

# PRESERVE AT MARKS CREEK

## MASTER PLAN

TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA

ST. MATTHEWS TOWNSHIP

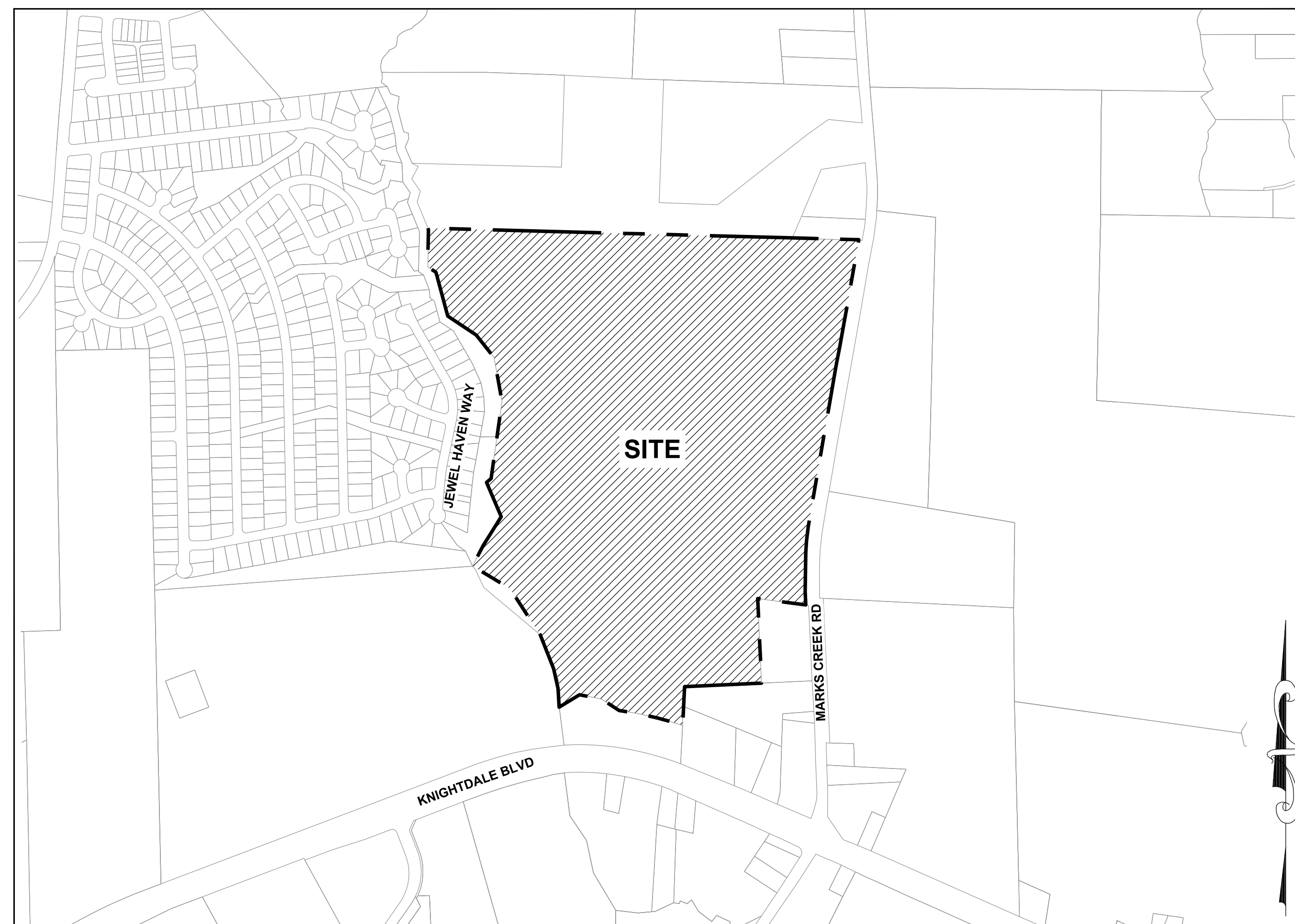
ZMA-11- 20

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### SITE INFORMATION:

LOCATION:	MARKS CREEK RD		
COUNTY:	WAKE COUNTY		
PARENT PIN:	1765112567, 1765109558, 1765212260, 1765212492, 1765213753		
CURRENT ZONING:	RT		
PROPOSED ZONING:	GR3-PUD		
ACREAGE:	101.59 AC		
LAND CLASS:	RESIDENTIAL		
<b>MINIMUM BUILDING SETBACKS:</b>			
	FRONT LOADED S.F.:	REAR LOADED S.F.:	TOWNHOME:
FRONT YARD:	10'	10'	0'
SIDE YARD:	5'	3'	N/A
REAR YARD:	25'	25'	15'
CORNER YARD:	10'	10'	10'
<b>LOT ACREAGE:</b>			
PROPOSED DENSITY:	3.65 DU/AC		TOWNHOME:
	DSF:		144
TOTAL NUMBER PROPOSED LOTS:	227		144
MINIMUM PROPOSED LOT SIZE:	7,670 SF		1,881 SF
MAXIMUM PROPOSED LOT SIZE:	13,324 SF (LOT 212)		6,239 SF (LOT 36)
AVERAGE PROPOSED LOT SIZE:	8,637 SF		2,721 SF
MINIMUM ALLOWABLE LOT WIDTH:	26'		24'
MINIMUM PROPOSED LOT WIDTH:	60'		22'
<b>LOT TYPE BREAKDOWN:</b>			
SINGLE FAMILY 60' WIDTH (60'X130'):	83 LOTS		
SINGLE FAMILY 26' WIDTH (26'X120'):	144 LOTS		
TOWNHOME 22' WIDTH (22'X90'):	42 LOTS		
TOWNHOME 24' WIDTH (24'X90'):	102 LOTS		
<b>OPEN SPACE BREAKDOWN:</b>			
PROPERTY BOUNDARY:	4,425,330 SF (101.59 AC)		
REQUIRED OPEN SPACE:	629,720 SF (14.46 AC)		
PROVIDED OPEN SPACE:	1,864,564 SF (42.80 AC)		
PROVIDED PASSIVE OPEN SPACE:	273,922 SF (6.29 AC)		
PROVIDED ACTIVE OPEN SPACE:	417,105 SF (9.58 AC)		
PARK:	179,306 SF (4.12 AC)		
POCKET PARK:	30,656 SF (0.7 AC)		
DOG PARK:	25,019 SF (0.57 AC)		
PARK WITH BENCHES:	38,941 SF (0.89 AC)		
BOCCE COURTS AND PLAYING FIELD AREA:	149,447 SF (3.43 AC)		
PLAYGROUND:	57,832 SF (1.33 AC)		
AMENITY CENTER:	39,730 SF (0.91 AC)		
POOL AREA:	5,031 SF (0.12 AC)		
TRAILS:	42,280 SF (0.97 AC)		
GREENWAY:	122,785 SF (2.82 AC)		
PRESERVED OPEN SPACE:	1,173,537 SF (26.94 AC)		
<b>IMPERVIOUS AREAS:</b>			
PARKING PROVIDED:	182		
ROADWAYS / PARKING:	509,334 SF (11.69 AC)		
SIDEWALKS:	132,391 SF (3.04 AC)		
80' LOTS (2,200 SF/LOT):	182,600 SF (4.19 AC)		
(AVG)			
22' LOTS (1,500 SF/LOT):	63,000 SF (1.45 AC)		
(AVG)			
24' LOTS (1,500 SF/LOT):	153,000 SF (3.51 AC)		
(AVG)			
26' LOTS (1,600 SF/LOT):	230,400 SF (5.29 AC)		
(AVG)			
TOTAL ON-SITE IMPERVIOUS AREA:	1,270,725 SF (29.17 AC)		
TOTAL ON-SITE IMPERVIOUS PERCENT:	28.71 %		
<b>UTILITY DEMANDS:</b>			
SEWAGE USAGE:	92,750 GPD		
	250 GPD / RESIDENTIAL UNIT X 371 UNITS		
WATER USAGE:	92,750 GPD		
	250 GPD / RESIDENTIAL UNIT X 371 UNITS		
<b>DISTURBED AREA:</b>			
TOTAL DISTURBED AREA:	1,022,417 SF (23.47 AC)		
<b>STREET TYPE SUMMARY:</b>			
54' ROW SECTION:	11,699 LF		
74' ROW SECTION:	2,058 LF		
CONNECTIVITY INDEX:	1.47		



VICINITY MAP

1" = 500'

### OWNER:

JAMES AND RHONDA POOLE  
7633 KNIGHTDALE BLVD STE 101  
KNIGHTDALE, NC 27545  
MICHAEL AND JESSICA BLAKE  
2609 MARKS CREEK RD, KNIGHTDALE NC 27545  
984-200-1932  
CONTACT: JOSH LAMBERT,  
JOSH@STRONGROCKGROUP.COM

### SURVEYOR:

TAYLOR LAND CONSULTANTS  
5448 APEX PEAKWAY  
APEX, NC 27502  
919-801-1104 (O)  
919-337-7998 (M)  
CONTACT: JEREMY TAYLOR, PLS  
jeremy@taylorlc.com

### ENVIRONMENTAL:

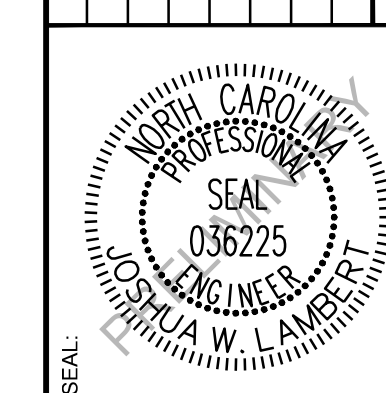
SAGE ECOLOGICAL SERVICES  
3707 SWIFT DRIVE  
RALEIGH, NORTH CAROLINA, 27606  
919-559-1537  
CONTACT: SEAN CLARK  
sclark@sageecological.com

### CIVIL ENGINEERING:

STRONG ROCK ENGINEERING GROUP, PLLC PO  
BOX 55992  
RALEIGH, NC 27624  
COMPANY LICENSE #: P-2166  
CONTACT: JOSH LAMBERT, PE  
984-200-1932 (O)  
josh@strongrockgroup.com

PUBLIC INFRASTRUCTURE QUANTITIES TABLE		
<b>SEWER:</b>		
MANHOLES	58	EA
8" PUBLIC SANITARY SEWER	10,916	LF
SEWER SERVICES	371	EA
<b>WATER:</b>		
8" PUBLIC WATERMAIN	13,601	LF
WATER SERVICES	371	EA
FIRE HYDRANT ASSEMBLIES	32	EA
8" GATE VALVES	59	EA
8" X 8" TEES	13	EA
8" X 8" CROSS	5	EA
8" BLOW OFF ASSEMBLIES	8	EA
<b>CONCRETE/ASPHALT:</b>		
PUBLIC STREETS	13,757	LF
PUBLIC ALLEYS	8,562	LF
PUBLIC 5' SIDEWALK	26,478	LF
30" CURB & GUTTER	26,830	LF
<b>SITE DATA:</b>		
NUMBER OF LOTS	371	
GPD USAGE WATER	92,750	
GPD USAGE SEWER	92,750	
CALCULATION FOR GPD WATER (PER UNIT)	250	
CALCULATION FOR GPD SEWER (PER UNIT)	250	

NO.	REVISIONS	DATE

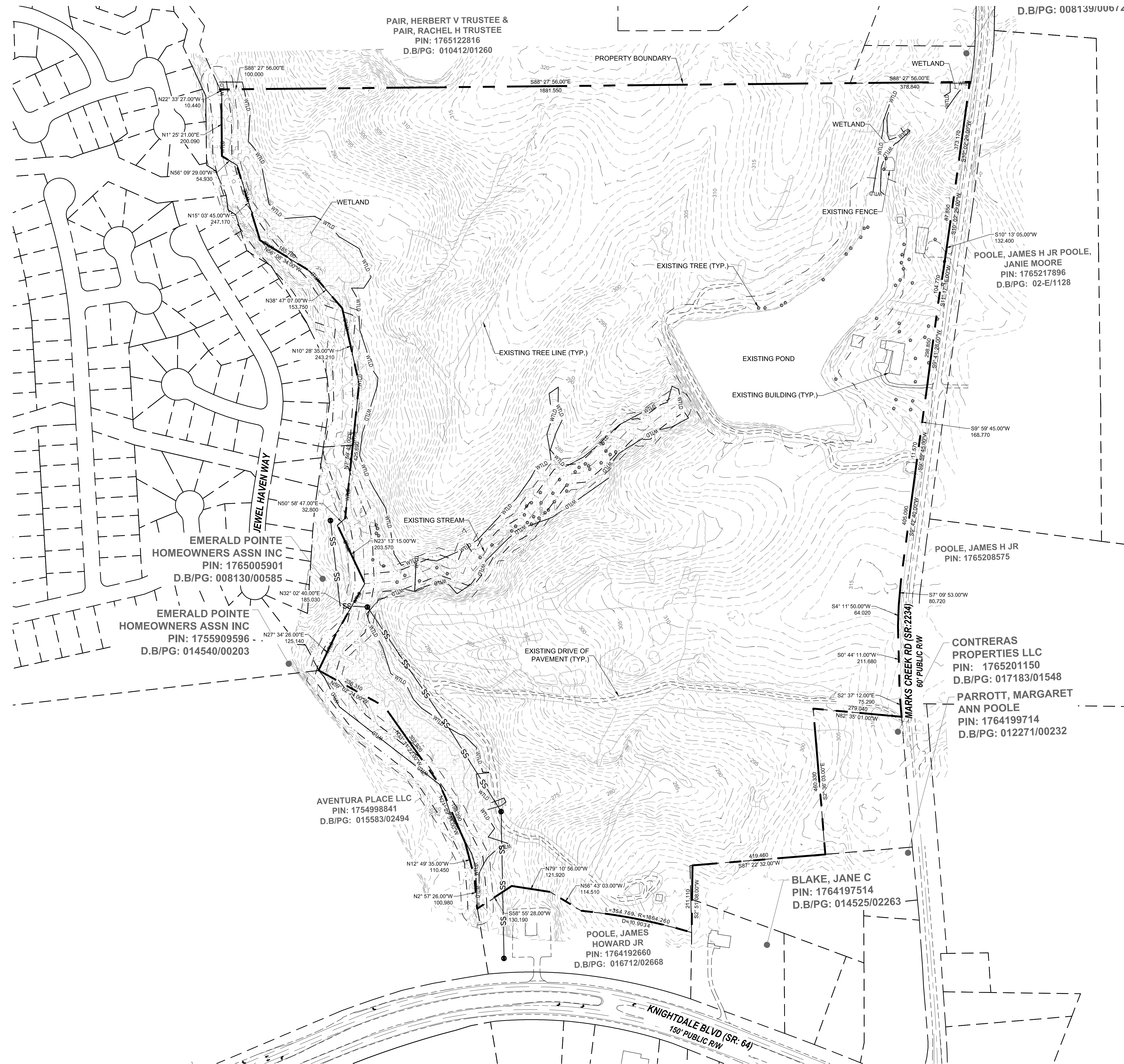


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ENGINEERING GROUP  
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	DRAWN BY SRG	CHECKED BY JWL
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PRESERVE AT MARKS CREEK  
TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
COVER





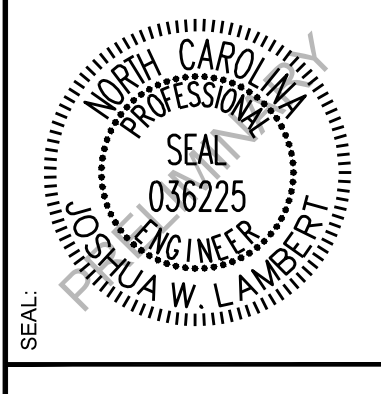
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	MASTER PLAN BOUNDARY
	EXISTING ADJOINER PROPERTY LINE
	EXISTING STREAM
	10' CONTOUR
	2' CONTOUR
	EXISTING POND
	EXISTING EDGE OF PAVEMENT
	EXISTING FENCE
	EXISTING TREE LINE
	EXISTING BUILDING
	EXISTING CREEK
	EXISTING WETLAND
	EXISTING TREE
	EXISTING WETLAND HATCH
	EXISTING BUFFER

**GENERAL NOTES:**

- BOUNDARY TAKEN FROM THE SURVEY PREPARED BY TAYLOR LAND CONSULTANTS.
- TOPOGRAPHIC INFORMATION TAKEN FROM THE SURVEY PREPARED BY TRIANGLE AERIAL SURVEYS LLP.
- WETLAND AND STREAM DELINEATION BY SAGE ECOLOGICAL SERVICES, INC. DATED JANUARY 10, 2021.
- THE SUBJECT PROPERTY IS NOT LOCATED IN ZONE X & AE IN ACCORDANCE WITH FIRM MAP #3720176500J, EFFECTIVE ON 05/02/2006

NO.	REVISIONS	DATE	BY



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ENGINEERING GROUP

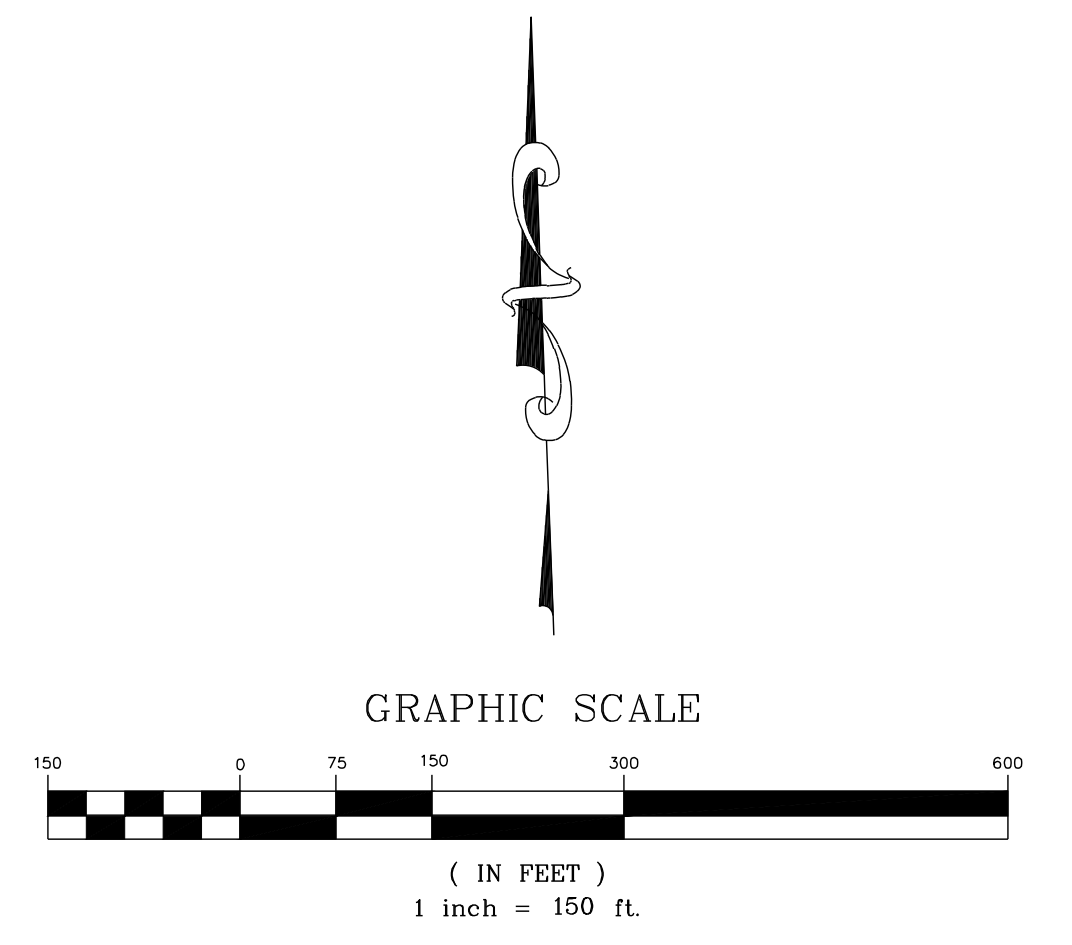
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

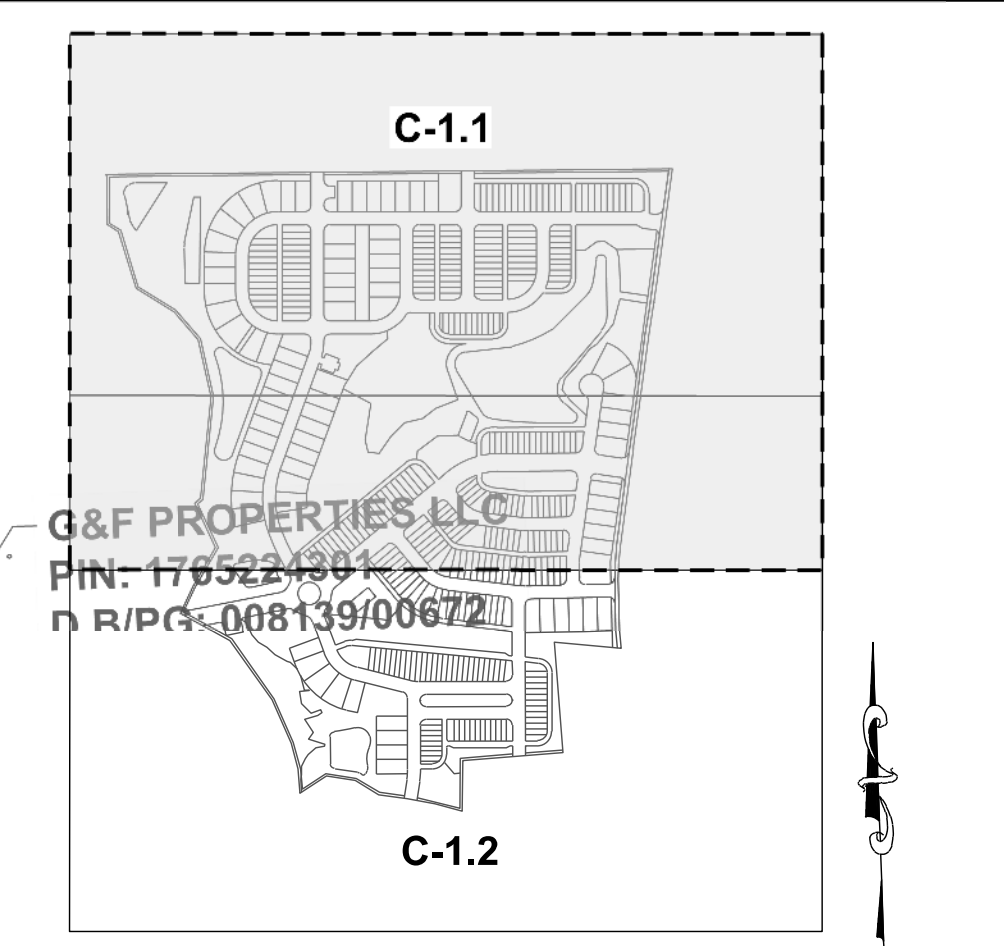
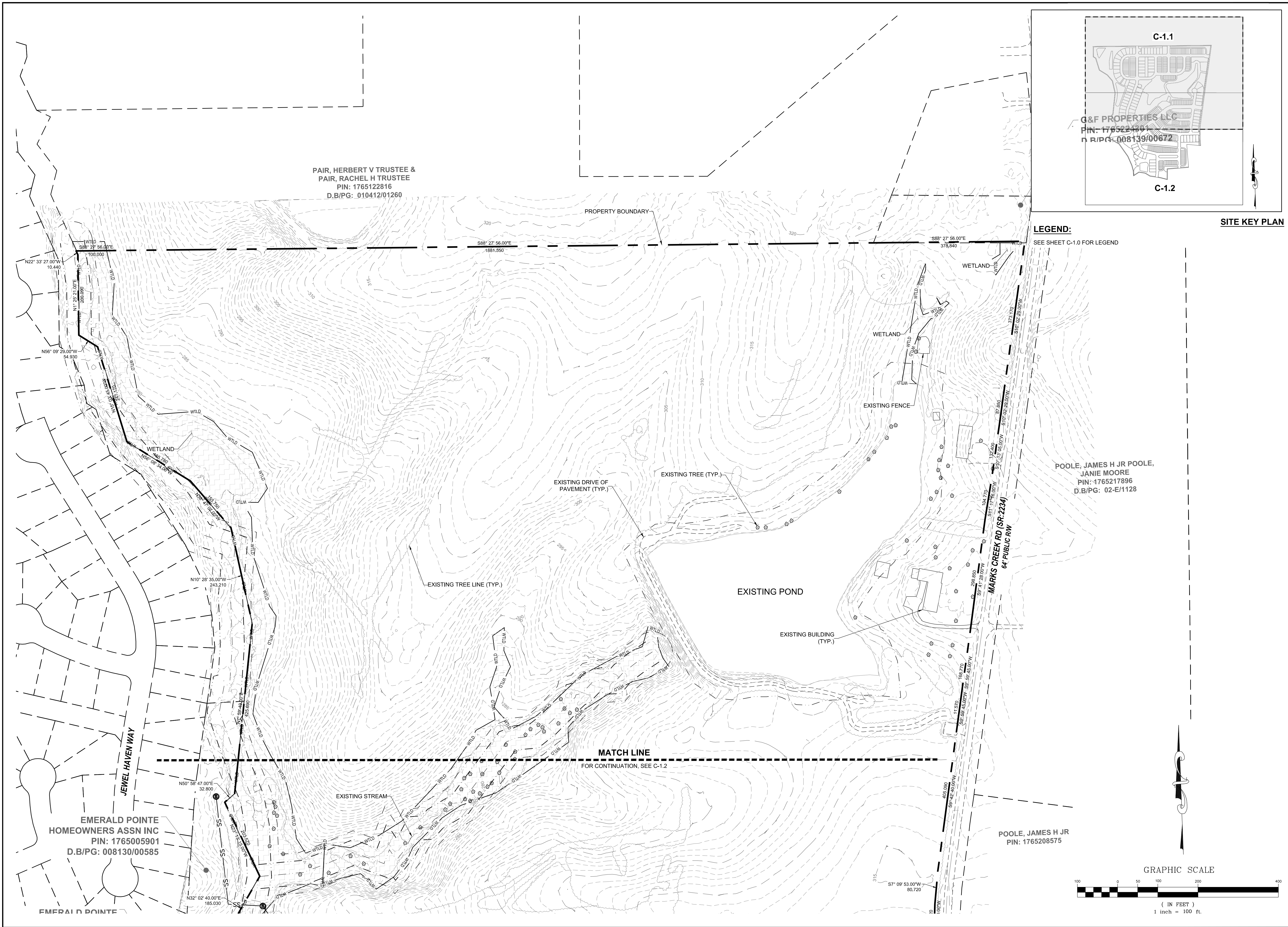
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NOT FOR CONSTRUCTION
SCALE AS SHOWN
DESIGNED BY JWL
DRAWN BY SRG
CHECKED BY JWL

**PRESERVE AT MARKS CREEK**  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
**MASTER PLAN**

**OVERALL EXISTING CONDITIONS**

DRAWING SHEET  
**C-1.0**





LEGEND:  
SEE SHEET C-1.0 FOR LEGEND

SITE KEY PLAN

No.	REVISIONS	DATE	BY



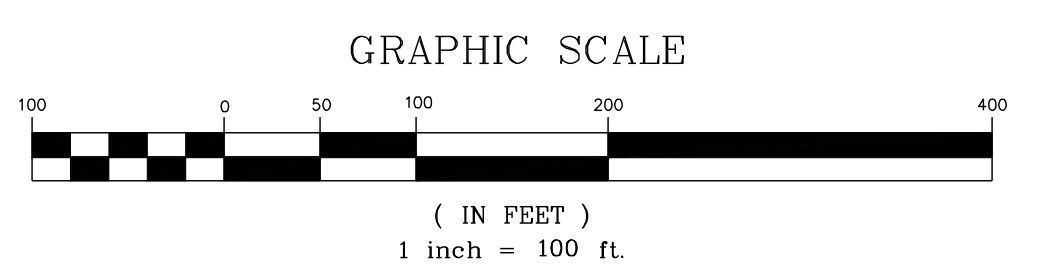
PAIR, HERBERT V TRUSTEE &  
PAIR, RACHEL H TRUSTEE  
PIN: 1765122816  
D.B/PG: 010412/01260

POOLE, JAMES H JR POOLE,  
JANIE MOORE  
PIN: 1765217896  
D.B/PG: 02-E/1128

EMERALD POINT  
HOMEOWNERS ASSN INC  
PIN: 1765005901  
D.B/PG: 008130/00585

POOLE, JAMES H JR  
PIN: 1765208575

MATCH LINE  
FOR CONTINUATION, SEE C-1.2

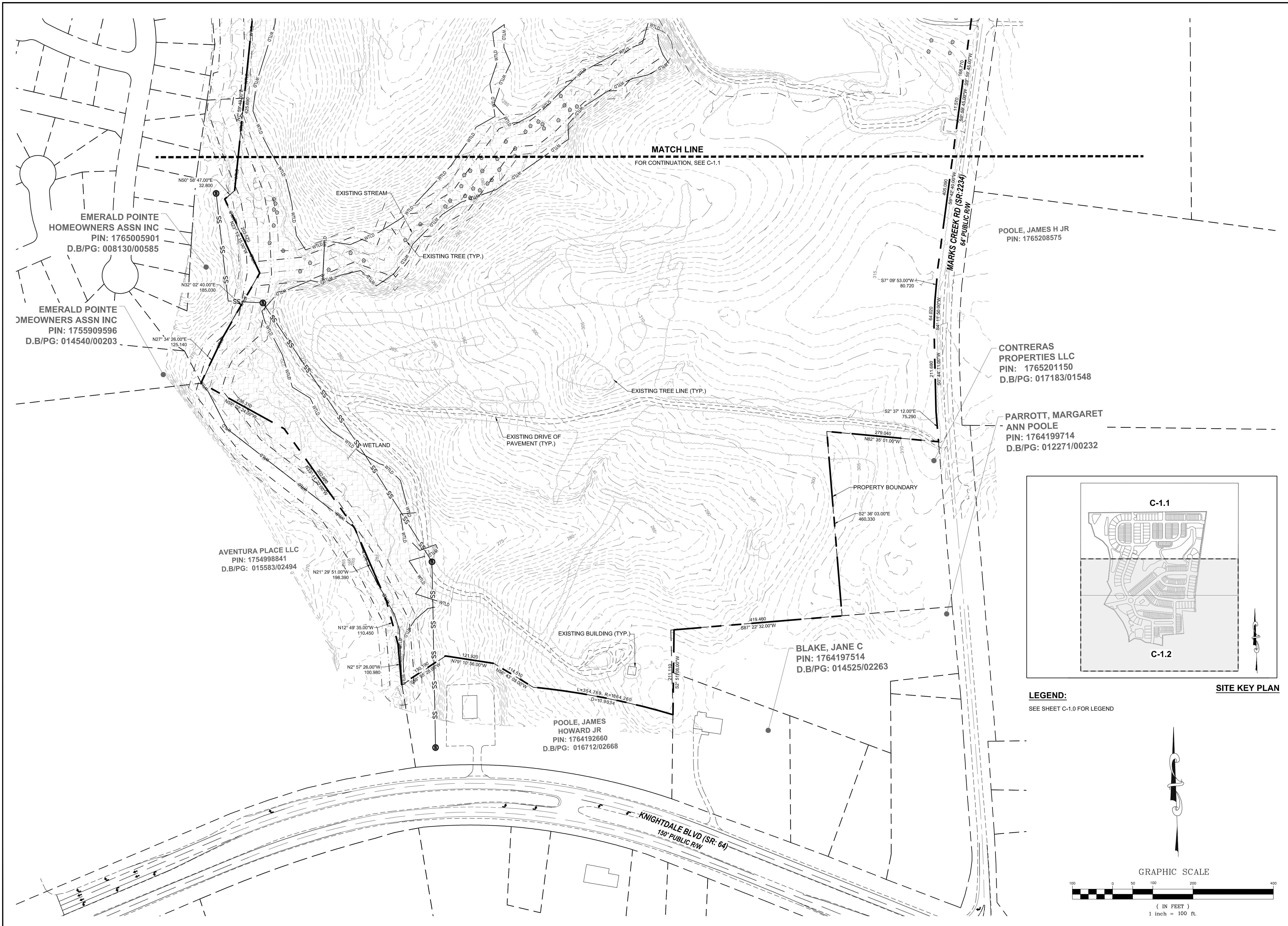


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NOT FOR CONSTRUCTION	SCALE	AS SHOWN			

PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED EXISTING CONDITIONS I

DRAWING SHEET  
**C-1.1**  
03 OF 42



MATCH LINE  
FOR CONTINUATION, SEE C-1.1

EMERALD POINTE  
HOMEOWNERS ASSN INC  
PIN: 1765005901  
D.B/PG: 008130/00585

EMERALD POINTE  
JMEOWNERS ASSN INC  
PIN: 1755909596  
D.B/PG: 014540/00203

AVENTURA PLACE LLC  
PIN: 1754998841  
D.B/PG: 015583/02494

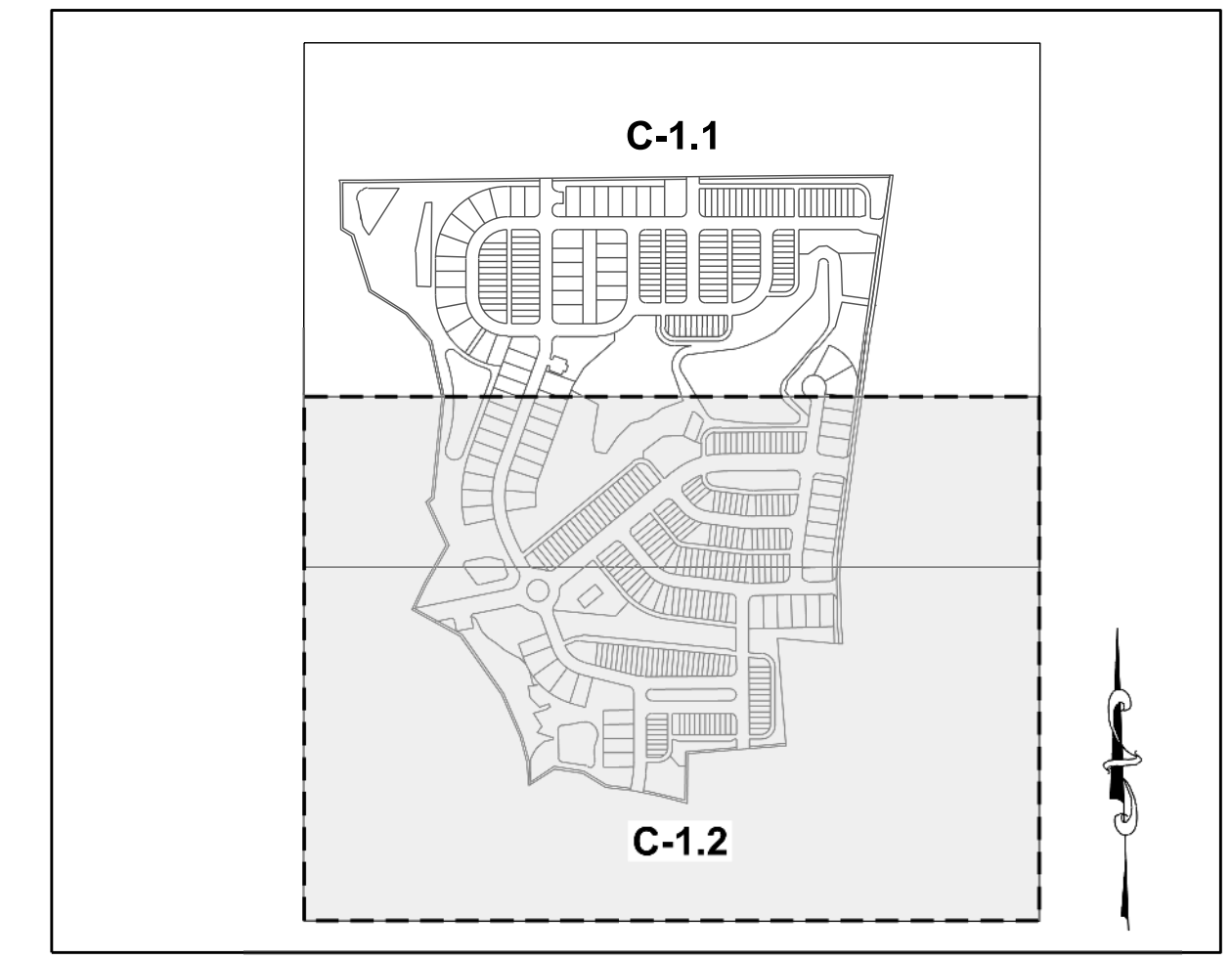
POOLE, JAMES  
HOWARD JR  
PIN: 1764192660  
D.B/PG: 016712/02668

BLAKE, JANE C  
PIN: 1764197514  
D.B/PG: 014525/02263

CONTRERAS  
PROPERTIES LLC  
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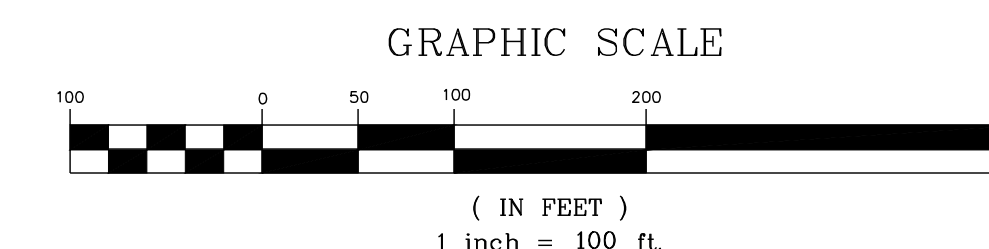
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ANN POOLE  
PIN: 1764199714  
D.B/PG: 012271/00232

POOLE, JAMES H JR  
PIN: 1765208575

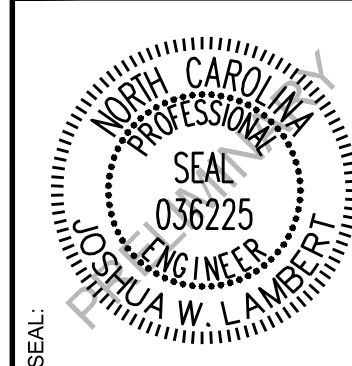


LEGEND:  
SEE SHEET C-1.0 FOR LEGEND

SITE KEY PLAN



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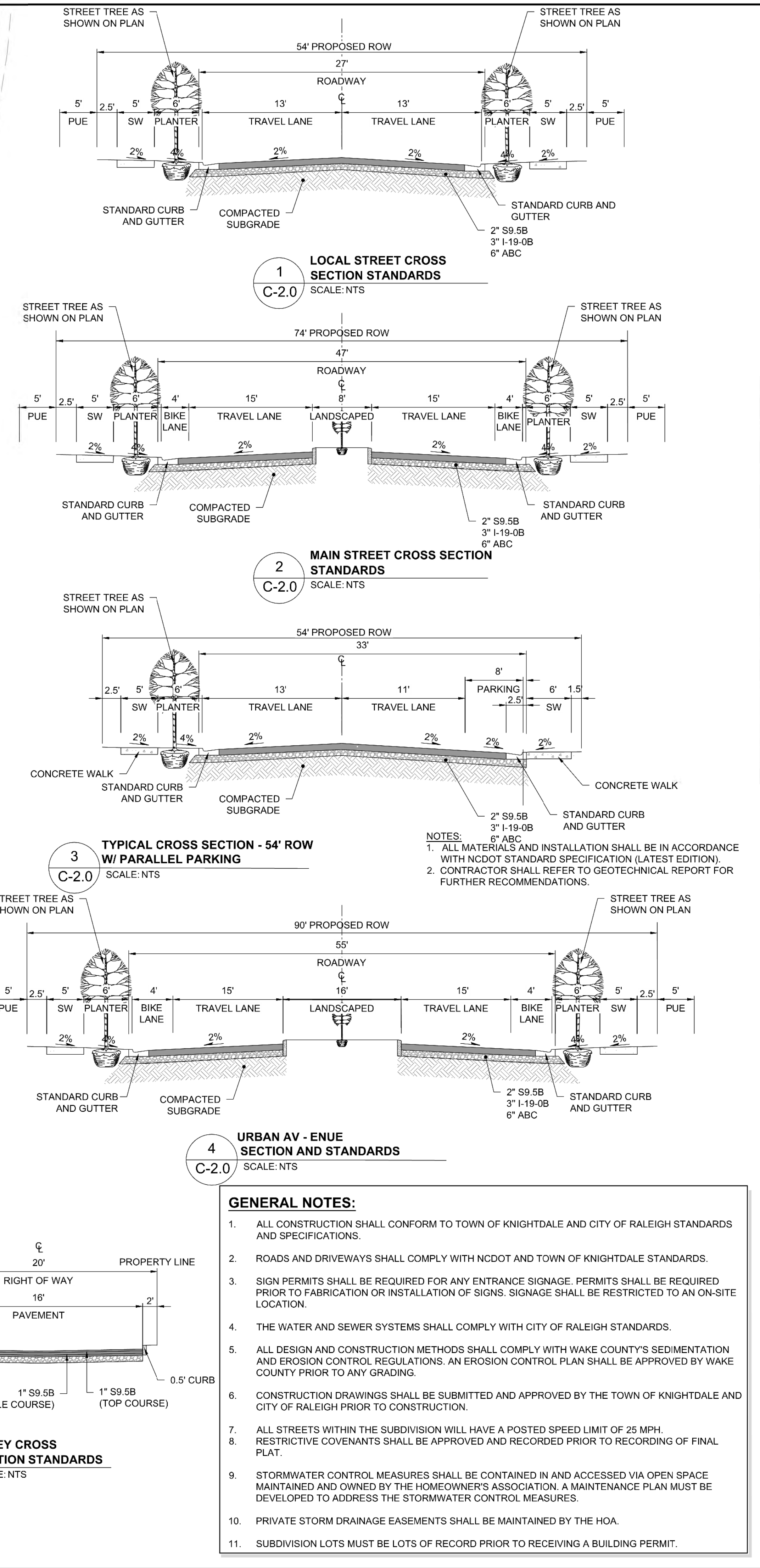
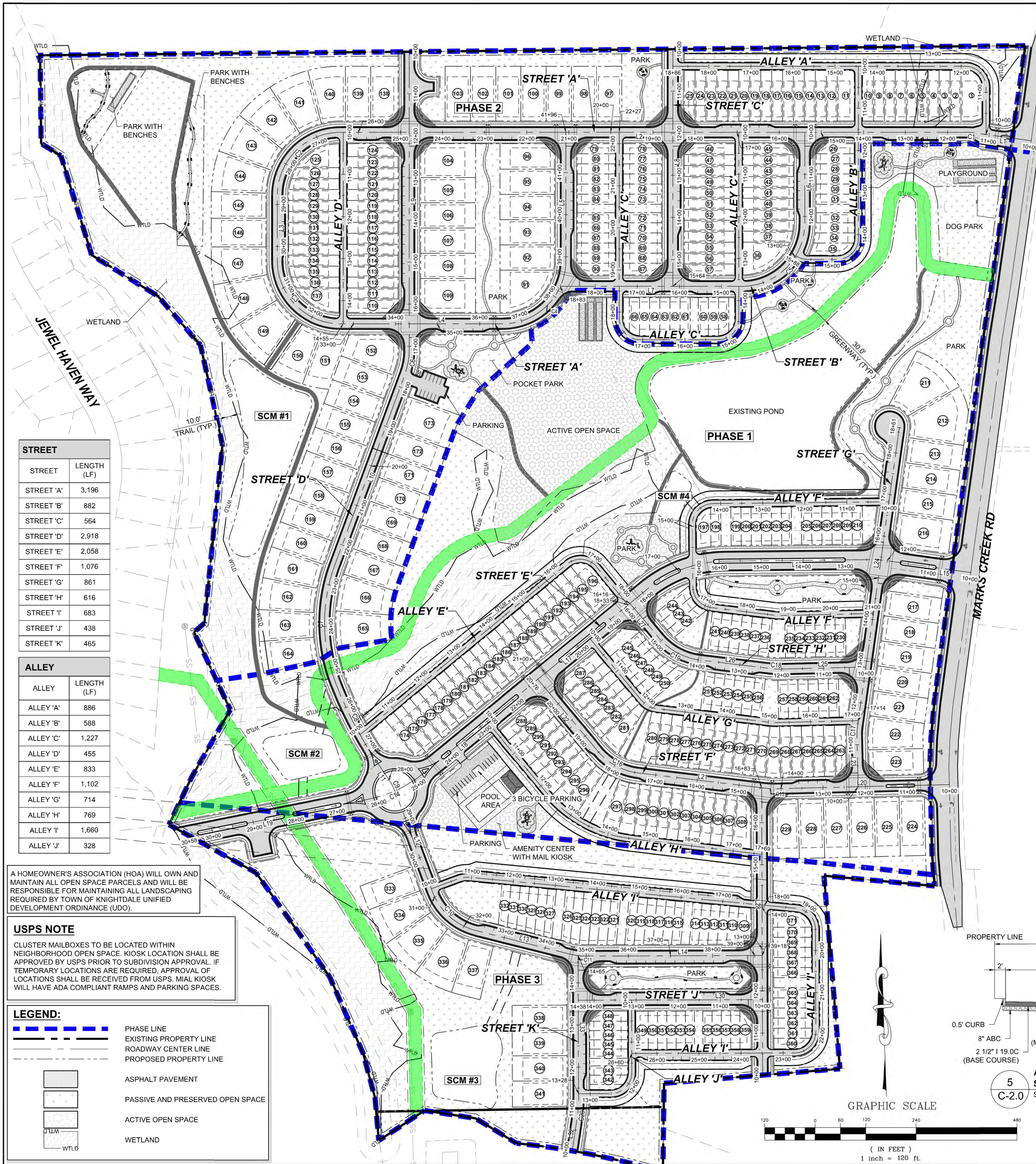
STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY

PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED EXISTING CONDITIONS II

DRAWING SHEET

C-1.2

04 OF 42



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 STRONG ROCK ENGINEERING GROUP, PLLC / COMPANY LICENSE # P-2166  
 6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 / JOSH@STRONGROCKENGINEERING.COM

**SEAL:** NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 036225 JOSHUA W. LAIBERT

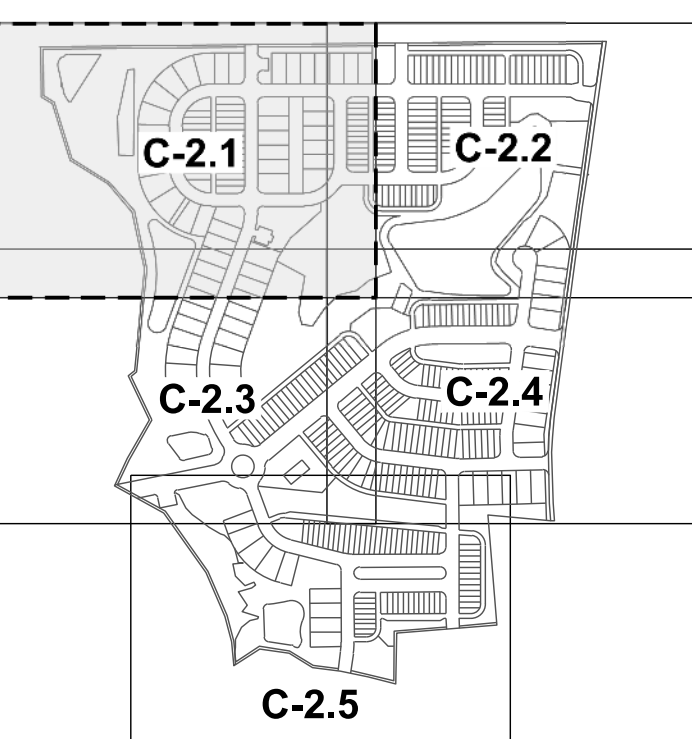
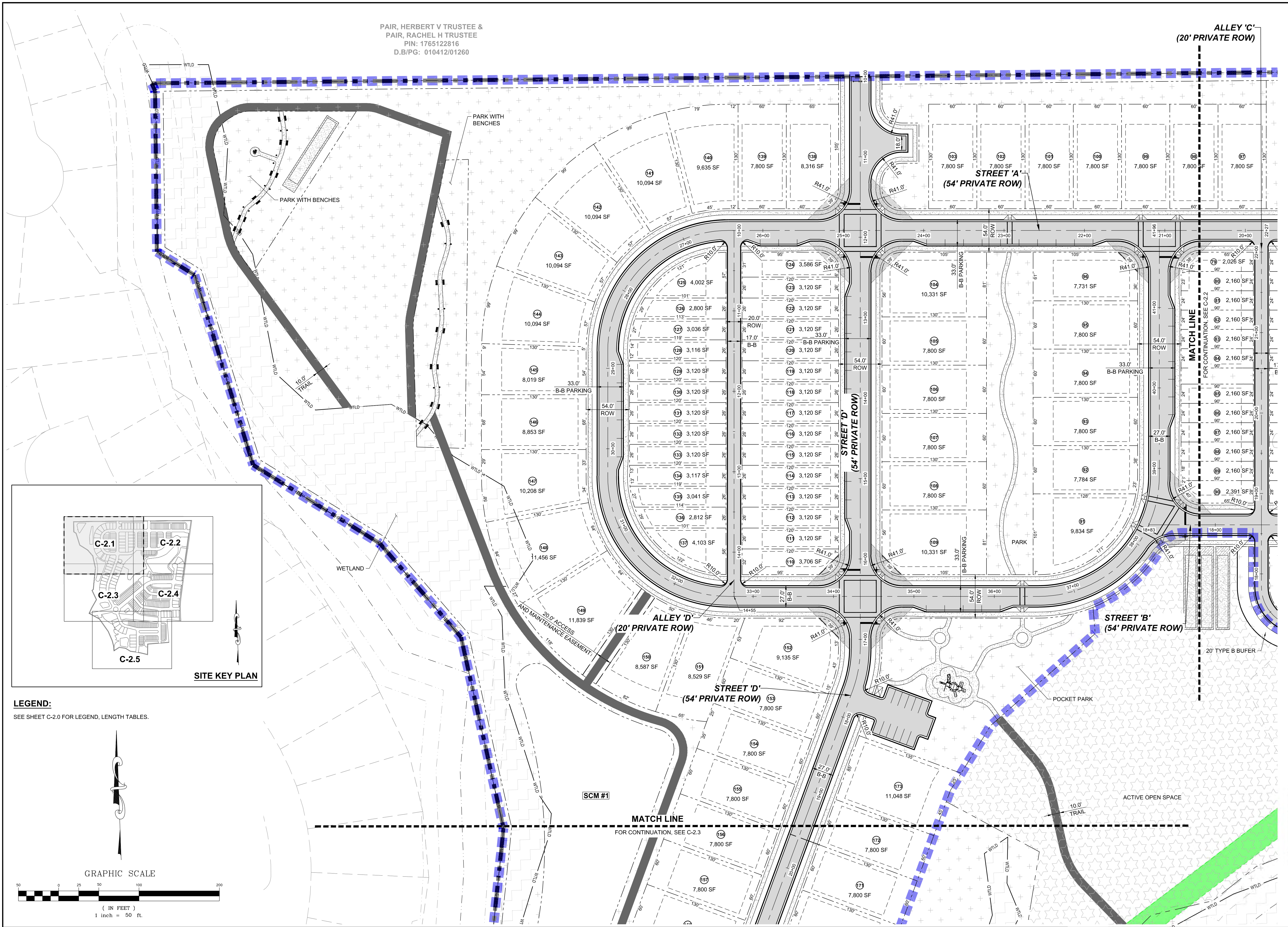
NO.	REVISIONS	DATE	BY

STRONG ROCK PROJECT  
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 SCALE AS SHOWN  
 DESIGNED BY JWL  
 SRG  
 DRAWN BY  
 CHECKED BY JWL

PRESERVE AT MARKS CREEK  
 TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 MASTER PLAN  
 OVERALL SITE PLAN

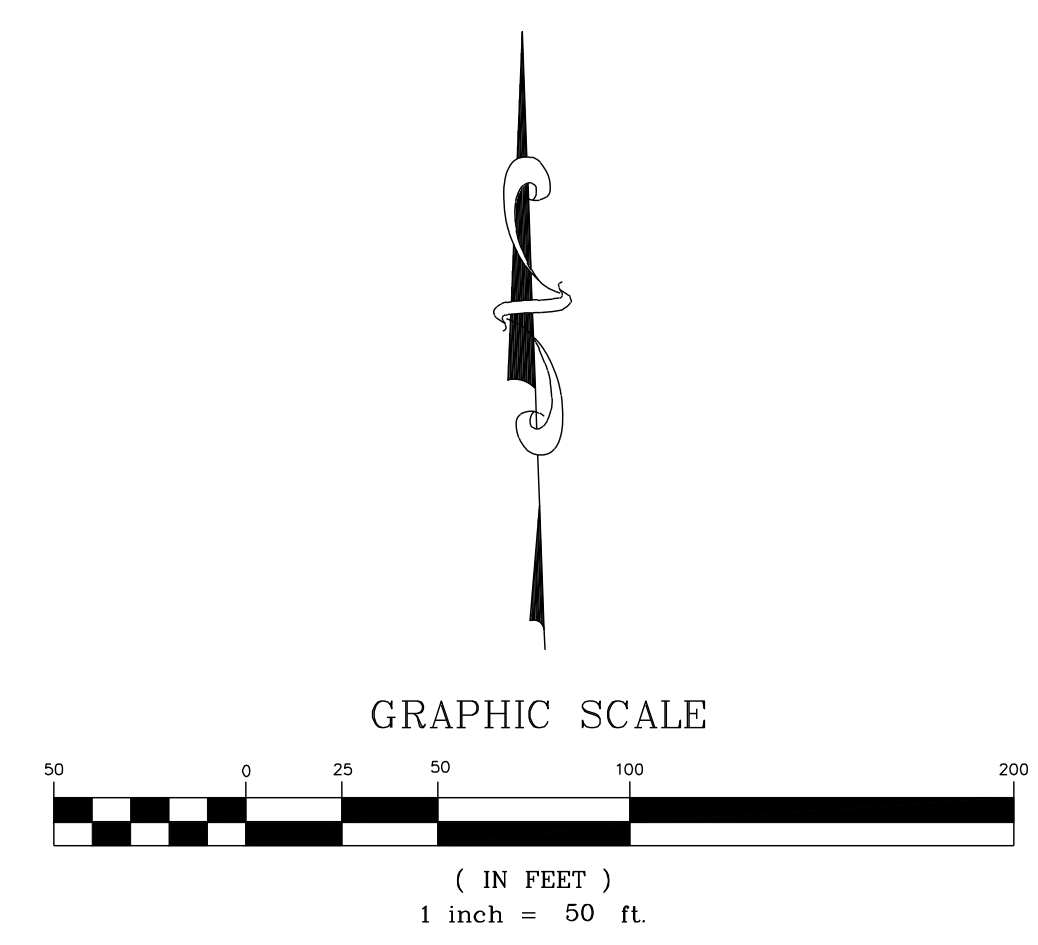
DRAWING SHEET  
**C-2.0**  
 05 OF 42

PAIR, HERBERT V TRUSTEE &  
PAIR, RACHEL H TRUSTEE  
PIN: 1765122816  
D.B/PG: 010412/01260

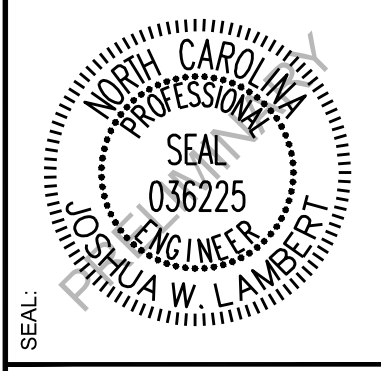


SITE KEY PLAN

LEGEND:  
SEE SHEET C-2.0 FOR LEGEND, LENGTH TABLES.



