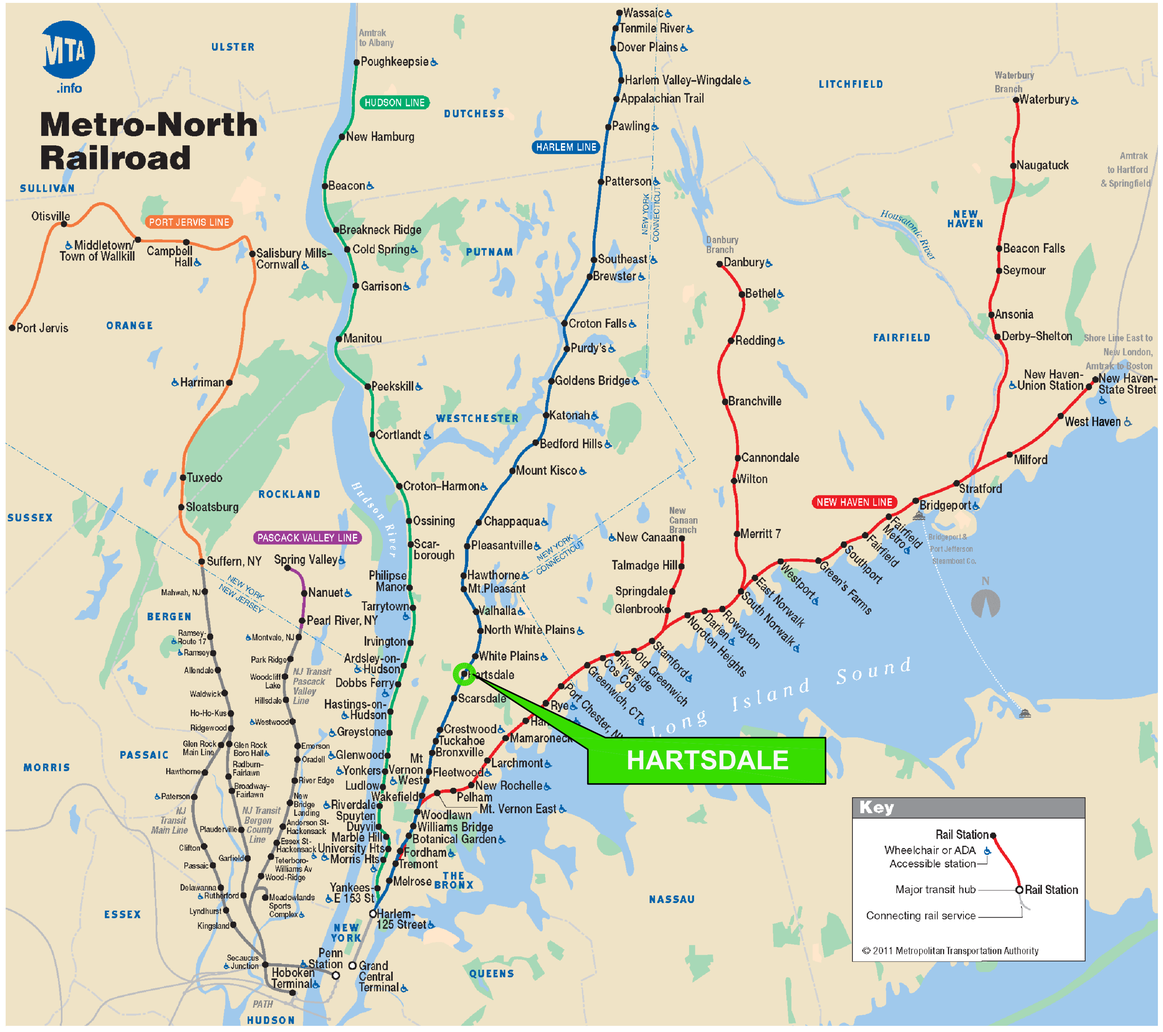
Metro-North Railroad

STV 100 Years

Hartsdale and Scarsdale Station Improvements

100% RFC Submission
Contract #: 1000106733

Hartsdale Station



Metro-North Railroad

100% RFC Submission

JULY 09, 2021

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100% RFC SUBMISSION

DESIGNED	CJ
DRAWN	CJ
CHECKED	JRS
APPROVED	MM

STATE OF NEW YORK · RAPHAEL MOSHAYEV · 082155 · LICENSED PROFESSIONAL ENGINEER

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

DRAWING LIST

HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE

DATE
07/09/2021

DRAWING NO.
HTD-G-101

SHEET 2 OF 99

GENERAL NOTES:

GENERAL REQUIREMENTS:

1. REFER TO THE 'CIVIL PLAN' SHEET FOR A GENERAL DESCRIPTION OF THE WORK TO BE DONE. ALL DRAWINGS WERE USED IN CONJUNCTION WITH THE SPECIFICATIONS IN DETERMINING THE FULL PROJECT SCOPE. REFER TO SPECIFICATION SECTION 011100 SUMMARY OF WORK.

2. THE WORK OF THIS CONTRACT IS TO TAKE PLACE IN AND AROUND AN OPERATIONAL RAILROAD, PRIVATE DEVELOPMENT AND PARKING FACILITIES. THE CONTRACTOR SHALL PROPERLY SECURE ALL AREAS UNDER CONSTRUCTION TO PROTECT THE SAFETY OF THE GENERAL PUBLIC. WORK AREAS SHALL BE FENCED AND DELINEATED, INCLUDING APPROPRIATE DANGER AND CAUTIONARY SIGNAGE AS APPROVED BY METRO-NORTH RAILROAD (MNR). THE SITE IS TO BE PROPERLY SECURED WITH TEMPORARY FENCING AT THE END OF EACH SHIFT, AS APPROVED BY MNR.

3. THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO CONDUCT HIS OPERATIONS IN A MANNER NOT TO CAUSE DISRUPTION IN THE USE OF ADJOINING PROPERTIES, FACILITIES & UTILITIES. THE CONTRACTOR SHALL MAINTAIN SAFE, CLEAN AND UNRESTRICTED ACCESS TO ALL PUBLIC AND PRIVATE PROPERTIES AT ALL TIMES, AND INSTALL TEMPORARY FENCING, BARRICADES, AND PAVEMENT MARKINGS/STRIPING AND SIGNAGE AS REQUIRED.

4. THE CONTRACTOR IS DIRECTED TO COOPERATE WITH MNR'S REPRESENTATIVE AND ALL OTHER CONTRACTORS PERFORMING WORK ON THIS JOB SITE DURING THE PERFORMANCE OF THIS CONTRACT.

5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL PLAN SHEETS AND SPECIFICATIONS, AND COORDINATE WORK WITH ALL OTHER CONTRACTORS AND CONTRACTS AT THE SITE.

6. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO BEGINNING WORK AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO BEGINNING WORK.

7. ALL NECESSARY PERMITS ARE TO BE SECURED BY THE CONTRACTOR PRIOR TO ANY WORK COMMENCING, INCLUDING BUT NOT LIMITED TO, ANY WHICH MAY BE NECESSARY TO WORK IN AND ADJACENT TO PUBLIC STREETS, TO CONSTRUCT CONSTRUCTION DRIVEWAYS FOR SITE ACCESS, TO MAKE CONNECTIONS TO EXISTING SANITARY, STORM AND WATER FACILITIES, AND TO OBTAIN ENVIRONMENTAL PERMITS, AS WELL AS ANY OTHERS REQUIRED.

8. EXCAVATED SOIL FROM MNR PROPERTY TO BE STOCK PILED AND RE-USED ON MNR PROPERTY. ALL EXCAVATED SOIL ON NON MNR PROPERTY SHALL NOT TO BE REUSED.

9. UNCLASSIFIED EXCAVATION INCLUDES, BUT IS NOT LIMITED TO, EXCAVATION REQUIRED FOR NEW MANHOLES, INLETS OR DRAINAGE PIPES. ALL VOIDS CREATED BY THE REMOVAL OF EXISTING STORM DRAINS AND SUBSURFACE STRUCTURES WILL BE BACKFILLED WITH SUITABLE UNCLASSIFIED EXCAVATION MATERIAL AS DIRECTED BY THE ENGINEER. IF NO SUITABLE UNCLASSIFIED EXCAVATION MATERIAL IS AVAILABLE IN THE OPINION OF THE ENGINEER, THE CONTRACTOR WILL PROVIDE SATISFACTORY SOIL MATERIAL MEETING THE REQUIREMENTS OF THE SPECIFICATIONS FOR USE AS BACKFILL. ALL EXCAVATION WILL COMPLY WITH N.Y.S. INDUSTRIAL CODE 53 AND OSHA REQUIREMENTS.

10. THE MNR REPRESENTATIVE RESERVES THE RIGHT TO EXAMINE ANY WORK DONE ON THIS PROJECT AT ANY TIME TO DETERMINE THE CONFORMANCE WITH THE REQUIREMENTS OF THE PROJECT CONTRACT DOCUMENTS, AS INTENDED AND INTERPRETED BY THE ENGINEER.

11. RESTORE SITE FEATURES DESTROYED OR MOVED TO PRE-CONSTRUCTION LOCATION AND USE. THIS SHALL INCLUDE FULL DEPTH ASPHALT PAVEMENT, CONCRETE SIDEWALK AND CURB REPLACEMENT, INCLUDING PLACEMENT, GRADING AND COMPACTION OF AGGREGATE SUBBASE, PLACEMENT OF ASHPALT CONCRETE BINDER AND TOP COURSES, CONSTRUCTION OF CONCRETE WALKS AND CURBING, AND LANDSCAPING.

12. ALL WORK WILL BE DONE IN STRICT COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES, METRO NORTH STANDARDS, ORDINANCES, RULES AND REGULATIONS, AS THEY MAY APPLY.

13. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING DETAILS AND SITE SPECIFIC DETAILS. THESE DOCUMENTS, IN ADDITION TO A SITE PLAN, SHALL BE SUBMITTED TO MNR FOR APPROVAL.

14. HORIZONTAL DATUM IS REFERENCED TO THE NEW YORK STATE PLANE COORDINATE SYSTEM VERTICAL DATUM IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1980

15. EXISTING UTILITIES SHOWN ON THESE DRAWINGS HAVE BEEN DETERMINED BY STANDARD SURVEYING METHODS AND AVAILABLE RECORDS THE LOCATIONS SHOWN FOR THESE UTILITIES ARE APPROXIMATE AND MAY BE INCOMPLETE. THE CONTRACTOR WAS RESPONSIBLE FOR VERIFYING UTILITIES, SURVEY, AND OBTAINING ANY PERMITS REQUIRED.

16. THE CONTRACTOR TO SUBMIT A DETAILED CONSTRUCTION STAGING PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO THE START OF WORK THE CONTRACTOR OBTAINED ANY PERMITS FOR THE WORK

17. THE CONTRACTOR TO SUBMIT A DETAILERS WORKPLAN FOR METRO-NORTH RAILROAD APPROVAL. SHOWING A DETAILED WORK SCHEDULE AND ALL EQUIPMENT TO BE USED ON METRO-NORTH'S RIGHT-OF-WAY, PRIOR TO WORK AT THAT ACTVITY.

18. THE CONTRACTOR TO PROTECT FROM DAMAGE ALL MONUMENTS, SURVEY POINTS, AND BENCH MARKS NOT DESIGNATED FOR REMOVAL AND SHALL ESTABLISH OFFSET POINTS AS REQUIRED FOR HIS OR HER WORK.

19. THE DIMENSIONS SHOWN ON THE PLANS MAY VARY FROM THE ACTUAL EXISTING DIMENSIONS IN THE FIELD. THE CONTRACTOR, PRIOR TO COMMENCEMENT OF WORK, SHALL TAKE EXACT MEASUREMENTS TO VERIFY ALL DIMENSIONS SHOWN ON THE PLANS AS WELL AS OBTAIN OTHER NECESSARY DIMENSIONS FOR THE PURPOSE OF PREPARING SHOP AND OTHER WORKING DRAWINGS. SHOP DRAWINGS AND ANY OTHER DRAWINGS PREPARED BY THE CONTRACTOR WILL BE PREPARED UNDER DIRECT SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER IN NYS, AND SHALL INCLUDE A STATEMENT CERTIFYING THAT THOSE DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH THE FIELD-MEASURED DIMENSIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE SERVICES OF A SURVEYOR, LICENSED IN THE STATE OF NEW YORK, TO VERIFY THE INFORMATION PRESENTED IN THESE CONTRACT DOCUMENTS, AND TO COMPLETE THE REQUIRE CONSTRUCTION LAYOUTS.

20. VERIFY ALL DIMENSIONS AND JOB CONDITIONS PRIOR TO STARTING WORK AND REPORTED TO THE ENGINEER ANY DISCREPANCIES OR COMMISSION WHICH WOULD INTERFERE WITH SATISFACTORY COMPLETION OF WORK.

21. DIMENSIONS SHOW ON FLOOR PLANS ARE TYPICALLY TO CENTER LINE OF COLUMNS OR FACE OF STUDS, CONCRETE MASONRY UNLESS NOTED OTHERWISE.

GENERAL REQUIREMENTS CONT'D:

22. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS GOVERN PARTITION LOCATIONS, DIMENSIONS AND TYPES. IN CASE OF CONFLICT, NOTIFY ENGINEER FOR WRITTEN CLARIFICATIONS PRIOR TO PROCEEDING W/CONSTRUCTION. CONSTRUCTION PLAN BY ENGINEER SUPERCEDES OTHER PLANS .

23. DIMENSIONS SHOWN AS "VIF" WERE VERIFIED IN THE FIELD BY LAYING OUT THE PARTITIONS. NOTIFIED ENGINEER OF ANY DISCREPANCY IN DIMENSIONS PRIOR TO PROCEEDING WITH THE WORK IN THE AREA

24. THE CONTRACTOR IS INFORMED THAT, DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS. THE CONTRACTOR SHALL SUBMIT DETAILS OF ANY CONDITION THAT VARIES FROM THE CONTRACT DOCUMENTS IMMEDIATELY AFTER DISCOVERY AND AWAIT DIRECTION FROM METRO-NORTH RAILROAD BEFORE PROCEEDING WITH THE WORK,

25. A RAILROAD FLAGMAN IS REQUIRED ON DUTY AT THE JOB SITE AT ALL TIMES WHILE CONSTRUCTION WORK IS BEING PERFORMED AND/OR WHEN THE ENGINEER OR THE RAILROAD DEEMS IT NECESSARY. THE FLAGMAN AND THE NUMBER OF FLAGMAN TO BE PROVIDED AND DETERMINED BY METRO-NORTH RAILROAD

26. THE CLOSING OF RAILROAD STATION FACILITIES TO COMMUTERS AND/OR THE STOPPING OF TRAIN OPERATIONS DURING CONSTRUCTION WILL NOT BE PERMITTED UNLESS NOTED IN THESE CONTRACT DOCUMENTS THE CONTRACTOR SCHEDULED AND PERFORMED THE WORK IN AN APPROVED MANNER THAT DID NOT INTERFERE WITH TRAIN OPERATIONS AND/OR COMMUTERS USE OF THE STATION PLATFORMS, WALKWAYS, ELEVATORS AND PARKING AREA DURING ALL PHASES OF WORK.

27. ACCESS TO THE WORK SITE AND STORAGE OF MATERIALS AND EQUIPMENT ON THE STATION PREMISES OR AS SHOWN IN THE DESIGNATED STAGING AREAS MUST BE APPROVED BY THE ENGINEER, ANY DAMAGE (CAUSED BY THE CONTRACTOR OR EMPLOYEES DURING CONSTRUCTION, ACCESS, STORAGE OF MATERIALS AND EQUIPMENT, AND/OR REMOVAL OF FENCES, PAVEMENT, ETC.) MUST BE RESTORED TO IT'S ORIGINAL CONDITION AT NO ADDITIONAL COST TO METRO-NORTH RAILROAD

28. THE CONTRACTOR SHALL MAINTAIN ADJACENT STREETS, STATION AREA, STAGING AREA, TRACK ACCESS AREA CLEAN OF DIRT AND DEBRIS AND WILL BE RESPONSIBLE FOR ALL MAINTENANCE AND CLEANING OF THESE AREAS DURING THE COURSE OF THE PROJECT.

29. METRO-NORTH RAILROAD REQUIRES ALL PERSONNEL WORKING ON THEIR PROPERTY TO HAVE A METRO-NORTH PHOTO IDENTIFICATION, METRO-NORTH RAILROAD WILL ARRANGE TO HAVE THE IDENTIFICATION CARDS MADE AT THE BEGINNING OF THE CONTRACT AND THROUGHOUT THE DURATION OF THE CONTRACT. THE CONTRACTOR IS MADE AWARE THAT THE PHOTOS FOR THE IDENTIFICATION CARDS ARE TAKEN AT 420 LEXINGTON AVENUE. NEW YORK, NY. PHOTO ID IS REQUIRED OF SUPERINTENDENTS AND FIELD ENGINEERS, AND ALL JOURNEYMEN/ WOMEN.

30. ALL WORK SHALL FOLLOW ESTABLISHED WORKING POINTS, AS OUTLINED ON DRAWINGS. CONTRACTOR TO VERIFY WORKING POINTS & COORDINATE W/ ALL DISCIPLINE DRAWINGS PRIOR TO ANY DEMOLITION & NEW WORK. ANY DISCREPANCIES SHALL BE BROUGHT UP TO THE ENGINEER & METRO-NORTH FOR REVIEW. REFER TO STRUCTURAL DRAWINGS FOR ALL WORK STARTING POINTS.

31. CONTRACTOR SHALL PROVIDE PHASING PLAN & SCHEDULE TO ENCOMPASS ALL DEMOLITION & NEW WORK. PHASING PLAN SHALL INCLUDE CONTRACTOR'S MEAN & METHODS FOR ALL DEMOLITIONS & NEW WORK, ESTABLISHING SAFE WORKING CONDITIONS & NOT IMPEDE ON NORMAL STATION OPERATIONS, INCLUDING PASSENGER STATION ACCESS. CONTRACTOR'S PHASING PLAN SHALL BE SUBMITTED TO METRO-NORTH FOR REVIEW AND APPROVAL PRIOR TO WORK COMMENCING.

32. CONTRACTOR SHALL TAKE REASONABLE CARE TO MAINTAIN A SAFE AND SECURE WORK AREA AT ALL TIMES THROUGH THE USE OF, AMONG OTHER ITEMS, SAFETY EQUIPMENT AND FALL PROTECTION.

33. THE DRAWINGS INDICATE A SPECIFIC DESIGN INTENT. THIS INTENT IS NOT SUBJECT TO SUBSTITUTION WHERE SPECIFIC MATERIALS ARE IDENTIFIED AND ARCHITECTURAL STYLES SHOWN, UNLESS APPROVED OTHERWISE.

34. NOT ALL MATERIALS DEPICTED ON ALL LEGEND ARE USED IN THE DRAWINGS. WHERE A SPECIFIC CONDITION WAS DETAILED, IT WAS UNDERSTOOD THAT ALL LIKE OR SIMILAR CONDITIONS ARE THE SAME UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE.

35. CONTRACTOR RESPONSIBLE FOR ALL TEMPORARY PROTECTION & TEMPORARY BRACING THROUGHOUT THE EXTENTS OF THE SCOPE OF WORK. THIS SHALL BE DOCUMENTED BY THE CONTRACTOR & PROVIDED TO METRO-NORTH FOR REVIEW & APPROVAL.

UTILITIES:

1. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES AND SERVICES THROUGHOUT THE EXECUTION OF THE WORK.

2. PRIOR TO THE START OF ANY EXCAVATION ON NON MNR PROPERTY, THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES WITHIN THE AREA OF THE WORK. THE CONTRACTOR SHALL CONTACT THE "UNDERGROUND FACILITIES PROTECTIVE ORGANIZATION" AT 1-800-962-7962 AND ANY OTHER AFFECTED UTILITY COMPANIES FOR UTILITY MARK-OUT PRIOR TO THE COMMENCEMENT OF THE WORK.

   PRIOR TO THE START OF ANY EXCAVATIONS ON MNR PROPERTY THE CONTRACTOR TO FOLLOW RESTRICTIONS IN SPECIFICATION 011400 AND 023219.

3. THE CONTRACTOR SHALL CONDUCT EXPLORATORY TEST PITS AS MAY BE REQUIRED TO DETERMINE, OR VERIFY UNDERGROUND CONDITIONS AND UTILITY LOCATIONS.

4. MARK-OUT ALL UTILITIES, COORDINATE WITH ALL UTILITY OWNERS FOR ALL REMOVAL AND DISCONNECTION WORK, IF ANY, INCLUDING RELOCATION OF EXISTING UTILITIES AND ASSOCIATED OVERHEAD UTILITY LINES. THIS WORK SHALL BE COMPLETED PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION OR DEMOLITION WORK. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH AND OBTAIN ALL NECESSARY PERMITS OR APPROVALS FROM APPROPRIATE UTILITY COMPANIES, GOVERNMENT AGENCIES AND MNR.

5. WHERE CONSTRUCTION CROSSES OR IS ADJACENT TO EXISTING UTILITY LINES OR IS WITHIN A 10 FT RADIUS OF AN EXISTING ELECTRICAL SERVICE LINE, THE CONTRACTOR SHALL CAREFULLY HAND EXCAVATE SO AS TO LOCATE, MARK AND PROTECT THE UTILITY LINES AGAINST DISTURBANCE OR DAMAGE BY PROVIDING ADEQUATE SUPPORT AND PROTECTION AS APPROVED BY THE UTILITY OWNER AND MNR.

6. EXERCISE CAUTION IN THE AREA OF THE EXISTING UTILITIES, ALL UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY, BASED ON AVAILABLE INFORMATION. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR DETERMINING THE EXACT LOCATIONS OF ALL UTILITIES OF THE RAILROAD, LOCAL MUNICIPALITIES, UTILITY COMPANIES AND PRIVATE OWNERS. THE CONTRACTOR SHALL TAKE ALLPRECAUTIONS, INCLUDING DIGGING TEST PITS AND USING HAND EXCAVATION; AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES DURING ALL CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATE RESTORATION TO SERVICE AND FACILITATE DAMAGE REPAIR SHOULD ANY SERVICE INTERRUPTIONS OCCUR AS A RESULT OF THE CONTRACTOR'S OPERATIONS.

7. THE CONTRACTOR SHALL RECORD MEASUREMENTS TO ALL UTILITY CONNECTIONS AND PROVIDE MARKED-UP AS-BUILT PLANS FOR ALL UTILITIES SHOWING TIES TO CONNECTIONS, BENDS, VALVES, LENGTHS OF LINES, AND INVERTS.

8. ALL CONFINED SPACE ENTRIES WILL BE MADE IN STRICT ACCORDANCE WITH OSHA REGULATIONS REGARDING CONFINED SPACE ENTRY.

CONCRETE:

1. ALL CONCRETE SHALL HAVE A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF f'c = 4,000 PSI, UNLESS OTHERWISE NOTED (UON).

2. ALL STEEL REINFORCEMENT BARS SHALL BE DEFORMED, ASTM A615, GRADE 60, GALVANIZED IN ACCORDANCE WITH ASTM A767, EXCEPT WHEN PERFORMING REPAIRS TO EXISTING CONSTRUCTION WHERE EPOXY REINFORCING WAS USED OR UNLESS NOTED OTHERWISE.

3. DRAIN PIPES, PIPE SLEEVES, ELECTRICAL CONDUITS AND EMBEDDED PARTS SHALL BE IN POSITION BEFORE CONCRETE IS PLACED.

4. ALL SPLICES IN REINFORCEMENTS SHALL COMPLY WITH THE REQUIREMENTS OF ACI 318-14, BUT IN NO CASE SHALL LAP BE LESS THAN 12".

5. SHIFT OR BEND REINFORCING TO CLEAR ANCHOR BOLTS, DRAINS, PIPE SLEEVES AND EMBEDDED PARTS.

6. GROUT SHALL BE 5,000 PSI, NON-SHRINK TYPE, UON.

7. EXPANSION AND CONTROL JOINTS IN CONCRETE STRUCTURES OTHER THAN DESCRIBED IN THESE DOCUMENTS WILL NOT BE PERMITTED UNLESS APPROVED BY THE DESIGN ENGINEER.

8. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4", UNLESS NOTED OTHERWISE.

9. ANCHOR BOLTS SHALL BE LOCATED AND SET PLUMB TO WITHIN 1/16" AND HELD RIGIDLY IN PLACE BY MEANS OF A TEMPLATE.

10. FOR CONCRETE FINISH, SEE TECHNICAL PROVISIONS.

11. ADDITIONAL REINFORCEMENT SHALL BE PROVIDED ALL AROUND OPENINGS AT LEAST 12" IN ANY DIRECTION. THE MINIMUM AREA OF STEEL EACH FACE SHALL BE EQUAL TO THE AREA OF THE CUT BARS. EXISTING BARS TO BE CUT SHALL BE HOOKED AT OPENING.

100% RFC SUBMISSION

DESIGNED	SED
DRAWN	TJB
CHECKED	SED
APPROVED	JSH

STATE OF NEW YORK — ISRAEL MOSHKOVICH — LICENSED PROFESSIONAL ENGINEER — 082155

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

GENERAL NOTES

HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE

DATE
07/09/2021

DRAWING NO.
HTD-G-201

SHEET 3 OF 99

GENERAL NOTES:

STRUCTURAL STEEL:

1. REFER TO PROJECT SPECIFICATIONS FOR STRUCTURAL STEEL REQUIREMENTS FOR THE VARIOUS DESIGN ELEMENTS (SECTIONS 051000, 053000, 053110, 055000 & 055200).

2. ALL STRUCTURAL BOLTS SHALL BE IN CONFORMANCE WITH ASTM A325, TYPE 1 SC, UON. ALL CONNECTIONS SHALL BE DETAILED AS SHOP WELDED AND FIELD BOLTED CONNECTIONS, UON ON THE CONTRACT DRAWINGS. STRUCTURAL BOLTS SHALL HAVE A MINIMUM SIZE OF 3/4" DIAMETER, UON. THE END CONNECTION USED SHALL BE BASED ON THE END REACTION INDICATED FOR THE BEAM SIZE AND THE SPAN PROVIDED IN THE CURRENT AISC MANUAL, PART 2 "UNIFORM LOAD CONSTANTS FOR BEAMS LATERALLY SUPPORTED", OR THE LEAST NUMBER OF BOLTS, WITH A MINIMUM OF 2 BOLTS IN THE STANDARD CONNECTION, WHICHEVER PROVIDES THE LARGEST CONNECTION.

3. STRUCTURAL STEEL WIDE FLANGE BEAM TO BEAM CONNECTIONS SHALL BE SHOP ASSEMBLED, USING DOUBLE CLIP ANGLES, TO FORM A LARGER UNIT FOR SHIPPING AND ERECTION; UON. FIELD WELDING SHALL BE MINIMIZED, EXCEPT WHERE SHOWN ON THE CONTRACT DRAWINGS.

4. DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AISC SPECIFICATIONS, AREMA SPECIFICATIONS AND THE CONTRACT DRAWINGS. THE FABRICATOR SHALL BE AN AISC CERTIFIED FABRICATOR (SIMPLE BUILDINGS).

5. SIZES AND LOCATIONS OF PIPE SLEEVES, CONDUITS AND OTHER OPENINGS IN SLABS OR FLOORS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE ESTABLISHED BY FILED VERIFICATION AND IN CONJUNCTION WITH THE DESIGN DRAWINGS OF THE OTHER DISCIPLINES.

6. WHERE FIELD WELDING IS INDICATED, THE SHOP COAT OF PAINT SHALL BE OMITTED FOR A DISTANCE OF 3 INCHES BACK FROM THE WELDED EDGE. FIELD WELDING SHOULD MINIMIZED TO LOCATIONS WHERE SPECIFIED ON THE CONTRACT PLANS ONLY.

7. GROUT UNDER BASE PLATES SHALL BE 1 INCH MINIMUM, UON.

8. THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR ERECTION, IF REQUIRED. AND AS DIRECTED BY RESIDENT ENGINEER AND OR MNR REPRESENTATIVE AS REQUIRED AT NO ADDITIONAL COST TO MNR.

9. DIMENSIONS AND LOCATIONS OF STRUCTURAL MEMBERS AND EMBEDDED ITEMS REQUIRED FOR PENETRATIONS AND SUPPORT SHALL BE COORDINATED AND VERIFIED WITH EQUIPMENT MANUFACTURERS AND APPROVED SHOP DRAWINGS PRIOR TO ERECTION.

10. STRUCTURAL STEEL SURFACES, INCLUDING BOLTS AND WELDS, SHALL BE GIVEN ONE COAT OF PRIMER IN ACCORDANCE WITH THE PROCEDURES AS SPECIFIED IN THE AISC MANUAL AND THE CONTRACT DOCUMENTS. PRIMER TO BE APPLIED ONLY AFTER CONNECTION IS COMPLETED, UNLESS NOTED OTHERWISE.

11. IF REAMING THE HOLES EXCEED TOLERANCES REQUIRED BY THE AISC MANUAL, THE CONTRACTOR SHALL PREPARE THE HOLE FOR THE NEXT LARGER DIAMETER BOLT AND INSTALL A LARGER DIAMETER BOLT AT THAT LOCATION, AT NO ADDITIONAL COST TO MNR. ALL EFFECTED HOLES TO BE SUBSEQUENCE PRIMED AND PAINTED

12. BOLTS SHALL NOT BE REUSED. BOLTS AND UNPAINTED STEEL IN A JOINT SHALL BE PAINTED WITH PRIMER IMMEDIATELY AFTER A CONNECTION IS ACCEPTED.

13. WHERE FILLET WELD SIZES ARE NOT SHOWN ON CONTRACT DRAWINGS, MINIMUM SIZE OF FILLET WELD SHALL BE PROVIDED AS PER AISC SPECIFICATIONS.

14. ALL ACCESSORIES SUCH AS SLAB BOLSTERS, CHAIRS AND SPACERS IN CONTACT WITH EXPOSED SURFACES SHALL HAVE PLASTIC COATED TIPS.

15. ALL ANCHOR BOLTS SHALL BE 316 STAINLESS STEEL CONFORMING TO ASTM A320 UNLESS NOTED OTHERWISE.

STEEL DECK

1. STEEL DECK SHALL CONFORM TO THE “SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS (AISI)”; “SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (AISC 360-16)”; “STRUCTURAL WELDING CODE - STEEL (AWS D1.3-10)”, AND THE “MANUAL OF CONSTRUCTION WITHS TEEL DECKS (STEEL DECK INSTITUTE)”.

2. STEEL DECK PANELS SHALL BE FORMED STEEL SHEETS CONFORMING TO ASTM A653, GRADE 40 SS, WITH A MINIMUM YIELD POINT OF 40,000 PSI (GALVANIZED G90 COATING). STEEL DECK SHALL BE PLACED SO AS TO BE CONTINUOUS OVER A MINIMUM OF THREE SPANS UNLESS NOTED OTHERWISE ON THE CONTRACT DOCUMENTS.

3. STEEL DECK SHALL BE ERECTED AND FASTENED IN ACCORDANCE WITH THE APPROVED STEEL DECK ERECTION LAYOUTS, AND ALL THE APPLICABLE RECOMMENDATIONS OF THE STEEL DECK INSTITUTE MANUAL OF CONSTRUCTION WITH STEEL DECK.

4. STEEL DECK SHALL BE CONNECTED TO THE SUPPORTING STEEL BY ARC PUDDLE WELDS AT LEAST ¾ INCH IN DIAMETER, OR ELONGATED, HAVING AN EQUAL PERIMETER, UNLESS OTHERWISE APPROVED AND NOTED. SEE SPECIFICATION FOR REQUIRED MINIMUM SPACING.

5. WELDING OF STEEL DECK SHALL PENETRATE ALL LAYERS OF DECK MATERIAL AT END LAPS AND SIDE JOINTS AND HAVE GOOD FUSION TO THE SUPPORTING STEEL MEMBERS.

6. ALL OPENINGS LARGER THAN 6” THROUGH STEEL ROOF DECK SHALL BE FRAMED WITH STEEL SUPPORT MEMBERS AS SHOWN ON THE CONTRACTOR DOCUMENTS. ACTUAL SIZE AND LOCATION OF OPENINGS SHALL BE COORDAINTED WITH ALL OTHER TRADES.

7. STEEL DECK AND ITS ANCHORAGE SHALL BE CAPABLE OF WITHSTANDING A MINIMUM NEW UPLIFHT FORCE OF 15 PSF WITHOUT CONSIDERING DEAD LOADS.

STEEL DECK CONT'D

8. STEEL DECK SHALL BE GALVANIZED ON ALL SURFACES AND PAINTED ON EXPOSED SURFACES, UNLESS NOTED OTHERWISE.

9. COMPOSITE DECKS SHALL BE GALVANIZED ON BOTH SIDES, AND PAINTED ON THE BOTTOM SIDE ONLY.

10. DECK DEFLECTION:DEFLECTION OF THE DECK SHALL NOT EXCEED 1/240 OF THE SPAN OR 1 INCH, WHIEVER IS LESS UNDER THE UNIFORML DISTRIBUTED DESIGN LIVE LOAD. SPANS ARE TO BE CONSIDERED AND MEASURED FROM CENTER TO CENTER OF SUPPORTS.

DEMOLITION:

1. DEMOLITION AND SITE CLEARING INCLUDES BUT IS NOT LIMITED TO THE REMOVAL OF TREES, BRUSH, ROOTS, DEBRIS, VEGETATION, POLES, VAULTS, FOOTINGS, UTILITIES, PAVEMENT, FENCES AND ALL OTHER ITEMS REQUIRED TO CONSTRUCT THE CONTRACT WORK AS SHOWN ON THE PLANS. AND AS DIRECTED BY RESIDENT ENGINEER AND OR MNR REPRESENTATIVE AS REQUIRED AT NO ADDITIONAL COST TO MNR.

2. DO NOT ALLOW DEMOLISHED OR REMOVED MATERIALS TO DROP, FALL OR IMPACT AGAINST STRUCTURES TO REMAIN OR FOUL RAILROAD TRACKS. PROTECT ALL STRUCTURES TO REMAIN FROM DAMAGE OF ANY KIND.

3. REMOVE ALL DEMOLISHED MATERIAL PROMPTLY FROM THE SITE. ASPHALT SHALL BE SAW CUT WITH SUITABLE POWER-DRIVEN EQUIPMENT, AND PRE-CUT WITH A POWER SAW.

4. THE CONTRACTOR IS TO PROVIDE ALL TEMPORARY SIGNAGE DURING CONSTRUCTION AS SHOWN ON THE CONTRACT STAGING PLANS AND AS DIRECTED BY MNR. COORDINATION WITH THE VILLAGE AND OR TOWNS AND PARKING AUTHORITIES REQUIRED ADVANCE NOTICE.

PROTECTION OF WORK, PROPERTY AND PERSONNEL:

1. THE CONTRACTOR SHALL PROVIDE BARRIERS TO KEEP PEDESTRIAN AREAS AND TRACK AREAS CLEAN AND FREE FROM CONSTRUCTION DEBRIS AT ALL TIMES; PROVIDE DUMPSTERS FOR DEBRIS REMOVAL. THE WORK AREA SHALL BE CLEANED AT THE END OF EACH WORK DAY.

2. ALL CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE REQUIRED TO ATTEND A SAFETY ORIENTATION GIVEN BY MNR (REFER TO SPECIFICATION SECTION 013529). PROOF OF ATTENDANCE AT THIS SAFETY TRAINING SHALL BE CONSPICUOUSLY DISPLAYED AT ALL TIMES WHILE ON MNR PROPERTY. THE CONTRACTOR IS ADVISED THAT CERTAIN ACTIVITIES WILL REQUIRE MNR PROTECTIVE PERSONNEL OR TRACK OUTAGES. REFER TO ARTICLE 1.22 FOR ADDITIONAL INFORMATION CONCERNING REQUIREMENTS FOR WORK WITHIN OR ADJACENT TO THE MNR RIGHT-OF-WAY.

3. THE CONTRACTOR SHALL FURNISH AND INSTALL SCAFFOLDING FOR USE AS A SHIELD AND A WORK PLATFORM FOR THE WORK AS SHOWN IN THE CONTRACT DRAWINGS. PRIOR TO INSTALLATION, SUBMIT TO MNR FOR APPROVAL, A SCAFFOLD/SHIELD DESIGN SIGNED AND SEALED BY A NY STATE PROFESSIONAL ENGINEER IN ACCORDANCE WITH MNR REQUIREMENTS.

4. THE CONTRACTOR SHALL FURNISH TEMPORARY BARRIERS, WHICH ARE TO BE SOLID WALL, RIGID, FIXED, TRACK SHIELDING SAFETY STRUCTURES. THESE BARRIERS ARE TO BE CONSTRUCTED ALONG ALL LENGTHS SHOWN ON THE CONTRACT DRAWINGS ALONG THE WORK ZONE TO PROTECT TRAINS AGAINST INTERFERENCE AND TO PROTECT PEDESTRIANS AND WORKERS FROM FOULING THE TRACKS, INCLUDING FOULING FROM FALLING TOOLS, MATERIALS AND OTHER OBJECTS DURING CONSTRUCTION. PRIOR TO INSTALLATION, A WORK ZONE PROTECTION DESIGN PLAN SIGNED AND SEALED BY NY STATE PROFESSIONAL ENGINEER IN ACCORDANCE WITH RAILROAD REQUIREMENTS; MUST BE SUBMITTED TO MNR FOR APPROVAL.

5. ALL WORK WITHIN 15 FEET OF THE CENTERLINE OF TRACKS WILL REQUIRE AT LEAST ONE MNR FLAGMAN. USE OF EQUIPMENT THAT MAY FALL WITHIN THIS THRESHOLD, OR ANY OTHER CONDTION, CIRCUMSTANCE OR SITUATION THAT MAY PRESENT, IN THE OPINION OF A QUALIFIED RAILROAD EMPLOYEE, DANGER TO THE SAFE MOVEMENT OF TRAINS WILL ALSO REQUIRE AT LEAST ONE MNR FLAGMAN.

6. PRIOR TO ANY EXCAVATION, INSTALLATION OF SHEETING, SHORING OR ANY OTHER WORK WITHIN THE RAILROAD RIGHT-OF-WAY, A WORK PLAN INCLUDING DRAWINGS AND PROCEDURE OF WORK MUST BE SUBMITTED TO AND APPROVED BY MNR. AND AN SOE (SUPPORT OF EXCAVATION PLAN) THAT IS PE STAMPED AND COOPER E-80 REQUIREMENT WITH 6 WEEKS ADVANCED NOTICE.

7. THE CONTRACTOR WILL PROTECT EXISTING SURVEYING AND PROPERTY LINE MARKINGS/MONUMENTS. ANY EXISTING SURVEY MARKER THAT IS DISTURBED OR DESTROYED, AS JUDGED BY THE ENGINEER OR MNR, WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE UNDER THE SUPERVISION OF A NY STATE LICENSED LAND SURVEYOR.

CONCRETE MASONRY

1. REFER TO THE SPECIFICATIONS AND TO THE ARCHITECTURAL DRAWINGS FOR TYPE AND GRADES OF MATERAISL REQUIRED AND FOR LOCATIONS OF CMU WALLS.

2. ALL MASONRY WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA), OF THE BRICK INSTITUE OF AMERICA (BIA) SPECIFICATIONS, AND ACI 530/530.1. BUILDING CODE REQUIREMENT AND SPECIFICATIONS FOR MASONRY STRUCTURAS, AS APPLICABLE.

3. ALL CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C90, GRADE N-1, WITH AN INDIVIDUAL COMPRESSIVE STRENGTH OF 3750 PSI, WITH F'M=2500 PSI.

4. MORTAR FOR BLOCK WALLS SHALL BE TYPE M OR S, CONFORMING TO ASTM C270.

CONCRETE MASONRY CONT'D

5. GROUT FOR BLOCK WALLS SHALL CONFORM TO ASTM C476, WITH A COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS.

6. ALL CONCRETE MASONRY UNITS SHALL BE BRACED DURING CONSTRUCTION UNTIL PERMANENT RESTRAINTS HAVE BEEN INSTALLED.

7. REINFORCING STEEL: FY=60 KSI, ASTM A615. REINFORCING STEEL SHALL BE GALVANIZED UNLESS NOTED OTHERWISE.

8. REINFORCE AND GROUT CMU WALLS IN LIFTS NOT TO EXCEED 4 FEET HIGH.

9. PROVIDE BOND BEAMS AT A VERTICAL SPACING NOT TO EXCEED 8 FEET ON CENTER AND WHERE NEEDED TO ACT AS A LINTEL IN ALL REINFORCED CMU WALLS AND WHERE INDICATED FOR NON-REINFORCED CMU WALLS AS SHOWN IN THE ARCHITECTURAL DRAWINGS, AND IN ACCORDANCE WITH THE SPECIFICATIONS, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

10. BUILD NEW CMU WALLS INTEGRALLY WHEN THEY INTERSECT.

11. VERTICAL CELLS CONTAINING REINFORCEMENT AND GROUT SHALL FORM A CONTINUOUS CAVITY, FREE OF JOINT MORTAR DROPPINGS.

12. LIFTS OF GROUT SHALL BE KEYED IN 3 INCHES INTO THE PREVIOUS COURSES OF MASONRY BELOW.

100% RFC SUBMISSION

DESIGNED	SED
DRAWN	TJB
CHECKED	SED
APPROVED	JSH

STATE OF NEW YORK — MICHAEL J. MOSHER — 062155 — LICENSED PROFESSIONAL ENGINEER

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

GENERAL NOTES

HARTSDALE STATION

CONTRACT NO. 1000106733

SCALE

DATE 07/09/2021

DRAWING NO. HTD-G-202

SHEET 4 OF 99

ARCHITECTURAL LINEWORK

BUILDING LINE

IRON FENCE

PLATFORM HANDRAIL

CHAIN LINK FENCE

CURB LINE

DEMOLITION

CONTOUR LINE (MAJOR) — 103

CONTOUR LINE (MINOR)

CENTER LINE

RIGHT-OF-WAY LINE

PROPERTY LINE

PROPERTY OUTBOUND

HEDGE ROW

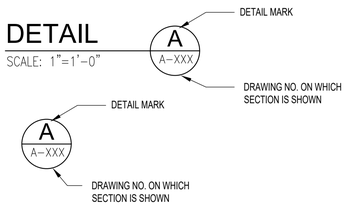
WOODS LINE

APPROX BRIDGE EDGE

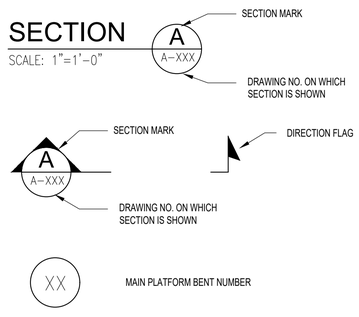
TREE & TRUNK DIAMETER — 8" (DECIDUOUS) 8" (DECIDUOUS)

REFERENCE SYMBOLS

DETAIL — SCALE: 1"=1'-0"



SECTION — SCALE: 1"=1'-0"



UTILITY SYMBOLS:

DOUBLE POST SIGN
TRAFFIC SIGN
GENERAL SIGN
PM — PARKING METER
CC — COAL CHUTE
F — FIRE CALL BOX
TB — TRAFFIC CONTROL BOX
MB — HOUSE MAIL BOX
POSTAL MAIL BOX
T — PAY PHONE BOOTH
EB — ELECTRIC BOX
FILL — OIL FILL
MONUMENT
STANDPIPE OR SPRINKLER
FIRE HYDRANT
U — UNKNOWN BOX
U — UNKNOWN GRATE
U — UNKNOWN VAULT
OIL VENT BOX
UTILITY POST
CONCRETE POST
TC — TELEPHONE BOX

L — STREET LIGHT
L PS — STREET LIGHT W/ PEDESTRIAN SIGNAL
L T — STREET LIGHT W/ TRAFFIC SIGNAL

E — ELECTRICAL MH
F — NYFD MH
G — GAS MH
S — SANITARY MH
D — STORM MH
ST — STEAM MH
SU — SUBWAY MH
T — TELEPHONE MH
U — UNKNOWN MH
W — WATER MH

TYPE 'A' INLET
TYPE 'B' INLET
TYPE 'E' INLET
ROUND DRAIN
SQUARE DRAIN
ENTRANCE (DOORWAY)
CO — CLEAN OUT
RAILROAD TRACK SIGNAL BOX
RAILROAD TRACK SIGNAL LIGHT

MATERIAL PATTERNS

BRICK
L.W.C.B. (OR) AC. MASONRY
EARTH
CONCRETE BLOCK
CERAMIC TILE AND GLAZED BLOCK
BROKEN STONE (OR) GRAVEL
CONCRETE
STEEL
BATT INSULATION
GRANITE AND LIMESTONE
ALUMINUM
FINISHED WOOD
CAULKING
BRONZE
RIGID INSULATION
WOOD BLOCKING
FURNITURE BY B.O.S.

ABBREVIATIONS:

A	AB.	ABOVE
	AcT	ACOUSTICAL TILE
	Ac.F.L.	ACOUSTICAL FORM LINING
	AcMAS.	ACOUSTICAL MASONRY UNITS
	A.D.	ACCESS DOOR
	A.Dr.	AREA DRAIN
	ADJ.	ADJUST (OR) ADJACENT
	A.F.F.	ABOVE FINISHED FLOOR
	A.F.G.	ABOVE FINISHED GRADE
	ALUM.	ALUMINUM
	APP'D.	APPROVED
	APPROX.	APPROX.
	ARCH.	ARCHITECT
	ASPH.	ASPHALT
	ASSEM.	ASSEMBLY
	AUX.	AUXILLIARY
	&	AND
	∠	ANGLE
	@	AT
B	B.C.	BRICK COURSE (OR) BOOK CASE
	BD.	BOARD
	B.E.S.	BRONZE EXPANSION SADDLE
	B.L.	BUILDING LINE
	BLD'G.	BUILDING
	BLK.	BLOCK
	BM.	BEAM
	B.O.	BOTTOM OF
	B.C.	BOTTOM OF CURB
	B.W.	BOTTOM OF WALL
	BOT.	BOTTOM
	BR.	BRONZE
	B.S.	BLUE STONE (OR) BRONZE SADDLE
C	CAB'T.	CABINET
	C.B.	CATCH BASIN
	CAFE.	CAFETERIA
	CEM'T.	CEMENT
	CL.	CENTER LINE
	C.I.	CAST IRON
	CL. / CLOS.	CLOSET
	CLG	CEILING
	COL.	COLUMN
	CORR.	CORRIDOR
	CONT./ CONTIN.	CONTINUOUS
	CONC.	CONCRETE
	CONV.	CONVECTOR
	C.R.	CLASSROOM
	C.S.	CAST STONE
	C.T.	CERAMIC TILE
	CU.FT.	CUBIC FEET
D	DBL.	DOUBLE
	DEP.	DEPRESSED
	DEPT.	DEPARTMENT
	DET.	DETAIL
	D.F.	DRINKING FOUNTAIN
	DIA.	DIAMETER
	DIM.	DIMENSION
	DISP.	DISPENSER
	DISP. CAB.	DISPLAY CABINET
	DN.	DOWN
	DR.	DOOR
	DWG.	DRAWING
E	E.B.P.	EXPOSED BLOCK PAINTED
	E.G.	ESTABLISHED GRADE
	E.J./ EXP. JT.	EXPANSION JOINT
	EL./ELEV.	ELEVATION
	ELEC.	ELECTRIC
	ENCL.	ENCLOSURE
	ENT.	ENTRANCE
	EQ.	EQUAL
	EQUIP.	EQUIPMENT
	ERD.	EMERGENCY ROOF DRAIN
	EXP.	EXPANSION
	EXIST.	EXISTING
F	F.	FIXED
	FAPMR	FLUID-APPLIED PROTECTED MEMBRANE ROOFING
	F.C.	FURRED CEILING
	F.C.C.	FLUSH CONCRETE CURB
	F.D.	FLOOR DRAIN
	F.E.R.	FIRE EXTINGUISHER RECESS
	F.H.	FIRE HYDRANT
	FIN.	FINISH
	FL./FLR.	FLOOR
	FLASH'G.	FLASHING
	F.M.S.	FLUSH MARBLE SADDLE
	FOUND.	FOUNDATION
	F.P.	FIREPROOFING
	F.P.S.C.	FIRE PROOF SELF CLOSING
	FR.	FRAME
	F.S.	FLOOR SINK
	F.S.P.	FIRE STANDPIPE
	F.T.	FLUSH TREAD
	FTG.	FOOTING
G	GA.	GAUGE
	GALV.	GALVANIZED
	GB.	GLAZED BLOCK
	G.C.	GENERAL CONTRACTOR
	G.DB.	GLAZED DISPLAY BOARD
	G.I.	GALVANIZED IRON
	GL.	GLASS
	GR.	GRILLE
	GR.EL.	GRADE ELEVATION
	GRNT.	GRANITE
	G.T.	GLAZED TILE
	G.V.	GAS VALVE
	GWB.	GYPSUM WALL BOARD
H	H.	HIGH
	H.C.	HUNG CEILING
	HDCP	HANDICAPPED
	HGT.	HEIGHT
	H.K.E.	HEAVY KITCHEN EQUIPMENT
	H.M.	HOLLOW METAL
	HORIZ.	HORIZONTAL
	H.P.	HIGH POINT
	H.R.	HAND RAIL
	HR.	HOUR
	H&V	HEATING & VENTILATION
I	I.D.	INSIDE DIAMETER
	IG.	INTERIOR WIRE MESH GUARD
	INV.	INVERT
	INSUL.	INSULATION
J	J.S.C.	JANITOR'S SINK CLOSET
K	KP.	KICKPLATE
L	L.	LEADER
	LAB.	LABORATORY
	LAV.	LAVATORY
	L.G.	LEGAL GRADE
	LKR.	LOCKER
	L.P.	LOW POINT
	L.S.	LOUDSPEAKER
	LT.	LIGHT
	L.W.C.B.	LIGHTWEIGHT CONCRETE BLOCK
M	M./ MTL.	METAL
	MA.	METAL ACCESS DOOR
	MAG.	MAGAZINE
	MAR.	MARBLE
	MAT.	MATERIAL
	MAX.	MAXIMUM
	M.C.	MATERIAL CABINET
	M.C.R.	MATERIAL CABINET RECESS
	M.&C. CAB.	MATERIAL & CHART CABINET
	MECH.	MECHANICAL
	M.F.	METAL FURRING
	M.H.	MANHOLE
	MIN.	MINIMUM
	M.O.	MASONRY OPENING
	MOV.	MOVABLE
	M.S.	METAL STRIP
N	N.D.	NOMINAL DIAMETER
	N.I.C.	NOT IN CONTRACT
	NO.	NUMBER
	NOM.	NOMINAL
	N.T.S.	NOT TO SCALE
O	O.A.I.	OUTSIDE AIR INTAKE
	O.C.	ON CENTER
	O.D.	OUTSIDE DIAMETER
	OF.D.	OVERFLOW DRAIN
	OP'G.	OPENING
P	P.	PAINT
	PART.	PARTITION
	PAV.	PAVEMENT
	P&D	PLUMBING AND DRAINAGE
	PERF.	PERFORATED
	PLAT.	PLATFORM
	P.L.V.	PLASTIC LAMINATED VENEER
	PRES.	PRESENT
	PT. C.B.	PAINTED CONCRETE BLOCK
	P.L. / PROP. LINE	PROPERTY LINE
Q	Q.T.	QUARRY TILE
R	r.	RADIUS
	R.	RISER
	RAIL'G.	RAILING
	RAD.	RADIATOR
	R.C.O.	RECESSED CONVECTOR OPENING
	R.D.	ROOF DRAIN
	REC.	RECESS
	REINF.	REINFORCEMENT
	RET.	RETAINING
	REV.	REVEAL
	RM.	ROOM
	R.M.S.	RAISED MARBLE SADDLE
	R.O.	ROUGH OPENING
	RUB.	RUBBER
	R.P.Z.	REDUCED PRESSURE ZONE
S	S.	SINK
	SAD.	SADDLE
	S.A.F.R.M.	SPRAY APPLIED FIRE RESISTIVE MATERIAL
	SAN. SB.	SANITARY SECURITY BARRIER
	SECT.	SECTION
	SH./SHELV'G.	SHELVING
	SHT.	SHEET
	SIM.	SIMILAR
	SL.	SLEEVE
	SP.	SPACE
	SPEC.	SPECIFICATION
	SQ.FT. / S.F.	SQUARE FEET
	S.SK.	SLOP SINK
	S.S./ST.STL.	STAINLESS STEEL
	STD.	STANDARD
	STL.	STEEL
	ST.PL.	STEEL PLATE
	STOR.	STORAGE
	STRUCT./STRL.	STRUCTURAL
	STD.DET.	STANDARD DETAIL
	STY.	STORY
	S.Y.	SQUARE YARD
	SO.	SOLDIER
T	T.	TOILET
	T.A.O.	TYPE "A" OPENING
	T.B.O.	TYPE "B" OPENING
	T&B	TOP AND BOTTOM
	T.C. / T.O.C.	TOP OF CURB
	T.D. / T.O.D.	TOP OF DRAIN
	TEL.	TELEPHONE
	TERR.	TERRAZZO
	T.F. / T.O.F.	TOP OF FENCE
	TH.	THICKNESS
	T.K.P.	TRUCK KICK PLATE
	T.L.	TEACHER'S LOCKER
	T.O.	TRIMMED OPENING
	T.O.S.	TOP OF SLAB
	TR.	TREAD
	T.S.	TRANSFER SCUPPER
	T.V.S.	TAPERED VINYL SADDLE
	T.W. / T.O.W.	TOP OF WALL
	T.Y.O.	TYPE "Y" OPENING
	TYP.	TYPICAL
U	U.	UNFINISHED
	U.O.N.	UNLESS OTHERWISE NOTED
V	V. /VIN.	VINYL
	V.C.T.	VINYL COMPOSITION TILE
	VENT.	VENTILATOR
	VERM.	VERMICULITE
	VERT.	VERTICAL
	VEST.	VESTIBULE
	V.I.T.	VINYL IMPREGNATED
	V.T.	TACKBOARD VITREOUS TILE
	V.W.C.	VINYL WALL COVERING
W	W/	WITH
	WARD	WARDROBE
	WAINS.	WAINSCOT
	W.C.	WATER CLOSET
	WD.	WOOD
	W.F.	WIRE FENCE (OR) WIDE FLANGE
	W.H.	WEEPHOLE
	W.I.	WROUGHT IRON
	W.M.	WIRE MESH
	W.M.G.	WIRE MESH GUARD
	W.P.	WATERPROOFING
	WT.	WEIGHT
	W.W.F.	WELDED WIRE FABRIC
	W.V.	WATER VALVE

100% RFC SUBMISSION

DESIGNED	SED
DRAWN	TJB
CHECKED	SED
APPROVED	JSH

STATE OF NEW YORK — MICHAEL MOSKOWITZ — 062155 — LICENSED PROFESSIONAL ENGINEER

NO.	DATE		DRWN	CHKD	APPVD

REVISION

CONFORMED

NO.	DATE		DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

LEGEND & ABBREVIATIONS

HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE

DATE
07/09/2021

DRAWING NO.
HTD-G-203

SHEET 5 OF 99

MNR - SCARSDALE TRAIN STATION CONSTRUCTION
CODE DATA: GENERAL REQUIREMENTS

I. CONSTRUCTION CODES

- BUILDING CODE
  2015 NEW YORK STATE BUILDING CODE (IBC 2015) W/ 2017 SUPPLEMENTS
  2015 NEW YORK STATE EXISTING BUILDING CODE (IEBC 2015)
- FIRE/LIFE SAFETY CODE
  2018 NEW YORK STATE FIRE CODE (IFC 2015)
- ACCESSIBILITY CODE
  - 2010 NEW YORK STATE ADA
  - 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN (ADAAG 2004)
  - DEPARTMENT OF TRANSPORTATION ADA STANDARDS FOR TRANSPORTATION FACILITIES
- ENERGY CODE
  2016 NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE (2015 IECC/ASHRAE 90)
- MECHANICAL CODE
  2018 INTERNATIONAL MECHANICAL CODE (IMC 2018)
- ELECTRICAL CODE
  NATIONAL ELECTRIC CODE 2017 (NFPA 70)
- ELEVATOR CODE*
  ASME A17.1 SAFETY CODE FOR ELEVATORS AND ESCALATORS (2013)

II. REFERENCES

- ASCE 7 *MINIMUM DESIGN LOADS and ASSOCIATED DESIGN CRITERIA for BUILDINGS AND OTHER STRUCTURES*
- ASCE 24 *FLOOD RESISTANT DESIGN AND CONSTRUCTION*
- FEMA GUIDELINES AND STANDARDS POLICY - *FLOOD RISK ANALYSIS AND MAPPING*
- USACE DESIGN MANUAL

III. STANDARDS

- MNR STATION DESIGN STANDARDS and GUIDELINES, 2018
- MNR SIGNAGE MANUAL - *CURRENT VERSION*
- MNR CODE COMPLIANCE MANUAL

IV. REGULATIONS

- FEDERAL RAILROAD ADMINISTRATION (FRA) REGULATIONS
- OCCUPATIONAL SAFETY AND HEALTH (OSHA) REGULATIONS

*REFER TO VERTICAL TRANSPORTATION NOTES – ELEVATOR REQUIREMENTS

MNR – SCARSDALE TRAIN STATION
CONSTRUCTION CODE DATA - CODE REVIEW - 2015 NYS BUILDING CODE

CHAPTER 3 - USE AND OCCUPANCY CLASSIFICATION

SECTION	TITLE	REQUIRED	PROVIDED	NOTES
303	ASSEMBLY GROUP A	A-3	A-3	-

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREA LIMITATIONS

SECTION	TITLE	REQUIRED	PROVIDED	NOTES
504	BUILDING HEIGHT AND NUMBER OF STORIES (ALLOWABLE)	AS PER TABLE 504.3, HEIGHT = 55 FT	30 FT.	-
SECTION	TITLE	REQUIRED	PROVIDED	NOTES
504	BUILDING HEIGHT AND NUMBER OF STORIES	AS PER TABLE 504.4, STORIES = 2 STORIES	2 STORIES	-

CHAPTER 6 - TYPES OF CONSTRUCTION

SECTION	TITLE	REQUIRED	PROVIDED	NOTES
601	GENERAL	AS PER TABLE 601, TYPE IIB NON-COMBUSTIBLE	TYPE IIB NON-COMBUSTIBLE	-
		PRIMARY STRUCTURE = 0	0	-
		BEARING WALL , EXT = 0	0	-
		BEARING WALL, INT = 0	0	-
		NON-BEARING EXT WALLS		SEE TABLE 602
		NON-BEARING INT WALLS = 0	0	-
		FLOOR CONSTR = 0	0	-
		ROOF CONSTR = 0	0	-
SECTION	TITLE	REQUIRED	PROVIDED	NOTES
602	CONSTRUCTION CLASSIFICATION	AS PER TABLE 602, FIRE RESISTANCE RATING FOR TYPE IIB = 0	FIRE RESISTANCE RATING = 0	-
SEPARATION DISTANCES – SEE TABLE 602				
		X < 5 1	1	ELEVATOR MACHINE ROOM
		5 < X <10 1	N/A	
		10 < X < 30 0	0	ELEVATOR HOISTWAY
		X > 300 0	N/A	

CHAPTER 7 - FIRE AND SMOKE PROTECTIONFEATURES

SECTION	TITLE	REQUIRED	PROVIDED	NOTES
705.2	PROJECTIONS	AS PER TABLE 705.2	N/A	-
707.3.1	FIRE RATING, SHAFT ENCLOSURE	AS PER 713.4, FIRE RESISTANCE RATING FOR LESS THAN 4 STOREIS = 1	N/A	-
707.4	EXTERIOR WALL, SHAFT ENCLOSURE	AS PER 704, FIRE RESISTANCE RATING FOR LESS THAN 4 STOREIS = 1	0	-

CHAPTER 8 – INTERIOR FINISHES

SECTION	TITLE	REQUIRED	PROVIDED	NOTES
803	WALL AND CEILING FINISHES	AS PER 803.1, ASTM E84 or UL	COMPLY	-

CHAPTER 9 - FIRE PROTECTION SYSTEMS

SECTION	TITLE	REQUIRED	PROVIDED	NOTES
903.2.1.3	AUTOMATIC SPRINKLER SYSTEM - GROUP A-3			-
		IF > 12,000 SF	NOT REQUIRED	-
		IF > 300 OCCUPANTS	NOT REQUIRED	-
		IF FIRE AREA OTHER THAN DISCHARGE LEVEL	NOT REQUIRED	-
903.3.1.1.1	AUTOMATIC SPRINKLER EXEMPTION	-	-	FIRE DETCETION SYSTEM, AS PER 907.2
907.2.1	MANUAL FIRE ALARM BOXES	-	-	REQUIRED

CHAPTER 10 - MEANS OF EGRESS

SECTION	TITLE	REQUIRED	PROVIDED	NOTES
1009.3	ACCESSIBLE MEANS OF EGRESS REQUIRED - STAIRS	STAIR WIDTH = 48 IN. MIN	-	EXISTING CONDITION, N/A
1009.4	ACCESSIBLE MEANS OF EGRESS REQUIRED - ELEVATORS	STAIR WIDTH = 44 IN. MIN	-	EXISTING
1011.3	HEADROOM (STAIRWAYS)	STAIR HEADROOM = 80 IN.MIN.	-	EXISTING
1011.5.2	RISER HEIGHT/TREAD DEPTH (STAIRWAYS)	R = 7 IN MAX / 4 IN MIN T = 11 IN MIN	-	EXISTING
1011.5.4	DIMENSIONAL UNIFORMITY (STAIRWAYS)	.375 PER FLIGHT	-	EXISTING
1011.6	LANDING (STAIRWAYS)	MATCH STAIR WIDTH AND DEPTH, NOT EXCEED 48 IN	-	EXISTING
1011.7.1	WALKING SURFACE (STAIRWAYS)	1:48 MAX SLOPE	-	EXISTING
1011.8	VERTICAL RISE BETWEEN LEVELS (STAIRWAYS)	12 FT MAX	-	EXISTING
1011.11	HANDRAILS (STAIRWAYS)	COMPLY WITH SECTION 1014	-	EXISTING
1014	HANDRAILS (STAIRWAYS)	HEIGHT 34IN – 38 IN / FULLY CONTINUOUS / EXTENSIONS (TOP/BOTTOM) 12 IN/12 IN	-	EXISTING

CHAPTER 13 - ENERGY EFFICIENCY

ENERGY REQUIREMENTS
2016 NYS ECC (2015 IECC/ASHRAE 90)

CHAPTER 4 - COMMERICAL ENERGY EFFICIENCY
AS PER SECTIONS C401 & C402 BUILDING ENVELOPE REQUIREMENTS

CHAPTER 24 - GLASS AND GLAZING

SECTION	TITLE	REQUIRED	PROVIDED	NOTES
2409.2	GLASS IN ELEVATOR HOISTWAY ENCLOSURES	LAMINATED, CONFORMING TO ANSI Z97.1 OR CPSC 16CRF PART 1201	COMPLY	-

CHAPTER 30 - CONVEYING DEVICES

SECTION	TITLE	REQUIRED	PROVIDED	NOTES
3005.4	MACHINE ROOMS	FIRE RATING NOT LESS THAN THE HOISTWAY (MIN. 1 HR)	1 HR	-
3005.6	PLUMBING SYSTEMS	NOT PERMITTED IN EMR	N/A	-
N/A	SMOKE VENTING	NO LOUVERS REQUIRED - N/A	N/A	-

*REFER TO ASME A17.1 SAFETY CODE FOR ELEVATORS AND ESCALATORS (2013)

2015 NYS EXISTING BUILDING CODE

CLASSIFICATION OF WORK		REFERENCE
LEVEL 1 ALTERATION:	REMOVAL AND REPLACEMENT OR COVERING OF EXISTING MATERIALS, ELEMENTS, EQUIPMENT OR FIXTURES USING NEW MATERIALS, ELEMENTS, EQUIPMENT, OR FIXTURES THAT SERVE THE SAME PURPOSE	SECTION 503, CHAPTER 7
ADDITIONS TO EXISTING BUILDINGS:	EXTENSION OF INCREASE IN FLOOR AREA, NUMBER OF STORIES, OR HEIGHT OF A BUILDINGS OR STRUCTURE	SECTION 507, CHAPTER 11
HISTORICAL BUILDINGS:	LISTED, OR CERTIFIED AS ELIGIBLE FOR LISTING, BY THE STATE HISTORIC PRESERVATION OFFICER, WORK INCLUDING REPAIR, ALTERATION, RELOCATION AND CHANGE OF OCCUPANCY	SECTION 508, CHAPTER 12

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DESIGNED	SED
DRAWN	TJB
CHECKED	SED
APPROVED	JSH

STATE OF NEW YORK · RAFAEL MOSKOWITZ · 062155 · LICENSED PROFESSIONAL ENGINEER

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

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STV 100 Years
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NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

CODE COMPLIANCE - GENERAL

HARTSDALE STATION

CONTRACT NO.
1000106733

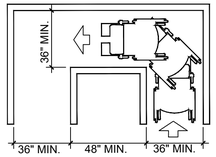
SCALE

DATE
07/09/2021

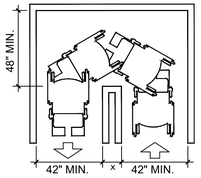
DRAWING NO.
HTD-G-301

SHEET 6 OF 99

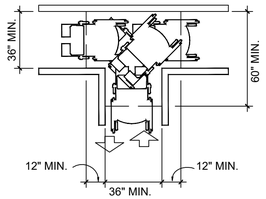
WHEELCHAIR TURNINGSPACES:



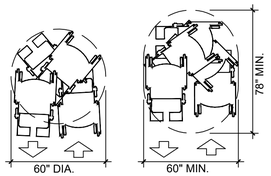
90° TURN



NOTE
Dimensions shown apply when x < 48 in.
U-TURN AROUND AN OBSTRUCTION

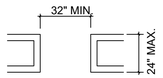


T-SHAPED SPACE FOR 180° TURN

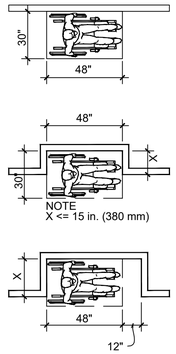


SPACE NEEDED TO TURN A WHEELCHAIR

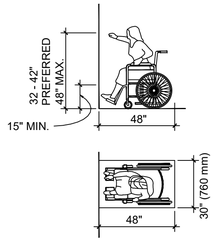
SPACE NEEDED FOR SMOOTH U-TURN



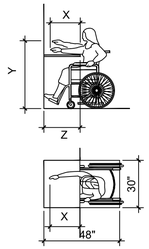
WHEELCHAIR CLEAR FLOOR SPACES:



PARALLEL APPROACH



HIGH FORWARD REACH LIMIT



MAXIMUM FORWARD REACH OVER AN OBSTRUCTION

NOTE
X shall be <= 25 in. (635 mm); Z shall be >= X, When X < 20 in. (510 mm), then Y shall be 48 in. (1220 mm) maximum. When X is 20 to 25 in. (510 to 635 mm), then Y shall be 44 in. (1120 mm) maximum.

INTERNATIONAL SYMBOL OF ACCESSIBILITY:

Proportions

Display Condition

Display Condition

Notes:

a. The International symbol of accessibility shall be displayed in a manner complying at the following locations.
   1. Accessible entrances
   2. Accessible toilet and bathing facilities

b. Letters and numbers on sign systems shall have width-to-height ratio of between 3:5 and 1:1.

c. Letters and numbers on sign systems shall have stroke width-to-height ratio of between 1:5 and 1:10.

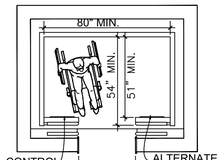
d. Minimum dimensions for the symbol:

Location	Minimum size
Interior	2 1/2 inches
Exterior	8 inches

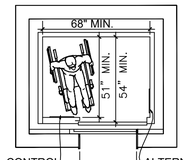
e. Interior signs shall be located alongside of the door on the latch side and shall be mounted at between four feet six inches and five feet six inches above finished floor.

f. Exterior signs shall be installed at entrances and walks to direct individuals to accessible routes and entrances.

