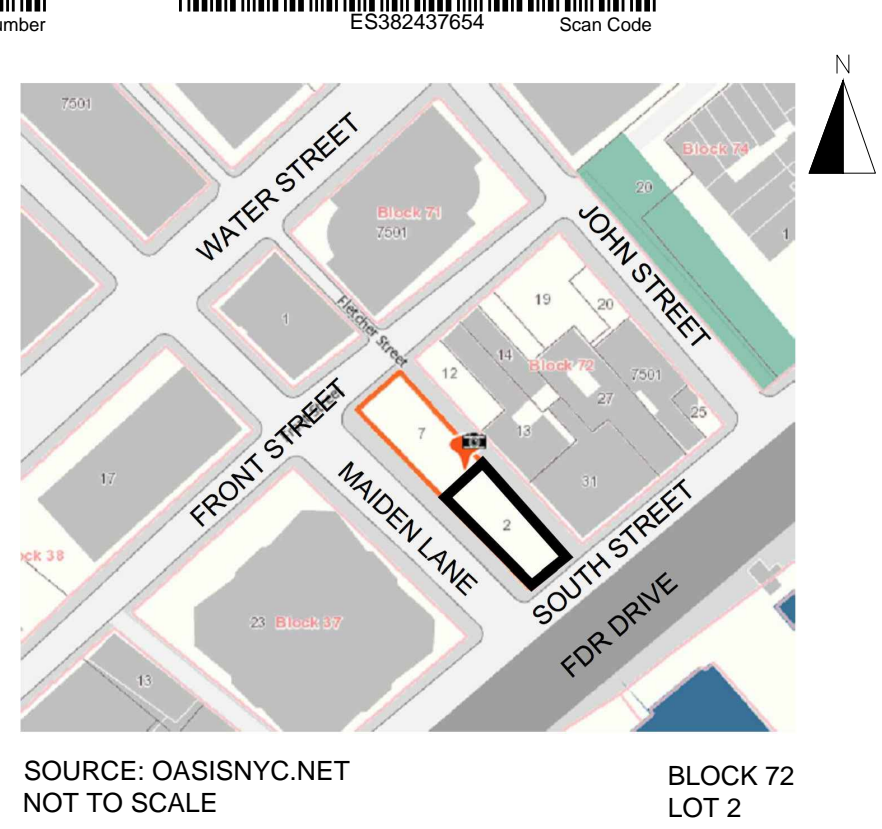


# 161 MAIDEN LANE



SOURCE: OASISNYC.NET  
NOT TO SCALE

BLOCK 72  
LOT 2

## GENERAL

- THESE DRAWINGS MAY BE USED FOR CONSTRUCTION ONLY IF RA CONSULTANTS LLC IS THE SPECIAL INSPECTION AGENCY FOR:
  - EXCAVATION - SHEETING, SHORING, AND BRACING
  - STRUCTURAL SAFETY - STRUCTURAL STABILITY (FOR SOE ELEMENTS)
  - SOIL - SITE PREPARATION
  - SOIL - INVESTIGATION (BORINGS/TEST PITS)
- IF RA CONSULTANTS LLC HAS BEEN RELEASED OR HAS WITHDRAWN ITS RESPONSIBILITY FOR SPECIAL INSPECTIONS AND A FIRM OTHER THAN RA CONSULTANTS LLC IS ENGAGED BY THE OWNER, OWNER'S REPRESENTATIVE, OR CONTRACTOR FOR SPECIAL INSPECTION OF THE DESIGN SHOWN ON THESE DRAWINGS, THEN WE REQUIRE THAT RA CONSULTANTS LLC BE RETAINED TO REVIEW THE INSPECTION AGENCY'S FIELD REPORTS AND FOR SITE VISITS BY OUR PERSONNEL DURING RELEVANT CONSTRUCTION ACTIVITIES.
- ALL ELEVATIONS ARE REFERENCED TO NAVD88.
- BASE PLANS AND SECTIONS ARE DEVELOPED FROM:
  - ARCHITECTURAL SURVEY BY TRUE NORTH SURVEYORS, P.C., DATED 11/12/2013
  - STRUCTURAL DRAWINGS BY WSP STRUCTURAL ENGINEERS DATED 8/20/2014.
- SOIL DATA OBTAINED FROM:
  - GEOTECHNICAL REPORT FOR 161 MAIDEN LANE BY RA CONSULTANTS LLC DATED 8/14/2014.
- LOCATION OF EXISTING AND PROPOSED CONDITIONS INCLUDING BUT NOT LIMITED TO FOUNDATION WALL, FOOTINGS, AND SLAB LOCATIONS AND ELEVATIONS WERE TAKEN FROM STRUCTURAL AND ARCHITECTURAL DRAWINGS.
- LOCATIONS AND ELEVATIONS OF ALL PROPOSED STRUCTURAL BUILDING ELEMENTS SHOWN ON THIS DRAWING MAY BE APPROXIMATE AND SHALL BE SUPERSEDED BY FINAL STRUCTURAL AND ARCHITECTURAL DRAWINGS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITIES AND BELOW GROUND STRUCTURES IN THE AREA OF PRIOR TO COMMENCEMENT OF WORK.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS IN THE FIELD. IF CONDITIONS OBSERVED IN THE FIELD DIFFER FROM THESE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO EVALUATE THE CONDITION. MODIFICATIONS TO THESE DRAWINGS MAY BE NECESSARY.
- THESE DRAWINGS DO NOT ADDRESS SAFETY ISSUES RELATED TO THE EXCAVATION AND SHORING WORK. OTHERS SHALL BE RESPONSIBLE FOR SITE SAFETY AND PROVIDE A SAFETY PLAN CONFORMING TO OSHA AND ALL APPLICABLE LAWS.
- BARRIERS AND FENCING AROUND SITE MUST BE PROVIDED BY CONTRACTOR IN ACCORDANCE WITH NEW YORK CITY DEPARTMENT OF BUILDINGS AND ALL APPLICABLE LAWS.
- IF THE CONDITIONS OBSERVED AS THE EXCAVATION ADVANCES ARE DIFFERENT THAN THE CONDITIONS SHOWN ON THE DESIGN DRAWINGS, THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE CONSTRUCTION MANAGER AND ENGINEER.
- OBSERVED MOVEMENTS OF THE SUPPORT OF EXCAVATION OR OTHER STRUCTURES SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER.
- LOOSE AREAS OF FOUNDATION WALL OR FOOTINGS THAT ARE DAMAGED OR LOOSE SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR EVALUATION AND REMEDIAL MEASURES.
- PINS, WIRE MESH, AND PARGING MAY BE REQUIRED TO STABILIZE THE FOUNDATION WALL, OR FOOTINGS.
- ALL STRUCTURAL STEEL SHALL BE GRADE 50, ASTM A-572.

- 1-BAG MIX SHALL CONSIST OF 1-94 LB. BAG OF CEMENT TO 1 CY OF SAND. QUANTITY OF WATER SHALL BE ADEQUATE TO ALLOW THE MIX TO FLOW.
- NOTIFY DOB 24- TO 48-HRS PRIOR TO EXCAVATION (RULE 52).

