



**IFB #338-19 VETERANS MEMORIAL PARK – PAVILION,
PLAYGROUND AND MULTI-PURPOSE FIELD
ADDENDUM #3**

Bid Closing Date: May 30, 2019, at 2:00 PM, EST
Bid Issue Date: April 25, 2019
Addendum Issue Date: May 24, 2019, at 12:07 PM, EST
By: Melissa Hawk, Purchasing Manager

The following are amendments to the IFB #338-19 Veterans Memorial Park – Pavilion, Playground and Multi-Purpose Field:

1. The following requests for substitution have been approved for this project. Supporting document attached to this document.
 - a. Section 096723 – Resinous Flooring
2. All dates, terms and other scope of services remain the same as posted in the IFB document.

The following are questions and answers to the IFB #338-19 Veterans Memorial Park – Pavilion, Playground and Multi-Purpose Field:

QUESTION: Based on detail 10/S3-01 provided in the addendum, a volume of granular fill at a 2:1 slope is required behind the wall. There are no dimensions provided to calculate that volume. Can you please advise?

ANSWER: This information is available in the structural plans of the Senior Center which is still available for review. For convenience, please see answer below and the attached documents regarding this question.

The horizontal dimension should be 1'-0" from the back face of the wall. The vertical dimension is based on the wall height, and will go full height at a slope of 2:1. Please see the sheets attached that have now been added to the Pavilion package showing the extent of the retaining wall.

Company Name

Signature of Authorized Representative

Title

Date

THIS DOCUMENT MUST BE COMPLETED AND SUBMITTED AS PART OF YOUR PROPOSAL

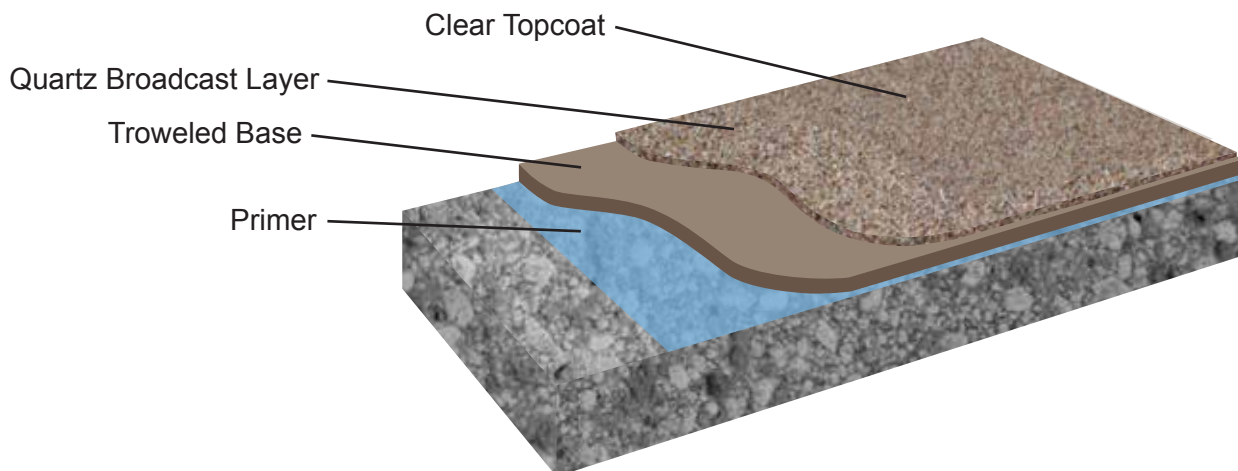
Substitution Information – 096723 – Resinous Flooring

Specified Item – Stonshield HRI

Proposed Substitute – Key Commercial @ ¼”

Manufacturer – Key Resin Company

Local Representative & Phone Number: Gary Bath / 770-535-9187



DESCRIPTION

KEY QUARTZ COMMERCIAL is a 3/16”-1/4” decorative resin flooring system consisting of a troweled base, 100% solids epoxy resin and colored quartz aggregate broadcast finish. This durable quartz system provides decorative, heavy-duty protection. **KEY QUARTZ COMMERCIAL** is finished with various options of clear epoxy, polyaspartic or urethane resins, in satin or gloss to meet project requirements. The installed system can be textured or smooth as desired. Ease of cleaning and maintenance minimizes bacterial growth. The decorative quartz aggregate is available in a series of pre-blended patterns or solid colors. Crack-resistant installations of **KEY QUARTZ COMMERCIAL** can be achieved when installed in conjunction with **KEY #580 Waterproofing and Crack Isolation Membrane**. An integral cove base can be installed in areas requiring seamless floor to wall finishes. For high chemical resistant applications specify **KEY QUARTZ COMMERCIAL-HP** or **KEY RESISTANT QUARTZ COMMERCIAL**.

