



TOWN OF CHAPEL HILL

March 11, 2004

Warren Mitchell
Mitchell Westendorf
210 North Columbia Street
Chapel Hill, NC 27516

Dear Mr. Mitchell,

As requested, the Town Engineering Department has performed a stream determination on the property identified below. This determination provides important information regarding different types of streams (perennial, intermittent, and/or ephemeral) and whether or not any such streams are present on or adjacent to the property in question. Based on this stream determination, and characteristics such as elevation and location, this property may include a Resource Conservation District (RCD) area. Specific land use regulations and restrictions apply within the boundary of the RCD.

We performed a site inspection of the eastern side of this property, Tax Map # 7.17..22, PIN # 9890-06-5926, on Sunrise Road near I-40 (no address assigned) on March 4, 2004. We determined that this area does not contain any perennial, intermittent, or ephemeral streams. The western side was previously determined to contain a perennial stream on March 7, 2003. Comments and findings regarding our site inspection can be found on the attached stream determination form and map. If a stream or streams are identified on your property, wooden stakes may be placed at the beginning and ending points of different types of streams.

We have not identified any streams on adjacent properties that may affect the location of the Resource Conservation District boundary on your property. The Town may require additional stream determinations if it appears likely that an RCD area associated with streams located on adjacent properties may affect the property in question. A request for a stream determination on an adjacent property must be accompanied by written "right of entry" permission from the owner(s) of the adjacent property.

NOTE: THIS IS A STREAM DETERMINATION ONLY. It is intended to assist the requestor in identifying whether or not the property in question includes a Resource Conservation District and, if so, where it is located, depending on which ordinance(s) are applicable.

Please provide a copy of this information to a registered Land Surveyor for use in the preparation of your parcel plan or plat, which must be submitted with the permit application documents for review

and approval by the Town. It is the responsibility of the Surveyor to review the stream determination information in association with information available in Article 3.6.3 of the Land Use Management Ordinance (LUMO) to identify the applicable RCD criteria. The Surveyor must certify whether or not a Resource Conservation District exists on the property in question and, if so, where the RCD boundary is located. The following language must be provided verbatim on the application plan or plat and must be certified by a registered Land Surveyor. No additional or alternative wording or caveats are acceptable.

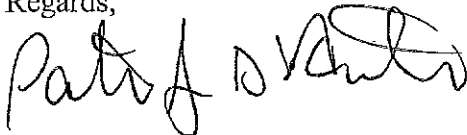
1. "This parcel is not located within the Resource Conservation District as defined in the Chapel Hill Development Ordinance/Land Use Management Ordinance."

Or

2. "All or a portion of this parcel is located within the Resource Conservation District as defined in the Chapel Hill Development Ordinance/Land Use Management Ordinance and as shown hereon."

If you have questions regarding stream determinations, please contact me at (919) 968-2833. If you have questions regarding the Town's Land Use Management Ordinance or Resource Conservation Districts, please contact the Planning Department at (919) 968-2728, or view a copy online at http://www.townofchapelhill.org/planning/planning_development/development_ordinance.htm.

Regards,



Patricia D'Arconte
Engineering Technician

Stream Determination Area Map

Legend

- | | |
|------------------|------------------|
| Streams | 2-foot contours |
| Flow Type | 10-foot contours |
| ephemeral | Buildings |
| intermittent | Parcels |
| unverified | Site visited |
| perennial | |