## SURVEY AND MONITORING

- A PRE-CONSTRUCTION (PRE-CONDITION) SURVEY OF THE ADJACENT STRUCTURES SHALL BE DONE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REVIEW AND FAMILIARIZE HIMSELF WITH THE RESULTS OF THE SURVEY. THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE ADJACENT STRUCTURES (INSIDE AND OUT) PRIOR TO STARTING THE WORK.
- MONITOR THE ADJACENT BUILDINGS AT ABOUT 25-FT INTERVALS FOR VERTICAL AND LATERAL MOVEMENT. NOTE THAT MONITORING LOCATIONS ARE NOT SHOWN ON THE SUPPORT OF EXCAVATION PLAN FOR CLARITY.
- OBTAIN BASELINE READINGS OF THE MONITORING POINTS PRIOR TO EXCAVATION AND NEW CONSTRUCTION.
- PERFORM OPTICAL SURVEYS AT LEAST TWICE PER MONTH. IF MOVEMENTS OCCUR, INCREASE THE FREQUENCY OF THE READINGS AS DIRECTED BY THE ENGINEER.
- VIBRATION MONITORS (SEISMOGRAPHS) SHALL BE PLACED ADJACENT TO AREAS WHERE WORK IS BEING PERFORMED. NOTE THAT SEISMOGRAPH LOCATIONS ARE NOT SHOWN ON THE SUPPORT OF EXCAVATION PLAN FOR CLARITY.
- NON-LANDMARK BUILDING MOVEMENT AND VIBRATION CRITERIA:
  - IF THE VERTICAL OR LATERAL BUILDING MOVEMENT REACHES 1/4-INCH IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER AND ENGINEER.
  - IF THE BUILDING MOVEMENT REACHES 1/2-INCH, IMMEDIATELY INFORM THE CONSTRUCTION MANAGER AND ENGINEER AND STOP WORK. THE WORK SHALL RESUME UPON APPROVAL BY THE CONSTRUCTION MANAGER AND APPROVED REMEDIAL MEASURES AND/OR MODIFIED CONSTRUCTION PROCEDURES BY THE ENGINEER.
  - IF THE VIBRATIONS REACH 1-INCHES PER SECOND (IPS) THE CONSTRUCTION MANAGER AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
  - IF THE VIBRATIONS EXCEED 2-IPS, IMMEDIATELY INFORM THE CONSTRUCTION MANAGER AND ENGINEER AND STOP WORK. THE WORK SHALL RESUME UPON APPROVAL BY THE CONSTRUCTION MANAGER AND APPROVED REMEDIAL MEASURES AND/OR MODIFIED CONSTRUCTION PROCEDURES BY THE ENGINEER.
- VIBRATION MONITORS SHALL TAKE REAL TIME READINGS.
- ALL MONITORING DATA SHALL BE PRESENTED TO THE CONSTRUCTION MANAGER AND ENGINEER AT THE END OF EACH DAY.

## TIE-DOWNS (ROCK ANCHORS)

- TIE-DOWNS SHALL BE INSTALLED IN ACCORDANCE WITH POST-TENSIONING INSTITUTE (PTI) RECOMMENDATIONS.
- TIE-DOWNS SHALL BE TESTED TO 1.33 THE DESIGN LOAD SHOWN ON THESE DRAWINGS.
  - AT LEAST 5% OF TIE-BACKS AND TIE-DOWNS SHALL BE PERFORMANCE TESTED
  - THE REMAINDER SHALL BE PROOF TESTED
- TIE-DOWNS SHALL BE LOCKED AT THE LOCK-OFF LOAD SPECIFIED IN THESE DRAWINGS.
- IF ANY OF THE ABOVE TOLERANCES ARE EXCEEDED AND IN THE OPINION OF THE ENGINEER REQUIRE CORRECTIVE MEASURES, SUCH CORRECTIVE MEASURES, INCLUDING COSTS OF ENGINEERING AND REDESIGN, SHALL BE PAID FOR BY THE CONTRACTOR.

## SOIL IMPROVEMENT (SOILCRETE)

- SOIL SHALL BE IMPROVED TO THE REQUIRED COMPRESSIVE STRENGTH AS SHOWN ON THESE DRAWINGS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO DESIGN A GROUT MIX AND INSTALLATION PROCEDURE TO ATTAIN THE DESIRED SOILCRETE STRENGTH.
  - CONTRACTOR SHALL SUBMIT TO THE OWNER'S REPRESENTATIVE BEFORE THE START OF WORK A GROUT MIX DESIGN (BELOW) INDICATING SOURCES, TYPES OF GROUT MATERIALS AS FOLLOWS:
    - CEMENT, PORTLAND, TYPE \_\_\_\_, ACI \_\_\_\_.
    - GROUND GRANULATED BLAST FURNACE SLAG ACI \_\_\_\_.
    - FLYASH, CLASS \_\_\_\_, ASTM \_\_\_\_.
    - WATER \_\_\_\_.
    - ADDITIVES AS APPROVED BY THE ENGINEER.
  - CONTRACTOR SHALL SUBMIT TO THE OWNER'S REPRESENTATIVE BEFORE THE START OF WORK A WORK PROCEDURES PLAN AND DRAWING OUTLINING A PRE-PRODUCTION TEST PROGRAM AND THE SPACING, LOCATION, DEPTH AND QUANTITY OF GROUT TO ACHIEVE THE CRITERIA DETAILED IN THESE DRAWINGS. JET GROUTING SHALL BE PERFORMED IN ACCORDANCE WITH THE ACCEPTED GROUT INJECTION PLAN AND DRAWING TO ACHIEVE THE FOLLOWING IN THE INSITU SOIL WITHIN THE WORK AREA:
    - VOLUME COVERAGE OF 100% OF THE QUANTITY SHOWN ON THE DRAWINGS.
    - STRENGTH BY WET SAMPLING/CAST MOLDS TO AVERAGE REQUIRED UNCONFINED COMPRESSIVE STRENGTH (SEE TESTING PROGRAM AND CRITERIA BELOW) AFTER 28 DAY CURE PERIOD. UP TO 5% OF THE TEST RESULTS MAY BE LESS THAN THIS VALUE
    - SHEAR STRENGTH OF CORE SAMPLES SHALL AVERAGE 75 PER CENT OF SHEAR STRENGTH DETERMINED FROM REQUIRED UNCONFINED COMPRESSIVE STRENGTH (SEE TESTING PROGRAM AND CRITERIA BELOW) AFTER 21 DAYS CURE PERIOD. UP TO 5% OF THE TEST RESULTS MAY BE LESS THAN THIS VALUE.
- CONTRACTOR SHALL USE THE SAME EQUIPMENT, MATERIALS, AND PROCEDURES AS THOSE DETERMINED IN THE PRE-PRODUCTION TEST PROGRAM TO GIVE SATISFACTORY RESULTS TO PERFORM PRODUCTION JET GROUTING FOR THE REQUIRED SOIL IMPROVEMENT. CONTRACTOR SHALL INSTALL SOILCRETE COLUMNS, ENSURING THAT CONTINUOUS SPOIL RETURN UP THE BOREHOLE ANNULUS IS ACHIEVED DURING ALL WORK.
- AT COMPLETION OF DAILY JET GROUTING OPERATIONS, CONTRACTOR SHALL THOROUGHLY CLEAN SITE AND LOAD ALL SPOIL DEBRIS, WATER, AND SPILLED MATERIAL INTO TRUCKS AS PROVIDED BY OWNER. SPOIL STOCKPILING OVERNIGHT IS PERMITTED PRIOR TO TRANSFER TO A PREDETERMINED WASTE OR FILL LOCATION BY OWNER. DISPOSAL OF SPOIL SHALL BE THE RESPONSIBILITY OF THE OWNER.
- CONTRACTOR SHALL SUBMIT DAILY RECORDS FOR EACH GROUT LOCATION INCLUDING DEPTH OF TREATMENT, START AND STOP TIMES, ALL JETTING PARAMETERS AND GROUT INJECTED.
- GROUT INJECTION AND MONITOR AND EXTRACTION RATES SHALL BE SUFFICIENT TO PRODUCE GROUT COLUMNS MEETING THE REQUIREMENTS SPECIFIED HEREIN.
- EQUIPMENT FOR MIXING, PUMPING AND HOLDING GROUT SHALL BE IN A SECURE LOCATION AND SHALL BE OPERATED TO MINIMIZE SPILLAGE OF MATERIAL.
- CONTRACTOR SHALL ENSURE CONTINUOUS SPOIL RETURN DURING ALL JET GROUTING OPERATIONS.
- ANY JET GROUT HOLE LOST OR DAMAGED SHALL BE BACKFILLED WITH CEMENT GROUT AND REPLACED BY ANOTHER HOLE, AT NO ADDITIONAL COST TO THE OWNER.
- ALL JET GROUTING SHALL BE PERFORMED UNDER THE OBSERVATION OF THE ENGINEER.
- SOIL SHALL BE IMPROVED TO THE DESIRED COMPRESSIVE STRENGTH AS SHOWN ON THESE DRAWINGS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO DESIGN A GROUT MIX AND INSTALLATION PROCEDURE TO ATTAIN THE DESIRED SOILCRETE STRENGTH.
- CONTRACTOR SHALL SUBMIT TO THE OWNER'S REPRESENTATIVE BEFORE THE START OF WORK
  - GROUT MIX DESIGN INDICATING SOURCES AND TYPES OF GROUT MATERIALS.

3.2 WORK PROCEDURES, SEQUENCE AND CONTROL CRITERIA.  
3.3 A WORK PROCEDURES PLAN OUTLINING THE SPACING, LOCATION, DEPTH AND QUANTITY OF GROUT TO ACHIEVE THE CRITERIA DETAILED IN THESE DRAWINGS.

