

## ADDENDUM NO. 1

**Signal Mountain Middle/High School Tennis Courts**  
2654 Sam Powell Trail, Signal Mountain, Tennessee  
Hamilton County Project No. 24-59

Date: June 5, 2024  
DHW Project Number 2325

The following amendments to the specifications and/or revisions to the drawings shall be a part of the contract documents. Bidders therefore shall consider them when preparing cost estimates, and the contractors shall be bound by them.

### General Items

1. Mandatory Pre-Bid Attendee's List and Agenda, attached.
2. Use BID FORM supplied in Specification booklet (not AIA Bid Form).
3. Please read "Invitation to Bid (ITB)" carefully and comply with requirements.
4. See attached 23328-SWPP Narrative
5. Cad drawings in .dwg format are available through March Adams, attention Joseph Parks. This will require the "user" to execute agreement for "Transfer of Information" as required by March Adams and Associates. Mr. Parks may be reached at 423-698-6675 or at [joe.parks@marchadams.com](mailto:joe.parks@marchadams.com)

### Specifications

Section 32 31 13 PVC Coated Chain Link Fences, Posts and Gates, Item B. Posts, Steel pipe, delete "ASTM 1043" and insert "ASTM F-1083-18 (Reapproved 2022)".

### Drawings

1. Replace Sheet C302 with Revised Sheet C302 dated 06-01-2024, attached.
2. Replace Sheet C800 with Revised sheet C800 dated 06-01-2024, attached.
3. Drawing C700, Detail 8, maximum spacing. Delete 7' and insert 10' maximum spacing (this reflects requirement for ASTM F-1083-18 pipe specification).
4. Drawing C700, Detail 11. Delete 3' high dimension and add 3'-6" high dimension.
5. Drawing C700, Detail 8. Delete "12" earth above foundation" note. Delete note that reads "Foundation, Typ. 4'-6"x4'-6"x18" deep". Insert note to read "All 10' high posts shall have a 12"x12"4'-0 deep" foundation. This foundation is tied into the minimum 2'-0" deep x 12" wide perimeter curb. Reinforce 12" curb with continuous #5 reinforcing. Posts may be drilled into bedrock when encountered, and adjustments to the depth of foundation shall be made accordingly, so long as posts extend the required 4'-0" below the finished surface of the tennis court. Provide 6" cleaned gravel as base of excavation for pole support prior to concrete fill".
6. Drawing C700, Detail 9, Delete "4"foot dimension. Add Note to read "See Sheet ES102 for light pole base details".
7. Sheet ES101-"Base Bid" notes, delete "S" type fixture and insert "B" type fixture
8. Sheet ES101 -Luminaire Schedule, note 2, delete Fixture "S" and insert fixture "B".

**End of Addendum 1**

## **SMMHS tennis Courts**

### **HCDE Bid File 24-59**

Mandatory Pre Bid Meeting

1254 Sam Powell Trail (Project Site)

## **Meeting Agenda**

1. Introductions
2. Sign in sheet-Please sign in and print clearly. Attendance will be issued with Addendum 1.
3. Use Provided Bid Form in Specifications-Specs Reference AIA form-USE HCDE Purchasing Form.
4. Bids are due prior to 1:30 PM June 13, 2024. Please give yourself plenty of time to travel to the HCDE Facility on Hickory Valley Road. Traffic on 1-75 is not predictable. Bids will be opened in Public at 2:00 PM.
5. Fill out all Forms required by HCDE in the Specification booklet.
6. PLEASE pay attention to number of documents required and flash drive required as stated in INVITATION TO BID, page 6 of Specifications Booklet (see form attached).
7. Alternate 1-Additive-Tennis Courts 7 and 8, including light pole bases and conduit. Grading for courts 7 and 8 are part of Base Bid. Asphalt the Plaza.
8. Alternate 2- Additive-Light fixtures, poles, bases, wiring, etc. for functional lighting of courts 1-6.
9. Unit Prices-See Form attached.
10. Fencing questions (will be answered formally in Addendum). Detail 11 on drawing C700 shows portions of the sideline fence to be 3' high. 3' high is also called out for on drawing C100. On drawing A101 both 3' high and 42" high is called out for. Which height is required?  
**Response: Lets use 42" as minimum chain link fence height in viewing areas.**  
Spec section 32 31 13, 1.03, calls out for F1043 framework to be used and is also called out in section 2.02.A. Schedule 40 pipe, which is F1083, is called out in sections 2.04.B.2 and .3. Which is required?  
**Response: F1043 is related to coatings. Schedule 40 is pipe thickness. Section 2.04.B. 2 and 3 is applicable for thickness of Corner and Gate Posts.**
11. Questions?
12. Adjourn



ADVERTISEMENT DATE: **May 8, 2024**

**HAMILTON COUNTY DEPARTMENT OF EDUCATION**  
3074 Hickory Valley Road  
Chattanooga, Tennessee 37421  
(423) 498-7030  
INVITATION TO BID (ITB)

**BID 24-59, Signal Mountain Middle/High School (SMMHS) Tennis Courts**

Sealed envelopes containing bids must be sent to the Purchasing Department and addressed to the Hamilton County Department of Education, 3074 Hickory Valley Road, Chattanooga, Tennessee 37421. Proposers must submit and mark an "original" bid, one "copy", and one "USB Flash Drive" in one (1) sealed envelope. Bid documents may be secured from the Procurement Department at the above address and on our website at [www.hcde.org](http://www.hcde.org) via vendor registry. Bids received shall be opened by the Purchasing Department at the time and place designated in the Solicitation and/or associated addenda. The opening for the ITB shall be open to the public.

Bids must be received in the Purchasing Department prior to the designated time for opening. Bids received after the designated time of opening will be considered late and shall be considered Non-Responsive.

<b>SOLICITATION NUMBER &amp; TITLE</b>	BID 24-59, Signal Mountain Middle/High School (SMMHS) Tennis Courts
<b>OPENING/DUE DATE &amp; TIME</b>	June 13, 2024, <b>DUE 1:30 PM</b>
<b>LOCATION</b>	3074 Hickory Valley Road, Chattanooga, Tennessee 37421
<b>PROCUREMENT CONTACT</b>	Steven Hodgen
<b>PHONE</b>	423-498-7030
<b>EMAIL</b>	DOE_Purchasing@HCDE.Org
<b>PRE-SOLICITATION MEETING</b>	Yes
<b>TYPE</b>	MANDATORY
<b>DATE &amp; TIME</b>	May 30, 2024 2:00 PM
<b>LOCATION</b>	<b>Project Site</b> 2654 Sam Powell Trail, Signal Mountain, TN 37377

**BIDDER NAME** \_\_\_\_\_



## BID/PROPOSAL FORM

**COMPANY NAME:** \_\_\_\_\_

**SOLICITATION:** BID 24-59, Signal Mountain Middle/High School (SMMHS) Tennis Courts

Having carefully examined the Solicitation/Contract Documents, Contractor/Vendor proposes to furnish the Scope of Services as described herein and within all applicable proposal submission documents for the fee(s) as presented below.

Pricing shall be inclusive of all labor, equipment, supplies, overhead, profit, material, and any other incidental costs required to perform and complete all work as specified in the Solicitation/Contract Documents. All Unit Prices shall be bid at the nearest whole penny.

In the event there is a discrepancy between a subtotal or total amount and the unit prices and extended amounts, the unit prices shall prevail and the corrected extension(s) and total(s) will be considered the price.

HCS requests bids/proposals be submitted on bid/proposal forms provided by the HCS for this solicitation. Fee(s) submitted on other forms, other than those provided by the HCS, may be deemed Non-Responsive upon review by and at the sole discretion of the HCS Purchasing Office.

### **SMMHS Tennis Courts**

**PROJECT**

Item	Description	Unit of Measure	Quantity	Unit Price
1	Base Bid: Project & Unit Prices (Include Unit Price Quantities Items a.- e.)	Lump Sum	1	\$
2	Base Bid: Owner's General Purpose Allowance	Lump Sum	1	\$50,000.00

**BID SUMMARY**

<b>BASE BID PROJECT TOTAL</b> (Base Project + Unit Prices Subtotal + General Purpose Allowance)	<b>\$</b>
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**ALTERNATES**

3	Alternate 1 (Additive)	Lump Sum	1	\$
4	Alternate 2 (Additive)	Lump Sum	1	\$

**NOTE: UNIT PRICES/QUANTITIES LISTED BELOW SHALL BE INCLUDED IN BASE BID @ ITEM 1**

Item	Description	Unit of Measure	Quantity	Unit Price	Extended Amount
a	Undercutting of unsuitable material paved areas beneath sub-grade and re-spreading unsuitable material on-site at location approved by owner occurred.	CY (Loose)	1,600	\$	\$
b	Excavation and placement of approved onsite backfill material(including transportation) under proposed pavement or parking areas where undercutting of unsuitable material.	CY (Compacted In Place)	600	\$	\$
c	Offsite approved soil backfill material (including transportation) under proposed paved or parking areas where undercutting of unsuitable material occurred.	CY (Compacted In Place)	600	\$	\$
d	Stone backfill (including transportation) to replace undercut areas, where recommended by onsite testing	CY (Compacted In Place)	400	\$	\$
e	Trench Rock Excavation to sub-grade (including transportation onsite) for all utility Lines or curbs onsite "Trench Rock Excavation" shall be such material which cannot be removed by means other than by blasting or with air hammer. Materials, which can be removed by ripping, shall not be considered "Trench Rock Excavation" (see specifications).	CY (Computed Cut Measurements)	450	\$	\$

\*\*Quantities are not guaranteed. Final payment of Unit Prices will be based on actual quantities.



