BRIO

1700 OLD CREWS ROAD
KNIGHTDALE, NORTH CAROLINA, 27545
ST. MATTHEWS TOWNSHIP
ZMA-9-21

MASTER PLAN

PROJECT NUMBER: 2020110062
DATE: MARCH 28, 2022
REVISED: JULY 1, 2022

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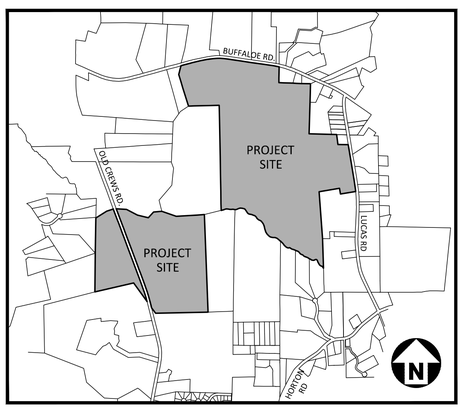

VICINITY MAP
N.T.S.

WATER ALLOCATION POINTS

PROPOSED POINTS	65 POINTS (15 BASE POINTS + 50 BONUS POINTS)
CONSTRUCT A FOUNTAIN WITHIN THE BMP	4 POINTS
IPEMA CERTIFIED PLAYGROUND EQUIPMENT	4 POINTS
ON-STREET PUBLIC PARKING	4 POINTS
RESIDENTIAL ARCHITECTURAL STANDARDS	15 POINTS
2 POOLS (ONE JR OLYMPIC AND ONE 4-LANE LAP POOL)	8 POINTS
2 CLUBHOUSES (MEETING SPACE WITHOUT KITCHEN, 1,500-2,499 SQUARE FEET)	10 POINTS
2 PATIOS (1 MORE THAN 2,000 SQ. FT AND 1 MORE THAN 1,000 SQ. FT.)	3 POINTS
WATER PLAYGROUND	2 POINTS

ZONING CONDITIONS

THE PROPOSED MASTER PLAN HAS AN ASSOCIATED PLANNED UNIT DEVELOPMENT (PUD) DOCUMENT (ORIGINALLY DATED 3-28-22) WHICH DETAILS MODIFICATIONS TO TYPICAL UDO STANDARDS AND BINDING ARCHITECTURAL CONDITIONS WHICH WOULD APPLY TO THE APPROVED MASTER PLAN.

IN ADDITION TO PRESCRIBED ARCHITECTURAL STANDARDS CONTAINED WITHIN THE PUD DOCUMENT, THE FOLLOWING ZONING CONDITIONS SHALL APPLY:

1. SECTION 3.4K OF THE KNIGHTDALE UNIFIED DEVELOPMENT ORDINANCE REQUIRES THAT ANY LOT LESS THAN 80' IN WIDTH BE ACCESSED VIA AN ALLEY OR REAR LANE ACCESS. IN ORDER TO ACCOMMODATE A MORE COMPACT DESIGN THAT SUPPORTS UTILIZATION OF OPEN SPACE, PRESERVATION OF ENVIRONMENTAL SENSITIVE FEATURES, AND NON-RESIDENTIAL INCORPORATION, UP TO 10% OF THE TOTAL PROJECT UNITS MAY BE FRONT-LOADED SINGLE FAMILY DWELLING UNITS WITH NO AGE RESTRICTION ON LOTS LESS THAN 80' IN WIDTH. AGE RESTRICTED UNITS SHALL BE EXEMPT FROM THIS REQUIREMENT.
2. FOR FRONT LOADED SFD LOTS, THE MINIMUM DRIVEWAY LENGTH SHALL BE 25 FEET. FURTHERMORE, REAR SETBACKS OF 15' SHALL BE APPLIED RATHER THAN 25'. MINIMUM SIDE SETBACKS SHALL BE A STANDARD 5' RATHER THAN A VARIABLE PERCENTAGE.
3. REAR LOADED LOTS SHALL HAVE A MINIMUM DRIVEWAY LENGTH OF 20' (RATHER THAN 35'). FURTHERMORE, REAR SETBACKS OF 15' SHALL BE APPLIED RATHER THAN 25'.
4. SECTION 11.1B OF THE UDO ESTABLISHED A MINIMUM AND MAXIMUM DISTRIBUTION OF USES FOR DEVELOPMENT PROJECTS. THE BRIO PUD SHALL DEVIATE FROM THESE STANDARD RANGES AND INCLUDES A SPECIFIED USE DISTRIBUTION TARGET WITHIN THE PUD DOCUMENT.
5. MASS GRADING SHALL BE PERMITTED FOR FRONT-LOADED LOTS 60' OR GREATER. ADDITIONAL DETAILS AND JUSTIFICATION IS PROVIDED IN THE PUD DOCUMENT. A 3" CALIPER FRONT-YARD TREE SHALL BE PLANTED WITHIN ANY LOT WHERE AN EXCEPTION IS GRANTED TO ALLOW MASS GRADING WHERE IT WOULD OTHERWISE NOT BE PERMITTED (IN ADDITION TO REQUIRED STREET TREES).
6. SECTION 11.3,E,7 OF THE KNIGHTDALE UNIFIED DEVELOPMENT ORDINANCE REQUIRES A CONNECTIVITY INDEX OF 1.5 FOR DEVELOPMENT WITHIN THE NMX ZONING DISTRICT. THIS IS CALCULATED AS THE RATIO OF THE NUMBER OF STREET LINKS DIVIDED BY THE NUMBER OF STREET NODES. DUE TO THE SIGNIFICANT NUMBER OF NATURAL BARRIERS TO STREET CONNECTION, ACHIEVING THIS FIGURE WOULD REQUIRE SIGNIFICANT AND UNNECESSARY ENVIRONMENTAL IMPACT TO STREAMS AND FLOODPLAIN PRESENT ON THE SITE. AS A RESULT, THE BRIO PUD REQUESTS A DEVIATION TO PERMIT A MINIMUM CONNECTIVITY INDEX OF 1.3.
7. THE LAYOUT OF THE 4-ACRE COMMERCIAL POD AND 4.3-ACRE MULTIFAMILY POD ARE CONCEPTUAL IN NATURE. THE COMMERCIAL POD SHALL BE FURTHER LIMITED TO THE COMMERCIAL USES SPECIFIED IN THE PUD DOCUMENT. DEVELOPMENT OF THESE PODS SHALL REQUIRE A SEPARATE/SUBSEQUENT SITE PLAN SUBMITTAL AND REVIEW, SUBJECT TO ALL APPLICABLE DEVELOPMENT STANDARDS FOR THE NMX ZONING DISTRICT. THE DIVIDE BETWEEN THESE TWO PODS MAY VARY BY UP TO 1-ACRE (I.E. ADDING 1-ACRE TO THE COMMERCIAL POD AND SUBTRACTING 1-ACRE FROM THE MULTIFAMILY POD, OR VICE VERSA).
8. DUE TO THE NUMEROUS ENVIRONMENTAL FEATURES PRESENT IN BRIO WHICH PREVENTS A MORE INTERCONNECTED ROAD NETWORK, UP TO 8 CUL-DE-SACS SHALL BE PERMITTED WITHIN BRIO (AS SHOWN IN THE MASTER PLAN).
9. WITH THE EXCEPTION OF ALONG ITS COMMERCIAL AND MULTIFAMILY PODS, BRIO SHALL UTILIZE A 20' TYPE B PERIMETER BUFFER INSTEAD OF THE TYPE C BUFFER TYPICALLY REQUIRED FOR DEVELOPMENT WITHIN AN NMX ZONING DISTRICT ABUTTING THE RT ZONING DISTRICT. THE NMX ZONING DISTRICT WAS CHOSEN SOLELY DUE TO THE COMMERCIAL TRACT INCLUSION. OUTSIDE OF THE COMMERCIAL TRACT, THE DEVELOPMENT IS MORE CONSISTENT WITH THE GR3 DISTRICT, WHICH WOULD NOT REQUIRE A TYPE C BUFFER.
10. DUE TO THE EXISTENCE OF CONSERVATION LANDS ON THE WESTERN SIDE OF OLD CREWS ROAD ADJACENT TO THIS SITE, THE TOWNHOMES ABUTTING OLD CREWS ROAD SHALL FRONT INTERNALLY WITHIN THE BRIO DEVELOPMENT (RATHER THAN FRONTING OLD CREWS ROAD). THIS REPRESENTS A DEVIATION FROM THE STANDARD REQUIREMENT INCLUDED IN SECTION 6.6 OF THE UDO. A PLANTED BERM SHALL BE PROVIDED ALONG THE EAST SIDE OF OLD CREWS ROAD.
11. ALL FRONT-LOADED TOWNHOMES SHALL INCORPORATE A REAR DECK OR PATIO (MIN 80 SQ. FT). THESE DECKS OR PATIOS MAY ENCROACH INTO THE REAR SETBACK, DUE TO THE PRESENCE OF BUFFERS BEHIND ALL UNITS.
12. ON FRONT-LOADED TOWNHOMES, ALL INTERIOR UNITS SHALL HAVE A 1-CAR GARAGE. ALL END UNITS MAY HAVE A 1-CAR OR 2-CAR GARAGE. FRONT-LOADED TOWNHOMES SHALL BE PERMITTED TO USE A 20' DRIVEWAY LENGTH, INSTEAD OF 35' (NOT TO EXCEED 75 UNITS).

SITE DATA

PIN	1755485119, 1755579649, 1755672258, 1755254643, 1755466872, 1755155783	
SITE AREA	GROSS AREA: 286.48 AC NCDOT R/W DEDICATION: 2.47 AC NET AREA: 284.01 AC	
EXISTING ZONING	RURAL TRANSITION (RT)	
PROPOSED ZONING	PUD (NMX)	
WATERSHED CLASSIFICATION	LOWER NEUSE RIVER	
RIVER BASIN	NEUSE	
FEMA DATA	FIRM PANEL #3720175500J, DATED MAY 2, 2006	
EXISTING USE	VACANT / AGRICULTURAL	
PROPOSED USE	RESIDENTIAL - NMX - PUD	
DENSITY	900 UNITS / 284.01 AC = 3.17 DU/AC SINGLE FAMILY = 558 UNITS (62.00%) TOWNHOMES = 230 UNITS (25.56%) APARTMENT = 112 UNITS (12.44%) (3.40 AC - 5.40 AC (4.38 AC SHOWN)) COMMERCIAL (3.00 AC - 5.00 AC (4.02 AC SHOWN))	
SETBACKS (SFD FRONT LOAD - AGE RESTRICTED)	PROPOSED (PER PUD)	MINIMUM LOT SIZE: 6,000 SF LOT WIDTH (MIN): 50' FRONT SETBACK (MIN): 20' (25' FOR FACE OF GARAGE) MINIMUM DRIVEWAY LENGTH: 25' SIDE SETBACK: 5' (10' ON CORNER SIDES) REAR SETBACK: 15' MAXIMUM BUILDING HEIGHT: 3 STORIES
SETBACKS (SFD FRONT LOAD - NO AGE RESTRICTION)	PROPOSED (PER PUD)	MINIMUM LOT SIZE: 6,800 SF LOT WIDTH (MIN): 60' FRONT SETBACK (MIN): 20' (25' FOR FACE OF GARAGE) MINIMUM DRIVEWAY LENGTH: 25' SIDE SETBACK (MIN): 5' (10' ON CORNER SIDES) REAR SETBACK: 15' MAXIMUM BUILDING HEIGHT: 3 STORIES
SETBACKS (SFD REAR LOAD)	PROPOSED (PER PUD)	MINIMUM LOT SIZE: 3,500 SF LOT WIDTH (MIN): 32' FRONT SETBACK (MIN): 10' DRIVEWAY LENGTH (MIN): 20' (MEASURED FROM EDGE OF PAVEMENT) SIDE SETBACK (MIN): 3' SIDE SETBACK AGGREGATE (MIN): 6' REAR SETBACK (MIN): 15' MAXIMUM BUILDING HEIGHT: 3 STORIES
SETBACKS (TOWNHOMES REAR LOAD)	PROPOSED (PER PUD)	FRONT SETBACK (MIN): 0' FRONT SETBACK (MAX): 25' BUILDING SEPARATION (MIN): 10' (10' ON CORNER SIDES) REAR SETBACK FROM REAR LANE/ALLEY (MIN): 15' BUILDING HEIGHT (MAX): 3 STORIES MIN. DRIVEWAY LENGTH: 20' (MEASURED FROM EDGE OF PAVEMENT)
SETBACKS (TOWNHOMES FRONT LOAD)	PROPOSED (PER PUD)	FRONT SETBACK (MIN): 20' REAR SETBACK (MIN): 15' BUILDING SEPARATION (MIN): 10' (10' ON CORNER SIDES) DRIVEWAY LENGTH (MIN): 20' (MEASURED FROM RIGHT-OF-WAY) BUILDING HEIGHT (MAX): 3 STORIES
PARKING NOTE: FINAL PARKING COUNTS TO VARY BASED ON UNIT CONFIGURATION BETWEEN MULTIFAMILY & COMMERCIAL PODS AND FINAL CLUBHOUSE LAYOUTS.	REQUIRED	2/UNIT x 900 UNITS = 1,800 SPACES
	PROPOSED	1,494 GARAGE SPACES 1,494 DRIVEWAY SPACES 165 APARTMENT (CONCEPTUAL) 3,153 TOTAL SPACES
	ADDITIONAL PROPOSED	117 ON-STREET SPACES 32 ON-ALLEY SPACES 107 AMENITY SPACES (CONCEPTUAL) 105 COMMERCIAL (CONCEPTUAL) 361 TOTAL ADDITIONAL SPACES
TOTAL OPEN SPACE	REQUIRED	25.125 AC (25% REDUCTION FOR NEIGHBORHOOD AMENITY)
	PROPOSED	32.73 AC - PASSIVE & ACTIVE 57.65 AC - COMMON OPEN SPACE 90.38 AC - TOTAL
ADDITIONAL OPEN SPACE WITHIN FLOODPLAIN AND RIPARIAN BUFFERS	PROPOSED	21.00 AC (TREE SAVE AREA)
PASSIVE OPEN SPACE	REQUIRED	12.56 AC (OUTSIDE OF FLOODPLAINS AND RIPARIAN BUFFERS)
	PROPOSED	19.71 AC (OUTSIDE OF FLOODPLAIN AND RIPARIAN BUFFERS)
ACTIVE OPEN SPACE	REQUIRED	12.56 AC
	PROPOSED	9.19 AC ACTIVE OPEN SPACE AREAS 3.83 AC GREENWAY (5,554 LF x 30' ESMT = 166,620 SF) 13.02 AC TOTAL (SEE OPEN SPACE PROGRAMMING TABLE ON SHEET C2.00)
TREE SAVE (PERIMETER OF SITE x 20')	REQUIRED	12.77 AC (27,807 LF x 20' = 556,140 SF)
	PROPOSED	21.00 AC (WITHIN FLOODPLAIN AND RIPARIAN BUFFERS)
CONNECTIVITY	REQUIRED	1.5
	PROPOSED	1.36 (94 LINKS/69 NODES)

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

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2701 EAST CAMELBACK ROAD
#180 BILTMORE PARK
PHOENIX, AZ 85016
PHONE: 602. 698. 8566

SUNCREST Real Estate & Land

PROJECT DIRECTORY

OWNERS
BUFFALOE COUNTRY LLC
15720 BRIXHAM HILL AVE, STE 300
CHARLOTTE, NC 28277
PIN: 1755485119

WATER TOWER LLC
PO BOX 31346
RALEIGH, NC 27622
PIN: 1755579649
PIN: 1755672258

SALUDA PROPERTIES LLC
6732 MILLORY STREAMS LN
CARY, NC 27519
PIN: 1755254643

RAMSEY, GRACE D
1832 OLD MILBURNIE RD
RALEIGH, NC 27604
PIN: 1755466872

OC 25 LLC
1201 EDWARDS MILL RD, STE 300
RALEIGH, NC 27607
PIN: 1755155783

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33928 RYAN C. AKERS NOT FOR CONSTRUCTION

REVISIONS

NO.	DATE	
1	04. 29. 2022	PER TOWN COMMENTS
2	07. 01. 2022	PER TOWN COMMENTS

MASTER PLAN FOR:
BRIO
KNIGHTDALE, NORTH CAROLINA
PROJECT NUMBER: 2020110062

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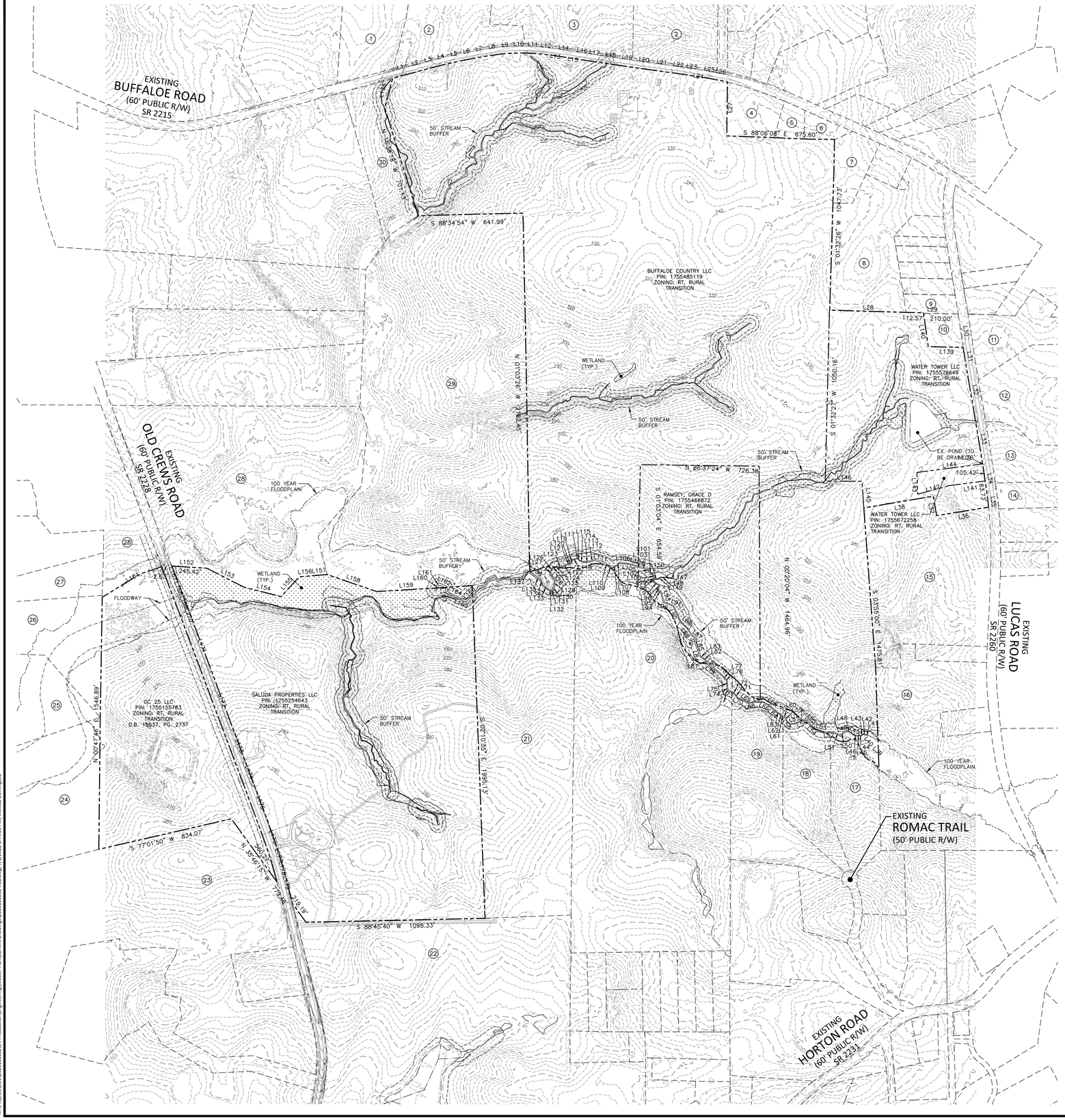

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 74°29'16" E	116.32'
L2	N 75°00'16" E	79.07'
L3	N 75°24'53" E	82.27'
L4	N 77°07'00" E	82.71'
L5	N 78°19'48" E	78.20'
L6	N 79°15'56" E	76.43'
L7	N 79°23'56" E	80.24'
L8	N 81°26'02" E	76.63'
L9	N 84°17'00" E	84.76'
L10	N 88°40'48" E	77.19'
L11	S 86°42'34" E	85.90'
L12	S 83°31'14" E	81.38'
L13	S 81°57'18" E	47.58'
L14	S 81°29'18" E	53.72'
L15	S 81°15'59" E	54.28'
L16	S 81°18'37" E	52.95'
L17	S 81°31'22" E	99.26'
L18	S 81°51'59" E	100.41'
L19	S 81°55'02" E	103.92'
L20	S 81°53'31" E	106.32'
L21	S 81°57'43" E	107.53'
L22	S 81°48'57" E	106.60'
L23	S 81°17'27" E	56.79'
L24	S 80°25'23" E	56.57'
L25	S 79°47'08" E	57.62'
L26	S 78°36'08" E	74.47'
L27	S 00°52'27" W	363.81'
L28	S 88°16'20" E	462.82'
L29	S 88°18'01" E	322.57'
L30	S 09°05'09" E	209.93'
L31	S 09°05'20" E	102.15'
L32	S 09°39'59" E	319.91'
L33	S 09°23'40" E	291.81'
L34	S 08°30'16" E	200.51'
L35	S 06°05'04" E	78.54'
L36	S 80°33'38" W	323.62'
L37	N 09°05'59" W	120.00'
L38	S 80°54'02" W	432.96'
L39	N 49°02'04" W	41.55'
L40	N 40°27'24" W	77.35'
L41	N 84°54'10" W	10.23'
L42	N 79°21'51" W	120.17'
L43	S 42°38'52" W	15.51'
L44	N 59°42'56" W	9.90'
L45	S 76°13'33" W	16.37'
L46	N 71°00'56" W	20.80'
L47	N 52°32'57" W	23.70'
L48	N 63°35'27" W	25.07'
L49	S 68°53'51" W	21.99'
L50	S 36°21'28" W	30.51'
L51	N 61°11'49" W	47.99'
L52	S 89°03'48" W	65.76'
L53	N 75°51'55" W	38.74'
L54	N 47°53'25" W	56.94'
L55	S 37°41'31" W	43.56'
L56	S 66°49'33" W	73.57'
L57	S 85°20'01" W	28.48'
L58	N 47°15'37" W	34.29'
L59	N 05°27'17" W	16.99'
L60	N 68°07'05" W	19.14'
L61	N 68°07'05" W	14.03'
L62	N 48°01'33" W	21.83'
L63	N 63°51'21" W	24.74'
L64	N 45°13'55" W	40.59'
L65	N 52°07'08" W	26.06'
L66	N 61°54'31" W	32.47'
L67	N 88°08'48" W	55.01'
L68	S 78°27'38" W	38.59'
L69	N 55°43'52" W	37.95'
L70	N 71°31'12" W	33.10'
L71	N 40°49'22" W	32.09'
L72	N 46°11'46" W	15.86'
L73	N 68°31'45" W	33.06'
L74	N 06°17'32" W	20.77'
L75	N 03°41'20" W	40.72'
L76	N 62°26'21" W	6.52'
L77	N 39°08'19" W	31.28'
L78	N 49°59'11" W	54.13'
L79	N 53°44'08" W	45.67'
L80	N 51°12'15" W	24.31'
L81	N 19°45'07" W	19.71'
L82	N 56°59'02" W	21.33'
L83	N 05°38'20" W	19.19'
L84	N 21°39'31" W	66.23'
L85	N 22°51'53" E	22.33'
L86	N 49°28'10" W	41.25'
L87	N 33°22'51" W	53.12'
L88	N 48°25'24" W	49.77'
L89	N 24°14'33" W	108.16'
L90	N 63°52'09" W	31.31'
L91	N 72°32'23" W	34.03'
L92	N 14°00'19" W	64.16'
L93	N 61°28'54" W	16.57'
L94	N 09°40'19" W	19.03'
L95	N 22°16'19" E	15.53'
L96	N 54°29'48" W	45.11'
L97	N 15°17'29" E	11.38'
L98	N 15°17'29" E	10.28'
L99	N 22°39'56" W	18.60'
L100	N 67°54'45" W	39.85'
L101	N 10°21'44" W	11.52'
L102	N 76°46'00" W	48.37'
L103	N 72°35'10" W	49.26'
L104	N 77°31'01" W	34.26'
L105	N 86°24'13" W	49.21'
L106	S 31°44'35" W	14.76'
L107	S 62°27'35" W	43.47'
L108	N 34°35'00" W	15.59'
L109	N 60°04'38" W	45.91'
L110	N 72°47'55" W	58.44'
L111	S 66°58'25" W	26.79'
L112	S 81°48'08" W	38.21'
L113	N 66°37'55" W	32.29'
L114	N 29°02'14" W	12.37'
L115	S 84°57'34" W	9.34'
L116	S 71°01'47" W	29.85'
L117	S 17°11'08" W	18.76'
L118	S 62°49'16" W	15.34'
L119	N 79°18'23" W	4.66'
L120	S 67°39'25" W	48.25'
L121	N 80°09'16" W	12.96'
L122	S 85°06'50" W	29.63'
L123	S 57°01'37" W	10.11'
L124	S 31°28'05" W	22.75'
L125	S 07°25'20" W	21.93'
L126	S 38°27'56" E	44.11'
L127	S 06°22'17" W	35.57'
L128	S 15°05'02" W	25.17'
L129	S 75°22'27" W	10.28'
L130	S 73°01'39" W	17.65'
L131	S 54°20'37" W	44.08'
L132	N 24°00'50" W	45.69'
L133	N 67°23'29" W	21.04'
L134	N 53°36'23" W	54.08'
L135	N 70°53'24" W	16.65'
L136	N 14°37'42" E	218.66'
L137	S 88°19'55" E	210.04'
L138	S 09°04'12" E	210.03'
L139	S 82°19'40" W	223.78'
L140	S 74°19'39" W	199.25'
L141	N 02°37'34" W	133.66'
L142	N 82°19'40" E	407.80'
L143	N 03°43'30" E	164.13'
L144	S 89°47'06" E	225.47'
L145	S 61°32'33" W	1.85'
L146	N 87°58'16" W	29.85'
L147	S 42°15'45" W	15.17'
L148	S 87°17'28" W	29.65'
L149	S 63°19'26" W	437.20'
L150	N 86°29'56" W	248.05'
L151	N 62°55'14" W	258.50'
L152	N 75°55'14" W	233.25'
L153	S 42°33'30" W	164.29'
L156	S 85°19'37" W	76.57'
L157	N 85°19'37" E	95.22'
L158	S 71°01'33" E	320.75'
L159	N 86°39'30" E	366.69'
L160	S 19°42'39" W	17.20'
L161	S 42°15'49" W	14.12'
L162	N 66°18'16" W	47.22'
L163	N 10°41'51" W	32.54'
L164	N 63°14'47" W	84.83'
L165	N 67°52'24" W	43.71'
L166	S 42°39'12" W	62.03'
L167	S 20°20'19" E	101.96'
L168	S 20°42'42" E	107.10'
L169	S 20°37'24" E	71.95'
L170	S 20°41'42" E	87.18'
L171	S 20°32'04" E	330.89'
L172	S 20°23'52" E	387.42'
L173	S 20°37'34" E	210.45'
L174	S 20°42'41" E	137.27'
L175	S 20°17'49" E	257.79'
L176	S 19°27'42" E	190.81'
L177	S 17°38'59" E	62.77'
L178	S 15°43'22" E	64.44'
L179	S 14°50'41" E	127.96'

SURVEY LEGEND

- EXISTING IRON PIPE
- IRON PIPE SET
- CALCULATED POINT
- BORE HOLE
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- TELEPHONE PEDESTAL
- TELEPHONE MANHOLE
- ELECTRIC BOX
- LIGHT POLE
- POWER POLE
- GUY WIRE
- CURB INLET
- STORM DRAINAGE MANHOLE
- YARD INLET
- FIBER OPTIC MARKER
- FIBER OPTIC VAULT
- SIGN
- BOLLARD
- SD — STORM DRAIN PIPE
- OU — OVERHEAD UTILITY LINES
- W — WATER LINE
- SS — SANITARY SEWER LINE
- T — TELEPHONE LINE
- G — GAS LINE
- UE — UNDERGROUND ELECTRIC
- UT — UNDERGROUND TELEPHONE
- X — X — FENCE LINE
- TREE LINE
- GUARDRAIL
- WETLANDS

ADJACENT PROPERTY OWNER INFORMATION

1. TRAM, VINNY KIM
PIN: 1756207225
ZONING: R-30

2. RWC BUFFALOE, LLC
PIN: 1756421236
ZONING: R-4-CU

3. RWC BUFFALOE, LLC
PIN: 1756309588
ZONING: R-4-CU

4. CATES, C M
PIN: 1755591500
ZONING: RT, RURAL TRANSITION

5. OLGUIN, ESTANISLAO OTERO CAPISTRAN, MARIA DE LA LUZ
PIN: 1755592485
ZONING: RT, RURAL TRANSITION

6. FINDLEY, CYNTHIA LORELEI
PIN: 1755594472
ZONING: RT, RURAL TRANSITION

7. SHEPARD, PAUL P III
SHEPARD, CINDY A
PIN: 1755596281
ZONING: RT, RURAL TRANSITION

8. GANDHI, KAUSHIK
GANDHI, KAILAS
PIN: 1755588689
ZONING: RT, RURAL TRANSITION

9. MARTINEZ, JOSE ANGEL
VENEG
PIN: 1755681345
ZONING: GR8, GENERAL RESIDENTIAL

10. LUCAS, CRAIG
PIN: 1755682129
ZONING: GR8, GENERAL RESIDENTIAL

11. LUCAS, ZELL EDWARD
LUCAS, MALANEY
PIN: 1755686157
ZONING: RT, RURAL TRANSITION

12. LUCAS, TED EDWARD SR
LUCAS, TED EDWARD JR
PIN: 1755677833
ZONING: RT, RURAL TRANSITION

13. LUCAS, ODIS FITZGERALD
PIN: 1755677424
ZONING: RT, RURAL TRANSITION

14. CONTRERAS, OCTAVIO N
PIN: 1755677147
ZONING: RT, RURAL TRANSITION

15. COLLIER, GERALDINE L
PIN: 1755661638
ZONING: RT, RURAL TRANSITION

16. LARYEA, ROBERT O II
PIN: 1755651583
ZONING: RT, RURAL TRANSITION

17. VANDOOSER, ROSS G
PIN: 1755556296
ZONING: RR1, RURAL RESIDENTIAL

18. HOFSHEIER, RICHARD
HOFSHEIER, TONI
PIN: 1755554305
ZONING: RR1, RURAL RESIDENTIAL

19. PARNELL, WILLIAM GARY
PIN: 1755551308
ZONING: RR1, RURAL RESIDENTIAL

20. RAMSEY, GRACE D
PIN: 1755453795
ZONING: RT, RURAL TRANSITION

21. RAMSEY, GRACE D
PIN: 1755356880
ZONING: RT, RURAL TRANSITION
D.B. 12885, PG. 214

22. RAMSEY, GRACE D
PIN: 1755331861
ZONING: RT, RURAL TRANSITION
D.B. 12885, PG. 2144

23. OLD CREWS WOODS, LLC
PIN: 1755142051
ZONING: RT, RURAL TRANSITION
D.B. 16563, PG. 430
B.B. 2004, PG. 1841

24. HINTON LAND LLC
SILVER, CHARLES H JR
PIN: 1745948245
ZONING: RR1, RURAL RESIDENTIAL

25. NGO, CAI NGO, LYNN
PIN: 1755055916
ZONING: RR1, RURAL RESIDENTIAL

26. PAIR, H STEPHEN
PIN: 1755066398
ZONING: RR1, RURAL RESIDENTIAL

27. MAYNARD, WILLIAM D
MAYNARD, CATHERINE H
PIN:1755067644
ZONING: RR1, RURAL RESIDENTIAL

28. WT CARY LLC WG PARTNERS
PIN: 1755179228
ZONING: GR3 PUD, GENERAL RESIDENTIAL
D.B. 12419, PG.184

29. PURYEAR, FRED L
PIN: 1755371757
ZONING: RT, RURAL TRANSITION
D.B. 10853, PG. 2727

30. PURYEAR, LINDA
PIN: 1755297266
ZONING: RT, RURAL TRANSITION

GRAPHIC SCALE
0 150 300 600
1 inch = 300 ft.