- CONTRACTOR SHALL SUBMIT DAILY RECORDS FOR EACH GROUT LOCATION INCLUDING DEPTH OF TREATMENT, START AND STOP TIMES, ALL JETTING PARAMETERS AND GROUT INJECTED.
- ALL JET GROUTING SHALL BE PERFORMED UNDER THE INSPECTION OF THE ENGINEER.
- GROUT INJECTION AND MONITOR AND EXTRACTION RATES SHALL BE SUFFICIENT TO PRODUCE GROUT COLUMNS MEETING THE REQUIREMENTS SPECIFIED HEREIN.
- EQUIPMENT FOR MIXING, PUMPING AND HOLDING GROUT SHALL BE IN A SECURE LOCATION AND SHALL BE OPERATED TO MINIMIZE SPILLAGE OF MATERIAL.
- ENSURE CONTINUOUS SPOIL RETURN DURING ALL JET GROUTING OPERATIONS.
- ANY JET GROUT HOLE LOST OR DAMAGED SHALL BE BACKFILLED WITH CEMENT GROUT AND REPLACED BY ANOTHER HOLE, AT NO ADDITIONAL COST TO THE OWNER.

## TESTING PROGRAM

- THE REQUIRED 28-DAY UNCONFINED COMPRESSIVE STRENGTH OF THE PRODUCT AS DETERMINED BY LABORATORY TESTING SHALL BE:
  - FILL ZONE (TO APPROXIMATELY 26-FT BELOW GROUND SURFACE (BGS)) - 1,000 LB/SQ. IN (PSI)
  - CLAY ZONE (TO APPROXIMATELY 35 BGS - 350 PSI
  - UPPER SAND ZONE TO APPROXIMATELY 50 BGS - 1,000 PSI
- CONTRACTOR SHALL GRAB SAMPLES DAILY FROM INSTALLED PRODUCT FROM DEPTHS WITHIN THE ABOVE MENTIONED ZONES AS REQUESTED BY OWNER'S ENGINEER.
- MINIMUM FOUR SAMPLES SHALL BE OBTAINED FROM EACH DEPTH FORMED INTO 3-IN DIAMETER BY 6-IN LONG CYLINDERS FOR LABORATORY TESTING. THE SAMPLES SHALL BE CONTAINED IN MOIST CONDITIONS ON SITE (NOT MORE THAN THREE DAYS) UNTIL SHIPPED TO THE LABORATORY TO BE DESIGNATED BY THE OWNER.
- JET GROUT COLUMNS FOR THE JET GROUT MAY EXTEND BELOW ELEVATION -50 IF REQUESTED OR APPROVED BY THE OWNER'S ENGINEER IN WRITING.
- IF SPECIFIED COMPRESSIVE STRENGTHS ARE NOT OBTAINED CONTRACTOR SHALL DEVELOP A CONTINGENCY PLAN INCLUDING INSTALLATION OF SETTLEMENT REDUCING PILES IF NECESSARY TO BE REVIEWED AND ACCEPTED BY THE OWNER'S ENGINEER. THE COST OF IMPLEMENTING THE CONTINGENCY PLAN SHALL BE BORNMA AT LOCATIONS SPECIFIED BY THE ENGINEER.
- AL TIE-DOWNS SHALL BE PROOF AND/OR PERFORMANCE TESTED IN ACCORDANCE WITH PTI RECOMMENDATIONS AND GUIDELINES.

## MATERIALS & TESTING

- THE OWNER/CONSTRUCTION MANAGER SHALL RETAIN THE SERVICES OF AN INDEPENDENT TESTING LABORATORY/COMPANY.
- CONCRETE PLACEMENT TIME SHALL NOT EXCEED 2-HOURS OR AS RECOMMENDED BY THE TESTING COMPANY.
- PERFORM ONE SLUMP TEST FOR EACH BATCH OF

CONCRETE. SLUMP SHALL BE BETWEEN 4- AND 6-INCHES FOR UNDERPINNING.

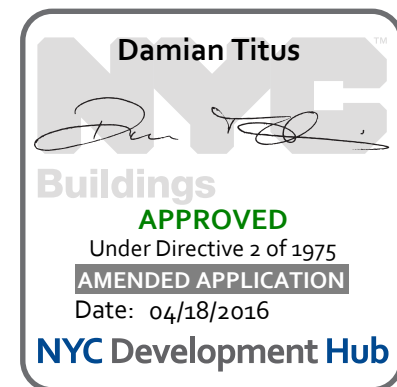
- MAKE A SET OF 5 (MINIMUM) CYLINDERS EACH DAY CONCRETE IS CAST FOR UNDERPINNING OR GROUT IS BEING PLACED FOR SOLDIER PILES.
- PERFORM COMPRESSION TEST ON 1 CYLINDER AT 7 DAYS AND 1 AT 14 DAYS. IF THE DESIGN STRENGTH IS ACHIEVED AT 14 DAYS, NO FURTHER TESTING IS REQUIRED. OTHERWISE TEST ONE OR TWO CYLINDERS, DEPENDING IF THE DESIGN STRENGTH IS ACHIEVED AT 28 DAYS. ONE OR TWO SAMPLES SHALL BE SAVED FOR 56 DAY TESTING IF THE PREVIOUS CYLINDERS FAIL TO MEET DESIGN STRENGTH REQUIREMENTS.
- PROVIDE TESTING RESULTS TO THE CONSTRUCTION MANAGER AND/OR OWNER.
- IF THE DESIGN STRENGTH REQUIREMENTS ARE NOT MET, THE CONTRACTOR SHALL PERFORM REMEDIATION AS DIRECTED BY THE CONSTRUCTION MANAGER, AT NO ADDITIONAL COST TO THE OWNER.
- ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AWS D1.1 USING E-70 ELECTRODES.
- ALL STRUCTURAL STEEL SHALL BE GRADE 50, ASTM A-572.
- 1-BAG MIX SHALL CONSIST OF 1-94 LB. BAG OF CEMENT TO 1 CY OF SAND. QUANTITY OF WATER SHALL BE ADEQUATE TO ALLOW THE MIX TO FLOW.
- TIMBER LAGGING SHALL BE ROUGH CUT, FULL SIZE CONSTRUCTION GRADE, WITH A MINIMUM ALLOWABLE BENDING STRESS OF 1200-PSI. TIMBER SIZES SHOWN ARE ACTUAL SIZES.
- MISCELLANEOUS STEEL (PLATES AND WEDGES) SHALL BE ASTM A36.

## SPECIAL INSPECTIONS

- A SPECIAL INSPECTOR AND/OR SPECIAL INSPECTION AGENCY SHALL HAVE RESPONSIBILITIES AS SET FORTH IN CHAPTER 17 OF THE NEW YORK CITY BUILDING CODE AND ELSEWHERE IN THE CODES WHERE SPECIAL INSPECTIONS ARE REQUIRED. THE RESPONSIBILITIES OF THE SPECIAL INSPECTOR OR SPECIAL INSPECTION AGENCY AT A SPECIAL INSPECTION SHALL INCLUDE THOSE TASKS AND STANDARDS SET FORTH IN CHAPTER 17 OF THE CODE, THE REFERENCE STANDARDS AND ELSEWHERE IN THE CODE, THIS RULE OR ANY RULE OF ANY AGENCY IN CONNECTION WITH THE WORK THAT IS THE SUBJECT OF SUCH SPECIAL INSPECTION.
- NECESSARY SPECIAL INSPECTIONS:
  - EXCAVATION - SHEETING, SHORING, AND BRACING.
  - SOIL - SITE PREPARATION.
  - SOIL - INVESTIGATION (BORINGS/TEST PITS).
  - STRUCTURAL STEEL - WELDING

## LIST OF DRAWINGS

1 OF 5	SOE-001	NOTES
2 OF 5	SOE-100	SUPPORT OF EXCAVATION PLAN
3 OF 5	SOE-200	SECTIONS
4 OF 5	SOE-201	SECTIONS
5 OF 5	SOE-201	DETAILS

