

Addendum 1

Jackson County
Gum Springs Park– Phase 1

This Addendum is hereby made a part of the Contract Documents.

BID FORM REVISED - See Attached Specification 00300 Bid Proposed Form

Questions and Answers

1. Q: Is this project open to GC's?
A: Yes
2. Q: What is the estimated construction budget/cost?
A: There is no estimated construction budget for this phase.
3. Q: When are bids due?
A: All bids are due Friday, July 10, at 2:00 PM local time.
4. Q: Can you provide a copy of the plan holders?
A: See attached sign-in sheet for pre-bid attendees.
5. Q: When is the deadline for questions?
A: Deadline for questions is Friday, July 3.
6. Q: Is the pedestrian lighting/sports lighting in this contract and do I need to price it?
A: Pedestrian lighting will be in this contract. Sports lighting will not be in this phase, however, installation of the conduit and pull boxes will be included in this phase. See attached exhibit C-8.18.
7. Q: Can you provide a CAD file of the grading plan to assist us with earthwork takeoffs?
A: See attached for the Electronic Data File Transfer Agreement. Please sign and email to cristina@bmandkinc.com to receive the CAD file.
8. Q: Can the site be force balanced if there is export or import on project?
A: The site has been designed to balance. The design engineer will be available for coordination/adjustment of grade if needed to ensure that the site is balanced.
9. Q: Is the site classified or unclassified?
A: Classified, Unit prices for unknowns must be provided on the bid form.
10. Q: Can we get clarification on the placement and details for the sports lighting conduits?
A: See attached C-8.18.
11. Q: On the unit price total, there is wood fence but no wooden fence quantities in unit prices. Please advise.
A: The wood fence has been changed to vinyl. Please note ALL UNIT PRICES ARE FOR ADDITIONAL OR DELETED WORK ONLY. The fencing and all other aspects of the project should be included in the based bid. See attached Revised Bid Form.

Attachments:

1. Electronic Data File Transfer, User and Indemnification Agreement
2. Pre-Bid Sign-in Sheet
3. Revised Specifications
 - 00300 Bid Proposal Form
 - 01 2200 Unit Prices
 - 26 5668 Exterior Athletic Lighting
 - 32 1813 Seeding and Sodding of Lawns
 - 32 3113 Chain Link Fence and Gates
 - 32 3123 Vinyl Fence
4. Revised Civil Plans
 - C-0.0
 - C-3.0 - The 4-rail wood fence has been changed to a 3-rail white vinyl fence.
 - C-4.0
 - C-5.0 -The service sewer line has been changed from DIP to PVC, SDR 26.
2” gate valve was removed from the domestic and irrigation line in the plans. The gate valve is included in water meter provided by JCWSA. The PIV from the Fire Hydrant line was removed.
 - C-6.6
 - C-7.1
 - C-8.3
 - C-8.10 to C-8.18- Provided location of sports lighting conduits and boxes.
 - T-1.0

END OF ADDENDUM 1



Electronic Data File Transfer, User and Indemnification Agreement

RE: Gum Springs Park

BM&K, PC is prepared to provide you with electronic data files of certain Engineering and/or Surveying data from time to time subject to your execution of this User and Indemnification Agreement. We do reserve the right to evaluate each request based on our internal policy on data sharing.

The information we provide in any electronic file is the sole property of BM&K, PC, and is transmitted for your convenience. BM&K makes no warranties, express or implied, as to merchantability or suitability for any specific purpose, and assumes no responsibility for any damages the recipient may incur through its use or misuse. While we believe these data to be accurate at the time of retrieval, this media and its contents can easily be altered or corrupted either purposely or inadvertently through any number of sources.

These data are subject to change at our discretion. Coordination for updates is the responsibility of the recipient. BM&K is not responsible to the recipient or any other users allowed by the recipient to utilize these data, for updating the electronic file or for compatibility with the user's hardware and/or software.

It is the recipient's responsibility to examine these data for virus contamination prior to use.

For all of the above stated reasons, your company, by accepting delivery of these data hereby agrees to indemnify, defend and hold harmless BM&K PC, its officers, directors and associates from any and all liability that may arise or result from the use of this information by your firm, employees, agents, contractors or subcontractors.

If the above is satisfactory to you, please sign the acceptance provided below and send it to this office. To expedite delivery of the first data files, you may email this acceptance to us at cristina@bmandkinc.com, attention Cristina Yebra. **Please follow up by also mailing the original as soon as possible.** If you have questions or comments, please do not hesitate to contact us.

This form is being sent to you at your request by [Donald B. Clerici](#) of BM&K, PC.

Accepted by _____ and intending hereby to be legally bound:
By: _____ Date: _____
Signature

Printed Name and Title

Please email this signed agreement to cristina@bmandkinc.com, attention Cristina Yebra.

Gum Springs Park, Phase I, 200008 Prebid Attendees

Prebid Date: June 16, 2020 at 11:00 AM

Company Name	Representative	Telephone	E Mail
Jackson Co. Purchasing	Myrna Yarbrough	706-367-6309	myarbrough@jacksoncountygov.com
Jackson Co. Parks & Rec.	Ricky Sanders	706-367-6350	rsanders@jacksoncountygov.com
Jackson Co. County Mgr.	Gina Roy	706-367-6312	grov@jacksoncountygov.com
<i>Wilcorp Inc.</i>	<i>Sohn Fincher</i>	<i>706-490-9024</i>	<i>f.finch@wilcorpinc.net</i>
<i>WBM Const</i>	<i>Seray Bass</i>	<i>912-690-3565</i>	<i>wbmconst@piveta-d.net</i>
<i>Surfaces Group</i>	<i>Greg Rosinski</i>	<i>401-345-8375</i>	<i>greg@surfacesgrp.com</i>
<i>TriScaper</i>	<i>Carl Sharp</i>	<i>770-990-6632</i>	<i>Carl@TRIScapes.com</i>
<i>Magnum Contracting</i>	<i>Mike Moczarski</i>	<i>470-505-8606</i>	<i>MMOCZARSKI@ Magnum Contracting.net</i>
<i>Mosco Lighting</i>	<i>Rob Staples</i>	<i>706-870-2177</i>	<i>rob.staples@mosco.com</i>
<i>Jeffrey Nicholson</i>	<i>Chattahoochee Group</i>	<i>678-997-7147</i>	<i>jnicholson@chatgroupinc.com</i>
<i>Artisan Construction Group</i>	<i>Semy Lively</i>	<i>706-216-1050</i>	<i>jively@artisanconstgroup.com</i>
<i>Keith Hayes JKO Utilities</i>		<i>706-215-4006</i>	<i>Keith@keithhayes.com</i>

SOY

Gum Springs Park, Phase I, 200008 Prebid Attendees

Prebid Date: June 16, 2020 at 11:00 AM

Company Name	Representative	Telephone	E Mail
JJK UTILITIES	JIMMY HOLBROOK + JUNT HAYES	706-367-9460	keith.hayes@jkhutilities.com
JJK UTILITIES	Jimmy Holbrook's	706-716-4324	Jimmy@jkhutilities.com
SIMPSONS TRACKING & GRADING	Buddy Phelan	770-536-4731	bphelan@simpsonstracking.com
" " "	DENNIS JACKSON	770-536-4731	DVJKSO@ " ".com
" " "	DAVID HAMMOND	"	DHAMMOND@SIMPSONSTRACKING.COM
ROAD RUNNER CONTRACTING	CLINT COPELAND	770.900.5316	clintcopeland@hotmail.com
ERT, INC	DAVID FLDER	678.227.4545	ertplanning1@yahoo.com
BM&K	Sloane Laughman	706-824-0514	sloane@bmandkinc.com
BM&K	Gabriel Cunningham	706-824-0514	gabrie@bmandkinc.com
BM&K	Cristina Paz	678-997-9918	Cristina@bmandkinc.com
All About Asphalt Inc	Brian Gilley	706-248-5626	brian@allaboutasphalt.com
TB Curb & Development	Neil Niango	706-286-6759	tbcurb@gmail.com

Section 00300
Bid Proposal Form

Part 1 - General

- 1.1 DESCRIPTION: Following this page is the Bid Proposal Form to be used by each Bidder for preparing and submitting a Bid for the Work of this Project.
- 1.2 **ONLY THE FOLLOWING FORM SHALL BE USED.** No other form or forms are acceptable. The use of any other Bid Proposal Form or modification of any kind to the required form (except where noted or required to do so, or by the Contractor's signature of the Bid Proposal Form) shall cause the Bid to be non-responsive and cause for rejection by Jackson County.
- 1.3 Interested Bidders are required to attend the scheduled Pre-Bid Conference, at the date and time indicated in Section 00020, Invitation for Bids.
- 1.4 **BID TIMES AND DATES** Each interested Bidder shall fully acquaint themselves with the particular date and time for submittal of a Bid. Each interested Bidder shall be fully and solely responsible for the timely and proper delivery of their Bid at the required location by the time indicated.
- 1.5 Each Bidder shall complete, sign and otherwise properly execute the Bid Proposal Form, and shall include and attach all other forms, exhibits, statements and other documents required to be submitted with the Bid Proposal(s).
- 1.6 **All contractors submitting a bid for the work of this project, at any individual and separate park project, shall be a registered LICENSED GEORGIA GENERAL CONTRACTOR.**
- 1.7 **DETERMINATION OF SUCCESSFUL BIDDER:** The Contract will be awarded by Jackson County based upon the most responsive Bid from the most responsible Bidder, if awarded, as determined solely by the review and evaluation conducted by Jackson County.
 - A. **RESPONSIBILITY:** The determination of the Bidder's responsibility will be made by Jackson County, based on whether the Bidder, as a minimum:
 - (1) Maintains a permanent place of business, having the same business name over the last 10 years
 - (2) Has the appropriate and adequate technical **experience in projects of similar scope and size.**
 - (3) **Has adequate capacity, personnel and equipment experienced in projects of similar scope and size to do the work properly and expeditiously.**
 - (4) Has suitable financial means, including all required bonds and insurance, to meet obligations incidental to the work.

- (5) **Has a satisfactory performance record with Jackson County,** and other public and private agencies or authorities, and/or other clients. The Bidder shall furnish to Jackson County all such information and data for this purpose as Jackson County may request. Jackson County reserves the right to reject any Bid if the evidence submitted by, or investigation of, the Bidder fails to satisfy Jackson County that the Bidder is properly qualified to carry out the obligations of the Contract; or if the Bidder fails or refuses to supply the requested data or information in the manner and time set forth by Jackson County.
- B. **RESPONSIVENESS:** The determination of responsiveness will be made by Jackson County based on a consideration of whether the Bidder has submitted a complete Bid Proposal Form and accompanying required documents, or later requested documentation, without irregularities, excisions, special conditions, or alternative Bids for any item unless specifically requested in or allowed by the Bid Proposal Form.
- C. Contractors and Bidders submitting a Bid Proposal to Jackson County for this project understand and accept the above requirements for review and selection by Jackson County, and therefore agree that should a Contractor and Bidder who has submitted a Bid Proposal be determined to not meet the above requirements, and is therefore NOT selected, such non-selection by Jackson County shall not be a cause of action by any such non-selected Contractor or Bidder.

PROJECT: Gum Springs Park

TO: JACKSON COUNTY BOARD OF COMMISSIONERS
Jackson County Public Development
67 Athens Street, Jefferson, GA 30549

FROM:

BIDDER'S NAME AND ADDRESS:

INFORMATION AND INSTRUCTIONS

The undersigned, as Bidder, hereby declares that the only person or persons interested in the Bid Proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this Proposal or in the Contract to be entered into; that this Bid Proposal is made without connection with any other person, company or parties making a Bid or Proposal; and that it is in all respects fair and in good faith without collusion or fraud.

The Bidder further declares that he has visited and carefully examined the Site of the Work and has thoroughly informed himself fully in regard to all conditions pertaining to the place where the Work is to be done; that he has examined the Bid Proposal Form, Bidding Requirements and Conditions, the Project Manual, the Construction Agreement, Drawings and Specifications and any Addenda for the Work, and all other Bidding and Contract Documents relative thereto, and has read all instructions to Bidders and Conditions and Requirements furnished prior to the openings of Bids; and that he has satisfied himself relative to the work to be performed.

THEREBY, the Bidder proposes and agrees, if his Bid is accepted, to contract with Jackson County, in the form of contract specified, to execute and perform as required, to furnish all necessary materials, plant and equipment, machinery, tools, apparatus, hoisting, hauling, delivery and means of transportation and labor necessary, overhead & profit, and to complete the Work and to cooperate and coordinate its required work in full and complete accordance with the shown, noted, and reasonably intended requirements of the Construction Agreement and the Contract Documents, including but not limited to the Project Manual, Drawings and Specifications to the full and entire satisfaction of Jackson County with a definite understanding that no money will be allowed for extra work except as set forth in the Contract Documents or for the agreed upon unit prices, if any, and to perform its respective duties and responsibilities in accordance with the contract documents, and instructions and directives of Jackson County.

The Bidder agrees hereby to commence work under this Contract, with adequate project and construction management and superintending personnel and equipment, on the date to be specified in a written Notice to Proceed from Jackson County, and to fully complete all work under this Contract within the specified and agreed upon schedule.

The Bidder further declares that he understands that the quantities shown for the unit prices items, if any, are subject to both increases or decreases, and that should the quantities of any of the items of Work be increased or decreased, the Bidder proposes to do the additional work at the unit prices stated herein; and the Bidder also understands that payments will only be made on the basis of actual quantities, at the unit price Bid and the Contractor will make no claim for anticipated profits for any decrease in quantities; and that actual quantities will be mutually determined upon completion of work, at which time adjustments will be made to the contract amount by direct increase or decrease.

Jackson County reserves the sole right to select which Bid it desires, based upon those factors Jackson County considers relevant and necessary for that final determination and selection, including, but not limited to price, schedule, qualifications, capacity and capabilities of the Contractor, acceptance or rejection of any alternative(s), and technical coordination elements concerning the project as a whole.

ADDENDA

Bidder acknowledges receipt of Addenda:

_____ Dated: _____; _____ Dated: _____;
_____ Dated: _____; _____ Dated: _____;
_____ Dated: _____; _____ Dated: _____;
_____ Dated: _____; _____ Dated: _____;

1. UNIT PRICES:

The following Unit Prices are amounts to be used for work that will be **ADDED TO OR DELETED FROM** the Contract by Change Order as and when unsuitable soils and other materials occur in the performance of the work of this Project, and in the event such additional work may also be required.

All Unit Prices are inclusive and complete for labor, equipment, material, mobilization and associated time for the work of each unit price for site operations, installation, applicable taxes, supervision, bonds and insurance, management & supervision, overhead and profit, and all other incidental costs; and are **applicable at any point or location at and within the Project.** Units will be measured in place by Jackson County or the project's materials testing and consulting firm, as the work progresses or upon completion of the work.

Jackson County reserves the sole right to accept or reject these Unit Prices or to require the Work to be performed on a time and material basis with complete daily breakdowns and logs submitted, or to have the work performed for an agreed upon lump sum price.

#	Item	Unit	Unit Cost
1	Remove and Haul-Off Unsuitable Soil, Replace with Suitable Soil	CY	\$
2	Remove and Haul-Off Unsuitable Soil, Replace with #57 Stone	CY	\$
3	Remove and Haul-Off Unsuitable Soil	CY	\$
4	Sod	SF	\$
5	Silt Fence	LF	\$
6	4" Concrete Sidewalk	SF	\$
7	24" Curb and Gutter	LF	\$
8	Vinyl Fence	LF	\$
9	Conduit	LF	\$
10	Pull Boxes	EA	\$

2. ALLOWANCES

1. **OWNER'S 10% CONTINGENCY : Lump Sum Amount by Contractor.**

3. BASE BID PRICE OR BASE BID PROPOSAL:

The undersigned, having become thoroughly familiar with terms and conditions of the proposed Contract Documents affecting the contract with and from Jackson County, hereby proposes and agrees to fully provide and to perform the work identified for the work of this Project within the time stated and in accordance with the Contract Documents, including furnishing any and all services, delivery, hoisting, hauling, labor, materials, plant and equipment, overhead & profit, and to do all the work required to perform and complete said work in accordance with the Contract Documents for the following sum or sums.

NOTE: Prior to award, and as a part of the evaluation of the Bid, the Bidder shall forward to Jackson County a complete itemized breakdown of services, materials and labor within forty-eight (48) hours of the request by Jackson County, through the Architect or Engineer to furnish such information.

PROPOSAL AMOUNT LINE ITEM COST.

General		
1	General Requirements	\$

2	Fees, Bonds, Insurance, Etc.	\$
3	Staking and As-builts	\$
Earthwork		
4	NPDES Monitoring	\$
5	Erosion Control	\$
6	Clearing and Grubbing	\$
7	Grading (Mass Grading, Backfilling, Fine Grading, Etc.)	\$
8	Design-Build Retaining Walls and Railings	\$
9	Storm Drainage	\$
10	Sanitary Sewer	\$
11	Water System (Domestic and Fire)	\$
12	Detention Pond Fencing, Gates, and Signage	\$
13	Sidewalk	\$
Roadway Improvements		
14	6' Sidewalk	\$
15	Vinyl Fencing	\$
16	Landscaping	\$
17	Design-Build Irrigation	\$
18	Pedestrian Lights	\$
Parking Lot		
19	Curb and Gutter	\$
20	Asphalt Paving	\$
21	Sidewalks and Ramps	\$
22	Striping and Signage	\$
23	Sod	\$
Baseball Fields		
24	Sod	\$
25	Design-Build Irrigation	\$
Multi-Purpose Field		

26	Sod	\$
27	Design-Build Irrigation	\$
Sports Field Lighting		
28	Conduit & Pull Boxes	\$
Owner Contingency		
29	Owner's Contingency (10% of Items 1-28)	\$
BASE BID TOTAL (TOTAL OF ITEMS 1-29)		\$

LUMP SUM BASE BID PROPOSAL AMOUNT: Complete for all Work of this Project: INCLUDING ALLOWANCES:

_____ Dollars (\$ _____)

which Sum is hereinafter called the "Lump Sum Base Bid Proposal"

BID BOND:

A Bid Bond, in an amount not less than five percent (5%) of the above total submitted Gum Springs Park Bid Proposal amount is required to be submitted with this Bid Proposal.

Submission of the Bid Bond is mandatory, and is separate and apart from any requirements or acceptance of the Performance and Labor & Material Payment Bond. Any Bidder's inability to provide a Performance and Labor & Material Payment Bond shall deem that Bid Proposal to be non-responsive, and that Bidder to be non-responsible to perform the Work of the Bid Proposal; and the Bid Proposal rejected by Jackson County, with penalty against the Bidder.

4. **TIME OF COMMENCEMENT AND COMPLETION:** Bidder hereby agrees to commence and to perform all necessary coordination and Work of this Project with the design work and services of Jackson County and the Architect or Engineer, to commence fabrication, to commence delivery, and to commence actual physical work on the site with an adequate force and equipment and proper supervision and management on the date to be specified in the written order of the Notice to Proceed, and to substantially complete and final complete the work by the dates stated in the Project Manual
5. **WITHDRAWAL OF BID(S):** The Undersigned acknowledges and agrees that this Bid may not be revoked or withdrawn after the time set for the opening of Bids, and will remain open for acceptance by Jackson County for a period of Ninety (90) calendar days following such time.
6. **PERFORMANCE AND LABOR & MATERIALS PAYMENT BOND:** The Contractor shall upon award furnish to Jackson County **Performance and Labor & Material Payment Bonds** to Jackson County, the Undersigned's surety will be:

_____ and the Undersigned agrees that upon receipt of Jackson County's Notice of Award, the Contractor will,

within ten (10) days of receipt of the Notice of Award with accompanying Agreement and requirements for bonds and insurance, execute the formal Contract, and will deliver all required Bonds for the faithful performance of this Contract and such other required information, representations and insurance certificates and policies. The Undersigned further agrees that if he fails or neglects to appear or execute or deliver within the specified time to execute the Contract of which this Proposal, the Bidding Documents and the Contract Documents are a part, the Undersigned will be considered as having abandoned the Contract, and Jackson County shall proceed to take action to review and recommend the next responsive and responsible Bid.

7. **VOLUNTARY ALTERNATES:** If a Bidder has determined that an alternative method, practice or specification would be beneficial to the project, the Bidder is encouraged to submit such a proposed Voluntary Alternative for consideration by Jackson County. Reference is made to SECTION 01630 SUBSTITUTIONS for guidance in submitting Voluntary Alternates information. However, the Bidder is cautioned that the base Bid proposal prices MUST fully and completely comply and meet the requirements of the Contract Documents. Unless so noted in the submittal of a Voluntary Alternate, the Bid prices received by Jackson County from the Bidder are for the requirements set forth by the documents. Submission of any Voluntary Alternates shall be submitted on the Contractor's letterhead, fully and completely presenting the alternate(s), with all required supporting documentation.
8. **CHANGES IN THE WORK:** The Bidder agrees that should additional compensation be requested, the Bidder/Contractor will submit complete itemized material and labor breakdowns for evaluation by Jackson County. For deleted work, the Contractor's offered credits shall be INCLUSIVE of overhead and profit.

CONFIRMATION OF BASE BID PROPOSAL COST OF WORK: The undersigned Bidder agrees that it shall promptly after the receipt of Bids by Jackson County, and upon request by Jackson County, provide additional information to Jackson County and shall meet with Jackson County and the Architect or Engineer for purposes of confirming the Bidder's understanding and acceptance of the scope of work and the Bid submitted by the Bidder. It is further understood and agreed that should such post-Bid contact and price confirmation information and meeting(s) not confirm an agreeable contact scope of work and price, that Jackson County may, at its sole discretion, proceed to reject the Bid and take steps to re-Bid the work, in whole or in part, or to award the work to the next most responsible Bidder, with the most responsive Bid.

9. **RESPECTFULLY SUBMITTED:**

If an Individual, by:

Doing Business as: _____

Business Address: _____

If a Joint Venture, LLC. or Partnership:

By: _____ Member of Firm: _____

By: _____ Member of Firm: _____

By: _____ Member of Firm: _____

Business Address: _____

If a Corporation: (Seal REQUIRED, If Bid is by Corporation)

By: _____ Title: _____

Business Address: _____

10. **ENCLOSURES AND ATTACHMENTS TO BE SUBMITTED WITH THIS BID PROPOSAL FORM (Section 00300) INCLUDE:**

- **E-Verify Forms**
- Non-Influence and Non-collusion Affidavit (Section 00325)
- Bid Bond; (Section 00410)
- Certificate of Ability to Provide Performance and Labor & Material Payment Bond (Section 00415)
- Contractor’s Certificate as Individual, or as Partnership, or as Corporation (Section 00420.)
- General Contractor’s License Certification or Number (Georgia) (Section 00425.)
- Contractor’s Authorized Permit Agent Form (Section 00430)
- Certification as to Review and Acceptance of Construction Agreement (Section 00850)
- Contractor’s Qualifications Statement (Section 00860)

END OF BID PROPOSAL FORM

END OF SECTION

Section 01 2200
Unit Prices

Part 1- General

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section includes administrative and procedural requirements for unit prices for work above and beyond that shown in the contract documents.

1.3 DEFINITIONS

- A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to the scope of Work or estimated quantities of Work required by the Contract Documents.
- B. Rock shall be defined as material that cannot be ripped by a single tooth ripper.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections. Rock will be measured via survey cross section prior to removal and after removal to determine the quantity. Unit price will include surveying for quantity determination.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

#	Item	Unit	Unit Cost
1	Remove and Haul-Off Unsuitable Soil, Replace with Suitable Soil	CY	
2	Remove and Haul-Off Unsuitable Soil, Replace with #57 Stone	CY	
3	Remove and Haul-Off Unsuitable Soil	CY	
4	Sod	SF	
5	Silt Fence	LF	
6	4" Concrete Sidewalk	SF	
7	24" Curb and Gutter	LF	
8	Vinyl Fence	LF	
9	Conduit	LF	
10	Pull Boxes	EA	

END OF SECTION

Section 26 56 68
Exterior Athletic Lighting

SECTION 26 56 68 – EXTERIOR ATHLETIC LIGHTING

Lighting System with LED Light Source

PART 1 – GENERAL

1.1 SUMMARY

- A. Work covered by this section of the specifications shall conform to the contract documents, engineering plans as well as state and local codes.
- B. The purpose of these specifications is to define the lighting system performance and design standards for Gums Springs Park using an LED Lighting source. The manufacturer / contractor shall supply lighting equipment to meet or exceed the standards set forth in these specifications.
- C. The sports lighting will be for the following venues:
 - 1. Softball - 200' x 200' x 200'
 - 2. Baseball 1- 275' x 275' x 275'
 - 3. Baseball 2 -150' x 150' x 150'
 - 4. Basketball 1 -120' x 94'
 - 5. Basketball 2 -120' x 94'
 - 6. Multipurpose 540' x 200'
- D. The primary goals of this sports lighting project are:
 - 1. Guaranteed Light Levels: Selection of appropriate light levels impact the safety of the players and the enjoyment of spectators. Therefore light levels are guaranteed to not drop below specified target values for a period of 25 years.
 - 2. Environmental Light Control: It is the primary goal of this project to minimize spill light to adjoining properties and glare to the players, spectators and neighbors.
 - 3. Cost of Ownership: In order to reduce the operating budget, the preferred lighting system shall be energy efficient and cost effective to operate. All maintenance costs shall be eliminated for the duration of the warranty.
 - 4. Control and Monitoring: To allow for optimized use of labor resources and avoid unneeded operation of the facility, customer requires a remote on/off control system for the lighting system. Fields should be proactively monitored to detect luminaire outages over a 25-year life cycle. All communication and monitoring costs for 25-year period shall be included in the bid.

1.2 LIGHTING PERFORMANCE

- A. Illumination Levels and Design Factors: Playing surfaces shall be lit to an average target illumination level and uniformity as specified in the chart below. Lighting calculations shall be developed and field measurements taken on the grid spacing with the minimum number of grid points specified below. Appropriate light loss factors shall be applied and submitted for the basis of design. Average illumination level shall be measured in accordance with the IESNA LM-5-04 (IESNA Guide for Photometric Measurements of Area and Sports Lighting Installations). Illumination levels shall not to drop below desired target values in accordance to IES RP-6-15, Page 2, Maintained Average Illuminance and shall be guaranteed for the full warranty period.

Area of Lighting	Average Target Illumination Levels	Maximum to Minimum Uniformity Ratio	Grid Points	Grid Spacing
Softball	50FC Infield 30FC Outfield	2:1 Infield 2.5:1 Outfield	25 Infield 71 Outfield	20' x 20'
Baseball 1	50FC Infield 30FC Outfield	2:1 Infield 2.5:1 Outfield	25 Infield 56 Outfield	20' x 20'
Baseball 2	50FC Infield 30FC Outfield	2:1 Infield 2.5:1 Outfield	25 Infield 27 Outfield	20' x 20'
Basketball 1	30FC	2.5:1	50	10' x 10'
Basketball 2	30FC	2.5:1	50	10' x 10'
Multipurpose Field	30FC	2:1	126	30' x 30'

- B. Color: The lighting system shall have a minimum color temperature of 5700K and a CRI of 75.
- C. Mounting Heights: To ensure proper aiming angles for reduced glare and to provide better playability, minimum mounting heights shall be as described below. Higher mounting heights may be required based on photometric report and ability to ensure the top of the field angle is a minimum of 10 degrees below horizontal.

# of Poles	Pole Designation	Pole Height
2	BB1, BB2	50'
4	A1, A2, A3, A4	60'
10	B1, B2, B3, B4, C2, C3 F1, F2, F3, F4	70'

1.3 ENVIRONMENTAL LIGHT CONTROL

- A. Light Control Luminaires: All luminaires shall utilize spill light and glare control devices including, but not limited to, internal shields, louvers and external shields. No symmetrical beam patterns are accepted.
- B. A technical document addressing the issue of lighting in the vertical plane above the playing surface for aerial sports while achieving desired glare control requirements will be required for approval.
- C. Spill Scans: Spill scans must be provided in the prebid submittal indicating the amount of horizontal and vertical footcandles along the specified lines. Light levels shall be taken at 30-foot intervals along the boundary line. Readings shall be taken with the meter orientation at both horizontal and aimed towards the most intense bank of lights. Illumination level shall be measured in accordance with the IESNA LM-5-04 after 1 hour warm up.
- D. Spill Light and Glare Control: To minimize impact on adjacent properties, spill light and candela values must not exceed the following levels taken at 3 feet above grade.

	Average	Maximum
Horizontal Footcandles along the roadway adjacent to the park	.25 fc	1.40 fc
Max Vertical Footcandles along the roadway adjacent to the park	.50 fc	3.03 fc
Max Candela at the roadway adjacent to the park	8400 Cd	53,000 Cd

- E. The efficacy for field aimed fixtures must meet DLC requirement of 105 lumens per watt
- F. Photometric Report: The first page of a photometric report for all luminaire types proposed showing horizontal and vertical axial candle power shall be provided with prebid submittal to demonstrate the capability of achieving the specified performance. Reports shall be certified by a qualified testing laboratory with a minimum of five years experience or by a manufacturer's laboratory with a current accreditation under the National Voluntary Laboratory Accreditation Program for Energy Efficient Lighting Products. A summary of the horizontal and vertical aiming angles for each luminaire shall be included with the photometric report.

PART 2 – PRODUCT

2.1 SPORTS LIGHTING SYSTEM CONSTRUCTION

- A. Manufacturing Requirements: All components shall be designed and manufactured as a system. All luminaires, wire harnesses, drivers and other enclosures shall be factory assembled, aimed, wired and tested.
- B. Durability: All exposed components shall be constructed of corrosion resistant material and/or coated to help prevent corrosion. All exposed carbon steel shall be hot dip galvanized per ASTM A123. All exposed aluminum shall be powder coated with high performance polyester or anodized. All exterior reflective inserts shall be anodized, coated, and protected from direct environmental exposure to prevent reflective degradation or corrosion. All exposed hardware and fasteners shall be stainless steel of 18-8 grade or better, passivated and coated with aluminum-based thermosetting epoxy resin for protection against corrosion and stress corrosion cracking. Structural fasteners may be carbon steel and galvanized meeting ASTM A153 and ISO/EN 1461 (for hot dipped galvanizing), or ASTM B695 (for mechanical galvanizing). All wiring shall be enclosed within the cross-arms, pole, or electrical components enclosure.
- C. System Description: Lighting system shall consist of the following:
 - 1. Galvanized steel poles and cross-arm assembly.
 - 2. Non-approved pole technology:
 - a. Square static cast concrete poles will not be accepted.
 - b. Direct bury steel poles which utilize the extended portion of the steel shaft for their foundation will not be accepted due to potential for internal and external corrosive reaction to the soils and long term performance concerns.
 - 3. Lighting systems shall use concrete foundations. See Section 2.4 for details.
 - a. For a foundation using a pre-stressed concrete base embedded in concrete backfill the concrete shall be air-entrained and have a minimum compressive design strength at 28 days of 3,000 PSI. 3,000 PSI concrete specified for early pole erection, actual required minimum allowable concrete strength is 1,000 PSI. All piers and concrete backfill must bear on and against firm undisturbed soil.
 - b. For anchor bolt foundations or foundations using a pre-stressed concrete base in a suspended pier or re-inforced pier design pole erection may occur after 7 days. Or after a concrete sample from the same batch achieves a certain strength.
 - 4. Manufacturer will supply all drivers and supporting electrical equipment
 - a. Remote drivers and supporting electrical equipment shall be mounted approximately 10 feet above grade in aluminum enclosures. The enclosures shall be touch-safe and include drivers and fusing with indicator lights on fuses to notify when a fuse is to be replaced for

each luminaire. Disconnect per circuit for each pole structure will be located in the enclosure. Integral drivers are not allowed.

- b. Manufacturer shall provide surge protection at the pole equal to or greater than 40 kA for each line to ground (Common Mode) as recommended by IEEE C62.41.2_2002.
- 5. Wire harness complete with an abrasion protection sleeve, strain relief and plug-in connections for fast, trouble-free installation.
- 6. All luminaires, visors, and cross-arm assemblies shall withstand 150 mph winds and maintain luminaire aiming alignment.
- 8. Manufacturer shall provide lightning grounding as defined by NFPA 780 and be UL Listed per UL 96 and UL 96A.
 - a. Integrated grounding via concrete encased electrode grounding system.
 - b. If grounding is not integrated into the structure, the manufacturer shall supply grounding electrodes, copper down conductors, and exothermic weld kits. Electrodes and conductors shall be sized as required by NFPA 780. The grounding electrode shall be minimum size of 5/8 inch diameter and 8 feet long, with a minimum of 10 feet embedment. Grounding electrode shall be connected to the structure by a grounding electrode conductor with a minimum size of 2 AWG for poles with 75 feet mounting height or less, and 2/0 AWG for poles with more than 75 feet mounting height.
- D. Safety: All system components shall be UL listed for the appropriate application.

2.2 ELECTRICAL

- A. Electric Power Requirements for the Sports Lighting Equipment:
 - 1. Electric power: 480 Volt, 3 Phase
 - 2. Maximum total voltage drop: Voltage drop to the disconnect switch located on the poles shall not exceed three (3) percent of the rated voltage.
- B. Energy Consumption: The kW consumption for the field lighting system shall be 107.99.

2.3 CONTROL

- A. Instant On/Off Capabilities: System shall provide for instant on/off of luminaires.
- B. Lighting contactor cabinet(s) constructed of NEMA Type 4 aluminum, designed for easy installation with contactors, labeled to match field diagrams and electrical design. Manual off-on-auto selector switches shall be provided.
- C. Dimming: System shall provide for 3-stage dimming (high-medium-low). Dimming will be set via scheduling options (Website, app, phone, fax, email)
- D. Remote Lighting Control System: System shall allow owner and users with a security code to schedule on/off system operation via a web site, phone, fax or email up to ten years in advance. Manufacturer shall provide and maintain a two-way TCP/IP communication link. Trained staff shall be available 24/7 to provide scheduling support and assist with reporting needs.

The owner may assign various security levels to schedulers by function and/or fields. This function must be flexible to allow a range of privileges such as full scheduling capabilities for all fields to only having permission to execute "early off" commands by phone. Scheduling tool shall be capable of setting curfew limits.

Controller shall accept and store 7-day schedules, be protected against memory loss during power outages, and shall reboot once power is regained and execute any commands that would have occurred during outage.

- E. Remote Monitoring System: System shall monitor lighting performance and notify manufacturer if individual luminaire outage is detected so that appropriate maintenance can be scheduled. The controller shall determine switch position (manual or auto) and contactor status (open or closed).
- F. Management Tools: Manufacturer shall provide a web-based database and dashboard tool of actual field usage and provide reports by facility and user group. Dashboard shall also show current status of luminaire outages, control operation and service. Mobile application will be provided suitable for IOS, Android and Blackberry devices.

Hours of Usage: Manufacturer shall provide a means of tracking actual hours of usage for the field lighting system that is readily accessible to the owner.
 - 1. Cumulative hours: shall be tracked to show the total hours used by the facility
 - 2. Report hours saved by using early off and push buttons by users.
- G. Communication Costs: Manufacturer shall include communication costs for operating the control and monitoring system for a period of 25 years.
- H. Communication with luminaire drivers: Control system shall interface with drivers in electrical components enclosures by means of powerline communication.

2.4 STRUCTURAL PARAMETERS

- A. Wind Loads: Wind loads shall be based on the 2012 International Building Code. Wind loads to be calculated using ASCE 7-10, an ultimate design wind speed of 115 and exposure category C.
- B. Pole Structural Design: The stress analysis and safety factor of the poles shall conform to 2009 AASHTO Standard Specification for Structural Supports for Highway Signs, Luminaires, and Traffic Signals (LTS-5).
- C. Foundation Design: The foundation design shall be based on soils that meet or exceed those of a Class 5 material as defined by 2012 IBC Table 1806.2.
- D. Foundation Drawings: Project specific foundation drawings stamped by a registered engineer in the state where the project is located are required. The foundation drawings must list the moment, shear (horizontal) force, and axial (vertical) force at ground level for each pole. These drawings must be submitted at time of bid to allow for accurate pricing.

PART 3 – EXECUTION

3.1 SOIL QUALITY CONTROL

- A. It shall be the Contractor's responsibility to notify the Owner if soil conditions exist other than those on which the foundation design is based, or if the soil cannot be readily excavated. Contractor may issue a change order request / estimate for the Owner's approval / payment for additional costs associated with:
 - 1. Providing engineered foundation embedment design by a registered engineer in the State of Georgia for soils other than specified soil conditions;
 - 2. Additional materials required to achieve alternate foundation;
 - 3. Excavation and removal of materials other than normal soils, such as rock, caliche, etc.

3.2 DELIVERY TIMING

- A. Delivery Timing Equipment On-Site: The equipment must be on-site 6-8 weeks from receipt of approved submittals and receipt of complete order information.