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

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NORTH CAROLINA PROFESSIONAL SEAL 33928 ENGINEER RYAN C. AKERS
NOT FOR CONSTRUCTION

REVISIONS

NO.	DATE	
1	04. 29. 2022	PER TOWN COMMENTS
2	07. 01. 2022	PER TOWN COMMENTS

PLAN INFORMATION

PROJECT NO.	2020110062
FILENAME	2020110062-XC1
CHECKED BY	RCA
DRAWN BY	RLU
SCALE	1"=300'
DATE	03. 28. 2022

SHEET

EXISTING CONDITIONS
C1.00

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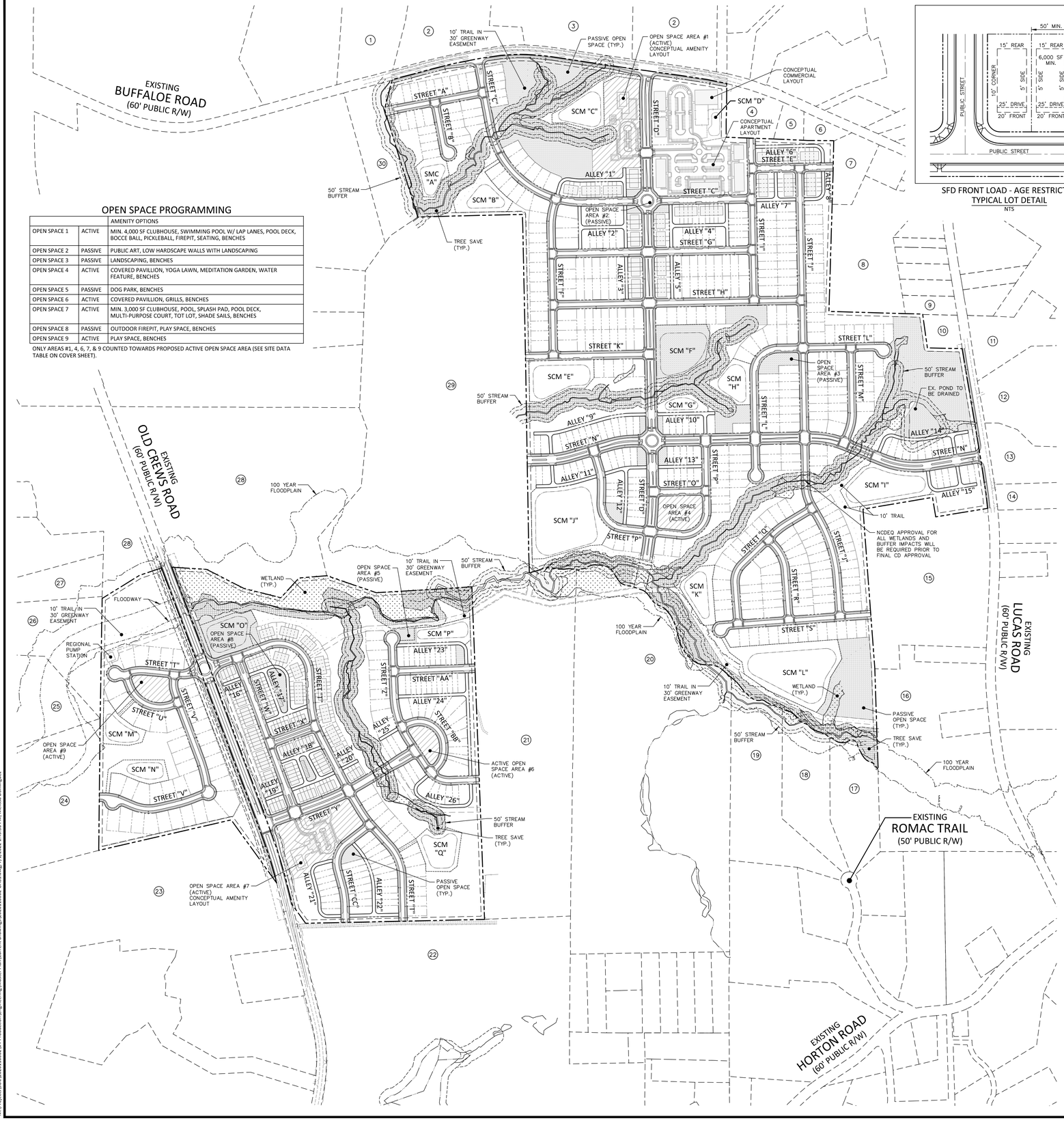
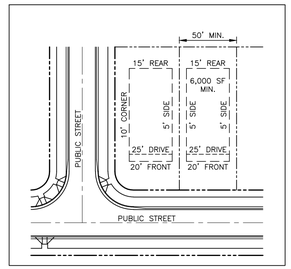


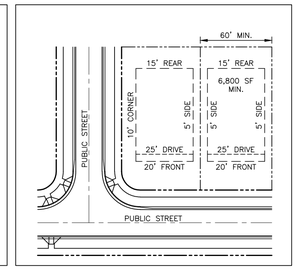
OPEN SPACE PROGRAMMING

		AMENITY OPTIONS
OPEN SPACE 1	ACTIVE	MIN. 4,000 SF CLUBHOUSE, SWIMMING POOL W/ LAP LANES, POOL DECK, BOCCE BALL, PICKLEBALL, FIREPIT, SEATING, BENCHES
OPEN SPACE 2	PASSIVE	PUBLIC ART, LOW HARDSCAPE WALLS WITH LANDSCAPING
OPEN SPACE 3	PASSIVE	LANDSCAPING, BENCHES
OPEN SPACE 4	ACTIVE	COVERED PAVILLION, YOGA LAWN, MEDITATION GARDEN, WATER FEATURE, BENCHES
OPEN SPACE 5	PASSIVE	DOG PARK, BENCHES
OPEN SPACE 6	ACTIVE	COVERED PAVILLION, GRILLS, BENCHES
OPEN SPACE 7	ACTIVE	MIN. 3,000 SF CLUBHOUSE, POOL, SPLASH PAD, POOL DECK, MULTI-PURPOSE COURT, TOT LOT, SHADE SAILS, BENCHES
OPEN SPACE 8	PASSIVE	OUTDOOR FIREPIT, PLAY SPACE, BENCHES
OPEN SPACE 9	ACTIVE	PLAY SPACE, BENCHES

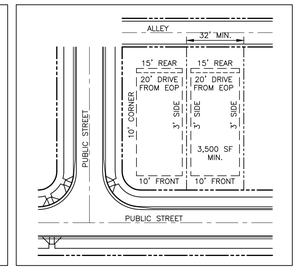
ONLY AREAS #1, 4, 6, 7, & 9 COUNTED TOWARDS PROPOSED ACTIVE OPEN SPACE AREA (SEE SITE DATA TABLE ON COVER SHEET).



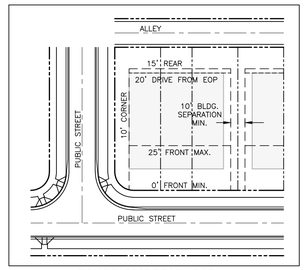
SFD FRONT LOAD - AGE RESTRICTED
TYPICAL LOT DETAIL
NTS



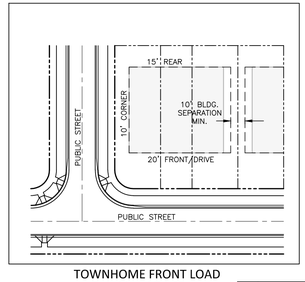
SFD FRONT LOAD - NO AGE RESTRICTION
TYPICAL LOT DETAIL
NTS



SFD REAR LOAD
TYPICAL LOT DETAIL
NTS



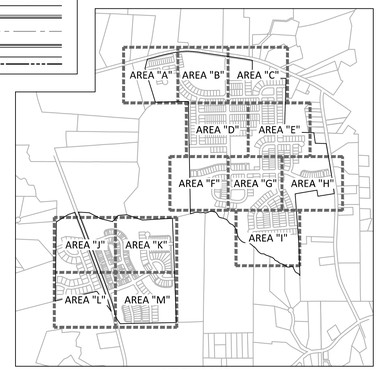
TOWNHOME REAR LOAD
TYPICAL LOT DETAIL
NTS



TOWNHOME FRONT LOAD
TYPICAL LOT DETAIL
NTS

SITE LEGEND

- SIGNAGE
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- TRAFFIC DIRECTIONAL ARROW
- ACCESSIBLE PARKING STALL (ACC / VAN)
- VAN ACCESSIBLE PARKING STALL
- PARKING SPACE COUNT (XX)
- ACCESSIBLE RAMPS (TYPE A, TYPE B, TYPE C)
- PHASE LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- EASEMENT LINE
- CENTERLINE
- TRAIL
- WETLANDS
- OPEN SPACE - PASSIVE
- OPEN SPACE - ACTIVE
- TREE SAVE AREA



INDEX MAP

ADJACENT PROPERTY OWNER INFORMATION

1. TRAM, VINNY KIM
PIN: 1756207225
ZONING: R-30
D.B. 018183, PG. 39

2. RWC BUFFALOE, LLC
PIN: 1756421236
ZONING: R-4-CU
D.B. 015335, PG.2065

3. RWC BUFFALOE, LLC
PIN: 1756309588
ZONING: R-4-CU
D.B.015335, PG.2065

4. CATES, C M
PIN: 1755591500
ZONING: RT, RURAL TRANSITION
D.B.001000, PG. 1

5. OLGUIN, ESTANISLAO OTERO
CAPISTRAN, MARIA DE LA LUZ
PIN: 1755592485
ZONING: RT, RURAL TRANSITION
D.B.17357, PG.517

6. FINDLEY, CYNTHIA LORELEI
PIN: 1755594472
ZONING: RT, RURAL TRANSITION

7. SHEPARD, PAUL P III SHEPARD, CINDY A
PIN: 1755596281
ZONING: RT, RURAL TRANSITION
D.B.11565, PG.1

8. GANDHI, KAUSHIK GANDHI, KAILAS
PIN: 1755588689
ZONING: RT, RURAL TRANSITION
D.B.016245, PG.1880

9. MARTINEZ, JOSE ANGEL VENEG
PIN: 1755681345
ZONING: GR8, GENERAL RESIDENTIAL
D.B.17773, PG.2630

10. LUCAS, CRAIG
PIN: 1755682129
ZONING: GR8, GENERAL RESIDENTIAL
D.B.13-E, PG.966

11. LUCAS, ZELL EDWARD LUCAS, MALANEY
PIN: 1755686157
ZONING: RT, RURAL TRANSITION
D.B.11874, PG.36

12. LUCAS, TED EDWARD SR LUCAS, TED EDWARD JR
PIN: 1755677833
ZONING: RT, RURAL TRANSITION
D.B.18495, PG.1292

13. LUCAS, ODIS FITZGERALD
PIN: 1755677424
ZONING: RT, RURAL TRANSITION
D.B.18504, PG.913

14. CONTRERAS, OCTAVIO N
PIN: 1755677147
ZONING: RT, RURAL TRANSITION
D.B.14403, PG.238

15. COLLIER, GERALDINE L
PIN: 1755661638
ZONING: RT, RURAL TRANSITION
D.B.9949, PG.1042

16. LARYEA, ROBERT O II
PIN: 1755651583
ZONING: RT, RURAL TRANSITION
D.B.13-E, PG.1848

17. VANDOOSER, ROSS G
PIN: 1755556296
ZONING: RR1, RURAL RESIDENTIAL
D.B.6086, PG.840

18. HOFSHEIER, RICHARD HOFSHEIER, TONI
PIN: 1755554305
ZONING: RR1, RURAL RESIDENTIAL
D.B.15300, PG.478

19. PARNELL, WILLIAM GARY
PIN: 1755551308
ZONING: RR1, RURAL RESIDENTIAL
D.B.13609, PG.1706

20. RAMSEY, GRACE D
PIN: 1755453795
ZONING: RT, RURAL TRANSITION
D.B.12885, PG.2144

21. RAMSEY, GRACE D
PIN: 1755356880
ZONING: RT, RURAL TRANSITION
PIN:1755-35-6880
D.B. 12885, PG. 2144

22. RAMSEY, GRACE D
PIN: 1755531861
ZONING: RT, RURAL TRANSITION
PIN:1755-33-1861
D.B. 12885, PG. 2144

23. OLD CREWS WOODS, LLC
PIN: 1755142051
ZONING: RT, RURAL TRANSITION
D.B. 16563, PG. 430
B.B. 2004, PG. 1841

24. HINTON LAND LLC SILVER, CHARLES H JR
PIN: 1745948245
ZONING: RR1, RURAL RESIDENTIAL
D.B.11418, PG.2363

25. NGO, CAI NGO, LYNN
PIN: 1755055916
ZONING: RR1, RURAL RESIDENTIAL
D.B.18482, PG.795

26. PAIR, H STEPHEN
PIN: 1755066398
ZONING: RR1, RURAL RESIDENTIAL
D.B.13451, PG.713

27. MAYNARD, WILLIAM D MAYNARD, CATHERINE H
PIN:1755067644
ZONING: RR1, RURAL RESIDENTIAL
D.B.6125, PG.78

28. WT CARY LLC WG PARTNERS
PIN: 1755179228
ZONING: GR3 PUD, GENERAL RESIDENTIAL
PIN:1755-17-9228
D.B. 12419, PG.184

29. PURYEAR, FRED L
PIN: 1755371757
ZONING: RT, RURAL TRANSITION
PIN:1755-37-1757
D.B. 10853, PG. 2727

30. PURYEAR, LINDA
PIN: 1755297266
ZONING: RT, RURAL TRANSITION
D.B.4784, PG.100

GRAPHIC SCALE
0 150 300 600
1 inch = 300 ft.

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

McADAMS
The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713

phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187

www.mcadamsco.com

CLIENT

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#180 BILTMORE PARK
PHOENIX, AZ 85016
PHONE: 602. 698. 8655

SUNCREST Real Estate & Land

BRIO
MASTER PLAN
1700 OLD CREWS ROAD
KNIGHTDALE, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33828 RYAN C. AKERS NOT FOR CONSTRUCTION

REVISIONS

NO.	DATE	
1	04. 29. 2022	PER TOWN COMMENTS
2	07. 01. 2022	PER TOWN COMMENTS

PLAN INFORMATION

PROJECT NO.	2020110062
FILENAME	2020110062-0AS1
CHECKED BY	RCA
DRAWN BY	RLU
SCALE	1"=300'
DATE	03. 28. 2022

SHEET

OVERALL SITE PLAN

C2.00

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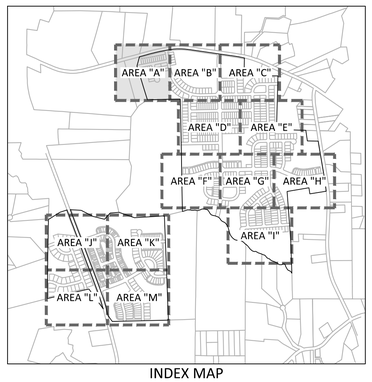
SITE LEGEND

- SIGNAGE
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- TRAFFIC DIRECTIONAL ARROW
- ACC / VAN — ACCESSIBLE PARKING STALL
- VAN ACCESSIBLE PARKING STALL
- (XX) — PARKING SPACE COUNT
- ACCESSIBLE RAMPS (TYPE A, TYPE B, TYPE C)
- PHASE LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- EASEMENT LINE
- CENTERLINE
- TRAIL
- WETLANDS
- OPEN SPACE - PASSIVE
- OPEN SPACE - ACTIVE
- TREE SAVE AREA

SITE SIGN KEY

R2-1 SPEED LIMIT 25 · R1-1 STOP · R6-5P · W11-2 W16-7P · R6-4 · R1-2 YIELD · OM4-3

SPEED LIMIT TABLE	
54' LOCAL STREET	25 MPH
74' AVENUE	35 MPH



INDEX MAP

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

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PLAN INFORMATION

PROJECT NO.	2020110062
FILENAME	2020110062-S1
CHECKED BY	RCA
DRAWN BY	RLU
SCALE	1"=50'
DATE	03. 28. 2022

SHEET

SITE, SIGNAGE, PAVEMENT MARKING PLAN-AREA "A"

C2.01

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

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EXISTING BUFFALOE ROAD (60' PUBLIC R/W)

RWC BUFFALOE, LLC
PIN: 1756309588
ZONING: R-4-CU
D.B.15335, PG.2065

RWC BUFFALOE, LLC
PIN: 1756421236
ZONING: R-4-CU
D.B.15335, PG.2065

20' TYPE "B" PERIMETER BUFFER

10' GREENWAY TRAIL IN 30' EASEMENT

10' MULTI-USE TRAIL

20' RIGHT-OF-WAY DEDICATION

OPEN SPACE

EXISTING WETLANDS

50' STREAM BUFFER

STORMWATER ACCESS & MAINTENANCE EASEMENT

STORMWATER CONTROL MEASURE "C"

CONCEPTUAL AMENITY LAYOUT

STREET "C" (54' PUBLIC R/W)

STREET "D" (74' PUBLIC R/W)

ALLEY "1" (20' PRIVATE ACCESS EASEMENT)

STREET "F" (54' PUBLIC R/W)

STORMWATER CONTROL MEASURE "B"

OPEN SPACE AREA #1 - ACTIVE (SEE OPEN SPACE PROGRAMMING TABLE ON SHEET 2.00)

LIGHT POLE (TYP.)

30" STANDARD CURB AND GUTTER (TYP.)

5' CONCRETE SIDEWALK (TYP.)

6' PRIVACY FENCE

PURYEAR, FRED L
PIN: 1755371757
ZONING: RT, RURAL TRANSITION
D.B. 10853, PG. 2727

SEE SHEET C2.01

SEE SHEET C2.03

SEE SHEET C2.04

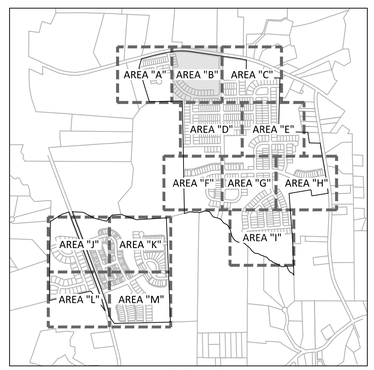
SITE LEGEND

- SIGNAGE
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- TRAFFIC DIRECTIONAL ARROW
- ACC / VAN — ACCESSIBLE PARKING STALL
- VAN ACCESSIBLE PARKING STALL
- XX — PARKING SPACE COUNT
- ACCESSIBLE RAMPS (TYPE A, TYPE B, TYPE C)
- PHASE LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- EASEMENT LINE
- CENTERLINE
- TRAIL
- WETLANDS
- OPEN SPACE - PASSIVE
- OPEN SPACE - ACTIVE
- TREE SAVE AREA

SITE SIGN KEY

R2-1 SPEED LIMIT 25 | R1-1 STOP | R6-5P | W11-2 W16-7P | R6-4 | R1-2 YIELD | OM4-3

SPEED LIMIT TABLE	
54' LOCAL STREET	25 MPH
74' AVENUE	35 MPH



INDEX MAP

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

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PLAN INFORMATION

PROJECT NO.	2020110062
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CHECKED BY	RCA
DRAWN BY	RLU
SCALE	1"=50'
DATE	03. 28. 2022

SHEET

SITE, SIGNAGE, PAVEMENT MARKING PLAN-AREA "B"

C2.02

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

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RWC BUFFALOE, LLC
PIN: 1756421236
ZONING: R-4-CU
D.B.15335, PG.2065

EXISTING BUFFALOE ROAD (60' PUBLIC R/W)

CONCEPTUAL COMMERCIAL LAYOUT

CONCEPTUAL APARTMENT LAYOUT

BUILDING ① 8,400 SF
BUILDING ② 8,400 SF
BUILDING ③ 12,600 SF

STREET "D" (54' PUBLIC R/W)
STREET "C" (54' PUBLIC R/W)
STREET "E" (54' PUBLIC R/W)
STREET "I" (54' PUBLIC R/W)
STREET "J" (54' PUBLIC R/W)

ALLEY "6" (20' PRIVATE ACCESS EASEMENT)
ALLEY "7" (20' PRIVATE ACCESS EASEMENT)
ALLEY "8" (20' PRIVATE ACCESS EASEMENT)

STORMWATER CONTROL MEASURE "D"

OPEN SPACE AREA #2 - PASSIVE
(SEE OPEN SPACE PROGRAMMING TABLE ON SHEET 2.00)

OPEN SPACE

CATES, C M
PIN: 1755591500
ZONING: RT, RURAL TRANSITION
D.B.1000, PG.1

OLGUIN, ESTANISLAO OTERO
CAPISTRAN, MARIA DE LA LUZ
PIN: 1755592485
ZONING: RT, RURAL TRANSITION
D.B.17357, PG.517

FINDLEY, CYNTHIA LORELEI
PIN: 1755594472
ZONING: RT, RURAL TRANSITION

SHEPARD, PAUL P III
SHEPARD, CINDY A
PIN: 1755598281
ZONING: RT, RURAL TRANSITION
D.B.11565, PG.1

GANDHI, KAUSHIK
GANDHI, KAILAS
PIN: 1755588689
ZONING: RT, RURAL TRANSITION
D.B.16245, PG.1880

5' CONCRETE SIDEWALK (TYP.)
30" STANDARD CURB AND GUTTER (TYP.)
20' RIGHT-OF-WAY DEDICATION
20' TYPE "B" PERIMETER BUFFER
10' MULTI-USE TRAIL
TEMPORARY CONSTRUCTION EASEMENT (TYP)
30' TYPE "C" PERIMETER BUFFER
TYPE 3 BARRICADE
LIGHT POLE (TYP.)

SEE SHEET C2.02
SEE SHEET C2.04
SEE SHEET C2.05

SITE LEGEND

- SIGNAGE
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- TRAFFIC DIRECTIONAL ARROW
- ACC — ACCESSIBLE PARKING STALL
- VAN — VAN ACCESSIBLE PARKING STALL
- XX — PARKING SPACE COUNT
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- PROPERTY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- EASEMENT LINE
- CENTERLINE
- TRAIL
- WETLANDS
- OPEN SPACE - PASSIVE
- OPEN SPACE - ACTIVE
- TREE SAVE AREA

SITE SIGN KEY

R2-1 SPEED LIMIT 25 | R1-1 STOP | R6-5P | W11-2 W16-7P | R6-4 | R1-2 YIELD | OM4-3

SPEED LIMIT TABLE	
54' LOCAL STREET	25 MPH
74' AVENUE	35 MPH

INDEX MAP
AREA "A" AREA "B" AREA "C"
AREA "D" AREA "E"
AREA "F" AREA "G" AREA "H"
AREA "I"
AREA "J" AREA "K"
AREA "L" AREA "M"

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33828 RYAN C. AKERS — NOT FOR CONSTRUCTION

REVISIONS

NO.	DATE	
1	04. 29. 2022	PER TOWN COMMENTS
2	07. 01. 2022	PER TOWN COMMENTS

PLAN INFORMATION

PROJECT NO.	2020110062
FILENAME	2020110062-S1
CHECKED BY	RCA
DRAWN BY	RLU
SCALE	1"=50'
DATE	03. 28. 2022

SHEET

SITE, SIGNAGE, PAVEMENT MARKING PLAN-AREA "C"

C2.03

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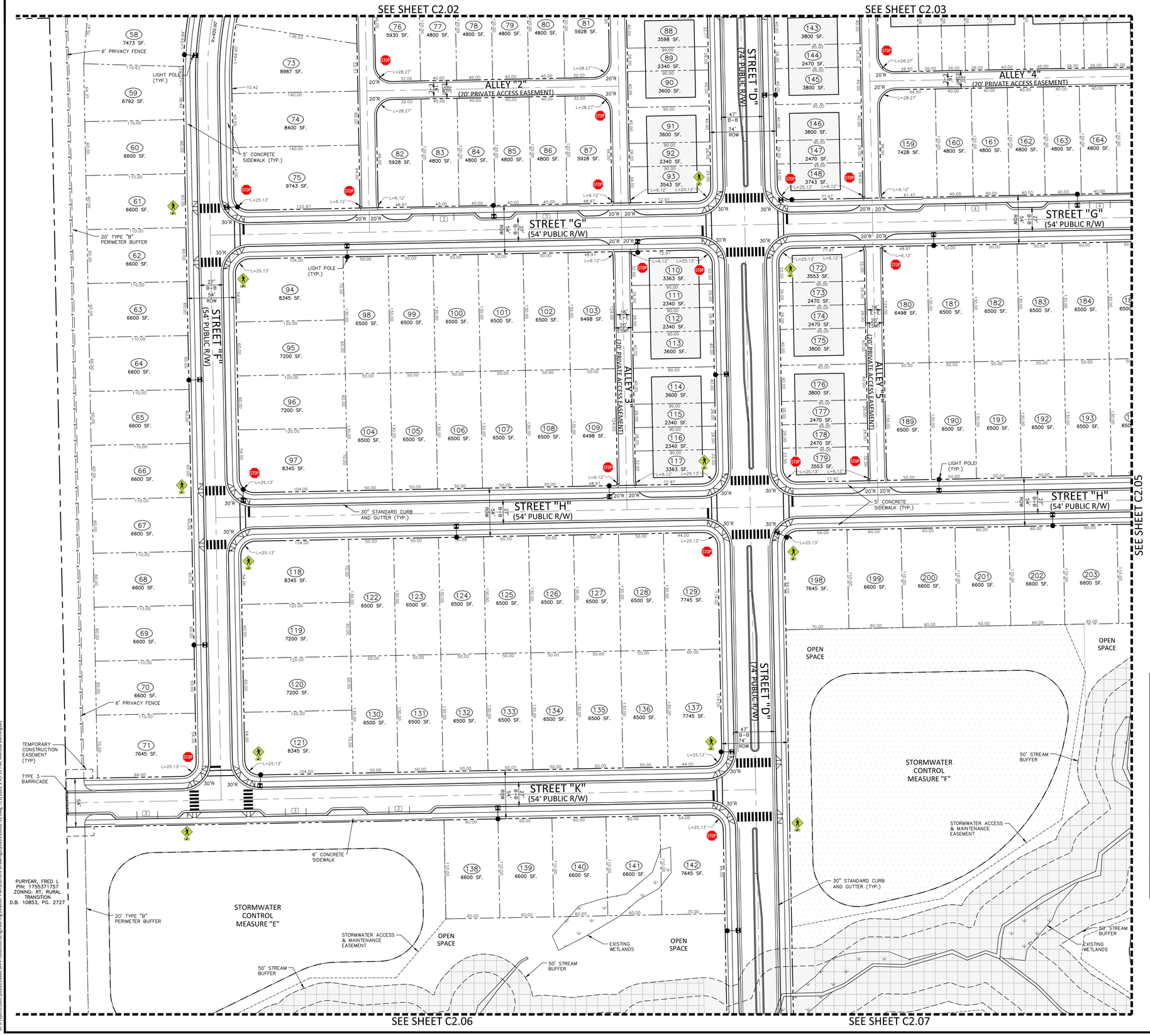


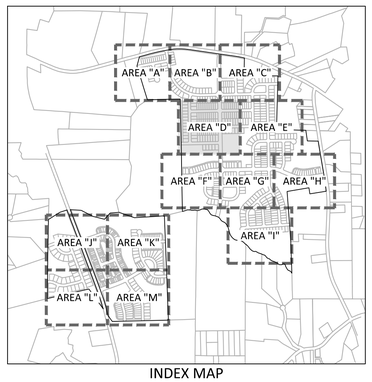
SITE LEGEND

- SIGNAGE
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- TRAFFIC DIRECTIONAL ARROW
- ACCESSIBLE PARKING STALL (ACC / VAN)
- VAN ACCESSIBLE PARKING STALL
- PARKING SPACE COUNT (XX)
- ACCESSIBLE RAMPS (TYPE A, TYPE B, TYPE C)
- PHASE LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- EASEMENT LINE
- CENTERLINE
- TRAIL
- WETLANDS
- OPEN SPACE - PASSIVE
- OPEN SPACE - ACTIVE
- TREE SAVE AREA

SITE SIGN KEY

R2-1 SPEED LIMIT 25 | R1-1 STOP | R6-5P | W11-2 W16-7P | R6-4 | R1-2 YIELD | OM4-3

SPEED LIMIT TABLE	
54' LOCAL STREET	25 MPH
74' AVENUE	35 MPH



INDEX MAP

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33828 BRIAN C. AKERS
PRELIMINARY NOT FOR CONSTRUCTION

REVISIONS

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2	07. 01. 2022	PER TOWN COMMENTS

PLAN INFORMATION

PROJECT NO.	2020110062
FILENAME	2020110062-S1
CHECKED BY	RCA
DRAWN BY	RLU
SCALE	1"=50'
DATE	03. 28. 2022

SHEET

SITE, SIGNAGE, PAVEMENT MARKING PLAN-AREA "D"

C2.04

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SEE SHEET C2.03

SEE SHEET C2.04

SEE SHEET C2.07

SEE SHEET C2.08

STREET "G" (54' PUBLIC R/W)

STREET "H" (54' PUBLIC R/W)

STREET "I" (54' PUBLIC R/W)

STREET "J" (54' PUBLIC R/W)

STREET "K" (54' PUBLIC R/W)

STREET "L" (54' PUBLIC R/W)

STREET "M" (54' PUBLIC R/W)

ALLEY "A" (20' PRIVATE ACCESS EASEMENT)

OPEN SPACE

OPEN SPACE AREA #3 - PASSIVE (SEE OPEN SPACE PROGRAMMING TABLE ON SHEET 2.00)

STORMWATER CONTROL MEASURE "H"

GANDHI, KAUSHIK
GANDHI, KAILAS
PIN: 1755588689
ZONING: RT, RURAL TRANSITION
D.B.16245, PG.1880

20' TYPE "B" PERIMETER BUFFER

LIGHT POLE (TYP.)

