

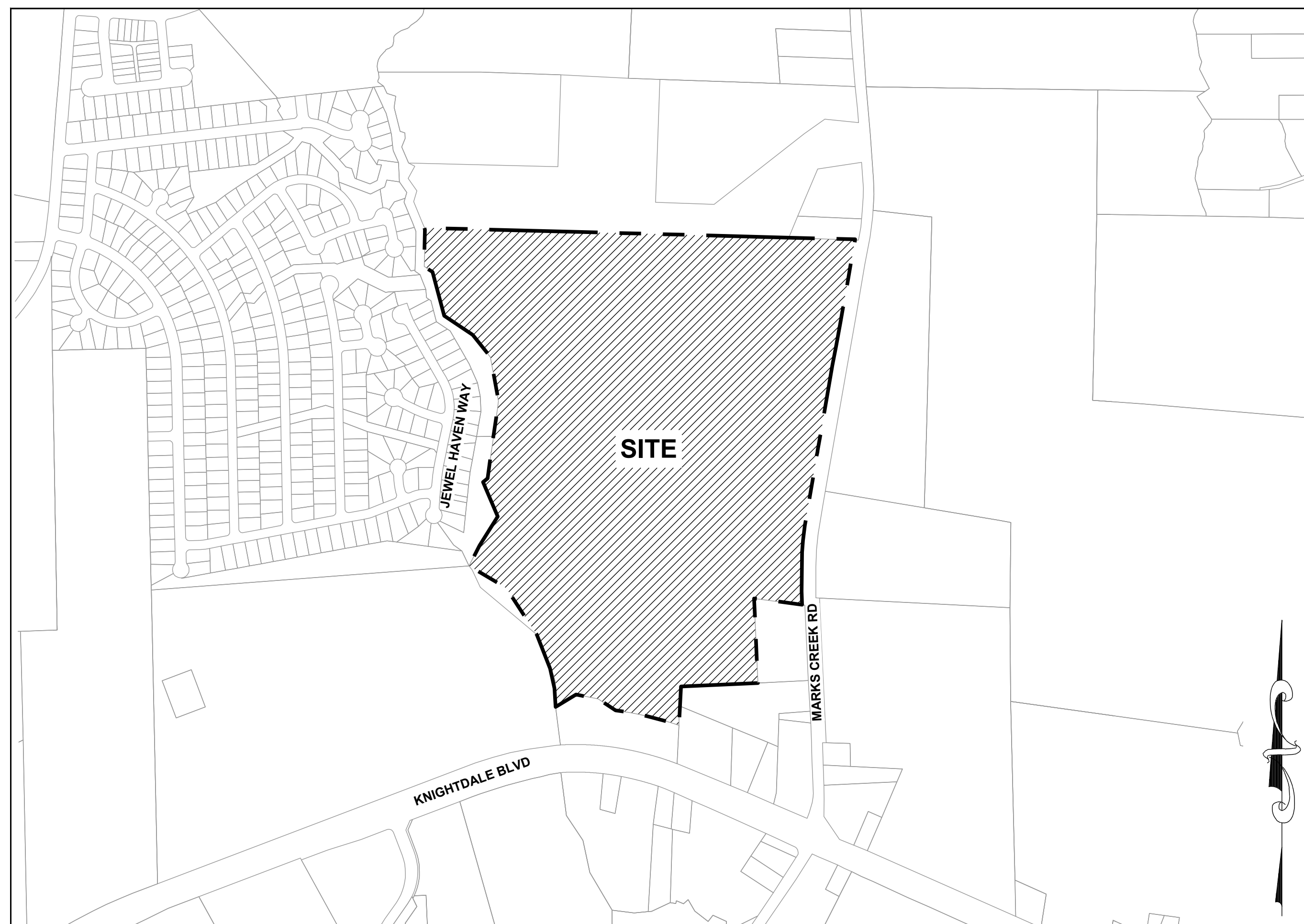
# PRESERVE AT MARKS CREEK

## MASTER PLAN

TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA

### 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>   |  |                          |                  |
|                                     | <b>FRONT LOADED S.F.:</b>              | <b>REAR LOADED S.F.:</b> | <b>TOWNHOME:</b> |
| FRONT YARD:                         | 10'                                    | 10'                      | 10'              |
| SIDE YARD:                          | 5'                                     | 3'                       | N/A              |
| REAR YARD:                          | 20'                                    | 20'                      | 20'              |
| CORNER YARD:                        | 10'                                    | 10'                      | 10'              |
| <b>LOT ACREAGE:</b>                 |  |                          |                  |
| PROPOSED DENSITY:                   | 3.65 DU/AC                             |                          |                  |
|                                     | DSE:                                   | TOWNHOME:                |                  |
| TOTAL NUMBER PROPOSED LOTS:         | 232                                    | 143                      |                  |
| MINIMUM PROPOSED LOT SIZE:          | 7,446 SF                               | 1,926 SF                 |                  |
| MAXIMUM PROPOSED LOT SIZE:          | 13,324 SF (LOT 215)                    | 6,463 SF (LOT 36)        |                  |
| AVERAGE PROPOSED LOT SIZE:          | 8,450 SF                               | 2,705 SF                 |                  |
| MINIMUM ALLOWABLE LOT WIDTH:        | 26'                                    | 24'                      |                  |
| MINIMUM PROPOSED LOT WIDTH:         | 60'                                    | 22'                      |                  |
| <b>LOT TYPE BREAKDOWN:</b>          |  |                          |                  |
| SINGLE FAMILY 60' WIDTH (60'X130'): | 84 LOTS                                |                          |                  |
| TOWNHOME 22' WIDTH (22'X90'):       | 44 LOTS                                |                          |                  |
| TOWNHOME 24' WIDTH (24'X90'):       | 99 LOTS                                |                          |                  |
| SINGLE FAMILY 26' WIDTH (26'X120'): | 148 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:                | 1,242,396 SF (28.52 AC)                |                          |                  |
| PROVIDED PASSIVE OPEN SPACE:        | 789,598 SF (18.10 AC)                  |                          |                  |
| PARK:                               | 203,288 SF (4.67 AC)                   |                          |                  |
| POCKET PARK:                        | 28,359 SF (0.65 AC)                    |                          |                  |
| DOG PARK:                           | 25,019 SF (0.57 AC)                    |                          |                  |
| PARK WITH BENCHES:                  | 38,941 SF (0.89 AC)                    |                          |                  |
| PLAYGROUND:                         | 37,287 SF (0.86 AC)                    |                          |                  |
| AMENITY CENTER:                     | 38,559 SF (0.88 AC)                    |                          |                  |
| POOL AREA:                          | 5,031 SF (0.12 AC)                     |                          |                  |
| TRAILS:                             | 50,281 SF (1.15 AC)                    |                          |                  |
| GREENWAY:                           | 105,508 SF (2.42 AC)                   |                          |                  |
| <b>IMPERVIOUS AREAS:</b>            |  |                          |                  |
| ROADWAYS / PARKING:                 | 495,341 SF (11.37 AC)                  |                          |                  |
| SIDEWALKS:                          | 130,466 SF (3.00 AC)                   |                          |                  |
| 60' LOTS (2,200 SF/LOT):            | 184,800 SF (4.24 AC)                   |                          |                  |
| (AVG)                               |  |                          |                  |
| 22' LOTS (1,500 SF/LOT):            | 66,000 SF (1.52 AC)                    |                          |                  |
| (AVG)                               |  |                          |                  |
| 24' LOTS (1,500 SF/LOT):            | 148,500 SF (3.41 AC)                   |                          |                  |
| (AVG)                               |  |                          |                  |
| 28' LOTS (1,600 SF/LOT):            | 236,800 SF (5.44 AC)                   |                          |                  |
| (AVG)                               |  |                          |                  |
| TOTAL ON-SITE IMPERVIOUS AREA:      | 1,261,907 SF (28.98 AC)                |                          |                  |
| TOTAL ON-SITE IMPERVIOUS PERCENT:   | 28.53 %                                |                          |                  |
| <b>UTILITY DEMANDS:</b>             |  |                          |                  |
| SEWAGE USAGE:                       | 4,187,500 GPD                          |                          |                  |
|                                     | 250 GPD / RESIDENTIAL UNIT X 375 UNITS |                          |                  |
| WATER USAGE:                        | 4,187,500 GPD                          |                          |                  |
|                                     | 250 GPD / RESIDENTIAL UNIT X 375 UNITS |                          |                  |
| <b>DISTURBED AREA:</b>              |  |                          |                  |
| TOTAL DISTURBED AREA:               | XXX.XXX.XXX SF                         |                          |                  |
| <b>STREET TYPE SUMMARY:</b>         |  |                          |                  |
| 54' ROW SECTION:                    | 11,758 LF                              |                          |                  |
| 74' ROW SECTION:                    | 2,040 LF                               |                          |                  |



VICINITY MAP

1" = 50'

### 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@taylorlic.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

### (PERMITTING AUTHORITY, PERMIT IDENTIFIERS, & EFFECTIVE DATES)

TOWN OF WENDELL PLANNING AND ZONING:  
- EFFECTIVE DATE OF ZONING APPROVAL: XX-XX-2020  
- EFFECTIVE DATE OF MASTER PLAN APPROVAL: XX-XX-2020  
WAKE COUNTY ENVIRONMENTAL:  
-LAND DISTURBANCE PERMIT: SEC-XXXXXX-XXXX  
-STORMWATER PERMIT: SWF-XXXXXX-XXXX  
NCDWR/CITY OF RALEIGH PUBLIC UTILITIES:  
-WATER EXTENSION PERMIT: W-XXXX  
-SEWER EXTENSION PERMIT: S-XXXX  
NC DEPT. OF TRANSPORTATION:  
-DRIVEWAY PERMIT: D51-XXX-XXXX (DATE: XX-XX-XXXX)  
-2 PARTY ENCROACHMENT AGMT: E51-XXX-XXXX (DATE: XX-XX-XXXX)  
-3 PARTY ENCROACHMENT AGMT: E51-XXX-XXXX (DATE: XX-XX-XXXX)  
U.S. ARMY CORPS OF ENGINEERS:  
-IMPACT PERMIT: SAW XXXX-XXXXXXX  
NC DIVISION OF WATER QUALITY:  
-BUFFER IMPACT AUTHORIZATION: DWR XXXXX

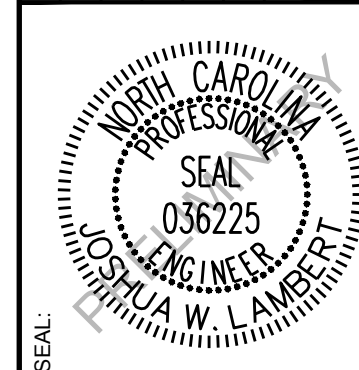
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### PUBLIC INFRASTRUCTURE QUANTITIES TABLE

| SEWER:                               |           |    |
|--------------------------------------|-----------|----|
| MANHOLES                             | 60        | EA |
| 8" PUBLIC SANITARY SEWER             | 10,994    | LF |
| SEWER SERVICES                       | 375       | EA |
| WATER:                               |           |    |
| 8" PUBLIC WATERMAIN                  | 13,401    | LF |
| WATER SERVICES                       | 375       | EA |
| FIRE HYDRANT ASSEMBLIES              | 28        | EA |
| 8" GATE VALVES                       | 60        | EA |
| 8" X 8" TEES                         | 14        | EA |
| 8" X 8" CROSS                        | 5         | EA |
| 8" BLOW OFF ASSEMBLIES               | 7         | EA |
| CONCRETE/ASPHALT:                    |           |    |
| PUBLIC STREETS                       | 13,798    | LF |
| PUBLIC ALLEYS                        | 8,700     | LF |
| PUBLIC 5' SIDEWALK                   | 26,093    | LF |
| 30" CURB & GUTTER                    | 27,691    | LF |
| SITE DATA:                           |           |    |
| NUMBER OF LOTS                       | 375       |    |
| GPD USAGE WATER                      | 4,187,500 |    |
| GPD USAGE SEWER                      | 4,187,500 |    |
| CALCULATION FOR GPD WATER (PER UNIT) | 250       |    |
| CALCULATION FOR GPD SEWER (PER UNIT) | 250       |    |

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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 KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
COVER

DRAWING SHEET  
**C-0.0**  
01 OF 42



Know what's below.  
Call before you dig.



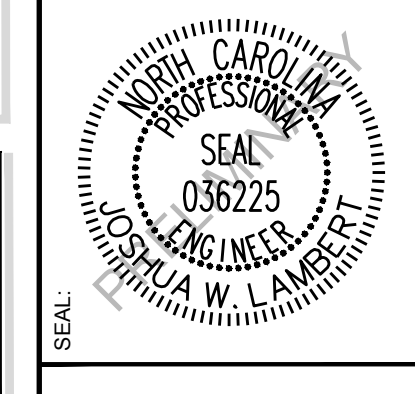
**LEGEND:**

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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

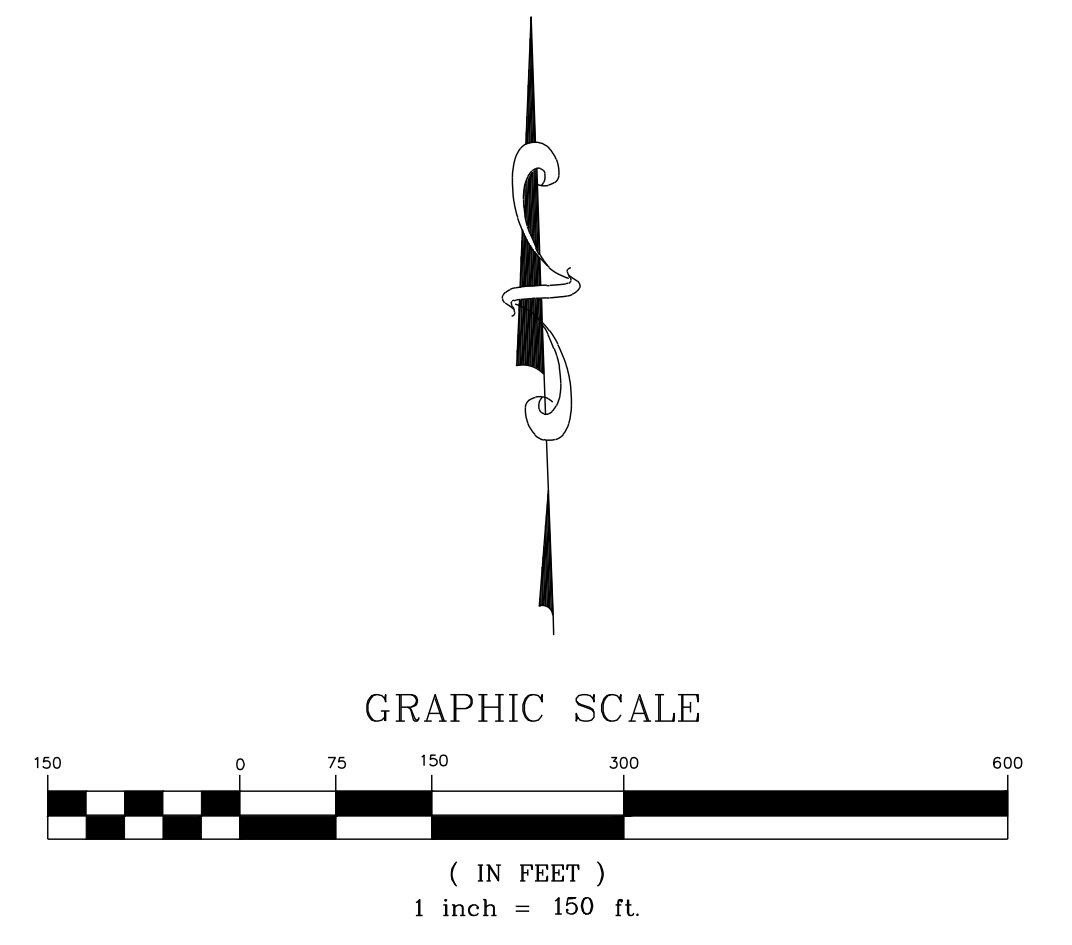
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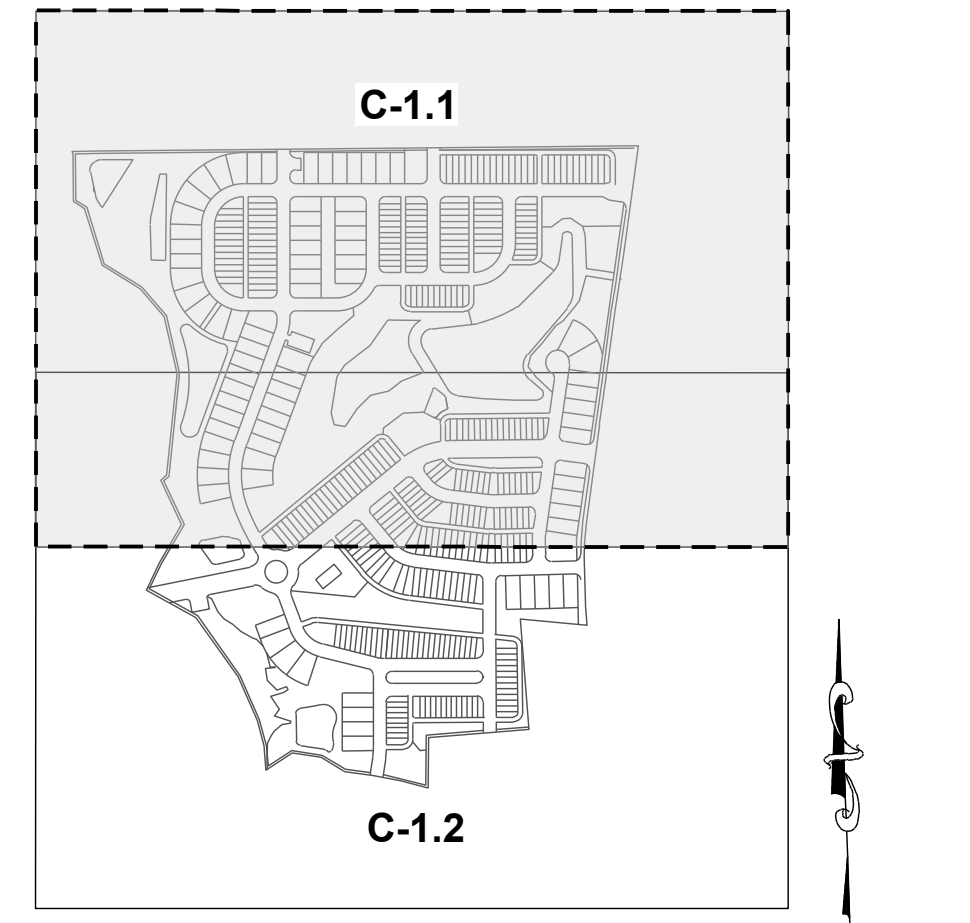
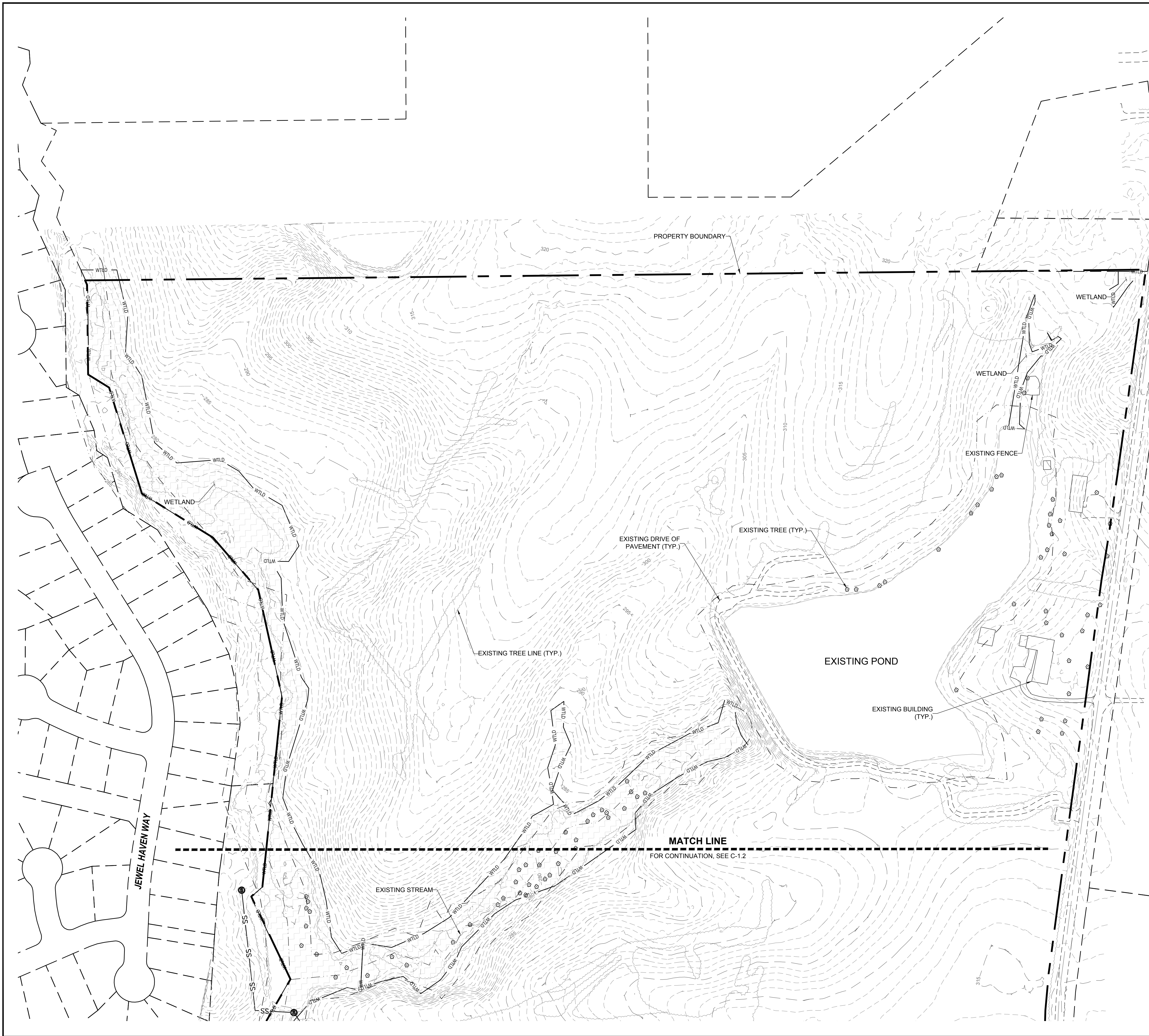
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| DRAWN BY SRG         |
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
OVERALL EXISTING CONDITIONS



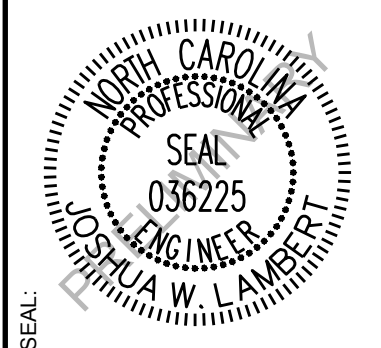
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**LEGEND:**  
SEE SHEET C-1.0 FOR LEGEND

**SITE KEY PLAN**

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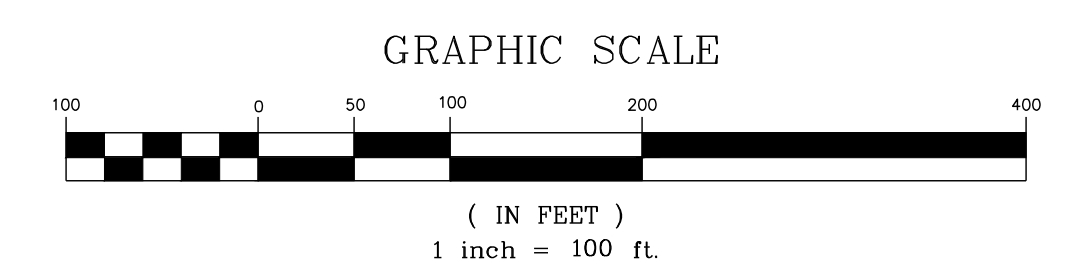


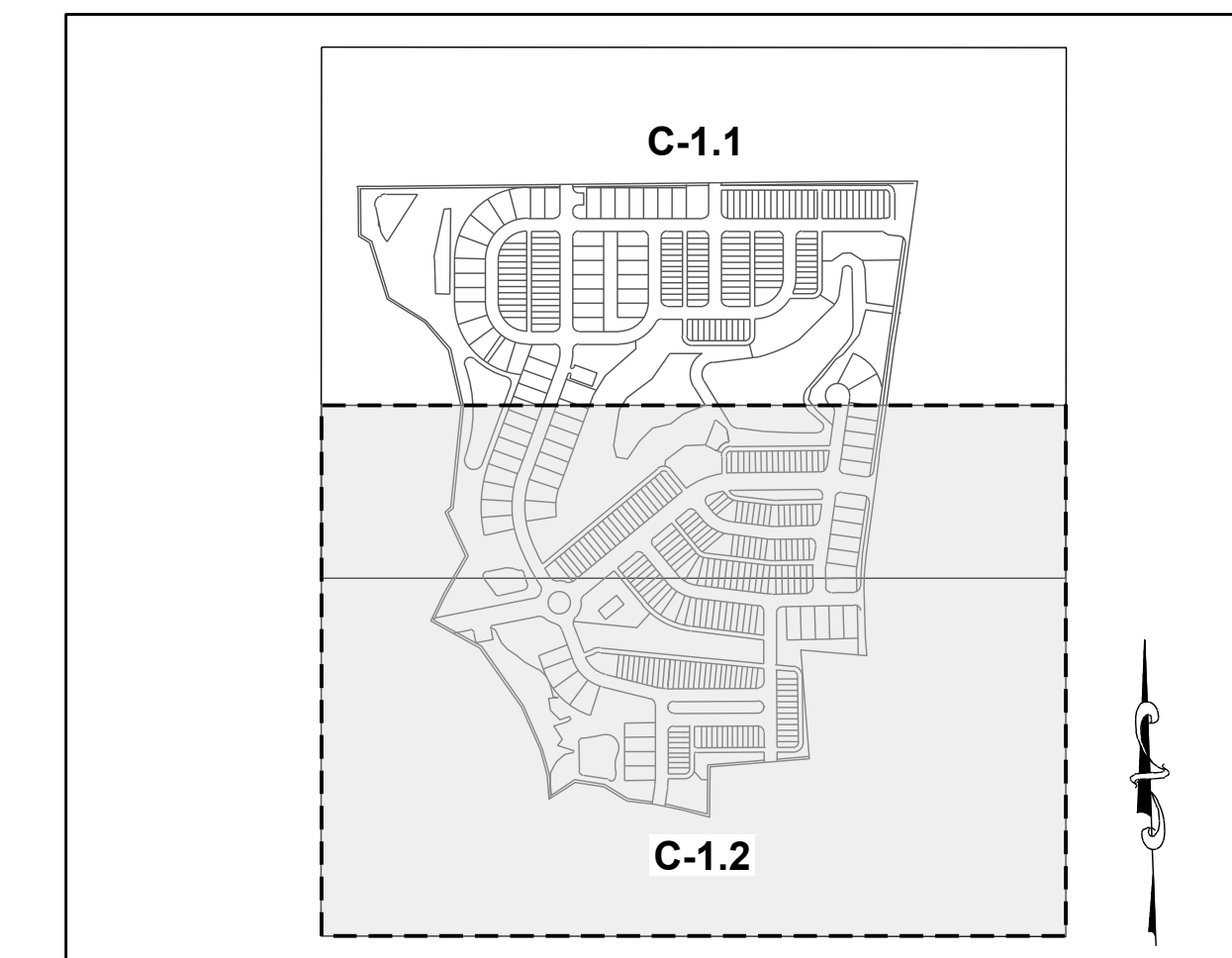
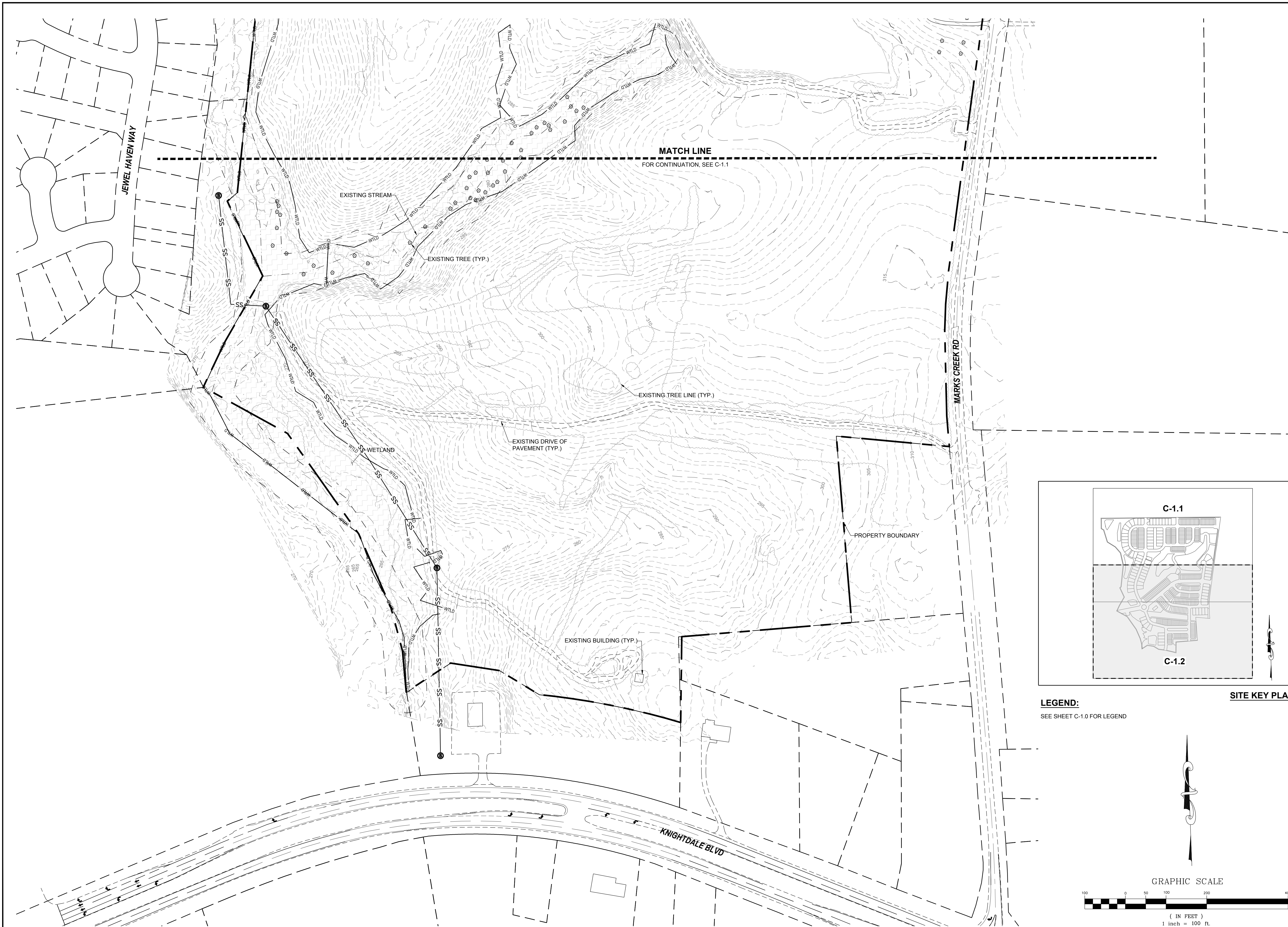
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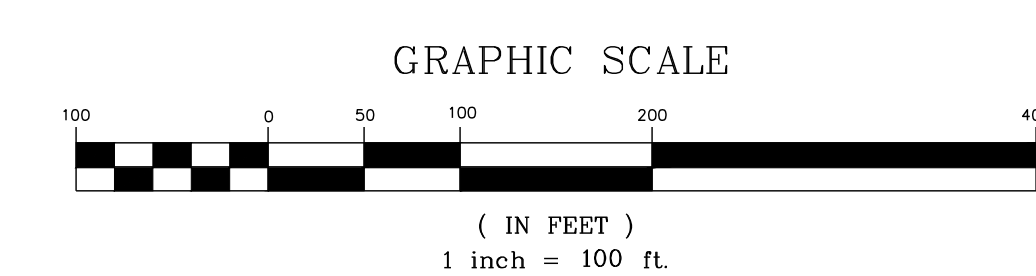
**PRESERVE AT MARKS CREEK**  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
**MASTER PLAN**  
**DETAILED EXISTING CONDITIONS I**

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**C-1.1**  
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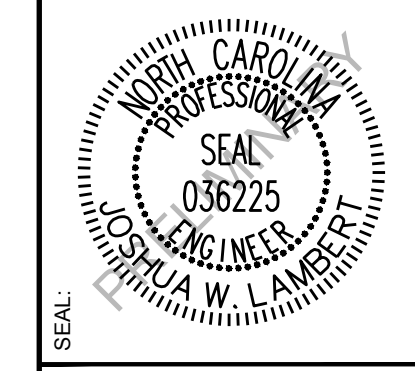




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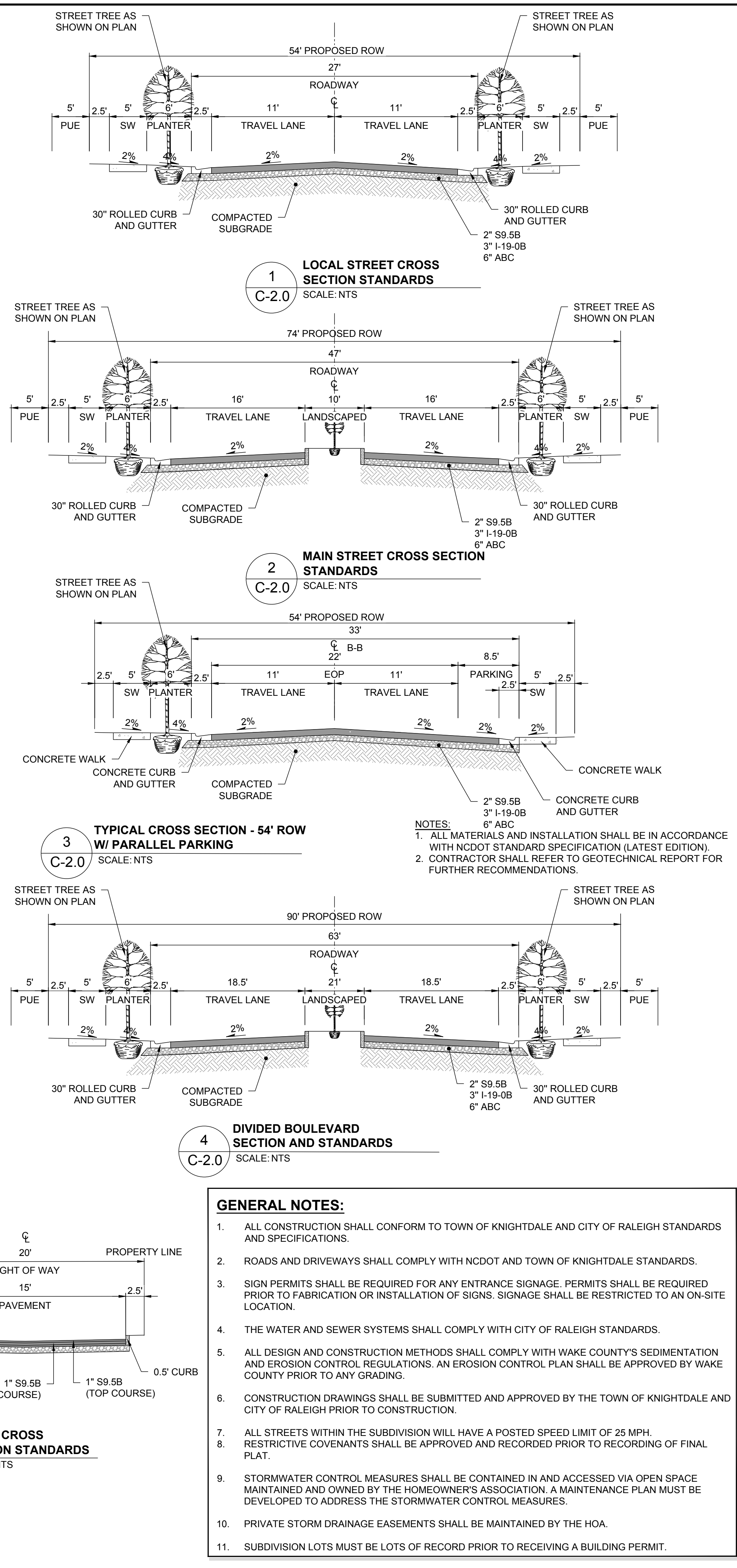
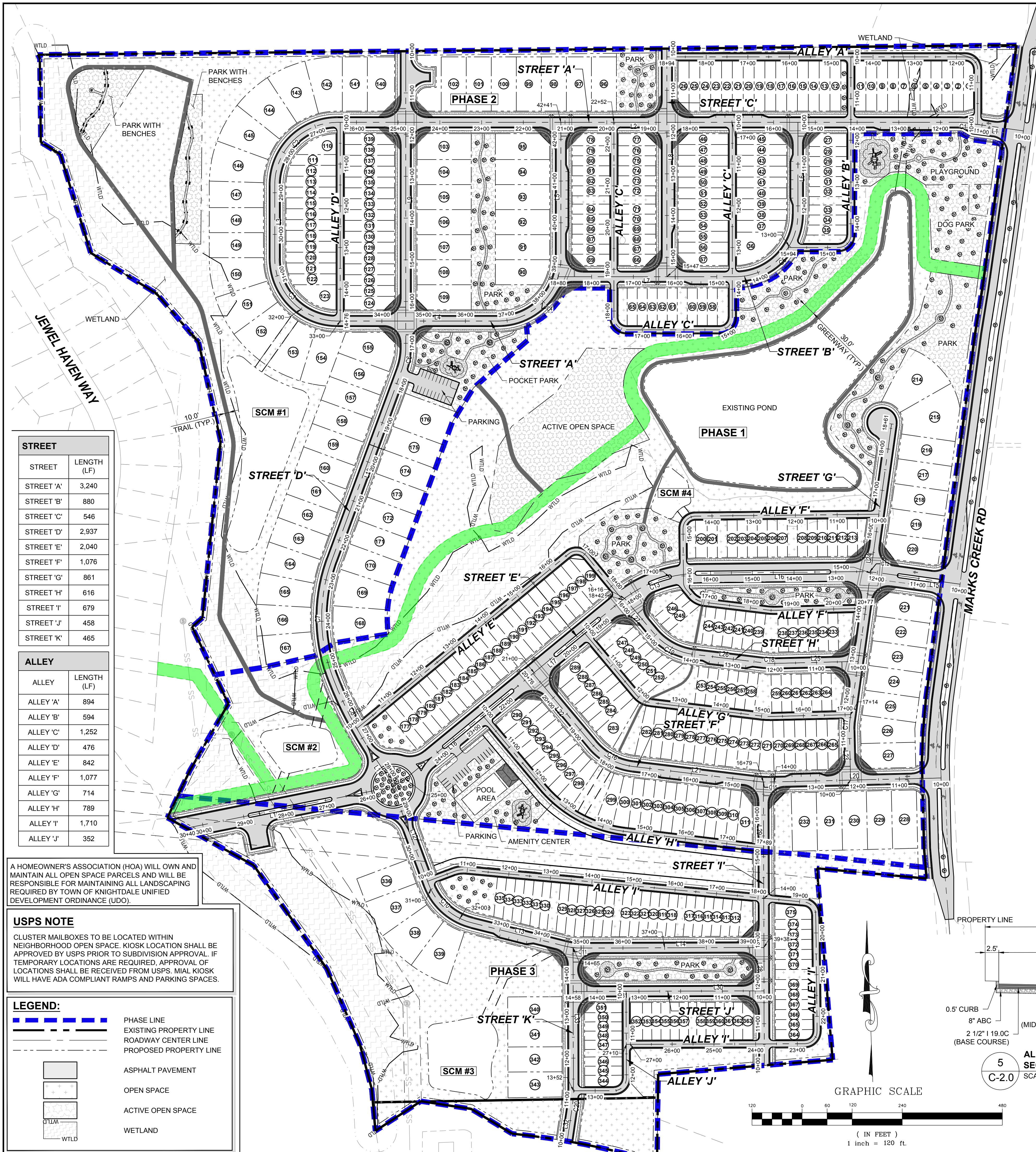
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED EXISTING CONDITIONS II



