



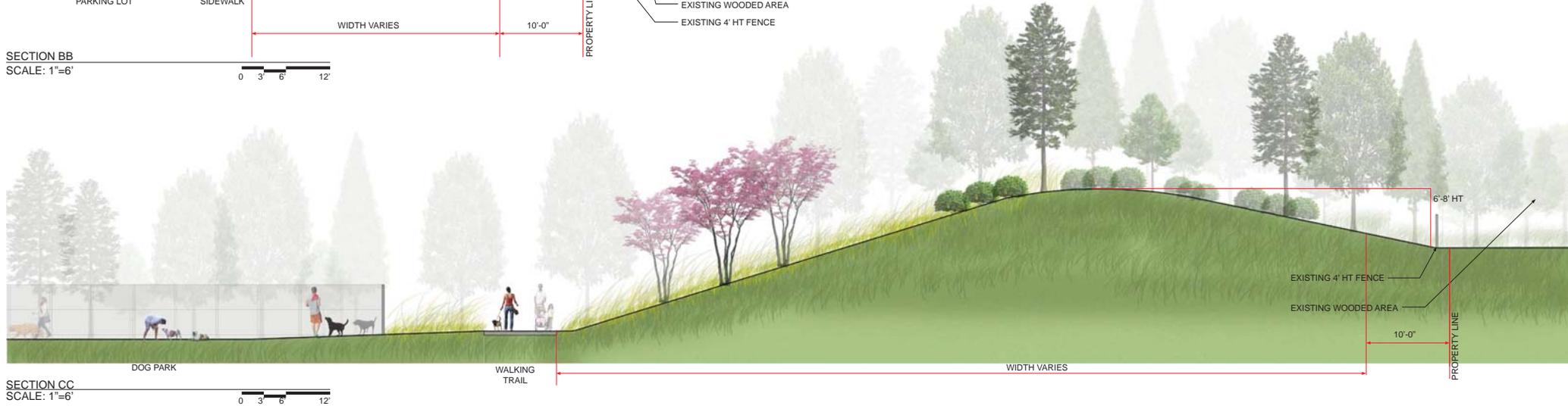
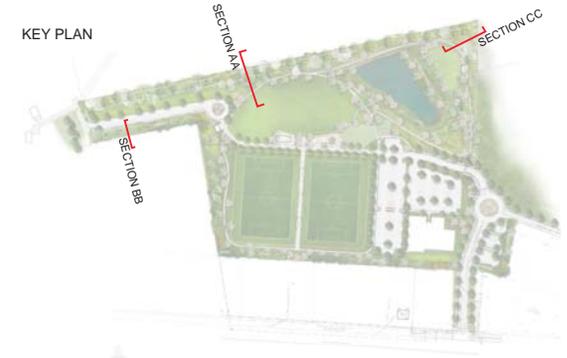
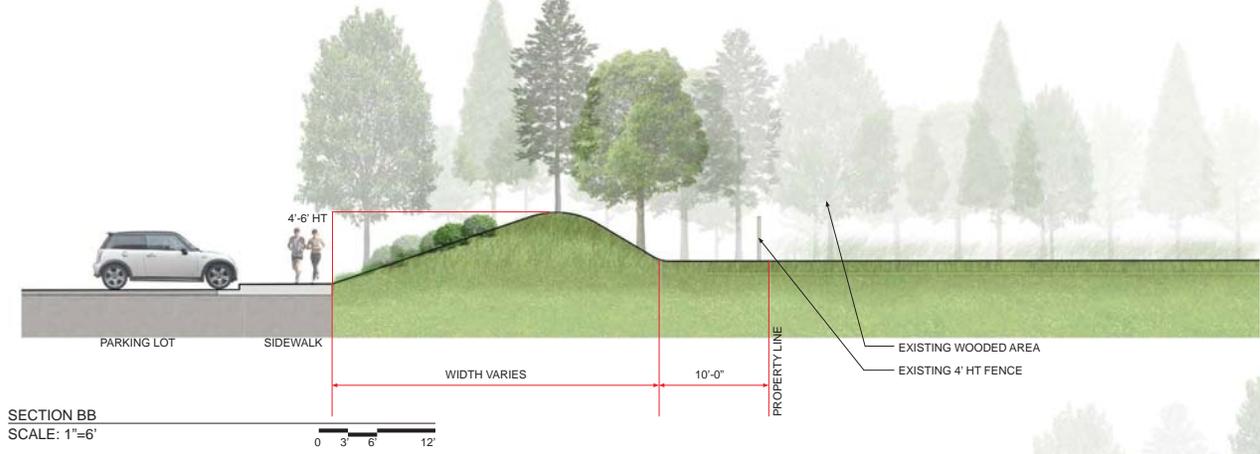
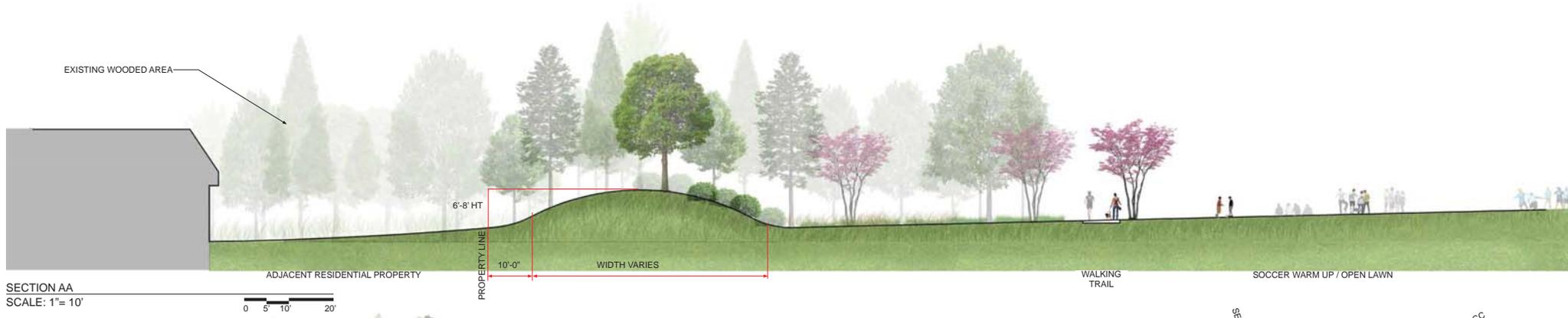
TOTAL PARKING COUNT (FIRST PHASE): 209 SPACES
 TOTAL PARKING COUNT (FIRST PHASE + FUTURE PHASE) : 341 SPACES