Bid 24-59 Signal Mountain Middle/High School Tennis Courts

**Mandatory Pre-Bid Sign in Sheet**

May 30, 2024 2:00 PM

Project Site 2654 Sam Powell Trail, Signal Mountain, TN 37377

Name	Company	Cell Phone	Office Phone	Email Address
Andrew Hausler	DH&W Architects	423-364-1366	423-266-4816	ahausler@dhw-architects.com
Joseph Parks	March Adams Engineering		423-664-1482	Joe.parks@marchadams.com
Robyn Dukes	DH&W Architects		423-266-4816	RobynWood@dhw-architects.com
Bill Travis	HQDE	423-322-1326		
Stacey Swafford	Hcde	423-280-4661		
Logan Echds	Baseline	423-883-4108	N/A	logane@baselinelc.com
Skip	JiJ Contractors	423-265-3233		Skip@jjcontractors.com
Steve Hodgen	HCS			

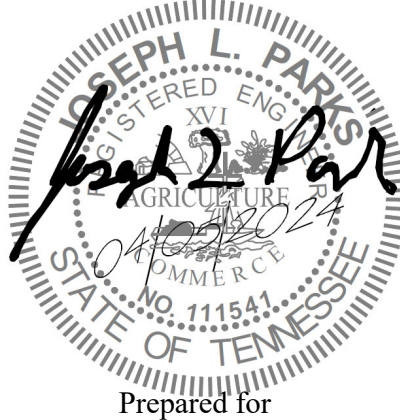
Name	Company	Cell Phone	Office Phone	Email Address
Shane Carmichael	Skilled Services	865-599-5397		estimating@skserviceslk.com
Cody Stubblefield	Pillar Construction	423-802-5604		cstubblefield@pillarco.com



## Storm Water Pollution Prevention Plan Narrative

**Signal Mountain Middle High School Tennis Courts  
2694 Sam Powell Trail  
Signal Mountain, TN**

**Date: May 31, 2024  
Project # 23328**



Prepared for

**Hamilton County Department of Education  
3074 Hickory Valley Rd  
Chattanooga, TN 37421  
Phone: (423) 498-7020**

Prepared by  
March Adams & Associates, Inc.  
310 Dodds Avenue, PO Box 3689, Chattanooga, TN 37404  
(423) 698-6675, fax (423) 698-3638  
email: [marchadams@maengr.com](mailto:marchadams@maengr.com)

## General Information

This Storm Water Pollution Prevention Plan (SWPPP) is developed in accordance with the Tennessee General NPDES Permit (TNR100000) for Storm Water Discharges Associated with Construction Activity (TNNCGP), issued on September 27, 2021 and may be found at the following link

<https://www.tn.gov/environment/permit-permits/water-permits1/npdes-permits1/npdes-stormwater-permitting-program/npdes-stormwater-construction-permit.html>

and is prepared using sound engineering practices. March Adams & Associates, Inc. personnel involved with the development of this plan have completed the *Design of Vegetative and Structural Measures for Erosion Prevention and Sediment Control* course available from the State of Tennessee.

As instructed by Part III.F of the TNCGP, this plan and all attachments are hereby submitted to the local Environmental Assistance Center (EAC), along with the complete, correctly signed Notice of Intent (NOI). Construction will not be initiated prior to 30 days from the date of submittal of this document, or prior to receipt of a Notice of Coverage (NOC) from the Tennessee Department of Environment and Conservation (TDEC).

Owner/Developer: Hamilton County Department of Education  
 3074 Hickory Valley Rd  
 Chattanooga, Tennessee 37421  
 Contact Person: Witt Justin  
 (423) 209-5600  
 Email: Witt\_Justin@hcde.org

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information 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. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Representative of owner/developer and title; print or type	Signature (must be signed by president, V.P., or equivalent, or ranking elected official)	Date
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Primary Contractor: Name of Company \_\_ TBD \_\_\_\_\_  
 Street Address \_\_\_\_\_  
 \_\_\_\_\_  
 Contact Person: \_\_\_\_\_ Title \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_

I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations, and for failure to comply with these permit requirements. As specified in Tennessee Code Annotated Section 39-16- 702(a)(4), this declaration is made under penalty of perjury.

Company name of primary contractor; print or type	Signature (must be signed by president, V.P., or equivalent)	Date
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## **Project Responsibilities**

Current versions of this SWPPP, the NOI, and the NOC will be kept on the site for the duration of the project. These items will be available for the use of all operators and site personnel involved with erosion and sediment controls, and will be available to TDEC personnel visiting the site. A notice will be posted near the construction entrance containing a copy of the NOC with the tracing number assigned by the EAC, the name and telephone number of a contact person for the development, and a brief description of the project.

Any new contractor on the project that has any responsibility to install, inspect, or maintain erosion or sediment control measures will sign the contractor's certification on a copy of the NOI (Appendix) and will submit it to the local EAC. Any correspondence with TDEC or any EAC will reference the tracking number assigned by TDEC to the project. The contractor shall submit a Notice of Termination (NOT; Appendix) after the complete installation and successful establishment of the final stabilization activities at the site.

It is the intention and goal of the TNCGP and this SWPPP that any discharge from the property described in this document have no objectionable color contrast to the water body that receives it. The construction activity will be carried out in such a manner as will prevent any discharge that would cause a condition in which visible solids, bottom deposits, or turbidity impairs the usefulness of the waters on the property or downstream of the property for fish and aquatic life, livestock watering and wildlife, recreation, irrigation, navigation, industrial or domestic water supply.

This plan may be amended for reasons described below, within 7 days of erosion problem identification or for other reasons. When the plans are revised, the contractor will implement the changes to erosion protection and sediment controls within 48 hours after the need for modification is identified.

Listed below is a summary of general requirements and sequences that the contractor shall follow during construction:

1. EPA Clean Water Act and Tennessee Clean Water Act guidelines must be followed. The contractor shall adhere to the *Tennessee General NPDES Permit (TNR100000) for Storm Water Discharges Associated with Construction Activity (TNNCGP)*, latest permit. This permit may be found online at the following link [http://environment-online.state.tn.us:8080/pls/enf\\_reports/f?p=9034:34051:::NO:34051:P34051\\_PERMIT\\_NUMBER:TNR100000](http://environment-online.state.tn.us:8080/pls/enf_reports/f?p=9034:34051:::NO:34051:P34051_PERMIT_NUMBER:TNR100000) or contact TDEC at local office.
2. Maintain the SWPPP plan (copy of engineered stamped plan, not an original) on site. The SWPPP must be continuously updated and kept on site at all times. The SWPPP will be located on site for the duration of the permitted project. The SWPPP shall be posted along with the Notice of Coverage (NOC) on a job board located at or near the construction entrance. If the SWPPP is filed off site (if permit is active or inactive), then its location must be posted on said board along with the NOC. All posted information must be maintained in a legible condition. Other information that shall be posted must include: site contact/owner, company name, e-mail address (if available), address and telephone number of the contact/owner.
3. Retention of Records

- The following records shall be maintained on or near the site:
    1. The dates when major grading activities occur.
    2. Dates when construction activities temporarily or permanently cease on a portion of a site.
    3. Dates when stabilization measures are initiated.
    4. Inspection Reports
    5. Rainfall Records
  - All required records noted in the TNCGP shall be retained by the permittee for a period of at least three (3) years from the date the Notice of Termination (NOT) is filed.
4. SWPPP plan on site must be signed.
  5. Required inspections after a storm event are as follows: all sediment and erosion control measures must be checked and, if necessary repaired, twice weekly (72 hours apart). The permittee shall maintain record of such checks and repairs. These records must be kept on site and available for review within 10 days of request by storm water personnel. These records must be submitted to the storm water office on a yearly basis. Projects permitted under the state NPDES permit program must follow its requirements.
  6. Quality assurance of erosion prevention and sediment controls (EPSCs) shall be done by performing site assessments. The site assessment shall be conducted at each outfall draining 10 or more acres or 5 or more acres if draining to waters with unavailable parameters or Exceptional Tennessee Waters Site assessments shall cover the entire disturbed area and occur within 30 days of construction commencing at each portion of the site that drains the qualifying acreage. The site assessment shall be performed by individuals with one or more of the following qualifications:
    - a) A licensed professional engineer or landscape architect.
    - b) A Certified Professional in Erosion and Sediment Control (CPESC).
    - c) A person who has successfully completed the “Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites” course.
  7. Twice weekly Inspections must be conducted by a TNEPSC Level I qualified inspector.
  8. All areas disturbed by construction must be inspected.
  9. All discharge locations are inspected each time to insure proper operation.
  10. Vehicle entrance/exit points are inspected each time to insure proper operation.
  11. Site inspection report must include: date, name, qualifications of inspector, weather, locations of discharge points, BMP’s requiring any maintenance, any failed BMP’s with corrective action noted and when, new BMP measures that are now required due to new site conditions.
  12. Inspection reports must be signed by the qualified inspector.

