



# Mayor and City Council Regular Meeting

Thursday, April 07, 2022 at 7:00 PM

Dacula City Hall, Council Chambers

442 Harbins Rd. | P.O. Box 400 | Dacula, Georgia 30019 | (770) 963-7451

## Agenda

### **CALL TO ORDER AND ROLL CALL OF MEMBERS:**

### **INVOCATION:**

### **PLEDGE OF ALLEGIANCE:**

### **PROCLAMATION:**

- [1.](#) Georgia Cities Week Announcement

### **CONSENT AGENDA:**

- [2.](#) Approval of the Minutes from the Regular Meeting on March 3, 2022
- [3.](#) Approval of the Minutes from the Executive Session Meeting on March 6, 2022
- [4.](#) Approval of the Minutes from the Executive Session Meeting on March 10, 2022
- [5.](#) Approval of the Minutes from the Special Called Meeting on April 1, 2022
- [6.](#) Fee Schedule Update
- [7.](#) Commercial Sanitation Agreement
- [8.](#) Bid package for Second Avenue Storm Drainage Project
- [9.](#) McMillan Road Stormwater Improvement Proposal
- [10.](#) City Hall Sewer Connection Proposal
- [11.](#) Maple Creek Park Improvement Proposal

### **OLD BUSINESS:**

### **NEW BUSINESS:**

- [12.](#) Ordinance to amend Chapter 10, Article VI - Post-Construction Stormwater Management for New Development and Redevelopment

### **STAFF COMMENTS:**

### **MAYOR AND COUNCIL COMMENT(S):**

### **PUBLIC COMMENTS:**

**ADJOURNMENT:**

**GEORGIA CITIES WEEK  
APRIL 24-30, 2022**

**A RESOLUTION OF THE CITY OF DACULA RECOGNIZING GEORGIA CITIES WEEK, APRIL 24-30, 2022, AND ENCOURAGING ALL RESIDENTS TO SUPPORT THE CELEBRATION AND CORRESPONDING ACTIVITIES.**

**WHEREAS**, city government is the closest to most citizens, and the one within the most direct daily impact upon its residents; and

**WHEREAS**, city government is administered for and by its citizens, and is dependent upon public commitment to and understanding of its many responsibilities; and

**WHEREAS**, city government officials and employees share the responsibility to pass along their understanding of public services and their benefits; and

**WHEREAS**, Georgia Cities Week is a very important time to recognize the important role played by city government in our lives; and

**WHEREAS**, this week offers an important opportunity to spread the word to all the citizens of Georgia that they can shape and influence this branch of government which is closest to the people; and

**WHEREAS**, the Georgia Municipal Association and its member cities have joined together to teach students and other citizens about municipal government through a variety of different projects and information; and

**WHEREAS**, Georgia Cities Week offers an important opportunity to convey to all the citizens of Georgia that they can shape and influence government through their civic involvement.

**NOW THEREFORE: I, HUGH D. KING III**, by virtue of the authority vested in me as Mayor of City of Dacula, Georgia, do hereby proclaim:

*APRIL 24-30, 2022 AS GEORGIA CITIES WEEK*

IN WITNESS THEREOF, I have hereunto set my hand and caused the Seal of the City of Dacula to be affixed this 7<sup>th</sup> day of April in the year of our Lord, Two Thousand and Twenty Two.



*Hugh D. King III*  
\_\_\_\_\_  
Hugh D. King III  
City of Dacula, Georgia

Attest:

*Heather Coggins*  
\_\_\_\_\_  
Heather Coggins, Acting City Administrator  
City of Dacula, Georgia

**CITY OF DACULA**  
442 Harbins Rd  
P. O. Box 400  
Dacula, GA, 30019

**COUNCIL MEETING**  
**MINUTES**  
March 3, 2022

**I. CALL TO ORDER AND ROLL CALL OF MEMBERS:**

Mayor Trey King called the March 3, 2022 Council Meeting to order at 7:00 p.m. and roll call of the members was taken. A quorum was present. He welcomed everyone to the meeting.

**City Council Present**

Trey King, Mayor  
Daniel Spain, Council  
Ann Mitchell, Council  
Denis W. Haynes, Jr., Council

*Sean Williams, Council – Absent*

**City Staff Present**

Heather Coggins, Acting City Administrator  
Brittni Nix, Director of Planning & Economic Development  
Courtney Mahady, Administrative Clerk  
Dana Stump, Administrative Assistant for Planning & Development  
Lisa Hyman, Tax Clerk  
Amy White, City Marshal  
Chris Parks, Public Works Supervisor  
Bliss Maddox, Deputy Director of Public Works

**II. INVOCATION:**

Invocation was given by Pastor Mark Chandler.

**III. PLEDGE OF ALLEGIANCE:**

Mayor King led the Pledge of Allegiance.

**IV. CONSENT AGENDA:**

1. Approval of the Minutes from the Regular Meeting on February 3, 2022
2. Approval of the Minutes from the Executive Session Meeting on February 5, 2022



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Councilman Haynes, Jr. motioned made to approve Consent Agenda items. Councilman Spain seconded. Motion passed unanimously.

**V. OLD BUSINESS:**

*None*

**VI. NEW BUSINESS:**

**3. PUBLIC HEARING: Ordinance to amend Article IX and Article XII of the Zoning Resolution**

Councilwoman Mitchell motioned to open the public hearing. Councilman Spain seconded. Motion passed unanimously.

Director of Planning & Economic Development, Brittini Nix, presented the staff report for the Ordinance to amend Article IX and Article XII of the Zoning Resolution.

*Comment in opposition:*

David Stone, 2491 2<sup>nd</sup> Avenue, Dacula, Georgia, 30019, suggested that they city should keep the number of rentals allowed in an HOA neighborhood to 10% and not 20% because it is hard for HOA members to change later.

Ms. Nix clarified that the ordinance change would be for newly established Homeowner's Associations and would not impact already established HOA's.

Councilman Spain motioned to close the public hearing. Councilman Haynes, Jr. seconded. Motion passed unanimously.

**4. Ordinance to amend Article IX and Article XII of the Zoning Resolution**

Mayor King called for a motion to approve or deny the Ordinance to amend Article IX and Article XII of the Zoning Resolution.

Councilwoman Mitchell motioned to approve. Councilman Haynes, Jr. seconded. Motion passed unanimously.

**5. Ordinance to amend the Development Regulations of the City of Dacula**

Mayor King called for a motion to approve or deny the Ordinance to amend the Development Regulations of the City of Dacula.

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Councilman Spain motioned to approve. Councilman Haynes, Jr. seconded. Motion passed unanimously.

### **6. Ordinance to amend Chapter 26, Article VI - Parking Regulations**

Mayor King called for a motion to approve or deny the Ordinance to amend Chapter 26, Article VI – Parking Regulations.

Councilman Haynes, Jr. motioned to approve. Councilwoman Mitchell seconded. Motion passed unanimously.

### **7. Waiver Application: 2022-Waiver-01**

Mayor King called for a motion to approve with staff's recommended five (5) conditions or deny the waiver application 2022-WAIVER-01.

Councilwoman Mitchell motioned to approve the waiver application with five (5) conditions. Councilman Spain seconded. Motion passed unanimously.

- 1) Strength of Concrete Mix shall be increased to 4,000 psi.
- 2) Rebar grid shall be provided for entire concrete patch thickness that is less than the required 8" thickness.
- 3) Reduced concrete patch thickness is limited to just the area over the proposed 18" storm drainage pipe. Remaining concrete patch area for trench beyond limits of storm drainage pipe shall be 8" thick and follow Article 7.5.4 for street cut trenches under paving."
- 4) The Applicant must provide a certified stamped letter from a 3<sup>rd</sup> party engineer attesting the specifications approved by the Mayor and City Council have been met.
- 5) A 24-month maintenance bond / surety at 100% of the construction value will be submitted to the City for the roadwork performed on Drowning Creek Road. The maintenance bond / surety will be submitted to the Planning and Development Department for review. The maintenance bond / surety must be accepted prior to permit approval for the subject street cut trench under paving.

### **8. Proposal to prepare the 2023 Community Development Block Grant Application**

Mayor King called for a motion to approve or deny the proposal from Bowman Consulting Group Ltd. to prepare the 2023 Community Development Block Grant Application in the amount of \$7,200.

Councilman Haynes, Jr. motioned to approve. Councilman Spain seconded. Motion passed unanimously.

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**VII. ARPA UPDATE:**

**9. Sewer tie-in**

Director of Planning & Economic Development, Brittini Nix, presented an update to the Mayor and Council about the Dacula City Hall sewer tie-in.. Ms. Nix stated that the City has asked Precision Planning Inc. to prepare a design proposal for the project as they designed the sewer line for Gwinnett County and have knowledge of the project.

**10. McMillan Road Stormwater Repair**

Director of Planning & Economic Development, Brittini Nix, presented an update to the Mayor and Council regarding the McMillan Road Stormwater Repair project. Ms. Nix stated that Bowman Consulting Group Ltd. is actively working on a proposal contract for design and bid administration to correct the stormwater issues that McMillan Road experiences. The proposal should be on the April City Council agenda.

**11. Broadband**

Acting City Administrator, Heather Coggins, presented an update to the Mayor and Council regarding the lack of broadband in certain areas of the city. Ms. Coggins stated that with ARPA funding, the city plans to get broadband to the Dacula Maintenance Facility as well as Maple Creek Park.

**VIII. STAFF COMMENTS:**

*None*

**IX. MAYOR AND COUNCIL COMMENT(S):**

Ann Mitchell stated that the city is hosting Coffee with the Council on Thursday, March 24, 2022 from 10 a.m. to 12 p.m. at TradeWind Coffee Co. for citizens to have some casual conversation with their City leaders.

**X. PUBLIC COMMENTS:**

David Stone, 2491 2<sup>nd</sup> Avenue, Dacula, Georgia, 30019, stated that he has had to pay for repairs on the backflow preventers every year due to constant utility company activity in the alleyway. He then stated several concerns regarding the drainage project on 2<sup>nd</sup> Avenue and advised how grading could make the outcome successful. Mr. Stone asked that once the drainage project began would the city please preserve the historic rock wall located behind the buildings of 2<sup>nd</sup> Avenue.

Graham Arnold, 2675 Dacula Ridge Drive, Dacula, Georgia, 30019, expressed that he would like the streets in his neighborhood repaved.

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Wade Anthony, 1717 Rolling View Way, Dacula, Georgia, 30019, inquired about the amount for the 2023 CDBG application. Mr. Anthony then asked how the traffic pattern was going to be improved after Inland Pass was constructed.

**XI. ADJOURNMENT:**

Councilman Spain motioned to adjourn. Councilman Haynes, Jr. seconded. Motion passed unanimously. Meeting adjourned at 7:31 p.m.

*Minutes approved*

\_\_\_\_\_

*Date*

\_\_\_\_\_

*Signature*

**CITY OF DACULA**

442 Harbins Rd  
P. O. Box 400  
Dacula, GA, 30019

**COUNCIL MEETING MINUTES  
SPECIAL CALLED MEETING  
March 6, 2022**

**I. CALL TO ORDER AND ROLL CALL OF MEMBERS:**

Mayor King called the March 6, 2022 Special Called City Council Meeting to order at 3:30 p.m. and a roll call of the members was taken. A quorum was present.

**Council Members Present:**

- Trey King, Mayor
- Sean Williams, Council
- Daniel Spain, Council
- Ann Mitchell, Council
- Denis W. Haynes, Jr., Council

**II. NEW BUSINESS:**

The Mayor announced the purpose of the meeting to interview one candidate for employment with the City. Upon a motion duly made and seconded, the Council adjourned into executive session to conduct the interview.

After completion of the interview, upon a motion duly made and seconded, the Council voted unanimously to return to regular session. The Mayor reported there were no votes taken in executive session. The Council met to discuss personnel issues as allowed by the Open Meetings Act. The original documents required by State law were signed and delivered to the staff in accordance with the Open Meetings Act.

**III. ADJOURNMENT:**

Councilman Spain motioned to adjourn. Councilwoman Mitchell seconded. The motion carried unanimously. The meeting adjourned at 4:45 p.m.

*Minutes approved*

\_\_\_\_\_

*Date*

\_\_\_\_\_

*Signature*

**CITY OF DACULA**

442 Harbins Rd  
P. O. Box 400  
Dacula, GA, 30019

**COUNCIL MEETING MINUTES  
SPECIAL CALLED MEETING**

**March 10, 2022**

**I. CALL TO ORDER AND ROLL CALL OF MEMBERS:**

Mayor King called the March 10, 2022 special called City Council Meeting to order at 4:35 p.m. and a roll call of the members was taken. A quorum was present.

**Council Members Present:**

Trey King, Mayor  
Sean Williams, Council  
Daniel Spain, Council  
Ann Mitchell, Council  
Denis W. Haynes, Jr., Council

**City Staff Present:**

Jack Wilson, City Attorney

**II. NEW BUSINESS:**

The Mayor announced the purpose of the meeting to discuss potential hiring of a new employee. After a motion duly made and seconded, the Council voted unanimously to adjourn into executive session to discuss this personnel matter. At the conclusion of the executive session, upon a motion duly made and seconded, the Council voted unanimously to return to regular session. The City Attorney reported there were no votes taken in executive session. The Council met to discuss one personnel matter as allowed by the Open Meetings Act. The original documents required by State law were signed and delivered to the staff in accordance with the Open Meetings Act.

**III. ADJOURNMENT:**

Councilman Spain moved to adjourn. Councilman Williams seconded. The motion carried unanimously. The meeting adjourned at 5:39 p.m.

*Minutes approved*

\_\_\_\_\_

*Date*

\_\_\_\_\_

*Signature*

# CITY OF DACULA

442 Harbins Rd  
P. O. Box 400  
Dacula, GA, 30019

## SPECIAL CALLED COUNCIL MEETING MINUTES

April 1, 2022

### **I. CALL TO ORDER AND ROLL CALL OF MEMBERS:**

Mayor King called the April 1, 2022 Special Called Council Meeting to order at 4:02 p.m. and a roll call of the members was taken. A quorum was present.

#### **City Council Present:**

Trey King, Mayor  
Sean Williams, Council  
Daniel Spain, Council  
Ann Mitchell, Council

*Denis W. Haynes, Jr., Council – Absent*

#### **City Staff Present:**

Heather Coggins, Acting City Administrator  
Brittini Nix, Director of Planning & Economic Developemtn  
Courtney Mahady, Administrative Clerk  
Greg Chapel, City Marshal

### **II. INVOCATION:**

Mayor King gave invocation.

### **III. PLEDGE OF ALLEGIANCE:**

Mayor King led the Pledge of Allegiance.

### **IV. NEW BUSINESS:**

#### **1. 2023 CDBG Resolution**

Mayor King called for a motion to approve or deny the 2023 CDBG Resolution and to allow the Mayor to execute any necessary documents.

Councilwoman Mitchell motioned to approve. Councilman Spain seconded. Motion passed unanimously.



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**V. MEMBER COMMENT / QUESTIONS:**

Ann Mitchell thanked city staff for their help with a successful Coffee with the Council.

**VI. ADJOURNMENT:**

Councilman Williams motioned to adjourn. Councilman Spain seconded. Motion passed unanimously. Meeting adjourned at 4:05 p.m.

*Minutes approved*

\_\_\_\_\_

*Date*

\_\_\_\_\_

*Signature*

# memo



To: Mayor & City Council  
From: Heather Coggins, Acting City Administrator  
Date: March 16, 2022  
Re: Commercial Sanitation Fee Schedule

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Attached is a draft fee schedule for commercial sanitation customers in the City of Dacula. This year, the City has absorbed a 19.5% increase in tonnage fees for solid waste disposal at the transfer station in Lawrenceville.

In addition, recycling is \$70.50 per ton and the City continues to maintain this service at no additional cost to the consumer.

Currently, the City has less than 20 commercial customers which includes some new customers that wish to use the City's service. Most of these customers do not and would not require the allotted 6 trash cans per business. Therefore, a sliding scale has been proposed which would allow businesses to only pay for the cans that will be utilized.

This scale is as follows:

- 1-2 Trash + 1 Recycle (+1 upon request) \$445/yr. or \$37.09/mo.
- 3-4 Trash + 1 Recycle (+1 upon request) \$645/yr. or \$53.75/mo.
- 5-6 Trash + 1 Recycle (+1 upon request) \$845/yr. or \$70.42/mo.

If approved this fee schedule would be implemented as agreements are reached with existing and new commercial business locations.

	A	B	C	D
1	<b>CITY OF DACULA - SCHEDULE OF FEES (PROPOSED)</b>			
2				
3				
4				
5	<b>ADMINISTRATIVE FEES</b>			
6	Re-Issue of Placard	\$	10.00	
7	Re-Inspection Fees			
8	1st Reinspection	\$	100.00	
9	2nd Reinspection	\$	50.00	
10	Annexation Fee	\$	2,250.00	
11	Deannexation Fee	\$	2,250.00	
12	Council Variance	\$	375.00	
13	Special Exception	\$	375.00	
14	Administrative Variance	\$225.00 + \$25.00 each additional on the same property		
15	Special Use Permit	*same as rezoning fees (See Page Five (5))		
16	Temporary Use Permit		\$50.00	
17	Canvasser and Solicitor Permit	\$	25 per day	
18	Mobile Food Unit Permit	\$	50.00	
19	Production Permit	\$	100 per day	
20	Vending Machine Permit	\$	150 per year	
21	Transfer of Occupational Tax Certificate	\$	20.00	
22	Zoning Certification Letter	\$	50.00	
23	Zoning Map	\$	25.00	
24	All Copies	\$	0.10 per page	
25	Credit Card Fee		0.05%	
26	Bounced Check Fee	\$	10.00	
27				
28				
29				
30	<b>Page 2</b>			
31	<b>BUILDING PERMIT FEES</b>			
32	<u>Permit Fees (Plus any Review Fees)</u>			
33				
34	One & Two-Family Residential & Additions	\$7.00/1,000 + \$125.00 Administrative fee		
35				
36	"Commercial" Structure			
37	(defined as any principal building which is not			
38	either a single-family or duplex dwelling			
39		\$7.00/1,000 + \$125.00 Administrative fee		
40	Interior Finish	\$7.00/1,000 + \$125.00 Administrative fee		
41				

	A	B	C	D
42	Shell	\$7.00/1,000 + \$125.00 Administrative fee		
43				
44	<b>ALL OTHER STRUCTURES</b>			
45	Fence Permit	\$	25.00	
46	Temporary Trailer (Construction / Classroom)	\$	450.00	
47	Temporary Pole Permit	\$	50.00	
48	Retaining Wall	\$7.00/1,000 + \$125.00 Administrative fee		
49	Portable Building (Residential)	\$	150.00	
50	Temporary Tents	\$	75.00	
51	Towers and Antenna	\$7.00/1,000 + \$125 Administrative fee		
52	Mobile Home Permits	\$	750.00	
53	Swimming Pool Permit (In Ground) (Residential)	\$	125.00	
54	Satellite Dish System (AC Powered)	\$	110.00	
55	Demolition Permit	\$	200.00	
56	Housing Relocation Permit	\$200.00 + \$200.00 Bond		
57	Temporary Gas/Power Connection	\$	75.00	
58	Vacant Structure Permit	\$	200.00	
59	Utility Accommodation Permit	\$	500.00	
60				
61	Permit Fee after work has begun	Double Required Fee		
62	<b>Page 3</b>			
63	<b>SIGN PERMITS</b>			
64	(1 to 32 sq ft)	\$	107.00	
65	(33 to 64 sq ft)	\$	139.00	
66	(65 to 100 sq ft)	\$	175.00	
67	(101 to 128 sq ft)	\$	353.00	
68	Temporary permit (30 days)	\$	30.00	
69	Off-Premise Sign	\$	55.00	
70				
71	<b>AFFIDAVITS</b>			
72	HVAC, Electrical, Plumbing Only Permits	\$ 50.00 (Residential Only)		
73	HVAC, Electrical, Plumbing Affidavits	\$ 75.00 (Commercial)		
74	Georgia State Energy Code Affidavits	\$ 75.00 (Commercial)		
75				
76	<b>RE-PERMITTING FEES (After Expiration Date)</b>			
77	Single Family	Full Charge		
78	Non-Residential/Multi-Family	Full Charge		
79	All others	Full Charge		
80	After Revocation	Full Charge		
81				
82	<b>CERTIFICATE OF OCCUPANCY FEES</b>			

	A	B	C	D
83	Single Family	\$ 100.00		
84	Duplex	\$ 100.00		
85	Multi-Family/Apartments	\$ 100.00		
86	Townhome/Condominium	\$ 100.00		
87	Commercial	\$ 300.00		
88	Temporary/Conditional C.O.	\$ 100.00		
89	Certificate of Completion	\$ 100.00		
90	Swimming Pool	\$ 100.00		
91	Compliance Inspection - Structure	\$ 100.00		
92	Compliance Inspection - Trade	\$ 100.00		
93				
94				
95				
96	<b>Page 4</b>			
97	<b>PLAN REVIEW FEES</b>			
98	Tree Protection Plan	\$ 1,000.00		
99	Buffer & Landscape Plan	\$ 1,000.00		
100	Exemption Plats/Lot Splits	\$ 1,000.00		
101	Clearing & Grubbing Plan	\$ 1,000.00		
102	Grading Plan	\$ 1,000.00		
103	Grading - Earth Borrow Sites	\$ 525.00		
104	Concept Plan (Residential)	\$ 525.00		
105	Concept Plan (Commercial)	\$ 525.00		
106	Preliminary Plat (Residential Subdivision)	\$ 2,500.00 or \$15.00 per lot, whichever is greater		
107	Site Plan (Commercial)	0-5 acres = \$1,500.00, 5-10 acres = \$2,500.00,		
108		10-20 acres = \$3,500.00, 20 acres or greater = \$4,500.00		
109				
110	Final Plat	\$ 2,000.00 or \$15.00 a lot, whichever is greater		
111	Final Plat Filing Fee	Residential - \$10.00 (per lot)		
112		Commercial - \$50.00 (per lot)		
113				
114	Re-review of any plan after 2nd resubmittal	25% of original fee		
115	Revision of Plan/Plat (After initial approval)	25% of original fee		
116	Convenience Fee (3rd party plan review)	Same as subject plan review fee		
117				
118	Interior Finish Review Fee	\$ 1,000.00		
119				
120	<b>BUILDING PLAN REVIEW FEES</b>	<i>(2 COPIES OF PLANS)(16 COPIES OF RECORDED PLAT)</i>		
121	Multi-Family and Non-Residential	(5,000sf or less) = \$1,500.00, (5,000 - 10,000sf) = \$2,500.00,		
122		(10,000 - 30,000sf) = \$3,500.00, (Greater than 30,000sf) = \$5,000.00		
123	Residential (Required for 3,000 Sq. Ft. or Greater)	\$ 525.00		

	A	B	C	D
124	Structural Wall Review Fee	City's Cost + \$125 Administrative Fee		
125	Specialized Review Fee	City's Cost + \$125 Administrative Fee		
126	Maximum Review Fee	\$	5,000.00	
127				
128	<b>LAND DISTURBANCE PERMIT FEES</b>			
129	Clearing Permit - no land disturbances	Residential \$15.00/acre or \$300.00 whichever is greater		
130		Commercial \$15.00/acre or \$300.00 whichever is greater		
131				
132	Clearing & Grubbing Permit	Residential \$15.00/acre or \$300.00 whichever is greater		
133		Commercial \$15.00/acre or \$300.00 whichever is greater		
134				
135	Grading Permit	Residential \$75.00/acre or \$2,000.00 whichever is greater		
136		Commercial \$75.00/acre or \$2,000.00 whichever is greater		
137				
138	Development Permit	Residential S/D \$25.00/lot or \$2,000.00 whichever is greater		
139		Multi-Family Residential \$10.00/unit or \$2,000.00 whichever is greater		
140		Non-Residential S/D \$50.00/acre or \$3,000.00 whichever is greater		
141				
142				
143	<b>Page 5</b>			
144				
145	<b>REZONING</b>			
146	AG, R-1100, R-1200, R-1400, R-1600, TRD			
147				
148	<u>Base Fee</u>			
149	0-5 acres	\$	500.00	
150	5-10 acres	\$	750.00	
151	10-20 acres	\$	1,000.00	
152	20-50 acres	\$	1,500.00	
153	50 plus acres	\$ 2,000.00 plus \$30.00 per each acre over 50		
154	Maximum fee	\$	3,000.00	
155				
156	R-TH, R-SR, R-MD, MH			
157				
158	<u>Base Fee</u>			
159	0-5 acres	\$	1,000.00	
160	5-10 acres	\$	1,500.00	
161	10-20 acres	\$	2,000.00	
162	20-50 acres	\$	3,000.00	
163	50 plus acres	\$ 4,000.00 plus \$40.00 per each acre over 50		
164	Maximum fee	\$	5,000.00	

	A	B	C	D
165				
166	C-1, C-2, C-3, O-I, M-1, M-2, PMUD			
167				
168	<b>Base Fee</b>			
169	0-5 acres	\$ 1,000.00		
170	5-10 acres	\$ 1,500.00		
171	10-20 acres	\$ 2,000.00		
172	20-50 acres	\$ 3,000.00		
173	50 plus acres	\$ 4,000.00 plus \$50.00 per each acre over 50		
174	Maximum fee	\$ 5,000.00		
175				
176	<b>Page 6</b>			
177	<b>SANITATION FEES</b>			
178				
179	Residential Sanitation	\$ 228.00/year for 1-2 cans		
180	Commercial Sanitation	\$ 445.00/year for 1-2 cans		
181		\$ 645.00/year for 3-4 cans		
182		\$ 845.00/year for 5-6 cans		
183	Recycling	Free		
184	Removing Appliances	\$ 25.00 per appliance		
185	Leaf Removal	Free		
186	Limb Chipping	\$ 30.00 per 1/2 hour		
187	Mattress / Box Spring	\$ 25.00 per item		
188	Bulk Item	Call for Pricing		
189	Trash Can	\$ 55.00 per 95 Gallon can		
190				
191	Park Reservations	Free to City Residents		
192		\$ 35.00 for 4 hours for nonresidents		



# memo



To: Mayor & City Council  
From: Heather Coggins, Acting City Administrator  
Date: March 16, 2022  
Re: Commercial Sanitation Agreement

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Attached is a draft agreement for commercial sanitation customers in the City of Dacula. Currently, the City has less than 20 commercial businesses that require or have requested the City's services.

If approved, this new contract will be presented to existing and new businesses with the tier schedule as stated in the fee schedule.

**STATE OF GEORGIA**

**GWINNETT COUNTY**

**AGREEMENT**

THIS AGREEMENT (this “Agreement”) is made effective \_\_\_\_\_ 20\_\_ by and between **City of Dacula**, with offices located at 442 Harbins Road, Dacula, Georgia (hereinafter the City) and \_\_\_\_\_, with a location at \_\_\_\_\_ Dacula, Georgia 30019. (hereinafter the Customer)

**RECITALS**

WHEREAS the parties hereto desire to enter into an agreement for the City to collect the Customer’s commercial non-hazardous solid waste; and

WHEREAS, the parties wish to enter into this Agreement to outline the terms for such Service;

NOW THEREFORE, in consideration of the payments and mutual promises and benefits outlined herein, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

**SERVICES, PRICING & PERFORMANCE REPRESENTATIONS.** Customer grants to the City of Dacula, Georgia, hereafter (City), the exclusive right to collect, transport, dispose of and/or recycle the Customer’s non-hazardous solid waste materials including Recyclable materials (collectively, “Waste Materials”).

**PAYMENT.** Customer shall pay City for the services and equipment furnished by City, or its contractor at the rates set forth in this Agreement. The initial annual rate shall be \$\_\_\_\_\_ per year. The initial prorated annual payment shall be due and payable upon the execution of this Agreement. For each subsequent year, Customer shall pay the annual fees due as shown on Customer’s tax bill. Customer shall pay such fees as the City may impose from time to time by notice to Customer, including by way of example only, late payment fees, fuel recovery fee, administrative fees and environmental fees, with City to determine the amounts of such fees in its discretion up to the maximum amount allowed by applicable law. City shall, at its sole discretion, be allowed by Customer to charge a convenience fee for certain credit card payments. Customer shall pay to City a fee of \$10 for each check submitted by Customer that is an insufficient funds check or is returned or dishonored. Customer further agrees that if a merchant processor dispute is initiated, a \$50.00 fee will be imposed by City, in addition to the subject charge. At any time after City becomes concerned about Customer’s creditworthiness or after Customer has made any late payment, City may request, and if requested, Customer shall pay a deposit in an amount equal to one month’s charges under as determined by the City. Customer shall pay interest on any past due invoices equal to the greater of 1 1/2% per month or the maximum lawful rate, until paid in full. If Customer cancels an order after the order has been processed, Customer may be assessed a cancellation fee by City at City’s current rate. **CUSTOMER AUTHORIZES CITY TO COLLECT CHARGES BY ELECTRONIC MEANS, INCLUDING BUT NOT LIMITED TO CREDIT CARD OR ACH PAYMENTS FOR ANY AND ALL CHARGES INCURRED BY CUSTOMER.** Customer hereby accepts City’s policy of no refunds being issued.

**WASTE MATERIALS.** The Waste Materials shall not contain any hazardous materials, wastes or substances; toxic substances, wastes and pollutants; contaminants; infectious waste; medical wastes; or radioactive wastes (collectively, "Excluded Waste"), each as defined by applicable federal, state and local laws or regulations (collectively, "Applicable Laws").

**RATE AND ADJUSTMENTS.** City may, from time to time by notice to Customer, increase the rates provided in this Agreement to adjust for any increase due to; (a) a change in location of Customer or the disposal facility used by City or its contractor; (b) Disposal costs; (c) City's actual costs due to changes in Applicable Governmental fees or taxes; (d) The average weight per cubic yard of Customer's Waste Materials; (e) The Consumer's Price Index; (f) City or its contractor's change in costs due to changes in applicable laws and overhead. Customer also acknowledges that the City is managing the listed services on the Customer's behalf to reduce the Customer's overall cost for these services and that on certain occasions, a cost reduction either cannot be obtained, or may be delayed or limited due to reasons which are beyond the City's control. These could include but are not limited to; a) Municipal Franchised Areas; b) Existing contracts between the customer and the current services provider, and/or c) special operational circumstances. Customer acknowledges that the City may be required, other than as set forth above, to maintain or increase its rates accordingly, with Customer's consent, which may be evidenced verbally, in writing, electronically, or by the parties' actions and practices.

**SERVICE CHANGES.** The parties may change the type, size or amount of equipment, the type or frequency of service, and correspondingly the rates by agreement of the parties, which may be evidenced verbally, in writing, electronically, or by the parties' actions and practices. This Agreement shall apply to any change of location of Customer within the area in which City provides its services. Customer expressly waives their right to utilize any third party waste management or waste broker to manage any aspect of Customer's waste and or recycling services during the term of this Agreement. City may substitute similar, yet equivalent services and/or containers at \$55.00 per trash container and at no additional cost for recycling containers.

**RESPONSIBILITY FOR EQUIPMENT; ACCESS.** All recycling containers shall be owned by the City and shall remain the City's property. Customer shall be liable for all loss or damage to such equipment (except for normal wear and tear and for loss or damage resulting from City or its contractor's handling of the equipment). Customer shall use the equipment only for its proper and intended purpose and shall not overload the equipment (by weight or volume), move, or alter the equipment without the express written consent of City. Contractor reserves the right to remove (e.g. dump out) materials from its equipment in instances where Contractor determines, in its sole discretion, that its equipment is overloaded, by either weight or volume, or in instances of Customer's nonpayment. Customer is solely and exclusively liable for any and all fees, fines, property damage clean-up costs and/or other costs associated with such removal of materials. Customer shall indemnify, defend and hold harmless City from and against all losses arising from any injury or death to persons or loss or damage to property (including the equipment) arising out of Customer's use, operation or possession of the equipment. Customer shall provide safe, unobstructed access to the equipment at all times. City may charge an additional fee for any additional collection service required by Customer's failure to provide access. If City cannot access the equipment at the time of service (for example, locked gate, blocked access, overloaded) Customer shall pay a two-hundred dollar per hour demurrage fee, prorated every fifteen minutes. Should the City be charged a dig out fee by a landfill, transfer station or other recipient of waste, due to the contents being frozen or otherwise lodged in a container, Customer shall be responsible for paying City a \$150.00 fee.

**DAMAGES.** Customer agrees that excluding any damage caused intentionally or due to gross negligence, City, or the City's contractor shall not be responsible for any damages to Customer's pavement, curbing or other driving surfaces, overhead and/or side objects such as electrical wire, phone lines, overhanging roof lines, walls, corrals, etc., whether such objects are within the Customer's lot line or a neighboring property, resulting from City or its contractor providing service(s) at Customer's location. Customer agrees to defend, indemnify, save and hold harmless, City, officers, employees and agents, to the fullest extent permitted by law, of and from all claims, loss, damage, injury, suits of whatever nature, for personal injury and property damage alleged to arise out of, or any conditions, of the work performed under this contract, that are or may be brought by parties not subject to the terms of this agreement, specifically neighboring real or personal property owners, who allege to have suffered a loss as a result of performing the duties enunciated herein.

**SUSPENSION.** If any amount due from Customer is not paid within 30 days after the date of City's invoice, City may, without notice and without terminating this Agreement, suspend collecting and disposing of Waste Materials until Customer has paid such amount to City. If City service is suspended, Customer shall pay City a temporary service interruption fee in the amount of \$75.00 plus any deposits City deems appropriate in addition to any other amounts due to City under this Agreement. If Customer's service is suspended due to non-payment all past due balances must be paid in full and the Customer must agree to pay future invoices via automatic electronic payments as condition precedents to removal of the suspension.

**TERM.** IF CUSTOMER DOES NOT HAVE AN EXISTING WRITTEN CONTRACT WITH CITY, THEN THE INITIAL TERM OF THIS AGREEMENT SHALL BE EFFECTIVE UPON THE PAYMENT BY CUSTOMER TO CITY OF THE PRORATED ANNUAL SUM DUE AND SHALL CONTINUE FOR TWELVE MONTHS. THIS AGREEMENT SHALL AUTOMATICALLY RENEW FOR SUCCESSIVE TWELVE MONTH TERMS UNLESS EITHER PARTY GIVES NOTICE OF TERMINATION TO THE OTHER AT LEAST THIRTY DAYS BEFORE THE END OF THE THEN CURRENT TERM BY CERTIFIED MAIL, RETURN RECEIPT REQUESTED. CITY MAY TERMINATE THIS AGREEMENT AT ANY TIME WITH 7 DAYS NOTICE TO CUSTOMER. IF CUSTOMER IS PARTY TO A WRITTEN SERVICE AGREEMENT WITH CITY THE TERMS IF THAT AGREEMENT SHALL GOVERN THE TRANSACTION UNLESS THE TERMS ARE MODIFIED AND NOTICE OF SUCH CHANGES PROVIDED BY THE CITY.

**TERMINATION.** In addition to its above suspension rights, City may terminate this Agreement immediately by written notice to Customer if (a) any of the information contained in any application submitted to City in connection with this Agreement is untrue or (b) Customer breaches this Agreement and fails to cure such breach within 10 days after City gives Customer written notice of the breach. City may terminate this agreement at any time with 30 day written notice to Customer. City's failure to suspend service or terminate this Agreement when Customer fails to timely pay or otherwise breaches this Agreement shall not constitute a waiver of City's right to suspend service or terminate this Agreement for any future failure to pay or other breach.

**PAYMENT UPON TERMINATION.** If Customer terminates this Agreement before its expiration other than as a result of an uncured, documented breach by City, or if City terminates this Agreement as a result of a breach by Customer (including nonpayment), the City shall retain the Customer's annual payment. Customer acknowledges that in the event of such a termination, actual damages to City would be uncertain and difficult to ascertain, such amount is the best, reasonable and objective estimate of the actual damages to City, such amount does not constitute a penalty, and such amount is reasonable under the circumstances. Any amount payable under this paragraph shall be in addition to amounts already owing under this Agreement.

**ATTORNEYS' FEES.** If any litigation is commenced to enforce any part of this Agreement, the City shall be entitled to recover, in addition to such other relief as the court may award, its reasonable attorneys' fees, expert witness fees, litigation related expenses, and court or other costs incurred in such litigation or proceeding.

**EXCUSED PERFORMANCE & CURE PERIOD.** Except for Customer's obligation to pay amounts due to City, any failure or delay in performance due to contingencies beyond a party's reasonable control, including strikes, riots, terrorist acts, mechanical failures, compliance with Applicable Laws or governmental orders, fires and other acts of God, shall not constitute a breach of this Agreement. City shall be allowed a reasonable cure period for any performance failures alleged by Customer.

**TITLE.** City and or its contractors shall acquire title to Waste Materials when they are loaded into the City's or City's contractor's truck. Title to and liability for any Excluded Waste and any Waste Materials removed by City due to overloaded equipment shall remain with Customer and shall at no time pass to City or its contractors.

**ASSIGNMENT.** City may assign this Agreement at any time. Customer may assign this Agreement to a successor upon the consent of City, which shall not be unreasonably withheld. By agreeing to Companies "Terms and Conditions" Customer agrees that successors in ownership and or assigns are bound by this agreement.

**MISCELLANEOUS.** This Agreement sets forth the entire agreement of the parties and supersedes all prior agreements, whether written or oral, that may exist between the parties regarding the subject matter of this Agreement. City shall have no confidentiality obligation with respect to any Waste Materials. All calls to and from City are recorded and monitored for record-keeping, training, and quality assurance purposes. This Agreement shall be binding upon and inure solely to the benefit of the parties and their permitted assigns. Customer agrees that it shall not engage in any business activity with any other waste/recycling City that employs a former employee of City for a period of two years after the termination of this Agreement. If any provision of this Agreement shall be invalid, illegal, or unenforceable, it shall be modified to be valid, legal, and enforceable but so as most nearly to retain the intent of the parties. If such modification is not possible, such provision shall be severed from this Agreement. In either case, the validity, legality, and enforceability of the remaining provisions of this Agreement shall not in any way be affected thereby. This Agreement shall be governed by, construed, and enforced in accordance with the laws of the State of Georgia. Customer consents to personal jurisdiction and venue in the courts in Gwinnett County, Georgia. Customer and City agree that electronic signatures are valid and effective, and then an electronically stored copy of this Agreement constitutes proof of the signature and contents of this Agreement, as though it were an original. By signing this agreement Customer agrees to all City Terms and Conditions contained in this agreement and all Terms and Conditions which may be updated and set forth at the City's website.

**OTHER TERMS AND CONDITIONS**

Up to 6 cans (at \$55.00 each) are available plus 2 recycling cans (at no additional charge).

Cans should be out before 7:00 a.m. on their scheduled pick up day and returned to the appropriate storage area on the same day

Cans are to be placed on the private sidewalk on collection day

Recycling is only offered with commercial trash service

No illegal dumping is allowed in any decorative cans on streets or sidewalks Anyone dumping will receive a citation.

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed on the date first above written.

**CITY OF DACULA GEORGIA**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_, 20\_\_\_\_

By: \_\_\_\_\_

Name: Hugh D. King, III

Title: Mayor

Date: \_\_\_\_\_, 20\_\_\_\_

**TO:** Mayor and City Council of the City of Dacula  
**FROM:** Brittni Nix, Director of Planning & Economic Development  
**DATE:** March 25, 2022  
**SUBJECT:** Bid package for 2<sup>nd</sup> Avenue storm drainage project

---

The 2<sup>nd</sup> Avenue storm drainage project bid documents have been finalized and provided for your review. Improvements to appropriately route storm drainage and improve pedestrian safety include the following:

- Installing RCP (reinforced concrete pipe) and HDPE (high density polyethylene) storm pipes
- Installing storm structures including yard inlets and a pedestal top weir inlet
- Fine grading swales along Broad Street and the alley
- Replacing sections of sidewalk
- All disturbed areas will be backfilled, fine graded, and sodded to stabilize the area
- Installing a brick retaining wall with columns, header curb, handrails, and a concrete pad to existing grease trap
- Deep patching deficient sections of 2<sup>nd</sup> Avenue
- Milling and topping 2<sup>nd</sup> Avenue to the limits of the recent paving completed by Gwinnett County

The proposed improvements have an estimated OPCC (Opinion of Probable Construction Cost) of \$227,700. This project is fully funded through 2017 Transportation SPLOST.

Staff requests the Mayor and City Council approve the bid package as provided and grant authorization to solicit for public bids.

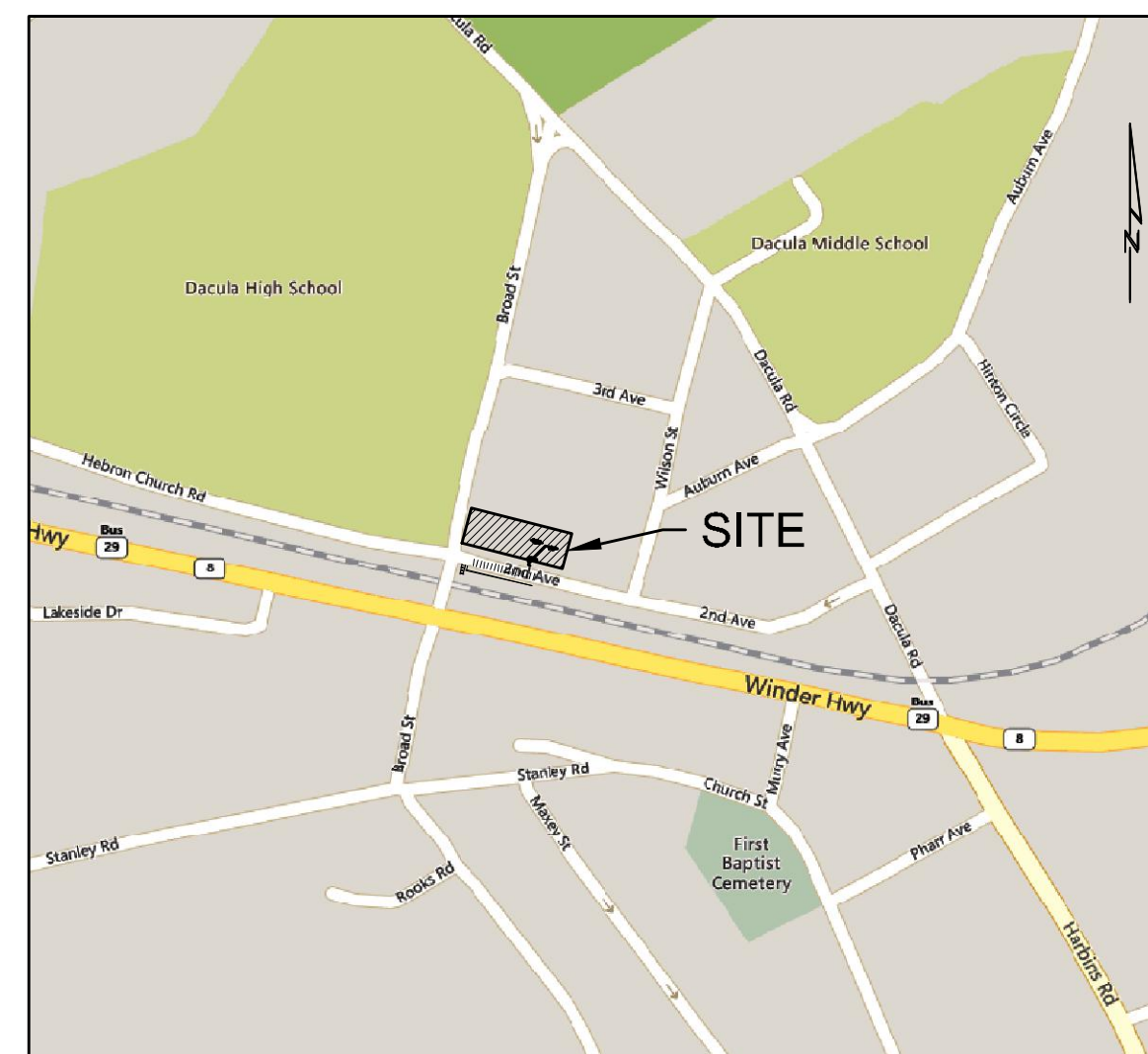
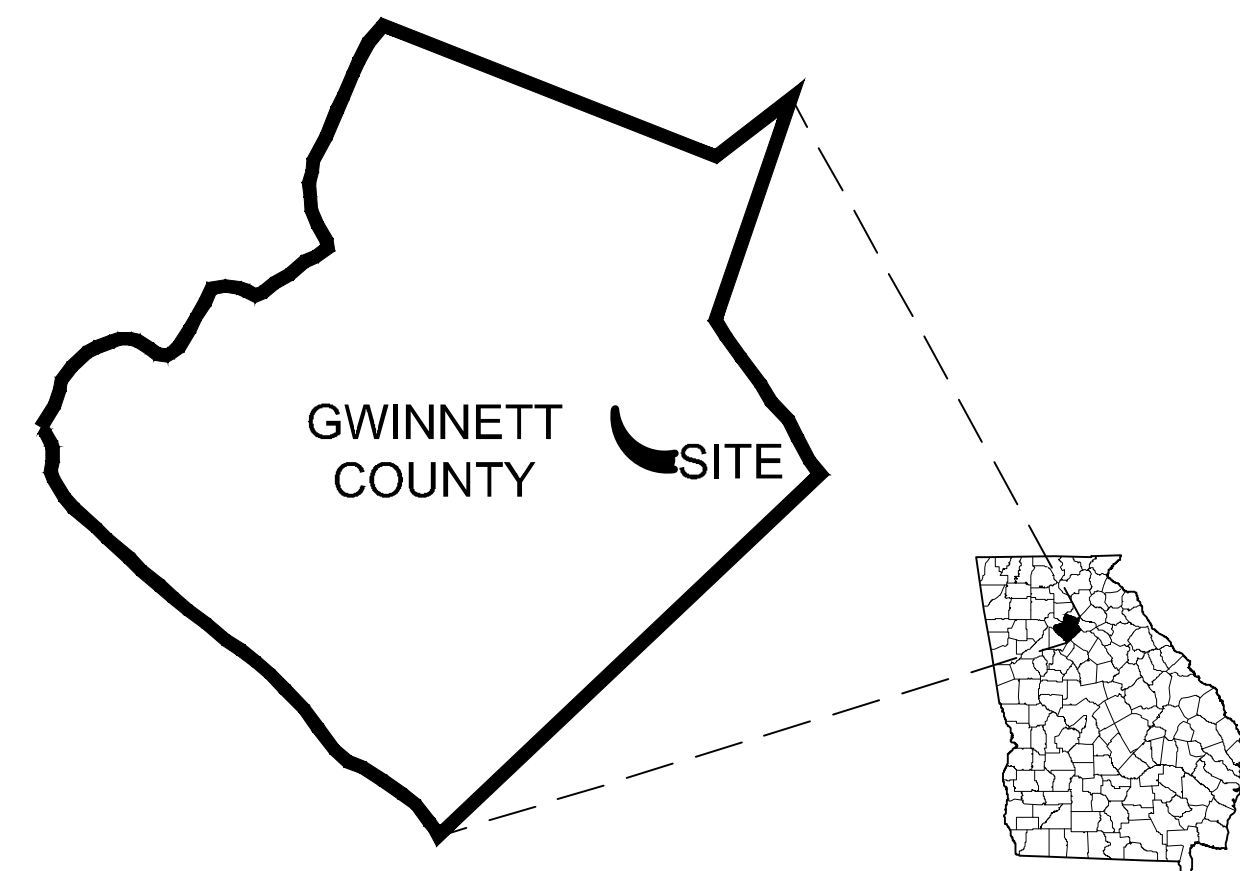
Best Regards,

Brittni Nix, Director of Planning & Economic Development



# CONSTRUCTION DRAWINGS FOR 2ND AVENUE @ BROAD STREET DRAINAGE AND PAVING IMPROVEMENTS PROJECT

DACULA, GEORGIA  
GWINNETT COUNTY  
LAND LOT 302  
5TH DISTRICT



VICINITY MAP  
NOT TO SCALE

DRAWING INDEX		SUBMITTALS		
SH. NO.	SHEET NAME	1	2	3
C000	COVER SHEET			
C100	DEMOLITION PLAN			
C200	SITE PLAN			
C300	GRADING & DRAINAGE PLAN			
C301	STORM PROFILES			
C500	EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES			
C510	EROSION, SEDIMENTATION & POLLUTION CONTROL PHASE I			
C520	EROSION, SEDIMENTATION & POLLUTION CONTROL PHASE II			
C530	EROSION, SEDIMENTATION & POLLUTION CONTROL PHASE III			
C540	EROSION, SEDIMENTATION & POLLUTION CONTROL DETAILS			
C700	DETAILS			
C701	DETAILS			
C702	DETAILS			

**WETLANDS**  
THE DESIGN PROFESSIONAL, WHOSE SEAL APPEARS HEREON, CERTIFIES THE FOLLOWING: 1) THE NATIONAL WETLAND INVENTORY MAPS HAVE BEEN CONSULTED; AND, 2) THE APPROPRIATE PLAN SHEET (1) DOES / (X) DOES NOT INDICATE AREAS OF UNITED STATES ARMY CORPS OF ENGINEERS JURISDICTIONAL WETLANDS AS SHOWN ON THE MAPS; AND, 3) IF WETLANDS ARE INDICATED, THE LAND OWNER OR DEVELOPER HAS BEEN ADVISED THAT LAND DISTURBANCE OF PROTECTED WETLANDS SHALL NOT OCCUR UNLESS THE APPROPRIATE FEDERAL WETLANDS ALTERATION ("SECTION 404") PERMIT HAS BEEN OBTAINED.

**PROJECT DESCRIPTION:**  
THE PROJECT CONSISTS OF MILLING & RETOPPING OF THE PAVEMENT & IMPROVING THE STORM DRAINAGE SYSTEM ALONG 2ND AVENUE AND BROAD STREET

**ENGINEER/SURVEYOR:**  
BOWMAN  
4174 SILVER PEAK PARKWAY  
SUWANEE, GEORGIA 30024  
PH: 770-932-6550 FX: 770-932-6551  
ENGINEER CONTACT: KEVIN D WHIGHAM, P.E. EMAIL: KWhigham@bowman.com  
SURVEY CONTACT: J. CHRIS WHITLEY, P.L.S. EMAIL: CWhitley@bowman.com

**SITE VISIT CERTIFICATION:**  
"I CERTIFY UNDER 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."  
KEVIN D WHIGHAM, P.E. - GSWCC LEVEL II CERTIFICATION #945 EXP: 9/27/2023 DATE

**FLOODPLAIN:**  
PART OF THIS PROPERTY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AREA (SFHA) PER FEMA FIRM PANEL 13135C0062F DATED 9/29/2006.

**STATE WATERS**  
STATE WATERS ARE NOT ON THIS SITE REQUIRING A 25' STATE UNDISTURBED BUFFER, 50' COUNTY UNDISTURBED BUFFER AND 75' IMPERVIOUS SETBACK MEASURED FROM THE TOP OF BANK.  
RECEIVING WATERS HOPKINS CREEK

**SURVEY:**  
THE BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN IS FROM A SURVEY PERFORMED BY BOWMAN DATED MARCH 11, 2022. DATUM, MEAN SEA LEVEL, NAD83 GA WEST FOOT

24 HOUR CONTACT  
CITY OF DACULA  
BRITNI NIX  
BRITNI.NIX@DACULAGA.GOV  
770-963-7451

**811** Know what's below.  
Call before you dig.

**BOWMAN**

4174 SILVER PEAK PARKWAY  
SUWANEE, GEORGIA 30024  
PHONE: (770) 932-6550  
FAX: (770) 932-6551  
WWW.BOWMAN.COM

CITY OF DACULA

P.O. BOX 400  
DACULA, GEORGIA 30019

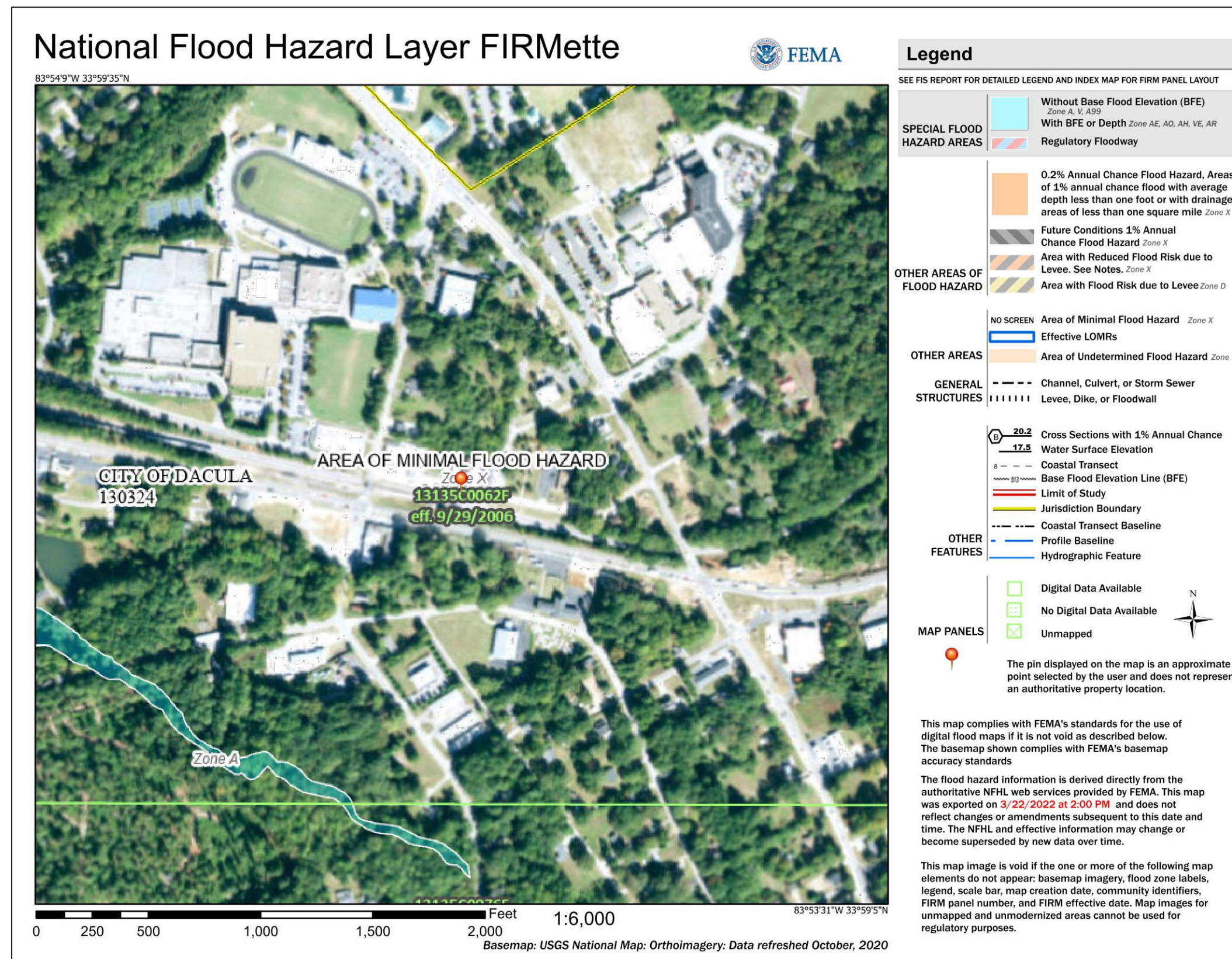
PROJECT:  
2ND AVENUE @ BROAD STREET  
DRAINAGE AND PAVING  
IMPROVEMENTS PROJECT

DISRICT: 5  
LANDLOT: 302  
GWINNETT COUNTY, GEORGIA

DATE	DESCRIPTION
9/25/2022	PLAN REVIEW

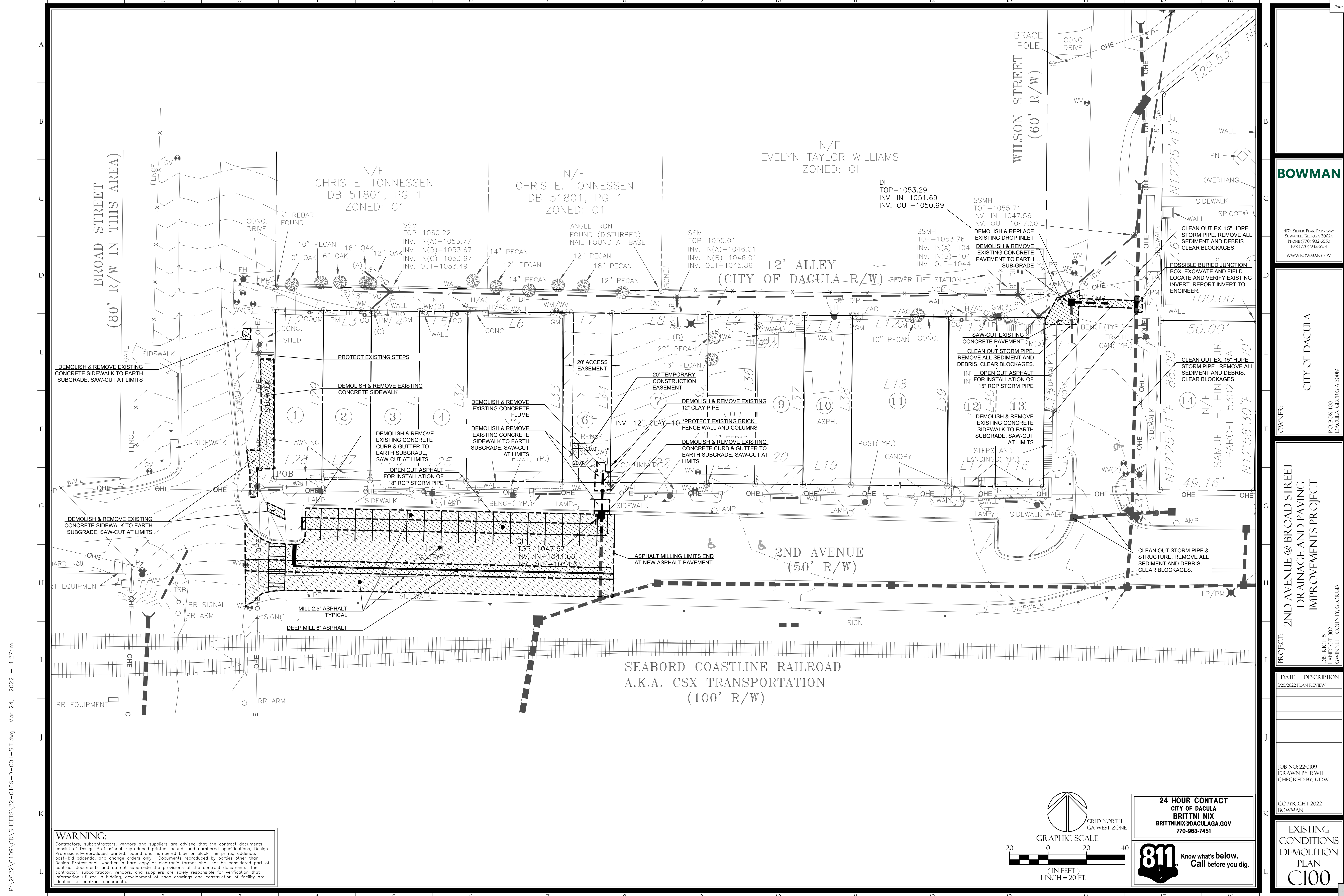
JOB NO: 22-0109  
DRAWN BY: RW11  
CHECKED BY: KDW

COVER SHEET  
C000



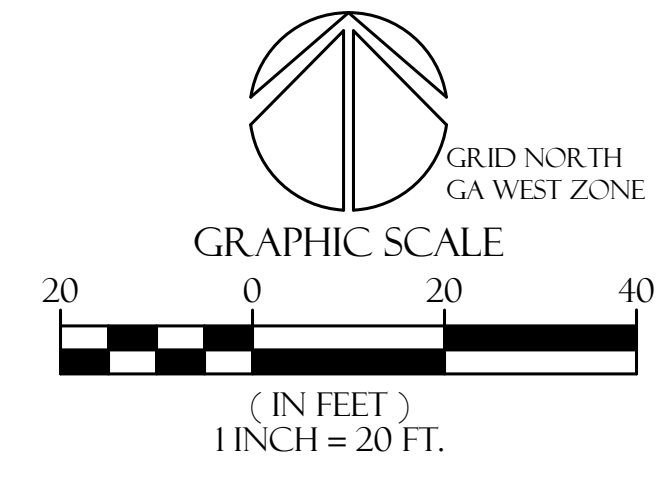
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 CITY OF DACULA  
 BRITNI NIX  
 BRITNI.NIX@DACULAGA.GOV  
 770-963-7451



Item 8.

**BOWMAN**

4174 SEVER PEAK PARKWAY  
 SUWANEE, GEORGIA 30024  
 PHONE: (770) 932-6550  
 FAX: (770) 932-6551  
 WWW.BOWMANCCM.COM

CITY OF DACULA

OWNER: CITY OF DACULA  
 P.O. BOX 400  
 DACULA, GEORGIA 30009

PROJECT: 2ND AVENUE @ BROAD STREET  
 DRAINAGE AND PAVING  
 IMPROVEMENTS PROJECT

DESIGN: 5  
 LANDSCAPE: 302  
 GAINSBETT COUNTY, GEORGIA

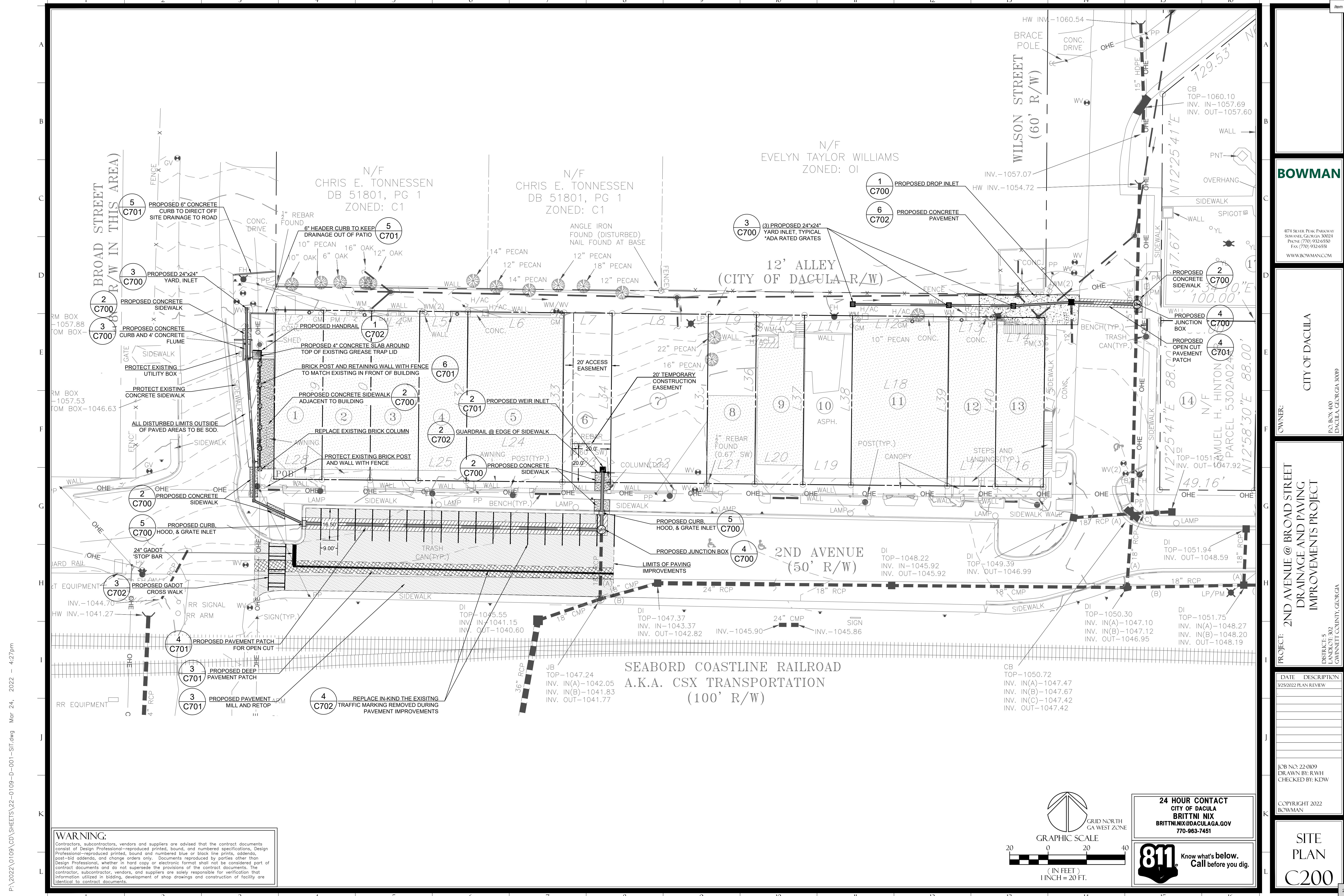
DATE	DESCRIPTION
3/25/2022	PLAN REVIEW

JOB NO: 22-0109  
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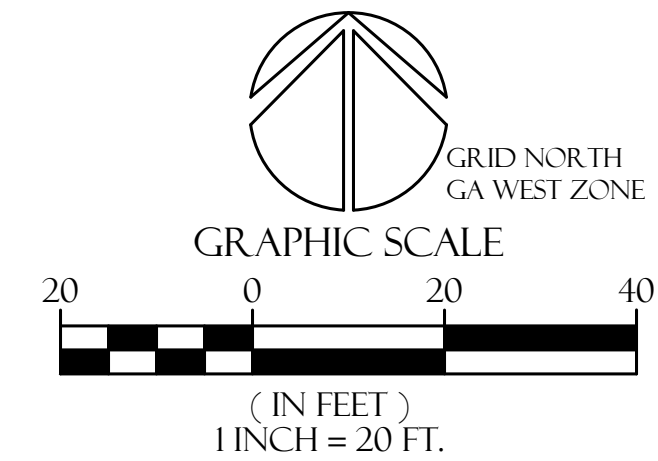
EXISTING  
 CONDITIONS  
 DEMOLITION  
 PLAN  
**C100**





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BRITNI.NIX@DACULA.GA.GOV  
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Item 8

**BOWMAN**

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Dacula, Georgia 30024  
PHONE: (770) 932-6550  
FAX: (770) 932-6551  
WWW.BOWMANCCM.COM

CITY OF DACULA

OWNER:  
P.O. BOX 400  
DACULA, GEORGIA 30009

PROJECT: **2ND AVENUE @ BROAD STREET  
DRAINAGE AND PAVING  
IMPROVEMENTS PROJECT**

DESCRIPT: 5  
LANDACOT: 302  
GWINNETT COUNTY, GEORGIA

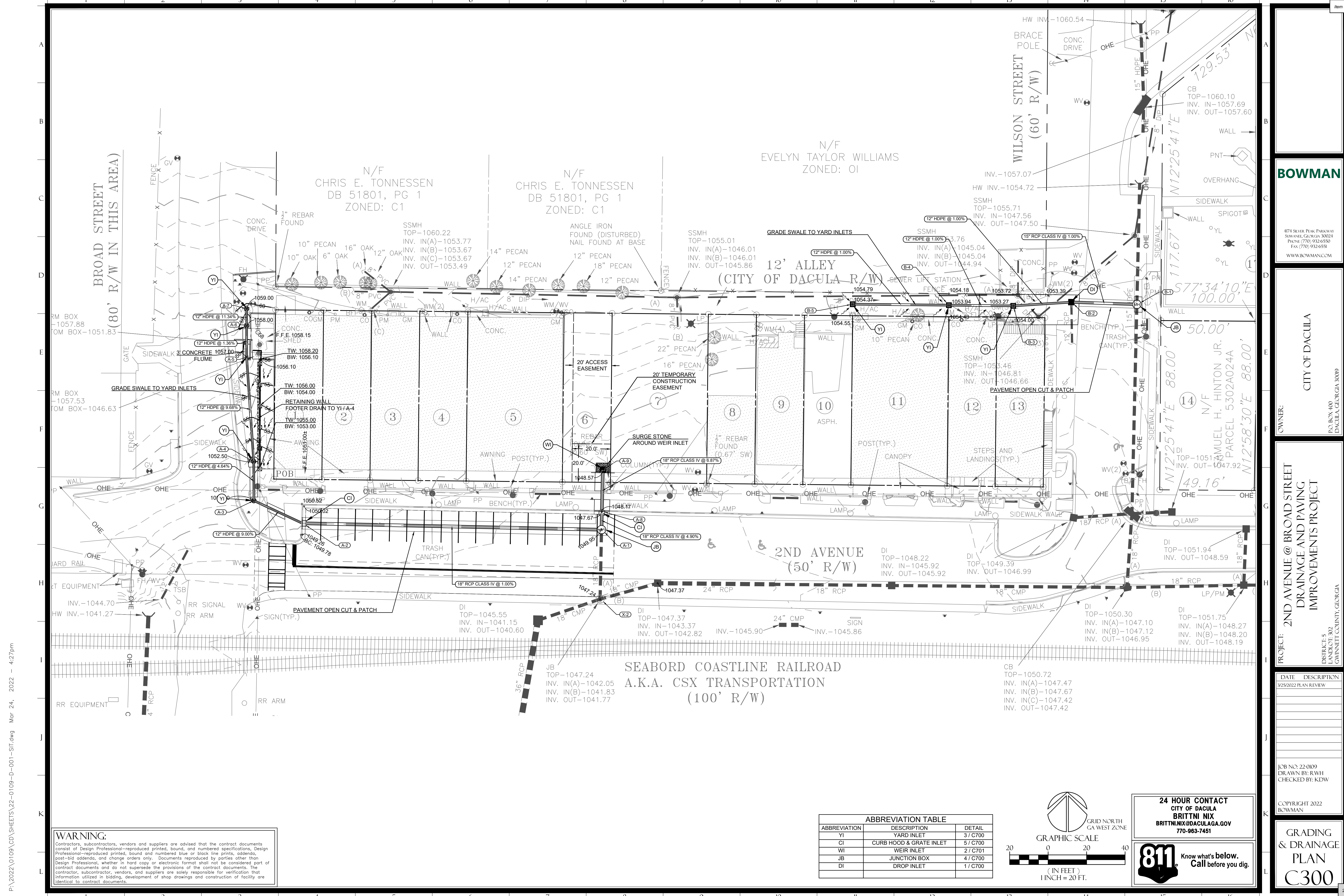
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**SITE PLAN**  
**C200**

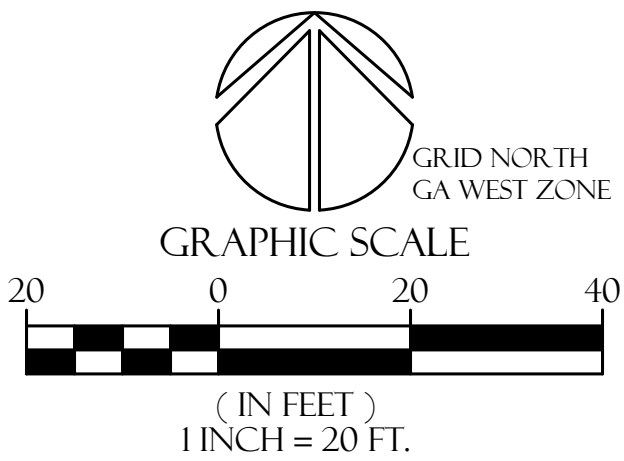




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ABBREVIATION TABLE		
ABBREVIATION	DESCRIPTION	DETAIL
YI	YARD INLET	3/ C700
CI	CURB HOOD & GRATE INLET	5/ C700
WI	WEIR INLET	2/ C701
JB	JUNCTION BOX	4/ C700
DI	DROP INLET	1/ C700



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CITY OF DACULA

OWNER:

