

REFERENCES:
 ASSESSORS MAP 41, PARCEL N4
 DEED BOOK 32263, PAGE 179
 PLAN BOOK 389, PAGE 98

OWNER:
 ROYAL APARTMENTS LLC
 8 ALTON PLACE
 BROOKLINE, MA 02446

APPLICANT:
 ROYAL APARTMENTS LLC
 8 ALTON PLACE
 BROOKLINE, MA 02446

DATUM NOTE:
 ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 1988)

SEE PLANS BY D.H. DUNLAP ASSOCIATES, INC. FOR PROPOSED LIGHTING AND LANDSCAPING

PARKING TABLE

REQUIRED PARKING:
 14 STUDIO APARTMENTS x 1.5 SPACES/UNIT = 21 SPACES
 8 1-BEDROOM APARTMENTS x 1.5 SPACES/UNIT = 12 SPACES
 4 2-BEDROOM APARTMENTS x 2.0 SPACES/UNIT = 8 SPACES

TOTAL PARKING SPACES REQUIRED = 41 SPACES
 TOTAL PROPOSED SPACES PROVIDED = 43 SPACES (INCLUDING 2 ACCESSIBLE SPACES)

ZONING DISTRICT: MR-L (MULTI FAMILY RESIDENTIAL LOW DENSITY)
 OVERLAY DISTRICTS: HARWICH CENTER OVERLAY DISTRICT
 HARWICH CENTER HISTORIC DISTRICT
 USE GROUP: PARAGRAPH I (B) - MULTIFAMILY DWELLING

SUBJECT	REQUIRED		EXISTING	PROPOSED
	MR-L DISTRICT	HARWICH CENTER OVERLAY DISTRICT		
LOT AREA	40,000 S.F. MINIMUM	15,000 S.F. MINIMUM	82,443 S.F.	NO CHANGE
FRONTAGE	150 FT MINIMUM	150 FT MINIMUM	424.3 FT	NO CHANGE
FRONT SETBACK (BUILDING)	DETERMINED BY PLANNING BOARD AT SITE PLAN REVIEW	DETERMINED BY PLANNING BOARD AT SITE PLAN REVIEW	22.0 FT	NO CHANGE
SIDE SETBACK (BUILDING)	25 FT MINIMUM	10 FT MINIMUM	15.7 FT (EAST)	NO CHANGE
SIDE SETBACK (BUILDING)	25 FT MINIMUM	10 FT MINIMUM	24.3 FT (WEST)	NO CHANGE
REAR SETBACK (BUILDING)	25 FT MINIMUM	10 FT MINIMUM	>250 FT	NO CHANGE
STREET PARKING SETBACK	50 FT MINIMUM	NOT PERMITTED	7.0 FT	NO CHANGE
SIDE PARKING SETBACK	50 FT MINIMUM	NOT SPECIFIED	10.0 FT	NO CHANGE
REAR PARKING SETBACK	50 FT MINIMUM	NOT SPECIFIED	182.0± FT	175.0± FT
BUILDING COVERAGE	15% MAXIMUM	15% MAXIMUM	10.7% (8,834 S.F.)	NO CHANGE
SITE COVERAGE	25% MAXIMUM	80% MAXIMUM	25.8% (21,318 S.F.)	48.0% (39,536± S.F.)
BUILDING HEIGHT	30 FT & 2 1/2 STORIES MAXIMUM	30 FT & 2 1/2 STORIES MAXIMUM FOR NEW CONSTRUCTION	EXISTING	NO CHANGE

- NOTES**
- EXISTING SEWAGE DISPOSAL SYSTEM COMPONENTS SHOWN HEREON ARE FROM ON THE GROUND "AS-BUILT" LOCATION PERFORMED BY COASTAL ENGINEERING COMPANY, INC (DEC. 2003).
 - THE EXISTING SEWAGE DISPOSAL SYSTEM HAS A PERMITTED DESIGN FLOW OF 4,773 GPD WHICH IS GREATER THAN THE PROPOSED DESIGN FLOW OF 3,300 GPD (30 BEDROOMS AT 110 GPD)
 - THE EXISTING SEWAGE DISPOSAL SYSTEM COMPONENTS BENEATH PARKING AREAS ARE DESIGNED FOR VEHICLE LOADS.