Address: Sunrise Road at I-40

Tax Map, Block, Lot: 7.17..22

Parcel ID: 9890-06-5926

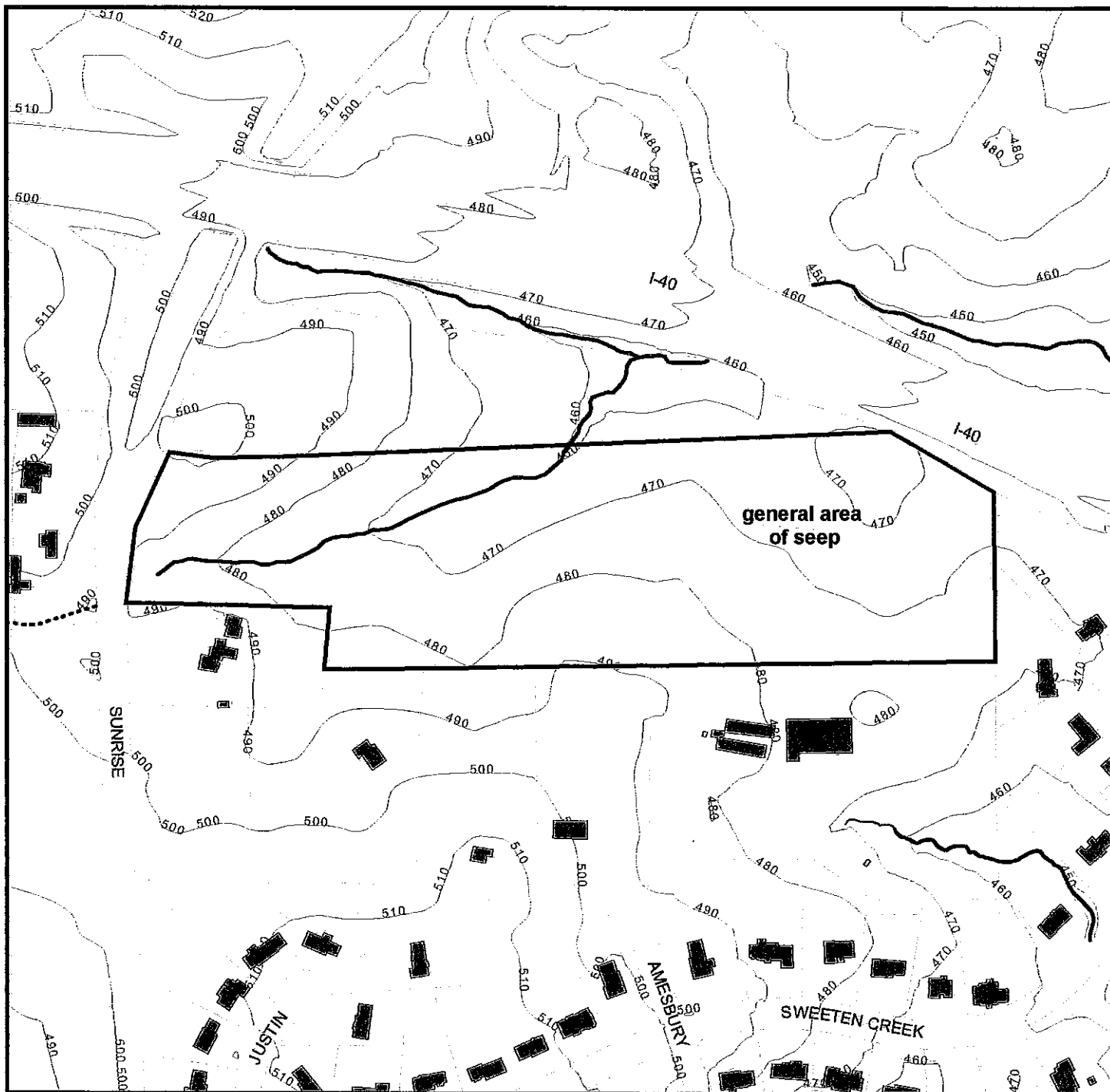


1 inch equals 300 feet

Approximate location of origin or breakpoint:

- * staked and flagged
- * flagged only

Stream locations are approximate and must be verified by survey.



