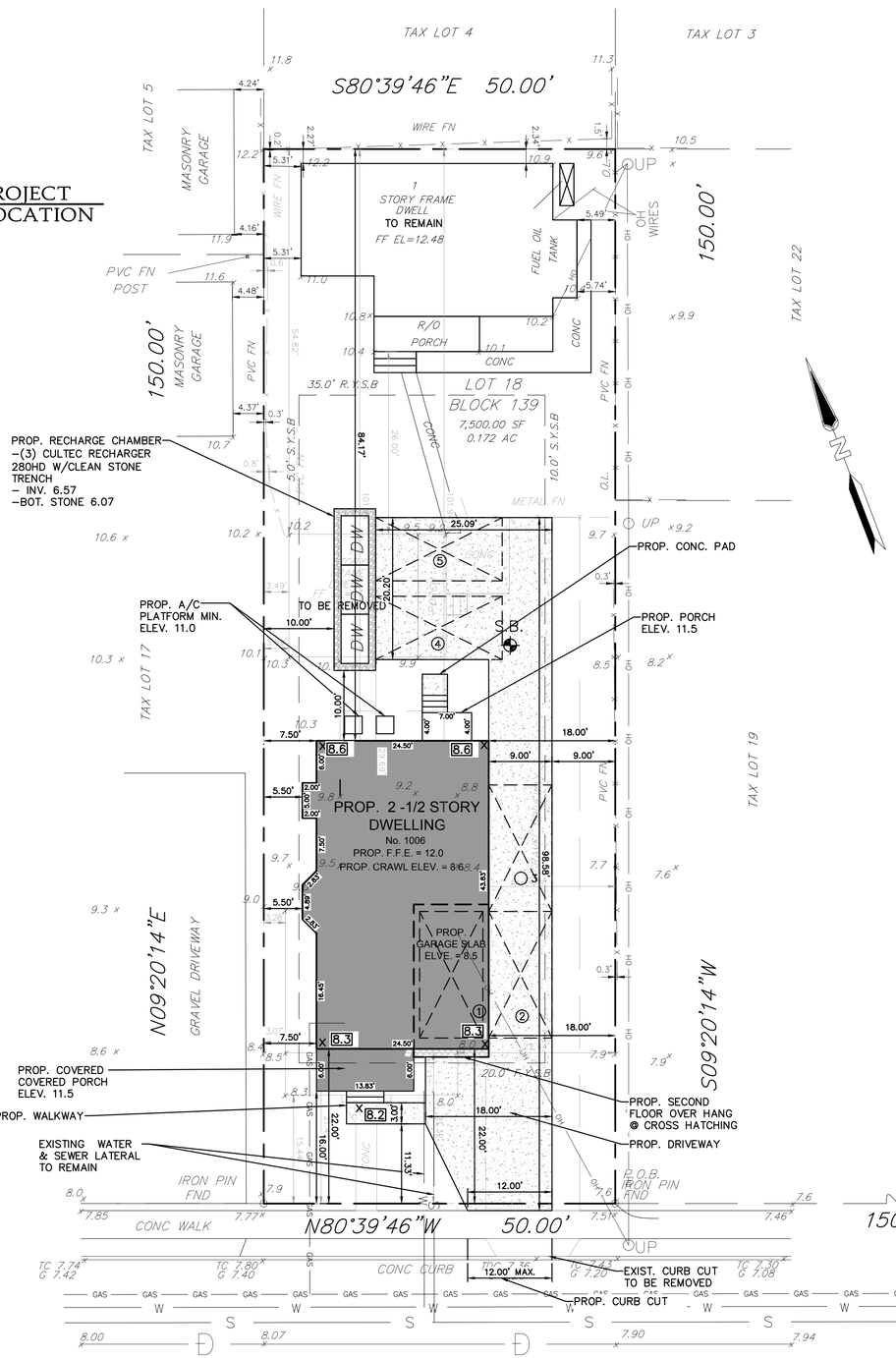


PROJECT LOCATION



SOIL BORING LOG

KBA ENGINEERING SERVICES LLC
Engineering | Planning
Joseph J. Kociuba PE PP, Principal

