

Major Subdivision Application Narrative

Project Name: Aquabella Subdivision Amendment (Grand Alexander Subdivision)

Description: Of the 4 original Lots in Aquabella, make no changes to Lot 3. Recombine Lot 2 (120 Grand Alexander Court) as shown in the Plat. Subdivide two vacant lots at 121 and 130 Grand Alexander Court (1.3 and 1.4 acres each) into 4 lots each (8 total lots), approximately 0.34 acres each. Inclusionary Zoning payment in lieu will be paid.

The subdivision will comply with all aspects of the LUMO. No variances are being requested if the cluster development option is approved.

HOA Parcels: HOA1 is existing and contains the approved bioretention area. HOA2 is proposed in the event the HOA decides to expand the bioretention area in HOA1. If and when this happens, the TOCH required greenway access path will be relocated from the southern edge of HOA1 to the southern edge of HOA2.

HOA3&4 are shown in a location that is currently part of the Pinehurst ROW. This subdivision application does not include approval of HOA3&4. TOCH Engineering requested that we delay the request for closure of this portion of the ROW until after the Preliminary Plat is approved. Currently these two areas are within the 90' ROW, which exceeds the town design standard for a 27' wide local road. If the closure request is approved by TOCH Council, the land is made available to the HOA. It can be used by the HOA to treat stormwater from the road surface, which is currently flowing into the ephemeral drainageway without treatment.

Owners: John and Leslie Mackowiak previously lived in Chapel Hill for 15 years. They now live in Cedar Point NC. No developer or designer is involved with this application.