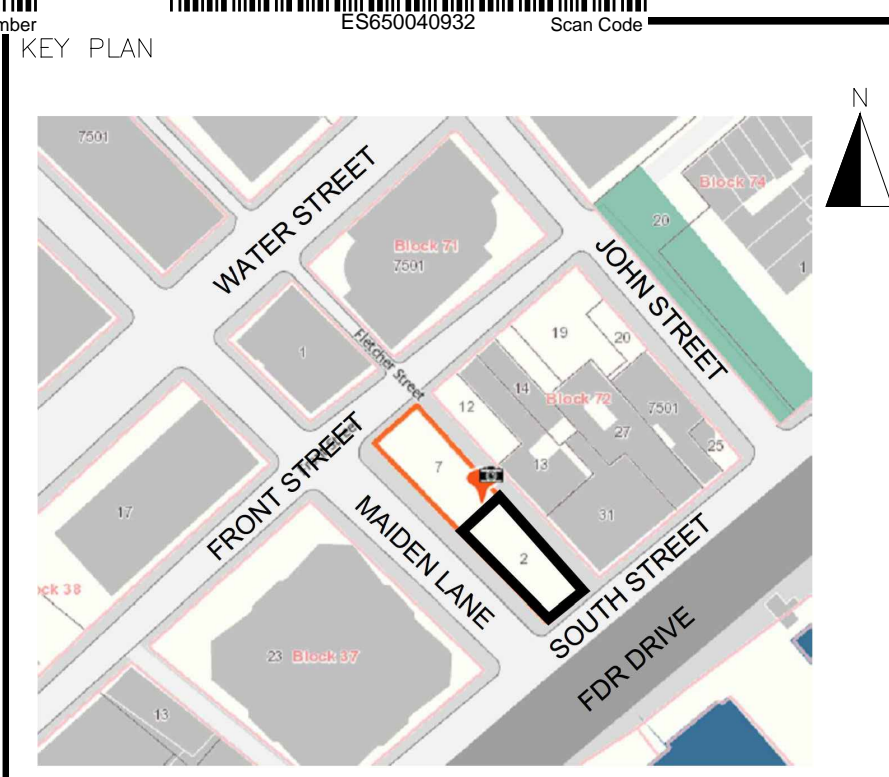


**RA CONSULTANTS LLC**  
Geotechnical Engineering  
512 SEVENTH AVENUE NEW YORK, NY 10018  
[7] 646.484.3250 [7] 646.484.3251 WWW.RACLLC.COM

SEAL AND SIGNATURE

DATE: MAY 5 2014  
PROJ. NO.: 13C1126  
DRAWN BY: JH  
CHECKED BY: NMA  
DRAWING: SOE-001  
SHEET: 1 OF 5










SOURCE: OASISNYC.NET  
NOT TO SCALE

BLOCK 72  
LOT 2

NOTE:

1. REFER TO DRAWING NUMBER SOE-001 FOR NOTES AND LIST OF DRAWINGS.

LEGEND:	
	LB-X APPROXIMATE BORING LOCATION BY LANGAN
	LB-X(OW) APPROXIMATE BORING LOCATION BY LANGAN WITH OBSERVATION WELL
	B-X APPROXIMATE BORING LOCATION BY RA CONSULTANTS LLC
	+X.X APPROXIMATE GROUND WATER TABLE ELEVATION
	PROPOSED ROCK ANCHORS, REFER TO STRUCTURAL DRAWINGS FOR DETAILS.

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2	3/14/2016	POST APPROVAL AMENDMENT
1	5/11/2015	POST APPROVAL AMENDMENT
	12/19/2014	UPDATED STRUCTURAL DRAWINGS
	9/2/2014	ISSUED FOR FILING
	8/21/2014	UPDATED SOE SYSTEM
REV.	DATE	DETAILS


PROJECT

161 MAIDEN LANE  
NEW YORK, NY

## SUPPORT OF EXCAVATION PLAN

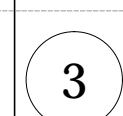
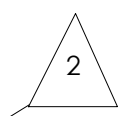
 **RA CONSULTANTS LLC**  
*Geotechnical Engineering*

512 SEVENTH AVENUE NEW YORK, NY 10018  
[T] 646 484 3250 [F] 646 484 3251 [WWW.RACLIC.COM](http://WWW.RACLIC.COM)

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	DRAWING:
	SOE-100.02
	SHEET: 2 OF 5

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BLOCK 72  
LOT 2

1. REFER TO DRAWING NUMBER SOE-001 FOR NOTES AND LIST OF DRAWINGS.
2. REFER TO DRAWING NUMBER SOE-100 FOR PLAN, LEGEND AND INSTALLATION PROCEDURE

