

BIDDING DOCUMENTS

FOR

GEORGE WASHINGTON ACADEMY - NORTH PARKING LOT
Project No. 22-013
St. George, Utah

NOVEMBER 2022

Prepared By:

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**ADVERTISEMENT PACKAGE
PROJECT NO. 22-013**

Construction BIDS will be received for the construction of the George Washington Academy - North Parking Lot, located at: 2277 South 3000 East, St. George, Utah 84790. BIDS must be in a sealed envelope prior to **2:00 PM, Tuesday, November 22, 2022** to:

George Washington Academy
Attn: Blake Clark or Jessica Bentley
2277 South 3000 East, St. George, Utah, 84790.

Each sealed envelope containing a BID must be plainly marked on the outside **#22-013** and **George Washington Academy - North Parking Lot**.

The bidder shall visit the project site and become familiar with the existing site conditions.

Technical questions regarding the bidding documents shall be directed to Phil Giles, (435) 669-4810, pgiles@mainline-eng.com.

The BID includes the following: Parking lot improvements, including asphalt pavement, concrete curb and gutter, sidewalk, pedestrian ramps, storm drain pipe and structures, parking lot lighting and striping.

The 100% performance – labor and materials bond will be required on this project.

George Washington Academy reserves the right to reject any, or all BIDS, or to waive any formality or technicality in any BID, in the interest of the GWA.

INFORMATION FOR BIDDERS

BID OPENING:

1. George Washington Academy, hereinafter called “GWA”, shall receive BIDS for the following:
Project: George Washington Academy - North Parking Lot
Project Address: 2277 South 3000 East
Project No.: 22-013
2. Each BID must be submitted in a sealed envelope addressed to:
George Washington Academy
Attention: Blake Clark or Jessica Bentley
2277 South 3000 East
St George, Utah 84790
3. BIDS must be submitted by:
Tuesday, November 22, 2022, 2:00 PM
4. All BIDS must be plainly marked with BIDDER’S Name, BIDDER'S address and license number, and the name of the project for which the BID is submitted and the Project number on the outside of the sealed envelope.
5. All BIDS must be made on the required BID form. All blank spaces for BID prices must be filled in, in ink or typewritten, and the submitted BID form must be fully completed and executed. Only one copy of the BID form is required. Bids with notations, handwritten marks, non-specified attachments, or otherwise qualified will not be considered.
6. Any BID may be withdrawn in writing prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. Any BID received after the time and date specified shall not be considered. No BIDDER may withdraw a BID within 90 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the GWA and the BIDDER.
7. BIDS shall be based on the BID SCHEDULE UNIT PRICES and shall include all work called for by the plans and specifications and bidding documents. In the case of a discrepancy in the extension of a line item, the unit price shall govern. In the case of a difference between the amount written in words and the amount written in figures, the written words shall govern. BIDDERS must satisfy themselves of the accuracy of the estimated quantities, where given, by examination of the site and a review of the drawings and specifications including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done. UNIT PRICES as called for in the BID Schedule shall be submitted to cover all additions and deductions in the scope of the WORK. GWA has the right to reduce or remove items from the project.

CONTRACT DOCUMENTS INCLUDING BONDS:

1. The CONTRACT DOCUMENTS contain the provisions required for the construction of the project. Information obtained from an officer, agent, or employee of GWA or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve him from fulfilling any of the conditions of the contract.

2. A performance BOND and a payment BOND, each in the amount of 100 percent of the CONTRACT PRICE, with a corporate surety approved by GWA, will be required for the faithful performance of the contract.
3. Attorneys-in-fact who sign BID BONDS, payment BONDS or performance BONDS must file with each BOND a certified copy of their power of attorney with the effective date.

AWARDING CONTRACT:

1. GWA may waive any informalities or minor defects or reject any and all BIDS.
2. GWA may make such investigations as it deems necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the GWA all such information and data for this purpose as GWA may request. GWA reserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy GWA that such BIDDER is properly qualified to carry out the obligations of the Agreement and to complete the Agreement and to complete the WORK contemplated therein.
3. The BIDDER, by evidence of the submission of the BID, acknowledges that BIDDER and BIDDER'S subcontractors meet or exceed the specified requirements for related project experience and insurances, and that should GWA discover at any time evidence to the contrary, BIDDER agrees to withdraw BIDDER'S BID and to allow GWA to award the CONTRACT to the next lowest responsible BIDDER. BIDDER must have the proper contractor's license for this type of project prior to bidding on the project. It is solely BIDDER'S responsibility to comply with all applicable federal, state, and local laws, regulations, and ordinances that affect this project.
4. Award will be made to the lowest responsible BIDDER as determined by GWA. The BID shall be awarded on the condition that the BIDDER provides all required documents prior to the NOTICE TO PROCEED being issued. Failure to provide the required documents shall be considered a default on the Contract and may result in the GWA awarding the Contract to another BIDDER in addition to other legal remedies.
5. The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance BOND, the payment BOND, the Certificate of Legal Work Status for the BIDDER and all Subcontractors and the certificate of insurance within ten (10) calendar days from the date when NOTICE OF AWARD is delivered to the BIDDER. The NOTICE OF AWARD shall be accompanied by the necessary Agreement and BOND forms. The bid shall be awarded on the condition that the BIDDER provides all required documents prior to the NOTICE TO PROCEED being issued. Failure to provide the required documents shall be considered a default on the Contract and may result in GWA Awarding the CONTRACT to another BIDDER in addition to other legal remedies.
6. In case of failure of the BIDDER to execute the Agreement or is found to be ineligible or becomes ineligible to meet all the requirements for the project, GWA may at its option consider the BIDDER in default, in which case the BID BOND accompanying the proposal shall become the property of GWA.
7. Upon receipt of acceptable performance BOND, payment BOND, insurance certificates and Agreement signed by the party to whom the Agreement was awarded, GWA shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should GWA not execute the Agreement, the BIDDER may by WRITTEN NOTICE withdraw the BIDDER'S signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by GWA.

8. The NOTICE TO PROCEED shall be issued immediately upon the following occurring: providing the executed Agreement to GWA, providing the performance and payment BONDS to GWA, and providing the insurance certificates to GWA. Should there be reasons why GWA wants to delay and the NOTICE TO PROCEED cannot be issued within such period the time may be extended by mutual agreement between the GWA and CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.
9. All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout.
10. Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. Failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to his BID.
11. Questions concerning information in the bid package should be directed to:
Phil Giles, Project Engineer
321 N. Mall Drive, Suite T101
St. George, Utah, 84790
(435) 669-4810
pgiles@mainline-eng.com

END OF SECTION

BID FORM

Project: George Washington Academy - North Parking Lot

Project No: 22-013

Proposal of _____ (“BIDDER”), organized and existing under the laws of the State of _____ doing business as a corporation, partnership, or an individual (circle applicable status), to George Washington Academy ("GWA"). Pursuant to and in compliance with the Public Notice, BIDDER hereby proposes to perform all Work for the above named Project in strict accordance with the Contract Documents, BIDDER'S Instructions, Drawings, Specifications, and other documents related thereto, the undersigned, having familiarized themselves with the existing conditions on the site and the conditions under which the work on the Drawings and in the Specifications is to be done, hereby proposes to furnish all labor, materials, equipment, incidental items, permits, fees, and services to perform all specified work on the above named project.

By submission of this BID, each BIDDER certifies, and in the case of a joint BID each party thereto certifies as to his own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

All Work shall be in strict accordance with the Contract Documents and documents issued thereto and shall be installed at the price/prices set forth in the Contract Documents. Bidder acknowledges that all Work shall be done subject to GWA’S approval. Decisions and questions as to the quality, suitability, and acceptability of the materials, interpretation of drawings and specifications, and acceptable fulfillment of the Contract by the BIDDER shall be made by GWA.

Of particular importance to be considered in the BID are the following:

CONTRACT TIME AND LIQUIDATED DAMAGES

The WORK is to be performed within the specified CONTRACT TIME. If the CONTRACTOR shall fail to complete the WORK within the CONTRACT TIME, or extension of time granted by GWA, then the CONTRACTOR will pay GWA LIQUIDATED DAMAGES assessed at the rates established as follows:

- a. \$250.00 (dollars) per day for each calendar day that the CONTRACTOR shall be in default after the CONTRACT TIME.
- b. \$250.00 (dollars) per day for failure to make repairs to deficiencies in the work within 10 days of notification to repair.

The rates specified in 'b.' above are cumulative and are in addition to LIQUIDATED DAMAGES assessed in association with the overall Contract Time as listed in 'a.' above. Additional information on LIQUIDATED DAMAGES is provided in the GENERAL CONDITIONS.

BIDDER acknowledges receipt of the following ADDENDUM:

_____ Addendum No. _____ Dated _____

_____ Addendum No. _____ Dated _____

_____ Addendum No. _____ Dated _____

BID SUMMARY

CONSTRUCTION BID TOTAL: \$ _____

BID SCHEDULE

Project: George Washington Academy - North Parking Lot
Project No.: 22-013

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following unit or lump sum prices. If an alternate is asked for, the contractor may elect to BID either or both BID schedules, however only one schedule will be awarded.

Bidder agrees to commence construction within 60 Calendar Days or as mutually agreed upon of the Notice of Award and to complete all construction items no later than 90 Calendar Days from the Notice to Proceed. BIDDER'S must be able to commit to these dates before submitting Bids.

BIDDER will complete the work in accordance with the Contract Documents for the following unit prices. Quantities indicated are not guaranteed; they are solely for comparing BIDS and establishing the initial Contract Price. Final payment will be based on actual quantities.

NOTE: The Engineer shall check all BIDS for mathematical errors. If errors have been made in the extension of the figures, the unit prices will be the binding amount and the total amounts will be revised to reflect the corrections.

BID SCHEDULE

ITEM NO.	ITEM DESCRIPTION	QNTY	UNITS	UNIT COST	TOTAL
1	MOBILIZATION	1	LUMP		
2	TEMPORARY BMPS	1	LUMP		
3	SURVEY	1	LUMP		
4	PARKING LOT LIGHTING SYSTEM	1	LUMP		
5	UNCLASSIFIED EXCAVATION	1,100	CU YD		
6	REMOVE ASPHALT PAVEMENT	3,300	SQ FT		
7	UNTREATED BASE COURSE	670	CU YD		
8	HMA – 1/2 INCH (3" THICK)	690	TON		
9	ASPHALT PATCHING	800	SQ FT		
10	SIDEWALK	1,150	SQ FT		
11	SIDEWALK W/THICKENED EDGE	1,150	SQ FT		
12	CURB TYPE A	875	FEET		
13	CURB AND GUTTER TYPE HB30-7	830	FEET		
14	CONCRETE WATERWAY	1,090	SQ FT		
15	PEDESTRIAN ACCESS RAMP	6	EACH		
16	CURB INLET CATCH BASIN	1	EACH		
17	3' X 3' X 5' DIVERSION BOX	2	EACH		

18	4" PVC PIPE	150	FEET		
19	15" ADS STORM DRAIN PIPE	320	FEET		
20	4-INCH SLEEVE	400	FEET		
21	PARKING LOT LIGHT (2-LIGHTS PER POLE)	5	EACH		
22	PAINT STRIPING - 4-INCH	2,700	FEET		
23	PAINT MESSAGE	19	EACH		
24	LANDSCAPING/IRRIGATION	7,500	SQ FT		
25	ADA PARKING / STOP SIGN	5	EACH		
26	6' HIGH PRIVACY WALL	110	FEET		
27	6-INCH WATERLINE	100	FEET		
28	6-INCH GATE VALVE	2	EACH		
29	FIRE HYDRANT ASSEMBLY	1	EACH		
30	TRASH ENCLOSURE	1	EACH		
TOTAL BID					

BIDDER certifies that BIDDER has read the Request for BIDS and fully understands its intent. BIDDER certifies that BIDDER has adequate personnel and resources to fulfill the proposal requirements. BIDDER further understands that BIDDER'S ability to meet the criteria and provide the required services shall be judged solely by GWA. BIDDER further certifies that, since the receipt of the Request for BIDS, no contact, discussion, or negotiation has been made nor will be made regarding this proposal for construction services with any GWA employee other than the contact people listed in the Request for BIDS. BIDDER understands that any such contact could disqualify this proposal. BIDDER further certifies that BIDDER is properly licensed to conduct business within the scope of this BID as required by the State of Utah. BIDDER certifies that all schedules and addenda contained herein shall be considered part of the entire Request for BIDS response and that the complete document submitted shall be considered a legally binding document.

The undersigned swears and deposes that the information provided herein is true, accurate, and complete so as not to be misleading.

Dated this _____ day of _____ 20__.

Respectfully Submitted:

Business Name: _____

Seal (if BID is by Corporation)

Business Address: _____

Representative Name: _____

Signature: _____

Title: _____

Date: _____

Attest Signature: _____

Attest Name: _____

END OF SECTION

BIDDER'S GENERAL INFORMATION

Project: George Washington Academy - North Parking Lot
Project No.: 22-013

Date: _____

To verify adequate qualifications and experience, BIDDER must submit this sheet, filled out in its entirety, with their sealed BID. Attach additional sheets as required to completely fill out the required information. Failure to complete any item, or failure to completely and truthfully provide the requested information, shall constitute grounds for the BID to be considered non-responsive and to cause its rejection.

(1) BIDDER'S Name and Address:

(2) BIDDER'S Telephone Number / Facsimile Number:

(3) BIDDER'S Email Address

(4) Contractor's License Primary Classification:

B100 E100 Other: _____

State and License Number (ATTACH A COPY):

Supplemental classifications held, if any (ATTACH A COPY IF NOT INCLUDED IN ABOVE):

4.1 STANDARD SPECIFICATIONS AND REFERENCES

ARTICLE 1 – Standard Specifications

- 1.1 The City of St. George Standard Specifications for Design and Construction (latest edition) and Dixie Power Underground Power Construction Standards (latest edition) shall govern the administration and construction of this Contract, except as modified in these special provisions, otherwise these Special Provisions shall govern the work.

The City's standard specifications and standard drawings can be found at:

<https://www.sgcity.org/transportationandengineering/engineering>

- 1.2 A copy of all applicable City Standards, as well as this document, shall be located at the job site at all times.
- 1.3 The governing rankings in case of a discrepancy is:

Dimensions

1. Plan
2. Calculated
3. Scaled

Information

1. Special Provisions & Contract Documents
2. Plans
3. Measurement and Payment
4. Standard Specifications
5. Standard Drawings

4.2 MEASUREMENT AND PAYMENT

ARTICLE 1 – Estimated Quantities

- 1.4 The quantities appearing in the Bid Schedules are approximate only. Payment to the Contractor will be made only for the actual quantities of work performed and accepted or materials furnished in accordance with the requirements of the Contract. The scheduled quantities of work to be done and materials to be furnished may each be increased, decreased, or omitted as hereinafter provided.
- 1.5 In the event the total amount of the lowest acceptable bid exceeds the amount of funds available for the project, the scope of work will be modified as determined by the Owner.
- 1.6 The Owner reserves the right to increase or decrease the quantities listed in the Bid Schedules by up to 25%, or to entirely eliminate certain Bid Items from the work or materials, if found desirable or expedient. The Contractor is cautioned against unbalancing his bid by prorating his overhead into one or two items only when there are a number of items on the Bid Schedule. The overhead and indirect charges should be prorated on all items in the Bid Schedule.
- 1.7 The Contractor will be allowed no claims for anticipated profits, loss of profits, or for damages because of any difference between the estimated and the actual quantities of work done, or materials furnished on the completed project.

ARTICLE 2 – Measurement

- 2.1 Measurement for all payments shall be made by the Contractor and submitted to the Engineer for approval and verification if required in accordance with the provisions of these documents. In the event verification is required, the Engineer shall independently measure the items submitted for payment and verify the amounts submitted. In the event of a discrepancy, the Engineer's measurements shall govern, except that if the payment submittal is the "Final Payment", then the Contractor and the Engineer shall agree to the quantities measured prior to payment.
- 2.2 When the term "plan quantity" is indicated in the contract bid item designation:
 - 2.2.1 Accept the estimated quantity in the bid proposal as the final quantity for which payment will be made, unless the Engineer revises the plan dimensions through an approved change order.
 - 2.2.2 Request an adjustment to the final quantity for payment if an error is discovered in the estimated quantity in the bid proposal.
 - 2.2.2.1 Provide all computations, plots, and supporting documentation necessary for the Engineer to verify the error and determine the final quantity for payment.
 - 2.2.2.2 All work associated with providing computations, plots, and supporting documentation is at no cost to the Owner.

ARTICLE 3 – Basis of Payment

- 3.1 All payments made to the Contractor shall be made in lawful money of the United States, and made in accordance with the provisions of these documents.

ARTICLE 4 – Non-Payment Items

- 4.1 No payment will be made for the following items. The costs associated with these items should be included in the unit prices for other items on the Bid Schedule.