REQUEST FOR REVIEW

~~OF A PERENNIAL STREAM~~

DATE March 2, 2004 RCD
 NAME Warren Mitchell
 ADDRESS 210 N. Columbia street
 NAME OF FIRM Mitchell Westendorf
 PHONE NO. 919 - 932 - 4567
 LOCATION Habitat for Humanity - Sunrise Road @ I-40
 TAX MAP 7 BLOCK 17 LOT 22 TOPO

MAPS REQUIRED TO MAKE DETERMINATIONPIN: 9890-06-5926

- 3 Acres or less - Plat or Tax Map
- 3 Acres or more - Plat and Topo

ENGINEERING DEPARTMENT USE

DATE OF INSPECTION(S) 3/4/04
 WEATHER clear TEMPERATURE
 INSPECTED BY D'Arconte & Royal

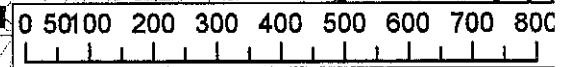
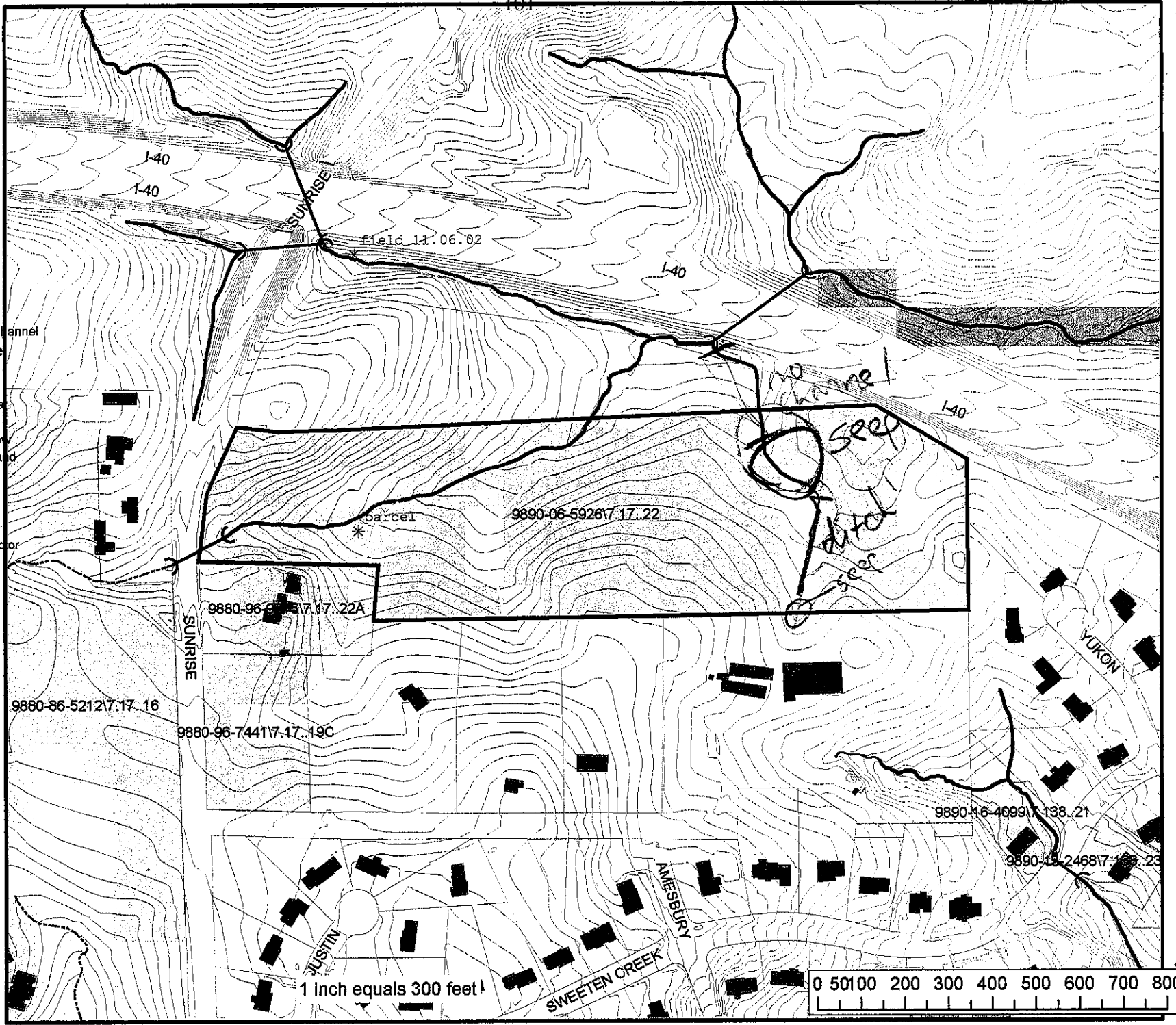
COMMENTS

