BRACING PLAN AT ELEVATION +2'-0"

NO BASEMENT

SPREAD FOOTING

GENERAL NOTES

- 1. All work to be performed in accordance with the requirements of N.Y.C. Building
- 2. Dimensions may vary due to field conditions. Contact engineer with any discrepancy
- in dimensions on these drawings. 3. Existing construction and utilities to be located prior to the start of tieback operations.
- 4. Structural members shall have equivalent strength (or better) to those shown on the drawings
- 5. Steel to be 50 KSI steel (or better).
- 6. Welding rods to be type E-70.
- 7. Tangent Wall shall be drilled with lien cement grout to provide water tightness. 7. Probe sidewalk and streets as necessary to locate unforeseen obstructions
- and utilities. 8. No earthwork within the property line shall commence unless the permit holder notifies the Department at least twenty-four(24) hours but no more than forty-eight(48)
- hours prior to the commencement of such work. 9. The Commissioner may issue a stop work order if there is a failure to provide notice
- as required in this section and if work is found to violate any of the provisions of the Building Code.

MONITORING NOTES

- 1. OWNER SHALL PERFORM A PRE-CONSTRUCTION SURVEY (ASSESSMENT AND DOCUMENTATION OF EXISTING CONDITIONS) AND BENCHMARK SURVEYS OF ADJOINING PROPERTIES AND STRUCTURES.
- 2. PRIOR TO START OF EXCAVATION INSTALL MONITORING POINTS AS SHOWN ON, THIS DRAWING. ALL ADJACENT STRUCTURES SHALL BE MONITORED AND DEFLECTION IN ACCORDANCE WITH SECTION 3309.6 OF THE 2008 NEW YORK CITY CONSTRUCTION CODES. ADDITIONAL POINTS FOR HORIZONTAL AND VERTICAL MONITORING SHALL BE INSTALLED AT SOE STRUCTURES (TANGENT WALL).
- 3. SUBMIT MONITORING DATA FOR REVIEW BY S.O.E. DESIGN APPLICANT BASED ON THE FOLLOWING CRITERIA:
- OPTICAL DATA SHALL BE COLLECTED EVERY MONDAY, WEDNESDAY AND FRIDAY DURING THE EXCAVATION / S.O.E. PHASE AND FORWARDED TO S.O.E. DESIGN APPLICANT FOR REVIEW UNLESS OTHERWISE DIRECTED BY S.O.E. DESIGN APPLICANT.
- ADDITIONAL MONITORING SHALL BE PERFORMED BY INDEPENDENT NYS LICENSESED SYRVEYOR.
- NOTIFY SOE ENGINEER IF ANY MOVEMENT EXCEED ¼"
- ALL WORK SHALL BE STOPPED AND S.O.E. ENGINEER IMMEDIATELY SHOULD BE
- NOTIFIED IF ANY OF THE FOLLOWING THRESHOLDS BE MET: *VERTICAL DEFLECTION OF ADJACENT STRUCTURE EXCEEDS 3/8"
- *HORIZONTAL DEFLECTION SHALL BE ANALYZED IN COORDINATION WITH VERTICAL DEFLECTION BY EOR

SPECIAL INSPECTIONS:

Owner will engage and pay for independent testing agency to perform the following inspections: concrete-cast in place BC1704.4,

excavation, shoring and bracing BC1704.19, BC3306.6.

<u>KEY</u>

- 3 = SECANT WALL PILE #
- = TANGENT WALL PILE #
- = 36"Ø CAISSON#
- = VIBRATION MONITORING POINTS (BY TA)
- = OPTICAL MONITORING POINTS AT ADJACENT BUILDING

VS 125 LL c/o BIZZI & PARTNERS DEVELOPMENT LLC 55 East 59th Street New York, NY 10022

THAMES ST.

EXECUTIVE ARCHITECT SLCE ARCHITECTS, LLP 1359 Broadway New York, NY 10018 Tel (212) 979-8400 Fax (212) 979-8387

RAFAEL VINOLY ARCHITECTS PC 50 Vandam Street New York, NY 10013

DESIGN ARCHITECT

Tel: 212 924 5060 Fax: 212 924 5858 STRUCTURAL ENGINEER

DESIMONE CONSULTING ENGINEERS 18 West 18th Street

New York, NY 10011 Tel: 212 532 2211 Fax: 212 481 6108

— MEP/FP ENGINEER COSENTINI ASSOCIATES Two Pennsylvania Plaza

New York, NY 10121 Tel: 212 615 3606 Fax: 212 615 3700 GEOTECH + CIVIL CONSULTANT LANGAN ENGINEERING

619 River Drive Center 1 Elmwood Park, NJ 07407 Tel: 201 794 6900 Fax: 201 794 0366

VERTICAL TRANSPORTATION CONSULTANT VAN DUESEN & ASSOCIATES 5 Regents Street, Suite 524 Livingston, NJ 07039

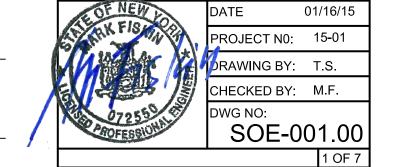
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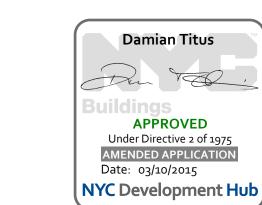
__ CONTRACTOR: FOUNDATION/ ENGINEERING, LLC. 32-33 111th Street, P.O. Box 690158 East Elmhurst, New York 11369 Phone: 718-478-3021 Fax: 718-397-1917

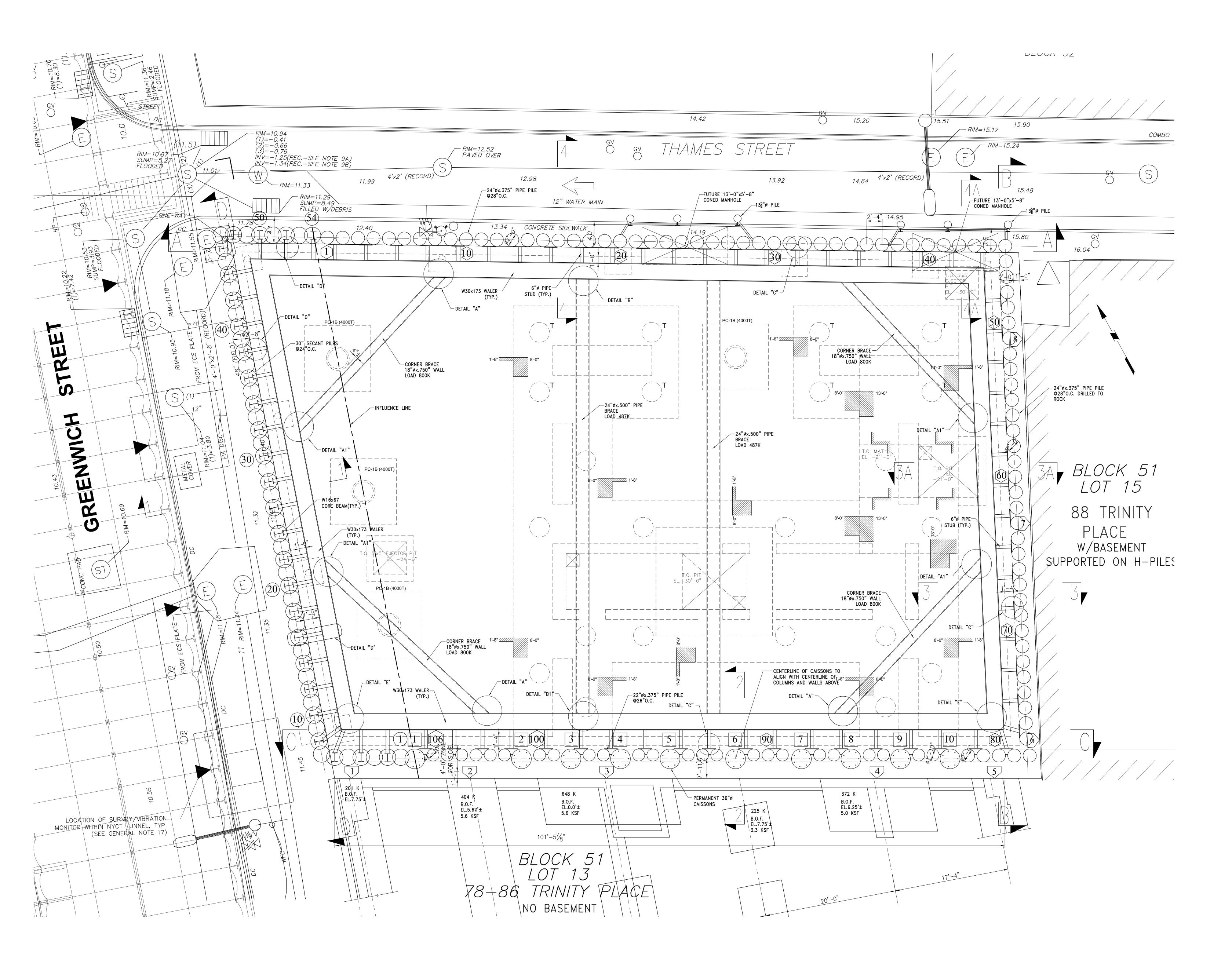
22 THAMES

NEW YORK, NY

SUPPORT OF EXCAVATION PLAN BRACING AT ELEVATION +2'-0"







BRACING PLAN AT ELEVATION -11'-0"

ob Number ES771838804 Scan Code

THAMES ST.

