Amy Harvey

From: Maurice Jones
Sent: Wednesday, October 07, 2020 4:38 PM
To: Allen Buansi; Amy Ryan; Hongbin Gu; Jess Anderson; Karen Stegman; Michael Parker; Pam Hemminger; Tai Huynh; Town Council
Cc: Flo Miller; Mary Jane Nirdlinger; Ross Tompkins; Lance Norris; Jeanne Brown; Amy Harvey
Subject: FW: Revised Municipal Services Center: Concept Design Presentation
Attachments: 9880-25-0693, 9880-15-7586 stream determ 9-22-2020.pdf; MSCrevisedRCD.tif

Mayor and Council,

Just wanted to pass along some additional information pertaining to the MSC Concept Plan discussion.

All the Best,
Maurice

From: Mary Jane Nirdlinger <mnirdlinger@townofchapelhill.org>
Sent: Wednesday, October 7, 2020 4:17 PM
To: Maurice Jones <mjones@townofchapelhill.org>; Ross Tompkins <rtompkins@townofchapelhill.org>
Cc: JABE HUNTER <JHUNTER@townofchapelhill.org>
Subject: Revised Municipal Services Center: Concept Design Presentation

Maurice,
Tonight, our design team will share a revised concept layout with the Council showing the RCD limits, which have shifted based on our stream determination (attached).
Mary Jane

Mary Jane Nirdlinger, AICP | she/her/hers (What's this?) | Assistant Town Manager | Town of Chapel Hill
405 Martin Luther King Jr. Blvd | Chapel Hill, NC 27514
Phone: 919-968-2739 Cell: 919-619-4956
In keeping with the NC Public Records Act, e-mails, and all attachments, may be released to others upon request for inspection and copying without prior notification.

PUBLIC WORKS DEPARTMENT
STORMWATER MANAGEMENT DIVISION
405 Martin Luther King, Jr. Blvd.
Chapel Hill, NC 27514-5705
Telephone (919) 969-7246
Fax (919) 969-7276
www.townofchapelhill.org

September 28, 2020

Mr. Raymond Bentley Ruggles
Dewberry
2610 Wycliff Road
Raleigh, NC 27607
bruggles@dewberry.com

RE: Stream Determination for 101-111 Weaver Dairy Road Extension, Chapel Hill, NC (Town of Chapel Hill Fire Station 4 & Fire Training Center) PINs 9880-25-0693 & 9880-15-7586

Dear Mr. Ruggles:

As requested, the Town Public Works Department has performed a stream determination for the property identified on the attached forms. This determination indicates whether different types of streams (perennial, intermittent, and/or ephemeral) or perennial waterbodies are present on the property in question or on nearby properties. These streams and their classifications are shown on the accompanying area map. Stream segments regulated by the Town's Jordan Lake Watershed Riparian Buffer regulations are highlighted. **Locations of all features on the map are approximate and must be field surveyed for precise location.**

This stream determination information is used to determine the location and extent of the Resource Conservation District (RCD) and Jordan Lake Watershed Riparian Buffers. Specific land use regulations and restrictions apply within the boundaries of these protected areas. If you are considering any kind of work on this property, including clearing vegetation, paving, grading, or building, please consult with the Town Planning Department to determine the possible extent of the Resource Conservation District (RCD) and Jordan Lake Watershed Riparian Buffer on this property and the applicable corresponding regulations.

This stream determination will remain in effect for five years from the date of the site visit, after which a new stream determination with site visit will be required.

In accordance with the Town's procedures, you may appeal this administrative decision to the Town Manager. If you wish to do so, you must file your written appeal accompanied by any materials you believe support your appeal, within **30 days** of receipt of this letter.

If you have questions regarding stream determinations, please contact me at (919) 969-7202 or aweakley@townofchapelhill.org. If you have questions regarding the Town's Resource Conservation District (RCD) or the Jordan Watershed Riparian Buffer regulations, please contact the Planning Department at (919) 968-2728, or view information online at: http://www.townofchapelhill.org/stormwater.

Sincerely,

Allison Weakley

Allison Schwarz Weakley
Stormwater Analyst

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STORMWATER MANAGEMENT DIVISION
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Chapel Hill, NC 27514-5705
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www.townofchapelhill.org

STREAM DETERMINATION SITE VISIT RESULTS

Property Information	
Parcel ID Number (PIN)	**Address / Location Description**
9880-25-0693 & 9880-15-7586	101-111 Weaver Dairy Road Extension, Chapel Hill Town of Chapel Hill Fire Station 4 & Fire Training Center

These are the results of a site visit to the property(ies) listed above for a stream determination conducted on 9/22/2020 by Town Staff:

☐ No perennial, intermittent, or ephemeral streams or perennial waterbodies were identified on or near the property(ies) in question.

☒ Perennial, intermittent, or ephemeral streams, or perennial waterbodies, were identified on or near the property(ies) in question and are shown on the attached map(s).

A map showing water features, their Town flow classifications, presence of Jordan Watershed Riparian Buffers, and their approximate locations is attached. *Note that Resource Conservation District (RCD) buffers may also apply but are not shown.* Origins or breakpoints that have been flagged in the field are marked on the map. Stream classification forms and additional site visit notes and maps are also attached.

Other conditions exist which may affect the location of the Resource Conservation District (RCD) or Jordan Watershed Riparian Buffer:

☐ FEMA floodzone is mapped in the area. Precise location of the Base Flood Elevation and associated RCD must be determined by a field survey commissioned by the owner or a representative.

☒ Segments of perennial or intermittent stream are piped in the area, as shown on the map. These segments do not have an associated Jordan Watershed Riparian Buffer, but do have an associated buffer if the RCD applies.

☒ Possible Jurisdictional Wetlands have been identified in the area. A formal review by a professional certified in Jurisdictional Wetland Delineation is recommended if impacts to wetlands are anticipated.

Allison Weakley

Town Staff Signature

9/28/2020
Date

Stream Determination Area Map

- Ephemeral Stream
- Intermittent Stream
- Perennial Stream
- Culverts
- 2-foot Contours
- 10-foot Contours
- Buildings
- Parcels
- OWASA Easements
- Approximate Jordan Buffer
- Subject Property
- Ephemeral Breakpoint
- Intermittent Breakpoint
- Perennial Breakpoint

