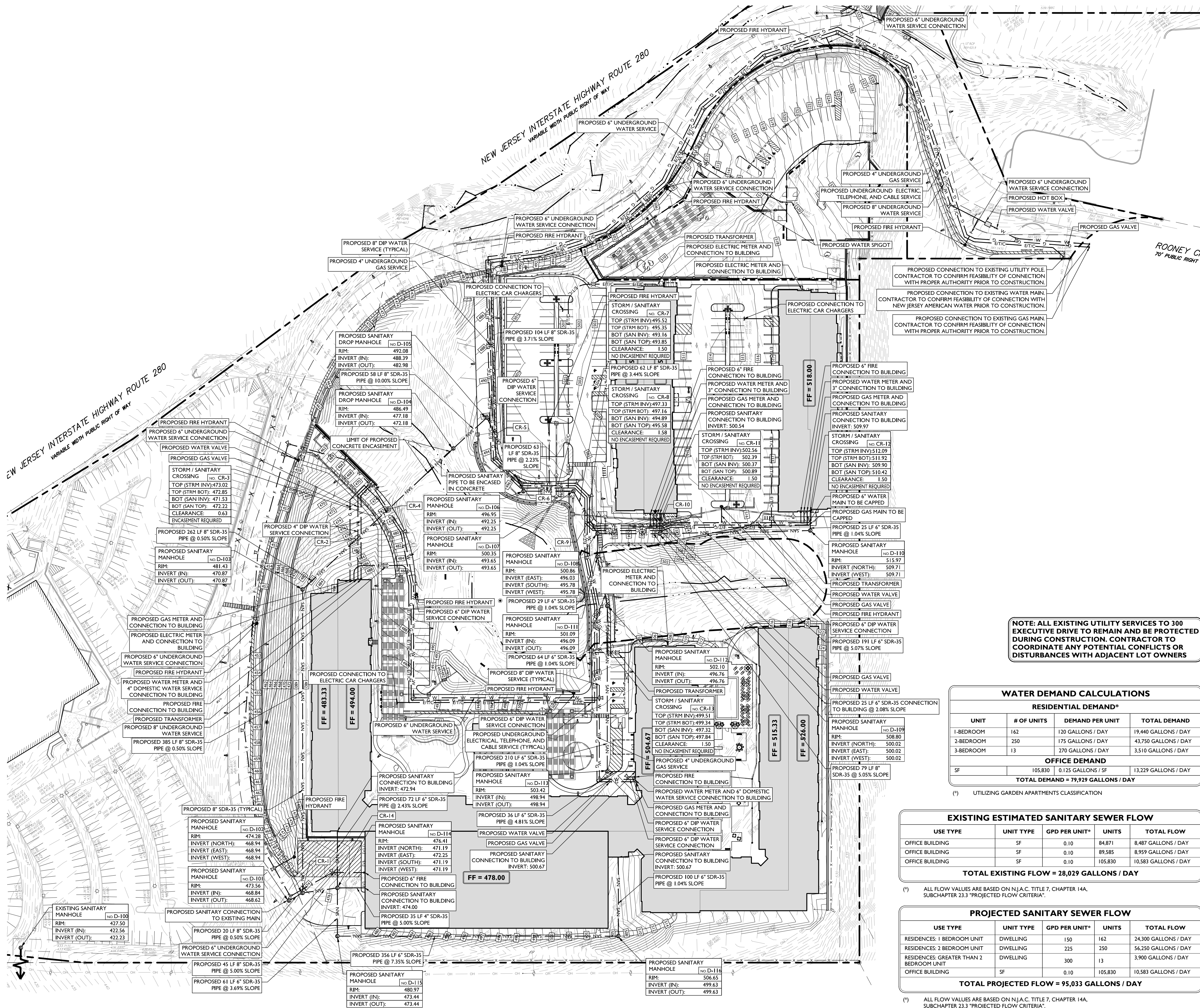


T:\2017\17554-BIN REAL ESTATE GROUP - 100-300 EXECUTIVE DRIVE, WEST ORANGE, NJ\040901\UTL\UTL.DWG



SYMBOL	DESCRIPTION
---	PROPERTY LINE
SAN	PROPOSED SANITARY LATERAL
W	PROPOSED DOMESTIC WATER SERVICE
E/T/C	PROPOSED ELECTRICAL/DATA CONDUITS
T/C	PROPOSED DATA CONDUITS
E	PROPOSED ELECTRIC CONDUITS
OH	PROPOSED OVERHEAD WIRES
G	PROPOSED GAS LINE
⊗	PROPOSED VALVE
⊕	PROPOSED WATER TEE / BEND
⊙	PROPOSED FIRE HYDRANT
⊙	PROPOSED FIRE DIRECT CONNECTION (FDC)
⊙	PROPOSED SANITARY MANHOLE / CLEANOUT
⊙	PROPOSED UTILITY POLE
⊙	PROPOSED TRANSFORMER ON CONCRETE PAD WITH BOLLARDS

NOTE: ALL EXISTING UTILITY SERVICES TO 300 EXECUTIVE DRIVE TO REMAIN AND BE PROTECTED DURING CONSTRUCTION. CONTRACTOR TO COORDINATE ANY POTENTIAL CONFLICTS OR DISTURBANCES WITH ADJACENT LOT OWNERS

WATER DEMAND CALCULATIONS			
RESIDENTIAL DEMAND*			
UNIT	# OF UNITS	DEMAND PER UNIT	TOTAL DEMAND
1-BEDROOM	162	120 GALLONS / DAY	19,440 GALLONS / DAY
2-BEDROOM	250	175 GALLONS / DAY	43,750 GALLONS / DAY
3-BEDROOM	13	270 GALLONS / DAY	3,510 GALLONS / DAY
OFFICE DEMAND			