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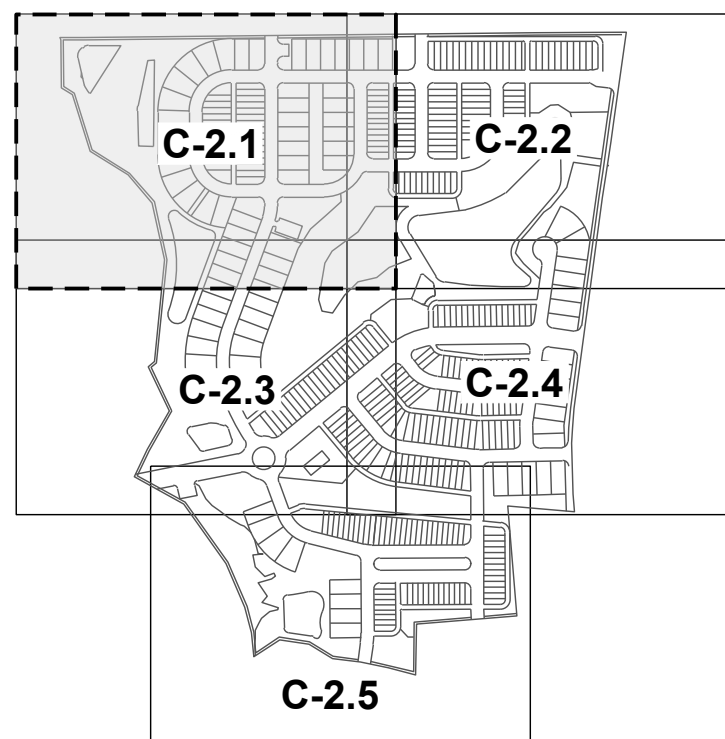
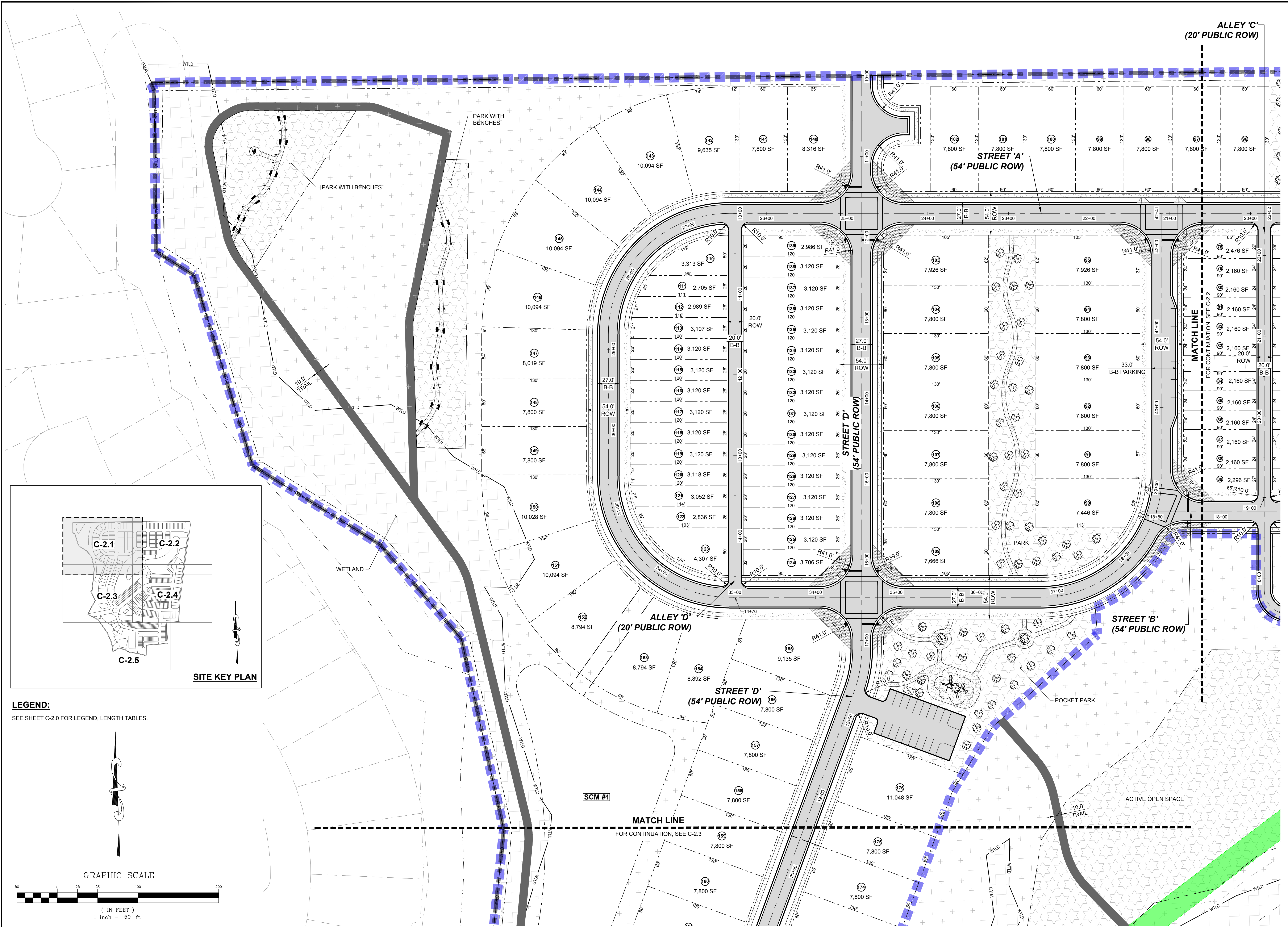
SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER 036225 JUSTIN W. LAMBERT

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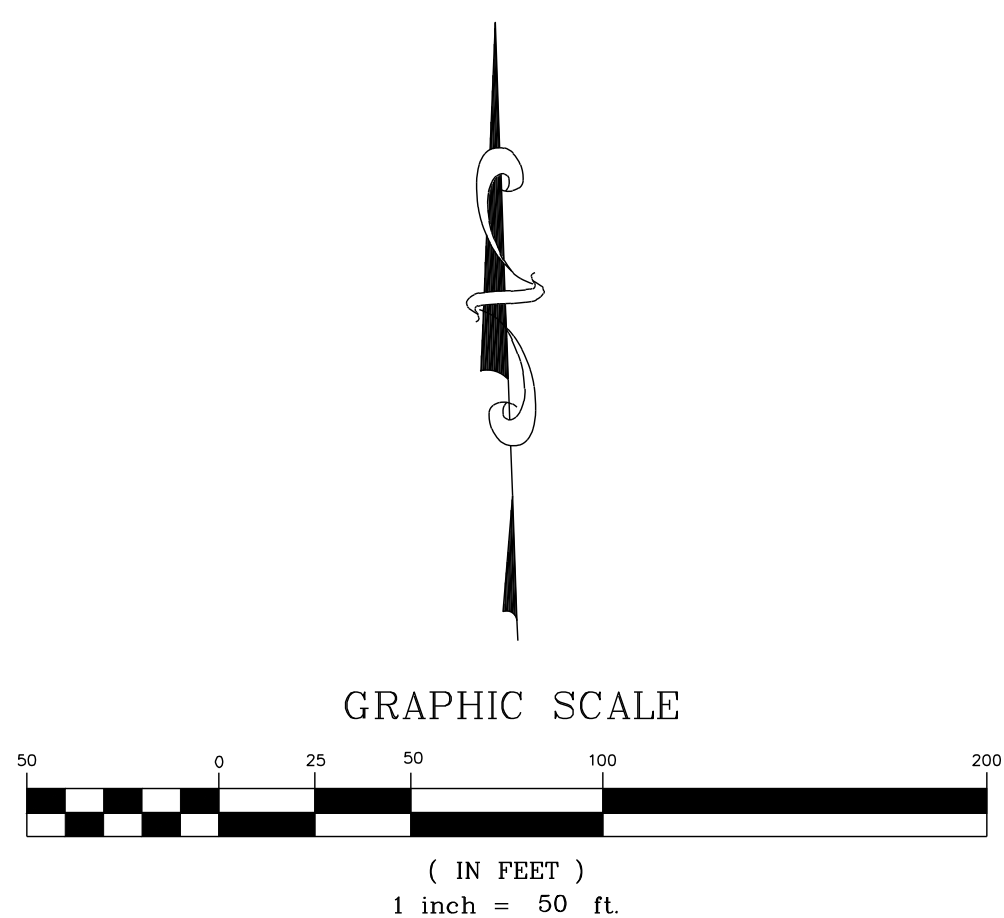
PRESERVE AT MARKS CREEK TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA MASTER PLAN OVERALL SITE PLAN

DRAWING SHEET C-2.0 05 OF 42



SITE KEY PLAN

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



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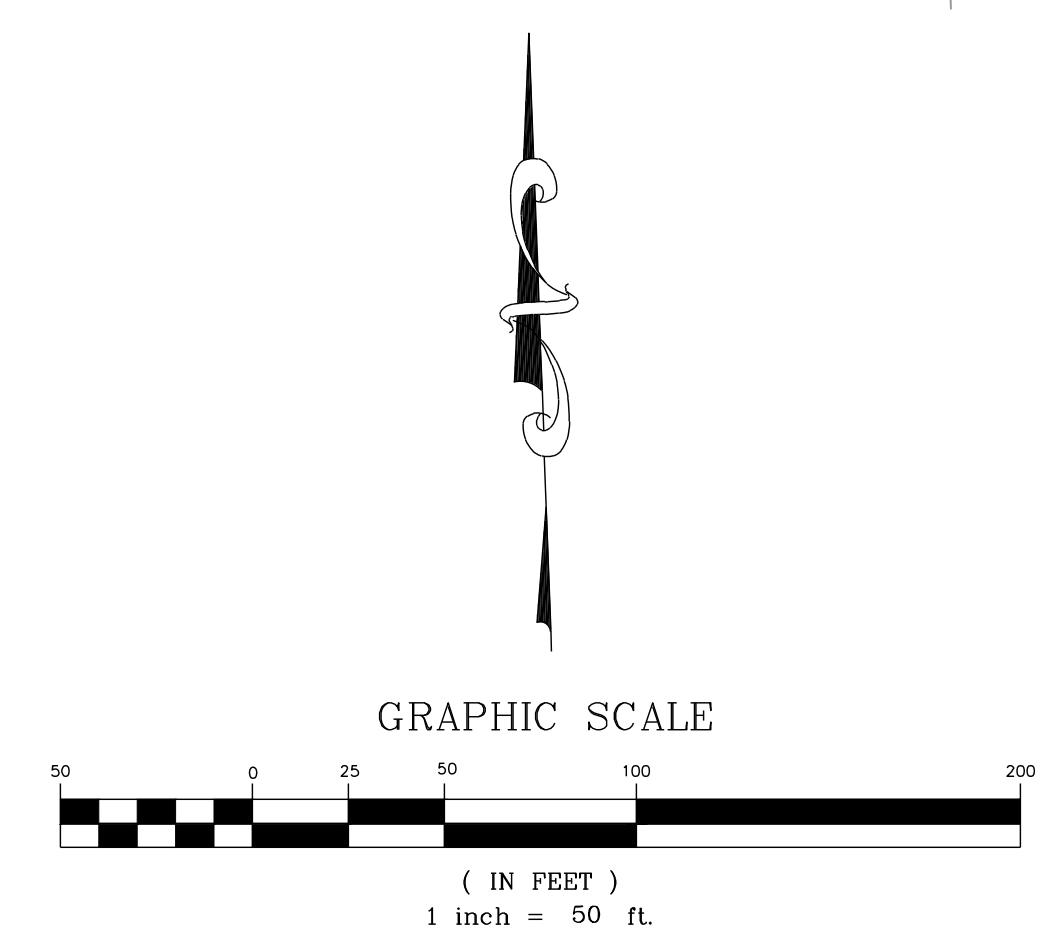
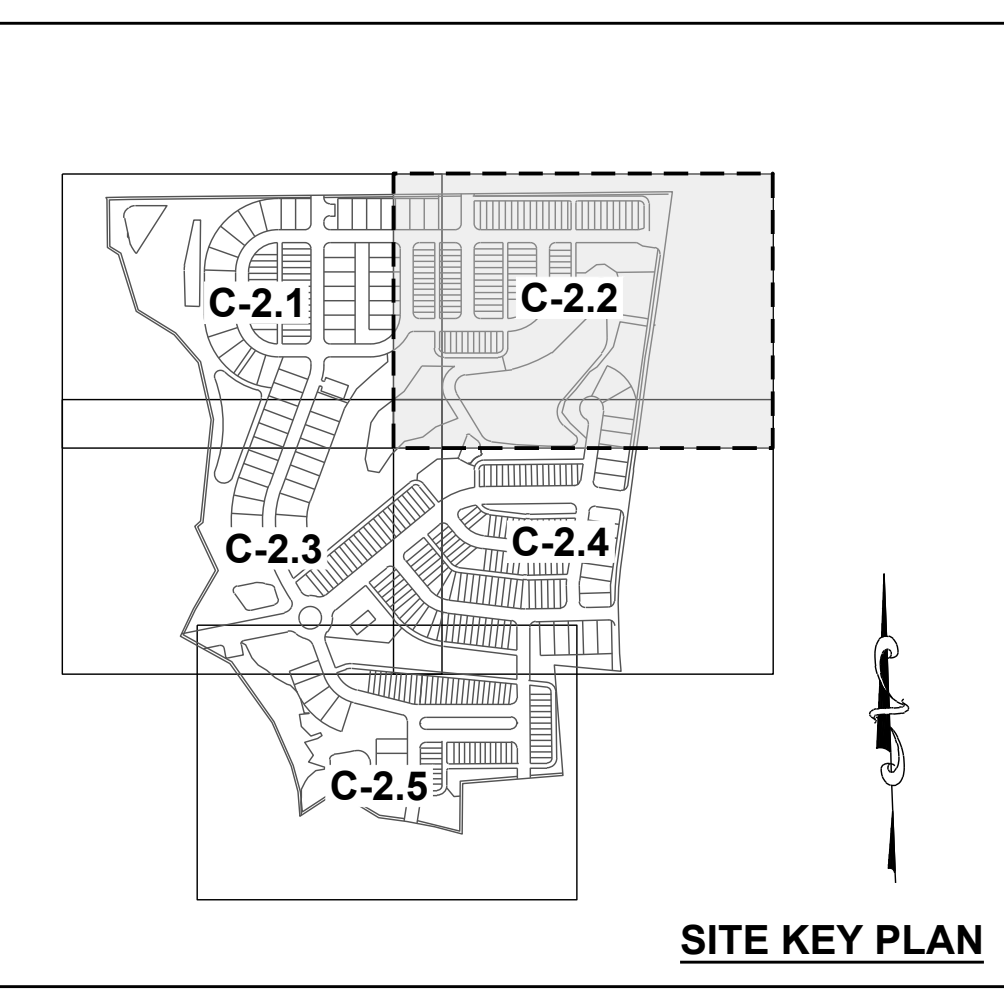
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED SITE PLAN I

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



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



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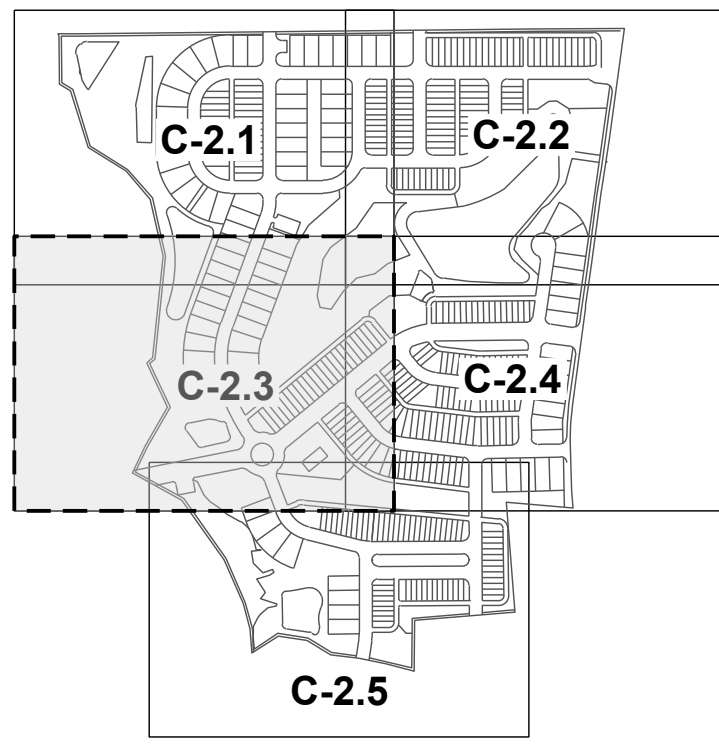


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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED SITE PLAN II

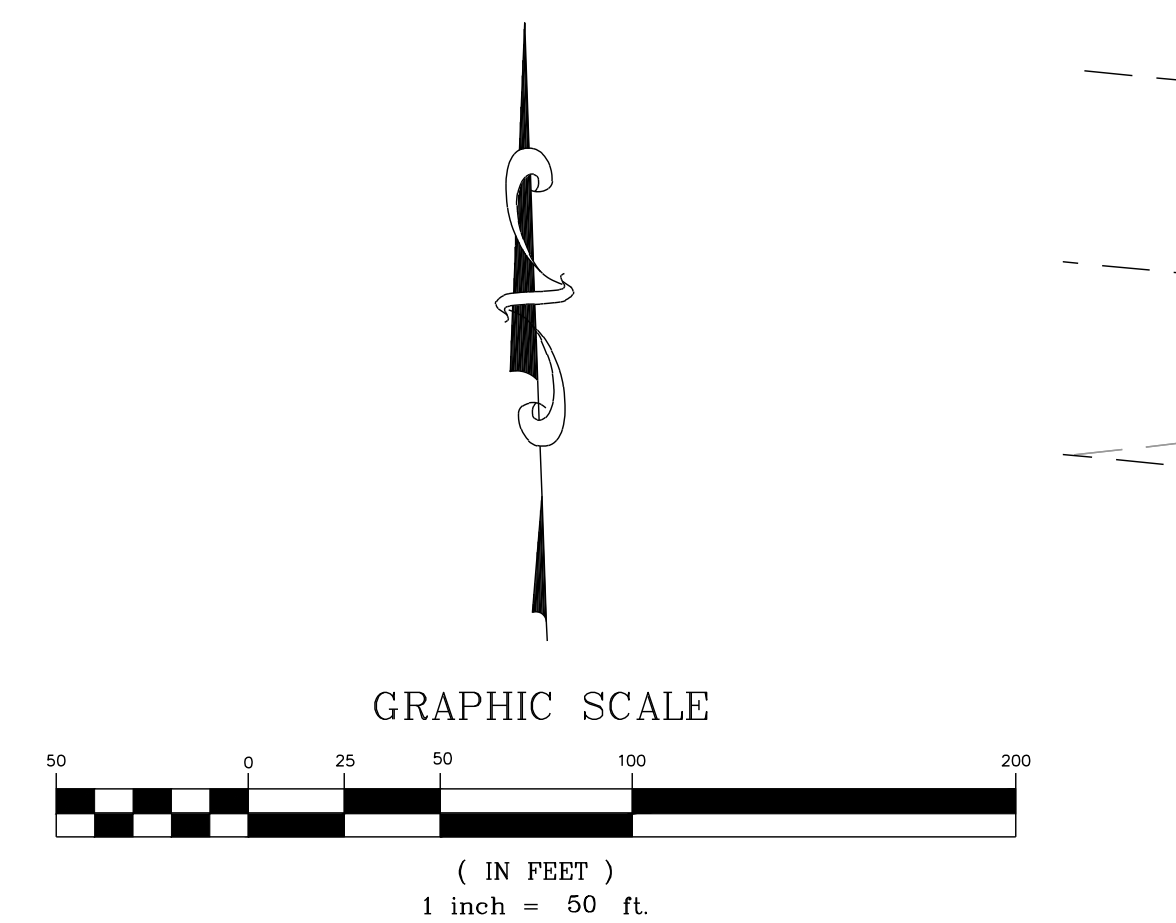
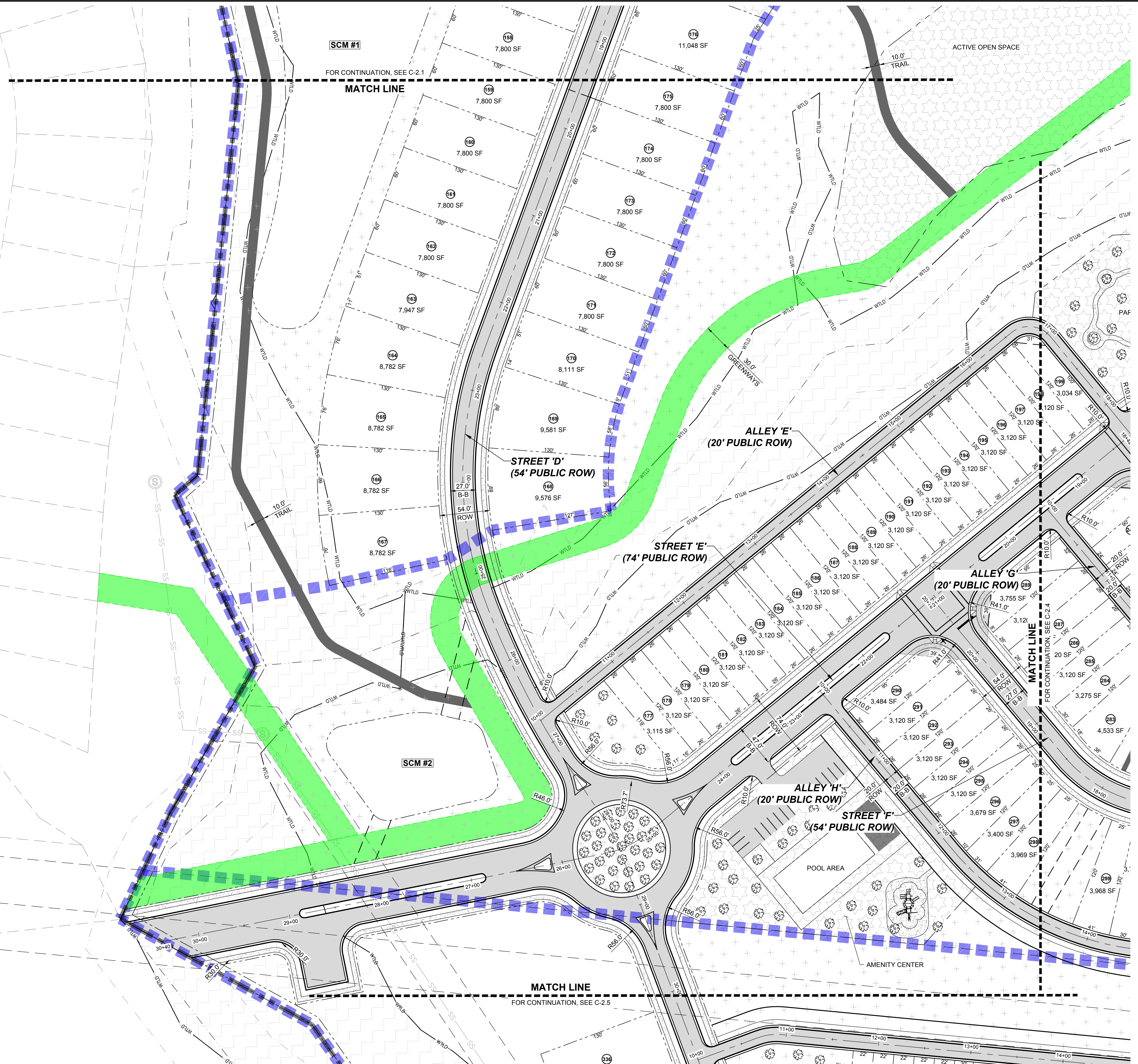
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07 OF 42



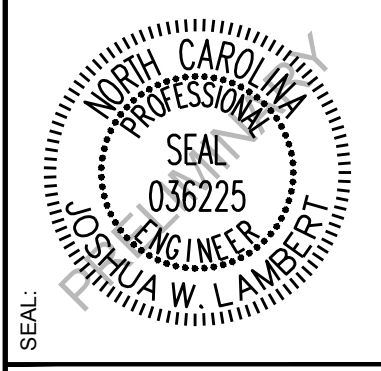
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**LEGEND:**

SEE SHEET C-2.0 FOR LEGEND, LENGTH TABLES.



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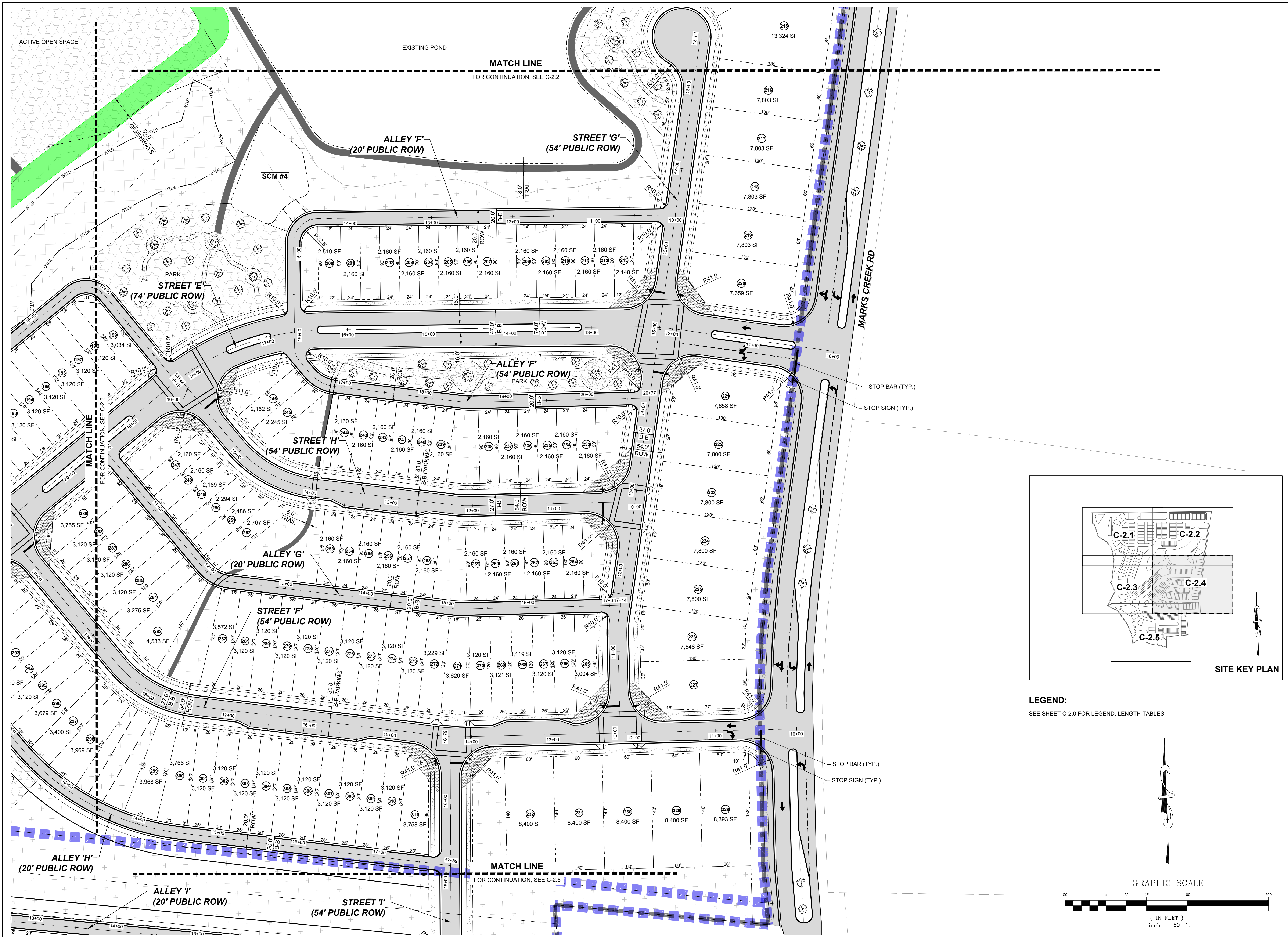
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6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | JOSH@STRONGROCKENGINEERING.COM

| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE | DESIGNED BY | DRAWN BY | CHECKED BY |
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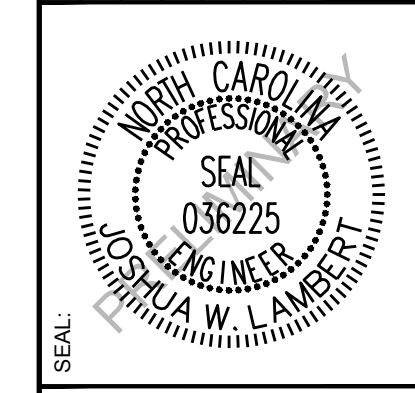
PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED SITE PLAN III

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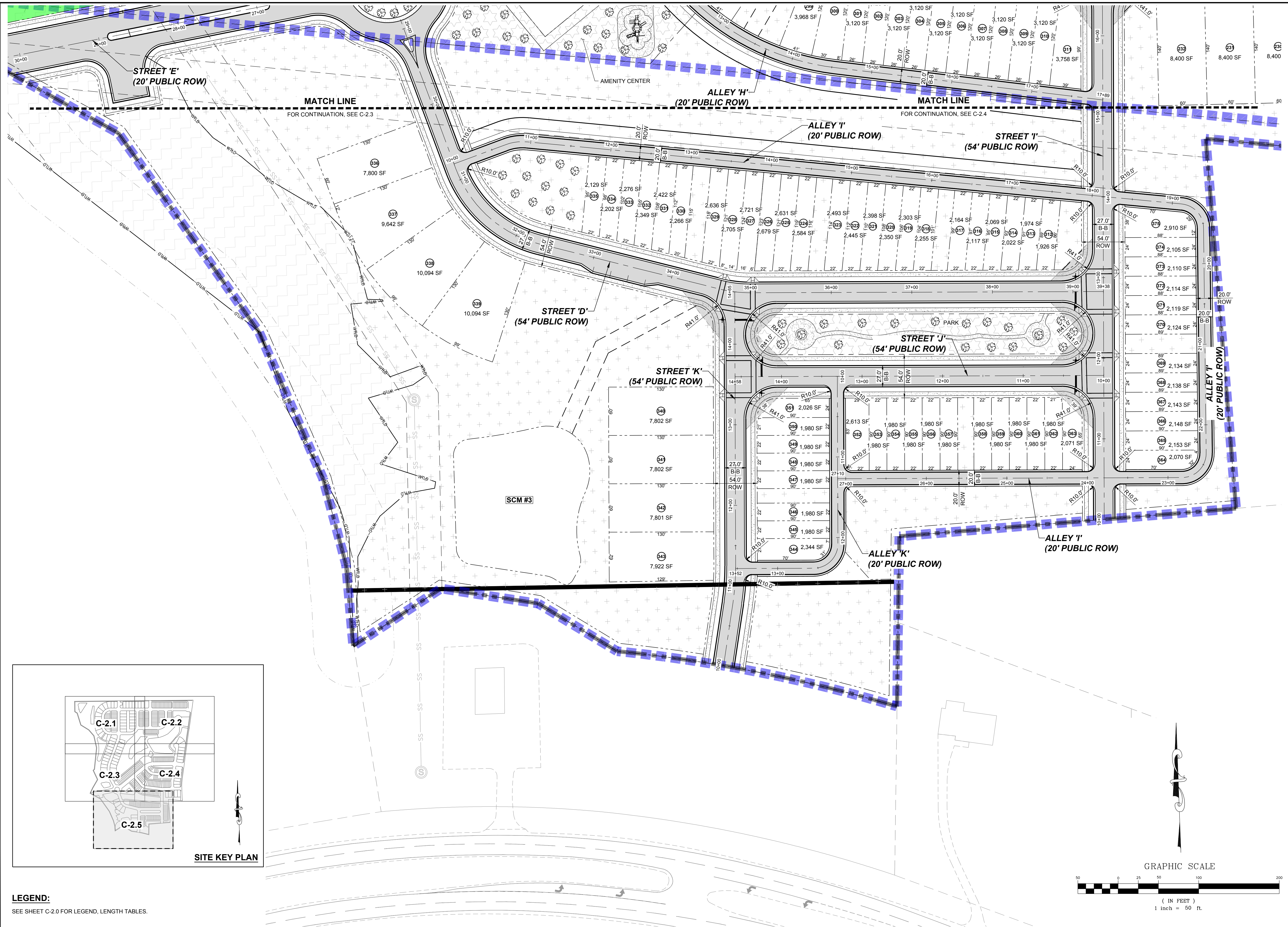
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|                     |                      |                | JWL         | SRG      | JWL        |

PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED SITE PLAN IV  
DRAWING SHEET  
**C-2.4**  
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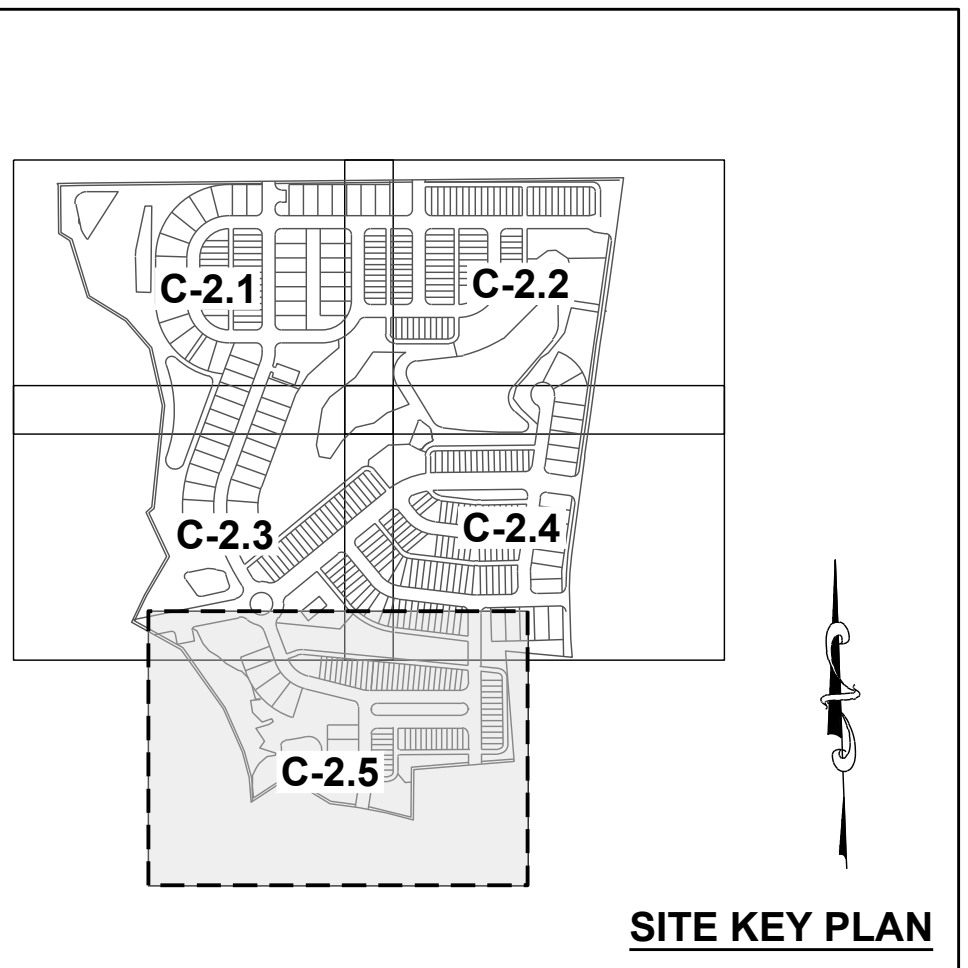
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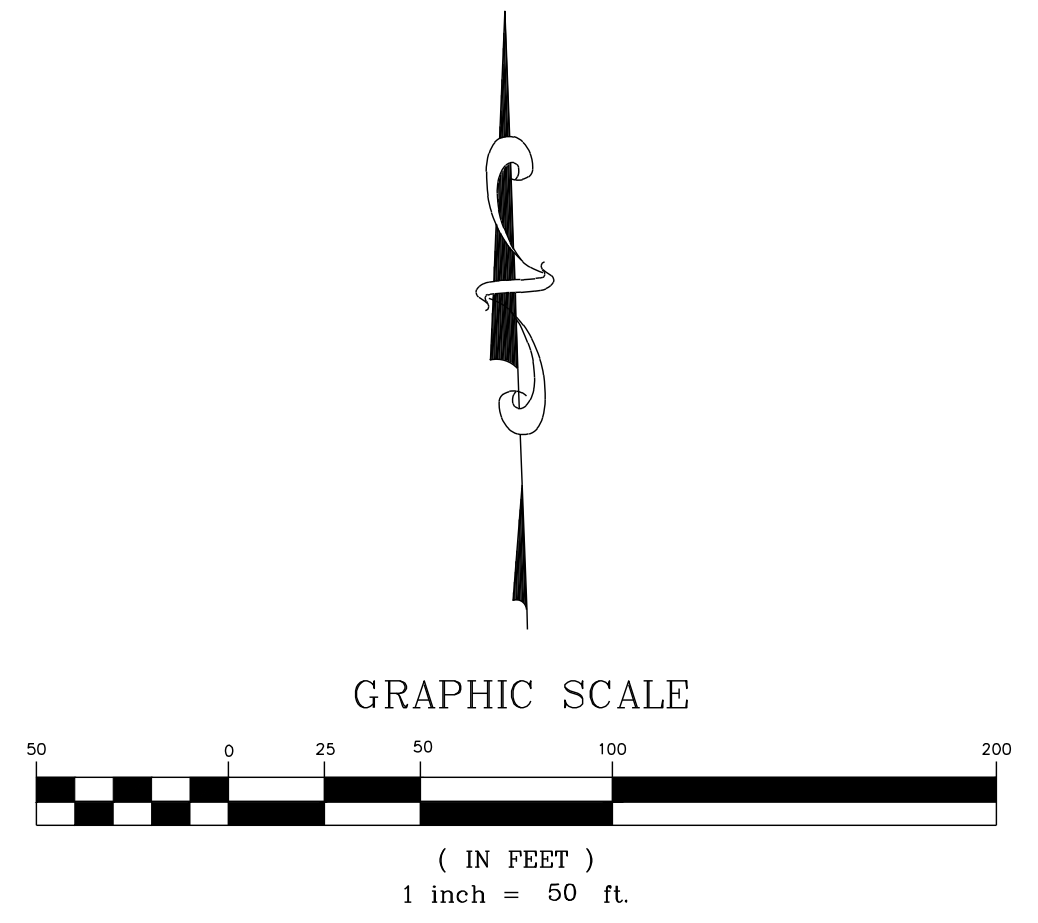
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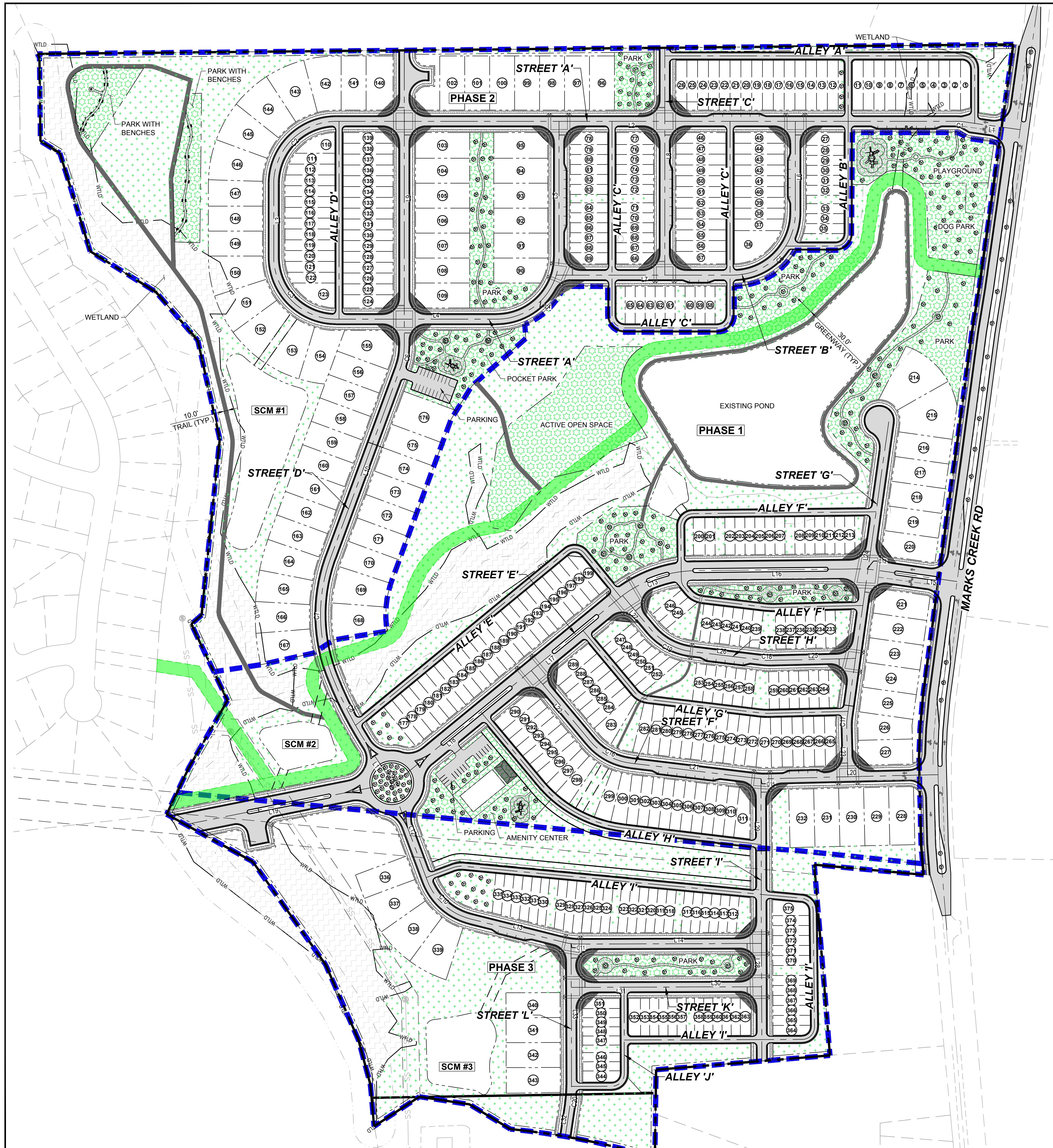
**PRESERVE AT MARKS CREEK**  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
**DETAILED SITE PLAN V**

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





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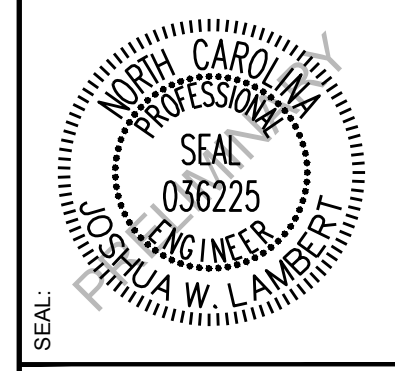
- PHASE LINE
- - - EXISTING PROPERTY LINE
- ROADWAY CENTER LINE
- PROPOSED PROPERTY LINE
- [Green Stippled Box] PASSIVE OPEN SPACE
- [Light Green Box] ACTIVE OPEN SPACE

| PHASE 1            | AREA                         |
|--------------------|------------------------------|
| ACTIVE OPEN SPACE  | 324,509 SF (7.45 AC)         |
| PASSIVE OPEN SPACE | 593,115 SF (13.62 AC)        |
| <b>TOTAL</b>       | <b>917,624 SF (21.07 AC)</b> |

| PHASE 2            | AREA                         |
|--------------------|------------------------------|
| ACTIVE OPEN SPACE  | 107,009 SF (2.45 AC)         |
| PASSIVE OPEN SPACE | 334,111 SF (7.67 AC)         |
| <b>TOTAL</b>       | <b>441,120 SF (10.13 AC)</b> |

| PHASE 3            | AREA                         |
|--------------------|------------------------------|
| ACTIVE OPEN SPACE  | 19,682 SF (0.45 AC)          |
| PASSIVE OPEN SPACE | 416,348 SF (9.56 AC)         |
| <b>TOTAL</b>       | <b>436,030 SF (10.01 AC)</b> |

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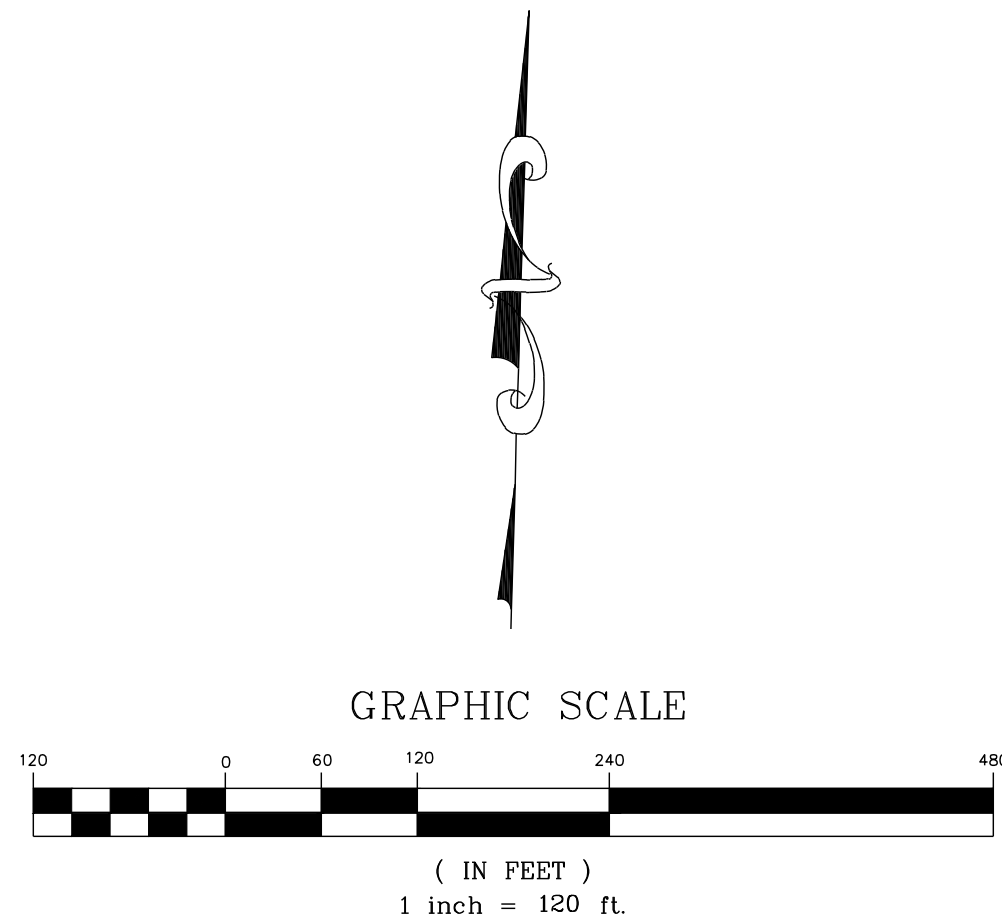


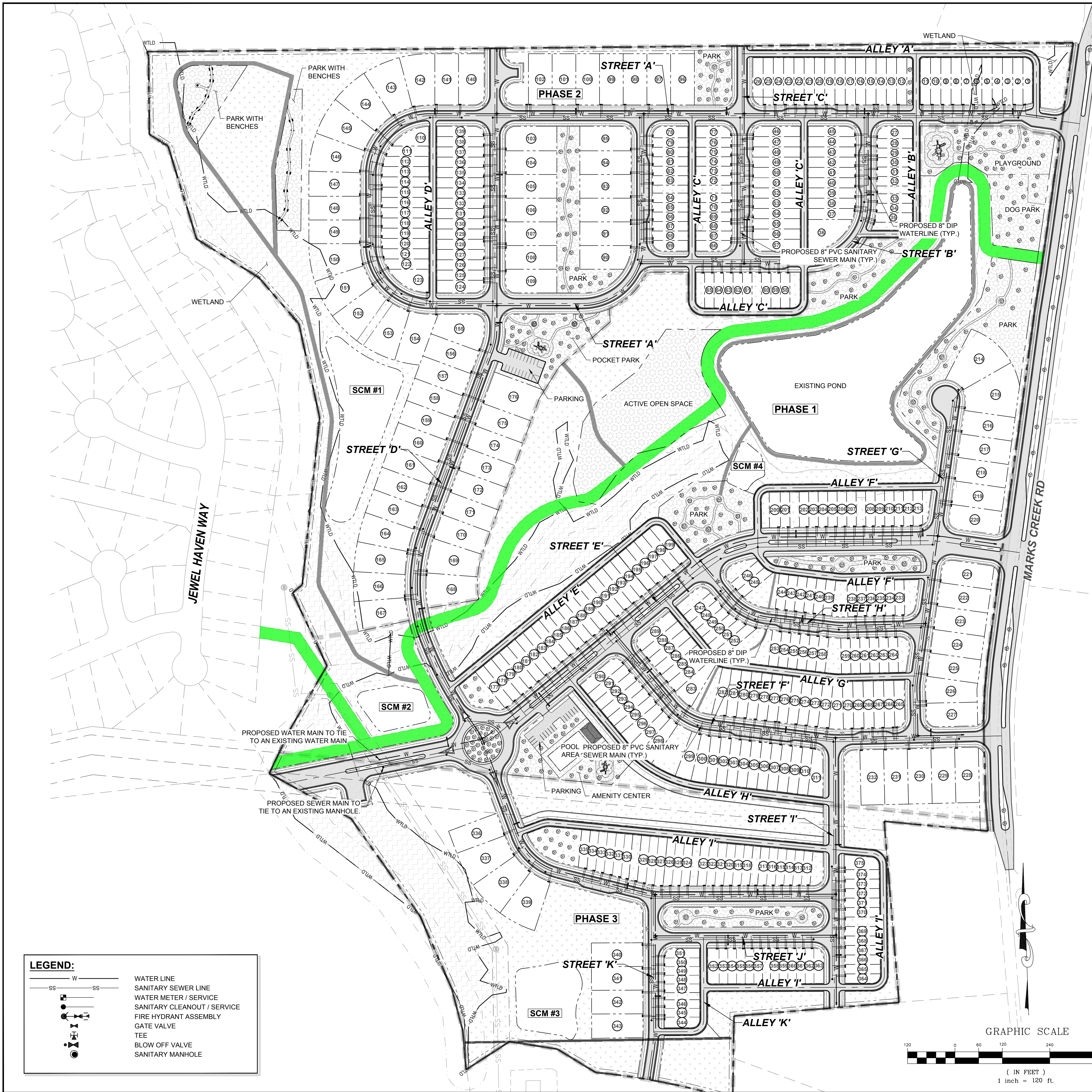
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| STRONG ROCK PROJECT  | DESIGNED BY | CHECKED BY |
|----------------------|-------------|------------|
| NOT FOR CONSTRUCTION | JWL         | JWL        |
| SCALE AS SHOWN       | SRG         | JWL        |

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



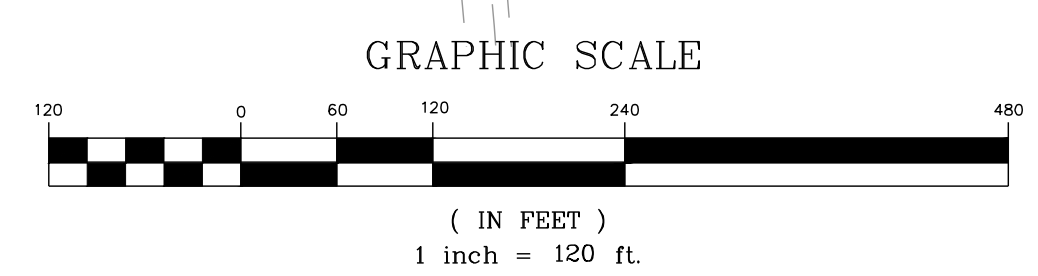


**LEGEND:**

- W WATER LINE
- SS SANITARY SEWER LINE
- Water Meter / Service
- Sanitary Cleanout / Service
- Fire Hydrant Assembly
- Gate Valve
- Tee
- Blow Off Valve
- Sanitary Manhole

- UTILITY NOTES**
1. ALL 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 NCFC.
  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 NCFC. 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 ADJUTING 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 SERVICES SHOULD BE TYPE "K" SOFT COPPER AND IN ACCORDANCE WITH PU HANDBOOK, APP. B, STANDARD WATER DETAIL W-23 AND W-25. IF WATER METERS CANNOT BE LOCATED WITHIN THE RIGHT-OF-WAY THEY MUST BE WITHIN RECORDED "CITY OF RALEIGH WATERLINE EASEMENTS".

- CORPUD STANDARD UTILITY NOTES:**
- STANDARD UTILITY NOTES (AS APPLICABLE):
1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION).
  2. 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 FOLLOWING: WATER MAINS SHALL BE 18" 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 ENCASUREMENT EXTENDED 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.
  3. 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.
  4. 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.
  5. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
  6. 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.
  7. 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.
  8. INSTALL 4" PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM.
  9. 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.
  10. 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.
  11. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
  12. 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.
  13. 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.



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.

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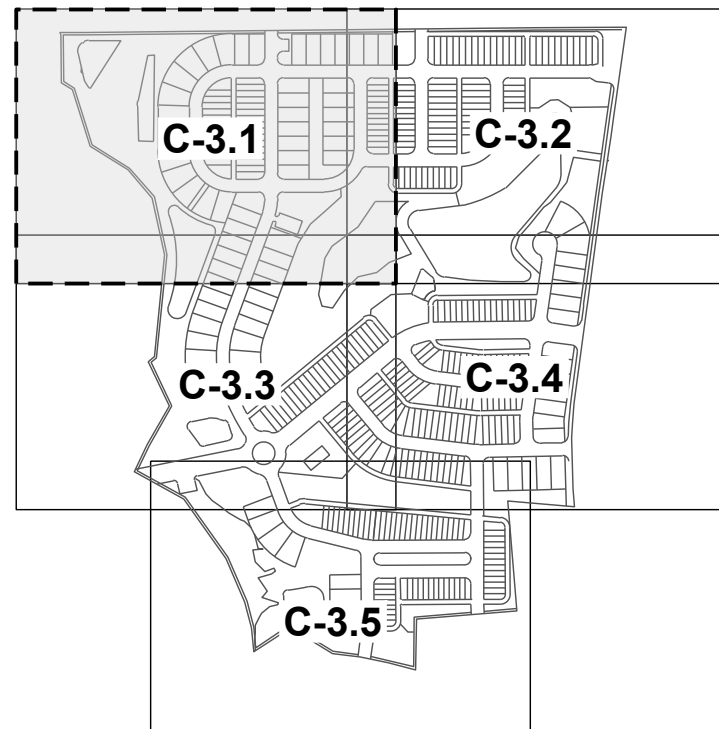
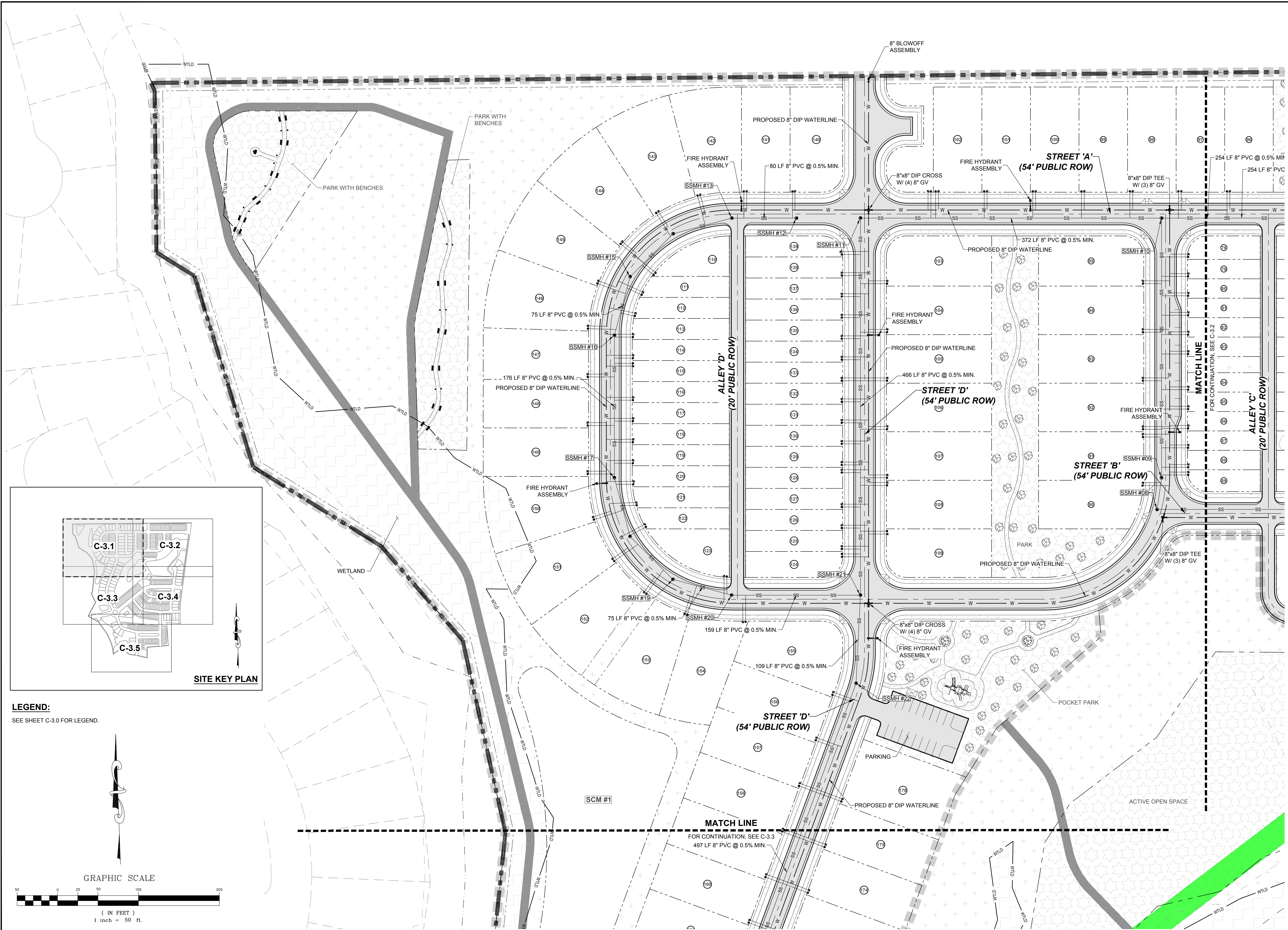
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| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE AS SHOWN | DESIGNED BY JWL | SRG | DRAWN BY JWL | CHECKED BY JWL |
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PRESERVE AT MARKS CREEK  
TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA 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

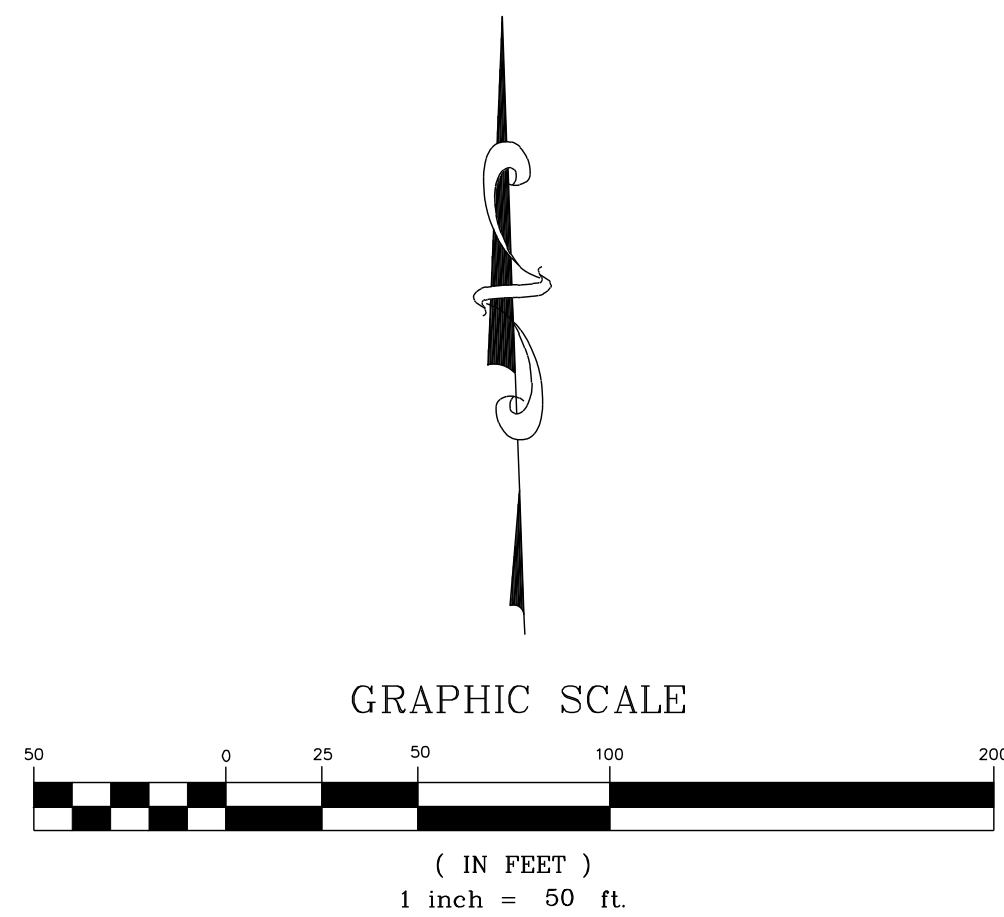
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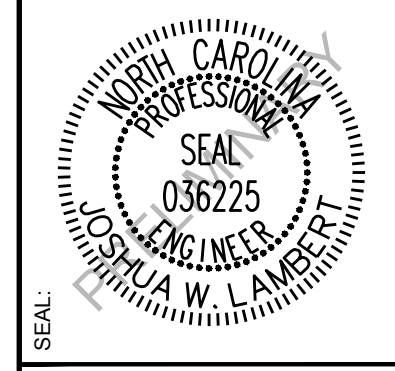


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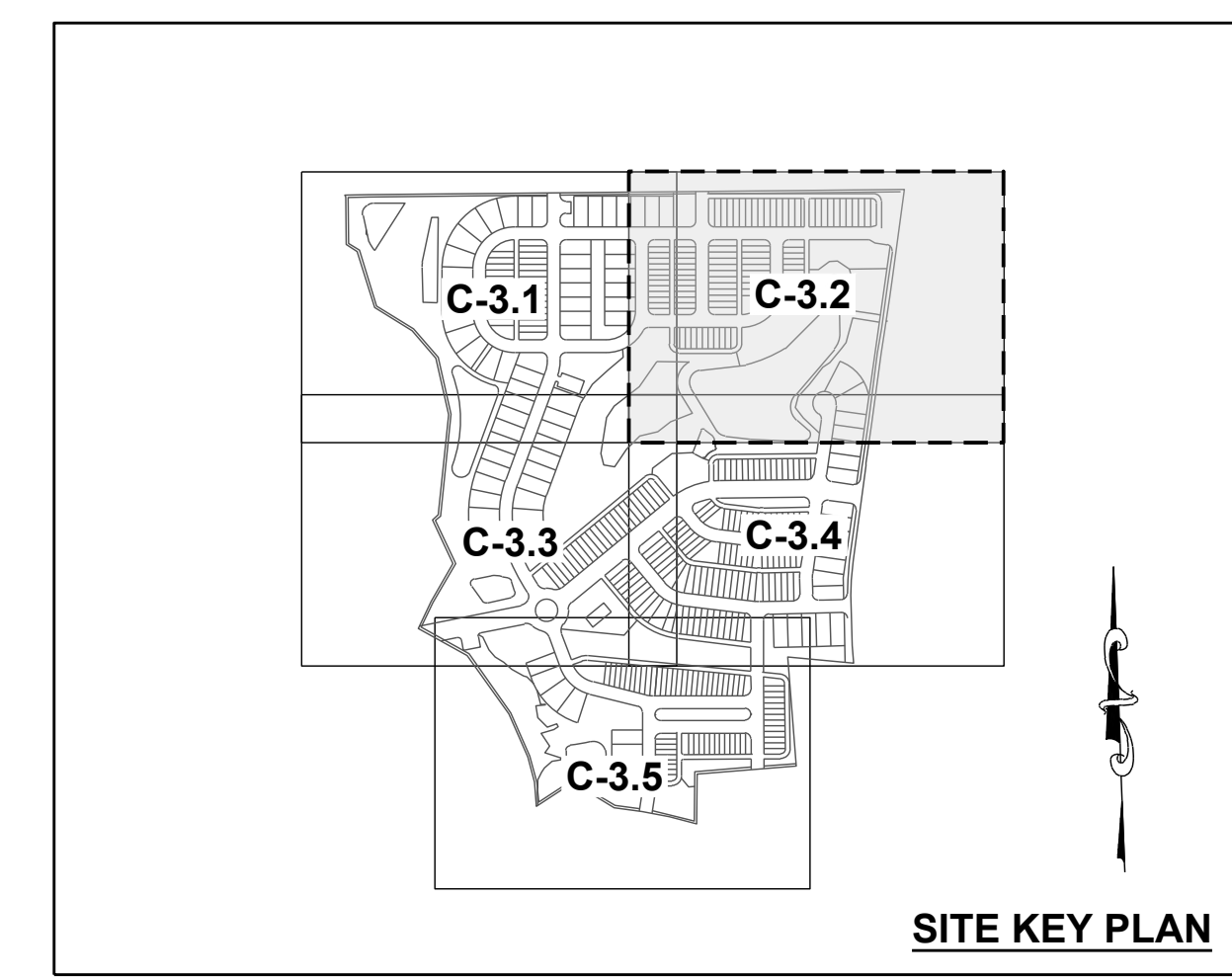
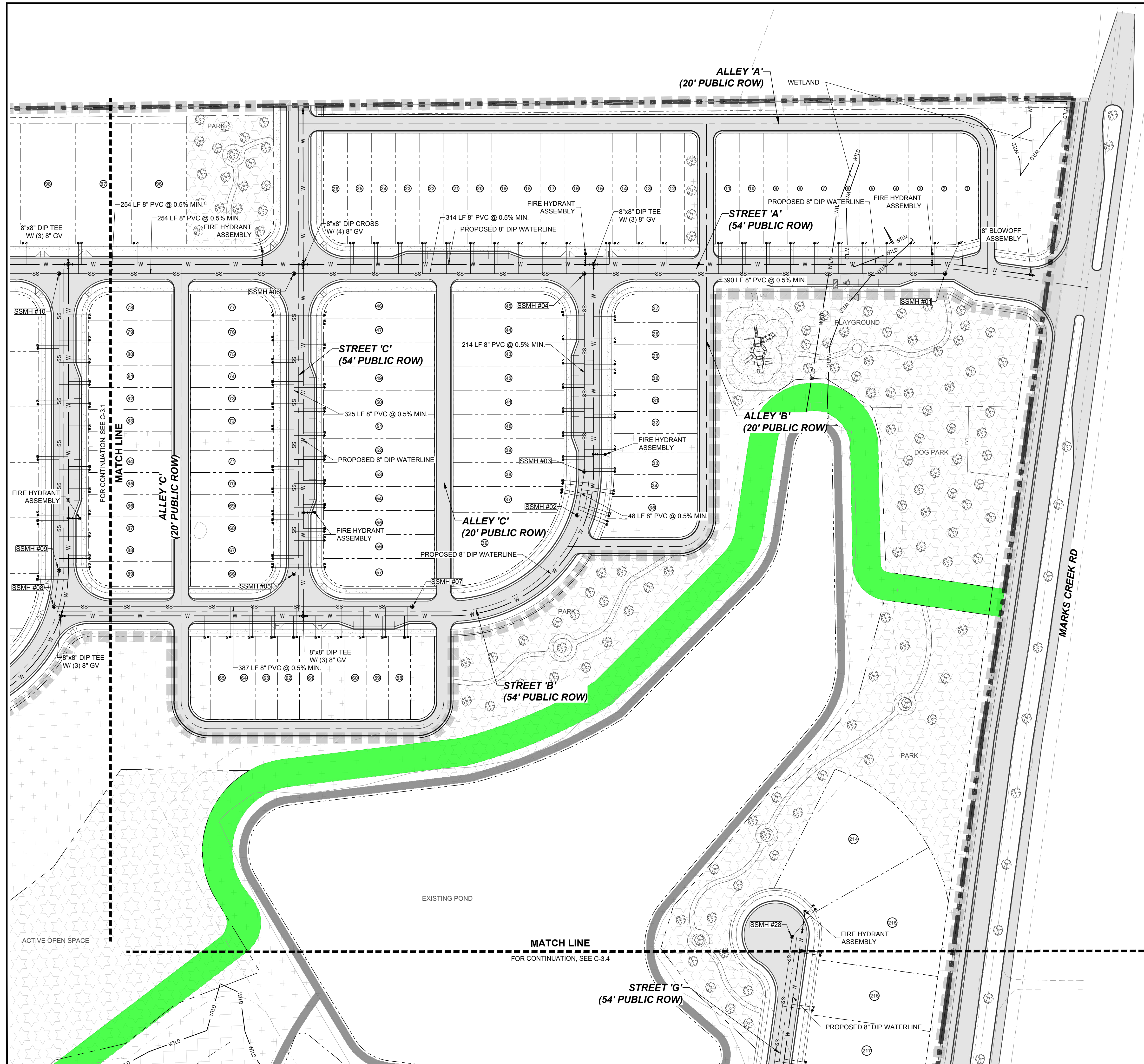
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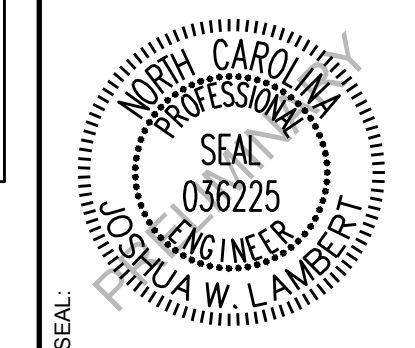
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED UTILITY PLAN I



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

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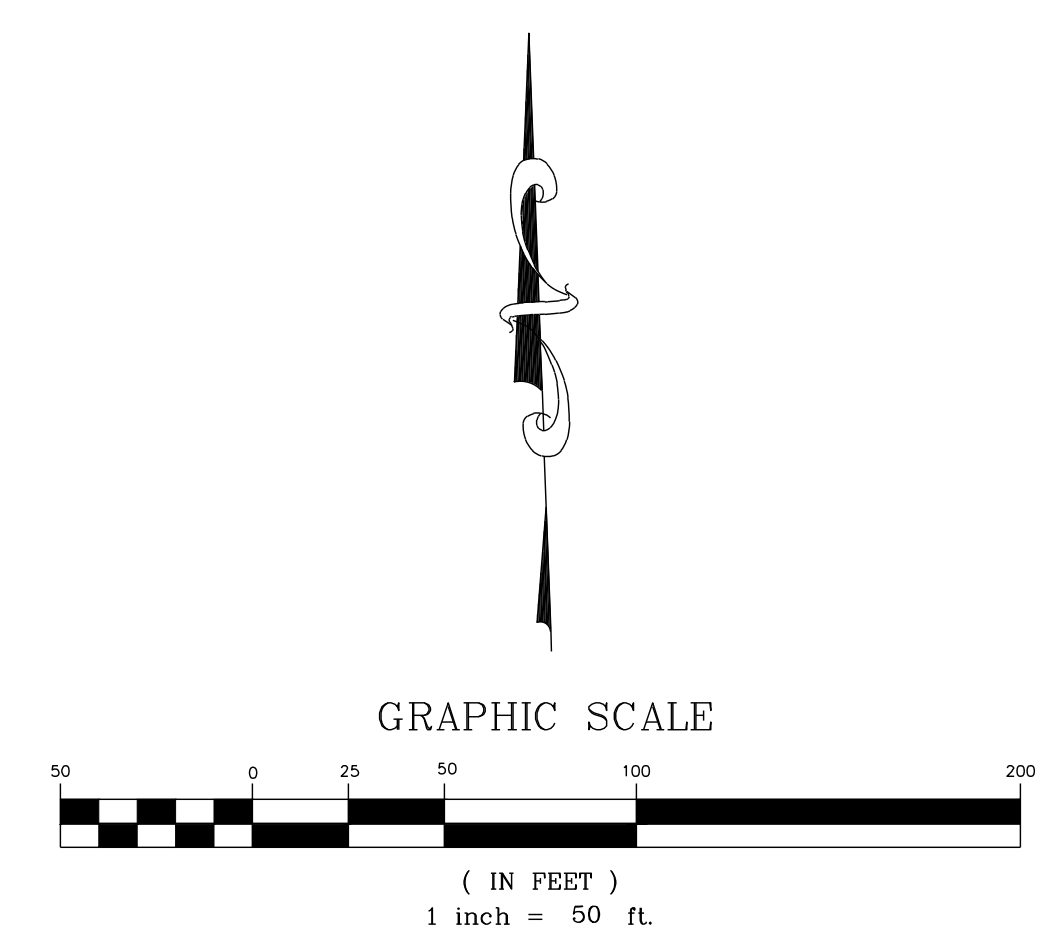


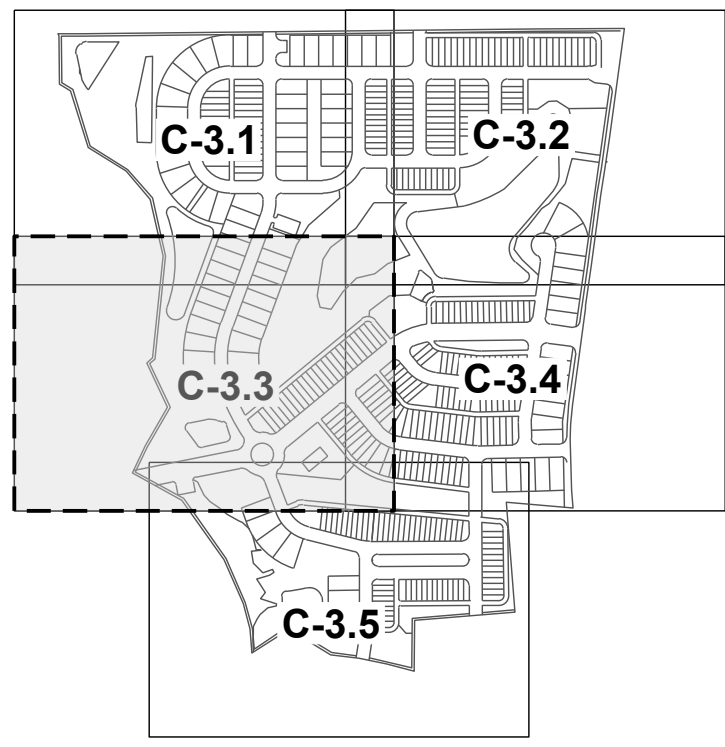
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED UTILITY PLAN II