3.3 FIELD QUALITY CONTROL

- A. Illumination Measurements: Upon substantial completion of the project and in the presence of the Contractor, Project Engineer, Owner's Representative, and Manufacturer's Representative, illumination measurements shall be taken and verified. The illumination measurements shall be conducted in accordance with IESNA LM-5-04.
- B. Field Light Level Accountability
 - 1. Light levels are guaranteed not to fall below the target maintained light levels for the entire warranty period of 25 years. These levels will be specifically stated as "guaranteed" on the illumination summary provided by the manufacturer.
 - 2. The contractor/manufacturer shall be responsible for conducting initial light level testing and an additional inspection of the system, in the presence of the owner, one year from the date of commissioning of the lighting.
 - 3. The contractor/manufacturer will be held responsible for any and all changes needed to bring these fields back to compliance for light levels and uniformities. Contractor/Manufacturer will be held responsible for any damage to the fields during these repairs.
- C. Correcting Non-Conformance: If, in the opinion of the Owner or his appointed Representative, the actual performance levels including footcandles and uniformity ratios are not in conformance with the requirements of the performance specifications and submitted information, the Manufacturer shall be required to make adjustments to meet specifications and satisfy Owner.

3.4 WARRANTY AND GUARANTEE

- A. 25-Year Warranty: Each manufacturer shall supply a signed warranty covering the entire system for 25 years from the date of shipment. Warranty shall guarantee specified light levels. Manufacturer shall maintain specifically-funded financial reserves to assure fulfillment of the warranty for the full term. Warranty does not cover weather conditions events such as lightning or hail damage, improper installation, vandalism or abuse, unauthorized repairs or alterations, or product made by other manufacturers.
- B. Maintenance: Manufacturer shall monitor the performance of the lighting system, including on/off status, hours of usage and luminaire outage for 25 years from the date of equipment shipment. Parts and labor shall be covered such that individual luminaire outages will be repaired when the usage of any field is materially impacted. Manufacturer is responsible for removal and replacement of failed luminaires, including all parts, labor, shipping, and equipment rental associated with maintenance. Owner agrees to check fuses in the event of a luminaire outage.

PART 4 – DESIGN APPROVAL

4.0 PRE-BID SUBMITTAL REQUIREMENTS

- A. Design Approval: The owner / engineer will review pre-bid submittals per section 4.0.B from all the manufacturers to ensure compliance to the specification 10 days prior to bid. If the design meets the design requirements of the specifications, a letter and/or addendum will be issued to the manufacturer indicating approval for the specific design submitted.
- B. Musco's Light-Structure System™ with TLC for LED™ is the basis of design. All substitutions must provide a complete submittal package for approval as outlined in Submittal Information at the end of this section at least 10 days prior to bid. Special manufacturing to meet the standards of this specification may be required. An addendum will be issued prior to bid listing any other approved lighting manufacturers and designs.
- C. All listed manufacturers not pre-approved shall submit the information at the end of this section at least 10 days prior to bid. An addendum will be issued prior to bid; listing approved lighting manufacturers and the design method to be used.

- D. Bidders are required to bid only products that have been approved by this specification or addendum by the owner or owner's representative. Bids received that do not utilize an approved system/design, will be rejected.

REQUIRED SUBMITTAL INFORMATION FOR ALL MANUFACTURERS (NOT PRE-APPROVED) 10 DAYS PRIOR TO BID

*All items listed below are mandatory, shall comply with the specification and be submitted according to pre-bid submittal requirements. Complete the Yes/No column to indicate compliance (Y) or noncompliance (N) for each item. **Submit checklist below with submittal.***

Yes/ No	Tab	Item	Description
	A	Letter/ Checklist	Listing of all information being submitted must be included on the table of contents. List the name of the manufacturer's local representative and his/her phone number. Signed submittal checklist to be included.
	B	Equipment Layout	Drawing(s) showing field layouts with pole locations
	C	On Field Lighting Design	Lighting design drawing(s) showing: a. Field Name, date, file number, prepared by b. Outline of field(s) being lighted, as well as pole locations referenced to the center of the field (x & y), Illuminance levels at grid spacing specified c. Pole height, number of fixtures per pole, horizontal and vertical aiming angles, as well as luminaire information including wattage, lumens and optics d. Height of light test meter above field surface. e. Summary table showing the number and spacing of grid points; average, minimum and maximum illuminance levels in foot candles (fc); uniformity including maximum to minimum ratio, coefficient of variance (CV), coefficient of utilization (CU) uniformity gradient; number of luminaires, total kilowatts, average tilt factor; light loss factor. f. Technical document addressing the issue of lighting in the vertical plane above the playing surface for aerial sports while achieving desired glare control requirements.
	D	Off Field Lighting Design	Lighting design drawing showing initial spill light levels along the boundary line (defined on bid drawings) in footcandles. Lighting design showing glare along the boundary line in candela. Light levels shall be taken at 30-foot intervals along the boundary line. Readings shall be taken with the meter orientation at both horizontal and aimed towards the most intense bank of lights.
	E	Photometric Report	Provide first page of photometric report for all luminaire types being proposed showing candela tabulations as defined by IESNA Publication LM-35-02. Photometric data shall be certified by laboratory with current National Voluntary Laboratory Accreditation Program or an independent testing facility with over 5 years experience. No partial wattage fixture reports or ISO Polar curve reports are acceptable.
	F	Performance Guarantee	Provide performance guarantee including a written commitment to undertake all corrections required to meet the performance requirements noted in these specifications at no expense to the owner. Light levels must be guaranteed to not fall below target levels for warranty period.
	G	Structural Calculations	Pole structural calculations and foundation design showing foundation shape, depth backfill requirements, rebar and anchor bolts (if required). Pole base reaction forces shall be shown on the foundation drawing along with soil bearing pressures. Design must be stamped by a structural engineer in the state of Georgia, if required by owner. (May be supplied upon award).
	H	Control & Monitoring System	Manufacturer of the control and monitoring system shall provide written definition and schematics for automated control system. They will also provide ten (10) references of customers currently using proposed system in the state of Georgia.
	I	Electrical Distribution Plans	Manufacturer bidding an alternate product must include a revised electrical distribution plan including changes to service entrance, panels and wire sizing, signed by a licensed Electrical Engineer in the state of Georgia.
	J	Warranty	Provide written warranty information including all terms and conditions. Provide ten (10) references of customers currently under specified warranty in the state of Georgia.

Addendum 1
Gum Springs Park
Jackson County, Georgia

K	Project References	Manufacturer to provide a list of 10 projects where the technology and specific fixture proposed for this project has been installed in the state of Georgia. Reference list will include project name, project city, installation date, and if requested, contact name and contact phone number.
L	Product Information	Complete bill of materials and current brochures/cut sheets for all product being provided. Cut sheets shall be technical (and illustrative) and provide specific detail on fixtures, remote driver cabinets, drivers, surge protections, fusing, controls, poles and foundations. All certification including UL and DLC shall be shown on the technical cut sheets
M	Delivery	Manufacturer shall supply an expected delivery timeframe from receipt of approved submittals and complete order information.
N	Non-Compliance	Manufacturer shall list all items that do not comply with the specifications. If in full compliance, tab may be omitted.
O	Cost of Ownership	Document cost of ownership as defined in the specification. Identify energy costs for operating the luminaires. Maintenance cost for the system must be included. All costs should be based on 25 Years
P	Environmental Light Control Design	Environmental glare impact scans must be submitted showing the maximum candela from the field edge on a map of the surrounding area.

The information supplied herein shall be used for the purpose of complying with the specifications for Gum Springs Park. By signing below I agree that all requirements of the specifications have been met and that the manufacturer will be responsible for any future costs incurred to bring their equipment into compliance for all items not meeting specifications and not listed in the Non-Compliance section.

Manufacturer: _____

Signature: _____

Contact Name: _____

Date: ____/____/____

Contractor: _____

Signature: _____

SECTION 32 1813
SEEDING AND SODDING OF LAWNS

PART 1 – General

1.1 Scope

- A. Work described in this section shall provide the requirements for the preparation of soil and the installation and maintenance of lawn areas.
- B. It consists of the establishment of grassing of 100% of all areas indicated to receive sod.
- C. Provide mulch in areas illustrated on the Drawings. All areas not indicated as being sodded will be permanent grassing.
- D. Scope of sodded lawns shall include all labor, material, supervision, watering and fertilizing to establish 100% coverage of a lawn of a type as shown on the drawings. Any return to the site after site or building construction to achieve the lawn shall be included in any Contract Sum.
- E. Contractor must provide adequate water to establish sod, including areas that will not receive a permanent irrigation system.
- F. Contractor shall provide all means, methods, labor, equipment, and materials to complete the satisfactory construction of the Project.

1.2 Soil Samples

- A. Contractor to ensure that proper soil is provided for sod and landscaped areas.

1.3 Products

- A. Commercial Fertilizer
 - 1. For lawns, the fertilizer shall be a complete, slow-release type.
 - 2. Nitrogen content shall be derived from either organic or inorganic sources and meeting the following minimum requirements of plant food by weight, unless the soil analysis and report indicates a need for a different fertilizer mixture in which case the recommended mixture shall be furnished and applied.
 - 3. Compliance with all State and Federal laws relative to fertilizer is required.

B. Ammonium Nitrate

1. Ammonium nitrate shall be a commercial product in dry granular form of recent manufacture and shall be delivered in the original, unopened containers each bearing the manufacturer's guaranteed statement of analysis; it shall contain not less than 33.5% Nitrogen.

1.4 Water

- A. Water used in this work shall be suitable for irrigation and free from ingredients harmful to plant life.
- B. Contractor shall furnish hose, tank trucks and all other watering equipment required for the work.
- C. Water shall be furnished by the Contractor at his cost until such time as the Owner assumes responsibility for site utilities. Water will be furnished by the Owner from then forward.

1.5 Sod Material

- A. Contractor is responsible for selecting sod. Sod grown in the general area of the project is Tifway 4-19 Bermuda.
- B. Sod should be machine cut and contain $\frac{3}{4}$ " (+ to -1/4") of soil , not including shoots or thatch
- C. Sod should be cut to the desired size within + or -5%. Torn or uneven pods should be rejected
- D. Sod should be cut and installed within 36 hours of digging.
- E. Avoid planting when subject to frost heave or hot weather, if irrigation is not available.
- F. The sod type should be shown on the plans or installed according to table 6-6.2. see figure 6-4,1 for your resource area.

1.6 Soil Preparation

- A. Bring soil surface to final grade. Clear surface of trash, woody debris, stones and clods larger than one inch. Apply sod to soil surfaces only and not frozen surfaces, or gravel type soils.
- B. Topsoil properly applied will help guarantee a stand. Don't use topsoil recently treated with herbicides or soil sterilant.

1.7 Application of Fertilizers

A. Commercial Fertilizer and Lime

- 1. Approximately two (2) days prior to the start of laying sod, apply ground limestone at the rate of 120 pounds per 1,000 sq. ft. of lawn area.
- 2. In conjunction with the above operation, or immediately afterwards, apply the specified commercial fertilizer over all lawn areas at the rate of thirty (30) pounds per 1,000 sq. ft. of lawn area, or as recommended by the soil testing agency/lab.
- 3. Work the limestone and fertilizer into the top 6" of soil, and the fertilizer into the top 2" of soil.
- 4. Highly acidic soils with a pH value of 5.5 or lower shall be treated with two (2) tons of lime per acre or as recommended by soil test results.
- 5. At the end of the Maintenance Period and prior to the Final Inspection, apply five (5) pounds of the specified commercial fertilizer per 1,000 sq. ft. of lawn and immediately water.

B. Ammonium Nitrate

- 1. Approximately four (4) weeks after laying the sod and when grass coverage has been established, apply three (3) pounds of ammonium nitrate per 1,000 square feet to all lawn areas and immediately water using a fine spray.

1.8 Sodding

- A. Laying of sod shall be done on a smooth, even surface conforming to finish grade requirements. Soil shall be watered before sod is laid.
- B. After inspection all sod shall be mechanically cut to a thickness of not more than 2", nor less than 1½". Sod pieces shall be cut to a minimum size of 15" X 9" and shall be consistent in size and shape that will permit the sections to be lifted and rolled without breaking. Sod shall be transported to the Project site within twenty-four (24) hours from the time of stripping. The thickness of the sod shall be determined at the sodding site by the following method: Eleven (11) random sods shall be stacked in a pile on a flat surface and measured from the base of the bottom sod to the base of the top sod. This measurement divided by ten (10) will be accepted as the average thickness of the sod.

- C. Sod shall be cut and moved only when the soil moisture conditions are such that favorable results can be expected. When the soil is too dry, sod shall be cut only after the Contractor has watered sod sufficiently to moisten the soil to the depth at which the sod is to be cut. Sod shall be transplanted within twenty-four (24) hours from time of stripping. If stacked during transit or storage, sod shall be placed roots-to-roots and grass-to-grass. During delivery and while in stacks, sod shall be kept moist and shall be protected from exposure to the air and sun. Sod that has been damaged by handling or storage will be rejected. No dumping from vehicles will be permitted.
- D. Under no circumstances shall any sodding work be done unless weather and soil conditions are suitable and satisfactory results can be expected.
- E. Handling of sod shall be done in such a manner as to prevent tearing, breaking, drying or other damage. Care shall be exercised at all times to retain the native soil on the roots of the sod during the process of stripping, transporting, and planting. Sod that has been damaged by handling or storage will be rejected. No dumping from vehicles will be permitted.
- F. Sod shall be installed in places on the site not more than 48 hours after cutting. If sod is not installed within 48 hours, it shall be unstacked or unrolled, placed in shade and kept moist until installation.
- G. Sod shall be laid smoothly, edge-to-edge with staggered joints, and perpendicular to the direction of the slope. Fit sod pieces together tightly so that no joint is visible, and tamp sod firmly and evenly by hand. Sod shall be pressed immediately into firm contact with the sod bed by rolling with acceptable equipment, so as to eliminate all air pockets, provide a true and even surface, and ensure knitting without displacement of the sod or deformation of the surfaces of sodded areas. Following compaction, screened soil shall be worked into the grass with rakes or other suitable equipment. The quantity of fill soil shall be such as will cause no smothering of the grass.
- H. Sod will be inspected during laying operations. Sod will be rejected that fails to meet the requirements specified herein or that has been permitted to dry out or become otherwise injured during transportation or storage so that survival of the sod after placing has been rendered doubtful. The rejected material, if necessary and suitable, may be pulverized and used for topsoil.
- I. After the sodding operation has been completed, and has been approved, roll in the same manner as described above. The edges of the sodded area shall be smooth. Suitable excess material from the planting operations shall be spread uniformly over adjacent areas and the remainder disposed of as directed by the Engineer.
- J. Sod shall be given one (1) watering as soon as excessive drying is evident. Sufficient water shall be applied to wet sod through completely and to wet at least two (2)-inches of the sod bed. Additional applications of water shall be made as required until date of final completion. Water shall be delivered in containers that will assure delivery of a full measured quantity without waste, and that are equipped with satisfactory means for even distribution of water at the specified rate. Watering shall be done in a matter that will prevent erosion due to the application of excessive quantities, and the watering equipment shall be of a type that will prevent damage to the finished surface.

- K. Sodded areas shall be maintained until all work on the entire contract has been completed and accepted by the Engineer. Maintenance shall consist of providing protection against traffic by erecting barricades and by placing approved warning signs on the sodded areas, watering, mowing all tall grass, and repairing areas damaged as a result of these operations. All sodded areas in which weed growth has developed shall be repaired as specified herein.
- L. After sodding is complete, and has been approved, roll in the same manner as described below.
- M. If, at any time before date of final completion, any portion of the surface becomes gullied or otherwise damaged after a part of the area has been sodded, the affected portion shall be repaired to reestablish the condition and grade of the soil prior to sodding, and shall then be re-sodded as specified herein.
- N. All sod shall be watered by the Contractor until fully established, including areas where there is no permanent irrigation system.

1.9 Compaction

- A. If the soil is of such type that a smooth or corrugated roller cannot be operated satisfactorily, a pneumatic roller shall have tires of sufficient size so that complete coverage of the soil surface is obtained.
- B. When a cultipacker or similar equipment is used, the final rolling shall be at right angles to the prevailing winds to prevent dust.

1.10 Watering

- A. Soak soil immediately after sodding to a minimum depth of 2".
- B. Do not water to the point of creating wash out areas.
- C. Keep all surfaces continuously moist thereafter until thirty (30) calendar days after the lawn has been established. Use fine spray nozzles only.
- D. Contractor is responsible for all watering as necessary to maintain the health of all plantings until substantial completion of the entire project. At that time the Contractor will water all areas completely and thoroughly and notify the Owner in writing that watering shall become the Owner's responsibility. The Contractor will remain responsible for all watering until the Owner has been clearly notified of the change in responsibility. Under no circumstance will the Contractor be relieved of watering obligations prior to the establishment (rooting in) of sod.

1.11 Clean-Up

- A. Remove from the site and dispose of all debris and foreign material.
- B. During the grassing operations, debris shall not be dumped on any part of the property or on any unauthorized placed.

1.12 Maintenance of Lawn Areas

- A. Contractor shall be responsible for establishment and proper care of the grassed areas during the period when the grass is becoming established and until Final Completion of the project.
- B. Maintenance of sod. Roll sod immediately to achieve firm contact with the soil. Water to depth of four inches as needed. Water well as soon as the sod is laid. Mow when the sod is established- in two to three weeks. Set the mower Hight (two inches to three inches).
- C. Re-sod areas where an adequate stand of sod is not obtained. New sod should be mowed sparingly.
- D. Apply one town of agricultural lime as indicated by soil test or every four to six years. Fertilize grasses in accordance with soil or table 6-6.3.

1.13 Final Inspection and Acceptance

- A. Final Inspection for all grassed areas will occur at time of Substantial Completion for entire project. Full grass and lawn coverage must be achieved in order for to achieve Substantial Completion of project.
- B. Contractor shall guarantee all lawns and grassing from the date of Project Final Payment for a period of not less than one (1) year.

END OF SECTION

Section 32 3113
Chain Link Fences and Gates

Part 1 - General

1.1 Summary

- A. Work described in this section includes, but is not limited to; all labor, materials, equipment and services necessary for and reasonably incidental to the proper construction of chain link fences and gates as indicated on the drawings in various locations.
- B. Section includes installation of new chain link fencing, including perimeter control and field fencing.

1.2 References

- A. ASTM International:
 - 1. ASTM A 121, Standard Specification for Metallic-Coated Carbon Steel Barbed Wire.
 - 2. ASTM A 392, Standard Specification for Zinc-Coated Steel Chain-Link Fence Fabric.
 - 3. ASTM A 780, Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
 - 4. ASTM A 824, Standard Specification for Metallic-Coated Steel Marcellled Tension Wire for Use With Chain Link Fence.
 - 5. ASTM C 33, Standard Specification for Concrete Aggregates.
 - 6. ASTM C 150; Standard Specification for Portland Cement
 - 7. ASTM F 567, Standard Practice for Installation of Chain-Link Fence.
 - 8. ASTM F 626, Standard Specification for Fence Fittings.
 - 9. ASTM F 668, Standard Specification for Polyvinyl Chloride (PVC) and Other Organic Polymer-Coated Steel Chain-Link Fence Fabric.
 - 10. ASTM F 900, Standard Specification for Industrial and Commercial Swing Gates
 - 11. ASTM F 934, Standard Specification for Standard Colors for Polymer-Coated Chain Link Fence Materials.
 - 12. ASTM F 1043, Standard Specification for Strength and Protective Coatings on Steel Industrial Chain Link Fence Framework.
 - 13. ASTM F 1083, Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures.
- B. Georgia Department of Transportation (GDOT):
 - 1. "Standard Specifications, Construction of Transportation Systems", 2013 Edition (GDOT Standard Specifications).

1.3 Submittals

- A. Submit the following for review prior to commencement of the work of this Section:
 - 1. Product data and shop drawings showing materials, finishes and dimensions for fences and gates.

1.3 Delivery, Storage and Handling

- A. Store materials off the ground.

- B. Handle materials in a way which prevents dents, bends, and scars. Replace materials which are damaged prior to Substantial Completion.

1.4 Quality Criteria

- A. Work shall be performed by skilled mechanics experienced in fencing installation. Fence shall be set plumb, on line, properly tensioned and securely fastened. Locate temporary fencing as required to completely surround and enclose areas of construction activity, construction parking and material or tool storage areas to protect the public safety health and welfare. Permanent fencing is shown on the drawings.

Part 2 – Products

2.1 Furnish and install fence types at locations as illustrated on the Drawings.

A. Description of Fence Types

- 1. 6' Fence is six (6) feet overall height with top and bottom rails. All fencing components including posts shall have fused black vinyl coating per ASTM-F668 Class 28. Gates are included as per the drawings.
 - a) For fencing installed on top of retaining wall, fence posts shall be anchored in formed or cored holes at the required locations and spacing. Posts shall be inserted into the holes and leveled, plumbed, and aligned. The annular space shall be filled solid with a quick-setting hydraulic cement or non-shrink grout. Alternate materials and methods of post anchorage may be used if approved by the Engineer.
- 2. 6' Fence is six (6) feet overall height with top and bottom rails. All fencing components including posts shall have fused black vinyl coating per ASTM-F668 Class 28. Gates are included as per the drawings.

B. Fabric

- 1. All fabric shall be thermally fused black PVC (7 mil minimum) coated continuous galvanized chain link nine (9) gauge (core wire before coating) woven wire with selvage knuckled at top and bottom.

C. Steel Pipe

- 1. All posts used in the construction of this fence shall be hot-dipped galvanized schedule 40 pipe with a minimum yield strength of 30,000 psi; sizes as indicated.
- 2. Hot-dipped galvanized with minimum average 1.8 oz. /sq. ft. of coated surface area.
- 3. All posts to have fused black vinyl coating.

D. Terminal and Gate Posts

- 1. 6' Fence
 - a. Terminal, corner and pull posts shall be 3.5" O.D. Schedule 40 pipe weighing 7.58 lb. /ft.
 - b. Gate posts for up to 10' leaf shall be 4" O.D. Schedule 40 pipe weighing 9.11 lb. /ft.

2. 4' Fence
 - a. Terminal, corner and pull posts shall be 2.88" 0.0. Schedule 40 pipe weighing 5.79 lb. /ft.
 - b. Gate posts for up to 10' leaf shall be 3.5" 0.0. Schedule 40 pipe weighing 7.58 lb. /ft.
 3. General
 - a. Terminal posts shall be installed at every point that fence changes grade or turns a corner. All posts to have fused black vinyl coating.
- E. Line Posts
1. All Line Posts for 6' height fence shall be Schedule 40, 2.38" O.D. pipe; 3.65 lb. /If.
 2. All Line Posts for 4' height fence shall be Schedule 40, 2.38" 0.0. pipe; 3.65 lb. /If.
 3. All line posts to be evenly spaced at approximately 6'-0" O.C. or as indicated on plans.
 4. All posts to have fused black vinyl coating.
- F. Top Rail
1. Shall be 1.66" O.D. Schedule 40 pipe weighing 2.27 lb. /If.
 2. All joints to be swedge type.
 3. Top rails shall pass through line post tops and be fastened to terminal posts by pressed steel connectors.
 4. Top rail shall be kept parallel to ground - uneven top rail will not be accepted.
 5. All rails to have fused black vinyl coating.
- G. Bottom and Center Rails
1. Bottom and center rails shall be 1.66" O.D. Schedule 40 pipe weighing 2.27 lb. /If.
 2. All joints to be swedge type.
 3. Bottom and center rails to be installed between posts with fittings and accessories of matching finish.
 4. Top rail shall be kept parallel to ground - uneven top rail will not be accepted.
 5. All rails to have fused black vinyl coating.
- H. Braces
1. Braces shall be same as top rail and installed midway between top rail and bottom of fabric.
 2. Braces shall be fastened to posts with pressed steel connectors.
 3. Truss with 3/8" rod with turnbuckle.
 4. Braces to be installed between each terminal post and to adjacent line post each way.
 5. All braces to have fused black vinyl coating.
- I. Fabric Connections
1. Fabric shall be fastened to terminal posts with 3/16" x 3/4" tension bars with 11- gauge 7/8" wide steel bands fastened at 24" O.C.
 2. Fabric shall be fastened to line posts and top rails with steel tie wires.
 3. Line posts to be tied at intervals not exceeding 15" and top rails not exceeding 24".
 4. All connections to have fused black vinyl coating.
- J. Miscellaneous Hardware
1. All hardware including fittings, steel fence ties (no aluminum), and caps to be coated to match posts and fabric.
 2. All coating to be fused black vinyl coating as per ASTM-F668 Class 2B.

- 2.2 All terminal, corner, and pull post to be of sufficient length to extend 36" into a concrete footing that is a minimum diameter of 12" or four times the post diameter (whichever is greater) and all line posts shall be set in concrete footings with a depth of 36" and diameter of 10" or four times the post diameter (whichever is greater).
- 2.3 Miscellaneous fittings and hardware shall be furnished as needed and shall be galvanized. All items are to have fused black vinyl coating.
- 2.4 Temporary Construction Fencing shall enclose the work areas, tool and material storage areas and Contractor parking.
- 2.5 This section provides minimum guide specifications for the installation of a temporary site construction fence as specified below. The Contractor has the option to install a fence that provides greater security for the construction site
 - A. "Field Fence" of 12.5 gauge wire, 6 inch spacing between stays (vertical wires), minimum of 47 inches in height and Type 1 galvanized coating.
 - B. Studded "T" posts of high strength steel and a minimum of 6' in height and a maximum spacing of 8' on center.

Part 3 - Execution

- 3.1 Preparation
 - A. The ground surface along the alignment of the fencing shall be cleared and graded as required to produce a relatively even surface for proper fence construction.
 - B. Establish required locations for fencing (including gates) as indicated on the Drawings.
 - C. Do not begin fence installation and erection before other construction is completed at the fence location.
- 3.2 Installation
 - A. Brace end, corner and pull posts with horizontal intermediate brace and truss braces.
 - B. Install top rail continuous with couplings not less than 6" long. Attach barbed wire on supports on exterior side of enclosed space if fence is on property line.
 - C. Install fabric on exterior of enclosed space.
 - 1. Stretch fabric taut, allowing approximately 2" clearance at grade or paving.
 - 2. Fasten to line posts and to rail with ties; all other areas with stretcher bars.
 - 3. Tie fabric to post at 1'-0" o.c.; top rail at 2'-0" o.c.
 - 4. Fabric shall not by pass end, gate, and corner or pull posts.
 - 5. Stretcher bars shall be threaded through fabric and secured to posts by bands or other mechanical devices.
 - D. Install bottom rail between posts with fittings and accessories.
 - E. Install gates complete with specified hardware at locations indicated on the Drawings or as may be acceptable to the Owner. Adjust and lubricate all hardware.

3.3 REPAIR

- A. Repair abraded or damaged galvanized surfaces with hot process field galvanizing in accordance with ASTM A 780 and manufacturer's written instructions.
- B. For polymer-coated fencing, prepare and recoat damaged coatings in accordance with manufacturer's written instructions.

END OF SECTION

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SECTION 32 3123
Vinyl Fences

PART 1 – General

Part 1 General

1.01 Related Documents

- A. Drawings and general provisions of the contract apply to this section.

1.02 Summary

- A. This section includes the following:
 - 1. Polyvinyl chloride (PVC) fence and gate components.
 - 2. Reinforcing steel for concrete-filled, reinforced fence posts.
 - 3. Concrete for post footings and for concrete filled reinforced fence posts.
- B. Related sections: The following sections contain requirements that relate to this section.
 - 1. Section 31 000-Earthwork
 - 2. Section 03 300-Cast-in-Place concrete

1.03 Definitions

- A. Posts are the vertical structure support members of the fence.
- B. Rails are the horizontal structural support members of the fence or gate frame.
- C. Gate Uprights are the vertical structural support members of the gate frame.

1.04 Submittals

- A. General: Submit the following according to the conditions of the contract.
- B. Product Data: In the form of manufacturer's technical data, specifications, and installations for fence, posts, gate uprights, post caps, gates, gate hardware and accessories.
- C. Samples for verification of PVC color in form of 3-inch lengths of actual product to be used in color selection
- D. Shop Drawings showing fence design.

1.05 Quality Assurance

- A. Installer Qualifications: Engage an experienced installer who has at least three years experience and has completed at least five PVC fence projects with same material and of similar scope to that indicated for this project with a successful construction record of in-service performance.
- B. Single - Source Responsibility: Obtain PVC fences and gates, including accessories, fittings, and fastenings, from a single source.

1.06 Project Conditions

- A. Field Measurements: Verify layout information for fences and gates shown on the drawings in relation to the property survey and existing structures. Verify dimensions by field measurements.

1.07 Warranty

- A. Contractor shall guarantee fence from the date of Project Final Payment for period of not less than one (1) year.

PART 2 PRODUCTS

2.01 Fence Materials

- A. General: Provide PVC fence materials recognized to be of type indicated and tested to show compliance with indicated performances.
- B. Available Manufacturer: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the work include:
 - 1. Bufftech, 231 Ship Canal Parkway, Buffalo, NY 14218 (800) 333-0569
 - 2. Style Name: Post and Rail 3 Rail Fence Height: 4.5' H minimum
 - 3. Color Match CertainTeed (white)
 - 4. Or Approved Equivalent
 - 5. Product must meet Miami-Dada NOA code.

2.02 Polyvinyl Chloride (PVC) Fence Components

- A. General: Posts, rails, gate uprights, post caps, and accessories shall be of high impact, Ultra Violet (U.V.) resistant, rigid PVC, and shall comply with ASTM D1784, Class 14344B.
- B. Fence Posts: One piece extruded, of lengths indicated and pre-routed to receive rails at spacing indicated.
 - 1. Cross Section: 5" x 5" minimum.
 - 2. Wall Thickness: 0.135" minimum.
 - 3. Corner Radius: 3/8" R minimum.
- C. Rails: One piece extruded, of lengths indicated.
 - 1. Small Rail – Ribbed Extrusions
 - a. Cross Section: 1-1/2" X 5-1/2" RBD minimum.
 - b. Wall Thickness: 0.090" minimum.
 - c. Corner Radius: 11/32" R minimum.

D. Gate Uprights: One piece extruded, of lengths indicated.

1. Cross Section: 4" x 4" minimum.
2. Wall Thickness: 0.140" minimum.
3. Corner Radius: 1 1/32" R minimum.

E. Post Caps: Molded, one piece

1. Cross Section: Match post or gate upright cross section.
2. Thickness: 0.095" minimum.
3. Configuration: Flat or four-sided pyramid design, with cross section sized as required for installation to top of posts and gate uprights. Form post caps as required for concealed attachment to tops of posts and gate uprights.

F. Accessories: Manufacturers' standard gate brace, screw caps, rail end reinforcers, and other accessories as required.

2.03 Miscellaneous Materials

- A. Fasteners and Anchorage: Stainless Steel. Provide sizes as recommended by fence manufacturer.
- B. PVC Cement: As recommended by fence manufacturer.
- C. Rail Plugs: Manufacturer's standard duct tape to prevent seepage at concrete filled posts.

2.04 Reinforcement for Filled Posts

A. Reinforcing Steel:

1. Steel Reinforcing Bars: ASTM A 615. Grade 60 #4 or 1/2". Deformed. Install 2 bars for each post to a length of 4-1/2 feet.

PART 3 EXECUTION

3.01 Installation, General

- A. Install fence in compliance with manufacturer's written instructions. During installation, PVC components shall be carefully handled and stored to avoid contact with abrasive surfaces. Install components in sequence as recommended by fence manufacturer.
 1. Install fencing as indicated on the drawings provided.
 2. Variations from the installation indicated must be approved.
 3. Variations from the fence installation indicated and all costs for removal and replacement will be the responsibility of the contractor.

3.02 Fence Installation

- A. Excavation: Drill or hand-excavate (using post hole digger) holes for posts to diameters and spacings indicated, in firm, undisturbed or compacted soil.
 - 1. If not indicated on drawings, excavate holes for each post to a minimum diameter of 12" inches.
 - 2. Unless otherwise indicated, excavate hole depths not less than 30 inches or to frost line.

- B. Posts: Install posts in one piece, plumb and in line. Space a maximum of 8 feet O.C. unless otherwise indicated. Enlarge excavation as required to provide clearance indicated between post and side of excavation.
 - 1. Protect portion of posts above ground from concrete splatter. Place concrete around posts and vibrate or tamp for consolidation. Check each post for vertical and top alignment and hold in position during placement and finishing operations.
 - a. Unless otherwise indicated, terminate top of concrete footings 3 inches below adjacent grade and trowel to a crown to shed water.
 - b. Secure posts in position for manufacturers' recommendations until concrete sets.
 - c. After installation of rails and unless otherwise indicated, install reinforcing in posts in opposing corners of post as shown and fill end and gate posts with concrete to level as indicated. Concrete fill shall completely cover the reinforcing steel and gate hardware fasteners. Consolidate the concrete by striking the post face with a rubber mallet, carefully tamping around the exposed post bottom.
 - d. Install post caps. Use #8 screws, nylon washers and snap caps.
 - e. Remove concrete splatters from PVC fence materials with care to avoid scratching.

- C. Rails: Install rails in one piece between post and into routed hole fabricated into posts to receive rails where necessary. Stagger rail ends in posts. Except at sloping terrain, install rails level, centered on posts.

- D. Lock Rings:
 - 1. Nylon Lock Rings inserted into ends of rails to secure in post.
 - 2. At posts to receive concrete fill, plug ends of rails with duct tape to prevent seepage when filling post with concrete.

- E. Fence Installation at Sloping Terrain: At sloping terrain rails may be racked (sloped) or stepped to comply with manufacturers' recommendations.

3.03 Adjusting and Cleaning

- A. Remove all traces of dirt and soiled areas in accordance with manufacturer's recommendations.

END OF SECTION

Construction Narrative

THE PROPOSED CONSTRUCTION WILL CONSIST OF GRADING, IRRIGATION, AND SODDING FOR FUTURE CONSTRUCTION OF THREE BASEBALL FIELDS AND MULTI-PURPOSE ATHLETIC FIELD. IN ADDITION, FUTURE STRUCTURES ON THE SITE INCLUDE, PLAYGROUND, BASKETBALL COURT, BATTING CAGE AND RESPECTIVE A PROPOSED ACCESS ROAD AND PARKING LOT FOR THESE USES. METER FEE, TAPE FEE, PERMIT FEE AND SPECIAL INSPECTIONS TO BE HANDLE BY OWNER.

