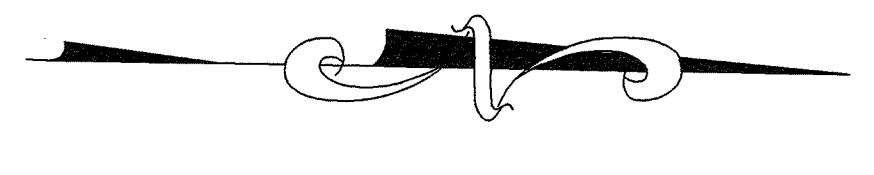
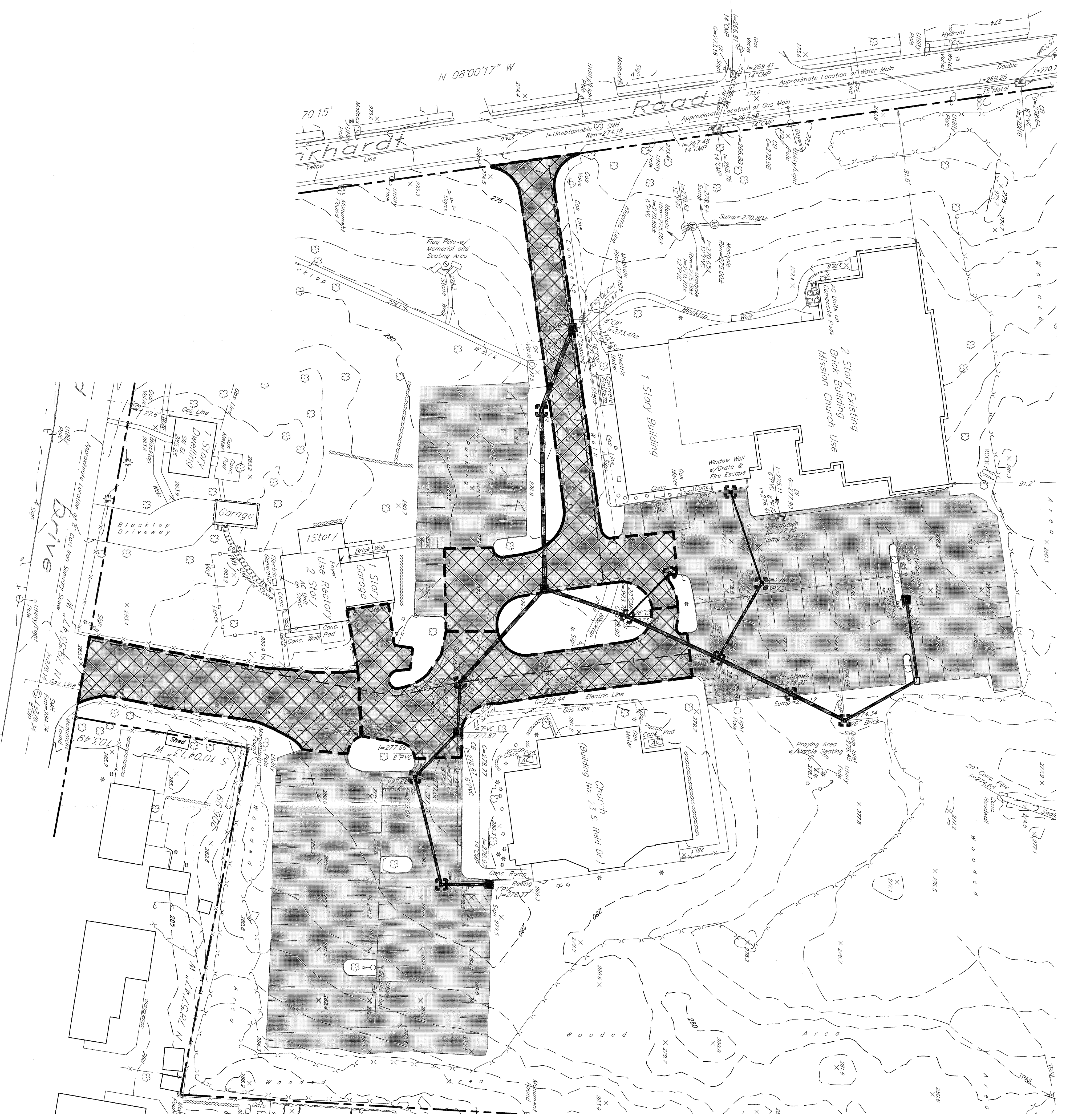
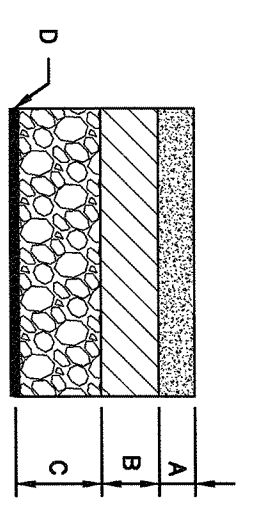