13. Jobsite poster board must include copy of signed NOI and SWPPP information (contact person, where plan is located on site, with a note on when plan can be reviewed by the public).
14. Inspect velocity dissipation devices.
15. Sediment removal procedures noted on SWPPP plan.
16. Any required excavation de-watering will be done in a manner to direct muddy water toward a sediment storage area, such as a sediment basin or temporary sediment trap. If no sediment storage area is available muddy water shall be pumped through a geo-textile dewatering bag.
17. Rain gauge must be maintained on site, at location shown on the plans.

## **Introduction**

This narrative is to supplement the Storm Water Pollution Prevention Plan (SWPPP), sheets C500, C501, C502 dated 04/09/2024, and prepared by March Adams & Associates, Inc. The reader shall also refer to these plans for further information. The contractor is responsible for documenting changes made to this narrative and the plans. Enclosed with this narrative are Drainage Area Exhibits, which show the anticipated drainage patterns pre and post development conditions.

## **Project Description**

The site is located at 2694 Sam Powell Trail, adjacent to Shackleford Ridge Park and Signal Mountain Middle High School. The property consists of a tract of land containing 259 acres located in Hamilton County, TN and partially within town limits of Signal Mountain, TN. The disturbed area of this project is 2.7 acres.

The planned development includes eight tennis courts and parking for 16 vehicles. A post-development area of 0.96 acres and 1.03 acres will be routed through the west stormwater management and east stormwater management ponds respectively. A bypass area of just pervious surfaces will drain around each pond. The peak flows from the bypass area are combined with the peak outflows from the detention area. This combined post-development peak flow rate is less than the pre-developed peak flow rate for the 1, 2, 5, 10, 25, and 100 year storm events.

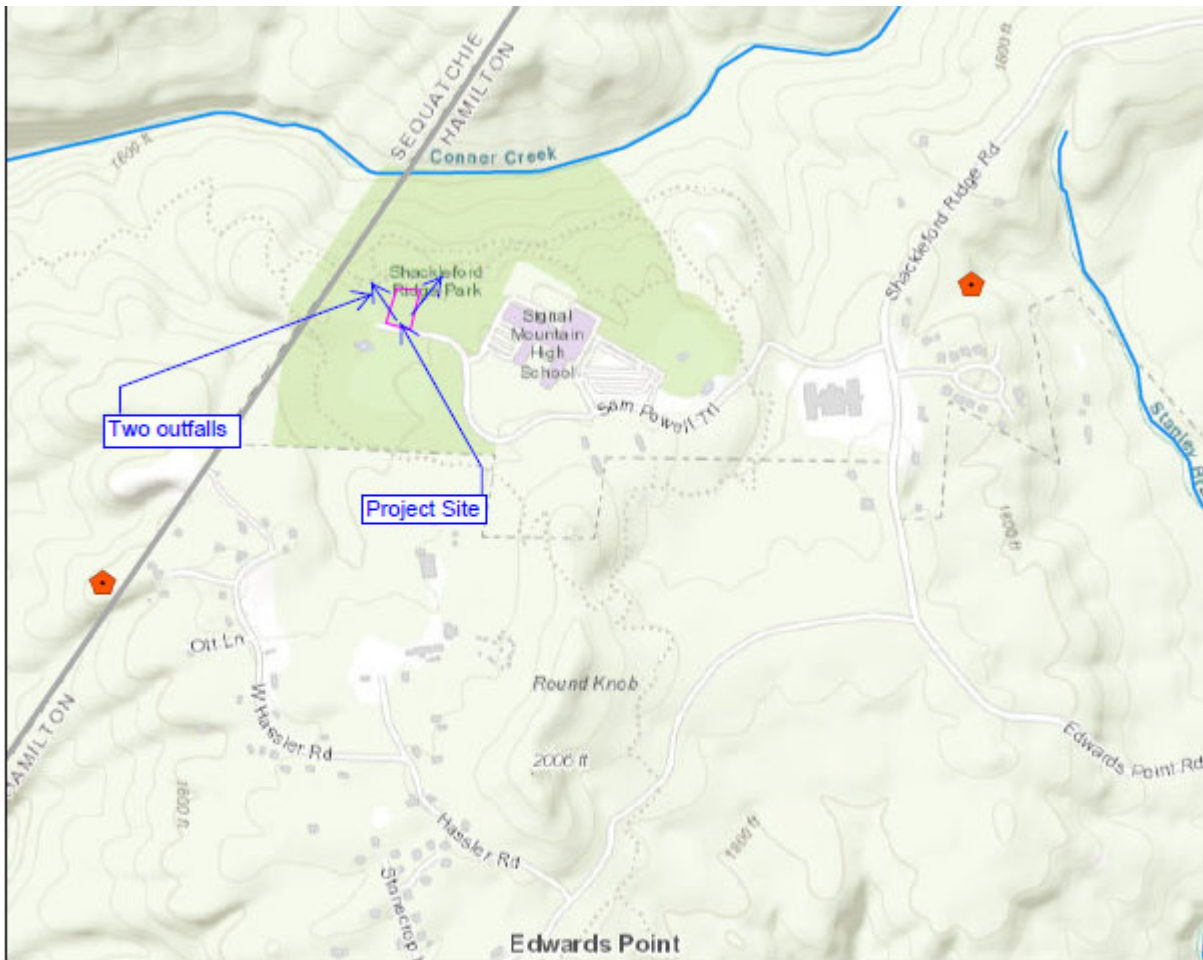
## **Existing Conditions**

The property is currently wooded and drains to two existing drainage swales. Those swales convey runoff toward Conner Creek. Conner Creek is not listed as unavailable parameters.

The Hamilton County Soil Survey indicates that the soils present in the construction area consist of group B and D soils, uLdC, uldD, RcF, and Rad

## **Receiving Waters**

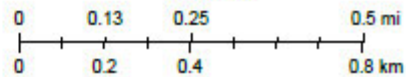
- Site will drain to Conner Creek as in GIS map shown below.
- Any wetlands on site must be located on the SWPPP plans. Also, measures to protect said wetland(s) must be included in the SWPPP along with affected acreage of the wetland(s).
- Prior to issuance of a NOC, any applicable permits i.e. Aquatic Resource Alteration Permits, septic approvals, and other wastewater permits must be obtained. At this time no know aquatic features are on site.



5/30/2024, 12:45:38 PM

1:18,056

Streams  
CGP Permits



### **Additional or Excess Fill Material**

Additional fill material from off of the property not anticipated in the grading plan. If an offsite soil disturbance is required, a separate permit is required for the borrow site. It is the responsibility of the contractor to engage the owner to revise this SWPPP to include those areas. A separate NOC must be obtained for the off-site disposal of excess fill material and/or any borrow areas for needed additional fill.

### **Runoff Calculations**

Erosion Control measures for this project have been designed for the 2 year, 24-hour storm event with type II distribution.

The SCS Method was utilized on this project to estimate the existing and post-development runoff. The calculations indicate that there was a net increase in runoff coefficient and in peak discharge as a result of this project. Therefore, the temporary sediment basin(s) will be cleaned out and regraded for use as (a) storm water detention pond(s) once the site is fully stabilized. Post-development curve

number method was used to determine the peak discharge. As shown in the project hydrology report excerpt below, the detention ponds will detain flows below existing conditions.