"I CERTIFY UNDER THE PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION"

CERTIFIED BY _____ DATE _____

24 HR EMERGENCY CONTACT: KEVIN POE (706) 367-6314

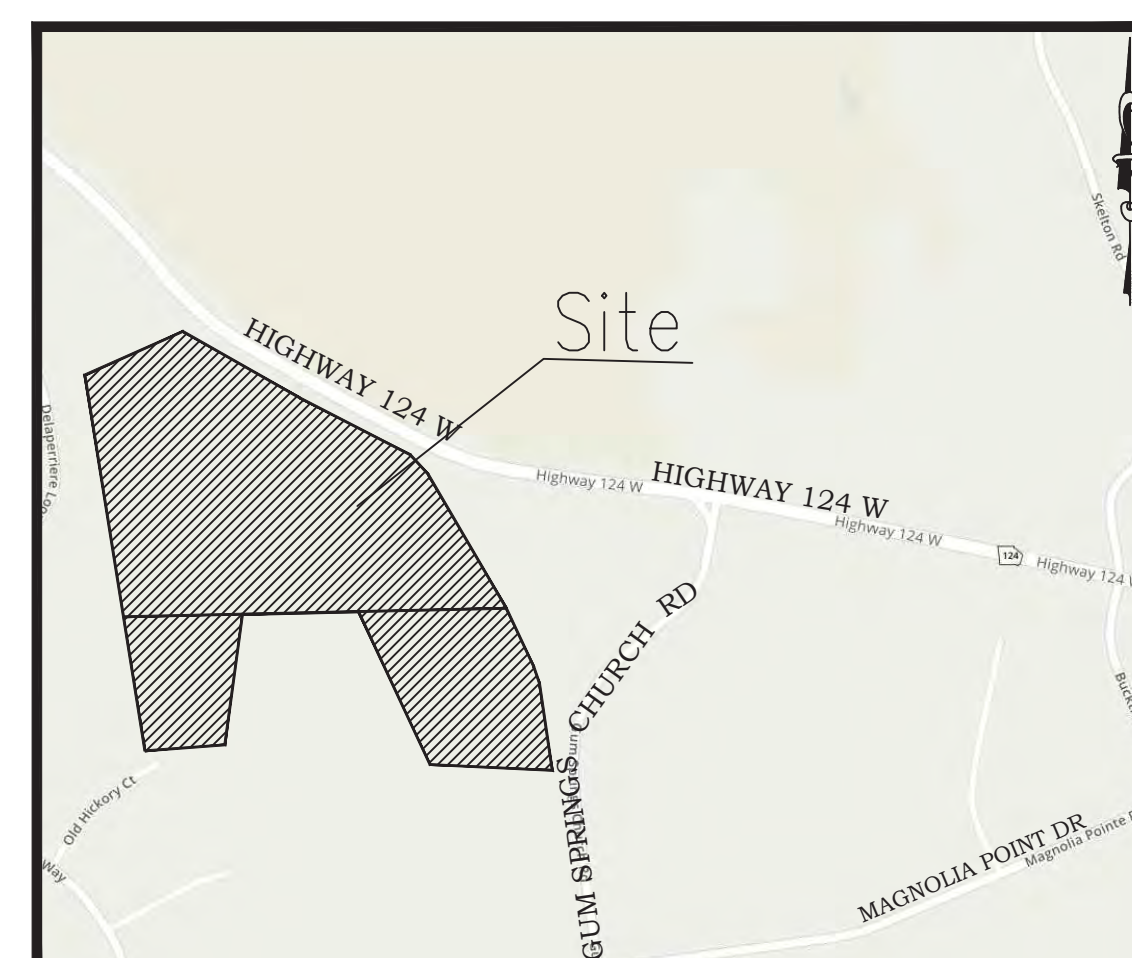
GUM SPRINGS PARK

400 Gum Springs Church Rd,
Jefferson, Georgia 30549

Index	Sheet #
COVER SHEET	C-0.0
PROJECT NOTES	C-1.0
EXISTING CONDITIONS	C-1.1
DEMOLITION PLAN	C-2.0
SITE PLAN	C-3.0
GRADING PLAN	C-4.0
UTILITY PLAN	C-5.0
EROSION CONTROL NOTES	C-6.0 - C-6.3
EROSION CONTROL PLAN - INITIAL	C-6.4
EROSION CONTROL PLAN - INTERMEDIATE	C-6.5
EROSION CONTROL PLAN - FINAL	C-6.6
PROFILES	C-7.0-C-7.2
CONSTRUCTION DETAILS	C-8.0-C-8.18
JACKSON EMC LIGHTING PLAN	C-8.19
LANDSCAPE PLAN	T-1



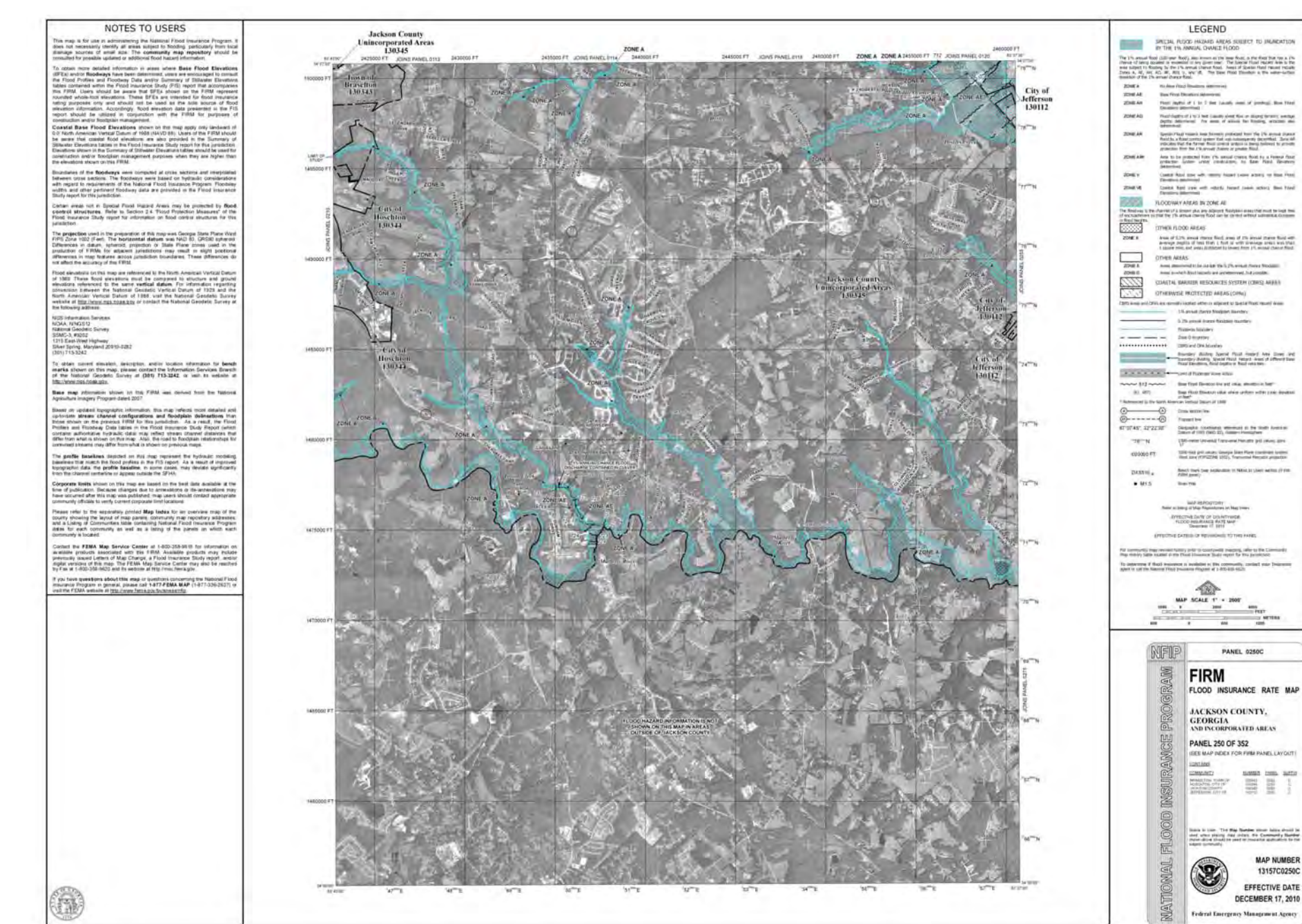
Aerial



Location Map

Construction Schedule

	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
INSTALLATION OF INITIAL EROSION CONTROL MEASURES AND TREE PROTECTION FENCE	█											
INSTALLATION OF SEDIMENT STORAGE BMP		█										
DEMOLITION OPERATIONS			█									
CLEARING AND GRUBBING			█									
GRADING OPERATION			█									
UTILITY INSTALLATION				█								
TEMPORARY MULCHING/GRASSING				█								
PAVEMENT INSTALLATION					█							
MAINTENANCE OF ALL EROSION CONTROL MEASURES						█						
FINAL GRASSING / STABILIZATION							█					
BMP REMOVAL								█				



FEMA Flood Panel

ADDENDUM 1

PROSPECTIVE BIDDERS ARE EXPECTED TO HAVE TAKEN EVERY OPPORTUNITY TO INVESTIGATE/VISIT THE SUBJECT SITE AND OTHERWISE CONDUCT THEIR OWN DUE DILIGENCE IN ADVANCE OF SUBMITTING THEIR BID TO DO THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ANY "UNKNOWN ISSUES" THAT COULD HAVE BEEN DETERMINED/ DISCOVERED WITH REASONABLE EXPLORATION OF THE SITE PRIOR TO SUBMITTING THE BID.

CONTRACTOR IS REQUIRED TO SUBMIT AN AS-BUILT OF THE SITE, IN BOTH A DIGITAL PDF AND DIGITAL CAD FILE, TO JACKSON COUNTY BEFORE COMPLETION OF THE PROJECT TO VERIFY THAT THE SITE WAS DEVELOPED PER THE CONSTRUCTION DRAWINGS.

CONTRACTOR IS RESPONSIBLE FOR THE NPDES MONITORING & SAMPLING FOR THE EXTENTS OF THE PROJECT.

Engineer's Certification

IT IS HEREBY CERTIFIED THAT THESE DEVELOPMENT PLAN WAS PREPARED USING A SURVEY OF THE PROPERTY PREPARED BY KEVIN LEE CANN, PSL NO. 3123 AND DATED 03/07/19; AND FURTHER THAT THE PROPOSED DEVELOPMENT MEETS THE REQUIREMENTS OF THE JACKSON COUNTY UNIFIED DEVELOPMENT CODE AS APPLICABLE TO THIS PROPERTY.

BY(NAME): DONALD B. CLERICI, JR. PE

SIGNED: _____

PROFESSIONAL ENGINEER NO.: 029212

ADDRESS: PO BOX 878 BRASELTON, GA 30517

TELEPHONE NO: 706-824-0514

DATE: _____

Owner's Certification

AS THE OWNER OF THIS LAND, AS SHOWN ON THIS DEVELOPMENT PLAN, OR HIS AGENT, I CERTIFY THAT THESE DRAWINGS WERE MADE FROM AN ACTUAL SURVEY, AND THAT THEY ACCURATELY PORTRAY EXISTING LAND AND ITS FEATURES AND THE PROPOSED DEVELOPMENT AND IMPROVEMENTS THERETO.

DATE: _____

OWNER OR AGENT NAME: JACKSON COUNTY BOARD OF COMMISSIONERS

SIGNED: _____

Certificate of Project Approval

ALL APPLICABLE REQUIREMENTS OF THE JACKSON COUNTY UNIFIED DEVELOPMENT CODE HAVING BEEN FULFILLED, APPROVAL OF THESE DEVELOPMENT PLANS IS HEREBY GRANTED BY THE JACKSON COUNTY DIRECTOR OF PUBLIC DEVELOPMENT, SUBJECT TO FURTHER COMPLIANCE WITH ALL PROVISIONS OF SAID DEVELOPMENT CODE.

DATED THIS: ____ DAY OF _____, 20__ .

BY: _____

TITLE: _____

THIS DEVELOPMENT PERMIT AND APPROVED PLANS SHALL REMAIN IN EFFECT FOR A PERIOD OF 6 CONSECUTIVE MONTHS AFTER WHICH TIME THE PERMIT AND PLANS WILL BECOME NULL AND VOID AND A NEW PERMIT WILL BE REQUIRED IF NO DEVELOPMENT ACTIVITY HAS BEGUN AND HAS BEEN DILIGENTLY PURSUED. THE TIMELINE AS INDICATED ON THESE DEVELOPMENT PLANS WILL BE REQUIRED TO BE FOLLOWED, AND IF AT ANY TIME THE PROJECT BECOMES BEHIND 3 MONTHS OR MORE THE DEVELOPMENT PERMIT WILL BECOME NULL AND VOID AND A NEW DEVELOPMENT PERMIT WILL BE REQUIRED. IF THE DEVELOPMENT PERMIT BECOMES NULL AND VOID A NEW CERTIFICATE OF PROJECT APPROVAL MUST BE APPLIED FOR A ADDITIONAL FEES PAID. ALL NEW CODES AND STANDARDS WILL BE REQUIRED TO BE FOLLOWED.

Water and Sewer Provider Certification

THIS DEVELOPMENT, AS SHOWN, HAS BEEN REVIEWED AND IS APPROVED FOR CONSTRUCTION ACTIVITY ONLY IN THAT IT HAS BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE JACKSON COUNTY WATER & SEWER AUTHORITY STANDARD DRAWINGS AND SPECIFICATIONS WITH REGARD TO:

WATER SUPPLY

SEWAGE DISPOSAL

AND THAT ALL OF THE PROPOSED UTILITY EASEMENTS TO BE DEDICATED TO THE JACKSON COUNTY WATER & SEWER AUTHORITY ARE SHOWN ON THE CONSTRUCTION DRAWINGS. THE JACKSON COUNTY WATER & SEWER AUTHORITY IS NOT RESPONSIBILITY FOR THE ADEQUACY OF THE DESIGN, WHICH IS THE SOLE RESPONSIBILITY OF THE ENGINEER OF RECORD WHO STAMPED AND SEALED THE PLANS.

DATED THIS ____ DAY OF _____, 20__ .

BY: _____

TITLE: _____

ORGANIZATION: _____ "

Narrative:

- I. DESCRIPTION: THIS DEVELOPMENT IS LOCATED ON GUM SPRINGS CHURCH ROAD IN JACKSON COUNTY GEORGIA AND CONTAINS 45.76 ACRES. THE DEVELOPMENT OF GUM SPRINGS PARK. DISTURBED ACREAGE: 23.11 ACRES ZONED: A-2 TAX PARCEL ID: 105 019A
- II. EXISTING SITE CONDITIONS: TOPOGRAPHY: MODERATE TO STEEP SLOPE (5-30%) VEGETATION: GRASSSED DRAINAGE: SEE GRADING AND DRAINAGE PLAN
- III. ADJACENT AREAS: NORTH: HIGHWAY 124 WEST MODERATE SLOPES (5-20%) WITH NO STATE WATERS EAST: GUM SPRINGS CHURCH ROAD WEST: RESIDENTIAL SUBDIVISION MODERATE SLOPES (5-20%) WITH STATE WATERS SOUTH: WEST JACKSON MIDDLE SCHOOL FLAT SLOPES (2-5%) WITH STATE WATERS
- IV. CRITICAL AREAS: CARE SHALL BE TAKEN TO PROTECT NEARBY AREAS FROM SEDIMENT INFILTRATION. NO FLOODING OR CHANNEL DEGRADATION SHALL RESULT FROM DEVELOPMENT. SPECIAL ATTENTION WILL BE GIVEN TO FILLS OVER 5' IN HEIGHT.

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Or Call 800-282-7411

FOR BIDDING ONLY

PO BOX 878
BRASELTON, GA 30517
TEL: 706-824-0514
FAX: 706-824-0519

LICENSE # PE050537
ISSUED: 4/1/18
EXPIRES: 6/30/22

BMK & CONSTRUCTION & ENGINEERING

REGISTERED PROFESSIONAL ENGINEER
No. 029212
DONALD B. CLERICI, JR.

GSWCC LEVEL II
CERTIFICATION # 804

REVISIONS

NO.	DATE	DESCRIPTION
1	4-8-20	JACKSON COUNTY COMMENTS
2	6-1-20	OWNER, JAVIN A JACKSON COUNTY COMMENTS
3	6-18-20	JAVIN COMMENTS / ADDENDUM NO. 1

CONSTRUCTION PLANS FOR:
GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

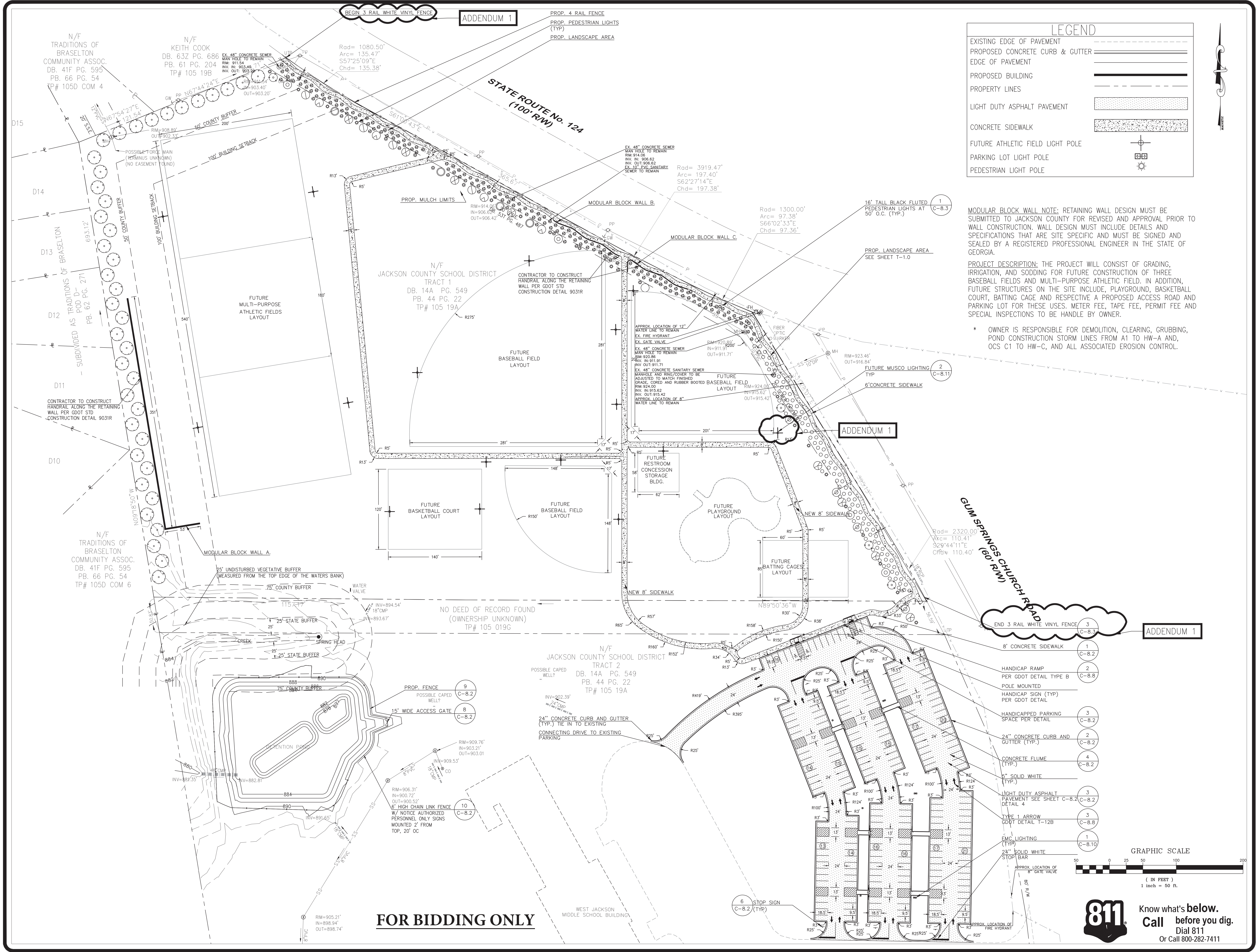
SHEET TITLE
COVER SHEET

SHEET NUMBER
C-0.0

SCALE SEE PLAN

DATE 1-10-20

PROJECT NO.



LEGEND

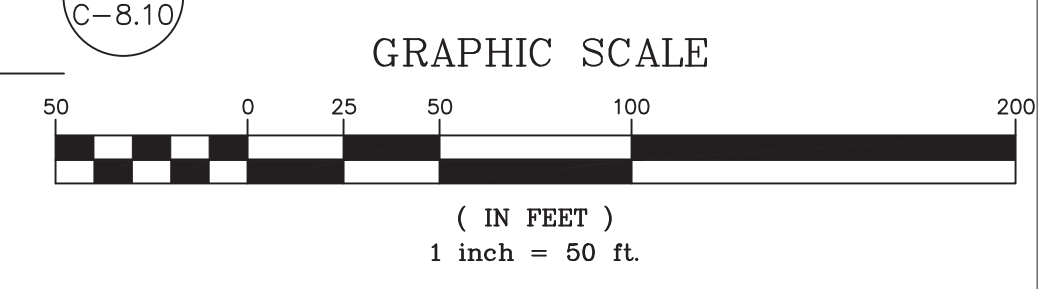
- EXISTING EDGE OF PAVEMENT
- PROPOSED CONCRETE CURB & GUTTER
- EDGE OF PAVEMENT
- PROPOSED BUILDING
- PROPERTY LINES
- LIGHT DUTY ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- FUTURE ATHLETIC FIELD LIGHT POLE
- PARKING LOT LIGHT POLE
- PEDESTRIAN LIGHT POLE

MODULAR BLOCK WALL NOTE: RETAINING WALL DESIGN MUST BE SUBMITTED TO JACKSON COUNTY FOR REVISED AND APPROVAL PRIOR TO WALL CONSTRUCTION. WALL DESIGN MUST INCLUDE DETAILS AND SPECIFICATIONS THAT ARE SITE SPECIFIC AND MUST BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF GEORGIA.

PROJECT DESCRIPTION: THE PROJECT WILL CONSIST OF GRADING, IRRIGATION, AND SODDING FOR FUTURE CONSTRUCTION OF THREE BASEBALL FIELDS AND MULTI-PURPOSE ATHLETIC FIELD. IN ADDITION, FUTURE STRUCTURES ON THE SITE INCLUDE, PLAYGROUND, BASKETBALL COURT, BATTING CAGE AND RESPECTIVE A PROPOSED ACCESS ROAD AND PARKING LOT FOR THESE USES. METER FEE, TAPE FEE, PERMIT FEE AND SPECIAL INSPECTIONS TO BE HANDLE BY OWNER.

* OWNER IS RESPONSIBLE FOR DEMOLITION, CLEARING, GRUBBING, POND CONSTRUCTION STORM LINES FROM A1 TO HW-A AND, OCS C1 TO HW-C, AND ALL ASSOCIATED EROSION CONTROL.

- 1 16" TALL BLACK FLUTED PEDESTRIAN LIGHTS AT 50' O.C. (TYP.)
- 2 FUTURE MUSCO LIGHTING TYP
- 3 6" CONCRETE SIDEWALK
- 4 NEW 8' SIDEWALK
- 5 END 3 RAIL WHITE VINYL FENCE
- 6 8' CONCRETE SIDEWALK
- 7 HANDICAP RAMP PER GDOT DETAIL TYPE B
- 8 POLE MOUNTED HANDICAP SIGN (TYP) PER GDOT DETAIL
- 9 HANDICAPPED PARKING SPACE PER DETAIL
- 10 24" CONCRETE CURB AND GUTTER (TYP.)
- 11 CONCRETE FLUME (TYP.)
- 12 6" SOLID WHITE (TYP.)
- 13 LIGHT DUTY ASPHALT PAVEMENT SEE SHEET C-8.2, C-8.2 DETAIL 4
- 14 TYPE 1 ARROW GDOT DETAIL T-12B
- 15 EMC LIGHTING (TYP)
- 16 24" SOLID WHITE STOP BAR



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BR# 100-42-0019
BR# 100-42-0019

LICENSE # PE060537
ISSUED 4/1/18
EXPIRES 6/30/22

GSWCC LEVEL II
CERTIFICATION # 804

REVISIONS	
NO.	DATE
1	4-8-20
2	6-1-20
3	6-18-20

CONSTRUCTION PLANS FOR:

GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

SHEET TITLE

SITE PLAN

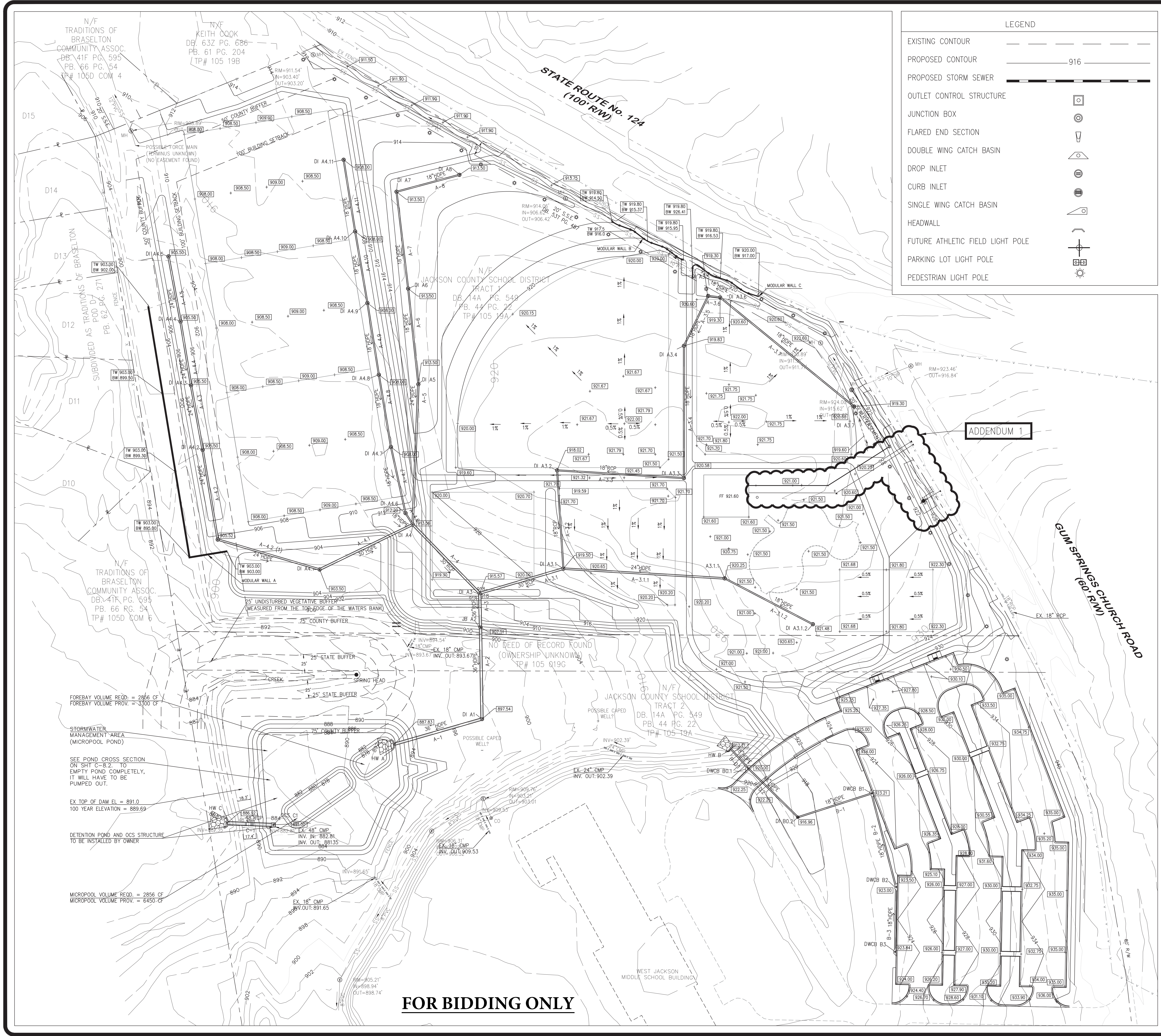
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C-3.0

SCALE SEE PLAN

DATE 1-10-20

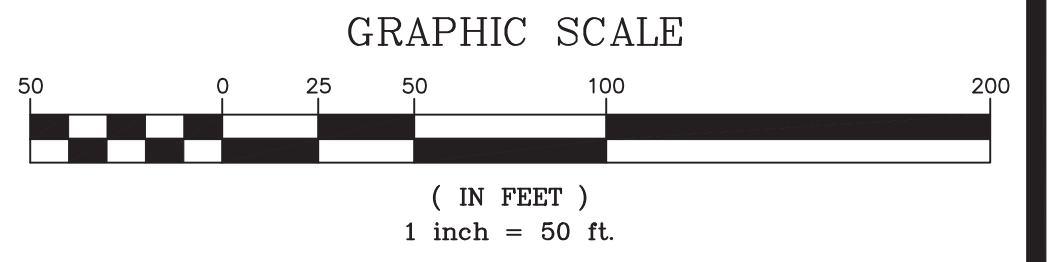
PROJECT NO.



LEGEND

EXISTING CONTOUR	---
PROPOSED CONTOUR	— 916 —
PROPOSED STORM SEWER	—
OUTLET CONTROL STRUCTURE	□
JUNCTION BOX	⊙
FLARED END SECTION	▽
DOUBLE WING CATCH BASIN	⊕
DROP INLET	⊖
CURB INLET	⊗
SINGLE WING CATCH BASIN	⊘
HEADWALL	⊔
FUTURE ATHLETIC FIELD LIGHT POLE	⊕
PARKING LOT LIGHT POLE	⊕
PEDESTRIAN LIGHT POLE	⊕

ADDENDUM 1



FOR BIDDING ONLY

N/F TRADITIONS OF BRASELTON COMMUNITY ASSOC.
DB. 41F PG. 595
PB. 66 PG. 54
TP# 105D COM 4

KEITH COOK
DB. 63Z PG. 686
PB. 61 PG. 204
TP# 105 19B

N/F JACKSON COUNTY SCHOOL DISTRICT TRACT DB. 14A PG. 549 PB. 44 PG. 22 TP# 105 19A

N/F JACKSON COUNTY SCHOOL DISTRICT TRACT 2 DB. 14A PG. 549 PB. 44 PG. 22 TP# 105 19A

NO RECORD FOUND (OWNERSHIP UNKNOWN) TP# 105 Q19G

FOREBAY VOLUME REQ. = 2866 CF
FOREBAY VOLUME PROV. = 3300 CF

STORMWATER MANAGEMENT AREA (MICROPOOL POND)

SEE POND CROSS SECTION ON SHIT C-3.2. TO EMPTY POND COMPLETELY, IT WILL HAVE TO BE PUMPED OUT.

EX TOP OF DAM EL. = 891.0
100 YEAR ELEVATION = 889.69

DETENTION POND AND OCS STRUCTURE TO BE INSTALLED BY OWNER

MICROPOOL VOLUME REQ. = 2856 CF
MICROPOOL VOLUME PROV. = 6450 CF

PO BOX 878
BRASELTON, GA 30017
TEL: 770-824-6219
FAX: 770-824-6219

LICENSE # PE0605337
ISSUED 4/1/18
EXPIRES 4/30/22

REGISTERED PROFESSIONAL ENGINEER
No. 029212
Donald B. Clerici, P.E.

GSWCC LEVEL II
CERTIFICATION # 804

REVISIONS

NO.	DATE	DESCRIPTION
1	4-8-20	JACKSON COUNTY COMMENTS
2	6-1-20	OWNER, JAVNI JACKSON COUNTY COMMENTS
3	6-18-20	JAVNI COMMENTS / ADDENDUM NO. 1

CONSTRUCTION PLANS
FOR:
GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

SHEET TITLE
GRADING PLAN

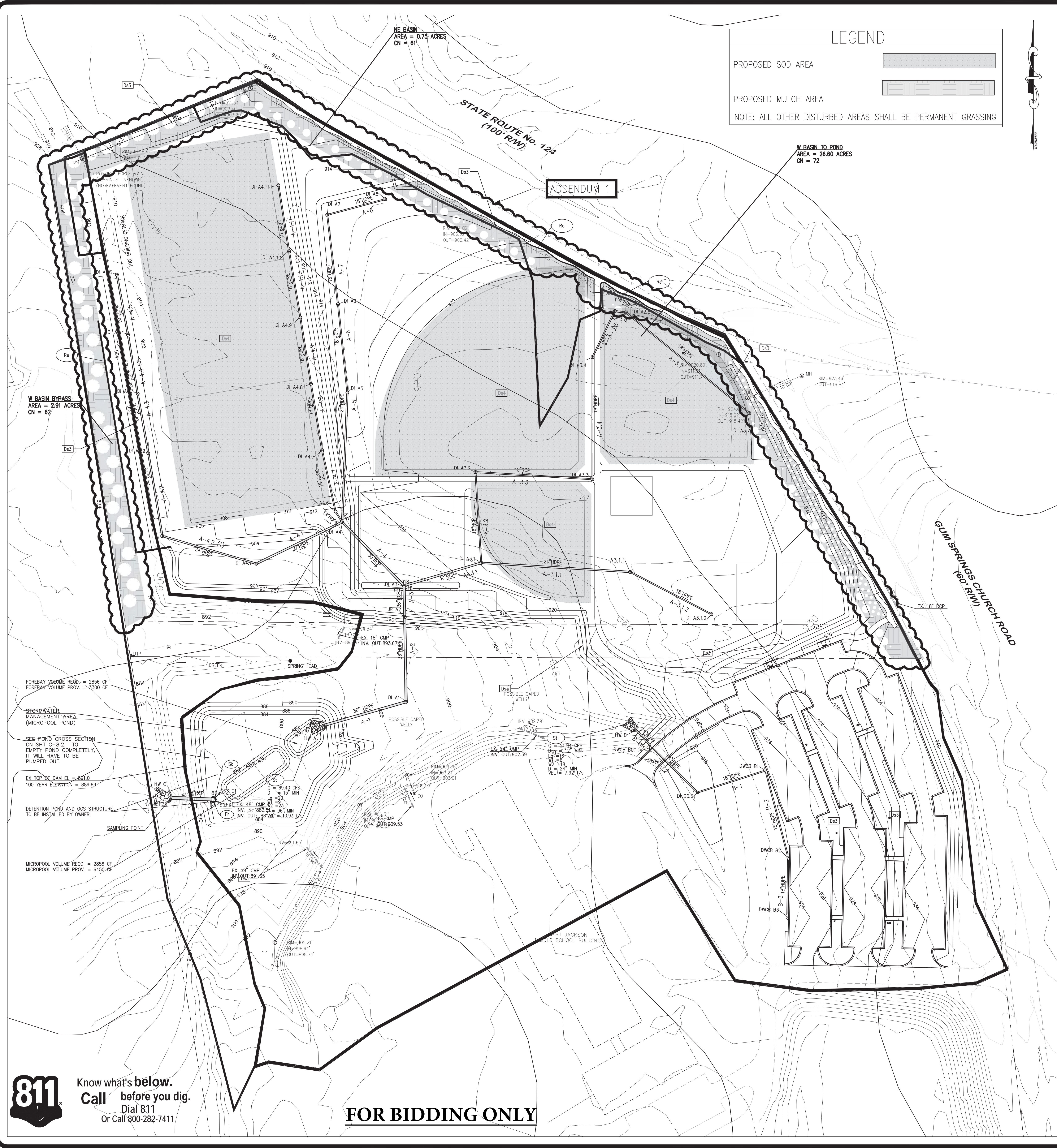
SHEET NUMBER
C-4.0

SCALE: SEE PLAN

DATE: 1-10-20

PROJECT NO.

811 Know what's below.
Call before you dig.
Dial 811
Or Call 800-282-7411



Erosion Control Notes:

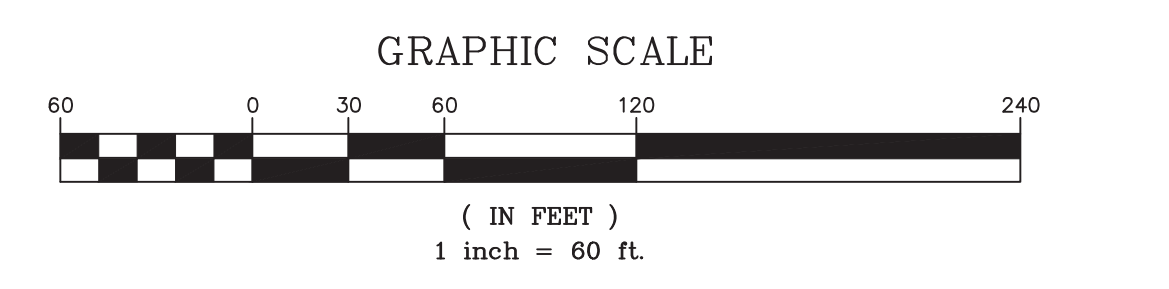
1. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC STREETS.
2. SILT FENCES AND HAY BALE BARRIERS SHALL BE CLEANED OR REPLACED AND MAINTAINED IN FUNCTIONAL CONDITION UNTIL PERMANENT EROSION CONTROL MEASURES ARE ESTABLISHED.
3. SILT FENCE FABRIC SHALL BE COMPOSED OF CA DOT OPL 36.
4. ALL GRASSING SHALL BE IN ACCORDANCE WITH CH 6, SECTION III "VEGETATION PRACTICES" OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
5. ALL WORK SHALL BE PERFORMED IN ACCORDANCE TO THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GA.
6. THE CONTRACTOR SHALL CLEAN OUT ALL ACCUMULATED SILT FROM THE DETENTION AND SEDIMENT POND ONCE ALL DISTURBED AREAS ARE STABILIZED WITH PERMANENT VEGETATION.
7. EROSION CONTROL DEVICES WILL BE IN PLACE BEFORE SITE DISTURBANCE AND WILL BE PERIODICALLY INSPECTED AND REPAIRED OR RESTORED AS NEEDED TO FUNCTION PROPERLY UNTIL PERMANENT MEASURES ARE ESTABLISHED AND PROJECT IS COMPLETE. CONSTRUCTION EXITS AND SILT FENCES SHALL BE RETOPPED OR CLEANED AS SILT REDUCES THEIR EFFECTIVENESS.
8. ANY ADDITIONAL CONSTRUCTION OTHER THAN SHOWN ON THIS PLAN WILL REQUIRE SEPARATE AND ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AND APPROVAL.
9. TEMPORARY VEGETATION AND/OR HEAVY MULCH WILL BE USED TO STABILIZE AREAS. IN NO CASE SHALL A SITE BE LEFT BARE FOR MORE THAN 7 DAYS.
10. ALL DISTURBED AREAS WILL BE PERMANENTLY LANDSCAPED AND GRASSED AS SOON AS CONSTRUCTION PHASES PERMIT.
11. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED TO CONTROL EROSION AS DETERMINED NECESSARY BY THE GOVERNING JURISDICTION SITE INSPECTORS.
12. OUT AND FILL SLOPES NOT TO EXCEED 2H: 1V.
13. EROSION CONTROL MEASURES TO BE INSPECTED DAILY.
14. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
15. IN CONCENTRATED FLOW AREAS, ALL SLOPES STEEPER THAN 2.5:1 AND WITH A HEIGHT 10' OR GREATER SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKET.
16. DISTRIBUTED AREAS LEFT IDLE FOR 7 DAYS AND NOT TO FINAL GRADE, WILL BE ESTABLISHED TO PERMANENT VEGETATION(Ds2). ALL AREAS TO FINAL GRADE, WILL BE ESTABLISHED TO TEMPORARY VEGETATION(Ds3) IMMEDIATELY UPON COMPLETION.
17. WHEN PLANTING VEGETATION, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDING AREA WITHIN 24 HOURS OF SEEDING. SEDIMENT AND EROSION CONTROL DEVICES MUST BE CHECKED AFTER EACH STORM EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ON HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.