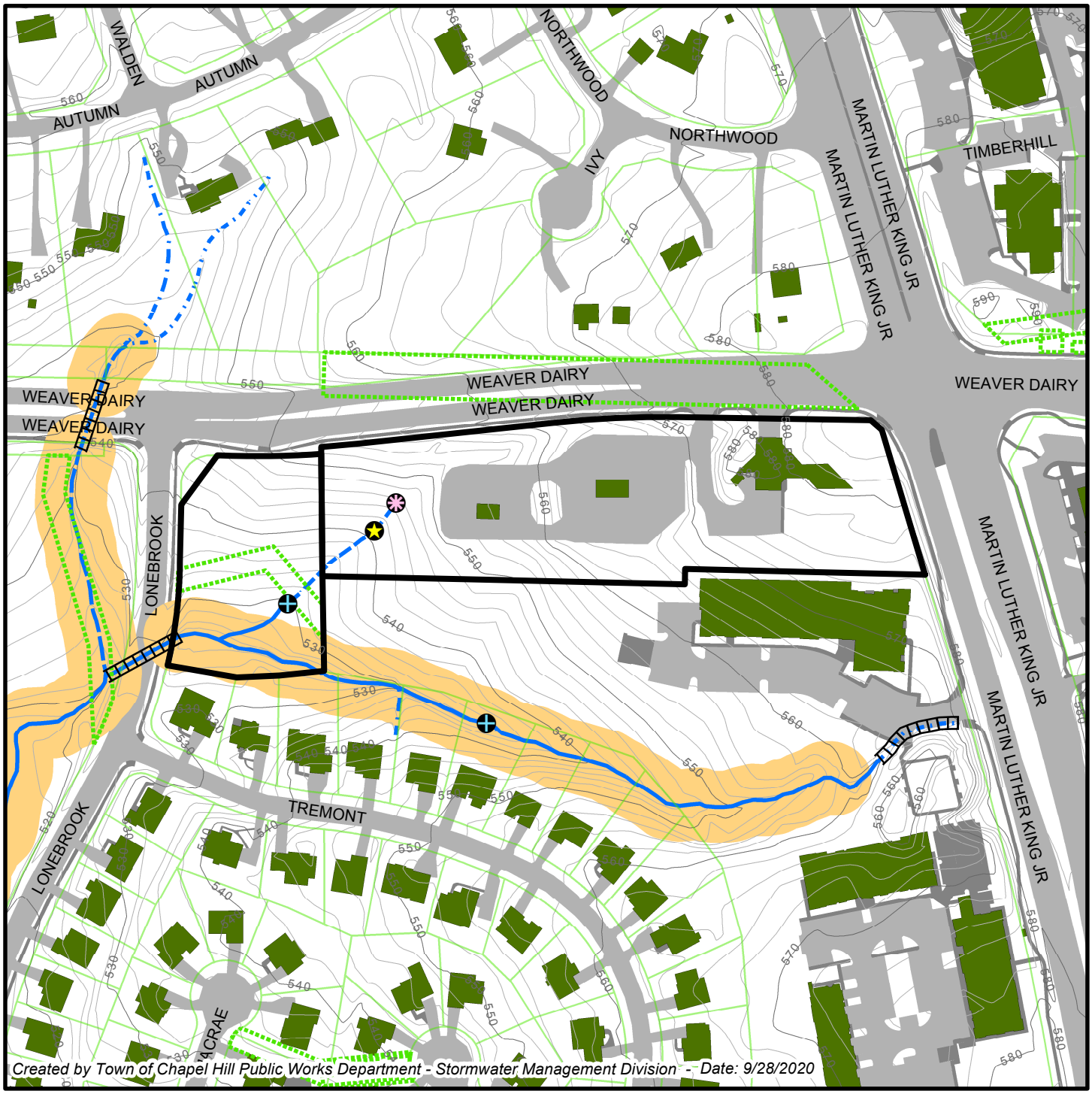
Address: 101-111 Weaver Dairy Ext, Chapel Hill, NC

Parcel ID: 9880-25-0693, 9880-15-7586

0 100 200 400 Feet

1 inch = 200 feet

Stream locations are approximate and must be verified by survey. Buffers are measured from top of bank. RCD buffers may apply. Please contact the Town of Chapel Hill Planning Department to verify.



Created by Town of Chapel Hill Public Works Department - Stormwater Management Division - Date: 9/28/2020