SF	105,830	0.125 GALLONS / SF	13,229 GALLONS / DAY
TOTAL DEMAND = 79,929 GALLONS / DAY			

(*) UTILIZING GARDEN APARTMENTS CLASSIFICATION

EXISTING ESTIMATED SANITARY SEWER FLOW				
USE TYPE	UNIT TYPE	GPD PER UNIT*	UNITS	TOTAL FLOW
OFFICE BUILDING	SF	0.10	84,871	8,487 GALLONS / DAY
OFFICE BUILDING	SF	0.10	89,585	8,959 GALLONS / DAY
OFFICE BUILDING	SF	0.10	105,830	10,583 GALLONS / DAY
TOTAL EXISTING FLOW = 28,029 GALLONS / DAY				

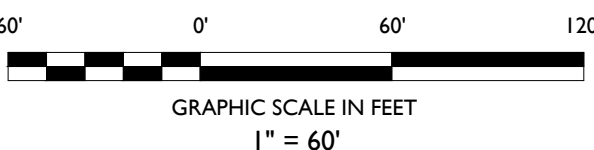
(*) ALL FLOW VALUES ARE BASED ON N.J.A.C. TITLE 7, CHAPTER 14A, SUBCHAPTER 23.3 "PROJECTED FLOW CRITERIA".

PROJECTED SANITARY SEWER FLOW				
USE TYPE	UNIT TYPE	GPD PER UNIT*	UNITS	TOTAL FLOW
RESIDENCES: 1 BEDROOM UNIT	DWELLING	150	162	24,300 GALLONS / DAY
RESIDENCES: 2 BEDROOM UNIT	DWELLING	225	250	56,250 GALLONS / DAY
RESIDENCES: GREATER THAN 2 BEDROOM UNIT	DWELLING	300	13	3,900 GALLONS / DAY
OFFICE BUILDING	SF	0.10	105,830	10,583 GALLONS / DAY
TOTAL PROJECTED FLOW = 95,033 GALLONS / DAY				

(*) ALL FLOW VALUES ARE BASED ON N.J.A.C. TITLE 7, CHAPTER 14A, SUBCHAPTER 23.3 "PROJECTED FLOW CRITERIA".