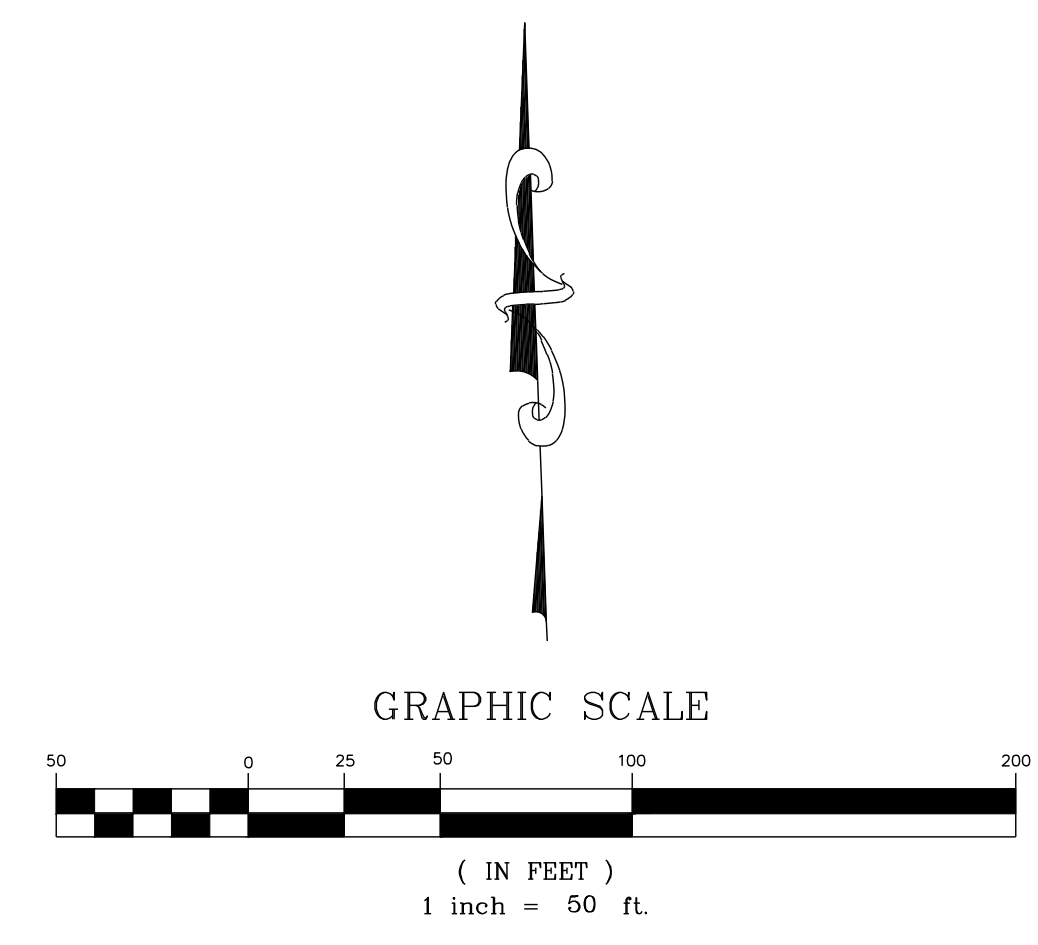
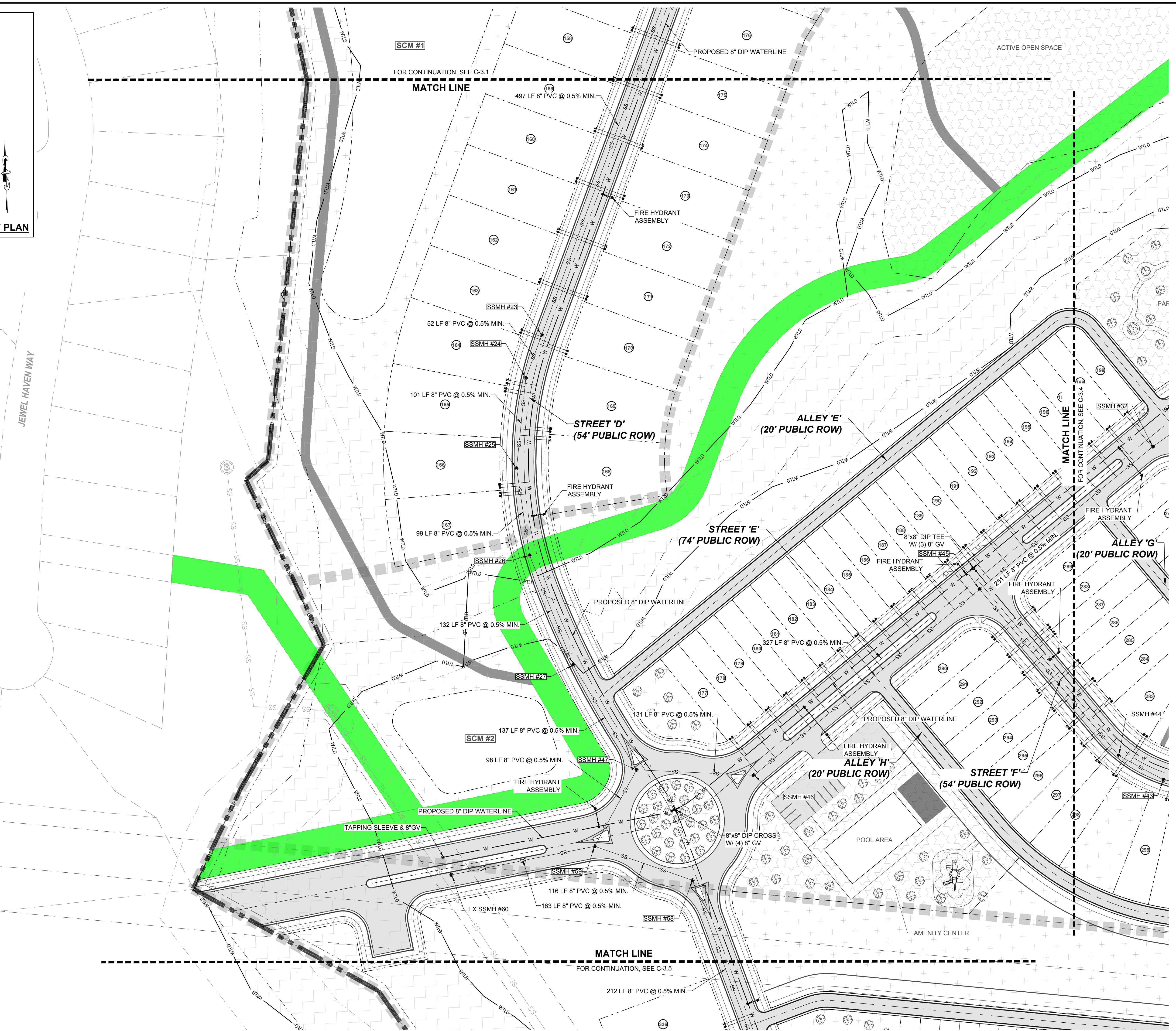
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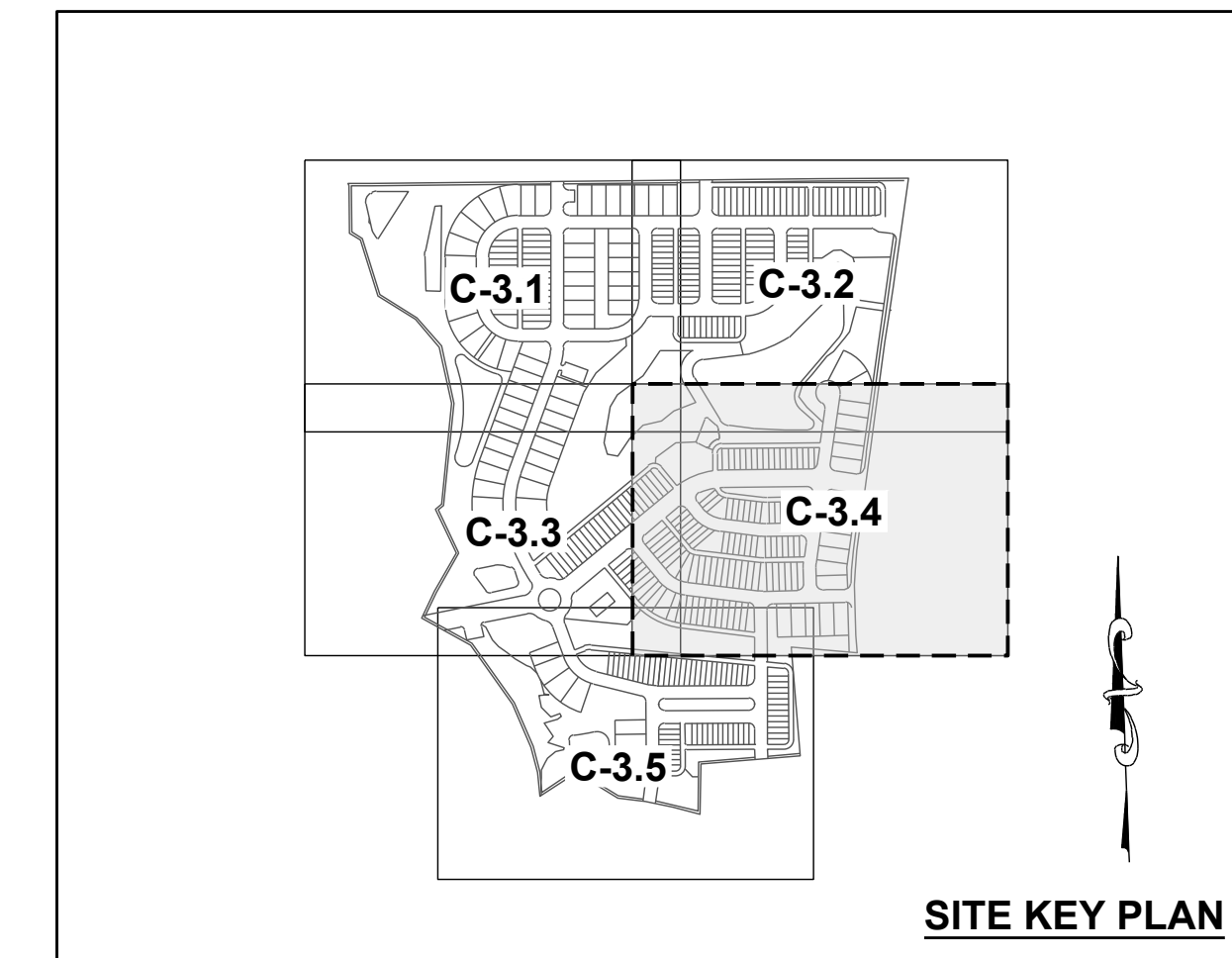
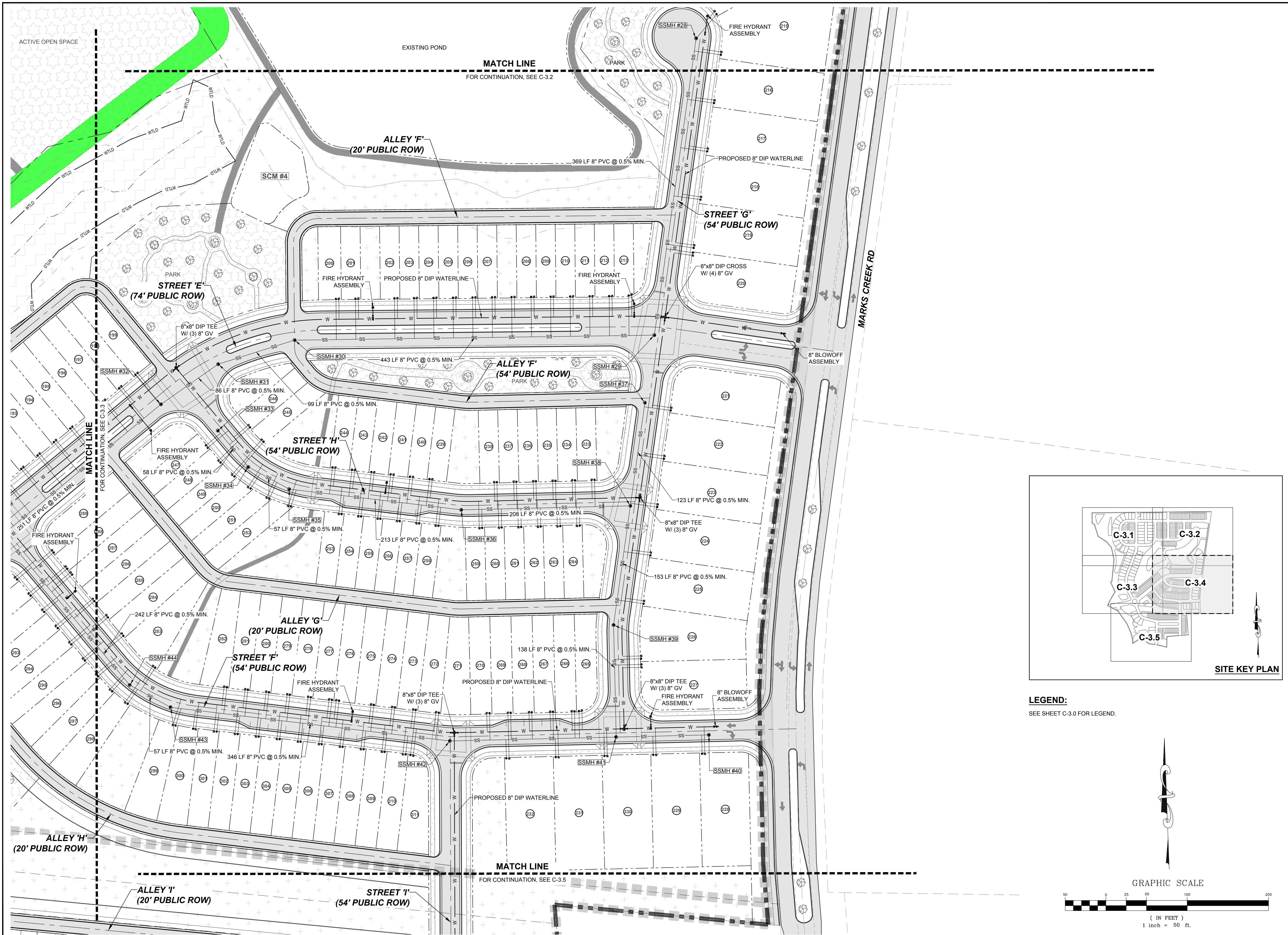


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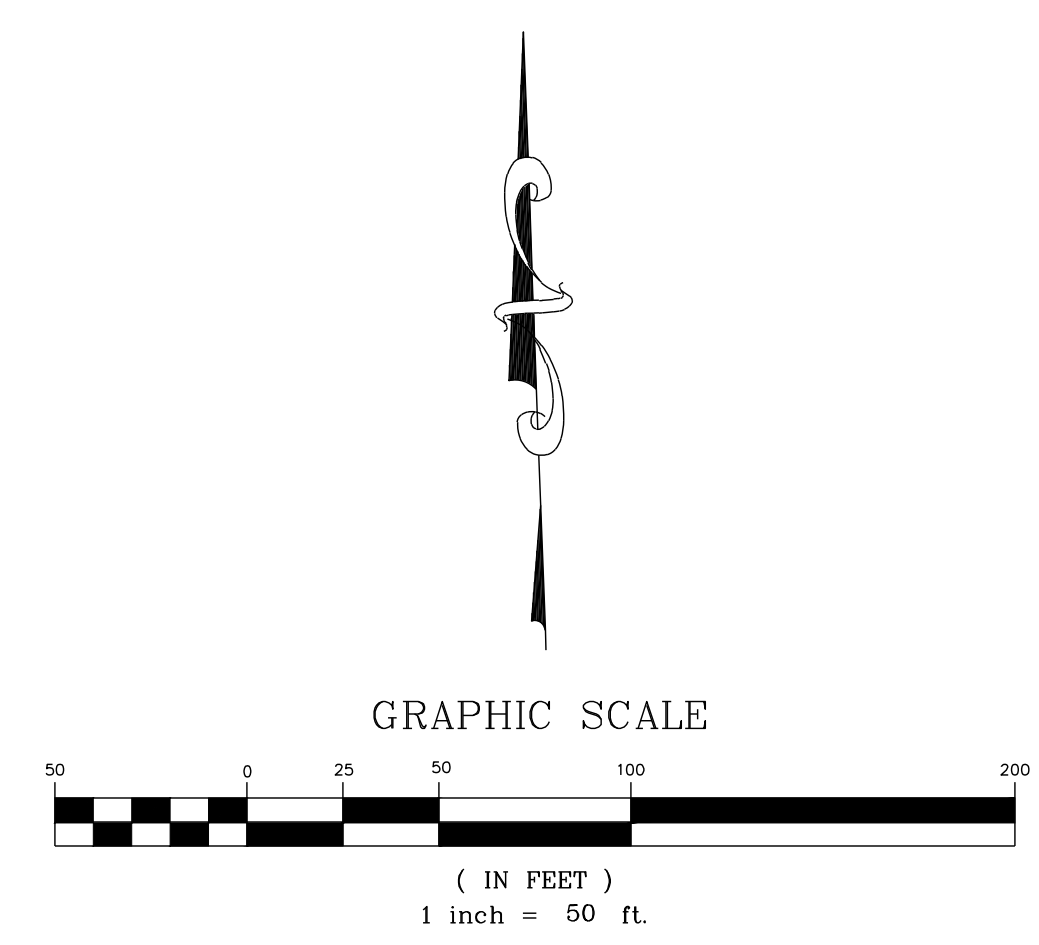
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| NOT FOR CONSTRUCTION | AS SHOWN | JWL         | SRG      | JWL        |

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

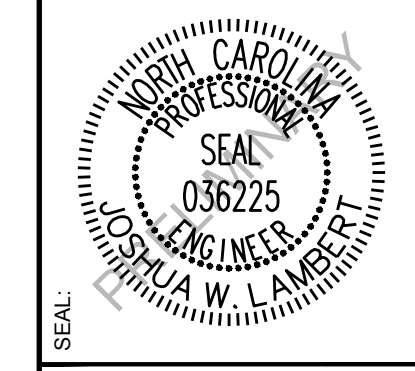
DRAWING SHEET  
**C-3.3**  
15 OF 42



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



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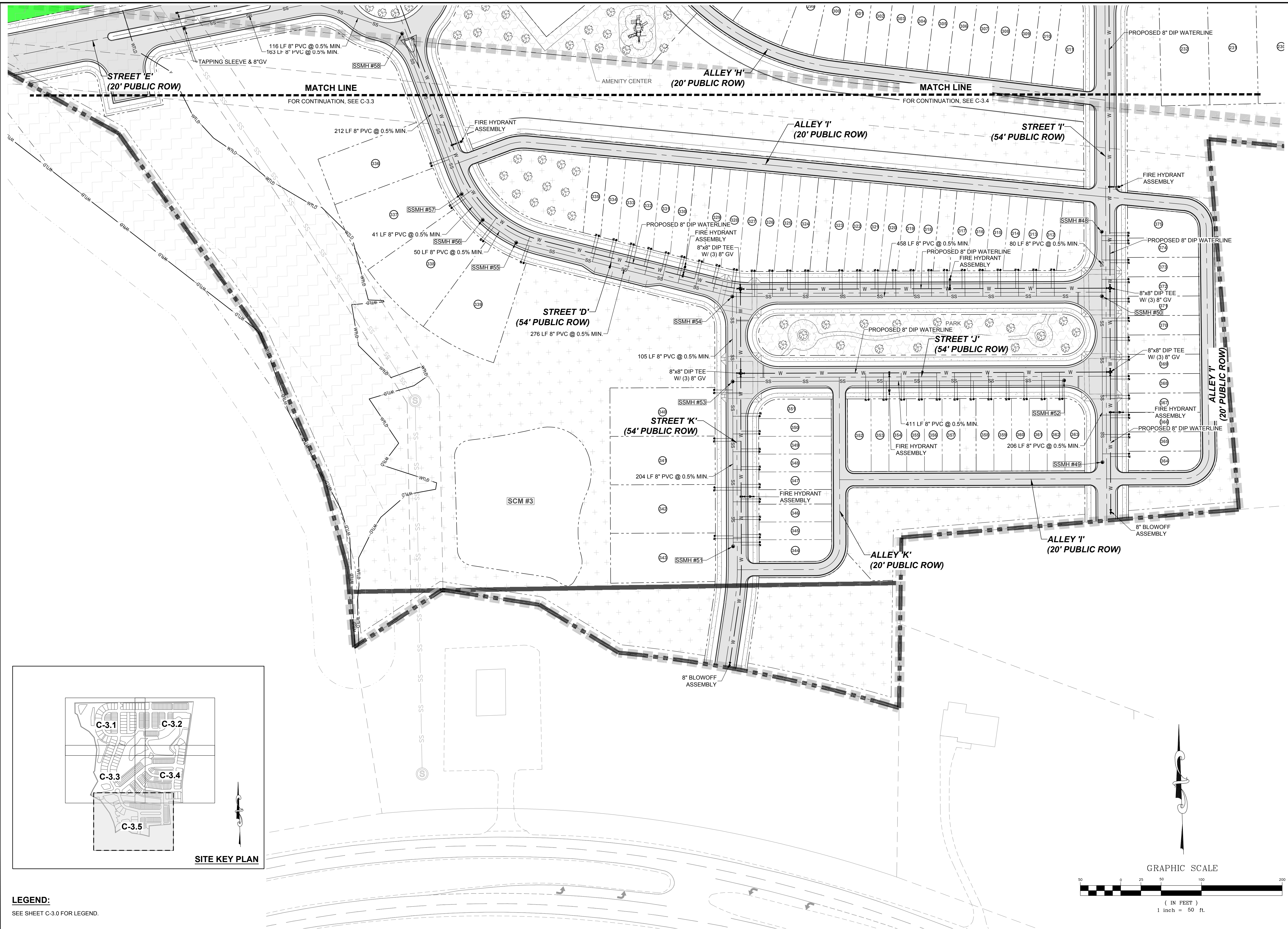


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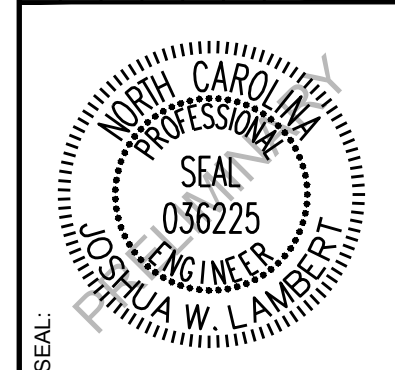
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| NOT FOR CONSTRUCTION | DRAWN BY    | JWL | JWL |
| SCALE AS SHOWN       | CHECKED BY  | JWL | JWL |

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





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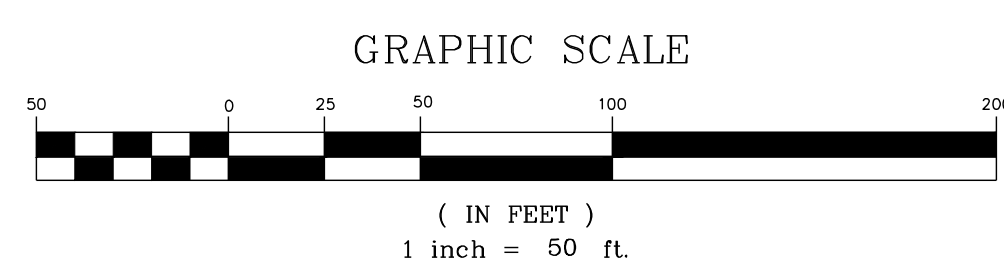
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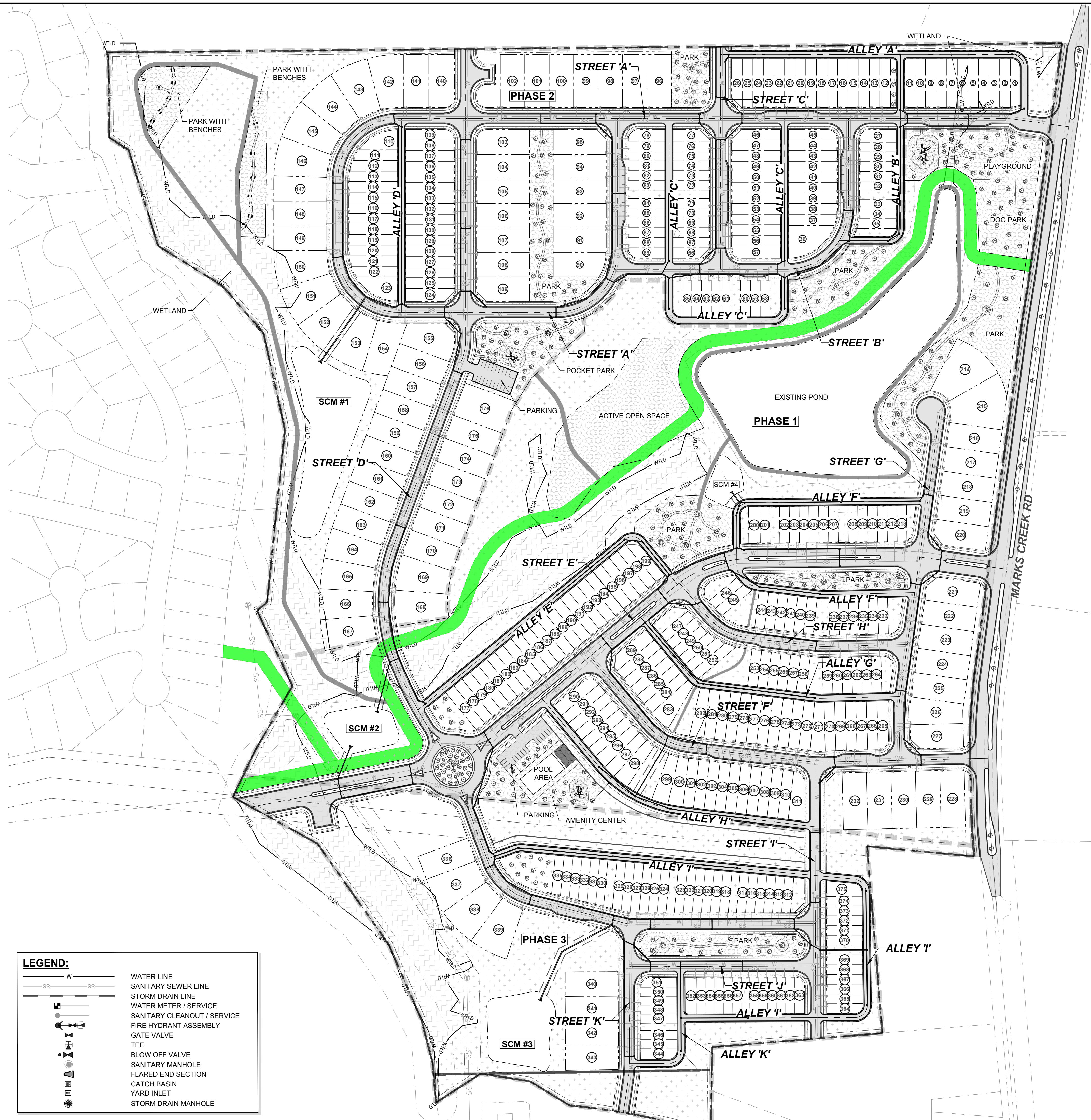
PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED UTILITY PLAN V

DRAWING SHEET  
**C-3.5**

17 OF 42

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





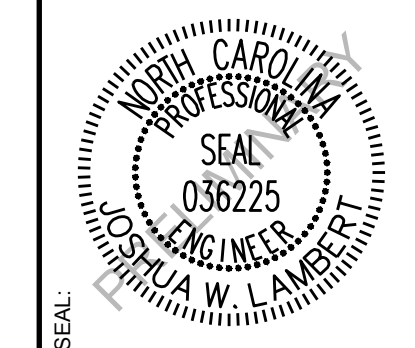
**LEGEND:**

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|  | WATER LINE                  |
|  | SANITARY SEWER LINE         |
|  | STORM DRAIN LINE            |
|  | WATER METER / SERVICE       |
|  | SANITARY CLEANOUT / SERVICE |
|  | FIRE HYDRANT ASSEMBLY       |
|  | GATE VALVE                  |
|  | TEE                         |
|  | BLOW OFF VALVE              |
|  | SANITARY MANHOLE            |
|  | FLARED END SECTION          |
|  | CATCH BASIN                 |
|  | YARD INLET                  |
|  | STORM DRAIN MANHOLE         |

- 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.

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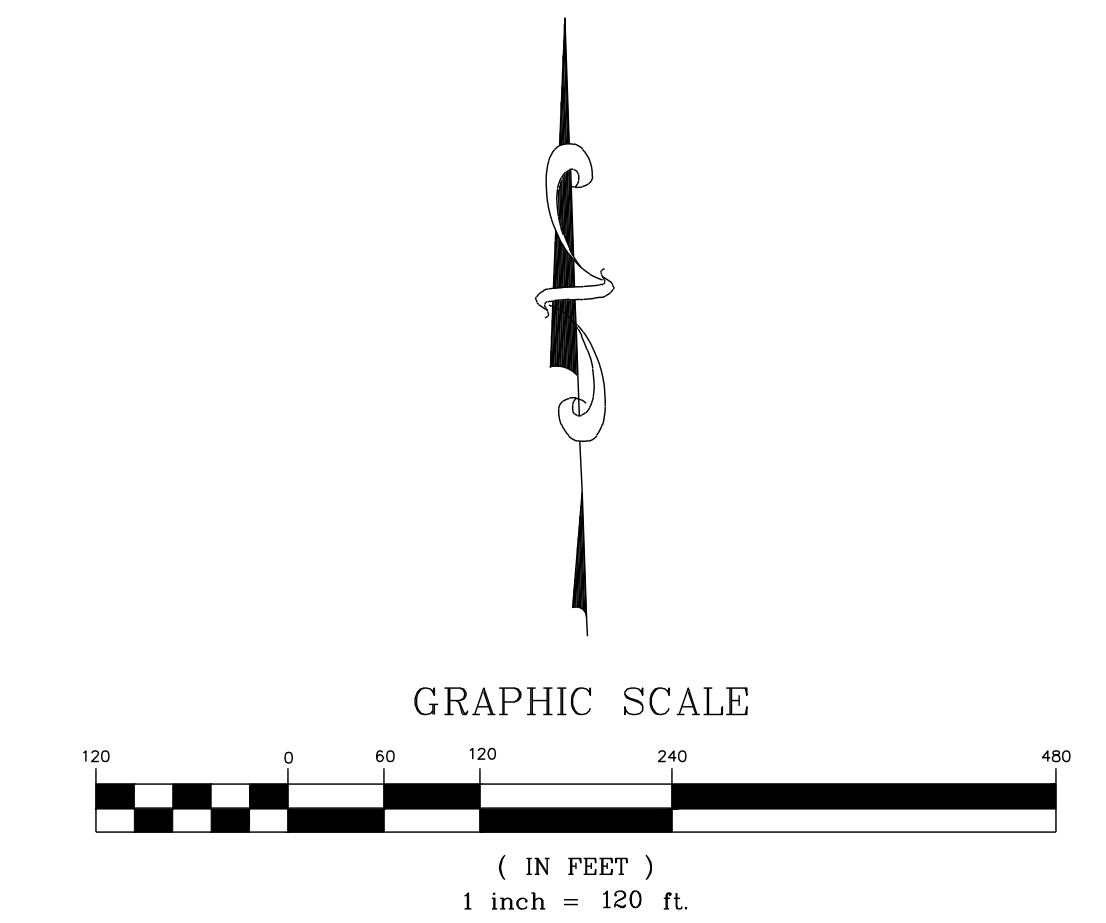


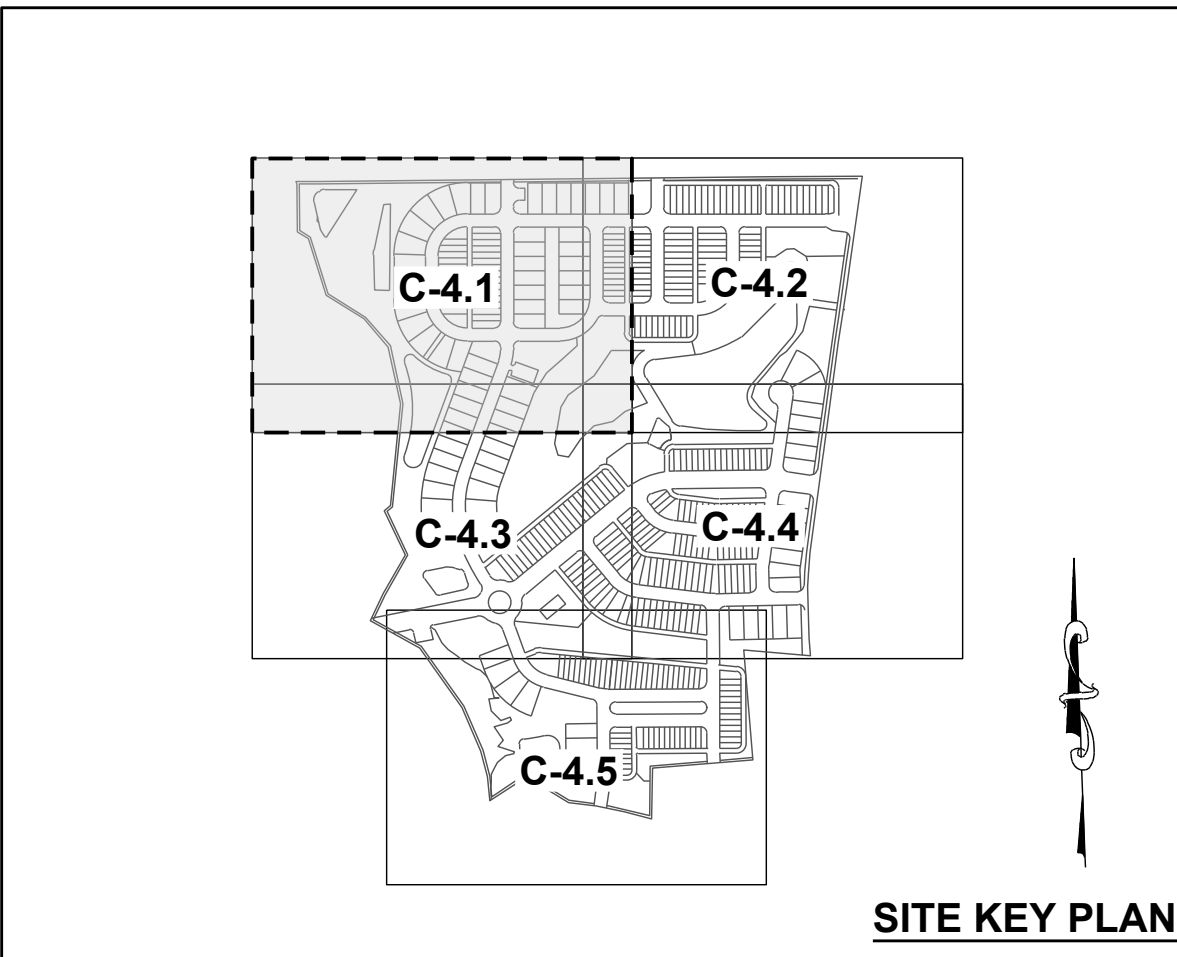
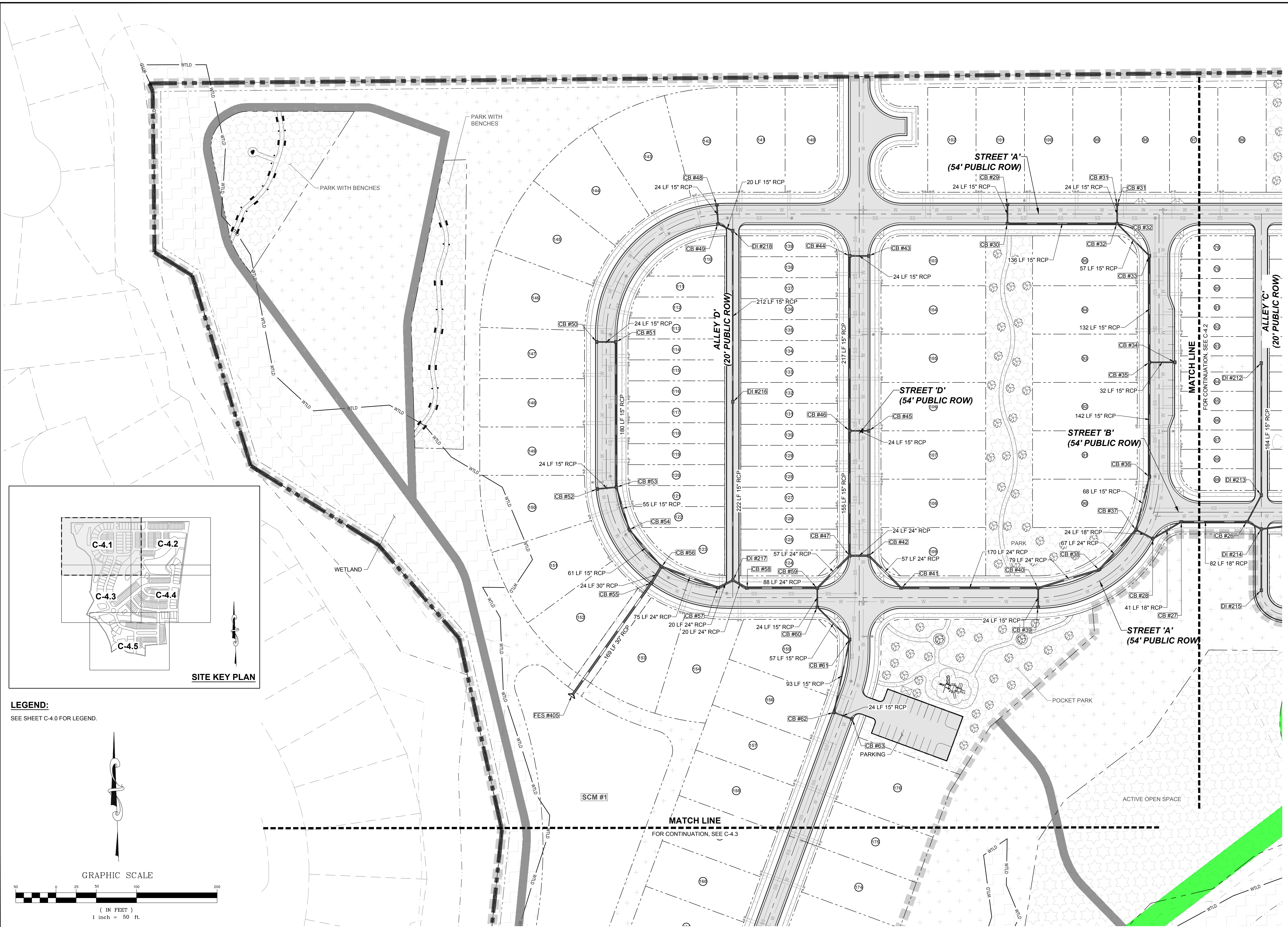
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| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE AS SHOWN | DESIGNED BY JWL | DRAWN BY SRG | CHECKED BY JWL |
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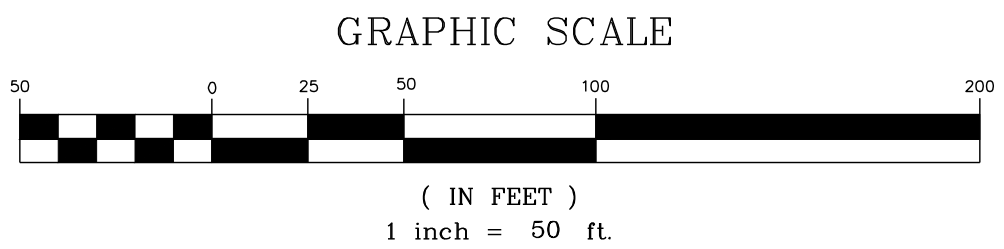
PRESERVE AT MARKS CREEK  
TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
OVERALL STORMWATER PLAN