Table IX: West Basin Pre-development Existing Condition and Post Development Conditions Peak Flow Rate Comparisons

Storm Event, year	#1 West Total Pre-development Peak Flow Rates, cfs	#10 Total Post-development Peak Flow Rates, cfs
1	1.08	0.54
2	2.25	1.20
5	4.13	2.79
10	5.70	3.78
25	8.27	5.22
100	12.63	11.82

As shown in the table above, the peak flow rate comparisons show that the Post-development peak outflow rates are below Existing Conditions Pre-development Peak flow rates for the 1, 2, 5, 10, 25, and 100-year storm events.

Table X: East Basin Pre-development Existing Condition and Post Development Conditions Peak Flow Rate Comparisons

Storm Event, year	#2 Total Pre-development Peak Flow Rates, cfs	#8 Total Post-development Peak Flow Rates, cfs
1	0.87	0.61
2	1.79	1.16
5	3.29	2.49
10	4.55	3.85
25	6.61	5.65
100	10.08	13.20

As shown in the table above, the peak flow rate comparisons show that the Post-development peak outflow rates are below Existing Conditions Pre-development Peak flow rates for the 1, 2, 5, 10, 25 and 100-year storm events.

Both Detention pond will be used a temporary sediment storage, as shown on C501. Water discharged from the basin will be controlled using a retrofitted outlet control structure.

### **Spills and Non-Storm Water Contingencies**

All fueling of equipment and vehicles on site will be conducted near the construction entrance/staging area located as shown on the plans. The contractor shall adhere to the following items concerning spill control practices:

- Manufacturer’s recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite.

- All spills will be cleaned up immediately after discovery.
- The spill area will be kept ventilated and personnel will wear appropriate protective clothing.
- The spill prevention plan will be adjusted to include measures to prevent a particular type of spill from re-occurring. A description of each spill, the cause, and cleanup measures will be included.
- The site superintendent, who is responsible for the day-to-day onsite construction operations, will be the spill prevention and cleanup coordinator and will assign other personnel, whose names will be posted in the onsite office trailer or other accessible place suitable for the purpose, to receive spill prevention and cleanup training.
- If a release containing a hazardous substance in an amount equal to or in excess of a reporting quantity established under either 40 CFR 117 or 40 CFR 302 occurs during a 24-hour period, the contractor will immediately notify the permittee who shall then do the following: notify the National Response Center (NRC) (800-424-8802) and the Tennessee Emergency Management Agency (TEMA) (emergencies: 800-262-3300; non-emergencies: 800-262-3400); as well as the local Environmental Assistance Center. Also, the SWPPP engineer will prepare a revision of this document to identify measures to prevent the reoccurrence of such releases.
- Concrete trucks will wash out at the designated area near the construction entrance. Each contractor is responsible to provide litter control for trash generated by his crew. A dumpster for garbage will be located near the construction trailer and is limited to garbage and paper trash only. Paint cans, oil cans, used oil, and filters will be contained and disposed of by the contractor by taking them to the local County Hazardous Waste Disposal Center.

## **Construction Sequence**

Listed below is a brief summary of general items the contractor shall adhere to:

### **Installation and Maintenance:**

- Pre-construction vegetation shall not be disturbed more than 10 days prior to any excavating activities.
- All controls shall be installed according to manufacturer's specs and good engineering practices.
- Any off site sediment accumulations shall be removed daily. Off site accumulations deposited on private property shall be removed by methods agreed upon by the contractor and the adjacent land owner(s).
- If sediment enters waters of the State, TDEC-WPC will be notified immediately and consulted with concerning removal of said sediment if required.
- Sediment shall be removed from any sediment control device when the design capacity has been reduced by 50%.
- Exposed litter, debris, chemicals, etc., shall be properly stored or disposed of prior to anticipated storm events.
- Removal of standing muddy water from the site shall be accomplished with a pump/filter bag combination or said water will be diverted into existing sediment control devices via a pump.

### **Stabilization:**

- Temporary or permanent stabilization for any area of the project must be completed no later than 15 days after the construction activity for said area has temporarily or permanently ceased.
- **Steep slopes (greater than or equal to 35%) shall be stabilized no later than 7 days after construction activity on these slopes has temporarily or permanently ceased.**

### Material Management Practices:

- The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substance to storm water runoff.
  1. Only enough product required for the job will be stored onsite.
  2. All materials stored onsite will be in a neat and orderly manner in their appropriate containers, and if possible, under roof or other enclosure.
  3. Products will be kept in their original containers with the original manufacture's labels.
  4. Substances will not be mixed with one another unless recommended by the manufacturer.
  5. All of product will be used up before disposing of container whenever possible.
  6. Manufacturer's recommendations for proper use and disposal will be followed.
  7. The site superintendent will inspect daily to ensure proper use and disposal practices are followed.

An *Anticipated Activity Schedule* may be found on the Sediment and Erosion Control Plan, which describes the anticipated schedule of construction events. Listed below is a summary of the events:

### **Phase I: Clearing and Rough Grading**

1. Prior to clearing operations, the contractor will construct the sediment pond and retrofitted outlet control structure as well as diversion swales and associated rip rap. The contractor shall also install perimeter silt fencing, construction exit prior to clearing operations, as shown on C501.
2. The contractor may begin onsite (**only**) clearing and grading operations under the following conditions.
  - a. An approved NOC has been obtained for this project.
  - b. All BMP's as listed in item #1 are complete and stabilized.
  - c. No fill or trash may be transported offsite unless it is to an approved state landfill or placed on other properties that are covered by an approved NOC.
3. Once onsite excavation begins, the contractor shall implement BMP's that are required in areas that are under construction. The contractor shall work in specific areas in a manner as to install BMP's downhill first prior to beginning excavation and/or fill in areas uphill of proposed BMP locations.
4. Stripped topsoil will be stockpiled in a designated location (to be determined later) and covered with plastic.
5. If excess fill hauled offsite, The contractor may begin hauling excess fill onto the site from the borrow site once an approved NOC has been obtained for Land Disturbance Activities for the borrow site (separate permit) has been obtained and the following conditions have been met.
  - a. Off-site property sediment basin and BMP's are in place to receive excess fill from HCDE Bus Barn.
  - b. All BMP's as shown or listed in the HCDE Bus Barn SWPPP narrative and plans are complete and stabilized, the contractor shall begin clearing and grading operations.
  - c. See also HCDE Bus Barn SWPPP narrative and permit requirements.
6. The contractor shall insure that areas that have been cleared/graded and will be stabilized with temporary fast growing ground cover in areas no later than 2 weeks after work has been completed or ceased and fine grading will not take place for at least 15 days.
7. Once the cut slopes have been established in accordance with the construction documents, the contractor shall immediately install erosion control matting where specified.



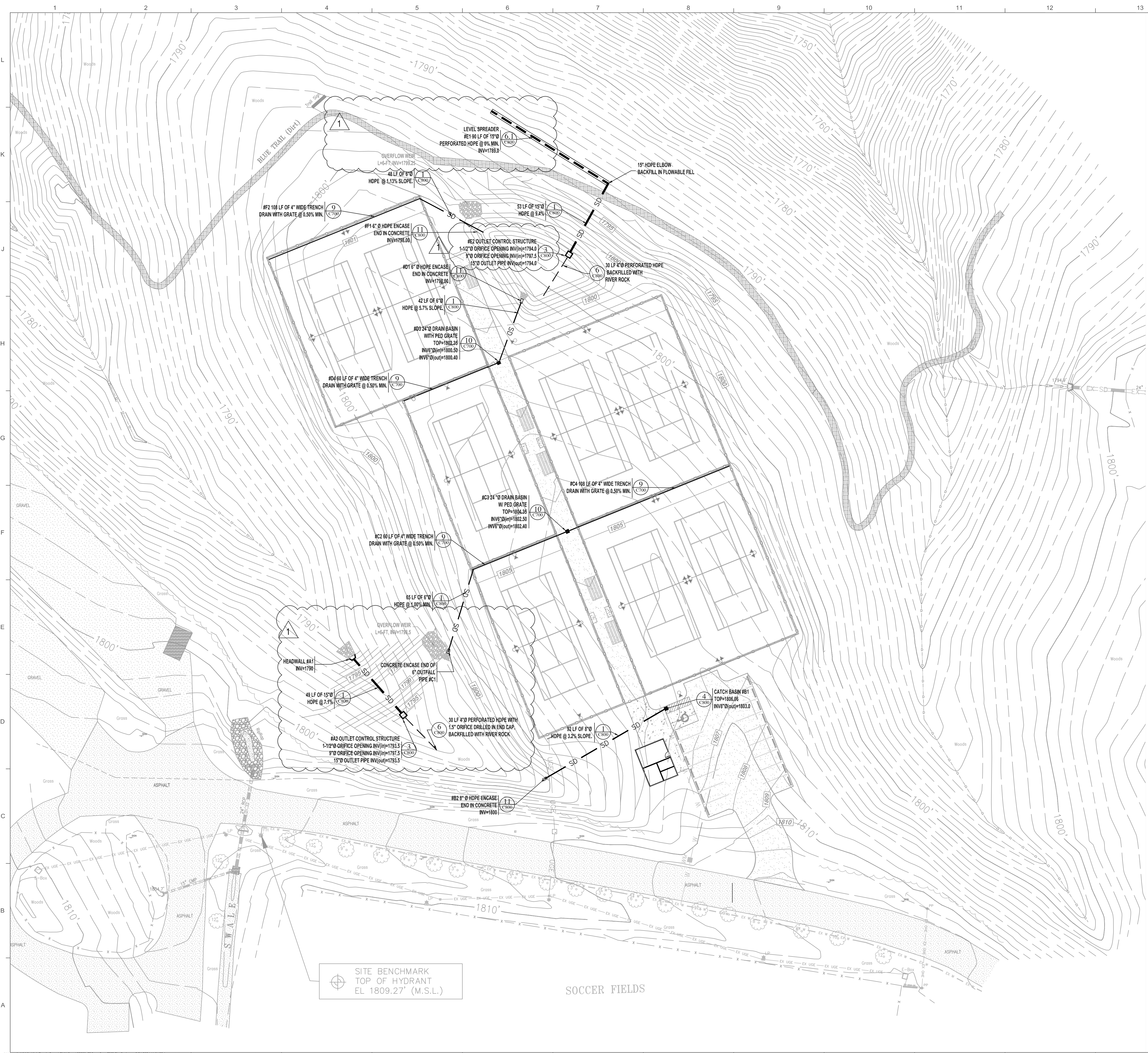
8. A temporary dewatering structure shall be installed at the low point of the site for settling and/or filtering sediment-laden water prior to discharging the water off-site.
9. The contractor shall install and maintain BMP's and insure/supplement additional seeding as required of inactive areas.

