Appendix K

Waterproofing Specifications

1454 39th Street, Brooklyn, NY
BCP #C224311

IMPACT ENVIRONMENTAL
170 Keyland Court
Bohemia, New York 11716
TEL: (631) 268-8800
FAX: (631) 269-1599

SnL Construction, LLC
3333 New Hyde Park Road
Lake Success, NY 11042
Phone: 516-472-7880

Submittal-Transmittal

01-07000-00
Thermal & Moisture

To: Kristen Sweet – BWD Architects

Date: 10/5/2021
Project Name: 1454 39th Street
Job Number: 2002

Subject: Maspeth Waterproofing Material and Shop

WE ARE SENDING YOU:

[x]	Shop Drawings	[x]	Specifications	[ ]	Samples
[ ]	Attached	[ ]	Prints	[ ]	Other: Additional Information

Item No.	Document Type	Copies	Pages	Date	Description
1	Material Spec.		2-14	10/5/2021	
2	Shop Drawing		15-21	10/5/2021	

These are transmitted as attached below:

[x]	For Approval	[ ]	Resubmit Copies for Approval	[ ]	Other: For Record
[ ]	For Your Use	[ ]	As Requested		

Remarks:

1. See attached comments.

Kristen,

Hereby please find Waterproofing material and plans for approval.

Thanks,

[ ] Reviewed
[ ] Revise and Resubmit
[X] Furnish as Noted
[ ] Rejected
[ ] Furnish as Corrected, Submit revised copy for record
[ ] Received for Record
19010 :bwd#

bwdarchitects

Date: 10/6/21 KS :By

This review is for general conformance with the architectural design intent and the CDs only. Where applicable, the Engineer of Record has conducted a review of their engineering related issues and commented separately. This review does not relieve the GC from compliance with the requirements of the Contract Documents nor applicable laws, codes and regulations. The GC is also responsible for all information, including dimensions, to be confirmed at the job-site or that pertains to the fabrication or the means, methods, techniques, sequences and procedures of construction and for the coordination of the Work with that of all other trades in a safe and satisfactory manner.

If this review affects project cost/schedule the GC is notify the Owner immediately and only proceed with written authorization from the Owner.

From: NF

CC: **Aaron**
AD

SNL Construction, LLC

COLPHENE®
BSW V

COLPHENE® BSW V
PRODUCT # D00282

PRODUCT DATA SHEET

DESCRIPTION & FEATURES

COLPHENE BSW V is an SBS-modified bitumen, self-adhered waterproofing membrane for use in approved blind side waterproofing assemblies. COLPHENE BSW V is composed of a proprietary formulation of elastomeric styrene-butadiene-styrene (SBS) polymer modified bitumen and is reinforced with a tough, dimensionally stable composite polyester/glass fiber reinforcement. COLPHENE BSW V is designed specifically for vertical pre applied/blind side waterproofing applications. The topside is surfaced with fine mineral aggregate and the underside is covered with a silicone release film that is removed during application.

STORAGE

Store rolls on end and maintain in an upright position to prevent damage. Store rolls in a clean dry location and cover as necessary to protect rolls from environmental damage such as extreme cold, heat, or moisture. Monitor varying environmental conditions during storage, handling and application of COLPHENE BSW V.

APPLICATION

Prior to installation, unroll COLPHENE BSW V and allow to relax. Loose lay COLPHENE BSW V in desired position on approved prepared substrate. Once the membrane is in the desired location, remove the release film on the back side of the membrane and the DUO SELVEDGE side lap. Apply even pressure using a membrane roller over the entire surface, including the side lap to ensure adhesion. Once the self-adhered portion of the lap is adhered, a heat welding device is used to seal the lap. Refer to the SOPREMA SBS Waterproofing Manual for additional application guidelines.

APPLICATION

SELF-ADHERED

QUICK FACTS

LENGTH (ft)	WIDTH (in)	COVERAGE* (ft^2)	THICKNESS (mils)	WEIGHT (lb)	ROLLS/ PALLET (pallet weight)
32.8 (10.0 m)	39.4 (1.0 m)	95.2 (8.8 m^2)	120 (3.0 mm)	75 (34.2 kg)	30 (2,250 lb/ 1,026 kg)

* Coverage rate as reported assumes installation using side and end lap recommendations.

SOPREMA®
www.soprema.us
310 Quadral Drive, Wadsworth, Ohio 44281
Toll Free: (800) 356-3521 | Tel: (330) 334-0066

COLPHENE®
BSW V

TECHNICAL INFORMATION & TESTING

SHEET PROPERTIES	
Reinforcement	Composite
Elastomeric bitumen	Proprietary blend of bitumen and SBS polymers
Top surfacing	Sanded
Back surfacing	Self-adhesive
Selvage surface	Self-adhesive with release film (Duo-Selvedge)
Selvage width, in (mm)	4 (100)
End lap, in (mm)	6 (152)

PHYSICAL PROPERTIES		
PROPERTY	VALUES	TEST METHOD
Tensile strength, MD/XD, psi (MPa)	3437 / 2638 (23.7 / 18.1)	ASTM D412
Elongation at Peak Load at 73°F, MD/XD, %	67 / 74	ASTM D412
Adhesion to poured concrete, lbf/in (N/m)	24.2 (4235)	ASTM D903
Low temperature flexibility, °F (°C)	Unaffected at -4 (-20)	ASTM D1970
Puncture resistance, membrane, lb (N)	350 (1557)	ASTM E154
Tear resistance, lbf (N)	28.1 (125)	ASTM D5601
Low temperature crack bridging, °F (°C)	Unaffected at -9 (-23)	ASTM C836 (C1305)
Lap peel adhesion, lbf/in (N/m)	7.7 (1360)	ASTM D1876
Water vapor transmission, perms (ng/Pa•s•m^2)	< 0.037 (< 2.1)	ASTM E96 Procedure B
Water absorption (maximum), %	0.5	ASTM D570
Lateral water migration resistance, ft (m)	Pass at 360 (110)	ASTM D5385
Hydrostatic head pressure resistance, ft (m)	Pass at 360 (110)	ASTM D5385
Methane gas permeability, ft2/hr at 14.7 psia (cm2/sec at 1 atm)	1.6 * 10^{-6} (4.12 * 10^{-7})	ASTM D1434
Coefficient of friction, sanded side on sanded side, static/kinetic	1.03/0.76	ASTM D1894
Coefficient of friction, sanded side on concrete, static/kinetic	0.84/0.67	ASTM D1894

** Data is represented by average values, unless noted otherwise.*

SOPREMA®

ELASTOCOL®
STICK ZERO

PRODUCT DATA SHEET

DESCRIPTION & FEATURES

ELASTOCOL Stick Zero is a zero VOC polymer based primer for use in approved multi-ply membrane and flashing assemblies. ELASTOCOL Stick Zero is composed of a proprietary blend of polymers, solvents and additives used to increase adhesion when using self-adhered SBS membranes. ELASTOCOL Stick Zero may be applied to gypsum, masonry, metal, wood and SOPREMA's mineral aggregate surfaced membranes.

STORAGE

Store in pail and maintain in an upright position to prevent damage. Store in a clean dry location and cover as necessary to protect pails from environmental damage such as extreme cold, heat, or moisture. Monitor varying environmental conditions during storage, handling and application of ELASTOCOL Stick Zero.

APPLICATION

Mix prior to application. ELASTOCOL Stick Zero is applied to the approved area via brush, roller or spray equipment. ELASTOCOL Stick Zero is applied at a rate of 0.7 to 1 gallon per 100 square feet over non porous substrates. Refer to the SOPREMA SBS Roofing Manual for additional application guidelines.

QUICK FACTS

CONTAINER (gal)	COVERAGE RATE (gal/100ft²)
5.0 (18.9 L)	0.7-1.0 (0.3-0.4 L/m²)

PRODUCT INFORMATION	
Description	Propreitary blend of synethetic polymers, solvents and resins
Installation	Brush or roller
Packaging	5 gallon (18.9 L) pail

TESTING & APPROVALS

FM APPROVED

FLORIDA BUILDING CODE

SOPREMA®
www.soprema.us
310 Quadral Drive, Wadsworth, Ohio 44281
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ELASTOCOL® STICK

PRODUCT DATA SHEET

DESCRIPTION & FEATURES

ELASTOCOL Stick is an SBS polymer based primer for use in approved multi-ply membrane and flashing assemblies. ELASTOCOL Stick is comprised of a proprietary blend of SBS polymers, solvents and additives used to increase adhesion when using self-adhered SBS membranes. ELASTOCOL Stick may be applied to gypsum, masonry, metal, wood and SOPREMA mineral aggregate surfaced membranes.

STORAGE

Store in pail and maintain in an upright position to prevent damage. Store in a clean dry location and cover as necessary to protect pails from environmental damage such as extreme cold, heat, or moisture. Monitor varying environmental conditions during storage, handling and application of ELASTOCOL Stick.

APPLICATION

Mix prior to application. ELASTOCOL Stick is applied to the approved area via brush, roller or spray equipment. ELASTOCOL Stick is applied at a rate of 0.7 to 1 gallon per 100 square feet over non porous substrates. Refer to the SOPREMA SBS Roofing Manual for additional application guidelines.

QUICK FACTS

CONTAINER (gal)	COVERAGE RATE (gal/100ft²)
5.0 (18.9 L)	0.7-1.0 (0.3 - 0.4 L/m²)

PRODUCT INFORMATION	
Description	Propreitary blend of synethetic polymers, solvents
Installation	Brush or roller
Packaging	5 gallon (18.9 L) pail

TESTING & APPROVALS

FM APPROVED
FLORIDA BUILDING CODE
MIAMI-DADE COUNTY APPROVED

SOPREMA®
www.soprema.us
310 Quadral Drive, Wadsworth, Ohio 44281
Toll Free: (800) 356-3521 | Tel: (330) 334-0066

SOPRANATURE®
DIMPLE DRAIN 104

SOPRANATURE®
DIMPLE DRAIN 104
PRODUCT #
Contact Customer Service

PRODUCT DATA SHEET

DESCRIPTION & FEATURES

SOPRANATURE Dimple Drain 104 is composed of a heavy duty impermeable polymeric sheet forming a high flow dimpled drainage core that is fused to a woven filter fabric. SOPRANATURE Dimple Drain 104 is designed to retain soil particles and concrete allowing filtered water to pass into the drainage core, collected water is then transported to the appropriate collection system. SOPRANATURE Dimple Drain 104 may be used as a drainage layer in planters, vegetated roof systems, under slabs, and plaza decks.

