



To: Mayor and City Council

From: Carl Thomas, Stormwater Utility Manager

Re: Funding Authorization for The Wildcat Learning Center at Dunwoody Park

Storm Improvements Site Development Plans Change Order

September 11, 2023 Date:

Action

Authorize the Mayor, City Manager, or designee to approve \$68,150.50 in funding for The Wildcat Learning Center at Dunwoody Park Storm Improvements Site Development Plans Change Order.

Summary/Details

The Dunwoody Nature Center at Dunwoody Park is undergoing significant site improvements, including a new classroom facility (the Wildcat Learning Center), exterior deck, and other overall park entrance enhancements. One critical aspect of this project involves addressing existing stormwater drainage issues in the parking lot area. Original plans for the parking area included minimal stormwater controls to convey runoff safely through the park. The parking lot runoff has caused damage to the existing restroom/classroom building area and significant erosion downstream. The original design included the construction of an underground detention facility and a porous paving system to treat and control the runoff. Public Works staff have collaborated with Pond & Company (POND) to provide a schematic design for these The original cost for design was \$49,995. A geotechnical proposed site improvements. Engineering Infiltration Report indicated poor infiltration rates and a high-water table in the proposed underground detention area. After numerous attempts to meet site condition requirements through minor design alterations, staff determined that the porous paving system was infeasible and the changes in construction materials for an underground detention system in a high-water table were no longer cost-effective. Consequently, the City requested POND to submit a change order for a complete revision to the prior site design to redirect stormwater runoff into an existing drainage channel on the park's south end. The additional cost for the redesign work is \$11,960, taking the total fees, with a 10% contingency, to \$68,150.50.

If approved by Council, this project will be funded from the Stormwater Repairs and Maintenance budget allocated for storm improvement projects.

Recommendation

Staff recommends approving \$68,150.50 in funding for the Wildcat Learning Center at Dunwoody Park Storm Improvements Site Development Plans Change Order.



T: 678.336.7740 | F: 678.336.7744 www.pondco.com

July 6, 2023

Carl B. Thomas Stormwater Utility Manager City of Dunwoody Public Works 4800 Ashford Dunwoody Road Dunwoody, GA 30338 Phone: (678) 382-6864

Carl.Thomas@dunwoodyga.gov

Re: Dunwoody Nature Center Improvements Site Development Plans Change Order

Task Order 001 -SOQ 22-01 On Call – Stormwater Engineering and Design Services

City of Dunwoody, Georgia

Dear Mr. Thomas,

Pond & Company (Pond) thanks you for the opportunity to assist the City of Dunwoody with Professional Services for the Dunwoody Nature Center. This proposal includes our costs to provide additional design and engineering services for the stormwater infrastructure and site work associated with the new classroom building at the Dunwoody Nature Center.

Results from a Geotechnical Engineering Infiltration Report indicated that the soils in the proposed underground detention area have poor infiltration rates and high normal water table. City Staff determined that underground detention in that location would not be an effective means to attenuate stormwater runoff flows due to these conditions. The site design will be revised to redirect stormwater runoff to bypass the improvement area into an existing ditch.

SCOPE OF ADDITIONAL SERVICES:

- A. Pond will assess the uphill parking lot grading and drainage and consult with the City on an effective solution to redirect the drainage.
- B. Pond will revise the following current construction documents to include the upstream drainage revisions:
 - A. Site Layout Plan
 - B. Grading and Drainage Plan
 - C. Storm Drain Profiles
 - D. Stormwater Management Plan and Details
 - E. Erosion and Sedimentation Control Plans and Details
 - F. Hydrology Study
- C. Pond will submit the revised plans to the City and provide revisions for one comment period. Then Pond will submit construction documents for final permit approval.



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CONDITIONS OF SERVICE

Our conditions of service below list our exemptions and conditions for this project.

- A. Conditions, exclusions, and fees from original scope (Exhibit C1) contract still apply unless specified.
- B. The City will provide Pond with an up-to-date survey in the areas of the proposed site improvements.
- C. Project revisions that result in surpassing the threshold for a Major Land Disturbing Permit are not included. The scope and fee will be reevaluated for these revisions.
- D. The City will review the deliverables in a timely manner and provide appropriate feedback.
- E. Once work has commenced, then changes in the design or alternatives may constitute a change order.
- F. While Pond will deliver a value-conscious concept design and seek Client's preference on significant cost related decisions when options are present, a detailed value-engineering analysis complete is not included.
- G. Permitting fees are to be paid by the Client

FEES AND TERMS OF PAYMENT

Pond & Company proposes to complete the professional services specifically stated above for the fees listed below:

Additional Services \$ 11,960

The fees above include typical reimbursables such as printing, mileage, parking, and postage. Please let us know if you have any questions and thank you for your trust in our firm. We can be contacted at morgand@pondco.com.

Sincerely,

Pond & Company

David M. Morgan, PE Senior Project Manager Stephen Bailey, PWS

Principal | Program Manager

Stephen M. Bailay

Pond Opp. No. 2022143264

City of Dunwoody Public Works 4800 Ashford Dunwoody Road Dunwoody, GA 30338

Fee Proposal **Change Order**

Proposal Due Date: Thursday, July 6, 2023 Contract Number: 22-102 Pond Project Manager: Matt Felts

Project Task Order Number: 1

Project Name: Dunwoody Nature Center

Task Order NTE Value:

Task I - Construction Docs and Hydro	Billing Category	Rate/Hour*	Proposed Hours	Current Amount
	Principal-in-Charge	\$220.00	2.00	\$440.00
	Project Manager	\$165.00	8.00	\$1,320.00
	Senior Engineer	\$155.00 24.00		\$3,720.00
	Engineer - Mid	\$135.00	48.00	\$6,480.00
	CAD Operator/Designer	\$95.00		\$0.00
			Task I Total	\$11,960,00



EXHIBIT C1



3500 Parkway Lane, Suite 500 Peachtree Corners, Georgia 30092

T: 678.336.7740 | F: 678.336.7744 www.pondco.com

September 23, 2022 Revised November 8, 2022

Carl B. Thomas Stormwater Utility Manager City of Dunwoody Public Works 4800 Ashford Dunwoody Road Dunwoody, GA 30338 Phone: (678) 382-6864

Carl.Thomas@dunwoodyga.gov

Re: **Dunwoody Nature Center Improvements Site Development Plans** Task Order 001 -SOQ 22-01 On Call – Stormwater Engineering and Design Services City of Dunwoody, Georgia

Dear Mr. Thomas,

Pond & Company (Pond) thanks you for the opportunity to assist the City of Dunwoody with Professional Services for the Dunwoody Nature Center. This proposal includes our costs to provide design and engineering services for the stormwater infrastructure and site work associated with the new classroom building at the Dunwoody Nature Center.

PROJECT APPROACH AND SCOPE

The Dunwoody Nature Center, located at 5343 Roberts Drive in Dunwoody, Georgia will be undergoing site improvements that include a new classroom facility, exterior deck, and overall park entrance enhancements. Pond has provided a schematic design of the proposed site improvements to the Nature Center, which will be the basis for this scope of work. The improvement project is being facilitated by the Dunwoody Nature Center's Board of Directors and the City of Dunwoody Public Works Department.

The site currently has multiple buildings, parking areas, walking trails, and park facilities designed to immerse and educate the public. There are existing stormwater drainage issues that have damaged the restroom/classroom building in this area of the site, creating unsafe conditions for users of the classroom, as well as caused significant erosion downstream. In 2021, Pond completed a Master Plan Update for the Nature center. Included in this, Pond provided a general evaluation of the current conditions as well as formulated solutions to address the flooding issue. The stormwater drainage improvements are to be designed and constructed in conjunction with the construction of a new classroom building (the fee and scope associated with the design of the new building will be commissioned by the Nature Center and is not included in this proposal). The Public Works Department of the City of Dunwoody is requesting a proposal for an engineered design for the stormwater improvements and site work associated with the project.



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Based upon the schematic improvements plan and stormwater evaluation done previously, Pond will provide detailed construction drawings with stormwater management design and analysis. This proposal expands upon the approach and a detailed scope of services. Any new information acquired after this proposal is submitted may require a reevaluation and revision of the scope and proposal. Below is a detailed list of tasks and deliverables associated with the project:

TASK I – CIVIL SITE CONSTRUCTION DOCUMENTS AND HYDROLOGY STUDY

- A. Pond will research applicable ordinances and regulations that may impact the proposed site layout, including stormwater requirements.
- B. Using a topographic survey provided by the City's Surveyor and the schematic layout that was approved by the Dunwoody Nature Center Board of Directors, Pond will prepare a site development plan set for the proposed site improvements in the following format to the City:
 - 1. Cover Sheet
 - 2. Civil Notes, Legend, and Abbreviations
 - 3. Existing Conditions Plan (copy of sealed survey as provided by the client)
 - 4. Site Demolition Plan
 - 5. Dimensional site layout plan
 - 6. Grading and drainage plan including storm drainage profiles and calculations
 - 7. Civil construction details
 - 8. Erosion and sedimentation control plan (1-Phase based on current scope)
 - 9. Erosion and sedimentation Control details
- C. The construction document package will be provided to the client in electronic format for review, pricing, and discussion at an intermediate phase of the design process. This proposal assumes up to one (1) intermediate submittal of the construction documents at approximately the 60% design stage, prior to final plans. Comments that fit within the scope of this proposal will be addressed, and the final package will be prepared for land disturbance permitting. Please note that if major comments are received on this submittal that require redesign, this proposal will need to be reevaluated for the additional scope.
 - Pond will attend coordination meetings with the client. This task includes up to three (3) meetings via phone or in-person in the construction document preparation phase.
- D. With soil infiltration testing provided by the City's Geotechnical Engineer, Pond will provide a Hydrology Study that will encompass the proposed site improvements. The Report will include rationale for the proposed Best Management Practices (BMPs) to be used and calculations showing adherence to runoff reduction, water quality, detention, and downstream analysis requirements, as required.

TASK II – LANDSCAPE AND HARDSCAPE PLANS

A. Concurrently with Task I, Pond will prepare tree protection/replacement and code minimum landscape plans per City of Dunwoody Ordinances for the subject project area. This phase of work



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assumes completion of a Tree Survey (including location, caliper, and species) by the Client's surveyor. Services are expected to include:

- 1. Creation of a Tree Protection Plan, with all items listed in the city's Tree Ordinance
- 2. Creation of a Tree Replacement Plan, with all items listed in the city's Tree Ordinance
- 3. Creation of a landscape plan within the project area.
- B. The tree protection and replacement plans and the landscape plan will be incorporated into the Civil Construction Documents as described in Task I for submittal to the City for land disturbance permitting.
- C. In addition, and concurrent with the construction documents in Task I, Pond will prepare enhanced landscape and hardscape documents for the site, including detailed planting plans and hardscape design. It is assumed that any specialty hardscape design (pavers, stamped concrete, etc.) will be limited in scope.
- D. Landscape plans will be prepared in the following format:
 - 1. Landscape Notes, Legend, and Abbreviations
 - 2. Site Landscape Plan(s), including enlargements of critical areas
 - 3. Site Hardscape Plan(s), including enlargements of critical areas
 - 4. Landscape and Hardscape Details
- E. If required by the City, these enhanced landscape and hardscape plans will be incorporated into the civil construction documents for submittal and permitting purposes. Otherwise, these will just be incorporated into the for-construction set provided to the owner and contractor.
- F. This task assumes that the landscape architect will attend the coordination meetings specified in Task I.
- G. Tree Care and Maintenance plan are not included. They will require the services of another firm that provides maintenance. Risk Assessment is also not included.

TASK III - LAND DISTURBANCE PERMITTING

- A. Pond will coordinate permitting and submitting the deliverable documents from Tasks I & II through the City of Dunwoody.
- B. Pond will assist with the preparation of the Notice of Intent (NOI) -if applicable. Please note that certification and final filing of the NOI must be by the responsible party—the owner or the contractor.
- C. Comments and/or approvals will be picked up from the various county departments and will be made available to the client for review.
- D. Revisions to Pond's plans and stormwater management report will be made per City review comments that fit within the scope as described in this proposal.
- E. After revisions, Pond will resubmit plans to the respective departments and meet with plan reviewers to discuss the changes and to reasonably expedite approvals, if required.
- F. After permitting is complete, Pond will prepare a conformed set of final construction documents that incorporates all permitting related comments and changes. This ready-for-construction set of plans will be provided in PDF format to the client and contractor.



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TASK IV - CONSTRUCTION ADMINISTRATION

- A. Pond (project manager and project director) will attend a kickoff/site visit meeting with the City and the Contractor to discuss the proposed project and begin construction.
- B. Pond will perform construction observations to evaluate the site-work contractor's general conformance with permitted plans. Pond will review shop drawings, if required. This proposal includes up to four (4) construction phase site visits (one kickoff, one punch list, and two during construction) by one member of Pond staff.
- C. Redesign and/or permit revision/resubmittals after initial permit review approval is obtained is not included.
- D. Any construction phase site visits beyond the four included in this proposal may incur additional costs in accordance with the approved rate schedule.
- E. Any redesign, including due to client direction, as-built analysis, or unforeseen conditions may incur additional cost.
- F. As-builts and record drawings are to be the Contractor's responsibility and are excluded from this proposal.

CONDITIONS OF SERVICE

Our conditions of service below list our exemptions and conditions for this project.

- A. The City will provide Pond with an up-to-date survey in the areas of the proposed site improvements.
- B. The City will provide Pond with soil infiltration testing by a Geotechnical Engineer to determine site feasibility of stormwater Runoff Reduction.
- C. Project revisions that result in surpassing the threshold for a Major Land Disturbing Permit are not included. The scope and fee will be reevaluated for these revisions.
- D. The City will review the deliverables in a timely manner and provide appropriate feedback.
- E. Based on information and reviews provided in a timely feedback, the final design deliverables can be completed within two months of a signed contract. This may be adjusted based on the timeline of the survey and Geotech
- F. Once work has commenced, then changes in the design or alternatives may constitute a change order.
- G. Client will determine the phasing of approved plans, if needed.
- H. The following services are excluded under this Agreement:
 - a. Survey of the existing conditions



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- b. Environmental permitting; species-specific surveys for protected species; Phase 1 or 2 cultural resources surveys; ground penetrating radar surveys; MOA/MOU with SHPO; more than *de minimus* impacts to 4(f) resources.
- c. Public or community meetings
- d. Arborist reports or hazard assessments
- e. Additional design or field efforts due to a change in, or expansion of the project area
- f. Structural engineering
- g. Architectural design
- h. Illustrative renderings of any kind (plan or perspectives)
- I. No permitting or variances associated with stream buffers or wetlands are included.
- J. No environmental site assessments (ESA) of any type are included.
- K. No Conditional Letter of Map Revision (CLOMR) or Letter of Map Revision LOMR) is included.
- L. Pond will examine available published environmental data (National Wetland Inventory, FEMA Flood Maps, etc.), but field delineation of possible State Waters / Wetlands / FEMA boundaries and associated permitting is excluded.
- M. Coordination with Georgia DOT, FHWA or FEMA is excluded.
- N. Environmental documentation, such as National Environmental Policy Act (NEPA) compliance; mitigation; aquatic survey; analysis of social, economic, and environmental data; natural resources study; and cultural resources study is excluded.
- O. Additional services not included: bid assistance, as-built surveys, platting, and certifications.
- P. While Pond will deliver a value-conscious concept design and seek Client's preference on significant cost related decisions when options are present, a detailed value-engineering analysis complete is not included.
- Q. Opinion of probable cost information will be based upon current GDOT construction cost or RSMeans data for the area. Please note that this cost information is provided for information only. True construction cost is dependent on a multitude of factors outside the control of Pond, including market conditions, contractor availability, and actual construction start dates.
- R. Services not specifically included in the proposal, or material changes requested after professional services have commenced, will be considered additional / out of scope services, and will be approved via a contract change order prior to commencement of the additional work.



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FEES AND TERMS OF PAYMENT

Pond & Company proposes to complete the professional services specifically stated above for the fees listed below:

Task I – Construction Documents and Hydrology Study	\$ 21,320
Task II – Landscape and Hardscape Plan	\$ 9,755
Task III – Land Disturbance Permitting	\$ 13,200
Task IV – Construction Administration	\$ 5,720

The fees above include typical reimbursables such as printing, mileage, parking, and postage. Please let us know if you have any questions and thank you for your trust in our firm. We can be contacted at morgand@pondco.com.

Sincerely,

Pond & Company

David M. Morgan, PE Senior Project Manager Stephen Bailey, PWS Principal | Program Manager

Stephen M. Bailay

Pond Opp. No. 2022143264

DUNWOODY **NATURE CENTER**

5321 ROBERTS DR DUNWOODY, GA

DESIGNED BY: DRAWN BY: CHECKED BY: SUBMITTED BY 08/11/2023 PROJECT# 1230006

SHEET TITLE

COVER SHEET

SHEET NUMBER

G-001

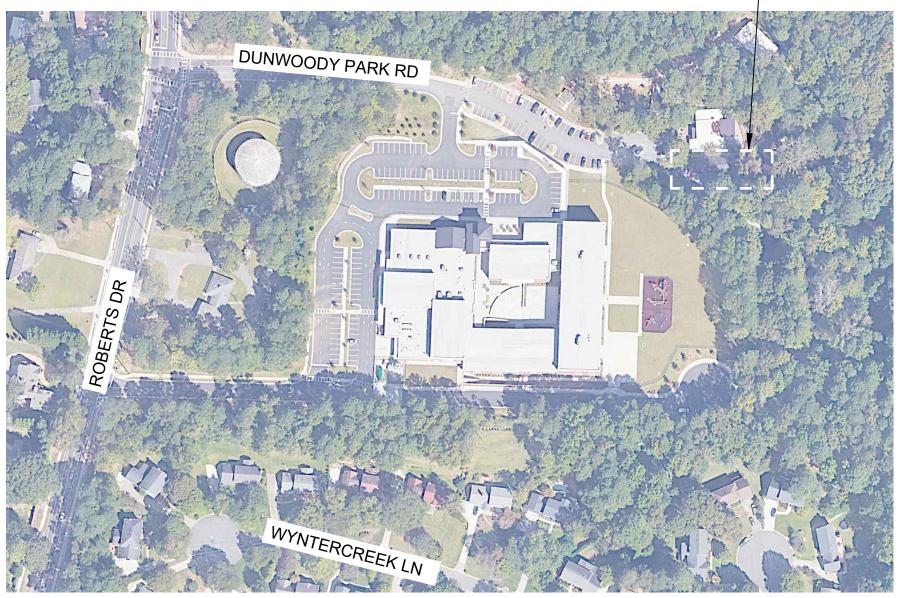
ORIGINAL SHEET SIZE: 22" X 34"

DUNWOODY NATURE CENTER WILDCAT CREEK LEARNING LAB

5343 ROBERTS DRIVE DUNWOODY, GA 30338

AUGUST 11, 2023

PROJECT LOCATION



LOCATION MAP SCALE: N.T.S.

PROJECT INFORMATION

TAX PARCEL ID: 18 376 01 005 ALT ID: 1601975 **ZONING DISTRICT: E1 TOTAL TRACT SIZE: 16.79 ACRES**

Sheet List Table					
Sheet Number	Sheet Title				
G-001	COVER SHEET				
C-001	GENERAL NOTES ABBREVIATIONS AND LEGENDS				
V-101	SURVEY				
V-102	SURVEY				
CD101	DEMOLITION PLAN				
LD101	TREE PROTECTION AND REMOVAL				
CS101	SITE PLAN				
CS102	LAYOUT PLAN				
CG101	GRADING AND DRAINAGE				
CG201	STORM PROFILES				
CG301	WATER QUALITY STRUCTURES DETAILS				
CU101	UTILITY PLAN				
C-501	CONSTRUCTION DETAILS				
C-502	CONSTRUCTION DETAILS				
C-503	CONSTRUCTION DETAILS				
C-504	CONSTRUCTION DETAILS				
C-505	CONSTRUCTION DETAILS				
CE101	INITIAL EROSION AND SEDIMENT CONTROL PLAN				
CE201	FINAL EROSION AND SEDIMENT CONTROL PLAN				
CE501	EROSION AND SEDIMENT CONTROL DETAILS				
CE502	EROSION AND SEDIMENT CONTROL DETAILS				
CE503	EROSION AND SEDIMENT CONTROL DETAILS				
L-001	LANDSCAPE NOTES				
LP101	LANDSCAPE PLAN				

LANDSCAPE DETAILS

GENERAL NOTES:

L-501

PROJECT DESCRIPTION:

CONVERT EXISTING ASPHALT DRIVE TO PEDESTRIAN PLAZA AND PROVIDE STORMWATER MITIGATION TO IMPROVE DRAINAGE FOR EXISTING RESTROOMS, PARKING LOT, AND FUTURE CLASSROOM BUILDING. PROPOSED SITE WORK SCOPE INCLUDES PREPARATION FOR FUTURE CLASSROOMS, GRADING AND DRAINAGE, HARDSCAPE, EROSION CONTROL. AND LANDSCAPE.