KEY ADVANTAGES

- Decorative appearance
- High wear, impact, and abrasion resistance
- Low maintenance
- Safe (slip resistant finish)
- Chemical resistant finishes are available
- Meets USGBC LEED criteria for low VOC

TYPICAL USES

- Corridors
- Restrooms and locker rooms
- Kitchen areas
- Food and beverage processing
- Shower rooms
- Cafeterias
- Laboratories
- Animal housing
- Production, manufacturing areas
- Government and military facilities
- Healthcare facilities
- Numerous other uses—consult with **Key Resin**

PHYSICAL PROPERTIES

Test Name	Method	Value
Color		Key Standard and Custom Quartz Blends
VOC (Volatile Organic Content)	EPA Method 24	Refer to Individual Product Component Data Sheet
Adhesion to Concrete	ASTM D7234	300-400+ psi Concrete Failure
Compressive Strength	ASTM C579	14,000 psi
Flexural Strength	ASTM C580	4,200 psi
Hardness, Shore D	ASTM D2240	80-84
Tensile Strength	ASTM C307	2,400 psi
Flammability	ASTM D635	Self Extinguishing
Abrasion Resistance	ASTM D4060, CS17 Wheel, 1000 cycles	32 mg
Impact Resistance	MIL-D-3134J	Withstands 16 ft lbs without cracking, delamination or chipping
Resistance to Elevated Temperatures	MIL-D-3134J	No slip or flow at required temperature of 158°F
Slip Resistance	ASTM D2047	>0.6 Passes ADA recommendations

APPLICATION

SURFACE PREPARATION

Surface Preparation is the most critical portion of any successful resinous flooring system application. All substrates must be properly prepared and tested for moisture as outlined in **Key Resin Technical Bulletin #1**. If moisture testing confirms excessive levels of moisture, apply moisture mitigation system recommended by **Key Resin**. Work must be performed by experienced contractors. The **Key Resin Technical Service Department** is available to answer any questions.

INSTALLATION

KEY QUARTZ COMMERCIAL material components are mixed on site. Refer to the detailed installation instructions document and **Key Resin Technical Service**.

CLEAN UP

Clean skin with soap and water. Tools and equipment should be cleaned with xylene or lacquer thinner. Consult Safety Data Sheet (SDS) for safety and health precautions.

MAINTENANCE

After completing the application of **KEY QUARTZ COMMERCIAL**, the installer should provide the owner with maintenance instructions. **KEY QUARTZ COMMERCIAL** is easily cleaned with neutral soaps or detergents. Routine mechanical scrubbing using the appropriate pad is recommended for all surfaces having a slip resistant texture. Refer to **Key Resin Technical Bulletins #3 and #3-A** for additional recommendations.

WARRANTY

Key Resin Company ("Key") warrants for a period of one (1) year that its products will be free of manufacturing defects and will be in conformity with published specifications when handled, stored, mixed, and applied in accordance with recommendations of Key. If any product fails to meet this warranty, the liability of Key will be limited to replacement of any non-conforming material if notice of such non-conformity is given to Key within (1) one year of delivery of materials. Key may in its discretion refund the price received by Key in lieu of replacing the material. No customer, distributor, or representative of Key is authorized to change or modify the published specifications of this warranty in any way. No one is authorized to make oral warranties on behalf of Key. In order to obtain replacement or refund the customer must provide written notice containing full details of the non-conformity. Key reserves the right to inspect the non-conforming material prior to replacement. EXCEPT FOR THE EXPRESSED WARRANTY STATED ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. KEY'S OBLIGATION SHALL NOT EXTEND BEYOND THE OBLIGATIONS EXPRESSLY UNDERTAKEN ABOVE AND KEY SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO THE PURCHASER OR ANY THIRD PARTY FOR ANY LOSS, COST, EXPENSE, DAMAGE OR LIABILITY, WHETHER DIRECT OR INDIRECT, OR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

SYSTEM OPTIONS

- Fast cure formulations
- UV light resistance formulations
- Cold cure formulations
- Urethane, polyaspartic finishes
- Chemical resistant finishes
- Crack-isolation flexible membrane
- Moisture tolerant base coats

TECHNICAL SERVICE

Key Resin Company provides services and consultations on material selection, specification, troubleshooting, and other information on the proper repair and protection of concrete surfaces. **Key Resin Sales/Technical Representatives** are available to assist. Telephone 888.943.4532 or visit www.keyresin.com.