PROJECT: 2ND AVENUE @ BROAD STREET  
DRAINAGE AND PAVING  
IMPROVEMENTS PROJECT

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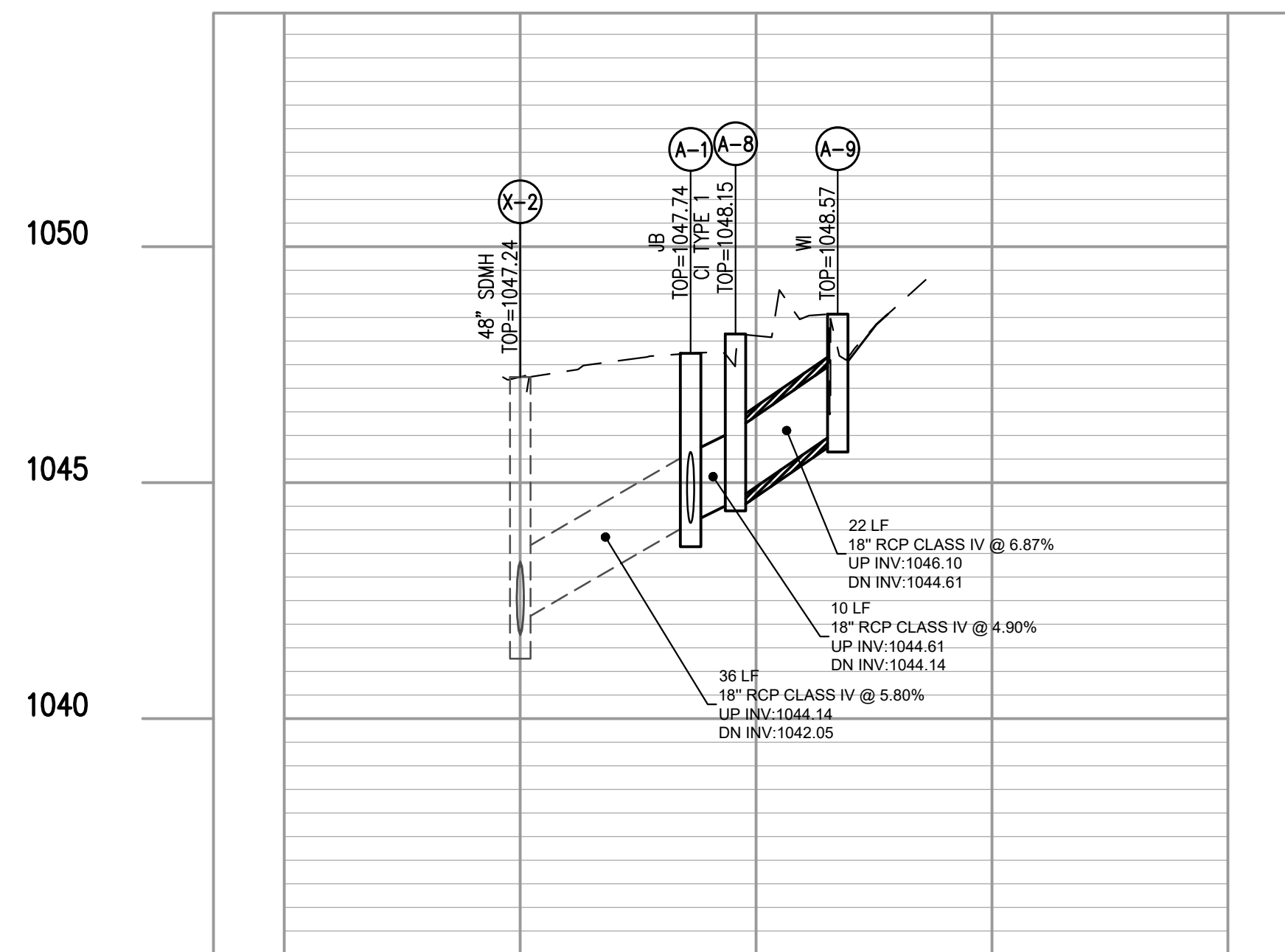
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LANDSCAPE: 302  
GAINESVILLE COUNTY, GEORGIA

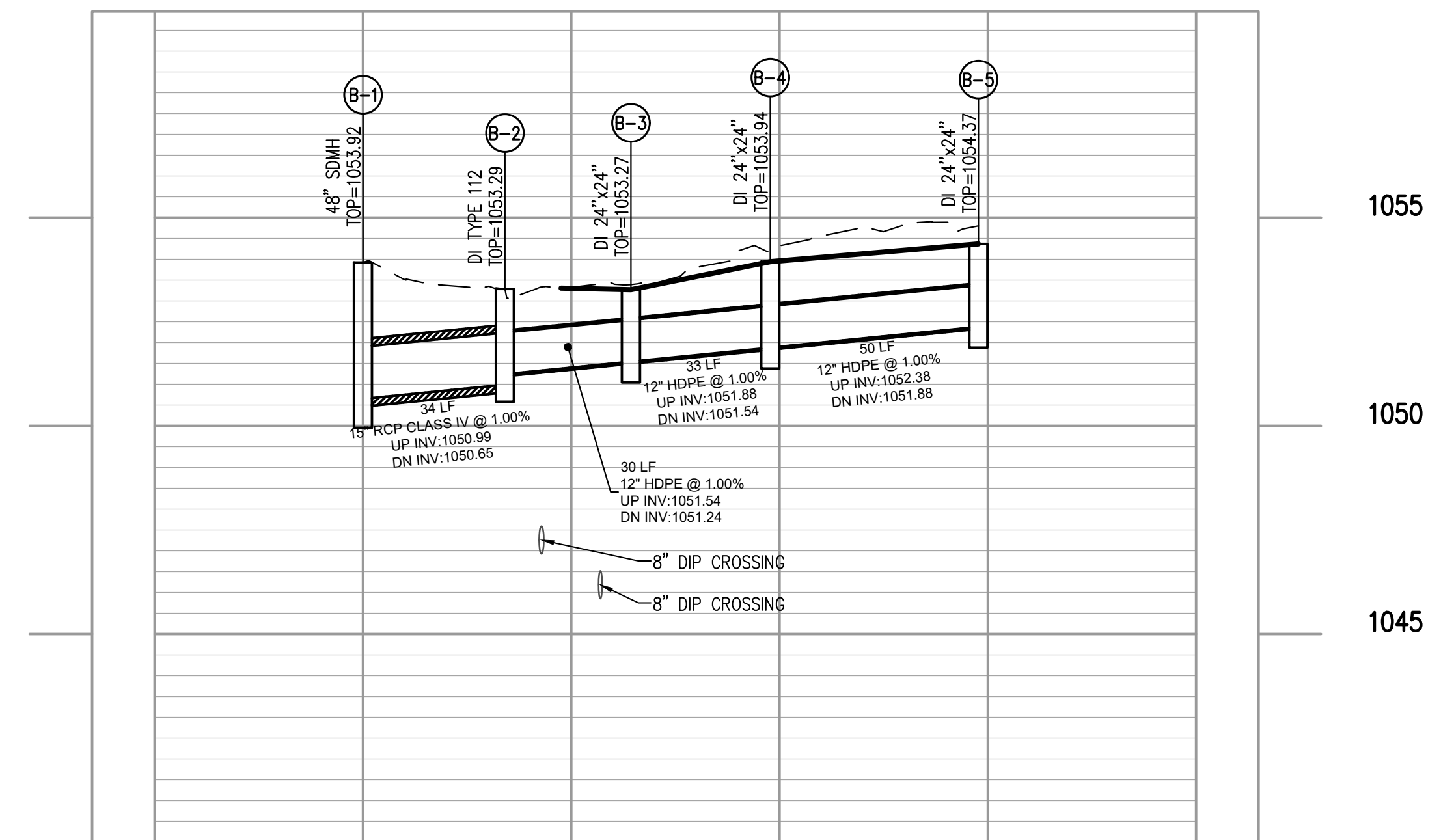
DATE	DESCRIPTION
3/25/2022	PLAN REVIEW

**GRADING & DRAINAGE PLAN**  
**C300**

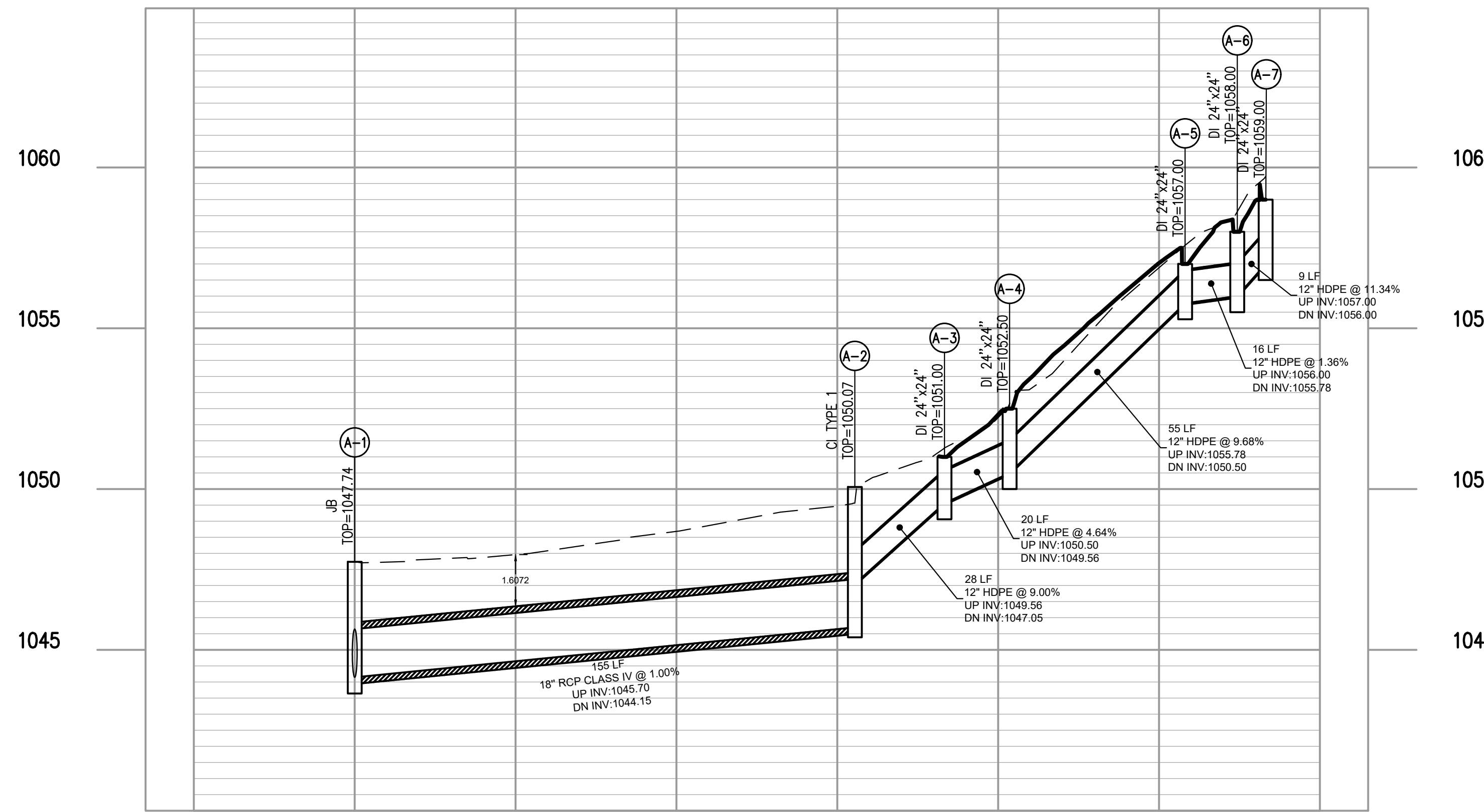




EXISTING STORM LINE PROFILE VIEW  
 HORIZONTAL SCALE: 1"=30'  
 VERTICAL SCALE: 1"=3'



STORM LINE B PROFILE VIEW  
 HORIZONTAL SCALE: 1"=30'  
 VERTICAL SCALE: 1"=3'



PROPOSED SECONDARY DRAINAGE PROFILE VIEW  
 HORIZONTAL SCALE: 1"=30'  
 VERTICAL SCALE: 1"=3'

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OWNER:  
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 DACULA, GEORGIA 30019

PROJECT:  
 2ND AVENUE @ BROAD STREET  
 DRAINAGE AND PAVING  
 IMPROVEMENTS PROJECT  
 DISTRICT: 5  
 LANDSCOT: 302  
 GWINNETT COUNTY, GEORGIA

DATE	DESCRIPTION
3/25/2022	PLAN REVIEW

JOB NO: 22-0109  
 DRAWN BY: RWH  
 CHECKED BY: KDW

STORM  
 PROFILES  
**C301**



EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN (ES&PC) NOTES:

- EXISTING LAND USE: RIGHT OF WAY
- SITE LOCATION: 2nd AVENUE & BROAD STREET  
WINNETT COUNTY, DACULA, GEORGIA
- PROPOSED USE AND DESCRIPTION OF CONSTRUCTION ACTIVITY: RIGHT OF WAY WITH STORM WATER AND PAVEMENT IMPROVEMENTS.
- TOTAL SITE AREA: 0.30 ACRES
- TOTAL DISTURBED AREA: ±0.27 ACRES, STREAM BUFFER: ±0.00 ACRES.
- OWNER/DEVELOPER/PRIMARY PERMITTEE:
- SECONDARY PERMITTEES:  
NAME: \_\_\_\_\_ NAME: \_\_\_\_\_  
COMPANY: \_\_\_\_\_ COMPANY: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ ADDRESS: \_\_\_\_\_  
PHONE NO: \_\_\_\_\_ PHONE NO: \_\_\_\_\_  
FAX NO: \_\_\_\_\_ FAX NO: \_\_\_\_\_  
SIGNATURE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_
- 24 HOUR LOCAL CONTACT FOR EROSION, SEDIMENTATION AND POLLUTION CONTROL: BRITNI NIX  
PHONE : (770) 963-7451
- STATE WATERS ARE NOT LOCATED ON-SITE.
- THE WETLAND INVENTORY MAP HAS BEEN CONSULTED AND SHOW THAT WETLANDS ARE NOT LOCATED ON THE SITE. HOWEVER THE SITE WAS EXAMINED BY A WETLAND SPECIALIST AND THERE ARE WETLANDS LOCATED ON THE SITE WITHIN THE BUFFERS OF THE STATE WATERS.
- RECEIVING WATER(S) IS:
- SOIL SERIES FOR THE PROJECT SITE INCLUDE: AmC2, PgD2.
- DESCRIPTION OF THE MEASURES TO BE INSTALLED DURING CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED.  
**PRODUCT SPECIFIC PRACTICES**  
**PETROLEUM BASED PRODUCTS** - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ONSITE VEHICLES AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATERS, NATURAL DRAINS, AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS, AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.  
**PAINTS/FINISHES/SOLVENTS** - ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCTS WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT, MATERIALS USED WITH THESE PRODUCTS, AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.  
**CONCRETE TRUCK WASHING** - NO CONCRETE TRUCKS WILL BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRINK WATER ONSITE.  
**FERTILIZER/HERBICIDES** - THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.  
**BUILDING MATERIALS** - NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ON-SITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN PROPER WASTE DISPOSAL PROCEDURES.
- INITIAL PERMIT BEST MANAGEMENT PRACTICES (BMP'S): Sd1-NS, Sd2-F/P, Du, Ds1, Ds2.
- INTERMEDIATE GRADING AND DRAINAGE BMP'S: Sd1-NS, Sd2-F/P, Du, Ds1, Ds2.
- FINAL BMP'S: Ds3, Ds4, Sd2-P.
- THIS SITE DOES LIE WITHIN A 100 YEAR FLOOD HAZARD AREA PER FIRMS MAP 1313500062F, DATED 9/29/2006.
- ESTIMATE OF PRE-CONSTRUCTION 25 YEAR PEAK DISCHARGE FLOW AT XXX CFS PRE-DEVELOPED CN = XXX
- ESTIMATE OF POST-CONSTRUCTION 25 YEAR PEAK DISCHARGE FLOW AT XXX CFS POST-DEVELOPED CN = XXX
- CRITICAL AREAS LOCATED ON-SITE ARE IDENTIFIED AS: Ss. AT THE END OF EACH WORK DAY ALL SLOPES 2:1 OR STEEPER AND HIGHER THAN 5 FEET SHALL RECEIVE SURFACE ROUGHENING, POLYMERS, AND EROSION CONTROL MATTING. ADDITIONALLY, ALL FILL SLOPES SHALL RECEIVE A DIVERSION DIKE AND TEMPORARY DOWN DRAINS ALONG THE TOP OF THE SLOPE PREVENTING DRAINAGE SPILLING OVER THE EDGE AND DOWN THE FACE OF THE SLOPE. THE TEMPORARY DOWN DRAINS SHALL BE CONSTRUCTED WITH PERFORATED STAND PIPES AT THE TOP OF THE SLOPE AND RECONSTRUCTED EACH DAY AS THE SLOPE INCREASED IN HEIGHT.
- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES."
- 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."
- "ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING."
- "STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY CEASED. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVERS OR OTHER ADVERSE WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 21 DAYS FROM WHEN ACTIVITIES CEASE, (E.G. THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN 21 DAYS) THE STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED."
- "TEMPORARY SEDIMENT BASIN, RETROFITTED DETENTION POND, AND/OR EXCAVATED INLET SEDIMENT TRAPS FOR EACH COMMON DRAINAGE LOCATION PROVIDING A MINIMUM 67 CUBIC YARDS OF SEDIMENT STORAGE PER ACRE DRAINED MUST BE IN PLACE PRIOR TO AND DURING ALL LAND DISTURBING ACTIVITIES UNTIL FINAL STABILIZATION OF THE SITE HAS BEEN ACHIEVED."
- SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, INDICATING THE 1/3 FULL VOLUME."
- "CONTRACTOR TO CLEAN OUT ACCUMULATED SILT IN DETENTION POND AT THE END OF CONSTRUCTION ACTIVITIES WHEN THE DISTURBED AREAS HAVE BEEN STABILIZED."
- "CONTRACTOR TO PROVIDE DETENTION POND AS-BUILTS AND RECORD DRAWINGS THAT SHALL INCLUDE TOPO OF POND TO CALCULATE POND VOLUMES AND OUTLET CONTROL STRUCTURE DETAILS AND INFORMATION TO COMPLETE AN AS-BUILT HYDROLOGY STUDY TO VERIFY THAT THE DETENTION POND WILL FUNCTION AS IT WAS DESIGNED."
- "MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE PROPERTY OWNER."
- "ADDITIONAL SOIL EROSION CONTROL MEASURES WILL BE ADDED IF DETERMINED TO BE NEEDED BY ON-SITE INSPECTIONS."
- "STANDARDS AND SPECIFICATIONS: ALL DESIGN SHALL CONFORM TO AND ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE PUBLICATION ENTITLED "MANUAL FOR EROSION AND SEDIMENT CONTROL" BY THE GA. SOIL & WATER CONSERVATION COMMISSION."
- "NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS."
- "CONCENTRATED FLOW AREAS AND ALL SLOPES STEEPER THAN 2.5:1 WITH A HEIGHT OF TEN FEET OR GREATER SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKET."
- "ALL CUT AND FILL SLOPES MUST BE SURFACED ROUGHENED AND VEGETATED WITHIN SEVEN (7) DAYS OF THEIR CONSTRUCTION. CUT AND FILL OPERATIONS SHALL BE KEPT TO A MINIMUM."
- "ADEQUATE PROVISIONS SHALL BE PROVIDED TO MINIMIZE DAMAGE FROM SURFACE WATER TO THE CUT FACE OF EXCAVATIONS OR THE SLOPING SURFACES OF FILLS."
- "GRADING OPERATIONS SHALL NOT ENDANGER ADJOINING PROPERTIES."
- "STRIPPING OF VEGETATION, REGRADING, AND OTHER DEVELOPMENT ACTIVITIES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO MINIMIZE EROSION."
- FILLS SHALL NOT ENCRoACH UPON NATURAL COURSES OR CONSTRUCTED CHANNELS IN A MANNER SO AS TO ADVERSELY AFFECT OTHER PROPERTY OWNERS."
- "ALL FILL SLOPES SHALL HAVE SILT FENCE PLACED AT THE SLOPE'S TOE."
- "CONTRACTOR SHALL REMOVE ALL SILT FENCE AND ALL OTHER TEMPORARY EROSION SEDIMENTATION AND POLLUTION CONTROL MEASURES ONCE SITE IS FINAL STABILIZED AND AFTER ALL GRASSING REQUIREMENTS HAVE BEEN COMPLETED BY THE CONTRACTOR TO THE OWNERS AND CODE SATISFACTION AND BEFORE THE CONTRACTOR LEAVES THE SITE."
- "ALL WASTE DISPOSAL SHALL BE HAULED OFF TO A STATE AUTHORIZED LANDFILL. NO WASTE/DEBRIS MATERIAL WILL BE BURIED ON-SITE WITHOUT COUNTY/STATE PERMIT. SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT FROM THE U.S. ARMY CORPS OF ENGINEERS (NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) IV.D.2.C.(1))."
- "ALL PERMITTEES SHALL ENSURE AND DEMONSTRATE THAT THE SITE IS IN COMPLIANCE WITH THE ES&PC PLAN WITH RESPECT TO ALL APPLICABLE STATE AND LOCAL WASTE WATER DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS. (NPDES IV.D.2.C.(3))."
- "CONTRACTOR SHALL MAINTAIN CONSTRUCTION EXITS TO PREVENT TRACKING OF MUD INTO PUBLIC RIGHT-OF-WAY."
- "OFF-SITE VEHICLE TRACKING OF DIRT, SOILS, AND SEDIMENTS AND THE GENERATION OF DUST SHALL BE

- MINIMIZED OR ELIMINATED TO THE MAXIMUM EXTENT PRACTICAL (NPDES IV.D.2.C.(2)). CONTRACTOR SHALL USE PM-POLYACRYLAMIDE (PAM) FOR DUST CONTROL, ETC. AT CONSTRUCTION EXITS, VEHICLE WASHING AREAS AND ANY OTHER AREAS WHERE SEDIMENT CAN BE CAPTURED."
- "CONTRACTOR TO FURNISH AND INSTALL APS 800 SERIES 'SILT STOP' AS MANUFACTURED BY APPLIED POLYMER SYSTEMS, NORCROSS GA. OR EQUAL AT A RATE OF 1.5 GALLONS/ACRE IN A HYDROSEEDER MIX OF APPROPRIATE SEED, FERTILIZER, LIME AND MULCH FOR THE SAME ACRE ON ALL DISTURBED OR EXPOSED SOIL SURFACES. FOLLOW ALL MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. DO NOT MECHANICALLY DISTURB TREATED AREAS AFTER APPLICATION."
- "CONTRACTOR SHALL INSPECT ALL VEHICLES AND PETROLEUM STORAGE CONTAINERS REGULARLY, MAKING REPAIRS TO MINIMIZE ALL PETROLEUM SPILLS AND LEAKS AND SHALL KEEP ON HAND DRY, POROUS PETROLEUM ABSORBENT MATERIALS SUCH AS VERMICULITE, SAND AND LEAN SOIL, AND SHALL CLEAN UP ALL SAID SPILLS AND DISPOSE OF SAID MATERIALS IN ACCORDANCE WITH ALL STATE AND FEDERAL REGULATIONS (NPDES IV.D.2.C.(4))."
- "NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A STREAM BUFFER AND THE STREAM BUFFER SHALL REMAIN IN ITS NATURAL UNDISTURBED, STATE OF VEGETATION UNTIL ALL LAND-DISTURBING ACTIVITIES ON THE CONSTRUCTION SITE ARE COMPLETED."
- THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROLS BMP'S WITHIN 7 DAYS AFTER INSTALLATION. PROOF OF SITE VISIT SHALL BE KEPT ON-SITE.
- "NON-STORM WATER DISCHARGES SUCH AS FIRE HYDRANT FLUSHING, POTABLE WATER SOURCES INCLUDING WATER LINE FLUSHING, IRRIGATION DRAINAGE, AIR CONDITIONING CONDENSATE, SPRINGS, UNCONTAMINATED GROUNDWATER, AND FOUNDATION OR FOOTING DRAINS ARE TO BE TREATED IN THE SAME MANNER AS STORM WATER DISCHARGES."
- "CONTRACTOR SHALL MONITOR, REPORT REQUIREMENTS, AND RETAIN RECORDS PER THE GENERAL NPDES PERMIT NO. GAR 100001. "CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS AS SET FORTH IN THE GENERAL NPDES PERMIT NO. GAR 100001."
- "A 25 FOOT BUFFER ADJACENT TO ALL STREAMS, CREEKS, LAKES, PONDS, ETC. IS REQUIRED TO BE MAINTAINED BY THE SOIL EROSION AND SEDIMENT CONTROL ORDINANCE, ARTICLE 4 SECTION 4.3 PARAGRAPH 15). AN EXEMPTION IS GRANTED TO HOMEOWNERS WHO PERFORM MINOR LANDSCAPING ACTIVITIES SUCH AS HOME LANDSCAPING, HOME GARDENS, REPAIRS AND MAINTENANCE WORK. (ARTICLE 3 SECTION 3.1 PARAGRAPH 3)."
- "CONTRACTOR SHALL ACQUIRE A COPY OF "FIELD MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, VEGETATION AND STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR LAND DISTURBING ACTIVITIES, AS PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION, LATEST EDITION."
- "THE PRIMARY PERMITTEE MUST KEEP AN APPROVED ES&PC PLAN ON-SITE. PRIMARY PERMITTEE MUST MAINTAIN A BMP INSPECTION LOG, A DAILY RAINFALL LOG BOOK, AND A DAILY CONSTRUCTION ENTRANCE/EXIT AREA LOG BOOK. TURBIDITY DATA MUST BE KEPT UP-TO-DATE AND ON-SITE. (NPDES IV.D.5.A.(3))."
- "THE PRIMARY PERMITTEE MUST SAMPLE ALL RECEIVING WATER(S), AND/OR ALL OUTFALLS, OR A COMBINATION OF RECEIVING WATERS AND OUTFALLS. RECEIVING WATERS MUST HAVE AN UPSTREAM AND DOWNSTREAM SAMPLE LOCATION. (NPDES IV.D.5.C.(1)). "NPDES SAMPLING FOR ALL MONITORING POINTS ON THIS SITE WILL BE BY GRAB SAMPLE METHOD. SAMPLES WILL BE PERFORMED BY THE PRIMARY PERMITTEE OR ITS AGENT TAKEN AND ANALYZED NO LATER THAN 48 HOURS AFTER A GRAB. SAMPLES SHALL BE COLLECTED WHERE THE STREAM IS WELL MIXED FROM HORIZONTAL AND VERTICAL CENTER OF FLOW. WHEN COLLECTING THE SAMPLE, FACE SAMPLING CONTAINER UPSTREAM AND DO NOT STIR SEDIMENT AT BOTTOM OF STREAM. LIFT SAMPLE OUT OF STREAM KEEPING SAMPLES FREE OF FLOATING DEBRIS. AFTER SAMPLES HAVE BEEN COLLECTED IT SHALL BE ANALYZED USING A DIRECT READ, PROPERLY CALIBRATED TURBIDIMETER WITHIN 48 HOURS. (NPDES IV.D.5.A.(2))."
- "FOR THIS SITE THE GRAB METHOD WILL BE USED FOR UPSTREAM MONITORING POINTS 'MP-1' AND DOWNSTREAM MONITORING POINTS 'MP-2'."
- "SEE ADDITIONAL PERMIT COVERAGE NOTES THIS SHEET FOR AUTHORIZED COVERAGE, LIMITATIONS OF COVERAGE, WATER QUALITY COMPLIANCE, SAMPLING METHODOLOGY AND FREQUENCY."
- "THE PRIMARY PERMITTEE MAY USE AN ALTERNATE DESIGN PROFESSIONAL TO CONDUCT THE SEVEN (7) DAY BMP INSPECTION, PROVIDED THAT THE PRIMARY MAKES A WRITTEN REQUEST TO EPO TO CHANGE FROM THE DESIGN PROFESSIONAL WHO DEVELOPED THE PLAN AND THE E.P.D. HAS AGREED."
- "PRIMARY PERMITTEE IS TO PROVIDE EACH SECONDARY PERMITTEE WITH THE APPLICABLE PORTION OF THE ES&PC THAT PERTAINS TO THEIR CONSTRUCTION ACTIVITY AND EACH SECONDARY PERMITTEE SHALL SIGN THE PLAN OR PORTION OF THE PLAN APPLICABLE TO THEIR SITE. NOT APPLICABLE FOR STAND ALONE AND INFRASTRUCTURE PROJECTS." SECONDARY PERMITTEE UNKNOWN AT THE TIME OF NPDES PERMITTING.
- "AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL."
- CONTRACTOR TO PROVIDE BMP'S FOR CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF THE VEHICLES. WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.
- "WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT."
- APPROVED PLANS AND NPDES DAILY LOG MUST BE ON SITE AT ALL TIMES.
- SEDIMENT STORAGE VOLUME MUST BE IN PLACE PRIOR TO AND DURING ALL LAND DISTURBING ACTIVITIES UNTIL FINAL STABILIZATION OF THE SITE HAS BEEN ACHIEVED.
- PETROLEUM STORAGE SHALL BE DONE IN ACCORDANCE WITH ONE OF THE FOLLOWING METHODS TO PREVENT STORM WATER DISCHARGES ON THE SITE.  
a. ALL PETROLEUM STORAGE CONTAINERS SHALL BE COVERED WITH PLASTIC SHEETING OR BE LOCATED UNDER A TEMPORARY ROOF.  
b. ALL PETROLEUM STORAGE CONTAINERS SHALL BE LOCATED IN A SECONDARY CONTAINMENT AREA.  
c. NRC PHONE # 1-800-424-8802.

EROSION, SEDIMENTATION AND POLLUTION CONTROL PREPARATION CERTIFICATION:  
"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF: TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

OWNER: \_\_\_\_\_ DATE: \_\_\_\_\_

EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN CERTIFICATION:  
"I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE STATE SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100001."

REGISTERED PROFESSIONAL: KEVIN D WHIGHAM, P.E. DATE: \_\_\_\_\_  
GSWCC LEVEL II DESIGN CERTIFICATION # 945 EXP: 9-27-2023

SITE VISIT CERTIFICATION:  
"I CERTIFY UNDER 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 DIRECT SUPERVISION."

KEVIN D WHIGHAM, P.E. - GSWCC LEVEL II CERTIFICATION # 945 EXP: 9-27-2023 DATE

WETLANDS CERTIFICATION:  
THE DESIGN PROFESSIONAL, WHOSE SEAL APPEARS HEREON, CERTIFIES THE FOLLOWING: 1)THE NATIONAL WETLAND INVENTORY MAPS HAVE BEEN CONSULTED; AND, 2) THE APPROPRIATE PLAN SHEET ( ) DOES / (X) DOES NOT INDICATE AREAS OF UNITED STATES ARMY CORPS OF ENGINEERS JURISDICTIONAL WETLANDS AS SHOWN ON THE MAPS; AND, 3) IF WETLANDS ARE INDICATED, THE LAND OWNER OR DEVELOPER HAS BEEN ADVISED THAT LAND DISTURBANCE OF PROTECTED WETLANDS SHALL NOT OCCUR UNLESS THE APPROPRIATE FEDERAL WETLANDS ALTERATION ("SECTION 404") PERMIT HAS BEEN OBTAINED.

REGISTERED PROFESSIONAL: KEVIN D WHIGHAM, P.E. DATE \_\_\_\_\_

DESIGN PROFESSIONAL 7 DAY VISIT CERTIFICATION  
DATE OF INSPECTION: \_\_\_\_\_  
I CERTIFY THE SITE WAS IN COMPLIANCE WITH THE ES&PC PLAN ON THE DATE OF INSPECTION

REGISTERED PROFESSIONAL: KEVIN D WHIGHAM, P.E. DATE: \_\_\_\_\_  
GSWCC LEVEL II DESIGN CERTIFICATION # 945 EXP: 9-27-2023

INSPECTION REVEALED THE FOLLOWING DISCREPANCIES FROM THE ES&PC PLAN:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
THESE DISCREPANCIES MUST BE ADDRESSED IMMEDIATELY AND A RE-INSPECTION SCHEDULED. WORK SHALL NOT PROCEED ON THE SITE UNTIL DESIGN PROFESSIONAL CERTIFICATION IS OBTAINED.

**24 HOUR CONTACT**  
**CITY OF DACULA**  
**BRITNI NIX**  
**BRITNI.NIX@DACULA.GOV**  
**770-963-7451**



Item B.

**BOWMAN**

4174 SILVER PEAK PARKWAY  
SUWANEE, GEORGIA 30024  
PHONE: (770) 932-6550  
FAX: (770) 932-6551  
WWW.BOWMAN.COM

CITY OF DACULA

OWNER: \_\_\_\_\_

PROJECT: 2ND AVENUE @ BROAD STREET  
DRAINAGE AND PAVING  
IMPROVEMENTS PROJECT

DEFLECT: 5  
LANDFAC: 302  
WINNETT COUNTY, GEORGIA

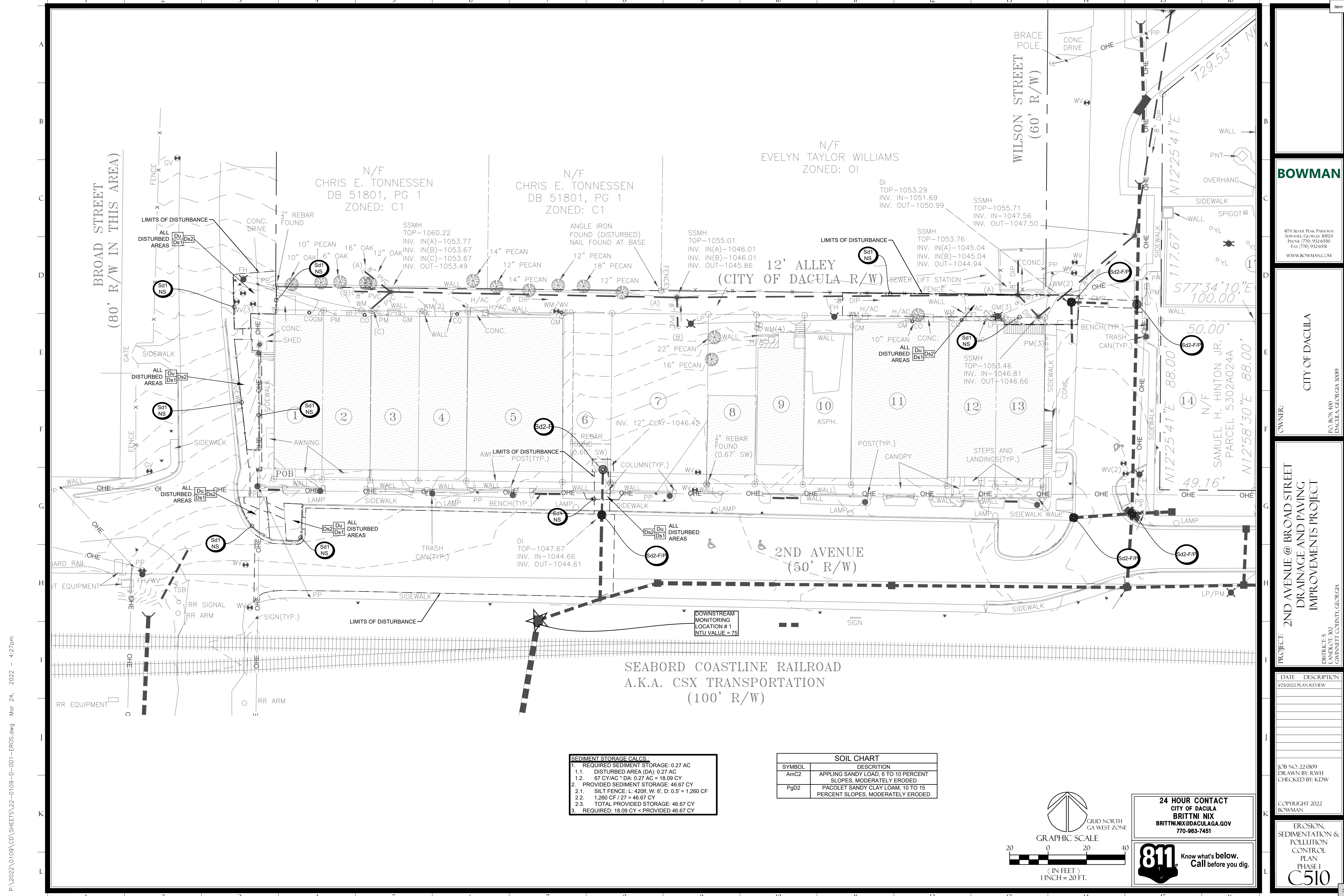
JOB NO: 22-0109  
DRAWN BY: RWH  
CHECKED BY: KDW

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BOWMAN

EROSION,  
SEDIMENTATION  
& POLLUTION  
CONTROL  
NOTES  
C500

31





Item 8

**BOWMAN**

4174 SEVER PEAK PARKWAY  
 SUWANEE, GEORGIA 30024  
 PHONE: (770) 932-6550  
 FAX: (770) 932-6551  
 WWW.BOWMANCCM.COM

CITY OF DACULA

OWNER:  
 P.O. BOX 400  
 DACULA, GEORGIA 30009

PROJECT: 2ND AVENUE @ BROAD STREET  
 DRAINAGE AND PAVING  
 IMPROVEMENTS PROJECT

DESCRIPT: 5  
 LANDLOT: 302  
 GWINNETT COUNTY, GEORGIA

DATE	DESCRIPTION
3/25/2022	PLAN REVIEW

JOB NO: 22-0109  
 DRAWN BY: RWJ  
 CHECKED BY: KDW

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 BOWMAN

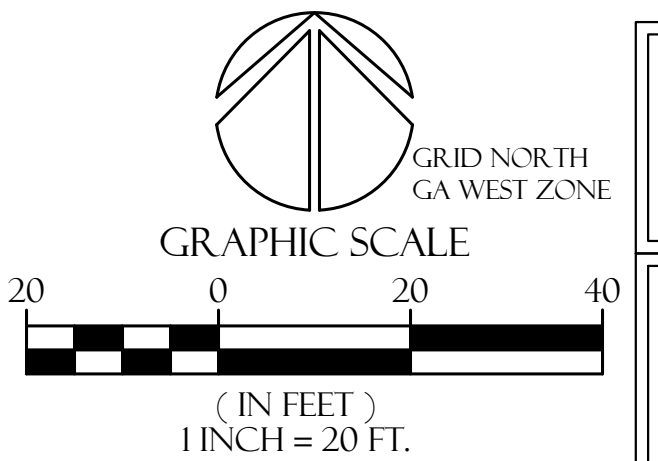
EROSION,  
 SEDIMENTATION &  
 POLLUTION  
 CONTROL  
 PLAN  
 PHASE I  
**C510**

**SEDIMENT STORAGE CALCS.**

- REQUIRED SEDIMENT STORAGE: 0.27 AC
  - DISTURBED AREA (DA): 0.27 AC
  - 67 CY/AC \* DA: 0.27 AC = 18.09 CY
- PROVIDED SEDIMENT STORAGE: 46.67 CY
  - SILT FENCE: L: 420ft, W: 6', D: 0.5' = 1,260 CF
  - 1,260 CF / 27 = 46.67 CY
  - TOTAL PROVIDED STORAGE: 46.67 CY
- REQUIRED: 18.09 CY < PROVIDED 46.67 CY

**SOIL CHART**

SYMBOL	DESCRIPTION
AmC2	APPLYING SANDY LOAD, 6 TO 10 PERCENT SLOPES, MODERATELY ERODED
PgD2	PACOLET SANDY CLAY LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED

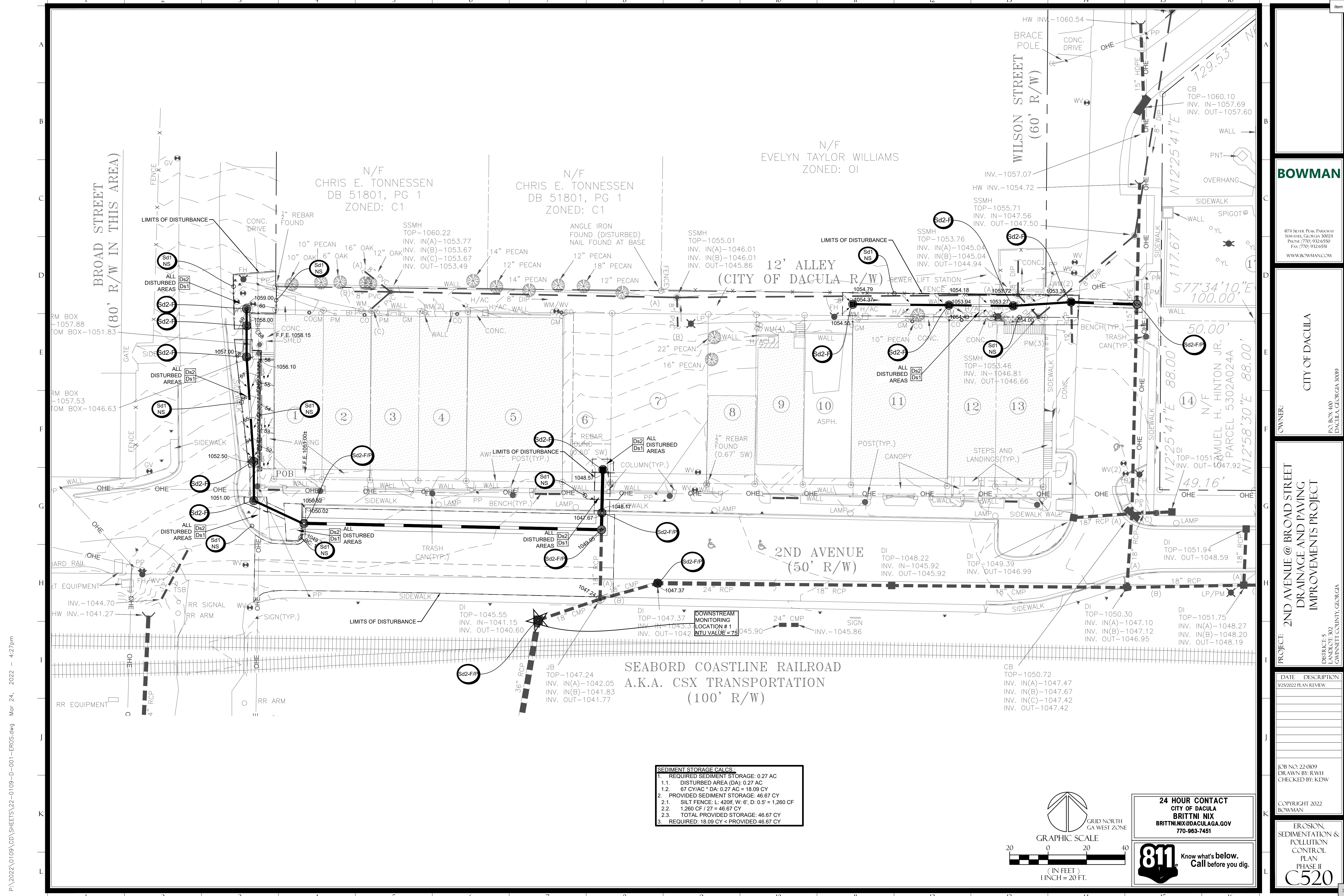


**24 HOUR CONTACT**  
 CITY OF DACULA  
 BRITNI NIX  
 BRITNI.NIX@DACULAGA.GOV  
 770-963-7451



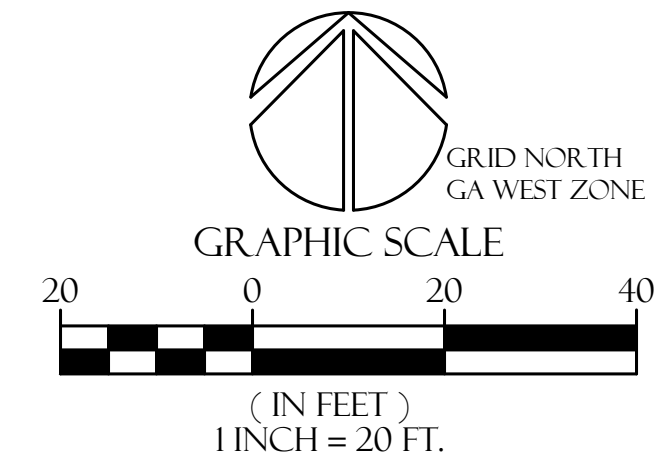
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**SEDIMENT STORAGE CALCS.**

1. REQUIRED SEDIMENT STORAGE: 0.27 AC
  - 1.1. DISTURBED AREA (DA): 0.27 AC
  - 1.2. 67 CY/AC \* DA: 0.27 AC = 18.09 CY
2. PROVIDED SEDIMENT STORAGE: 46.67 CY
  - 2.1. SILT FENCE: L=420ft, W=6', D: 0.5' = 1,260 CF
  - 2.2. 1,260 CF / 27 = 46.67 CY
  - 2.3. TOTAL PROVIDED STORAGE: 46.67 CY
3. REQUIRED: 18.09 CY < PROVIDED 46.67 CY



**24 HOUR CONTACT**  
 CITY OF DACULA  
 BRITNI NIX  
 BRITNI.NIX@DACULA.GA.GOV  
 770-963-7451



Item 8

**BOWMAN**

4174 SEVER PEAK PARKWAY  
 SUWANEE, GEORGIA 30024  
 PHONE: (770) 932-6550  
 FAX: (770) 932-6551  
 WWW.BOWMANCCM.COM

CITY OF DACULA

OWNER:  
 CITY OF DACULA

PROJECT:  
 2ND AVENUE @ BROAD STREET  
 DRAINAGE AND PAVING  
 IMPROVEMENTS PROJECT

DESIGNER:  
 BOWMAN

DATE	DESCRIPTION
3/25/2022	PLAN REVIEW

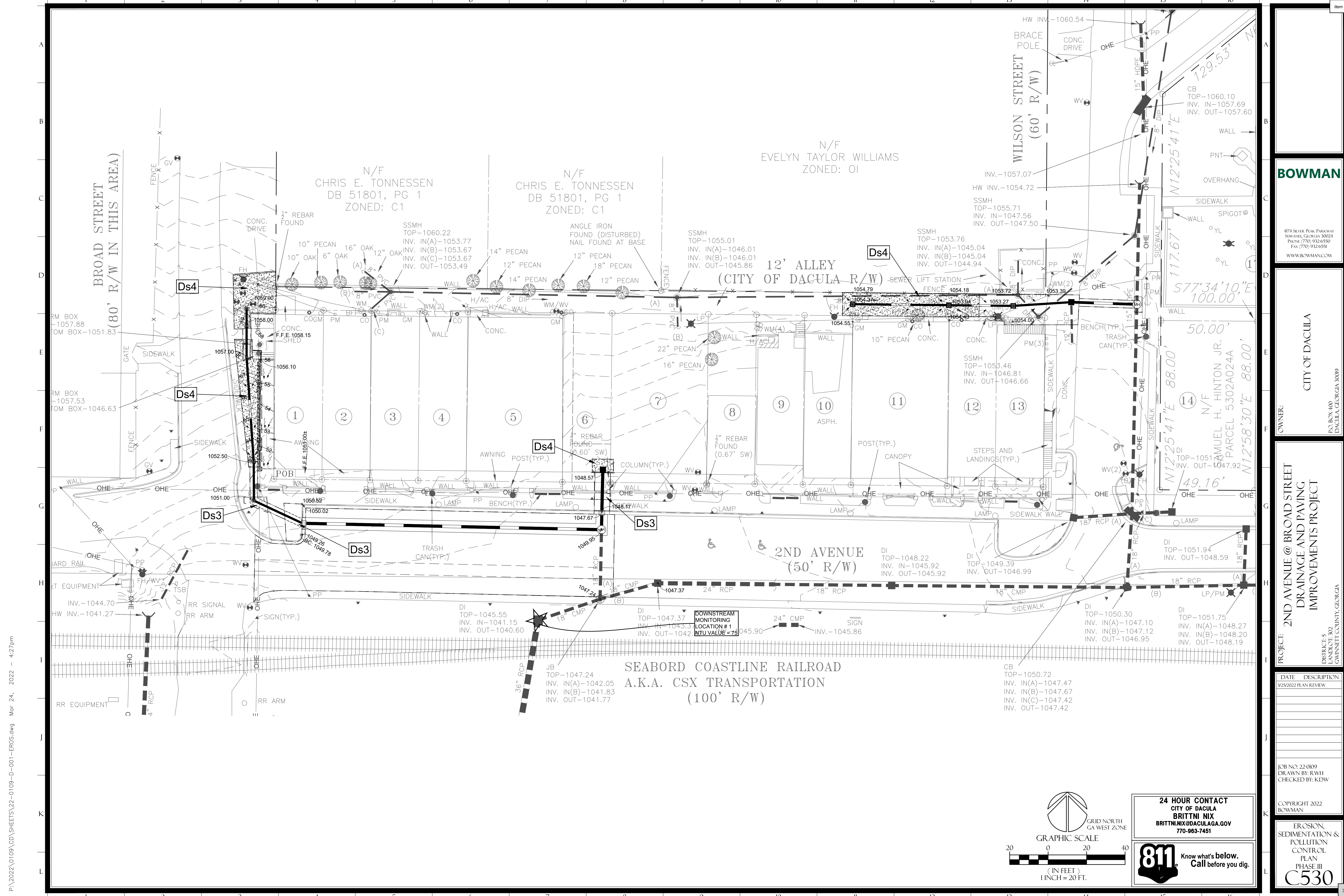
JOB NO: 22-0109  
 DRAWN BY: RWH  
 CHECKED BY: KDW

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 BOWMAN

EROSION,  
 SEDIMENTATION &  
 POLLUTION  
 CONTROL  
 PLAN  
 PHASE II  
**C520**

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Item 8.

**BOWMAN**

4174 SEVER PEAK PARKWAY  
 SUWANEE, GEORGIA 30024  
 PHONE: (770) 932-6550  
 FAX: (770) 932-6551  
 WWW.BOWMANCCM.COM

CITY OF DACULA

OWNER:  
 P.O. BOX 400  
 DACULA, GEORGIA 30089

PROJECT: 2ND AVENUE @ BROAD STREET  
 DRAINAGE AND PAVING  
 IMPROVEMENTS PROJECT

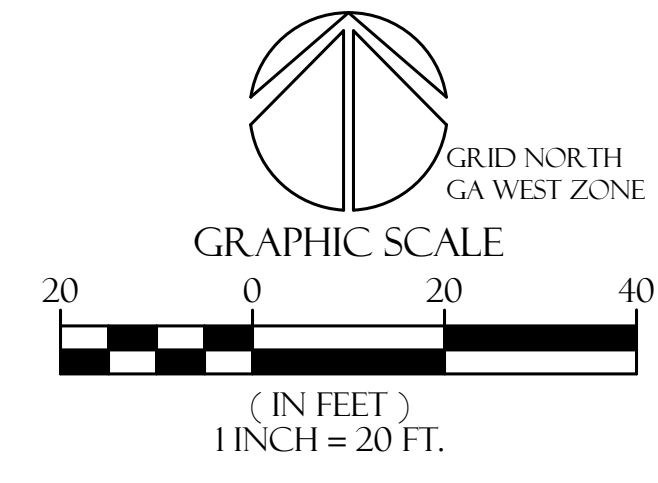
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 GWINNETT COUNTY, GEORGIA

DATE	DESCRIPTION
3/25/2022	PLAN REVIEW

JOB NO: 22-0109  
 DRAWN BY: RWH  
 CHECKED BY: KDW

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EROSION,  
 SEDIMENTATION &  
 POLLUTION  
 CONTROL  
 PLAN  
 PHASE III  
**C530**



**24 HOUR CONTACT**  
 CITY OF DACULA  
 BRITNI NIX  
 BRITNI.NIX@DACULA.GA.GOV  
 770-963-7451



N/F  
 EVELYN TAYLOR WILLIAMS  
 ZONED: OI

N/F  
 CHRIS E. TONNESSEN  
 DB 51801, PG 1  
 ZONED: C1

N/F  
 CHRIS E. TONNESSEN  
 DB 51801, PG 1  
 ZONED: C1

12' ALLEY  
 (CITY OF DACULA R/W)

2ND AVENUE  
 (50' R/W)

SEABOARD COASTLINE RAILROAD  
 A.K.A. CSX TRANSPORTATION  
 (100' R/W)

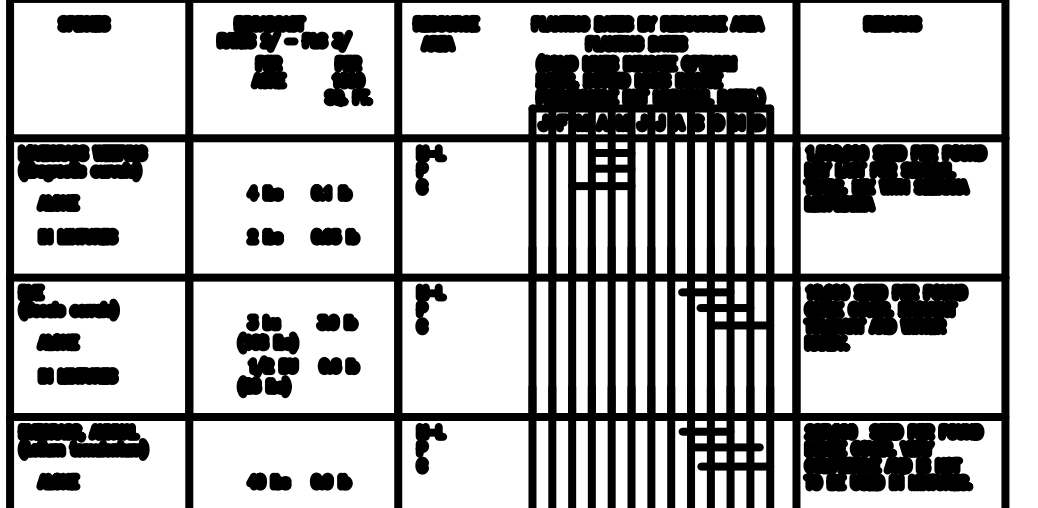
DOWNSTREAM  
 MONITORING  
 LOCATION # 1  
 NTU VALUE = 75



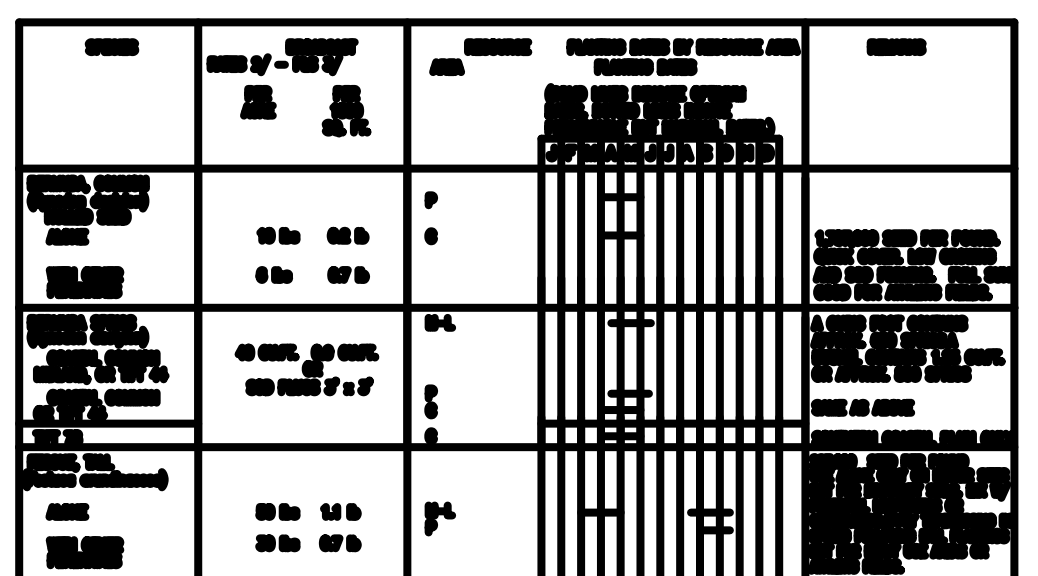
**MULCHING APPLICATION REQUIREMENTS**

MATERIAL	RATE	DEPTH
STRAW OR HAY	2 1/2 TON/ACRE	2" TO 4"
WOOD WASTE, CHIPS, SAWDUST, BARK	6 TO 9 TON/ACRE	2" TO 3"
POLYETHYLENE FILM	SECURE WITH SOIL, ANCHORS, WEIGHTS	---
CUTBACK ASPHALT	SEE MANUFACTURER'S RECOMMENDATIONS	---
GEOTEXTILES, JUTE MATTING, NETTING, ETC.	SEE MANUFACTURER'S RECOMMENDATIONS	---

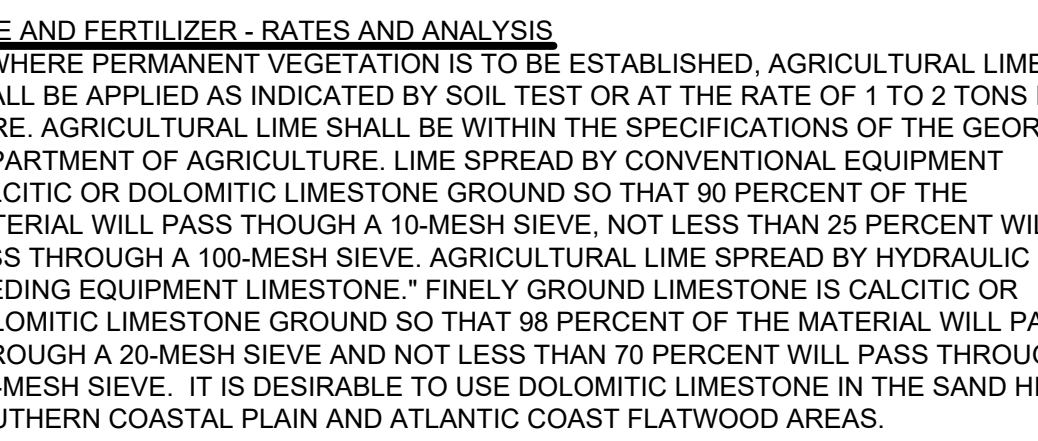
**Ds1** DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)  
N.T.S.



**Ds2** PLANTS, PLANTING RATES, AND PLANTING DATES FOR TEMPORARY COVER CROPS PER GREEN BOOK TABLE 6-4.1



**Ds3** PLANTS, PLANTING RATES, AND PLANTING DATES FOR PERMANENT COVER PER GREEN BOOK TABLE 6-5.2



**LIME AND FERTILIZER - RATES AND ANALYSIS**  
A. WHERE PERMANENT VEGETATION IS TO BE ESTABLISHED, AGRICULTURAL LIME SHALL BE APPLIED AS INDICATED BY SOIL TEST OR AT THE RATE OF 1 TO 2 TONS PER ACRE. AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE. LIME SPREAD BY CONVENTIONAL EQUIPMENT CALCITIC OR DOLOMITIC LIMESTONE GROUND SO THAT 90 PERCENT OF THE MATERIAL WILL PASS THROUGH A 10-MESH SIEVE. NOT LESS THAN 25 PERCENT WILL PASS THROUGH A 100-MESH SIEVE. AGRICULTURAL LIME SPREAD BY HYDRAULIC SEEDING EQUIPMENT LIME GROUND SO THAT 98 PERCENT OF THE MATERIAL WILL PASS THROUGH A 20-MESH SIEVE AND NOT LESS THAN 70 PERCENT WILL PASS THROUGH 100-MESH SIEVE. IT IS DESIRABLE TO USE DOLOMITIC LIMESTONE IN THE SAND HILLS, SOUTHERN COASTAL PLAIN AND ATLANTIC COAST FLATWOOD AREAS.

B. NO AGRICULTURAL LIME IS REQUIRED WHERE ONLY TEMPORARY SEEDING IS TO BE DONE OR WHERE ONLY TREES ARE PLANTED.

C. INITIAL FERTILIZATION REQUIREMENTS FOR EACH SPECIES OR COMBINATION OF SPECIES ARE LISTED IN TABLE 6-25.1, P 6-144. APPLY FERTILIZER: 5-10-15 @ 1500LBS/ACRE. (TYPICAL)

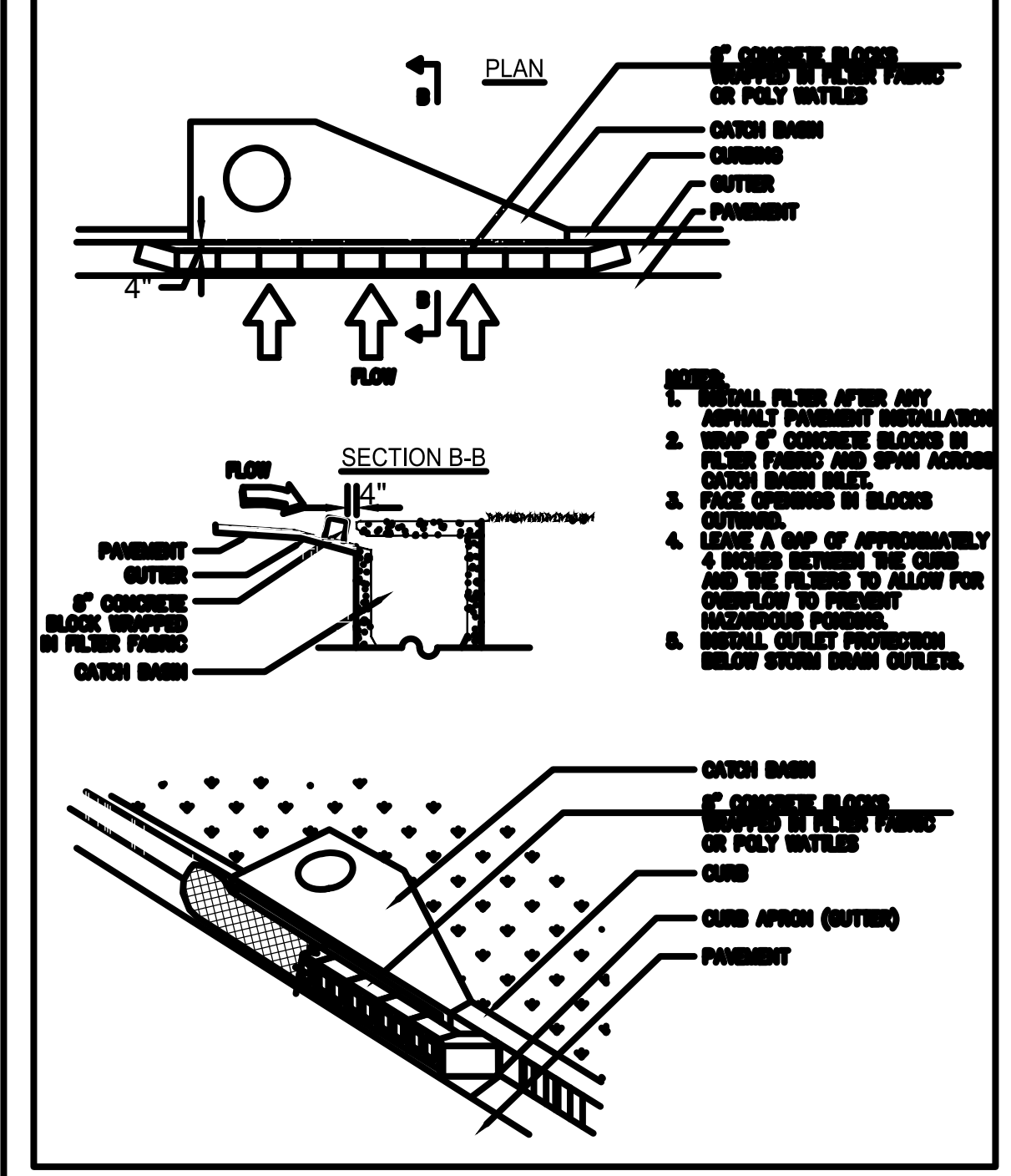
**LIME FERTILIZER - APPLICATION**  
A. WHEN HYDRAULIC SEEDING EQUIPMENT IS USED:

1. THE INITIAL FERTILIZER WILL BE MIXED WITH SEED, INOCULANT (IF NEEDED) AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH AND APPLIED IN A SLURRY. THE SLURRY MIXTURE WILL BE AGITATED DURING APPLICATION TO KEEP THE INGREDIENTS THOROUGHLY MIXED. THE MIXTURE WILL BE SPREAD UNIFORMLY OVER THE AREA WITHIN ONE HOUR AFTER BEING PLACED IN THE HYDROSEEDER.

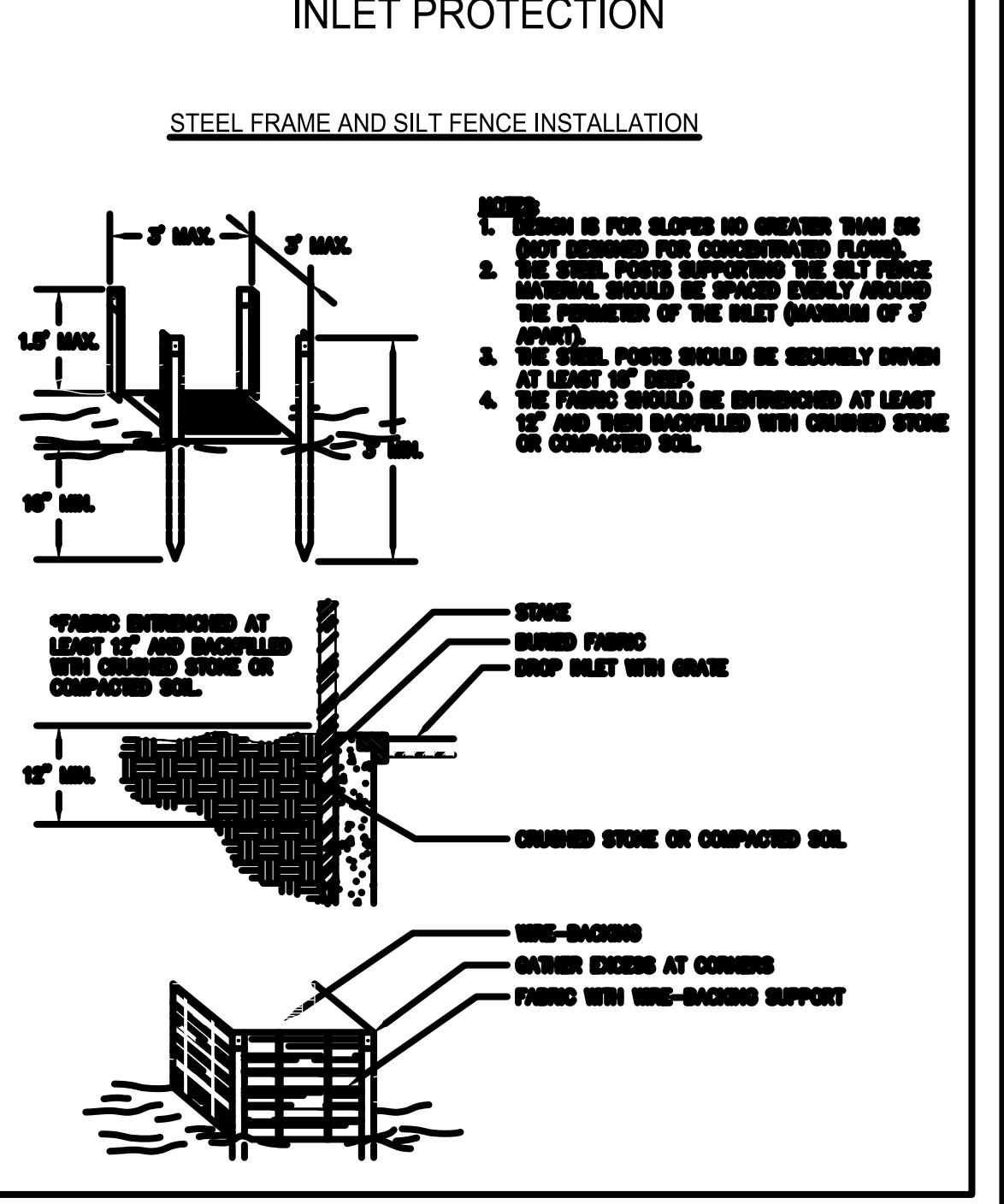
B. WHEN CONVENTIONAL PLANTING IS TO BE DONE, LIME AND FERTILIZER WILL BE APPLIED UNIFORMLY IN ONE OF THE FOLLOWING WAYS:

1. APPLY BEFORE LAND PREPARATION SO THAT IT WILL BE MIXED THE SOIL DURING SEEDBED PREPARATION: OR
2. MIX WITH THE SOIL USED TO FILL THE HOLES, DISTRIBUTE IN FURROWS, OR
3. BROADCAST AFTER STEEP SURFACES ARE SCARIFIED, PITTED OR TRENCHED.
4. "JA" FERTILIZER PELLET WILL BE PLACED AT ROOT DEPTH BESIDE EACH PINE TREE SEEDLING.