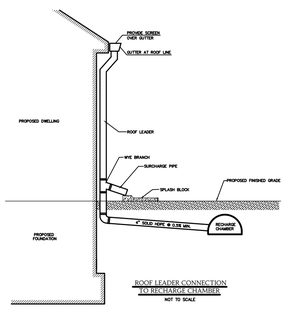
PROJECT:	Revano	PROJ. #:	2020-081
ADDRESS:	1006 Fourteenth Ave.	DATE:	3/10/2020
BLOCK:	139	LOT:	18
MUNICIPALITY:	Borough of Belmar	PREPARE:	KBA
BORING NO.	SB-1 @ ELEV. 9.2		
BORING DESCR.	Location @ Backyard		

DEPTH (INCHES)	THICKNESS (INCHES)	DESCRIPTION
0" - 60"	60"	SM
60" - 96"	36"	SM /OL
96" - 120"	24"	PT
120" - 192"	72"	SM /OH
192" - 288"	96"	SM / MH
-		
-		
-		
-		
-		
-		
-		
-		

SOIL CLASSIFICATIONS	
GW	Well-graded gravels, gravel-sand mixtures, little or no fines.
GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
GM	Silty gravels, gravel-sand mixtures.
GC	Clayey gravels, gravel-sand mixtures.
SW	Well-graded sands or gravelly sands, little or no fines.
SP	Poorly graded sands, or gravelly sands, little or no fines.
SM	Silty sands, sand-silt mixtures.
SC	Clayey sands, sand-clay mixtures.
ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
OL	Organic silts and organic silty clays of low plasticity.
MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
CH	Inorganic clays of high plasticity, fat clays.
OH	Organic clays of medium to high plasticity, organic silts.
PT	Peat and other highly organic soils.

Seasonal High Water Table Depth
Water Table Depth 36" @ ELEV. 6.2

2517 ROUTE 35, BLDG E, STE 203, MANASQUAN, NJ 08736
P: (732) 722.8555 | F: (732) 722.8557
KBAENGINEERS.COM • KBAENGINEERING@GMAIL.COM



ROOF LEADER CONNECTION TO RECHARGE CHAMBER
NOT TO SCALE

DRAINAGE CALCULATIONS

REQUIRED

ALL ROOF AREAS = 2,026 S.F. x 1.25 IN. / 1 S.F. = 211.04 C.F. REQUIRED

PROVIDED

3 CHAMBERS/ROW X 7.00' LONG +1.00' ROW ADJUSTMENT = 22.00'
ROW LENGTH +12.0" END STONE X 2 = 24.00' BASE LENGTH

1 ROWS X 47.0" WIDE + 12.0" SIDE STONE X 2 = 5.92' BASE WIDTH

6.0" BASE + 26.5" CHAMBER HEIGHT + 6.0" COVER = 3.21' FIELD HEIGHT

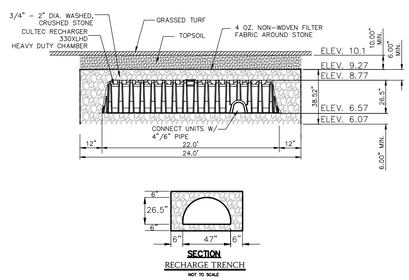
3 CHAMBERS X 42.5 CF +1.00' ROW ADJUSTMENT X 6.07 SF X 1 ROWS = 133.6 CF CHAMBER STORAGE

455.6 CF FIELD – 133.6 CF CHAMBERS = 322.0 CF STONE X 40.0% VOIDS = 128.8 CF STONE STORAGE

CHAMBER STORAGE + STONE STORAGE = 262.4 CF = 0.006 AF
OVERALL STORAGE EFFICIENCY = 57.6%

3 CHAMBERS
16.9 CY FIELD
11.9 CY STONE

262.4 CF PROVIDED > 211.04 CF REQUIRED



SECTION
RECHARGE TRENCH
NOT TO SCALE

GENERAL NOTES

PROPERTY ID KNOWN AS BLOCK 139 LOT 18 AS SHOWN ON TAX MAP OF THE OFFICIAL TAX MAPS OF THE BOROUGH OF BELMAR, MONMOUTH COUNTY, NEW JERSEY.