MEBANE COMMUNITY PARK: MASTER PLAN

SCALE 1" = 80'

0 40 80 160





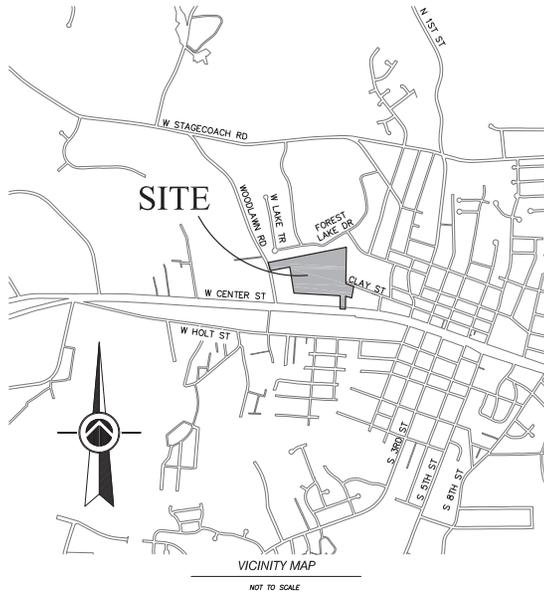
MEBANE COMMUNITY PARK: LANDSCAPE SECTIONS

SITE PLANS FOR SPECIAL USE PERMIT NEW MEBANE COMMUNITY PARK

MEBANE, NORTH CAROLINA
MELVILLE TOWNSHIP, ALAMANCE COUNTY



OWNER
CITY OF MEBANE
106 EAST WASHINGTON STREET
MEBANE, NC 27302
919-563-5901



INDEX OF SHEETS

- SHEET 1 OF 9 - COVER SHEET
- SHEET 2 OF 9 - 500' STRUCTURE PROXIMITY SITE PLAN
- SHEET 3 OF 9 - SITE PLAN
- SHEET 4 OF 9 - UTILITY PLAN AND STORMWATER MANAGEMENT PLAN
- SHEET 5 OF 9 - LANDSCAPING PLAN
- SHEET 6 OF 9 - OVERALL PARKING LOT LIGHTING PLAN
- SHEET 7 OF 9 - OVERALL SITE FIELD LIGHTING PLAN
- SHEET 8 OF 9 - LIGHTING DETAILS
- SHEET 9 OF 9 - STREET INTERSECTION DETAILS

DATE: MAY 23, 2016

ALLEY, WILLIAMS, CARMEN, & KING, INC.
ENGINEERS & ARCHITECTS
740 CHAPEL HILL ROAD
BURLINGTON, NORTH CAROLINA 27215
TELEPHONE: 336-226-5534

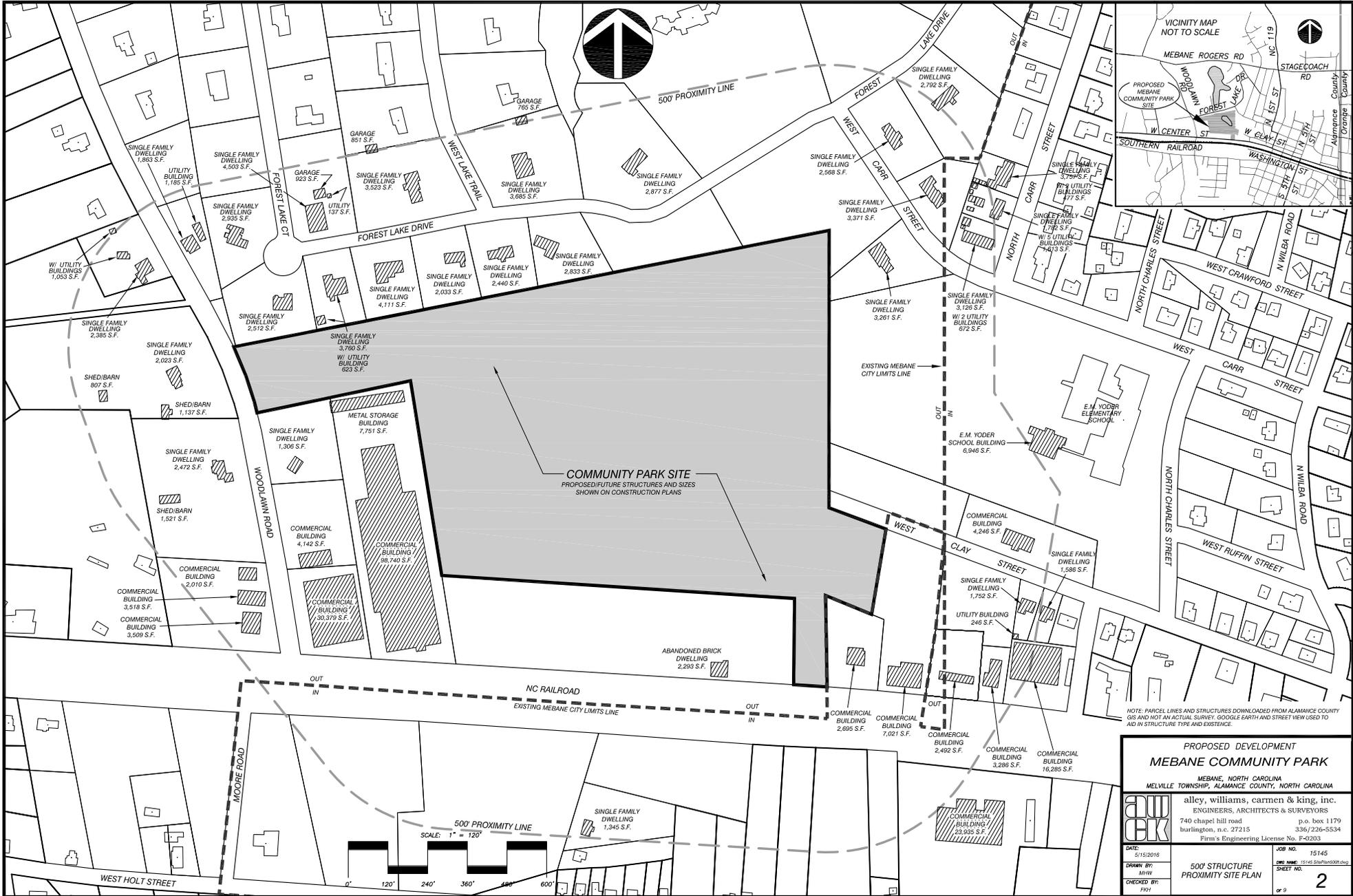
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JOB NO. 15145