Vegetative Plan

- APPLY Ds2 AS SOON AS ROUGH GRADING IS COMPLETE
 - APPLY Ds3 ONCE FINAL GRADE IS COMPLETE
- Ds1** MULCHING - USE STRAW OR HAY 2.5 TONS PER ACRE
 - Ds2** SEPTEMBER THROUGH FEBRUARY, USE WINTER RYE 4 LB/1000 SF APRIL THROUGH AUGUST, USE KENTUCKY 31 FESCUE 4 LB/1000 SF
 - Ds3** OCTOBER THROUGH MARCH, USE UNHULLED BERMUDA 4LB/1000 SF APRIL THROUGH JULY, USE ZENITH ZOYSIA 4LB/1000 SF AUGUST THROUGH SEPTEMBER, USE KENTUCKY 31 FESCUE
 - Ds4** OCTOBER THROUGH MARCH, USE KENTUCKY 31 FESCUE APRIL THROUGH SEPTEMBER, UNHULLED BERMUDA

DETENTION POND: OWNER IS RESPONSIBLE FOR CLEARING, GRUBBING AND ANYTHING ASSOCIATED WITH EROSION CONTROL FROM POND TO STORM A1.

- RIP-RAP
- HEADWALL
- FLOATING SURFACE SKIMMER
- FILTER RING
- STABILIZING



EROSION CONTROL SYMBOLS LEGEND

STRUCTURAL PRACTICES		
CODE	PRACTICE	DESCRIPTION
Cd	CHECKDAM	A small temporary barrier or dam constructed across a wide, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION	Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Cr	CONSTRUCTION ROAD STABILIZATION	A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL	A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION	An earth channel or dike located above, below or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE	A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE	A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fr	FILTER RING	A temporary stone barrier constructed at storm drain inlets and pond outlets.
Ga	GABION	Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE	Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Lv	LEVEL SPREADER	A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.
Rd	ROCK FILTER DAM	A permanent or temporary stone filter dam installed across small streams or drainageways.
Rt	RETRO FITTING	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Sd1	SEDIMENT BARRIER	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP	An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN	A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sd4	TEMPORARY SEDIMENT TRAP	A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.
Sk	FLOATING SURFACE SKIMMER	A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.
Spb	SEEP BERM	Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers with the employment of intermediate dikes.
Sr	TEMPORARY STREAM CROSSING	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN GULCH PROTECTION	A paved or short section of riprap channel at the outlet of a storm drain to prevent erosion from the concentrated runoff.
Su	SURFACE ROUGHENING	A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN	A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
Tp	TOPSOILING	The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION	To protect desirable trees from injury during construction activity.
Wt	VEGETATED WATERWAY	Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.
VEGETATED PRACTICES		
Bf	BUFFER ZONE	Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)	Planting vegetation on dunes that are denuded, artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)	Establishing a temporary vegetative cover with fast growing seedlings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SOODING)	A permanent vegetative cover using sods on highly erodible or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS	Controlling surface and air movement of solids/liquid separation of suspended particles in solution.
Fi-Cd	FLOCCULANTS AND COAGULANTS	Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (USING PERM VEGETATION)	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Ss	SLOPE STABILIZATION	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tac	TACKERS AND BINDERS	Substance used to anchor straw or hay mulch by causing the organic material to bind together.

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PO BOX 878
BRASELTON, GA 30017
BR: 706-682-0919
BF: 706-682-0919

B&K CONSTRUCTION & ENGINEERING

LICENSE # PR050537
ISSUED 4/18
EXPIRES 6/30/22

REGISTERED PROFESSIONAL ENGINEER
No. 029212
David B. Clerici, P.E.

GSWCC LEVEL II
CERTIFICATION # 804

REVISIONS

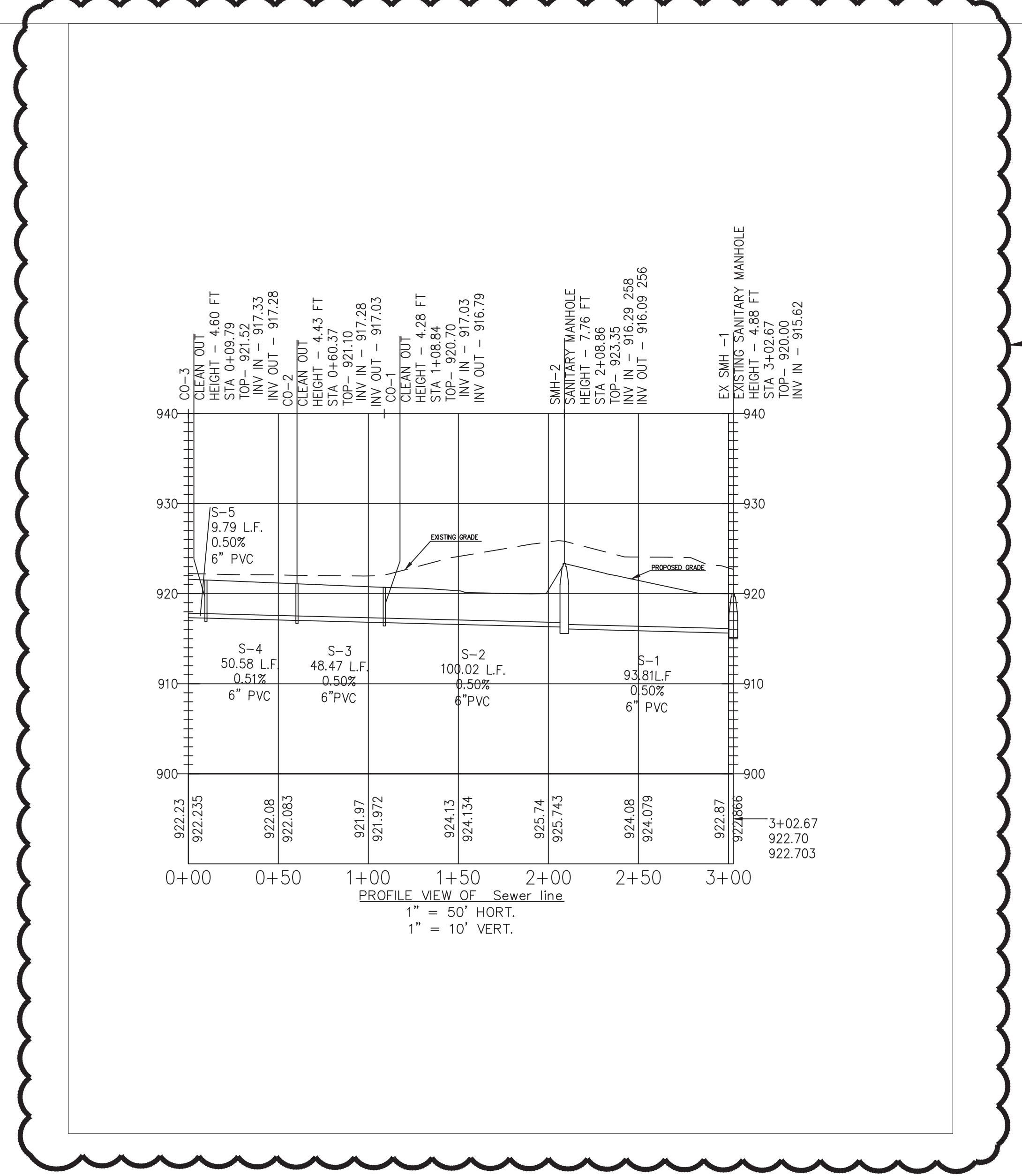
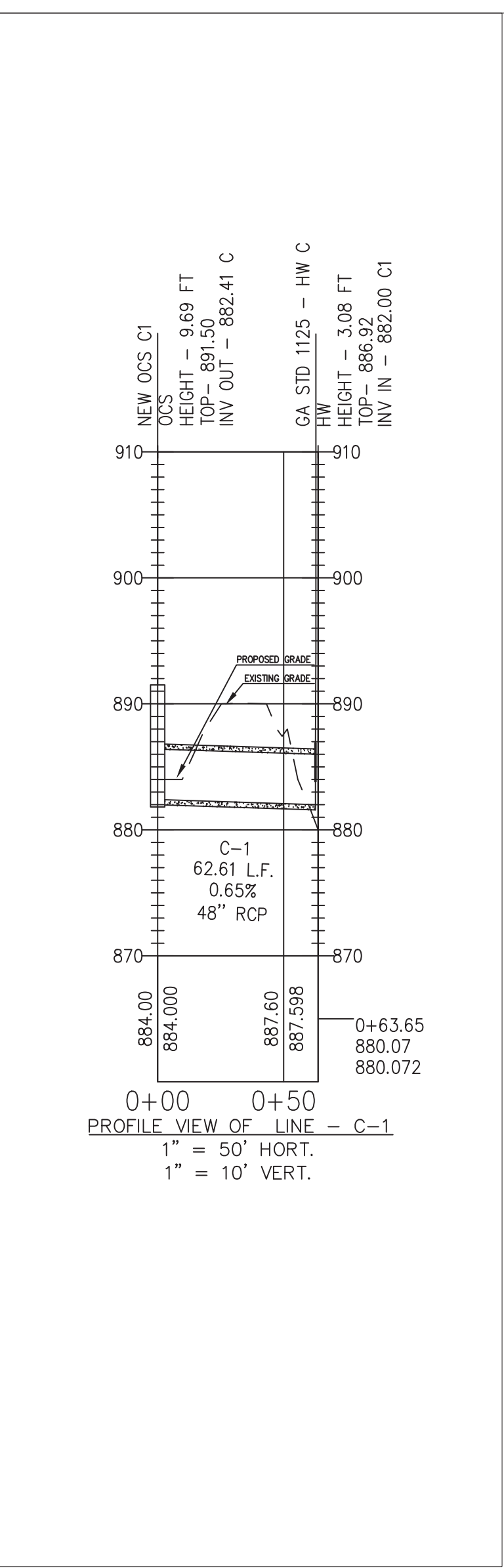
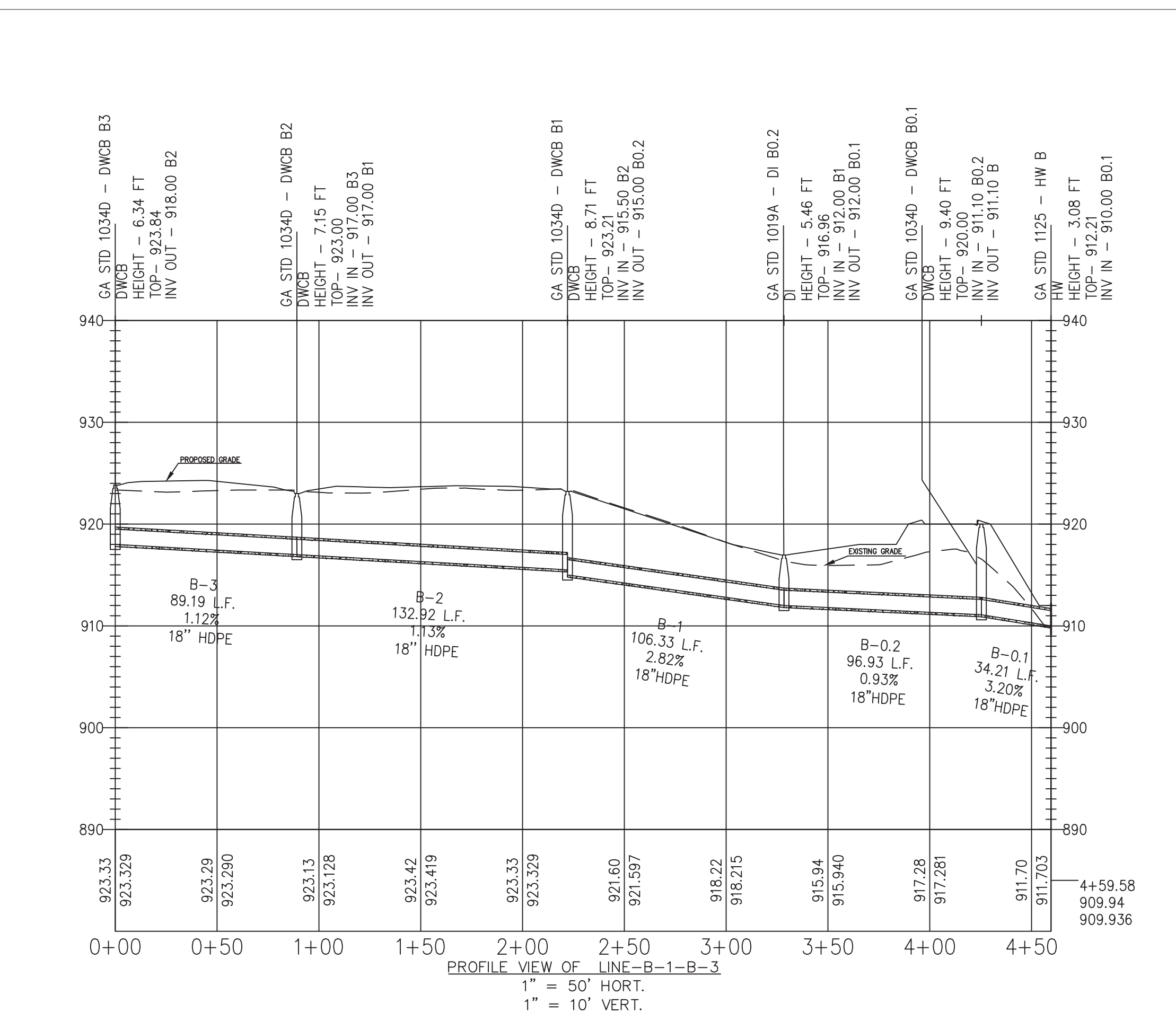
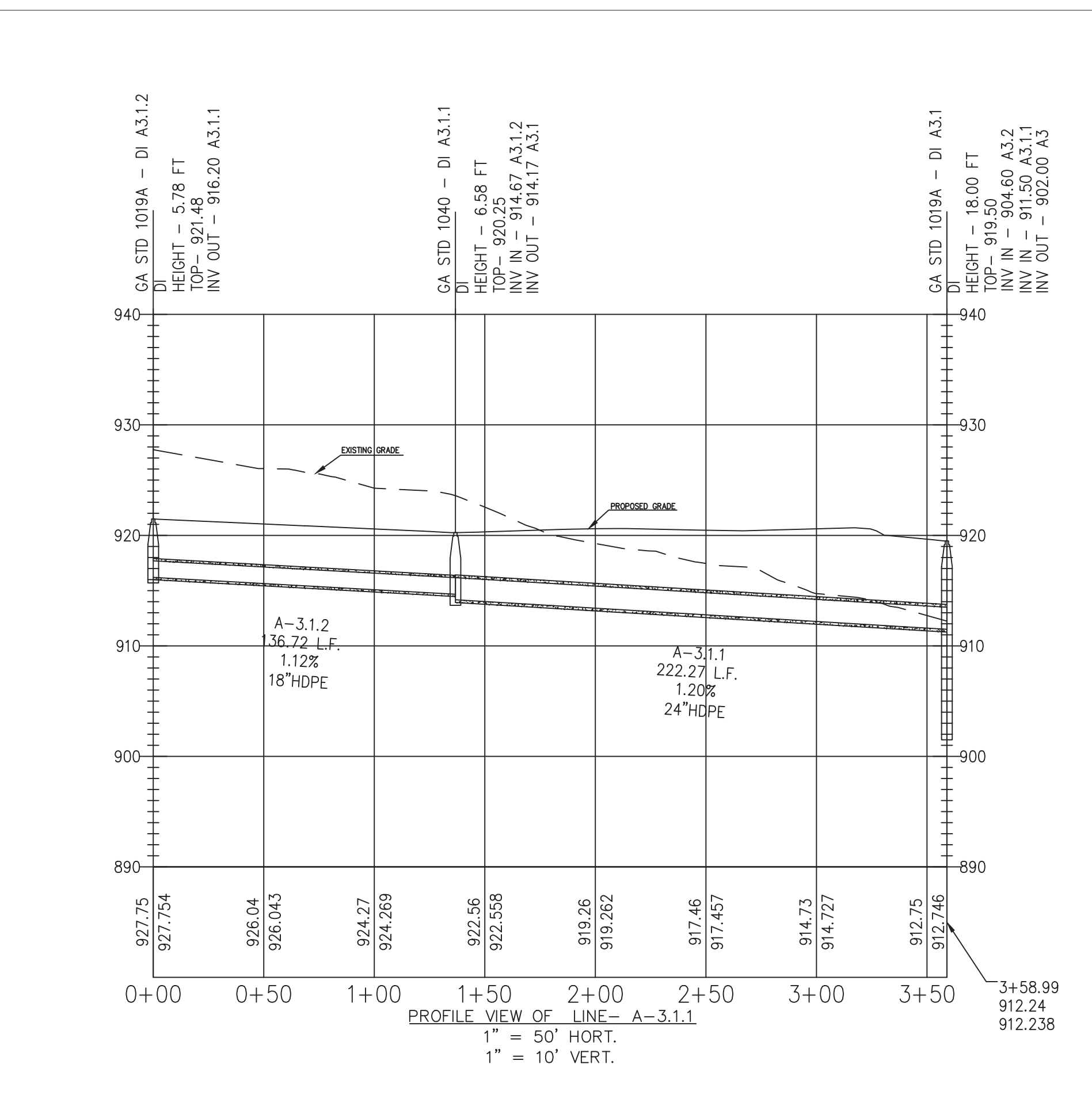
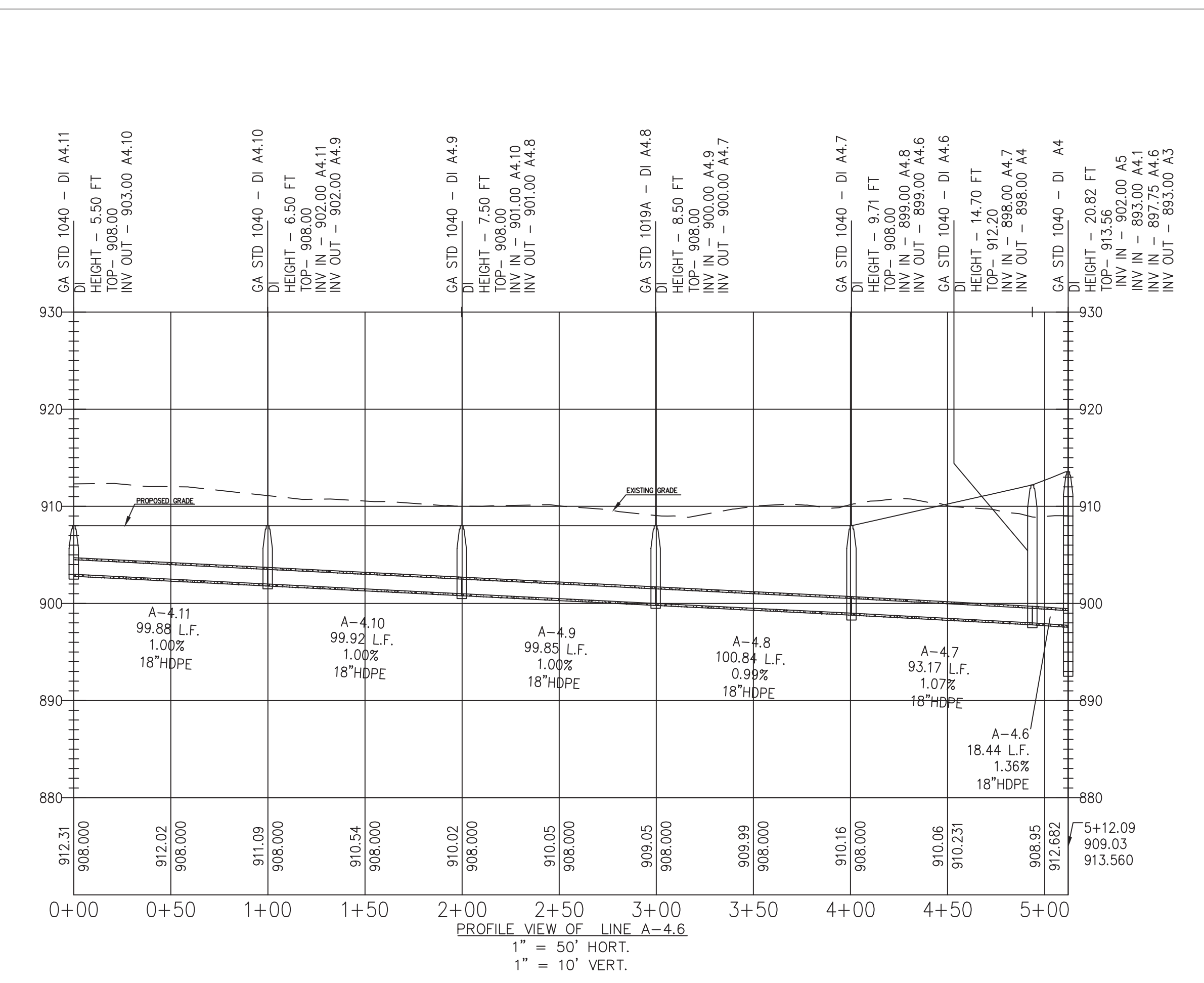
NO.	DATE	DESCRIPTION
1	4-25-20	ALUMINUM COUNTY COMMENTS
2	6-1-20	ADJUST COUNTY COMMENTS
3	6-18-20	JACKSON COUNTY COMMENTS

CONSTRUCTION PLANS FOR: **GUM SPRINGS PARK**
GA STATE ROUTE 124
JACKSON COUNTY, GA

SHEET TITLE: **EROSION CONTROL PLAN - FINAL**

SHEET NUMBER: **C-6.6**

SCALE: SEE PLAN
DATE: 1-10-20
PROJECT NO.



ADDENDUM 1

FOR BIDDING ONLY



REVISIONS

NO.	DATE	DESCRIPTION
1	4-8-20	ALUMINUM COMMENTS
2	6-1-20	CONV. JENNY ALUMINUM COMMENTS
3	6-19-20	JENNY COMMENTS / ADDENDUM NO. 1

CONSTRUCTION PLANS
FOR:
GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

SHEET TITLE
PROFILES

SHEET NUMBER
C-7.1

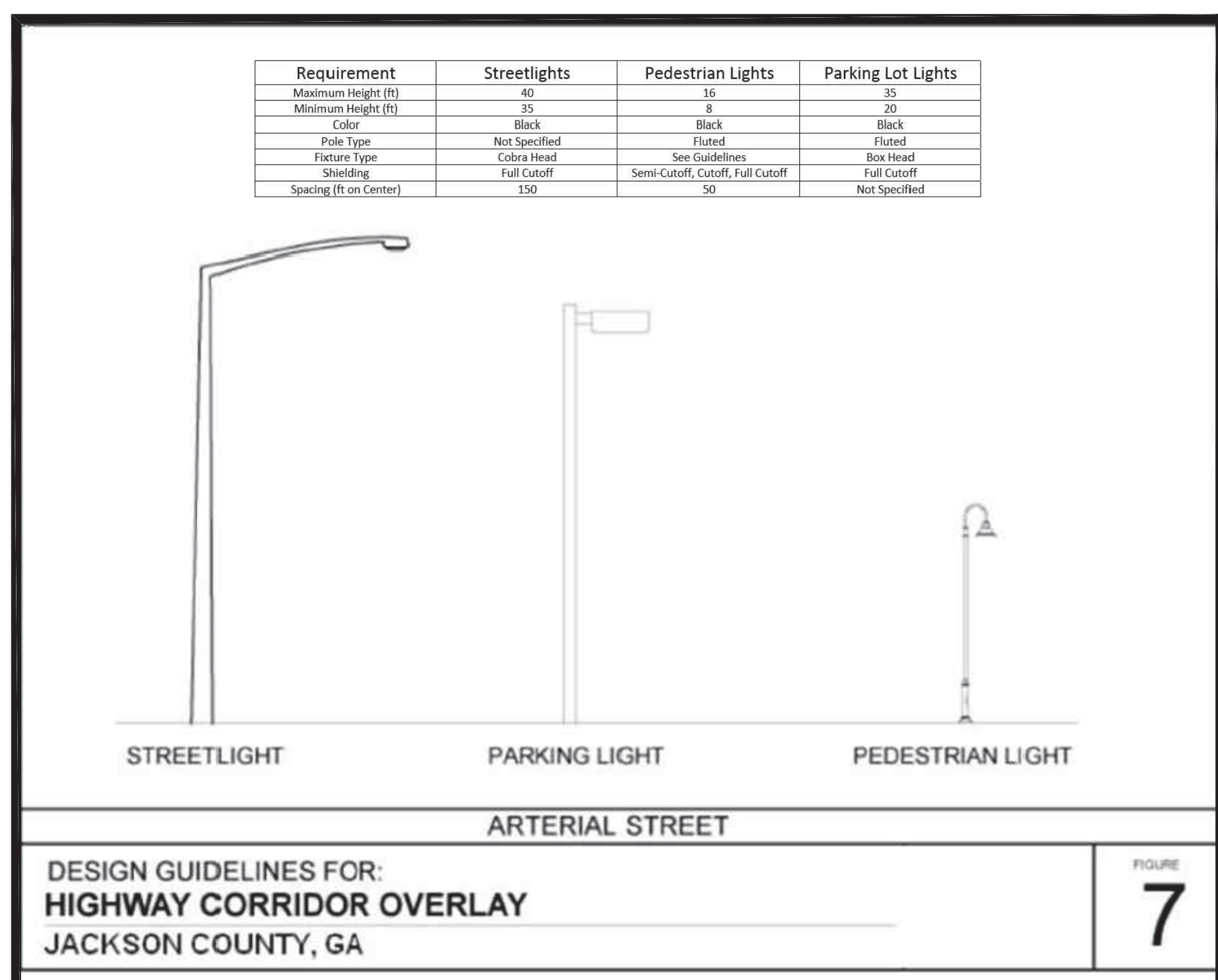
SCALE SEE PLAN

DATE 1-10-20

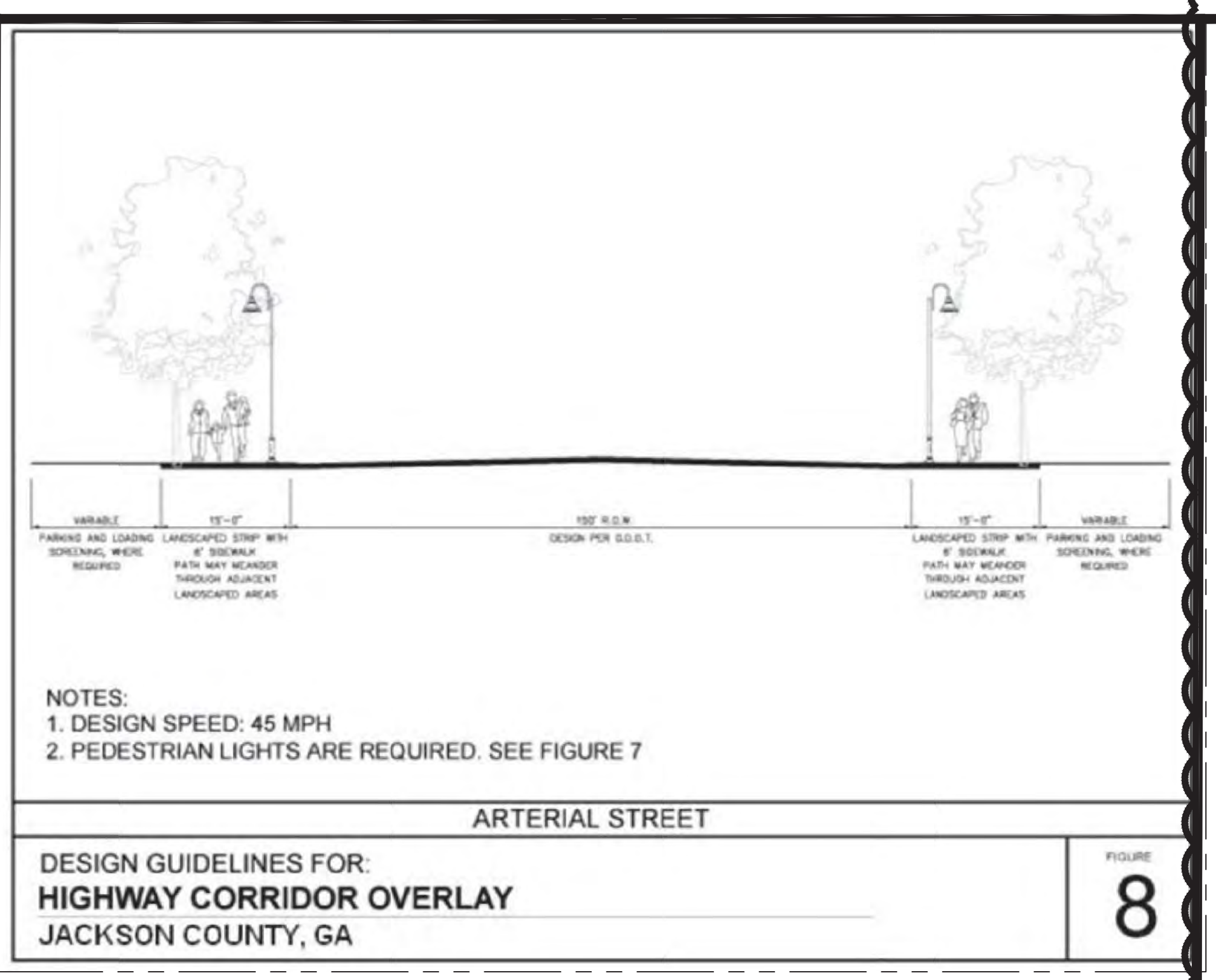
PROJECT NO.

PO BOX 878
BRASELTON, GA 30017
TEL: 706-624-0519
FAX: 706-624-0519

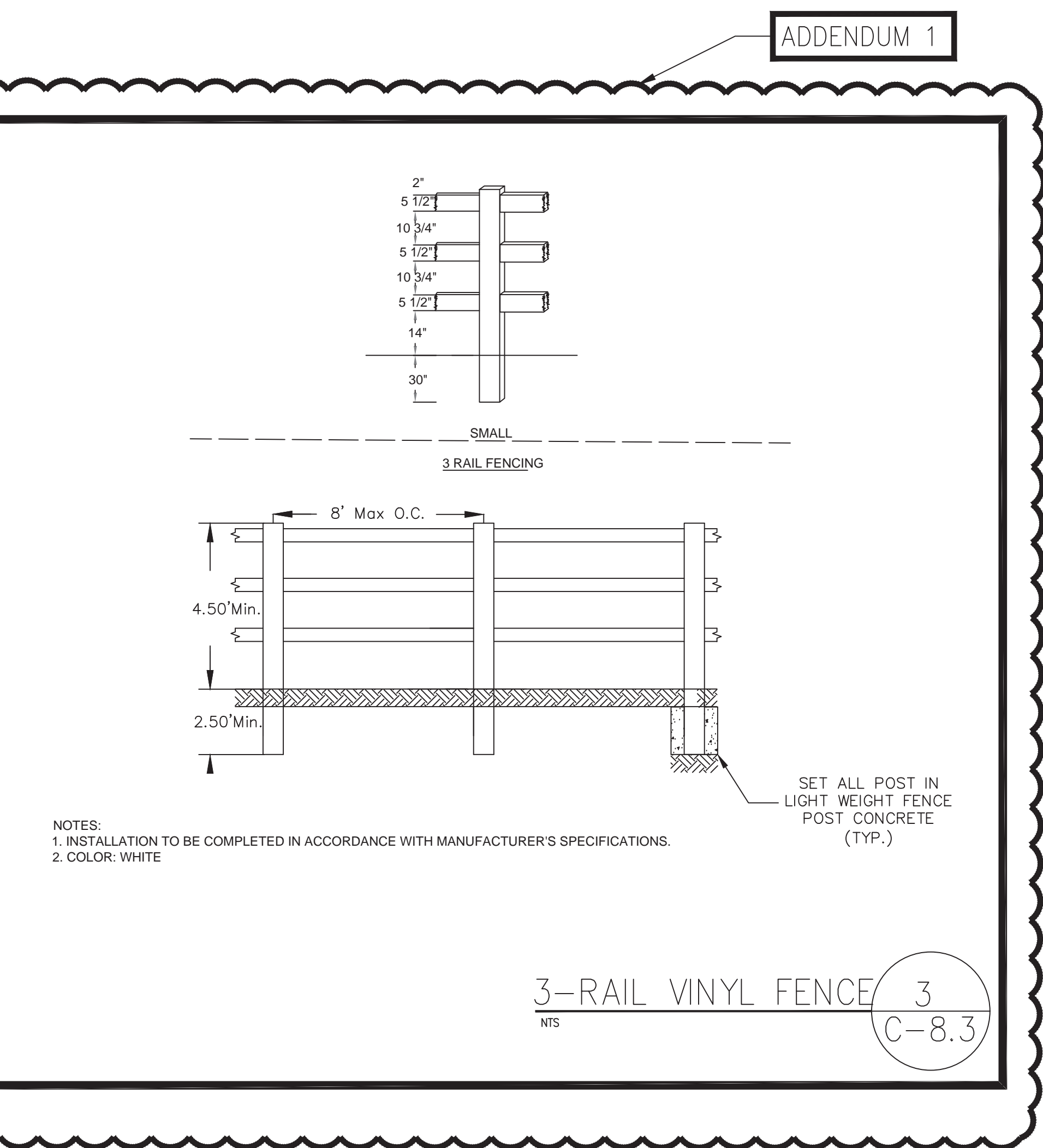
LICENSE # PE050537
ISSUED 4/1/18
EXPIRES 6/30/22