PROPERTY IS LOCATED IN THE R–50 RESIDENTIAL ZONE AND CONTAINS A TOTAL OF 0.1721± ACRES (7,400 S.F.)

OWNER/APPLICANT: CAESAR REVANO
204 13TH AVENUE
BELMAR, NJ 07719

APPLICANT PROPOSES TO CONSTRUCT A 2 1/2 STORY SINGLE FAMILY DWELLING.

ZONE R–50

DESCRIPTION		REQUIRED/PERMITTED	EXISTING	PROPOSED
BUILDING USE		RESIDENTIAL (1) SINGLE–FAMILY	*RESIDENTIAL (3) SINGLE–FAMILY	**RESIDENTIAL TWO–FAMILY
LOT AREA		5,000 S.F.	7,500 S.F.	7,500 S.F.
MIN. LOT FRONTAGE		50 FT.	50.00 FT.	50.00 FT.
FRONT YARD SETBACK	(BUILDING #1)	20 FT.	21.32 FT.	20.84 FT.
FRONT YARD PORCH SETBACK	(BUILDING #1)	12 FT.	15.44 FT.	16.00 FT.
SIDE YARD SETBACK	(BUILDING #1)	5 FT. /15 FT. (COMB.)	*3.07 FT. / 25.51 FT.	5.50 FT. / 23.50 FT.
REAR YARD SETBACK	(BUILDING #1)	35 FT.	101.941 FT.	84.17 FT.
MAX. BUILDING COVERAGE		25 % (1,875 S.F.)	*25.37 % (1,903 S.F.)	**27.01 % (2,026 S.F.)
MAX. LOT COVERAGE		50 % (3,750 S.F.)	56.44 % (4,233 S.F.)	50.00 % (3,750 S.F.)
MAX. BLDG. HEIGHT	(BUILDING #1)	35 FT. (2.5 STY)	< 35 FT.	33.92 FT. (ARCH.)
ACCESSORY SIDE YARD SETBACK	(BUILDING #2)	3 FT.	3.49 FT.	N/A
ACCESSORY REAR YARD SETBACK	(BUILDING #2)	3 FT.	54.83 FT.	N/A
MAX. ACCESSORY BLDG. HEIGHT	(BUILDING #2)	18 FT. (1 STY)	< 18 FT.	N/A
MAX. ACCESSORY AREA	(BUILDING #2)	440 S.F.	320 S.F.	N/A
ACCESSORY SIDE YARD SETBACK	(BUILDING #3)	3 FT.	5.31 FT.	5.31 FT.
ACCESSORY REAR YARD SETBACK	(BUILDING #3)	3 FT.	*2.27 FT.	**2.27 FT.
MAX. ACCESSORY BLDG. HEIGHT	(BUILDING #3)	18 FT. (1 STY)	< 18 FT.	< 18 FT.
MAX. ACCESSORY AREA	(BUILDING #3)	440 FT.	*832 S.F.	**832 S.F.
F.A.R		55% (4,125 S.F.)	< 55 %	40.89% (3,067 S.F.)
MAX. CURB CUT		12 FT.	10.36 FT.	10.36 FT.
MAX. DRIVEWAY WIDTH		10 FT.	*13.36 FT.	**18.00 FT.
PARKING SPACES REQUIRED		5 SPACES	5 SPACES	5 SPACES

*– INDICATES EX. NON–CONFORMITY
**– INDICATES VARIANCE REQUIRED

PLAN NOTES

1. EXIST. PUBLIC SEWER AND WATER SERVICES TO BE REUTILIZE.
2. ELEVATIONS BASED ON 1988 N.A.V.D.
3. PROPERTY IS LOCATED IN ZONE 'AE' – ELEVATION 10.0 PER FEMA PRELIMINARY 2014 & ELEVATION 10.0 PER ABFE 2012.
4. BUILDING HEIGHT MEASURED FROM BFE TO PEAK OF STRUCTURE.
5. NO ROOF LEADERS ARE DESIGNED TO DRAIN TOWARD ADJACENT PROPERTIES.