STORAGE & HANDLING

Store rolls in a clean dry location and cover as necessary to protect rolls from environmental damage such as extreme cold, heat, or moisture.

APPLICATION

Unroll SOPRANATURE Dimple Drain 104 and cut to desired length. Ensure fabric is adhered at all joints and fold any excess fabric at ends under the core.

QUICK FACTS

LENGTH (ft)	WIDTH (ft)	ROLL WEIGHT (lbs)
50.0 (15.24 m)	4.0 (1.22 m)	50.0 (22.0 kg)

*Additional widths available

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TECHNICAL INFORMATION & TESTING

PHYSICAL PROPERTIES	
PROPERTY	VALUE
Core material	polypropylene
Thickness, in (mm)	0.40 (10.16)
Flow rate, gal/min/ft² (l/min/m²)	60.0 (2460.0)
Length, ft (m)	50.0 (15.24)
Roll weight, lbs (kg)	50.0 (22.0)
Tensile strength, lbs (kN)	370 x 250 (1.6447 x 1.113)
Compressive strength, psf (kNm²)	21000 (1005.0)

COLPHENE®
BSW H

PRODUCT DATA SHEET

DESCRIPTION & FEATURES

COLPHENE BSW H is an SBS-modified bitumen waterproofing membrane for use in approved blind side/under slab waterproofing assemblies. COLPHENE BSW H is composed of a proprietary formulation of elastomeric styrene-butadiene-styrene (SBS) polymer modified bitumen and is reinforced with a tough, dimensionally stable non-woven polyester mat. COLPHENE BSW H is designed for horizontal blind side/ under slab waterproofing applications. The topside is surfaced with fine mineral aggregate and the underside is surfaced with polyolefin burn-off film.

STORAGE

Store rolls on end and maintain in an upright position to prevent damage. Store rolls in a clean dry location and cover as necessary to protect rolls from environmental damage such as extreme cold, heat, or moisture. Monitor varying environmental conditions during storage, handling and application of COLPHENE BSW H.

APPLICATION

Prior to installation, unroll COLPHENE BSW H and allow to relax. Loose lay COLPHENE BSW H in desired position on approved prepared substrate. Once the membrane is in the desired location remove the release film on the DUO SELVEDGE side lap. Once the self-adhered portion of the lap is adhered, a heat welding device is used to seal the lap. Refer to the SOPREMA SBS Waterproofing Manual for additional application guidelines.

QUICK FACTS

LENGTH (ft)	WIDTH (in)	COVERAGE* (ft^2)	THICKNESS (mils)	WEIGHT (lb)	ROLLS/ PALLET (pallet weight)
32.8 (10.0 m)	39.4 (1.0 m)	95.2 (8.8 m^2)	140 (3.5 mm)	97 (43.9 kg)	25 (2,425 lb/ 1,098 kg)

* Coverage rate as reported assumes installation using side and end lap recommendations.

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310 Quadral Drive, Wadsworth, Ohio 44281
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COLPHENE®
BSW H

TECHNICAL INFORMATION & TESTING

SHEET PROPERTIES	
Reinforcement	Non-woven polyester
Elastomeric bitumen	Proprietary blend of bitumen and SBS polymers
Top surfacing	Sanded
Back surfacing	Polyolefin film
Selvage surface	Self-adhesive with release film (Duo-Selvedge)
Selvage width, in (mm)	4 (100)
End lap, in (mm)	6 (152)

PHYSICAL PROPERTIES		
PROPERTY	VALUES	TEST METHOD
Tensile strength, MD/XD, psi (MPa)	3437 / 2638 (23.7 / 18.1)	ASTM D412
Elongation at peak load at 73°F, MD/XD, %	67 / 74	ASTM D412
Elongation ultimate failure of rubberized asphalt, %	1000	ASTM D412
Adhesion to poured concrete, lbf/in (N/m)	19.6 (3430)	ASTM D903
Low temperature flexibility, °F (°C)	Unaffected at -4 (-20)	ASTM D1970
Puncture resistance, membrane, lb (N)	311 (1383)	ASTM E154
Tear resistance, lbf (N)	28.1 (125)	ASTM D5601
Low temperature crack bridging, °F (°C)	Unaffected at -9 (-23)	ASTM C836 (C1305)
Lap peel adhesion, lbf/in (N/m)	7.7 (1360)	ASTM D1876
Water vapor transmission, perms (ng/Pa•s•m^2)	< 0.037 (< 2.1)	ASTM E96 Procedure B
Water absorption (maximum), %	0.5	ASTM D570
Lateral water migration resistance, ft (m)	Pass at 360 (110)	ASTM D5385
Hydrostatic head pressure resistance, ft (m)	Pass at 360 (110)	ASTM D5385
Methane gas permeability, ft2/hr at 14.7 psia (cm2/sec at 1 atm)	1.6 * 10^{-6} (4.12 * 10^{-7})	ASTM D1434
Coefficient of friction, sanded side on sanded side, static/kinetic	1.04/0.71	ASTM D1894
Coefficient of friction, sanded side on concrete, static/kinetic	0.75/0.63	ASTM D1894

** Data is represented by average values, unless noted otherwise.*

SOPREMA®

December 14, 2020

Mr. Jared Schenone
Maspeth Roofing
5430 44th Street
Maspeth, NY 11378

Re: Authorized/Approved/Certified Applicator

To Whom It May Concern:

Maspeth Roofing is a SOPREMA applicator, authorized to install SOPREMA COLPHENE® below grade and blind side waterproofing systems qualifying for SOPREMA warranties.

Please contact Jakub Roginski at 347.554.0261 or jroginski@soprema.us should you have questions or require additional information.

Sincerely,

David Waldron
Technical Sales Support
Mobile: (862) 251-1403
dwaldron@soprema.us

cc: Project File
Sales and Technical Staff, SOPREMA

ALSAN® FLASHING

ALSAN® FLASHING

PRODUCT #
5 gal - D32800
1 gal - D32825

PRODUCT DATA SHEET

DESCRIPTION & FEATURES

ALSAN Flashing is a proprietary polyurethane bituminous resin specifically formulated for high performance liquid-applied flashings, other details and maintenance applications.

STORAGE

Store containers in a cool, well-ventilated area, out of direct sunlight and away from humidity, heat and ignition sources. Keep storage areas clear of combustible materials. No smoking near storage area. Tightly seal all partially used containers.

APPLICATION

For flashing applications, apply at a rate of 2.0 gallons per 100 ft^2 onto prepared substrate. Immediately center and embed ALSAN Polyfeece reinforcement at the transition change into wet ALSAN Flashing. Apply an embedment application of ALSAN Flashing at a rate of 2.0 gallons per 100 ft^2, ensuring that the Polyfleece is completely embedded, covered and watertight. Allow to dry. Apply a final finish application of ALSAN Flashing at a rate of 2.0 gallons per 100 ft^2. ALSAN Flashing can be left exposed or ceramic granules can be broadcast into this final ALSAN Flashing coat prior to skinning over of the product. ALSAN Flashing is applied with rollers, brushes and squeegees. The applicator is responsible for ensuring conditions are appropriate to proceed with proper application methods.

APPLICATION

BRUSH

ROLLER

SQUEEGEE

QUICK FACTS

WEIGHT (lb)	COVERAGE (gal)	COVERAGE (mils)	AMBIENT TEMP (°F)	POT LIFE (hours)	NEXT LAYER (hours)	RAIN PROOF (hours)	FULLY CURED (days)
33.1 (15 kg)	2.0 per 100 ft^2 per layer (1.0 m^2)	21 per layer	40-95 (5 to 35°C)	>2 at 68°F (20°C)	2 at 68°F (20°C)	2-12 at 68°F (20°C)	3 at 68°F (20°C)

SOPREMA®
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310 Quadral Drive, Wadsworth, Ohio 44281
Toll Free: (800) 356-3521 | Tel: (330) 334-0066

ALSAN®
FLASHING

TECHNICAL INFORMATION & TESTING

COVERAGE RATES	
FLASHING SYSTEM APPLICATION	
Base layer, g/100 ft²	2.0
Reinforcement	ALSAN Polyfleece
Reinforcement embedment layer, g/100 ft²	2.0
Top layer, g/100 ft²	2.0
Granules	Optional granule embedment
RECOVERY SYSTEM APPLICATION	
Base layer, g/100 ft²	2.0
Top layer, g/100 ft²	2.0
Granules	Granule disbursement

PHYSICAL PROPERTIES		
PROPERTY	VALUE	TEST METHOD
Peak Load, psi (MPa)	368 (2.5)	ASTM D 412
Elongation at peak load, %	67.2	ASTM D 412
Tear resistance, lbf	23.0	ASTM D 903
Water vapor transmission, perms	11	ASTM D 1653
Shore A hardness	74	ASTM D 2240
Low temperature flexibility, °F (°C)	-15 (-26)	ASTM D 5147

** Data is represented by average values, unless noted otherwise.*

TESTING & APPROVALS

CLASSIFIED UL | FLORIDA BUILDING CODE | MIAMI-DADE COUNTY APPROVED

SOPREMA®

COLPHENE® 3000

COLPHENE® 3000
PRODUCT #
D10209 (summer)
D10211 (winter)

PRODUCT DATA SHEET

DESCRIPTION & FEATURES

COLPHENE 3000 is a self-adhered, SBS-modified bitumen membrane for use in approved waterproofing assemblies. COLPHENE 3000 is composed of a proprietary formulation of elastomeric styrene-butadiene-styrene (SBS) polymer modified bitumen. The topside is surfaced with a tri-laminated woven polyethylene facer and the underside is surfaced with a silicone release film that is removed during application.

STORAGE

Store rolls on end and maintain in an upright position to prevent damage. Store rolls in a clean dry location and cover as necessary to protect rolls from environmental damage such as extreme cold, heat, or moisture. Monitor varying environmental conditions during storage, handling and application of COLPHENE 3000.

APPLICATION

Prior to installation, the substrate should be clean, sound, free of excess water and loose materials, grease and any contaminants which may compromise the performance of the product. Prep the surface with ELASTOCOL® Stick primer, ELASTOCOL® Stick Zero primer, or ELASTOCOL® Stick H20 primer. Peel back the top part of the release film. Adhere COLPHENE 3000 to the substrate, making sure the membrane is well aligned. Gradually peel back the remaining film, making sure the membrane is completely adhered using a membrane roller. The uppermost edge may be mechanically fastened using termination bars and sealed with SOPRAMASTIC SP1. Refer to SOPREMA's specifications and installation instructions for additional application guidelines.