DRAINAGE AND UTILITY NOTES

- THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
- THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
- THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
- A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
- ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
- THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR WATER AND SANITARY SEWER CONNECTION IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AUTHORITY.
- CONTRACTOR SHALL START CONSTRUCTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP-GRADIENT.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN CAPPED, ABANDONED, OR RELOCATED BASED ON THE LOCATION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.



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PRELIMINARY & FINAL MAJOR SITE PLAN
**GREEN ESSEX PARTNERS URBAN
RENEWAL, LLC**

**PROPOSED MULTI-FAMILY
RESIDENTIAL DEVELOPMENT**

TAX MAP SHEET 88 BLOCK 155, LOTS 40.02, 42.01, & 42.02
100 - 200 EXECUTIVE DRIVE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

ZACHARY E. CHAPLIN, P.E.
NEW JERSEY LICENSE NO. 53605
LICENSED PROFESSIONAL ENGINEER

STONEFIELD
engineering & design

SCALE: 1" = 60' PROJECT ID: T-17554

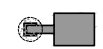
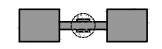
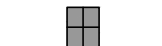
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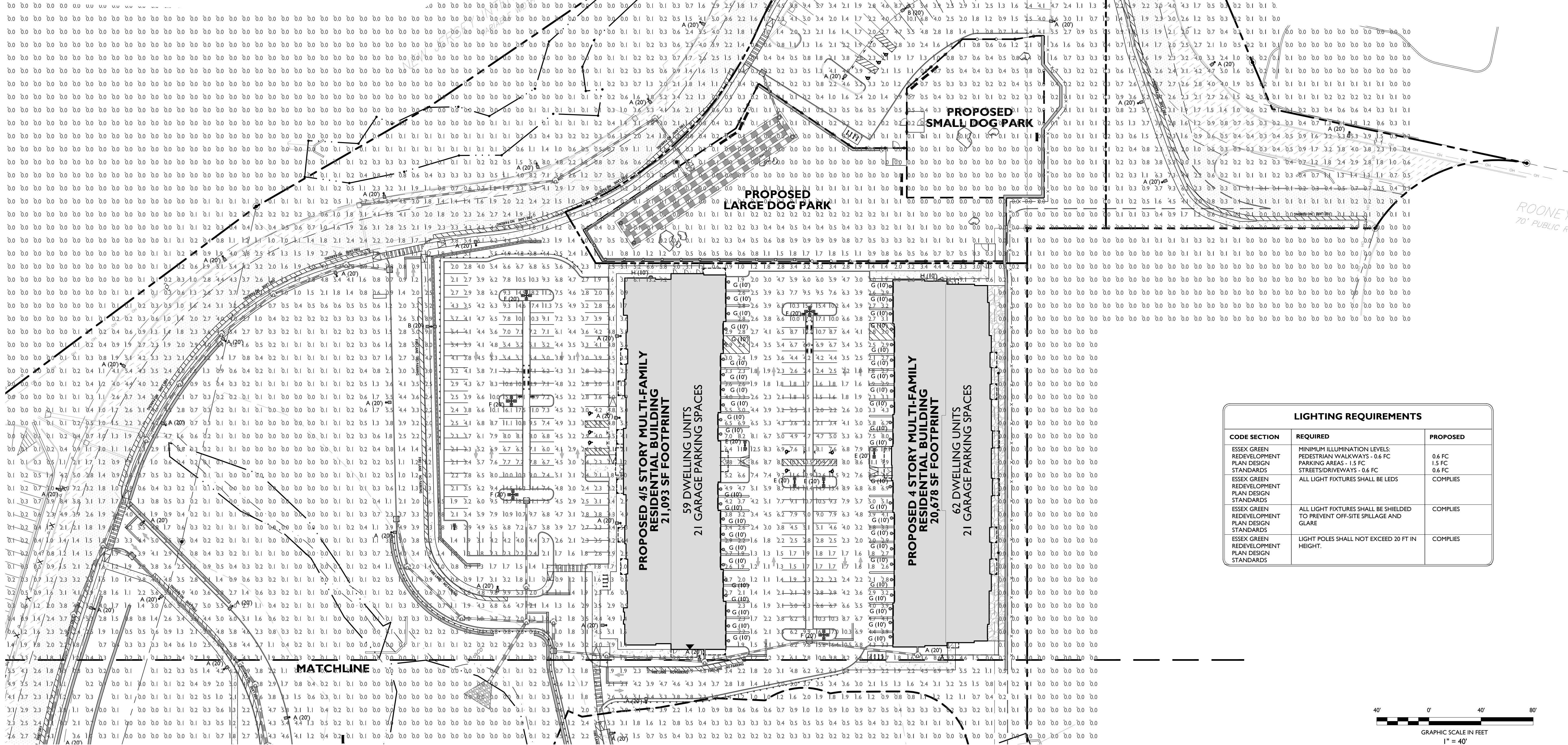
UTILITY PLAN