USGS 24K Topographic / County Soil Survey Maps

Subject Property

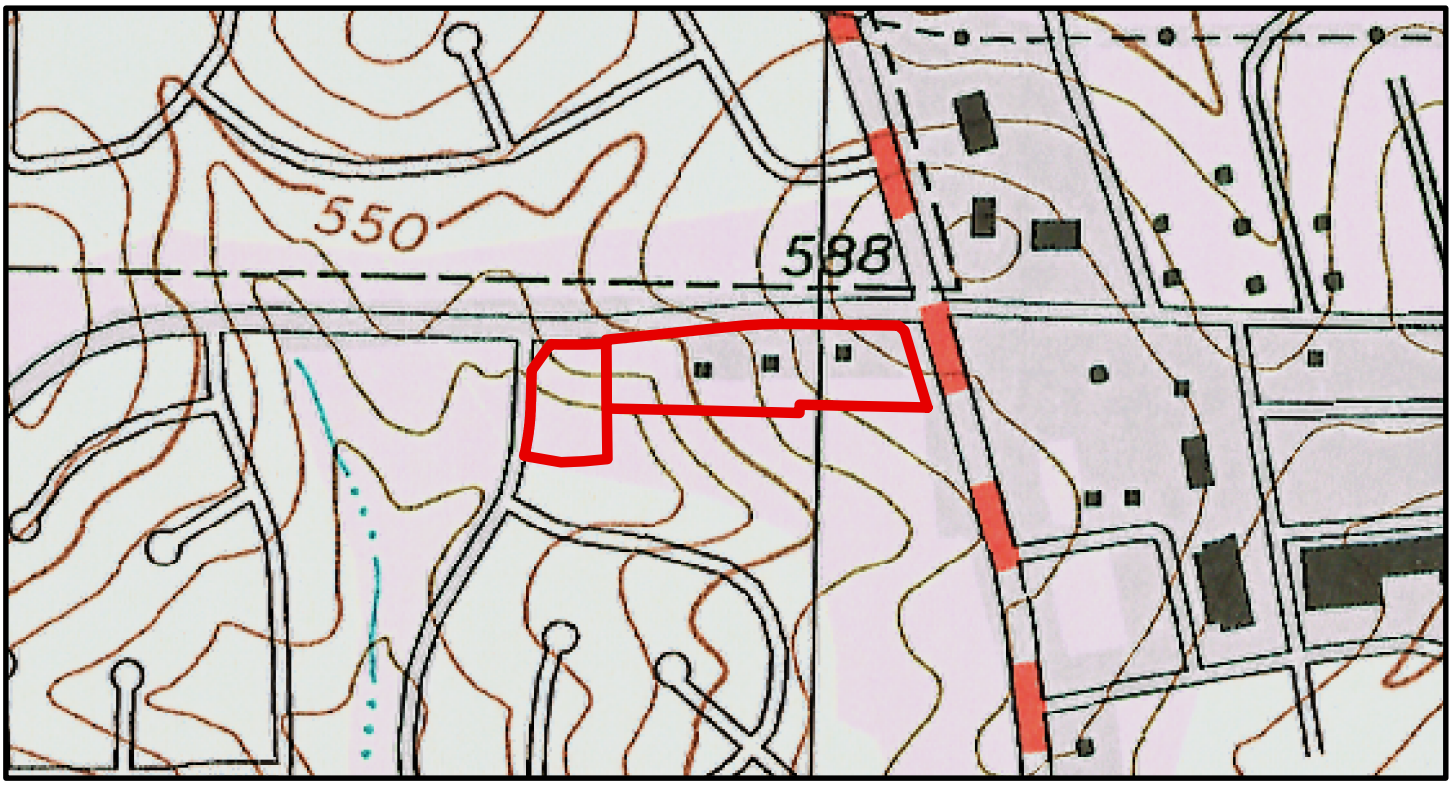
0 150 300 450 600 Feet

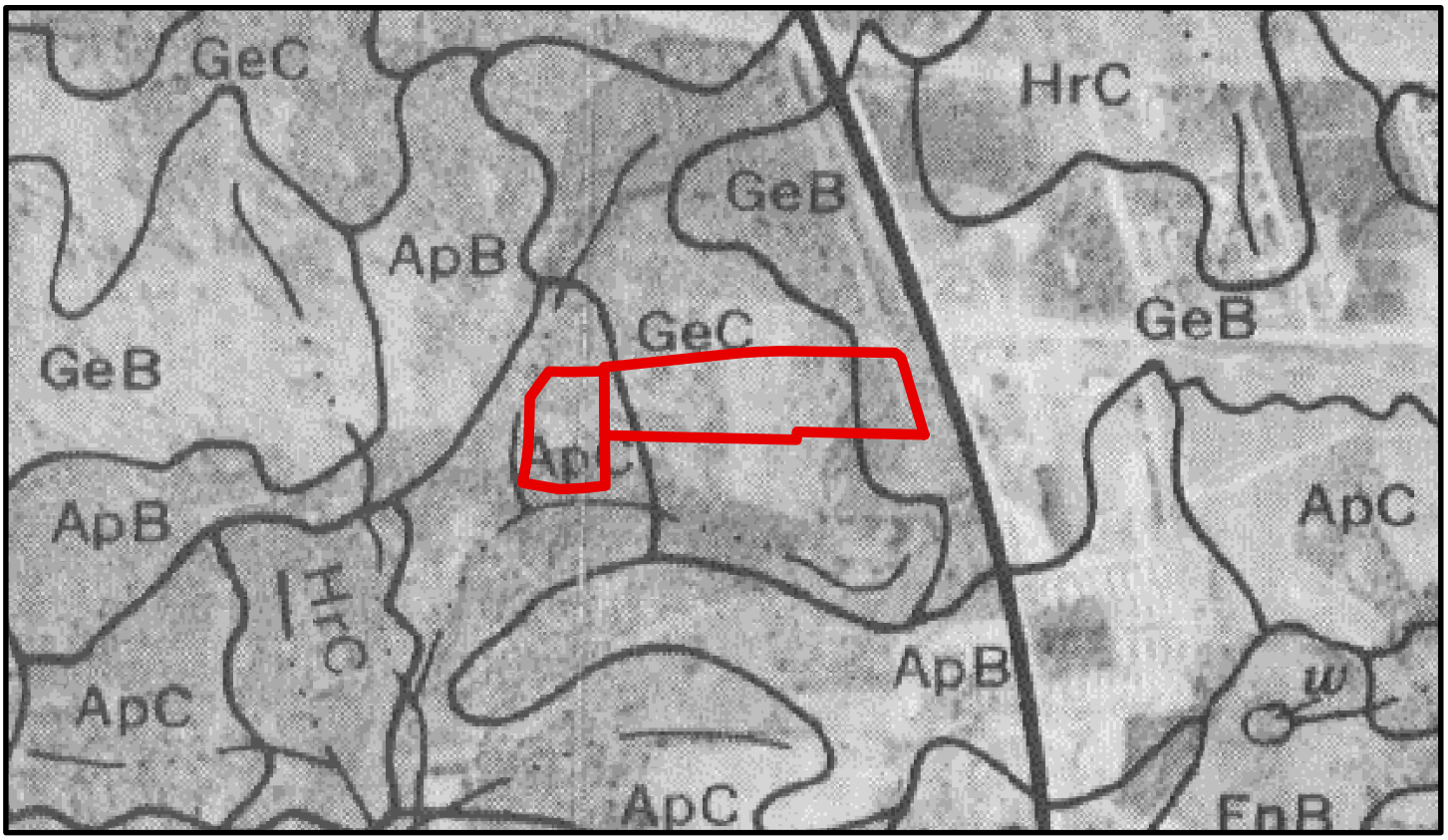
1 inch = 500 feet

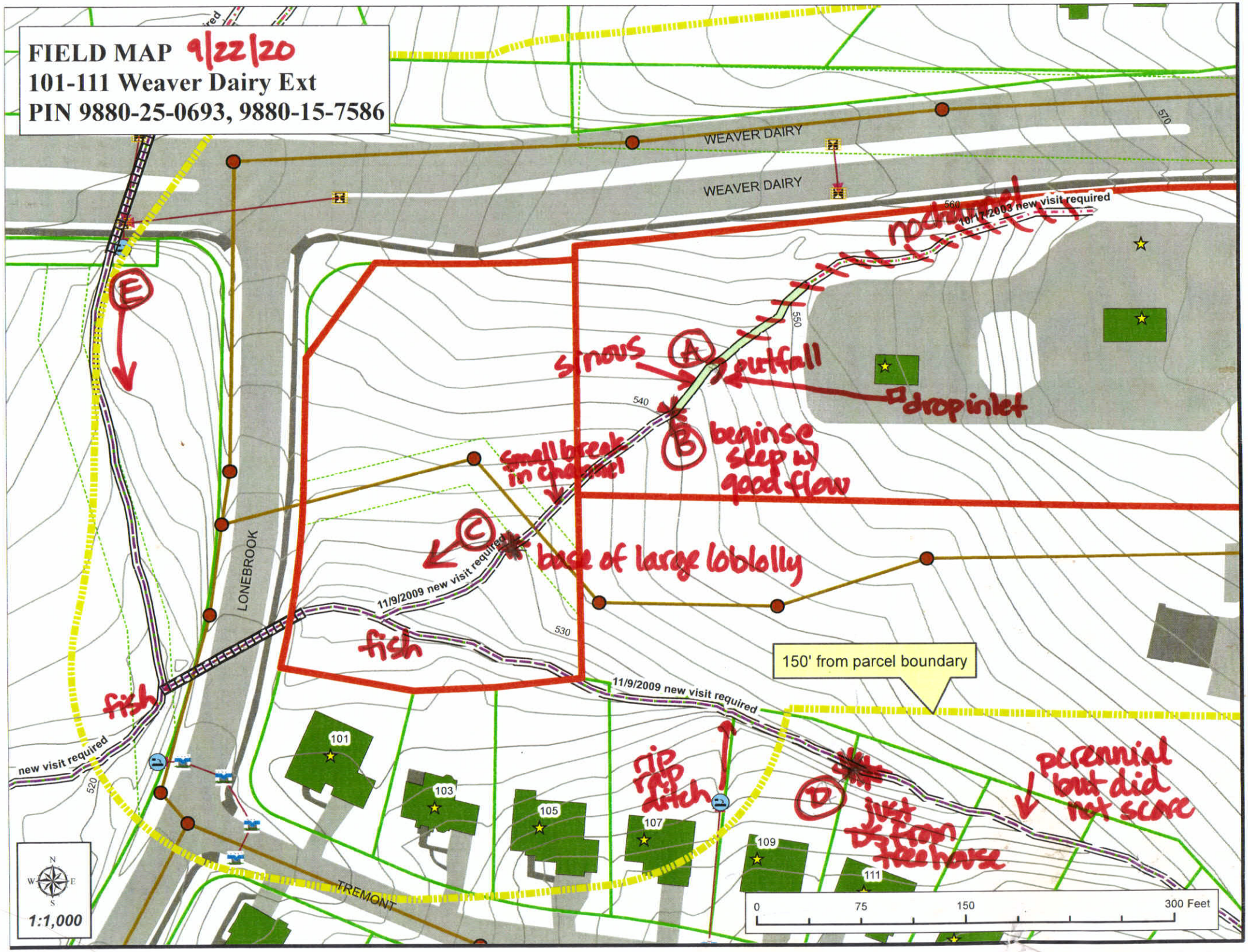
Address: 101-111 Weaver Dairy Ext, Chapel Hill, NC

Parcel ID: 9880-25-0693 & 9880-15-7586

Created by Town of Chapel Hill Public Works Department - Stormwater Management Division- 9/25/2020






FIELD MAP 9/22/20
101-111 Weaver Dairy Ext
PIN 9880-25-0693, 9880-15-7586
WEAVER DAIRY
WEAVER DAIRY
LONEBROOK
TREMONT
11/9/2009 new visit required
11/9/2009 new visit required
11/9/2009 new visit required
new visit required
150' from parcel boundary
101
103
105
107
109
111
570
560
550
540
530
520
sinous
A
outfall
drop inlet
B
beginse step w/ good flow
small break in channel
C
base of large loblolly
fish
fish
D
just ~~D~~ from treehouse
perennial but did not score
rip rap ditch
E
N
W
E
S
1:1,000
0
75
150
300 Feet

202009220942

Feature (A)

NC DWQ Stream Identification Form Version 4.11

Date: 9/22/20	Project/Site: 10/111 Weaver Dairy Ext	Latitude: 35.9635
Evaluator: Weakley & Neumann	County: Orange	Longitude: 79.0608
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 9	**Stream Determination (circle one)** Ephemeral Intermittent Perennial	**Other** *e.g. Quad Name:*

A. Geomorphology (Subtotal = 5)	Absent	Weak	Moderate	Strong
1[a] Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

[a] artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 2)				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = 2)				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other = 0			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch: Feature begins @ pipe outfall (from fire training center). Lots of broken glass deposited in channel/flow path.

(*) Maps do not accurately depict sinousity

202009220954

NC DWQ Stream Identification Form Version 4.11

Feature (B)

Date: 9/22/20	Project/Site: 101-111 Weaver Dairy Ext	Latitude: 35.9634
Evaluator: Weakley & Neumann	County: Orange	Longitude: -79.0609
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 24.5	**Stream Determination (circle one)** Ephemeral Intermittent Perennial	**Other** *e.g. Quad Name:*

A. Geomorphology (Subtotal = 9)	Absent	Weak	Moderate	Strong
1[a] Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate lots of sand	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

[a] artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 9.5)				
12. Presence of Baseflow active flow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = 6)				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed on banks	FACW = 0.75; OBL = 1.5 Other = 0			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes: crayfish, predaceous diving beetle

Sketch: Feature begins @ grade control/seep (flagged).