- LEGEND**
- EXISTING**
- BOUND
 - CATCH BASIN
 - SEWER MANHOLE
 - GAS VALVE
 - LIGHTPOST
 - UTILITY POLE
 - OVERHEAD UTILITY LINE
 - FENCE
 - TREE
 - CONTOUR
 - X 41.4 SPOT GRADE
 - L.A. LANDSCAPED AREA
- PROPOSED**
- CONTOUR
 - +41.4 SPOT GRADE
 - CATCH BASIN
 - AREA DRAIN
 - BITUMINOUS CONCRETE BERM
 - PRECAST CONCRETE CURB
 - VEHICLE TRAVEL DIRECTION (NOT PAINTED)
 - BOLLARD
 - TRAFFIC SIGN
 - LIGHT POLE

COASTAL engineering co.
 260 Cranberry Hwy, Orleans, MA 02653
 508.255.6311 P 508.255.6700 F

NO.	DATE	REVISION
3	10-21-2020	CHANGE APARTMENT UNIT MIX AND REVISE PARKING TABLE
2	10-9-2020	REVISIONS FOR NEW ZONING BYLAW REGULATIONS
1	1-6-2020	EDITS TO ADDRESS TOWN PLANNERS COMMENTS

PROJECT: ROYAL APARTMENTS, LLC
 328 BANKS STREET
 SHEET TITLE: PLAN SHOWING PROPOSED SITE LAYOUT AND MATERIALS

SCALE: AS NOTED
 DRAWING FILE: C16014.04-C.dwg
 DATE: 12-5-2019
 DRAWN BY: CEM
 CHECKED BY: DJM

PROJECT NO. C16014.04

C2.11
 — OF — SHEETS

F:\SDS\PROJ\16014\16014-04-C16014.04-C.dwg Oct 21, 2020 - 1:55pm