## **Phase II: Mass Grading**

1. Contractor shall maintain and insure that all BMP's installed in Phase I are working properly and records and logs are up to date.
2. The inspector shall perform a detailed inspection of the property perimeter and confirm that sediment and construction debris are not exiting the site. Should the inspector find breached areas, the contractor shall take necessary measures to prevent the escape of sediment or debris by repairing existing BMP's or installing additional BMP's.
3. The inspector shall insure that disturbed areas are draining to the sediment pond and that the sediment pond storage is functioning properly. The sediment pond shall be re-excavated when the capacity has been reduced to 50% of the original design capacity. By the same rule, sediment from sediment traps, silt fences, and other sediment controls will also be removed when the capacity of the structure has been reduced by 50%.
4. Construction of the storm drainage system will include implementation of BMP's as indicated on the Sediment and Erosion Control Plan. Inlet protection will be installed around catch basins until pavement is applied to the road and parking. Immediately prior to paving installation, storm drain inlet protection will be removed.
5. Construction of the building pad and foundation will commence. The contractor shall insure that concrete truck operators are utilizing the concrete truck wash down areas and that the construction exit is being properly maintained.
6. Construction of parking areas, curbs and gutter and sidewalks will begin and topsoil will be stockpiled in a designated area (to be determined later) and shall be covered with black plastic.
7. Temporary measures may be removed at the beginning of a work day, but will be replaced at the end of the work day.
8. It is anticipated that a lag of site work will occur once the building is under construction. The contractor shall make periodic inspections as per *Tennessee Erosion & Sediment Control Handbook, latest edition*. The contractor is responsible for maintaining BMP's, inspections and reports during this time unless the NOI/NOC is amended to place the responsibility in the possession of another party.
9. Once the building, pavement areas and final landscaping have been completed, the contractor shall begin removal of BMP's in areas that have been stabilized with permanent vegetation.
10. Care should be taken to prevent the removal of silt fence from becoming a pollutant source for storm water discharges.
11. Once the site is deemed substantial complete by the project Architect/Engineer, the contractor shall repair or fill in the sediment pond and obtain the final grades as shown on the drawings.
12. The NOT may be filed under the following conditions (Appendix):
  - a. Once the project has been determined to be 100% complete by the project Architect/Engineer and all areas disturbed have received final hardscape and landscaping.
  - b. All requirements and conditions have been met according to the *Tennessee Erosion & Sediment Control Handbook, latest edition*
  - c. The NOT may be downloaded from the following link:  
[https://tdec.tn.gov/etdec/DownloadFile.aspx?row\\_id=CN-1175](https://tdec.tn.gov/etdec/DownloadFile.aspx?row_id=CN-1175)







**LEGEND**

---	Ex. Curb
---	Ex. Centerline
---	Ex. Fence
---	Ex. Water Line
---	Ex. Fire Line
---	Ex. Irrigation Line
---	Ex. Storm Drainage Line
---	Ex. Sanitary Sewer Line
---	Ex. Sanitary Sewer Force Main
---	Ex. Swale Centerline
---	Ex. Ditch Centerline
---	Ex. Gas Line
---	Ex. Overhead Elect. or Utility Line
---	Ex. Underground Electrical
---	Ex. Underground Fiber Optics
---	Ex. Underground Telephone
---	<b>PROPERTY LINE</b>
---	BUILDING LINE
---	EASEMENT LINE
---	BUILDING SETBACK LINE
---	LANDSCAPE BUFFER LINE
---	LOT LINE
---	ROW LINE
---	CURB
---	CENTERLINE
---	PROP. FENCE LINE
---	PROP. SWALE CENTERLINE
---	PROP. DITCH CENTERLINE
---	PROP. WATER LINE
---	PROP. FIRE LINE
---	PROP. IRRIGATION LINE
---	PROP. GAS LINE
---	PROP. STORM DRAINAGE LINE
---	PROP. SANITARY SEWER LINE
---	PROP. SANITARY SEWER FORCE MAIN
---	PROP. OVERHEAD ELECT. OR UTILITY LINE
---	PROP. UNDERGROUND ELECTRICAL
---	PROP. UNDERGROUND FIBER OPTICS
---	PROP. UNDERGROUND TELEPHONE

**ABBREVIATIONS:**  
 SSE - NEW PUBLIC SANITARY SEWER EASEMENT (SEE PLAN FOR WIDTH)  
 DE - NEW DRAINAGE EASEMENT (SEE PLAN FOR WIDTH)  
 WE - NEW PUBLIC WATER EASEMENT (SEE PLAN FOR WIDTH)  
 L/A BUFFER - NEW LANDSCAPE BUFFER (SEE PLAN FOR WIDTH AND TYPE)  
 FYSB - FRONT YARD SETBACK / SYSB - SIDE YARD SETBACK / RYSB - REAR YARD SETBACK  
 FFE - FINISHED FLOOR ELEVATION  
 TM - FINISH GRADE AT TOP OF RETAINING WALL  
 BW - FINISHED GROUND GRADE AT BOTTOM OF RETAINING WALL  
 S200 / S300 - STORM DRAINAGE / SANITARY SEWER CLEAN-OUT  
 DS - ROOF DOWNSPOUT CONNECTION  
 SSM - SINGLE SOLID WHITE LINE / DSYL - DOUBLE SOLID YELLOW LINE  
 SDWL - SINGLE DASHED WHITE LINE



1001 Carter Street - Chattanooga - 37402  
 423 | 266 | 4816 www.dhw-architects.com

**SMMHS Tennis Courts**

Sam Powell Trail  
 Signal Mountain, TN  
 37377

Date: 04/05/2024  
 Drawn: CH/JP  
 File: 2235

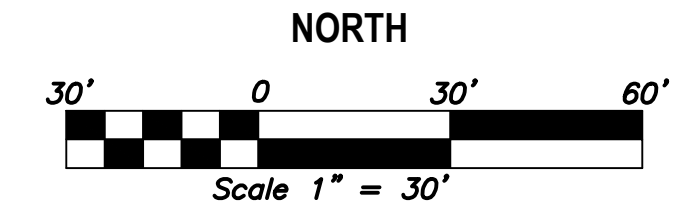
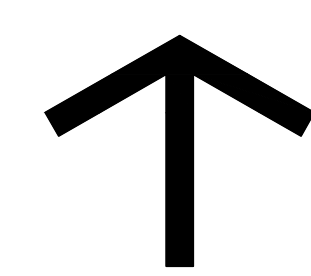
Revisions  
 1 Addendum 1 06-01-2024