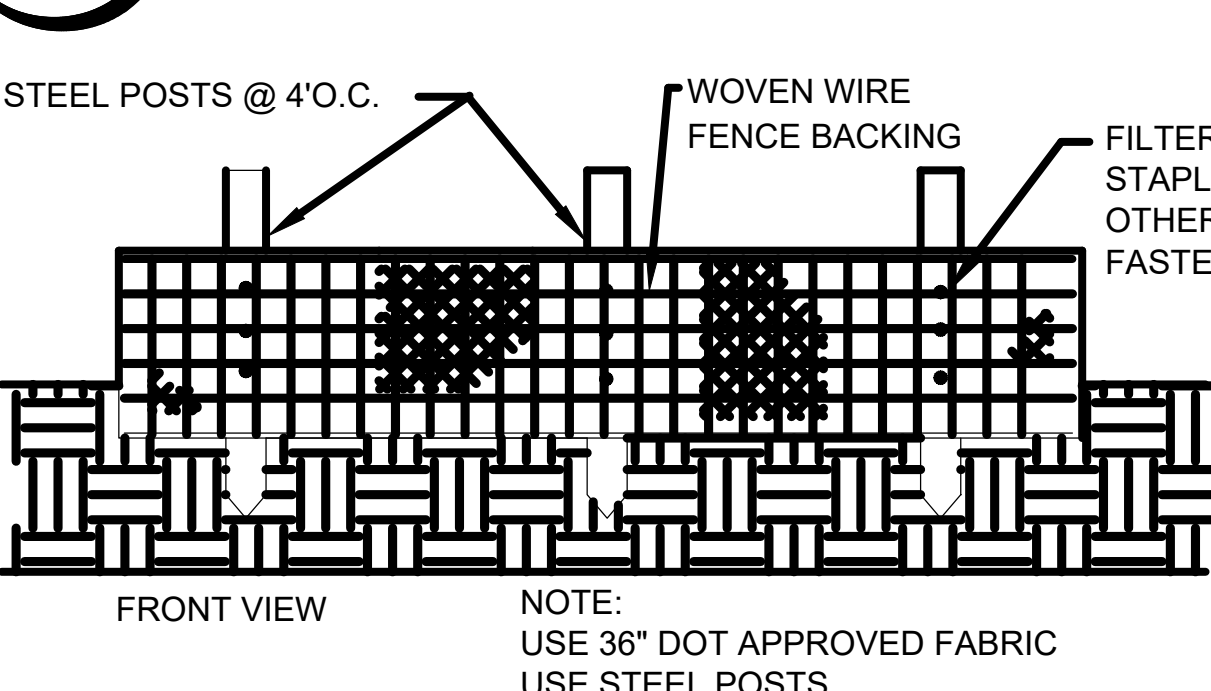
**CURB INLET FILTER "PIGS IN BLANKET"**



**FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION**



**Sd2-P** TEMP INLET SEDIMENT TRAP  
N.T.S.



**Sd2-F** TEMP INLET SEDIMENT TRAP  
N.T.S.

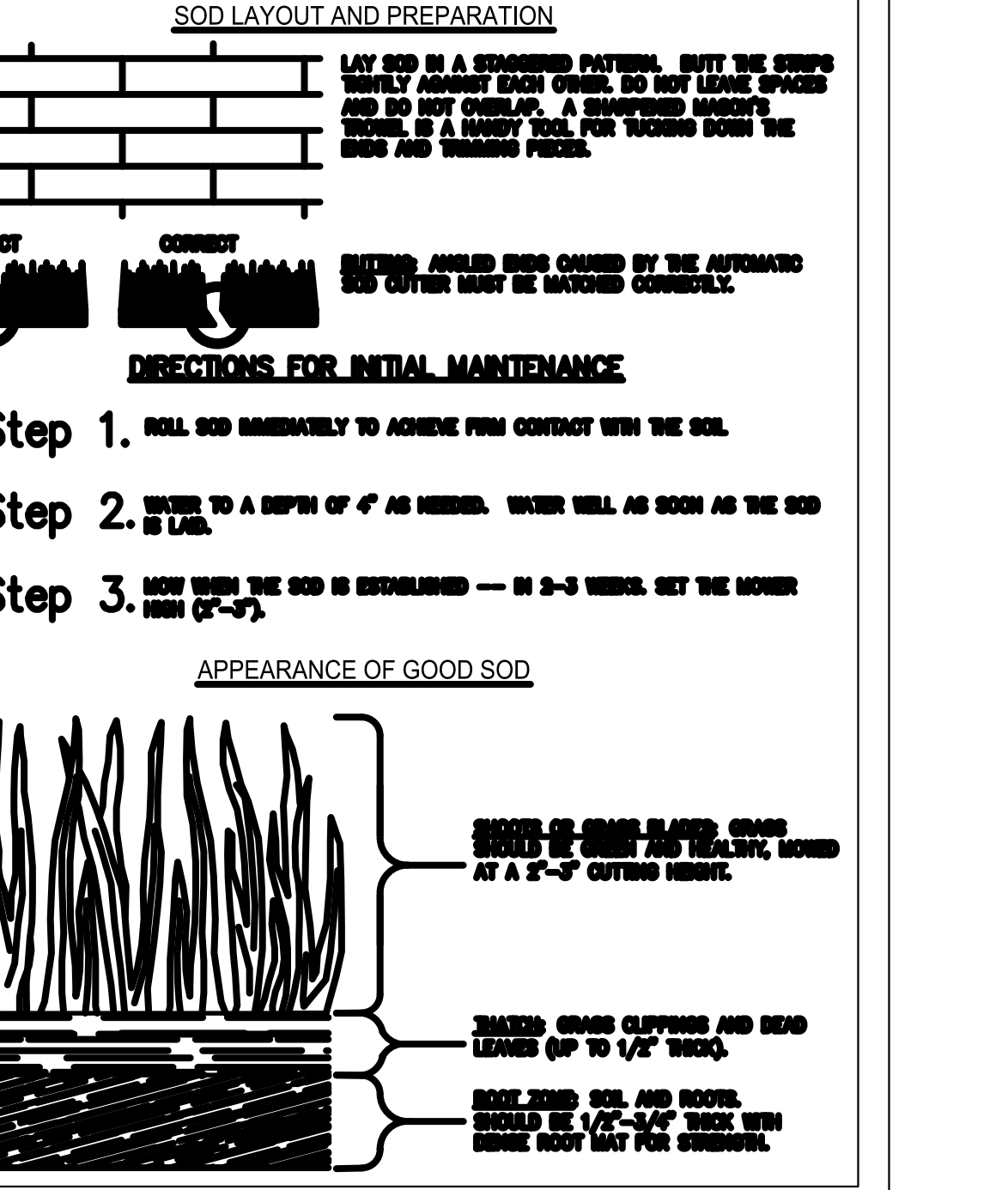
**Sd1** EROSION CONTROL FENCING TYPE "S"  
N.T.S.

**SOD PLANTING REQUIREMENTS**

GRASS	VARIETIES	RESOURCE AREA	GROWING SEASON
BERMUDAGRASS	COMMON TIFWAY TIFGREEN TIFLAWN	M-L, P, C P, C P, C	WARM WEATHER
BABHAGRASS	PENSACOLA	P, C	WARM WEATHER
CENTPEDE	---	P, C	WARM WEATHER
ST. AUGUSTINE	COMMON BITTERBLUE RALEIGH	C	WARM WEATHER
ZOYSIA	EMERALD MYER	P, C	WARM WEATHER
TALL FESCUE	KENTUCKY 31	M-L, P	COOL WEATHER

**Ds4** DISTURBED AREA STABILIZATION (WITH SODDING)

**SOD MAINTENANCE AND INSTALLATION**



**ETRS-1 SINGLE SIDED STRAW BLANKET**

Description: ETRS1 is a single sided erosion control blanket. It is manufactured from 100% Agricultural Wheat Straw mechanically bonded (stitched) onto one layer of medium-weight synthetic poly-propylene netting.

**Specifications**

Roll Dimensions	8' wide	112.5' Long	100 syd
Netting		3/8"x3/8"	photodegradable synthetic medium weight
Stitching		2" Centers	
Fiber Density		50lb/syd	
Product Code			MT-4

**VERIFIED VALUES**

DESCRIPTION	TEST METHOD	RESULT
TENSILE STRENGTH(lbin)	ASTM 6818	MD 9lb/in TD 3.3lb/in
GROUNDCOVER/LIGHT PENETRATION	ASTM D6567	80.6% / 19.4%
MASS	ASTM D6475	9.24 oz/syd
THICKNESS	ASTM 6525	382 mils
WATER ABSORPTION	ASTM D1117	432%

**Netting Properties**

Medium Weight Green Netting
3/8"x3/8" Mesh Size (Nominal)
1.5+/-0.2PMSF Weight
MD=14.6+/-4lb/5strands/3"
TD=14.6+/-4lb/5strands/3"



For more information, contact:  
105 Plant Camellia Road  
Juliette, GA 31046  
478.994.6009  
www.erosiontechusa.com

Item 8.

**BOWMAN**

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PHONE: (770) 932-6550  
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WWW.BOWMANCCM.COM

OWNER: CITY OF DACULA  
P.O. BOX 400  
DACULA, GEORGIA 30019

PROJECT: 2ND AVENUE @ BROAD STREET  
DRAINAGE AND PAVING  
IMPROVEMENTS PROJECT

DATE DESCRIPTION  
3/25/2022 PLAN REVIEW

JOB NO: 22-0109  
DRAWN BY: RWH  
CHECKED BY: KDW

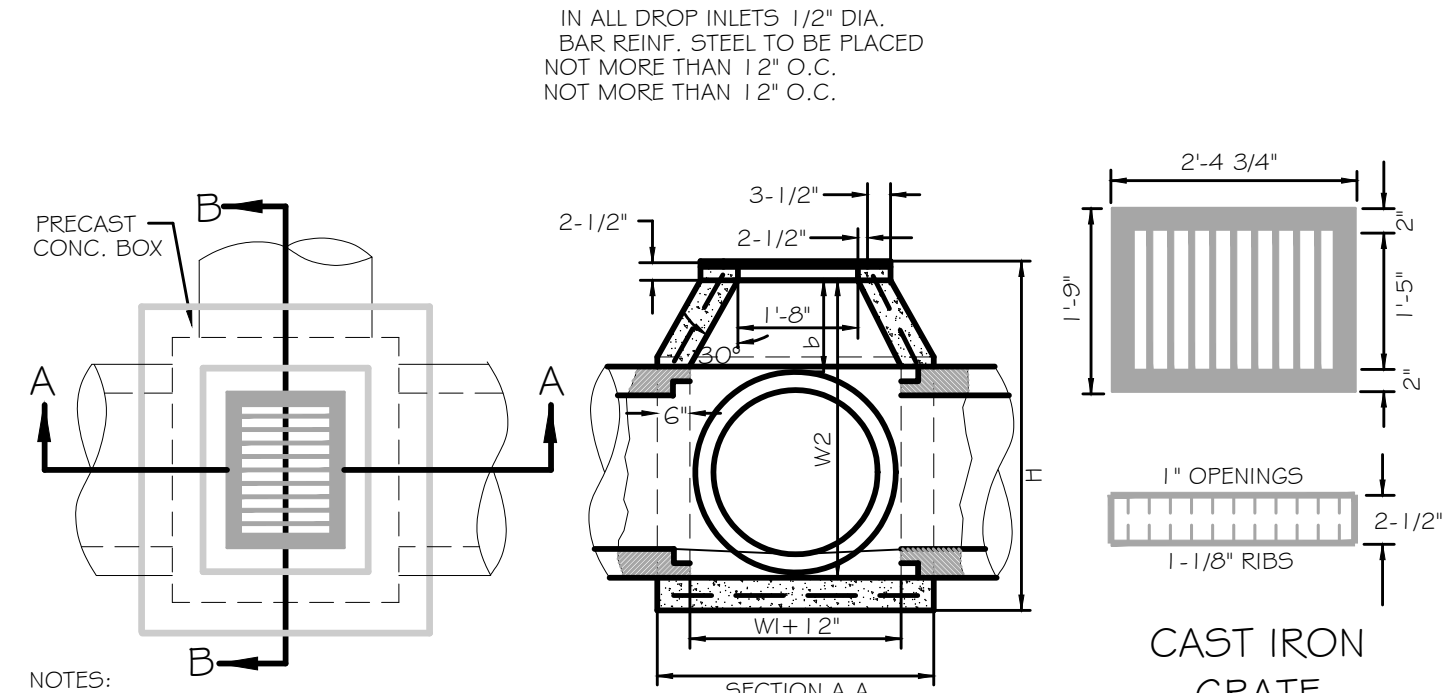
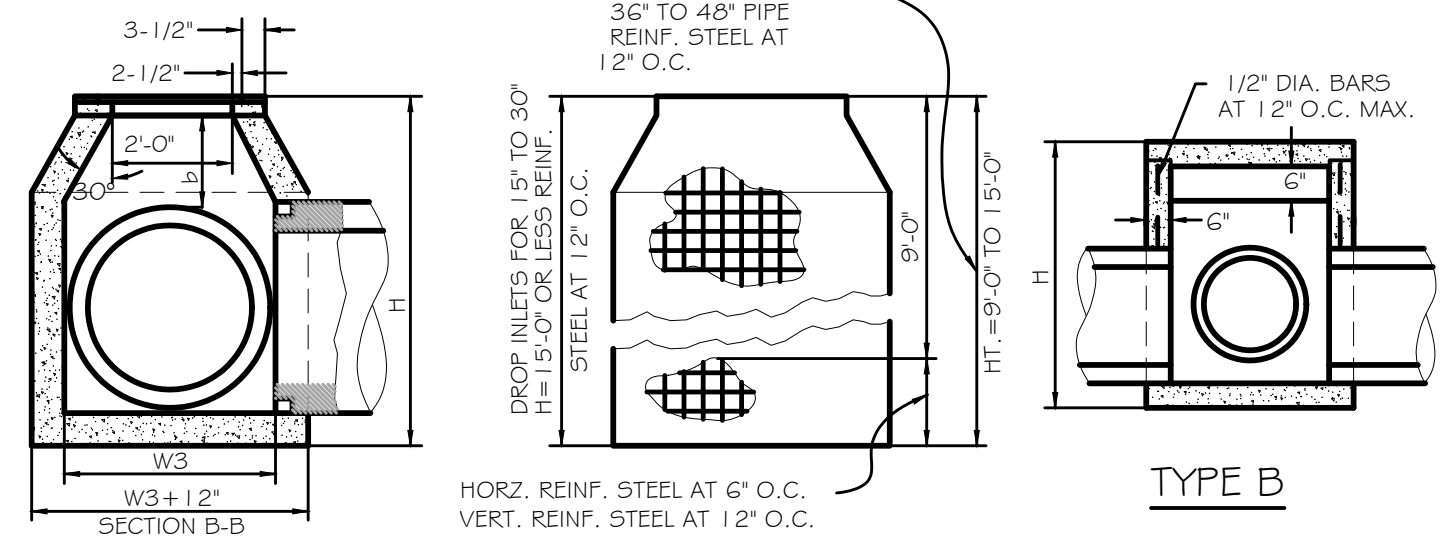
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EROSION,  
SEDIMENTATION  
& POLLUTION  
CONTROL  
DETAILS  
**C540**

24 HOUR CONTACT  
CITY OF DACULA  
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770-963-7451

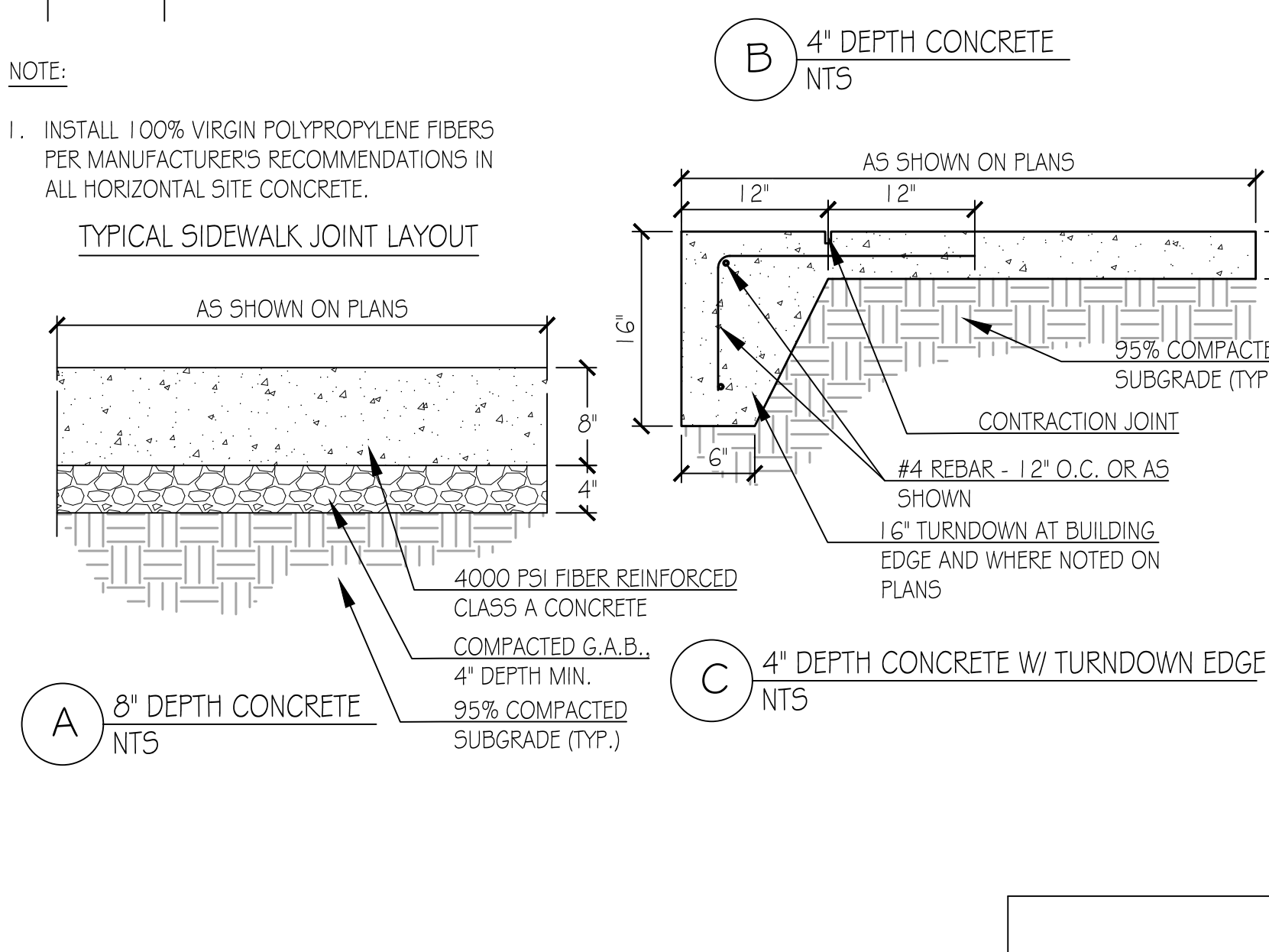
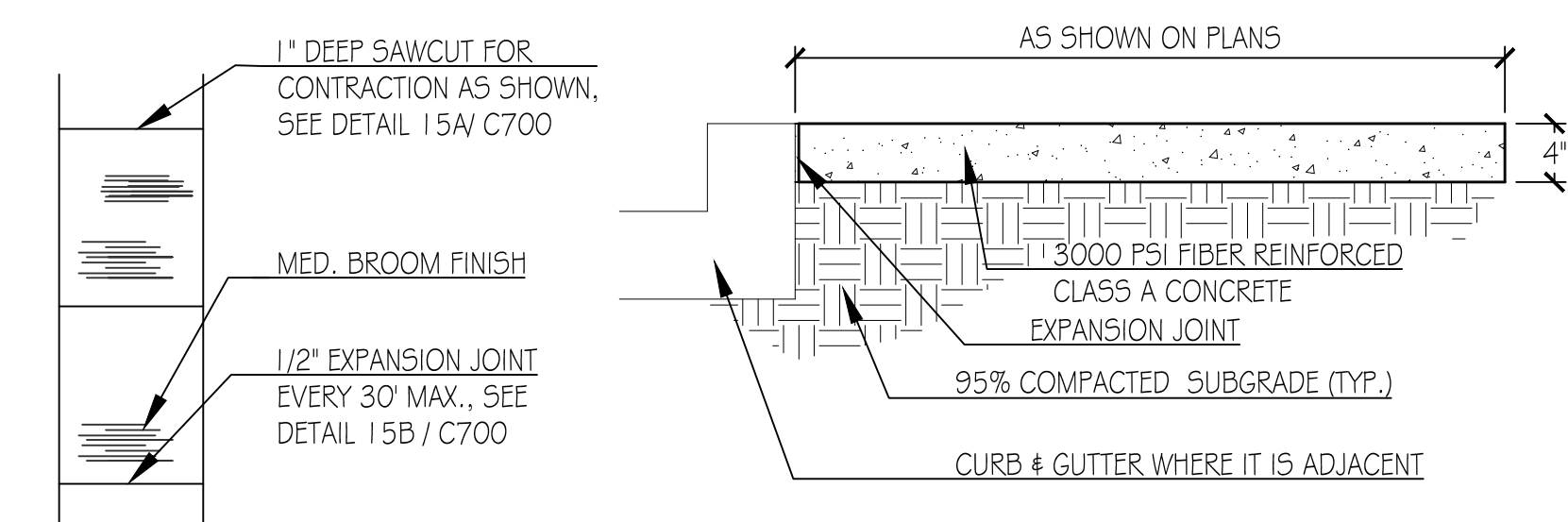




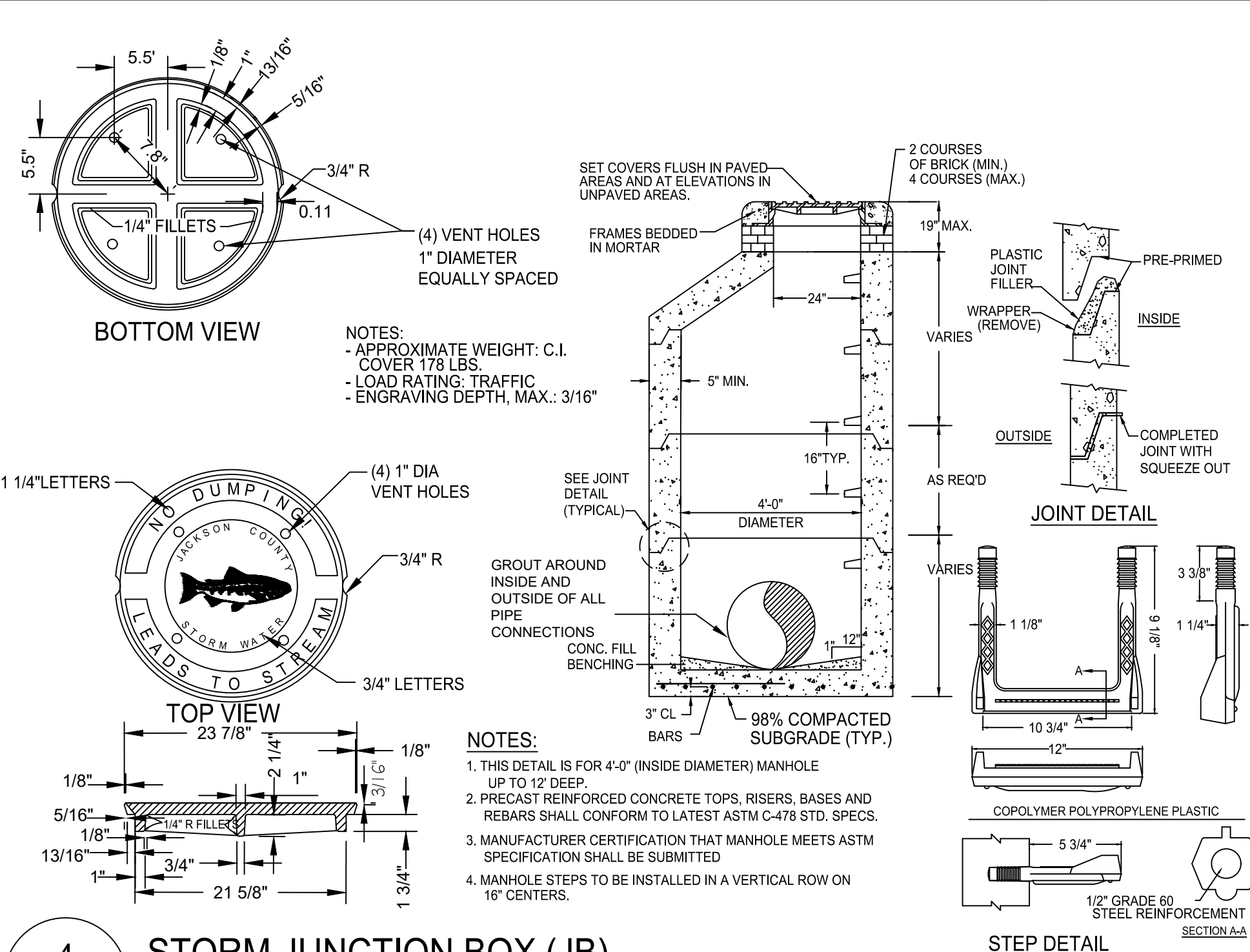


TYPE "A"						TYPE "B"			
D	W1	MIN-W2	W3	a	b	MIN-H	W OR W1	MIN-h	MIN-H
15"	2'-0"	2'-6 1/2"	2'-7"	0'-3 1/2"	0'-6"	3'-3"	2'-0"	2'-7 1/2"	3'-9 1/2"
18"	2'-0"	2'-9 1/2"	2'-7"	0'-3 1/2"	0'-6"	3'-6"	2'-3"	2'-10"	4'-0"
24"	2'-8"	4'-1 1/2"	3'-3"	0'-7 1/2"	1'-1"	4'-3"	3'-0"	3'-8"	4'-10"
30"	3'-4"	5'-1 1/2"	3'-11"	0'-11 1/2"	1'-8"	5'-10"	3'-6 1/2"	4'-2 1/2"	5'-4 1/2"
36"	3'-10"	6'-1 1/2"	4'-8"	1'-2 1/2"	2'-1 1/4"	6'-10"	4'-2"	4'-10"	6'-0"
42"	4'-5"	7'-2 1/2"	5'-0"	1'-6"	2'-7 1/2"	7'-11"	4'-8 1/2"	5'-4 1/2"	6'-6 1/2"
48"	5'-0"	8'-0 1/2"	5'-7"	1'-9 1/2"	3'-1 1/4"	9'-0"	5'-3 1/2"	5'-11 1/2"	7'-1 1/2"
54"	5'-7"	9'-4 1/2"	6'-3"	2'-1"	3'-7 1/4"	10'-1"	5'-10"	6'-6"	7'-6"
60"	6'-2"	10'-6 1/2"	6'-2"	2'-4 1/2"	4'-1 1/2"	11'-2"	6'-4 1/2"	7'-0 1/2"	8'-2 1/2"
66"	6'-9"	11'-6 1/2"	6'-9"	2'-8"	4'-7 1/2"	12'-3"	6'-11"	7'-7"	8'-9"
72"	7'-4"	12'-7 1/2"	7'-4"	2'-11 1/2"	5'-1 1/4"	13'-4"	7'-5 1/2"	8'-1 1/2"	9'-3"

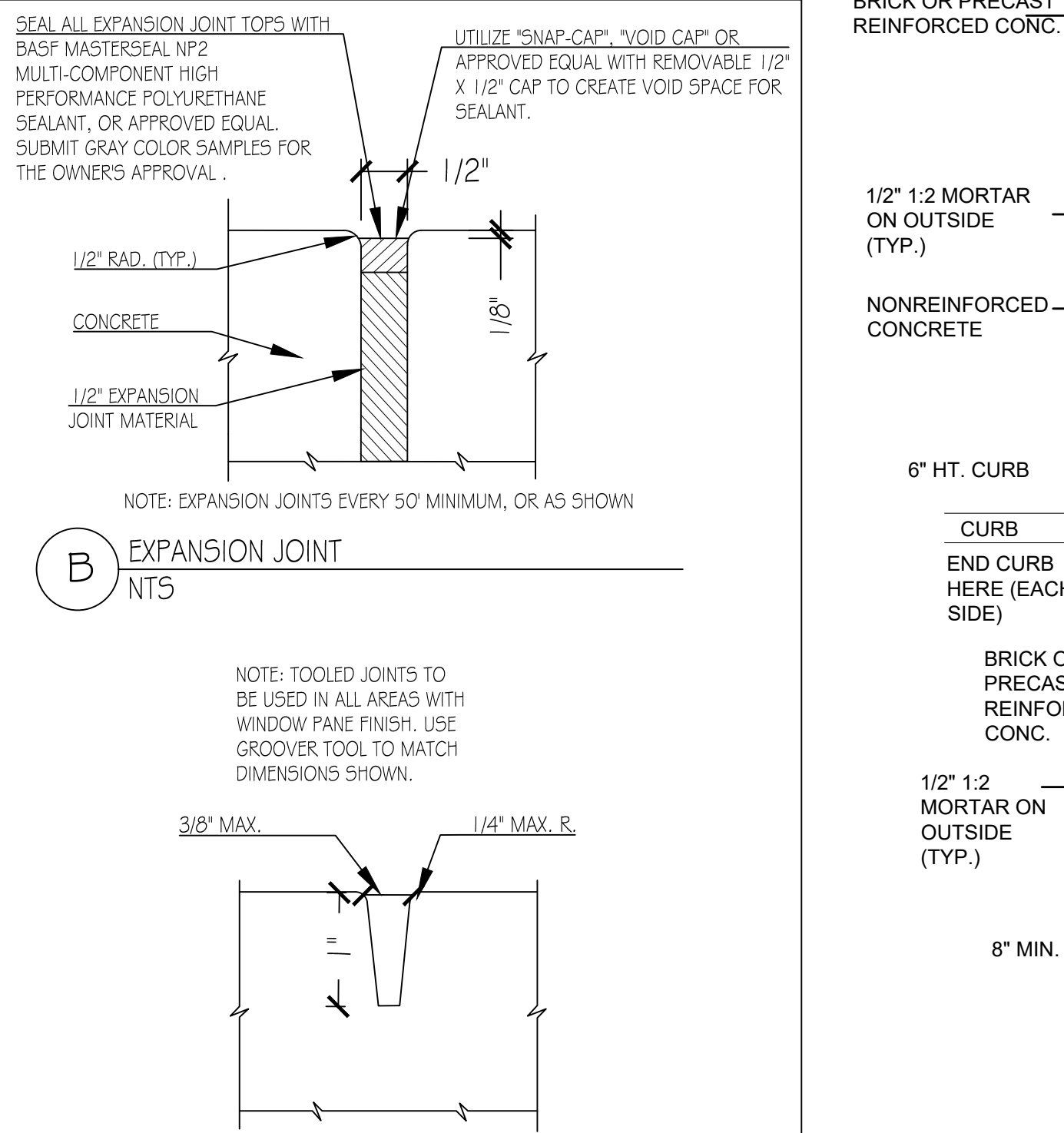
**1 DROP INLET (DI)**  
C700 NTS



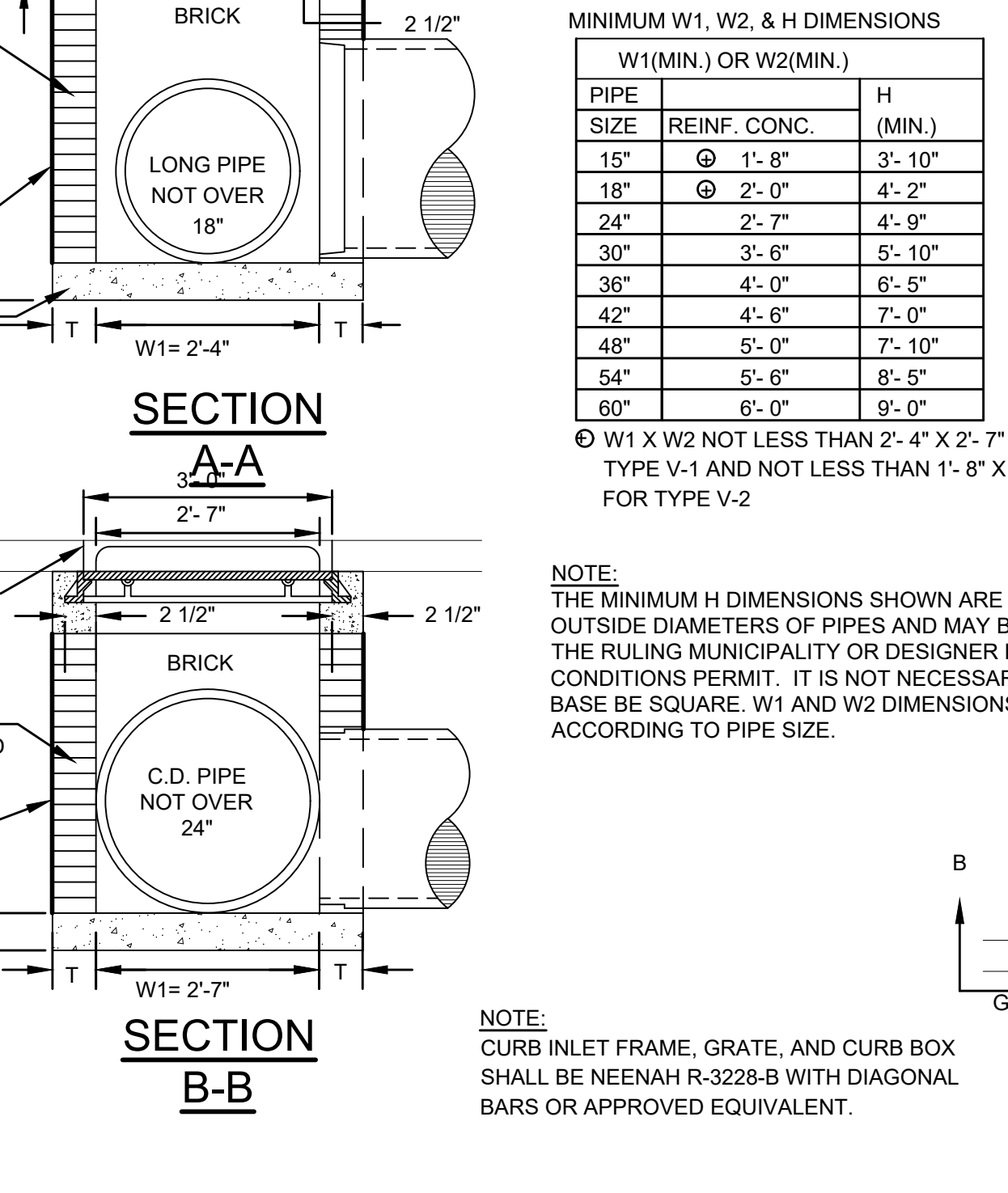
**2 CONCRETE SIDEWALK DETAIL**  
C700 NTS



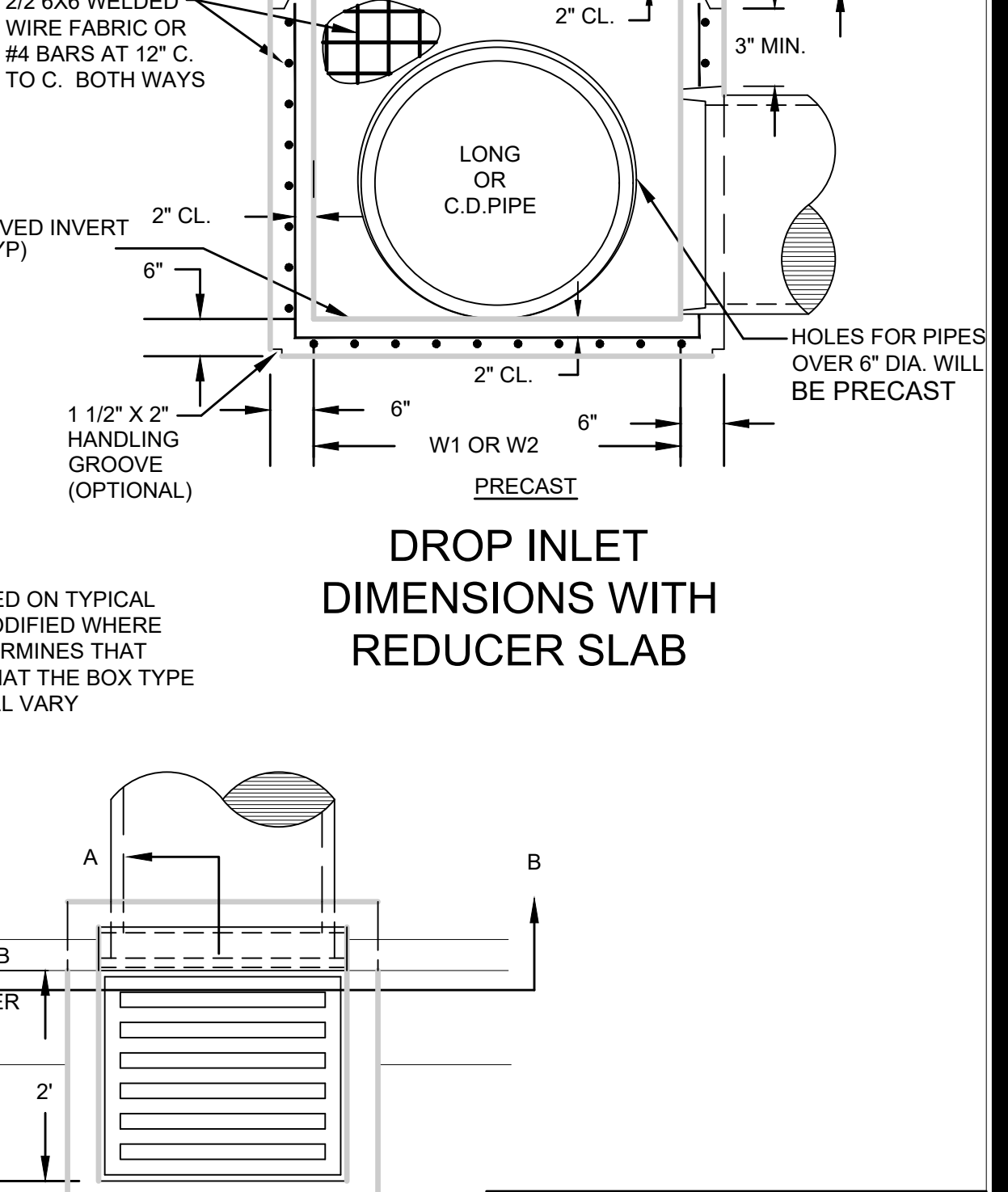
**4 STORM JUNCTION BOX (JB)**  
C700 NTS



**4 CONCRETE JOINT DETAIL**  
C700 N.T.S.



**5 CURB, HOOD, & GRATE (CI)**  
C700 N.T.S.



**DROP INLET DIMENSIONS WITH REDUCER SLAB**

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**24 HOUR CONTACT**  
CITY OF DACULA  
BRITNI NIX  
BRITNI.NIX@DACULAGA.GOV  
770-963-7451

**811** Know what's below.  
Call before you dig.

STATE OF GEORGIA  
Professional Engineer  
JEFFREY J. BOWMAN  
15/2012  
15/2018  
LEVEL II BAS CERT. #945  
EXP. DATE 09-27-23

**BOWMAN**

474 SILVER PEAK PARKWAY  
SUWANEE, GEORGIA 30024  
PHONE (770) 932-6550  
FAX (770) 932-6551  
WWW.BOWMANCCM.COM

CITY OF DACULA

OWNER:  
CITY OF DACULA, GEORGIA 30019

PROJECT:  
2ND AVENUE @ BROAD STREET  
DRAINAGE AND PAVING  
IMPROVEMENTS PROJECT

DETECT: 5  
LANDSCAPE: 302  
GWINNETT COUNTY, GEORGIA

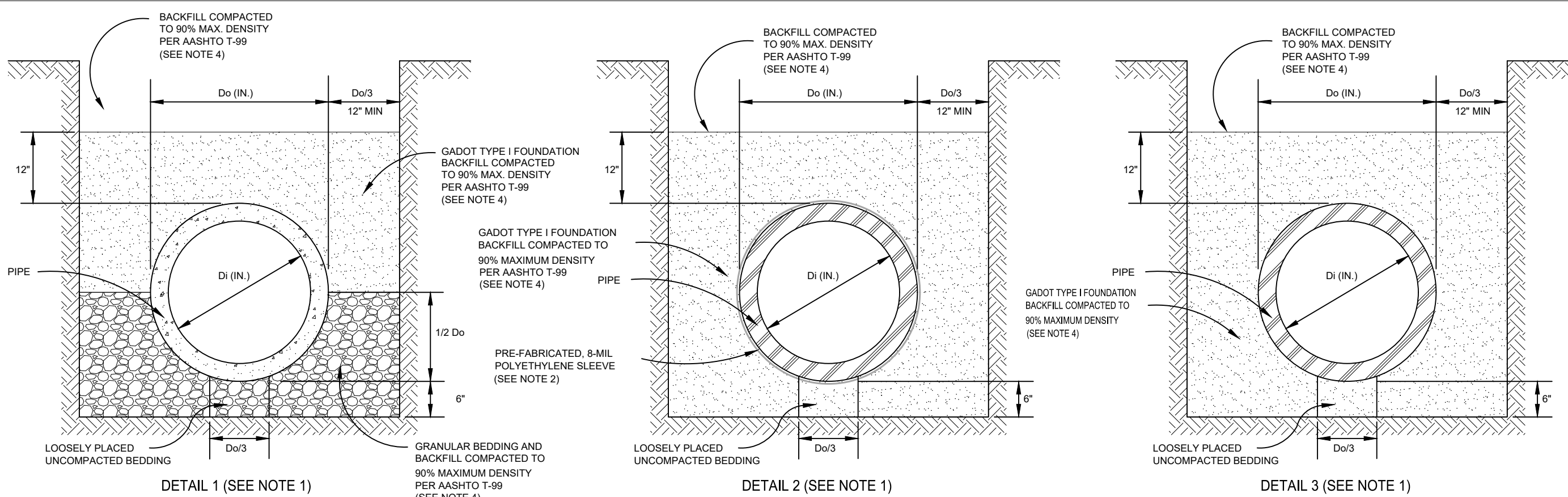
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DETAILS  
C700



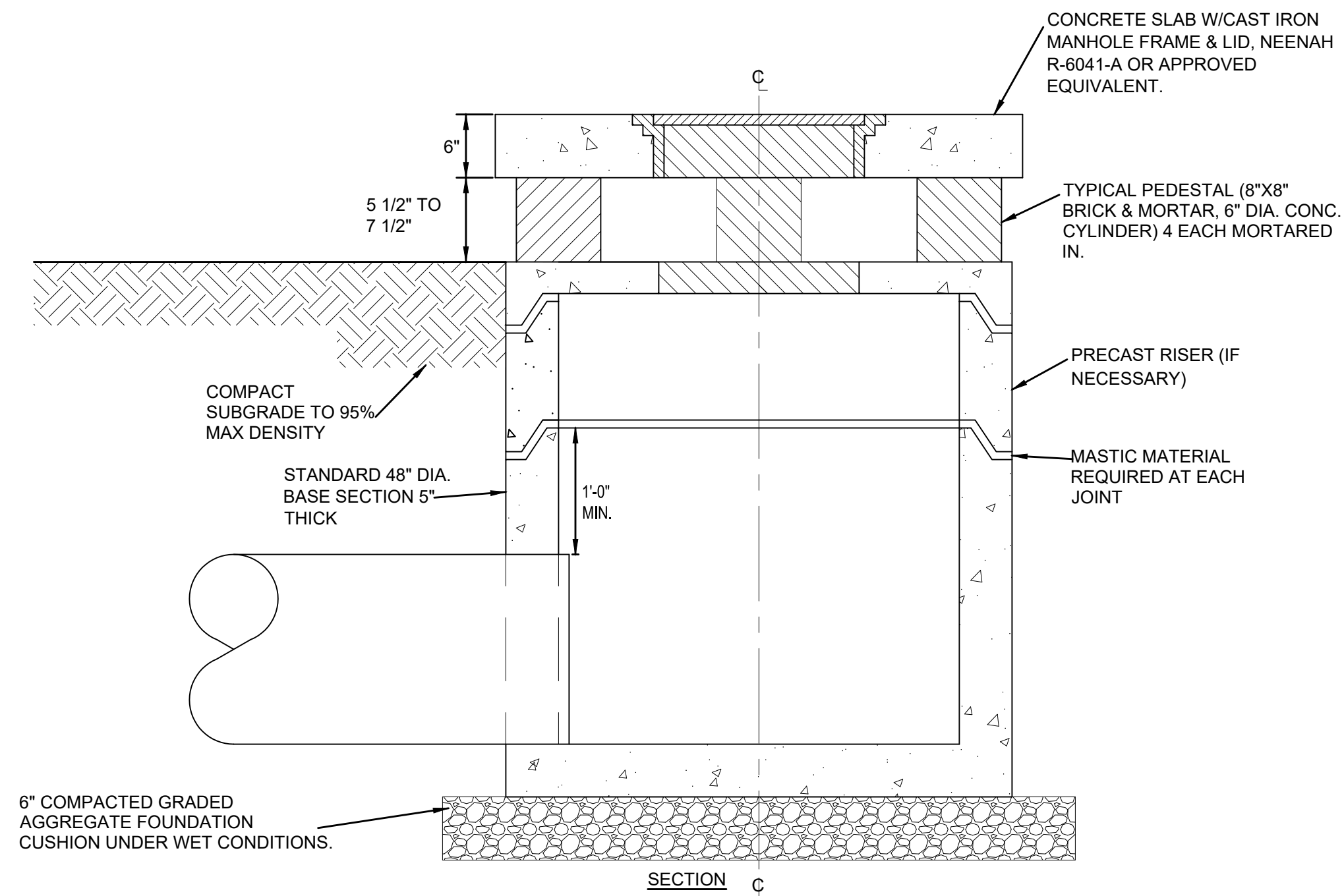


- NOTES**
1. REPRESENTATIVE SOIL pH RESULTS SHALL BE PROVIDED FOR ALUMINIZED TYPE 2 STEEL OR REINFORCED CONCRETE PIPE WHERE THE SOIL TYPE, AS INDICATED IN THE GWINNETT COUNTY SOIL SURVEY, HAS A pH RANGE WITH pH VALUES LESS THAN 5. DETAIL 1 OR DETAIL 2 SHALL BE USED WHEN THE SOIL pH < 5. DETAIL 1 OR DETAIL 2 MAY BE USED IN LIEU OF SOIL pH TESTING FOR ALUMINIZED TYPE 2 STEEL OR REINFORCED CONCRETE PIPE. NO pH TESTING SHALL BE REQUIRED FOR HDPE, ALUMINUM PIPE, OR POLYMER PRECOAT CSP.
  2. PRE-FABRICATED, 8-MIL POLYETHYLENE SLEEVE SHALL BE SLIPPED OVER THE PIPE DURING INSTALLATION, OVERLAPPED WHERE NECESSARY, AND SECURED WITH POLYETHYLENE TAPE TO COMPLETELY PREVENT THE ENTRANCE OF SOILS.
  3. ALLOWABLE GRANULAR MATERIALS SHALL BE GRADED AGGREGATE BASE, CRUSHER RUN, GADOT FOUNDATION BACKFILL MATERIAL TYPE II, OR GADOT MECHANICALLY STABILIZED EMBANKMENT BACKFILL.
  4. BACKFILL SHALL BE COMPACTED TO 95% MAX DENSITY PER AASHTO T-99 WITHIN STREET RIGHT-OF-WAY.

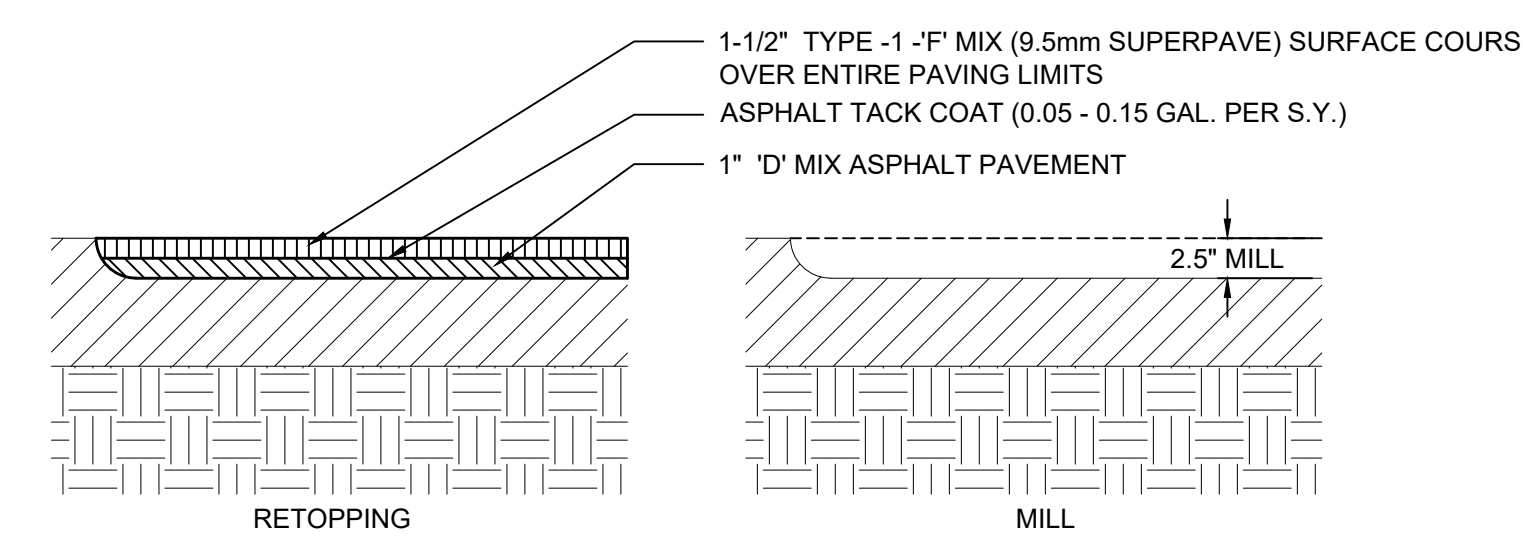
PIPE TYPE	BEDDING DETAIL			
	DETAIL 1 ALL pH RANGES	DETAIL 2 ALL pH RANGES	DETAIL 3 ALL pH RANGES	pH > 5
AL TYPE 2 CSP	X	X		X
POLYMER PRECOAT CSP	X	X	X	
ALUMINUM	X	X	X	
RCP	X	X		X
HDPE	X			

**1 PIPE BEDDING**  
C701 N.T.S.

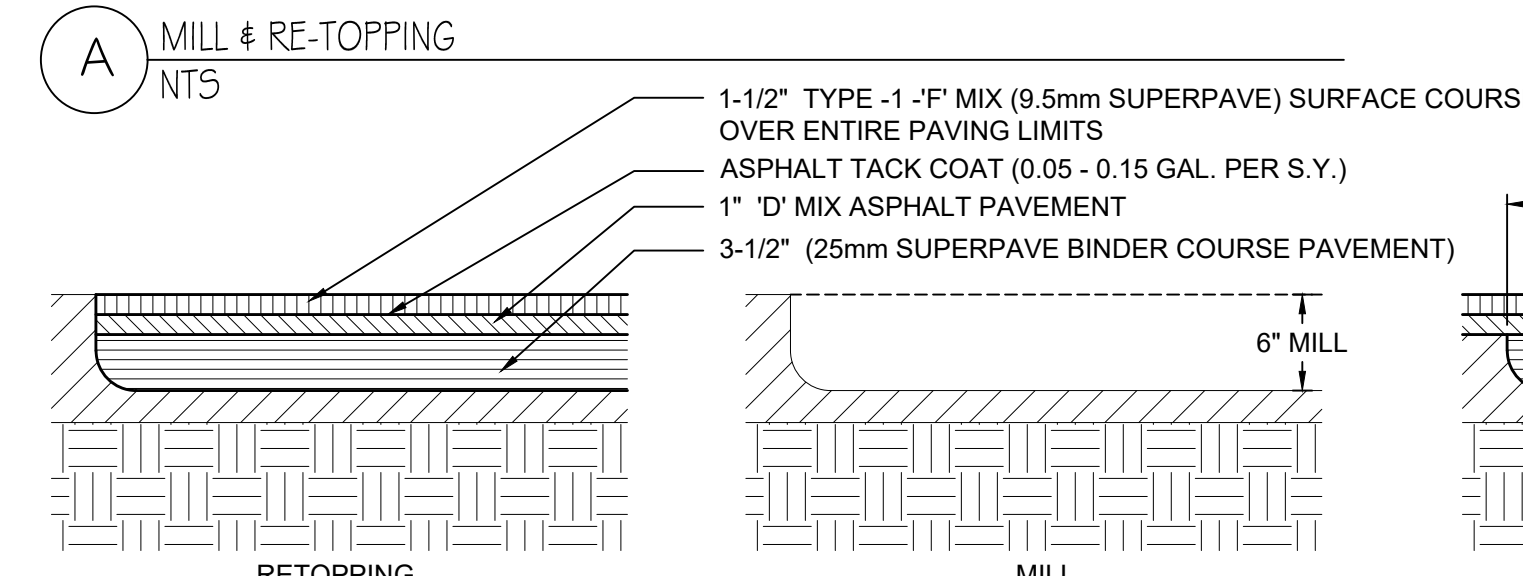
**2 WEIR INLET (WI)**  
C701 N.T.S.



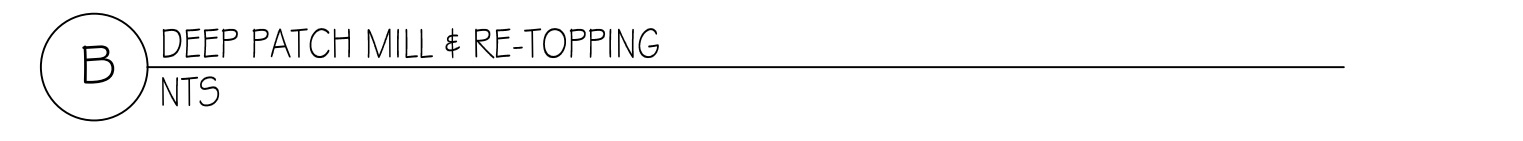
- NOTES:**
1. SUBGRADE TO BE COMPACTED TO 95% MAX. DRY DENSITY PER STANDARD PROCTOR.
  2. REINFORCEMENT STEEL SHALL BE PLACED TO ALLOW A MIN. OF 1 1/2" COVER, EXCEPT WHERE NOTED.
  3. REINFORCEMENT STEEL SHALL BE OF INTERMEDIATE GRADE AND SHALL CONSIST OF NO. 4 @ 6" O.C. E.W.
  4. ALL CONCRETE SHALL BE CLASS AA1 4500 PSI.
  5. WHEN 60" & 72" BASE SECTIONS ARE REQUIRED, AN ADAPTER SECTION SHALL BE USED IN CONJUNCTION WITH THE STANDARD CONE.
- FINISH NOTES:**
1. ALL EXPOSED CONCRETE FOR WEIRS EXTENDED ABOVE SURROUNDING GRADE IN LANDSCAPE AREAS TO BE PRIMED AND STAINED TO 12" BELOW FINISHED GRADE.
  2. PRIMER TO BE BENJAMIN MOORE SUPER SPEC MASONRY SEALER (N066).
  3. STAIN TO BE BENJAMIN MOORE SUPER SPEC EXTERIOR FINISH (179).
  4. COLOR TO BE "APPALACHIAN BROWN" (2115-10).



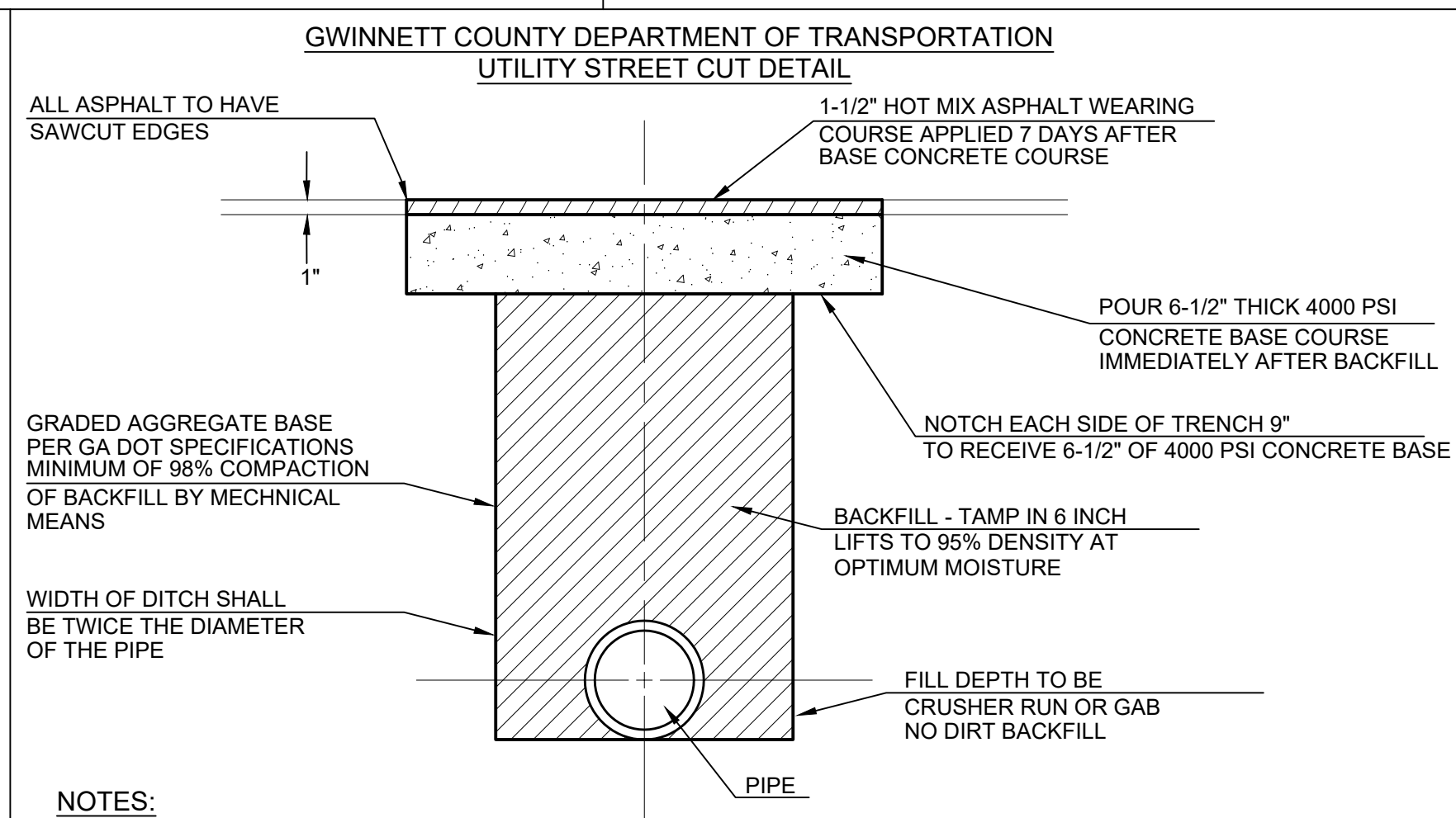
- NOTES:**
1. 2.5" MILL EXISTING ASPHALT.
  2. INSTALL 1" 'D' MIX OVER ENTIRE PAVING LIMITS.
  3. INSTALL TACK COAT.
  4. INSTALL 1-1/2" 'F' MIX (9.5mm) SURFACE COURSE.
  5. RE-STRIPE PAVEMENT AND PARKING MARKINGS TO MATCH EXISTING CONDITIONS.
  6. REFER TO SHEET C100 FOR MILLING LIMITS AND C200 FOR PAVEMENT LIMITS.



- NOTES:**
1. 6" MILL EXISTING ASPHALT.
  2. INSTALL 3-1/2" (25mm SUPERPAVE).
  3. INSTALL 1" 'D' MIX OVER ENTIRE PAVING LIMITS.
  4. INSTALL TACK COAT.
  5. INSTALL 1-1/2" 'F' MIX (9.5mm SUPERPAVE) SURFACE COURSE.
  6. RE-STRIPE PAVEMENT AND PARKING MARKINGS TO MATCH EXISTING CONDITIONS.
  7. REFER TO SHEET C100 FOR MILLING LIMITS AND C200 FOR PAVEMENT LIMITS.

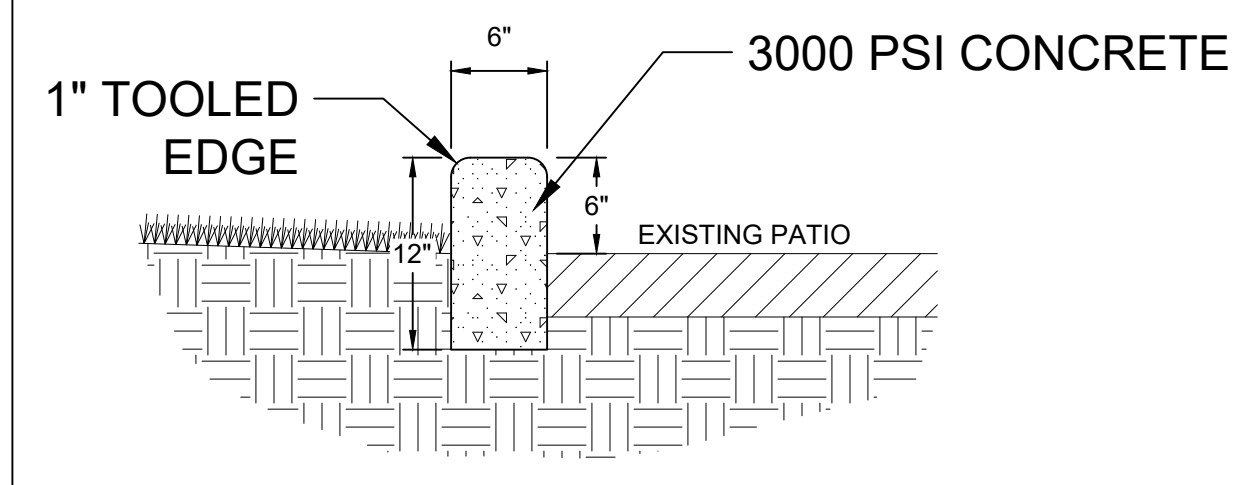


**3 PAVEMENT DETAILS**  
C701 N.T.S.

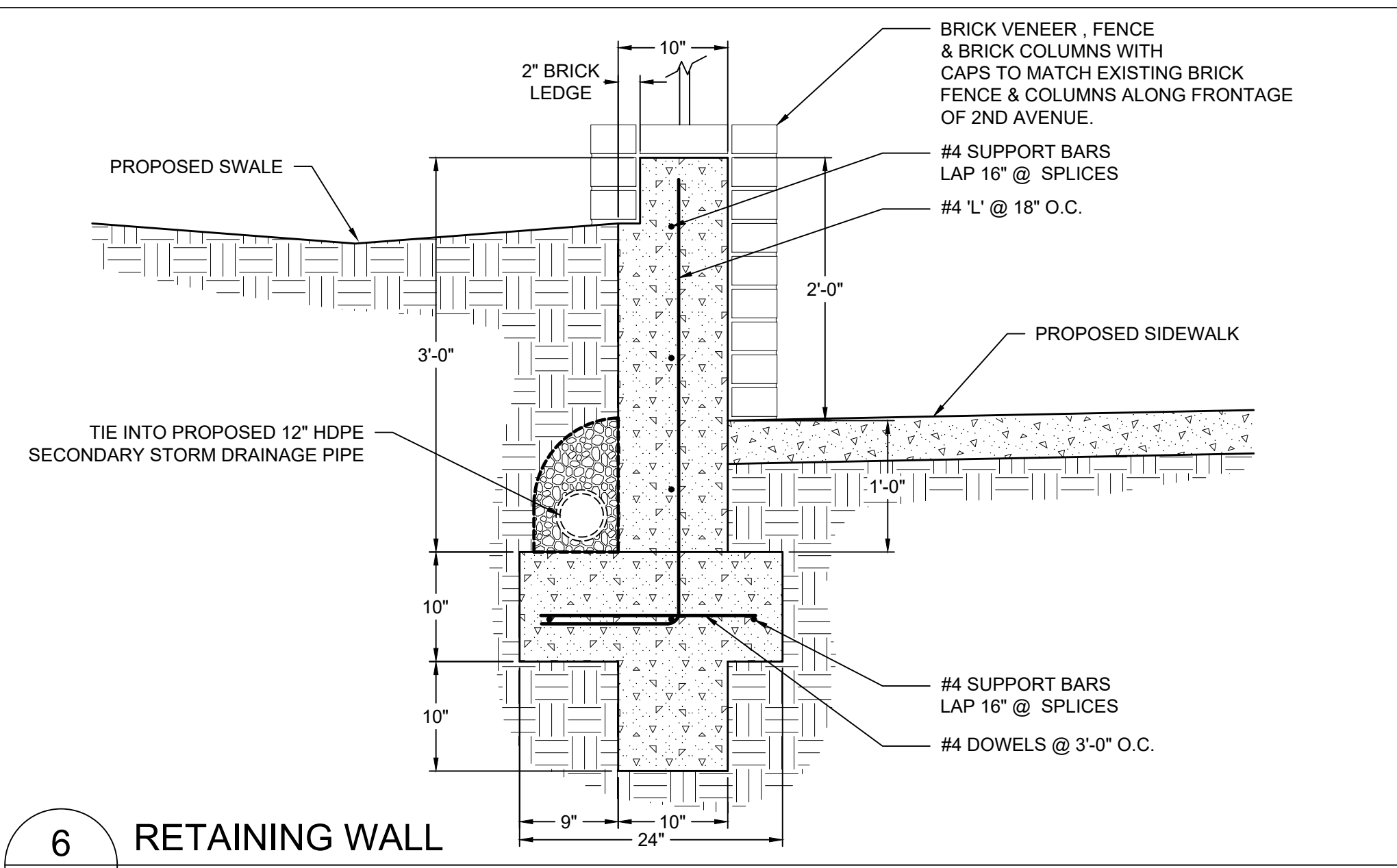


- NOTES:**
1. BEFORE ANY CONTRACTOR OR AGENCY CAN CUT A ROAD FOR ANY PURPOSE, AN ESCROW AGREEMENT BETWEEN THE COUNTY AND THAT CONTRACTOR OR AGENCY MUST BE SIGNED.
  2. AN OPEN CUT PERMIT MUST BE OBTAINED BY THE CONTRACTOR OR AGENCY PRIOR TO THE START OF ANY DEMOLITION OR CONSTRUCTION.
  3. STREET CUTS MUST BE REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS ABOVE. THE BOND WILL BE RELEASED 30 DAYS AFTER COMPLETION AND INSPECTION OF THE CONSTRUCTION. THE CONSTRUCTION MUST OCCUR UNDER THE PROTECTION OF TRAFFIC CONTROL SIGNING REQUIREMENTS OUTLINED IN THE MANUAL ON TRAFFIC CONTROL DEVICES. THE TRANSPORTATION DEPARTMENT WILL BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION. ANY CUT LEFT OVERNIGHT WILL BE COVERED WITH STEEL PLATES SECURED TO THE PAVEMENT.
  4. PERMIT HOLDER MUST CONTACT GWINNETT COUNTY ROAD MAINTENANCE AT 770-822-7414 FOR AN INSPECTION OF THE TRENCH PRIOR TO POURING THE CONCRETE BASE OR WILL FORFEIT YOUR BOND.

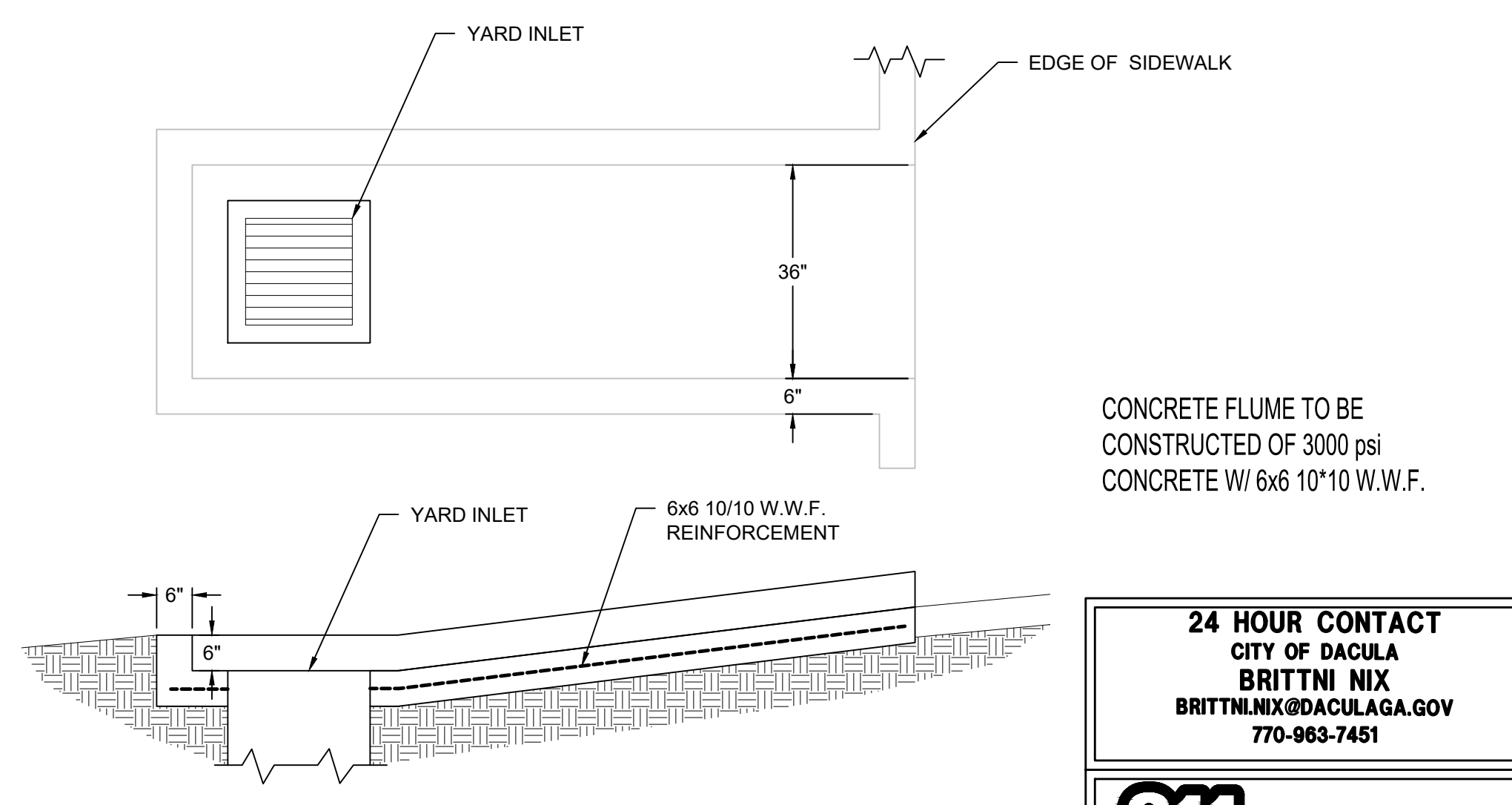
**4 PAVEMENT PATCH FOR OPEN CUT**  
C701 N.T.S.



**5 CONCRETE CURB**  
C701 N.T.S.



**6 RETAINING WALL**  
C701 N.T.S.



**7 CONCRETE FLUME**  
C701 N.T.S.

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770-963-7451



**BOWMAN**

4174 SILVER PEAK PARKWAY  
SUWANEE, GEORGIA 30024  
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CITY OF DACULA

OWNER:  
P.O. BOX 400  
DACULA, GEORGIA 30019

PROJECT:  
2ND AVENUE @ BROAD STREET  
DRAINAGE AND PAVING  
IMPROVEMENTS PROJECT

DEFLECT: 5  
LANDSCAPE: 302  
GWINNETT COUNTY, GEORGIA

DATE	DESCRIPTION
3/25/2022	PLAN REVIEW

JOB NO: 22-0109  
DRAWN BY: RWH  
CHECKED BY: KDW

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DETAILS

C701





<b>Opinion of Probable Construction Cost (OPCC)</b>				Date: <b>March 25, 2022</b>		
City of Dacula_2nd Ave @ Broad Street - Drainage and Paving Improvements				Job #22-0109		
Activity	Quantity	Unit	Labor \$ or Lump Sum	Subtotal	Total	Misc. Notes
<b>Demolition</b>					<b>\$ 20,300.00</b>	
Traffic Control/Signage/Bonds	1	Ea	15,000.00	\$ 15,000.00		
Demolish & remove existing concrete sidewalk & brick edge	1,200	SF	4.00	\$ 4,800.00		
Demolish & remove existing tree and landscaping	1	LS	500.00	\$ 500.00		
<b>Site and Storm Drainage</b>					<b>\$ 114,850.00</b>	
Site Grading/Backfill	1.00	LS	10,000.00	\$ 10,000.00		
Header Curb & Gutter for drainage and flume	150	LF	12.00	\$ 1,800.00		
Concrete Sidewalk	900	SF	13.50	\$ 12,150.00		
6" Concrete Pavement at Alley	800	SF	15.00	\$ 12,000.00		
Storm Yard Inlet Structures	8	Ea	2,000.00	\$ 16,000.00		
4' wide Concrete Flume	2	Ea	800.00	\$ 1,600.00		
12" HDPE	265	LF	40.00	\$ 10,600.00		
18" RCP	220	LF	55.00	\$ 12,100.00		
Headwall	1	Ea	2,500.00	\$ 2,500.00		
Curb, Hood & Grate Storm Inlet	2	Ea	3,000.00	\$ 6,000.00		
Grate Storm Inlet at Rear Alley (Wilson Street)	1	Ea	3,500.00	\$ 3,500.00		
Brick Retaining Wall	160	FF	100.00	\$ 16,000.00		
Brick Columns	7	Ea	1,000.00	\$ 7,000.00		
Steel Railings	24	LF	150.00	\$ 3,600.00		
<b>Milling and Paving</b>					<b>\$ 56,250.00</b>	
Deep Patch 6" (6' x 100' area); Mill and Inlay (44' x 181' area)	1	LS	45,000.00	\$ 45,000.00		
Asphalt Pavement Patch (Concrete)	45.00	CY	250.00	\$ 11,250.00		
<b>Erosion Control</b>					<b>\$ 2,000.00</b>	
Silt Fence	100	Lf	2.50	\$ 250.00		
Temporary Grassing (Ds1,Ds2,Ds3)	0.50	Ac	1,500.00	\$ 750.00		
Sediment Trap/ Inlets	5	Ea	200.00	\$ 1,000.00		
<b>Landscape</b>					<b>\$ 4,600.00</b>	
Landscaping (Japanese Maple, Shrubs, Pinestraw)	1.00	LS	600.00	\$ 600.00		
Grass Sod (Permanent)	5000.00	Sf	0.80	\$ 4,000.00		
<b>Sub Total</b>					<b>\$ 198,000.00</b>	
<b>15% Construction Contingency</b>					<b>\$ 29,700.00</b>	
<b>GRAND TOTAL COST:</b>					<b>\$ 227,700.00</b>	

\*MDA, a Bowman Company, makes no guarantee as to the accuracy or inaccuracy of the figures above. These costs are for budgeting purposes only. All final costs are subject to change.