AVAILABILITY

Key Resin materials are available throughout the United States, Canada, China, and a number of other countries. Contact the **Key Resin Representative** in your area for details.



KEY #445 URETHANE SEALER

Product Information Sheet



DESCRIPTION

KEY #445 is a two component water based aliphatic (non-yellowing) polyurethane with a matte finish. **KEY #445** is free of the health and environmental problems normally found in solvent-based urethanes, while maintaining excellent performance properties. **KEY #445** has good chemical, stain, and mar resistance. In addition, it's easy to clean and has excellent color retention under heavy foot traffic. **KEY #445** is a high performance coating for use in a variety of seamless floor and wall coating systems. **KEY #445** can be used as a seal coat for a variety of **Key Resin Systems**.

KEY ADVANTAGES

- Low odor for use in occupied areas
- Meets USGBC LEED criteria for low VOC
- Chemical and stain resistant
- UV stable
- Meets USDA requirements

KEY CONSIDERATIONS

- Substrate temperature must be a minimum of 50°F
- Application rate is no less than 250 ft² per gallon, thicker films will show bubbling in the cured film and random glossy areas
- Pot life will vary with temperature
- Do not use in areas requiring hot tire stain resistance
- Use of non-skid additive is recommended for slip resistance

COLOR SELECTION

KEY #445 is available in Clear matte, with optional **Key Urethane Pigment Packs** in **Key Urethane Standard Colors**. Pigment packs **MUST** be added only after first thoroughly mixing Part A and Part B. Also available in factory tint **Key Resin Standard Colors** and custom colors with lab approval, longer lead time and possible added cost. Note: Pigment Pack colors may vary from Factory Tint colors—confirm final selection with samples. For Gloss finish use **KEY #446**. For Satin or Semi-Gloss, **KEY #445 A** and **KEY #446 A** may be combined, contact **Key Resin Technical Service** for details.

CURE/DRY TIME

Working Life	5-8 mins @ 77°F, 50% RH
Pot Life (in mix vessel)	30 mins @ 77°F, 50% RH
Dry to Touch	6 hrs @ 77°F, 50% RH
Recoat	10 hrs @ 77°F, 50% RH
Light Foot Traffic Service	24 hrs @ 77°F, 50% RH
Full Cure & Max. Resistance	5 Days @ 77°F, 50% RH

APPLICATION

SURFACE PREPARATION

Surface Preparation is the most critical portion to any successful resinous flooring system application. All substrates must be properly prepared as outlined in **Key Resin Technical Bulletin #1**. Work must be performed by trained or experienced contractors or maintenance personnel. The **Key Resin Technical Service Department** is available to answer any questions.

MIXING INSTRUCTIONS

Thoroughly mix each component prior to combining. Mix four (4) parts by volume of Part A (Resin) with one (1) part by volume of Part B (Hardener) for three minutes very thoroughly with a low speed electric drill and jiffy mixer. Do not add water or other solvent unless approved by **Key Resin Technical Service**.

INSTALLATION

KEY #445 is typically spread with a squeegee and back-rolled or applied from a paint pan using dip & roll method. Use a 3/16"-3/8" nap phenolic core roller at a spread rate of 250-500 ft² per gallon to achieve 1.35-2.75 mils dry film thickness. At the recommended thickness range bubbles may occur which will dissipate quickly, however a thicker application may result in bubbles formed in the cured film and random glossy areas. Keep a wet edge at all times to prevent knit lines, roll-in time is maximum 5-8 minutes at 77°F, 50% RH. Care should be taken to minimize the entrapment of air caused by over-rolling. For complete installation instructions, contact **Key Resin Technical Service**.

CLEAN UP

Clean skin with soap and water. Tools and equipment should be cleaned with xylene or lacquer thinner. Consult Safety Data Sheet (SDS) for safety and health precautions.

COMPOSITION

Waterborne acrylic resin/aliphatic polyisocyanate.

KEY #445 URETHANE SEALER

Product Information Sheet



TECHNICAL DATA

Mixing Ratio	4 Parts A:1 Part B by Volume
Solids Content	43% Solids by Volume
Volatile Organic Content (VOC) (EPA Method 24)	90 g/L, compliant to low VOC Rule 1113 in all 50 states
Viscosity @ 75°F 30 min.	600 cps

AVAILABILITY

Key Resin materials are available throughout the United States, Canada, and a number of other countries. Contact the **Key Resin Representative** in your area for details.