Key Plan  
**Bid Set**

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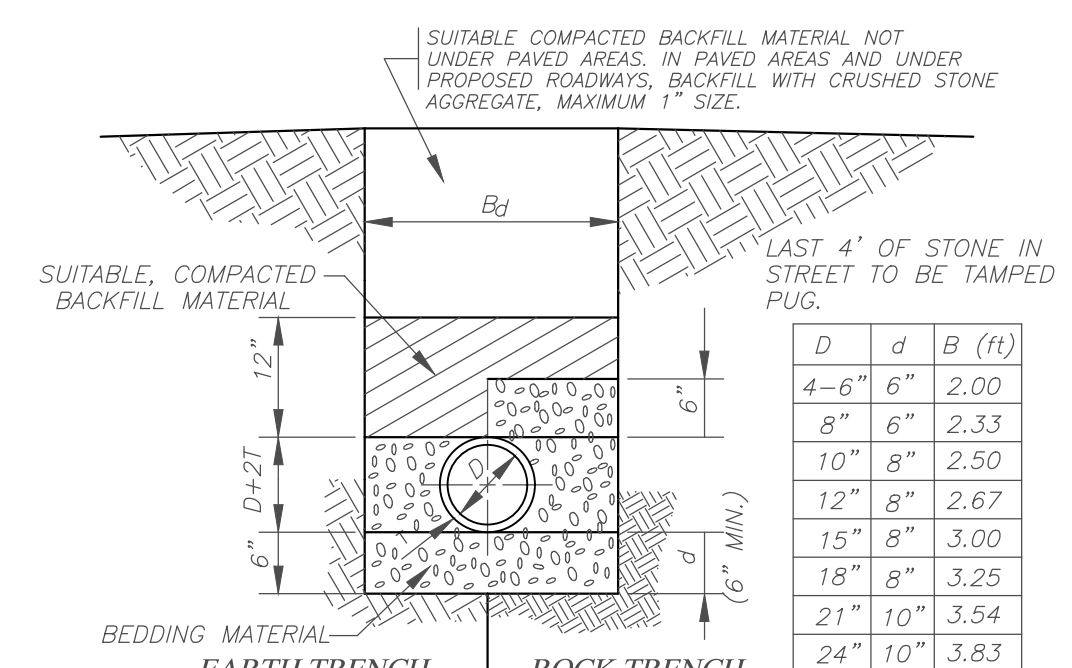
Know what's below.  
 Call before you dig.



Title:  
**SITE DRAINAGE**

Scale:  
 Sheet No.

**MA & A** March Adams & Associates  
 310 Dodds Ave.  
 P.O. Box 3689  
 Chattanooga, Tennessee 37404  
 TEL: (423) 698-6675  
 Consulting Engineers MAA #21280

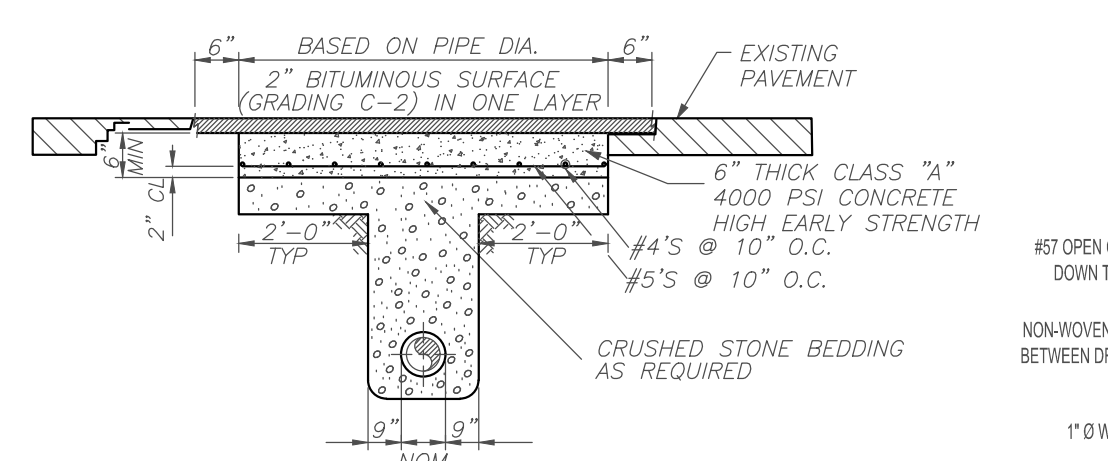


**EARTH TRENCH BEDDING (CLASS "1", ASTM D 2321)**  
 MATERIAL SHALL BE ANGULAR 1/4 TO 1 1/2 IN. GRADED STONE PAYMENT FOR THE BEDDING SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT PIPE FOR VARIOUS TYPES, SIZES, AND DEPTHS.

**WET CONDITION BEDDING (CLASS "1", ASTM D2321)**  
 BEDDING SHALL BE CRUSHED STONE WITH MAX. PARTICLE SIZE OF 1 1/2 IN., INCLUDING FINES FOR AREAS WHERE PIPE WILL BE INSTALLED BELOW EXISTING OR FUTURE GROUND WATER LEVELS AS INDICATED ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER. PAYMENTS SHALL BE BY UNIT PRICE PER LINEAR FOOT IN EXCESS OF EARTH TRENCH BEDDING.

**ROCK TRENCH BEDDING**  
 MATERIAL SHALL BE SAME AS FOR CLASS "1" BEDDING. QUANTITIES FOR ROCK TRENCH BEDDING ARE THE AMOUNTS IN EXCESS OF THOSE REQUIRED FOR EARTH TRENCH BEDDING.

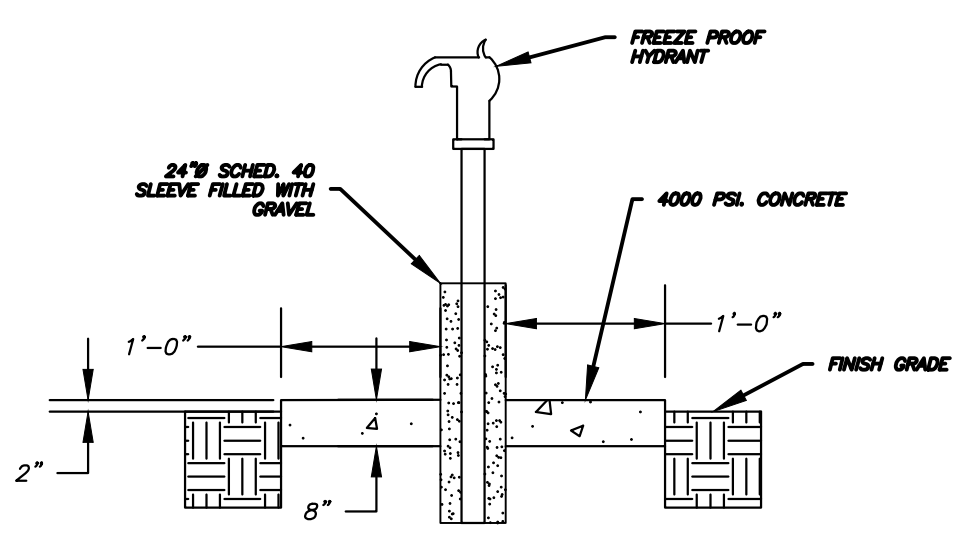
**1 DETAIL: TYPICAL TRENCH AND BEDDING FOR DIP OR PVC GRAVITY PIPE**  
 (NTS)