DRAINAGE TEST HOLE LOGS

NO SCALE
 DATE OF TESTS : DECEMBER 2, 2019
 WITNESSED BY : JOHN SCHNAIBLE, CEM

DRAINAGE TEST HOLE 1 EL. = 41.2±

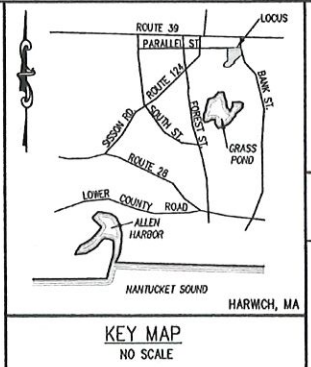
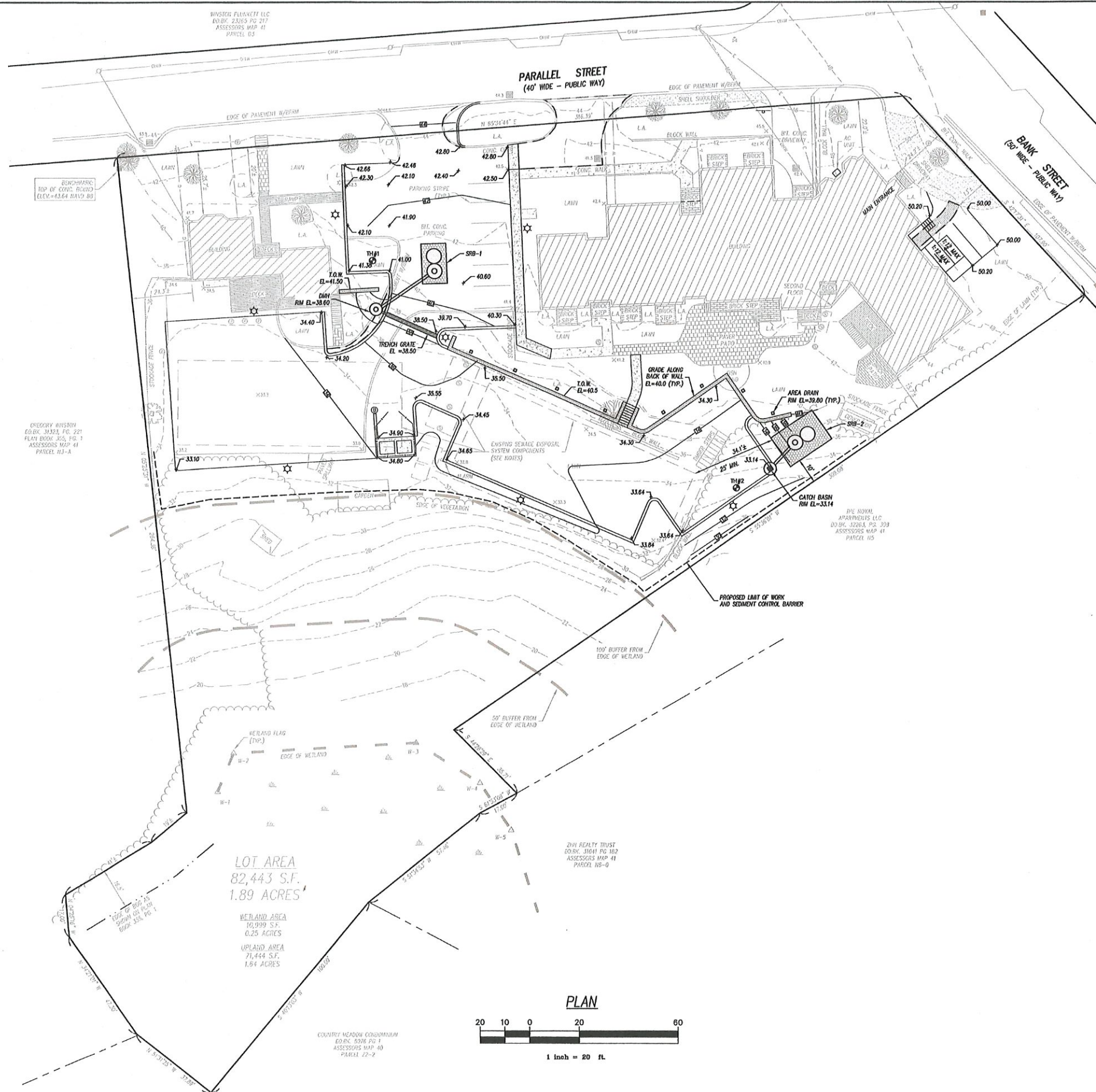
DEPTH FROM SURFACE	SOIL HORIZON	SOIL TEXTURE
0" - 13"	A	TOPSOIL
13" - 33"	B	SUBSOIL
33" - 132"	C	MED TO COARSE SAND (LOOSE)

NO GROUNDWATER ENCOUNTERED

DRAINAGE TEST HOLE 2 EL. = 32.6±

DEPTH FROM SURFACE	SOIL HORIZON	SOIL TEXTURE
0" - 18"	A	TOPSOIL
18" - 36"	B	SUBSOIL
36" - 120"	C	MED TO COARSE SAND (LOOSE)

NO GROUNDWATER ENCOUNTERED



REFERENCES:
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DATUM NOTE:
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- NOTES**
- EXISTING SEWAGE DISPOSAL SYSTEM COMPONENTS SHOWN HEREON ARE FROM ON THE GROUND "AS-BUILT" LOCATION PERFORMED BY COASTAL ENGINEERING COMPANY, INC (DEC. 2003).
 - THE EXISTING SEWAGE DISPOSAL SYSTEM HAS A PERMITTED DESIGN FLOW OF 4,773 GPD WHICH IS GREATER THAN THE PROPOSED DESIGN FLOW OF 4,730 GPD (43 BEDROOMS AT 110 GPD)