APPLICATION

SELF-ADHERED

QUICK FACTS

LENGTH (ft)	WIDTH (in)	COVERAGE* (ft^2)	THICKNESS (mils)	ROLL WEIGHT (lb)	ROLLS/PALLET (pallet weight)
61 (18.6 m)	39.4 (1.0 m)	200.0 (18.6 m^2)	60 (1.5 mm)	62 (28 kg)	30 (1,960 lb/ 889 kg)

* Coverage rate as reported assumes installation using side and end lap recommendations.

SOPREMA®

www.soprema.us
310 Quadral Drive, Wadsworth, Ohio 44281
Toll Free: (800) 356-3521 | Tel: (330) 334-0066

COLPHENE® 3000

TECHNICAL INFORMATION & TESTING

SHEET PROPERTIES	
Top surfacing	Tri-laminate woven polyethylene
Back surfacing	Self-adhesive with release film
Selvage surface	Tri-laminate woven polyethylene
Selvage width, in (mm)	3 (76)
End lap, in (mm)	6 (152)

DIMENSIONS & MASS		
PROPERTY		TEST METHOD
Thickness, mils (mm)	60 (1.5)	ASTM D5147
Net mass per unit area, lb/100ft^2 (g/m^2)	33.5 (1636)	ASTM D5147

PHYSICAL PROPERTIES			
PROPERTY	MD	XMD	TEST METHOD
Tensile strength - membrane, die C, lb/in^2 (kN/m^2)	1066 (7350)	600 (4137)	ASTM D412[1]
Elongation of rubberized asphalt, %	> 300		ASTM D412[1]
Tensile strength - film facer, lbf/in^2 (kN/m^2)	13455 (92769)	8545 (58916)	ASTM D882[1]
Low temperature flexibility, °F (°C)	-40 (-40)		ASTM D1970
Lap adhesion, lbf/in (N/m)	9 (1576)		ASTM D1876
Water absorption, max %	0.2		ASTM D570
Peel resistance, lbf/in (N/m)	7 (1226)		ASTM D903
Water vapor transmission, perms (ng/Pa·s·m^2)	0.0194 (1.106)		ASTM E96 (PROC. A)
	0.0167 (0.952)		ASTM E96 (PROC. B)
Crack bridging ability, 100 cycles, @ -26 °F (-32°C)	Pass		ASTM C1305
Resistance to hydrostatic head, min, ft (m)	381 (114)		ASTM D5385
Puncture resistance, lbf (N)	171 (761)		ASTM E154

[1] The test is run at a rate of 2 in. per minute

SOPREMA®

WATERPROOFING SCOPE 1.18.21

Blind sided wall this exposure. 93' LF x 23'-6" AVG high = 2,185 SF

Blindside Walls = 5,810 SF

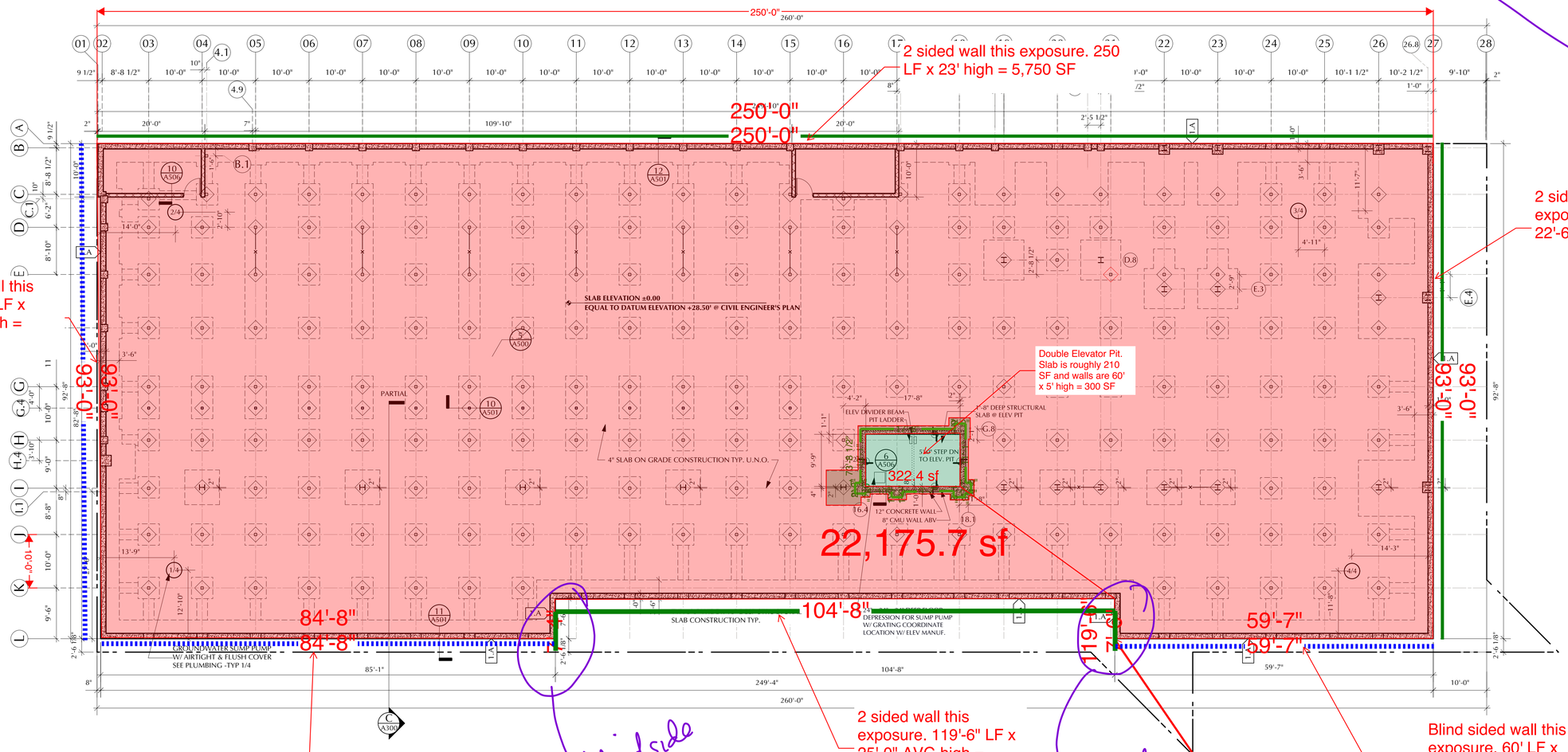
2 Sided Walls = 10,830 SF

Elevator Pit Walls = 300 SF

Slab on grade = 22,175 SF

Elevator pit Slab = 322 SF

FYI outdated



1 A097 FOUNDATION & SUBCELLAR SLAB PLAN

Scale: 3/32" = 1'-0"

NOTE:
SEE FO-098.00 FOR FOOTING & PIER SIZES, REINFORCING, CJ LOCATIONS & COLUMN SIZES

BASE PLATE NOTES:
1) COLUMN BASE PLATES WILL BE ON TOP OF FOOTINGS, 8" BELOW SUBCELLAR SLAB
SEE STRUCTURAL DETAILS FOR SIZE AND BOLT LOCATIONS

Exterior pit walls need waterproofing see 6/A506

Waterproof under slab. Do not waterproof foundation spread footings. Apply liquid membrane at column connection to footing.

ISSUE DATE
1 Owner's Review Set 3/4/20

REVISION DATE

1460 39th Street Self Storage

Safe N Lock
1460 39TH ST
BOROUGH OF BROOKLYN, KINGS COUNTY, CITY OF NEW YORK

BUTZ•WILBERN LTD

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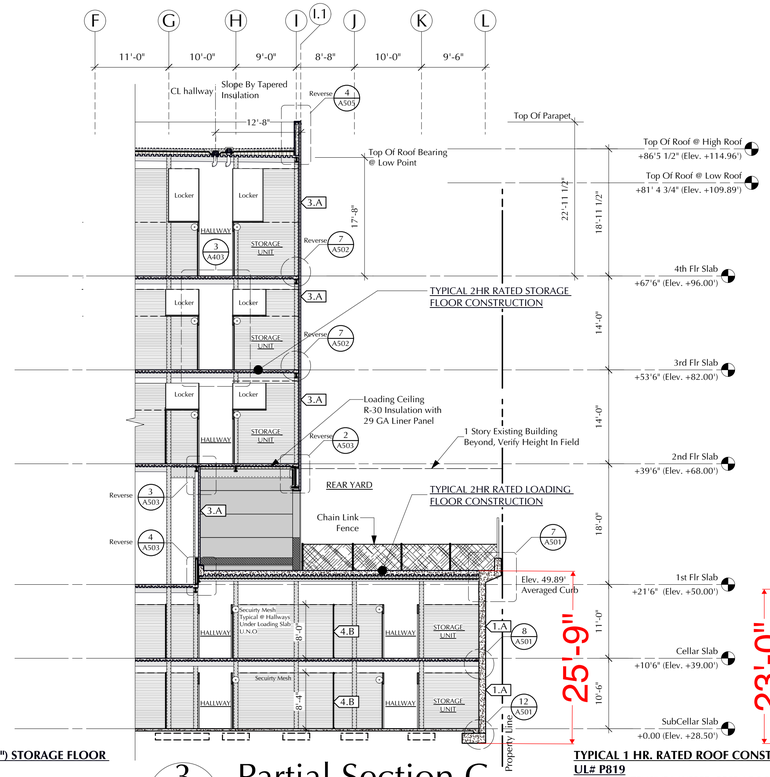
NOT FOR CONSTRUCTION