- CREENWICH ST.

VS 125 LL c/o BIZZI & PARTNERS DEVELOPMENT LLC 55 East 59th Street New York, NY 10022

EXECUTIVE ARCHITECT
SLOE ARCHITECTS, LLP
1359 Broadway
New York, NY 10018
Tel (212) 979-8400 Fax (212) 979-8387

DESIGN ARCHITECT

RAFAEL VINOLY ARCHITECTS PC
50 Vandam Street
New York, NY 10013
Tel: 212 924 5060 Fax: 212 924 5858

DESIMONE CONSULTING ENGINEERS

18 West 18th Street
New York, NY 10011
Tel: 212 532 2211 Fax: 212 481 6108

MEP/FP ENGINEER

COSENTINI ASSOCIATES

Two Pennsylvania Plaza

New York, NY 10121

Tel: 212 615 3606 Fax: 212 615 3700

GEOTECH + CIVIL CONSULTANT

LANGAN ENGINEERING

619 River Drive Center 1

Elmwood Park, NJ 07407

Tel: 201 794 6900 Fax: 201 794 0366

VERTICAL TRANSPORTATION CONSULTANT

VAN DUESEN & ASSOCIATES

5 Regents Street, Suite 524 Livingston, NJ 07039 Tel: 973 994 9220 Fax: 619 474 6757

DOB BSCAN:

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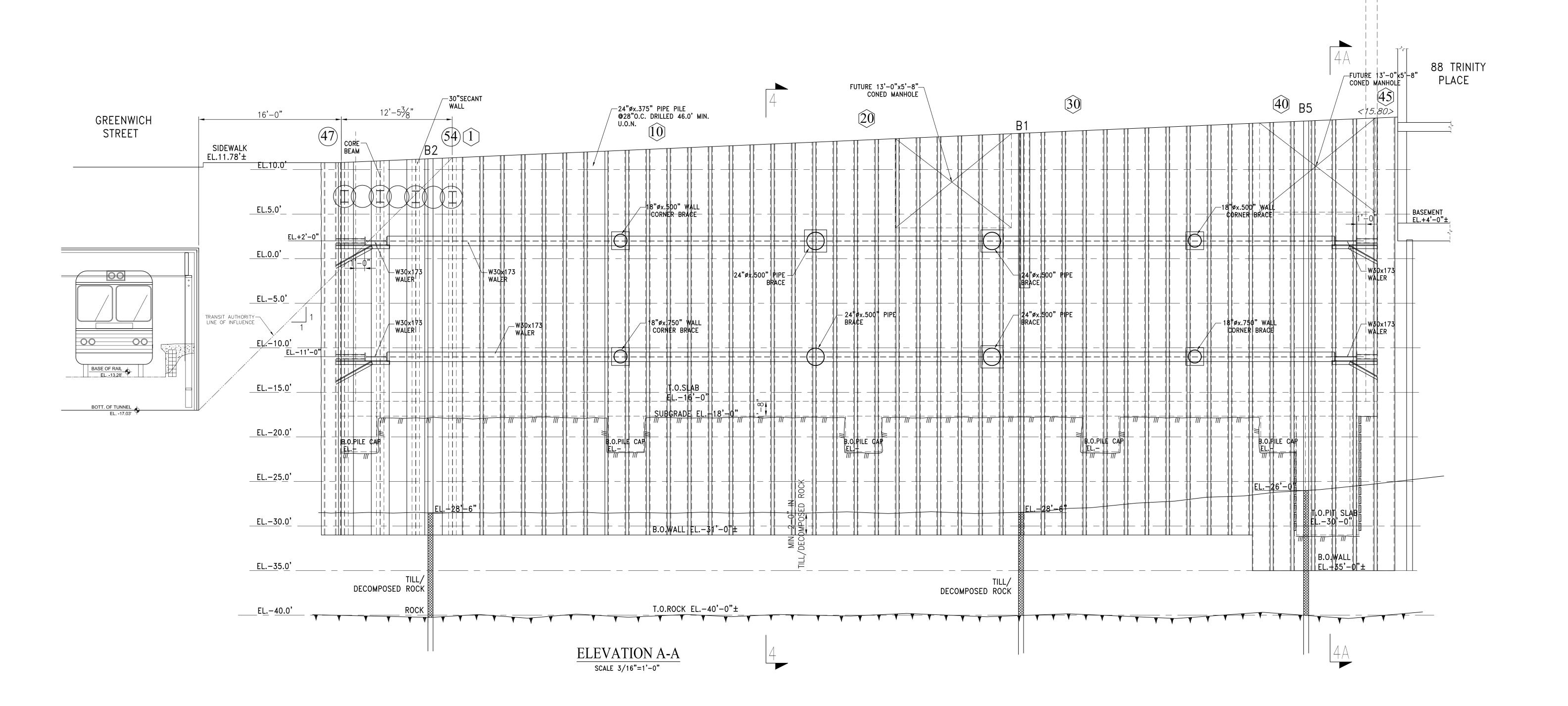
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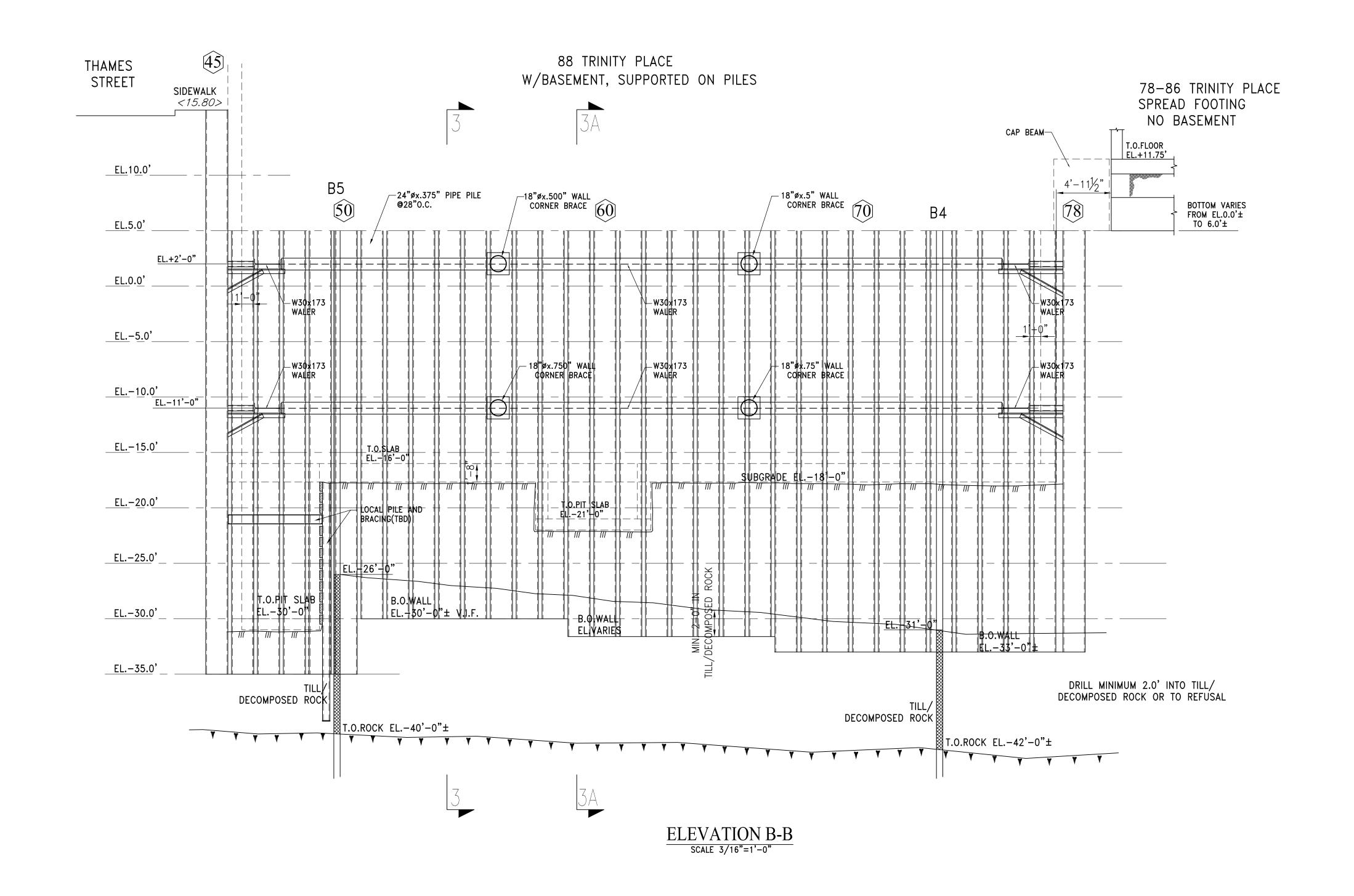
SUPPORT OF EXCAVATION PLAN BRACING AT ELEVATION -11'-0"



Damian Titus

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 SLCE ARCHITECTS, LLP
 1359 Broadway
 New York, NY 10018
 Tel (212) 979-8400 Fax (212) 979-8387

DESIGN ARCHITECT

RAFAEL VINOLY ARCHITECTS PC

50 Vandam Street

New York, NY 10013

Tel: 212 924 5060 Fax: 212 924 5858

- STRUCTURAL ENGINEER
DESIMONE CONSULTING ENGINEERS
18 West 18th Street
New York, NY 10011