NO.	REVISIONS	DATE	BY

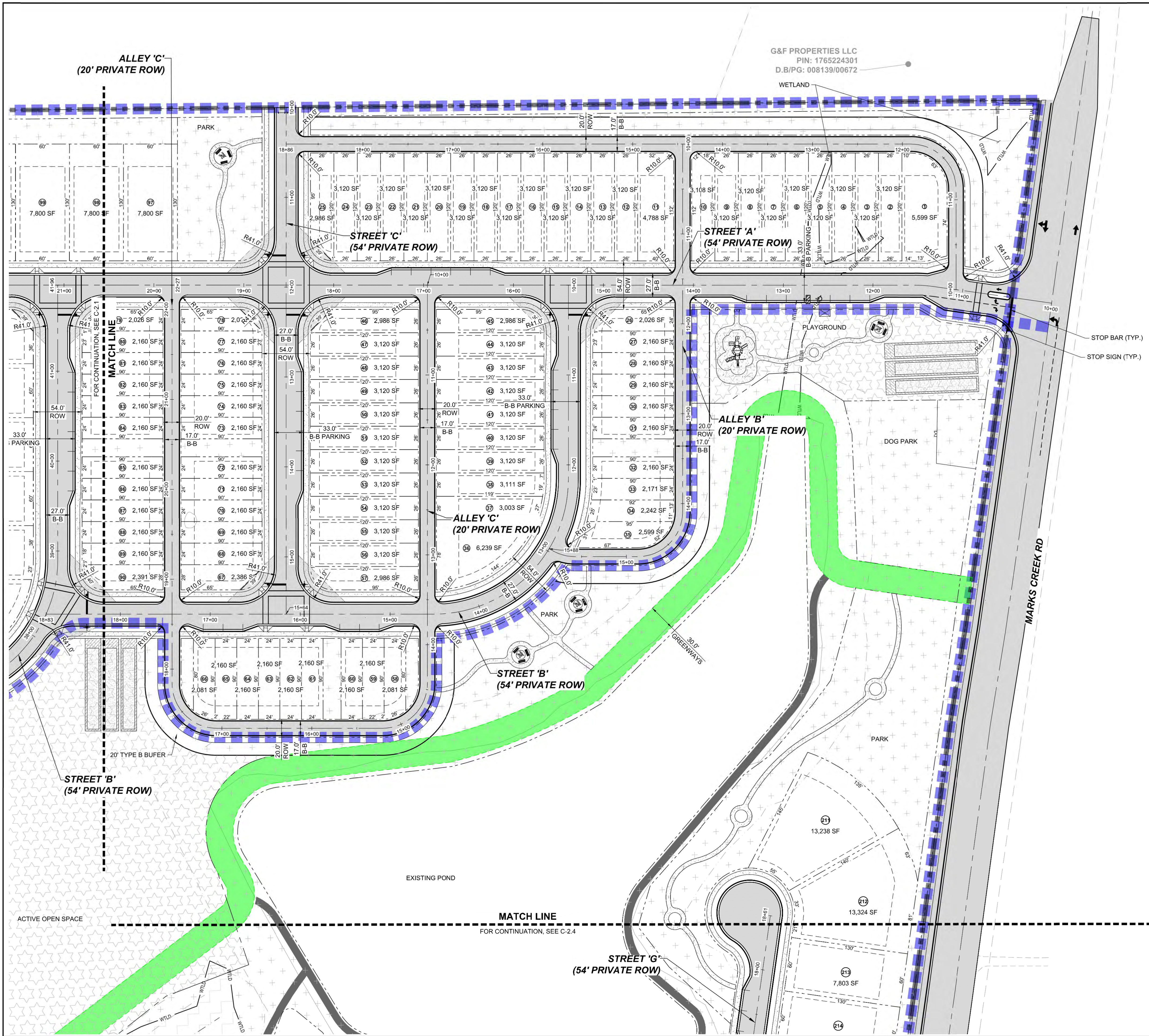


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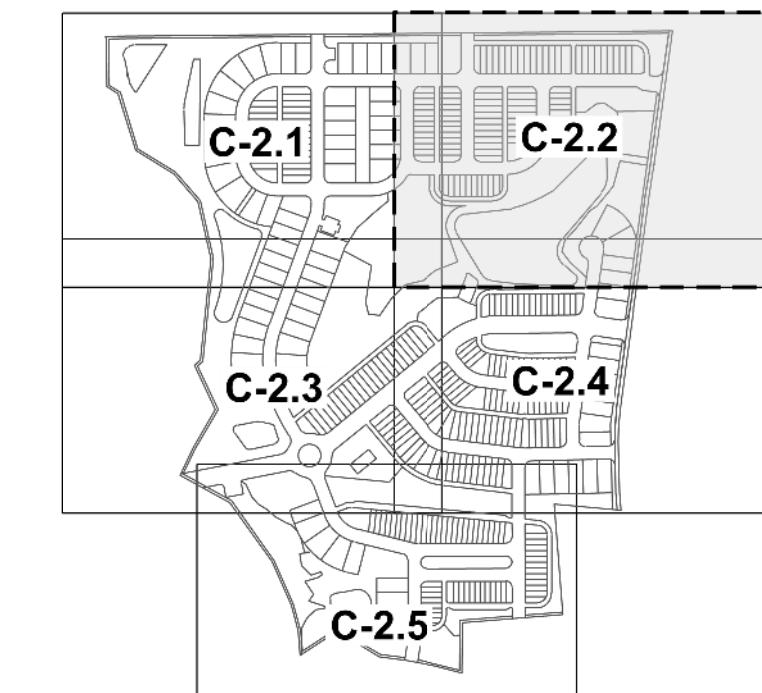
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED SITE PLAN I

DRAWING SHEET  
**C-2.1**  
06 OF 42



G&F PROPERTIES LLC  
 PIN: 1765224301  
 D.B/PG: 008139/00672

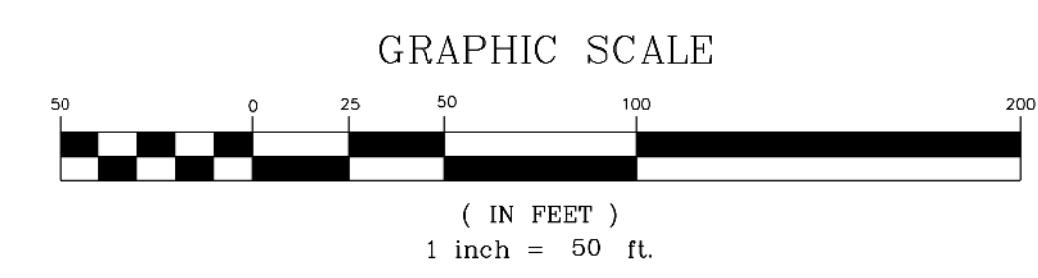


**SITE KEY PLAN**

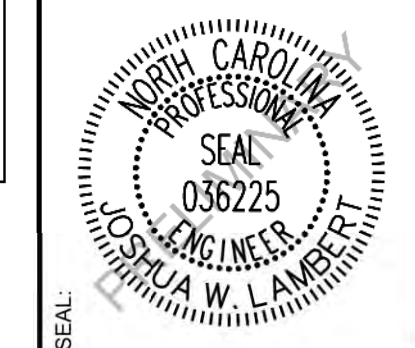
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STOP BAR (TYP.)  
 STOP SIGN (TYP.)

POOLE, JAMES H JR POOLE,  
 JANIE MOORE  
 PIN: 1765217896  
 D.B/PG: 02-E/1128



NO.	REVISIONS	DATE	BY

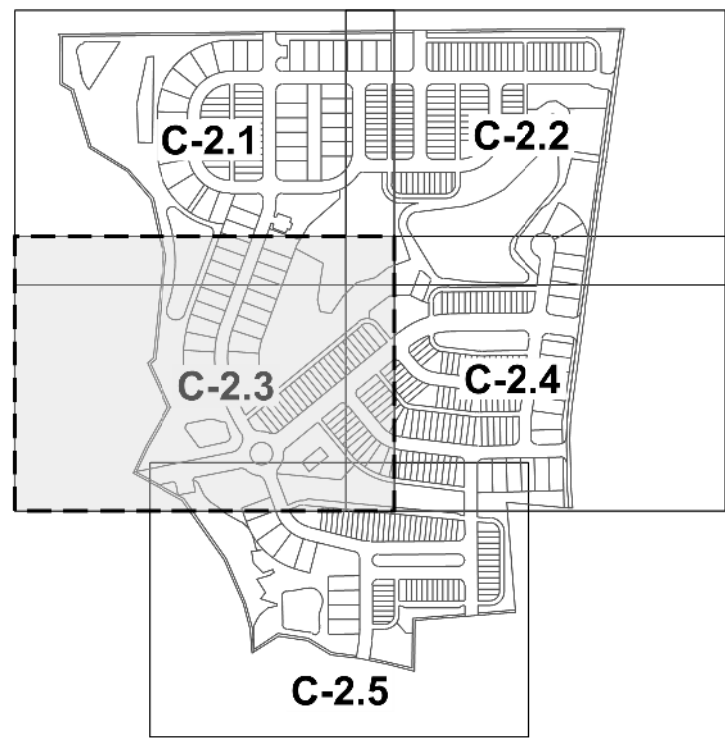


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STRONG ROCK PROJECT	DESIGNED BY	JWL	SRG	JWL
NOT FOR CONSTRUCTION	DRAWN BY	JWL	SRG	JWL
SCALE AS SHOWN	CHECKED BY	JWL	SRG	JWL

**PRESERVE AT MARKS CREEK**  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
**MASTER PLAN**  
**DETAILED SITE PLAN II**

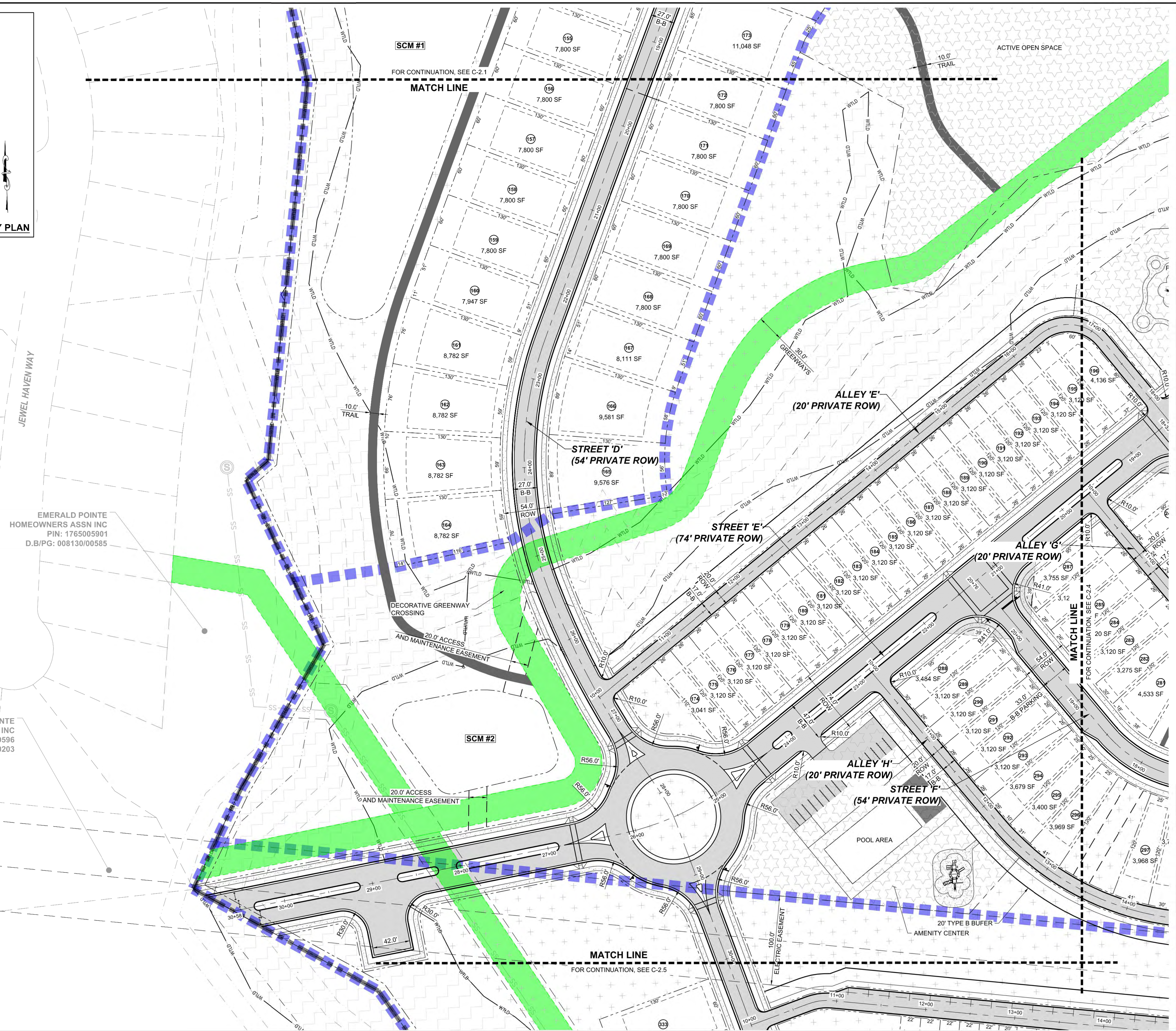
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**C-2.2**  
 07 OF 42



SITE KEY PLAN

LEGEND:

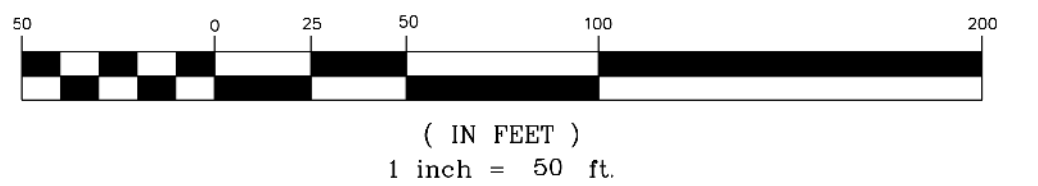
SEE SHEET C-2.0 FOR LEGEND, LENGTH TABLES.



EMERALD POINTE HOMEOWNERS ASSN INC  
PIN: 1765005901  
D.B/PG: 008130/00585

EMERALD POINTE HOMEOWNERS ASSN INC  
PIN: 1755909596  
D.B/PG: 014540/00203

GRAPHIC SCALE



NO.	REVISIONS	DATE	BY



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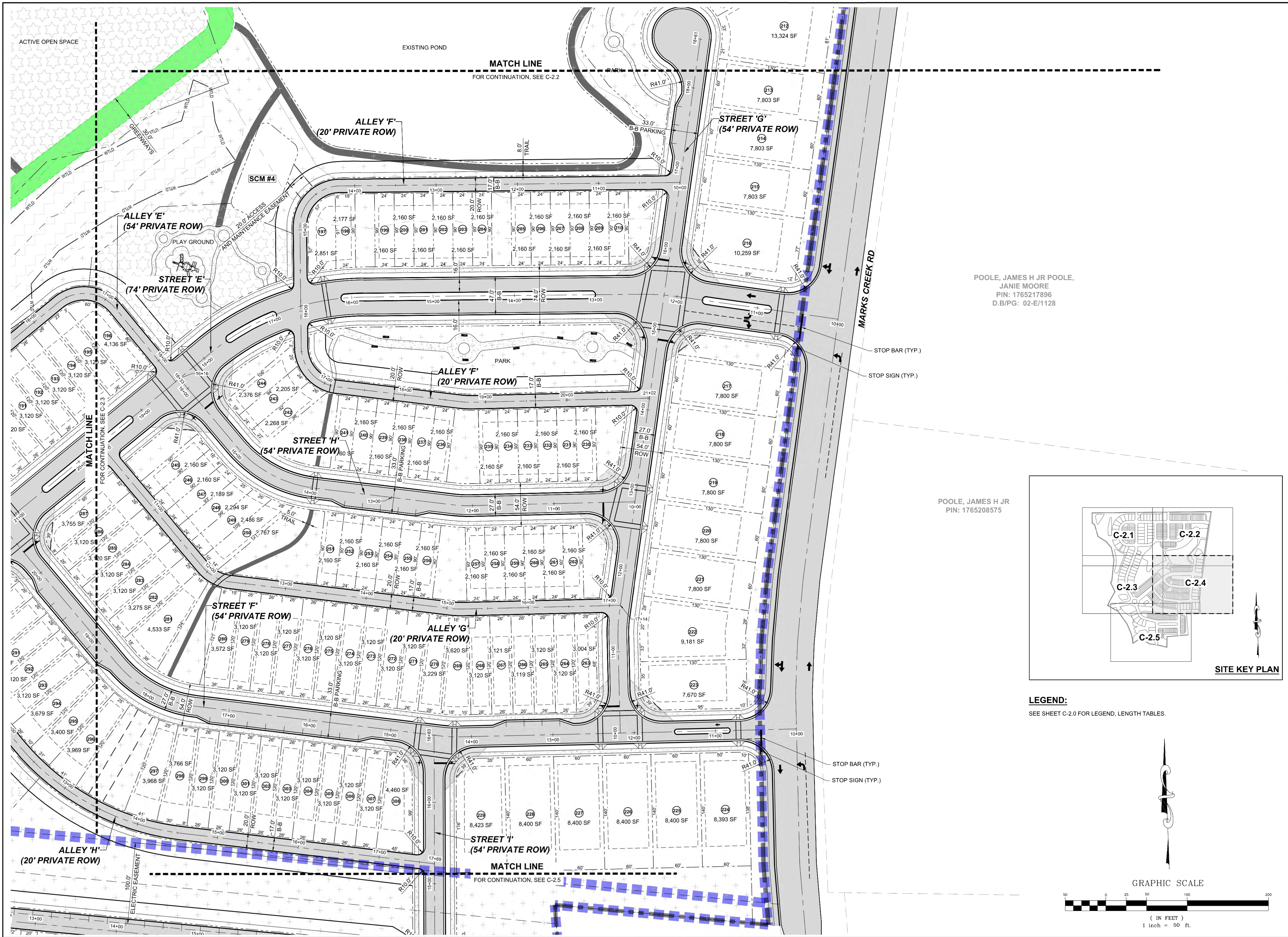
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED SITE PLAN III

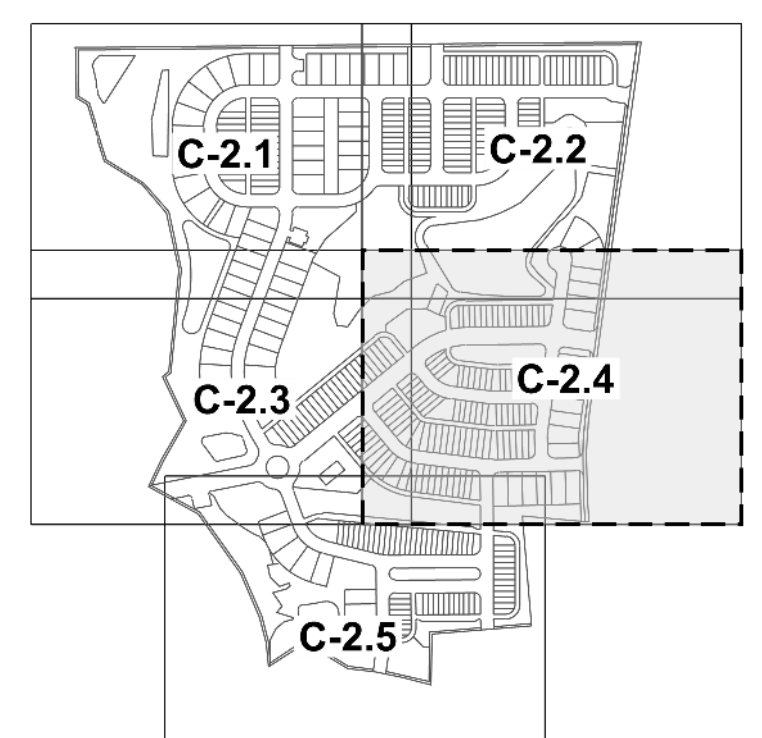
DRAWING SHEET  
**C-2.3**  
08 OF 42





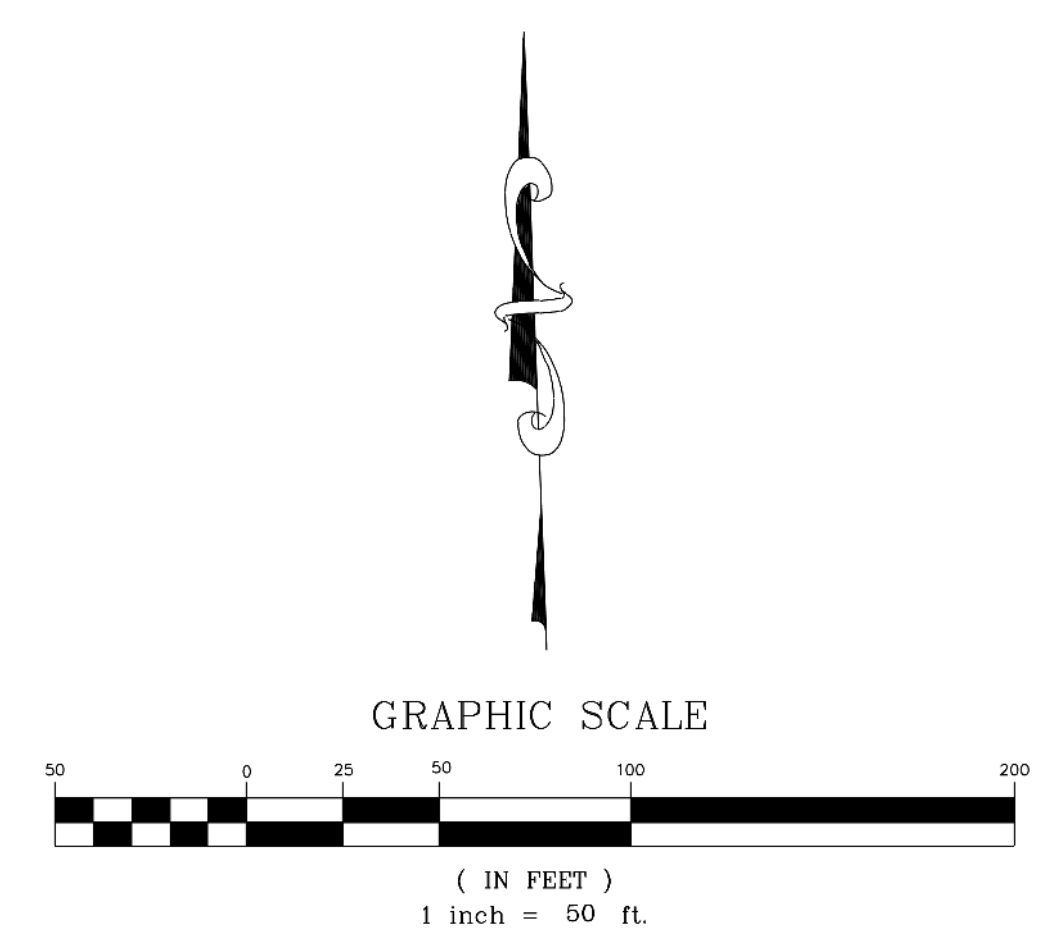
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POOLE, JAMES H JR  
 PIN: 1765208575

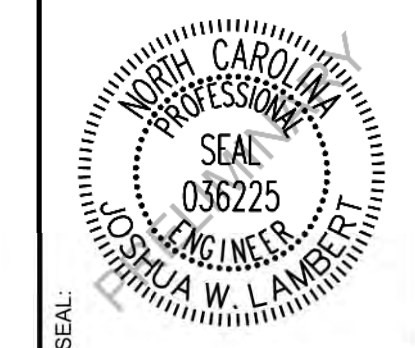


SITE KEY PLAN

**LEGEND:**  
 SEE SHEET C-2.0 FOR LEGEND, LENGTH TABLES.



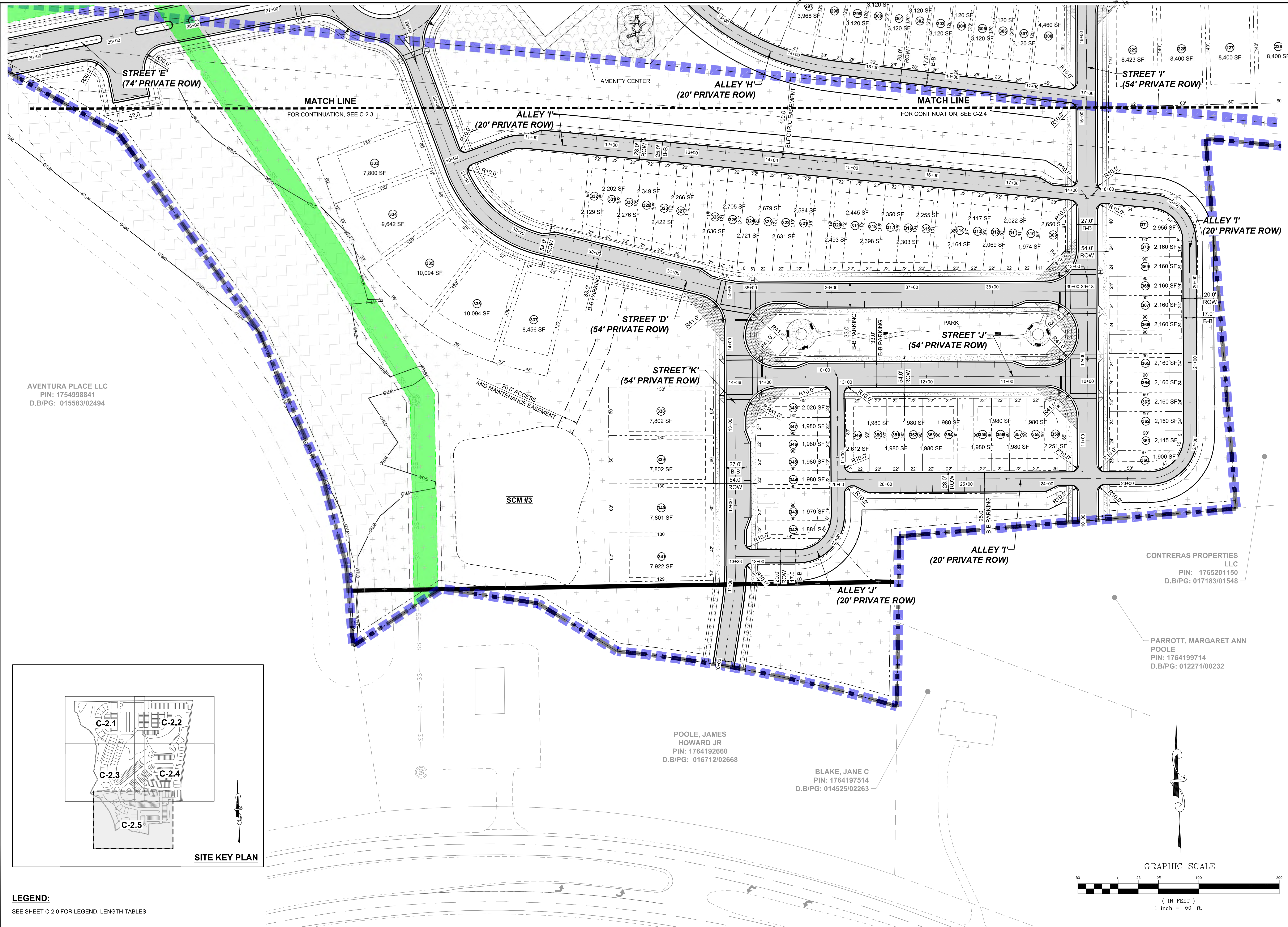
NO.	REVISIONS	DATE	BY



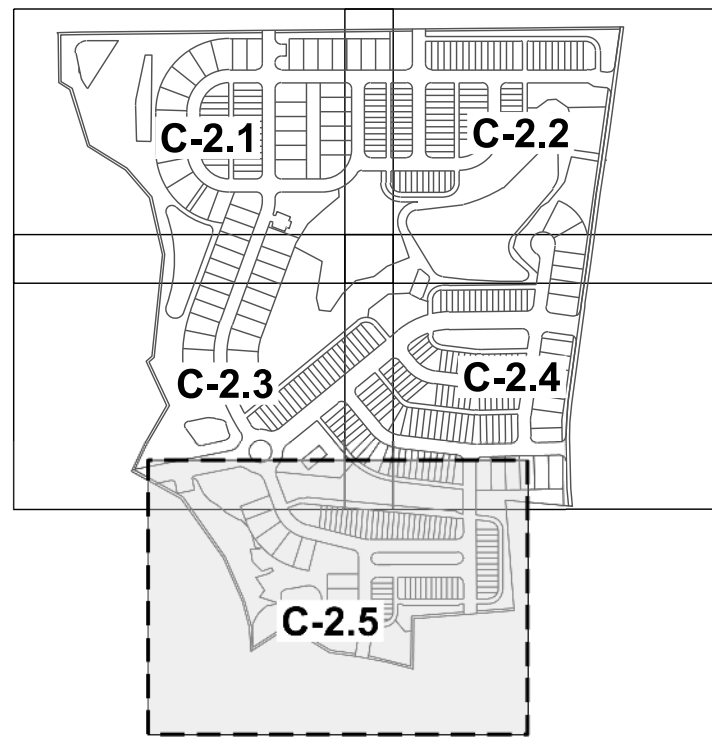
**STRONGROCK**  
 ENGINEERING GROUP  
 STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
 6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	JWL
NOT FOR CONSTRUCTION	SRG
SCALE AS SHOWN	JWL
DESIGNED BY	JWL
DRAWN BY	SRG
CHECKED BY	JWL

PRESERVE AT MARKS CREEK  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 MASTER PLAN  
 DETAILED SITE PLAN IV



AVENTURA PLACE LLC  
 PIN: 1754998841  
 D.B/PG: 015583/02494



SITE KEY PLAN

**LEGEND:**  
 SEE SHEET C-2.0 FOR LEGEND, LENGTH TABLES.

NO.	REVISIONS	DATE	BY



**STRONGROCK**  
 ENGINEERING GROUP  
 STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
 6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY	DRAWN BY	CHECKED BY

PRESERVE AT MARKS CREEK  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 MASTER PLAN  
 DETAILED SITE PLAN V

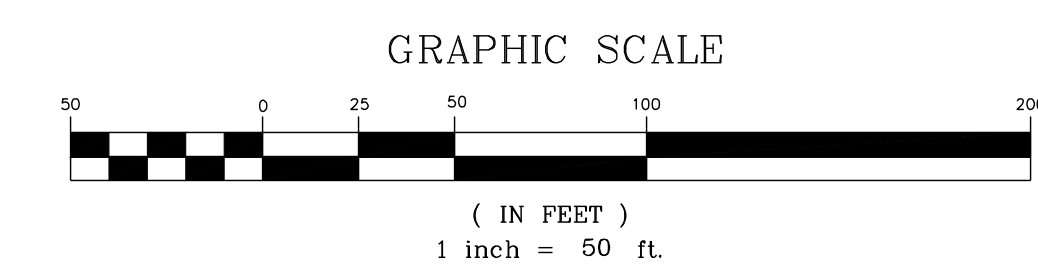
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**C-2.5**

CONTRERAS PROPERTIES LLC  
 PIN: 1765201150  
 D.B/PG: 017183/01548

PARROTT, MARGARET ANN POOLE  
 PIN: 1764199714  
 D.B/PG: 012271/00232

POOLE, JAMES HOWARD JR  
 PIN: 1764192660  
 D.B/PG: 016712/02668

BLAKE, JANE C  
 PIN: 1764197514  
 D.B/PG: 014525/02263



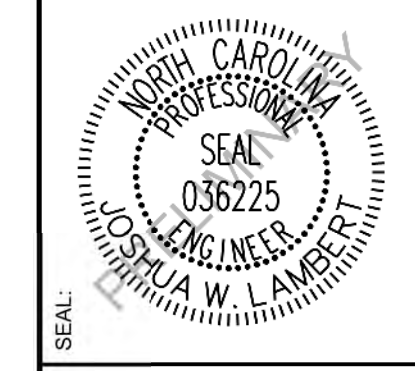


**LEGEND:**

	PHASE LINE
	EXISTING PROPERTY LINE
	ROADWAY CENTER LINE
	PROPOSED PROPERTY LINE
	PASSIVE AND PRESERVED OPEN SPACE
	ACTIVE OPEN SPACE
	PRESERVED OPEN SPACE
	WETLANDS

ACTIVE OPEN SPACE	417,105 SF (9.58 AC)
PASSIVE OPEN SPACE	273,922 SF (6.29 AC)
PRESERVED OPEN SPACE	1,173,537 SF (26.94 AC)
<b>TOTAL</b>	<b>1,864,564 SF (42.80 AC)</b>

No.	REVISIONS	DATE	BY

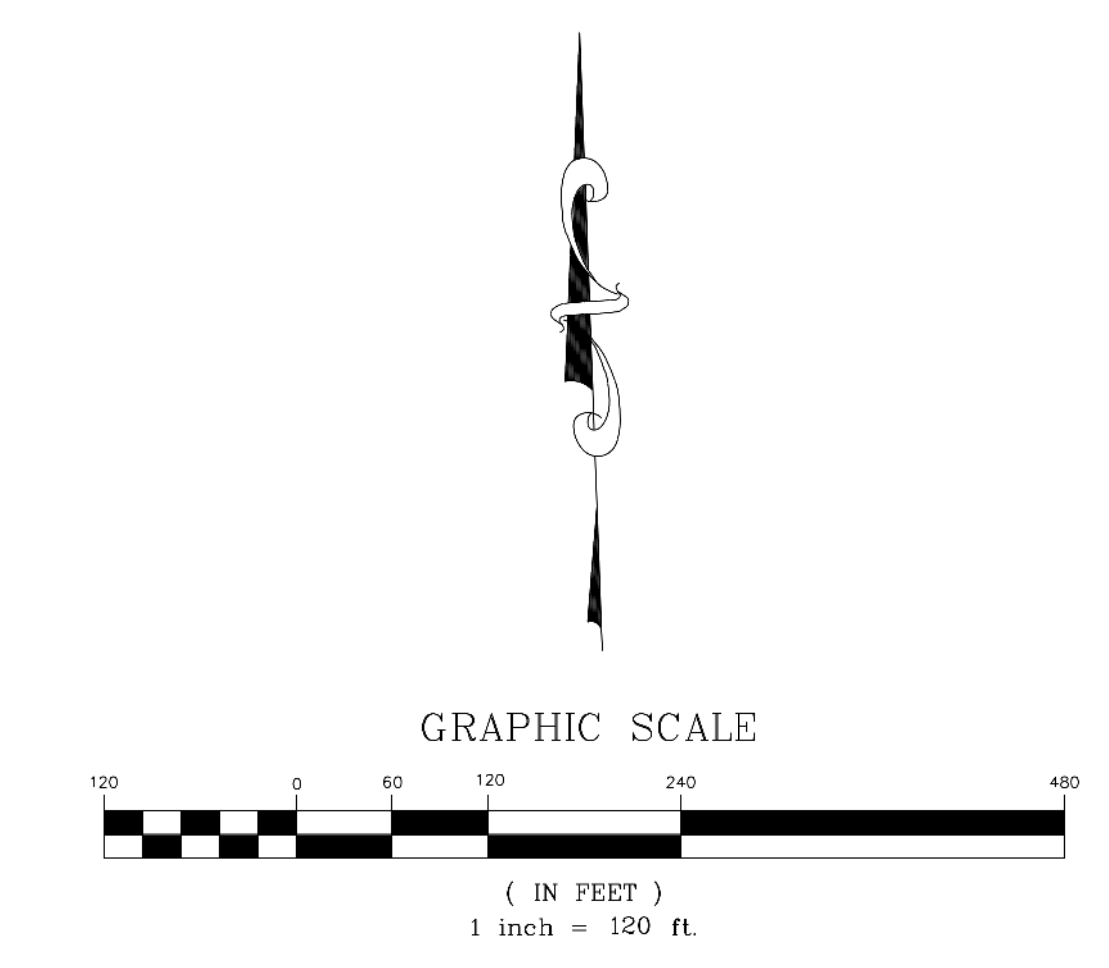


**STRONGROCK**  
ENGINEERING GROUP  
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
8801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	DRAWN BY SRG	CHECKED BY JWL
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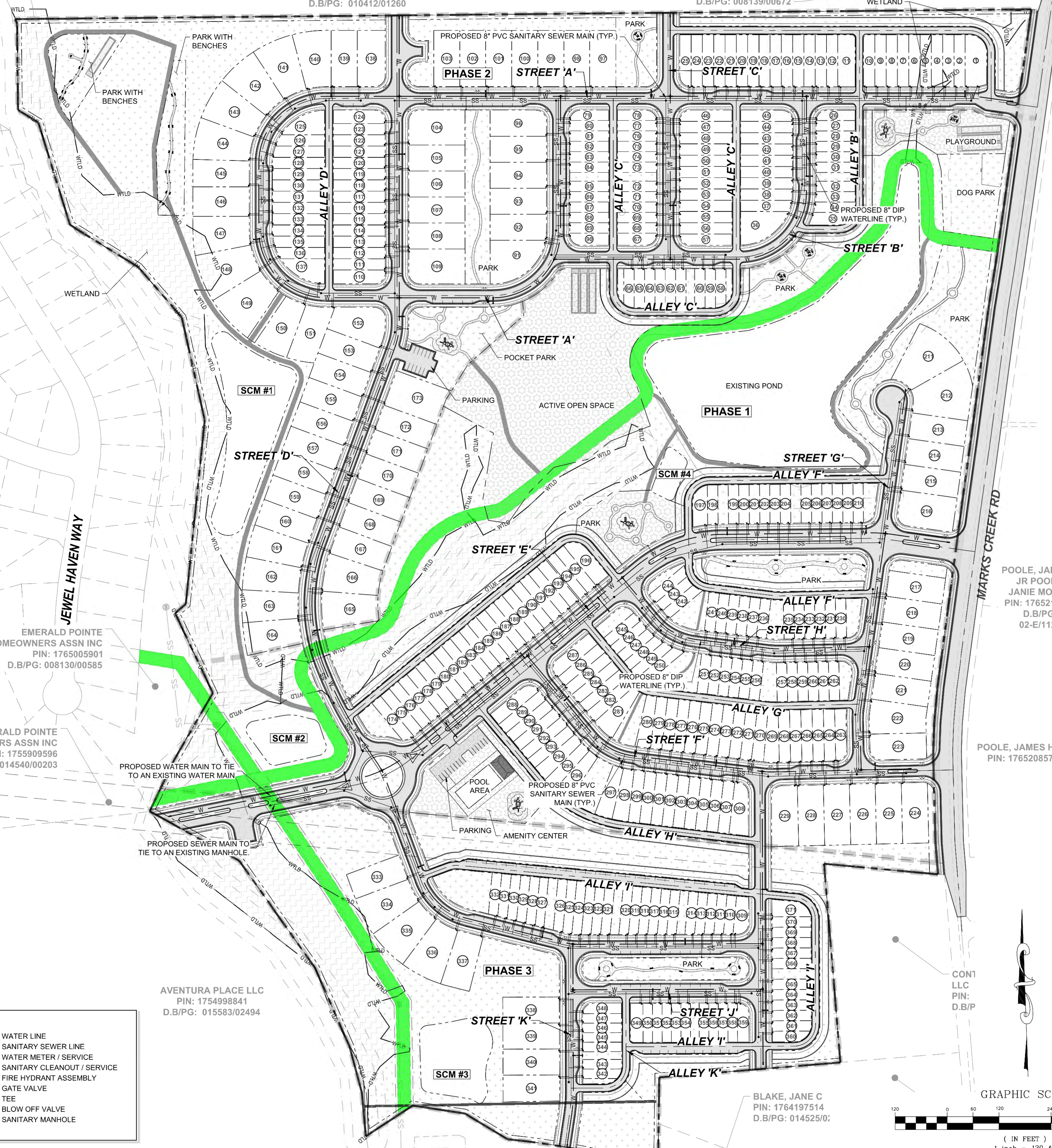
PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
OPEN SPACE PLAN

DRAWING SHEET  
**C-2.6**



PAIR, HERBERT V TRUSTEE & PAIR, RACHEL H TRUSTEE  
PIN: 1765122816  
D.B/PG: 010412/01260

G&F PROPERTIES LLC  
PIN: 1765224301  
D.B/PG: 008139/00672

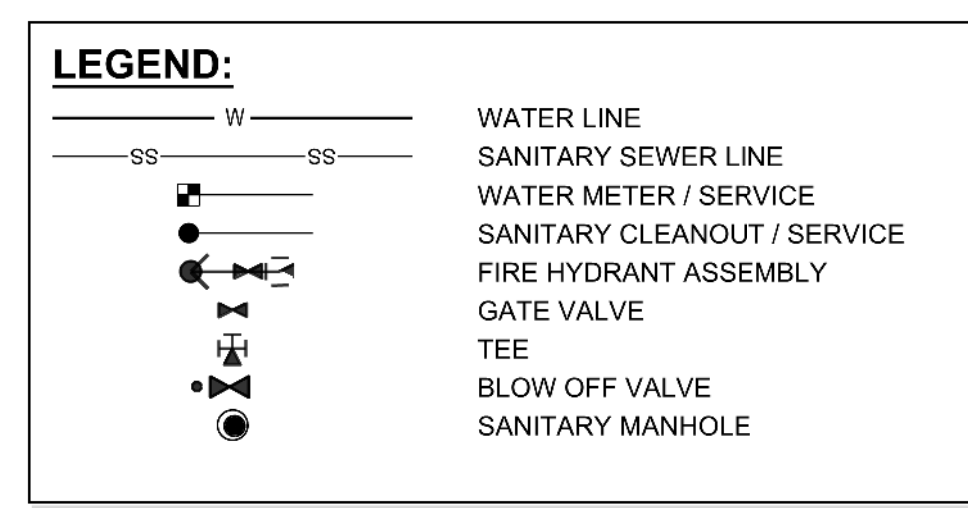


**UTILITY NOTES**

- 1. LL UTILITY DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES (CORPUD) STANDARDS AND SPECIFICATIONS. UTILITY DESIGN SHALL ALSO MEET FIRE FLOW REQUIREMENTS OF NCFD.
- 2. UTILITY SIZES AND LOCATIONS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND ARE SUBJECT TO CHANGE BASED ON FINAL DESIGN AND CONSTRUCTION DRAWING APPROVAL. THIS SHALL INCLUDE BUT NOT LIMITED TO FIRE HYDRANT LOCATIONS.
- 3. ANY EXISTING WATER AND SEWER LINES TO BE USED AS PART OF THE FINAL DESIGN OF THE PROJECT SHALL BE LOCATED BY SURVEY, TESTED BY A LICENSED CONTRACTOR AND APPROVED BY THE CITY OF RALEIGH INSPECTOR PRIOR TO SUBMITTAL OF CONSTRUCTION DRAWINGS.
- 4. AS PART OF CONSTRUCTION DRAWING SUBMITTAL, FIRE FLOW CALCULATIONS SHALL BE PROVIDED SHOWING COMPLIANCE WITH NCFD. PROJECT MAY BE DEVELOPED IN PHASES AND ALL PHASES SHALL BE REQUIRED TO MEET THE MINIMUM REQUIRED FIRE FLOWS PER OCCUPANCY PROPOSED IN EACH PHASE.
- 5. AN APPROVED WATER SUPPLY FOR FIRE SUPPRESSION (TEMPORARY OR PERMANENT) SHALL BE PROVIDED AS SOON AS COMBUSTIBLE MATERIALS ARRIVE ON SITE.
- 6. UTILITY CONSTRUCTION APPROVAL IS REQUIRED FOR THIS PROJECT. PLANS TO BE PREPARED BY NC PROFESSIONAL ENGINEER.
- 7. RIGHT OF WAY AND/OR EASEMENT DEDICATION PLAT IS REQUIRED FOR THIS PROJECT (PRIOR TO CITY ACCEPTANCE OF UTILITIES).
- 8. ALL NECESSARY WETLAND, RIPARIAN BUFFER AND FLOODPLAIN PERMITS FROM USACE, NCDWQ & FEMA SHALL BE OBTAINED PRIOR TO CONSTRUCTION.
- 9. PROJECT SHALL EXTEND PUBLIC WATER MAINS ALONG ALL INTERIOR AND ABUTTING RIGHT OF WAYS OF DEVELOPMENT.
- 10. FIRE HYDRANT ASSEMBLIES SHALL BE INSTALLED AT EVERY INTERSECTION AND AT 500' (RESIDENTIAL) MAX INTERVALS ALONG SITE FRONTAGE.
- 11. ALL MAINS UP TO 12 INCHES IN SIZE SHALL BE DESIGNED WITH A BLOW-OFF ASSEMBLY THE SAME SIZE AS THE DIAMETER OF THE PIPE.
- 12. ALL WATER MAINS SHALL BE PRESSURE CLASS OR THICKNESS CLASS DUCTILE IRON PIPE DESIGNED IN ACCORDANCE WITH AWWA STANDARD C-150.
- 13. PROJECT SHALL EXTEND PUBLIC GRAVITY SEWER TO PERIPHERY OF DEVELOPMENT BASED ON NATURAL TOPOGRAPHY.
- 14. ALL CITY OF RALEIGH SANITARY SEWER EASEMENTS SHALL BE A MINIMUM OF 30 FEET.
- 15. THE SANITARY SEWER DESIGN SHALL BE EVALUATED DURING THE CONSTRUCTION DRAWING REVIEW TO ENSURE ADJACENT PROPERTIES HAVE ACCESS TO SANITARY SEWER WHERE FEASIBLE AND IN COMPLIANCE WITH THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT STANDARDS AND SPECIFICATIONS.
- 16. ALL OFF-SITE EASEMENTS SHALL BE ACQUIRED BY THE DEVELOPER. THESE OFF-SITE EASEMENTS SHALL BE RECORDED BY MAP AND BY DEED OF EASEMENT PRIOR TO CONSTRUCTION APPROVAL. THE EASEMENTS SHALL BE DEDICATED TO THE CITY OF RALEIGH AND ENTITLED "CITY OF RALEIGH SANITARY SEWER EASEMENT".
- 17. MAINTAIN APPROPRIATE COVER AND SEPARATION ON UTILITIES AND LABEL IN PROFILES; ANY UTILITY CROSSINGS ARE SUBJECT TO MINIMUM REQUIREMENTS.
- 18. CONSTRUCTION APPROVAL WILL BE REQUIRED FOR ANY EXTENSIONS OF PUBLIC WATER OR SEWER MAINS.
- 19. PLAT RECORDATION REQUIRED AFTER CONSTRUCTION APPROVAL PRIOR TO BUILDING PERMIT.
- 20. DOT ENCROACHMENT AGREEMENT REQUIRED.
- 21. PRIVATE WATER MAINS IN SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
- c) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, PVC MATERIALS OR STEEL ENCASEMENT SPECIFIED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
- d) 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS PVC MATERIAL IS SPECIFIED FOR SANITARY SEWER.
- e) MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY PVC MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49).
- f) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.

**CORPUD STANDARD UTILITY NOTES:**

- 1. STANDARD UTILITY NOTES (AS APPLICABLE):
  - a) ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION).
  - b) UTILITY SEPARATION REQUIREMENTS:
    - a) A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
    - b) WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE DIAMETER OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
    - c) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, PVC MATERIALS OR STEEL ENCASEMENT SPECIFIED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
    - d) 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS PVC MATERIAL IS SPECIFIED FOR SANITARY SEWER.
    - e) MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY PVC MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49).
    - f) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
- 2. ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
- 3. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
- 4. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
- 5. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
- 6. INSTALL 3/4" COPPER WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE.
- 7. INSTALL 4" PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM.
- 8. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
- 9. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
- 10. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
- 11. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIM BEASLEY AT (919) 996-2334 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION.
- 12. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION.