- 2. DISTURBED AREA: 0.27 ACRES
- IMPERVIOUS AREA: 0.18 ACRES
- **EXISTING CONDITIONS REFERENCE:**

THE EXISTING CONDITIONS SHOWN IN THESE PLANS WERE PROVIDED BY TERRA MARK LAND SURVEYING, INC. AND ARE ASSUMED TO BE ACCURATE. CONTRACTOR TO VERIFY LOCATIONS OF SITE FEATURES ABOVE AND BELOW GROUND PRIOR TO THE CONSTRUCTION START DATE.

PRIOR TO BEGINNING CONSTRUCTION, CONTACT LIA FABIAN (lia.fabian@dunwoodyga.gox) AND KEVIN MOORE (kevin.moore@dunwoodyga.gov) TO SCHEDULE A PRE-CONSTRUCTION MEETING. FAILURE TO DO SO WILL RESULT IN A STOP WORK ORDER.

SCALE: N.T.S. NOTE: THIS SITE IS LOCATED WITHIN CITY OF DUNWOODY'S FUTURE CONDTIONS FLOODPLAIN

FEMA MAP PANEL 13089C0005K (EFF. 8/15/2019)

CARL B. THOMAS SR Storm Utility Manager

Dunwoody, GA 30338

Phone (678) 382-6700

carl.thomas@dunwoodyga.gov

LANDSCAPE ARCHITECT Pond and Company City of Dunwoody Public Works 3500 Parkway Lane, Suite 500 4800 Ashford Dunwoody Road Peachtree Corners, GA 30092 Phone (678) 336-7740 thompsons@pondco.com

MATT FELTS Pond and Company 3500 Parkway Lane, Suite 500 Peachtree Corners, GA 30092 Phone (678) 336-7740 feltsm@pondco.com

ENGINEER:

DESIGN TEAM

ISSUED FOR PERMIT

Packet page:...

В

SCALE: N.T.S.

new location in the search field above. It may take a minute or more during peak hours to generate a dynamic FIRMette.

3. ALL BACKFILL AND FILL MATERIAL SHALL BE FREE OF ORGANIC

ACCEPTANCE, AND SHALL SMOOTH THE GROUND SURFACE

WHERE THE FENCE WAS REMOVED THEN MULCH OR SEED &

STRAW (SEASON APPROPRIATE GRASS) THE RESTORED

CONTRACTOR SHALL MARK, PRESERVE AND PROTECT ALL

FOR CONSTRUCTION, CONTRACTOR SHALL RELOCATE

ALL CUT AND FILL SLOPES SHALL BE 3:1 OR FLATTER (SEE

BENCHMARK AND PROVIDE NEW DATA ON AS-BUILTS.

ALL SPOT ELEVATIONS NOTED ARE FINISH GRADE.

SURVEY BENCHMARKS. IF BENCHMARK MUST BE DEMOLISHED

WWF

W/C

YR

WELDED WIRE FABRIC

WATER TO CEMENT

WITH

YEAR

4. THE CONTRACTOR SHALL REMOVE ALL EROSION CONTROL

FENCING FROM THE SITE PRIOR TO FINAL PROJECT

SURFACE AS SUNLIGHT CONDITIONS WARRANT.

MATTER AND WASTE.

PLANS).

DISCONNECTION OF EXISTING UTILITIES WITH THE APPROPRIATE UTILITY PROVIDER. 12. UTILITIES INDICATED SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE SPECIFICATIONS. GRADING SHALL BE AS INDICATED, AND SHALL PRODUCE A FINISHED SURFACE WITH NO PONDING OF WATER. READY TO RECEIVE PLANTING MATERIALS OR

IN ACCORDANCE WITH RESPECTIVE UTILITY COMPANY

STANDARDS. THE CONTRACTOR SHALL COORDINATE

GRASSING. 13. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND IN HAND BEFORE BEGINNING ANY CONSTRUCTION. NO CONSTRUCTION OR FABRICATION OF ANY ITEM SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED ALL PLANS AND ANY OTHER DOCUMENTATION FROM ALL OF THE PERMITTING AND ANY OTHER REGULATORY AUTHORITIES. ANY PENALTIES, STOP WORK ORDERS OR ADDITIONAL WORK RESULTING FROM THE CONTRACTOR BEING IN VIOLATION OF THE ABOVE REQUIREMENTS, SHALL BE FULLY BORNE BY THE CONTRACTOR.

14. ALL CONTRACTORS/SUBCONTRACTORS THAT WILL BE ENGAGED IN LAND DISTURBING ACTIVITIES SHALL COMPLY WITH ALL EROSION, SEDIMENTATION AND POLLUTION CONTROL AND STORMWATER POLLUTION PREVENTION REQUIREMENTS CONTAINED THROUGHOUT THE DRAWINGS, SPECIFICATIONS, AND PERMITS.

AREAS DISTURBED BY THE CONTRACTOR, WHICH ARE NOT PART OF THIS PROJECT, SHALL BE RETURNED TO ORIGINAL OR BETTER CONDITION PRIOR TO THE COMPLETION OF THE PROJECT AS DETERMINED BY THE DESIGN PROFESSIONAL

16. THE CONTRACTOR'S MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES IN PERFORMING THE WORK IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR, WHO IS ALSO RESPONSIBLE FOR COMPLYING WITH ALL HEALTH AND SAFETY PRECAUTIONS AS REQUIRED BY THE APPLICABLE

OUTSIDE DIAMETER OIL/WATER SEPARATOR UNDERGROUND ----- - - UE-----POST INDICTOR VALVE PETROLEUMS, OILS, AND LUBRICANTS POWER LINE POL PROP PROPOSED PSF POUNDS PER SQUARE FOOT UNDERGROUND —— — — UT—— PSI POUNDS PER SQUARE INCH COMMUNICATION LINE PVC POLYVINYL CHLORIDE QUALITY CONTROL POWER SWITCH RCP REINFORCED CONCRETE PIPE R/W RIGHT OF WAY SD STORM DRAIN POWER METER SF **SQUARE FEET** SPEC SPECIFICATIONS BACKFLOW PREVENTER SQ SQUARE SS SANITARY SEWER SSMH SANITARY SEWER MANHOLE STD STANDARD TBM TEMPORARY BENCHMARK TYP **TYPICAL VERT VERTICAL** WM **WATER METER** WV WATER VALVE

eserved. No copying or duplication of these

DPR SEAL **CLIENT INFORMATION**

Dunwoody

PROJECT NAME

DUNWOODY **NATURE CENTER**

5321 ROBERTS DR, DUNWOODY, GA

0 1 2

ST/MF **DESIGNED BY:** DRAWN BY CHECKED BY: SUBMITTED BY: DATE: 08/11/2023 1230006 PROJECT#

SHEET TITLE

GENERAL NOTES ABBREVIATIONS AND LEGENDS

SHEET NUMBER

C-001

ORIGINAL SHEET SIZE: 22" X 34"

В

N/A

N/A

BFP

PARTIAL TOPOGRAPHIC SURVEY

(DUNWOODY NATURE CENTER)

LOCATED IN LAND LOT 376, 18TH DISTRICT CITY OF DUNWOODY, DEKALB COUNTY, GEORGIA

SITE MAP



AERIAL IMAGE PROVIDED BY GOOGLE EARTH **IMAGERY DATED MARCH 2022**

MISCELLANEOUS NOTES

BOUNDARY LINES SHOWN HEREON ARE SHOWN FOR GRAPHICAL REFERENCE

EASEMENTS MAY EXIST WITHIN THE SURVEY AREA OR ADJACENT PARCELS

UNDERGROUND UTILITIES WERE NOT MARKED FOR THE PURPOSE OF THIS SURVEY. UNDERGROUND UTILITIES SHOWN HEREON WERE LOCATED BASED ON FIELD EVIDENCE OF OLD PAINT MARKINGS.

TITLE NOTES

ACCORDING TO THE "FIRM" (FLOOD INSURANCE RATE MAP) OF DEKALB COUNTY, GEORGIA (PANEL NUMBER 13089C0005K), DATED AUGUST 15, 2019; NO PORTION OF THIS PROPERTY LIES WITHIN A SPECIAL FLOOD HAZARD AREA.

THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT, WHICH COULD REVEAL ENCUMBRANCES NOT SHOWN ON THIS SURVEY. SUBJECT PROPERTY HAS ACCESS TO THE PUBLIC RIGHT OF WAY OF ROBERTS DRIVE.

SURVEY NOTES

EQUIPMENT USED: A TRIMBLE "S" SERIES TOTAL STATION WAS USED TO OBTAIN ANGULAR MEASUREMENTS AND DISTANCE MEASUREMENTS.

A TRIMBLE R-10 DUAL FREQUENCY GPS UNIT WAS USED FOR ESTABLISHING CONTROL. A NETWORK ADJUSTED RTK SURVEY WAS PERFORMED AND ADJUSTED BY RELATIVE POSITIONAL ACCURACY.

CLOSURE STATEMENT:
NO BOUNDARY SURVEY HAS BEEN PERFORMED BY TERRAMARK LAND SURVEYING, INC.
AT THIS TIME. BOUNDARY LINES ARE SHOWN FOR GRAPHICAL REFERENCE ONLY

THE FIELD DATA UPON WHICH THIS SURVEY IS BASED WAS GENERATED USING A

THE BEARINGS SHOWN ON THIS SURVEY ARE COMPUTED ANGLES BASED ON A GRID BEARING BASE (GA WEST ZONE) NAD83.

ALL HORIZONTAL DISTANCES SHOWN ARE GROUND DISTANCES. MEASURING UNITS OF THIS SURVEY ARE IN U.S. SURVEY FEET.

CONTOURS ARE SHOWN AT ONE FOOT INTERVALS. ELEVATIONS ARE BASED ON RTK GLOBAL POSITIONING SYSTEMS OBSERVATION AND ARE RELATIVE TO NAVD 88 DATUM.

FIELD WORK FOR THIS PROPERTY WAS COMPLETED ON FEBRUARY 10, 2023. DUE TO VARIANCES IN GPS EQUIPMENT, TECHNIQUES, FEDERAL ADJUSTMENTS TO STATE PLANE MODELS AND DAILY CONDITIONS IMPACTING GPS RECEPTIVITY, GPS SOLUTIONS MAY VARY FROM THOSE PROVIDED ON THIS SURVEY BOTH HORIZONTALLY AND VERTICALLY. ANY AND ALL CONTRACTORS, CONSULTANTS, INDIVIDUALS OR ENTITIES RELYING ON STATE PLANE COORDINATES TO RELATE TO DATA PROVIDED ON THIS SURVEY MUST LOCALIZE TO THE SURVEY CONTROL BENCHMARKS OR PROPERTY MONUMENTATION, ESTABLISHED BY THIS SURVEY IN ORDER TO ENSURE ACCURACY OF DATA. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS, HIS CONTRACTORS, AND/OR HIS AGENTS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE SURVEYOR IS NOT RESPONSIBLE FOR ISSUES ENCOUNTERED DUE TO FAILURE TO LOCALIZE DIRECTLY TO THIS SURVEY DATUM.

INFORMATION REGARDING SIZE, LOCATION, AND SPECIES OF EXISTING TREES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE SIZE AND SPECIES OF THE SAID TREES WITHOUT VERIFICATION FROM THE DESIGNATED ARBORIST BY THE LOCAL REGULATORY AUTHORITY. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS, HIS CONTRACTORS, AND/OR HIS AGENTS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE SURVEYOR IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION SHOWN HEREON EXCEPT BY APPROVAL OF SAID AUTHORITY.

THIS SURVEY MAY NOT REPRESENT OFFSITE PAINT STRIPING TO THE ACCURACY REQUIRED FOR LANE DESIGN. TERRAMARK LOCATES THE EDGE OF PAVING AND CRITICAL POINTS TO REFLECT ACCURATE TOPOGRAPHIC DATA ONLY. ACCURACY OF PAINT LOCATIONS SHOULD BE VERIFIED WITH SURVEYOR PRIOR TO USING THIS

INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER, AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES IS SHOWN HEREON. THERE IS NO CERTAINTY TO THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS, HIS CONTRACTORS, AND/OR HIS AGENTS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE SURVEYOR IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION SHOWN HEREON AS TO SUCH UNDERGROUND INFORMATION.

INFORMATION REGARDING STORM SEWER AND SANITARY SEWER AS SHOWN HEREON, IS BASED ON OBSERVATIONS TAKEN BY TERRAMARK EMPLOYEES AT THE GROUND ELEVATION OF THE EXISTING STRUCTURE. TERRAMARK EMPLOYEES ARE NOT AUTHORIZED TO ENTER A CONFINED SPACE SUCH AS A STRUCTURE.
THEREFORE, THERE IS NO CERTAINTY OF THE PIPE SIZES AND PIPE MATERIAL THAT ARE SHOWN ON THIS SURVEY. EXCAVATION BY A CERTIFIED CONTRACTOR IS THE ONLY WAY TO VERIFY PIPE SIZE AND MATERIAL. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS, HIS CONTRACTORS, AND/OR HIS AGENTS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE SURVEYOR IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THE PIPE INFORMATION SHOWN HEREON.

ERRAMARK LAND SURVEYING, INC. WAS UNABLE TO DETERMINE THE EXTENT OF PIPES MARKED AS APPROXIMATE DIRECTION ONLY. AFORESAID PIPE IS DRAWN ON THE SURVEY TO REFLECT THE OBSERVED DIRECTION BASED UPON A VISUAL INSPECTION OF THE STRUCTURE ONLY AND IS SHOWN FOR INFORMATIONAL PURPOSES.

STATE WATERS AND BUFFERS AS SHOWN OR NOT SHOWN HEREON ARE SUBJECT TO REVIEW BY LOCAL JURISDICTION OFFICIALS. IT IS THE RESPONSIBILITY OF THE LOCAL AUTHORITY TO DETERMINE SPECIFIC WATER CLASSIFICATION. THEREFORE TERRAMARK LAND SURVEYING ACCEPTS NO RESPONSIBILITY IN THE IDENTIFICATION OF SAID WATERS OR BUFFERS IDENTIFIED OR NOT IDENTIFIED HEREON.

PROPERTY IS SUBJECT TO RIGHTS OF UPPER AND LOWER RIPARIAN OWNERS IN AND TO THE WATER OF CREEKS AND BRANCHES CROSSING OR ADJOINING SUBJECT PROPERTY AND THE NATURAL FLOW THEREOF, FREE FROM DIMINUTION OR POLLUTION.

THIS SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF THE PERSON, PERSONS OR ENTITY NAMED HEREON. THIS SURVEY DOES NOT EXTEND TO ANY UNNAMED PERSON, PERSONS OR ENTITY WITHOUT THE EXPRESS CERTIFICATION BY THE SURVEYOR NAMING SAID PERSON, PERSONS OR ENTITY.

RRAMARK LAND SURVEYING, INC. DOES NOT WARRANT THE EXISTENCE OR NON-EXISTENCE OF ANY WETLANDS OR HAZARDOUS WASTE IN THE SURVEY AREA.



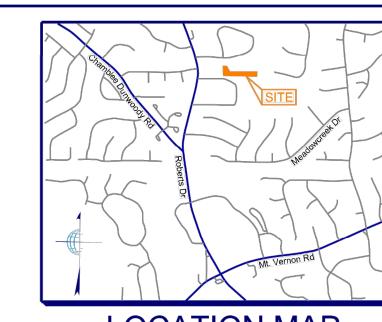
PHOTO #2





PICTURE LOCATION

AND DIRECTION



LOCATION MAP

LAT - 33°57'24.69" N LONG - 84°19'59.89" W



BENCHMARK 1 DETAIL



SPECIAL NOTES

CERTIFICATION AND DECLARATION IS MADE TO THE ENTITIES AS LISTED IN THE TITLE BLOCK AND/OR CERTIFICATIONS. THE CERTIFICATIONS AND DECLARATIONS ON THIS PLAT ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNER

SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERE AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS PROPERTY.

B. PURSUANT TO RULE 180-6.09 OF THE GEORGIA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS, THE TERM "CERTIFICATION" RELATING TO PROFESSIONAL ENGINEERING AND LAND SURVEYING SERVICES SHALL MEAN A SIGNED STATEMENT BASED UPON FACTS AND KNOWLEDGE KNOWN TO THE REGISTRANT AND IS NOT A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED.

THIS SURVEY IS NOT PREPARED IN ACCORDANCE TO HB 76 AND SHALL NOT BE RECORDED WITHIN THE APPLICABLE LAND RECORDS.

SURVEYOR'S CERTIFICATE THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION. THE INFORMATION SHOWN HEREON IS ACCURATE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