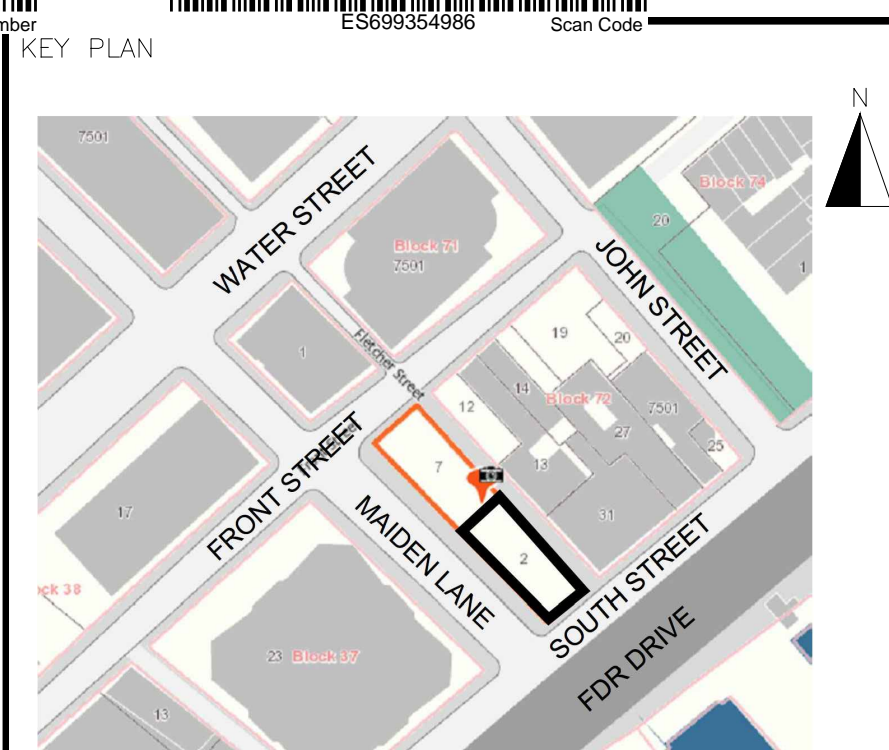
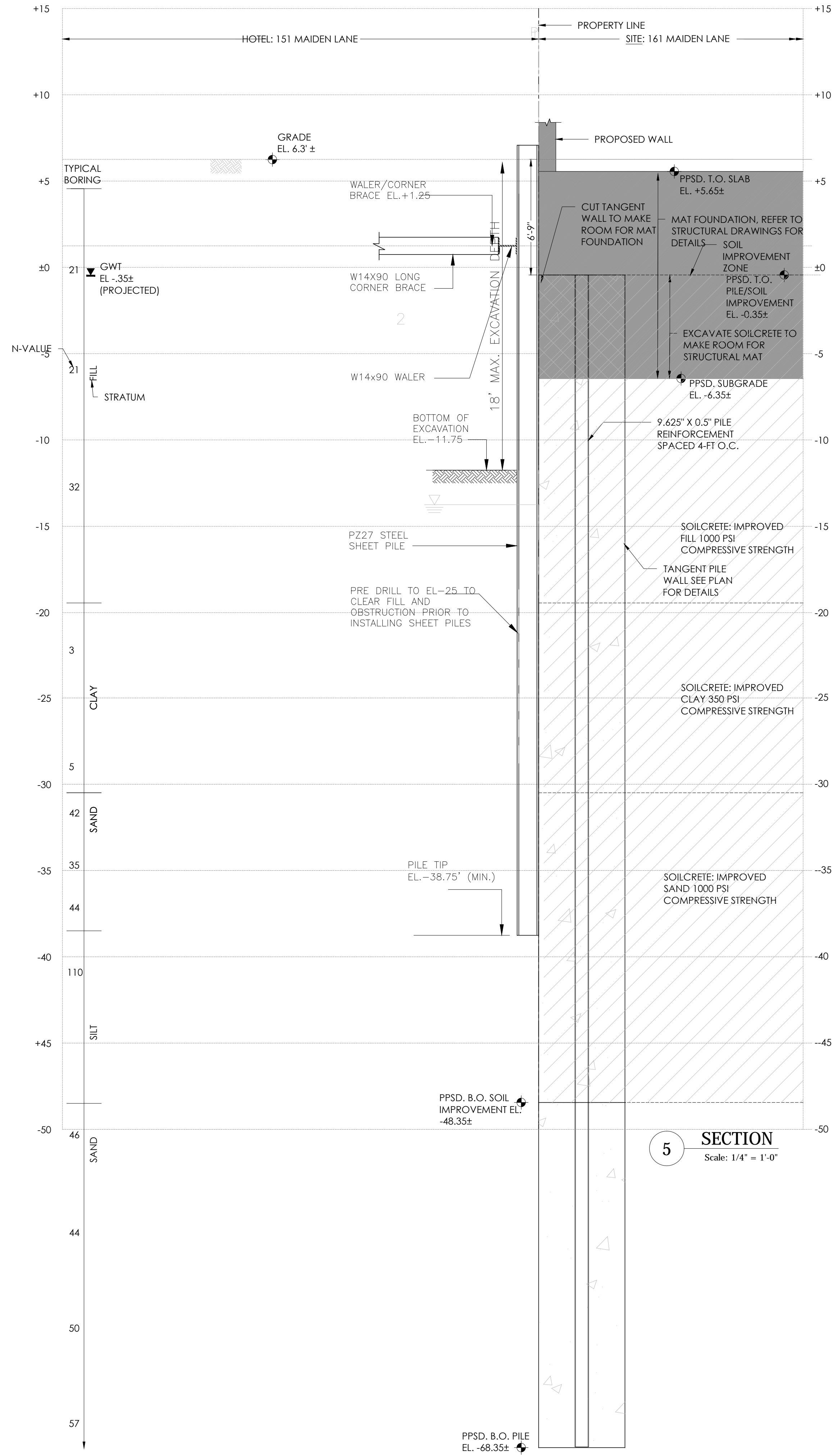
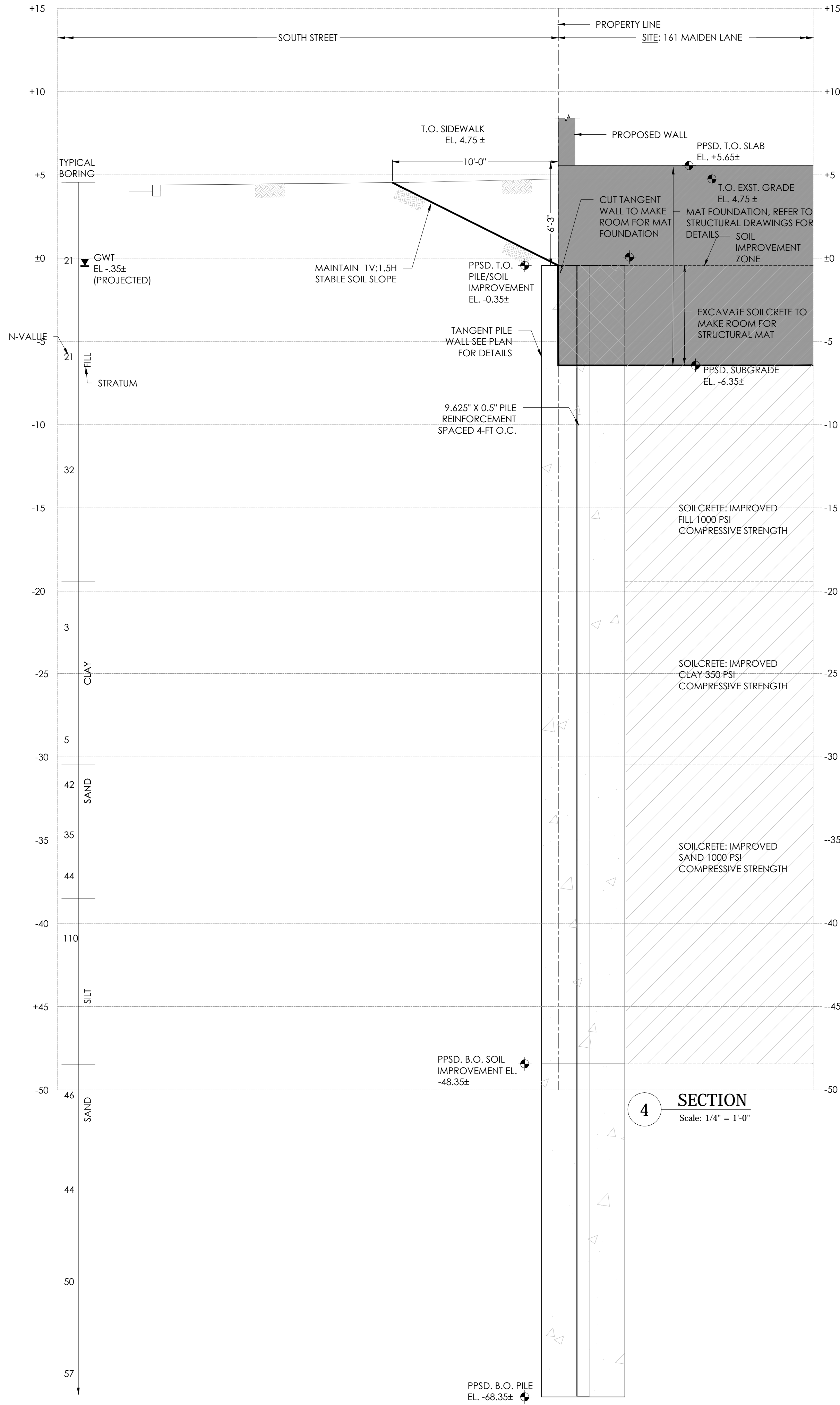
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 <p><b>RA CONSULTANTS LLC</b>  <i>Geotechnical Engineering</i></p> <p>512 SEVEN AVENUE          (T) 646.484.3250</p>	<p><b>NEW YORK, NY 10018</b>  <a href="http://WWW.RAELLCC.COM">WWW.RAELLCC.COM</a></p>
<p>SEAL AND SIGNATURE</p> 	<p>DATE: MAY 5 2014</p> <p>PROJ. NO.: 13C1126</p> <p>DRAWN BY: JH</p> <p>CHECKED BY: NMA</p> <p>DRAWING:</p> <p><b>SOE-200.01</b></p> <p>SHEET: 3 OF 5</p>

SEAL AND SIGNATURE	DATE: MAY 5 2014
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BLOCK 72  
LOT 2

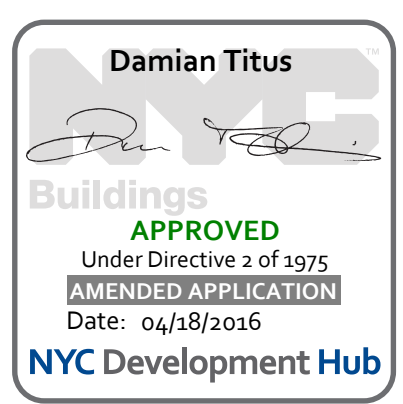
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REV.	DATE	DETAILS
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PROJECT  
**161 MAIDEN LANE  
NEW YORK, NY**