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LEGEND

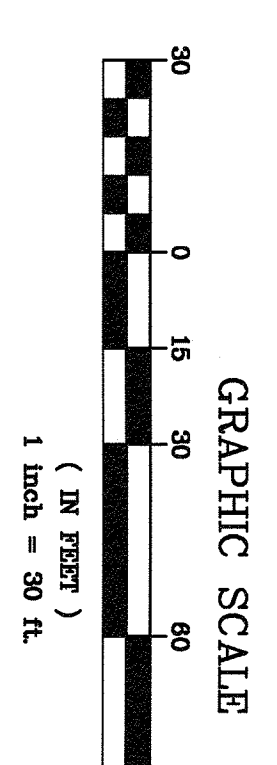
- PROPERTY LINE
- PROPOSED PAVEMENT REPLACEMENT
- PROPOSED STORM PIPE
- PROPOSED DRAIN INLET
- PROPOSED PERFORATED PIPE
- LIMIT OF PAVEMENT REPLACEMENT WITH GEGRID
- PROPOSED GEGRID REINFORCEMENT



A- 2" TOP COURSE- NYS DOT, TYPE SF
 B- 4" BINDER COURSE- NYS DOT, TYPE 3
 C- 6" 3" CLEAN WASHED CRUSHED STONE
 D- TENSAR TRAX GEGRID (OR EQUAL)

FULL DEPTH PAVEMENT REPLACEMENT WITH GEGRID REINFORCEMENT

- NOTES:**
1. BLACKTOPPED AND PARKING AREAS TO REMAIN THE SAME. THERE SHALL NOT BE ANY EXTENSION OF PAVED AREAS.
 2. PARKING AREAS SHALL BE REPAINTED TO MATCH EXISTING SITE CONDITIONS.
 3. THERE SHALL BE NO CHANGE TO THE LAYOUT OR AMOUNT OF PARKING SPACES.
 4. DRIVEWAYS AND CIRCULATION PAVEMENT TO BE INSTALLED AT COMPLETION OF DRAINAGE WORK.
 5. PARKING AREAS TO BE PAVED AT A UNDETERMINED FUTURE DATE.



No.	Description	Date
3.	REVISED PER BUILDING DEPARTMENT COMMENTS	12-2-19
2.	RE-BID	8-9-19
1.	BID SET	5-22-19

THIS PLAN NOT VALID FOR CONSTRUCTION WITHOUT ENGINEERS SEAL & SIGNATURE

PROJECT:
 PROPOSED DRIVEWAY IMPROVEMENTS
 CHURCH OF SAINT AEDAN
 23 S REID DRIVE
 TOWN OF ORANGETOWN
 ROCKLAND COUNTY - NEW YORK

PAVEMENT REPLACEMENT PLAN

HUDSON ENGINEERING CONSULTING, P.C.
 48 ENVIRONMENTAL ROAD, SUITE 201
 ORANGETOWN, NY 10954
 T: 914-909-0180
 F: 914-909-2086
 © 2019