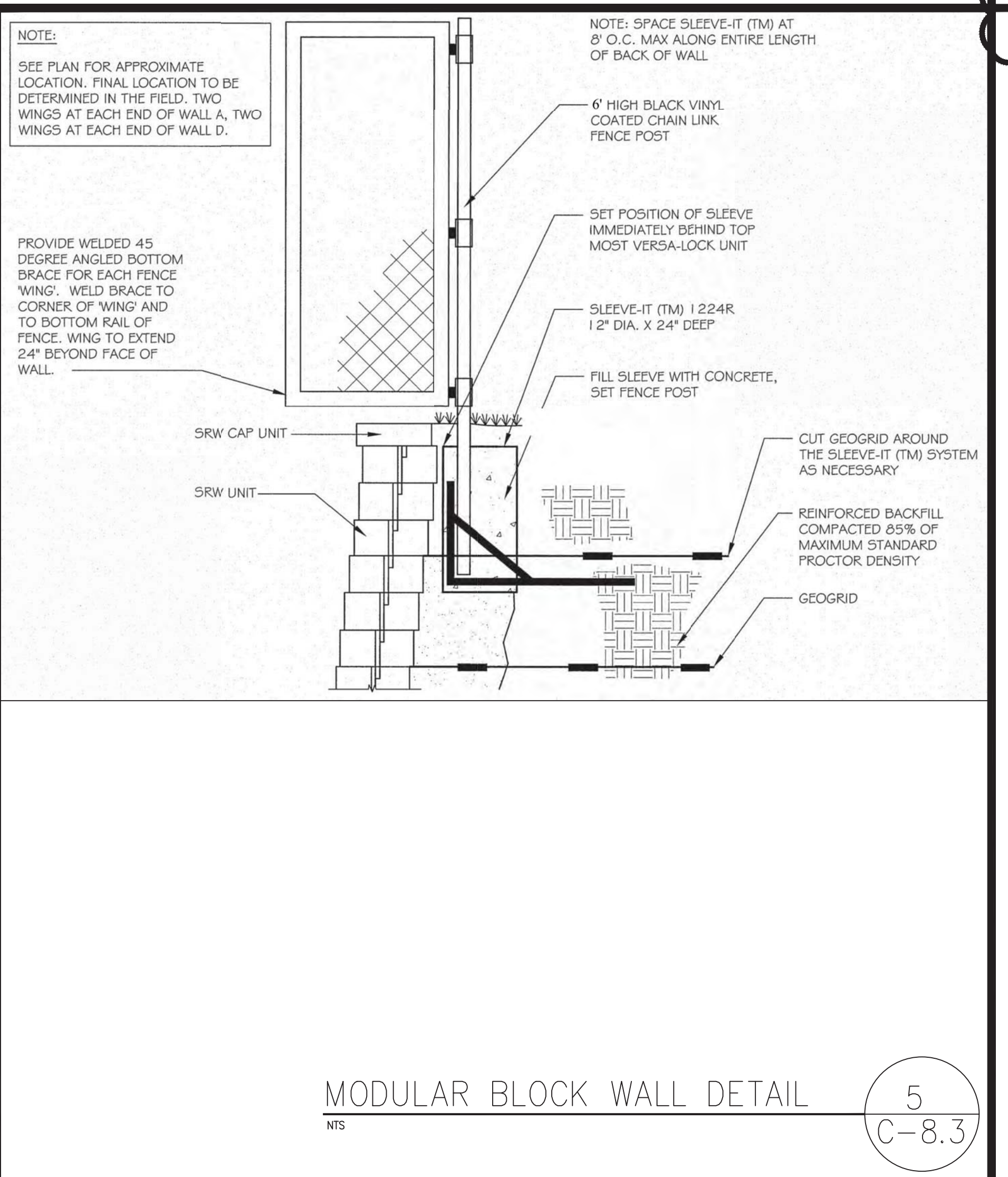
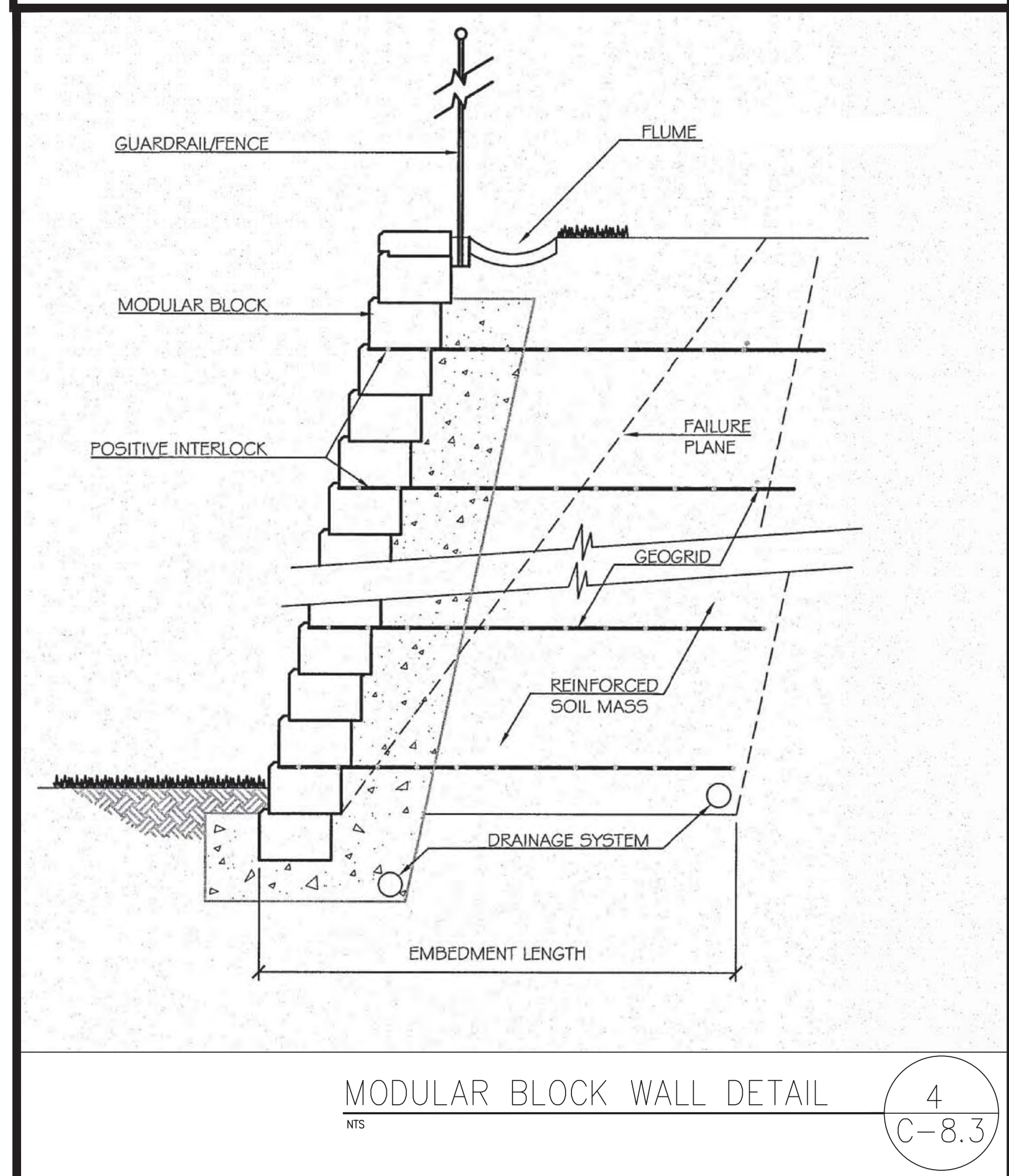
LIGHT DETAIL 1
NTS C-8.3



LIGHT DETAIL 2
NTS C-8.3



LIGHT DETAIL 3
NTS C-8.3



FOR BIDDING ONLY

REVISIONS

NO.	DATE	DESCRIPTION
1	4-8-20	JACKSON COUNTY COMMENTS
2	6-1-20	AMTFC, JAVNA & JACKSON COUNTY COMMENTS
3	6-18-20	JAVNA COMMENTS / AMENDMENT NO. 1

CONSTRUCTION PLANS
FOR:
GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

Lamar Murphy Park Jefferson, GA

Lighting System

Fixture / Fixture Summary	Qty	Wattage	Lumens	LR8	LR9	LR9	Quantity
A1	60	4	TLC-LED-1200	4.88 kW	B		
A2	60	4	TLC-LED-1200	4.88 kW	B		
A3	60	4	TLC-LED-1200	4.88 kW	B		
A4	60	4	TLC-LED-1200	4.88 kW	B		
B1	70	5	TLC-LED-1500	7.15 kW	B		
B2	70	5	TLC-LED-1500	7.15 kW	B		
B3-B4	70	4	TLC-LED-1200	4.88 kW	A		
B5-B6	70	4	TLC-LED-1200	4.88 kW	A		
B7-B8	70	4	TLC-LED-1200	4.88 kW	A		
B9-B10	70	4	TLC-LED-1200	4.88 kW	A		
B11-B12	70	4	TLC-LED-1200	4.88 kW	A		
C2-C3	70	3	TLC-LED-1500	3.51 kW	B		
F1-F4	70	7	TLC-LED-1500	10.01 kW	E		
TOTAL	96	108.51 kW					

Circuit Summary

Circuit	Description	Load	Fixture Qty
A	Baseball 1	19.2 kW	30
B	Baseball 2	34.13 kW	30
C	Baseball 3	11.14 kW	10
D	Baseball 4	4.52 kW	10
E	Multipurpose Field	40.94 kW	28

Fixture Type Summary

Type	Source	Wattage	Lumens	LR8	LR9	LR9	Quantity
TLC-LED-1500	LED 5700K - 75 CRI	1430W	160,000	>120,000	>120,000	>120,000	40
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>120,000	>120,000	>120,000	34
TLC-LED-400	LED 5700K - 75 CRI	460W	48,500	>120,000	>120,000	>120,000	10
TLC-LED-900	LED 5700K - 75 CRI	890W	89,000	>120,000	>120,000	>120,000	2
TLC-8T-575	LED 5700K - 75 CRI	979W	52,000	>120,000	>120,000	>120,000	2

Light Level Summary

Grid Name	Calculation Metric	Avg	Min	Max	Max/Min	Ave/Min	Circuits	Fixture Qty
Baseball 1 Spill/Glare - 150'	Horizontal Illuminance	0.02	0	0.04	0.00	0.00	B	30
Baseball 1 Spill/Glare - 150'	Max Candela Metric	1433	12.9	4931	381.40	110.85	B	30
Baseball 1 Spill/Glare - 150'	Max Vertical Illuminance Metric	0.05	0	0.10	465.60	1.10	B	30
Baseball 1 (Infield)	Horizontal Illuminance	0.1	0.06	0.17	1.83	1.52	B	30
Baseball 1 (Outfield)	Horizontal Illuminance	33.4	22.5	49.8	2.20	1.49	B	30
Baseball 2 Spill/Glare - 150'	Horizontal Illuminance	0	0	0.01	0.00	0	C	10
Baseball 2 Spill/Glare - 150'	Max Candela Metric	92.7	0	379	0.00	0	C	10
Baseball 2 Spill/Glare - 150'	Max Vertical Illuminance Metric	0	0	0.02	0.00	0	C	10
Baseball 2 (Infield)	Horizontal Illuminance	31.4	37.3	63.4	1.70	1.38	C	10
Baseball 2 (Outfield)	Horizontal Illuminance	36.7	20.6	48.5	2.36	1.78	C	10
Baseball 1	Horizontal Illuminance	34.3	20.6	48	2.24	1.66	D	10
Baseball 2	Horizontal Illuminance	34.3	20.5	46	2.24	1.67	D	10

PROJECT SUMMARY

ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park Jefferson, GA

Calculation Grid Summary

Grid Name	Calculation Metric	Avg	Min	Max	Max/Min	Ave/Min	Circuits	Fixture Qty
Basketball Courts Spill/Glare - 150'	Horizontal Illuminance	0	0	0	0.00	0	D	10
Basketball Courts Spill/Glare - 150'	Max Candela Metric	0.15	0	3.54	0.00	0	D	10
Basketball Courts Spill/Glare - 150'	Max Vertical Illuminance Metric	0	0	0	0.00	0	D	10
Multipurpose Field Spill/Glare - 150'	Horizontal Illuminance	0.01	0	0.06	62.20	12.70	E	28
Multipurpose Field Spill/Glare - 150'	Max Candela Metric	1077	183	2641	13.86	5.57	E	28
Multipurpose Field Spill/Glare - 150'	Max Vertical Illuminance Metric	0.03	0	0.12	32.92	6.25	E	28
Multipurpose Field	Horizontal Illuminance	32.2	22.5	39	1.73	1.43	E	28
Softball 1 Spill/Glare - 150'	Horizontal Illuminance	0.02	0	0.10	0.00	0	A	18
Softball 1 Spill/Glare - 150'	Max Candela Metric	1191	27.3	5921	202.40	43.64	A	18
Softball 1 Spill/Glare - 150'	Max Vertical Illuminance Metric	0.05	0	0.26	1804.33	1.18	A	18
Softball 1 (Infield)	Horizontal Illuminance	51.4	36.5	63.8	1.75	1.41	A	18
Softball 1 (Outfield)	Horizontal Illuminance	31.9	22.2	46	2.07	1.41	A	18
Spill/Glare - Highway	Horizontal Illuminance	0.25	0	1.40	2659.56	245.10	A,B,C,D,E	96
Spill/Glare - Highway	Max Candela Metric	8350	271	52701	194.24	30.79	A,B,C,D,E	96
Spill/Glare - Highway	Max Vertical Illuminance Metric	0.50	0	3.03	961.02	166.73	A,B,C,D,E	96
Spill/Glare - Property Line	Horizontal Illuminance	0.65	0	8.91	0.00	0	A,B,C,D,E	96
Spill/Glare - Property Line	Max Candela Metric	18114	4.59	24544	6022.22	4110.07	A,B,C,D,E	96
Spill/Glare - Property Line	Max Vertical Illuminance Metric	1.17	0	16.1	0.00	0	A,B,C,D,E	96

PROJECT SUMMARY

ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park Jefferson, GA

GRID SUMMARY

Name: Softball 1
Size: 200' x 200' - basepath 60'
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY

Calculation Metric	Infield	Outfield
Guaranteed Average	51.43	31.89
Scan Average	63.8	46.0
Minimum	36.5	22.2
Avg / Min	1.41	1.44
Guaranteed Max / Min	1.75	2.07
UG (adjacent pts)	1.48	1.41
CU	0.68	0.68
No. of Points	25	71

ILLUMINATION SUMMARY

Luminaire Type	LR8 hrs	LR9 hrs	L70 hrs
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-LED-1500	>120,000	>120,000	>120,000
TLC-8T-575	>120,000	>120,000	>120,000

ILLUMINATION SUMMARY

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Lamar Murphy Park Jefferson, GA

GRID SUMMARY

Name: Baseball 1
Size: 275' x 275' - basepath 90'
Spacing: 30.0' x 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY

Calculation Metric	Infield	Outfield
Guaranteed Average	51.01	33.42
Scan Average	61.7	49.8
Minimum	33.6	22.5
Avg / Min	1.52	1.49
Guaranteed Max / Min	1.83	2.20
UG (adjacent pts)	1.40	1.52
CU	0.77	0.77
No. of Points	25	56

ILLUMINATION SUMMARY

Luminaire Type	LR8 hrs	LR9 hrs	L70 hrs
TLC-LED-1500	>120,000	>120,000	>120,000
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-8T-575	>120,000	>120,000	>120,000

ILLUMINATION SUMMARY

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BRASELTON, GA 30017
BR #100
FAX: 706-624-0919

LICENSE # PR0505337
ISSUED 4/1/18
EXPIRES: 6/30/22



GSWCC LEVEL II
CERTIFICATION # 804

REVISIONS

No.	DATE	DESCRIPTION
1	4-8-20	ALUMINUM COMPONENT COMMENTS
2	6-1-20	OWNER, JEFFERSON COUNTY COMMENTS
3	6-15-20	OWNER COMMENTS / ADDENDUM NO. 1

CONSTRUCTION PLANS
FOR:
GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

SHEET TITLE
CONSTRUCTION DETAILS

SHEET NUMBER
C-8.10

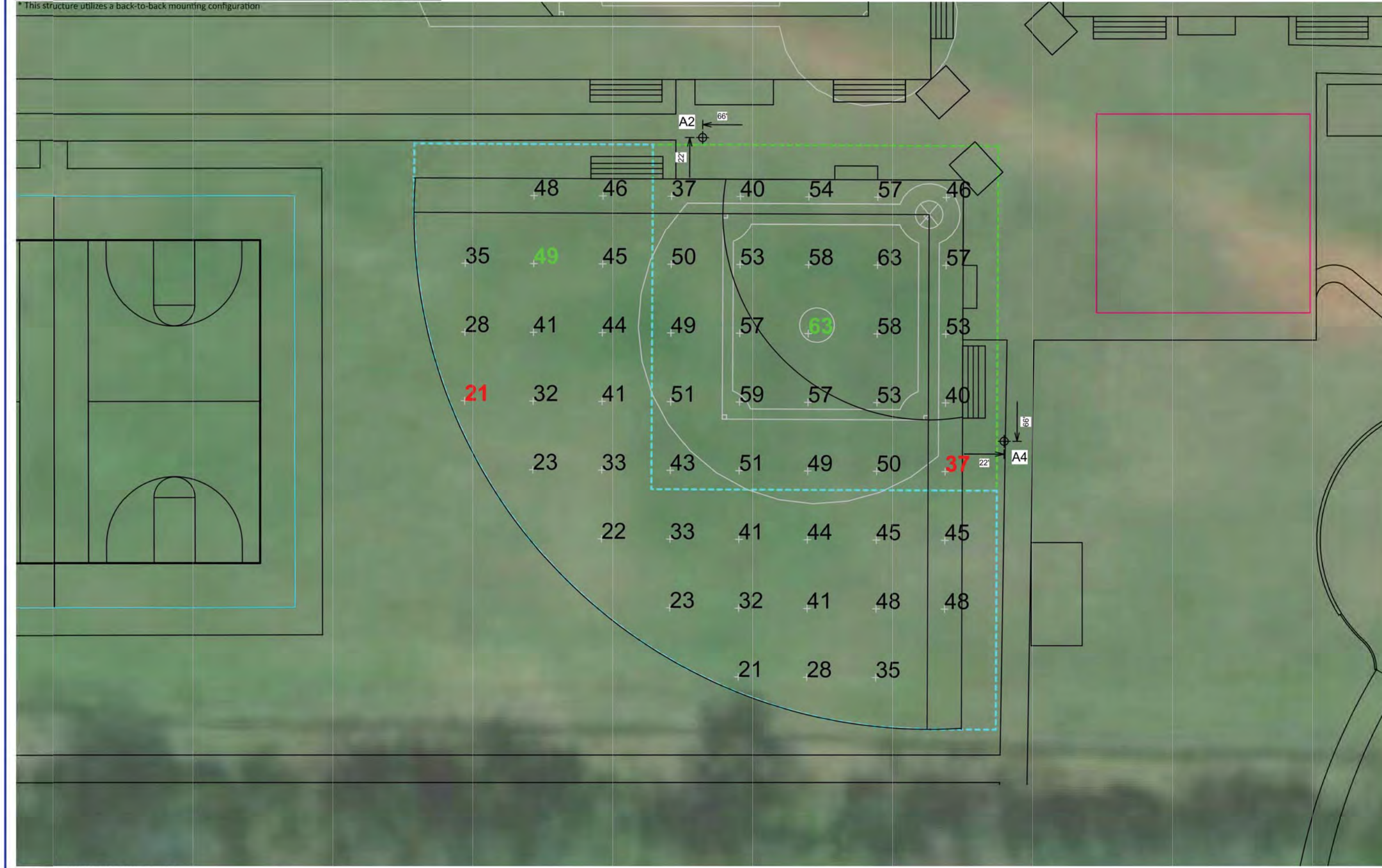
SCALE SEE PLAN

DATE 1-10-20

PROJECT NO.

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	WATT	FEET	OTHER
1	A4	60"		18'	TLC-LED-1200	44"	1	0
1	A4	60"		18'	TLC-LED-1200	44"	1	0
2	TOTALS						15	0



SCALE IN FEET 1" = 30'
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Baseball 2
Size: 150' x 150' - basepath 60'
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
MAINTAINED HORIZONTAL FOOTCANDLES: Entire Grid
Guaranteed Average: 50
Scan Average: 51.35
Maximum: 62.4
Minimum: 37.3
Avg / Min: 1.38
Guaranteed Max / Min: 2.9
Max / Min: 1.70
UG (adjacent pts): 1.35
CU: 0.74
No. of Points: 25
LUMINAIRE PERFORMANCE: Color / CRI: 5700K - 75 CRI
Luminaire Output: 135,000 / 85,000 lumens
No. of Luminaires: 10
Total Load: 11.14 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (3m) of design locations.

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	WATT	FEET	OTHER
2	BB1, BB2	50"		50'	TLC-LED-400	75"	5	0
2	TOTALS						10	0



SCALE IN FEET 1" = 20'
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Basketball 1
Size: 120' x 94'
Spacing: 30.0' x 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
MAINTAINED HORIZONTAL FOOTCANDLES: Entire Grid
Guaranteed Average: 30
Scan Average: 34.26
Maximum: 46.0
Minimum: 20.6
Avg / Min: 1.67
Guaranteed Max / Min: 2.9
Max / Min: 2.24
UG (adjacent pts): 1.32
CU: 0.35
No. of Points: 50
LUMINAIRE PERFORMANCE: Color / CRI: 5700K - 75 CRI
Luminaire Output: 46,500 lumens
No. of Luminaires: 16
Total Load: 4.0 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (3m) of design locations.

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	WATT	FEET	OTHER
2	BB1, BB2	50"		50'	TLC-LED-400	75"	5	0
2	TOTALS						10	0



SCALE IN FEET 1" = 20'
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Basketball 2
Size: 120' x 94'
Spacing: 30.0' x 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
MAINTAINED HORIZONTAL FOOTCANDLES: Entire Grid
Guaranteed Average: 30
Scan Average: 34.27
Maximum: 46.0
Minimum: 20.5
Avg / Min: 1.67
Guaranteed Max / Min: 2.9
Max / Min: 2.24
UG (adjacent pts): 1.32
CU: 0.35
No. of Points: 50
LUMINAIRE PERFORMANCE: Color / CRI: 5700K - 75 CRI
Luminaire Output: 46,500 lumens
No. of Luminaires: 16
Total Load: 4.0 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (3m) of design locations.

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	WATT	FEET	OTHER
4	F1, F2	70"		70'	TLC-LED-1500	28"	28	0
4	TOTALS						28	0



SCALE IN FEET 1" = 80'
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Multipurpose Field
Size: 540' x 200'
Spacing: 30.0' x 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
MAINTAINED HORIZONTAL FOOTCANDLES: Entire Grid
Guaranteed Average: 30
Scan Average: 32.24
Maximum: 39.0
Minimum: 22.5
Avg / Min: 1.43
Guaranteed Max / Min: 2.9
Max / Min: 1.73
UG (adjacent pts): 1.33
CU: 0.84
No. of Points: 126
LUMINAIRE PERFORMANCE: Color / CRI: 5700K - 75 CRI
Luminaire Output: 160,000 lumens
No. of Luminaires: 28
Total Load: 40.04 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (3m) of design locations.

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ILLUMINATION SUMMARY

FOR BIDDING ONLY

PO. BOX. 878
BRASELTON, GA 30017
BR. FAX: 706-624-0919
LICENSE # PE060537
ISSUED: 4/1/18
EXPIRES: 6/30/22

B&K CONSTRUCTION & ENGINEERING

REGISTERED PROFESSIONAL ENGINEER
No. 029212
David B. Clerici, P.E.

CSWCC LEVEL II
CERTIFICATION # 804

REVISIONS

NO.	DATE	DESCRIPTION
1	4-8-20	ALUMINUM CORNER COMMENTS
2	6-1-20	CONTRACT COMMENTS / ADDENDUM NO. 1
3	6-18-20	CONTRACT COMMENTS / ADDENDUM NO. 1

CONSTRUCTION PLANS
FOR:
GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

SHEET TITLE
CONSTRUCTION DETAILS

SHEET NUMBER
C-8.11

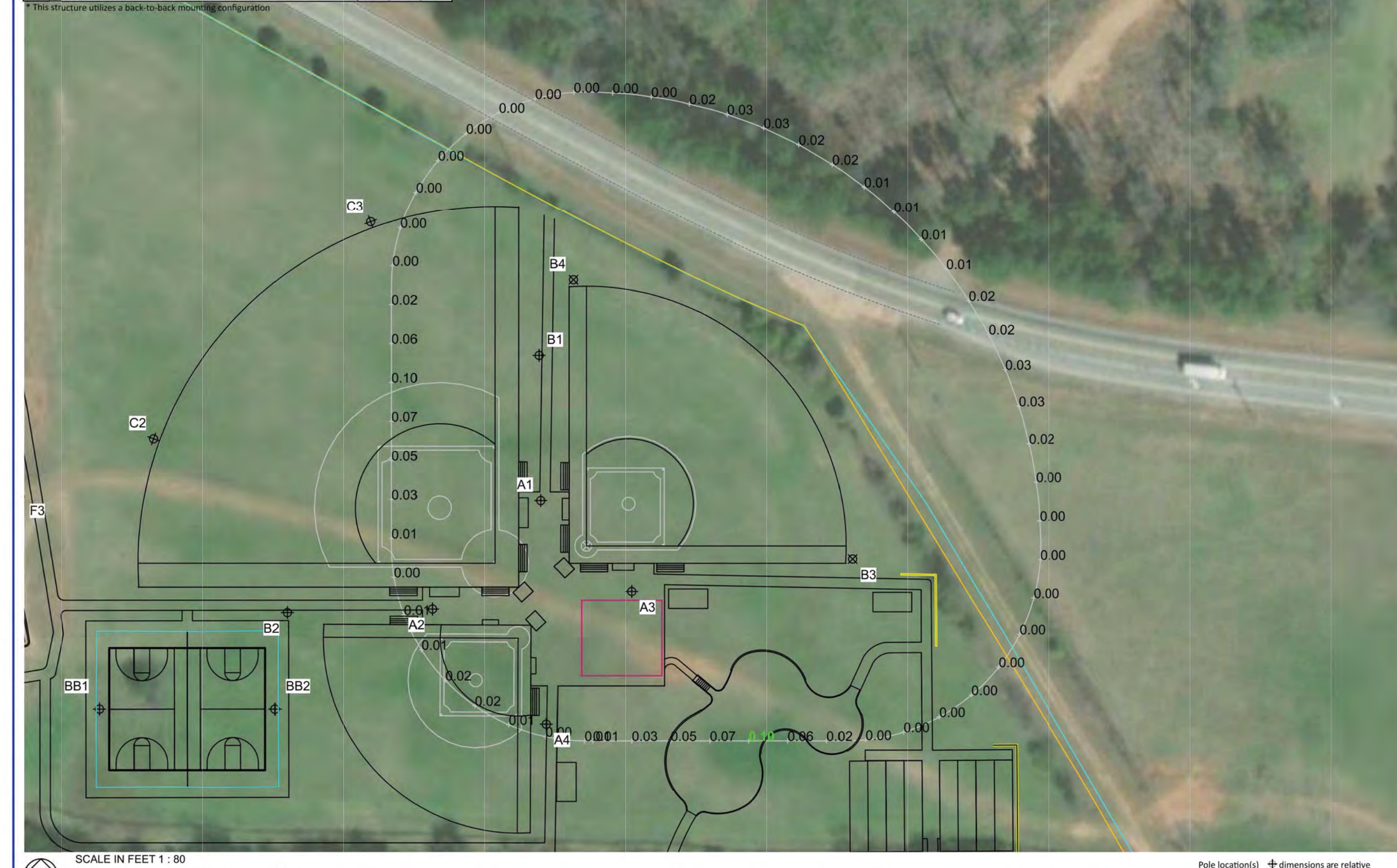
SCALE
SEE PLAN

DATE
1-10-20

PROJECT NO.

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	POLE	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	WATT	PHOTOMETRIC	THROW	OTHER
1	A1	60'	60"	-	15.5'	TLC-LED-1200	4/2"	1	4	
1	A3	60'	60"	-	15.5'	TLC-LED-1200	2	2	0	
2	B3-B4	70'	70"	-	15.5'	TLC-LED-1500	1	1	0	
TOTALS							23	18	5	



SCALE IN FEET 1" = 80'
ENGINEERED DESIGN By: J.Winegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Baseball 1 Spill/Glare - 150'
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 0.006
Maximum: 0.263
Minimum: 0.000
No. of Points: 56

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 136,000 / 160,000 / 52,000 lumens
No. of Luminaires: 18
Total Load: 19.2 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

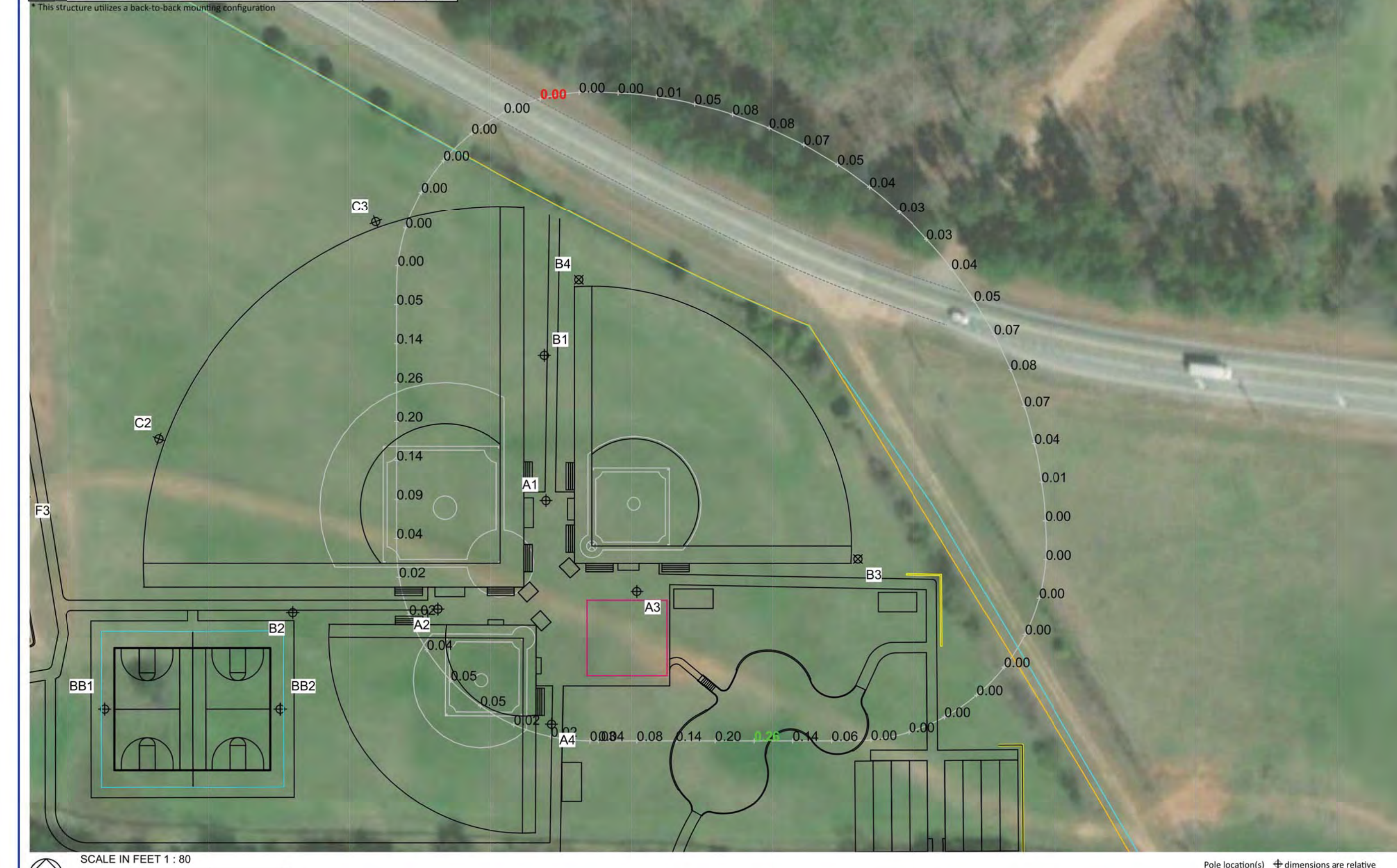
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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	POLE	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	WATT	PHOTOMETRIC	THROW	OTHER
1	A1	60'	60"	-	15.5'	TLC-LED-1200	4/2"	1	4	
1	A3	60'	60"	-	15.5'	TLC-LED-1200	2	2	0	
2	B3-B4	70'	70"	-	15.5'	TLC-LED-1500	1	1	0	
TOTALS							23	18	5	



SCALE IN FEET 1" = 80'
ENGINEERED DESIGN By: J.Winegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Baseball 1 Spill/Glare - 150'
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 0.006
Maximum: 0.263
Minimum: 0.000
No. of Points: 56

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 136,000 / 160,000 / 52,000 lumens
No. of Luminaires: 18
Total Load: 19.2 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

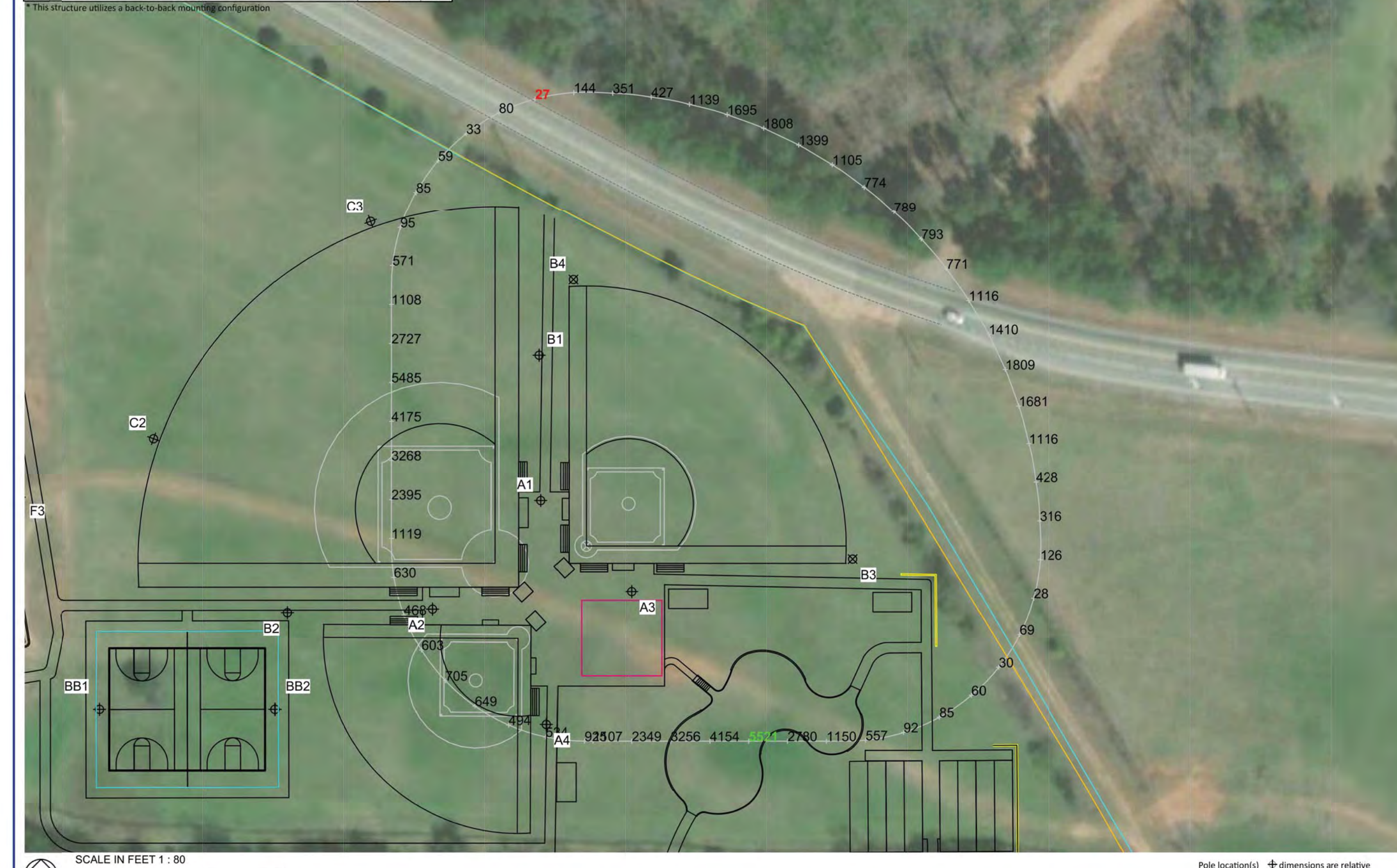
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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	POLE	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	WATT	PHOTOMETRIC	THROW	OTHER
1	A1	60'	60"	-	15.5'	TLC-LED-1200	4/2"	1	4	
1	A3	60'	60"	-	15.5'	TLC-LED-1200	2	2	0	
2	B3-B4	70'	70"	-	15.5'	TLC-LED-1500	1	1	0	
TOTALS							23	18	5	



SCALE IN FEET 1" = 80'
ENGINEERED DESIGN By: J.Winegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Baseball 1 Spill/Glare - 150'
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 0.006
Maximum: 0.263
Minimum: 0.000
No. of Points: 56

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 136,000 / 160,000 / 52,000 lumens
No. of Luminaires: 18
Total Load: 19.2 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