\* All quantities listed are preliminary and approximate and shall be verified by the Contractor during Construction.

\* **Utility Modifications - Water/Gas services, meters, and valves which require relocation, etc. are not included in cost of OPCC.**

\* Does not include costs for any subgrade issues or rock removal/demolition if encountered during excavation for pipe installation.

Project Manual

*for*

City of Dacula

2<sup>ND</sup> Avenue @ Broad Street Drainage and Paving Improvements

*Work to be Performed*

*for*

City of Dacula

G e o r g i a

March 25th, 2022

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*Prepared By:*



4174 Silver Peak Parkway  
Suwanee, Georgia 30024



2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements  
for  
City of Dacula, Georgia

SECTION      TITLE

DIVISION 0 - BIDDING/CONTRACT REQUIREMENTS

00 002	Table of Contents
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00 300	Bid Proposal Form
00 500	"DRAFT" Contract
00 600	Bonds & Certificates
00 700	General Conditions
00 801	Supplementary Conditions
00 802	Notice of Commencement
00 900	Addenda and Clarifications

DIVISION 1 - GENERAL REQUIREMENTS

01 000	Project Scope of Work & Performance Specifications
01 370	Application for Payment
01 400	Quality Control
01 500	Construction Facilities and Temporary Controls
01 630	Prior Approvals & Substitutions
01 700	Contract Close-Out
01 740	General Contractor Warranty
01 741	Sub-Contractor Warranty
01 742	Certificate of Contractor / Statutory Affidavit
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DIVISION 2 – SITE

02 050	Demolition
02 200	Earthwork
02 270	Slope Protection and Erosion Control
02 514	Site Concrete
02 547	Bituminous Surfacing
02 720	Site Drainage
02 930	Lawns and Grasses
02 933	Temporary Seeding

APPENDIX

- Location Map
- Referenced "2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements" Drawings.

**ADVERTISEMENT FOR BIDS**

Sealed bids for the "2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements" Project will be received by the City of Dacula at Dacula City Hall – 442 Harbins Road, Dacula, Ga. 30019, until **3:00 PM** local time on **May 18, 2022**. Any bid received after said time and date will not be accepted by the City.

The Contract Documents, consisting of Advertisement for Bids, Information for Bidders, Bid Proposal Form, Form of Agreement, Drawings, Specifications, Bid forms, Bid Bond, Performance Bond, Payment Bond, Bidders Qualifications Forms, and other Contract Documents may be examined at: The **Bowman Consulting Group, LLC (Bowman)**, 4174 Silver Peak Parkway, Suwanee, Georgia 30024. Contact: Kevin D. Whigham, P.E. (770) 932-6550 email: [kwhigham@bowman.com](mailto:kwhigham@bowman.com).

All Bidders must be registered with Bowman to assure that Bidders receive all addenda and/or clarifications to the Bid Documents in a timely manner, it is highly recommended that all bidders obtain at least one complete set of Bid Documents directly from Bowman. Entities that do not obtain Bid Documents from this source will not receive addenda and/or clarifications. Bidders relying on plan rooms or other services to obtain Bid Documents, rather than obtaining them directly from the source are doing so at their own risk. Copies of the Documents and specifications will be provided in Electronic Format and can be obtained by contacting Bowman to be placed on the Bidder's List. Electronic Copies will be made available on Bowman FTP website or sent by email at no charge. If hard copies are required, there is a non-refundable cost for each set of plans and specifications of \$150.00 (cash or check).

**A. BASE BID –**

The Work to be completed for this Project consists of furnishing all labor, materials, earthwork, construction operations, details, supervision and coordination of all trades, utility suppliers, governmental inspections and approvals to complete the construction, installation, and coordination for the City of Dacula "2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements" Project as follows:

The scope for the 2<sup>nd</sup> Avenue @ Broad Street Storm Drainage and Paving Improvements includes fine grading a new drainage swale along Broad Street end of existing building that fronts 2<sup>nd</sup> Avenue. The new swale being located between the existing sidewalks along the building and Broad Street. Stormwater draining along this swale will be picked up, routed, and discharged into a new 18" RCP pipe that will be installed within the parking area along 2<sup>nd</sup> Avenue from the existing downstream 18" storm pipe. This will allow a primary stormwater system tie-in near the corner of 2<sup>nd</sup> Avenue and Broad Street. With this new primary system tie-in, a proposed 12" HDPE secondary drainage system will be installed along Broad Street right-of-way to provide stormwater discharge. The secondary drainage pipe and yard inlets will be installed to collect

stormwater within the swale and route it to 2<sup>nd</sup> Avenue so that it does not pond and wash sediment in front of the existing buildings at the corner of Broad Street and 2<sup>nd</sup> Avenue. A new brick retaining wall and columns that will match the existing brick wall along 2<sup>nd</sup> Avenue will be installed to retain soils from the swale and prevent stormwater from washing onto the existing sidewalk adjacent to the buildings. Miscellaneous items such as handrails at existing steps, concrete pad @ existing grease trap, and header curb at upstream driveway are also included with the drainage scope of the Project.

The second location for storm drainage repair is located down 2<sup>nd</sup> Avenue adjacent to the vacant lot located between the existing buildings. Storm drainage enters a deteriorated clay storm drainage pipe at the low point in the vacant lot adjacent to the existing sidewalk. To address this storm drainage issue, the existing pipe and sidewalk will be removed from the pipe entrance at low point down to existing curb inlet in parking area along 2<sup>nd</sup> Avenue. A new pedestal top weir inlet, 18" RCP storm drainage pipe, curb inlet, and sidewalk will be installed to address this issue. The proposed 18" RCP storm pipe will be installed underneath the existing brick decorative wall. Contractor shall protect existing brick wall from damage while installing new storm pipe. Also, a new handrail will be installed to correct a safety issue so pedestrians do not fall off sidewalk at the existing low point area adjacent to the sidewalk.

The paving scope on 2<sup>nd</sup> Avenue will consist of 6" Deep Patch Milling to repair alligatored and deteriorating asphalt in center of road; then 2" milling over remaining areas of the street and parking from Broad Street intersection to the limits of new paving where Gwinnett County ended their previous pavement repair project. Once milling is complete, apply tack coat over existing pavement at deep patch areas prior to installing 3.5" of 25 mm Superpave Asphalt Binder Course in deep patch areas. Then apply a second tack coat, prior to installing 1" of 'D' Mix Asphalt Binder Course and 1-1/2" Type 1 - 'F' Mix (9.5 mm) Asphalt Surface Course. All new pavement repair shall have smooth transition with adjacent existing asphalt. Contractor shall then re-stripe 2<sup>nd</sup> Avenue to match existing conditions including parking lot striping.

The Alley behind 2<sup>nd</sup> Avenue Building Lots 10 – 13 off of Wilson Street will be regraded and improved to prevent stormwater from discharging into the back of the buildings in order to address property owner complaints. A new junction box storm inlet will be installed over the existing 15" HDPE pipe on the east side of Wilson Street. This will allow for a new 15" RCP pipe to be installed to cross under Wilson Street. A new Grate Inlet Storm Structure will replace the existing grate inlet at the rear corner of the existing Lot 13 building. Once that is complete, a new 12" HDPE secondary pipe system and yard inlets will be installed along the rear alley to pick up stormwater from the upstream areas.

All disturbed areas will be permanently grassed with Bermuda Sod. Removal of all vegetation and trees within limits of work shall be included in Contractor's overall Bid unless otherwise illustrated on the drawings. Traffic access to streets and private driveways shall remain open at all times.

All earthwork quantities for grading, pipe bedding, and backfill whether haul-in and/or haul-off are the responsibility of the Contractor to include in their Lump Sum Bid in order to complete the Scope of Work at no additional cost to the Owner. All quantities and measurements are approximate. Contractor shall visit the Site and determine his own quantities for bidding this project.

Contractor shall include in their Base Bid all costs for adjusting and relocating any water and gas services lines, meters, or valves impacted by new storm line installation in order to complete the scope of work as described by the Contract Documents and Drawings. Contractor shall coordinate with utility companies and relocate utilities as required to install new improvements. Contractor must be qualified with Gwinnett County in order to perform water line installation, relocation and repairs.

One lane of traffic and access to residential/commercial driveways must be maintained at all times. Traffic Safety devices such as signage, barricades, etc., and the protection of the public-at-large, and the Contractor's personnel is part of this contract and is the Contractor's sole responsibility. The Contractor will have Ninety (90) consecutive calendar days from the "Notice to Proceed" to finish and complete the project.

All materials and appurtenances required to complete this Scope of Work is the responsibility of the Contractor and shall be provided in his overall Bid. The Contractor must be an approved Contractor with the City of Dacula and/or Gwinnett County. A complete list of materials should be included in the Contractor's overall Bid.

Bidder will prepare Asphalt prices for bid based on the current GDOT Asphalt Cement Price Index listed at the time of bid opening. The successful Contractor's pay request will list the current GDOT Asphalt Cement Price Index at the time of purchase. The difference in price between the GDOT Asphalt Cement Price Index at bid and at purchase will either be a change order to the Contractor or a Credit to the Owner. The GDOT Asphalt Cement Price Index is in accordance with Special Provision 109 (dated 2008), Section 400.5.01 Adjustments, the asphalt price index for the month of the Letting posted on the Georgia Department of Transportation Website.

Additional items within Scope of Work

- A. A site visit must be made by Contractor and subcontractors to determine the exact nature and scope of the work to be done. Contractor is responsible for hauling off all demolition materials (existing pipe, concrete, asphalt, etc.) to a State approved disposal facility at no additional cost to the Owner. Contractor shall tie in and feather new asphalt into existing asphalt so that there is a smooth transition.
- B. If any unforeseen sub-grade conditions arise the Contractor shall immediately notify the Owner and/or Owner's representative before proceeding with any work to determine the course of action. The Contractor shall have a Geotechnical Engineer (who will be selected by the Contractor and approved and paid for by the Owner) qualify and quantify the areas and determine the method of sub-grade repair in coordination with the Owner and/or Owner's Representative on a case-by-case basis.
- C. The limits of work for this project are limited to that area within the right-of-way of City of Dacula in order to perform the paving and storm sewer drainage pipe and structure installation as described by scope of work in the Contract Documents.
- D. Contractor is responsible to locate horizontally and vertically all existing utilities within limits of disturbance and protect throughout duration of project. Utilities which are present include water, gas, electrical, CATV, AT&T, etc., but may not be limited to these within the limits of disturbance.
- E. Contractor shall provide temporary Metal Plates to cover road or completely backfill and compact excavated areas at end of each day to allow vehicular access when construction crews are not present and working.
- F. Contractor shall visit Site to determine if any built items need to be removed, reinstalled, or replaced in order to complete scope of work (ie. existing brick wall). This shall be included in Contractor's overall Bid.
- G. Contractor shall have a Site Superintendent on-site at all times while work is in progress to monitor, direct, and control construction activities. Superintendent in-charge shall be available to City, Engineer, and adjacent property owners to answer or direct questions concerning the project.

Owner reserves the right to waive any informalities and any technicalities, and to reject any or all bids. There will be a Pre-Bid Conference at Dacula City Hall, 442 Harbins Road, Dacula, GA 30019 at **3:00 PM** local time on **April 27 2022**. All bidders are strongly encouraged to attend this conference. Owner reserves the right to waive any informalities and any technicalities, and to reject any or all bids. All questions concerning this project shall be submitted in writing by email to Bowman (Owner's Representative – Kevin D. Whigham, P.E.) 4174 Silver Peak Parkway, Suwanee, Georgia 30024, phone number 770-932-6550; email [kwhigham@bowman.com](mailto:kwhigham@bowman.com) no later than **May 11, 2022 by 5:00 PM**.

By: Honorable Trey King, Mayor  
City of Dacula, Georgia

## SECTION 00 100

## INSTRUCTIONS TO BIDDERS

Each Bidder by making his bid represents that he has read and understands the bidding documents and has visited the site and familiarized himself with the local conditions under which the work is to be performed.

All bids must be prepared on the forms provided by the Owner's Representative and submitted in accordance with the Instructions to Bidders. A bid is invalid if it has not been deposited at the designated location prior to the time and date for receipt of bids set forth in the advertisement or invitation to bid, or prior to any extension thereof issued to the bidders.

Work under the contract consists of furnishing all labor and materials required to complete the project entitled:

"2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements" Project.

In accordance with Contract Documents prepared by: The Bowman Consulting Group, LTD. (Bowman), 4174 Silver Peak Parkway, Suwanee, Georgia 30024. Phone: (770) 932-6550, Dated: March 25, 2022.

The following provisions shall be applicable to all Bidders:

- A. During grading and excavation phases, if required, should the following conditions be encountered: mass rock, trench rock, trench earth excavation, earth excavation, earth fill and unsuitable soils, Contractor shall immediately notify the Owner's Representative who may observe and will determine the appropriate action necessary for the work to proceed. If, in the opinion of the Owner's Representative, work in addition to the original contract requirements is required, that portion pertaining to any of the foregoing conditions will be performed on a time and material basis and the contract shall be equitably adjusted by change order in accordance with the guidelines set forth in Section 00 801 of these Contract Documents. Contractor shall submit unit prices as required herein that are used to formulate his bid. Unit and/or lump sum prices shall include cost of material, sales tax, delivery, labor, labor burden, supervision, taxes, insurance and all other costs including profit and overhead. Owner's Representative and Owner reserve the right to accept or reject these prices or request the work to be performed on a time and material basis with complete daily breakdowns and logs submitted by General Contractor.

Contractor may draw his own conclusions and no responsibility is assumed by the Owner's Representative or Owner for subsurface conditions or quality of same. No claims for extra compensation or for additional contract time will be allowed due to subsurface conditions.

22-0109

## INSTRUCTIONS TO BIDDERS

00 100-2

- B. Time is of the essence. Construction of the "2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements" Project must be substantially complete within Ninety (90) consecutive days from date of Notice to Proceed.
- C. A bid bond in the amount of 5% of the base bid shall accompany the bid. The Attorney-in-Fact who signs the bid bond must file with the bid bond a certified copy of his Power of Attorney to sign such bond.
- D. Neither Contractor, nor his material suppliers, nor his Subcontractors shall install or otherwise incorporate any materials containing asbestos, PCB or other hazardous materials within the boundaries of the Project. No soil found on Site or transported to the site from remote locations which is contaminated with material containing asbestos, PCB, radon, gasoline, fuel oil, diesel fuel or other similar fossil fuels shall be used for fill, backfill or landscape topsoil.
- E. Each bidder represents that his bid is based upon the work described in the Bid Documents, Drawings, and Specifications.
- F. When references are made in the specifications to trade names, or to the names of manufacturers, such references are made solely to designate and identify the quality of the equipment or material to be furnished and are not intended to restrict competitive bidding. In case the Contractor wishes to use material and equipment other than those specified, PRIOR WRITTEN REVIEW by Owner's Representative must be obtained.
- G. If it is desired to use equipment or materials of different manufacturer or trade names from those specified, application for review of such equipment or materials must reach the hands of the Owner's Representative at least ten (10) days prior to the date set for the opening of bids. Application for review must be accompanied by supporting data clearly proving equality of the proposed substitute to that specified. To be acceptable, a substitute must be equal, or exceed, all requirements of the base specifications, including space limitations. A comparative data schedule shall accompany the submittal. Any changes in the work which might be required to accommodate the proposed substitute shall be clearly shown and described. Should the proposed substitute be accepted, any such changes required in other work due to the use of the substitute shall be coordinated and accomplished by Contractor as part of the Contract at no additional cost to Owner.
- H. No substitutes allowed.
- I. No consideration can be given to requests for review received later than ten (10) days prior to the day set for the opening of bids.
- J. METHOD OF AWARD
1. A lump sum, fixed price bid proposal is requested with specific Schedule of Values to be provided by the Contractor by which they based their bid upon as part of the Contract



Documents and as outlined in the Bid Proposal Form, Section 00 300. Award will be made to the lowest responsive, responsible, qualified bidder.

2. The lump sum bid for the construction of the work as outlined in the Contract Documents and set forth in detail in the proposal, includes the furnishing of all equipment, materials, labor, insurance, overhead and profit for the completion of the work as per the Contract Documents.

#### K. RIGHT TO REJECT BIDS

Owner reserves the right to reject any or all bids and to waive informalities. It is distinctly understood, and all bids are made subject to this Agreement, that Owner reserves the right to decide which bid he deems lowest and best. In arriving at this decision, due consideration will be given to the reputation of the bidder, his financial responsibility, work of this type successfully completed, and the character of materials and equipment offered. No bids received after the time set for opening proposals will be considered. Any unauthorized conditions, limitations or provisions attached to the proposal, or the omission of a bid on any item in the proposal for the section bid upon, will render it informal and may cause its rejection. No bids will be allowed to be withdrawn after time set for receiving bids.

#### L. CONTRACT DOCUMENTS

1. The Contract Documents are intended to agree and be mutually explanatory, and they shall be accepted and used as a whole and not separately. Should any items be omitted from the Project Scope of Work and/or the Drawings, or vice versa, it shall be executed the same as if shown and combined in both. Should any item be omitted, or should any item be described in the Scope and/or Drawings, but not duplicated on other, it shall be executed the same as if shown and combined in both. Should contradiction be found, notify Owner's Representative prior to receipt of bids so that contradictions can be clarified by addendum (a).
2. Large scale details will be furnished by the Owner's Representative for all work which in the opinion of Owner's Representative requires same.
3. Details shall be accurately followed, deviation therefrom being cause for rejection of work.
4. Explanatory note shall be preferred to conflicting drawn out indications. Large scale details shall be preferred to scale measurements. In all cases the details shall be checked with existing conditions. Should any variation be found, it shall be immediately referred to Owner's Representative for clarification and adjustment.
5. Owner's Representative will be, in the first instance, the interpreter of the requirements of the Contract Documents and judge the performance thereunder by Contractor. Owner's Representative will within a reasonable time, render such interpretations as he may deem necessary for the proper execution or progress of the work.

6. Contractor shall field verify items as outlined in the Project Scope of Work and/or the Drawings.
7. A site visit must be made by Contractor and subcontractors to determine the exact nature and scope of the work to be done.
8. Any quantities called out in the Scope of Work, Bid Documents, Drawings, Specifications, and/or Details are approximate. Contractor shall calculate and verify his own quantities used to formulate his bid. Contractor shall verify and determine his own quantities for all materials, lengths of roadway, and other items required to complete the repaving and drainage improvement work for the project as described in the Scope of Work, Bid Documents, Drawings, and/or Specifications.
9. Contractor is responsible for hauling off all demolition materials (soil, base, existing asphalt, etc.) to a State approved disposal facility at no additional cost to the Owner.
10. Contractor shall use the Georgia DOT asphalt index when forming his bid for any asphalt repair and adjust prices during construction. Use the latest version of the Georgia DOT index for calculations. Bidder will prepare Asphalt prices for bid based on the current GDOT Asphalt Cement Price Index listed at the time of bid opening. The successful Contractor's pay request will list the current GDOT Asphalt Cement Price Index at the time of purchase. The difference in price between the GDOT Asphalt Cement Price Index at bid and at purchase will either be a change order to the Contractor or a Credit to the Owner. The GDOT Asphalt Cement Price Index is in accordance with Special Provision 109 (dated 2009, or latest version), Section 400.5.01 Adjustments, the asphalt price index for the month of the Letting posted on the Georgia Department of Transportation Website.
11. Contractor shall coordinate with Owner to locate a suitable staging area near the project. If necessary, the Contractor is responsible for the coordination and payment of fees or leasing agreements needed for the storage and/or staging of equipment on private property.
12. The Contractor is responsible for any and all utility locates needed before commencing work on the project. The Contractor shall contact the affected utility, not the City, should utility damage occur. Emergency contact numbers will be provided to the successful bidder.
13. Contractor is not responsible for acquiring any permits.
14. No other testing requirements are required by the Contractor unless an unforeseen circumstance arises with subgrade issue on a case-by-case basis. If this occurs the repaired area shall be proof rolled for subgrade and base material in the presence of the Owner or Owners' Representative prior to placing base and binder material over graded aggregate base material. If any areas fail, then the Contractor will be required to provide

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## INSTRUCTIONS TO BIDDERS

00 100-5

a Geotechnical Engineer to qualify and quantify bad materials. Geotechnical Engineer shall be selected by the Contractor, approved by the owner, and paid through an approved change order by the Owner.

15. Access to residential and commercial driveways, as well as maintaining one lane (12' wide minimum for school bus access) open for traffic at all times is the Contractor's responsibility. The Contractor's means, methods and scheduling for completion of the contract work is his responsibility.
16. Limits of work for this project occur in residential areas so work is restricted to between the hours of 8 a.m. to 6 p.m. Monday through Saturday. No work on Sunday.
17. Contractor is responsible for all erosion control required to complete the scope of work such as Rip Rap, Erosion Control Matting, temporary and permanent grassing (Sod), and other measures as outlined in the Scope of Work, Bid Documents, and/or Performance Specification.
18. No partial sets of the Contract Documents will be issued by Owner or Owner's Representative.

End of Section

22-0109

BID PROPOSAL FORM

00 300-1

## SECTION 00 300

## BID PROPOSAL FORM

**TO: CITY OF DACULA**

P.O. Box 400  
 Dacula, Georgia 30019

Date: \_\_\_\_\_

Gentlemen:

Having carefully examined the Contract Documents entitled "2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements" Project, dated March 25, 2022 and Addendum (a) No. (s) \_\_\_\_\_, and having examined the site and conditions affecting the work, including availability of materials and labor, the undersigned hereby proposes to furnish all materials, labor, tools, equipment, machinery, transportation, supervision, administration and services necessary and incidental to construct and substantially complete the drainage and paving improvements called for in the Contract Documents for said project, and in accordance with said documents, shall be substantially complete by the time set forth therein.

**A. BASE BID –**

The Work to be completed for this Project consists of furnishing all labor, materials, earthwork, construction operations, details, supervision and coordination of all trades, utility suppliers, governmental inspections and approvals to complete the construction, installation, and coordination for the City of Dacula "2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements" Project as follows:

The scope for the 2<sup>nd</sup> Avenue @ Broad Street Storm Drainage and Paving Improvements includes fine grading a new drainage swale along Broad Street end of existing building that fronts 2<sup>nd</sup> Avenue. The new swale being located between the existing sidewalks along the building and Broad Street. Stormwater draining along this swale will be picked up, routed, and discharged into a new 18" RCP pipe that will be installed within the parking area along 2<sup>nd</sup> Avenue from the existing downstream 18" storm pipe. This will allow a primary stormwater system tie-in near the corner of 2<sup>nd</sup> Avenue and Broad Street. With this new primary system tie-in, a proposed 12" HDPE secondary drainage system will be installed along Broad Street right-of-way to provide stormwater discharge. The secondary drainage pipe and yard inlets will be installed to collect stormwater within the swale and route it to 2<sup>nd</sup> Avenue so that it does not pond and wash sediment in front of the existing buildings at the corner of Broad Street and 2<sup>nd</sup> Avenue. A new brick retaining wall and columns that will match the existing brick wall along 2<sup>nd</sup> Avenue will be installed to retain soils from the swale and prevent stormwater from washing onto the existing sidewalk adjacent to the buildings.

Miscellaneous items such as handrails at existing steps, concrete pad @ existing grease trap, and header curb at upstream driveway are also included with the drainage scope of the Project.

The second location for storm drainage repair is located down 2<sup>nd</sup> Avenue adjacent to the vacant lot located between the existing buildings. Storm drainage enters a deteriorated clay storm drainage pipe at the low point in the vacant lot adjacent to the existing sidewalk. To address this storm drainage issue, the existing pipe and sidewalk will be removed from the pipe entrance at low point down to existing curb inlet in parking area along 2<sup>nd</sup> Avenue. A new pedestal top weir inlet, 18" RCP storm drainage pipe, curb inlet, and sidewalk will be installed to address this issue. The proposed 18" RCP storm pipe will be installed underneath the existing brick decorative wall. Contractor shall protect existing brick wall from damage while installing new storm pipe. Also, a new handrail will be installed to correct a safety issue so pedestrians do not fall off sidewalk at the existing low point area adjacent to the sidewalk.

The paving scope on 2<sup>nd</sup> Avenue will consist of 6" Deep Patch Milling to repair alligatored and deteriorating asphalt in center of road; then 2" milling over remaining areas of the street and parking from Broad Street intersection to the limits of new paving where Gwinnett County ended their previous pavement repair project. Once milling is complete, apply tack coat over existing pavement at deep patch areas prior to installing 3.5" of 25 mm Superpave Asphalt Binder Course in deep patch areas. Then apply a second tack coat, prior to installing 1" of 'D' Mix Asphalt Binder Course and 1-1/2" Type 1 - 'F' Mix (9.5 mm) Asphalt Surface Course. All new pavement repair shall have smooth transition with adjacent existing asphalt. Contractor shall then re-stripe 2<sup>nd</sup> Avenue to match existing conditions including parking lot striping.

The Alley behind 2<sup>nd</sup> Avenue Building Lots 10 – 13 off of Wilson Street will be regraded and improved to prevent stormwater from discharging into the back of the buildings in order to address property owner complaints. A new junction box storm inlet will be installed over the existing 15" HDPE pipe on the east side of Wilson Street. This will allow for a new 15" RCP pipe to be installed to cross under Wilson Street. A new Grate Inlet Storm Structure will replace the existing grate inlet at the rear corner of the existing Lot 13 building. Once that is complete, a new 12" HDPE secondary pipe system and yard inlets will be installed along the rear alley to pick up stormwater from the upstream areas.

All disturbed areas will be permanently grassed with Bermuda Sod. Removal of all vegetation and trees within limits of work shall be included in Contractor's overall Bid unless otherwise illustrated on the drawings. Traffic access to streets and private driveways shall remain open at all times.

All earthwork quantities for grading, pipe bedding, and backfill whether haul-in and/or haul-off are the responsibility of the Contractor to include in their Lump Sum Bid in order to complete the Scope of Work at no additional cost to the Owner. All quantities and measurements are approximate. Contractor shall visit the Site and determine his own quantities for bidding this project.

Contractor shall include in their Base Bid all costs for adjusting and relocating any water and gas services lines, meters, or valves impacted by new storm line installation in order to complete the scope of work as described by the Contract Documents and Drawings. Contractor shall coordinate with utility companies and relocate utilities as required to install new improvements. Contractor must be qualified with Gwinnett County in order to perform water line installation, relocation and repairs.

One lane of traffic and access to residential/commercial driveways must be maintained at all times. Traffic Safety devices such as signage, barricades, etc., and the protection of the public-at-large, and the Contractor's personnel is part of this contract and is the Contractor's sole responsibility. The Contractor will have Ninety (90) consecutive calendar days from the "Notice to Proceed" to finish and complete the project.

All materials and appurtenances required to complete this Scope of Work is the responsibility of the Contractor and shall be provided in his overall Bid. The Contractor must be an approved Contractor with the City of Dacula and/or Gwinnett County. A complete list of materials should be included in the Contractor's overall Bid.

Bidder will prepare Asphalt prices for bid based on the current GDOT Asphalt Cement Price Index listed at the time of bid opening. The successful Contractor's pay request will list the current GDOT Asphalt Cement Price Index at the time of purchase. The difference in price between the GDOT Asphalt Cement Price Index at bid and at purchase will either be a change order to the Contractor or a Credit to the Owner. The GDOT Asphalt Cement Price Index is in accordance with Special Provision 109 (dated 2008), Section 400.5.01 Adjustments, the asphalt price index for the month of the Letting posted on the Georgia Department of Transportation Website.

#### Additional items within Scope of Work

- A. A site visit must be made by Contractor and subcontractors to determine the exact nature and scope of the work to be done. Contractor is responsible for hauling off all demolition materials (existing pipe, concrete, asphalt, etc.) to a State approved disposal facility at no additional cost to the Owner. Contractor shall tie in and feather new asphalt into existing asphalt so that there is a smooth transition.
- B. If any unforeseen sub-grade conditions arise the Contractor shall immediately notify the Owner and/or Owner's representative before proceeding with any work to determine the course of action. The Contractor shall have a Geotechnical Engineer (who will be selected by the Contractor and approved and paid for by the Owner) qualify and quantify the areas and determine the method of sub-grade repair in coordination with the Owner and/or Owner's Representative on a case-by-case basis.
- C. The limits of work for this project are limited to that area within the right-of-way of City of Dacula in order to perform the paving and storm sewer drainage pipe and structure installation as described by scope of work in the Contract Documents.

- D. Contractor is responsible to locate horizontally and vertically all existing utilities within limits of disturbance and protect throughout duration of project. Utilities which are present include water, gas, electrical, CATV, AT&T, etc., but may not be limited to these within the limits of disturbance.
- E. Contractor shall provide temporary Metal Plates to cover road or completely backfill and compact excavated areas at end of each day to allow vehicular access when construction crews are not present and working.
- F. Contractor shall visit Site to determine if any built items need to be removed, reinstalled, or replaced in order to complete scope of work (ie. existing brick wall). This shall be included in Contractor's overall Bid.
- G. Contractor shall have a Site Superintendent on-site at all times while work is in progress to monitor, direct, and control construction activities. Superintendent in-charge shall be available to City, Engineer, and adjacent property owners to answer or direct questions concerning the project.

Owner reserves the right to waive any informalities and any technicalities, and to reject any or all bids. There will be a Pre-Bid Conference at Dacula City Hall, 442 Harbins Road, Dacula, GA 30019 at **3:00 PM** local time on **Wednesday, April 27, 2022**. All bidders are strongly encouraged to attend this conference. Owner reserves the right to waive any informalities and any technicalities, and to reject any or all bids. All questions concerning this project shall be submitted in writing by fax or email to The Bowman Consulting Group, LLC (Bowman). (Owner's Representative – Kevin D. Whigham, P.E.) 4174 Silver Peak Parkway, Suwanee, Georgia 30024, phone number 770-932-6550 or email [kwhigham@bowman.com](mailto:kwhigham@bowman.com) no later than **Wednesday, May 11, 2022 by 5:00 PM**.

If any unforeseen sub-grade conditions arise the Contractor shall immediately notify the Owner and/or Owner's representative before proceeding with any work to determine the course of action. The Contractor shall have a Geotechnical Engineer who will be selected by the Contractor and approved by the Owner qualify and quantify the areas and determine the method of sub-grade repair in coordination with the Owner and/or Owner's Representative on a case-by-case basis.

**A. BASE BID – "2nd Avenue @ Broad Street Drainage and Paving Improvements" Project – LUMP SUM AMOUNT**

\*\*Bidder agrees to perform all of the Improvements described in the specifications and represented by the project drawings for the SUM OF :  
 \_\_\_\_\_ (\$\_\_\_\_\_)  
 (Amounts shall be shown in both \* words and figures).  
 \* In case of discrepancy, the amounts shown in words will govern.

\*\*Please note that successful Bidder will be required to submit a Unit Price Breakdown of items used in determining the Lump Sum Bid Proposal Price for this work.

\*\* The **Base Bid** amount shall consist of Work Items more particularly described in Section 01 000, Project Scope & Performance Specification. The Contractor shall be responsible for all labor, equipment, materials, operations, details, insurance, supervision, coordination, administration, overhead and profit, plus all necessary incidental costs associated with the complete function of the Work Scope in context of the project.

"Notice to Proceed" will be issued after the Pre-Construction meeting as soon as all required paperwork such as Contracts, Bonds, Insurance, etc. are in order. Contractor shall mobilize within ten (10) days of Notice to Proceed issued by the City of Dacula and to commit adequate forces on site to substantially complete all Work including punch list items and clean-up for the Base Bid within Ninety (90) consecutive calendar days. The City of Dacula will charge the Contractor Five-Hundred Dollars and no cents (\$500.00) per day for liquidated damages for every day past the completion of the Contract.

The undersigned agrees that this proposal may not be revoked or withdrawn after the time set for the opening of bids but shall remain open for acceptance for a period of 60 days following such time. The undersigned, upon receipt of written notice of the acceptance of this bid, agrees to execute within ten (10) days a Contract for the work for the above stated compensation, and to furnish and deliver to Owner at the same time as the Contract, the required Performance Bonds, and a Labor and Materials Payment Bond, for General Contractor in amount to equal 100% of the Contract Sum. These bonds shall be written on forms provided by a company acceptable to the Owner and licensed to do business in the State of Georgia at the time the bonds are written, and that are listed on "Department of the Treasury Circular 570."

If this proposal is accepted within 60 days after the date set for the opening of bids and the undersigned fails to execute the Contract within ten (10) days after written notice of such acceptance or if he fails to furnish the Performance Bonds and the Labor and Material Payment Bond, the obligation of the Bid Bond will remain in full force and effect and the money payable thereon shall be paid into the funds of the Owner as liquidated damages for such failure; otherwise, said Bid Bond shall be returned to the undersigned upon completion of such obligations.

The undersigned has checked carefully all the foregoing figures and understands that the Owner will not be responsible for any errors or omissions on the part of the undersigned in making this bid. The undersigned also acknowledges receipt of the following Addenda, listed by number and date as issued appearing on each:



Addendum No.

Date

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

IN COMPLIANCE WITH THE ATTACHED SPECIFICATIONS, THE UNDERSIGNED OFFERS AND AGREES, IF THIS BID IS ACCEPTED BY THE CITY OF DACULA, GA WITHIN SIXTY (60) DAYS OF THE DATE OF BID OPENING, TO FURNISH ANY OR ALL OF THE ITEMS UPON WHICH PRICES ARE QUOTED, AT THE PRICE SET OPPOSITE EACH ITEM, DELIVERED TO THE DESIGNATED POINT(S) WITHIN THE TIME SPECIFIED IN THE BID SCHEDULE. THE SUCCESSFUL CONTRACTOR SHALL PROVIDE A SCHEDULE OF VALUES WITH UNIT PRICES FOR A BREAKDOWN OF THEIR LUMP SUM BID.

COMPANY: \_\_\_\_\_

COMPLETE PHYSICAL ADDRESS: \_\_\_\_\_

REPRESENTATIVE'S SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

TELEPHONE NO.: \_\_\_\_\_ FAX NO.: \_\_\_\_\_

EMAIL: \_\_\_\_\_

PRINT AUTHORIZED REPRESENTATIVE'S NAME: \_\_\_\_\_

IF REMITTANCE ADDRESS IS DIFFERENT, INDICATE HERE:

\_\_\_\_\_

SECTION 00 500

CONTRACT

THIS AGREEMENT, made this \_\_\_\_\_, day of \_\_\_\_\_, 2022, by and between the City of Dacula, Georgia, herein called "Owner", acting herein through its Mayor, Hon. Trey King, and \_\_\_\_\_, County of \_\_\_\_\_, and State of Georgia, herein called "Contractor".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the OWNER, the CONTRACTOR hereby agrees with the OWNER to commence and complete the construction of the "2nd Avenue @ Broad Street Drainage and paving Improvements" Project described as follows:

**A. BASE BID –**

The Work to be completed for this Project consists of furnishing all labor, materials, earthwork, construction operations, details, supervision and coordination of all trades, utility suppliers, governmental inspections and approvals to complete the construction, installation, and coordination for the City of Dacula "2nd Avenue @ Broad Street Drainage and Paving Improvements" Project as follows:

The scope for the 2nd Avenue @ Broad Street Storm Drainage and Paving Improvements includes fine grading a new drainage swale along Broad Street end of existing building that fronts 2nd Avenue. The new swale being located between the existing sidewalks along the building and Broad Street. Stormwater draining along this swale will be picked up, routed, and discharged into a new 18" RCP pipe that will be installed within the parking area along 2nd Avenue from the existing downstream 18" storm pipe. This will allow a primary stormwater system tie-in near the corner of 2nd Avenue and Broad Street. With this new primary system tie-in, a proposed 12" HDPE secondary drainage system will be installed along Broad Street right-of-way to provide stormwater discharge. The secondary drainage pipe and yard inlets will be installed to collect stormwater within the swale and route it to 2nd Avenue so that it does not pond and wash sediment in front of the existing buildings at the corner of Broad Street and 2nd Avenue. A new brick retaining wall and columns that will match the existing brick wall along 2nd Avenue will be installed to retain soils from the swale and prevent stormwater from washing onto the existing sidewalk adjacent to the buildings. Miscellaneous items such as handrails at existing steps, concrete pad @ existing grease trap, and header curb at upstream driveway are also included with the drainage scope of the Project.

The second location for storm drainage repair is located down 2nd Avenue adjacent to the vacant lot located between the existing buildings. Storm drainage enters a deteriorated clay storm drainage pipe at the low point in the vacant lot adjacent to the existing sidewalk. To address this storm drainage issue, the existing pipe and sidewalk will be removed from the pipe entrance at low point down to existing curb inlet in parking area along 2nd Avenue. A new pedestal top weir inlet, 18" RCP storm drainage pipe, curb inlet, and sidewalk will be installed to address this issue. The

proposed 18" RCP storm pipe will be installed underneath the existing brick decorative wall. Contractor shall protect existing brick wall from damage while installing new storm pipe. Also, a new handrail will be installed to correct a safety issue so pedestrians do not fall off sidewalk at the existing low point area adjacent to the sidewalk.

The paving scope on 2<sup>nd</sup> Avenue will consist of 6" Deep Patch Milling to repair alligatored and deteriorating asphalt in center of road; then 2" milling over remaining areas of the street and parking from Broad Street intersection to the limits of new paving where Gwinnett County ended their previous pavement repair project. Once milling is complete, apply tack coat over existing pavement at deep patch areas prior to installing 3.5" of 25 mm Superpave Asphalt Binder Course in deep patch areas. Then apply a second tack coat, prior to installing 1" of 'D' Mix Asphalt Binder Course and 1-1/2" Type 1 - 'F' Mix (9.5 mm) Asphalt Surface Course. All new pavement repair shall have smooth transition with adjacent existing asphalt. Contractor shall then re-stripe 2<sup>nd</sup> Avenue to match existing conditions including parking lot striping.

The Alley behind 2<sup>nd</sup> Avenue Building Lots 10 – 13 off of Wilson Street will be regraded and improved to prevent stormwater from discharging into the back of the buildings in order to address property owner complaints. A new junction box storm inlet will be installed over the existing 15" HDPE pipe on the east side of Wilson Street. This will allow for a new 15" RCP pipe to be installed to cross under Wilson Street. A new Grate Inlet Storm Structure will replace the existing grate inlet at the rear corner of the existing Lot 13 building. Once that is complete, a new 12" HDPE secondary pipe system and yard inlets will be installed along the rear alley to pick up stormwater from the upstream areas.

All disturbed areas will be permanently grassed with Bermuda Sod. Removal of all vegetation and trees within limits of work shall be included in Contractor's overall Bid unless otherwise illustrated on the drawings. Traffic access to streets and private driveways shall remain open at all times.

All earthwork quantities for grading, pipe bedding, and backfill whether haul-in and/or haul-off are the responsibility of the Contractor to include in their Lump Sum Bid in order to complete the Scope of Work at no additional cost to the Owner. All quantities and measurements are approximate. Contractor shall visit the Site and determine his own quantities for bidding this project.

Contractor shall include in their Base Bid all costs for adjusting and relocating any water and gas services lines, meters, or valves impacted by new storm line installation in order to complete the scope of work as described by the Contract Documents and Drawings. Contractor shall coordinate with utility companies and relocate utilities as required to install new improvements. Contractor must be qualified with Gwinnett County in order to perform water line installation, relocation and repairs.

One lane of traffic and access to residential/commercial driveways must be maintained at all times. Traffic Safety devices such as signage, barricades, etc., and the protection of the public-at-large, and the Contractor's personnel is part of this contract and is the Contractor's sole responsibility. The Contractor will have Ninety (90) consecutive calendar days from the "Notice to Proceed" to finish and complete the project.

All materials and appurtenances required to complete this Scope of Work is the responsibility of the Contractor and shall be provided in his overall Bid. The Contractor must be an approved Contractor with the City of Dacula and/or Gwinnett County. A complete list of materials should be included in the Contractor's overall Bid.

Bidder will prepare Asphalt prices for bid based on the current GDOT Asphalt Cement Price Index listed at the time of bid opening. The successful Contractor's pay request will list the current GDOT Asphalt Cement Price Index at the time of purchase. The difference in price between the GDOT Asphalt Cement Price Index at bid and at purchase will either be a change order to the Contractor or a Credit to the Owner. The GDOT Asphalt Cement Price Index is in accordance with Special Provision 109 (dated 2008), Section 400.5.01 Adjustments, the asphalt price index for the month of the Letting posted on the Georgia Department of Transportation Website.

Additional items within Scope of Work

- A. A site visit must be made by Contractor and subcontractors to determine the exact nature and scope of the work to be done. Contractor is responsible for hauling off all demolition materials (existing pipe, concrete, asphalt, etc.) to a State approved disposal facility at no additional cost to the Owner. Contractor shall tie in and feather new asphalt into existing asphalt so that there is a smooth transition.
- B. If any unforeseen sub-grade conditions arise the Contractor shall immediately notify the Owner and/or Owner's representative before proceeding with any work to determine the course of action. The Contractor shall have a Geotechnical Engineer (who will be selected by the Contractor and approved and paid for by the Owner) qualify and quantify the areas and determine the method of sub-grade repair in coordination with the Owner and/or Owner's Representative on a case-by-case basis.
- C. The limits of work for this project are limited to that area within the right-of-way of City of Dacula in order to perform the paving and storm sewer drainage pipe and structure installation as described by scope of work in the Contract Documents.
- D. Contractor is responsible to locate horizontally and vertically all existing utilities within limits of disturbance and protect throughout duration of project. Utilities which are present include water, gas, electrical, CATV, AT&T, etc., but may not be limited to these within the limits of disturbance.

- E. Contractor shall provide temporary Metal Plates to cover road or completely backfill and compact excavated areas at end of each day to allow vehicular access when construction crews are not present and working.
- F. Contractor shall visit Site to determine if any built items need to be removed, reinstalled, or replaced in order to complete scope of work (ie. existing brick wall). This shall be included in Contractor's overall Bid.
- G. Contractor shall have a Site Superintendent on-site at all times while work is in progress to monitor, direct, and control construction activities. Superintendent in-charge shall be available to City, Engineer, and adjacent property owners to answer or direct questions concerning the project.

Owner reserves the right to waive any informalities and any technicalities, and to reject any or all bids. There will be a Pre-Bid Conference at Dacula City Hall, 442 Harbins Road, Dacula, GA 30019 at **3:00 PM** local time on **Wednesday, April 27, 2022**. All bidders are strongly encouraged to attend this conference. Owner reserves the right to waive any informalities and any technicalities, and to reject any or all bids. All questions concerning this project shall be submitted in writing by fax or email to MDA, a Bowman Company, (Bowman). (Owner's Representative – Kevin D. Whigham, P.E.) 4174 Silver Peak Parkway, Suwanee, Georgia 30024, phone number 770-932-6550 or email [kwhigham@bowman.com](mailto:kwhigham@bowman.com) no later than **Wednesday, May 11, 2022 by 5:00 PM**.

All quantities and measurements are approximate. Contractor shall visit the Site and determine his own quantities for bidding this project. The limits of work for paving improvements will be repaved to existing widths except as illustrated on the Drawings. Contractor is responsible for verifying all lengths of roadway and quantities required to complete the asphalt repaving work for this project.

Contractor is responsible for hauling off all demolition materials (asphalt, concrete, construction debris) to a State approved disposal facility at no additional cost to the Owner.

Contractor is responsible for all earthwork quantities to complete the scope of work for the project. All costs associated with haul off or haul in of earthwork materials shall be included in the Contractor's overall Bid at no additional cost to the Owner.

If any unforeseen sub-grade conditions arise the Contractor shall immediately notify the Owner and/or Owner's Representative before proceeding with any work to determine the course of action. The Contractor shall have a Geotechnical Engineer who will be selected by the Contractor, approved and paid for by the Owner qualify and quantify the areas and determine the method of sub-grade repair in coordination with the Owner and/or Owner's Representative on a case-by-case basis.

CONTRACTOR shall perform the above scope of work, hereinafter called the "Project", for a lump sum, fixed price of \_\_\_\_\_ Dollars. (\$ \_\_\_\_\_); and all extra work in connection therewith, under the terms as stated in the Contract Bid Documents; and at his (its or their) own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in the Bid Proposal.

CONTRACTOR shall provide OWNER with Certificate of Insurance and Performance and Payment Bonds as required by these Contract Documents.

This is a lump sum, fixed price Contract. Notwithstanding any other provision of this Contract, the amount to be paid to Contractor by the City shall not exceed \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) without the prior written approval of the Mayor and Council of the City of Dacula. Any change order which increases the Contract price by more than \$5,000.00 must be approved in advance by a formal vote of the Mayor and City Council of the City of Dacula at a duly called meeting.

**A. BASE BID – "2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements" Project – LUMP SUM AMOUNT**

\*\*Bidder agrees to perform all of the Improvements described in the specifications and represented by the project drawings for the SUM OF :  
\_\_\_\_\_( \$ \_\_\_\_\_ )  
(Amounts shall be shown in both \* words and figures).  
  
\* In case of discrepancy, the amounts shown in words will govern.  
  
\*\*Please note that successful Bidder will be required to submit a Unit Price Breakdown of items used in determining the Lump Sum Bid Proposal Price for this work.

\*\* The **Base Bid** amount shall consist of Work Items more particularly described in Section 01 000, Project Scope & Performance Specification. The Contractor shall be responsible for all labor, equipment, materials, operations, details, insurance, supervision, coordination, administration, overhead and profit, plus all necessary incidental costs associated with the complete function of the Work Scope in context of the project.

The OWNER is subject to the requirements of the Georgia Security and Immigration Compliance Act. Accordingly, the requirements of O.C.G.A. ' 13-10-91 and Georgia Department of Labor Rule 300-10-1-.02 are conditions of this Contract. Compliance with these requirements shall be attested by the execution of the Contractor Affidavit attached hereto, which shall become a part of the awarded contract. In the event the Contractor employs or contracts with any subcontractor(s) in connection with the awarded contract, the Contractor shall secure from such

subcontractor(s) attestation of the subcontractor's execution of the Subcontractor Affidavit attached hereto, which shall also become a part of the awarded contract and also a part of the contractor/subcontractor agreement. Contractor shall maintain records of such attestation for inspection by The City of Dacula at any time. Contractor shall be required to provide copies to the City of Dacula upon request. Failure to comply with these rules will result in the rejection of the bid proposal and/or termination of any awarded contract where it is subsequently determined that there has been a violation of any provision of the Act or implementing rules and regulations.

Any dispute arising under this Contract shall be heard in the Superior Court of Gwinnett County, Georgia, and the parties consent to jurisdiction and venue in that Court. The parties waive any defense that may have to lack of jurisdiction or improper venue and agree to have all disputes resolved in the Superior Court of Gwinnett County.

CONTRACTOR hereby agrees to commence work under this Contract on or before a date to be specified in a written "Notice to Proceed" of OWNER and to a fully complete the Project within Ninety (90) consecutive calendar days thereafter.

The Owner agrees to pay the Contractor in current funds for the performance of the Contract, subject to additions and deductions, on completion of the project and final inspection of the Owner.

Termination for Cause: The City may terminate this Contract for cause upon ten (10) days prior written notice to the Consultant of the Consultant's default in the performance of any term of this Contract. Such termination shall be without prejudice to any of the City's rights or remedies provided by law.

Termination for Convenience: The City may terminate this Contract for its convenience upon 30 days written notice to the Consultant. In the event of the City's termination of this Contract for convenience, the Consultant will be paid for those services actually performed. Partially completed performance of the Contract will be compensated based upon a signed statement of completion to be submitted by the Consultant, which shall itemize each element of performance.

SIGNATURES NEXT PAGE

IN WITNESS WHEREOF, the parties to these presents have executed this Contract in two (2) counterparts, each of which shall be deemed an original, in the year and day first above mentioned.

(Seal)

ATTEST:

CITY OF DACULA

\_\_\_\_\_

By: \_\_\_\_\_

(Mayor)

ATTEST:

(Seal)

\_\_\_\_\_

(Contractor)

\_\_\_\_\_

By: \_\_\_\_\_

(Witness)



## SECTION 00 600

## BONDS AND CERTIFICATES

PART 1 - GENERAL

1. BID BOND: A bid bond in the amount of 5% of the base bid shall accompany the bid. The Attorney in-fact who signs the bid bond must file with the bid bond a certified copy of his Power of Attorney to sign such bond.
2. PAYMENT & PERFORMANCE BOND: Contractor shall furnish both a Performance Bond and Payment Bond, each in the amount of 100% of the Contract Sum, unless otherwise directed by the Owner. The surety must be one which is authorized to do business in the State of Georgia and is listed on "Department of the Treasury Circular 570". Bonds must be accompanied by letter stating company's current rating for verification prior to acceptance by the Owner and execution of the formal Owner/Contractor agreement. It shall be specifically understood that the performance Bond fully protects the Owner and guarantees the completion of the project in accordance with all Bid Documents. After award of contract, submit a properly executed "Performance Bond" and "Labor and Material Payment Bond".
3. CERTIFICATE OF INSURANCE: After award of contract, Contractor shall submit a properly executed "Certificate of Insurance" to Owner.
4. LIST OF SUBCONTRACTORS: After award of contract, but prior to Pre-Construction Conference, submit a properly executed "List of Subcontractors".

End of Section

22-0109

GENERAL CONDITIONS

00 700-1

SECTION 00 700

GENERAL CONDITIONS

PART 1 - GENERAL

1. "The General Conditions for the Contract for Construction", 1997 Edition, with modifications as called out in Section 00 801 - Supplementary Conditions, is hereby made a part of these documents to the same extent as if herein written out in full.

End of Section

## SECTION 00 801

## SUPPLEMENTARY CONDITIONS (1997)

The following supplements modify, delete or add to the "General Conditions of the Contract for Construction, 1997 Edition". Where any article, paragraph or sub-paragraph in the General Conditions is supplemented by one of the following paragraphs, the provisions of such article, paragraph, or sub-paragraph shall remain in effect and the supplemental provisions shall be considered added thereto. Where any article, paragraph or sub-paragraph, in the General Conditions is amended, voided, or superseded by any of the following paragraphs, the provisions of such article, paragraph or sub-paragraph not so amended, voided, or superseded shall remain in effect.

I. ARTICLE 1 - GENERAL PROVISIONS

- A. Add to paragraph 1.1.1: The Drawings and Specifications shall include the Instructions to Bidders, Invitation to Bid, Sample Forms, Contractor's Bid, and all Addenda items relating to Bidding.
- B. Add to paragraph 1.1.7: The term "Project Manual" as used in these conditions is the volume which includes the Bidding Drawings and Specifications, the Agreement Between Owner and Contractor, the Conditions of the Contract, the Specifications, and all Addenda issued prior to, and all Modifications issued after execution of Contract.

II. ARTICLE 2 - OWNER

- A. Add paragraph 2.1.4: The Owner is the City of Dacula, Georgia. All contact with the Owner shall be made to and through the Engineer, Kevin D. Whigham, P.E., Bowman Consulting Group, Ltd. (Bowman), 770-932-6550 or kwhigham@bowman.com. The only other directions the Contractor may respond to are those issued by the City of Dacula Council, Mayor, or City Administrator.
- B. Add to paragraph 2.2.5:
  - 1. Sets of Construction Documents may be obtained as provided for in Advertisement to Bid, which need not be returned by the successful bidder.
  - 2. For construction purposes, the Owner will furnish free of charge to the successful bidding Contractor a maximum of Five (5) printed sets of complete Construction Documents consisting of the Drawings, the Specifications, and all Addenda.

3. Any additional sets of complete Construction Documents or additional copies of selected sheets of Contract Drawings, or sections or pages of Specifications requested by the Contractor will be supplied and billed to the Contractor.
- C. Add paragraph 2.4.2: "If, in the opinion of the Engineer, it is evident that the Contractor has not completed or will not be able to substantially complete the work in accordance with Drawings and Specifications due to default, negligence, or failure on the part of the Contractor, or their subcontractors, the Owner may, at his option, without prejudice, after the expiration of the two seven-day written notices to the Contractor, complete certain portions of the work as may be necessary, or augment the forces of the Contractor with additional manpower as may be required to complete the work by the contracted completion date. In such case, an appropriate deductive change order shall be written, deducting from the contract price the actual costs incurred by the Owner to complete or augment the work. Amount charged to the Contractor will be subject to the approval of the Engineer. Such action, if taken by the Owner, shall not be interpreted by the Contractor as a termination of the contract as per Paragraph 14.2, and the Contractor is to continue to carry out the work or portions of the work as may be required by the contract during this time frame.

### III. ARTICLE 3 - CONTRACTOR

A. Add paragraph 3.2.4:

- 3.2.4 In case of discrepancies or conflicts in the Drawings and Specifications, the documents to hold precedence over others shall be in the following order:
- 3.2.4.1 The Owner-Contractor Agreement (including modifications thereto).
  - 3.2.4.2 Change Orders - Those of a later date shall take precedence over those of an earlier date.
  - 3.2.4.3 Written Amendments to the Contract Signed by Both Parties - Those of a later date shall take precedence over those of an earlier date.
  - 3.2.4.4 Addenda - Those of a later date shall take precedence over those of an earlier date.
  - 3.2.4.5 Clarifications.
  - 3.2.4.6 Supplementary Conditions.
  - 3.2.4.7 General Conditions.
  - 3.2.4.8 Specifications.
  - 3.2.4.9 Schedules.
  - 3.2.4.10 Details - Large scale details shall control over small scale drawings.
  - 3.2.4.11 Other drawings.
  - 3.2.4.12 Drawings dimensioned.
  - 3.2.4.13 Drawings not dimensioned.

B. Add paragraph 3.2.5:

3.2.5 Items of work not illustrated in the drawings or specifications or the mis-description of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or mis-described details of the work, but they shall be performed as if fully and correctly set forth and described in the drawings and specifications.

C. Add paragraph 3.2.6 as follows:

3.2.6 MEASUREMENTS AND DIMENSIONS

3.2.6.1 The Contractor shall check and be responsible for correctness of all dimensions by taking measurements at the project site before ordering material or doing work dependent for proper size of installation upon coordination with job conditions.

3.2.6.2 The Contractor shall refer discrepancies between Drawings, Specifications, and Project Conditions to Engineer for adjustment before work affected thereby is begun.

3.2.6.3 No consideration shall be given any claim based on difference between actual dimensions and those illustrated on the drawings without first complying with 3.2.6.2 above.

D. Add paragraph 3.3.8: All grades, lines, levels and benchmarks for the work under this Contract shall be established and maintained by the Contractor, who shall verify all grades, lines, levels and dimensions indicated on the Drawings, and shall report all discrepancies before commencing work. The Contractor shall provide and maintain well-built batter boards at corners. He shall establish and safeguard benchmarks in at least two widely separated places. As work progresses, he shall establish and safeguard benchmarks at each level and shall establish exact locations of partitions on rough floors as a guide to trades. Any costs of corrective measure necessitated by erroneous establishment of grades, lines, levels and benchmarks shall be paid for by the Contractor.

- E. Replace paragraph 3.7.1 with the following:
- 3.7.1 The Owner shall pay for any Permit and/or other jurisdictional fees. The Contractor shall secure and pay for all other governmental permits, fees, licenses and inspections necessary for the proper execution and completion of the work, which are customarily secured after execution of the contract and which are legally required at the time the construction begins.
- F. Add paragraph 3.7.6 Required permits, licenses, inspections and certificates shall be carefully preserved and prominently posted during the construction period at the project for the easy, convenient access by the various inspecting authorities.
- G. Add paragraph 3.19 as follows:

### 3.19 PRE-CONSTRUCTION CONFERENCE

- 3.19.1 A Pre-Construction Conference shall be held prior to commencement of work. The purpose of this conference is to introduce all members of the construction team, which include the Engineer, the Contractor's Project Manager, and the Contractor's Superintendent, to review and ensure all Drawings and Specifications and Submittals are completed and in compliance with all Agreements. In addition, the Contractor shall submit 2 copies of all Post-Bid Information, as described below, for the Owner and Owners' Representative's review.
- 3.19.2 A schedule of values for each major item of work included in the Contract shall be submitted on schedule of values cost index sheets contract and shall define both labor and materials costs for each. Provide breakdown per divisions and sections per table of contents of these specs. See sample form included in Bid For Lump Sum Contracts.
- 3.19.3 A statement designating all work to be performed by the Contractor's own forces shall be submitted.
- 3.19.4 A list of the name of all Sub-Contractors and names of other organizations proposed for each portion of the Work shall be properly executed on "List of Subcontractor's" - and shall be submitted for Owner's and Engineers' review with 24-hour phone numbers.
- 3.19.5 The Performance Bond shall be properly executed on acceptable forms and submitted in duplicate, as described in Section 00 600 - Bonds and Certificates. Bond rating letter shall be included.

- 3.19.6 The Labor and Materials Bond shall be properly executed on acceptable forms and submitted in duplicate.
- 3.19.7 The Certificate for Insurance shall be properly executed on acceptable forms and submitted in duplicate.
- 3.19.8 A list of the names of all suppliers of principal materials and equipment shall be submitted for Owner's and Engineer's review.
- 3.19.9 Construction Schedule submitted to Owner within two weeks of award of contract.
- 3.19.10 A schedule of submittals including certifications, shop drawings, product data, samples, manuals, as built drawings and guarantees with dates of proposed submittals shall be submitted.
- 3.19.11 In addition to submittal of the previous items, the following topics will be discussed. The General Contractor is encouraged to have all subcontractors represented at the conference:
- 3.19.11.1 Introduction of all attending parties.
- 3.19.11.2 Channels and procedures for communication shall be discussed.
- 3.19.11.3 Requests for substitution shall be issued in accordance with the requirements of Section 01 630.
- 3.19.11.4 Issuance of RFP's (Requests for Proposals) by the Engineer shall be addressed by the General Contractor within 7 calendar days of receipt thereof in accordance with Supplementary Conditions, Article 7.
- 3.19.11.5 Change Order compensation shall be based on figures indicated in Supplementary Conditions, Article 7.
- 3.19.11.6 Pre-construction submittals shall be issued as indicated in Supplementary Conditions, sub-paragraph 3.19.
- 3.19.11.7 Any requested shop drawings, samples and other project submittals shall be approved by Owner and Engineer.
- 3.19.11.8 Job Progress Meetings shall be held on an as needed basis to review the Contractor's Application(s) for Payment.

- 3.19.11.9 Applications for Payment shall be issued in accordance with the requirements of Article 9 of the General Conditions of the Contract for Construction and all applicable Supplementary Conditions. All Applications for Payment shall be received by the Engineer no later than the first day of each month and paid by the first Friday following the 15th day of the month. Retainage shall be as described in Supplementary Conditions, paragraphs 9.3.4, 9.6 and 9.6.6. (Retainage shall be 10 percent of the amount earned for the work in place, plus the value of stored materials up to and including 50 percent completion, then 0 percent until final completion, thereby reducing retainage at final completion to 5 percent of the contract amount (including change orders), subject to the approval of the Owner and the Engineer. In other words, at 50 percent project completion, retainage will be 5 percent of the contract amount, plus approved change orders, until final completion is achieved. Retainage for individual subcontractors shall not be released separately as the subcontractors complete their work. Nor shall the retainage for individual subcontractors be reduced when payments beyond 50% of the individual contracts are released. Retainage shall only be reduced based on payments released in excess of 50% of the overall contract sum.
- 3.19.11.10 Safety precautions and programs shall be as directed by the General Contractor in accordance with the General Conditions in Section 00 700.
- 3.19.11.11 Requests for time extension shall be issued in accordance with the requirements of the General and Supplementary Conditions, Article 8.
- 3.19.11.12 Discrepancies and conflicts in the Drawings and Specifications shall be resolved using the order of precedence indicated in the Supplementary Conditions, paragraph 3.2.4.
- 3.19.11.13 The Date of Substantial Completion shall not be achieved and the Certificate of Substantial Completion shall not be issued prior to receipt of the official Certificate of Occupancy by the General Contractor. This requirement is indicated in Specification Section 01 700, Part 1.1.A. In addition, the Certificate of Substantial Completion shall only be issued in accordance with the requirements of Section 9.8 of the General Conditions of the Contract for Construction.
- 3.19.11.14 Contract closeout/final payment requirements are indicated in Section 01 700. Piecemeal delivery of final closeout documents and materials is unacceptable.



- 3.19.11.15 Materials testing (if required) shall be conducted under a separate contract by the Owner. Contractor shall acquire a Geotechnical Engineer to perform all testing to be approved by and paid for by Owner. The General Contractor shall note that he is responsible for payment of additional testing services, if initial testing services fail.
- 3.19.11.16 Immediately prior to Substantial Completion, the General Contractor shall prepare a comprehensive list of items to be corrected or completed (a punch list) for the Engineer's review, in accordance with paragraph 9.8.2 of the General Conditions. The Engineer shall then add to or delete items from the list during a Substantial Completion Inspection.
- 3.19.11.17 Permits, fees, licenses, etc. shall be addressed in accordance with the requirements of General Conditions, paragraph 3.7.1, all applicable Supplementary Conditions, and as follows:
- A. All work and material shall be in accordance with the National Electrical Code, the Plumbing Code, and other applicable Federal, State, County, and municipal laws, ordinances, rules and regulations pertaining to construction, and nothing in these plans or specifications shall be construed to permit work not conforming thereto. The Contractor shall consult the Engineer on all deviations regarding possible noncompliance and provide all labor and materials to complete the work as required by laws, ordinances, rules and regulations as directed by the Owner at no increase in cost to the Owner. He shall first confer with the Engineer before making any determinations as to changes in quality, scope and/or increases in cost.
- 3.19.11.18 Compensation for stored materials shall be as defined in parts 6.2.1, 9.3.2, and 10.2.1.2 of the General Conditions, and as follows:
- H. Material delivered for the Contractor to locations other than the site may be taken into consideration in the preparation of pay requests at the discretion of Engineer, provided the Contractor furnishes satisfactory evidence that he has acquired title to such material that it will be utilized on the project covered by this contract in the form of an affidavit stating such. Contractor must provide proof of acceptable insurance coverage on material stored off-site prior to payment for same as well as invoices for such stored materials indicating transfer of the property to the Owner.

IV. ARTICLE 4 - ADMINISTRATION OF THE CONTRACT

- A. Add to paragraph 4.1.1: The Architect referred to in the Contract, the General Conditions, Supplementary Conditions or other documents of the Contract shall mean the "Engineer", MDA, a Bowman Company, (Bowman), 4174 Silver Peak Parkway, Suwanee, GA 30024.
- B. Delete Paragraph 4.5 (Arbitration) in its entirety.

V. ARTICLE 7 - CHANGES IN THE WORK

- A. Add to paragraph 7.1.1

No extra work is to be done without a written change order. Payment will not be authorized for any extra or changed work for which the Contractor has failed to secure such written change order. All change orders must be signed by the Engineer and Owner.

- B. Delete paragraph 7.3 "Construction Change Directives" in its entirety.

VI. ARTICLE 8 - TIME

- A. Add sub-paragraph 8.1.5:

8.1.5 A working day is a day for which no premium pay is required of the Contractor for labor.

- B. Add paragraph 8.2.4

8.2.4 Upon the determination that the construction progress is two (2) weeks behind the original construction schedule as required by the General Conditions as submitted at the start of the project the Owner will require that the Contractor increase his work effort to a six (6) day ten (10) hour per day work week.

- C. Add sub-paragraph 8.2.5

8.2.5 When requested by the Engineer, the Contractor shall furnish reports as are reasonably desirable as to the progress, condition of the job and anticipated schedule of completing the various phases of the work.

D. Add paragraph 8.4 - Rain Days

- 8.4 Requests for extension shall be issued in writing by the Contractor to the Engineer within 21 calendar days of the event which causes the delay. This requirement shall be strictly enforced. Completion time will not be extended for normal bad weather. The time for completion as stated in the Drawings and Specifications includes due allowance for days on which work cannot be performed out-of-doors. Any days lost due to the weather shall be documented and verified with the National Weather Service. These days shall be reported by the Contractor at the monthly job site progress meeting.

For the purpose of this contract, the Contractor agrees that he may expect to lose working days to weather in accordance with the following table:

January - 14 days	May - 6 days	September - 2 days
February - 14 days	June - 3 days	October - 3 days
March - 10 days	July - 4 days	November - 5 days
April - 7 days	August - 2 days	December - 9 days

If the total accumulated number of working week days (Monday thru Friday) lost to the weather from the start of work until the building is enclosed, as defined by the Engineer, exceeds the total accumulated number to be expected for the same period from the table above, the contractual completion date shall be extended by the number of calendar days needed to include the excess number of days lost. No extension shall be made for days of bad weather occurring after the building is enclosed. No extension shall be allowed for days on which total precipitation volume is less than 1/10" as recorded by the National Oceanic and Atmospheric Administration, the National Weather Service, the U.S. Army Corps of Engineers, or any other source chosen to be recognized by the Engineer. No extension will be allowed for precipitation occurring on any Saturday or Sunday or nationally recognized holidays during the project life. Furthermore, should a project fall behind the Contractor's original construction schedule, no extensions will be given for inclement weather days beyond the originally scheduled dry-in date plus any additional days due Contractor during such originally scheduled period. No changes in the contract sum shall be authorized because of adjustment of contract time due to inclement weather.

VII. ARTICLE 9 - PAYMENTS AND COMPLETION

A. Add paragraph 9.2.2:

9.2.2 First Payment Application Actions and Submittals which must precede submittal of Contractor's first payment application are as follows:

B. Add paragraph 9.2.3:

9.2.3 The schedule of values shall be prepared in the line item format on Application and Certification for Payment and on Document G703 Continuation Sheet provided in Section 01 370, providing labor and material costs for each line item. Stored materials shall be summarized on the Continuation Sheet provided in Section 01 370.

C. Delete paragraph 9.3.1 entirely and add paragraph 9.3.1:

9.3.1 The Contractor shall submit to the Engineer, on or before the first day of each month, an itemized Application for Payment, notarized by a duly registered Notary Public, supported by data substantiating the Contractor's right to payment as the Owner or the Engineer may require, and reflecting retainage, as provided elsewhere in the Drawings and Specifications. The Form of Application for Payment shall be the Certificate for Payment in Section 01 370. Supporting data shall include Schedule of Values from each Subcontractor requesting payment, broken down by labor and materials as the Engineer requires. Copies of requisitions from subcontractors and material suppliers may be required.

D. Add to the end of subparagraph 9.3.2:

9.3.2. Values related to General Contractor's and Subcontractor's overhead and profit for stored materials shall not be paid until the products are incorporated into the project. Materials stored or installed shall not be paid for if required submittals have not been completely reviewed.

E. Add new sub-paragraph 9.3.4 as follows:

9.3.4 Each Application for Payment up to and including the Application for Payment issued at or following 50% project completion (including approved change orders) shall include a ten percent (10%) retainage of all completed and stored to date items (including approved change orders).

- F. In paragraph 9.4.1, in the first sentence delete "within seven days" and add "by the eighth day of the same month".
- G. Add paragraph 9.5.1.9:
- 9.5.1.9 It shall be understood that if the Contractor's actual progress becomes more than 10% behind Contractor's anticipated progress, the Owner may direct the withholding of payments to Contractor in amounts equal to the percent behind Contractor's anticipated progress, in addition to the normal 10% withheld.
- H. At paragraph 9.6.1, delete the phrase, "In the manner and within the time provided in the Drawings and Specifications", and in its place use, "On the first Friday following the fifteenth of the same month."
- I. Add new sub-paragraph 9.6.6 as follows:
- 9.6.6.1 It shall be understood that the Owner shall make progress payments on account of the contract prices, including Owner approved and signed change orders, of labor and materials incorporated in the work and of materials suitably stored at the site thereof, as estimated by the Engineer, less the aggregate of previous payments, until one-half (50%) of the overall contract sum is due (including all Owner approved and signed change orders) and provided that:
- The work is not behind schedule as determined, by the Engineer only, from the Engineer accepted, time scaled CPM schedule with monthly anticipated progress payment amounts submitted at, or before, the Pre-construction meeting;
  - The work is being performed in a satisfactory manner in compliance with the Drawings and Specifications as determined by the Engineer;
  - There are no outstanding claims or liens on the property;
- 9.6.6.2 Further payments beyond 50 percent of the overall contract sum as referenced in 9.6.6.1, with total compliance of Items a, b, and c. shall be made in the amount of 100% of the value of the labor and/or materials incorporated in the work and of materials suitably stored at the site thereof unless;
- The percentage of work complete falls behind the percentage required by the Engineer accepted, time scaled construction progress schedule, as described in Item 9.6.6.1.a. by as much as 10%; or

- b. The work is being performed in an unsatisfactory manner and/or non-compliant with the Drawings and Specifications as determined by the Engineer; or
    - c. There are outstanding claims or liens on the property.
- 9.6.6.3 In which event or events, the Owner shall reinstate the 10% retainage on all periodical payments to be paid while one or more of the events continue to exist. The Contractor shall be given written notice, by the Engineer, of the reinstatement of the retainage. If the Contractor's actual progress becomes more than 10% behind the Contractor's anticipated progress, as described in Item 9.6.6.1.a., the Engineer may direct the withholding of payments to the Contractor in amounts equal to the percentage behind the Contractor's anticipated progress, in addition to the 10% described in all Items of Article 9.
- 9.6.6.4 If the Contractor recovers all lost time and puts the work back on schedule (0% behind schedule) per schedule described in 9.6.6.1.a and remedies all breaches of 9.6.6.2.b. and 9.6.6.2.c. further payments shall be as described in 9.6.6.2; unless Items 9.6.6.1.a. or 9.6.6.2.b. and 9.6.6.2.c. recur in which event or events the Owner shall reinstate Item 9.6.6.3.
- J. In paragraph 9.7.1, in the first delete "within seven days" and add "by the eighth day of the month"; in the fourth line delete "within seven days after the date established in the Drawings and Specifications" and add "as described in paragraph 9-6-1".
- K. Add paragraph 9.9.4:
  - 9.9.4 Should the Project, or any portion thereof, be incomplete for Substantial Completion or final completion at the scheduled date or dates, the Owner shall have the right to occupy any portion of the Project. In such an event, the Contractor shall not be entitled to any extra compensation on account of said occupancy or by the Owner's normal full use of the project, nor shall the Contractor interfere in any way with said normal full use of the project. Further, the Contractor shall not be relieved of any responsibilities of the Contractor, including the required times of completion. Such occupancy by the Owner does not, in itself, constitute Substantial Completion nor Final Completion.

L. Add paragraph 9.10.6:

9.10.6 Reduction in retainage shall not be made automatically. Any reduction in retainage shall only be considered based on the condition of the project at the time of issuance of the Certificate of Substantial Completion.

M. Add paragraph 9.10.7:

9.10.7 In the event that Final Completion is not achieved within 60 days of the contracted date of Substantial Completion through no fault of the Owner or Engineer, the Contractor shall pay Owner amounts equal to the actual Owner's costs of continuing to provide administrative services on this Contract, until Final Completion.

N. Add paragraph 9.10.8:

9.10.8 Final Payment Application - Actions and submittals which must precede or coincide with submittal of contractor's final payment application are listed in Section 01 700.

O. Add paragraph 9.11

9.11 Article 1 of Chapter 10 of Title 13 of the Official Code of Georgia Annotated, relating to general provisions affecting contracts for public works, is amended by adding at the end of said article a new Code section to be designated as Code Section 13-10-2, which is hereby made a part of this Contract, to read as follows:

- A. As used in this Code section, the term:
1. "Contractor" means a person having a direct contract with the Owner.
  2. "Lower tier subcontractor" means a person other than a contractor having a direct contract with a subcontractor.
  3. "Owner" means the state, any county, municipal corporation, authority, board of education, or other public board, public body, department, agency, instrumentality, or political subdivision of the state.
  4. "Engineer" means the Architect or Engineer in charge of the project as authorized by the Owner or such other contract representative or officer as designated in the Drawings and Specifications as the party representing the Owner's interest regarding administration and oversight of the project.