Tel: 212 532 2211 Fax: 212 481 6108

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Two Pennsylvania Plaza

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GEOTECH + CIVIL CONSULTANT
LANGAN ENGINEERING

619 River Drive Center 1
Elmwood Park, NJ 07407
Tel: 201 794 6900 Fax: 201 794 0366

VERTICAL TRANSPORTATION CONSULTANT
VAN DUESEN & ASSOCIATES

5 Regents Street, Suite 524

 Livingston, NJ 07039

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URBAN FOUNDATION/

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 32-33 111th Street, P.O. Box 690158

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Figure: 718-478-3021 Fax: 718-397-1917

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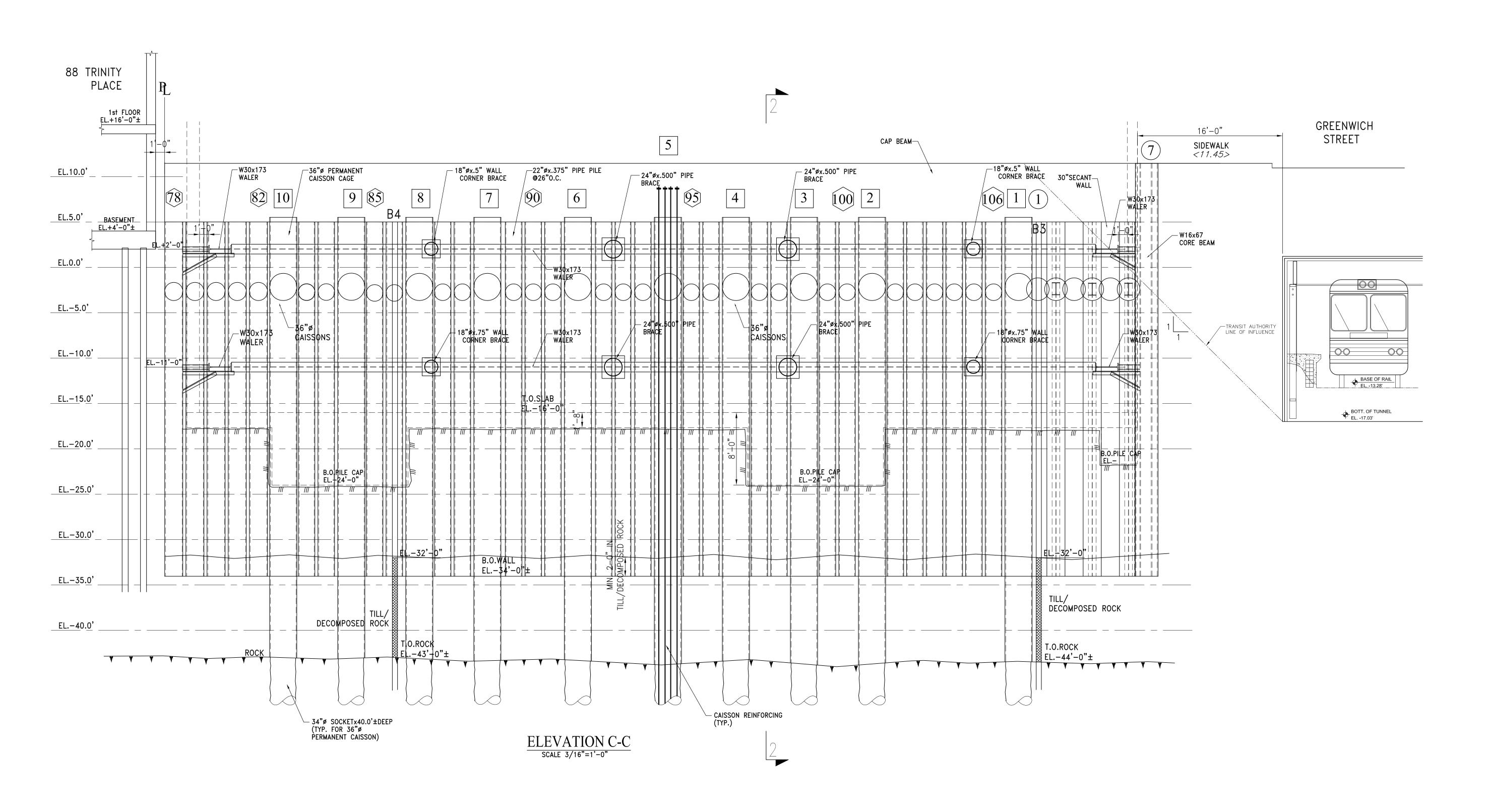
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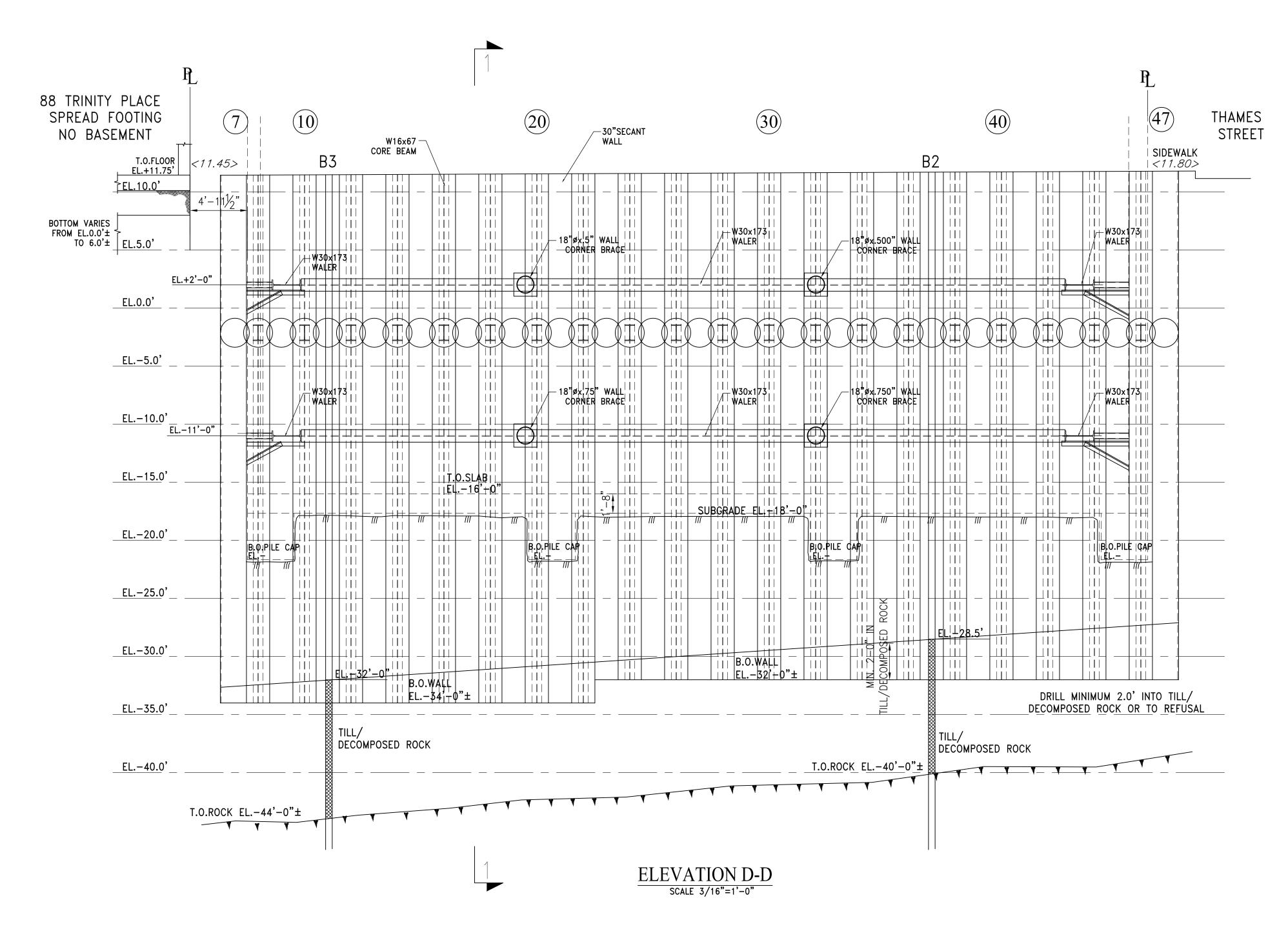
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SUPPORT OF EXCAVATION _ ELEVATIONS A-A, B-B









EXECUTIVE ARCHITECT

SLCE ARCHITECTS, LLP 1359 Broadway New York, NY 10018 Tel (212) 979-8400 Fax (212) 979-8387

DESIGN ARCHITECT
 RAFAEL VINOLY ARCHITECTS PC
 50 Vandam Street
 New York, NY 10013
 Tel: 212 924 5060 Fax: 212 924 5858

STRUCTURAL ENGINEER

DESIMONE CONSULTING ENGINEERS

18 West 18th Street

New York, NY 10011

Tel: 212 532 2211 Fax: 212 481 6108

— MEP/FP ENGINEER

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Two Pennsylvania Plaza
New York, NY 10121

GEOTECH + CIVIL CONSULTANT

LANGAN ENGINEERING

619 River Drive Center 1

Elmwood Park, NJ 07407

Tel: 201 794 6900 Fax: 201 794 0366

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VERTICAL TRANSPORTATION CONSULTANT