STATE OF NEW YORK
 LICENSED PROFESSIONAL ENGINEER

DATE: 07/23/19
 DESIGNED BY: LJK
 CHECKED BY: M.S.
 SHEET NO. C-1



LEGEND

- PROPERTY LINE
- PROPOSED FULL DEPTH PAVEMENT REPLACEMENT
- PROPOSED STORM PIPE
- PROPOSED DRAIN INLET
- PROPOSED FERRULED PIPE

NOTES:

- CONCRETE - 4,000 PSI MINIMUM STRENGTH @ 28 DAYS
- STEEL REINFORCEMENT - ASTM A-185, 6"x6", W4/W4 W.W.M
- DESIGN LOADING - AASHTO H50-44
- EARTH COVER - 0 TO 5 FEET
- DRAIN INLET STRUCTURES SHALL BE KNOCK OUT TYPE
- FRAME AND GRATE AS MANUFACTURED BY CAMPBELL FOUNDRY
- GRATE INLET 2851 AS MANUFACTURED BY CAMPBELL FOUNDRY
- CONCRETE SHALL BE KNOCK OUT TYPE

30"X30" DRAIN INLET WITH WEIR

24"X24" DRAINAGE STRUCTURE

30"X30" DRAINAGE STRUCTURE

TRENCH BEDDING (PAVED)

TRENCH BEDDING (UNPAVED)

PAVEMENT UNDERDRAIN

TRENCH RESTORATION

GRAPHIC SCALE

1 INCH = 30 FT.

No.	Description	Date
3.	REVISED PER TOWN COMMENTS	11-1-20
2.	RE-BID	10-19-19
1.	BID SET	10-22-19

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HUDSON ENGINEERING CONSULTING, P.C.