- 4.1.1 Site Clean Up: Keep premises and site free from accumulation of waste materials or rubbish caused by employees and subcontractors.
- 4.1.2 Rework and Work Rejected by the Engineer: Provide all materials, labor and equipment required to excavate, uncover, remove, replace, or reconstruct any facility or improvement that was not properly inspected and tested at the time of installation as required by these specifications. Remove and replace all materials that are unable to meet testing or warranty requirements.
- 4.1.3 Final Punch List Items: Provide all items required to be finished on the final inspection "Punch List".
- 4.1.4 Utility Repairs: Repair any existing utilities including cable TV, power, telephone, water mains or laterals, sewer mains or laterals, gas lines, and irrigation lines damaged due to Contractor error or negligence.
- 4.1.5 Damage to Property: Repair damage to private or public property, or other physical facilities resulting from the Contractor's negligence or construction operations.
- 4.1.6 Scheduling and Delivery Coordination: Coordinate and schedule delivery of construction materials with material suppliers and inspection personnel.
- 4.1.7 Temporary Facilities: Provide and maintain the following temporary facilities at the direction of the Engineer:
 - 4.1.7.1 Temporary Toilet: Maintain in sanitary condition, for the use of workers.
 - 4.1.7.2 Temporary Storage: Arrange for a site for equipment and materials. Provide for the parking of vehicles and storage of materials in an orderly manner.
 - 4.1.7.3 Temporary Light and Power: Provide temporary light and power, including wiring, lamps, and connections as required for the completion of the work.
- 4.1.8 Existing Utility Coordination:
 - 4.1.8.1. Coordinate potential utility conflicts with the applicable utility company prior to the start of construction. Exercise all possible caution to prevent damage to existing utilities not designated for removal on the Project Improvement Plans. While utility information shown on the plans has been compiled from available sources, its completeness and accuracy cannot be guaranteed, and it is presented simply as a guide to possible difficulties.
 - 4.1.8.2 The cost for protection, relocation, and/or restoration of all utilities shown or indicated on the Project Plans is the responsibility of the Contractor.
 - 4.1.8.3 The cost for protection, relocation, and/or restoration of all utilities not shown or indicated on the Project Plans will be handled in accordance with Article 17 of the General Conditions.

1	Mobilization	Lump
	Includes all permits, coordination, survey, dust control, watering and any other miscellaneous items.	
	Amount Paid	When Paid
	The lesser of 25% of Mobilization or 2.5% of contract	With first estimate
	The lesser of 50% of Mobilization or 5% of contract	With any estimate following completion of 5% of contract
	The lesser of 75% of Mobilization or 7.5% of contract	With any estimate following completion of 10% of contract
	The lesser of 100% of Mobilization or 10% of contract	With any estimate following completion of 20% of contract
	Amount bid in excess of 10% of contract price.	Project Acceptance-Final

2	Environmental Protection	Lump
	Amount Paid	When Paid
	25% of the bid item amount	When the project is 25% complete
	A total of 50% of bid item amount	When the project is 50% complete
	A total of 75% of bid item amount	When the project is 75% complete
	A total or 100% of bid item amount	When the project is 100% complete
	Includes preparing and maintaining SWPPP and all environmental controls per standard best management practices.	

3	Survey	Lump
	Amount Paid	When Paid
	25% of the bid item amount	With first estimate
	Remaining portion of bid item paid as a percentage of the contract completed	With each subsequent estimate

4	Parking Lot Lighting System	Lump
	Includes all labor, equipment, and materials required to install conduit, conductor wire (primary and secondary), junction boxes, panels, trenching, backfill material, bedding material, and all other incidental items necessary for a complete and functioning power and lighting system as shown on the UT sheets.	

5	Unclassified Excavation	Cubic Yard
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6	Remove Asphalt Pavement	Square Feet
	Includes required sawcutting and repair to any items damaged by removal. Includes proper disposal of removed items.	

7	Untreated Base Course	Cubic Yard
Includes hauling, processing, placing, grading, and compacting material to elevations shown on the plan sheets. In final position.		
8	HMA - 1/2 Inch (3-Inch Thick)	Ton
Includes aggregates, asphalt binder, hydrated lime, and other additives, etc.		
9	Asphalt Patching	Square Feet
Includes excavation, removal of existing asphalt, untreated base course, pavement cutting, and HMA – ½ Inch to the depths shown on the plans.		
10	Concrete Sidewalk	Square Feet
Includes excavation and untreated base course.		
11	Concrete Sidewalk W/Thickened Edge	Square Feet
Includes excavation and untreated base course.		
12	Curb Type A	Feet
Measured along the face of curb. Includes excavation and untreated base course.		
13	Concrete Curb & Gutter Type HB30-7	Feet
Includes all labor, equipment, untreated base course, and concrete.		
14	Concrete Waterway	Square Feet
Includes excavation, untreated base course, rebar, and concrete.		
15	Pedestrian Access Ramp	Each
Includes all labor, equipment, untreated base course, concrete, and materials necessary to construct pedestrian access ramp according to City Standards.		
16	Curb Inlet Catch Basin	Each
A.	Consists of all necessary materials required to make a complete drainage structure including but not limited to the following: Concrete lid, catch basin, reinforcing steel, grate and frame, manhole steps, grouting the pipe on the inside and outside of the box, and any other items required in standard drawings. Includes grouting the pipe on the inside and outside of the box.	
B.	The connection to any pipe culvert or other drainage feature will be incidental to construction and no separate payment will be made for this work.	
C.	The GWA will make no separate payment for testing upon failure of visual inspection.	

17	3' x 3' x 5' Diversion Box	Each
A.	Consists of all necessary materials required to make a complete drainage structure including but not limited to the following: Concrete lid, catch basin, reinforcing steel, grate and frame, manhole steps, grouting the pipe on the inside and outside of the box, and any other items required in standard drawings. Includes grouting the pipe on the inside and outside of the box.	
B.	The connection to any pipe culvert or other drainage feature will be incidental to construction and no separate payment will be made for this work.	
C.	The GWA will make no separate payment for testing upon failure of visual inspection.	
18	4 Inch PVC Pipe	Feet
Measured along centerline of pipe. Includes all labor, materials, and equipment necessary to complete this item, including but not limited to excavation, dewatering, stabilization, bedding, backfilling, testing, fittings, and other incidentals.		
19	15 Inch ADS Storm Drain Pipe	Feet
A.	Measured along centerline of pipe.	
B.	Trench excavation, pipe bedding and backfill as shown in the Standard Drawings are incidental to construction and no separate payment will be made.	
C.	Connections to drainage structures or features are incidental to construction and no separate payment will be made.	
D.	No separate payment will be made for required inspection and testing.	
20	4 Inch Sleeve	Feet
Measured along centerline of pipe. Includes all labor, materials, and equipment necessary to complete this item, including but not limited to excavation, dewatering, stabilization, bedding, backfilling, testing, fittings, and other incidentals.		
21	Parking Lot Light (2-Lights per Pole)	Each
Includes furnishing and installing a fully functioning light and base including Led fixture and steel pole with base. Includes all excavation, concrete, reinforcing steel, and backfill for corresponding foundation base. Includes all transformers, conduits, conductor, and miscellaneous parts housed within the light fixture, pole, and base.		
22	Paint Striping - 4 Inch	Feet
Double yellow line will be measured as 2 – 4 inch lines.		
23	Paint Message	Each
Each arrow head counts as one message.		
24	Landscape/Irrigation	Square Feet
Includes soil, rock, plants, trees, irrigation pipe, irrigation fittings, irrigation valves and boxes, and sprinkler heads as necessary to provide landscaping per the plans. Includes keeping plants and trees alive during construction.		

25	Sign (ADA & Stop Sign) Assembly	Each
Includes signs, post and anchor.		
26	6' High Privacy Wall	Feet
Includes furnishing all labor, equipment, and materials to construct the privacy wall as shown on the plans.		
27	6-Inch Waterline	Feet
Includes furnishing of labor, materials, equipment, trenching, pipe, locate wire, thrust restraints, backfilling, and incidental items associated with installing the waterline.		
28	6-Inch Gate Valve	Each
Includes furnishing of labor, materials, equipment, trenching, pipe, locate wire, thrust restraints, backfilling, and incidental items associated with installing the gate valve.		
29	Fire Hydrant Assembly	Each
Includes furnishing of labor, materials, equipment, trenching, pipe, locate wire, thrust restraints, backfilling, and incidental items associated with installing the fire hydrant.		
30	Trash Enclosure	Each
Includes furnishing all labor, equipment, and materials to construct the Trash Enclosure as shown on the plans.		

END OF SECTION

4.3 MOBILIZATION AND DEMOBILIZATION

ARTICLE 1 – Scope

- 1.1 The work consists of the mobilization and demobilization of the Contractor's forces and equipment necessary for performing the work required under the contract.

ARTICLE 2 – Equipment and Material

- 2.1 Mobilization shall include all activities and associated costs for transportation of Contractor's personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the Contractor's operations at the site; premiums paid for performance and payment bonds including coinsurance and reinsurance agreements as applicable; acquisition of all permits required to commence work; and other items specified herein.
- 2.2 Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not required or included in the contract from the site; including the disassembly, removal, and site cleanup of offices, buildings, and other facilities assembled on the site specifically for this contract.
- 2.3 This work includes mobilization and demobilization required by the contract at the time of award. If additional mobilization and demobilization activities and costs are required during the performance of the contract as a result of changed, deleted, or added items of work for which the Contractor is entitled to an adjustment in contract price, compensation for such costs will be included in the price adjustment for the item or items of work changed or added.

END OF SECTION

4.4 TRAFFIC CONTROL

ARTICLE 1 – Scope

- 1.1 The work shall consist of establishing traffic control and maintaining safe, convenient use of public roads and rights-of-way.
- 1.2 The Contractor's operations shall cause no unnecessary inconvenience to the public. The public rights-of-way shall be maintained at all times unless interruption is authorized by proper local authority. Safe and adequate access shall be provided and maintained to all public protection devices and to all critical utility control locations. Facility access shall be continuous and unobstructed unless otherwise approved.

ARTICLE 2 - Construction Requirements

2.1 Pre-Construction Requirements

2.1.1 The Contractor shall submit three copies of the traffic control plan for review by the Owner and Engineer at the pre-construction meeting. The Owner will request attendance from the following people:

- Contractor's Traffic Control Designer
- Contractor's Traffic Control Supervisor
- Engineer

2.1.2 At the preconstruction meeting, the Contractor submitted traffic control plans will be reviewed. Plans shall be required to be modified, where necessary, to comply with the criteria listed herein.

2.1.3 Encroachment Permits: The Contractor shall obtain an encroachment permit from the City of St. George for work within the city rights-of-way

2.1.4 The Contractor shall not be allowed to start work on the project until the traffic control plan is approved. No additional contract time will be granted for the preparation or modification of the traffic control plan.

2.2 Traffic Control Plan Requirements

2.2.1 Traffic Control plans may be created using the following sources:

- Current Utah Department of Transportation (UDOT) Traffic Control Plans (UDOT Standard Drawings - TC series)
- Current UDOT Traffic Control Specifications
- Current Manual on Uniform Traffic Control Devices (MUTCD), Part VI
- OSHA Construction Industry Standards (29 CFR Part 1926), Subpart G, Signs, Signals, and Barricades

2.2.2 Include the following documents as part of the traffic control plans:

- Drawing showing phasing (if required for clarity)
- Listing of all standard UDOT and MUTCD traffic control drawings which will be used
- Drawings showing any traffic control which does not fit a standard drawing,

2.2.3 Provide a minimum of one traffic lane in each direction of travel at all times, or provide one

lane with two flaggers. The maximum traffic delay shall not exceed 5 minutes.

2.2.4 The Contractor shall maintain access to all businesses and residences at all times. If short-term closure of access points is necessary during construction activity, the Contractor shall coordinate specific access needs with the Engineer, property owner, and business owner.

2.3 Storage of Equipment and Material in Public Streets: Construction materials and equipment shall not be stored or parked on public streets, roads, or highways. During any material or equipment loading or unloading activities that may temporarily interfere with traffic, an acceptable detour shall be provided for the duration of the activity. Any associated expense for this activity is the responsibility of the Contractor.

2.4 Street Closures, Detours, and Barricades:

2.4.1 The Contractor shall comply with the requirements of all applicable responsible units of government for closure of any street, road, or highway. The Contractor shall provide the required barriers, guards, lights, signs, temporary bridges, and flaggers together with informing the public of any detours and construction hazards by the most suitable means available, such as local newspapers or radio stations. The Contractor is also responsible for compliance with additional public safety requirements that may arise during construction. The Contractor shall furnish, install, and, upon completion of the work, promptly remove all signs, warning devices, and other materials used in the performance of this work.

2.4.2 Unless otherwise specified, the Contractor shall notify, in writing, the fire chief, police chief, county sheriff, state patrol, schools that operate school buses, or any other government official as may be appropriate no less than 7 days before closing, partly closing, or reopening any street, road, or highway.

2.4.3 Unless otherwise specified, the Contractor shall furnish to the Engineer a written plan showing the proposed method of signing, barricading for traffic control, and safety for street detours and closures.

2.4.4 All temporary detours will be maintained to ensure use of public rights-of-way is provided in a safe manner. This may include dust control, grading, and graveling as required in this specification.

END OF SECTION

4.5 DUST CONTROL AND WATERING

ARTICLE 1 – Scope

- 1.1 The work shall consist of providing and applying water for dust control and prewetting, mixing, or compacting materials.

ARTICLE 2 – Materials

- 2.1 Water shall be free of dirt, silt, or other detrimental matter in adequate quantities for dust control and watering requirements.

ARTICLE 3 – Execution

- 4.1 Apply water for dust control in quantities and locations as directed by Engineer. Dust control may be required at any time.
- 4.2 Reapply water when materials containing natural or applied water is allowed to dry due to the Contractor's inattention or negligence.
- 4.3 No separate payment will be made for water used in hot plant wet collectors, areas around plant or crusher operations, haul roads, sawing and rotomilling operations, maintaining plant life, concrete mixing or wetting, aggregate washing, concrete curing, or other work items requiring water.

END OF SECTION

4.6 ENVIRONMENTAL PROTECTION

ARTICLE 1 – Scope

- 1.1 The work consists of installing measures or performing work to control erosion, to minimize the production of sediment and other pollutants to water and air from construction activities, and to comply with local, state, and federal environmental permitting requirements.
- 1.2 The Utah Administrative Code (UAC) R31 7-8-3.9 requires the operators of a construction site which will grade one acre or more per common plan to obtain coverage under the Utah Pollutant Discharge Elimination System (UPDES) General Permit for storm water discharges associated with construction activity.
- 1.3 The Contractor shall prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) to the Engineer for review and approval prior to the start of construction.
- 1.4 The Contractor shall prepare and submit a Notice of Intent (NOI) form to the State of Utah Division of Water Quality, along with a permit fee, prior to the start of construction, and furnish a copy to the Engineer and the Owner.
- 1.5 The Contractor shall implement the requirements of the Utah Storm Water General Permit for Construction Activities and the Storm Water Pollution Prevention Plan upon commencement of the work, and throughout the duration of all work activity, and at all work locations including the project limits and material sources.
- 1.6 The Contractor shall prepare and submit a Notice of Termination (NOT) to the State of Utah Division of Water Quality following completion of construction activity, and furnish a copy to the Engineer and the Owner.

ARTICLE 2 – Materials

- 2.1 Silt Fence: The Contractor shall furnish the following:
 - 2.1.1 Filter Fabric: Supply fabric designated for silt fence applications having a minimum width of four feet.
 - 2.1.2 Wood Stakes: Furnish two-inch by two-inch by four-foot length hardwood stake.
- 2.2 Straw Bale Check Dam: The Contractor shall furnish the following:
 - 2.2.1 Bales: Straw or hay.
 - 2.2.2 Filter Fabric: Supply fabric designated for silt fence applications having a minimum width of six feet.
 - 2.2.3 Wood Stakes: Furnish two-inch by two-inch by four-foot length hardwood stake.
- 2.3 Tracking Pad: The Contractor shall furnish the following:
 - 2.3.1 Rock: Use coarse aggregate rock having an average diameter of three to six inches.
 - 2.3.2 Filter Fabric: Supply filter fabric if required for subgrade stability.
- 2.4 Curb Inlet Barrier: The Contractor shall furnish the following:
 - 2.4.1 Concrete building blocks

2.4.2 Stone: Well-graded within 2 to 6 inch diameter

2.4.3 Wire mesh: 0.5 inch by 0.5 inch openings

2.4.4 Wood stud: 2 inches x 4 inches nominal

ARTICLE 3 – Construction Requirements

3.1 Silt Fence:

3.1.1 Where possible, silt fence shall be located 5 feet to 10 feet beyond the toe of slope.

3.1.2 The fence shall be aligned along the contour as close as possible.

3.1.3 Machinery shall be used that will produce no more than the desired dimensions when excavating the trench.

3.1.4 The bottom shall be lined with filter fabric on all three sides of the trench and backfilled with the excavated soil.

3.1.5 To avoid excessive ponding of water at low points along the fence, an opening shall be provided in the silt fence and a check dam installed.