Foundation & SubCellar Slab Plan

A-097.00

21 OF 48

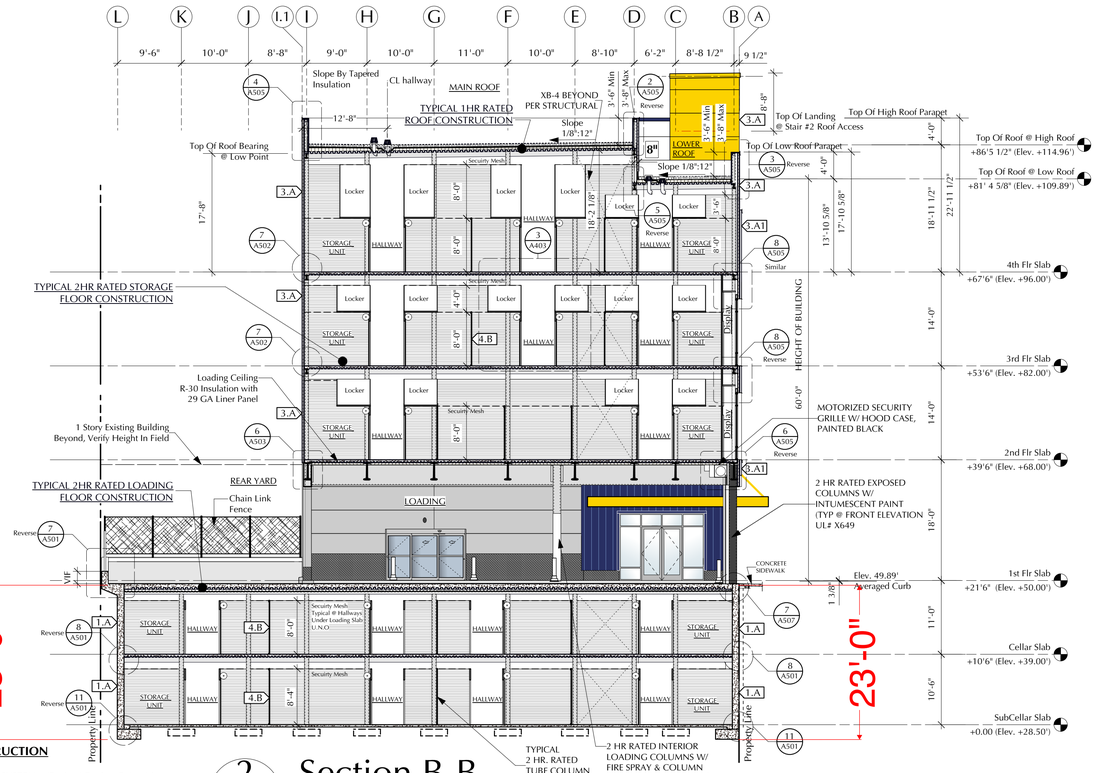
19010



3 A-300

Partial Section C

Scale: 3/32" = 1'-0"



2 A-300

Section B-B

Scale: 3/32" = 1'-0"

TYPICAL 2 HR. RATED (5 1/4") STORAGE FLOOR CONSTRUCTION
UL# D902
- 2" DEEP x 18 GA COMPOSITE DECK W/
- 3 1/4" LIGHT **WEIGHT CONC.** TOPPING=5 1/4" TOTAL CONC. DEPTH W/ 6" x 6" x 1.4/1.4 W.W.M.
  INSTALL THREE SPAN LAYOUT (3500 P.S.I), SEE STRUCTURAL PLANS

TYPICAL 1 HR. RATED ROOF CONSTRUCTION
UL# P819
4" DEPTH EXTENSIVE LAYERED GREEN ROOF SYSTEM (Basis of Design Columbia Green Roof Technologies Total Depth 5 3/8" Option-Pregrown Tray System)
SINGLE PLY ROOFING MEMBRANE SYSTEM PER MFR DETAILS (Basis of Design Carlisle TPO Reinforced Membrane Roof System)
5 1/2" POLY ISO INSULATION (MIN R-30)
3" 20 GA. METAL ROOF DECK SUPPORTED BY BEAMS FIRESPRAY BEAMS AND DECK PER UL #P819 *(SLOPE ROOF STRUCTURE)*

TYPICAL 1 HR. RATED LOADING ROOF CONSTRUCTION
UL# P819
4" DEPTH EXTENSIVE LAYERED GREEN ROOF SYSTEM (Basis of Design Columbia Green Roof Technologies Total Depth 5 3/8" Option-Pregrown Tray System)
SINGLE PLY ROOFING MEMBRANE SYSTEM PER MFR DETAILS (Basis of Design Carlisle TPO Reinforced Membrane Roof System)
TAPERED POLY ISO INSULATION to create slope
3/4" ROOF BOARD
3" 20 GA. METAL ROOF DECK SUPPORTED BY BEAMS FIRESPRAY BEAMS AND DECK PER UL #P819

PROVIDE FULL WATERPROOFING IN SUBCELLAR

TYPICAL 4" SLAB ON GRADE CONSTRUCTION
4" CONCRETE SLAB ON GRADE PER STRUCTURAL
WATER PROOFING SYSTEM B.O.D: SOPREMA
2" PEA GRAVEL
4" WASHED GRAVEL

1 A-300

Section A-A

Scale: 3/32" = 1'-0"

The location of this detention tank is being adjusted. Do not price interior waterproofing.

TYP. 2HR RATED LOADING FLOOR CONSTRUCTION UL# D902
- WATERPROOFING MEMBRANE
  (Basis of Design Pecora-Deck Traffic Coating System 8123 HD)
- 3" DEEP x **18 GA** COMPOSITE **VENTED** DECK W/ 7" **NORMAL WEIGHT CONC.**TOPPING= TOTAL **10" CONC. DEPTH** (REINFORCING PER STRUCTURAL)
- MIN R-30 INSULATION
  ((Basis of Design 4.5" Rmax TSX-8500 Polyiso Insulation=R-31)
- LINER PANEL

ISSUE DATE

A Owner's Review Set 3/4/20

REVISION DATE

1460 39th Street Self Storage

Safe N Lock
1460 39TH ST
BOROUGH OF BROOKLYN, KINGS COUNTY, CITY OF NEW YORK

BUTZ•WILBERN LTD
Planning | Architecture
Interiors | Property Visioning
800 W. Broad St. Suite 400
Falls Church, Virginia 22046
703-356-6771 fax: 356-7010

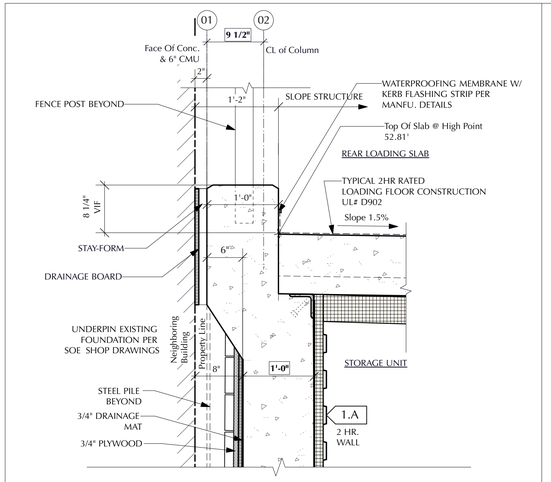
NOT FOR CONSTRUCTION

BUILDING SECTIONS

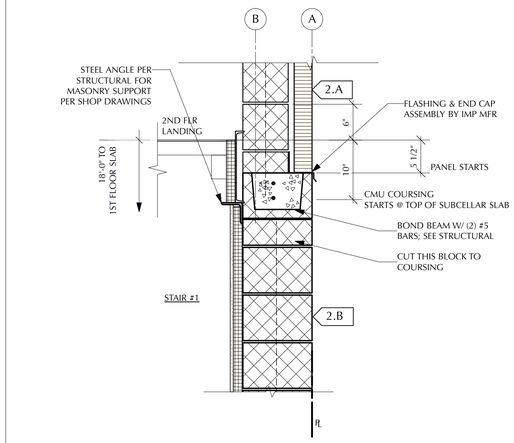
A-300.00

32 OF 48

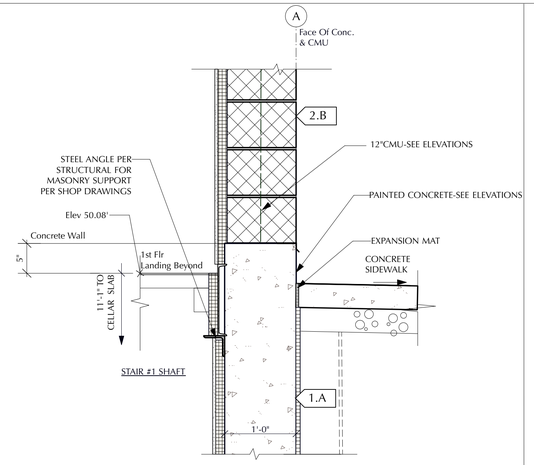
19010



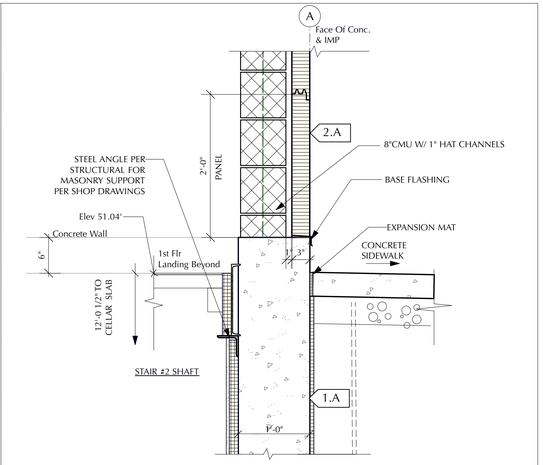
1 Rear Yard Detail @ Slab High Point @ Grid 01
Scale: 1" = 1'-0"



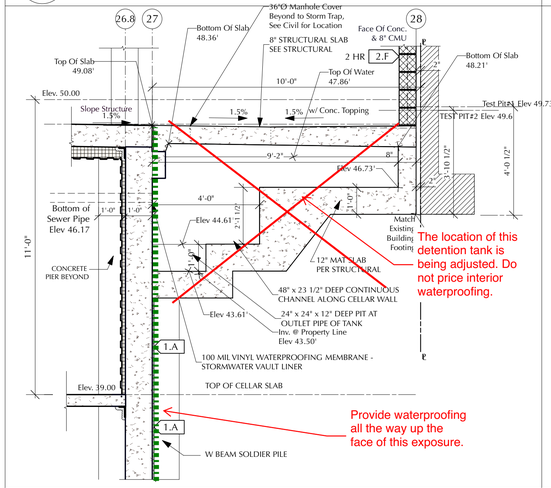
2 Stair #1 Front Wall @ 2nd Flr Level
Scale: 1" = 1'-0"