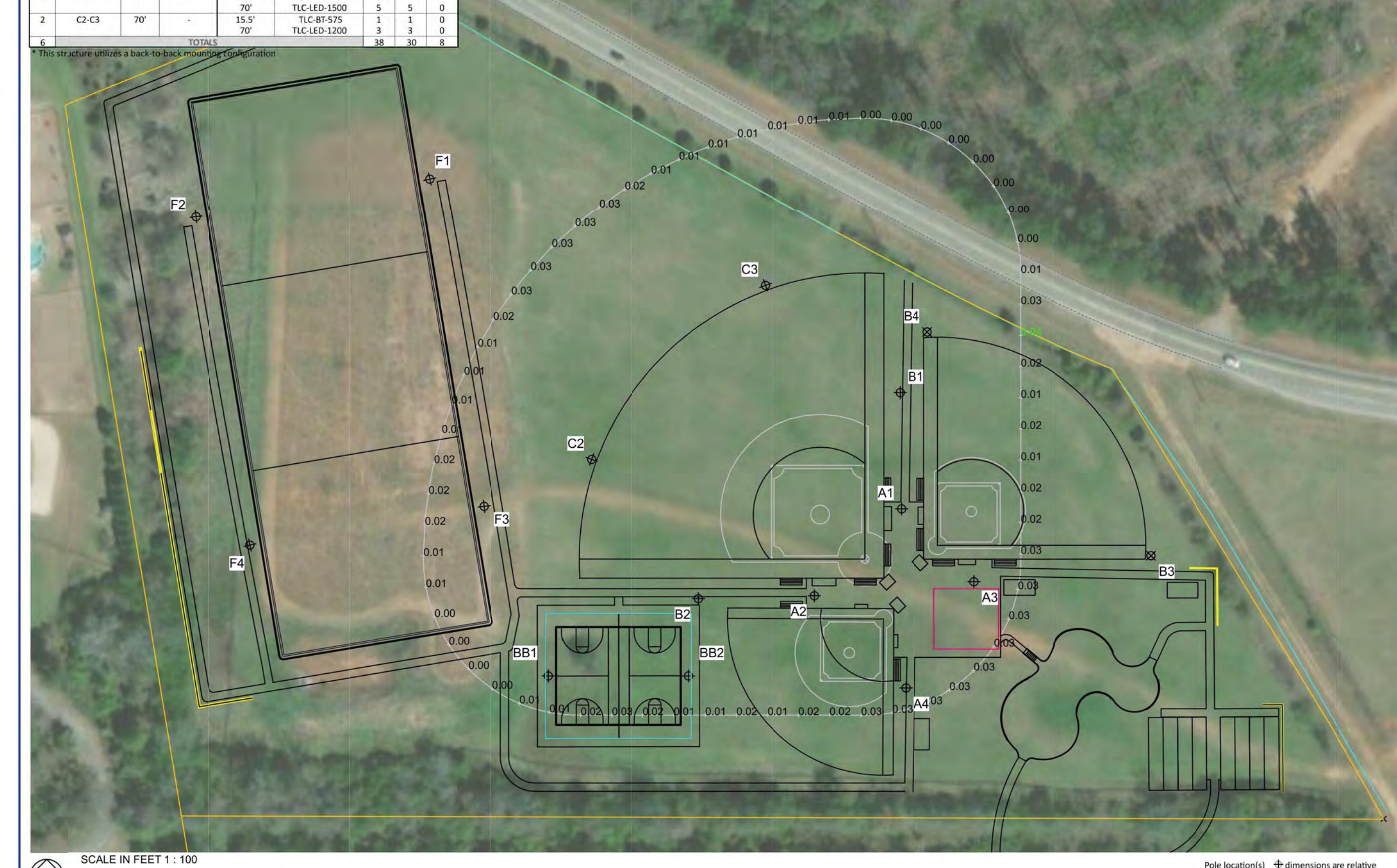
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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	POLE	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	WATT	PHOTOMETRIC	THROW	OTHER
1	A1	60'	60"	-	15.5'	TLC-LED-1200	4/2"	1	4	
1	A2	60'	60"	-	15.5'	TLC-LED-1200	1	0	1	
1	B1	70'	70"	-	15.5'	TLC-LED-1500	4/4"	4	4	
1	B2	70'	70"	-	15.5'	TLC-LED-1500	5	5	0	
1	B3	70'	70"	-	15.5'	TLC-LED-1500	1	1	0	
2	C2-C3	70'	70"	-	15.5'	TLC-LED-1500	1	1	0	
TOTALS							18	18	8	



SCALE IN FEET 1" = 100'
ENGINEERED DESIGN By: J.Winegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Baseball 1 Spill/Glare - 150'
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 0.006
Maximum: 0.263
Minimum: 0.000
No. of Points: 64

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 160,000 / 136,000 / 52,000 lumens
No. of Luminaires: 30
Total Load: 34.13 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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ILLUMINATION SUMMARY

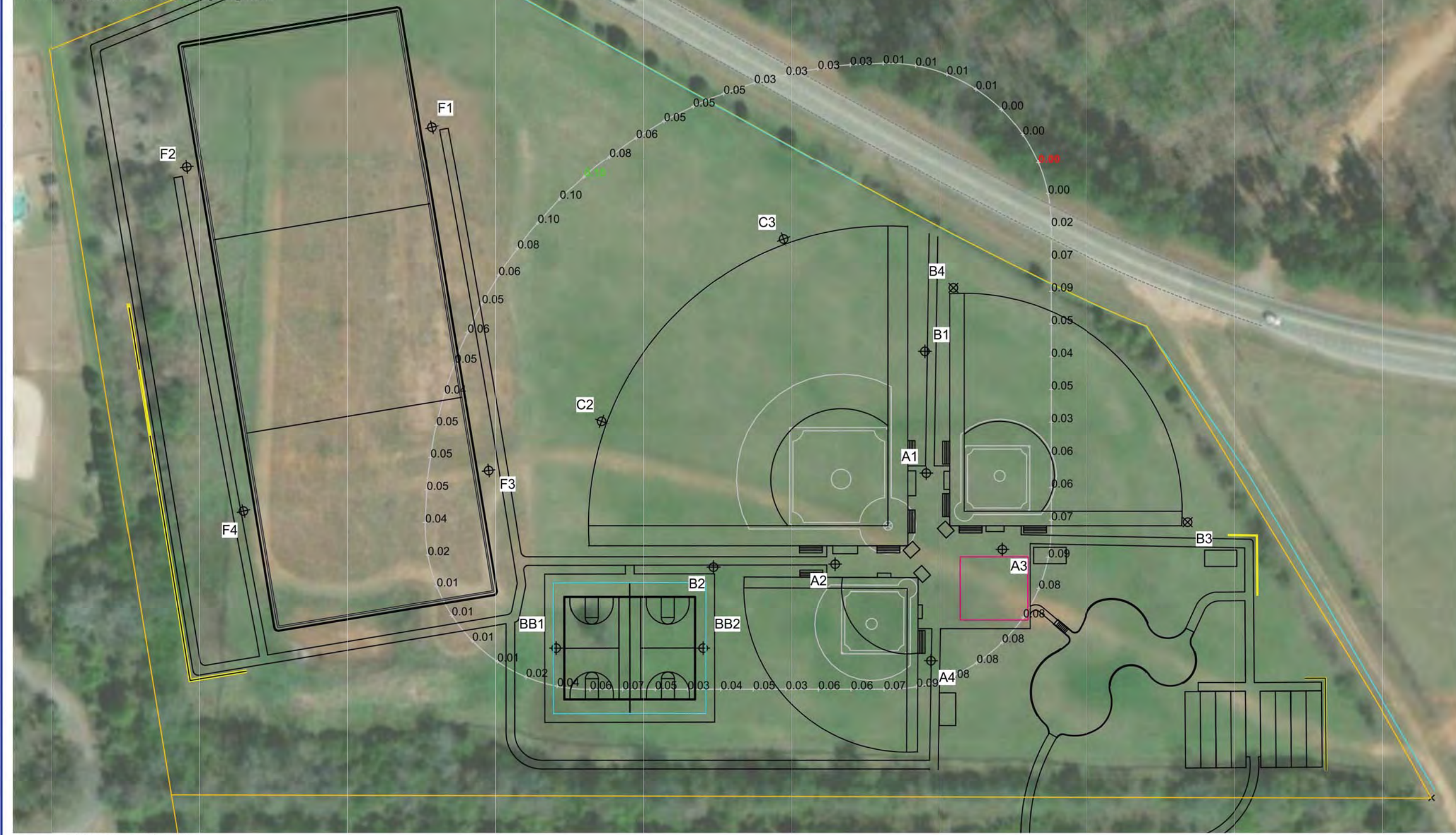
REVISIONS

NO.	DATE	DESCRIPTION
1	4-8-20	ALUMINUM CORNER COMMENTS
2	6-1-20	OWNER, JEFFERSON ALUMINUM CORNER COMMENTS
3	6-1-20	OWNER COMMENTS / DIMENSION NO. 1

CONSTRUCTION PLANS
FOR:
GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

FOR BIDDING ONLY

EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	POLE DIA	HT	THRU GRID	OTHER SHIMS
1	A1	60"	-	18'	TLC-LED-1200	4 1/2"	4	2	
1	A2	60"	-	18'	TLC-LED-900	1 1/4"	1	1	
1	B1	70"	-	18'	TLC-87-575	1	1	0	
1	B2	70"	-	18'	TLC-87-575	1	1	0	
1	B3	70"	-	18'	TLC-87-575	1	1	0	
1	B4	70"	-	18'	TLC-87-575	1	1	0	
1	C2-C3	70"	-	15.5'	TLC-LED-1200	5	5	0	
1					TLC-87-575	1	1	0	
1					TLC-87-575	1	1	0	
1					TLC-LED-1200	3	3	0	
1					TLC-LED-1200	3	3	0	
TOTALS									
35 30 8									



SCALE IN FEET 1 : 100
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park

Jefferson, GA

GRID SUMMARY
Name: Baseball 1 Spill/Glare - 150'
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 0.0095
Maximum: 0.0095
Minimum: 0.0000
No. of Points: 64

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 160,000 / 136,000 / 52,000 lumens
No. of Luminaires: 30
Total Load: 34.13 kW

Lumen Measurements
Luminaire Type | 180 hrs | 180 hrs | 170 hrs
TLC-LED-1200 | >120,000 | >120,000 | >120,000
TLC-LED-900 | >120,000 | >120,000 | >120,000
TLC-87-575 | >120,000 | >120,000 | >120,000

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	POLE DIA	HT	THRU GRID	OTHER SHIMS
1	A1	60"	-	18'	TLC-LED-1200	4 1/2"	4	2	
1	A2	60"	-	18'	TLC-LED-900	1 1/4"	1	1	
1	B1	70"	-	18'	TLC-87-575	1	1	0	
1	B2	70"	-	18'	TLC-87-575	1	1	0	
1	B3	70"	-	18'	TLC-87-575	1	1	0	
1	B4	70"	-	18'	TLC-87-575	1	1	0	
1	C2-C3	70"	-	15.5'	TLC-LED-1200	5	5	0	
1					TLC-87-575	1	1	0	
1					TLC-87-575	1	1	0	
1					TLC-LED-1200	3	3	0	
1					TLC-LED-1200	3	3	0	
TOTALS									
35 30 8									



SCALE IN FEET 1 : 100
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park

Jefferson, GA

GRID SUMMARY
Name: Baseball 1 Spill/Glare - 150'
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 0.0095
Maximum: 0.0095
Minimum: 0.0000
No. of Points: 64

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 160,000 / 136,000 / 52,000 lumens
No. of Luminaires: 30
Total Load: 34.13 kW

Lumen Measurements
Luminaire Type | 180 hrs | 180 hrs | 170 hrs
TLC-LED-1200 | >120,000 | >120,000 | >120,000
TLC-LED-900 | >120,000 | >120,000 | >120,000
TLC-87-575 | >120,000 | >120,000 | >120,000

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

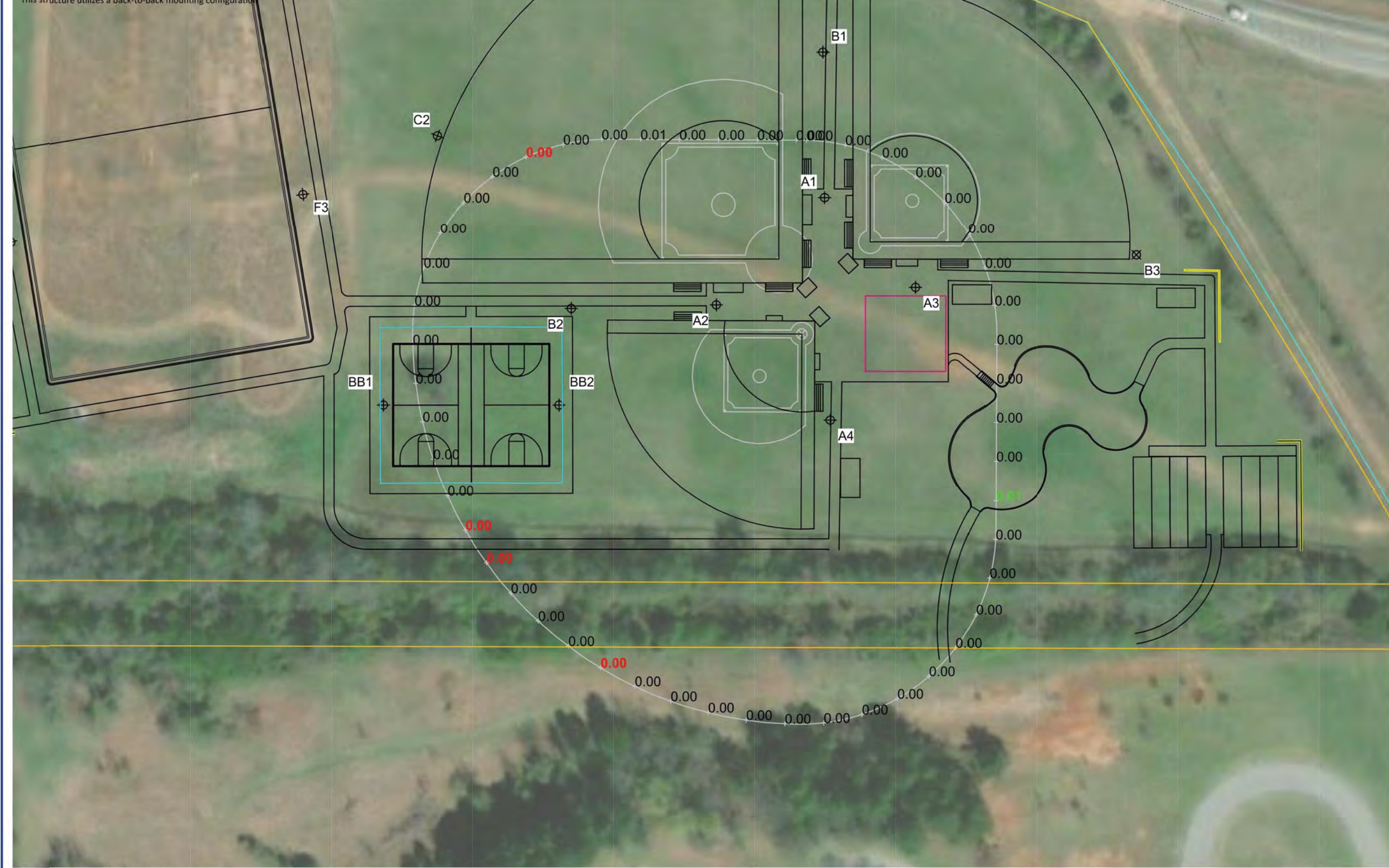
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	POLE DIA	HT	THRU GRID	OTHER SHIMS
1	A4	60"	-	18'	TLC-LED-1200	4 1/2"	4	2	
1					TLC-LED-900	1 1/4"	1	1	
1					TLC-LED-1200	4	4	0	
1					TLC-LED-1200	4	4	0	
TOTALS									
35 30 8									



SCALE IN FEET 1 : 80
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park

Jefferson, GA

GRID SUMMARY
Name: Baseball 2 Spill/Glare - 150'
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 0.0008
Maximum: 0.0008
Minimum: 0.0000
No. of Points: 50

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 136,000 / 89,600 lumens
No. of Luminaires: 10
Total Load: 11.14 kW

Lumen Measurements
Luminaire Type | 180 hrs | 180 hrs | 170 hrs
TLC-LED-1200 | >120,000 | >120,000 | >120,000
TLC-LED-900 | >120,000 | >120,000 | >120,000

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

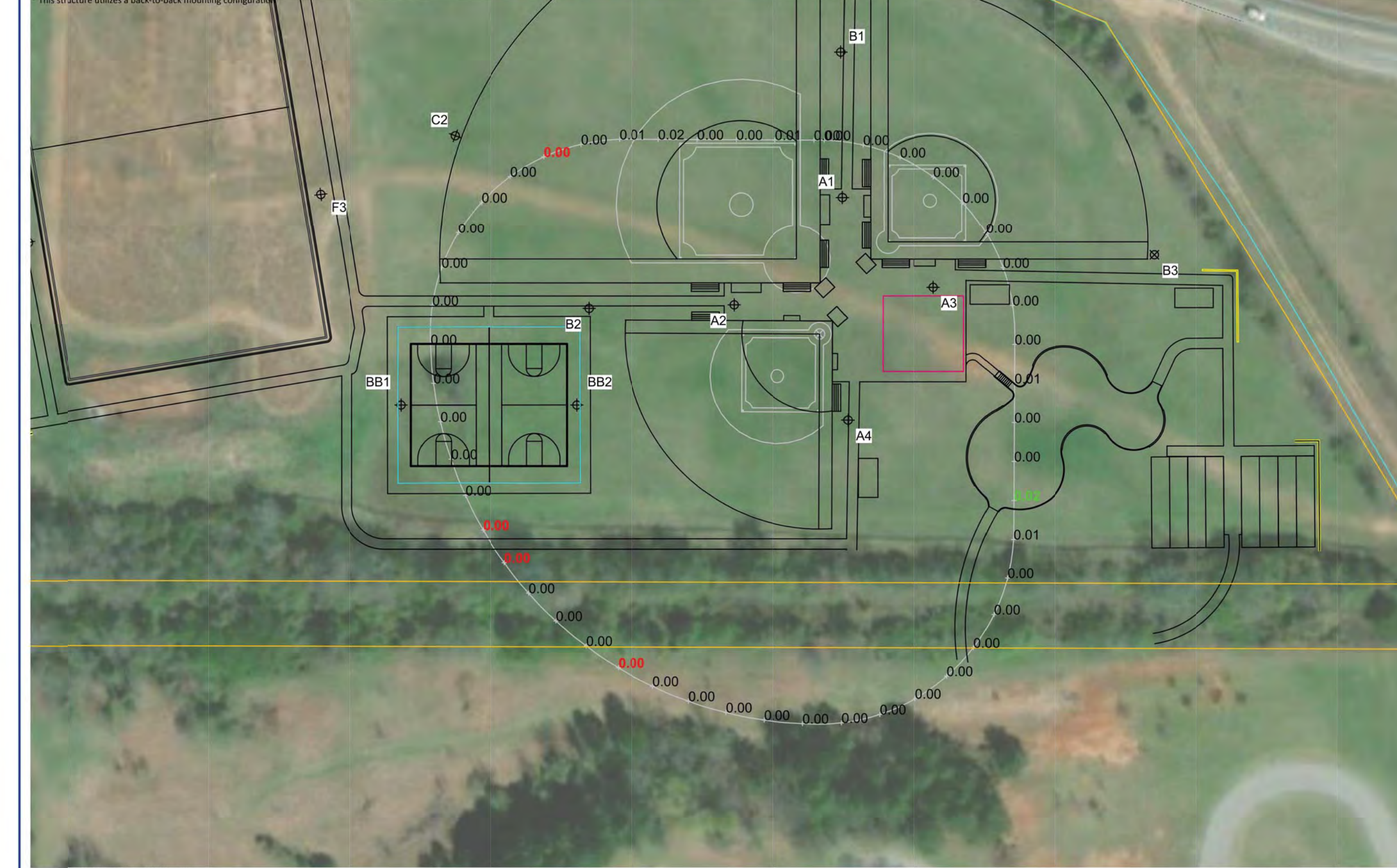
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	POLE DIA	HT	THRU GRID	OTHER SHIMS
1	A4	60"	-	18'	TLC-LED-1200	4 1/2"	4	2	
1					TLC-LED-900	1 1/4"	1	1	
1					TLC-LED-1200	4	4	0	
1					TLC-LED-1200	4	4	0	
TOTALS									
35 30 8									



SCALE IN FEET 1 : 80
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park

Jefferson, GA

GRID SUMMARY
Name: Baseball 2 Spill/Glare - 150'
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 0.0008
Maximum: 0.0008
Minimum: 0.0000
No. of Points: 50

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 136,000 / 89,600 lumens
No. of Luminaires: 10
Total Load: 11.14 kW

Lumen Measurements
Luminaire Type | 180 hrs | 180 hrs | 170 hrs
TLC-LED-1200 | >120,000 | >120,000 | >120,000
TLC-LED-900 | >120,000 | >120,000 | >120,000

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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ILLUMINATION SUMMARY

FOR BIDDING ONLY

PO. BOX 878
BRASELTON, GA 30017
BR. FAX: 706-624-0519
LICENSE # PFE905337
ISSUED 4/1/18
EXPIRES 4/30/22

B&K CONSTRUCTION & ENGINEERING

REGISTERED PROFESSIONAL ENGINEER
No. 029212
David B. Clerici, P.E.
GSWCC LEVEL II
CERTIFICATION # 804

REVISIONS

NO.	DATE	DESCRIPTION
1	4-8-20	ALUMINUM CURTAIN COMMENTS
2	6-1-20	CONC. JENNS ALUMINUM CURTAIN COMMENTS
3	6-18-20	JENNS COMMENTS / ADDENDUM NO. 1

CONSTRUCTION PLANS
FOR:
GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

SHEET TITLE
CONSTRUCTION DETAILS

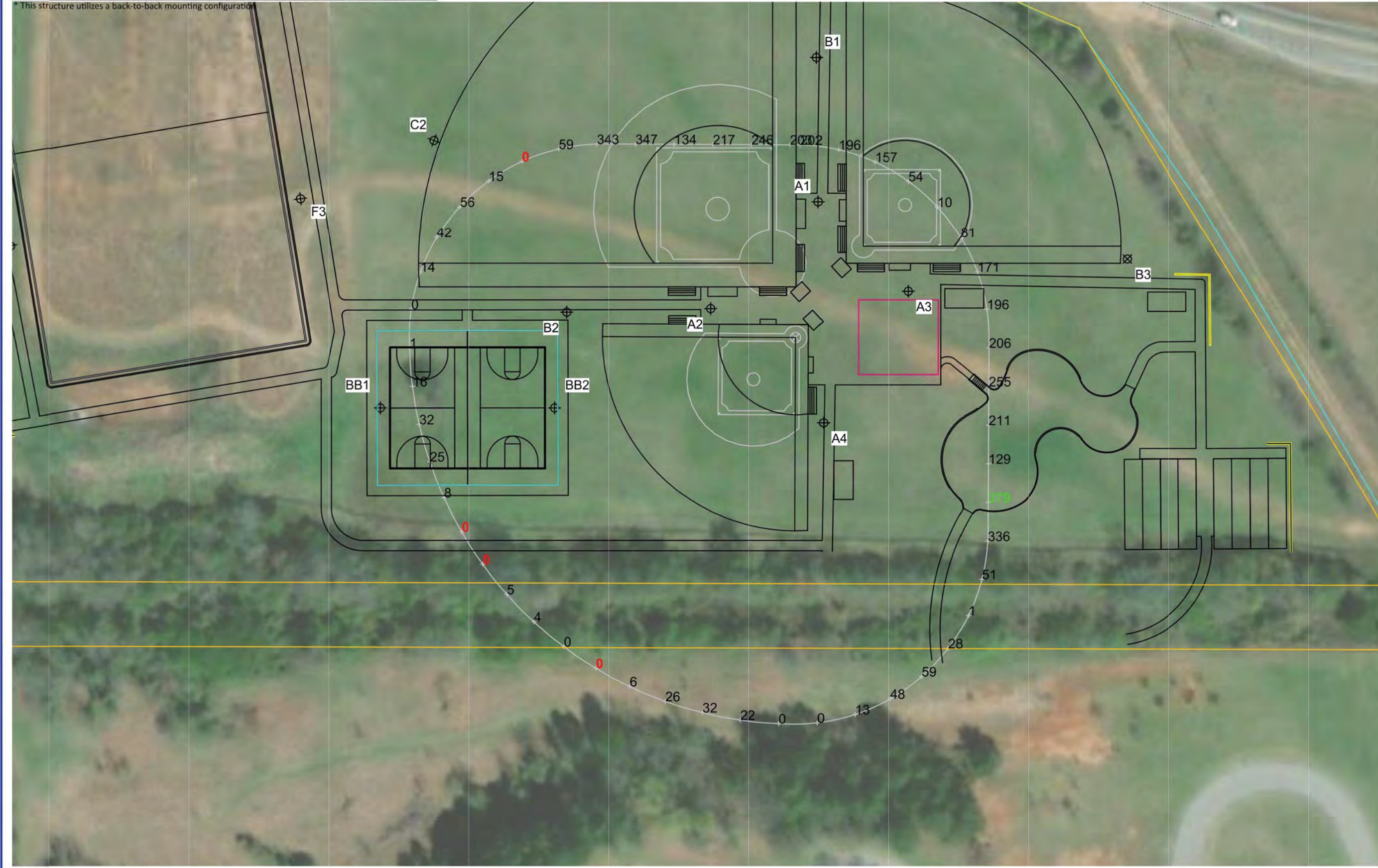
SHEET NUMBER
C-8.13

SCALE
SEE PLAN

DATE
1-10-20

PROJECT NO.

EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	POLY. TYPE	HT. FT.	WATT	OTHER
1	A4	60"		60"	TLC-LED-900	4M4"	1	0	1
4					TLC-LED-1200	4M4"	4	4	4
1					TLC-LED-900	4M4"	1	1	0
4					TLC-LED-900	4M4"	4	4	0
5					TLC-LED-1200	4M4"	5	5	5
TOTALS									



SCALE IN FEET 1" = 80'
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Baseball 2 Spill/Glare - 150'
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 322.999
Maximum: 379.291
Minimum: 0.000
No. of Points: 50

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 136,000 / 89,600 lumens
No. of Luminaires: 10
Total Load: 11.14 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

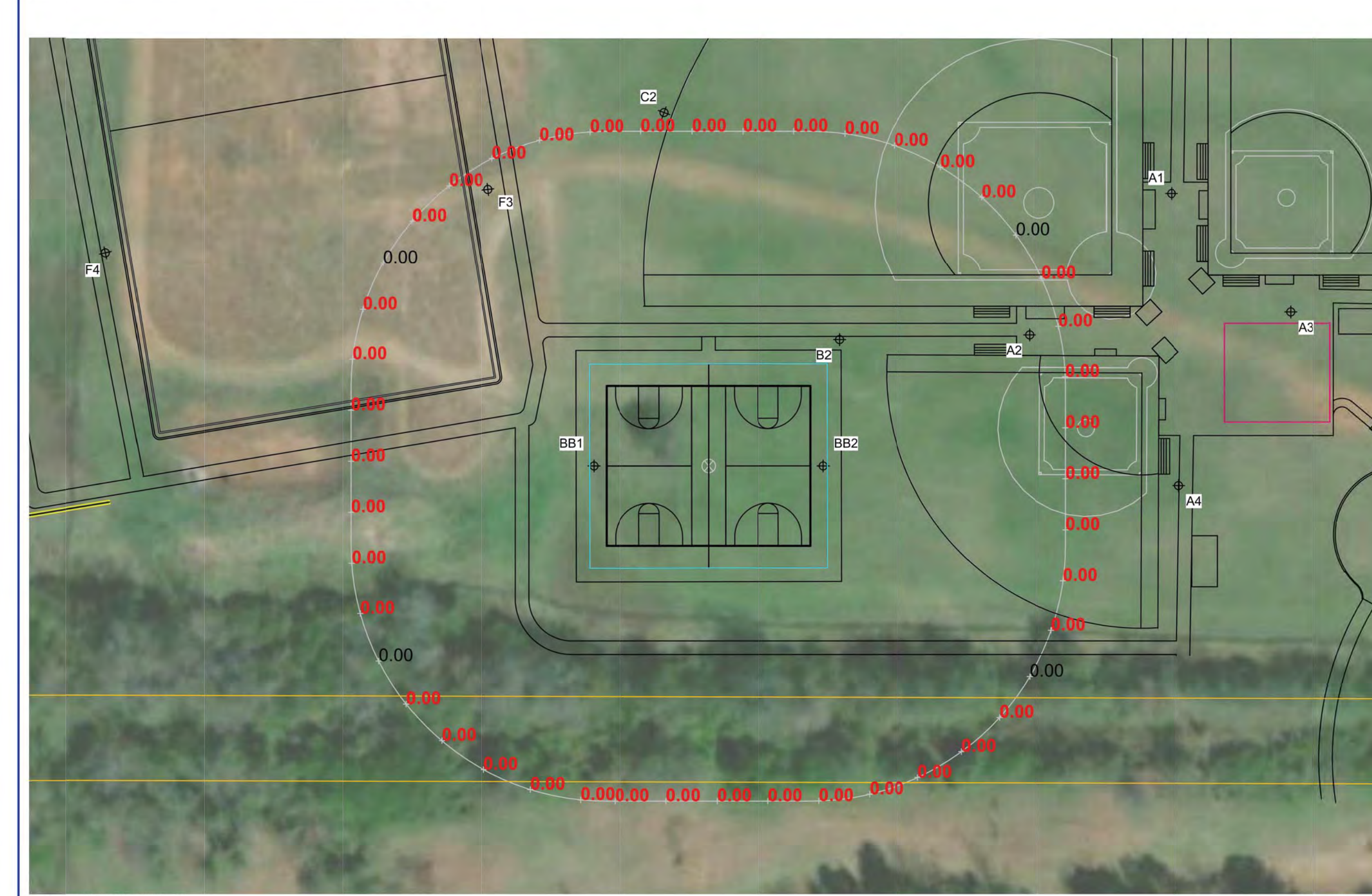
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

MUSCO Lighting
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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	POLY. TYPE	HT. FT.	WATT	OTHER
2	BB1, BB2	50"		50"	TLC-LED-400	5"	2	3	0
TOTALS									



SCALE IN FEET 1" = 60'
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Basketball Courts Spill/Glare - 150'
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 0.0000
Maximum: 0.000
Minimum: 0.000
No. of Points: 46

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 46,500 lumens
No. of Luminaires: 10
Total Load: 4.0 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

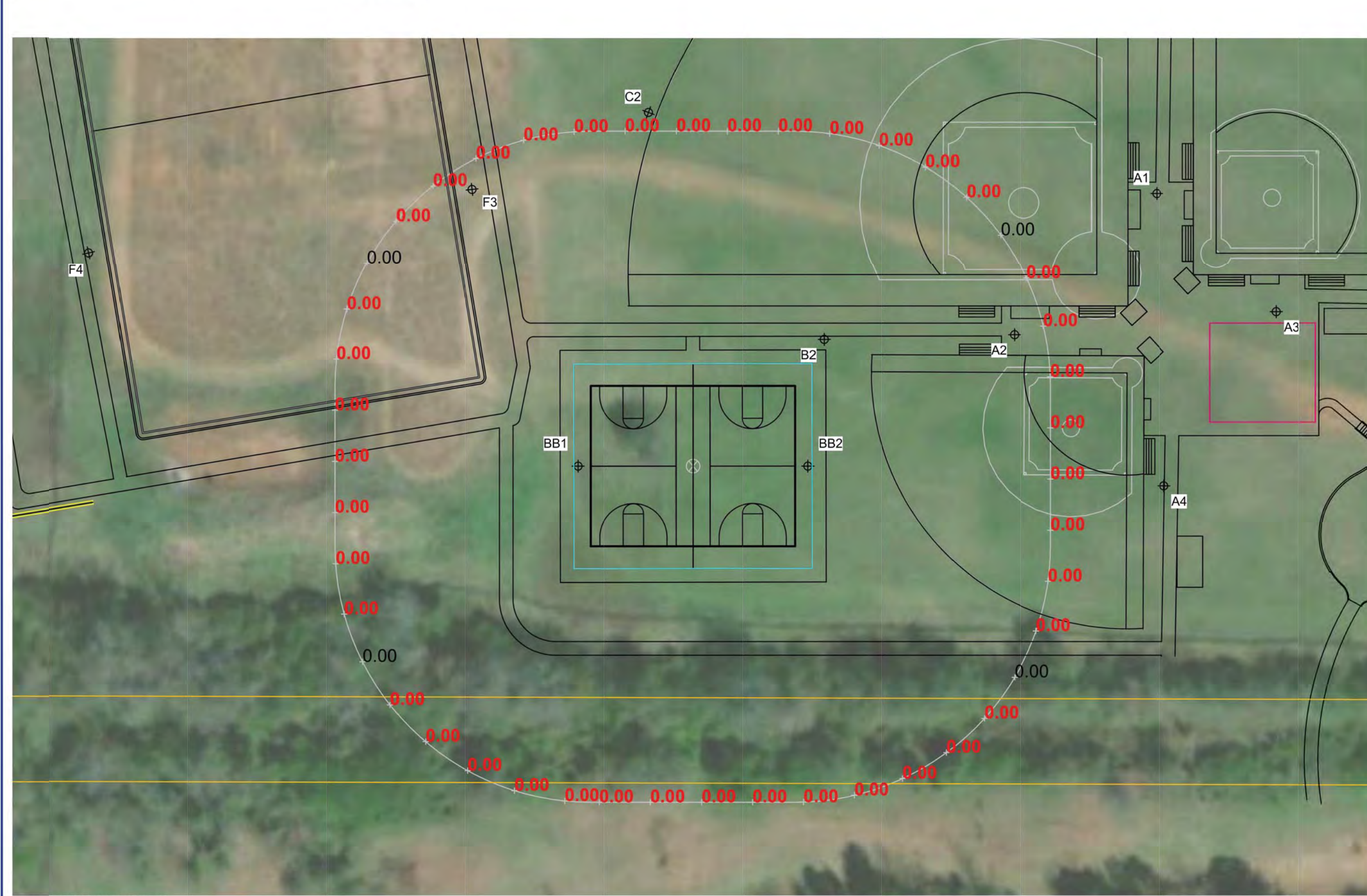
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	POLY. TYPE	HT. FT.	WATT	OTHER
2	BB1, BB2	50"		50"	TLC-LED-400	5"	2	3	0
TOTALS									



SCALE IN FEET 1" = 60'
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Basketball Courts Spill/Glare - 150'
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 0.0000
Maximum: 3.5482
Minimum: 0.000
No. of Points: 46

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 46,500 lumens
No. of Luminaires: 10
Total Load: 4.0 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

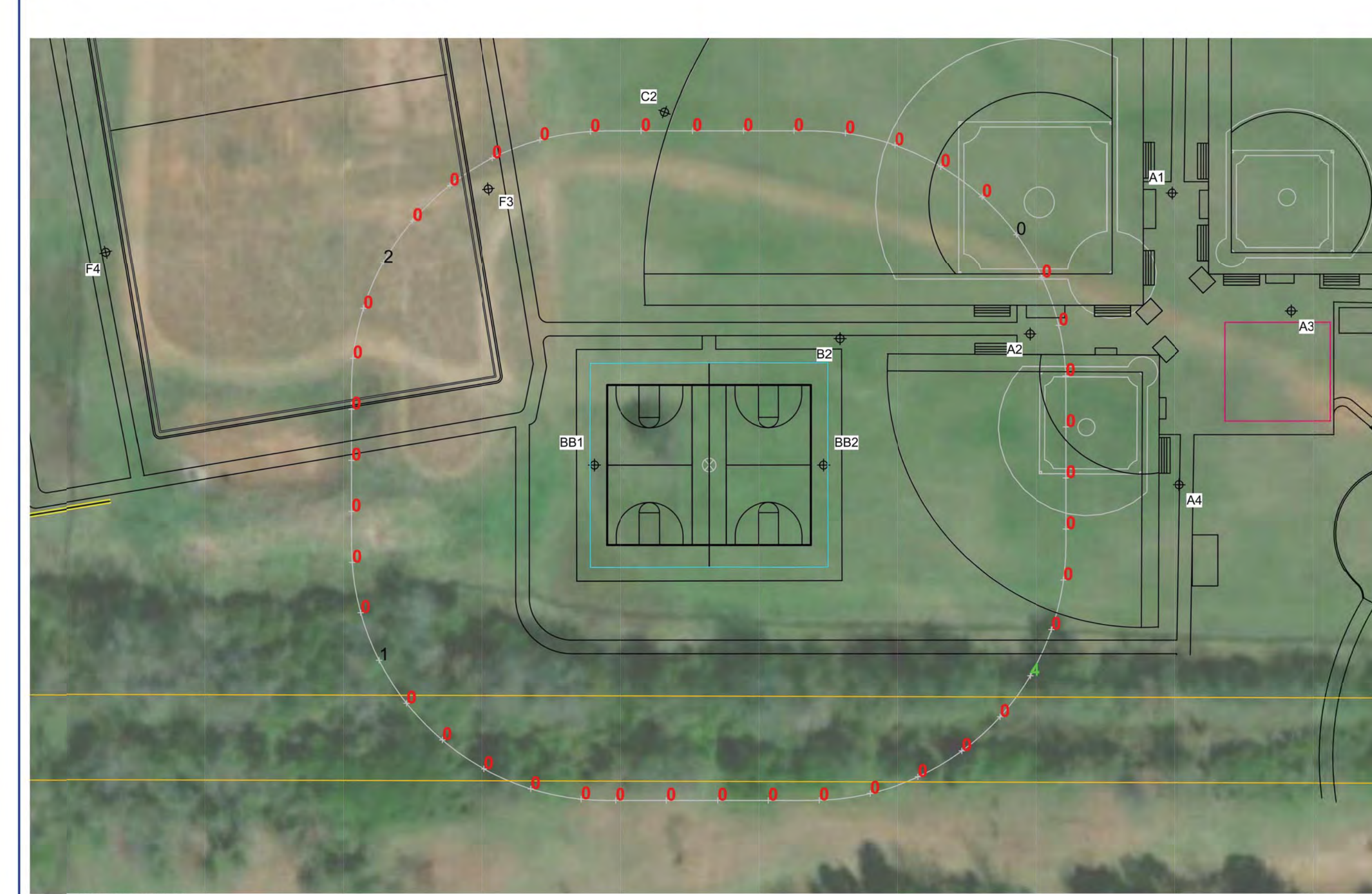
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	POLY. TYPE	HT. FT.	WATT	OTHER
2	BB1, BB2	50"		50"	TLC-LED-400	5"	2	3	0
TOTALS									



SCALE IN FEET 1" = 60'
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Basketball Courts Spill/Glare - 150'
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 0.1486
Maximum: 3.5482
Minimum: 0.000
No. of Points: 46

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 46,500 lumens
No. of Luminaires: 10
Total Load: 4.0 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

MUSCO Lighting
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ILLUMINATION SUMMARY

PO BOX 878
BRASELTON, GA 30017
BR # 00000000000000000000
FAX: 706-624-0519
LICENSE # PFE00537
ISSUES: 4/1/18
EXPIRES: 6/30/22



GSWCC LEVEL II
CERTIFICATION # 804

REVISIONS

NO.	DATE	DESCRIPTION
1	4-8-20	ISSUE FOR CONSTRUCTION COMMENTS
2	6-1-20	CONSTRUCTION COMMENTS / AMENDMENT NO. 1
3	6-18-20	CONSTRUCTION COMMENTS / AMENDMENT NO. 1

CONSTRUCTION PLANS
FOR:
GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

SHEET TITLE
CONSTRUCTION DETAILS

SHEET NUMBER
C-8.14

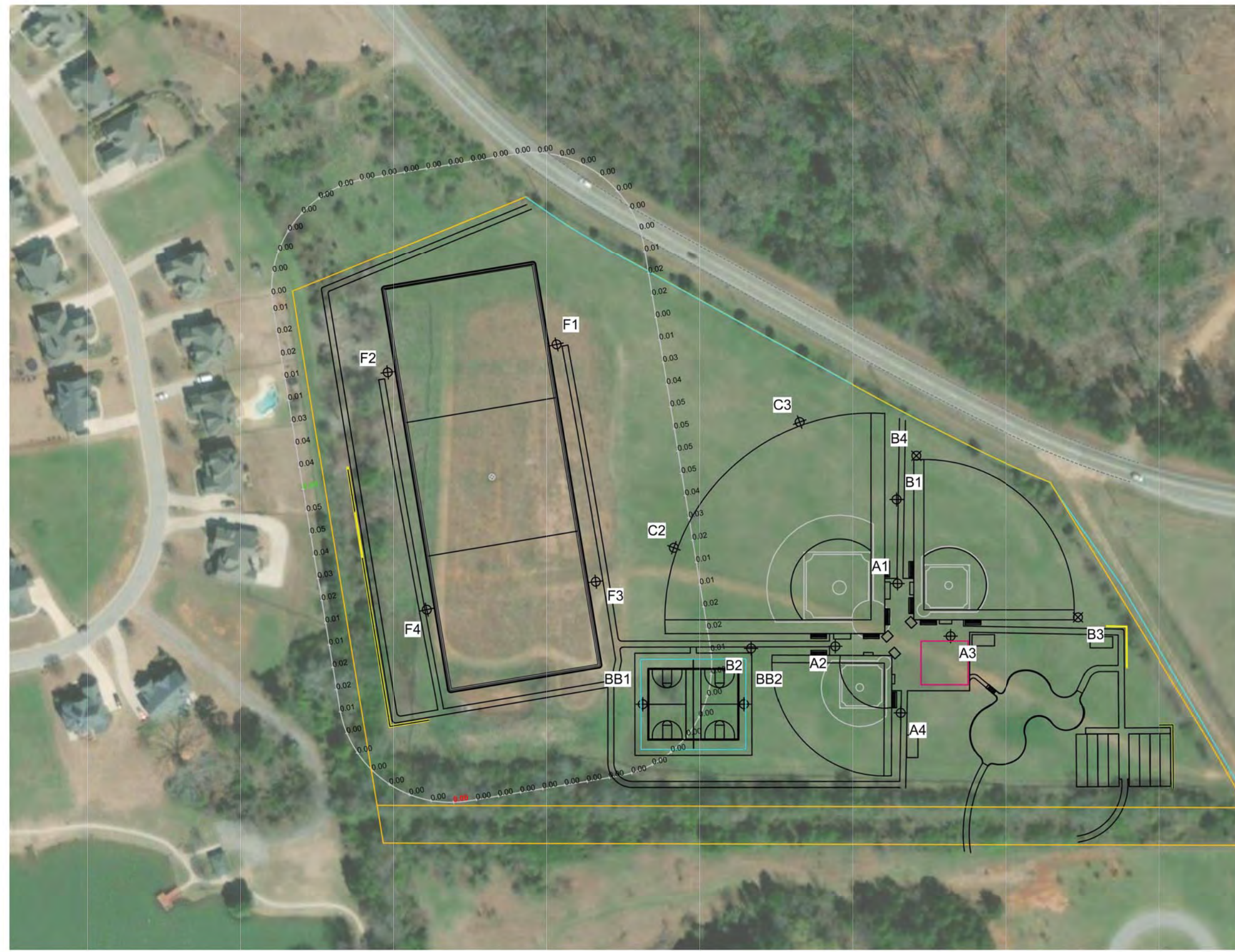
SCALE
SEE PLAN

DATE
1-10-20

PROJECT NO.