**NOTES:**

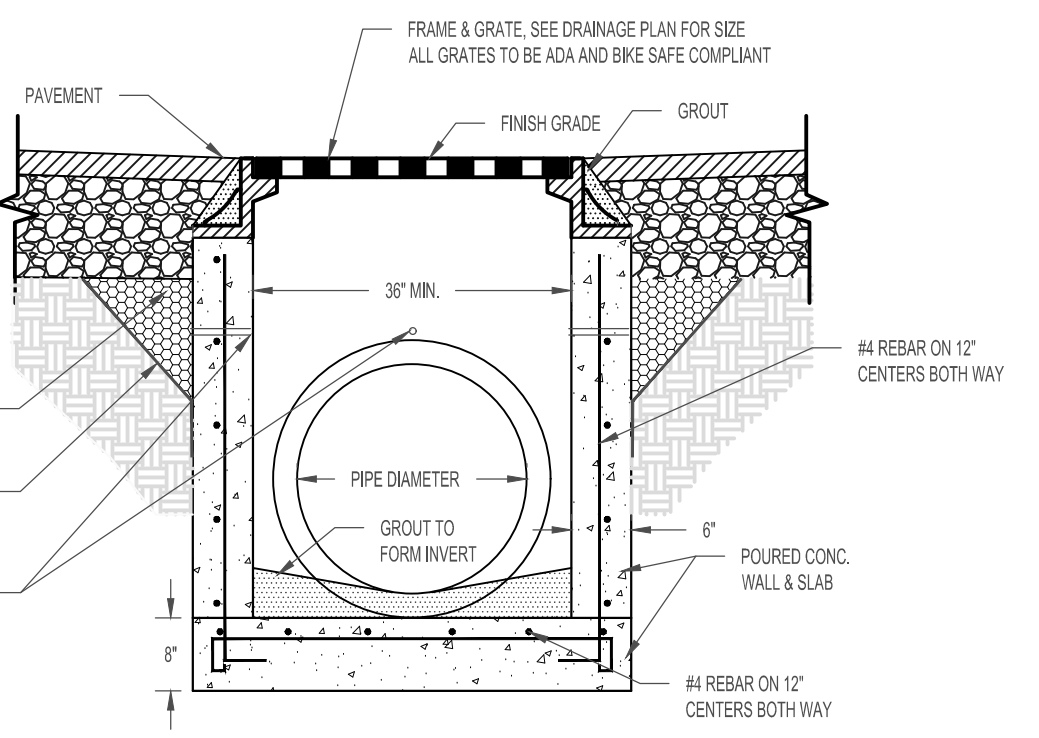
- ALL LATERAL STREET CUTS MUST BE COVERED WITH STEEL PLATES OF SUFFICIENT THICKNESS TO SPAN THE CUT WITHOUT NOTICEABLE DEFLECTION. PLATES TO REMAIN IN PLACE UNTIL THE CONCRETE BASE HAS GAINED SUFFICIENT STRENGTH TO WITHSTAND TRAFFIC LOADS (24 HR. MINIMUM).
- ON LONGITUDINAL CUTS 150 FT. IN LENGTH, THE CONCRETE IN THE TRENCH WILL BE BROUGHT FLUSH WITH THE EXISTING PAVEMENT AND THE ENTIRE WIDTH OF ROADWAY RESURFACED WITH A MINIMUM OF 1" OF TYPE "F" ASPHALT TOPPING OR 1 1/2" OF TYPE "E" ASPHALT TOPPING OR SURFACE COURSE.
- THE CONTRACTOR SHALL REPLACE ALL OTHER DAMAGED PAVEMENT OUTSIDE OF LIMITS SHOWN AT HIS OWN EXPENSE.

**2 DETAIL: PAVEMENT CUT & REPLACEMENT**  
 (NTS)



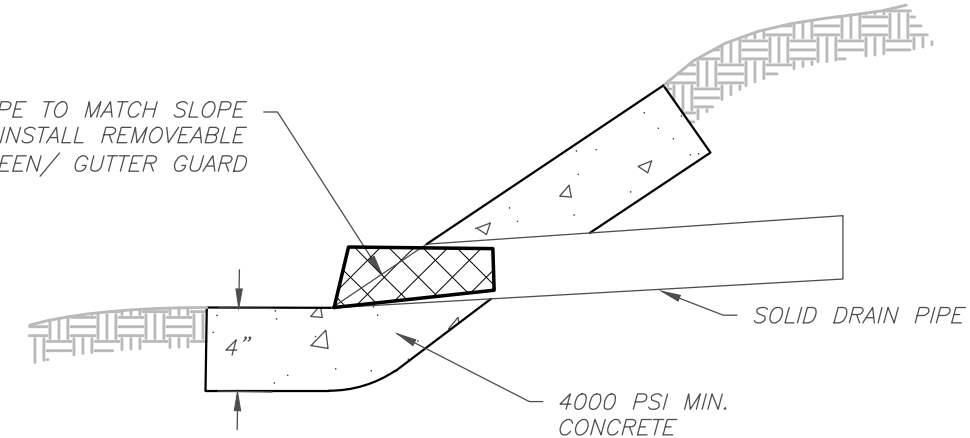
**7 DETAIL: MONUMENT FREEZE PROOF HYDRANT**  
 (NTS)

- NOTES:**
- 6" CONCRETE BRICK MAY BE USED FOR WALL CONSTRUCTION.
  - SIDES OVER 4' IN DEPTH SHALL HAVE 12" WIDE POLYPROPYLENE PLASTIC STEPS PROTRUDE 4" MIN. FROM INSIDE OF STRUCTURE.
  - PRE-CAST CONCRETE MANHOLES MAY BE USED AS APPROVED BY THE ENGINEER. STRUCTURES OVER 6' IN DEPTH SHALL BE PRE-CAST CONCRETE MANHOLES.