TITLE  
**SUPPORT OF EXCAVATION  
SECTIONS**

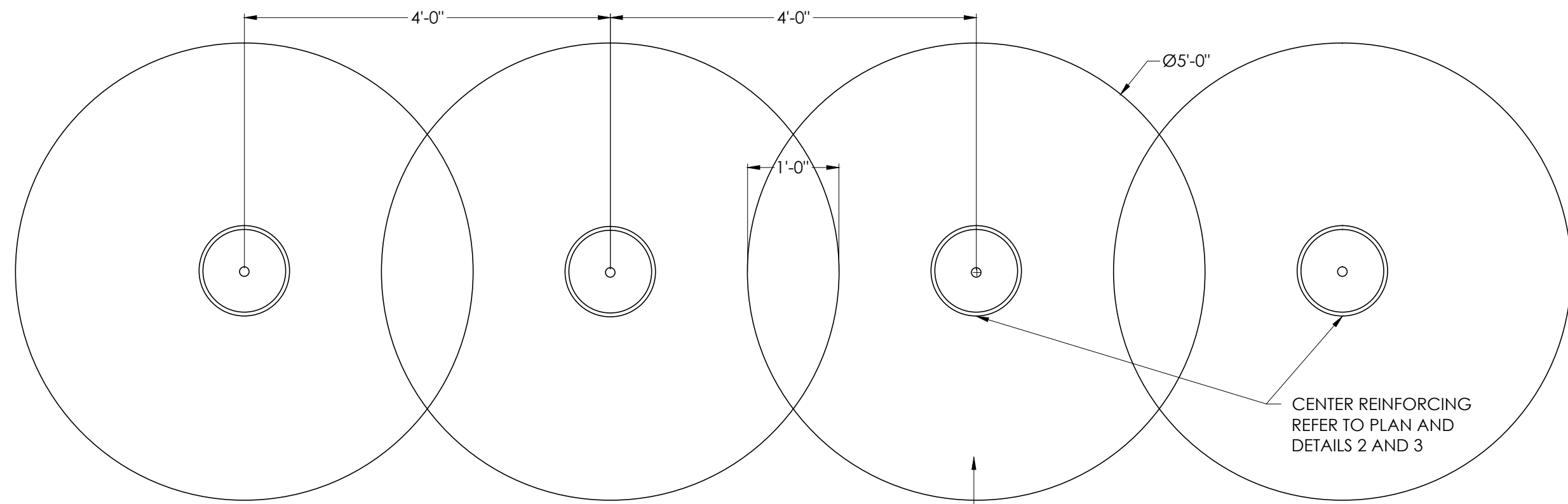


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Geotechnical Engineering  
512 SEVENTH AVENUE NEW YORK, NY 10018  
(T) 646.484.3250 (F) 646.484.3251 WWW.RACLCC.COM

SEAL AND SIGNATURE  
  
DATE: MAY 5 2014

PROJ. NO.: 13C1126  
DRAWN BY: JH  
CHECKED BY: NMA  
DRAWING:  
**SOE-201.01**  
SHEET: 4 OF 5

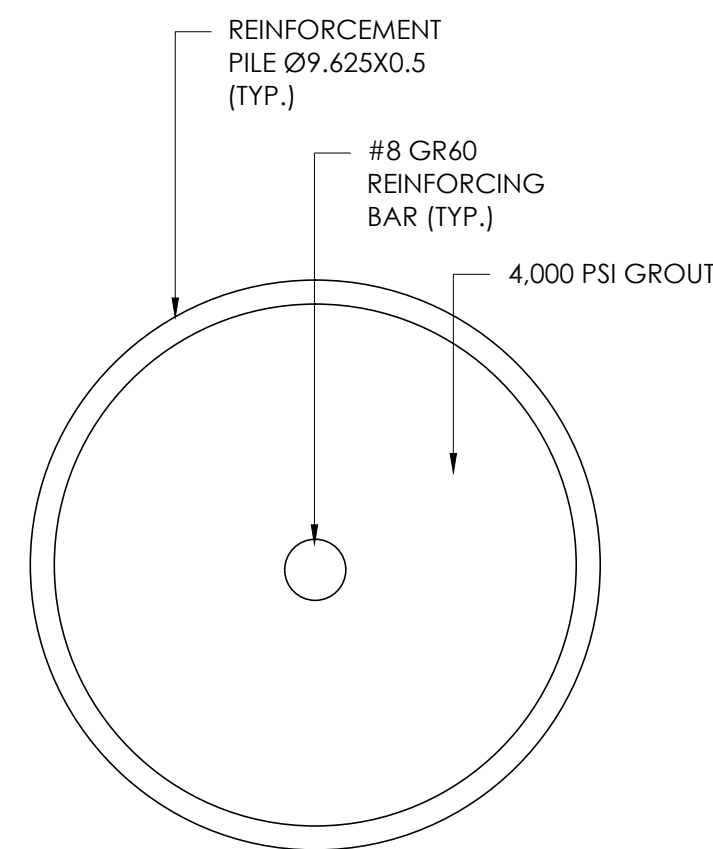




- NOTES:
1. REFER TO PLAN FOR ROCK ANCHOR LOCATIONS.
  2. REFER TO DETAIL 2 FOR WALL REINFORCING.
  3. REFER TO DETAIL 4 FOR ROCK ANCHOR.

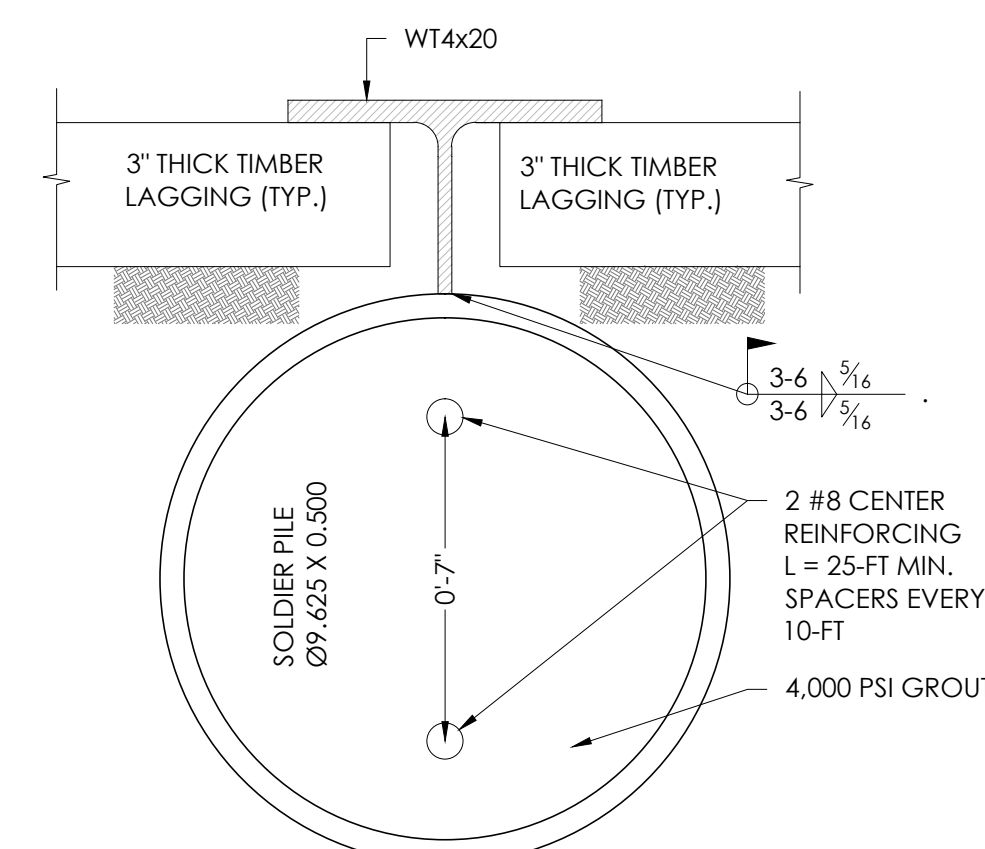
PERIMETER PILE WALL DETAIL  
NOT TO SCALE

1



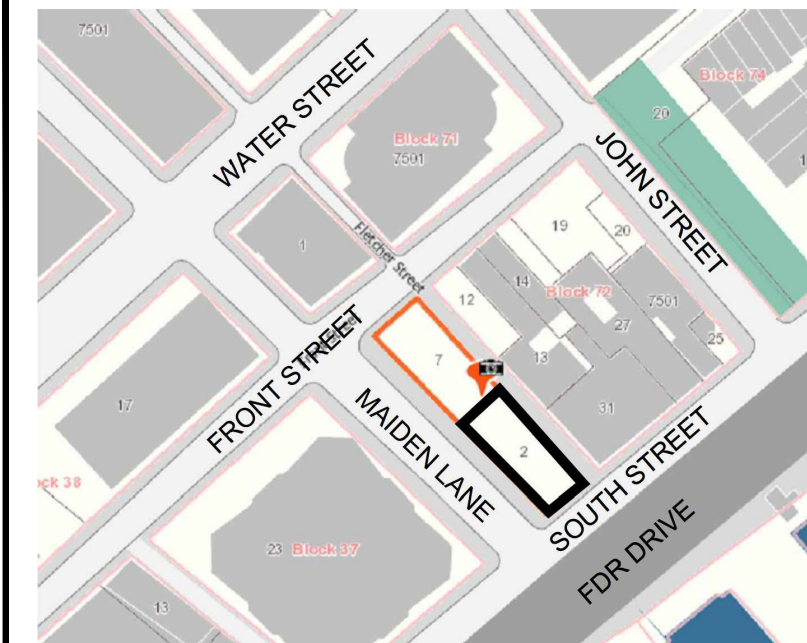
PERIMETER WALL REINFORCING  
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2