PROPOSED DEVELOPMENT
MEBANE COMMUNITY PARK

MEBANE, NORTH CAROLINA
MELVILLE TOWNSHIP, ALAMANCE COUNTY, NORTH CAROLINA

aw ck	alley, williams, carmen & king, inc. ENGINEERS, ARCHITECTS & SURVEYORS	
	740 chapel hill road burlington, n.c. 27215	p.o. box 1179 336/226-5534 Firm's Engineering License No. F-0203
DATE: 3/15/2016	DRAWN BY: MHW	CHECKED BY: PKF
JOB NO. 15145	DATE PLOTTED: 15/06/2016 09:00:00 AM	SHEET NO. 2

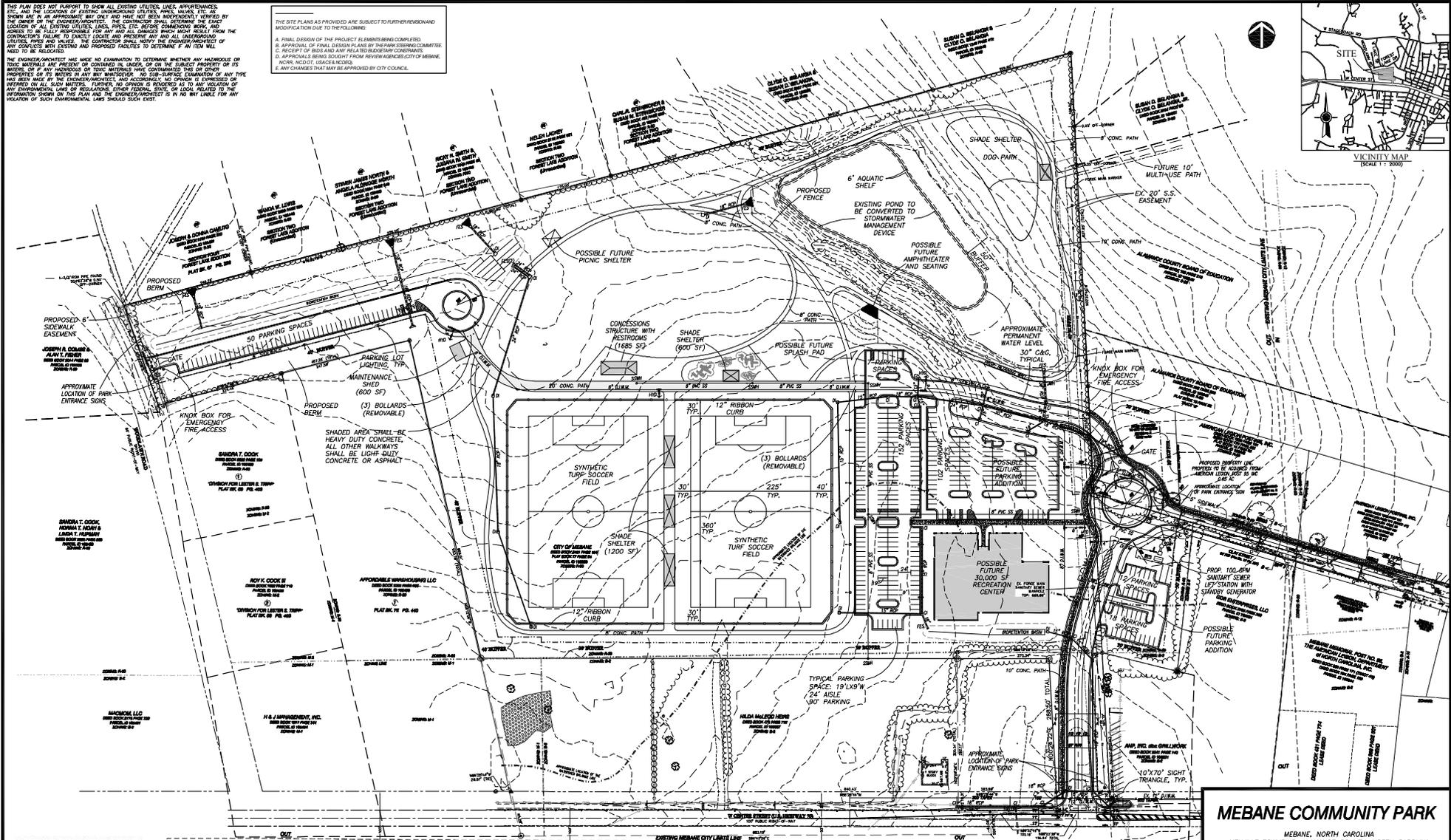
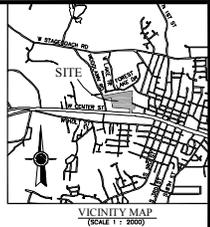
500' STRUCTURE PROXIMITY SITE PLAN

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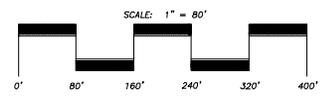
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THE SITE PLANS AS PROVIDED ARE SUBJECT TO FURTHER REVISION AND MODIFICATION DUE TO THE FOLLOWING:

- FINAL DESIGN OF THE PROJECT ELEMENTS/BEING COMPLETED.
- APPROVAL OF FINAL DESIGN PLANS BY THE PARK DISTRICTS/COMMITTEE.
- RECEIPT OF BIDS AND ANY RELATED BIDDING/CONTRACTORS COMMENTS.
- APPROVALS BEING SOUGHT FROM NEIGHBORING CITIES OF MEBANE, NC/IR, NC/DOT, USACE/ALCOA, ETC.
- ANY CHANGES THAT MAY BE APPROVED BY CITY COUNCIL.



CONTRACTOR'S OBLIGATION TO PROTECT EXISTING UTILITIES, LINES, APPURTENANCES, ETC. IS LIMITED TO THE LOCATION OF SUCH UTILITIES, LINES, APPURTENANCES, ETC. AS SHOWN ON THIS PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY RESULT FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PROTECT ANY AND ALL UNDERGROUND UTILITIES, LINES AND PIPES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER/ARCHITECT IF ANY CONFLICTS WITH EXISTING AND PROPOSED FACILITIES TO DETERMINE IF AN ITEM WILL NEED TO BE RELOCATED.