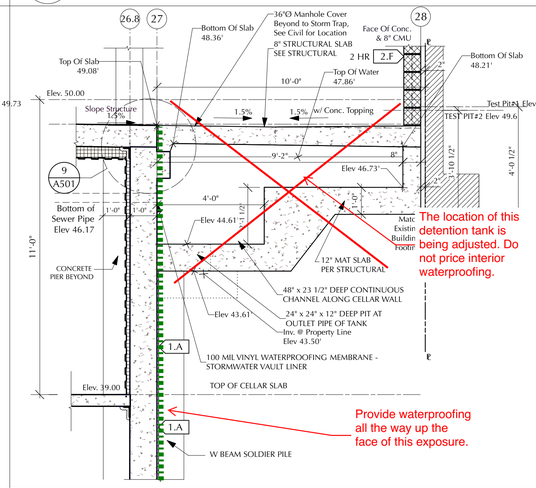
3 Stair #1 Front Wall @ 1st Flr Landing
Scale: 1" = 1'-0"



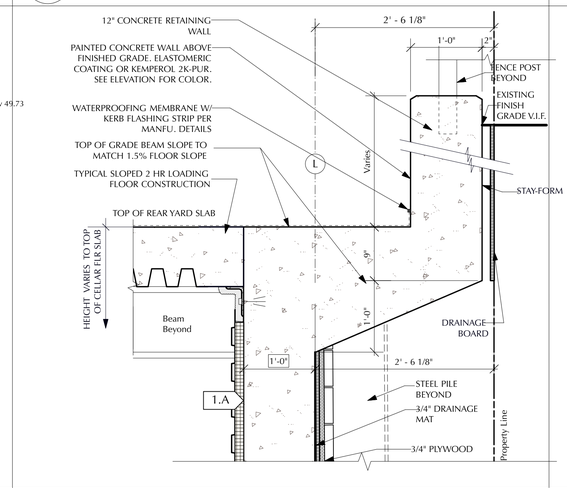
4 Stair #2 Front Wall @ 1st Flr Landing
Scale: 1" = 1'-0"



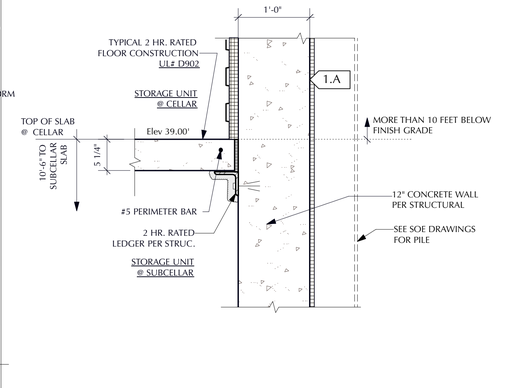
5 Section @ Detention Tank Pit
Scale: 3/8" = 1'-0"



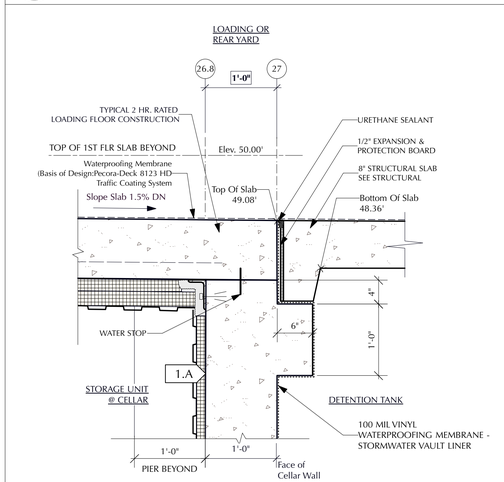
6 Section @ Detention Tank
Scale: 3/8" = 1'-0"



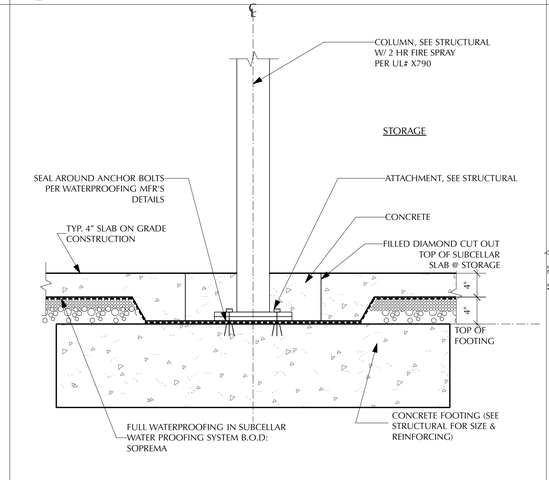
7 Slab Detail @ Grid L @ Rear Yard
Scale: 1" = 1'-0"



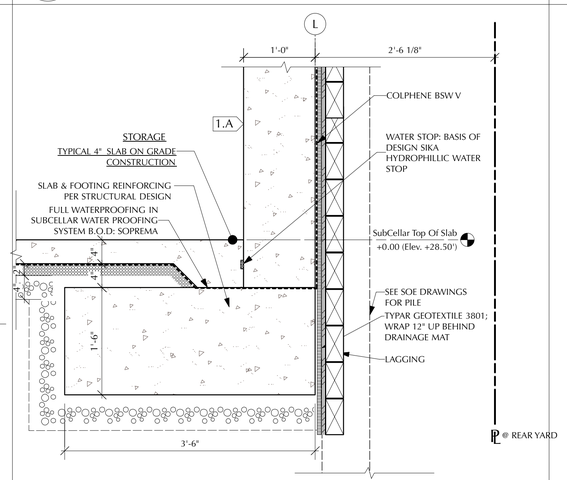
8 Cellar Floor Detail
Scale: 1" = 1'-0"



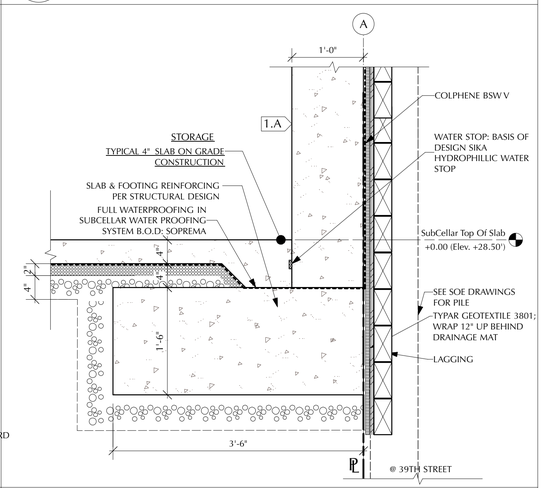
9 Detention Tank Slab Detail
Scale: 1" = 1'-0"



10 Typ Foundation Detail @ Storage Column
Scale: 1" = 1'-0"



11 Foundation Detail @ Rear Yard
Scale: 1" = 1'-0"



12 Foundation Detail @ Front
Scale: 1" = 1'-0"

ISSUE DATE

A Owner's Review Set 3/4/20

REVISION DATE

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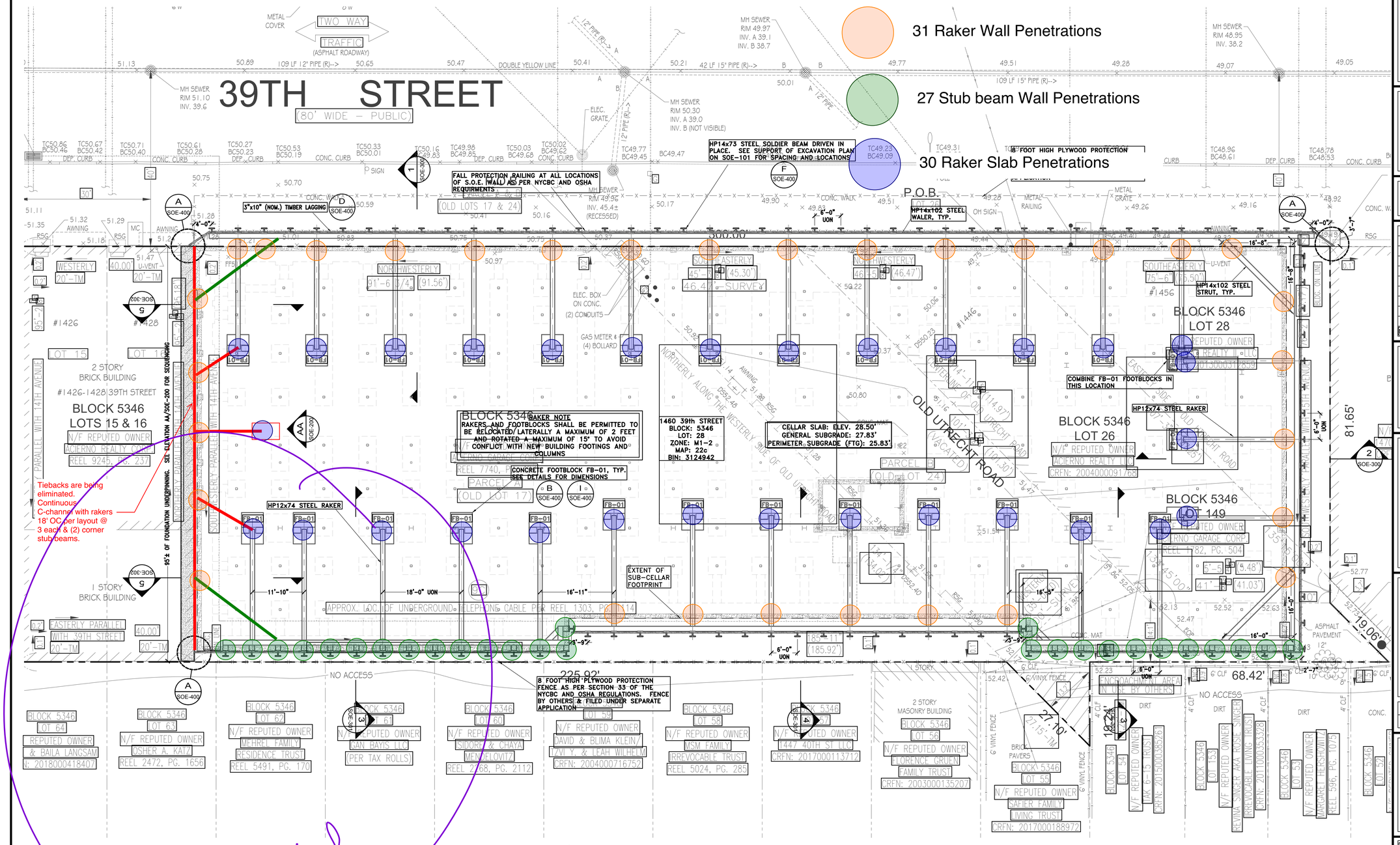
NOT FOR CONSTRUCTION