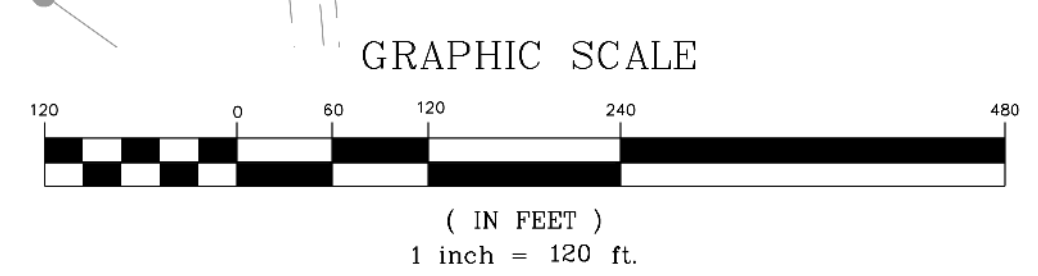


AVENTURA PLACE LLC  
PIN: 1754998841  
D.B/PG: 015583/02494

POOLE, JAMES H JR  
POOLE, JANIE MOORE  
PIN: 1765217896  
D.B/PG: 02-E/1128

POOLE, JAMES H JR  
PIN: 1765208575

BLAKE, JANE C  
PIN: 1764197514  
D.B/PG: 014525/0;

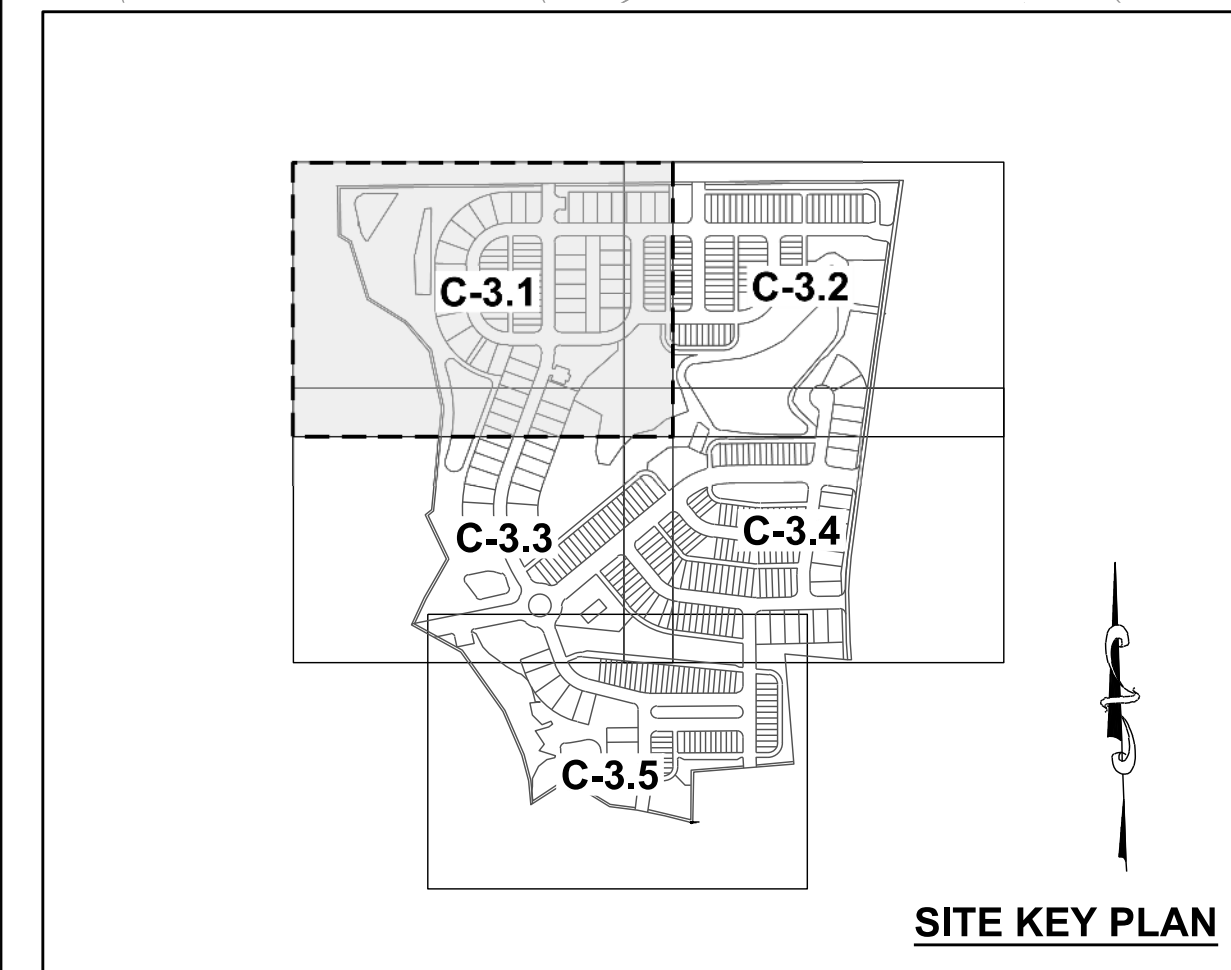
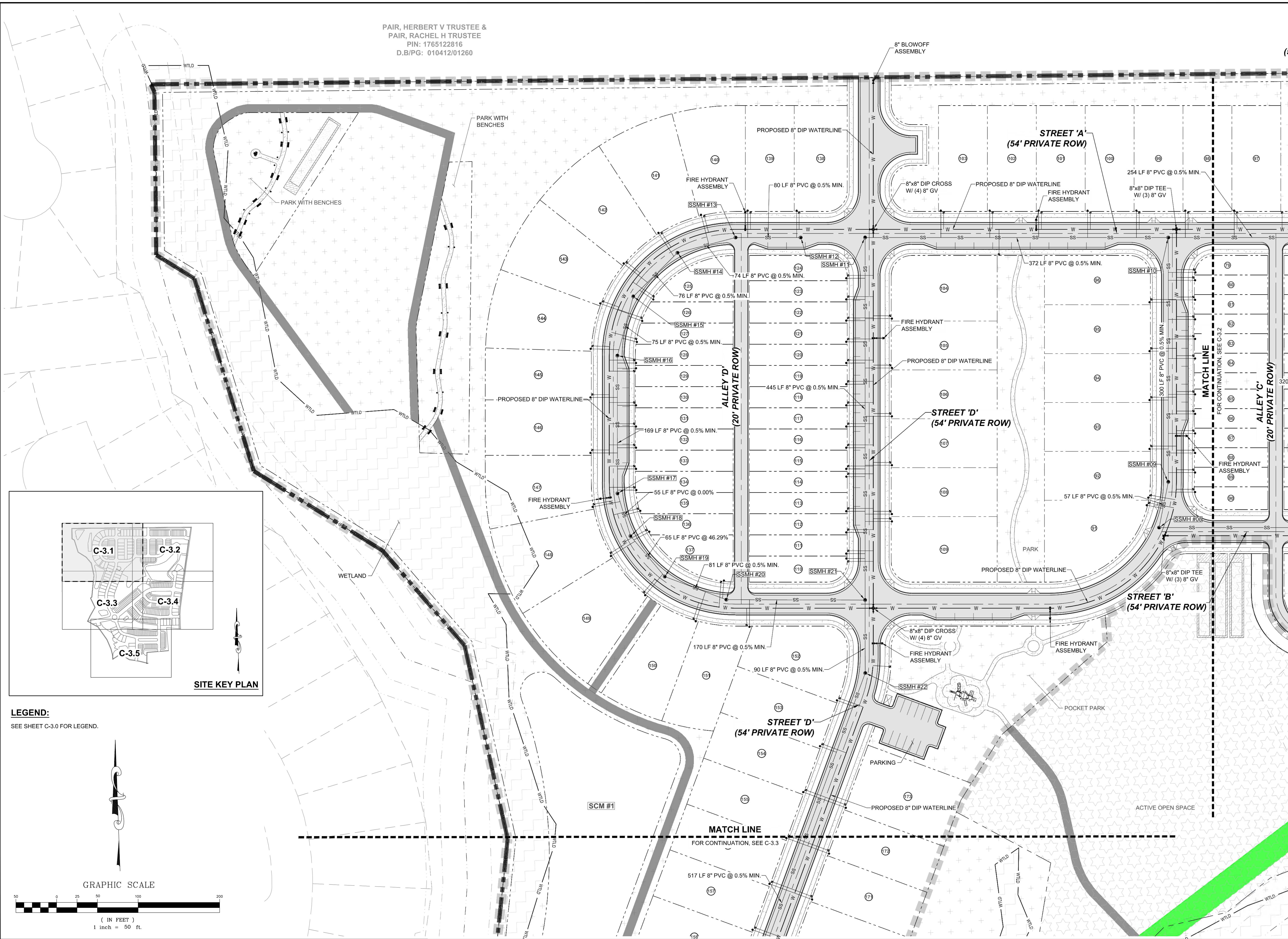


UTILITY CONSTRUCTION APPROVAL IS REQUIRED FOR PROJECT DEVELOPMENT.

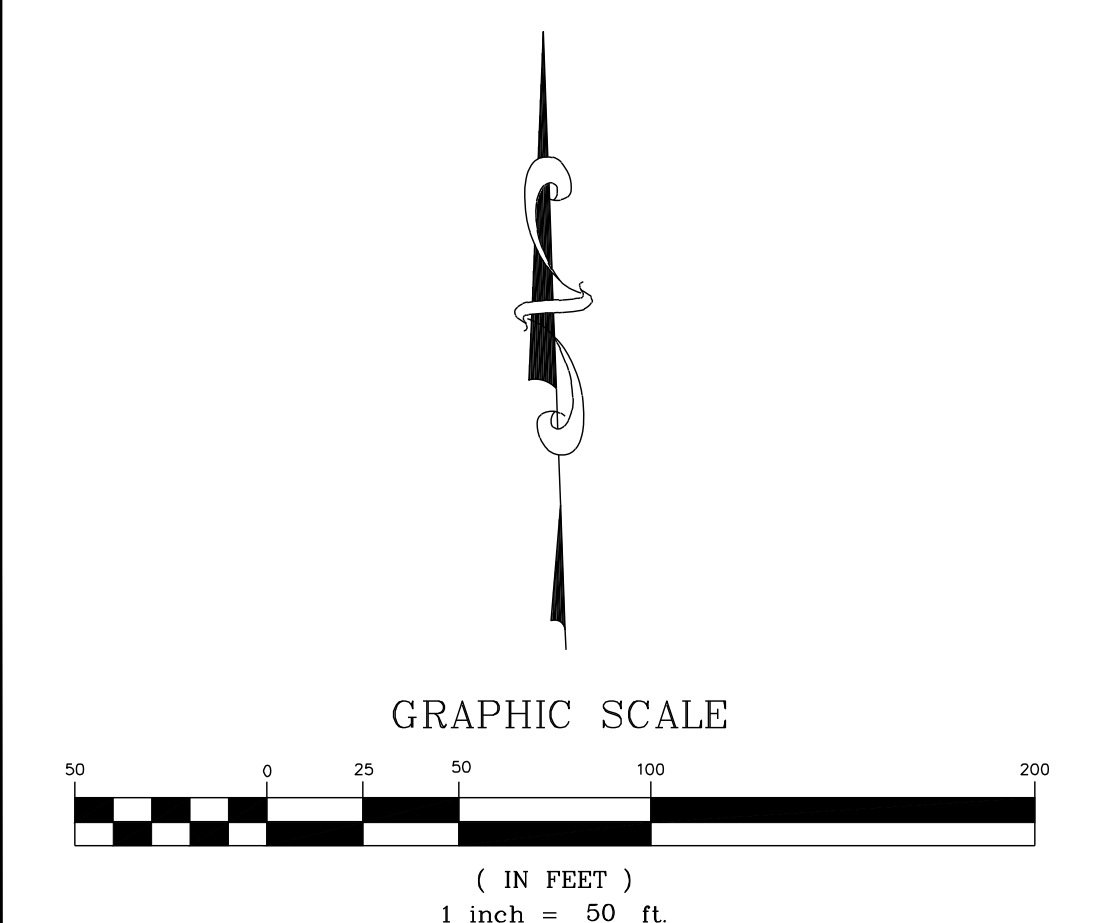
ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF KNIGHTDALE, CITY OF RALEIGH AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS.

DATE	
REVISIONS	
No.	
<b>STRONGROCK</b> ENGINEERING GROUP	
STRONG ROCK ENGINEERING GROUP, PLLC   COMPANY LICENSE # P-2166 6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615   JOSH@STRONGROCKENGINEERING.COM	
STRONG ROCK PROJECT	NOT FOR CONSTRUCTION
SCALE	AS SHOWN
DESIGNED BY	JWL
DRAWN BY	SRG
CHECKED BY	JWL
PRESERVE AT MARKS CREEK TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA MASTER PLAN OVERALL UTILITY PLAN	
DRAWING SHEET <b>C-3.0</b>	
12 OF 42	

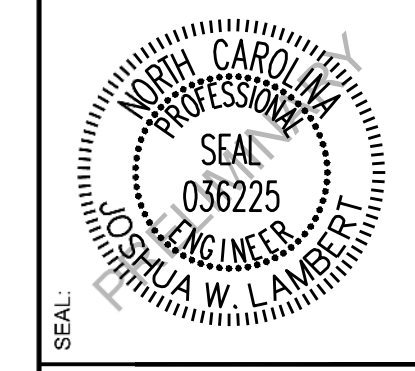
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PAIR, RACHEL H TRUSTEE  
PIN: 1765122816  
D.B/PG: 010412/01260



**LEGEND:**  
SEE SHEET C-3.0 FOR LEGEND.



NO.	REVISIONS	DATE	BY

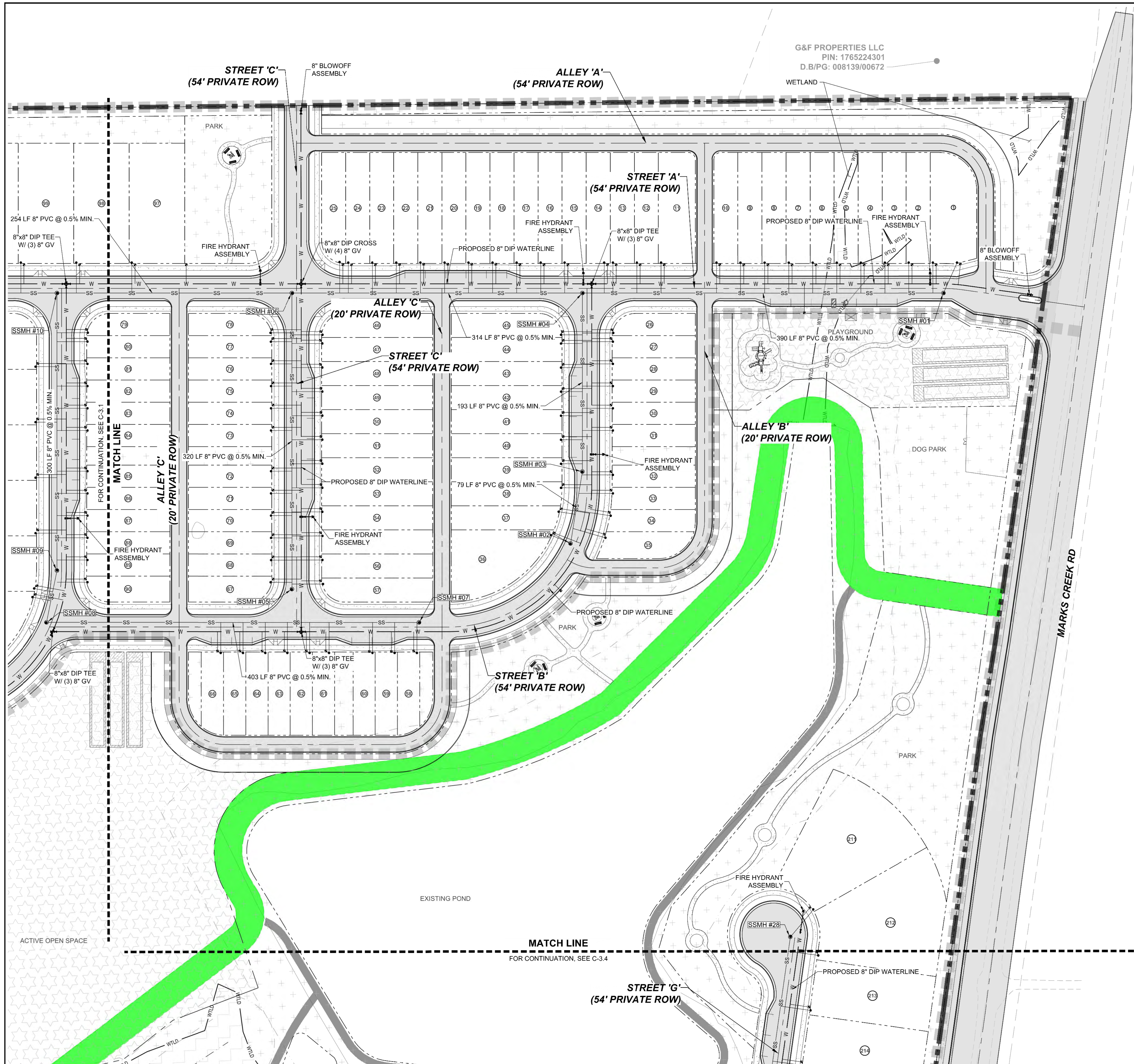


**STRONGROCK**  
ENGINEERING GROUP  
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY	DRAWN BY	CHECKED BY
			JWL	SRG	JWL

**PRESERVE AT MARKS CREEK**  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
**MASTER PLAN**  
**DETAILED UTILITY PLAN I**

DRAWING SHEET  
**C-3.1**  
13 OF 42



G&F PROPERTIES LLC  
PIN: 1765224301  
D.B/PG: 008139/00672

WETLAND

**STREET 'C'**  
(54' PRIVATE ROW)

**ALLEY 'A'**  
(54' PRIVATE ROW)

**STREET 'A'**  
(54' PRIVATE ROW)

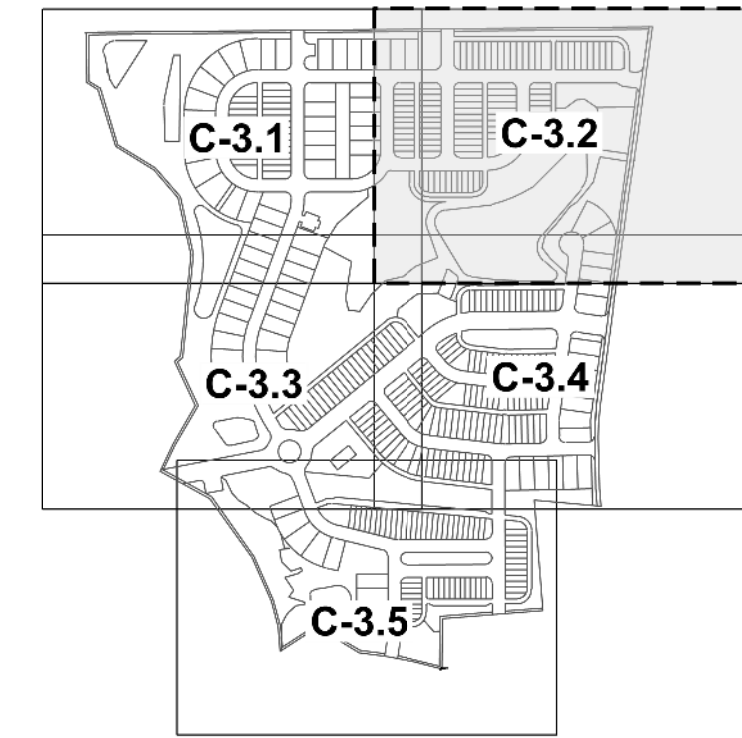
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(20' PRIVATE ROW)

**STREET 'C'**  
(54' PRIVATE ROW)

**ALLEY 'B'**  
(20' PRIVATE ROW)

**STREET 'B'**  
(54' PRIVATE ROW)

**STREET 'G'**  
(54' PRIVATE ROW)



**SITE KEY PLAN**

**LEGEND:**  
SEE SHEET C-3.0 FOR LEGEND.



**STRONGROCK**  
ENGINEERING GROUP  
STRONG ROCK ENGINEERING GROUP, PLLC / COMPANY LICENSE # P-2166  
6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

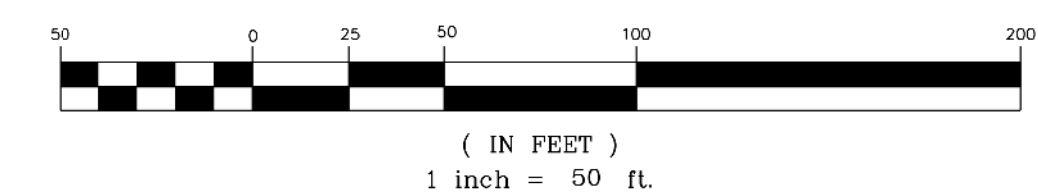
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JANIE MOORE  
PIN: 1765217896  
D.B/PG: 02-E/1128

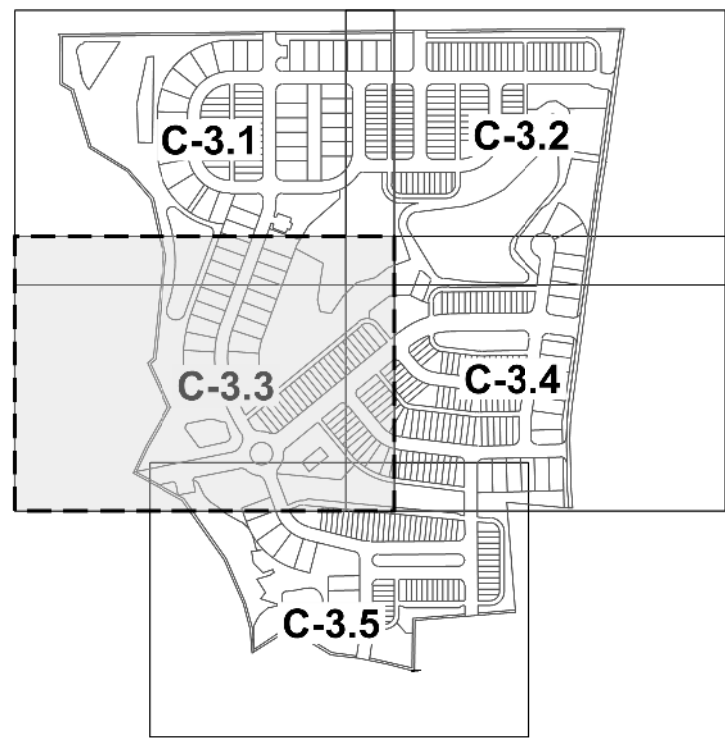
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NOT FOR CONSTRUCTION	JWL	JWL
SCALE AS SHOWN	JWL	JWL
DESIGNED BY	JWL	JWL
DRAWN BY	JWL	JWL
CHECKED BY	JWL	JWL

**PRESERVE AT MARKS CREEK**  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
**MASTER PLAN**  
**DETAILED UTILITY PLAN II**

DRAWING SHEET  
**C-3.2**  
14 OF 42

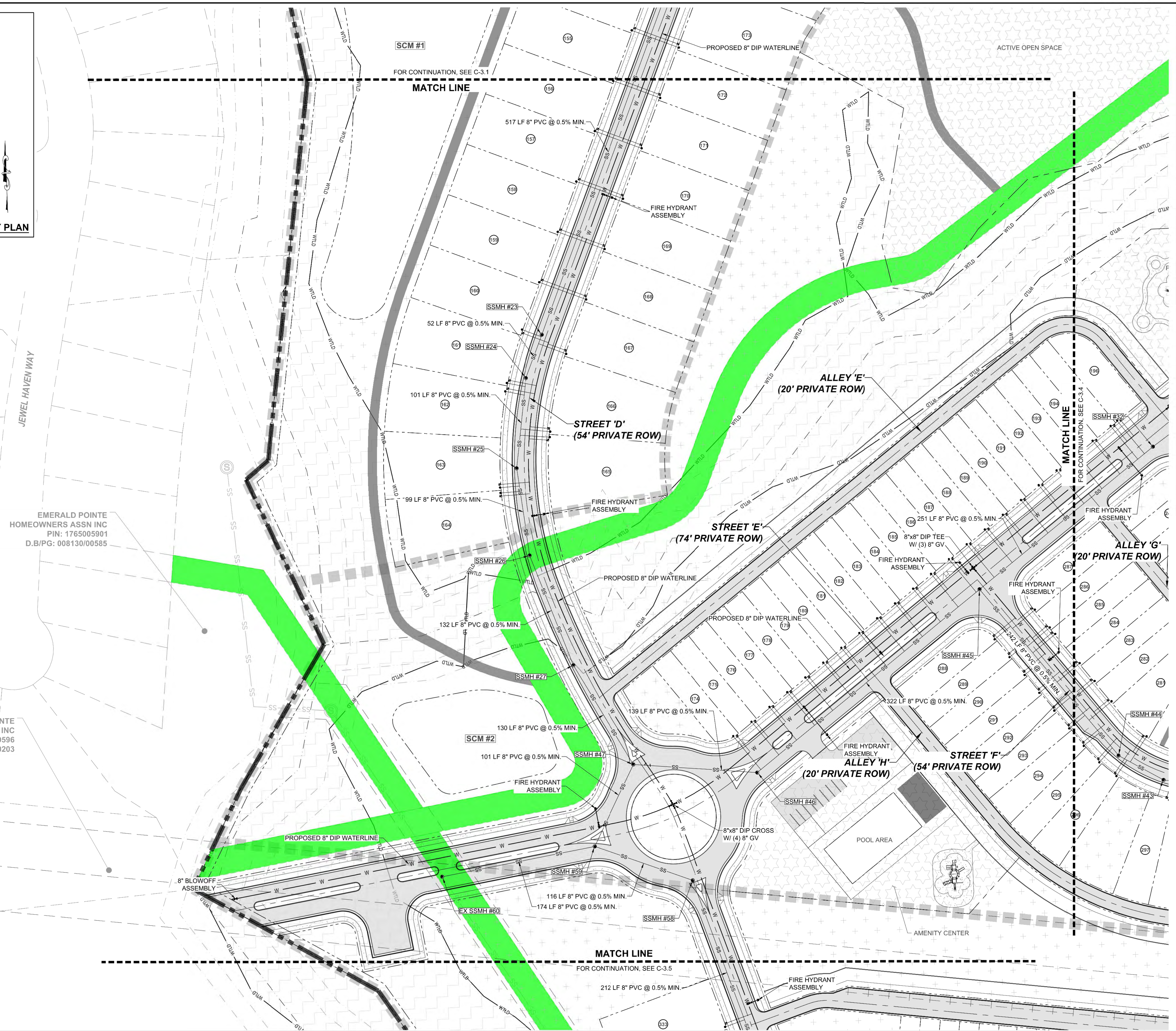
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SITE KEY PLAN

LEGEND:  
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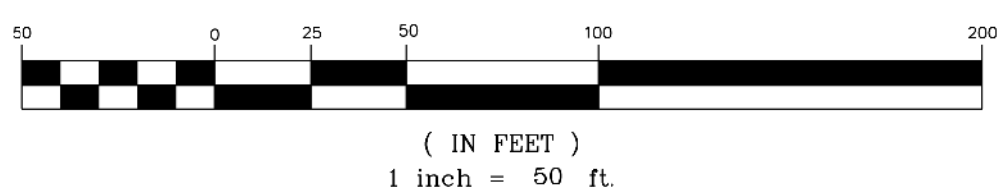


EMERALD POINTE HOMEOWNERS ASSN INC  
PIN: 1765005901  
D.B/PG: 008130/00585

EMERALD POINTE HOMEOWNERS ASSN INC  
PIN: 1755909596  
D.B/PG: 014540/00203



GRAPHIC SCALE



NO.	REVISIONS	DATE	BY

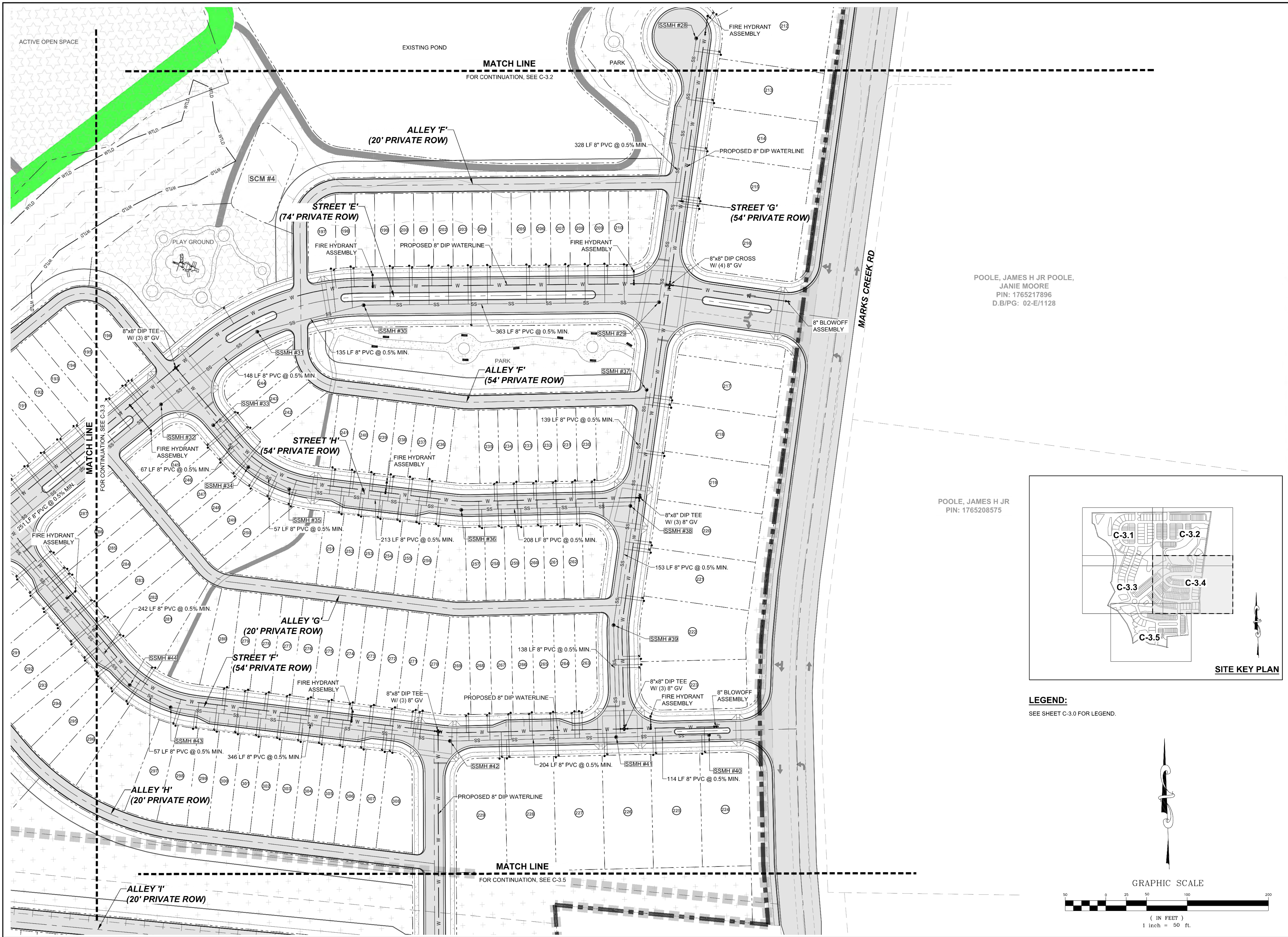


**STRONGROCK**  
ENGINEERING GROUP  
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	SRG	CHECKED BY JWL
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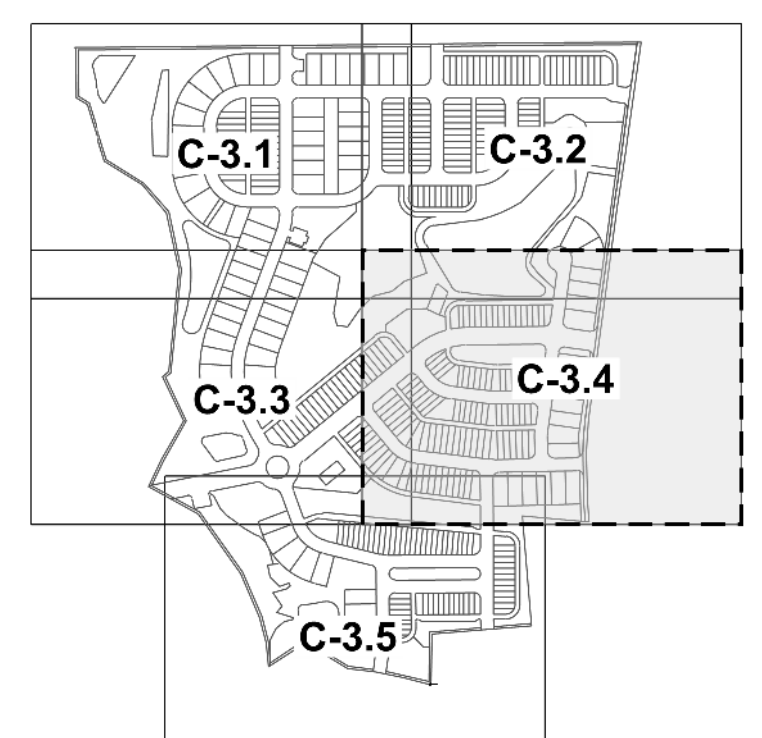
PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED UTILITY PLAN III

DRAWING SHEET  
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15 OF 42

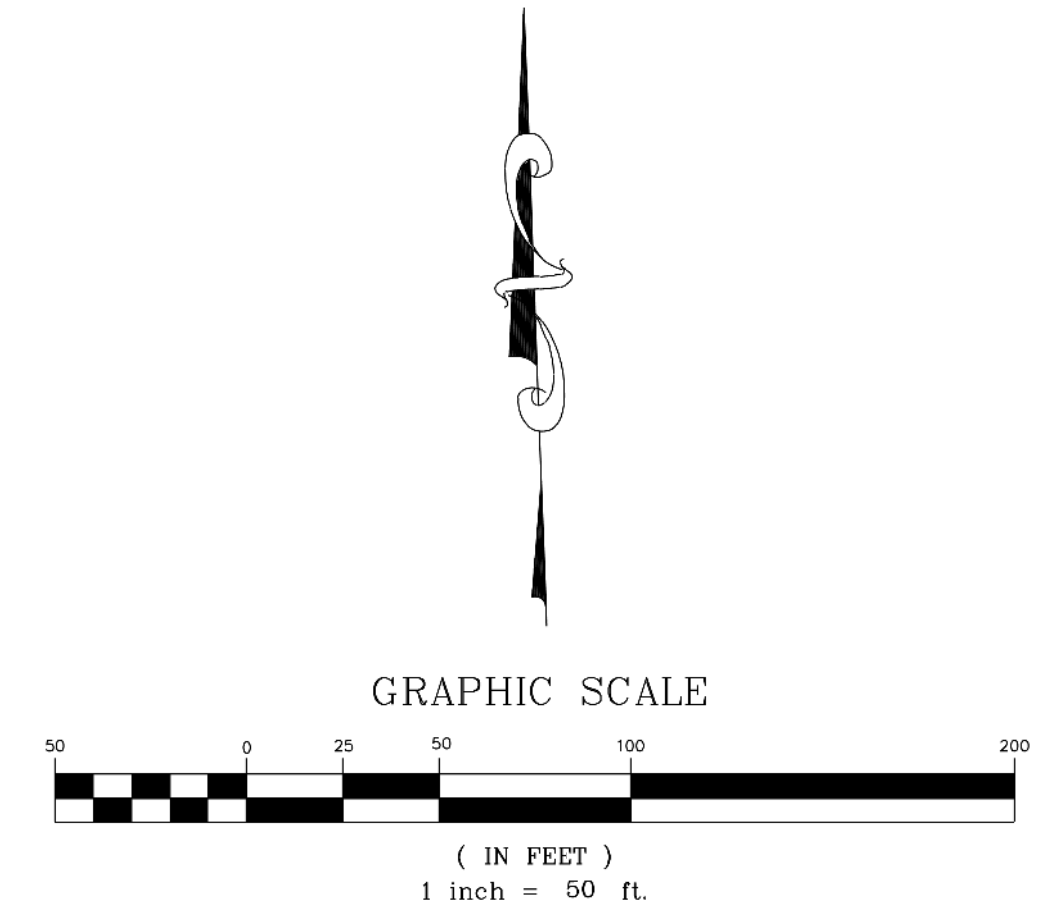


POOLE, JAMES H JR POOLE,  
JANIE MOORE  
PIN: 1765217896  
D.B/PG: 02-E/1128

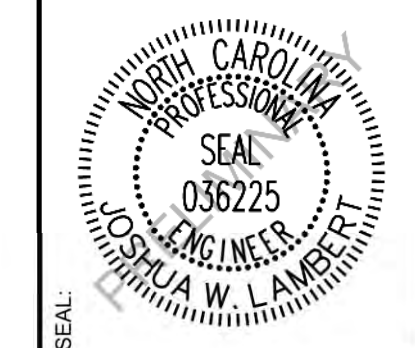
POOLE, JAMES H JR  
PIN: 1765208575



**LEGEND:**  
SEE SHEET C-3.0 FOR LEGEND.



NO.	REVISIONS	DATE	BY



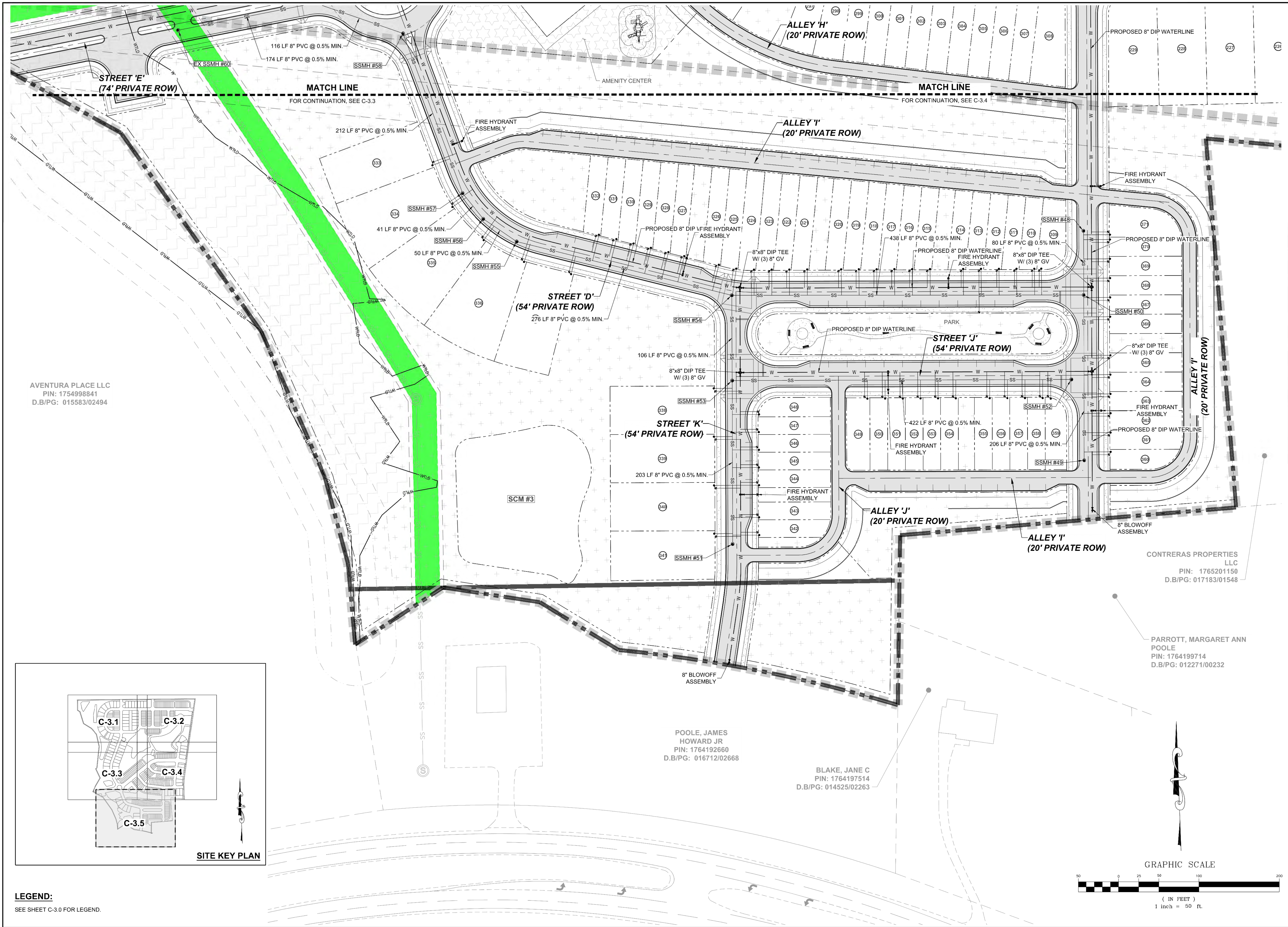
**STRONGROCK**  
ENGINEERING GROUP

STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	JWL	JWL
NOT FOR CONSTRUCTION	JWL	JWL
SCALE AS SHOWN	JWL	JWL
DESIGNED BY	JWL	JWL
DRAWN BY	JWL	JWL
CHECKED BY	JWL	JWL

PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
**DETAILED UTILITY PLAN IV**





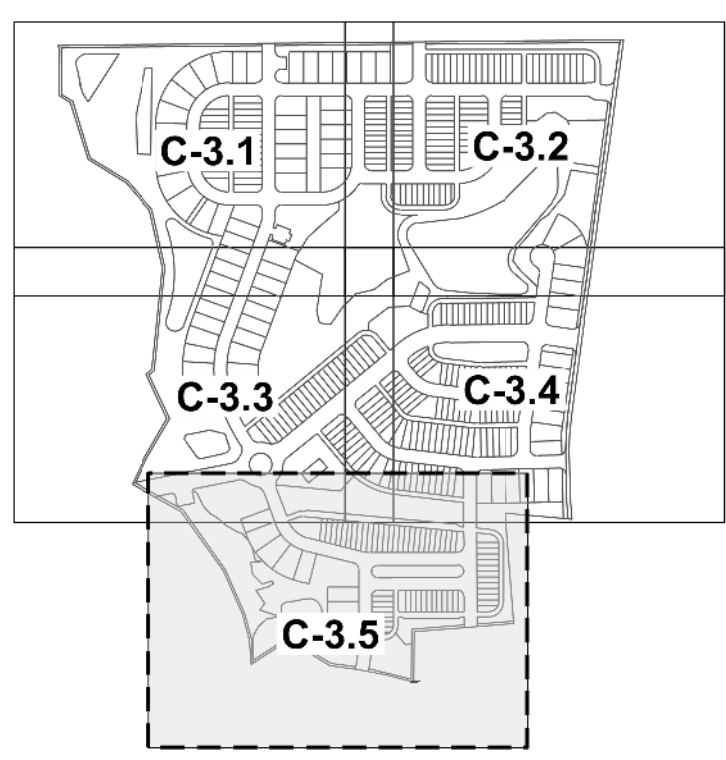
AVENTURA PLACE LLC  
 PIN: 1754998841  
 D.B/PG: 015583/02494

CONTRERAS PROPERTIES  
 LLC  
 PIN: 1765201150  
 D.B/PG: 017183/01548

PARROTT, MARGARET ANN  
 POOLE  
 PIN: 1764199714  
 D.B/PG: 012271/00232

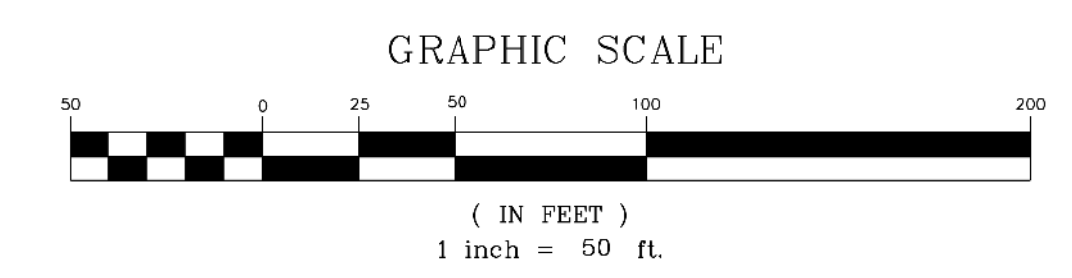
POOLE, JAMES  
 HOWARD JR  
 PIN: 1764192660  
 D.B/PG: 016712/02668

BLAKE, JANE C  
 PIN: 1764197514  
 D.B/PG: 014525/02263



SITE KEY PLAN

LEGEND:  
 SEE SHEET C-3.0 FOR LEGEND.



NO.	REVISIONS	DATE	BY



**STRONGROCK**  
 ENGINEERING GROUP  
 STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
 6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY	DRAWN BY	CHECKED BY
			JWL	SRG	JWL

PRESERVE AT MARKS CREEK  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 MASTER PLAN  
 DETAILED UTILITY PLAN V

PAIR, HERBERT V TRUSTEE & PAIR, RACHEL H TRUSTEE  
PIN: 1765122816  
D.B/PG: 010412/01260

G&F PROPERTIES LLC  
PIN: 1765224301  
D.B/PG: 008139/00672

**UTILITY NOTES**

1. THE STORM DRAINAGE LAYOUT IS CONCEPTUAL AND SUBJECT TO CHANGE. APPROVAL BY TOWN STAFF IS REQUIRED.
2. THE STORM DRAINAGE SYSTEM SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH TOWN OF KNIGHTDALE UDO AND ENGINEERING STANDARDS & SPECIFICATIONS.
3. THE STORMWATER PLAN SHALL PROVIDE FOR ADEQUATE NITROGEN REDUCTION AND ATTENUATION OF STORMWATER RUNOFF.
4. FENCING AND LANDSCAPING FOR ALL PROPOSED STORMWATER CONTROL MEASURES SHALL MEET TOWN OF KNIGHTDALE REQUIREMENTS FOR EACH TYPE OF MEASURE PROPOSED.
5. STORMWATER CONTROL MEASURES SHALL BE LOCATED IN OPEN SPACE AREAS DEDICATED TO AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION (HOA).
6. A MAINTENANCE PLAN ALONG WITH A MEMORANDUM OF AGREEMENT MUST BE DEVELOPED FOR ALL STORMWATER CONTROL MEASURES (SCMS) INSTALLED TO ACHIEVE NITROGEN LOADING AND/OR FLOW ATTENUATING REQUIREMENTS AS PART OF THIS PROJECT. THIS MAINTENANCE PLAN IS REQUIRED TO BE RECORDED AT THE WAKE COUNTY REGISTER OF DEEDS PRIOR TO PLAT RECORDATION. PROOF OF SAID RECORDING WILL BE REQUIRED AT THE TIME OF PLAT RECORDATION.
7. MAINTENANCE AND ACCESS EASEMENTS ARE REQUIRED FOR ALL SCMS.
8. AT THE CONCLUSION OF THE PROJECT ALL SCMS INSTALLED ON-SITE MUST BE CERTIFIED BY A DESIGN PROFESSIONAL AND THE TOWN OF KNIGHTDALE ENGINEERING DEPT. MUST RECEIVE ALL AS-BUILT DRAWINGS PRIOR TO RECEIVING THE CERTIFICATE OF OCCUPANCY.

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF KNIGHTDALE, CITY OF RALEIGH AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS.

NO.	REVISIONS	DATE	BY

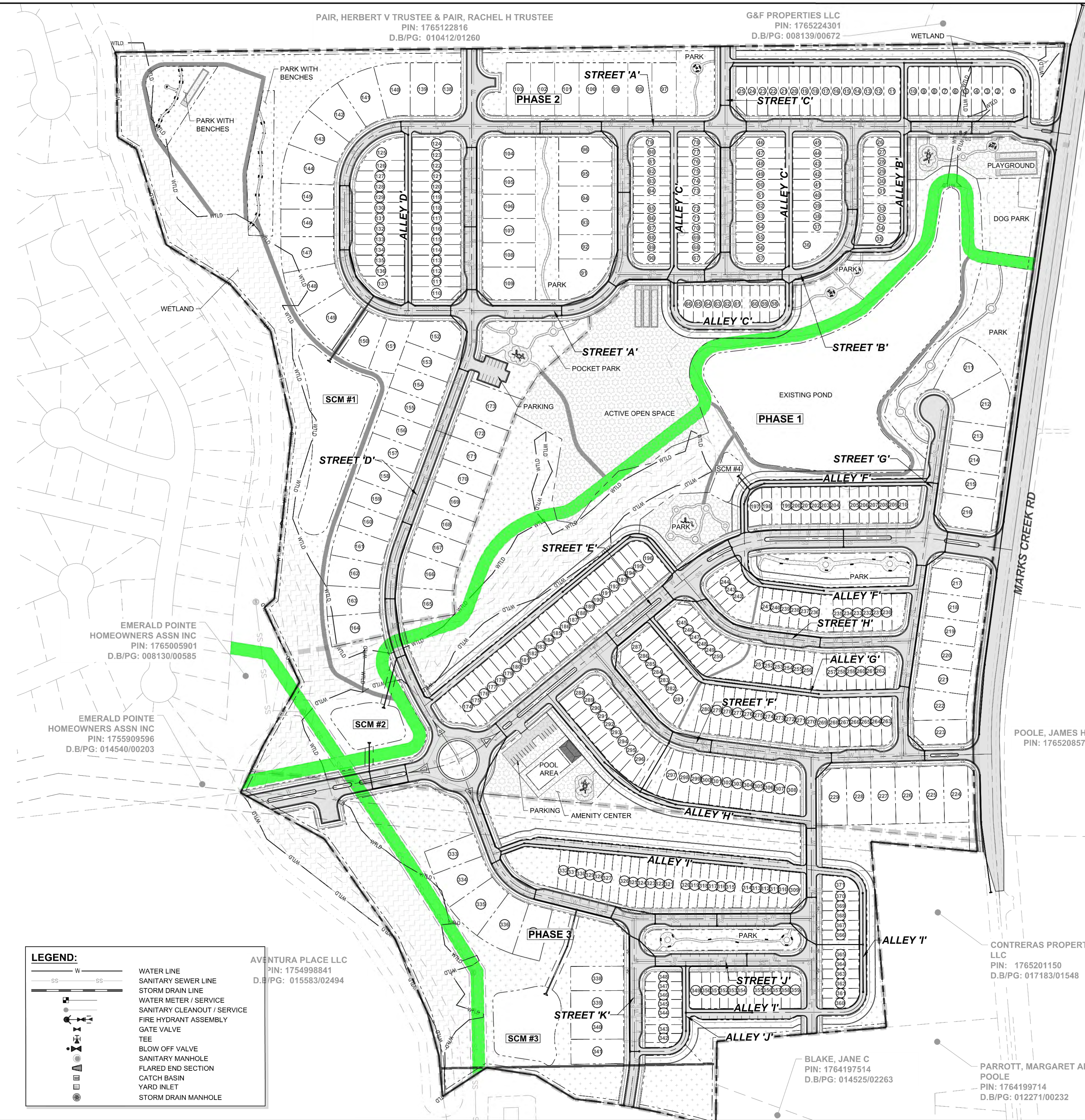


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STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	SRG	CHECKED BY JWL
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PRESERVE AT MARKS CREEK  
TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
OVERALL STORMWATER PLAN

DRAWING SHEET  
**C-4.0**  
18 OF 42



**LEGEND:**

W	WATER LINE
SS	SANITARY SEWER LINE
SD	STORM DRAIN LINE
WS	WATER METER / SERVICE
SSC	SANITARY CLEANOUT / SERVICE
FHA	FIRE HYDRANT ASSEMBLY
GV	GATE VALVE
T	TEE
BOV	BLOW OFF VALVE
SM	SANITARY MANHOLE
FES	FLARED END SECTION
CB	CATCH BASIN
YI	YARD INLET
SDM	STORM DRAIN MANHOLE