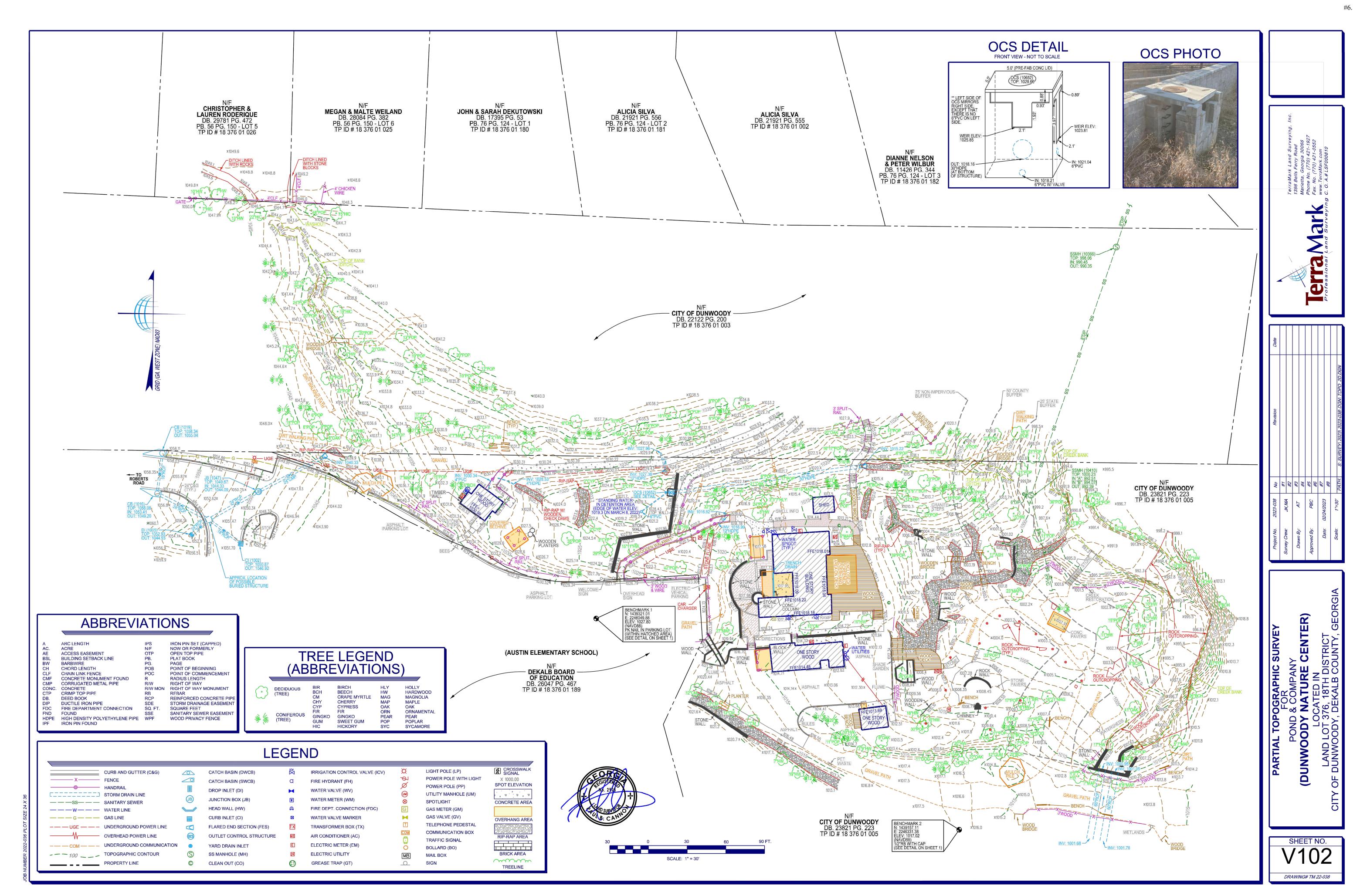


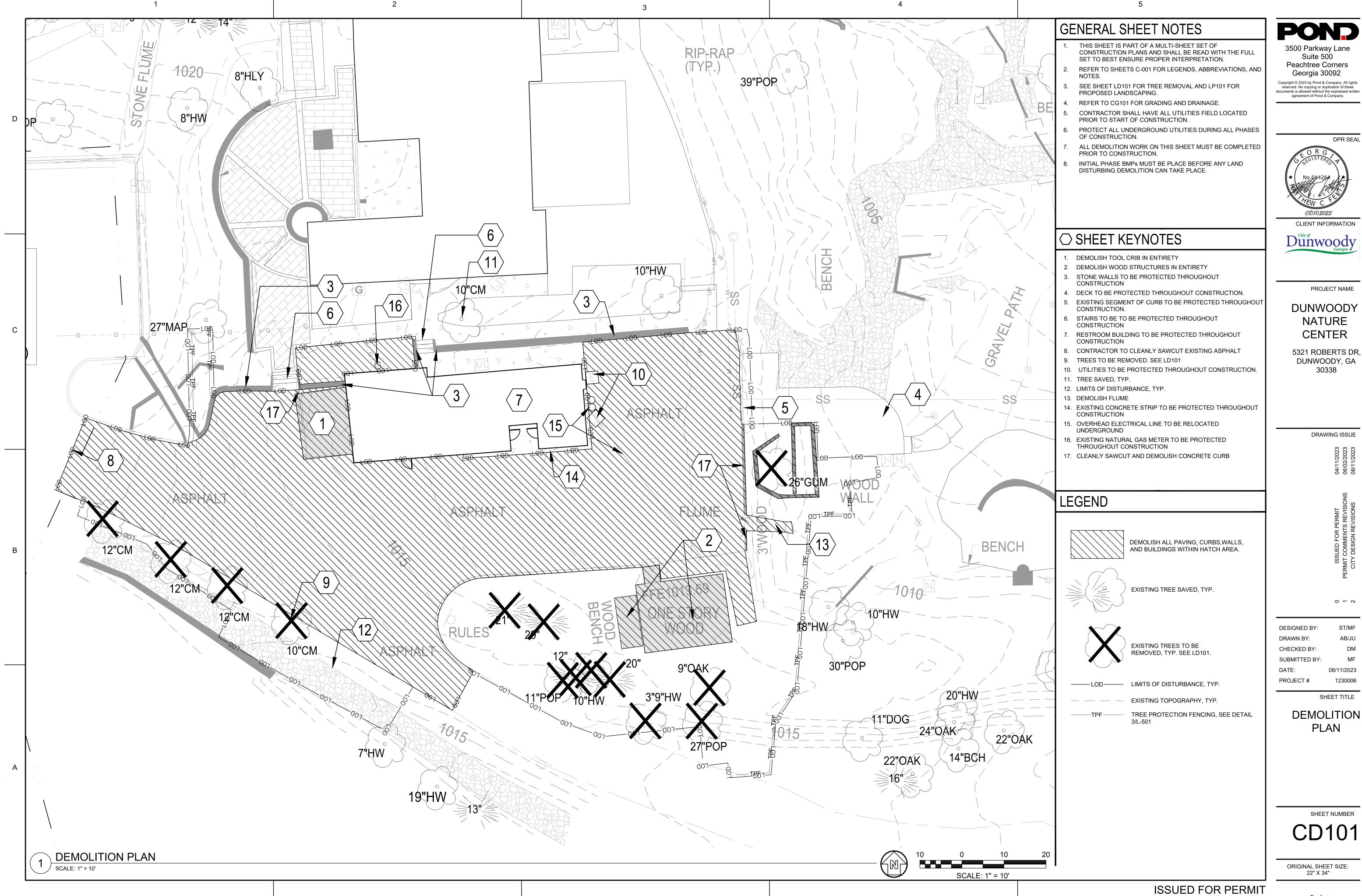
DRAWING# TM 22-038

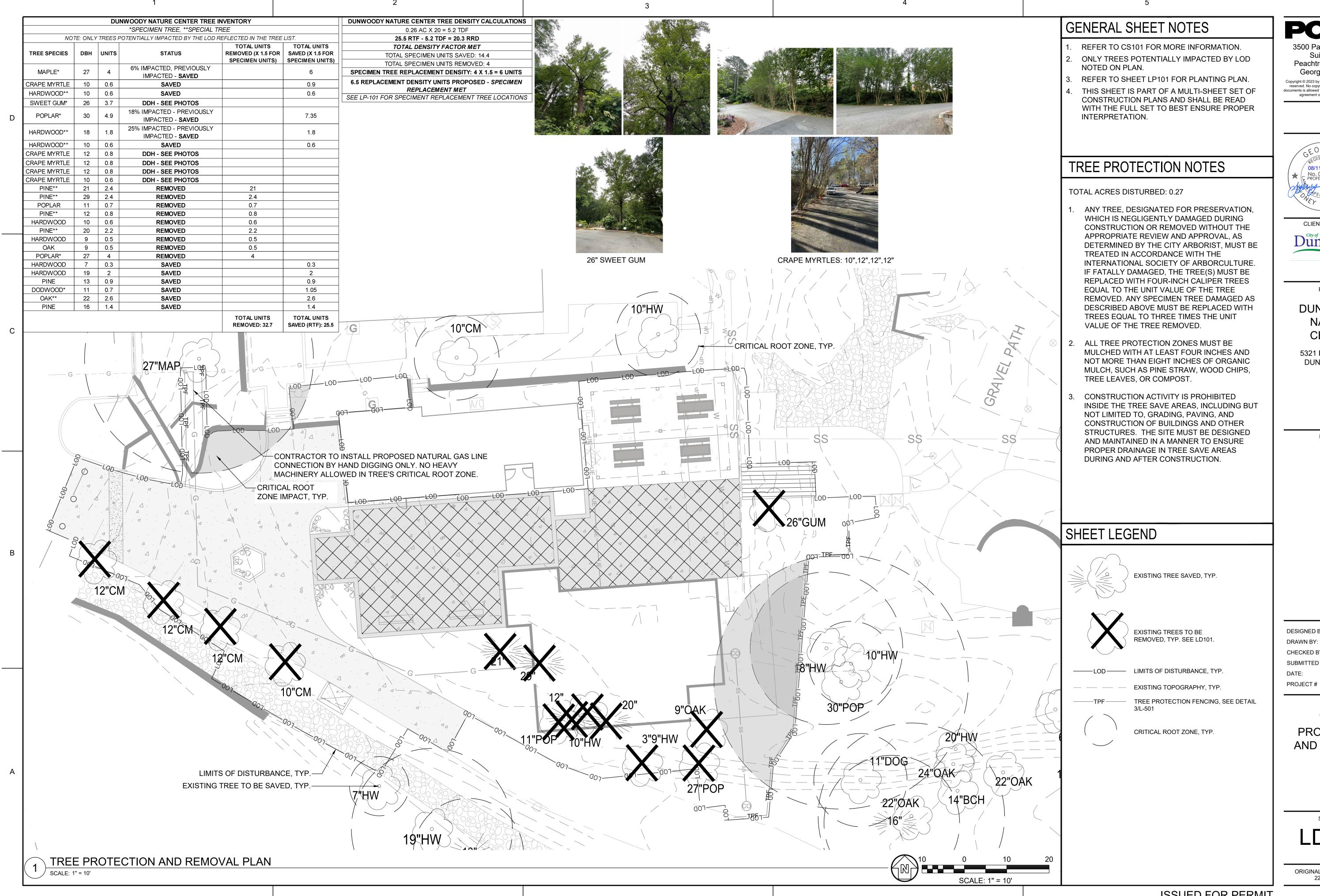
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Georgia 30092

DPR SEAL 08/11/2023

CLIENT INFORMATION

Dűnwoody

PROJECT NAME

DUNWOODY NATURE CENTER

5321 ROBERTS DR, DUNWOODY, GA 30338

DRAWING ISSUE

0 - 2

DESIGNED BY: CHECKED BY

SHEET TITLE

1230006

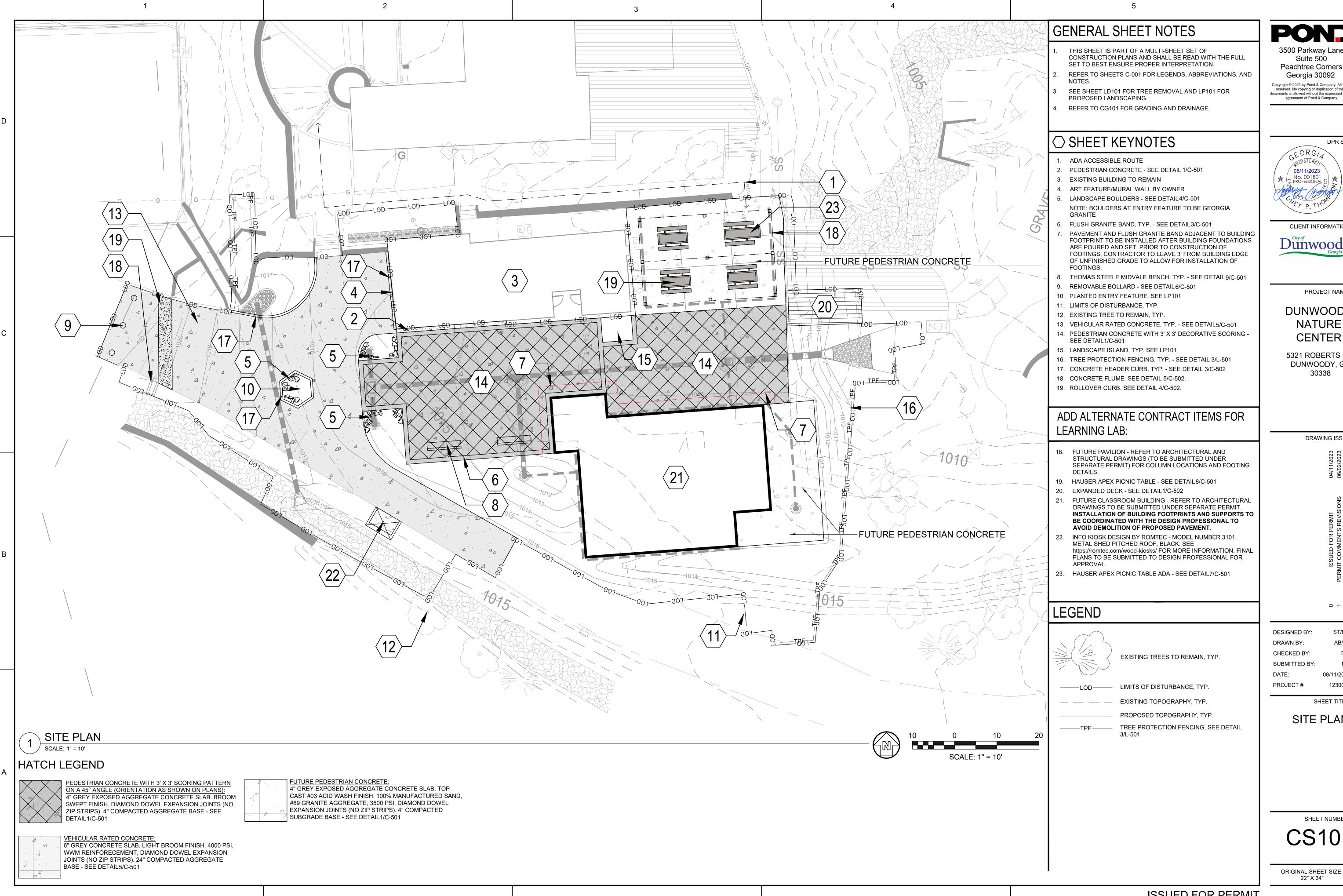
TREE PROTECTION AND REMOVAL

SHEET NUMBER

LD101

ORIGINAL SHEET SIZE: 22" X 34"

ISSUED FOR PERMIT



ISSUED FOR PERMIT

Packet page:...

POND Suite 500

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08/11/2023 No. 001801

PROFESSIONAL

CLIENT INFORMATION



PROJECT NAME

DUNWOODY NATURE CENTER

5321 ROBERTS DR, DUNWOODY, GA 30338

DRAWING ISSUE

DRAWN BY: CHECKED BY: SUBMITTED BY: DATE:

> 1230006 SHEET TITLE

0 + 2

ST/MF

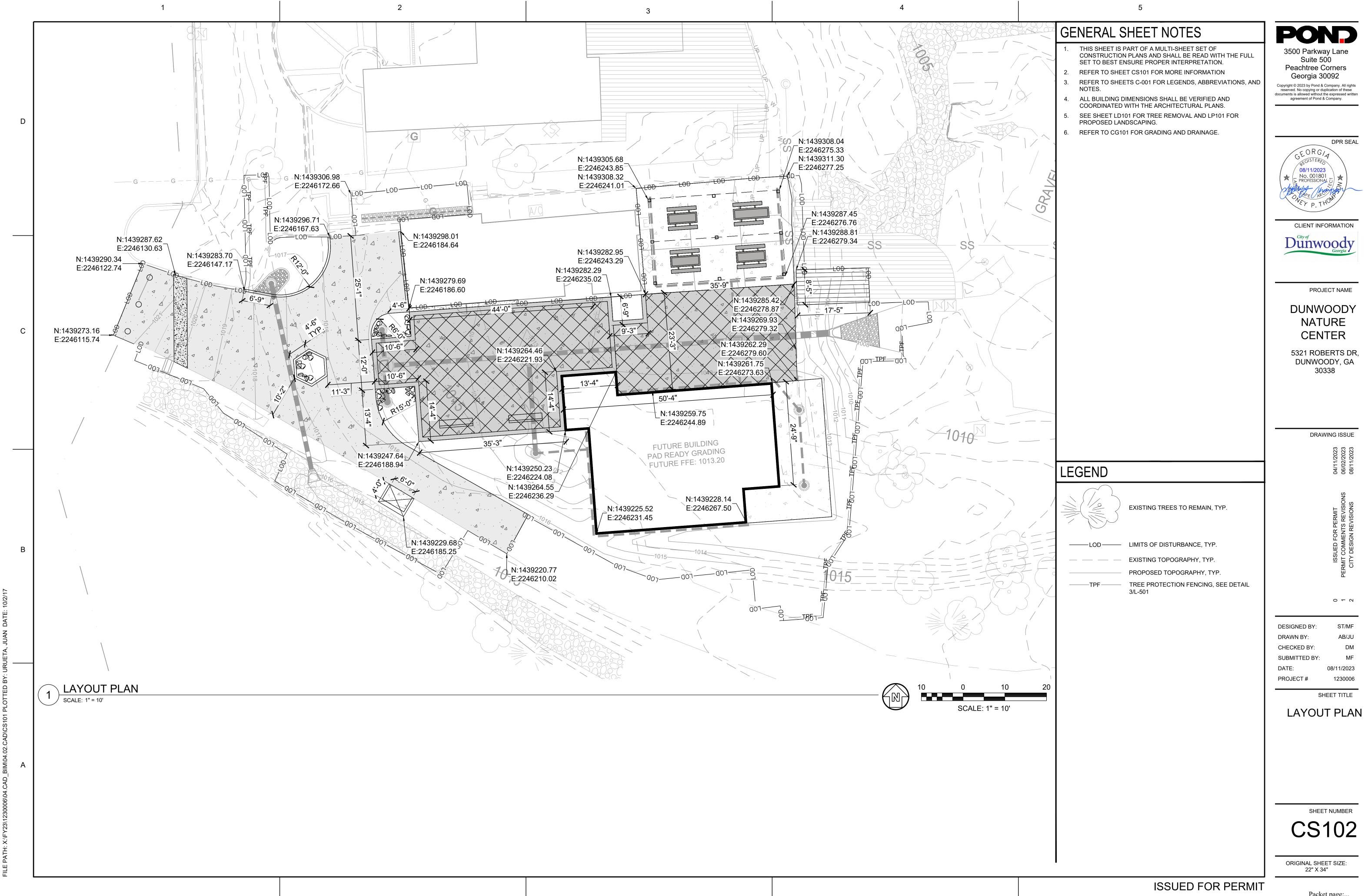
08/11/2023

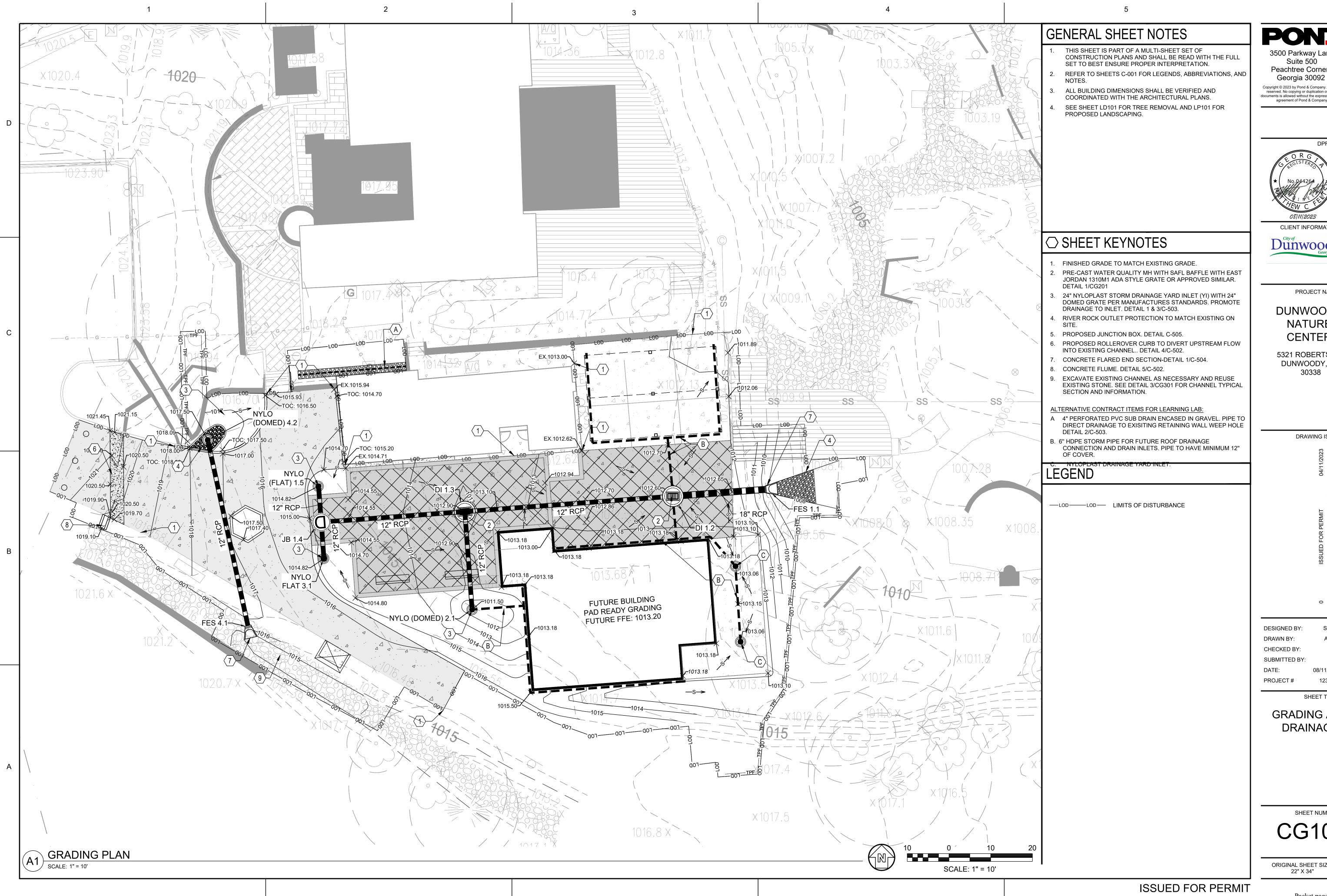
SITE PLAN

SHEET NUMBER

CS101

ORIGINAL SHEET SIZE: 22" X 34"





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08|11|2023 CLIENT INFORMATION