LEGEND

EXISTING

- BOUND
- CATCH BASIN
- SEWER MANHOLE
- GAS VALVE
- LIGHT POLE
- UTILITY POLE
- OVERHEAD UTILITY LINE
- FENCE
- TREE
- 30- CONTOUR
- X 41.4 SPOT GRADE
- L.A. LANDSCAPED AREA

PROPOSED

- CONTOUR
- 33.00 SPOT GRADE
- CATCH BASIN
- AREA DRAIN
- DRAINAGE TEST HOLE
- SRB STORMWATER RECHARGE BASIN
- BOLLARD
- LIGHT POLE

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NO.	DATE	REVISION
2	10-9-2020	REVISIONS FOR NEW ZONING BYLAW REGULATIONS
1	1-6-2020	NO CHANGES TO THIS SHEET

SEAL:
 DAVID J. MICHEWICZ
 CIVIL ENGINEER
 REG. NO. 33692

PROJECT: ROYAL APARTMENTS, LLC
 328 BANK STREET
 HARWICH, MA

SHEET TITLE: PLAN SHOWING PROPOSED GRADING AND DRAINAGE

SCALE: AS NOTED

DRAWING FILE: C16014.04-C.dwg

DATE: 12-5-2019

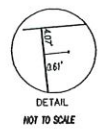
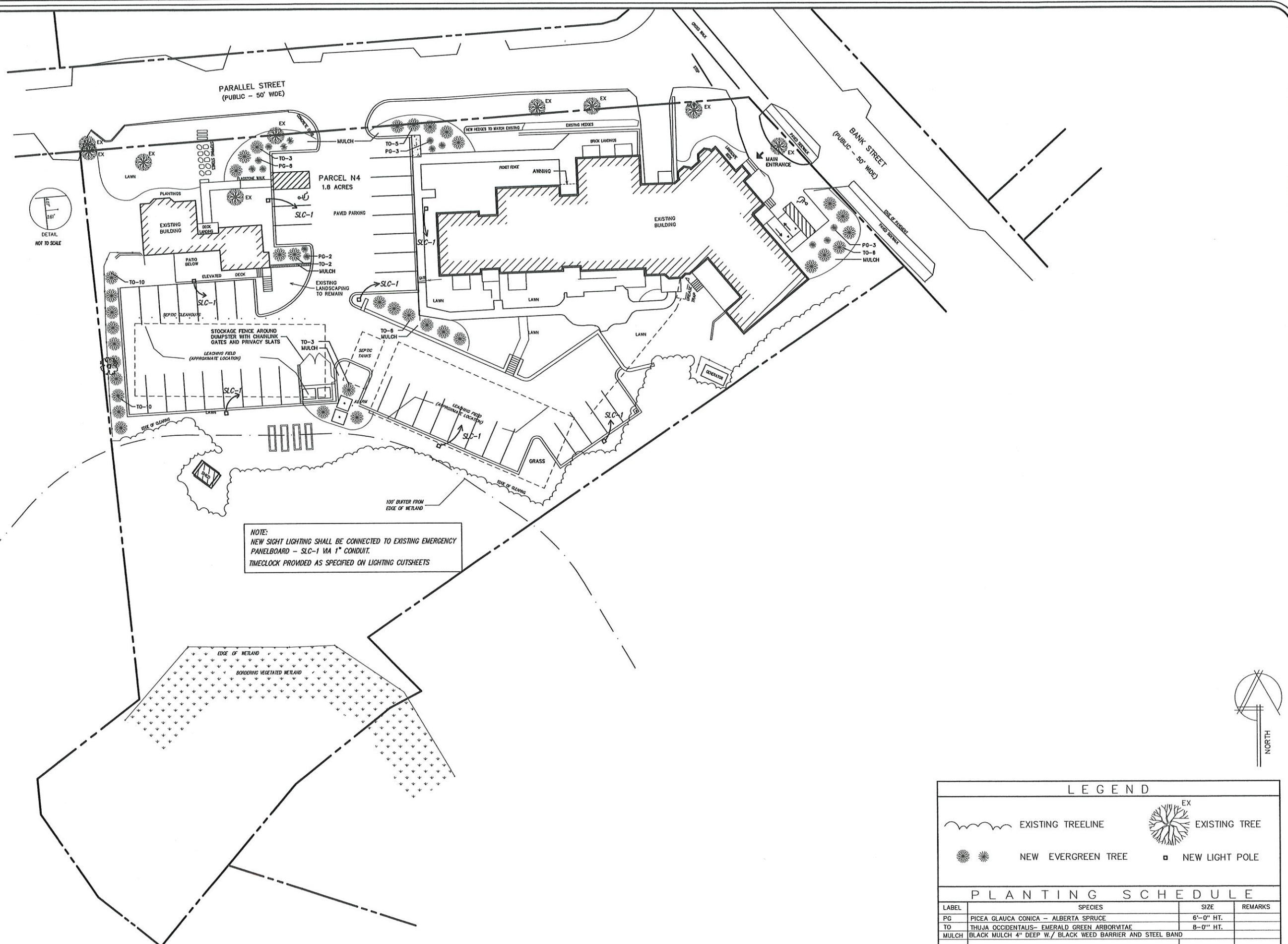
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CHECKED BY: DJM