VAN DUESEN & ASSOCIATES

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Livingston, NJ 07039

— Tel: 973 994 9220 Fax: 619 474 6757

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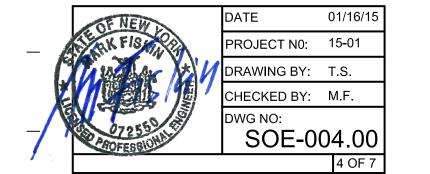
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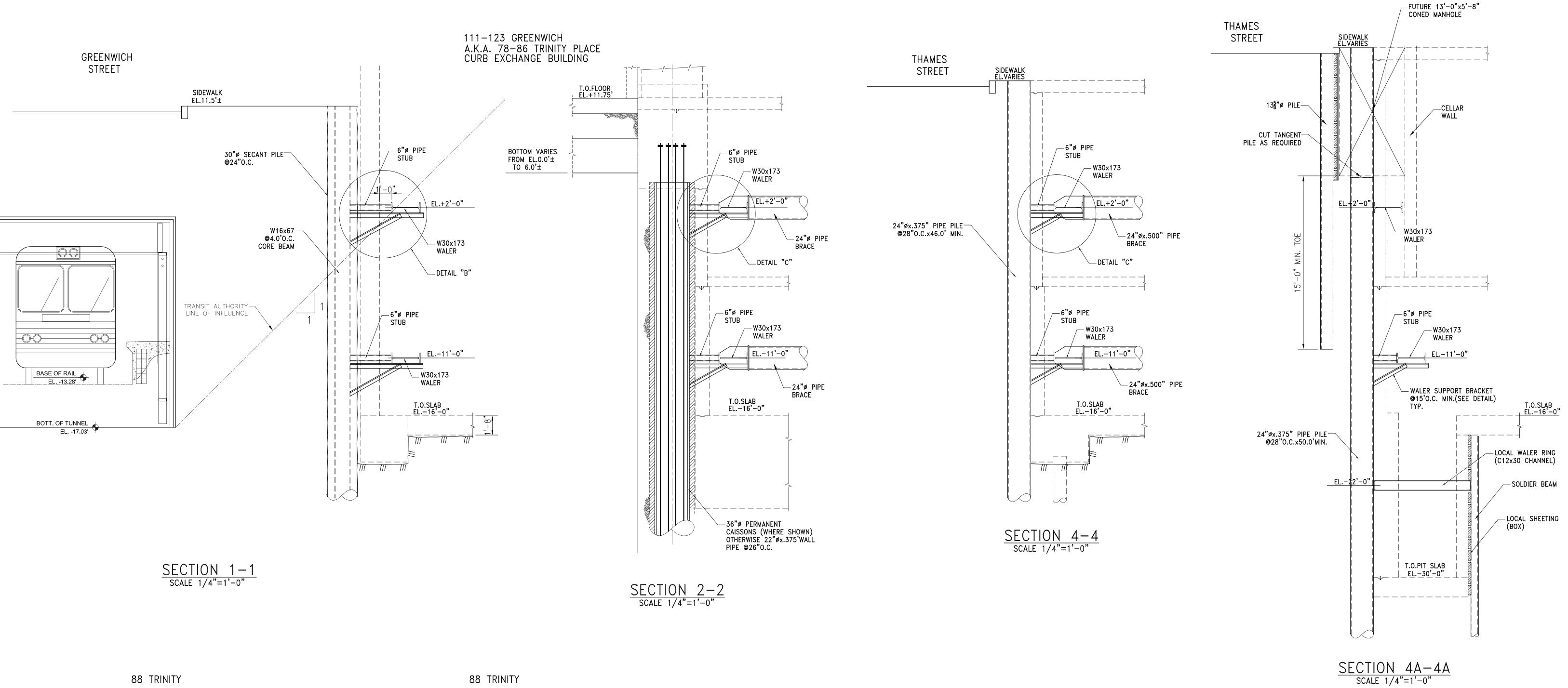
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SUPPORT OF EXCAVATION ELEVATIONS C-C, D-D





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VS 125 LL
c/o BIZZI & PARTNERS DEVELOPMENT LLC
55 East 59th Street
New York, NY 10022

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SLOE ARCHITECTS, LLP
1359 Broadway
New York, NY 10018
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50 Vandam Street
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COSENTINI ASSOCIATES

Two Pennsylvania Plaza
New York, NY 10121

Tel: 212 615 3606 Fax: 212 615 3700

GEOTECH + CIVIL CONSULTANT

LANGAN ENGINEERING
619 River Drive Center 1

Elmwood Park, NJ 07407

Tel: 201 794 6900 Fax: 201 794 0366

VERTICAL TRANSPORTATION CONSULTANT

VAN DUESEN & ASSOCIATES

5 Regents Street, Suite 524

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 Livingston, NJ 07039

 Tel: 973 994 9220 Fax: 619 474 6757
 DOB BSCAN:

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- URBAN
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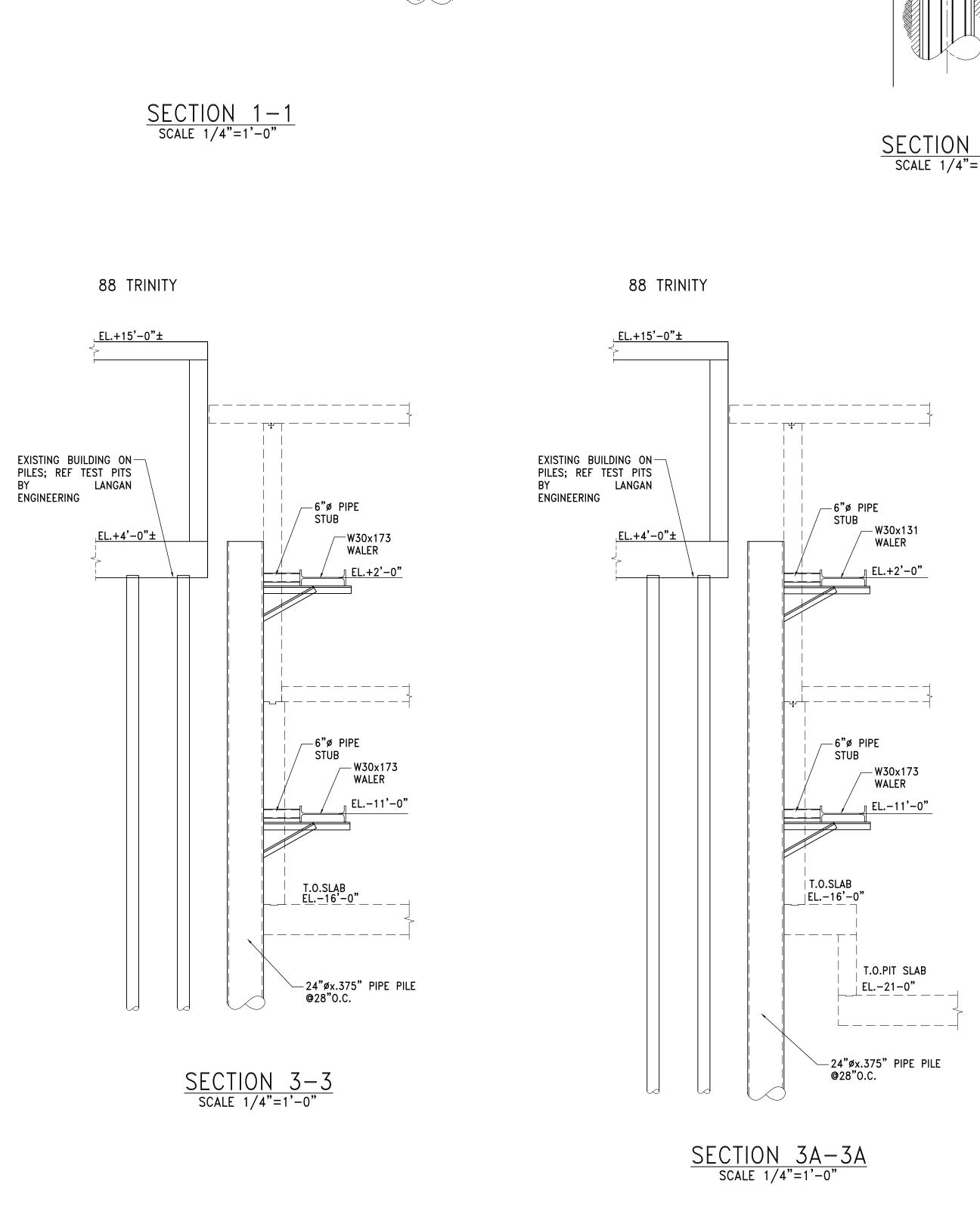
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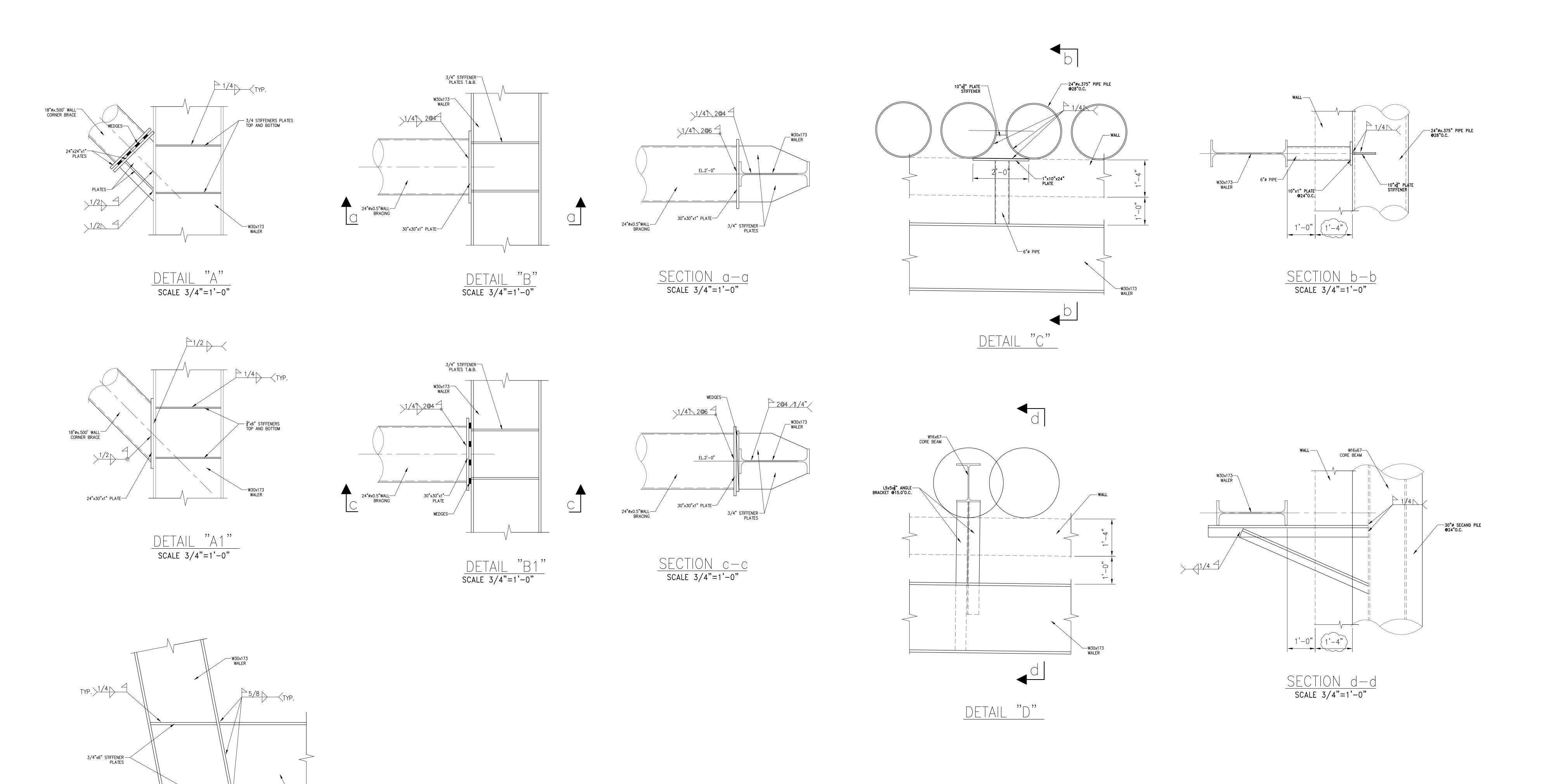
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DATE 01/16/15
PROJECT NO: 15-01
DRAWING BY: T.S.
CHECKED BY: M.F.