Dunwoody

PROJECT NAME

DUNWOODY NATURE CENTER

5321 ROBERTS DR, DUNWOODY, GA 30338

DRAWING ISSUE

0 + 2

SHEET TITLE

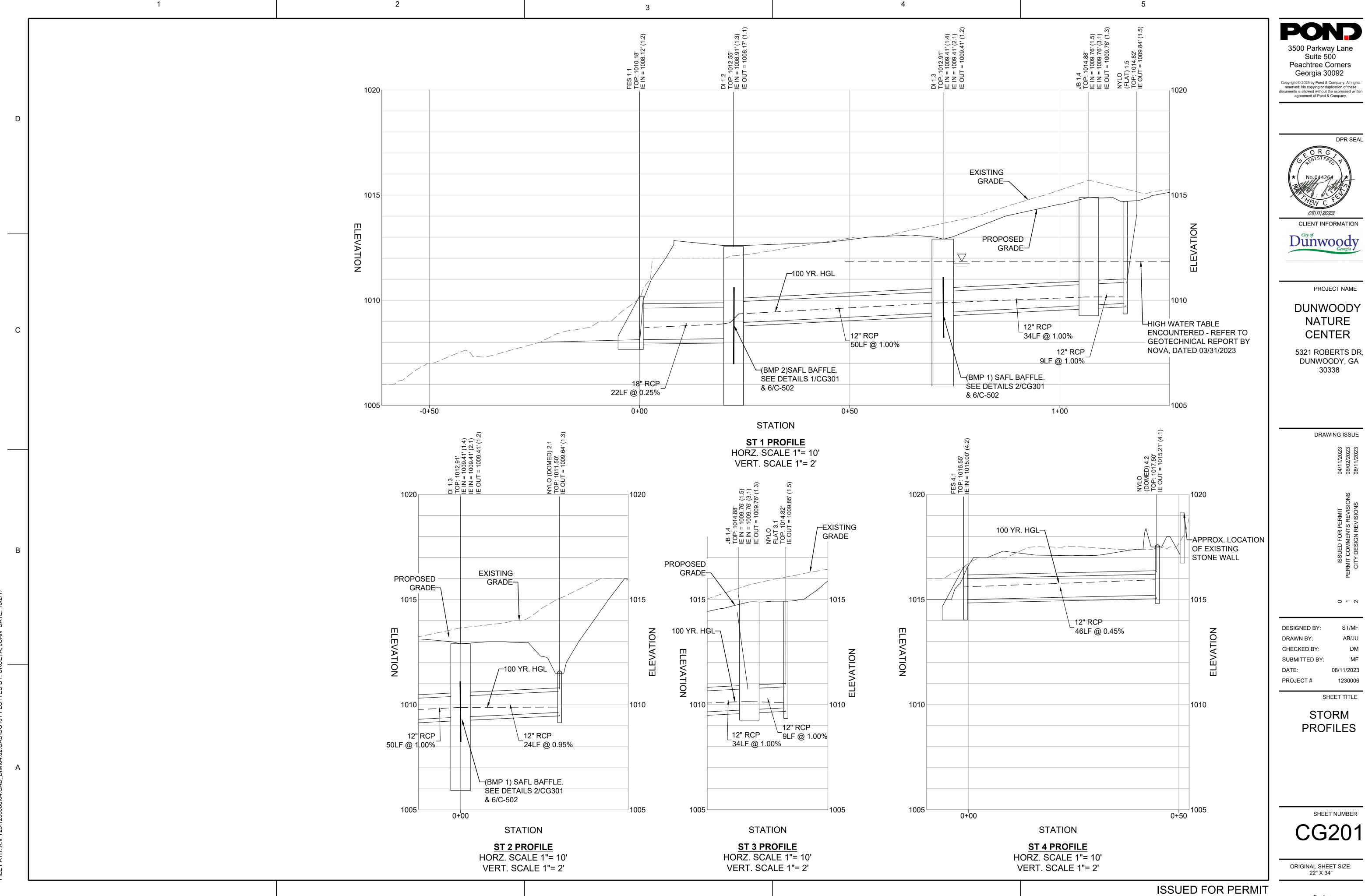
1230006

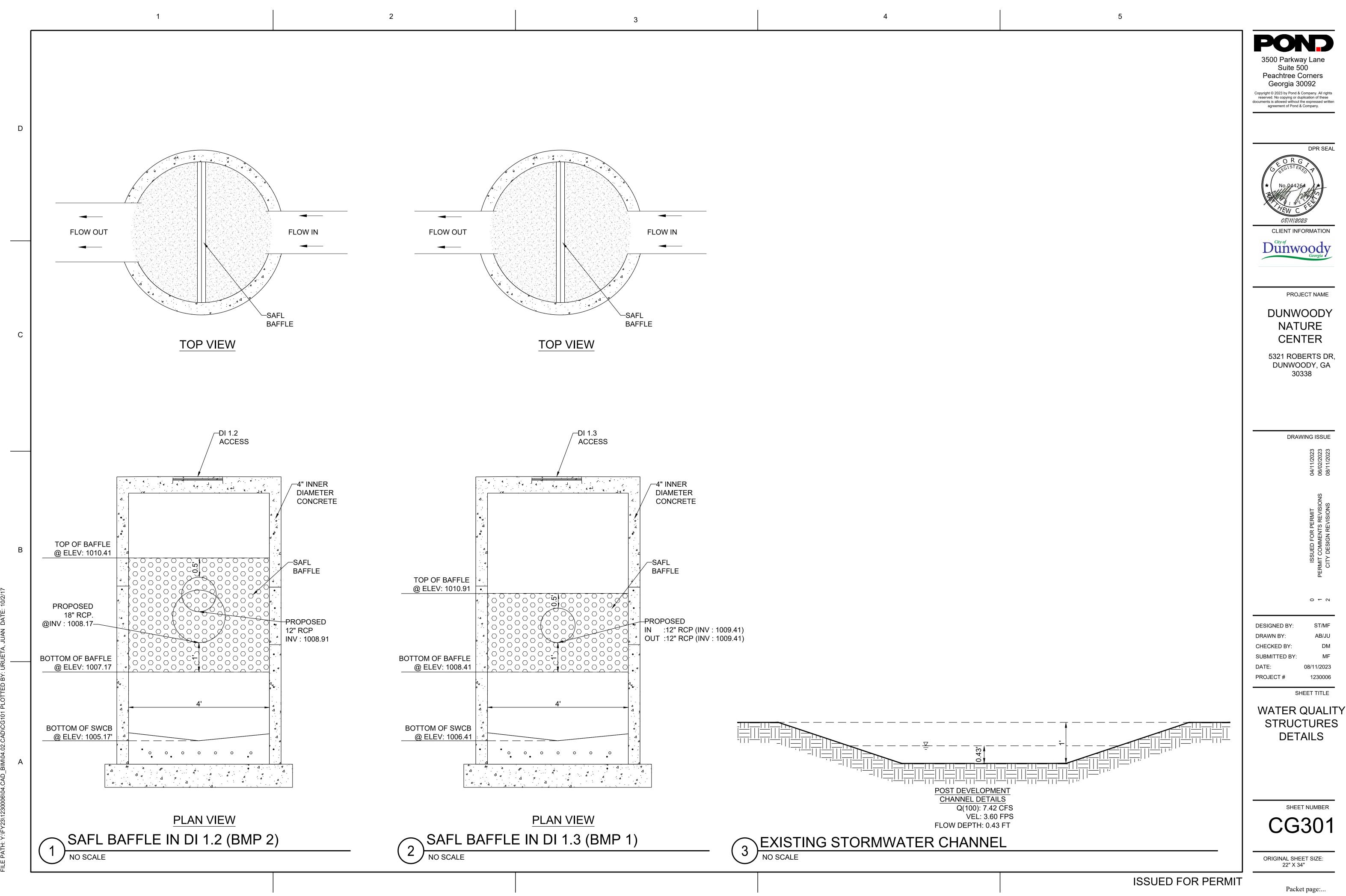
GRADING AND DRAINAGE

SHEET NUMBER

CG101

ORIGINAL SHEET SIZE: 22" X 34"





DPR SEAL

PROJECT NAME

30338

DRAWING ISSUE

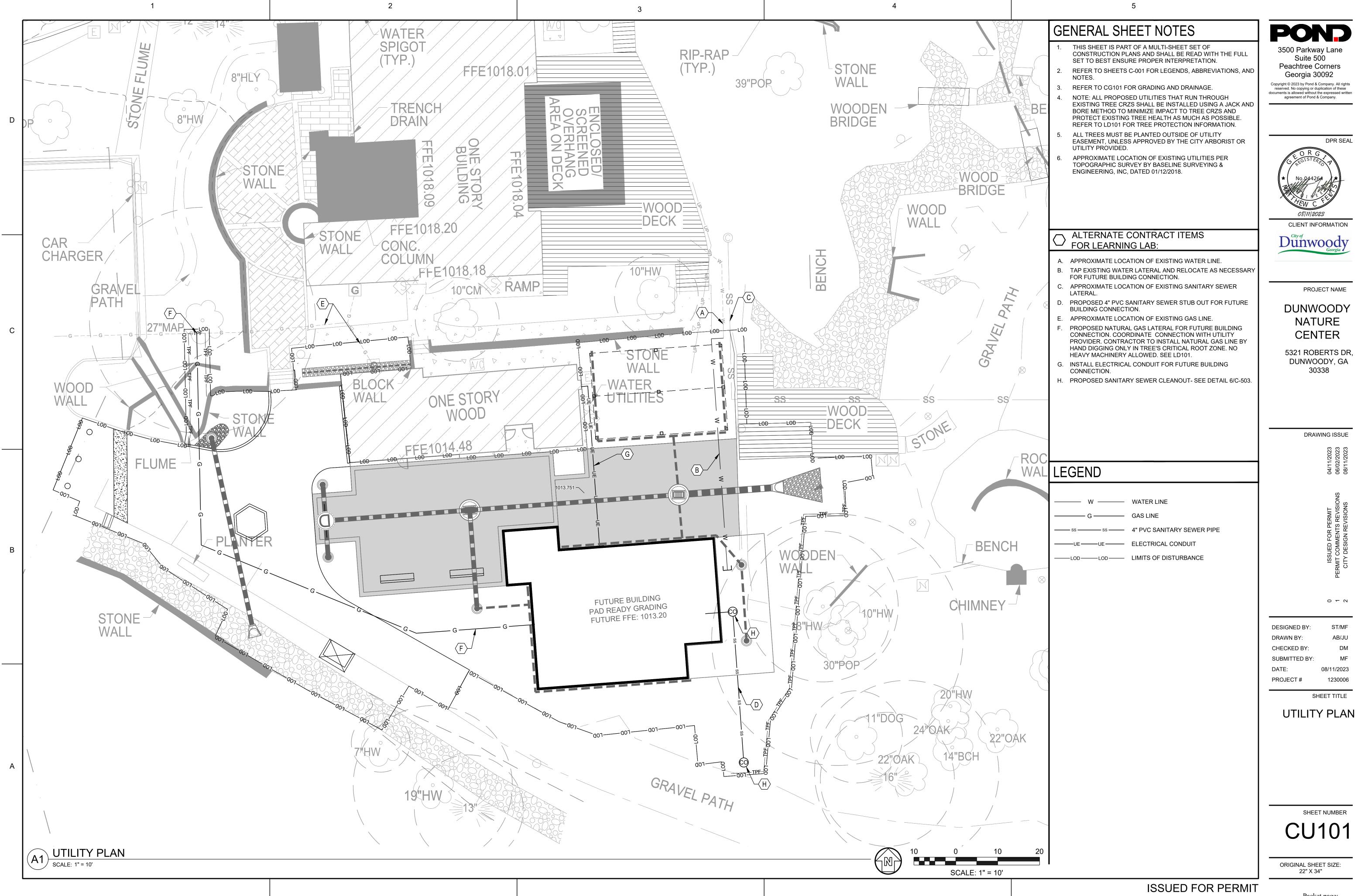
0 1 2

ST/MF

08/11/2023

SHEET TITLE

1230006



STONE PAVING SPEC.

THICKNESS: 4" MIN

FINISH:

STONE SIZE: 12X12 PIECES

GRANITE

SPLIT FACE

agreement of Pond & Company.

CLIENT INFORMATION Dunwoody

PROJECT NAME

DUNWOODY NATURE **CENTER**

5321 ROBERTS DR, DUNWOODY, GA 30338

DRAWING ISSUE

0 - 2

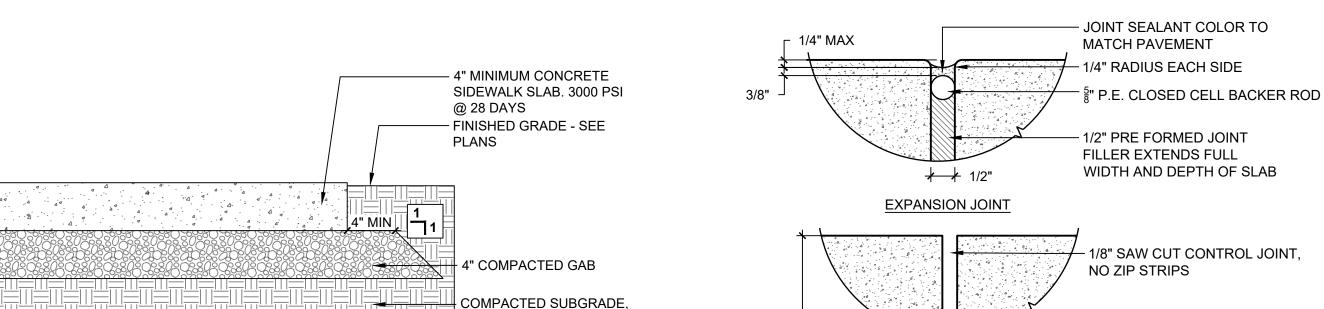
ST/MF DESIGNED BY: DRAWN BY: CHECKED BY: SUBMITTED BY: 08/11/2023 1230006 PROJECT#

SHEET TITLE

CONSTRUCTION **DETAILS**

> SHEET NUMBER C-501

ORIGINAL SHEET SIZE: 22" X 34"



- SEAL ALL BROOM FINISHED CONCRETE WITH A SILOXANE OR SILANE BASED SEALER.
- 2. SEAL ALL EXPOSED EXPOSED AGGREGATE SURFACES WITH LM SCOFIELD REPELLO. 3. SEE THE SITE PLAN FOR CONCRETE COLOR AND AGGREGATE TYPE.
- 4. SEE DETAIL 2/C-501 FOR JOINT INFORMATION 5. 3/8" EXPANSION JOINT AT ALL CURBS AND ALL VERTICAL WALLS.

PEDESTRIAN CONCRETE

P-1220156-05

LANDSCAPE BOULDER SPECIFICATION:

С

В

Α

- BOULDERS MAY BE TENNESSEE FIELDSTONE WITH ROUNDED EDGES INDICATING A WEATHERED APPEARANCE. EXPOSED FACES MAY NOT BE SPLITFACED OR WORKED TO ACHIEVE A WEATHERED LOOK. COLORS VARY, BUT SHALL INCLUDE VARIATIONS OF NATURAL GRAY, BUFF, AND TAN.
- 2. BOULDER WEIGHTS AND SIZES ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR SUPPLYING PHOTOGRAPHS INDICATED OR SAMPLES ON SITE FOR REVIEW AND APPROVAL BY OWNER'S REPRESENTATIVE. COORDINATE PLACEMENT OF ALL BOULDERS WITH OWNER'S REPRESENTATIVE.
- PLACEMENT SHALL BE IN A MORE OR LESS RANDOM PATTERN TO APPROXIMATE "NATURAL" ROCK OUTCROPPINGS.
- 4. AREAS TO RECEIVE BOULDERS SHALL BE FREE OF DEBRIS OR OTHER OBJECTIONABLE MATERIAL, AND PLACED ON A COMPACTED GRAVEL LEVELING PAD.
- 5. PLACE VARIABLE SIZE BOULDERS AS INDICATED ON LANDSCAPE PLAN.

ROCK SIZE	ROCK WEIGHT	AVG. DIMENSION
HALF MAN	25-50LBS	6"-12"
1- MAN	50-200 LBS.	12"-18"
2-MAN	200-300 LBS.	18"-28"
3-MAN	300-400 LBS.	28"-36"
4-MAN	400-500 LBS.	36"-54"
5-MAN	500-1000 LBS.	54"-60"
SPECIMEN	>1000 LBS	>60"

NOTE: BOULDERS AT ENTRY FEATURE TO BE GEORGIA GRANITE.

LANDSCAPE BOULDERS. SIZE VARIES. REFER TO NOTES. - BOULDERS MAY BE IMBEDDED INTO THE FINISHED GRADE NO MORE THAN ¹/₃ OVERALL HEIGHT OF THE STONE — PROVIDE A MIN. OF 4" GRADED AGGREGATE BASE OR #57 STONE OVER GEOTEXTILE FABRIC FOR SETTING BED. — COMPACTED SUBGRADE

VEHICULAR RATED CONCRETE (TYP.)



BOLLARD DIMENSIONS: FINISH/COLOR: SILVER WEBSITE:

https://hausersite.com/products/sentrystainless-steel-removable-bollard?view=product-alt

> ADD-ALTERNATE: HAUSER APEX PICNIC TABLE ADA

MANUFACTURER:

PRODUCT:

WEBSITE:

DIMENSIONS:

FINISH/COLOR:

66" W X 102" L X 31" H IPE WOOD, SLATE BLACK FAME https://hausersite.com/collections/ apex-picnic-tables/products/apex-picnic-tablewith-aluminum-slat-top-benches-ada-compliant

ADD-ALTERNATE: P-1220156-65



— 6" OF COMPACTED GAB

- 24" COMPACTED SUBGRADE, 98% PROCTOR

MANUFACTURER: PRODUCT: DIMENSIONS: FINISH/COLOR: WEBSITE:

HAUSER APEX PICNIC TABLE 66"W X 84"L X 31"H IPE WOOD, SLATE BLACK FRAME https://hausersite.com/collections/apex-picnic-tables/ products/apex-picnic-table-with-ipe-wood-slat-

HAUSER APEX PICNIC TABLE

THOMAS STEELE MIDVALE BENCH

MANUFACTURER:

PRODUCT:

WEBSITE:

DIMENSIONS:

COLOR/FINISH:

ISSUED FOR PERMIT

P-1220156-93

 COMPACTED SUBGRADE, 98% PROCTOR, (TYP). 1/3 OF THE DEPTH OF CONC.

- 1. POLYURETHANE ELASTOMERIC SELF-LEVELING SEALANT, TOOL DOWN 1/8", COLOR TO MATCH PAVEMENT SURFACE.
- LOCATE EXPANSION JOINTS EVERY 25' MAX. AND AT ALL SIDEWALK JUNCTIONS WITH CURBS, STRUCTURES, AND OTHER SIDEWALKS

CONTROL JOINT

CONTRACTION JOINTS AS SHOWN ON THE PLANS.

TYP. JOINTS

- ADJACENT **PLANTINGS** - MORTAR SETTING BED - FLUSH GRANITE BAND, SEE SPEC, ABOVE — 1/2"-3/4" GROUTED JOINTS - ADJACENT PLAZA, SEE DETAIL 1/C-501 - COMPACTED SUB-GRADE, TYP. SECTION

FLUSH GRANITE BAND SCALE: N.T.S.

P-1210754-55

P-1220156-104

- EXPANSION JOINT

FINISH. 4000 PSI.

ADJACENT HARDSCAPE, REFER TO PLAN

TURNDOWN @ ADJACENT PAVING, (TYP.)

- 6" GREY CONCRETE SLAB. LIGHT BROOM

- 6x6 W2.9/2.9 WELDED WIRE REINFORCEMENT

LANDSCAPE BOULDERS

MANUFACTURER: PRODUCT:

HAUSER SENTRY STAINLESS STEEL REMOVABLE

8.5" DIA., 31.5" H

HAUSER SENTRY REMOVABLE BOLLARD P-1220156-17

HAUSER

APEX PICNIC TABLE ADA COMPLIANT

P-1220156-99

top-benches

P-1220156-92

P-1220156-94

THOMAS STEELE

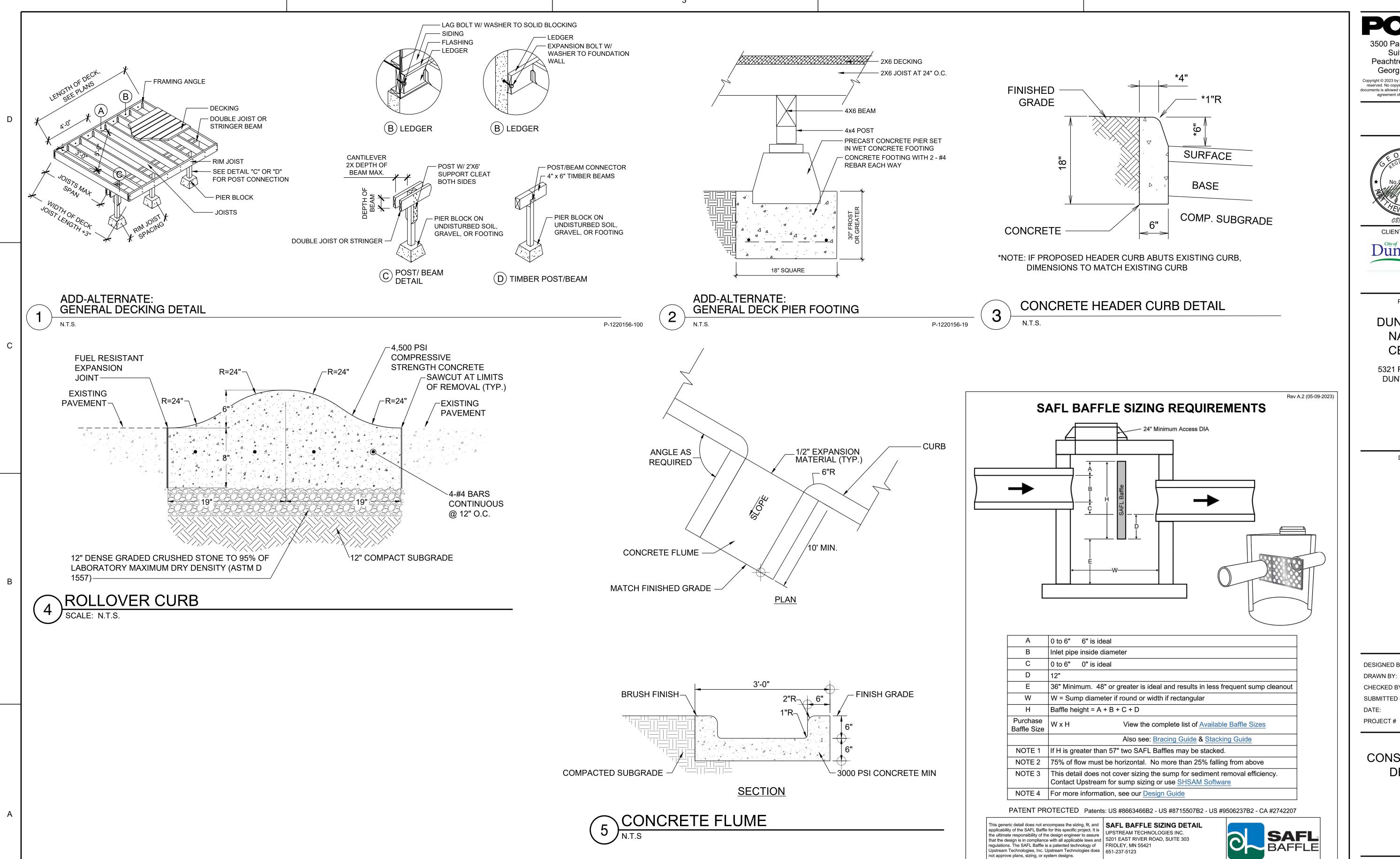
70" X 28" X 25"

/midvale-bench

IPE, BLACK

6' MIDVALE BENCH, MVB-6

https://www.thomas-steele.com



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DPR SEAL

ORG
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ORGISTER

No.044264

No.044264

OS/11/2023

CLIENT INFORMATION

City of Woody

Georgia

PROJECT NAME

DUNWOODY NATURE CENTER

5321 ROBERTS DR, DUNWOODY, GA 30338

DRAWING ISSUE

/2023 /2023 /2023

> ED FOR PERMIT DMMENTS REVISIONS ESIGN REVISIONS

0 - 2

DESIGNED BY: ST/MF
DRAWN BY: AB/JU
CHECKED BY: DM
SUBMITTED BY: MF
DATE: 08/11/2023

SHEET TITLE

1230006

CONSTRUCTION DETAILS

SHEET NUMBER

C-502

ORIGINAL SHEET SIZE: 22" X 34" (1) - GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05

(2) - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE

(3) - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE SDR

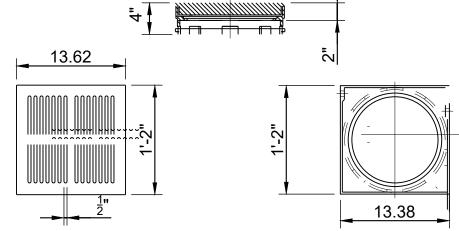
(4) - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°.