3.1.6 Joints along the fence shall be avoided as much as possible. If a joint is necessary, the filter fabric shall be spliced at a post with 6" overlaps and securely fasten both ends to the post.

3.1.7 A properly functioning silt fence shall be maintained throughout the duration of the project or until disturbed areas have been vegetated.

3.1.8 Sediment shall be removed as it accumulates and placed in a stable area approved by the Engineer.

3.2 Straw Bale Check Dam:

3.2.1 Check dams shall be placed perpendicular to the flowline of the ditch.

3.2.2 Check dams shall not be placed across natural stream beds.

3.2.3 Check dams shall be constructed to ensure water does not flow around the ends of the dam.

3.2.4 Three inches of the excavated material shall be placed and compacted on the receiving end of the bale.

3.2.5 A six-foot wide erosion control blanket shall be installed as a scour apron along the downstream side of the dam. Ten inches of the blanket edge shall be placed under the bales and secured with 8-inch metal "U" stakes.

3.3 Tracking Pad:

3.3.1 Rock shall be placed to the grade and dimensions shown on the plans or as directed by the Engineer.

3.3.2 Filter fabric shall be installed beneath rock if needed to stabilize the soil subgrade, and as needed in steeper grade conditions, as indicated on the Project Improvement Plans.

- 3.3.3 Tracking pad shall be maintained by installing additional rock as needed.
- 3.4 Curb Inlet Barrier:
- 3.4.1 Construct curb inlet barriers at all completed catch basins that collect water potentially conveying sediment acquired due to construction activities.
- 3.4.2 See environmental control details in plans for additional requirements.
- 3.5 Staging of Earthwork Activities: The excavation and moving of soil materials shall be scheduled to minimize the size of areas disturbed and unprotected from erosion for the shortest reasonable time.
- 3.6 Equipment Maintenance: The Contractor shall maintain the equipment in such a manner as to avoid causing pollution. Faulty equipment causing pollution of the soil, water, or air shall not be operated on-site. Washing down, fueling, or servicing of equipment shall not take place in the channel and shall be avoided where spillage or wash water can enter a stream, stream channel, or other body of water. The Contractor is responsible for all costs of and shall clean-up all spills immediately upon discovery. Clean-up methods shall comply with guidance and methods approved by the Utah Department of Environmental Quality.
- 3.7 Chemical Pollution Protection: The Contractor shall provide watertight tanks or barrels or construct a sump sealed with plastic sheets to collect and temporarily contain chemical pollutants, such as drained lubricating or transmission fluids, grease, soaps, concrete mixer washwater, or asphalt, produced as a by-product of the construction activities. Chemical pollutants shall be disposed of in accordance with appropriate State and Federal regulations.
- 3.8 Sanitary Facilities: The Contractor shall provide sanitary facilities at the work site. Sanitary facilities shall be located away from the live stream.
- 3.9 Dust Control and Air Pollution: All public access or haul roads used by the Contractor during construction of the project shall be sprinkled to fully suppress fugitive dust. All dust control methods shall ensure safe construction operations at all times.
- 3.10 City of St. George Air Quality Permit: The Contractor shall obtain an Air Quality Permit from the City of St. George.

END OF SECTION

4.7 LIMITATION OF OPERATIONS

ARTICLE 1 – Project Coordination

- 1.1 Coordinate any conflicting work items with the private development improvements on the north side of the project.

ARTICLE 2 – Night and Weekend Work

- 2.1 All work is to be complete in accordance with City of St. George ordinances.
- 2.2 Provide a minimum of 7 calendar day notice prior to performing weekend work. Weekend work will only be permitted upon approval from GWA representative after proper notice has been submitted by contractor.

END OF SECTION

4.8 POTHOLING EXISTING UTILITIES

ARTICLE 1 – DESCRIPTION

Perform Potholing for potential utility conflicts, or to accurately locate and survey other subsurface facilities/items as needed.

ARTICLE 2 – GENERAL

Potholing (open cut excavation) for miscellaneous utilities or other subsurface facilities/items

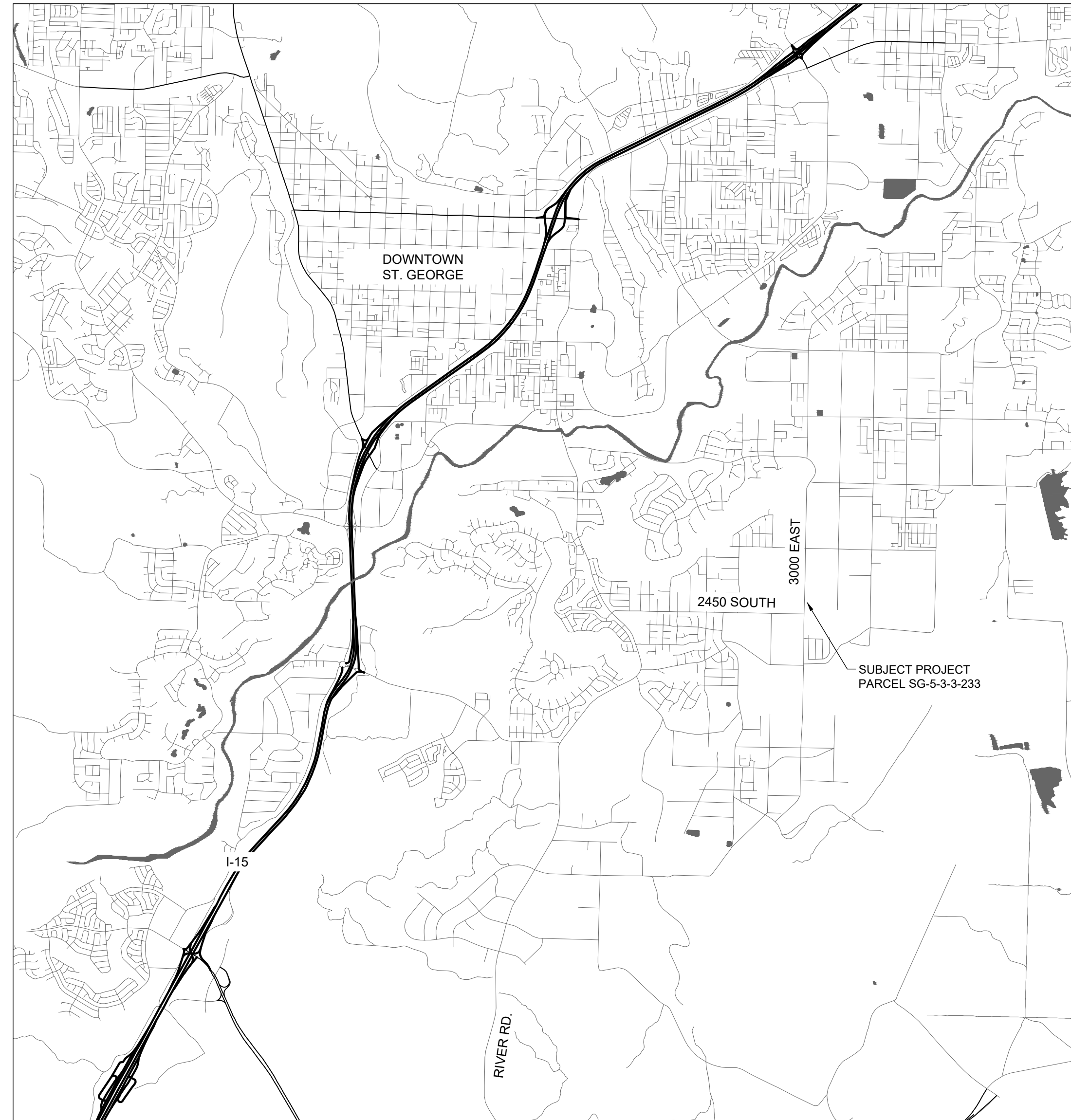
- 1.1 Notify and coordinate with Utility Owner prior to excavation.
- 1.2 Provide traffic control in compliance with the Manual on Uniform Traffic Control Devices and project traffic control plan if pothole is to be located within an active roadway.
- 1.3 Provide equipment to locate and expose subsurface utility.
- 1.4 Provide labor to locate and expose subsurface utility.
- 1.5 Provide dewatering of excavation until utility is accurately located.
- 1.6 Repair any damage resulting from the potholing operation.
 - a. Provide the following permanent bituminous patching within 5 calendar days after potholing, only if pothole is within an active roadway with existing bituminous pavement.
 - b. Minimum of 6 inches of Untreated Base Course.
 - c. Minimum of 4 inches of asphalt concrete mix or quick-set, high early strength Portland cement concrete.

ARTICLE 3 – LIMITATIONS

Potholing is incidental to the traffic signal installation. The contractor is responsible for potholing as necessary to avoid conflicts with existing infrastructure.

END OF SECTION

CONSTRUCTION PLANS FOR GEORGE WASHINGTON ACADEMY - NORTH PARKING LOT IN ST. GEORGE, UTAH



Nov 02, 2022 - 11:25am
P:\2022\22-013 - GWA - Parking Lot Expansion\Plans\1.dwg

NOTES

1. VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO COMMENCEMENT OF WORK.
2. ALL WORK AND MATERIALS SHALL COMPLY WITH THE CITY OF ST. GEORGE STANDARD SPECIFICATIONS.
3. INSTALL AN INFORMATIONAL SIGN ON SITE BEFORE CONSTRUCTION BEGINS. THIS SIGN WILL HAVE A MINIMUM SIZE, PLACEMENT LOCATION AND CONTENT INFORMATION WITH THE COMPANY NAME, PHONE CONTACT AND GRADING PERMIT NUMBER.
4. SUBMIT A DUST CONTROL PLAN WITH DETAILS ON EQUIPMENT, SCHEDULING AND REPORTING OF DUST CONTROL ACTIVITIES.
5. A MANDATORY PRE-CONSTRUCTION MEETING WILL BE REQUIRED ON ALL PROJECTS PRIOR TO ANY GRUBBING, GRADING OR CONSTRUCTION ACTIVITIES. THE PERMIT HOLDER WILL BE REQUIRED TO NOTIFY ALL DEVELOPMENT SERVICE INSPECTORS.
6. FOLLOW APPENDIX 'J' STANDARDS FOUND IN THE IBC.
7. KEEP ALL CONSTRUCTION EQUIPMENT AND MATERIALS OUT OF THE SIGHT DISTANCE CORRIDORS THAT MAY OBSTRUCT THE DRIVER'S VIEW.

DUST CONTROL

THESE DUST CONTROL MEASURES MUST BE OBSERVED AT ALL TIMES:

EARTH MOVING ACTIVITIES:

1. APPLY WATER BY MEANS OF TRUCKS, HOSES AND/OR SPRINKLERS AT SUFFICIENT FREQUENCY AND QUANTITY, PRIOR TO CONDUCTING, DURING AND AFTER EARTHMOVING ACTIVITIES.
2. PRE-APPLY WATER TO THE DEPTH OF THE PROPOSED CUTS OR EQUIPMENT PENETRATION.
3. APPLY WATER AS NECESSARY AND PRIOR TO EXPECTED WIND EVENTS.
4. OPERATE HAUL VEHICLES APPROPRIATELY IN ORDER TO MINIMIZE FUGITIVE DUST AND APPLY WATER AS NECESSARY DURING LOADING OPERATIONS.

DISTURBED SURFACE AREAS OR INACTIVE CONSTRUCTION SITES:

1. WHEN ACTIVE CONSTRUCTION OPERATIONS HAVE CEASED, APPLY WATER AT SUFFICIENT FREQUENCY AND QUANTITY TO DEVELOP A SURFACE CRUST AND PRIOR TO EXPECTED WIND EVENTS.
2. INSTALL FENCE BARRIER AND/OR "NO TRESPASSING" SIGNS TO PREVENT ACCESS TO DISTURBED SURFACE AREAS.

PROJECT INFORMATION
 GEORGE WASHINGTON ACADEMY
 NORTH PARKING LOT EXPANSION
 SG-5-3-3-233
 2277 SOUTH 3000 EAST
 ST. GEORGE, UT 84790

OWNER CONTACT
 GEORGE WASHINGTON ACADEMY
 ATTN: BLAKE CLARK
 2277 SOUTH 3000 EAST
 ST. GEORGE, UT 84790
 435-673-2232 | bclark@gwacademy.org

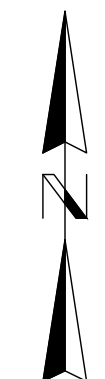
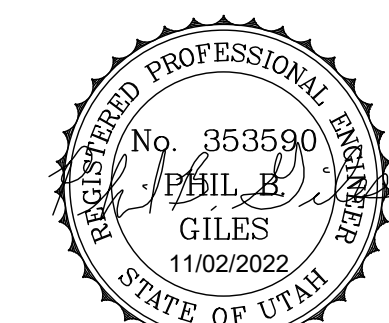
ENGINEER CONTACT
 MAINLINE ENGINEERING LLC
 PHIL GILES
 321 N MALL DRIVE, T101
 ST. GEORGE, UT 84790
 435-669-4810 | pgiles@mainline-eng.com

INDEX TO SHEETS

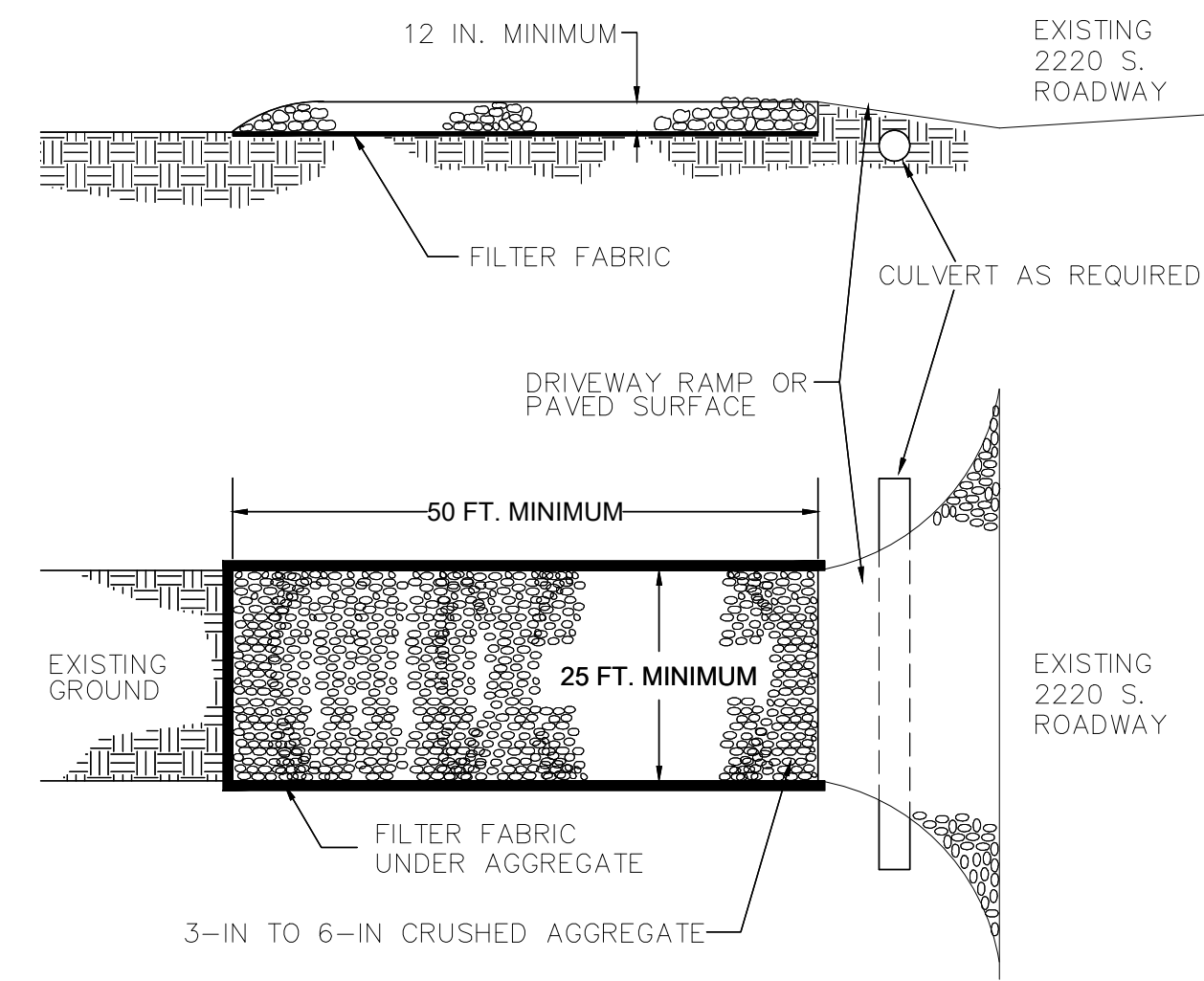
SHEET NO.	DESCRIPTION
1	COVER SHEET
EC-01	EROSION CONTROL PLAN
SP-01	SITE PLAN
LID-01	LOW IMPACT DEVELOPMENT PLAN
UT-01 TO UT-02	UTILITY PLAN
GR-01 TO GR-03	GRADING AND DRAINAGE PLAN
LP-01	LANDSCAPE PLAN
PL-01	PHOTOMETRIC LAYOUT
DT-01	DETAILS