AVENTURA PLACE LLC  
PIN: 1754998841  
D.B/PG: 015583/02494

EMERALD POINTE HOMEOWNERS ASSN INC  
PIN: 1765005901  
D.B/PG: 008130/00585

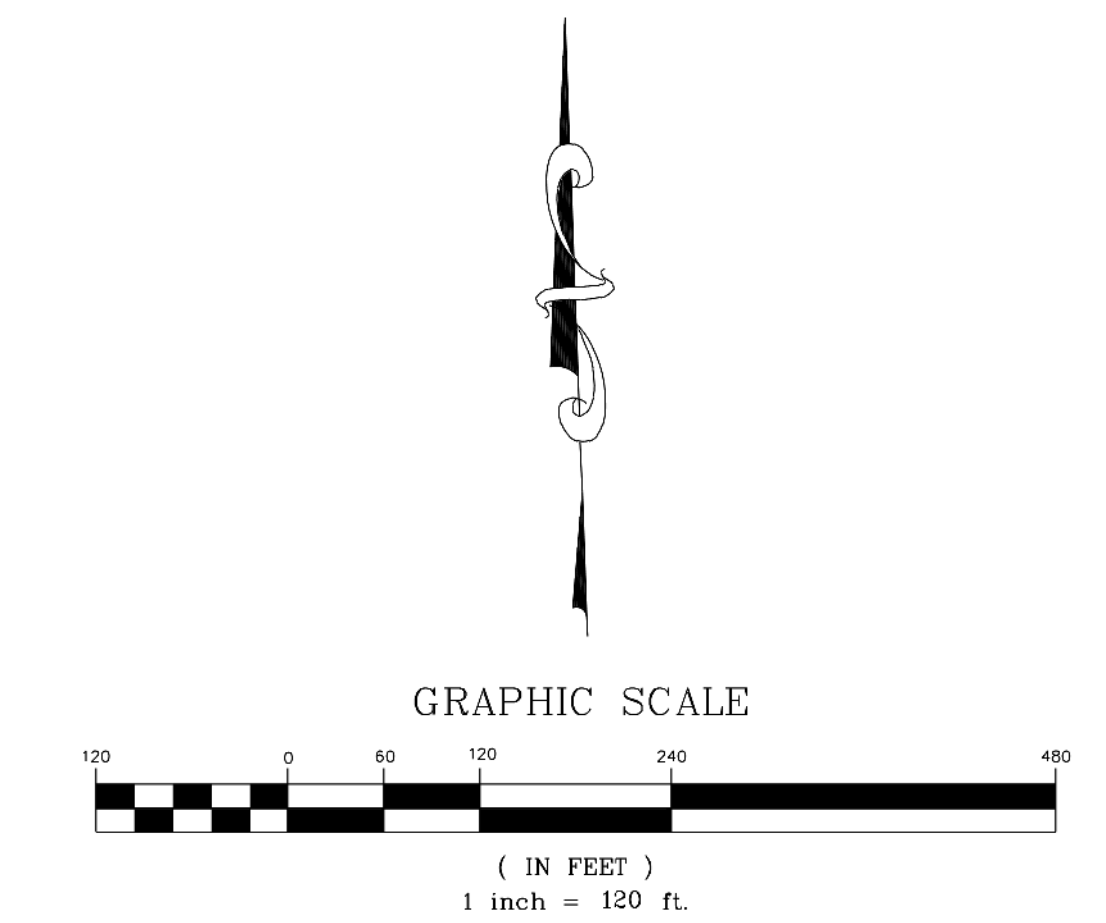
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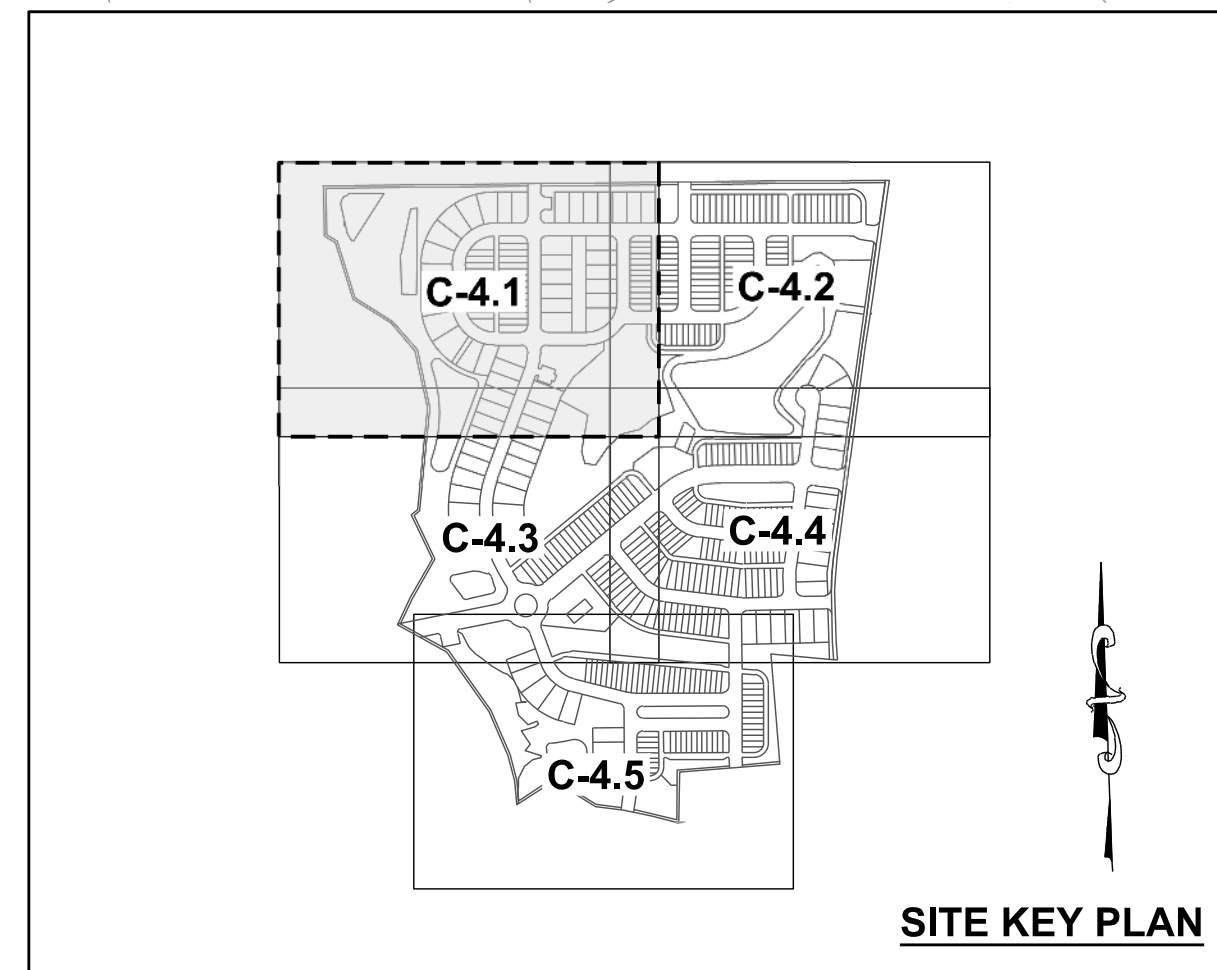
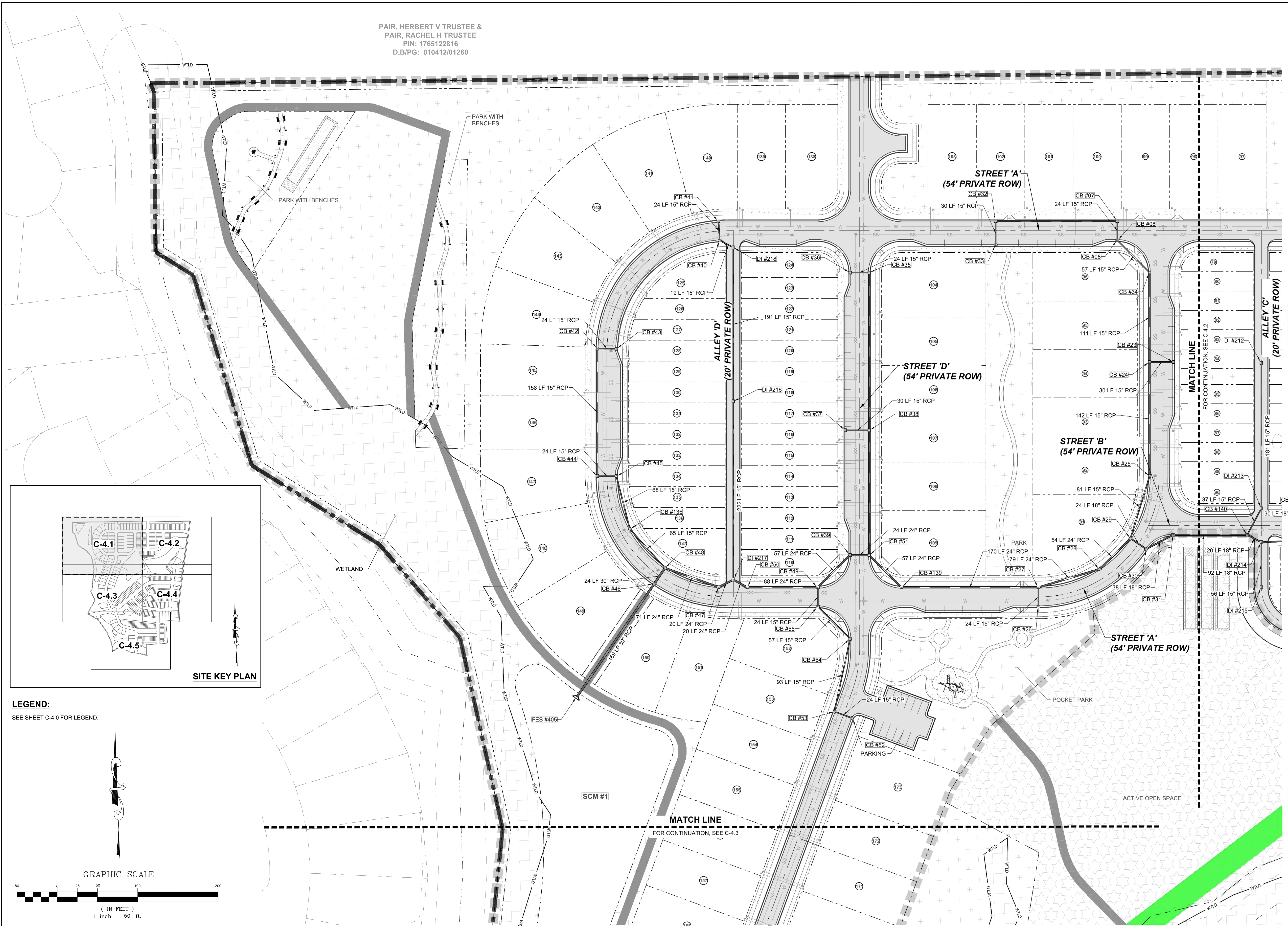
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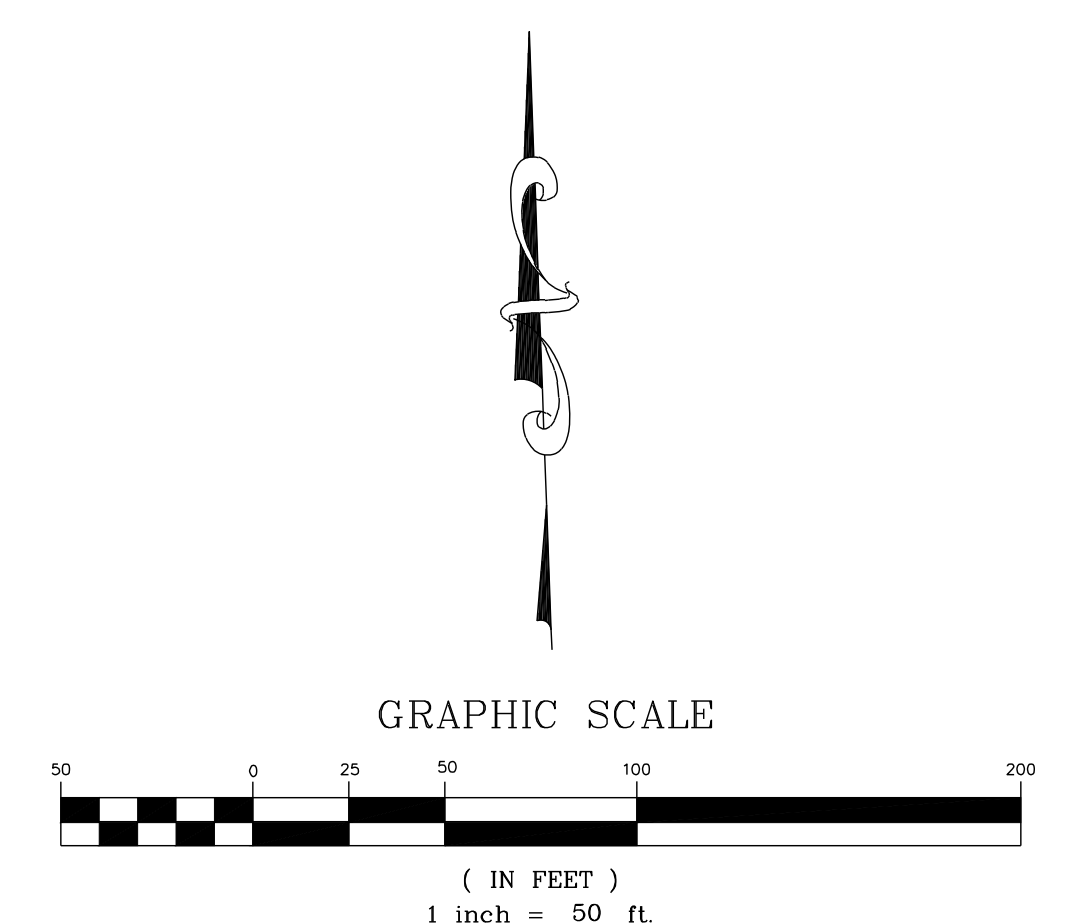
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PAIR, HERBERT V TRUSTEE &  
PAIR, RACHEL H TRUSTEE  
PIN: 1765122816  
D.B/P.G: 010412/01260



**LEGEND:**  
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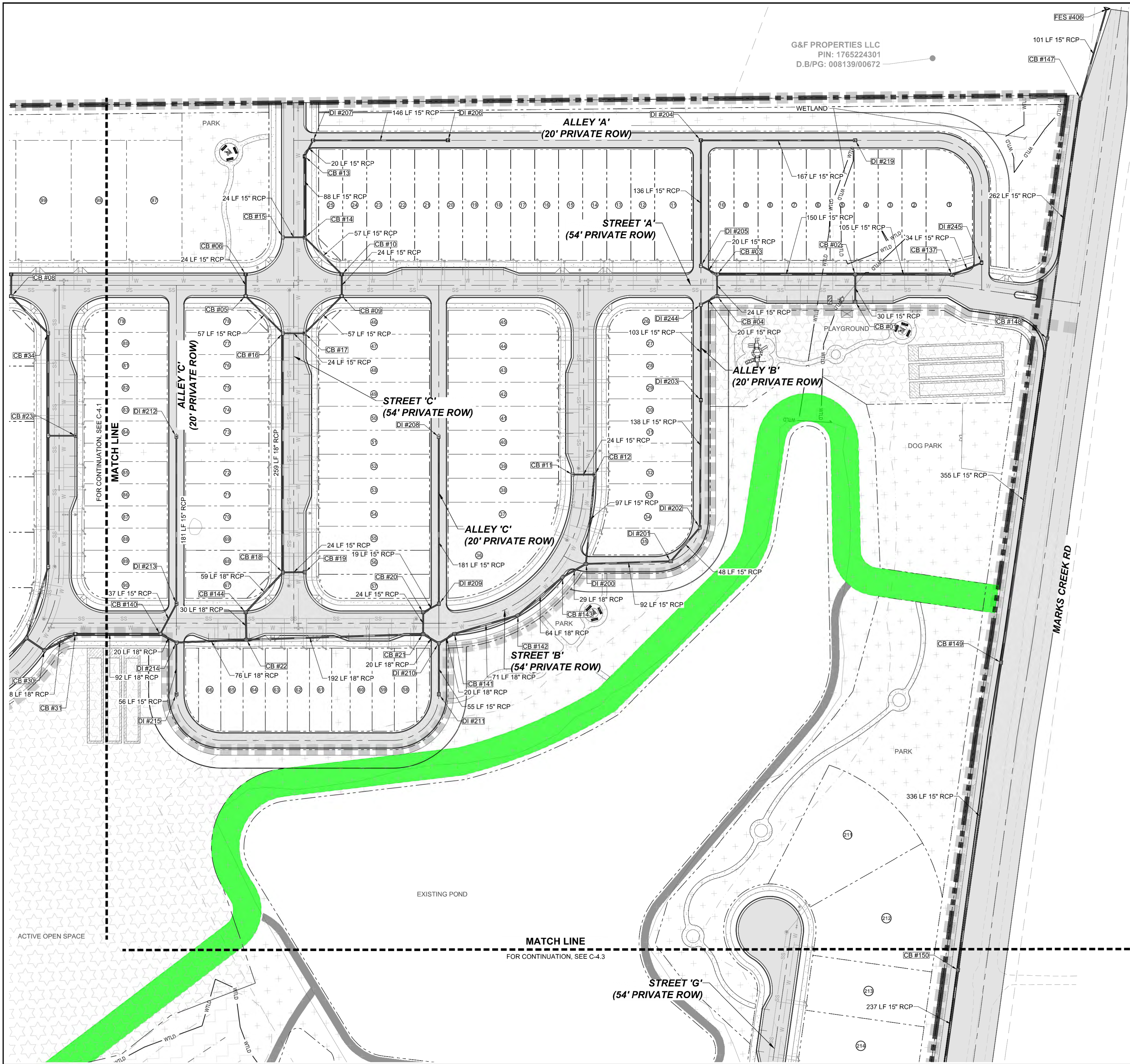


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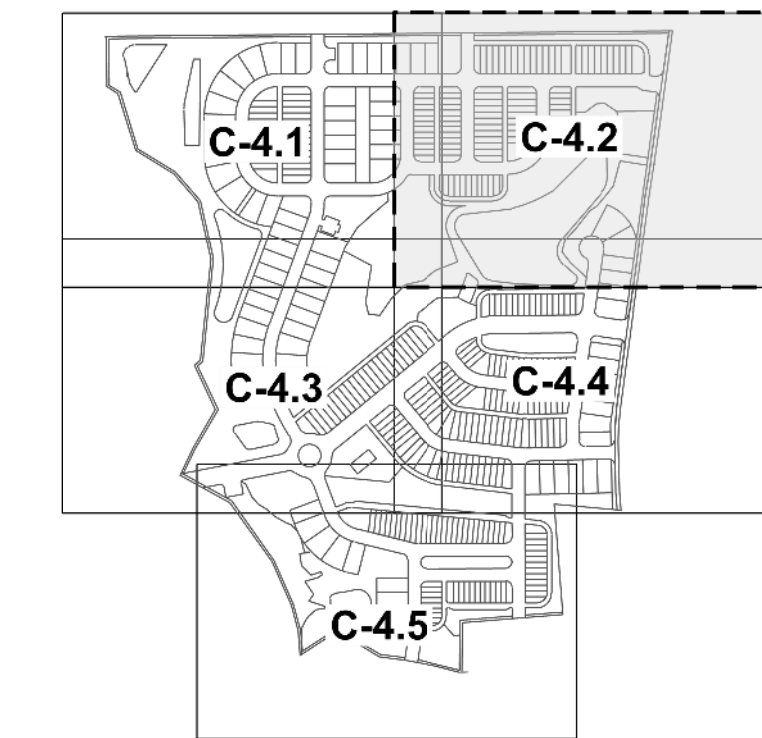
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NOT FOR CONSTRUCTION	JWL	JWL
SCALE AS SHOWN	JWL	JWL
DRAWN BY	JWL	JWL
CHECKED BY	JWL	JWL

**STRONGROCK**  
**ENGINEERING GROUP**  
 PRESERVE AT MARKS CREEK  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 MASTER PLAN  
**DETAILED STORMWATER PLAN I**

DRAWING SHEET  
**C-4.1**



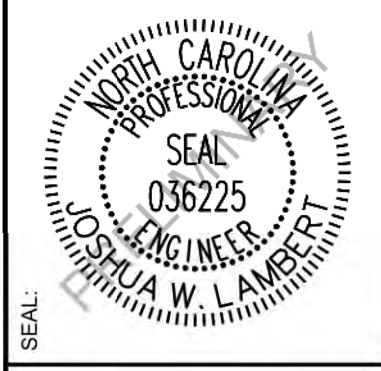
G&F PROPERTIES LLC  
 PIN: 1765224301  
 D.B/PG: 008139/00672



**SITE KEY PLAN**

**LEGEND:**  
 SEE SHEET C-4.0 FOR LEGEND.

NO.	REVISIONS	DATE	BY



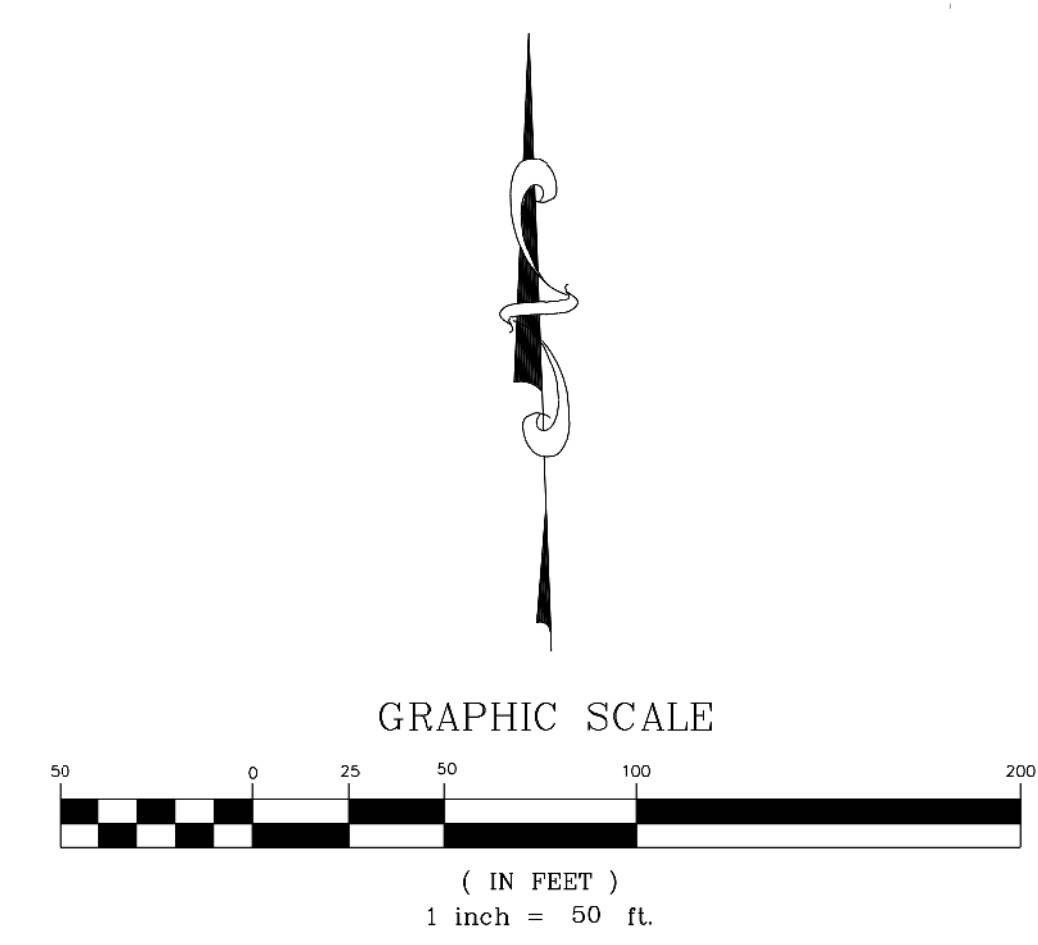
**STRONGROCK**  
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 6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

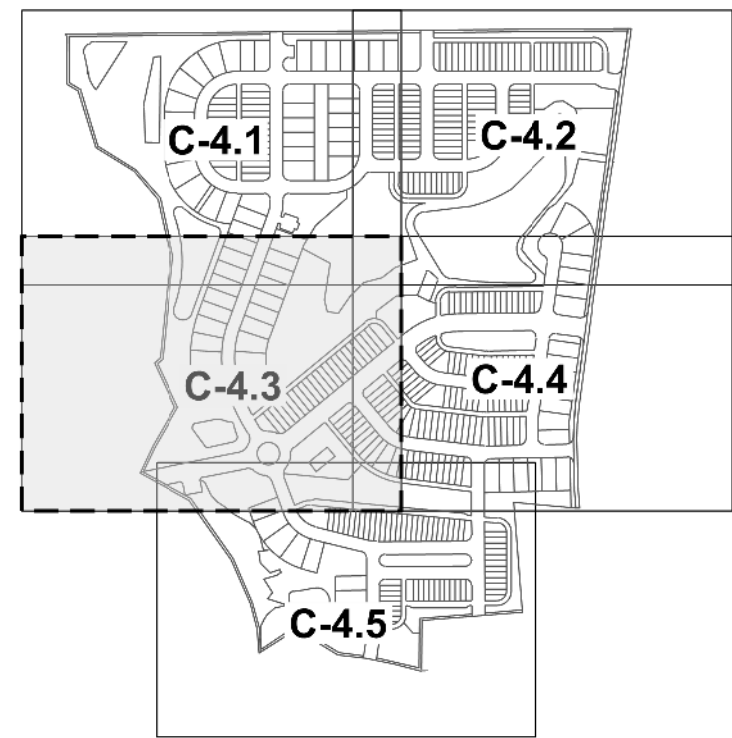
POOLE, JAMES H JR POOLE,  
 JANIE MOORE  
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 D.B/PG: 02-E/1128

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY	DRAWN BY	CHECKED BY
			JWL	SRG	JWL

**PRESERVE AT MARKS CREEK**  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
**MASTER PLAN**  
**DETAILED STORMWATER PLAN II**

DRAWING SHEET  
**C-4.2**  
 20 OF 42





SITE KEY PLAN

LEGEND:  
SEE SHEET C-4.0 FOR LEGEND.

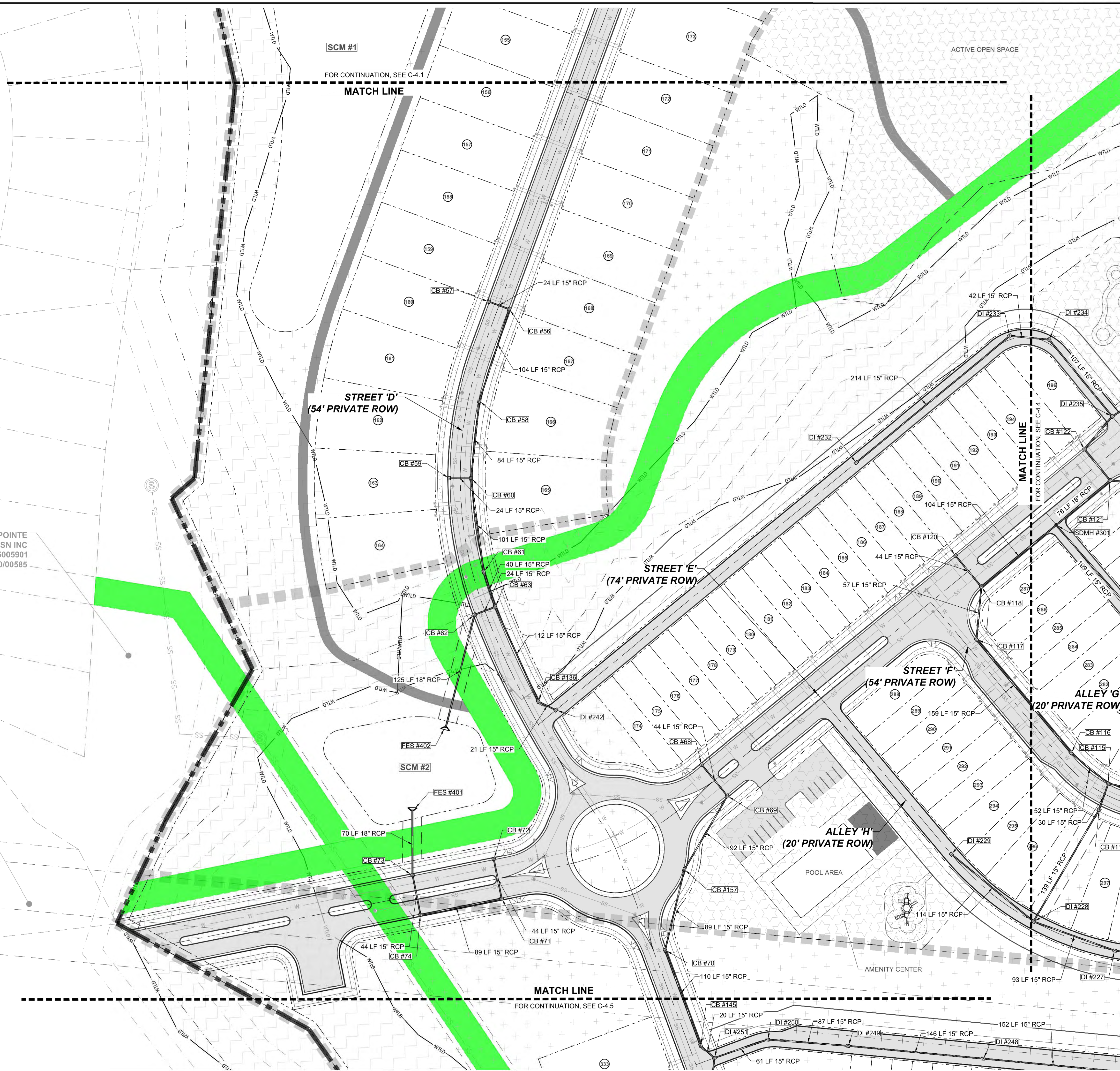
EMERALD POINTE HOMEOWNERS ASSN INC  
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D.B/P.G: 008130/00585

EMERALD POINTE HOMEOWNERS ASSN INC  
PIN: 1755909596  
D.B/P.G: 014540/00203

GRAPHIC SCALE



( IN FEET )  
1 inch = 50 ft.



NO.	REVISIONS	DATE	BY

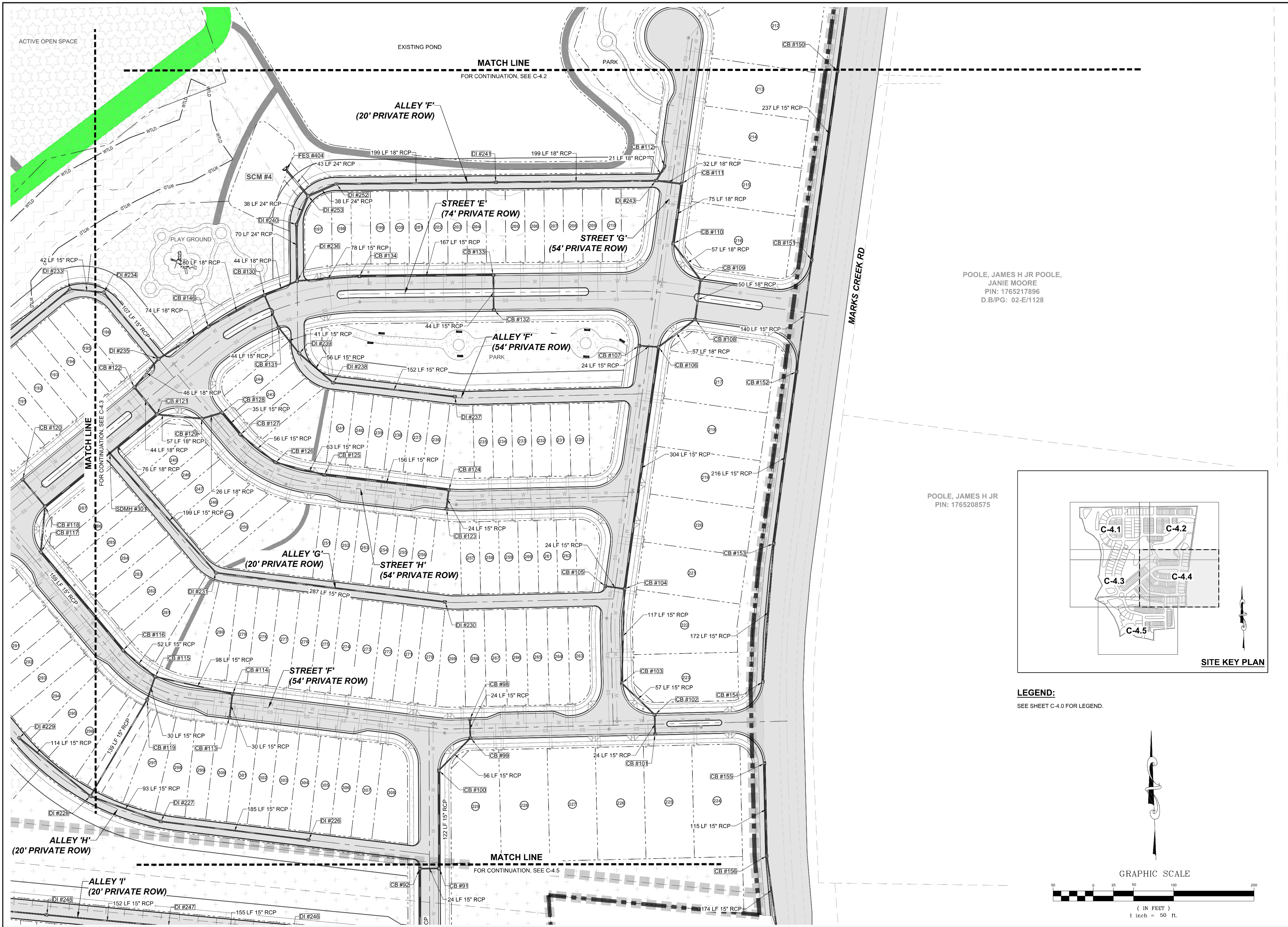


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STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	DRAWN BY SRG	CHECKED BY JWL
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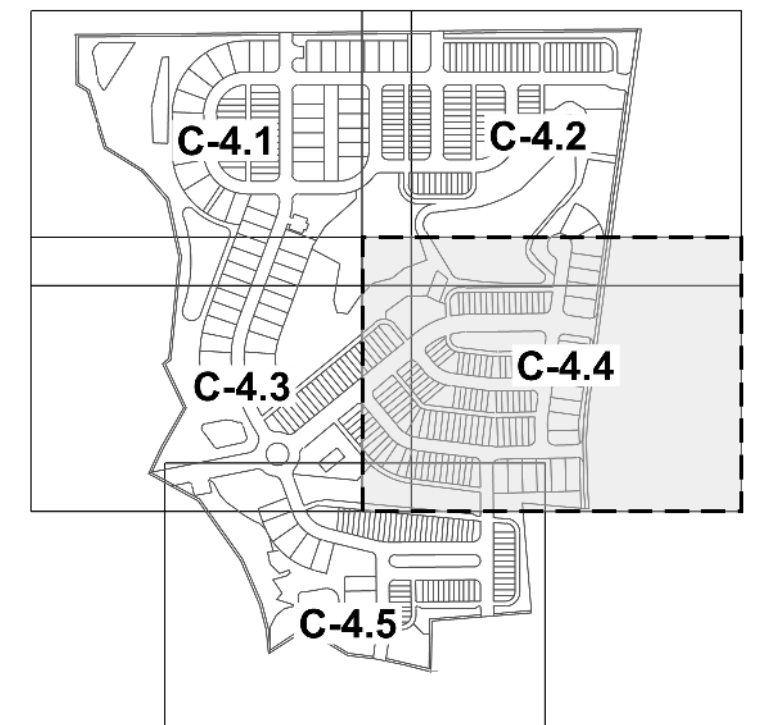
PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED STORMWATER PLAN III

DRAWING SHEET  
**C-4.3**  
21 OF 42



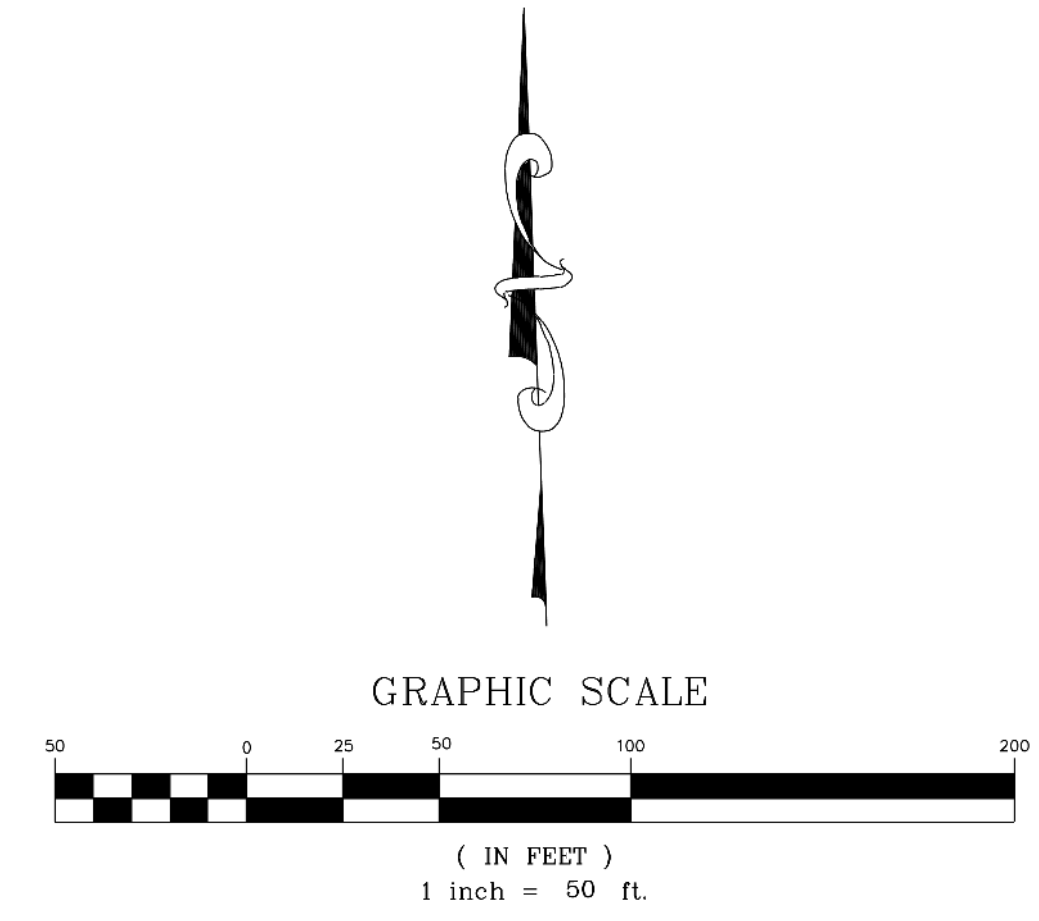
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 JANIE MOORE  
 PIN: 1765217896  
 D.B/PG: 02-E/1128

POOLE, JAMES H JR  
 PIN: 1765208575



**SITE KEY PLAN**

**LEGEND:**  
 SEE SHEET C-4.0 FOR LEGEND.



NO.	REVISIONS	DATE	BY

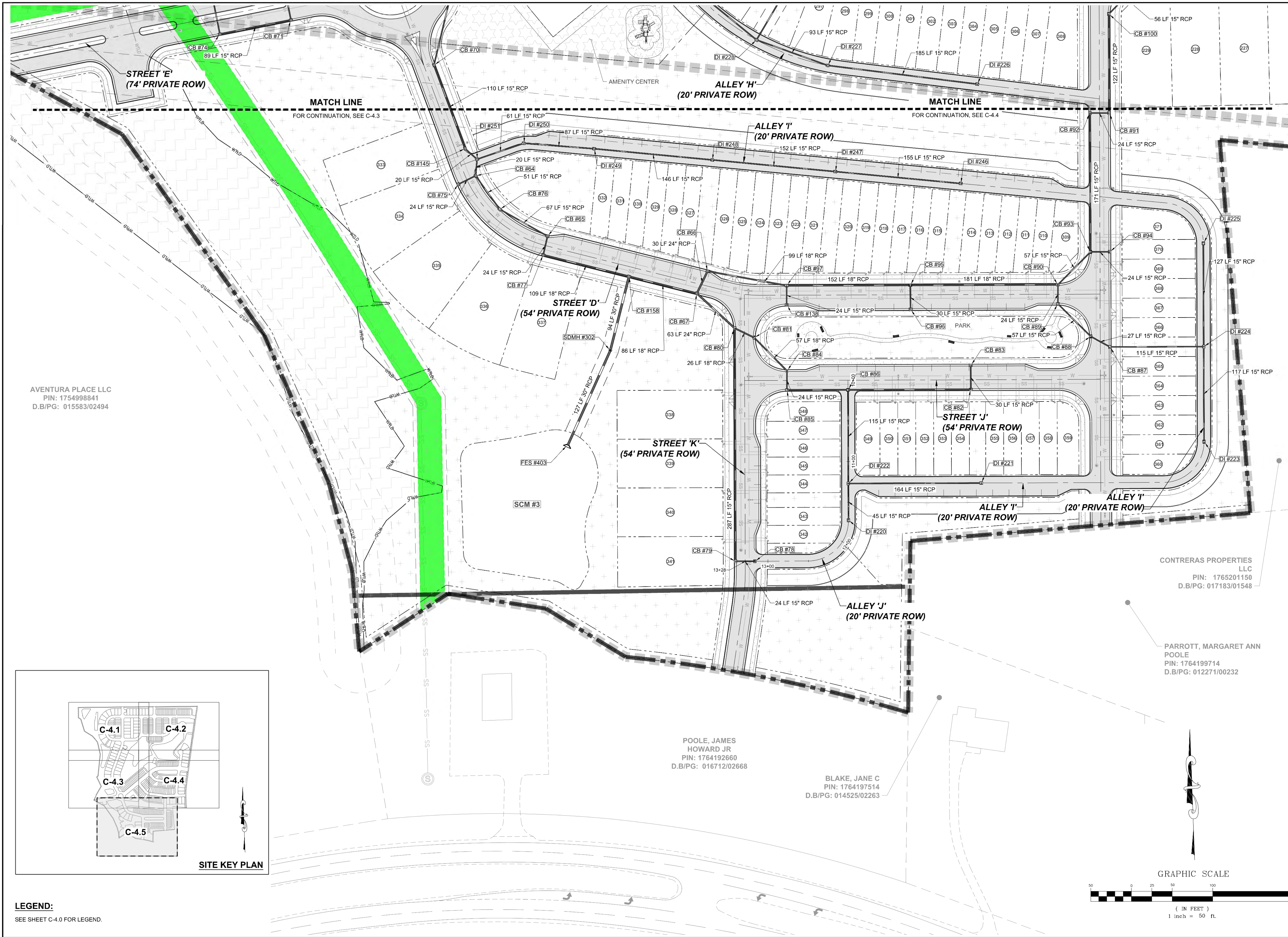


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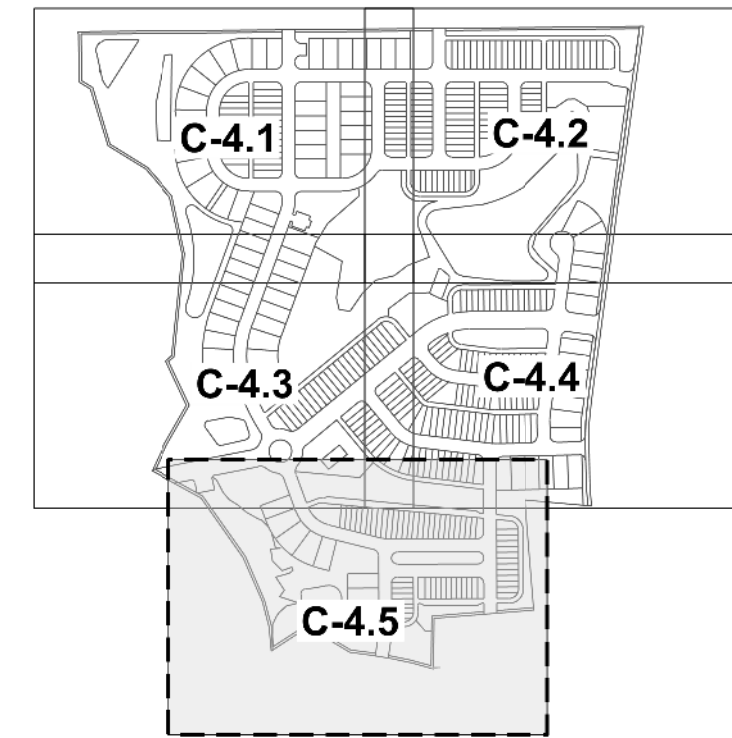
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			JWL	SRG	JWL

**PRESERVE AT MARKS CREEK**  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
**MASTER PLAN**  
**DETAILED STORMWATER PLAN IV**

**DRAWING SHEET**  
**C-4.4**  
 22 OF 42



AVENTURA PLACE LLC  
 PIN: 1754998841  
 D.B/PG: 015583/02494



SITE KEY PLAN

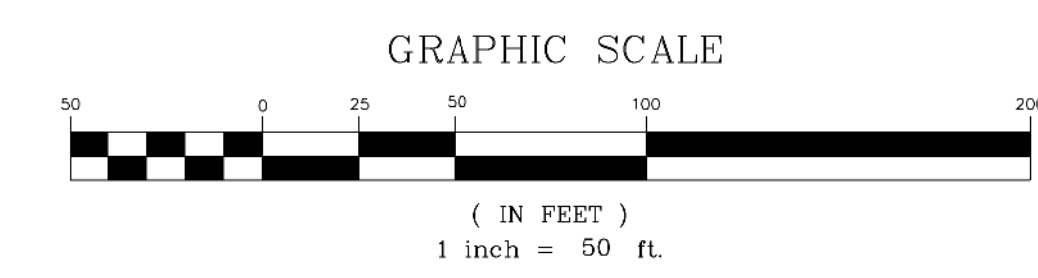
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 HOWARD JR  
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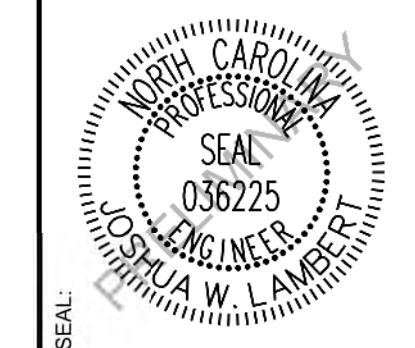
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CONTRERAS PROPERTIES  
 LLC  
 PIN: 1765201150  
 D.B/PG: 017183/01548

PARROTT, MARGARET ANN  
 POOLE  
 PIN: 1764199714  
 D.B/PG: 012271/00232



NO.	REVISIONS	DATE	BY



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 ENGINEERING GROUP  
 STRONG ROCK ENGINEERING GROUP, PLLC / COMPANY LICENSE # P-2166  
 6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY	DRAWN BY	CHECKED BY
			JWL	SRG	JWL

PRESERVE AT MARKS CREEK  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 MASTER PLAN  
 DETAILED STORMWATER PLAN V



**LEGEND:**

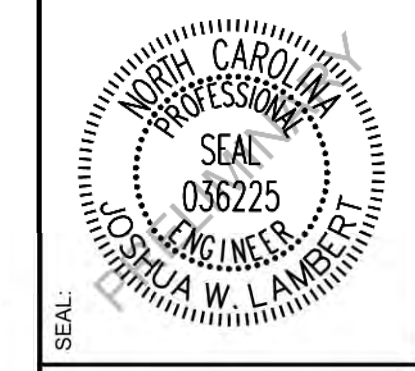
- ULMUS PARVIFOLIA (UP)
- ACER SACCHARUM (AS)
- LAGERSTROEMIA INDICA (LI)
- ILEX GLABRA (IG)
- ILEX X 'NELLIE R STEVENS (IN)
- QUERCUS NUTTALLII

**STREET TREE TABLE:**

KEY	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT	TYPE	REMARKS
UP	246	ULMUS PARVIFOLIA	LACEBARK ELM	2.5" CAL., 12' MIN.	B&B	STREET TREES	SINGLE STRAIGHT LEADER. FULL & HEAVY.
AS	243	ACER SACCHARUM	SUGAR MAPLE	2.5" CAL., 12' MIN.	B&B	STREET TREES	SINGLE STRAIGHT LEADER. FULL & HEAVY.
<b>UNDERSTOREY TREES</b>							
	296	QUERCUS NUTTALLII	NUTTALL OAK	2.5" CAL., 10' HT MIN.	B&B	STREET TREES	
	31	LAGERSTROEMIA INDICA	CRAPPE MYTLE	1.5" CAL., 18' HT MIN.	B&B	STREET TREES	
<b>SHRUBS</b>							
	1087	ILEX GLABRA	INKBERRY HOLLY	24" HT	5 GAL.	PERIMETER BUFFER	FULL & HEAVY. HEIGHT: 4' AFTER 2 YEARS.
	41	ILEX X 'NELLIE R STEVENS	NELLIE STEVENS HOLLY	24" HT	5 GAL.	PERIMETER BUFFER	FULL & HEAVY. HEIGHT: 4' AFTER 2 YEARS.

- GENERAL PLANTING NOTES:**
- STREET TREES SHALL BE LOCATED WITHIN THE RIGHT OF WAY.
  - STREET TREES SHALL BE PLANTED BY EACH BUILDER PRIOR TO RECEIVING C.O. FOR HOUSE.
  - ALL LANDSCAPING SHOULD BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE TOWN OF KNIGHTDALE'S UDO.
  - ALL PLANT MATERIALS TO COMPLY WITH AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.
  - CONTRACTOR ENGAGED IN LANDSCAPE IMPLEMENTATION SHALL BE A LANDSCAPE CONTRACTOR REGISTERED IN THE STATE OF NORTH CAROLINA.
  - SUBSTITUTIONS OF PLANT MATERIALS SPECIFIED CAN ONLY OCCUR WITH PRIOR APPROVAL BY LANDSCAPE ARCHITECT.
  - ALL NEW TREES TO HAVE A 5" DIAMETER SHREDDED HARDWOOD MULCH RING AT 4" DEEP UNLESS OTHERWISE NOTED OR LOCATED IN A PLANT BED PER SITE PLAN.
  - LANDSCAPE CONTRACTOR TO GUARANTEE PLANT MATERIALS FOR A ONE YEAR PERIOD FOLLOWING SUBSTANTIAL COMPLETION.
  - AREAS DAMAGED BY LANDSCAPE CONTRACTOR TO BE REPAIRED TO PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE OWNER.
  - ALL LANDSCAPE ISLANDS SHALL BE GRADED FOR POSITIVE DRAINAGE WITH NO LOW SPOTS ALLOWING WATER TO BE TRAPPED.
  - ALL ABOVE GROUND UTILITIES MUST BE SCREENED.