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919-563-5901

PREPARED BY:
ALLEY, WILLIAMS, CARMEN & KING INC.
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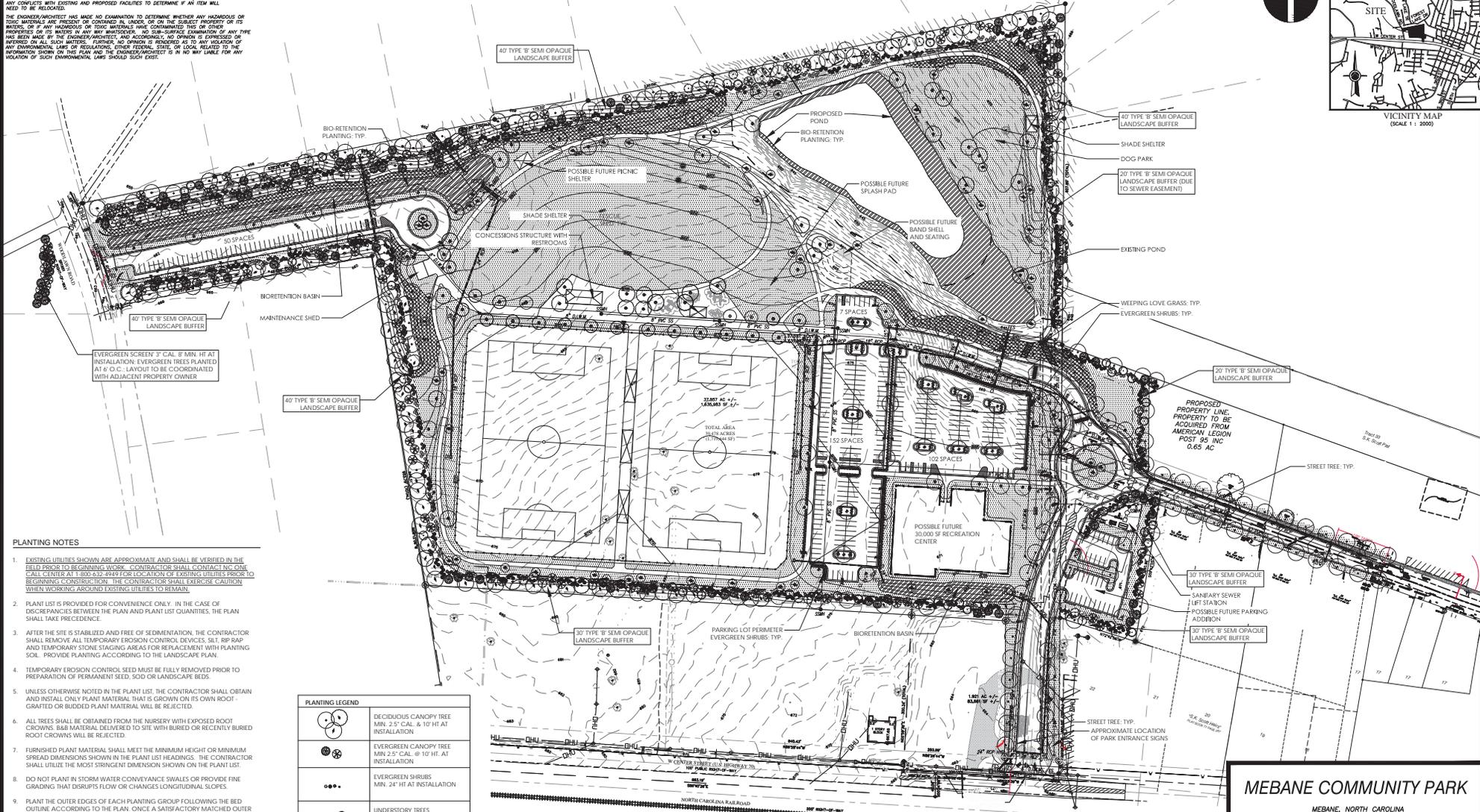
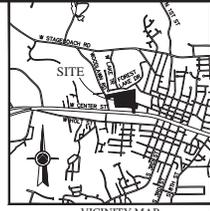
MEBANE COMMUNITY PARK

MEBANE, NORTH CAROLINA
MELVILLE TOWNSHIP, ALAMANCE COUNTY, NORTH CAROLINA
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Firm's Engineering License No. P-0203

DATE:	8/19/16	JOB NO.:	15145
DRAWN BY:	SK	CITY OF MEBANE LOCAL USE ONLY	
CHECKED BY:	FJK	UTILITY & STORMWATER MANAGEMENT PLAN	
		SHEET NO.:	4

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- PLANTING NOTES**
- EXISTING UTILITIES SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD PRIOR TO BEGINNING WORK. CONTRACTOR SHALL CONTACT THE ONE-CALL CENTER AT 1-800-432-4249 FOR LOCATION OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING AROUND EXISTING UTILITIES TO REMAIN.
 - PLANT LIST IS PROVIDED FOR CONVENIENCE ONLY. IN THE CASE OF DISCREPANCIES BETWEEN THE PLAN AND PLANT LIST QUANTITIES, THE PLAN SHALL TAKE PRECEDENCE.
 - AFTER THE SITE IS STABILIZED AND FREE OF SEDIMENTATION, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES, Silt, RIP RAP AND TEMPORARY STONE STAGING AREAS FOR REPLACEMENT WITH PLANTING SOIL. PROVIDE PLANTING ACCORDING TO THE LANDSCAPE PLAN.
 - TEMPORARY EROSION CONTROL SEED MUST BE FULLY REMOVED PRIOR TO PREPARATION OF PERMANENT SEED, SOIL OR LANDSCAPE BEDS.
 - UNLESS OTHERWISE NOTED IN THE PLANT LIST, THE CONTRACTOR SHALL OBTAIN AND INSTALL ONLY PLANT MATERIAL THAT IS GROWN ON ITS OWN ROOT - GRAFTED OR BUDDED PLANT MATERIAL WILL BE REJECTED.
 - ALL TREES SHALL BE OBTAINED FROM THE NURSERY WITH EXPOSED ROOT CROWNS. B&B MATERIAL DELIVERED TO SITE WITH BURIED OR RECENTLY BURIED ROOT CROWNS WILL BE REJECTED.
 - FURNISHED PLANT MATERIAL SHALL MEET THE MINIMUM HEIGHT OR MINIMUM SPREAD DIMENSIONS SHOWN IN THE PLANT LIST HEADINGS. THE CONTRACTOR SHALL UTILIZE THE MOST STRINGENT DIMENSION SHOWN ON THE PLANT LIST.
 - DO NOT PLANT IN STORM WATER CONVEYANCE SWALES OR PROVIDE FINE GRADING THAT DISRUPTS FLOW OR CHANGES LONGITUDINAL SLOPES.
 - PLANT THE OUTER EDGES OF EACH PLANTING GROUP FOLLOWING THE BED OUTLINE ACCORDING TO THE PLAN. ONCE A SATISFACTORY MATCHED OUTER SHAPE IS OBTAINED, FILL THE CENTER OF EACH AREA WITH PLANTS ACCORDING TO THE PLAN AND SPACING NOTES.
 - THE PLANTING LAYOUT WITHIN PLANTING BEDS SHOULD BE SHIFTED TO MINIMIZE CONFLICTS WITH EXISTING TREE ROOTS.
 - THE CONTRACTOR SHALL SEED 7777 SOIL ALL DISTURBED AREAS INCLUDING CONSTRUCTION ACCESS OUTSIDE PROJECT LIMITS.