SECTION DETAILS

A-501.00

42 OF 48

19010



Outstacked

PLAN NOTES

1. ELEVATIONS NOTED AS XX.XX REFER TO NAVD88
2. ELEVATIONS NOTED AS [XX.XX] ON FOUNDATION BACKGROUNDS REFER TO BOTTOM OF FOOTING ELEVATIONS IN NAVD88 DATUM.
3. SURVEY BACKGROUND IS TAKEN FROM SITE SURVEY PREPARED BY THE GALLAS SURVEYING GROUP, SURVEYED ON APRIL 1, 2019 AND PREPARED APRIL 12, 2019.
4. STRUCTURAL BACKGROUNDS ARE BASED ON "A" SERIES PLANS BY BUTZ WILBERN, LTD., DATED JANUARY 6, 2020.
5. THIS FOUNDATION UNDERPINNING DESIGN ASSUMES ALL UNDERPINNING PITS BEAR ON SUITABLE SOIL (NYCBC CLASS 3a/3b) OR BETTER WITH A MIN. BEARING CAPACITY OF 6 TSF AS OUTLINED IN GEOTECHNICAL INFORMATION SHOWN IN THE GEOTECHNICAL REPORT / BORING PLANS AND LOGS PREPARED BY STRUCTURAL ENGINEERING TECHNOLOGIES, DATED APRIL 23, 2019.

BRONZINO ENGINEERING, P.C.
100-3 SOUTH JERSEY AVE.
EAST SETAUKET, NY 11733
631-751-8299

CLIENT
SNL CONSTRUCTION
3333 NEW HYDE PARK RD.
LAKE SUCCESS, NY
516-472-7880

ALL DRAWINGS ARE TO BE READ – NOT SCALED

No.	DESCRIPTION	DATE

ROBERT W. BRONZINO
STATE OF NEW YORK
LICENSED PROFESSIONAL ENGINEER
NEW YORK STATE LICENSE NO. 077015

DOB APPROVAL:

PROJECT:
NEW STORAGE FACILITY AT 1460 39th STREET BROOKLYN, NY

BLOCK: 5346	ZONE: M1-2
LOT: 28	MAP: 22c

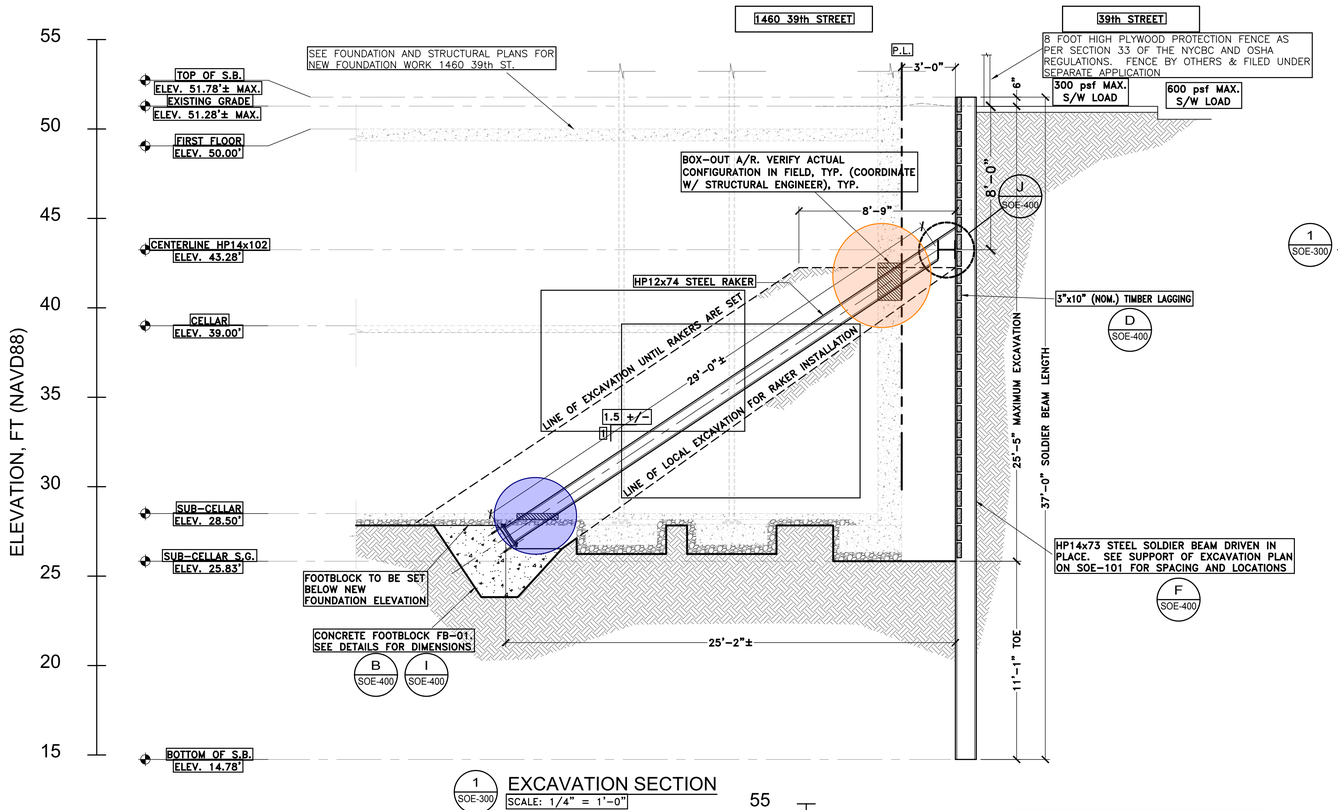
DRAWING TITLE:
SUPPORT OF EXCAVATION PLAN

PROJECT #:	191009
SCALE:	AS NOTED
DATE:	2/19/20

DRAWING NO:
SOE-101.00

SHEET NO:
5 OF 11

B-SCAN



1 SOE-300 **EXCAVATION SECTION**

SCALE: 1/4" = 1'-0"

1 SOE-300 SUPPORT OF EXCAVATION SEQUENCE OF CONSTRUCTION

1. BEFORE INSTALLING SOLDIER BEAMS, CONTRACTOR SHALL VERIFY LOCATION OF, AND CLEAR, ALL UTILITY LINES UNDER AREA OF EXCAVATION. INSTALL CONSTRUCTION FENCE, SET UP MONITORING SYSTEM AND TAKE BENCHMARK READINGS.
2. DRIVE SOLDIER BEAMS IN PLACE AS SHOWN
3. EXCAVATE TO DEPTH OF 9 FEET BELOW GRADE (ELEVATION 42.5'±) AS SHOWN ON PLANS, CONTINUING TO INSTALL TIMBER LAGGING AS EXCAVATION PROGRESSES IN 2 FOOT SECTIONS. EXCAVATION TO PROCEED IN TIERS NOT TO EXCEED 2 FEET IN HEIGHT. LAGGING TO BE BACKPACKED AS REQUIRED BEFORE EXCAVATING NEXT TIER.
4. INSTALL WALER.
5. CONTINUE EXCAVATION ON SITE LEAVING EARTH BERM AGAINST SOLDIER PILES AS SHOWN WITH LOCAL EXCAVATION AT FOOTBLOCK / RAKER LOCATIONS.
6. INSTALL FOOTBLOCKS
7. INSTALL RAKERS AS SHOWN. USE WEDGES TO ACCOMMODATE FOR SLACK IN SYSTEM.
8. EXCAVATE TO DEPTHS AS SHOWN ON PLANS, CONTINUING TO INSTALL TIMBER LAGGING AS EXCAVATION PROGRESSES IN 2 FOOT SECTIONS. EXCAVATION TO PROCEED IN TIERS NOT TO EXCEED 2 FEET IN HEIGHT. LAGGING TO BE BACKPACKED BEFORE EXCAVATING NEXT TIER.
9. CONSTRUCT FOOTINGS, SUB-CELLAR SLAB, FOUNDATION WALLS, CELLAR SLAB AND FIRST FLOOR SLAB. LEAVE OPENINGS IN FOUNDATION AND SLABS AS REQUIRED WHERE SHORING EQUIPMENT PASSES THROUGH STRUCTURES. WATERPROOF AS REQUIRED.
10. REMOVE RAKERS AND WALER AND FILL IN BOX-OUTS AS REQUIRED.
11. BACKFILL BETWEEN LAGGING / SOLDIER BEAMS AND FOUNDATION WALLS UP TO ELEVATION OF 3 FEET BELOW FIRST FLOOR GRADE. BACKFILL MATERIAL TO BE COMPACTED TO 95% OF MAX, DENSITY AS DETERMINED BY MODIFIED PROCTOR TESTS.
12. REMOVE SOLDIER BEAMS AND LAGGING TO A DEPTH OF 3'-0" BELOW FINAL GRADE.
13. COMPLETE BACKFILL TO FINAL GRADE.
14. MONITOR SYSTEM FOR DEFLECTION OF SOLDIER BEAMS AND S.O.E. SYSTEM SLACK EACH DAY AND INSTALL ADDITIONAL WEDGES AS REQUIRED ON RAKER SYSTEM.