DWG NO: SOE-005.00

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AMENDED APPLICATION
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DETAIL "E"

SCALE 3/4"=1'-0"

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SUPPORT OF EXCAVATION DETAILS



2. ALL ROCK EXCAVATION ADJACENT TO THE TRANSIT STRUCTURE IS TO BE CHANNEL DRILLED TWO FEET BELOW SUBGRADE.

3. IF TOP OF ROCK IS FOUND BELOW SUBWAY STRUCTURE, THE SUBWAY STRUCTURE MUST BE UNDERPINNED IN ACCORDANCE WITH DRAWINGS TO BE SUBMITTED TO NYCT FOR APPROVAL.

4. IF ROCK IS SOFT OR SEAMY LATERAL SUPPORTS MUST BE PROVIDED BELOW THE SUBWAY STRUCTURE IN ACCORDANCE WITH DRAWINGS TO BE SUBMITTED TO NYCT FOR APPROVAL.

5. BLASTING WILL BE PERMITTED ONLY WITH LIGHT CHARGES SUBJECT TO THE APPROVAL OF NYCT'S ENGINEER AND IN ACCORDANCE WITH THE REGULATIONS OF THE FIRE DEPARTMENT. THE CONTRACTOR SHALL PROVIDE A DETAILED MONITORING PLAN, PROVIDING FOR MEASUREMENTS OF BOTH PARTICLE VELOCITY AND DISPLACEMENTS AT CRITICAL LOCATIONS OF THE NYCT STRUCTURE. THE MONITORING PLAN SHALL INCLUDE THRESHOLD AND UPSET LEVELS OF BOTH PARTICLE VELOCITY AND SETTLEMENT TOGETHER WITH AN ACTION PLAN FOR THEIR IMPLEMENTATION. THE CONTRACTOR SHALL SECURE AN APPROVED SEISMOLOGIST TO INSTALL AND OPERATE SUITABLE VELOCITY GAUGES TO CONTINUOUSLY MONITOR PARTICLE VELOCITY AND AN INDEPENDENT LICENSED SURVEYOR TO MONITOR DISPLACEMENTS. THE THRESHOLD MAXIMUM PARTICLE VELOCITY ABOVE AMBIENT CAUSED BY THE BLASTING WILL BE 0.5 INCH PER SECOND. VALUES EXCEEDING THIS LEVEL WILL BE REVIEWED AND EVALUATED BY NYCT'S ENGINEER. IN NO CASE WILL PARTICLE VELOCITIES EXCEED THE UPSET LEVEL OF 2.0 INCHES PER SECOND.

6. BEFORE PLACING CONCRETE. THE SUBGRADE OF THE FOUNDATIONS IN THE VICINITY OF THE SUBWAY STRUCTURE IS TO BE INSPECTED AND APPROVED BY NYCT'S ENGINEER.

7. IF ANY PORTION OF THE SUBWAY STRUCTURE OR FINISH IS DAMAGED. IT SHALL BE REPAIRED OR REPLACED WITH THE SAME MATERIALS IN PLACE. SUBJECT TO THE APPROVAL OF NYCT'S ENGINEER AND AT THE EXPENSE OF THE PROJECT.

8. EXCAVATION EMBANKMENTS ARE TO BE SHORED AND BRACED. DRAWINGS INDICATING A SUGGESTED METHOD OF CONSTRUCTION ARE TO BE SUBMITTED TO NYCT FOR APPROVAL IN CONJUNCTION WITH THE PROJECT'S CONTRACT DRAWINGS. IN CASE OF EXCAVATION UNDERMINING THE SUBWAY STRUCTURE, UNDERPINNING MAY BE REQUIRED. DRAWINGS FOR UNDERPINNING ARE TO BE SUBMITTED TO NYCT FOR APPROVAL.

9. TEMPORARY SHORING MAY BE PLACED IN DIRECT CONTACT WITH NYCT STRUCTURES ONLY IF THE NYCT STRUCTURE IS SHOWN TO BE ABLE TO SUPPORT ALL ANTICIPATED LOADS THAT CAN BE TRANSFERRED THROUGH THE TEMPORARY STRUCTURES WITHOUT DAMAGING THE EXISTING STRUCTURE. AT THE COMPLETION OF THE PROJECT, THE TEMPORARY SHORING AND BRACING SYSTEMS ARE TO BE REMOVED OR CUT-OFF AS APPROVED BY NYCT.

10. WHEN PILES ARE TO BE DRIVEN ADJACENT TO THE SUBWAY STRUCTURE, BORING DATA, PILE LAYOUTS, SPECIFICATIONS AND INSTALLATION PROCEDURES ARE TO BE SUBMITTED TO NYCT FOR APPROVAL. VELOCITY METERS ARE TO BE INSTALLED IN THE SUBWAY TUNNEL AT CRITICAL LOCATIONS TO MONITOR INDUCED VIBRATIONS. INDUCED DISPLACEMENTS ALONG THE TUNNEL STRUCTURE AND TRACK INVERT ARE TO BE MONITORED DURING DRIVING. THE THRESHOLD MAXIMUM PARTICLE VELOCITY ABOVE AMBIENT CAUSED BY THE DRIVING WILL BE 0.5 INCH PER SECOND. VALUES EXCEEDING THIS LEVEL WILL BE REVIEWED AND EVALUATED BY NYCT'S ENGINEER. IN NO CASE WILL PARTICLE VELOCITIES EXCEED THE UPSET LEVEL OF 2.0 INCHES PER

11. NO PILES ARE PERMITTED TO BE INSTALLED BY ANY METHOD WITHIN THREE FEET OF SUBWAY STRUCTURE, MEASURED FROM THE EDGE OF THE PILE OR CASING TO THE WALL. CLOSED-END PILES WILL NOT BE PERMITTED TO BE DRIVEN WITHIN TEN FEET OF THE SUBWAY

SECOND.

STRUCTURE.

12. ALL PILES ARE TO BE PLACED WITHIN A PREAUGERED CASED HOLE TO THE INFLUENCE LINE. THE CASING SHALL BE CLEANED WITHOUT DISTURBING THE SOIL OUTSIDE THE CASING AND THE PILE TO BE PLACED WITHIN THE CASING FOR INSTALLATION. THE PILES MAY THEN BE DRIVEN BEYOND THE INFLUENCE LINE WITHIN THE CASING.