MAINTENANCE

After completing the application of **KEY #445**, the installer should provide the owner with maintenance instructions. **KEY #445** is easily cleaned with neutral soaps or detergents. Refer to **Key Resin Technical Bulletin #3** and **#3A** for additional recommendations.

TECHNICAL SERVICE

Key Resin Company provides services and consultations on material selection, specification, troubleshooting, and other information on the proper repair and protection of concrete surfaces. **Key Resin Sales/Technical Representatives** are available to assist you. Telephone 888.943.4532 or visit www.keyresin.com.

PHYSICAL PROPERTIES

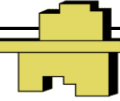
Adhesion to Concrete	ASTM D7234	300+ psi (Concrete Failure, varies by concrete strength)
Gloss, 60° - Clear		Matte Finish
Abrasion Resistance	ASTM D4060 CS-17 Wheel, 1000 cycles	45 mg loss
Impact Strength (Direct)	ASTM D2794	160in./lbs.
Impact Strength (Reverse)	ASTM D2794	160in./lbs.
Chemical Resistance		Contact Key Resin Technical Service

WARRANTY

Key Resin Company ("Key") warrants for a period of one (1) year that its products will be free of manufacturing defects and will be in conformity with published specifications when handled, stored, mixed, and applied in accordance with recommendations of Key. If any product fails to meet this warranty, the liability of Key will be limited to replacement of any non-conforming material if notice of such non-conformity is given to Key within (1) one year of delivery of materials. Key may in its discretion refund the price received by Key in lieu of replacing the material. No customer, distributor, or representative of Key is authorized to change or modify the published specifications of this warranty in any way. No one is authorized to make oral warranties on behalf of Key. In order to obtain replacement or refund the customer must provide written notice containing full details of the non-conformity. Key reserves the right to inspect the non-conforming material prior to replacement. EXCEPT FOR THE EXPRESSED WARRANTY STATED ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. KEY'S OBLIGATION SHALL NOT EXTEND BEYOND THE OBLIGATIONS EXPRESSLY UNDERTAKEN ABOVE AND KEY SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO THE PURCHASER OR ANY THIRD PARTY FOR ANY LOSS, COST, EXPENSE, DAMAGE OR LIABILITY, WHETHER DIRECT OR INDIRECT, OR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.



KEY RESIN COMPANY



COMPARATIVE ANALYSIS

	Key Commercial	Stonshield HR
Compressive Strength ASTM D-695	13,000psi	
Compressive Strength ASTM C-579	14,000 psi	10,000 psi
Tensile Strength ASTM C-307	2,400 psi	2,000 psi
Flexural Strength ASTM C580	4,200 psi	4,300 psi (ASTM C580)
Flexural Strength ASTM C-790	7,800 psi	
Flexural Modulus ASTM D790	2.5×10^5	2.0×10^6
Thermal Coefficient of Expansion ASTM C-531	22×10^{-6}	1.8×10^{-5} in./in. °C
Flammability ASTM D-635	Self Extinguishing	Self Extinguishing
Fungus & Bateria Growth MIL-F-52505 §4.4.2.11	will not suport growth of fungus or bacteria	
Hardness ASTM D-2240	80-84 shore D	85-90 shore D
Bond Strength ACI COMM #403 Bullentin 59-43	>300 psi concrete failure	>400 psi concrete failure
Coefficient of Friction ASTM D-2047	0.8	.
Coefficient of Friction ASTM F1679 (dry)		standard >1.0 medium 0.96
Coefficient of Friction ASTM F1679 (wet)		standard >1.0 medium 0.93
Water Absorption ASTM D-570	Nil	0.10%
Abrasion Resistance ASTM D-4060	32 mg (.032 grams)	0.06 grams weight loss
Impact Resistance MIL-D03134F §4.7.3	Withstands 16 ft/lbs.w/o cracking	>160 in. lbs.
	delamination, or chipping	
Heat Resistance Limitation		140°F (continuous)
Resistance to elevated Temperature MIL-D-3134F §4.7.4	No slip or flow @ 158°F	



**DAWSON
COUNTY
PAVILION**
201 RECREATION RD
DAWSONVILLE, GA 30534

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Print Record
2019-01-14 SCHEMATIC DESIGN PACKAGE
2019-02-19 CONSTRUCTION DOCUMENTS 100%