-PROVIDE 4" CONC. COLLAR IN LAWN APPLICATIONS WHEN SQUARE INLET IS USED

- (1 & 2) INTEGRATED DUCTILE IRON FRAME & GRATE TO MATCH INLINE O.D. -USE FLUSH GRATE IN LAWN OR PAVEMENT APPLICATIONS. USE DOME GRATE IN MULCHED OR LANDSCAPED PLANTING BEDS. GRATES IN PAVEMENT APPLICATIONS MUST BE CONSIDERED HEEL SAFE. PROVIDE A 4" CONCRETE COLLAR IN LAWN APPLICATIONS. GRATE MAY ALSO BE A ROUND.

-③USE INLET & OUTLET ADAPTERS AS NECESSARY

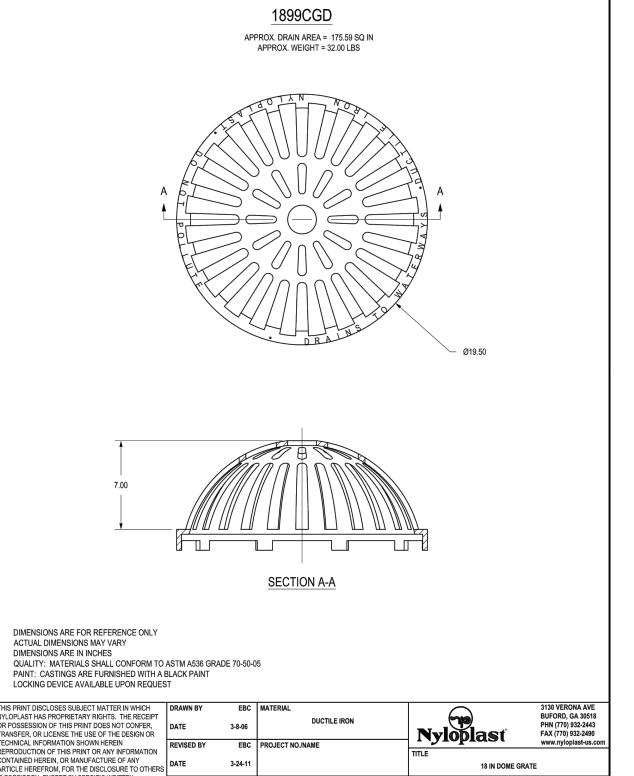
-THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS II MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.



TYP. 12" HEEL SAFE (ADA) GRATE FOR PAVING USE

- ALL DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE
- DUCTILE IRON GRATE WITH LIGHT DUTY RATING
- 3. SIZE OF OPENING SHALL BE HEEL SAFE AND MEET

REQUIREMENTS OF AMERICAN DISABILITY ACT 4. NYLOPLAST GRATE MODEL 1299CGPB SHOWN



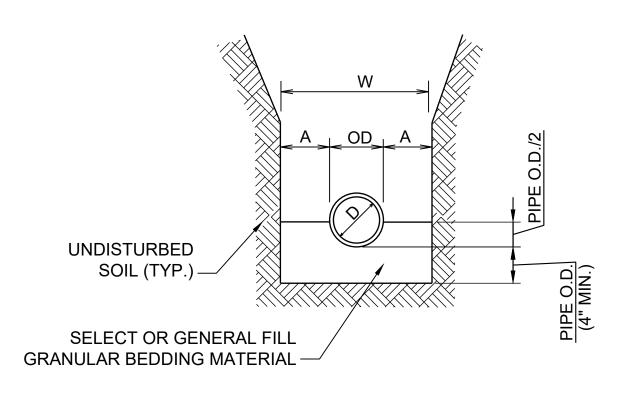
SHEET 1 OF 1 DWG NO.

DOMED GRATE INLET

7001-110-215

В

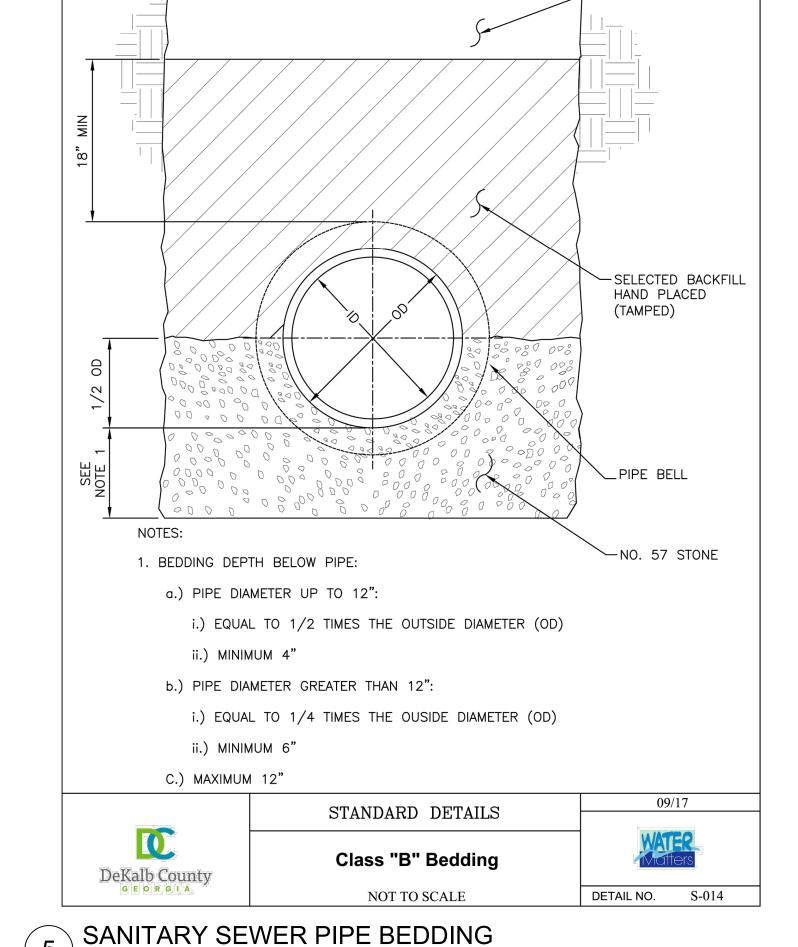
PIPE DIA."D"	MAXIMUM "A"
15" OR SMALLER	8"
16" TO 21"	10"
24" TO 30"	12"
33" TO 42"	15"
48" & LARGER	18"



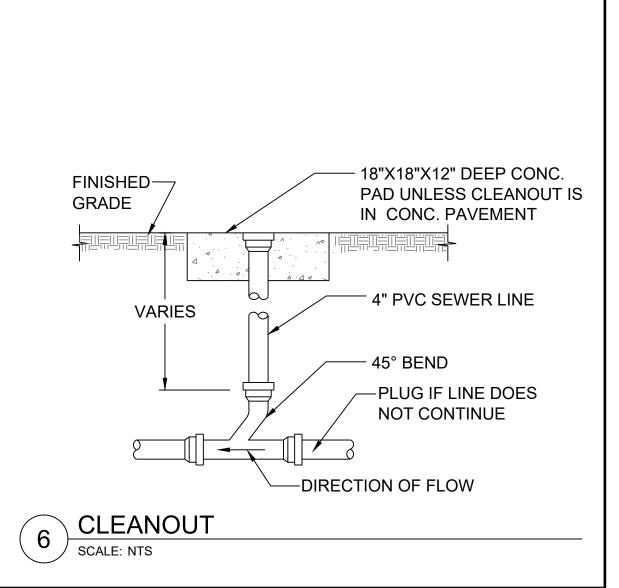
NOTES

1. MAXIMUM TRENCH WIDTH "W" TAKEN AT TOP OF PIPE.





SCALE: NTS



★ T / EX. GRADE -2' WIDE STRIP OF FREE DRAINING GRAVEL ∠4" PERFORATED PVC SUB-DRAIN - DAYLIGHT AT EXISTING WALL **EXISTING INTERIOR FFE** -WATERPROOF MEMBRANE TO BE INSTALLED AGAINST **EXISTING BUILDING WALL** FROM FINISHED GRADE TO FOOTING ELEVATION

_GENERAL BACKFILL

WALL SUB-DRAINGAGE SCALE: NTS

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DPR SEAL 08|11|2023

CLIENT INFORMATION Dunwoody

PROJECT NAME

DUNWOODY NATURE **CENTER**

5321 ROBERTS DR, DUNWOODY, GA 30338

DRAWING ISSUE

0 1 2

ST/MF DESIGNED BY: DRAWN BY: CHECKED BY: SUBMITTED BY 08/11/2023

PROJECT#

SHEET TITLE

1230006

CONSTRUCTION **DETAILS**

SHEET NUMBER

C-503

ORIGINAL SHEET SIZE: 22" X 34"

ISSUED FOR PERMIT

В

PORD
3500 Parkway Lane

Suite 500 Peachtree Corners Georgia 30092

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CLIENT INFORMATION



PROJECT NAME

DUNWOODY NATURE CENTER

5321 ROBERTS DR, DUNWOODY, GA 30338

DRAWING ISSUE

.023 .023

> UED FOR PERMIT COMMENTS REVISIONS DESIGN REVISIONS

0 + 0

DESIGNED BY: ST/MF
DRAWN BY: AB/JU
CHECKED BY: DM
SUBMITTED BY: MF
DATE: 08/11/2023

PROJECT#

SHEET TITLE

1230006

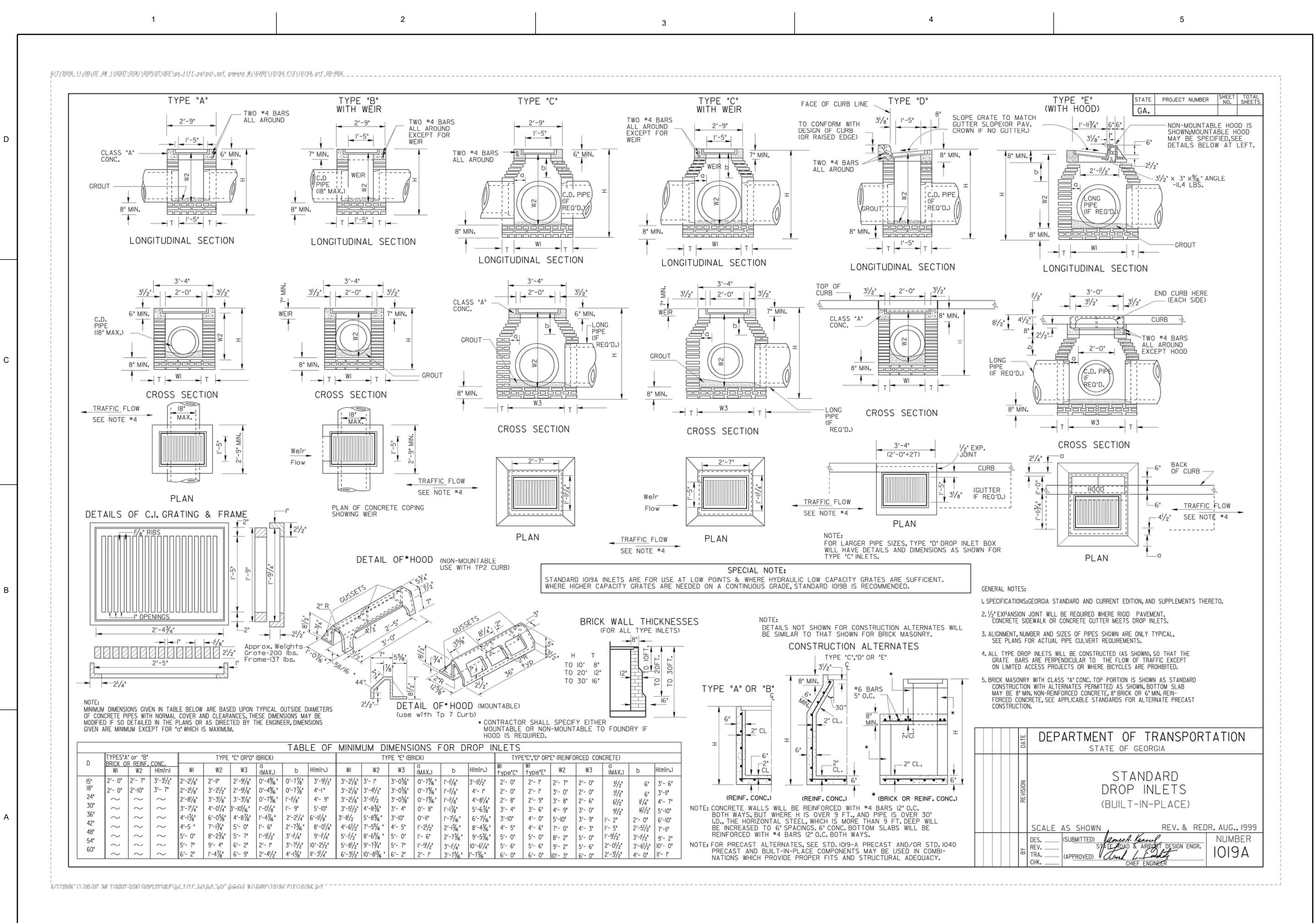
CONSTRUCTION DETAILS

SHEET NUMBER

C-504

ORIGINAL SHEET SIZE: 22" X 34"

ISSUED FOR PERMIT



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CLIENT INFORMATION

Dunwoody

Georgia

PROJECT NAME

DUNWOODY NATURE CENTER

5321 ROBERTS DR, DUNWOODY, GA 30338

DRAWING ISSUE

1/2023

ED FOR PERMIT OMMENTS REVISIONS ESIGN REVISIONS

0 - 2

DESIGNED BY: ST/MF
DRAWN BY: AB/JU
CHECKED BY: DM
SUBMITTED BY: MF
DATE: 08/11/2023

PROJECT#

SHEET TITLE

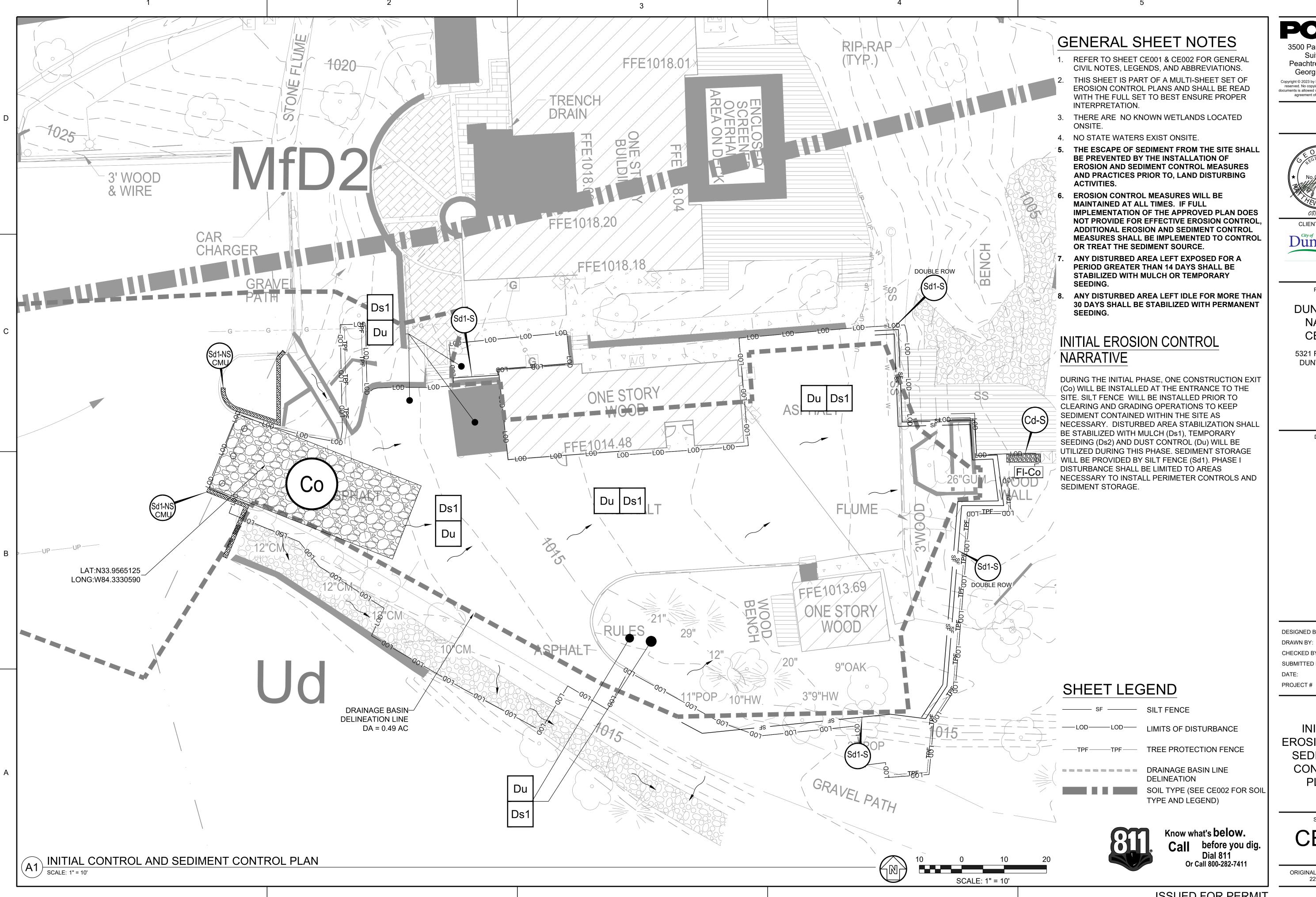
1230006

CONSTRUCTION DETAILS

SHEET NUMBER

C-505

ORIGINAL SHEET SIZE: 22" X 34"



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CLIENT INFORMATION



PROJECT NAME

DUNWOODY NATURE CENTER

5321 ROBERTS DR, DUNWOODY, GA 30338

DRAWING ISSUE

0 - 2

DESIGNED BY: CHECKED BY: 08/11/2023

SHEET TITLE

1230006

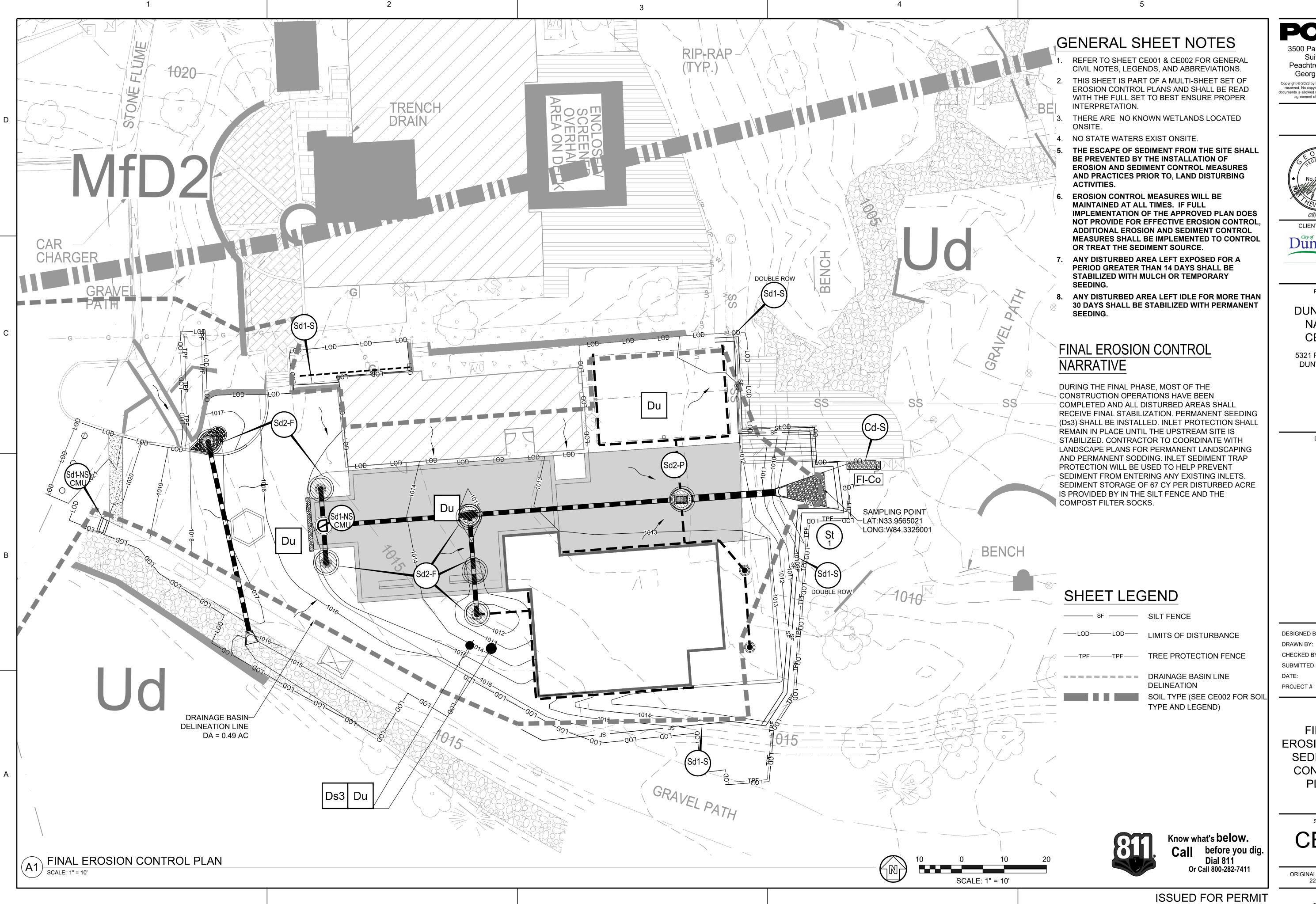
INITIAL **EROSION AND SEDIMENT** CONTROL **PLAN**

SHEET NUMBER

CE101

ORIGINAL SHEET SIZE: 22" X 34"

ISSUED FOR PERMIT



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CLIENT INFORMATION



PROJECT NAME

DUNWOODY NATURE CENTER

5321 ROBERTS DR, DUNWOODY, GA 30338

DRAWING ISSUE

DESIGNED BY: CHECKED BY: 1230006

SHEET TITLE

FINAL EROSION AND SEDIMENT CONTROL **PLAN**

SHEET NUMBER

CE201

ORIGINAL SHEET SIZE: 22" X 34"

<u>PLAN</u>

SECTION A-A

RIPRAP APRON

<u>PLAN</u>

SECTION A-A

APRON.