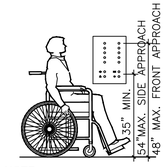
ELEVATOR CARS:



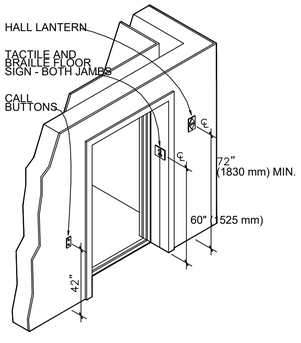
CAR WITH CENTER OPENING DOORS



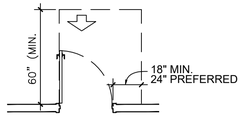
CAR WITH SIDE OPENING DOORS

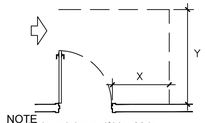


NOTE
If provided, emergency communications must be accessible per ADAAG.
CONTROL PANEL HEIGHT

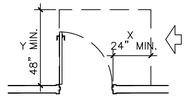


MANEUVERING CLEARANCES AT DOORS:



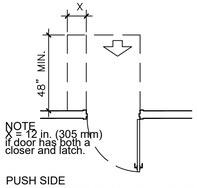


NOTE
X = 36 in. minimum if Y = 60 in.
X = 42 in. minimum if Y = 54 in.



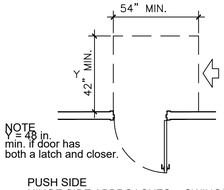
NOTE
Y= 54 in. minimum if door has closer.

PULL SIDE



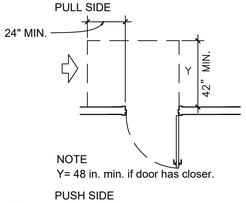
NOTE
X = 12 in. (305 mm) if door has both a closer and latch.

PULL SIDE



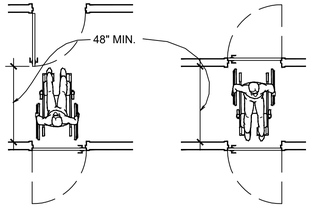
NOTE
Y = 48 in. min. if door has both a latch and closer.

PULL SIDE



NOTE
Y= 48 in. min. if door has closer.

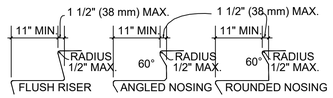
PUSH SIDE
FRONT APPROACHES -- SWINGING DOORS

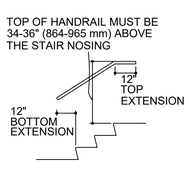


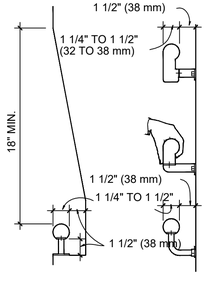
PUSH SIDE
HINGE SIDE APPROACHES -- SWINGING DOORS

PUSH SIDE
LATCH SIDE APPROACHES -- SWINGING DOORS

STAIRS & HANDRAILS:







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DESIGNED	SED
DRAWN	TJB
CHECKED	SED
APPROVED	JSH

NO.	DATE		DRWN	CHKD	APPVD

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NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ADA CLEARANCES, FLOOR SPACES & MANEUVERING REQUIREMENTS
HARTSDALE STATION

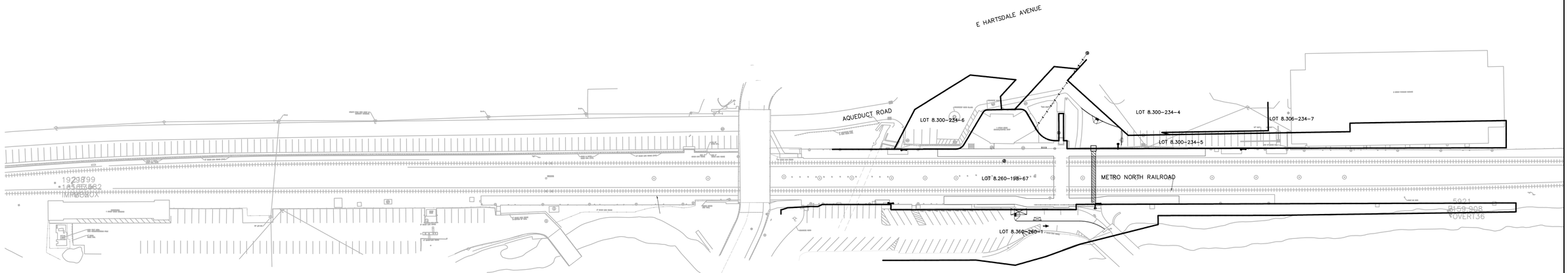
CONTRACT NO.
1000106733

SCALE

DATE
07/09/2021

DRAWING NO.
HTD-G-302

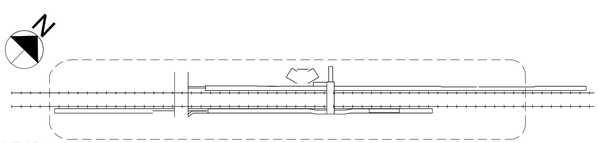
SHEET 7 OF 99



SITE PLAN

LEGEND

PROPERTY LINE



KEY PLAN

100% RFC SUBMISSION

DESIGNED	RGH
DRAWN	AB
CHECKED	GG
APPROVED	RGH

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NO.	DATE		DRWN	CHKD	APPVD

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NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

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TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

SITE PLAN

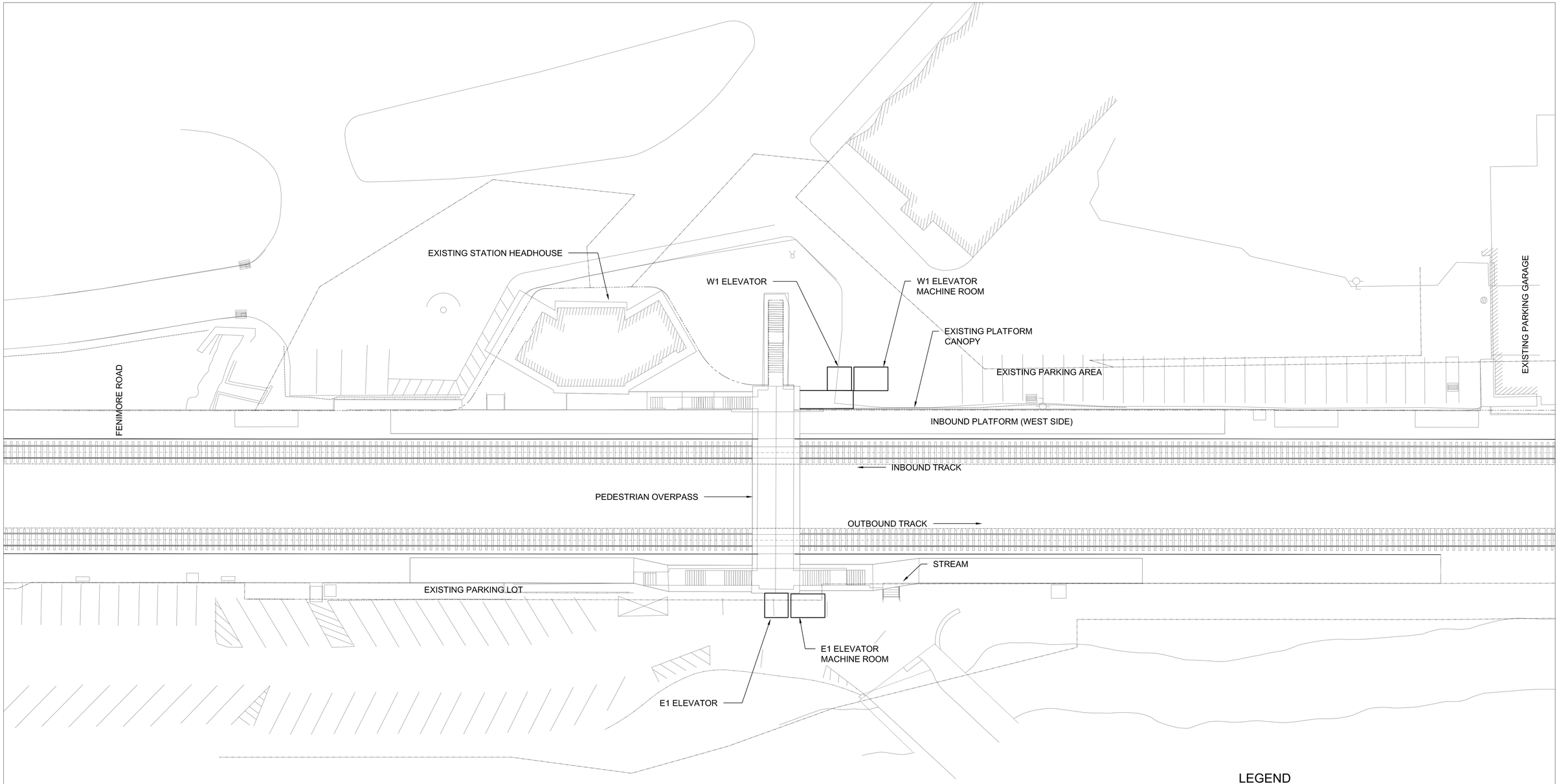
HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE	DATE
N.T.S.	07/09/2021

DRAWING NO.
HTD-G-303

SHEET 8 OF 99



N

MM

EXISTING STATION SITE PLAN

1"=20'

20' 0 20'

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	MM

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

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225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

EXISTING STATION SITE PLAN

HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE
1/32" = 1'-0"

DATE
07/09/2021

DRAWING NO.
HTD-C-100

SHEET 9 OF 99

MEET EXISTING SIDEWALK

EXISTING CURB

CLEAN AND MAINTAIN EXISTING DRAINAGE FACILITIES (TYP.)

EXISTING CURB LINE TO BE DEMOLISHED

6'

15'

15'

R10'

NYSDOT TYPE 11 PED RAMP (TYP.)

CONCRETE SIDEWALK

CONCRETE CURB

10'

18'

5'

5'

FUTURE BOILER RM
N.I.C.

ELEVATOR MACHINE ROOM

ELEVATOR

MEET EXISTING SIDEWALK

EXISTING ELECTRICAL CABINET
SEE DRAWING HTD-E-104

EXISTING TRACK

RELOCATED SHELTER & PARKING METERS (BY CONTRACTOR)

FUTURE BOILER RM
N.I.C.

5' (MIN.)

RELOCATED BIKE RACK

MEET EXISTING CURB
& SIDEWALK AT BRIDGE

NYSDOT TYPE 11 PED RAMP (TYP.)

R4'

ELEVATOR
MACHINE ROOM

ELEVATOR

CONCRETE CURB

CONCRETE SIDEWALK

N

KEY PLAN

CIVIL PLAN

SCALE IN FEET 0 20 40

NOTES:

1. CONTRACTOR SHALL BE ALERTED TO EXISTING CONCRETE CULVERT (SEE REFERENCE DRAWINGS IN TECHNICAL SPECIFICATIONS APPENDIX) AND SHALL BE RESPONSIBLE FOR DETERMINING SAFE OPERATIONS AND LOADING BY HIS EQUIPMENT.

LEGEND

PROPERTY LINE

100% RFC SUBMISSION

DESIGNED	RGH
DRAWN	AB
CHECKED	JRS
APPROVED	MM

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

CIVIL PLAN

HARTSDALE STATION

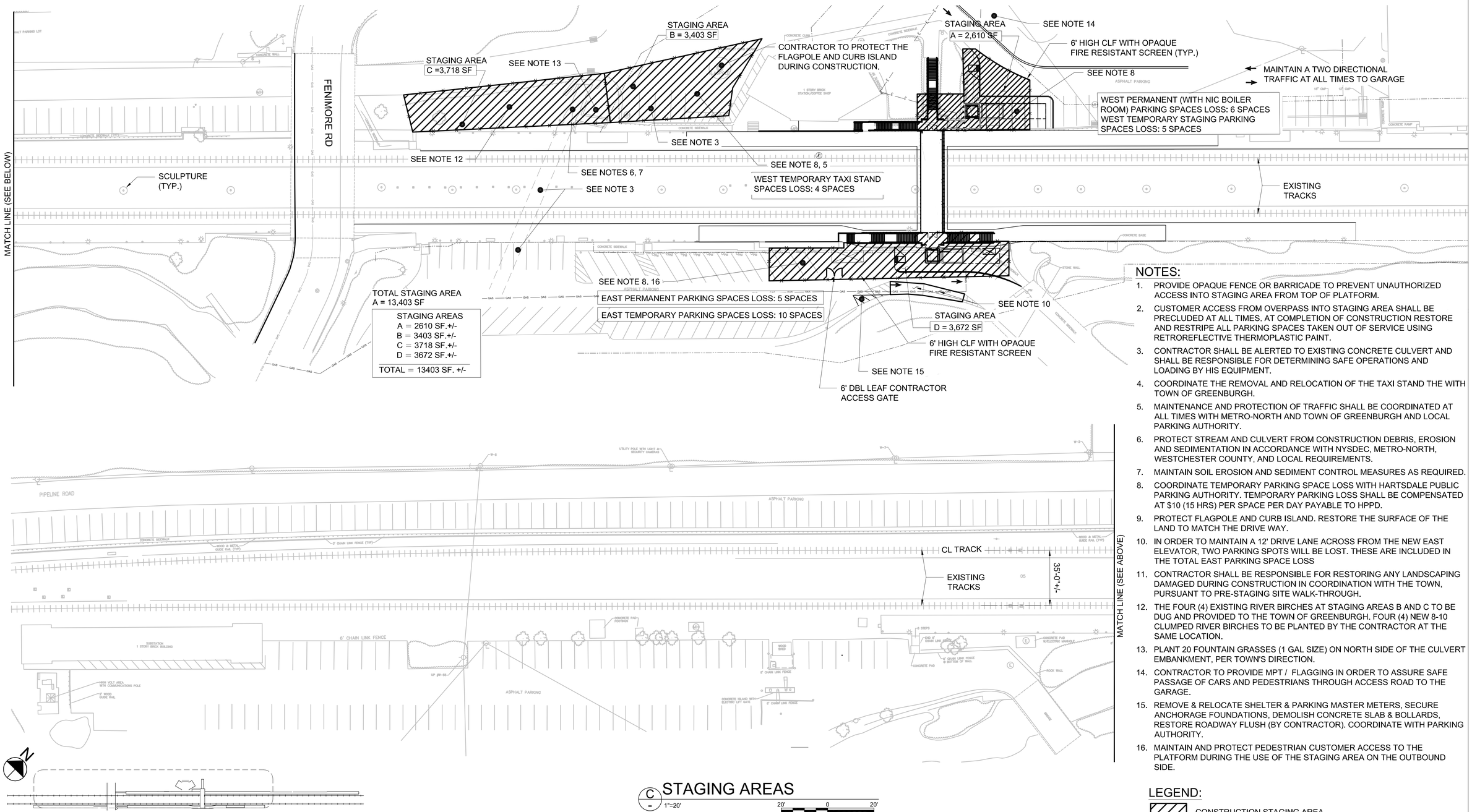
CONTRACT NO. 1000106733

SCALE 1" = 20'-0"

DATE 07/09/2021

DRAWING NO. HTD-C-101

SHEET 10 OF 99



NOTES:

1. PROVIDE OPAQUE FENCE OR BARRICADE TO PREVENT UNAUTHORIZED ACCESS INTO STAGING AREA FROM TOP OF PLATFORM.
2. CUSTOMER ACCESS FROM OVERPASS INTO STAGING AREA SHALL BE PRECLUDED AT ALL TIMES. AT COMPLETION OF CONSTRUCTION RESTORE AND RESTRIPE ALL PARKING SPACES TAKEN OUT OF SERVICE USING RETROREFLECTIVE THERMOPLASTIC PAINT.
3. CONTRACTOR SHALL BE ALERTED TO EXISTING CONCRETE CULVERT AND SHALL BE RESPONSIBLE FOR DETERMINING SAFE OPERATIONS AND LOADING BY HIS EQUIPMENT.
4. COORDINATE THE REMOVAL AND RELOCATION OF THE TAXI STAND THE WITH TOWN OF GREENBURGH.
5. MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE COORDINATED AT ALL TIMES WITH METRO-NORTH AND TOWN OF GREENBURGH AND LOCAL PARKING AUTHORITY.
6. PROTECT STREAM AND CULVERT FROM CONSTRUCTION DEBRIS, EROSION AND SEDIMENTATION IN ACCORDANCE WITH NYSDEC, METRO-NORTH, WESTCHESTER COUNTY, AND LOCAL REQUIREMENTS.
7. MAINTAIN SOIL EROSION AND SEDIMENT CONTROL MEASURES AS REQUIRED.
8. COORDINATE TEMPORARY PARKING SPACE LOSS WITH HARTSDALE PUBLIC PARKING AUTHORITY. TEMPORARY PARKING LOSS SHALL BE COMPENSATED AT $10 (15 HRS) PER SPACE PER DAY PAYABLE TO HPPD.
9. PROTECT FLAGPOLE AND CURB ISLAND. RESTORE THE SURFACE OF THE LAND TO MATCH THE DRIVE WAY.
10. IN ORDER TO MAINTAIN A 12' DRIVE LANE ACROSS FROM THE NEW EAST ELEVATOR, TWO PARKING SPOTS WILL BE LOST. THESE ARE INCLUDED IN THE TOTAL EAST PARKING SPACE LOSS
11. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY LANDSCAPING DAMAGED DURING CONSTRUCTION IN COORDINATION WITH THE TOWN, PURSUANT TO PRE-STAGING SITE WALK-THROUGH.
12. THE FOUR (4) EXISTING RIVER BIRCHES AT STAGING AREAS B AND C TO BE DUG AND PROVIDED TO THE TOWN OF GREENBURGH. FOUR (4) NEW 8-10 CLUMPED RIVER BIRCHES TO BE PLANTED BY THE CONTRACTOR AT THE SAME LOCATION.
13. PLANT 20 FOUNTAIN GRASSES (1 GAL SIZE) ON NORTH SIDE OF THE CULVERT EMBANKMENT, PER TOWN'S DIRECTION.
14. CONTRACTOR TO PROVIDE MPT / FLAGGING IN ORDER TO ASSURE SAFE PASSAGE OF CARS AND PEDESTRIANS THROUGH ACCESS ROAD TO THE GARAGE.
15. REMOVE & RELOCATE SHELTER & PARKING MASTER METERS, SECURE ANCHORAGE FOUNDATIONS, DEMOLISH CONCRETE SLAB & BOLLARDS, RESTORE ROADWAY FLUSH (BY CONTRACTOR). COORDINATE WITH PARKING AUTHORITY.
16. MAINTAIN AND PROTECT PEDESTRIAN CUSTOMER ACCESS TO THE PLATFORM DURING THE USE OF THE STAGING AREA ON THE OUTBOUND SIDE.

LEGEND:

CONSTRUCTION STAGING AREA

PROPERTY LINE

100% RFC SUBMISSION

KEY PLAN

C — STAGING AREAS

1"=20'

20' 0 20'

DESIGNED	RGH
DRAWN	RV
CHECKED	JRS
APPROVED	MM

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE: HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

STAGING AREAS

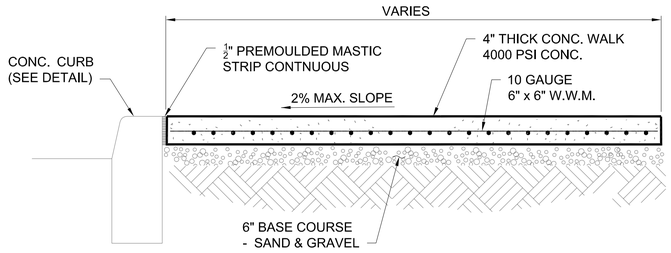
HARTSDALE STATION

CONTRACT NO. 1000106733

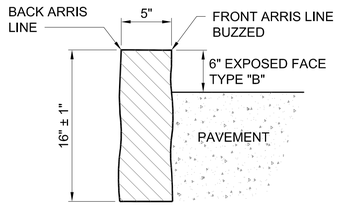
SCALE N.T.S. | DATE 07/09/2021

DRAWING NO. HTD-C-102

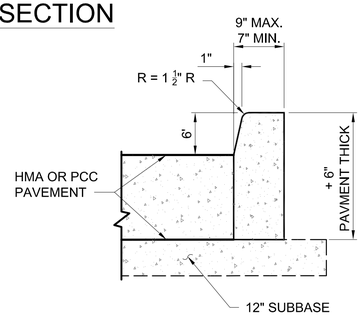
SHEET 11 OF 99



CONCRETE SIDEWALK SECTION
NTS



NYSDOT 609-01 TYPE "B" STONE CURB DETAIL
NTS



NYSDOT 609-03 TYPE VF150 CONCRETE CURB DETAIL
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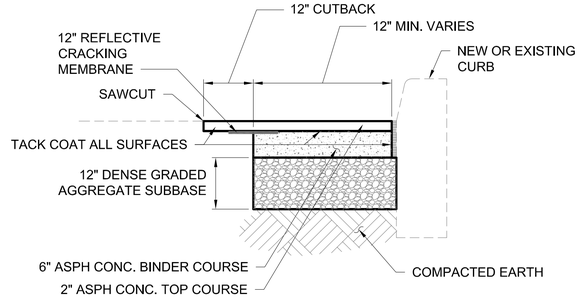
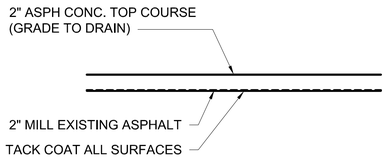
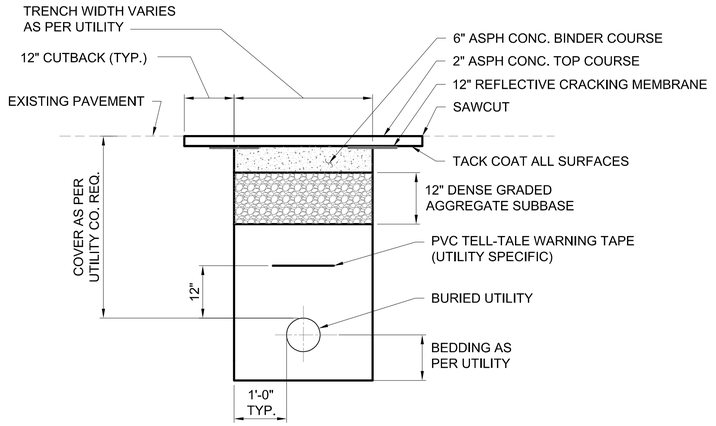


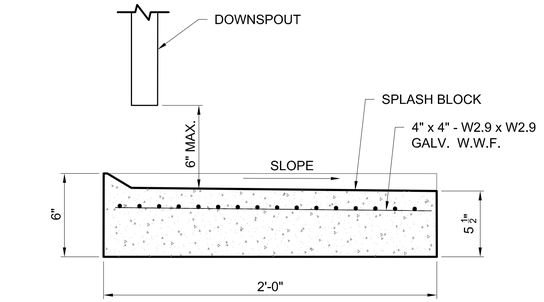
TYPICAL PAVEMENT RESTORATION DETAIL
NTS



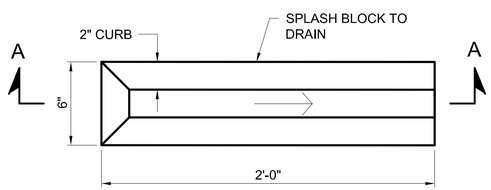
PAVEMENT RESURFACING DETAIL
NTS



TYPICAL TRENCH RESTORATION DETAIL
NTS



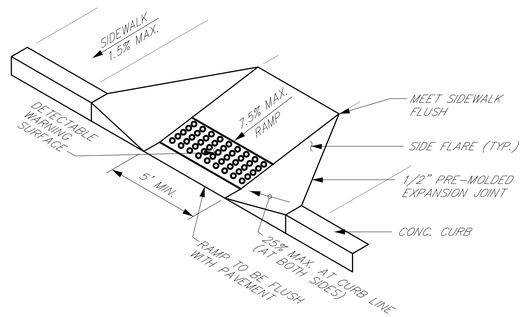
SECTION A-A



PLAN

NOTE: ANCHOR SPLASH BLOCK IN PLACE.
PROVIDE SPASH BLOCKS AT ALL OPEN
DOWN SPOUTS OR AS ORDERED BY ENGINEER

SPLASH BLOCK DETAIL
NTS



TYPE 11 - CURB RAMP DETAIL
NYSDOT STD SHT 608-01 (SHT 6 OF 9)
NTS

CURB RAMP DETAIL
NTS

NOTE:

1. FOR SURFACE MOUNTED BOLLARD SEE 2018 METRO-NORTH DESIGN GUIDELINES

100% RFC SUBMISSION

DESIGNED	RGH
DRAWN	RV
CHECKED	JRS
APPROVED	MM

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

CIVIL DETAILS

HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE: N.T.S.
DATE: 07/09/2021

DRAWING NO.
HTD-C-103

SHEET 12 OF 99

GENERAL ARCHITECTURAL NOTES

1. ALL WORK INCLUDED IN THIS CONTRACT SHALL CONFORM TO ALL MUNICIPAL, STATE, NATIONAL AND OTHER CODES, REGULATIONS AND RESTRICTIONS WHICH APPLY TO THIS PROJECT INCLUDING THE FEDERAL "AMERICANS WITH DISABILITIES ACT" (ADA).

2. ALL WORK SHALL BE OF HIGH QUALITY, PERFORMED IN A NEAT WORKMANLIKE MANNER, EXECUTED IN ACCORDANCE WITH THE BEST ACCEPTED TRADE PRACTICES AND AS PER MANUFACTURER'S RECOMMENDATIONS AND WARRANTY REQUIREMENTS.

3. ALL WORK SHALL FOLLOW ESTABLISHED WORKING POINT, AS OUTLINED ON DRAWINGS, GC TO VERIFY WORKING POINTS AND COORDINATE WITH ALL DISCIPLINE DRAWINGS PRIOR TO ANY DEMOLITION AND NEW WORK. ANY DISCREPANCIES SHALL BE BROUGHT UP TO ENGINEER AND METRO NORTH RAILROAD FOR REVIEW. REFER TO STRUCTURAL DWGS FOR ALL WORK STARTING POINTS.

4. GC SHALL PROVIDE PHASING PLAN AND SCHEDULE TO ENCOMPASS ALL DEMOLITION AND NEW WORK. PHASING PLAN SHALL INCLUDE GC'S MEANS AND METHODS FOR ALL DEMOLITION AND NEW WORK, ESTABLISHING SAFE WORKING CONDITIONS AND NOT IMPEDE ON NORMAL STATION OPERATIONS, INCLUDING PASSENGER STATION ACCESS. GC'S PHASING PLAN SHALL BE SUBMITTED TO METRO NORTH RAILROAD FOR REVIEW AND APPROVAL PRIOR TO WORK COMMENCING.

5. ALL INDICATED ELEMENTS ARE "NEW" UNLESS OTHERWISE INDICATED BY SUCH TERMINOLOGY AS "EXISTING", "TEMPORARY", "ABANDONED", "REFURBISHED", ETC.

6. ALL MATERIALS AND WORK REQUIRED SHALL BE NEW UNLESS OTHERWISE NOTED.

7. THE WORDS "REMOVE", "REMOVAL", "DISCARD", "DISPOSE OF" SHALL INCLUDE THE COMPLETE REMOVAL AND LEGAL DISPOSAL OF THE INDICATED MATERIAL OR EQUIPMENT OFF THE SITE BY CONTRACTOR, EXCEPT WHERE SUCH MATERIAL OR EQUIPMENT IS INDICATED OR DIRECTED BY METRO NORTH RAILROAD TO BE SALVAGED OR STORED FOR RE-INSTALLATION. ALL REQUIRED STORAGE AND PROTECTION SHALL BE AT CONTRACTOR'S EXPENSE. CONTRACTOR TO COORDINATE POTENTIAL FOR SALVAGING DEMOLITION MATERIAL WITH METRO NORTH RAILROAD.

8. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL EXISTING ITEMS TO REMAIN, ALL WORK FROM HAND-OVER OR PRECEDING CONTRACTS, OWNER FURNISHED EQUIPMENT AND FIXTURES; AND REPAIR OR REPLACE ANY ITEMS DAMAGED DURING THE COURSE OF THE WORK TO THE SATISFACTION AND APPROVAL OF METRO NORTH RAILROAD.

9. ANY DAMAGE TO INSTALLED FINISHES OR EQUIPMENT CAUSED BY THE WORK OF THE CONTRACTOR SHALL BE REPLACED AND REINSTALLED BY THE CONTRACTOR TO THE SATISFACTION AND APPROVAL OF METRO NORTH RAILROAD.

10. THE CONTRACTOR SHALL PATCH ALL AREAS AFFECTED OR EXPOSED BY REMOVALS WORK TO MATCH EXISTING AND/OR ADJACENT SURFACES TO THE APPROVAL OF METRO NORTH RAILROAD. PATCHING OF ALL AREAS AFFECTED SHALL ALSO MAINTAIN THE ASSEMBLY AND/OR SYSTEM INTEGRITY AND PERFORMANCE OF THE ORIGINAL CONSTRUCTION.

11. ALL FIRE-RATED DOORS AND PENETRATIONS THROUGH FLOOR, WALL AND/OR CEILINGS SHALL COMPLY TO APPLICABLE CODE REQUIREMENTS OF (TEMPERATURE) T-RATINGS AND UL-LISTED THROUGH PENETRATION FIRE STOP SYSTEM ASSEMBLIES.

12. ALL FIRE-RATED PARTITIONS/WALLS SHALL EXTEND TO THE UNDERSIDE OF THE STRUCTURAL FLOOR, BEAM OR ROOF SLAB – UNLESS NOTED OTHERWISE; AND SHALL BE FIRE-STOPPED TO SAME HOURLY RATING. ALL PENETRATIONS SHALL BE SEALED AND PROTECTED IN ORDER TO MAINTAIN THE INTEGRITY OF THE FIRE-RATED PARTITIONS/WALLS.

13. THE CONTRACTOR SHALL NOTIFY ENGINEER OF ANY AND ALL DISCREPANCIES BETWEEN EXISTING CONDITIONS, INCLUDING INSTALLED WORK AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. FAILURE TO NOTIFY ENGINEER WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO PERFORM THE WORK AS INTENDED BY THE CONTRACT DOCUMENTS.

14. THE CONTRACTOR SHALL CORRECT ANY AND ALL WORK ARISING FROM DISCREPANCIES IN THE CONTRACT DOCUMENTS AND TO THE COORDINATING ALL WORK AMONG THE VARIOUS TRADES.

15. WHERE THERE ARE DISCREPANCIES IN THE CONTRACT DRAWINGS BETWEEN DISCIPLINES OR WHERE WORK IS SHOWN ON THE DRAWINGS FOR ONE DISCIPLINE BUT NOT ANOTHER, THE CONTRACTOR SHALL PERFORM THE MOST COMPLETE AND STRINGENT REQUIREMENT SHOWN AND AS DIRECTED BY METRO NORTH RAILROAD. METRO NORTH RAILROAD SHALL BE NOTIFIED OF ALL SUCH DISCREPANCIES BEFORE COMMENCING THE WORK.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL CHECK AND VERIFY ALL DIMENSIONS AND JOB CONDITIONS IN THE FIELD. THE CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION, SUBMITTING SURVEY FILES, SUBMITTING OF SHOP DRAWINGS, PLACING ORDERS, AND/OR FABRICATING EQUIPMENT DURING THE COURSE OF THE CONTRACT.

17. DO NOT SCALE DRAWINGS. FOLLOW WRITTEN DIMENSIONS ONLY FOR CONSTRUCTION. DIMENSIONS SHOWN ARE NORMALLY GIVEN TO:

    A. COLUMN OR GRID CENTER LINES
    B. FACES OF EXPOSED CONCRETE SURFACES
    C. FINISH FACE OF PARTITIONS, EXPOSED CMU WALLS, FURRING (AS NOTED), AND/OR ARCHITECTURAL FINISHED WALLS, FLOORING AND CEILINGS
    D. MINIMUM VERTICAL OR HORIZONTAL "HOLD" CLEARANCE REQUIREMENTS
    E. CENTER LINE OF TRACK
    F. TOP OF RAIL (TOR)
    G. ABOVE FINISH FLOOR (AFF) – U.O.N.
    H. METRO NORTH RAILROAD VEHICLE CAR CLEARANCE ENVELOPE

18. GEOMETRIC LAYOUT INFORMATION:

    A. FOR LAYOUT OF STRUCTURAL WALLS, COLUMNS, BEAMS, STRUTS AND SLABS, SEE THE STRUCTURAL DRAWINGS.
    B. ALL HORIZONTAL DIMENSIONS SHOWN ARE TRUE HORIZONTAL.
    C. ALL VERTICAL DIMENSIONS ARE MEASURED TRUE VERTICAL. ALL VERTICAL LINES IN ALL ELEMENTS OF THE STATION ARE TRUE VERTICAL.
    D. ALL STRUCTURAL HORIZONTAL LINES, WALLS, OPENINGS AND SURFACES SHALL BE AS INDICATED ON THE STRUCTURAL DRAWINGS.

19. ALL PLAN DIMENSIONS SHALL BE COORDINATED BETWEEN ALL DISCIPLINE DRAWINGS. DIMENSIONS NOT SHOWN ON ARCHITECTURAL CONTRACT DRAWINGS, REFER TO STRUCTURAL DRAWINGS.

20. COORDINATE WITH CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, TRACTION POWER, AND COMMUNICATIONS DRAWINGS FOR THE EXTENT AND LOCATION OF ALL OPENINGS, ARCHITECTURAL FINISHES, SLEEVES, CHASES, WALL AND FLOOR SLAB PENETRATIONS, ETC. ALL PIPES AND CONDUITS PASSING THROUGH MASONRY AND/OR CONCRETE PARTITIONS/STRUCTURES SHALL BE SLEEVED.

21. CONTRACTOR SHALL EXAMINE CONTRACT DRAWINGS OF ALL TRADES TO VERIFY AND COORDINATE THE LOCATION OF FIXTURES, EQUIPMENT, DUCTWORK, CONDUITS, PULL-BOXES, PENCIL BOXES, ROUGH-OUTS, ROUGH OPENINGS, ACCESS PANELS AND BOXES, BUILT-INS, METRO NORTH RAILROAD-FURNISHED EQUIPMENT CONTRACTOR INSTALLED FIXTURES AND OTHER RELATED WORK FOR THE CONSTRUCTION OF THE PROJECT.

22. WHERE THE PROGRESS OF THE WORK INTERFERES WITH A MEANS OF EGRESS FROM AN EXISTING BUILDING OR STRUCTURE, THE CONTRACTOR SHALL PROVIDE A TEMPORARY MEANS OF EGRESS SUBJECT TO THE APPROVAL OF METRO NORTH RAILROAD AT NO COST TO THE OWNER.

23. REFER TO STRUCTURAL DRAWINGS FOR ALL LINTELS FOR MASONRY OPENINGS REQUIRED FOR DUCTS, GRILLES, DAMPERS, LOUVERS, ACCESS HATCHES, DOOR OPENINGS, WALL OPENINGS, COMMUNICATIONS, HVAC, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTIONS EQUIPMENT. SEE ARCHITECTURAL AND ALL RELATED ENGINEERING DRAWINGS FOR OPENING SIZES AND SPANS, LOCATIONS AND DETAILS.

24. WHERE RECESSES, OFFSETS AND CHASES ARE SHOWN IN WALL PARTITIONS, THE EXACT SIZE OF THE OPENING REQUIRED SHALL BE DETERMINED BY THE INSTALLATION ITEM TO BE ACCOMMODATED. THE CONTRACTOR SHALL COORDINATE THE WORK WITH ALL OTHER TRADES.

25. FOR SIZE, EXTENT AND LOCATION OF OPENINGS, SLEEVES, CHASES AND OTHER PENETRATIONS (i.e. RACEWAYS, CONDUITS, MECHANICAL AND UTILITY DUCTS, PIPING, ETC. AND THROUGH WALLS AND FLOORS, SEE RELATED STRUCTUAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR ADDITIONAL INFORMATION.

26. FOR LIGHTING FIXTURE TYPES, SEE ELECTRICAL LIGHTING PLANS. COORDINATE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS (RCP), MECHANICAL EQUIPMENT, FIRE ALARM, CCTV AND COMMUNICATIONS DEVICES.

27. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT ALL APPROVED SHOP DRAWINGS, COORDINATION SHOP DRAWINGS, TESTING & COMMISSIONING REPORTS, MOCK-UPS, COLORS AND FINISHES TO METRO NORTH RAILROAD FOR APPROVAL.

28. THE CONTRACTOR SHALL SUBMIT COORDINATED DRAWINGS OF TEMPORARY PARTITIONS AND BARRICADES WITH LOCATIONS AND DETAILS FOR THE REVIEW AND APPROVAL BY METRO NORTH RAILROAD.

29. THE CONTRACTOR SHALL PROVIDE ALL MOCK-UPS REQUIRED BY THE CONTRACT DOCUMENTS IN A TIMELY MANNER AND IN LOCATION(S) AS DIRECTED BY METRO NORTH RAILROAD. APPROVED MOCK-UPS CAN BE INCORPORATED INTO THE WORK BY APPROVAL OF METRO NORTH RAILROAD.

30. ALL STEEL ITEMS SHALL BE HOT DIPPED GALVANIZED UNLESS OTHERWISE NOTED.

31. ALL EMBEDMENTS AND DRILLED-IN-PLACE ANCHORS SHALL BE TYPE 316 STAINLESS STEEL – UNLESS OTHERWISE NOTED.

32. ALL MASONRY UNITS RECEIVING ANCHOR BOLTS, STRAPS, AND REBARS SHALL BE FILLED SOLID WTH 3,000 PSI GROUT. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

33. PROVIDE ALL BLOCKING, SEPARATION AND ANCHORAGE AS REQUIRED FOR CODE-COMPLIANT WORK.

34. ALL PROPOSED WOOD COMPONENTS (INCLUDING BUT NOT LIMITED TO SHEATHING, TRIM AND BLOCKING) SHALL BE FIRE-RATED.

35. ALL DISSIMILAR METALS IN CONTACT WITH EACH OTHER SHALL BE ISOLATED IN A MANNER AS REQUIRED BY APPLICABLE CODE, METRO NORTH RAILROAD DESIGN GUIDELINES AND PRACTICES, AND AS APPROVED BY ENGINEER.

36. WHERE DISSIMILAR METALS ARE JOINED, METAL SURFACES SHALL BE ADEQUATELY SEPARATED TO PREVENT GALVANIC ACTION AND CORROSION.

37. THE CONTRACTOR SHALL PAINT ALL SURFACES, INCLUDING BUT NOT LIMITED TO: EXPOSED WALLS (WITH NO FINISH ASSEMBLY), EXPOSED CEILINGS (WITH NO SUSPENDED ASSEMBLY), EXPOSED STRUCTURAL COLUMNS, PIPES, CONDUIT, AND MISCELLANEOUS METALS – UNLESS OTHERWISE NOTED IN THE FINISH SCHEDULE OR AS INDICATED ON THE CONTRACT DRAWINGS.

38. DOORS SHALL BE INSTALLED TO ENSURE PROPER AND CLEAR DOOR SWING INTO OR OUTWARD OF THE ROOM COORDINATING THE HINGE SIDE OF DOOR ASSEMBLY WITH THE (LOW POINT) FINISH FLOOR ELEVATION AND MAKING REQUIRED ADJUSTMENT TO ACCOMMODATE DOOR SWING PATH.

39. ALL CMU COURSING SHALL BE CONSTRUCTED (LAID) HORIZONTALLY LEVEL. USE CONCRETE LEVELING CURB AS NECESSARY TO ENSURE MINIMUM CUT CMU COURSES. CUT CMU BASE COURSE IS NOT ACCEPTABLE.

40. BOND BEAM COURSES MUST BEAR ON FULL CMU COURSING. CUT CMU BEARING COURSE IS NOT ACCEPTABLE.

41. ALL CMU ROOM LAYOUTS ARE PERPENDICULAR (90-DEGREES) IN PLAN AT CORNERS OR TEE-INTERSECTION – UNLESS OTHERWISE NOTED.

42. PROVIDE SMOOTH AND UNMARRED CONCRETE WALL SURFACES IN AREAS INDICATED IN THE CONTRACT DRAWINGS AND SPECIFICATIONS.

43. ALL EXPOSED AREAS OF NEW WORK SUBJECT TO FOOT TRAFFIC SHALL BE SLIP RESISTANT. REFER TO SPECIFICATIONS.

44. MANUFACTURER'S NAME PLATES INCLUDING TRADEMARK AND OTHER IDENTIFICATION SYMBOLS SHALL NOT BE PERMITTED ON SURFACES VISIBLE TO THE PUBLIC - UNLESS OTHERWISE NOTED.

45. ALL VERTICAL JOINTS IN ARCHITECTURAL FINISHES, CONCRETE, ARCHITECTURAL CLADDING AND CMU SHALL BE TRUE VERTICAL UNLESS OTHERWISE NOTED.

46. SEAL AND CAULK AROUND ALL PENETRATIONS, CRACKS AND CREVICES AND ANY OPENINGS CAPAPBLE OF HARBORING INSECTS AND RODENTS.

47. ALL FLASHING DETAILS INCLUDING THICKNESS AND FASTENERS SHALL COMPLY WITH FM-GLOBAL 1-49

48. ALL HAND RAILS AND GUARD RAILS, SIGN BANDS, HORIZONTAL CONCRETE JOINTS, EDGE LIGHTS AND CEILINGS SHALL RUN PARALLEL AND UNIFORMLY VERTICAL TO THE FLOOR. ALL GUARDRAIL/HANDRAIL, BOTH TEMPORARY AND PERMANENT, SHALL FOLLOW THE METRO NORTH RAILROAD STATION STANDARDS AND GUIDELINES.

49. ALL EXPOSED COMPONENTS FOR THE INTERIOR AND EXTERIOR OF THE ELEVATOR HOISTWAY TOWER (ENCLOSURE) AND WALKWAY EXTENSIONS SHALL BE INSTALLED FOR MINIMAL APPEARANCE, INCLUDING CONDUITS, ROOF LEADERS AND OTHER MECHANICAL AND ELECTRICAL COMPONENTS. LOCATIONS OF ALL COMPONENTS SHALL BE REVIEWED AND APPROVED BY METRO NORTH RAILROAD.

50. ALL ROOF DRAINAGE FROM ELEVATOR TOWER/WALKWAY EXTENSION SHALL DRAIN FROM ROOF SCUPPER TO VERTICAL LEADERS AND DISCHARGE ONTO CONCRETE SPLASH BLOCKS AT GRADE.

51. FIRE PROOFING OF STRUCTURAL SUPPORT/UNDERSIDE OF METAL DECK AT ELEVATOR MACHINE ROOM/COMM. ROOM AND WALKWAY EXTENSIONS.

52. ALL SIGNAGE AS PER METRO NORTH STATION STANDARDS AND GUIDELINES.

53. ALL REPLACEMENT OVERPASS/CANOPY CLAY ROOF TILE AS PER METRO NORTH STATION SPECIFICATIONS.

54. ANTI-GRAFFITI COATING (MASONRY) AND FILM (GLAZING) SHALL BE APPLIED AS SHOWN ON ARCH. DWGS.

55. PERIMETER INSULATION, INCLUDING EXTERIOR WALLS, ROOF AND CONCRETE SLAB FOUNDATION AS PER METRO NORTH RAILROAD SPECIFICATIONS.

56. MASONRY CONTROL JOINTS SHALL BE INSTALLED AS INDICATED ON ARCH. DWGS.

57. EXTERIOR MASONRY AT EMR AND COMM. ROOM: 7 3/4" X 15 3/4" X 7 3/4" AND 7 3/4" X 7 3/4" X 7 3/4", TYPICAL MORTAR JOINTS 5/8".

58. LOUVER QUANTITY AND LOCATIONS SHALL BE INDICATED ON MECH. DWGS.

59. QUANTITY OF ANCHOR POINTS AND HORIZONTAL LIFE LINE FOR THE TIE-OFFS (FALL RESISTANCE LINKED SYSTEM) SHALL COMPLY WITH OSHA 1910.140 AND METRO-NORTH DESIGN GUIDELINES. CALCULATIONS FOR FALL ARREST CONFIGURATION TO BE PROVIDED BY SELECTED VENDOR. BASIS OF DESIGN: FLEXIBLE LIFELINE SYSTEMS OR APPROVED EQUAL.

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	VD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

7.9.2021

NO.	DATE		DRWN	CHKD	APPVD

REVISION

CONFORMED

NO.	DATE		DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

GENERAL NOTES

HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE

DATE
07/09/2021

DRAWING NO.
HTD-AG-001

SHEET 13 OF 99

VERTICAL TRANSPORTATION NOTES (ELEVATOR EQUIPMENT):

GENERAL NOTES:

1. THESE NOTES ARE FOR GENERAL INFORMATION ONLY. REQUIREMENTS OF INDIVIDUAL VENDORS MAY VARY.
2. FIELD VERIFY ALL EXISTING DIMENSIONS.
3. ROUGH OPENING DIMENSIONS FOR ELEVATOR ENTRANCES APPLY ONLY IN THE CASE OF MASONRY OR CONCRETE CONSTRUCTION.
4. VERTICAL STRUCTURAL SUPPORT FOR RAIL BRACKETING IS PROVIDED BY HOISTWAY WALLS IN THE CASE OF REINFORCED CONCRETE HOISTWAY CONSTRUCTION.
5. INFORMATION IN THIS SHEET IS PROVIDED BY ELEVATOR CONSULTANT.

SUMMARY OF ELEVATORS:

HARTSDALE STATION

ELEVATOR W1	4000#	@125FPM
ELEVATOR E1	4000#	@125FRM

ELEVATOR ELECTRICAL AND MECHANICAL REQUIREMENTS:

POWER FEEDER REQUIREMENTS (MAIN POWER SUPPLY: 208-3-60)

ELEVATOR NUMBER	CAPACITY (POUNDS)	SPEED (FPM)	TRACTION DRIVE HP RATING	HYDRO MOTOR HP	HYDRO STARTING AMPS			FULL LOAD AMPS		HEAT RELEASE	
					LOCKED ROTOR	SOLID STATE	WYE DELTA	RUNNING	ACCELERATING	MACHINE SPACE (BTUH PER CAR)	CONTROLLER SPACE (BTUH PER CAR)
W1	4000	125	N/A	50	857	464	271	155	N/A	21,000	
E1	4000	125	N/A	50	857	464	271	155	N/A	21,000	

* HEAT RELEASE BASED ON 80 UPSTARTS/HR

NOTES:
1. ELECTRIC POWER AND CURRENT ARE BASED ON THREE (3) PHASE A.C. POWER SUPPLY.
2. MAIN POWER TO BE PROVIDED AT EACH CONTROLLER THROUGH DISCONNECTING MEANS MEETING NEC REQUIREMENTS.
3. MAIN POWER SUPPLY FEEDERS TO LIMIT VOLTAGE DROP TO LESS THAN 5%.
4. USE COPPER CONDUCTORS ONLY.
5. FEEDER DEMAND FACTORS (NEC SECTION 430-26 AND 620-14)=
   (2) CARS= 95% (3) CARS= 90% (4) CARS= 85% (5) CARS= 82% (6) CARS= 79% (7) CARS= 77%
   (8) CARS= 75% (9) CARS= 73% (10) CARS= 72%
6. MACHINE SPACE TEMPERATURE TO BE MIN. 13° C (55° F.) (10° C /50° F. IN MASS.), MAX. 32° C (90° F). TO BE MEASURED 1838 MM (6'-0") ABOVE FINISH FLOOR AT APPROX. CENTER OF ROOM.
7. RELATIVE HUMIDITY MAX. 80% NON-CONDENSING.
8. THE SELECTION OF MAIN POWER SUPPLY DISCONNECTING MEANS OVERCURRENT PROTECTION TO BE SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE, SECTIONS 620-51 AND 430-52.
9. PROVIDE LOCAL TELEPHONE SERVICE LINE TO EACH CAR CONTROLLER (IF APPLICABLE).
10. PROVIDE GFCI CONVENIENCE OUTLETS PIT, MACHINE ROOM AND MACHINERY SPACES. IN PIT, PROVIDE ONE NON-GFCI OUTLET FOR SUMP PUMP AND/OR OIL RETURN PUMP.
11. PROVIDE HOIST MACHINE WITH VOLTAGE TO MATCH SUPPLY VOLTAGE INDICATED, U.N.O.
12. PROVIDE 20 AMPS DEDICATED CIRCUITES FOR OIL HEATERS AND OIL COOLERS.

ADDITIONAL POWER AND DISCONNECT REQUIREMENTS IN MACHINE ROOM

AUXILIARY SYSTEM	SUPPLY TERMINAL	SUPPLY VOLTAGE	CIRCUIT CAPACITY
CAR LIGHT AND FAN WITH LOCKABLE DISCONNECT	EACH CONTROLLER	120-1-60	(15 AMP PER CAR)
INTERCOM SYSTEM (IF APPLICABLE)	AT AMPLIFIER	120-1-60	1800 WATTS (15 AMP MIN)
AIR CONDITIONING AND HEATING SOURCE (IF APPLICABLE)	EACH CONTROLLER	120-1-60	(20 AMP PER CAR)
CONDENSATE EVAPORATOR UNIT FOR AIR CONDITIONING (IF APPLICABLE)	EACH CONTROLLER	120-1-60	(30 AMP PER CAR)

RAIL REACTIONS:

ASME A17.1

BUILDING SUPPORTS TO RESIST HORIZONTAL FORCES WITH A TOTAL DEFLECTIONS AT SUPPORT POINT NOT IN EXCESS OF 3 mm (1/8") UNDER NORMAL CONDITIONS.

* THESE REACTIONS DO NOT OCCUR SIMULTANEOUSLY WITH PIT BUFFER REACTIONS

** BUILDING SUPPORTS FOR GUIDE RAIL ATTACHMENT SHALL RESIST HORIZONTAL FORCES WITH A TOTAL DEFLECTIONS NOT IN EXCESS OF 6.5 mm (1/4") BASED UPON 0.5 G (0.25 G FOR UBC ZONE 2) ACCELERATION DURING SEISMIC CONDITIONS

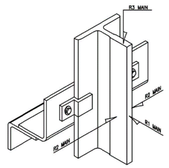
IBC

SEISMIC DESIGN CATEGORY ASSUMPTION BASED ON HISTORIC SEISMIC CONDITIONS FOR PROJECT AREA:

SEISMIC DESIGN CATEGORY = B
OCCUPANCY CATEGORY = A-3
ELEVATOR IMPORTANCE FACTOR PER ELEVATOR (Ip) = 1.0
HARTSDALE SDS = 0.289

RAIL FORCES MAXIMUM ON EACH GUIDE RAIL (FORCES ARE IN KIPS)

	ELEVATOR NUMBER	W1	OCCURRING ON
NORMAL FORCES	CAR R1	2	CAR NORMAL FACE OF MAIN RAIL
	CAR R2	2	CAR NORMAL SIDE OF MAIN RAIL - LOADING OR RUNNING
	CAR R3	N/A	FORCE TRANSMITTED TO PIT STRUCTURE AT CAR SAFETY APPLICATION*
ASME A17.1 SEISMIC FORCES	CAR R1	2.1	CAR SEISMIC ** FACE OF MAIN RAIL
	CAR R2	1.1	CAR SEISMIC ** SIDE OF MAIN RAIL - LOADING OR RUNNING



HOISTWAY NOTES:

1. MINIMUM TOTAL SMOKE VENTING REQUIRED AIR 3.0 SF OR 3.5 SF OF HOISTWAY AREA (WHICHEVER IS GREATER) PER ELEVATOR (IF REQUIRED).
2. PROVIDE HOIST BEAM TO SUPPORT 8,500 # (LB). MAKE HOIST BEAM REMOVABLE IF NECESSARY TO MEET MINIMUM CLEAR DIMENSION. VERIFY HOIST BEAM LOCATION AND LOAD REQUIREMENTS WITH ELEVATOR CONTRACTOR.
3. ALL VERTICAL DIMENSIONS THAT ARE DIMENSIONED FROM A BUILDING FLOOR ELEVATION ARE DIMENSIONED TO THE FINISH FLOOR ELEVATION.
4. VERTICAL OR ADDITIONAL HORIZONTAL STRUCTURAL SUPPORT FOR RAIL BRACKETING AS REQUIRED FOR CAR FULL HEIGHT OF HOISTWAY AND BOTH SIDES OF HOISTWAY.
5. PROVIDE ADEQUATE STRUCTURAL SUPPORT AS REQUIRED FOR BUFFER AND HYDRAULIC CYLINDER REACTIONS.
6. PROVIDE MINIMUM 75° BEVEL GUARD AT ANY LEDGE GREATER THAN 100 mm (4") AT REAR OR SIDE WALLS OF HOISTWAY (TYP).
7. CONTRACTOR TO SUBMIT STEEL RAIL CONNECTION DETAILS AS SHOP DRAWINGS.

RAIL SUPPORT TABLE

ITEM	LENGTH	CLEARANCE
CAR GUIDE RAILS	14'-0"	MAXIMUM SPAN

MACHINE ROOM NOTES:

1. PROVIDE 200 mm X 200 mm (8" X 8") BLOCKOUT FOR HYDRAULIC OIL LINE, AND 150 mm X 150 mm (6" X 6") BLOCKOUT FOR ELECTRICAL CONDUIT FOR EACH ELEVATOR. VERIFY LOCATION WITH ELEVATOR CONTRACTOR.
2. VERIFY PATH OF OIL LINE WITH ELEVATOR CONTRACTOR. THE MACHINE ROOM AND HOISTWAY SHALL BE LOCATED ON THE SAME SIDE OF AN EXPANSION JOINT.
3. PROVIDE ADEQUATE LIGHTING TO MAINTAIN MIN. 200 LUX (19 FC) ILLUMINATION AT MACHINE ROOM FLOOR.
4. COORDINATE LIGHT FIXTURES AND UTILITY OUTLETS LOCATION WITH ELEVATOR CONTRACTOR.
5. FOR EQUIPMENT IN THE MACHINE ROOM, A CLEARANCE OF NOT LESS THAN 450 mm (18") SHALL BE PROVIDED IN THE DIRECTION(S) REQUIRED FOR MAINTENANCE, AND A CLEAR PATH OF NOT LESS THAN 450 mm (18") SHALL BE PROVIDED TO ALL COMPONENTS THAT REQUIRE MAINTENANCE.
6. PROVIDE 3-PHASE MAINLINE POWER FEEDER WITH DISCONNECTING MEANS FOR EACH ELEVATOR CONTROLLER. PROVIDE 1-PHASE FEEDER WITH DISCONNECTING MEANS FOR CAR LIGHTING, VENTILATION SYSTEM AND RECEPTACLE FOR EACH ELEVATOR. THESE DISCONNECTING MEANS SHALL INCLUDE OVERCURRENT PROTECTION, SHALL BE LOCATED IN THE MACHINE ROOM, AND SHALL MEET N.E.C. REQUIREMENTS.
7. LOCATE MACHINE ROOM WITHIN 40'-0" OF HOISTWAY.
8. 4" CURB RECOMMENDED.
9. ELEVATOR CONTRACTOR PROVIDE PERMANENT MEANS TO ACCESS UNDERSIDE OF CAR AS REQUIRED.
10. FIRE EXTINGUISHER IS REQUIRED IN EMR.

PIT NOTES:

1. PROVIDE ADEQUATE LIGHTING TO MAINTAIN MINIMUM 100 LUX (10 FC) ILLUMINATION AT PIT FLOOR.
2. PROVIDE PIT ACCESS LADDER, LIGHT SWITCH(ES), LIGHT(S), AND GFCI-PROTECTED UTILITY OUTLET(S).
3. PROVIDE 200 mm X 200 mm (8" X 8") BLOCKOUT FOR HYDRAULIC OIL LINE, AND 150 mm X 150 mm (6" X 6") BLOCKOUT FOR ELECTRICAL CONDUIT FOR EACH ELEVATOR. VERIFY LOCATION WITH ELEVATOR CONTRACTOR.
4. VERIFY PATH OF OIL LINE WITH ELEVATOR CONTRACTOR.
5. COORDINATE LIGHT FIXTURES AND UTILITY OUTLETS LOCATION WITH ELEVATOR CONTRACTOR.
6. PROVIDE ADEQUATE STRUCTURAL SUPPORT AS REQUIRED FOR BUFFER AND HYDRAULIC CYLINDER REACTIONS.
7. PROVIDE INDIRECT PIT DRAIN OR SUMP WITH GRATING COVER LEVEL WITH PIT FLOOR.
8. REACTIONS HAVE BEEN DOUBLED FOR IMPACT.
9. REACTIONS DO NOT OCCUR SIMULTANEOUSLY.

PIT REACTION TABLE

DUTY: 4,000 # @ 125 FPM

KEY	REACTION (FORCES IN KIPS, K)
A	28.0
B	14.0 EACH

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITTO 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

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NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

GENERAL NOTES

HARTSDALE STATION

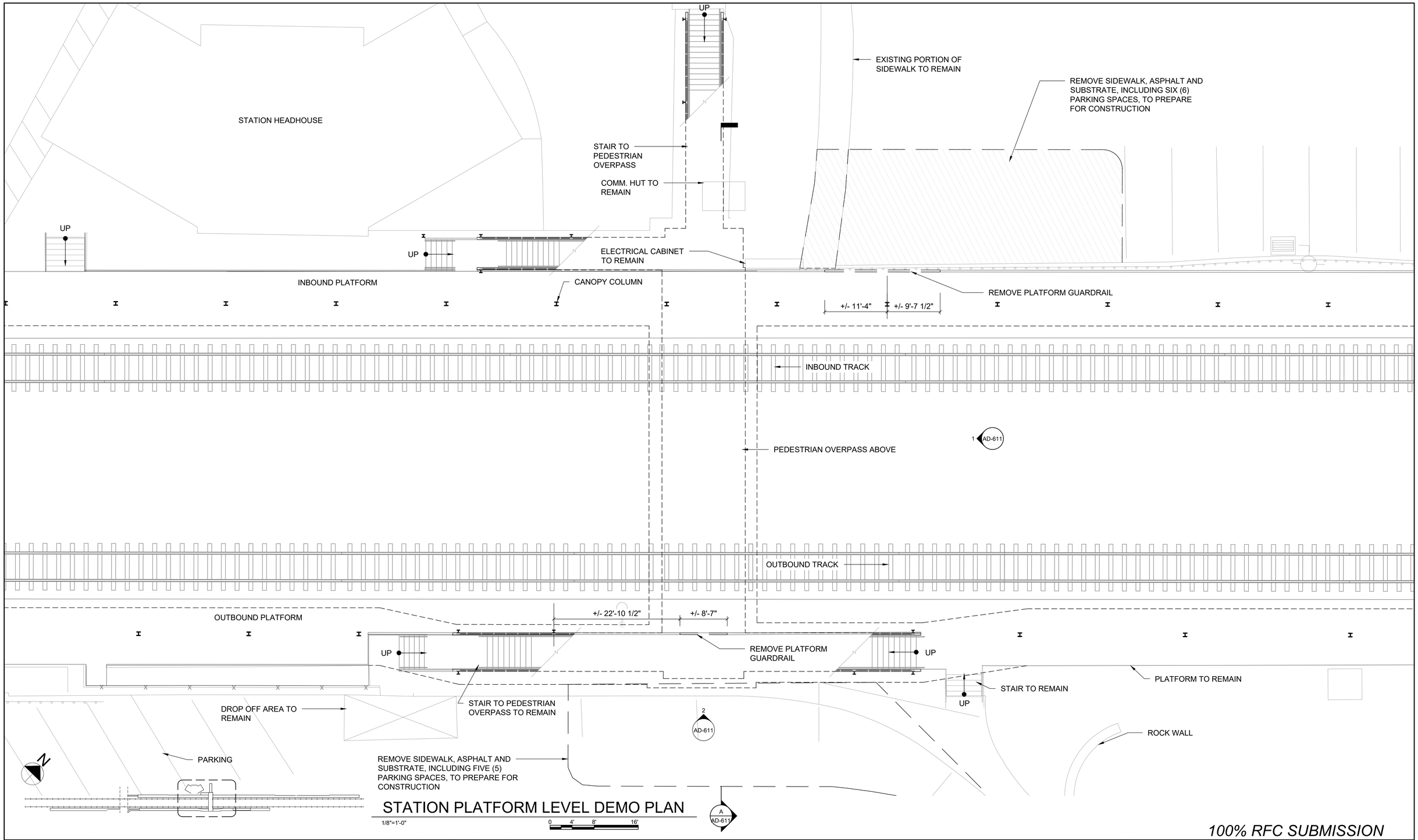
CONTRACT NO.
1000106733

SCALE

DATE
07/09/2021

DRAWING NO.
HTD-AG-002

SHEET 14 OF 99



STATION PLATFORM LEVEL DEMO PLAN

1/8"=1'-0"

0 4' 8' 16'

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	MD
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

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TITLE
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STATION PLATFORM LEVEL DEMO PLAN

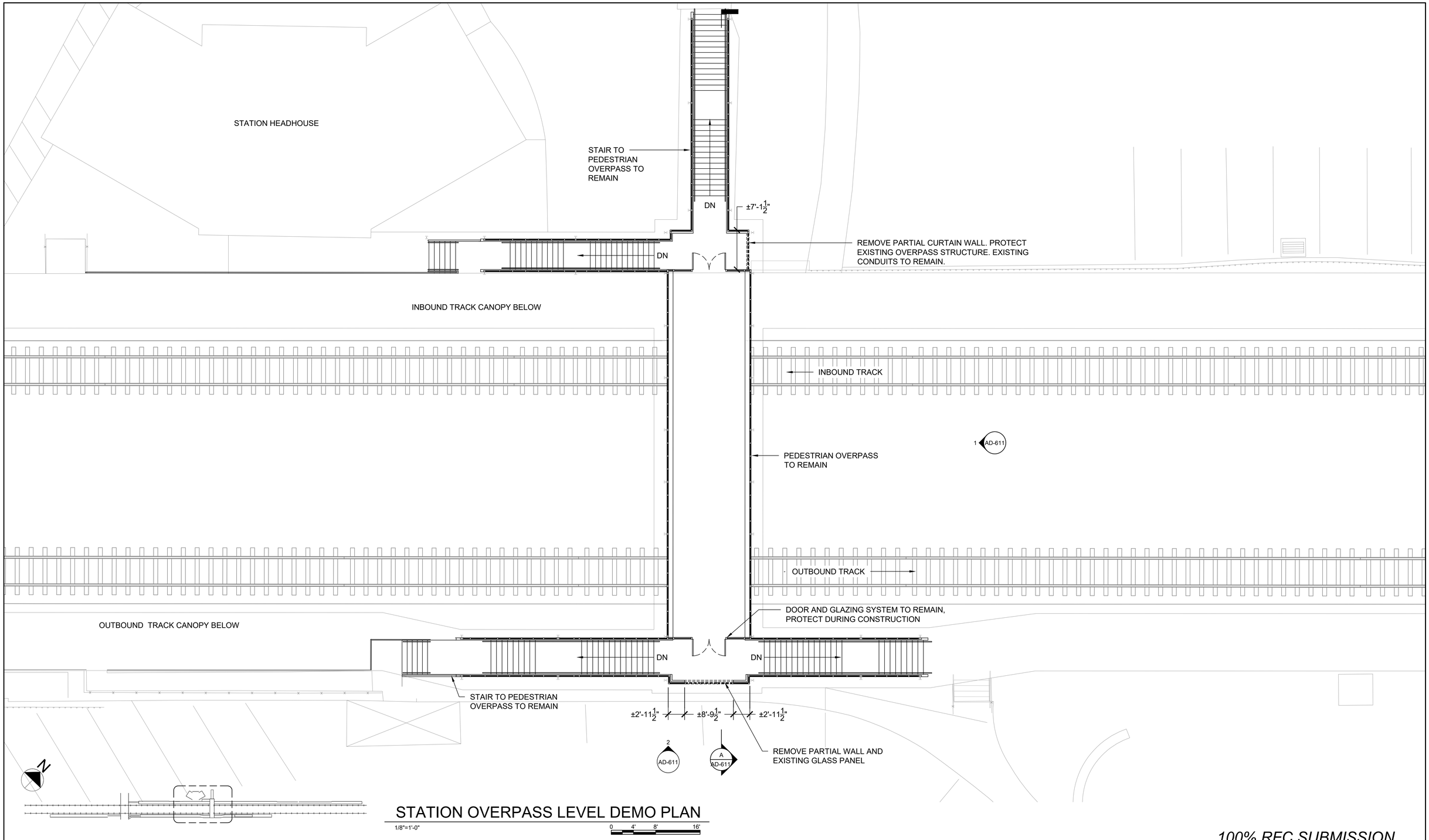
HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE	DATE
1/8" = 1'-0"	07/09/2021

DRAWING NO.
HTD-AD-101

SHEET 15 OF 99



STATION OVERPASS LEVEL DEMO PLAN

1/8"=1'-0"

0 4' 8' 16'

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD
		REVISION			

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD
		REVISION			

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TITLE
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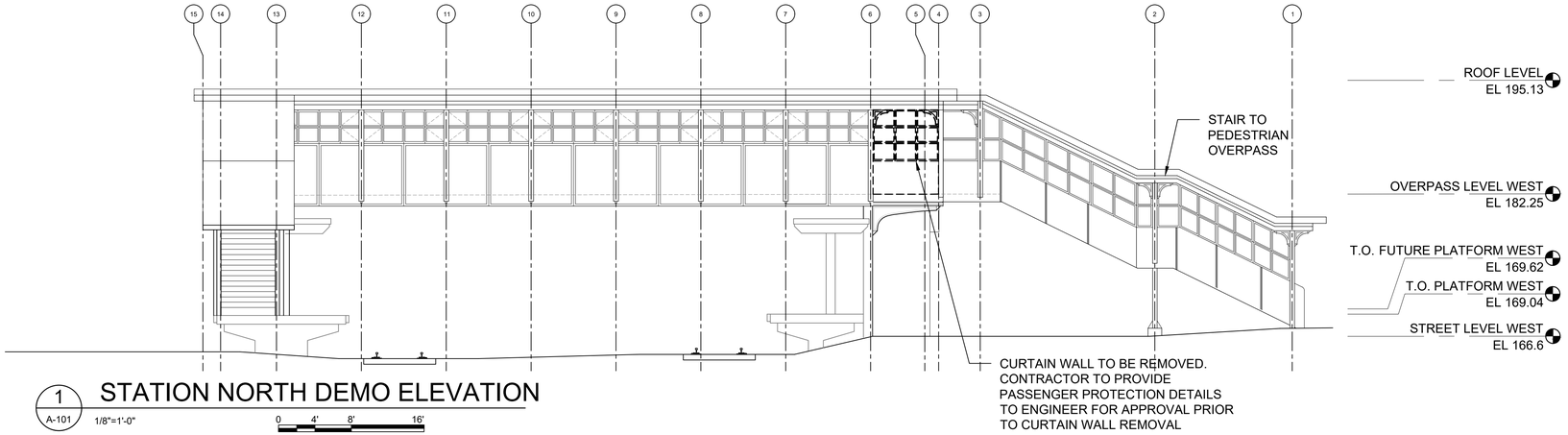
STATION OVERPASS LEVEL DEMO PLAN

HARTSDALE STATION

CONTRACT NO.	
1000106733	
SCALE	DATE
1/8" = 1'-0"	07/09/2021

DRAWING NO.
HTD-AD-111

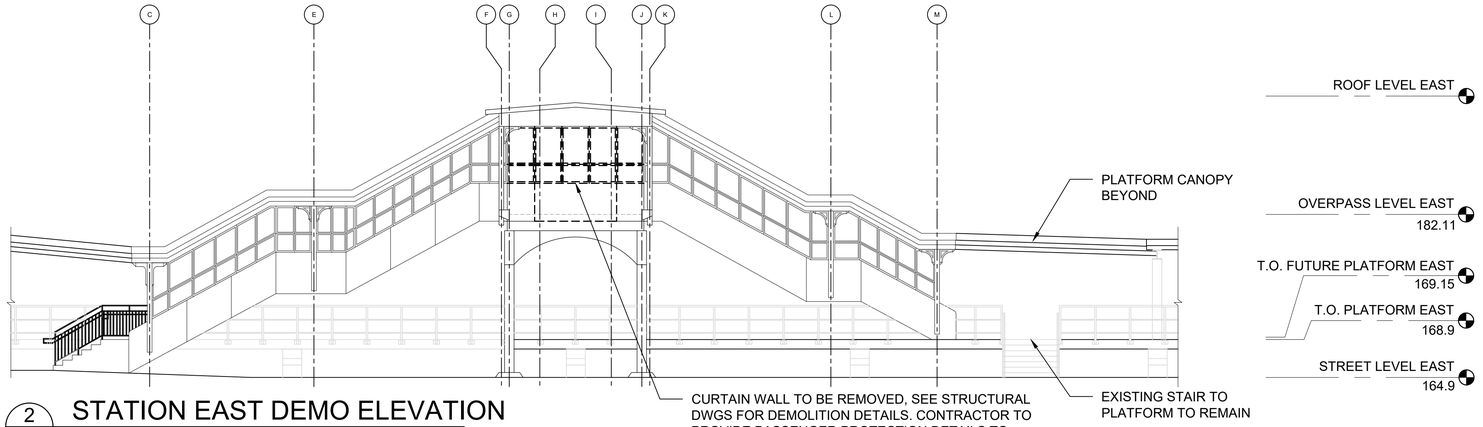
SHEET 16 OF 99



1 / A-101 **STATION NORTH DEMO ELEVATION**

1/8"=1'-0"

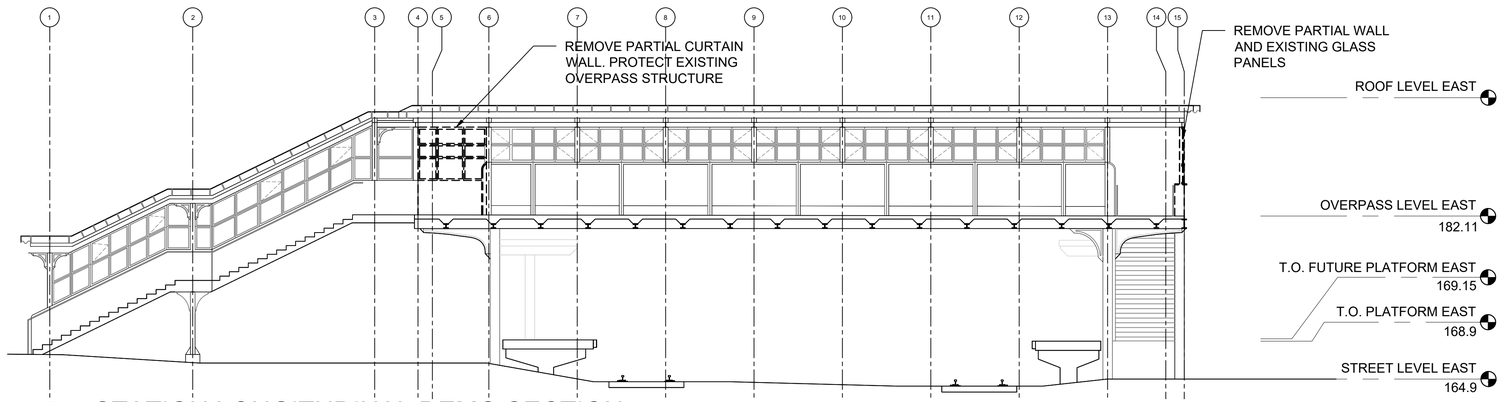
0 4' 8' 16'



2 / A-101 **STATION EAST DEMO ELEVATION**

1/8"=1'-0"

0 4' 8' 16'



A / A-101 **STATION LONGITUDINAL DEMO SECTION**

1/8"=1'-0"

0 4' 8' 16'

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD
		REVISION			

CONFORMED					
NO.	DATE		DRWN	CHKD	APPVD
		REVISION			

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New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

STATION DEMO ELEVATIONS AND SECTION

HARTSDALE STATION

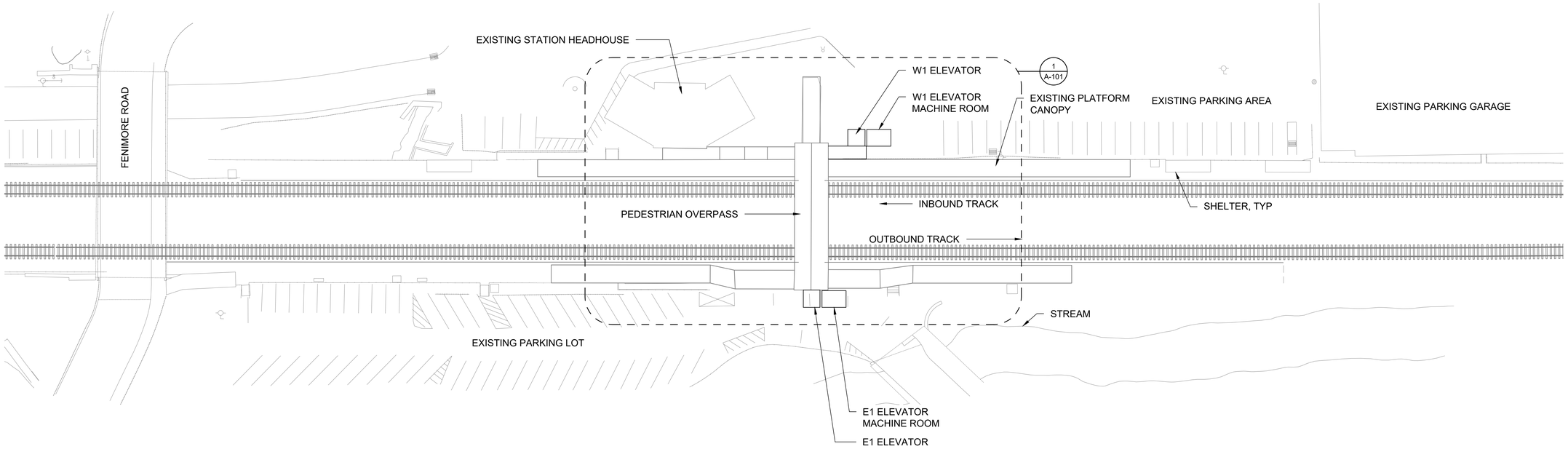
CONTRACT NO. 1000106733

SCALE 1/8" = 1'-0"

DATE 07/09/2021

DRAWING NO. HTD-AD-611

SHEET 17 OF 99



STATION SITE PLAN

1/32"=1'-0"

0 16' 32' 64'

N

NOTES:
1. CONTRACTOR TO VERIFY ELEVATIONS AND DIMENSIONS IN FIELD.
2. CONTRACTOR TO COORDINATE KNOX BOX LOCATION WITH LOCAL FIRE DEPARTMENT.