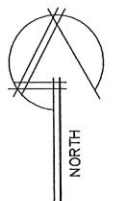
C2.2.1
 — OF — SHEETS

PROJECT NO.: C16014.04

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NOTE:
 NEW SIGHT LIGHTING SHALL BE CONNECTED TO EXISTING EMERGENCY
 PANELBOARD - SLC-1 VIA 1" CONDUIT.
 TIMELOCK PROVIDED AS SPECIFIED ON LIGHTING CUTSHEETS



LEGEND			
	EXISTING TREELINE		EXISTING TREE
	NEW EVERGREEN TREE		NEW LIGHT POLE

PLANTING SCHEDULE			
LABEL	SPECIES	SIZE	REMARKS
PG	PICEA GLAUCA CONICA - ALBERTA SPRUCE	6'-0" HT.	
TO	THUJA OCCIDENTALIS- EMERALD GREEN ARBORVITAE	8'-0" HT.	
MULCH	BLACK MULCH 4" DEEP W/ BLACK WEED BARRIER AND STEEL BAND		

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LANDSCAPE AND SITE ELECTRICAL PLAN

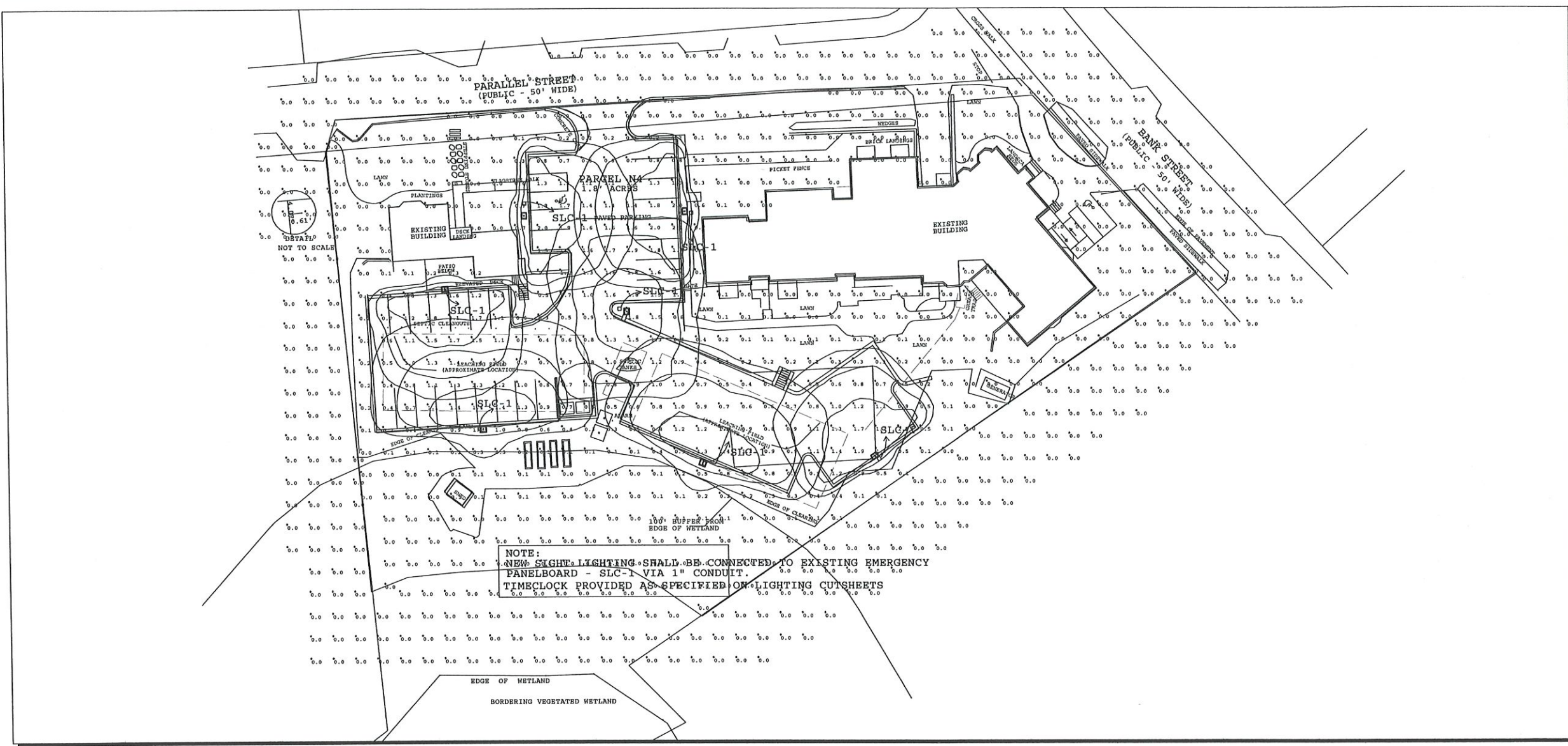
Royal Apartments

HARWICH, MA

SCALE: 1" = 20'
 DATE: 10/13/20 DR. BY: MCN

SD - 1

DATE PLOTTED: 10/13/20 10:52 AM



NOTE:
 NEW SIGHT LIGHTING SHALL BE CONNECTED TO EXISTING EMERGENCY
 PANELBOARD - SLC-1 VIA 1" CONDUIT.
 TIMECLOCK PROVIDED AS SPECIFIED ON LIGHTING CUTSHEETS

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
□	4	SL4 BC	SINGLE	N.A.	0.700	Beacon VP-S-24L-55-3K7-4-BC-UNV BL SWP SSA B 16 40 B VM2S16
□	2	SL4	SINGLE	N.A.	0.700	Beacon VP-S-24L-55-3K7-4W-UNV BL SWP SSA B 16 40 B VM2S16
□	1	SL5	SINGLE	N.A.	0.700	Beacon VP-S-24L-55-3K7-5R-UNV BL SWP SSA B 16 40 B VM2S16

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Site Planar	Illuminance	Fc	0.39	2.1	0.0	N.A.	N.A.
Spill	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.
Driveways and Parking	Illuminance	Fc	1.09	2.1	0.0	N.A.	N.A.