Revisions

No.	Date	Description
1	2019-05-24	ADDENDUM #3

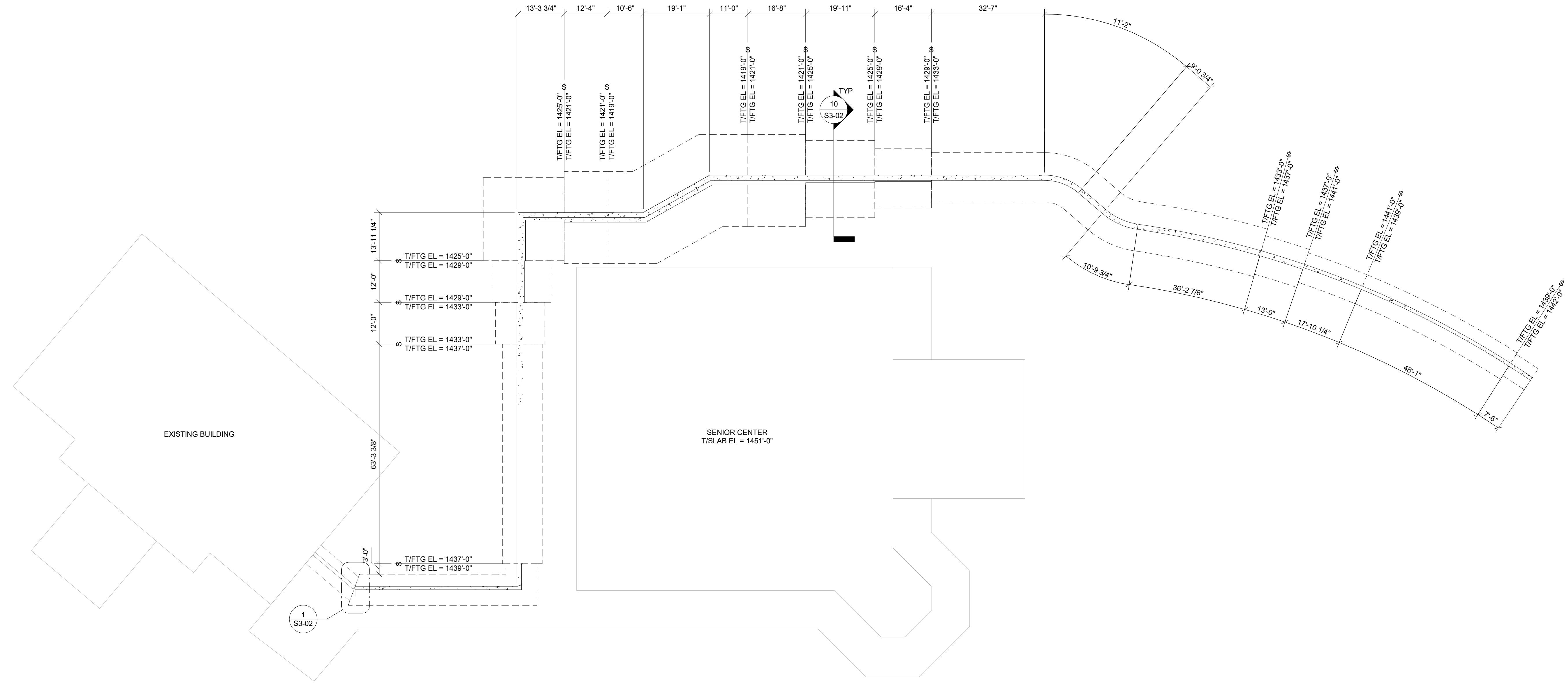
RELEASED FOR CONSTRUCTION