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGHTFOOT 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

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420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

STATION SITE PLAN

HARTSDALE STATION

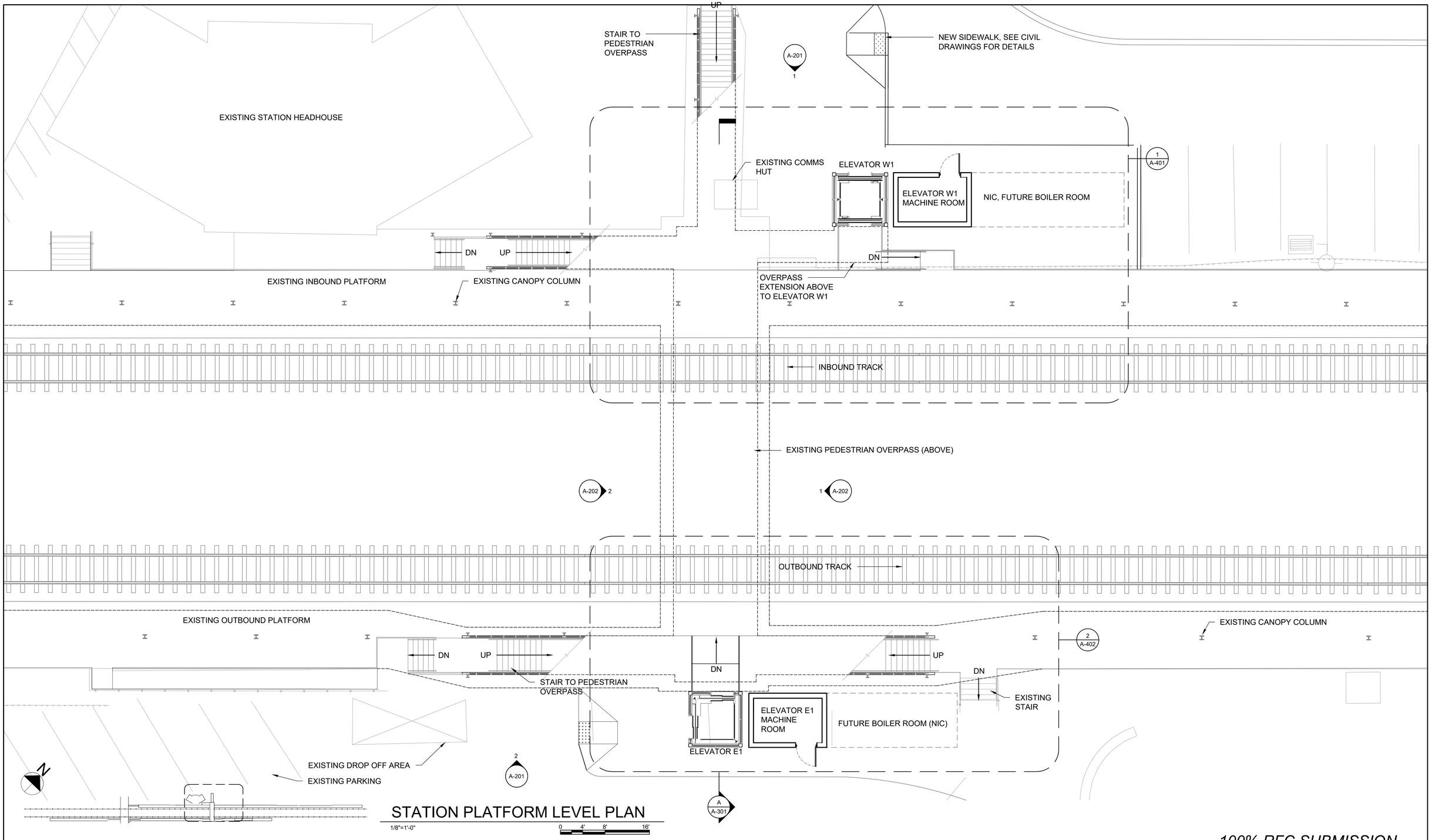
CONTRACT NO.
1000106733

SCALE
1/32" = 1'-0"

DATE
07/09/2021

DRAWING NO.
HTD-A-010

SHEET 18 OF 99



STATION PLATFORM LEVEL PLAN

1/8"=1'-0"

0 4' 8' 16'

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 28219 STATE OF NEW YORK

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New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

STATION PLATFORM LEVEL PLAN

HARTSDALE STATION

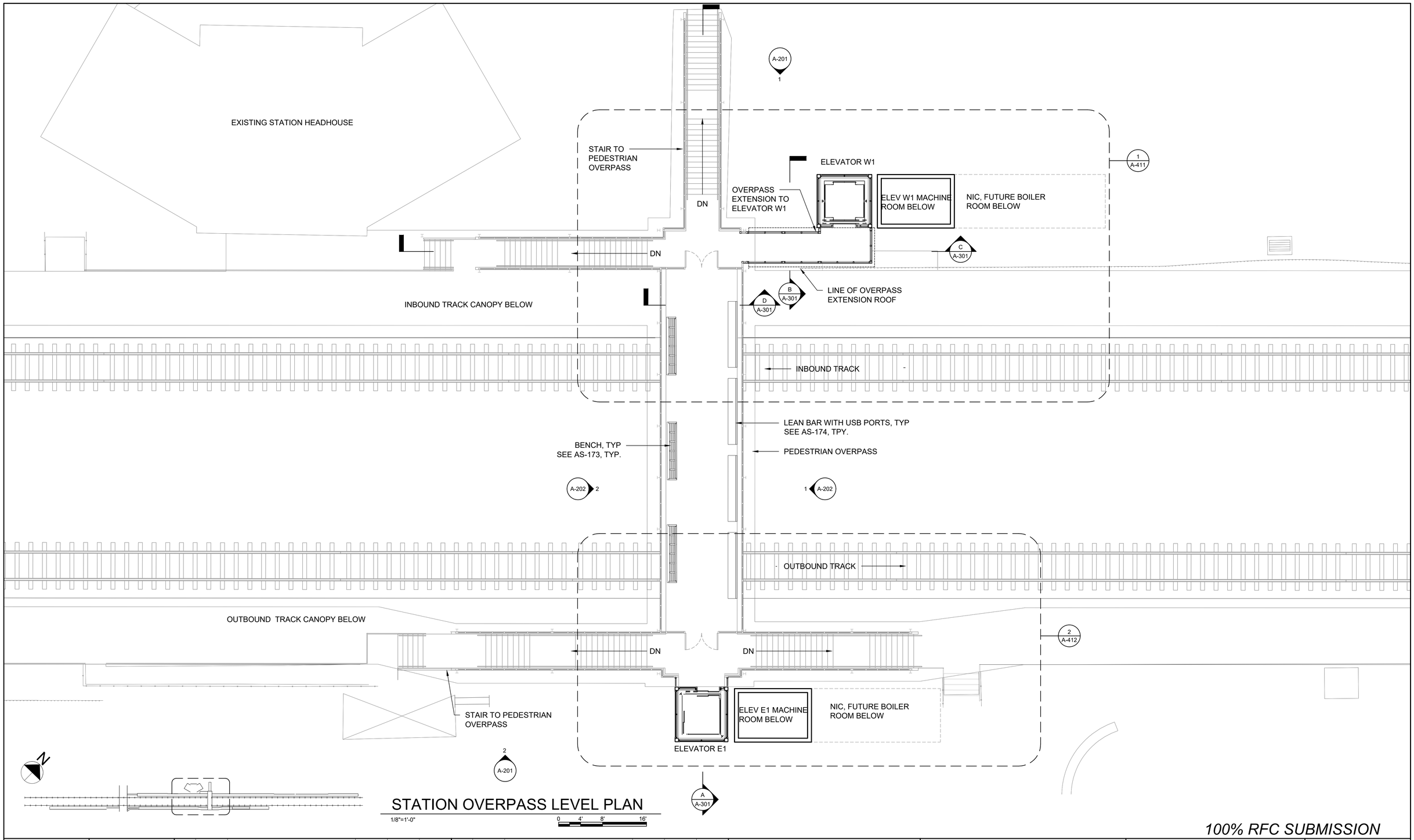
CONTRACT NO.
1000106733

SCALE
1/8" = 1'-0"

DATE
07/09/2021

DRAWING NO.
HTD-A-101

SHEET 19 OF 99



STATION OVERPASS LEVEL PLAN

1/8"=1'-0"

0 4' 8' 16'

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

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New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

STATION OVERPASS LEVEL PLAN

HARTSDALE STATION

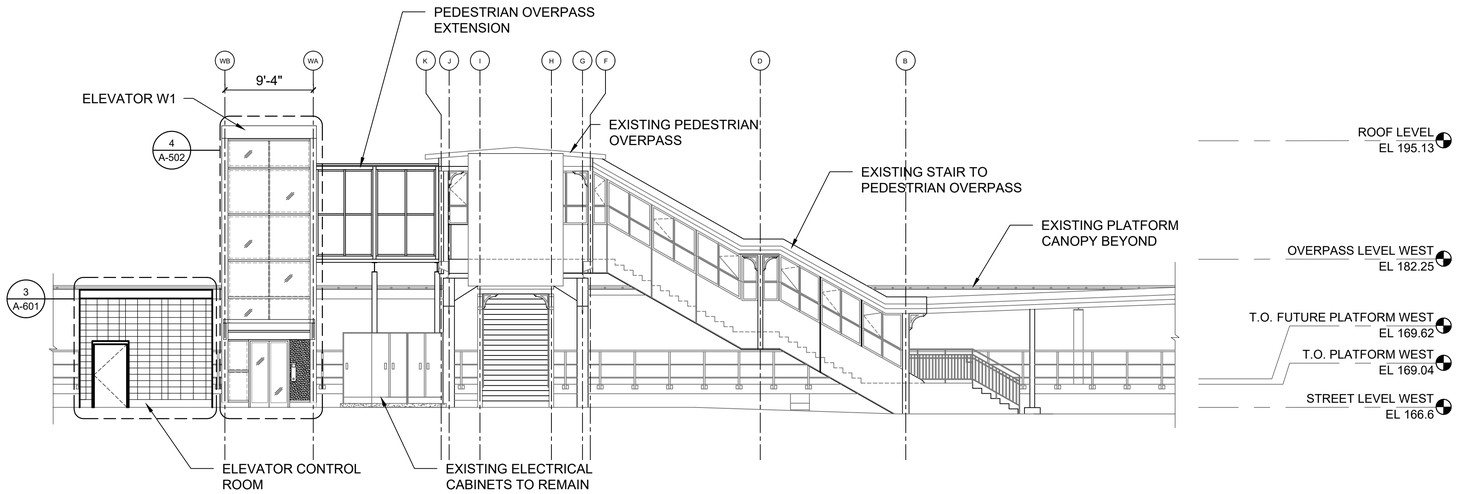
CONTRACT NO.
1000106733

SCALE
1/8" = 1'-0"

DATE
07/09/2021

DRAWING NO.
HTD-A-111

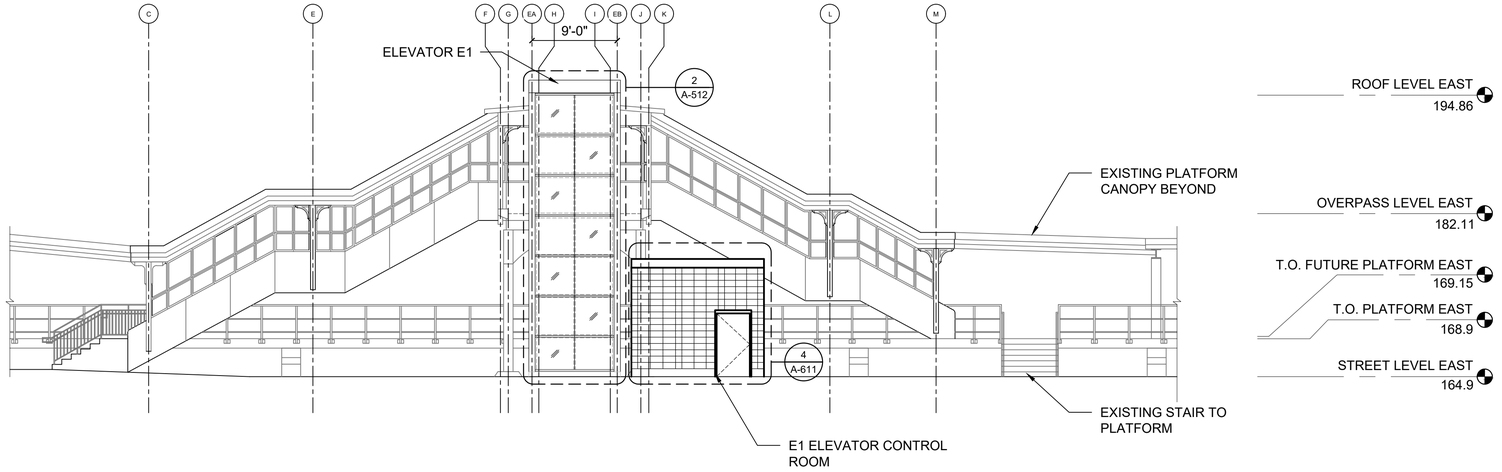
SHEET 20 OF 99



1 STATION NORTH ELEVATION

1/8"=1'-0"

0 4' 8' 16'



2 STATION SOUTH ELEVATION

1/8"=1'-0"

0 4' 8' 16'

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

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		REVISION			

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD
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New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

STATION NORTH AND SOUTH ELEVATIONS

HARTSDALE STATION

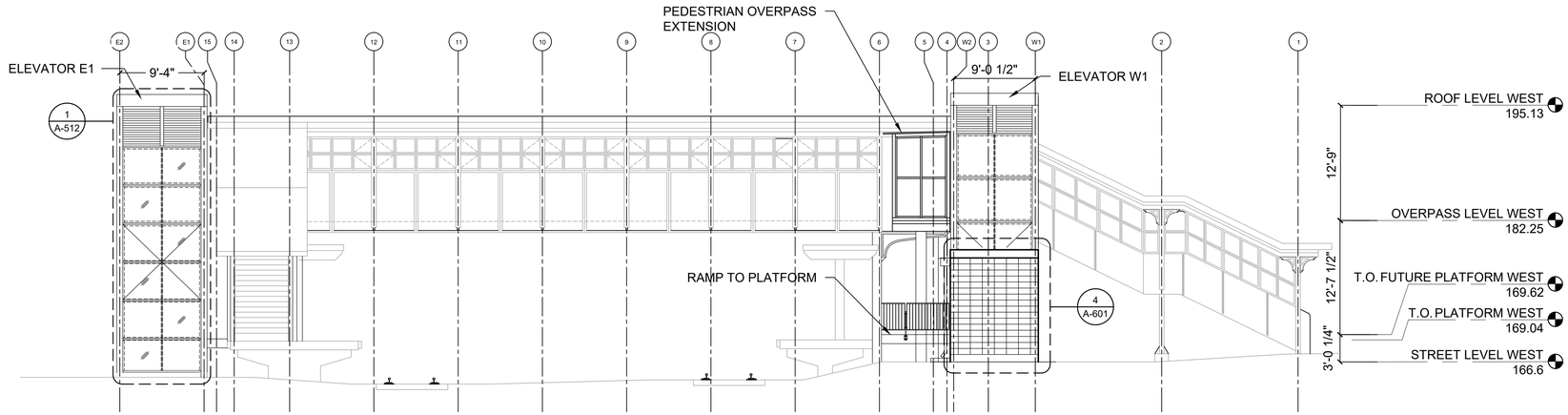
CONTRACT NO.
1000106733

SCALE
1/8" = 1'-0"

DATE
07/09/2021

DRAWING NO.
HTD-A-201

SHEET 21 OF 99

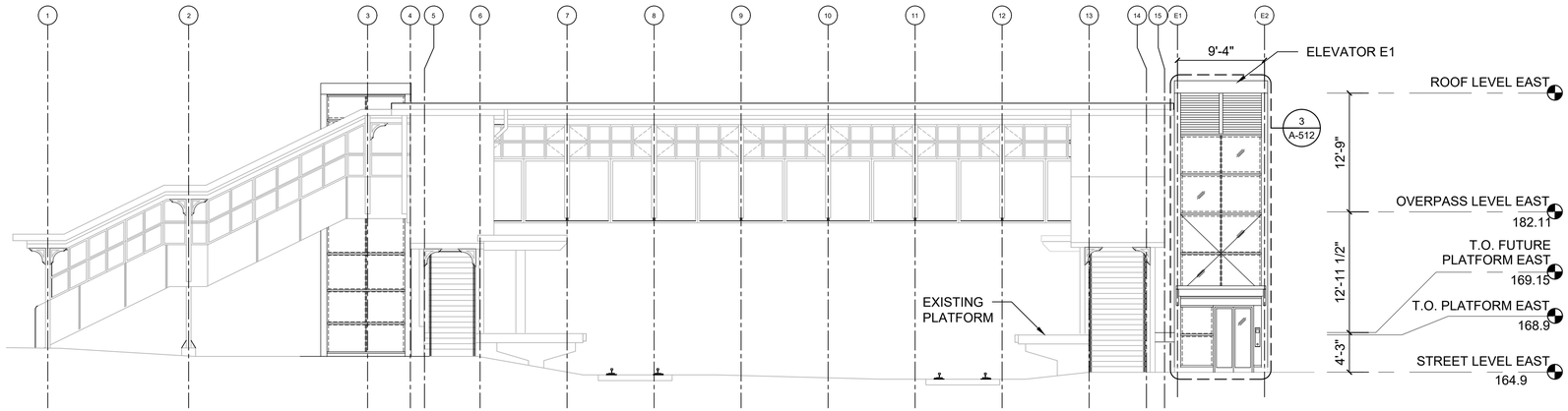


1 STATION EAST ELEVATION

1 / A-101

1/8"=1'-0"

0 4' 8' 16'



2 STATION WEST ELEVATION

2 / A-101

1/8"=1'-0"

0 4' 8' 16'

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

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New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

STATION EAST AND WEST ELEVATIONS

HARTSDALE STATION

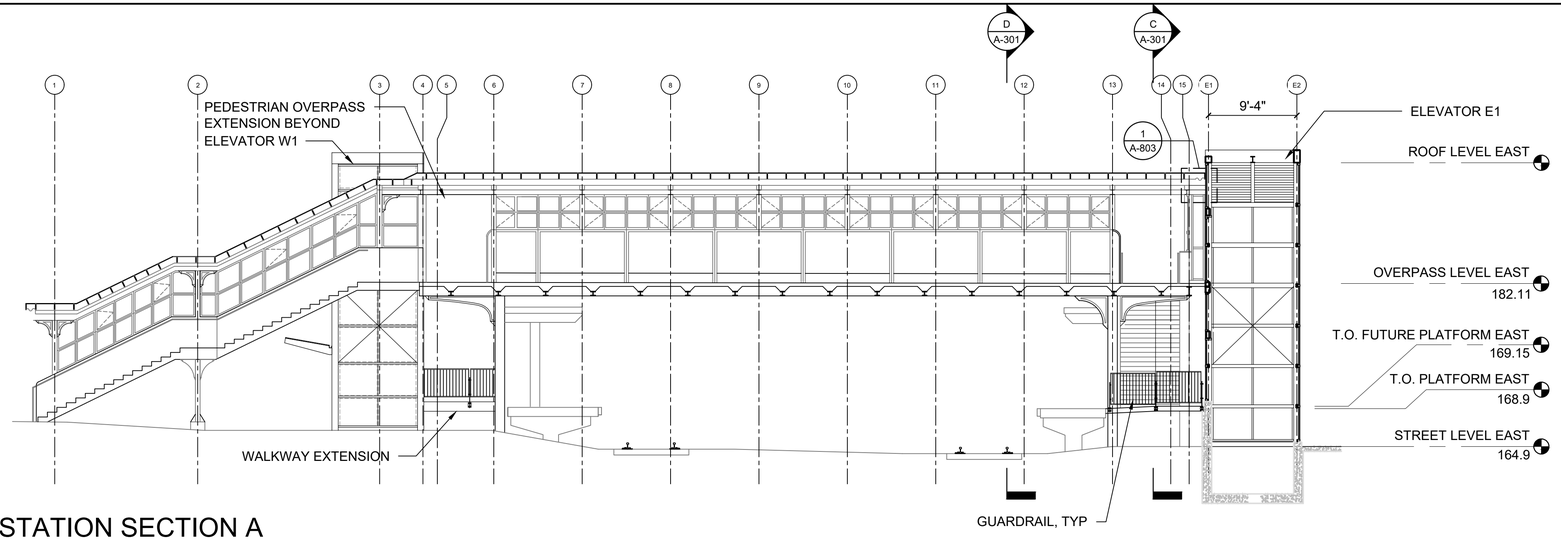
CONTRACT NO.
1000106733

SCALE
1/8" = 1'-0"

DATE
07/09/2021

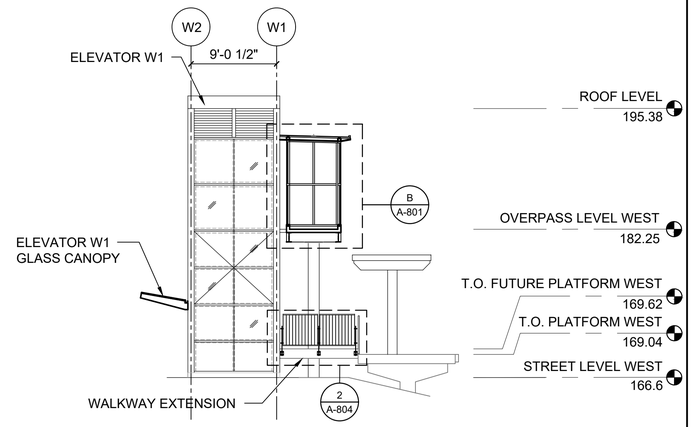
DRAWING NO.
HTD-A-202

SHEET 22 OF 99



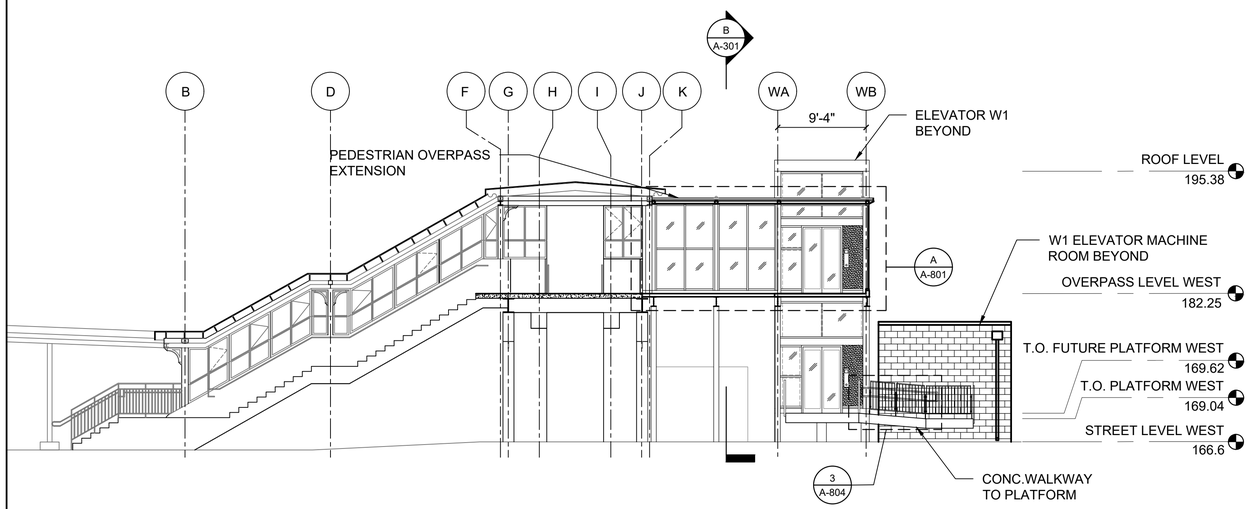
A A-101 **STATION SECTION A**

1/8"=1'-0" 0 4' 8' 16'



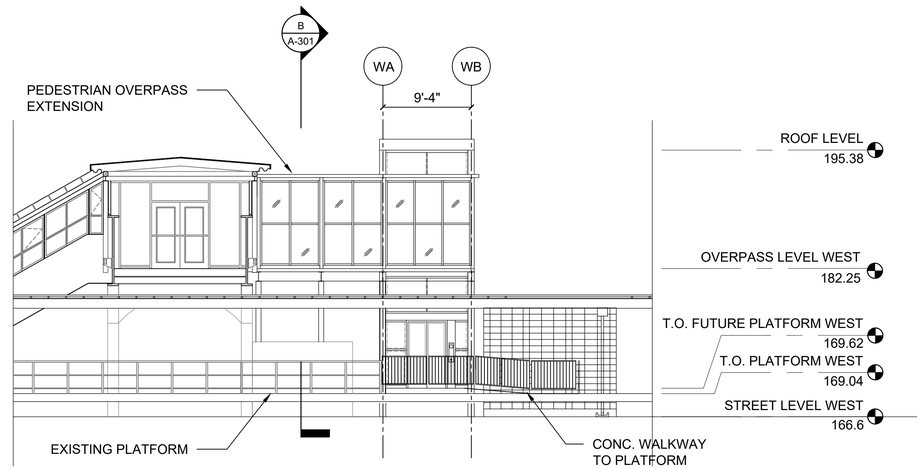
B A-111 **STATION SECTION B**

1/8"=1'-0" 0 4' 8' 16'



C A-111 **STATION SECTION C**

1/8"=1'-0" 0 4' 8' 16'



D A-111 **STATION SECTION D**

1/8"=1'-0" 0 4' 8' 16'

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

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NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

STATION SECTIONS

HARTSDALE STATION

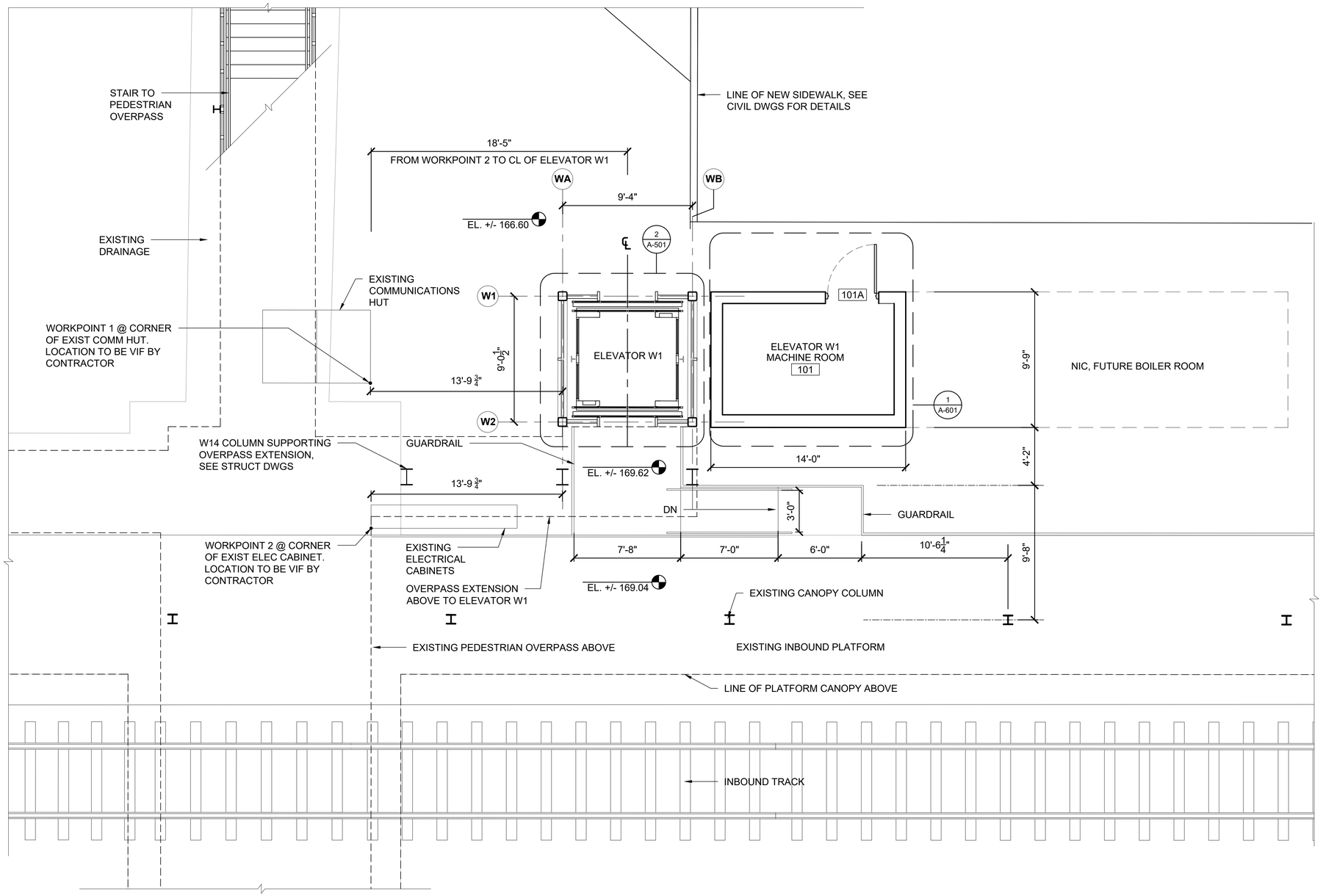
CONTRACT NO.
1000106733

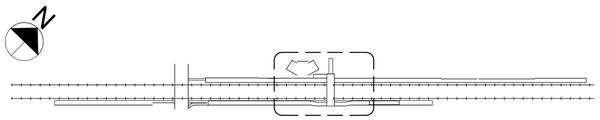
SCALE
1/8" = 1'-0"

DATE
07/09/2021

DRAWING NO.
HTD-A-301

SHEET 23 OF 99





1 A-101 STATION ENLARGED INBOUND PLATFORM LEVEL PLAN

1/4"=1'-0"

0 2' 4' 8'

NOTES:
1. PLATFORM ELEVATION VARIES. CONTRACTOR TO VERIFY IN FIELD.

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD
		REVISION			

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD
		REVISION			

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MTA Metro-North Railroad
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New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED PLATFORM LEVEL PLAN 1 OF 2

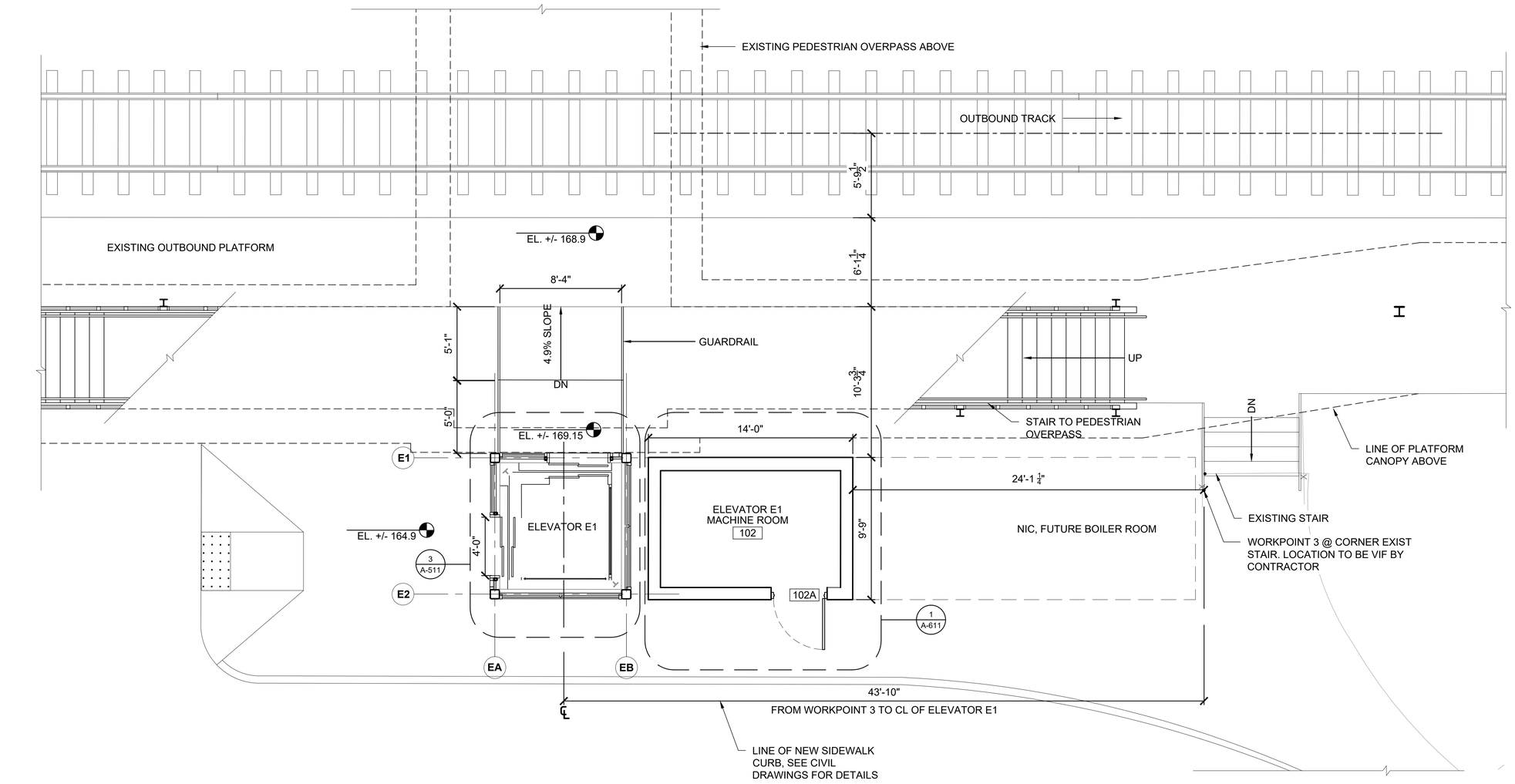
HARTSDALE STATION

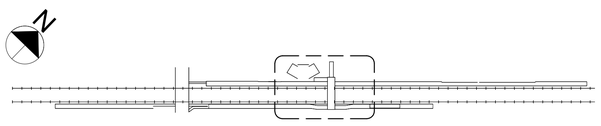
CONTRACT NO. 1000106733

SCALE 1/4" = 1'-0" | DATE 07/09/2021

DRAWING NO. HTD-A-401

SHEET 24 OF 99





2 A-101 STATION ENLARGED OUTBOUND PLATFORM LEVEL PLAN

1/4"=1'-0"

0 2' 4' 8'

NOTES:
1. PLATFORM ELEVATION VARIES. CONTRACTOR TO VERIFY IN FIELD.

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGHTFOOT 28219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD
		REVISION			

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD
		REVISION			

STV 100 Years
225 PARK AVENUE SOUTH, NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED PLATFORM LEVEL PLAN 2 OF 2

HARTSDALE STATION

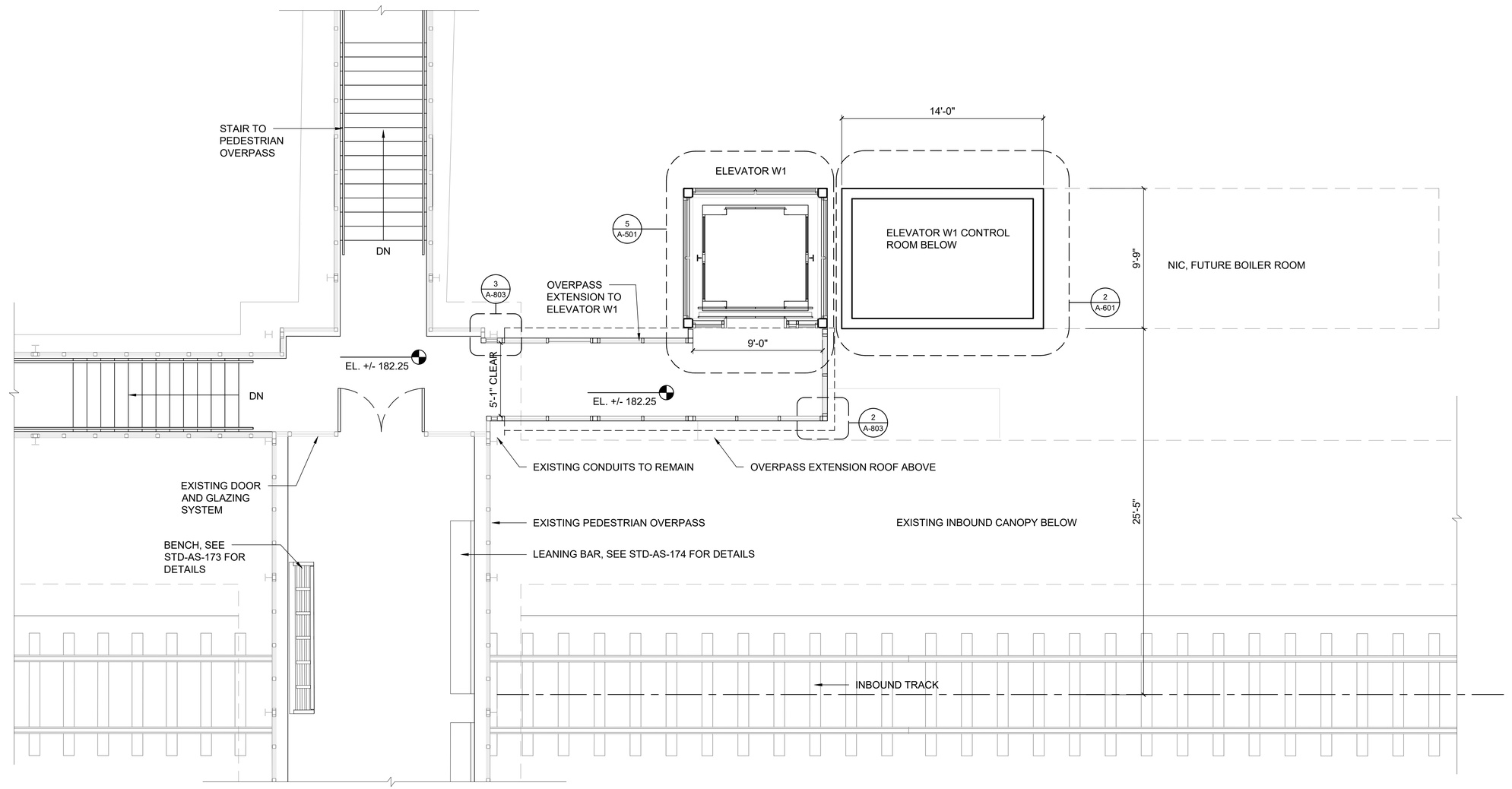
CONTRACT NO. 1000106733

SCALE 1/4" = 1'-0"

DATE 07/09/2021

DRAWING NO. HTD-A-402

SHEET 25 OF 99



1 A-101 STATION ENLARGED INBOUND OVERPASS LEVEL PLAN

1/4"=1'-0"

0 2' 4' 8'

NOTES:
1. OVERPASS ELEVATION VARIES. CONTRACTOR TO VERIFY IN FIELD.
2. CONTRACTOR TO VERIFY OVERPASS DIMENSIONS IN FIELD

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD
		REVISION			

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD
		REVISION			

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225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED OVERPASS LEVEL PLAN 1 OF 2

HARTSDALE STATION

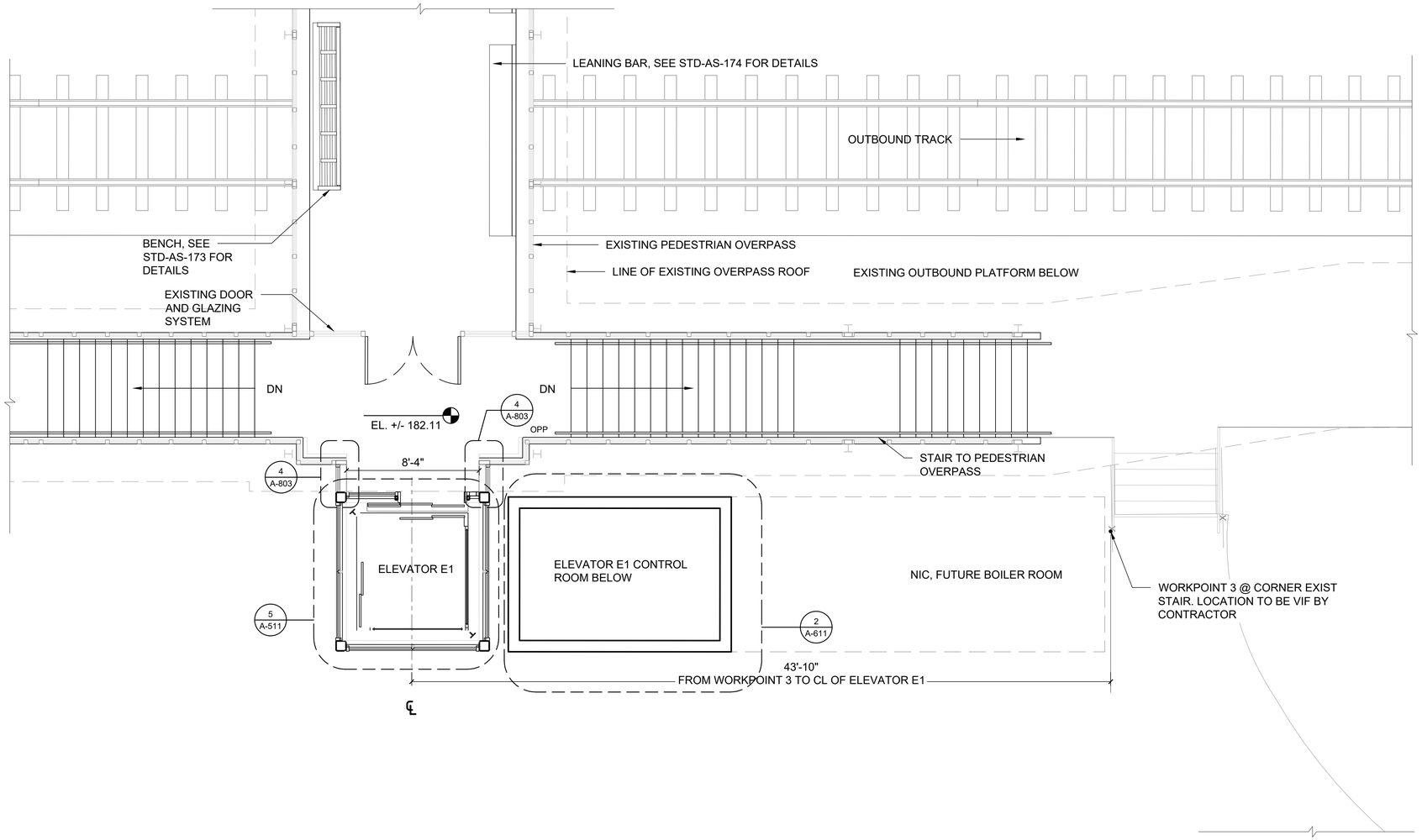
CONTRACT NO. 1000106733

SCALE 1/4" = 1'-0"

DATE 07/09/2021

DRAWING NO. HTD-A-411

SHEET 26 OF 99

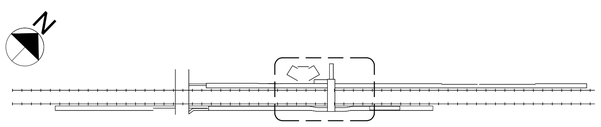


2 STATION ENLARGED OUTBOUND OVERPASS LEVEL PLAN

2 A-101

1/4"=1'-0"

0 2' 4' 8'



NOTES:
1. OVERPASS ELEVATION VARIES. CONTRACTOR TO VERIFY IN FIELD.
2. CONTRACTOR TO VERIFY OVERPASS DIMENSIONS IN FIELD

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

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225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED OVERPASS LEVEL PLAN 2 OF 2

HARTSDALE STATION

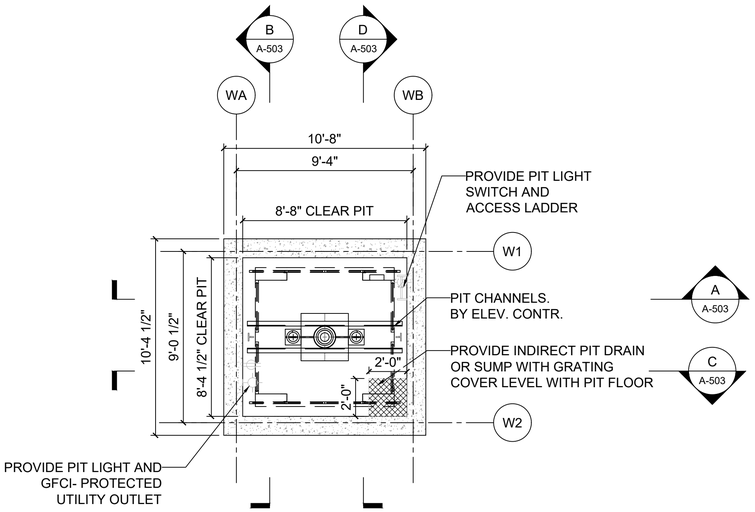
CONTRACT NO. 1000106733

SCALE 1/4" = 1'-0"

DATE 07/09/2021

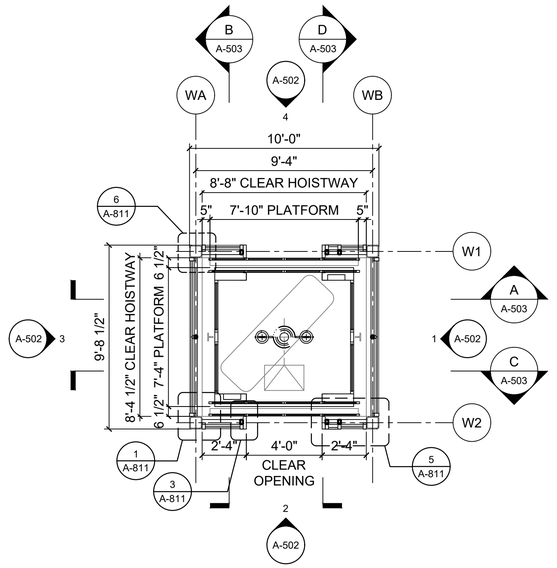
DRAWING NO. HTD-A-412

SHEET 27 OF 99



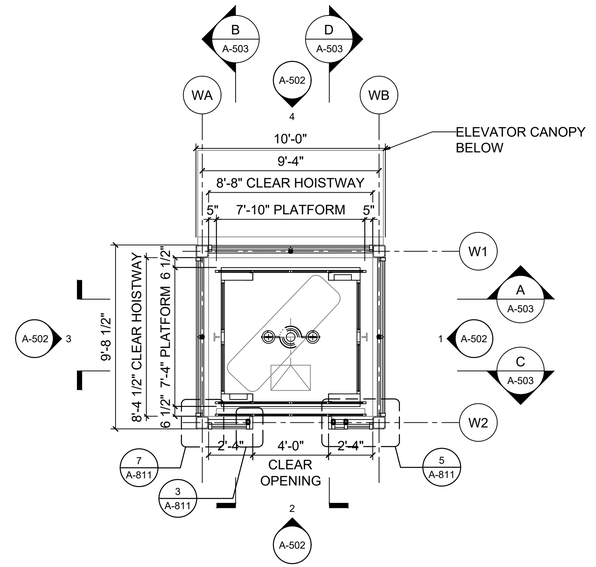
1 W1 PIT LEVEL PLAN

A-501 — 1/4"=1'-0" — 0 2' 4' 8'



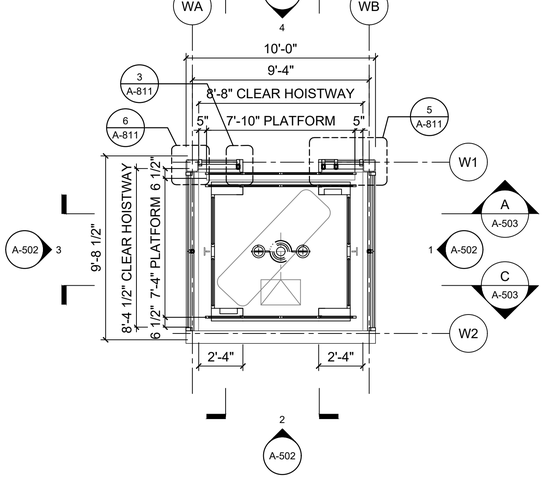
3 W1 PLATFORM LEVEL PLAN

A-501 — 1/4"=1'-0" — 0 2' 4' 8'



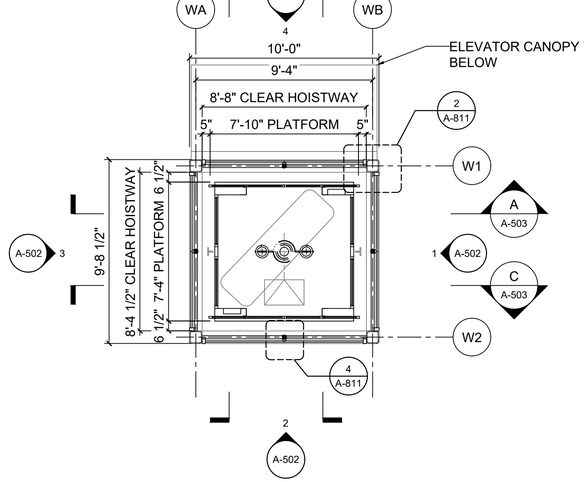
5 W1 OVERPASS LEVEL PLAN

A-501 — 1/4"=1'-0" — 0 2' 4' 8'



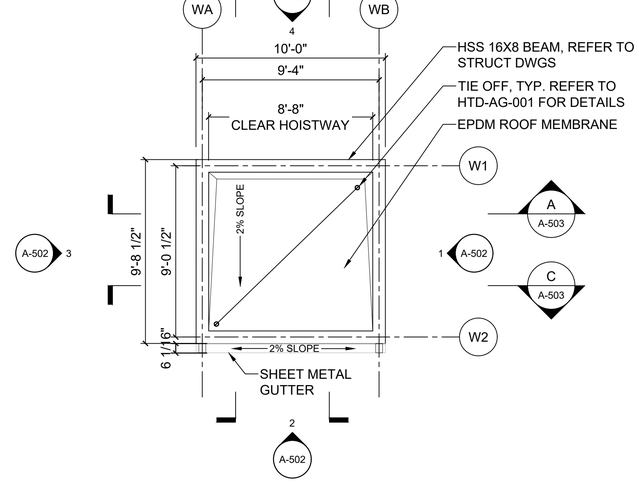
2 W1 STREET LEVEL PLAN

A-501 — 1/4"=1'-0" — 0 2' 4' 8'



4 W1 EL. 13'-0" LEVEL PLAN

A-501 — 1/4"=1'-0" — 0 2' 4' 8'



6 W1 ROOF LEVEL PLAN

A-501 — 1/4"=1'-0" — 0 2' 4' 8'

NOTES:

1. SEE DRAWING HTD-A-815 FOR ELEVATOR CAB DETAILS.

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED ELEVATOR W1 PLANS

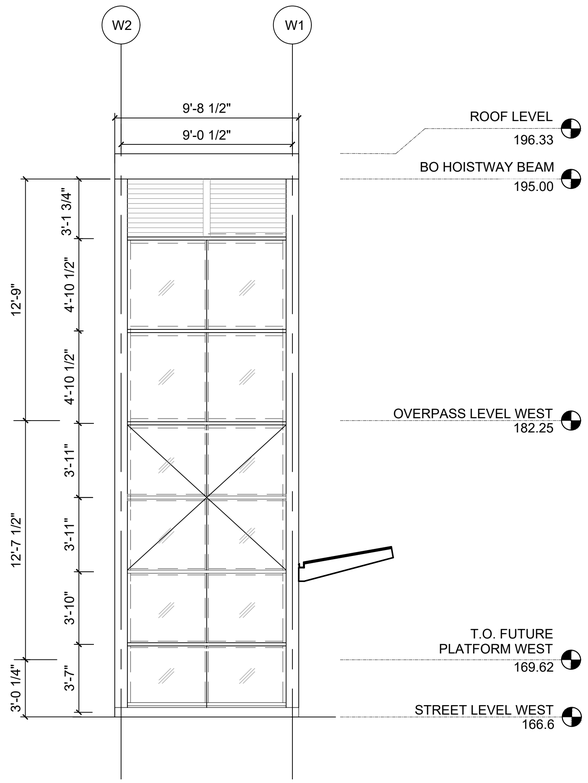
HARTSDALE STATION

CONTRACT NO. 1000106733

SCALE 1/4" = 1'-0" | DATE 07/09/2021

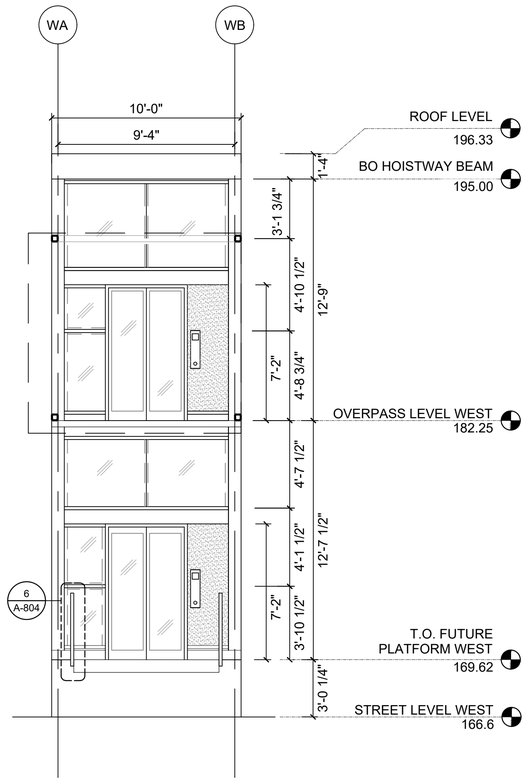
DRAWING NO. HTD-A-501

SHEET 28 OF 99



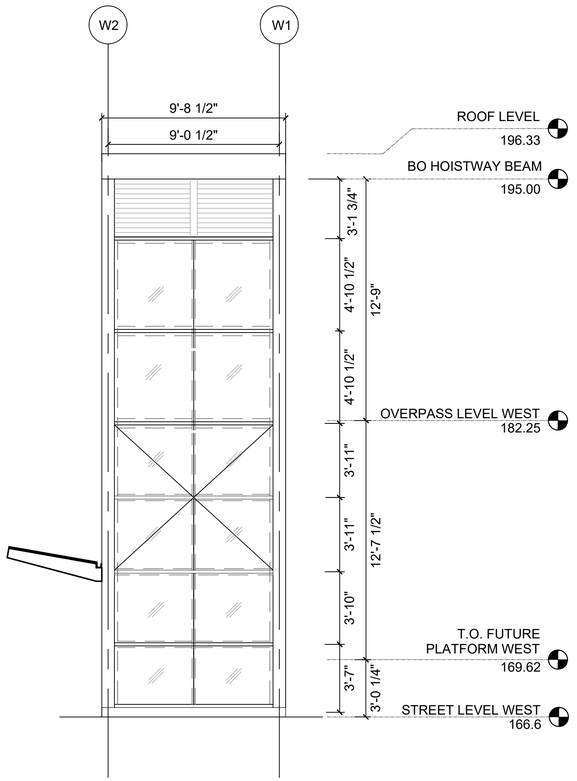
1 A-501 W1 EAST ELEVATION

1/4"=1'-0"



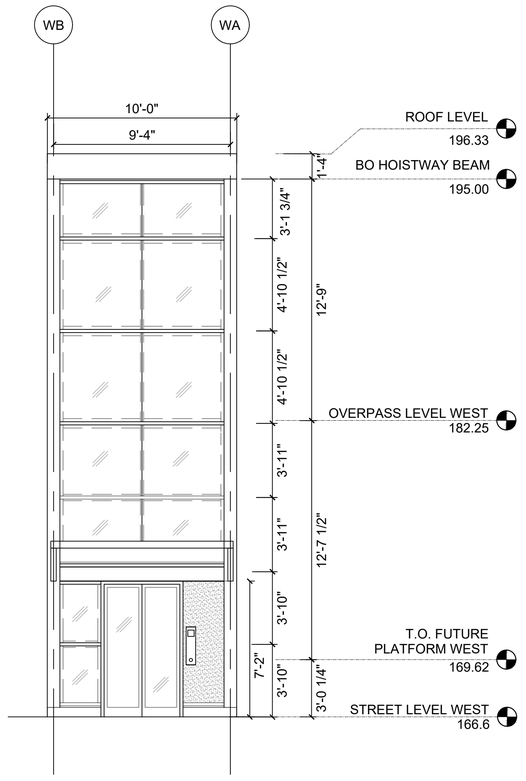
2 A-501 W1 SOUTH ELEVATION

1/4"=1'-0"



3 A-501 W1 WEST ELEVATION

1/4"=1'-0"



4 A-501 W1 NORTH ELEVATION

1/4"=1'-0"

NOTES:

1. PLATFORM AND OVERPASS ELEVATION VARIES. CONTRACTOR TO VERIFY IN FIELD.
2. GLASS ENCLOSURE TO BE 9/16" THICK HEAT-STRENGTHENED LAMINATED SAFETY GLASS WITH GLASS TRANSLUCENT PVB INTERLAYER. CLEAR ANTI-SCRATCH 'SACRIFICIAL' FILM APPLIED TO THE FRONT FACE. REFER TO SPECIFICATION SECTION 08 80 00 GLAZING FOR ADDITIONAL DETAILS.