20200922 1014

Feature (C)

NC DWQ Stream Identification Form Version 4.11

Date: 9/22/20	Project/Site: 101-111 Weaver Dairy Ext	Latitude: 35.9631
Evaluator: Weakley & Neumann	County: Orange	Longitude: -79.0613
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 30	**Stream Determination (circle one)** Ephemeral Intermittent Perennial	**Other** *e.g. Quad Name:*

A. Geomorphology (Subtotal = 12)	Absent	Weak	Moderate	Strong
1[a] Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate lots of sand & gravel deposition	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

[a] artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 9.5)				
12. Presence of Baseflow active flow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = 8.5)				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed microstegium on sand/gravel bar	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed on banks	FACW = 0.75; OBL = 1.5 Other = 0			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes: tadpoles abundant, crayfish, Gomphidae dragonfly

Sketch: Feature begins @ base of large loblolly (flagged) on W side of sewer easement.

Flow goes underground in lower reach

202009221059

NC DWQ Stream Identification Form Version 4.11

Feature (D)

Date: 9/22/20	Project/Site: 101-111 Weaver Dairy Ext	Latitude: 35.9627
Evaluator: Weakley & Neumann	County: Orange	Longitude: -79.0604
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 34.5	**Stream Determination (circle one)** Ephemeral Intermittent Perennial	**Other** *e.g. Quad Name:*

A. Geomorphology (Subtotal = 15.5)	Absent	Weak	Moderate	Strong
1[a] Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg lower reach	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence moderate	0	1	2	3
4. Particle size of stream substrate sand, gravel, boulders	0	1	2	3
5. Active/relict floodplain lots of silt	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

[a] artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 10)				
12. Presence of Baseflow active flow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = 9)				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed on banks	FACW = 0.75; OBL = 1.5 Other = 0			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes: larval Salamander (I), crayfish (III), fish in lower reach abundant

Sketch:

20200922113

Feature (E)

NC DWQ Stream Identification Form Version 4.11

Date: 9/22/20	Project/Site: 101-111 Weaver Dairy Ext	Latitude: 35.9637
Evaluator: Weakley & Meumann	County: Orange	Longitude: -79.0623
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 21.5	**Stream Determination (circle one)** Ephemeral Intermittent Perennial	**Other** *e.g. Quad Name:*

A. Geomorphology (Subtotal = 9.5)	Absent	Weak	Moderate	Strong
1[a] Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain lower reach	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

[a] artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 4+3)				
12. Presence of Baseflow pool	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = 5)				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other = 0 none			

*perennial streams may also be identified using other methods. See p. 35 of manual.

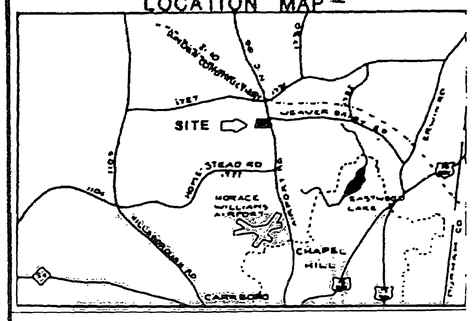
Notes:

Sketch: Feature begins @ pipe outfall S of Weaver Dairy Rd Ext/W of Lonebrook. Deep channel.

Book 50 Page 2

RECEIVED
1988 APR 15 AM 11:28
ORANGE CTY. LAND RECORDS

LOCATION MAP



LEGEND

- E.I.P.
- COMPUTED POINT
- N.C.G.S. (WELL)
- IRON PIN TO BE SET
- AREA TO BE DEDICATED BY TOWN OF CHAPEL HILL TO N.C.D.O.T. FOR PUBLIC STREET RIGHT-OF-WAY
- AREA TO REMAIN AS TOWN OF CHAPEL HILL PUBLIC STREET RIGHT OF WAY.
- TOWN OF CHAPEL HILL PUBLIC STREET RIGHT-OF-WAY TO BE DEDICATED TO N.C.D.O.T.

REFERENCES: PB. 24–169
PB. 44–60
DB. 256–1420
DB. 617–209
DB. 142–56

NOTES:

1. GRID COORDS FOR: "WELL"
   N = 805,798.62
   E = 1,982,656.94 (1927 N.A.D.)
2. COMBINED GRID FACTOR
   .99991070
3. HORIZONTAL GROUND DISTANCES SHOWN.

OWNER DEDICATION

KNOW ALL MEN BY THESE PRESENTS, THAT (I OR WE) HERBY ACKNOWLEDGE THIS PLAT'S ALLOTMENT TO BE (MY OR OUR) FREE ACT & DEED AND THAT (I OR WE) DO HERBY DEDICATE TO PUBLIC USE AS PUBLIC RIGHT OF WAY ALL AREAS SO SHOWN OR INDICATED ON SAID PLAT.

David R Taylor 4-13-88
DAVID TAYLOR (TOWN MANAGER)

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED SUBDIVISION ROAD
CONSTRUCTION STANDARDS CERTIFICATION
APPROVED _____ DISTRICT ENGINEER
DATE April 12, 1988

SURVEYOR'S CERTIFICATE

I, Thomas Ramsey CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN BOOK 256, PAGE 1420; THAT THE ERROR OF CLOSURES AS CALCULATED BY LATITUDES AND DEPARTURES IS 1:10,000; THAT THE BOUNDARIES NOT SURVEYED ARE SHOWN AS BROKEN LINES PLOTTED FROM INFORMATION FOUND IN REFERENCES AS NOTED; THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED.