13. THE INFLUENCE LINE SHALL START AT THE BOTTOM OF THE SUBWAY STRUCTURE AND EXTEND AT A 1:1 SLOPE. FOR PILES INSTALLED WITHIN TEN FEET OF THE SUBWAY STRUCTURE, THE CASING SHALL BE EXTENDED UP TO THE BOTTOM OF THE SUBWAY STRUCTURE.

14. AT THE COMPLETION OF PILE INSTALLATION. THE SPACE BETWEEN THE PILE AND THE CASING IS TO BE FILLED WITH EITHER CLEAN SAND OR GROUT. IF THE CASING IS TO BE REMOVED. THE FILLING

MUST BE COMPLETED PRIOR TO REMOVAL OF THE CASING. 15. ALL PILES ARE TO BE DRIVEN A MINIMUM OF TEN FEET BELOW THE INTERSECTION OF THE PILE CENTER LINE AND THE INFLUENCE

LINE OF THE SUBWAY STRUCTURE.

STRUCTURE.

16. THE USE OF "DOWN-THE-HOLE -HAMMERS" FOR INSTALLATION OF PILES THROUGH OVERBURDEN AND FILL WILL BE PERMITTED ONLY TO REMOVE BOULDERS. IT WILL NOT BE PERMITTED AS A MATTER OF COURSE TO ADVANCE THE HOLE. THEIR USE TO CONSTRUCT ROCK SOCKETS WILL NOT BE ALLOWED WITHIN 5 FEET OF THE NYCT

17. VIBRATORY HAMMERS WILL NOT BE PERMITTED WITHIN 75 FEET OF SUBWAY STRUCTURES. HOERAMS WILL NOT BE PERMITTED WITHIN 25 FEET OF SUBWAY STRUCTURES.

18. DYNAMIC COMPACTION METHODS USING DROPPED HEAVY WEIGHTS CANNOT BE CONDUCTED WITHIN 1000 FEET OF ANY NYCT STRUCTURE UNLESS IT IS SHOWN THAT INDUCED SETTLEMENTS AND VIBRATIONS WILL NOT DAMAGE THESE STRUCTURES. A SUITABLE MONITORING PLAN INCLUDING SETTLEMENT AND VIBRATION MEASUREMENTS MUST BE APPROVED BY NYCT'S ENGINEER FOR ALL SUCH OPERATIONS WITHIN THESE DISTANCES.

19. THERE SHALL BE NO MACHINE EXCAVATION WITHIN 3 FEET OF NYCT STRUCTURES, POWER DUCT LINES, OR ANY OTHER FACILITIES UNTIL THEY HAVE BEEN CAREFULLY EXPOSED BY HAND EXCAVATION.

20. ALL DEWATERING OPERATIONS CONDUCTED WITHIN 500 FEET OF THE NYCT STRUCTURE MUST BE PERFORMED IN ACCORDANCE WITH DRAWINGS AND PROCEDURES SUBMITTED TO NYCT FOR APPROVAL. THE DISTANCE FROM THE STRUCTURE TO THE DEWATERING OPERATION CAN BE REDUCED PROVIDED THAT SOIL CONDITIONS AT THE SITE INDICATE THAT THE RADIUS OF INFLUENCE OF THE DEWATERING IS LESS THAN 500 FEET. FOR DEWATERING WITHIN THE RADIUS OF INFLUENCE, THE DEWATERING PROGRAM MUST BE SHOWN TO HAVE NEGLIGIBLE INFLUENCE ON SETTLEMENTS OF THE NYCT STRUCTURE.

21. SUBWAY ENTRANCES (VENTILATORS, ETC.) ARE TO BE UNDERPINNED OR SHORED AND BRACED IF DIRECTED BY NYCT'S ENGINEER.

WITH DRAWINGS SUBMITTED TO NYCT FOR APPROVAL.

22. NYCT, AT ITS DISCRETION, RESERVES THE RIGHT TO REQUIRE THE PROJECT TO CLOSE OR MAINTAIN AND PROTECT EXISTING SUBWAY ENTRANCES, VENTILATORS, ETC. ADJACENT TO THE PROJECT DURING CONSTRUCTION. SUCH CONSTRUCTION MAY INCLUDE UNDERPINNING, SHORING, BRACING AND ERECTION OF SUITABLE BARRICADES AND/OR CANOPIES AND SHIELDS. SUCH PROTECTION SHALL BE IN ACCORDANCE 23. IF SHIELDS ARE TO BE INSTALLED TO PROTECT NYCT FACILITIES AND/OR THE PUBLIC, PLANS SHOWING THE LOCATION, TYPE AND METHOD OF ATTACHMENT TO THE TRANSIT STRUCTURE MUST BE SUBMITTED TO NYCT FOR APPROVAL.

24. ALL LUMBER AND PLYWOOD USED FOR PROTECTION OF SUBWAY FACILITIES MUST BE FIRE RETARDANT.

CONSTRUCTION.

COMMENCE.

TELEPHONE.

STANDARDS ARE AVAILABLE AT NYCT.

39. BEFORE THE START OF ANY WORK, THE CONTRACTOR SHALL MAKE

BE APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL TAKE ALL

PHOTOGRAPHS AS MAY BE NECESSARY OR ORDERED TO INDICATE THE

DEPARTMENT OF MAINTENANCE-OF-WAY, 370 JAY STREET, BROOKLYN,

40. ALL ARCHITECTURAL DETAILS (TOKEN BOOTHS, RAILINGS, DOORS,

41. STANDARD NYCT INSURANCE CLAUSES ARE TO BE MADE PART OF

THE PROJECT'S CONTRACT DRAWINGS. PROOF THAT THE NECESSARY

INSURANCE IS IN EFFECT WILL BE REQUIRED BEFORE WORK CAN

42. AT THE CLOSE OF ANY PROJECT INVOLVING CONSTRUCTION OR

MYLARS, FIVE SETS OF 35mm MICROFILM, AND ELECTRONIC COPIES

MUST BE PROVIDED TO NYCT FOR ITS RECORDS. FOR DETAILS OF

SPECIFIC REQUIREMENTS CONTACT NYCT OUTSIDE PROJECTS.

43. AT LEAST SEVEN WORKING DAYS PRIOR TO THE START OF

THE JOB SITE FOR NYCT INSPECTORS CONTAINING A DESK AND

COMPLYING TO MICROSTATION.DGN FORMAT OF "APPROVED AS-BUILTS"

CONSTRUCTION OPERATIONS, NOTIFICATION MUST BE GIVEN TO MR. M.

243-4358. THE CONTRACTOR TO PROVIDE TEMPORARY QUARTERS NEAR

FRADUA, MANAGER, DEPARTMENT OF MAINTENANCE-OF-WAY, AT (718)

ALTERATIONS TO TRANSIT FACILITIES, ONE SET OF VELLUMS OR

ETC.) ARE TO CONFORM TO THE LATEST NYCT STANDARDS. THESE

AUTHORIZED BY THE CONTRACTOR TO MAKE THESE EXAMINATIONS SHALL

AN EXAMINATION, IN THE PRESENCE OF NYCT'S ENGINEER, OF THE

INTERIOR AND EXTERIOR OF NYCT SUBWAY OR OTHER STRUCTURE

ADJACENT TO THE PROPOSED WORK. THE PERSON OR PERSONS

EXISTING CONDITION OF NYCT STRUCTURE. ONE COPY OF EACH

PHOTOGRAPH, EIGHT INCHES BY TEN INCHES IN SIZE, AND THE

NEGATIVE IS TO BE SUBMITTED TO MR. M. FRADUA, MANAGER,

NEW YORK, TELEPHONE (718) 243-4358, BEFORE THE START OF

25. SUBWAY EMERGENCY EXITS MUST BE KEPT CLEAR AT ALL TIMES.

26. IN EXCAVATION OVER OR NEAR THE SUBWAY ROOF, SPECIAL CARE SHALL BE EXERCISED SO THAT THE THIN CONCRETE PROTECTION OF THE SUBWAY WATERPROOFING IS NOT DAMAGED.

27. BURNING OF, WELDING TO OR DRILLING THROUGH EXISTING STEEL STRUCTURES WILL NOT BE PERMITTED EXCEPT AS SHOWN ON DRAWINGS APPROVED BY NYCT.

28. HORIZONTAL AND VERTICAL CONTROL SURVEY DATA OF THE EXISTING NYCT STRUCTURE IS TO BE TAKEN BY A LICENSED LAND SURVEYOR TO MONITOR ANY MOVEMENTS THAT OCCUR DURING CONSTRUCTION AND TO SHOW THAT THE INDUCED MOVEMENTS ARE WITHIN ALLOWABLES PROVIDED AND APPROVED BY NYCT'S ENGINEER. IF ANY MOVEMENTS EXCEED ALLOWABLES. REMEDIATION AS APPROVED BY NYCT SHALL BE PERFORMED.

29. BUS ROUTES AFFECTED BY THE PROJECT WILL OR MAY REQUIRE BUS DIVERSIONS. THESE ARRANGEMENTS SHALL BE MADE THROUGH:

MR. LARRY GOULD, DIRECTOR, OPERATIONS ANALYSIS NEW YORK CITY TRANSIT LIVINGSTON STREET, ROOM 3033F BROOKLYN, NEW YORK 11201 ATTENTION: KARL STRICKER -SUPERINTENDENT, SPECIAL OPERATIONS TELEPHONE NUMBER (718) 694-3655

WHEN IMPACTING ANY BUS STOP, SPECIAL OPERATIONS MUST BE NOTIFIED TWO WEEKS IN ADVANCE.