LEGEND:

- GLASS
- LOUVER
- METAL PANEL

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED ELEVATOR W1 ELEVATIONS

HARTSDALE STATION

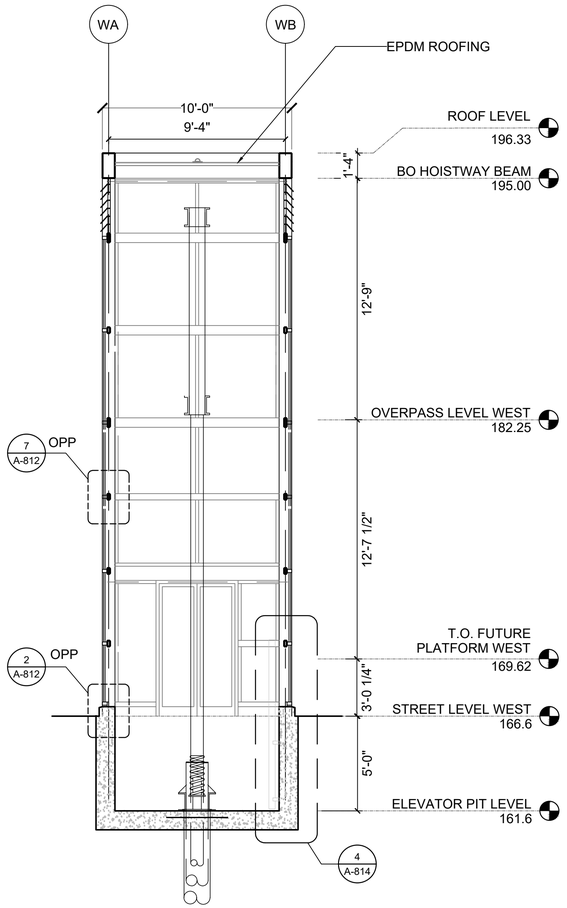
CONTRACT NO.
1000106733

SCALE
1/4" = 1'-0"

DATE
07/09/2021

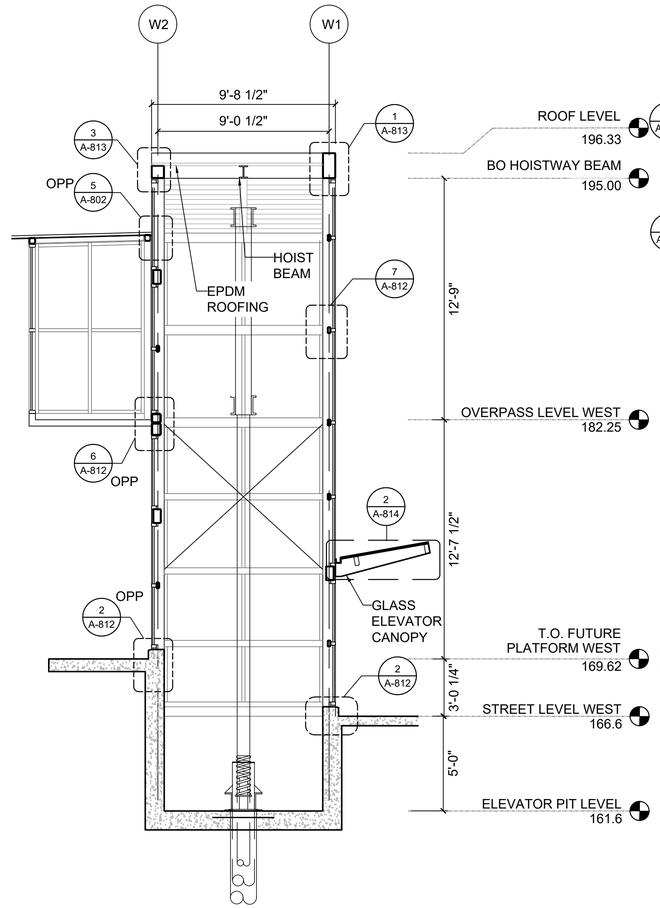
DRAWING NO.
HTD-A-502

SHEET 29 OF 99



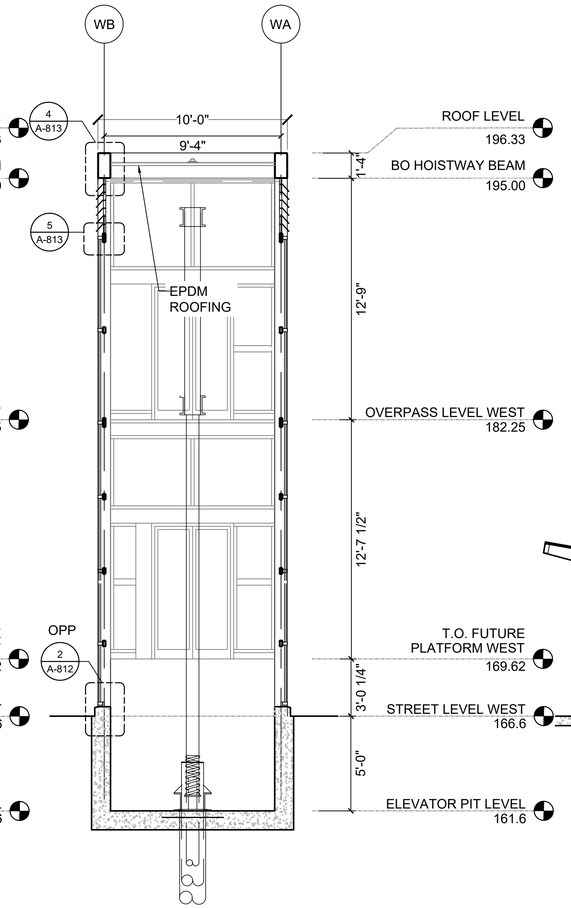
A W1 SECTION A

A-501 1/4"=1'-0" 0 2' 4' 8'



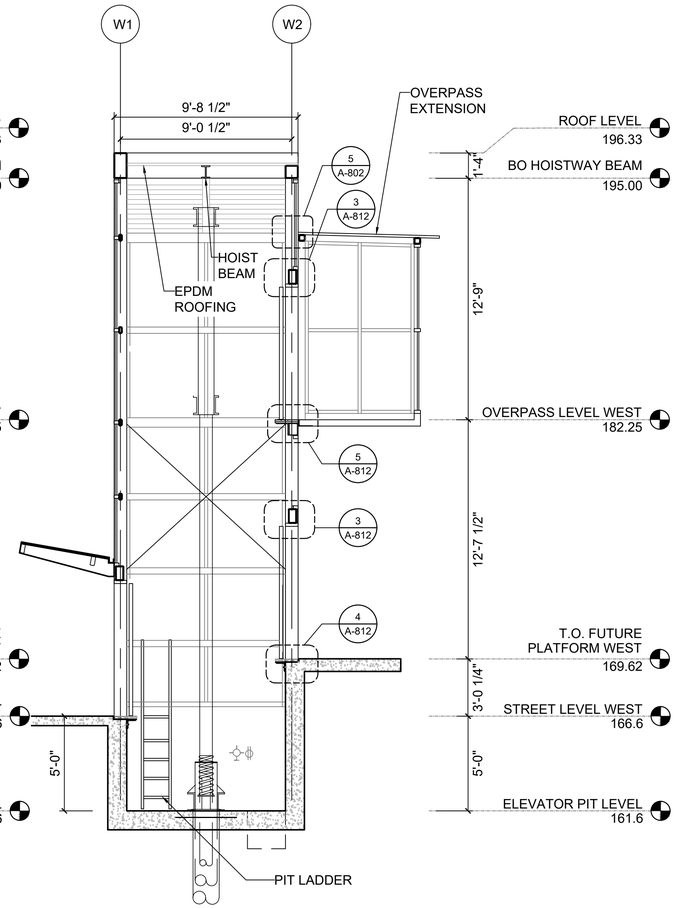
B W1 SECTION B

B-501 1/4"=1'-0" 0 2' 4' 8'



C W1 SECTION C

C-501 1/4"=1'-0" 0 2' 4' 8'



D W1 SECTION D

D-501 1/4"=1'-0" 0 2' 4' 8'

NOTES:

1. PLATFORM AND OVERPASS ELEVATION VARIES. CONTRACTOR TO VERIFY IN FIELD.
2. GLASS ENCLOSURE TO BE 9/16" THICK HEAT-STRENGTHENED LAMINATED SAFETY GLASS WITH GLASS TRANSLUCENT PVB INTERLAYER. CLEAR ANTI-SCRATCH 'SACRIFICIAL' FILM APPLIED TO THE FRONT FACE. REFER TO SPECIFICATION SECTION 08 80 00 GLAZING FOR ADDITIONAL DETAILS.

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED ELEVATOR W1 SECTIONS

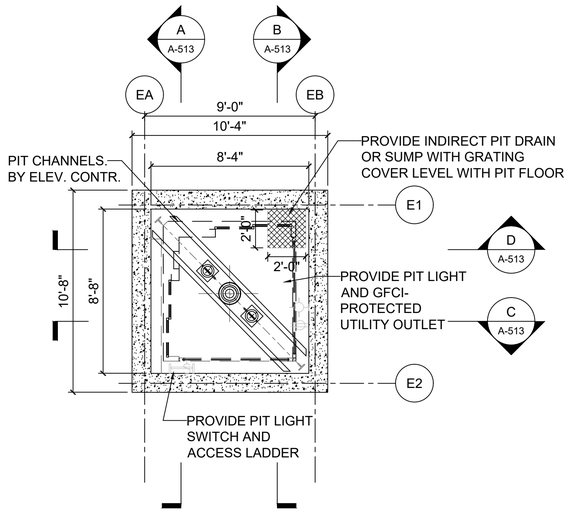
HARTSDALE STATION

CONTRACT NO. 1000106733

SCALE 1/4" = 1'-0" | DATE 07/09/2021

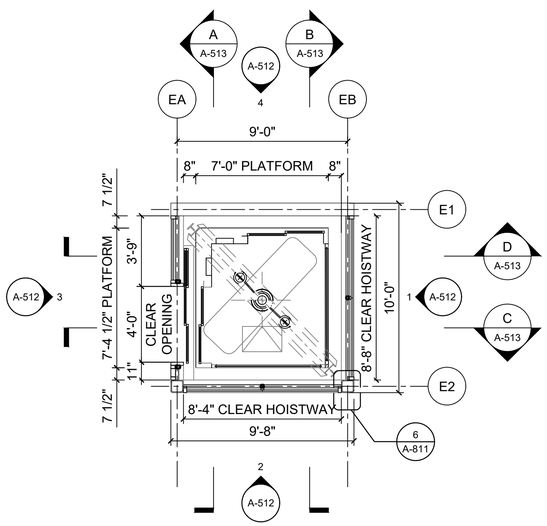
DRAWING NO. HTD-A-503

SHEET 30 OF 99



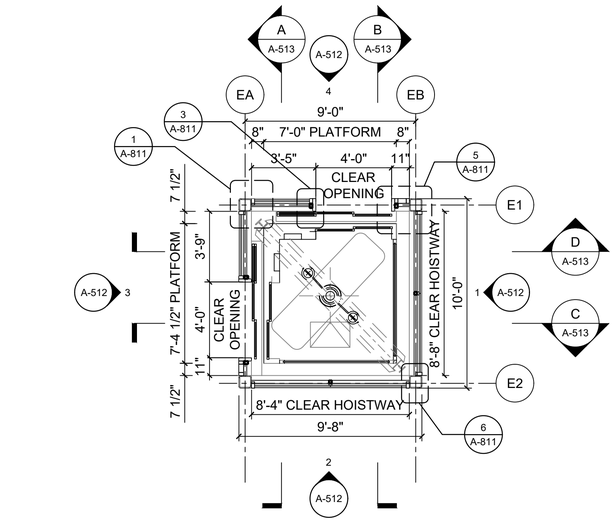
1 E1 PIT LEVEL PLAN

A-501 — 1/4"=1'-0" — 0 2' 4' 8'



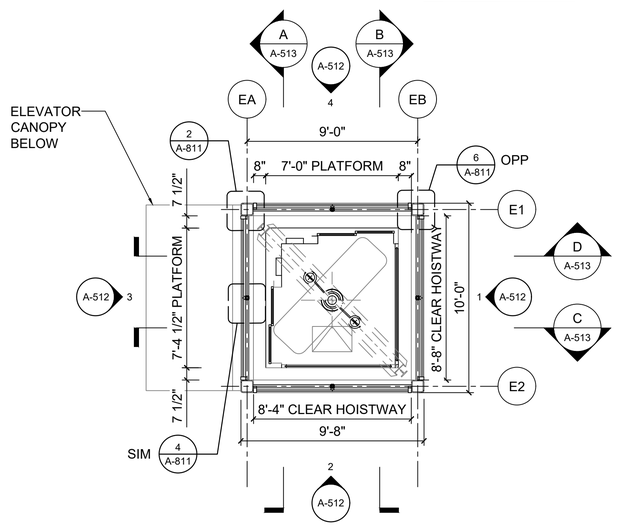
2 E1 STREET LEVEL PLAN

A-501 — 1/4"=1'-0" — 0 2' 4' 8'



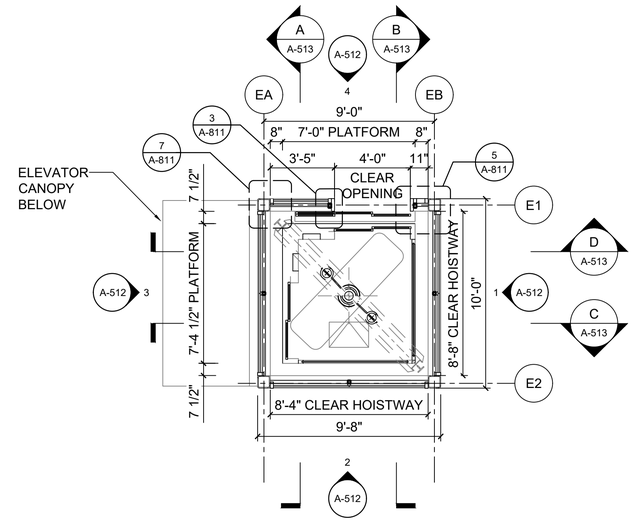
3 E1 PLATFORM LEVEL PLAN

A-501 — 1/4"=1'-0" — 0 2' 4' 8'



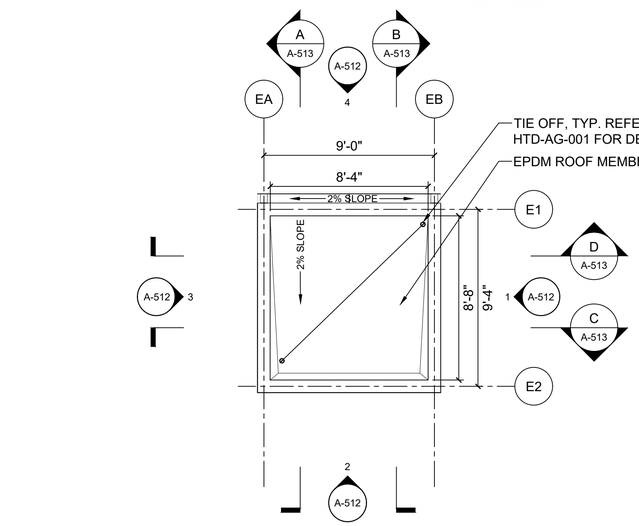
4 E1 EL. 13'-0" LEVEL PLAN

A-501 — 1/4"=1'-0" — 0 2' 4' 8'



5 E1 OVERPASS LEVEL PLAN

A-501 — 1/4"=1'-0" — 0 2' 4' 8'



6 E1 ROOF LEVEL PLAN

A-501 — 1/4"=1'-0" — 0 2' 4' 8'

N

NOTES:

1. SEE DRAWING HTD-A-815 FOR ELEVATOR CAB DETAILS.

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

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REVISION

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225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED ELEVATOR E1 PLANS

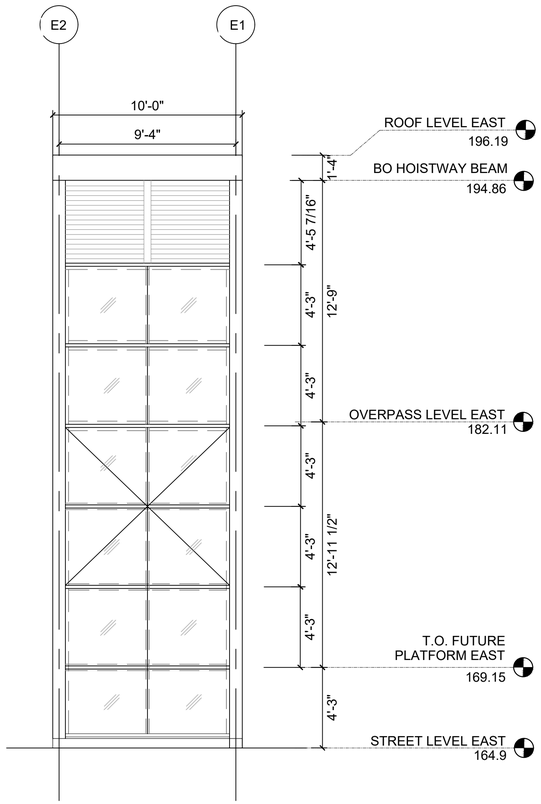
HARTSDALE STATION

CONTRACT NO. 1000106733

SCALE 1/4" = 1'-0" | DATE 07/09/2021

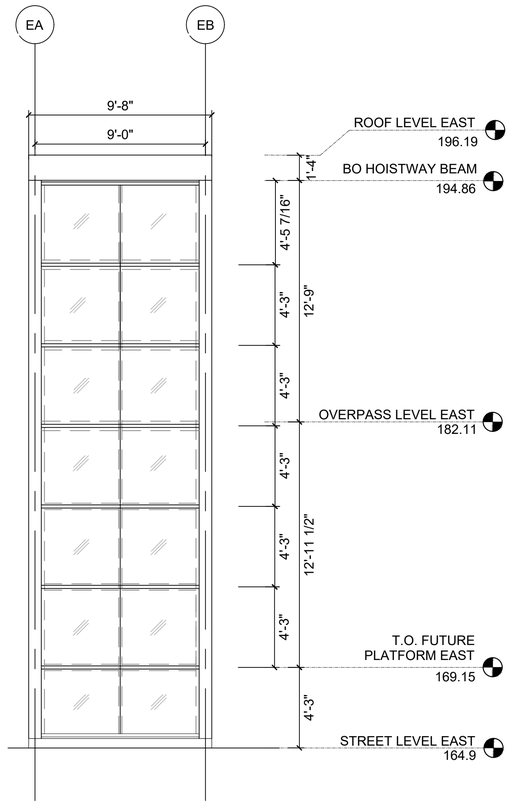
DRAWING NO. HTD-A-511

SHEET 31 OF 99



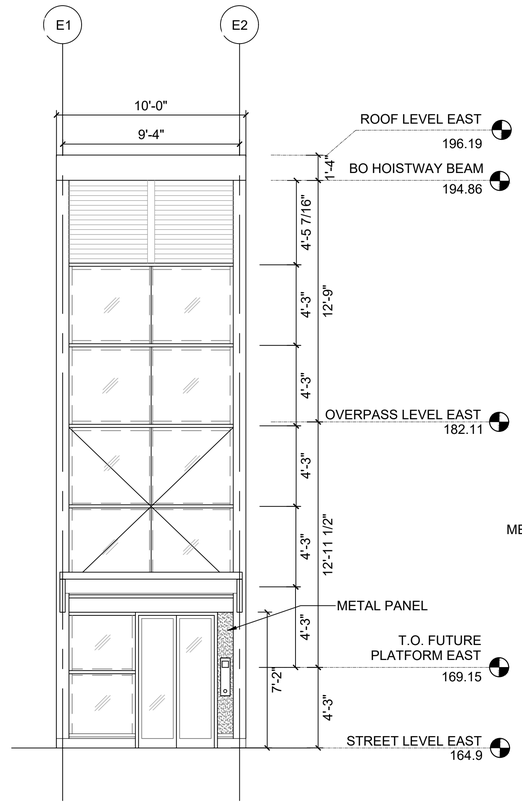
1 A-501 **E1 EAST ELEVATION**

1/4"=1'-0" 0 2' 4' 8'



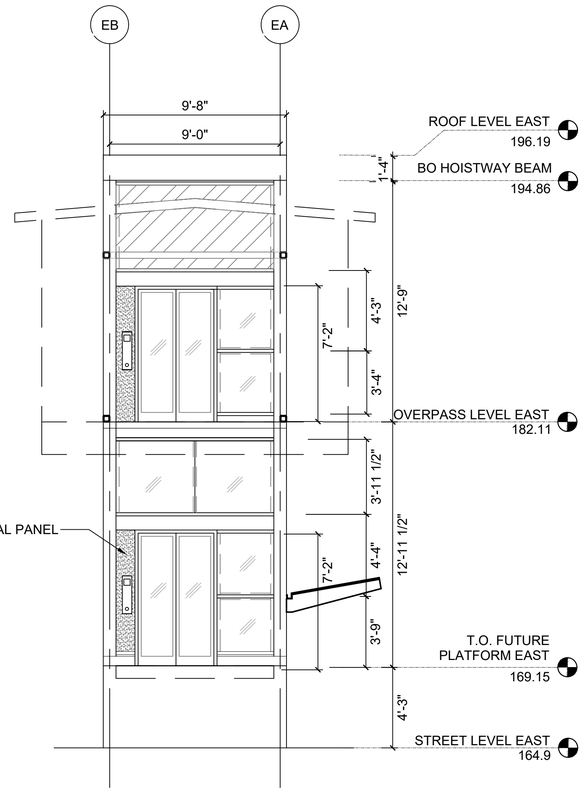
2 A-501 **E1 SOUTH ELEVATION**

1/4"=1'-0" 0 2' 4' 8'



3 A-501 **E1 WEST ELEVATION**

1/4"=1'-0" 0 2' 4' 8'



4 A-501 **E1 NORTH ELEVATION**

1/4"=1'-0" 0 2' 4' 8'

NOTES:

1. PLATFORM AND OVERPASS ELEVATION VARIES. CONTRACTOR TO VERIFY IN FIELD.
2. GLASS ENCLOSURE TO BE 9/16" THICK HEAT-STRENGTHENED LAMINATED SAFETY GLASS WITH GLASS TRANSLUCENT PVB INTERLAYER. CLEAR ANTI-SCRATCH 'SACRIFICIAL' FILM APPLIED TO THE FRONT FACE. REFER TO SPECIFICATION SECTION 08 80 00 GLAZING FOR ADDITIONAL DETAILS.

LEGEND:

- GLASS
- METAL PANEL
- LOUVER
- BLANK OFF PANEL

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

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REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED ELEVATOR E1 ELEVATIONS

HARTSDALE STATION

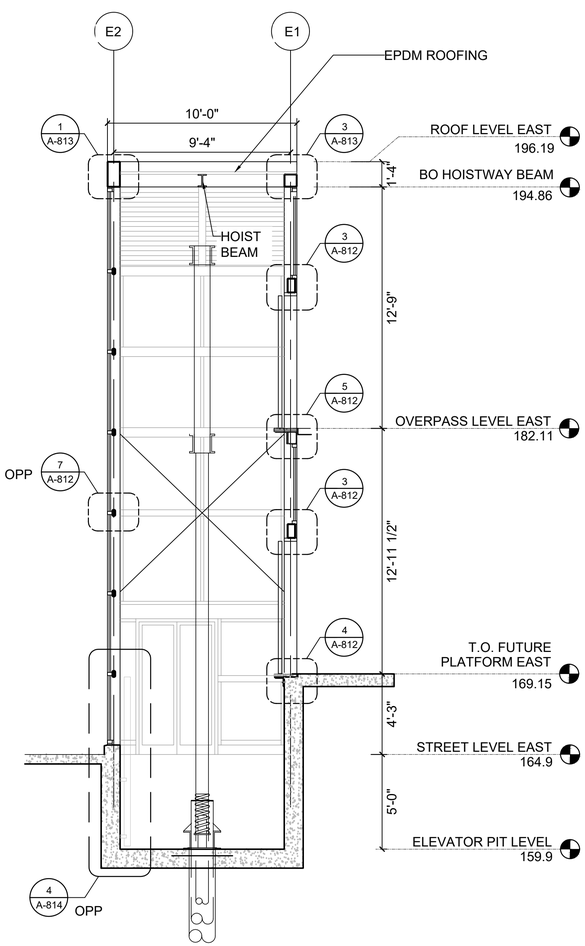
CONTRACT NO.
1000106733

SCALE
1/4" = 1'-0"

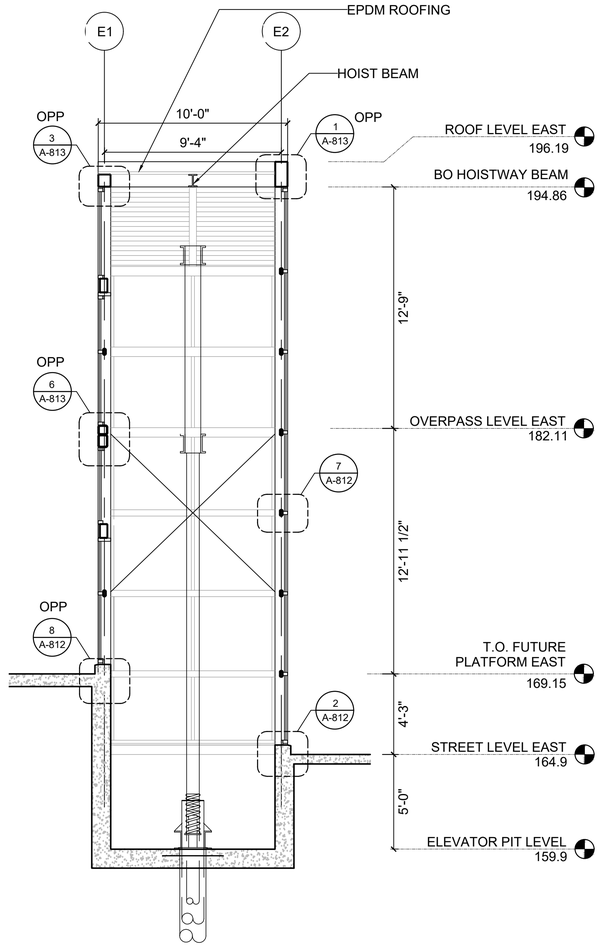
DATE
07/09/2021

DRAWING NO.
HTD-A-512

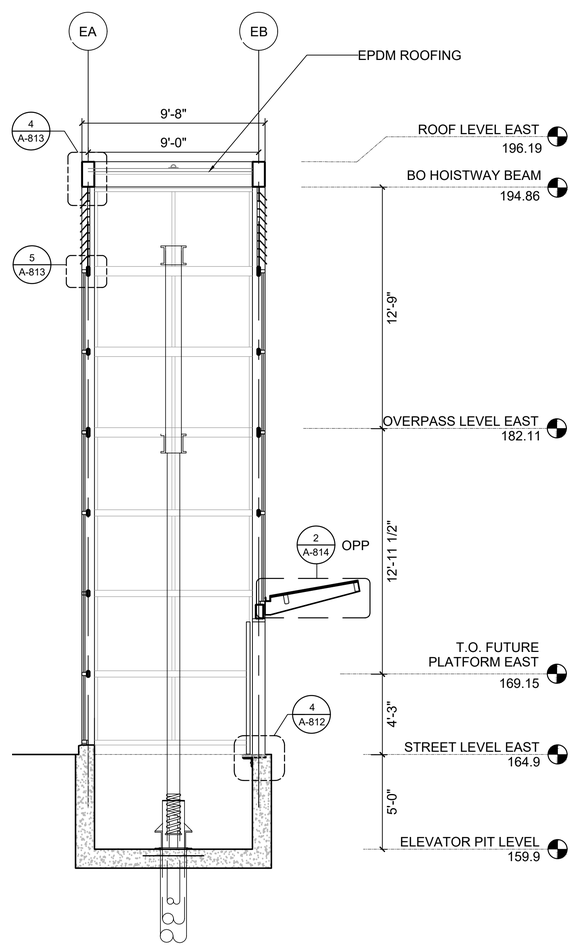
SHEET 32 OF 99



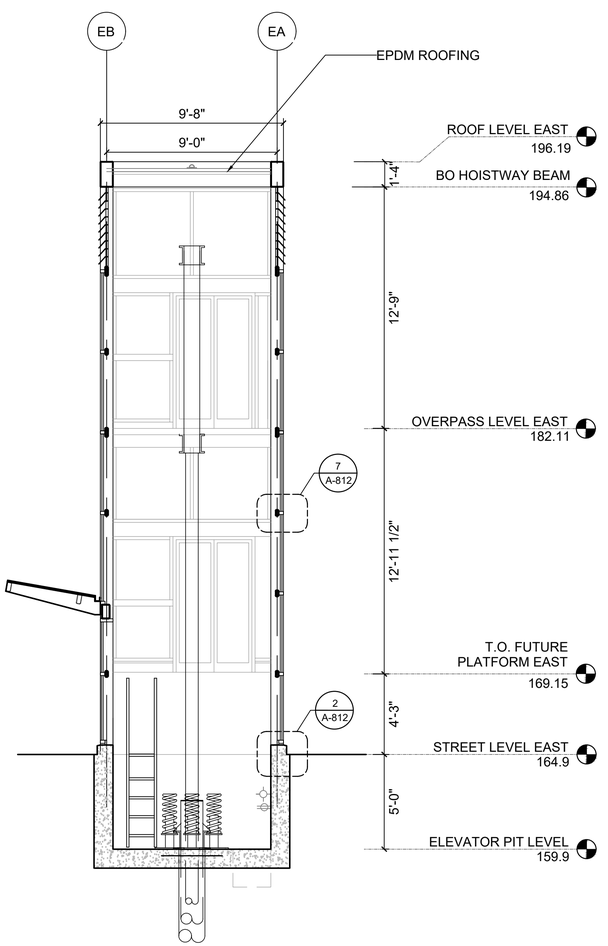
A E1 SECTION A
A-501 1/4"=1'-0"



B E1 SECTION B
A-501 1/4"=1'-0"



C E1 SECTION C
A-501 1/4"=1'-0"



D E1 SECTION D
A-501 1/4"=1'-0"

NOTES:
1. PLATFORM AND OVERPASS ELEVATION VARIES. CONTRACTOR TO VERIFY IN FIELD.
2. GLASS ENCLOSURE TO BE 9/16" THICK HEAT-STRENGTHENED LAMINATED SAFETY GLASS WITH GLASS TRANSLUCENT PVB INTERLAYER. CLEAR ANTI-SCRATCH 'SACRIFICIAL' FILM APPLIED TO THE FRONT FACE. REFER TO SPECIFICATION SECTION 08 80 00 GLAZING FOR ADDITIONAL DETAILS.

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	MD
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD
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NO.	DATE	CONFORMED	DRWN	CHKD	APPVD
		REVISION			

STV 100 Years
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NEW YORK, NY 10003

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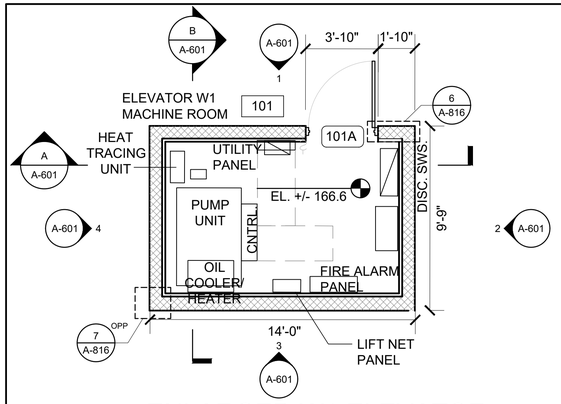
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED ELEVATOR E1 SECTIONS

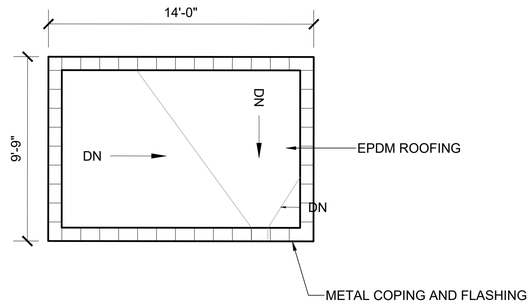
HARTSDALE STATION

CONTRACT NO. 1000106733
SCALE 1/4" = 1'-0"
DATE 07/09/2021
DRAWING NO. HTD-A-513
SHEET 33 OF 99



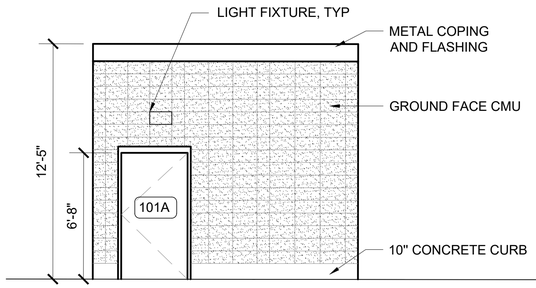
ENLARGED W1 ELEVATOR MACHINE ROOM PLAN

1 / A-401 — 1/4"=1'-0" — 0 2' 4' 8'



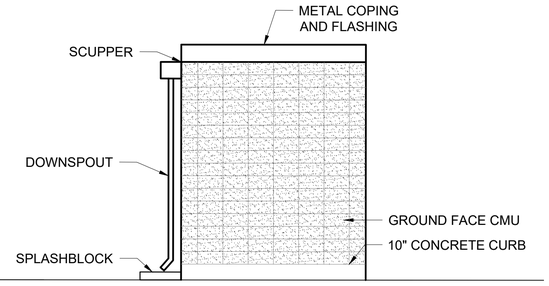
ENLARGED W1 ELEVATOR MACHINE ROOM ROOF PLAN

2 / A-411 — 1/4"=1'-0" — 0 2' 4' 8'



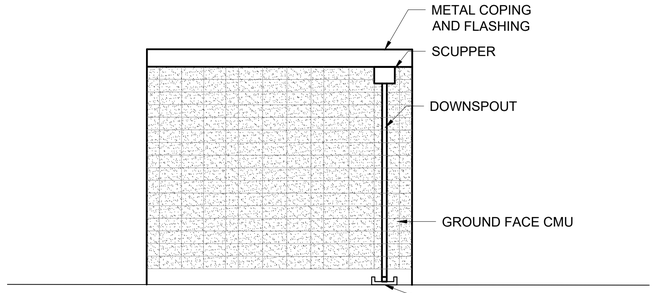
W1 ELEVATOR MACHINE ROOM NORTH ELEVATION

3 / A-601 — 1/4"=1'-0" — 0 2' 4' 8'



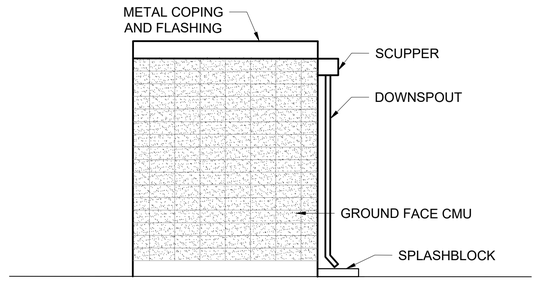
W1 ELEVATOR MACHINE ROOM EAST ELEVATION

4 / A-601 — 1/4"=1'-0" — 0 2' 4' 8'



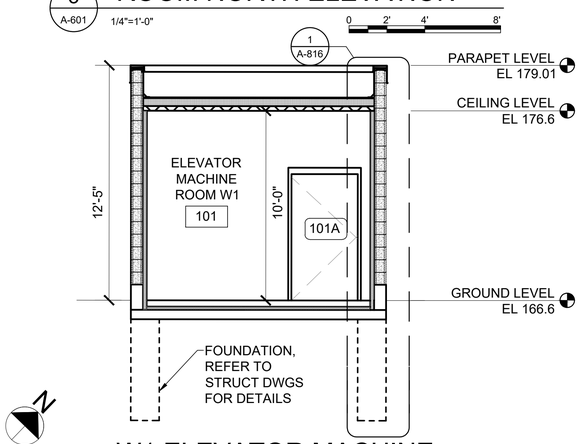
W1 ELEVATOR MACHINE ROOM SOUTH ELEVATION

5 / A-601 — 1/4"=1'-0" — 0 2' 4' 8'



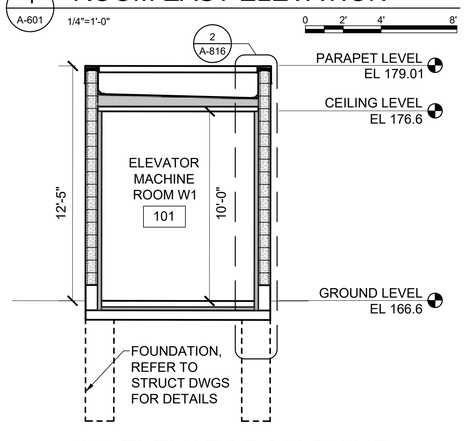
W1 ELEVATOR MACHINE ROOM WEST ELEVATION

6 / A-601 — 1/4"=1'-0" — 0 2' 4' 8'



W1 ELEVATOR MACHINE ROOM SECTION A

A / A-601 — 1/4"=1'-0" — 0 2' 4' 8'



W1 ELEVATOR MACHINE ROOM SECTION B

B / A-601 — 1/4"=1'-0" — 0 2' 4' 8'

LEGEND:

16" LIGHT COLOR

8" LIGHT COLOR

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
ENLARGED ELEVATOR W1 MACHINE ROOM PLANS, ELEVATIONS AND SECTIONS
HARTSDALE STATION

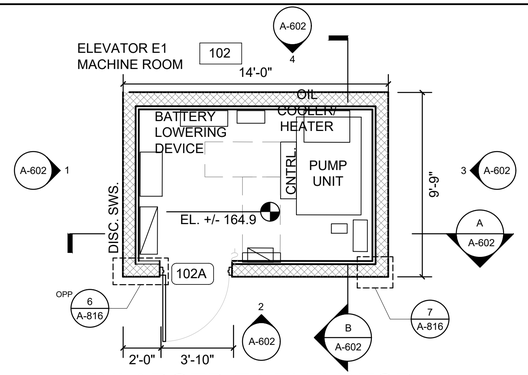
CONTRACT NO. 1000106733

SCALE 1/4" = 1'-0"

DATE 07/09/2021

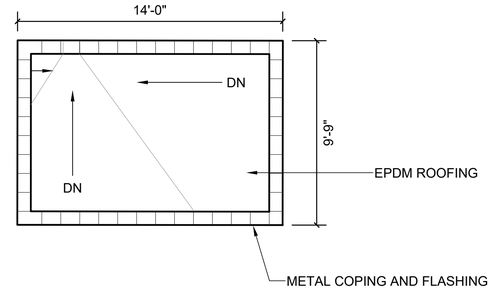
DRAWING NO. HTD-A-601

SHEET 34 OF 99



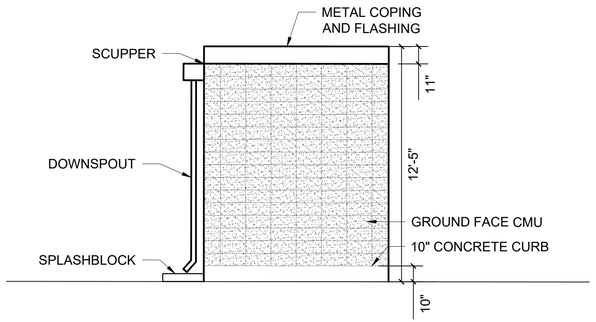
ENLARGED E1 ELEVATOR MACHINE ROOM PLAN

1 / A-402 — 1/4"=1'-0" — 0 2' 4' 8'



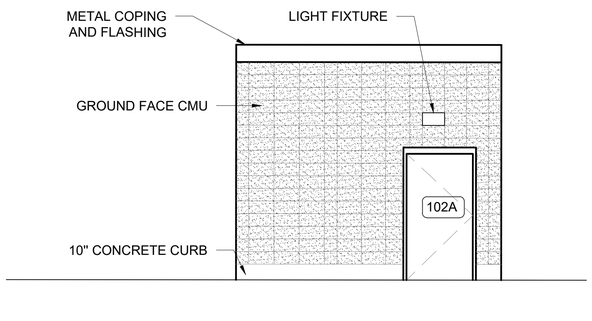
ENLARGED E1 ELEVATOR MACHINE ROOM ROOF PLAN

2 / A-412 — 1/4"=1'-0" — 0 2' 4' 8'



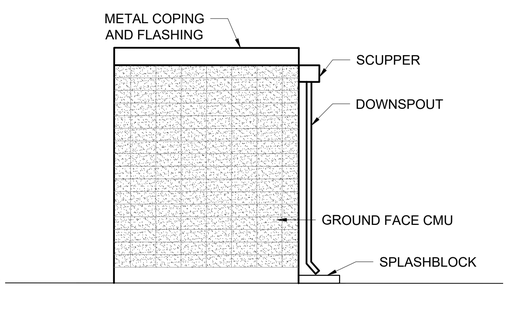
E1 ELEVATOR MACHINE ROOM NORTH ELEVATION

3 / A-611 — 1/4"=1'-0" — 0 2' 4' 8'



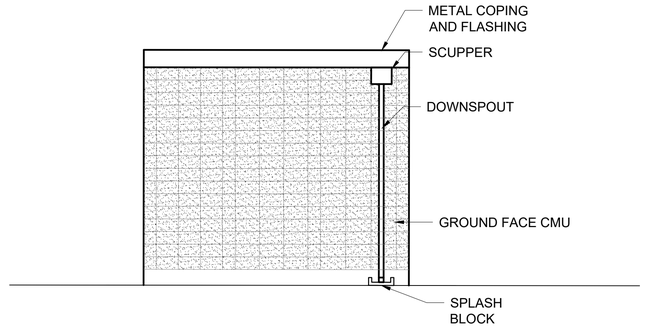
E1 ELEVATOR MACHINE ROOM EAST ELEVATION

4 / A-611 — 1/4"=1'-0" — 0 2' 4' 8'



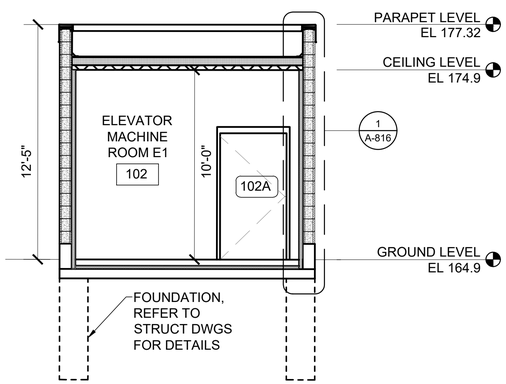
E1 ELEVATOR MACHINE ROOM SOUTH ELEVATION

5 / A-611 — 1/4"=1'-0" — 0 2' 4' 8'



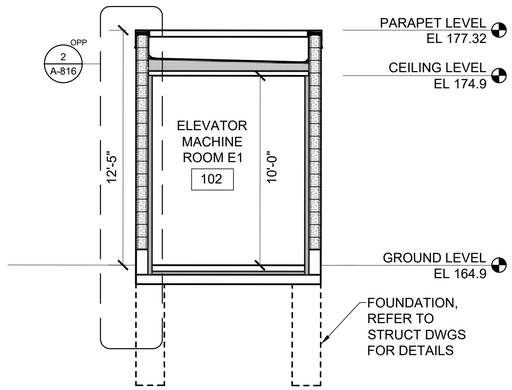
E1 ELEVATOR MACHINE ROOM WEST ELEVATION

6 / A-611 — 1/4"=1'-0" — 0 2' 4' 8'



E1 ELEVATOR MACHINE ROOM SECTION A

A / A-611 — 1/4"=1'-0" — 0 2' 4' 8'



E1 ELEVATOR MACHINE ROOM SECTION B

B / A-611 — 1/4"=1'-0" — 0 2' 4' 8'

LEGEND:

- 16" LIGHT COLOR
- 8" LIGHT COLOR

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT — PAUL N. LIGHTFOOT — 28219 — STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

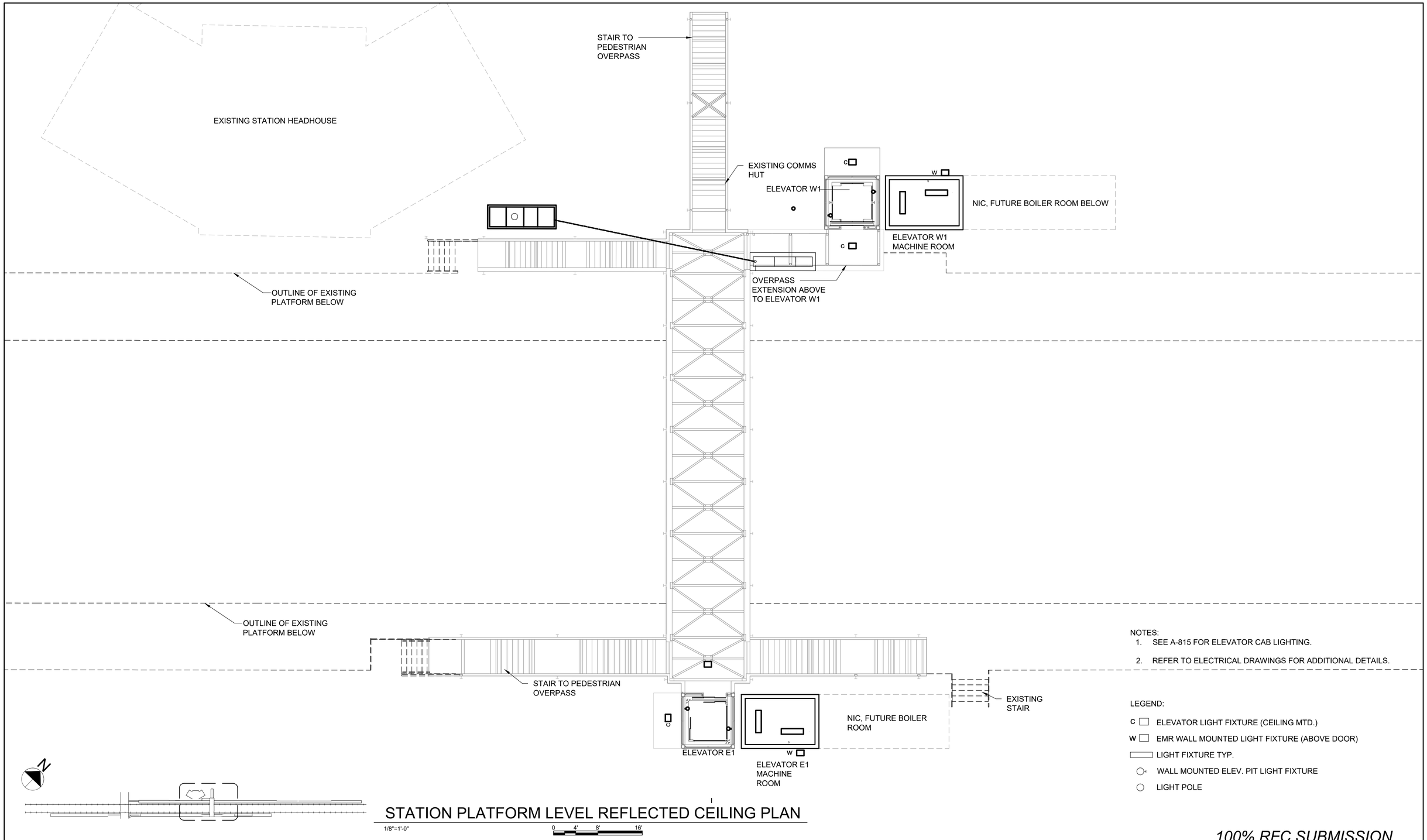
TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
ENLARGED ELEVATOR E1 MACHINE ROOM PLANS, ELEVATIONS AND SECTIONS
HARTSDALE STATION

CONTRACT NO. 1000106733

SCALE 1/4" = 1'-0" | DATE 07/09/2021

DRAWING NO. HTD-A-611

SHEET 35 OF 99



STATION PLATFORM LEVEL REFLECTED CEILING PLAN

1/8"=1'-0"

0 4' 8' 16'

NOTES:
1. SEE A-815 FOR ELEVATOR CAB LIGHTING.
2. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL DETAILS.

LEGEND:

- C ELEVATOR LIGHT FIXTURE (CEILING MTD.)
- W EMR WALL MOUNTED LIGHT FIXTURE (ABOVE DOOR)
- LIGHT FIXTURE TYP.
- WALL MOUNTED ELEV. PIT LIGHT FIXTURE
- LIGHT POLE

100% RFC SUBMISSION

DESIGNED	JB
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

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NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

STATION PLATFORM LEVEL REFLECTED CEILING PLAN

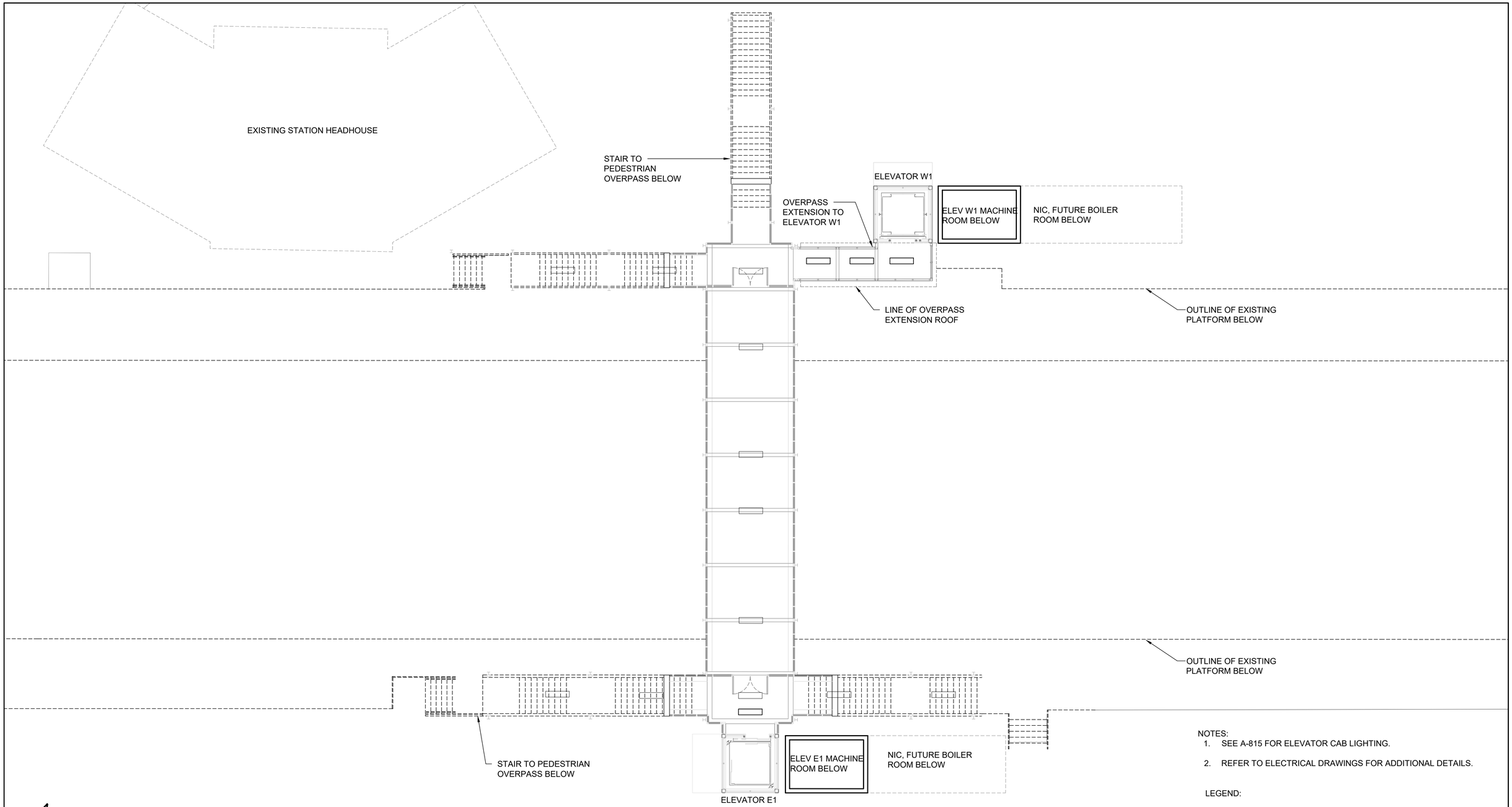
HARTSDALE STATION

CONTRACT NO. 1000106733

SCALE 1/8" = 1'-0" | DATE 07/09/2021

DRAWING NO. HTD-A-701

SHEET 36 OF 99



STATION OVERPASS LEVEL REFLECTED CEILING PLAN

1/8"=1'-0"

0 4' 8' 16'

NOTES:
1. SEE A-815 FOR ELEVATOR CAB LIGHTING.
2. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL DETAILS.

LEGEND:

TYP. LIGHT FIXTURE

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGHTFOOT 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD
		REVISION			

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD
		REVISION			

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

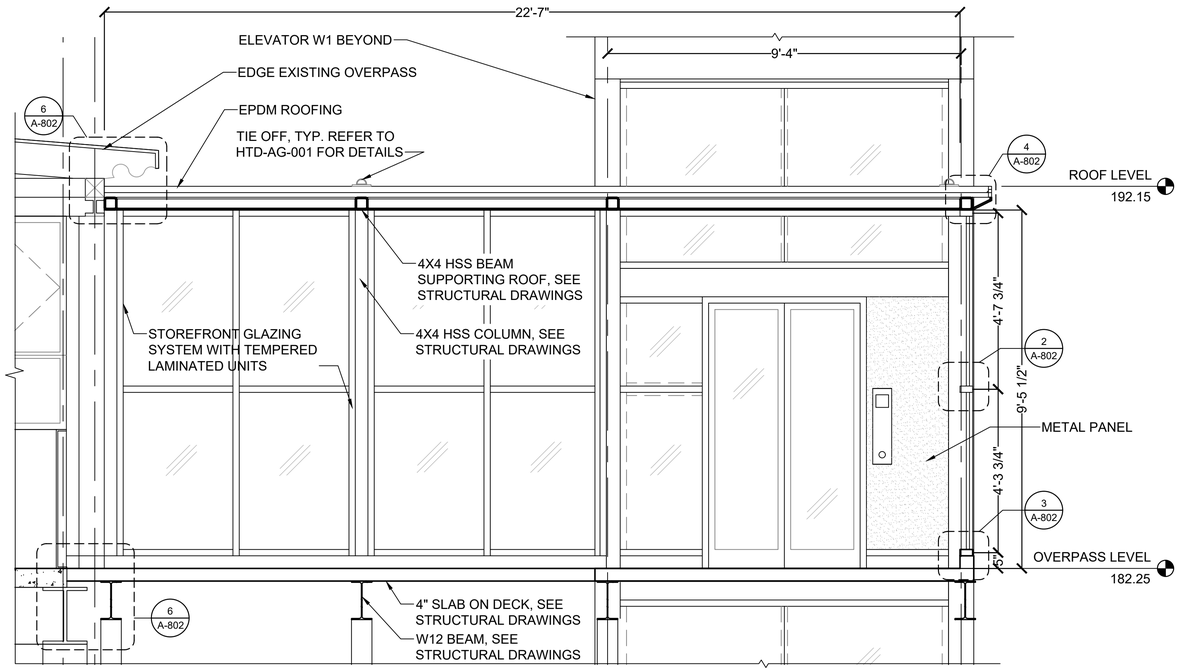
STATION OVERPASS LEVEL REFLECTED CEILING PLAN

HARTSDALE STATION

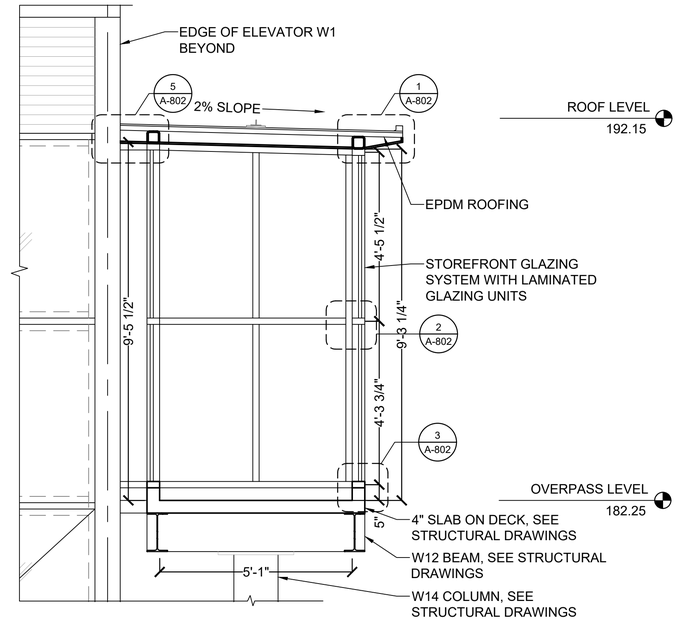
CONTRACT NO.	
1000106733	
SCALE	DATE
1/8" = 1'-0"	07/09/2021

DRAWING NO.
HTD-A-711

SHEET 37 OF 99



A ENLARGED SECTION
A-301
1/2"=1'-0"
0 1' 2' 4'



B ENLARGED CROSS SECTION
A-301
1/2"=1'-0"
0 1' 2' 4'

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD
1	02/18/20	REVISION 1	VD	EC	MM

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED OVERPASS SECTIONS

HARTSDALE STATION

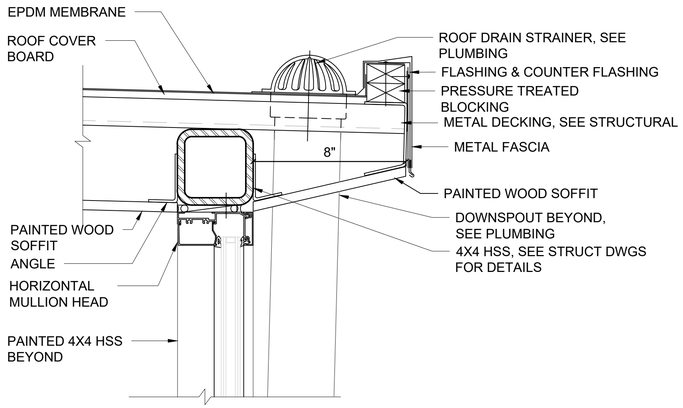
CONTRACT NO.
1000106733

SCALE
1/2" = 1'-0"

DATE
07/09/2021

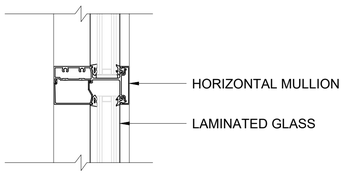
DRAWING NO.
HTD-A-801

SHEET 38 OF 99



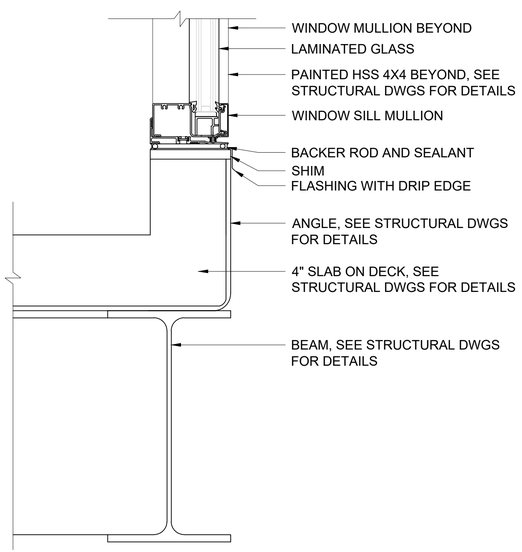
1 OVERPASS ROOF DETAIL

A-801 — 3"=1'-0" — 0 3" 6" 9"



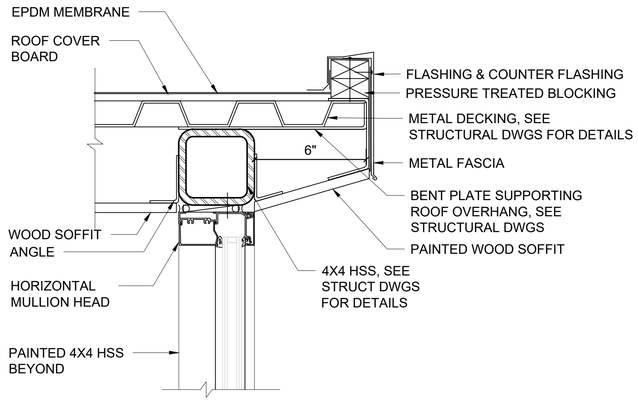
TYP. HORIZONTAL MULLION DETAIL AT OVERPASS

2 — A-801 — 3"=1'-0" — 0 3" 6" 9"



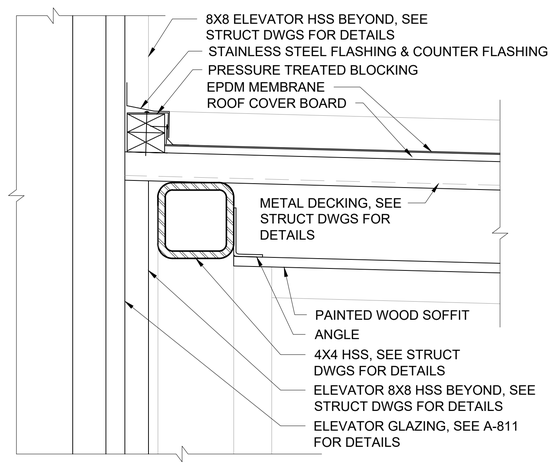
3 WINDOW SILL DETAIL AT OVERPASS

A-801 — 3"=1'-0" — 0 3" 6" 9"



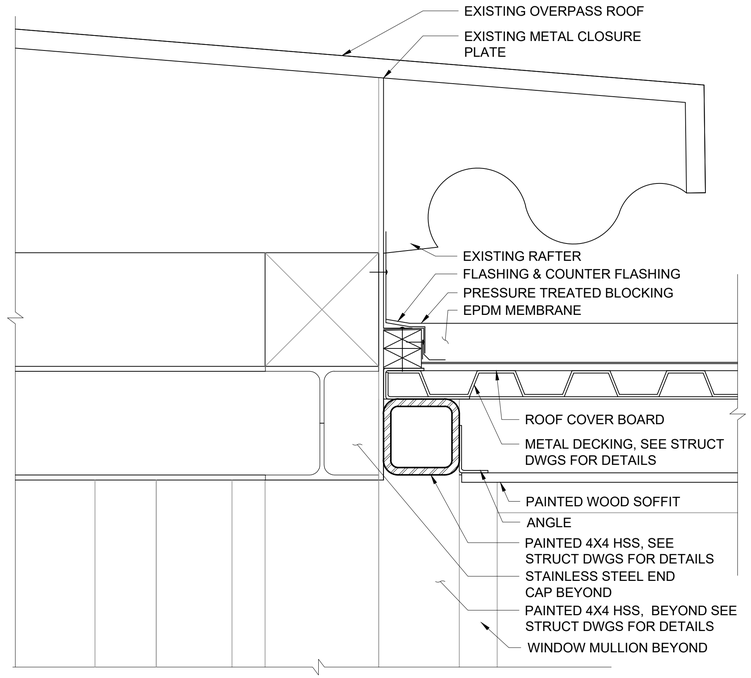
4 OVERPASS ROOF DETAIL

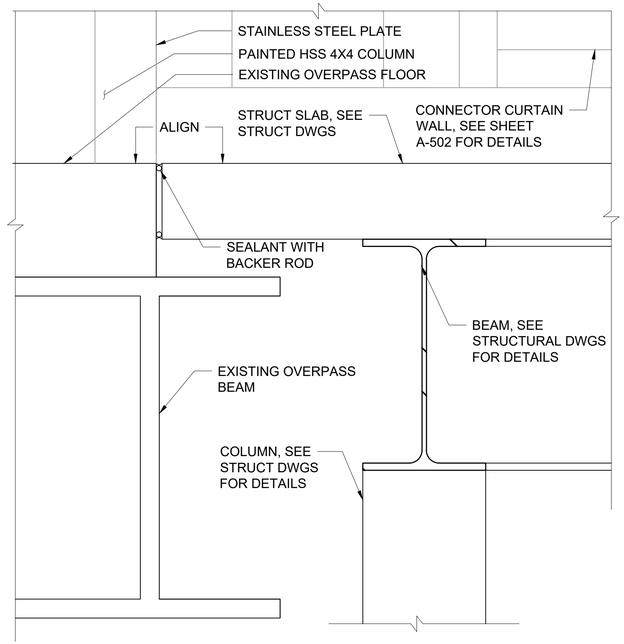
A-801 — 3"=1'-0" — 0 3" 6" 9"



5 ROOF TO ELEVATOR CONNECTION DETAIL

A-801 — 3"=1'-0" — 0 3" 6" 9"





6 OVERPASS ROOF AND FLOOR CONNECTION DETAIL

A-801 — 3"=1'-0" — 0 3" 6" 9"

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

OVERPASS DETAILS 1 OF 2

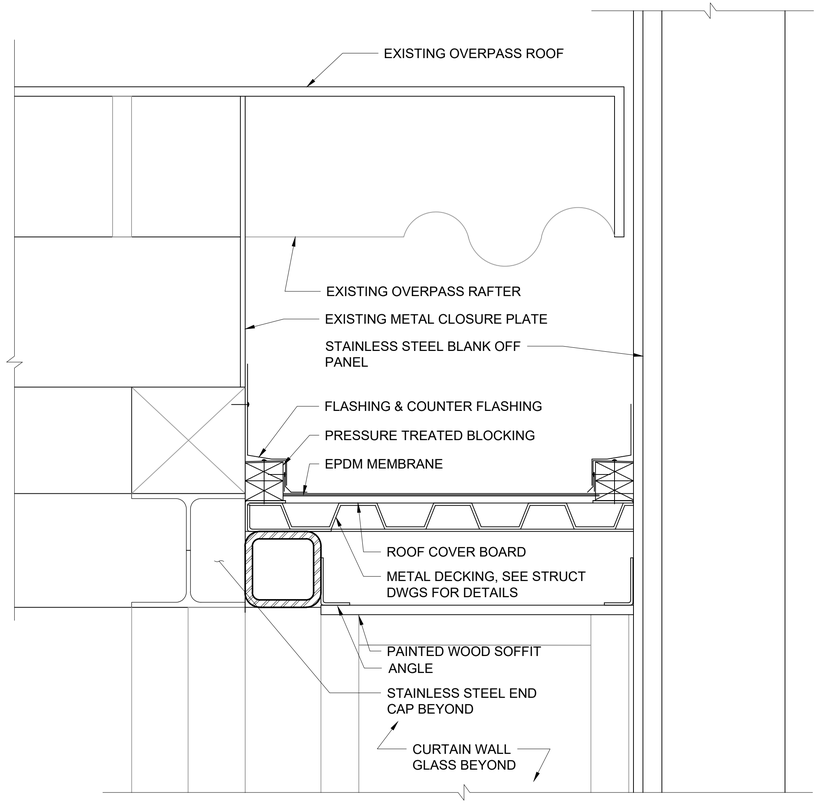
HARTSDALE STATION

CONTRACT NO. 1000106733

SCALE 3" = 1'-0" | DATE 07/09/2021

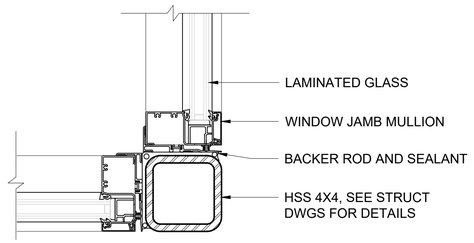
DRAWING NO. HTD-A-802

SHEET 39 OF 99



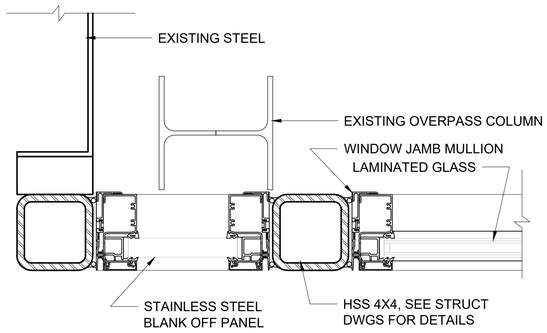
1 A-301 OVERPASS ROOF CONNECTION DETAIL

3"=1'-0" 0 3" 6" 9"



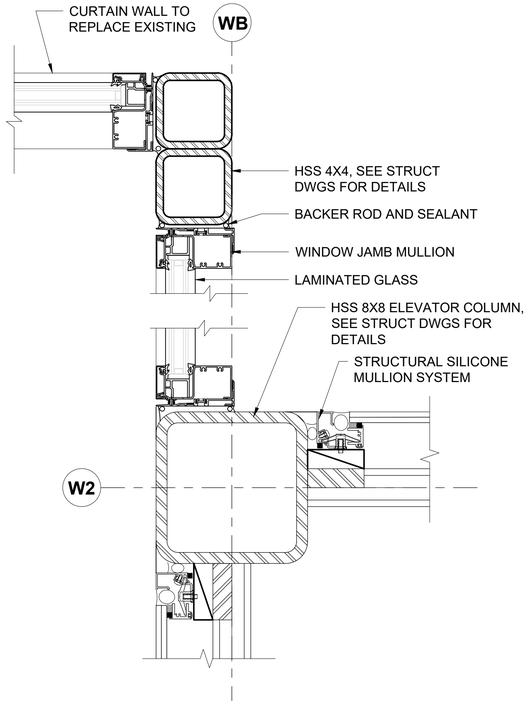
2 A-411 OVERPASS PLAN DETAIL

3"=1'-0" 0 3" 6" 9"



3 A-411 OVERPASS PLAN DETAIL

3"=1'-0" 0 3" 6" 9"



4 A-412 OVERPASS PLAN DETAIL

3"=1'-0" 0 3" 6" 9"

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

OVERPASS DETAILS 2 OF 2

HARTSDALE STATION

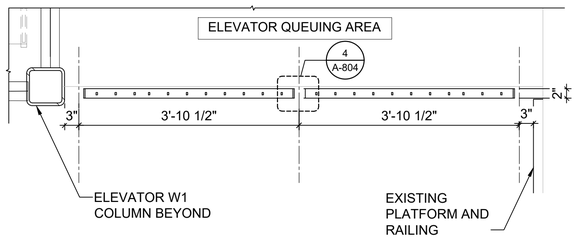
CONTRACT NO. 1000106733

SCALE 3" = 1'-0"

DATE 07/09/2021

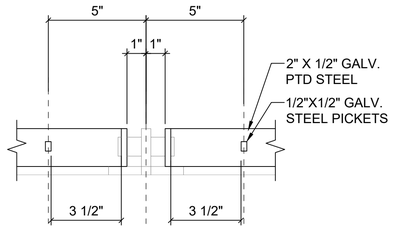
DRAWING NO. HTD-A-803

SHEET 40 OF 99



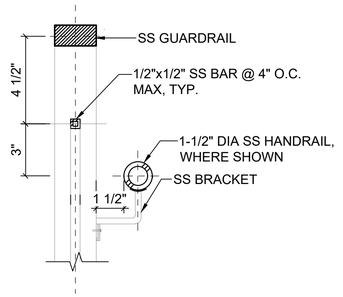
1 RAILING PLAN DETAIL

3/4"=1'-0" 0 1' 2' 3'