DATE February 19, 2019

PROJECT NUMBER 1816000.000

SHEET TITLE
**SITE RETAINING
WALL PLAN**

SHEET NUMBER
S1-00



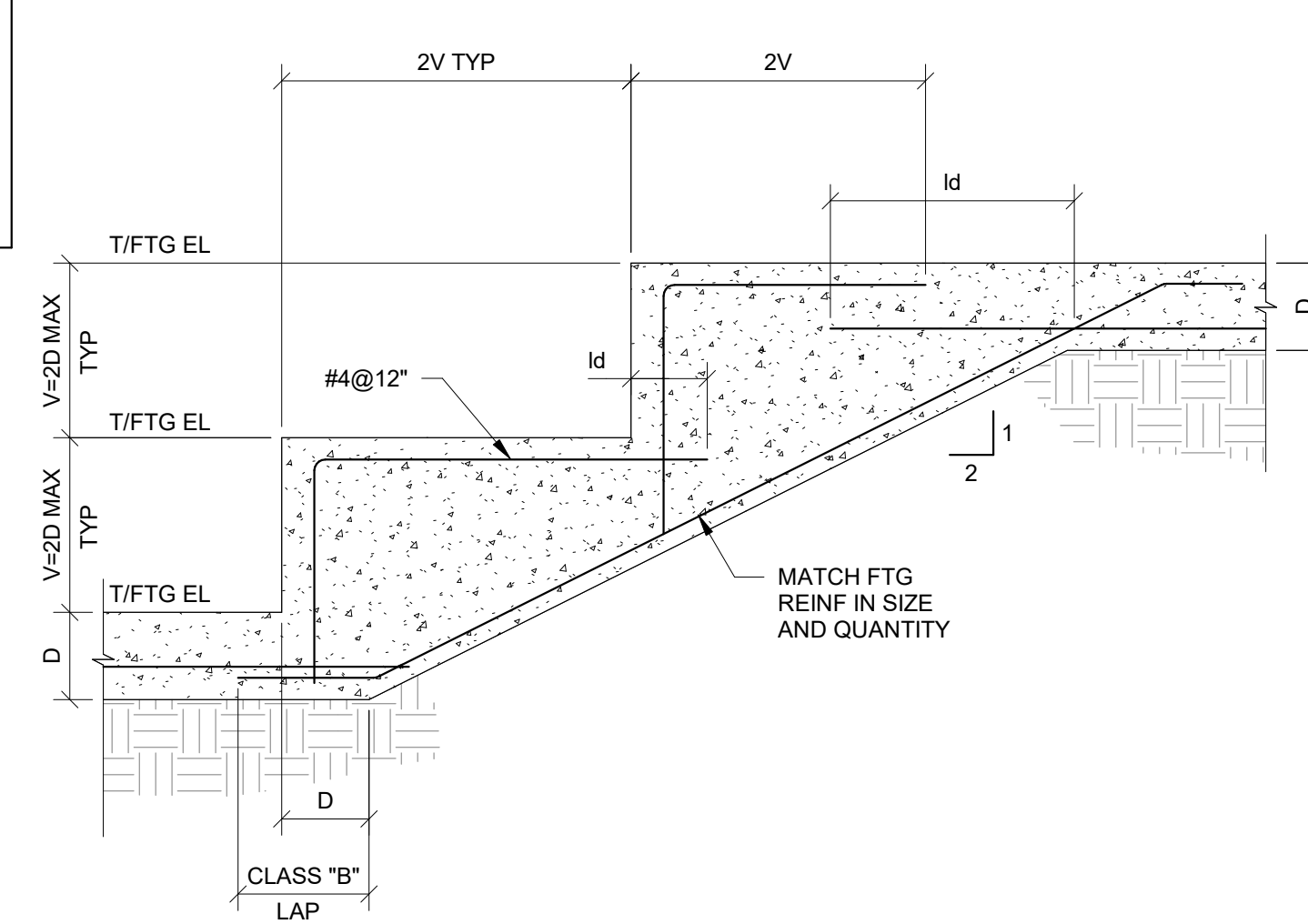
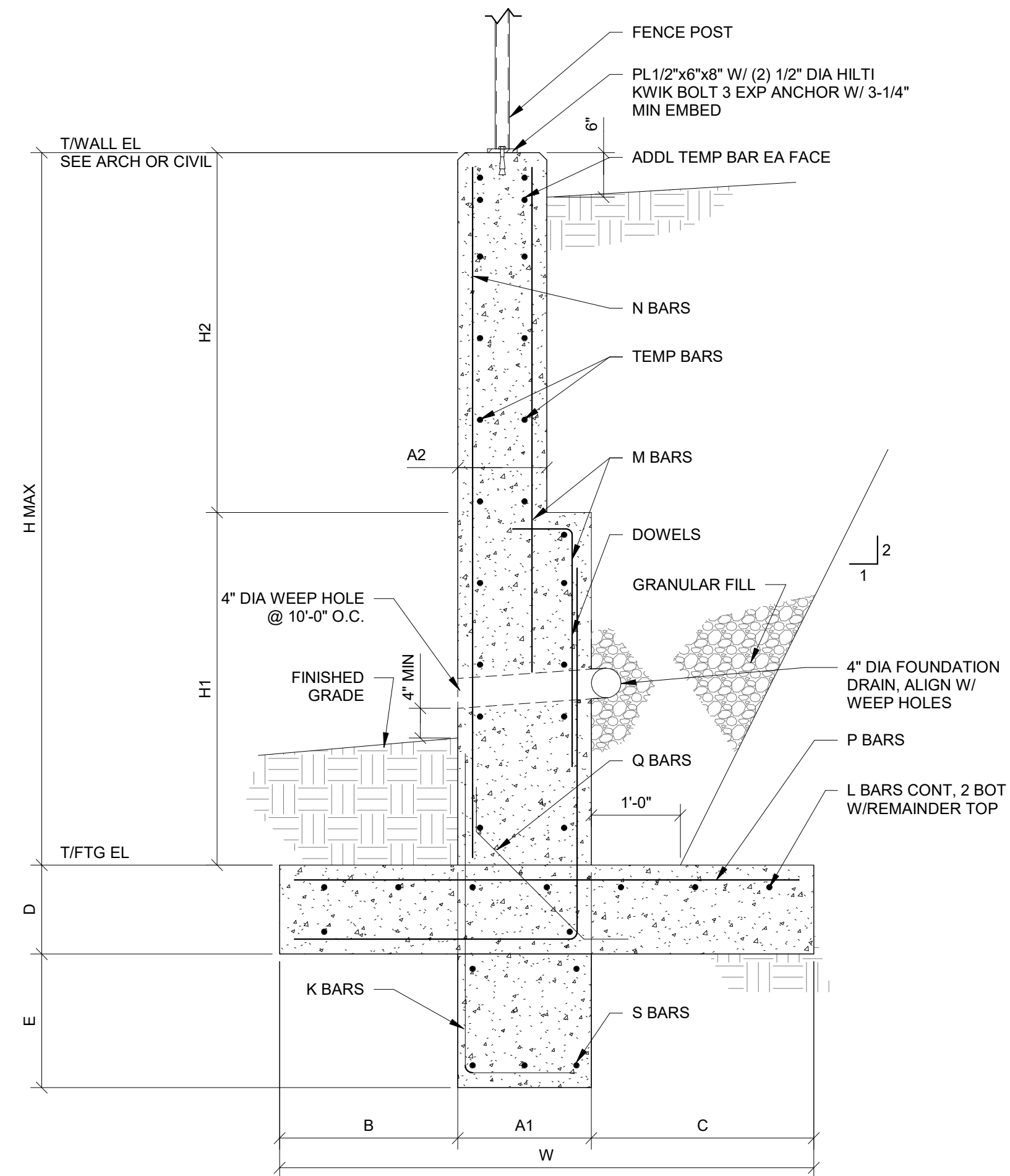
1 SITE RETAINING WALL PLAN
S1-00 1/16" = 1'-0"