WITNESS MY ORIGINAL SIGNATURE, REGISTRATION NUMBER, AND SEAL THIS 31 DAY OF MARCH, 19 88

Thomas Ramsey
SURVEYOR
L-2871
REGISTRATION NUMBER

NORTH CAROLINA REGISTERED SEAL L-2871 LAND SURVEYOR THOMAS L. RAMSEY

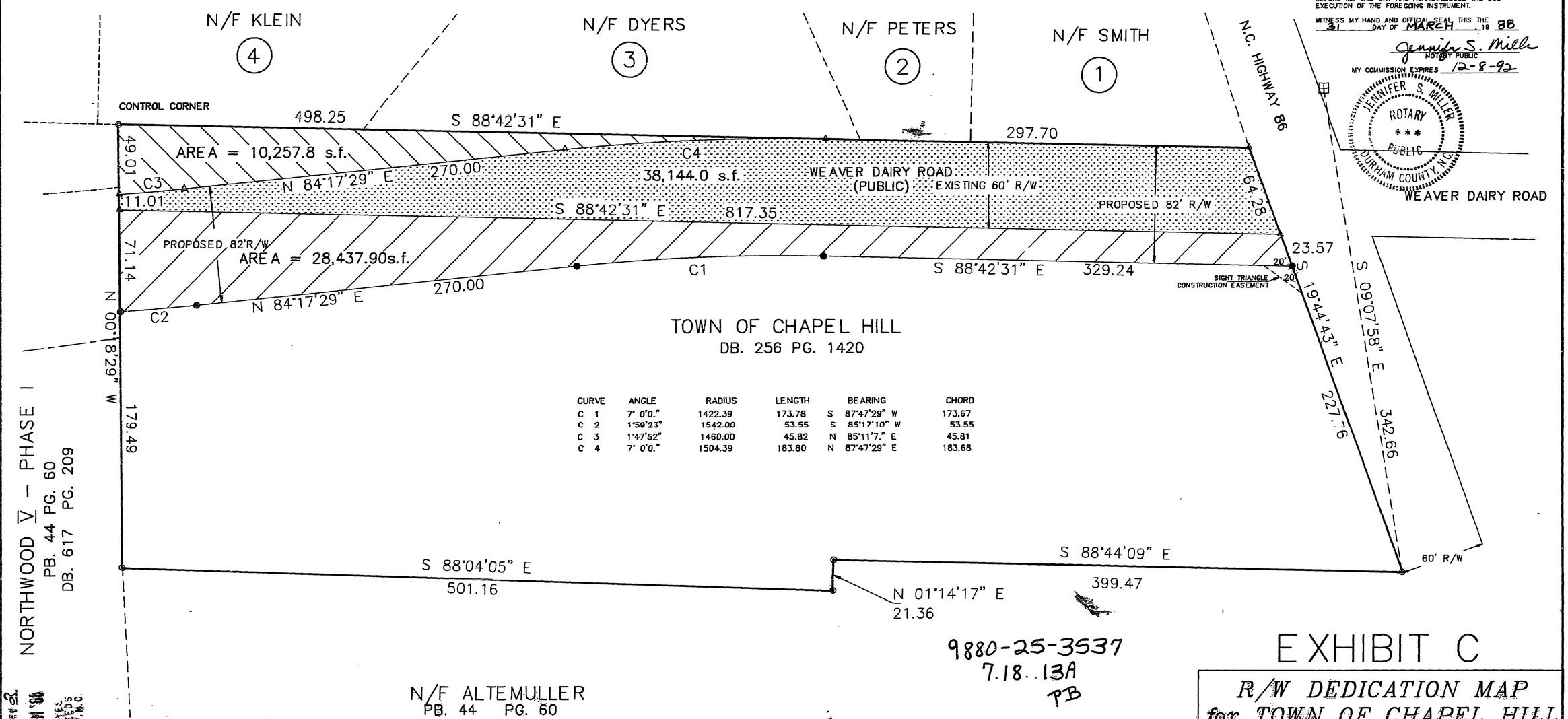
NORTH CAROLINA
Durham COUNTY

I, Jennifer S. Miller A NOTARY PUBLIC FOR SAID COUNTY AND STATE, DO HEREBY CERTIFY THAT Thomas Ramsey PERSONALLY APPEARED BEFORE ME THIS DAY AND ACKNOWLEDGED THE DUE EXECUTION OF THE FOREGOING INSTRUMENT.

WITNESS MY HAND AND OFFICIAL SEAL THIS THE 31 DAY OF MARCH 19 88

Jennifer S. Miller
NOTARY PUBLIC
MY COMMISSION EXPIRES 12-8-92

JENNIFER S. MILLER NOTARY PUBLIC DURHAM COUNTY, N.C.



CURVE	ANGLE	RADIUS	LENGTH	BEARING	CHORD
C 1	7° 0'0."	1422.39	173.78	S 87°47'29" W	173.67
C 2	1°59'23"	1542.00	53.55	S 85°17'10" W	53.55
C 3	1°47'52"	1460.00	45.82	N 85°11'7." E	45.81
C 4	7° 0'0."	1504.39	183.80	N 87°47'29" E	183.68

9880-25-3537
7.18..13A
PB

REVISED:
2/25/1988
3/10/1988
3/21/1988

EXHIBIT C

R/W DEDICATION MAP
for TOWN OF CHAPEL HILL
CHAPEL HILL TWP. ORANGE CO., N.C.
NOVEMBER 1987 SCALE: 1" = 50'

BALLENTINE ASSOCIATES, P.A.
221 PROVIDENCE ROAD
CHAPEL HILL, N.C. 27514
(919) 929-0481 & 489-4789
CONSULTING ENGINEERS

FILED
BOOK 50 PAGE 2
APR 15 11:45 AM '88
BETTY JUNE HAYES
REGISTER OF DEEDS
ORANGE COUNTY, N.C.

NORTH CAROLINA-ORANGE COUNTY
The foregoing certificate(s) of
Jennifer S. Miller
Notary Public of the designated governmental units is/xxx certified to be correct.
Filed for registration on the 15 day of April 19 88 at 11:45 o'clock AM., in Book 50 Page 2,
This the 15 day of April, 19 88
Betty June Hayes, Register of Deeds
By: Bernice B. Hansen Asst/Deputy

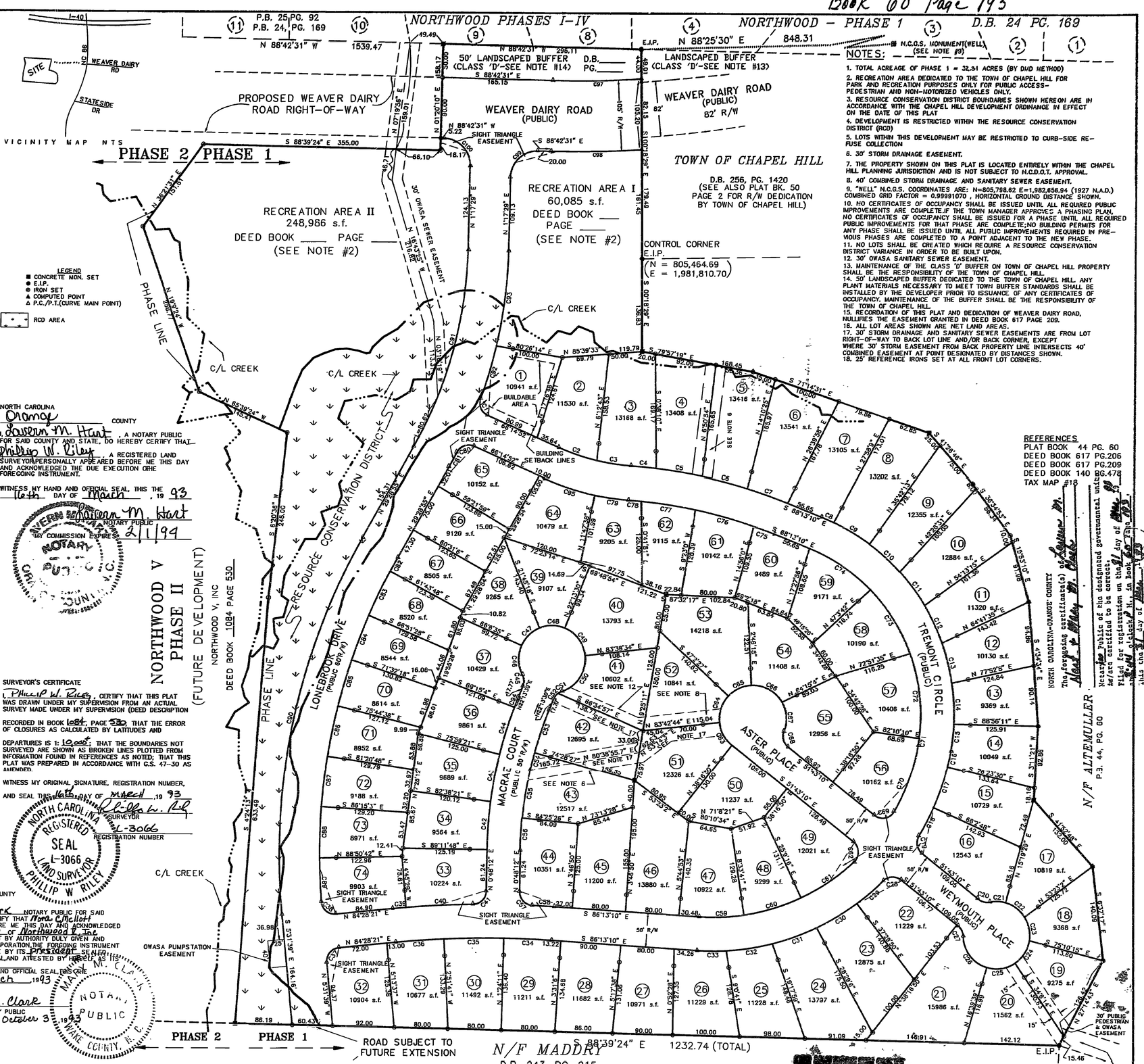
306 N Columbia St.