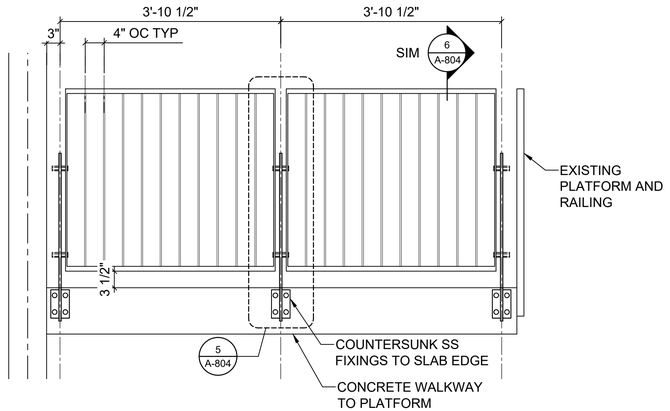
4 RAILING DETAIL

3"=1'-0" 0 3" 6" 9"



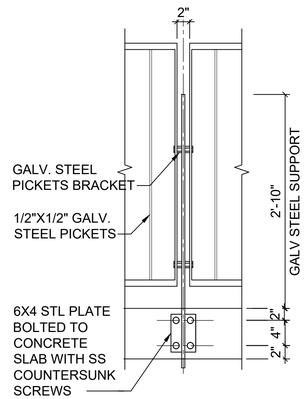
7 RAILING SECTION DETAIL

3/4"=1'-0" 0 1' 2' 3'



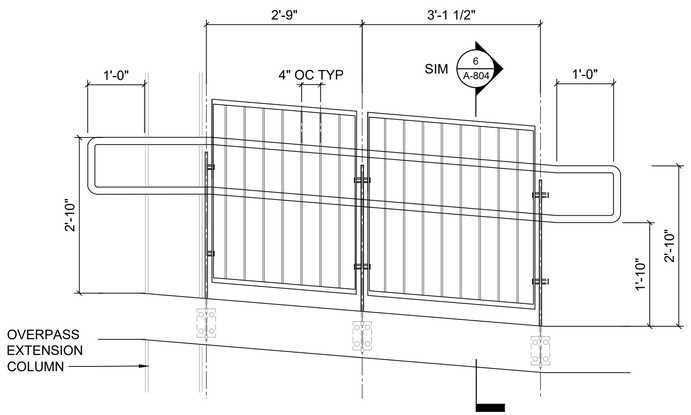
2 RAILING ELEVATION DETAIL

3/4"=1'-0" 0 1' 2' 3'



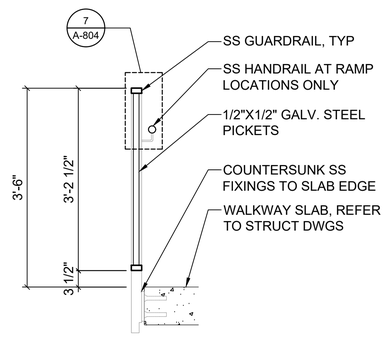
5 RAILING DETAIL

1 1/2"=1'-0" 0 1' 1' 6"



3 RAILING ELEVATION DETAIL

3/4"=1'-0" 0 1' 2' 3'



6 RAILING SECTION DETAIL

3/4"=1'-0" 0 1' 2' 3'

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

MISCELLANEOUS DETAILS

HARTSDALE STATION

CONTRACT NO. 1000106733

SCALE AS NOTED | DATE 07/09/2021

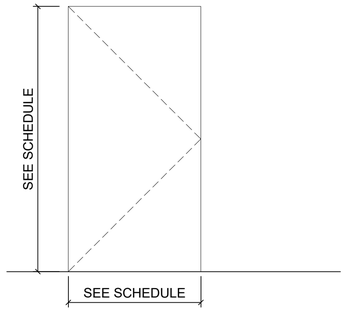
DRAWING NO. HTD-A-804

SHEET 41 OF 99

DOOR SCHEDULE

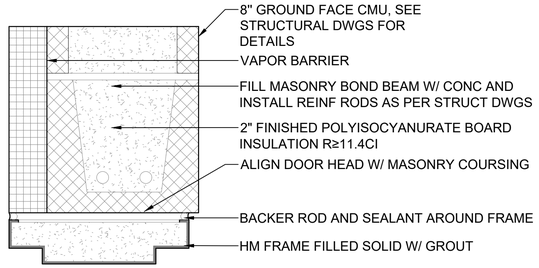
LOCATION	DOOR NO.	LOCATION FROM	LOCATION ROOM NAME	DOOR TYPE	DOOR FINISH	DOOR MAT.	DOOR WIDTH	DOOR HEIGHT	DOOR THICKNESS	FRAME TYPE	FRAME FINISH	JAMB DETAIL	HDWR SET #	HEAD DETAIL	SADDLE TYPE	FIRE RATING	REMARKS
GROUND LEVEL																	
	101A	101	ELEV MACHINE RM	D1	PTD	HM	3' - 6"	6' - 8"	0' - 1 3/4"	FRAME 1	PTD	J1	HW#100	H1	S1	90 MIN	DOOR FOR BOTH ELEV MACHINE ROOMS SHALL BE COMPATIBLE WITH STANDARD DOOR HARDWARE, AS PER MNR SPEC SECTION 08 70 00, FUTURE UPGRADES FOR ACCESS CONTROL HARDWARE.
	102A	102	ELEV MACHINE RM	D2	PTD	HM	3' - 6"	6' - 8"	0' - 1 3/4"	FRAME 1	PTD	J1	HW#100	H1	S1	90 MIN	

1 DOOR SCHEDULE



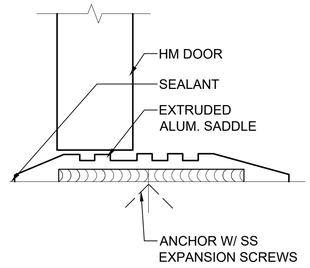
2 DOOR TYPES

1/2"=1'-0"



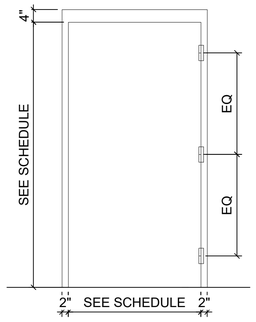
4 DOOR HEAD DETAIL H1

3"=1'-0"



6 SADDLE DETAIL S1

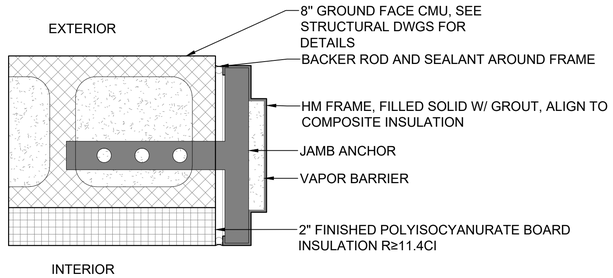
3"=1'-0"



FRAME 1

3 FRAME TYPE

1/2"=1'-0"



5 JAMB DETAIL J1

3"=1'-0"

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

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225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

DOOR SCHEDULE AND DETAILS

HARTSDALE STATION

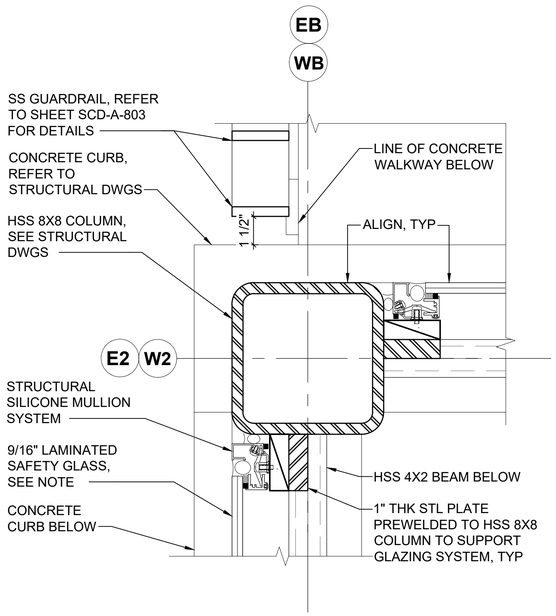
CONTRACT NO.
1000106733

SCALE: AS NOTED

DATE: 07/09/2021

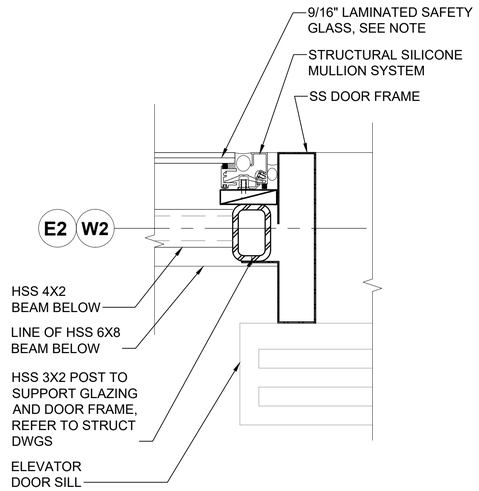
DRAWING NO.
HTD-A-805

SHEET 42 OF 99



1 A-501 TYP PLAN DETAIL AT PLATFORM WALKWAY

3"=1'-0"

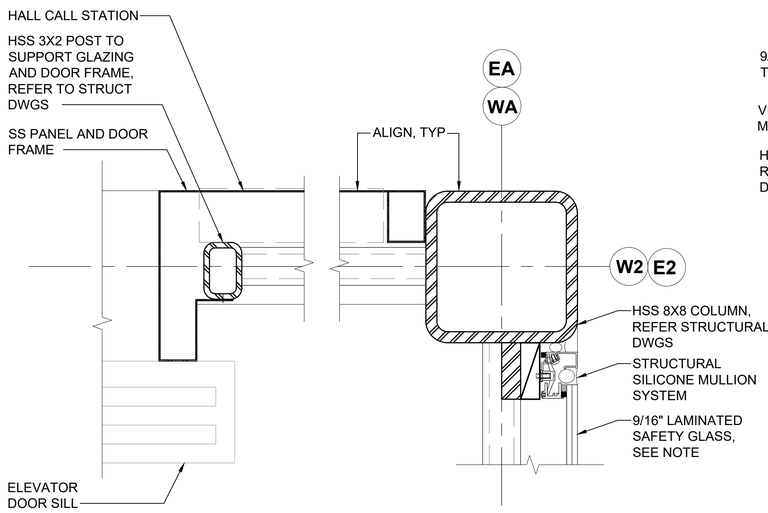


3 A-501 TYP PLAN DETAIL AT DOOR FRAME

3"=1'-0"

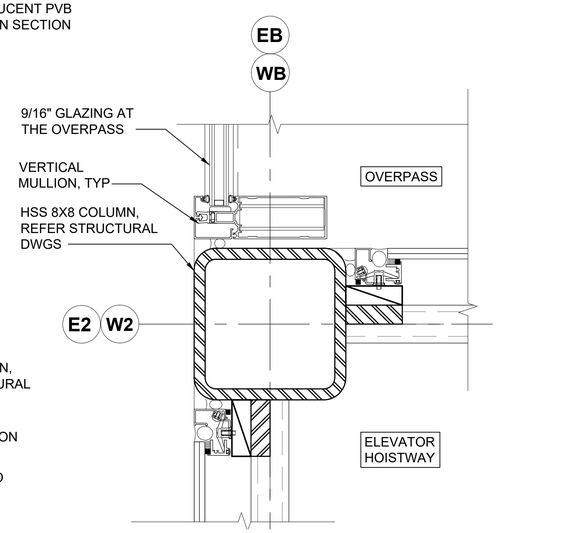
NOTE:

GLASS ENCLOSURE TO BE 9/16" THICK HEAT-STRENGTHENED LAMINATED SAFETY GLASS WITH GLASS TRANSLUCENT PVB INTERLAYER. CLEAR ANTI-SCRATCH 'SACRIFICIAL' FILM APPLIED TO THE FRONT FACE. REFER TO SPECIFICATION SECTION 08 80 00 GLAZING FOR ADDITIONAL DETAILS.



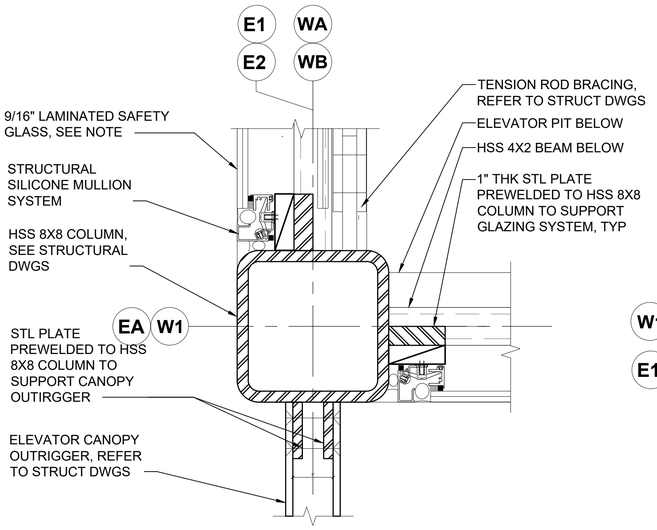
5 A-501 TYP PLAN DETAIL AT DOOR FRAME

3"=1'-0"



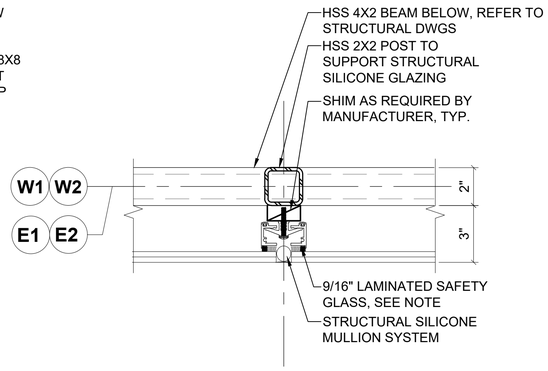
7 A-501 TYP PLAN DETAIL AT OVERPASS CURTAIN WALL

3"=1'-0"



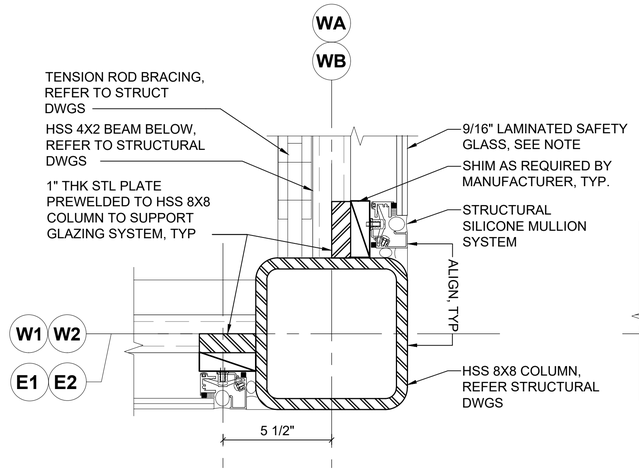
2 A-501 TYP PLAN DETAIL AT ELEVATOR CANOPY

3"=1'-0"



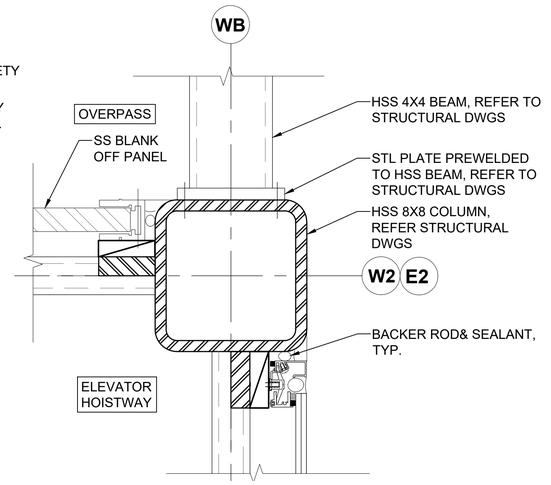
4 A-501 TYP PLAN DETAIL AT VERTICAL MULLION

3"=1'-0"



6 A-501 TYP CORNER PLAN DETAIL

3"=1'-0"



8 A-501 TYP PLAN DETAIL AT OVERPASS CONNECTION

3"=1'-0"

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD
7					

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ELEVATOR ENCLOSURE DETAILS 1 OF 4

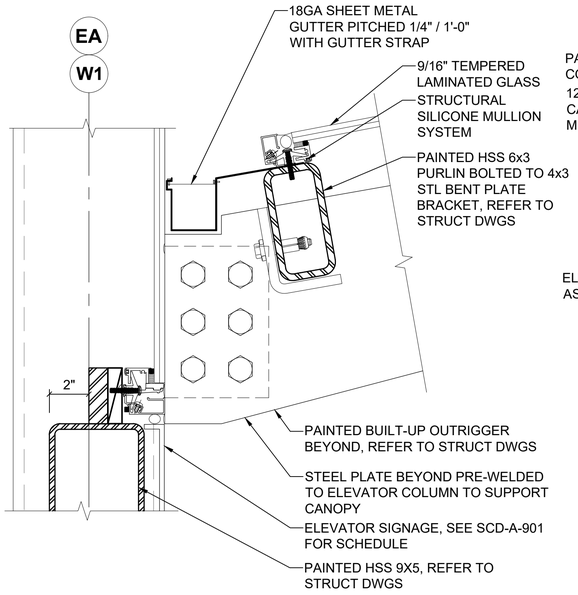
HARTSDALE STATION

CONTRACT NO. 1000106733

SCALE 3" = 1'-0" | DATE 07/09/2021

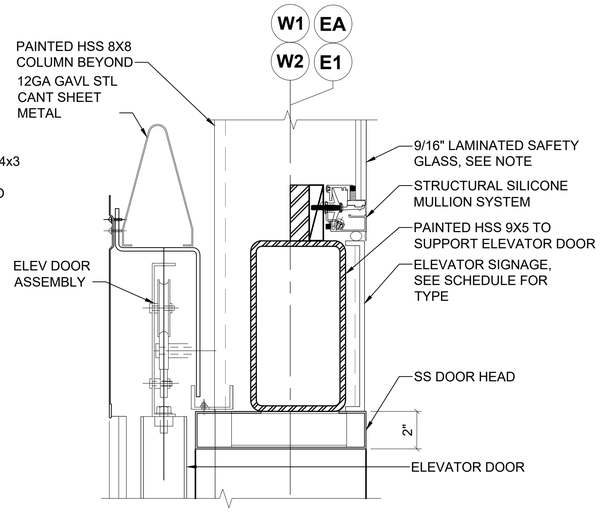
DRAWING NO. HTD-A-811

SHEET 43 OF 99



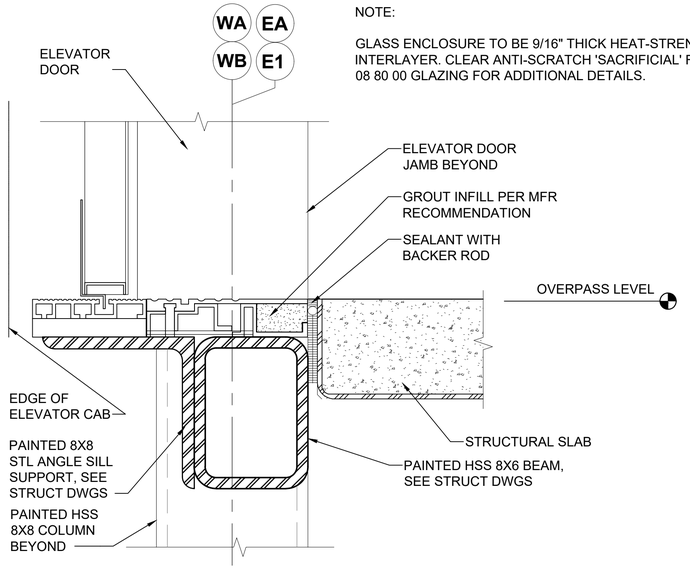
1 A-503 ELEVATOR CANOPY DETAIL

3"=1'-0"



3 A-503 TYP ELEVATOR DOOR HEAD

3"=1'-0"

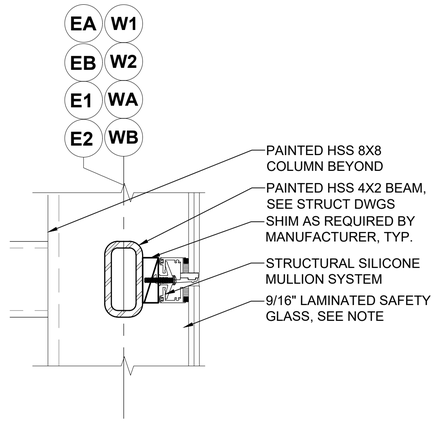


5 A-503 DOOR SILL DETAIL AT OVERPASS LEVEL

3"=1'-0"

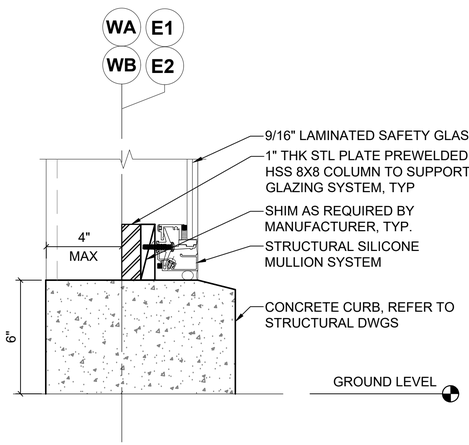
NOTE:

GLASS ENCLOSURE TO BE 9/16" THICK HEAT-STRENGTHENED LAMINATED SAFETY GLASS WITH GLASS TRANSLUCENT PVB INTERLAYER. CLEAR ANTI-SCRATCH 'SACRIFICIAL' FILM APPLIED TO THE FRONT FACE. REFER TO SPECIFICATION SECTION 08 80 00 GLAZING FOR ADDITIONAL DETAILS.



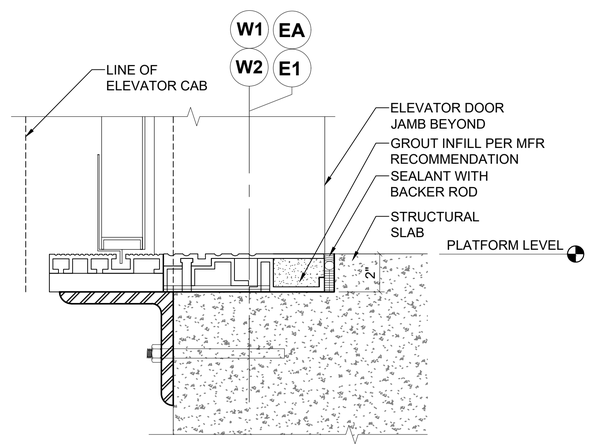
7 A-503 TYP HORIZONTAL MULLION

3"=1'-0"



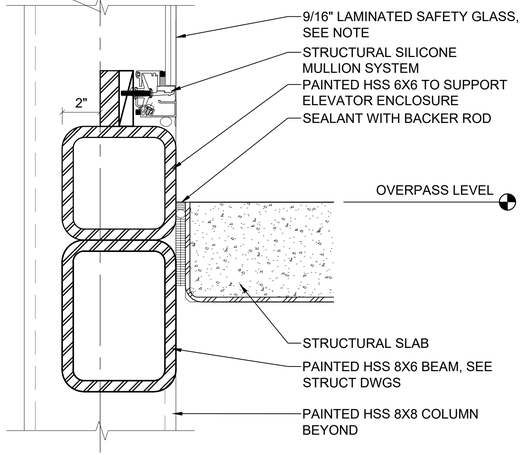
2 A-503 HOISTWAY BASE AT CURB

3"=1'-0"



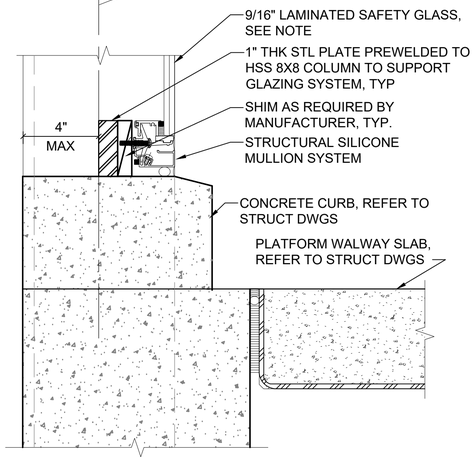
4 A-503 DOOR SILL DETAIL AT PLATFORM LEVEL

3"=1'-0"



6 A-503 DETAIL AT OVERPASS LEVEL

3"=1'-0"



8 A-503 PLATFORM BASE AT CURB

3"=1'-0"

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITI 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD
		REVISION			

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD
		REVISION			

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ELEVATOR ENCLOSURE DETAILS 2 OF 4

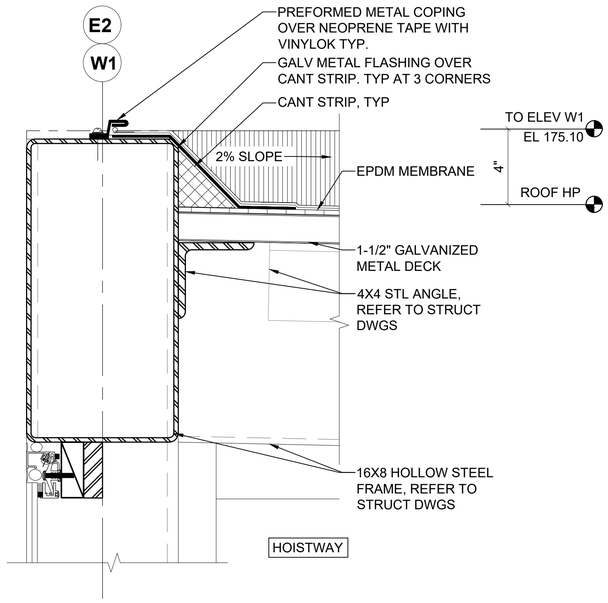
HARTSDALE STATION

CONTRACT NO. 1000106733

SCALE 3" = 1'-0" | DATE 07/09/2021

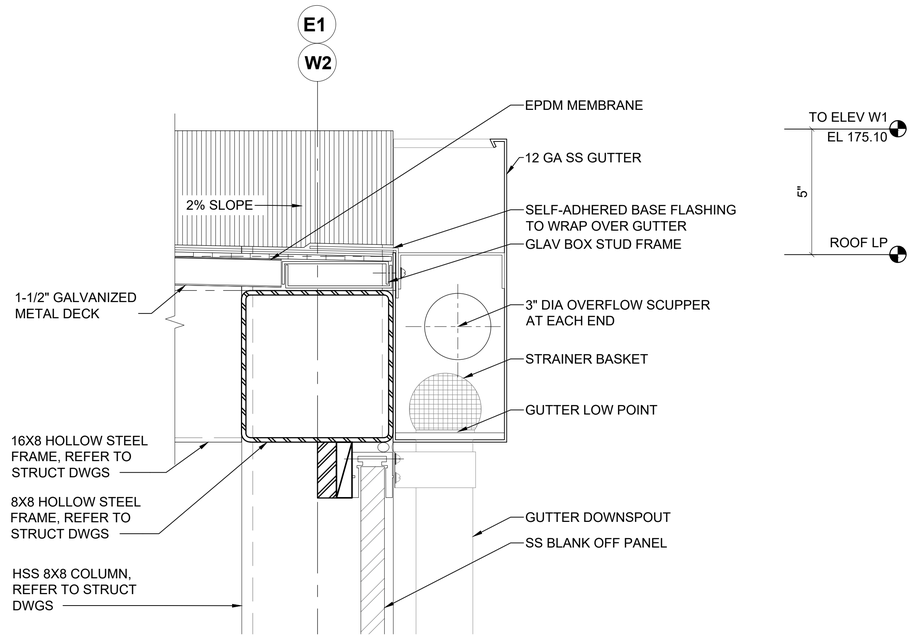
DRAWING NO. HTD-A-812

SHEET 44 OF 99



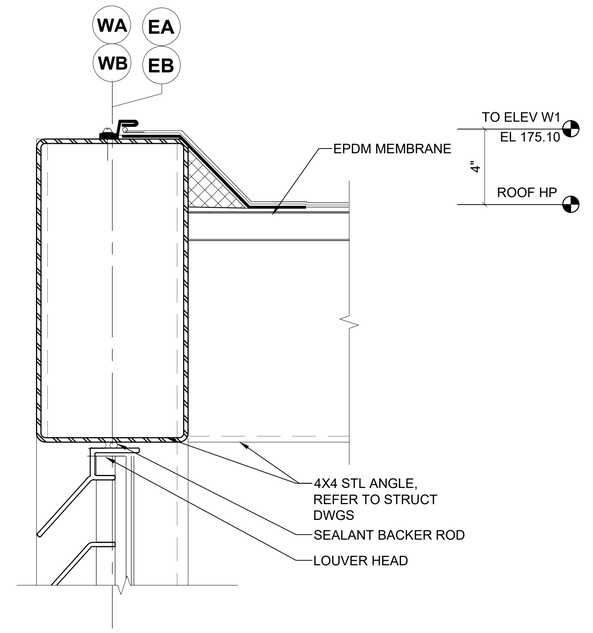
1 ELEVATOR ROOF DETAIL

3"=1'-0"



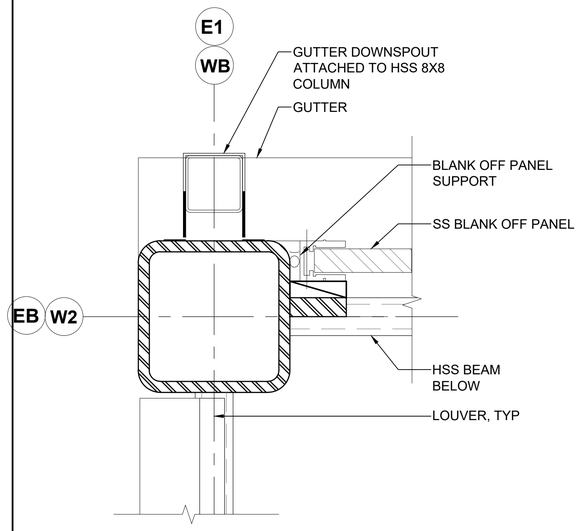
3 ELEVATOR ROOF DETAIL

3"=1'-0"



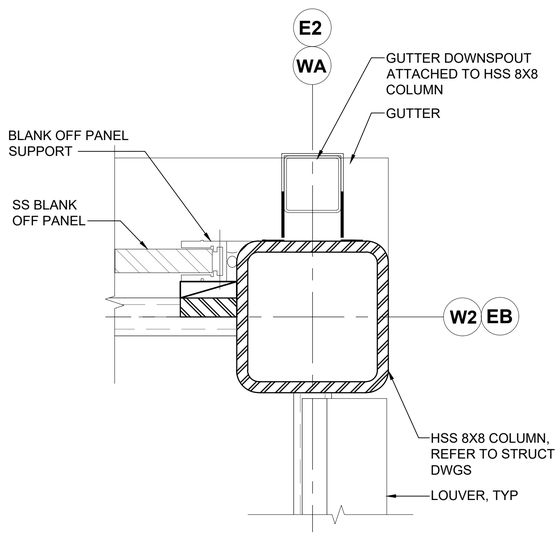
4 ELEVATOR LOUVER DETAIL

3"=1'-0"



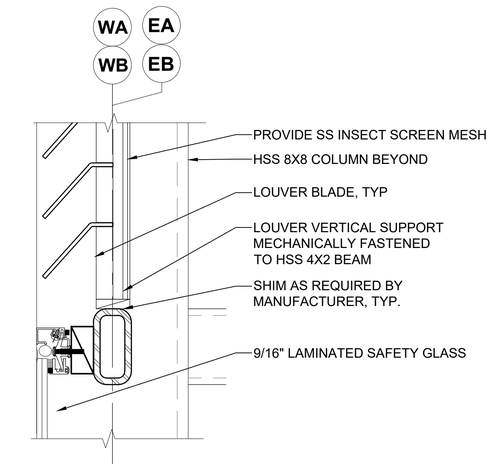
2 ELEVATOR ROOF DETAIL

3"=1'-0"



6 ELEVATOR ROOF DETAIL

3"=1'-0"



5 ELEVATOR LOUVER DETAIL

3"=1'-0"

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	VD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGHTFOOT 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ELEVATOR ENCLOSURE DETAILS 3 OF 4

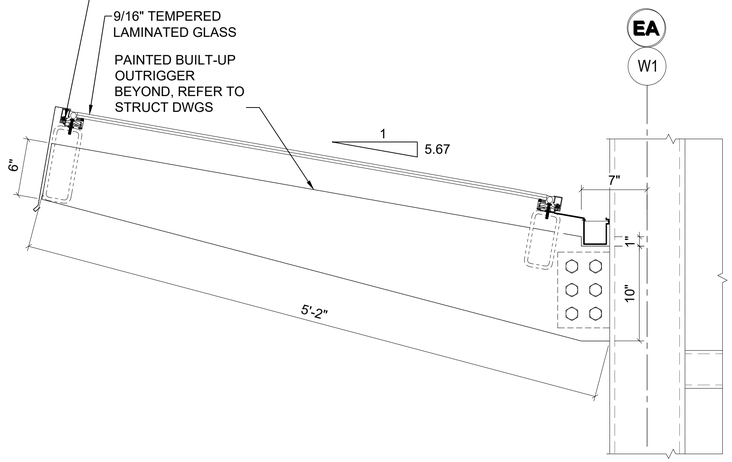
HARTSDALE STATION

CONTRACT NO. 1000106733

SCALE 3" = 1'-0" | DATE 07/09/2021

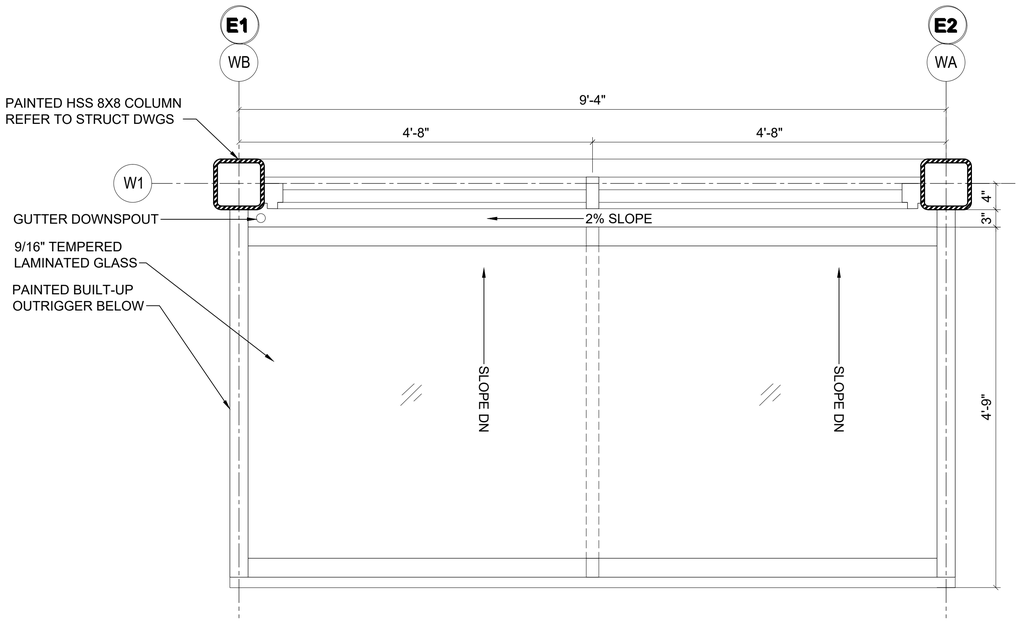
DRAWING NO. HTD-A-813

SHEET 45 OF 99



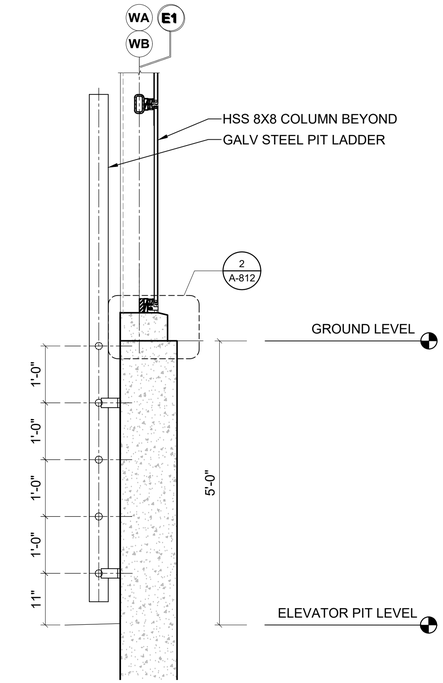
1 ELEVATOR CANOPY ELEVATION DETAIL

1 1/2"=1'-0"



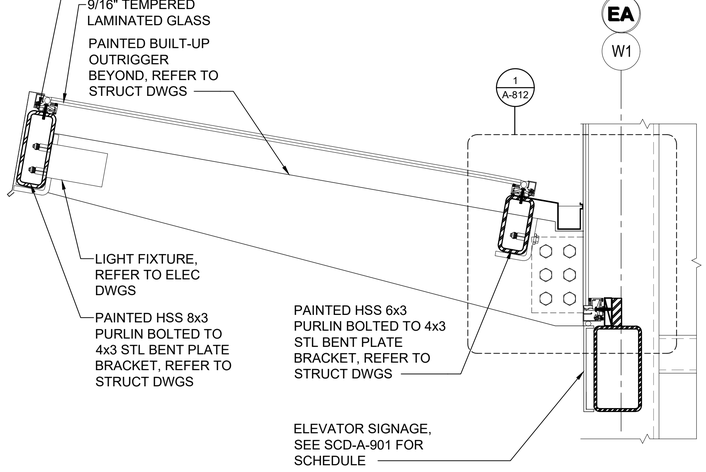
3 ELEVATOR CANOPY PLAN DETAIL

1"=1'-0"



4 PIT LADDER DETAIL

3/4"=1'-0"



2 ELEVATOR CANOPY SECTION DETAIL

1 1/2"=1'-0"

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

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225 PARK AVENUE SOUTH,
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MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ELEVATOR ENCLOSURE DETAILS 4 OF 4

HARTSDALE STATION

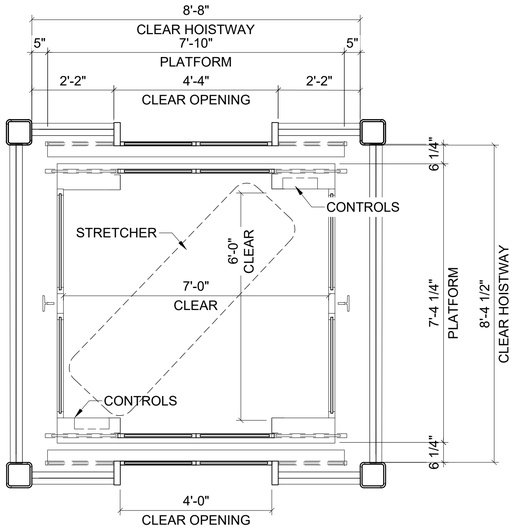
CONTRACT NO.
1000106733

SCALE
AS NOTED

DATE
07/09/2021

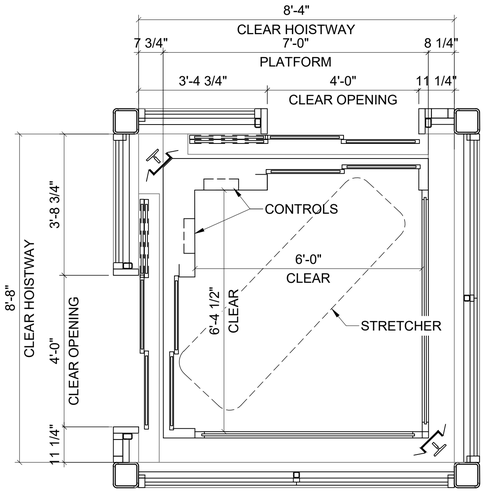
DRAWING NO.
HTD-A-814

SHEET 46 OF 99



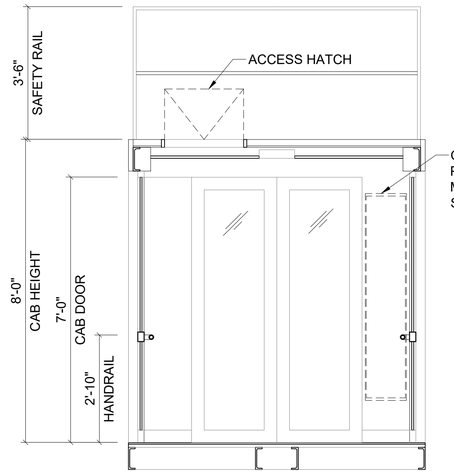
1 ELEVATOR CAB W1 FLOOR PLAN

1/2"=1'-0" 0 1' 2' 4'



3 ELEVATOR CAB E1 FLOOR PLAN

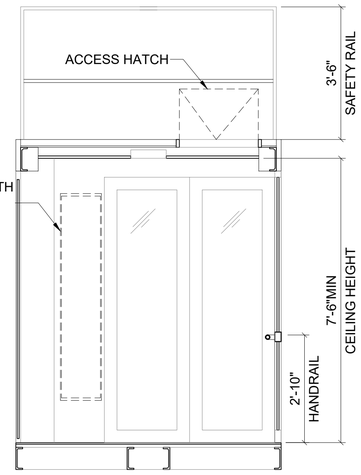
1/2"=1'-0" 0 1' 2' 4'



NOTE: MIRRORED TO REFLECT PASS THROUGH CONDITION.

5 ELEVATOR CAB W1 INTERIOR ELEVATION

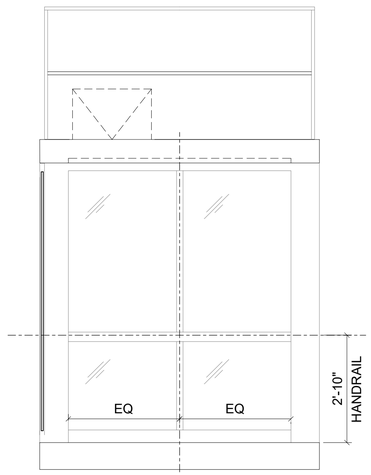
1/2"=1'-0" 0 1' 2' 4'



NOTE: MIRRORED TO REFLECT CORNER POST CONDITION.

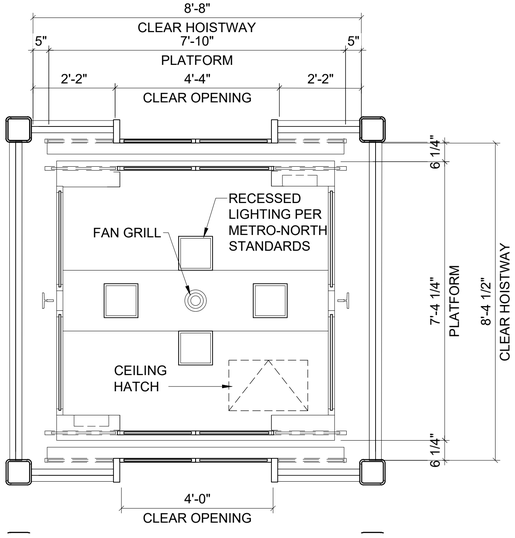
6 ELEVATOR CAB E1 INTERIOR ELEVATION

1/2"=1'-0" 0 1' 2' 4'



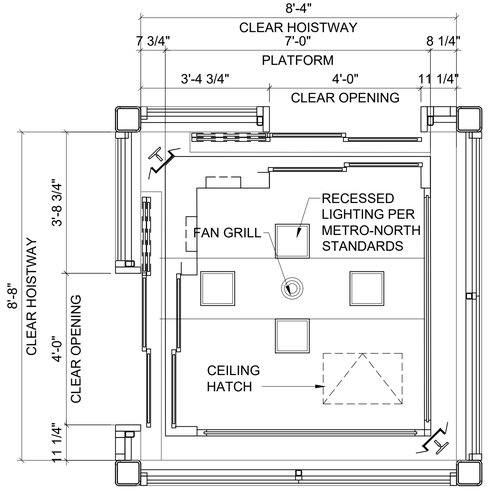
7 ELEVATOR CAB E1, W1 INTERIOR ELEVATION

1/2"=1'-0" 0 1' 2' 4'



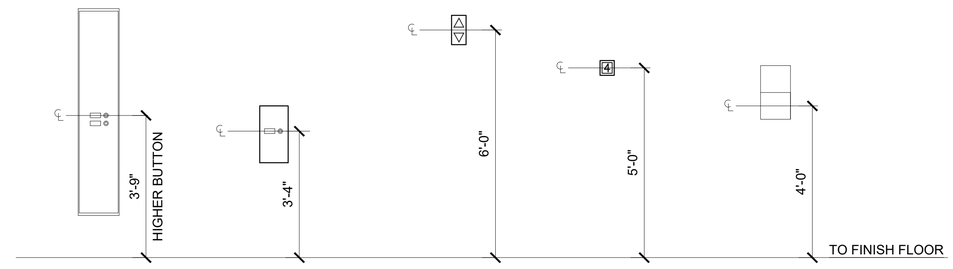
2 ELEVATOR CAB W1 REFLECTED CEILING PLAN

1/2"=1'-0" 0 1' 2' 4'



4 ELEVATOR CAB E1 REFLECTED CEILING PLAN

1/2"=1'-0" 0 1' 2' 4'



8 ACCESSORIES ELEVATIONS

1/2"=1'-0" 0 1' 2' 4'

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

CONFORMED

NO.	DATE		DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ELEVATOR CAB DETAILS

HARTSDALE STATION

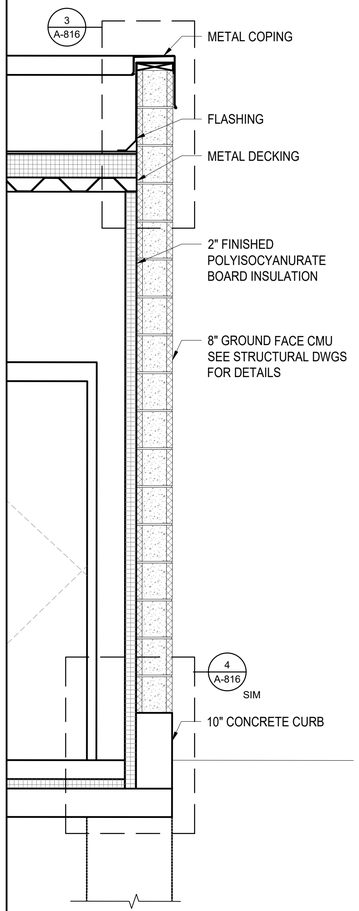
CONTRACT NO. 1000106733

SCALE 1/2" = 1'-0"

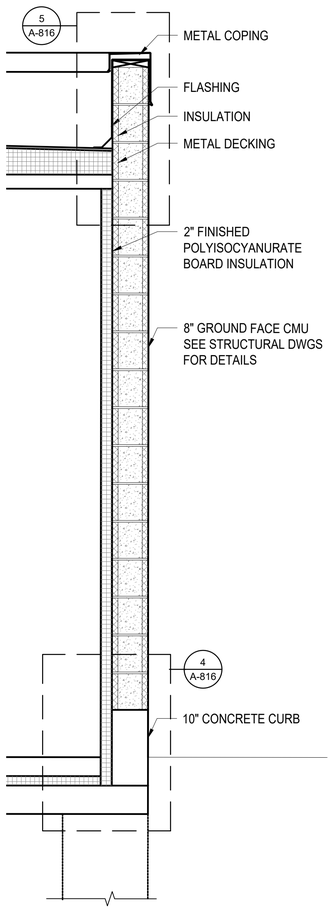
DATE 07/09/2021

DRAWING NO. HTD-A-815

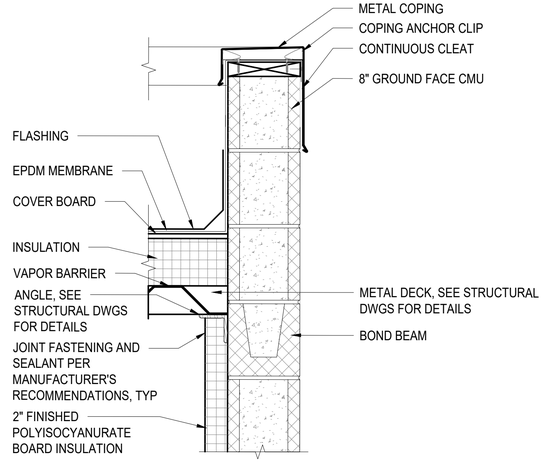
SHEET 47 OF 99



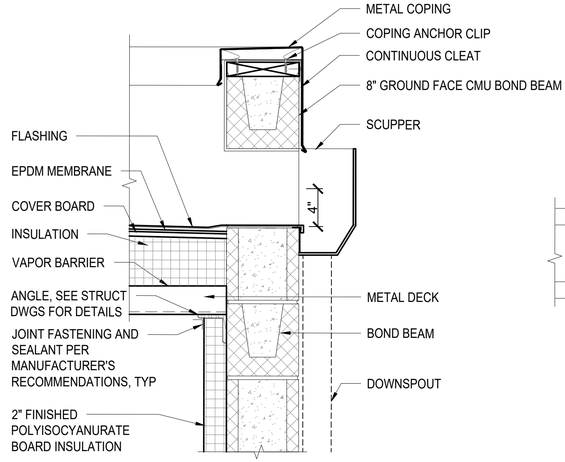
1 WALL SECTION 1
A-601 — 3/4"=1'-0" — 0 1' 2' 3'



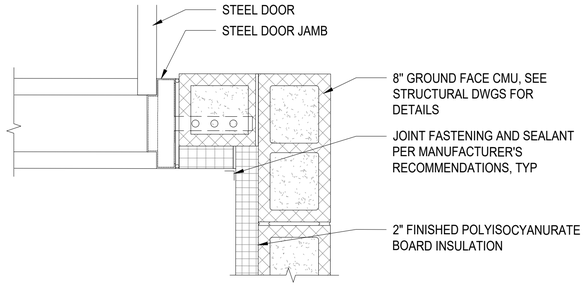
2 WALL SECTION 2
A-601 — 3/4"=1'-0" — 0 1' 2' 3'



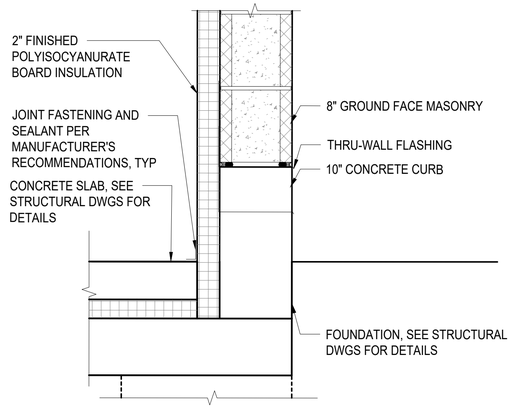
3 DETAIL AT ROOF
1 1/2"=1'-0" — 0 1' 1' 6"



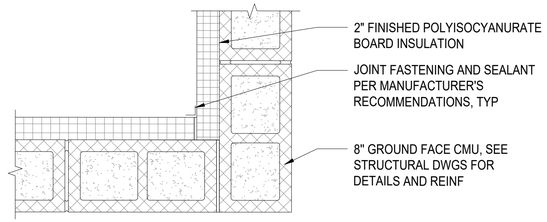
5 DETAIL AT SCUPPER
1 1/2"=1'-0" — 0 1' 1' 6"



6 PLAN DETAIL AT DOOR
A-601 — 1 1/2"=1'-0" — 0 1' 1' 6"



4 DETAIL AT CONCRETE CURB
1 1/2"=1'-0" — 0 1' 1' 6"



7 PLAN DETAIL AT CORNER
A-601 — 1 1/2"=1'-0" — 0 1' 1' 6"

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT — PAUL N. LIGNITZ — 26219 — STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

CONFORMED

NO.	DATE		DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ELEVATOR MACHINE ROOM PLAN AND SECTION DETAILS

HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE: AS NOTED
DATE: 07/09/2021

DRAWING NO.
HTD-A-816

SHEET 48 OF 99

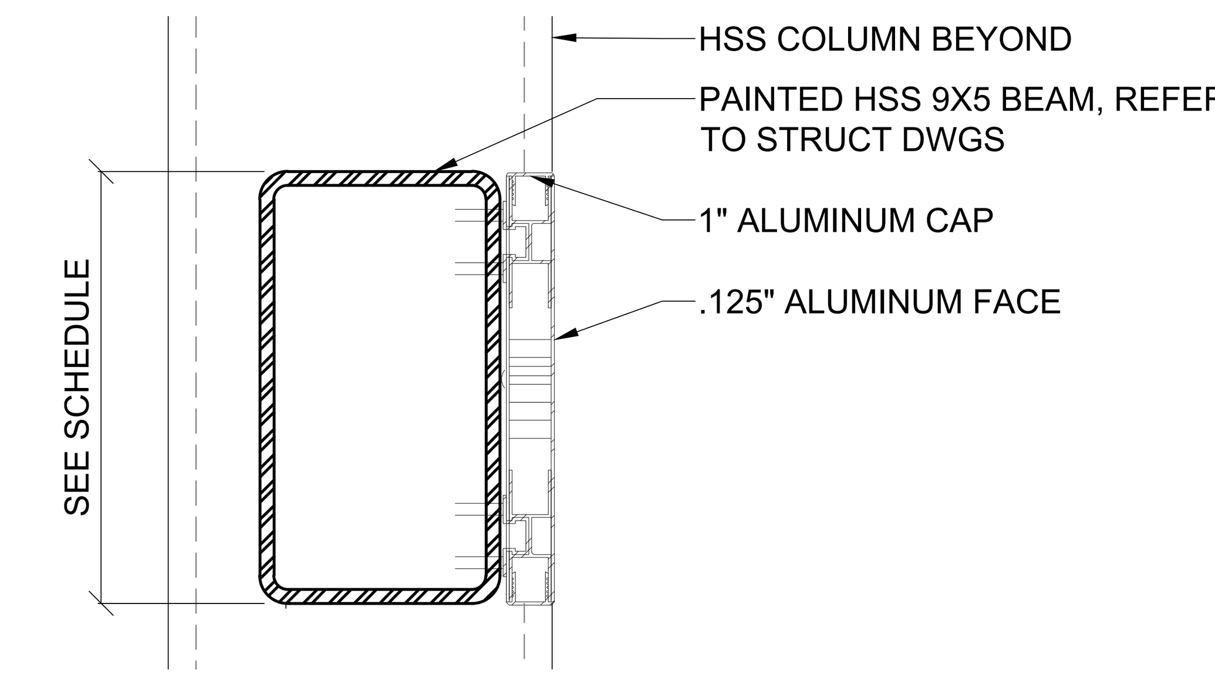
SIGNAGE SCHEDULE

MARK	IMAGE	COUNT	DIMENSION	MOUNTING TYPE	NOTES
A001	Elevator to Track 1, to Wassaic	2	9"H x 8'-8"L	WALL SURFACE	ELEVATOR SIGN. REFER TO SHEET A-812 FOR MOUNTING DETAILS.
A002	Elevator to Track 2, to Grand Central	2	9"H x 8'-8"L	WALL SURFACE	ELEVATOR SIGN. REFER TO SHEET A-812 FOR MOUNTING DETAILS.
A003	To Track 1, Wassaic	1	9"H x 5'-9"L	CEILING MOUNTED	DIRECTIONAL
A004	To Track 2, Grand Central	1	9"H x 5'-9"L	CEILING MOUNTED	DIRECTIONAL
A005		3	9"H x 1'-4"L	CEILING MOUNTED	DIRECTIONAL
A006	Elevator Machine Room	2	4 1/2"H x 11"L	ELEV MACHINE ROOM DOOR	ROOM ID
A007	AUTHORIZED PERSONNEL ONLY	2	7 1/2"H x 11"L	WALL SURFACE	WARNING
A008	Fire Alarm Panel	2	4 1/2"H x 11"L	ELEV MACHINE ROOM DOOR	WARNING
A009	Exit	2	8"H x 30"L	GUARDRAIL MOUNTED	DIRECTIONAL
A010	Exit	2	8"H x 36"L	GUARDRAIL MOUNTED	DIRECTIONAL
A011	Flashing Light & Alarm means elevator passenger needs help call 911 or (201) 327-2400 MNR Police	2	N/A	WALL SURFACE	WARNING

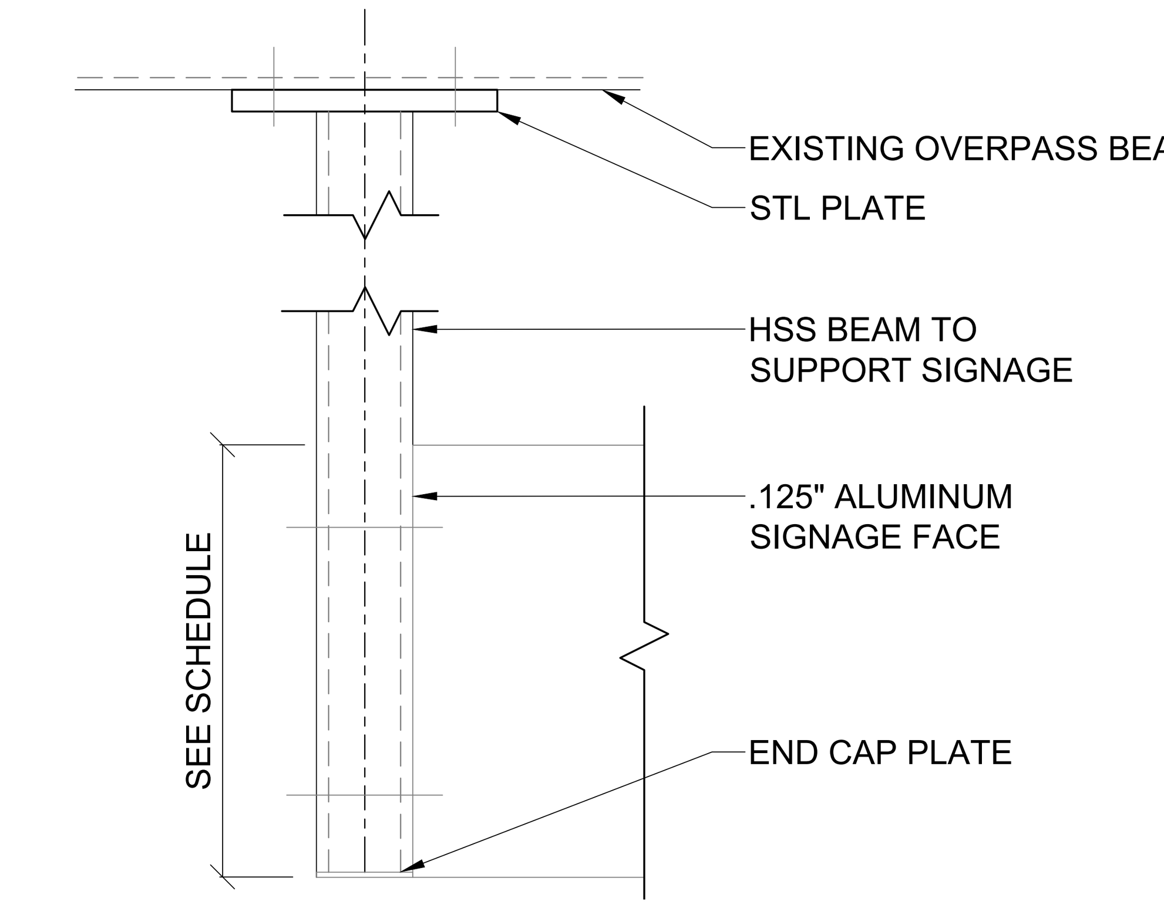
1 SIGNAGE SCHEDULE
1/4"=1'-0"

NOTES:
1. SIGNAGE DETAILS BASED FROM METRO NORTH SIGNAGE MANUAL.
2. ALL SIGNS SHALL BE MOUNTED MINIMUM 7'-0" AFF, WHERE POSSIBLE.
3. MOUNTING TYPE FOR DIRECTIONAL SIGNS AS DIRECTED BY METRO NORTH STANDARDS.