DRAWING:

C-12

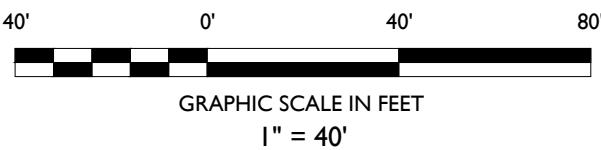
T:\2017\TJSA BINE REAL ESTATE GROUP - 100-200 EXECUTIVE DRIVE, WEST ORANGE, NJ 07060\PROJECT\11 LIGHT.DWG

PROPOSED LUMINAIRE SCHEDULE							
SYMBOL	LABEL	QUANTITY	LUMINAIRE	DISTRIBUTIO N	LLF	MANUFACTURER	IES FILE
	A	69	CAMPANA PENDANT POLE MOUNTED LED AREA LIGHT	TYPE III	0.90	CYCLONE LIGHTING	CAMPANA-CN5SP1-FGC-3-100W-3K (K617Cm).IES
	B	7	CAMPANA PENDANT 180° DOUBLE POLE MOUNTED LED AREA LIGHT	TYPE III	0.90	CYCLONE LIGHTING	CAMPANA-CN5SP1-FGC-3-100W-3K (K617Cm).IES
	C	2	CAMPANA PENDANT 90° DOUBLE POLE MOUNTED LED AREA LIGHT	TYPE III	0.90	CYCLONE LIGHTING	CAMPANA-CN5SP1-FGC-3-100W-3K (K617Cm).IES
	D	9	CAMPANA PENDANT POLE MOUNTED LED AREA LIGHT	TYPE IV	0.90	CYCLONE LIGHTING	CAMPANA-CN5SP1-FGC-4-120W-4K (K619C).IES
	E	4	CAMPANA PENDANT 180° DOUBLE POLE MOUNTED LED AREA LIGHT	TYPE IV	0.90	CYCLONE LIGHTING	CAMPANA-CN5SP1-FGC-4-120W-4K (K619C).IES
	F	5	CAMPANA PENDANT QUAD POLE MOUNTED LED AREA LIGHT	TYPE IV	0.90	CYCLONE LIGHTING	CAMPANA-CN5SP1-FGC-4-120W-4K (K619C).IES
	G	44	MARINA PENDANT MINI AREA LIGHT	TYPE IV	0.90	CYCLONE LIGHTING	MARINA-MINI-CNM11PI-GCPO-3-35W-4K.IES
	H	10	UNIVERSAL SIDE MOUNT AREA LIGHT	TYPE 3M	0.90	CYCLONE LIGHTING	UNIVERSAL-SU21x-FGC-3M-100W-3K(K618Cm).IES



SYMBOL	DESCRIPTION
---	PROPOSED CALCULATION AREA
---	PROPOSED ISOMETRIC LINE
A (XX')	PROPOSED LIGHTING FIXTURE (MOUNTING HEIGHT)
+XX	PROPOSED LIGHTING INTENSITY (FOOT CANDLES)
	PROPOSED AREA LIGHT
	PROPOSED BUILDING MOUNTED LIGHT