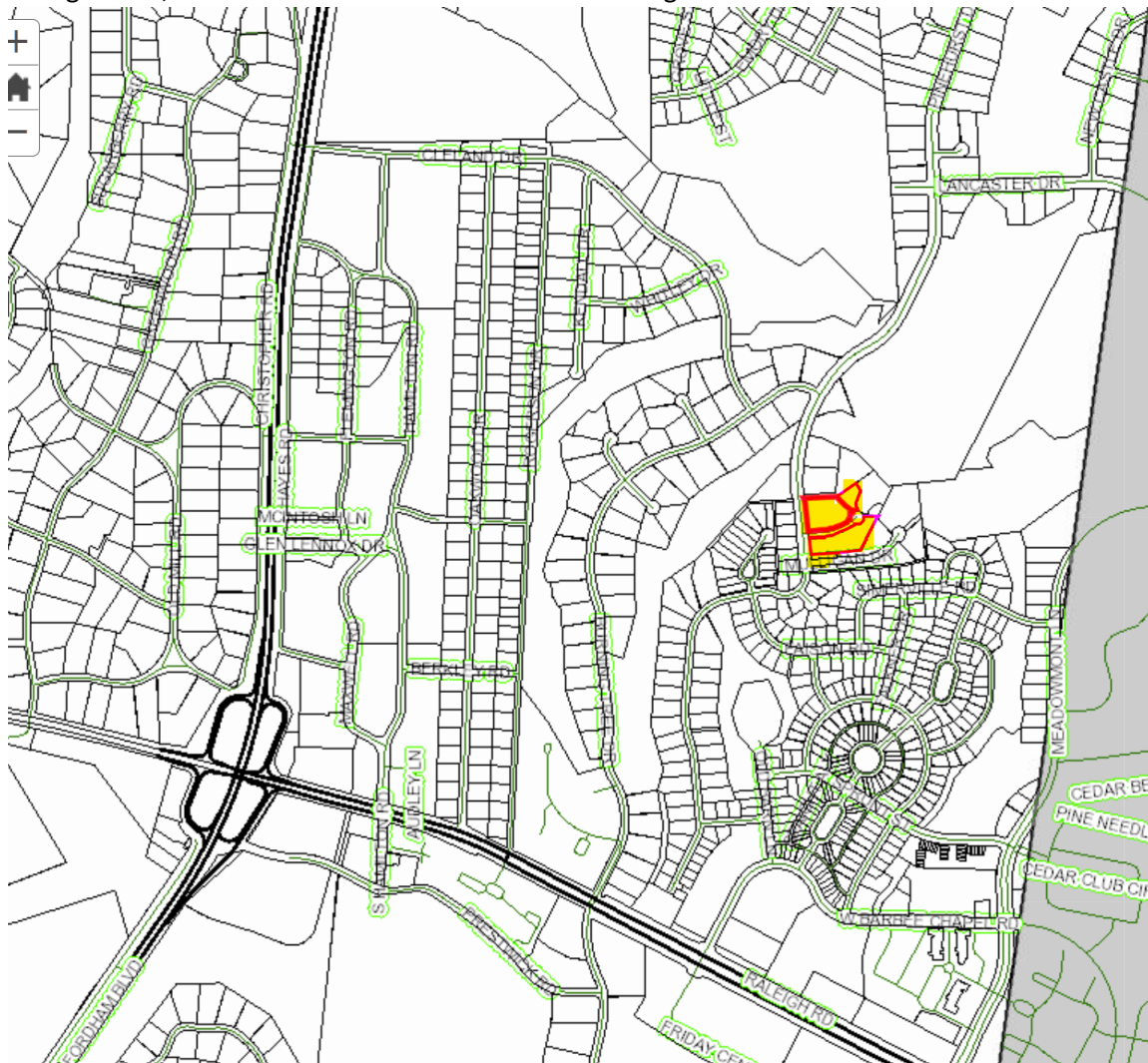
John.Mackowiak@gmail.com

919-619-3838

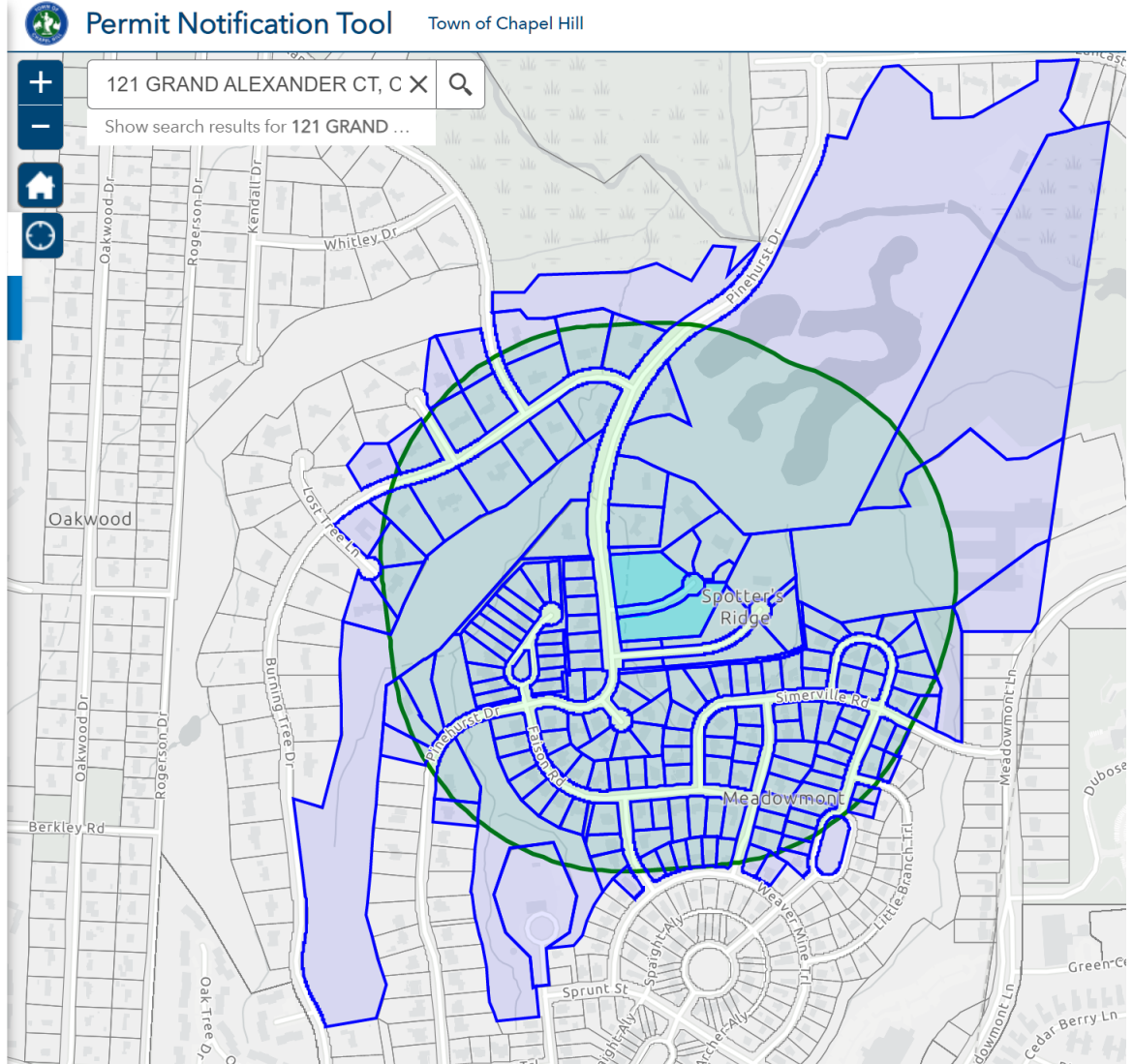
PIN: 9798670429 and 9798671340

Area Map

- a) **Project Name:** Aquabella Subdivision Amendment) Grand Alexander Subdivision
Applicants and Owners: John and Leslie Mackowiak,
John.Mackowiak@gmail.com
919-619-3838
Location: 121 and 130 Grand Alexander Court
PIN: 9798670429 and 9798671340
- b) Dedicated HOA-owned Greenway Path was required by a TOCH Council Resolution in 2006. Park and Recreation Payment-in-lieu was paid in 2016 for the Aquabella subdivision.
- c) Overlay districts: only Lake Jordan Watershed Protection District.
- d) Existing Property Lines and roads shown below.
- e) Map shows location of Grand Alexander Subdivisions (in yellow) relative to Fordham Blvd. and Raleigh Road, between the Oaks and Meadowmont neighborhoods.

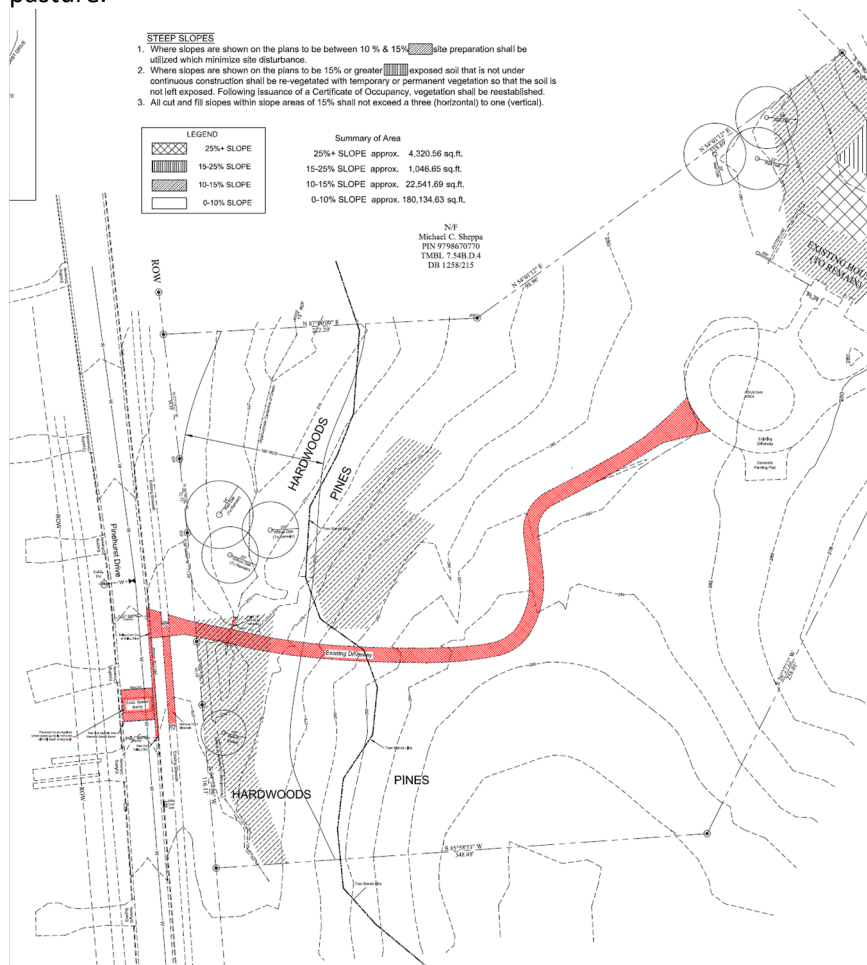


f) 1000' notification boundary map



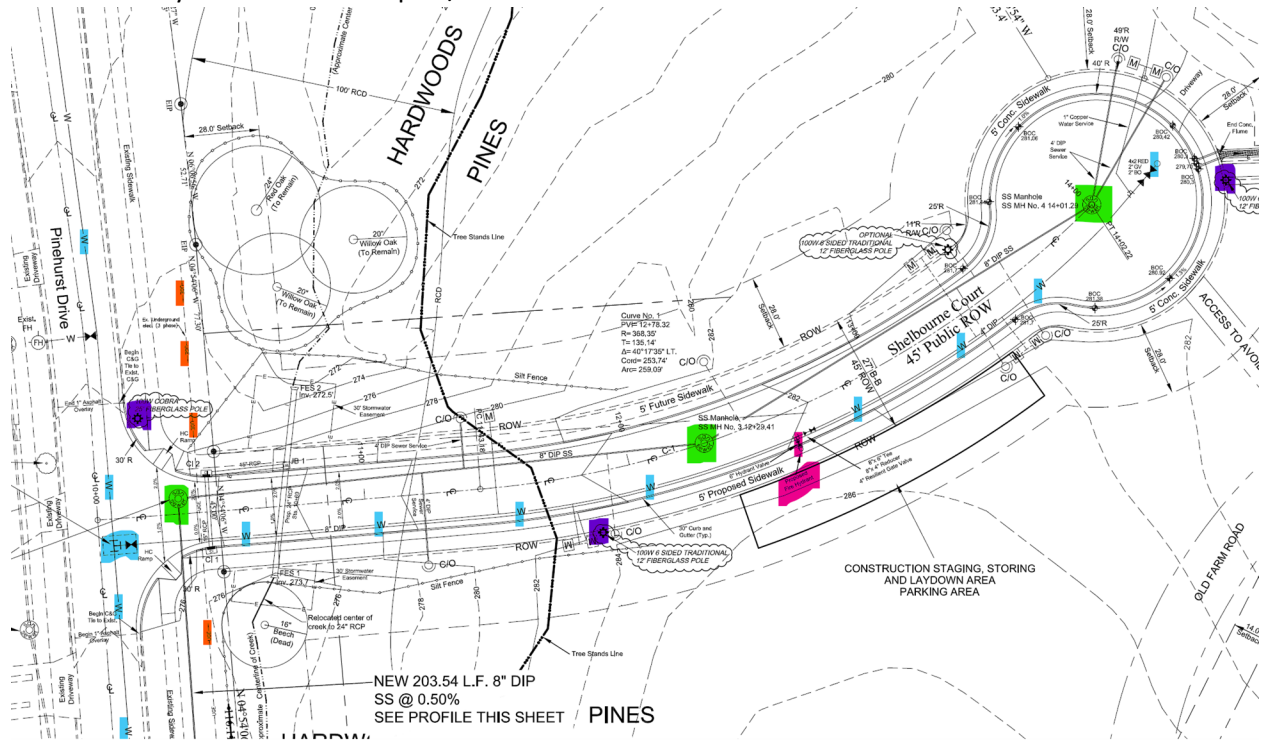
Existing Conditions Plan:

- a) This plan page from the Aquabella subdivision shows the slopes that were present when Aquabella was proposed and approved. The only significant change that occurred was a) the removal of the original gravel driveway shown in red b) the removal of trees in the Grand Alexander Court right-of-way and c) the construction of the Grand Alexander Ct. and associated infrastructure. Most of the property has a relatively flat slope of 0-10% grade. Soils (based on the county GIS map) are typical of the area, specifically a Williamstown-Rainsville silt loam, which is a well-draining deep soil. There are no environmental constraints preventing single family home use. The existing vegetation is primarily new growth pine, consistent with its history as the Meadowmont dairy farm pasture many decades ago. Some hardwoods exist as shown on the existing conditions map below. There are no other significant land features not consistent with the abandoned DuBose dairy farm pasture.

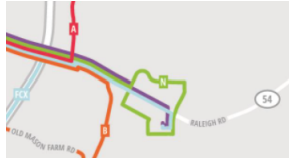


- b) There are no existing structures on the 2 lots being subdivided and the one lot being recombined. The lots have always been vacant.
- c) Property lines are shown in the plan view below. Right of Way is shown.
- d) Sewer manholes are marked in Green. Path of the water supply line is marked in blue. Street lights are marked in purple. When the ROW was decided to the town, easements were given to the various utilities in the ROW.

e) Nearest fire hydrant is shown in pink/red.



f) Nearest bus stops are in Meadowmont and on 54, about a mile away.



g) 2-foot contour maps are shown in the maps above.

h) An ephemeral drainageway runs roughly parallel to Pinehurst through both of the large lots being subdivided. This drains a watershed of approximately 5 acres, the majority of this drainage area is in Meadowmont. The recent stream determination of an ephemeral drainageway was conducted by town staff in 2021, and verified by the NC State Professor who helped develop the stream determination tool in use today.

Detailed Site Plan

- a) No buildings are proposed with this application. Future lot purchasers will select or design their own home.
- b) Adjacent land uses are R1, single family residential. Across Pinehurst the lots are smaller than R1, because they part of the Meadowmont planned development.
- c) Parking will be typical of R1 neighborhoods, on street or in driveways and garages.
- d) Existing fire hydrant is shown in the plan above in pink/red.
- e) Vehicle entrances to the lots will be proposed as houses are designed and building permits are requested.
- f) No new streets are proposed. Grand Alexander Ct. was built to TOCH design standards.

- g) Pavement and curb as built to TOCH design standards.
- h) Sidewalk along Grand Alexander Court was built according to TOCH design standards.
- i) No transit improvements are required or proposed.
- j) No landscape buffers are required or proposed
- k) The dedicated pedestrian path/greenway was required by a TOCH Council resolution when the subdivision was approved to efficiently access nearby greenways at Rashkis Elementary School. In addition, a park and recreation payment in lieu of \$141,708.97 was made for Aquabella Subdivision.

MISCELLANEOUS PAYMENT RECPT#: 554988
 TOWN OF CHAPEL HILL
 405 MARTIN LUTHER KING JR BLVD
 CHAPEL HILL NC 27514

DATE: 09/07/16 TIME: 11:33
 CLERK: swarther DEPT:
 CUSTOMER#: 477
 PLANNING DEPARTMENT REVENUES
 PARCEL:

CHG:	RIL	REV IN LIEU REC	141708.97
<hr/>			
REVENUE:			
1	10049	48615	141708.97
		REV IN LIEU - REC & OPEN SPACE	
		REF1: 08-0126 REF2:	
CASH:			
	01000	10003	141708.97
		CENTRAL DEP CASH - S	
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AMOUNT PAID: 141708.97

PAID BY: JOHN I MACKOWIACK
 CHECKNT METH:
 1122
 REFERENCE:

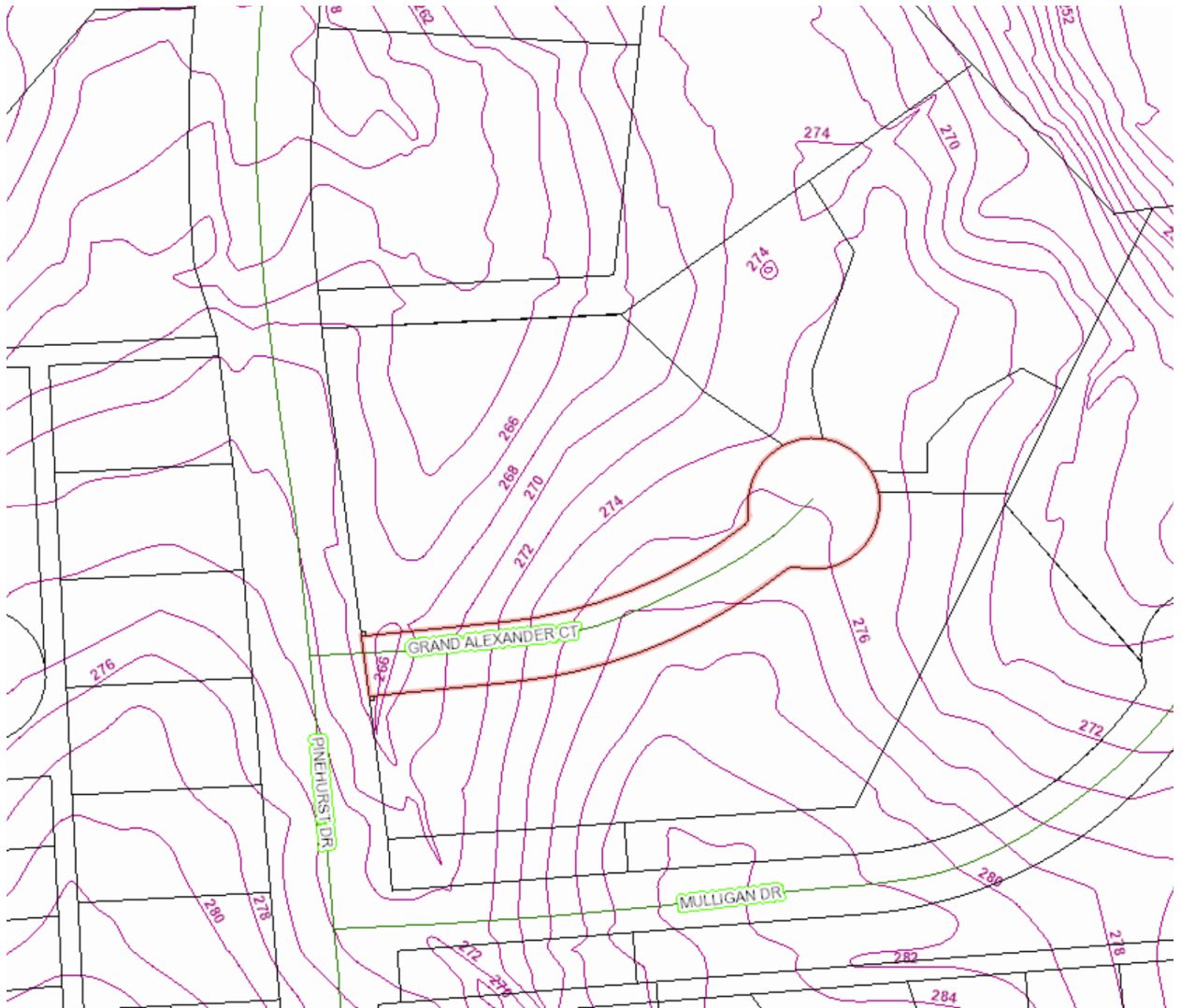
AMT TENDERED: 141708.97
 AMT APPLIED: 141708.97
 CHANGE: .00