Book 50 Page 2

19880415000042370
50/2

Book 60 Page 193

CURVE	ANGLE	RADIUS	LENGTH	BEARING	CHORD
C 1	86°18'51"	20.00	30.13	S 23° 5'26" E	27.36
C 2	10°34'40"	325.00	60.00	S 71°32'12" E	59.92
C 3	9° 9'50"	325.00	51.98	S 81°24'27" E	51.93
C 4	2°45'26"	777.33	37.41	S 84°36'38" E	37.41
C 5	5° 9'35"	777.33	70.00	S 80°39'7." E	69.98
C 6	5° 9'35"	777.33	70.00	S 75°29'32" E	69.98
C 7	4°41'35"	777.33	63.67	S 70°33'59" E	63.65
C 8	3°35'25"	315.20	19.75	S 68°25'26" E	19.75
C 9	11°10'58"	315.20	61.52	S 59° 2'14" E	61.42
C 10	11°10'51"	315.20	61.51	S 47°51'21" E	61.41
C 11	11°11'7."	315.20	61.53	S 36°40'22" E	61.44
C 12	11°10'50"	315.20	61.51	S 25°29'23" E	61.41
C 13	11°10'41"	315.20	61.49	S 14°18'37" E	61.40
C 14	11°10'21"	315.20	61.46	S 3° 8' 6" E	61.36
C 15	7°19'45"	315.20	40.32	S 6° 6'56" W	40.29
C 16	3°49'40"	360.00	24.05	S 11°41'40" W	24.05
C 17	10°20'42"	360.00	65.00	S 18°46'50" W	64.91
C 18	7°31'34"	360.00	47.29	S 27°42'59" W	47.25
C 19	83°11'56"	20.00	29.04	S 10° 7'11" E	26.56
C 20	56°42'7."	20.00	19.79	S 73°48'30" E	18.99
C 21	27° 2'19"	50.00	23.60	S 88°11'42" E	23.38
C 22	41°59'59"	50.00	36.65	S 53°40'30" E	35.84
C 23	42° 0'0."	50.00	36.65	S 11°40'30" E	35.84
C 24	46°34'15"	50.00	40.64	S 32°36'36" W	39.53
C 25	50°45'54"	50.00	44.30	S 81°16'42" W	42.87
C 26	71°36'52"	50.00	62.50	N 37°31'54" W	58.51
C 27	49°59'41"	20.00	17.45	N 26°43'19" W	16.90
C 28	83°11'56"	20.00	29.04	S 86°40'51" W	26.56
C 29	8°19'17"	360.00	52.29	S 49°14'32" W	52.24
C 30	11° 8'27"	360.00	70.00	S 58°58'24" W	69.89
C 31	11° 8'27"	360.00	70.00	S 70° 6'51" W	69.89
C 32	11° 8'27"	360.00	70.00	S 81°15'18" W	69.89
C 33	6°57'18"	360.00	43.70	N 89°41'49" W	43.67
C 34	2°51'28"	1439.01	71.78	N 87°38'54" W	71.77
C 35	3°35'0."	1439.01	90.00	S 89° 7'50" W	89.98
C 36	2°52'0."	1439.01	72.00	S 85°54'21" W	71.99
C 37	90° 0'1."	20.00	31.42	S 39°28'21" W	28.28
C 38	90°51'18"	20.00	31.71	S 50° 5'59" E	28.49
C 39	0°46'10"	1489.01	20.00	N 84°51'27" E	20.00
C 40	3°51'9."	1489.01	100.12	N 87°10'5." E	100.10
C 41	88°17'28"	20.00	30.82	N 44°56'56" E	27.86
C 42	6°33'27"	625.00	71.53	N 4° 4'55" E	71.49
C 43	6°39'0."	625.00	72.54	N 10°41'9." E	72.50
C 44	6°44'38"	625.00	73.57	N 17°22'59" E	73.52
C 45	49°59'41"	20.00	17.45	N 2°46'20" W	16.90
C 46	51°39'36"	50.00	45.08	N 1°56'22" W	43.57
C 47	44°21'14"	50.00	38.71	N 46° 4'6." E	37.75
C 48	43°58'49"	50.00	38.38	S 89°45'58" E	37.44
C 49	61°26'3."	50.00	53.61	S 37° 3'24" E	51.08
C 50	78°33'38"	50.00	68.56	S 32°56'19" W	63.31
C 51	19° 8'5."	20.00	6.68	S 62°39'8." W	6.65
C 52	30°51'35"	20.00	10.77	S 37°39'18" W	10.64
C 53	6°41'58"	575.00	67.23	S 18°52'30" W	67.19
C 54	2°41'26"	575.00	27.00	S 14°10'49" W	27.00
C 55	7°15'31"	575.00	72.85	S 9°12'19" W	72.80
C 56	4°46'21"	575.00	47.90	S 3°11'23" W	47.88
C 57	88°17'28"	20.00	30.82	S 43°20'32" E	27.86
C 58	1°16'5."	1489.01	32.96	S 86°51'12" E	32.96
C 59	12°20'31"	310.00	66.78	N 87°36'34" E	66.65
C 60	16°35'34"	310.00	89.78	N 73° 8'31" E	89.46
C 61	17°38'17"	310.00	95.43	N 56° 1'35" E	95.06
C 62	98°55'36"	20.00	34.53	N 2°15'21" W	30.40
C 63	45°25'54"	50.00	39.65	N 29° 0'12" W	38.62
C 64	49°14'48"	50.00	42.98	N 18°20'8." E	41.67
C 65	44°16'12"	50.00	38.63	N 65° 5'36" E	37.68
C 66	62°37'46"	50.00	54.65	S 61°27'22" E	51.97
C 67	51°49'13"	50.00	45.22	S 4°13'52" E	43.70
C 68	73°23'54"	20.00	25.62	S 15° 1'12" E	23.90
C 69	98°55'36"	20.00	34.53	N 78°49'1." E	30.40
C 70	19°34'23"	310.00	105.90	N 19°34'1." E	105.39
C 71	2°16'45"	285.20	10.55	N 8°38'26" E	10.55
C 72	27°36'58"	285.20	127.83	N 6°18'24" W	126.59
C 73	24°21'29"	285.20	112.74	N 32°17'38" W	111.90
C 74	23°44'47"	285.20	109.91	N 56°20'47" W	109.13
C 75	2°40'8."	727.33	33.88	N 69°33'17" W	33.88
C 76	7° 8'11"	727.33	90.59	N 74°27'23" W	90.53
C 77	6°27'57"	727.33	82.08	N 81°15'28" W	82.04
C 78	1°29'55"	727.33	19.02	N 85°14'24" W	19.02
C 79	7°46'59"	375.00	50.94	N 82° 5'52" W	50.90
C 80	86°18'53"	20.00	30.13	S 70°35'43" W	27.36
C 81	2° 2'37"	680.00	24.26	S 28°27'35" W	24.25
C 82	1°27'58"	891.03	22.80	S 28°44'48" W	22.80
C 83	4°40'56"	891.03	72.82	S 25°40'28" W	72.80
C 84	4°33'1."	891.03	70.76	S 21° 3'29" W	70.75
C 85	4°35'11"	891.03	71.32	S 16°29'22" W	71.31
C 86	4°54'2."	891.03	76.21	S 11°44'45" W	76.19
C 87	4°54'15"	891.03	76.27	N 6°50'39" E	76.24
C 88	4°54'25"	891.03	76.31	S 1°56'17" W	76.29
C 89	4° 9'25"	891.03	64.65	S 2°35'38" E	64.63
C 90	35° 0'32"	951.03	581.10	N 11°58'37" E	572.10
C 91	28°11'24"	620.00	305.05	N 15°23'11" E	301.98
C 92	6°50'48"	680.00	81.26	S 16°38'34" W	81.21
C 93	11°55'41"	680.00	141.56	N 7°15'19" E	141.31
C 94	1°28'13"	625.00	16.04	N 21°29'24" E	16.04
C 95	11°57'30"	375.00	78.27	N 72°13'37" W	78.13
C 97	5°12'50"	1455.00	132.41	S 88°41'3." W	132.37
C 98	4°58'14"	1560.00	135.33	S 88°48'21" W	135.29
C 99	89°59'59"	40.00	62.83	S 46°17'29" W	56.57
C100	90° 0'0."	40.00	62.83	S 43°42'30" E	56.57