PLANTING LEGEND	
	DECIDUOUS CANOPY TREE MIN. 2.5' CAL. & 10' HT AT INSTALLATION
	EVERGREEN CANOPY TREE MIN. 2.5' CAL. @ 10' HT. AT INSTALLATION
	EVERGREEN SHRUBS MIN. 24" HT AT INSTALLATION
	UNDERSTORY TREES MIN. 2.0' CAL. & 6' HT AT INSTALLATION
	FLOWERING TREE
	WEEDING LOVE GRASS SEED (SLOPES GREATER 3:1)
	FESCUE SEED
	BIO-RETENTION PLANTING

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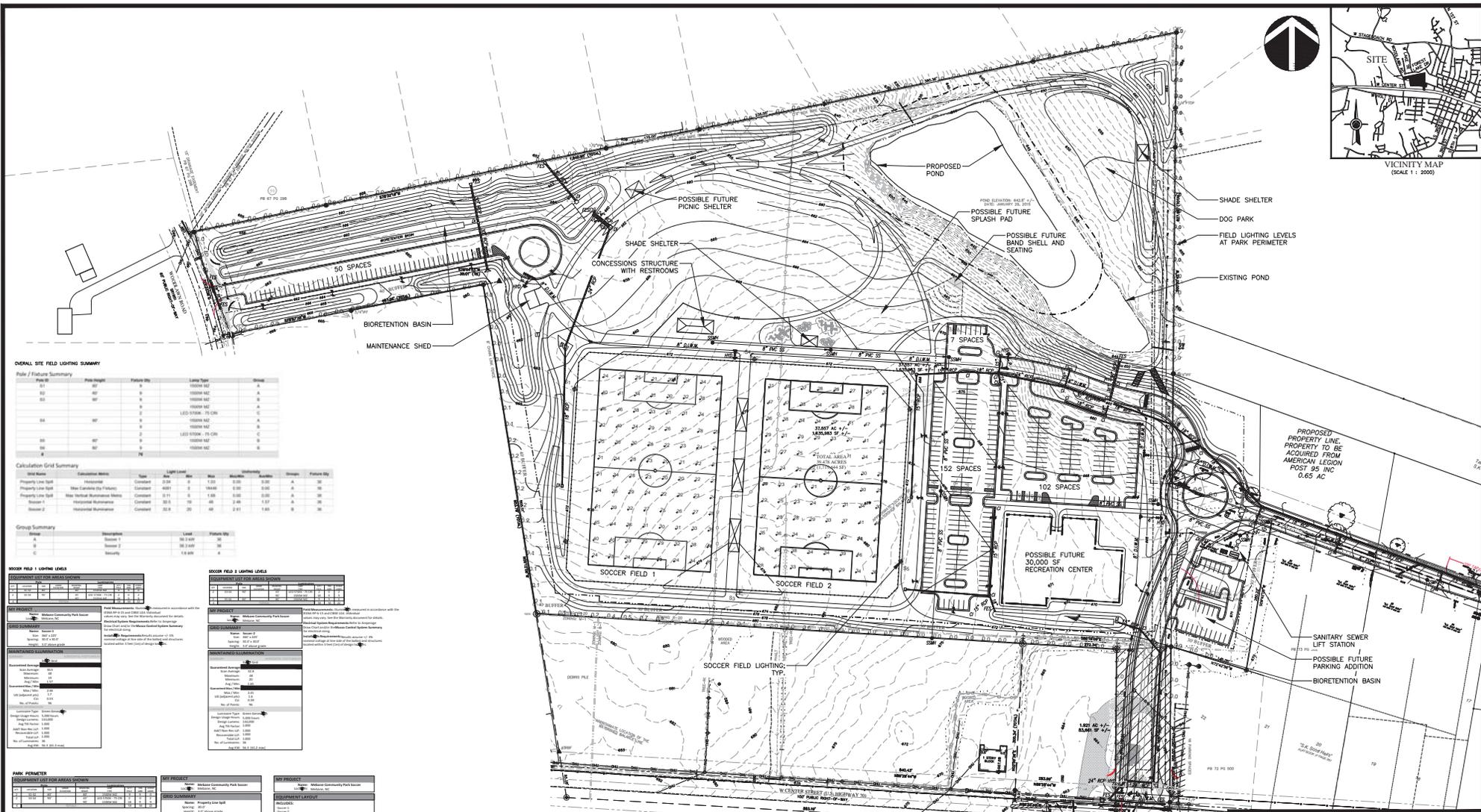
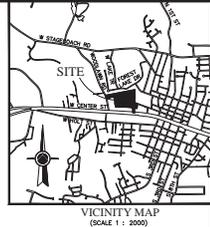
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CHECKED BY: CB	of 9

OVERALL
SITE
LANDSCAPE PLAN

5





OVERALL SITE LIGHTING SUMMARY

Table 1: Pole / Fixture Summary

Pole #	Pole Height	Fixture Type	Luminaire Type	Quantity	Notes
01	30'	FL	MS1000-100	1	
02	30'	FL	MS1000-100	1	
03	30'	FL	MS1000-100	1	
04	30'	FL	MS1000-100	1	
05	30'	FL	MS1000-100	1	
06	30'	FL	MS1000-100	1	
07	30'	FL	MS1000-100	1	
08	30'	FL	MS1000-100	1	
09	30'	FL	MS1000-100	1	
10	30'	FL	MS1000-100	1	

Table 2: Calculation Grid Summary

System	System Name	Type	Light Level	Area	Quantity	Notes
1	Horizontal	Constant	0.15	10000	10000	
2	Vertical	Constant	0.15	10000	10000	
3	Horizontal	Constant	0.15	10000	10000	
4	Vertical	Constant	0.15	10000	10000	