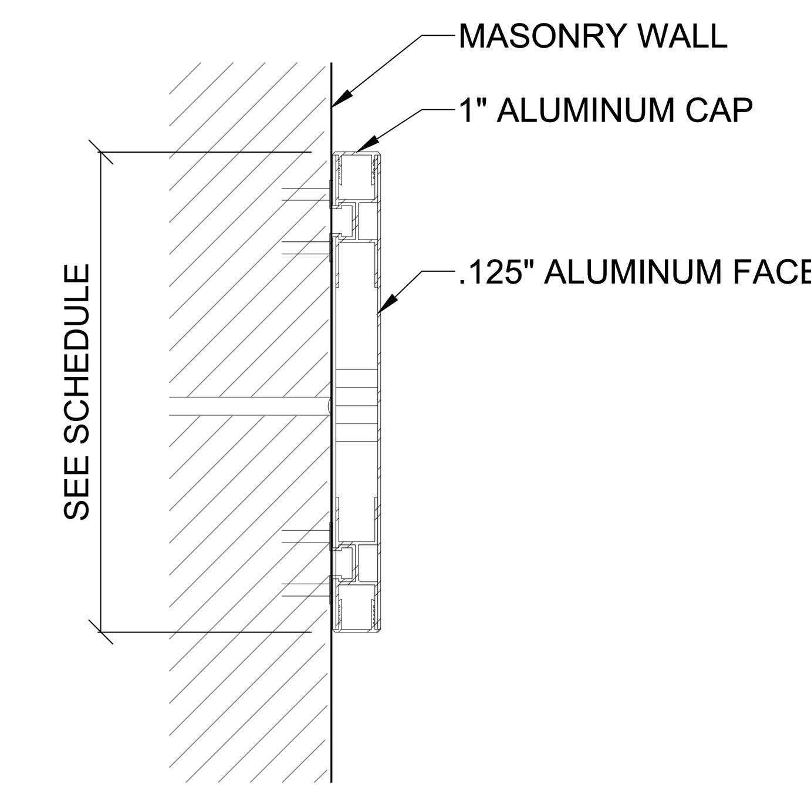
2 SIGNAGE DETAIL
3"=1'-0"



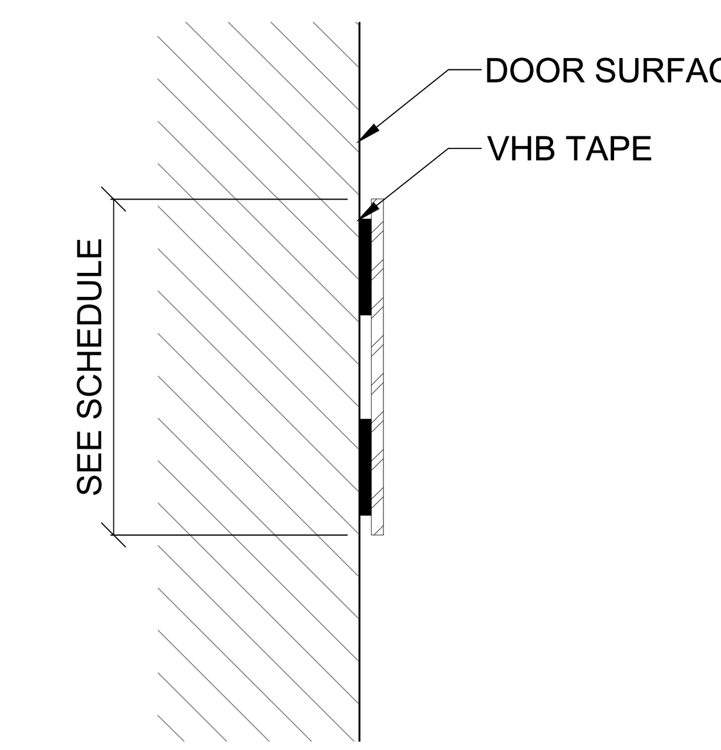
3 ELEVATOR MOUNTED DETAIL
3"=1'-0"



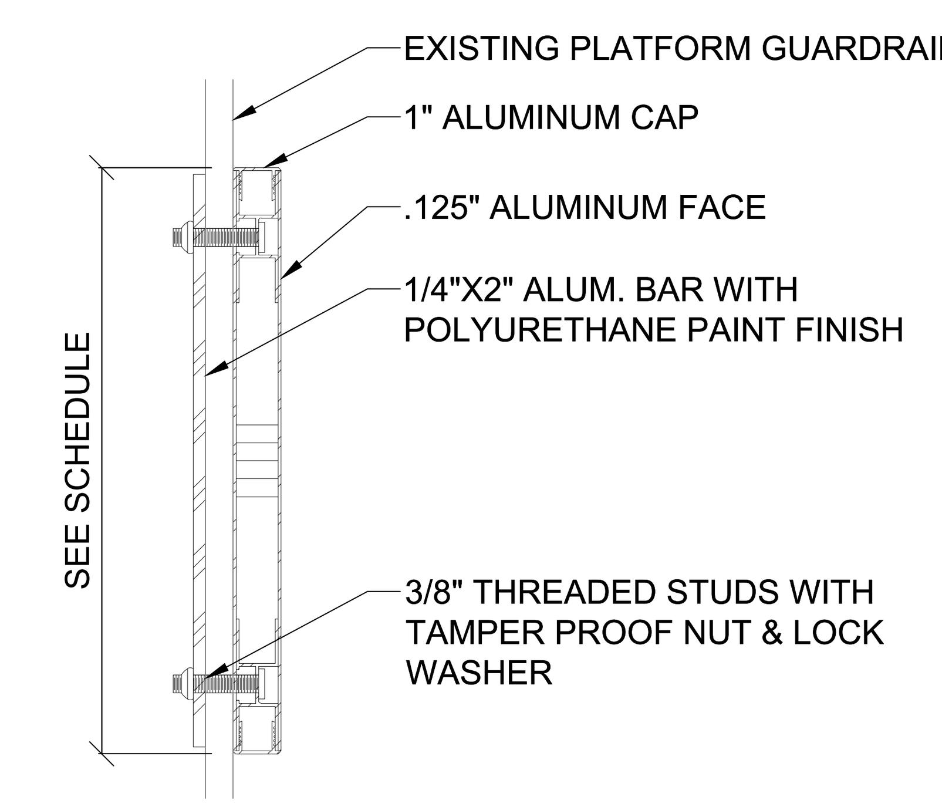
4 CEILING MOUNTED DETAIL
3"=1'-0"



5 WALL MOUNTED DETAIL
3"=1'-0"



6 DOOR MOUNTED DETAIL
3"=1'-0"



7 GUARDRAIL MOUNTED DETAIL
3"=1'-0"

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

NO.	DATE		DRWN	CHKD	APPVD	NO.	DATE		DRWN	CHKD	APPVD

REVISION — REVISION (CONFORMED)

STV 100 Years
225 PARK AVENUE SOUTH, NEW YORK, NY 10003

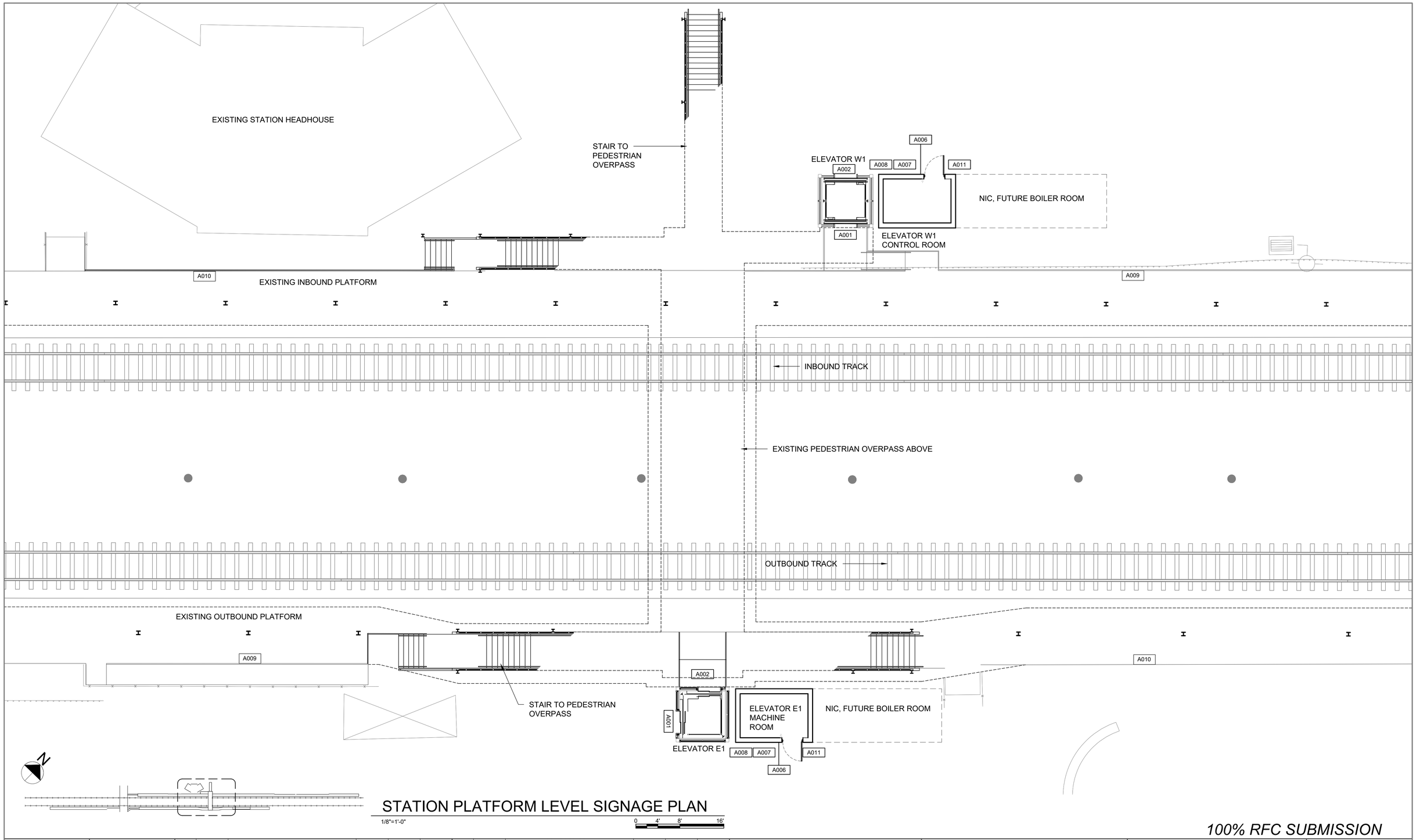
Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

STATION SIGNAGE SCHEDULE AND DETAILS

HARTSDALE STATION

CONTRACT NO. 1000106733
SCALE AS NOTED
DATE 07/09/2021
DRAWING NO. HTD-A-901
SHEET 49 OF 99



STATION PLATFORM LEVEL SIGNAGE PLAN

1/8"=1'-0"

0 4' 8' 16'

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGNITZ 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

STATION PLATFORM LEVEL SIGNAGE PLAN

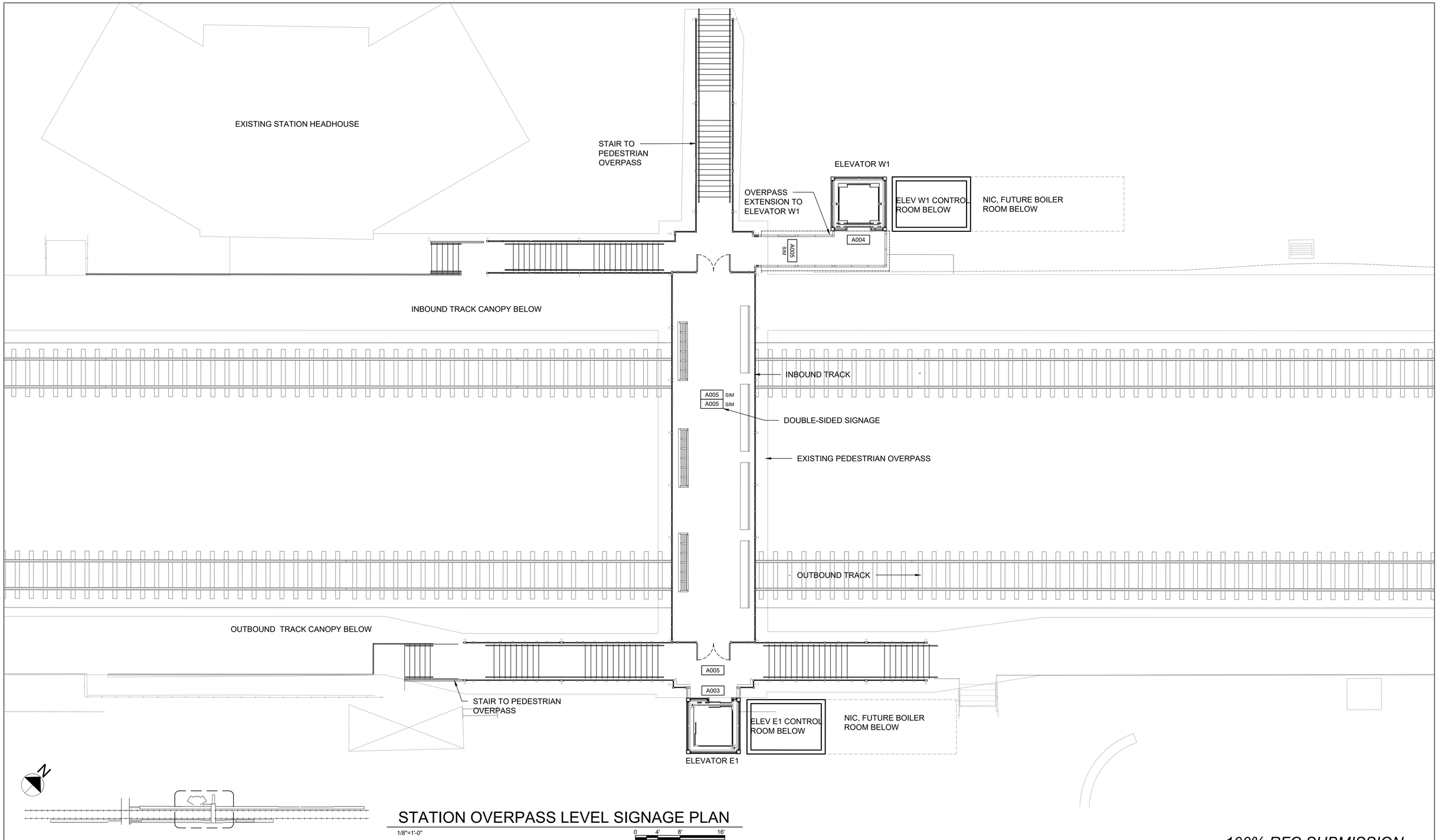
HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE	DATE
1/8" = 1'-0"	07/09/2021

DRAWING NO.
HTD-A-902

SHEET 50 OF 99



STATION OVERPASS LEVEL SIGNAGE PLAN

1/8"=1'-0"

0 4' 8' 16'

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	GD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGHTNER 26219 STATE OF NEW YORK

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

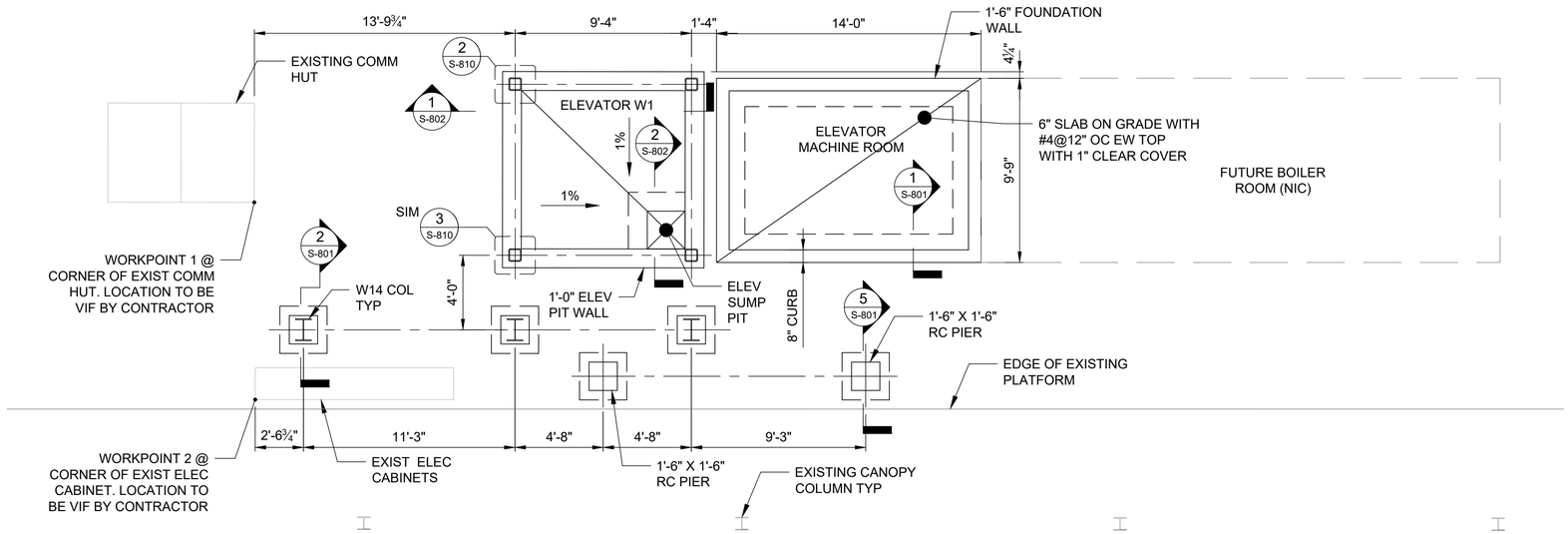
STATION OVERPASS LEVEL SIGNAGE PLAN

HARTSDALE STATION

CONTRACT NO.	
1000106733	
SCALE	DATE
1/8" = 1'-0"	07/09/2021

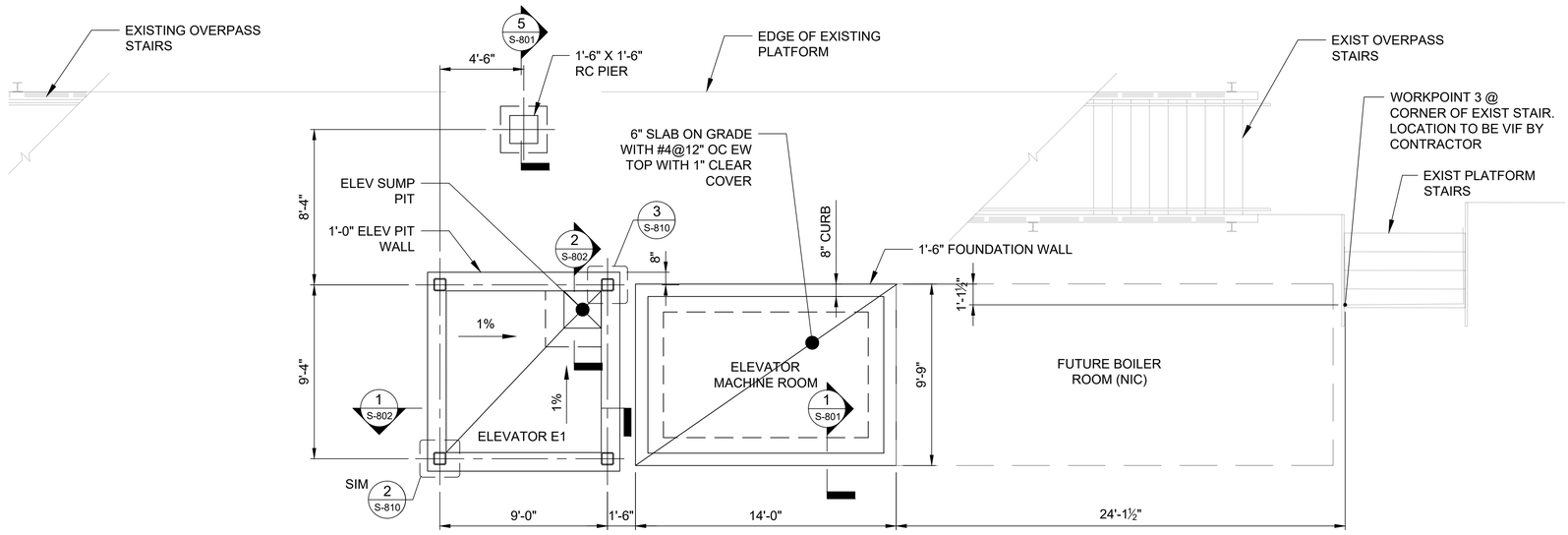
DRAWING NO.
HTD-A-911

SHEET 51 OF 99



ENLARGED FOUNDATION PLAN PART A

1/4"=1'-0" 0 2' 4' 8'



ENLARGED FOUNDATION PLAN PART B

1/4"=1'-0" 0 2' 4' 8'

NOTES:

1. ALL DIMENSIONS & ELEVATIONS SHALL BE VERIFIED IN FIELD BY CONTRACTOR
2. GC TO COORDINATE WITH ALL TRADES FOR ALL UTILITIES THAT WILL BE IMPACTED WITHIN AREA OF WORK PRIOR TO ANY DEMOLITION/NEW WORK
3. CONTRACTOR TO PROVIDE DEMOLITION DETAILS FOR ENGINEER OF RECORD FOR APPROVAL PRIOR TO REMOVAL

100% RFC SUBMISSION

DESIGNED								CONFORMED				
DRAWN												
CHECKED												
APPROVED		NO.	DATE		DRWN	CHKD	APPVD	NO.	DATE		DRWN	CHKD	APPVD
		REVISION						REVISION				

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

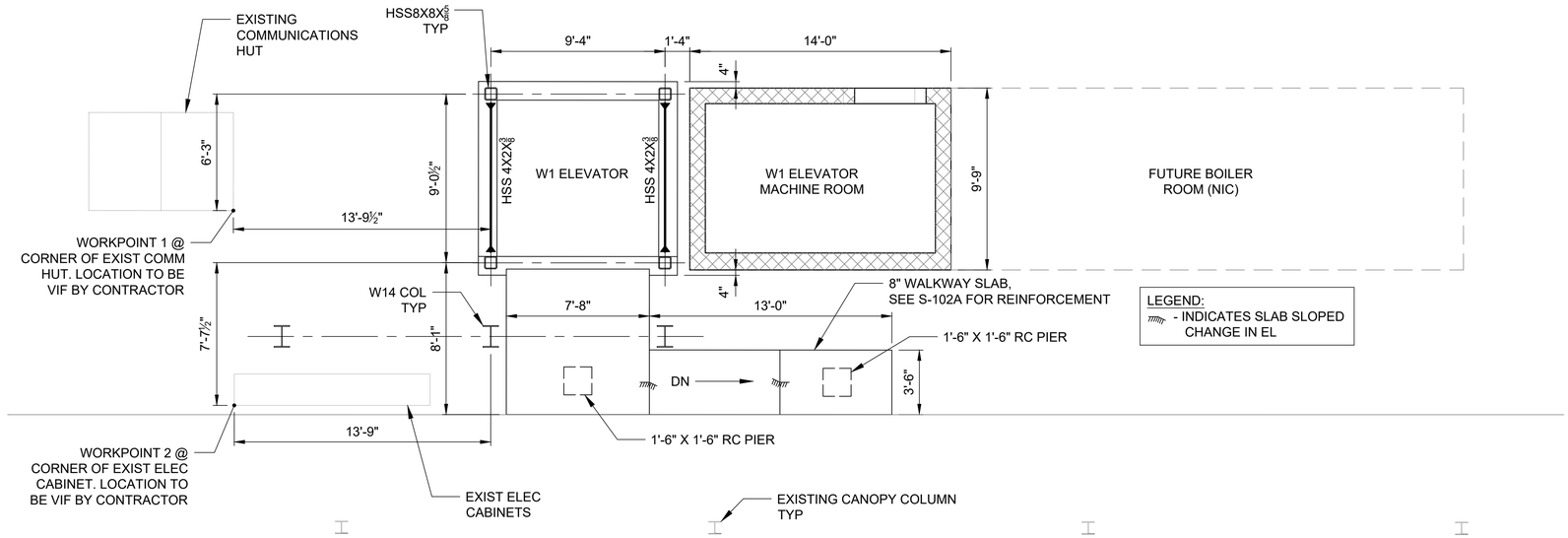
MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED FOUNDATION PLANS PART A & B

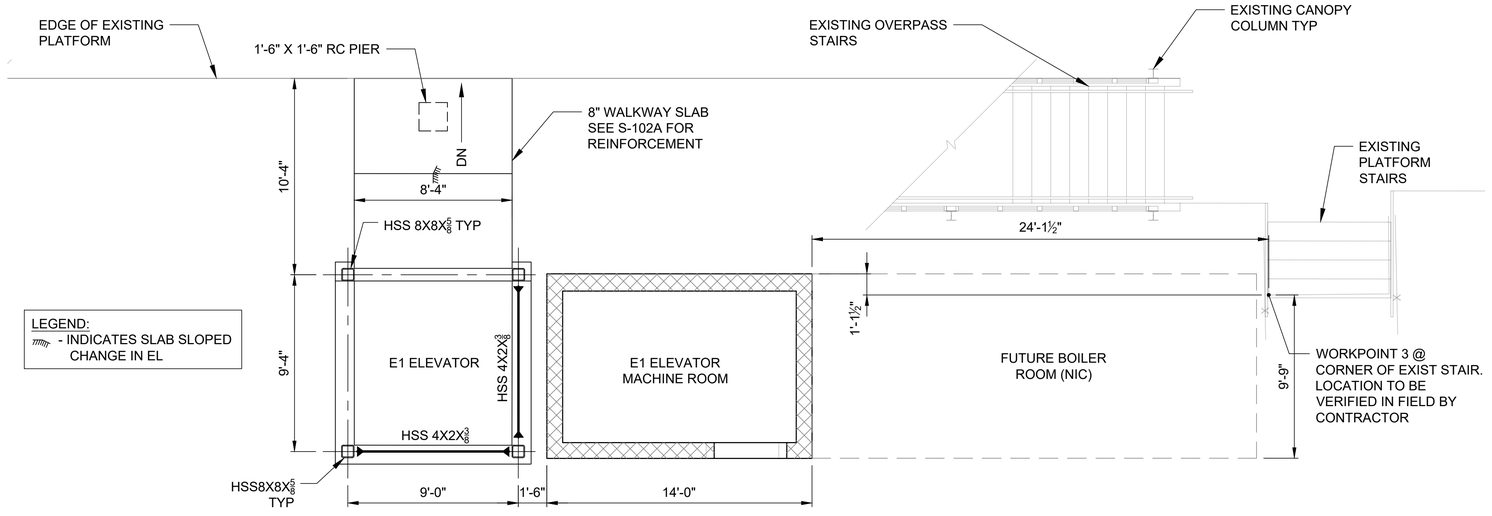
HARTSDALE STATION

CONTRACT NO. 1000106733
SCALE 1/4" = 1'-0"
DATE 07/09/2021
DRAWING NO. HTD-S-101
SHEET 52 OF 99



ENLARGED PLATFORM PLAN PART A

1/4"=1'-0"



ENLARGED PLATFORM PLAN PART B

1/4"=1'-0"

NOTES:

1. ALL DIMENSIONS & ELEVATIONS SHALL BE VERIFIED IN FIELD BY CONTRACTOR
2. GC TO COORDINATE WITH ALL TRADES FOR ALL UTILITIES THAT WILL BE IMPACTED WITHIN AREA OF WORK PRIOR TO ANY DEMOLITION/NEW WORK
3. CONTRACTOR TO PROVIDE DEMOLITION DETAILS FOR ENGINEER OF RECORD FOR APPROVAL PRIOR TO REMOVAL

100% RFC SUBMISSION

DESIGNED	NO.	DATE		DRWN	CHKD	APPVD	NO.	DATE	CONFORMED	DRWN	CHKD	APPVD
DRAWN												
CHECKED												
APPROVED	REVISION						REVISION					

STV 100 Years
225 PARK AVENUE SOUTH, NEW YORK, NY 10003

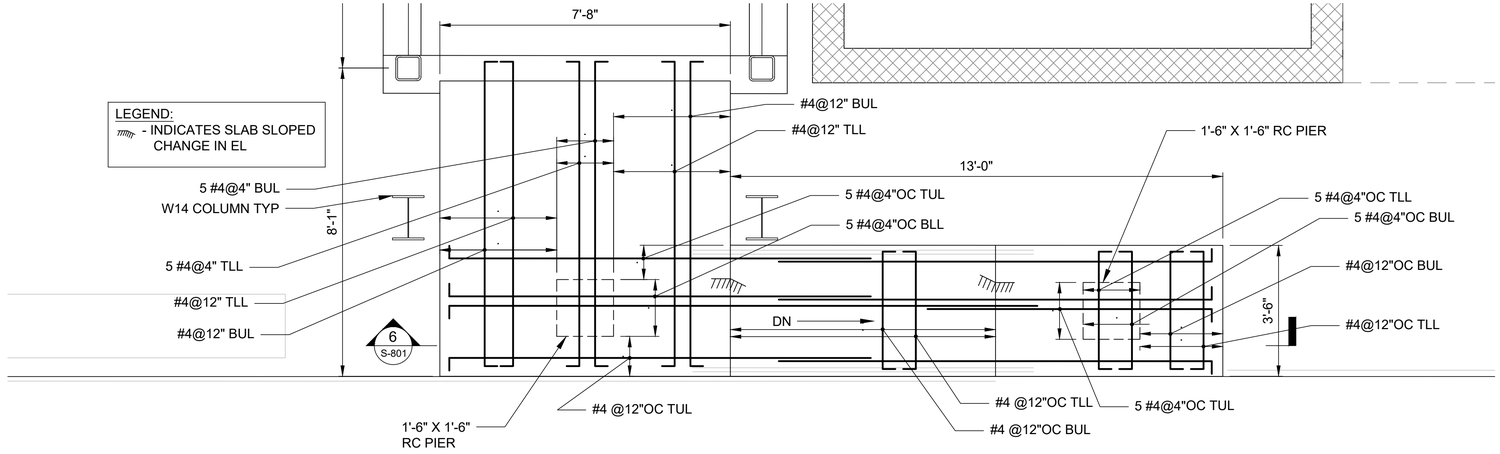
Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED PLATFORM PLAN PART A & B

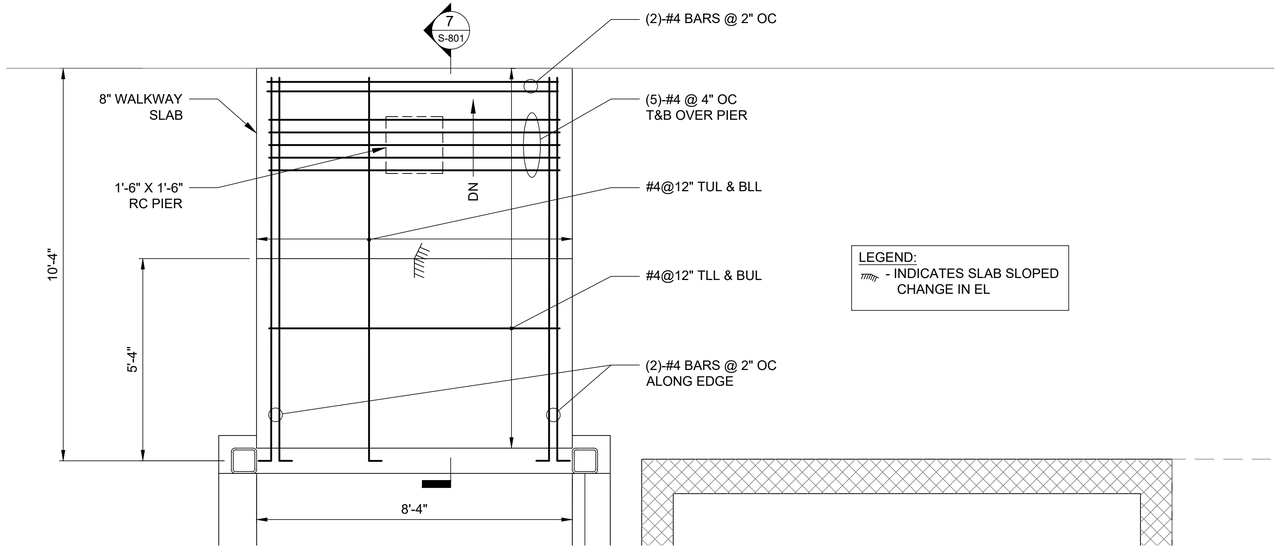
HARTSDALE STATION

CONTRACT NO. 1000106733
SCALE 1/4" = 1'-0"
DATE 07/09/2021
DRAWING NO. HTD-S-102
SHEET 53 OF 99



ENLARGED PLATFORM REINFORCEMENT PLAN PART A

1/2"=1'-0" 0 1' 2' 4'



ENLARGED PLATFORM REINFORCEMENT PLAN PART B

1/2"=1'-0" 0 1' 2' 4'

NOTES:

1. ALL DIMENSIONS & ELEVATIONS SHALL BE VERIFIED IN FIELD BY CONTRACTOR
2. GC TO COORDINATE WITH ALL TRADES FOR ALL UTILITIES THAT WILL BE IMPACTED WITHIN AREA OF WORK PRIOR TO ANY DEMOLITION/NEW WORK
3. TUL DENOTES TOP UPPER LAYER
   TLL DENOTES TOP LOWER LAYER
   BUL DENOTES BOTTOM UPPER LAYER
   BLL DENOTES BOTTOM LOWER LAYER
4. PROVIDE 90° BENDS AT ENDS OF ALL TOP BARS (TUL & TLL)

100% RFC SUBMISSION

DESIGNED	NO.	DATE		DRWN	CHKD	APPVD	NO.	DATE	CONFORMED	DRWN	CHKD	APPVD
DRAWN												
CHECKED												
APPROVED			REVISION						REVISION			

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED PLATFORM PLAN PART A & B

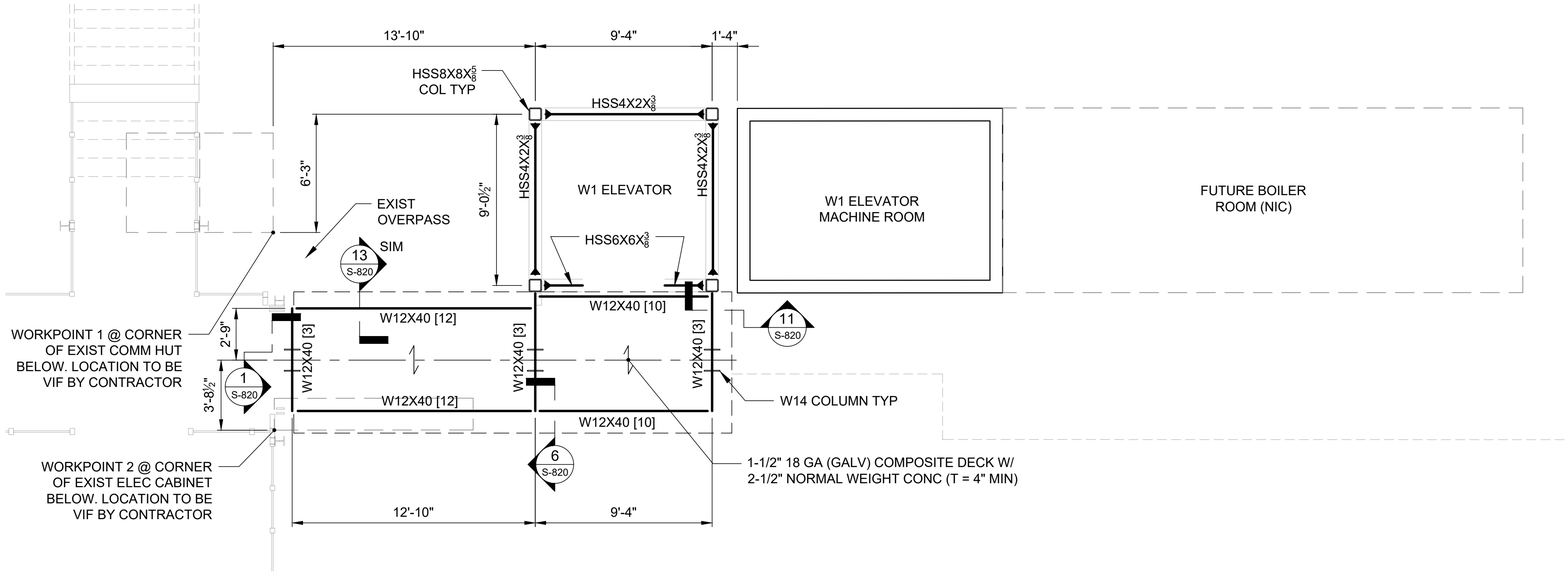
HARTSDALE STATION

CONTRACT NO. 1000106733

SCALE 1/2" = 1'-0" DATE 07/09/2021

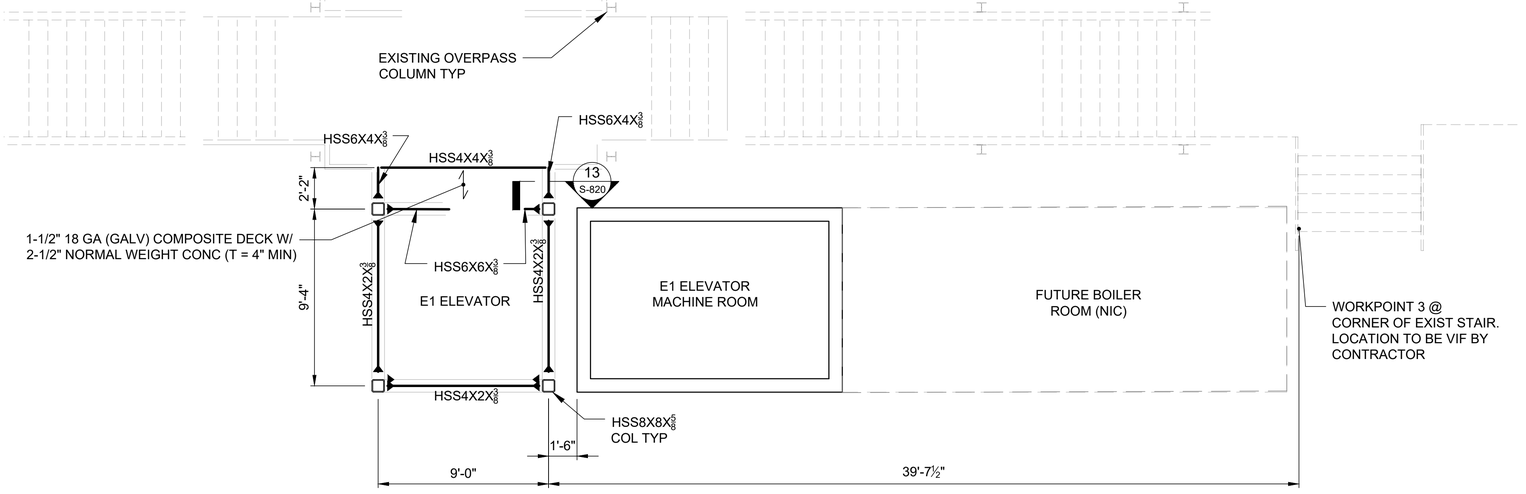
DRAWING NO. HTD-S-102A

SHEET 54 OF 99



ENLARGED OVERPASS PLAN PART A

1/4"=1'-0"



NOTES:

1. ALL DIMENSIONS & ELEVATIONS SHALL BE VERIFIED IN FIELD BY CONTRACTOR
2. GC TO COORDINATE WITH ALL TRADES FOR ALL UTILITIES THAT WILL BE IMPACTED WITHIN AREA OF WORK PRIOR TO ANY DEMOLITION/NEW WORK
3. CONTRACTOR TO PROVIDE DEMOLITION DETAILS FOR ENGINEER OF RECORD FOR APPROVAL PRIOR TO REMOVAL

ENLARGED OVERPASS PLAN PART B

1/4"=1'-0"

100% RFC SUBMISSION

DESIGNED									CONFORMED				
DRAWN													
CHECKED													
APPROVED		NO.	DATE		DRWN	CHKD	APPVD	NO.	DATE		DRWN	CHKD	APPVD
		REVISION						REVISION					

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

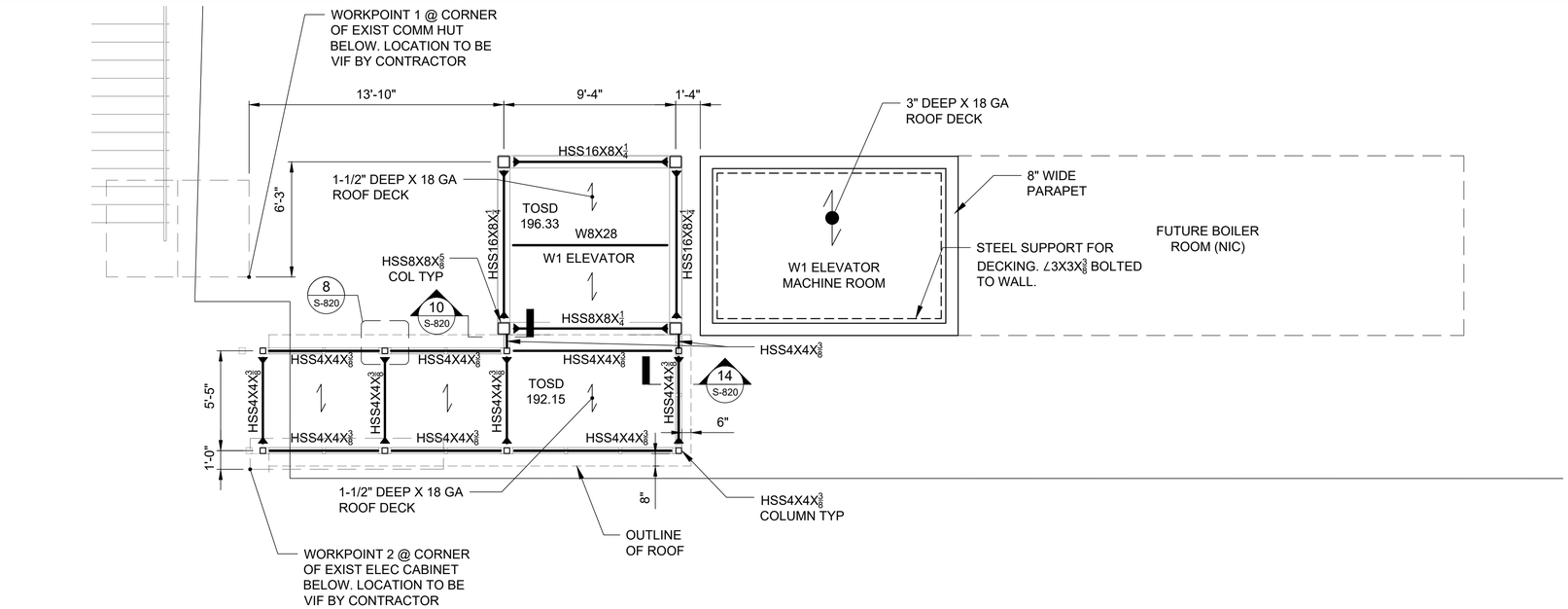
MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ENLARGED OVERPASS PLAN PART A & B

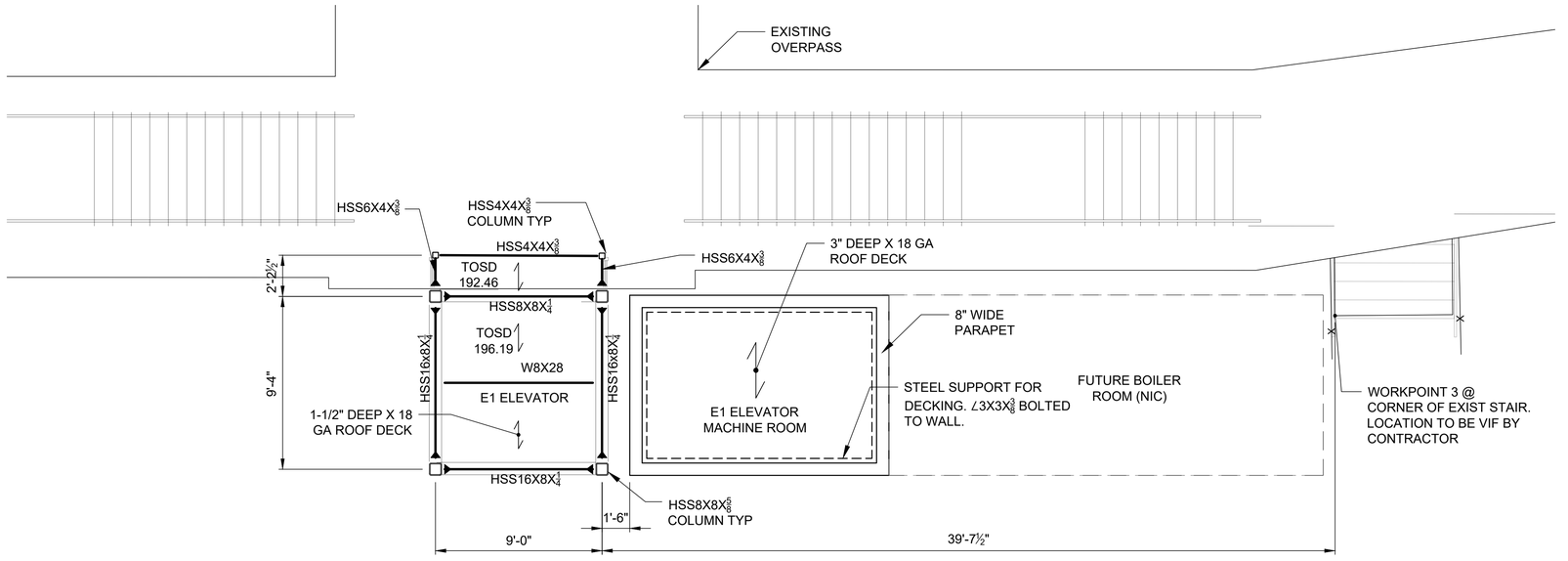
HARTSDALE STATION

CONTRACT NO. 1000106733
SCALE 1/4" = 1'-0"
DATE 07/09/2021
DRAWING NO. HTD-S-103
SHEET 55 OF 99



ENLARGED ROOF PLAN PART A

1/4"=1'-0"



ENLARGED ROOF PLAN PART B

1/4"=1'-0"

NOTES:

1. ALL DIMENSIONS & ELEVATIONS SHALL BE VERIFIED IN FIELD BY CONTRACTOR
2. GC TO COORDINATE WITH ALL TRADES FOR ALL UTILITIES THAT WILL BE IMPACTED WITHIN AREA OF WORK PRIOR TO ANY DEMOLITION/NEW WORK
3. CONTRACTOR TO PROVIDE DEMOLITION DETAILS FOR ENGINEER OF RECORD FOR APPROVAL PRIOR TO REMOVAL

100% RFC SUBMISSION

	NO.	DATE		DRWN	CHKD	APPVD
			CONFORMED			

REVISION

REVISION

DESIGNED
DRAWN
CHECKED
APPROVED

STV 100 Years
225 PARK AVENUE SOUTH, NEW YORK, NY 10003

Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

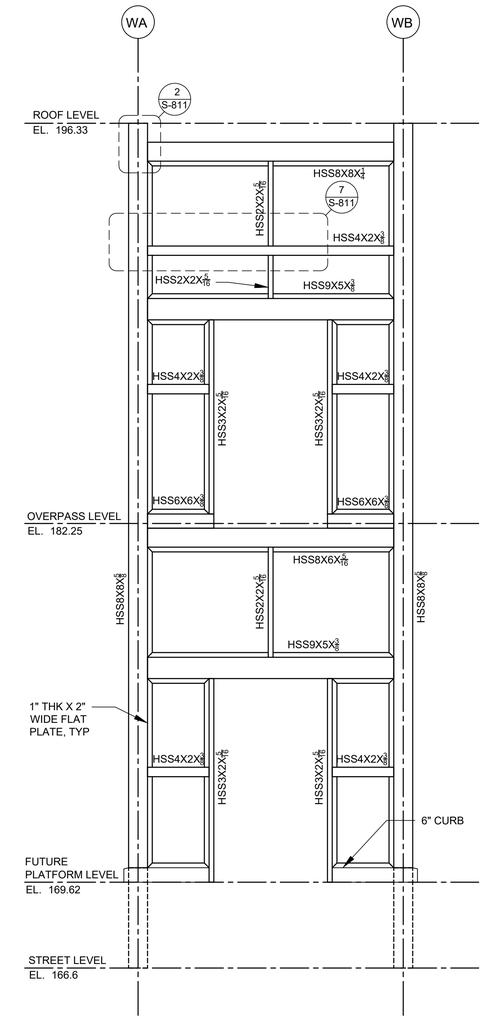
ENLARGED ROOF PLAN PART A & B

HARTSDALE STATION

CONTRACT NO. 1000106733
SCALE 1/4" = 1'-0"
DATE 07/09/2021
DRAWING NO. HTD-S-104
SHEET 56 OF 99

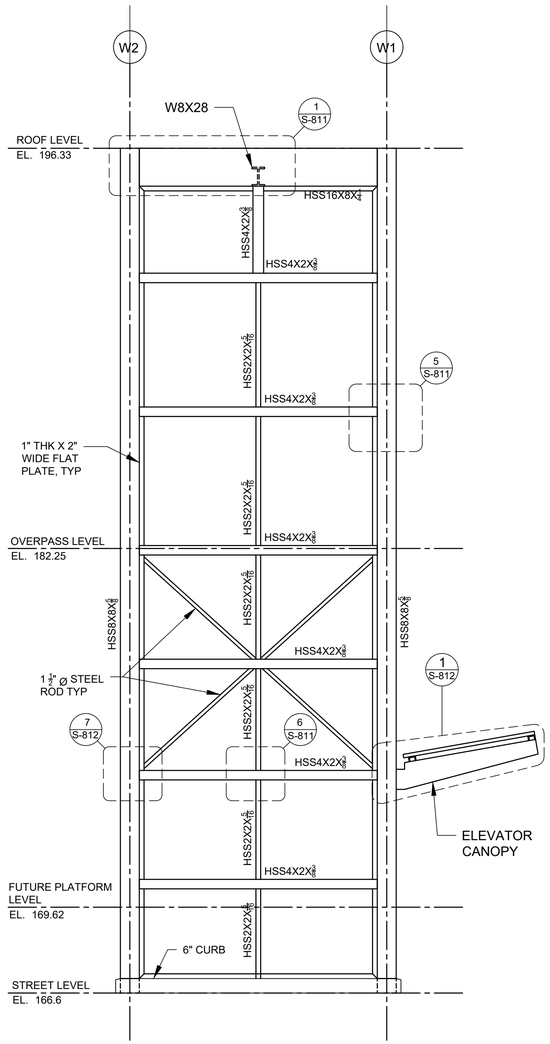
1 - PLAN - ELEVATOR W1

3/8"=1'-0" 0 2' 4' 6'



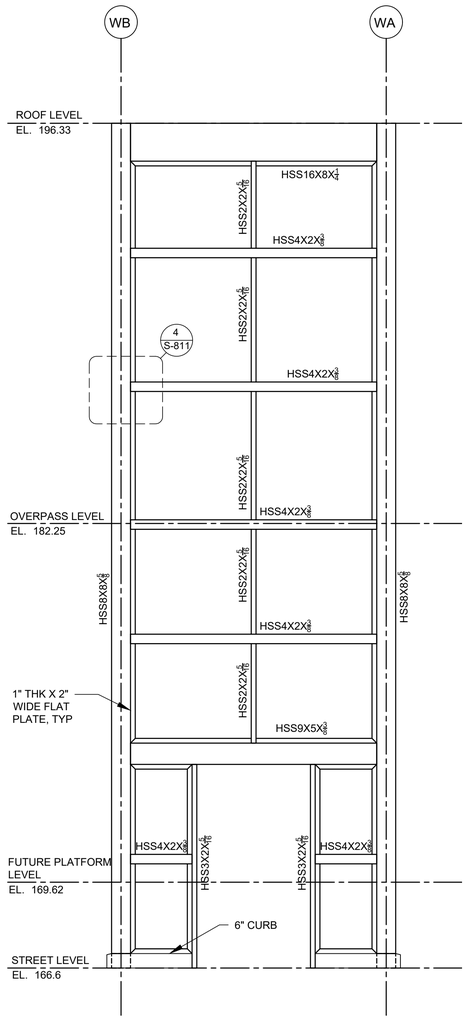
2 - ELEVATION A - ELEVATOR W1

3/8"=1'-0" 0 2' 4' 6'



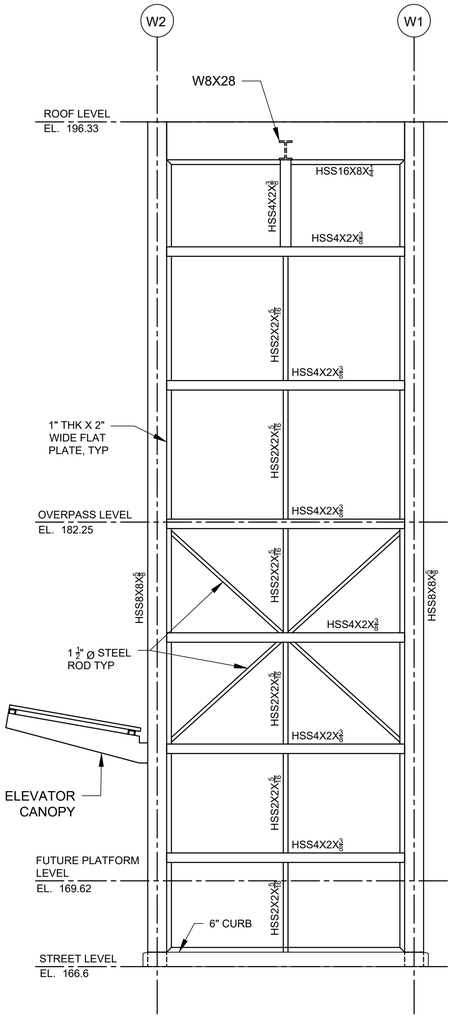
2 - ELEVATION B - ELEVATOR W1

3/8"=1'-0" 0 2' 4' 6'



2 - ELEVATION C - ELEVATOR W1

3/8"=1'-0" 0 2' 4' 6'



2 - ELEVATION D - ELEVATOR W1

3/8"=1'-0" 0 2' 4' 6'

100% RFC SUBMISSION

DESIGNED	SD
DRAWN	SD
CHECKED	RA
APPROVED	MM

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ELEVATOR W1
ELEVATIONS

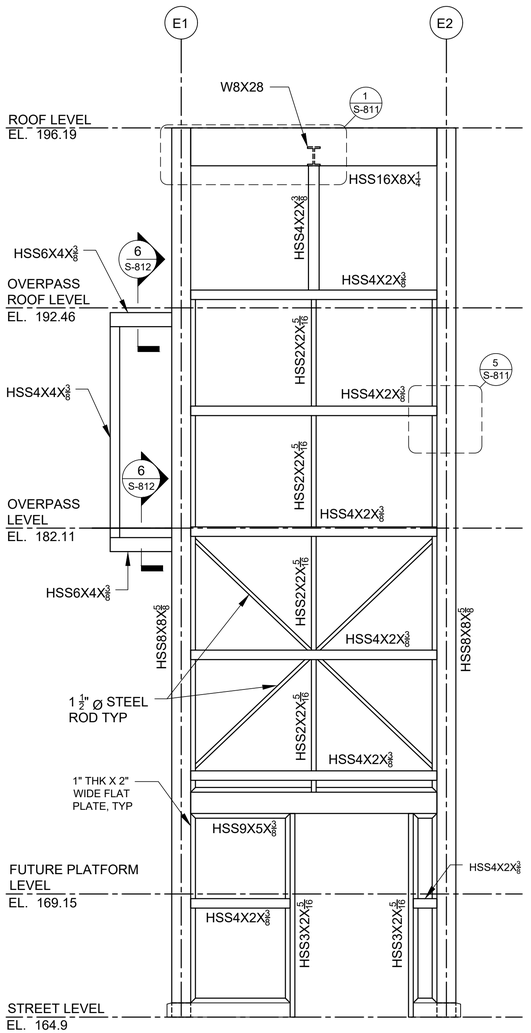
HARTSDALE STATION

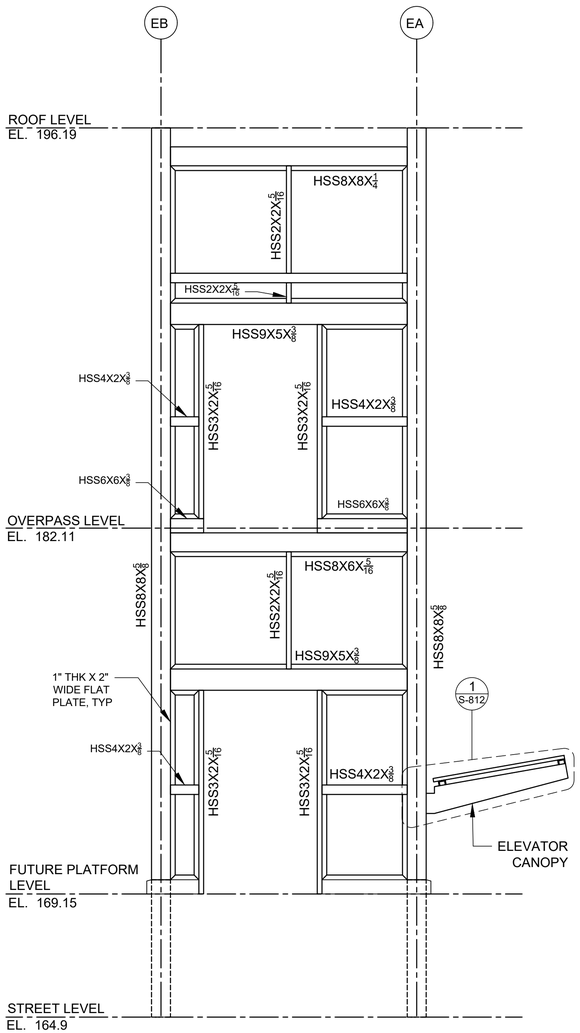
CONTRACT NO. 1000106733

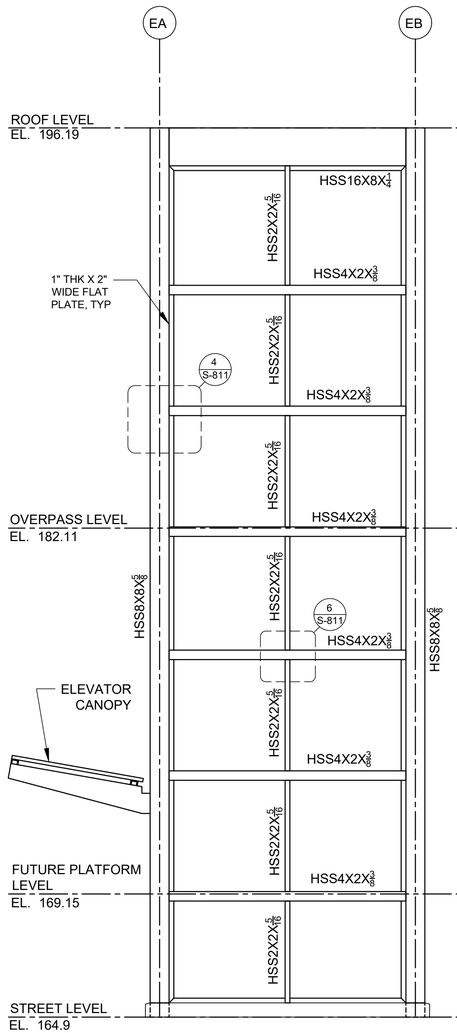
SCALE AS NOTED | DATE 07/09/2021

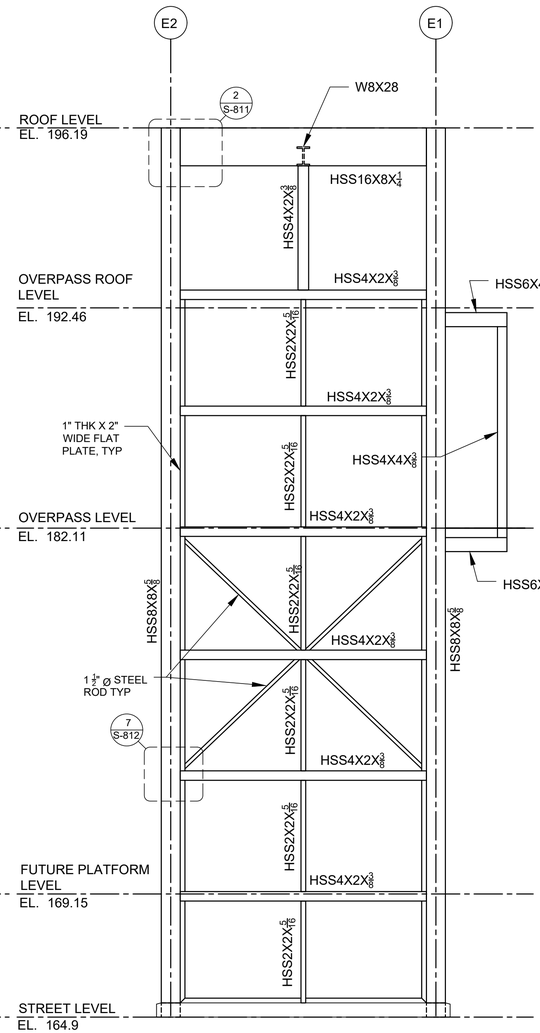
DRAWING NO. HTD-S-301

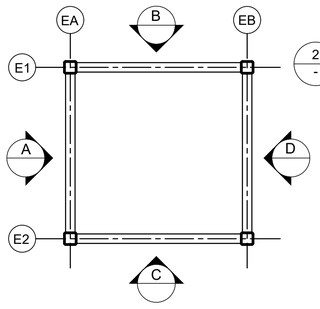
SHEET 57 OF 99











1 - PLAN - ELEVATOR E1
3/8"=1'-0" 0 2' 4' 6'

2 - ELEVATION A - ELEVATOR E1
3/8"=1'-0" 0 2' 4' 6'

2 - ELEVATION B - ELEVATOR E1
3/8"=1'-0" 0 2' 4' 6'

2 - ELEVATION C - ELEVATOR E1
3/8"=1'-0" 0 2' 4' 6'

2 - ELEVATION D - ELEVATOR E1
3/8"=1'-0" 0 2' 4' 6'

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STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ELEVATOR E1
ELEVATIONS

HARTSDALE STATION

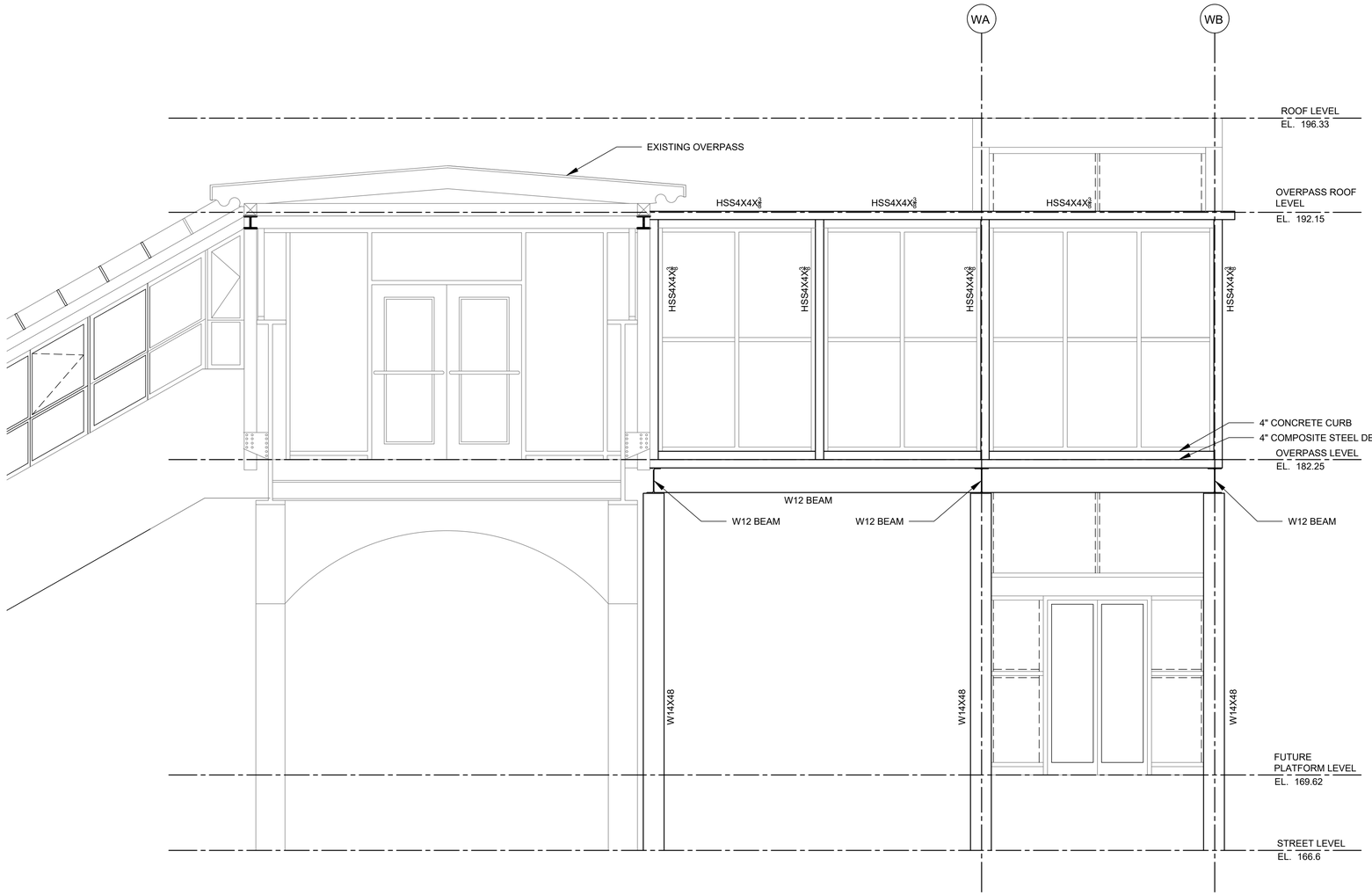
CONTRACT NO.
1000106733

SCALE
AS NOTED

DATE
07/09/2021

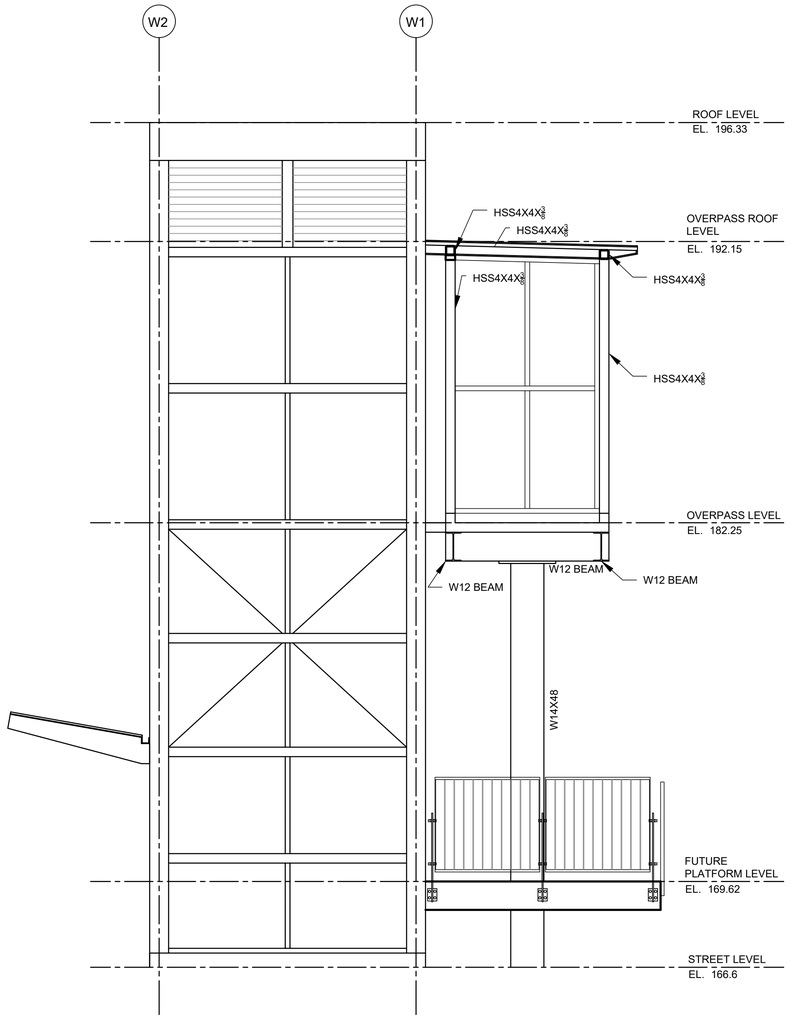
DRAWING NO.
HTD-S-302

SHEET 58 OF 99



2 - ELEVATION A - OVERPASS EXTENSION

3/8"=1'-0" 0 2' 4' 6'



2 - ELEVATION B - OVERPASS EXTENSION

3/8"=1'-0" 0 2' 4' 6'

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DRAWN	SD
CHECKED	AK
APPROVED	MM

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MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

OVERPASS ELEVATIONS

HARTSDALE STATION

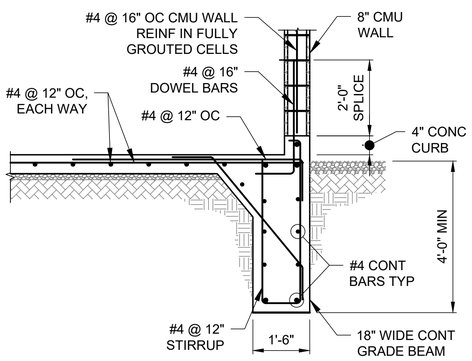
CONTRACT NO.
1000106733

SCALE: AS NOTED

DATE: 07/09/2021

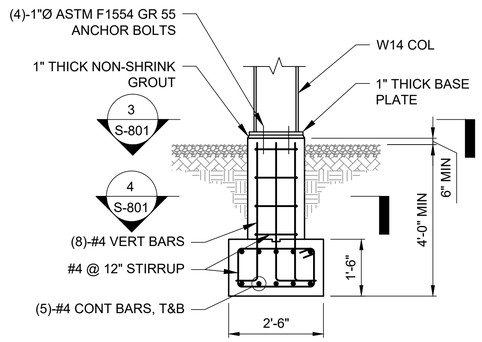
DRAWING NO.
HTD-S-303

SHEET 59 OF 99



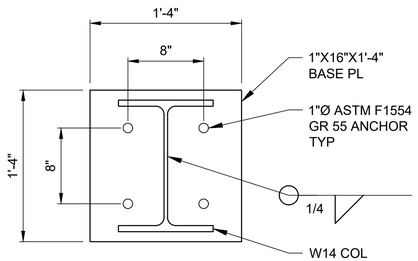
1 S-101 TYPICAL CMU WALL FOUNDATION SECTION

1/2" = 1'-0" 0' 1' 2' 4'



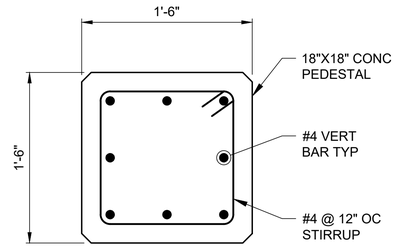
2 S-101 TYPICAL OVERPASS COLUMN FOUNDATION SECTION

1/2" = 1'-0" 0' 1' 2' 4'



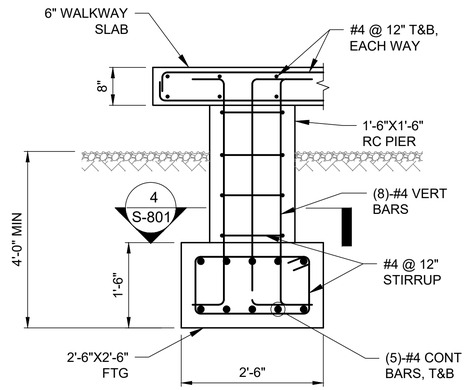
3 - SECTION

1 1/2" = 1'-0" 0' 6" 1' 1'6"



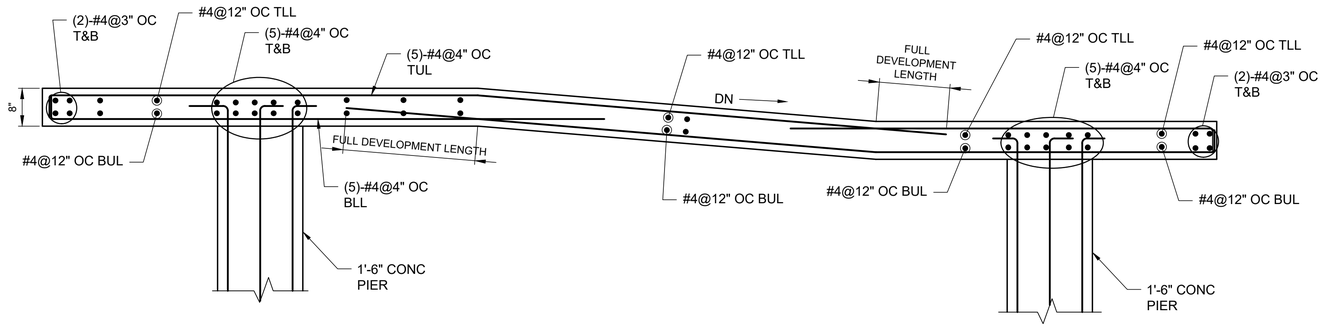
4 - SECTION

1 1/2" = 1'-0" 0' 6" 1' 1'6"



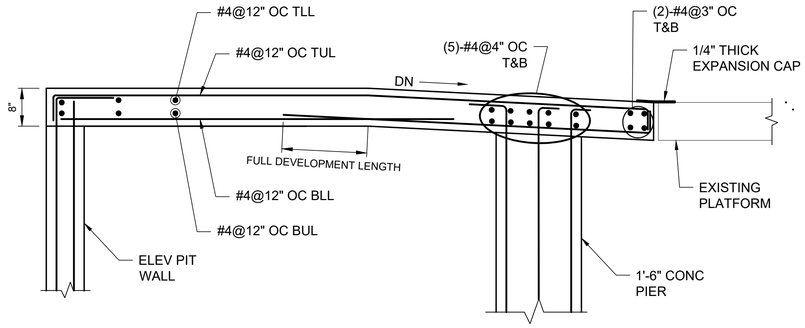
5 S-101 TYPICAL WALKWAY SLAB PIER REINF DETAIL

3/4" = 1'-0" 0' 1' 2' 3'



6 S-102A SECTION THROUGH PLATFORM

3/4" = 1'-0" 0' 1' 2' 3'



7 S-102A SECTION

3/4" = 1'-0" 0' 1' 2' 3'

NOTES:

1. ALL BARS SHALL BE GALVANIZED STEEL.
2. REFER TO REINFORCED CONCRETE NOTES FOR MATERIAL SPECIFICATIONS FOR GALVANIZED STEEL BARS.
3. FOR SLABS ON GRADE, IT IS THE CONTRACTOR'S OPTION TO USE #4@12 EW INSTEAD OF WWF SHOWN ON THIS DRAWING. THE SELECTED REINFORCEMENT SHALL BE SHOWN ON THE SHOP DRAWINGS SUBMITTED FOR REVIEW

100% RFC SUBMISSION

DESIGNED	SD
DRAWN	SD
CHECKED	RA
APPROVED	MM

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH, NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

FOUNDATION SECTIONS & DETAILS I

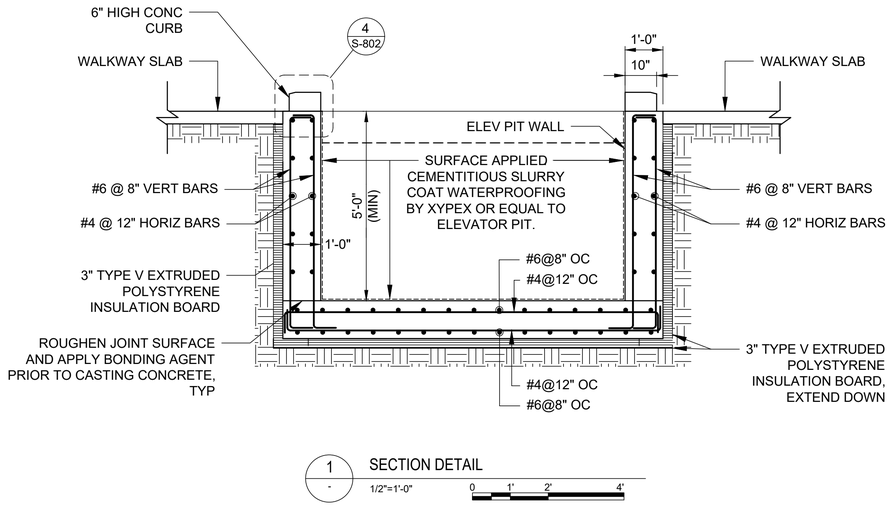
HARTSDALE STATION

CONTRACT NO. 1000106733

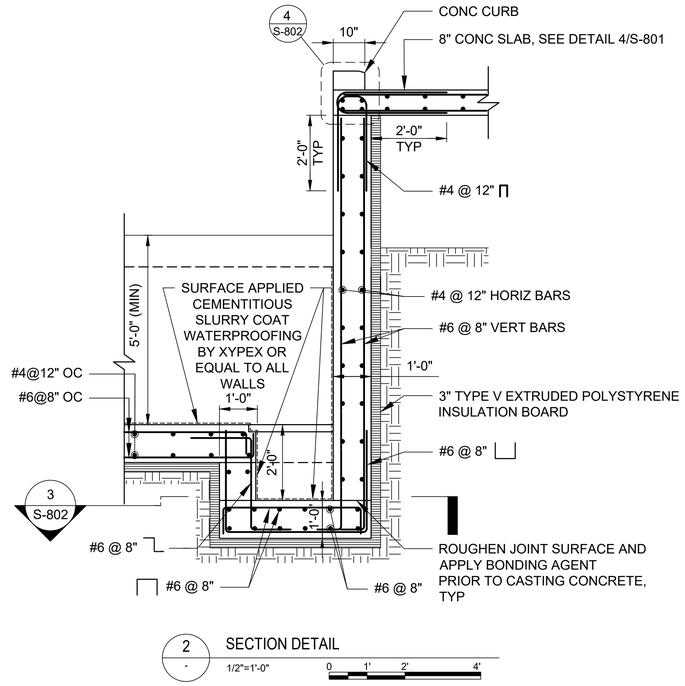
SCALE AS NOTED | DATE 07/09/2021

DRAWING NO. HTD-S-801

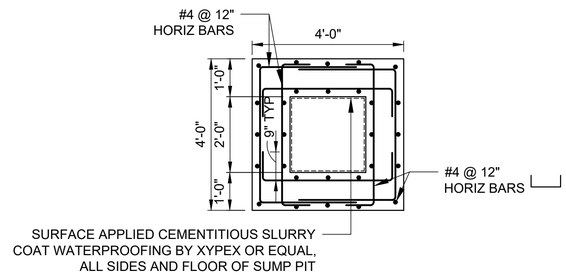
SHEET 60 OF 99



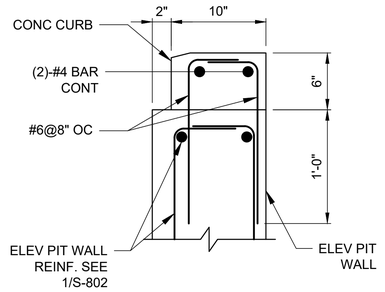
1 - SECTION DETAIL
1/2"=1'-0" 0 1' 2' 4'



2 - SECTION DETAIL
1/2"=1'-0" 0 1' 2' 4'



3 - PLAN- SUMP PIT
1/2"=1'-0" 0 1' 2' 4'



4 - SECTION
1 1/2"=1'-0" 0 1' 1' 6"

NOTES:

1. ALL BARS SHALL BE EPOXY-COATED.
2. REFER TO REINFORCED CONCRETE NOTES FOR MATERIAL SPECIFICATIONS FOR EPOXY-COATED AND UNCOATED REINFORCING BARS.
3. FOR SLABS ON GRADE, IT IS THE CONTRACTOR'S OPTION TO USE #4@12 EW INSTEAD OF WWF SHOWN ON THIS DRAWING. THE SELECTED REINFORCEMENT SHALL BE SHOWN ON THE SHOP DRAWINGS SUBMITTED FOR REVIEW.