SUMMARY OF ITEMS

ITEM NO.	DESCRIPTION	UNITS	EST. QTY.
1	MOBILIZATION	LUMP	1
2	TEMPORARY BMPS	LUMP	1
3	SURVEY	LUMP	1
4	PARKING LOT LIGHTING SYSTEM	LUMP	1
5	UNCLASSIFIED EXCAVATION	CU YD	1100
6	REMOVE ASPHALT PAVEMENT	SQ FT	3300
7	UNTREATED BASE COURSE	CU YD	670
8	HMA - 1/2 INCH (3-INCH THICK)	TON	690
9	ASPHALT PATCHING	SQ FT	800
10	SIDEWALK	SQ FT	1150
11	SIDEWALK W/THICKENED EDGE	SQ FT	1150
12	CURB TYPE A	FEET	675
13	CURB AND GUTTER TYPE HB30-7	FEET	830
14	CONCRETE WATERWAY	SQ FT	1090
15	PEDESTRIAN ACCESS RAMP	EACH	6
16	CURB INLET CATCH BASIN	EACH	1
17	3' X 3' X 5' DIVERSION BOX	EACH	2
18	4" PVC PIPE	FEET	150
19	15" ADS STORM DRAIN PIPE	FEET	320
20	4-INCH SLEEVE	FEET	400
21	PARKING LOT LIGHT (2-LIGHTS PER POLE)	EACH	5
22	PAINT STRIPING - 4-INCH	FEET	2700
23	PAINT MESSAGE	EACH	19
24	LANDSCAPING/IRRIGATION	SQ FT	7500
25	ADA PARKING / STOP SIGN	EACH	5
26	6' HIGH PRIVACY WALL	FEET	110
27	6-INCH WATERLINE	FEET	100
28	6-INCH GATE VALVE	EACH	2
29	FIRE HYDRANT ASSEMBLY	EACH	1
30	TRASH ENCLOSURE	EACH	1

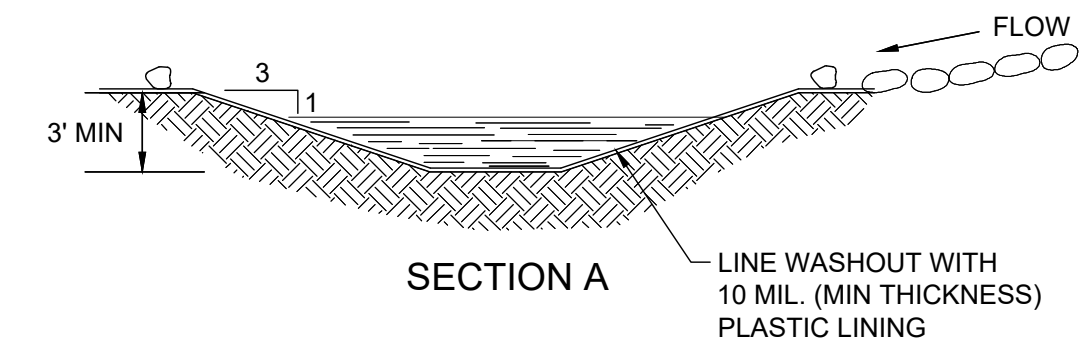
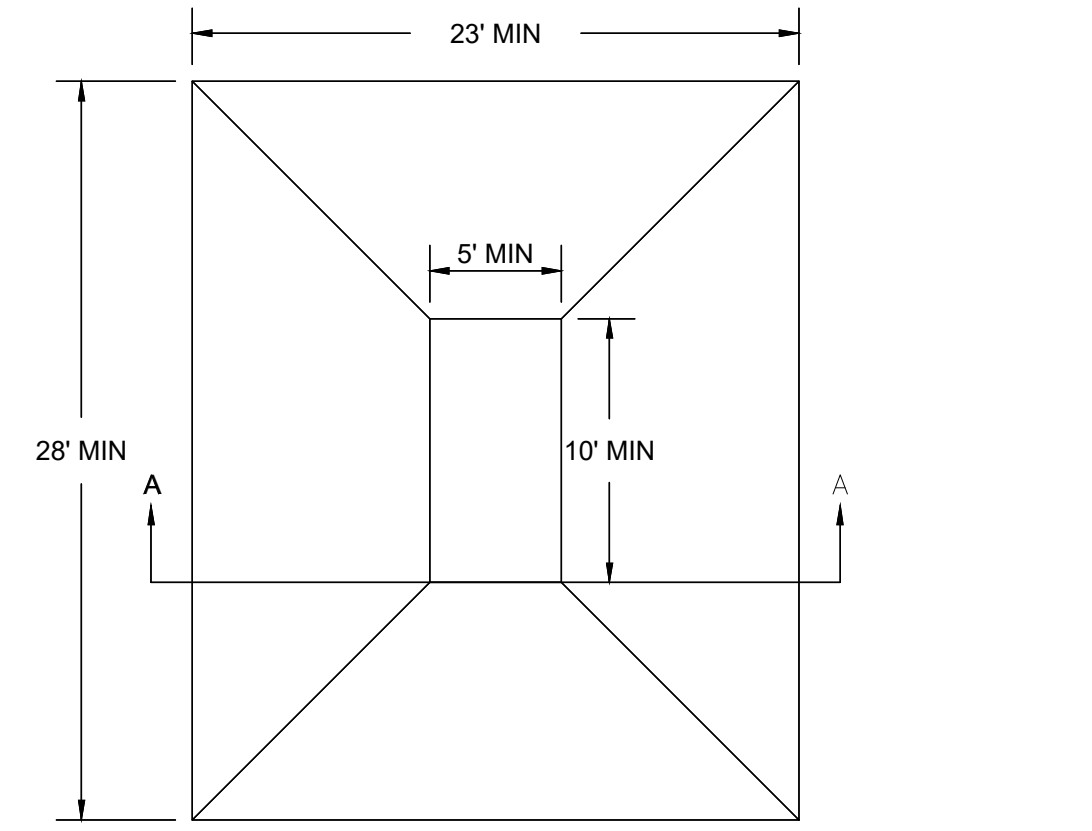


GEORGE WASHINGTON ACADEMY	11/2/22	PBG	TAR	NO.
DATE	CHECKED BY			BY
PROJECT	PROFESSIONAL ENGINEER			REVISIONS
CLIENT PROJ. #	22-013			DATE
SHEET NAME	COVER SHEET			NO.
MAINLINE PROJ. #	N/A			BY
MAINLINE ENGINEERING GEORGE WASHINGTON ACADEMY 2277 SOUTH 3000 EAST ST. GEORGE, UT 84790				
Phil B. Giles PROFESSIONAL ENGINEER				
SHEET 1				



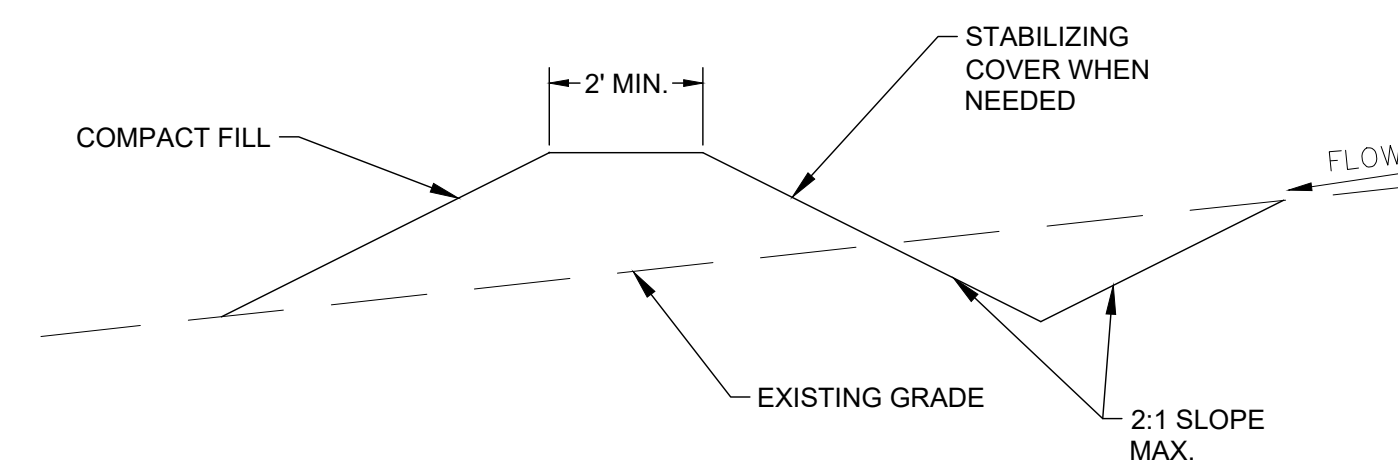
- NOTES:**
- PAD SHALL BE REMOVED AND REPLACED WHEN SOIL IS EVIDENT ON THE SURFACE OF THE PAD OR AS DIRECTED BY THE CITY CLEARING AND GRADING INSPECTOR.
 - PAD SHALL BE INSTALLED IN PLANTING STRIP AS APPROPRIATE.
 - PAD THICKNESS SHALL BE INCREASED IF SOIL CONDITIONS DICTATE OR PER THE DIRECTION OF THE CITY CLEARING AND GRADING INSPECTOR.
 - MINIMUM DIMENSIONS MAY BE MODIFIED AS REQUIRED BY SITE CONDITIONS UPON APPROVAL OF THE CITY CLEARING AND GRADING INSPECTOR.

STABILIZED CONSTRUCTION ENTRANCE/EXIT



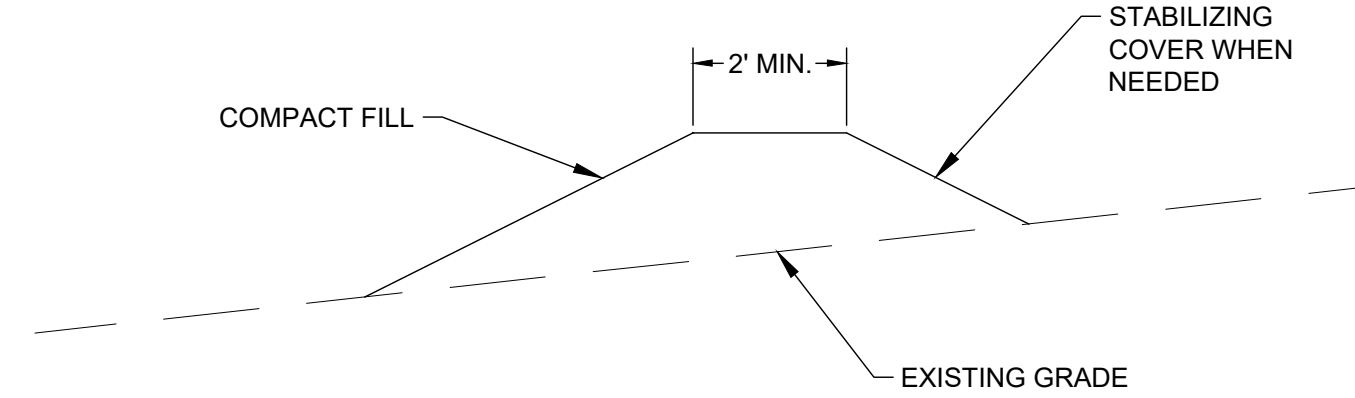
- NOTES:**
- MORE TRUCK TRAFFIC MAY REQUIRE A LARGER AREA.

CONCRETE WASHOUT



- NOTES:**
- STABILIZE INLETS, OUTLETS, AND SLOPES.
 - PROPERLY COMPACT THE SUBGRADE

TYPICAL DRAINAGE SWALE



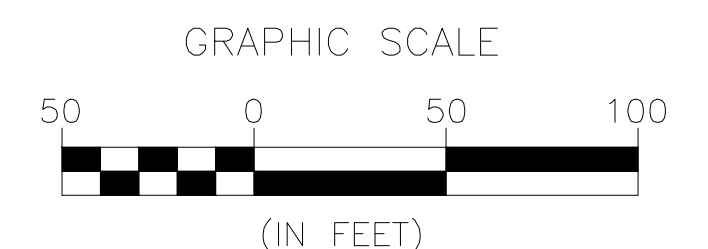
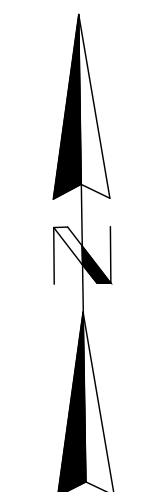
TYPICAL EARTH DIKE

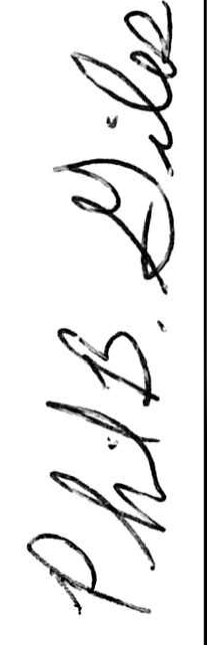
EARTH DIKES AND DRAINAGE SWALES

- NOTES:**
- REFER TO CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES.
 - THE EROSION CONTROL PLAN INCLUDED HEREIN APPEARS TO FULFILL APPLICABLE ST GEORGE CITY GRADING CRITERIA. ADDITIONAL GRADING, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE PERMITEE(S) DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE PERMITEE(S) UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED.
 - VERIFY ALL ELEVATIONS ON EXISTING UTILITIES ON THE WHOLE PROJECT SITE.
 - ALL BMPs TO BE INSTALLED PER ST GEORGE CITY STANDARDS.

EROSION & SEDIMENT CONTROL NOTES

- SILT FENCING**
- INSPECT AND MAINTAIN SILT FENCES AFTER EACH RAIN STORM.
 - ENSURE THE BOTTOM OF THE SILT FENCE IS BURIED IN THE GROUND.
 - SECURELY ATTACH THE FABRIC TO THE STAKES
 - DON'T PLACE SILT FENCES IN A WATERWAY OR USE THEM AS A CHECK DAM.
 - MAKE SURE STORM WATER IS NOT FLOWING AROUND THE SILT FENCE.
- CONSTRUCTION ENTRANCES**
- REMOVE MUD AND DIRT FROM THE TIRES OF CONSTRUCTION VEHICLES BEFORE THEY ENTER A PAVED ROADWAY.
 - PROPERLY SIZE ENTRANCE BMPs FOR ALL ANTICIPATED VEHICLES
 - DON'T ALLOW THE CONSTRUCTION ACCESS TO BECOME BURIED IN SOIL.
- SLOPES**
- ROUGH GRADE OR TERRACE SLOPES.
 - BREAK UP LONG SLOPES WITH SEDIMENT BARRIERS, OR UNDER DRAIN, OR DIVERT STORM WATER AWAY FROM SLOPES.
- DIRT STOCKPILES**
- COVER OR SEED ALL DIRT STOCKPILES.
- STORM DRAIN INLET PROTECTION**
- USE ROCK OR OTHER APPROPRIATE MATERIAL TO COVER STORM DRAIN INLETS TO FILTER OUT TRASH AND DEBRIS.
 - MAKE SURE THE ROCK SIZE IS APPROPRIATE (USUALLY 1 TO 2 INCHES IN DIAMETER).
 - MAINTAIN INLET FILTERS, IF USED.
- PROTECT NATURAL FEATURES**
- MINIMIZE CLEARING AND THE AMOUNT OF EXPOSED SOIL.
 - IDENTIFY AND PROTECT AREAS WHERE EXISTING VEGETATION WILL NOT BE DISTURBED BY CONSTRUCTION ACTIVITY.
 - PROTECT STREAMS, STREAM BUFFERS, WETLANDS, OR OTHER SENSITIVE AREAS FROM ANY DISTURBANCE OR CONSTRUCTION ACTIVITY BY FENCING OR OTHERWISE CLEARLY MARKING THESE AREAS.
- CONSTRUCTION PHASING**
- SEQUENCE CONSTRUCTION ACTIVITIES SO THAT SOIL IS NOT EXPOSED FOR LONG PERIODS OF TIME.
 - SCHEDULE OR LIMIT GRADING TO SMALL AREAS.
 - INSTALL KEY SEDIMENT CONTROL PRACTICES BEFORE SITE GRADING BEGINS.
 - SCHEDULE SITE STABILIZATION ACTIVITIES, SUCH AS LANDSCAPING, TO BE COMPLETED IMMEDIATELY AFTER THE LAND HAS BEEN GRADED TO ITS FINAL CONTOUR.
- VEGETATIVE BUFFERS**
- PROTECT AND INSTALL VEGETATIVE BUFFERS ALONG WATER BODIES TO SLOW AND FILTER STORM WATER RUNOFF.
 - MAINTAIN BUFFERS BY MOWING OR REPLANTING PERIODICALLY TO ENSURE THEIR EFFECTIVENESS.
- SITE STABILIZATION**
- VEGETATE, MULCH, OR OTHERWISE STABILIZE ALL EXPOSED AREAS AS SOON AS LAND ALTERATIONS HAVE BEEN COMPLETED.