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

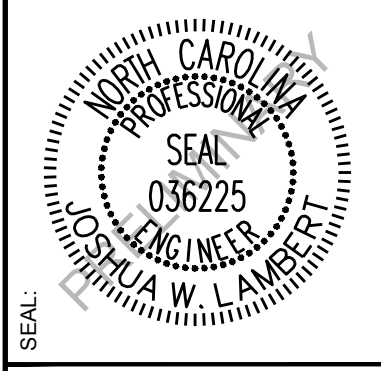




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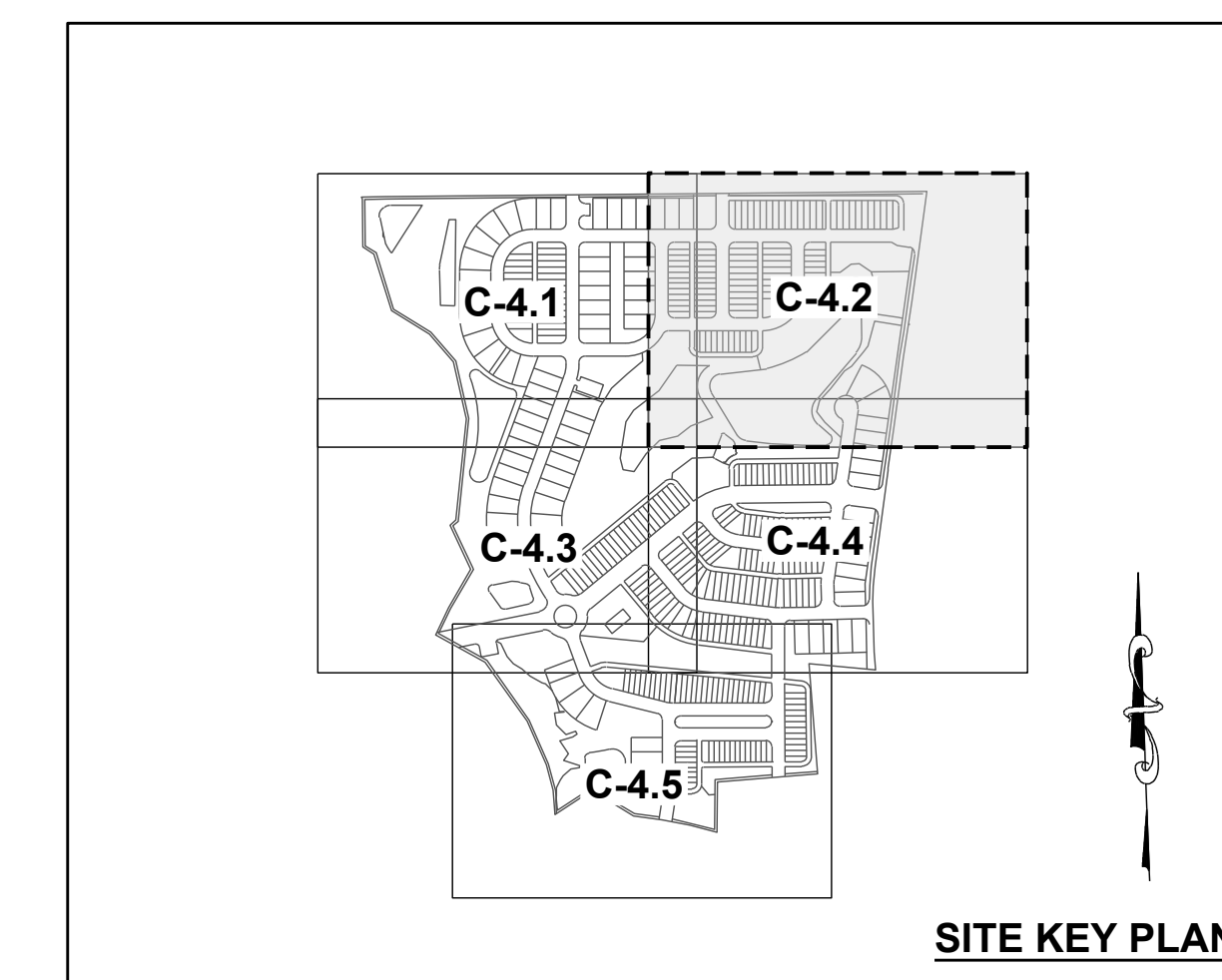
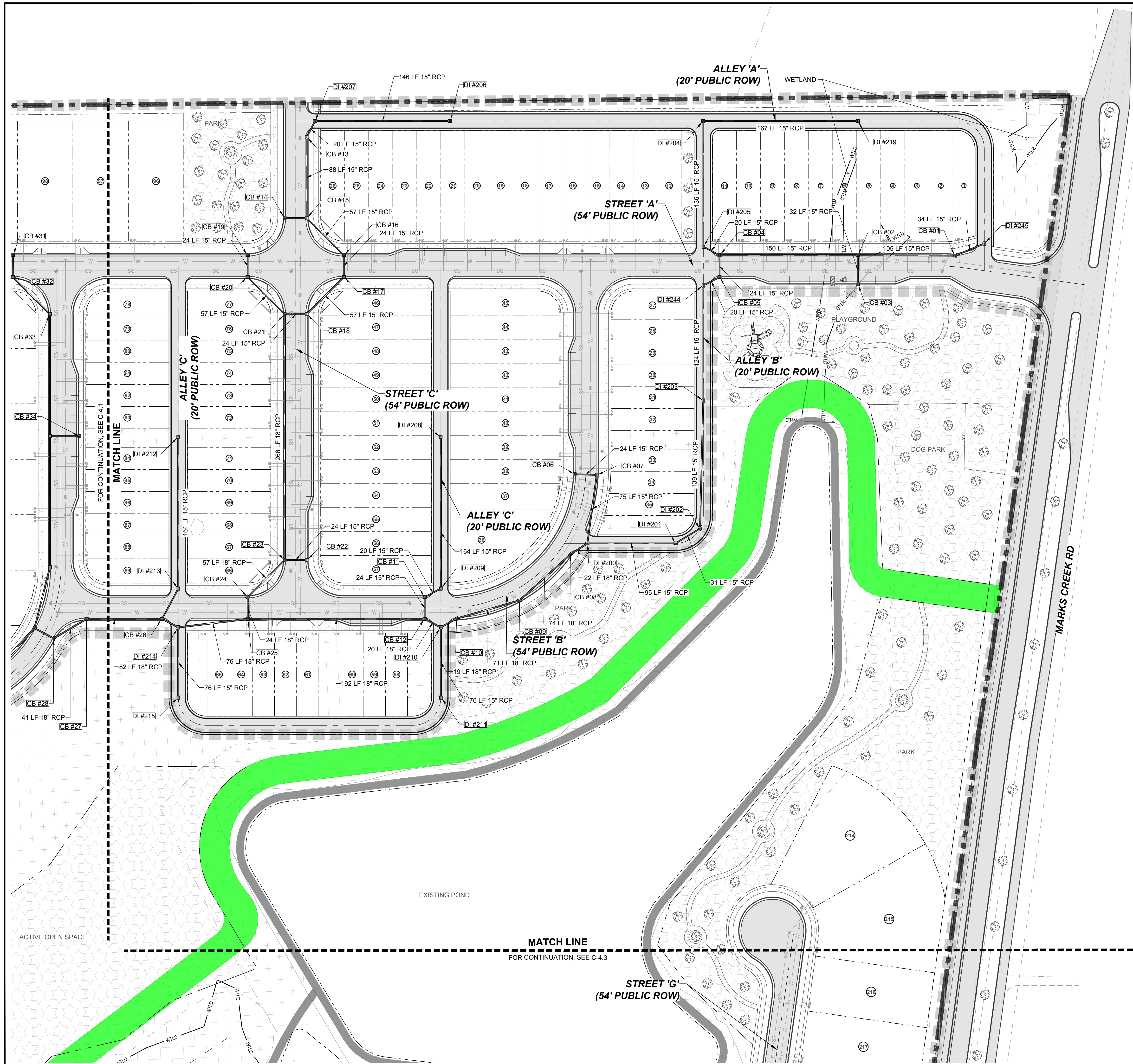


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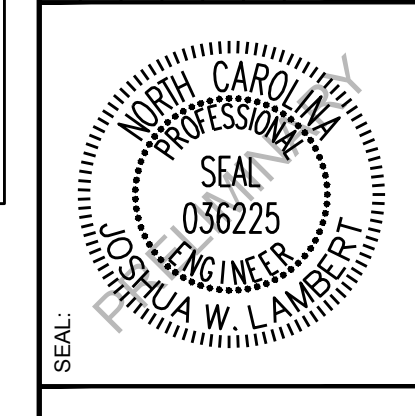
**PRESERVE AT MARKS CREEK**  
 TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
**MASTER PLAN**  
**DETAILED STORMWATER PLAN I**

DRAWING SHEET  
**C-4.1**  
 19 OF 42



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

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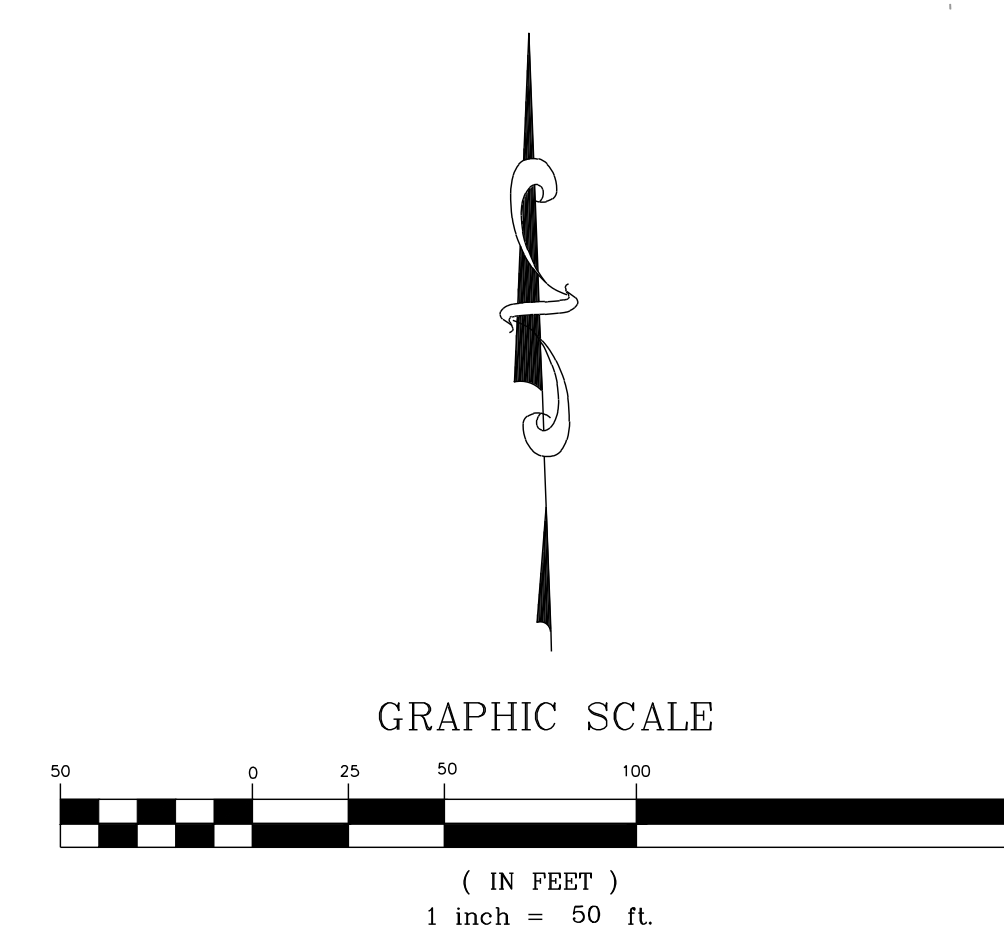


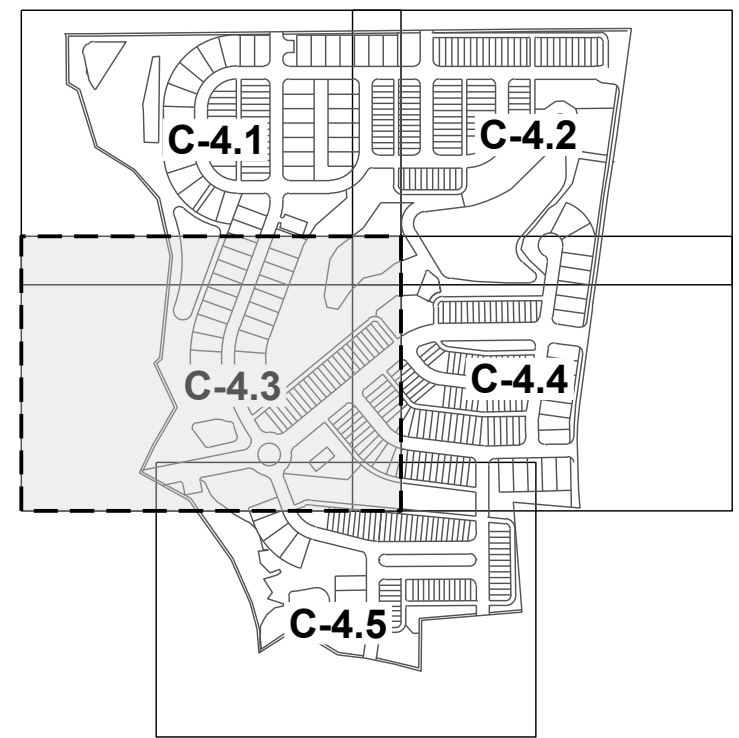
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED STORMWATER PLAN II

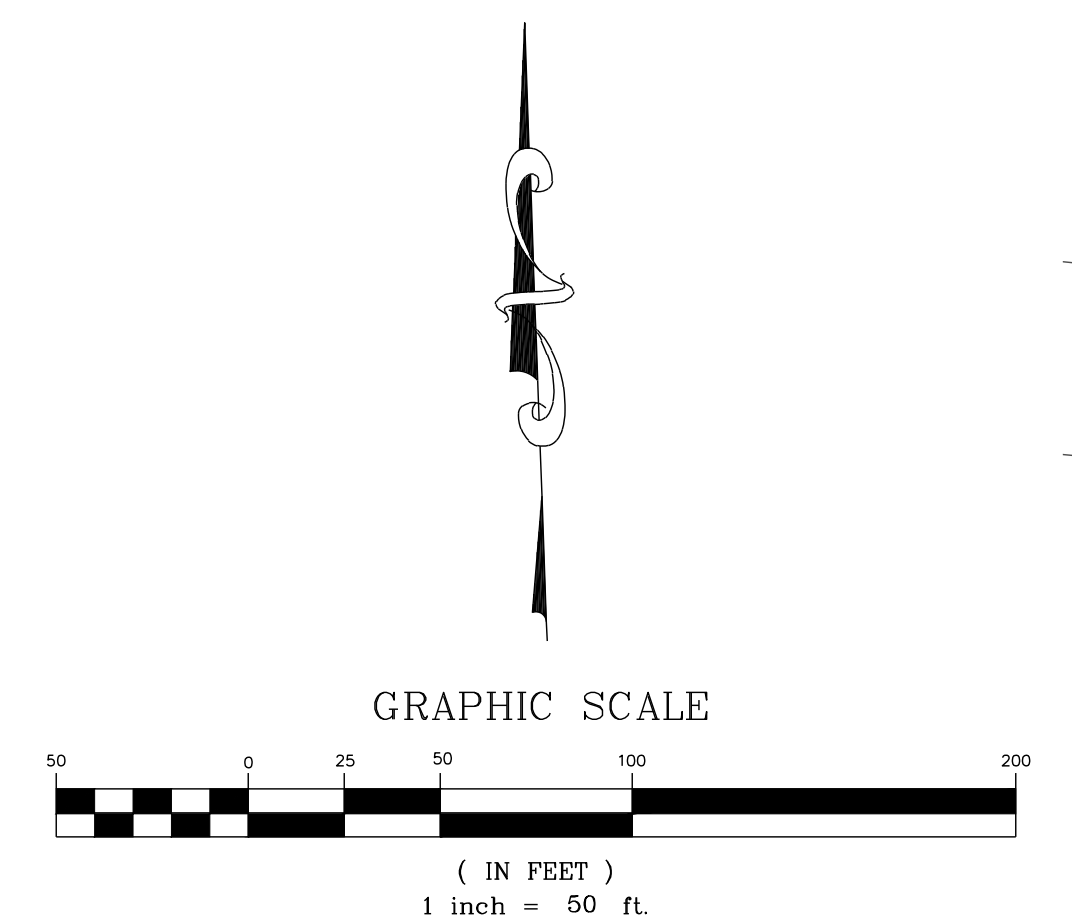
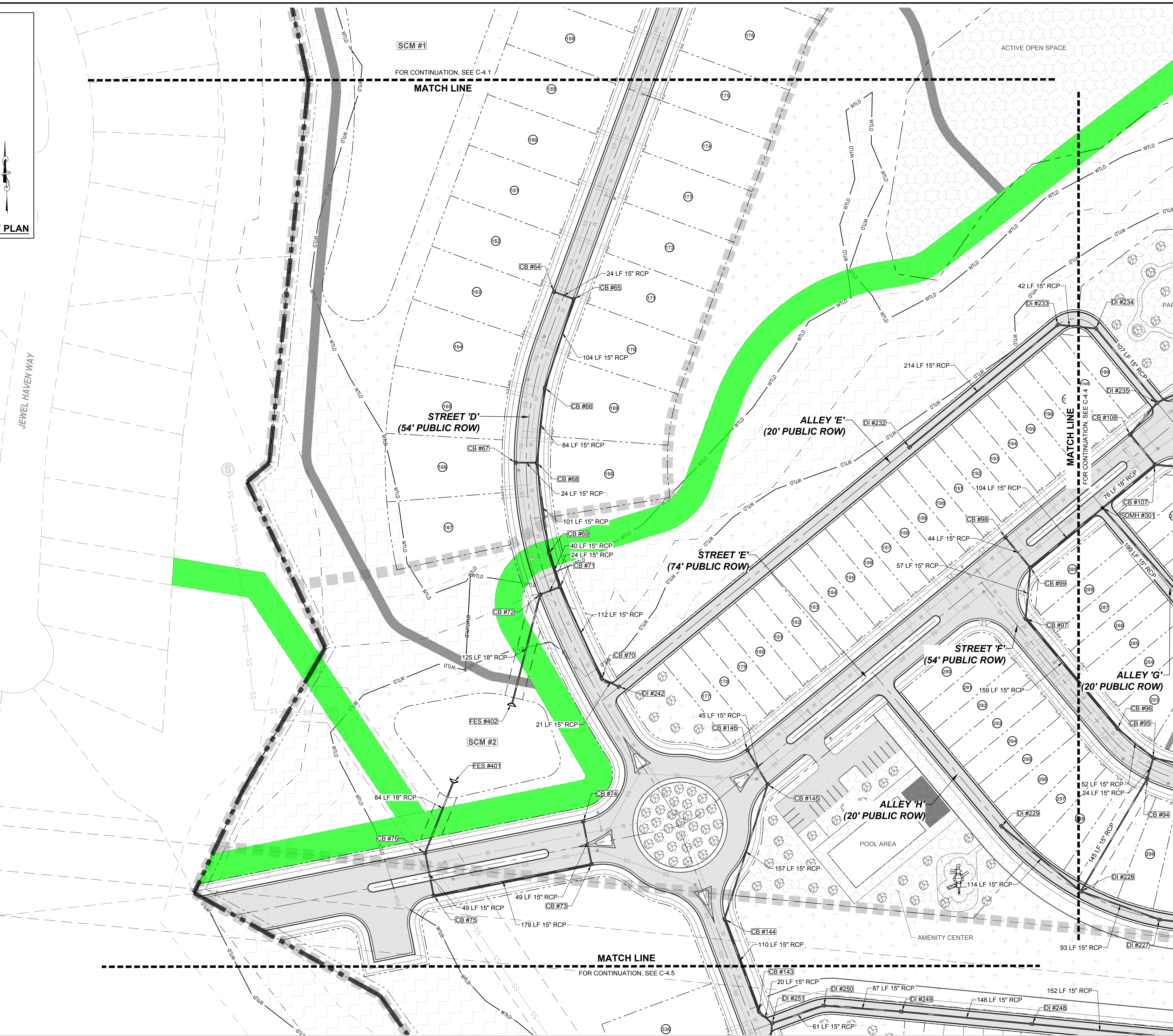
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**C-4.2**





SITE KEY PLAN

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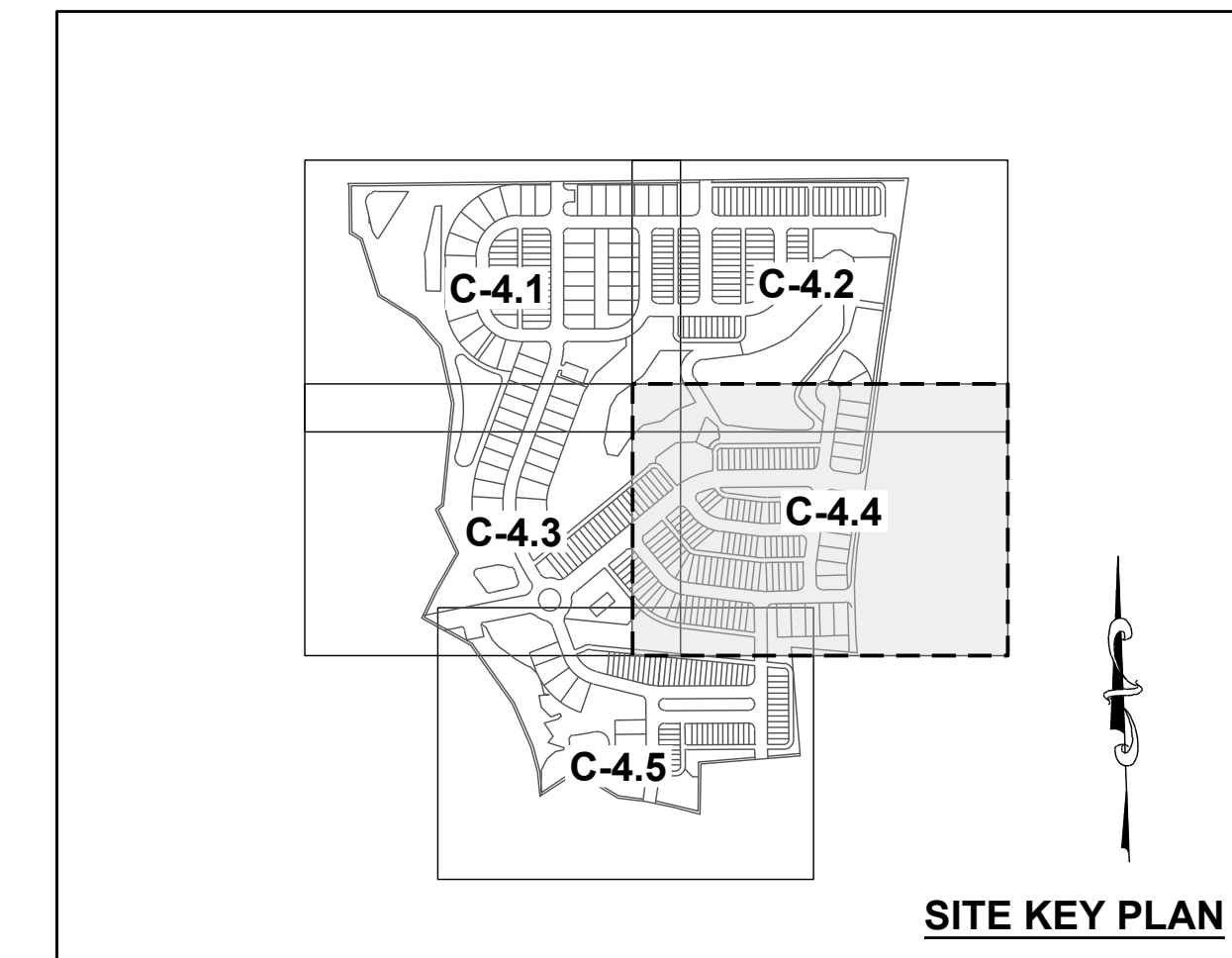
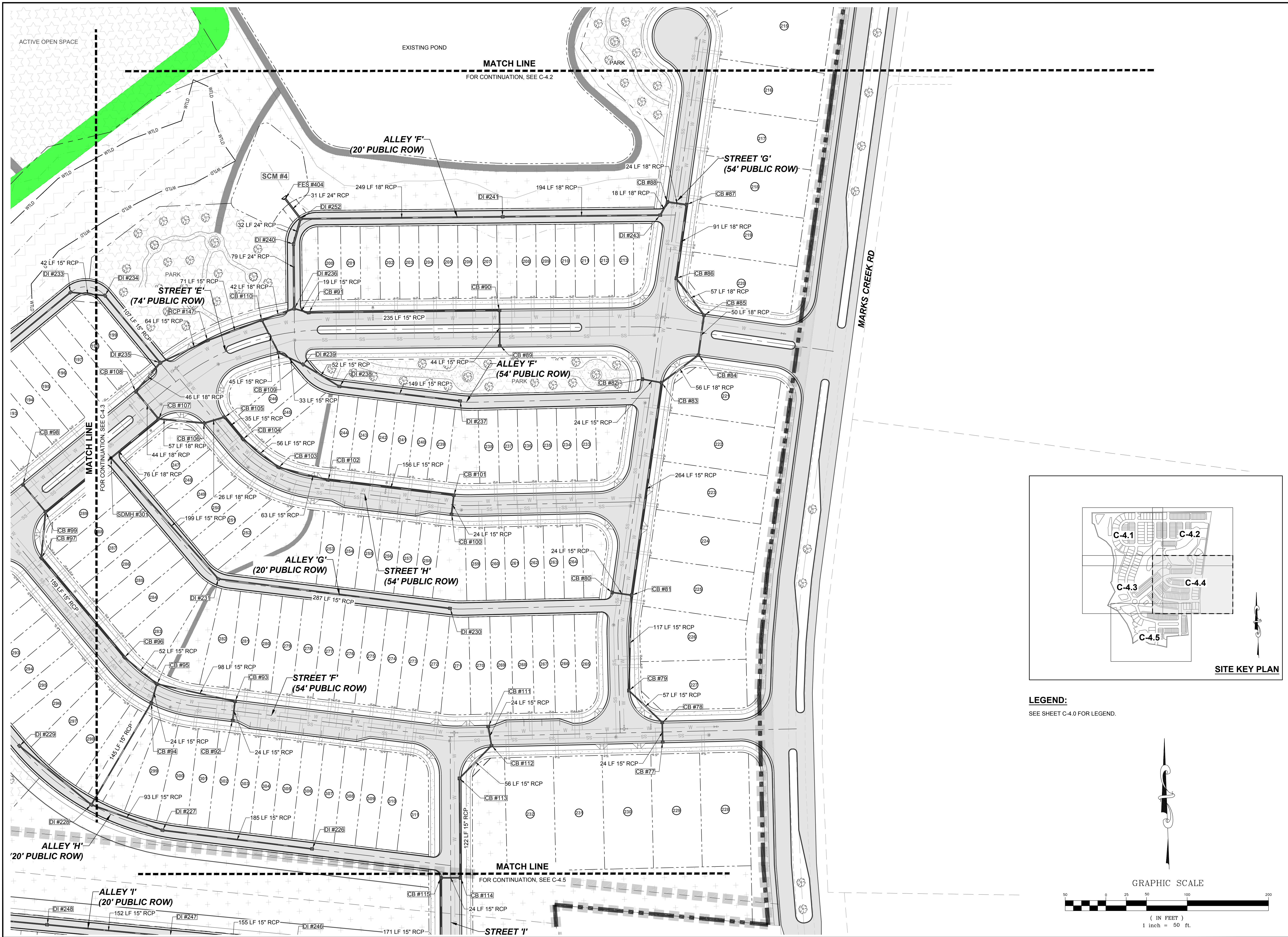
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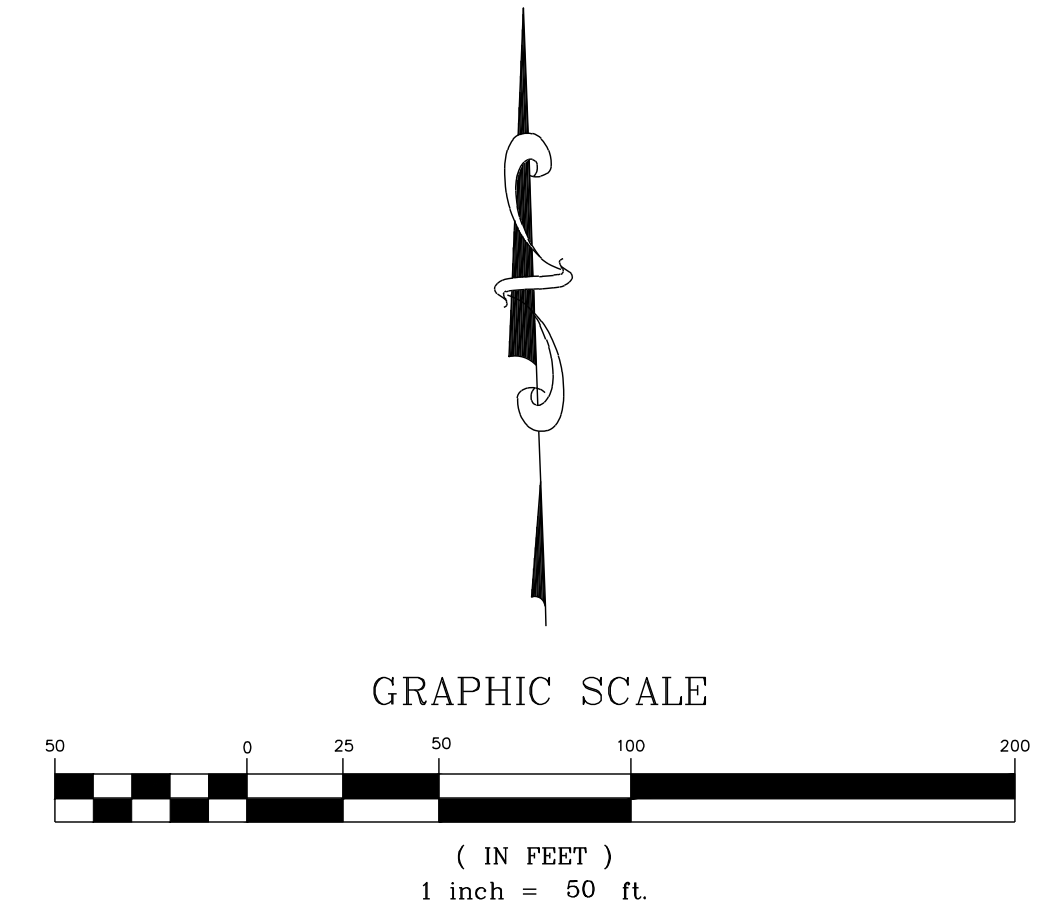
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED STORMWATER PLAN III

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



**LEGEND:**  
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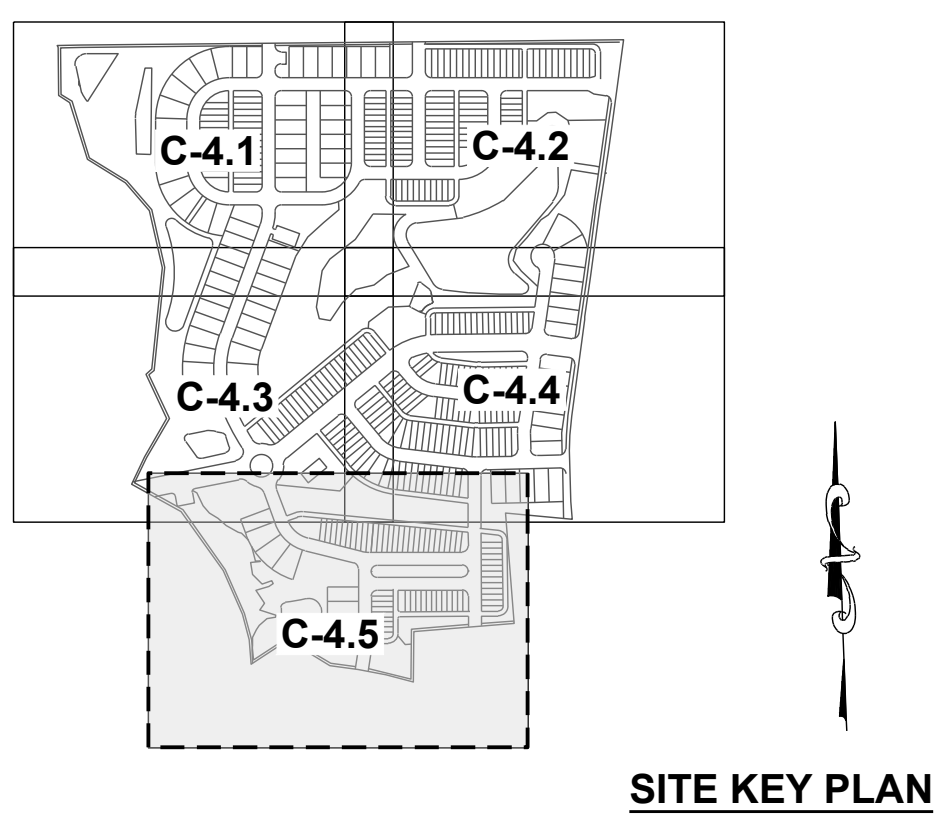
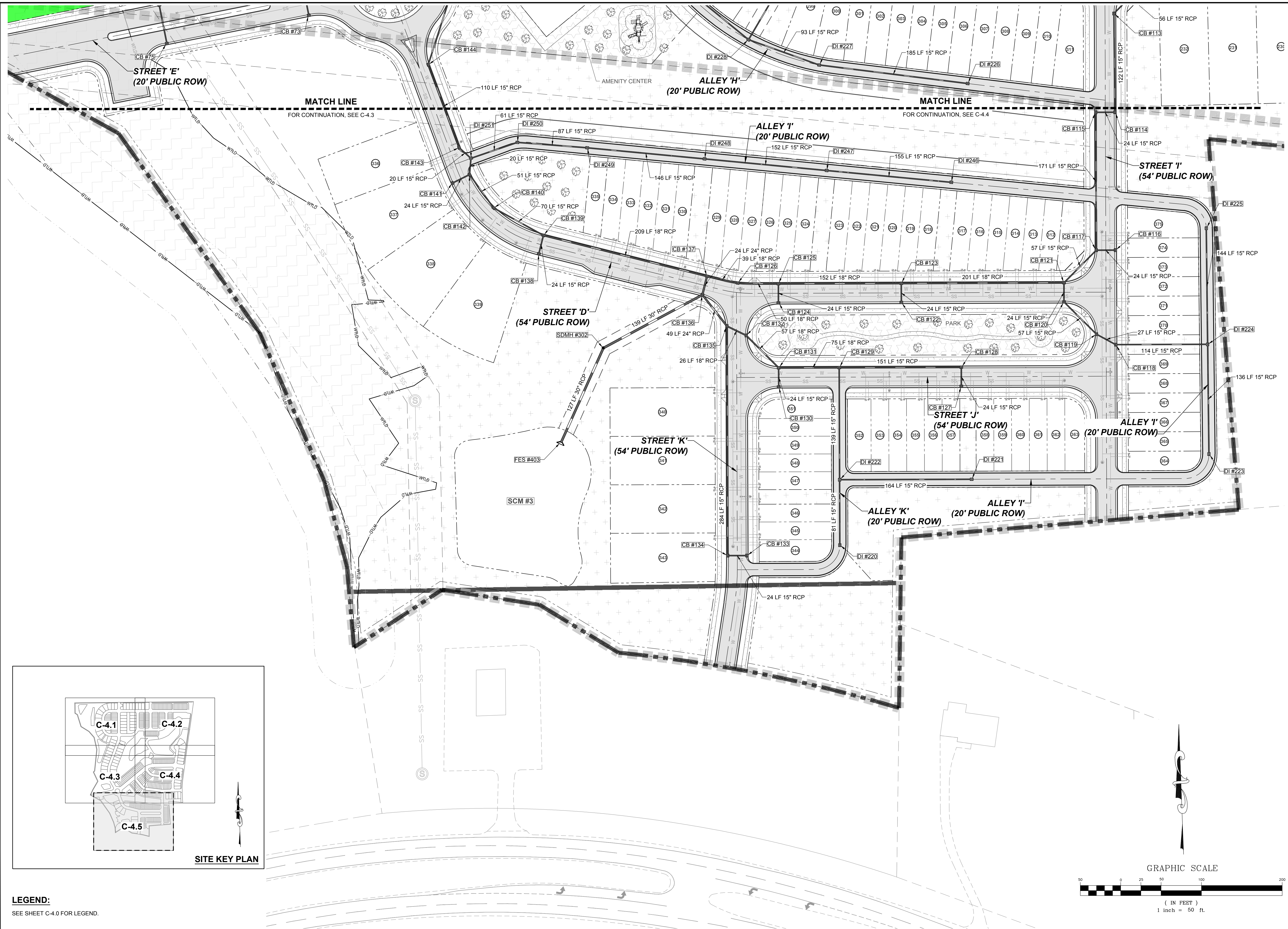


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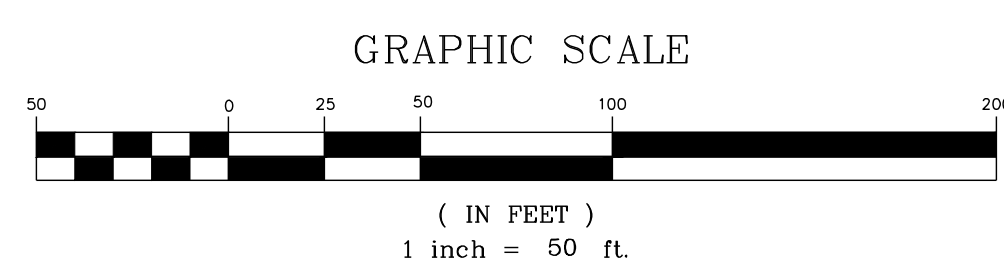
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED STORMWATER PLAN IV

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



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

DRAWING SHEET  
**C-4.5**



**LEGEND:**

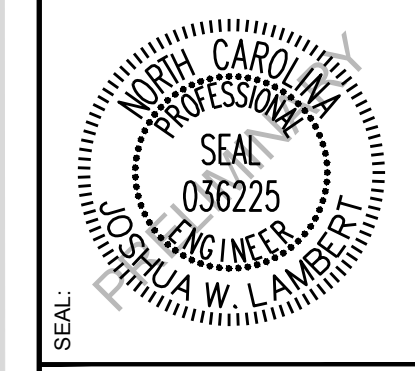
- ULMUS PARVIFOLIA (UP)
- ACER SACCHARUM (AS)
- LAGERSTROEMIA INDICA (LI)
- ILEX GLABRA (IG)
- ILEX X 'NELLIE R STEVENS (IN)

**STREET TREE TABLE:**

| KEY                     | QTY | BOTANICAL NAME           | COMMON NAME          | MIN. INSTALLED SIZE   | ROOT   | TYPE             | REMARKS                                 |
|-------------------------|-----|--------------------------|----------------------|-----------------------|--------|------------------|---|
| UP                      | 237 | ULMUS PARVIFOLIA         | LACEBARK ELM         | 2.5" CAL, 12" MIN.    | B&B    | STREET TREES     | SINGLE STRAIGHT LEADER, FULL & HEAVY.   |
| AS                      | 233 | ACER SACCHARUM           | SUGAR MAPLE          | 2.5" CAL, 12" MIN.    | B&B    | STREET TREES     | SINGLE STRAIGHT LEADER, FULL & HEAVY.   |
| <b>UNDERSTORY TREES</b> |     |                          |                      |                       |        |                  |   |
| LI                      | 334 | LAGERSTROEMIA INDICA     | CRAPPE MYTLE         | 1.5" CAL., 8" HT MIN. | B&B    | STREET TREES     |   |
| <b>SHURBS</b>           |     |                          |                      |                       |        |                  |   |
| IG                      | 258 | ILEX GLABRA              | INKBERRY HOLLY       | 24" HT                | 5 GAL. | PERIMETER BUFFER | FULL & HEAVY. HEIGHT: 4' AFTER 2 YEARS. |
| IN                      | 46  | 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 KIGHTDALE'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.