100% RFC SUBMISSION

DESIGNED	SD
DRAWN	SD
CHECKED	RA
APPROVED	MM

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

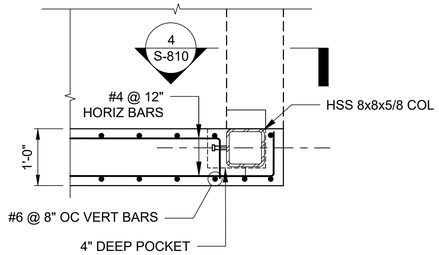
MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

FOUNDATION SECTIONS & DETAILS II

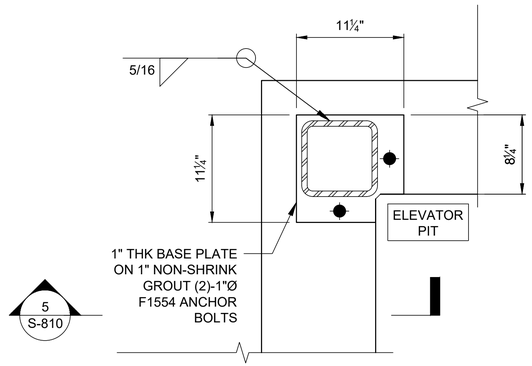
HARTSDALE STATION

CONTRACT NO. 1000106733
SCALE AS NOTED
DATE 07/09/2021
DRAWING NO. HTD-S-802
SHEET 61 OF 99



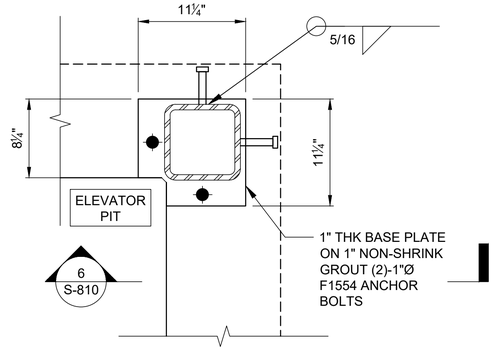
1 - PART PLAN ELEVATOR DETAIL

3/4" = 1'-0" 0' 1' 2' 3'



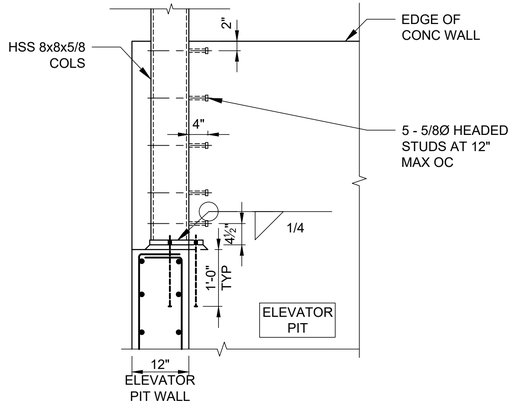
2 - PART PLAN - ELEVATOR COLUMN

1 1/2" = 1'-0" 0' 6" 1' 1'6"



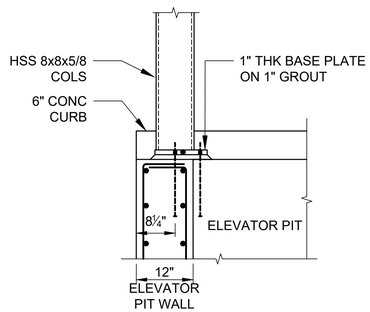
3 - PART PLAN - ELEVATOR COLUMN

1 1/2" = 1'-0" 0' 6" 1' 1'6"



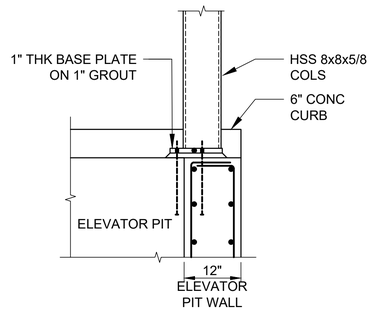
4 - SECTION DETAIL - ELEVATOR COLUMN

3/4" = 1'-0" 0' 1' 2' 3'



5 - SECTION DETAIL - ELEVATOR COLUMN

3/4" = 1'-0" 0' 1' 2' 3'



6 - SECTION DETAIL - ELEVATOR COLUMN

3/4" = 1'-0" 0' 1' 2' 3'

NOTES:

1. ALL ANCHOR BOLTS SHALL BE STAINLESS STEEL
2. ALL BARS SHALL BE GALVANIZED STEEL

100% RFC SUBMISSION

DESIGNED	SD
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APPROVED	MM

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NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

TYPICAL ELEVATOR STEEL DETAILS 1 OF 3

HARTSDALE STATION

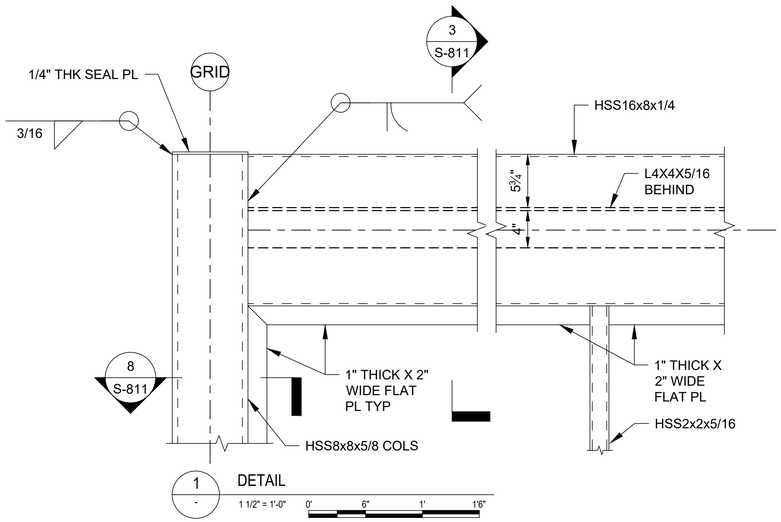
CONTRACT NO.
1000106733

SCALE: AS NOTED

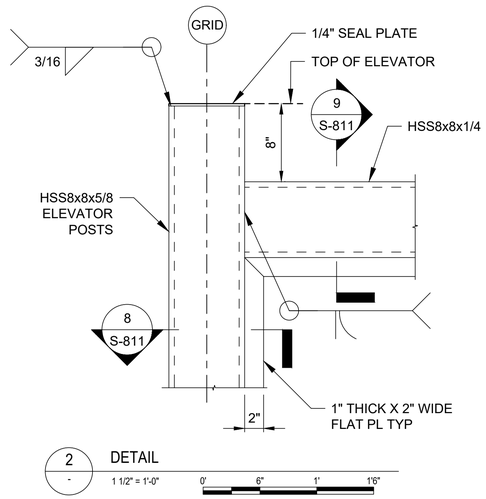
DATE: 07/09/2021

DRAWING NO.
HTD-S-810

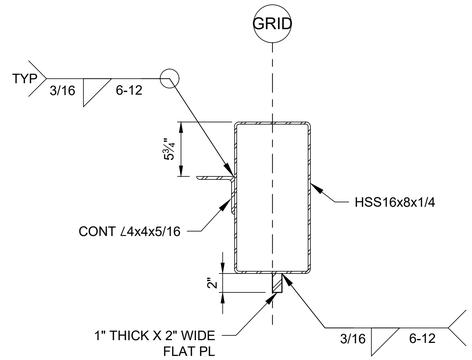
SHEET 62 OF 99



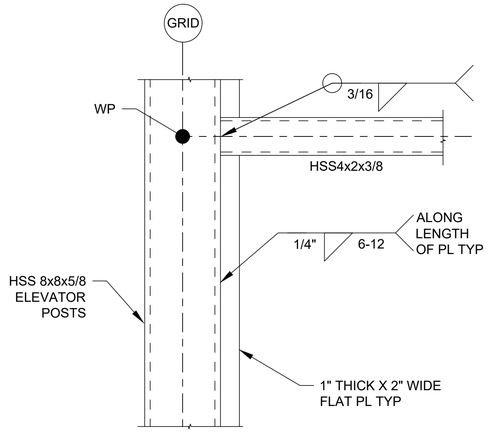
1 DETAIL
1 1/2" = 1'-0" 0' 6" 1' 1'6"



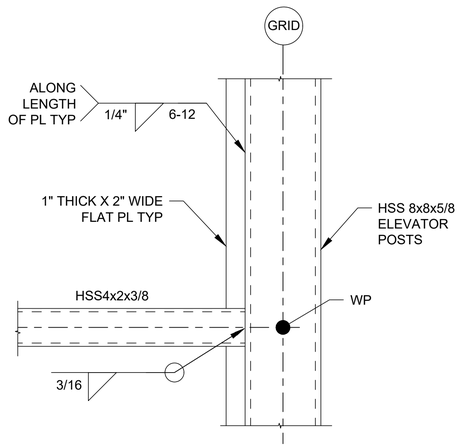
2 DETAIL
1 1/2" = 1'-0" 0' 6" 1' 1'6"



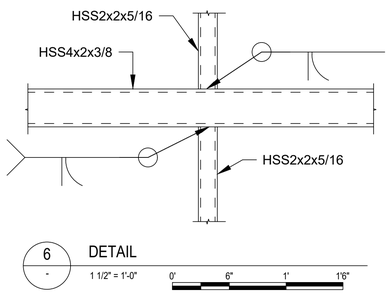
3 SECTION
1 1/2" = 1'-0" 0' 6" 1' 1'6"



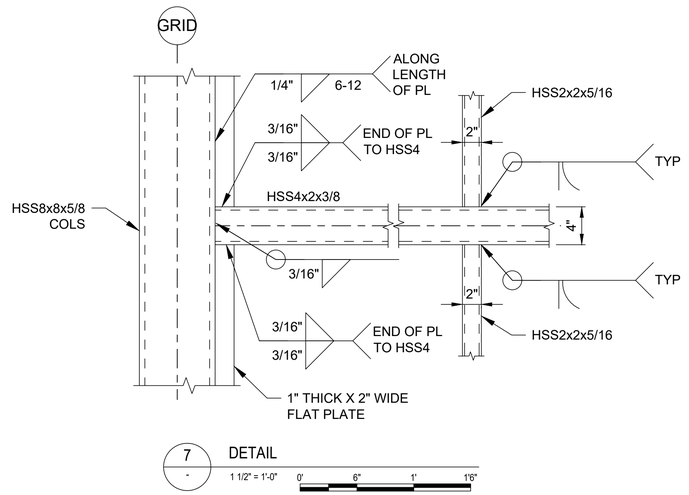
4 DETAIL
1 1/2" = 1'-0" 0' 6" 1' 1'6"



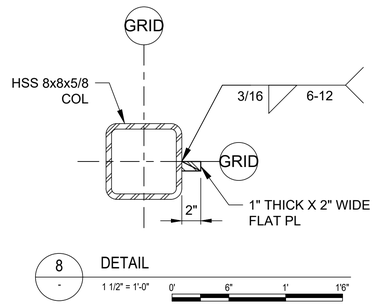
5 DETAIL
1 1/2" = 1'-0" 0' 6" 1' 1'6"



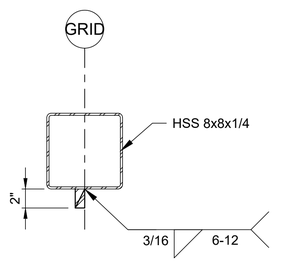
6 DETAIL
1 1/2" = 1'-0" 0' 6" 1' 1'6"



7 DETAIL
1 1/2" = 1'-0" 0' 6" 1' 1'6"



8 DETAIL
1 1/2" = 1'-0" 0' 6" 1' 1'6"



9 DETAIL
1 1/2" = 1'-0" 0' 6" 1' 1'6"

100% RFC SUBMISSION

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APPROVED	MM

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REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

TYPICAL ELEVATOR STEEL DETAILS 2 OF 3

HARTSDALE STATION

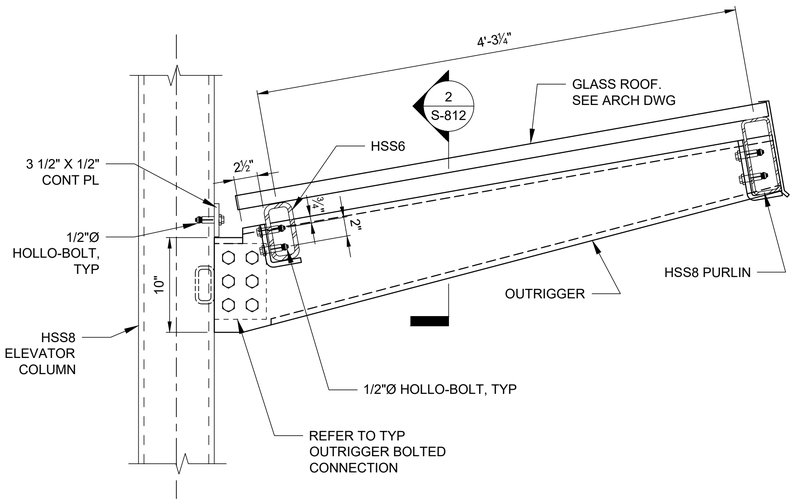
CONTRACT NO.
1000106733

SCALE
AS NOTED

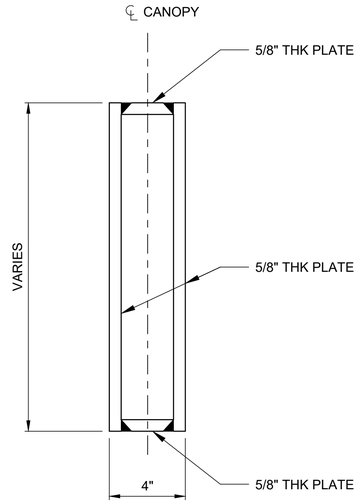
DATE
07/09/2021

DRAWING NO.
HTD-S-811

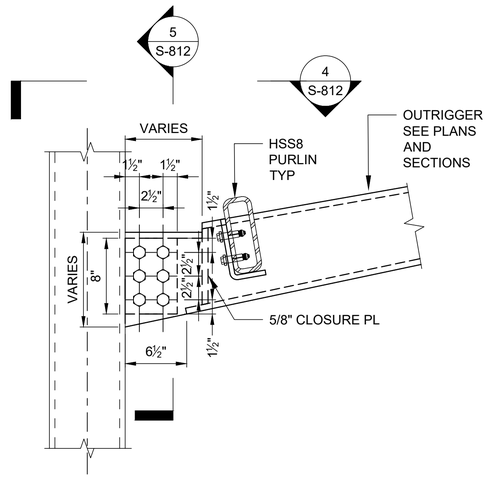
SHEET 63 OF 99



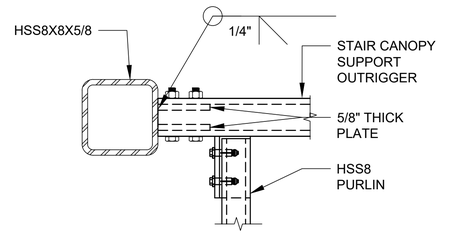
1 - SECTION DETAIL - ELEVATOR CANOPY
1 1/2" = 1'-0"



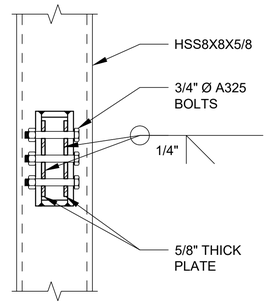
2 - SECTION DETAIL - CANOPY OUTRIGGER
3" = 1'-0"



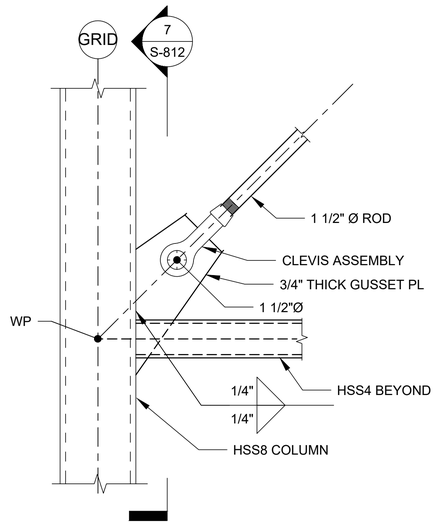
3 - TYPICAL OUTRIGGER BOLTED CONNECTION
1 1/2" = 1'-0"



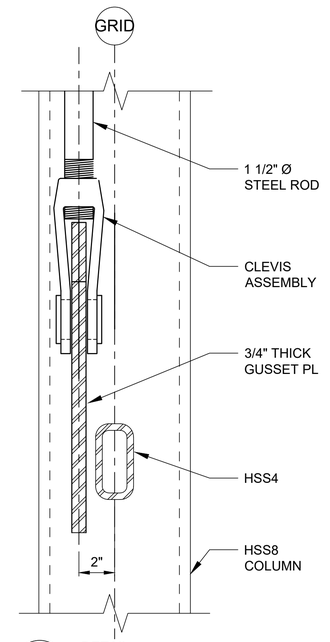
4 - PLAN DETAIL OUTRIGGER
1 1/2" = 1'-0"



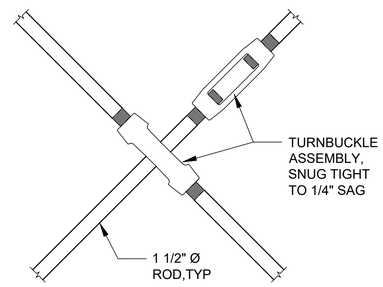
5 - SECTION DETAIL OUTRIGGER CONNECTION
1 1/2" = 1'-0"



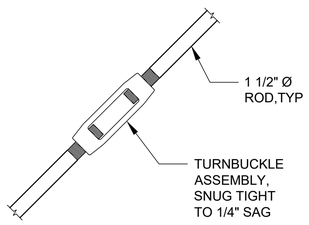
6 - DETAIL
1 1/2" = 1'-0"



7 - DETAIL
3" = 1'-0"



8 - TYPICAL CROSS BRACE INTERSECTION
1 1/2" = 1'-0"



9 - TYPICAL TURNBUCKLE DETAIL
1 1/2" = 1'-0"

NOTES:

1. REFER TO ARCH DRAWINGS FOR CANOPY GEOMETRY AND ELEVATION
2. ALL PLATES FOR CANOPY ARE ASTM A 572M GRADE 50 KSI
3. ALL WELDS FOR THE CANOPY ARE PRE-QUALIFIED COMPLETE PENETRATION WELDS UNLESS NOTED OTHERWISE

100% RFC SUBMISSION

DESIGNED	SD
DRAWN	SD
CHECKED	RA
APPROVED	MM

NO.	DATE		DRWN	CHKD	APPVD

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NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

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STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

TYPICAL ELEVATOR STEEL DETAILS 3 OF 3

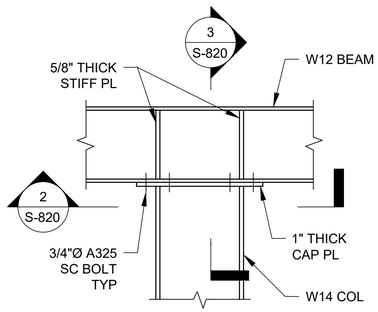
HARTSDALE STATION

CONTRACT NO.
1000106733

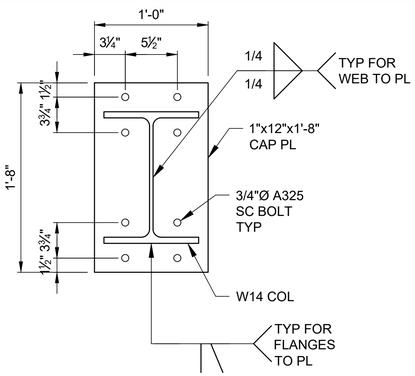
SCALE: AS NOTED
DATE: 07/09/2021

DRAWING NO.
HTD-S-812

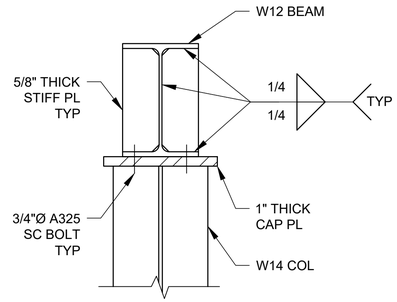
SHEET 64 OF 99



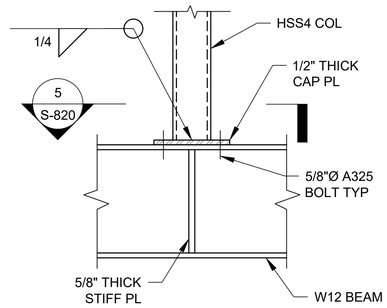
1 - TYPICAL BEAM TO COLUMN CONN DETAIL
1"=1'-0" 0 1' 2'



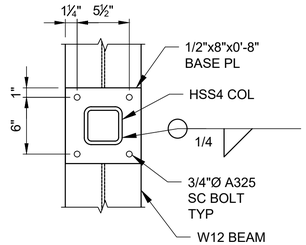
2 - SECTION
1 1/2"=1'-0" 0 1' 1' 6"



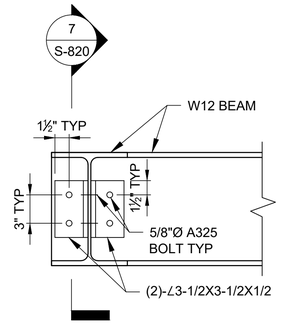
3 - SECTION
1 1/2"=1'-0" 0 1' 1' 6"



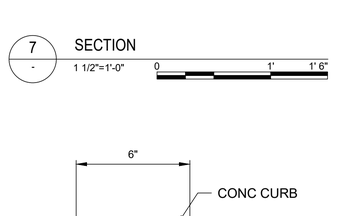
4 - TYPICAL ROOF COLUMN TO BEAM CONN DETAIL
1 1/2"=1'-0" 0 1' 1' 6"



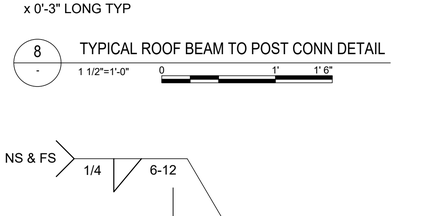
5 - SECTION
1 1/2"=1'-0" 0 1' 1' 6"



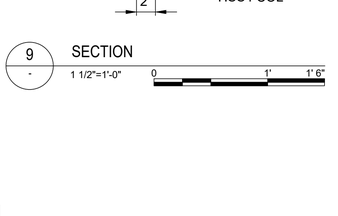
6 - TYPICAL BEAM TO BEAM CONN DETAIL
1 1/2"=1'-0" 0 1' 1' 6"



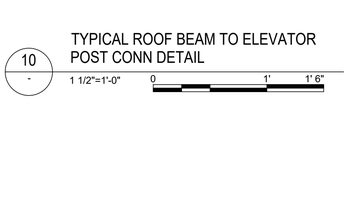
7 - SECTION
1 1/2"=1'-0" 0 1' 1' 6"



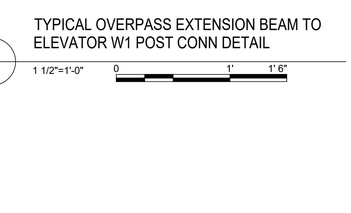
8 - TYPICAL ROOF BEAM TO POST CONN DETAIL
1 1/2"=1'-0" 0 1' 1' 6"



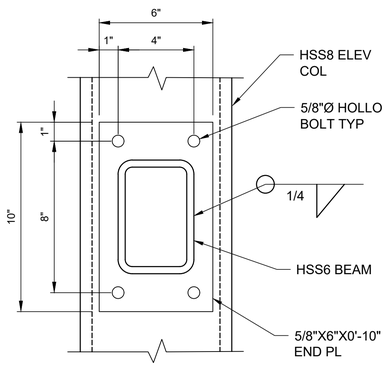
9 - SECTION
1 1/2"=1'-0" 0 1' 1' 6"



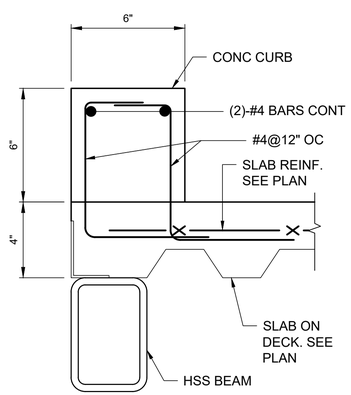
10 - TYPICAL ROOF BEAM TO ELEVATOR POST CONN DETAIL
1 1/2"=1'-0" 0 1' 1' 6"



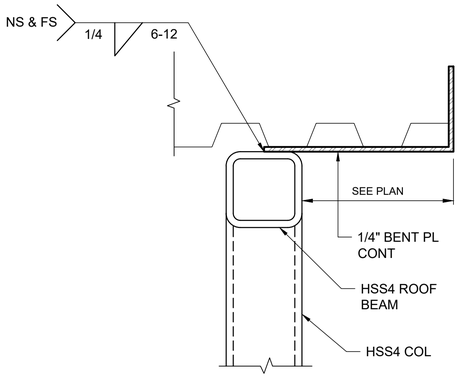
11 - TYPICAL OVERPASS EXTENSION BEAM TO ELEVATOR W1 POST CONN DETAIL
1 1/2"=1'-0" 0 1' 1' 6"



12 - TYPICAL OVERPASS BEAM TO ELEVATOR E1 POST CONN DETAIL
3"=1'-0" 0 3" 6" 9"



13 - TYPICAL EDGE OF SLAB CURB DETAIL
3"=1'-0" 0 3" 6" 9"



14 - TYPICAL ROOF OVERHANG DETAIL
3"=1'-0" 0 3" 6" 9"

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APPROVED	MM

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STV 100 Years
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MTA Metro-North Railroad
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TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

TYPICAL STEEL DETAILS

HARTSDALE STATION

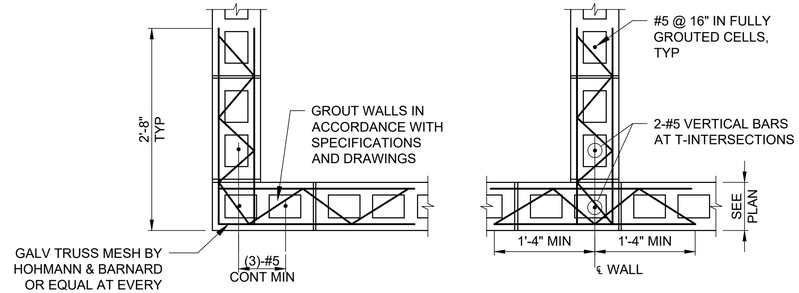
CONTRACT NO. 1000106733

SCALE AS NOTED

DATE 07/09/2021

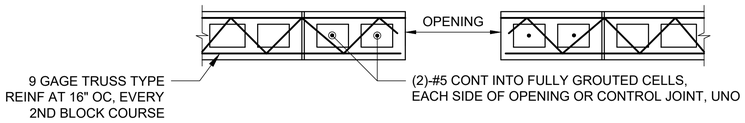
DRAWING NO. HTD-S-820

SHEET 65 OF 99



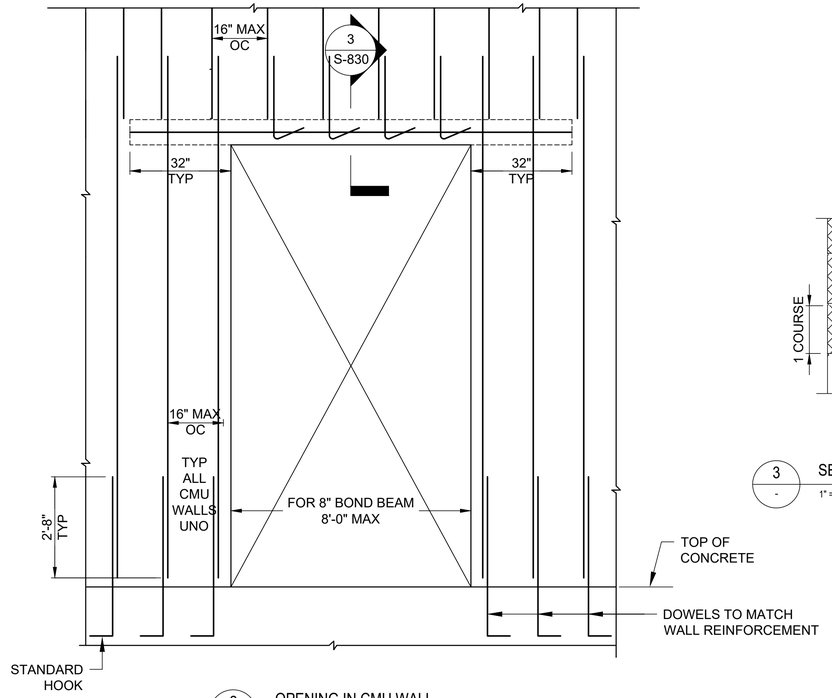
PLAN AT CORNERS

PLAN AT TEE INTERSECTION

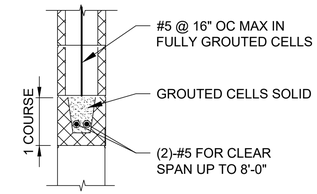


PLAN AT FREE END OR AT CONTROL JOINT

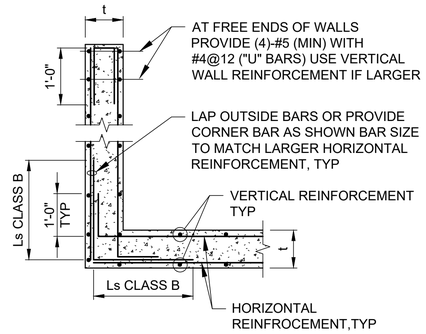
1 - CMU WALL REINF TYPICAL DETAILS
1" = 1'-0"



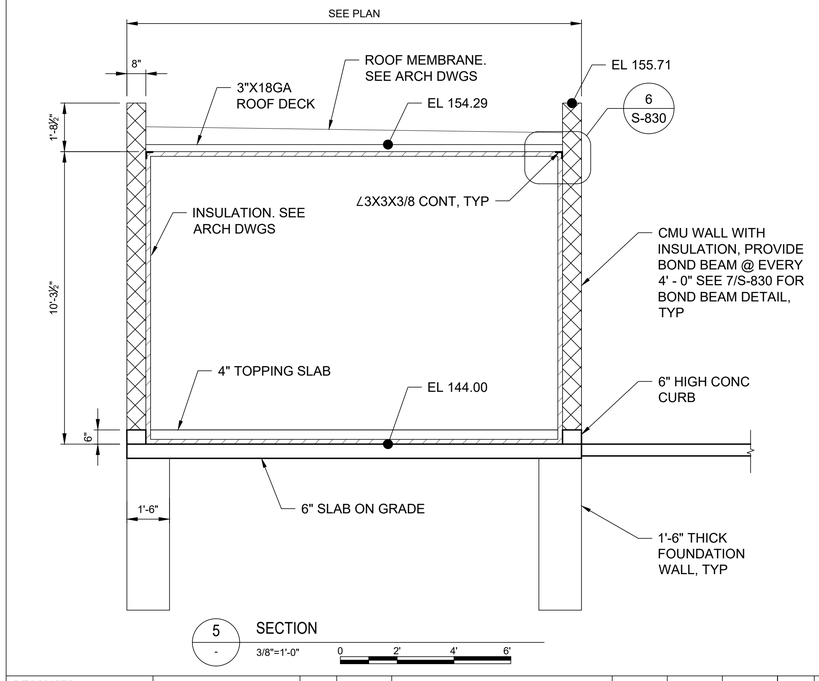
2 - OPENING IN CMU WALL
1/2" = 1'-0"



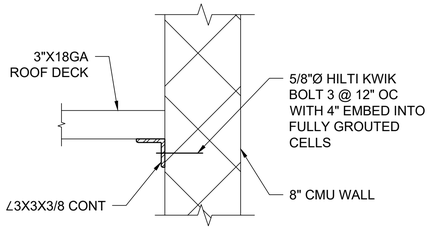
3 - SECTION DETAIL
1" = 1'-0"



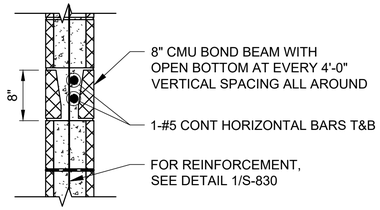
4 - HORIZONTAL REINF AT CORNERS AND AT FREE ENDS
3/4" = 1'-0"

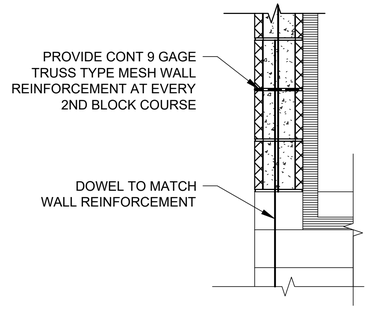


5 - SECTION
3/8"=1'-0"



6 S-830 - SECTION
1 1/2"=1'-0"





7 - TYPICAL CMU WALL SECTION
1" = 1'-0"

100% RFC SUBMISSION

DESIGNED	SD
DRAWN	SD
CHECKED	AK
APPROVED	MM

NO.	DATE		DRWN	CHKD	APPVD

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NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

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NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

MISCELLANEOUS DETAILS

HARTSDALE STATION

CONTRACT NO.	
1000106733	
SCALE	DATE
AS NOTED	07/09/2021

DRAWING NO.
HTD-S-830

SHEET 66 OF 99

GENERAL DEMOLITION NOTES:

1. UNLESS OTHERWISE NOTED REMOVE ALL LIGHT FIXTURES DEVICES, ELECTRICAL EQUIPMENT AND THEIR ASSOCIATED POWER SUPPLY CABLE AND CONDUIT IN THE AREAS WHERE REMOVAL WORK IS INDICATED ON THE DEMOLITION PLANS.

2. REMOVE ALL EXISTING ELECTRICAL EQUIPMENT NOT INDICATED TO REMAIN OR THAT ARE NOT SERVING EXISTING LOADS. PULL OUT EXISTING WIRING BACK TO THE PANEL BOARDS AND PROVIDE BLANK PLATES AS REQUIRED.

3. EXISTING EQUIPMENT TO REMAIN SHALL RETAIN ITS ORIGINAL POWER SOURCE UON.

4. ALL ELECTRICAL EQUIPMENT WITH DISCONNECTED LOADS SHALL HAVE THE POWER SOURCE BREAKER LOCKED IN OPEN POSITION FOR SAFETY.

5. ALL WIRING SHALL BE NEW, UON. SPLICES TO EXTEND EXISTING WIRING SHALL BE MADE ONLY IN ACCESSIBLE JUNCTION BOX OR TO THE NEAREST JUNCTION/OUTLET BOX WHERE EXISTING WIRING CAN BE CUT AND SPLICED.

6. THE CONTRACTOR SHALL DISCONNECT THE CIRCUIT WIRING AND REMOVE ALL WIRING MATERIALS, INCLUDING CONDUITS THAT ARE EXPOSED DUE TO DEMOLITION OR WHICH IMPEDE THE NEW WORK, OR WHICH ARE UNSIGHTLY.

7. AS INDICATED ON PLANS OR SPECIFICATION, ALL EXISTING EQUIPMENT TO BE RE-USED AND RELOCATED AFTER REMOVAL OF LOADS SHALL BE POWERED. PROVIDE NEW CABLE AND CONDUIT OR EXTEND EXISTING CONDUIT AS REQUIRED AND PROVIDE NEW WIRING.

8. REFER TO THE CONTRACT DRAWINGS FOR THE EXTENT OF DEMOLITION WORK REQUIRED, INCLUDING ANY OR ALL ITEMS WHETHER OR NOT SPECIFICALLY MENTIONED OR INDICATED WHICH INTERFERE WITH OR ARE UNNECESSARY TO THE PROPOSED CONSTRUCTION AND FINISHES. DISPOSAL OF ALL REMOVED MATERIALS AND RUBBISH SHALL BE AT THE CONTRACTORS EXPENSE.

9. WORK SHALL PROCEED ONLY ON A SCHEDULE APPROVED BY METRO NORTH RAILROAD FACILITY, AND ALL WORK SHALL BE COORDINATED WITH THE STATION WORK SCHEDULE TO MINIMIZE INCONVENIENCE AND DISTURBANCE. WORK NORMALLY HANDLED BY HEATING AND VENTILATING, PLUMBING AND FIRE PROTECTION AND ELECTRICAL CONTRACTOR SHALL BE DEMOLISHED AND REMOVED BY SUCH CONTRACTORS.

10. AT HARTSDALE STATION EXISTING 400A SERVICE, CURRENT TRANSFORMER, AND UTILITY COMPANY METER PAN SHALL REMAIN UNTIL THE NEW SERVICE IS INSTALLED.

11. AT HARTSDALE STATION EXISTING MDP WILL REMAIN. EXTEND CABLES AND CONDUITS FOR NEW POWER SOURCE AS REQUIRED AND AS INDICATED. SEE DRAWING HTD-E-402.

12. CONTRACTOR SHALL MAINTAIN CONTINUOUS POWER SERVICES TO THE STATION THROUGHOUT THE DURATION OF CONSTRUCTION. COORDINATE ALL REQUIRED SHUTDOWNS WITH CON EDISON AND METRO NORTH RAILROAD TO MINIMIZE POWER DISRUPTION. CONTRACTOR SHALL PROVIDE PORTABLE GENERATOR AS REQUIRED TO MAINTAIN SERVICE DURING SWITCHOVERS. SWITCHOVERS SHALL ONLY BE ALLOWED DURING 3RD SHIFT OR WEEKENDS WITH 14 DAYS ADVANCED WRITTEN NOTICE TO METRO-NORTH RAILROAD AND CON EDISON.

13. THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITIES AND SERVICES THROUGHOUT THE EXECUTION OF WORK.

14. IDENTIFY ALL SOURCES OF POWER AND DE-ENERGIZE REQUIRED CIRCUITS BEFORE COMMENCEMENT OF WORK.

15. ALL DEMOLITION WORK SHALL CONFORM WITH NEC, NYS CODE, LOCAL CODE AND MNR REQUIREMENTS.

17. THE CONTRACTOR SHALL NOT REMOVE ANY EXISTING CABLES OR COMPONENTS WITHOUT PRIOR WRITTEN NOTICE TO PROCEED FROM THE ENGINEER

GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE, NATIONAL ELECTRIC SAFETY CODE, CON EDISON, NYS UNIFORM FIRE PREVENTION AND BUILDING CODE, OSHA REGULATIONS, AND ALL OTHER EXISTING CODES AND REGULATIONS OF AUTHORITIES WHICH WOULD HAVE JURISDICTION.

2. GENERAL NOTES APPLY TO ALL ELECTRICAL, FIRE ALARM, AND LIGHTING DRAWINGS UNDER THIS CONTRACT. REFER TO INDIVIDUAL DRAWINGS FOR ADDITIONAL NOTES.

3. THE CONTRACT DRAWINGS ARE DIAGRAMMATIC IN NATURE AND NOT EVERY DETAIL OR CONDUIT IS SHOWN. ANY DEPARTURE FROM CONCEPT SHOWN IN THE CONTRACT DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

4. THE CONTRACTOR SHALL PRODUCE SHOP DRAWINGS AND SUBMIT THEM TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. SHOP DRAWINGS SHALL INCLUDE, BUT NOT BE LIMITED TO:

   a) INTERCONNECTING RACEWAY, FEEDER AND CIRCUITING PLANS, AND SECTIONS IN ALL ELECTRIC SPACES FOR OVERPASS, PLATFORM, PASSAGE WAY, EMR AND ANY OTHER AFFECTED AREAS.
   b) DIMENSIONED INSTALLATION LAYOUTS OF THE EQUIPMENT, PANELS, BOXES, LIGHTING FIXTURES, RACEWAYS AND SUPPORT ITEMS.
   c) PHYSICAL LAYOUT OF CONTRACTOR PROVIDED CUSTOM EQUIPMENT SUCH AS CABINETS, PANELS, RELAY BOXES, PULL AND TERMINAL BOXES, MANHOLES, ETC.
   d) INTERCONNECTION WIRING DIAGRAMS BETWEEN RELATED EQUIPMENT AND PANEL SCHEDULES.

5. CABLES RATED 600VAC SHALL BE TYPE XHHW-2 FOR EXTERIOR LOCATIONS AND TYPE XHHW-2 OR DUAL RATED THHW/THWN IN INDOOR LOCATIONS UNLESS OTHERWISE NOTED. UTILITY 208/120V SERVICE CONDUCTORS SHALL BE TYPE USE-2/RHW-2, AS PER SPEC SECTION 26 05 19.

6. ELBOWS AND STUB-UPS THROUGH CONCRETE FOUNDATIONS AND SLABS SHALL BE RIGID GALVANIZED STEEL, UNLESS OTHERWISE NOTED.

7. FURNISH AND INSTALL GROUND WIRE IN ALL CONDUIT RUNS FOR 120V CIRCUIT OR HIGHER, SIZED PER NATIONAL ELECTRIC CODE BUT NOT LESS THAN #12 AWG.

8. UNDERGROUND ELECTRICAL CONDUITS ROUTING ON PLANS ARE SHOWN FOR CLARITY ONLY. EXACT ROUTING AND TERMINATION LOCATION SHALL BE COORDINATED IN THE FIELD WITH THE EXISTING UNDERGROUND UTILITIES AND ADJACENT INFRASTRUCTURES.

9. CONDUITS SHALL CONTAIN AN INSULATED GROUND WIRE BONDED TO ENCLOSURES AND SIZED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEC, IF SIZE IS NOT SHOWN ON THE CONTRACT DRAWINGS.

10. UNLESS OTHERWISE NOTED, EQUIPMENT AND MATERIAL TO BE FURNISHED AND INSTALLED SHALL BE NEW AND SHALL BEAR UL LISTING AND LABELING WHERE SUCH STANDARD HAS BEEN ESTABLISHED FOR THAT TYPE OF EQUIPMENT/MATERIAL.

11. FURNISH AND INSTALL TAGS FOR EQUIPMENT, CONDUITS AND CABLES THAT ARE INSTALLED UNDER THIS CONTRACT. TAG IDENTIFICATIONS SHALL BE IN ACCORDANCE WITH CONTRACT DRAWINGS.

12. FURNISH AND INSTALL CONDUIT FITTINGS, CONDUITS, CONNECTORS, CLAMPS, HARDWARE AND SUPPORTS AS NECESSARY FOR A COMPLETE INSTALLATION.

13. RACEWAYS RUNNING THROUGH STRUCTURE CONSTRUCTION JOINTS SHALL BE EQUIPPED WITH EXPANSION AND DEFLECTION FITTINGS.

14. UON, CABLE, CONDUIT AND EQUIPMENT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT ARE SHOWN IN HEAVY LINES. EXISTING EQUIPMENT AND WIRING IS SHOWN BY LIGHT LINES.

15. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL PERMITS NECESSARY TO PERFORM THE WORK SHOWN ON THESE DRAWINGS FROM THE APPROPRIATE AGENCIES PRIOR TO COMMENCEMENT.

16. THE CONTRACTOR SHALL USE CARE IN PERFORMING THE WORK SO AS NOT TO DAMAGE EXISTING STRUCTURE OR EQUIPMENT. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER, AND TO THE FULL SATISFACTION OF THE ENGINEER.

17. UPON COMPLETION OF ALL ELECTRICAL WORK, ELECTRICAL CONTRACTOR SHALL BALANCE ALL PANELBOARDS AFFECTED TO WITHIN 10% DEVIATION BETWEEN PHASES.

18. AFTER COMPLETION OF WORK, CLEAN UP ALL RESULTANT DEBRIS AND REMOVE FROM THE SITE.

19. CONTRACTOR SHALL PROVIDE COORDINATION STUDY FOR ALL THE OVERCURRENT PROTECTION DEVICES SPECIFIC TO THE EQUIPMENT TO BE PURCHASED AND INSTALLED.

20. CONTRACTOR SHALL PROVIDE NEW ELECTRICAL SERVICE, SERVICE EQUIPMENT AND COORDINATE WITH CON EDISON AS SHOWN IN THE PLANS. ALL SERVICE EQUIPMENT AND INSTALLATION SHALL COMPLY WITH CON EDISON REQUIREMENTS.

21. CON EDISON CONTACT IS SEAN WALDRON - EMAIL ADDRESS IS WALDRONS@CONED.COM

22. PROVIDE CONDUIT ROUTING PLAN TO MNR FOR APPROVAL. DO NOT INSTALL CONDUIT ON GLASS-FACED ELEVATOR.

23. CONDUIT INSTALLED ABOVE GROUND OUTDOORS SHALL BE PVC COATED RIGID GALVANIZED STEEL.

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	WF
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK
GERI I. GOLDMAN
LICENSED PROFESSIONAL ENGINEER
No. 075965

NO.	DATE		DRWN	CHKD	APPVD

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STV 100 Years
225 PARK AVENUE SOUTH,
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MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
ELECTRICAL GENERAL NOTES
HARTSDALE STATION

CONTRACT NO. 1000106733
SCALE
DATE 08/03/2021
DRAWING NO. HTD-E-001
SHEET 67 OF 99

ELECTRICAL SYMBOLS

(J) OR (J)	JUNCTION BOX AS REQUIRED
	BRANCH CIRCUIT HOME RUN TO PANELBOARD. INDICATES PANEL CIRCUIT DESIGNATION
	LIGHT LINE - EXISTING EQUIPMENT/CONDUIT TO REMAIN
	DARK LINE 1. NEW POWER EQUIPMENT TO BE INSTALLED OR 2. NEW POWER CONDUIT TO BE INSTALLED EXPOSED ABOVE MEZZ./PLATFORM STRUCTURE OR IN ROOMS (U.O.N.)
	DARK DASHED LINE - CONDUIT CONCEALED EMBEDDED IN CONCRETE
	CONDUIT TURNING DOWN
	CONDUIT TURNING UP
G WP	GFCI DUPLEX RECEPTACLE, 20A, 120VAC. G - INDICATES GROUND FAULT CIRCUIT INTERRUPTER (GFCI) WP - INDICATES WEATHER PROOF IG - INDICATES ISOLATED GROUND
	ENCLOSED CIRCUIT BREAKER, RATING AS INDICATED ON PLANS, SQUARE "D", OR APPROVED EQUAL.
OR X	PANELBOARD, 120-208VAC, 3PH, 4W, S.N. SIZE AS INDICATED ON PLANS X INDICATES NAME OF PANEL.
WP OR	FUSED DISCONNECT SWITCH, AMPERE, POLE AND FUSE SIZE AS INDICATED, 60" AFF., WP INDICATES WEATHER PROOF.
WP OR	UNFUSED DISCONNECT SWITCH, AMPERE AND POLE AS INDICATED, 60" AFF, WP INDICATES WEATHER PROOF.
M	ELECTRIC MOTOR
M	METER
(J) OR (J)	JUNCTION BOX TO BE REMOVED
	EXISTING FIXTURE TO BE REMOVED
	LIGHT DOTTED LINE - REMOVALS
	ELECTRICAL PANEL TO BE REMOVED
	DISCONNECT SWITCH TO BE REMOVED
	EXISTING PANEL TO REMAIN
M	EXISTING METER TO BE REMOVED
	EXISTING POLE-MOUNTED LIGHTING FIXTURE TO BE REMOVED
	ELECTRIC UNIT HEATER
	EXISTING ELECTRIC UNIT HEATER TO BE REMOVED
PLB	PROPERTY LINE BOX
SPD	SURGE PROTECTION DEVICE
S	TOGGLE SWITCH, 30A, 120-277 VAC, IP, PASS AND SEYMOUR CAT. NO. 30AC1. MOUNTED IN CROUSE HINDS "FD" BOX WITH LUGS AND HUB

ABBREVIATIONS:

A	AMPERES
AF	AMP FUSE
AF	AMP FRAME
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AT	AMP TRIP
AS	AMPERE SWITCH
AWG	AMERICAN WIRE GAUGE
C	CONDUIT, CONDUCTOR
CONT	CONTINUATION
DS	DISCONNECT SWITCH
DWG(S)	DRAWING(S)
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMR	ELEVATOR MACHINE ROOM
E	EXISTING
EM	EMERGENCY FIXTURE
ER	EXISTING TO REMAIN
FDR	FEEDER
G	GROUND
GF	GROUND FAULT
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
H	HERTZ
IN	INCH
JB	JUNCTION BOX
KW	KILOWATT
LED	LIGHT EMITTING DIODE
LP	LIGHTING POLE
LV	LOW VOLTAGE
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MDS	MAIN DISTRIBUTION SWITCHBOARD
MIN	MINIMUM
MNR	METRO NORTH RAILROAD
MSB	MAIN SWITCHBOARD
N	NEUTRAL
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION
No	NUMBER
NTS	NOT TO SCALE
PCD	PRECAST CONCRETE DUCT
PH	PHASE
PLB	PROPERTY LINE BOX
PNL	PANELBOARD
PP	POWER PANEL
R	REMOVE
RGS	RIGID GALVANIZED STEEL
SCH	SCHEDULE
SDB	SECOND DISTRIBUTION BOARD
SEC	SECONDARY
SWBD	SWITCHBOARD
TYP.	TYPICAL
UL	UNDERWRITER'S LABORATORY
UON	UNLESS OTHERWISE NOTED
V	VOLT
VAC	VOLT ALTERNATING CURRENT
W	WATTS
WP	WEATHERPROOF

LIGHTNING PROTECTION SYMBOLS

•	AIR TERMINAL
	LIGHTNING PROTECTION CONDUCTOR
o	DOWN LEAD
	GROUND ROD

GROUNDING SYMBOLS

	GROUND ROD
■	EXOTHERMIC WELD
	GROUND TEST WELL

GROUNDING CONNECTIONS - ALL CONNECTIONS TO BE THERMOWELD

TYPE OF CONNECTION	WELDED CADWELL CAT#	TYPE OF CONNECTION	WELDED CADWELL CAT#
CABLE TO LUG (LUG, CABLE)	LA	CABLE TO PIPE (CABLE, PIPE OR CONDUIT)	HA OR VS
CABLE TO ROD (ROD, CABLE)	GT		-
ROD, CABLE	GR	CABLE TO FLAT SURFACE (CABLE)	HA OR HS
CABLE TO CABLE (CABLE)	TV OR TA		

LIGHTING SCHEDULE

SYMBOL	ID	DESCRIPTION	MOUNTING TYPE	MANUFACTURER	MODEL #	LUMENS	VOLTAGE	LAMP TYPE	COLOR TEMP (K)	INPUT WATTS	REMARKS
▬	AA	48" EMS LED FIXTURE, 4000 LM, FROSTED OPTIC, WET IP66 RATED WITH BUILT-IN EMERGENCY BATTERY	SURFACE	HOLOPHANE	*EMS L48 4000LM IMAFD WD 120 GZ10 40K 80CRI BSL520 DPMD SPD STSL TRS	6321	120	LED	4000	44.58	EMR
▬	B	4.5' LED STRIP ARCHWAY PASSAGE FIXTURE,6000 LUMENS, FROSTED POLYCARBONATE LENS, WET IP66 RATED	SURFACE	HOLOPHANE	EVT4 6000LM FST MD MVOLT GZ10 35K 80CRI STSL	5637	120	LED	3000	63.73	OVERPASS ELEV LOBBY
▬	BB	SAME AS "B" EXCEPT WITH EMERGENCY BATTERY	SURFACE	HOLOPHANE	*EVT4 6000LM FST MD MVOLT GZ10 35K 80CRI E15WCP STSL	5637	120	LED	3000	63.73	OVERPASS ELEV LOBBY
□	VR	SURFACE VANDAL RESISTANT, LED, 12.75" x 12.75", 300K, 0.156" K12 PRISMATIC POLYCARBONATE, LISTED FOR WET LOCATION - PROVIDE EMERGENCY BATTERY	SURFACE	ECLIPSE LIGHTING	*RM533 SERIES LED 3K 120 BZ 81 9002 FUS	5200	120	LED 40	3000	40	PLATFORM ELEV CANOPY
○	P	WALL/CEILING MOUNTED VAPOR TIGHT FIXTURE. LISTED FOR WET LOCATION.	WALL MOUNTED	PHONEIX	VP-W-26-120-GPC-G	1710	120	QUAD CFL	3000	26	ELEVATOR PIT
▭	W	15.5" WALPACK FULL CUTOFF LED EXTERIOR BUILDING FIXTURE - PROVIDE BUILT IN PHOTOCELL AND EMERGENCY BATTERY.	SURFACE	HOLOPHANE	*HLWPC2 P30 30K 12 T3M AO	7058	120	LED	3000	71	EMR OUTDOOR

*MODEL NUMBERS DO NOT INCLUDE BATTERY PACK. CONTRACTOR TO PROVIDE BATTERY PACKS WHERE INDICATED.

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	SK
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK GERI L GOLDMAN LICENSED PROFESSIONAL ENGINEER No. 032868

NO.	DATE		DRWN	CHKD	APPVD

REVISION

CONFORMED

NO.	DATE		DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH, NEW YORK, NY 10003

Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ELECTRICAL SYMBOL LIST AND ABBREVIATIONS

HARTSDALE STATION

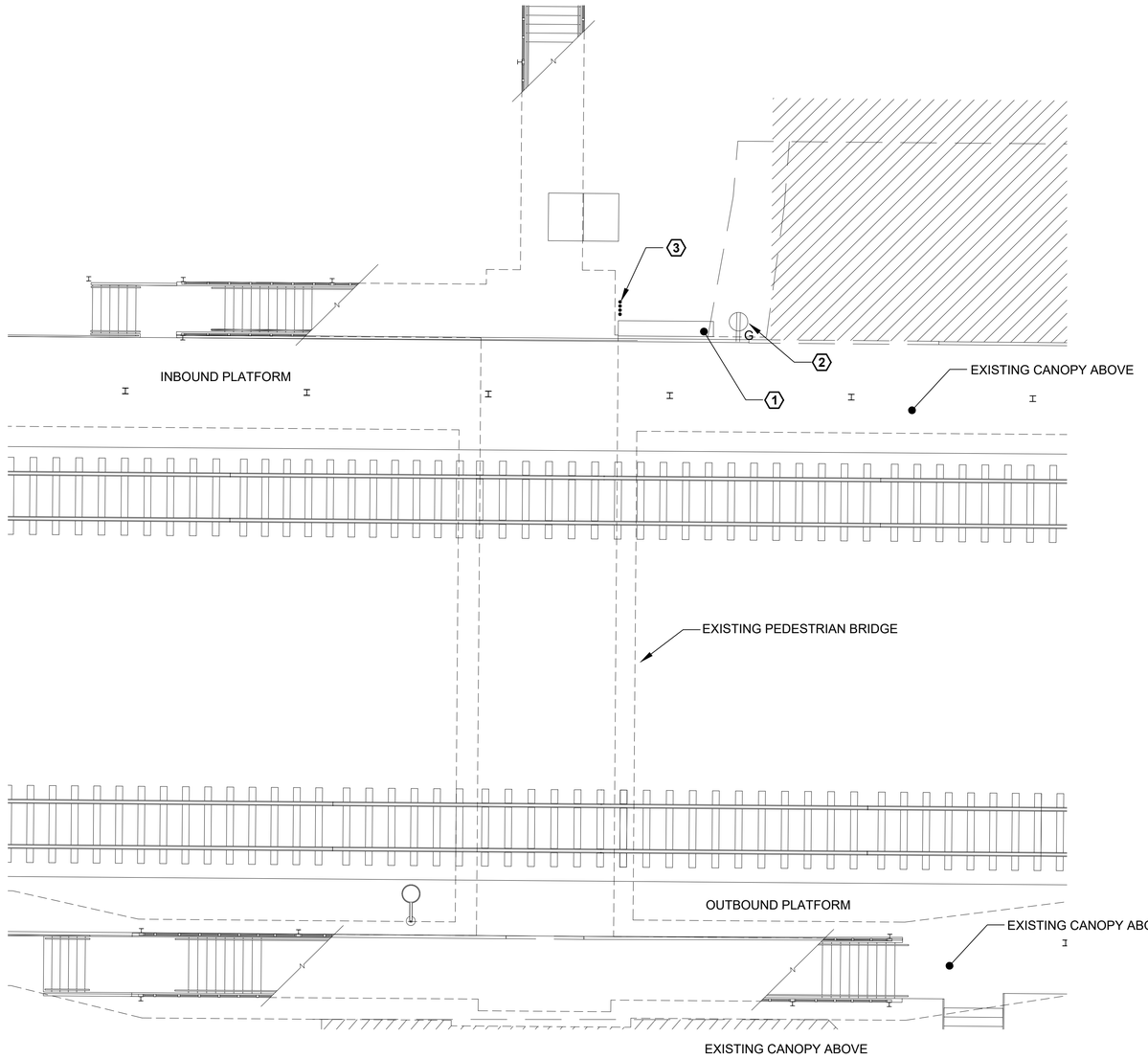
CONTRACT NO. 1000106733

SCALE

DATE 08/03/2021

DRAWING NO. HTD-E-002

SHEET 68 OF 99



NOTES:

1. FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS SEE DRAWINGS HTD-E-001 AND HTD-E-002.

KEY NOTES:

(1) EXISTING ELECTRICAL DISTRIBUTION PANEL - TO REMAIN, PROTECT DURING CONSTRUCTION.

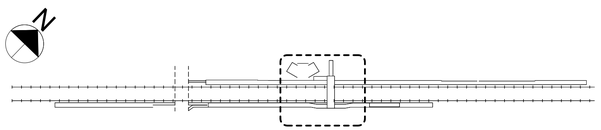
(2) EXISTING DUPLEX, 120V, 20A, GROUNDED RECEPTACLE, WEATHER PROOF - TO REMAIN, PROTECT DURING CONSTRUCTION.

(3) EXISTING CONDUITS, AT THE SIDE OF THE PEDESTRIAN BRIDGE WHERE THE EXTENSION OF THE BRIDGE WILL BE CONSTRUCTED SHALL BE PROTECTED DURING CONSTRUCTION.

1 ELECTRICAL DEMOLITION POWER PLAN - PLATFORM LEVEL

1/8"=1'-0"

0 4' 8' 16'



100% RFC SUBMISSION

DESIGNED	VC
DRAWN	WF
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK GERI I. GOLDMAN LICENSED PROFESSIONAL ENGINEER No. 032868

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
ELECTRICAL DEMOLITION POWER PLAN - PLATFORM LEVEL
HARTSDALE STATION

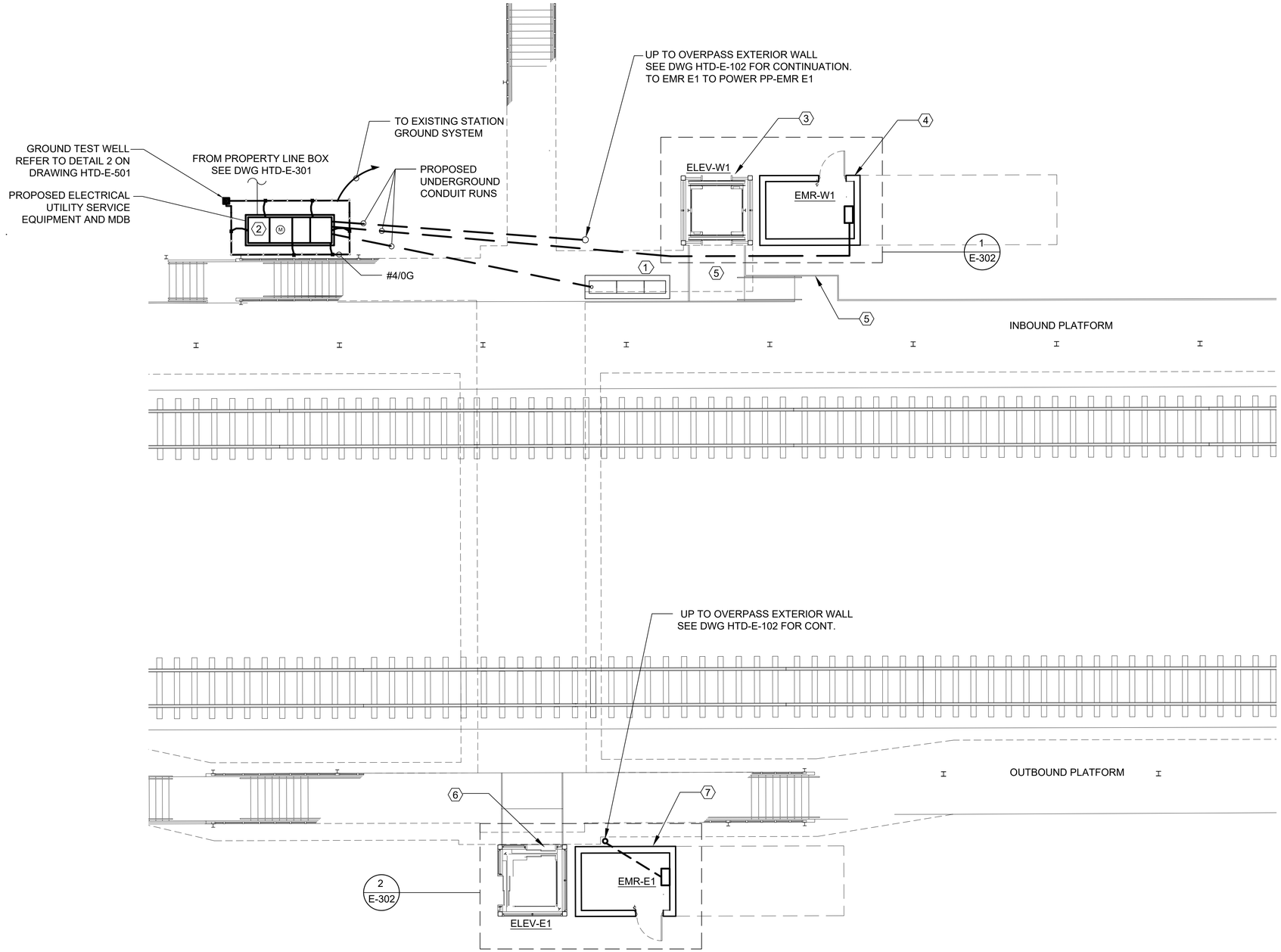
CONTRACT NO. 1000106733

SCALE 1/8"=1'-0"

DATE 08/03/2021

DRAWING NO. HTD-ED-101

SHEET 69 OF 99



1 ELECTRICAL POWER PLAN - PLATFORM LEVEL

1/8"=1'-0"

NOTES:

1. FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS SEE DRAWINGS HTD-E-001 AND HTD-E-002.
2. SEE DRAWING HTD-E-402 FOR ELECTRICAL SINGLE LINE DIAGRAM.

KEY NOTES:

1. EXISTING ELECTRICAL MAIN SERVICE ENCLOSURE "MDP" - SEE DRAWING HTD-E-401 FOR EXISTING ONE LINE DIAGRAM.
2. NEW ELECTRICAL SERVICE EQUIPMENT WITH MAIN DISTRIBUTION BOARD. SEE DRAWING HTD-E-402 FOR NEW ONE LINE DIAGRAM FOR FEEDER SIZE.
3. ELEVATOR W1 - PROVIDE POWER TO THE ELEVATOR AND ITS AUXILIARY EQUIPMENT. SEE DRAWING HTD-E-302 & 403 FOR DETAILS.
4. ELEVATOR W1 ELEVATOR MACHINE ROOM (EMR) - PROVIDE POWER TO ELEVATOR MACHINE ROOM FROM NEW DISTRIBUTION BOARD ON INBOUND SIDE OF TRACKS. SEE DRAWINGS HTD-E- 302, 402, & 403, FOR DETAILS.
5. INBOUND PLATFORM EXTENSION
6. ELEVATOR E1 PROVIDE POWER TO THE ELEVATOR AND ITS AUXILIARY EQUIPMENT. SEE DRAWING HTD-E-302 & 403 FOR DETAILS.
7. ELEVATOR E1 ELEVATOR MACHINE ROOM (EMR) - PROVIDE POWER TO ELEVATOR MACHINE ROOM FROM NEW DISTRIBUTION BOARD ON INBOUND SIDE OF TRACKS. SEE DRAWINGS HTD-E- 302, 402 & 403 FOR DETAILS.