SOLDIER PILE DETAIL (TYP.)  
NOT TO SCALE

3



SOURCE: OASISNYC.NET  
NOT TO SCALE

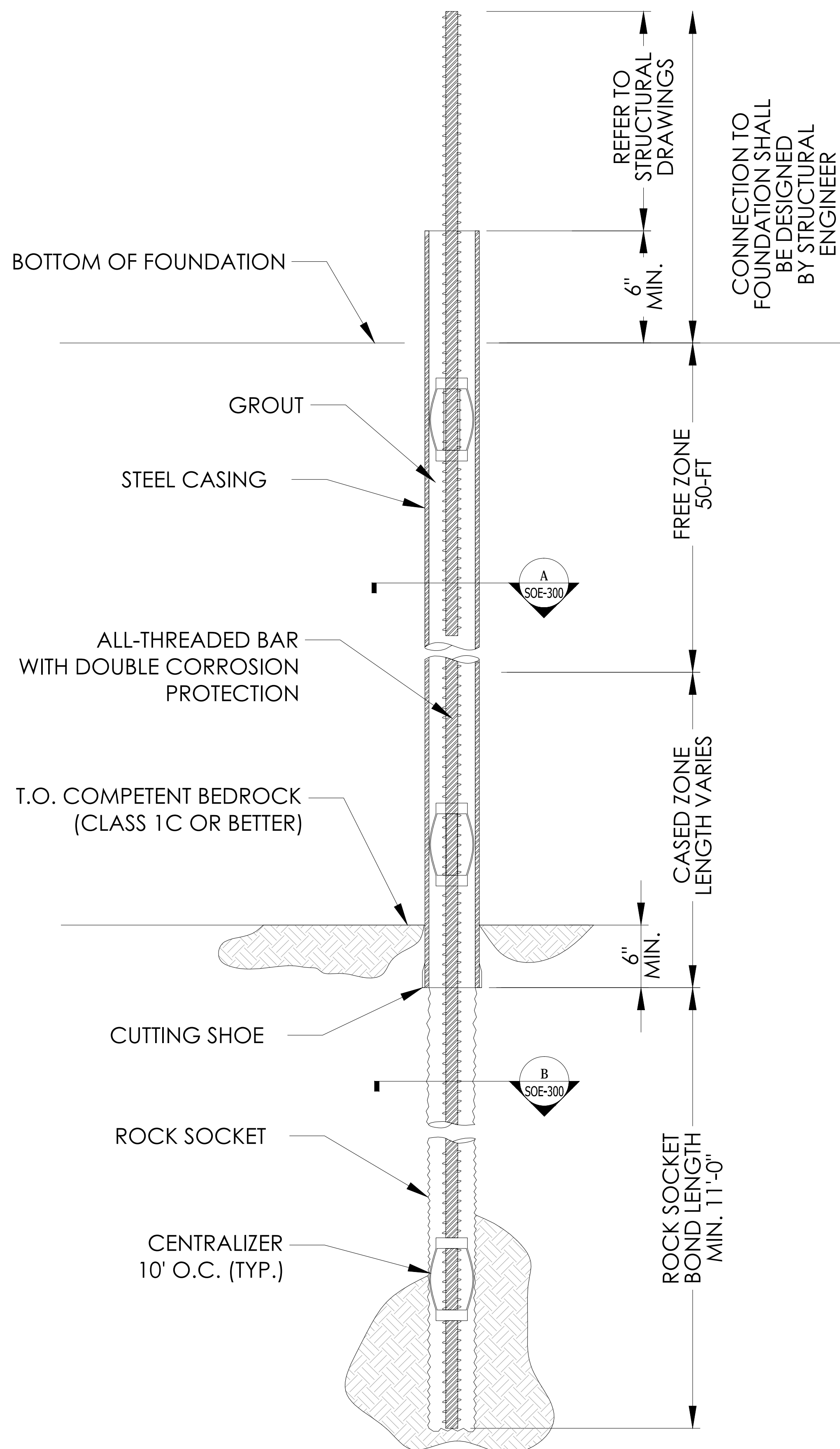
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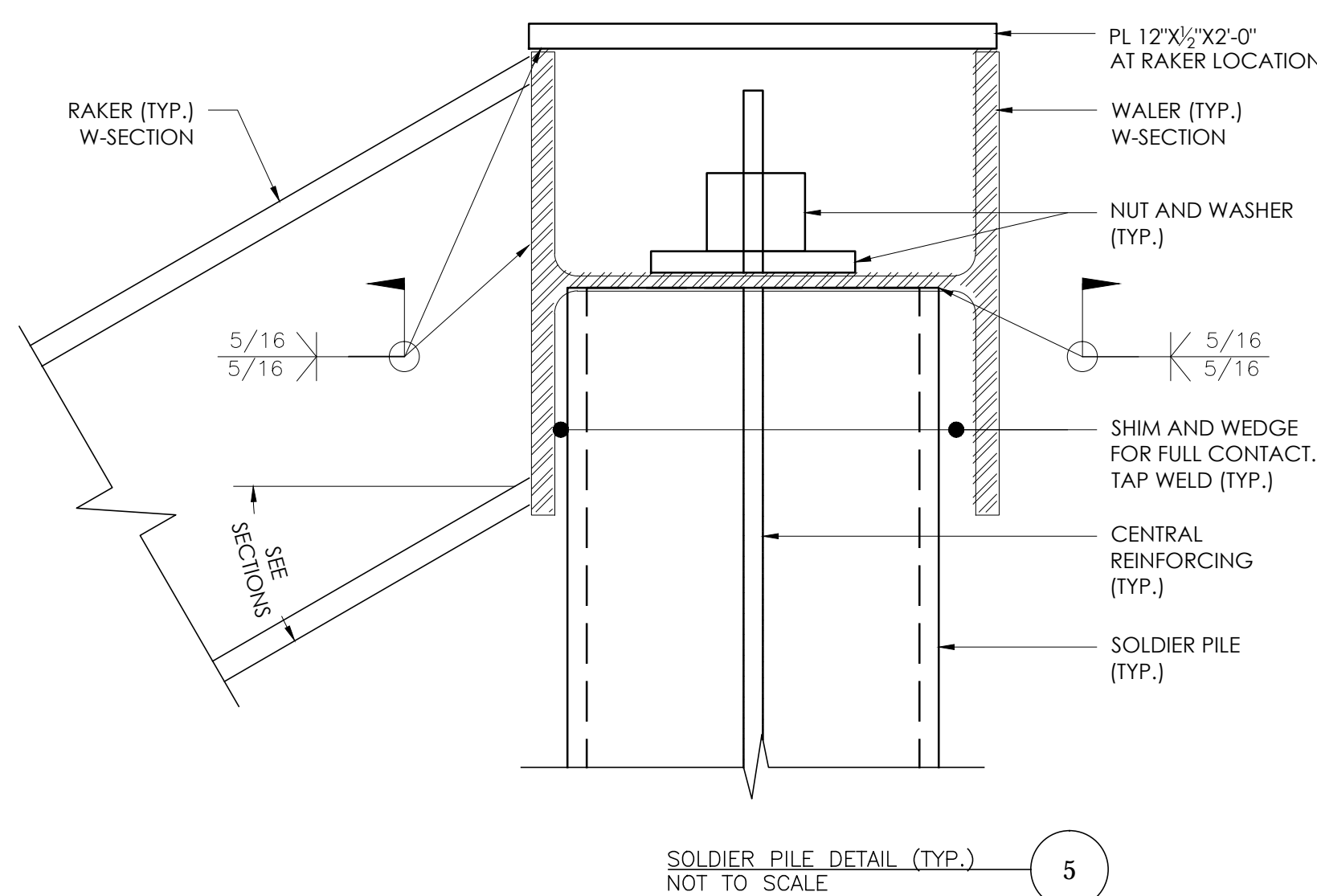
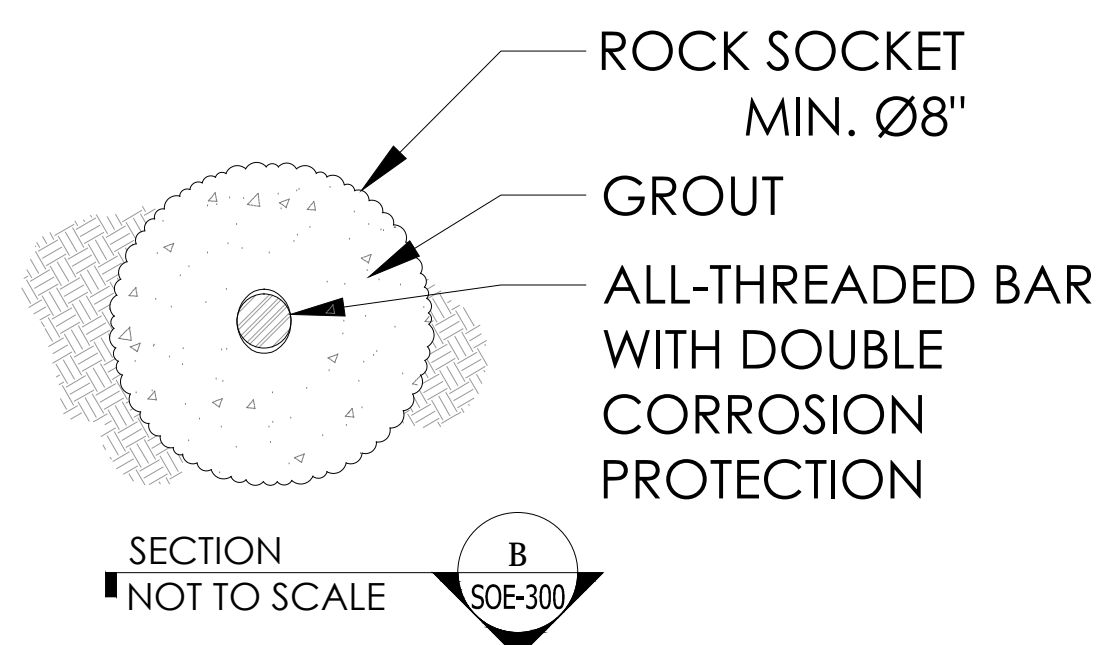
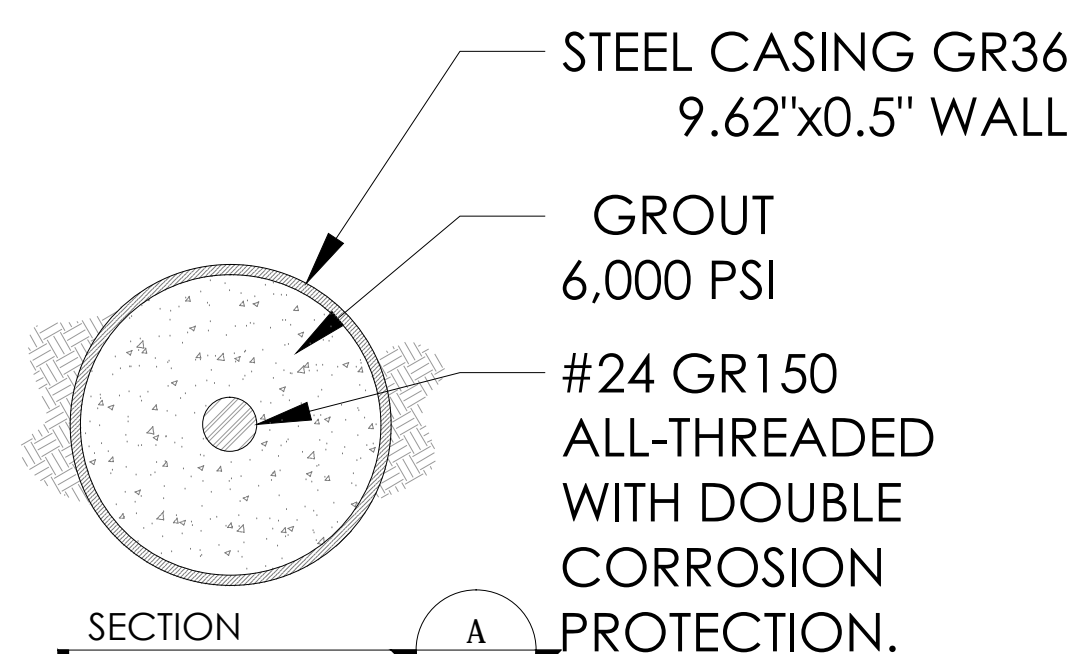
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2