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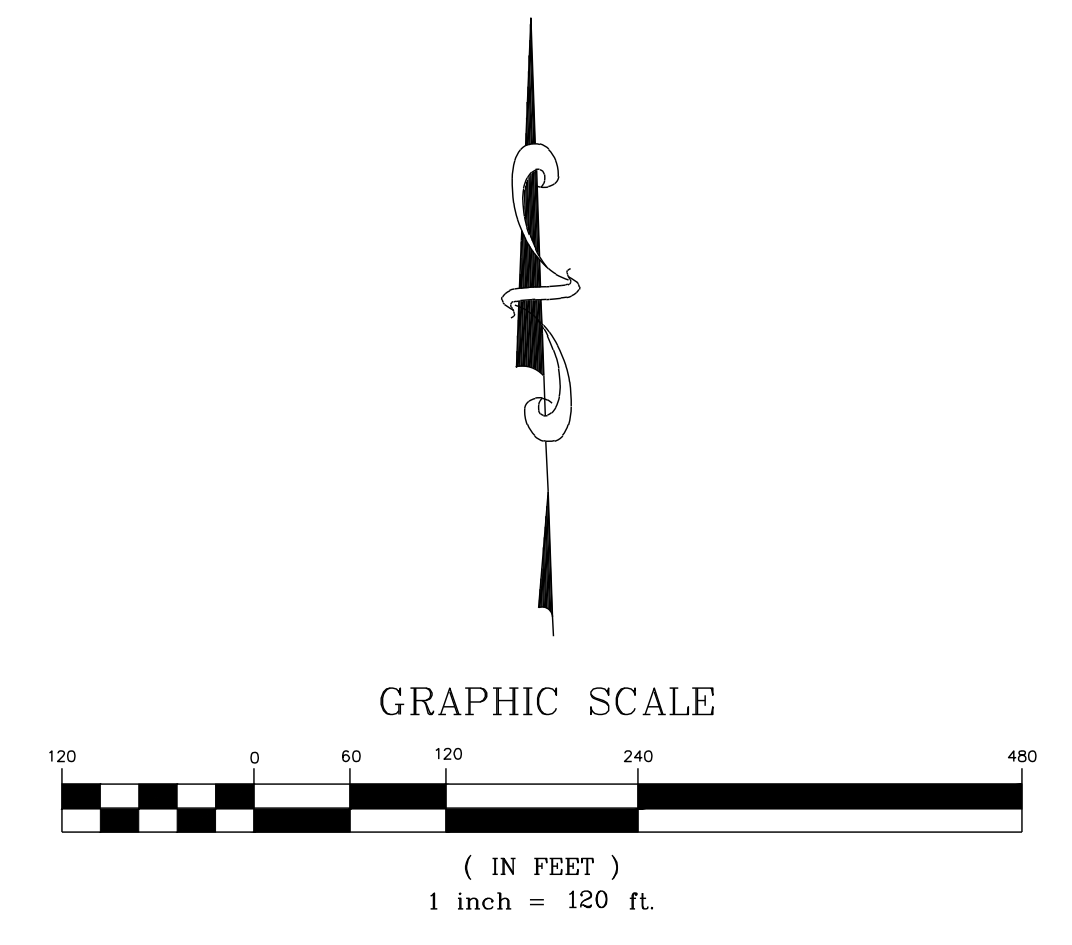


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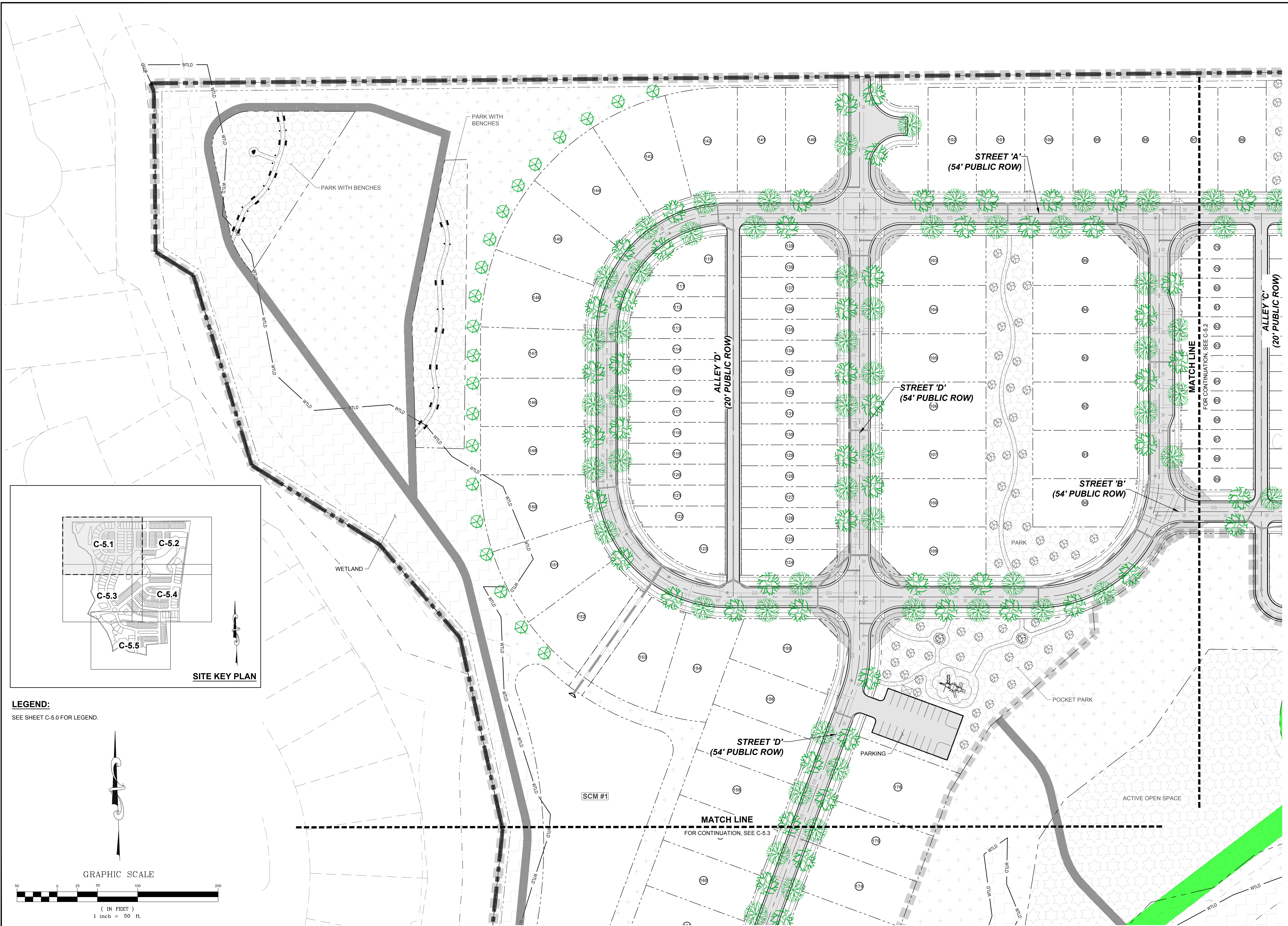
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
OVERALL LANDSCAPE PLAN

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







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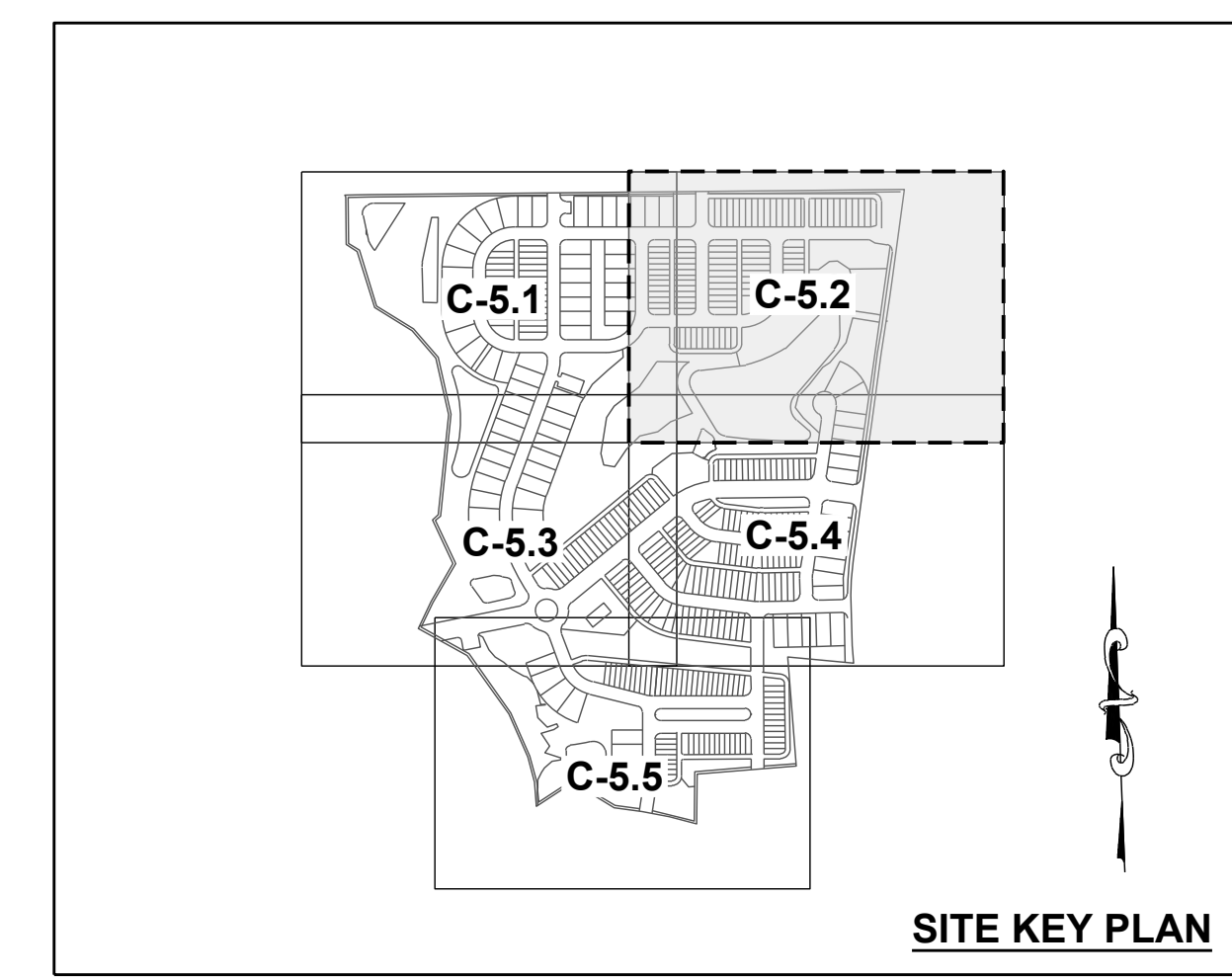
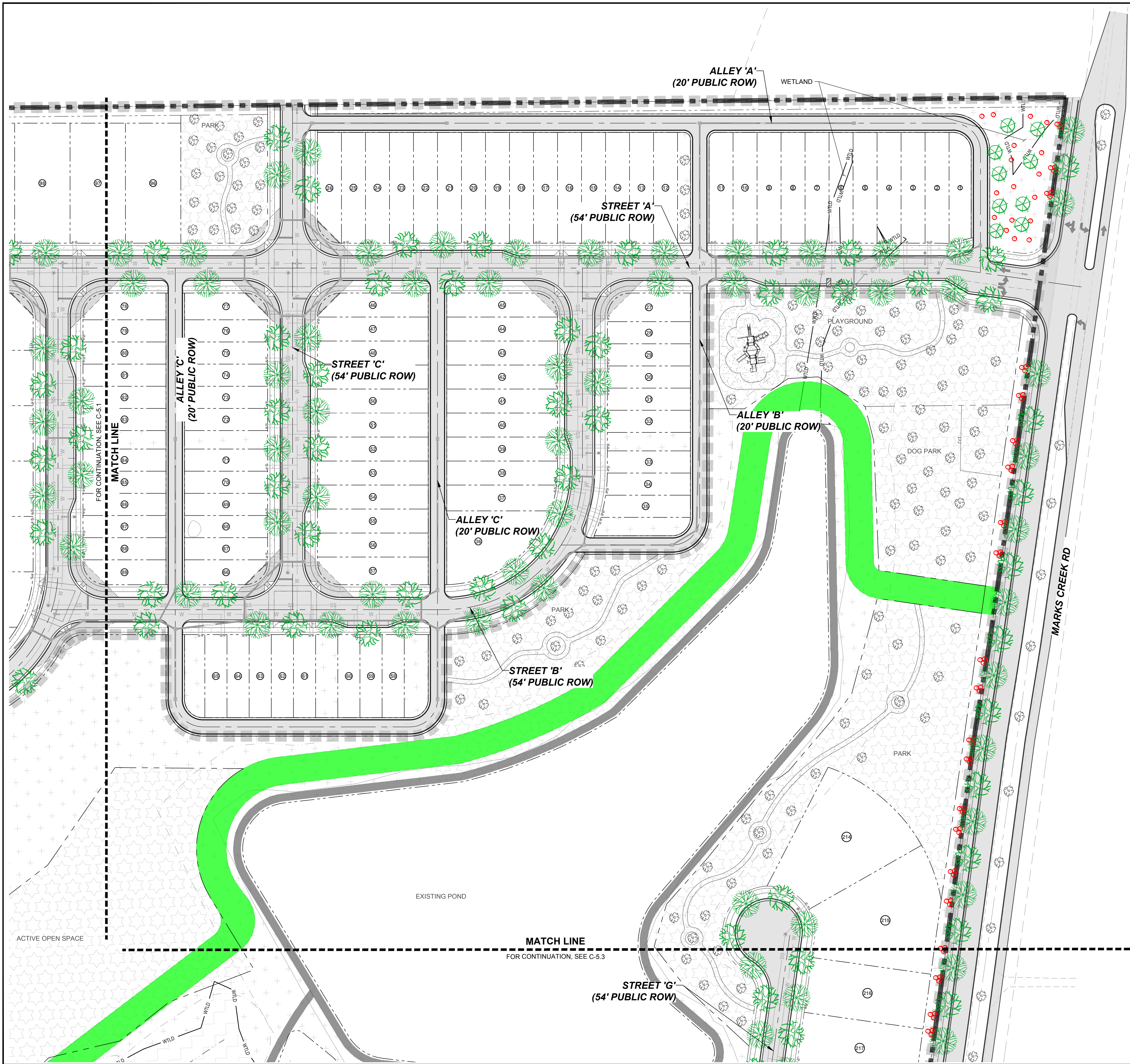


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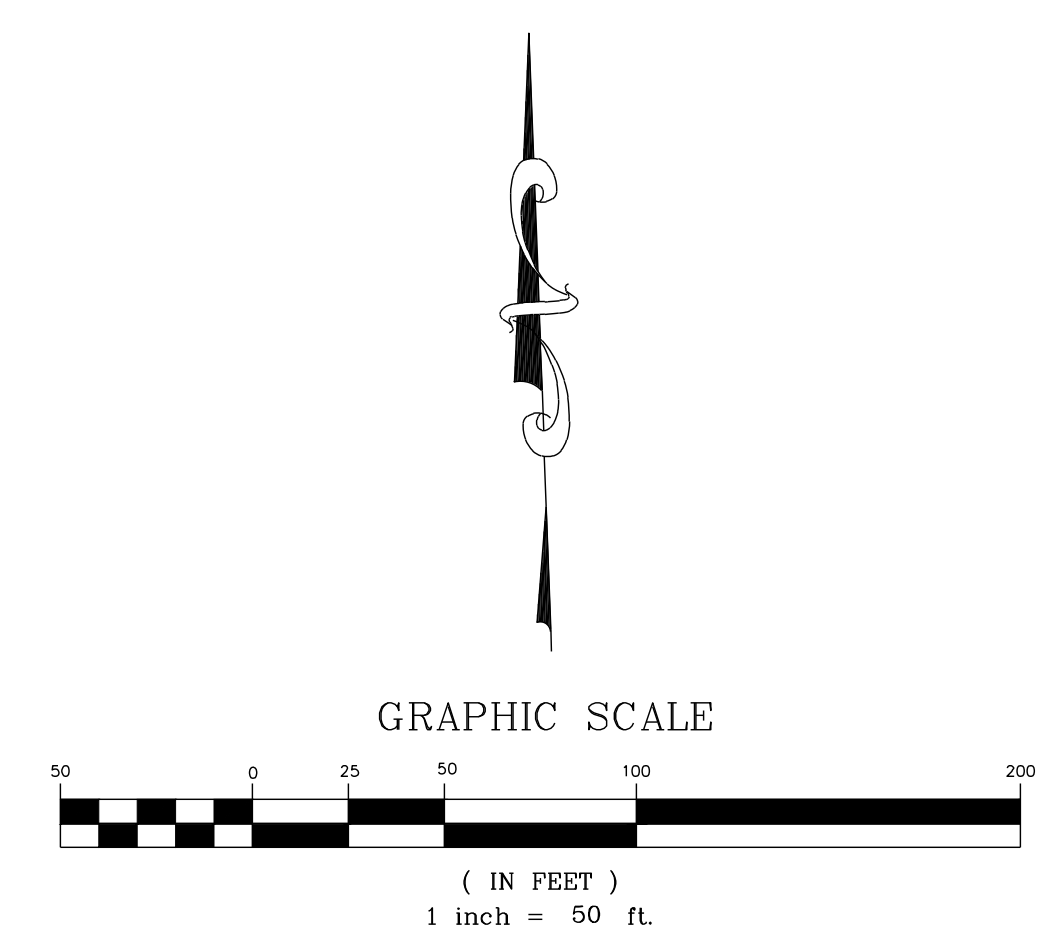
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
DETAILED LANDSCAPE PLAN I

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



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



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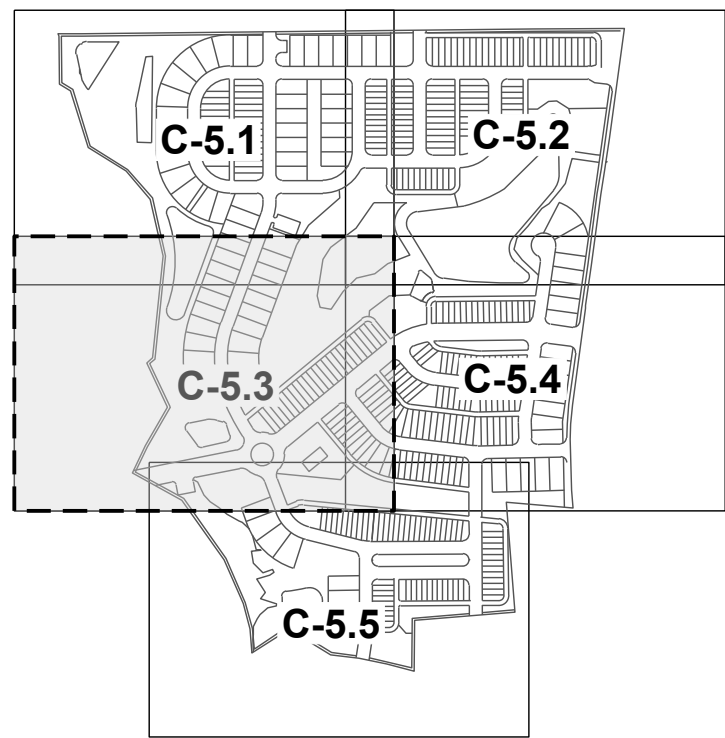


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**PRESERVE AT MARKS CREEK**  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
**MASTER PLAN**  
**DETAILED LANDSCAPE PLAN II**

**DRAWING SHEET**  
**C-5.2**  
**26 OF 42**



SITE KEY PLAN

LEGEND:  
SEE SHEET C-5.0 FOR LEGEND.

JEWEL HAVEN WAY

SCM #1  
FOR CONTINUATION, SEE C-5.1  
MATCH LINE

STREET 'D'  
(54' PUBLIC ROW)

ALLEY 'E'  
(20' PUBLIC ROW)

STREET 'F'  
(54' PUBLIC ROW)

STREET 'E'  
(74' PUBLIC ROW)

MATCH LINE  
FOR CONTINUATION, SEE C-5.4

ALLEY 'G'  
(20' PUBLIC ROW)

ALLEY 'H'  
(20' PUBLIC ROW)

POOL AREA

AMENITY CENTER

SCM #2

MATCH LINE  
FOR CONTINUATION, SEE C-5.5

GRAPHIC SCALE



( IN FEET )  
1 inch = 50 ft.

| NO. | REVISIONS | DATE | BY |
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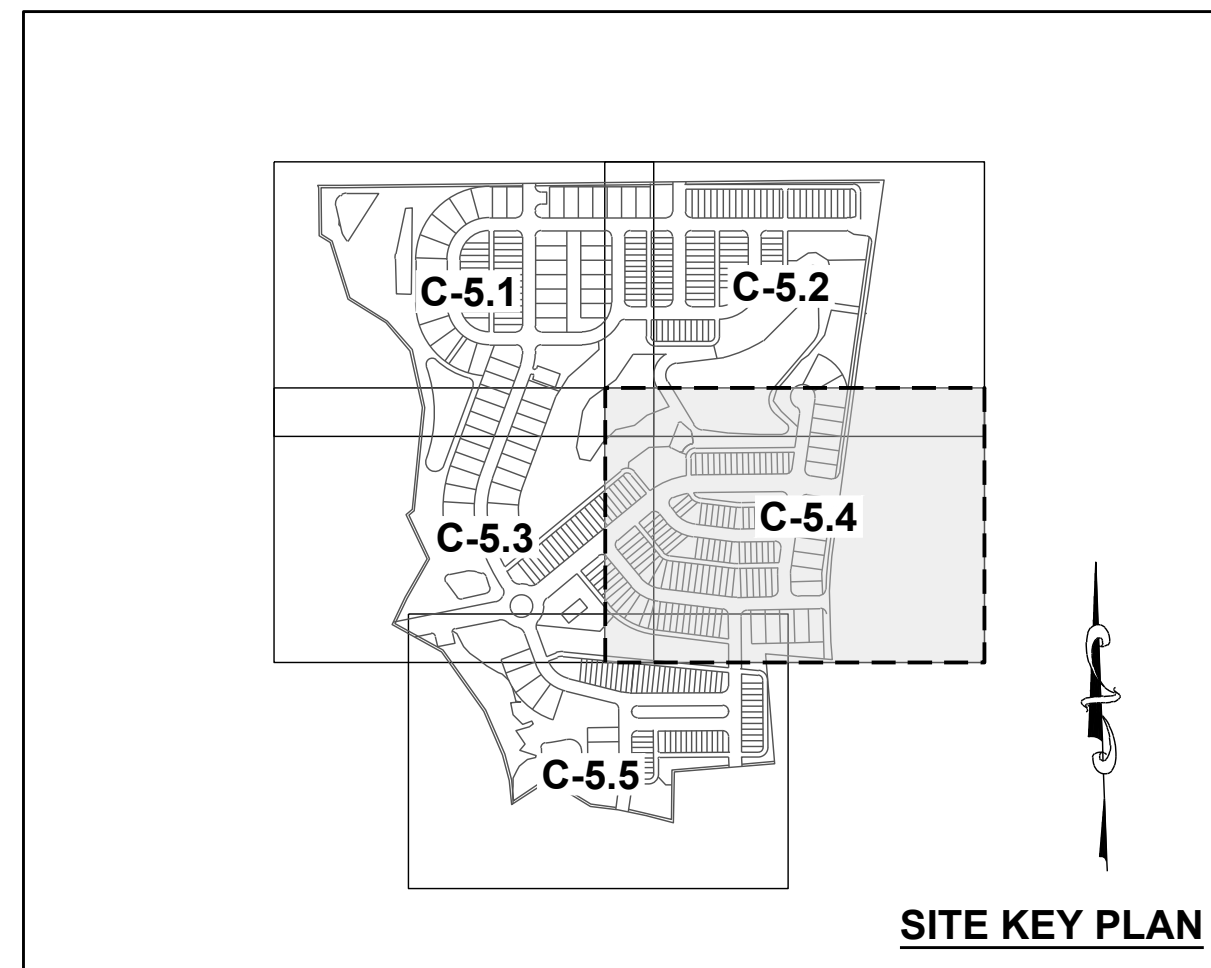
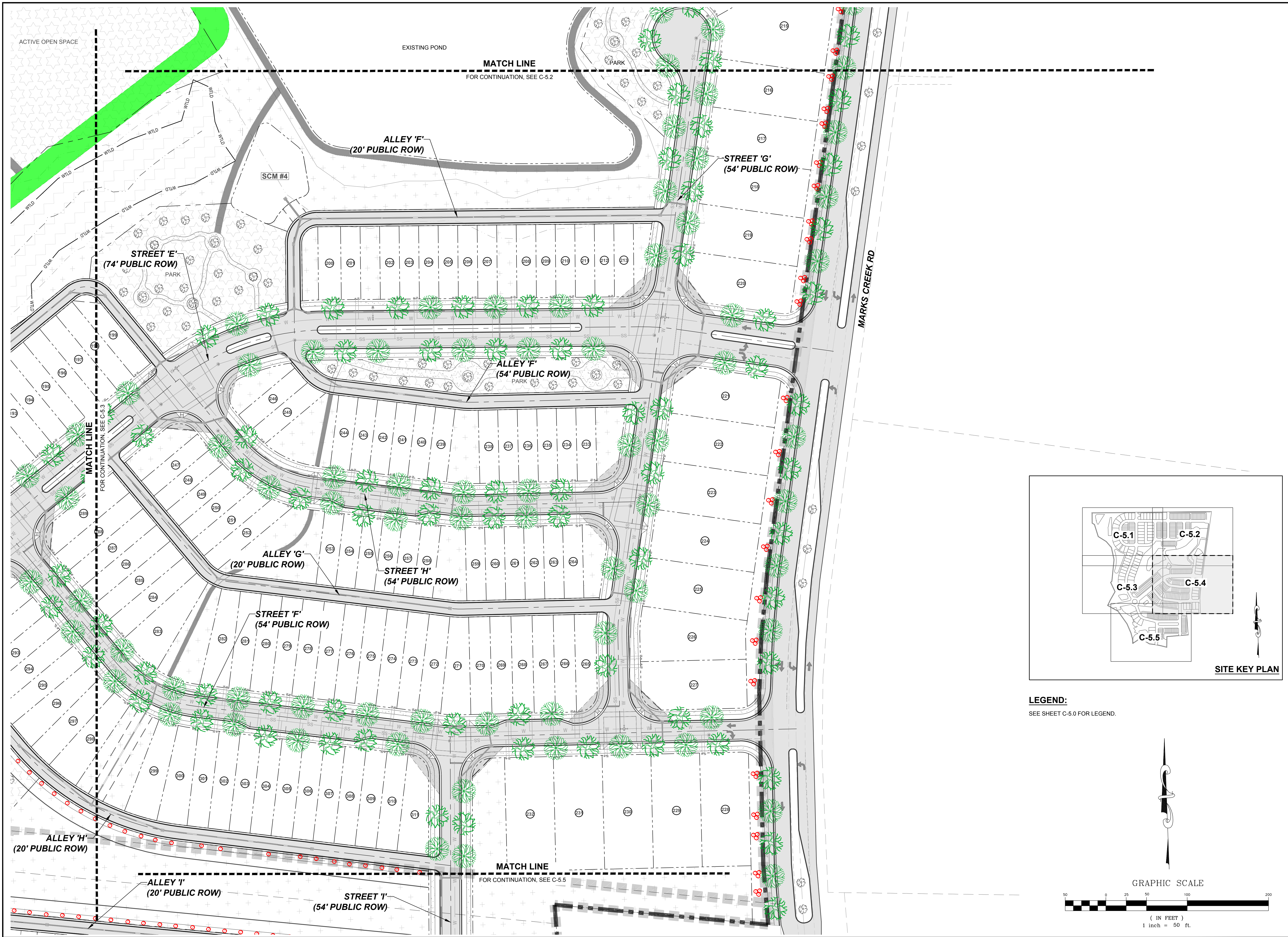


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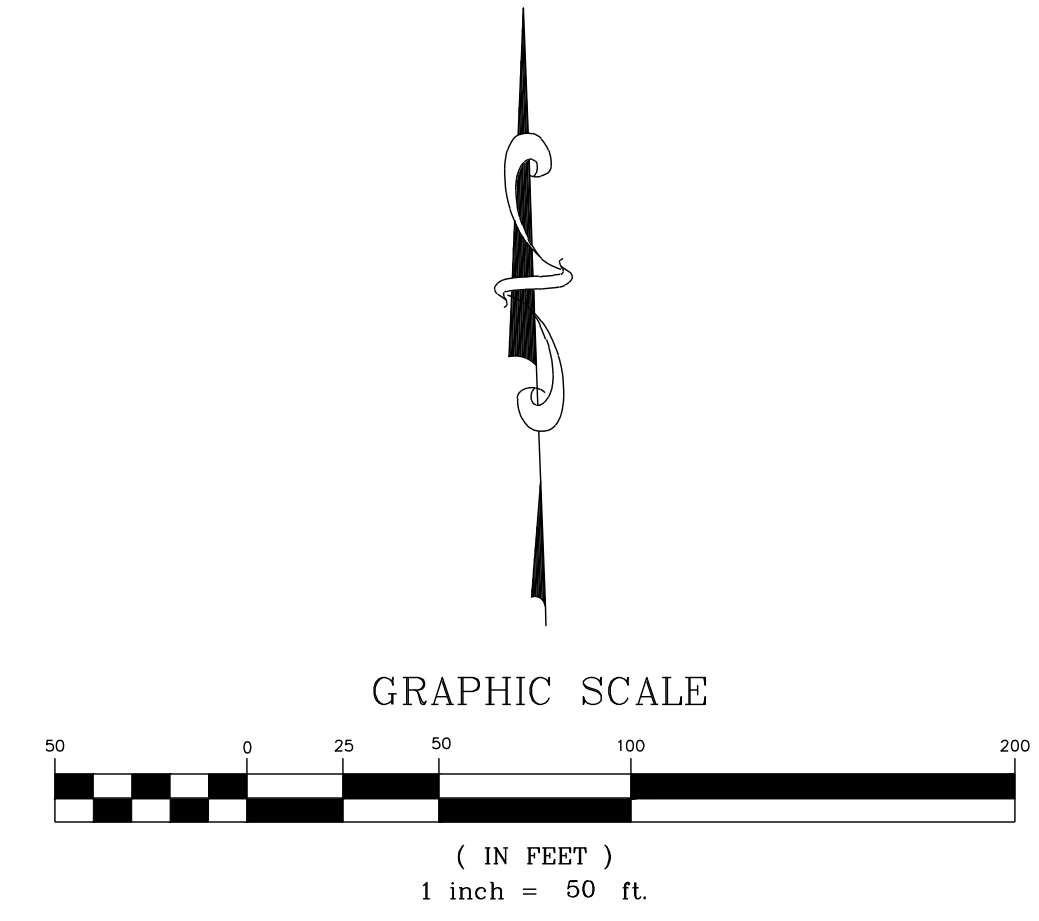
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| STRONG ROCK PROJECT  | DESIGNED BY | JWL | SRG |
| NOT FOR CONSTRUCTION | DRAWN BY    | JWL | JWL |
| SCALE AS SHOWN       | CHECKED BY  | JWL | JWL |

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

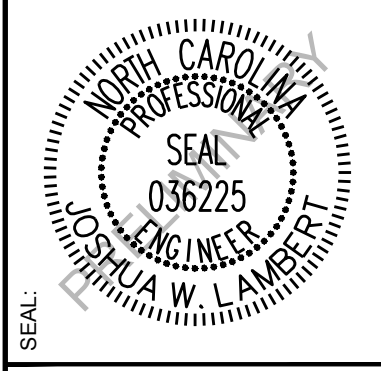
DRAWING SHEET  
**C-5.3**  
27 OF 42



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



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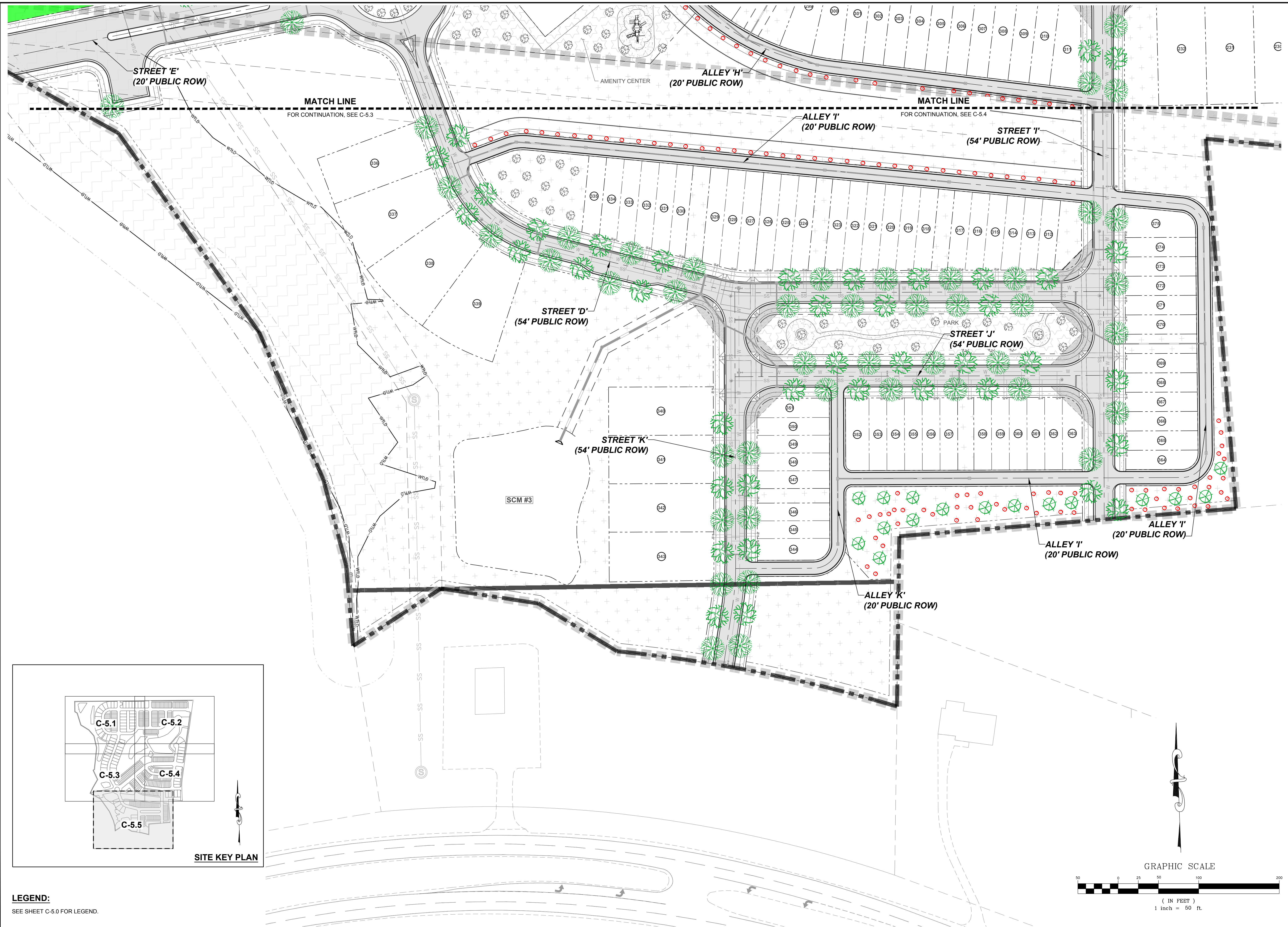