The eastern side of this property was visited 3/7/03. A low area there was previously determined to be an intermittent stream. However, although this "boggy area" may qualify as a "natural intermittent stream variant" by current LUMD guidance, it is not hydrologically connected to the directly perennial stream that crosses under I-40. This area does have some important hydrologic functions, and impacts to this seep should be avoided or minimized.

Legend

- other
- * I7; I6
- not_p
- * p1?
- * p1
- ? unknown
- Other wet areas
- Pond or Stream
- Swamp or Marsh
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- Orange check
- streams_merged
- Possible stream or channel
- FTYPE, Flow Type
- Perennial stream
- Intermittent stream
- Stream, not perennial
- Ephemeral stream
- Stream, unknown flow
- Seep or Linear wetland
- Culvert
- Ditch
- Dry Hollow
- Lake centerline
- Underground connector

Address: 7.17.02
 TMBL: 314/04
 PIN:
 Date Visited: 314/04





MEMORANDUM

DATE: March 2, 2004
TO: Fred Royal, Engineering Department, Town of Chapel Hill
FROM: Warren Mitchell
RE: **Sunrise Road – Habitat for Humanity
RCD Determination Request**

Fred:

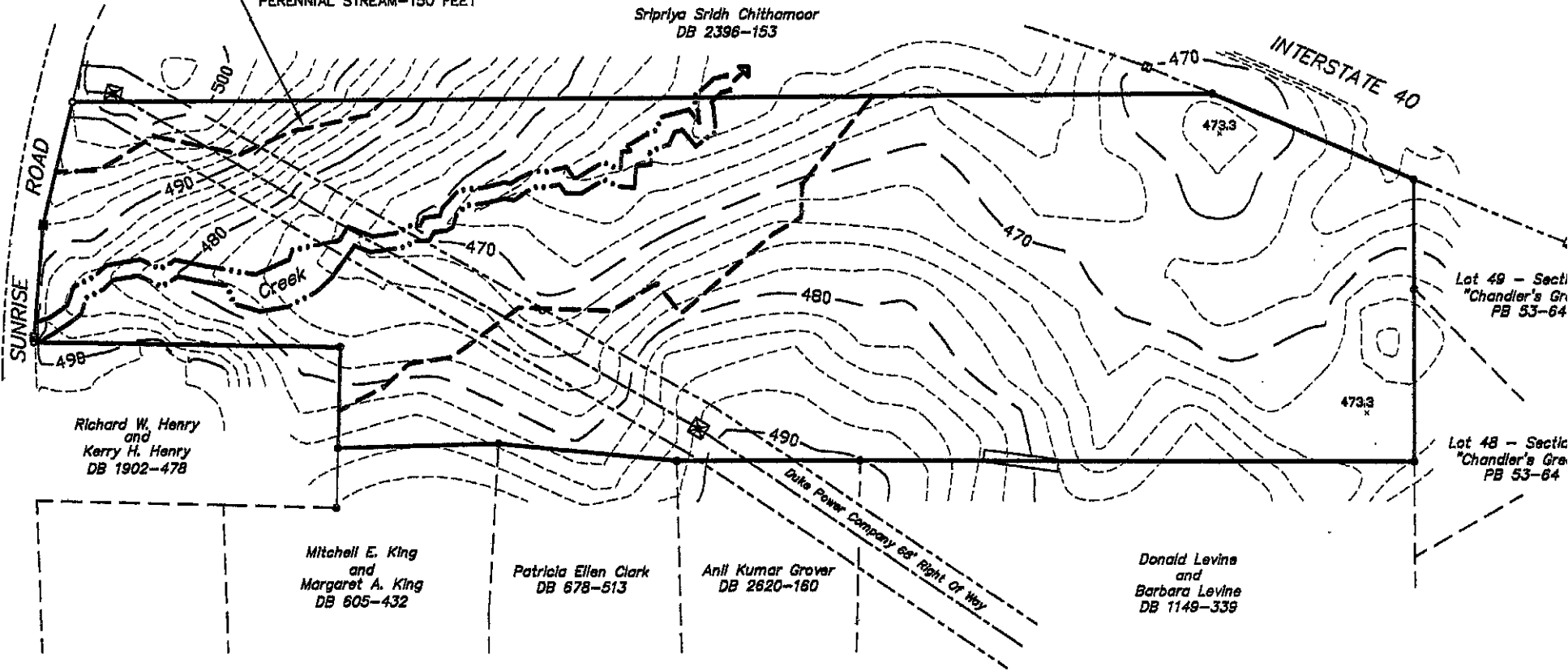
Please accept this request to perform a determination of RCD at this property. A determination was performed last year on the perennial stream shown on the included map. We would like to have the back of the property determined to see if an intermittent stream exists in addition to the Perennial stream shown. A corps wetlands study has been completed and a map signed off by the Corps for the wetlands. Thank You.