NOTES:

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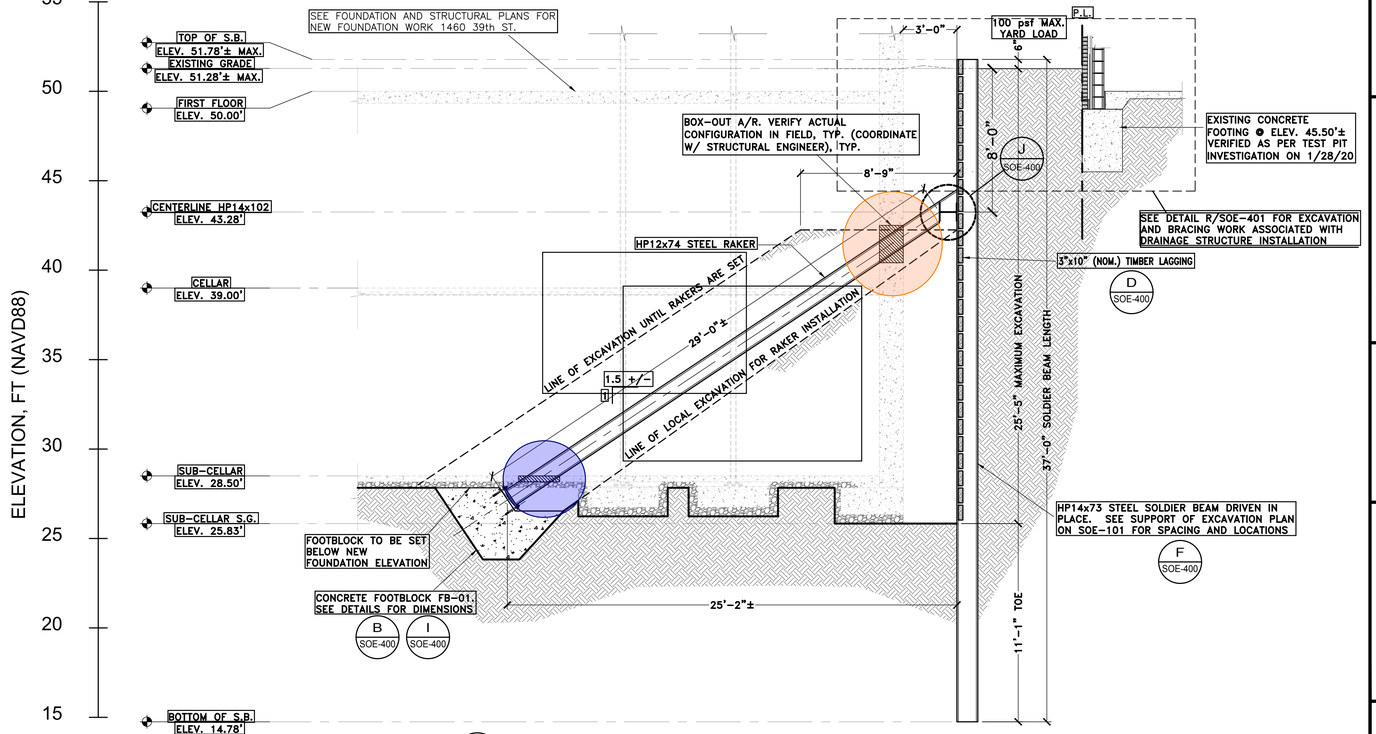

2 SOE-300 **EXCAVATION SECTION**

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BRONZINO ENGINEERING, P.C.
100-3 SOUTH JERSEY AVE.
EAST SETAUKET, NY 11733
631-751-8299

CLIENT
SNL CONSTRUCTION
3333 NEW HYDE PARK RD.
LAKE SUCCESS, NY
516-472-7880

ALL DRAWINGS ARE TO BE READ – NOT SCALED

No.	DESCRIPTION	DATE

ROBERT W. BRONZINO — STATE OF NEW YORK — LICENSED PROFESSIONAL ENGINEER — 077015

DOB APPROVAL:

PROJECT:
NEW STORAGE FACILITY AT 1460 39th STREET BROOKLYN, NY

BLOCK: 5346	ZONE: M1-2
LOT: 28	MAP: 22c

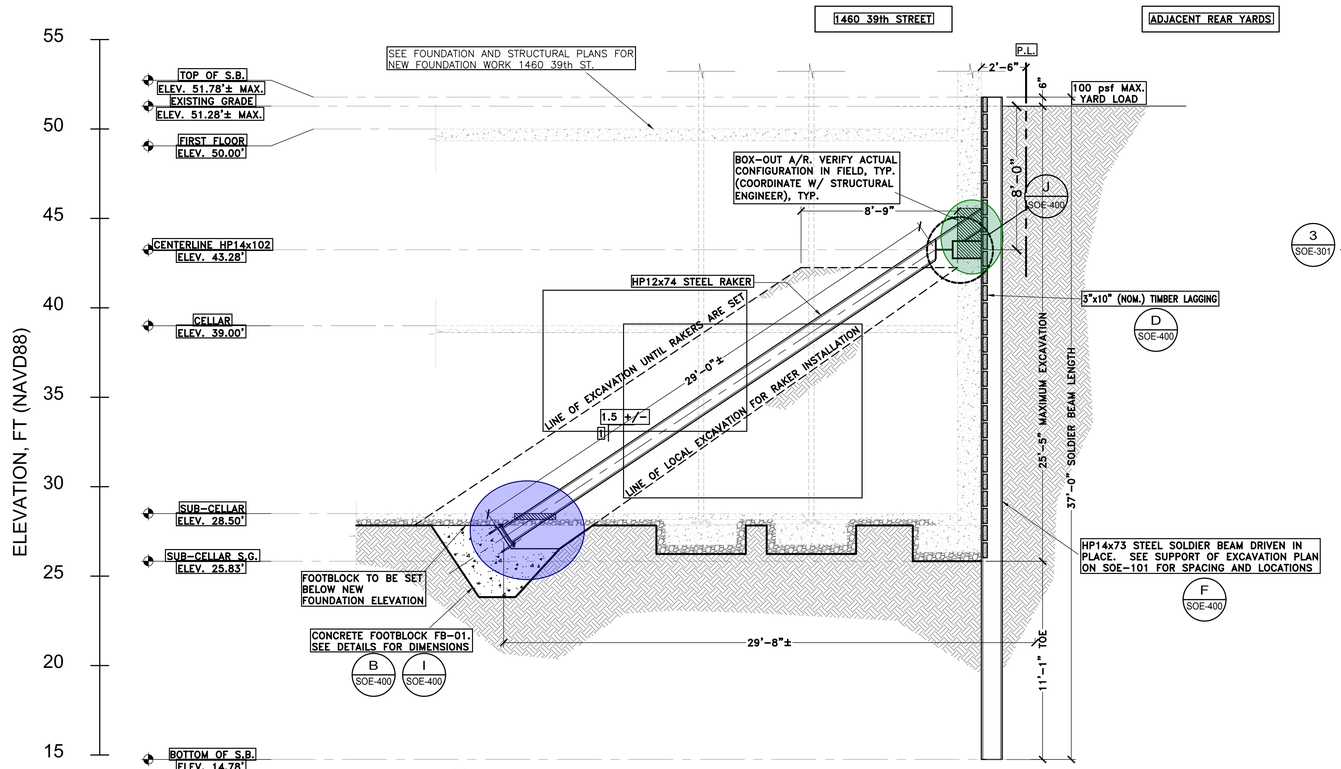
DRAWING TITLE:
SUPPORT OF EXCAVATION SECTIONS I

PROJECT #:	191009
SCALE:	AS NOTED
DATE:	2/19/20

DRAWING NO:
SOE-300.00

SHEET NO:
7 OF 11

B-SCAN



3 SOE-301 EXCAVATION SECTION
SCALE: 1/4" = 1'-0"

3 SOE-301 SUPPORT OF EXCAVATION SEQUENCE OF CONSTRUCTION

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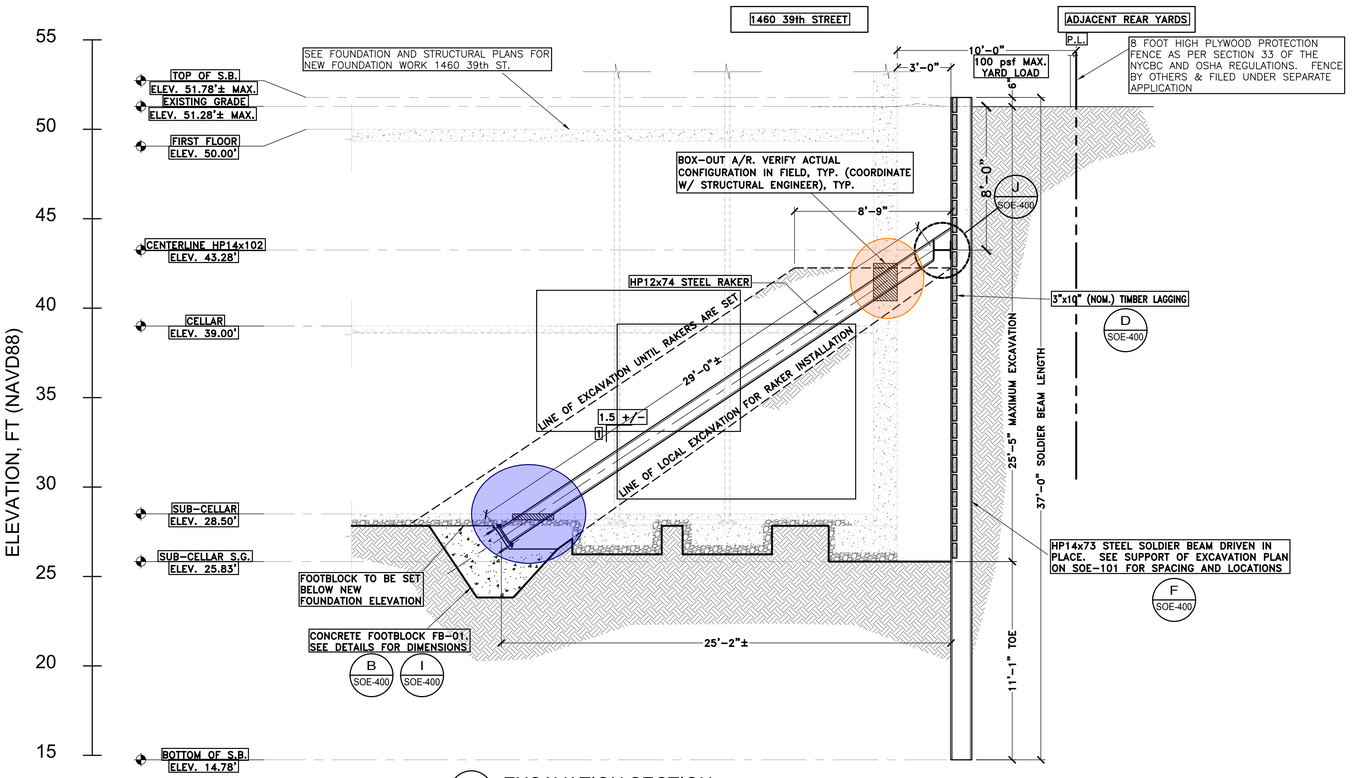