PIPE OUTLET TO WELL DEFINED CHANNEL

· FILTER BLANKET

BLANKET

CLIENT INFORMATION

5321 ROBERTS DR, DUNWOODY, GA 30338

DRAWING ISSUE

ST/MF DESIGNED BY DRAWN BY: CHECKED BY: SUBMITTED BY: 08/11/2023 1230006 PROJECT#

SHEET TITLE

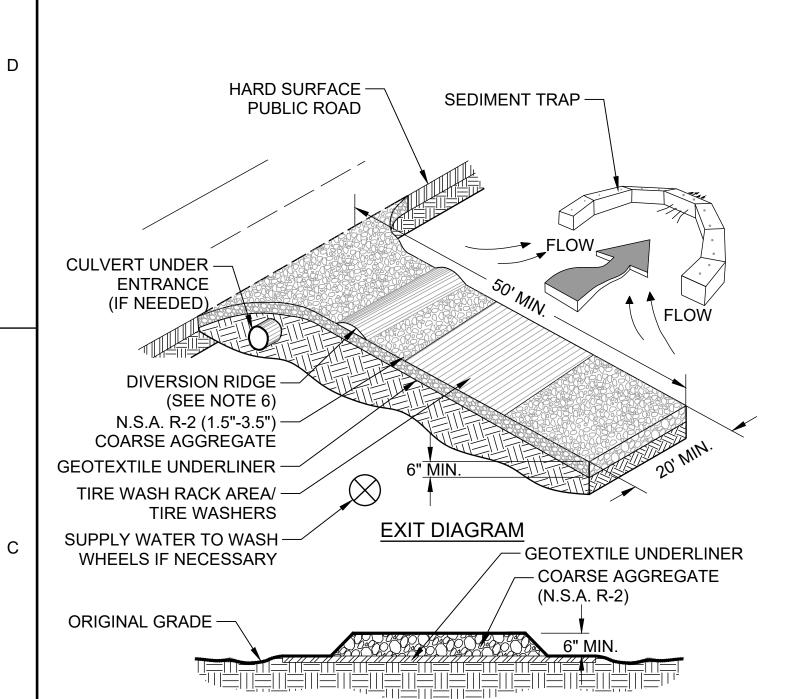
EROSION AND SEDIMENT **CONTROL DETAILS**

SHEET NUMBER

CE501

ORIGINAL SHEET SIZE: 22" X 34"





PETROLEUM STORAGE SHALL BE DONE IN ACCORDANCE WITH ONE OF THE

TWO FOLLOWING METHODS TO PREVENT STORM WATER DISCHARGES ON THE

SITE: A). ALL PETROLEUM STORAGE CONTAINERS SHALL BE COVERED WITH

PLASTIC SHEATHING OR BE LOCATED UNDER A TEMPORARY ROOF. B). ALL

PETROLEUM STORAGE CONTAINERS SHALL BE LOCKED IN A SECONDARY

CONTAINMENT AREA.

NOTES

1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.

ENTRANCE ELEVATION

- 2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
- 3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
- 4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
- 5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
- 6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
- 7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
- 8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
- 9. WASH RACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASH RACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
- 10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

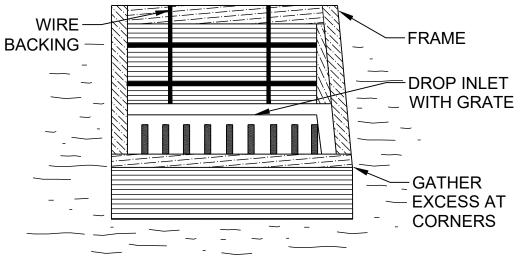


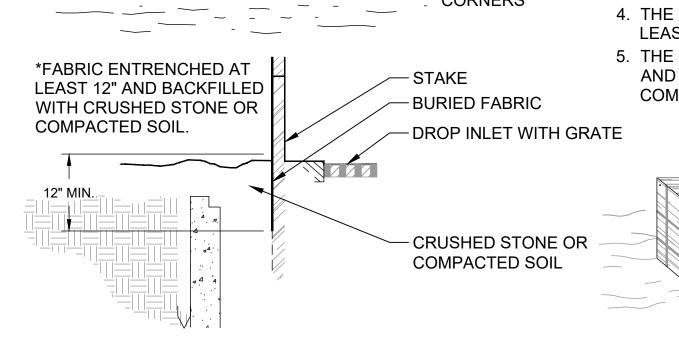
Operation and Maintenance

Application rates shall conform to manufacturer's guidelines for application. Maintenance shall consist of reapplying FI-Co via one of means above when turbidity levels are no longer met or the FI-Co is used up. Bricks, blocks, socks,logs and bags shall be maintained when sediment sediment accumulates on the products.



3' MAX. 3' MIN 18" MIN.





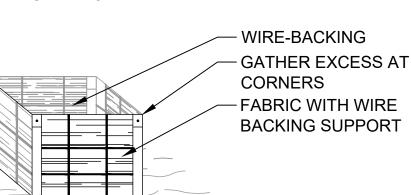
THE TRAP SHALL BE INSPECTED DAILY AND AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP. SEDIMENT SHALL NOT BE WASHED INTO THE INLET. IT SHALL BE REMOVED FROM THE SEDIMENT TRAP AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET AGAIN. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHALL BE BROUGHT TO PROPER GRADE, THEN SMOOTHED AND COMPACTED. APPROPRIATELY STABILIZE ALL DISTURBED AREAS AROUND THE INLET.

INSTALLATION NOTES

3

MAINTENANCE

- 1. DESIGN IS FOR SLOPES NO GREATER THAN 5% (NOT DESIGNED FOR CONCENTRATED FLOWS).
- 2. STAKES SHALL BE STEEL POSTS @ 3' MIN. & 1.3
- 3. THE STEEL POSTS SUPPORTING THE SILT FENCE MATERIAL SHOULD BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET (MAXIMUM OF 3' APART)
- 4. THE STEEL POSTS SHOULD BE SECURELY DRIVEN AT LEAST 18" DEEP.
- 5. THE FABRIC SHOULD BE ENTRENCHED AT LEAST 12" AND THEN BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL.

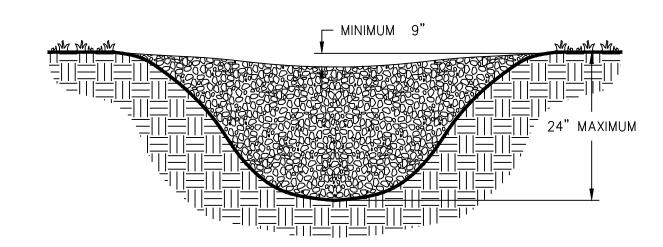


Sd2-F

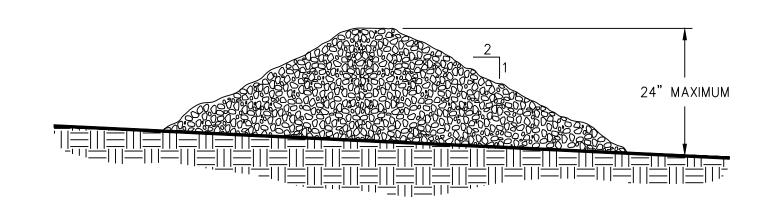
INLET SEDIMENT TRAP - FILTER FABRIC WITH SUPPORTING FRAME

NO SCALE STONE CHECK DAM

CROSS SECTION



PROFILE VIEW



- 1. CHECK DAMS ARE TO BE USED ONLY IN SMALL OPEN CHANNELS (THEY ARE NOT TO
- BE USED IN LIVE STREAMS).
 THE DRAINAGE AREA FOR STONE CHECK DAMS SHALL NOT EXCEED TWO ACRES. 3. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 9 INCHES LOWER THAN THE
- 4. THE DAM HEIGHT SHOULD BE A MAXIMUM OF 2 FEET FROM CENTER TO RIM EDGE. 5. THE SIDE SLOPES OF THE CHECK DAM SHALL NOT EXCEED A 2:1 SLOPE.
- 6. GEOTEXTILE SHALL BE USED TO PREVENT THE MITIGATION OF SUBGRADE SOIL PARTICLES INTO THE STONES (REFER TO AASHTO M288-96, SECTION 7.3, TABLE 3).





La IS THE LENGTH OF THE RIPRAP

2. D = 1.5 TIMES THE MAXIMUM STONE

DIAMETER BUT NOT LESSHAN 6".

3. IN A WELL-DEFINED CHANNEL, EXTEND

AN ELEVATION OF 6" ABOVE THE

4. A FILTER BLANKET OR FILTER FABRIC

THE APRON UP THE CHANNEL BANKS TO

MAXIMUM TAILWATER DEPTH OR TO THE

TOP OF THE BANK (WHICHEVER IS LESS).

SHOULD BE INSTALLED BETWEEN THE

RIPRAP AND THE SOIL FOUNDATION.





24-HOUR EROSION AND SEDIMENTATION CONTROL CONTACT: CARL B. THOMAS SR. 678.382.6700

DESIGN PROFESSIONAL: MATT FELTS, P.E. LEVEL II CERTIFICATION No.: 0000087020 EXPIRES: 05/01/2025

St

DETAIL

SYMBO

CODE PRACTICE

STREAM

CROSSING

STORMDRAIN

OUTLET

PROTECTION

SURFACE

ROUGHENING

TURBIDITY

CURTAIN

TOPSOILING

PROTECTION

VEGETATED

WATERWAY OR

STORMWATER

CONVEYANCE

CHANNEL

Sr

Su

Tc

3

DESCRIPTION

structure protecting a stream or watercourse

from damage by crossing construction

(St) A paved or short section of riprap channel

A rough soil surface with horizontal

roughened condition after grading.

(Tc) A floating or staked barrier installed within

soil, storing it, then spreading it over the

Paved or vegetative water outlets for

diversions, terraces, berms, dikes or similar

disturbed area after completion of

show striping and construction activities.

structures.

construction activity.

at the outlet of a storm drain system

preventing erosion from the concentrated

depressions on a contour or slopes left in c

the water (it may also be referred to as a

floating boom, silt barrier, or silt curtain).

7 The practice of stripping off the more fertile

To protect desirable trees from injury during

Sr A temporary bridge or culvert-type

equipment.

CODE PRACTICE

FILTER

GABION

STABILIZATION

STRUCTURE

LEVEL SPREADER

ROCK

FILTER DAM

RETAINING

WALL

RETRO

FITTING

SEDIMENT

SEDIMENT

TRAP

TEMPORARY

SEDIMENT

BASIN

TEMPORARY

SEDIMENT

FLOATING

SURFACE

SKIMMER

SEEP BERM

BARRIER

* day - z).

Ga

Gr

Rd)

Re

Rt

(Sd1)

(Sd2)

(Sd3)

(Sd4)

Sk

(Spb)

FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

SYMBOL

DESCRIPTION

obtainable. Each situation will require special

completion of construction activities. A basin created by excavation or a dam

Linear control device constructed as a

diversion perpendicular to the direction of

runoff to enhance dissipation and infiltration,

with the employment of intermediate dikes.

while creating multiple sedimentation chambers

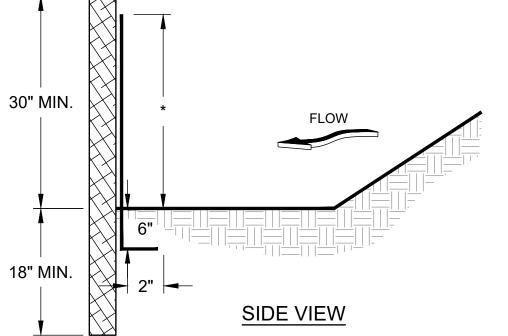
Sk)~-

		OTIVIDOL	
Cd	CHECKDAM	J	A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION	7	Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT	(LABEL)	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Cr	CONSTRUCTION ROAD STABILIZATION	Cr	A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on—site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL	 *	A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION		An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1)	TEMPORARY DOWNDRAIN STRUCTURE	 (LABEL)	A flexible conduit of heavy—duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE	On2	A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.

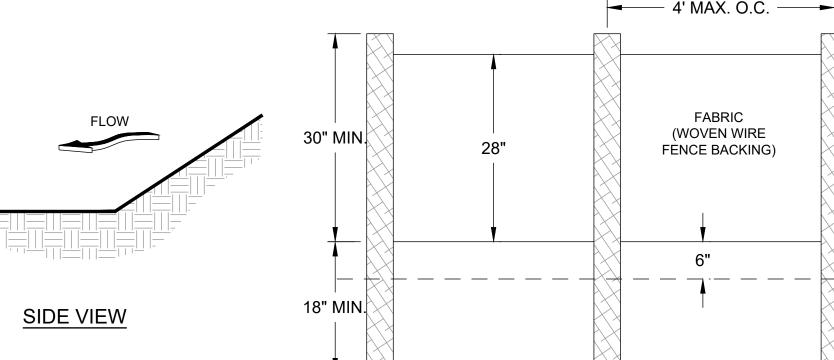
VEGETATIVE PRACTICES

EL)	surface runoti down a stope.		VI	EGETAT	IVEP	RACTICES
	A temporary stone barrier constructed at storm drain inlets and pond outlets.	CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
	Rock filter baskets which are hand-placed into position forming soil stabilizing structures.	Bf	BUFFER ZONE		Bf (LABEL)	Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
EL)	Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.	Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)	FFFFF FFFFF	Cs	Planting vegetation on dunes that are denuded artificially constructed, or re-nourished.
	A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.	Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
	A permanent or temporary stone filter dam installed across small streams or drainageways.	Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
)	A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.	Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)	W. W. C. W.	Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
EL)	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.	Ds4	DISTURBED AREA STABILIZATION (SODDING)		Ds4	A permanent vegetative cover using sods on highly erodable or critically eroded lands.
ンレ PE)	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.	Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
	An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.	FI-Co	FLOCCULANTS AND COAGULANTS		FI-Co	Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
3)	A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.	Sb	STREAMBANK STABILIZATION (USING PERM VEGETATION)		Sb	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
3	A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.	Ss	SLOPE STABILIZATION		Ss	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
EL)	A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.	Тас	TACKIFIERS AND BINDERS		Tac	Substance used to anchor straw or hay mulch by causing the organic material to bind together.
┪						

FOR FURTHER EXPLANATION OF THE SYMBOLS AND CONSTRUCTION PRACTICES, WE REFER YOU TO THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, SIXTH EDITION 2016.



SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER. FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE FABRIC IS REDUCED (APPROXIMATELY SIX MONTHS). TEMPORARY SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT ACCUMULATED AT THE BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE BARRIER IS REMOVED.



FRONT VIEW **NOTES**

- 1. USE STEEL POSTS AS REQUIRED BY GWINNETT COUNTY.
- 2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

SILT FENCE CALCULATIONS

	BASIN
AREA DISTURBED	0.49
STORAGE REQUIRED (CY)	33
STORAGE PROV/50' (CF)	2454
SF PROVIDED (LF)	296
STORAGE PROVIDED (CF)	1452
STORAGE PROVIDED (CY)	538
LENGTH REQUIRED (LF)	18

C4 TYPE 'S' SILT FENCE
NO SCALE



TRENCH

METHODS AND MATERIALS

MAINTENANCE

A. TEMPORARY METHODS

SEE MULCHING. SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIAL

VEGETATIVE COVER

SEE TEMPORARY SEEDING.

SPRAY-ON ADHESIVES THESE ARE USED ON MINERALS SOILS. KEEP TRAFFIC OFF THESE

SPRINKLING THE SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET.

ROADS AND OTHER TRAFFIC ROUTES. SOLID BOARD FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY

AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION



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

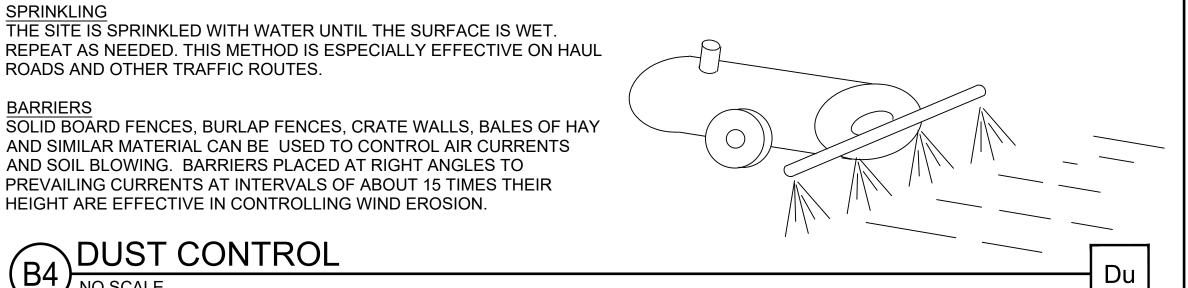
B. PERMANENT METHODS

PERMANENT VEGETATION

SEE STANDARD FOR PERMANENT SEEDING, AND PERMANENT STABILIZATION WITH SOD. EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

TOPSOILING
THIS ENTAILS COVERING THE SURFACE WITH LESS EROSIVE SOIL MATERIAL. SEE TOPSOILING.

STONE COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL



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3500 Parkway Lane Suite 500

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DPR SEAL

08/11/2023

CLIENT INFORMATION Dűnwoody

PROJECT NAME

DUNWOODY NATURE CENTER

5321 ROBERTS DR, DUNWOODY, GA 30338

DRAWING ISSUE

ST/MF DESIGNED BY DRAWN BY: CHECKED BY: SUBMITTED BY:

SHEET TITLE

PROJECT#

08/11/2023

1230006

EROSION AND SEDIMENT CONTROL **DETAILS**

SHEET NUMBER

CE502

ORIGINAL SHEET SIZE: 22" X 34"

ISSUED FOR PERMIT

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14

MULCHING WITHOUT SEEDING

THIS STANDARD APPLIES TO GRADED OR CLEARED AREAS WHERE SEEDINGS MAY NOT HAVE SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT CAN BE STABILIZED WITH A MULCH COVER.

SITE PREPARATION

- 1. GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH.
- 2. INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSIONS, BERMS, TERRACES, AND SEDIMENT BARRIERS.
- 3. LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

GREATLY REDUCE EROSION CONTROL COSTS.