Warren

North Carolina Grid
North American Datum 1983/86

RCD BOUNDARY
PERENNIAL STREAM-150 FEET

Sripriya Sridh Chithamoor
DB 2396-153



- BOUNDARY SURVEY -

HABITAT FOR HUMANITY OF ORANGE COUNTY, INC.

CHAPEL HILL TWP., ORANGE CO., NORTH CAROLINA
March 13, 2003

SCALE 1"=200'



Existing Iron Stake
 Iron Stake Set
 Mathematical Point
 Areas by Coordinate Computation

17.179 Ac.

DB 190-541
 DB 457-633
 PIN 9890-08-5926
 TM 7.17..22

SCALE 1"=200'

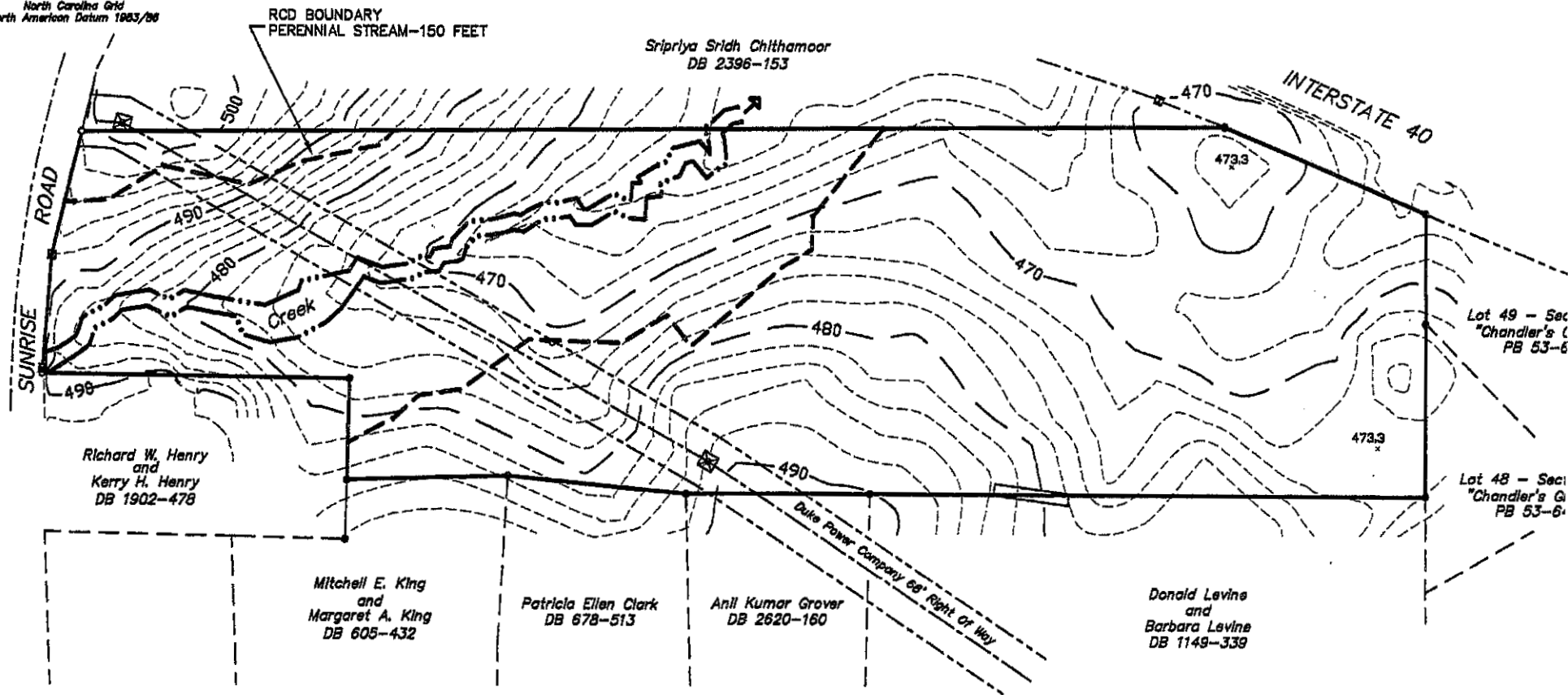
MITCHELL + WESTENDORF, P.A.



Engineering & Surveying

210 NORTH COLLETTA STREET - CHAPEL HILL, NORTH CAROLINA
(919) 942-4027

North Carolina Grid
North American Datum 1983/98



- BOUNDARY SURVEY -
**HABITAT FOR HUMANITY
 OF ORANGE COUNTY, INC.**

CHAPEL HILL TWP., ORANGE CO., NORTH CAROLINA
 March 13, 2003
 SCALE 1"=200'



- Existing Iron Stake
- Iron Stake Set
- △— Mathematical Point
- Area by Coordinate Computation

17.179 Ac.

DB 190-541
 DB 457-633
 PIN 9890-06-5926
 TM 7.17..22

SCALE 1"=200'

MITCHELL + WESTENDORF, P.



Engineering & Surveying
 210 NORTH COLUMBIA STREET - CHAPEL HILL, NORTH CAROLINA
 (919) 967-1007

Eastern side
of
property

NCDWQ Stream Classification Form

Project Name: _____ River Basin: _____ County: _____ Evaluator: _____