46 BRIMWOOD ROAD SUITE 200
ROCKLAND COUNTY - NEW YORK

PHONE: 914-989-0420
FAX: 914-989-2888

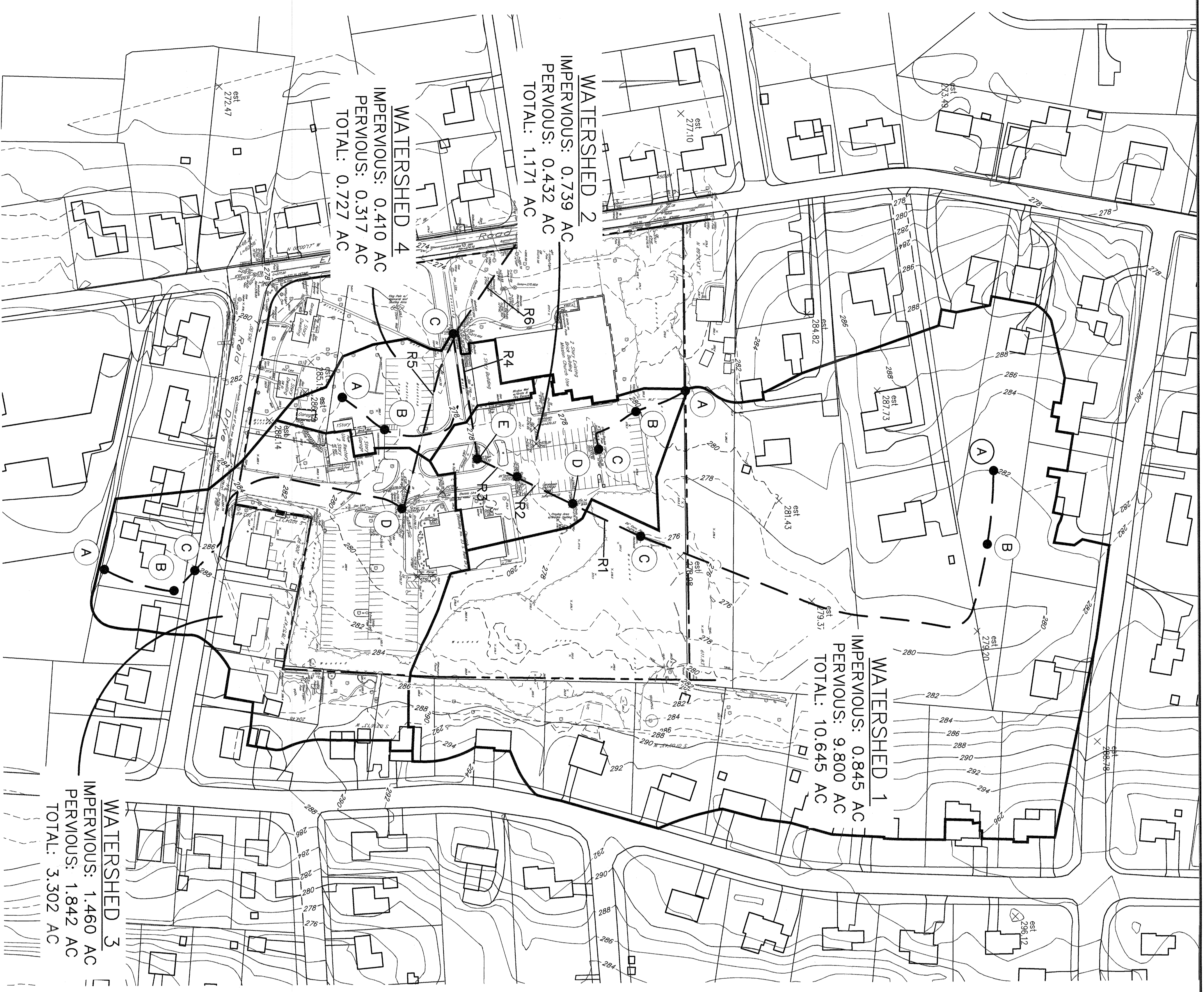
ROBERT J. HUDSON

Professional Engineer

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CHURCH OF SAINT AEDAN STORMWATER MANAGEMENT PLAN BASED UPON EXISTING INFORMATION PROVIDED BY WARD CARPENTER ENGINEERS INC., DATED NOVEMBER 1, 2018

C-2



WATERSHED 1
 IMPERVIOUS: 0.845 AC
 TOTAL: 10.645 AC

WATERSHED 2
 IMPERVIOUS: 0.739 AC
 PERVIOUS: 0.432 AC
 TOTAL: 1.171 AC

WATERSHED 4
 IMPERVIOUS: 0.410 AC
 PERVIOUS: 0.317 AC
 TOTAL: 0.727 AC

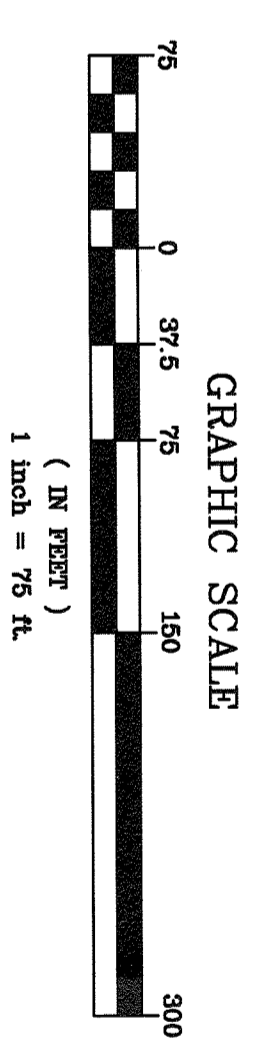
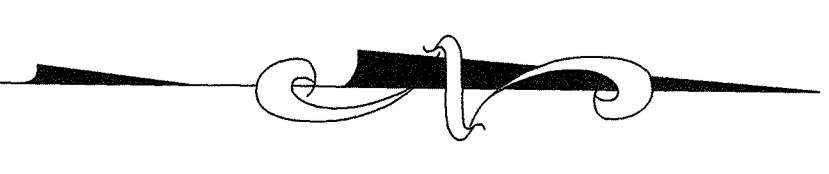
WATERSHED 3
 IMPERVIOUS: 1.460 AC
 PERVIOUS: 1.842 AC
 TOTAL: 3.302 AC