- l) No dumpster locations are allowed, required or proposed.
- m) No construction is needed to subdivide these lots, so no plans for construction are proposed. The required roads, utilities, and sidewalks are in place. After the subdivision is approved, a ZCP application will be made to extend the pipe (RCP) under Grand Alexander to the Northwest corner of the new Lot A. This RCP extension is needed to make the central area of the building envelopes buildable.
- n) No new roads are proposed, so no new sight distances are reported.
- o) Street lights and other utilities are shown in the plan above.

- p) No easements exist on the lots being subdivided except for the 24" RCP stormwater easement on Lot B. The location of this easement will be modified and extended across the western edge of Lots A and B with the approval of the ZCP for this construction.
- q) No clearing or construction is part of this Subdivision Preliminary Plat application. When building permits for houses or RCP extension are obtained, the clearing plans will be submitted.
- r) No additional traffic calming is required or proposed for this subdivision.

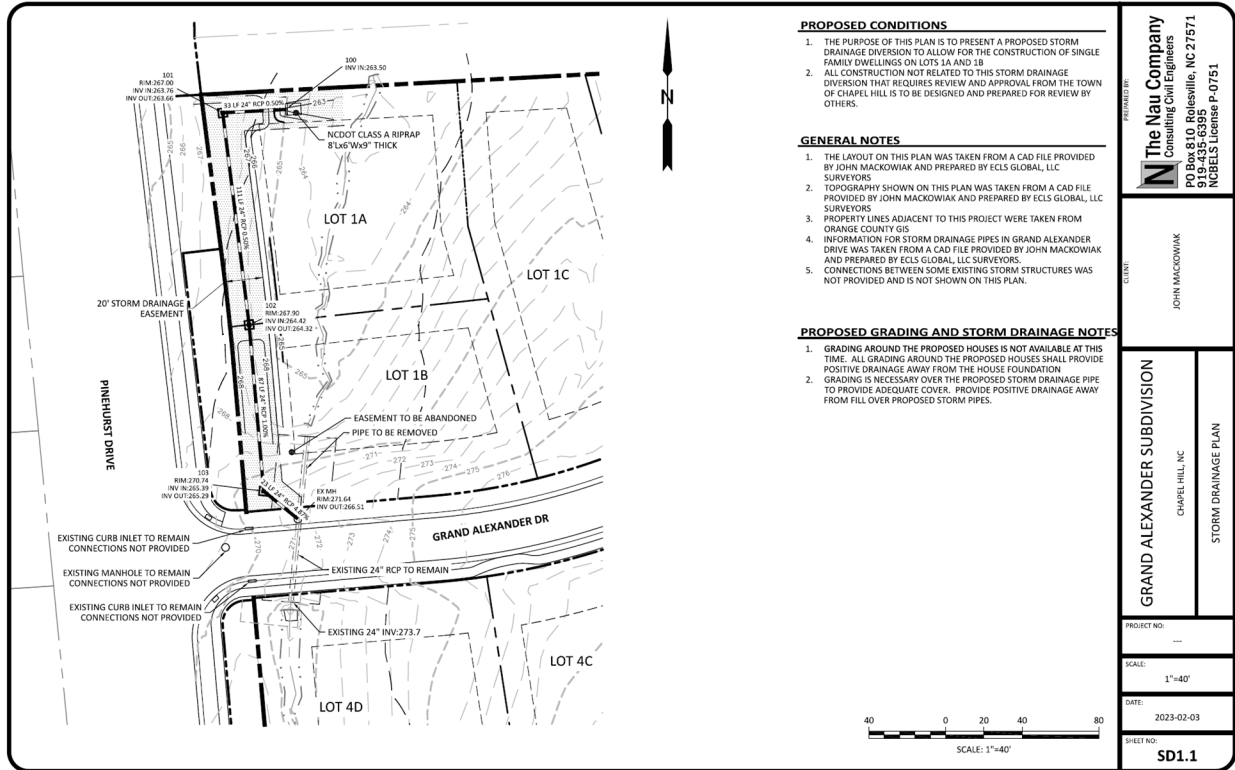
Stormwater Management Plan

- a) Topography from GIS is shown below before Grand Alexander and Mulligan Drive were constructed in 2010.



- b) Pre-existing drainage conditions before Grand Alexander and Mulligan were built, are shown above.
- c) A stream determination done in 2021 found no RCD (no ephemeral or intermittent stream) on these Aquabella lots.

d) Currently an ephemeral drainageway passes through the building envelope of Lot A and B. As required in the LUMO, a ZCP application (zoning compliance permit) will be submitted to redirect the ephemeral drainage away from the building envelopes. When houses are built, building code requires drainage to flow away from the foundations.



The rationale for extending the RCP is to achieve 2 usable homesites which do not have ephemeral flow directed at their foundations. As stated in LUMO Sec. 5.4.6(d), disturbance within the stream channel of any ephemeral stream shall be minimized, but can be authorized by issuance of a zoning compliance permit after demonstration of the necessity for the disturbance. Lot A and B cannot be effectively used to provide housing unless the flow in the existing channel is moved to the western edge of the lots, and new ephemeral channels are created to carry runoff away from the future houses. By moving the RCP to this western edge of these lots, the ephemeral flow coming from the 5-acre watershed south of Grand Alexander I kept away from the structures that will be built in the building envelopes on Lots A and B along Pinehurst Drive. This exact flow volume will be returned to the same channel on the norther border of Lot A where it leaves the watershed. No volume is added or reduced. When the houses are built and the site is graded so drainage flows away from the foundation as required by the building code, a new ephemeral channel or channels will be formed to carry runoff away from the foundations. If these new ephemeral channels are turf lined, they will transport runoff at a lower velocity than the existing ephemeral stream, and remove total suspended solids before the solids flow into larger streams north of Aquabella.