SOCCER FIELD 1 LIGHTING LEVELS

Location	Light Level (fc)
Field Center	0.15
Field Edge	0.10
Field Perimeter	0.05

SOCCER FIELD 2 LIGHTING LEVELS

Location	Light Level (fc)
Field Center	0.15
Field Edge	0.10
Field Perimeter	0.05

Table 3: Equipment List for Areas Shown

Area	Equipment	Quantity	Notes
Field 1	MS1000-100	1	
Field 2	MS1000-100	1	

Table 4: Equipment List for Areas Shown

Area	Equipment	Quantity	Notes
Field 1	MS1000-100	1	
Field 2	MS1000-100	1	

PARK PERIMETER

Location	Light Level (fc)
Perimeter	0.05

SOCCER FIELD 1 PERIMETER

Location	Light Level (fc)
Perimeter	0.05

SOCCER FIELD 2 PERIMETER

Location	Light Level (fc)
Perimeter	0.05

NOTES:

1. All lighting levels are based on a 10-foot mounting height.
2. All lighting levels are based on a 10-foot mounting height.
3. All lighting levels are based on a 10-foot mounting height.
4. All lighting levels are based on a 10-foot mounting height.
5. All lighting levels are based on a 10-foot mounting height.
6. All lighting levels are based on a 10-foot mounting height.
7. All lighting levels are based on a 10-foot mounting height.
8. All lighting levels are based on a 10-foot mounting height.
9. All lighting levels are based on a 10-foot mounting height.
10. All lighting levels are based on a 10-foot mounting height.

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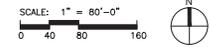


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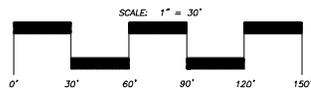
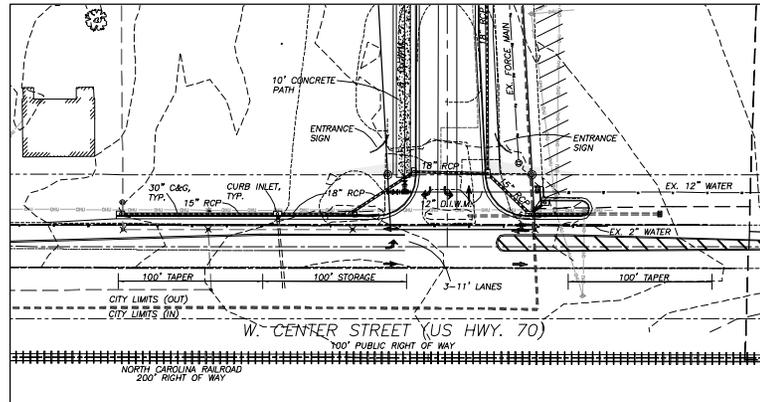
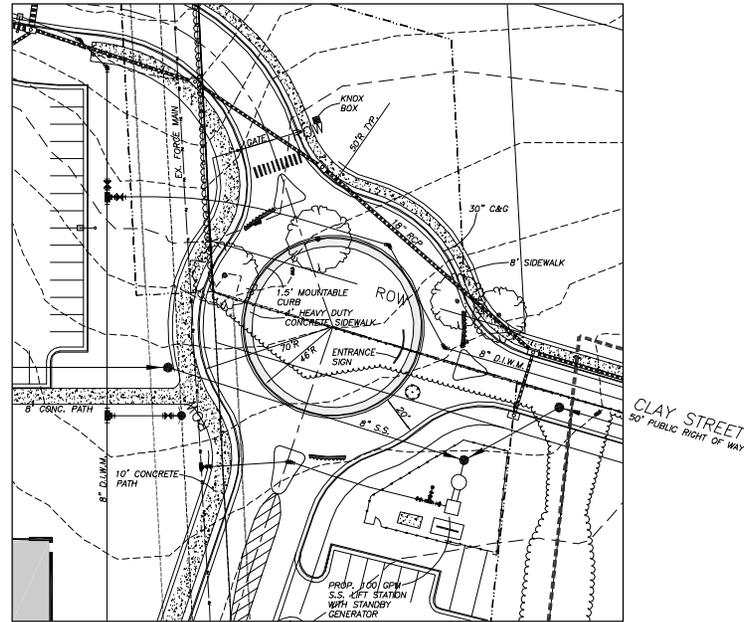
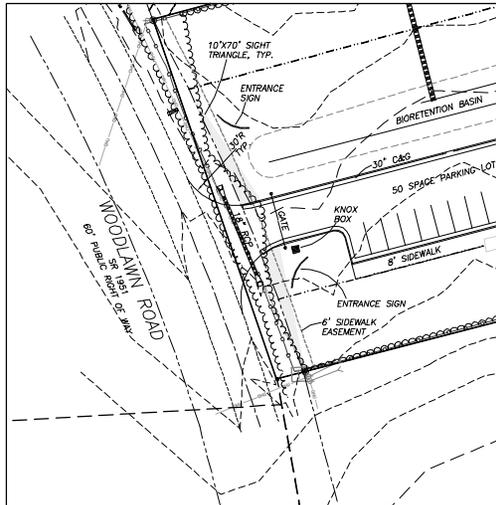
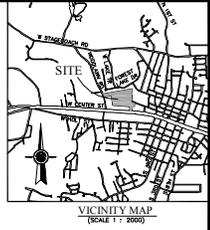
OVERALL SITE LIGHTING PLAN

JOB NO. 15145
SHEET NO. 7
OF 9



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STREET INTERSECTION DETAILS		of 9	

TRANSPORTATION IMPACT ANALYSIS

Prepared for City of Mebane

Project Number: 160009

Original: 02/26/2016

Revised: 05/18/2016

Mebane Community Park

Mebane, NC





Transportation Impact Analysis

Mebane Community Park Mebane, NC

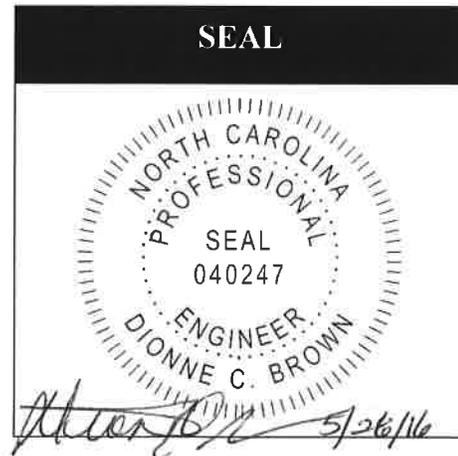
Prepared for City of Mebane
Original: February 26, 2016
Revised: May 18, 2016

Analysis by: Dionne C. Brown, P.E.