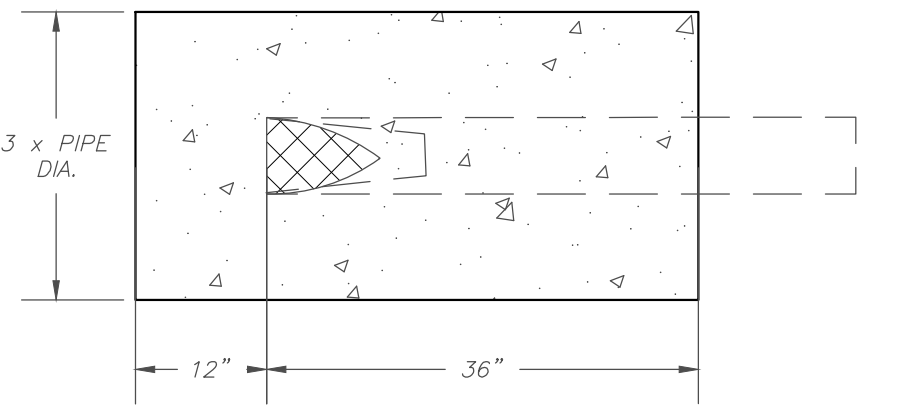


**4 DETAIL: STANDARD CATCH BASIN (PAVEMENT AREAS)**  
 (NTS)

**SECTION**



**PLAN**

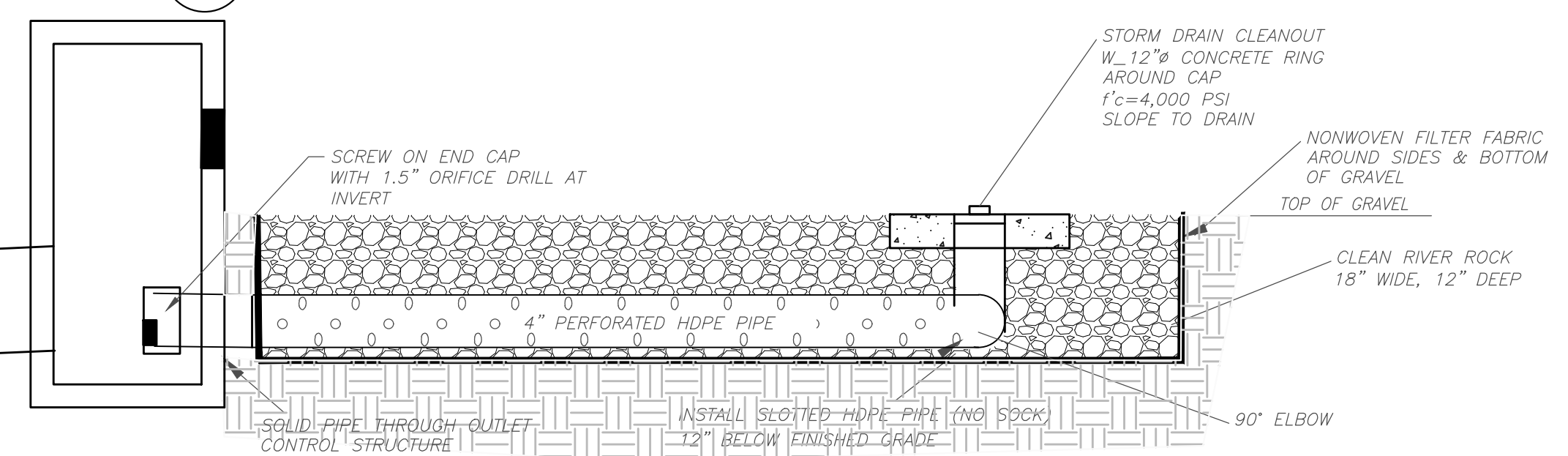


**11 DETAIL: PIPE DAYLIGHT CONC. ENCASEMENT**  
 (NTS)

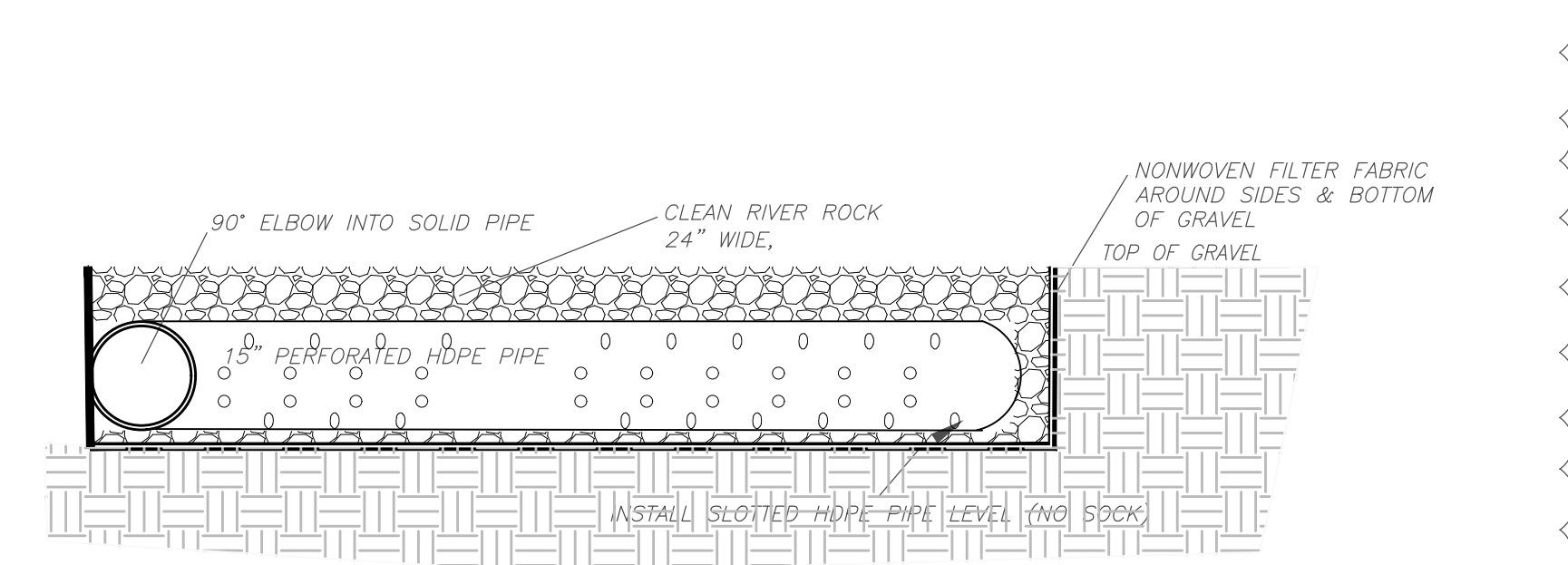
DET. AREA NO.	OUTLET CONTROL STRUCTURE #	ELEV. EL1	ELEV. EL2	ELEV. EL3	DIAMETER DIA#1 (INCHES)	DIAMETER DIA#2 (INCHES)	DIAMETER DIA#3 (INCHES)	WIDTH W1 (FT-IN)	WIDTH W2 (FT-IN)	WIDTH W3 (FT-IN)
WEST	A2	1793.5	1796.5	1798.0	6"	15"	9"	5'-0"	3'-0"	4'-0"
EAST	E2	1794.0	1797.5	1798.75	6"	15"	9"	5'-0"	3'-0"	4'-0"

NOTE: DRILL 1.5" ORIFICE IN END CAP OF SLOTTED HDPE

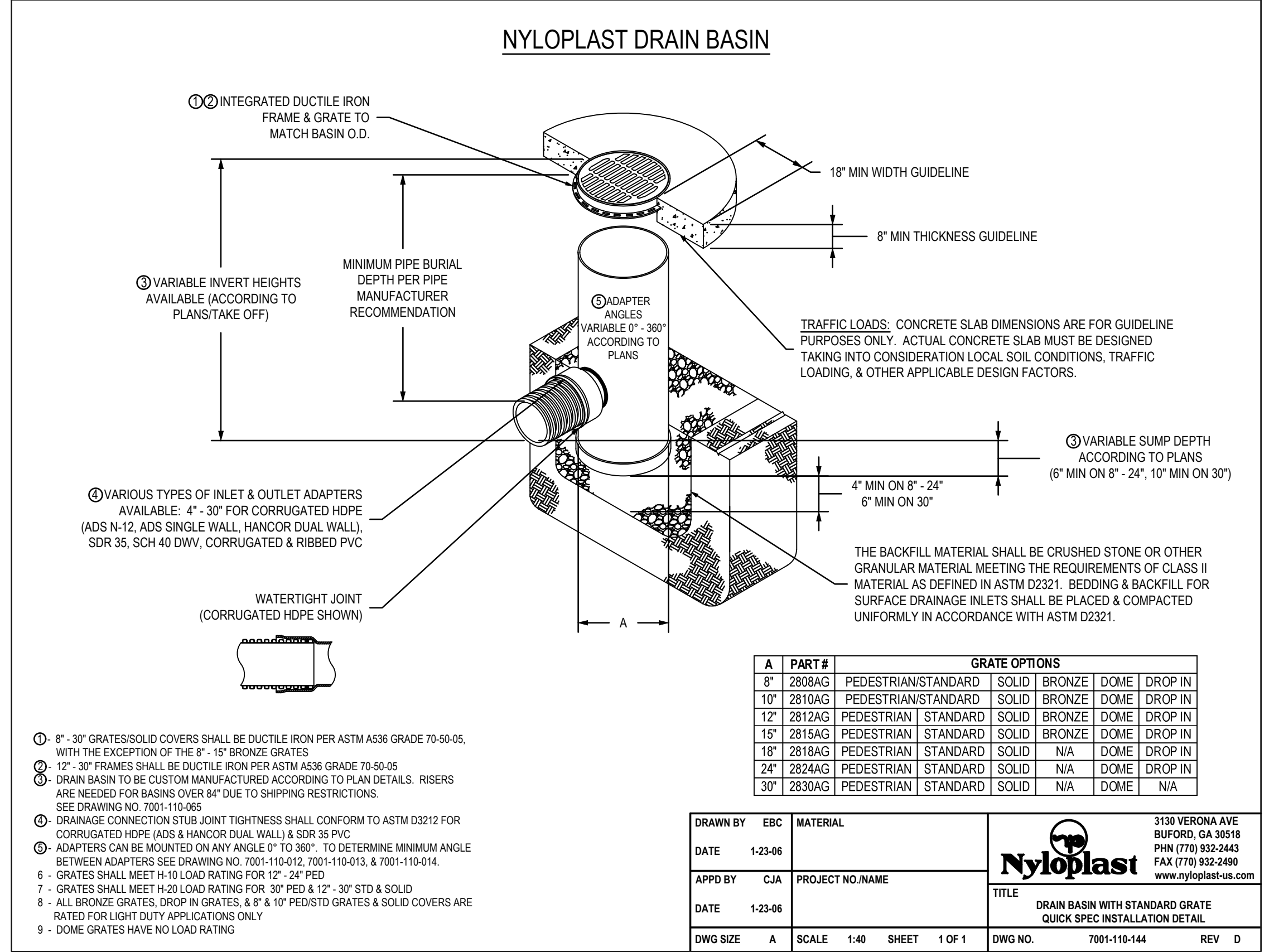
**3 DETAIL: OUTLET CONTROL STRUCTURE**  
 (NTS)



**6 DETAIL: INFILTRATION STONE BED**  
 (NTS)



**6.1 DETAIL: INFILTRATION STONE BED LEVEL SPREADER**  
 (NTS)



A	PART #	GRATE OPTIONS				
8"	2808AG	PEDESTRIAN/STANDARD	SOLID	BRONZE	DOME	DROP IN
10"	2810AG	PEDESTRIAN/STANDARD	SOLID	BRONZE	DOME	DROP IN
12"	2812AG	PEDESTRIAN/STANDARD	SOLID	BRONZE	DOME	DROP IN
15"	2815AG	PEDESTRIAN/STANDARD	SOLID	BRONZE	DOME	DROP IN
18"	2818AG	PEDESTRIAN/STANDARD	SOLID	N/A	DOME	DROP IN
24"	2824AG	PEDESTRIAN/STANDARD	SOLID	N/A	DOME	DROP IN
30"	2830AG	PEDESTRIAN/STANDARD	SOLID	N/A	DOME	N/A

<b>DRAWN BY</b> EBC	<b>MATERIAL</b>	<b>3130 VERONA AVE</b> BURLINGAME, CA 94010 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
<b>DATE</b> 1-23-06	<b>PROJECT NO.</b> NAME	<b>Nyloplast</b>
<b>APP'D BY</b> CJA	<b>TITLE</b>	<b>DRAIN BASIN WITH STANDARD GRATE</b> QUICK SPEC INSTALLATION DETAIL
<b>DATE</b> 1-23-06	<b>SCALE</b> 1:40	<b>DWG NO.</b> 7001-110-144
<b>DWG SIZE</b> A	<b>SHEET</b> 1 OF 1	<b>REV</b> D