4 SOE-301 EXCAVATION SECTION
SCALE: 1/4" = 1'-0"

4 SOE-301 SUPPORT OF EXCAVATION SEQUENCE OF CONSTRUCTION

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No.	DESCRIPTION	DATE

ROBERT W. BRONZINO
STATE OF NEW YORK
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NEW YORK STATE LICENSE NO. 077015

DOB APPROVAL:

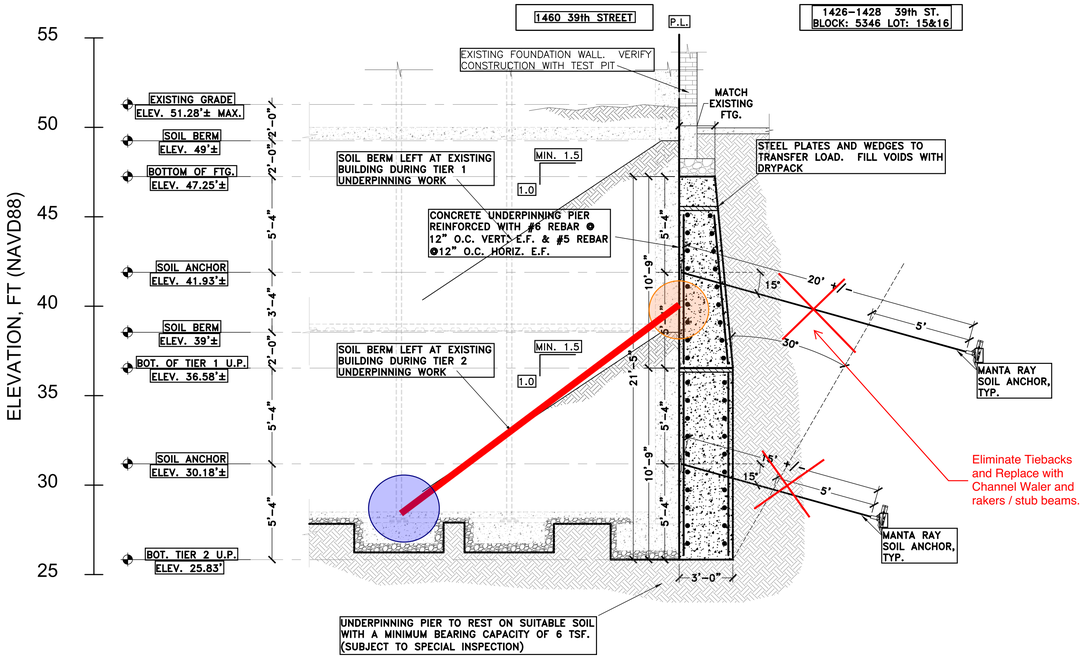
PROJECT:
NEW STORAGE FACILITY AT 1460 39th STREET BROOKLYN, NY

BLOCK: 5346	ZONE: M1-2
LOT: 28	MAP: 22c

DRAWING TITLE:
SUPPORT OF EXCAVATION SECTIONS II

PROJECT #:	191009
SCALE:	AS NOTED
DATE:	2/19/20
DRAWING NO:	SOE-301.00
SHEET NO:	8 OF 11

B-SCAN

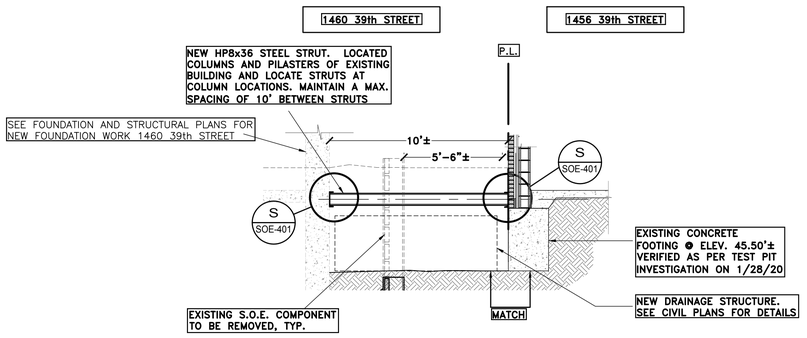


5 SOE-302 UNDERPINNING SECTION

SCALE: 1/4" = 1'-0"

5 SOE-302 FOUNDATION UNDERPINNING SEQUENCE OF CONSTRUCTION

1. EXCAVATE SITE TO TEMPORARY SUBGRADE OF 49'± WITH BERM LEFT AGAINST ADJACENT FOUNDATIONS. BERM ELEVATION AT PERIMETER OF SITE TO BE AT ELEVATION 49'± AND SLOPING DOWN TO TEMPORARY SUBGRADE AT MAXIMUM RISE TO RUN OF 1:1.5. PARGE ALL RUBBLE / BRICK FOUNDATIONS AS REQUIRED BY DESIGN APPLICANT.
2. USING UNDERPINNING APPROACH PIT MEANS AND METHODS AS SHOWN IN THESE PLANS, EXCAVATE AND INSTALL ALL UNDERPINNING PIERS LISTED AS TIER 1, SEQUENCE "A". USE STEEL PLATES AS REQUIRED UNDER EXISTING FOOTINGS TO PREVENT PIECES OF FOOTING FROM FALLING INTO UNDERPINNING APPROACH PIT.
3. ALLOW UNDERPINNING TO CURE UNTIL NEXT MORNING.
4. DRIVE STEEL SHIMS AND DRYPACK VOIDS.
5. BACKFILL UNDERPINNING PIER TO ELEVATION OF PERIMETER BERM 49'±.
6. REPEAT STEP 2 THROUGH 5 FOR ALL UNDERPINNING PIERS DESIGNATED AS TIER 1; SEQUENCE "B", THEN "C", "D" & "E".
7. EXCAVATE SOIL BERM AT ADJACENT FOUNDATION WALL TO ELEVATION OF 41'± AND SLOPING DOWN TO TEMPORARY SUBGRADE AT MAXIMUM RISE TO RUN OF 1:1.5
8. INSTALL SOIL ANCHORS AT ELEVATION OF 41.93'± AS SHOWN
9. EXCAVATE SOIL BERM AT ADJACENT FOUNDATION WALL TO ELEVATION OF 39'± AND SLOPING DOWN TO TEMPORARY SUBGRADE AT MAXIMUM RISE TO RUN OF 1:1.5
10. USING UNDERPINNING APPROACH PIT MEANS AND METHODS AS SHOWN IN THESE PLANS, EXCAVATE AND INSTALL ALL UNDERPINNING PIERS LISTED AS TIER 2, SEQUENCE "A".
11. ALLOW UNDERPINNING TO CURE UNTIL NEXT MORNING.
12. DRIVE STEEL SHIMS AND DRYPACK VOIDS.
13. BACKFILL UNDERPINNING PIER TO ELEVATION OF PERIMETER BERM 39'±.
14. REPEAT STEP 10 THROUGH 13 FOR ALL UNDERPINNING PIERS DESIGNATED AS TIER 2; SEQUENCE "B", THEN "C", "D" & "E".
15. EXCAVATE SOIL BERM AT ADJACENT FOUNDATION WALL TO ELEVATION OF 29'± AND SLOPING DOWN TO TEMPORARY SUBGRADE AT MAXIMUM RISE TO RUN OF 1:1.5
16. INSTALL SOIL ANCHORS AT ELEVATION OF 30.18'± AS SHOWN
17. EXCAVATE SITE TO SUBGRADE ELEVATION OF PROPOSED BUILDING FOUNDATION AND INSTALL FOUNDATION.
18. MONITOR BUILDINGS BEING UNDERPINNED AS PER APPROVED MONITORING PLANS DURING UNDERPINNING AND EXCAVATION WORK.



R SOE-401 EXCAVATION SECTION FOR DRIANAGE STRUCTURE

SCALE: 1/4" = 1'-0"

R SOE-401

1. INSTALL S.O.E. SYSTEM AS SHOWN ON PLANS, NOTES, SECTIONS (2/SOE-300) AND DETAILS.
2. INSTALL NEW BUILDING UP TO AND INCLUDING FIRST FLOOR SLAB.
3. BACKFILL BETWEEN LAGGING / SOLDIER BEAMS AND FOUNDATION WALLS UP TO ELEVATION OF 3 FEET BELOW FIRST FLOOR GRADE. BACKFILL MATERIAL TO BE COMPACTED TO 95% OF MAX, DENSITY AS DETERMINED BY MODIFIED PROCTOR TESTS.
4. REMOVE S.O.E. COMPONENTS AS REQUIRED FOR DRAINAGE STRUCTURES AND WALL BRACING.
5. INSTALL BRACING WALERS AND STRUTS AS SHOWN. EXCAVATE LOCALLY AS REQUIRED FOR STRUT INSTALLATION.
6. EXCAVATE TO SUBGRADE OF 28.50' AND INSTALL DRAINAGE STRUCTURES.
7. BACKFILL TO ELEVATION OF WALERS.
8. REMOVE WALERS AND STRUTS
9. COMPLETE BACKFILL TO FINAL GRADE.
10. MONITOR SYSTEM FOR DEFLECTION OF WALL EACH DAY AND INSTALL ADDITIONAL WEDGES AS REQUIRED ON BRACING SYSTEM

NOTE: STRUTS LOCATED AT COLUMN LINES SHALL REMAIN IN PLACE AT ALL TIMES. REMAINING STRUTS CAN BE REMOVED AND RELOCATED AS REQUIRED TO FACILITATE DRAINAGE STRUCTURE INSTALLATION WHILE MAINTAINING MAXIMUM STRUT SPACING OF 10 FEET

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ALL DRAWINGS ARE TO BE READ – NOT SCALED

No.	DESCRIPTION	DATE

ROBERT W. BRONZINO — STATE OF NEW YORK — LICENSED PROFESSIONAL ENGINEER — No. 077015

DOB APPROVAL:

PROJECT:
NEW STORAGE FACILITY AT 1460 39th STREET BROOKLYN, NY

BLOCK: 5346	ZONE: M1-2
LOT: 28	MAP: 22c

DRAWING TITLE:
SUPPORT OF EXCAVATION SECTIONS III

PROJECT #:	191009
SCALE:	AS NOTED
DATE:	2/19/20

DRAWING NO:
SOE-302.00

SHEET NO:
9 OF 11

B-SCAN