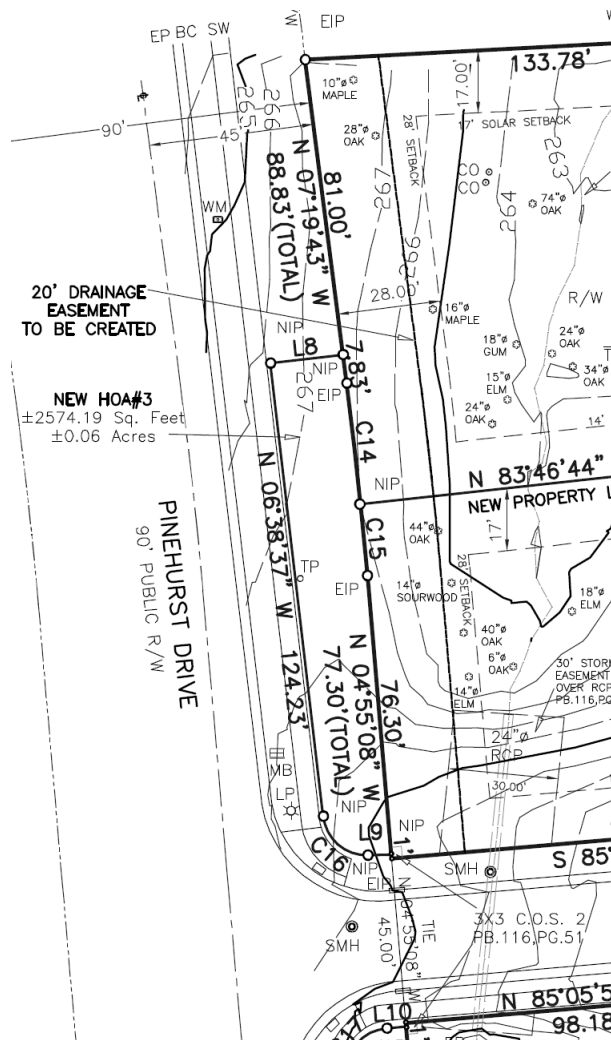
The RCP will be relocated before land disturbance for building houses on lots A and B is initiated.

e) RCP extension plan is show above.

- f) The conveyance for moving this ephemeral drainageway will be the focus of the ZCP, but the design work has been completed by Nau engineering if the engineering staff would like to review it now.
- g) Roof drains will be specified in the various building permits if and when houses are built.
- h) An easement as shown above will be proposed in the ZCP for redirecting the ephemeral flow away from the building footprints.
- i) BMPs will be proposed with each building permit if required.
- j) No planting or stabilization is required or proposed for the subdivision of these 2 lots.

Landscape Protection Plan

- a) We have not yet supplied a complete landscape protection plan because it is required with the future Zoning Compliance Permit. This application is specifically for a Preliminary Plat Approval. Construction of the RCP is not approved with the Preliminary Plat Approval. However, in this application we have given notice where the ZCP extension is proposed, and that it will be associated with the estimated 3,000 square feet of soil disturbance. The location and description of trees within 50' of the RCP extension project is shown on the tree plat, and a snip of the RCP construction area on Lots A&B is provided below.



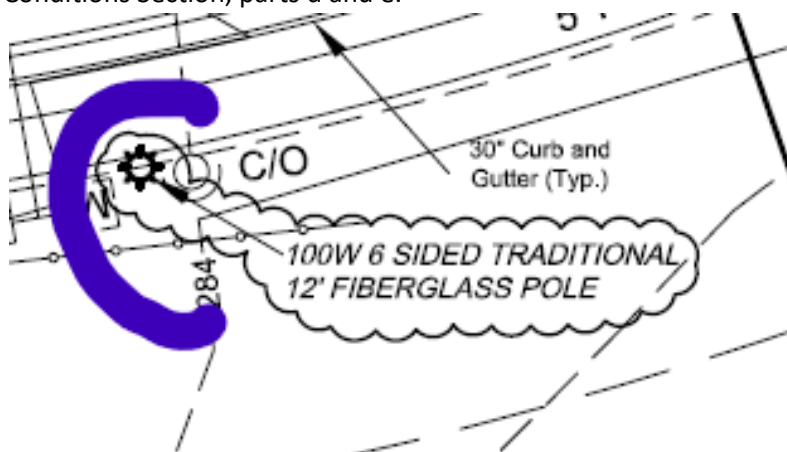
- b) Information requested in sections b-k of the Landscape Protection Plan will be submitted as required with each future single family building permit and with the ZCP application for the RCP extension.

Traffic Plans

- a) No additional traffic calming is proposed for Subdivision.
- b) No new signs or pavement marking are proposed associated with this subdivision application. Once OWASA assumes responsibility for the water utilities, the final lift of asphalt will be completed to town standards, the street name sign will be replaced removing the private designation.
- c) No Traffic Signal is proposed.

Street Light Plan/Streetscape Plan

- a) No additional street lighting is required or proposed.
- b) Location of three existing premium street lights are shown above in purple in the Existing Conditions Section, parts d and e.