5' CONCRETE SIDEWALK (TYP.)

30" STANDARD CURB AND GUTTER (TYP.)

6' CONCRETE SIDEWALK

50' STREAM BUFFER

EXISTING WETLANDS

STORMWATER ACCESS & MAINTENANCE EASEMENT

MOUNTABLE CURB

SITE LEGEND

- SIGNAGE
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- TRAFFIC DIRECTIONAL ARROW
- ACC VAN — ACCESSIBLE PARKING STALL
- VAN ACCESSIBLE PARKING STALL
- XX — PARKING SPACE COUNT
- ACCESSIBLE RAMPS (TYPE A, TYPE B, TYPE C)
- PHASE LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- EASEMENT LINE
- CENTERLINE
- TRAIL
- WETLANDS
- OPEN SPACE - PASSIVE
- OPEN SPACE - ACTIVE
- TREE SAVE AREA

SITE SIGN KEY

R2-1 SPEED LIMIT 25 | R1-1 STOP | R6-5P | W11-2 W16-7P | R6-4 | R1-2 YIELD | OM4-3

SPEED LIMIT TABLE	
54' LOCAL STREET	25 MPH
74' AVENUE	35 MPH

INDEX MAP

AREA "A" AREA "B" AREA "C" AREA "D" AREA "E" AREA "F" AREA "G" AREA "H" AREA "I" AREA "J" AREA "K" AREA "L" AREA "M"

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

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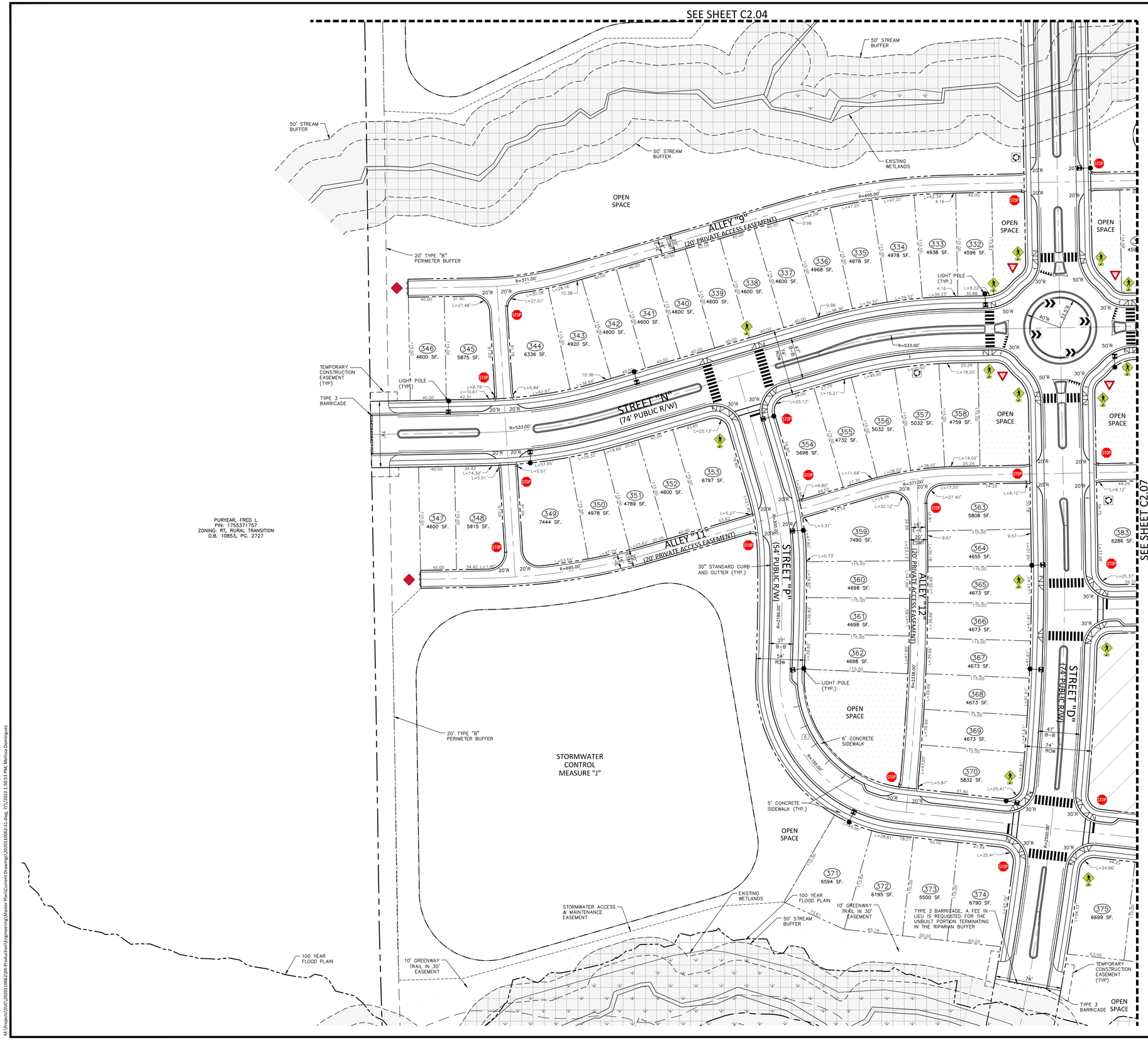
SCALE	1"=50'
DATE	03. 28. 2022

SHEET

SITE, SIGNAGE, PAVEMENT MARKING PLAN-AREA "E"

C2.05



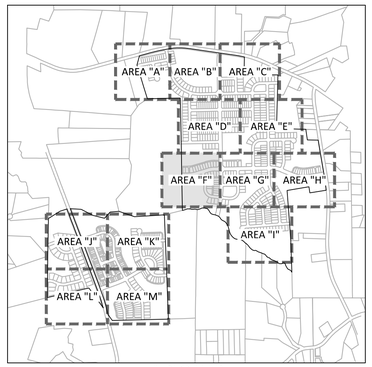
SITE LEGEND

- SIGNAGE
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- TRAFFIC DIRECTIONAL ARROW
- ACC / VAN — ACCESSIBLE PARKING STALL
- VAN ACCESSIBLE PARKING STALL
- (XX) PARKING SPACE COUNT
- ACCESSIBLE RAMPS (TYPE A, TYPE B, TYPE C)
- PHASE LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- EASEMENT LINE
- CENTERLINE
- TRAIL
- WETLANDS
- OPEN SPACE - PASSIVE
- OPEN SPACE - ACTIVE
- TREE SAVE AREA

SITE SIGN KEY

R2-1 SPEED LIMIT 25 · R1-1 STOP · R6-5P · W11-2 W16-7P · R6-4 · R1-2 YIELD · OM4-3

SPEED LIMIT TABLE	
54' LOCAL STREET	25 MPH
74' AVENUE	35 MPH



INDEX MAP

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

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SHEET

SITE, SIGNAGE, PAVEMENT MARKING PLAN-AREA "F"

C2.06

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SEE SHEET C2.04

SEE SHEET C2.05

SEE SHEET C2.06

SEE SHEET C2.08

SEE SHEET C2.09

STORMWATER CONTROL MEASURE "G"

STORMWATER ACCESS & MAINTENANCE EASEMENT

ALLEY "10" (20' PRIVATE ACCESS EASEMENT)

ALLEY "13" (20' PRIVATE ACCESS EASEMENT)

STREET "N" (74' PUBLIC R/W)

STREET "I" (54' PUBLIC R/W)

STREET "J" (54' PUBLIC R/W)

STREET "P" (54' PUBLIC R/W)

STREET "O" (54' PUBLIC R/W)

STREET "D" (74' PUBLIC R/W)

STREET "Q" (54' PUBLIC R/W)

STREET "R" (54' PUBLIC R/W)

OPEN SPACE

OPEN SPACE AREA #4 - ACTIVE
(SEE OPEN SPACE PROGRAMMING TABLE ON SHEET 2.00)

50' STREAM BUFFER

EXISTING WETLANDS

30" STANDARD CURB AND GUTTER (TYP.)

MOUNTABLE CURB

5' CONCRETE SIDEWALK (TYP.)

6' CONCRETE SIDEWALK

10' GREENWAY TRAIL IN 30' EASEMENT

TEMPORARY CONSTRUCTION EASEMENT (TYP)

100 YEAR FLOOD PLAIN

TYPE 3 BARRICADE

LIGHT POLE (TYP.)

SITE LEGEND

- SIGNAGE
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- TRAFFIC DIRECTIONAL ARROW
- ACC / VAN — ACCESSIBLE PARKING STALL
- VAN ACCESSIBLE PARKING STALL
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- CENTERLINE
- TRAIL
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- OPEN SPACE - ACTIVE
- TREE SAVE AREA

SITE SIGN KEY

R2-1 SPEED LIMIT 25 | R1-1 STOP | R6-5P | W11-2 W16-7P | R6-4 | R1-2 YIELD | OM4-3

SPEED LIMIT TABLE	
54' LOCAL STREET	25 MPH
74' AVENUE	35 MPH

INDEX MAP

AREA "A" AREA "B" AREA "C" AREA "D" AREA "E" AREA "F" AREA "G" AREA "H" AREA "I" AREA "J" AREA "K" AREA "L" AREA "M"

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

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REVISIONS

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PLAN INFORMATION

PROJECT NO.	2020110062
FILENAME	2020110062-S1
CHECKED BY	RCA
DRAWN BY	RLU
SCALE	1"=50'
DATE	03. 28. 2022

SHEET

SITE, SIGNAGE, PAVEMENT MARKING PLAN-AREA "G"

C2.07

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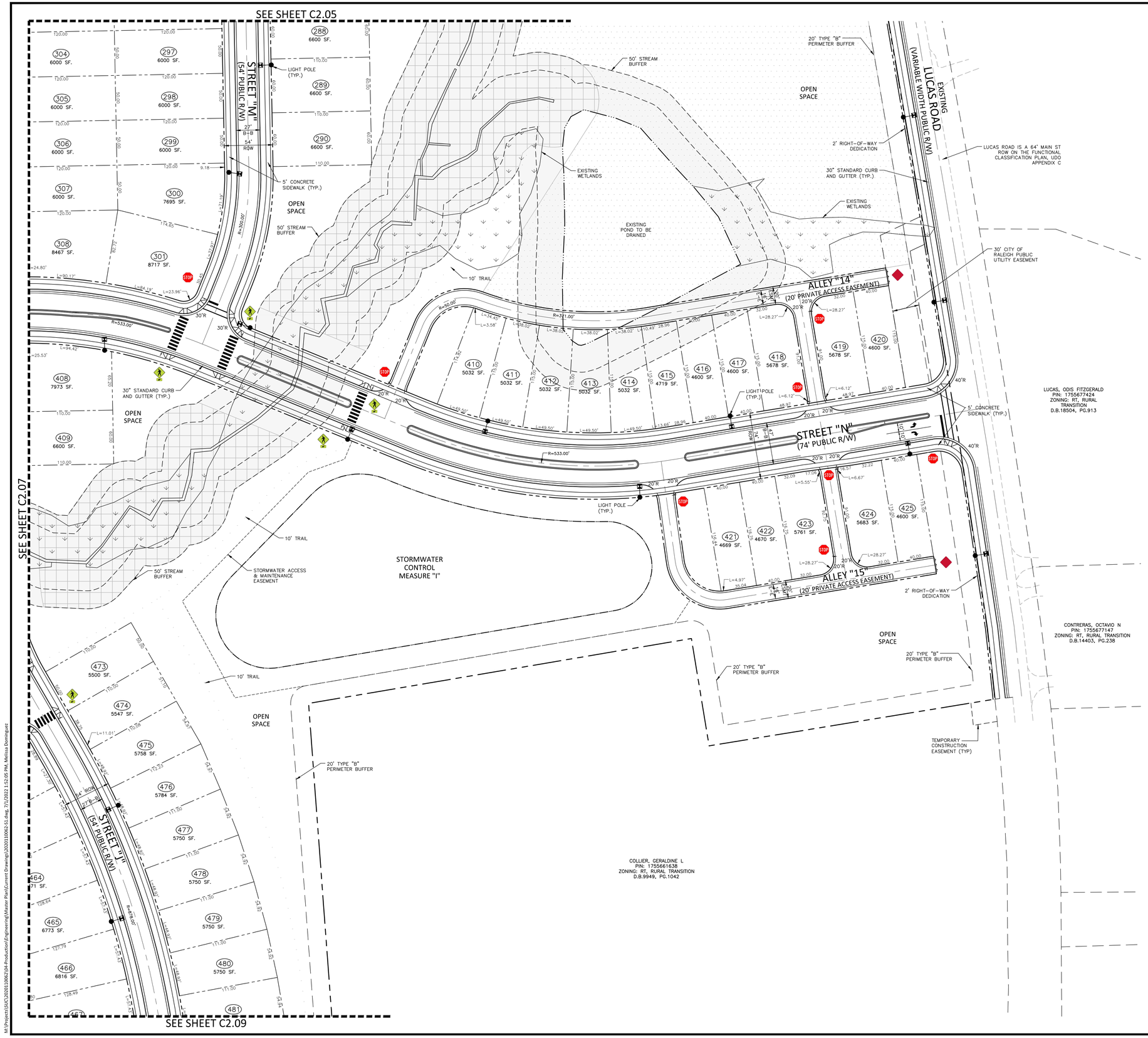

SITE LEGEND

- SIGNAGE
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
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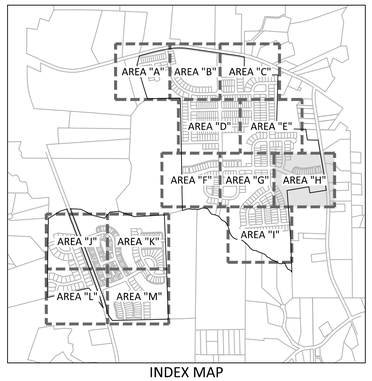
- OPEN SPACE - ACTIVE
- TREE SAVE AREA

SITE SIGN KEY

R2-1 SPEED LIMIT 25 · R1-1 STOP · R6-5P · W11-2 W16-7P · R6-4 · R1-2 YIELD · OM4-3

SPEED LIMIT TABLE	
54' LOCAL STREET	25 MPH
74' AVENUE	35 MPH



INDEX MAP

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

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SCALE	1"=50'
DATE	03. 28. 2022

SHEET

SITE, SIGNAGE, PAVEMENT MARKING PLAN-AREA "H"

C2.08

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SEE SHEET C2.07

SEE SHEET C2.08

SITE LEGEND

- SIGNAGE
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- TRAFFIC DIRECTIONAL ARROW
- ACC / VAN — ACCESSIBLE PARKING STALL
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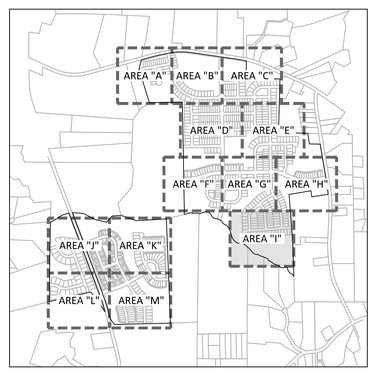

INDEX MAP

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SHEET

SITE, SIGNAGE, PAVEMENT MARKING PLAN-AREA "I"

C2.09

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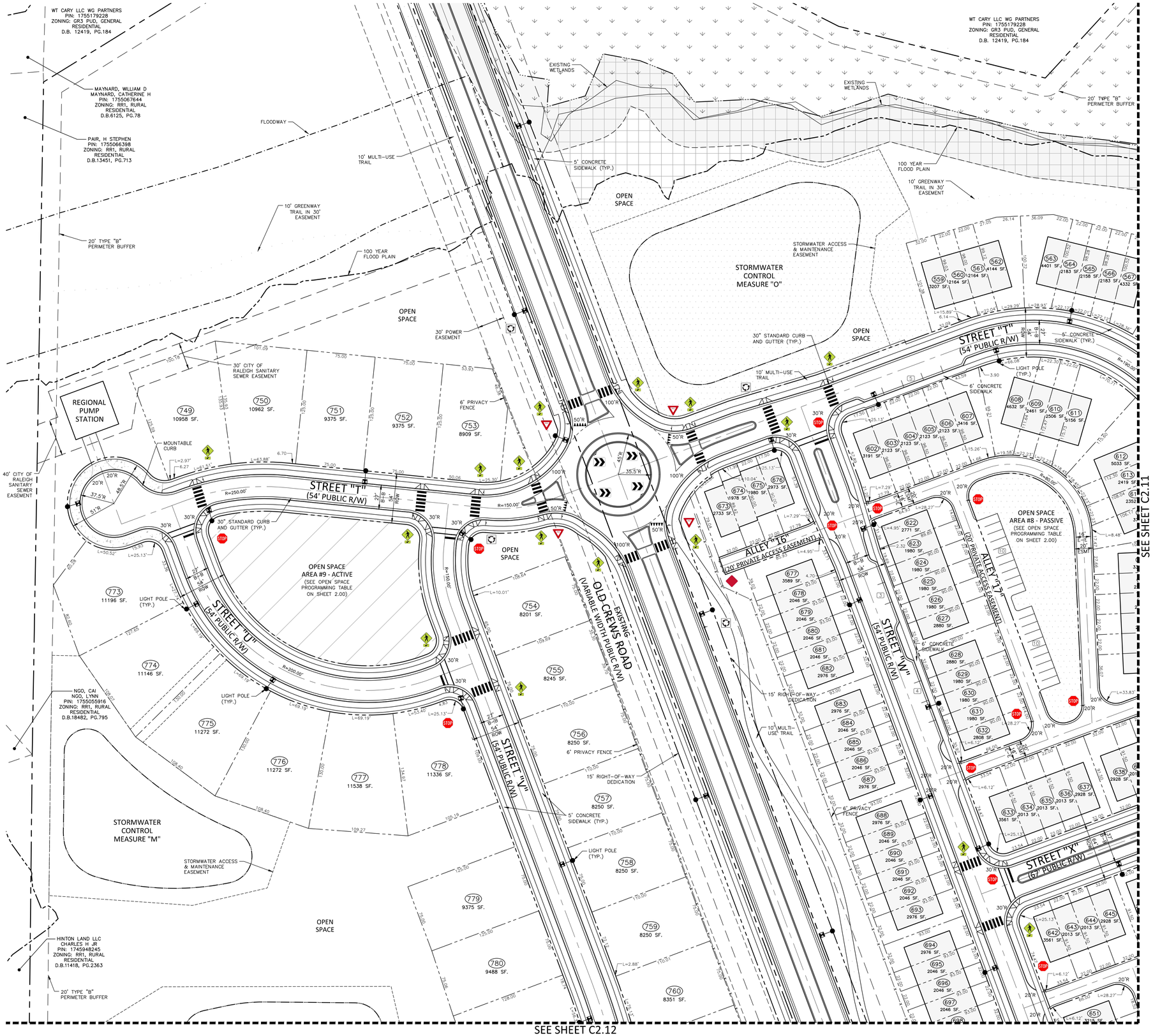

SITE LEGEND

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- TRAIL
- WETLANDS
- OPEN SPACE - PASSIVE
- OPEN SPACE - ACTIVE
- TREE SAVE AREA

SITE SIGN KEY

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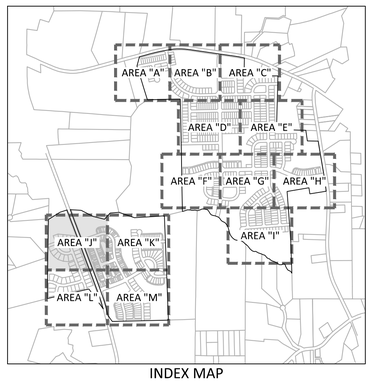
SPEED LIMIT TABLE	
54' LOCAL STREET	25 MPH
74' AVENUE	35 MPH



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SHEET

SITE, SIGNAGE, PAVEMENT MARKING PLAN-AREA "J"

C2.10

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PURYEAR, FRED L
PIN: 1755371757
ZONING: RT, RURAL TRANSITION
D.B. 10853, PG. 2727

RAMSEY, GRACE D
PIN: 1755356880
ZONING: RT, RURAL TRANSITION
D.B. 12885, PG. 214

20' TYPE "B" PERIMETER BUFFER
50' STREAM BUFFER
EXISTING WETLANDS
100 YEAR FLOOD PLAIN
OPEN SPACE
10' GREENWAY TRAIL IN 30' EASEMENT
30' CITY OF RALEIGH SANITARY SEWER EASEMENT
MOUNTABLE CURB
OPEN SPACE AREA #5 - PASSIVE (SEE OPEN SPACE PROGRAMMING TABLE ON SHEET 2.00)
STORMWATER ACCESS & MAINTENANCE EASEMENT
STORMWATER CONTROL MEASURE "P"
ALLEY "23" (20' PRIVATE ACCESS EASEMENT)
STREET "AA" (54' PUBLIC R/W)
30" STANDARD CURB AND GUTTER (TYP.)
5' CONCRETE SIDEWALK (TYP.)
LIGHT POLE (TYP.)
TYPE 3 BARRICADE
ALLEY "24" (20' PRIVATE ACCESS EASEMENT)
STREET "BB" (54' PUBLIC R/W)
ALLEY "25" (20' PRIVATE ACCESS EASEMENT)
OPEN SPACE AREA #6 - ACTIVE (SEE OPEN SPACE PROGRAMMING TABLE ON SHEET 2.00)
STREET "Z" (54' PUBLIC R/W)
STREET "T" (54' PUBLIC R/W)
ALLEY "17" (20' PRIVATE ACCESS EASEMENT)
STREET "X" (54' PUBLIC R/W)
ALLEY "18" (20' PRIVATE ACCESS EASEMENT)
6' CONCRETE SIDEWALK

501 6896 SF. | 502 7479 SF. | 503 7620 SF. | 504 7200 SF. | 505 7200 SF. | 506 7200 SF. | 507 7350 SF. | 508 7900 SF. | 509 8112 SF. | 510 10592 SF. | 511 4848 SF. | 512 4784 SF. | 513 6101 SF.
523 4983 SF. | 524–533 3840 SF. | 534 5411 SF. | 535–545 3840 SF. | 545 5637 SF.
546 8237 SF. | 547 5891 SF. | 548 5943 SF. | 549 6814 SF. | 550 8850 SF. | 551 12668 SF. | 552 10920 SF. | 553 7817 SF. | 554 6338 SF. | 555 5392 SF. | 556 5582 SF. | 557 6470 SF.
564 4183 SF. | 565 2158 SF. | 566 2183 SF. | 567 4332 SF. | 568 4213 SF. | 569 2164 SF. | 570 2164 SF. | 571 5308 SF. | 572 5458 SF. | 573 2183 SF. | 574 2158 SF. | 575 2183 SF. | 576 3737 SF. | 577 3240 SF. | 578–582 2156 SF. | 582 3358 SF.
583 3723 SF. | 584 2214 SF. | 585 2225 SF. | 586 2214 SF. | 587 3666 SF. | 588 3517 SF. | 589–591 2178 SF. | 592 3169 SF. | 593 3169 SF. | 594–596 2178 SF. | 597 3759 SF.
611 5156 SF. | 612 5033 SF. | 613 2419 SF. | 614 2352 SF. | 615 3753 SF. | 616 3397 SF. | 617–621 2200 SF. | 621 4340 SF.
636 2928 SF. | 637 2013 SF. | 638 2928 SF. | 639 2013 SF. | 640 3899 SF. | 641 2013 SF. | 643 2013 SF. | 644 2928 SF. | 645 2013 SF. | 646 2928 SF. | 647 2013 SF. | 648 2013 SF. | 649 3702 SF. | 650 2013 SF. | 651 2013 SF.