NO.	REVISIONS	DATE	BY

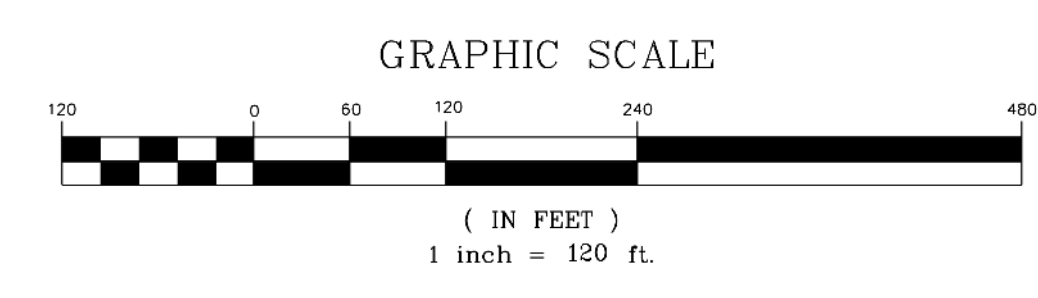


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 6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	SRG	CHECKED BY JWL
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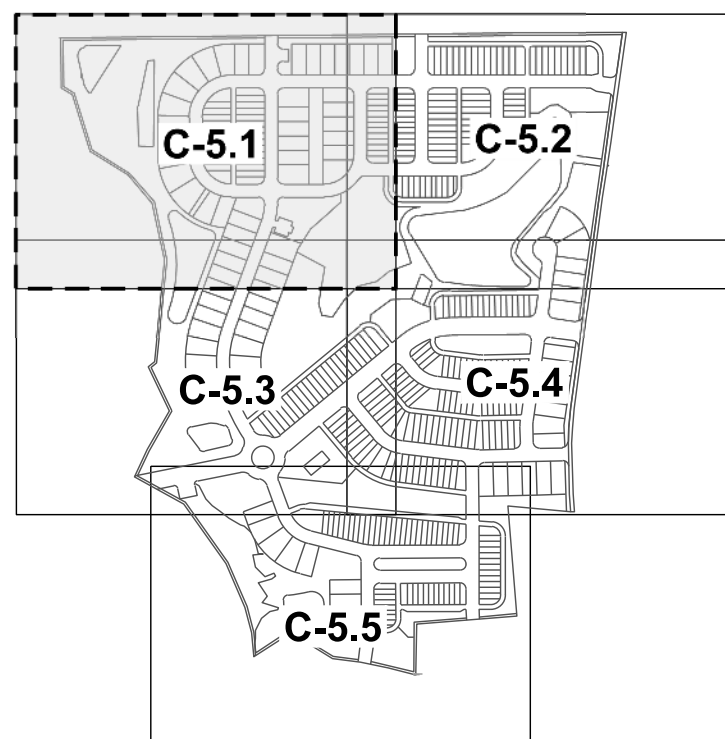
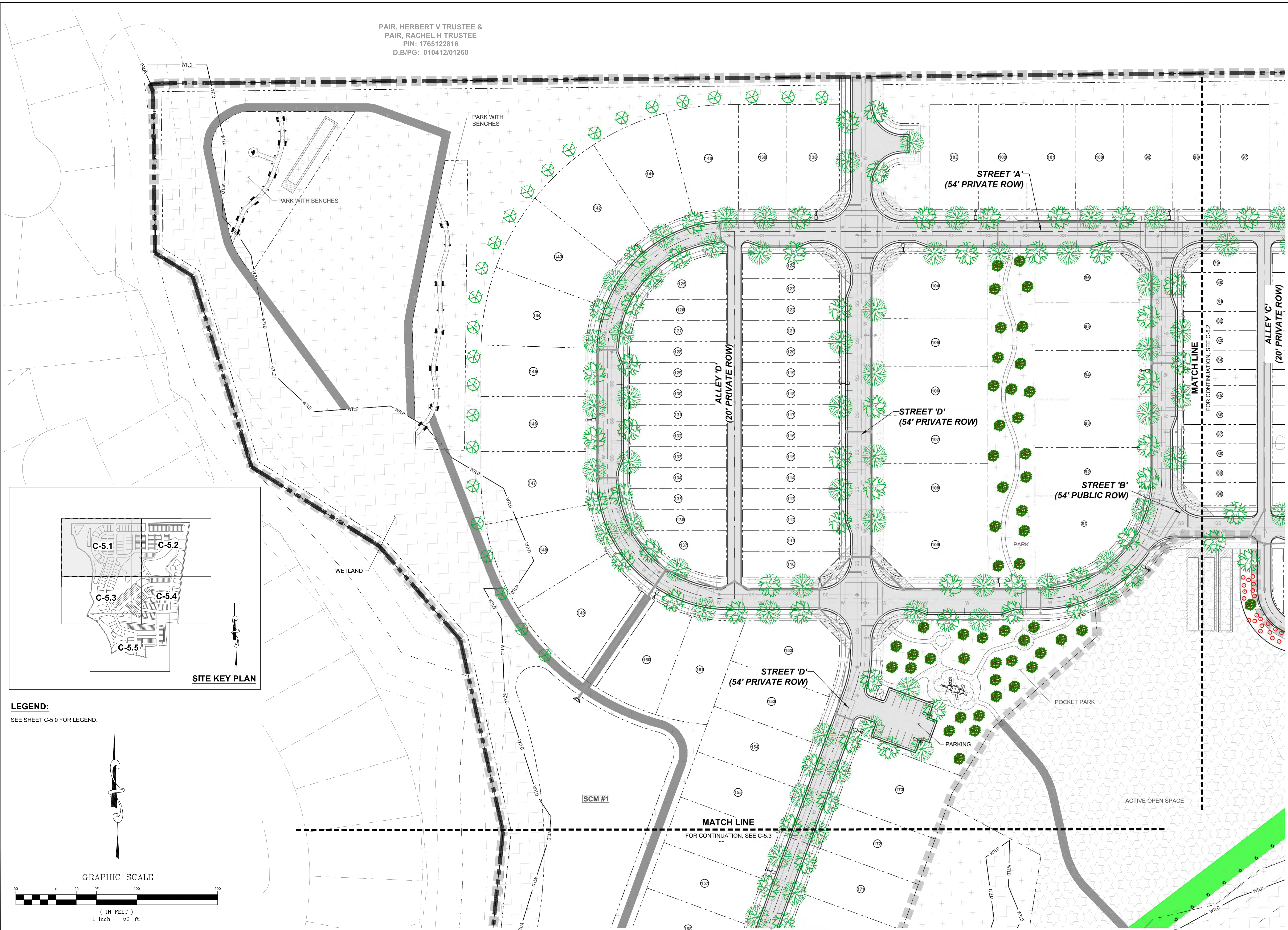
PRESERVE AT MARKS CREEK  
 TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 MASTER PLAN  
**OVERALL LANDSCAPE PLAN**

DRAWING SHEET  
**C-5.0**  
 24 OF 42





PAIR, HERBERT V TRUSTEE &  
 PAIR, RACHEL H TRUSTEE  
 PIN: 1765122816  
 D.B/PG: 010412/01260

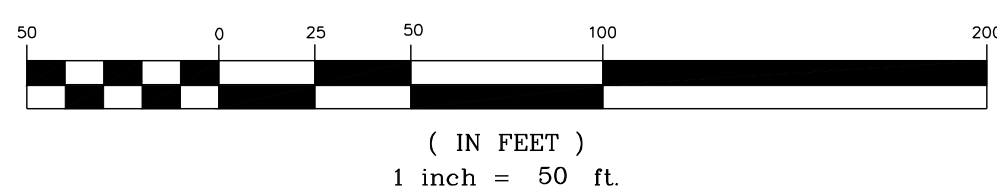


SITE KEY PLAN

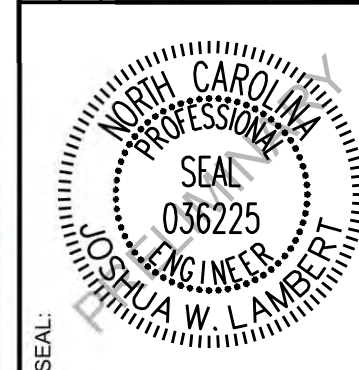
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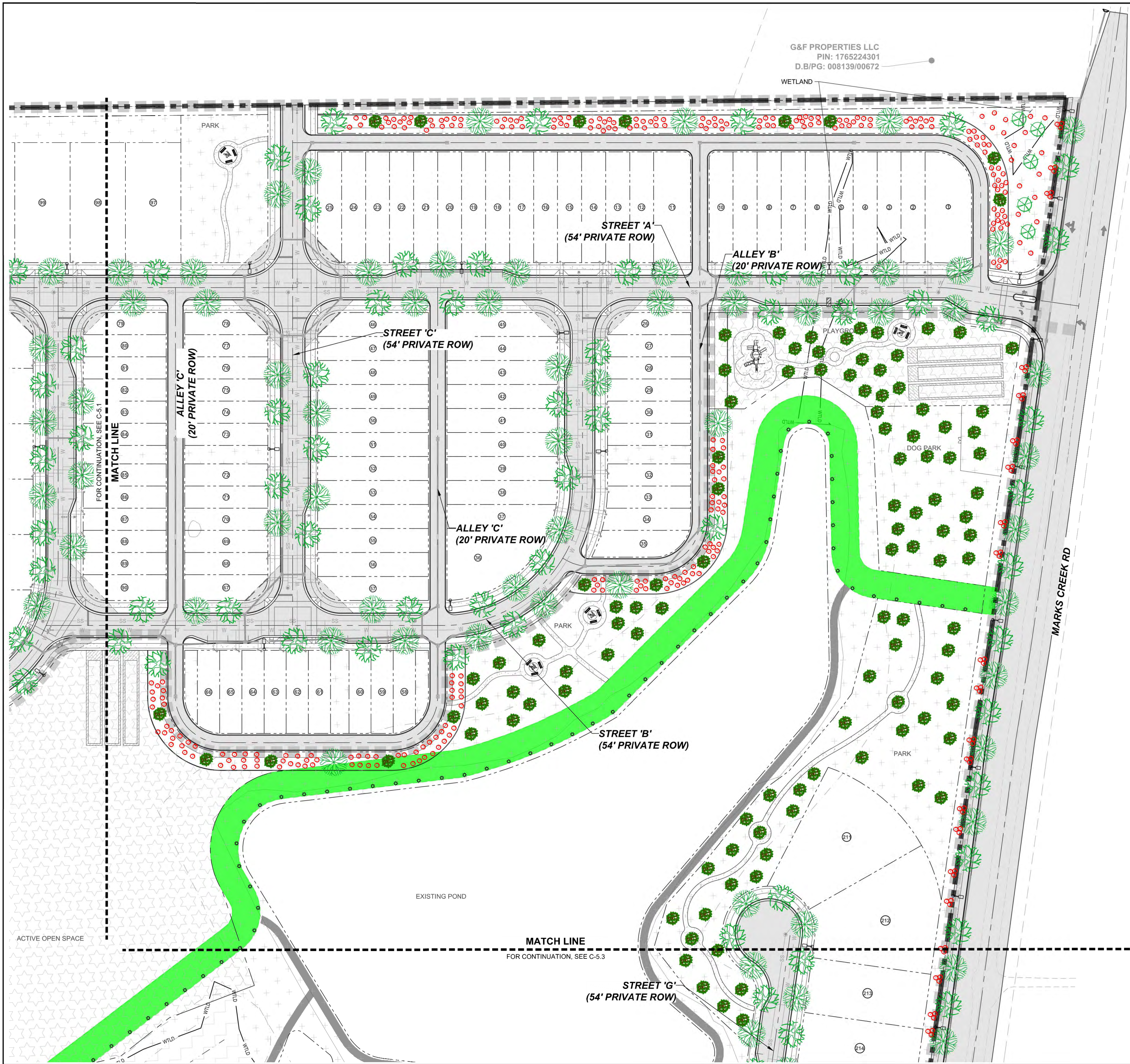


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 6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

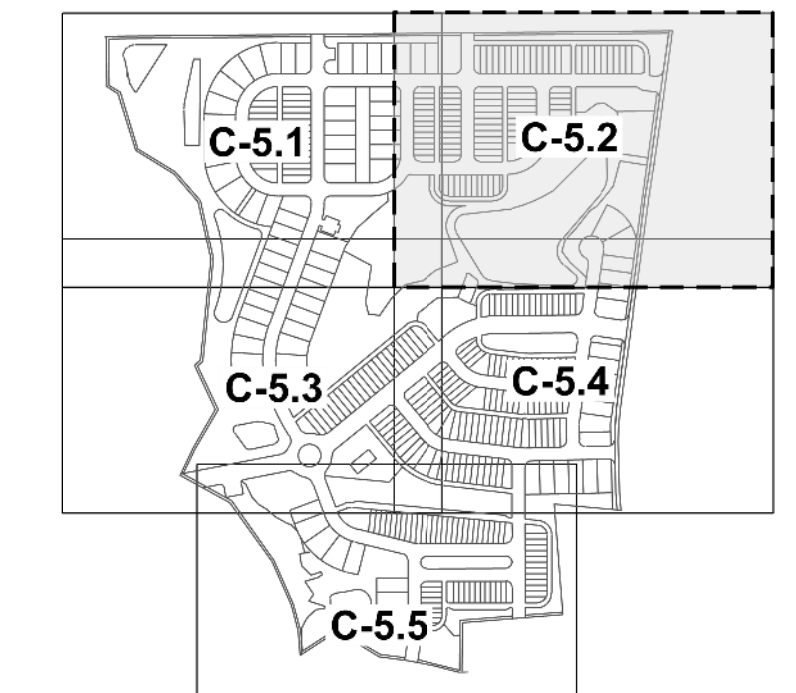
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NOT FOR CONSTRUCTION	SCALE AS SHOWN
DESIGNED BY JWL	DRAWN BY SRG
CHECKED BY JWL	

PRESERVE AT MARKS CREEK  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 MASTER PLAN  
 DETAILED LANDSCAPE PLAN I

DRAWING SHEET  
**C-5.1**  
 25 OF 42



G&F PROPERTIES LLC  
 PIN: 1765224301  
 D.B/PG: 008139/00672



**SITE KEY PLAN**

**LEGEND:**  
 SEE SHEET C-5.0 FOR LEGEND.

NO.	REVISIONS	DATE	BY



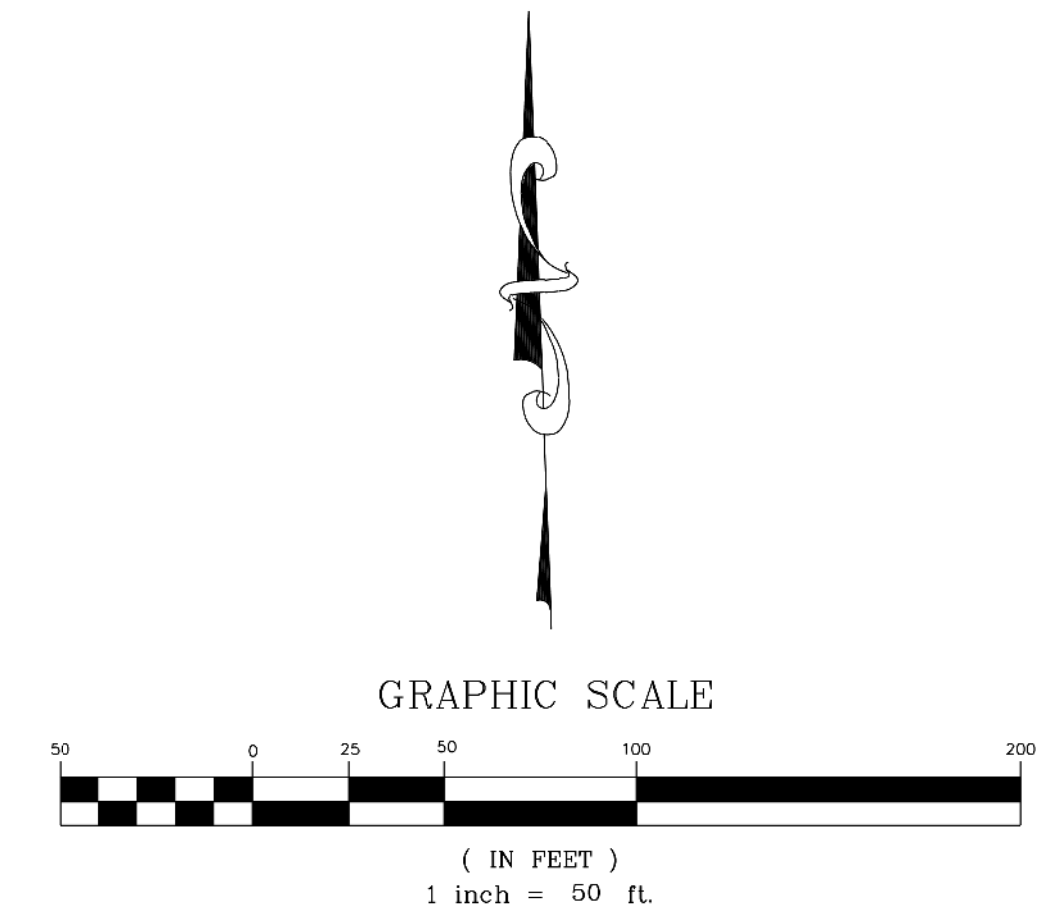
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 JANIE MOORE  
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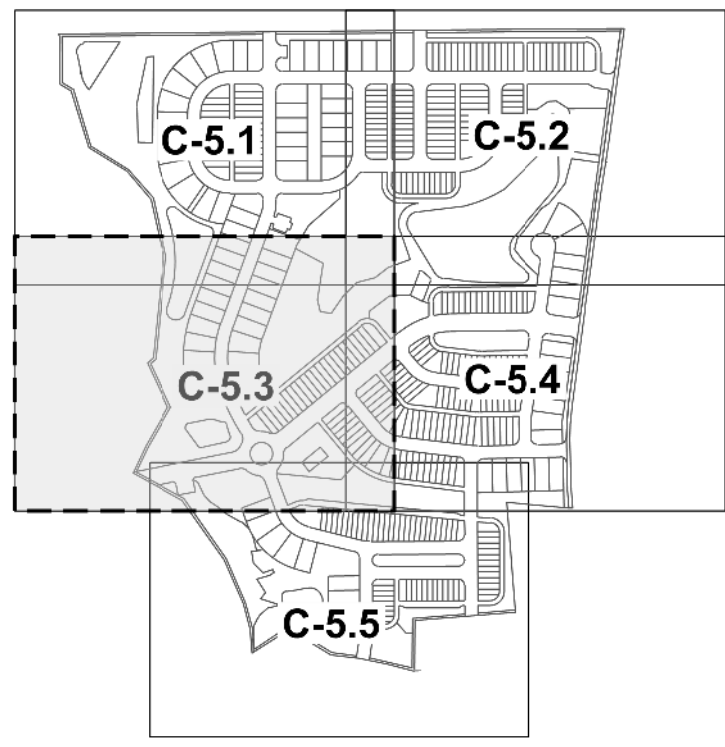
**STRONGROCK**  
 ENGINEERING GROUP  
 STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
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STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	SRG	CHECKED BY JWL
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PRESERVE AT MARKS CREEK  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 MASTER PLAN  
 DETAILED LANDSCAPE PLAN II

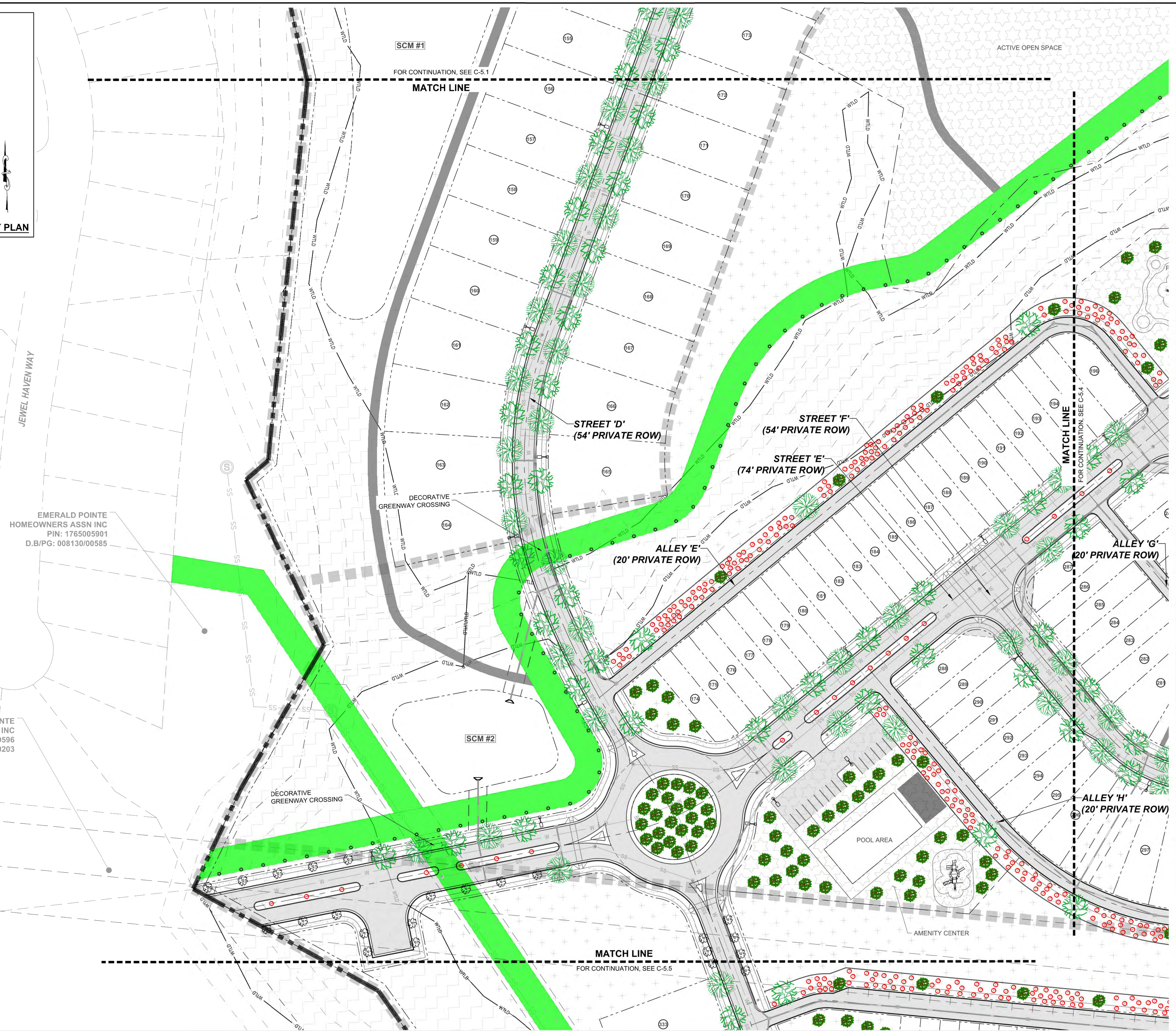
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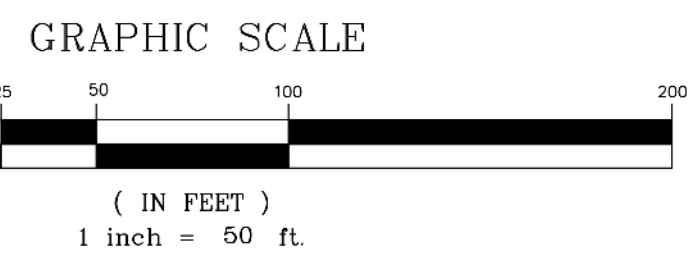
SITE KEY PLAN

LEGEND:  
SEE SHEET C-5.0 FOR LEGEND.



EMERALD POINTE HOMEOWNERS ASSN INC  
PIN: 1765005901  
D.B/P.G: 008130/00585

EMERALD POINTE HOMEOWNERS ASSN INC  
PIN: 1755909596  
D.B/P.G: 014540/00203



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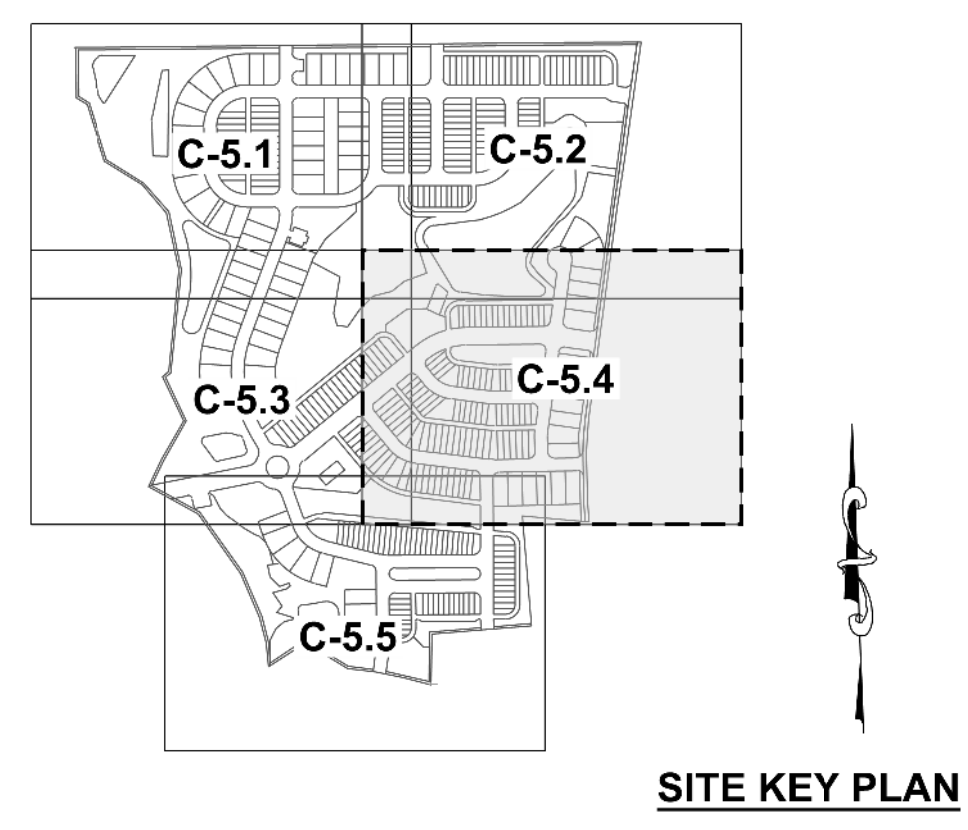
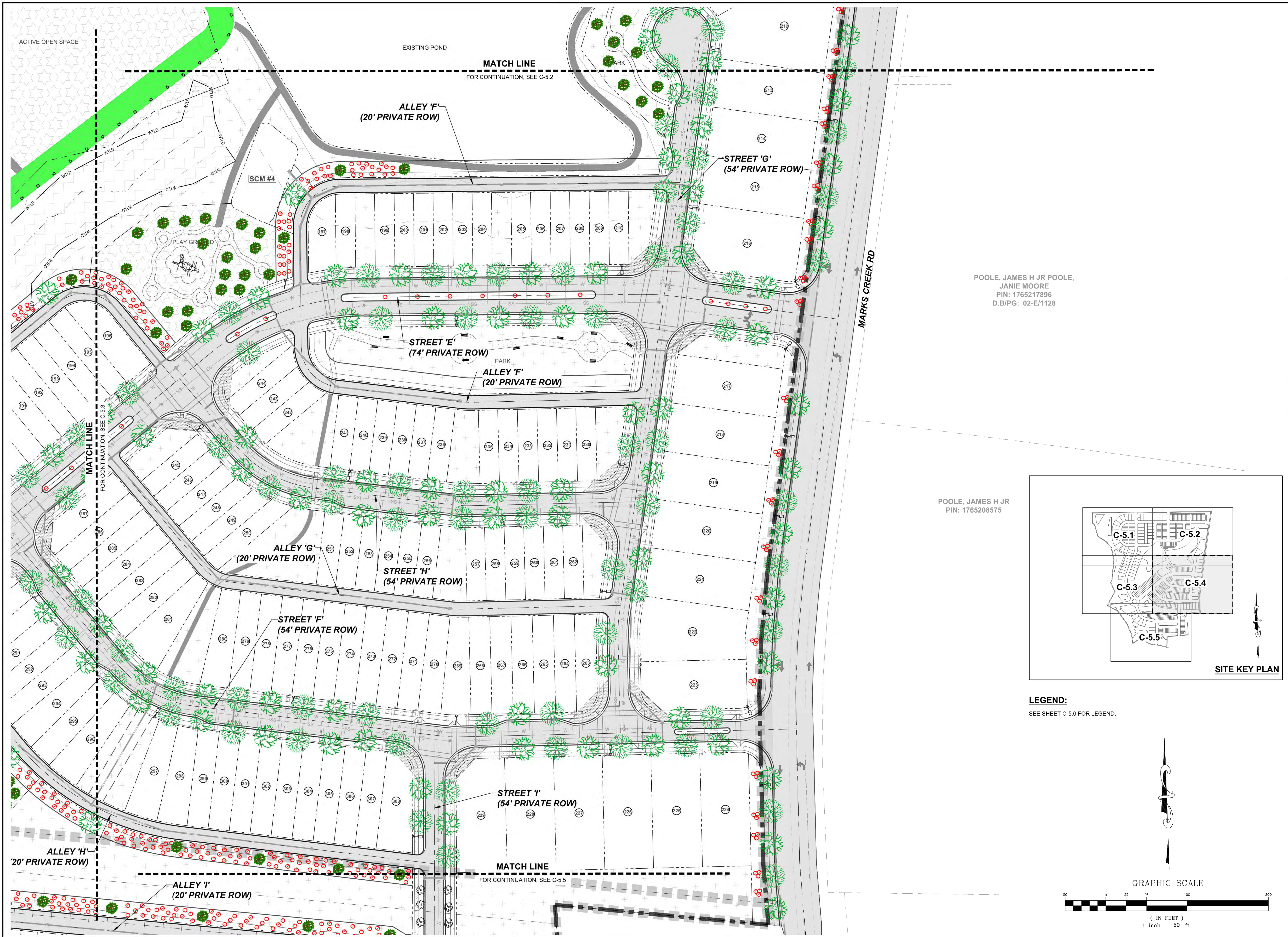


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STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

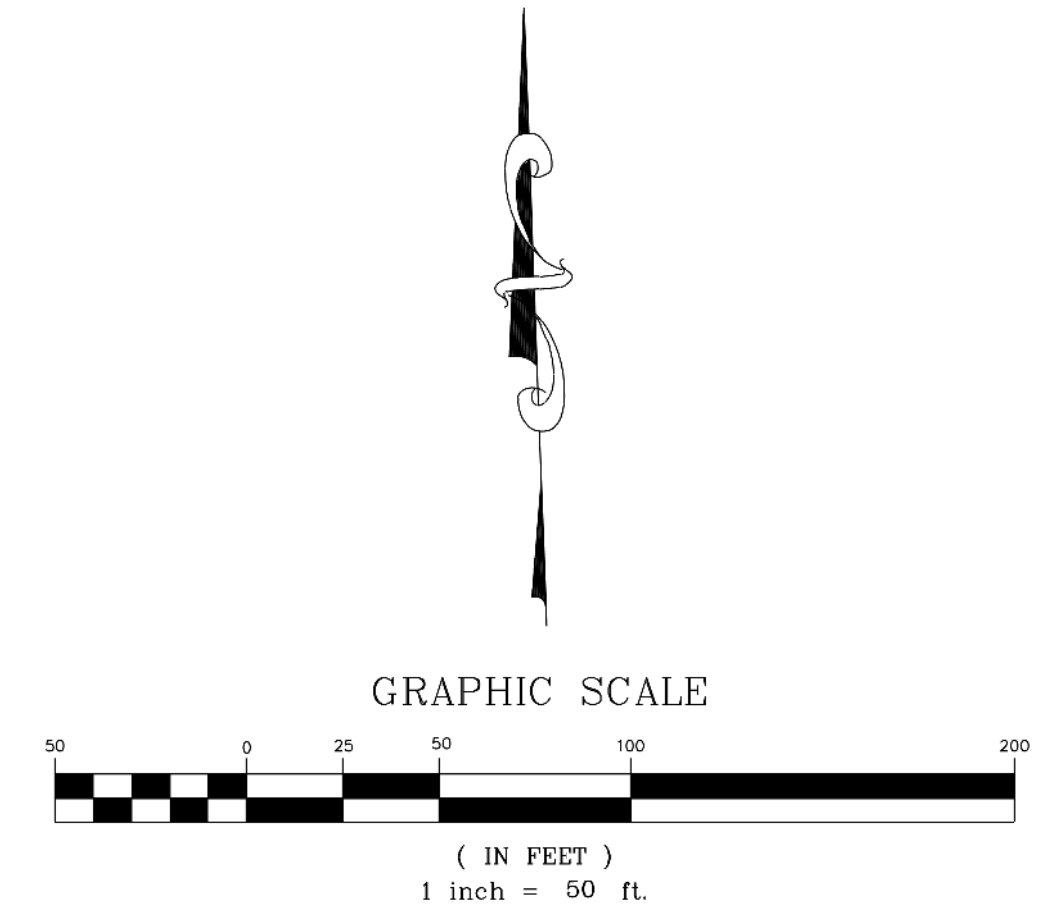
STRONG ROCK PROJECT	DESIGNED BY	CHECKED BY
NOT FOR CONSTRUCTION	JWL	JWL
SCALE AS SHOWN	SRG	JWL

PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED LANDSCAPE PLAN III

DRAWING SHEET  
**C-5.3**  
27 OF 42



**LEGEND:**  
SEE SHEET C-5.0 FOR LEGEND.



NO.	REVISIONS	DATE	BY

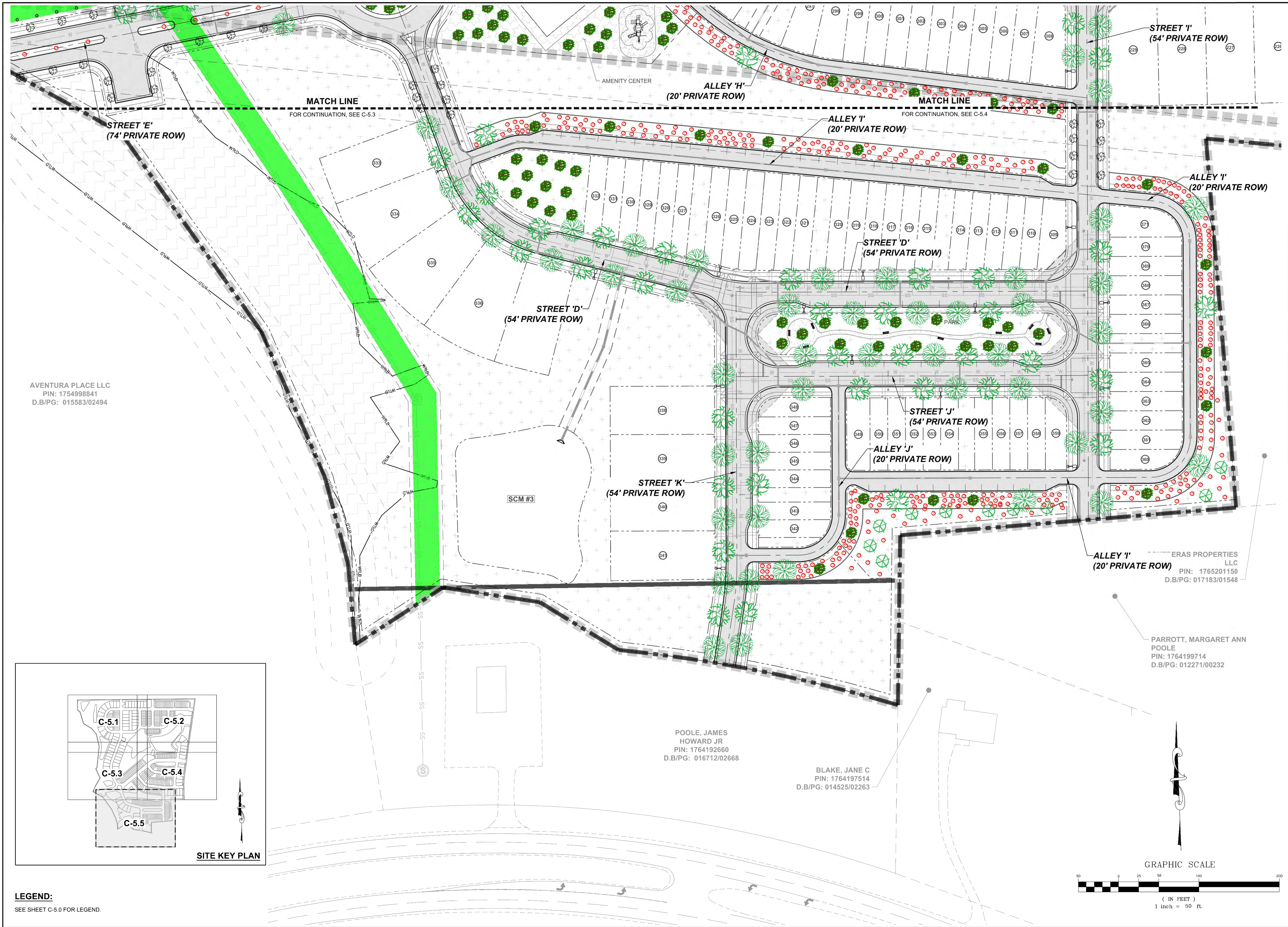


**STRONGROCK**  
ENGINEERING GROUP  
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6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY	DRAWN BY	CHECKED BY
			JWL	SRG	JWL

PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED LANDSCAPE PLAN IV

DRAWING SHEET  
**C-5.4**  
28 OF 42



AVENTURA PLACE LLC  
PIN: 1754998841  
D.B/PG: 015583/02494

SCM #3

STREET 'K'  
(54' PRIVATE ROW)

POOLE, JAMES  
HOWARD JR  
PIN: 1764192660  
D.B/PG: 016712/02668

BLAKE, JANE C  
PIN: 1764197514  
D.B/PG: 014525/02263

STREET 'J'  
(54' PRIVATE ROW)

ALLEY 'J'  
(20' PRIVATE ROW)

STREET 'D'  
(54' PRIVATE ROW)

ALLEY 'I'  
(20' PRIVATE ROW)

ALLEY 'H'  
(20' PRIVATE ROW)

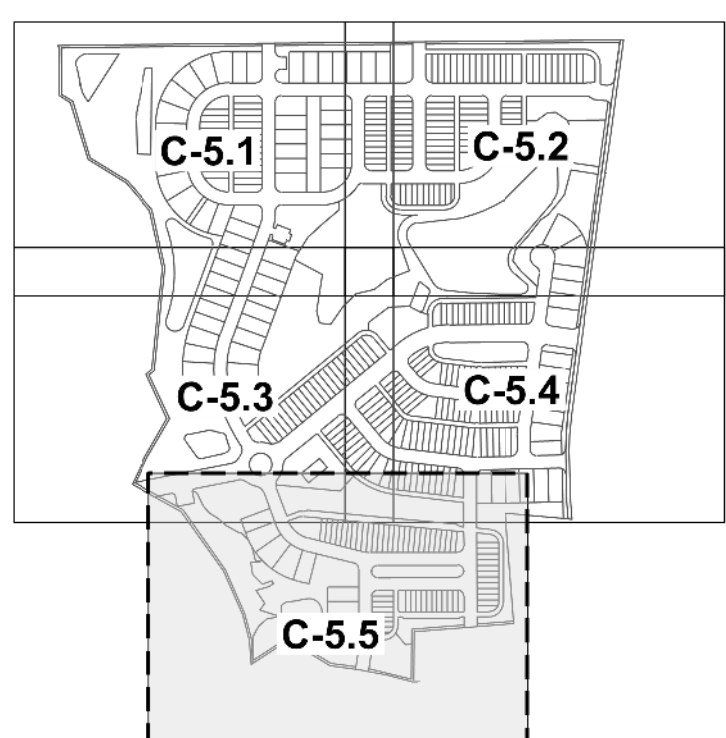
STREET 'I'  
(54' PRIVATE ROW)

ALLEY 'I'  
(20' PRIVATE ROW)

ALLEY 'I'  
(20' PRIVATE ROW)

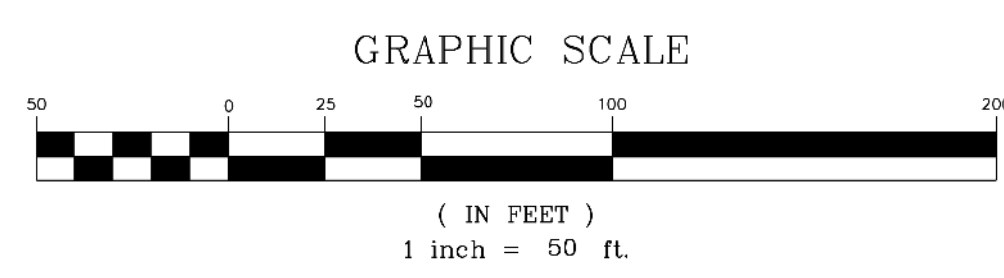
ERAS PROPERTIES  
LLC  
PIN: 1765201150  
D.B/PG: 017183/01548

PARROTT, MARGARET ANN  
POOLE  
PIN: 1764199714  
D.B/PG: 012271/00232



SITE KEY PLAN

LEGEND:  
SEE SHEET C-5.0 FOR LEGEND.



NO.	REVISIONS	DATE	BY



**STRONGROCK**  
ENGINEERING GROUP  
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
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STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY	DRAWN BY	CHECKED BY
			JWL	SRG	JWL

PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED LANDSCAPE PLAN V

DRAWING SHEET  
C-5.5

PAIR, HERBERT V TRUSTEE & PAIR, RACHEL H TRUSTEE  
PIN: 1765122816  
D.B/PG: 010412/01260

G&F PROPERTIES LLC  
PIN: 1765224301  
D.B/PG: 008139/00672

WETLAND

**LEGEND:**

- LED STREET LIGHTS (7,000 LUMENS LED 75 ROADWAY LIGHT) ALUMINUM POLE - HEIGHT 30.
- PEDESTRIAN SCALE LIGHTING (FIXTURE TO BE DETERMINED AT CD's).

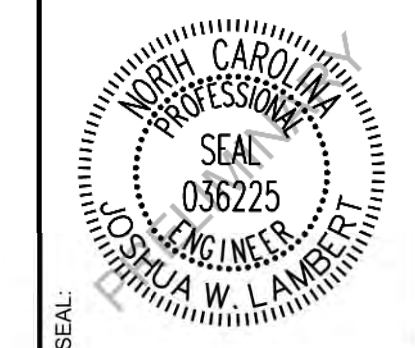
**LEGEND:**

- PHASE LINE
- EXISTING PROPERTY LINE
- ROADWAY CENTER LINE
- PROPOSED PROPERTY LINE
- PASSIVE AND PRESERVED OPEN SPACE
- ACTIVE OPEN SPACE

**LIGHTING NOTES**

- PER SEC 7.7.D, THE FOLLOWING REGULATIONS SHALL APPLY:
  - ALL FIXTURES SHALL BE "FULL CUTOFF" OR BE FULLY SHIELDED.
  - MAXIMUM POLE HEIGHT SHALL BE 37'
- PER SEC 7.7.E, THE FOLLOWING REGULATIONS SHALL APPLY:
  - FIBERGLASS POLES ARE REQUIRED
  - MINIMUM INITIAL DELIVERED LUMEN LEVELS-4,800 LUMES
  - BUG RATING: B1, U1, G2
  - POLES SHALL BE ALTERNATIVELY STAGGERED ON EACH SIDE OF THE STREET
  - AVERAGE MAXIMUM SPACING IS 250'

NO.	REVISIONS	DATE	BY

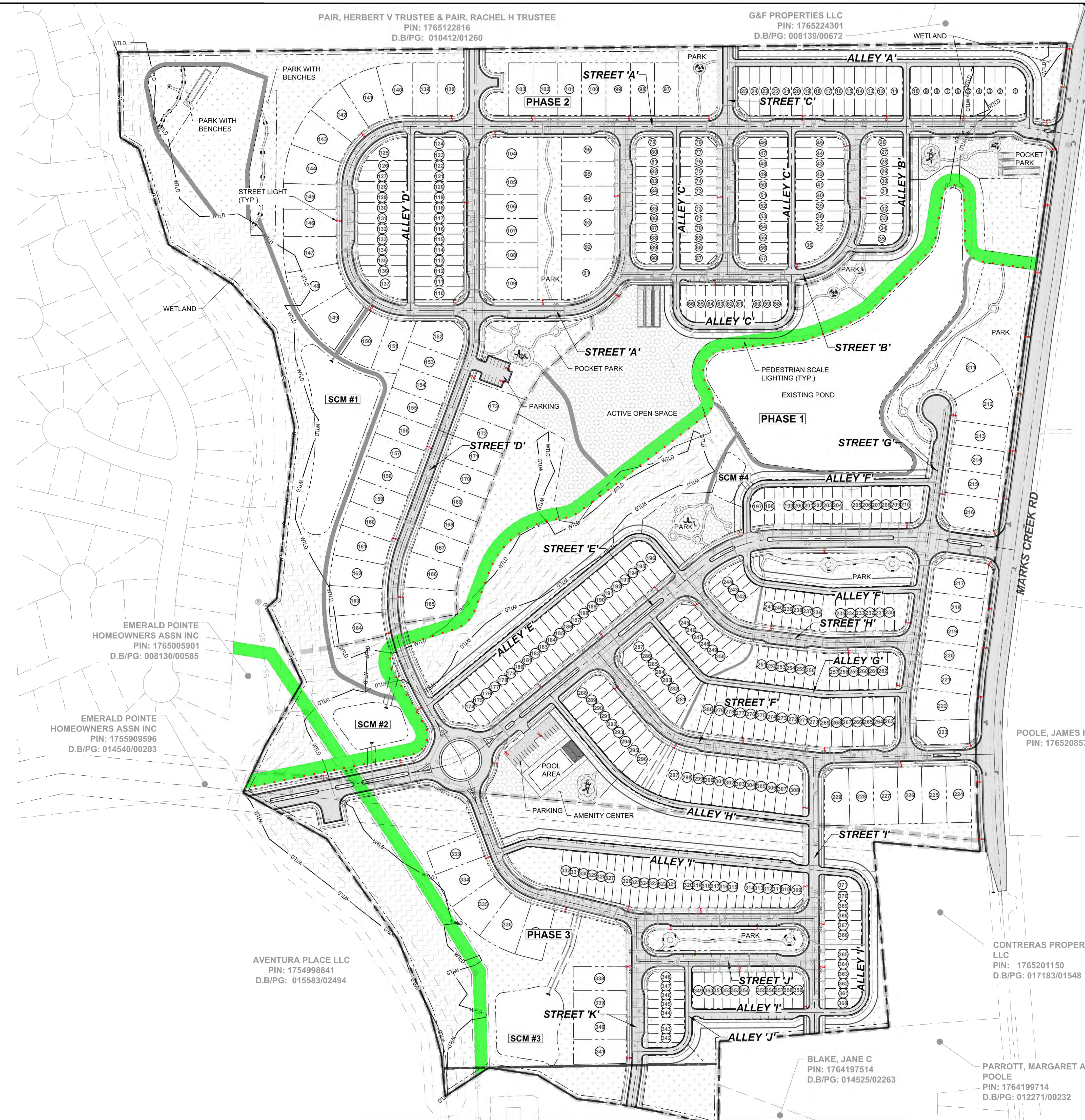


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8801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	SRG	CHECKED BY JWL
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
OVERALL LIGHTING PLAN

DRAWING SHEET  
**C-6.0**  
30 OF 42



EMERALD POINTE HOMEOWNERS ASSN INC  
PIN: 1765005901  
D.B/PG: 008130/00585

EMERALD POINTE HOMEOWNERS ASSN INC  
PIN: 1755909596  
D.B/PG: 014540/00203

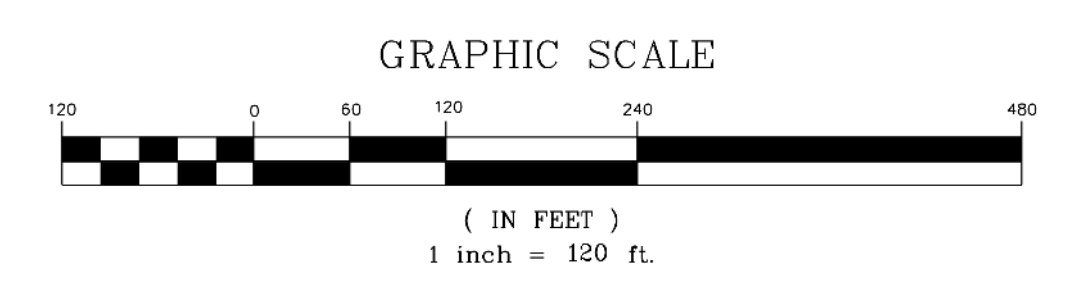
AVENTURA PLACE LLC  
PIN: 1754998841  
D.B/PG: 015583/02494

BLAKE, JANE C  
PIN: 1764197514  
D.B/PG: 014525/02263

PARROTT, MARGARET ANN POOLE  
PIN: 1764199714  
D.B/PG: 012271/00232

POOLE, JAMES H JR  
PIN: 1765208575

CONTRERAS PROPERTIES LLC  
PIN: 1765201150  
D.B/PG: 017183/01548



PAIR, HERBERT V TRUSTEE &  
PAIR, RACHEL H TRUSTEE  
PIN: 1765122816  
D.B/PG: 010412/01260

NO.	REVISIONS	DATE	BY

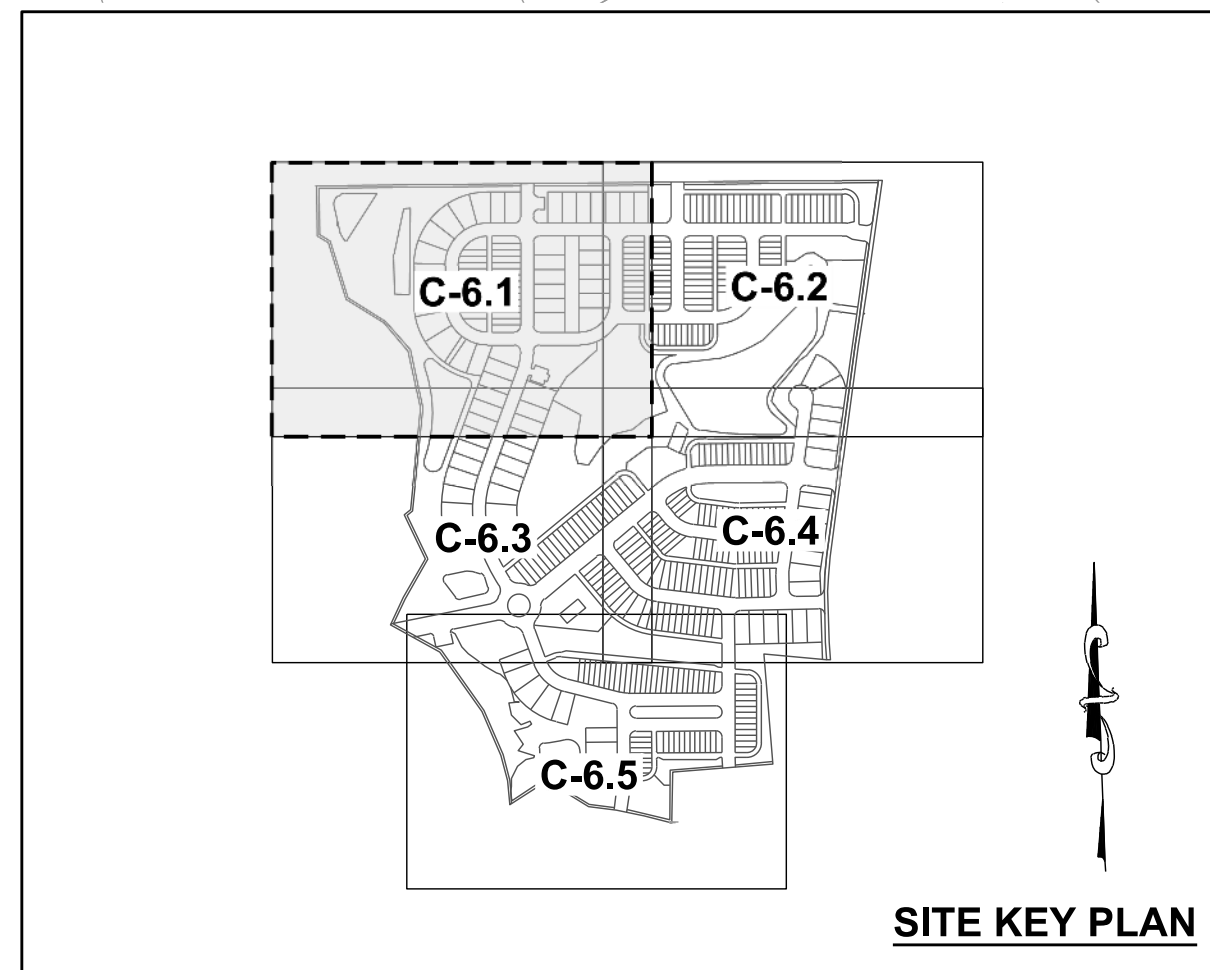
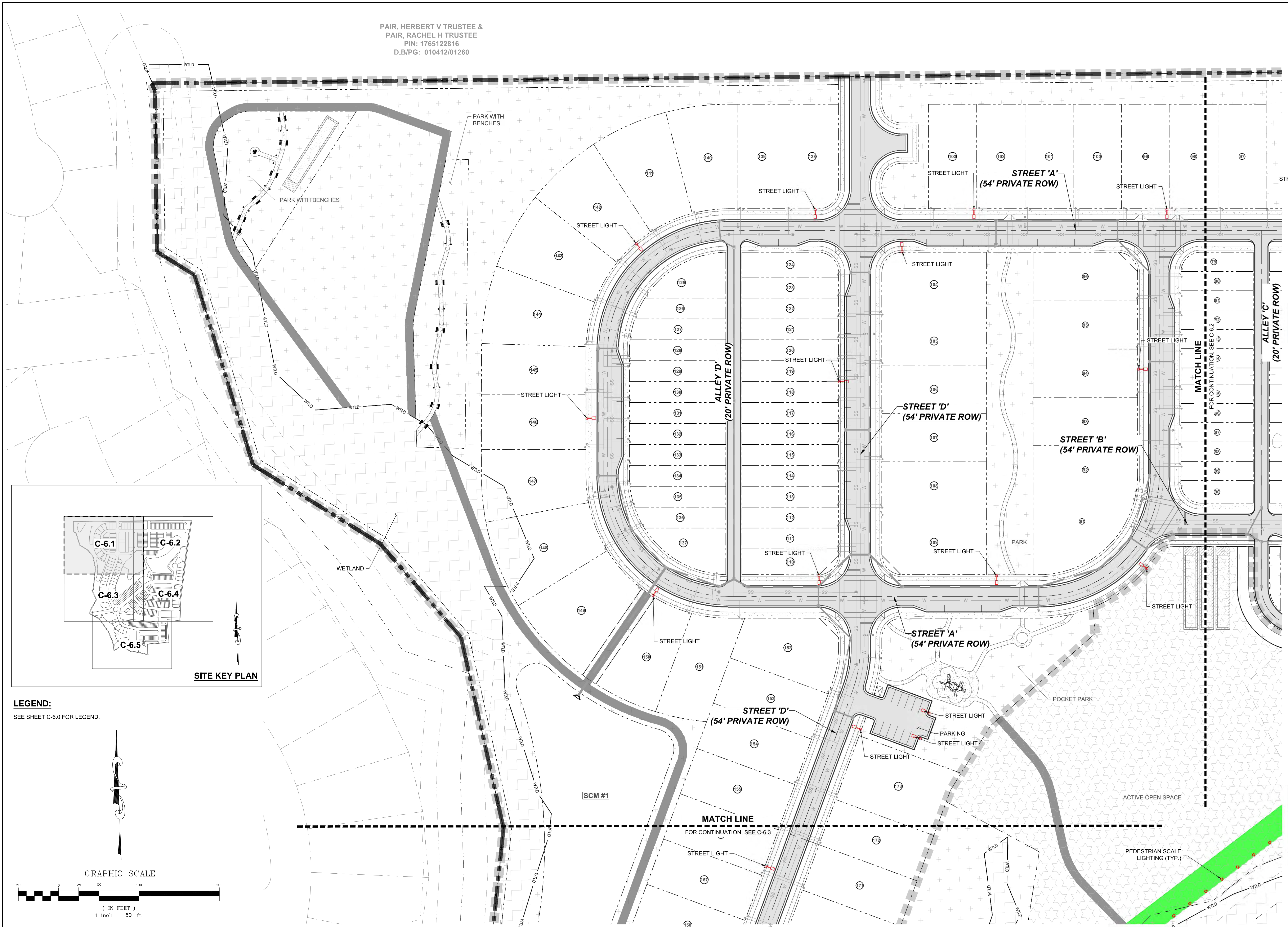


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6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