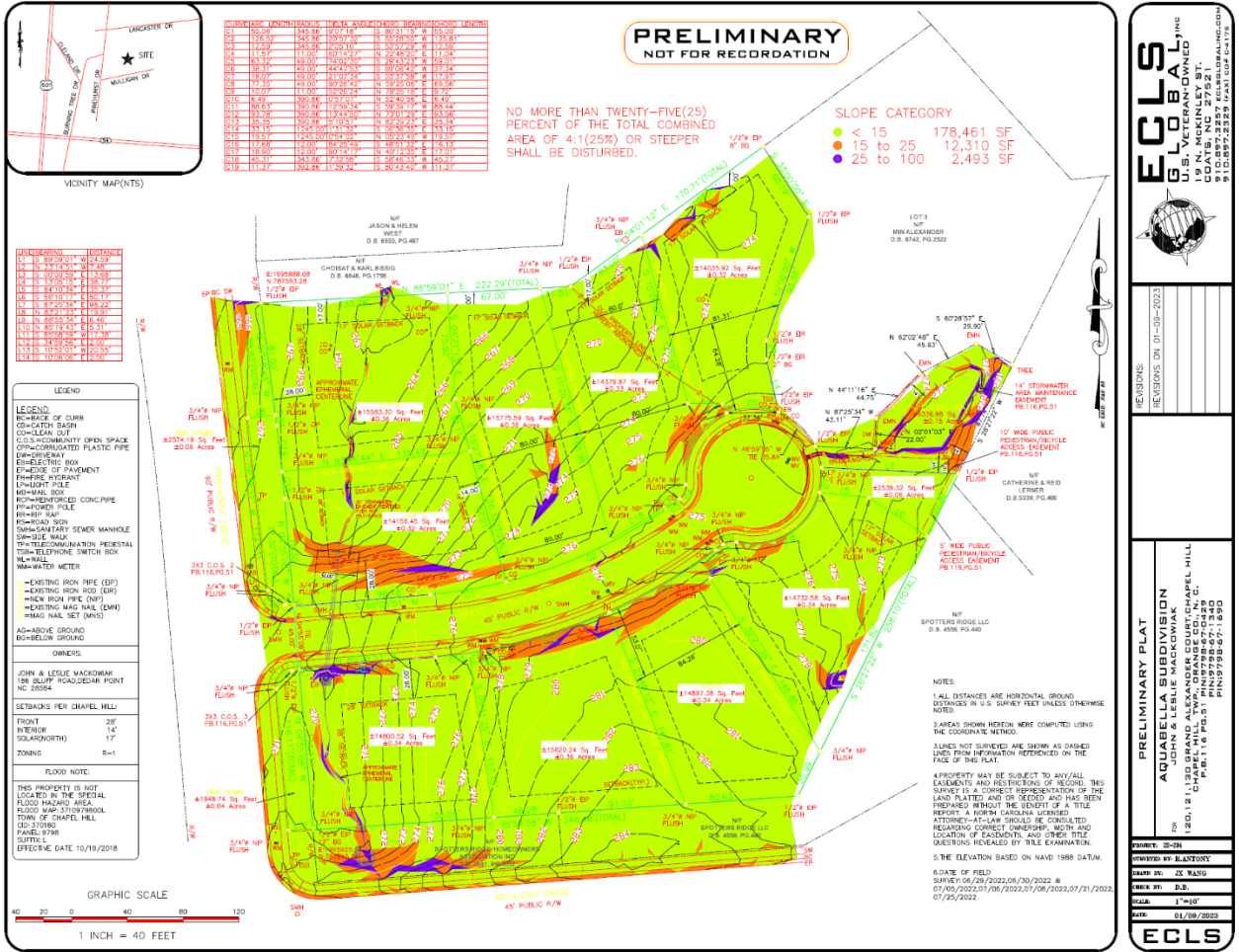
- c) The premium street lights that were installed and inspected in year 2010 were 100W 6 sided traditional on a 12' fiberglass pole.
- d) No other improvements are required or proposed in the ROW.
- e) Downtown detail does not apply.
- f) Street and sidewalks were built in 2010, as shown above in the Existing Conditions Section, part e.

Planting Plan

- a) No buffer is required or proposed.
- b) No off-site buffer is required or proposed.

Steep Slopes Plan

- a) As shown in the Existing Conditions Plan for Aquabella, the majority of the land has a slope of under 15%. Most of the steeper areas are the result of road construction.



- b) No soil disturbance is proposed with this major subdivision application, but it will be requested with a ZCP application (as specified in the LUMO) to extend the RCP. This RCP extension is necessary to make Lots A and B buildable. Individual building permits for each lot will specify the disturbance expected for the construction of each single-family home.

Grading and Erosion Control Plan

- Topography is shown in the plat above.
- No disturbance is proposed with this major subdivision application. Individual building permits on each lot will specify the disturbance expected for the construction of each single-family home. The ZCP application for the RCP extension will show the grading and erosion plan that is designed and shown in the plan provided by Nau Engineering.
- No off-site drainage facilities are proposed.
- 100% of these vacant lots are pervious surfaces today. When building permits are obtained, each permit will specify the impervious surface area.

Solid Waste Plan

- Each single-family home will handle solid waste as allowed by TOCH Solid Waste Services policies and guidelines.

Construction Management Plan

- a) N/A. Subdivision of lots does not require a construction trailer.
- b) N/A. Subdivision of lots does not require construction personnel and equipment parking.
- c) N/A. Subdivision of lots does not require staging or storage of materials.
- d) N/A. Subdivision of lots does not require emergency vehicle access.
- e) N/A. Subdivision of lots does not require delivery truck routing.

Affordable Housing (Inclusionary Zoning)

- a) The number of new lots being created in this expansion of the number of Aquabella lots is 6. The required 15% of 6 lots equals 0.9 units. In a previous call from Judy Johnson, after she met with Emily Holt, I was told that the per unit payment as defined in the LUMO was \$80,000, not \$85,000. Based on the per unit payment of \$80,000 times 0.9 units, the housing payment-in-lieu fee is \$72,000.

Under this ordinance, the minimum lot size can be reduced by 25% in exchange for this payment, however the 6 new lots created were only reduced by 6.6% on average. A 25% reduction in lot size without any reduction in minimum lot width, frontage or setbacks results in a small building foot print on a shallow lot with a reduced back yard. As such, only a fourth of the 25% reduction incentive was realized in Aquabella.

THIS Blank page is between Project Narrative and the Reallocation of the MIA (Maximum Impervious Area) to the new lots.

Major Subdivision Application

(Preliminary Plan)

Narrative attachment to the required Application Form

121 and 130 Grand Alexander Court Subdivisions

4/26/2022

Revised 2/28/24

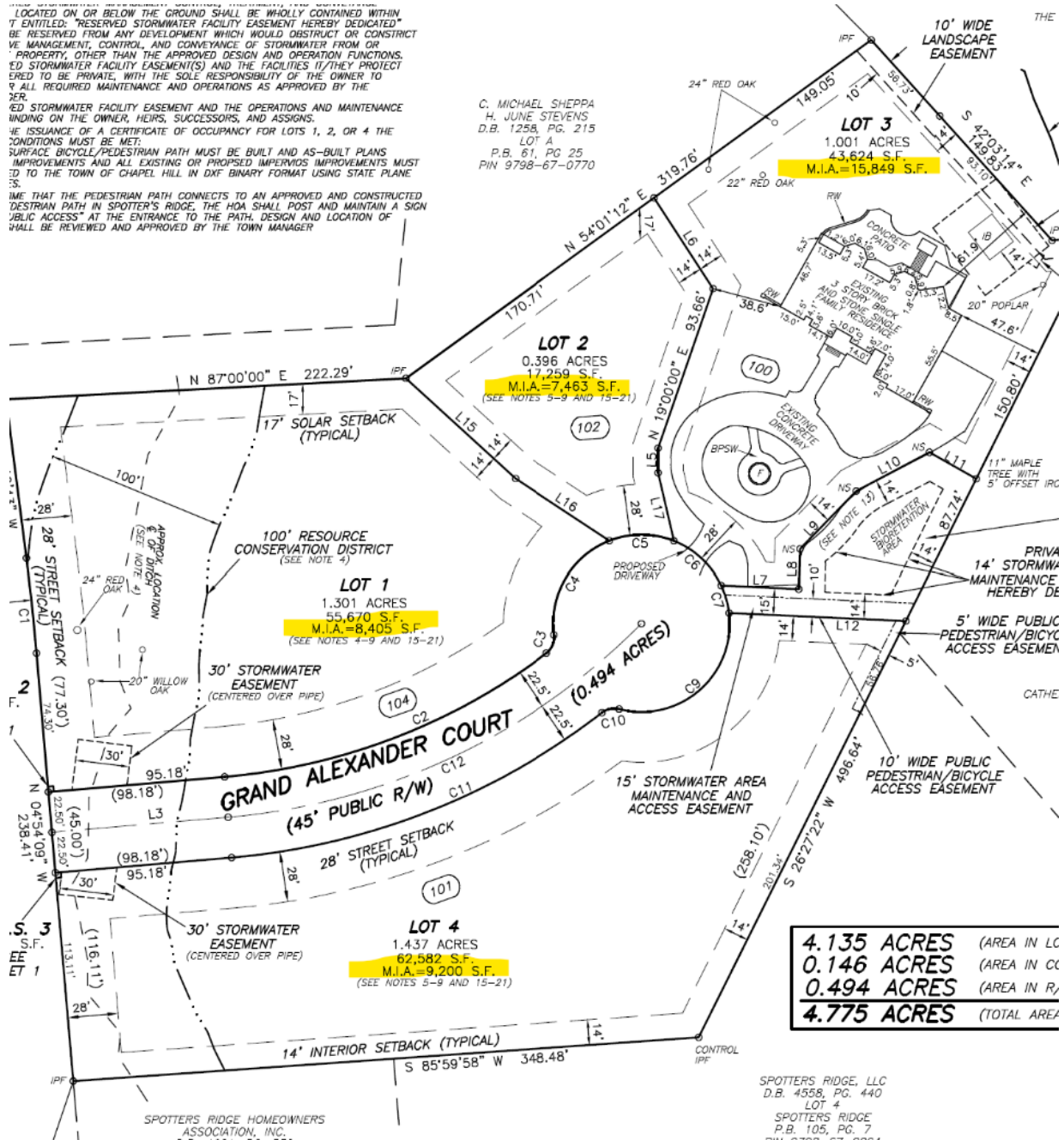
John and Leslie Mackowiak (applicants and owners)