Watershed 1		COVERGE AREA		AREA (ac)	
COVERGE TYPE					
Type C Soils				9.800	
Impervious				0.845	
Total				10.645	
TIME OF CONCENTRATION: 44.7 Minutes					
START	END	LENGTH	SLOPE	SURFACE	
A to B	282.00	281.00	1.01%	99.00	Woods
B to C	282.00	274.65	1.12%	588.00	Woods
B to C	281.00	274.65	1.12%		Woods

Watershed 2		COVERGE AREA		AREA (ac)	
COVERGE TYPE					
Type C Soils				0.432	
Impervious				0.739	
Total				1.171	
TIME OF CONCENTRATION: 19.0 Minutes					
START	END	LENGTH	SLOPE	SURFACE	
A to B	281.10	279.90	1.67%	72.00	Woods
B to C	279.90	277.70	2.65%	83.00	Paved
C to D	275.35	274.34	1.09%	93	Pipe
D to E	274.34	273.9	0.31%	141	Pipe

Watershed 3		COVERGE AREA		AREA (ac)	
COVERGE TYPE					
Type C Soils				1.460	
Impervious				1.842	
Total				3.302	
TIME OF CONCENTRATION: 20.4 Minutes					
START	END	LENGTH	SLOPE	SURFACE	
A to B	290.00	289.00	1.01%	99.00	Grass
B to C	289.00	288.50	1.28%	39.00	Grass
C to D	288.50	278.77	2.74%	355	Paved