Drafting/Graphics by: Dionne C. Brown, P.E.

Reviewed by: Frank Amenya, P.E., PTOE
F. Royal Hinshaw, P.E.

Sealed by: Dionne C. Brown, P.E.



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Mebane Community Park – Transportation Impact Analysis
Prepared for City of Mebane
Original: February 26, 2016
Revised: May 18, 2016

Executive Summary

The City of Mebane is proposing a community park on US 70 (Center Street) between Woodlawn Road and NC 119 (2nd Street). The park is proposed to include two (2) soccer fields along with space for a future 30,000 square foot recreational center. This site is planned to access the proposed park with three access points: Center Street, Woodlawn Road and Clay Street Extension. A roundabout located on the eastern side of the site provides access to the main parking area via US 70 (Center Street) and Clay Street. A separate parking area on the western side is accessed by Woodlawn Road.

DAVENPORT was retained to determine the potential traffic impacts of this development and to identify transportation improvements that may be required to accommodate the impacts of both background traffic and new development traffic. The following intersections were included in the study:

- US 70 (Center Street) at Woodlawn Road
- NC 119 (2nd Street) at Clay Street
- 5th Street at Clay Street
- Center Street at Site Access 1
- Woodlawn Road at Site Access 2
- Internal roundabout

The above-mentioned intersections were analyzed for the following scenarios:

- 2016 Existing Conditions
- 2018 Future No Build Conditions
- 2018 Future Build-Out Conditions
- 2018 Future Build-Out with Improvements (as necessary)

The build-out analysis year for this project was assumed to be 2018. The weekday PM (4-6 pm) and Saturday (11 am-2 pm) peaks were studied as these are anticipated to be the time periods of heaviest park usage.

The City of Mebane and the North Carolina Department of Transportation (NCDOT) were contacted to obtain background information and to ascertain the elements to be covered in this Transportation Impact Analysis (TIA). Information regarding the property was provided by AWCK Inc.

Level of Service Results

The results of the study are discussed by intersection below:

US 70 (Center Street) at Woodlawn Road

This unsignalized intersection currently operates at LOS C in the PM peak and LOS B in the Saturday peak. In 2018 future no build conditions, the analysis indicates LOS C in the PM peak and LOS B in the Saturday peak. With the addition of site traffic, this intersection is projected to operate at LOS C in the PM peak and LOS B in the Saturday peak. No improvements are recommended.

NC 119 (2nd Street) at Clay Street

This signalized intersection currently operates at LOS A in the PM and Saturday peaks. In 2018 future no build conditions, the analysis indicates LOS A in the PM and Saturday peaks. With the addition of site traffic, this intersection is projected to operate at LOS A in the PM and Saturday peaks. No improvements are recommended.

5th Street at Clay Street

This unsignalized intersection currently operates at LOS B in the PM and Saturday peaks. In 2018 future no build conditions, the analysis indicates LOS B in the PM and Saturday peaks. With the addition of site traffic, this intersection is projected to operate at LOS B in the PM and Saturday peaks. No improvements are recommended.

US 70 (Center Street) at Site Access 1

In 2018 future build conditions, LOS C is expected in the PM peak and LOS B in the Saturday peak. On the basis of the projected traffic volumes, auxiliary turn lanes are not warranted. However, both the City of Mebane and NCDOT support a left turn lane on US 70 into the site to promote safety by separating turning traffic from through traffic on this relatively high speed roadway. Therefore, an eastbound left turn lane on US 70 (Center Street) with 100 feet of storage and appropriate taper is recommended. The site plan indicates a separate left and right egress lane from the site access. With these improvements the LOS in the PM and Saturday Build conditions are expected to remain the same.

Woodlawn Road at Site Access 2

In 2018 future build conditions, LOS B is expected in the PM peak and LOS A in the Saturday peak. The turning volumes into the site are very low and would not require an auxiliary lane. No improvements are recommended.

Internal Roundabout

An internal roundabout is proposed where Site Access 1 intersects Clay Street Extension. This single lane roundabout is expected to operate at LOS A in the PM and Saturday peaks. Per NCDOT standards, a 20-year future build analysis was also



prepared for the roundabout scenario; the results indicate a LOS A in the PM and Saturday peaks. Based on the flow-scale analysis failure is not expected within 20 years after build, results can be found in the appendix.

Level of Service Summary

Table A presents the summary of the level of service analysis.

Table A - Level of Service Summary				
PM Peak	2016 Existing	2018 Future No Build	2018 Future Build	2018 Future Build with Improvements
US 70 (Center Street) at Woodlawn Road	C (18.8) SB Approach	C (19.4) SB Approach	C (20.8) SB Approach	
NC 119 (2nd Street) at Clay Street	A (4.8)	A (5.0)	A (3.7)	
5th Street at Clay Street	B (11.9) EB Approach	B (12.0) EB Approach	B (12.5) EB Approach	
US 70 (Center Street) at Site Access 1			C (16.8) SB Approach	C (16.4) SB Approach
Woodlawn Road at Site Access 2			B (10) WB Approach	
Roundabout			A (4.4)	
Saturday Peak	2016 Existing	2018 Future No Build	2018 Future Build	2018 Future Build with Improvements
US 70 (Center Street) at Woodlawn Road	B (12.8) SB Approach	B (13) SB Approach	B (13.1) SB Approach	
NC 119 (2nd Street) at Clay Street	A (3.6)	A (3.7)	A (3.7)	
5th Street at Clay Street	B (12.3) EB Approach	B (12.4) EB Approach	B (12.7) EB Approach	
US 70 (Center Street) at Site Access 1			B (12.6) SB Approach	B (12.5) SB Approach
Woodlawn Road at Site Access 2			A (9.1) WB Approach	
Roundabout			A (4.3)	

LOS (delay in seconds)
Note for unsignalized conditions, LOS and delay indicates only minor street approach with longest delay

Summary and Conclusion

The City of Mebane is proposing a community park on US 70 (Center Street) between Woodlawn Road and NC 119 (2nd Street). The park is proposed to include two (2) soccer fields along with space for a future 30,000 square foot recreational center. This site is planned to access the proposed park with three access points: Center Street, Woodlawn Road and Clay Street Extension. A roundabout located on the eastern side of the site provides access to the main parking area via US 70 (Center Street) and Clay Street. A separate parking area on the western side is accessed by Woodlawn Road.

The trip generation indicates that based on the current site plan the proposed project is projected to generate a total of 1,158 trips per day.

The analysis indicates that the study intersections are expected to operate at LOS C or better in the PM and Saturday peaks. The proposed internal roundabout will operate effectively as a single lane roundabout.