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DD

Parking Lot Lighting and Photometric Plan

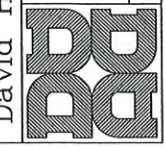
Royal Apartments
 HARWICH, MA

SCALE: 1" = 20'
 DATE: 10/13/20 DR. BY: MCN

SP-2



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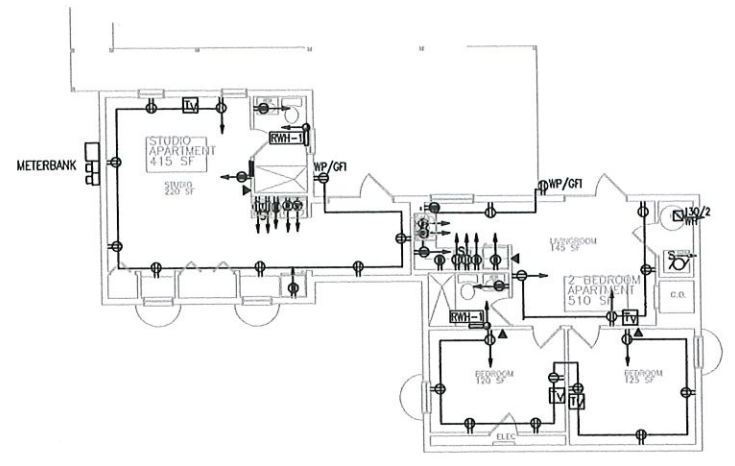
ELECTRICAL ACCESS BUILDING PLAN

HARWICH MA

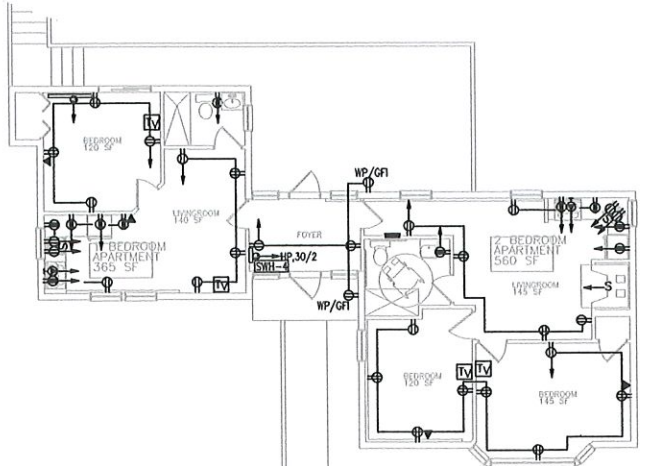
Royal Apartments

SCALE: AS NOTED DR. BY: RC
 DATE: 01/18/2022

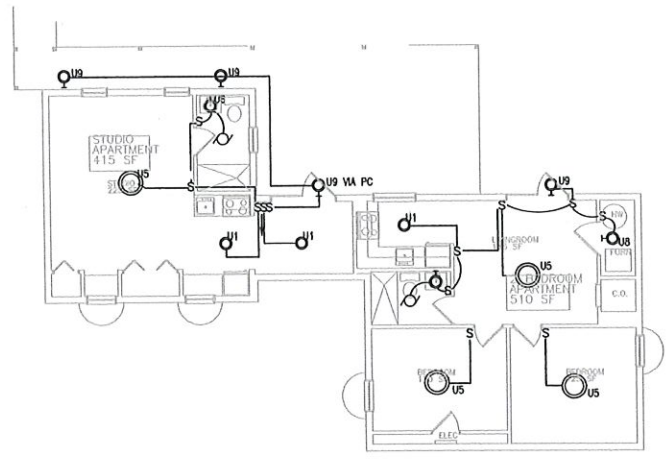
EA-1



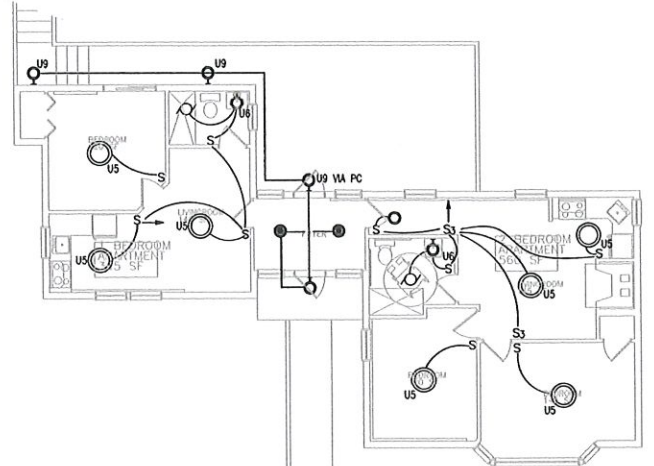
GROUND FLOOR PLAN
 SCALE: 1/8" = 1'-0"