5. "Subcontractor" means a person other than an owner having a direct contract with the Contractor.
- B. In any contract for the performance of any construction project entered into on or after July 1, 1985, with an owner, as defined in paragraph (3) of subsection (a) of this Code section, such contract shall provide for the following:

After work has commenced at the construction site, progress payments to be made on some periodic basis, and at least monthly, based on the value of work completed as may be provided in the Drawings and Specifications, plus the value of materials and equipment suitably stored, insured, and protected at the construction site, and at the Owner's discretion such materials and equipment suitably stored, insured and protected off-site at a location approved by the Engineer when allowed by the Drawings and Specifications, less retainage; and

1. Retainage to a maximum of 10 percent of each progress payment; provided, however, that when 50 percent of the contract value, including change orders and other additions to the contract value provided for by the Drawings and Specifications is due and the manner of completion of the contract work and its progress are reasonably satisfactory to the Engineer, the Owner shall withhold no more retainage. At the discretion of the owner and with the approval of the Contractor, the retainage of each subcontractor may be released separately as the subcontractor completes his work.
2. If, after discontinuing the retention, the owner's authorized contract representative determines that the work is unsatisfactory or has fallen behind schedule, retention may be resumed at the previous level. If retention is resumed by an owner, the Contractor and subcontractors shall be entitled to resume withholding retainage accordingly.
3. At substantial completion of the work or such other standard of completion as may be provided in the Drawings and Specifications and as the Owner's Representative determines the work to be reasonably satisfactory, the Owner shall within 30 days after invoice and other appropriate documentation as may be required by the Drawings and Specifications are provided pay the retainage to the Contractor. If at that time there are any remaining incomplete minor items, an amount equal to 200 percent of the value of each item as determined by the Engineer shall be withheld until such item or items are completed. The reduced retainage shall be shared by the Contractor and subcontractors as their interests may appear.



4. The Contractor shall, within ten days from the contractor's receipt of retainage from the Owner, pass through payments to subcontractors and shall reduce each subcontractor's retainage in the same manner as the Contractor's retainage is reduced by the Owner, provided that the value of each subcontractor's work complete and in place equals 50 percent of his subcontract value, including approved change orders and other additions to the subcontract value and provided, further, that the work of the subcontractor is proceeding satisfactorily and the subcontractor has provided or provides such satisfactory reasonable assurances of continued performance and financial responsibility to complete his work including any warranty work as the Contractor in his reasonable discretion may require, including, but not limited to, a payment and performance bond.
  5. The subcontractor shall, within ten days from the subcontractor's receipt of retainage from the contractor, pass through payments to lower tier subcontractors and shall reduce each lower tier subcontractor's retainage in the same manner as the subcontractor's retainage is reduced by the contractor, provided that the value of each lower tier subcontractor's work complete and in place equals 50 percent of his subcontract value, including approved change orders and other additions to the subcontract value and provided, further, that the work of the lower tier subcontractor is proceeding satisfactorily and the lower tier subcontractor has provided or provides such satisfactory reasonable assurances of continued performance and financial responsibility to complete his work including any warranty work as the subcontractor in his reasonable discretion may require, including, but not limited to, a payment and performance bond.
- C. This Code section shall not apply to:
1. Any contracts let by the Department of Transportation of this state for the construction, improvement, or maintenance of roads or highways in this state or purposes incidental thereto; or

2. Any contracts whose value or duration at the time of the award does not exceed \$150,000.00 or 45 days in duration.
- D. Contract and subcontract provisions inconsistent with the benefits extended to contractors, subcontractors, and lower tier subcontractors by this Code section shall be unenforceable; provided, however, that nothing in this Code section shall render unenforceable any contract or subcontract provisions allowing greater benefits to be extended to such contractors, subcontractors, or lower tier subcontractors, the provisions and benefits of this Code section being minimal only.
- E. Nothing shall preclude a payor under this Code section, prior to making a payment, from requiring the payee to submit satisfactory evidence including any or all invoices that all payrolls, material bills, and other indebtedness connected with the work have been paid.

In addition to the foregoing, before the Owner can implement the above amendment to the contract, a letter of consent from the Surety Company must be provided to the Owner ten (10) days prior to the Contractor's request to the Owner to withhold no more retainage under the terms of 13-10-2.

- F. Add to paragraph above, paragraph B.,1.,a): Conditions for the reduction of retainage from 10 percent to no retainage are:
1. The work is not behind schedule as determined by the Engineer only, from the Architect approved, time scaled CPM schedule with monthly anticipated progress payment amounts submitted at or before the Pre-construction meeting;
  2. The work is being performed in a satisfactory manner in compliance with the Drawings and Specifications as determined by the Engineer;
  3. There are no outstanding claims or liens on the property. Contractor shall submit, with pay request, a lien release form for each subcontractor requesting payments these lien release forms shall be properly notarized.
  4. Further payments, with total compliance of B.1, B.2 and B.3 shall be made in the amount of 100% of the value of the labor and/or materials incorporated in the work and of materials suitably stored at the site thereof unless:
    - a. The percentage of work complete falls behind the percentage required by the construction progress schedule, as described in B.1 by as much as 10%; or

- b. The work is being performed in an unsatisfactory manner and/or non-compliant with the Drawings and Specifications as determined by the Engineer; or
  - c. There are outstanding claims or liens on the property.
  - d. In which event or events, the Owner shall reinstate the 10% retainage on all periodical payments to be paid while one or more of the events continue to exist. The Contractor shall be given written notice, by the Engineer, of the reinstatement of the retainage. If the Contractor's actual progress becomes more than 10% behind the Contractor's anticipated progress, as described in Item 9.6.6.1.a. the Engineer may direct the withholding of payments to the Contractor in amounts equal to the percentage behind the Contractor's anticipated progress, in addition to the 10% described in all Items of Article 9.
5. If the Contractor recovers all lost time and puts the work back on schedule (0% behind schedule) per schedule described in 9.6.6.1.a. and remedies all breaches of 9.6.6.2.b and 9.6.6.2.c further payments shall be as described in 9.6.6.2; unless Items 9.6.6.1.a or 9.6.6.2.b and 9.6.6.2.c recur in which event or events the Owner shall reinstate Item 9.6.6.3.

#### VIII. ARTICLE 11 - INSURANCE AND BONDS

##### A. Delete paragraph 11.1.2 in its entirety and substitute the following:

- 11.1.2. The insurance required by paragraph 11.1.1 shall be written for not less than any limits of liability listed below or required by law, whichever is greater, and shall include contractual liability insurance as applicable to the Contractor's obligations under paragraph 3.18. The Contractor agrees that, prior to the beginning of any work by the Contractor or any Subcontractor, as the case may be, he (the Contractor) will furnish the following to the Owner for himself, and will obtain, and retain in his files for the duration of the construction period, like certificates for each Subcontractor. Certificate from insurance company showing coverage of Workmen's Compensation Insurance for the State of Georgia or a certificate from Georgia Workmen's Compensation Board showing proof of ability to pay compensation directly. Certificate from insurance company showing coverage for the Contractor for the following:
- 1. Contractor's Protective and Public Liability Insurance: Taken out in the name of the Contractor.
  - 2. Personal Injury, including death - minimum limits of \$500,000 for each person and \$1,000,000 for each accident.

3. Property Damage, minimum limits of \$300,000 for each accident and \$500,000 for aggregated of operations.
  4. Disposition: Certificate of Insurance must be sent to Engineer prior to commencement of work. See following for endorsement required on this certificate.
- B. Delete paragraph 11.1.3 in its entirety and substitute the following:
- 11.1.3 Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the work. These certificates shall contain a statement on every policy or certificate, as the case may be, that "The insurance company agrees that Policy No. \_\_\_\_\_ shall not be canceled, changed, or allowed to lapse until ten (10) days after the Owner and Engineer have received written notice as evidenced by return receipt of registered letter".
- C. Add paragraph 11.1.1.8:
- 11.1.1.8 Liability insurance shall include all major divisions of coverage and shall be on a comprehensive form including:
1. Premises - Operations
  2. Independent Contractor's Protective, for Owner and Contractor
  3. Products and Completed Operations (in force for one year beginning at Date of Substantial Completion)
  4. Contractual - including specified provisions for the Contractor's obligations under Paragraph 3.18.
  5. Owned, non-owned, and hired motor vehicles
  6. Broad form coverage for property damage
  7. Explosion and collapse hazard
  8. Underground hazard
- D. Delete paragraph 11.2 in its entirety.
- E. Delete paragraph 11.3 in its entirety and substitute the following:
- 11.3 The Contractor shall purchase and maintain property insurance upon the entire work at the site, to the full (100%) insurable value thereof. This insurance shall include the interest of the Owner and the Contractor in the work and shall insure against the perils of fire, extended coverage, and shall include "all risk" insurance for physical loss or damage including, without duplication of coverage, theft, vandalism and malicious mischief.

F. Delete Paragraph 11.4.1 in its entirety and substitute the following:

11.4.1 Contractor shall furnish both a Performance Bond and a Payment Bond, each in the amount of 100% of the Contract Sum, unless otherwise directed by the Engineer. Contractor shall also provide both Performance Bond and Payment Bond for his major subcontractors, including HVAC, electrical, plumbing, roofing and sprinkler. The sureties must be authorized to do business in the State of Georgia and listed on "Department of the Treasury Circular 570". In addition, companies furnishing bonds shall have an A.M. Best Company rating of at least a Class "A" with a financial size of VI or better. Bonds must be accompanied by letter stating company's current rating for verification prior to acceptance by the Owner and execution of the formal Owner/Contractor agreement.

#### IX ARTICLE 13 - MISCELLANEOUS PROVISIONS

A. Delete paragraph 13.5.3 entirely and replace as follows:

##### 13.5.3

1. When initial tests indicate non-compliance with the Drawings and Specifications, all subsequent retesting caused by the non-compliance shall be performed by the same testing laboratory and the costs thereof will be deducted by the Owner from the contract sum.
2. Inspection or testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.
3. All specimens and samples for testing, unless otherwise provided in these Drawings and Specifications, will be taken by the testing laboratory. All sampling equipment and personnel will be provided by the testing laboratory and all deliveries of specimens and samples to the testing laboratory will be performed by the testing laboratory.

End of Section

SECTION 00 802

NOTICE OF COMMENCEMENT

**Public Works**

**To: Clerk of Superior Court of Gwinnett County, Georgia**

Pursuant to O.C.G.A. 36-82-104(f), not later than 15 days after physically commencing work, the undersigned gives Notice of Commencement of a public work including the following information:

- 1. "2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements" Project in the City Limits of Dacula, Georgia.
- 2. Name and address of the state, country, municipal corporation, or public board or body thereof which is doing the public work:

City of Dacula  
 P.O. Box 400  
 Dacula, Georgia 30019

- 3. Name and address of the surety for the performance and payment bonds, if any:
- 

- 4. Name and address of the holder of the security deposit provided pursuant to O.C.G.A. 13-10(b)(2)(B), if any: N/A

Contractor

Date

These documents must be filed with the Clerk of the Superior Court for the county in which the public work is located and a copy of this document must be posted at the public work site not later than 15 days after the Contractor physically commences work on the public work.

Within ten (10) calendar days of receipt of a written request, give a copy of this Notice of Commencement to any subcontractor, materialman, or person making the request.

End of Section

SECTION 00 900

ADDENDA AND CLARIFICATIONS

PART 1 - GENERAL

1.1 The following changes have been incorporated in the Construction Documents dated

\_\_\_\_\_ (Released for Construction).

a. Addendum No. 1, dated \_\_\_\_\_, 2022.

b. Addendum No. 2, dated \_\_\_\_\_, 2022.

c. Addendum No. 3, dated \_\_\_\_\_, 2022.

Copies of these documents are included herein.

PART 2 - N/A

PART 3 - N/A

End of Section

**PROJECT SCOPE OF WORK  
& PERFORMANCE SPECIFICATIONS  
FOR  
"2<sup>nd</sup> AVENUE @ BROAD STREET DRAINAGE AND PAVING IMPROVEMENTS" PROJECT**

PART 1 - GENERAL

1.1 SCOPE OF WORK

The Work to be completed for this Project consists of the following:

**A. BASE BID –**

The Work to be completed for this Project consists of furnishing all labor, materials, earthwork, construction operations, details, supervision and coordination of all trades, utility suppliers, governmental inspections and approvals to complete the construction, installation, and coordination for the City of Dacula "2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements" Project as follows:

The scope for the 2<sup>nd</sup> Avenue @ Broad Street Storm Drainage and Paving Improvements includes fine grading a new drainage swale along Broad Street end of existing building that fronts 2<sup>nd</sup> Avenue. The new swale being located between the existing sidewalks along the building and Broad Street. Stormwater draining along this swale will be picked up, routed, and discharged into a new 18" RCP pipe that will be installed within the parking area along 2<sup>nd</sup> Avenue from the existing downstream 18" storm pipe. This will allow a primary stormwater system tie-in near the corner of 2<sup>nd</sup> Avenue and Broad Street. With this new primary system tie-in, a proposed 12" HDPE secondary drainage system will be installed along Broad Street right-of-way to provide stormwater discharge. The secondary drainage pipe and yard inlets will be installed to collect stormwater within the swale and route it to 2<sup>nd</sup> Avenue so that it does not pond and wash sediment in front of the existing buildings at the corner of Broad Street and 2<sup>nd</sup> Avenue. A new brick retaining wall and columns that will match the existing brick wall along 2<sup>nd</sup> Avenue will be installed to retain soils from the swale and prevent stormwater from washing onto the existing sidewalk adjacent to the buildings. Miscellaneous items such as handrails at existing steps, concrete pad @ existing grease trap, and header curb at upstream driveway are also included with the drainage scope of the Project.

The second location for storm drainage repair is located down 2<sup>nd</sup> Avenue adjacent to the vacant lot located between the existing buildings. Storm drainage enters a deteriorated clay storm drainage pipe at the low point in the vacant lot adjacent to the existing sidewalk. To address this storm drainage issue, the existing pipe and sidewalk will be removed from the pipe entrance at low point down to existing curb inlet in parking area along 2<sup>nd</sup> Avenue. A new pedestal top weir inlet, 18" RCP storm drainage pipe, curb inlet, and sidewalk will be installed to address this issue. The proposed 18" RCP storm pipe will be installed underneath the existing brick decorative wall. Contractor shall protect existing brick wall from damage while installing new storm pipe. Also, a new handrail will be



installed to correct a safety issue so pedestrians do not fall off sidewalk at the existing low point area adjacent to the sidewalk.

The paving scope on 2<sup>nd</sup> Avenue will consist of 6" Deep Patch Milling to repair alligatored and deteriorating asphalt in center of road; then 2" milling over remaining areas of the street and parking from Broad Street intersection to the limits of new paving where Gwinnett County ended their previous pavement repair project. Once milling is complete, apply tack coat over existing pavement at deep patch areas prior to installing 3.5" of 25 mm Superpave Asphalt Binder Course in deep patch areas. Then apply a second tack coat, prior to installing 1" of 'D' Mix Asphalt Binder Course and 1-1/2" Type 1 - 'F' Mix (9.5 mm) Asphalt Surface Course. All new pavement repair shall have smooth transition with adjacent existing asphalt. Contractor shall then re-stripe 2<sup>nd</sup> Avenue to match existing conditions including parking lot striping.

The Alley behind 2<sup>nd</sup> Avenue Building Lots 10 – 13 off of Wilson Street will be regraded and improved to prevent stormwater from discharging into the back of the buildings in order to address property owner complaints. A new junction box storm inlet will be installed over the existing 15" HDPE pipe on the east side of Wilson Street. This will allow for a new 15" RCP pipe to be installed to cross under Wilson Street. A new Grate Inlet Storm Structure will replace the existing grate inlet at the rear corner of the existing Lot 13 building. Once that is complete, a new 12" HDPE secondary pipe system and yard inlets will be installed along the rear alley to pick up stormwater from the upstream areas.

All disturbed areas will be permanently grassed with Bermuda Sod. Removal of all vegetation and trees within limits of work shall be included in Contractor's overall Bid unless otherwise illustrated on the drawings. Traffic access to streets and private driveways shall remain open at all times.

All earthwork quantities for grading, pipe bedding, and backfill whether haul-in and/or haul-off are the responsibility of the Contractor to include in their Lump Sum Bid in order to complete the Scope of Work at no additional cost to the Owner. All quantities and measurements are approximate. Contractor shall visit the Site and determine his own quantities for bidding this project.

Contractor shall include in their Base Bid all costs for adjusting and relocating any water and gas services lines, meters, or valves impacted by new storm line installation in order to complete the scope of work as described by the Contract Documents and Drawings. Contractor shall coordinate with utility companies and relocate utilities as required to install new improvements. Contractor must be qualified with Gwinnett County in order to perform water line installation, relocation and repairs.

One lane of traffic and access to residential/commercial driveways must be maintained at all times. Traffic Safety devices such as signage, barricades, etc., and the protection of the public-at-large, and the Contractor's personnel is part of this contract and is the Contractor's sole responsibility. The Contractor will have Ninety (90) consecutive calendar days from the "Notice to Proceed" to finish and complete the project.

All materials and appurtenances required to complete this Scope of Work is the responsibility of the Contractor and shall be provided in his overall Bid. The Contractor must be an approved Contractor

with the City of Dacula and/or Gwinnett County. A complete list of materials should be included in the Contractor's overall Bid.

Bidder will prepare Asphalt prices for bid based on the current GDOT Asphalt Cement Price Index listed at the time of bid opening. The successful Contractor's pay request will list the current GDOT Asphalt Cement Price Index at the time of purchase. The difference in price between the GDOT Asphalt Cement Price Index at bid and at purchase will either be a change order to the Contractor or a Credit to the Owner. The GDOT Asphalt Cement Price Index is in accordance with Special Provision 109 (dated 2008), Section 400.5.01 Adjustments, the asphalt price index for the month of the Letting posted on the Georgia Department of Transportation Website.

#### Additional items within Scope of Work

- A. A site visit must be made by Contractor and subcontractors to determine the exact nature and scope of the work to be done. Contractor is responsible for hauling off all demolition materials (existing pipe, concrete, asphalt, etc.) to a State approved disposal facility at no additional cost to the Owner. Contractor shall tie in and feather new asphalt into existing asphalt so that there is a smooth transition.
- B. If any unforeseen sub-grade conditions arise the Contractor shall immediately notify the Owner and/or Owner's representative before proceeding with any work to determine the course of action. The Contractor shall have a Geotechnical Engineer (who will be selected by the Contractor and approved and paid for by the Owner) qualify and quantify the areas and determine the method of sub-grade repair in coordination with the Owner and/or Owner's Representative on a case-by-case basis.
- C. The limits of work for this project are limited to that area within the right-of-way of City of Dacula in order to perform the paving and storm sewer drainage pipe and structure installation as described by scope of work in the Contract Documents.
- D. Contractor is responsible to locate horizontally and vertically all existing utilities within limits of disturbance and protect throughout duration of project. Utilities which are present include water, gas, electrical, CATV, AT&T, etc., but may not be limited to these within the limits of disturbance.
- E. Contractor shall provide temporary Metal Plates to cover road or completely backfill and compact excavated areas at end of each day to allow vehicular access when construction crews are not present and working.
- F. Contractor shall visit Site to determine if any built items need to be removed, reinstalled, or replaced in order to complete scope of work (ie. existing brick wall). This shall be included in Contractor's overall Bid.

- G. Contractor shall have a Site Superintendent on-site at all times while work is in progress to monitor, direct, and control construction activities. Superintendent in-charge shall be available to City, Engineer, and adjacent property owners to answer or direct questions concerning the project.

### 1.3 MEASUREMENT AND PAYMENT

- A. Furnish unit prices with quantity breakdowns of all items of construction per Section 00 100, Instruction for Bidders and Section 00 300, Bid Proposal Form.
- B. Furnish unit prices with quantity breakdowns of all items for the Erosion Control Maintenance of the project site.
- C. Contractor will note that any quantities called out in the Scope of Work, Bid Documents, and/or Drawings are approximate. Contractor shall calculate and verify his own quantities used to formulate his bid. Contractor shall verify all measurements and lengths to all quantities required to complete the scope of work and asphalt repaving work.

### PART 2 - PRODUCTS – N/A

### PART 3 – EXECUTION – N/A

#### 3.1 PAVING

- A. The City of Dacula's Engineer or designated representative shall have access at all times to all parts of the material producing plants for checking the mixing operations and materials and the adequacy of the equipment in use.
- B. The Contractor is responsible for maintaining the existing pavement alignments, grades, elevations and cross sections as represented by existing roadway conditions.
- C. Submittals shall be in accordance with the Department of Transportation, State of Georgia, Standard Specifications, Construction of Roads and Bridges and shall include aggregate source, gradation, soundness loss, percentage of wear, and other tests required by the DOT.
- D. Contractor shall submit a Job-Mix Formula per the requirements of the Department of Transportation, State of Georgia, Standard Specifications, Construction of Roads and Bridges. Paving specifications as described below in Part 3.1 item J shall be used.
- E. Paving equipment, weather limitations, Job-Mix Formula, mixing, construction methods, compaction, finishing, tolerances, and protection shall conform to the requirements of the appropriate sections of the Department of Transportation, State of Georgia, Standard Specifications, Construction of Roads and Bridges for the type of materials specified.

- F. Contractor to ensure that stormwater will not pond in roadway, driveways, or on adjacent shoulders or landscaped areas.
- G. After demolition and removal of the existing pavement and base materials, if required, the earth sub-grade shall be proof-rolled in the presence of the Owner and/or Owner's representative to determine the stability and adequacy of the earth base before proceeding with any repaving operations. The earth sub-grade and the GAB base are to be proof-rolled separately. Sections of earth sub-grade and/or GAB base failing to pass the respective proof-roll test shall be replaced and/or re-compacted and may require testing by a Geotechnical Engineer if requested by the Owner or the Owner's Representative, only if required.

Proof-rolling (if required):

1. After demolition operations, the Project area shall be proof-rolled in the presence of the Owner's Representative. A Geotechnical Engineer will be selected by the Contractor and approved by the Owner for this project and paid by Owner to perform geotechnical and materials testing services for the project if required.
  2. Proof-rolling shall consist of a minimum of four (4) complete overlapping passes in each of two perpendicular directions with a heavily loaded 18-20 ton dual tandem dump truck.
  3. Proof-rolling shall be performed in the presence of the Owner's Representative.
  4. Any soft or unstable sub-grade soil conditions observed shall be identified for qualification and quantification by the Geotechnical Engineer.
  5. Any soft or yielding areas shall be thoroughly undercut and replaced with well-compacted structural fill. Areas shall be compacted 95% Standard Proctor with the top twelve (12") inches compacted to 98% Standard Proctor Density or as specified by the Geotechnical Report.
- H. Contractor shall be responsible for providing all equipment necessary to perform proof rolling operations of earth sub-grade, GAB base, and/or existing asphalt, if required.
  - I. Transition between new and existing sections of asphalt shall be flush and smooth. Any elevation difference shall be made up with additional asphalt surface course material.
  - J. Placement of Asphaltic Paving Materials shall be as follows:
    1. Spread material in a manner which requires the least handling.

2. Where thickness of finished paving will be 3 inches or less, spread in one layer.
  3. After material has been spread to proper depth, roll until the surface is hard, smooth, unyielding, and true to the thickness and elevations as determined by Owner's Representative.
  4. Roll in at least two (2) directions until no roller marks are visible.
- K. Finished paving smoothness tolerance:
1. No depressions which will retain standing water. Contractor will ensure that stormwater will not pond in roadway, driveways or on adjacent shoulders or landscape areas.
  2. No deviations greater than 1/8 inch in six feet.
- L. All existing utility structures will be adjusted to fit flush with street surface 24 hours after resurfacing is completed in accordance with the City of Dacula Standards.

### 3.2 MAINTAINING TRAFFIC

- A. Sections of newly finished pavement and patching areas shall be protected from traffic until the traffic will not mar the surfaces or alter the surface textures.
- B. All traffic control and detouring equipment, methods and techniques shall conform to the latest edition of the M.U.T.C.D. and all supplements thereto.
- C. Maintain one (1) lane (12' wide minimum for school bus access) open at all times.
- D. Maintain local traffic access to all streets, intersections and private driveways during construction period and at all times. Contractor shall not perform any work that will impact the flow of traffic without approval of Owner's Representative.
- E. Contractor shall take necessary precautions to secure the construction sites to maintain a safe environment for the public.
- F. Contractor, vendors and all sub-contractors shall observe speed limits at all times.

### 3.3 EROSION CONTROL

- A. Install and maintain a comprehensive system of Soil Erosion Control measures throughout the duration of the projects in conformity with the "Manual for Erosion and Sediment Control in Georgia", 6th Edition, 2014 by the Georgia Soil and Water Conservation Commission and any supplements thereto.

- B. Contractor shall contain all soil erosion from the construction areas. Erosion control measures are required for any disturbed areas not covered by pavement or sidewalk areas.
- C. Erosion control includes, but is not limited to Rip Rap, Temporary and Permanent Grassing. Other BMP's may include Temporary Sediment Traps "F" (w/ filter fabric) and "P" (pigs-in-blanket). Temporary Grassing and Permanent Grassing is required where Contractor disturbs any area outside limits of sidewalk and pavement. Bermuda Sod shall be replaced for all disturbed areas.

#### 3.4 CLEAN-UP

- A. Contractor shall remove all debris, rubbish, and excess material from the work sites.
- B. Areas along roadways will be dressed, grassed and mulched.
- C. All excess material from demolition and/or construction activities will be hauled off and legally disposed of.

#### 3.5 GUARANTEE

- A. Contractor shall guarantee all improvements from material and/or craftsmanship defects for a period of one (1) year from date of final acceptance of Work.

End of Section

22-0109

APPLICATION FOR PAYMENT

01 370-1

## SECTION 01 370

## APPLICATION FOR PAYMENT

PART 1 - GENERAL

- 1.1 Contractor shall submit Application and Certification for Payment in format **similar** to that of the AIA Document G702 and the AIA Document G703, Continuation Sheet. (Example formats are hereby made a part of these documents. (Exhibits follow)
- 1.2 Once contractor has submitted weekly payrolls and Section 3 reports in accordance with Davis-Bacon requirements and any other paperwork required by CDBG and received approval of same, and submitted the Application for Payment, then the City will remit payment to Contractor within thirty (30) days.

PART 2 - PRODUCTS – N/APART 3 - EXECUTION – N/A

End of Section

22-0109

QUALITY CONTROL

01 400-1

## SECTION 01 400

## QUALITY CONTROL

PART 1 - GENERAL

## 1.1 ON SITE OBSERVATIONS

- A. All work and materials shall be subject to review by Owner's Representative and Owner.
- B. Contractor shall fully cooperate and shall furnish all reasonable facilities for the inspections of all parts of the work during the entire construction period.

## 1.2 TESTING SERVICES

- A. All materials upon which the strength and durability of the work may depend, shall be subject to inspection and testing to establish conformance with City of Dacula, Gwinnett County D.O.T. and Georgia D.O.T. Standards. Contractor shall submit Asphalt Pavement Job Mix Formulas to Owner's Representative for review prior to installation of paving courses.
- B. A Geotechnical Engineer will be selected by the Contractor and approved by the Owner and paid by the Owner, to perform geotechnical and materials testing services for the project. The Contractor will retain the services of the Geotechnical Engineer, only if required. Subgrade operations are not intended to be part of the scope of this project.
- C. It is the responsibility of the Contractor to implement the services of the testing company by ordering those services at the appropriate time in the work, as described below, if required. The Contractor must provide at least 24 hours notice to the testing company for required testing work. Failure to provide adequate notification may result in the requirement for more complex after-the-fact testing, for which the Contractor will be liable.
- D. Testing required under Paragraphs 1.3 A and 1.3 B are to be coordinated by and paid for by the Owner, to be witnessed by the appropriate local inspection agencies as well as by Owner's Representative. The Contractor will secure and maintain evidence of having completed and obtained successful results for those tests, to be transmitted to the Owner and Owner's Representative no later than twenty-four (24) hours by hand written draft, faxed or emailed; and fifteen (15) days for each report following testing.



### 1.3 SUMMARY OF REQUIRED NOTIFICATIONS

- A. Contractor's Geotechnical Engineer shall monitor subgrade demolition/preparation and shall observe all compaction, proof rolling, paving operations, and concrete pouring for curb & gutter, only if required. Contractor shall notify Owner and Owner's Representative at least 24 hours in advance of any proof rolling, paving and/or concrete pouring operations.
- B. Proof rolling, if required by Owner:
1. After milling operations, a portion of the Project area shall be proof rolled as directed by the Owner. This shall be done for portions indicated by the Owner and for all other subgrade issues if they arise. If problems are encountered it will be the Contractor's responsibility to call in the Contractor's Geotechnical Engineer.
  2. Proof rolling shall consist of a minimum of four (4) complete overlapping passes in each of two perpendicular directions with a heavily loaded 18-20 ton dual tandem dump truck.
  3. Proofrolling shall be performed in the presence of the Owner and Owner's Representative.
  4. Any soft or unstable sub-grade soil conditions observed shall be identified for qualification and quantification by the Geotechnical Engineer.
  5. Any soft or yielding areas shall be thoroughly undercut and replaced with well-compacted structural fill. Areas shall be compacted 95% Standard Proctor with the top twelve (12") inches compacted to 98% Standard Proctor Density or as specified by the Geotechnical Report.
- C. Material to be placed in a qualified manner as defined by the Contract Documents shall be tested to confirm that the required conditions are met. The testing shall also indicate the type of material observed, the location of the test, the material moisture content and the current weather. Delivery and compaction of material shall be made during the presence of the testing company's representative and shall be subject to his approval. The inspection by no means absolves the Contractor from responsibility of compaction as specified.
- D. Unless material is covered with finish surfaces (paving) immediately following procedures described in B2 and B3 above, the material shall be observed by Owner's Representative again prior to the placement of those finished surfaces. The purpose of this final review is to preclude deterioration of the required conditions from continuing construction, water, or similar causes.

#### 1.4 CODE COMPLIANCE TESTING

- A. Inspections and tests required by codes or legal ordinances, or by plan approval authority, shall be the responsibility of the Contractor, unless otherwise provided in the Contract Documents.

#### 1.5 CONTRACTOR'S CONVENIENCE TESTING

- A. Inspection or testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.

End of Section

## SECTION 01 500

## CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1. SCOPE
  - A. Construction facilities and temporary controls required for this work to be provided by Contractor, include, but are not necessarily limited to:
    1. Traffic control signs, barrels, barricades where needed.
    2. Parking of construction equipment and storage of materials.
    3. Parking of construction personnel vehicles.
2. PROTECTION
  - A. Use all means necessary to maintain construction facilities and temporary controls in proper and safe conditions throughout progress of work.
3. REPLACEMENTS
  - A. In event of loss or damage, Contractor shall immediately make all repairs and replacements necessary to construction facilities and temporary controls to Engineer's satisfaction at no additional cost to Owner.
4. UTILITY HOOKUP
  - A. All fees for temporary utility tie-ins, if required will be Contractor's responsibility.

PART 2 - PRODUCTS

1. CONTRACTOR'S STAGING AREA
  - A. The location of construction equipment and materials storage shall be determined at the pre-construction conference. Contractor shall confine his storage therein and take necessary precautions to protect materials from all forms of damage and theft as a part of this work.
2. TEMPORARY UTILITIES
  - A. Contractor shall furnish water, gas, electricity and telephone service as required during construction and extend temporary service lines to construction areas for use of all subcontractors and Owner's forces, if required.

- B. Temporary Water
  - 1. Provide ample supply of potable water for all purposes of construction at access points convenient to personnel, if required.
  - 2. Provide sufficient heavy duty hose or PVC pipe to carry water to every required part of construction and allow use of water facilities to subcontractors engaged on work.
  
- C. Temporary Electricity (*For Construction Trailer - if required*)
  - 1. All temporary electrical facilities shall be constructed and maintained in accordance with the Division of Industrial Safety "Electrical Safety Orders" (ESO), the Public Utilities Commission "Rules for Overhead Line Construction" (G.O. 95). Materials, devices, and equipment used for these facilities shall be in good and safe condition but need not be new.
  - 2. Installation of lighting and safety lights shall be in accordance with local, State and Federal applicable codes.
  - 3. Run a copper ground wire, sized in accordance with NEC, in conduit run, and bond to all steel parts, using clamps acceptable to the NEC.
  - 4. Any attachment of conduit to wood structure shall be by means of bolts or lag screws in shear. All supports shall be capable of supporting four times actual load.
  - 5. Contractor is required to make application for temporary electric service and pay for costs for electric energy used during the course of construction and until final acceptance of work by Owner.
  
- D. Telephone (*For Construction Trailer - if required*)
  - 1. Contractor shall maintain telephone in field office for use of Engineer and Owner. All expenses shall be paid for by Contractor.
  - 2. Contractor shall provide and pay for the telephone installation and service in the field office. Service shall be maintained for duration of project operations under this contract. Contractor shall provide 110 dB outside gongs or horns so that telephones may be heard throughout construction site, or contractor shall provide and install an electronic telephone answering machine.
  - 3. Contractor shall provide and install an electric fax machine with a dedicated line for 24-Hour service within the temporary field office.

### 3. SANITARY FACILITIES

- A. Provide proper, adequate, sanitary facilities for use of all workers employed on project, in accordance with State and Local Health Departments.

### 4. TEMPORARY CONSTRUCTION, EQUIPMENT, AND PROTECTION

- A. Provide, maintain, and remove upon completion of work, all temporary

equipment, barricades, lights, and all other protective structures or devices necessary for safety of workers and public property as required to complete all work of this contract.

- B. Provide all necessary protection and all barricades conforming to the standards of O.S.H.A. and requirements of Gwinnett County and City of Dacula.
- C. Contractor shall provide all measures necessary to protect equipment and materials at his own expense.
- D. Protect all workers and equipment from power lines and maintain safe distances and protective devices as required by Industrial Safety Commission.
- E. All temporary construction and equipment shall conform to all regulations, ordinances, laws and other requirements of City, County, State and other authorities having jurisdiction, including owner's and contractor's insurance companies, with regards to safety precautions, operation, and fire hazard.
- F. Protect work and materials to be used on project including materials which have had their title transferred to the Owner, from damage or loss due to elements, theft, vandalism, malicious mischief or other causes. Contractor shall be held responsible for such damages or losses which he shall remedy at his expense.

#### 5. PARKING OF VEHICLES

- A. Contractor shall assume all responsibility for parking of his equipment, vehicles and his subcontractor's vehicles. "Job site parking" means an area or areas within the bounds of the property or other authorized areas to be used for parking for vehicles associated with this project. Such areas shall be designated at the preconstruction meeting.

### PART 3 - EXECUTION

#### 1. MAINTENANCE AND REMOVAL OF FACILITIES

- A. Maintain all construction facilities and temporary controls as long as needed for safe and proper completion of work.
- B. Remove all such temporary facilities and controls as rapidly as progress of work will permit or as directed by Owner, but prior to final completion.

End of Section

## SECTION 01 630

## PRIOR APPROVALS AND SUBSTITUTIONS

PART 1 - GENERAL

## 1. PRODUCTS

- A. Products are specified by ASTM and/or other reference standard, and/or by manufacturer's name and model number or trade name. When specified only by reference standard, Contractor may select any product meeting this standard by any manufacturer. When several products or manufacturers are specified as being equally acceptable, Contractor shall have the option of choosing among those names. When one manufacturer's specific product is specified and other manufacturers are listed as being acceptable suppliers, the other manufacturer's products must have the same basic properties as the specific product mentioned. When specifications indicate "Similar products shall be subject to Engineer's review", this refers to review during bidding only. Otherwise, the following substitution provisions must be observed in order to use any manufacturer not listed.

## 2. REQUESTS FOR PRIOR APPROVAL

- A. During bidding, the Engineer shall consider written requests for prior approval received at least ten (10) calendar days prior to bid date. Requests received after that time shall not be considered. If proposed prior approval is accepted by Engineer and approved by Owner, such acceptance shall be set forth in an addendum. Bidders shall not rely upon accepted prior approvals made in any other manner.

## 3. SUBSTITUTIONS

- A. After receipt of Bids and prior to award of Contract, substitutions may be negotiated. However, Contractor shall be required to provide a substitution form for any change to the original bid documents before it will be incorporated into the contract documents.
- B. After the date of the Contract, Engineer may consider formal requests from Contractor for substitution of products in lieu of those specified. Requests shall be submitted in accordance with the preceding requirements. One or more of the following conditions must also be documented as reason for substitution.
1. The substitution is required for compliance with code requirements.
  2. The substitution is required because of the unavailability of the specified

- product.
3. The substitution is required since new information discloses the specified products will not perform properly or fit into the designated space.
  4. The substitution is required since the manufacturer or fabricator refuses to certify or guarantee performance of the specified product as required.
  5. The substitution is required since it is clear, in the judgment of the Engineer, that a substitution would be substantially in Owner's best interests in terms of cost, time and/or other considerations.
- C. With each request for substitution Contractor shall include the following:
1. Complete data substantiating compliance of proposed substitution with contract documents including:
    - a. Product identification, including manufacturer's name and address.
    - b. Manufacturer's literature, including product description, performance and test data, and reference standards.
    - c. Name and address of similar projects on which product was used and date of installation.
  2. Itemized comparison of proposed substitution with product or method specified, noting any variance from the specified product which may result in inferior appearance, performance or installation complication.
  3. Information relating to changes in construction schedule.
  4. For requests submitted after bids are received, accurate cost data on proposed substitution in comparison with product or method specified, including any adjustment to the contract sum that will be provided if the substitution is accepted.
- D. In submitting requests for substitution, Contractor shall make the following personal representations:
1. Contractor has investigated proposed product and has determined that it is equal or superior in all respects to the specified product.
  2. Contractor will provide an equal or better guarantee for proposed substitution as compared to the product specified.
  3. Contractor will coordinate installation of accepted proposed substitution into the project, making any such changes as may be required for the project to be completed in accordance with the Contract Documents.
  4. Contractor waives all claims for additional costs related to proposed substitution which became apparent during or following substitution submittal process.
  5. Cost comparison data is complete and includes all related costs under the contract, but does not include:
    - a. Cost under separate contracts.
    - b. Engineer's/Consultant's redesign fee.
  6. The proposed substitution satisfies Code Official's interpretations of all applicable codes.

- E. Substitutions shall not be considered if:
1. They are indicated or implied on shop drawings or product data submittals without a formal request submitted in accordance with this Article.
  2. Acceptance will require substantial revision of contract documents.



22-0109

PRIOR APPROVALS AND SUBSTITUTIONS

01 630-4

REQUEST FOR PRIOR APPROVAL

PROJECT: \_\_\_\_\_ DATE SUBMITTED: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_ BID DATE: \_\_\_\_\_

SUB CONTRACTOR: \_\_\_\_\_ SUPPLIER: \_\_\_\_\_

SPEC SECTION: \_\_\_\_\_ PARAGRAPH: \_\_\_\_\_ TITLE: \_\_\_\_\_

<u>PRODUCT SPECIFIED</u>	<u>PAGE NO.</u>	<u>PRIOR APPROVAL PRODUCT</u>
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
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7. _____	_____	_____
8. _____	_____	_____
9. _____	_____	_____
10. _____	_____	_____

1. The following required information is attached:
  - A. Product identification manufacturer's name, address, telephone number.
  - B. Manufacturer's literature, performance/test data, reference standard.
  - C. Name/address of similar projects where product has been used and Date of Application.
  
2. Comparison of proposed substitute product with specified product:
  - A. Differences: \_\_\_\_\_
  - B. Effect on dimensions or other trades: \_\_\_\_\_
  
3. Comments: \_\_\_\_\_

BY : \_\_\_\_\_

22-0109

PRIOR APPROVALS AND SUBSTITUTIONS

01 630-5

REQUEST FOR SUBSTITUTION AFTER BID

PROJECT: \_\_\_\_\_ DATE SUBMITTED: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_ BID DATE: \_\_\_\_\_

SUB CONTRACTOR: \_\_\_\_\_ SUPPLIER: \_\_\_\_\_

SPEC SECTION: \_\_\_\_\_ PARAGRAPH: \_\_\_\_\_ TITLE: \_\_\_\_\_

1. The following required information is attached:
  - A. Product identification, manufacturer's name, address, telephone number
  - B. Manufacturer's literature, performance/test data, reference standard
  - C. Name/address of similar projects where product has been used and Date of Application
  
2. Comparison of proposed substitute product with specified product:
  - A. Differences: \_\_\_\_\_
  - B. Effect on dimensions and trades: \_\_\_\_\_
  
3. Data related to changes in construction schedule:
 

\_\_\_\_\_

\_\_\_\_\_
  
4. Accurate cost data on proposed substitution in comparison with product specified:
 

\_\_\_\_\_

\_\_\_\_\_
  
5. Reason for request for substitution: (Check One)
  - 1)  Specified product will not meet code.
  - 2)  Specified product unavailable for purchase.
  - 3)  Specified product will not perform or fit as required.
  - 4)  Manufacturer will not provide required certification or guarantee for specified product.
  - 5)  Substitution is clearly in Owner's best interest in terms of cost or schedule.

22-0109 \_\_\_\_\_ PRIOR APPROVALS AND SUBSTITUTIONS \_\_\_\_\_ 01 630-6

- 6) \_ Substitution is proposed as a convenience to the Contractor, and the Contractor agrees to compensate the Architect for time involved in reviewing and processing the proposed substitution.

End of Section

## SECTION 01 700

## CONTRACT CLOSE-OUT

PART 1 - GENERAL

## 1. CLOSE-OUT TIMING

- A. Owner's Representative shall issue the Certificate of Substantial Completion when he has determined that the work or a designated portion thereof is substantially complete. Contractor shall then prepare, assemble, and transmit the items as listed in Section 1.2 below to Owner's Representative for review and transmittal to Owner. Unless additional quantities are specified elsewhere, submit all items in duplicate.
- B. As-built documents and other close-out requirements shall be submitted (or performed) and accepted by Owner's Representative prior to date of final completion. All close-out documents shall be submitted to Owner's Representative simultaneously. Piece meal delivery of separate elements of the documents will not be acceptable and will be returned to Contractor.
- C. All close out requirements must be complete before submittal of final Application for Payment, including completion of unfinished work.

## 2. PUNCH LIST

- A. When the project is substantially complete, Contractor shall notify Owner's Representative in writing at least five (5) days before the date of request for punch list inspection. Contractor shall arrange for the presence of all subcontractors whose work is involved, if required by Owner's Representative.
  - 1. Owner and/or Owner's Representative shall prepare a "Punch List" as a convenience to Contractor for items not completed and work not meeting the requirements of the Contract Documents. The "Punch List" is not to be construed to be a final or complete listing of project requirements, but is intended only to assist in the completion of the project. Contractor shall make a diligent effort to complete all work in conformance with the requirements of the Contract Documents before requesting a "Punch List".
  - 2. Correction of items noted on the "Punch List" does not relieve Contractor from conforming to all requirements of the Contract Documents.
- B. Contractor shall furnish three copies of the following:
  - 1. Consent of Surety for final payment.
  - 2. Final application for payment.
  - 3. Contractor's Statutory Affidavit ensuring no liens.

4. Subcontractor Statutory Affidavits ensuring no liens.

C. Warranties

1. Contractor shall warrant all work executed by his forces and his subcontractors under this contract, and any additional modifications and change orders, to be absolutely free of all defects of workmanship and materials for a period of one year beginning on date of Substantial Completion. Contractor shall repair all such defects, resulting damages and repair any damage to other work caused by subsequent repair work to Owner's and Owner's Representatives' satisfaction no later than 30 days following written notification by Owner that remedial repairs are required.
2. At the end of the one (1) year warranty period, Contractor shall inspect the project with Owner for deficiencies. At that time, a correction list shall be prepared by Owner and Contractor shall make the necessary repairs and corrections immediately and as directed by Owner.
3. Contractor shall provide additional guarantees (in excess of one year) where specifically required by pertinent specification sections.

3. FINAL CLEANING

- A. Prior to the Date of Substantial Completion, remove all debris, excess dirt, etc., for all portions of job site.
- B. Final Inspection
  1. When the work is completed in accordance with the Contract Documents and the requirements of Paragraph A above and General and Supplemental Conditions have been satisfied, Contractor shall notify Owner's Representative, in writing, that the work shall be ready for final inspection on a definite date which shall be stated in such notice. The notice shall be forwarded to Owner through Owner's Representative, who will attach his endorsement as to whether or not he concurs in Contractor's statement that the work will be ready for final inspection on the established date. Such endorsement shall not relieve Contractor of his responsibility in this matter.
  2. Final inspection will be made by Owner and/or Owner's Representative when Contractor deems that the work has been completed in accordance with the Contract Documents and when he has requested a final inspection be made as outlined above.

End of Section

22-0109 SUBCONTRACTOR WARRANTY FORM 01 741-1

PROJECT: 2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements" Project

LOCATION: 2<sup>nd</sup> Avenue @ Broad Street in Dacula, GA

OWNER: City of Dacula, Georgia

We \_\_\_\_\_, Contractor  
(Company name)

for \_\_\_\_\_, as described in Specification Section (s) \_\_\_\_\_  
(List Trade)

do hereby warrant that all labor and materials furnished and work performed in conjunction with the above referenced project are in accordance with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of one year from Date of Substantial Completion.

This warranty commences at 12:00 noon on \_\_\_\_\_ and will expire at 12:00 noon on \_\_\_\_\_. Should any defect develop during the warranty period commencement date due to improper materials, workmanship or arrangement, the same shall, upon written notice by Owner, be made good by the undersigned at no expense to Owner.

Nothing in the above shall be deemed to apply to work which has been abused or neglected by the Owner.

DATE: \_\_\_\_\_ FOR: \_\_\_\_\_  
(Company Name)

BY:  
\_\_\_\_\_

TITLE:  
\_\_\_\_\_

STATUTORY AFFIDAVIT

TO: CITY OF DACULA  
Dacula, Georgia

Contract entered into the \_\_\_\_\_ day of \_\_\_\_\_, 2022 between the above mentioned parties for the "2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements" Project in the City of Dacula, Georgia as represented by the Contract Documents for this project dated March 25, 2022.

KNOW ALL MEN BY THESE PRESENTS:

1. The undersigned hereby certifies that all work required under the above contract has been performed in accordance with the terms thereof, that all material men, subcontractor, mechanics, and laborers have been paid and satisfied in full, and that there are no outstanding claims of any character (including disputed claims or any claims which Contractor has or will assert and defend) arising out of the performance of the Contract which have not been paid and satisfied in full except as listed herein below: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. The undersigned further certifies that to the best of his knowledge and belief there are no unsatisfied claims for damages resulting from injury or death to any employees, subcontractors, or the public at large arising out of the performance of the contract, or any suits or claims for any other damage of any kind, nature, or description which might constitute a lien upon the property of Owner.
3. The undersigned makes this affidavit for the purpose of receiving final payment in full settlement of all claims against Owner arising under or by virtue of the Contract, an acceptance of such payment is acknowledged as a release of Owner from any and all claims arising under or by virtue of the Contract.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 2022.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Firm)

COUNTY OF \_\_\_\_\_ STATE OF \_\_\_\_\_ Personally before me, the undersigned authority, appeared \_\_\_\_\_ who is known to me to be an

22-0109

CERTIFICATE OF THE CONTRACTOR /

01 742 -2

official of the firm of \_\_\_\_\_ . Who, after being duly sworn, stated on his oath that he had read the above statement and that the same is true and correct.

\_\_\_\_\_  
(Notary Public)

My commission expires \_\_\_\_\_



## SECTION 01 743

## GEORGIA SECURITY AND IMMIGRATION AFFIDAVIT

PART 1- GENERAL

- 1.1 The Contractor Affidavit and Agreement example is attached. The Contractor is required to state affirmatively that the individual, firm or corporation which is contracting with the City of Dacula has registered with and is participating in a federal work authorization program. Place this form on Company Letterhead before verifying compliance with federal work authorization program. Upon execution the completed forms shall be returned to the Owner's Representative before entering into a Contract.
  
- 1.2 The Subcontractor Affidavit and Agreement example is attached. The Contractor is required to obtain affirmations from the individuals, firms or corporations which are participating as subcontractors in this Contract with the City of Dacula. These Subcontractors must verify that they are registered with and are participating in a federal work authorization program. Place this form on Company Letterhead before verifying compliance with federal work authorization program. Upon execution the completed forms shall be returned along with the Contractor's Affidavit referenced in 1.1 above to the Owner's Representative before entering into a Contract.

**GEORGIA SECURITY AND IMMIGRATION CONTRACTOR AFFIDAVIT**

STATE OF GEORGIA  
CITY OF DACULA

CONTRACTOR AFFIDAVIT AND AGREEMENT

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm, or corporation which is contracting with The City of Dacula, Georgia has registered with and is participating in a federal work authorization program\* (i.e., any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603), in accordance with the applicability provisions and deadlines established in O.C.G.A. § 13-10-91.

The undersigned further agrees that, should it employ or contract with any subcontractor(s) in connection with the physical performance of services pursuant to this contract with The City of Dacula, Georgia, contractor shall secure from such subcontractor(s) similar verification of compliance with O.C.G.A. § 13-10-91 on the Subcontractor Affidavit provided in Rule 300-10-01-.08 or a substantially similar form. Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to The City of Dacula, Georgia at the time the subcontractor(s) is retained to perform such service.

\_\_\_\_\_  
EEV/Basic Pilot Program\* User Identification Number

\_\_\_\_\_  
BY: Authorized Officer or Agent (Contractor Name)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title of Authorized Officer or Agent of Contractor

\_\_\_\_\_  
Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN  
BEFORE ME ON THIS THE  
DAY OF \_\_\_\_\_, 2022.

\_\_\_\_\_  
Notary Public  
My Commission Expires:

\*As of July 1, 2007, the applicable federal work authorization program is the "EEV/Basic Pilot Program" operated by the U.S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA).

**GEORGIA SECURITY AND IMMIGRATION SUB-CONTRACTOR AFFIDAVIT**

STATE OF GEORGIA -  
CITY OF DACULA

SUBCONTRACTOR AFFIDAVIT

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with \_\_\_\_\_(name of contractor) on behalf of The City of Dacula, Georgia has registered with and is participating in a federal work authorization program\* (i.e., any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603), in accordance with the applicability provisions and deadlines established in O.C.G.A. § 13-10-91.

\_\_\_\_\_  
EEV/Basic Pilot Program\* User Identification Number

\_\_\_\_\_  
BY: Authorized Officer or Agent (Subcontractor Name)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title of Authorized Officer or Agent of Subcontractor

\_\_\_\_\_  
Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN  
BEFORE ME ON THIS THE  
DAY OF \_\_\_\_\_, 2022.

\_\_\_\_\_  
Notary Public  
My Commission Expires:

\*As of July 1, 2007 O.C.G.A. § 13-10-91, the applicable federal work authorization program is the "EEV/Basic Pilot Program" operated by the U.S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA)

End of Section

## SECTION 02 050

## DEMOLITION

PART 1 - GENERAL

## 1.1 SCOPE

- A. Work described in this section includes demolition of existing storm pipe, storm structures, asphalt paving, concrete sidewalk, brick retaining wall, landscaping, etc. as indicated in Section 01 000, Project Scope & Performance Specification and on Construction Drawings.

## 1.2 PROJECT CONDITIONS

- A. Traffic
  1. Conduct demolition operations and removal of debris to ensure minimum interference with roads, driveways, walks and other adjacent occupied or used facilities.
  2. Do not close or obstruct streets, walks or other occupied or used facilities without permission from the governing authorities and Owner.
  3. One (1) lane of traffic on all streets indicated for asphalt repaving must stay open at all times as required by Owner.
- B. Use of explosives will not be permitted.
- C. Promptly repair damages caused to items to remain by demolition operations at no additional cost to Owner (i.e. curb & gutter, utilities, etc.).
- D. Coordinate with property owners prior to accessing properties to inform them of project timeline and to identify existing landscape items that are to remain undisturbed; be relocated for owner; or demolished and removed from the Site.

## 1.2 POLLUTION CONTROLS

- A. Use water sprinkling, temporary enclosures and other suitable methods as necessary to limit the amount of dust and dirt rising and scattering in the air, to the lowest level of air pollution practical for the condition of work. Comply with the governing regulations.

## PART 2 - PRODUCTS

### 2.1 MATERIALS TO BE REUSED

- A. Materials to be disassembled and reused shall be handled and stored in a manner and placed so as to prevent damage. Coordinate with property owners for what demolished items are to be saved, turned over to property owners, and/or reinstalled.
- B. Damaged materials shall be repaired or replaced at no cost to Owner.

### 2.2 MATERIALS TO BE REMOVED

- A. Materials to be removed and not reused shall be treated as "waste" and legally disposed of by Contractor. In addition:
  - 1. Burning of waste on site shall not be permitted.
  - 2. Waste materials shall become the property of the Contractor and shall be promptly removed from site.
  - 3. Landscaping materials to be removed within property owner's yards shall be kept to the minimum amount required to complete the scope of work. Contractor shall coordinate with property owner to determine if any materials are to be saved and turned over to the property owner.
  - 4. Storage or sale of salvageable items on site shall not be permitted.
  - 5. Do not store waste in planted areas or any area that can be damaged by storage operations.

## PART 3 - EXECUTION

### 3.1 EXTERIOR DEMOLITION

- A. Coordinate interruption of utility service with utility companies. Obtain required approvals; comply with utility company regulations and building code requirements.
- B. Owner assumes no responsibility for actual condition of existing structures.
- C. Demolish and/or remove asphalt pavement and any below-grade construction interfering with new construction.
- D. Fill all voids below grade caused by demolition of structures, or below-grade construction.

- E. Do not interrupt utility service to existing adjacent occupied facilities except as required and approved by the Public Utility Company and Owner.

### 3.3 PROTECTION

- A. Protect and prevent damage to existing structures not included as part of demolition per the Project Scope and Performance Specification.

End of Section

## SECTION 02 200

## EARTHWORK

PART 1 - GENERAL

## 1.1 SCOPE

- A. Earthwork and fill operations required for any storm sewer pipe installation, swale and retaining wall grading, pipe backfill, and asphalt pavement repair that may arise or as indicated in Section 01 000, Project Scope & Performance Specification and on Construction Drawings. All other earthwork and fill operations are only required if other subgrade issues arise during construction. This Earthwork Specification shall be utilized by the Contractor. Furnish all labor, materials, equipment and incidentals required to perform all excavation, backfill, fill and grading if required for completion of the work.
- B. Notify free underground utility locator service at 1-800-282-7411 prior to any excavations.
- C. Work may include but is not limited to (only if an unforeseen issue arises):
1. Clearing and Grubbing:
    - a. Clearing and Earthwork equipment operations if required are limited to areas described in the scope of work and/or Performance Specification.
    - b. Do not disturb the existing terrain or existing vegetation outside the designated work area(s).
    - c. All debris from clearing and/or grading operations (cleared vegetative matter, trees, root systems, remnant chipped material, stumps, etc.) shall be removed from the site, unless specifically directed otherwise by the Owner.
  2. Cutting, filling and backfilling.
  3. Rough and Finish grading to complete the asphalt replacement and repaving operations.
  4. Furnish, place and compact any additional material necessary to maintain existing grades and drainage patterns of existing roadway.
  5. Excavation, removal and replacement of unsuitable soil materials as described herein.
  6. Rock removal as described herein.
- D. By submittal of his bid, Contractor certifies that all means, methods, labor, equipment and materials to complete the satisfactory construction of the Project is included in the contract sum of his bid.

## 1.2 PROJECT CONDITIONS

- A. Contractor shall visit the site and thoroughly familiarize himself with all existing condition prior to formulating his Bid.
- B. Contractor may, at his own expense and prior to bidding, make any soils or other geotechnical investigations he may deem necessary. Obtain authorization of Owner, prior to commencement of boring or subsurface investigations.
- C. Survey existing grades and lay out grade stakes for if necessary to complete scope of work for storm drainage pipe and structure installation. Utilize a Registered Land Surveyor currently registered to practice land surveying in the State of Georgia.
- D. Upon becoming aware of suspected unsuitable subsurface conditions, promptly notify the Owner and the Owner's Representative to permit verification of the conditions by a Contractor engaged Testing Agency or Contractor's Geotechnical Engineer and follow immediately in writing outlining the nature and extent of the differing conditions. No claim by the Contractor for any additional cost or time for any Earthwork operations of any nature will be allowed, unless the Contractor has so notified the Owner, verbally and in writing, as required above, of such conditions.
- E. Unsuitable materials, including all forms of rock, debris, organic materials and poor soils, encountered may be redistributed to other areas of the site not to be used in a structural capacity rather than being hauled off site if and only if approved in writing prior to any on-site distribution at the Owner's sole discretion.
- F. Contractor is solely responsible for all earth quantities to render the finished grade elevations of the repaved roadway similar to existing condition with no change in drainage patterns. Any exportation (*i.e.*, "haul-off") of "excess" earth; or importation (*i.e.*, "haul-in") of suitable soil materials or GAB shall be included in the Contract Sum unless provided for otherwise in this Specification or as otherwise directed by the Owner or Owner's Representative.
- G. Contractor is solely responsible to:
  - 1. Survey, establish and protect benchmarks and monuments. If any are disturbed or destroyed, Contractor shall replace in original position using a Georgia Registered Land Surveyor at no additional cost to Owner.
  - 2. Protect areas outside limits of construction from encroachment by construction personnel or equipment regardless of property ownership. Contractor shall erect wooden post and orange safety fencing warning signs and other protective measures and warn the public of ongoing construction activities at limits of and a reasonable distance from the construction if necessary.



3. No Clearing or any form of construction or other disturbance (*including materials storage*), shall be conducted outside the approximate limits of construction.
  4. All utilities are to be located and marked. Horizontal and vertical location of all utilities shall be verified by Contractor and marked on "as-built" drawings if they are to remain. Contact the Utility Protection Center at 1-800-282-7411 not less than three (3) working days prior to grading operations. Protect existing facilities, utilities and adjacent property. Prevent ponding or washing of water on site and over adjacent property. Erect erosion control measures (e.g., silt fences) as required to prevent runoff of soil erosion.
  5. Provide all necessary shoring, sheeting and bracing for the protection of work and safety of personnel if necessary. Contractor shall engage a Georgia Registered Engineer highly skilled in the design of such shoring and bracing systems to perform the design engineering for said shoring and bracing. Backfill loads shall not be imposed on walls and structural systems until those systems are completely developed and at design capacity.
  6. Protect adjacent and downstream properties from soil erosion. Comply with all erosion and sediment control measures specified elsewhere and required by applicable codes and ordinances.
  7. Protect finished paved areas from construction debris and dirt.
  8. Provide traffic protection by means of suitable signs, barricades and lights in accordance with the latest edition of the Manual of Traffic Control Devices (MUTCD).
  9. Burning of debris on the Project site will not be permitted.
- H. Provide dewatering and drainage as needed to accomplish the work required in this section. No excavation may proceed until suitable dewatering has been provided and approved by Owner and/or Owner's Representative. Do not allow areas of ponding water. In the event ponding of water occurs, take the necessary measures to eliminate said ponding. Submit dewatering procedures to Owner and/or Owner's Representative for review.
- I. Comply with rules and regulations governing respective utilities.
- J. Contractor is solely responsible for protection of downstream properties from Encroachment or damage from increased or concentrated storm water flows, erosion, sediment or pollutants.
- K. Claims for "lost revenue" from any unsuitable materials or lack of marketability of any unsuitable soil materials or rock shall not be considered for additional payment or compensation by Owner to Contractor.

### 1.3 QUALITY CRITERIA

- A. All work shall be performed in accordance with applicable codes and ordinances and with requirements of authorities having jurisdiction. All work under this Section:
  - 1. Shall conform fully to applicable OSHA rules and regulations.
  - 2. Shall conform to the latest edition of the City of Dacula Development Regulations.
  - 3. For excavation, trenching and related sheeting, bracing, etc. shall comply with the requirements of OSHA excavation safety standards (29 CFR Part 1926.650 Subpart P) and to the State of Georgia and City of Dacula requirements. Where conflict between OSHA, the State regulations and the County/City regulations exists, the more stringent requirements shall apply.
  
- B. Employ a Georgia Registered Engineer or Georgia Registered Land Surveyor experienced in reading Architectural and Engineering drawings, using measuring devices and tape, and skilled in the use of surveying equipment necessary to perform layout, survey, establish benchmarks and monumentation of all work required.
  
- C. Earthwork monitoring and testing shall be performed by a Georgia Registered Geotechnical Engineer, selected by the Contractor and paid for and approved by Owner.
  
- D. Excavation, backfilling and compaction shall comply with the following Reference Standard Designations by the American Society for Testing Materials (ASTM), or as otherwise noted on Drawings.
  - 1. ASTM C136-76 - Sieve or Screen Analysis of Fine and Coarse Aggregates
  - 2. ASTM D1556-64 (1974) - Density of Soil in Place by the Sand-Cone Method
  - 3. ASTM D698 - Standard Proctor Compaction Test
  - 4. ASTM D2167 (1972) - Density of Soil in Place by the Rubber Balloon method
  - 5. ASTM D2487-69 (1975) - Classification of Soils for Engineering Purposes
  - 6. ASTM D2922-78 - Density of Soil and Soil Aggregate in Place by Nuclear Methods
  - 7. ASTM D2937-71 - Density of the Soil in Place by the Drive- Cylinder Method

### 1.4 NOTIFICATION

- A. Contractor shall notify Engineer and/or Owner's Representative 24 hours prior to commencing any grading, excavation, land clearing and removal operations.
  
- B. Contractor shall notify all Utilities Companies in ample time for necessary measures to be taken to prevent interruption of service when utility lines which are to be

removed, relocated and/or disconnected are encountered.

- C. Contact the Utility Protection Center at 1-800-282-7411 not less than three (3) working days prior to any grading operations.

## 1.5 SUBMITTALS

- A. Submit detailed Shop Drawings and schematic diagrams as necessary to graphically describe all Shoring and Bracing procedures, if any. Include calculations and schedules. Illustrate sequencing of all Shoring and Bracing.
- B. Contractor shall submit a detailed time schedule of all Earthwork operations to the Owner's Representative for review prior to commencing work, if any.
- C. In the event that the Contractor contemplates deviation(s) from the earthwork design concept for any reason, the deviation(s) shall be represented by submittal of detailed shop drawings which clearly illustrates the intent and scope of said deviation(s) for review and approval prior to proceeding with same.

## PART 2 - PRODUCTS

### 2.1 TOPSOIL

- A. Topsoil either found on the site or imported to the site, shall consist of local, fertile, friable, natural soil of loamy character, free of clay lumps, stones in excess of one inch (1") in greatest dimension, typical of Project locality, and containing no chemicals harmful to plant growth, if needed.

### 2.2 UNSUITABLE SOIL

- A. Unsuitable soil materials consist of soil materials not capable of being compacted to density required; rock material, as defined in Paragraph 2.09 of this Section, larger than three inch (3"), debris and organic material including muck, which is a wet organic material which cannot support a light crawler tractor type of equipment and requires removal by power shovels or draglines; or material otherwise identified and designated as unsuitable by Contractor's Geotechnical Engineer.
- B. Non-organic materials are considered as unsuitable and include non-organic debris not capable of being compacted to density required, including but not limited to, metal objects such as appliances, metal fencing, tires, etc. Contractor shall remove and legally dispose of such items offsite.

- C. Soil material which is too wet to permit the specified compaction but is still suitable to be used in a structural capacity (once dried) based on the recommendations of Contractor's Geotechnical Engineer, shall be spread and permitted to dry in an area to be designated by Owner. Contractor shall assist drying by discing, harrowing or pulverizing until the soil moisture content is reduced to the specified value.
- D. Only excavation of soils, which is wet due to concealed condition, including, but not limited to underground springs, high water table and leaking pipes, shall be addressed as a potential additive change order. Suitable materials which are wet due to precipitation as determined by Contractor's Geotechnical Engineer shall be dried and reused at no additional cost to Owner.
- E. In the event that a claim by Contractor has been made as to the existence of "Rock", "Unsuitable Soils" or otherwise "Unsuitable Materials", the Contractor's Geotechnical Engineer shall specify the means by which the "Rock" or otherwise "Unsuitable Soils" or "Unsuitable Materials" shall be quantified.

### 2.3 FILL

- A. Satisfactory fill material shall consist of local, clean, non-active, organic free subsoil, free from debris, roots, topsoil and frozen material and capable of being compacted to the density required.
- B. Maximum size of rock fragments shall be equal to or less than three inches (3") in the greatest dimension.
- C. In areas of massive fills or disposal pits, Geotechnical Engineer shall determine the maximum size of rock.
- D. Materials classified as SM, SP, ML, SC or CL are suitable for structural fill. Generally, residual soils in the local area are suitable for reuse as structural fill provided that they meet the following criteria and shall be well graded within the following limits:
  - 1. Common fill shall consist of mineral soil substantially free from organic materials, loam, wood, trash and other objectionable materials which may be compressible or which cannot be properly compacted. Common fill shall not contain stones larger than three inches (3") in the largest diameter and shall have a maximum of 75% passing the No. 40 sieve and a maximum of 20% passing No. 200 sieve. Common fill shall not contain granite blocks, broken concrete, masonry rubble or other similar materials. Fill shall have physical properties such that it can be readily spread and compacted during filling. Soil excavated from the structural areas and which meets the above requirements may be used in embankments.
  - 2. Screened gravel shall meet the requirements of Section 806.02 of the State of Georgia Department of Transportation Standard Specifications for Construction

- of Roads and Bridges, 1993 or latest Edition.
3. Partially weathered rock or rock no larger than three inches (3") in any dimension, may be used as fill as provided for in the Geotechnical Report.
  4. Soil should exhibit a plasticity index of less than 30 and a dry unit weight of at least 90 pcf unless more stringent requirements are given in the Geotechnical Report, in which case they will govern.
- E. Residual material to be used as fill material shall be tested and approved by Contractor's Geotechnical Engineer for degree of compaction specified for its intended use prior to importation or placement.
- F. For fill soils to be imported from off-site, provide samples of same for laboratory testing by Contractor's Geotechnical Engineer to determine their Standard Proctor.
- G. Contractor shall identify the location of any "borrow pits" so that Contractor's Geotechnical Engineer may inspect same to determine suitability of the general soils which Contractor intends to import to the Project site.

#### 2.4 GRAVEL

- A. All stone for Gravel Fill shall meet the quality requirements of Section 800 of the State of Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges, 1993 or latest Edition.
- B. Gravel fill shall consist of sound, durable rock, free from injurious amounts of coatings of any kind and shall be graded so 100% passes the 1-1/2" sieve, 95-100% passes the 1" sieve, 25-60% passes the 1/2" sieve, 0-10% passes the No.4 sieve and 0-5% passes the No.8 sieve.

#### 2.5 CRUSHED STONE (CRUSHER RUN)

- A. All stone for Crushed Stone shall meet the quality requirements of Section 800 of the State of Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges, 1993 or latest Edition.
- B. Crushed stone shall consist of sound durable particles of crusher run rock, 100% passing a 2-inch sieve, 97-100% passing a 1-inch sieve, 60-95% passing a 1/2-inch sieve, 25-50% passing a No. 10 sieve, 10-35% passing a No. 60 sieve, and not more than 7-15% passing a No. 200 sieve and free from unsuitable materials.

## 2.6 GRANULAR BEDDING

- A. All stone for Granular Bedding shall meet the quality requirements of Section 800 of the State of Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges, 1993 or latest Edition.
- B. Granular bedding and backfill material shall consist of a granular soil, sand, chert, crushed stone or mixture of these, all of which passes a 3/4-inch sieve, 80% passing a 3/8-inch sieve, 40% passing a No.4 sieve, 10% passing a No. 8 sieve, and not more than 5% passing a No. 16 sieve. Material shall be free of organic matter and debris.

## 2.7 RIP RAP

- A. Stone for Rip Rap shall meet the quality requirements of Section 805 Rip Rap of the State of Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges, 1993 or latest Edition.
- B. Stone Dumped Rip Rap shall be processed in such a manner as to produce a quarry Run material including rock fines which meet the gradation for the following two types:
  - Type 1: For severe drainage conditions the largest piece of material shall have a maximum approximate value of two cubic feet. At least 35% of the mass shall be comprised of pieces which weigh 125 pounds or more.
  - Type 3: For general use normal drainage conditions the largest pieces of material shall have a maximum approximate value of one cubic foot. At least 35% of the mass shall be comprised of pieces which weigh 15 pounds or more.The remainder of Types 1 or 3 shall be well-graded down to the finest sizes. Rock fines shall comprise a maximum of 10% of the total mass. Rock fines are defined as material passing a No. 4 sieve.
- C. Stone for Plain Rip Rap shall be sound, durable pieces and shall be resistant to the action of air and water. Flat, slabby and shaley pieces are not acceptable. It shall be clean and essentially free of rock dust and fines. The material shall be processed such that the largest pieces have a volume of not more than 2 cubic feet and not more than 10% of the total weight of rip rap shall consist of spalls passing a 5-inch sieve.

## 2.8 GRADED AGGREGATE BASE

- A. All stone for Graded Aggregate Base shall meet the quality requirements of Section 815 of the State of Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges, 1993 or latest Edition.

- B. Graded Aggregate Base material shall conform to the following: 100% passing a 2-inch sieve, 97-100% passing a 1-inch sieve, 60-95% passing a 1/2-inch sieve, 25-50% passing a No. 10 sieve, 10-35% passing a No. 60 sieve, and not more than 7-15% passing a No. 200 sieve and free from unsuitable materials.

## 2.9 ROCK

- A. Rock consists of three types: Rippable Weathered Rock, Mass Rock and Trench Rock. Rippable Weathered Rock is considered part of the work and shall be included in the Contract Sum. Payment for Mass Rock and Trench Rock removal shall be in accordance with change order procedures based on the schedule of values with unit costs provided with the lump sum bid as specified by the Bid Proposal Form or a time and material basis as agreed to prior to commencing work. Rock quantities shall be qualified and quantified by Contractor's Geotechnical Engineer and verified by Owner's Representative.
- B. In the event that a claim by Contractor has been made to the existence of "Rock", "Unsuitable Soils" or otherwise "Unsuitable Materials", the Geotechnical Engineer shall specify the means by which the "Rock" or otherwise "Unsuitable Soils" or "Unsuitable Materials" shall be quantified.
1. Rippable Weathered Rock is defined as residual material having a volume greater than one (1) cubic yard that, in the opinion of Contractor's Geotechnical Engineer, can be effectively plowed, spaded, or removed with power driven excavating equipment having been first loosened with a track-mounted bulldozer equipped with a single-tooth ripper shank, having a minimum draw bar pull rated at not less than 56,000 pounds.
  2. Mass Rock and Trench Rock are defined as residual material having a volume greater than one (1) cubic yard or more for mass excavation or one-half (1/2) cubic yard for trench or pit excavation that cannot be removed by rock excavating equipment equivalent to the following in size and performance ratings, without systematic drilling, ram hammering, or blasting.
    - a. Mass Rock - Mass Excavation: Late-model, track-mounted bulldozer equipped with a single-tooth ripper shank; rated at not less than 230-hp flywheel power and developing a minimum of 56,000-lbf pryout force; measured according to SAEJ-732 (Caterpillar D-8K, Caterpillar 977 front-end loader or equivalent).
    - b. Trench Rock - Excavation of Trenches and Pits: Late-model, track-mounted hydraulic excavator; equipped with a 42-inch-wide, short-tip-radius rock bucket; rated at not less than 120-hp flywheel power with a bucket-curling force of not less than 25,700-lbf and stick-crown force of not less than 18,700 lbf; measured according to SAEJ-1179 (Caterpillar Model 225 or equivalent).