FOR BIDDING ONLY

EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	SIZE	GRADE ELEVATION	HEIGHT	LUMINAIRE TYPE	POLY. GRID	HTY	FTL	STREET
4	F1-F4	70"		70"	TLC-LED-1500		28	28	0
TOTALS									



SCALE IN FEET 1" = 150'
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY	
Name:	Multipurpose Field Spill/Glare - 150'
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
ENTIRE GRID FOOTCANTES	
Scan Average:	0.0027
Maximum:	0.055
Minimum:	0.001
No. of Points:	81

LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	150,000 lumens
No. of Luminaires:	28
Total Load:	40.04 kW

LUMINAIRE TYPE	
Luminaire Type:	180 hrs 180 hrs 170 hrs
TLC-LED-1500	>120,000 >120,000 >120,000

Reported per TM-21-11. See Luminaire data sheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

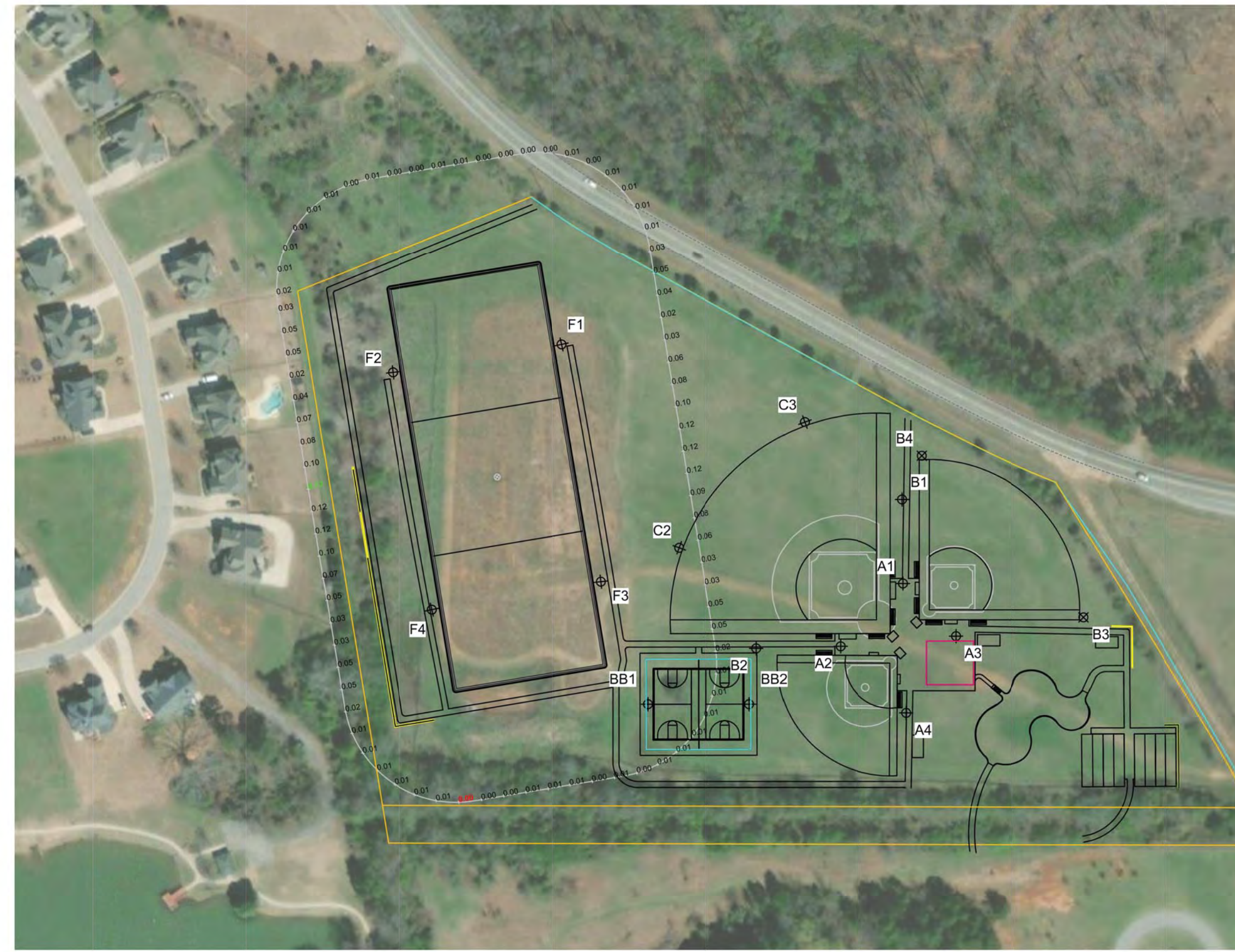
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	SIZE	GRADE ELEVATION	HEIGHT	LUMINAIRE TYPE	POLY. GRID	HTY	FTL	STREET
4	F1-F4	70"		70"	TLC-LED-1500		28	28	0
TOTALS									



SCALE IN FEET 1" = 150'
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY	
Name:	Multipurpose Field Spill/Glare - 150'
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
ENTIRE GRID	
Scan Average:	0.0030
Maximum:	0.024
Minimum:	0.004
No. of Points:	81

LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	150,000 lumens
No. of Luminaires:	28
Total Load:	40.04 kW

LUMINAIRE TYPE	
Luminaire Type:	180 hrs 180 hrs 170 hrs
TLC-LED-1500	>120,000 >120,000 >120,000

Reported per TM-21-11. See Luminaire data sheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	SIZE	GRADE ELEVATION	HEIGHT	LUMINAIRE TYPE	POLY. GRID	HTY	FTL	STREET
4	F1-F4	70"		70"	TLC-LED-1500		28	28	0
TOTALS									



SCALE IN FEET 1" = 150'
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY	
Name:	Multipurpose Field Spill/Glare - 150'
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
ENTIRE GRID	
Scan Average:	0.0027
Maximum:	0.055
Minimum:	0.001
No. of Points:	81

LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	150,000 lumens
No. of Luminaires:	28
Total Load:	40.04 kW

LUMINAIRE TYPE	
Luminaire Type:	180 hrs 180 hrs 170 hrs
TLC-LED-1500	>120,000 >120,000 >120,000

Reported per TM-21-11. See Luminaire data sheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	SIZE	GRADE ELEVATION	HEIGHT	LUMINAIRE TYPE	POLY. GRID	HTY	FTL	STREET
4	F1-F4	70"		70"	TLC-LED-1500		28	28	0
TOTALS									



SCALE IN FEET 1" = 150'
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

Lamar Murphy Park
Jefferson, GA

GRID SUMMARY	
Name:	Spill/Glare - Property Line
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
ENTIRE GRID	
Scan Average:	0.0002
Maximum:	0.002
Minimum:	0.000
No. of Points:	117

LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	150,000 / 150,000 / 46,500 / 99,500 / 52,000 lumens
No. of Luminaires:	96
Total Load:	108.51 kW

LUMINAIRE TYPE	
Luminaire Type:	180 hrs 180 hrs 170 hrs
TLC-LED-1500	>120,000 >120,000 >120,000
TLC-LED-400	>120,000 >120,000 >120,000
TLC-LED-400	>120,000 >120,000 >120,000
TLC-BT-575	>120,000 >120,000 >120,000

Reported per TM-21-11. See Luminaire data sheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

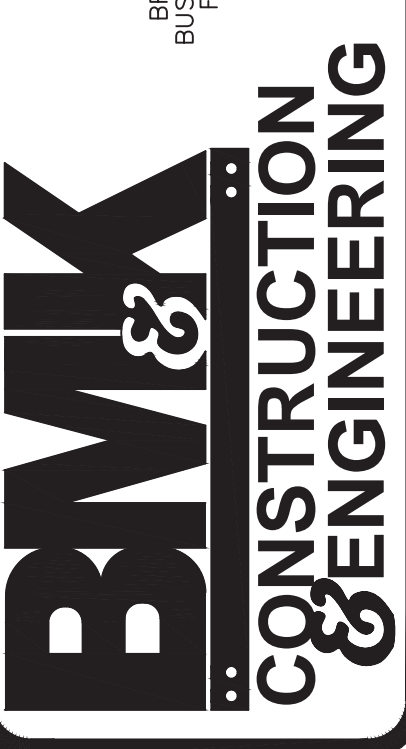
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY

PO BOX 878
BRASHELTOWN, GA 30017
BR: 706-624-0919
BF: 706-624-0919
LICENSE # PE050537
ISSUED: 4/1/18
EXPIRES: 6/30/22



GSWCC LEVEL II
CERTIFICATION # 804

REVISIONS

NO.	DATE	DESCRIPTION
1	4-8-20	ISSUED FOR CONSTRUCTION
2	6-1-20	REVISED PER COMMENTS
3	6-18-20	REVISED PER COMMENTS

CONSTRUCTION PLANS

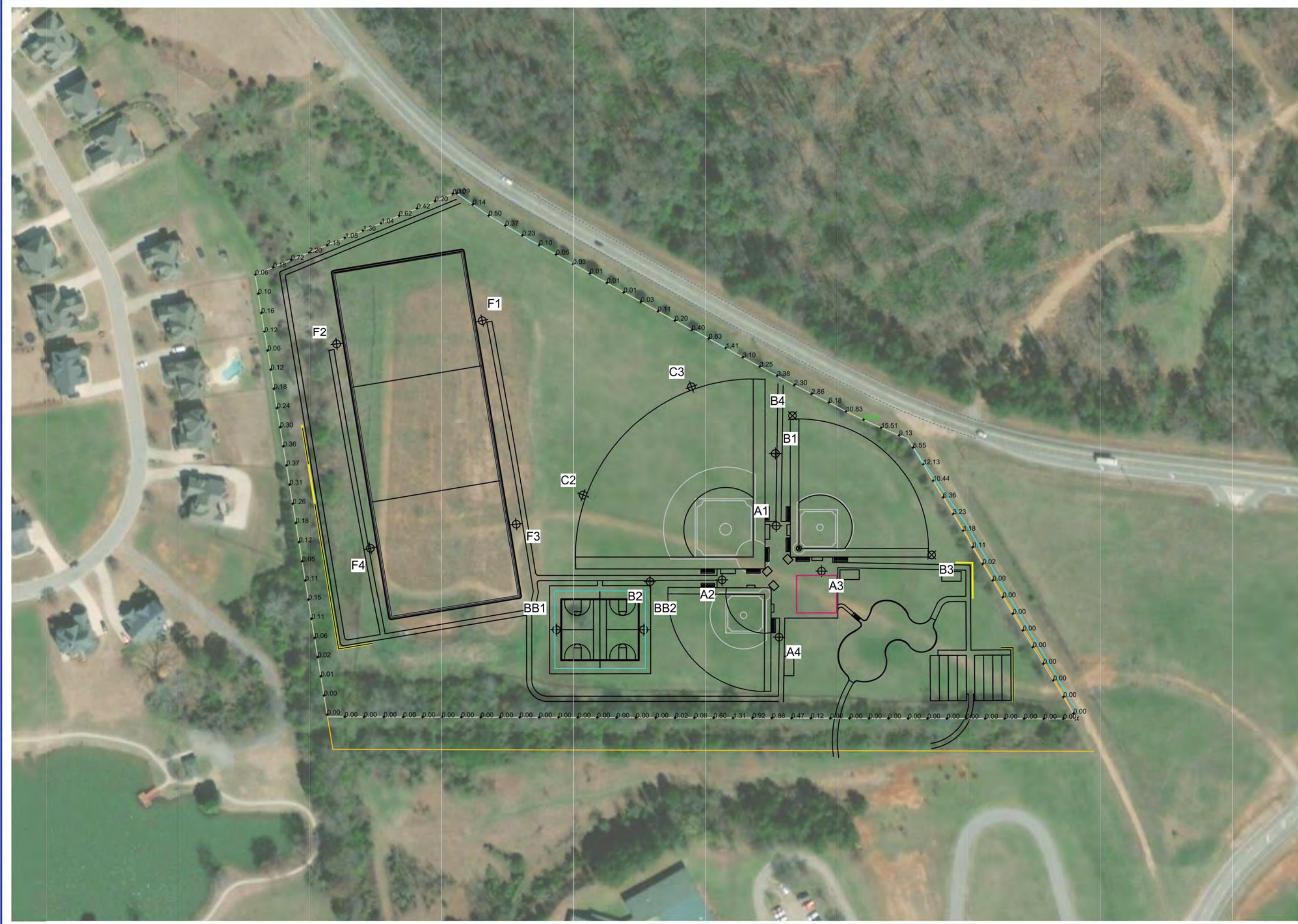
FOR:
GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

SHEET TITLE

CONSTRUCTION DETAILS

SHEET NUMBER
C-8.15
SCALE: SEE PLAN
DATE: 1-10-20
PROJECT NO.

FOR BIDDING ONLY



Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Spill/Glare - Property Line
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 1.8724
Maximum: 16.155
Minimum: 0.000
No. of Points: 117

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 136,000 / 160,000 / 46,500 / 89,600 / 52,000
No. of Luminaires: 96
Total Load: 108.51 kW

Luminaire Type	180 hrs	180 hrs	170 hrs
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-LED-1500	>120,000	>120,000	>120,000
TLC-LED-400	>120,000	>120,000	>120,000
TLC-LED-900	>120,000	>120,000	>120,000
TLC-BT-575	>120,000	>120,000	>120,000

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Ampereage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

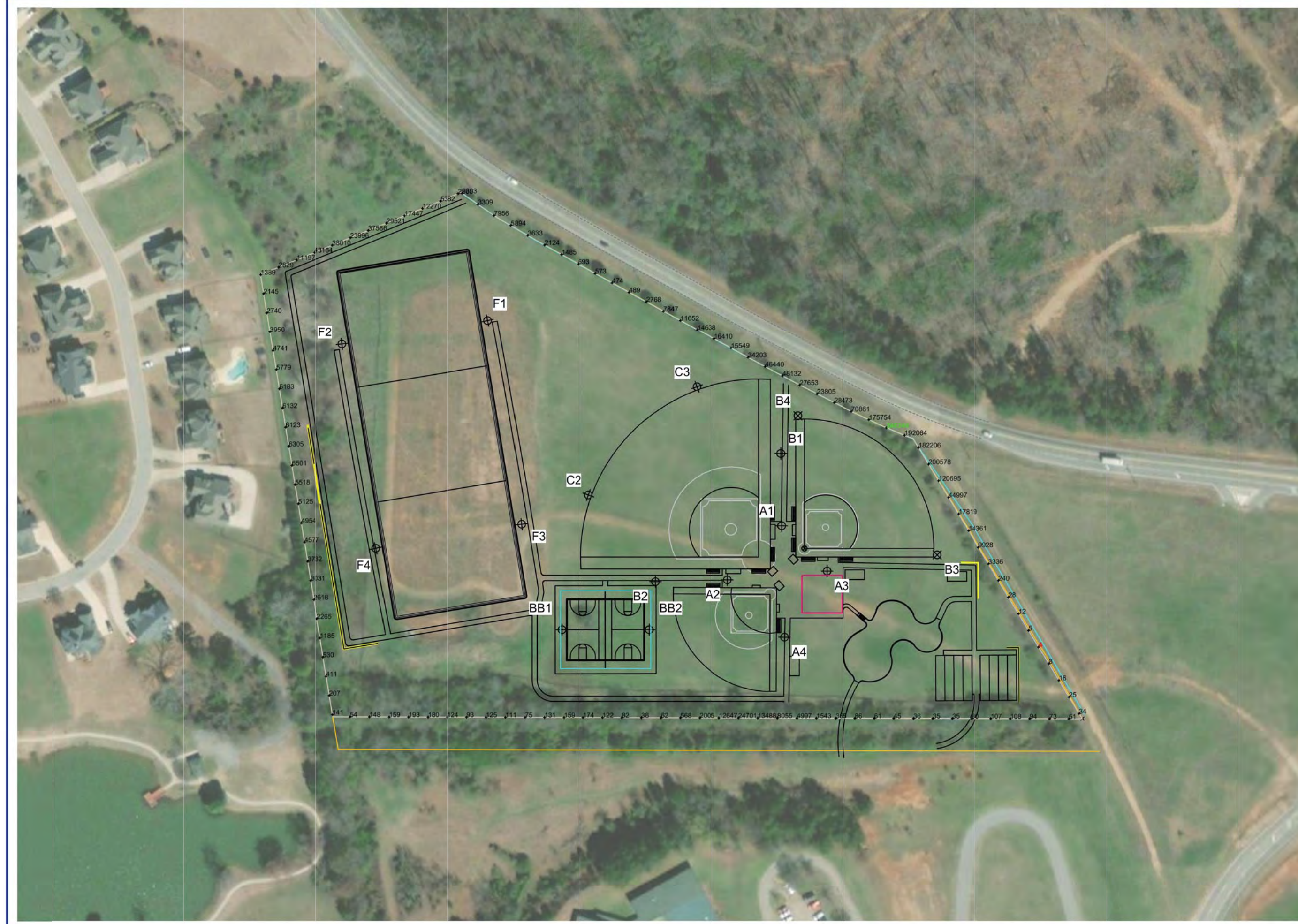


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ILLUMINATION SUMMARY

SCALE IN FEET 1" = 150'

ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20



Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Spill/Glare - Property Line
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 1.881302
Maximum: 16.0344172
Minimum: 4.091
No. of Points: 117

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 136,000 / 160,000 / 46,500 / 89,600 / 52,000
No. of Luminaires: 96
Total Load: 108.51 kW

Luminaire Type	180 hrs	180 hrs	170 hrs
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-LED-1500	>120,000	>120,000	>120,000
TLC-LED-400	>120,000	>120,000	>120,000
TLC-LED-900	>120,000	>120,000	>120,000
TLC-BT-575	>120,000	>120,000	>120,000

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Ampereage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY

SCALE IN FEET 1" = 150'

ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20



Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Spill/Glare - Highway
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 0.2481
Maximum: 3.481
Minimum: 0.001
No. of Points: 51

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 136,000 / 160,000 / 46,500 / 89,600 / 52,000
No. of Luminaires: 96
Total Load: 108.51 kW

Luminaire Type	180 hrs	180 hrs	170 hrs
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-LED-1500	>120,000	>120,000	>120,000
TLC-LED-400	>120,000	>120,000	>120,000
TLC-LED-900	>120,000	>120,000	>120,000
TLC-BT-575	>120,000	>120,000	>120,000

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Ampereage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY

SCALE IN FEET 1" = 150'

ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20



Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Spill/Glare - Highway
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
Entire Grid
Scan Average: 0.5002
Maximum: 3.680
Minimum: 0.003
No. of Points: 51

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 136,000 / 160,000 / 46,500 / 89,600 / 52,000
No. of Luminaires: 96
Total Load: 108.51 kW

Luminaire Type	180 hrs	180 hrs	170 hrs
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-LED-1500	>120,000	>120,000	>120,000
TLC-LED-400	>120,000	>120,000	>120,000
TLC-LED-900	>120,000	>120,000	>120,000
TLC-BT-575	>120,000	>120,000	>120,000

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Ampereage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY

SCALE IN FEET 1" = 150'

ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

PO BOX 878
BRASSELTON, GA 30017
BR: 706-624-0519
BF: 706-624-0519

LICENSE # PR0505337
ISSUED 4/1/18
EXPIRES 6/30/22

BMK & CONSTRUCTION & ENGINEERING

REGISTERED PROFESSIONAL ENGINEER
No. 029212
D. B. Clerici, P.E.

GSWCC LEVEL II
CERTIFICATION # 804

REVISIONS

NO.	DATE	DESCRIPTION
1	4-8-20	ALUMINUM CORNER COMMENTS
2	6-1-20	SWITCH, JUMPS & ALUMINUM CORNER COMMENTS
3	6-18-20	PERMITS COMMENTS / DIMENSION NO. 1

CONSTRUCTION PLANS FOR:
GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

SHEET TITLE
CONSTRUCTION DETAILS

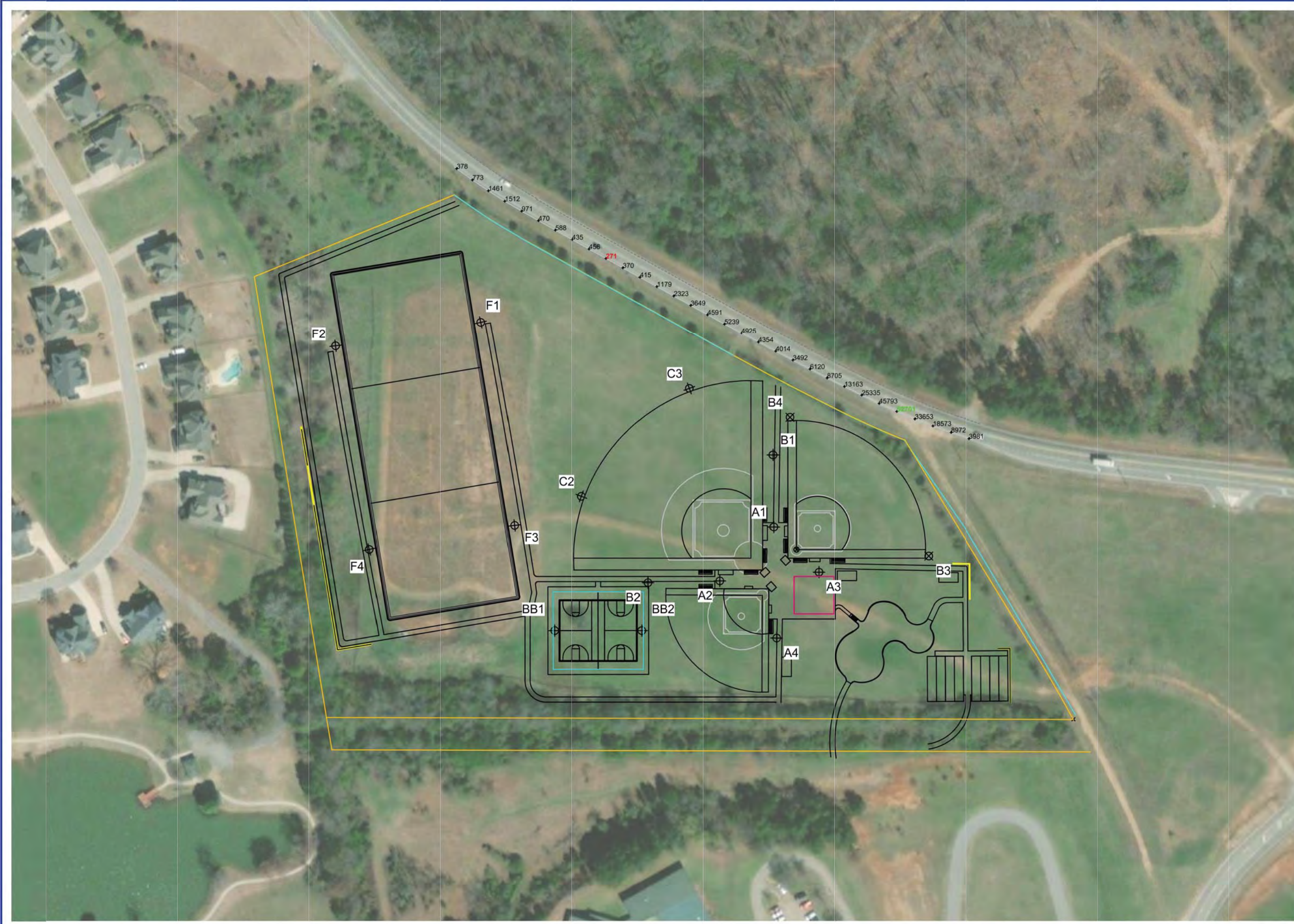
SHEET NUMBER
C-8.16

SCALE
SEE PLAN

DATE
1-10-20

PROJECT NO.

FOR BIDDING ONLY



Lamar Murphy Park
Jefferson, GA

GRID SUMMARY
Name: Spill/Glare - Highway
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY

Entire Grid	
Scan Average:	8396.8164
Maximum:	52700.645
Minimum:	271.318
No. of Points:	31

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI
Luminaire Output: 136,000 / 160,000 / 46,500 / 89,600 / 52,000
No. of Luminaires: 96
Total Load: 108.51 kW

Luminaire Specifications

Luminaire Type	180 hrs	180 hrs	120 hrs
TLC-LED-2700	>120,000	>120,000	>120,000
TLC-LED-1500	>120,000	>120,000	>120,000
TLC-LED-400	>120,000	>120,000	>120,000
TLC-LED-900	>120,000	>120,000	>120,000
TLC-BT-575	>120,000	>120,000	>120,000

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume a 3% nominal voltage at live side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY



Lamar Murphy Park
Jefferson, GA

EQUIPMENT LAYOUT

INCLUDES:
Baseball 1
Baseball 2
Basketball Courts
Multipurpose Field
Softball 1

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume a 3% nominal voltage at live side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	CLASS	WATTAGE	HEIGHT	TYPE	TIME	POLE
1	A1	L5560B	80'	18'	TLC-BT-575	1/1"	A2-C4
1	A2	L5560A	80'	18'	TLC-LED-1200	4/2"	
1	A3	L5560A	80'	18'	TLC-LED-900	1/1"	
1	A4	L5560A	80'	18'	TLC-LED-1200	2	
2	BB1, BB2	L5560B	80'	18'	TLC-LED-1500	5	
1	B1	L5570C	70'	19'	TLC-BT-575	1	
1	B2	L5570B	70'	15.5'	TLC-LED-1500	5	
2	BB-BA	L5570A	70'	15.5'	TLC-LED-1200	4	
3	CB-C3	L5570AA	70'	15.5'	TLC-BT-575	1	
4	FB-F4	L5570C	70'	19'	TLC-LED-1200	3	
1			70'	19'	TLC-LED-1500	5	
TOTALS							96

SINGLE PHASE ILLUMINATION PERFORMANCE DATA TABLE

Ballast Specifications

Ballast Type	Line Amperage Per Luminaire
Single Phase Voltage	208 220 240 277 347 380 480
TLC-LED-1500	8.0 8.1 2.4 4.4 5.1 4.7 3.2
TLC-LED-1200	7.0 6.9 8.1 5.2 4.2 4.0 3.0
TLC-LED-900	2.3 2.3 2.9 1.7 1.4 1.2 1.0
TLC-LED-400	5.3 5.0 2.6 4.0 3.2 2.9 2.3
TLC-BT-575	3.4 3.2 2.3 2.5 2.0 1.8 1.5

Structure shown in back-to-back mounting configuration

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MUSCO Lighting
We Make It Happen.

EQUIPMENT LAYOUT

SCALE IN FEET 1 : 150
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

SCALE IN FEET 1 : 150
ENGINEERED DESIGN By: JWinegar • File #192469D • 05-Jun-20

PRELIMINARY FOUNDATION AND POLE ASSEMBLY DRAWING

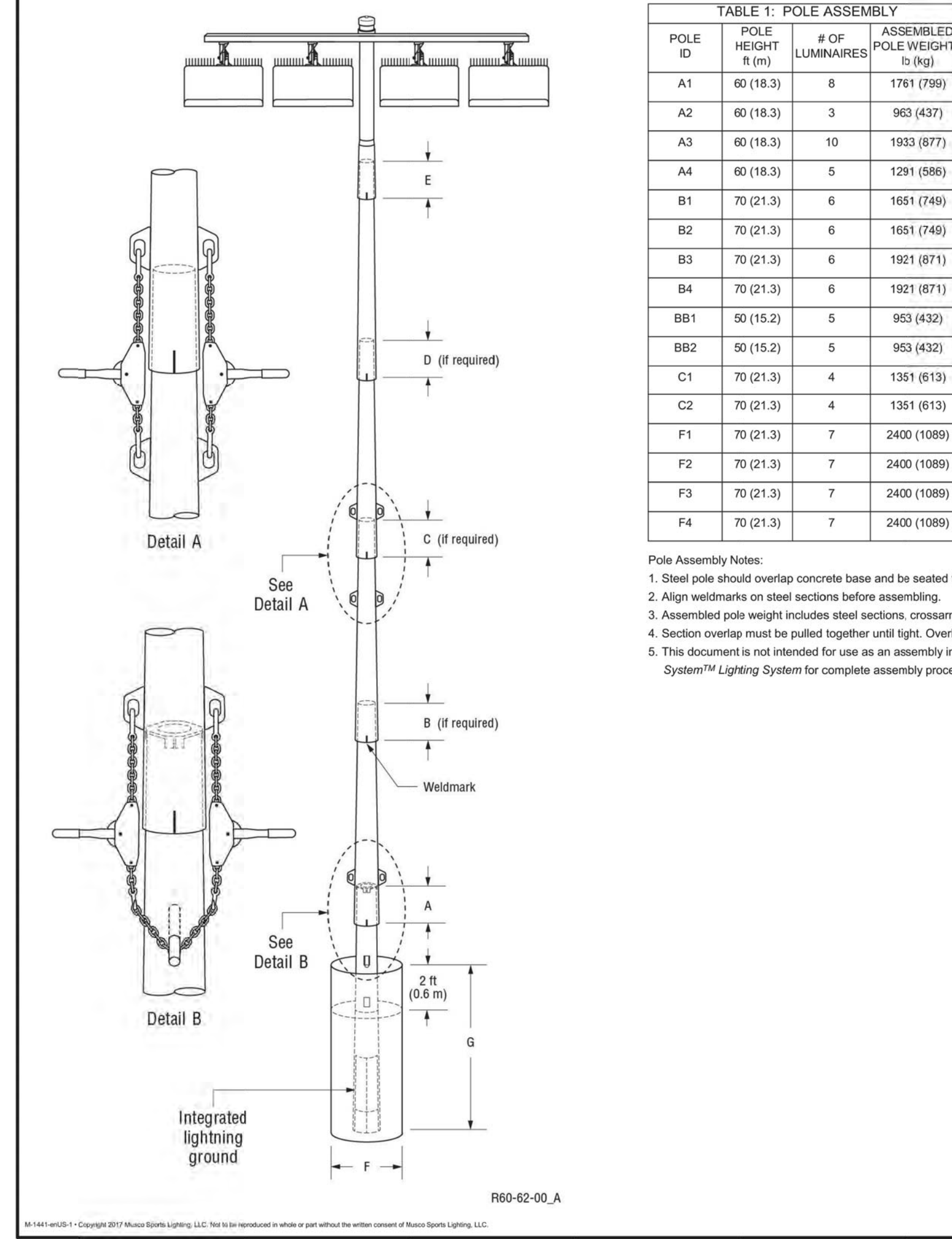


TABLE 1: POLE ASSEMBLY

POLE ID	POLE HEIGHT (ft)	# OF LUMINAIRES	ASSEMBLED POLE WEIGHT (lb)
A1	60 (18.3)	8	1761 (799)
A2	60 (18.3)	3	963 (437)
A3	60 (18.3)	10	1933 (877)
A4	60 (18.3)	5	1291 (586)
B1	70 (21.3)	6	1651 (749)
B2	70 (21.3)	6	1651 (749)
B3	70 (21.3)	6	1621 (741)
B4	70 (21.3)	6	1621 (741)
BB1	50 (15.2)	5	953 (432)
BB2	50 (15.2)	5	953 (432)
C1	70 (21.3)	4	1351 (613)
C2	70 (21.3)	4	1351 (613)
F1	70 (21.3)	7	2400 (1089)
F2	70 (21.3)	7	2400 (1089)
F3	70 (21.3)	7	2400 (1089)
F4	70 (21.3)	7	2400 (1089)

Pole Assembly Notes:

- Steel pole should overlap concrete base and be sealed tight with 1 1/2 ton come-along (contractor provided).
- Align weldmarks on steel sections before assembly.
- Assembled pole weight includes steel sections, crossarms, luminaires, and electrical components enclosures.
- Section overlap must be pulled together until tight. Overlap measurement should be +/- 8 in (150 mm).
- This document is not intended for use as an assembly instruction. See installation instructions: Light-Structure System™ Lighting System for complete assembly procedure.