PROJECT		GEORGE WASHINGTON ACADEMY		DATE	8/2/22	DRAWN BY	PBG	CHECKED BY	TAR
CLIENT PROJ. #	N/A	MAINLINE PROJ. #	22-013	 PROFESSIONAL ENGINEER					
SHEET NAME	EROSION CONTROL PLAN								
SHEET		EC-01		NO.	REVISIONS	BY	DATE		

MAINLINE ENGINEERING
 GEORGE WASHINGTON ACADEMY
 2277 SOUTH 3000 EAST
 ST. GEORGE, UT 84790

MAINLINE ENGINEERING
 327 NORTH MALL DRIVE
 SUITE 1100
 ST. GEORGE, UT 84790



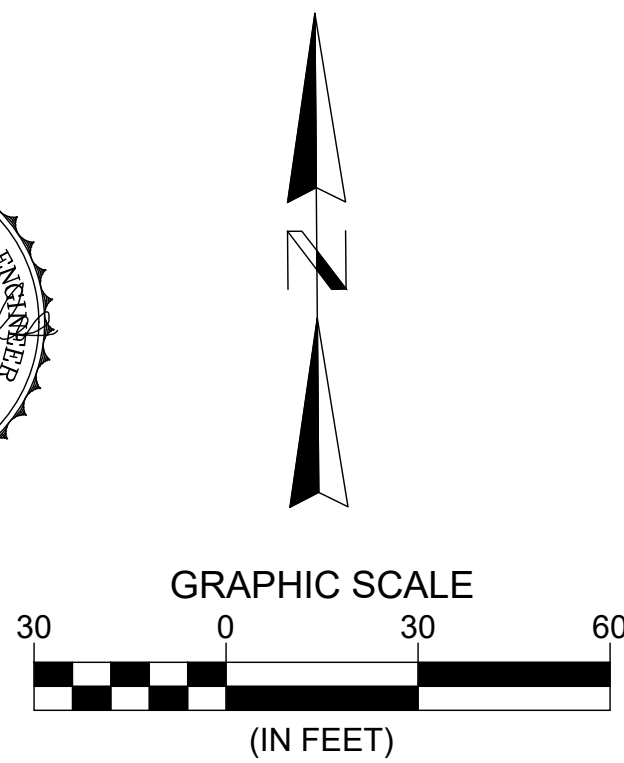
INfiltration BASIN -
 DETENTION/RETENTION CAPACITY W/
 ONE-FOOT FREE BOARD= 4,416 CU FT
 REQUIRED RETENTION = 1,512 CU FT
 PROVIDED RETENTION = 1,804 CU FT
 REQUIRED DETENTION = 0 CU FT
 PROVIDED DETENTION = 0 CU FT
 TOP OF DETENTION ELEV: 2630.50
 ONE-FOOT FREE BOARD ELEV: 2629.50
 RETENTION ELEV: 2628.50
 BOTTOM OF DETENTION ELEV: 2627.50

PROJECT INFORMATION	
TYPE OF PROJECT:	NEW DEVELOPMENT
AREA OF LAND DISTURBANCE (AC):	1.02
PROJECT IMPERVIOUS AREA (AC):	1.48
PROJECT IMPERVIOUS %:	88.5%
PROJECT VOL. RUNOFF COEF., Rv:	0.638
80TH STORM DEPTH (INCH):	0.44
PROJECT 80TH PERCENTILE VOL., Vgoal (CF):	1,512

SOIL INFORMATION	
INFILTRATION RATE (IN/HR):	0.85 IN/HR
HYDROLOGIC SOIL GROUP:	C
SOURCE:	USGS WEB SOIL SURVEY
SOIL CONTAMINATION AT SITE:	NONE

LID DRAINAGE AREAS					
CONTRIBUTING DRAINAGE AREA	AREA (AC)	IMPERVIOUS AREA (AC)	IMPERVIOUSNESS (%)	VOLUMETRIC RUNOFF COEFFICIENT, Rv	WATER QUALITY VOLUME, WQV (CF)
CDA - 1	1.48	1.31	88.5%	0.638	1,512
TOTAL WQV (CF)					1,512

LID BMP DESIGN				
CONTRIBUTING DRAINAGE AREA	LID BMP TYPE	WATER QUALITY VOLUME, WQV (CF)	RUNOFF RETAINED (CF)	PERCENT OF RUNOFF CAPTURED (%)
CDA - 1	INFILTRATION BASIN	1,512	1,664	100%



ME MAINLINE ENGINEERING		GEORGE WASHINGTON ACADEMY 227 SOUTH 3000 EAST ST. GEORGE, UT 84790		MAINLINE ENGINEERING 321 NORTH MALL DRIVE SUITE 1100 ST. GEORGE, UT 84790		NO.	BY
DATE	8/22/22	DRAWN BY	PBG	CHECKED BY	TAR	REVISIONS	DATE
PROJECT	GEORGE WASHINGTON ACADEMY		CLIENT PROJ. #	22-013			
SHEET NAME	LOW IMPACT DEVELOPMENT PLAN		SHEET NAME				
SHEET	LID-01						

GENERAL CONSTRUCTION NOTES:

- All construction and materials shall be in accordance with the project specifications; St. George City standard specifications for design and construction; any other applicable standards issued by the controlling agency. The uniform building code and all local government codes and ordinances applicable.
- The contractor shall take all precautionary measures necessary to protect the existing improvements which are to remain in place, from damage, and all such improvements or structures damaged by the contractor's operations shall be repaired or reconstructed satisfactory to the owner at the expense of the contractor.
- The contractor shall be responsible for the location of and protection of all existing underground utilities and overhead power lines during construction.
- Any necessary design modifications shall be approved by the engineer.
- All grading to be within +/- 0.1' of proposed elevations.
- An encroachment permit is required for any work within the public Right-Of-Way. An air quality permit is also required in order to perform construction. The contractor shall secure all permits and inspections required for this construction. Contact Clint Hafen (435-632-7933, clint.hafen@sgcity.org)
- The contractor shall install an information sign on site before construction begins. The sign shall have a minimum size, placement location and content information with the company name, phone number and permit number.
- Contractor is responsible to obtain all necessary permits pertaining to storm water. This includes, but is not limited to, Notice of Intent, Notice of Termination, and storm water pollution prevention plan (SW3P). a SW3P tracking document will need to be signed and returned before a grading permit will be issued. the SW3P shall be prepared as required by State of Utah Division of Environmental Quality requirements. Contractor shall maintain all such permits and is required to have SW3P on-site at all times as required by St. George City and the State of Utah Department of Environmental Quality. Contact Kristi Schultz (435-627-4142, kristi.schul tz@sgcity.org).
- Projects shall submit a dust control plan with details on equipment scheduling and reporting of dust control activities.
- Existing utilities are shown on the plans for the convenience of the contractor only. The engineer bears no responsibility for utilities not shown, or shown incorrectly.
- The contractor shall provide traffic control and maintain traffic flow within all public Rights-of-Way unless arrangements are made and written approval granted from the City of St. George. Traffic control shall conform to MUTCD standards.
- Contractor shall pothole all critical utilities as needed to verify location and potential conflicts.
- The contractor shall be responsible for ensuring that the interior of all pipe be clear of debris including soil, rocks, trash, etc.

TDS BROADBAND NOTES:

- The developer will provide all required trench within the project. Any modifications along the periphery to feed this project will be billed to the developer.
- TDS will provide conduits. Please contact Matt at (435-817-0180) or Eric at (805-559-1506) at least 3 weeks prior to opening trench to schedule work.
- Any questions regarding construction of service should be directed to Matthew Brann with TDS at (435-817-0180) or Eric Meyer at (805-559-1506).
- Relocation of new or existing TDS facilities will be billable to the developer/contractor.
- Any modifications after conduit/cable placement will be billable to the developer/contractor as will damages caused by other contractors working for the developer on this project.

DOMINION ENERGY:

- Developer needs to contact Dominion Energy preconstruction department prior to breaking ground for gas sign up. **Eric Ward 435-669-2269 or Colby Batty 435-414-3607**
- Developer will be responsible to get all compaction tests done at developer's expense.
- If casings/conduits are needed, they are to be installed by developer at their costs. A map will be available at dominion energy for casing locations (1155 e 350 n - St George).
- All of the utility easements back of sidewalk will be graded, at full width, to within 6 inches of top back of curb before gas lines will be installed. ****No retaining, rock, or block walls may be constructed on/in a pue **Developer will be responsible for the costs of any gas lines to be lowered and/or relocated after installation.****
- All trenches shall be backfilled and all debris, construction materials and excess dirt piles shall be cleared away.
- Property lot lines, back of curb and grade **must** be staked by developer before gas will be installed.
- Power, water, sewer lines, culverts or other hazards not clearly noticeable shall be staked by developer.
- Failure to comply with the above notes will result in delay of service to this project.
- Contact **JC Hall, 435-210-0729**, at least two (2) weeks prior to being ready, for scheduling of installation.
- **important notice** gas will be put on the schedule for installation when power trench is buried, streets are within 6 inches of sub-grade and the utility easement is graded to top back of curb.**
- High Pressure Gas Note:
Contractor is required to call high pressure dispatch at 801-324-3370, at least 48 hours in advance, before working within 10 feet of a high pressure gas line. This will schedule a Dominion Energy high pressure inspector to the project site.

DOMINION ENERGY HP GAS NOTES:

- Call Dominion Energy (formerly Questar Gas) at 801-324-3370, 48 hours prior to working within 10 feet of any high pressure gas line. This will schedule a Company High Pressure Inspector to be present during construction activities near the HP gas pipelines
- All high pressure gas pipelines shall be protected in place.
- Maintain at least 3 feet horizontal and 1 foot vertical clearance, (outside to outside) between high pressure gas pipelines and other utility pipes, boxes, manholes, etc.
- No vibratory on compaction equipment allowed within 5 feet of the outside of the high pressure gas line. If static rolling of the road base doesn't achieve minimum compaction specifications, flow fill will need to be used over the HP gas pipelines. Vibratory paving equipment is ok to use over the HP gas pipelines
- Flow fill will also need to be used to backfill proposed utility crossings with the high pressure gas line, when the vertical clearance is less than 2 feet from outside of pipe to outside of pipe. At least 12" minimum flow sand needs to be installed directly over the high pressure gas line, under the flow fill. Visqueen plastic needs to be laid over the sand to prevent migration of the flow fill into the sand.
- Contractor to provide Dominion Energy HP Engineer with a list of construction equipment that will be crossing and working over the high pressure gas pipelines. Loading analysis needs to be performed prior to the start of construction to determine if the equipment is safe to cross the HP gas pipelines.
- Potholes of the high pressure gas pipelines shall be done at points where cover depths are unknown, especially at proposed utility crossings, so that the above requirements can be followed..
- Bladed excavation vehicles shall not drop their blade to cut directly over the high pressure gas lines, where the cover depth is less than 3 feet. Carefully dig with a tracked excavator above the high pressure gas, with a Company High Pressure Inspector observing.

GO FIBER, CATV/FIBER OPTIC NOTES:

- Developer to provide all required trenching within the project. Any modifications required to feed project will be billed to the developer.
- GO Fiber will provide all conduits. Call 435-767-9053 or email juc@gofiber.tech for conduit delivery at least one (1) week prior to opening the trench.
- GO Fiber will provide all conduits. Call 435-767-9053 or email juc@gofiber.tech for conduit delivery at least one (1) week prior to opening the trench.
- Any questions regarding service should be directed towards Gab Tremblay at 435-272-3559 juc@gofiber.tech.
- Relocation of existing new or existing GO Fiber facilities are billable to the developer. the developer will be provided with an estimate of costs for work done.

LUMEN TELEPHONE NOTES:

- Developer to place conduit in all JUC trench and stub up at all power locations. Contact Lumen engineer for print if needed.
- Lumen will provide all conduit and deliver to job site. Call 435-632-6553 seven (7) days prior to requiring conduit to schedule delivery.
- Contractor to install conduit and place pull string in all conduit to verify conduit integrity.
- All conduit is 2" unless otherwise noted.
- Any questions to JUC approved plans, please contact Lumen engineer Zach Mathews at 435-673-9639.
- Any Lumen facility relocations associated with project will be billable to owner/developer. Lumen engineer must be contacted a minimum of four (4) weeks
- Developer is responsible to provide all street names and addresses within three (3) weeks of utility plan approval. Failure to provide addressed will result in a delay of service to project.

City of St. George Water JUC Notes:

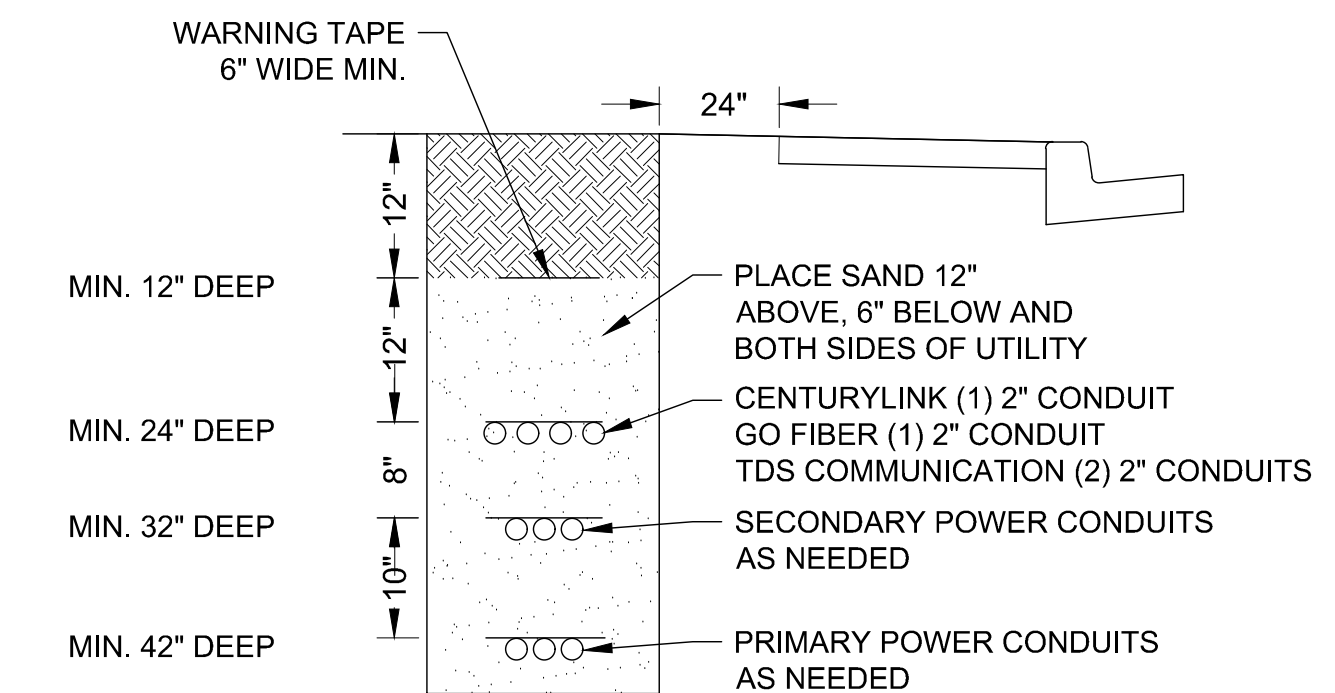
- All waterlines works must be installed by a contractor that has been pre-qualified by the City of St. George Water Department.
- All construction shall conform to the 'City of St. George Standard Specifications for Design and Construction', 'The International Plumbing Code', and the 'Uniform Building Code' Latest edition as administered by the City of St. George.
- Contractor shall pothole all pipelines and verify location and depth prior to proceeding with any building or pipeline construction. If the in field conditions varies from design the contractor is responsible for costs due to changes in condition. City maps are "Best Knowledge" and approximate.
- The potable water supply to lawn irrigation systems shall be protected against backflow per the International Plumbing Code (IPC) Section 608.16.5 and for fire sprinkler systems per (IPC) 608.16.4.
- All Backflow Assembly Installation shall comply with backflow City Ordinance 9-1-1997. Test requirements shall be in accordance with the City of St. George Backflow Ordinance 9-1-1997-5-6-5.
- 14 Gauge wire shall be taped to all water lines for locating purposes. The wire shall also be brought up at each valve box and hydrant.
- Thrust restraint on the new pipeline will be as shown on the details. Use Mega-Lug on the fittings and field lock gaskets on the required length of retrained pipe.
- Asphalt replaced over the pipe trenching is to match existing pavement depths with a 6 inch over cut from edge of the trench line on each side of the trench (T-patch).
- Contractor shall cut off and cap (back at the water main), all existing service lines or unused stub lines that will be abandoned.
- Any changes made in the field must be first approved and documented by the City of St. George Water Services Representative.
- All new fire hydrants shall be installed at the correct height. Risers will not be allowed.
- Irrigation water works may require additional approvals from respective irrigation companies.