- C. Provide ground vibration monitoring and existing condition/crack survey (video and/or digital) of all nearby structures and/or adjacent properties prior to any blasting operations. Contractor must notify Owner's insurance company of rock removal intent and must obtain all necessary insurance certificates and permissions to expedite this work.

### PART 3 - EXECUTION

#### 3.1 CLEARING

- A. Clearing is the removal of all obstructions which interfere with the construction. These items include minor structures above and below existing grades and below finished grades identified on the drawings, trees and their complete root systems, brush, other vegetative material in any condition (i.e., chipped, cut, wrenched, etc.) rubbish, fences and other such items except items indicated to be preserved on Drawings.
- B. Set and maintain any Active or Passive Tree, Wetland, Spring, Buffer, Limits of Disturbance or Vegetation Protection Fencing prior to Clearing operations in accordance with Drawings.
- C. Contractor shall clear only those areas in which construction or grading operations are required and includes all excavated, graded and filled areas. Contractor shall protect all other areas from any damage as a result of clearing operations.
- D. Burning on site shall not be permitted under any circumstances.
- E. Contractor shall remove all cleared material from the Project site and legally dispose of.

#### 3.2 GRUBBING

- A. Grubbing is the removal of all roots and stumps from the ground larger than  $\frac{3}{4}$  inch diameter.
- B. Unless otherwise directed, Contractor shall grub all cleared areas;
  - 1. In fill areas where design grade levels for building, roads or paved areas are to be placed, grub to minimum depth of twelve inches (12") below the finished design grade level as indicated on Drawings.
  - 2. In all areas of excavation for structures, grub to the depth of the proposed excavation or to the depth that allows the area to be free of debris, rock, organic and inorganic materials, and unsuitable soils that would otherwise



prevent the soil from being compacted to the density as indicated on Drawings and stated in the Specifications herein.

3. In areas outside of design level grades or building footprint or roads and parking lots where fill is to be placed grub to the existing grade unless the area adjacent requires soils compacted to a density to support the structures, roads, or parking areas.
4. Contractor shall be responsible for excavating to an appropriate depth and removing and replacing with suitable soils that will allow soil to achieve requisite compacted density.
5. In areas to be grassed and/or landscaped without fill, grub to a minimum of six inches (6") below the final grade.

C. Remove all grubbed material from the Project site and legally dispose of.

### 3.3 CLEAN UP

- A. Burning of debris or grubbed material onsite shall not be permitted under any circumstances.
- B. Remove all debris resulting from Clearing and Grubbing operations from the site and dispose of in compliance with all applicable laws and regulations.
- C. Do not place such debris on private property without written consent of Owner and Owner of such property.
- D. Do not place debris or grubbed material around perimeter of site.
- E. Remove all non-organic debris, trash, etc. from the site and dispose of in compliance with all applicable laws and regulations.

### 3.4 TOPSOIL STOCKPILING

- A. Strip topsoil to full depth encountered in areas indicated to be graded on the drawings. Stockpiling may occur as required to complete all construction operations. Intermittent movement of Topsoil from one location of the Project site to another shall be included in the Contract Sum. No claim shall be considered by Owner for the movement of Topsoil.
- B. Prior to stockpiling topsoil, remove tree limbs, tree roots, rocks larger than one inch (1") and other deleterious materials from the topsoil. Removed materials shall become the property of the Contractor and hauled off the site and legally disposed.
- C. Stockpile topsoil in manner to drain without ponding, and to avoid loss of material

through erosion by wind or water.

- D. Do not export any topsoil off-site unless approved in writing by the Owner.
- E. Re-distribute a minimum of four inch (4") deep layer of topsoil fine graded to finish contour elevations illustrated in non-paved or building areas.

### 3.5 EXCESS, UNSUITABLE AND INSUFFICIENT MATERIALS

- A. Remove and legally dispose of excess and unsuitable materials from Project site unless directed otherwise in writing by Owner. Unsuitable material may be placed on Owner's property if and only if approved in writing by Owner prior to any on-site distribution as a deductive change order and then shall only be placed in non-structural fill areas of the Project site as designated by Owner and/or Owner's Representative.
- B. Provide satisfactory fill material in areas where existing materials are insufficient or unsuitable for earthwork operations.
- C. If, in the opinion of the Engineer/Geotechnical Engineer, the material in its undisturbed natural condition at or below final design grade as indicated on the Drawings, the excavation is unsuitable for its intended use; it shall be removed to such depth and width as directed and be replaced with suitable material by Contractor as directed by the Engineer/Geotechnical Engineer. Contractor, unless otherwise directed by the Engineer or Owner, shall remove and replace unsuitable materials based on the schedule of values with unit costs provided with the lump sum as specified by the Bid Proposal Form. Owner may elect, in accordance with the provision of the agreement, to direct Contractor to remove and replace the unsuitable materials on a lump sum or time and materials basis should applicable unit rates not exist or not covered for unsuitable material being removed. Contractor shall receive written notice from the Engineer of means and methods to employ i.e., lump sum, unit rates or time and materials, prior to executing any work deemed in excess of the amount indicated in the Contract Sum.

### 3.6 EXCAVATION

- A. Excavation shall be made to the design lines and levels illustrated on the drawings or to such depths, whichever is greater, as further described elsewhere in this section and to such widths as will give suitable room for construction of the structures, for bracing and supporting, pumping and draining and inspection. The bottom of the excavations shall be rendered clean, firm, level and dry and in all respects acceptable to Contractor's Geotechnical Engineer and Owner's Representative. Where changes in levels occur, provide vertical steps in horizontal runs.

- B. Excavation and dewatering shall be accomplished by means and methods which preserve the undisturbed state of subsurface soils. Exposed subsurface shall be proof rolled with at least two (2) coverages of the specified equipment. Contractor's Geotechnical Engineer and Owner's Representative shall waive this requirement if, in his/her opinion, the subsurface will be rendered unsuitable by such compaction. Subsurface soils which become soft, loose, "quick", or otherwise unsatisfactory for support of structures as a result of inadequate excavation, dewatering, proof-rolling, or other construction methods shall be removed and replaced by structural fill as required by Contractor's Geotechnical Engineer and Owner's Representative at Contractor's expense.
- C. Dewatering shall be such as to prevent boiling or detrimental under-seepage at the base of the excavation as specified herein.
- D. Contractor shall prepare subsurface areas for all structures unless otherwise illustrated on Drawings or otherwise specified elsewhere in this Section:
1. Roughly level and proof roll these areas with a 25-ton roller, (or the equivalent) making at least four passes (two passes being perpendicular to the others).
  2. Compact the top twelve inches (12") of fill below subsurface to a minimum of 100 percent Standard Proctor (ASTM D698).
  3. Where structures are supported by piles, compact the top twelve inches (12") of subsurface to a minimum of 95 percent Standard Proctor (ASTM D698).
- E. Excavation equipment shall be satisfactory for carrying out the work in accordance with requirements specified. In no case shall the earth be ploughed, scraped, or dug with machinery so near to the finished design limits indicated on Drawings as to result in excavation of, or disturbance of material below design limits. The last of material loosened by mass excavation shall be removed with pick and shovel immediately prior to placement of concrete or working mat.
- F. When excavation for foundations has reached prescribed depths, Contractor's Geotechnical Engineer and Owner's Representative shall be notified and will inspect conditions. If materials and conditions are not satisfactory to Contractor's Geotechnical Engineer and Owner's Representative, Contractor's Geotechnical Engineer and Owner's Representative will issue instructions as to the procedures to resolve the issue(s) in question.
- F. During final excavation to design limits as indicated on Drawings, take whatever precautions are required to prevent disturbance and remolding. Material which has become softened and mixed with water shall be removed. Hand excavation of the final three to six inches (3"- 6") will be required as necessary to obtain a satisfactory undisturbed bottom. Contractor's Geotechnical Engineer and Owner's Representative will be the sole judge as to whether the work has been accomplished satisfactorily.

- G. Over-excavation by Contractor beyond the design limits and depths required or indicated on the drawings shall be replaced with lean concrete, compacted structural fill, crushed stone, or other materials as directed by Contractor's Geotechnical Engineer and Owner's Representative at no change in Contract Sum or Time.
- H. If soil conditions permit, cut footing trenches to exact size of footing and omit forms. Notify Contractor's Geotechnical Engineer and Owner's Representative if earth of doubtful bearing is encountered. If adequate bearing is not encountered within eight inches (8") of depth illustrated on Drawings, excavations shall be carried deeper upon written authorization and paid for as additional work in accordance with Contract Conditions.
- J. If excavations are carried deeper than required by Drawings or Specifications in error, the additional depth shall be filled with materials specified for road subgrade and compaction at no additional cost to Owner.
- K. Protect excavations against cave-ins, ponding and freezing. When freezing can be anticipated prior to placing of concrete, protect excavations or delay carrying excavations to full depth until concrete can be placed.
- L. Maintain excavations free of surface water. Provide pumps if required to drain excavations. Provide and maintain temporary drainage ditches as required.
- M. Notify Contractor's Geotechnical Engineer and Owner's Representative when footing excavations are complete. Geotechnical Engineer will perform appropriate density testing of the excavations prior to placing formwork, reinforcement steel, anchor bolts and concrete.
- N. Contractor shall be fully responsible for all damage to any part of the site, building structures or other installations, caused by water.
- O. Concrete should be placed the same day earth excavation is made. If it is necessary for excavations to remain open overnight, provisions should be made to prevent collection of surface run-off in the excavation.

### 3.7 EXCAVATION OF ROCK

- A. If rock is encountered, clear away earth and expose materials. Notify Contractor's Geotechnical Engineer and Owner's Representative and receive written instructions prior to excavations. Measure and estimate extent of rock to be excavated. Contractor's Geotechnical Engineer shall identify, qualify and verify in writing whether

- the material shall be classified as rock and shall confirm the extent and quantity of rock to be excavated.
- B. Only rock excavation done in accordance with Contractor's Geotechnical Engineer and Owner's Representative instructions will be paid for by Owner as additional work in accordance with Contract Conditions.
  - C. Contractor shall remove rock in accordance with the following:
    1. Remove rock to a depth of six inches (6") below proposed slabs and pavement.
    2. Twenty-four inches (24)" on each side of and below footings of the proposed building walls.
    3. Six inches (6") below and eight inches (8") to each side of conduits, ducts and pipes installed in utility trenches, with minimum width of thirty-six inches (36").
    4. Twelve inches (12") below finished grade in areas to receive landscaping, sodding and seeding.
  - D. No blasting is allowed. Use of explosives will not be permitted.

### 3.8 EXCAVATION AND BACKFILL OF UTILITY TRENCHES

- A. Excavation for all trenches required for the installation of pipes and ducts shall be made to the design levels indicated on the drawings and in such a manner and to such widths as will give suitable room for laying the pipe or installing the ducts within the trenches, for bracing and supporting, and for pumping and drainage facilities. Bottoms of excavations shall be rendered firm and dry and, in all respects, acceptable to the Contractor's Geotechnical Engineer and Owner's Representative. Bituminous pavement, when encountered, shall be cut with pneumatic chisels along smooth and straight lines before excavating. Saw-cutting is required on all asphaltic concrete.
- B. Rock shall be removed in accordance with Section 3.7.
- C. Where pipe or ducts are to be laid in gravel or sand bedding or encased in concrete, The trench may be excavated by machinery to, or just below design level indicated on Drawings provided that the material remaining in the bottom of the trench is no more than slightly disturbed.
- D. Where pipe or ducts are to be laid directly on the trench bottom, the lower part of the trenches shall not be excavated to the design level by machinery, the last of the material being excavated manually in such a manner that will give a flat bottom true to grade so that pipe or duct can be evenly supported on undisturbed material. Bell holes shall be made as required.
- E. When excavation methods include the use of a steel trench box, comply with the

following requirements:

1. When installing rigid pipe Reinforced Concrete Pipe (RCP), Ductile Iron Pipe (DIP), etc.], any portion of the box extending below mid diameter of the pipe shall be raised above this point prior to moving the box ahead to install the next pipe. This is to prevent the separation of installed pipe joints due to movement of the box.
  2. When installing flexible pipe (PVC, ABS solid wall, ABS truss, etc.), the bottom of the box shall not extend below mid diameter of the pipe. This is to prevent loss of soil between the box and the pipe bedding which could result in excessive deflection of the installed pipe.
- F. Backfilling over ducts, pipes, conduits, etc. shall begin not less than three days after Placing concrete encasement or until the test sample achieves prescribed strength of tested sample.
- G. Where pipe is to be installed in fill of any type, fill shall be placed and compacted to the total depth required and then re-excavated for pipe installation.
- H. As soon as practicable after the pipe has been laid and jointed, backfilling shall begin and thereafter be completed expeditiously. If required, as illustrated on Drawings, screened gravel shall be placed around the pipe to its mid-diameter. As the screened gravel is placed, it shall be compacted by suitable tools. Compaction shall meet a minimum criterion of 98% Standard Proctor at or near its optimum moisture content (minus 2 to plus 3 percent).
- I. Use Reinforced Concrete Pipe for culverts within right-of-way and under pavement refer to City of Dacula Standards.
- I. For Plastic (PVC) pipe for drainage systems or roof leaders grade trench bottom to Uniform slope to provide a firm, unyielding bearing surface along the entire length of the barrel of the pipe.
- J. Continue backfilling with suitable soil in six-inch (6") layers by hand, tamping material by hand operated tampers to a level eighteen inches (18") above top of pipe.
- L. Form depressions for hubs and similar joints only in size as required for making joint.
- M. In areas of rock excavation, and where needed in other areas, provide crushed stone Bedding for all pipes.
- N. Provide bedding over the full width of excavation to a minimum depth of six inches (6") Under pipe.
- O. Whenever the subsurface is unstable or too soft to provide a satisfactory pipe

foundation for any pipe, undercut the trench as necessary and backfill with crushed stone. Compact and bring the material to proper grade to create a firm, unyielding foundation.

- P. After the bedding, if required, has been placed to the mid-diameter of the pipe, select common fill shall be placed to a depth of twelve inches (12") over the top of the pipe. Material shall be thoroughly compacted by hand-tamping as placed with at least one man tamping for each man shoveling material into the trench. Compaction shall result in achieving a 95% Standard Proctor test at or near its optimum moisture content (minus 2 to plus 3%).
- Q. Where the pipes are laid in unpaved areas, the remainder of the trench shall be filled with common fill in layers not to exceed twelve inches (12") and thoroughly compacted by rolling, ramming, or puddling sufficiently to prevent subsequent settling to 95% Standard Proctor at or near its optimum moisture content (minus 2 to plus 3%). The backfill shall be mounded 3 inches (minimum) above the finish or existing grade or as directed by the Contractor's Geotechnical Engineer. Wherever a loam or gravel surface exists prior to excavations, it shall be removed, conserved and replaced to the full original depth as part of the work under the pipe items. In some areas it may be necessary to remove excess material during the clean-up process, so that the ground may be restored to its original level and condition. If Contractor prefers not to store loam, gravel, or topsoil he/she shall replace it with material of equal quality and in equal quantity.
- R. Where the pipes are laid in streets, or other paved areas, the remainder of the trench above the bedding and up to a depth of twelve inches (12") below the bottom of the specified paving shall be backfilled with common fill in 6-inch (max.) layers thoroughly compacted by rolling or ramming to 98% Standard Proctor. The twelve-inch (12 ") layer below the bottom of the specified paving shall be of Class A or B stone, compacted in six-inch (6") layers to 98% modified Proctor.
- S. Along the length of all pipeline and duct trenches, impervious dams or bulkheads of clay thirty-six (36") in thicknesses or concrete twelve-inch (12") in thickness shall be constructed in the trench bottom at three-hundred-foot (300') intervals or at manholes and structures, whichever is less, to obstruct the free flow of groundwater after construction is completed. Provide impervious dams at all points where a pipe trench enters an excavated area where a permanent underdrain system is installed.
- T. Do not over-excavate. If specified trench widths are exceeded, Contractor shall adhere to Section 3.6 H. Contractor's Geotechnical Engineer and Owner's Representative may require installation of stronger pipe or special installation procedures at no additional cost to Owner.

- U. Water line trenches shall be excavated to avoid high points requiring the installation of vacuum and relief valves below the frost line.
- V. Cutting and removing existing pavements where required shall be done in neat lines and in accordance with 3.8 A of this Section.
- W. Do not backfill over utility lines which have not passed required testing or inspections including the Contractor's Geotechnical Engineer's inspection of the subsurface has not been done and or other Inspections, testing and regrading locations of subsurface utilities is not accomplished.
- X. Contractor is to continue to backfill all trenches with suitable fill material in 6-inch lifts immediately after the pipe is laid or bedded as described in items 3.6 I, J and K above using suitable soils and adhering to the backfilled requirements of paved or unpaved areas. Compact trench backfill with portable compaction equipment.
- Y. If sufficient suitable excavated material is not available on site, provide sufficient and suitable borrow material for backfill (See Paragraph 2.3 of this Section).
- Z. Backfill from twelve inches (12") above the pipe to finish grade shall be as follows:
  - 1. Trenches in areas not to be paved may be backfilled and compacted by methods of Contractor's choice. Compact backfill to 95% Standard Proctor Density. Refill the trench as often as required to maintain the design elevation at proper grade.
  - 2. Trenches in areas to be paved and in areas beneath proposed structures shall be backfilled with granular material.
  - 3. Compact backfill to 98% Standard Proctor Density with top 12 inches compacted to 100% Standard Proctor Density or as specified by Geotechnical Report.
  - 4. Compact backfill further, if necessary, either by leaving the backfilled trench open to traffic while maintaining the surface or by the use of compaction equipment as required.
  - 5. Refill settlement in trenches with material acceptable to Contractor's Geotechnical Engineer and continue such maintenance until pavement placement is authorized by Contractor's Geotechnical Engineer and Owner's Representative.
- AA. Fill and backfill materials shall not be placed on frozen surfaces, or surfaces covered by snow or ice. Fill and backfill material shall be free of snow, ice and frozen earth.
- BB. Utility Trenches:
  - 1. Excavate trenches to a maximum width equal to pipe diameter plus 2'-0" for pipes 30" diameter and smaller; 2'-6" plus pipe diameter for pipe exceeding 30" diameter. Minimum excavation width shall be 3'-0". Do not over-excavate. If specified trench widths are exceeded, Engineer may require installation of stronger pipe or special installation procedures at no additional cost to Owner.



2. The bottom of trenches, when in rock, shall be excavated a minimum of 6" below required bottom of pipe, refilled with fill material free of rock larger than 3" in any dimension, and compacted to bedding level to provide uniform bearing and support along the length of each pipe section.
3. Pipe shall be carefully bedded in soil foundation. See paragraph 3.10.
4. Water line trenches shall be excavated to avoid high points requiring the installation of vacuum and relief valves below the frost line.
5. Cutting and removing existing pavements where required shall be done in neat lines.

CC. Proof-rolling:

1. After the site has been properly drained, and all organic surface soils have been removed, the site shall be inspected by Owner and Owner's Representative and proof-rolled at that time.
2. Proof-rolling shall consist of several overlapping passes of heavily loaded 18-20 ton dual tandem dump truck.
3. The purposes of the proof-rolling will be to detect any areas where soft or unstable soils are present, as well as to improve the density of the loose near surface soils.
4. Proof-rolling shall be performed in the presence of the Owner and Owner's Representative who can observe any areas where remedial action may be required. Contractor's Geotechnical Engineer will be used if there is a problem encountered.
5. Any soft or yielding areas shall be thoroughly undercut and replaced with well-compacted structural fill 95% Standard Proctor with the top 12" compacted to 98% Standard Proctor Density or as specified by the Geotechnical Report.
6. Groundwater level should be maintained at a depth of at least two (2') feet below the depth of vibratory rolling operations.
7. A minimum of four (4) complete overlapping passes shall be made in each of two perpendicular directions.

### 3.9 EXCAVATION EMBANKMENT AND BRACING

- A. Contractor shall accept full responsibility for all excavations and shall protect all excavation embankments against collapse.
- B. Where possible, embankments over 5'-0" high shall be made at a slope not greater than 1 horizontal to 1 vertical; or where the soil is very sandy or wet, the slope should not be greater than 2 horizontal to 1 vertical.
- C. Steeper slopes than those suggested herein may be employed when the work is under the supervision of a Registered Professional Engineer responsible for the design engineering of all shoring and bracing techniques required to accomplish the work and shall be employed by Contractor.

- D. Where it is not possible to provide a safe embankment slope, all banks shall be temporarily supported and maintained secure until permanent support has been provided.
- E. Where ditches or trenches are over 5'-0" deep; cross bracing and shoring shall be provided to prevent collapse.
- F. Contractor shall provide bracing systems designed by a Registered Engineer in the State of Georgia, experienced in such designs and acceptable to Owner.
- G. Drawings shall show the work and sequence in its entirety and be submitted to Owner for approval prior to commencing work.
- H. To prevent caving, or settlement of earth adjacent to excavations, and for the protection of persons as well as property, shoring, bracing and other similar work shall be provided and installed to meet the conditions in each particular case and shall be left in place until construction has reached a point where backfills behind walls or in ditches have been made and the need for shoring and bracing eliminated.

### 3.10 BEDDING

- A. Bedding shall conform to the following Specifications unless illustrated otherwise elsewhere in these documents:
  - 1. For ductile iron, cast iron or plastic (SDR) pipe for water main or sanitary sewer system refer to City of Dacula Standards.
  - 2. For corrugated metal pipe (CMP), concrete pipe (RCP) or plastic (PVC) pipe for storm water drainage systems or roof leaders grade trench bottom to uniform slope to provide a firm, unyielding bearing surface along the entire length of the barrel of the pipe.
  - 3. Bed pipe in trenches on continuous soil foundation shaped to lowest one-fourth of pipe profile, unless illustrated otherwise in these documents.
  - 4. Continue backfilling with suitable soil in 6" layers by hand, tamping material by hand operated tampers to a level 18" above top of pipe.
  - 5. Form depressions for hubs and similar joints only in size as required for making joint.
  - 6. In areas of rock excavation, and where needed in other areas, provide crushed stone bedding for all pipes.
  - 7. Provide this bedding over the full width of the excavation to a minimum depth of 6" under the pipe.
  - 8. Whenever the sub-grade is unstable or too soft to provide a satisfactory pipe foundation for any pipe, undercut the trench as necessary and backfill with crushed stone.

9. Compact and bring the material to proper grade to create a firm, unyielding foundation.

### 3.11 TRENCH BACKFILLING

- A. Do not backfill over utility lines which have not passed required testing or inspections including:
  1. Contractor's Geotechnical Engineer inspection of subgrade.
  2. Inspections, testing and regrading locations of subgrade utilities.
- B. Backfill all trenches and excavations immediately after the pipe is laid using suitable soils:
  1. If sufficient suitable excavated material is not available on site, provide sufficient and suitable borrow material for backfill. See Paragraph 2.3 of this Section.
  2. Backfill from 18 inches above the pipe to grade shall be as follows:
    - a) Trenches in areas not to be paved may be backfilled and compacted by methods of Contractor's choice. Compact backfill to 90% Standard Proctor Density. Refill trench as often as required to maintain the design elevation at the proper grade.
    - b) Trenches in areas to be paved and in areas beneath proposed structures shall be backfilled with granular material. Compact backfill to 95% Standard Proctor Density with the top 12" compacted to 98% Standard Proctor Density or as specified by the Geotechnical Report. Compact backfill further, if necessary, either by leaving the backfilled trench open to traffic while maintaining the surface or by the use of compaction equipment as required. Refill settlement in trenches with material acceptable to the Contractor's Geotechnical Engineer and continue such maintenance until pavement placement is authorized by the Owner's Representative.

### 3.12 FILLING

- A. Preparation of Surface to Receive Fill (Reference and follow the Contractor's Geotechnical Engineer's recommendations in his report)
  1. Remove vegetation, topsoil, debris, unsuitable soil materials, obstructions and deleterious materials from ground surface prior to placement of fill. Break up (and periodically cut benches into) sloped surfaces steeper than one vertical to four horizontal so that fill material will bond with existing surface.
  2. Surfaces to receive fill material shall be inspected and approved by Contractor's Geotechnical Engineer.

3. When existing ground surface has density less than that specified for particular area classification, break up the ground surface, pulverize, moisturize soil to optimum moisture content, and compact to required depth and percentage of maximum density.
  4. Subgrade shall be proof rolled with a heavily loaded 18-20 ton dual tandem dump truck, scraper or similar rubber-tired equipment in the presence of the Owner and/or Owner's representative. Contractor's Geotechnical Engineer will be called in if a problem is encountered.
  5. Proof-rolling shall be performed in two mutually perpendicular directions, with at least two passes in each direction.
  6. Areas which exhibit signs of instability that cannot be stabilized with further compaction shall be undercut to a suitable grade and backfilled with structural fill.
- B. Benching should be made periodically; create an eight foot to ten foot (8'-10') wide bench for each two vertical foot (2 VF) of fill placed. Insure stable interface between old fill and newly placed fill.
- C. Place fill materials in layers not more than six inch (6") loose depth. Before compaction, moisten or aerate each layer to provide the optimum moisture content plus or minus 2%, or as specified in soils report. See paragraph 3.11 below for compaction requirements of fill. Do not place backfill or fill material on muddy, frozen surfaces or surfaces containing any frost or ice. Compaction shall be inspected by Contractor's Geotechnical Engineer.
- D. No soil found on the site or transported to the site, which is contaminated with material containing asbestos, PCB's, radon, gasoline, fuel oil or other fossil fuels shall be used for fill, backfill, or planting topsoil. Any contaminated soil found on the site shall be removed and disposed of in a manner approved by the appropriate regulatory agencies.

### 3.13 GRADING AND FILLING AROUND TREES

- A. Obtain a copy of City of Dacula Tree Preservation Standards which are hereby made a part of these Specifications; and follow all pertinent guidelines regarding Grading and Filling operations at or near Tree Save Areas as illustrated on Drawings.
- B. Maintain existing grade within Critical Root Zone (CRZ) of trees unless otherwise indicated.
- C. Where existing grade is above new finish grade illustrated around trees, hand excavate within drip line to new grade. Cut exposed roots approximately 3" below elevation

of new finish grade. Employ a tree surgeon to recommend procedures such as pruning of branches and stimulation of root growth. Provide subsequent maintenance during the contract period as recommended and long-range maintenance procedures to be followed after completion of construction operations.

D. Raising Grades

1. Where existing grade is 4" or less below elevation of finish grade illustrated, provide fill using stockpiled topsoil. Use topsoil as specified. Place topsoil in single layer and do not compact.
2. Where existing grade is more than 4" but less than 8" below elevation of finish grade illustrated, place a layer of drainage fill on existing grade prior to placing topsoil. Place fill against trunks of trees to an elevation of approximately 2" above finish grade and extending not less than 18" from tree trunk on all sides. For balance of area within drip line perimeter, place drainage fill to an elevation 4" below finish grade and complete fill with a 4" layer of topsoil. Do not compact stone or topsoil layers.

3.14 COMPACTION

- A. Perform compaction of soil materials for fills using mechanical soil compaction equipment for type and size materials to be compacted. Hand compact materials in areas inaccessible to machinery.
- B. Provide the percentages of specified compaction at the specified moisture content in the specified lifts as outlined in the Geotechnical Report. If no specification is given in said report, use the following as a minimum at 3% plus or minus of optimum moisture content placed in 8" lifts:
  1. Provide 95% maximum dry density with top 12" to 98% maximum dry density for fill under building slabs, extending beyond the building outlines a distance equal to twice the height of the fill beneath any edge of building. Fill should then slope not steeper than one vertical to two horizontal (2H:1V);
  2. Provide 95% maximum dry density with the top 12" to 98% maximum dry density for fill under asphaltic pavements;
  3. Provide 95% maximum dry density Standard Proctor and top 12" to 98% maximum dry density for fill under concrete footings, concrete sidewalks, concrete steps and concrete ramps and trench backfill.
  4. Provide 90% maximum dry density for all other non-paved fill material unless otherwise indicated.
- C. Where subgrade or soil layer must be moisture conditioned before compacting, apply water to surface of subgrade or soil layer. Scarify and air-dry soil material that is too wet to permit compaction to specified density.

- D. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread where directed by Owner's Representative and permitted to dry. Assist drying by discing, harrowing or pulverizing, until moisture content is reduced to satisfactory value, as determined by moisture density relation tests. When accepted by the Contractor's Geotechnical Engineer, soil material may be used in compacted backfill or fill.
- E. Remove unsuitable material at the site for the proposed structures and paved areas from the existing grade. No water shall be allowed to accumulate in the excavation, or on the subgrade soils during construction. Soils which will be exposed during construction are very sensitive to disturbances and strength degradation in the presence of excess moisture. They are also frost susceptible. The amount of time natural subgrades are exposed to the elements must be minimized in order to prevent possible subgrade degradation. Work must be completed such that excavation, inspection, undercutting, backfill and/or concrete mud matting can be accomplished expeditiously in a given area.

Foundations have been designed for bearing capacity of 3000 post bearing. Contractor shall verify the bearing capacity prior to placing footings. If tests indicate less than assumed capacity, receive instructions from Owner.

### 3.15 FINISH GRADING

- A. Finish grade disturbed areas, with a minimum 4" depth of topsoil, in smooth, uniformly leveled, crowned, or contoured slopes between all new elevation surface points to existing, undisturbed grade elevations.
- B. Grade areas adjacent to buildings for positive drainage to storm drainage structures and prevent ponding. Finish grades shall be within one tenth of a foot (0.1') of indicated elevations.
- C. Drawings indicate the levels, slopes and contours of finished grade elevations for the entire site. Slight modifications as determined by Owner's Representative may be required, Contractor shall make these modifications without extra cost to Owner.
- D. Where compacted areas are disturbed by construction operations, scarify surface, reshape and compact to required density.
- E. Redistribute stockpiled topsoil to uniform depth over graded areas and other areas to receive landscaping or grassing, in a 4" minimum depth. In the event that stripped topsoil is not sufficient to render a 4" minimum depth, import clean topsoil sufficient to render a minimum 4" depth as part of the Contract Sum at no additional cost to the Owner.

- F. Redistribute excess topsoil, subsoil from footing excavations, other soil matter and debris on approved areas of the Owner's property at no additional cost to the Owner.
- G. At completion of finish grading operation, entire site shall be ready for planting or grassing.
- H. Where finish grading meets or abuts curbs, walks or similar pavements, upstream grades shall be slightly higher than pavements to permit drainage and prevent ponding behind curbs or walks.
- I. Protect newly graded surfaces from traffic and erosion and keep free of debris. Where graded or compacted surfaces are damaged by subsequent operations, return to proper grade and state of compaction.

### 3.16 GRADE MAINTENANCE

- A. Contractor shall provide additional fill material, remove excess material, or redistribute materials as required, should grades be changed by erosion or other causes during course of construction, without additional cost to Owner.

### 3.17 FIELD QUALITY CONTROL

- A. Contractor's Geotechnical Engineer shall be notified by Contractor of the progress of work under this section on a continuing basis so that necessary field soil engineering and testing services may be provided during site preparation, excavation, fill placement and foundation phases of the Project, if required by Owner. Do not proceed with additional portions of work until results of previous phases have been verified.
- B. Contractor's Geotechnical Engineer will verify that all existing fill, topsoil, soils containing organic matter and all other undesirable materials are removed and only engineered fill is placed over suitable subgrade soils.
- C. If, during progress of work, tests indicate that compacted materials do not meet specified requirements, remove defective work, replace and retest at no cost to Owner.
- D. Ensure compacted fills are tested before proceeding with placement of surface materials.
- E. Contractor's Geotechnical Engineer will observe all "benching" operations as fill placement progresses to the existing slopes.

- F. Contractor's Geotechnical Engineer will observe the foundation construction as directed by Owner and determine the adequacy of bearing surfaces prior to construction of foundations.
- G. Contractor's Geotechnical Engineer will make all tests of backfill materials to determine their suitability for compaction and will observe the placing of backfill as directed by Owner.
- H. Contractor's Geotechnical Engineer and the Owner's Representative shall have the power of rejection of materials, equipment or operating procedures of the backfilling operation. Contractor shall replace, rework or correct work which does not meet the Specifications as directed by Contractor's Geotechnical Engineer and/or Owner's Representative at no cost to Owner.
- I. Contractor shall be responsible for notifying the Contractor's Geotechnical Engineer at least 24 hours prior to the time when testing will be required.
- J. Additional tests on completed fill may be authorized by Owner. If such tests indicate failure to meet the Specifications, the costs of these tests and subsequent retests will be paid by the Contractor. Otherwise, the costs of these tests will be paid by Owner.
- K. In-place density tests shall be performed by the Contractor's Geotechnical Engineer according to the following requirements:
  - 1. In the general building area, conduct one test for every 2,500 square feet for each two feet of depth.
  - 2. At wall and trench backfill areas, conduct one test for every 50 lineal feet for each two feet depth.
  - 3. In all cases, a test is required within the top foot of fill.
  - 4. Sidewalks - One test for each two-foot lift of each 5,000 sq. ft. of area.
  - 5. General area of fill - One test for each two-foot lift of each 10,000 sq. ft. of area.

End of Section



## SECTION 02 270

## SLOPE PROTECTION AND EROSION CONTROL

PART 1 - GENERAL

## 1.1 SCOPE

- A. Slope protection and erosion control shall be performed on all disturbed areas that the Contractor disturbs outside of concrete or paved areas. Contractor shall stabilize all disturbed areas with permanent grassing (Bermuda Sod or match Sod in-kind to existing condition), erosion control matting, and riprap at ends of safety end section headwalls, and standard headwalls. Contractor shall fine grade ditch and swales to provide positive drainage to all proposed catch basins and weir inlets as required.
- B. Work described in this section includes the containment of sediment transport, containment and control of all soil erosion and containment and treatment of all pollutants including dust, prior to, during and throughout all construction operations; establishment of permanent vegetative cover on all disturbed areas and continued maintenance of said measures in accordance with sub-paragraph 4 of Part III, paragraph. 3.4 this Section. Work includes removal of all devices at the completion of the project as further described in Part 3.5 of this Section.
- C. Contractor is solely responsible for protection of all adjacent properties and affected downstream properties from encroachment or damage from soil erosion and/or the discharge of pollutants by water, air, or dust to any areas off the project site.
- D. Best Management Practices which are more fully described in the latest edition of the "Manual for Erosion and Sediment Control in Georgia- Vegetative and Structural Best Management Practices (BMPs) for Land Disturbing Activities" as published by the Georgia Soil and Water Conservation Commission shall be employed to stabilize all disturbed areas. The Engineer may require additional measures at no cost to Owner if Contractor is not preventing erosion from leaving the limits of work.

## 1.2 SUBMITTALS

- A. None required unless additional measures are required by Owner and/or Engineer.

## 1.3 PROJECT CONDITIONS

- A. Furnish and install all control measures prior to or concurrent with any land disturbance activity. The Contractor is responsible for the initial provision and installation all control measures and then the continued provision and installation of

- all measures throughout all construction operations and all sequences of construction operations.
- B. Schedule grading operations to allow permanent erosion control to take place in the same construction season. Avoid or minimize exposure of soils to winter weather. Maintain all controls until vegetative cover has been established.
  - C. Construct and maintain temporary control measures until such time as permanent measures are effective in control of erosion, sediment and pollution from the site. Extent of measures shall be responsibility of Contractor.
  - D. Stop all erosion, sediment, dust or other pollution from leaving the site and encroaching on downstream or surrounding properties.
  - E. Temporary grassing shall be applied to all disturbed areas left idle for 72 hours.
  - F. Contractor is responsible for all quantities of all BMPs regardless if shown on the ESPC. The extent of soil erosion control measures shown on the ESPC should be considered minimum.

#### 1.4 QUALITY CRITERIA

- A. Procedures shall comply with the "Manual for Erosion and Sediment Control in Georgia", latest edition published by the Georgia Soil and Water Conservation Committee." Acquire and keep on-site throughout construction a copy of the latest edition of the "Field Manual for Erosion and Sediment Control in Georgia- Vegetative and Structural Best Management Practices (BMP's) for Land Disturbing Activities" as published by the Georgia Soil and Water Conservation Commission sometimes referred to as the "little green book". The Contractor is required to keep a log book on site documenting his inspection of all BMP's (minimum once/week and within 24 hrs of any storm event) and noting any corrections or modifications. General Contractor must also file a "Notice of Termination" when the site is finally stabilized and all stormwater management systems have been constructed and have been proven to be functioning in accordance with the Design Concept(s).
- B. Reference the ESPC for any other procedural manuals, publications, permits or other field guidelines required for the Contractor to obtain, understand and utilize in the performance of his work. By reference of same, said materials are made a part of these Specifications.

PART 2 - PRODUCTS

2.1 FILTER FABRIC

- A. Filter fabric for silt fences shall be a 36" Georgia DOT approved pervious sheet of synthetic polymer filaments non-woven from continuous filaments with wire fence backing. Filter fabric shall be of type recommended by its manufacturer for the intended application. The filter fabric shall meet the following requirements:
  1. Minimum average thickness: 30 mil (by ASTM D1777).
  2. Air permeability: 250 to 550 C.F.M./Sq. Ft.
  3. Minimum grab strength: 110 lbs. (by ASTM D1682).

2.2 FILTER STONE

- A. Aggregate filter shall conform to following gradations:

<u>Sieve Size</u>	<u>% by weight passing Square mesh sieve</u>
3"	100
3/4"	20 - 90
No. 4	0 - 20

2.3 STONE FOR EXIT/ENTRANCE PAD

- A. Stone shall comply with ASTM D448 size #1 (1 1/2" to 3 1/2").

2.4 EROSION CONTROL MATTING

- A. All areas of disturbance (slopes greater than 2:1 or as specified): Refer to latest edition of "Manual for Erosion and Sediment Control in Georgia" for changes to the BMP's listed below.
  1. Biodegradable netting impregnated with excelsior wood fiber such as manufactured by "Curlex";
  2. "Ero-Mat" by Verdyol;
  3. "Bon Terra CS2".

2.5 SYNTHETIC POLYMERS

- A. For all newly disturbed, graded or exposed soil surfaces, apply 1.5 gals/acre of approved erosion control polymer. Erosion control polymer is a water-soluble synthetic polyacrylamide polymer suitable to be applied to disturbed soil surfaces where the polymer will chemically bind to fine clay particles and prevent clay from going into solution, such as:
  1. APS 600 Series Silt Stop, as manufactured by Applied Polymer Systems, Norcross, Georgia, Contact Steve Iwinski (678)461-9352.

2. Or approved equal.
- B. Polymer shall be applied utilizing a hydro seeder mix of appropriate seed, fertilizer, lime and mulch for the same acre or without seed/fertilizer/lime/mulch mix.
- C. Follow all manufacturer's instructions and recommendations. Do not mechanically disturb treated areas after application. *(This does not include foot traffic as necessary to install erosion control blanket.)*
- D. Contractor shall furnish and install as necessary a minimum 200 lbs. of erosion control polymer for incidental "touch-up" or point source erosion areas."
- E. Furnish two (2) forms of synthetic polymer:
  1. Emulsion polymer for hydro seeder application with an active strength of 30%.
  2. Powder polymer for hand spreading with an active strength of 95%.

## 2.6 RIP RAP

- A. Rip Rap shall be granite stone with a minimum weight of one hundred fifty pounds (150 lbs.) per piece.
- B. Place rip rap at both ends of proposed concrete culvert and safety end sections.

## PART 3 - EXECUTION

### 3.1 TEMPORARY EROSION CONTROL DEVICES

- A. Construct temporary sediment barriers of silt fence at all points where surface water flows from construction area bypassing temporary sediment traps if the area is subject to soil erosion; or as otherwise indicated on ESPC or as deemed necessary by inspectors.
- B. Install temporary sediment traps and temporary sediment basins in accordance with the location and details shown on the ESPC. Remove accumulated sediment when they are one-third full of silt continually until permanent vegetative cover is established.
- C. Install construction exit as indicated on ESPC with geotextile fabric underlayment. Maintain to prevent tracking and flow of mud onto public roads.
- D. Construct diversion berms, dikes (2'-0" wide x 1'-6" tall) or ditches at the tops of all slopes or as otherwise indicated on the ESPC. Machine compact these elements and plant temporary seed until permanent vegetative cover can be established.

- E. Maintain temporary barriers until permanent erosion control measures are established. Repair and replace barriers damaged or displaced by construction activity.
- F. Contractor shall clean out and/or adjust temporary sediment basin(s)/facility elevations to specified depth throughout duration of project after stabilization of all disturbed areas. Compact dam of sedimentation basin to minimum 95% Standard Proctor to the grade elevations shown on the ESPC.

### 3.2 SEDIMENTATION FACILITIES

- A. Construct temporary sedimentation facility prior to or concurrent with rough grading of site. Permanent sedimentation control measures shall be constructed concurrently with fine grading or partial fine grading of site and vegetative stabilization. Direct surface water into completed portions of sedimentation facility.
- B. Maintain temporary sediment traps around at all drainage structures (both on-site and/or off-site) until permanent vegetative cover has been established to prevent washing of sediment into public storm drainage system. Utilize "pigs-in-a-blanket" temporary sediment traps at all completed or partially completed single wing or double wing catch basins, drop inlets and yard inlets.
- C. Flush drainage lines between manholes and drainage structures as required during construction and after establishment of permanent erosion control measures to remove collected debris.
- D. Install rip rap at all locations indicated on the ESPC or other drawings as soon as feasible. It shall be reasonably well-graded granite stone sized from smallest to maximum size specified. Stones smaller than smallest size specified is not permitted. Control gradation of rip rap by visual inspection to assure thickness of rip rap conforms with the contract document requirements. Provide geotextile filter fabric under rip rap.
- E. After land disturbance operations of any kind, survey the sediment facility and determine that sediment volume that is available. If specified volume is not available, disassemble control measures, excavate sediment from facility and install control measures. Dispose of excavated sediment from facility, spread over slopes in accordance with contours shown on the Grading and Drainage Plan and stabilize facility with permanent vegetation. Prepare and submit a certified statement of correct sediment facility volume. Do not dispose of any excavated sediment into any drainage way which might lead said material off-site onto adjacent downstream properties.

- F. The existing creeks and ponds shall not be used in any manner for Erosion, Sediment or Pollution Control measures. Protect same from all erosion, sediment or pollutants of any kind.

### 3.3 GROUND COVER

- A. Protect all exposed soils with mulching (temporary measure) and vegetative ground cover (permanent measure).
- B. Install "Curlex", "Bon Terra CS2" or "Ero-Mat" by Verdyol blanket on all slopes greater than 3:1 along with vegetative cover unless otherwise indicated on the ESPC.
- C. Temporary Seeding consists of ground cover of temporary plant material on all graded areas which will not receive final grading or permanent planting within three (3) days.
- D. All grassing or planting operations shall include mulching as stabilization until ground cover by planting is effective.
- E. Reseed as required until full vegetative coverage is established.

### 3.4 MAINTENANCE

- A. Inspect all control elements after each rainfall event and a minimum of every two (2) weeks when no rainfall event(s) occur. Clear all debris and accumulated sediment from behind barriers when half full so their functional capacity is not reduced. Repair and replace any and all damaged measures of any kind.
- B. Maintain all erosion, sedimentation, pollution control measures for delivery of correct pond volume for a period of thirty (30) calendar days.

### 3.5 REMOVAL OF TEMPORARY EROSION CONTROL DEVICES

- A. As soon as permanent vegetative cover is established, Contractor shall remove temporary devices, including sediment barriers, berms, silt traps and similar devices. Contractor to remove retrofit structure and clean out all accumulated silt and debris in detention ponds to restore finished grades indicated on the ESPC.
- B. Contractor shall remove all excess silt from behind all silt fences and other filter devices and utilize it to repair erosion features if necessary. If silt is not needed for repairs, it shall be removed from the site by the contractor.
- C. Contractor shall remove silt fence in such a manner as to minimize damage to surrounding vegetative cover. All fence fabric, wire and posts shall be removed completely, and removed from the site.

- D. All disturbed areas created by removal of silt fence shall be immediately fine graded, stabilized and seeded with permanent grass to match surrounding areas. All rocks and debris shall be removed from the site. Stabilization of disturbed areas may require the use of a "geo-jute" fabric to prevent erosion and allow for mowing of same area. Erosion control fabrics with netting that will be entangled in mowers may not be acceptable in areas where mowing will occur. In the event seasonal considerations prevent establishment of permanent grass, Contractor shall establish temporary grass and return the following season to establish permanent grass.
- E. Remove all debris resulting from temporary erosion control from project site.
- F. Control dust from disturbed areas by means of mulching, irrigation, calcium chloride or other method subject to the Civil Engineer's review.
- G. Should site conditions dictate that it is not prudent to remove all temporary erosion control devices at the time of Contractor demobilization; the Contractor must remobilize personnel and equipment to complete removal as soon as conditions allow. The Contractor will be responsible for the complete and timely removal of all temporary erosion control devices as soon as adequate permanent vegetative cover is established.

End of Section

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## SECTION 02 514

## SITE CONCRETE

PART 1 - GENERAL

## 1.1 SCOPE

- A. The work covered by this section consists of furnishing and installing Portland cement concrete for site improvements which may include concrete storm sewer pipe, concrete storm structures, concrete pavement patches, sidewalk, and any other concrete as indicated in Section 01 000, Project Scope & Performance Specification and on Construction Drawings.

## 1.2 SUBMITTALS

- A. Submit design mix certified by the testing laboratory to be approved by Owner's Representative and paid for by Owner, for the mix design based on cylinder check tests verifying the design mix.
- B. Submit mill certification certifying that cement, sand, aggregate, reinforcing steel and joint materials comply with the requirements of this Specification.
- C. Submit shop drawings for review prior to placement showing bending and placing details for steel reinforcing including bar sizes, spacings, bending and tagging identification.
- D. Submit complete manufacturer's catalog description of all joint materials and curing/sealing materials.

## 1.3 PROJECT CONDITIONS

- A. Installation shall comply with all state and local laws, ordinances, rules and regulations.
- B. Contractor shall obtain all required permits prior to start of construction.
- C. Survey and maintain all benchmarks, monuments and other reference points, and if disturbed or destroyed, replace by registered Georgia land surveyor at no cost to Owner.
- D. Provide proper drainage during construction in a manner to prevent damage to the work, adjoining structures and adjoining and downstream property.



- E. Patching parts of a section of work between joints shall not be permitted. Remove and replace entire damaged sections when matching existing work.

#### 1.4 QUALITY CRITERIA

- A. All work and materials shall conform to the applicable standard specifications for roadway construction of the Georgia State Department of Transportation where the construction occurs.
- B. All work shall be performed in accordance with ACI 301.

#### 1.5 GUARANTEE

- A. Site Concrete Contractor to provide Owner's Representative a written guarantee that all work is of good quality, free from faults and defects and in conformance with these Specifications; and that if, within one year after completion and acceptance of the Work, any Work or materials are found to be defective, Contractor will promptly, without cost to Owner, correct such defective Work or materials.

### PART 2 - PRODUCTS

#### 2.1 BASE COURSE MATERIALS

- A. Base course shall be constructed of structural fill.

#### 2.2 CONCRETE

- A. Concrete shall be 3,000 psi concrete shall be in compliance with ASTM C94.
- B. Cement shall comply with ASTM C150 normal Type I specifications.
- C. Aggregates shall comply with ASTM C33.
- D. Water shall be potable.
- E. No additives shall be used without prior review of Owner's Representative.

#### 2.3 REINFORCING STEEL

- A. Reinforcing bars and dowels shall conform to ASTM A615, Grade 60, deformed bars with an uncoated finish.

- B. Welded wire fabric shall consist of deformed bars, furnished in flat sheets or coiled rolls with an uncoated finish, and shall conform to ASTM A-185.
- C. Tie wire shall be 16 gauge annealed steel.

#### 2.4 JOINT MATERIALS

- A. Expansion joint filler shall be non-extruding and resilient types conforming to AASHTO M-213 or M153.
- B. Poured joint sealer shall be a hot poured elastic type sealer intended for sealing joints in concrete pavements and shall conform to AASHTO M-173.

#### 2.5 CURING AND SEALING MATERIALS

- A. Curing/sealing compound shall be "CS-309" as manufactured by W. R. Meadows.

#### 2.6 FORM MATERIALS

- A. Form materials shall comply with the requirements of ACI 301.

### PART 3 - EXECUTION

#### 3.1 INSPECTION

- A. Prior to placement of base material, installer shall inspect the site grading and ensure that the sub-grade has been properly placed, compacted, and is ready to receive the base material. He shall also determine that all site drainage, piped site utilities, underground electrical and communications conduits have been installed, tested and accepted by Owner's Representative.

#### 3.2 PREPARATION

- A. Contractor shall submit to Owner's Representative for review all materials to be used in the base and pavements.
- B. Contractor shall repair subgrade as necessary to provide uniform surfaces.
- C. Spread base material and compact to 95% Maximum Theoretical Density and within 1/8 inch of required grade.
- D. Check field density with nuclear density device or other method acceptable to

Owner's Representative.

- E. Set forms on firm foundation, true to grade and securely fastened in place. No settlement or springing of forms under the finishing machine will be allowed. Top face shall not vary from a true plane by more than 1/8 inch in 10 feet. Vertical sides shall not vary from a true plane by more than 1/4 inch.
- F. Clean and oil all forms prior to use.
- G. Provide work bridges where necessary for finishing, straight edging, making corrections, etc. to surface after concrete has been screeded. Bridges shall be rigidly constructed and easily moveable so that they will not come into contact with the concrete.
- H. Check alignment and grade elevations of forms and obtain approval of preparation and form work from Owner's Representative prior to placement of concrete.

### 3.3 INSTALLATION OF CONCRETE CULVERT AND DRIVEWAY APRONS

- A. Place reinforcement in accordance with Performance Specification and secure by means of chairs, clips, etc. as necessary.
- B. Excavate drain pockets for all weep holes, if any and fill with coarse aggregate. Provide pipes, sleeves, or formed openings as indicated in Performance Specification.
- C. Place concrete in a manner to avoid segregation. Spread to the full width and depth of forms and bring to grade by screeding and straight edging.
- D. Give aprons a heavy broom finish with smooth trowel edges as shown on the drawings. Final surface shall not vary from a true plane by more than 1/4 inch in 10 ft. Provide sealer for all sidewalks and apply in accordance with manufacturer's recommendations.
- E. Workmanship and appearance shall be of the highest quality.
- F. Provide joints as shown on the Drawings.
- G. Provide proper curing for the sidewalks using liquid curing/sealing compound.
- H. Thoroughly clean all joints immediately prior to sealing and acid and/or pressure wash concrete prior to sealing as directed by Owner's Representative. Apply

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sealant as soon as possible after required curing period of concrete. Prohibit traffic on sealed surfaces until sealer has cured.

### 3.4 CLEANING

- A. All concrete shall be acid washed and/or pressure washed at substantial completion by Contractor if required by Owner's Representative to achieve the desired appearance.

End of Section

## SECTION 02 547

## BITUMINOUS SURFACING

PART 1 - GENERAL

- 1.1 DESCRIPTION: Work described in this section includes but is not limited to providing deep patch asphalt replacement, asphalt tack coats, and asphalt binder course, and surface course as indicated on the Drawings.
- 1.2 QUALITY ASSURANCE
- A. Reference Specifications: "Standard Specifications for Construction of Roads and Bridges", 1983 edition, Department of Transportation, State of Georgia and "Supplemental Specifications for Road and Bridge Construction" which modify the 1983 regulations.
  - B. Requirements of Regulatory Agencies: Comply with applicable codes, ordinances, rules, regulations, and laws of local, municipal, state, or federal authorities having jurisdiction, the Georgia DOT and City of Dacula Development Regulations.
  - C. Pavement area shall be inspected by Owner and Owner's Representative. Contractor shall correct any deficiencies in material makeup, strength, or quantities revealed.
  - D. Recycled asphaltic concrete must be approved by City of Dacula before it is allowed to be used on any projects for either binder or top course.
- 1.3 SUBMITTALS
- A. Submit manufacturer's data, reports, and material certifications as required to certify compliance with the specifications.
- 1.4 JOB CONDITIONS
- A. Grade Control: Establish and maintain required lines and elevations. Minimum slopes leading to catch basins on curb inlets shall not be less than 1" in 8' (1.04%).
  - B. Contractor shall build up centerline of road with new asphalt pavement to create new crown in road sloping from centerline to curb & gutter.
  - C. Utility Installations: No paving work shall be started until all utility installations which will be covered by pavement have been completed.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Paving Base Course: Crusher run grade aggregate consistent with the Reference Specifications, Paragraph 3.2 A, compacted to 95 % Proctor. Aggregate shall be crushed stone consisting of hard durable rock fragments free from clay and reasonably free from flat, elongated, or soft pieces of organic matter. It shall be graded 2" and down, if required.
- B. Materials for hot mix asphaltic concrete construction to be as given in Reference Specifications, Paragraph 400.02 of the Georgia D.O.T. Standard Specifications.

1. Materials: Bituminous concrete materials shall meet the following gradation specifications:

SEIVE SIZE	PER CENT Intermediate or Leveling Course (Type "B")	PASSING Surface Course (Top) (Type "F")	
1"	100		
3/4"	90 - 100		
1/2"		100	
3/8"	40 - 70	90 - 100	
No. 4		50 - 85	
No. 8	25 - 40	40 - 55	
No. 16			
No. 50			
No. 200	0 - 10		0 - 10
Percent Bitumen	4.2 - 7	5.2 - 9.0	
Penetration Grade	85 - 100	85 - 100	

- C. Asphalt Tack Coat shall be installed between milled section and asphalt binder course and between asphalt binder course and asphalt surface course (0.05 – 0.15 GAL per SY).

PART 3 - EXECUTION

3.1 SUB-GRADE PREPARATION

- A. Contractor shall proof-roll sub-grade in the presence of the Owner prior to installing base course material. The sub-grade if required due to unsuitable materials being present shall be cleared of all rocks, loam, debris, vegetation, roots, and foreign matter, to a depth of 12 inches below its finish grade.

- B. Contractor shall protect the sub-grade from damage and maintain it in a smooth, compact, and rut-free condition until the base course has been placed.

3.2 PAVING BASE COURSE

- A. Paving Base Course shall be constructed of grade aggregate and construction shall be done in accordance with Sections 310.01, 310.03, 310.04 of the Georgia D.O.T. Standard Specifications except that the use of automatically controlled screed equipment will be at Contractor's option.

3.3 BITUMINOUS PAVING

- A. Bituminous paving shall be hot mix asphaltic concrete construction conforming to Sections 400.01, 400.03, 400.04, 400.05, 400.07, 400.08, of the Georgia D.O.T. Standard Specifications except that Section 400.04 shall be modified as follows: The job mix formula shall be submitted by Contractor to Owner's Representative for his approval, and such approval does not relieve Contractor of his responsibilities for adequacy and warranty of the paving.

3.4 BITUMINOUS PRIME

- A. Bituminous prime shall conform to Georgia D.O.T. Standard Sections 412.01, 412.02, 412.03, 412.04 of the Standard Specifications.

3.5 PAVING THICKNESSES SHALL BE AS FOLLOWS

- A. All areas of Asphalt Milling and Repaving for 2<sup>nd</sup> Avenue shall receive:

Minimum Thickness

- 1. Asphalt Milling..... 2-1/2"
- 2. Asphalt Tack Coat..... (0.05 – 0.15 gallons per S.Y.)
- 3 'D' Mix (Metro-Flex or equivalent 'D' Mix) Asphalt Course ..... 1"
- 4. Asphalt Tack Coat..... (0.05 – 0.15 gallons per S.Y.)
- 5. Type 1 – 'F' Mix (9.5 mm) Asphalt Surface Course ..... 1-1/2"

- B. All areas of Asphalt Deep Patch Milling and Repaving for 2<sup>nd</sup> Avenue shall receive:

Minimum Thickness

- 1. Asphalt & Subgrade Milling (in addition to 2-1/2" milling above) ..... 3-1/2"
- 2. 25 mm Asphalt Binder Course ..... 3-1/2"
- 3. Asphalt Tack Coat..... (0.05 – 0.15 gallons per S.Y.)

4. 'D' Mix (Metro-Flex or equivalent 'D' Mix) Asphalt Course ..... 1"
  5. Asphalt Tack Coat..... (0.05 – 0.15 gallons per S.Y.)
  6. Type 1 – 'F' Mix (9.5 mm) Asphalt Surface Course ..... 1-1/2"
- C. 'D' Mix (Metro-Flex) Asphalt Course or equivalent 'D' Mix is required. Contractor to submit Job Mix Formula to Engineer for review.
- D. All asphalt pavement shall have a minimum slope of 1/8" for each 1'. Maintain existing cross slope of all roads. See asphalt details as illustrated on the Drawings.
- 3.6 ASPHALT PAVEMENT PATCHING, if required:
- A. Asphalt pavement patching shall be performed for those sections of roadway as indicated in the Scope of Work and Performance Specification.
  - B. Work includes removing, transporting, and disposing of the removed asphalt pavement material; and cleaning the remaining pavement surface.
  - C. All demolished material shall be taken to a State Approved Facility at no additional cost to Owner.
- 3.7 BITUMINOUS TACK COAT, if required.
- A. Apply asphalt tack coat over concrete base course only if required immediately prior to spreading Asphalt Surface Course materials.
  - B. Quantity:
    1. Apply from 0.05 to 0.15 gallons per square yard of surface to be covered as directed by Engineer.
    2. Emulsified asphalt shall be diluted with an equal part of water.
  - C. Application:
    1. Apply tack coat by means of a bituminous distributor so that a uniform distribution is obtained at all points.
    2. Apply tack coat on each layer of the binder course and allow tack coat to cure before placing the succeeding course.
    3. Apply tack coat only as much pavement as can be covered with asphalt aggregate mixture in the same day.



22-0109

BITUMINOUS SURFACING

02 547-5

## 3.8 MAINTENANCE

- A. Contractor shall maintain the wearing surface until approved by Owner.
- B. Contractor shall warrant the paving free of construction defects for a period of one Year after acceptance by Owner.

End of Section

## SECTION 02 720

## SITE DRAINAGE

PART 1 - GENERAL

## 1.1 DESCRIPTION

- A. Work described in this section includes, but is not limited to, construction of primary and secondary storm sewer pipe, storm structures, and drainage appurtenances, as indicated in Section 01 000, Project Scope & Performance Specification and on Construction Drawings.

## 1.2 SUBMITTAL

- A. Product data: Submit for each type of piping material, prefabricated structure, and casting. Indicate product descriptions and installation procedures.
- B. As-Builts: Contractor shall provide Owner with two (2) copies of an "as-built" plan of all storm sewer pipe and structure improvements and any changes to underground utilities (water or gas meter service relocations) illustrating the location of each with dimensions illustrated to the houses, property lines, and/or curb line from each underground utility after construction is complete.
- C. In the event that site drainage structures are not maintained during the construction process to the satisfaction of City of Dacula, an interim as built may be required to establish the extent of deficiencies.
- D. See Section 02 720, 3.3A for As-Built Record Drawings submittals.

## 1.3 QUALITY ASSURANCE

- A. Industry standards: Standards for the following, as referenced hereinafter.
  - 1. American Society for Testing and Materials (ASTM).
  - 2. American Concrete Institute (ACI).
  - 3. Georgia Department of Transportation, "Standard Specifications for the Construction of Roads and Bridges", 1983 edition, hereinafter referred to as Georgia D.O.T. Specifications.
  - 4. City of Dacula Development Regulations, Latest Revision.
  - 5. Gwinnett County Development Regulations, Latest Edition.

#### 1.4 GUARANTEE

- A. Contractor shall guarantee the construction of all storm drainage for a period of one (1) year from date of Substantial Completion.

### PART 2 - PRODUCTS

#### 2.1 PIPING

- A. Storm drainage pipe is to be of the type, size, class or gauge, and material illustrated in the Project Scope and Performance Specification and as indicated on the Drawings.
- B. High Density Polyethylene Pipe (HDPE) and Reinforced Concrete Pipe (RCP) are to be used for this project as illustrated on the Drawings.
- C. Reinforced concrete pipe, concrete headwalls, concrete storm structures, and safety flared end sections, as illustrated on the Drawings, shall conform to Georgia D.O.T. Standard Specifications.

#### 2.2 CONCRETE, MASONRY AND ACCESSORY MATERIALS

- A. Concrete: 4000 psi compressive strength including form work, reinforcement and finish.
- B. Manhole brick: Meeting ASTM C32-73, Grade MM.
- C. Mortar: Meeting ASTM C270-80, Type M.
- D. Construction castings: Meeting ASTM A48-76, grey cast iron.
- E. Manhole steps: Meeting ASTM A48-76, Class 30B, integrally cast into manhole sidewalls.
- F. Gravel Fill: Meeting Ga. D.O.T. Specifications, Section 800, size #57 stone.
- G. Precast concrete manholes: Meeting ASTM C478-79, concentric cone type.

#### 2.3 REINFORCING STEEL

- A. Reinforcing bars and dowels shall conform to ASTM A615, Grade 60, deformed bars with an uncoated finish.
- B. Welded wire fabric shall consist of deformed bars, furnished in flat sheets or coiled rolls with an uncoated finish, and shall conform to ASTM A-185.
- C. Tie wire shall be 16 gauge annealed steel.

### PART 3 - EXECUTION

#### 3.1 CONSTRUCTION OF DRAINAGE SYSTEM

- A. Excavation, filling and compaction for construction of drainage system shall be in accordance with Earthwork Section 02 200.
- B. Inspect piping prior to placing in trenches. Install no defective or damaged piping.
- C. Lay piping beginning at low point of the drainage system with joints lapped upgrade. Lay in proper alignment and to slopes indicated, fully supported on firm subgrade.
- D. Clean interior of piping of dirt and debris as work progresses. Place plugs in the ends of uncompleted piping at the end of each work period. Continue to flush lines between manholes and drainage structures as required to remove collected debris until permanent vegetative cover has been established.
- E. Lengths of storm drainage pipe illustrated in the Project Scope and Performance Specification are approximate distances center to center of structures. Contractor is responsible for all pipe quantities to convey storm drainage to points indicated in accordance with the design concept illustrated.

#### 3.2 DRAINAGE STRUCTURES

- A. Construct catch basins, drop inlets, headwalls and similar structures of reinforced concrete unless otherwise indicated; manholes of masonry, concrete or precast units at Contractor's option.
  - 1. Provide concrete foundations for manholes and other structures as indicated. All drainage structures shall have paved (mortar) inverts.
  - 2. Concrete structures shall be reinforced as indicated in the Project Scope and Performance Specification.
  - 3. All concrete construction shall receive a smooth formed finish in accordance with ACI-301-72 on all surfaces exposed to exterior or interior of structure; rough formed for all unexposed construction.
  - 4. Moist cure concrete for a minimum of seven days after placing.
- B. Mix mortar with only enough water for workability. Re-tempering of mortar will not be permitted. Keep mortar mixing and conveying equipment clean. Do not deposit mortar upon or permit contact with ground.
- C. Lay masonry in full mortar bed with ends and with full vertical joints, not more than 5/8" wide. Protect fresh masonry from freezing and from too rapid drying.
- D. Apply a 2" thickness mortar parge coating on interior and exterior of masonry walls surfaces.

- E. Set tops of frames and covers of manholes flush with finished surface.
- F. Set drainage gratings to elevations indicated in the Project Scope and Performance Specification.

### 3.3 AS-BUILT RECORD DRAWINGS

- A. Furnish two (2) sets of reproducible As-built Drawings of all portions of the storm sewer system(s) including the horizontal and vertical locations of all pipe structures, clean out connections and the relationship of storm sewer to all other built items in plan and profile. As-builts shall be prepared and sealed by a Georgia Registered Land Surveyor and shall be considered an accurate representation of the built storm sewer system.

End of Section

## SECTION 02 930

## LAWNS AND GRASSES

PART 1 - GENERAL

- 1 DESCRIPTION: Work described in this section consists of the establishment of grassing of 100% of all areas disturbed by driveway apron replacement, ditch regrading, storm sewer pipe installation, yard regrading, storage of equipment, except the area covered by paving or those areas designated for other plant materials as indicated in Section 01 000, Project Scope & Performance Specification and on Construction Drawings.

PART 2 - PRODUCT

- 2.1 FERTILIZER: Fertilizer shall be 19-19-19 grade, uniform in composition, free-flowing for application with spreading equipment, delivered to the site in bags or other containers, each fully labeled, conforming to the State fertilizer laws, and bearing the name, trade name, or trade-mark, and warranty of the producer. Engineer shall be furnished with duplicate copies of invoices for all fertilizer used on the project.
- 2.2 LIME: Ground limestone containing not less than 85% carbonates; 50% passing 100 mesh sieve and 90% passing 20 mesh sieve.
- 2.3 GRASS SEED: Shall be labeled in accordance with U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act in effect on the date of Invitation of Bids. Seed shall be furnished in sealed standard containers, unless exception is granted in writing by Engineer. Seed which has become wet, moldy, or otherwise damaged in transit or in storage will not be acceptable. Seed shall be guaranteed 92% germination.
  - A. Kentucky 31 Fescue (*Fescuta Elatior*). Seed: Fresh, clean, new seed testing 98% for purity and 85% for germination. September 15 - May 15.
  - B. Common Bermuda (*Cynolon Dactylon*) Seed: Fresh, hulled, clean, new seed testing 98% for purity and 85% for germination. May 15 - September 15.
- 2.4 SOD: Sod replacement is required in all yards, ditches, and swales that are regraded for storm sewer pipe installation and other fine graded areas. Contractor shall replace Sod with Bermuda or match in-kind with and match existing condition.
- 2.5 WATER: Water used in this work shall be suitable for irrigation and free from ingredients harmful to plant life. Furnish hose and other watering equipment required for the work.

- 2.6 HYDROMULCH: Wood cellulose fiber containing no germination inhibiting or growth inhibiting agents. Characteristics shall be as follows:
- A. Percent moisture content: 9.0% ( $\pm 3, 0\%$ ).
  - B. Percent organic mater: 99.2% ( $\pm 0.8\%$ ).
  - C. Percent ash content: 0.8% ( $\pm 0.2\%$ ).
  - D. pH: 4.8 ( $\pm 0.5$ ).
  - E. Water holding capacity: 150 grams water/100 grams fiber, minimum.

### PART 3 - EXECUTION

- 3.1 FERTILIZER: Fertilizer shall be distributed uniformly at a rate of 800 pounds per acre, plus 1 ton agricultural lime per acre two (2) days prior to seeding, over the areas to be grassed, and shall be incorporated into the soil to a depth of at least 3 inches by disking or harrowing. The incorporation of fertilizer may be part of the tillage operation specified above. Undulations in the surface as a result of tillage or fertilizing shall be smoothed.
- 3.2 Approximately 4 weeks after seeding and when grass coverage has been established, apply 1 to 1 ½ pounds of ammonium nitrate per 1,000 square ft. to all seeded areas and immediately water using a fine spray. At the end of the maintenance period and prior to final inspection, apply 10 lbs. of specified fertilizer per 1,000 sq. ft. and water immediately.
- 3.3 SEED: Seed shall be Fescue or Bermuda. Method of seeding shall be hydro seeding or broadcast at Contractor's option; however, the method selected shall be a part of his erosion control plan.
- 3.4 BROADCAST SEEDING:
- A. If conditions are such, by reason of drought, high winds, excessive moisture, or other factors, that satisfactory results are not likely to be obtained, Contractor shall stop the work, and work shall be resumed only when conditions are favorable again or when approved alternate or corrective measures and procedures have been put into effect. If inspection during seeding operations or after there is a show of green indicates that strips have been left, or skipped, Contractor shall sow additional seed on these areas.

- B. Seeding shall be at the rate of 10 pounds per 1,000 sq. ft. for Fescue or 5 pounds per 1,000 sq. ft. for Bermuda.
  - C. Seed shall be broadcast either by hand or approved sowing equipment. The seed shall be uniformly distributed with the sower moving in one direction, and the remainder shall be sown with the sower moving at right angles to the first sowing. The seed shall be covered to an average depth of 1/4 inch by means of a brush harrow, spike-tooth harrow, chain harrow, cultipacker, or other approved device.
- 3.5 HYDROSEEDING: Apply seed/fertilizer/hydro mulch mixture in water slurry. Dispense using hydraulic mulching equipment in following minimum quantities:
- A. Fertilizer: 130 lbs./acre.
  - B. Fescue Seed: 300 lbs./acre/Bermuda seed 150 pound/acre.
  - C. Hydromulch: 1500 lbs./acre.
- 3.6 SOD: All disturbed areas for this project shall be permanent stabilized with Bermuda Sod or Sod which matches in-kind to the existing condition. Areas shall be fine graded smooth with surrounding existing condition and prepped for Sod installation per sod manufacturer's recommendation. All disturbed areas shall be raked free of rocks and debris over 1/2" in diameter.
- 3.6 COMPACTION: Immediately after the seeding operations specified above have been completed, the entire area shall be compacted by means of a cultipacker, roller, or other approved equipment weighing 60 to 90 pounds per linear foot of roller. 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. When a cultipacker or similar equipment is used, the final rolling shall be at right angles to the prevailing winds to prevent dust.
- 3.7 CLEAN-UP: Remove from the site and dispose of all debris and foreign material. During the grassing operations, debris shall not be dumped on any part of the property or on any unauthorized placed.
- 3.8 MAINTENANCE:
- 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 acceptance by Owner.



- B. Maintenance shall consist of watering, weeding, repair of any erosion and reseeded as necessary to establish a 100% uniform stand of grass, and shall continue until acceptance.
  - C. All seeded areas that do not show satisfactory growth within 18 days after seeding shall be re-seeded and re-fertilized as directed until a satisfactory lawn is established. Full coverage is required in 60 days.
  - D. All lawn areas shall be protected until acceptance. All eroded and damaged areas, regardless of cause, shall be immediately repaired and reseeded. Protect all lawn areas from pedestrian or vehicular traffic.
- 3.9 GUARANTEE AND ACCEPTANCE:
- A. All disturbed areas must be 100% covered and final stabilized with 80% grassing established.

End of Section

## SECTION 02 933

## TEMPORARY SEEDING

PART 1 – GENERAL

## 1.1 SCOPE

- A. The work covered by this section consists of the establishment of a temporary vegetative cover on all disturbed areas caused by driveway apron replacement, culvert replacement, storm sewer pipe installation, regrading for ditch and yards, or storage of equipment by seeding with appropriate rapidly growing grass seed. Temporary seeding shall be provided for all exposed soil surfaces that are not to be fine graded or landscaped within 30 days after fine grading.

## 1.2 PROJECT CONDITIONS

- A. Protect all adjacent public and private property from siltation and other damage due to construction activities with silt dams or fences as indicated on the drawings.
- B. Temporary seeding shall be applied to any and all disturbed areas left idle for two weeks and shall be applied no later than the 15th calendar day from last land disturbance activity. (ie. clearing, grubbing or grading).

## 1.3 QUALITY CRITERIA

- A. Installation shall be in strict compliance with the rules and regulations of the local seed laws.
- B. Installation shall comply with all applicable codes, rules, regulations and ordinances related to erosion control and temporary seeding.

PART 2 – PRODUCTS

## 2.1 TEMPORARY SEED

- A. Select temporary grass seed appropriate to the season and site conditions. Temporary grass shall be a quick growing species such as millet, rye grass, Italian rye grass or cereal grasses suitable to the area providing a temporary cover which will not later compete with grasses sown for permanent cover. Seed shall meet the requirements of the rules and regulations of the Georgia Seed Law.

22-0109

TEMPORARY SEEDING

02 933-2

## 2.2 LIME

- A. Provide agricultural grade ground or pulverized limestone. Lime shall contain not less than 85% carbonates with 50% passing a 100 mesh sieve. Lime shall have tested values of 90% minimum germination and 1% maximum weed content.

## 2.3 FERTILIZER

- A. Provide standard commercial grade fertilizer, either 4-12-12, 6-12-12 or 5-10-15 as required for conditions.