TABLE 2: FOUNDATION DETAILS

POLE ID	CONCRETE BASE WEIGHT (lb)	CONCRETE BACKFILL (cu ft)	CUT BASE	LIGHTNING GROUND ¹	
A1	2710 (1229)	30 (762)	12 (3.7)	1.5 (1.1)	NO INTEGRATED ¹ N/A
A2	1870 (848)	30 (762)	10 (3.0)	1.2 (0.9)	NO INTEGRATED ¹ N/A
A3	2710 (1229)	30 (762)	12 (3.7)	1.5 (1.1)	NO INTEGRATED ¹ N/A
A4	1640 (835)	30 (762)	10 (3.0)	1.2 (0.9)	NO INTEGRATED ¹ N/A
B1	2720 (1234)	30 (762)	12 (3.7)	1.5 (1.1)	NO INTEGRATED ¹ N/A
B2	2720 (1234)	30 (762)	12 (3.7)	1.5 (1.1)	NO INTEGRATED ¹ N/A
B3	2710 (1229)	30 (762)	12 (3.7)	1.5 (1.1)	NO INTEGRATED ¹ N/A
B4	2710 (1229)	30 (762)	12 (3.7)	1.5 (1.1)	NO INTEGRATED ¹ N/A
BB1	1660 (844)	30 (762)	10 (3.0)	1.2 (0.9)	NO INTEGRATED ¹ N/A
BB2	1660 (844)	30 (762)	10 (3.0)	1.2 (0.9)	NO INTEGRATED ¹ N/A
C1	1680 (853)	30 (762)	10 (3.0)	1.2 (0.9)	NO INTEGRATED ¹ N/A
C2	1680 (853)	30 (762)	10 (3.0)	1.2 (0.9)	NO INTEGRATED ¹ N/A
F1	3790 (1715)	30 (762)	14 (4.3)	1.6 (1.2)	NO INTEGRATED ¹ N/A
F2	3790 (1715)	30 (762)	14 (4.3)	1.6 (1.2)	NO INTEGRATED ¹ N/A
F3	3790 (1715)	30 (762)	14 (4.3)	1.6 (1.2)	NO INTEGRATED ¹ N/A
F4	3790 (1715)	30 (762)	14 (4.3)	1.6 (1.2)	NO INTEGRATED ¹ N/A

Foundation Notes:

- Concrete backfill is calculated to 2 ft (0.6m) below grade (no overage included). Top 2 ft (0.6m) to be class 5 well compacted to 95% density of surrounding undisturbed soil unless otherwise specified in stamped structural design.
- Concrete backfill required 3000 psi/21 MPa minimum.
- Foundation design per 2018 IRC, 115 mph, exposure category C, variation STD (Risk Category II).
- Assumes IBC Class 5 soils.
- Standard bases include integrated lightning protection. If bases are cut, supplemental lightning protection is required. Contact Musco for materials and instruction.
- Lightning protection is a manufacturer installed concrete encased electrode and connector. Ground connection is made when concrete base is installed and footing is poured. No additional steps required.

Gum Springs Park - Jefferson, GA, USA
Date: 03/03/2020 Scale: N/A
Rep: Rob Staples Page: 1 of 1
Project: 192469 Preliminary

FOR BIDDING ONLY

PO BOX 878
BRASELTON, GA 30017
BR: 706-624-0919
BL: 706-624-0919
LICENSE # PFE905337
ISSUED 4/1/18
EXPIRES 6/30/22



GSWCC LEVEL II
CERTIFICATION # 804

REVISIONS

NO.	DATE	DESCRIPTION
1	4-8-20	MUSCO COMMENT/REVISION
2	6-1-20	OWNER, JEFFERSON COUNTY COMMENTS
3	6-18-20	MUSCO COMMENT/REVISION NO. 1

CONSTRUCTION PLANS

FOR:
GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

SHEET TITLE
CONSTRUCTION DETAILS

SHEET NUMBER
C-8.17

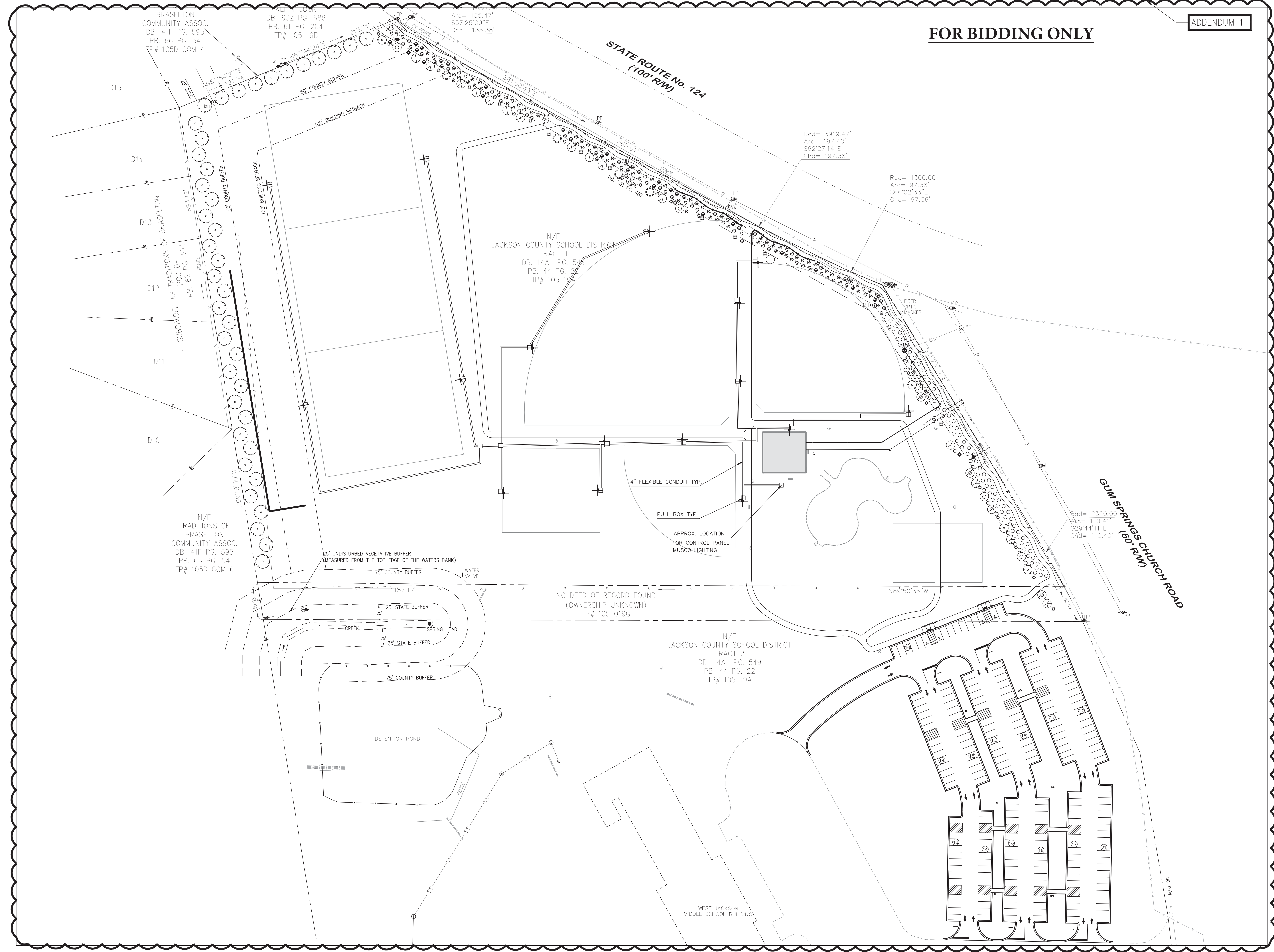
SCALE SEE PLAN

DATE 1-10-20

PROJECT NO.

ADDENDUM 1

FOR BIDDING ONLY



BRASELTON
COMMUNITY ASSOC.
DB. 41F PG. 595
PB. 66 PG. 54
TP# 105D COM 4

REITH COOK
DB. 63Z PG. 686
PB. 61 PG. 204
TP# 105 19B

Rad= 1030.00'
Arc= 135.47'
S57°25'09"E
Chd= 135.38'

STATE ROUTE No. 124
(100' RW)

Rad= 3919.47'
Arc= 197.40'
S62°27'14"E
Chd= 197.38'

Rad= 1300.00'
Arc= 97.38'
S66°02'33"E
Chd= 97.36'

N/F
JACKSON COUNTY SCHOOL DISTRICT
TRACT 1
DB. 14A PG. 549
PB. 44 PG. 22
TP# 105 19A

N/F
TRADITIONS OF
BRASELTON
COMMUNITY ASSOC.
DB. 41F PG. 595
PB. 66 PG. 54
TP# 105D COM 6

NO DEED OF RECORD FOUND
(OWNERSHIP UNKNOWN)
TP# 105 019G

N/F
JACKSON COUNTY SCHOOL DISTRICT
TRACT 2
DB. 14A PG. 549
PB. 44 PG. 22
TP# 105 19A

GUM SPRINGS CHURCH ROAD
(60' RW)

25' UNDISTURBED VEGETATIVE BUFFER
(MEASURED FROM THE TOP EDGE OF THE WATERS BANK)

75' COUNTY BUFFER

75' COUNTY BUFFER

25' STATE BUFFER

25' STATE BUFFER

75' COUNTY BUFFER

75' COUNTY BUFFER

4" FLEXIBLE CONDUIT TYP.
PULL BOX TYP.
APPROX. LOCATION
FOR CONTROL PANEL-
MUSCO-LIGHTING

DETECTION POND

WEST JACKSON
MIDDLE SCHOOL BUILDING

PO BOX 878
BRASELTON, GA 30017
TEL: 706-682-0919
FAX: 706-682-0919

LICENSE # PE060537
ISSUED 4/1/18
EXPIRES 6/30/22

BM&K
CONSTRUCTION
& ENGINEERING

REGISTERED
No. 029212
PROFESSIONAL
ENGINEER

Donald B. Clerici, P.E.

GSWCC LEVEL II
CERTIFICATION # 804

REVISIONS		
NO.	DATE	DESCRIPTION
1	4-8-20	JACKSON COUNTY COMMENTS
2	6-1-20	OWNER, JAMES J. JAMESON COUNTY COMMENTS
3	6-18-20	JAMES COMMENTS / ADDENDUM NO. 1

CONSTRUCTION PLANS
FOR:
GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

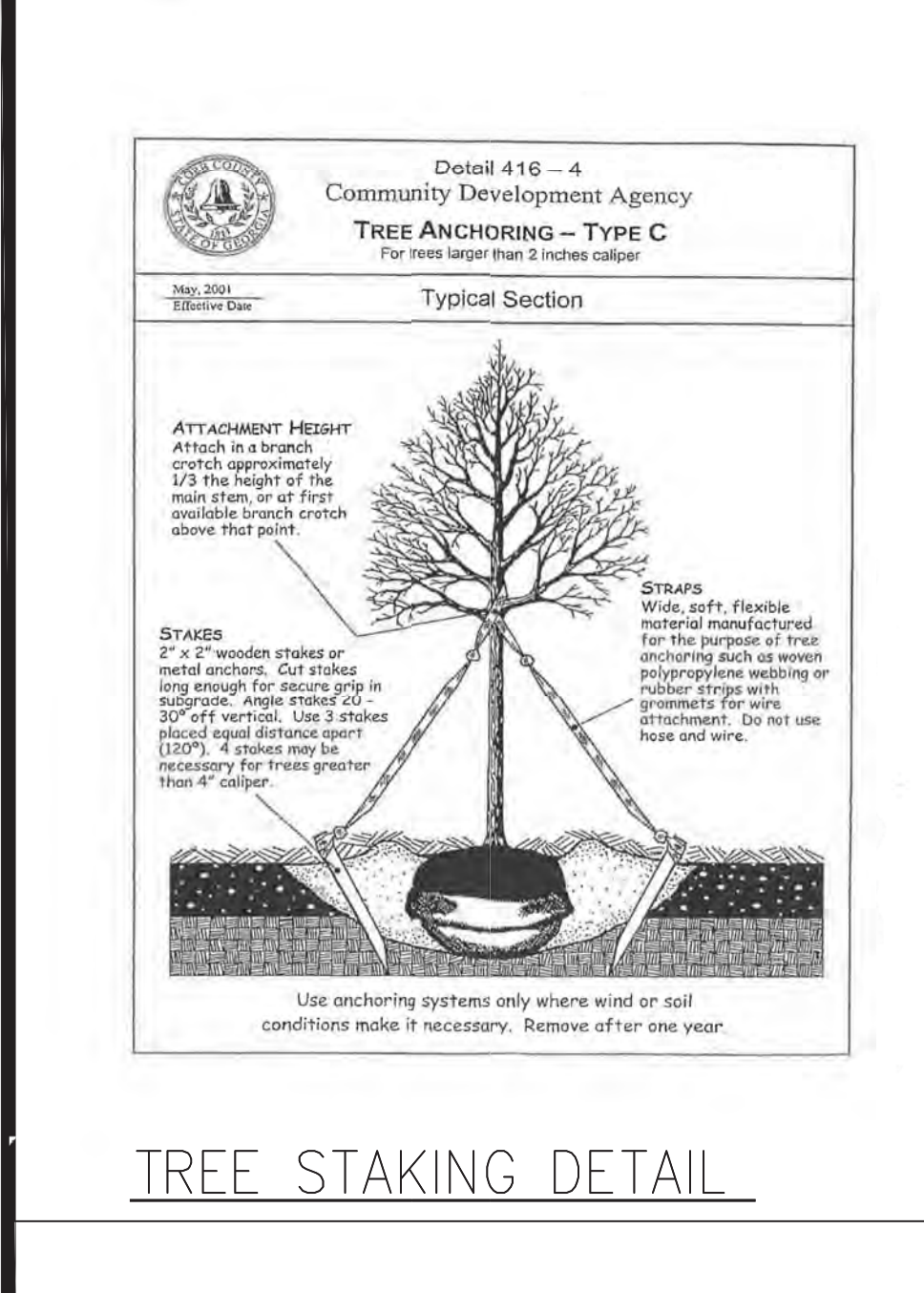
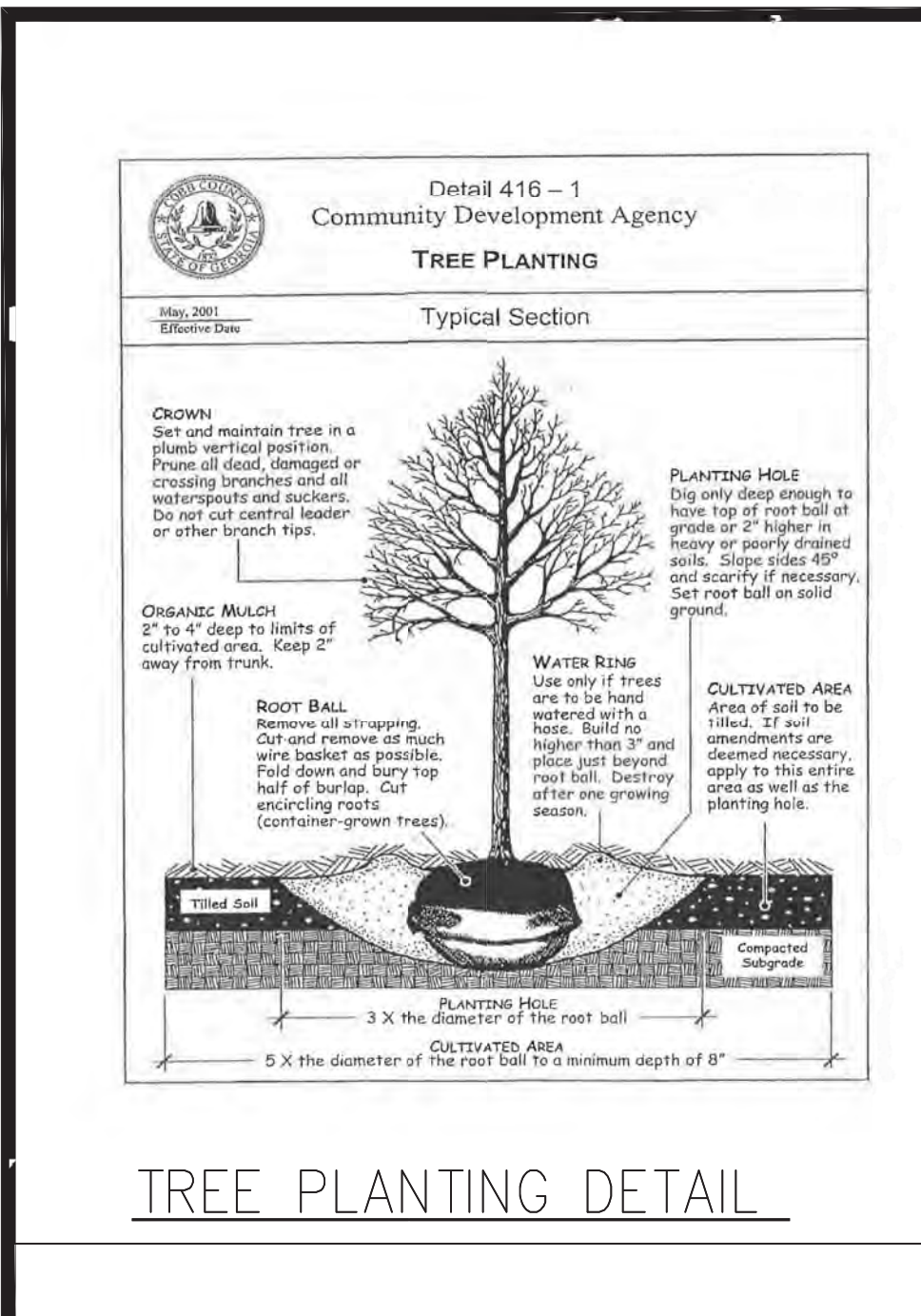
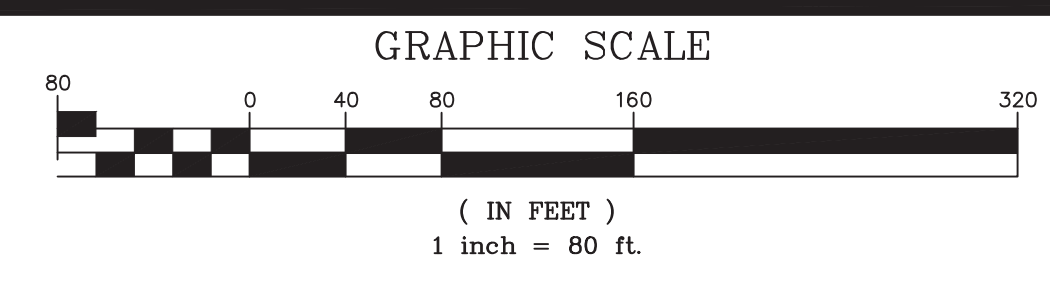
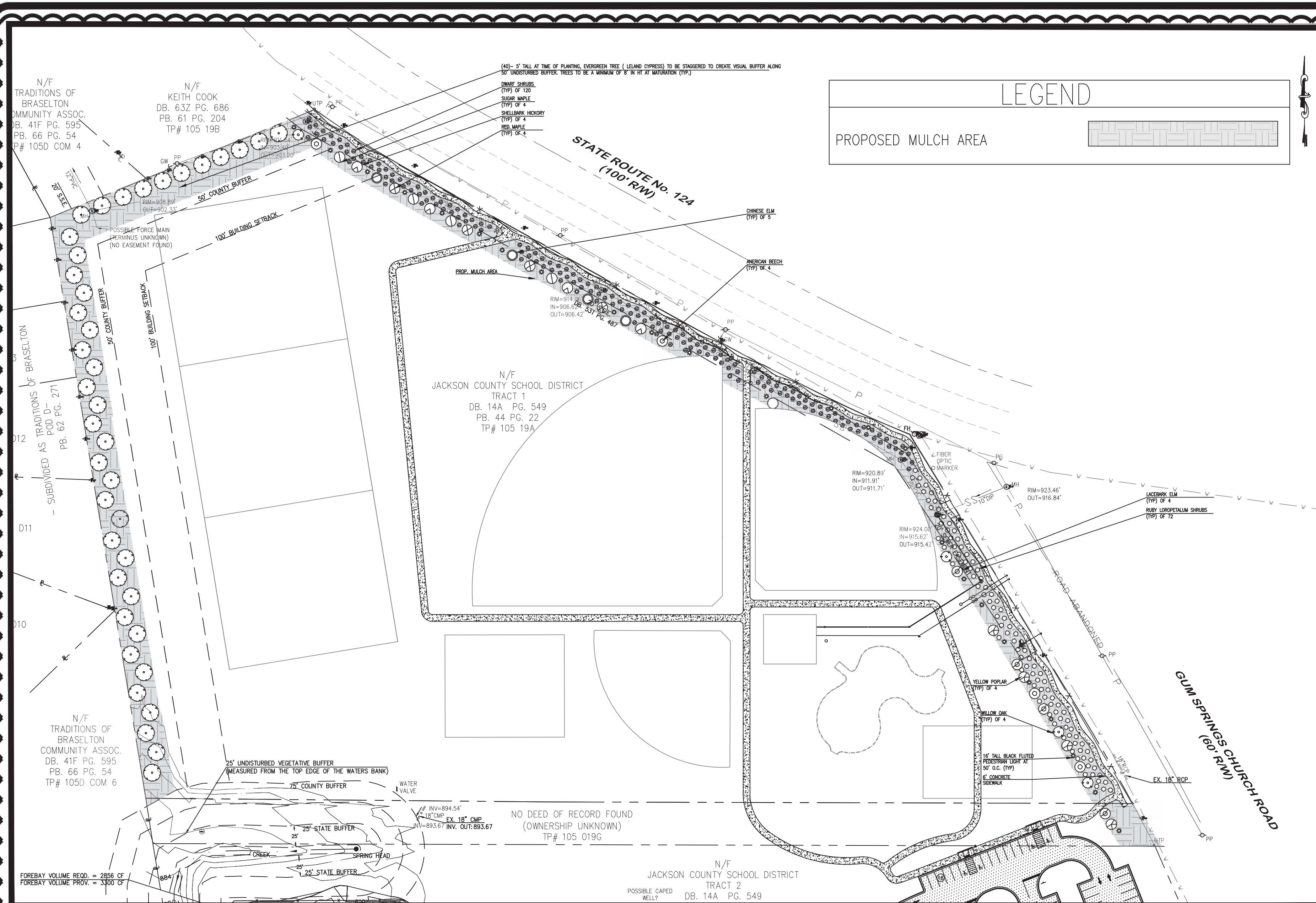
SHEET TITLE
**CONSTRUCTION
DETAILS**

SHEET NUMBER
C-8.18

SCALE SEE PLAN

DATE 1-10-20

PROJECT NO.



Tree Calculations

SIDE YARD REQUIREMENT

1 TREE UNIT PER 60 LF OF SIDE LANDSCAPE STRIP @ 484 LF = 8.0 UNITS REQUIRED

TREE UNITS PROVIDED = 8.0 UNITS (SEE PLANT LIST BELOW)

Tree Calculations

ACCESS STREET LANDSCAPE STRIP

1 TREE UNIT PER 60 LF OF ACCESS STREET @ 818 LF = 13.6 UNITS REQUIRED

TREE UNITS PROVIDED = 8.0 UNITS (SEE PLANT LIST BELOW)

Shrub Calculations

ACCESS STREET LANDSCAPE STRIP

1 SHRUB PER 5 LF OF ACCESS STREET @ 484 LF = 97 SHRUBS REQUIRED

SHRUBS PROVIDED TO BE PER JACKSON COUNTY REQUIREMENTS

Shrub Calculations

ACCESS STREET LANDSCAPE STRIP

1 SHRUB PER 5 LF OF ACCESS STREET @ 818 LF = 164 SHRUBS REQUIRED

SHRUBS PROVIDED TO BE PER JACKSON COUNTY REQUIREMENTS

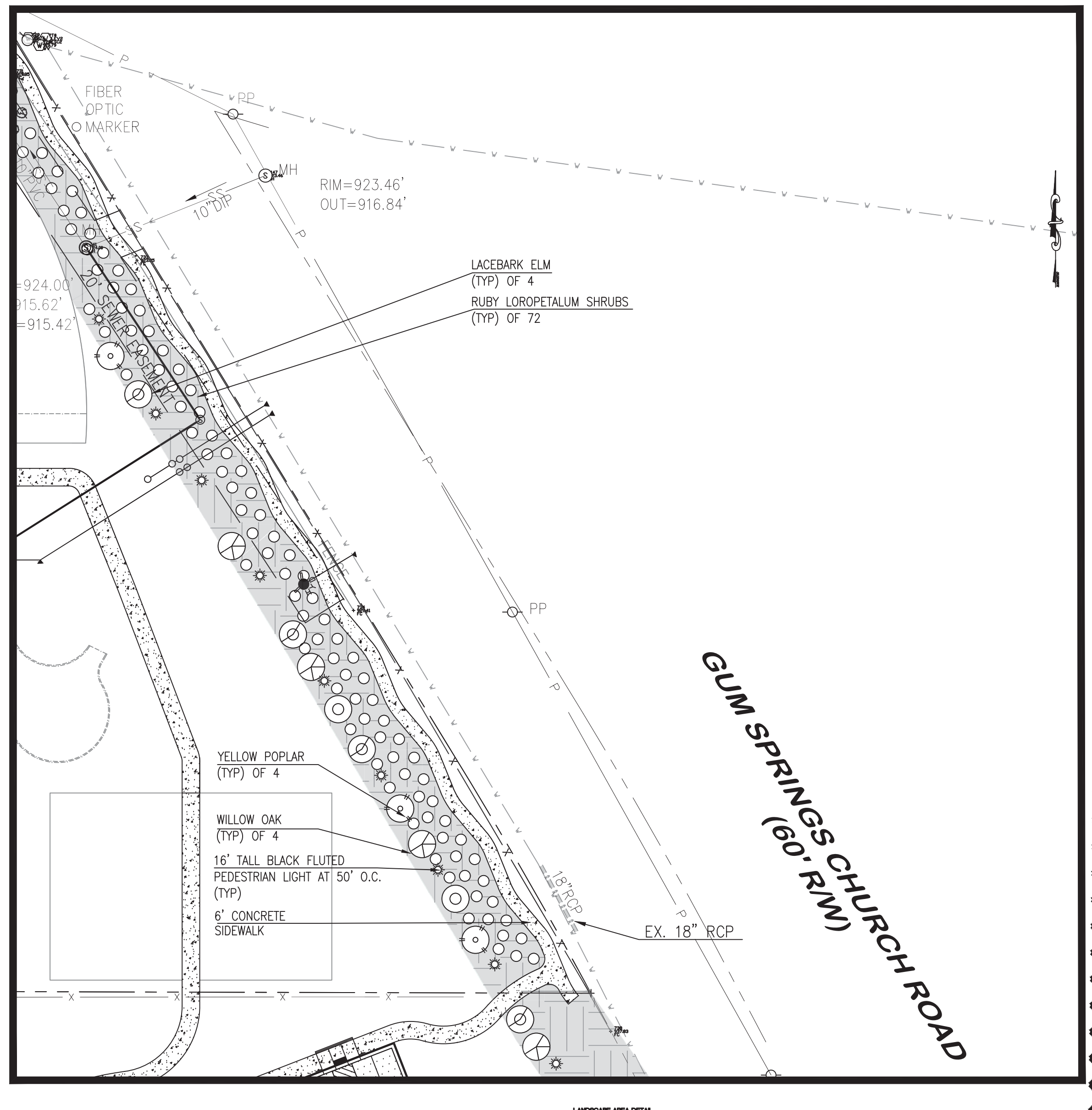
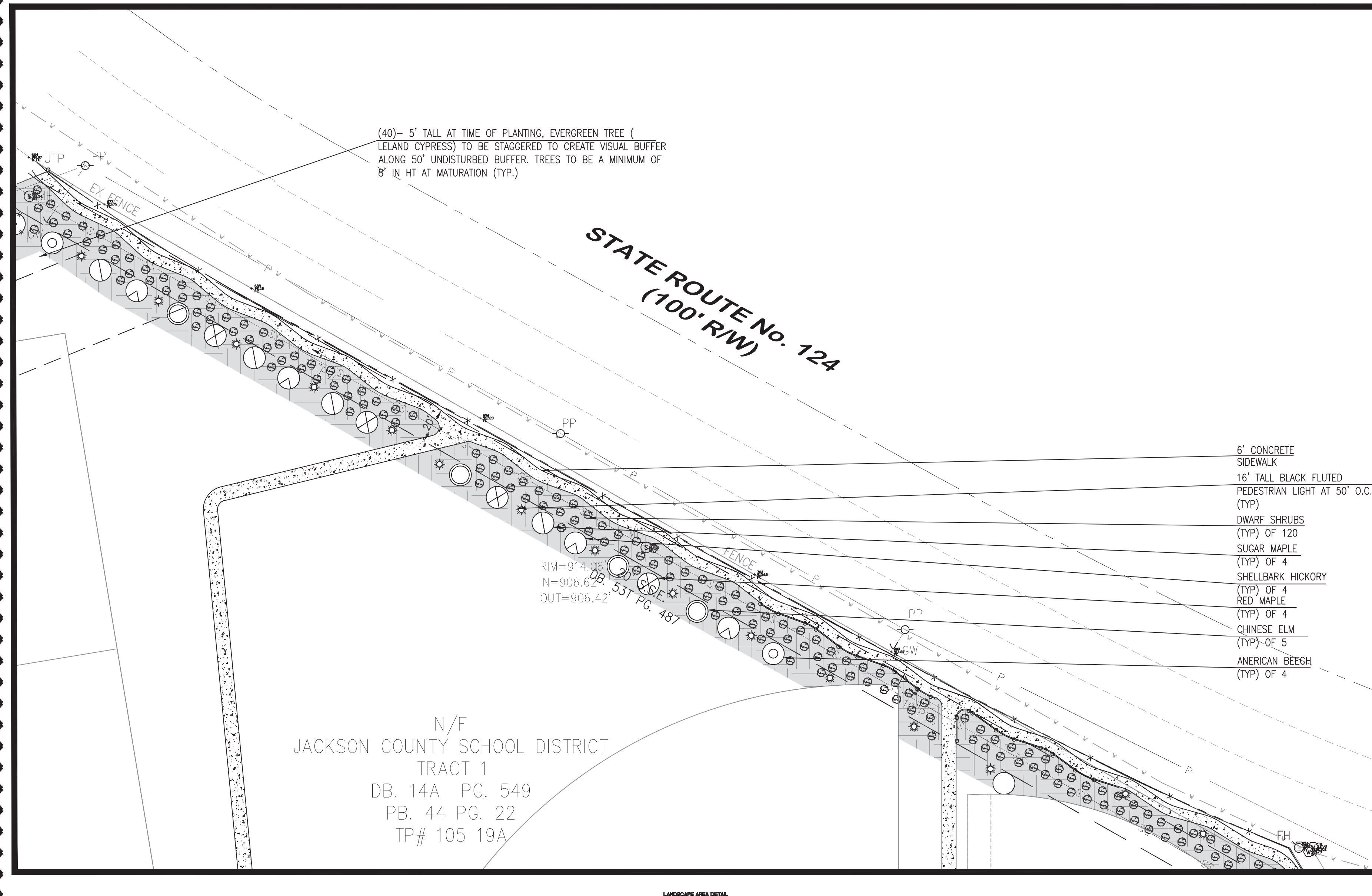
Plant List

SYMBOL	COMMON NAME	BOTANICAL NAME	MIN. SIZE	QUANTITY	%
⊕	YELLOW POPLAR	LIRIODENDRON TULIPIFERA	3 - 3.5" CAL	4	12.5
⊕	SHELLBARK HICKORY	CARYA LACINIOSA	3 - 3.5" CAL	4	12.5
⊕	SUGAR MAPLE	ACER SACCHARUM	3 - 3.5" CAL	4	12.5
⊕	LACEBARK ELM	ULMUS PARVIFOLIA	3 - 3.5" CAL	4	12.5
⊕	AMERICAN BEECH	FAGUS GRANDIFOLIA	3 - 3.5" CAL	4	12.5
⊕	CHINESE ELM	ULMUS PARMIFLORA	3 - 3.5" CAL	4	12.5
⊕	RED MAPLE	ACER RUBRUM	3 - 3.5" CAL	4	12.5
⊕	WILLOW OAK	QUERCUS PHELLOS	3 - 3.5" CAL	4	12.5
○	RUBY LOROPETALUM SHRUBS			72	
⊗	DWARF SHRUBS			120	
				192	100%

- ### Landscaping Notes:
- CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF PLANT MATERIAL ACCORDING TO DRAWINGS.
 - MAINTAIN ALL PLANTS SHALL BE MAINTAINED TO REMAIN ALIVE, HEALTHY AND IN THRIVING CONDITION FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.
 - PLANTS SHALL BE SPECIMEN QUALITY. PLANTS SHALL SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF.
 - HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO THE MAIN BODY OF THE PLANT AND NOT FROM THE BRANCH TIP TO TIP. IF A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE AS LARGE AS THE MAXIMUM SPECIFIED SIZE.
 - SHADE TREES SHALL BE STRAIGHT UNLESS OTHERWISE SPECIFIED.
 - PLANTS SHALL BE SUBJECT TO REVIEW BY OWNER'S REP. OWNER'S REP SHALL BE THE SOLE JUDGE OF THE QUALITY AND ACCEPTABILITY OF MATERIALS AND PLACEMENT.
 - PLANTING PLANS INDICATE DIAGNOSTIC LOCATIONS ONLY. SITE ADJUSTMENTS OF PLANTING DESIGNS AND RELOCATION OF PLANTING MATERIAL INSTALLED PRIOR TO OWNER'S REPRESENTATIVE APPROVAL SHALL BE DONE WITHOUT PENALTY OR ADDITIONAL COST TO THE OWNER. STAKE PLANT LOCATIONS AT SITE AND OBTAIN OWNER REPRESENTATIVE APPROVAL PRIOR TO PLANT INSTALLATION.
 - PLACE PLANTS UPRIGHT AND TURNED SO THAT THE MOST ATTRACTIVE SIDE IS VIEWED.
 - BE FAMILIAR WITH UNDERGROUND UTILITIES BEFORE DIGGING. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO UTILITY LINES.
 - IF DRAINAGE IS NOT SUFFICIENT, NOTIFY OWNER'S REPRESENTATIVE IN WRITING BEFORE INSTALLATION OF PLANTS.
 - OTHERWISE, CONTRACTOR SHALL BE RESPONSIBLE FOR THE GUARANTEE AND LIABILITY OF PLANT.
 - TREES SHALL BE MAINTAINED BY CONTRACTOR UNTIL FINAL ACCEPTANCE.
 - LEAVES MUST BE OF MEDIUM FOLIAGE, 10% CHLOROSIS ALLOWED AND NO EXTREME SUCCOLENCE.
 - ROOTS MUST BE STURDILY ESTABLISHED IN BALL THAT HAS BEEN THOROUGHLY WRAPPED AND SECURELY WRAPPED WITH TWINE, WIRE OR PINNED.
 - WHERE WIRE BASKETS ARE USED ON TREES, CUT WIRE BACK TO BASE OF BALL AND REMOVE FROM PLANTINGS. COST SHALL BE INCLUDED IN THE ITEM LISTED FOR IRRIGATION.
 - IRRIGATION TO BE INSTALLED TO IRRIGATION WATER SUPPLY PER JACKSON COUNTY STANDARD SPECIFICATIONS AND DETAILS.
 - IRRIGATION: BASEBALL FIELDS, ATHLETIC FIELD AND LANDSCAPE BUFFER. CONTRACTOR SHALL GUARANTEE ALL SOG GRASSING AREAS FROM THE DATE OF PROJECT FINAL FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR. REFER TO SHEET C-6.6 FOR SOG AREAS.

FOR BIDDING ONLY

ADDENDUM 1



PO BOX 878
BRASELTON, GA 30017
BR# 100-024-0019
FAX# 706-624-0019

LICENSE # PR0505337
ISSUED 4/1/18
EXPIRES 4/30/22

BMK & CONSTRUCTION & ENGINEERING

REGISTERED PROFESSIONAL ENGINEER
No. 029212
Donald B. Clerici, P.E.

CSWCC LEVEL II
CERTIFICATION # 804

REVISIONS

NO.	DATE	DESCRIPTION
1	4-8-20	JACKSON COUNTY COMMENTS
2	6-11-20	OWNER, JAMES ALJACKSON COUNTY COMMENTS
3	6-11-20	JAMES COMMENTS/ADDITION NO. 1

CONSTRUCTION PLANS FOR:
GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

SHEET TITLE: LANDSCAPE PLAN

SHEET NUMBER: **T-10**

SCALE: SEE PLAN

DATE: 1-10-20

PROJECT NO.