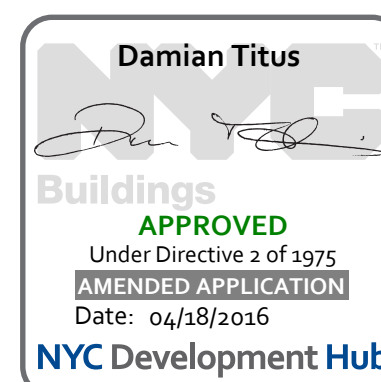
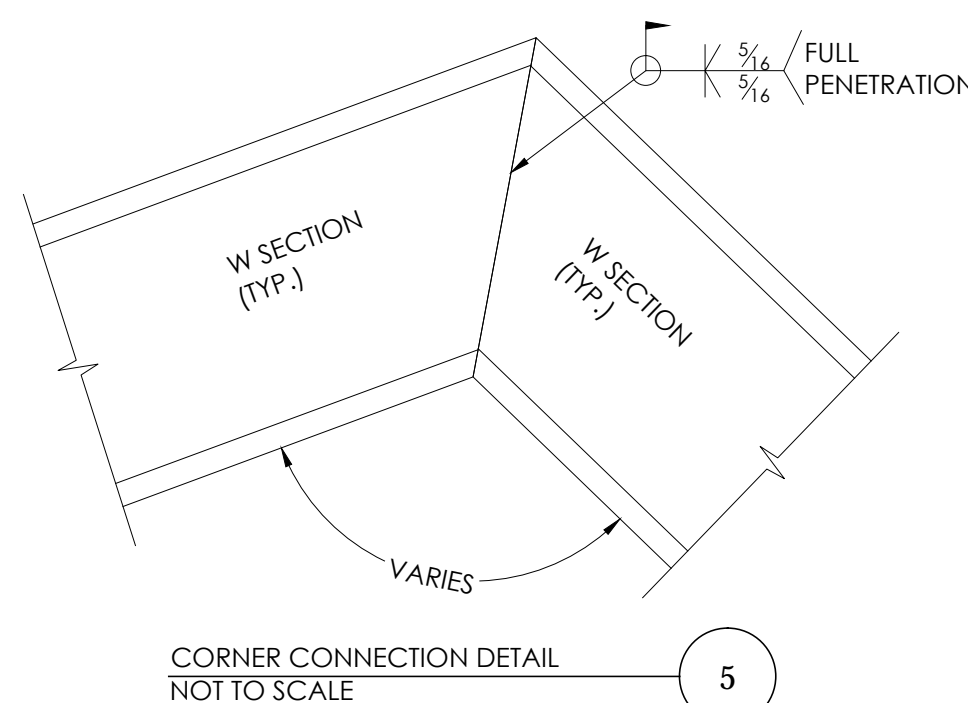
580-KIP ROCK ANCHOR  
NOT TO SCALE

4



SOLDIER PILE DETAIL (TYP.)  
NOT TO SCALE

5



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REV.	DATE	DETAILS
2	3/14/2016	POST APPROVAL AMENDMENT
1	5/11/2015	POST APPROVAL AMENDMENT
	12/19/2014	UPDATED STRUCTURAL DRAWINGS
	9/2/2014	ISSUED FOR FILING
	8/21/2014	UPDATED SOE SYSTEM

PROJECT  
**161 MAIDEN LANE  
NEW YORK, NY**

TITLE  
**SUPPORT OF EXCAVATION  
DETAILS**

**RA CONSULTANTS LLC**  
Geotechnical Engineering  
512 SEVENTH AVENUE NEW YORK, NY 10018  
(T) 646.484.3250 (F) 646.484.3251 WWW.RACLCC.COM

SEAL AND SIGNATURE DATE: MAY 5 2014

PROJ. NO.: 13C1126

DRAWN BY: JH

CHECKED BY: NMA

DRAWING:

**SOE-300.02**

SHEET: 5 OF 5