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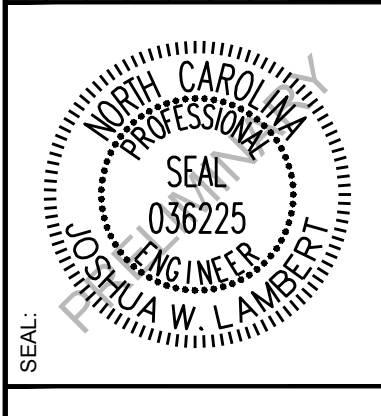
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| STRONG ROCK PROJECT  | DESIGNED BY | JWL |
| NOT FOR CONSTRUCTION | DRAWN BY    | SRG |
| SCALE AS SHOWN       | CHECKED BY  | JWL |

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



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

DRAWING SHEET  
**C-5.5**

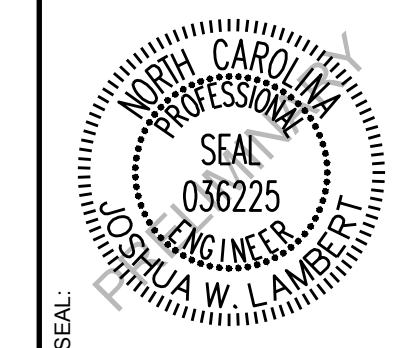


**LEGEND:**

LED STREET LIGHTS (7,000 LUMENS LED 75 ROADWAY LIGHT) ALUMINUM POLE - HEIGHT 30

**LEGEND:**

- Phase Line
- Existing Property Line
- Roadway Center Line
- Proposed Property Line
- Passive Open Space
- Active Open Space



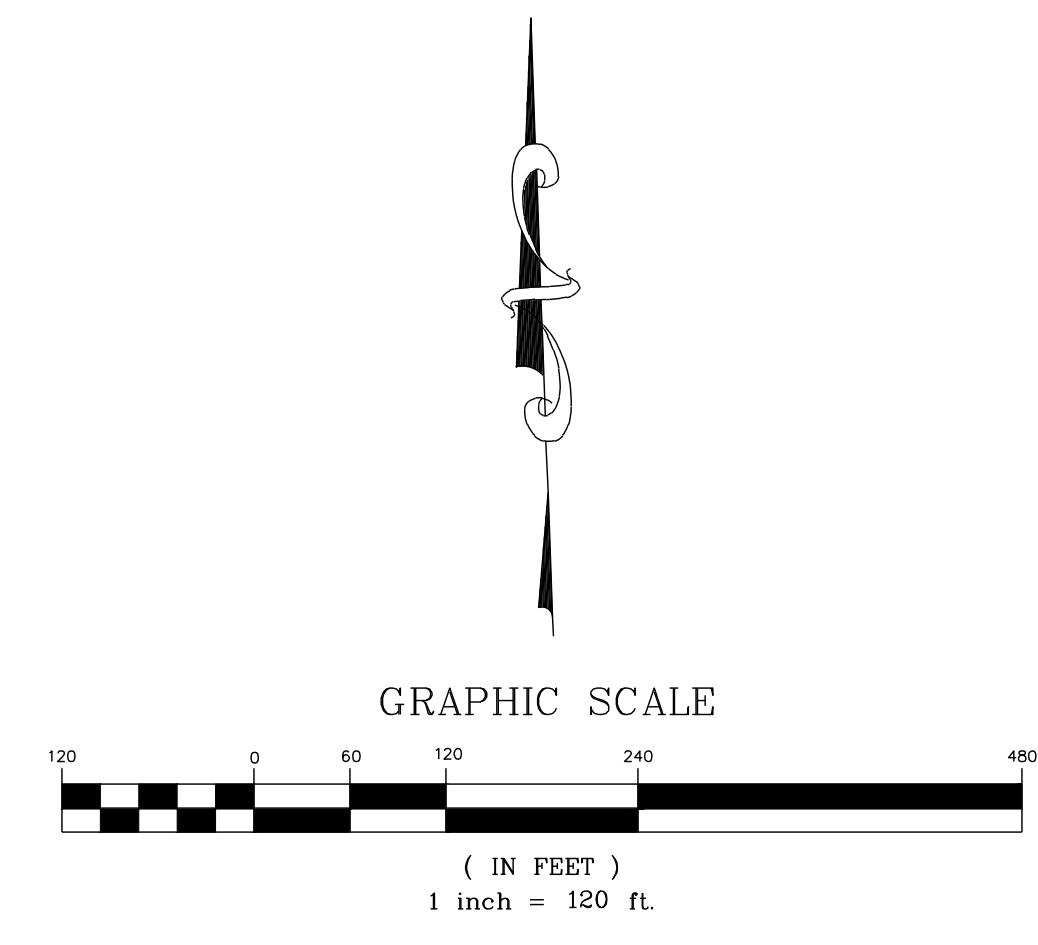
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| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE AS SHOWN | DESIGNED BY JWL | SRG | CHECKED BY JWL |
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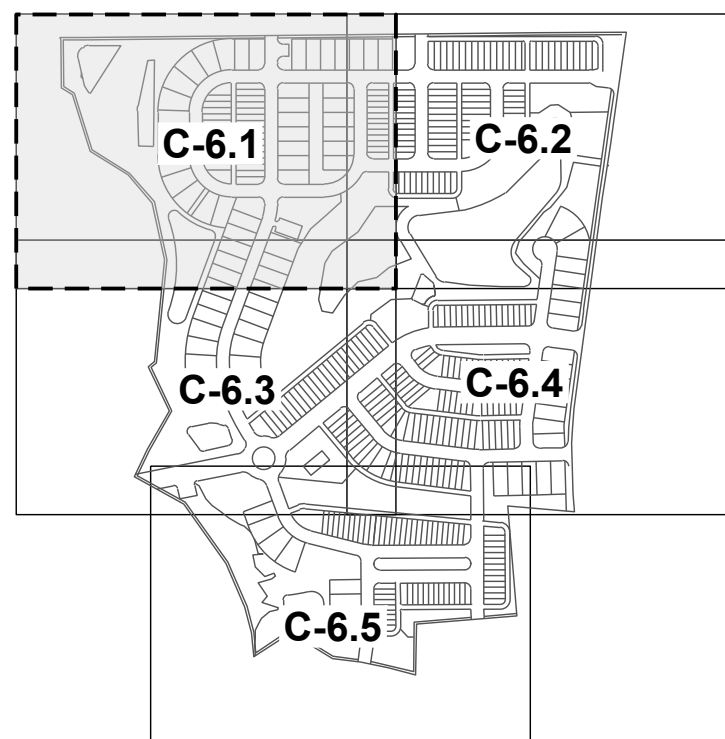
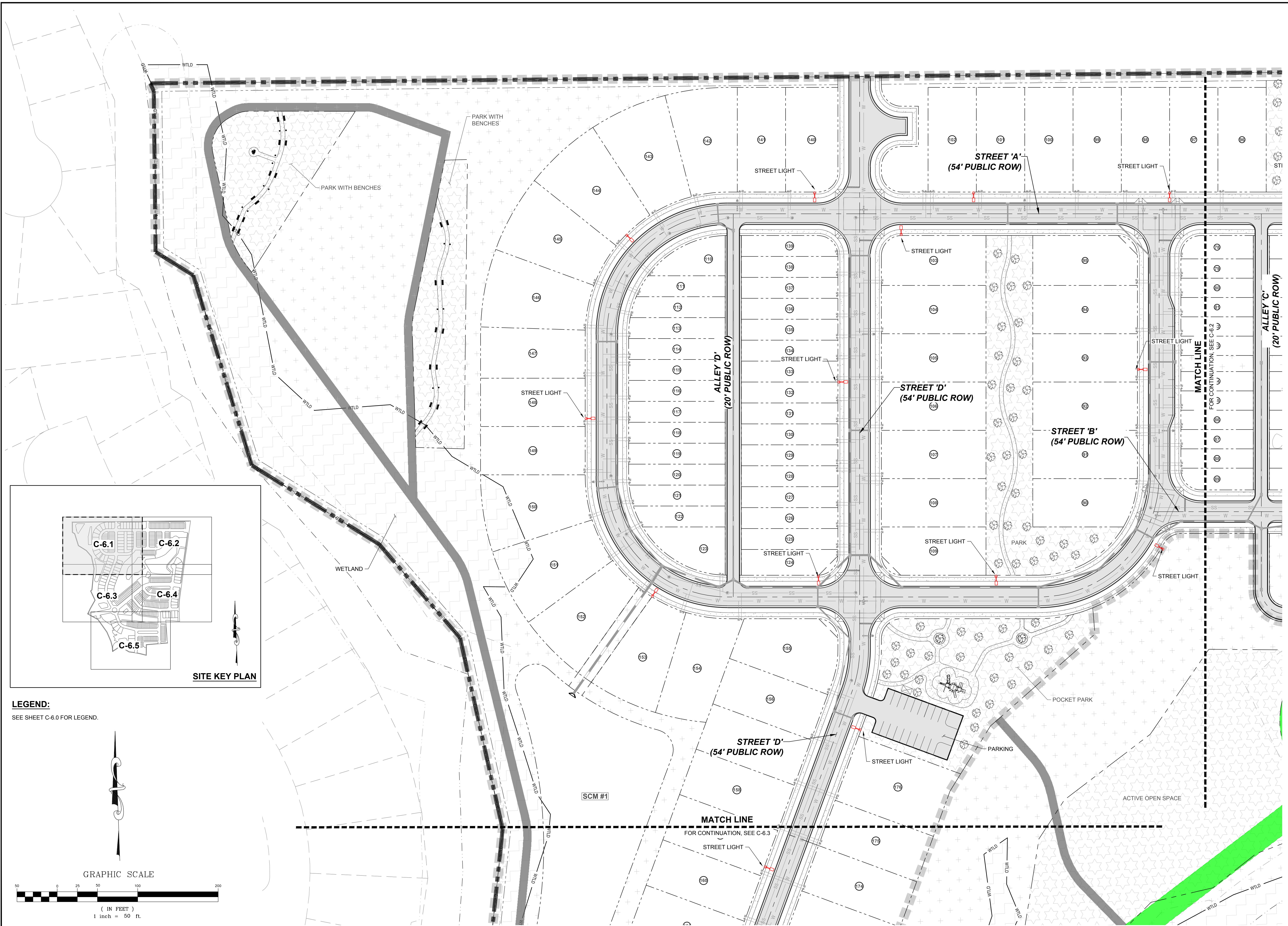
PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
OVERALL LIGHTING PLAN

DRAWING SHEET  
**C-6.0**

30 OF 42



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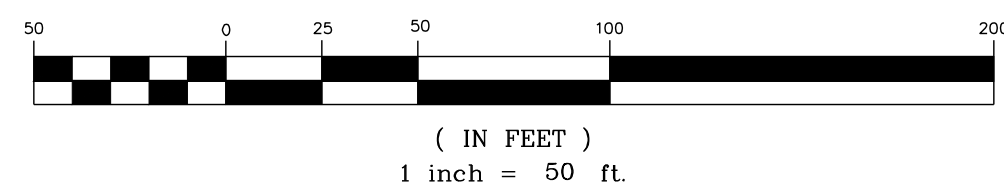


SITE KEY PLAN

LEGEND:  
SEE SHEET C-6.0 FOR LEGEND.



GRAPHIC SCALE



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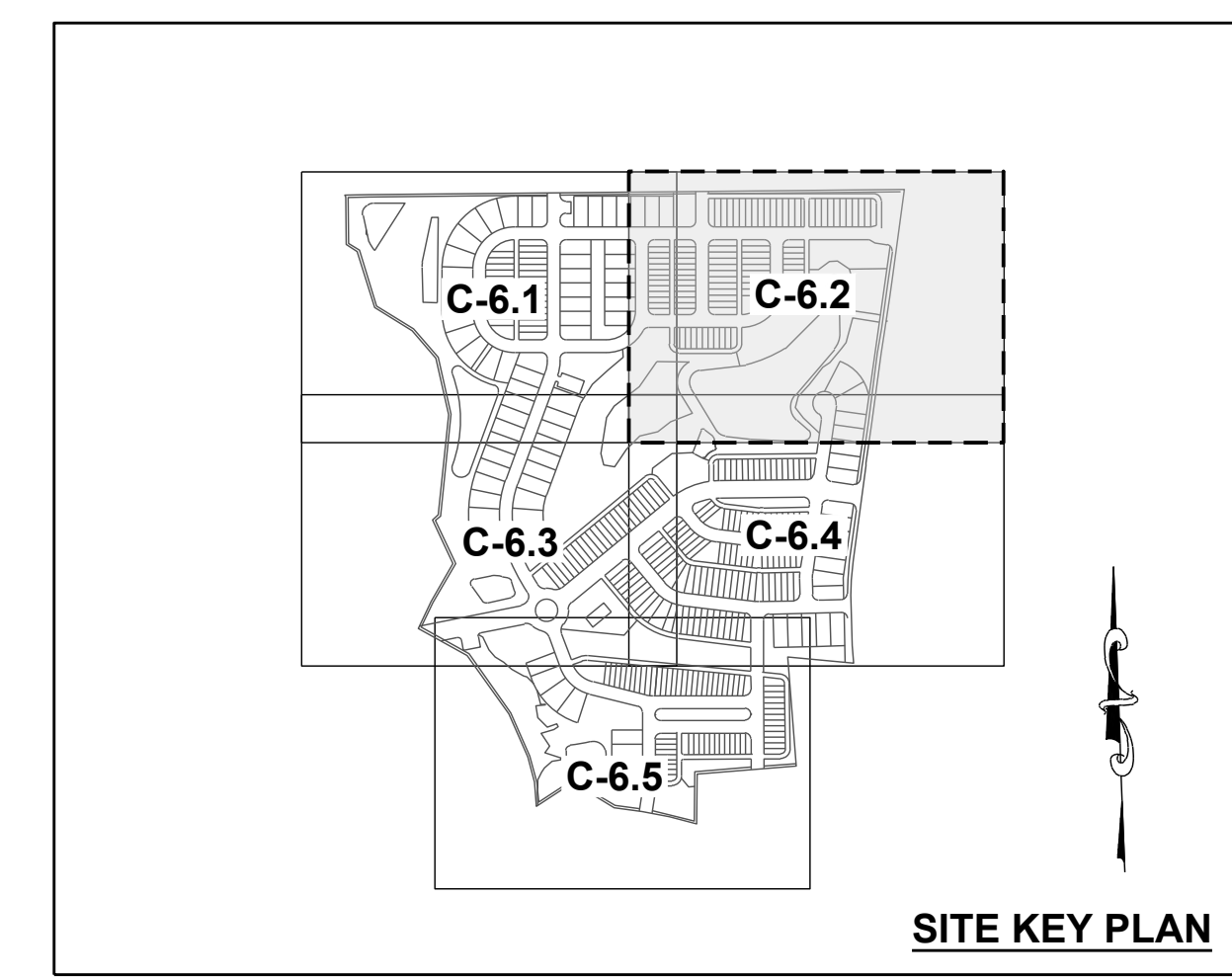
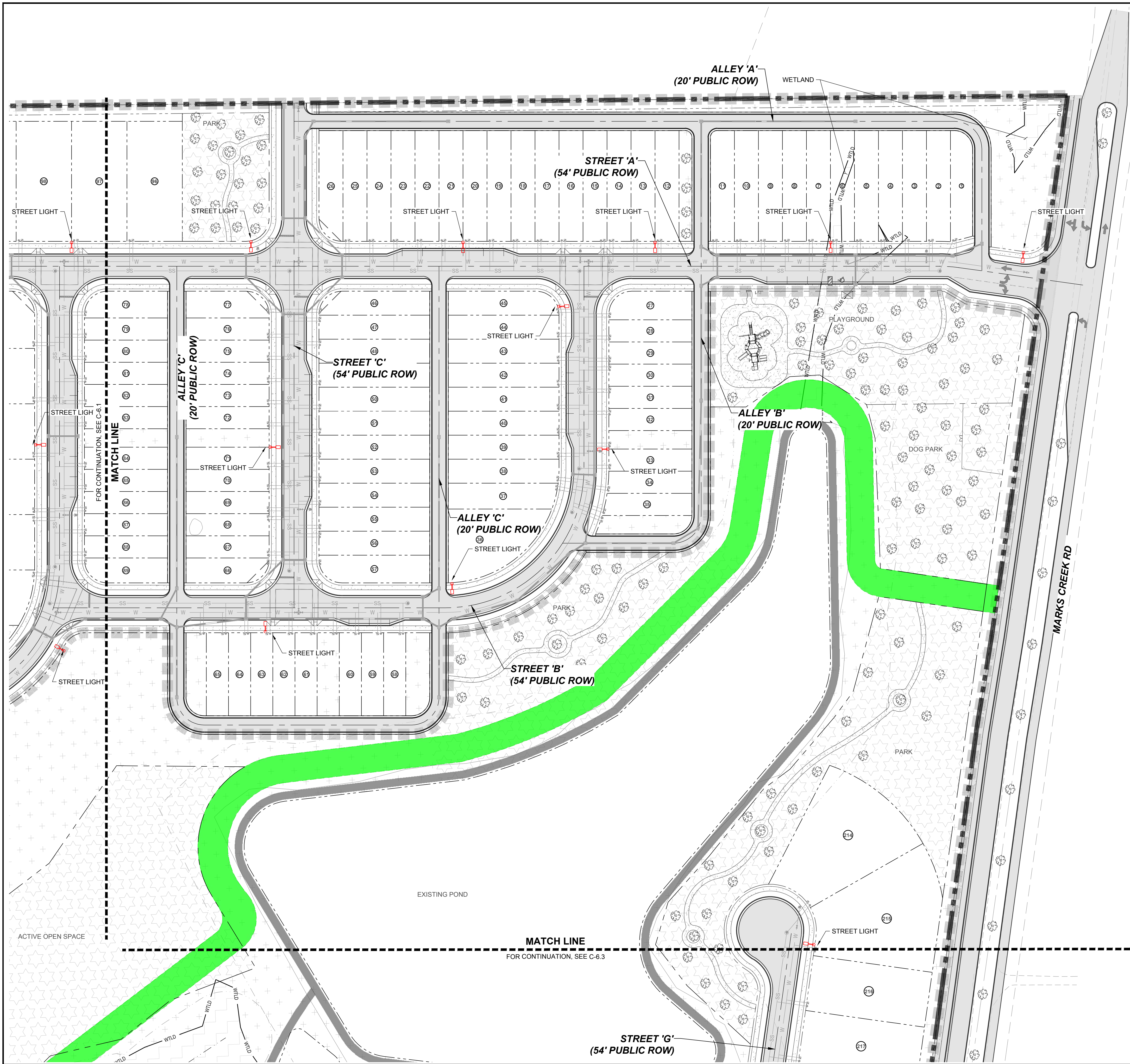


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| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE AS SHOWN | DESIGNED BY JWL | SRG | JWL        |
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
LIGHTING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

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



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

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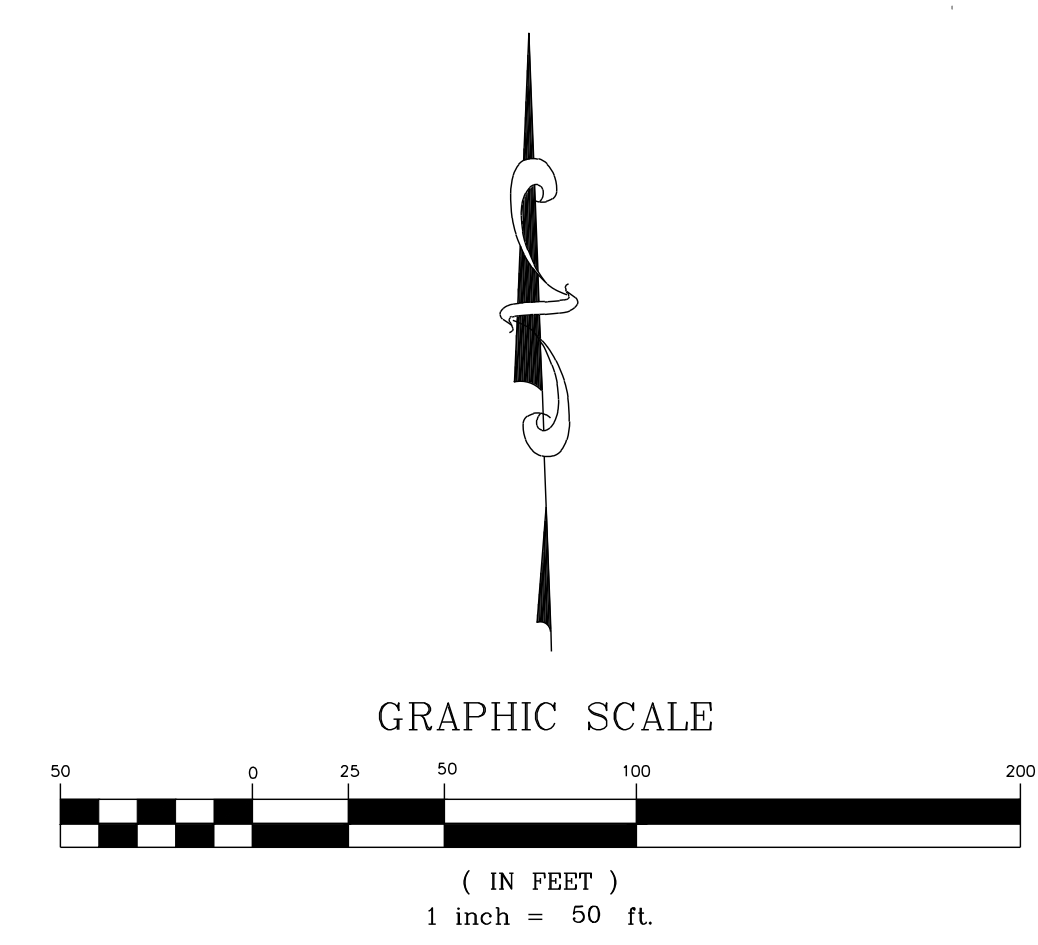


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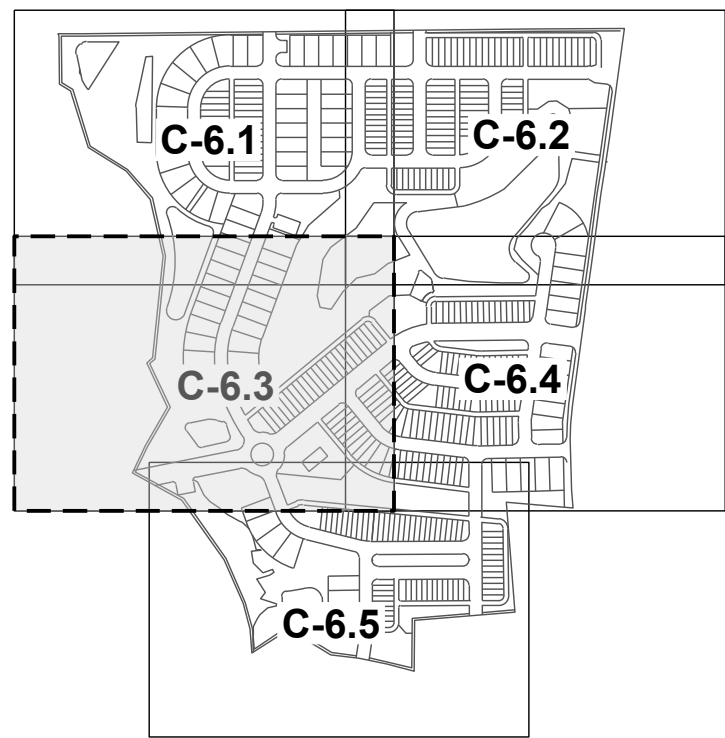
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| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE AS SHOWN | DESIGNED BY JWL | DRAWN BY SRG | CHECKED BY JWL |
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER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

DRAWING SHEET  
**C-6.2**  
32 OF 42

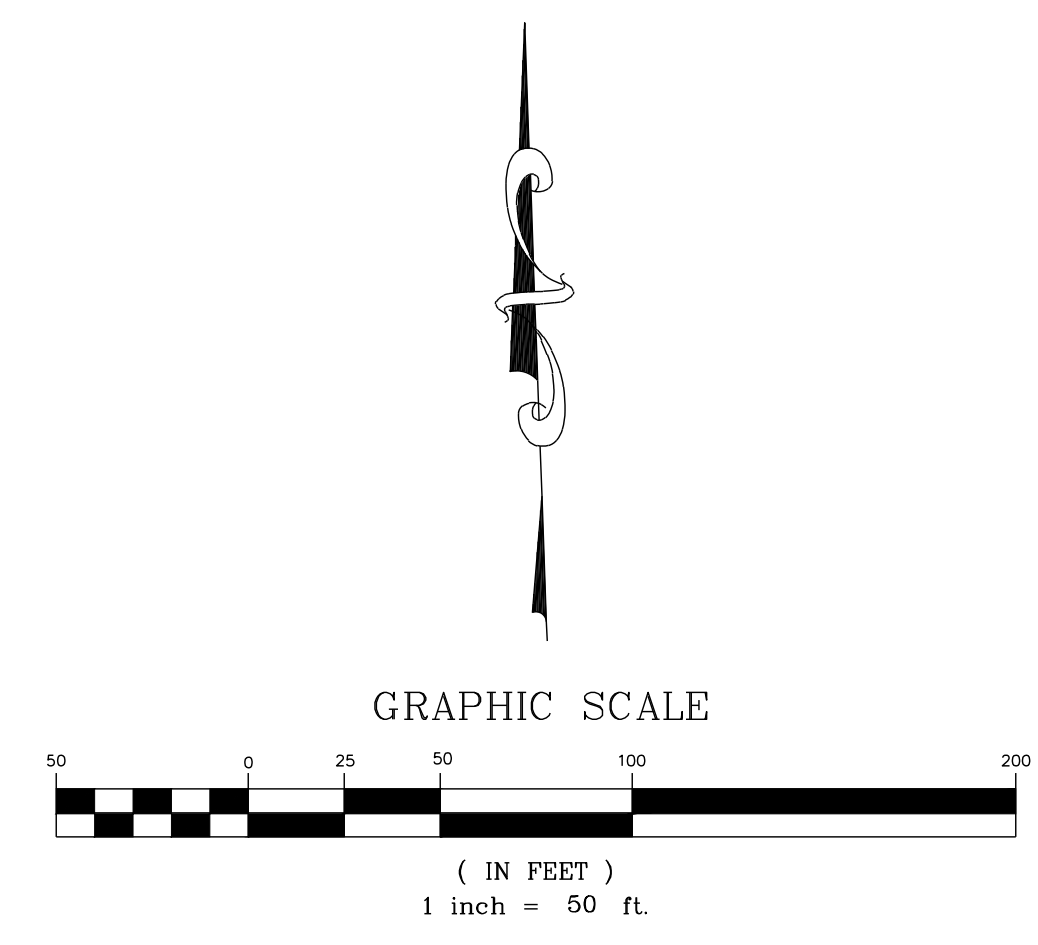
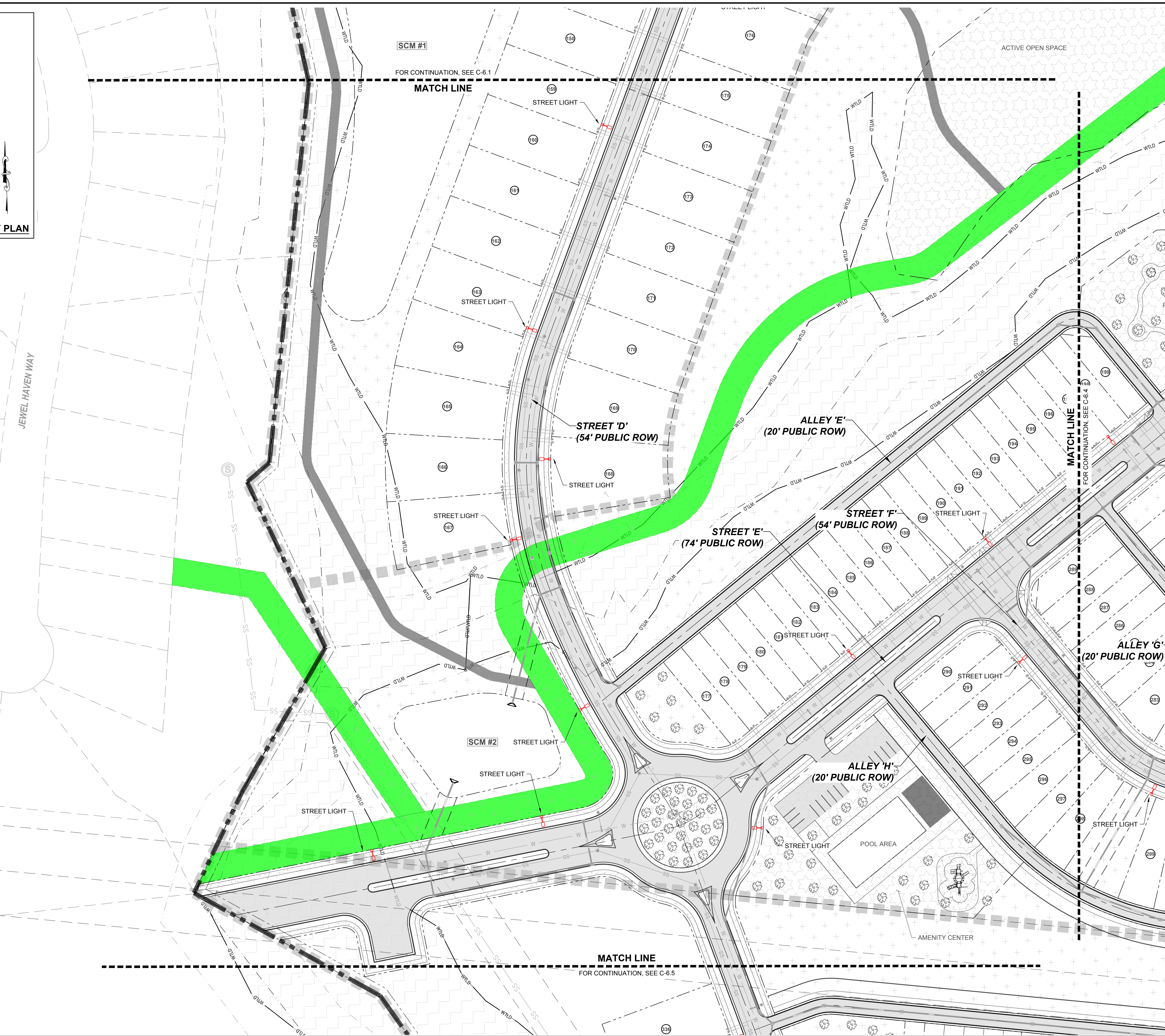






SITE KEY PLAN

LEGEND:  
SEE SHEET C-6.0 FOR LEGEND.



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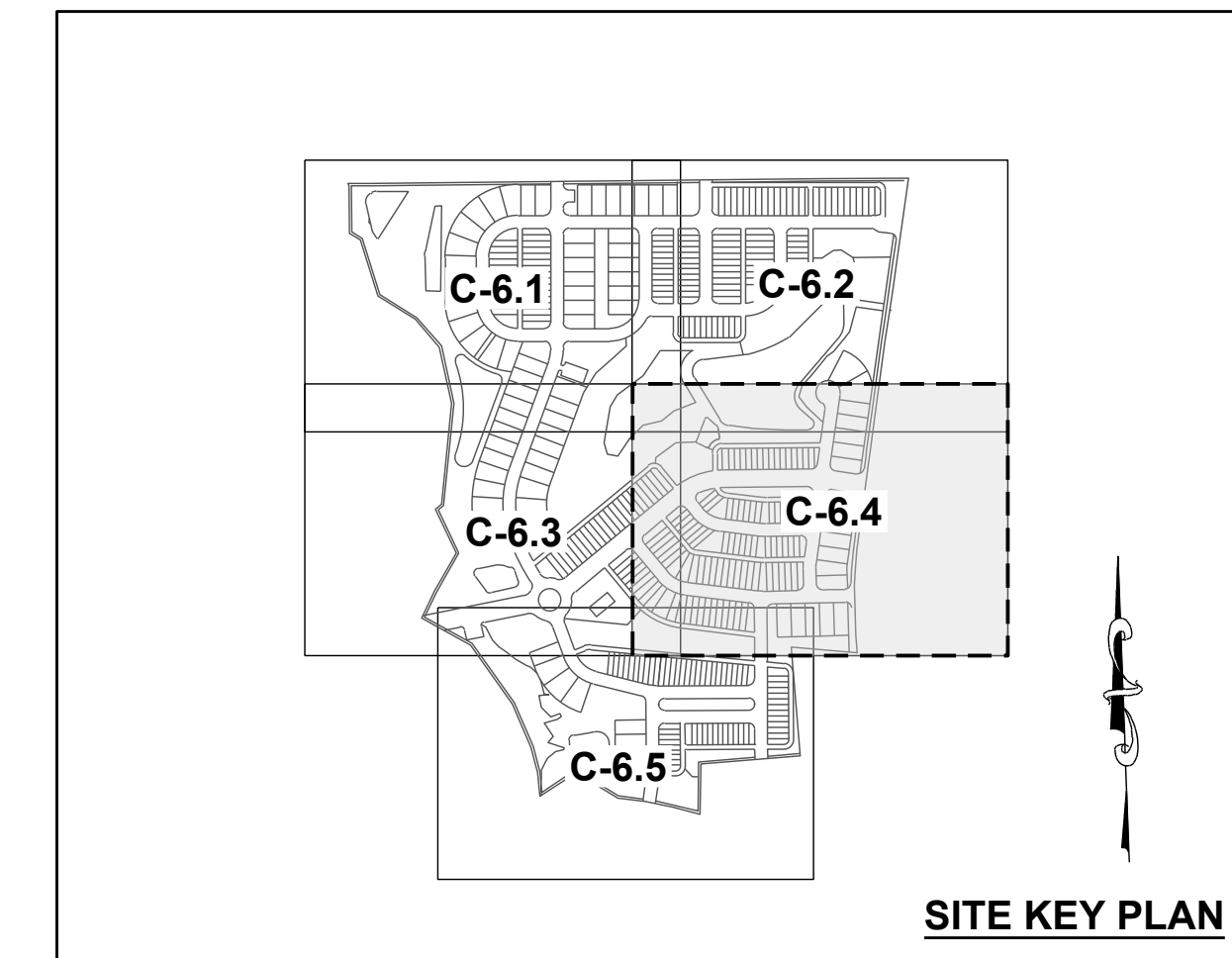
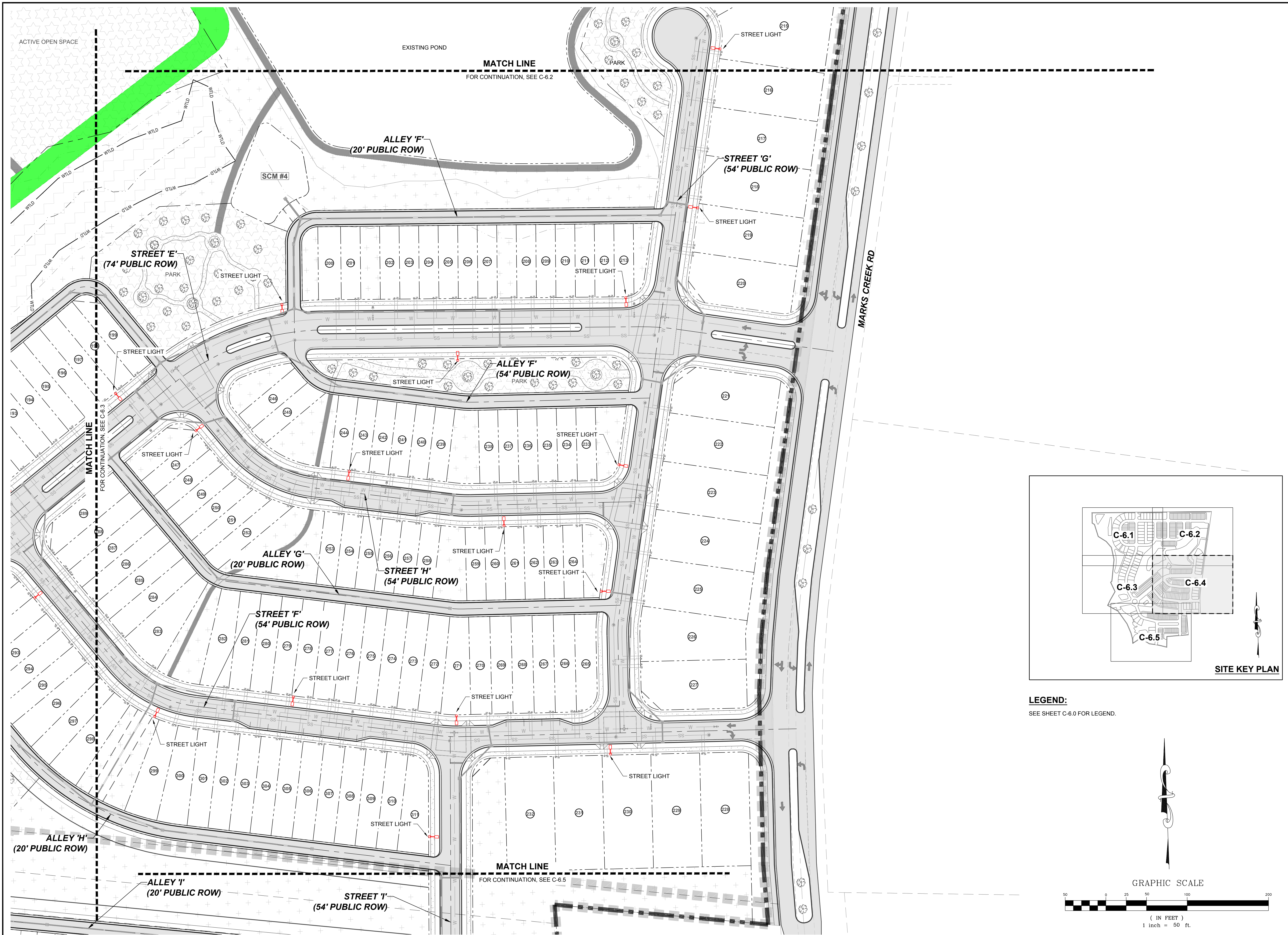


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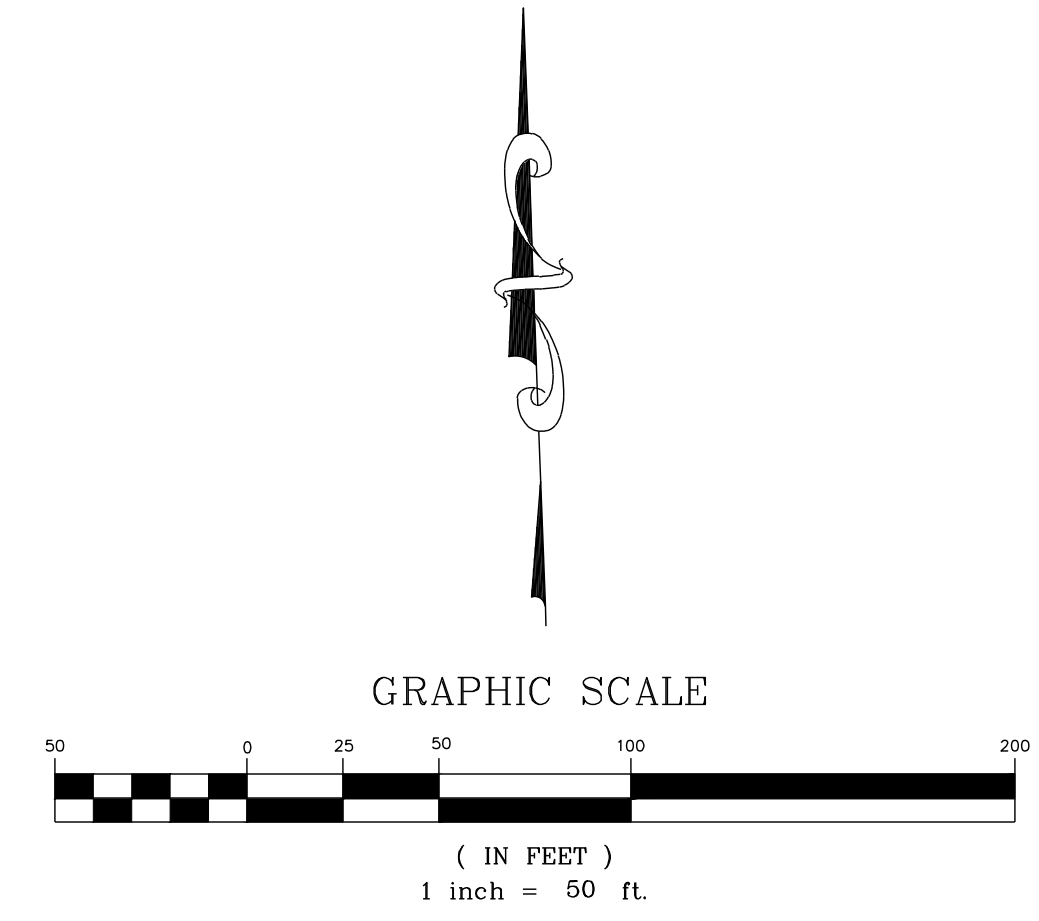
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| DESIGNED BY JWL      |
| DRAWN BY SRG         |
| CHECKED BY JWL       |

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

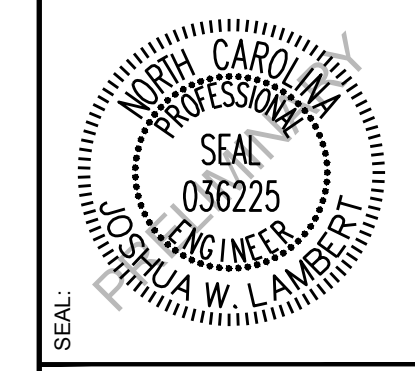
DRAWING SHEET  
**C-6.3**  
33 OF 42



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



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





**LEGEND:**

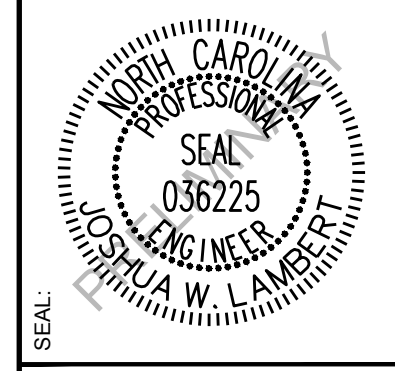
- PHASE LINE
- EXISTING PROPERTY LINE
- ROADWAY CENTER LINE
- PROPOSED PROPERTY LINE
- PASSIVE OPEN SPACE
- ACTIVE OPEN SPACE

**SIGN LEGEND:**

- 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     | 0'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"            |
- 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.
- ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY THE TOWN OF KNIGHTDALE, NCDOT STANDARDS AND SPECIFICATIONS.
- CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AS REQUIRED BY THE TOWN OF KNIGHTDALE, NCDOT STANDARDS AND SPECIFICATIONS.
- 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 VARIABLES"x12" DETAIL 4.06.