DWQ Project Number: _____ Nearest Named Stream: _____ Latitude: _____ Signature: _____

Date: _____ USGS QUAD: _____ Longitude: _____ Location/Directions: _____

***PLEASE NOTE:** If evaluator and landowner agree that the feature is a man-made ditch, then use of this form is not necessary. Also, if in the best professional judgement of the evaluator, the feature is a man-made ditch and not a modified natural stream—this rating system should not be used*

Primary Field Indicators: (Circle One Number Per Line)

I. Geomorphology	Absent	Weak	Moderate	Strong
1) Is There A Riffle-Pool Sequence?	0	(1)	2	3
2) Is The USDA Texture In Streambed Different From Surrounding Terrain?	0	(1)	2	3
3) Are Natural Levees Present?	(0)	1	2	3
4) Is The Channel Sinuous?	(0)	1	2	3
5) Is There An Active (Or Relic) Floodplain Present?	0	(1)	2	3
6) Is The Channel Braided?	(0)	1	2	3
7) Are Recent Alluvial Deposits Present?	0	1	(2)	3
8) Is There A Bankfull Bench Present?	0	(1)	2	3
9) Is a Continuous Bed & Bank Present?	(0)	1	2	3
<i>(*NOTE: If Bed & Bank Caused By Ditching And WITHOUT Sinuosity Then Score=0*)</i>				
10) Is a 2 nd Order Or Greater Channel (As Indicated On Topo Map And/Or In Field) Present?	Yes=3		(No=0)	