Stormwater Impact Statement

The Stormwater Impact Statement for these lots was submitted and approved in 2008 with the ZCP review of Aquabella. Under that approved plan on page 19 in Table 7, the impervious surface area capacity was allocated to the 4 lots as shown below.

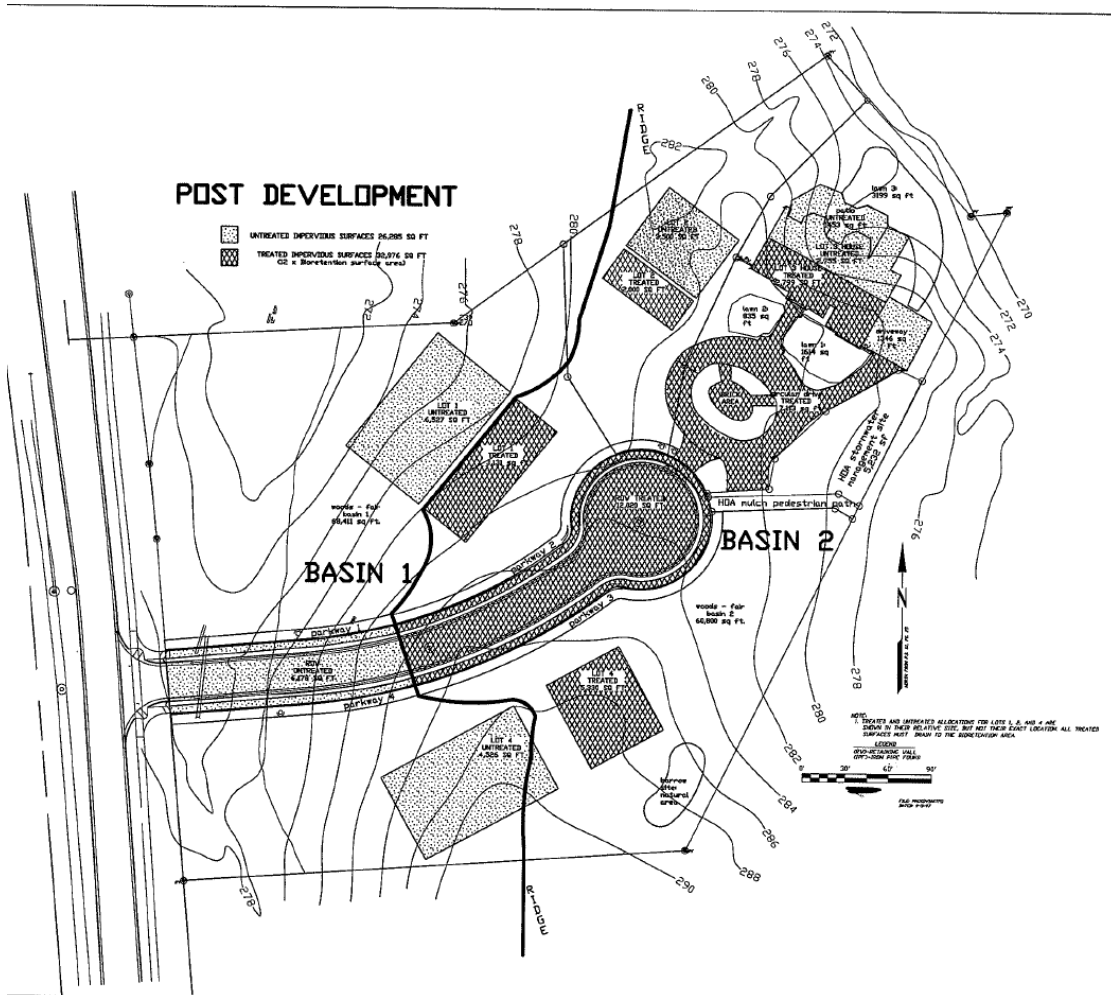
Table 7: Aquabella Impervious Surfaces Budget. Treated surfaces drain to Bioretention area or Infiltration Basin									
	Treated¹			Untreated²			total		
	allocation	used	available	allocation	used	available	allocation	used	available
ROW	12020	12020	0	6178	6178	0	18198	18198	0
Lot 1	0	0	0	8405	0	8405	8405	0	8405
Lot 2	761	0	761	6702	0	6702	7463	0	7463
Lot 3	15849	15466	383	0	0	0	15849	15466	383
Lot 4 ³	4200	0	4200	5000	0	5000	9200	0	9200
HOA reserve	0	0	0	0	0	0	0	0	0
Total	32830	27486	5344	26285	6178	20107	59115	33664	25451
Maximum	32830			26285			59115		
1 The maximum amount of treated impervious area which can be built on this site under this stormwater management plan is 32,830 sf ² .									
2 The maximum amount of untreated impervious area which can be built on this site under this stormwater management plan based on the pre-development state is 26,285 sf ² .									
3 100% of Lot 4 untreated allocation drains to basin 1, the remainder drains to basin 2.									

This 2008 document agrees with the Maximum Impervious Area (MIA) shown on the below plat which was recorded in 2016 when Lot 3 was sold.



The MIA from Lots 1, 2 and 4 of 8405, 7463 and 9200 totals 25,068. When this is allocated equally between the 9 subdivided lots, each will receive on average 2,785.333 SF of MIA without any additional BMP construction.

Given the ridge that divides the lots into basin 1 and basin 2, runoff from lots does not flow to the existing bioretention area. The available 4961 of treated SF will be allocated to the lots that can easily direct runoff to the bioretention area with gravity flows. The remaining untreated SF is allocated to the remaining lots so that each lot is allocated 2785 or 2786 SF until all the 25,068 MIA SF are allocated.



If the owner of any lot wishes to build additional SF of impervious area, they will need to follow the town regulations for treating that stormwater which will be in effect when they apply for a building permit.