# PART 3 – EXECUTION

## 3.1 SEED-BED PREPARATION

- A. Where soils are known to be highly acid (pH 5.5 and lower), apply lime at the rate of two (2T) tons per acre (1#/10 s.f.).
- B. Apply fertilizer at a rate of 450 lbs./acre (10 #/1,000 s.f.). Lime and fertilizer shall be incorporated into the top two (2") to four (4") inches of the soil by tilling.
- C. Loosen ground surface by discing, raking or harrowing. If the area has been recently loosened or disturbed, no further roughening shall be required. Remove all large clods, boulders and debris which will interfere with the work. Remove all stones two (2") inches and larger in any given dimension.

## 3.2 SEEDING

- A. Apply seed evenly with a cyclone seeder, drill, cultipacker seeder or hydroseeder. Small grains shall be planted no more than one inch deep. Grasses and legumes shall be planted no more than 1/4 inch deep. Distribution by hand shall not be permitted.

## 3.3 ROLLING

- A. Roll all seeded areas before applying mulch. On steep slopes cover seeds by dragging spiked chains or similar methods.

## 3.4 MULCHING

- A. All seeding in fall for winter cover shall be mulched. Seedings on slopes 4:1 or greater, on adverse soil conditions and in excessively hot or dry weather shall also be mulched.

- B. Mulch shall be straw or hay spread at the rate of approximately two tons/acre, wood cellulose fiber applied at the rate of approximately 1500 lbs./acre. Bituminous treated mulch shall be used on all slopes steeper than 2:1.
- C. Seedings made during optimum spring and summer seeding dates, with favorable soil and site conditions shall not require mulch if written permission is received by Engineer.

### 3.5 WATERING

- A. Provide watering as required to establish and maintain healthy vegetative cover.

### 3.6 RESEEDING

- A. Reseed and provide straw cover for bare areas 1 s.f. and larger to establish and maintain vegetative cover and to prevent sheet and rill erosion. Repair erosion damage as required and reseed.

End of Section

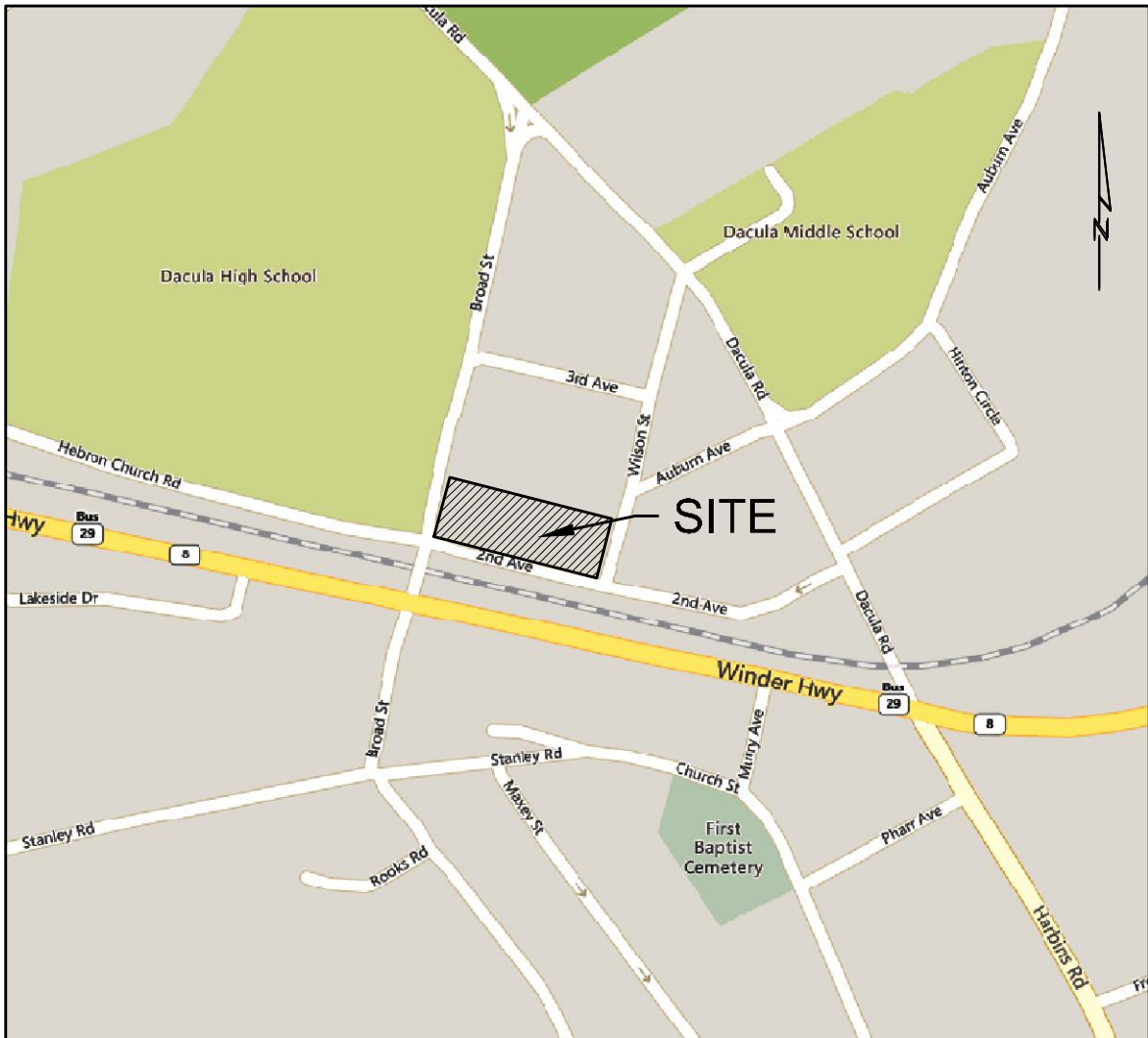
## **APPENDIX**

*for*

City of Dacula

“2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements”  
Project

- Location Map
- Reference “2<sup>nd</sup> Avenue @ Broad Street Drainage and Paving Improvements” Drawings dated 03-25-2022



LOCATION MAP  
NOT TO SCALE

**TO:** Mayor and City Council of the City of Dacula  
**FROM:** Brittni Nix, Director of Planning & Economic Development  
**DATE:** March 22, 2022  
**SUBJECT:** McMillan Road stormwater improvement proposal

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The City has an urgent stormwater issue on McMillan Road and has been presented a timely opportunity to utilize federal funds from the American Rescue Plan Act (ARPA) for stormwater improvements. The City can utilize these funds to resolve the stormwater infrastructure occurring at the low point of McMillan Road, near its intersection with Winder Highway. The section of road continually floods during rain events and creates unsafe driving conditions, which requires regular road closures between Winder Highway and Stanley Road / Church Street.

To rectify the situation, staff has taken the first step and requested a proposal from McFarland Dyer & Associates (MDA), a Bowen Company. The \$50,180 proposal includes surveying, utility locates, construction document preparation, bid management, and construction administration for the stormwater project. The nature and scale of the project will require extensive exploration and analysis of current conditions, which is included within the scope of the proposal.

Staff requests approving MDA's proposal in the amount of \$50,180 for the services provided in the proposal and utilizing American Rescue Plan Act (ARPA) funding for the McMillan Road stormwater improvement project.

Best Regards,

Brittni Nix, Director of Planning & Economic Development

Mar 17, 2022

Brittini Nix  
 City Administrator  
 City of Dacula  
 P.O. Box 400  
 Dacula, Georgia 30019

<b>Re:</b>	<b>McMillan Road Stormwater Project</b> (the “Project”) Dacula, Gwinnett County, Georgia 30024 Proposal to provide Surveying/Engineering Services (the “Proposal”) Proposal No. 22-0310
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Dear Ms. Nix:

We are pleased to submit this Proposal to provide Surveying/Engineering services for the above referenced Project. Upon verbal or written direction to proceed with performance of the services described herein, this Proposal, along with all attachments thereto, will constitute a binding agreement (the “Agreement”) between Bowman Consulting Group Ltd. (“Bowman”) and City of Dacula (the “Client”).

## SCOPE OF SERVICES AND FEES

The scope of services (the “Scope”) and associated fees shall be as follows:

Task	Description	Fee Type	Total
<b>1</b>	<b>Survey Phase</b> Bowman will field survey topographic data and boundary information. <ul style="list-style-type: none"> <li>• Survey and establish topographic elevations.</li> <li>• Survey RHD Utility locate flagging.</li> <li>• Establish adjacent property lines.</li> <li>• Establish right-of-way information along McMillan Road and Winder Highway.</li> </ul>	Lump Sum	\$6,300.00
<b>2</b>	<b>Utility Locating (RHD Services)</b> Bowman will field survey RHD utility locate information along McMillan Road and down existing creek. <ul style="list-style-type: none"> <li>• Field locate visible and flagged utilities from RHD Utility Locate Services.</li> </ul>	Lump Sum	\$880.00
<b>3</b>	<b>Engineering Phase</b> Bowman will utilize field run topographic data and RHD utility locate information to analyze stormwater hydrology and to prepare Construction Documents to correct the stormwater ponding issue occurring on McMillan Road near Winder Highway Intersection. This includes: <ul style="list-style-type: none"> <li>• Due diligence, research, and coordination.</li> <li>• Cover Sheet.</li> <li>• Demolition Plan.</li> <li>• Site Layout/Grading Plan including new Storm Sewer Design.</li> <li>• GDOT Road Plan for tie-in at Winder Highway.</li> <li>• Storm Sewer Hydrology Analysis.</li> <li>• Storm Sewer Profiles.</li> <li>• Soil and Erosion Control Plans and Details.</li> <li>• Construction Details.</li> </ul>	Lump Sum	\$28,000.00



<p><b>4</b></p>	<p><b>Bid Phase</b> Bowman will prepare Bid documents and coordinate advertising for Bid to Contractors. These services include:</p> <ul style="list-style-type: none"> <li>• Prepare Contract Bid Documents.</li> <li>• Provide Bid Documents to potential bidders.</li> <li>• Prepare advertisement for Bid and send to appropriate advertisers.</li> <li>• Respond to Request for Information during Bid Phase.</li> <li>• Attend and conduct Pre-Bid Meeting at City.</li> <li>• Prepare addenda as required.</li> <li>• Attend bid opening as the owner's representative.</li> <li>• Evaluate Bids.</li> <li>• Award the contract.</li> </ul>	<p>Lump Sum</p>	<p>\$7,000.00</p>
<p><b>5</b></p>	<p><b>Construction Administration Phase</b> Bowman will provide construction administration services throughout construction of the project to ensure that the project is being constructed per the contract documents. These services include:</p> <ul style="list-style-type: none"> <li>• Daily/Weekly Site Visits as needed.</li> <li>• Coordinate with Contractor on construction and/or questions.</li> <li>• Review and respond to RFI's and/or Change Orders.</li> <li>• Review paving and concrete mix submittals, shop drawings, etc.</li> <li>• Review and approve Pay Applications.</li> <li>• Coordinate Project Closeout. Prepare closeout documents and coordinate with Contractor to complete required items.</li> </ul>	<p>Lump Sum</p>	<p>\$8,000.00</p>
			<p>\$0.00</p>
<p><b>Total Lump Sum</b></p>			<p><b>\$50,180.00</b></p>

## REIMBURSABLE EXPENSES

Reimbursable expenses shall include actual expenditures made by Bowman in the interest of the Project and will be invoiced at the actual cost to Bowman plus fifteen percent (15%) for handling and indirect costs. Reimbursable expenses shall include but not be limited to costs of the following:

- Mailing, shipping, and out source delivery (i.e. DHL, FedEx) costs.
- Fees and expenses of special consultants as authorized by the Client.
- Parking fees and mileage for employee travel by car to facilitate the project.

## REPROGRAPHIC AND COURIER CHARGES

Reprographic, plotting, in-house courier, and archive retrieval services will be invoiced in accordance with Schedule A attached hereto.

## OTHER TERMS

This proposal is based on the scope of services indicated herein and the information available at the time of the proposal preparation. If any additional services are required due to unforeseen circumstances and/or conditions, client or regulatory requested revisions, additional meetings, regulatory changes, etc., Bowman will notify the client that additional scope of work and fees are required and will obtain the client's written approval prior to proceeding with any additional work.

Bowman's Standard Terms and Conditions and Hourly Rate Schedule are attached hereto and incorporated into this Proposal by reference.

Please indicate your acceptance of this proposal by executing below and returning a copy to this office. Thank you for the opportunity to provide service to City of Dacula.

Sincerely,

**Bowman Consulting Group Ltd.**



Kevin Whigham  
Director of Engineering

**City of Dacula** hereby accepts all terms and conditions of this Proposal (including the Standard Terms and Conditions) and authorizes Bowman to proceed with the Project, and the undersigned represents that he or she is authorized by City of Dacula to so execute this Proposal.

**City of Dacula**

By:

Title:  
Date:



## BOWMAN CONSULTING GROUP LTD.

### SCHEDULE A - FEES FOR REPROGRAPHIC, DELIVERY, TRAVEL AND OTHER SERVICES

January 2022

#### Reprographic Services

B&W Photo Copies	\$0.35/sf, or \$0.23 for 8-1/2" x11" sheet
Color Photo Copies	\$0.50/sf, or \$0.32 for 8-1/2" x11" sheet
Printing (bond)	\$0.35/sf, or \$2.10 for 24" x 36" sheet
Printing (mylar)	\$3.00/sf, or \$18.00 for 24" x 36" sheet

Binding, Mounting and Folding of plan sets, reports, or drawings will be invoiced at our standard hourly rates. Copying of Plans that have been archived in storage is subject to a minimum archive retrieval fee of \$50 plus applicable reprographic fees above.

#### Delivery Services

In-house delivery services are invoiced at \$2.00 per mile (one way) and subject to a minimum \$20.00 charge for standard delivery during normal business hours. Rush services and times outside normal business hours are subject to a minimum \$20.00 surcharge.

Outsourced courier services (i.e. Federal Express, DHL, etc.) are invoiced at cost plus 15%.

#### Travel

Mileage for employee travel by car to facilitate the project, including travel to the project site and for meetings with the client, project team, contractors, or governmental agencies, will be invoiced at the current IRS standard mileage rate.

Airfare and/or lodging to facilitate the project will be coordinated with the client in advance and will be invoiced at cost plus 15%.

#### Miscellaneous

Other costs associated with sub-consultants, specialty equipment, laboratory testing, field testing, tolls, parking or other miscellaneous items will be invoiced at cost plus 15%.

Initials: Bowman *K.W.* / Client

## BOWMAN CONSULTING GROUP LTD.

### SCHEDULE B - HOURLY RATE

January 2022

CLASSIFICATION	HOURLY RATES
Principal	\$290.00/HR
Department Executive	\$230.00/HR
Senior Project Manager	\$215.00/HR
Project Manager	\$180.00/HR
Project Coordinator	\$105.00/HR
Senior Surveyor	\$195.00/HR
Engineer I   II   III	\$115.00/HR   \$125.00/HR   \$155.00/HR
Planner I   II   III	\$125.00/HR   \$145.00/HR   \$165.00/HR
Designer I   II   III	\$115.00/HR   \$125.00/HR   \$130.00/HR
CADD Drafter I   II   III	\$ 80.00/HR   \$105.00/HR   \$115.00/HR
Construction Inspector	\$165.00/HR
Landscape Architect I   II   III	\$115.00/HR   \$130.00/HR   \$155.00/HR
Right of Way Specialist I   II   III	\$110.00/HR   \$125.00/HR   \$140.00/HR
Survey Technician I   II   III	\$ 85.00/HR   \$110.00/HR   \$135.00/HR
Project Surveyor	\$165.00/HR
Survey Field Crew – 1 Man	\$145.00/HR
Survey Field Crew – 2 Man	\$180.00/HR
Survey Field Crew – 3 Man	\$220.00/HR
3D Scanning Crew	\$250.00/HR
Survey Field Technician	\$ 75.00/HR
3D/UAV Modeling Technician	\$155.00/HR
UAV Operation	\$280.00/HR
SUE Field Crew - 1 Man	\$140.00/HR
SUE Field Crew - 2 Man	\$165.00/HR
SUE Field Crew - 3 Man	\$210.00/HR
SUE Field Crew - 4 Man	\$265.00/HR
SUE Utility Coordinator	\$160.00/HR
SUE Technician I   II   III	\$ 85.00/HR   \$110.00/HR   \$135.00/HR
Machine Control Technician	\$145.00/HR
Administrative Professional	\$ 90.00/HR

Initials: Bowman *K.W.* / Client

Table 1812018 - DEFAULT 2022 Florida/Georgia

## BOWMAN CONSULTING GROUP LTD. SCHEDULE C - REQUEST FOR INFORMATION

<b>Accounts Payable Contact:</b>	
Point of Contact:	
Phone:	
Fax:	
E-Mail:	
<b>Billing Information:</b>	
Billing Entity:	
Billing Address:	<input type="checkbox"/> Same as Proposal
	<input type="checkbox"/> If Different, Please Provide:
<b>Billing Requirements:</b>	
Invoice Due Date:	
Requirements/Attachments:	
Invoices Transmitted Via Electronic Mail to:	
Offer ACH Direct Deposit:	<input type="checkbox"/> Yes, Contact:
	<input type="checkbox"/> Not Sure, Contact Our Office
	<input type="checkbox"/> Not At This Time

Initials: Bowman *K.W.* / Client

## BOWMAN CONSULTING GROUP LTD. TERMS AND CONDITIONS

These Terms and Conditions are incorporated by reference into the Proposal and its exhibits (the "Proposal") from Bowman Consulting Group, Ltd. ("Bowman") to \_\_\_\_\_ ("Client") for performance of services described in the Proposal and associated with the project described in the Proposal (the "Project"), and in any subsequent approved Change Order related to the Project. These Terms and Conditions, the accepted Proposal, and any Change Orders or other amendments thereto, shall constitute a final, complete, and binding agreement (the "Agreement") between Bowman and Client, and supersede any previous agreement or understanding.

1. **Scope of Services.** Bowman will provide the services expressly described in and limited by the Proposal (the "Scope"). If in Bowman's professional judgment the Scope must be expanded or revised, Bowman will forward a change order agreement to Client that describes the revision to the Scope (the "Change Order") and the adjusted fee associated therewith.
2. **Standard of Care.** The standard of care for all services performed by Bowman for Client shall be the care and skill ordinarily used by members of the applicable profession practicing under similar circumstances at the same time and locality of the Project. Client shall not rely upon the correctness or completeness of any design or document prepared by Bowman unless such design or document has been properly signed and sealed by a licensed professional on behalf of Bowman.
3. **Payment Terms.** Bowman will invoice Client monthly or more frequently based on a percentage of the work completed for lump sum tasks, number of units completed for unit tasks, and actual hours spent for hourly tasks. Invoices are due and payable in full upon receipt without offset of any kind or for any reason. Bowman shall have the discretion to apply payments made by Client to an invoice or retainer account of Client in accordance with its business practices. Client agrees to pay a finance charge of one and one-half percent (1.5%) per month from the invoice date on any unpaid balance not received by Bowman within thirty (30) days of the invoice date. Payment of invoices is subject to the following further terms and conditions:
  - a. If any invoice is not paid in full within forty-five (45) days of the invoice date, and Client has not timely and in good faith disputed the invoice as provided below, Bowman shall have the right at its election by giving notice to Client to either: (i) suspend the performance of further services under this Agreement and, at its sole discretion, suspend the performance of further services on other projects which are being performed by Bowman on behalf of Client or any related Client entities, until all invoices are paid in full and Bowman has received a retainer in such amount as Bowman deems appropriate to be held as described below; or (ii) deem

Client to be in material breach of this Agreement and proceed pursuant to Section 17 below. Client agrees to pay any and all charges, costs or fees incurred in collection of unpaid invoices, including reasonable attorneys' fees and costs. Following Bowman's election above, Bowman shall bear no liability to Client or any other person or entity for any loss, liability or damage resulting from any resulting delay, and any schedule for the performance of services hereunder prepared previously shall be deemed void with any future schedule for the performance of services requiring the approval of both Client and Bowman.

- b. If Client disputes any submitted invoice, Client shall give written notice to Bowman within thirty (30) days of the invoice date detailing the dispute. If no written notice of a dispute is provided to Bowman within that time period, the invoice shall then be conclusively deemed good and correct. If part of an invoice is disputed, Client shall remain liable to timely pay the undisputed portion of the invoice in accordance with the terms of this Agreement. Client and Bowman shall promptly negotiate in good faith to resolve any disputed portion of an invoice.
- 4. Retainer and Other Payments.** Bowman reserves the right to require that Client make a payment to be held by Bowman as an advance against future billings (the "Retainer"). The Retainer is not intended as the regular source of payment for invoices issued to Client under this Agreement or otherwise, and the parties intend that the Retainer be applied to the final invoice for the services described in the Agreement, or against any other unpaid amounts owed to Bowman should Client (or any affiliate of Client) fail to timely pay invoices due Bowman. The Retainer account may consist in part of payments applied by Bowman pursuant to the authority granted it under Paragraph 3 above. If the Retainer is applied during the course of the Agreement, Client agrees to promptly replenish the Retainer upon request of Bowman. Upon the conclusion of this Agreement, or its earlier termination, Bowman shall (a) apply the Retainer to any unpaid amount owed Bowman by Client (or its affiliates), and (b) return any unapplied portion to Client. The Retainer shall not be required to be held in a separate account nor shall it bear interest, and the Retainer may include other amounts paid to Bowman by Client with respect to the Project or other projects.
  - 5. Client Duties and Responsibilities.** Client shall inform Bowman of any special criteria or requirements related to the Project or Scope, and shall timely and at its cost furnish any and all information in its possession relating to the Project, including reports, plans, drawings, surveys, deeds, topographical information and/or title reports. Bowman shall bear no responsibility for errors, omissions, inaccuracy or incompleteness in third-party information or additional costs arising out of its reliance upon such third-party information supplied by Client. Client warrants and represents that: (a) Client has obtained the full and unconditioned prior written consent from any third-party for Bowman to use such third-party information; (b) such consent shall be provided to Bowman upon request; and (c) such consent shall be in a form that, in Bowman's reasonable discretion, does not violate any applicable law, regulation, or code of ethics. If the Scope requires a current title report, Client shall timely and at its cost provide such title report to Bowman. If the Scope includes preparation of plats to be recorded in the land records of the Project jurisdiction, Client shall timely prepare, submit, and record necessary deeds and pay all recording fees



associated with deeds and plats. All off-site easements are the responsibility of Client. Client shall indemnify and hold harmless Bowman from and against any and all claims, demands, losses, costs, and liabilities, including without limitation reasonable attorney fees and expenses incurred by Bowman and arising out of (a) Client's breach of this Agreement or (b) an action by Client or a third-party with respect to any matter not included in the Scope or that is excluded from the responsibility of Bowman pursuant to this Agreement.

- 6. Insurance.** Bowman and its employees are protected by workman's compensation, commercial general liability, automobile liability, and professional liability insurance policies. Upon request of Client, Bowman shall provide a certificate of insurance to Client evidencing such coverage and shall attempt to include Client as an additional insured on those coverages that permit additional insured status. Client acknowledges it has been offered the opportunity to review the current limits of such coverage and finds them satisfactory, and further agrees that in no event shall Bowman's liability to Client or any party claiming through Client be greater than the limits of such insurance. From time to time Bowman may, without notice to Client, amend the carriers, conditions, exclusions, deductibles or limits of any such insurance; provided that prior to any decrease in any insurance limit becoming effective Bowman shall give notice thereof to Client.
- 7. Potential Liability of Bowman.** The following provisions shall operate with respect to any potential liability of Bowman arising under the Agreement:

  - a. Client may not assert that there is a breach, defect, error, omission or negligence in the services performed by Bowman that Client believes creates liability on the part of Bowman unless Client gave written notice to Bowman not later than the first to occur of (i) the beginning of any corrective work, or (ii) thirty (30) days after Client had knowledge of the existence of the breach, defect, error, omission or negligence. Bowman shall have the opportunity to participate in decisions regarding the corrective work, and Client shall ensure that corrective action is taken at the lowest reasonable expense under the circumstances.
  - b. Notwithstanding any other provision of this Agreement, the total liability, in the aggregate, of Bowman and Bowman's officers, directors, partners, employees, agents, and consultants to Client and anyone claiming through Client, shall not in any manner whatsoever exceed the direct losses incurred by Client (to the extent of and in proportion to Bowman's comparative degree of fault) that resulted from the error, omission or negligent act of Bowman in the performance of services under this Agreement.
  - c. To the fullest extent permitted by law, Bowman and Bowman's officers, directors, partners, employees, agents, and sub-consultants shall not be liable to Client or anyone claiming through Client for any incidental, indirect, or consequential damages whatsoever arising out of, resulting from, or in any way related to the Project or this Agreement, regardless of whether such damages are alleged to be caused by the negligence, professional errors or omissions, strict liability, breach of contract, or breach of express or implied warranty.

- d. Client agrees that Bowman's shareholders, principals, partners, members, agents, directors, officers and/or employees shall have no personal liability whatsoever arising out of or in connection with this Agreement or the performance of services hereunder, except for any negligent acts performed by such individuals.
- 8. Certificate of Merit.** In addition to the requirement of notice under section 7(a) above, Client shall make no claim (whether directly or in the form of a third-party claim) against Bowman unless Client shall have first provided Bowman with a written certification executed by an independent professional licensed in the state in which the Project is located and licensed in the profession to which the claim relates. Such certificate shall: (a) contain the name and license number of the certifier; (b) specify each and every act or omission which the certifier contends constitutes a violation of the standard of care expected of a professional performing professional services under similar circumstances; (c) state in complete detail the basis for the certifier's opinion that each such act or omission constitutes such a violation; and (d) be provided to Bowman thirty (30) days prior to the presentation of and as a precondition to any such claim, or the institution of any mediation, arbitration, judicial or other dispute resolution proceeding.
  - 9. Conflict Resolution and Applicable Law.** Any dispute, controversy or claim arising out of or relating to this Agreement, or the breach thereof, that cannot be resolved by the parties and for which the amount in controversy is less than One Hundred Thousand Dollars (\$100,000.00) shall be settled by arbitration administered in Atlanta, Georgia by the American Arbitration Association in accordance with its Commercial Arbitration Rules and Expedited Procedures, and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction over the parties. For any other dispute, controversy or claim arising out of or relating to this Agreement, or the breach thereof, the parties agree to first submit such dispute, controversy or claim to non-binding mediation, with each party to bear its own costs of such mediation and to equally share the costs of any mediator. If such mediation does not successfully resolve all issues, then the parties agree that the state courts located in Georgia shall have jurisdiction and venue over such dispute. This Agreement shall be governed and interpreted in accordance with the laws of the state in which the Project is located, without giving effect to conflicts of laws principles thereof.
- 10. Ownership of Documents and Other Rights of Bowman.**
    - a. All reports, plans, specifications, computer files, field data, notes, and other documents and instruments prepared by Bowman as instruments of service ("Work Product") shall remain the property of Bowman up until such time as all monies due to Bowman have been paid in full, at which time (i) Client may take possession of the Work Product, and (ii) Bowman shall be deemed to have granted Client a fully paid, non-exclusive license to use the same solely for the Project. Subject to such license Bowman shall retain all common law, statutory, and other reserved rights, including the copyright to all Work Product. If Client or a party acting on Client's behalf modifies any part of the Work Product or reuses them on a different project, Client agrees to indemnify and hold Bowman harmless from any claim,

liability or cost (including reasonable attorneys' fees and defense costs) arising therefrom. Client acknowledges that if Bowman provides Client with Work Product in an electronic or digital format ("Electronic Data"), Client is responsible for cross checking the Electronic Data with the applicable paper document for full conformance and consistency between such paper document and the Electronic Data.

- b. Bowman reserves the right to include photographs and descriptions of the Project in its promotional, marketing, and professional materials. Client grants its consent to Bowman for Bowman to install reasonable signage at the Project equivalent to that which is or could be installed by other vendors to the Project.
- 11. Modification.** From time to time Bowman may either in writing or by electronic mail submit a Change Order to Client and Client shall be deemed to have approved such Change Order if: (a) Client signs the Change Order; (b) Client signifies its consent to the Change Order by electronic mail; or (c) a representative of Client with actual or apparent authority to approve the Change Order orally approves it and Bowman subsequently confirms such approval in writing or by email and begins work associated therewith without receiving written or electronic mail objection thereto. Except for Change Orders authorized by Client as provided immediately above, this Agreement may be amended, modified, or supplemented only in writing signed by all parties hereto. Any signature required or permitted hereunder may be either by hand or by electronic signature.
- 12. Exclusions from Scope.** By way of illustration and not limitation, unless specifically included in the Scope, Bowman has no obligation or responsibility for: (a) favorable or timely comment or action by any governmental entity; (b) taking into account off-site conditions or circumstances that are not clearly visible or reasonably ascertainable by the performance of on-site services; (c) the accurate location or characteristics of any subsurface utility or feature that is not clearly and entirely visible from the surface; or (d) structural design (including, but not limited, to structural design of retaining wall(s) or of special drainage structure(s)).
- 13. Limits of Scope.**
- a. Early Bid Documents. Client agrees that if it requests submission of Work Product documents to contractors for bid purposes either prior to full completion thereof by Bowman or prior to final governmental approval, the potential exists for additional design and construction costs arising from required subsequent revisions and additions to Bowman design documents so as to conform to those of other design disciplines and/or governmental agencies, and any such costs shall be Client's responsibility.
  - b. Estimates. Any cost, timing or quantity estimates provided as a part of the Scope are estimates only and reflect Bowman's judgment as a design professional familiar with the construction industry, but expressly do not represent a guarantee of quantities or construction costs. Client agrees that Bowman has no control over contractors as to cost, timing, or quantity matters, and further agrees that if Client

desires greater accuracy as to construction costs it should engage an independent cost estimator.

- c. Construction Means and Methods. Client agrees that Bowman does not control and is not responsible for construction means, methods, techniques, sequences, or procedures, or for any safety precautions in connection with the Project or for the acts or omissions of any contractor, subcontractor, or any other person or entity performing work for the Project.
  - d. Shop Drawing Review. If specifically included in the Scope, Bowman shall review and check the contractor's shop drawings, product data, and samples, but only for the limited purpose of checking for general conformance with the intent of such contract documents. Client acknowledges that such review is not for the purpose of determining or substantiating the accuracy and completeness of other details, such as dimensions or quantities, or for substantiating instructions for installation or performance of equipment or systems designed by the contractor. Bowman's review shall not constitute approval of safety precautions, construction means, methods, techniques, schedules, sequences or procedures, or of structural features.
  - e. Plan and Permit Processing. If the Scope includes preparation of plans and/or plats for review and approval by public agencies, submission and processing of such plans and plats in a manner consistent with a normal course of business is included within the Scope. If Client requests Bowman to either expedite the plan review process by attending meetings, hand carrying plans and documents from agency to agency, or performing similar services, or to prepare and process permit applications of any type, then, unless specifically included in the Scope, those services will be performed by Bowman as hourly rate services under Section 14 below.
  - f. Building Plan Coordination. If the Scope includes preparation of site plans, site grading plans, subdivision plans, or similar plans that involve coordination with building plans (including architectural, mechanical, structural, or plumbing plans) to be prepared by others, Client shall provide such building plans to Bowman by such date and in such state as Bowman reasonably deems necessary to timely perform its services. If Client fails to so provide building plans to Bowman, Bowman may make reasonable assumptions regarding building characteristics in order to timely perform its services and any later revisions to Bowman plans required to properly coordinate them with building plans will require a Change Order, subject to an additional fee.
- 14. Fees by Hourly Rate Schedule.** If Client requests Bowman to perform services not included in the Proposal or an approved Change Order (including, without limitation, attending meetings and conferences on an as-needed basis with public agencies), Client shall compensate Bowman for such services in accordance with the Hourly Rate Schedule attached to and made a part of the Agreement. Expert witness testimony or participation at legal discussions, hearings or depositions, including necessary preparation time, will be

charged at 150% of the quoted rates. If the Project extends beyond the calendar year in which the Proposal is dated, Bowman may, by giving notice to Client, revise its Hourly Rate Schedule once each calendar year, but no sooner than twelve (12) months after the date of the Proposal.

- 15. Covenants Benefiting Third-Parties.** Bowman and Client acknowledge that from time to time third-parties may request Bowman to execute documents which benefit that third-party. These documents may include certifications, consent of assignment, and/or waiver of certain of Bowman's rights under this Agreement ("Requested Covenant"). Client acknowledges that execution of Requested Covenants is beyond the Scope, is at Bowman's discretion, and, if Bowman decides to so execute a Requested Covenant, the language, terms, and conditions of such Requested Covenant must be acceptable to Bowman, at Bowman's discretion.
- 16. Assignment.** This Agreement may not be assigned by one party without the express written consent of the other party. Notwithstanding the foregoing, Bowman may employ consultants, sub-consultants, or subcontractors as it deems necessary to perform the services described in the scope. Also, Bowman may assign its right to receive payments under this Agreement.
- 17. Termination.** Either party may terminate the provision of further services by Bowman under this Agreement for convenience with thirty (30) days advance notice to the other party. In addition, following a material breach by the other party, the non-breaching party may terminate the provision of further services by Bowman under this Agreement by giving ten (10) days prior notice and an opportunity to cure to the reasonable satisfaction of the non-breaching party. Client acknowledges that its failure to timely pay undisputed invoices is a material breach and that full payment of all undisputed invoices is required to cure such breach. Following any termination of services: (a) Client shall immediately pay Bowman for all services performed through the termination date, including reasonable costs of transitioning the Project to a new design professional designated by Client, if applicable; (b) if the termination by Bowman resulted from a material breach by Client, Bowman shall have the right to withdraw any Work Product or other documents filed with any governmental agency by Bowman in its name on behalf of Client; and (c) if Client selects a new design professional then, as a condition of transferring any files or documents, Client and Client's new design professional shall execute Bowman's standard Electronic File Transfer Agreement or such other similar agreement as the parties shall in good faith negotiate.
- 18. Miscellaneous.** If any provision of this Agreement shall be held invalid, illegal or unenforceable, the other provisions of this Agreement shall remain in full force and effect. The failure of a party to enforce any provision hereof shall not affect its right at a later time to enforce same. A waiver by a party of any condition or breach hereunder must be in writing to be effective and, unless that writing provides otherwise, shall waive only one instance of that condition or breach. This Agreement is solely for the benefit of the parties hereto and, to the extent provided herein, their respective affiliates, directors, officers, employees, agents and representatives, and no provision of this Agreement shall be to confer upon third-parties any remedy, claim, liability, reimbursement, cause of action, or

other right. The headings in this Agreement are for convenience and identification purposes only, are not an integral part of this Agreement, and are not to be considered in the interpretation of any part hereof. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. References in this Agreement to any gender shall include references to all genders. Unless the context otherwise requires, references in the singular include references in the plural and vice versa. The words "include," "including," or "includes" shall be deemed to be followed by the phrase "without limitation." The individual who signs this Agreement warrants that he has the authority to sign as, or on behalf of, Client, and to bind Client to all of the terms and conditions of this Agreement. To the extent that they are inconsistent or contradictory, the terms of the Proposal or an authorized Change Order shall supersede these Terms and Conditions.

- 19. Notices.** Any notice, request, instruction, or other document to be given hereunder by a party hereto shall be in writing and shall be deemed to have been deemed delivered: (a) on the day sent if delivered personally or by courier service during regular business hours (i.e., prior to 5:00 p.m. on weekdays that are not Federal holidays); (b) on the business day after the day sent if sent by overnight delivery service; or (c) two business days after the day sent if sent by certified mail or delivered by two-day delivery service.

If to Client, notice shall be addressed to the individual signing this Agreement at the address noted on the Proposal.

If to Bowman, notice shall be sent to the address set forth in the proposal, with a copy sent to:

Bowman Consulting Group, Ltd.  
12355 Sunrise Valley Drive, Suite 520  
Reston, Virginia 20191  
Attn: Robert A. Hickey

or to such other individual or address as a party hereto may designate for itself by notice given as herein provided.

Initials: Bowman *K.W.* / Client

**TO:** Mayor and City Council of the City of Dacula  
**FROM:** Brittni Nix, Director of Planning & Economic Development  
**DATE:** March 23, 2022  
**SUBJECT:** City Hall sewer connection proposal

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The recent installation of the sewer line along Harbins Road provides the City an opportunity to connect City Hall to sewer and decommission the failing septic system. To that end, staff requested a proposal from Precision Planning, Inc. (PPI) to design a plan for gravity sewer connection. The provided proposal includes developing an opinion of probable construction costs (OPCC), engineering, bid administration, and permit acquisition for \$16,160. Construction oversight would be billed hourly with a not to exceed amount of \$7,690. The total cost to hire PPI for the subject services would not exceed \$23,860.

The project scope qualifies for American Rescue Plan Act (ARPA) funding. Staff requests utilizing ARPA funding for City Hall sewer connection and approving PPI's proposal to not exceed \$23,860 for the services provided in the proposal.

Best Regards,

Brittni Nix, Director of Planning & Economic Development





March 22, 2022

Brittini Nix, AICP  
 Director of Planning and Economic Development  
 City of Dacula  
 phone: (770) 963-7451  
 email: [brittini.nix@daculaga.gov](mailto:brittini.nix@daculaga.gov)

**Re: Dacula City Hall Sewer Connection**

Precision Planning, Inc. (PPI) is pleased to present this proposal to the City of Dacula (Client) for engineering services to transfer the sewer service for City Hall from septic to sewer. This proposal includes engineering services to create permitting and construction drawings for the proposed transition to public sewer. The Client has discussed the sewer connection with Gwinnett County who has indicated that the City will not need a test manhole. A new 6" diameter gravity sewer line with sewer manholes at deflection points will be connected to the existing building sewer outlet to intercept the flow currently directed toward the septic tank and drain field. After the new sewer line is active, the existing septic tank will be decommissioned and filled in, and the drain field will be abandoned. The new sewer line (approx. 250 LF) will direct flow to a proposed manhole along Harbins Road (Gwinnett County FID 3412012) which is being constructed with a Gwinnett County Department of Transportation project, Dacula Road at SR 8/US29.

**PROJECT UNDERSTANDING AND APPROACH**

Work presented in this proposal includes survey, design, and permitting services for the sewer system connection. The following scope of work is based on our knowledge of the Gwinnett County sewer system, requirements, and permitting procedures.

**Task 1: Survey, Design & Permitting**

PPI's work under this phase involves the following:

- A. Perform an engineer's site visit to the area investigate existing site conditions for potential sewer routing.
- B. Complete a topographic survey of the proposed sewer line route from the back of the building to the proposed location of the tie-in manhole.
- C. Perform property research to verify existing property lines, easements, and rights-of-way.
- D. Prepare preliminary loading calculations for gravity sewer sizing.
- E. Develop a sketch/map to present sewer improvements options.
- F. Prepare and submit a Sewer Capacity Certification Request on behalf of the Client which will verify that they have adequate capacity to serve City Hall.
- G. Develop a conceptual opinion of probable construction costs.
- H. Complete detailed design for gravity sewer.
- I. Prepare detailed design drawings for the gravity sewer, including sewer plan & profiles, construction details, and erosion control measures, in accordance with Gwinnett County Standards.
- J. Coordinate with Gwinnett County to provide supporting documents to obtain a Utility Permit. Associated fees required by Gwinnett County shall be paid by the Client.



Ms. Brittini Nix, AICP  
 Director of Planning and Economic Development  
 March 22, 2022  
 Page 2

### **Task 2 – Bid Phase Support**

After design and permitting, PPI will prepare contract documents for bidding by Gwinnett County Pre-Approved Utility Contractors to complete the work. PPI will assist the Client with advertisement, bid document distribution to prospective bidders, plan holders list management, addendum preparation (if any), pre-bid meeting attendance, bid opening attendance, and bid review and tabulation.

### **Task 3 – Construction Phase Assistance**

PPI will assist with construction phase on an hourly basis, as requested by the Client. Work to be performed under this task may include the following:

- A. Participate in a pre-construction conference prior to commencement of work at the site.
- B. Construction staking of proposed manholes and construction limits and/or providing CAD files for the contractor to perform the construction staking.
- C. Attend project coordination meetings with City/County personnel and the Contractor.
- D. Review and comment on shop drawing submittals, but only for conformance with the construction plans and County Standards. The shop drawing reviews will not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions and programs.
- E. Field survey of each of the constructed above ground manholes and corresponding manhole inverts.
- F. Prepare and furnish a set of Project Record Drawings showing appropriate record information as required by Gwinnett County.

### **EXCLUSIONS**

The following items are not included within this scope of services:

1. Except as otherwise specified in the Scope of Services, PPI will provide additional hourly technical assistance as requested at our standard hourly billing rates. These services shall be invoiced in addition to the design fee set forth herein.
2. Easement plats are excluded from the Scope of Services. None are anticipated to be necessary.
3. Legal coordination and/or recording fees associated with easement plats are not part of the Scope. Recording fees shall be considered as a direct reimbursable expense or paid separately by the Client.
4. Geotechnical services are not included in this Scope. Underground utility locates are not included.
5. Any special conditions required by Gwinnett County for permitting are not expected and are not included the scope of work. PPI will complete this work at our Standard Hourly Rates.
6. Georgia Environmental Protection Division (EPD) coordination is not expected to be necessary and is not part of the scope.
7. Wetland delineation and permitting is not part of the Scope.
8. Inspections, reporting, recordkeeping, monitoring and other requirements of the NPDES permit are not part of this Scope.
9. Plan review and inspection fees shall be considered as an additional direct reimbursable cost or shall be paid for separately by the Client.

**Initials:** \_\_\_\_\_

Ms. Brittini Nix, AICP  
Director of Planning and Economic Development  
March 22, 2022  
Page 3

**COMPENSATION**

The following table provides a breakdown of the project fees and anticipated schedule, for your review.

PROJECT TASK	DURATION* (Weeks)	FEE (Lump Sum)
Task 1 – Survey, Design, and Permitting	6 - 10	\$11,100
Task 2 – Bid Phase Support	2 - 4	\$5,060
<b>LUMP SUM TOTAL</b>	<b>8 – 14 weeks</b>	<b>\$16,160</b>

Additional Services:	DURATION (Weeks)	(Hourly & Expense)
Task 3 – Construction Phase Assistance	TBD	\$7,690

\*Work will be invoiced on a monthly basis, based on the percentage of work complete.

Our Standard General Conditions are attached and made part of this proposal. The fees quoted remain valid for **thirty (30)** days from the proposal date and are subject to renegotiation unless accepted within that time. Additional services, if required, will be billed according to the attached Standard Hourly Rates.

We look forward to a successful working relationship with you. Should you find this proposal satisfactory, please initial each page, sign in the space provided and return one signed copy to our office. If you have any questions, please do not hesitate to contact us.

Sincerely,

  
Kurt Mueller, P.E.  
Senior Vice President

  
Steve Sappington, RLA, LEED AP  
Senior Associate

KM:np  
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Attachments: Standard Hourly Rates  
Standard General Conditions

Authorization given this \_\_\_\_\_ day of \_\_\_\_\_, 2022

By: \_\_\_\_\_

Title: \_\_\_\_\_

**2021 CIVIL STANDARD HOURLY RATE SCHEDULE**

Executive Vice President .....	\$225.00/Hour
Principal-in-Charge .....	\$225.00/Hour
Senior Principal .....	\$185.00/Hour
Principal.....	\$160.00/Hour
Senior Project Manager .....	\$150.00/Hour
Project Manager.....	\$135.00/Hour
Senior Project Engineer.....	\$125.00/Hour
Senior Landscape Architect.....	\$110.00/Hour
Landscape Architect .....	\$90.00/Hour
Principal Planner .....	\$125.00/Hour
Planner .....	\$85.00/Hour
Project Engineer.....	\$95.00/Hour
Senior Designer .....	\$110.00/Hour
Designer .....	\$95.00/Hour
Senior Engineering Technician .....	\$85.00/Hour
Engineering Technician .....	\$80.00/Hour
Project Administrator.....	\$90.00/Hour
Senior Project Assistant .....	\$80.00/Hour
Project Assistant.....	\$60.00/Hour
Construction Observer .....	\$100.00/Hour
Senior Survey Manager.....	\$150.00/Hour
Survey Manager.....	\$125.00/Hour
Registered Land Surveyor (RLS).....	\$150.00/Hour
Survey Coordinator .....	\$100.00/Hour
Survey Technician .....	\$90.00/Hour
Surveying Crew.....	\$175.00/Hour

**STANDARD GENERAL CONDITIONS**

- A. In accepting and utilizing any drawings, reports and data on any form of electronic media generated and furnished by Precision Planning, Inc., the Owner/Client agrees that all such electronic files are instruments of service of Precision Planning, Inc., who shall be deemed the author, and shall retain all common law, statutory law and other rights, without limitation, including copyrights.

Intelligent data, including but not limited to Building Information Modeling (BIM) and 3D Grading/Surface Modeling, are instruments of service. When transmitted, this data shall be for the sole purpose of visualization of design ideas by the Owner/Client and shall not constitute or supplement the contract documents. Differences may exist between these models and the corresponding hard copy contract documents, and Precision Planning, Inc. makes no representation about their accuracy or completeness.

The Owner/Client agrees not to reuse these electronic files, in whole or in part, for any purpose other than for the Project. The Owner/Client agrees not to transfer these electronic files to others without the prior written consent of Precision Planning, Inc. The Owner/Client further agrees that Precision Planning, Inc. shall have no responsibility or liability to Owner/Client or others for any changes made by anyone other than Precision Planning, Inc. or for any reuse of the electronic files without the prior written consent of Precision Planning, Inc.

In addition, the Owner/Client agrees, to the fullest extent permitted by law, to indemnify and hold harmless Precision Planning, Inc., its officers, directors, employees and subconsultants (collectively, Consultant) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, arising from any changes made by anyone other than Precision Planning, Inc. or from any use or reuse of the electronic files without the prior written consent of Precision Planning, Inc..

Under no circumstances shall delivery of electronic files for use by the Owner/Client be deemed a sale by Precision Planning, Inc., and Precision Planning, Inc. makes no warranties, either express or implied, of merchantability and fitness for any particular purpose. In no event shall Precision Planning, Inc. be liable for indirect or consequential damages as a result of the Owner/Client's unauthorized use or reuse of the electronic files.

- B. There shall be no assignments of any portion of the work as described within the above proposal or during any phase of the work without the written consent by Precision Planning, Inc. There shall be no disclosures of the scope of services and/or fees, as outlined within this proposal, to any third parties without the written consent of Precision Planning, Inc. There shall not be any re-use or reproduction of this proposal or design documents without the written consent of Precision Planning, Inc.
- C. Our professional services shall be performed, our findings obtained, and our recommendations prepared in accordance with generally accepted planning, engineering, land surveying, architectural and landscape architectural practices. This warranty is in lieu of all other warranties either implied or expressed. Precision Planning, Inc. assumes no responsibility for interpretation made by others based upon the work or recommendations made by Precision Planning, Inc.

- D. In recognition of the relative risks and benefits of the Project to both the Owner/Client and Precision Planning, Inc., the risks have been allocated such that the Owner/Client agrees, to the fullest extent permitted by law, to limit the liability of Precision Planning, Inc. and its officers, directors, employees, shareholders, owners and subconsultants for any and all claims, losses, costs, damages of any nature whatsoever or claims expenses from any cause or causes, including attorney's fees and costs and expert-witness fees and costs, so that the total aggregate liability of Precision Planning, Inc. and its officers, directors, employees, shareholders, owners and subconsultants shall not exceed \$50,000 or the amount of Precision Planning, Inc.'s total fee for services rendered on this Project, whichever is greater. It is intended that this limitation apply to any and all liability or cause of action, including without limitation active and passive negligence, however alleged or arising, unless otherwise prohibited by law. In no event shall the Consultant's liability exceed the amount of available insurance proceeds.

If Owner/Client prefers to have higher limits of professional liability, the limits can be increased to a maximum of one million (\$1,000,000.00) dollars upon Owner/Client's written request at the time of acceptance of this proposal provided that the Owner/Client agrees to pay an additional consideration of ten percent (10%) of the total fee or \$1,000.00, whichever is greater. The additional charge for the higher liability limits is because of the greater risk assumed and is not a charge for additional professional liability insurance.

- E. Precision Planning, Inc. agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Owner/Client, its officers, directors and employees (collectively, Owner/Client) against all damages and liabilities, to the extent caused by Precision Planning, Inc.'s negligent performance of professional services under this Agreement and that of its subconsultants or anyone for whom Precision Planning, Inc. is legally liable.

The Owner/Client agrees, to the fullest extent permitted by law, to indemnify and hold harmless Precision Planning, Inc., its officers, directors and employees and subconsultants (collectively, Precision Planning, Inc.) against all damages and liabilities, to the extent caused by the Owner/Client's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Owner/Client is legally liable.

Neither the Owner/Client nor Precision Planning, Inc. shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence or for the negligence of others.

- F. In the event the Owner/Client makes a claim against Precision Planning, Inc. at law or otherwise, for an alleged error, omission or other act arising out of the performance of our professional services, and the Owner/Client fails to prove such claim, then the Owner/Client shall bear all cost incurred by Precision Planning, Inc. in defending itself against such claim(s). The reciprocal of this clause (i.e., a claim made by Precision Planning, Inc. against the Owner/Client where failure of proof of claim is established, financial responsibility for Owner/Client's defense shall rest upon Precision Planning, Inc.) is hereby made a part of this agreement.
- G. It is understood and agreed that Precision Planning, Inc. shall not be held responsible for any inaccuracies in any materials, data or records of any other person, firm or agency which are provided to it and/or may be utilized by it in the performance of specific services.

- H. Reimbursable expenses including mileage, photographic enlargements, reductions and reproduction, blueprinting, and courier services shall be billed at a rate of actual cost times 1.1. When overnight stay is required, it shall be billed as actual subsistence cost times 1.1.

NOTE: No back-up data or copies of bills will be provided for reimbursable expenses invoiced under this agreement. Should back-up data be requested, it will be provided for an administrative fee of \$100.00 per monthly invoice requiring verification, plus \$1.00 per copy of back-up data provided.

- I. In the event additional services beyond the scope of work listed above are required by Owner/Client, Precision Planning, Inc. shall perform these services for an amount equal to normal hourly charges on work actually performed upon receipt of an approved Change Order signed by both parties. Precision Planning, Inc. shall submit monthly invoices for services outlined in this agreement. Payment is due upon receipt of invoice. Finance charges of one and one-half percent (1.5%) will be added to any unpaid balance at the end of thirty (30) days (APR 18%).
- J. The Owner/Client or Precision Planning, Inc. may terminate this Agreement without penalty upon giving the other party ten (10) calendar days' notice in writing. In the event either party terminates for convenience, the Owner/Client shall pay Precision Planning, Inc. within seven (7) calendar days of receipt of Precision Planning, Inc.'s invoices for all services rendered and all reimbursable costs up to the date of termination. In addition, the Owner/Client shall pay Precision Planning, Inc. for all expenses reasonably incurred by Precision Planning, Inc. in connection with the orderly termination of this Agreement, including but not limited to associated overhead costs and all other expenses directly resulting from the termination. In the event government regulations are amended or changed in any way, or if the services outlined in this proposal have not been authorized within thirty (30) days of the date of this proposal, fees quoted are subject to renegotiation.
- K. Services required by unexpected events which are outside Precision Planning, Inc.'s reasonable control including, but not limited to, services resulting from extended schedules shall be compensated as additional services.

**TO:** Mayor and City Council of the City of Dacula

**FROM:** Brittni Nix, Director of Planning & Economic Development

**DATE:** March 22, 2022

**SUBJECT:** Maple Creek Park improvement proposal

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The Mayor and City Council have previously reviewed and discussed the concept plan for the Maple Creek Park improvements. The plans include a new shaded playground for school-aged children, shaded toddler playground, shaded swing set, fitness station, and benches. GameTime Play DRP estimated the equipment cost at \$389,794.45 in October 2021. The estimate could change based on market conditions.

To move forward with the project, staff requested a proposal from McFarland Dyer & Associates (MDA), a Bowen Company, to bid the project. The provided proposal includes creating construction documents, bid management, and construction administration for \$24,000.

Staff researched available funding options and determined the subject project does not qualify for the American Rescue Plan Act (ARPA) funds due to the specificity of the project design. However, the project is eligible for the beautification, parks and recreation endowment fund donated by the Wilbanks Estate in 2019.

Staff requests approving MDA's proposal in the amount of \$24,000 for the services provided in the proposal and utilizing the City's beautification, parks and recreation endowment fund for the Maple Creek Park improvements.

Best Regards,

Brittni Nix, Director of Planning & Economic Development

March 9, 2022

<b>Re:</b>	<b>Maple Creek Park - New Playground Addition</b> (the “Project”) Dacula, Gwinnett County, Georgia Proposal to provide Design Services (the “Proposal”) Proposal No. 22-0306
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Dear Ms. Coggins:

We are pleased to submit this Proposal to provide Designservices for the above referenced Park Project. Upon written direction to proceed with performance of the services described herein, this Proposal, along with all attachments thereto, will constitute a binding agreement (the “Agreement”) between Bowman Consulting Group Ltd. (“Bowman”) and City of Dacula (the “Client”).

## SCOPE OF SERVICES AND FEES

The scope of services (the “Scope”) and associated fees shall be as follows:

Task	Description	Fee Type	Total
<b>1</b>	<b>Construction documents and specifications for the layout of playground equipment</b> <ul style="list-style-type: none"> <li>• Cover Sheet.</li> <li>• Layout plan.</li> <li>• Detailed grading and drainage plan.</li> <li>• Construction details.</li> <li>• Coordination with playground Consultants.</li> <li>• Specifications.</li> </ul>	Lump Sum	\$12,000.00
<b>2</b>	<b>Bid Phase</b> <ul style="list-style-type: none"> <li>• Assistance with bid document creation and review.</li> <li>• Respond to RFI's in a timely manner.</li> <li>• Provide a bid comparison document.</li> <li>• Award contract.</li> </ul>	Lump Sum	\$6,000.00
<b>3</b>	<b>Construction Administration (CA)</b> <ul style="list-style-type: none"> <li>• Attend pre-construction meeting.</li> <li>• Respond to RFI's in a timely manner.</li> <li>• Construction observation with inspections and reports.</li> <li>• Contractor invoicing review and approval.</li> <li>• Final Punchlist / Site visits.</li> </ul>	Lump Sum	\$6,000.00

**Total Lump Sum                    \$24,000.00**



## REIMBURSABLE EXPENSES

Reimbursable expenses shall include actual expenditures made by Bowman in the interest of the Project and will be invoiced at the actual cost to Bowman plus fifteen percent (15%) for handling and indirect costs. Reimbursable expenses shall include but not be limited to costs of the following:

- Mailing, shipping, and out source delivery (i.e. DHL, FedEx) costs.
- Fees and expenses of special consultants as authorized by the Client.
- Parking fees and mileage for employee travel by car to facilitate the project.

## REPROGRAPHIC AND COURIER CHARGES

Reprographic, plotting, in-house courier, and archive retrieval services will be invoiced in accordance with Schedule A attached hereto.

## OTHER TERMS

This proposal is based on the scope of services indicated herein and the information available at the time of the proposal preparation. If any additional services are required due to unforeseen circumstances and/or conditions, client or regulatory requested revisions, additional meetings, regulatory changes, etc., Bowman will notify the client that additional scope of work and fees are required and will obtain the client's written approval prior to proceeding with any additional work.

Bowman's Standard Terms and Conditions and Hourly Rate Schedule are attached hereto and incorporated into this Proposal by reference.

Please indicate your acceptance of this proposal by executing below and returning a copy to this office. Thank you for the opportunity to provide service to City of Dacula.

Sincerely,

**Bowman Consulting Group Ltd.**



Kevin Whigham  
Director of Engineering

**City of Dacula** hereby accepts all terms and conditions of this Proposal (including the Standard Terms and Conditions) and authorizes Bowman to proceed with the Project, and the undersigned represents that he or she is authorized by City of Dacula to so execute this Proposal.

**City of Dacula**

By:

Title:  
Date:



## BOWMAN CONSULTING GROUP LTD.

### SCHEDULE A - FEES FOR REPROGRAPHIC, DELIVERY, TRAVEL AND OTHER SERVICES

January 2022

#### Reprographic Services

B&W Photo Copies	\$0.35/sf, or \$0.23 for 8-1/2" x11" sheet
Color Photo Copies	\$0.50/sf, or \$0.32 for 8-1/2" x11" sheet
Printing (bond)	\$0.35/sf, or \$2.10 for 24" x 36" sheet
Printing (mylar)	\$3.00/sf, or \$18.00 for 24" x 36" sheet

Binding, Mounting and Folding of plan sets, reports, or drawings will be invoiced at our standard hourly rates. Copying of Plans that have been archived in storage is subject to a minimum archive retrieval fee of \$50 plus applicable reprographic fees above.

#### Delivery Services

In-house delivery services are invoiced at \$2.00 per mile (one way) and subject to a minimum \$20.00 charge for standard delivery during normal business hours. Rush services and times outside normal business hours are subject to a minimum \$20.00 surcharge.

Outsourced courier services (i.e. Federal Express, DHL, etc.) are invoiced at cost plus 15%.

#### Travel

Mileage for employee travel by car to facilitate the project, including travel to the project site and for meetings with the client, project team, contractors, or governmental agencies, will be invoiced at the current IRS standard mileage rate.

Airfare and/or lodging to facilitate the project will be coordinated with the client in advance and will be invoiced at cost plus 15%.

#### Miscellaneous

Other costs associated with sub-consultants, specialty equipment, laboratory testing, field testing, tolls, parking or other miscellaneous items will be invoiced at cost plus 15%.

Initials: Bowman *K.W.* / Client

## BOWMAN CONSULTING GROUP LTD.

### SCHEDULE B - HOURLY RATE

January 2022

CLASSIFICATION	HOURLY RATES
Principal	\$290.00/HR
Department Executive	\$230.00/HR
Senior Project Manager	\$215.00/HR
Project Manager	\$180.00/HR
Project Coordinator	\$105.00/HR
Senior Surveyor	\$195.00/HR
Engineer I   II   III	\$115.00/HR   \$125.00/HR   \$155.00/HR
Planner I   II   III	\$125.00/HR   \$145.00/HR   \$165.00/HR
Designer I   II   III	\$115.00/HR   \$125.00/HR   \$130.00/HR
CADD Drafter I   II   III	\$ 80.00/HR   \$105.00/HR   \$115.00/HR
Construction Inspector	\$165.00/HR
Landscape Architect I   II   III	\$115.00/HR   \$130.00/HR   \$155.00/HR
Right of Way Specialist I   II   III	\$110.00/HR   \$125.00/HR   \$140.00/HR
Survey Technician I   II   III	\$ 85.00/HR   \$110.00/HR   \$135.00/HR
Project Surveyor	\$165.00/HR
Survey Field Crew – 1 Man	\$145.00/HR
Survey Field Crew – 2 Man	\$180.00/HR
Survey Field Crew – 3 Man	\$220.00/HR
3D Scanning Crew	\$250.00/HR
Survey Field Technician	\$ 75.00/HR
3D/UAV Modeling Technician	\$155.00/HR
UAV Operation	\$280.00/HR
SUE Field Crew - 1 Man	\$140.00/HR
SUE Field Crew - 2 Man	\$165.00/HR
SUE Field Crew - 3 Man	\$210.00/HR
SUE Field Crew - 4 Man	\$265.00/HR
SUE Utility Coordinator	\$160.00/HR
SUE Technician I   II   III	\$ 85.00/HR   \$110.00/HR   \$135.00/HR
Machine Control Technician	\$145.00/HR
Administrative Professional	\$ 90.00/HR

Initials: Bowman *K.W.* / Client

Table 1812018 - DEFAULT 2022 Florida/Georgia

## BOWMAN CONSULTING GROUP LTD. SCHEDULE C - REQUEST FOR INFORMATION

<b>Accounts Payable Contact:</b>	
Point of Contact:	
Phone:	
Fax:	
E-Mail:	
<b>Billing Information:</b>	
Billing Entity:	
Billing Address:	<input type="checkbox"/> Same as Proposal
	<input type="checkbox"/> If Different, Please Provide:
<b>Billing Requirements:</b>	
Invoice Due Date:	
Requirements/Attachments:	
Invoices Transmitted Via Electronic Mail to:	
Offer ACH Direct Deposit:	<input type="checkbox"/> Yes, Contact:
	<input type="checkbox"/> Not Sure, Contact Our Office
	<input type="checkbox"/> Not At This Time

Initials: Bowman *K.W.* / Client

## BOWMAN CONSULTING GROUP LTD. TERMS AND CONDITIONS

These Terms and Conditions are incorporated by reference into the Proposal and its exhibits (the "Proposal") from Bowman Consulting Group, Ltd. ("Bowman") to \_\_\_\_\_ ("Client") for performance of services described in the Proposal and associated with the project described in the Proposal (the "Project"), and in any subsequent approved Change Order related to the Project. These Terms and Conditions, the accepted Proposal, and any Change Orders or other amendments thereto, shall constitute a final, complete, and binding agreement (the "Agreement") between Bowman and Client, and supersede any previous agreement or understanding.

1. **Scope of Services.** Bowman will provide the services expressly described in and limited by the Proposal (the "Scope"). If in Bowman's professional judgment the Scope must be expanded or revised, Bowman will forward a change order agreement to Client that describes the revision to the Scope (the "Change Order") and the adjusted fee associated therewith.
2. **Standard of Care.** The standard of care for all services performed by Bowman for Client shall be the care and skill ordinarily used by members of the applicable profession practicing under similar circumstances at the same time and locality of the Project. Client shall not rely upon the correctness or completeness of any design or document prepared by Bowman unless such design or document has been properly signed and sealed by a licensed professional on behalf of Bowman.
3. **Payment Terms.** Bowman will invoice Client monthly or more frequently based on a percentage of the work completed for lump sum tasks, number of units completed for unit tasks, and actual hours spent for hourly tasks. Invoices are due and payable in full upon receipt without offset of any kind or for any reason. Bowman shall have the discretion to apply payments made by Client to an invoice or retainer account of Client in accordance with its business practices. Client agrees to pay a finance charge of one and one-half percent (1.5%) per month from the invoice date on any unpaid balance not received by Bowman within thirty (30) days of the invoice date. Payment of invoices is subject to the following further terms and conditions:
  - a. If any invoice is not paid in full within forty-five (45) days of the invoice date, and Client has not timely and in good faith disputed the invoice as provided below, Bowman shall have the right at its election by giving notice to Client to either: (i) suspend the performance of further services under this Agreement and, at its sole discretion, suspend the performance of further services on other projects which are being performed by Bowman on behalf of Client or any related Client entities, until all invoices are paid in full and Bowman has received a retainer in such amount as Bowman deems appropriate to be held as described below; or (ii) deem

Client to be in material breach of this Agreement and proceed pursuant to Section 17 below. Client agrees to pay any and all charges, costs or fees incurred in collection of unpaid invoices, including reasonable attorneys' fees and costs. Following Bowman's election above, Bowman shall bear no liability to Client or any other person or entity for any loss, liability or damage resulting from any resulting delay, and any schedule for the performance of services hereunder prepared previously shall be deemed void with any future schedule for the performance of services requiring the approval of both Client and Bowman.

- b. If Client disputes any submitted invoice, Client shall give written notice to Bowman within thirty (30) days of the invoice date detailing the dispute. If no written notice of a dispute is provided to Bowman within that time period, the invoice shall then be conclusively deemed good and correct. If part of an invoice is disputed, Client shall remain liable to timely pay the undisputed portion of the invoice in accordance with the terms of this Agreement. Client and Bowman shall promptly negotiate in good faith to resolve any disputed portion of an invoice.
4. **Retainer and Other Payments.** Bowman reserves the right to require that Client make a payment to be held by Bowman as an advance against future billings (the "Retainer"). The Retainer is not intended as the regular source of payment for invoices issued to Client under this Agreement or otherwise, and the parties intend that the Retainer be applied to the final invoice for the services described in the Agreement, or against any other unpaid amounts owed to Bowman should Client (or any affiliate of Client) fail to timely pay invoices due Bowman. The Retainer account may consist in part of payments applied by Bowman pursuant to the authority granted it under Paragraph 3 above. If the Retainer is applied during the course of the Agreement, Client agrees to promptly replenish the Retainer upon request of Bowman. Upon the conclusion of this Agreement, or its earlier termination, Bowman shall (a) apply the Retainer to any unpaid amount owed Bowman by Client (or its affiliates), and (b) return any unapplied portion to Client. The Retainer shall not be required to be held in a separate account nor shall it bear interest, and the Retainer may include other amounts paid to Bowman by Client with respect to the Project or other projects.
  5. **Client Duties and Responsibilities.** Client shall inform Bowman of any special criteria or requirements related to the Project or Scope, and shall timely and at its cost furnish any and all information in its possession relating to the Project, including reports, plans, drawings, surveys, deeds, topographical information and/or title reports. Bowman shall bear no responsibility for errors, omissions, inaccuracy or incompleteness in third-party information or additional costs arising out of its reliance upon such third-party information supplied by Client. Client warrants and represents that: (a) Client has obtained the full and unconditioned prior written consent from any third-party for Bowman to use such third-party information; (b) such consent shall be provided to Bowman upon request; and (c) such consent shall be in a form that, in Bowman's reasonable discretion, does not violate any applicable law, regulation, or code of ethics. If the Scope requires a current title report, Client shall timely and at its cost provide such title report to Bowman. If the Scope includes preparation of plats to be recorded in the land records of the Project jurisdiction, Client shall timely prepare, submit, and record necessary deeds and pay all recording fees

associated with deeds and plats. All off-site easements are the responsibility of Client. Client shall indemnify and hold harmless Bowman from and against any and all claims, demands, losses, costs, and liabilities, including without limitation reasonable attorney fees and expenses incurred by Bowman and arising out of (a) Client's breach of this Agreement or (b) an action by Client or a third-party with respect to any matter not included in the Scope or that is excluded from the responsibility of Bowman pursuant to this Agreement.

- 6. Insurance.** Bowman and its employees are protected by workman's compensation, commercial general liability, automobile liability, and professional liability insurance policies. Upon request of Client, Bowman shall provide a certificate of insurance to Client evidencing such coverage and shall attempt to include Client as an additional insured on those coverages that permit additional insured status. Client acknowledges it has been offered the opportunity to review the current limits of such coverage and finds them satisfactory, and further agrees that in no event shall Bowman's liability to Client or any party claiming through Client be greater than the limits of such insurance. From time to time Bowman may, without notice to Client, amend the carriers, conditions, exclusions, deductibles or limits of any such insurance; provided that prior to any decrease in any insurance limit becoming effective Bowman shall give notice thereof to Client.
- 7. Potential Liability of Bowman.** The following provisions shall operate with respect to any potential liability of Bowman arising under the Agreement:

  - a. Client may not assert that there is a breach, defect, error, omission or negligence in the services performed by Bowman that Client believes creates liability on the part of Bowman unless Client gave written notice to Bowman not later than the first to occur of (i) the beginning of any corrective work, or (ii) thirty (30) days after Client had knowledge of the existence of the breach, defect, error, omission or negligence. Bowman shall have the opportunity to participate in decisions regarding the corrective work, and Client shall ensure that corrective action is taken at the lowest reasonable expense under the circumstances.
  - b. Notwithstanding any other provision of this Agreement, the total liability, in the aggregate, of Bowman and Bowman's officers, directors, partners, employees, agents, and consultants to Client and anyone claiming through Client, shall not in any manner whatsoever exceed the direct losses incurred by Client (to the extent of and in proportion to Bowman's comparative degree of fault) that resulted from the error, omission or negligent act of Bowman in the performance of services under this Agreement.
  - c. To the fullest extent permitted by law, Bowman and Bowman's officers, directors, partners, employees, agents, and sub-consultants shall not be liable to Client or anyone claiming through Client for any incidental, indirect, or consequential damages whatsoever arising out of, resulting from, or in any way related to the Project or this Agreement, regardless of whether such damages are alleged to be caused by the negligence, professional errors or omissions, strict liability, breach of contract, or breach of express or implied warranty.



- d. Client agrees that Bowman's shareholders, principals, partners, members, agents, directors, officers and/or employees shall have no personal liability whatsoever arising out of or in connection with this Agreement or the performance of services hereunder, except for any negligent acts performed by such individuals.
- 8. Certificate of Merit.** In addition to the requirement of notice under section 7(a) above, Client shall make no claim (whether directly or in the form of a third-party claim) against Bowman unless Client shall have first provided Bowman with a written certification executed by an independent professional licensed in the state in which the Project is located and licensed in the profession to which the claim relates. Such certificate shall: (a) contain the name and license number of the certifier; (b) specify each and every act or omission which the certifier contends constitutes a violation of the standard of care expected of a professional performing professional services under similar circumstances; (c) state in complete detail the basis for the certifier's opinion that each such act or omission constitutes such a violation; and (d) be provided to Bowman thirty (30) days prior to the presentation of and as a precondition to any such claim, or the institution of any mediation, arbitration, judicial or other dispute resolution proceeding.
- 9. Conflict Resolution and Applicable Law.** Any dispute, controversy or claim arising out of or relating to this Agreement, or the breach thereof, that cannot be resolved by the parties and for which the amount in controversy is less than One Hundred Thousand Dollars (\$100,000.00) shall be settled by arbitration administered in Atlanta, Georgia by the American Arbitration Association in accordance with its Commercial Arbitration Rules and Expedited Procedures, and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction over the parties. For any other dispute, controversy or claim arising out of or relating to this Agreement, or the breach thereof, the parties agree to first submit such dispute, controversy or claim to non-binding mediation, with each party to bear its own costs of such mediation and to equally share the costs of any mediator. If such mediation does not successfully resolve all issues, then the parties agree that the state courts located in Georgia shall have jurisdiction and venue over such dispute. This Agreement shall be governed and interpreted in accordance with the laws of the state in which the Project is located, without giving effect to conflicts of laws principles thereof.
- 10. Ownership of Documents and Other Rights of Bowman.**
- a. All reports, plans, specifications, computer files, field data, notes, and other documents and instruments prepared by Bowman as instruments of service ("Work Product") shall remain the property of Bowman up until such time as all monies due to Bowman have been paid in full, at which time (i) Client may take possession of the Work Product, and (ii) Bowman shall be deemed to have granted Client a fully paid, non-exclusive license to use the same solely for the Project. Subject to such license Bowman shall retain all common law, statutory, and other reserved rights, including the copyright to all Work Product. If Client or a party acting on Client's behalf modifies any part of the Work Product or reuses them on a different project, Client agrees to indemnify and hold Bowman harmless from any claim,

liability or cost (including reasonable attorneys' fees and defense costs) arising therefrom. Client acknowledges that if Bowman provides Client with Work Product in an electronic or digital format ("Electronic Data"), Client is responsible for cross checking the Electronic Data with the applicable paper document for full conformance and consistency between such paper document and the Electronic Data.

- b. Bowman reserves the right to include photographs and descriptions of the Project in its promotional, marketing, and professional materials. Client grants its consent to Bowman for Bowman to install reasonable signage at the Project equivalent to that which is or could be installed by other vendors to the Project.
- 11. Modification.** From time to time Bowman may either in writing or by electronic mail submit a Change Order to Client and Client shall be deemed to have approved such Change Order if: (a) Client signs the Change Order; (b) Client signifies its consent to the Change Order by electronic mail; or (c) a representative of Client with actual or apparent authority to approve the Change Order orally approves it and Bowman subsequently confirms such approval in writing or by email and begins work associated therewith without receiving written or electronic mail objection thereto. Except for Change Orders authorized by Client as provided immediately above, this Agreement may be amended, modified, or supplemented only in writing signed by all parties hereto. Any signature required or permitted hereunder may be either by hand or by electronic signature.
- 12. Exclusions from Scope.** By way of illustration and not limitation, unless specifically included in the Scope, Bowman has no obligation or responsibility for: (a) favorable or timely comment or action by any governmental entity; (b) taking into account off-site conditions or circumstances that are not clearly visible or reasonably ascertainable by the performance of on-site services; (c) the accurate location or characteristics of any subsurface utility or feature that is not clearly and entirely visible from the surface; or (d) structural design (including, but not limited, to structural design of retaining wall(s) or of special drainage structure(s)).
- 13. Limits of Scope.**
- a. Early Bid Documents. Client agrees that if it requests submission of Work Product documents to contractors for bid purposes either prior to full completion thereof by Bowman or prior to final governmental approval, the potential exists for additional design and construction costs arising from required subsequent revisions and additions to Bowman design documents so as to conform to those of other design disciplines and/or governmental agencies, and any such costs shall be Client's responsibility.
  - b. Estimates. Any cost, timing or quantity estimates provided as a part of the Scope are estimates only and reflect Bowman's judgment as a design professional familiar with the construction industry, but expressly do not represent a guarantee of quantities or construction costs. Client agrees that Bowman has no control over contractors as to cost, timing, or quantity matters, and further agrees that if Client

desires greater accuracy as to construction costs it should engage an independent cost estimator.