PRIMARY GEOMORPHOLOGY INDICATOR POINTS: 6

II. Hydrology	Absent	Weak	Moderate	Strong
1) Is There A Groundwater Flow/Discharge Present?	0	1	(2)	3

PRIMARY HYDROLOGY INDICATOR POINTS: 2

III. Biology	Absent	Weak	Moderate	Strong
1) Are Fibrous Roots Present In Streambed?	3	2	(1)	0
2) Are Rooted Plants Present In Streambed?	(3)	2	1	0
3) Is Periphyton Present?	0	1	(2)	3
4) Are Bivalves Present?	(0)	1	2	3

PRIMARY BIOLOGY INDICATOR POINTS: 6

Secondary Field Indicators: (Circle One Number Per Line)

I. Geomorphology	Absent	Weak	Moderate	Strong
1) Is There A Head Cut Present In Channel?	(0)	.5	1	1.5
2) Is There A Grade Control Point In Channel?	(0)	.5	1	1.5
3) Does Topography Indicate A Natural Drainage Way?	0	(.5)	1	1.5

SECONDARY GEOMORPHOLOGY INDICATOR POINTS: 0.5

II. Hydrology	Absent	Weak	Moderate	Strong
1) Is This Year's (Or Last Year's) Leaf litter Present In Streambed?	1.5	1	.5	0
2) Is Sediment On Plants (Or Debris) Present?	0	.5	1	1.5
3) Are Wrack Lines Present?	0	.5	1	1.5
4) Is Water In Channel And >48 Hrs. Since Last Known Rain? (*NOTE: If Ditch Indicated In #9 Above Skip This Step And #5 Below*)	0	.5	1	1.5
5) Is There Water In Channel During Dry Conditions Or In Growing Season?	0	.5	1	1.5
6) Are Hydric Soils Present In Sides Of Channel (Or In Headcut)?		Yes=1.5		No=0
SECONDARY HYDROLOGY INDICATOR POINTS: 3.5				

III. Biology	Absent	Weak	Moderate	Strong		
1) Are Fish Present?	0	.5	1	1.5		
2) Are Amphibians Present?	0	.5	1	1.5		
3) Are Aquatic Turtles Present?	0	.5	1	1.5		
4) Are Crayfish Present?	0	.5	1	1.5		
5) Are Macrobenthos Present?	0	.5	1	1.5		
6) Are Iron Oxidizing Bacteria/Fungus Present?	0	.5	1	1.5		
7) Is Filamentous Algae Present?	0	.5	1	1.5		
8) Are Wetland Plants In Streambed?	SAV	Mostly OBL	Mostly FACW	Mostly FAC	Mostly FACU	Mostly UPL
(* NOTE: If Total Absence Of All Plants In Streambed As Noted Above Skip This Step UNLESS SAV Present*)	2	1	.75	.5	0	0
SECONDARY BIOLOGY INDICATOR POINTS: 1.5						

TOTAL POINTS (Primary + Secondary) = 19.5 (If Greater Than Or Equal To 19 Points The Stream Is At Least Intermittent)

This would be a Natural Intermittent Stream
Notes: Variant if it were directly connected:

The eastern side of this property is hydrologically complex. There appears to be a seep on/near the southern property line (by the potted plant). A ditch has been dug northwards, and its channel shape becomes more like that of an intermittent stream when it runs through a second seep. This channel peters out quickly though, and no channel or linear wetland connects it with the perennial stream by I-40. This area is an isolated wetland, though a formal wetland identification and delineation should be conducted by the Army Corps of Engineers.