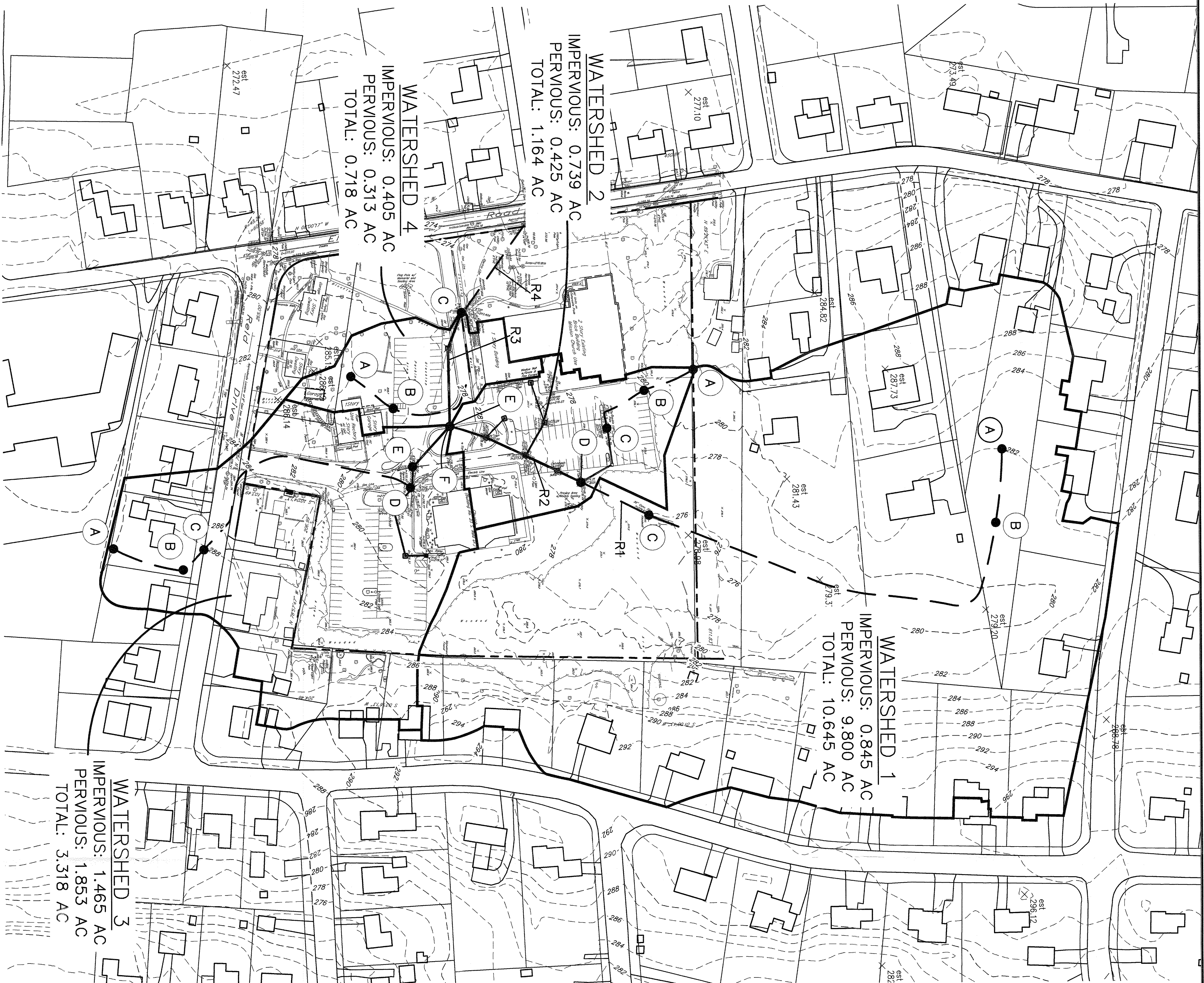
Watershed 4		COVERGE AREA		AREA (ac)	
COVERGE TYPE					
Type C Soils				0.317	
Impervious				0.410	
Total				0.727	
TIME OF CONCENTRATION: 11.7 Minutes					
START	END	LENGTH	SLOPE	SURFACE	
A to B	282.00	280.60	1.97%	71.00	Grass
B to C	280.60	276.20	2.02%	218.00	Paved



CHURCH OF SAINT AEDAN STORMWATER
 MANAGEMENT PLAN BASED UPON EXISTING
 INFORMATION PROVIDED BY WARD CARPENTER
 ENGINEERS, INC., DATED NOVEMBER 1, 2018 AND
 SUPPLEMENTED WITH ROCKLAND COUNTY GIS

1.	REVISED PER MEETING WITH TOWN STAFF	7/17/20
No.	Description	Date
Revisions		
THIS PLAN NOT VALID FOR CONSTRUCTION WITHOUT ENGINEERS SEAL & SIGNATURE		
HUDSON ENGINEERING CONSULTING, P.C. 415 Briarwood Road - Suite 201 Briarcliff, NY 10510-0920 P: 914-666-2868 F: 914-666-2866 © 2019		
PROJECT: PROPOSED DRIVEWAY IMPROVEMENTS CHURCH OF SAINT AEDAN 23 S REID DRIVE TOWN OF ORANGETOWN ROCKLAND COUNTY - NEW YORK WATERSHED - EXISTING		
Date:	07/09/20	Sheet:
Scale:	As Shown	1 of 1
Checked By:	M.S.	
Sheet No.:	2	

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Watershed 1			
COVERAGE AREA		AREA (ac)	
COVERAGE TYPE			
Type C Soils		9.800	
ImperVIOUS		0.845	
Total		10.645	
TIME OF CONCENTRATION: 44.7 Minutes			
START	END	LENGTH	SLOPE
ELEVATION	ELEVATION		
A to B	282.00	59.00	1.01%
B to C	281.00	588.00	1.12%
			WOODS