SEE SHEET C2.10
SEE SHEET C2.13

SITE LEGEND

- SIGNAGE
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- TRAFFIC DIRECTIONAL ARROW
- ACC / VAN — ACCESSIBLE PARKING STALL / VAN ACCESSIBLE PARKING STALL
- XX — PARKING SPACE COUNT
- ACCESSIBLE RAMPS (TYPE A, TYPE B, TYPE C)
- PHASE LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- EASEMENT LINE
- CENTERLINE
- TRAIL
- WETLANDS
- OPEN SPACE - PASSIVE
- OPEN SPACE - ACTIVE
- TREE SAVE AREA

SITE SIGN KEY

R2-1 SPEED LIMIT 25 | R1-1 STOP | R6-5P | W11-2 W16-7P | R6-4 | R1-2 YIELD | OM4-3

SPEED LIMIT TABLE	
54' LOCAL STREET	25 MPH
74' AVENUE	35 MPH

INDEX MAP
AREA "A" AREA "B" AREA "C" AREA "D" AREA "E" AREA "F" AREA "G" AREA "H" AREA "I" AREA "J" AREA "K" AREA "L" AREA "M"

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

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REVISIONS

NO.	DATE	
1	04. 29. 2022	PER TOWN COMMENTS
2	07. 01. 2022	PER TOWN COMMENTS

PLAN INFORMATION

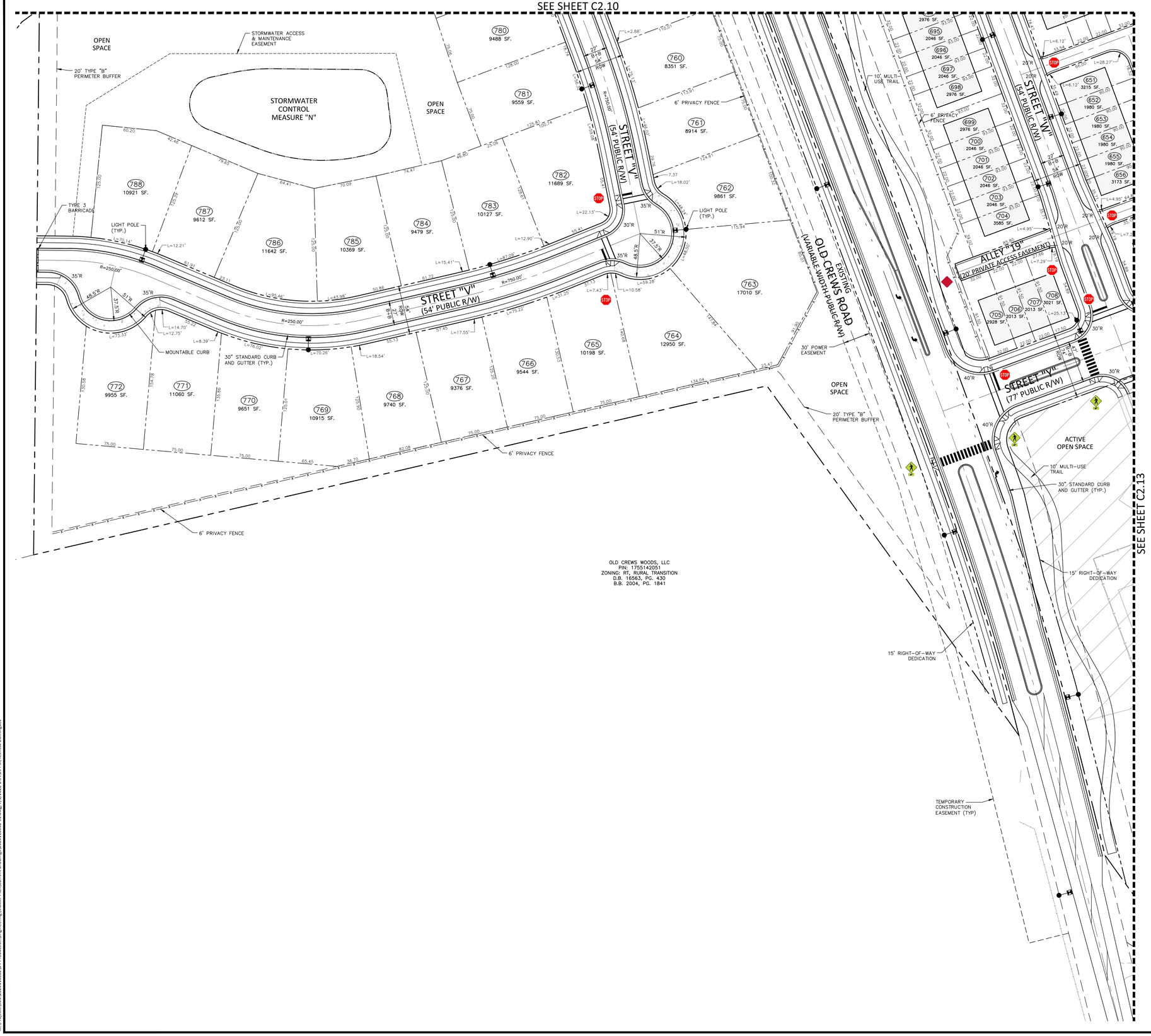
PROJECT NO.	2020110062
FILENAME	2020110062-S1
CHECKED BY	RCA
DRAWN BY	RLU
SCALE	1"=50'
DATE	03. 28. 2022

SHEET

SITE, SIGNAGE, PAVEMENT MARKING PLAN-AREA "K"

C2.11

SEE SHEET C2.10



SEE SHEET C2.13

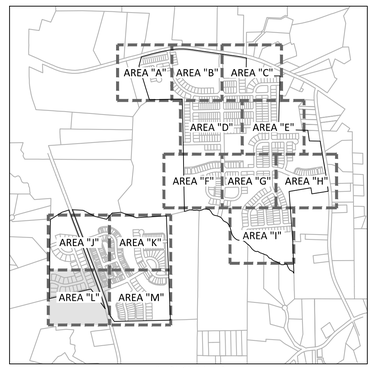
SITE LEGEND

- SIGNAGE
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- TRAFFIC DIRECTIONAL ARROW
- ACCESSIBLE PARKING STALL (ACC)
- VAN ACCESSIBLE PARKING STALL (VAN)
- PARKING SPACE COUNT (XX)
- ACCESSIBLE RAMPS (TYPE A, TYPE B, TYPE C)
- PHASE LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- EASEMENT LINE
- CENTERLINE
- TRAIL
- WETLANDS
- OPEN SPACE - PASSIVE
- OPEN SPACE - ACTIVE
- TREE SAVE AREA

SITE SIGN KEY

R2-1 SPEED LIMIT 25 | R1-1 STOP | R6-5P | W11-2 W16-7P | R6-4 | R1-2 YIELD | OM4-3

SPEED LIMIT TABLE	
54' LOCAL STREET	25 MPH
74' AVENUE	35 MPH



INDEX MAP

N

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

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DRAWN BY	RLU
SCALE	1"=50'
DATE	03. 28. 2022

SHEET

SITE, SIGNAGE, PAVEMENT MARKING PLAN-AREA "L"

C2.12

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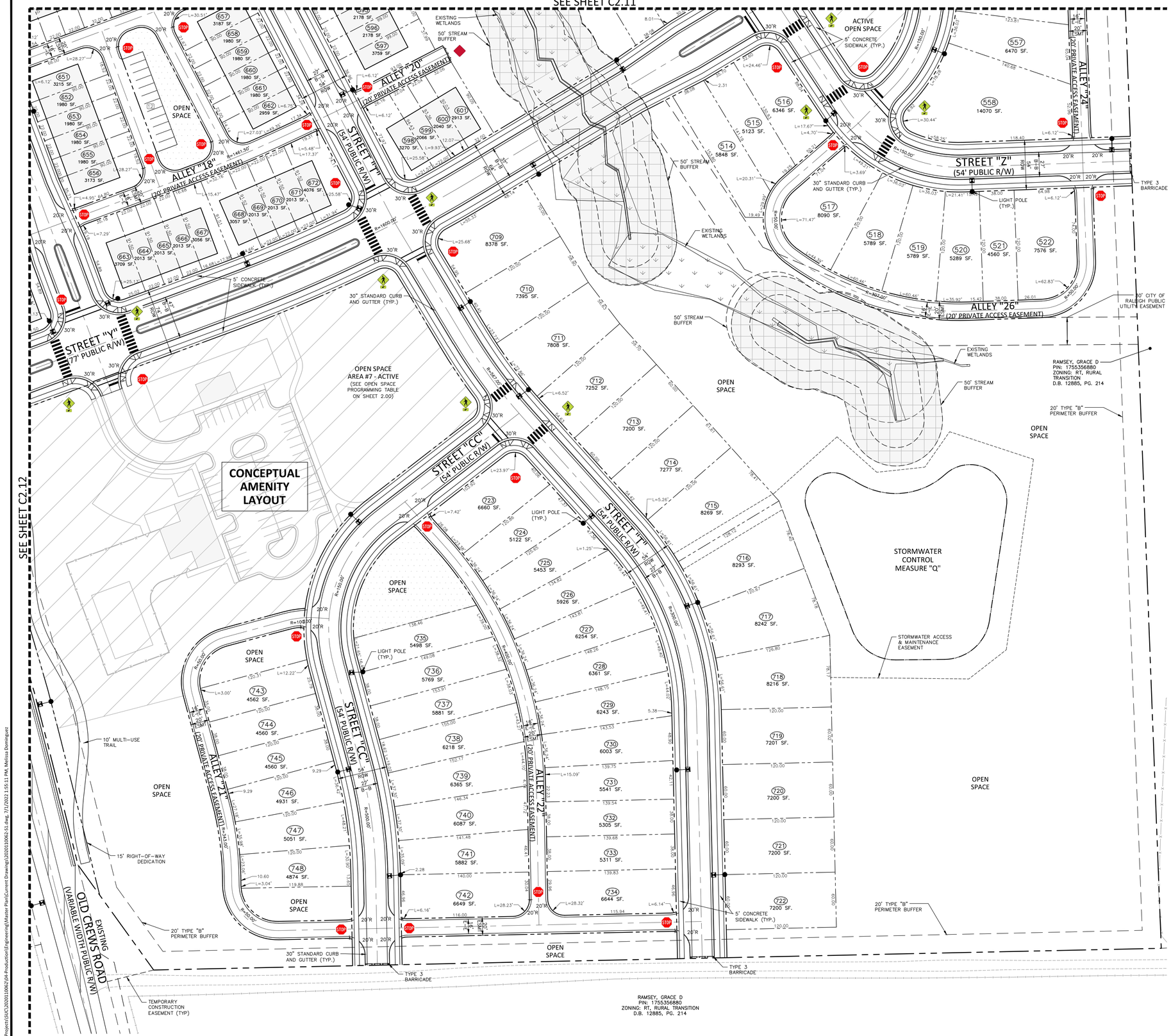
SEE SHEET C2.11

SEE SHEET C2.12



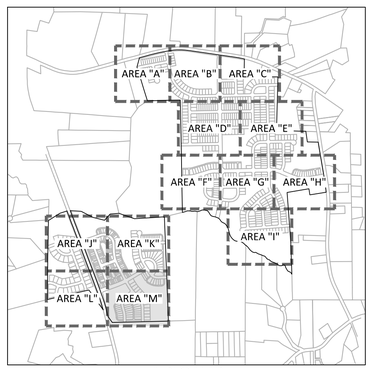
SITE LEGEND

- SIGNAGE
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- TRAFFIC DIRECTIONAL ARROW
- ACC — ACCESSIBLE PARKING STALL
- VAN — VAN ACCESSIBLE PARKING STALL
- XX — PARKING SPACE COUNT
- ACCESSIBLE RAMPS (TYPE A, TYPE B, TYPE C)
- PHASE LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- EASEMENT LINE
- CENTERLINE
- TRAIL
- WETLANDS
- OPEN SPACE - PASSIVE
- OPEN SPACE - ACTIVE
- TREE SAVE AREA

SITE SIGN KEY

R2-1 SPEED LIMIT 25 | R1-1 STOP | R6-5P | W11-2 W16-7P | R6-4 | R1-2 YIELD | OM4-3

SPEED LIMIT TABLE	
54' LOCAL STREET	25 MPH
74' AVENUE	35 MPH



INDEX MAP

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

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PLAN INFORMATION

PROJECT NO.	2020110062
FILENAME	2020110062-S1
CHECKED BY	RCA
DRAWN BY	RLU
SCALE	1"=50'
DATE	03. 28. 2022

SHEET

SITE, SIGNAGE, PAVEMENT MARKING PLAN-AREA "M"

C2.13

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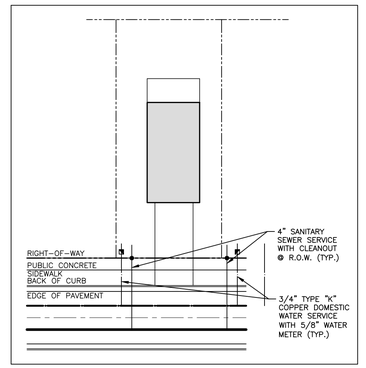
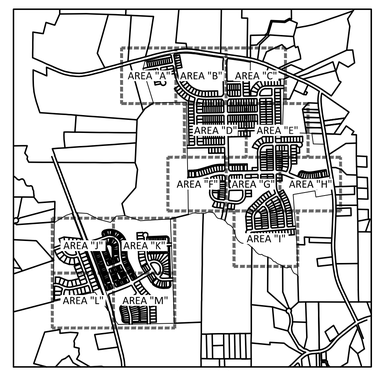
UTILITY LEGEND

- FIRE HYDRANT ASSEMBLY
- FIRE DEPARTMENT CONNECTION (FDC)
- WATER METER
- WATER VALVE
- POST INDICATOR VALVE
- VALVE IN MANHOLE
- METER & VAULT
- BACKFLOW PREVENTER
- REDUCER
- PLUG
- BLOW-OFF ASSEMBLY
- SANITARY SEWER MANHOLE
- SEWER CLEAN-OUT
- GREASE TRAP
- SEWER FLOW DIRECTION ARROW
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- LINE BREAK SYMBOL
- WATERLINE
- WATER SERVICE LINE
- UTILITY SLEEVE
- SANITARY SEWER
- SEWER SERVICE LINE
- SEWER FORCE MAIN
- GAS LINE
- OVERHEAD UTILITY
- UNDERGROUND ELECTRIC
- TELEPHONE
- EASEMENT LINE
- TRAIL
- WETLANDS
- TREE SAVE AREA



TYPICAL UTILITY SERVICE DETAIL
SCALE: NTS



INDEX MAP

GRAPHIC SCALE
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1 inch = 300 ft.

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PLAN INFORMATION

PROJECT NO.	2020110062
FILENAME	2020110062-OAU1
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DRAWN BY	RLU
SCALE	1"=300'
DATE	03. 28. 2022

SHEET

OVERALL
UTILITY PLAN
C4.00

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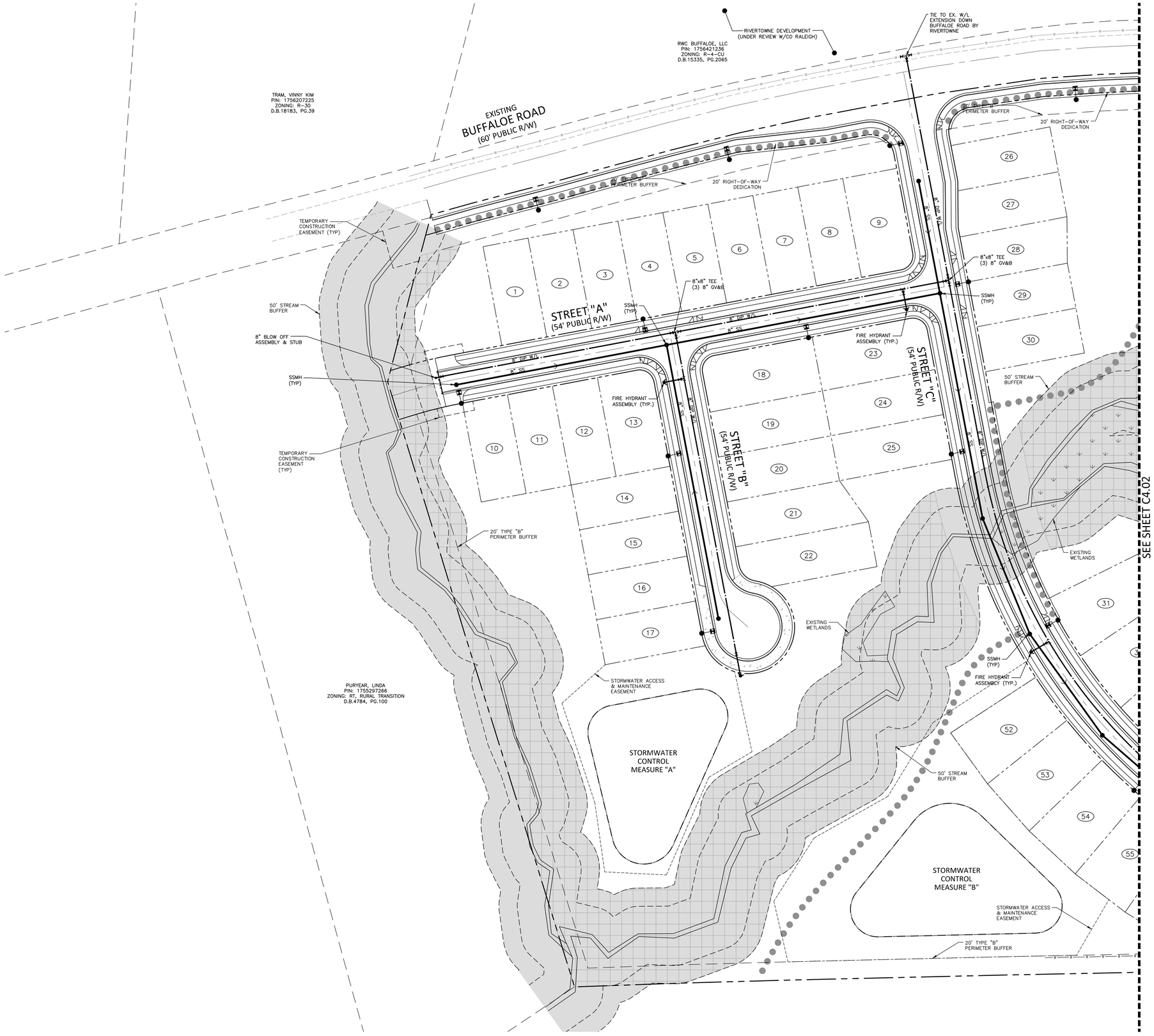

UTILITY LEGEND

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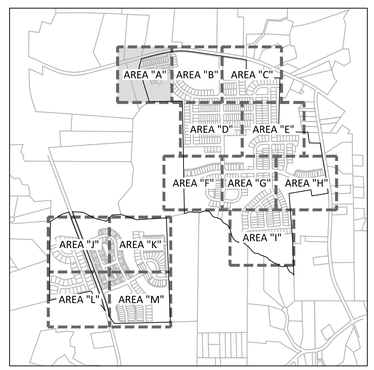
- UNDERGROUND ELECTRIC
- TELEPHONE
- EASEMENT LINE
- TRAIL
- WETLANDS
- TREE SAVE AREA



INDEX MAP

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

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DATE	03. 28. 2022

SHEET

UTILITY PLAN
AREA "A"

C4.01

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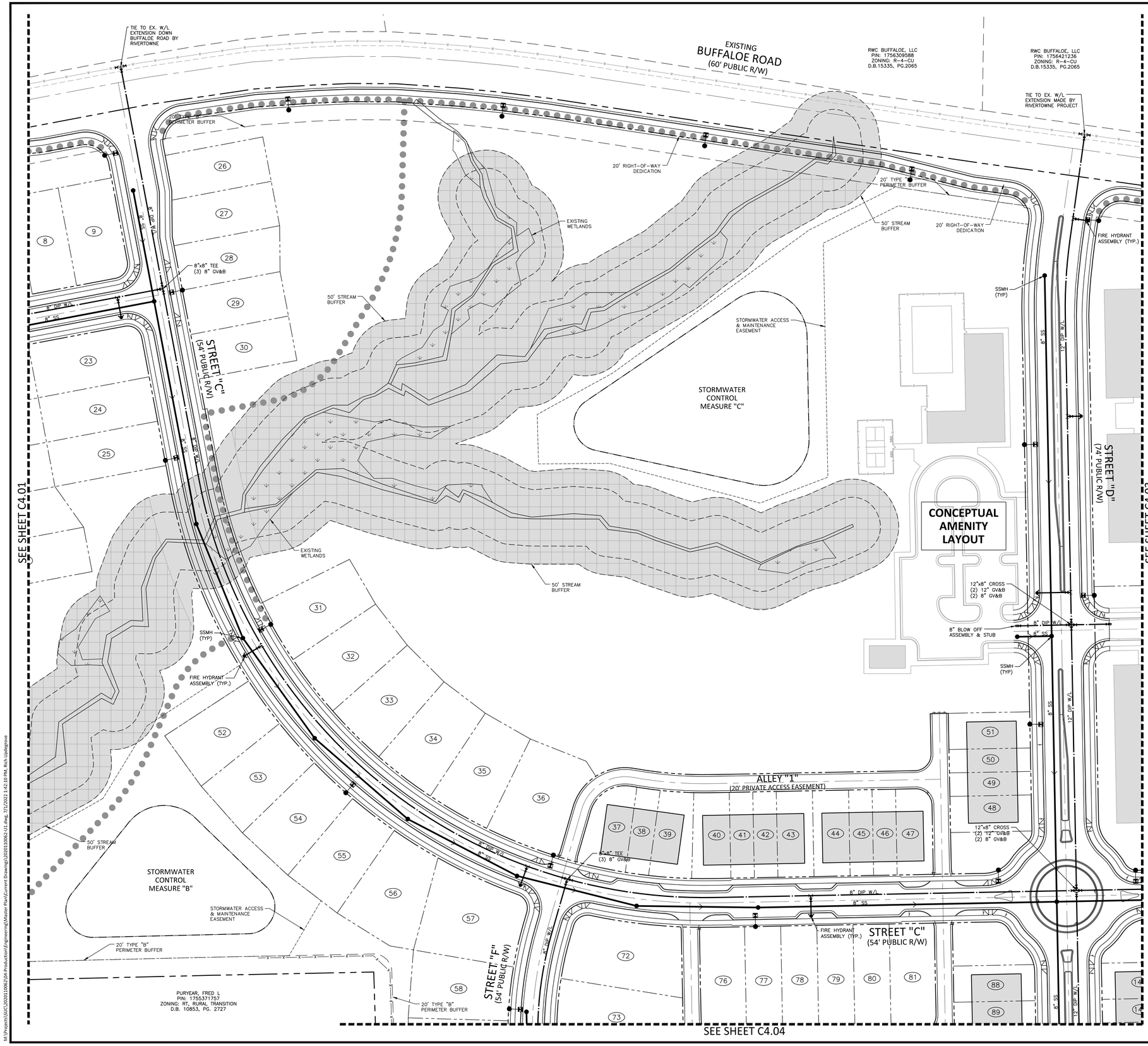
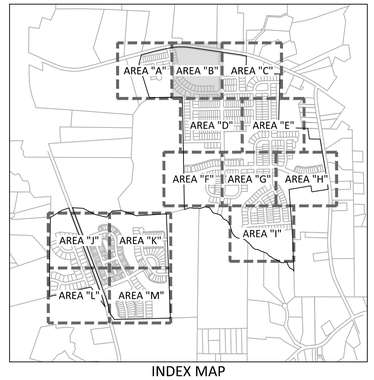


UTILITY LEGEND

- FIRE HYDRANT ASSEMBLY
- FIRE DEPARTMENT CONNECTION (FDC)
- WATER METER
- WATER VALVE
- POST INDICATOR VALVE
- VALVE IN MANHOLE
- METER & VAULT
- BACKFLOW PREVENTER
- REDUCER
- PLUG
- BLOW-OFF ASSEMBLY
- SANITARY SEWER MANHOLE
- SEWER CLEAN-OUT
- GREASE TRAP
- SEWER FLOW DIRECTION ARROW
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- LINE BREAK SYMBOL
- WATERLINE
- WATER SERVICE LINE
- UTILITY SLEEVE
- SANITARY SEWER
- SEWER SERVICE LINE
- SEWER FORCE MAIN
- GAS LINE
- OVERHEAD UTILITY
- UNDERGROUND ELECTRIC
- TELEPHONE
- EASEMENT LINE
- TRAIL
- WETLANDS
- TREE SAVE AREA



INDEX MAP

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1 inch = 50 ft.

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SHEET

UTILITY PLAN
AREA "B"

C4.02

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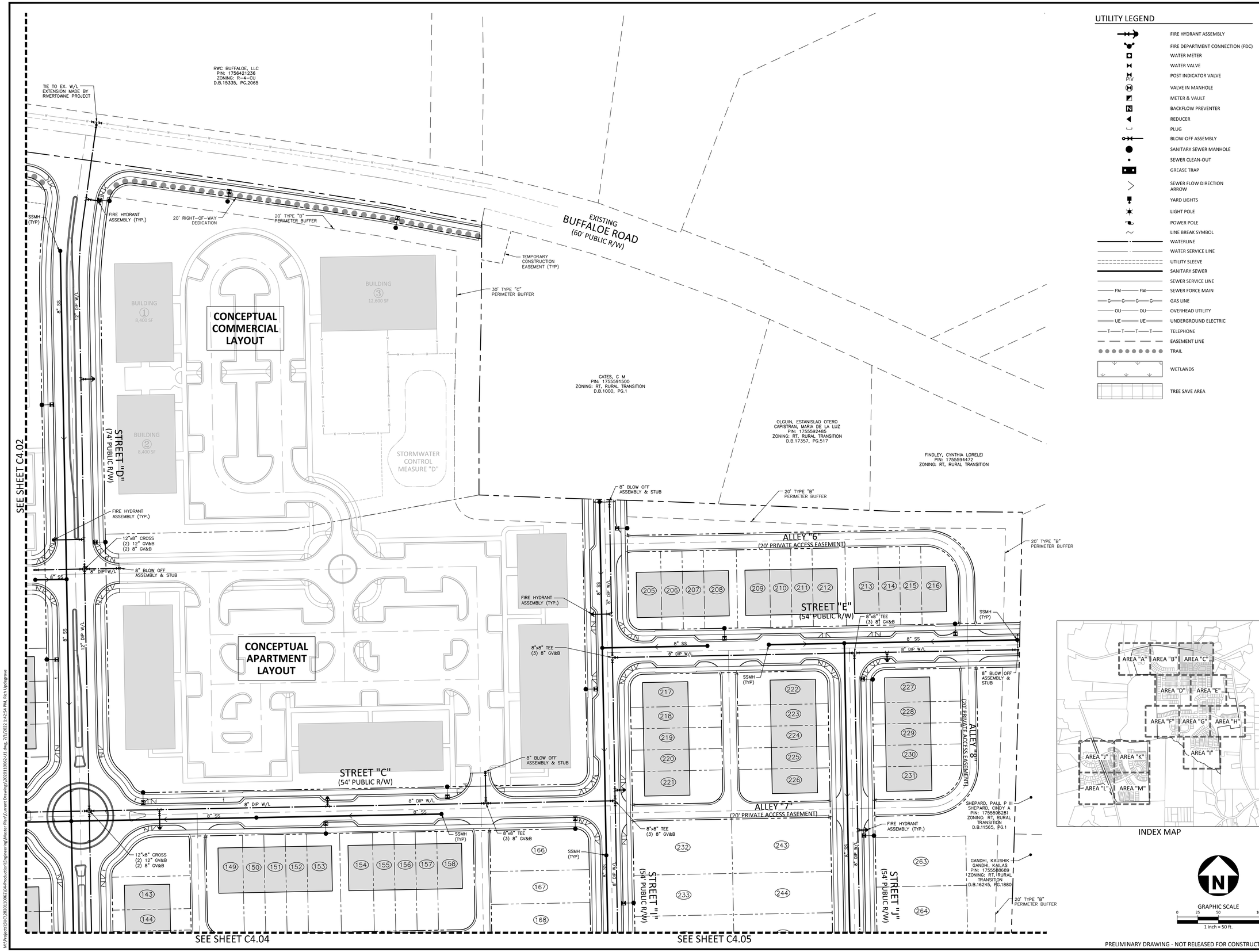

UTILITY LEGEND

- FIRE HYDRANT ASSEMBLY
- FIRE DEPARTMENT CONNECTION (FDC)
- WATER METER
- WATER VALVE
- POST INDICATOR VALVE (PIV)
- VALVE IN MANHOLE
- METER & VAULT
- BACKFLOW PREVENTER
- REDUCER
- PLUG
- BLOW-OFF ASSEMBLY
- SANITARY SEWER MANHOLE
- SEWER CLEAN-OUT
- GREASE TRAP
- SEWER FLOW DIRECTION ARROW
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- LINE BREAK SYMBOL
- WATERLINE
- WATER SERVICE LINE
- UTILITY SLEEVE
- SANITARY SEWER
- SEWER SERVICE LINE
- SEWER FORCE MAIN (FM)
- GAS LINE (G)
- OVERHEAD UTILITY (OU)
- UNDERGROUND ELECTRIC (UE)
- TELEPHONE (T)
- EASEMENT LINE
- TRAIL
- WETLANDS
- TREE SAVE AREA

INDEX MAP

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SHEET

UTILITY PLAN
AREA "C"

C4.03

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SEE SHEET C4.02

SEE SHEET C4.03

SEE SHEET C4.05

SEE SHEET C4.06

SEE SHEET C4.07

ALLEY "2"
(20' PRIVATE ACCESS EASEMENT)

ALLEY "4"
(20' PRIVATE ACCESS EASEMENT)

STREET "D"
(74' PUBLIC R/W)

STREET "G"
(54' PUBLIC R/W)

STREET "F"
(54' PUBLIC R/W)

STREET "H"
(54' PUBLIC R/W)

ALLEY "3"
(20' PRIVATE ACCESS EASEMENT)

ALLEY "5"
(20' PRIVATE ACCESS EASEMENT)

STREET "K"
(54' PUBLIC R/W)

8"x8" TEE
(2) 8" GV&B

12"x8" CROSS
(2) 12" GV&B
(1) 8" GV&B

20' TYPE "B"
PERIMETER BUFFER

SSMH
(TYP)

FIRE HYDRANT
ASSEMBLY (TYP.)