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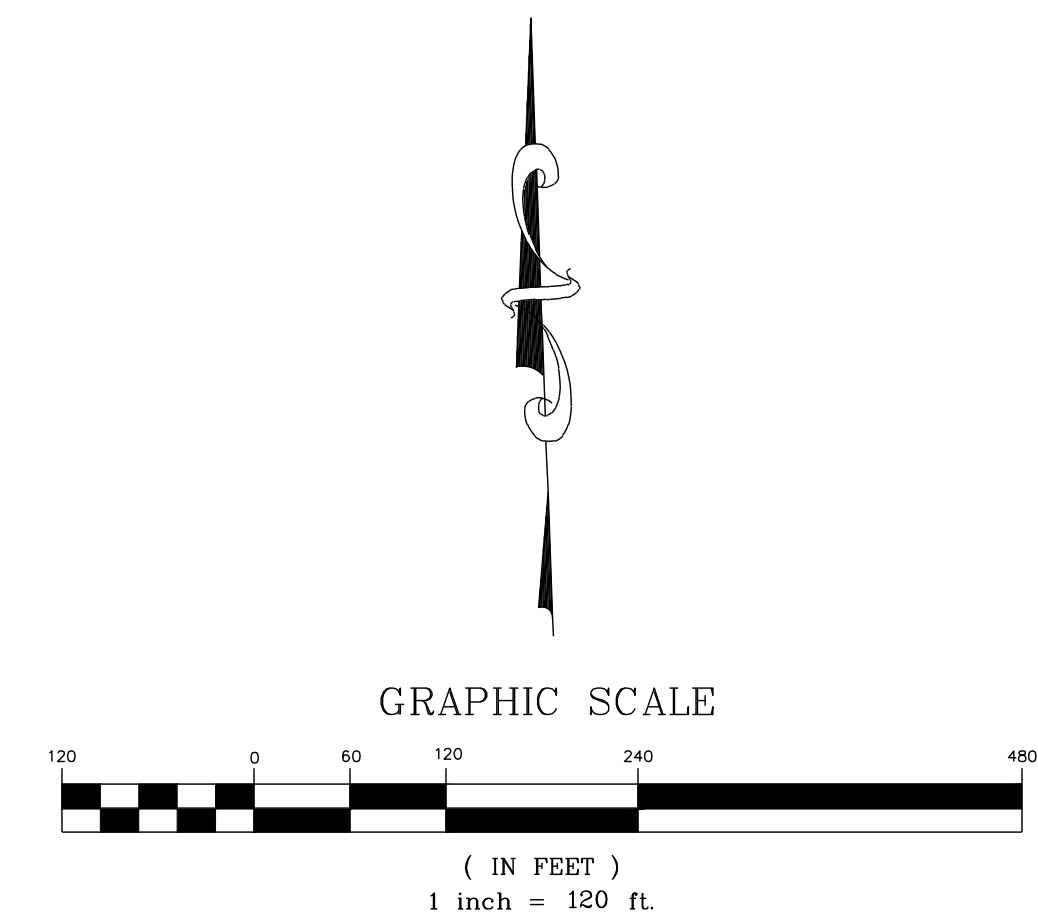


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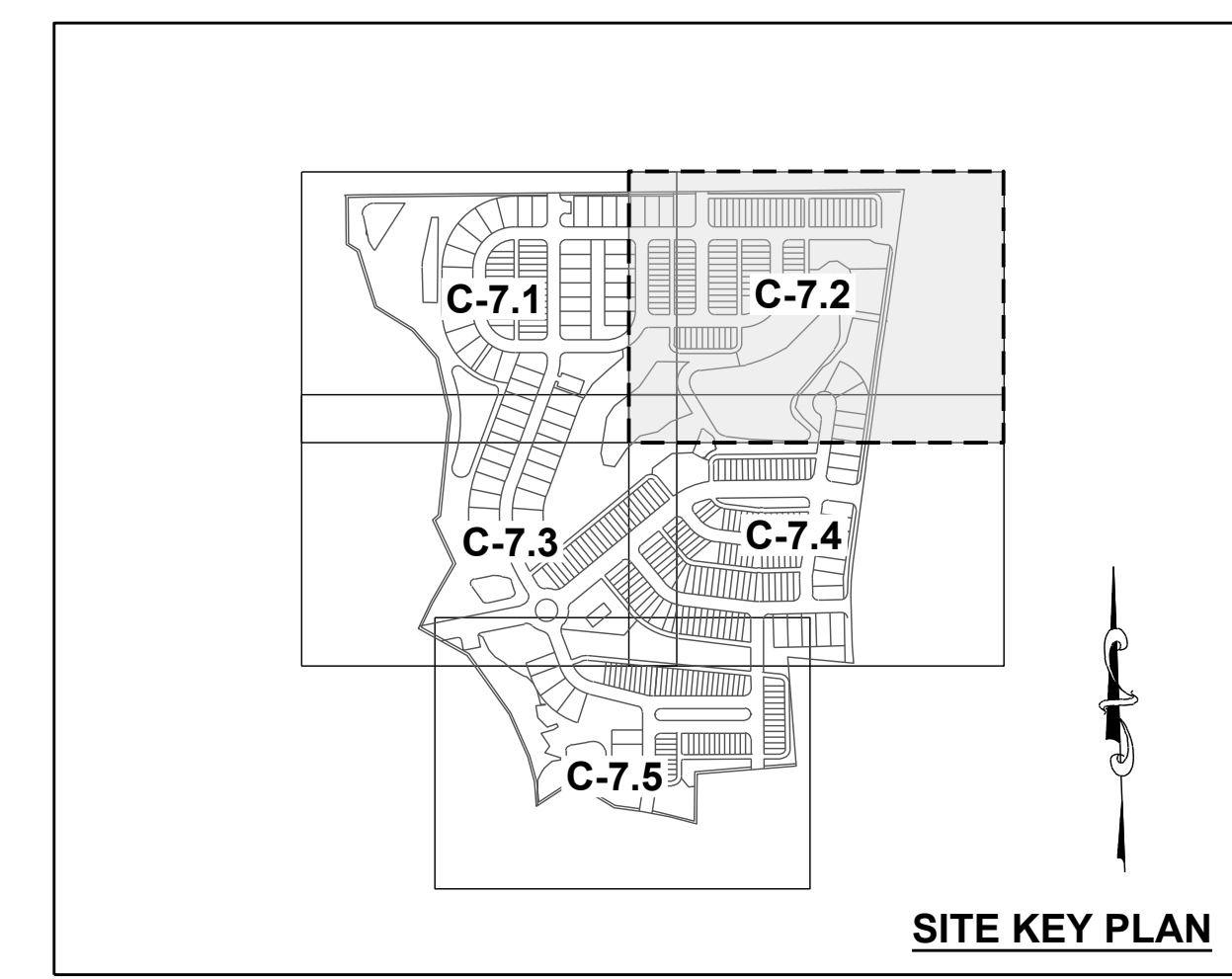
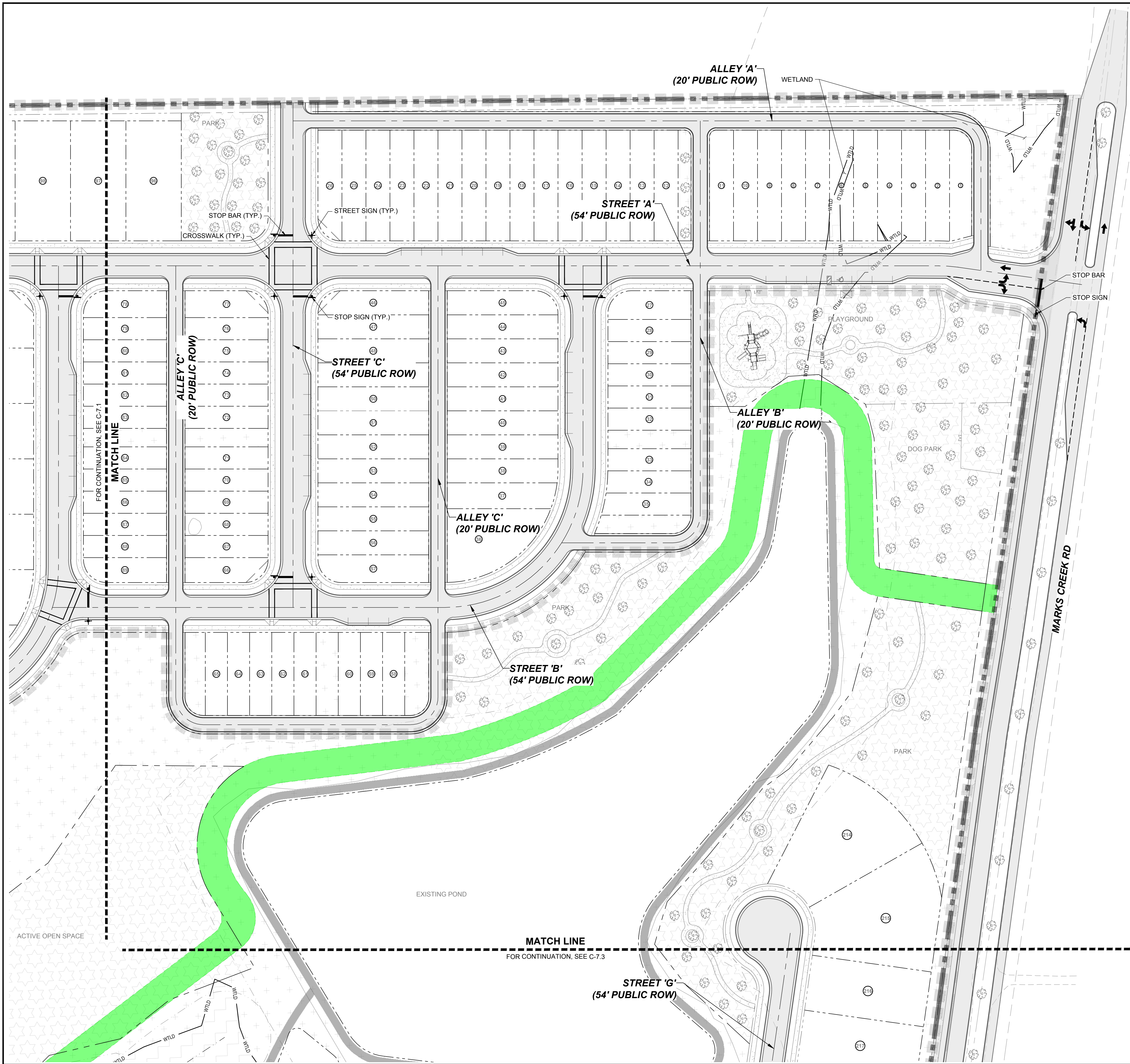
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| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE | DESIGNED BY | DRAWN BY | CHECKED BY |
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PRESERVE AT MARKS CREEK  
TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
OVERALL SIGNS & MARKINGS PLAN

DRAWING SHEET  
**C-7.0**

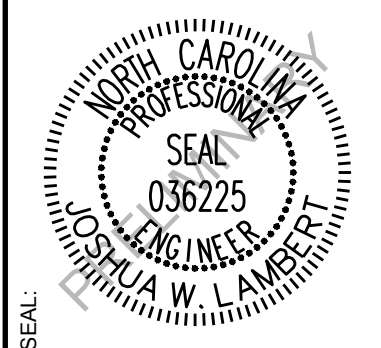






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SEE SHEET C-7.0 FOR LEGEND.

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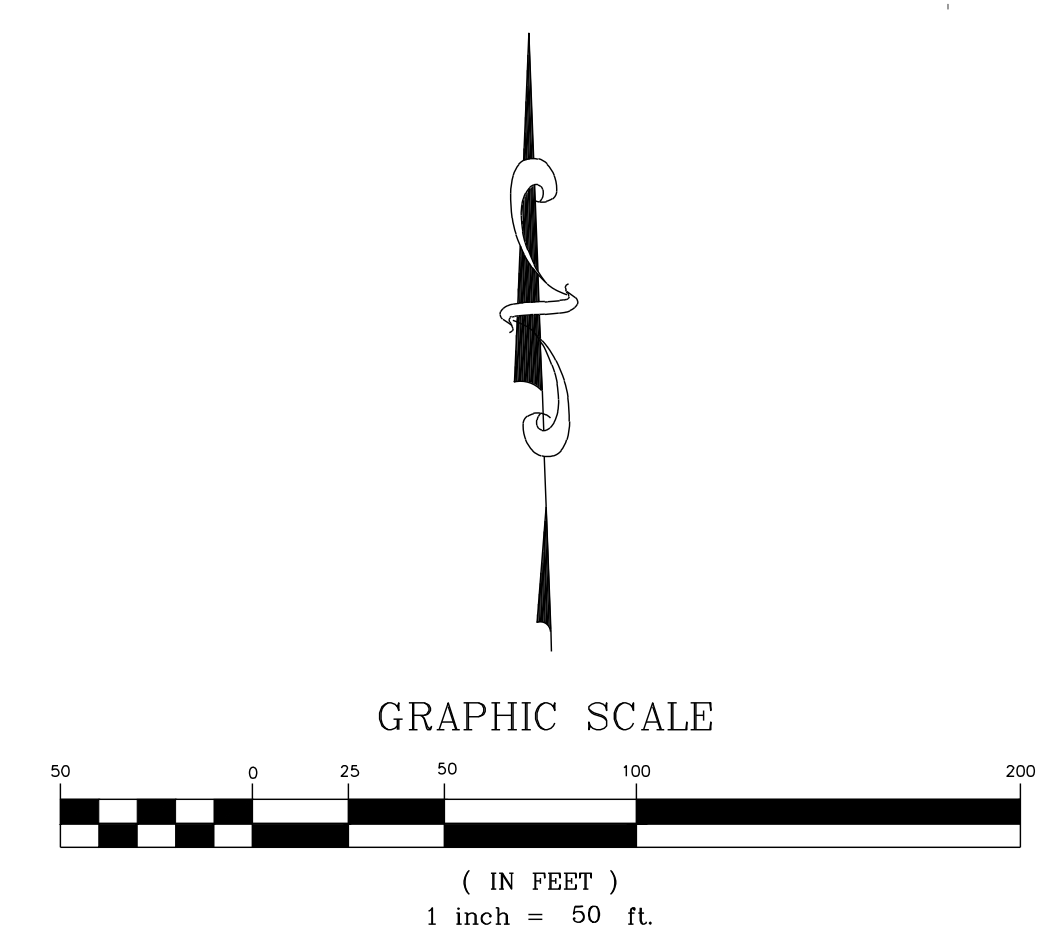


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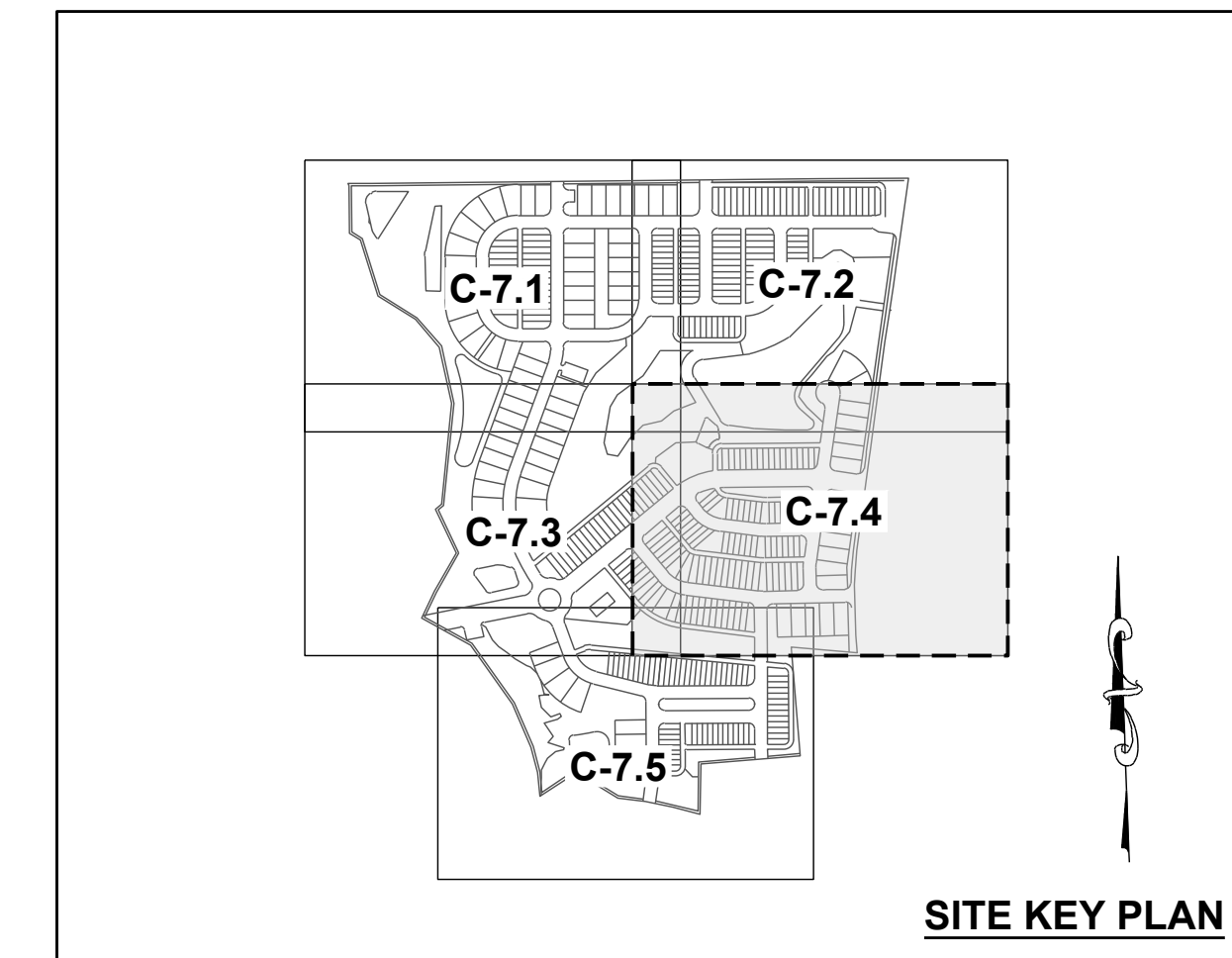
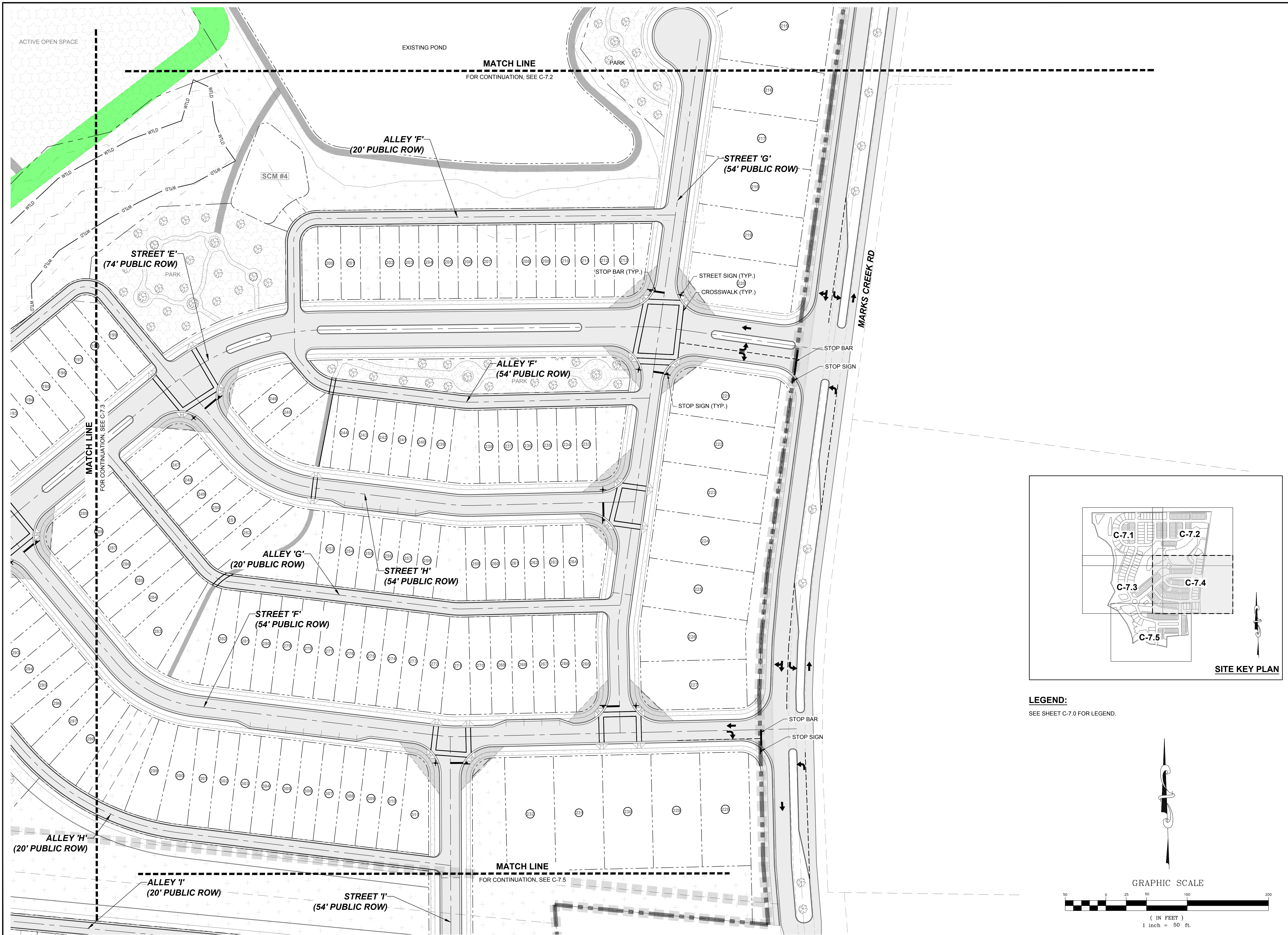
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| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE AS SHOWN | DESIGNED BY JWL | SRG | DRAWN BY JWL | CHECKED BY JWL |
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  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

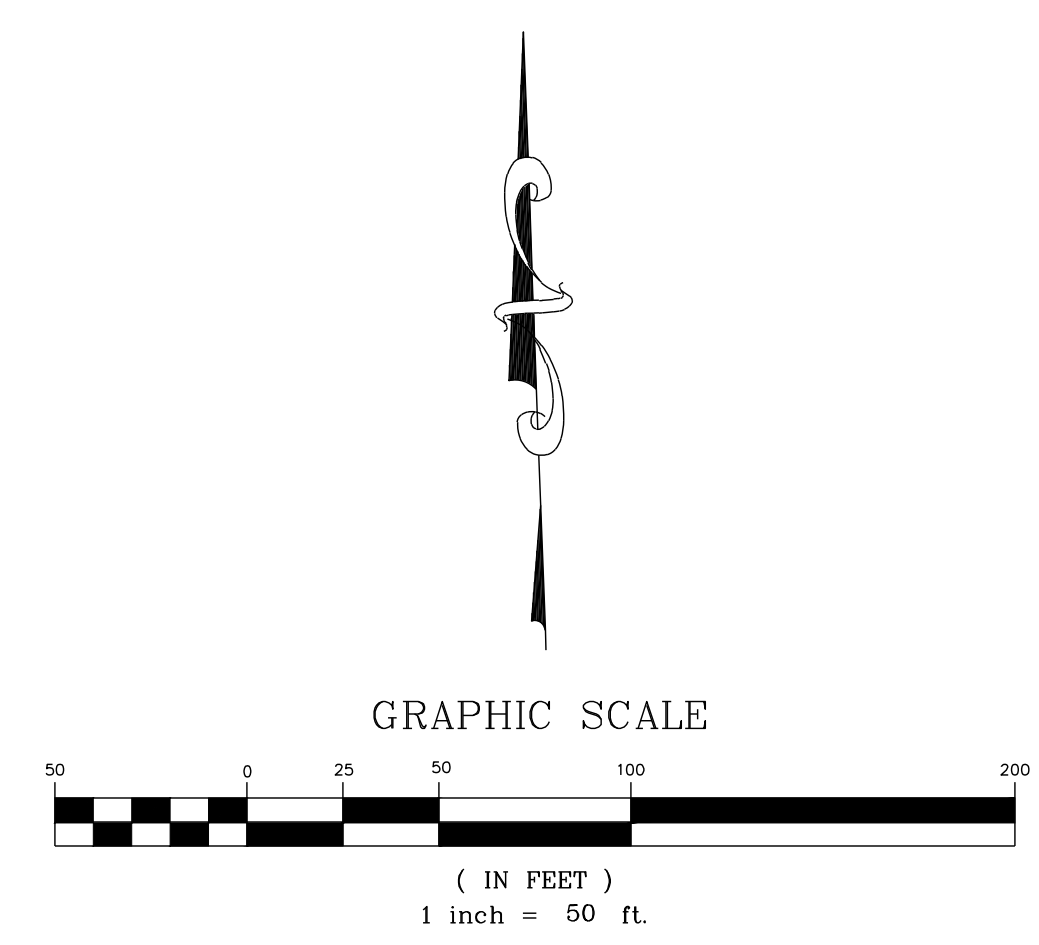
DRAWING SHEET  
**C-7.2**  
38 OF 42



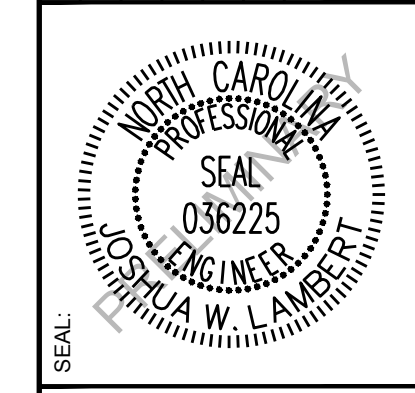




**LEGEND:**  
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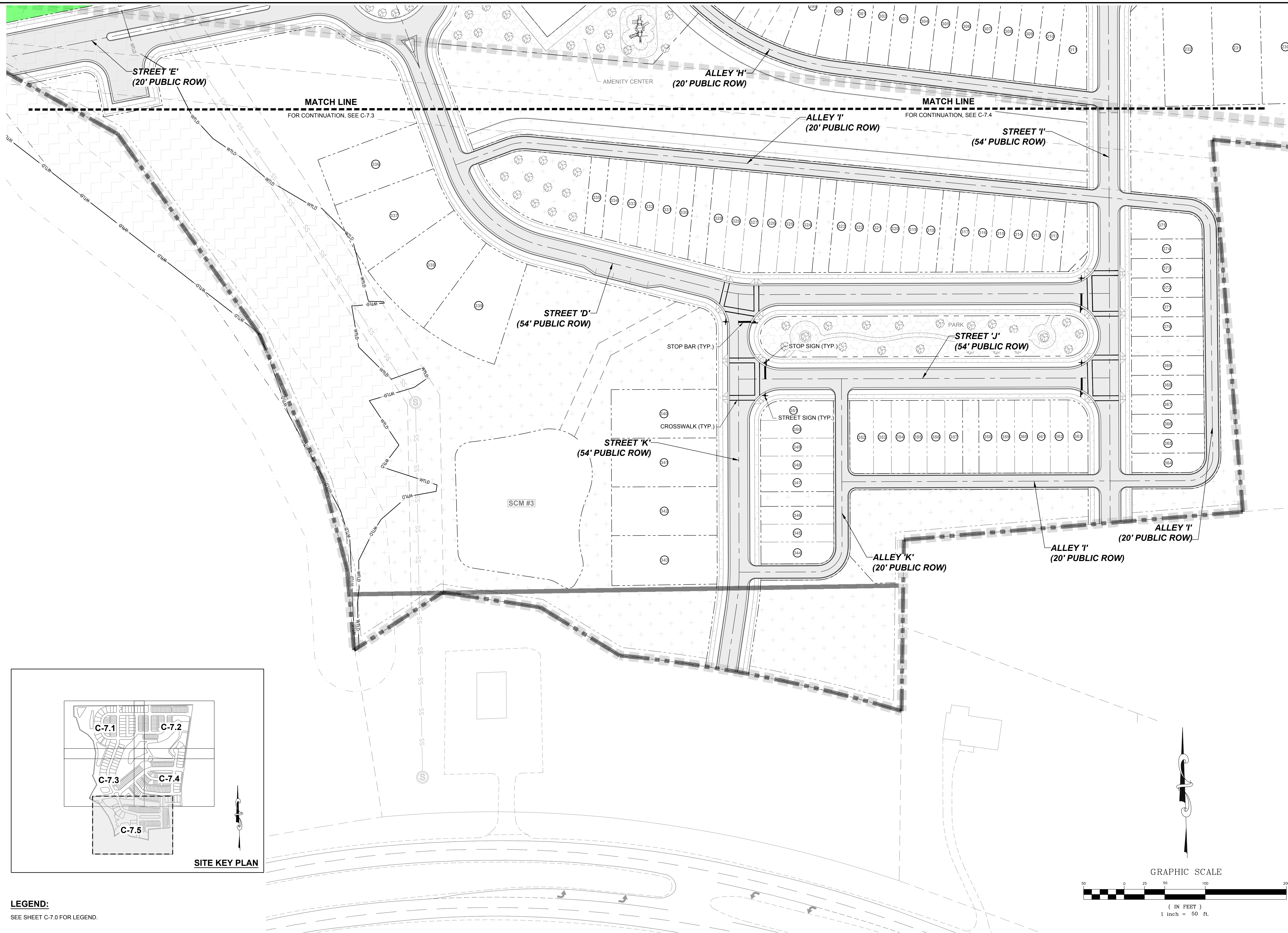
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| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE AS SHOWN | DESIGNED BY JWL | DRAWN BY SRG | CHECKED BY JWL |
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER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

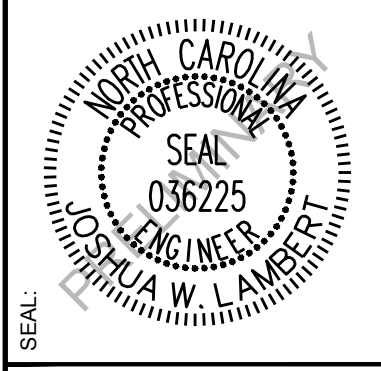
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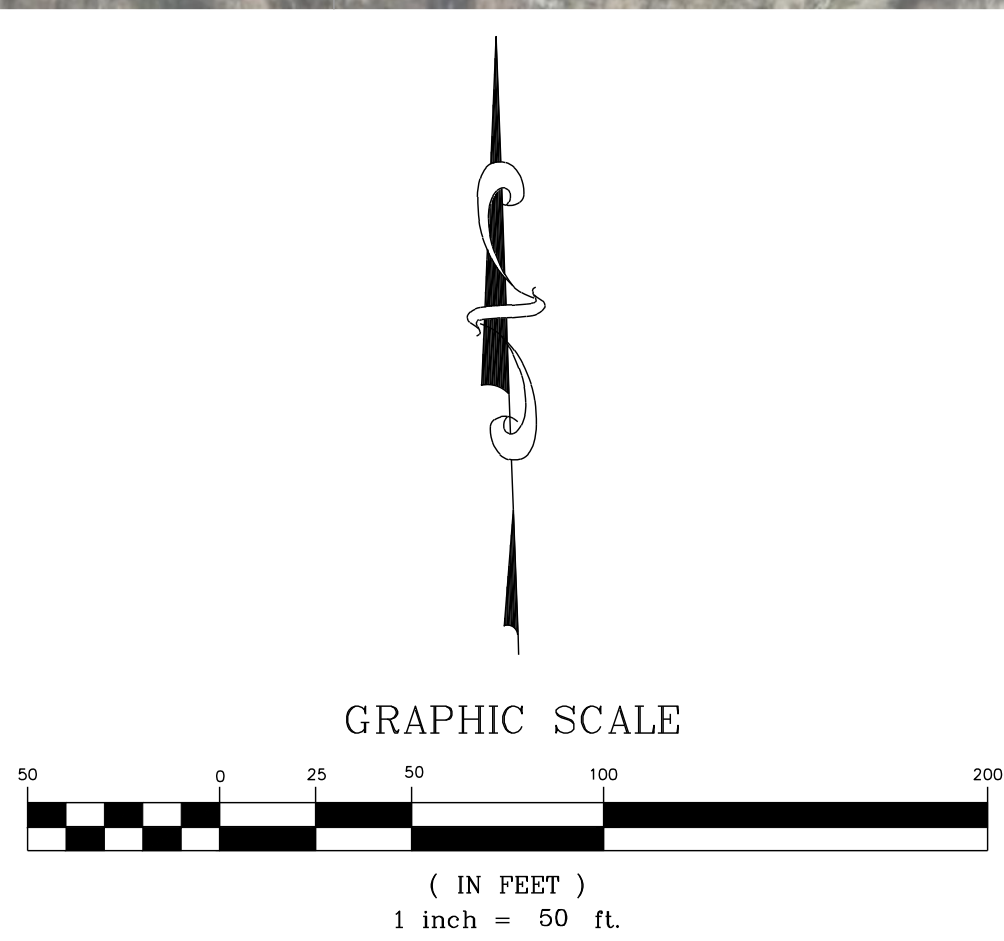


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| STRONG ROCK PROJECT | NOT FOR CONSTRUCTION | SCALE AS SHOWN | DESIGNED BY JWL | SRG | JWL        |
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PRESERVE AT MARKS CREEK  
TOWN OF KIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
MASTER PLAN  
SIGNS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

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| DRAWING SHEET | C-7.5 |
| 41 OF 42      |       |



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

DRAWING SHEET  
**E-1.0**