30. DUCT LINES MUST BE MAINTAINED AND PROTECTED DURING CONSTRUCTION. ANY INTERFERENCE WITH DUCT LINES SHOULD BE REPORTED TO NYCT INSPECTOR. WHEN A DUCT LINE CONTAINING CABLES IS TO BE REMOVED. OR WHEN MASONRY ADJACENT THERETO IS TO BE REMOVED, PENETRATED, OR DRILLED, THE WORK SHALL BE DONE WITH HAND LABOR ENTIRELY, USING HAMMER AND CHISEL. JACKHAMMERS, BULL POINTS OR OTHER POWER EQUIPMENT SHALL NOT

31. WHERE MANHOLES ARE ENCOUNTERED:

BE USED.

(718) 243-4358.

A) THEY SHALL BE PROTECTED AND RAISED OR LOWERED AS REQUIRED. TO MATCH THE NEW STREET GRADE.

B) IF MANHOLE COVERS ARE RAISED OR LOWERED, PROTECT CABLES IN MANHOLE BY WOOD SHEETING OF 2" NOMINAL THICKNESS.

C) PRIOR TO THE START OF CONSTRUCTION OPERATIONS AFFECTING MANHOLES AND DUCT LINES. SEVEN DAYS NOTICE MUST BE GIVEN TO MR. M. FRADUA, MANAGER, DEPARTMENT OF MAINTENANCE OF WAY, AT

32. CONSTRUCTION WORK DONE NEAR VENT GRATINGS AND HATCHES SHALL BE AS FOLLOWS:

A) UNLESS APPROVED BY THE NYCT'S ENGINEER, ALL VENT GRATINGS AND HATCHES SHOULD REMAIN OUTSIDE THE CONSTRUCTION SITE, SEPARATED BY A CONSTRUCTION FENCE. PROTECTIVE SHIELDS MUST BE PROVIDED OVER VENT GRATINGS AS REQUIRED BY NYCT'S ENGINEER.

B) NO BUILDING MATERIAL. VEHICLES OR CONSTRUCTION EQUIPMENT IS TO BE STORED OR RUN OVER VENT, GRATINGS, HATCHES OR EMERGENCY EXITS. DETAILS OF SIDEWALK RECONSTRUCTION AROUND VENT GRATINGS, HATCHES AND EMERGENCY EXITS ARE TO BE SUBMITTED TO NYCT FOR APPROVAL.

33. TRACTORS, CRANES, EXCAVATORS, ETC. USED IN THE VICINITY OF THE ELEVATED STRUCTURES SHALL BE ISOLATED FROM THE GROUND. SINCE THE ELEVATED STRUCTURE IS USED AS A NEGATIVE RETURN PATH, WITH A CONSEQUENT POTENTIAL BETWEEN IT AND THE GROUND, ANY CONTACT BETWEEN THE STRUCTURE AND GROUNDED EQUIPMENT COULD RESULT IN BURNING OF THE STEEL.

34. TEMPORARY CONSTRUCTION SHEDS, BARRICADES OR PLYWOOD PARTITIONS MUST BE A MINIMUM OF 5'-0" FROM EDGE OF FINISHED PLATFORM.

35. STAIRWAY/ENTRANCE CLOSINGS: THE GENERAL REQUIREMENTS FOR STAIRWAY/ENTRANCE CLOSINGS ARE AS FOLLOWS:

A) ONLY ONE STAIRWAY AT EACH STATION WILL BE PERMITTED TO BE CLOSED AT THE SAME TIME. APPROVALS FOR CLOSING ANY STAIRWAY MUST BE OBTAINED FROM THE DIVISION OF STATION OPERATIONS AT LEAST THREE WEEKS IN ADVANCE.

B) MR. BRANKO KLEVA, P.E. DIRECTOR, OFFICE OF STATION PROGRAMS: TELEPHONE (718)243-3579 OF THE DIVISION OF STATIONS MUST BE NOTIFIED ONE WEEK PRIOR TO THE ACTUAL CLOSING AND REOPENING OF THE ENTRANCE. C) AMPLE SIGNAGE MUST BE SUPPLIED AND POSTED AT LEAST ONE

WEEK IN ADVANCE, ADVISING THE PUBLIC OF THE PROPOSED SUBWAY STAIR CLOSING. D) THE STREET ENTRANCE STAIRWAY SHOULD NOT BE CLOSED UNLESS MANPOWER AND MATERIALS ARE AVAILABLE TO COMMENCE WORK ON DATES PERMITTED.

E) ONCE THE CLOSING IS EFFECTED, CONSTRUCTION SIGNS MUST BE PLACED AT APPROPRIATE LOCATIONS ON THE BARRICADES AT THE STREET AND MEZZANINE LEVELS, STATING THE CONTRACTOR'S NAME 24 HOUR EMERGENCY TELEPHONE NUMBER, CONTRACT NUMBER, THE DURATION OF THE CLOSING, DIRECTION TO AN ALTERNATE ENTRANCE/EXIT, AND AN APOLOGY FOR THE INCONVENIENCE TO OUR CUSTOMERS.

F) EXISTING STATION SIGNAGE MUST BE ADJUSTED TO REFLECT ANY CHANGES IN ACCESS/EGRESS. G) BARRICADES ARE TO BE PAINTED AND KEPT GRAFFITI FREE AT ALL TIMES. THE CONTRACTOR MUST MAINTAIN THE BARRICADED AREA CLEAN OF ALL DEBRIS. H) ALL MATERIALS ARE TO BE PROPERLY STORED AND SECURED AWAY

FROM PASSENGER TRAFFIC. I) THE CONTRACTOR MUST REMOVE ALL WASTE MATERIAL AND BARRICADES FROM ALL STATION AREAS WHEN CONSTRUCTION IS

COMPLETED. J) INSPECTION OF THE AREA UNDER CONSTRUCTION BY AUTHORIZED STATION DEPARTMENT EMPLOYEES SHALL NOT BE INHIBITED. K) IF STREET LIGHTS ON THE SIDEWALKS ARE AFFECTED. TEMPORARY LIGHTS SHALL BE PROVIDED.

36. IF NEW CONCRETE CONSTRUCTION IS JOINED TO EXISTING CONCRETE. DOWELS AND KEYWAYS ARE TO BE USED IN ACCORDANCE WITH NYCT STANDARDS. 37. IF THE PROJECT INVOLVES CONSTRUCTION OR ALTERATION OF A SUBWAY FACILITY ON PRIVATE PROPERTY, THE PROPERTY OWNERS WILL BE REQUIRED TO ENTER INTO AN AGREEMENT WITH NYCT PERTAINING TO ALL WORK AFFECTING THE TRANSIT FACILITIES AND CLEARLY DEFINING LIMITS AND RESPONSIBILITY FOR MAINTENANCE AND LIABILITY.

38. WHEREVER A NEW SIDEWALK IS BEING PLACED ADJACENT TO NYCT STRUCTURES THE FOLLOWING WILL BE REQUIRED: A) THE TOP OF THE NEW SIDEWALK SHALL BE FLUSH WITH THE SUBWAY VENT GRATINGS, HATCHES AND EMERGENCY EXITS. B) THE SLOPE OF THE NEW SIDEWALK SHALL BE SUCH THAT THE

APPROVAL.

DRAINAGE BE AWAY FROM THESE STRUCTURES. C) A 1/2" PREMOLDED FILLER SHALL BE INSTALLED BETWEEN THE NEW SIDEWALK AND NYCT STRUCTURE. D) WHERE SIDEWALK ELEVATIONS ARE BEING CHANGED DETAILS OF PROPOSED WORK AROUND NYCT STRUCTURES ARE TO BE SUBMITTED FOR

INSURANCE CLAUSES

Responsibility of the Contractor - The Contractor shall be solely responsible for the safety and protection of the rapid transit subway lines and of all property thereon.

(a) The Contractor shall be solely responsible for all injuries (including death) to

persons (including, but not limited to, employees of the Contractor and subcontractors and employees of the City of New York (hereinafter called the City) or the New York City Transit Authority (hereinafter called the Authority) or damage to property (including, but not limited to, Property of the City, the Authority, or the Contractor or subcontractors) occurring on account of or in connection with performance of the work hereunder, and shall indemnify and save harmless the City and the Authority from loss and liability upon any and all claims on account of such injuries to persons or damage to property, and from all costs and expenses in suits which may be brought against the City and/or the Authority on account of any such injuries to persons or damage to property, irrespective of the actual cause of the accident and irrespective of whether it shall have been due to negligence of the Contractor or his subcontractors or negligence of the City or the Authority, their respective agents, servants or employees, or of any other person, but excepting injuries and property damage caused by or resulting from the sole negligence of the City and/or the Authority acting as agent of the City hereunder. The term "loss and liability", as used above, shall be deemed to include, but not be limited to, liability for the payment of Worker's Compensation Benefits under the Worker's Compensation Law of the State of New York, and the Contractor. specifically covenants to reimburse the Authority and the City for all payments of Worker's Compensation Benefits, including but not limited to benefits paid to employees of the Authority and the City, which the Authority or the City shall be required to make to any employee who shall claim to have sustained injuries on account of or in connection with the work hereunder, whether or not such injuries shall have been sustained as a result of negligence of the Contractor, his subcontractors, the Authority or the City, their respective agents, servants or employees, or negligence of the injured employee, but excepting bodily injuries and property damage caused by or resulting from the sole negligence of the City and/or the Authority acting as agent of the City hereunder.