- c. Construction Means and Methods. Client agrees that Bowman does not control and is not responsible for construction means, methods, techniques, sequences, or procedures, or for any safety precautions in connection with the Project or for the acts or omissions of any contractor, subcontractor, or any other person or entity performing work for the Project.
  - d. Shop Drawing Review. If specifically included in the Scope, Bowman shall review and check the contractor's shop drawings, product data, and samples, but only for the limited purpose of checking for general conformance with the intent of such contract documents. Client acknowledges that such review is not for the purpose of determining or substantiating the accuracy and completeness of other details, such as dimensions or quantities, or for substantiating instructions for installation or performance of equipment or systems designed by the contractor. Bowman's review shall not constitute approval of safety precautions, construction means, methods, techniques, schedules, sequences or procedures, or of structural features.
  - e. Plan and Permit Processing. If the Scope includes preparation of plans and/or plats for review and approval by public agencies, submission and processing of such plans and plats in a manner consistent with a normal course of business is included within the Scope. If Client requests Bowman to either expedite the plan review process by attending meetings, hand carrying plans and documents from agency to agency, or performing similar services, or to prepare and process permit applications of any type, then, unless specifically included in the Scope, those services will be performed by Bowman as hourly rate services under Section 14 below.
  - f. Building Plan Coordination. If the Scope includes preparation of site plans, site grading plans, subdivision plans, or similar plans that involve coordination with building plans (including architectural, mechanical, structural, or plumbing plans) to be prepared by others, Client shall provide such building plans to Bowman by such date and in such state as Bowman reasonably deems necessary to timely perform its services. If Client fails to so provide building plans to Bowman, Bowman may make reasonable assumptions regarding building characteristics in order to timely perform its services and any later revisions to Bowman plans required to properly coordinate them with building plans will require a Change Order, subject to an additional fee.
- 14. Fees by Hourly Rate Schedule.** If Client requests Bowman to perform services not included in the Proposal or an approved Change Order (including, without limitation, attending meetings and conferences on an as-needed basis with public agencies), Client shall compensate Bowman for such services in accordance with the Hourly Rate Schedule attached to and made a part of the Agreement. Expert witness testimony or participation at legal discussions, hearings or depositions, including necessary preparation time, will be

charged at 150% of the quoted rates. If the Project extends beyond the calendar year in which the Proposal is dated, Bowman may, by giving notice to Client, revise its Hourly Rate Schedule once each calendar year, but no sooner than twelve (12) months after the date of the Proposal.

- 15. Covenants Benefiting Third-Parties.** Bowman and Client acknowledge that from time to time third-parties may request Bowman to execute documents which benefit that third-party. These documents may include certifications, consent of assignment, and/or waiver of certain of Bowman's rights under this Agreement ("Requested Covenant"). Client acknowledges that execution of Requested Covenants is beyond the Scope, is at Bowman's discretion, and, if Bowman decides to so execute a Requested Covenant, the language, terms, and conditions of such Requested Covenant must be acceptable to Bowman, at Bowman's discretion.
- 16. Assignment.** This Agreement may not be assigned by one party without the express written consent of the other party. Notwithstanding the foregoing, Bowman may employ consultants, sub-consultants, or subcontractors as it deems necessary to perform the services described in the scope. Also, Bowman may assign its right to receive payments under this Agreement.
- 17. Termination.** Either party may terminate the provision of further services by Bowman under this Agreement for convenience with thirty (30) days advance notice to the other party. In addition, following a material breach by the other party, the non-breaching party may terminate the provision of further services by Bowman under this Agreement by giving ten (10) days prior notice and an opportunity to cure to the reasonable satisfaction of the non-breaching party. Client acknowledges that its failure to timely pay undisputed invoices is a material breach and that full payment of all undisputed invoices is required to cure such breach. Following any termination of services: (a) Client shall immediately pay Bowman for all services performed through the termination date, including reasonable costs of transitioning the Project to a new design professional designated by Client, if applicable; (b) if the termination by Bowman resulted from a material breach by Client, Bowman shall have the right to withdraw any Work Product or other documents filed with any governmental agency by Bowman in its name on behalf of Client; and (c) if Client selects a new design professional then, as a condition of transferring any files or documents, Client and Client's new design professional shall execute Bowman's standard Electronic File Transfer Agreement or such other similar agreement as the parties shall in good faith negotiate.
- 18. Miscellaneous.** If any provision of this Agreement shall be held invalid, illegal or unenforceable, the other provisions of this Agreement shall remain in full force and effect. The failure of a party to enforce any provision hereof shall not affect its right at a later time to enforce same. A waiver by a party of any condition or breach hereunder must be in writing to be effective and, unless that writing provides otherwise, shall waive only one instance of that condition or breach. This Agreement is solely for the benefit of the parties hereto and, to the extent provided herein, their respective affiliates, directors, officers, employees, agents and representatives, and no provision of this Agreement shall be to confer upon third-parties any remedy, claim, liability, reimbursement, cause of action, or

other right. The headings in this Agreement are for convenience and identification purposes only, are not an integral part of this Agreement, and are not to be considered in the interpretation of any part hereof. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. References in this Agreement to any gender shall include references to all genders. Unless the context otherwise requires, references in the singular include references in the plural and vice versa. The words "include," "including," or "includes" shall be deemed to be followed by the phrase "without limitation." The individual who signs this Agreement warrants that he has the authority to sign as, or on behalf of, Client, and to bind Client to all of the terms and conditions of this Agreement. To the extent that they are inconsistent or contradictory, the terms of the Proposal or an authorized Change Order shall supersede these Terms and Conditions.

- 19. Notices.** Any notice, request, instruction, or other document to be given hereunder by a party hereto shall be in writing and shall be deemed to have been deemed delivered: (a) on the day sent if delivered personally or by courier service during regular business hours (i.e., prior to 5:00 p.m. on weekdays that are not Federal holidays); (b) on the business day after the day sent if sent by overnight delivery service; or (c) two business days after the day sent if sent by certified mail or delivered by two-day delivery service.

If to Client, notice shall be addressed to the individual signing this Agreement at the address noted on the Proposal.

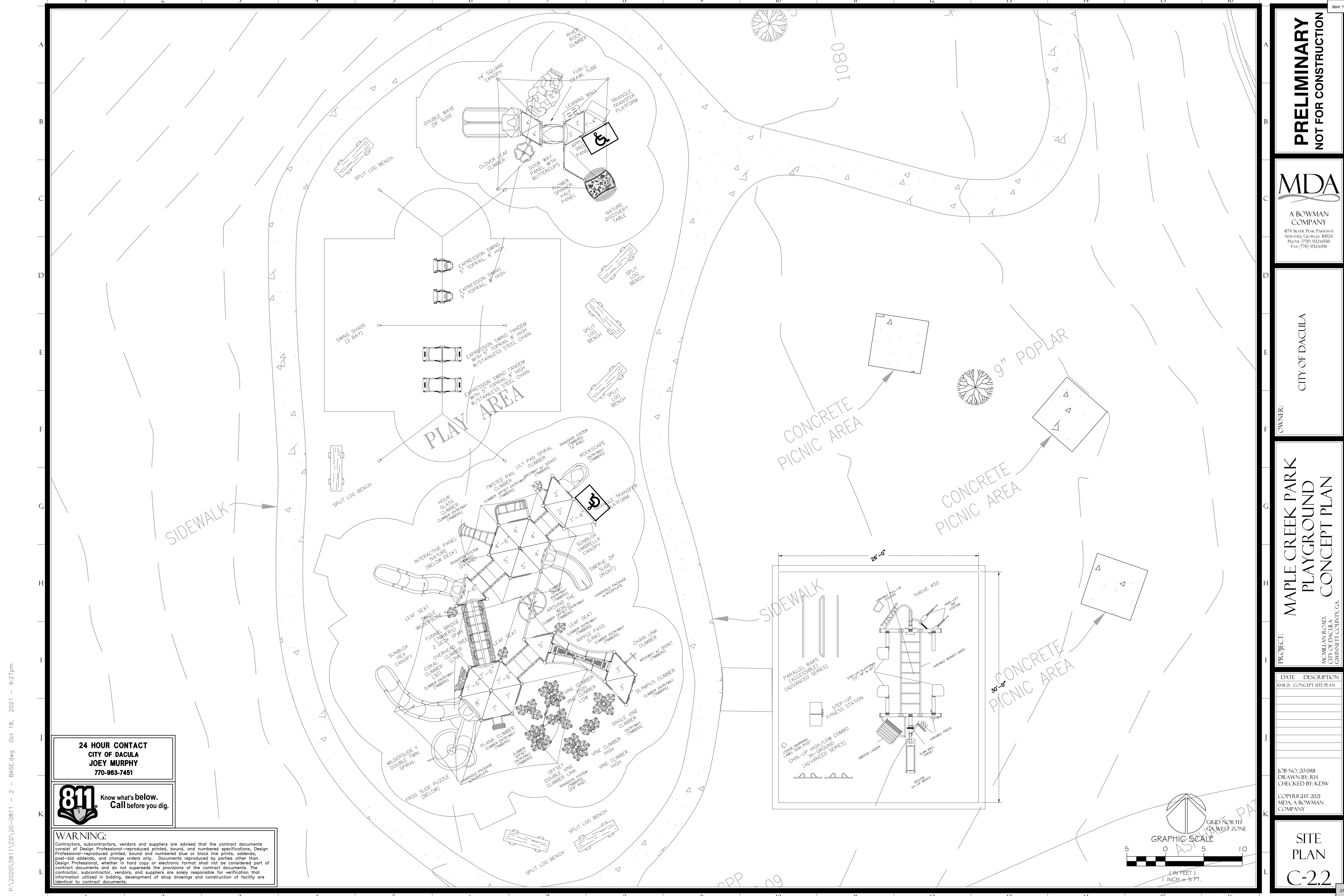
If to Bowman, notice shall be sent to the address set forth in the proposal, with a copy sent to:

Bowman Consulting Group, Ltd.  
12355 Sunrise Valley Drive, Suite 520  
Reston, Virginia 20191  
Attn: Robert A. Hickey

or to such other individual or address as a party hereto may designate for itself by notice given as herein provided.

Initials: Bowman *K.W.* / Client





**PRELIMINARY  
NOT FOR CONSTRUCTION**

**MDA**  
A BOWMAN  
COMPANY  
4174 SEVER PEAK PARKWAY  
SHAWNEE, GEORGIA 30024  
PHONE (770) 932-6550  
FAX (770) 932-6551

OWNER:  
CITY OF DACULA

PROJECT:  
MAPLE CREEK PARK  
PLAYGROUND  
CONCEPT PLAN

DATE	DESCRIPTION
10-8-21	CONCEPT SITE PLAN

JOB NO: 20-0811  
DRAWN BY: RH  
CHECKED BY: KDW

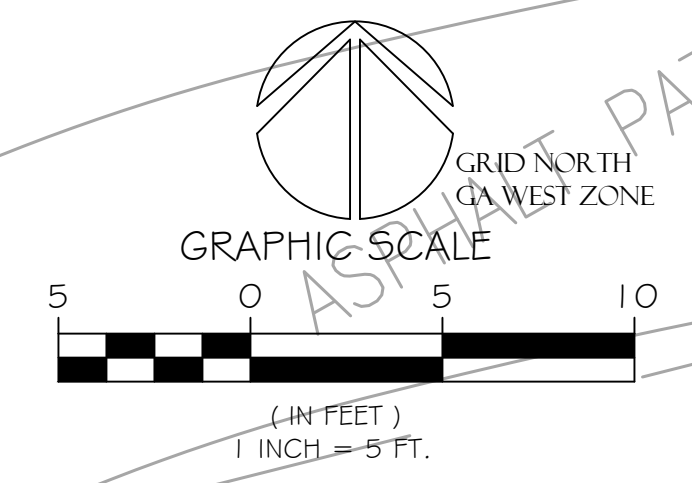
COPYRIGHT 2021  
MDA, A BOWMAN  
COMPANY

**SITE  
PLAN  
C-2.2**

**24 HOUR CONTACT  
CITY OF DACULA  
JOEY MURPHY  
770-963-7451**



**WARNING:**  
Contractors, subcontractors, vendors and suppliers are advised that the contract documents consist of Design Professional-reproduced printed, bound, and numbered specifications, Design Professional-reproduced printed, bound and numbered blue or black line prints, addenda, post-bid addenda, and change orders only. Documents reproduced by parties other than Design Professional, whether in hard copy or electronic format shall not be considered part of contract documents and do not supersede the provisions of the contract documents. The contractor, subcontractor, vendors, and suppliers are solely responsible for verification that information utilized in bidding, development of shop drawings and construction of facility are identical to contract documents.



P:\2020\0811\CD\20-0811 - 2 - BASE.dwg Oct 18, 2021 - 4:27pm

**TO:** City of Dacula City Council and Mayor

**FROM:** Brittni Nix, Director of Planning & Economic Development

**DATE:** March 23, 2022

**SUBJECT:** Post-Construction Stormwater Management for New Development and Redevelopment Ordinance amendment

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Recent updates to the MS4 permit require the City to amend Chapter 10, Article VI – Post-Construction Stormwater Management for New Development and Redevelopment of the Municipal Code to be in compliance with EPD (Environmental Protection Division) and retain the City’s MS4 (Municipal Separate Storm Sewer System) permit.

The amended Ordinance is based on the Model Ordinance drafted by the MNGWPD (Metropolitan North Georgia Water Planning District) and reflects the updates to the MS4 permit requirements. Said updates include requiring new stormwater management system designs to retain the first 1.0 inch of rainfall on the site, to the maximum extent practicable. Additional amendments to the Ordinance include updating definitions and procedural requirements.

Staff recommends approving the proposed amendments to Chapter 10, Article VI effective immediately to comply with EPD.

Sincerely,

Brittni Nix, Director of Planning & Economic Development

## **ARTICLE VI. POST-CONSTRUCTION STORMWATER MANAGEMENT ORDINANCE FOR NEW DEVELOPMENT AND REDEVELOPMENT**

### **1) Sec. 10-161. General provisions.**

(a) *Purpose and Intent.* The purpose of this article is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-construction stormwater runoff and nonpoint source pollution associated with new development and redevelopment. Proper management of post-construction stormwater runoff will minimize damage to public and private property and infrastructure, safeguard the public health, safety, environment and general welfare of the public, and protect water and aquatic resources. Additionally, the City of Dacula is required to comply with several State and Federal laws, regulations and permits and the requirements of the Metropolitan North Georgia Water Planning District's regional water plan related to managing the water quantity, velocity, and quality of post-construction stormwater runoff.

**Sec 10-162. Definitions.** For this Article, the terms below shall have the following meanings:

*Administrator* means the person appointed to administer and implement this Article on Post-Construction Stormwater Management for New Development and Redevelopment in accordance with Section 10-164.

*Applicant* means a person submitting a land development application for approval.

"BMP" or "best management practice" means both structural devices to store or treat stormwater runoff and non-structural programs or practices which are designed to prevent or reduce the pollution of the waters of the State of Georgia.

*BMP landscaping plan* means a design for vegetation and landscaping that is critical to the performance and function of the BMP including how the BMP will be stabilized and established with vegetation. It shall include a layout of plants and plant names (local and scientific).

*Channel* means a natural or artificial watercourse with a definite bed and banks that conveys continuously or periodically flowing water.

*Construction sequencing plan* means a document noting the sequence of construction and identification of infiltration zones for protection during staged installation of permanent post-construction BMPs to ensure suitable site conditions such as avoiding soil compaction by heavy equipment in areas designated for infiltration BMPs.

*Detention* means the temporary storage of stormwater runoff in a stormwater detention facility for the purpose of controlling the peak discharge.

*Detention facility* means a structure designed for the storage and gradual release of stormwater runoff at controlled rates.

*Development* means new development or redevelopment.

*Extended detention* means the storage of stormwater runoff for an extended period of time.

*Extreme flood protection* means measures taken to prevent adverse impacts from large low-frequency storm events with a return frequency of 100 years or more.

*Flooding* means a volume of surface water that exceeds the banks or walls of a BMP, or channel; and overflows onto adjacent lands.

*GSM* means the latest edition of the Georgia Stormwater Management Manual, Volume 2: Technical



Handbook, and its Appendices.

*Hotspot* means a land use or activity on a site that has the potential to produce higher than normally found levels of pollutants in stormwater runoff. As defined by the administrator, hotspot land use may include gasoline stations, vehicle service and maintenance areas, industrial facilities (both permitted under the Industrial Stormwater General Permit and others), material storage sites, garbage transfer facilities, and commercial parking lots with high-intensity use.

*Impervious surface* means a surface composed of any material that significantly impedes or prevents the natural infiltration of water into the soil.

*Industrial Stormwater General Permit* means the National Pollutant Discharge Elimination System (NPDES) permit issued by Georgia Environmental Protection Division to an industry for stormwater discharges associated with industrial activity. The permit regulates pollutant levels associated with industrial stormwater discharges or specifies on-site pollution control strategies based on Standard Industrial Classification (SIC) Code.

*Infiltration* means the process of percolating stormwater runoff into the subsoil.

*Inspection and maintenance agreement* means a written agreement providing for the long-term inspection, operation, and maintenance of the stormwater management system and its components on a site.

*Land development application* means the application for a land development permit on a form provided by the City of Dacula along with the supporting documentation required in Section 10-170.

*Land development permit* means the authorization necessary to begin construction- related, land-disturbing activity

*Land disturbing activity* means any activity which may result in soil erosion from water or wind and the movement of sediments into state water or onto lands within the state, including but not limited to clearing, dredging, grading, excavating, and filling of land. Land disturbing activity does not include agricultural practices as described O.C.G.A. 12-7-17(5) or silvicultural land management activities as described O.C.G.A. 12-7-17(6) within areas zoned for these activities.

*Linear feasibility program* means a feasibility program developed by City of Dacula and submitted to the Georgia Environmental Protection Division, which sets reasonable criteria for determining when implementation of stormwater management standards for linear transportation projects being constructed by City of Dacula is infeasible.

*Linear transportation projects* means construction projects on traveled ways including but not limited to roads, sidewalks, multi-use paths and trails, and airport runways and taxiways.

*MS4 Permit* means the NPDES permit issued by Georgia Environmental Protection Division for discharges from the City of Dacula's municipal separate storm sewer system.

*New development* means land disturbing activities, structural development (construction, installation or expansion of a building or other structure), and/or creation of impervious surfaces on a previously undeveloped site.

*Nonpoint source pollution* means a form of water pollution that does not originate from a discrete point such as a wastewater treatment facility or industrial discharge, but involves the transport of pollutants such as sediment, fertilizers, pesticides, heavy metals, oil, grease, bacteria, organic materials and other contaminants from land to surface water or groundwater via mechanisms such as precipitation, stormwater runoff, and leaching. Nonpoint source pollution is a by-product of land use practices such as agricultural, silvicultural, mining, construction, subsurface disposal and urban runoff sources.

*Overbank flood protection* means measures taken to prevent an increase in the frequency and magnitude of out-of-bank flooding (i.e. flow events that exceed the capacity of the channel and enter the floodplain).

*Owner* means the legal or beneficial owner of a site, including but not limited to, a mortgagee or vendee in possession, receiver, executor, trustee, lessee or other person, firm or corporation in control of the site.

*Person* means any individual, partnership, firm, association, joint venture, public or Private Corporation, trust, estate, commission, board, public or private institution, utility, cooperative, city, county or other political subdivision of the State, any interstate body or any other legal entity.

*Post-construction stormwater management* means stormwater best management practices that are used on a permanent basis to control and treat runoff once construction has been completed in accordance with a stormwater management plan.

*Post development* means the conditions anticipated to exist on site immediately after completion of the proposed development.

*Practicability policy* means the latest edition of the Metropolitan North Georgia Water Planning District's Policy on Practicability Analysis for Runoff Reduction.

*Pre-development* means the conditions that exist on a site immediately before the implementation of the proposed development. Where phased development or plan approval occurs (preliminary grading, roads and utilities, etc.), the existing conditions at the time before the first item being approved or permitted shall establish pre-development conditions.

*Pre-development hydrology* means (a) for new development, the runoff curve number determined using natural conditions hydrologic analysis based on the natural, undisturbed condition of the site immediately before implementation of the proposed development; and (b) for redevelopment, the existing conditions hydrograph may take into account the existing development when defining the runoff curve number and calculating existing runoff, unless the existing development causes a negative impact on downstream property.

*Previously developed site* means a site that has been altered by paving, construction, and/or land disturbing activity.

*Redevelopment* means structural development (construction, installation, or expansion of a building or other structure), creation or addition of impervious surfaces, replacement of impervious surfaces not as part of routine maintenance, and land disturbing activities associated with structural or impervious development on a previously developed site. Redevelopment does not include such activities as exterior remodeling.

*Routine maintenance* means activities to keep an impervious surface as near as possible to its constructed condition. This includes ordinary maintenance activities, resurfacing paved areas, and exterior building changes or improvements which do not materially increase or concentrate stormwater runoff, or cause additional nonpoint source pollution.

*Runoff* means stormwater runoff.

*Site* means an area of land where development is planned, which may include all or portions of one or more parcels of land. For subdivisions and other common plans of development, the site includes all areas of land covered under an applicable land development permit.

*Stormwater concept plan* means an initial plan for post-construction stormwater management at the site that provides the groundwork for the stormwater management plan including the natural resources inventory, site layout concept, initial runoff characterization, and first round stormwater management system design.

*Stormwater management plan* means a plan for post-construction stormwater management at the site that meets the requirements of Section 10-168(d) and is included as part of the land development application.

*Stormwater management standards* means those standards set forth in Section 10-167.

*Stormwater management system* means the entire set of non-structural site design features and structural BMPs or collection, conveyance, storage, infiltration, treatment, and disposal of stormwater runoff in a manner designed to prevent increased flood damage, streambank channel erosion, habitat degradation and water quality degradation, and to enhance and promote the public health, safety and general welfare.

*Stormwater runoff* means flow on the surface of the ground, resulting from precipitation.

*Subdivision* means the division of a tract or parcel of land resulting in one or more new lots or building sites for the purpose, whether immediately or in the future, of sale, other transfer of ownership or land development, and includes divisions of land resulting from or made in connection with the layout or development of a new street or roadway or a change in an existing street or roadway.

*Trout stream* means waters designated by the Wildlife Resources Division of the Georgia Department of Natural Resources as Primary Trout Waters or Secondary Trout Streams. Primary Trout Waters are waters supporting a self-sustaining population of Rainbow, Brown or Brook Trout. Secondary Trout Streams are those with no evidence of natural trout reproduction but are capable of supporting trout throughout the year.

Other terms used but not defined in this Article shall be interpreted based on how such terms are defined and used in the GSMM and the City of Dacula's MS4 permit.

### **Section 10-163. Adoption and Implementation of the GSMM; Conflicts and Inconsistencies.**

- (a) In implementing this Article, the City of Dacula shall use and require compliance with all relevant design standards, calculations, formulas, methods, and other guidance from the GSMM as well as all related appendices.
- (b) This Article is not intended to modify or repeal any other Article, ordinance, rule, regulation or other provision of law, including but not limited to any applicable stream buffers under state and local laws, and the Georgia Safe Dams Act and Rules for Dam Safety. In the event of any conflict or inconsistency between any provision in the City of Dacula's MS4 permit and this Article, the provision from the MS4 permit shall control. In the event of any conflict or inconsistency between any provision of this Article and the GSMM, the provision from this Article shall control. In the event of any other conflict or inconsistency between any provision of this Article and any other ordinance, rule, regulation or other provision of law, the provision that is more restrictive or imposes higher protective standards for human health or the environment shall control.
- (c) If any provision of this Article is invalidated by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of this Article.

**Section 10-164. Designation of Administrator.** The City Administrator or his/her designee may from time to time appoint someone to administer and implement this Article.

**Section 10-165. Applicability Criteria for Stormwater Management Standards.** This Article applies to the following activities:

- (a) New development that creates or adds 5,000 square feet or greater of new impervious surface area or that involves land disturbing activity of 1 acre of land or greater;
- (b) Redevelopment (excluding routine maintenance and exterior remodeling) that creates, adds, or replaces 5,000 square feet or greater of new impervious surface area or that involves land disturbing activity of 1 acre or more;
- (c) New development and redevelopment if

- (1) such new development or redevelopment is part of a subdivision or other common plan of development, and
- (2) the sum of all associated impervious surface area or land disturbing activities that are being developed as part of such subdivision or other common plan of development meets or exceeds the threshold in (a) and (b) above;
- (d) Any commercial or industrial new development or redevelopment, regardless of size, that is a hotspot land use as defined in this Article; and
- (e) Linear transportation projects that exceed the threshold in (a) or (b) above.

**Section 10-166. Exemptions from Stormwater Management Standards.** This Article does not apply to the following activities:

- (a) Land disturbing activity conducted by local, state, authority, or federal agencies, solely to respond to an emergency need to protect life, limb, or property or conduct emergency repairs;
- (b) Land disturbing activity that consists solely of cutting a trench for utility work and related pavement replacement;
- (c) Land disturbing activity conducted by local, state, authority, or federal agencies, whose sole purpose is to implement stormwater management or environmental restoration;
- (d) Repairs to any stormwater management system deemed necessary by the administrator;
- (e) Agricultural practices as described O.C.G.A. 12-7-17(5) within areas zoned for these activities with the exception of buildings or permanent structures that exceed the threshold in 10-165 (a) or (b);
- (f) Silvicultural land management activities as described O.C.G.A. 12-7-17(6) within areas zoned for these activities with the exception of buildings or permanent structures that exceed the threshold in 10-165 (a) or (b);
- (g) Installations or modifications to existing structures solely to implement Americans with Disabilities Act (ADA) requirements, including but not limited to elevator shafts, handicapped access ramps and parking, and enlarged entrances or exits; and
- (h) Linear transportation projects being constructed by City of Dacula to the extent the administrator determines that the stormwater management standards may be infeasible to apply, all or in part, for any portion of the linear transportation project. For this exemption to apply, an infeasibility report that is compliant with the City of Dacula linear feasibility program shall first be submitted to the administrator that contains adequate documentation to support the evaluation for the applicable portion(s) and any resulting infeasibility determination, if any, by the administrator.

**Section 10-167. Stormwater Management Standards.** Subject to the applicability criteria in Section 10-165 and exemptions in Section 10-166, the following stormwater management standards apply. Additional details for each standard can be found in the GSMM Section 2.2.2.2:

- (a) *Design of Stormwater Management System:* The design of the stormwater management system shall be in accordance with the applicable sections of the GSMM as directed by the administrator. Any design which proposes a dam shall comply with the Georgia Safe Dams Act and Rules for Dam Safety as applicable.
- (b) *Natural Resources Inventory:* Site reconnaissance and surveying techniques shall be used to complete a thorough assessment of existing natural resources, both terrestrial and aquatic, found on the site. Resources to be identified, mapped, and shown on the Stormwater Management Plan, shall include, at a minimum (as

applicable):

- (1) Topography (minimum of 2-foot contours) and Steep Slopes (i.e., Areas with Slopes Greater Than 15%),
  - (2) Natural Drainage Divides and Patterns,
  - (3) Natural Drainage Features (e.g., swales, basins, depressional areas),
  - (4) Natural feature protection and conservation areas such as wetlands, lakes, ponds, floodplains, stream buffers, drinking water wellhead protection areas and river corridors,
  - (5) Predominant soils (including erodible soils and karst areas), and
  - (6) Existing predominant vegetation including trees, high quality habitat and other existing vegetation.
- (c) *Better Site Design Practices for Stormwater Management*: Stormwater management plans shall preserve the natural drainage and natural treatment systems and reduce the generation of additional stormwater runoff and pollutants to the maximum extent practicable. Additional details can be found in the GSMM Section 2.3.
- (d) *Stormwater Runoff Quality/Reduction*: Stormwater Runoff Quality/Reduction shall be provided by using the following:
- (1) For development with a stormwater management plan submitted before April 7, 2022, the applicant may choose either (A) Runoff Reduction or (B) Water Quality.
  - (2) For development with a stormwater management plan submitted on or after April 7, 2022, the applicant shall choose (A) Runoff Reduction and additional water quality shall not be required. To the extent (A) Runoff Reduction has been determined to be infeasible for all or a portion of the site using the Practicability Policy, then (B) Water Quality shall apply for the remaining runoff from a 1.2 inch rainfall event and must be treated to remove at least 80% of the calculated average annual post-development total suspended solids (TSS) load or equivalent as defined in the GSMM.
    - (A) Runoff Reduction - The stormwater management system shall be designed to retain the first 1.0 inch of rainfall on the site using runoff reduction methods, to the maximum extent practicable.
    - (B) Water Quality – The stormwater management system shall be designed to remove at least 80% of the calculated average annual post-development total suspended solids (TSS) load or equivalent as defined in the GSMM for runoff from a 1.2 inch rainfall event.
  - (3) If a site is determined to be a hotspot as detailed in Section 10-165, the City of Dacula may require the use of specific or additional components for the stormwater management system to address pollutants of concern generated by that site.
- (e) *Stream Channel Protection*: Stream channel protection shall be provided by using all of the following three approaches:
- (1) 24-hour extended detention storage of the 1-year, 24-hour return frequency storm event;
  - (2) Erosion prevention measures, such as energy dissipation and velocity control; and
  - (3) Preservation of any applicable stream buffer.

- (f) *Overbank Flood Protection*: Downstream overbank flood protection shall be provided by controlling the post-development peak discharge rate to the pre-development rate for the 25-year, 24-hour storm event.
- (g) *Extreme Flood Protection*: Extreme flood protection shall be provided by controlling the 100-year, 24-hour storm event such that flooding is not exacerbated.
- (h) *Trout Stream Protection*: Trout stream protection shall be provided by controlling temperature for receiving waters with trout stream designation. In streams designated as primary trout waters by the Wildlife Resources Division, there shall be no elevation of natural stream temperatures. In streams designated as secondary trout waters, there shall be no elevation exceeding 2°F of natural stream temperatures.
- (i) *Downstream Analysis*: Due to peak flow timing and runoff volume effects, some structural components of the stormwater management system fail to reduce discharge peaks to pre-development levels downstream from the site. A downstream peak flow analysis shall be provided to the point in the watershed downstream of the site or the stormwater management system where the area of the site comprises 10% of the total drainage area in accordance with Section 3.1.9 of the GSMM. This is to help ensure that there are minimal downstream impacts from development on the site. The downstream analysis may result in the need to resize structural components of the stormwater management system.
- (j) *Stormwater Management System Inspection and Maintenance*: The components of the stormwater management system that will not be dedicated to and accepted by the City of Dacula, including all drainage facilities, best management practices, credited conservation spaces, and conveyance systems, shall have an inspection and maintenance agreement to ensure that they continue to function as designed. All new development and redevelopment sites are to prepare a comprehensive inspection and maintenance agreement for the on-site stormwater management system. This plan shall be written in accordance with the requirements in Section 10-176.

### **Section 10-168. Pre-Submittal Meeting, Stormwater Concept Plan, and Stormwater Management Plan Requirements.**

- (a) Before a land development permit application is submitted, an applicant may request a pre-submittal meeting with the City of Dacula. The pre-submittal meeting should take place based on an early step in the development process such as before site analysis and inventory (GSMM Section 2.4.2.4) or the stormwater concept plan (GSMM Section 2.4.2.5). The purpose of the pre-submittal meeting is to discuss opportunities, constraints, and ideas for the stormwater management system before formal site design engineering. To the extent applicable, local and regional watershed plans, greenspace plans, trails and greenway plans, and other resource protection plans should be consulted in the pre-submittal meeting. Applicants must request a pre-submittal meeting with the City of Dacula when applying for a Determination of Infeasibility through the Practicability Policy.
- (b) The stormwater concept plan shall be prepared using the minimum following steps:
- (1) Develop the site layout using better site design techniques, as applicable (GSMM Section 2.3).
  - (2) Calculate preliminary estimates of the unified stormwater sizing criteria requirements for stormwater runoff quality/reduction, channel protection, overbank flooding protection and extreme flood protection (GSMM Section 2.2).
  - (3) Perform screening and preliminary selection of appropriate best management practices and identification of potential siting locations (GSMM Section 4.1).
- (c) The stormwater concept plan shall contain:
- (1) Common address and legal description of the site,

- (2) Vicinity map, and
- (3) Existing conditions and proposed site layout mapping and plans (recommended scale of 1" = 50'), which illustrate at a minimum:
- a. Existing and proposed topography (minimum of 2-foot contours),
  - b. Perennial and intermittent streams,
  - c. Mapping of predominant soils from USDA soil surveys,
  - d. Boundaries of existing predominant vegetation and proposed limits of clearing and grading,
  - e. Location and boundaries of other natural feature protection and conservation areas such as wetlands, lakes, ponds, floodplains, stream buffers and other setbacks (e.g., drinking water well setbacks, septic setbacks, etc.),
  - f. Location of existing and proposed roads, buildings, parking areas and other impervious surfaces,
  - g. Existing and proposed utilities (e.g., water, sewer, gas, electric) and easements,
  - h. Preliminary estimates of unified stormwater sizing criteria requirements,
  - i. Preliminary selection and location, size, and limits of disturbance of proposed BMPs,
  - j. Location of existing and proposed conveyance systems such as grass channels, swales, and storm drains,
  - k. Flow paths,
  - l. Location of the boundaries of the base flood floodplain, future- conditions floodplain, and the floodway (as applicable) and relationship of site to upstream and downstream properties and drainage, and
  - m. Preliminary location and dimensions of proposed channel modifications, such as bridge or culvert crossings.

(d) The stormwater management plan shall contain the items listed in this part and be prepared under the direct supervisory control of either a registered Professional Engineer or a registered Landscape Architect licensed in the state of Georgia. Items (3), (4), (5), and (6) shall be sealed and signed by a registered Professional Engineer licensed in the state of Georgia. The overall site plan must be stamped by a design professional licensed in the State of Georgia for such purpose. (GSMM Section 2.4.2.7)

- (1) Natural Resources Inventory
- (2) Stormwater Concept Plan
- (3) Existing Conditions Hydrologic Analysis
- (4) Post-Development Hydrologic Analysis
- (5) Stormwater Management System
- (6) Downstream Analysis

- (7) Erosion and Sedimentation Control Plan
  - (8) BMP Landscaping Plan
  - (9) Inspection and Maintenance Agreement
  - (10) Evidence of Acquisition of Applicable Local and Non-Local Permits
  - (11) Determination of Infeasibility (if applicable)
  - (12) Construction Sequencing Plan
- (e) For redevelopment and to the extent existing stormwater management structures are being used to meet stormwater management standards the following must also be included in the stormwater management plan for existing stormwater management structures
- (1) As-built Drawings
  - (2) Hydrology Reports
  - (3) Current inspection of existing stormwater management structures with deficiencies noted
  - (4) BMP Landscaping Plans

**Section 10-169. Application Fee.** The fee for review of any land development application shall be based on the fee structure established by the City of Dacula, and payment shall be made before the issuance of any land disturbance permit or building permit for the development.

**Section 10-170. Application Procedures.** Land development applications are handled as part of the process to obtain the land disturbance permit pursuant to Development Regulation Article III or building permit Development Regulation Article III, as applicable. Before any person begins development on a site, the owner of the site shall first obtain approval in accordance with the following procedure:

- (a) File a land development application with the City of Dacula on the City of Dacula's form of application with the following supporting materials:
  - (1) the stormwater management plan prepared in accordance with Section 10-168 (d),
  - (2) a certification that the development will be performed in accordance with the stormwater management plan once approved,
  - (3) a Preliminary Determination of Infeasibility, as applicable, prepared in accordance with the practicability policy, and
  - (4) an acknowledgement that applicant has reviewed the City of Dacula's form of inspection and maintenance agreement and that applicant agrees to sign and record such inspection and maintenance agreement before the final inspection.
- (b) The administrator shall inform the applicant whether the application and supporting materials are approved or disapproved.
- (c) If the application or supporting materials are disapproved, the administrator shall notify the applicant of such fact in writing. The applicant may then revise any item not meeting the requirements hereof and resubmit the same for the administrator to again consider and either approve or disapprove.



(d) If the application and supporting materials are approved, the City of Dacula may issue the associated land disturbance permit or building permit, provided all other legal requirements for the issuance of such permits have been met. The stormwater management plan included in such applications becomes the approved stormwater management plan.

**Section 10-171. Compliance with the Approved Stormwater Management Plan.** All development shall be:

- (a) Consistent with the approved stormwater management plan and all applicable land disturbance and building permits, and
- (b) Conducted only within the area specified in the approved stormwater management plan.

No changes may be made to an approved stormwater management plan without review and advanced written approval by the administrator.

**Section 10-172. Inspections to Ensure Plan Compliance during Construction.** Periodic inspections of the stormwater management system during construction shall be conducted by the staff of the City of Dacula or conducted and certified by a professional engineer who has been approved by the City of Dacula. Inspections shall use the approved stormwater management plan and the construction sequencing plan for establishing compliance. All inspections shall be documented with written reports that contain the following information:

- (a) The date and location of the inspection;
- (b) Whether the stormwater management system is in compliance with the approved stormwater management plan;
- (c) Variations from the approved stormwater management plan; and
- (d) Any other variations or violations of the conditions of the approved stormwater management plan.

**Section 10-173. Final Inspection; As-Built Drawings; Delivery of Inspection and Maintenance Agreement.** Upon completion of the development, the applicant is responsible for:

- (a) Certifying that the stormwater management system is functioning properly and was constructed in conformance with the approved stormwater management plan and associated hydrologic analysis,
- (b) Submitting as-built drawings showing the final design specifications for all components of the stormwater management system as certified by a professional engineer,
- (c) Certifying that the landscaping is established and installed in conformance with the BMP landscaping plan, and
- (d) Delivering to City of Dacula a signed inspection and maintenance agreement that has been recorded by the owner in the property record for all parcel(s) that make up the site.

The required certification under part (a) shall include a certification of volume, or other performance test applicable to the type of stormwater management system component, to ensure each component is functioning as designed and built according to the design specifications in the approved stormwater management plan. This certification and the required performance tests shall be performed by a qualified person and submitted to the City of Dacula with the request for a final inspection. The City of Dacula shall perform a final inspection with applicant to confirm applicant has fulfilled these responsibilities.

**Section 10-174. Violations and Enforcement.** Any violation of the approved stormwater management plan during construction, failure to submit as-built drawings, failure to submit a final BMP landscaping plan, or failure of the final inspection shall constitute and be addressed as violations of, or failures to comply with, the underlying land disturbance permit pursuant to Development Regulation Article III or the underlying building permit pursuant to Development Regulation Article III. To address a violation of this Article, the City of Dacula shall have all the powers and remedies that are available to it for other violations of building and land disturbance permits, including without limitation the right to issue notices and orders to ensure compliance, stop work orders, and penalties as set forth in the applicable ordinances for such permits.

**Section 10-175. Maintenance by Owner of Stormwater Management Systems Predating Current GSMM.** For any stormwater management systems approved and built based on requirements predating the current GSMM and that is not otherwise subject to an inspection and maintenance agreement, such stormwater management systems shall be maintained by the owner so that the stormwater management systems perform as they were originally designed.

**Section 10-176. Inspection and Maintenance Agreements.**

(a) The owner shall execute an inspection and maintenance agreement with the City of Dacula obligating the owner to inspect, clean, maintain, and repair the stormwater management system; including vegetation in the final BMP landscaping plan. The form of the inspection and maintenance agreement shall be the form provided by the City of Dacula. After the inspection and maintenance agreement has been signed by the owner and the City of Dacula, the owner shall promptly record such agreement at the owner's cost in the property record for all parcel(s) that make up the site.

(b) The inspection and maintenance agreement shall identify by name or official title the person(s) serving as the point of contact for carrying out the owner's obligations under the inspection and maintenance agreement. The owner shall update the point of contact from time to time as needed and upon request by the City of Dacula. Upon any sale or transfer of the site, the new owner shall notify the City of Dacula in writing within 30 days of the name or official title of new person(s) serving as the point of contact for the new owner. Any failure of an owner to keep the point of contact up to date shall, following 30 days' notice, constitute a failure to maintain the stormwater management system.

(c) The inspection and maintenance agreement shall run with the land and bind all future successors-in-title of the site. If there is a future sale or transfer of only a portion of the site, then:

(1) The parties to such sale or transfer may enter into and record an assignment agreement designating the owner responsible for each portion of the site and associated obligations under the inspection and maintenance agreement. The parties shall record and provide written notice and a copy of such assignment agreement to the City of Dacula.

(2) In the absence of a recorded assignment agreement, all owners of the site shall be jointly and severally liable for all obligations under the inspection and maintenance agreement regardless of what portion of the site they own.

**Section 10-177. Right of Entry for Maintenance Inspections.** The terms of the inspection and maintenance agreement shall provide for the City of Dacula's right of entry for maintenance inspections and other specified purposes. If a site was developed before the requirement to have an inspection and maintenance agreement or an inspection and maintenance agreement was for any reason not entered into, recorded, or has otherwise been invalidated or deemed insufficient, then the City of Dacula shall have the right to enter and make inspections pursuant to the City of Dacula's general provisions for property maintenance inspections pursuant to Part II Code of Ordinances, Chapter 1, Sec. 1-22.

**Section [Y]-18. Owner's Failure to Maintain the Stormwater Management System.** The terms of the inspection and maintenance agreement shall provide for what constitutes a failure to maintain a stormwater

management system and the enforcement options available to City of Dacula. If a site was developed before the requirement to have an inspection and maintenance agreement or an inspection and maintenance agreement was for any reason not entered into, recorded, or has otherwise been invalidated or deemed insufficient, then:

- (a) An owner's failure to maintain the stormwater management system so that it performs as it was originally designed shall constitute and be addressed as a violation of, or failure to comply with, owner's property maintenance obligations pursuant to Part II Code of Ordinances Chapter 14, and
- (b) To address such a failure to maintain the stormwater management system, the City of Dacula shall have all the powers and remedies that are available to it for other violations of an owner's property maintenance obligations, including without limitation prosecution, penalties, abatement, and emergency measures.

**AN ORDINANCE**

**AN ORDINANCE TO AMEND ARTICLE VI.  
POST CONSTRUCTION STORMWATER MANAGEMENT ORDINANCE  
FOR NEW DEVELOPMENT AND REDEVELOPMENT**

WHEREAS, the City has reviewed its policies and procedures with respect to the requirements of Post Construction Stormwater Management for New Development and Redevelopment codes; and

WHEREAS, the current references to Post Construction Stormwater Management for New Development and Redevelopment codes are outdated and should be updated; and

WHEREAS, the State of Georgia Department of Natural Resources, Environmental Protection Division has suggested that the City enact the updates outlined in this Ordinance; and

WHEREAS, it is in the best interest of the health, safety and welfare of the citizens of the City of Dacula to amend the City Code to adopt the updated Stormwater Management Ordinance outlined herein;

NOW THEREFORE, THE MAYOR AND COUNCIL OF THE CITY OF DACULA HEREBY ORDAINS that the exiting City Code Chapter 10, Article VI Post Construction Stormwater Management for New Development and Redevelopment be deleted and the following substituted in its place:

SECTION 1.

**ARTICLE VI. POST-CONSTRUCTION STORMWATER MANAGEMENT ORDINANCE  
FOR NEW DEVELOPMENT AND REDEVELOPMENT**

**1) Sec. 10-161. General provisions.**

(a) *Purpose and Intent.* The purpose of this article is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-construction stormwater runoff and nonpoint source pollution associated with new development and redevelopment. Proper management of post- construction stormwater runoff will minimize damage to public and private property and infrastructure, safeguard the public health, safety, environment and general welfare of the public, and protect water and aquatic resources. Additionally, the City of Dacula is required to comply with several State and Federal laws, regulations and permits and the requirements of the Metropolitan North Georgia Water Planning District’s regional water plan related to managing the water quantity, velocity, and quality of post- construction stormwater runoff.

**Sec 10-162. Definitions.** For this Article, the terms below shall have the following meanings:

*Administrator* means the person appointed to administer and implement this Article on Post-Construction Stormwater Management for New Development and Redevelopment in accordance with Section 10-164.

*Applicant* means a person submitting a land development application for approval.

“BMP” or “best management practice” means both structural devices to store or treat stormwater runoff and non-structural programs or practices which are designed to prevent or reduce the pollution of the waters of the State of Georgia.

*BMP landscaping plan* means a design for vegetation and landscaping that is critical to the performance and function of the BMP including how the BMP will be stabilized and established with vegetation. It shall include a layout of plants and plant names (local and scientific).

*Channel* means a natural or artificial watercourse with a definite bed and banks that conveys continuously or periodically flowing water.

*Construction sequencing plan* means a document noting the sequence of construction and identification of infiltration zones for protection during staged installation of permanent post-construction BMPs to ensure suitable site conditions such as avoiding soil compaction by heavy equipment in areas designated for infiltration BMPs.

*Detention* means the temporary storage of stormwater runoff in a stormwater detention facility for the purpose of controlling the peak discharge.

*Detention facility* means a structure designed for the storage and gradual release of stormwater runoff at controlled rates.

*Development* means new development or redevelopment.

*Extended detention* means the storage of stormwater runoff for an extended period of time.

*Extreme flood protection* means measures taken to prevent adverse impacts from large low-frequency storm events with a return frequency of 100 years or more.

*Flooding* means a volume of surface water that exceeds the banks or walls of a BMP, or channel; and overflows onto adjacent lands.

*GSMM* means the latest edition of the Georgia Stormwater Management Manual, Volume 2: Technical Handbook, and its Appendices.

*Hotspot* means a land use or activity on a site that has the potential to produce higher than normally found levels of pollutants in stormwater runoff. As defined by the administrator, hotspot land use may include gasoline stations, vehicle service and maintenance areas, industrial facilities (both permitted under the Industrial Stormwater General Permit and others), material storage sites, garbage transfer facilities, and commercial parking lots with high-intensity use.

*Impervious surface* means a surface composed of any material that significantly impedes or prevents the natural infiltration of water into the soil.

*Industrial Stormwater General Permit* means the National Pollutant Discharge Elimination System (NPDES) permit issued by Georgia Environmental Protection Division to an industry for stormwater discharges associated with industrial activity. The permit regulates pollutant levels associated with industrial stormwater discharges or specifies on-site pollution control strategies

based on Standard Industrial Classification (SIC) Code.

*Infiltration* means the process of percolating stormwater runoff into the subsoil.

*Inspection and maintenance agreement* means a written agreement providing for the long-term inspection, operation, and maintenance of the stormwater management system and its components on a site.

*Land development application* means the application for a land development permit on a form provided by the City of Dacula along with the supporting documentation required in Section 10-170.

*Land development permit* means the authorization necessary to begin construction- related, land-disturbing activity

*Land disturbing activity* means any activity which may result in soil erosion from water or wind and the movement of sediments into state water or onto lands within the state, including but not limited to clearing, dredging, grading, excavating, and filling of land. Land disturbing activity does not include agricultural practices as described O.C.G.A. 12-7-17(5) or silvicultural land management activities as described O.C.G.A. 12-7-17(6) within areas zoned for these activities.

*Linear feasibility program* means a feasibility program developed by City of Dacula and submitted to the Georgia Environmental Protection Division, which sets reasonable criteria for determining when implementation of stormwater management standards for linear transportation projects being constructed by City of Dacula is infeasible.

*Linear transportation projects* means construction projects on traveled ways including but not limited to roads, sidewalks, multi-use paths and trails, and airport runways and taxiways.

*MS4 Permit* means the NPDES permit issued by Georgia Environmental Protection Division for discharges from the City of Dacula's municipal separate storm sewer system.

*New development* means land disturbing activities, structural development (construction, installation or expansion of a building or other structure), and/or creation of impervious surfaces on a previously undeveloped site.

*Nonpoint source pollution* means a form of water pollution that does not originate from a discrete point such as a wastewater treatment facility or industrial discharge, but involves the transport of pollutants such as sediment, fertilizers, pesticides, heavy metals, oil, grease, bacteria, organic materials and other contaminants from land to surface water or groundwater via mechanisms such as precipitation, stormwater runoff, and leaching. Nonpoint source pollution is a by-product of land use practices such as agricultural, silvicultural, mining, construction, subsurface disposal and urban runoff sources.

*Overbank flood protection* means measures taken to prevent an increase in the frequency and magnitude of out-of-bank flooding (i.e. flow events that exceed the capacity of the channel and enter the floodplain).

*Owner* means the legal or beneficial owner of a site, including but not limited to, a mortgagee or vendee in possession, receiver, executor, trustee, lessee or other person, firm or corporation in

control of the site.

*Person* means any individual, partnership, firm, association, joint venture, public or Private Corporation, trust, estate, commission, board, public or private institution, utility, cooperative, city, county or other political subdivision of the State, any interstate body or any other legal entity.

*Post-construction stormwater management* means stormwater best management practices that are used on a permanent basis to control and treat runoff once construction has been completed in accordance with a stormwater management plan.

*Post development* means the conditions anticipated to exist on site immediately after completion of the proposed development.

*Practicability policy* means the latest edition of the Metropolitan North Georgia Water Planning District's Policy on Practicability Analysis for Runoff Reduction.

*Pre-development* means the conditions that exist on a site immediately before the implementation of the proposed development. Where phased development or plan approval occurs (preliminary grading, roads and utilities, etc.), the existing conditions at the time before the first item being approved or permitted shall establish pre-development conditions.

*Pre-development hydrology* means the runoff curve number determined using natural conditions hydrologic analysis based on the natural, undisturbed condition of the site.

*Previously developed site* means a site that has been altered by paving, construction, and/or land disturbing activity.

*Redevelopment* means structural development (construction, installation, or expansion of a building or other structure), creation or addition of impervious surfaces, replacement of impervious surfaces not as part of routine maintenance, and land disturbing activities associated with structural or impervious development on a previously developed site. Redevelopment does not include such activities as exterior remodeling.

*Routine maintenance* means activities to keep an impervious surface as near as possible to its constructed condition. This includes ordinary maintenance activities, resurfacing paved areas, and exterior building changes or improvements which do not materially increase or concentrate stormwater runoff, or cause additional nonpoint source pollution.

*Runoff* means stormwater runoff.

*Site* means an area of land where development is planned, which may include all or portions of one or more parcels of land. For subdivisions and other common plans of development, the site includes all areas of land covered under an applicable land development permit.

*Stormwater concept plan* means an initial plan for post-construction stormwater management at the site that provides the groundwork for the stormwater management plan including the natural resources inventory, site layout concept, initial runoff characterization, and first round stormwater management system design.

*Stormwater management plan* means a plan for post-construction stormwater management at the site that meets the requirements of Section 10-168(d) and is included as part of the land development application.

*Stormwater management standards* means those standards set forth in Section 10-167.

*Stormwater management system* means the entire set of non-structural site design features and structural BMPs or collection, conveyance, storage, infiltration, treatment, and disposal of stormwater runoff in a manner designed to prevent increased flood damage, streambank channel erosion, habitat degradation and water quality degradation, and to enhance and promote the public health, safety and general welfare.

*Stormwater runoff* means flow on the surface of the ground, resulting from precipitation.

*Subdivision* means the division of a tract or parcel of land resulting in one or more new lots or building sites for the purpose, whether immediately or in the future, of sale, other transfer of ownership or land development, and includes divisions of land resulting from or made in connection with the layout or development of a new street or roadway or a change in an existing street or roadway.

*Trout stream* means waters designated by the Wildlife Resources Division of the Georgia Department of Natural Resources as Primary Trout Waters or Secondary Trout Streams. Primary Trout Waters are waters supporting a self-sustaining population of Rainbow, Brown or Brook Trout. Secondary Trout Streams are those with no evidence of natural trout reproduction but are capable of supporting trout throughout the year.

Other terms used but not defined in this Article shall be interpreted based on how such terms are defined and used in the GSMM and the City of Dacula's MS4 permit.

### **Section 10-163. Adoption and Implementation of the GSMM; Conflicts and Inconsistencies.**

(a) In implementing this Article, the City of Dacula shall use and require compliance with all relevant design standards, calculations, formulas, methods, and other guidance from the GSMM as well as all related appendices.

(b) This Article is not intended to modify or repeal any other Article, ordinance, rule, regulation or other provision of law, including but not limited to any applicable stream buffers under state and local laws, and the Georgia Safe Dams Act and Rules for Dam Safety. In the event of any conflict or inconsistency between any provision in the City of Dacula's MS4 permit and this Article, the provision from the MS4 permit shall control. In the event of any conflict or inconsistency between any provision of this Article and the GSMM, the provision from this Article shall control. In the event of any other conflict or inconsistency between any provision of this Article and any other ordinance, rule, regulation or other provision of law, the provision that is more restrictive or imposes higher protective standards for human health or the environment shall control.

(c) If any provision of this Article is invalidated by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of this Article.



**Section 10-164. Designation of Administrator.** The City Administrator or his/her designee may from time to time appoint someone to administer and implement this Article.

**Section 10-165. Applicability Criteria for Stormwater Management Standards.** This Article applies to the following activities:

- (a) New development that creates or adds 5,000 square feet or greater of new impervious surface area or that involves land disturbing activity of 1 acre of land or greater;
- (b) Redevelopment (excluding routine maintenance and exterior remodeling) that creates, adds, or replaces 5,000 square feet or greater of new impervious surface area or that involves land disturbing activity of 1 acre or more;
- (c) New development and redevelopment if
  - (1) such new development or redevelopment is part of a subdivision or other common plan of development, and
  - (2) the sum of all associated impervious surface area or land disturbing activities that are being developed as part of such subdivision or other common plan of development meets or exceeds the threshold in (a) and (b) above;
- (d) Any commercial or industrial new development or redevelopment, regardless of size, that is a hotspot land use as defined in this Article; and
- (e) Linear transportation projects that exceed the threshold in (a) or (b) above.

**Section 10-166. Exemptions from Stormwater Management Standards.** This Article does not apply to the following activities:

- (a) Land disturbing activity conducted by local, state, authority, or federal agencies, solely to respond to an emergency need to protect life, limb, or property or conduct emergency repairs;
- (b) Land disturbing activity that consists solely of cutting a trench for utility work and related pavement replacement;
- (c) Land disturbing activity conducted by local, state, authority, or federal agencies, whose sole purpose is to implement stormwater management or environmental restoration;
- (d) Repairs to any stormwater management system deemed necessary by the administrator;
- (e) Agricultural practices as described O.C.G.A. 12-7-17(5) within areas zoned for these activities with the exception of buildings or permanent structures that exceed the threshold in 10-165 (a) or (b);
- (f) Silvicultural land management activities as described O.C.G.A. 12-7-17(6) within areas zoned for these activities with the exception of buildings or permanent structures that exceed the threshold in 10-165 (a) or (b);

(g) Installations or modifications to existing structures solely to implement Americans with Disabilities Act (ADA) requirements, including but not limited to elevator shafts, handicapped access ramps and parking, and enlarged entrances or exits; and

(h) Linear transportation projects being constructed by City of Dacula to the extent the administrator determines that the stormwater management standards may be infeasible to apply, all or in part, for any portion of the linear transportation project. For this exemption to apply, an infeasibility report that is compliant with the City of Dacula linear feasibility program shall first be submitted to the administrator that contains adequate documentation to support the evaluation for the applicable portion(s) and any resulting infeasibility determination, if any, by the administrator.

**Section 10-167. Stormwater Management Standards.** Subject to the applicability criteria in Section 10-165 and exemptions in Section 10-166, the following stormwater management standards apply. Additional details for each standard can be found in the GSMM Section 2.2.2.2:

(a) *Design of Stormwater Management System:* The design of the stormwater management system shall be in accordance with the applicable sections of the GSMM as directed by the administrator. Any design which proposes a dam shall comply with the Georgia Safe Dams Act and Rules for Dam Safety as applicable.

(b) *Natural Resources Inventory:* Site reconnaissance and surveying techniques shall be used to complete a thorough assessment of existing natural resources, both terrestrial and aquatic, found on the site. Resources to be identified, mapped, and shown on the Stormwater Management Plan, shall include, at a minimum (as applicable):

(1) Topography (minimum of 2-foot contours) and Steep Slopes (i.e., Areas with Slopes Greater Than 15%),

(2) Natural Drainage Divides and Patterns,

(3) Natural Drainage Features (e.g., swales, basins, depressional areas),

(4) Natural feature protection and conservation areas such as wetlands, lakes, ponds, floodplains, stream buffers, drinking water wellhead protection areas and river corridors,

(5) Predominant soils (including erodible soils and karst areas), and

(6) Existing predominant vegetation including trees, high quality habitat and other existing vegetation.

(c) *Better Site Design Practices for Stormwater Management:* Stormwater management plans shall preserve the natural drainage and natural treatment systems and reduce the generation of additional stormwater runoff and pollutants to the maximum extent practicable. Additional details can be found in the GSMM Section 2.3.

(d) *Stormwater Runoff Quality/Reduction:* Stormwater Runoff Quality/Reduction shall be provided by using the following:

(1) For development with a stormwater management plan submitted before April 7, 2022, the applicant may choose either (A) Runoff Reduction or (B) Water Quality.

(2) For development with a stormwater management plan submitted on or after April 7, 2022, the applicant shall choose (A) Runoff Reduction and additional water quality shall not be required. To the extent (A) Runoff Reduction has been determined to be infeasible for all or a portion of the site using the Practicability Policy, then (B) Water Quality shall apply for the remaining runoff from a 1.2 inch rainfall event and must be treated to remove at least 80% of the calculated average annual post-development total suspended solids (TSS) load or equivalent as defined in the GSMM.

(A) Runoff Reduction - The stormwater management system shall be designed to retain the first 1.0 inch of rainfall on the site using runoff reduction methods, to the maximum extent practicable.

(B) Water Quality – The stormwater management system shall be designed to remove at least 80% of the calculated average annual post-development total suspended solids (TSS) load or equivalent as defined in the GSMM for runoff from a 1.2 inch rainfall event.

(3) If a site is determined to be a hotspot as detailed in Section 10-165, the City of Dacula may require the use of specific or additional components for the stormwater management system to address pollutants of concern generated by that site.

(e) *Stream Channel Protection*: Stream channel protection shall be provided by using all of the following three approaches:

(1) 24-hour extended detention storage of the 1-year, 24-hour return frequency storm event;

(2) Erosion prevention measures, such as energy dissipation and velocity control; and

(3) Preservation of any applicable stream buffer.

(f) *Overbank Flood Protection*: Downstream overbank flood protection shall be provided by controlling the post-development peak discharge rate to the pre-development rate for the 25-year, 24-hour storm event.

(g) *Extreme Flood Protection*: Extreme flood protection shall be provided by controlling the 100-year, 24-hour storm event such that flooding is not exacerbated.

(h) *Trout Stream Protection*: Trout stream protection shall be provided by controlling temperature for receiving waters with trout stream designation. In streams designated as primary trout waters by the Wildlife Resources Division, there shall be no elevation of natural stream temperatures. In streams designated as secondary trout waters, there shall be no elevation exceeding 2°F of natural stream temperatures.

(i) *Downstream Analysis*: Due to peak flow timing and runoff volume effects, some structural components of the stormwater management system fail to reduce discharge peaks to

pre-development levels downstream from the site. A downstream peak flow analysis shall be provided to the point in the watershed downstream of the site or the stormwater management system where the area of the site comprises 10% of the total drainage area in accordance with Section 3.1.9 of the GSMM. This is to help ensure that there are minimal downstream impacts from development on the site. The downstream analysis may result in the need to resize structural components of the stormwater management system.

(j) *Stormwater Management System Inspection and Maintenance*: The components of the stormwater management system that will not be dedicated to and accepted by the City of Dacula, including all drainage facilities, best management practices, credited conservation spaces, and conveyance systems, shall have an inspection and maintenance agreement to ensure that they continue to function as designed. All new development and redevelopment sites are to prepare a comprehensive inspection and maintenance agreement for the on-site stormwater management system. This plan shall be written in accordance with the requirements in Section 10-176.

### **Section 10-168. Pre-Submittal Meeting, Stormwater Concept Plan, and Stormwater Management Plan Requirements.**

(a) Before a land development permit application is submitted, an applicant may request a pre-submittal meeting with the City of Dacula. The pre-submittal meeting should take place based on an early step in the development process such as before site analysis and inventory (GSMM Section 2.4.2.4) or the stormwater concept plan (GSMM Section 2.4.2.5). The purpose of the pre-submittal meeting is to discuss opportunities, constraints, and ideas for the stormwater management system before formal site design engineering. To the extent applicable, local and regional watershed plans, greenspace plans, trails and greenway plans, and other resource protection plans should be consulted in the pre-submittal meeting. Applicants must request a pre-submittal meeting with the City of Dacula when applying for a Determination of Infeasibility through the Practicability Policy.

(b) The stormwater concept plan shall be prepared using the minimum following steps:

(1) Develop the site layout using better site design techniques, as applicable (GSMM Section 2.3).

(2) Calculate preliminary estimates of the unified stormwater sizing criteria requirements for stormwater runoff quality/reduction, channel protection, overbank flooding protection and extreme flood protection (GSMM Section 2.2).

(3) Perform screening and preliminary selection of appropriate best management practices and identification of potential siting locations (GSMM Section 4.1).

- (c) The stormwater concept plan shall contain:
- (1) Common address and legal description of the site,
  - (2) Vicinity map, and
  - (3) Existing conditions and proposed site layout mapping and plans (recommended scale of 1" = 50'), which illustrate at a minimum:
    - a. Existing and proposed topography (minimum of 2-foot contours),
    - b. Perennial and intermittent streams,
    - c. Mapping of predominant soils from USDA soil surveys,
    - d. Boundaries of existing predominant vegetation and proposed limits of clearing and grading,
    - e. Location and boundaries of other natural feature protection and conservation areas such as wetlands, lakes, ponds, floodplains, stream buffers and other setbacks (e.g., drinking water well setbacks, septic setbacks, etc.),
    - f. Location of existing and proposed roads, buildings, parking areas and other impervious surfaces,
    - g. Existing and proposed utilities (e.g., water, sewer, gas, electric) and easements,
    - h. Preliminary estimates of unified stormwater sizing criteria requirements,
    - i. Preliminary selection and location, size, and limits of disturbance of proposed BMPs,
    - j. Location of existing and proposed conveyance systems such as grass channels, swales, and storm drains,
    - k. Flow paths,
    - l. Location of the boundaries of the base flood floodplain, future- conditions floodplain, and the floodway (as applicable) and relationship of site to upstream and downstream properties and drainage, and
    - m. Preliminary location and dimensions of proposed channel modifications, such as bridge or culvert crossings.
- (d) The stormwater management plan shall contain the items listed in this part and be prepared under the direct supervisory control of either a registered Professional Engineer or a registered Landscape Architect licensed in the state of Georgia. Items (3), (4), (5), and (6) shall be sealed and signed by a registered Professional Engineer licensed in the state of

Georgia. The overall site plan must be stamped by a design professional licensed in the State of Georgia for such purpose. (GSMM Section 2.4.2.7)

- (1) Natural Resources Inventory
  - (2) Stormwater Concept Plan
  - (3) Existing Conditions Hydrologic Analysis
  - (4) Post-Development Hydrologic Analysis
  - (5) Stormwater Management System
  - (6) Downstream Analysis
  - (7) Erosion and Sedimentation Control Plan
  - (8) BMP Landscaping Plan
  - (9) Inspection and Maintenance Agreement
  - (10) Evidence of Acquisition of Applicable Local and Non-Local Permits
  - (11) Determination of Infeasibility (if applicable)
  - (12) Construction Sequencing Plan
- (e) For redevelopment and to the extent existing stormwater management structures are being used to meet stormwater management standards the following must also be included in the stormwater management plan for existing stormwater management structures
- (1) As-built Drawings
  - (2) Hydrology Reports
  - (3) Current inspection of existing stormwater management structures with deficiencies noted
  - (4) BMP Landscaping Plans

**Section 10-169. Application Fee.** The fee for review of any land development application shall be based on the fee structure established by the City of Dacula, and payment shall be made before the issuance of any land disturbance permit or building permit for the development.

**Section 10-170. Application Procedures.** Land development applications are handled as part of the process to obtain the land disturbance permit pursuant or building permit pursuant to the City's Development Regulations, as applicable. Before any person begins development on a site, the owner of the site shall first obtain approval in accordance with the following procedure:

- (a) File a land development application with the City of Dacula on the City of Dacula's form of application with the following supporting materials:
- (1) the stormwater management plan submitted to the City in accordance with this Chapter,
  - (2) a certification that the development will be performed in accordance with the stormwater management plan once approved,
  - (3) a Preliminary Determination of Infeasibility, as applicable, prepared in accordance with the practicability policy, and
  - (4) an acknowledgement that applicant has reviewed the City of Dacula's form of inspection and maintenance agreement and that applicant agrees to sign and record such inspection and maintenance agreement before the final inspection.
- (b) The administrator shall inform the applicant whether the application and supporting materials are approved or disapproved.
- (c) If the application or supporting materials are disapproved, the administrator shall notify the applicant of such fact in writing. The applicant may then revise any item not meeting the requirements hereof and resubmit the same for the administrator to again consider and either approve or disapprove.
- (d) If the application and supporting materials are approved, the City of Dacula may issue the associated land disturbance permit or building permit, provided all other legal requirements for the issuance of such permits have been met. The stormwater management plan included in such applications becomes the approved stormwater management plan.

**Section 10-171. Compliance with the Approved Stormwater Management Plan.** All development shall be:

- (a) Consistent with the approved stormwater management plan and all applicable land disturbance and building permits, and
- (b) Conducted only within the area specified in the approved stormwater management plan.

No changes may be made to an approved stormwater management plan without review and advanced written approval by the administrator.

**Section 10-172. Inspections to Ensure Plan Compliance during Construction.** Periodic inspections of the stormwater management system during construction shall be conducted by the staff of the City of Dacula or conducted and certified by a professional engineer who has been approved by the City of Dacula. Inspections shall use the approved stormwater management plan and the construction sequencing plan for establishing compliance. All inspections shall be documented with written reports that contain the following information:

- (a) The date and location of the inspection;

- (b) Whether the stormwater management system is in compliance with the approved stormwater management plan;
- (c) Variations from the approved stormwater management plan; and
- (d) Any other variations or violations of the conditions of the approved stormwater management plan.

**Section 10-173. Final Inspection; As-Built Drawings; Delivery of Inspection and Maintenance Agreement.** Upon completion of the development, the applicant is responsible for:

- (a) Certifying that the stormwater management system is functioning properly and was constructed in conformance with the approved stormwater management plan and associated hydrologic analysis,
- (b) Submitting as-built drawings showing the final design specifications for all components of the stormwater management system as certified by a professional engineer,
- (c) Certifying that the landscaping is established and installed in conformance with the BMP landscaping plan, and
- (d) Delivering to City of Dacula a signed inspection and maintenance agreement that has been recorded by the owner in the property record for all parcel(s) that make up the site.

The required certification under part (a) shall include a certification of volume, or other performance test applicable to the type of stormwater management system component, to ensure each component is functioning as designed and built according to the design specifications in the approved stormwater management plan. This certification and the required performance tests shall be performed by a qualified person and submitted to the City of Dacula with the request for a final inspection. The City of Dacula shall perform a final inspection with applicant to confirm applicant has fulfilled these responsibilities.

**Section 10-174. Violations and Enforcement.** Any violation of the approved stormwater management plan during construction, failure to submit as-built drawings, failure to submit a final BMP landscaping plan, or failure of the final inspection shall constitute and be addressed as violations of, or failures to comply with, the underlying land disturbance permit or the underlying building permit pursuant to the City's Development Regulations. To address a violation of this Article, the City of Dacula shall have all the powers and remedies that are available to it for other violations of building and land disturbance permits, including without limitation the right to issue notices and orders to ensure compliance, stop work orders, and penalties as set forth in the applicable ordinances for such permits.

**Section 10-175. Maintenance by Owner of Stormwater Management Systems Predating Current GSMM.** For any stormwater management systems approved and built based on requirements predating the current GSMM and that is not otherwise subject to an inspection and maintenance agreement, such stormwater management systems shall be maintained by the owner so that the stormwater management systems perform as they were originally designed.



### **Section 10-176. Inspection and Maintenance Agreements.**

- (a) The owner shall execute an inspection and maintenance agreement with the City of Dacula obligating the owner to inspect, clean, maintain, and repair the stormwater management system; including vegetation in the final BMP landscaping plan. The form of the inspection and maintenance agreement shall be the form provided by the City of Dacula. After the inspection and maintenance agreement has been signed by the owner and the City of Dacula, the owner shall promptly record such agreement at the owner's cost in the property record for all parcel(s) that make up the site.
- (b) The inspection and maintenance agreement shall identify by name or official title the person(s) serving as the point of contact for carrying out the owner's obligations under the inspection and maintenance agreement. The owner shall update the point of contact from time to time as needed and upon request by the City of Dacula. Upon any sale or transfer of the site, the new owner shall notify the City of Dacula in writing within 30 days of the name or official title of new person(s) serving as the point of contact for the new owner. Any failure of an owner to keep the point of contact up to date shall, following 30 days' notice, constitute a failure to maintain the stormwater management system.
- (c) The inspection and maintenance agreement shall run with the land and bind all future successors-in-title of the site. If there is a future sale or transfer of only a portion of the site, then:
- (1) The parties to such sale or transfer may enter into and record an assignment agreement designating the owner responsible for each portion of the site and associated obligations under the inspection and maintenance agreement. The parties shall record and provide written notice and a copy of such assignment agreement to the City of Dacula.
  - (2) In the absence of a recorded assignment agreement, all owners of the site shall be jointly and severally liable for all obligations under the inspection and maintenance agreement regardless of what portion of the site they own.

**Section 10-177. Right of Entry for Maintenance Inspections.** The terms of the inspection and maintenance agreement shall provide for the City of Dacula's right of entry for maintenance inspections and other specified purposes. If a site was developed before the requirement to have an inspection and maintenance agreement or an inspection and maintenance agreement was for any reason not entered into, recorded, or has otherwise been invalidated or deemed insufficient, then the City of Dacula shall have the right to enter and make inspections pursuant to the City of Dacula's general provisions for property maintenance inspections pursuant to Part II Code of Ordinances, Chapter 1, Sec. 1-22.

**Section 10-178. Owner's Failure to Maintain the Stormwater Management System.** The terms of the inspection and maintenance agreement shall provide for what constitutes a failure to maintain a stormwater management system and the enforcement options available to City of Dacula. If a site was developed before the requirement to have an inspection and maintenance agreement or an inspection and maintenance agreement was for any reason not entered into, recorded, or has otherwise been invalidated or deemed insufficient, then:

(a) An owner’s failure to maintain the stormwater management system so that it performs as it was originally designed shall constitute and be addressed as a violation of, or failure to comply with, owner’s property maintenance obligations pursuant to Article V of the City’s Code of Ordinances Chapter 14, and

(b) To address such a failure to maintain the stormwater management system, the City of Dacula shall have all the powers and remedies that are available to it for other violations of an owner’s property maintenance obligations, including without limitation prosecution, penalties, abatement, and emergency measures.

SECTION 2.

In the event any Court of competent jurisdiction determines that any portion of the foregoing amendment is invalid, unconstitutional or otherwise illegal, such rulings shall not impair the validity of the rest and remainder of this amendment.

SECTION 3.

All laws and parts of laws in conflict with this Ordinance are hereby repealed.

SO ORDAINED by the governing authority of the City of Dacula, this 7th day of April, 2022.

AYES: \_\_\_\_

NAYES: \_\_\_\_

\_\_\_\_\_  
HUGH D. KING, III  
MAYOR, CITY OF DACULA

ATTEST:

\_\_\_\_\_  
HEATHER COGGINS,  
ACTING CITY ADMINISTRATOR