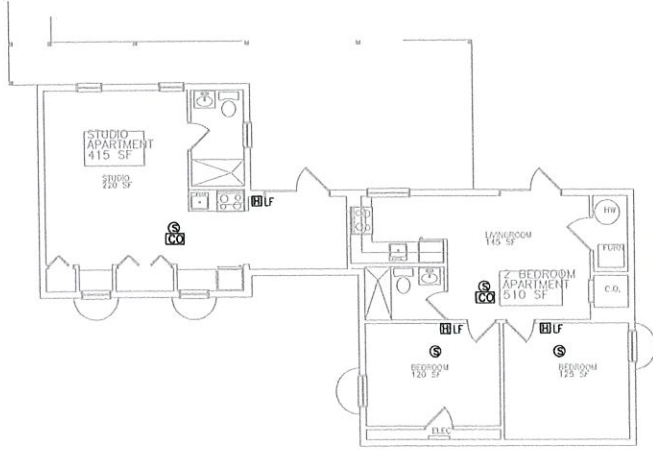
FIRST FLOOR PLAN
 SCALE: 1/8" = 1'-0"



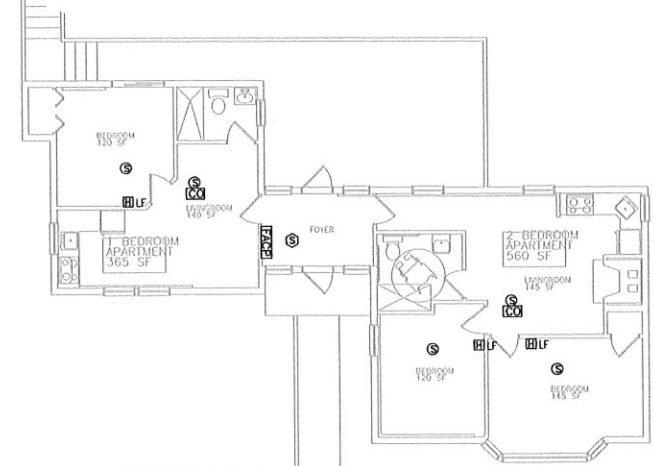
GROUND FLOOR PLAN
 SCALE: 1/8" = 1'-0"



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



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



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

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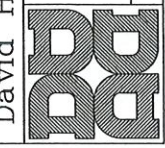
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GROUND FLOOR PLAN
1/8"=1'-0"



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HARWICH MA

GROUND FLOOR LIGHTING PLAN

Royal Apartments

SCALE: AS NOTED DR. BY: RC
DATE: 01/18/2022

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E-5

DATE PLOTTED: 01/18/2022 10:00:00 AM PLOT DATE: 01/18/2022 PLOT TIME: 10:28 PM



FIRST FLOOR PLAN
1/8"=1'-0"



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FIRST FLOOR LIGHTING PLAN

Royal Apartments

HARWICH MA

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SCALE: AS NOTED DR. BY: RC
DATE: 01/18/2022

E - O

DRAWING: C:\USERS\ADMINISTRATOR\PROJECTS\HARWICH\ROYAL APARTMENTS\HARWICH_50_A02_PLOT DATE: 10/25/2020 PLOT TIME: 1:28 PM

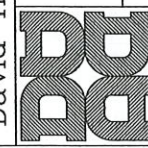


SECOND FLOOR PLAN
1/8"=1'-0"

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SECOND FLOOR LIGHTING PLAN

Royal Apartments

HARWICH MA

SCALE: AS NOTED DR. BY: RC
DATE: 01/18/2022

E-7

DRAWING: S:\PROJECTS\ROYAL APARTMENTS\ROYAL APARTMENTS_2014.dwg PLOT DATE: 10/19/2020 PLOT TIME: 1:28 PM