DIXIE POWER JUC NOTES

- The power design on this utility plan is considered by Dixie Power to be preliminary until accompanied by a JUC approval stamp. upon receipt of the JUC approved drawing, Dixie Power's engineering department shall commence with the final construction estimate. Construction on this project will not commence until all construction payments have been made in full.
- All primary and secondary power installation shall be performed by Dixie Power and its approved construction crews. If backfill and compaction is to be provided by owner, all conduits shall be sand bedded before native backfill can be utilized.
- It is the responsibility of the owner to provide locations and elevations for each of the facilities that are to be installed with this project. If overhead power lines are being constructed, the final grade of the easement shall be established before construction can begin. If the grade changes after the construction has been completed, the costs to change the elevation shall be billable to the owner.
- All JUC trenches shall be backfilled and compacted in 6 to 8" lifts to a compaction of 95% in roadways/sidewalks and 90% behind sidewalks and at all prepared transformer pad and heavy hardware locations. Testing is to be done at middle and top of trench.
- Field density reports from an accredited geotechnical engineering company shall be submitted to Dixie Powers engineering department upon completion of the project.
- All changes to existing grades near existing power utilities must be approved by Dixie Power's engineering department prior to construction. Blue Stakes protocol shall be followed at all times.
- Any in field changes to the JUC approved power design will be at the owner's expense and must be pre-approved and documented by Dixie Power prior to installation.
- Overhead power line easements shall not be landscaped with trees that grow more that 15 ft at maximum maturity. All underground facilities shall be left open from landscaping (15ft in front and 5ft on sides and back for transformers and switches and 15 ft in front and back for PMH hardware) for ease of access.
- Please reference www.dixiepower.com for information on our metering standards and installation guidelines.

City of St. George Wastewater JUC Notes:

- No sewers under 9' deep unless approved by the City of St. George Wastewater Department.
- Any sewers not in public streets shall show recorded easements.
- Buildings may require interceptors at a later date.
- All sewer manholes shall have "City of St. George" logo lids for final inspection.
- 100' Maximum space between sewer lateral cleanouts.
- All construction shall conform to the "City of St. George Standard Specifications for Design and Construction", "The International Plumbing Code", and the "Uniform Building Code" latest edition as administered by the City of St. George.



JOINT UTILITY TRENCH

NOTES:

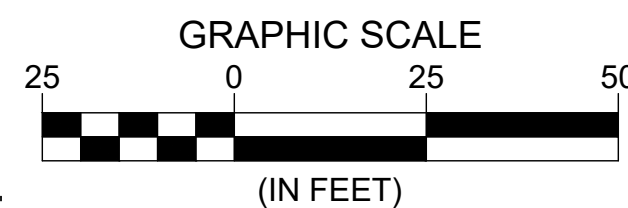
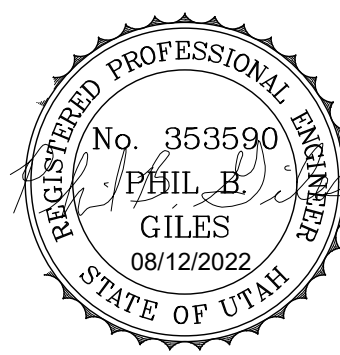
- CAP AND MARK ENDS OF DEAD-END CONDUITS.
- INSTALL DETECTABLE PULL TAPE IN ALL EMPTY CONDUITS.
- ALL CONDUIT, CONDUCTOR, AND OTHER MATERIALS SHOWN IN DETAIL ARE CONTRACTOR FURNISHED AND INSTALLED.



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

PROJECT		GEORGE WASHINGTON ACADEMY	
CLIENT PROJ. #	N/A	MAINLINE PROJ. #	22-013
SHEET NAME	UTILITY CONTACTS UTILITY NOTES		
SHEET		UT-01	
DATE	8/12/22	CHECKED BY	TAR
DRAWN BY	PBG	PROFESSIONAL ENGINEER	<i>Phil B. Dille</i>
		GEORGE WASHINGTON ACADEMY 2277 SOUTH 3000 EAST ST. GEORGE, UT 84790 MAINLINE ENGINEERING 321 NORTH MALL DRIVE SUITE 1100 ST. GEORGE, UT 84790	
NO.		REVISIONS	
BY		DATE	

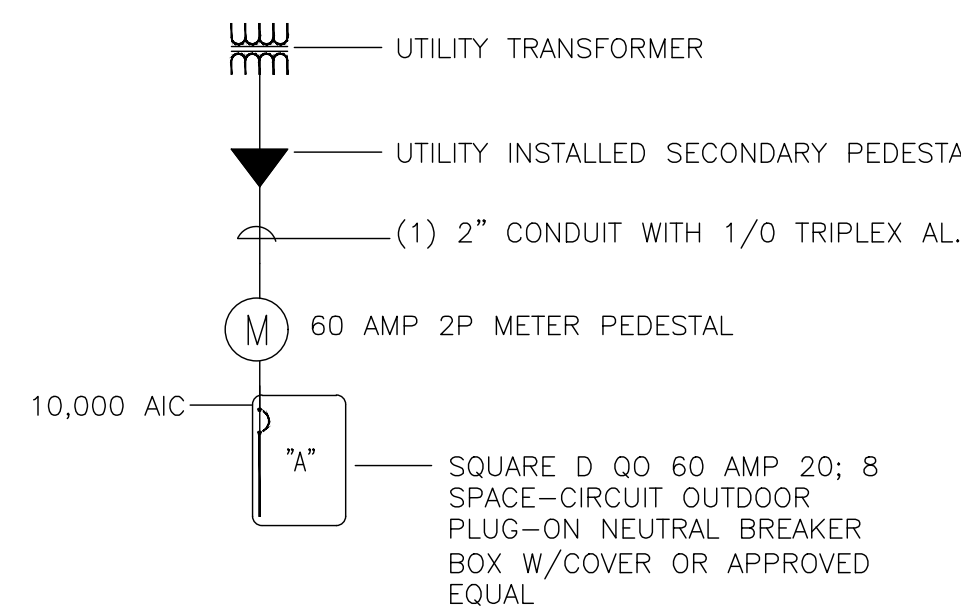
P:\2022\22-013 - GWA - Parking Lot Expansion\Plans\UT.dwg Aug 26, 2022 - 10:09am



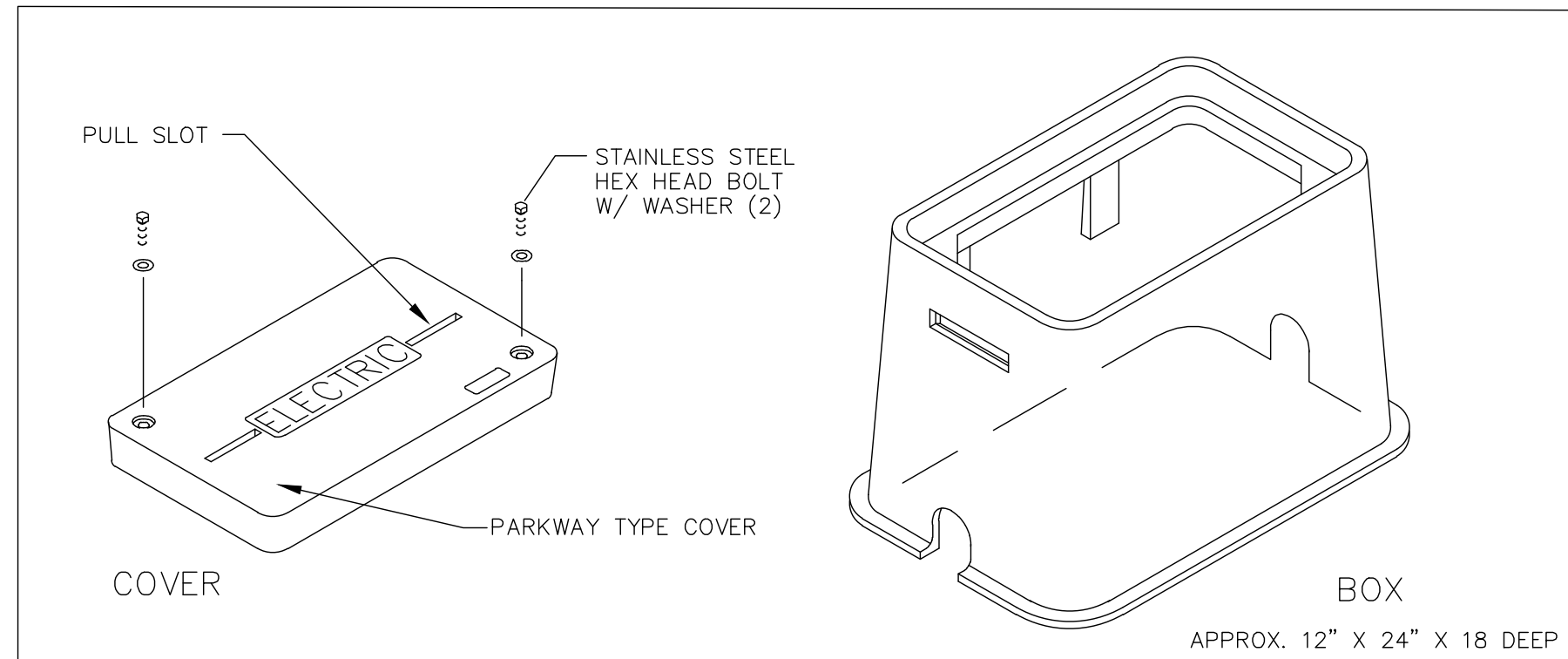
ELECTRICAL NOTES:

1. CONNECT PARKING LOT LIGHTS INTO NEW SECONDARY POWER BOX AS SHOWN.

SYMBOL SCHEDULE		
SYMBOL	MOUNTING	DESCRIPTION
		ELECTRICAL NOTE.
		BRANCH CIRCUIT HOME RUN TO PANEL BOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS.



ONE LINE DIAGRAM



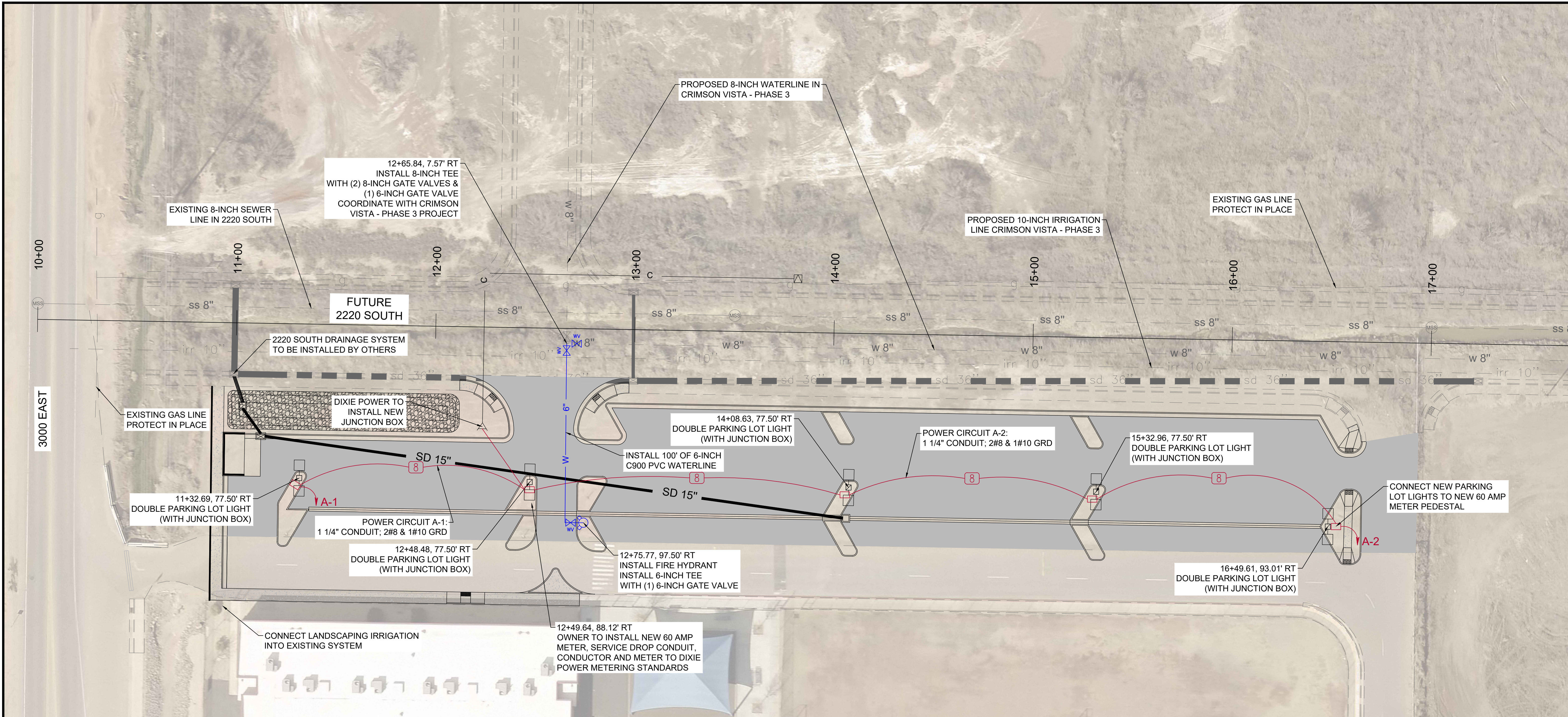
HANDHOLE DETAIL

NOT TO SCALE

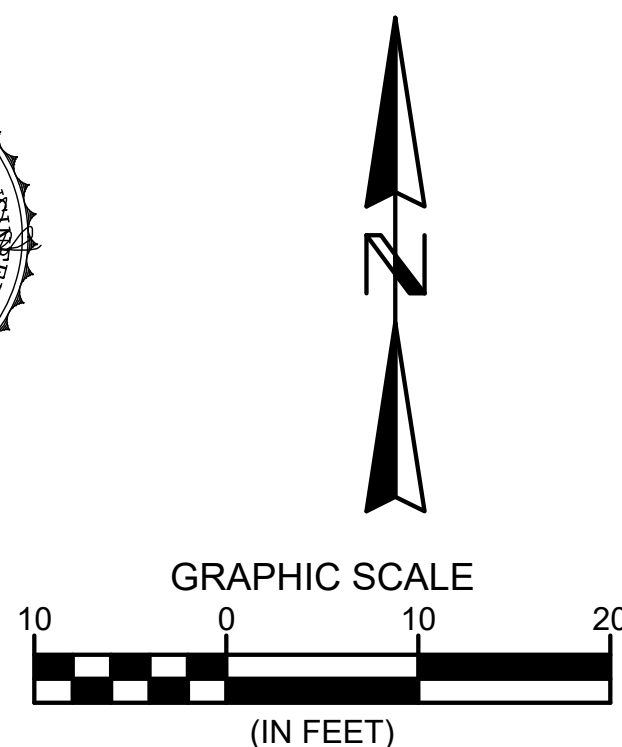
- NOTES:
- 1) ALL ELECTRIC BOXES IN PLANTER AREAS TO BE "TAN" IN COLOR, AND ALL ELECTRIC BOXES IN TURF AREAS TO BE "GREEN" IN COLOR!
 - 2) SET ON 12" DEEP OF 3/4" GRAVEL
 - 3) TAG ALL CONDUCTORS FOR FUTURE CONNECTIONS.

LIGHTING FIXTURE LEGEND			
SYMBOL	TYPE	WATTAGE	DESCRIPTION
	SA	140 (X2)	ARM MOUNTED LED POLE LIGHT (TYPE 3M DISTRIBUTION) LITHONIA 120V 17,604 LUMENS; 1.18 (A) PER LIGHT

NOTE: VERIFY EXACT TYPE WITH GEORGE WASHINGTON ACADEMY



		GEORGE WASHINGTON ACADEMY 227 SOUTH 3000 EAST ST. GEORGE, UT 84790	
MAINLINE ENGINEERING 321 NORTH MALL DRIVE SUITE 1100 ST. GEORGE, UT 84790	PHIL B. GILES PROFESSIONAL ENGINEER	CHECKED BY: TAR DRAWN BY: PBG DATE: 8/26/22	PROJECT: GEORGE WASHINGTON ACADEMY CLIENT PROJ.#: N/A MAINLINE PROJ.#: 22-013 SHEET NAME: UTILITY PLAN
REVISIONS		NO. BY DATE	
UT-02		SHEET	



GRADING NOTES:

1. ALL EXCAVATIONS AND GRADING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ST. GEORGE CITY.
2. PROVIDE SUITABLE EQUIPMENT AND METHODS TO CONTROL DUST AND AIR POLLUTION CAUSED BY CONSTRUCTION OPERATIONS. PROVIDE SUITABLE MUD AND DIRT CONTAINMENT TO MAINTAIN THE WORK SITE, ACCESS ROADWAYS AND ADJACENT PROPERTIES IN A CLEAN CONDITION.
3. ALL EXCAVATIONS, GRADING, AND FILL OPERATIONS WITHIN THE PROJECT AREA SHOULD BE OBSERVED BY THE GEOTECHNICAL ENGINEER TO VERIFY SUB-SOIL CONDITIONS AND DETERMINE ADEQUACY OF SITE PREPARATION, SUITABILITY OF FILL MATERIALS AND COMPLIANCE WITH COMPACTION REQUIREMENTS.