The SF allocation to the ROW and Lot 3 does not change.

No other changes to the Aquabella Stormwater Impact Statement are proposed as part of this subdivision application. If this plan for impervious SF allocation is accepted, an updated inspection report showing compliance with the current or a future planting plan will be submitted.

REVISED Table 7: Aquabella Impervious Surfaces Budget. Treated surfaces drain to Bioretention area or Infiltration Basin

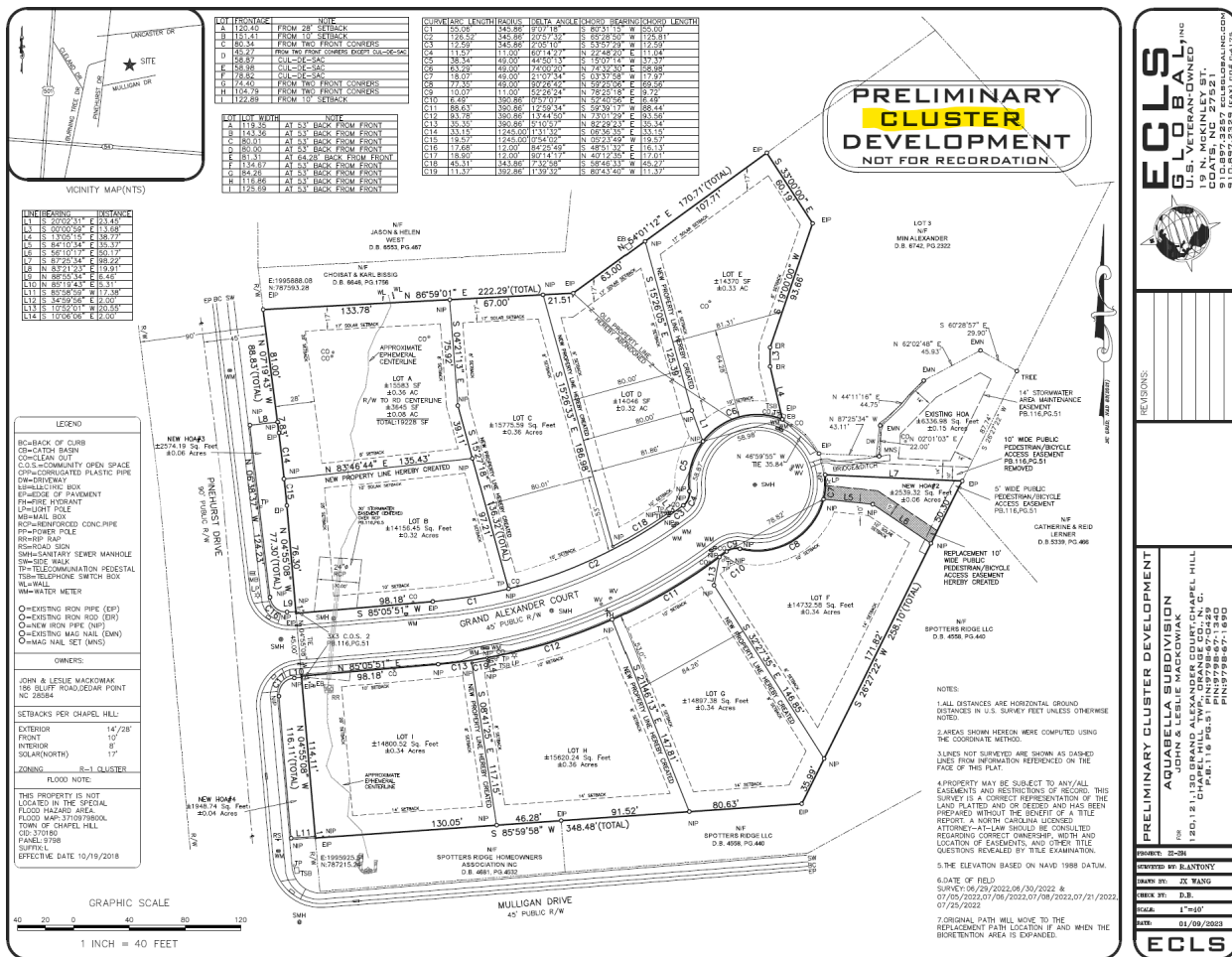
ORIGINAL	address	Treated ¹			Untreated ²			total		
		allocation	used	available	allocation	used	available	allocation	used	available
ROW		12020	12020	0	6178	6178	0	18198	18198	0
Lot 1	130 Grand Alexander Ct.	0	0	0	8405	0	8405	8405	0	8405
Lot 2	120 Grand Alexander Ct.	761	0	761	6702	0	6702	7463	0	7463
Lot 3	100 Grand Alexander Ct.	15849	15466	383	0	0	0	15849	15466	383
Lot 4	121 Grand Alexander Ct.	4200	0	4200	5000	0	5000	9200	0	9200
HOA reserve		0	0	0	0	0	0	0	0	0
Total		32830	27486	5344	26285	6178	20107	59115	33664	25451
Maximum		32830			26285			59115		
REVISED		allocation	used	available	allocation	used	available	allocation	used	available
ROW		12020	12020	0	6178	6178	0	18198	18198	0
Lot A	1025 Pinehurst Dr	0	0	0	2785	0	2785	2785	0	2785
Lot B	1029 Pinehurst Dr	0	0	0	2785	0	2785	2785	0	2785
Lot C	140 Grand Alexander Ct.	0	0	0	2785	0	2785	2785	0	2785
Lot D	130 Grand Alexander Ct	600	0	600	2186	0	2186	2786	0	2786
Lot E	120 Grand Alexander Ct	600	0	600	2185	0	2185	2785	0	2785
Lot 3	100 Grand Alexander Ct	15849	15466	383	0	0	0	15849	15466	383
Lot F	125 Grand Alexander Ct	2761	0	2761	25	0	25	2786	0	2786
Lot G	135 Grand Alexander Ct.	1000	0	1000	1786	0	1786	2786	0	2786
Lot H	145 Grand Alexander Ct	0	0	0	2785	0	2785	2785	0	2785
Lot I	1037 Pinehurst Dr.	0	0	0	2785	0	2785	2785	0	2785
HOA reserve		0	0	0	0	0	0	0	0	0
Net Change		0			0			0		
Maximum		32830			26285			59115		

Plan Sets

No additional construction of infrastructure is proposed as part of this Major Subdivision Application. Therefore, no construction plan sets are being submitted. The construction plans for Grand Alexander Court and the associated infrastructure were submitted and approved as part of the Aquabella process from 2006-2010.

Separate from this subdivision application, a ZCP application will be submitted to extend the RCP (reinforced concrete pipe) which currently exists under Grand Alexander court.

The Preliminary Plan for subdividing the 1.3 and 1.4 acre lots is shown below. Each future lot meets the dimensional requirements in the LUMO for R-1 zoning with the inclusionary zoning density incentive being applied to the 6 new lots created, not the 3 original lots.



The setbacks shown are those for a cluster development. If the cluster development proposal is not accepted, the setbacks will be increased to those for non-cluster R-1 zoning. The advantage of smaller setbacks is that more space is available within the building envelope to build cottages and provide for any additional stormwater control measures that may be necessary. Six of the 9 lots meet the requirements for a single-family home and a cottage.