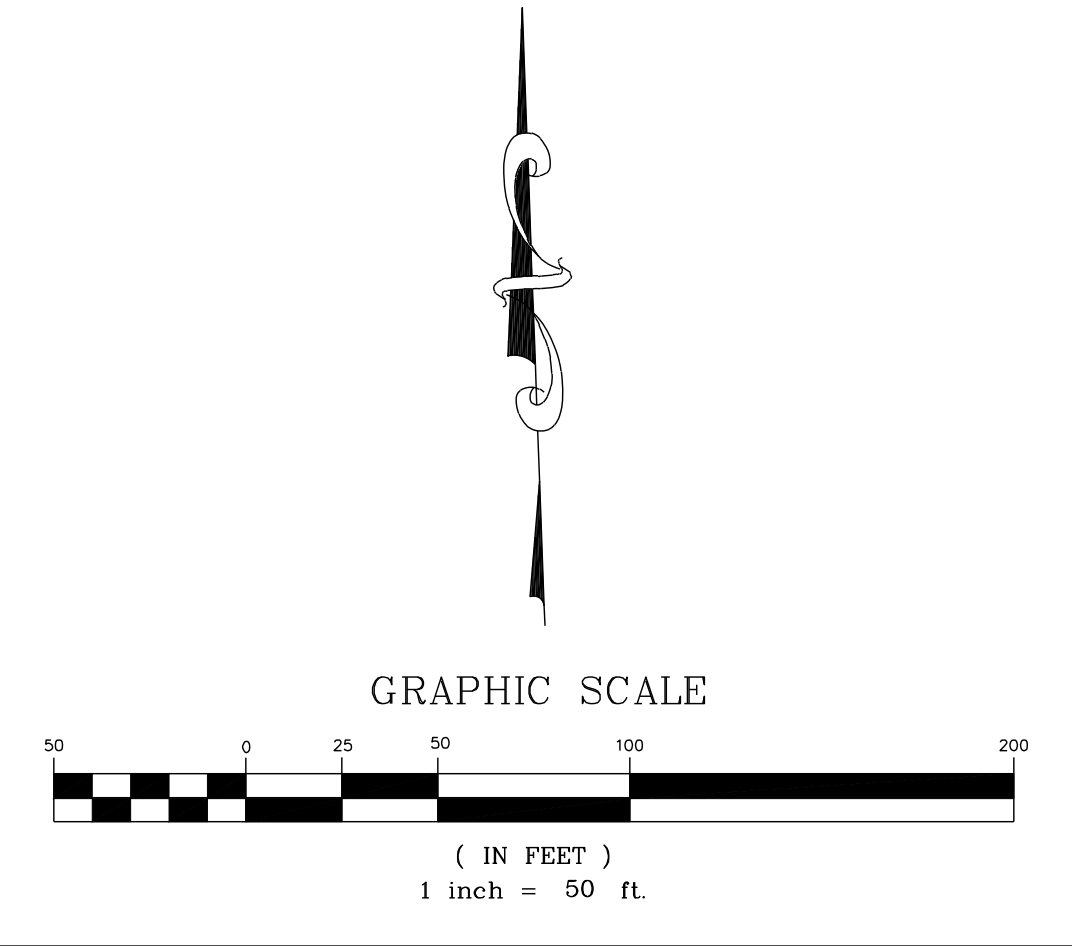
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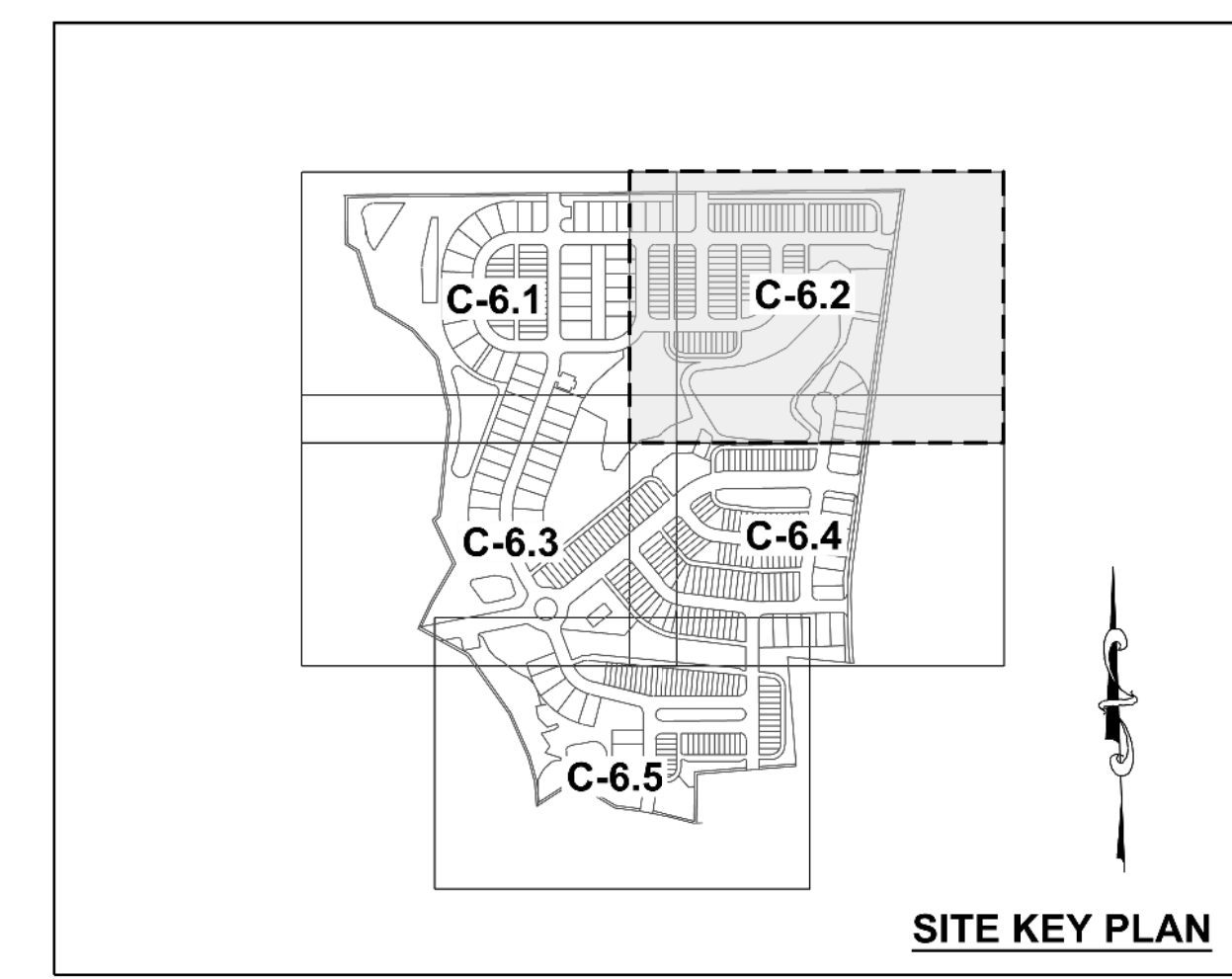
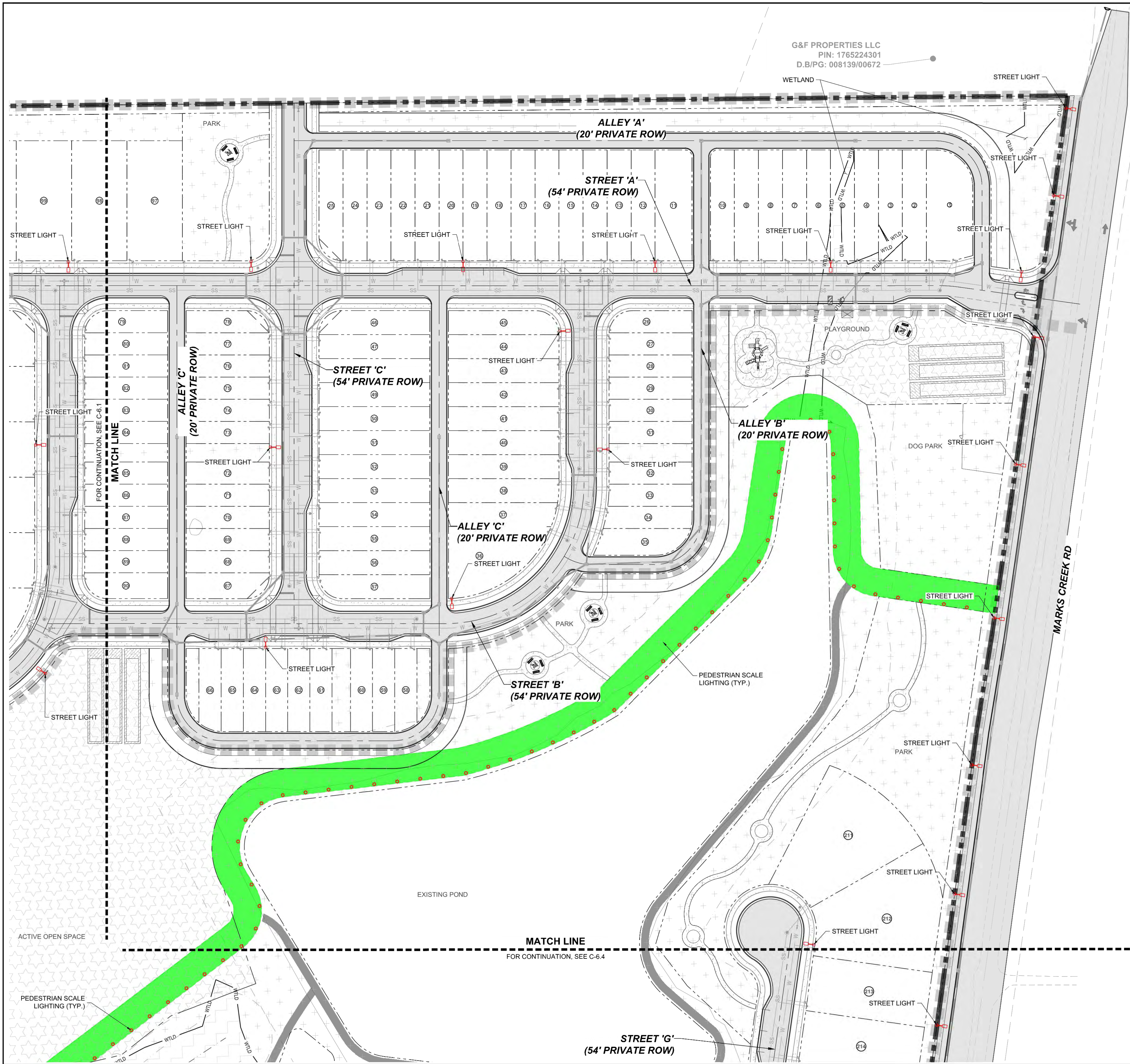
PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
**MASTER PLAN**  
**LIGHTING PLAN I**

DRAWING SHEET  
**C-6.1**  
31 OF 42



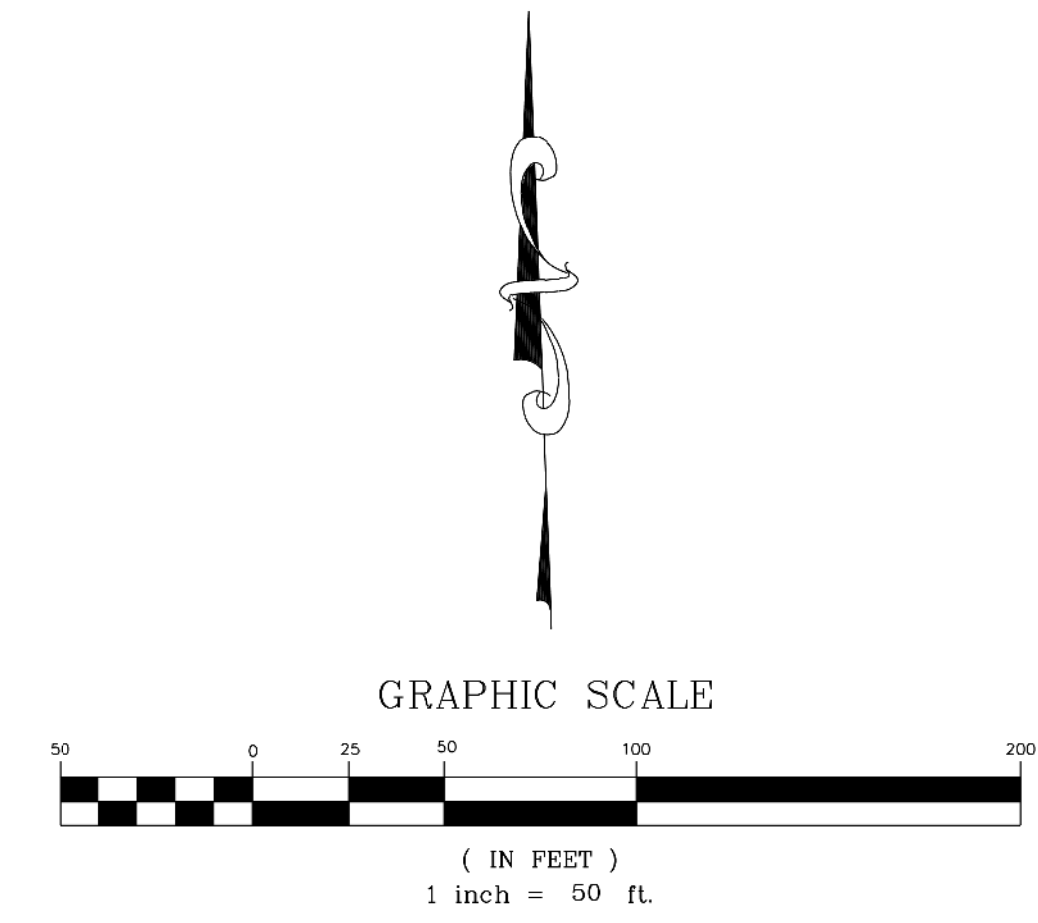
**LEGEND:**  
SEE SHEET C-6.0 FOR LEGEND.





**LEGEND:**  
SEE SHEET C-6.0 FOR LEGEND.

POOLE, JAMES H JR POOLE,  
JANIE MOORE  
PIN: 1765217896  
D.B/PG: 02-E/1128



NO.	REVISIONS	DATE	BY

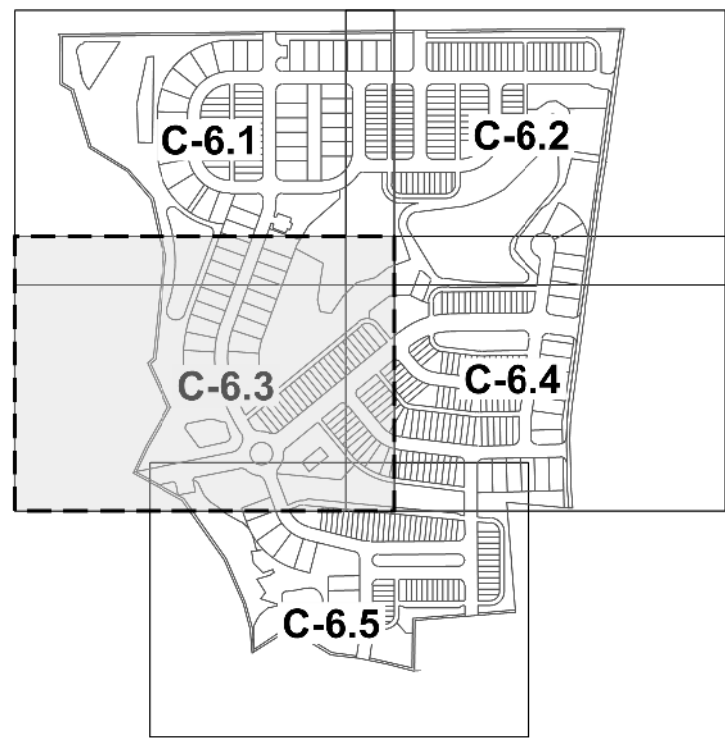


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STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	SRG	JWL

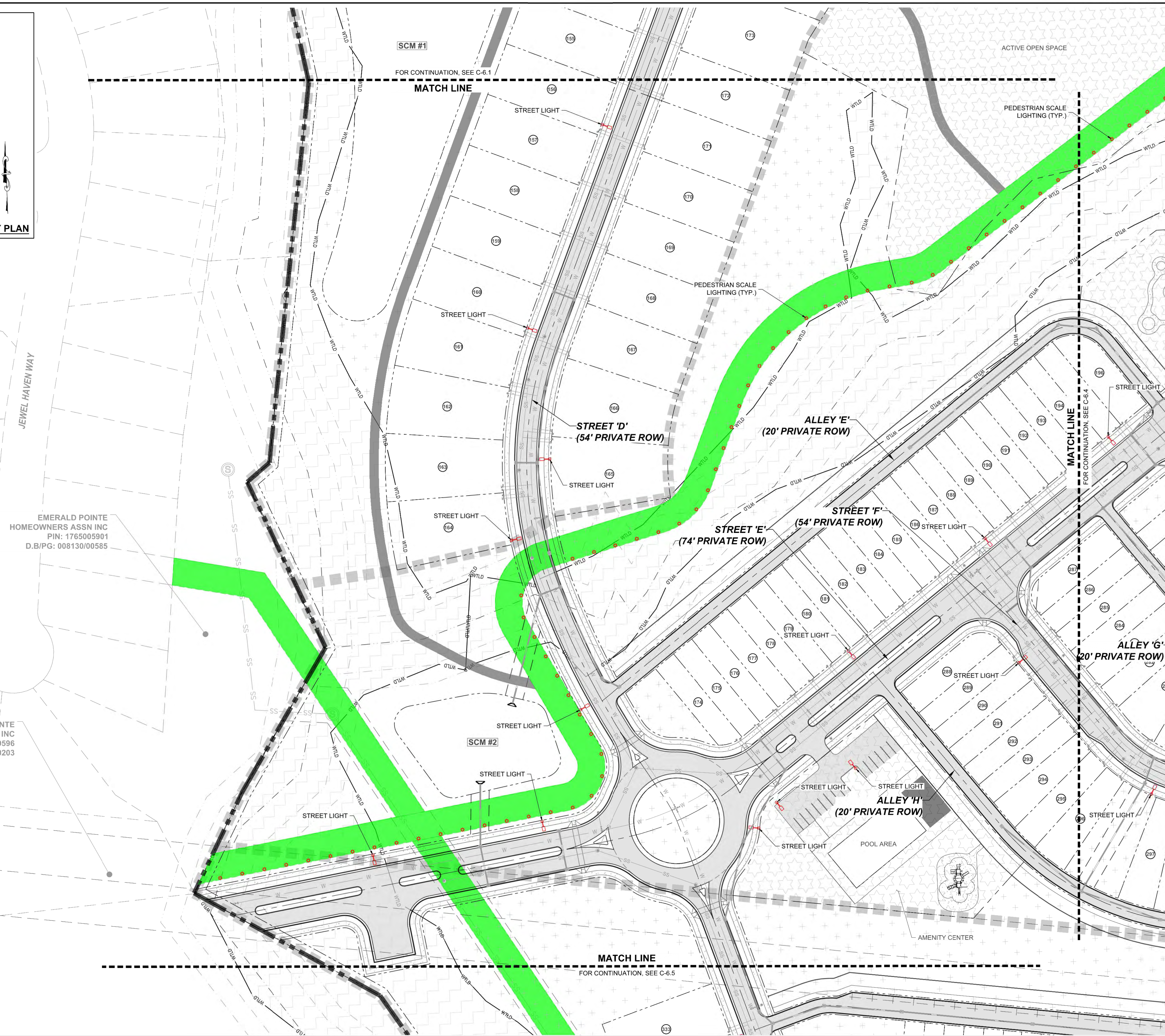
PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
LIGHTING PLAN II





SITE KEY PLAN

LEGEND:  
SEE SHEET C-6.0 FOR LEGEND.

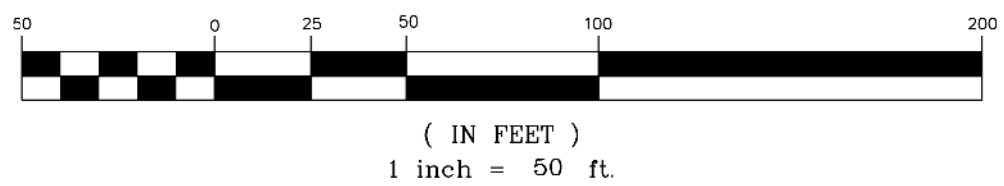


EMERALD POINTE HOMEOWNERS ASSN INC  
PIN: 1765005901  
D.B/P.G: 008130/00585

EMERALD POINTE HOMEOWNERS ASSN INC  
PIN: 1755909596  
D.B/P.G: 014540/00203



GRAPHIC SCALE



NO.	REVISIONS	DATE	BY



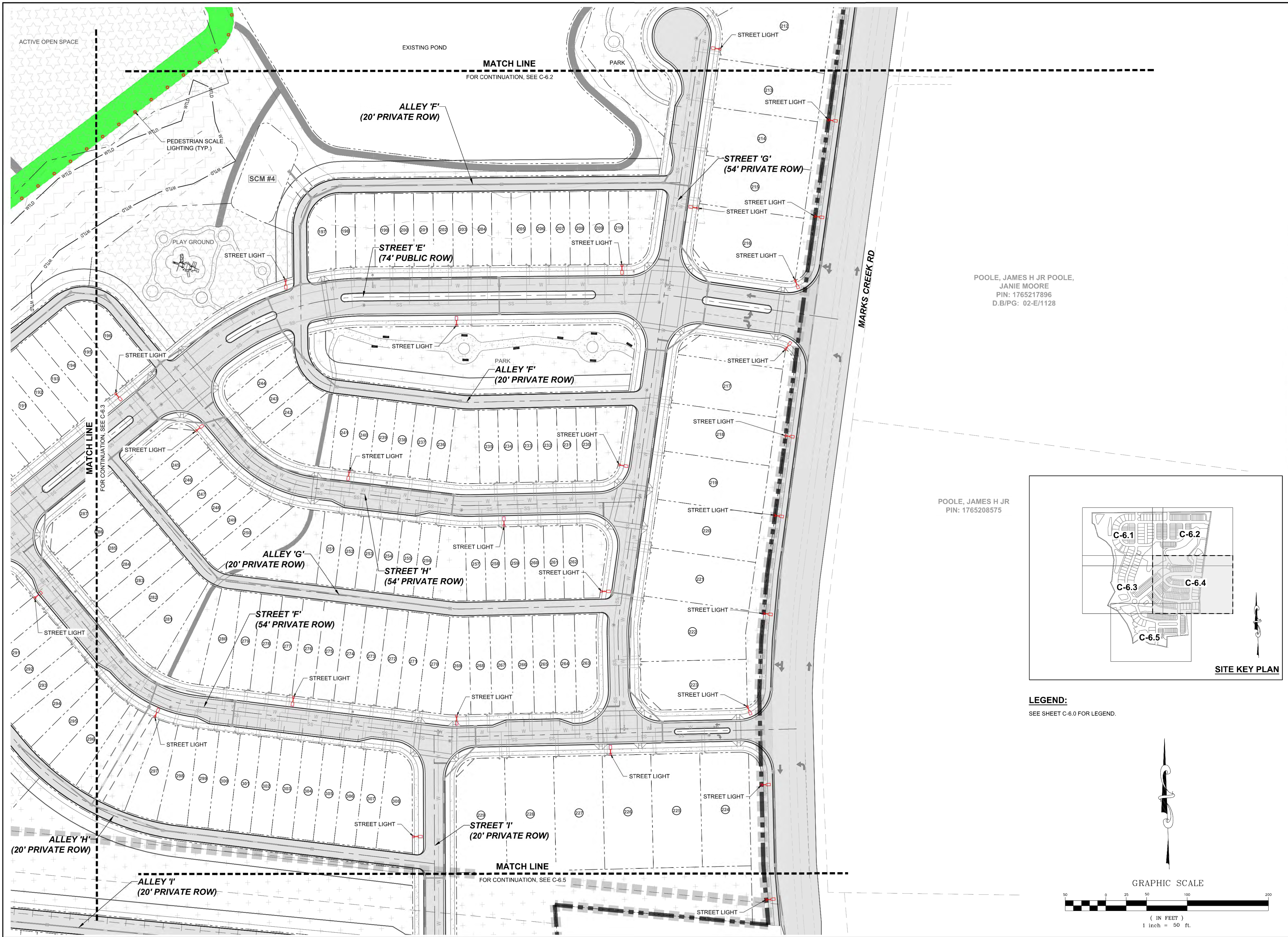
**STRONGROCK**  
ENGINEERING GROUP

STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	DRAWN BY SRC	CHECKED BY JWL
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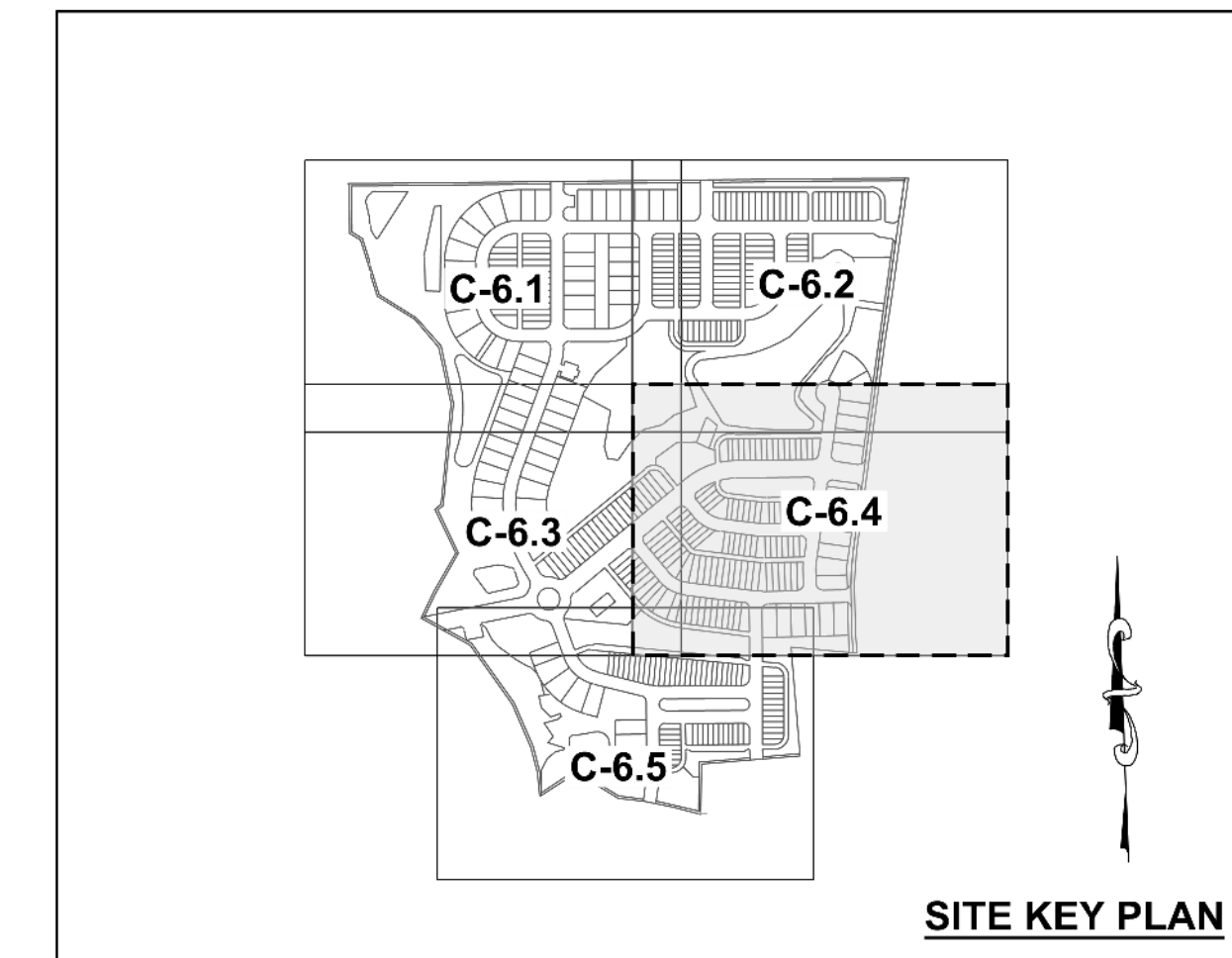
PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
LIGHTING PLAN III

DRAWING SHEET  
**C-6.3**  
33 OF 42

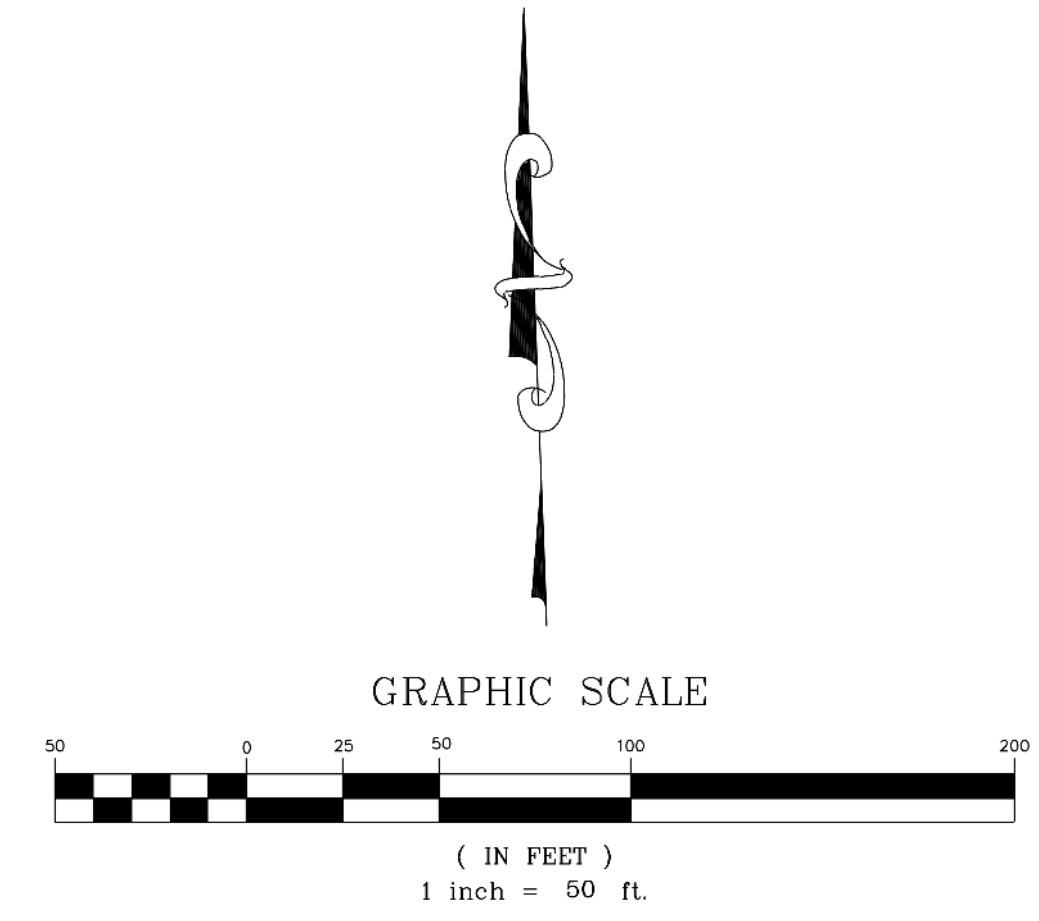


POOLE, JAMES H JR POOLE,  
 JANIE MOORE  
 PIN: 1765217896  
 D.B/PG: 02-E/1128

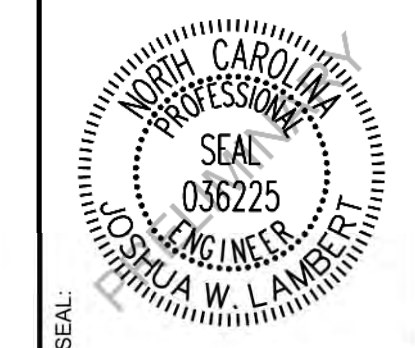
POOLE, JAMES H JR  
 PIN: 1765208575



**LEGEND:**  
 SEE SHEET C-6.0 FOR LEGEND.



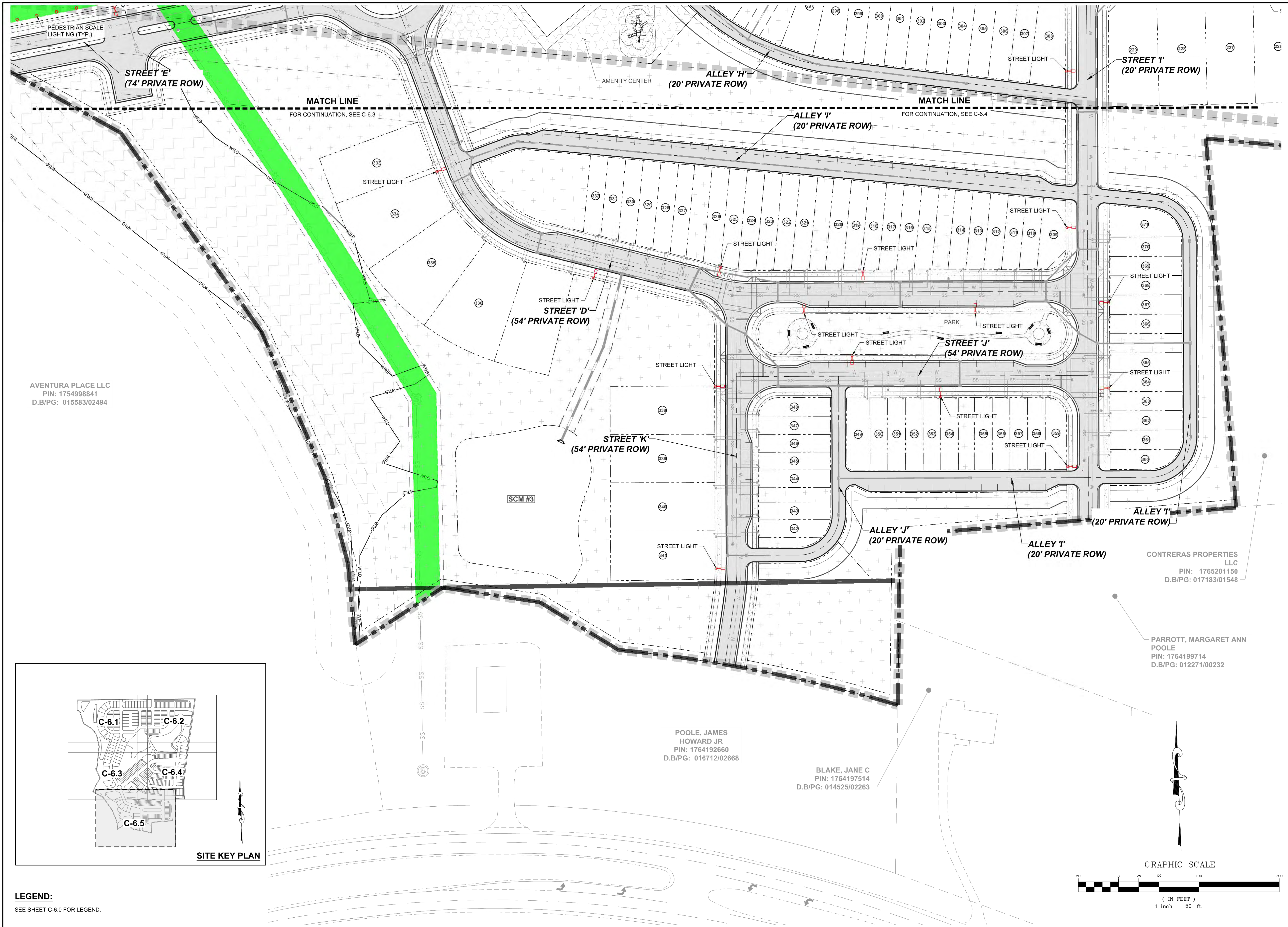
NO.	REVISIONS	DATE	BY



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 STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
 6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	SRG	JWL
			DRAWN BY		CHECKED BY

PRESERVE AT MARKS CREEK  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 MASTER PLAN  
 LIGHTING PLAN IV



AVENTURA PLACE LLC  
 PIN: 1754998841  
 D.B/PG: 015583/02494

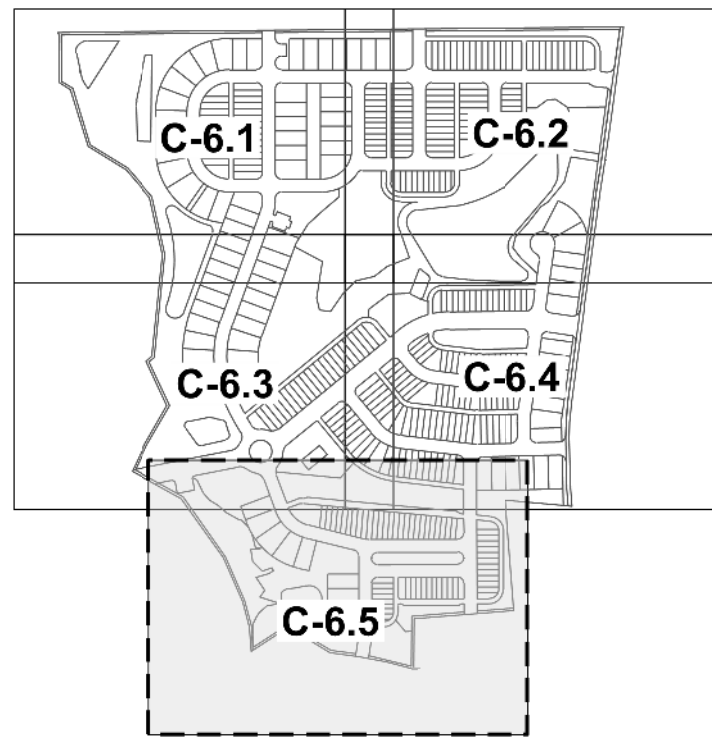
SCM #3

CONTRERAS PROPERTIES  
 LLC  
 PIN: 1765201150  
 D.B/PG: 017183/01548

PARROTT, MARGARET ANN  
 POOLE  
 PIN: 1764199714  
 D.B/PG: 012271/00232

POOLE, JAMES  
 HOWARD JR  
 PIN: 1764192660  
 D.B/PG: 016712/02668

BLAKE, JANE C  
 PIN: 1764197514  
 D.B/PG: 014525/02263



SITE KEY PLAN

**LEGEND:**  
 SEE SHEET C-6.0 FOR LEGEND.

NO.	REVISIONS	DATE	BY



**STRONGROCK**  
 ENGINEERING GROUP  
 STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
 8801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY	DRAWN BY	CHECKED BY
			JWL	SRG	JWL

PRESERVE AT MARKS CREEK  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 MASTER PLAN  
 LIGHTING PLAN V

DRAWING SHEET  
**C-6.5**

PAIR, HERBERT V TRUSTEE & PAIR, RACHEL H TRUSTEE  
PIN: 1765122816  
D.B./PG: 010412/01260

G&F PROPERTIES LLC  
PIN: 1765224301  
D.B./PG: 008139/00672

**LEGEND:**

- PHASE LINE
- EXISTING PROPERTY LINE
- ROADWAY CENTER LINE
- PROPOSED PROPERTY LINE
- PASSIVE AND PRESERVED OPEN SPACE
- ACTIVE OPEN SPACE

**SIGN LEGEND:**

1. ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.
 

SIGN	MUTCD STD.	SIZE
STOP	R1-1.3	30"x30"
25 MPH	R2-1	24"x30"
ROAD CLOSED	R11-2	48"x30"
STREET NAME	D3-1	VARIABLES"x12"
PEDESTRIAN CROSSING	W11-2	30"
PEDESTRIAN CROSSING	W16-7P	30"
YIELD SIGN	R1-2	30"x30"x30"
2. ALL SIGNS SHALL BE MOUNTED WITH 7-FT MIN. VERTICAL CLEARANCE TO THE BOTTOM OF THE SIGN ON 3-LB. GALV. STEEL U-CHANNEL POST SET IN 3-FT SIGN DEEP X 12-IN DIA. CONCRETE FOOTING. MUTCD STD. SIZE KNIGHTDALE AND/OR NCDOT PRIOR TO SIGN INSTALLATION.
3. ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY THE TOWN OF KNIGHTDALE.
4. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AS REQUIRED BY THE TOWN OF KNIGHTDALE, NCDOT STANDARDS AND SPECIFICATIONS.
5. THE TOWN OF KNIGHTDALE REQUIRES ALL REGULATORY PAVEMENT MARKINGS TO BE HI-VIS THERMOPLASTIC, EXCEPT FOR PARKING SPACE STRIPING WHICH MAY BE WHITE PAINT, PER STREET NAME D3-1 VARIATION"x12" DETAIL 4.06.

NO.	REVISIONS	DATE	BY



**STRONGROCK**  
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6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	DESIGNED BY	JWL	SRG	JWL
NOT FOR CONSTRUCTION	DRAWN BY	JWL	SRG	JWL
SCALE AS SHOWN	CHECKED BY	JWL	SRG	JWL

PRESERVE AT MARKS CREEK  
TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
OVERALL SIGNS & MARKINGS PLAN

DRAWING SHEET  
**C-7.0**  
36 OF 42



EMERALD POINTE HOMEOWNERS ASSN INC  
PIN: 1765005901  
D.B./PG: 008130/00585

EMERALD POINTE HOMEOWNERS ASSN INC  
PIN: 1755909596  
D.B./PG: 014540/00203

AVENTURA PLACE LLC  
PIN: 1754998841  
D.B./PG: 015583/02494

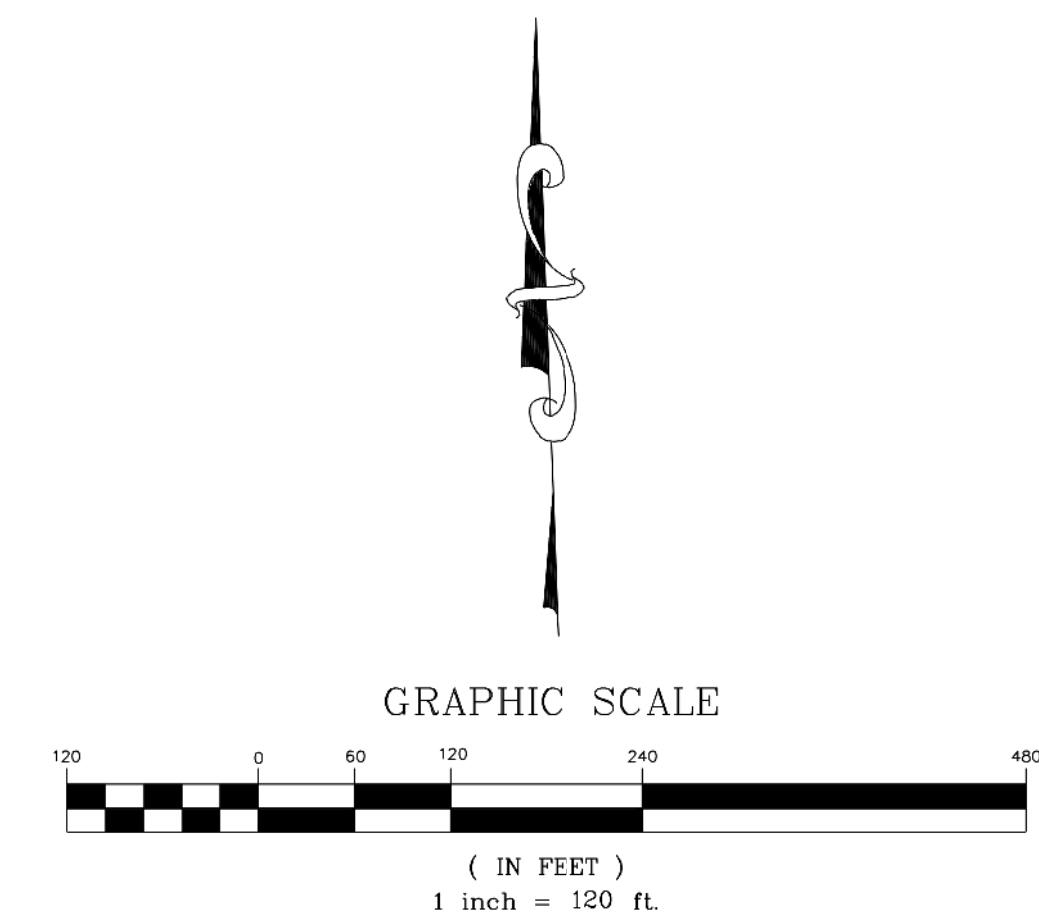
POOLE, JAMES H JR POOLE, JANIE MOORE  
PIN: 1765217896  
D.B./PG: 02-E/1128

POOLE, JAMES H JR  
PIN: 1765208575

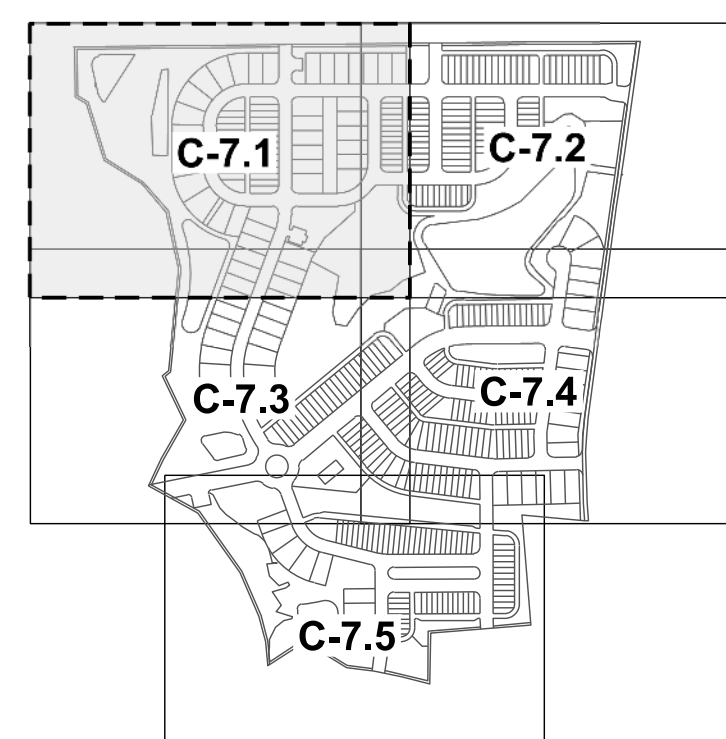
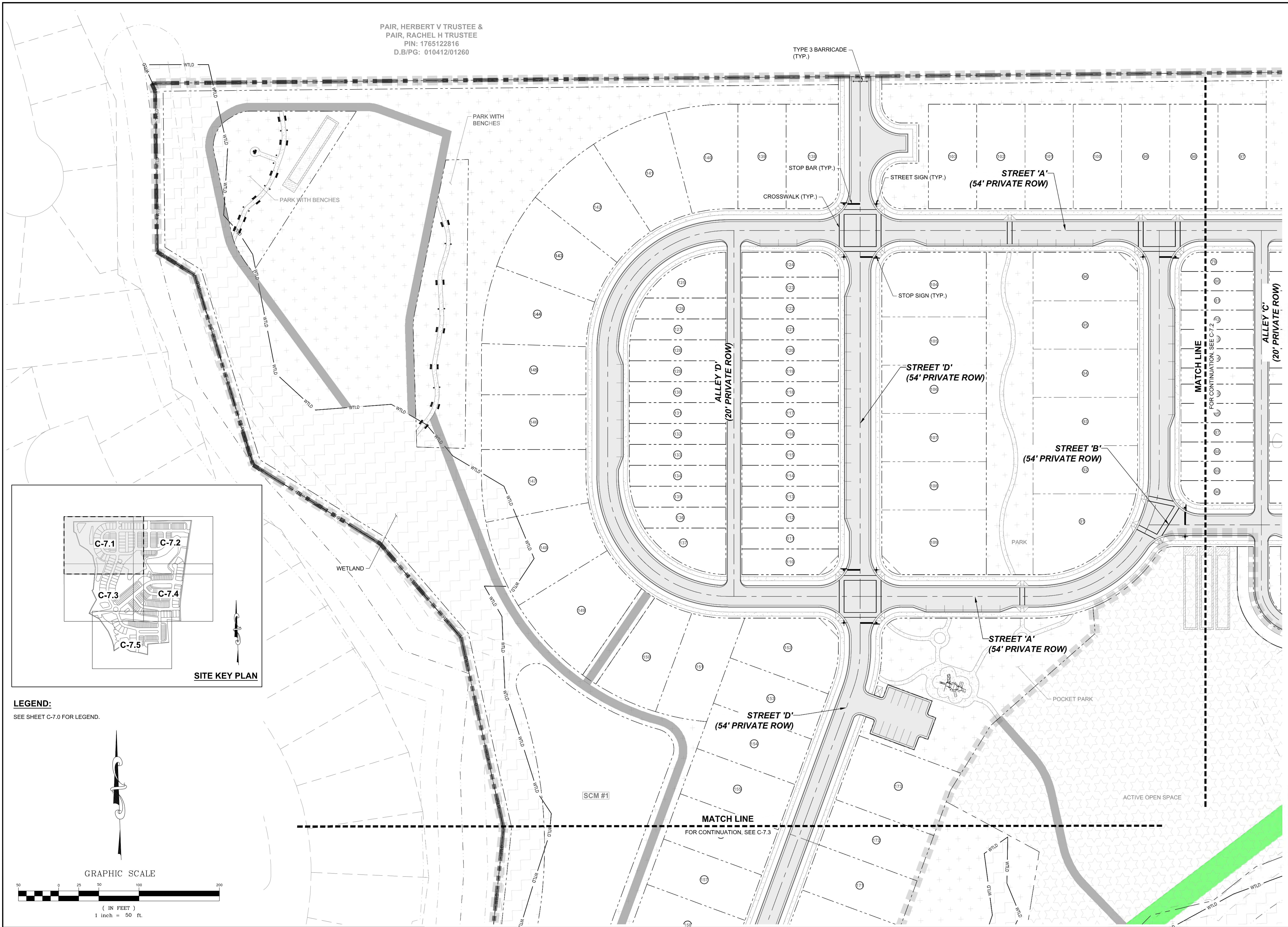
CONTRERAS PROPERTIES LLC  
PIN: 1765201150  
D.B./PG: 017183/01548

BLAKE, JANE C  
PIN: 1764197514  
D.B./PG: 014525/02263

PARROTT, MARGARET ANN POOLE  
PIN: 1764199714  
D.B./PG: 012271/00232



PAIR, HERBERT V TRUSTEE &  
PAIR, RACHEL H TRUSTEE  
PIN: 1765122816  
D.B/PG: 010412/01260

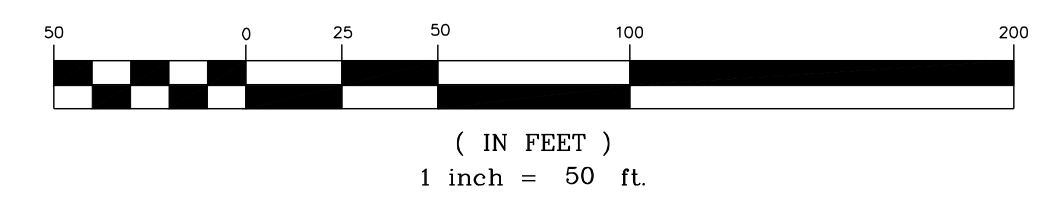


SITE KEY PLAN

LEGEND:  
SEE SHEET C-7.0 FOR LEGEND.