NOTES:

1. TOTAL ACREAGE OF PHASE 1 = 32.31 ACRES (BY DMD METHOD)
2. RECREATION AREA DEDICATED TO THE TOWN OF CHAPEL HILL FOR PARK AND RECREATION PURPOSES ONLY FOR PUBLIC ACCESS-PEDESTRIAN AND NON-MOTORIZED VEHICLES ONLY.
3. RESOURCE CONSERVATION DISTRICT BOUNDARIES SHOWN HEREON ARE IN ACCORDANCE WITH THE CHAPEL HILL DEVELOPMENT ORDINANCE IN EFFECT ON THE DATE OF THIS PLAT
4. DEVELOPMENT IS RESTRICTED WITHIN THE RESOURCE CONSERVATION DISTRICT (RCD)
5. LOTS WITHIN THIS DEVELOPMENT MAY BE RESTRICTED TO CURB-SIDE REFUSE COLLECTION
6. 30' STORM DRAINAGE EASEMENT.
7. THE PROPERTY SHOWN ON THIS PLAT IS LOCATED ENTIRELY WITHIN THE CHAPEL HILL PLANNING JURISDICTION AND IS NOT SUBJECT TO H.C.D.O.T. APPROVAL.
8. 40' COMBINED STORM DRAINAGE AND SANITARY SEWER EASEMENT.
9. "WELL" N.C.G.S. COORDINATES ARE: N=805,798.82 E=1,982,656.94 (1927 N.A.D.) COMBINED GRID FACTOR = 0.99991070 , HORIZONTAL GROUND DISTANCE SHOWN.
10. NO CERTIFICATES OF OCCUPANCY SHALL BE ISSUED UNTIL ALL REQUIRED PUBLIC IMPROVEMENTS ARE COMPLETE.IF THE TOWN MANAGER APPROVES A PHASING PLAN, NO CERTIFICATES OF OCCUPANCY SHALL BE ISSUED FOR A PHASE UNTIL ALL REQUIRED PUBLIC IMPROVEMENTS FOR THAT PHASE ARE COMPLETE;NO BUILDING PERMITS FOR ANY PHASE SHALL BE ISSUED UNTIL ALL PUBLIC IMPROVEMENTS REQUIRED IN PREVIOUS PHASES ARE COMPLETED TO A POINT ADJACENT TO THE NEW PHASE.
11. NO LOTS SHALL BE CREATED WHICH REQUIRE A RESOURCE CONSERVATION DISTRICT VARIANCE IN ORDER TO BE BUILT UPON.
12. 30' OWASA SANITARY SEWER EASEMENT.
13. MAINTENANCE OF THE CLASS 'D' BUFFER ON TOWN OF CHAPEL HILL PROPERTY SHALL BE THE RESPONSIBILITY OF THE TOWN OF CHAPEL HILL.
14. 50' LANDSCAPED BUFFER DEDICATED TO THE TOWN OF CHAPEL HILL. ANY PLANT MATERIALS NECESSARY TO MEET TOWN BUFFER STANDARDS SHALL BE INSTALLED BY THE DEVELOPER PRIOR TO ISSUANCE OF ANY CERTIFICATES OF OCCUPANCY. MAINTENANCE OF THE BUFFER SHALL BE THE RESPONSIBILITY OF THE TOWN OF CHAPEL HILL.
15. RECORDATION OF THIS PLAT AND DEDICATION OF WEAVER DAIRY ROAD, NULLIFIES THE EASEMENT GRANTED IN DEED BOOK 617 PAGE 209.
16. ALL LOT AREAS SHOWN ARE NET LAND AREAS.
17. 30' STORM DRAINAGE AND SANITARY SEWER EASEMENTS ARE FROM LOT RIGHT-OF-WAY TO BACK LOT LINE AND/OR BACK CORNER, EXCEPT WHERE 30' STORM EASEMENT FROM BACK PROPERTY LINE INTERSECTS 40' COMBINED EASEMENT AT POINT DESIGNATED BY DISTANCES SHOWN.
18. 25' REFERENCE IRONS SET AT ALL FRONT LOT CORNERS.

REFERENCES
PLAT BOOK 44 PG. 60
DEED BOOK 617 PG.206
DEED BOOK 617 PG.209
DEED BOOK 140 PG.478
TAX MAP #13

NORTH CAROLINA
Orange COUNTY
I, Lauren M. Hart, A NOTARY PUBLIC FOR SAID COUNTY AND STATE, DO HEREBY CERTIFY THAT Phillip W. Riley, A REGISTERED LAND SURVEYOR,PERSONALLY APPEARED BEFORE ME THIS DAY AND ACKNOWLEDGED THE DUE EXECUTION OR HE FOREGOING INSTRUMENT.
WITNESS MY HAND AND OFFICIAL SEAL, THIS THE 16th DAY OF March, 19 93
Lauren M. Hart NOTARY PUBLIC
MY COMMISSION EXPIRES 2/1/94
LAUREN M. HART NOTARY PUBLIC ORANGE COUNTY, N.C.

SURVEYOR'S CERTIFICATE
I, Phillip W. Riley, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN BOOK 1084, PAGE 530) THAT THE ERROR OF CLOSURES AS CALCULATED BY LATITUDES AND DEPARTURES IS 1: 10,000; THAT THE BOUNDARIES NOT SURVEYED ARE SHOWN AS BROKEN LINES PLOTTED FROM INFORMATION FOUND IN REFERENCES AS NOTED; THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED.
WITNESS MY ORIGINAL SIGNATURE, REGISTRATION NUMBER, AND SEAL THIS 16th DAY OF March, 19 93
Phillip W. Riley SURVEYOR
L-3066 REGISTRATION NUMBER
NORTH CAROLINA REGISTERED SEAL L-3066 LAND SURVEYOR PHILLIP W RILEY

OWNER'S CERTIFICATE OF DEDICATION
THE UNDERSIGNED OWNERS HEREBY FREELY DEDICATE ALL RIGHTS-OF-WAY,EASEMENTS,STREETS,RECREATION AREA,OPEN SPACE,COMMON AREA,UTILITIES,AND OTHER IMPROVEMENTS TO PUBLIC OR PRIVATE COMMON USE AS NOTED ON THIS PLAT,AND FURTHER ASSUME FULL RESPONSIBILITY FOR THE MAINTENANCE AND CONTROL OF SAID IMPROVEMENTS UNTIL THEY ARE ACCEPTED FOR MAINTENANCE AND CONTROL BY AN APPROPRIATE PUBLIC BODY,OR BY AN INCORPORATED NEIGHBORHOOD OR HOME-OWNER'S ASSOCIATION OR SIMILAR LEGAL ENTITY.
NORTHWOOD, V INC.
Calvin A. Moffett PRES. DATE 3/16/93
Mary C. Moffett ADES'T DATE 3/16/93

NORTH CAROLINA
Wake COUNTY
I, Mary M Clark NOTARY PUBLIC FOR SAID COUNTY AND STATE,CERTIFY THAT Mary C Moffett PERSONALLY CAME BEFORE ME THIS DAY AND ACKNOWLEDGED THAT SHE IS Secretary OF Northwood V Inc A CORPORATION,AND THAT BY AUTHORITY DULY GIVEN AND AS THE ACT OF THE CORPORATION,THE FOREGOING INSTRUMENT WAS SIGNED IN ITS NAME BY ITS President SEALED WITH ITS CORPORATE SEAL,AND ATTESTED BY HERSELF AS ITS Secretary
WITNESS MY HAND AND OFFICIAL SEAL,THIS THE 17th DAY OF March, 1993
Mary M. Clark NOTARY PUBLIC
MY COMMISSION EXPIRES October 3, 1993
MARY M. CLARK NOTARY PUBLIC WAKE COUNTY, N.C.