- NOTES:
- SEE S0-01 FOR GENERAL NOTES.
 - SEE ARCH AND CIVIL FOR ADDITIONAL INFORMATION AND DIMENSIONS.
 - CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS.
 - ⊗ INDICATES STEPPED FOOTING, SEE 5/S3-02.

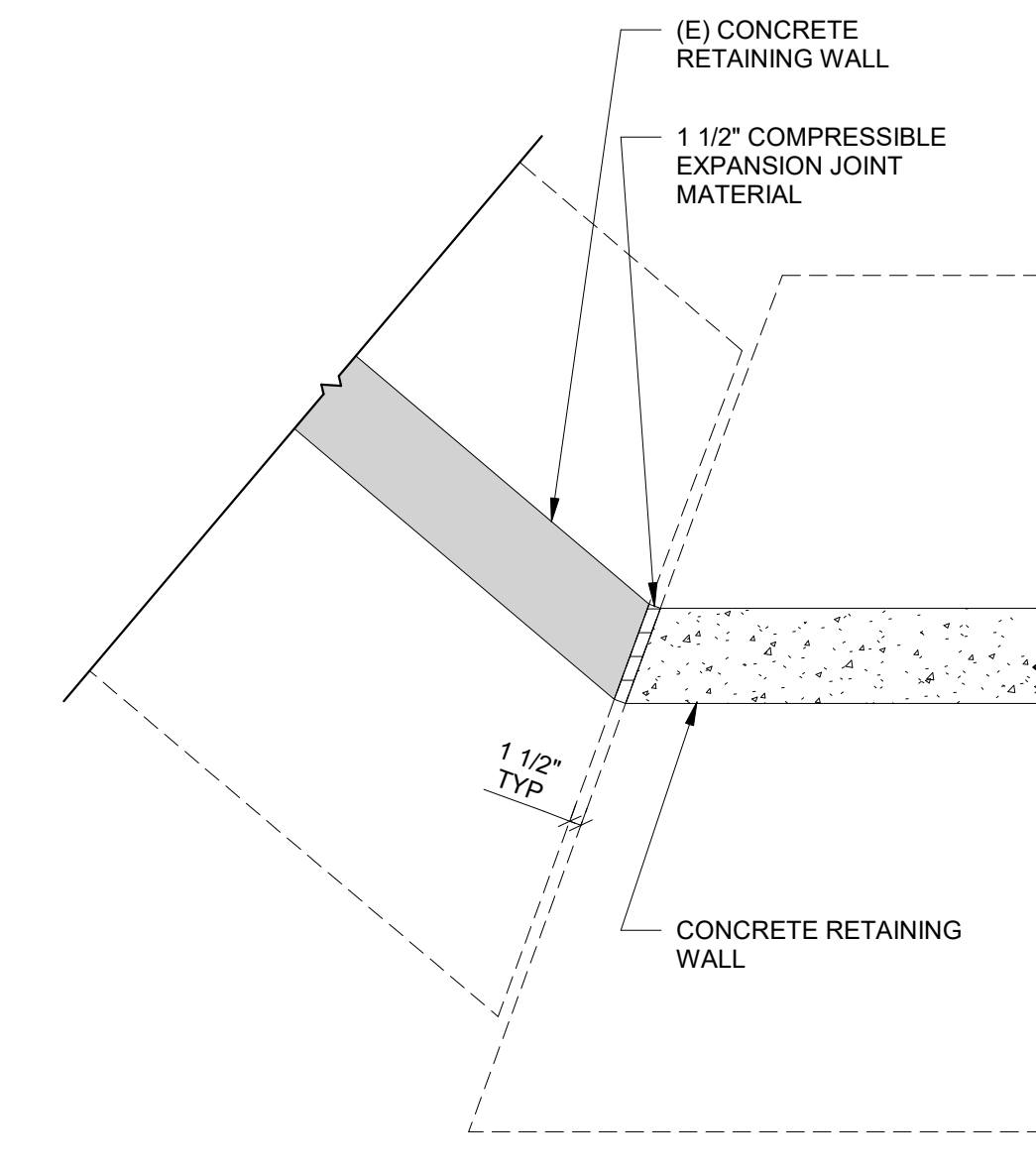


WALL REINFORCING SCHEDULE																		
MAX HEIGHT	WALL		BASE							REINFORCING BARS								
	H1	H2	W	A1	A2	B	C	D	E	DOWELS	M	N	TEMP	P	Q	K	L	S
32'-0"	15'-0"	17'-0"	26'-6"	34"	18"	11'-9"	11'-11"	36"	3'-6"	#10@4	#10@4	#6@12	@6@12	#10@9	#8@12	#8@12	26#8	9#5
28'-0"	11'-0"	17'-0"	22'-3"	26"	18"	10'-0"	10'-1"	30"	3'-0"	#10@4	#10@4	#6@12	@6@12	#10@9	#8@12	#8@12	20#8	6#5
24'-0"	7'-0"	17'-0"	17'-3"	22"	18"	7'-9"	7'-8"	24"	3'-0"	#9@6	#9@6	#6@12	@6@12	#10@12	#7@12	#7@12	15#7	5#5
20'-0"	-	-	14'-3"	18"	-	6'-6"	6'-3"	24"	2'-6"	#9@6	#9@6	#6@12	@6@12	#9@12	#7@12	#7@12	13#7	4#5
16'-0"	-	-	11'-6"	18"	-	4'-6"	5'-6"	24"	1'-4"	#9@9	#9@9	#5@12	@5@12	#7@12	#7@12	#7@12	14#6	3#5
12'-0"	-	-	9'-0"	12"	-	3'-6"	4'-6"	24"	-	#9@12	#9@12	#5@12	@5@12	#7@12	-	-	11#6	-
8'-0"	-	-	7'-3"	12"	-	3'-0"	3'-3"	24"	-	#7@12	#7@12	#5@12	@5@12	#6@12	-	-	13#5	-

NOTE:
FOR INFORMATION NOT SHOWN, SEE ARCH AND CIVIL



5 TYPICAL STEPPED FOOTING
3/4" = 1'-0"



1 TYPICAL CONCRETE WALL AT EXISTING CONCRETE WALL
1/2" = 1'-0"

10 TYPICAL RETAINING WALL
3/4" = 1'-0"

**DAWSON COUNTY
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Print Record
2019-01-14 SCHEMATIC DESIGN PACKAGE
2019-02-19 CONSTRUCTION DOCUMENTS 100%

Revisions

No.	Date	Description
1	2019-05-24	ADDENDUM #3

RELEASED FOR CONSTRUCTION

DATE February 19, 2019

PROJECT NUMBER 1816000.000

SHEET TITLE
**FOUNDATION
DETAILS**

SHEET NUMBER
S3-02