LIGHTING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
ESSEX GREEN REDEVELOPMENT PLAN DESIGN STANDARDS	MINIMUM ILLUMINATION LEVELS: PEDESTRIAN WALKWAYS - 0.6 FC PARKING AREAS - 1.5 FC STREETS/DRIVEWAYS - 0.6 FC ALL LIGHT FIXTURES SHALL BE LEDS	0.6 FC 1.5 FC 0.6 FC COMPLIES
ESSEX GREEN REDEVELOPMENT PLAN DESIGN STANDARDS	ALL LIGHT FIXTURES SHALL BE SHIELDED TO PREVENT OFF-SITE SPILLAGE AND GLARE	COMPLIES
ESSEX GREEN REDEVELOPMENT PLAN DESIGN STANDARDS	LIGHT POLES SHALL NOT EXCEED 20 FT IN HEIGHT.	COMPLIES



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GREEN ESSEX PARTNERS URBAN RENEWAL, LLC

PROPOSED MULTI-FAMILY RESIDENTIAL DEVELOPMENT

TAX MAP SHEET 88 BLOCK 155, LOTS 40.02, 42.01, & 42.02
100 - 200 EXECUTIVE DRIVE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY

ZACHARY E. CHAPLIN, P.E.
NEW JERSEY LICENSE NO. 53605
LICENSED PROFESSIONAL ENGINEER

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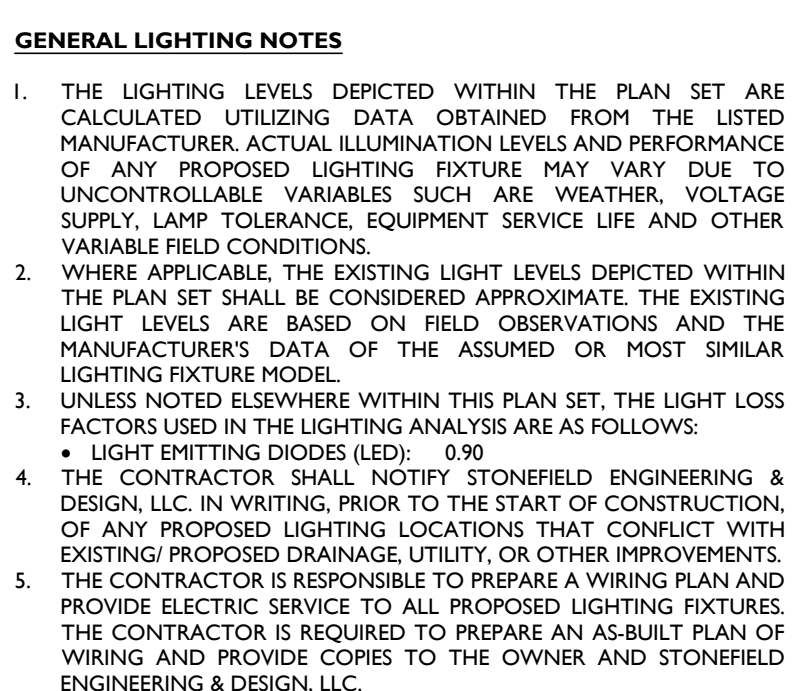
SCALE: 1" = 40' PROJECT ID: T-17354

TITLE:

LIGHTING PLAN

DRAWING:

C-13



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PRELIMINARY & FINAL MAJOR SITE PLAN

**GREEN ESSEX PARTNERS URBAN
RENEWAL, LLC**

**PROPOSED MULTI-FAMILY
RESIDENTIAL DEVELOPMENT**

TAX MAP SHEET 88 BLOCK 155, LOTS 40.02, 42.01, & 42.02
100 MAGNETIC DRIVE
TOWNSHIP OF GREEN BROOK
ESSEX COUNTY, NEW JERSEY

C-14