(b) The Contractor shall be solely responsible for the support, maintenance, safety and protection of the transit facilities of the New York City Transit System (hereinafter call the Railroad) and for the safety and protection of all persons, passengers, intending passengers or employees and other persons, and of all property therein, and he shall be solely responsible and liable for any injury and damage thereto and for all injuries to persons or damage to property therein occurring on account of or in connection with the performance of work under this contract whether due to the negligence, fault or default of the Contractor or not.

The Contractor shall fully protect and indemnify the City and the Authority from loss and from liability upon any and all claims on account of damage to the Railroad, or on account of such injuries to passengers, intending passengers, employees or other persons or damage to property, or on account of interruption of train operation, or on account of any work done by the Contractor on or affecting the Railroad, and from any costs and expenses in suits which may be brought against the City and/or the Authority for such injuries or

(c) In case any damage shall occur to any part of the Railroad on account of or in connection with the work hereunder, and the Contractor is responsible therefore pursuant to paragraph (a) hereof, the City and/or the Authority shall have the right to cause such damage to be repaired and charge the expense of such repairs to the Contractor and to be reimbursed for the amount of such expense from any moneys due or becoming due to the Contractor hereunder.

(d) Approval by the Chief Engineer, Maintenance of Way, of the methods of doing the work or the failure of the Chief Engineer, Track & Structures, to call attention to improper or inadequate methods or to require a change of methods or to direct the Contractor to take any particular precaution or to refrain from doing any particular thing shall not excuse the Contractor in case of any such injury to person or damage to property.

It is understood and agreed that if during the course of the work under this contract, watchmen, flagmen and other employees of the City and/or the Authority are assigned to perform work in connection therewith, such employees are to be considered as employees of the Contractor.

(e) The Contractor shall procure, at its sole cost and expense, and shall maintain in force at all times until final acceptance by the Authority, policies of insurance as herein below set forth, written by companies approved by the Authority and shall deliver to the Authority evidence of such policies. A Certificate of Insurance may be supplied as evidence of such policies, however, if requested by the Authority, the Contractor shall deliver to the Authority a copy of such policies, certified by the insurance carrier as being a true and complete copy. The Certificate of insurance and insurance policies must (1) indicate the I.S.O. Form used by the carrier; (2) be signed by an authorized representative of the broker or the insurance carrier; (3) disclose any deductibles, self-insured retention (deductibles or self-insured retentions above \$25,000 will require approval from the Authority), aggregate limit or any exclusions to the policy that materially change the coverage; (4) indicate that the NYCTA, MaBSTOA, SIRTOA, MTA, its subsidiaries and affiliated companies and the City of New York and all other indemnified parties included in the contract are named as Additional insureds on all policies (except Worker's Compensation or Professional Liability); (5) reference the contract on the face of the certificate; (6) include a special cancellation provision which shall read "The Authority is interested in the maintenance of this insurance, and it is agreed that this insurance will not be canceled, materially changed or not renewed without at least 30 days prior written notice to the Authority, attention Director - Risk Management, Room 10064, 130 Livingston Street, Brooklyn, New York 11201, by Certified Mail, return receipt requested"; and (7) indicate that the coverage afforded under the policies shall apply as primary and not excess or contributing basis with any policies which may be available to the Authority. At least two weeks prior to the expiration of the original policies or any renewals thereof, evidence of renewal or replacement policies of insurance, with the same terms and limits as expiring, shall be delivered to the Authority.

1. A Commercial General Liability Insurance Policy (I.S.O. Form CG 00 01 11 99 or equivalent) in the Contractor's name with the New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), Staten Island Rapid Transit Operating Authority (SIRTOA), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies, the City of New York and all other indemnified parties included in the contract as Additional Insureds (I.S.O. Form CG 20 10) with limits of liability of \$ 2,000,000 each occurrence on a combined single limit basis (aggregate must be at \$4,000,000) for injuries (bodily injuries, including death and personal injuries), to persons and for damage to property. Such policies shall include Contractual Coverage for liability assumed by the Contractor (including construction work within the proximity to railroad tracks and property, if applicable, and coverage for bodily injury sustained by an employee of the contractor) under the indemnity provision of the Contract, coverage for "XCU" risks (Explosion, Collapse and Underground Hazards), Products - Completed Operations Coverage, Independent Contractors coverage, and shall not contain any other exclusion unacceptable to the Authority and Contracting Party.

2. A Railroad Protective Liability (or Owner's Protective Liability, if no railroad exposure) will be required, at the discretion of the Authority, if the Authority deems the work "Hazardous" to its property. The Protective Liability insurance policy (I.S.O. Form CG 00 35 11 85 or equivalent) must name the New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operating Authority (MaBSTOA), Staten Island Rapid Transit Operating Agency (SIRTOA), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies, the City of New York and all other indemnified parties as Named Insureds with limits of liability of \$ 2,000,000 each occurrence on a combined single limit basis (aggregate must be at least \$ 4,000,000 for injuries (bodily injuries, including death and personal injuries) to persons and for damage to property and physical damage to all property owned by, leased by or in the care, custody and control of the Authority.

3. Automobile and Truck Liability insurance policy in Contractor's name with the New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operating Authority (MaBSTOA), Staten Island Rapid Transit Operating Agency (SIRTOA), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies, the City of New York and all other indemnified parties included in the contract as Additional Insureds with limits of liability of \$ 2,000,000 each occurrence on a combined single limit basis for claims for bodily injuries (including death)) to persons and for damage to property arising out of the ownership, maintenance or use of any owned, hired or non-owned motor

4. Worker's Compensation Insurance (including Employer's Liability Insurance with limits of not less than \$1,000,000) meeting the Statutory limits of the New York State.

5. Any additional insurance policies necessary to obtain required permits or otherwise comply with applicable law, ordinances, or regulations regarding the performance

6. Contractor waives, and will require any and all subcontractor(s) to waive, any right of recovery for property damage (including, but not limited to, equipment, materials and any loss due to business interruption) against the New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Rapid Transit Operating Agency (SIRTOA), Metropolitan Transportation Authority (MTA), and all of its subsidiaries and affiliated companies, the City of New York and all other indemnified parties included in the contract and agrees to effect a waiver of subrogation in favor of the above on all policies of insurance covering property (including, but not limited to, equipment, materials and any loss due to business interruption) owned, hired or in the care, custody or control of the

contractor or subcontractor(s).

\$2 MILLION PROTECTIVE LIABILITY INSURANCE (i)

CATEGORY VI

Agencies with railroad exposures should require Railroad Protective Liability coverage, while other Agencies not engaging in railroad operations should require Owners Protective Liability coverage.

Contracts Capital in Nature – NO REQUIREMENT NECESSARY

Coverage provided under All-Agency Protective Liability

Contracts Non-Capital in Nature

Requirement up to the discretion of the Agency Risk Manager.

Hazardous work performed on or adjacent to Agency property but not for the benefit of the Agency.

Protective coverage must be required. (j

NOTES

Operating Agency and the Authority must be Named Insured.

Railroad Protective should be written on AASHO or ISO-RIMA policy forms.

(i) Excess limits of \$3 million are provided by the All Agency Protective Liability Policy generating a total limit of liability of \$5 million.

(j) Self-assumption of the coverages usually provided by the commercial Protective Liability policy by the City of New York is allowed. A letter stating willingness to self-assume the risks must be provided.

The engineer does not have the authority to stop the contractor's work over safety issues.

REFERENCE

1. New York city transit general notes obtained from New York City Transit 5 May 2000 2. New York city transit Insurance clauses obtained from New York City Transit 14 May 1999 KEY PLAN

VS 125 LL c/o BIZZI & PARTNERS DEVELOPMENT LLC 55 East 59th Street New York, NY 10022

EXECUTIVE ARCHITECT SLCE ARCHITECTS, LLP 1359 Broadway New York, NY 10018 Tel (212) 979-8400 Fax (212) 979-8387

 DESIGN ARCHITECT RAFAEL VINOLY ARCHITECTS PC 50 Vandam Street New York, NY 10013 Tel: 212 924 5060 Fax: 212 924 5858

STRUCTURAL ENGINEER DESIMONE CONSULTING ENGINEERS 18 West 18th Street New York, NY 10011 Tel: 212 532 2211 Fax: 212 481 6108

COSENTINI ASSOCIATES

Two Pennsylvania Plaza New York, NY 10121 Tel: 212 615 3606 Fax: 212 615 3700 GEOTECH + CIVIL CONSULTANT LANGAN ENGINEERING 619 River Drive Center 1

MEP/FP ENGINEER

Elmwood Park, NJ 07407 Tel: 201 794 6900 Fax: 201 794 0366 VERTICAL TRANSPORTATION CONSULTANT

VAN DUESEN & ASSOCIATES 5 Regents Street, Suite 524 Livingston, NJ 07039 Tel: 973 994 9220 Fax: 619 474 6757

DOB BSCAN:

CONTRACTOR:

__ PROJECT:

Damian Titus

Du TO

APPROVED

Under Directive 2 of 1975

NYC Development Hub

AMENDED APPLICATIO

Date: 03/10/2015

ENGINEERING, LLC.

32-33 111th Street, P.O. Box 690158 East Elmhurst, New York 11369 Phone: 718-478-3021 Fax: 718-397-1917

REV. NO. DATE DESCRIPTION

SUPPORT OF EXCAVATION