8" DIP W/L

8" SS

12" DIP W/L

TEMPORARY
CONSTRUCTION
EASEMENT
(TYP)

8" BLOW OFF
ASSEMBLY & STUB

PURYEAR, FRED L
PIN: 17553771757
ZONING: RT, RURAL
TRANSITION
D.B. 10853, PG. 2727

STORMWATER
CONTROL
MEASURE "E"

STORMWATER ACCESS
& MAINTENANCE
EASEMENT

50' STREAM
BUFFER

EXISTING
WETLANDS

STORMWATER
CONTROL
MEASURE "F"

STORMWATER ACCESS
& MAINTENANCE
EASEMENT

UTILITY LEGEND

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- FIRE DEPARTMENT CONNECTION (FDC)
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- WATER VALVE
- POST INDICATOR VALVE
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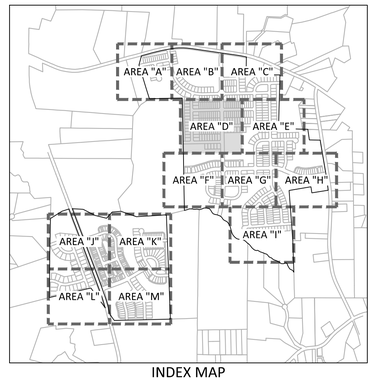
- GAS LINE
- OVERHEAD UTILITY
- UNDERGROUND ELECTRIC
- TELEPHONE
- EASEMENT LINE
- TRAIL
- WETLANDS
- TREE SAVE AREA



INDEX MAP

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

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KNIGHTDALE, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 33828 ENGINEER RYAN C. AKERS
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REVISIONS

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PLAN INFORMATION

PROJECT NO.	2020110062
FILENAME	2020110062-U1
CHECKED BY	RCA
DRAWN BY	RLU
SCALE	1"=50'
DATE	03. 28. 2022

SHEET

UTILITY PLAN
AREA "D"

C4.04

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SEE SHEET C4.03

SEE SHEET C4.04

SEE SHEET C4.07

SEE SHEET C4.08

ALLEY "A"
(20' PRIVATE ACCESS EASEMENT)

STREET "G"
(54' PUBLIC R/W)

STREET "I"
(54' PUBLIC R/W)

STREET "J"
(54' PUBLIC R/W)

STREET "H"
(54' PUBLIC R/W)

STREET "L"
(54' PUBLIC R/W)

STREET "J"
(54' PUBLIC R/W)

STREET "M"
(54' PUBLIC R/W)

STREET "L"
(54' PUBLIC R/W)

FIRE HYDRANT ASSEMBLY (TYP.)

8"x8" TEE
(3) 8" GV&B

8"x8" CROSS
(4) 8" GV&B

SSMH
(TYP)

8" DIP W/L

8" SS

20' TYPE "B"
PERIMETER BUFFER

GANDHI, KAUSHIK
GANDHI, KAILAS
PIN: 1755588689
ZONING: RT, RURAL TRANSITION
D.B.16245, PG.1880

50' STREAM BUFFER

EXISTING WETLANDS

STORMWATER ACCESS & MAINTENANCE EASEMENT

STORMWATER CONTROL MEASURE "H"

UTILITY LEGEND

- FIRE HYDRANT ASSEMBLY
- FIRE DEPARTMENT CONNECTION (FDC)
- WATER METER
- WATER VALVE
- POST INDICATOR VALVE (PIV)
- VALVE IN MANHOLE
- METER & VAULT
- BACKFLOW PREVENTER
- REDUCER
- PLUG
- BLOW-OFF ASSEMBLY
- SANITARY SEWER MANHOLE
- SEWER CLEAN-OUT
- GREASE TRAP
- SEWER FLOW DIRECTION ARROW
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- LINE BREAK SYMBOL
- WATERLINE
- WATER SERVICE LINE
- UTILITY SLEEVE
- SANITARY SEWER
- SEWER SERVICE LINE
- SEWER FORCE MAIN (FM)
- GAS LINE (G)
- OVERHEAD UTILITY (OU)
- UNDERGROUND ELECTRIC (UE)
- TELEPHONE (T)
- EASEMENT LINE
- TRAIL
- WETLANDS
- TREE SAVE AREA

AREA "A" AREA "B" AREA "C"
AREA "D" AREA "E"
AREA "F" AREA "G" AREA "H"
AREA "I"
AREA "J" AREA "K"
AREA "L" AREA "M"

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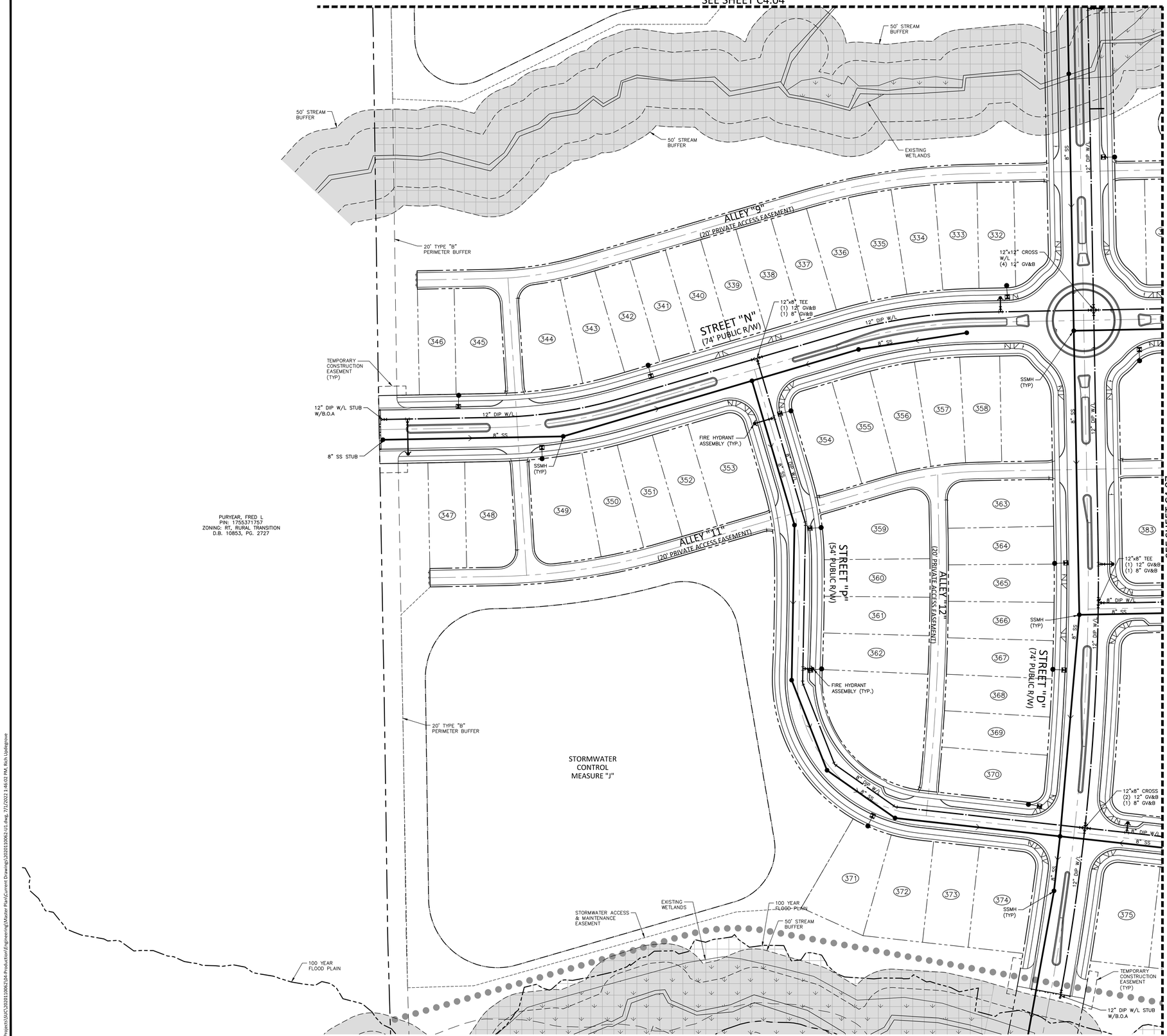
SHEET

UTILITY PLAN
AREA "E"

C4.05

SEE SHEET C4.04



UTILITY LEGEND

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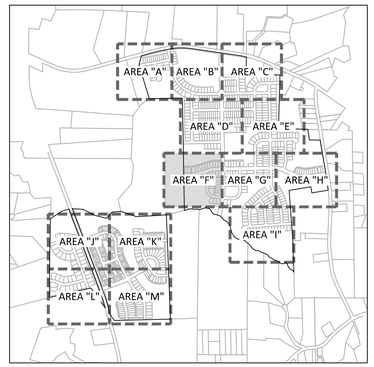
- LIGHT POLE
- POWER POLE
- LINE BREAK SYMBOL
- WATERLINE
- WATER SERVICE LINE
- UTILITY SLEEVE
- SANITARY SEWER
- SEWER SERVICE LINE
- FM — FM — SEWER FORCE MAIN
- G — G — G — G — GAS LINE
- OU — OU — OVERHEAD UTILITY
- UE — UE — UNDERGROUND ELECTRIC
- T — T — T — T — TELEPHONE
- EASEMENT LINE
- TRAIL
- WETLANDS
- TREE SAVE AREA



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SHEET

UTILITY PLAN
AREA "F"

C4.06

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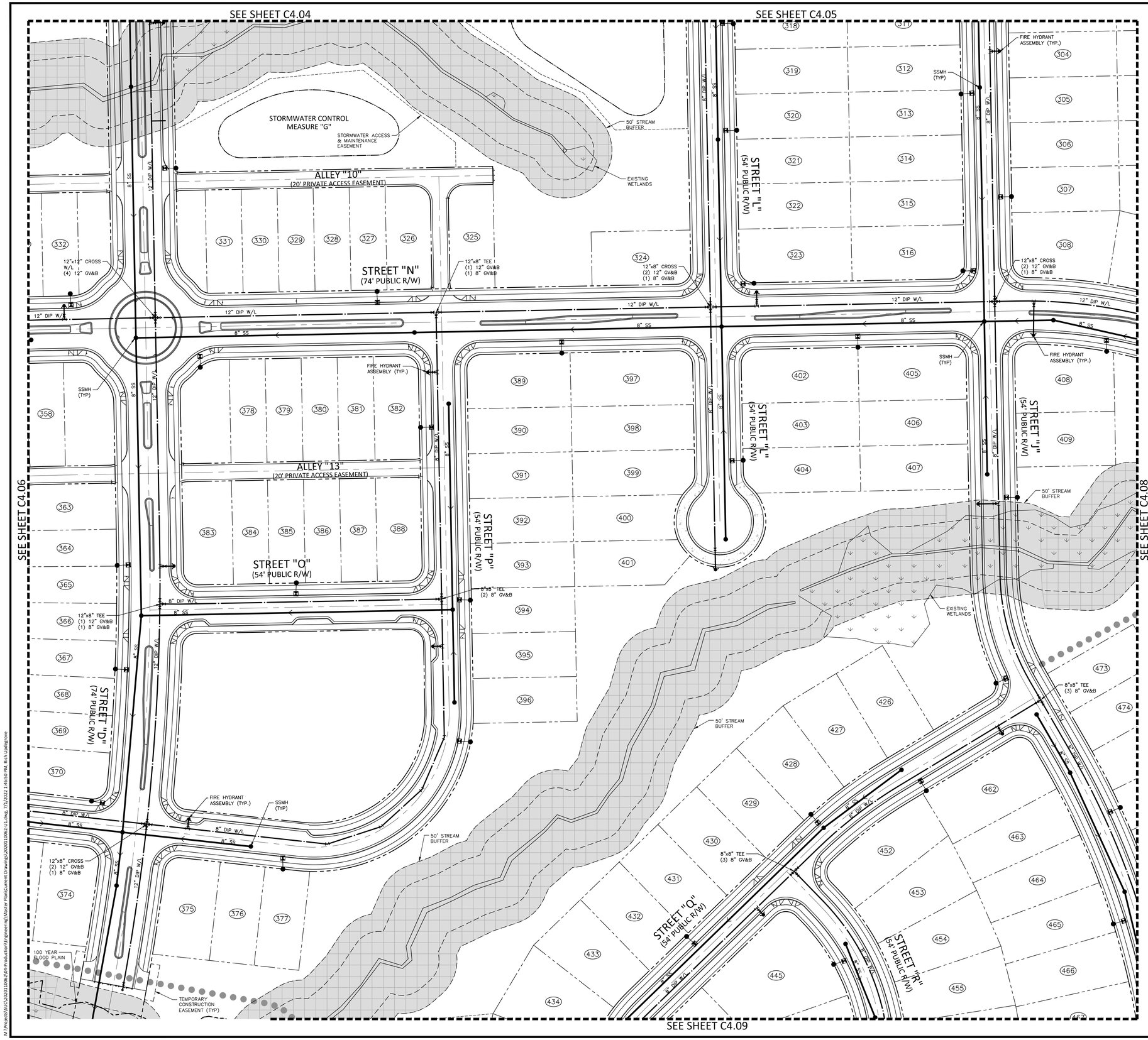

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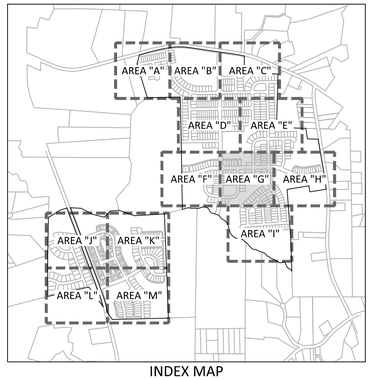

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SHEET

UTILITY PLAN
AREA "G"

C4.07

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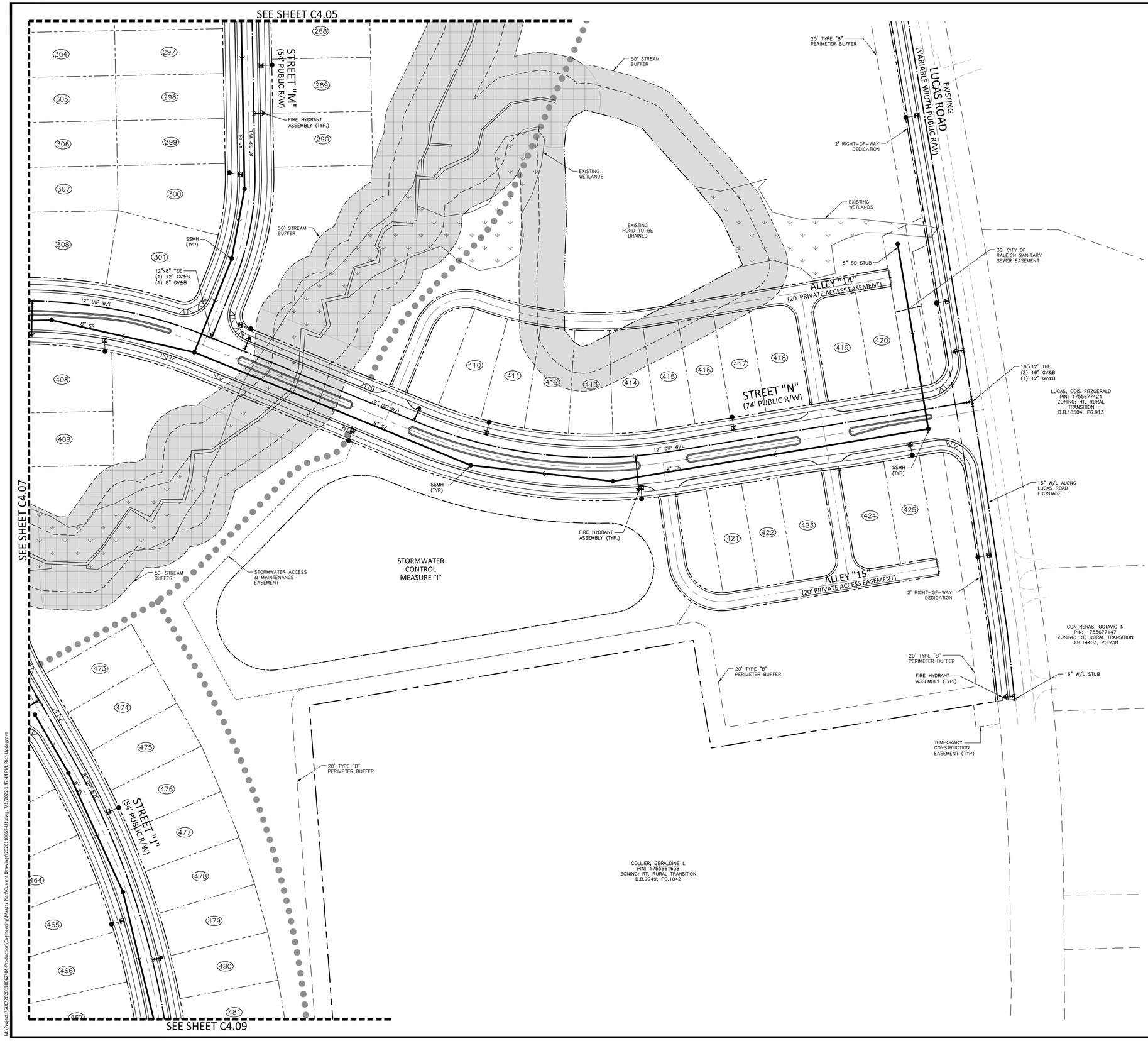

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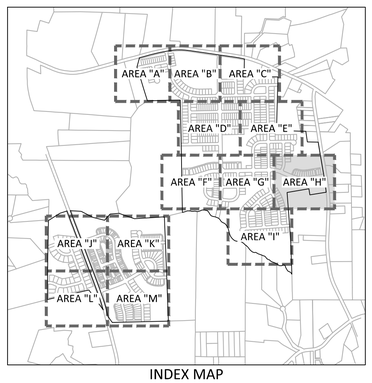

INDEX MAP

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DATE	03. 28. 2022

SHEET

UTILITY PLAN
AREA "H"

C4.08

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SEE SHEET C4.07

SEE SHEET C4.08

50' STREAM BUFFER

FIRE HYDRANT ASSEMBLY (TYP.)

SSMH (TYP)

STORMWATER ACCESS & MAINTENANCE EASEMENT

STORMWATER CONTROL MEASURE "K"

STREET "Q" (54' PUBLIC R/W)

STREET "R" (54' PUBLIC R/W)

STREET "S" (54' PUBLIC R/W)

STREET "J" (54' PUBLIC R/W)

8"x8" TEE (2) 8" GV&B

8" DIP W/L

8" SS

20' TYPE "B" PERIMETER BUFFER

TEMPORARY CONSTRUCTION EASEMENT (TYP.)

8" WATER STUB W/B.O.A

8" SS STUB

COLLIER, GERALDINE L
PIN: 1755661638
ZONING: RT, RURAL TRANSITION
D.B.9949, PG.1042

STORMWATER CONTROL MEASURE "L"

EXISTING WETLANDS

100 YEAR FLOOD PLAIN

RAMSEY, GRACE D
PIN: 1755453795
ZONING: RT, RURAL TRANSITION
D.B.12885, PG.2144

30' CITY OF RALEIGH SANITARY SEWER EASEMENT

12" SS

12" SS OUTFALL STUB

LARYEA, ROBERT O II
PIN: 1755651583
ZONING: RT, RURAL TRANSITION
D.B.13-E, PG.1848

PARNELL, WILLIAM GARY
PIN: 1755551308
ZONING: RR1, RURAL RESIDENTIAL
D.B.13609, PG.1706

HOFSHEIER, RICHARD
HOFSHEIER, TONI
PIN: 1755554305
ZONING: RR1, RURAL RESIDENTIAL
D.B.15300, PG.478

UTILITY LEGEND

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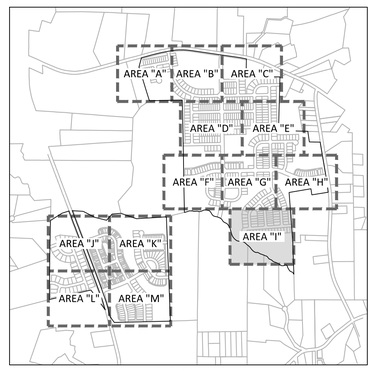

INDEX MAP

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SHEET

UTILITY PLAN AREA "I"

C4.09

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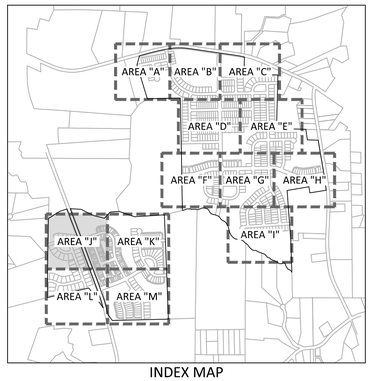

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UTILITY PLAN
AREA "J"

C4.10

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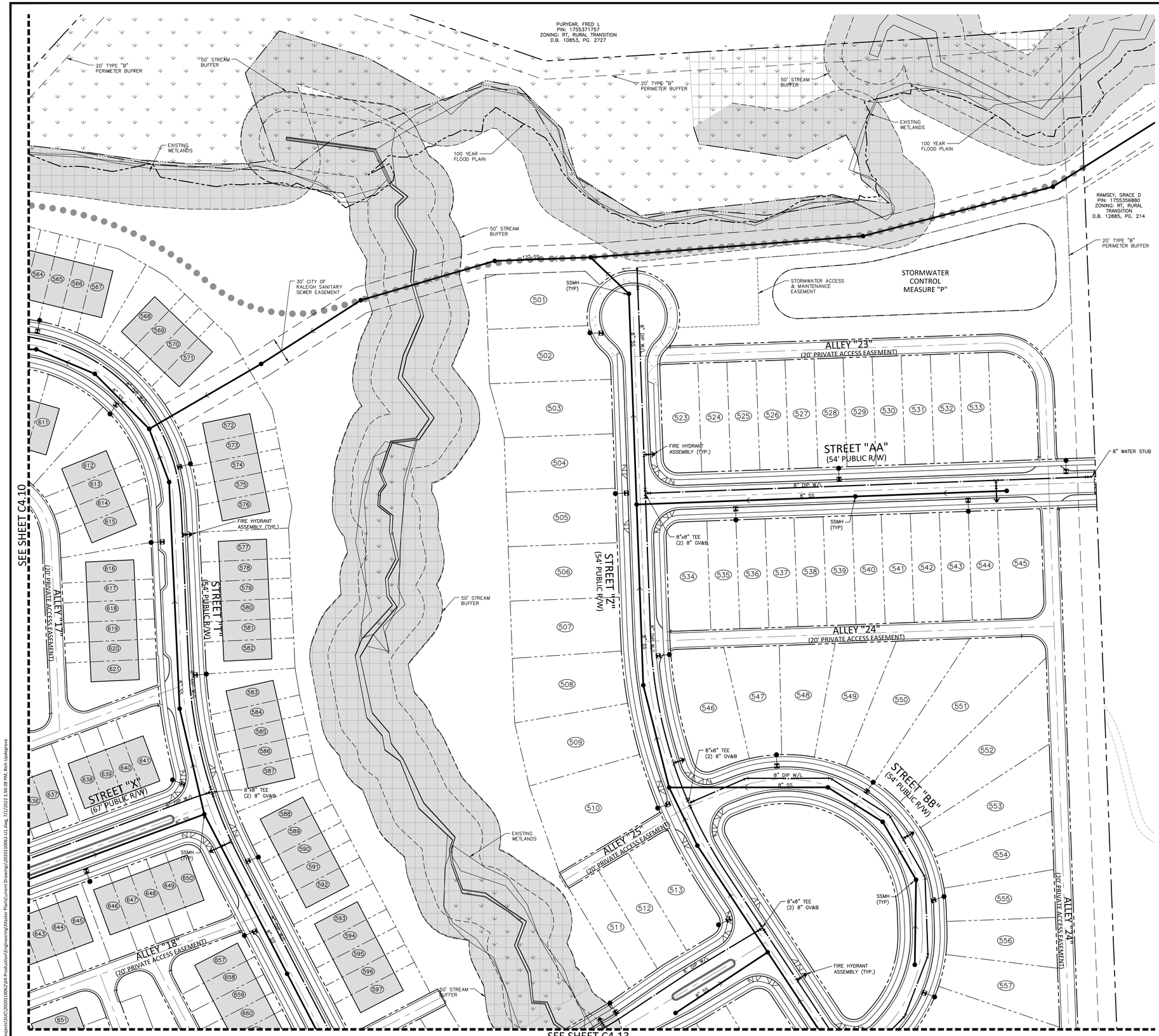

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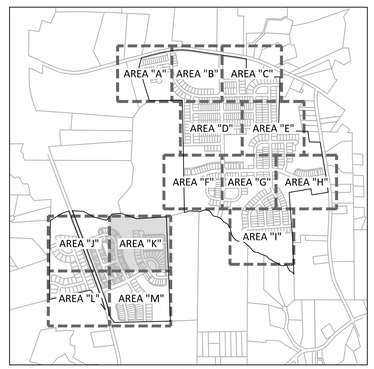

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SHEET

UTILITY PLAN
AREA "K"

C4.11

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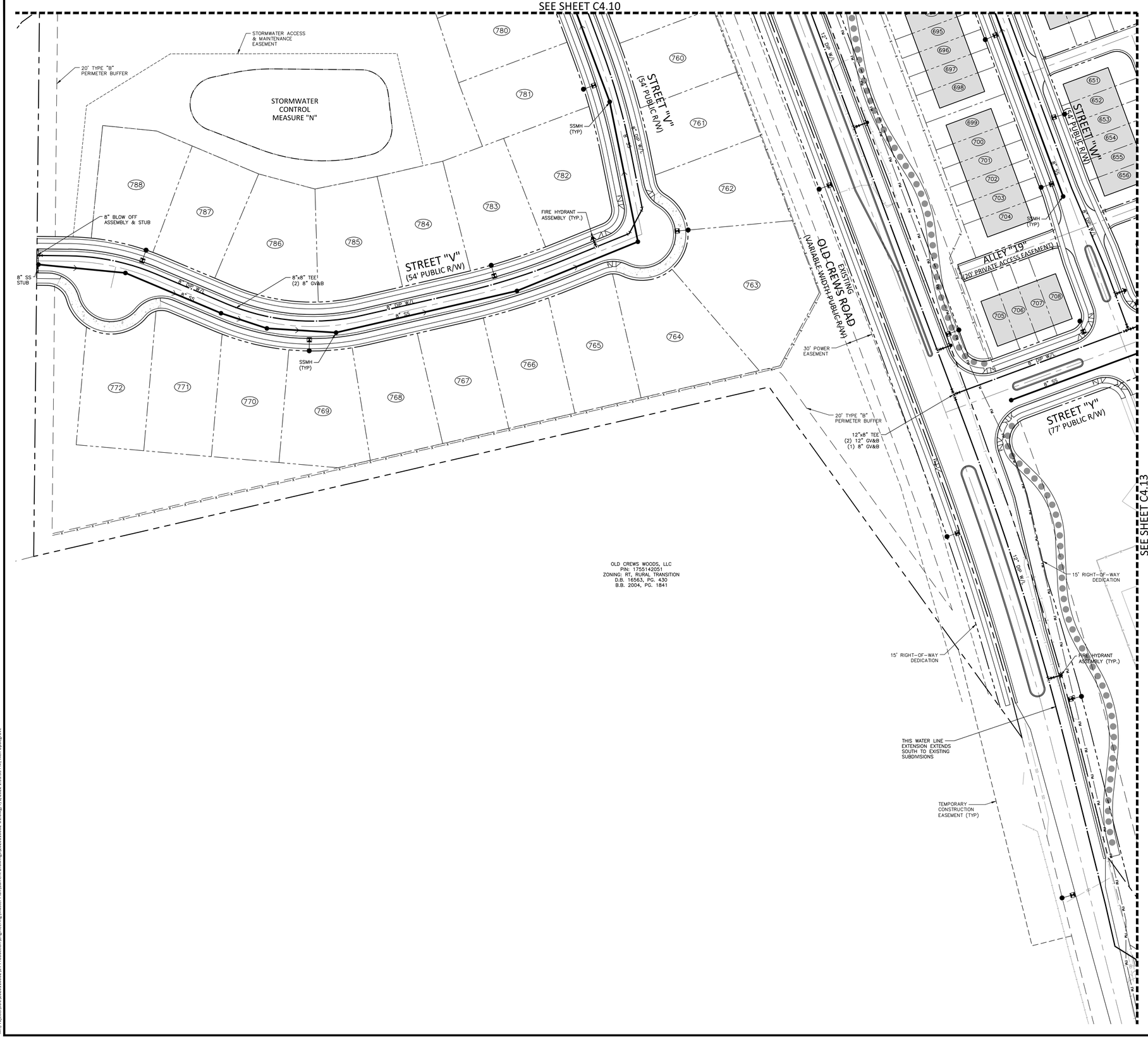
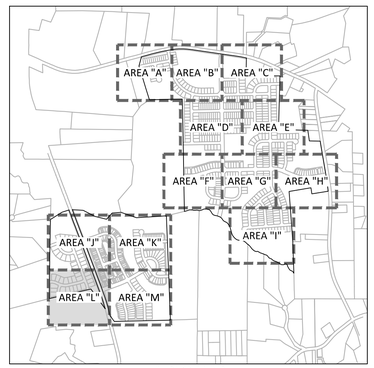


SEE SHEET C4.13

UTILITY LEGEND

- FIRE HYDRANT ASSEMBLY
- FIRE DEPARTMENT CONNECTION (FDC)
- WATER METER
- WATER VALVE
- PIV — POST INDICATOR VALVE
- VALVE IN MANHOLE
- METER & VAULT
- BACKFLOW PREVENTER
- REDUCER
- PLUG
- BLOW-OFF ASSEMBLY
- SANITARY SEWER MANHOLE
- SEWER CLEAN-OUT
- GREASE TRAP
- SEWER FLOW DIRECTION ARROW
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- LINE BREAK SYMBOL
- WATERLINE
- WATER SERVICE LINE
- UTILITY SLEEVE
- SANITARY SEWER
- SEWER SERVICE LINE
- FM — SEWER FORCE MAIN
- G — GAS LINE
- OU — OVERHEAD UTILITY
- UE — UNDERGROUND ELECTRIC
- T — TELEPHONE
- EASEMENT LINE
- TRAIL
- WETLANDS
- TREE SAVE AREA