GRAPHIC SCALE



NO.	REVISIONS	DATE	BY

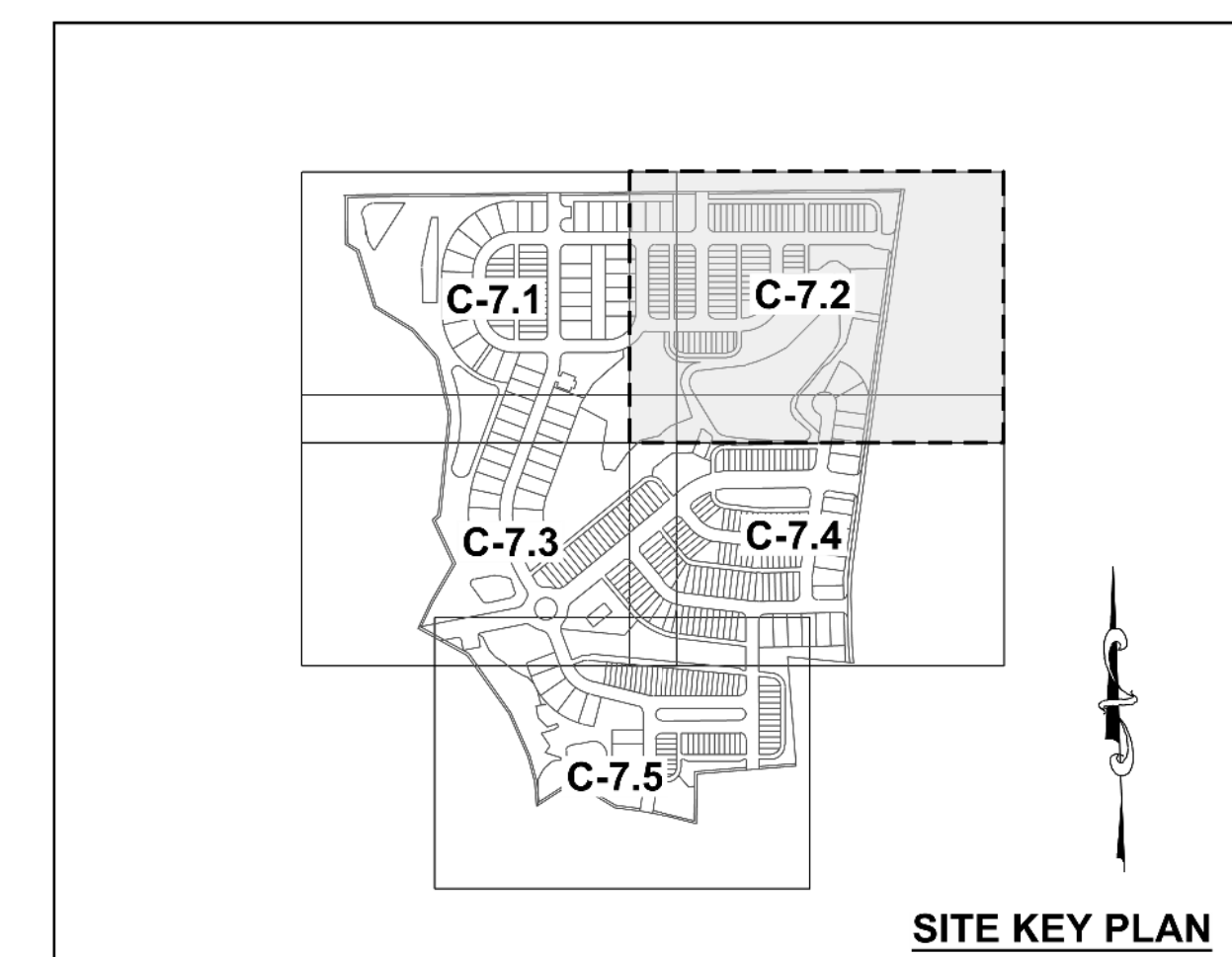
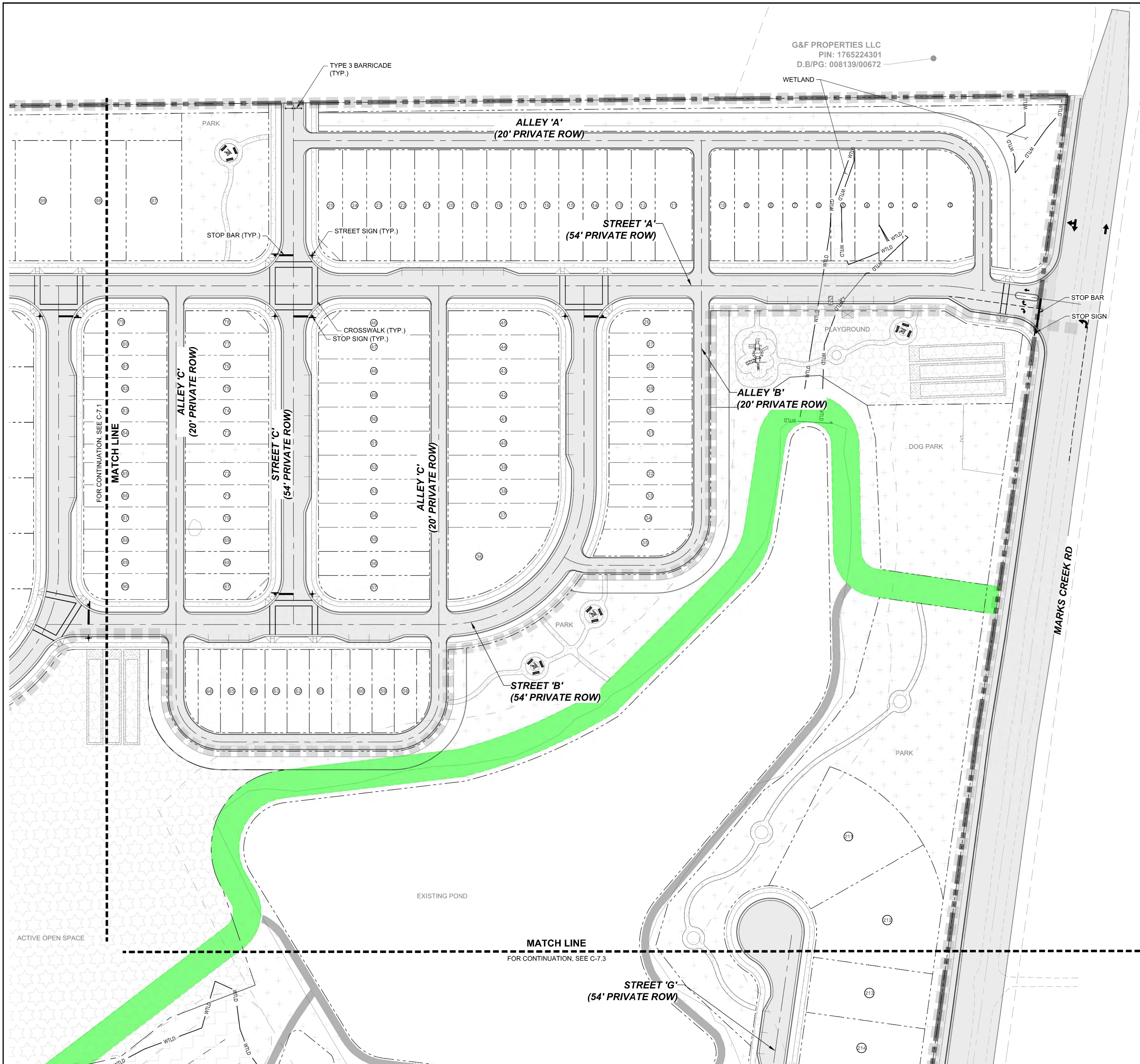


**STRONGROCK**  
ENGINEERING GROUP  
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	JWL
NOT FOR CONSTRUCTION	JWL
SCALE AS SHOWN	JWL
DESIGNED BY	JWL
DRAWN BY	SRG
CHECKED BY	JWL

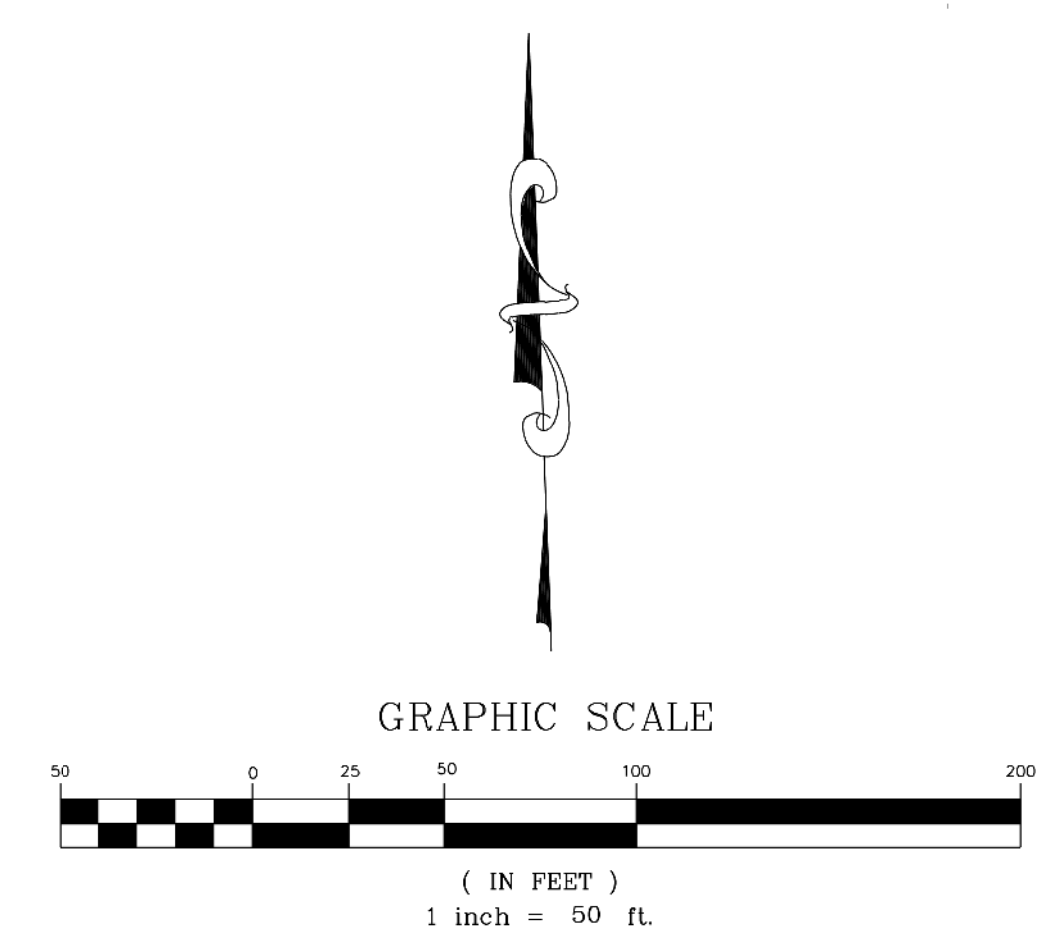
PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
SIGNS & MARKINGS PLAN I

DRAWING SHEET  
**C-7.1**

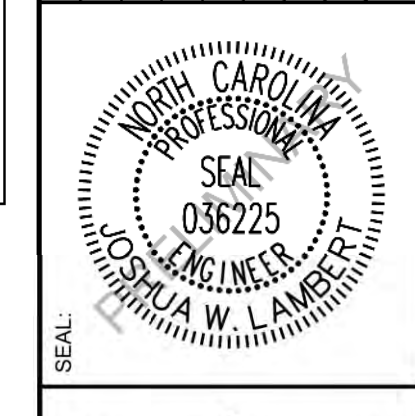


**LEGEND:**  
SEE SHEET C-7.0 FOR LEGEND.

POOLE, JAMES H JR POOLE,  
JANIE MOORE  
PIN: 1765217896  
D.B/PG: 02-E/1128



NO.	REVISIONS	DATE	BY

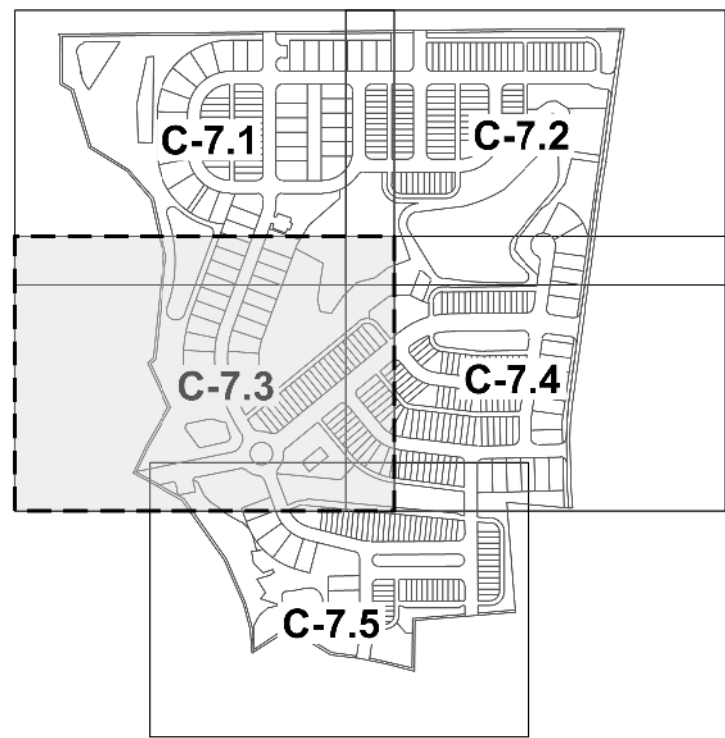


**STRONGROCK**  
ENGINEERING GROUP  
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	SRG	CHECKED BY JWL
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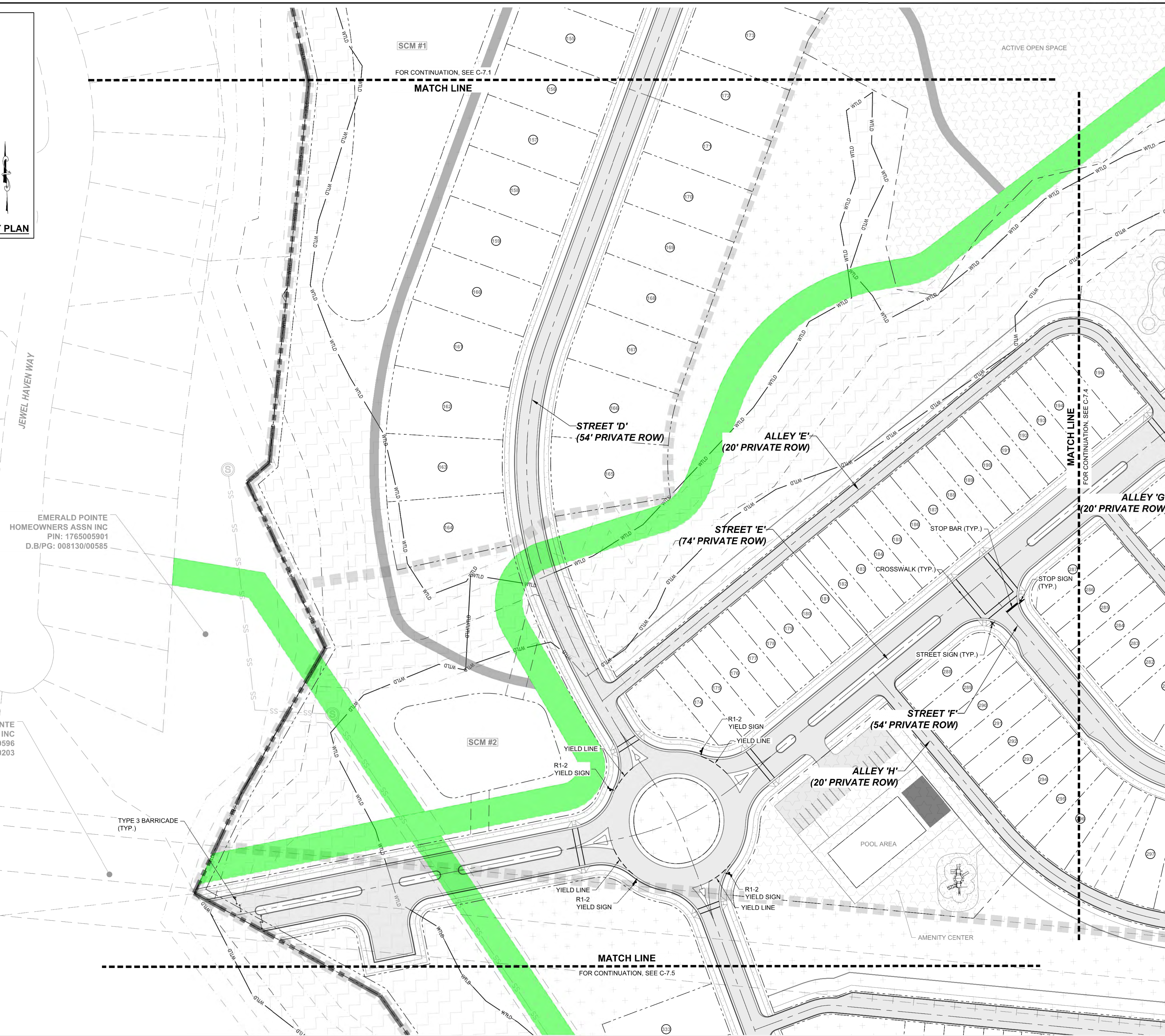
**PRESERVE AT MARKS CREEK**  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
**MASTER PLAN**  
**SIGNS & MARKINGS PLAN II**

**DRAWING SHEET**  
**C-7.2**



SITE KEY PLAN

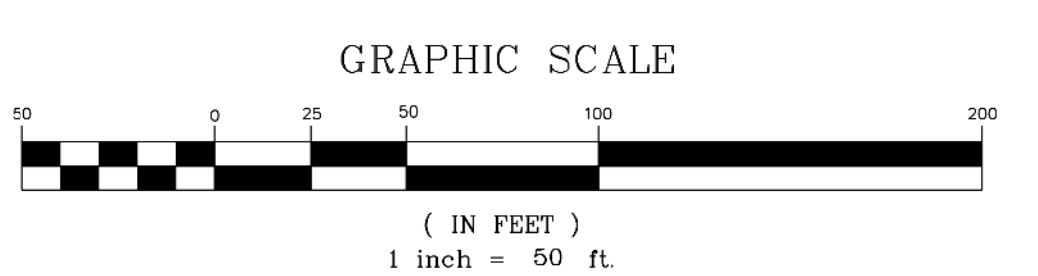
**LEGEND:**  
SEE SHEET C-7.0 FOR LEGEND.



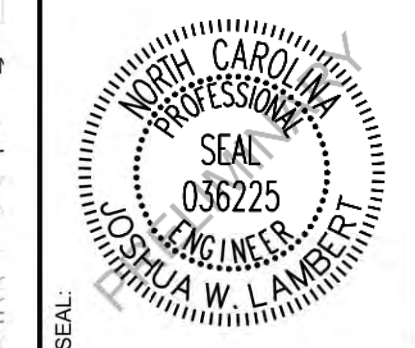
EMERALD POINT HOMEOWNERS ASSN INC  
PIN: 1765005901  
D.B/P.G: 008130/00585

EMERALD POINT HOMEOWNERS ASSN INC  
PIN: 1755909596  
D.B/P.G: 014540/00203

TYPE 3 BARRICADE (TYP.)



No.	REVISIONS	DATE	BY

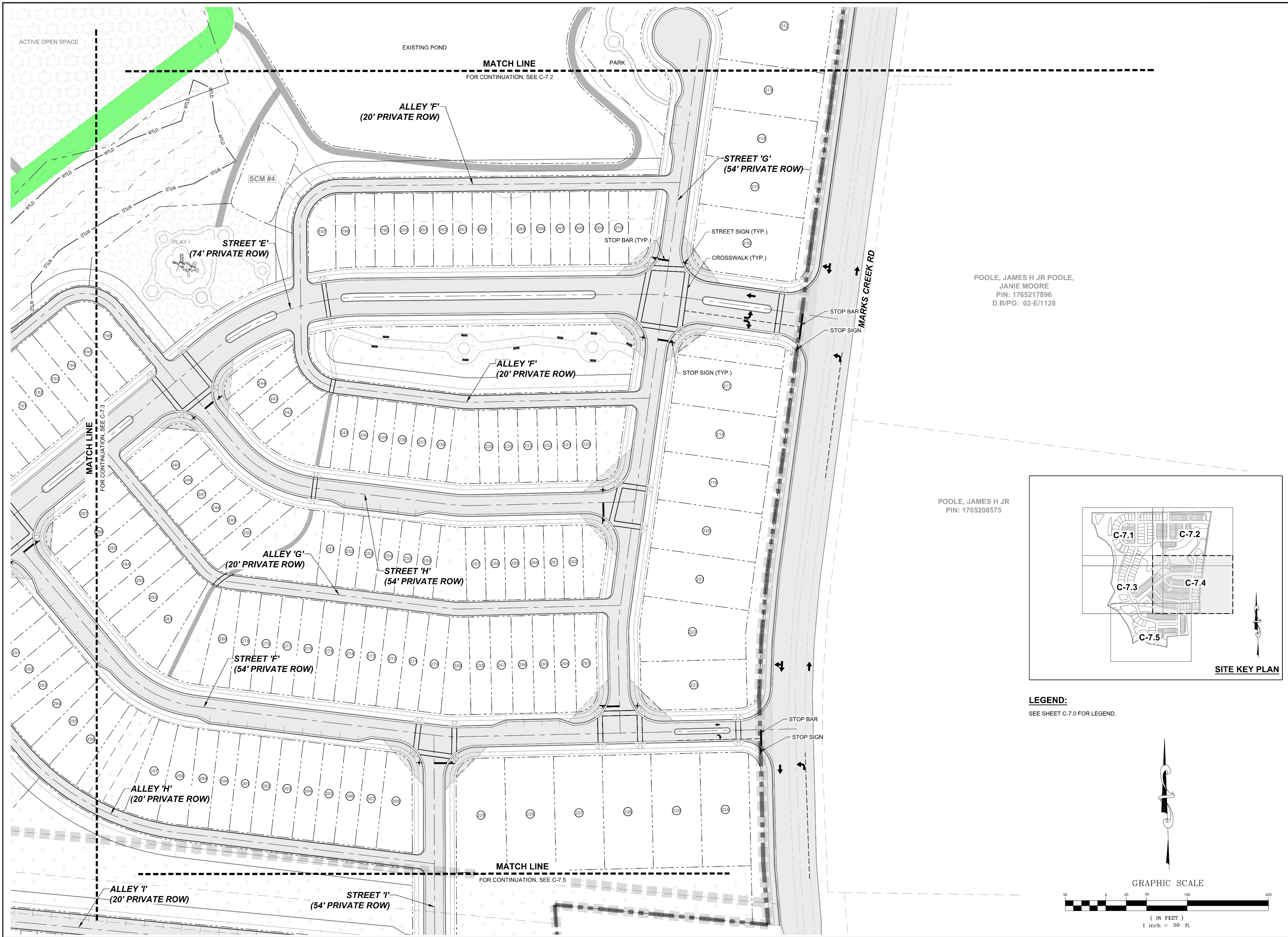


**STRONGROCK**  
ENGINEERING GROUP  
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	SRG	CHECKED BY JWL
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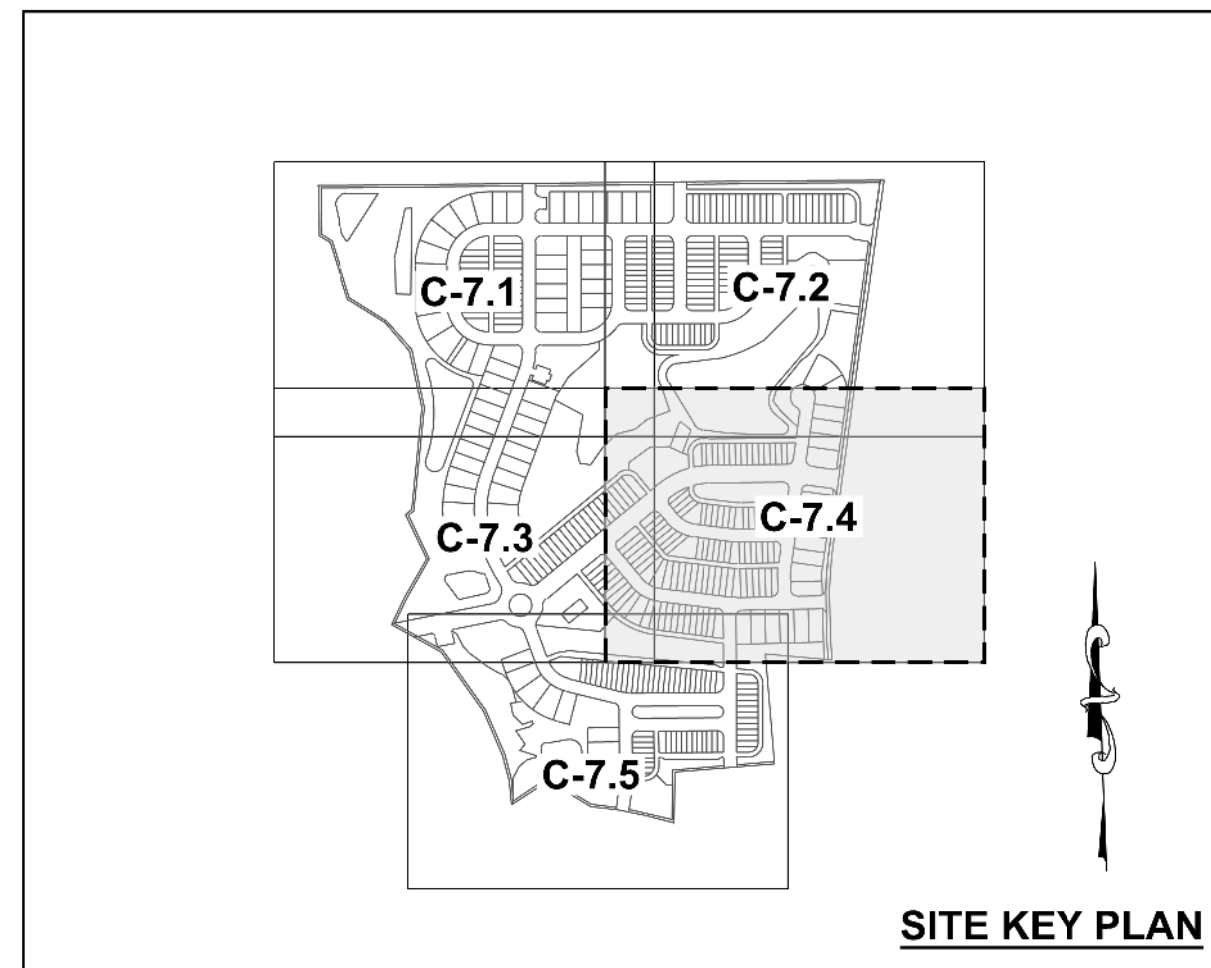
PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
SIGNS & MARKING PLAN III

DRAWING SHEET  
**C-7.3**  
39 OF 42

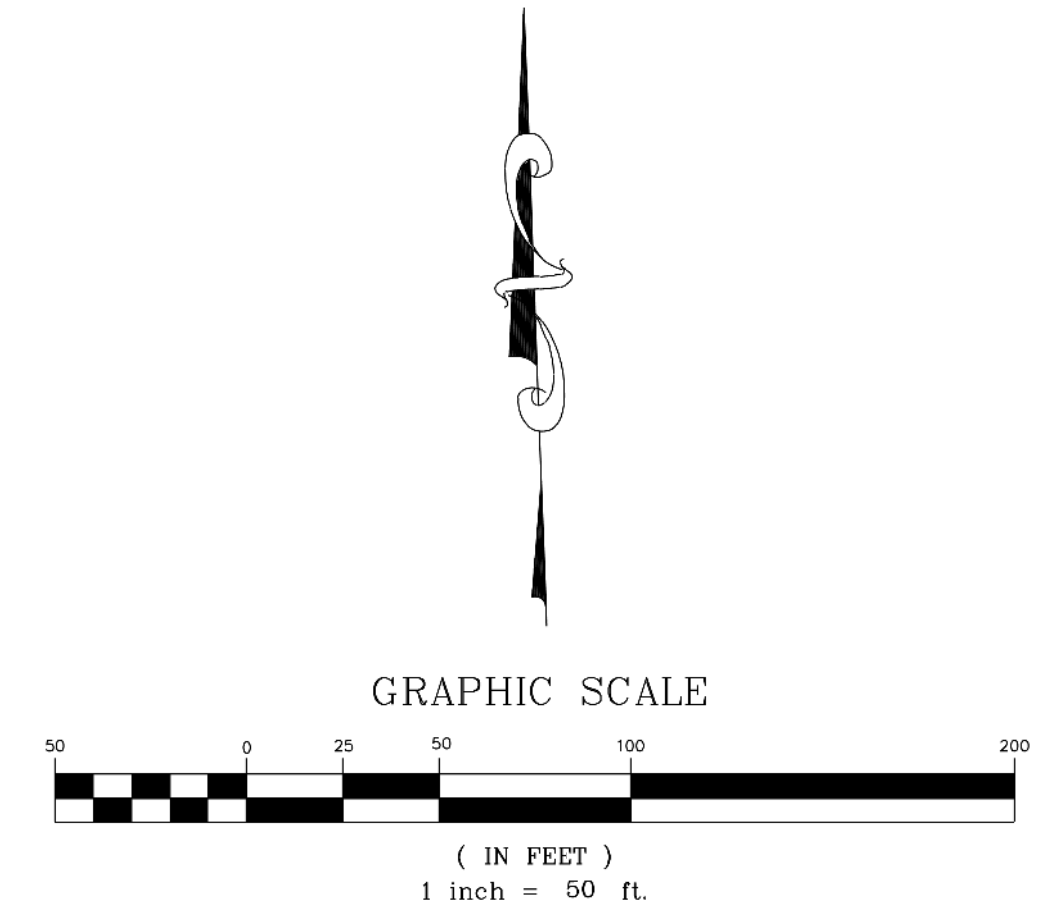


POOLE, JAMES H JR POOLE,  
 JANIE MOORE  
 PIN: 1765217896  
 D.B/PG: 02-E/1128

POOLE, JAMES H JR  
 PIN: 1765208575



**LEGEND:**  
 SEE SHEET C-7.0 FOR LEGEND.



NO.	REVISIONS	DATE	BY



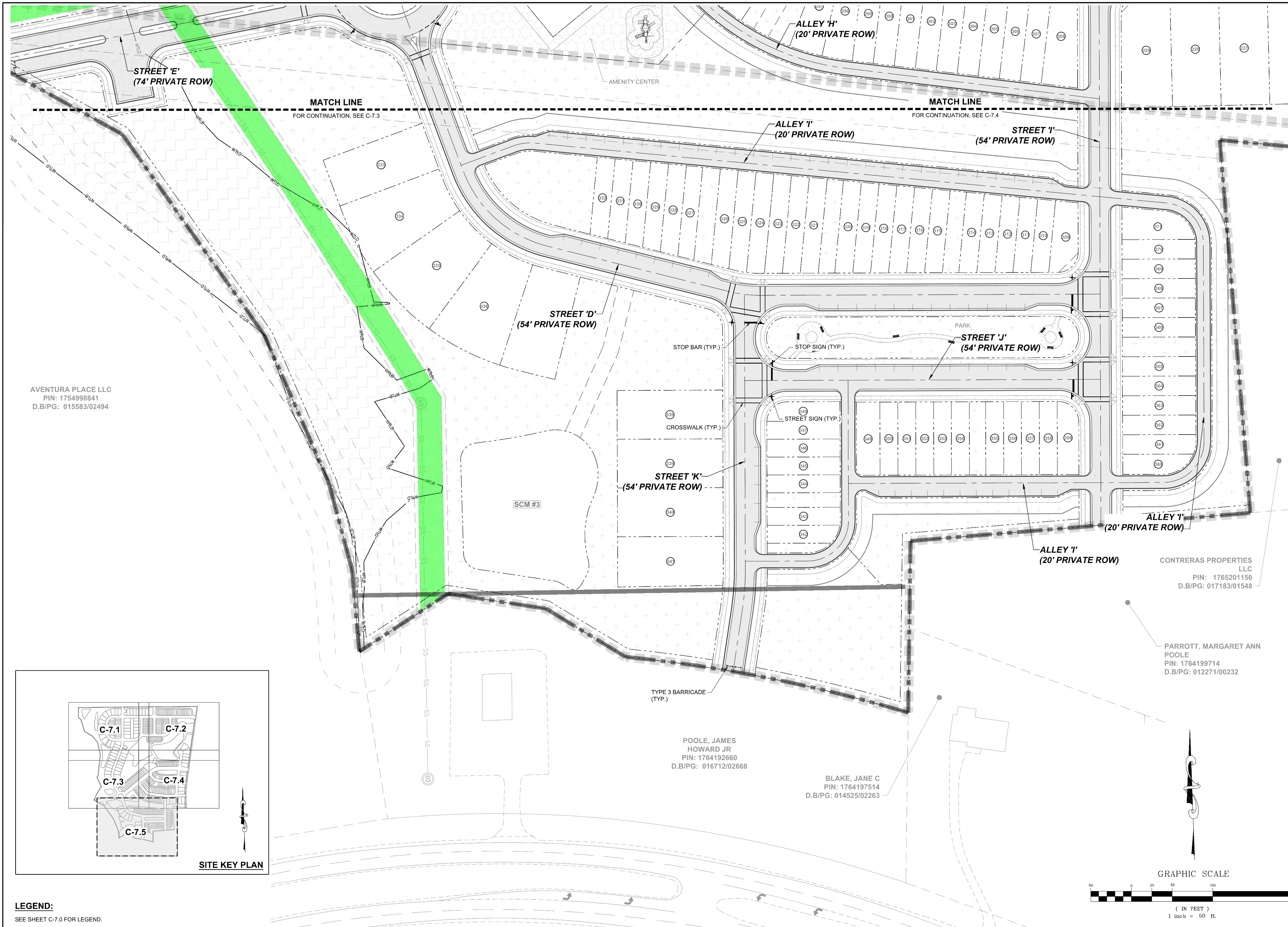
**STRONGROCK**  
 ENGINEERING GROUP  
 STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
 6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY	DRAWN BY	CHECKED BY
			JWL	JWL	JWL

PRESERVE AT MARKS CREEK  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 MASTER PLAN  
 SIGNS & MARKINGS PLAN IV

DRAWING SHEET  
**C-7.4**  
 40 OF 42





AVENTURA PLACE LLC  
 PIN: 1754998841  
 D.B/PG: 015583/02494

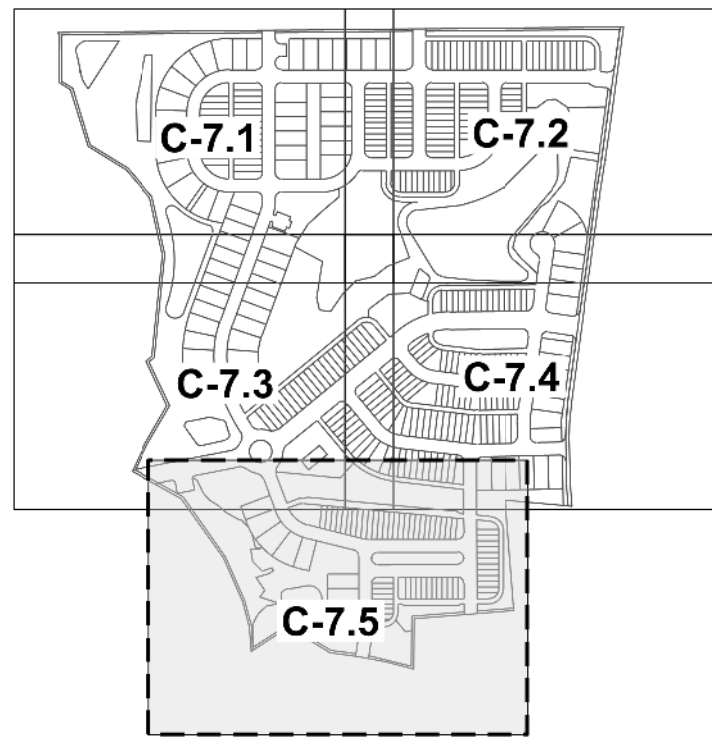
SCM #3

CONTRERAS PROPERTIES  
 LLC  
 PIN: 1765201150  
 D.B/PG: 017183/01548

PARROTT, MARGARET ANN  
 POOLE  
 PIN: 1764199714  
 D.B/PG: 012271/00232

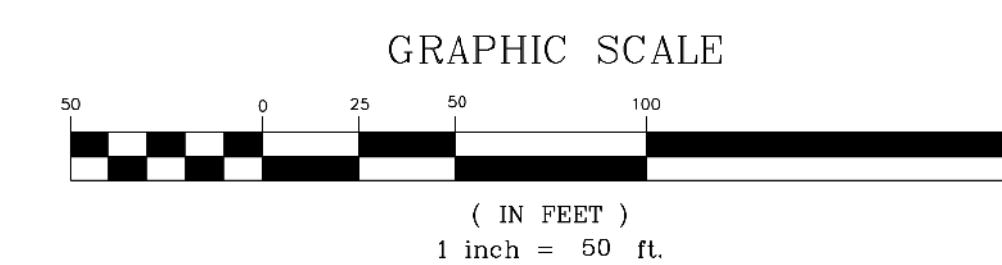
POOLE, JAMES  
 HOWARD JR  
 PIN: 1764192660  
 D.B/PG: 016712/02668

BLAKE, JANE C  
 PIN: 1764197514  
 D.B/PG: 014525/02263

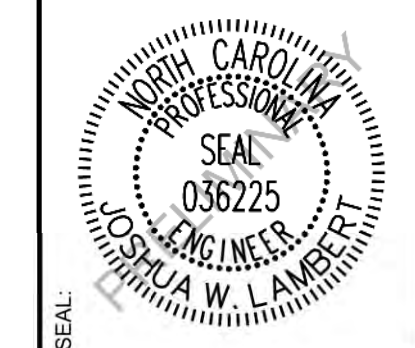


SITE KEY PLAN

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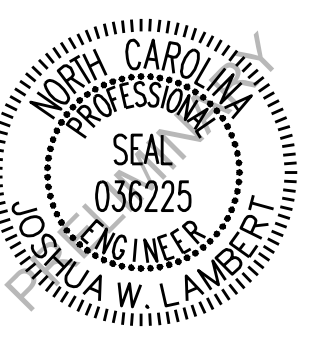
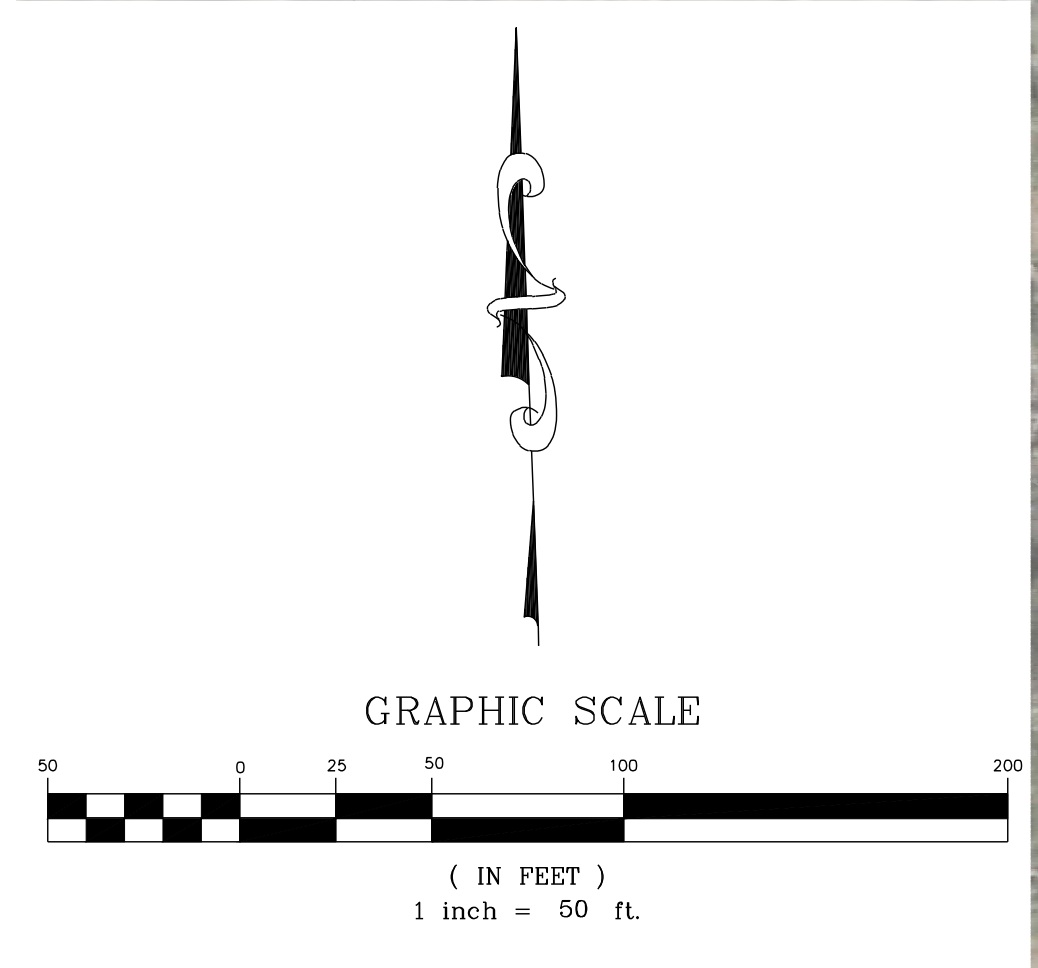


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 STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
 6801 FALLS OF NEUSE RD. SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY	DRAWN BY	CHECKED BY
			JWL	SRG	JWL

PRESERVE AT MARKS CREEK  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 MASTER PLAN  
 SIGNS & MARKINGS PLAN V

8



**STRONGROCK**  
 ENGINEERING GROUP  
 STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
 8801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	DESIGNED BY	JWL
NOT FOR CONSTRUCTION	DRAWN BY	SRG
SCALE AS SHOWN	CHECKED BY	JWL

PRESERVE AT MARKS CREEK  
 TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 MASTER PLAN  
 KNIGHTDALE BLVD ROADWAY  
 IMPROVEMENTS PLAN

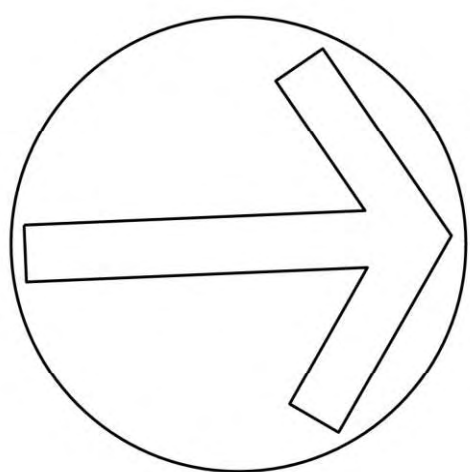
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NO.	REVISIONS	DATE	BY



KNIGHTDALE BLVD

MARKS CREEK RD



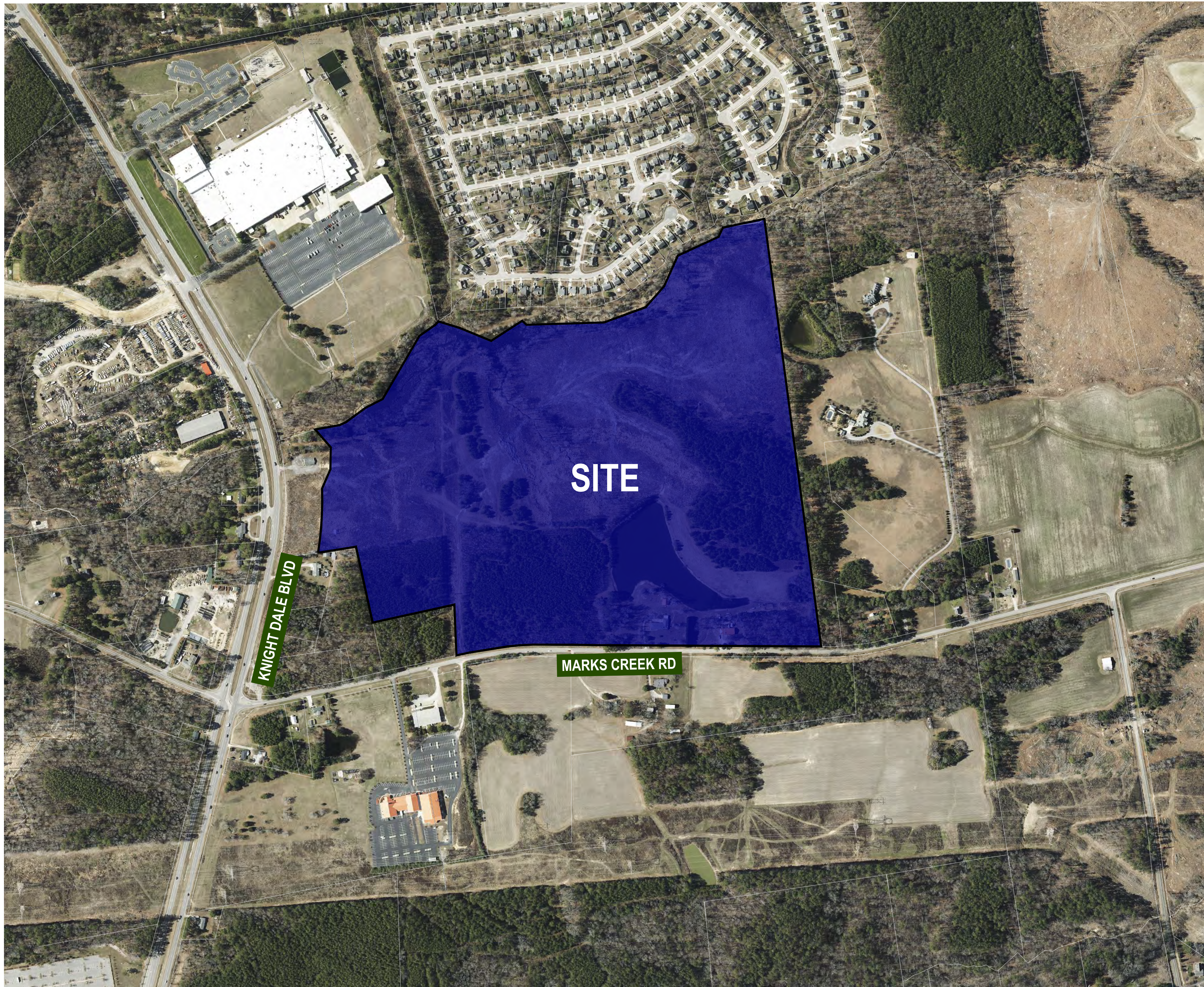
GRAPHIC SCALE



( IN FEET )  
1 inch = 120 ft.

**PRESERVE AT MARKS CREEK PUD**  
**ZMA-11-20**

**PRESERVE AT MARKS CREEK PUD**



**SITE DATA TABLE**

CIVIL ENGINEERING:	STRONG ROCK ENGINEERING GROUP, PLLC PO BOX 55992 RALEIGH, NC 27624 COMPANY LICENSE #: P-2166 CONTACT: JOSH LAMBERT, PE 984.200.1932 (O) JOSH@STRONGROCKGROUP.COM
OWNER:	JAMES AND RHONDA POOLE 7633 KNIGHTDALE BLVD STE 101 KNIGHTDALE, NC 27545 MICHAEL AND JESSICA BLAKE 2609 MARKS CREEK RD, KNIGHTDALE NC 27545 984-200-1932 (O) CONTACT: JOSH LAMBERT JOSH@STRONGROCKGROUP.COM
TAX ID:	1765-21-3753, 1765-21-2492, 1765-21-2260, 1765-10-9558, 1765-11-8263, 1765-11-2567
DEED REFERENCE	DB. 8139 PG. 672
TOWNSHIP:	KNIGHTDALE
ZONING:	RT
CURRENT USE:	SINGLE FAMILY/ WOODED LAND
PROPOSED USE:	RESIDENTIAL
PROPOSED ZONING:	GR3-PUD
TOTAL PROJECT AREA:	101.59 AC
PROPOSED DENSITY:	3.65 DU/AC
RIVER BASIN:	NEUSE

FRONT LOAD SINGLE FAMILY LOT STANDARDS:	MINIMUM LOT SIZE: 7,800 SF LOT WIDTH: 60' FRONT SETBACK: 10' SIDE SETBACK: 5' CORNER SETBACK: 10' REAR SETBACK: 25'
REAR LOAD SINGLE FAMILY LOT STANDARDS:	MINIMUM LOT SIZE: 3,600 SF LOT WIDTH: 26' FRONT SETBACK: 10' SIDE SETBACK: 3' CORNER SETBACK: 10' REAR SETBACK: 25'
REAR LOAD TOWNHOME LOT STANDARDS:	MINIMUM LOT SIZE: 2,160 SF LOT WIDTH: 24' FRONT SETBACK: 10' SIDE SETBACK: N/A CORNER SETBACK: N/A REAR SETBACK: 15'

DESCO INVESTMENT CO., INC. IS A NORTH CAROLINA BASED LAND DEVELOPMENT COMPANY WITH EXPERIENCE IN CREATING EXEMPLARY MASTER-PLANNED COMMUNITIES ACROSS THE STATE. DESCO IS SEASONED IN ALL ASPECTS OF THE LAND DEVELOPMENT PROCESS, FROM PLANNING AND ZONING, ENVIRONMENTAL ISSUES AND LOCAL ORDINANCES, TO THE CONSTRUCTION AND EVENTUAL LONG-TERM MAINTENANCE OF EACH UNIQUE NEIGHBORHOOD. DESCO PRIDES ITSELF ON THE PROFESSIONAL EXECUTION OF ALL THESE CRITICAL ASPECTS, AS WELL AS AN UNWAVERING COMMITMENT TO ACHIEVE AESTHETICALLY PLEASING NEIGHBORHOODS THAT ENHANCE THEIR RESPECTIVE COMMUNITIES AND MUNICIPALITIES. DESCO PARTNERS WITH LOCAL CUSTOM-HOME BUILDERS, MAJOR REGIONAL BUILDERS, AS WELL AS WITH SOME OF THE NATION'S LARGEST BUILDERS.

IT IS WITH THIS EXPERIENCE AND ATTENTION TO DETAIL THAT DESCO HAS PLANNED AN EXCITING DESTINATION COMMUNITY IN THE PRESERVE AT MARKS CREEK, A DEVELOPMENT THAT ACCENTUATES MANY OF THE GOALS OF THE KNIGHTDALE NEXT 2035 COMPREHENSIVE PLAN. THIS COMMUNITY PRESENTS A DISTINCTIVE ARRAY OF PRODUCT DIVERSITY WITH TRADITIONAL SINGLE-FAMILY HOMES, ALLEY-FED SINGLE-FAMILY HOMES, TWO-STORY ALLEY-FED TOWNHOMES AND THREE-STORY ALLEY-FED TOWNHOMES, BRINGING A LARGE VARIETY OF EXPANDED HOUSING OPTIONS TO THIS AREA OF KNIGHTDALE. THE USE OF ALLEY-FED PRODUCTS WILL GIVE THE COMMUNITY AN INVITING FRONT PORCH AMBIANCE THAT CAN BE ENJOYED BY RESIDENTS OF THE COMMUNITY WHILE ALSO PROVIDING AN ATTRACTIVE NEIGHBORHOOD FEEL FOR ANYONE DRIVING THROUGH. A MEDIAN-DIVIDED COLLECTOR STREET IS ALSO PROVIDED IN CONJUNCTION WITH THE COMPREHENSIVE PLAN, STUBBING TO THE WEST IN WHAT WILL IN THE FUTURE BE A LARGER NETWORK OF TRANSPORTATION INFRASTRUCTURE IN THE AREA. THE RESIDENTS WILL ENJOY AN ARRAY OF WELL-CONSIDERED AMENITIES, SUCH AS, AN INVITING POOL AND RECREATION AREA, POCKETS PARKS WITH FAMILY-FRIENDLY FEATURES, DOG PARKS, A MEDITATION GARDEN AND BOCCE COURTS.

AFTER CAREFUL CONSIDERATION, THE EXISTING POND HAS BEEN INCORPORATED INTO THE COMMUNITY DESIGN AND WILL BE ENHANCED WITH A WALKING TRAIL AND A LIGHTED FOUNTAIN FOR THE ENJOYMENT OF ALL. TRAILS WILL ALSO BE INCLUDED ALONG MARKS AND WILL TIE INTO ALL THE SIDEWALKS AND POND TRAIL AS WELL AS A PROPOSED PUBLIC GREENWAY EASEMENT THAT IS CONTEMPLATED WITHIN THE COMPREHENSIVE PLAN, LINKING THE GREAT NEIGHBORHOODS OF KNIGHTDALE WITH THE PUBLIC PARKS AND RECREATIONAL OPPORTUNITIES. THUS, THE TREMENDOUS NATURAL FEATURES CURRENTLY PRESENT ON THE SITE WILL NOT ONLY BE PRESERVED BUT ALSO ACCENTED AND ENHANCED BY ADDITIONAL PROGRAMMED OPEN SPACE TO BENEFIT THE COMMUNITY.

THE PRESERVE AT MARKS CREEK, AT ITS VERY ESSENCE, WILL BE A WALKABLE NEIGHBORHOOD IN WHICH FAMILIES CAN RELAX AND ENJOY THE MANY AMENITIES AND THOUGHTFUL DESIGN. THE PRESERVE AT MARKS CREEK WILL BE A CHARMING ADDITION TO THE VIBRANT KNIGHTDALE COMMUNITY.

# COMPREHENSIVE PLAN CONSISTENCY STATEMENT AND FINDINGS OF FACT

THE PRESERVE AT MARKS CREEK ACCENTUATES FACETS OF MANY OF THE GUIDING PRINCIPLES OF THE KNIGHTDALENEXT 2035 COMPREHENSIVE PLAN, AS WELL AS ADDRESSING UNIFIED DEVELOPMENT ORDINANCE FINDINGS OF FACT INCLUDING:

## 1. GREAT NEIGHBORHOOD AND EXPANDED HOME CHOICES

THE COMPREHENSIVE PLAN SEEKS TO CREATE POLICIES THAT CREATE EXPANDED HOUSING CHOICES, STATING “NEW NEIGHBORHOODS SHOULD MIX TWO OR MORE HOUSING CHOICES INTO ONE COMMUNITY.” THE PRESERVE AT MARKS CREEK PRESENTS A DISTINCTIVE ARRAY OF PRODUCT DIVERSITY WITH TRADITIONAL SINGLE-FAMILY HOMES, ALLEY-FED SINGLE-FAMILY HOMES, TWO-STORY ALLEY-FED TOWNHOMES AND THREE-STORY ALLEY-FED TOWNHOMES, BRINGING A LARGE VARIETY OF EXPANDED HOUSING OPTIONS TO THIS AREA OF KNIGHTDALE. THE USE OF ALLEY-FED PRODUCTS WILL GIVE THE COMMUNITY AN INVITING FRONT PORCH AMBIANCE THAT CAN BE ENJOYED BY RESIDENTS OF THE COMMUNITY WHILE ALSO PROVIDING AN ATTRACTIVE NEIGHBORHOOD FEEL FOR ANYONE DRIVING THROUGH.

THIS COMMUNITY ALSO FITS WITHIN THE MIXED DENSITY NEIGHBORHOOD DESIGNATION FOR THE PARCELS AS INDICATED IN THE GROWTH AND CONSERVATION MAP. AS NOTED IN THE COMPREHENSIVE PLAN, MIXED DENSITY NEIGHBORHOODS SHOULD HAVE HOUSING “ORIENTED TO THE INTERIOR OF THE SITE AND ARE TYPICALLY BUFFERED FROM SURROUNDING DEVELOPMENT BY TRANSITIONAL USES, PRESERVED OPEN SPACE, OR LANDSCAPED AREAS.” FURTHER, COMMUNAL OPEN SPACES AND PRESERVED AREAS THROUGHOUT THE COMMUNITY ARE ENCOURAGED BY THE PLAN. THE DESIGN OF THE PRESERVE AT MARKS CREEK ACHIEVES THESE GOALS BY ORIENTING MUCH OF THE DEVELOPMENT TO THE INTERIOR OF THE SITE WHILE ALSO PROVIDING FOR A MINIMUM OF 20’ BUFFERS ALONG ALL PROPERTY LINES, ALTHOUGH MANY TRANSITIONAL BUFFERS ARE MUCH WIDER DUE TO THE PRESENT OF NATURAL FEATURES SUCH AS STREAMS, TREE STANDS, AND WETLANDS. THE TREMENDOUS NATURAL FEATURES CURRENTLY PRESENT ON THE SITE WILL NOT ONLY BE PRESERVED BUT ALSO ACCENTED AND ENHANCED BY ADDITIONAL PROGRAMMED OPEN SPACE PLACED THROUGHOUT TO BENEFIT THE COMMUNITY.

## 2. NATURAL ENVIRONMENT

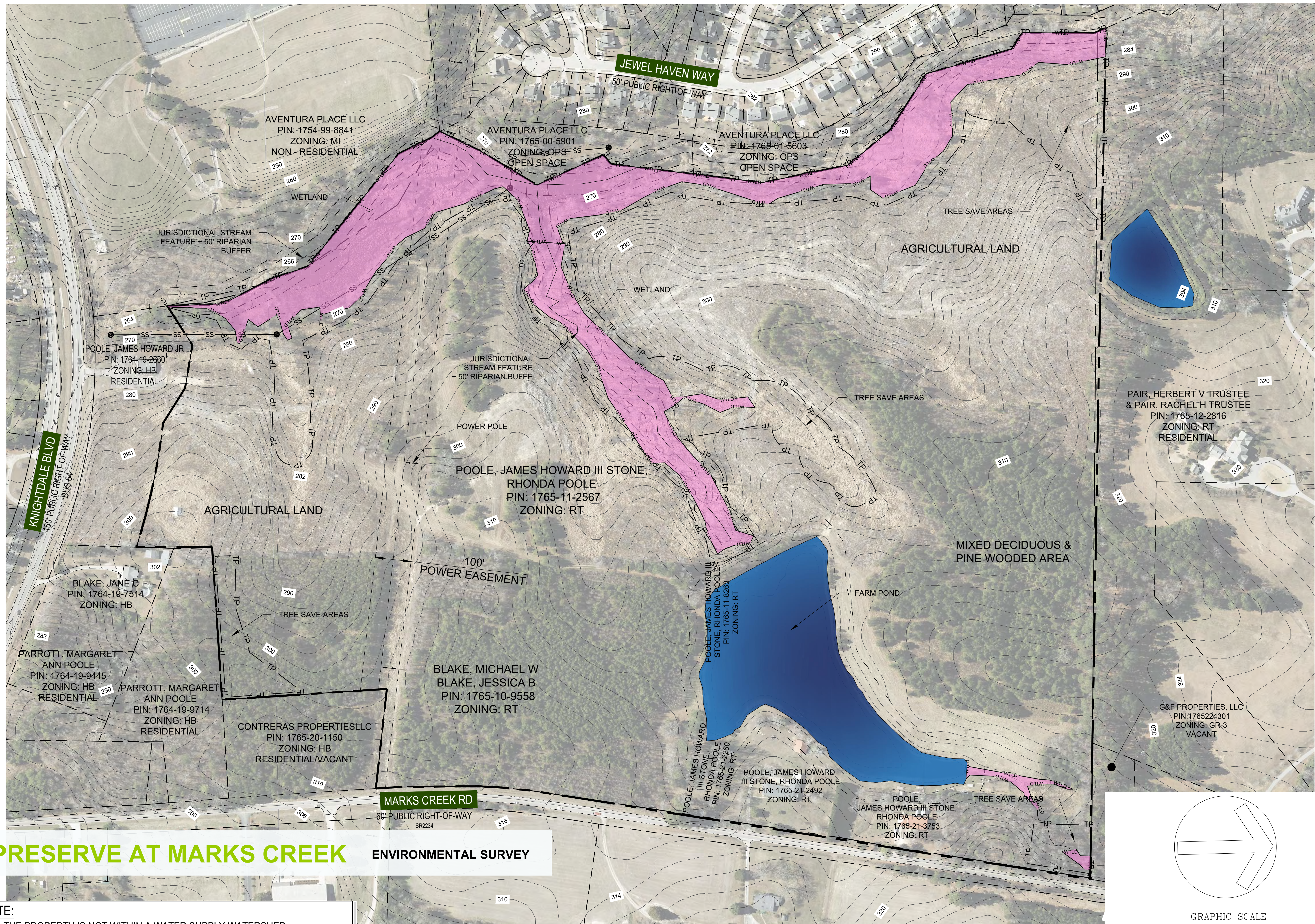
THE COMPREHENSIVE PLAN SEEKS TO “PROMOTE AND EXPAND OPPORTUNITIES FOR PEOPLE TO EXPERIENCE NATURAL SETTINGS IN KNIGHTDALE”, AS WELL AS PROVIDE PROTECTION FOR THE TOWN’S NATURAL RESOURCES. THE PRESERVE AT MARKS CREEK PROPOSES TO PRESERVE AND AT TIMES ENHANCE, THROUGH MEANS OF ACCESSIBLE TRAILS AND BOARDWALKS, THE NATURAL STREAM FEATURES AND WETLAND FEATURES ON THE PROPERTY. THE EXISTING FARM POND, WHICH HAS BEEN DELINEATED AS A NON-JURISDICTIONAL POND, WILL REMAIN IN IT’S CURRENT FORM WITH TRAILS AND A PROPOSED GREENWAY EASEMENT ALLOWING THE COMMUNITY AT LARGE TO ENJOY IT’S NATURAL BEAUTY.