All study intersections are expected to function without any improvements. However, at the intersection of US 70 (Center Street) at Site Access 1, it is desired by the City of Mebane and NCDOT that an eastbound left turn lane be constructed for safety on a high speed roadway. Therefore, it is recommended to provide an 100 foot storage with appropriate taper left turn lane. The site plan indicates a separate left and right egress lane from the site access.

In conclusion, this analysis has been conducted based on NCDOT and City of Mebane guidelines and has determined the potential traffic impacts of this development. With the build-out of the site, the analysis indicates there will be adequate capacity to accommodate future traffic. Note that the site accesses should to be designed according to NCDOT standards as appropriate.



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April 28, 2016

Mr. David Cheek
City Manager
City of Mebane
106 East Washington Street
Mebane, NC 27302

RE: Special Use Permit for Proposed Mebane Community Park
31.561-Acre Vacant Tract
Located at 627 West Center Street
Mebane, NC 27302

Dear Mr. Cheek:

The above captioned property is proposed for development by the City of Mebane with a community park that will include two soccer fields, possibly a future indoor pool, basketball and fitness building, as well as a potential amphitheater, a dog park, a concessions and restroom building, parking, maintenance building and a sewer lift station. The tract, which is addressed as 621 W. Center Street, Mebane, NC. (Tax Id. Number 165659), is 31.561 acres in size and is outside the city limits of Mebane, but is within its extraterritorial jurisdiction. As such, it is zoned R-20 (a residential classification) and the majority of the tract is within a General Watershed District associated with Mebane's water supply. The purpose of this letter is to render an opinion about any impact that the park could have on adjoining and surrounding residential properties.

To this end, we have conducted studies on several areas of Alamance County and adjoining Guilford County where there are existing athletic parks. The purpose of the studies is to review sales of adjoining residential properties in an effort to determine whether or not their proximity to the park and/or athletic facilities had a negative impact on their respective market values.

For Alamance County, we have conducted studies involving the sale of five single-family residential properties located directly across from the athletic fields at Walter Williams High School. These sales are located on Tarleton Drive and Parkview Street and were utilized in a "matched" pair comparison analysis with similar properties from the neighborhood that sold during the same time frame (no more than 12 months apart) not located across from the athletic fields.

Mr. David Cheek
April 28, 2016
Page 2

This was done to see whether or not the athletic fields had an adverse effect on value to those sale properties located across from them.

In addition to analyzing several sales from the neighborhood surrounding Walter Williams High School, we also compared two sales (via a matched pair analysis) from Graham on Oakgrove Drive that are located directly across from the athletic facilities associated with Graham High School, North Graham Elementary School and Town Branch Park. Similar to the previous analyses, these two sales were compared to similar properties not located across from the athletic fields/facilities that sold at about the same time. Also, a similar analysis was undertaken involving the sale of a property located at 1346 St. Marks Church Rd located directly across from a large park (Davidson Park) with athletic facilities located at the corner of Rural Retreat Road and St. Marks Church Rd. As was the case with the previous analyses, this property was then compared with two sales from the neighborhood located on Berkshire Road not located across from the park.

In conclusion, eight sales involving single-family residential properties located within close proximity to athletic facilities were analyzed to see whether or not their proximity to these facilities had an adverse effect on their eventual sale prices. In all eight comparisons, after making necessary adjustments when required for differences regarding size, construction, quality, age, number of bedrooms and baths, whether or not they have garages or carports, etc., no discernible difference in value attributable to the sale property's proximity to athletic fields and/or a park was evident.

Further support of this conclusion is provided by a 2007 study conducted by this office regarding the proposed Proehlif Park in northwest Greensboro, NC. This facility has baseball fields, soccer fields and an approximate 60,000 square foot building to house indoor athletic facilities. In this study several areas of Guilford County where there are existing athletic parks were surveyed and sales of adjoining residential properties were studied in an effort to determine appreciation rates of the properties which had recently sold. To this end, we studied the area of Lindley Park along West Market Street, N. Eugene Street, which is near the New Bridge Baseball Park and the Montebello and Stonehaven neighborhoods near the YMCA on Horsepen Creek Road. Other areas were also studied, but these were the primary ones because of their location, levels of traffic, etc. In all cases we found that appreciation rates of surrounding homes continued to be consistent with appreciation rates in other neighborhoods of town, generally in the area of 2.5% to 3% per year. In other words, when appreciation rates around a specific use continue to be consistent with other neighborhoods of the city that are not exposed to that use, it indicates that there is no adverse impact as a result of the specific use being studied.

One additional study is referenced for support as well. This report was conducted in 2007 by Econsult Corporation and Greenways Incorporated for the Catawba Lands Conservancy. This study involved a regional economic impact study regarding the Carolina Thread Trail, which is an approximate 500-mile trail across a 15-county region that includes parts of North and South Carolina. In short it was found that the trail with full community support and with the appropriate implementation, would provide a number of tangible and intangible economic benefits for the local communities throughout the region.

In part, the study concluded the following:

- Enhanced property values and local tax revenues
- Increased tourism
- Increased economic benefits for the local economy generated by the investment to construct the Trail
- Enhanced Business Community through business expansion and economic development
- Enhanced air and water quality
- Increased Recreation Value for residents and tourists

While this study does not deal directly with the issue as to whether or not the proposed Mebane Community Park will adversely affect surrounding property values, it does demonstrate that greenways, trails and recreational type uses generally do not have a negative impact on adjoining and nearby uses.

In conclusion, we are of the opinion that the proposed Mebane Community Park with its two soccer fields and other planned amenities **will not injure the value of adjoining or abutting property**. This is especially true given the specific configuration of the tract and the proposed site plan, which shows a large buffer area with a pond and a planted berm along the property's northern property line to protect adjoining residential development in the Forest Lake neighborhood from light and noise. Furthermore, it is our understanding that while the soccer fields and parking areas will be illuminated, the lights for the soccer fields will have shields and the buffer area surrounding the parking areas should act as a shield as well. Also, it is noted that light industrial uses adjoin the property to the west, while mostly business-type uses adjoin it to the south. Further, we believe that this use would have less impact on surrounding residential properties than some other uses which could conceivably be developed on the tract. We further note that this letter is merely a summary of our conclusions and that the data relied upon for these opinions is retained in our files.

Mr. David Cheek
April 28, 2016
Page 4

We appreciate the opportunity to be of service to you in this matter. If you have any questions or need additional information, please feel free to call.

Respectfully Submitted,



J. Thomas Taylor, MAI, SRA



William F. Hester, Jr.