MULCHING MATERIALS

- SELECT ONE OF THE FOLLOWING MATERIALS AND APPLY AT THE DEPTH INDICATED: 1. DRY STRAW OR HAY SHALL BE APPLIED AT A DEPTH OF 2 TO 4 INCHES PROVIDING
- COMPLETE SOIL COVERAGE. ONE ADVANTAGE OF THIS MATERIAL IS EASY APPLICATION. WOOD WASTE (CHIPS, SAWDUST OR BARK) SHALL BE APPLIED AT A DEPTH OF 2 TO 3 INCHES. ORGANIC MATERIAL FROM THE CLEARING STAGE OF DEVELOPMENT SHOULD REMAIN ON SITE, BE CHIPPED, AND APPLIED AS MULCH. THIS METHOD OF MULCHING CAN
- 3. POLYETHYLENE FILM SHALL BE SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR TEMPORARY PROTECTION. THIS MATERIAL CAN BE SALVAGED AND RE-USED.

APPLYING MULCH

MULCHING RATE: MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.

- 1. DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.
- 2. IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION, 20-30 POUNDS OF NITROGEN PER ACRE IN ADDITION TO THE NORMAL AMOUNT SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE
- 3. APPLY POLYETHYLENE FILM ON EXPOSED AREAS.

ANCHORING MULCH

- 1. STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL "PACKER DISK". DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISK SHOULD BE DULL ENOUGH NOT TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION. STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED. TACKIFIERS, BINDERS, AND HYDRAULIC MULCH WITH TACKIFIER SPECIFICALLY DESIGNED FOR TACKING STRAW CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. PLEASE REFER TO SPECIFICATION Tac - TACKIFIERS. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S
- 2. NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE CHIPS.
- 3. POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

		T									
				PLANTING RATES BY RESOURCE AREA PLANTING		INC					
				DATES		ING					
	BROAD RATES 2			OPT	IMII	M					
SPECIES	PER	PER	RESOURCE AREA				E BU	JT MA	RGI	NAL	REMARKS
3FECIE3	ACRE	1000 SQ. FT.	ANLA	 J F	M A	M	J J	A 5	S O	N [
BERMUDA, COMMON (CYNODON DACTYLON) HULLED SEED ALONE WITH OTHER PERENNIALS	10 LBS 6 LBS	0.2 LB 0.1 LB	P C								1,787,000 SEED PER POUND. QUICK COVER. LOW GROWING AND SOD FORMING. FULL SUN. GOOD FOR ATHLETIC FIELDS.
BERMUDA, COMMON (CYNODON DACTYLON) UNHULLED SEED			P C	$\overline{}$							PLANT WITH WINTER ANNUALS, PLANT WITH
WITH TEMPORARY COVER WITH OTHER PERENNIALS	10 LBS 6 LBS	0.2 LB 0.1 LB									TALL FESCUE.
CENTIPEDE (EREMOCHLOA OPHIUROIDES)	BLOCK SO	OD ONLY	P C		-		•				DROUGHT TOLERANT. FULL SUN OR PARTIAL SHADE. EFFECTIVE ADJACENTTO CONCRETE AND IN CONCENTRATED FLOW AREAS. IRRIGATION AS NEEDED UNTIL FULLY ESTABLISHED. DO NOT PLANT NEAR PASTURES. WINTERHARDY AS FAR NORTH AS ATHENS AND ATLANTA.
FESCUE, TALL (FESTUCA ARUNDINACEA)			M-L P		_			-			227,000 SEED PER POUND. USE ALONE ONLY ON BETTER SITES. NOT FOR DROUGHTY SOILS. MIX WITH PERENNIAL LESPEDEZAS OR CROWNVETCH, APPLY TOPDRESSING IN SPRING
ALONE	50 LBS	1.1 LB									FOLLOWING FALL PLANTINGS. NOT FOR HEAVY USE AREAS OR
WITH OTHER PERENNIALS	30 LBS	0.7 LB									ATHLETIC FIELDS.
LOVEGRASS, WEEPING (ERAGROSTIS CURVULA)			M-L P C								1,500,000 SEED PER POUND. QUICK COVER. DROUGHT TOLERANT. GROWS WELL WITH SERICEA
ALONE	4 LBS	0.1 LB	~								LESPEDEZA ON ROADBANKS.
WITH OTHER PERENNIALS	2 LBS	0.05 LB									

CONSTRUCTION SPECIFICATIONS

GRADING & SHAPING

- GRADING AND SHAPING MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED. VERTICAL BANKS SHALL BE SLOPED TO ENABLE PLANT ESTABLISHMENT.
- WHEN CONVENTIONAL SEEDING AND FERTILIZING ARE TO BE DONE, GRADE AND SHAPE WHERE FEASIBLE AND PRACTICAL, SO THAT EQUIPMENT CAN BE USED SAFELY AND EFFICIENTLY DURING SEEDBED PREPARATION, SEEDING, MULCHING AND MAINTENANCE OF THE VEGETATION.
- CONCENTRATIONS OF WATER THAT WILL CAUSE EXCESSIVE SOIL EROSION SHALL BE DIVERTED TO A SAFE OUTLET. DIVERSIONS AND OTHER TREATMENT PRACTICES SHALL CONFORM WITH THE APPROPRIATE STANDARDS AND SPECIFICATIONS.

LIME AND FERTILIZER RATES AND ANALYSIS

- AGRICULTURAL LIME IS REQUIRED AT THE RATE OF ONE TO TWO TONS PER ACRE UNLESS SOIL TESTS INDICATE OTHERWISE. GRADED AREAS REQUIRE LIME APPLICATION. IF LIME IS APPLIED WITHIN SIX MONTHS OF PLANTING PERMANENT PERENNIAL VEGETATION, ADDITIONAL LIME IS NOT REQUIRED. AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE.
- LIME SPREAD BY CONVENTIONAL EQUIPMENT SHALL BE "GROUND LIMESTONE." GROUND LIMESTONE IS CALCITIC OR DOLOMITIC LIMESTONE GROUND SO THAT 90% OF THE MATERIAL WILL PASS THROUGH A 10-MESH SIEVE. NOT LESS THAN 50% WILL PASS THROUGH A 50-MESH SIEVE AND NOT LESS THAN 25% WILL PASS THROUGH A 100-MESH SIEVE.
- FAST ACTING LIME SPREAD BY HYDRAULIC SEEDING EQUIPMENT SHOULD BE "FINELY GROUND LIMESTONE" SPANNING FROM THE 180 MICRON SIZE TO THE 5 MICRON SIZE. FINELY GROUND LIMESTONE IS CALCITIC OR DOLOMITIC LIMESTONE GROUND SO THAT 95% OF THE MATERIAL WILL PASS THROUGH A 100-MESH SIEVE.
- IT IS DESIRABLE TO USE DOLOMITIC LIMESTONE IN THE SAND HILLS, SOUTHERN COASTAL PLAIN AND ATLANTIC COAST FLATWOODS MLRAs (SEE FIGURE 6-4.1).
- AGRICULTURAL LIME IS GENERALLY NOT REQUIRED WHERE ONLY TREES ARE
- INITIAL FERTILIZATION, NITROGEN, TOPDRESSING, AND MAINTENANCE FERTILIZER REQUIREMENTS FOR EACH SPECIES OR COMBINATION OF SPECIES ARE LISTED IN TABLE 6-5.1

LIME AND FERTILIZER APPLICATION

- WHEN HYDRAULIC SEEDING EQUIPMENT IS USED, THE INITIAL FERTILIZER SHALL BE MIXED WITH SEED, INNOCULANT (IF NEEDED), AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH AND APPLIED IN A SLURRY. THE INNOCULANT, IF NEEDED, SHALL BE MIXED WITH THE SEED PRIOR TO BEING PLACED INTO THE HYDRAULIC SEEDER. 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.
- FINELY GROUND LIMESTONE CAN BE APPLIED IN THE MULCH SLURRY OR IN COMBINATION WITH THE TOP DRESSING
- WHEN CONVENTIONAL PLANTING IS TO BE DONE, LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY IN ONE OF THE FOLLOWING WAYS:
 - 1. APPLY BEFORE LAND PREPARATION SO THAT IT WILL BE MIXED WITH THE SOIL DURING SEEDBED PREPARATION.
 - 2. MIX WITH THE SOIL USED TO FILL THE HOLES, DISTRIBUTE IN FURROWS.
 - 3. BROADCAST AFTER STEEP SURFACES ARE SCARIFIED, PITTED OR TRENCHED.
 - 4. A FERTILIZER PELLET SHALL BE PLACED AT ROOT DEPTH IN THE CLOSING HOLE BESIDE EACH PINE TREE SEEDLING.

* REVISED PER LATEST EDITION OF MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA

FERTILIZER REQUIREMENTS

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	
1. COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 LBS./AC. 1000 LBS./AC. 400 LBS./AC.	
2. COOL SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500 LBS./AC. 1000 LBS./AC. 400 LBS./AC.	0-50 LBS./AC. 1/ - -
3. GROUND COVERS	FIRST SECOND MAINTENANCE	10-10-10 10-10-10 10-10-10	1300 LBS./AC. 3/ 1300 LBS./AC. 3/ 1100 LBS./AC.	- - -
4. PINE SEEDLINGS	FIRST	20-10-5	ONE 21-GRAM PELLET PER SEEDLING PLACED IN THE CLOSING HOLE	-
5. TEMPORARY COVER CROPS SEEDED ALONE	FIRST	10-10-10	500 LBS./AC.	30 LBS./AC. 5/
6. WARM SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 LBS./AC. 800 LBS./AC. 400 LBS./AC.	
7. WARM SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500 LBS./AC. 1000 LBS./AC. 400 LBS./AC.	50 LBS./AC. 6/

- APPLY IN SPRING FOLLOWING SEEDING. APPLY IN SPLIT APPLICATIONS WHEN HIGH RATES ARE USED.
- APPLY IN 3 SPLIT APPLICATIONS.
- APPLY WHEN PLANTS ARE PRUNED.
- APPLY WHEN PLANTS GROW TO A HEIGHT OF 2 TO 4 INCHES.

DUNWOODY CENTER

Suite 500

Peachtree Corners

Georgia 30092

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08/11/2023

CLIENT INFORMATION

PROJECT NAME

Dunwoody

DPR SEAL

5321 ROBERTS DR, DUNWOODY, GA

DRAWING ISSUE

DESIGNED BY DRAWN BY: CHECKED BY: 08/11/2023

PROJECT#

SHEET TITLE

1230006

EROSION AND SEDIMENT CONTROL **DETAILS**

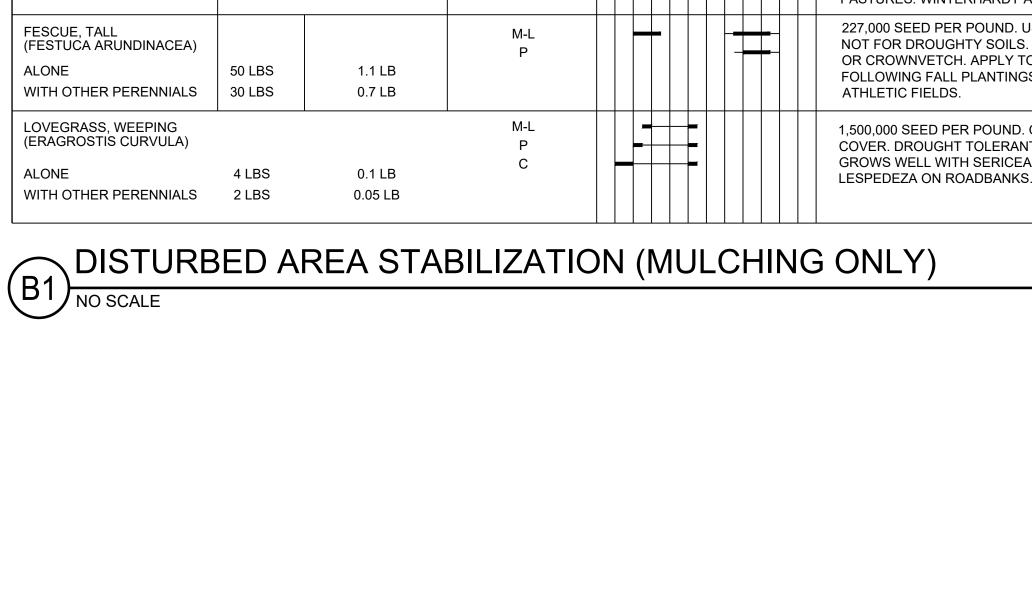
SHEET NUMBER

CE503

Packet page:...

ORIGINAL SHEET SIZE: 22" X 34"

ISSUED FOR PERMI



(DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

- WRAP CMU BRICKS IN 36"

LAY SILT FENCE FABRIC FLAT, WITH CMU'S ON TOP

APPROX 3" FROM EDGE WRAP FENCE AROUND.

ONCE WRAPPED, TURN

BRICK OVER TO OVERLAP FABRIC ON BOTTOM.

THE OVERLAP OCCURS ON THE BOTTOM SIDE.

POSITION WITH CMU HOLES -FACING SIDEWAYS TO ALLOW WATER TO PASS

DESIGNED FOR USE WITH CMU'S (CONCRETE MASONRY UNITS)

USE OF 36" SILT FENCE FABRIC WILL PROVIDE APPROXIMATELY 3"

APPROXIMATELY 8" X 8" X 16"

SEDIMENT BARRIER IN PAVEMENT USING CMU WRAPPED IN SILT FENCE (Sd2-P

4. LAY CMU BLOCKS END TO END TO REDUCE GAPS

5321 ROBERTS DR DUNWOODY, GA

ST/MF AB/JU 08/11/2023 1230006 PROJECT#

LANDSCAPE NOTES

L-001

GENERAL PLANTING NOTES

- 1. THE "DESIGN PROFESSIONAL" AS REFERENCED IN THESE NOTES REFERS TO THE LANDSCAPE ARCHITECT/DESIGN FIRM REPRESENTATIVE, THE OWNER'S REPRESENTATIVE, OR THE OWNER, DEPENDING ON THE PROJECT CONTRACT.
- THE CONTRACTOR WILL SCHEDULE A PRE-CONSTRUCTION MEETING WITH DESIGN PROFESSIONAL TO REVIEW PROJECT LANDSCAPE REQUIREMENTS.
- ANY SPECIFIC GENERAL CONTRACT TERMS AND CONDITIONS THAT SUPERCEDE THE PLANTING NOTES IN THE DRAWINGS AND/OR SPECIFICATIONS MUST BE NOTED BY THE CONTRACTOR TO THE OWNER DURING CONTRACT NEGOTIATION.
- CONTRACTOR'S PRICE MUST INCLUDE ALL LABOR AND MATERIAL NECESSARY TO COMPLETE THE WORK, I.E. MULCH, PLANTING, SOIL MIX, STAKING MATERIAL WATERING, MAINTENANCE DURING CONSTRUCTION, ETC.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL MATERIAL QUANTITIES SHOWN ON THESE DRAWINGS BEFORE PRICING THE WORK, AND WILL BE RESPONSIBLE FOR INSTALLATION OF PLANT MATERIAL ACCORDING TO PLAN. THE PLANT SCHEDULE IS PROVIDED FOR CONTRACTOR'S CONVENIENCE ONLY.
- PROVIDE PLANT MATERIALS TRUE TO SPECIES AND VARIETY/CULTIVAR COMPLYING WITH RECOMMENDATIONS OF "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERY MEN.
- 8. PLANTING PLANS INDICATE DIAGRAMMATIC LOCATIONS ONLY. SITE ADJUSTMENTS OF PLANTING DESIGN AND RELOCATION OF PLANT MATERIAL INSTALLED PRIOR TO DESIGN PROFESSIONAL'S APPROVAL MUST BE DONE WITHOUT PENALTY OR ADDITIONAL COST TO OWNER. STAKE PLANT LOCATIONS AT SITE AND OBTAIN DESIGN PROFESSIONAL'S APPROVAL PRIOR TO PLANT INSTALLATION.
- DESIGN PROFESSIONAL WILL BE THE SOLE JUDGE OF THE QUALITY AND ACCEPTABILITY OF MATERIALS AND PLACEMENT.
- 10. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE PLANT MATERIALS AS SPECIFIED ON THE DRAWINGS WILL BE AVAILABLE AT TIME OF PLANTING. NO SUBSTITUTIONS OF PLANT MATERIAL WILL BE ACCEPTED UNLESS APPROVED WITHIN FOUR (4) WEEKS OF PROJECT AWARD IN WRITING BY THE DESIGN PROFESSIONAL, WHO RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH
- 11. CONTRACTOR MAY MAKE MATERIAL ORDERS OR OBTAIN GROWING CONTRACTS FROM NURSERIES AT THE BEGINNING OF THE CONTRACT IN ANTICIPATION OF PLANTING AT A LATER DATE. PROVIDE PROVISIONS THAT ANY ORDERS OR CONTRACTS WILL REVERT TO THE OWNER DUE TO CONTRACTOR DEFAULT OR OTHER UNFORESEEN CIRCUMSTANCE.

ARE DEEMED UNSATISFACTORY.

- 12. IN ORDER TO BE CONSIDERED AS VIABLE ALTERNATES, PLANTS MUST SHARE THE SAME GENERAL APPEARANCE/FORM, INSTALLATION SIZE, MATURE SIZE, COLOR, QUALITY AND GROWTH HABIT, MATERIALS MUST BE OFFERED AT NO ADDITIONAL COSTS TO THE OWNER.
- 13. LANDSCAPE WORK WILL BE SCHEDULED TO BE AT A TIME OF YEAR MOST CONDUCIVE FOR ESTABLISHMENT. ANY MATERIAL SPECIFIED THAT CANNOT BE SUPPLIED DUE TO TIME OF YEAR FOR TRANSPLANTING (e.g. "SUMMER DUG") WILL BE SCHEDULED AT THE APPROPRIATE SEASON AFTER INSTALLATION OF OTHER MATERIAL IF NECESSARY. ANY PLANTING AFTER SUBSTANTIAL COMPLETION AS A RESULT MUST BE COMPLETED AT NO ADDITIONAL COST TO OWNER.
- 14. ALL PLANTS MUST BE HEALTHY, VIGOROUS, FREE OF PESTS AND DISEASE.
- 15. ALL PLANTS MUST BE CONTAINER-GROWN, OR BALLED AND BURLAPPED AS SPECIFIED.
- 16. LOCATE AND VERIFY ALL UTILITY LOCATIONS AND EXISTING STRUCTURES IN AND AROUND THE SITE PRIOR TO WORK. BE FAMILIAR WITH UNDERGROUND UTILITIES

- BEFORE DIGGING. MAINTAIN EXISTING UTILITIES AND STRUCTURES AND PROTECT AGAINST DAMAGE DURING THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES TO EXISTING UTILITIES, STRUCTURES, PAVING AND/OR WORK OF OTHER TRADES RESULTING FROM LANDSCAPE CONSTRUCTION.
- 17. THE CONTRACTOR WILL NOTIFY ALL NECESSARY UTILITY COMPANIES 72 HRS MINIMUM PRIOR TO DIGGING FOR FIELD VERIFICATION OF ALL UNDERGROUND UTILITIES, AND OTHER ELEMENTS, AND COORDINATE WITH THE DESIGN PROFESSIONAL PRIOR TO INITIATING OPERATIONS. THE CONTRACTOR MUST AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF WORK
- 18. CONTRACTOR MUST PROTECT ALL EXISTING PLANT MATERIALS INDICATED ON PLANS TO REMAIN. ALL PLANT MATERIAL INDICATED TO REMAIN THAT IS DAMAGED BY THE CONTRACTOR MUST BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER WITH THE SAME SIZE, QUALITY, AND TYPE OF PLANT MATERIAL OR AS REQUIRED BY THE LOCAL REVIEWING AUTHORITY, WHICHEVER HAS A GREATER RECOMPENSE VALUE.
- 19. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN OR DEFOLIATES (PRIOR TO DATE OF SUBSTANTIAL COMPLETION OF THE WORK) MUST BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, SIZE AND MEETING ALL THE PLANT LIST SPECIFICATIONS.
- 20. PLANTS MUST BE SPECIMEN QUALITY, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF DISEASES, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN-SCALD, INJURIES, ABRASIONS AND/OR DISFIGUREMENT.
- 21. HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO THE MAIN BODY OF THE PLANT AND NOT FROM BRANCH TIP TO TIP. IF A RANGE OF SIZE IS GIVEN, NO PLANT MUST BE LESS THAN THE MINIMUM SIZE AND NOT LESS THAN 50 PERCENT OF THE PLANTS MUST BE AS LARGE AS THE MAXIMUM SIZE SPECIFIED.
- 22. HARDWOOD TREES MUST HAVE STRAIGHT TRUNKS WITH CENTRAL LEADERS, FULL HEADED, AND MEET ALL REQUIREMENTS SPECIFIED. DO NOT HANDLE PLANTS BY THE TRUNK.
- 23. PLACE PLANTS UPRIGHT AND TURNED SO THAT THE MOST ATTRACTIVE SIDE IS VIEWED.
- 24. AFTER BEING DUG AT THE NURSERY SOURCE, ALL TREES IN LEAF MUST BE ACCLIMATED FOR TWO (2) WEEKS UNDER A MIST SYSTEM PRIOR TO INSTALLATION.
- 25. MULCH: PROVIDE 3" THICKNESS MULCH AT ALL PLANTS AND PLANTING BEDS. UTILIZE SHREDDED, AGED HARDWOOD MULCH.
- 26. LEAVES: MUST BE OF MEDIUM FOLIAGE, ALL GOOD LEAVES, MAXIMUM OF 10% CHLOROSIS ALLOWED, WITH NO EXTREME SUCCULENCE.
- 27. IF DRAINAGE IS NOT SUFFICIENT NOTIFY THE DESIGN PROFESSIONAL IN WRITING BEFORE INSTALLING THE PLANTS, OTHERWISE CONTRACTOR IS RESPONSIBLE FOR THE GUARANTEE AND LIVABILITY OF THE PLANT.
- 28. THE CONTRACTOR MUST PROVIDE ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION OPERATIONS TO PROTECT THE PUBLIC ACCORDING TO ALL APPLICABLE CODES AND RECOGNIZED LOCAL PRACTICES
- 29. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DRAWINGS AND FIELD CONDITIONS TO THE DESIGN PROFESSIONAL PRIOR TO STARTING CONSTRUCTION. FOLLOW THE DESIGN PROFESSIONAL'S INSTRUCTIONS ON RESOLVING ANY DISCREPANCIES.
- 30. UNLESS OTHERWISE SPECIFIED DUE TO SOIL CONDITIONS, SET ROOT FLARE OF ROOTBALL LEVEL WITH SURROUNDING GRADE. ROOT SYSTEM MUST BE AS SPECIFIED IN PLANT SCHEDULE:
 - BALLED AND BURLAPPED: ROOTS MUST BE STURDILY ESTABLISHED IN BALL THAT HAS BEEN

- TIGHTLY WRAPPED AND SECURELY TIED WITH TWINE OR WIRE, OR PINNED. WHERE WIRE BASKETS ARE USED ON TREES OR SHRUBS, CUT BURLAP AND WIRE BACK TO 1/4 THE BASE OF ROOTBALL AND REMOVE FROM PLANTING HOLE. REMOVE ALL STRAPS, WIRE STRAP HANGERS, ETC. FROM ROOTBALL. DO NOT ALLOW REMAINING WIRE TO PROTRUDE INTO MULCH OR TOPSOIL AREAS.
- CONTAINER GROWN: CONTRACTOR WILL BE RESPONSIBLE FOR NOTIFYING DESIGN PROFESSIONAL OF ROOT BOUND SPECIMENS REMOVE CONTAINER AND SCARIFY OR SHAVE ROOTBALL AS NEEDED TO REMEDIATE ROOT BOUND CONDITION. PULL SURFACE ROOTS AT TOP OF ROOTBALL OUT IN A DIRECTIONAL PATTERN TO DISCOURAGE CIRCLING ROOTS.
- 31. STAKING IS ONLY TO BE INSTALLED IN SPECIAL CIRCUMSTANCES AT THE DIRECTION OF THE DESIGN PROFESSIONAL. ANY STAKING MATERIAL MUST BE REMOVED AT THE END OF THE WARRANTY PERIOD.