INDEX MAP

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

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NO.	DATE	
1	04. 29. 2022	PER TOWN COMMENTS
2	07. 01. 2022	PER TOWN COMMENTS

PLAN INFORMATION

PROJECT NO.	2020110062
FILENAME	2020110062-U1
CHECKED BY	RCA
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SCALE	1"=50'
DATE	03. 28. 2022

SHEET

UTILITY PLAN AREA "L"

C4.12

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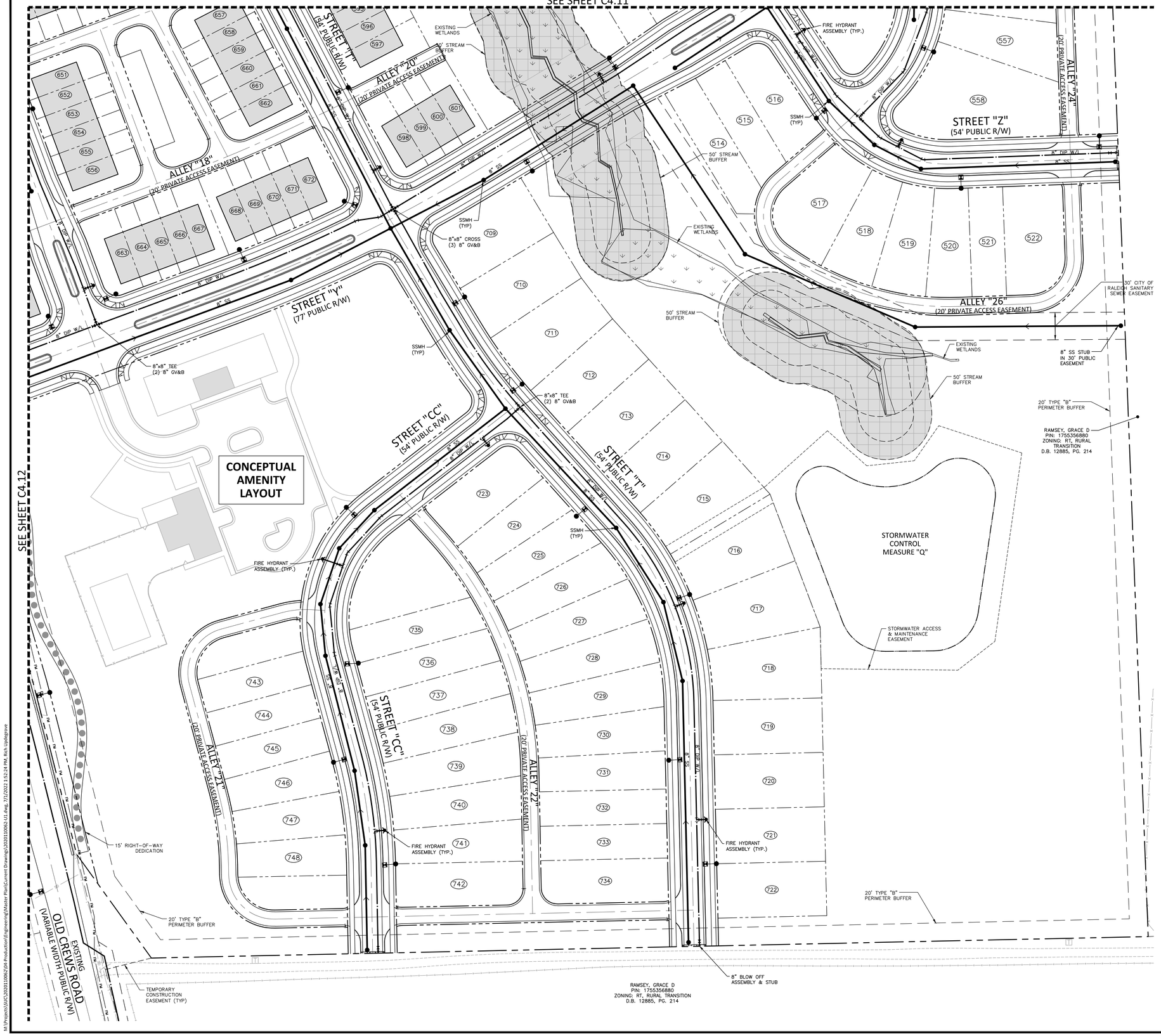
SEE SHEET C4.12



UTILITY LEGEND

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- FIRE DEPARTMENT CONNECTION (FDC)
- WATER METER
- WATER VALVE
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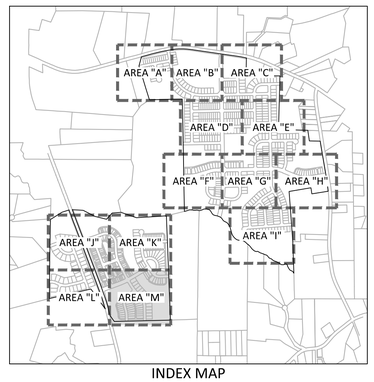
- UNDERGROUND ELECTRIC
- TELEPHONE
- EASEMENT LINE
- TRAIL
- WETLANDS
- TREE SAVE AREA



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SCALE	1"=50'
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UTILITY PLAN AREA "M"

C4.13

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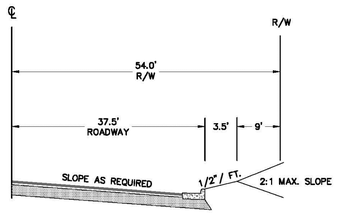
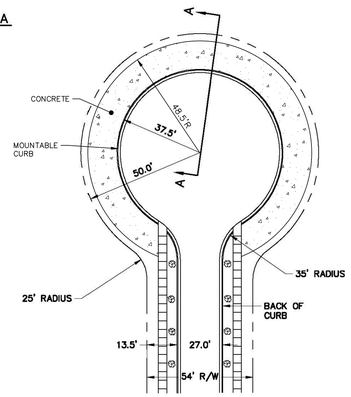


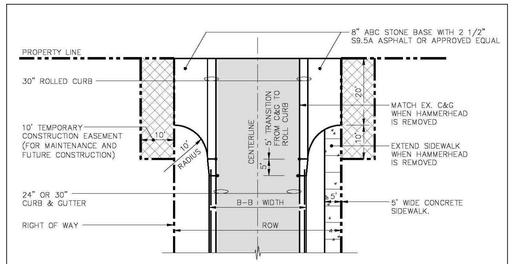
SECTION A

TERRAIN	MAX. SLOPE
LEVEL	2:1
ROLLING	2:1



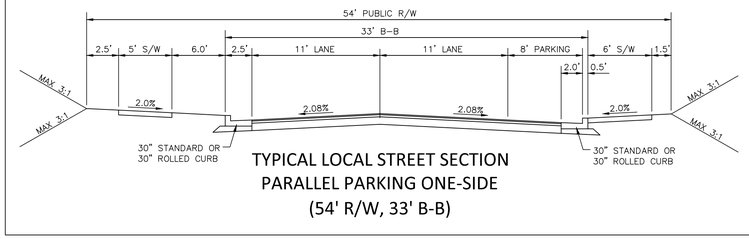
REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS	CUL DE SAC SECTION	STD. NO. 3.08



TEMPORARY HAMMERHEAD TURN-AROUND

SCALE: NOT TO SCALE



TYPICAL LOCAL STREET SECTION
PARALLEL PARKING ONE-SIDE
(54' R/W, 33' B-B)

Figure 10.2: Local Street Cross Section Standards

INTERNAL LOCAL STREETS

Figure 10.4: Main Street Cross Section Standards - Version 2

INTERNAL MAIN STREETS AND LUCAS ROAD

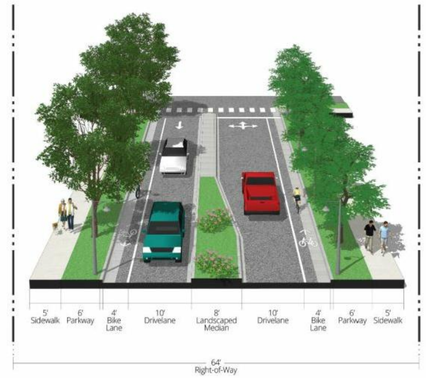


Figure 10.6: Avenue Cross Section Standards - Version 2

INTERNAL AVENUES

Figure 10.8: Urban Avenue Cross Section Standards - Version 2

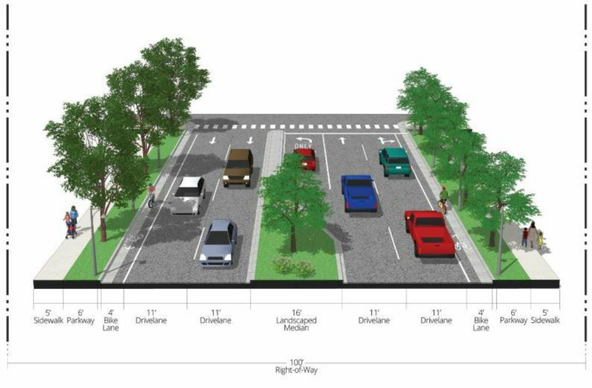
OLD CREWS ROAD

Figure 10.3: Main Street Cross Section Standards - Version 1

INTERNAL MAIN STREETS

Figure 10.9: Boulevard Cross Section Standards

BUFFALOE ROAD



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TYPICAL SECTIONS
C8.00

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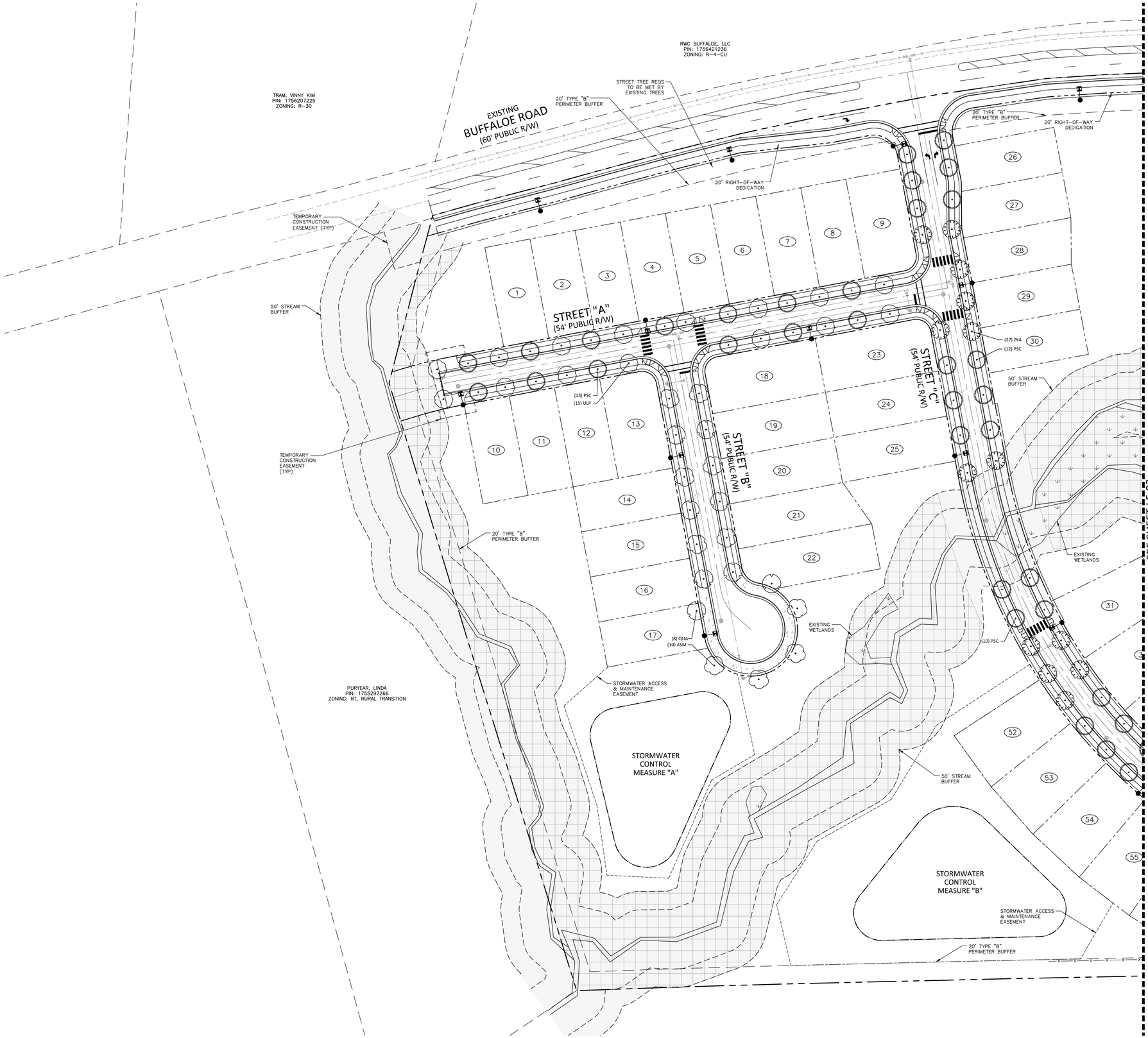

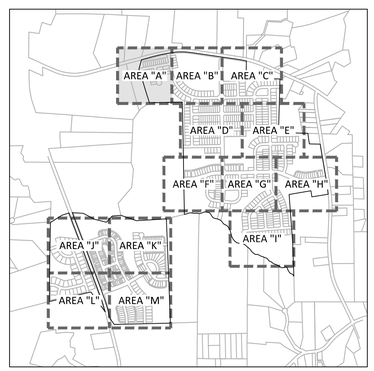

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LANDSCAPE PLAN
AREA "A"

L5.01

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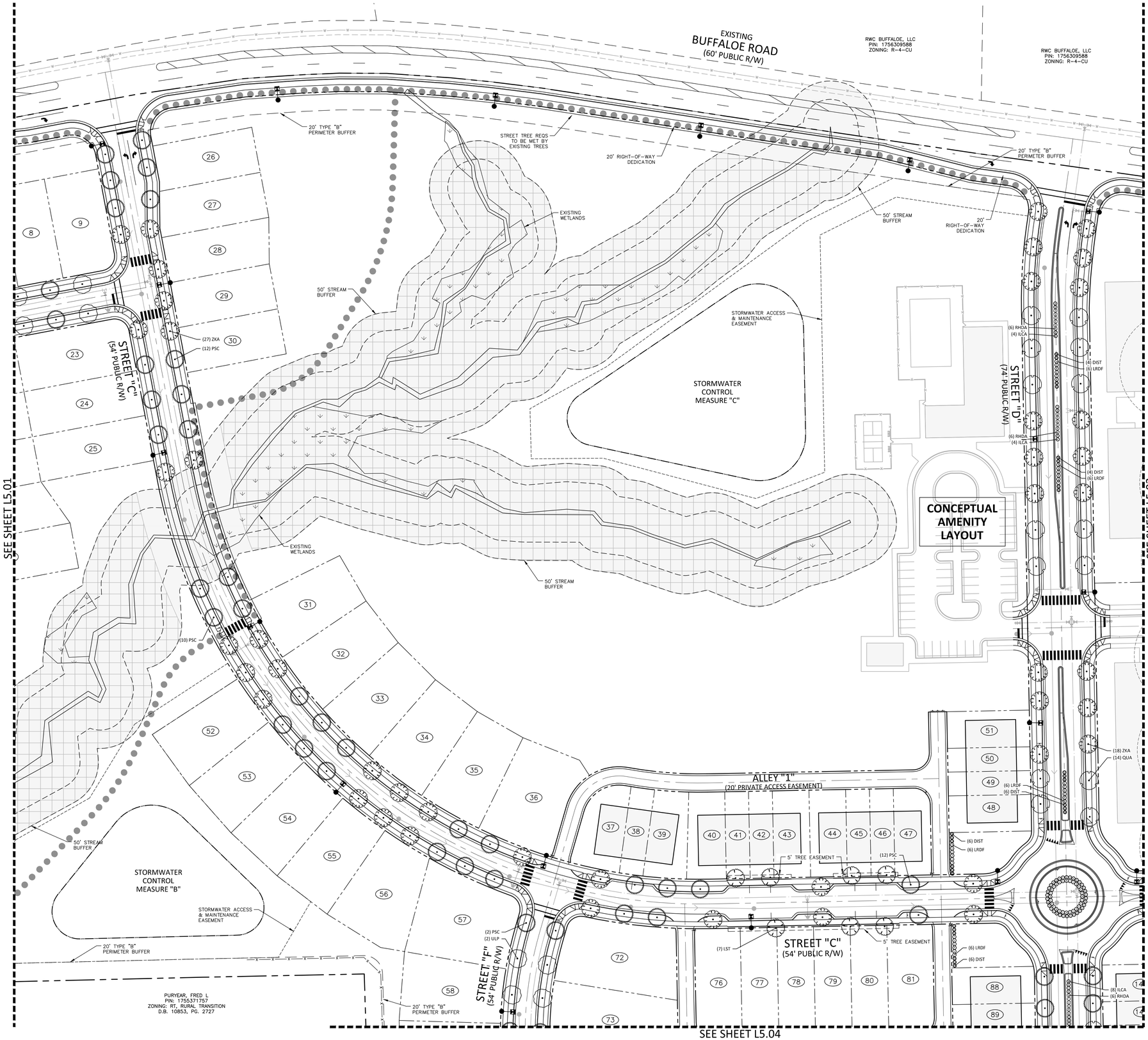

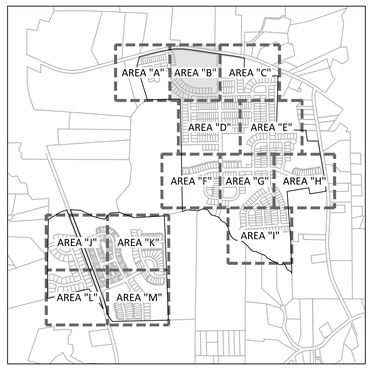

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SCALE	1"=50'
DATE	03. 28. 2022

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LANDSCAPE PLAN
AREA "B"

L5.02

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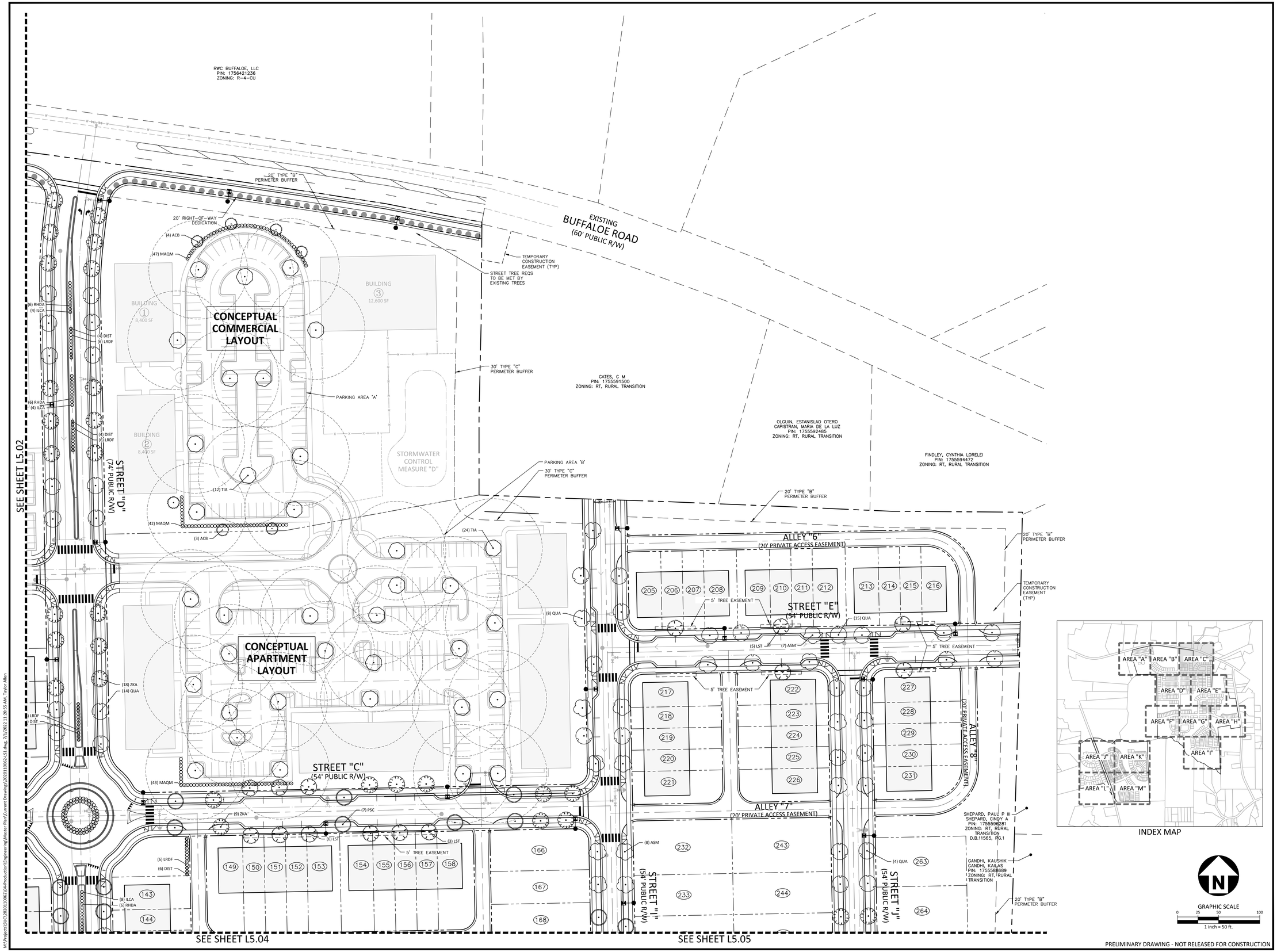

INDEX MAP

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DATE	03. 28. 2022

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LANDSCAPE PLAN AREA "C"

L5.03

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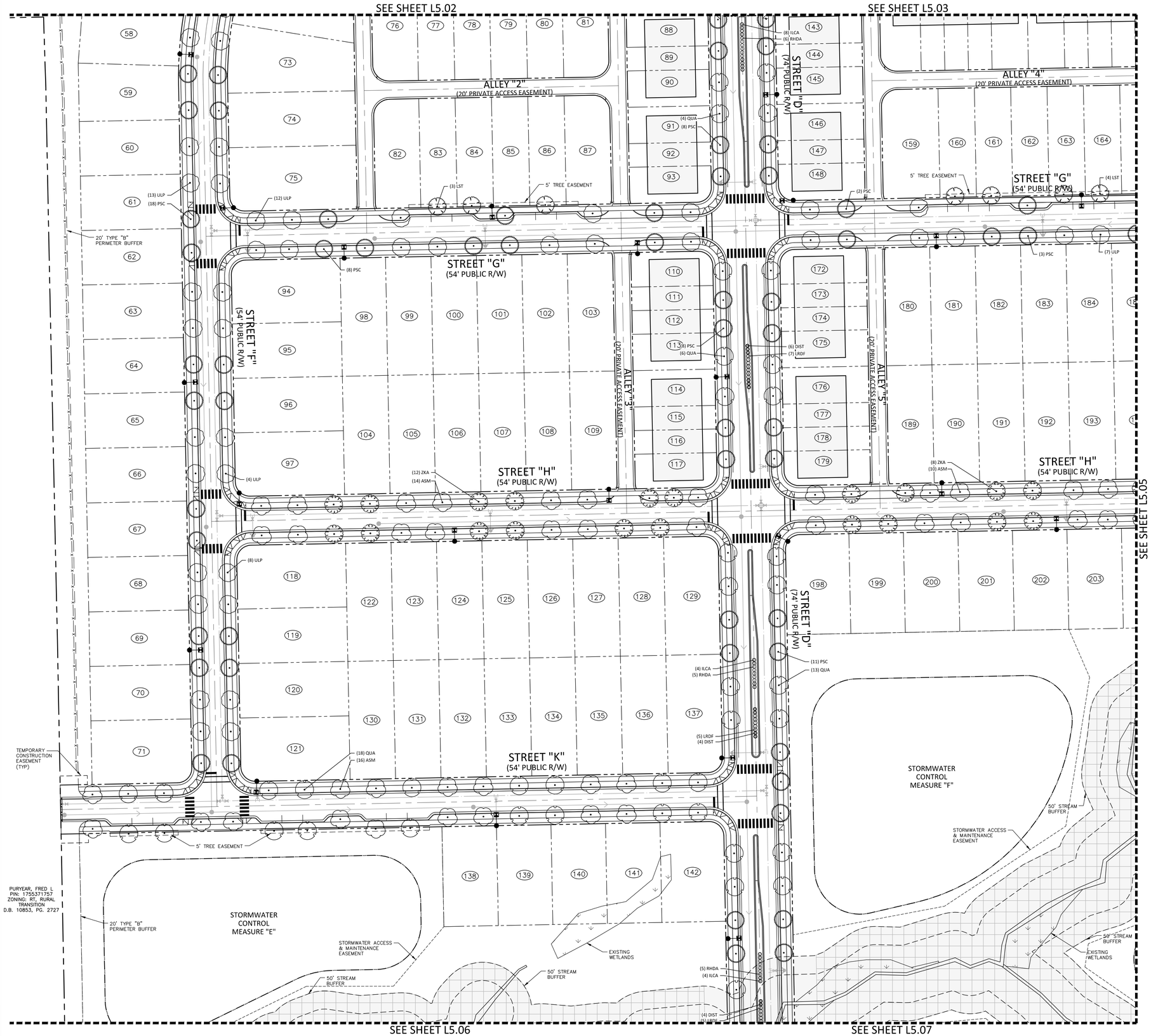

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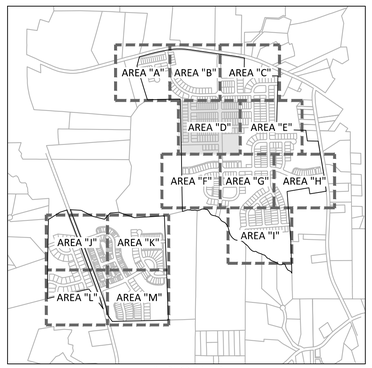

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LANDSCAPE PLAN AREA "D"

L5.04

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SEE SHEET L5.03

SEE SHEET L5.04

SEE SHEET L5.07

SEE SHEET L5.08

ALLEY "A"
(20' PRIVATE ACCESS EASEMENT)

STREET "G"
(54' PUBLIC R/W)

STREET "I"
(54' PUBLIC R/W)

STREET "J"
(54' PUBLIC R/W)

STREET "H"
(54' PUBLIC R/W)

STREET "L"
(54' PUBLIC R/W)

STREET "J"
(54' PUBLIC R/W)

STREET "M"
(54' PUBLIC R/W)

(4) LST

(7) ULP

(4) ULP

(5) PSC

(10) PSC

(12) ASM

(13) ZKA

(12) ASM

(6) ULP

(18) ZKA

(12) QUA

20' TYPE "B"
PERIMETER BUFFER

GANDHI, KAUSHIK
GANDHI, KAILAS
PIN: 1755588689
ZONING: RT, RURAL TRANSITION

20' TYPE "B"
PERIMETER BUFFER

50' STREAM
BUFFER

EXISTING
WETLANDS

STORMWATER ACCESS
& MAINTENANCE
EASEMENT

STORMWATER
CONTROL
MEASURE "H"