BOUNDARY & TOPOGRAPHIC INFORMATION TAKEN FROM A SURVEY PREPARED BY WILLIAM J. FIORE, DATED 11/25/20, REV. 3/13/2020

BUILDING INFORMATION TAKEN FROM ARCHITECTURAL PLANS PREPARED BY MARCILLE ARCHITECTURE DATED 6/10/2020.

EXIST. BUILDING COVERAGE		
EXIST. DWELLING #1	603	S.F.
EXIST. DWELLING #1 COVERED PORCH	147	S.F.
EXIST. DWELLING #2	321	S.F.
EXIST. DWELLING #3	757	S.F.
EXIST. DWELLING #3 COVERED PORCH	75	S.F.
EXIST. TOTAL BUILDING COVERAGE	1,903	S.F. 25.37%

PROP. BUILDING COVERAGE		
PROP. DWELLING	1,098	S.F.
PROP. COVERED FRONT PORCH	83	S.F.
PROP. 2ND FLOOR OVERHANG	13	S.F.
EXIST. DWELLING #3	757	S.F.
EXIST. DWELLING #3 COVERED PORCH	75	S.F.
PROP. TOTAL BUILDING COVERAGE	2,026	S.F. 27.01%

EXIST. IMPERVIOUS COVERAGE		
EXIST. BUILDING COVERAGE	1,903	S.F.
EXIST. FRONT WALKWAY & STEPS	57	S.F.
EXIST. DRIVEWAY	1,639	S.F.
EXIST. WOOD DECK & STEPS DWELLING #1	184	S.F.
EXIST. PORCH & STEPS DWELLING #2	79	S.F.
EXIST. CONC. PATIO	94	S.F.
EXIST. PORCH & STEPS DWELLING #3	93	S.F.
EXIST. REAR CONC. WALKWAY	184	S.F.
EXIST. TOTAL IMPERVIOUS COVERAGE	4,233	S.F. 56.44%

PROP. IMPERVIOUS COVERAGE		
PROP. BUILDING COVERAGE	2,026	S.F.
PROP. FRONT WALKWAY	34	S.F.
PROP. DRIVEWAY	1,358	S.F.
PROP. REAR DECK, STEPS, & CONC. PAD	48	S.F.
PROP. A/C PLATFORM	14	S.F.
EXIST. PORCH & STEPS DWELLING #3	93	S.F.
EXIST. REAR CONC. WALKWAY	177	S.F.
PROP. TOTAL IMPERVIOUS COVERAGE	3,750	S.F. 50.00%

PROP. BUILDING HEIGHT
BELMAR BFE = 10.0 N.A.V.D
PROPOSED ROOF PEAK = 43.92 N.A.V.D
PROPOSED BUILDING HEIGHT = 43.92 N.A.V.D – 10.0 N.A.V.D = 33.92 N.A.V.D

FLOOR AREA RATIO (ARCHS)
FIRST FLOOR = 869 S.F.
SECOND FLOOR = 1,136 S.F.
FINISHED ATTIC = 305 S.F.
ACCESSORY STRUCTURE = 757 S.F.
TOTAL AREA = 3,067 S.F.

REV. NO.	DATE	DESCRIPTION
1	6/12/2020	REVISED PER LETTER DATED 6/10/2020.

VARIANCE PLAN

1006 FOURTEENTH AVENUE
BLOCK 139 - LOT 18
FOR CAESAR REVANO

BOROUGH OF BELMAR
MONMOUTH COUNTY, NEW JERSEY

KBA ENGINEERING SERVICES LLC
Engineering | Planning
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Manasquan, NJ 08736
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KBAengineers.com
Plans@KBAengineers.com
Certificate of Authority No.: 24GA28220500

JOSEPH J. KOCIUBA, P.E., P.P.
P.E. License No.: GE45850

DRN	CHK
GEC	JJK

PROJECT NO. 2020–081
SCALE AS SHOWN
DATE 5/20/2020
SHEET 1 OF 1