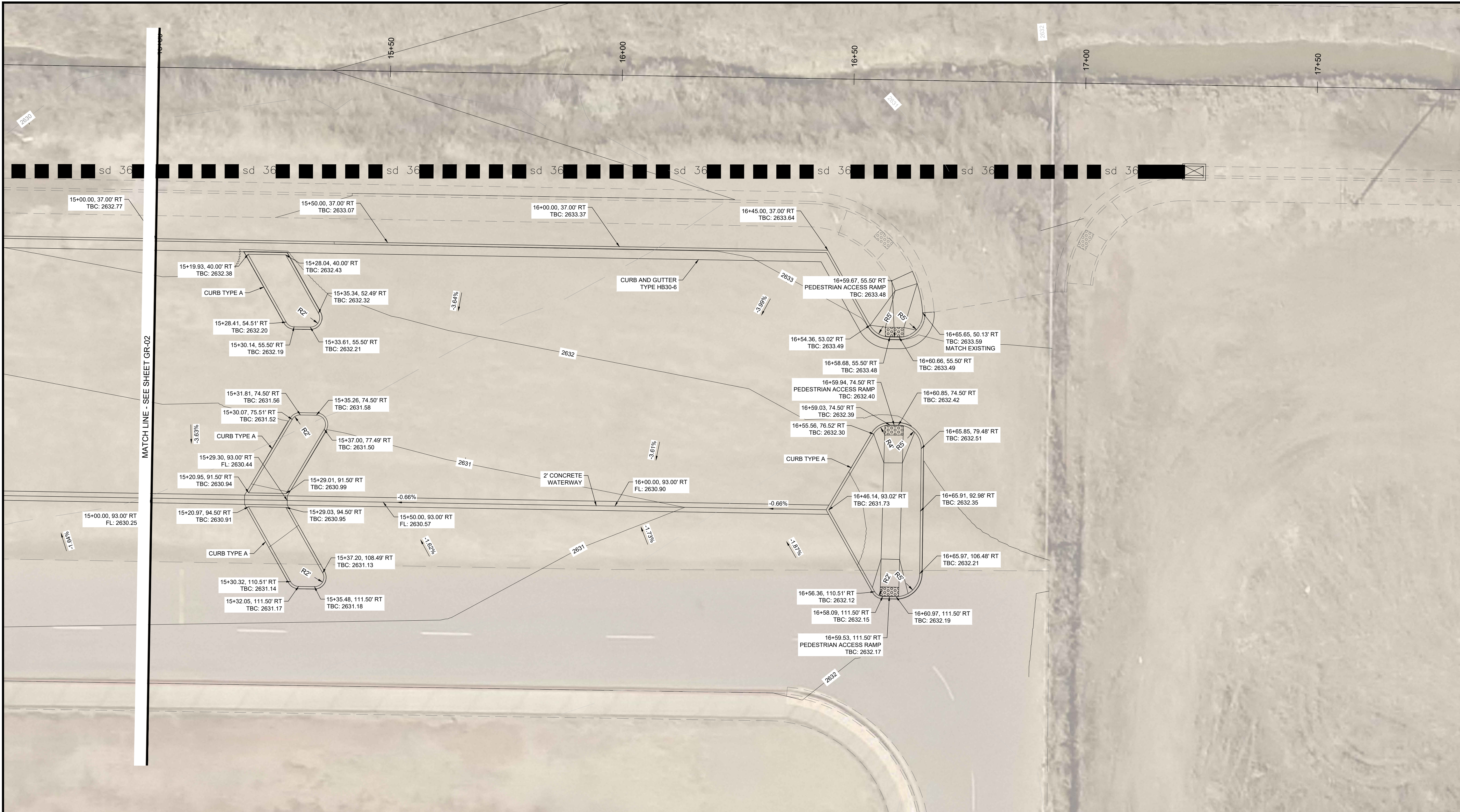
GENERAL NOTES:

1. FINISH GRADE CONTOURS SHOWN ARE AT 1-FT INTERVALS.
2. EXISTING GRADE CONTOURS SHOWN ARE AT 1-FT INTERVALS.
3. "Lower Case" CALLOUTS INDICATE EXISTING ITEMS.
4. "UPPER CASE" CALLOUTS INDICATE NEW ITEMS TO BE CONSTRUCTED.

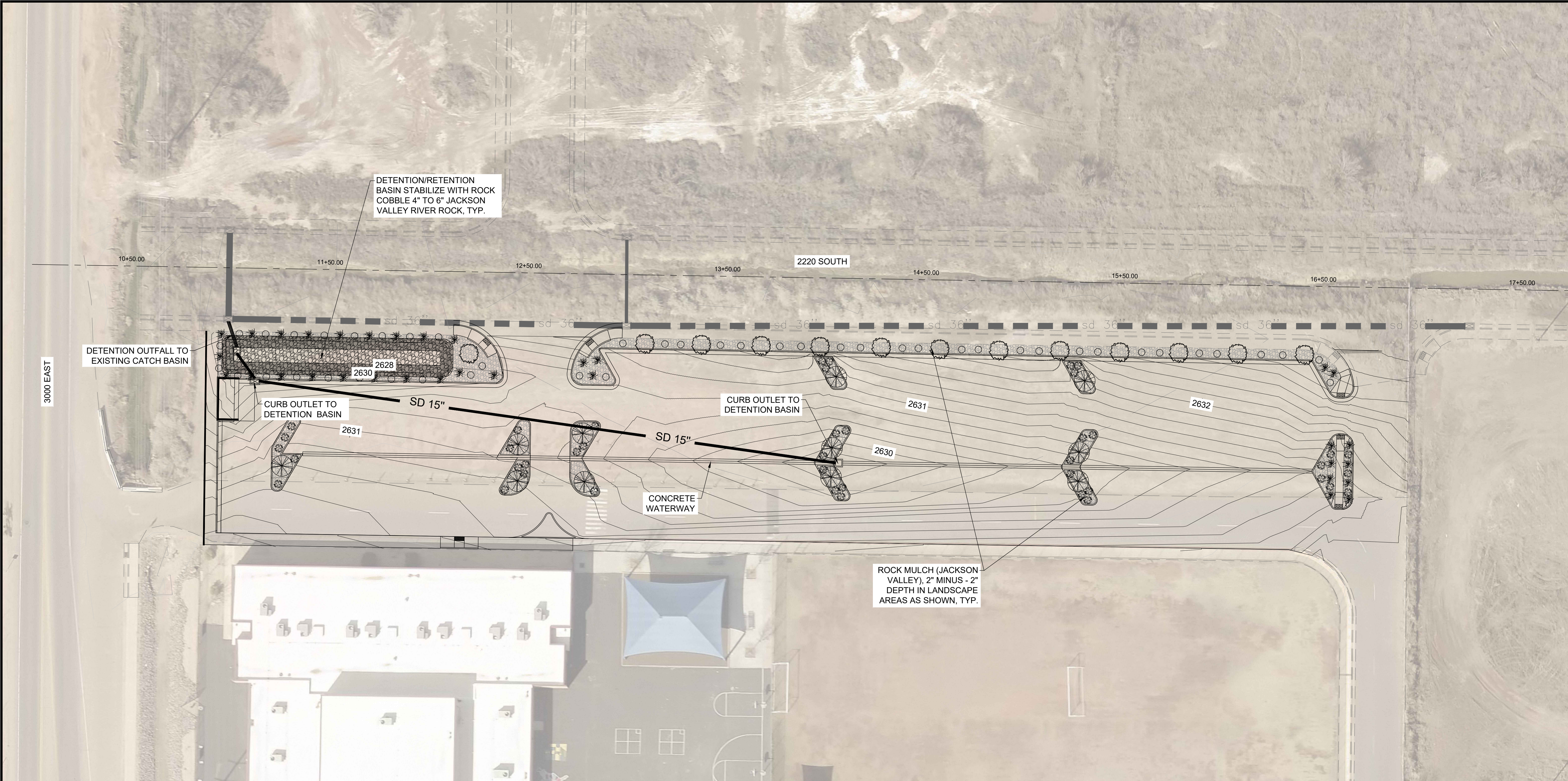
EARTHWORK QUANTITIES

CUT (CY)	FACTORED CUT (CY)	FILL (CY)*	BORROW*
950	855	710	-145

FILL AND BORROW QUANTITIES ASSUME CLEARED VEGETATION IS SCREENED OUT AND ALL EXISTING ONSITE MATERIAL IS REUSED. BORROW VOLUME IS AN IN-PLACE (COMPACTED) VOLUME.



ME	MAINLINE ENGINEERING	GEORGE WASHINGTON ACADEMY 227 SOUTH 3000 EAST ST. GEORGE, UT 84790		
MAINLINE ENGINEERING 321 NORTH MALL DRIVE SUITE 1100 ST. GEORGE, UT 84790		CHECKED BY TAR	DRAWN BY PBG	DATE 8/15/22
PROJECT GEORGE WASHINGTON ACADEMY		CLIENT PROJ. # N/A		MAINLINE PROJ. # 22-013
SHEET NAME GRADING AND DRAINAGE PLAN		PROFESSIONAL ENGINEER 		
SHEET GR-03		REVISIONS NO. BY DATE		NO. BY DATE

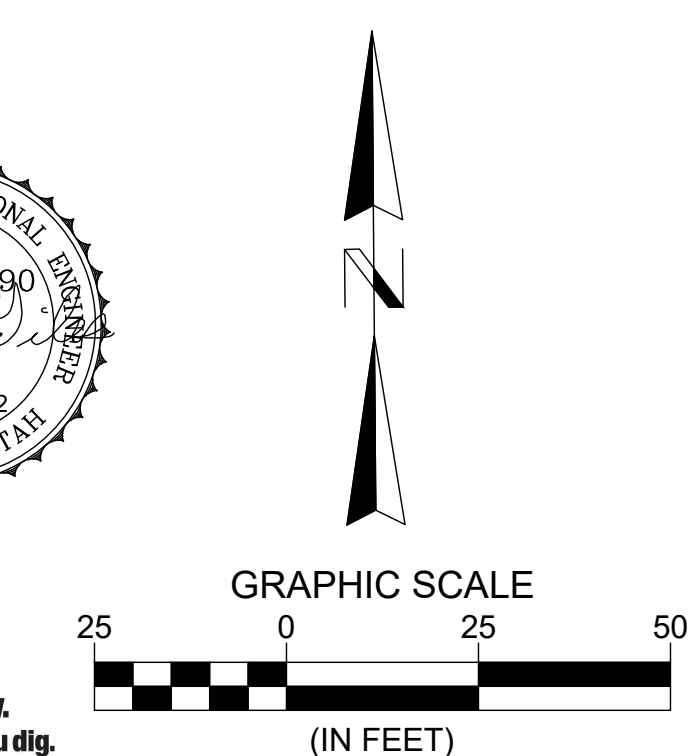
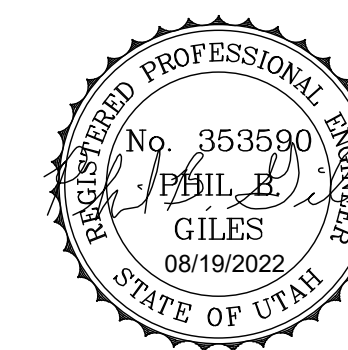


LANDSCAPE SCHEDULE

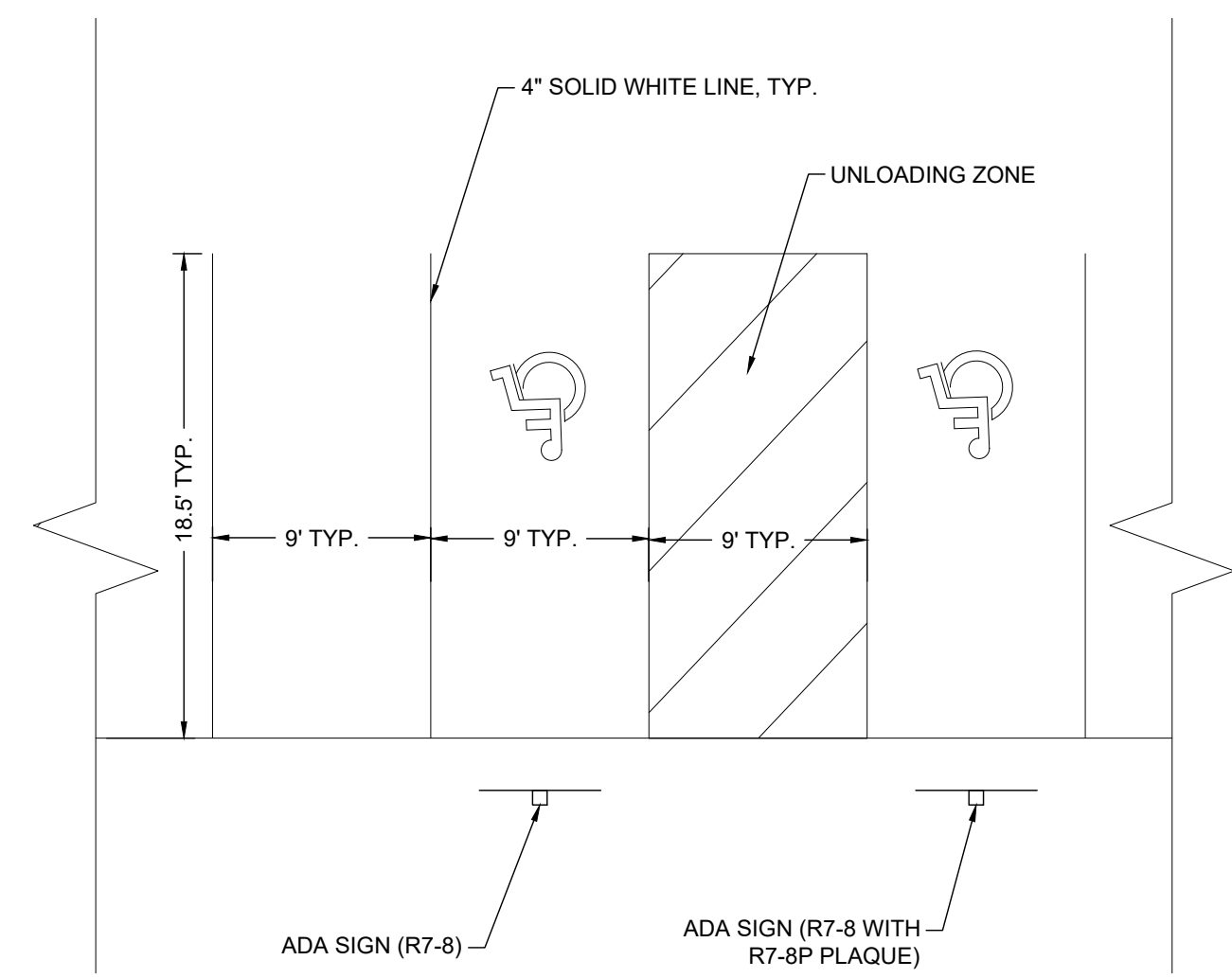
SYMBOL	TYPE*	QTY	SIZE	MATURE DIA. (FT)	AREA/UNIT (SQ FT)	TOTAL AREA (SQ FT)
	CHINESE PISTACHE (TREE) OR SIMILAR WORK WITH GWA ON SPECIFIC SPECIES	13	24" BOX	27	573	7,449
	RAYWOOD ASH (TREE) OR SIMILAR WORK WITH GWA ON SPECIFIC SPECIES	9	24" BOX	25	490	4,410
	REGAL MIST GRASS (SHRUB)	33	5 GAL	2	3	99
	DWARF RED OLEANDER (SHRUB)	46	5 GAL	10	79	3,634
	GREEN CLOUD TEXAS SAGE (SHRUB)	42	5 GAL	6	28	1,176
TOTAL AREA OF VEGETATION						7,450
TOTAL LANDSCAPE AREA PROVIDED						7,450
% COVERED BY VEGETATION						100.00%
	ROCK MULCH (JACKSON VALLEY) 2-INCH MINUS (DETENTION BASIN)	5,220 SF	2 INCH DEPTH			
	ROCK COBBLE - 4" TO 6" JACKSON VALLEY RIVER ROCK	2,230 SF	6 INCH DEPTH			

*TREE AND SHRUB SPECIES SHOWN MAY BE SUBSTITUTED AT THE DISCRETION OF THE OWNER FOR A SIMILAR SIZED PLANT FROM THE CITY-APPROVED SPECIES LIST.