(16) QUA

(8) ASM

(4) QUA

(8) ZKA

(12) ASM

(12) PSC

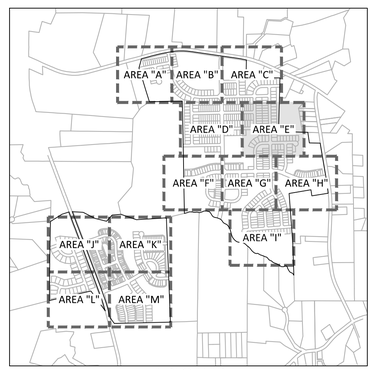
(6) PSC

(14) ULP

EXISTING
WETLANDS

50' STREAM
BUFFER

50' STREAM
BUFFER



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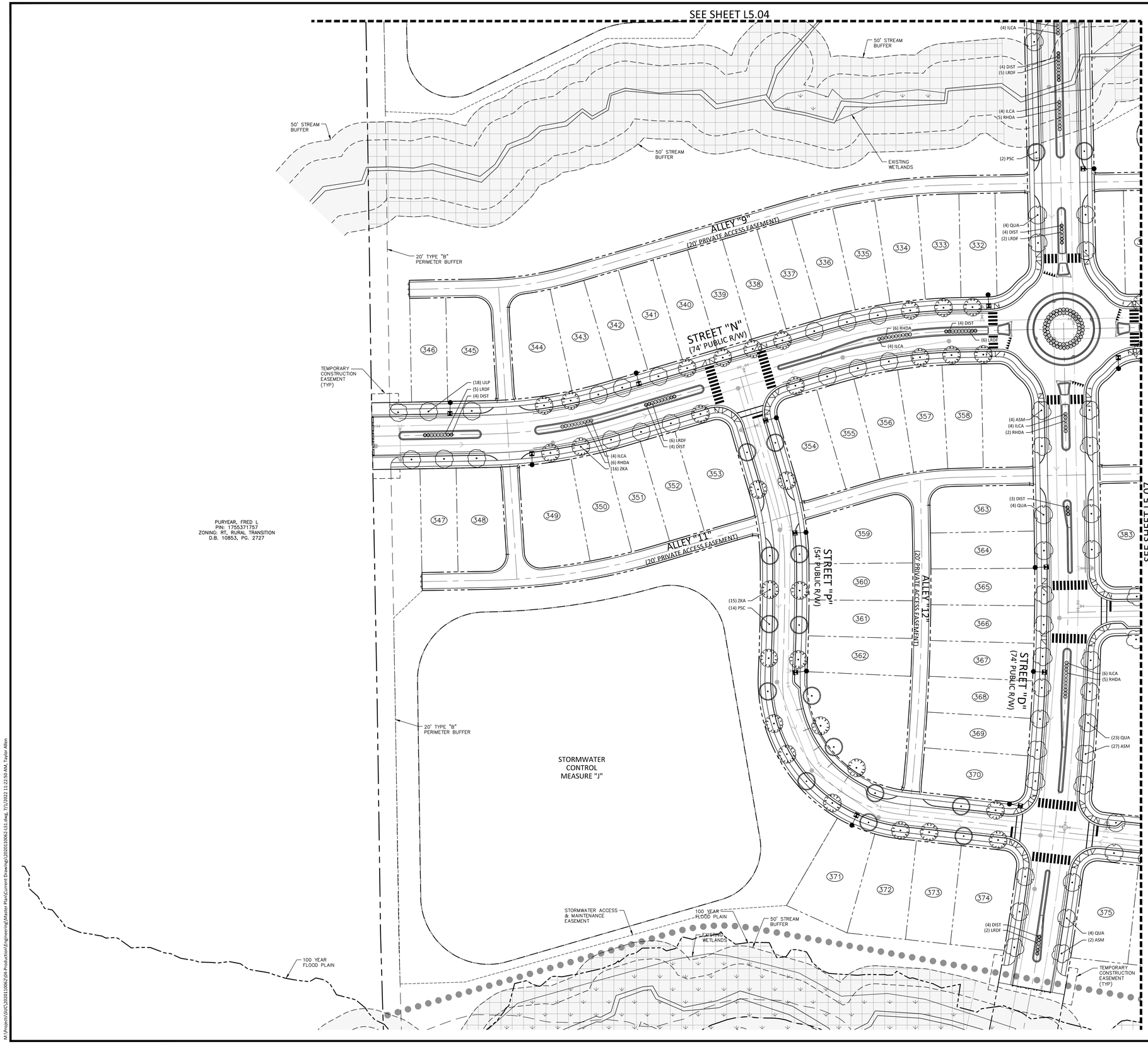
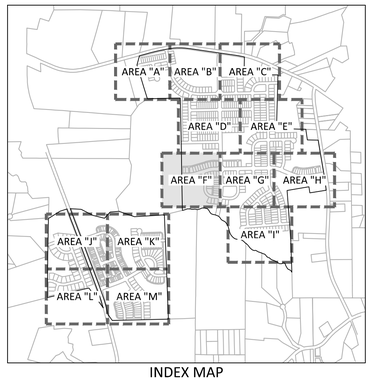
LANDSCAPE PLAN
AREA "E"

L5.05





INDEX MAP

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NATHANIEL A. DECKER

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LANDSCAPE PLAN AREA "F"

L5.06

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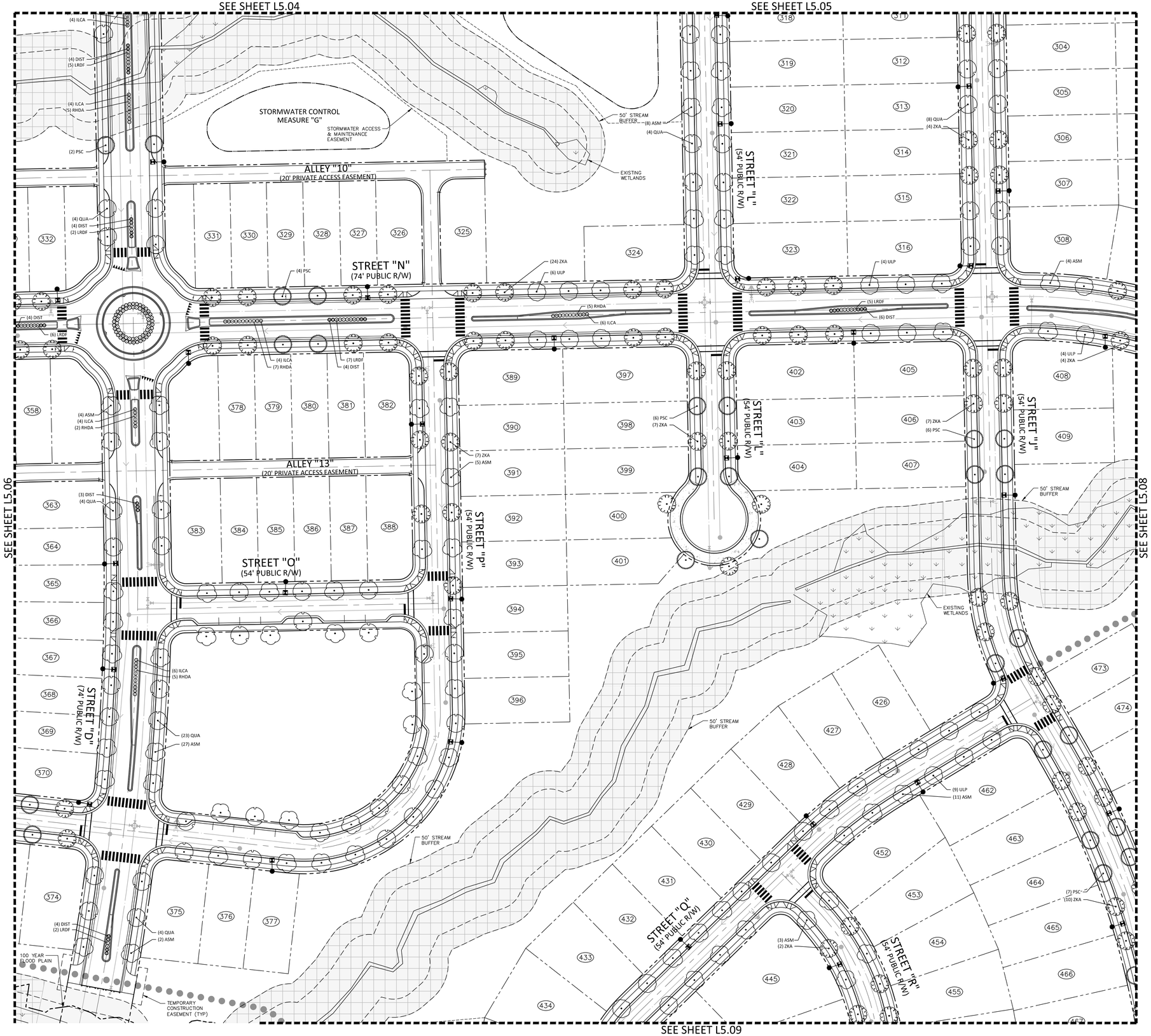

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BRIO
MASTER PLAN
1700 OLD CREWS ROAD
KNIGHTDALE, NORTH CAROLINA

NORTH CAROLINA LANDSCAPE ARCHITECT SEAL NO. 1770 REGISTERED LANDSCAPE ARCHITECT JOSHUA A. DECKER
NOT FOR CONSTRUCTION

REVISIONS

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2	07. 01. 2022	PER TOWN COMMENTS

PLAN INFORMATION

PROJECT NO.	2020110062
FILENAME	2020110062-LS1
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DRAWN BY	RLU
SCALE	1"=50'
DATE	03. 28. 2022

SHEET

LANDSCAPE PLAN
AREA "G"

L5.07

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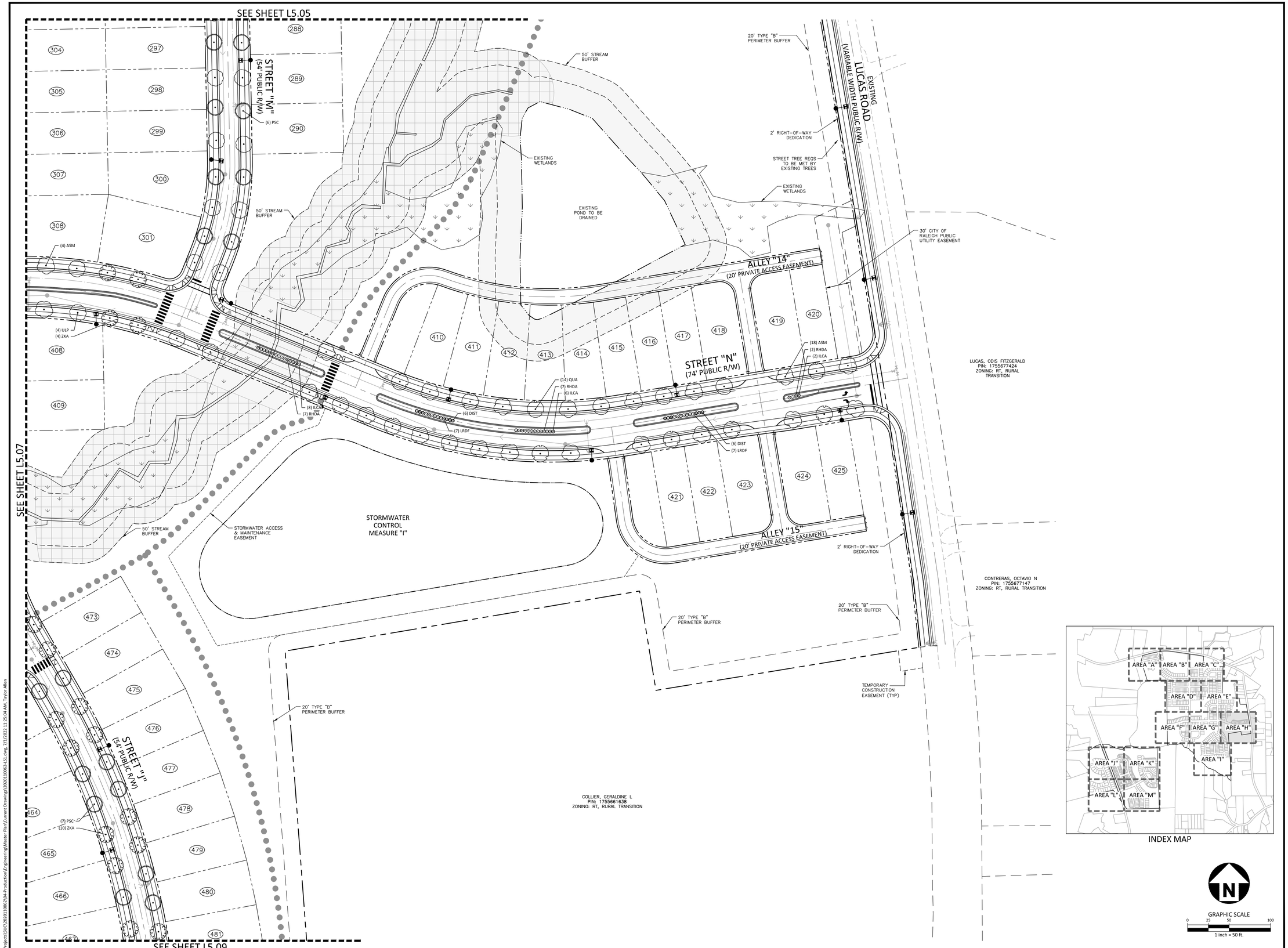

INDEX MAP

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

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SHEET

LANDSCAPE PLAN
AREA "H"

L5.08

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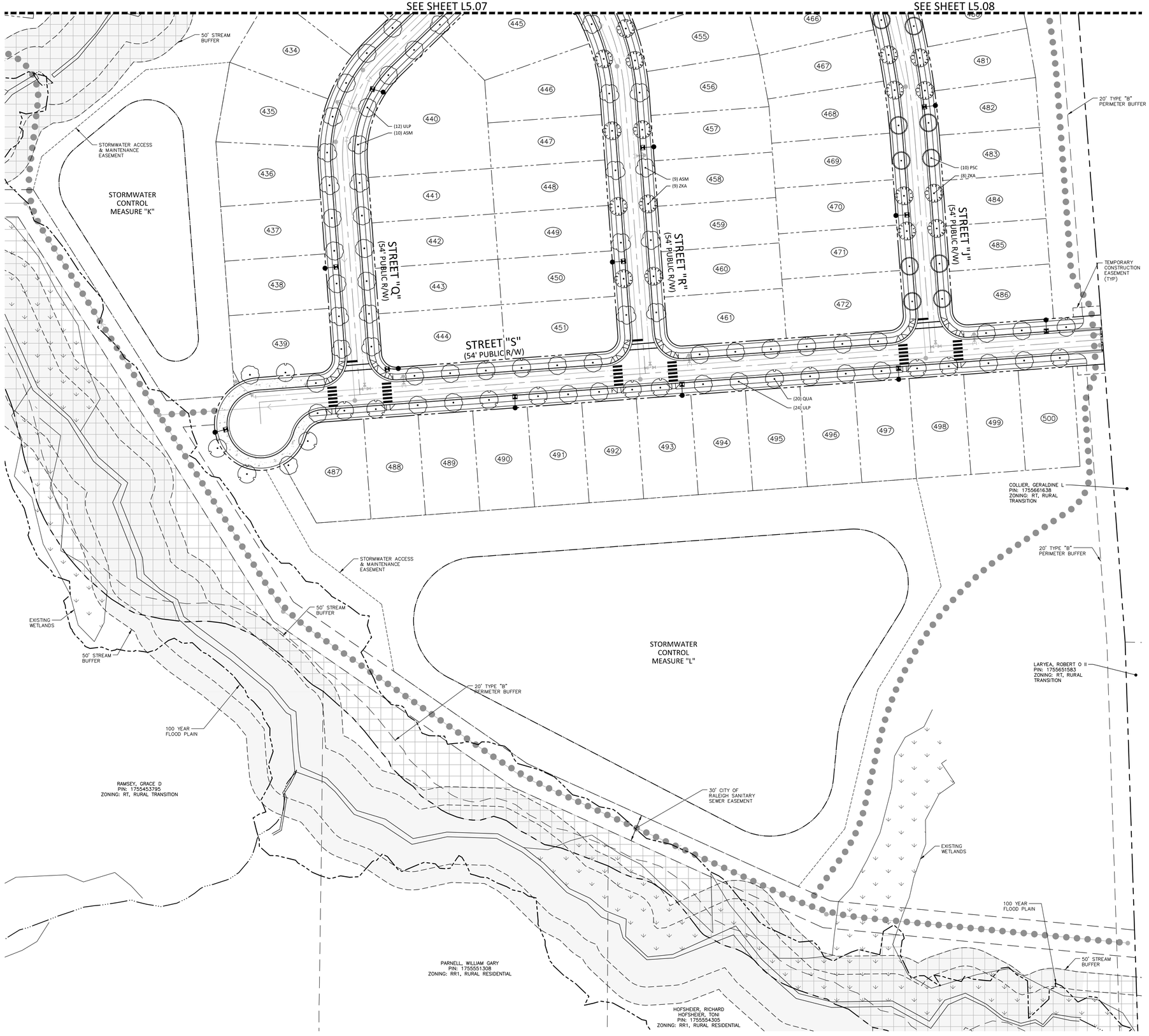

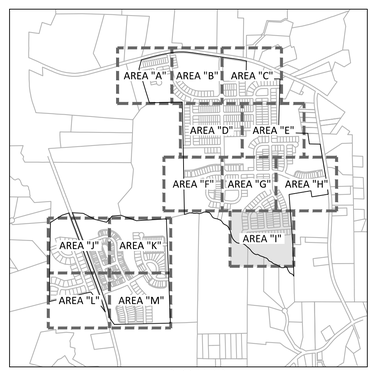

INDEX MAP

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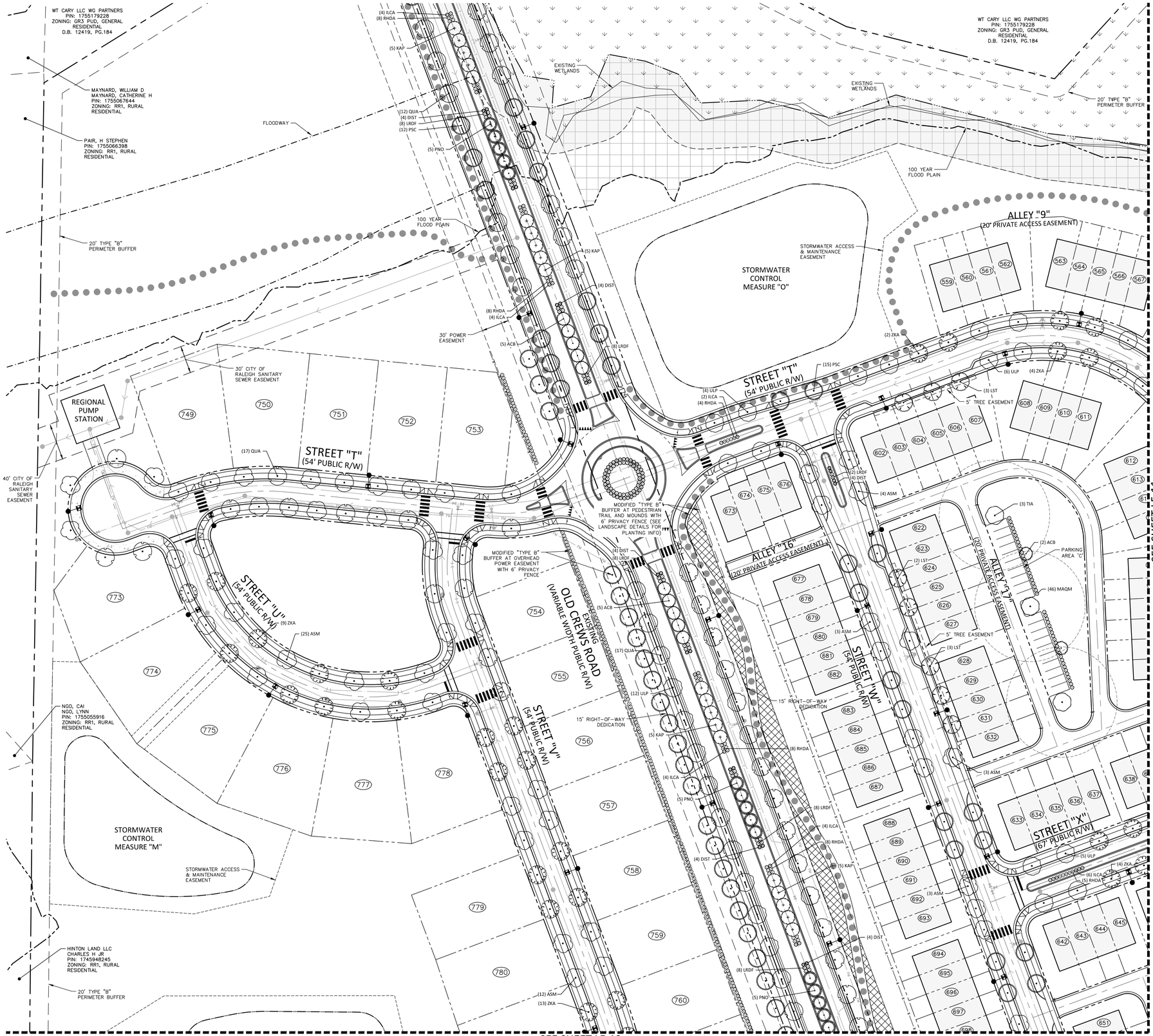
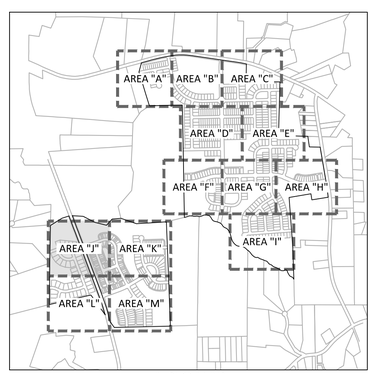
SHEET

LANDSCAPE PLAN
AREA "I"

L5.09





INDEX MAP

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NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT SEAL 1770 JOSHUA A. DECKER

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LANDSCAPE PLAN
AREA "J"

L5.10

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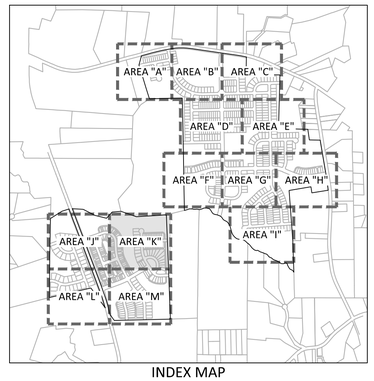
PURYEAR, FRED L
PIN: 1755371757
ZONING: RT, RURAL TRANSITION
D.B. 10853, PG. 2727

RAMSEY, GRACE D
PIN: 1755356880
ZONING: RT, RURAL TRANSITION
D.B. 12885, PG. 214

20' TYPE "B" PERIMETER BUFFER
50' STREAM BUFFER
EXISTING WETLANDS
100 YEAR FLOOD PLAIN
30' CITY OF RALEIGH SANITARY SEWER EASEMENT
STORMWATER ACCESS & MAINTENANCE EASEMENT
STORMWATER CONTROL MEASURE "P"
ALLEY "23" (20' PRIVATE ACCESS EASEMENT)
STREET "AA" (54' PUBLIC R/W)
STREET "Z" (54' PUBLIC R/W)
ALLEY "24" (20' PRIVATE ACCESS EASEMENT)
STREET "BB" (54' PUBLIC R/W)
ALLEY "25" (20' PRIVATE ACCESS EASEMENT)
ALLEY "22" (20' PRIVATE ACCESS EASEMENT)
STREET "X" (67' PUBLIC R/W)
STREET "Y" (54' PUBLIC R/W)
ALLEY "17" (20' PRIVATE ACCESS EASEMENT)
ALLEY "18" (20' PRIVATE ACCESS EASEMENT)
5' TREE EASEMENT
(19) PSC
(21) ULP
(3) LST
(6) DIST
(17) ULP
(5) LRDF
(4) ULP
(5) ULP
(4) ZKA
(6) ILCA
(5) RHDA
(16) ZKA
(10) ASM
(12) ZKA
(14) ASM
(11) QUA
(3) LRDF
(4) DIST
(4) QUA
(4) ZKA
(4) ULP

SEE SHEET L5.10
SEE SHEET L5.13



INDEX MAP

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SHEET

LANDSCAPE PLAN
AREA "K"

L5.11

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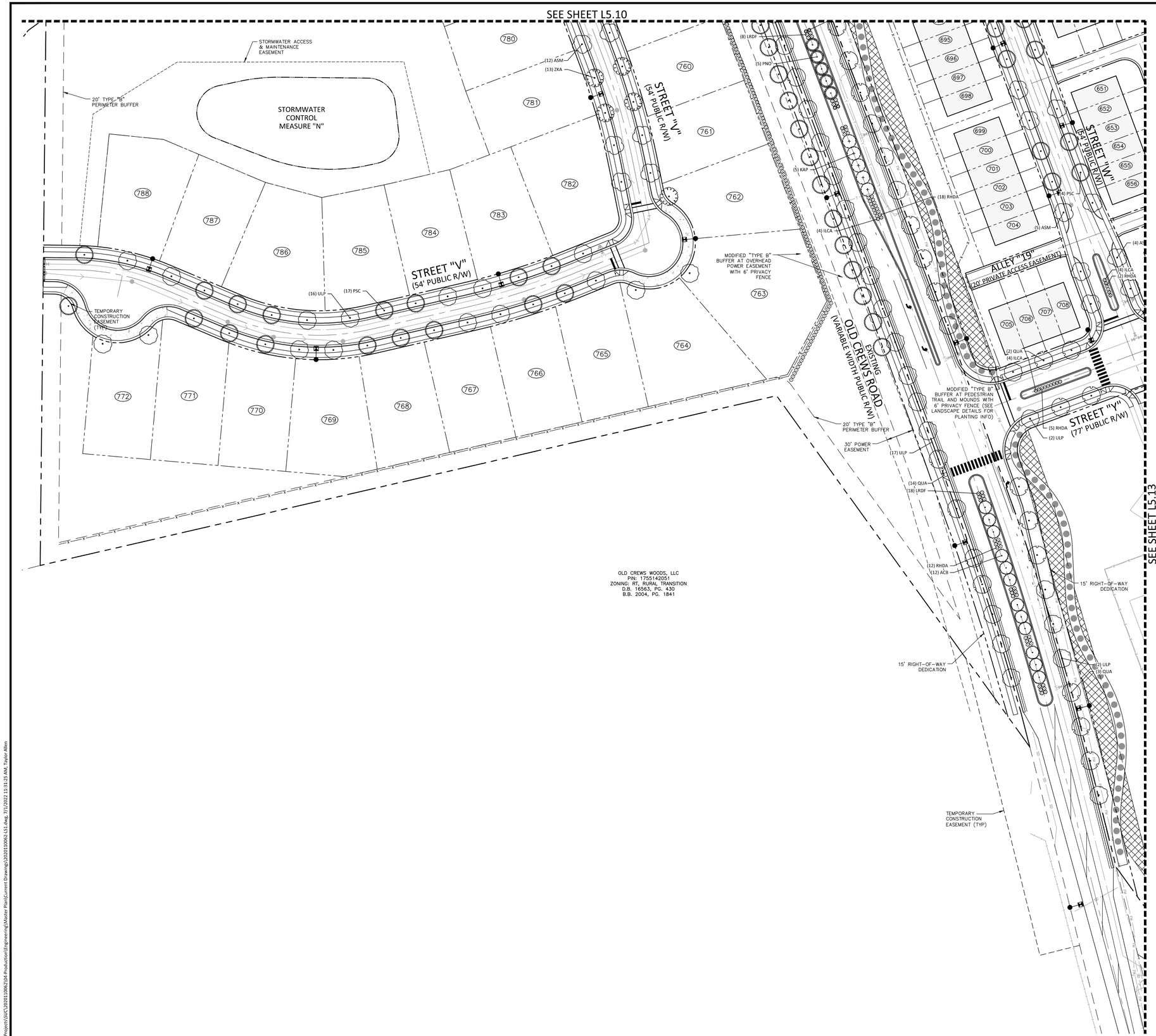

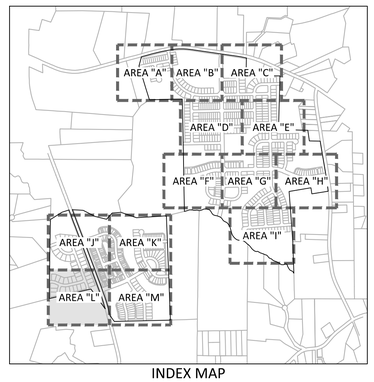

INDEX MAP

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LICENSED LANDSCAPE ARCHITECT
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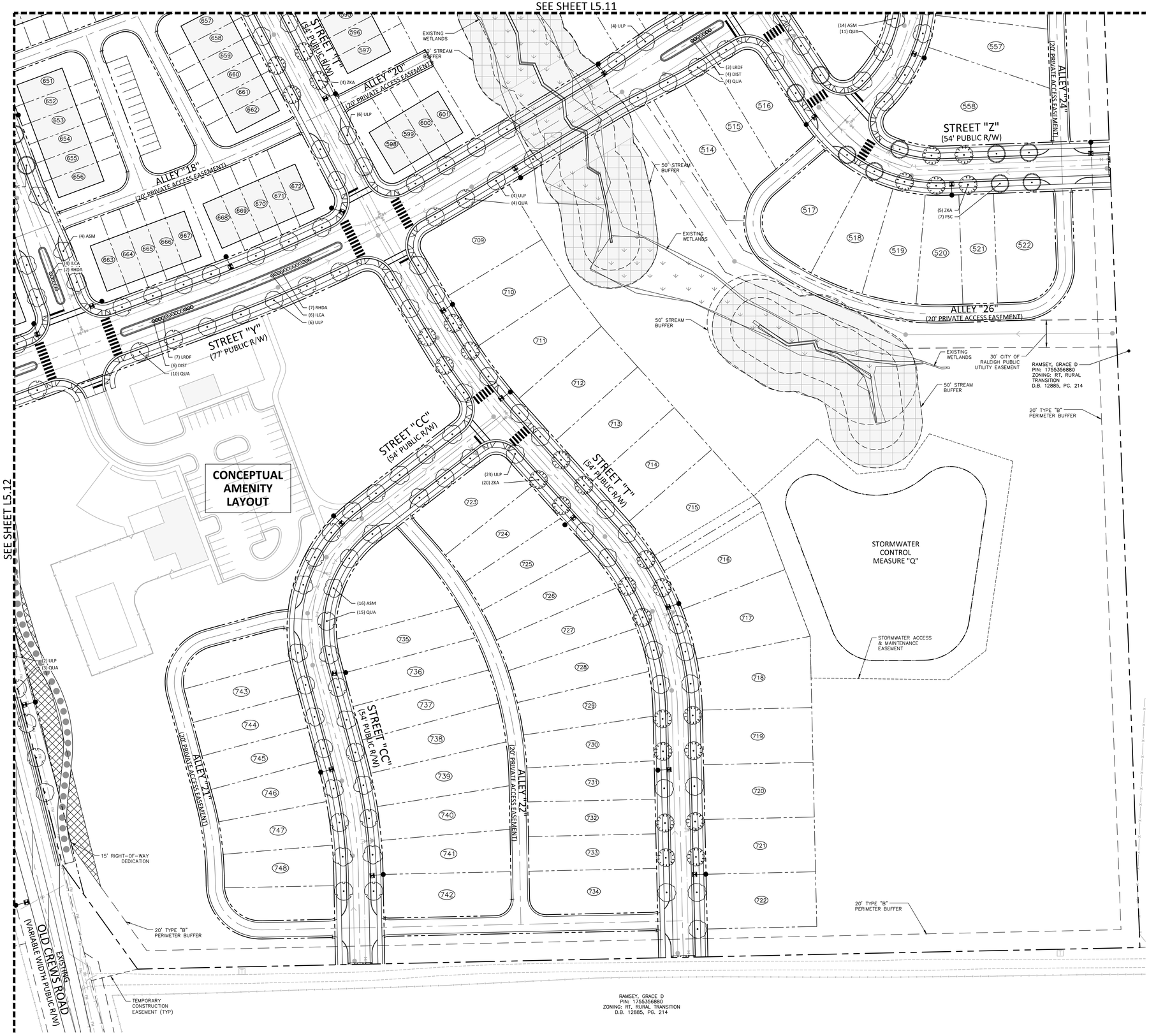
SHEET