Watershed 2			
COVERAGE AREA		AREA (ac)	
COVERAGE TYPE			
Type C Soils		0.425	
ImperVIOUS		0.729	
Total		1.154	
TIME OF CONCENTRATION: 38.5 Minutes			
START	END	LENGTH	SLOPE
ELEVATION	ELEVATION		
A to B	281.10	72.00	1.67%
B to C	279.90	83.00	2.65%
C to D	275.35	93	1.09%
D to E	273.87	193	0.50%
			PIPE

Watershed 3			
COVERAGE AREA		AREA (ac)	
COVERAGE TYPE			
Type C Soils		1.883	
ImperVIOUS		1.465	
Total		3.348	
TIME OF CONCENTRATION: 20.9 Minutes			
START	END	LENGTH	SLOPE
ELEVATION	ELEVATION		
A to B	290.00	99.00	1.01%
B to C	289.00	39.00	1.28%
C to D	288.50	355	2.74%
D to E	276.13	29	0.50%
E to F	275.87	74	0.50%
			PIPE

Watershed 4			
COVERAGE AREA		AREA (ac)	
COVERAGE TYPE			
Type C Soils		0.313	
ImperVIOUS		0.405	
Total		0.718	
TIME OF CONCENTRATION: 11.7 Minutes			
START	END	LENGTH	SLOPE
ELEVATION	ELEVATION		
A to B	282.00	71.00	1.97%
B to C	280.60	218.00	2.02%
			GRASS
			PAVED

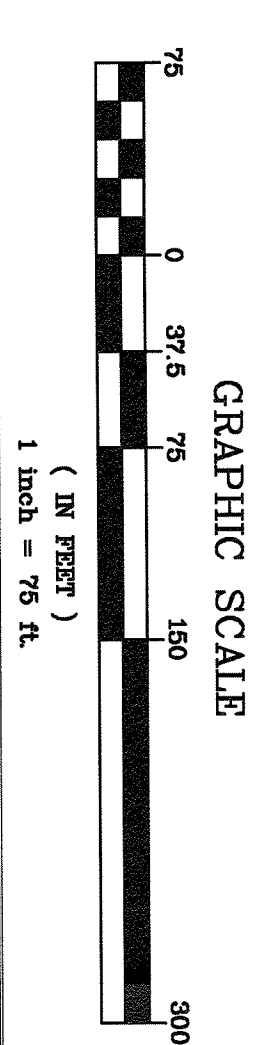
WATERSHED 3
 IMPERVIOUS: 1.465 AC
 PERVIOUS: 1.853 AC
 TOTAL: 3.318 AC

WATERSHED 1
 IMPERVIOUS: 0.845 AC
 PERVIOUS: 9.800 AC
 TOTAL: 10.645 AC

WATERSHED 2
 IMPERVIOUS: 0.739 AC
 PERVIOUS: 0.425 AC
 TOTAL: 1.164 AC

WATERSHED 4
 IMPERVIOUS: 0.405 AC
 PERVIOUS: 0.313 AC
 TOTAL: 0.718 AC

CHURCH OF SAINT AEDAN STORMWATER
 MANAGEMENT PLAN BASED UPON EXISTING
 INFORMATION PROVIDED BY WARD CARPENTER
 ENGINEERS INC., DATED NOVEMBER 1, 2018 AND
 SUPPLEMENTED WITH ROCKLAND COUNTY GIS



1.	REVISED PER MEETING WITH TOWN STAFF	7/17/20
No.	Description	Date
Revisions		
THIS PLAN NOT VALID FOR CONSTRUCTION WITHOUT ENGINEERS SEAL & SIGNATURE		
PROJECT: PROPOSED DRIVEWAY IMPROVEMENTS CHURCH OF SAINT AEDAN 23 S RELD DRIVE TOWN OF ORANGETOWN ROCKLAND COUNTY - NEW YORK		
WATERSHED - PROPOSED		
 HUDSON ENGINEERING CONSULTING, P.C. 45 Kinnelon Road • Suite 201 Kinnelon, NJ 07034 F: 914-969-0420		
 WS-P SHEET NO. 2		

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