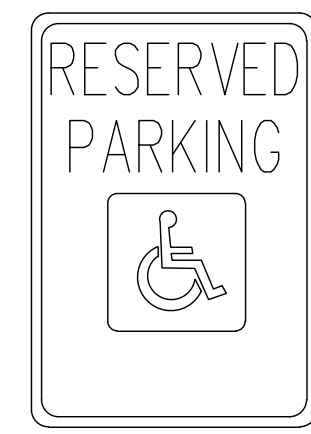
GENERAL NOTES:
1. THERE ARE NO EXISTING OR PROPOSED EASEMENTS ENCUMBERING THE SUBJECT PROPERTY.



PROJECT		GEORGE WASHINGTON ACADEMY	
CLIENT PROJ. #	N/A	MAINLINE PROJ. #	22-013
SHEET NAME	LANDSCAPE PLAN		
SHEET	LS-01		
DATE	8/22/22	DRAWN BY	PBG
CHECKED BY	TAR	PROFESSIONAL ENGINEER	Phil B. Giles
 MAINLINE ENGINEERING GEORGE WASHINGTON ACADEMY 2277 SOUTH 3000 EAST SUITE 1100 ST. GEORGE, UT 84790		NO.	REVISIONS
BY	DATE		



PARKING LOT STRIPING
DETAIL IS GENERAL AND MAY NOT REPRESENT EXACT GEOMETRY SHOWN ON PROJECT

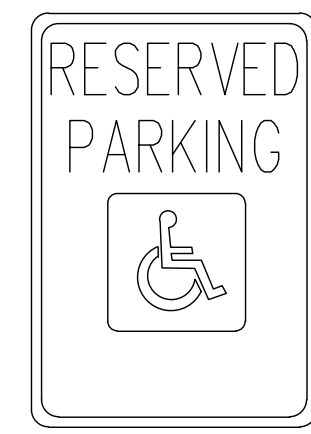


R7-8



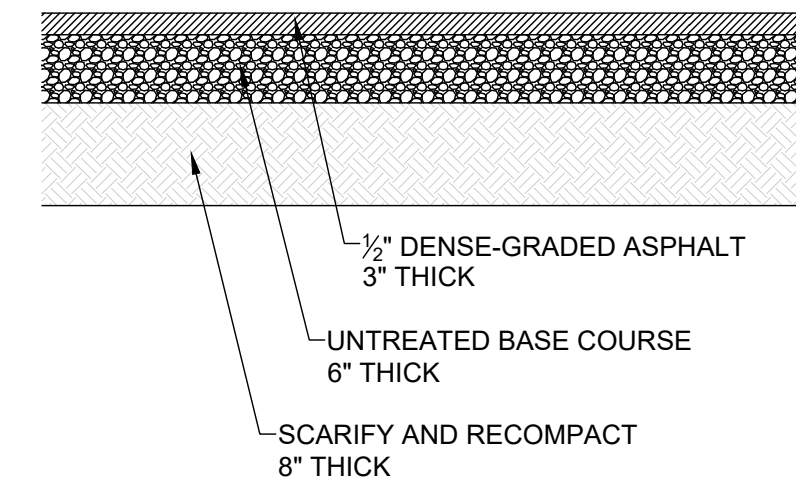
R7-8A

ADA SIGN

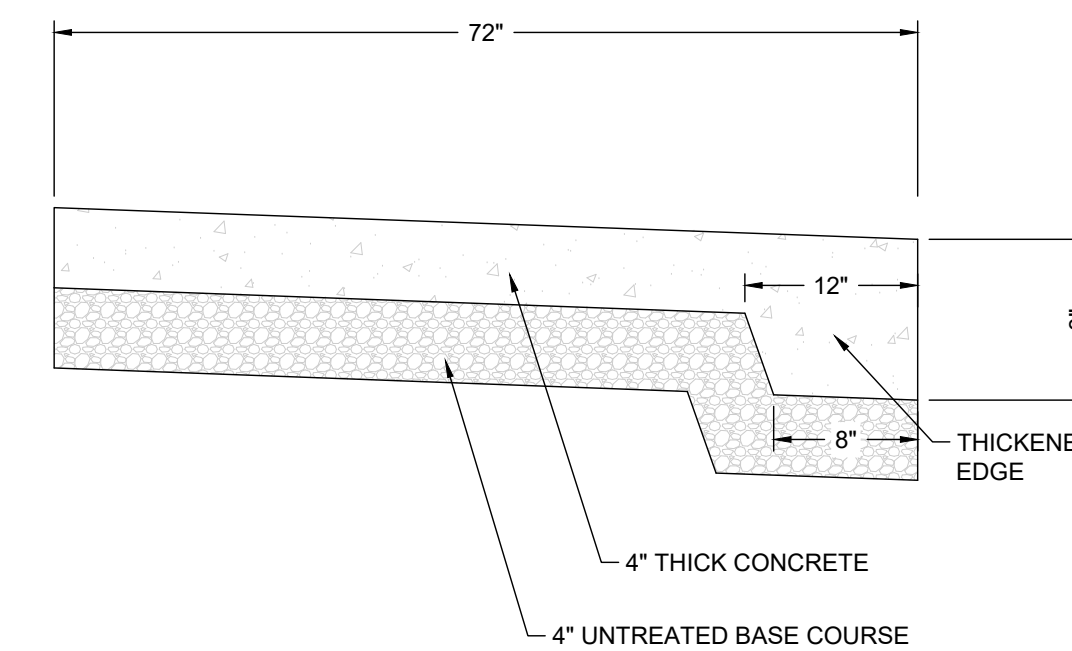


R7-8

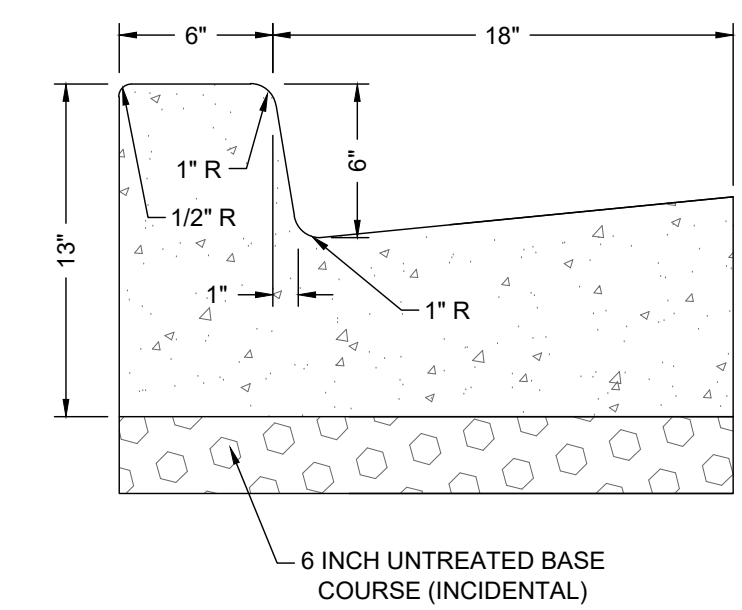
ADA SIGN



PARKING LOT PAVEMENT DETAIL

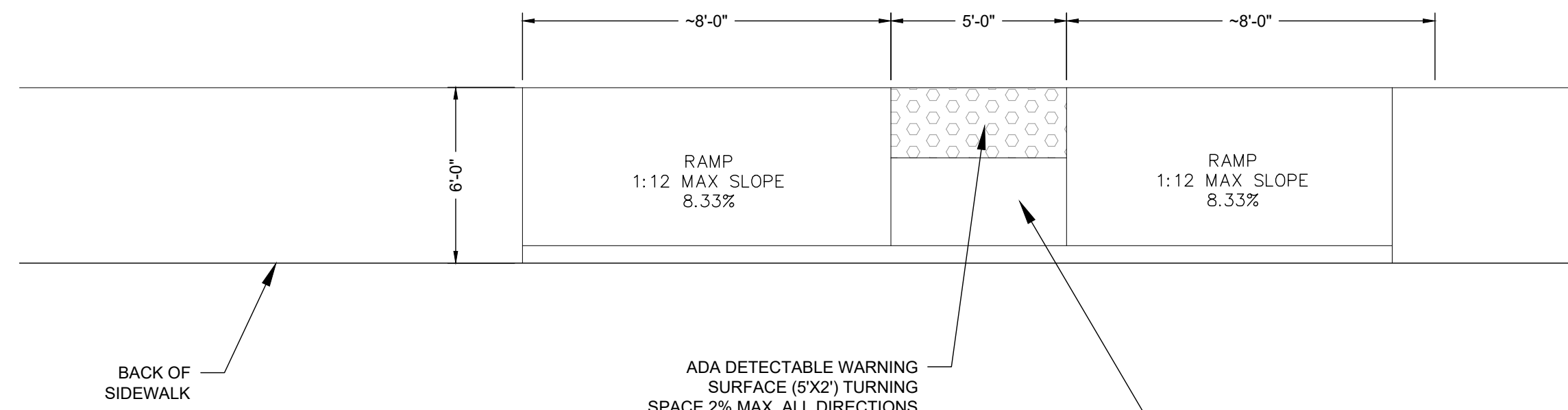


SIDEWALK WITH THICKENED EDGE DETAIL

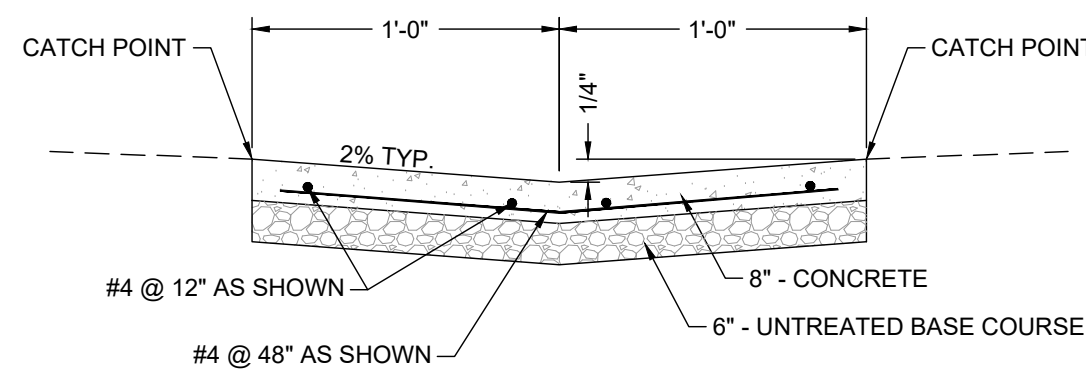


**CURB AND GUTTER
TYPE HB24-6**

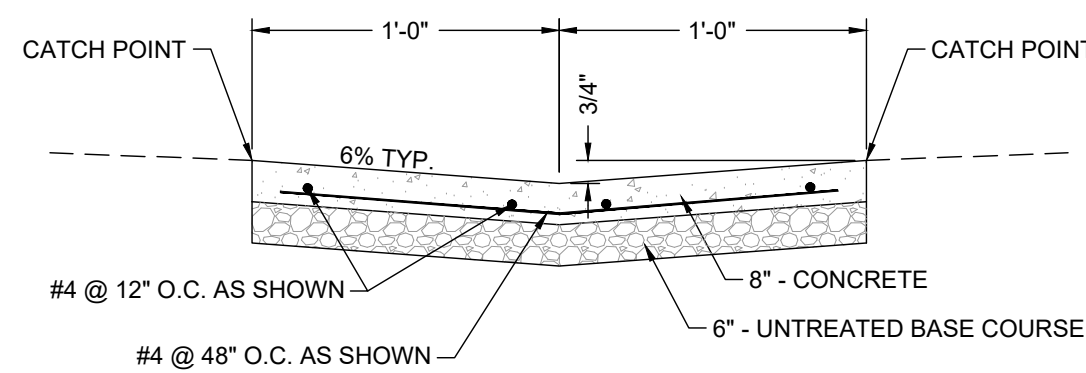
- NOTES:**
- FOR ON-SITE OR PARKING LOT USE ONLY.
 - USE ST. GEORGE CITY STANDARD DRAWINGS FOR IMPROVEMENTS IN PUBLIC RIGHT-OF-WAY.



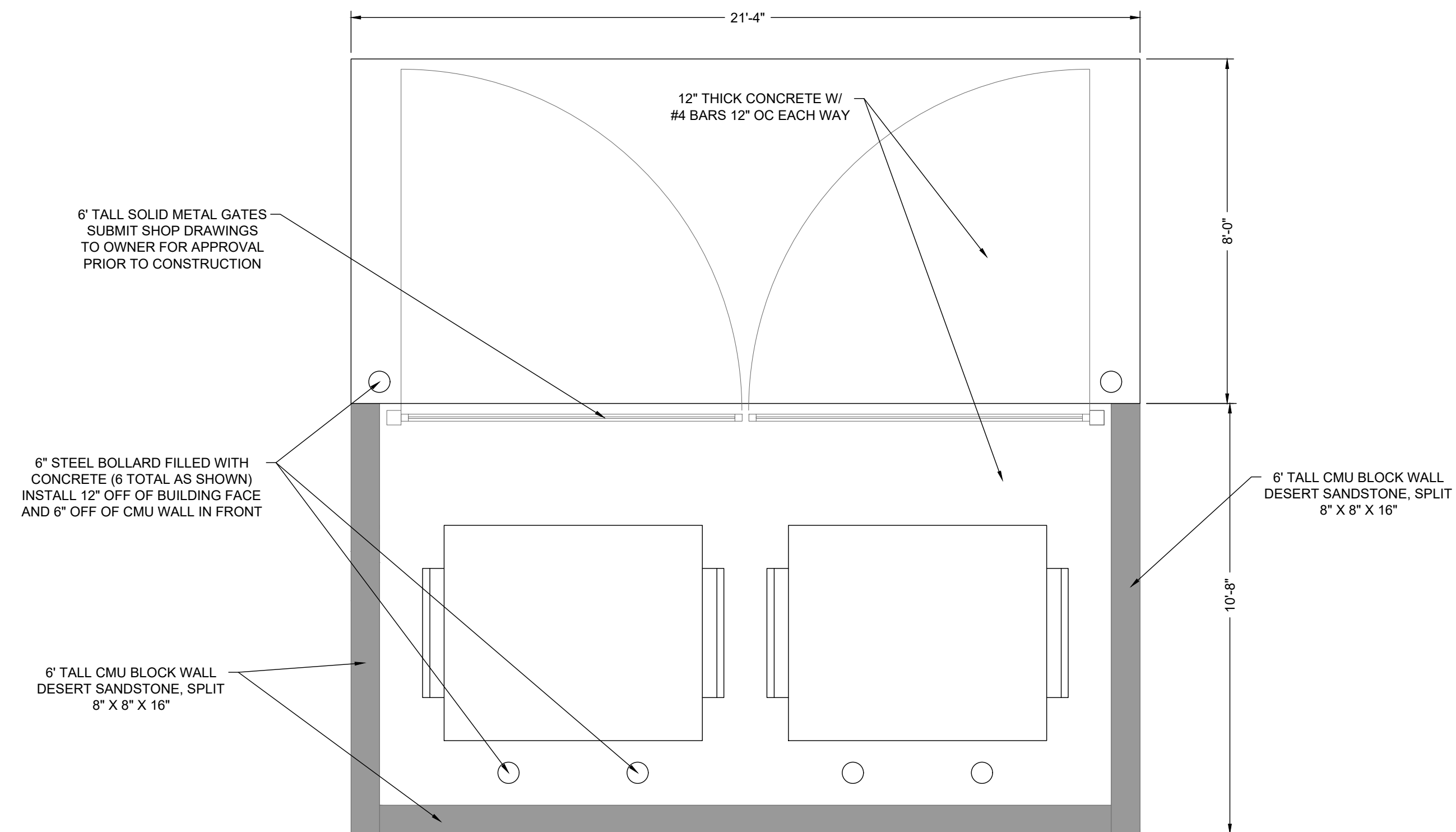
PEDESTRIAN ACCESS RAMP



ADA CONCRETE WATERWAY DETAIL



CONCRETE WATERWAY DETAIL



TRASH ENCLOSURE DETAIL



PROJECT		DATE		CHECKED BY		NO.		REVISIONS		BY		DATE	
GEORGE WASHINGTON ACADEMY		8/16/22		TAR									
CLIENT PROJ. #	MAINLINE PROJ. #	DRAWN BY		DATE		DATE		DATE		DATE		DATE	
22-013	N/A	PBG		8/16/22		8/16/22		8/16/22		8/16/22		8/16/22	
SHEET NAME		PROFESSIONAL ENGINEER		DATE		DATE		DATE		DATE		DATE	
DT-01		PHIL B. GILES		8/16/22		8/16/22		8/16/22		8/16/22		8/16/22	

ME MAINLINE ENGINEERING
 GEORGE WASHINGTON ACADEMY
 227 SOUTH MALL DRIVE
 SUITE 1100
 ST. GEORGE, UT 84790