## 3. PARKS AND RECREATION

THE COMPREHENSIVE PLAN AIMS TO PROMOTE THE ESTABLISHMENT OF GREEN SPACES AND PARKS WITHIN THE KNIGHTDALE COMMUNITY. THE PRESERVE AT MARKS CREEK OFFERS SEVERAL OPPORTUNITIES FOR RESIDENTS TO ENJOY ACTIVE AND PASSIVE OPEN SPACES SUCH AS THE PROPOSED AMENITY CENTER WITH AN INVITING POOL AND CABANA, POCKET PARKS WITH FAMILY-FRIENDLY FEATURES SUCH AS PLAYGROUNDS, DOG PARKS, A MEDITATION GARDEN, AND BOCCIE COURTS. ADDITIONALLY, AN EXTENSIVE NETWORK OF TRAILS WILL PROVIDE TO NATURAL AREAS ON THE SITE AS WELL AS CONNECTING TO THE PROPOSED PUBLIC GREENWAYS CONTEMPLATED BY THE PLAN, LINKING THE GREAT NEIGHBORHOODS OF KNIGHTDALE WITH PUBLIC PARKS AND RECREATIONAL OPPORTUNITIES.

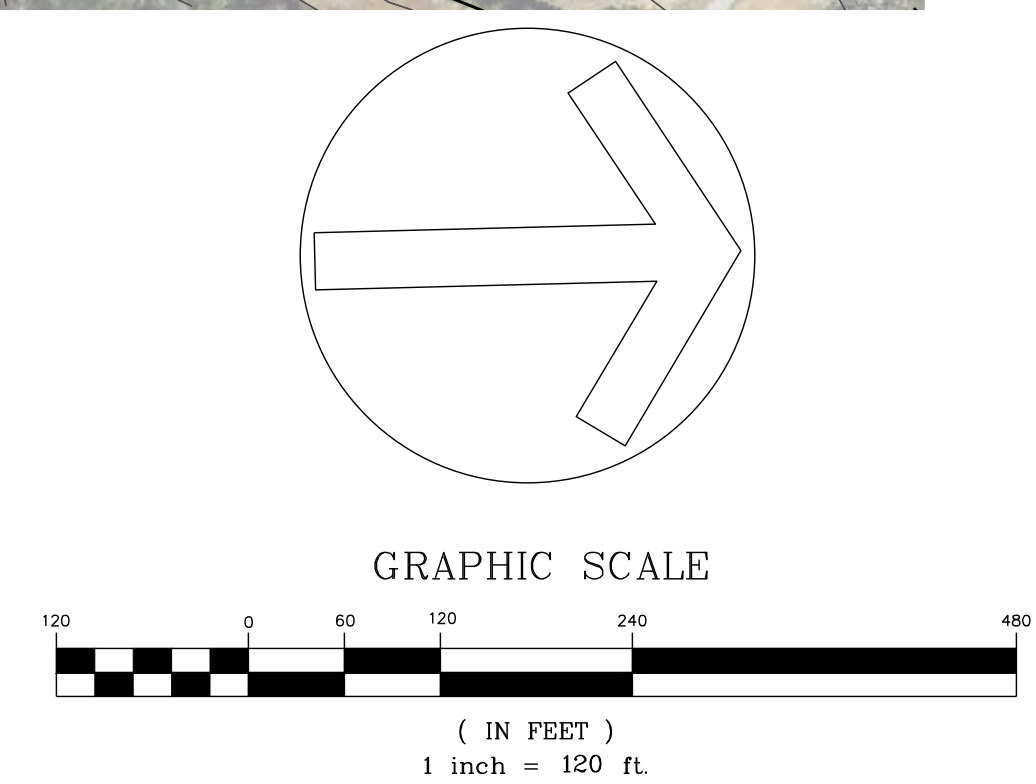
## 4. TRANSPORTATION

THE COMPREHENSIVE PLAN SEEKS TO “CONSIDER LAND USE AND INFRASTRUCTURE INVESTMENTS TOGETHER” AND “EMPHASIZE A SAFE AND EFFICIENT TRANSPORTATION SYSTEM”. THE PRESERVE AT MARKS CREEK PROVIDES THE BASIS FOR A NEW STREET CONNECTIVE STREET NETWORK IN THIS AREA OF KNIGHTDALE. ALTHOUGH THE COMMUNITY UNFORTUNATELY CANNOT CONNECT TO THE ADJACENT EMERALD POINTE SUBDIVISION DUE TO A LACK OF STUB ROADS WITHIN THAT DEVELOPED COMMUNITY, WE PROPOSE A SERIES OF STUBS TO ADJACENT PROPERTIES TO ENHANCE FUTURE INTERCONNECTIVITY. THERE ARE THREE PROPOSED ACCESS POINTS ONTO MARKS CREEK ROAD WITH ONE OF THESE STREETS BEING A COLLECTOR STREET THAT WILL ALSO STUB TO THE ADJACENT PROPERTY TO THE WEST, AS CONTEMPLATED IN THE COMPREHENSIVE PLAN.



**PRESERVE AT MARKS CREEK ENVIRONMENTAL SURVEY**

- NOTE:**
1. THE PROPERTY IS NOT WITHIN A WATER SUPPLY WATERSHED.
  2. NO FLOODPLAIN PRESENT ON SUBJECT PROPERTY.
  3. WETLANDS HAVE BEEN FIELD LOCATED.



## UNIFIED DEVELOPMENT ORDINANCE MODIFICATIONS

THE PRESERVE AT MARKS CREEK ENDEAVORS TO MEET THE REQUIREMENTS, AS WELL AS THE SPIRIT AND INTENT, OF THE UNIFIED DEVELOPMENT ORDINANCE. THERE ARE A FEW INSTANCES WHERE THE DESIGN DEVIATES FROM THE UNIFIED DEVELOPMENT ORDINANCE. THE PROPOSED MODIFICATIONS WITH RATIONALE FOR ALTERNATIVE MEANS OF COMPLIANCE ARE SHOWN AS FOLLOWS:

### **MODIFICATION TO REDUCE MINIMUM WIDTH OF FRONT-LOADED SINGLE FAMILY DWELLINGS TO 60' WIDE**

SECTION 3.4 OF THE UNIFIED DEVELOPMENT ORDINANCE REQUIRES THAT ANY LOT LESS THAN 80' IN WIDTH BE REAR-LOADED. WE REQUEST THAT THE LOT WIDTH FOR THE PRESERVE AT MARKS CREEK BE REDUCED TO 60' WITH THESE UNITS RECEIVING FRONT ACCESS DUE TO SITE CONSTRAINTS RELATED TO EXTENSIVE WETLANDS AND BUFFERED STREAMS ON THE PROPERTY. EXTENSIVE ARCHITECTURAL CONDITIONS HAVE BEEN DEvised IN CONJUNCTION WITH FEEDBACK FROM THE TOWN'S PLANNING STAFF TO ENSURE A HIGH-QUALITY FRONT-LOADED PRODUCT.

ADDITIONALLY, SECTION 3.4 REQUIRES THAT THE DRIVEWAY LENGTH FOR SINGLE-FAMILY DETACHED DWELLINGS BE 35' IN LENGTH. IN ORDER TO PROMOTE A GREATER SENSE OF COMMUNITY THAT BRINGS THE SINGLE-FAMILY LIVING SPACES CLOSER TO THE PUBLICLY ACCESSIBLE SIDEWALKS AND RIGHTS-OF-WAY, SINGLE-FAMILY DWELLINGS WILL BE SERVED BY A DRIVEWAY THAT ARE A MINIMUM LENGTH OF 25'

### **MODIFICATION TO REDUCE MINIMUM LOT WIDTH FOR REAR-LOADED SINGLE FAMILY DWELLINGS TO 26' WIDE**

SECTION 3.4 OF THE UNIFIED DEVELOPMENT ORDINANCE REQUIRES THAT SINGLE-FAMILY REAR-LOADED DWELLINGS BE A MINIMUM OF 30' IN WIDTH. THE PRESERVE AT MARKS CREEK PROPOSES A MINIMUM LOT WIDTH FOR THIS TYPE OF HOUSING OF 26', A WIDTH THAT HAS BEEN USED PREVIOUSLY BY THE PROSPECTIVE BUILDER, GARMAN HOMES, IN CELEBRATED APPROVED KNIGHTDALE NEIGHBORHOODS.

### **MODIFICATION TO MAXIMUM DENSITY IN GR3 DISTRICT**

PER SECTION 2.2.D OF THE UNIFIED DEVELOPMENT ORDINANCE, NEIGHBORHOODS WITHIN THE GR3 BASE DISTRICT ARE LIMITED TO A MAXIMUM DENSITY OF 3 UNITS PER ACRE. THIS PROPOSAL PROVIDES A TOTAL DENSITY OF 3.65 UNITS PER ACRE. THIS SLIGHT INCREASE OVER 3 UNITS PER ACRE WILL NOT BE DETRIMENTAL TO NEIGHBORING PROPERTIES, MANY OF WHICH ARE ZONED FOR HIGHER DENSITIES SUCH AS GR-8 OR ARE ZONED FOR NON-RESIDENTIAL DISTRICTS SUCH AS HIGHWAY BUSINESS OR MANUFACTURING & INDUSTRIAL AND IS NECESSARY TO ACHIEVE A DISTRIBUTION OF HOUSING CHOICE OPTIONS FOR THE COMMUNITY.



**SITE DATA:**

PROPOSED ZONING: GR3-PUD  
 PIN: 1765-10-9558, 1765-21-2260, 1765-21-2492, 1765-21-3753, 1765-11-8263, 1765-11-2567

TOTAL AREA: 101.59 AC

RESIDENTIAL UNITS: 371

- SINGLE FAMILY (60' x 130') 83
- SINGLE FAMILY ALLEY (26' x 120') 144
- TOWNHOMES 24' WIDTH (24' x 90') 102
- TOWNHOMES 22' WIDTH (22' x 90') 42

OPEN SPACE REQUIRED: 14.46 AC  
 ACTIVE OPEN SPACE REQUIRED: 7.23 AC  
 OPEN SPACE PROVIDED: 42.80 AC  
 ACTIVE OPEN SPACE PROVIDED: 9.58 AC  
 CONNECTIVITY RATIO: 1.47  
 PARKING PROVIDED: 182

**LEGEND**

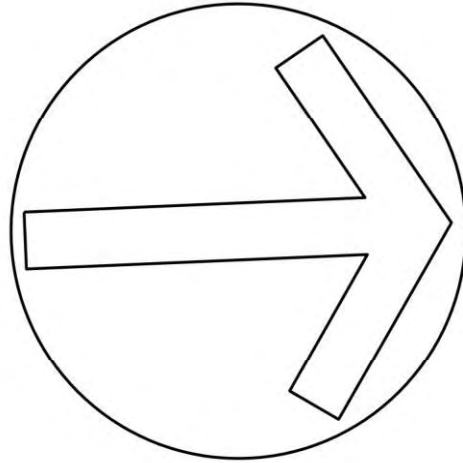
60' x 130' S/F LOT	24' x 90' TOWNHOME LOT (2-STORY)
26' x 120' S/F LOT	22' x 90' TOWNHOME LOT (3-STORY)

- PARK
- POCKET PARK
- PARK WITH BENCHES
- AMENITY CENTER
- ACTIVE OPEN SPACE
- GREENWAYS
- STORMWATER MANAGEMENT
- ELECTRIC EASEMENT
- WETLANDS
- AREAS WITH TRAILS
- DOG PARK
- PLAYGROUND

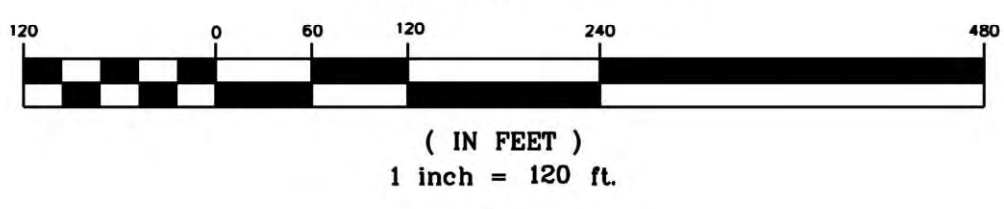
**TREE COVERAGE REQUIREMENT**  
 9,450 LF X 20 LF = 189,000 SQ FT REQUIRED (4.34 ACRES)  
 NRB AREA: 602,767 SQ FT (13.84 ACRES)  
 TREE COVERAGE PROVIDED: 656,176 SQ FT (15.06 ACRES)

**WATER ALLOCATION POINTS**

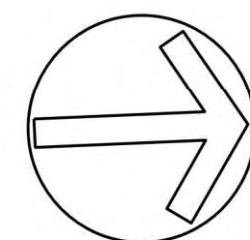
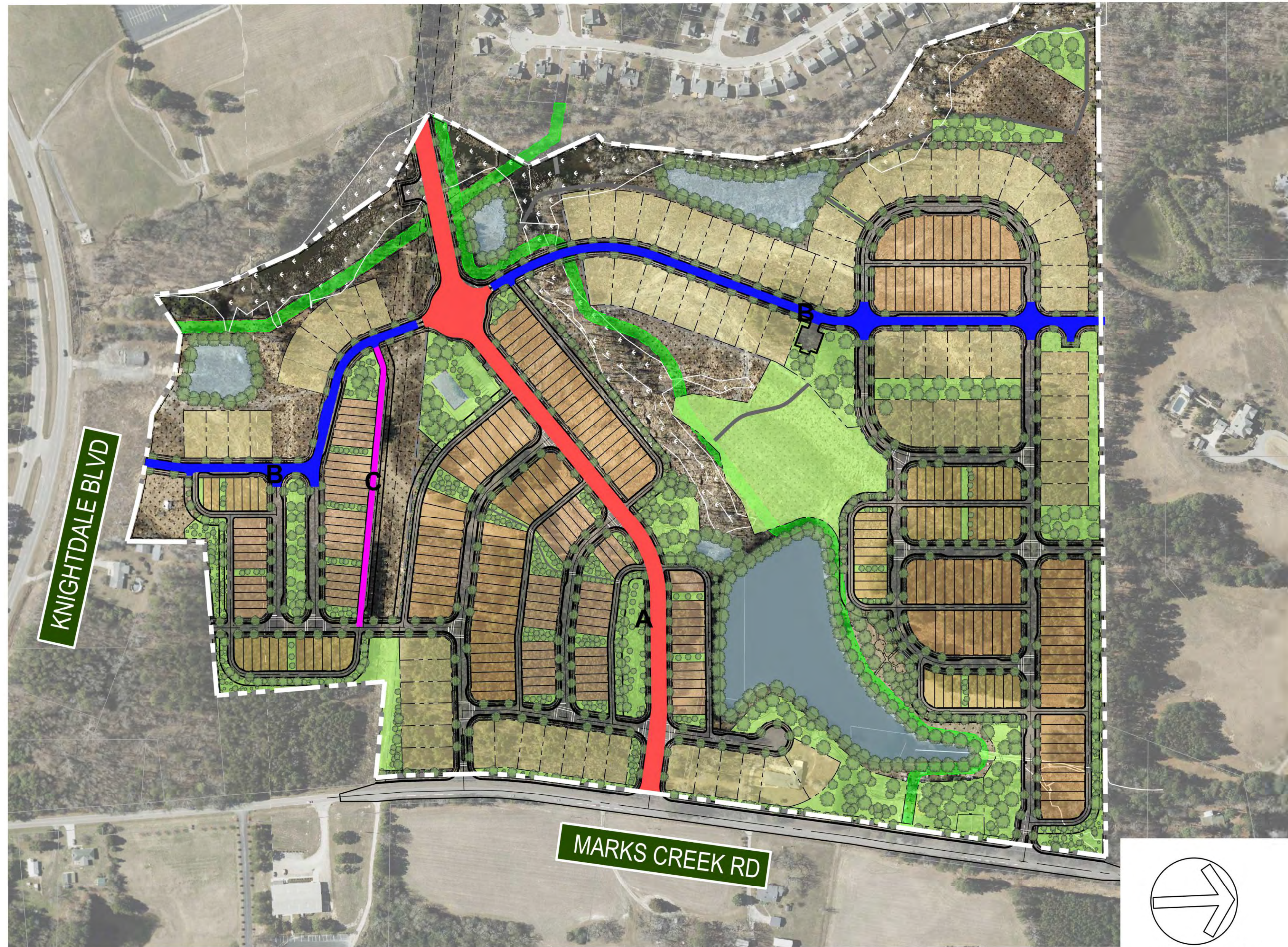
BASE POINTS	
MAJOR SUBDIVISION	15 POINTS
BONUS POINTS	
FOUNTAIN WITHIN BMP	4 POINTS
STORMWATER - BIORETENTION	5 POINTS
4 ON STREET PUBLIC PARKING	4 POINTS
RESIDENTIAL ARCHITECTURAL STANDARDS	15 POINTS
ENHANCED ROADSIDE LANDSCAPING - BERM AND DECORATIVE FENCING WITH STONE COLUMNS, ADDITIONAL OPAQUE PLANTINGS, DECORATIVE SIGNAGE.	2 POINTS
2300' PRIVATE GREENWAY	2 POINTS
RESORT STYLE POOL - 2,500 SQ FT	2 POINTS
DECK/PATIO (2,000 SQ FT)	2 POINTS
IPEMA CERTIFIED PLAYGROUND EQUIPMENT	4 POINTS
TOTAL POINTS	55 POINTS



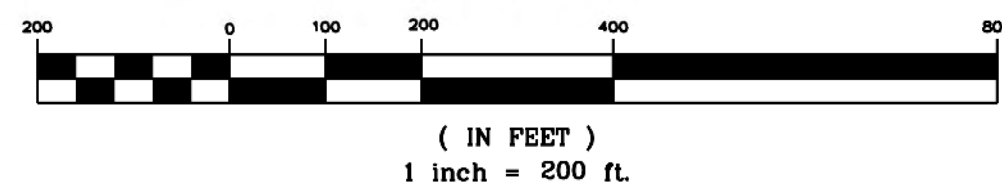
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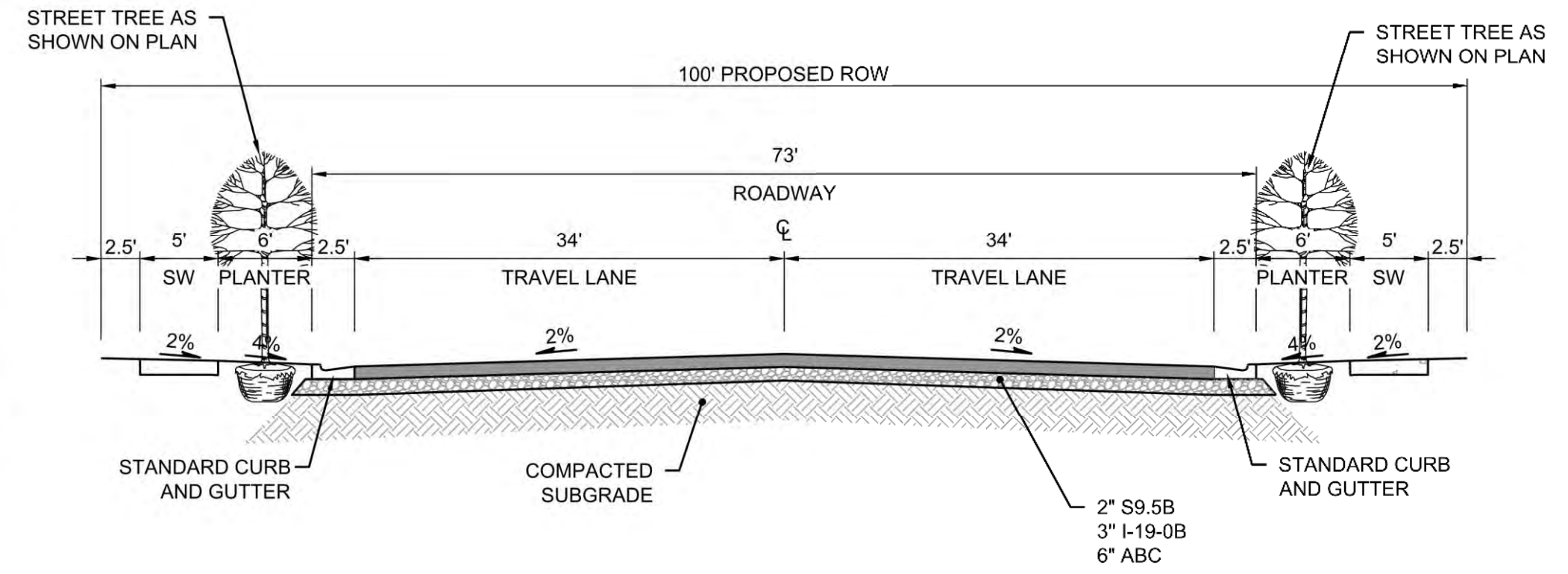
COMMUNITY MASTER PLAN



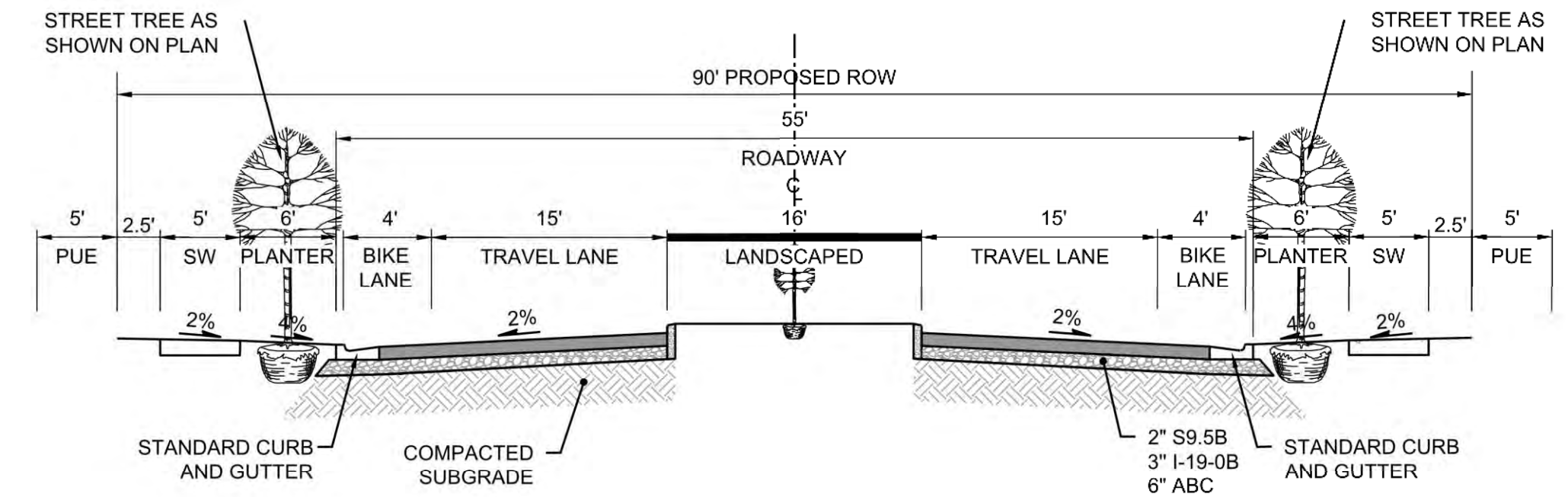
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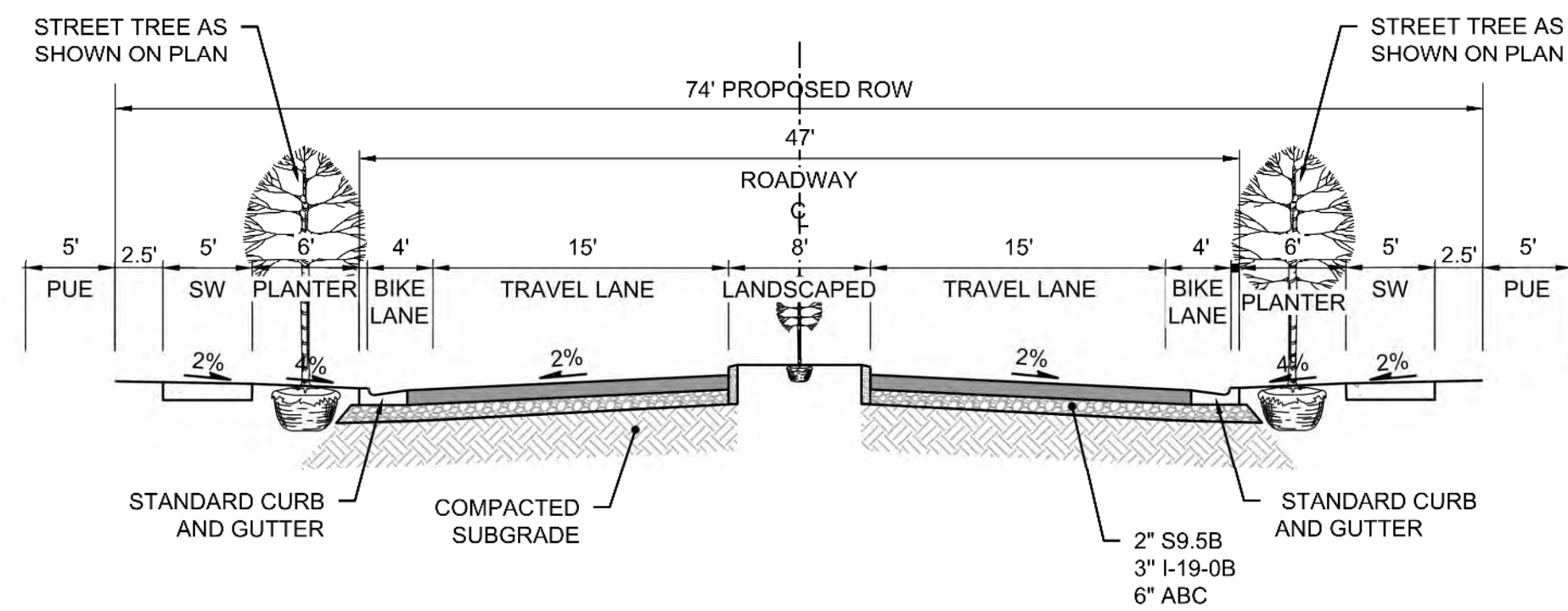
TYP. CUL-DE-SAC



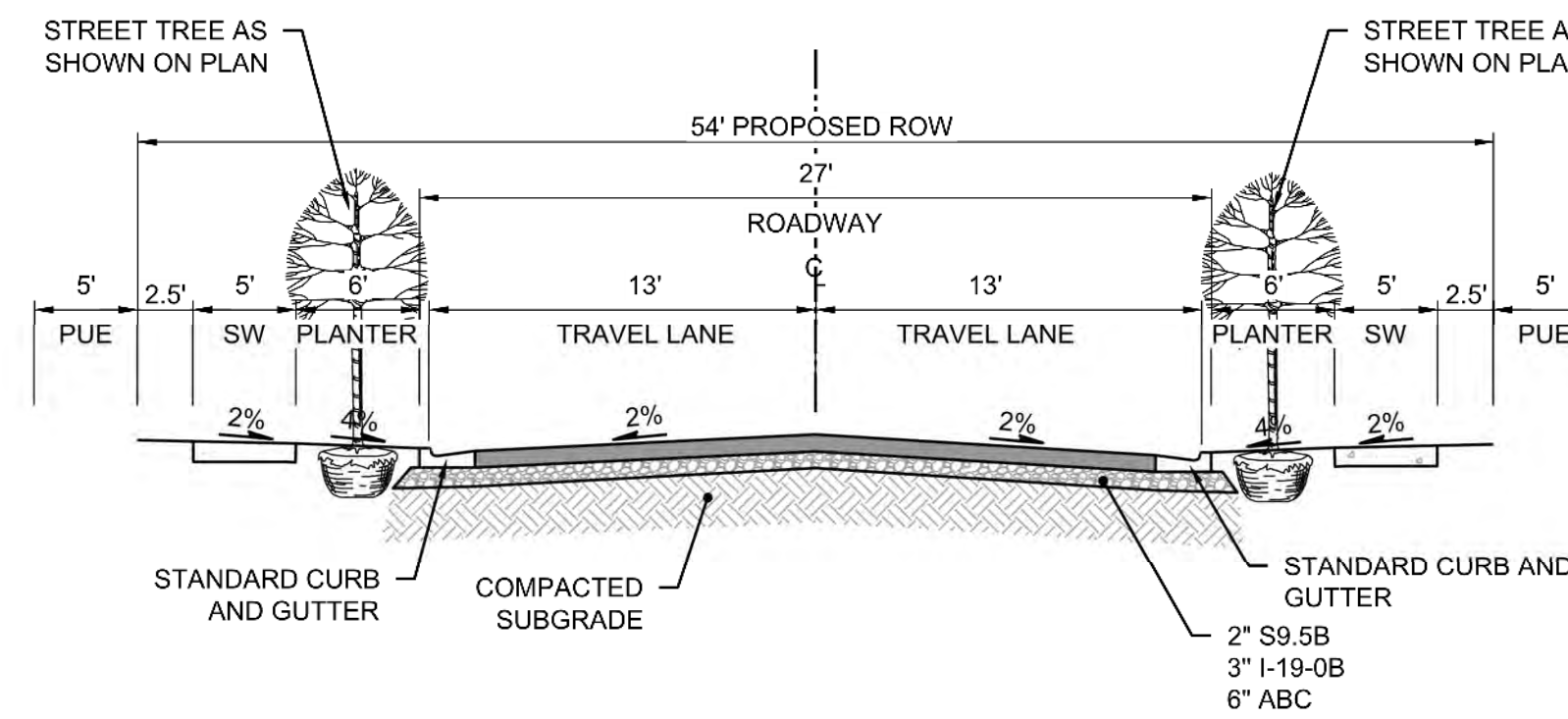
DIVIDED BOULEVARD



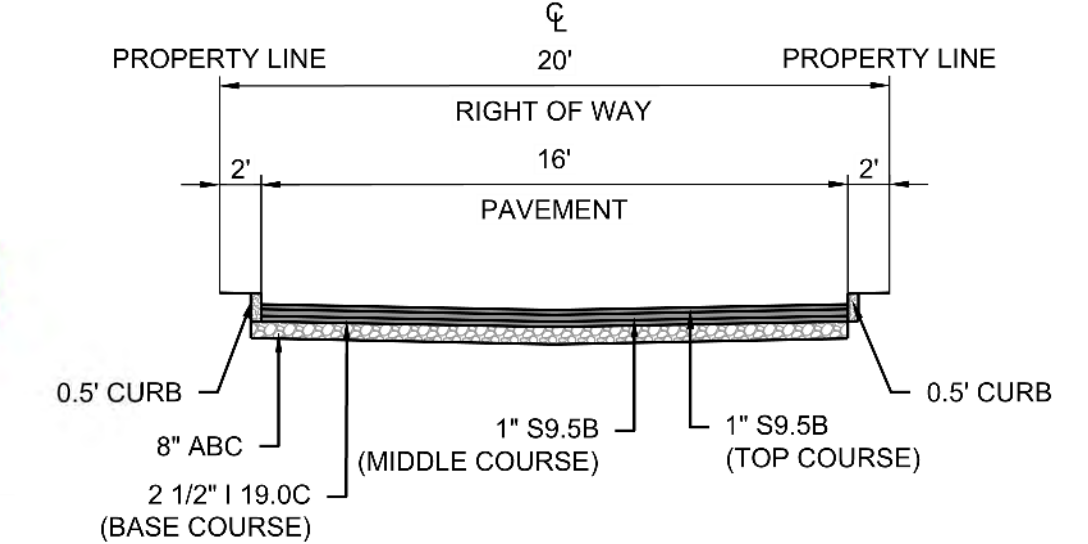
SECTION 'A'

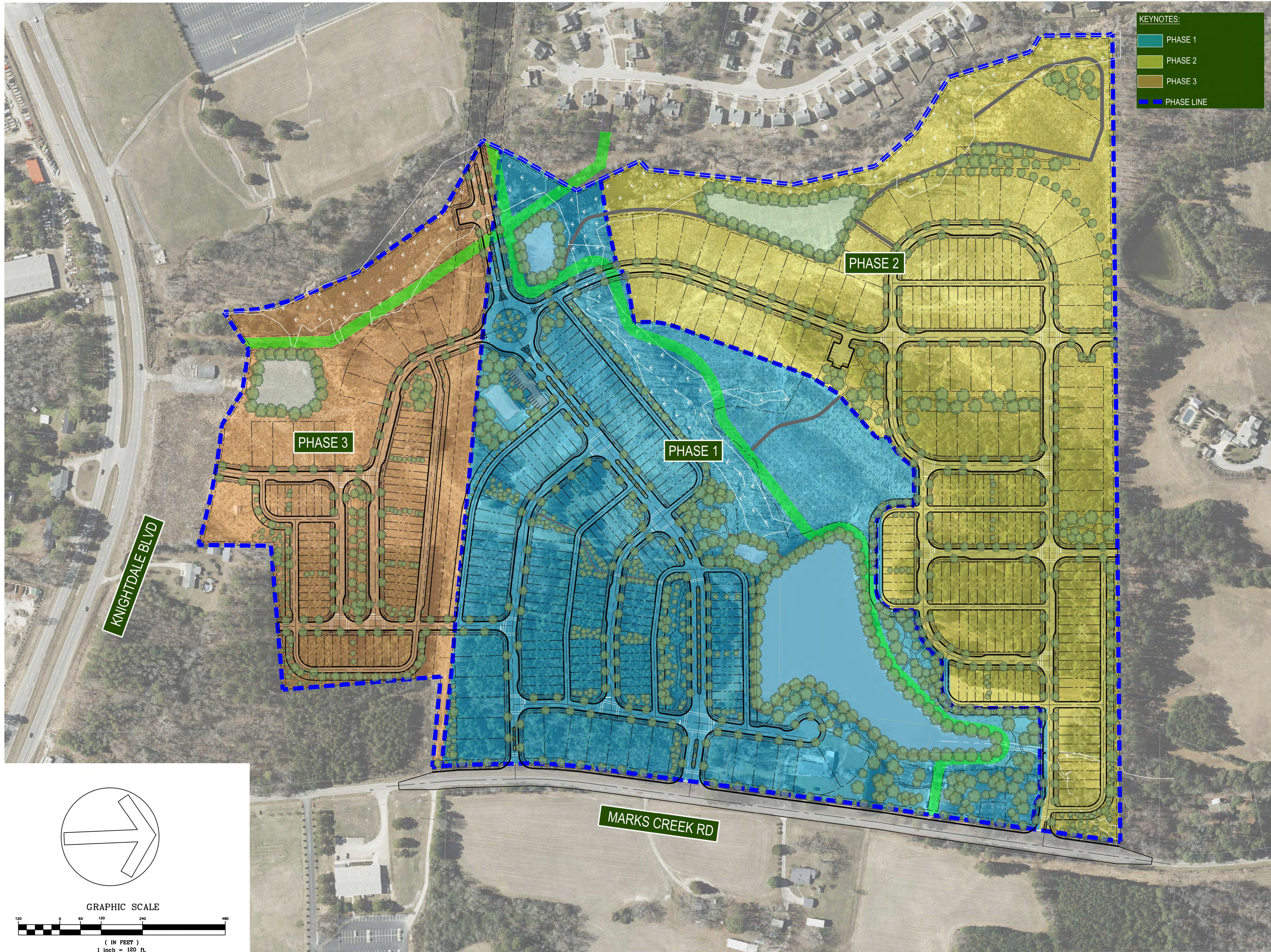


SECTION 'B'



SECTION 'C'





KEYNOTES:

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE LINE

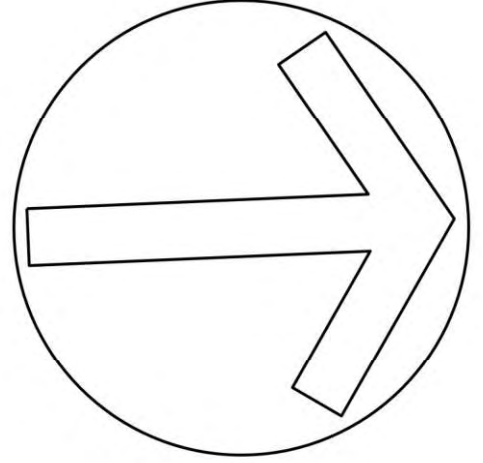
PHASE 3

PHASE 1

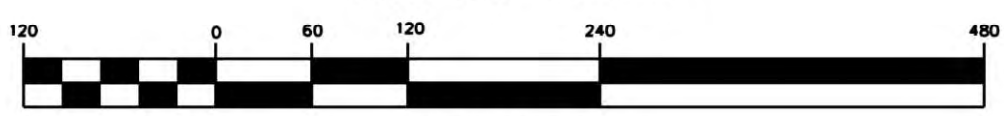
PHASE 2

KNIGHTDALE BLVD

MARKS CREEK RD



GRAPHIC SCALE



( IN FEET )  
1 inch = 120 ft.

# OVERALL PHASING PLAN

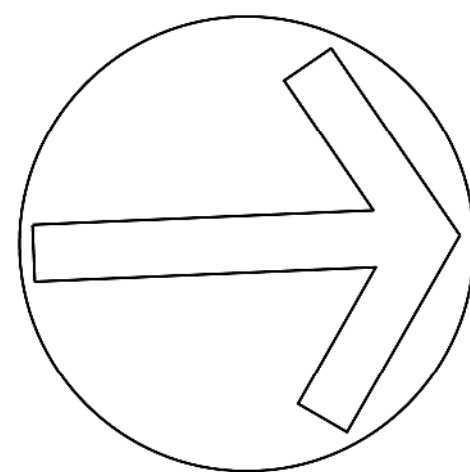
KEYNOTES:

- 1. PARK
- 2. POCKET PARK
- 3. PARK WITH BENCHES
- 4. AMENITY CENTER
- 5. ACTIVE OPEN SPACE
- 6. GREENWAYS
- 7. AREAS WITH TRAILS
- 8. DOG PARK
- 9. PLAYGROUND



KNIGHTDALE BLVD

MARKS CREEK RD



GRAPHIC SCALE



( IN FEET )  
1 inch = 120 ft.

# AMENITY CENTER



POCKET PARK



PARK



MEDITATION GARDEN



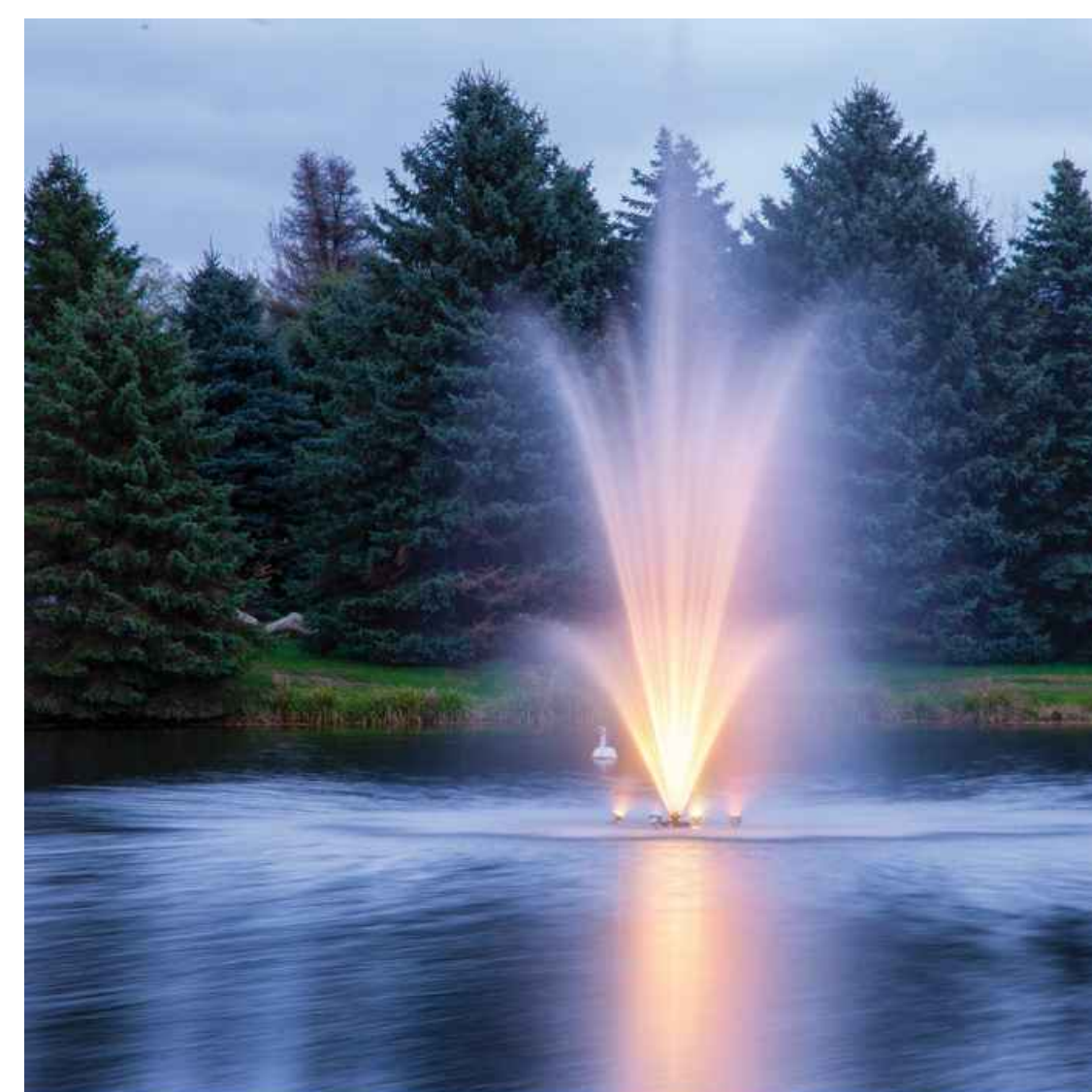
MARKS CREEK RD MONUMENTATION



WALKING TRAIL



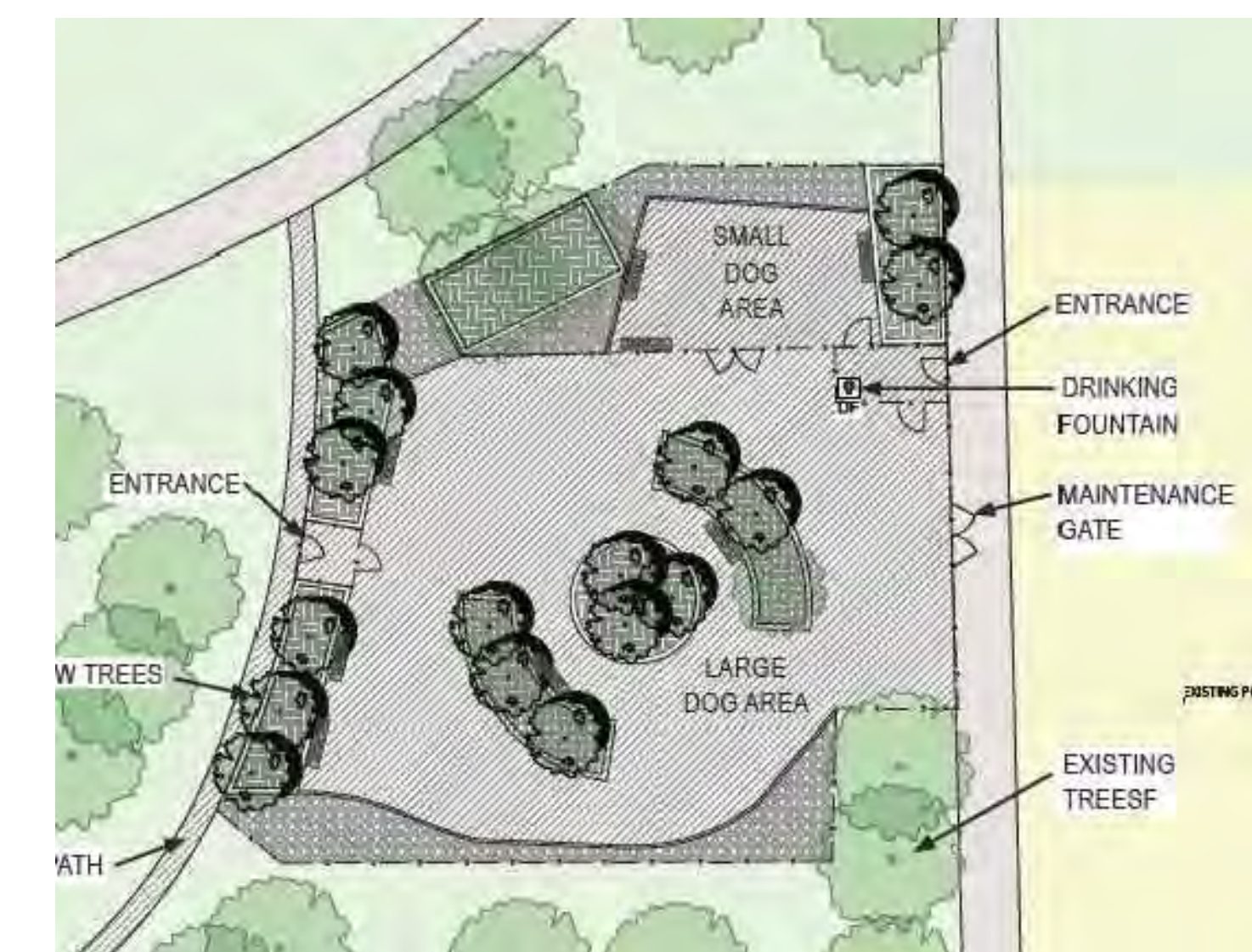
FOUNTAIN WITH A LIGHT



BOCCE COURT



DOG PARK



COMMUNITY AMENITIES

TOWNHOMES - 24' x 90' LOTS (2-STORY)



RESIDENTIAL PRODUCT

TOWNHOMES - 22' x 90' LOTS (3-STORY)



RESIDENTIAL PRODUCT



SINGLE FAMILY HOMES - 26' x 120' LOTS



RESIDENTIAL PRODUCT

SINGLE FAMILY HOMES - 60' x 130' LOTS



RESIDENTIAL PRODUCT

1. TOWNHOMES SHALL BE TWO-STORY HOMES WITH A MINIMUM WIDTH OF 22' WIDE AND HAVE A MINIMUM HEATED AREA OF 1,500 SQUARE FEET, 2 CAR GARAGES WILL BE PROVIDED.
2. NEO TRADITIONAL SINGLE FAMILY DETACHED HOMES SHALL BE REAR LOADED TWO-STORY HOMES BUILT ON LOTS LESS THAN 60 FEET WIDE WITH A MINIMUM HEATED AREA OF 1,600 SQUARE FEET.
3. SINGLE FAMILY RANCH DETACHED HOMES SHALL BE BUILT ON LOTS AT LEAST 60 FEET WIDE WITH A MINIMUM HEATED AREA OF 1,480 SQUARE FEET, AND NO MORE THAN 25% OF THE RANCH HOMES MAY BE LESS THAN 1,500 SQUARE FEET.
4. TRADITIONAL SINGLE FAMILY DETACHED HOMES SHALL BE TWO-STORY HOMES BUILT ON LOTS AT LEAST 60 FEET WIDE WITH A MINIMUM HEATED AREA OF 2,100 SQUARE FEET.
5. ALL HOMES WILL EITHER CONSIST OF A SINGLE MATERIAL OF BRICK OR STONE OR WILL HAVE A COMBINATION OF 2 OR MORE OF THE FOLLOWING MATERIALS ON THE FRONT FAÇADE (NOT INCLUDING FOUNDATIONS): STONE, BRICK, LAP SIDING, FIBER CEMENT SIDING, SHAKES, OR BOARD AND BATTEN SIDING, WITH SIDE AND REAR FACADES OF FIBER CEMENT SIDING. WHEN 2 MATERIALS ARE USED, THE MATERIALS SHALL BE DIFFERENT BUT COMPLIMENTARY COLORS. VINYL MAY ONLY BE USED OF SOFFITS, FASCIA, AND CORNER BOUNDS.
6. ALL SINGLE FAMILY DETACHED HOMES WILL HAVE FRONT PORCHES WITH A MINIMUM DEPTH OF 5 FEET. TOWNHOMES WILL HAVE RECESSED FRONT PORCHES WITH A MINIMUM DEPTH OF 3 FEET.
7. ALL TRADITIONAL SINGLE FAMILY DETACHED HOMES WILL HAVE A REAR PATIO OR DECKS A MINIMUM OF 10' X 10'. ALL SINGLE FAMILY RANCH DETACHED HOMES WILL HAVE A MINIMUM 6' X 10' COVERED PATIO.
8. MAIN ROOF PITCHES (EXCLUDING PORCHES) FRONTING THE STREET WILL BE AT LEAST 7:12, WITH THE EXCEPTION OF RANCH HOMES IN WHICH 6:12 SHALL BE ALLOWED.
9. FOR EVERY 30 FEET (OR FRACTION) OF CONTINUOUS SIDE ELEVATION (CALCULATED ON A PER FLOOR BASIS), THERE SHALL BE ONE WINDOW OR DOOR ADDED TO THE SIDE ELEVATIONS. ANY SIDING BREAK ON THE SIDE OF THE HOME, SUCH AS A FIRE PLACE, SIDE PORCH, OR WALL OFFSETS MAY BE USED AS AN ALTERNATE TO WINDOWS.
10. THERE SHALL BE A MINIMUM 12 INCH OVERHANG ON EVERY GABLE END FOR EVERY HOME.
11. ALL DWELLING UNITS WILL HAVE A 2 CAR GARAGE.
12. GARAGES ON ALL NEO TRADITIONAL SINGLE FAMILY DETACHED HOMES AND TOWNHOMES SHALL BE ALLEY FED.
13. ALL FRONT LOADED GARAGE DOORS SHALL HAVE GLASS WINDOWS AND HARDWARE.
14. ALL SINGLE FAMILY DETACHED HOMES SHALL BE RAISED FROM THE FINISHED GRADE A MINIMUM OF 18" AND SHALL HAVE STEM WALL OR RAISED SLAB FOUNDATIONS THAT SHALL BE COVERED ON ALL SIDES WITH BRICK OR STONE. AREAS UNDER PORCHES MAY BE ENCLOSED WITH LATTICE.
15. ALL SINGLE FAMILY ATTACHED HOMES SHALL BE RAISED FROM THE FINISHED GRADE A MINIMUM OF 18" AND SHALL HAVE STEM WALL OR RAISED SLAB FOUNDATIONS THAT SHALL BE COVERED ON ALL SIDES WITH BRICK OR STONE. AREAS UNDER PORCHES MAY BE ENCLOSED WITH LATTICE.
16. ANY SINGLE FAMILY HOMES WITH A CRAWL SPACE SHALL BE WRAPPED IN BRICK, OR STONE ON ALL SIDES.
17. FOR FRONT LOAD SINGLE FAMILY DETACHED HOMES, NO MORE THAN 10% CAN HAVE GARAGE DOORS THAT EXCEED 45% OF THE OVERALL WIDTH OF THE HOUSE, AND IN NO CASES CAN THE GARAGE DOOR EXCEED 48% OF THE OVERALL WIDTH OF THE HOUSE, GARAGE DOORS GREATER THAN 12' IN WIDTH SHALL BE SPLIT BAY.
18. ALL HOMES SHALL HAVE FRONT DOOR GLASS INSERTS.
19. GARAGES FOR LOTS THAT ARE AT LEAST 60 FEET WIDE WILL NOT PROTRUDE MORE THAN SIX (6) FEET FROM THE FRONT PORCH OR STOOP AND ALL GARAGE DOORS SHALL BE CARRIAGE STYLE WITH WINDOW INSERTS AND HARDWARE.