PLANTING SOIL MIX NOTES:

- 1. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PROCURING A LANDSCAPE SOIL REPORT FROM PROFILE SOIL SOLUTIONS: https://profileps3.com/, LOCAL EXTENSION SERVICE (AGRICULTURAL AND ENVIRONMENTAL SERVICES LABS: http://aesl.ces.uga.edu/), OR OTHER VENDOR.
- 2. THE LANDSCAPE CONTRACTOR MUST SUPPLY ALL TOPSOIL, PLANTING SOIL MIX AND OTHER ADDITIVES AND MUST APPROVED BY THE DESIGN PROFESSIONAL PRIOR TO ANY BACKFILLING.
- THE TYPICAL PLANTING SOIL MIX FOR ON-GRADE PLANTINGS (TREES, SHRUBS & GROUND COVERS) MUST CONSIST OF THE FOLLOWING UNLESS OTHERWISE INDICATED ON THE DRAWINGS:
- 3.1. 60% TOPSOIL (AS SPECIFIED), 40% MR. NATURAL CLM (COMPLETE LANDSCAPE MIX) BY ITSAULNATURAL, LLC, OR AS NOTED BELOW AS AN EQUIVALENT 40% OF PREPARED ADDITIVES (BY VOLUME AS FOLLOWS):
- 3.1.1. 2 PARTS HUMUS AND/OR PEAT,1 PART STERILIZED COMPOSTED COW MANURE
- 3.1.2. 1 PART SHREDDED PINE BARK (BARK PIECES BETWEEN ¹/₂ INCH AND 2 INCHES IN LENGTH)
- 3.1.3. COMMERCIAL FERTILIZER OR LIME AS RECOMMENDED IN SOIL REPORT (IF ANY).
- 4. TYPICAL PLANTING SOIL MIX FOR PERENNIAL OR SEASONAL COLOR BEDS CONSIST OF TOPSOIL AND THE FOLLOWING SOIL AMENDMENTS BY VOLUME:
- 4.1. 40% TOPSOIL (AS SPECIFIED)
- 4.2. 25 % HUMUS 15% PULVERIZED PINE BARK MULCH (FINGERNAIL SIZED CHIPS - 1/4 INCH MAX.
- 4.3. 5% STERILIZED COMPOSTED COW MANURE
- 5 % SAND (ANGULAR BUILDERS SAND) LIME AT A RATE OF 5 LBS. PER 50 SQ. FEET (ADJUST FOR ALKALINE SOILS).
- 4.5. COMMERCIAL FERTILIZER OR LIME AS RECOMMENDED IN SOIL REPORT (IF ANY).

WATERING/IRRIGATION

- WATERING AFTER INSTALLATION AND WATER TRANSPORTATION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR UNTIL FINAL ACCEPTANCE.
- USE OF TREE CAMEL, OOZE TUBES OR TREE GATOR BAGS FOR TREES ARE REQUIRED IF A TEMPORARY IRRIGATION SYSTEM IS NOT INSTALLED.
- INSTALLATION OF A PERMANENT IRRIGATION SYSTEM IS NOT PROPOSED. THE CONTRACTOR MAY CHOOSE TO INSTALL A TEMPORARY IRRIGATION SYSTEM IN ORDER TO ESTABLISH INSTALLED PLANT MATERIAL. SUBMIT A PLAN FOR A TEMPORARY SYSTEM TO THE DESIGN PROFESSIONAL FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. THE SYSTEM MUST BE DESIGNED TO PROVIDE FULL AND COMPLETE COVERAGE TO ALL LANDSCAPED AREAS OF THE SITE INDICATED ON THE LANDSCAPE PLAN.
- 4. ALL MATERIALS USED IN THE DESIGN OF THE TEMPORARY SYSTEM, INCLUDING SPRINKLER HEADS, VALVES, VALVE

BOXES, CONTROLLERS, PUMPS, BACKFLOW PREVENTORS, RAIN AND FREEZE SENSORS, DRIP EQUIPMENT, WIRE ELECTRICAL CONNECTIONS, AND PVC PIPE AND FITTINGS, MUST MEET MINIMUM INDUSTRY STANDARDS MANUFACTURER AND MODEL MUST BE SPECIFIED.

- THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY SYSTEM AFTER SUBSTANTIAL COMPLETION IS OBTAINED.
- IF PLANTING AREAS ARE NOT IRRIGATED OR IF IRRIGATION IS NOT OPERATING, HAND WATER ROOT BALLS (OR PLANT BEDS FOR GROUNDCOVERS) OF ALL PLANTS TO ASSURE THAT THE ROOTS HAVE ADEQUATE MOISTURE. TEST THE MOISTURE CONTENT IN EACH ROOTBALL TO DETERMINE WATER CONTENT. THE CONTRACTOR MUST INSTALL ONE SET OF WATERING BAGS FOR EACH TREE TO BE MAINTAINED (AND NOT IRRIGATED) FOR TREE WATERING DURING THE WARRANTY PERIOD. WATERING BAGS MUST BE REMOVED BETWEEN DECEMBER 1 AND MARCH 1.
- IF NO TEMPORARY SYSTEM IS PROPOSED, THE CONTRACTOR WILL DEVELOP A SCHEDULE FOR MANUAL WATERING OF PLANTS.THIS SCHEDULE SHOULD BE INCLUDED IN ANY MAINTENANCE AGREEMENT AND/OR BONDING OF LANDSCAPE MATERIAL AND SHOULD INDICATE THE PARTY RESPONSIBLE FOR PERFORMING THE MANUAL WATERING. THE DURATION OF THE SCHEDULE OF MANUAL WATERING SHOULD BE EQUAL TO THE DURATION OF THE BOND PERIOD OR 12 MONTHS STARTING FROM THE INSTALLATION DATE, WHICHEVER IS GREATER. THE SCHEDULE SHOULD ALSO INDICATE THE AMOUNT OF WATER TO BE APPLIED PER WEEK. THE FOLLOWING IRRIGATION RATES ARE OFFERED AS A GUIDELINE; HOWEVER, THE SUPPLIER OF THE LANDSCAPE MATERIAL SHOULD BE CONSULTED FOR THEIR RECOMMENDATIONS.
 - TREES: MUST BE WATERED DAILY FOR MONTH 1, EVERY OTHER DAY FOR MONTHS 2-4, AND WEEKLY FOR MONTHS 5-12. APPLY 8 GALLONS PER 4" CALIPER TREE PER APPLICATION. ADJUST RATE TO LOCAL RAINFALL AMOUNT. (ASSUME 30 GALLONS PER TREE FOR EVERY INCH OF RAINFALL)
 - SHRUBS: MUST BE WATERED DAILY FOR MONTH 1 EVERY OTHER DAY FOR MONTHS 2-4, AND WEEKLY FOR MONTHS 5-12. APPLY 1 GALLON PER SHRUB PER APPLICATION. ADJUST RATE TO LOCAL RAINFALL AMOUNT. (ASSUME 2 GALLONS PER SHRUB FOR **EVERY INCH OF RAINFALL)**
 - TURF: MUST RECEIVE 1-INCH OF IRRIGATION PER WEEK APRIL THROUGH SEPTEMBER, 1/2-INCH OF IRRIGATION OCTOBER THROUGH MARCH. ADJUST RATE TO LOCAL RAINFALL AMOUNT.
 - NATIVE GRASS BEDS: WATER EVERY OTHER DAY FOR THE FIRST MONTH. ONLY CONTINUE WATERING AFTER THAT ONLY DURING EXTENDED OR FORECASTED DRY PERIODS, AND THEN, ONLY ONCE PER WEEK.

MULCHING:

- 1. MULCH TOP OF ROOT BALLS AND PLANTING BEDS, COVERING THE ENTIRE PLANTING BED AREA. PROVIDE THE FOLLOWING THICKNESS OF MULCH. TOP OF MULCH MUST BE SMOOTH AND EVEN IN ALL DIRECTIONS
 - A. TREE SHRUB AND GROUNDCOVER PLANTING AREAS: 3-INCH DEPTH CONTINUOUS FROM PLANT TO PLANT. DEPTH IS DEPTH AFTER SETTLING.
 - PERENNIAL PLANTING AREAS: 3-INCH DEPTH CONTINUOUS FROM PLANT TO PLANT. DEPTH IS DEPTH AFTER SETTLING.
- 2. IN NO CASE WILL MULCH COME IN CONTACT WITH ANY PART OF TRUNK OR ROOT FLARE.
- 3. APPLY MULCH AFTER ALL PLANTS HAVE BEEN INSTALLED AND APPROVED.
- 4. CONTRACTOR MUST NOT OVER-MULCH PLANTING BEDS WITH EXCESS MULCH. EXCESS MULCH MUST BE REMOVED AND DISPOSED OF OFF-SITE.
- 5. LIFT ALL LEAVES, LOW HANGING STEMS AND OTHER GREEN PORTIONS OF PLANTS OUT OF THE MULCH IF COVERED.

WARRANTY:

- 1. THE CONTRACTOR MUST COMPLETELY WARRANTY ALL PLANT MATERIAL AS INDICATED BEGINNING AT THE DATE OF SUBSTANTIAL COMPLETION. MAINTENANCE WORK MUST BE PERFORMED UNTIL DATE OF FINAL ACCEPTANCE BY OWNER. THE CONTRACTOR MUST PROMPTLY MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE WARRANTY PERIOD.
- 2. INSTALLER AGREES TO REPAIR OR REPLACE PLANTINGS AND ACCESSORIES THAT FAIL IN MATERIALS, WORKMANSHIP, OR GROWTH WITHIN SPECIFIED WARRANTY PERIOD.
 - WARRANTY PERIOD FOR TREES AND SHRUBS: ONE-YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
- WARRANTY PERIOD FOR VINES AND PERENNIALS: ONE-YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
- 3. PLANTS MUST BE HEALTHY, FREE OF PESTS AND DISEASE, AND IN FLOURISHING CONDITION AT THE END OF THE WARRANTY PERIOD. PLANTS MUST BE FREE OF DEAD AND DYING BRANCHES AND BRANCH TIPS, AND MUST BEAR FOLIAGE OF NORMAL DENSITY, SIZE, AND COLOR FOR THE SPECIES.
- PLANTS THAT ARE DEAD, DISEASED, INSECT INFESTED, OR NOT IN A VIGOROUS. THRIVING CONDITION. AS DETERMINED BY THE DESIGN PROFESSIONAL DURING OR AT THE END OF THE WARRANTY PERIOD, WILL BE DEEMED DEFECTIVE. PLANTS THAT HAVE HAD MORE THAN 25% OF THEIR BRANCHES DIE OR REMOVED MUST BE REPLACED. PLANTS THAT HAVE HAD A MAJOR BRANCH OR SIDE OF THE PLANT REMOVED SUCH THAT CURRENT OR FUTURE AESTHETIC APPEAL OR STRUCTURAL INTEGRITY OF THE PLANT, AS DETERMINED BY THE DESIGN PROFESSIONAL IS DIMINISHED WILL BE CONSIDERED DEFECTIVE. PLANT MATERIAL DETERMINED TO BE DEFECTIVE MUST BE REPLACED WITHOUT COST TO THE OWNER
 - REMOVE DEFECTIVE OR DEAD PLANTS IMMEDIATELY. REPLACE AS SOON AS WEATHER CONDITIONS PERMIT AND WITHIN ONE OF THE SPECIFIED PLANTING PERIODS.
- REPLACEMENTS MUST CLOSELY MATCH ADJACENT SPECIMENS OF THE SAME SPECIES. REPLACEMENTS WILL BE SUBJECT TO ALL REQUIREMENTS STATED IN THIS SPECIFICATION. MAKE ALL NECESSARY REPAIRS DUE TO PLANT REPLACEMENTS. SUCH REPAIRS MUST BE DONE AT NO EXTRA COST TO THE OWNER.
- 6. AT THE END OF THE WARRANTY PERIOD, AND NO LESS THAN FIVE DAYS PRIOR TO FINAL INSPECTION, TREE TIES AND GUYING MUST BE REMOVED FROM THE SITE. ALL TREES THAT HAVE LEANED MUST BE STRAIGHTENED.

30338

DRAWING ISSUE

DESIGNED BY DRAWN BY: CHECKED BY: SUBMITTED BY:

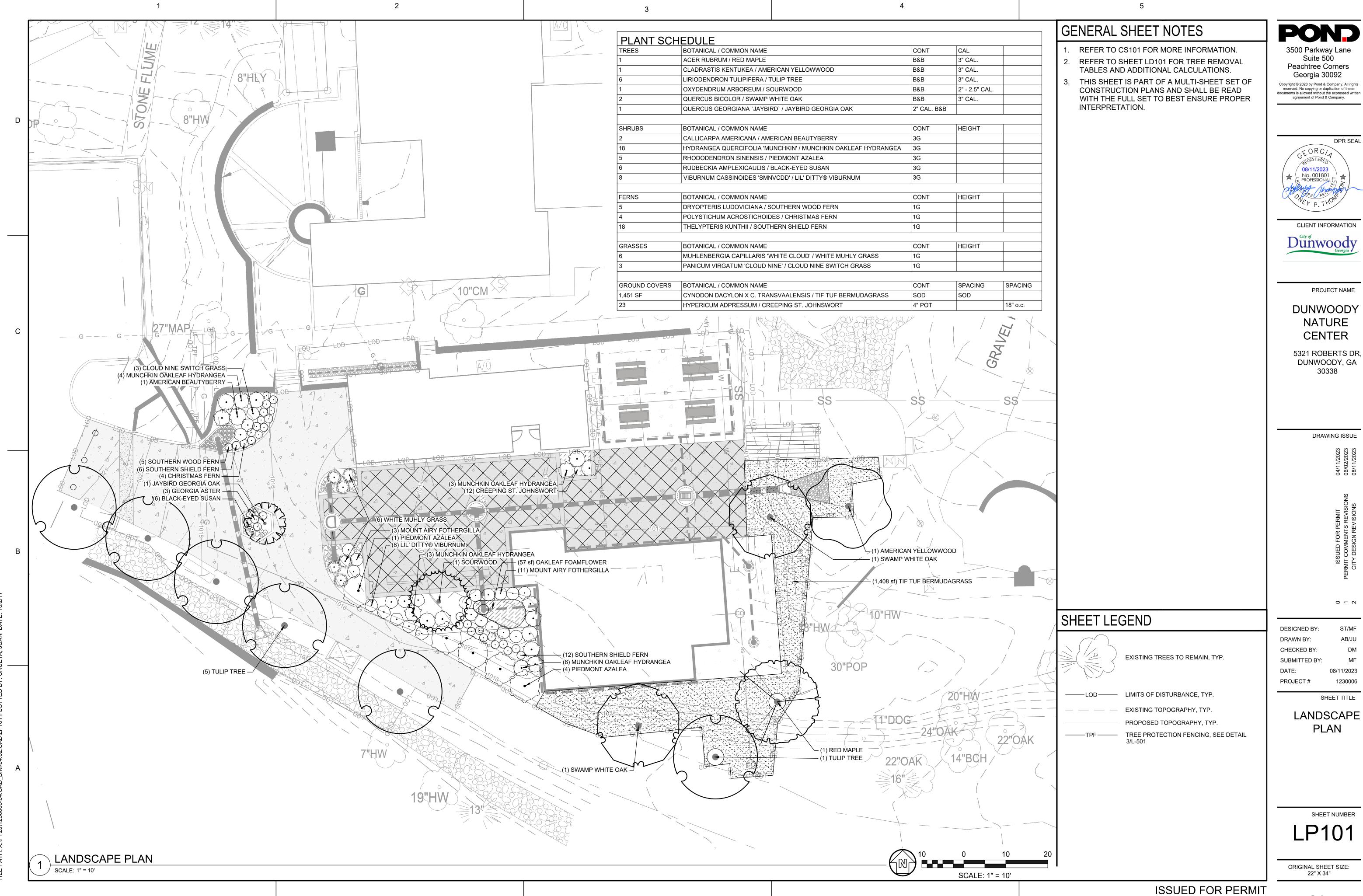
SHEET TITLE

SHEET NUMBER

ORIGINAL SHEET SIZE: 22" X 34"

ISSUED FOR PERMIT

В



PLANTING SOIL MIX-TILL INTO

SOIL TO A DEPTH OF 8" MIN. MIX IN ORGANIC COMPOST AT A 50% INCLUSION RATE; AMEND AS SOIL TEST RESULTS INDICATE.

GROUNDCOVER PLANTING

P-1210754-81

P-1210754-79

 Tree Save Signs, must be in the English & Spanish Language. *Stay Out! *No Entradal Tree Savel → Salve Un Arbail Tree Save Signs must be a minimum of 4 per tree.

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PROJECT NAME

CLIENT INFORMATION

Suite 500

Peachtree Corners

Georgia 30092

agreement of Pond & Company.

08/11/2023 No. 001801

PROFESSIONAL DPR SEAL

DUNWOODY NATURE **CENTER**

5321 ROBERTS DR, DUNWOODY, GA 30338

DRAWING ISSUE

0 1 2

ST/MF **DESIGNED BY:** DRAWN BY: CHECKED BY: SUBMITTED BY 08/11/2023 PROJECT# 1230006

SHEET TITLE

LANDSCAPE **DETAILS**

SHEET NUMBER

ORIGINAL SHEET SIZE: 22" X 34"

SHRUB AND GRASS PLANTING

4. SCARIFY ROOT BALL ON ALL SIDES TO ENCOURAGE FEEDER ROOT GROWTH.

1. WHEN THE SHRUB IS MOVED, THE ROOTBALL SHOULD ALWAYS BE SUPPORTED. SHRUBS SHOULD <u>NEVER</u> BE HANDLED BY THE TRUNK. 2. SET TOP OF ROOT BALL A MINIMUM OF 2" ABOVE ADJACENT FINISH GRADE AND MOUND BACKFILL FLUSH WITH TOP OF ROOT BALL.

5. ROPES AT TOP OF BALL SHALL BE CUT. REMOVE TOP 1/2 OF BURLAP. NON-BIODEGRADABLE MATERIAL SHALL BE TOTALLY REMOVED.

3. REMOVE EXCESS SUBSTRATE/SOIL AND SURFACE ROOTS TO EXPOSE ROOT COLLAR. REMOVE CIRCLING STRUCTURAL ROOTS INTERFERING WITH ROOT COLLAR.

В

NOTE: GROUNDCOVERS, PERENNIALS, AND GRASSES TO BE

INSTALLED WITH TRIANGULAR SPACING.

TYPICAL PLANT SPACING

ISSUED FOR PERMIT

P-1210754-80