THE TOWN MANAGER HEREBY CERTIFIES THAT A SURETY BOND OF A SATISFACTORY AMOUNT HAS BEEN POSTED WITH THE TOWN OF CHAPEL HILL, WHICH SURETY GUARANTEES THAT ALL PUBLIC IMPROVEMENTS WILL BE COMPLETED AS SPECIFIED BY THE APPROVED PRELIMINARY PLAT FOR NORTHWOOD V PHASE 1 SUBDIVISION WITHIN 365 DAYS UNLESS AFFIRMATIVELY EXTENDED BY THE TOWN MANAGER. NOTICE WILL BE DULY RECORDED WITH THE REGISTER OF DEEDS IF AND WHEN SAID SURETY IS AMENDED OR EXTENDED PRIOR TO COMPLETION OF ALL PUBLIC IMPROVEMENTS FOR WHICH IT WAS POSTED.
W. Calvin Horton TOWN MANAGER 3/31/93 DATE

TOWN MANAGER ENDORSEMENT
PROVIDED THAT THIS PLAT IS RECORDED WITHIN 30 DAYS OF FINAL APPROVAL, APPROVED BY TOWN MANAGER:
BY: W. Calvin Horton DATE: 3/31/93

100 50 0 100 200 300
SCALE IN FEET

FINAL PLAT
NORTHWOOD V PHASE 1
A CLUSTER SUBDIVISION
CHAPEL HILL TWP. ORANGE CO. NC

OWNER: NORTHWOOD V, INC.
P.O. DRAWER 336
CARRBORO, N.C. 27510
SCALE: 1"= 100' MARCH 16, 1993

BALLENTINE & RILEY SURVEYORS
221 PROVIDENCE ROAD, CHAPEL HILL, N.C. 27514
(919) 929 - 0481 (919) 489 - 4789
(704) 332 - 0181 FAX 489 - 2803

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16X

PUBLIC WORKS DEPARTMENT
STORMWATER MANAGEMENT DIVISION
405 Martin Luther King, Jr. Blvd.
Chapel Hill, NC 27514-5705
Telephone (919) 969-7246
Fax (919) 969-7276
www.townofchapelhill.org

REQUEST FOR STREAM DETERMINATION

Stream determinations provide information used to determine whether the Town's Resource Conservation District (RCD) or Jordan Watershed Riparian Buffer Protection regulations apply to a property. Town staff will typically conduct a field visit to classify streams on the property(ies) indicated below within two weeks of a request, depending on weather conditions, staff availability, and scope of the request. Please note that stream determinations cannot be conducted within 48 hours of a rain event. There is no fee for stream determinations conducted by Town staff.

A stream determination report indicates the results of a stream classification. Stream classifications expire after five years. If a stream determination has been completed on or near the property(ies) listed below within the last five years, a site visit may not be required unless local hydrology has changed significantly or the stream classification has expired. If a site visit is not required, the stream determination will be based on a records review.

Requests may be emailed (aweakley@townofchapelhill.org), faxed, dropped off at Town Hall or the Stormwater Office, or mailed to the above address in care of the "Stormwater Analyst."

Requestor's Name: Raymond Bentley Ruggles

Mailing Address: 2610 Wycliff Rd

City, State, ZIP: Raleigh, NC 27607

Phone / FAX / Email: 984-833-4833 bruggles@dewberry.com

Check method(s) for report to be sent: ☐ US Mail ☒ Email ☐ FAX ☐ Call for pickup

Signature of property owner or designated legal agent granting permission to Town Staff to enter the property(ies) indicated below for purposes of a Stream Determination:

Mary Jane Nirdlinger (Signature) 09/09/2020 (Date)

Owner Name(s): Town of Chapel Hill
(Please print)

Company Name (if applicable): _____

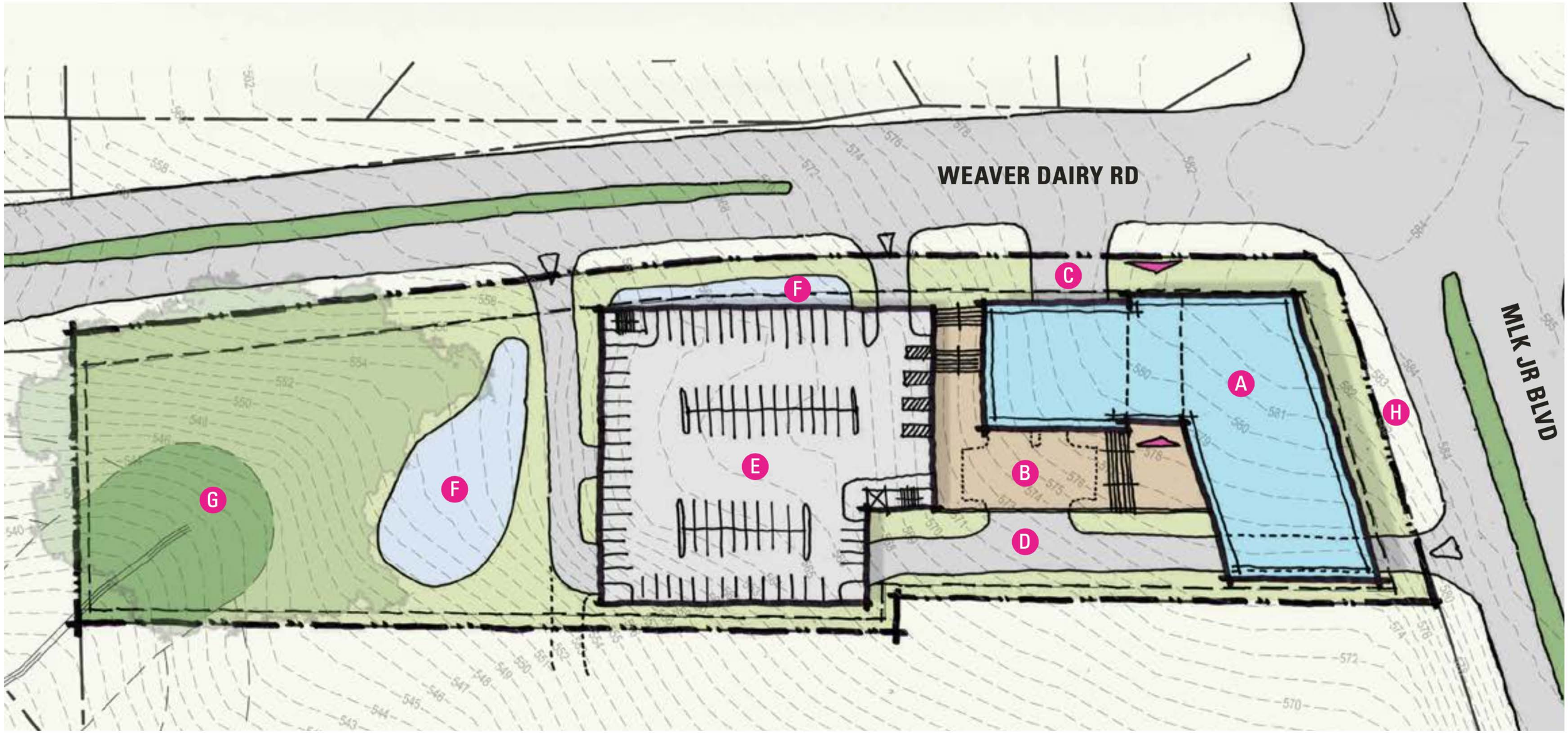
Property Information

Fill in both columns, *or* fill in Parcel ID Number (PIN) and attach a site map indicating location.

Parcel ID Number (PIN)	Address / Location Description
9880250693 & 9880157586	405 Martin Luther King Jr Blvd (Fire Station and Training Facility)

Where the **total area** of the property(ies) to visit is **over 3 acres,** please attach an as-built drawing or a topographic map with current landmarks.

CONCEPTUAL SITE PLAN



- A Municipal Services Building
- B Public Plaza
- C Fire Apparatus Bay Entry/Exit
- D Police Sallyport Entry (below plaza)
- E Two Story Table Top Parking
- F Stormwater Management
- G RCD Buffer Area (50ft)
- H New Public Transit Stop (BRT)