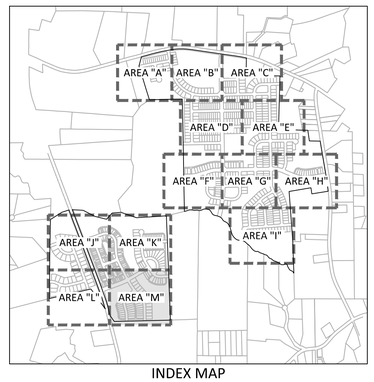
LANDSCAPE PLAN
AREA "L"

L5.12

SEE SHEET L5.11

SEE SHEET L5.12





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SHEET

LANDSCAPE PLAN
AREA "M"

L5.13

LANDSCAPE CALCULATIONS

PERIMETER BUFFERS - NORTHERN TRACT

WESTERN PROPERTY 2,468 LF*
20' TYPE B BUFFER
3,677 TOTAL LF SUBTRACTING 1,135LF RIPARIAN BUFFER, 74LF STREET ROW

CANOPY TREES
REQUIRED: 74 (3/100 LF)
PROVIDED: 67**

UNDERSTORY TREES
REQUIRED: 124 (5/100 LF)
PROVIDED: 124**

SHRUBS
REQUIRED: 494 (20/100 LF)
PROVIDED: 494**

NORTHERN PROPERTY 2,389 LF*
20' TYPE B BUFFER
2,682 TOTAL LF SUBTRACTING 163LF RIPARIAN BUFFER, 130LF STREET ROW

CANOPY TREES
REQUIRED: 72 (3/100 LF)
PROVIDED: 72**

UNDERSTORY TREES
REQUIRED: 120 (5/100 LF)
PROVIDED: 120**

SHRUBS
REQUIRED: 478 (20/100 LF)
PROVIDED: 478**

30' TYPE C BUFFER: 315LF*

CANOPY TREES
REQUIRED: 16 (5/100 LF)
PROVIDED: 16**

UNDERSTORY TREES
REQUIRED: 16 (5/100 LF)
PROVIDED: 16**

SHRUBS
REQUIRED: 79 (25/100 LF)
PROVIDED: 79**

EASTERN PROPERTY 5,045 LF*
20' TYPE B BUFFER
5,464 TOTAL LF SUBTRACTING 197LF RIPARIAN BUFFER, 222LF STREET ROW

CANOPY TREES
REQUIRED: 152 (3/100 LF)
PROVIDED: 152**

UNDERSTORY TREES
REQUIRED: 252 (5/100 LF)
PROVIDED: 252**

SHRUBS
REQUIRED: 1,009 (20/100 LF)
PROVIDED: 1,009**

PERIMETER BUFFERS - SOUTHERN TRACT

WESTERN PROPERTY 1,062 LF*
20' TYPE B BUFFER
1,510 TOTAL LF SUBTRACTING 316LF FLOODPLAIN, 132LF STREET ROW

CANOPY TREES
REQUIRED: 32 (3/100 LF)
PROVIDED: 32**

UNDERSTORY TREES
REQUIRED: 53 (5/100 LF)
PROVIDED: 53**

SHRUBS
REQUIRED: 213 (20/100 LF)
PROVIDED: 213**

SOUTHERN PROPERTY 2,209 LF*
20' TYPE B BUFFER
2,715 TOTAL LF SUBTRACTING 506LF STREET ROW

CANOPY TREES
REQUIRED: 67 (3/100 LF)
PROVIDED: 67**

UNDERSTORY TREES
REQUIRED: 111 (5/100 LF)
PROVIDED: 111**

SHRUBS
REQUIRED: 442 (20/100 LF)
PROVIDED: 442**

EASTERN PROPERTY 1,725 LF*
20' TYPE B BUFFER
2,023 TOTAL LF SUBTRACTING 108LF STREET ROW,
46LF EASEMENT, 144 RIPARIAN BUFFER

CANOPY TREES
REQUIRED: 52 (3/100 LF)
PROVIDED: 52**

UNDERSTORY TREES
REQUIRED: 87 (5/100 LF)
PROVIDED: 87**

SHRUBS
REQUIRED: 345 (20/100 LF)
PROVIDED: 345**

*BUFFER PLANTS TO BE INSTALLED PER STANDARD BUFFER DETAILS THIS SHEET. FINAL LOCATIONS OF PLANTINGS TO BE COORDINATED WHEN ENHANCED LANDSCAPE PLANS ARE DEVELOPED.
**EXISTING PLANT MATERIAL TO BE PRESERVED IN ALL BUFFER AREAS AS PRIORITY TIER 1 TREE SAVE AREAS. WHERE SUFFICIENT MATERIAL DOES NOT MEET REQUIREMENTS, SUPPLEMENTAL PLANT MATERIAL WILL BE REQUIRED FOR BUFFER TO MEET TYPE B BUFFER OPACITY STANDARDS.

LANDSCAPE CALCULATIONS

STREET TREES

STREET "A" 1,136 LF
CANOPY TREES
REQUIRED: 28 (1/40 LF)
PROVIDED: 28

STREET "B" 712 LF
CANOPY TREES
REQUIRED: 18 (1/40 LF)
PROVIDED: 18

STREET "C" 3,726 LF
CANOPY TREES
REQUIRED: 93 (1/40 LF)
PROVIDED: 93

STREET "D" 4,561 LF
CANOPY TREES
REQUIRED: 114 (1/40 LF)
PROVIDED: 114

STREET "E" 688 LF
CANOPY TREES
REQUIRED: 17 (1/40 LF)
PROVIDED: 17

STREET "F" 1,738 LF
CANOPY TREES
REQUIRED: 44 (1/40 LF)
PROVIDED: 44

STREET "G" 1,926 LF
CANOPY TREES
REQUIRED: 48 (1/40 LF)
PROVIDED: 48

STREET "H" 2,678 LF
CANOPY TREES
REQUIRED: 67 (1/40 LF)
PROVIDED: 67

STREET "I" 1,480 LF
CANOPY TREES
REQUIRED: 37 (1/40 LF)
PROVIDED: 37

STREET "J" 4,775 LF
CANOPY TREES
REQUIRED: 120 (1/40 LF)
PROVIDED: 120

STREET "K" 1,348 LF
CANOPY TREES
REQUIRED: 34 (1/40 LF)
PROVIDED: 34

STREET "L" 2,843 LF
CANOPY TREES
REQUIRED: 71 (1/40 LF)
PROVIDED: 73

STREET "M" 1,022 LF
CANOPY TREES
REQUIRED: 26 (1/40 LF)
PROVIDED: 26

STREET "N" 4,508 LF
CANOPY TREES
REQUIRED: 113 (1/40 LF)
PROVIDED: 114

STREET "O" 476 LF
CANOPY TREES
REQUIRED: 12 (1/40 LF)
PROVIDED: 12

STREET "P" 2,678 LF
CANOPY TREES
REQUIRED: 67 (1/40 LF)
PROVIDED: 67

STREET "Q" 1,693 LF
CANOPY TREES
REQUIRED: 42 (1/40 LF)
PROVIDED: 42

STREET "R" 908 LF
CANOPY TREES
REQUIRED: 23 (1/40 LF)
PROVIDED: 23

LANDSCAPE CALCULATIONS, cont.

STREET "S" 1,762 LF
CANOPY TREES
REQUIRED: 44 (1/40 LF)
PROVIDED: 44

STREET "T" 5,285 LF
CANOPY TREES
REQUIRED: 132 (1/40 LF)
PROVIDED: 132

STREET "U" 730 LF
CANOPY TREES
REQUIRED: 18 (1/40 LF)
PROVIDED: 19

STREET "V" 2,620 LF
CANOPY TREES
REQUIRED: 66 (1/40 LF)
PROVIDED: 66

STREET "W" 1,760 LF
CANOPY TREES
REQUIRED: 44 (1/40 LF)
PROVIDED: 44

STREET "X" 456 LF
CANOPY TREES
REQUIRED: 12 (1/40 LF)
PROVIDED: 12

STREET "Y" 1,442 LF
CANOPY TREES
REQUIRED: 36 (1/40 LF)
PROVIDED: 36

STREET "Z" 2,089 LF
CANOPY TREES
REQUIRED: 52 (1/40 LF)
PROVIDED: 52

STREET "AA" 880 LF
CANOPY TREES
REQUIRED: 22 (1/40 LF)
PROVIDED: 22

STREET "BB" 936 LF
CANOPY TREES
REQUIRED: 24 (1/40 LF)
PROVIDED: 25

STREET "CC" 1,160 LF
CANOPY TREES
REQUIRED: 29 (1/40 LF)
PROVIDED: 31

OLD CREWS RD 3,760 LF
CANOPY TREES
REQUIRED: 94 (1/40 LF)
PROVIDED: 94

PARKING LOT LANDSCAPING

PARKING AREA 'A' 105 SPACES
CANOPY TREES
REQUIRED: ALL SPACES WITHIN 60' OF CANOPY TREE
PROVIDED: 12

PARKING AREA 'B' 165 SPACES
CANOPY TREES
REQUIRED: ALL SPACES WITHIN 60' OF CANOPY TREE
PROVIDED: 24

PARKING AREA 'C' 20 SPACES
CANOPY TREES
REQUIRED: ALL SPACES WITHIN 60' OF CANOPY TREE
PROVIDED: 3

GENERAL LANDSCAPE NOTES:

1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF KNIGHTDALE AND THE STATE OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
2. CONTRACTOR IS RESPONSIBLE FOR THE SITE INSPECTION BEFORE LANDSCAPE CONSTRUCTION AND INSTALLATION IN ORDER TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS.
3. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE BEGINNING DEMOLITION OR INSTALLATION.
4. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN THE NOTES, SPECIFICATIONS, DRAWINGS OR SITE CONDITIONS FOR RESOLUTION PRIOR TO INSTALLATION.
5. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
6. VERIFICATION OF TOTAL PLANT QUANTITIES AS SHOWN IN THE PLANT SCHEDULE SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. ANY DISCRPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.
13. SUBSTITUTIONS OF SPECIFIC PLANTS CAN ONLY OCCUR WITH PRIOR WRITTEN PERMISSION OF BOTH OWNER AND LANDSCAPE ARCHITECT.
14. CONTRACTOR TO ENSURE PROPER STABILIZATION AND SEEDING OF THE SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.
15. LANDSCAPE MATERIAL SHALL BE WELL FORMED, VIGOROUS, GROWING SPECIMENS WITH GROWTH TYPICAL OF VARIETIES SPECIFIED AND SHALL BE FREE FROM DAMAGE, INSECTS AND DISEASES. MATERIAL SHALL EQUAL OR SURPASS #1 QUALITY AS DEFINED IN THE CURRENT ISSUE OF "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY AMERICAN HORT - AMERICANHORT.ORG.
16. ALL PLANT MATERIAL IS TO BE CAREFULLY HANDLED BY THE ROOT BALL, NOT THE TRUNK, BRANCHES AND/OR FOLIAGE OF THE PLANT. MISHANDLED PLANT MATERIAL MAY BE REJECTED BY THE LANDSCAPE ARCHITECT.
17. ALL PLANT MATERIAL IS TO BE WELL ROOTED, NOT ROOT BOUND, SUCH THAT THE ROOT BALL REMAINS INTACT THROUGHOUT THE PLANTING PROCESS. DEFICIENT PLANT MATERIAL MAY BE REJECTED BY THE LANDSCAPE ARCHITECT OR OWNER.
18. ALL PLANTS TO BE A MINIMUM OF WHAT IS SPECIFIED IN THE PLANT SCHEDULE. ANY CHANGES OR SUBSTITUTIONS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT AND GOVERNING JURISDICTION PRIOR TO ANY HOLE BEING DUG.
19. ALL TREES MUST BE PLANTED AFTER OCTOBER 1 AND BEFORE MARCH 31.
20. CONTRACTOR TO COORDINATE WITH OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT TO ESTABLISH THE EXTENTS OF MULCH/SEED/SOD IF NOT SPECIFICALLY SHOWN ON PLANS.
21. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE IN ALL PLANTING AREAS.
22. PROPOSED TREES TO BE PLANTED A MINIMUM 10 FEET FROM ANY LIGHT POLE AS MEASURED FROM TRUNK OF THE TREE TO THE POLE.
23. PROPOSED TREES TO BE PLANTED A MINIMUM 5 FEET FROM ANY FIRE HYDRANT AS MEASURED FROM TRUNK OF THE TREE TO THE HYDRANT.
24. ALL TREE PLANTINGS SHALL BE MULCHED WITH 3 INCHES OF SHREDDED BARK OR 4 INCHES OF PINE STRAW IN A 3 FOOT RADIUS AROUND THE TREE, OR TO THE DRIPLINE, WHICHEVER IS GREATER. THE MULCH SHALL BE FREE OF TRASH AND MAINTAINED WEED FREE THEREAFTER. MULCH SHALL NOT COVER THE ROOT COLLAR.

MAINTENANCE NOTES:

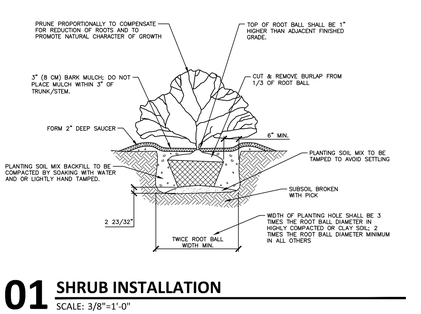
1. WARRANTY: INSTALLER SHALL REPAIR OR REPLACE ANY PLANTINGS THAT FAIL IN MATERIALS, WORKMANSHIP, OR GROWTH WITHIN ONE YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION. FAILURES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
   - DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM LACK OF ADEQUATE MAINTENANCE, NEGLECT, ABUSE BY OWNER, OR INCIDENTS THAT ARE BEYOND CONTRACTOR'S CONTROL.
   - STRUCTURAL FAILURES INCLUDING PLANTINGS FALLING OR BLOWING OVER.
2. THE OWNERS OF PROPERTY SHALL BE RESPONSIBLE FOR ALL NATURAL AND PHYSICAL FEATURES REQUIRED BY CODE AND SHALL PRESERVE AND MAINTAIN THESE FEATURES IN HEALTHY GROWING CONDITIONS, REPLACE THEM WHEN NECESSARY, AND KEEP THE AREAS AROUND THEM FREE OF REFUSE AND DEBRIS IN A MANNER THAT PREVENTS REFUSE AND DEBRIS FROM WASHING ONTO PUBLIC RIGHTS-OF-WAY. FAILURE TO MAINTAIN ALL PLANTINGS IN ACCORDANCE WITH THIS PLAN MAY CONSTITUTE A VIOLATION OF THIS ORDINANCE AND MAY RESULT IN FINES. THE OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE VEGETATION, INCLUDING BUT NOT LIMITED TO:
   - FERTILIZATION
   - PRUNING WITHIN LIMITS
   - PEST CONTROL
   - MULCHING
   - MOWING
   - PROTECTION OF THE ROOT ZONES FROM EQUIPMENT, CONSTRUCTION AND RELATED MATERIALS, ETC.
   - METHOD OF IRRIGATION
   - OTHER CONTINUING MAINTENANCE OPERATIONS

RESIDENTIAL LANDSCAPING NOTES:

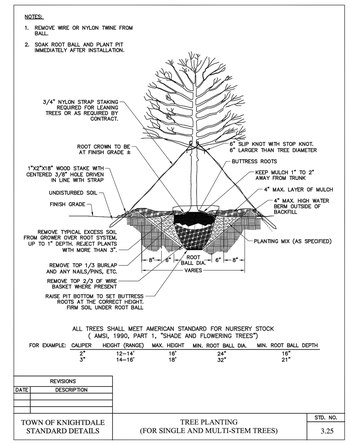
1. EACH SINGLE-FAMILY OR DUPLEX LOT SHALL CONTAIN A MINIMUM OF ONE CANOPY TREE FOR EVERY 2,000 SF OF LOT AREA OR FRACTION THEREOF UP TO 20,000 SF IN LOT AREA. ANY PORTION OF THE RESIDENTIAL LOT OCCUPIED BY A RECORDED UTILITY EASEMENT SHALL NOT BE INCLUDED AS PART OF THE TOTAL LOT AREA. THE LOCATION OF PLANTING TO ACCOUNT FOR PHYSICAL CONDITIONS MAY BE ADJUSTED BY THE ADMINISTRATOR.
2. THE USE OF EXISTING TREES MEETING THE FOLLOWING STANDARDS TO SATISFY THIS REQUIREMENT IS ENCOURAGED. EXISTING LARGE SHADE TREES MEASURING MORE THAN 6 INCHES IN DBH MAY BE COUNTED TOWARDS FULFILLING THIS REQUIREMENT.
3. REQUIRED STREET TREES MAY NOT BE COUNTED TOWARDS THE FULFILLMENT OF THE RESIDENTIAL LANDSCAPING REQUIREMENT. APART FROM REQUIRED STREET TREES, ALL OTHER TREES REQUIRED FOR RESIDENTIAL LANDSCAPING SHALL BE PLANTED WITHIN THE PRIVATE LOT.
4. FOUNDATION PLANTINGS CONSISTING OF EVERGREEN SHRUBS SHALL BE INSTALLED ALONG THE ENTIRE FOUNDATION WALL OF THE BUILDING. PLANT INSTALLATION SHALL BE A MINIMUM OF TWO FEET IN HEIGHT PLANTED AT FOUR FOOT INTERVALS.

PLANT SCHEDULE

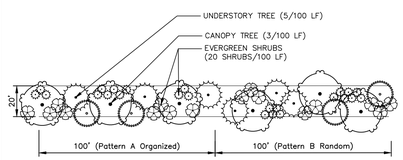
CANOPY TREES	CODE	QTY	COMMON NAME	BOTANICAL NAME	CAL	HEIGHT
	ASM	307	Sugar Maple	Acer saccharum	2" min	8` min
	PSC	282	Chinese Pistache	Pistacia chinensis	2" min	8` min
	QUA	310	Sawtooth Oak	Quercus acutissima	2" min	8` min
	TIA	39	American Linden	Tilia americana	2" min	8` min
	ULP	306	Lacebark Elm	Ulmus parvifolia	2" min	8` min
	ZKA	311	Sawleaf Zelkova	Zelkova serrata	2" min	8` min
UNDERSTORY TREES	**CODE**	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**CAL**	**HEIGHT**
	ACB	31	Trident Maple	Acer buergerianum	-	6` min
	KAP	25	Golden Rain Tree	Koelreuteria paniculata	1.5"	6` min
	LST	39	Natchez Crape Myrtle	Lagerstroemia indica x fauriei 'Natchez'	1.5"	
	PNO	20	Okame Flowering Cherry	Prunus x 'Okame'	1.5"	6` min
SHRUBS	**CODE**	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**SPREAD**	**HEIGHT**
	DIST	135	Blue Cascade Distylium	Distylium x 'PIIDIST-II' TM	18" min	
	ILCA	114	Heler Japanese Holly	Ilex crenata 'Helleri'	18" min	
	LRDF	183	Dark Fire Fringe Flower	Loropetalum chinense rubrum 'Dark Fire'	18" min	
	MAQM	178	Oregon Grape	Mahonia aquifolium	18" min	
	RHDA	165	Pink Lady Indian Hawthorn	Rhaphiolepis indica 'Pink Lady'	18" min	



01 SHRUB INSTALLATION
SCALE: 3/8"=1'-0"



TYPE 'B' BUFFER DETAIL



TYPE 'B' BUFFER - OPTION 1
NOT TO SCALE

PLANTING PERFORMANCE STANDARDS:

TYPE 'B' BUFFER
CREATE A SEMI–OPAQUE BUFFER FROM THE GROUND TO A HEIGHT OF 6' AND INTERMITTENT VISUAL OBSTRUCTION FROM A HEIGHT OF 6' UP TO A HEIGHT OF 30'. SHALL CONTAIN HORIZONTAL OPENINGS NO GREATER THAN 20' IN WIDTH FOR INTERMITTANT VISUAL OBSTRUCTION AND NO GREATER THAN 5' IN WIDTH FOR SEMI–OPAQUE SCREEN UPON THE PLANT'S MATURITY.

STREETSCAPE AND INTERNAL BUFFER PLANT SPECIES

CANOPY TREE SPECIES
(INSTALLED AT 2" CAL., 8' HT. MIN.)
LIRIODENDRON TULIPIFERA
LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'
NYSSA SYLVATICA
QUERCUS NUTTALLII
QUERCUS PHELLOS
QUERCUS RUBRA
PLATANUS OCCIDENTALIS
ZELKOVA SERRATA

EVERGREEN CANOPY TREE SPECIES
(INSTALLED AT 2" CAL. 8' HT. MIN.)
CEDRUS DEODORA
MAGNOLIA GRANDIFLORA
PINUS TAEDA
THUJA OCCIDENTALIS 'GREEN GIANT'

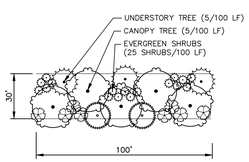
EVERGREEN SHRUB SPECIES
(INSTALLED AT 36" HT. MIN.)
CALLICARPA AMERICANA
ILEX CORNUTA 'NEEDLEPOINT' ILEX
GLABRA 'NIGRA'
ILEX CRENATA 'COMPACTA'
AZALEA HYBRIDS
ILLICIUM PARVIFOLIUM
MYRICA SP.
ILEX VOMITORIA 'NANA'
CAMELLIA SASANQUA
OSMANTHUS X FORTUNEI
PRUNUS CAROLINIANA
HYDRANGEA MACROPHYLLA

UNDERSTORY TREE SPECIES
(INSTALLED AT 1" CAL, 6' HT. MIN.)
CARPINUS CAROLINIANA
CERCIS CANADENSIS
CHIONANTHUS RETUSUS
CORNUS 'SPP'
ILEX OPACA 'CAROLINA #2'
ILEX X EMILY BRUNER'
ILEX VOMITORIA
JUNIPERUS VIRGINIANA
PISTACHIA CHINENSIS
VIBURNUM AWABUKI
VIBURNUM DENTATUM

NOTE: ADDITIONAL PLANTINGS TO BE ADDED IF PROVIDED PERFORMANCE STANDARD IS NOT ACHIEVED

NOTE: PLANTS SPECIES TO BE SELECTED AT CONSTRUCTION DRAWING PHASE. SPECIES AND QUANTITIES NOT SHOWN ON PLANT SCHEDULE.

TYPE 'C' BUFFER DETAIL



TYPE 'C' BUFFER - OPTION 1
NOT TO SCALE

PLANTING PERFORMANCE STANDARDS:

TYPE 'C' BUFFER
CREATE A SEMI–OPAQUE BUFFER FROM THE GROUND TO A HEIGHT OF 6' AND INTERMITTENT VISUAL OBSTRUCTION FROM A HEIGHT OF 6' UP TO A HEIGHT OF 30'. SHALL CONTAIN HORIZONTAL OPENINGS NO GREATER THAN 20' IN WIDTH FOR INTERMITTANT VISUAL OBSTRUCTION AND NO GREATER THAN 5' IN WIDTH FOR SEMI–OPAQUE SCREEN UPON THE PLANT'S MATURITY.

STREETSCAPE AND INTERNAL BUFFER PLANT SPECIES

CANOPY TREE SPECIES
(INSTALLED AT 2" CAL., 8' HT. MIN.)
LIRIODENDRON TULIPIFERA
LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'
NYSSA SYLVATICA
QUERCUS NUTTALLII
QUERCUS PHELLOS
QUERCUS RUBRA
PLATANUS OCCIDENTALIS
ZELKOVA SERRATA

EVERGREEN CANOPY TREE SPECIES
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MAGNOLIA GRANDIFLORA
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THUJA OCCIDENTALIS 'GREEN GIANT'

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AZALEA HYBRIDS
ILLICIUM PARVIFOLIUM
MYRICA SP.
ILEX VOMITORIA 'NANA'
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OSMANTHUS X FORTUNEI
PRUNUS CAROLINIANA
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(INSTALLED AT 1" CAL, 6' HT. MIN.)
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ILEX OPACA 'CAROLINA #2'
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JUNIPERUS VIRGINIANA
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NOTE: ADDITIONAL PLANTINGS TO BE ADDED IF PROVIDED PERFORMANCE STANDARD IS NOT ACHIEVED

NOTE: PLANTS SPECIES TO BE SELECTED AT CONSTRUCTION DRAWING PHASE. SPECIES AND QUANTITIES NOT SHOWN ON PLANT SCHEDULE.

McADAMS
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SUNCREST Real Estate & Land

BRIO
MASTER PLAN
1700 OLD CREWS ROAD
KNIGHTDALE. NORTH CAROLINA

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT JOSHUA A. DECKER NO. 1770 FOR PRELIMINARY REVIEW ONLY NOT RELEASED FOR CONSTRUCTION

REVISIONS

NO.	DATE	
1	04. 29. 2022	PER TOWN COMMENTS
2	07. 01. 2022	PER TOWN COMMENTS

PLAN INFORMATION

PROJECT NO.	2020110062
FILENAME	2020110062-LS1
CHECKED BY	RCA
DRAWN BY	RLU
SCALE	1"=50'
DATE	03. 28. 2022

SHEET

LANDSCAPE NOTES AND DETAILS
L5.14

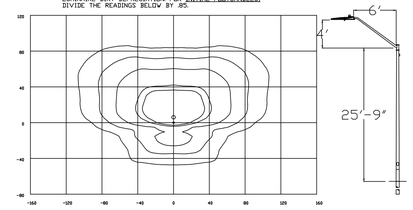
PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

M:\Projects\SUC\2020110062\04-Production\Engineering\Master Plan\Current Drawing\2020110062-LS1.dwg, 7/1/2022 11:37:53 AM, Taylor Allen

ISOFOOTCANDLE CURVES

FIXTURE: LED 150 - AEL
MOUNTING HEIGHT: 30 FT
LIGHT SOURCE: 40 LED'S, 4000K, 70 CRI
LUMENS = 16192
PATTERN: TYPE III, B3-U0-G3(zero light at or above 90 degrees)
NOTE: THE FOOTCANDLE READINGS BELOW ARE MAINTAINED AND HAVE BEEN DEPRECIATED FOR LED LUMEN DEPRECIATION AND LUMINAIRE DIRT DEPRECIATION FOR INITIAL FOOTCANDLES. DIVIDE THE READINGS BELOW BY .85.

ASSY# LFIX-RW-LED-150-GRAY-III-MULTIV-___-P
POLE ASSY# LPOLE-DB-FG-30FT-GRAY-___-P (GRAY)



LEGEND (OUTER to INNER): 0.10 , 0.25 , 0.50 , 1.00 , 1.25

Schedule

Symbol	Label	Quantity	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor
	150A	XX	LED 150w Roadway - Type III - 4000K	1	16192	0.85

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SUNCREST Real Estate & Land

BRIO
MASTER PLAN
1700 OLD CREWS ROAD
KNIGHTDALE, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 33828 ENGINEER RYAN C. AYERS
NOT FOR CONSTRUCTION

REVISIONS

NO.	DATE	
1	04. 29. 2022	PER TOWN COMMENTS
2	07. 01. 2022	PER TOWN COMMENTS

PLAN INFORMATION

PROJECT NO.	2020110062
FILENAME	2020110062-LI1
CHECKED BY	RCA
DRAWN BY	RLU
SCALE	1"=300'
DATE	03. 28. 2022

SHEET

LIGHTING PLAN
L6.00

GRAPHIC SCALE
0 150 300 600
1 inch = 300 ft.

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

M:\Projects\SUC\2020110062\04-Production\Engineering\Master Plan\Current Drawings\2020110062-LI1.dwg, 7/1/2022 1:34:58 PM, Rich Updegrove