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	SK
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK GERI L GOLDMAN LICENSED PROFESSIONAL ENGINEER No. 032858

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ELECTRICAL POWER PLAN - PLATFORM LEVEL

HARTSDALE STATION

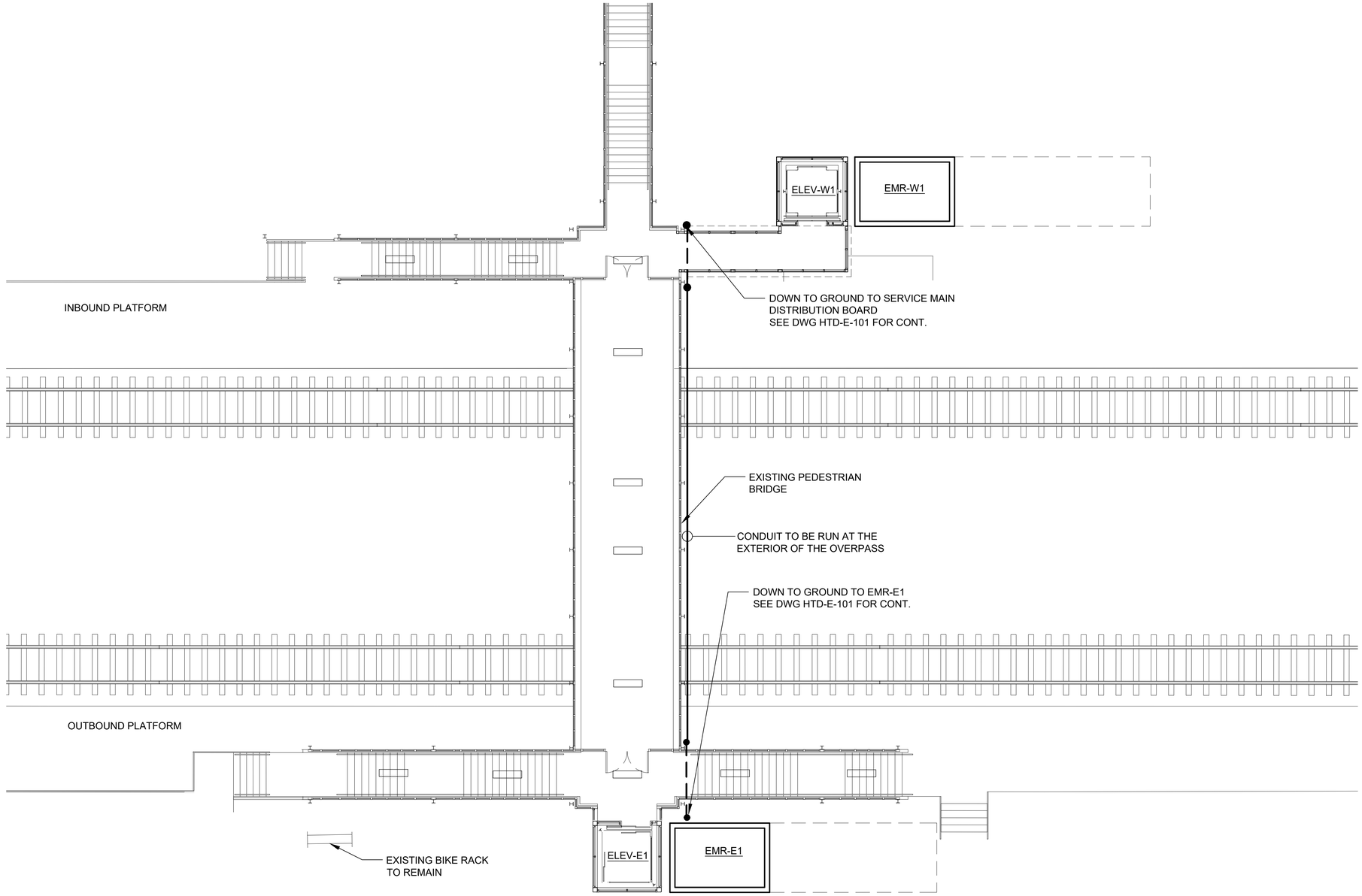
CONTRACT NO.	
1000106733	
SCALE	DATE
1/8"=1'-0"	08/03/2021

DRAWING NO.
HTD-E-101

SHEET 70 OF 99

NOTES:

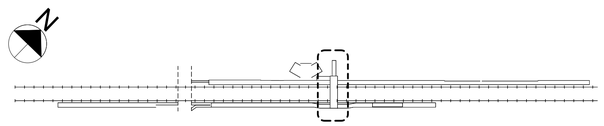
1. FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS SEE DRAWINGS HTD-E-001 AND HTD-E-002.
2. INSTALL PANEL EMR-E1 FEEDER CONDUIT AT THE EXTERIOR OF THE PEDESTRIAN BRIDGE. COORDINATE EXACT LOCATION WITH EXISTING CONDITION AND WITH OTHER TRADES.
3. SEE DRAWING HTD-E-402 FOR ELECTRICAL SINGLE LINE DIAGRAM.



1 ELECTRICAL POWER PLAN - OVERPASS LEVEL

1/8"=1'-0"

0 4' 8' 16'



KEY PLAN

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	SK
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK GERI L. GOLDMAN LICENSED PROFESSIONAL ENGINEER No. 032858

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

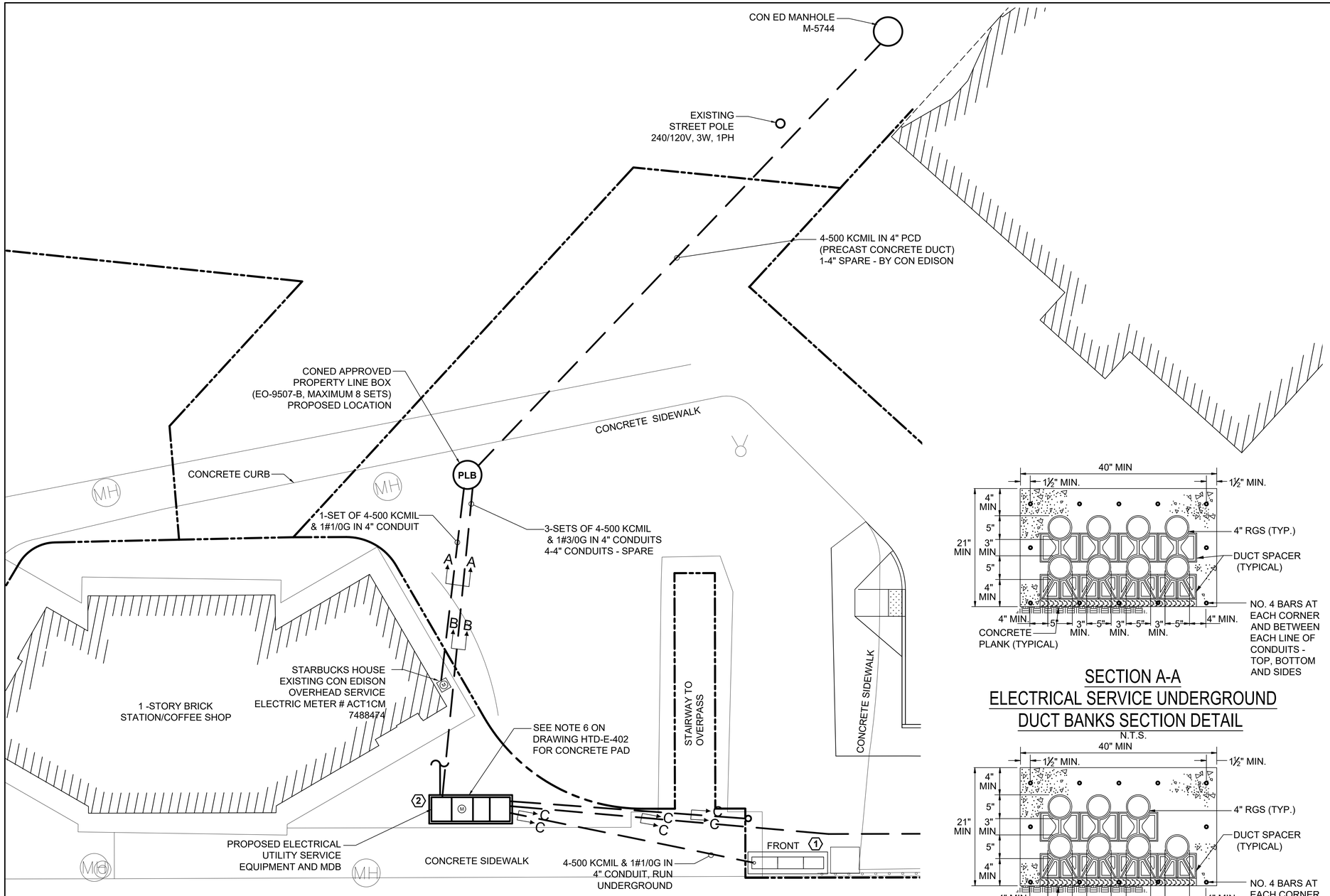
TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
ELECTRICAL POWER PLAN - OVERPASS LEVEL
HARTSDALE STATION

CONTRACT NO. 1000106733

SCALE 1/8"=1'-0" | DATE 08/03/2021

DRAWING NO. HTD-E-102

SHEET 71 OF 99



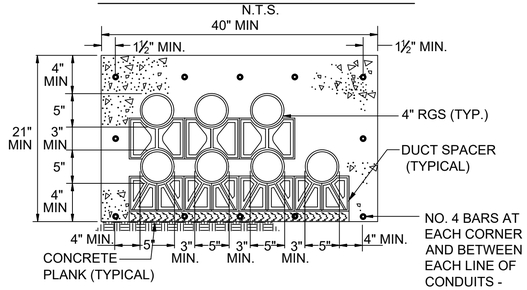
KEY PLAN

1 ELECTRICAL SERVICE PLAN

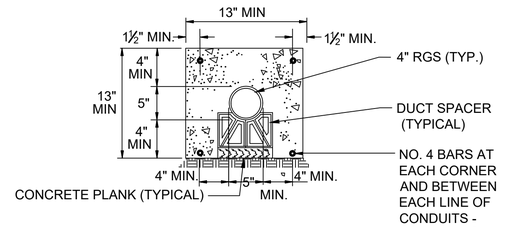
1/8"=1'-0"

0 2' 4' 8' 16'

SECTION A-A
ELECTRICAL SERVICE UNDERGROUND
DUCT BANKS SECTION DETAIL
N.T.S.



SECTION B-B
ELECTRICAL SERVICE UNDERGROUND
DUCT BANKS SECTION DETAIL
N.T.S.



SECTION C-C
ELECTRICAL SERVICE UNDERGROUND
DUCT BANKS SECTION DETAIL
N.T.S.

NOTES:

1. FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS SEE DRAWINGS HTD-E-001 AND HTD-E-002.
2. REFER TO DWG. HTD-E-402 FOR SINGLE LINE DIAGRAM AND FEEDER SIZES.
3. CONED WILL PROVIDE NEW ELECTRICAL SERVICE FROM THEIR MANHOLE M-5744 AND INSTALL 2 PRECAST CONCRETE DUCT AND 1 SET OF 4-500 KCMIL FROM THEIR MANHOLE TO THE STATION PROPERTY MANHOLE. PROPERTY LINE BOX TO BE INSTALLED BY CONTRACTOR.
4. FURNISH AND INSTALL NEW FEEDER CABLE AND CONDUIT FROM THE NEW DISTRIBUTION PANEL TO THE EXISTING MAIN DISTRIBUTION PANEL .
5. COORDINATE EXACT LOCATION OF THE PROPERTY LINE MANHOLE WITH THE CIVIL FOR THE INTERFERENCE WITH THE EXISTING UNDERGROUND UTILITIES. EXACT LOCATIONS SHALL BE VERIFIED AND CONFIRMED IN THE FIELD. FINAL LOCATION OF PROPERTY LINE BOX TO BE DETERMINED BY CON EDISON.
6. STATION EXISTING ELECTRICAL SERVICE SHALL REMAIN UNTIL THE NEW ELECTRICAL SERVICE AND SERVICE EQUIPMENT IS FULLY INSTALLED, INSPECTED AND OPERATIONAL. STARBUCKS HOUSE ELECTRICAL SERVICE AND METER SHALL REMAIN. CONTRACTOR SHALL MODIFY INCOMING SERVICE AS REQUIRED TO STARBUCKS DUE TO REMOVAL OF MNR SERVICE. COORDINATE WITH CON EDISON.
7. ALL ELECTRICAL SERVICE INSTALLATION SHALL COMPLY WITH CONED REQUIREMENTS AND CODES.
8. ALL REQUIRED SHUTDOWN SHALL BE COORDINATED WITH MNR.
9. FOR LANDSCAPING RENEWAL, PLEASE REFER TO LANDSCAPING SPECIFICATIONS AND DOCUMENTS.
10. PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL CALL CODE 53 (CALL-BEFORE-YOU-DIG IN NYS, TEL# 1-800-962-7962 FOR NYS ONE CALL CALL CENTER) FOR LOCATION OF UTILITIES (NYS INDUSTRIAL CODE RULE 53-12 NYC RR 53).
11. ALL CONDUITS TO BE INSTALLED SHALL BE SAW CUT AND HAND DUG.
12. EXACT LOCATION OF DUCT BANK RUNS TO BE DETERMINED IN THE FIELD.

KEYED NOTES:

1. EXISTING ELECTRICAL SERVICE DISTRIBUTION CABINET WITH DISTRIBUTION PANELBOARDS TO REMAIN.
2. PROPOSED ELECTRICAL SERVICE 800A WITH METERING, MAIN CIRCUIT BREAKER 800A AND DISTRIBUTION SECTION. PROVIDE ALL REQUIRED ELECTRICAL EQUIPMENT AND ITS ASSOCIATED CABLE, CONDUITS, SUPPORTS, ETC.

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	WF
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK GERI I. GOLDMAN LICENSED PROFESSIONAL ENGINEER No. 032905

NO.	DATE		DRWN	CHKD	APPVD
		REVISION			

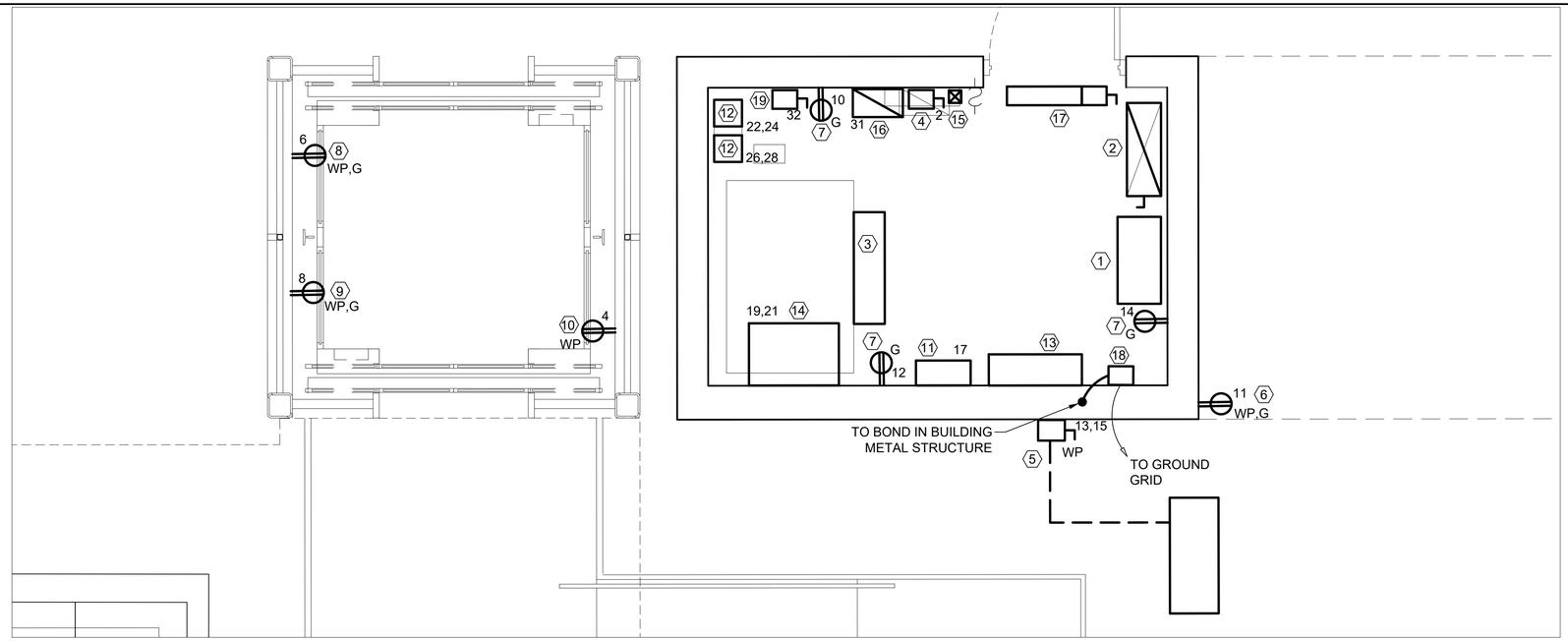
NO.	DATE	CONFORMED	DRWN	CHKD	APPVD
		REVISION			

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
ELECTRICAL SERVICE PLAN
HARTSDALE STATION

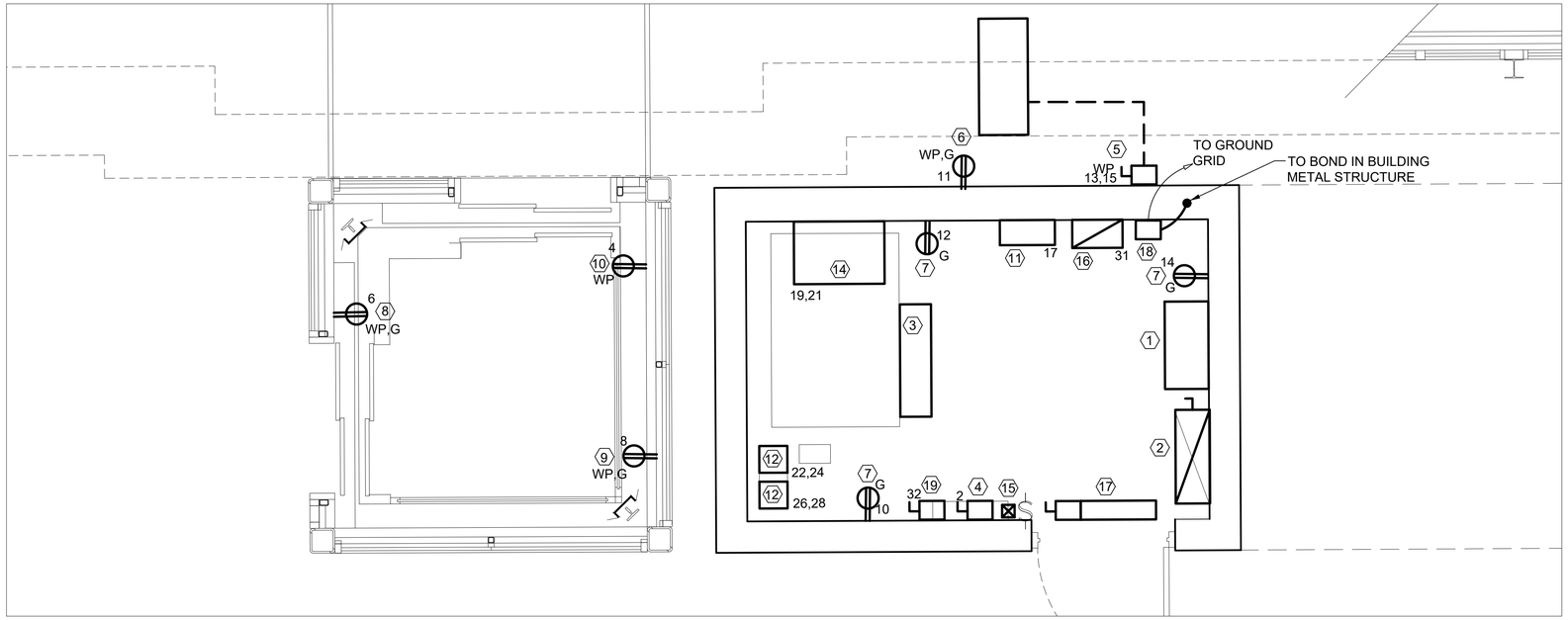
CONTRACT NO. 1000106733
SCALE 1/4"=1'-0"
DATE 08/03/2021
DRAWING NO. HTD-E-301
SHEET 72 OF 99



1 ELEVATOR W1 PIT AND ELEVATOR MACHINE ROOM ENLARGED PLAN (WESTBOUND)

1/2"=1'-0"

0 1' 2' 4'



2 ELEVATOR E1 AND ELEVATOR MACHINE ROOM ENLARGED PLAN

1/2"=1'-0"

0 1' 2' 4'

NOTES:

1. FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS, SEE DRAWINGS HTD-E-001 AND HTD-E-002.
2. KEY NOTES ARE COMMON FOR THE TWO ELEVATOR EXCEPT THAT ALL THE POWER SHALL BE FROM THE RESPECTIVE EMR POWER PANEL, PP-EMR-W1 FOR THE INBOUND ELEVATOR AND PP-EMR-E1 FOR THE OUTBOUND ELEVATOR.
3. COORDINATE LOCATION OF ALL DEVICES, LIGHTS, AND PANELS WITH ELEVATOR CONTRACTOR.
4. PROVIDE GROUNDING CONNECTION BETWEEN GROUNDING BUS BAR AND ALL ELECTRICAL PANELS AND DISCONNECT SWITCHES IN EMRS AS PER SPECIFICATIONS.

KEY NOTES:

(1) PP-EMR. POWER FROM ELECTRICAL MAIN DISTRIBUTION PANEL WITH 4 #500 KCMIL & 1 #1/0G, 4" CONDUIT.

(2) ELEVATOR FUSED DISCONNECT SWITCH. PROVIDE 400A, 208V, 3ϕ DISC. SWITCH WITH 4#4/0 1 #2G IN 2-1/2" CONDUIT. ELEVATOR DISC. SWITCH SHALL BE EQUIPPED WITH AN ELECTRICAL INTERLOCK KIT WITH 'NO' & 'NC' CONTACTS FOR CONNECTION TO THE AUTOMATIC LOWERING DEVICE.

(3) ELEVATOR CONTROLLER. POWER FROM ELEV DISC. SWITCH WITH 4#4/0 1#2G IN 2-1/2" CONDUIT.

(4) ELEVATOR CAB LIGHTING AND EF DISC. SWITCH. PROVIDE 30A, 240V, FUSED DISCONNECT SWITCH (FUSED AT 20A) AND POWER FROM PP-EMR WITH 2#12 & 1#12G IN 3/4"C.

(5) OUTDOOR CONDENSER UNIT (SEE MECHANICAL DRAWINGS FOR EQUIPMENT SELECTION). PROVIDE NEMA 4X, STAINLESS STEEL, IP65 RATED, 60A, 240V, FUSED DISCONNECT SWITCH AND POWER FROM PP-EMR WITH 2#8 & 1#12G IN 3/4"C.

(6) PROVIDE DEDICATED WEATHERPROOF GFCI OUTLETS OUTSIDE EACH EMR FOR OUTDOOR UNITS AND POWER FROM PP-EMR WITH 2#12 & 1#12G IN 3/4"C.

(7) POWER ALL GFCI RECEPTACLES FROM PP-EMR WITH 2#12 & 1#12G IN 3/4"C.

(8) PROVIDE DEDICATED OUTLET FOR SCAVENGER PUMP POWER FROM PP-EMR WITH 2#10 & 1#12G IN 3/4"C.

(9) PROVIDE DEDICATED POWER OUTLET FOR ELEVATOR PIT AND POWER FROM PP-EMR WITH 2#10 & 1#10G IN 3/4"C.

(10) PROVIDE RECEPTACLE IN SUMP PIT AND POWER FROM PP-EMR WITH 2#10 & 1#10G IN 3/4"C. RECEPTACLE TO BE LOCATED ABOVE THE WATER LINE. IN ADDITION TO POWER CONDUIT, PROVIDE 1-1/2"C AND CABLE (CONTRACTOR TO CONFIRM SIZE OF CONDUIT) FROM SUMP PUMP TO SUMP PUMP CONTROL PANEL IN THE ELEVATOR MACHINE ROOM.

(11) PROVIDE DEDICATED CIRCUIT FOR ELEVATOR LIFT NET PANEL.

(12) PROVIDE HEAT-TRACING SYSTEM TO HEAT TRACE OIL PIPE AND SUMP PUMP DISCHARGE LINE AND POWER FROM PP-EMR. HEAT TRACING PANEL SHALL BE PROVIDED WITH 2-20A GFEP CIRCUIT BREAKERS. COORDINATE EXACT LOCATION OF THE PIPES TO BE HEAT TRACED WITH PLUMBING AND ELEVATOR CONSULTANT. HEAT TRACE CABLE TO BE XL-TRACE BY RAYCHEM CORPORATION OR APPROVED EQUAL. SEE HEAT TRACE DETAILS ON DWG. SCD-E-502.

(13) FIRE ALARM CONTROL PANEL - FOR POWER CONNECTION, SEE ONE-LINE DIAGRAM ON DRAWING HTD-E-402.

(14) POWER THE ELEVATOR POWER UNIT OIL COOLER FROM DEDICATED CIRCUIT IN PP-EMR WITH 2#10 & 1#12G IN 3/4"C. COORDINATE WIRE SIZE TO THE ELEVATOR PROVIDER.

(15) TELEPHONE TERMINAL BOX CONNECTION.

(16) BATTERY LOWERING DEVICE

(17) PROVIDE 60A, 240V DISCONNECT SWITCH FOR INDOOR WALL-MOUNTED AC UNIT IN EMR AND POWER FROM RESPECTIVE OUTDOOR AC UNIT WITH 2#10 & 1#12G IN 3/4"C., OR AS INDICATED BY MANUFACTURER.

(18) PROVIDE GROUND BUS BAR. CONNECT TO GROUND GRID. SEE DWG. HTD-E-501.

(19) ELEVATOR CAB RECEPTACLES DISC. SWITCH. PROVIDE 30A, 240V, FUSED DISCONNECT SWITCH (FUSED AT 20A) AND POWER FROM PP-EMR WITH 2#12 & 1#12G IN 3/4"C.

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	WF
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK · GERI L GOLDMAN · No. 059168 · LICENSED PROFESSIONAL ENGINEER

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

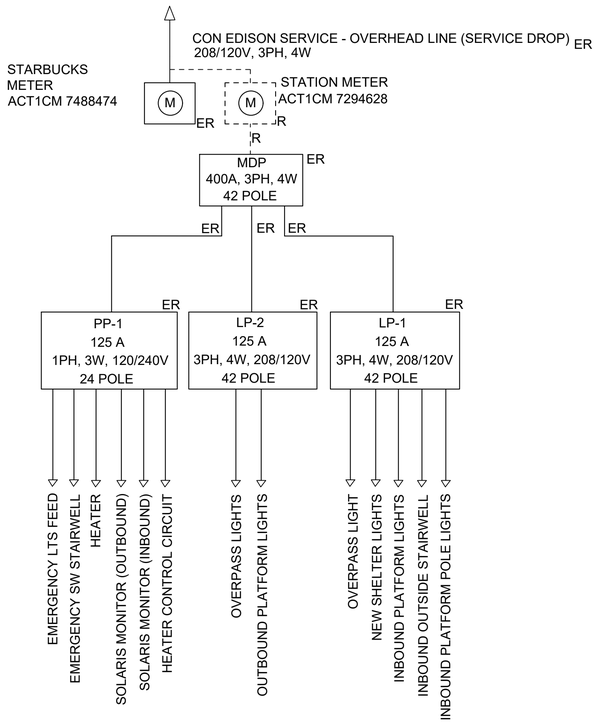
ELECTRICAL
EMR & ELEVATOR PIT
ENLARGED PLAN
HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE 3/4"=1 | DATE 08/03/2021

DRAWING NO.
HTD-E-302

SHEET 73 OF 99



1 EXISTING ONE LINE DIAGRAM

NTS

NOTES:

1. FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS SEE DRAWINGS HTD-E-001 AND HTD-E-002.
2. EXISTING MNR METER SHALL REMAIN DURING CONSTRUCTION OR UNTIL THE NEW SERVICE AND METER ARE INSTALLED AND FULLY OPERATIONAL.

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	SK
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK · GERI L. GOLDMAN · No. 032858 · LICENSED PROFESSIONAL ENGINEER

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

EXISTING ONE LINE DIAGRAM

HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE: NTS

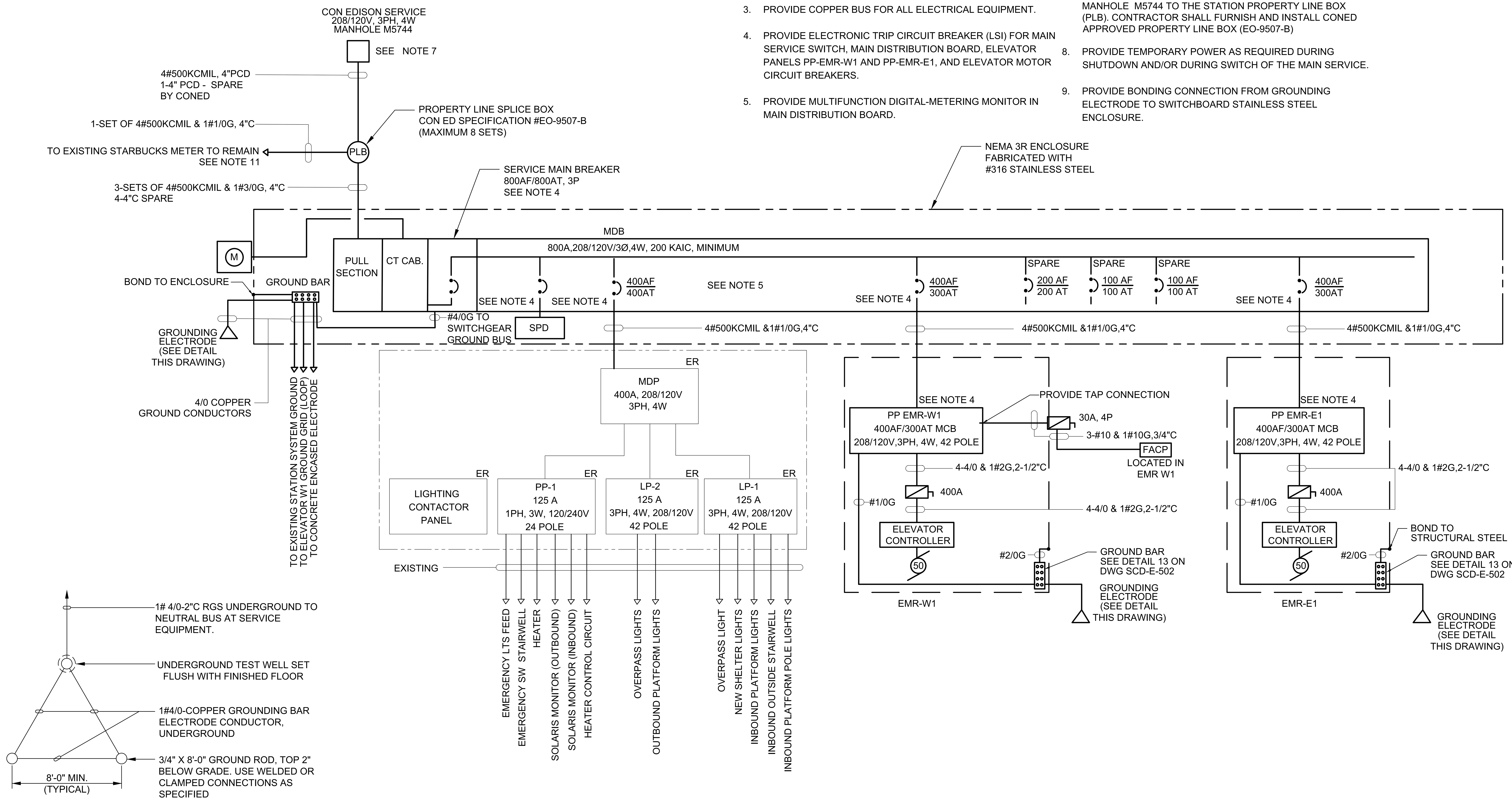
DATE: 08/03/2021

DRAWING NO.
HTD-E-401

SHEET 74 OF 99

NOTES:

1. FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS SEE DRAWINGS HTD-E-001 AND HTD-E-002.
2. PROVIDE POWER SUPPLY TO ALL REQUIRED ELEVATOR AUXILIARY EQUIPMENT, LIGHTING, AND DEVICES FROM RESPECTIVE POWER PANEL.
3. PROVIDE COPPER BUS FOR ALL ELECTRICAL EQUIPMENT.
4. PROVIDE ELECTRONIC TRIP CIRCUIT BREAKER (LSI) FOR MAIN SERVICE SWITCH, MAIN DISTRIBUTION BOARD, ELEVATOR PANELS PP-EMR-W1 AND PP-EMR-E1, AND ELEVATOR MOTOR CIRCUIT BREAKERS.
5. PROVIDE MULTIFUNCTION DIGITAL-METERING MONITOR IN MAIN DISTRIBUTION BOARD.
6. PROVIDE 12" CONCRETE PAD WITH FOUNDATION DESIGNED, SIGNED AND SEALED BY PROFESSIONAL STRUCTURAL ENGINEER.
7. CONED ELECTRIC SERVICE - CASE NUMBER MC - 417400. CONED WILL PROVIDE 1-4" PRECAST DUCT WITH 4-500KCMIL AND 1-4" PRECAST DUCT (PCD) FOR SPARE FROM THEIR MANHOLE M5744 TO THE STATION PROPERTY LINE BOX (PLB). CONTRACTOR SHALL FURNISH AND INSTALL CONED APPROVED PROPERTY LINE BOX (EO-9507-B)
8. PROVIDE TEMPORARY POWER AS REQUIRED DURING SHUTDOWN AND/OR DURING SWITCH OF THE MAIN SERVICE.
9. PROVIDE BONDING CONNECTION FROM GROUNDING ELECTRODE TO SWITCHBOARD STAINLESS STEEL ENCLOSURE.
10. ALL INSULATED GROUND WIRES SHALL BE RUN IN CONDUIT.
11. IF REQUIRED CONTRACTOR SHALL RECONNECT EXISTING GROUNDING ELECTRODES AS REQUIRED PER NATIONAL ELECTRIC CODE.



SUPPLEMENTARY ELECTRODE DETAIL

N.T.S.

1 PROPOSED ONE LINE DIAGRAM

NTS

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	SK
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK · GERI L. GOLDMAN · No. 078385 · LICENSED PROFESSIONAL ENGINEER

CONFORMED

NO.	DATE		DRWN	CHKD	APPVD	NO.	DATE		DRWN	CHKD	APPVD
		REVISION						REVISION			

STV 100 Years
225 PARK AVENUE SOUTH, NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

PROPOSED ONE LINE DIAGRAM

HARTSDALE STATION

CONTRACT NO. 1000106733
SCALE NTS
DATE 08/03/2021
DRAWING NO. HTD-E-402
SHEET 75 OF 99

PANELBOARD SCHEDULE

MAIN PROTECTIVE DEVICE: 400AF/ (LSI TYPE) | MOUNTING: **SURFACE** | PANEL DESIGNATION: **EMR E1**

MAIN BUS RATING: 400**A**, 65**KAIC** | TYPE: **NEMA 12** | VOLTS: **120/208** PHASE: **3** WIRES: 4

CKT NO.	TRIP AMPS	LOAD DESCRIPTION	VA	A	B	C	VA	LOAD DESCRIPTION	TRIP AMPS	CKT NO.
1	300A (LSI TYPE)	ELEVATOR	18613	20013			1400	CAB LTG & FAN	20A	2
3			18613		19789		1176	SUMP PUMP RECEPT	20A	4
5			18613			19789	1176	SCAVENGER PUMP RECEPT	20A	6
7	20A	SUMP PIT LIGHTING	26	206			180	PIT RECEPT	20A	8
9	20A	EMR LIGHTING	160		340		180	EMR RECEPT	20A	10
11	20A	OUTDOOR RECEPT	180			360	180	EMR RECEPT	20A	12
13	40A	ACC-2/AC-2	1352	1532			180	EMR RECEPT	20A	14
15			1352		1352		0	SPARE	20A	16
17	20A	LIFT NET	1800			1800	0			18
19	20A	ELEVATOR OIL COOLER	1200	1200			0	SPARE	20A	20
21			1200		1700		500	HEAT TRACING SYSTEM (GFEP TYPE CB)	20A	22
23	20A	SPARE	0			500	500			24
25	20A	SPARE	0	500			500	HEAT TRACING SYSTEM (GFEP TYPE CB)	20A	26
27	20A	SPARE	0		500		500			28
29	20A	SPARE	0			500	500	TANK HEATER	20A	30
31	20A	BATTERY LOWERING DEVICE	500	860			360	CAB RECEPTACLES	20A	32
33	20A	SPARE	0		0		0	SPARE	20A	34
35		SPACE				0		SPACE		36
37		SPACE		0				SPACE		38
39		SPACE			0			SPACE		40
41		SPACE				0		SPACE		42

	A	B	C
TOTAL CONNECTED VA	24311	23681	22949
CONNECTED AMP/PHASE	202.6	197.3	191.2

PANELBOARD SCHEDULE

MAIN PROTECTIVE DEVICE: 400AF/300AT (LSI TYPE) | MOUNTING: **SURFACE** | PANEL DESIGNATION: **EMR W1**

MAIN BUS RATING: 400**A**, 65**KAIC** | TYPE: **NEMA 12** | VOLTS: **120/208** PHASE: **3** WIRES: 4

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3			18613		19789		1176	SUMP PUMP RECEPT	20A	4
5			18613			19789	1176	SCAVENGER PUMP RECEPT	20A	6
7	20A	SUMP PIT LIGHTING	26	206			180	PIT RECEPT	20A	8
9	20A	EMR LIGHTING	160		340		180	EMR RECEPT	20A	10
11	20A	OUTDOOR RECEPT	180			360	180	EMR RECEPT	20A	12
13	40A	ACC-1/AC-1	1352	1532			180	EMR RECEPT	20A	14
15			1352		1352		0	SPARE	20A	16
17	20A	LIFT NET	1800			1800	0			18
19	20A	ELEVATOR OIL COOLER	1200	1200			0	SPARE	20A	20
21			1200		1700		500	HEAT TRACING SYSTEM (GFEP TYPE CB)	20A	22
23	20A	SPARE	0			500	500			24
25	20A	SPARE	0	500			500	HEAT TRACING SYSTEM (GFEP TYPE CB)	20A	26
27	20A	SPARE	0		500		500			28
29	20A	SPARE	0			500	500	TANK HEATER	20A	30
31	20A	BATTERY LOWERING DEVICE	500	860			360	CAB RECEPTACLES	20A	32
33	20A	SPARE	0		0		0	SPARE	20A	34
35		SPACE				0		SPACE		36
37		SPACE		0				SPACE		38
39		SPACE			0			SPACE		40
41		SPACE				0		SPACE		42

	A	B	C
TOTAL CONNECTED VA	24311	23681	22949
CONNECTED AMP/PHASE	202.6	197.3	191.2

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	WF
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK GERI I. GOLDMAN LICENSED PROFESSIONAL ENGINEER No. 075965

NO.	DATE		DRWN	CHKD	APPVD

REVISION

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STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ELECTRICAL PANEL SCHEDULES

HARTSDALE STATION

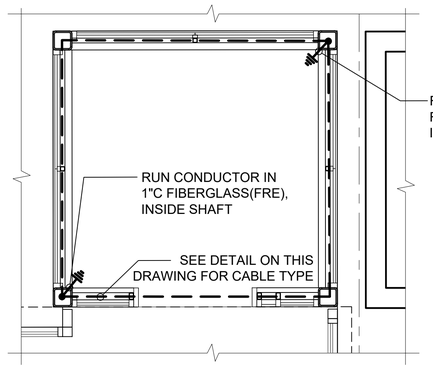
CONTRACT NO. 1000106733

SCALE

DATE 08/03/2021

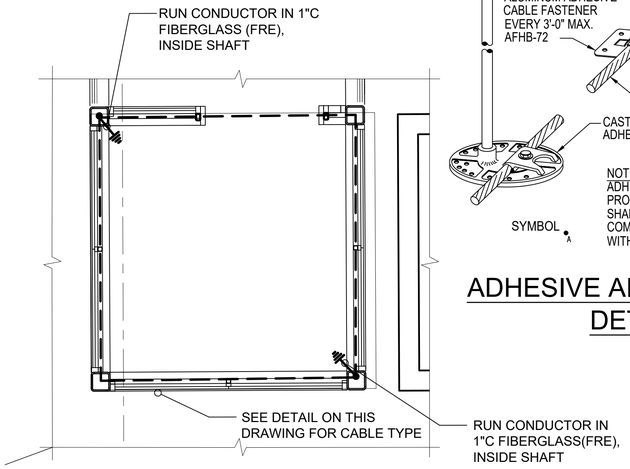
DRAWING NO. HTD-E-403

SHEET 76 OF 99



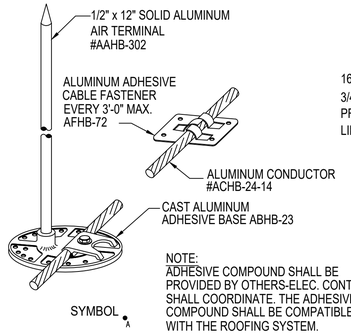
1 ELEVATOR W1 LIGHTNING PROTECTION PLAN

3/8"=1'-0"



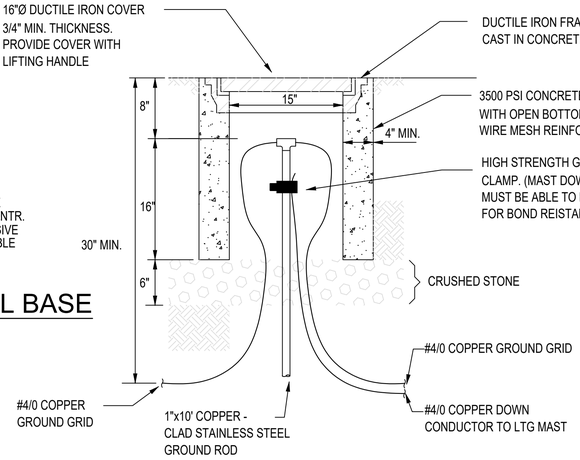
2 ELEVATOR E1 LIGHTNING PROTECTION PLAN

3/8"=1'-0"



ADHESIVE AIR TERMINAL BASE DETAIL NO. 1

NTS

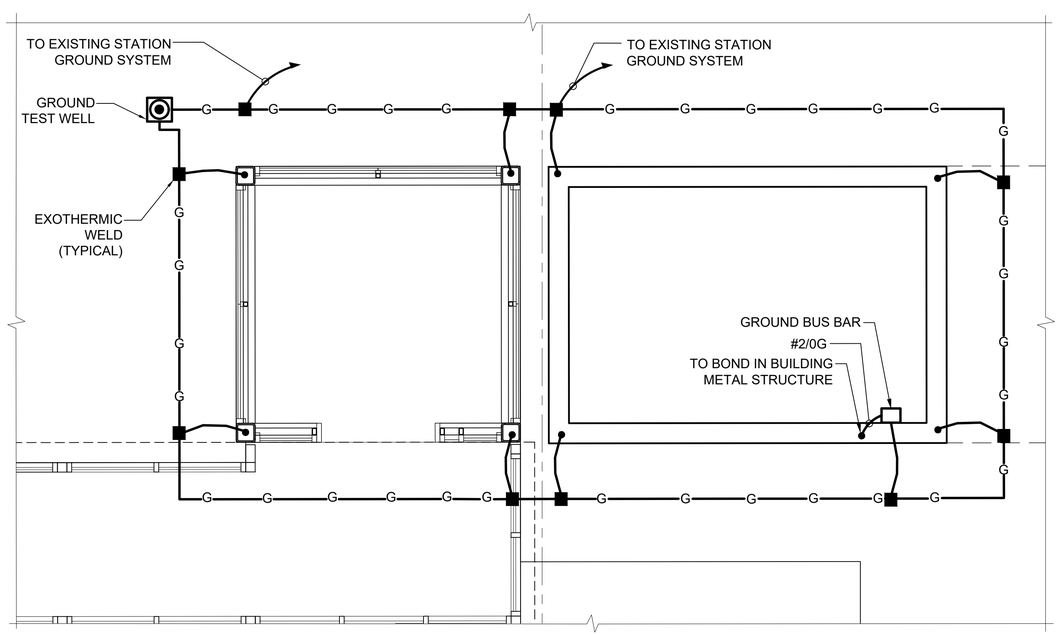


GROUND TEST WELL DETAIL NO. 2

NTS

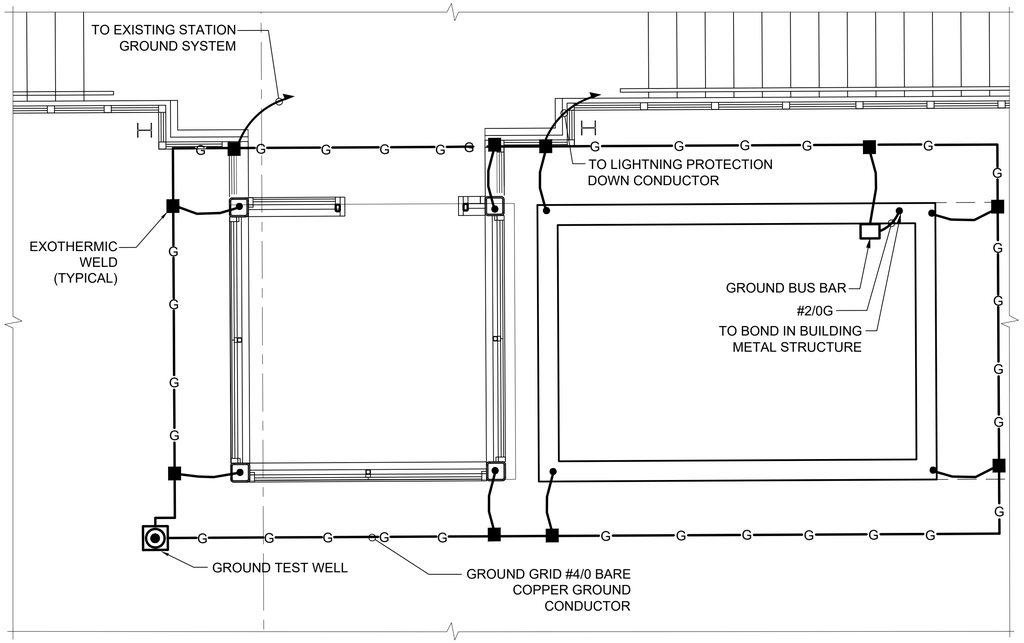
LIGHTNING PROTECTION NOTES:

1. FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS, SEE DRAWINGS HTD-E-001 AND HTD-E-002.
2. REFER TO DRAWING E-502 FOR LIGHTNING PROTECTION DETAILS AND OTHER INSTALLATION DETAILS.
3. REFER TO LIGHTNING PROTECTION SPECIFICATION SECTION FOR THE SYSTEM DETAILS AND REQUIREMENTS.
4. LIGHTNING PROTECTION SYSTEM SHALL BE PROVIDED WITH MASTER LABEL CERTIFICATE ISSUED BY UL UPON COMPLETION OF THE INSTALLATION.
5. ALL DOWN CONDUCTOR INSTALLED OUTSIDE THE BUILDING RUNNING IN PVC CONDUIT ARE PAINTED TO MATCH THE SURROUNDINGS AND SHALL BE RUN AT THE CORNERS.



3 ELEVATOR W1 GROUNDING PLAN

3/8"=1'-0"



4 ELEVATOR E1 GROUNDING PLAN

3/8"=1'-0"

GROUNDING NOTES:

1. FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS, SEE DRAWINGS HTD-E-001 AND HTD-E-002.
2. REFER TO DRAWING E-502 FOR GROUNDING DETAILS AND OTHER INSTALLATION DETAILS.
3. ALL BURIED GROUND CONDUCTOR ARE #4/0 BARE UNLESS OTHERWISE NOTED.
4. ALL CONNECTION TO BUILDING GROUND GRID ARE 1#4/0 BARE COPPER.
5. ALL METAL SHALL BE CONTINUOUSLY GROUNDED INCLUDING BUT NOT LIMITED TO STRUCTURAL STEEL. SLAB REINFORCEMENT, HANDRAIL, FENCES, DRAIN, PIPES, PLATFORM AMENITIES, WASTE, RECEPTACLES, ETC. WHETHER SHOWN OR NOT ON THE PLAN.
6. NEW GROUNDING SYSTEM TO BE BONDED TO THE EXISTING GROUNDING SYSTEM WITH #4/0.
7. VERIFY AND CONFIRM THE EXACT LOCATION OF THE STRUCTURAL STEEL FOR GROUNDING CONNECTION.

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	WF
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK GERI I. GOLDMAN LICENSED PROFESSIONAL ENGINEER No. 079956

NO.	DATE		DRWN	CHKD	APPVD

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REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

GROUNDING AND LIGHTNING PROTECTION PLANS
HARTSDALE STATION

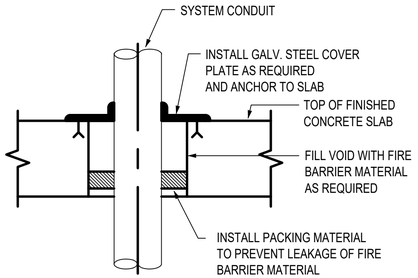
CONTRACT NO. 1000106733

SCALE 3/8"=1'

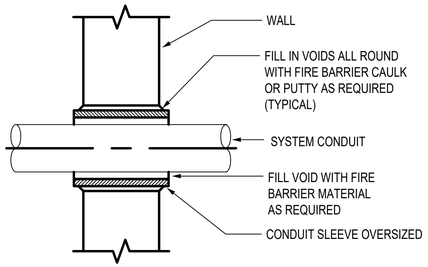
DATE 08/03/2021

DRAWING NO. HTD-E-501

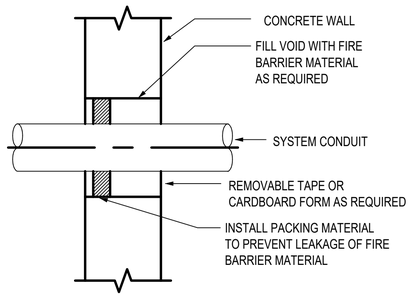
SHEET 77 OF 99



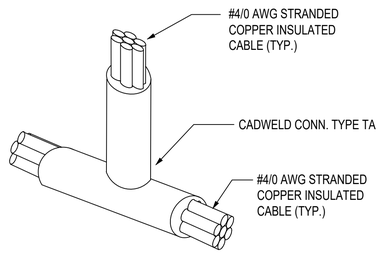
TYPICAL THRU FLOOR CONDUIT DETAIL NO. 1



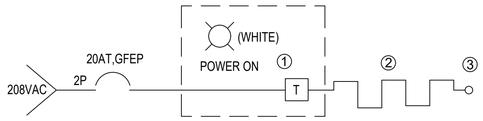
TYPICAL THRU WALL CONDUIT DETAIL NO. 2



TYPICAL THRU CONCRETE WALL CONDUIT, DETAIL NO. 3



TYPICAL GROUND BUS TAP DETAIL NO. 4



NON-SUPERVISED HEAT TRACE (ONE ZONE), DETAIL NO. 5

HEAT TRACE SYSTEM OVERVIEW

THE SELF-REGULATING HEATING CABLE IS CUT TO LENGTH AT THE JOB SITE AND INSTALLED ON TO THE PIPING OR TANK SURFACE USING GLASS TAPE. POWER IS CONNECTED TO ONE END OF THE HEATING CABLE USING A POWER CONNECTION KIT.

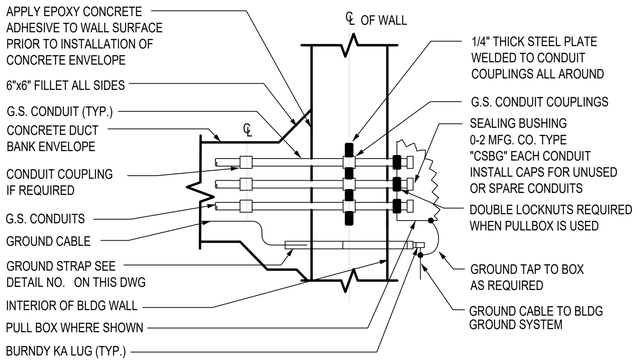
THE OTHER END OF THE HEATING CABLE IS SEALED USING AN END SEAL KIT OR IS TERMINATED BY AN RT DEVICE. SPLICE AND TEE CONNECTION KITS ARE USED AS NECESSARY TO CONNECT HEAT TRACE CABLES. THE HEATING CABLE SHALL BE CONTROLLED AUTOMATICALLY BY SENSING THE PIPE A TEMPERATURE WITH THE TEMPERATURE SENSOR.

EQUIPMENT SCHEDULE

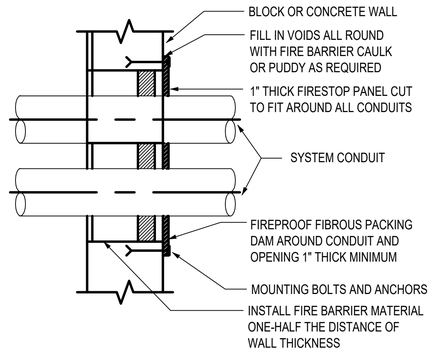
ITEM NUMBER	DESCRIPTION
①	BULB & CAPILLARY THERMOSTAT
②	HEAT TRACE CABLE
③	END SEAL KIT

NOTES:

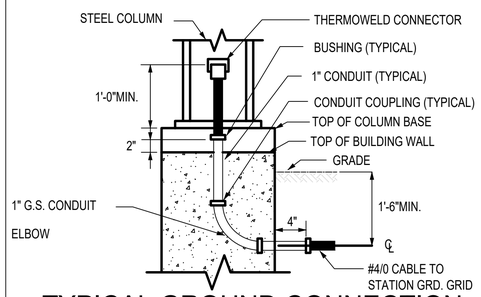
1. HEAT TRACE CONTROL ENCLOSURE SHALL BE HOUSED IN A 14 GAUGE NEMA 4X POLYCARBONATE ENCLOSURE.
2. WHERE INDICATED IN THE CONTRACT, A SINGLE ZONE, NON-SUPERVISED HEAT TRACE ZONE, LIMITED IN LENGTH TO 250 FEET, WITH A SINGLE POINT, ADJUSTABLE BULB AND CAPILLARY THERMOSTAT, SHALL BE USED. THE POWER TO THIS CIRCUIT SHALL BE FROM A 2P-20AT GFCI CIRCUIT BREAKER.



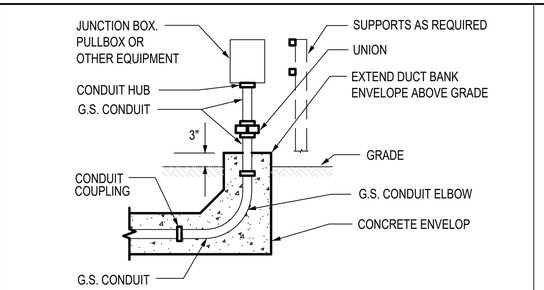
DUCT BANK TERMINATION AT BUILDING DETAIL NO. 6



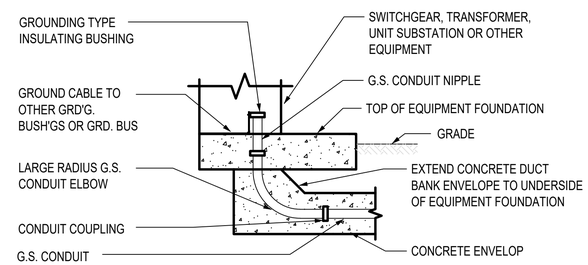
TYPICAL THRU WALL CONDUIT BANK DETAIL NO. 7



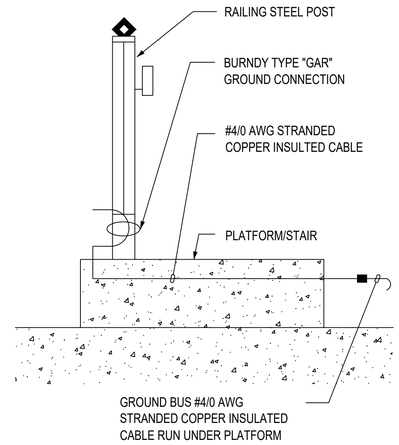
TYPICAL GROUND CONNECTION AT BUILDING COLUMNS DETAIL NO. 8



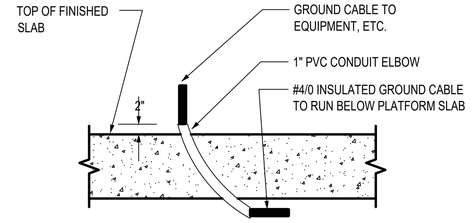
TYPICAL CONDUIT TERMINATION AT OUTDOOR EQUIPMENT DETAIL NO. 9



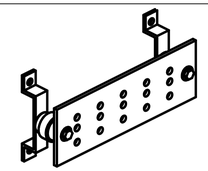
TYPICAL UNDERGROUND CONDUIT TERMINATION DETAIL NO. 10



GROUNDING DETAIL FOR GUARDRAIL AND RAILING DETAIL NO. 11



TYPICAL GROUND CABLE TERMINATION DETAIL NO. 12

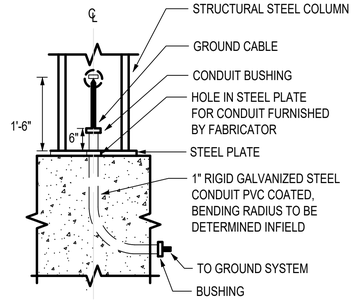


TYPICAL GROUND BUSBAR DETAIL NO. 13

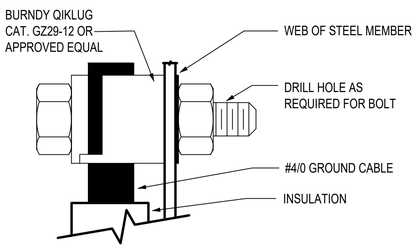
NTS

NOTES:

1. PROVIDE ONE GROUND BAR IN EACH SWITCHGEAR ROOM AND ELEVATOR MACHINE ROOM.
2. GROUND BAR 20"X4"X1/4" WITH BRACKETS AND INSULATORS. BY ERITECH EGBA OR EQUAL.



TYPICAL PLATFORM GROUNDING PENETRATION, DETAIL NO. 14



GROUND CABLE TO STEEL CONNECTION DETAIL NO. 15

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	SK
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK GERI I. GOLDMAN LICENSED PROFESSIONAL ENGINEER No. 075965

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420 Lexington Avenue
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TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ELECTRICAL DETAILS

HARTSDALE STATION

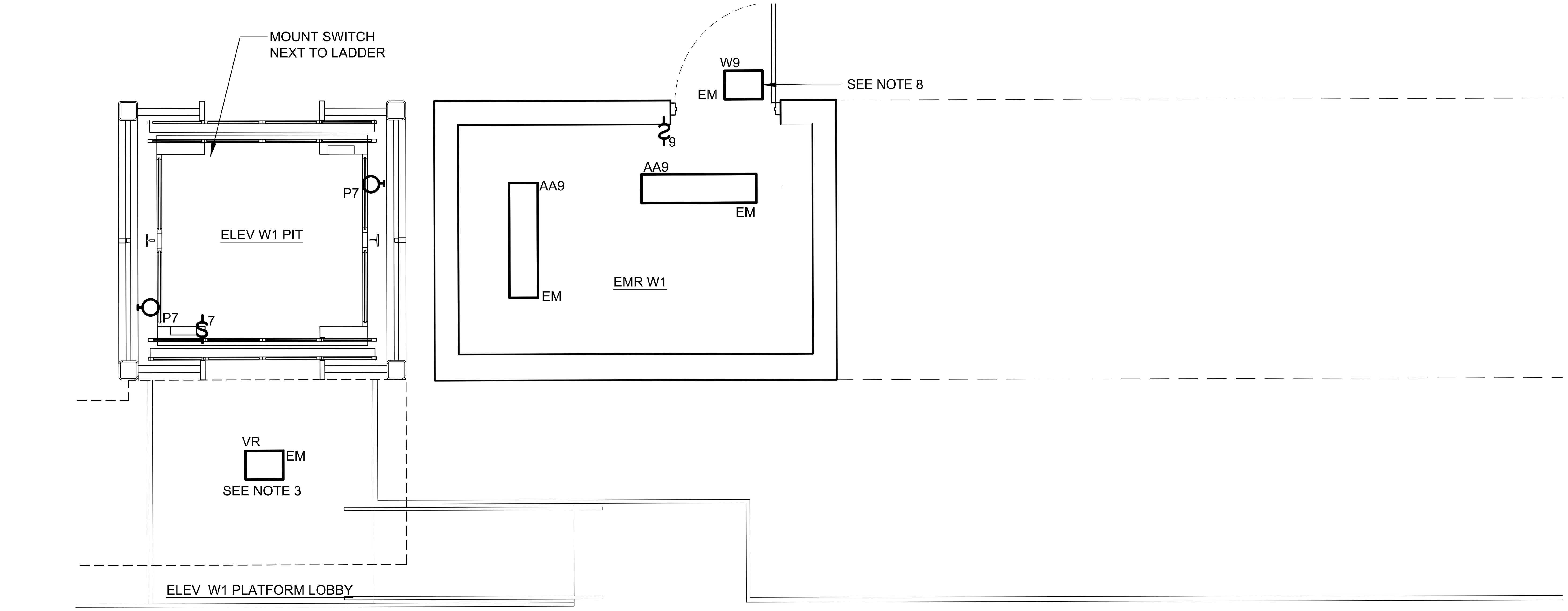
CONTRACT NO.
1000106733

SCALE

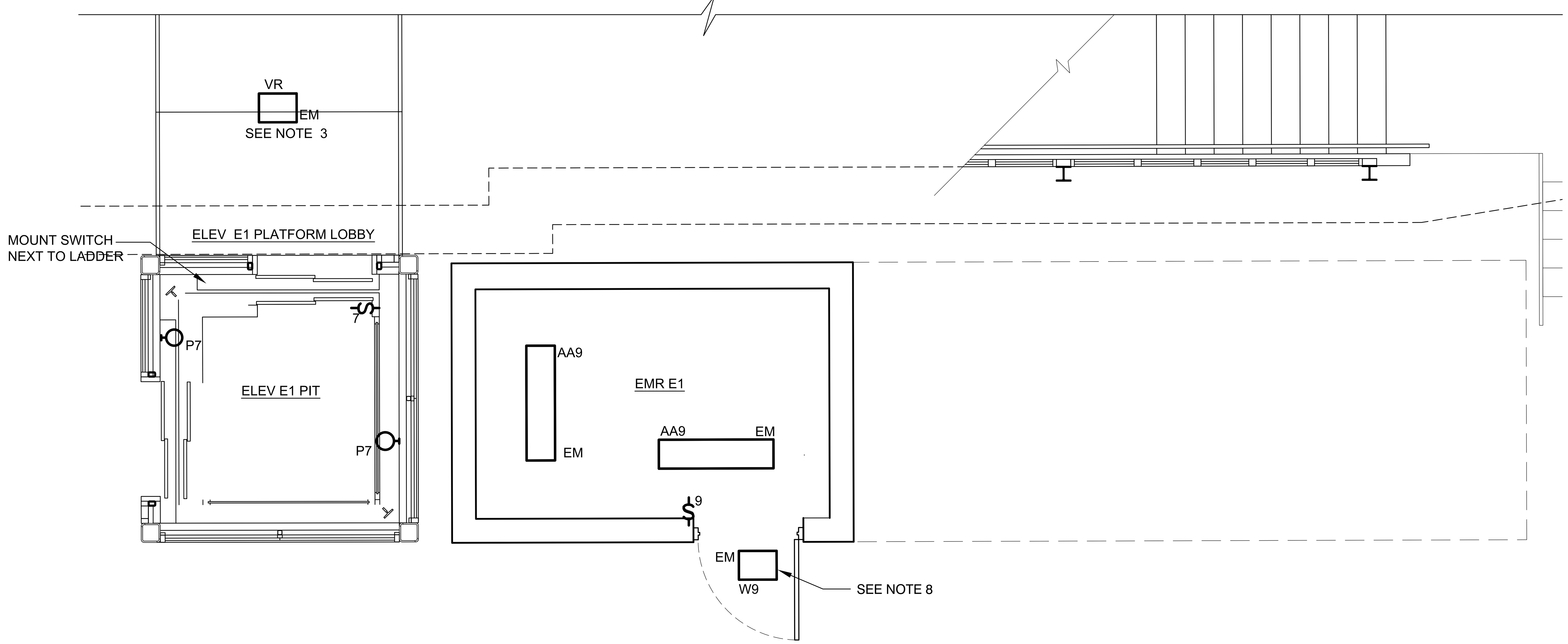
DATE
08/03/2021

DRAWING NO.
HTD-E-502

SHEET 78 OF 99



1 ELECTRICAL LIGHTING PLAN - PLATFORM LEVEL - INBOUND
3/8"=1'-0"



2 ELECTRICAL LIGHTING PLAN - PLATFORM LEVEL - OUTBOUND
3/8"=1'-0"

NOTES:

1. FOR GENERAL NOTES, SEE DRAWING HTD-E-001. FOR SYMBOLS, ABBREVIATIONS, AND LIGHTING SCHEDULE, SEE DRAWING HTD-E-002.
2. POWER ALL THE LIGHTING FIXTURE FROM RESPECTIVE EMR POWER PANEL WITH 2 #12 AND 1#12G IN 3/4" CONDUIT. PROVIDE AN UNSWITCH HOT LEG WIRING TO FIXTURE FOR EMERGENCY BATTERY PACK OPERATION.
3. POWER THE LIGHTING FIXTURES ON THE PLATFORM ELEVATOR LOBBYIES FROM THE EXISTING PLATFORM LIGHTING PANEL PP-1 LOCATED IN THE EXISTING ELECTRICAL ENCLOSURE UTILIZING SPARE CIRCUITS WITH 2 #10 & 1#10G IN 3/4" CONDUIT. POWER THE EMERGENCY BATTERY PACKS FROM THE EXISTING EMERGENCY CIRCUIT FEEDING THE EMERGENCY LIGHTS IN THE OVERPASS.
4. POWER THE SUMP PIT LIGHTING FIXTURE FROM RESPECTIVE EMR POWER PANEL WITH 2 #12 AND 1#12G IN 3/4" CONDUIT.
5. COORDINATE SUMP PIT LIGHTING AND SWITCH EXACT LOCATION WITH THE ELEVATOR PROVIDER.
6. COORDINATE CONDUIT ROUTING WITH THE EQUIPMENT AND OTHER TRADES.
7. SEE DRAWING HTD-E-403 FOR PANEL SCHEDULE.
8. PROVIDE UNSWITCHED HOT LEG TO EMERGENCY BATTERY PACK.

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	SK
CHECKED	GG
APPROVED	GG

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TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

ELECTRICAL LIGHTING PLAN - PLATFORM LEVEL

HARTSDALE STATION

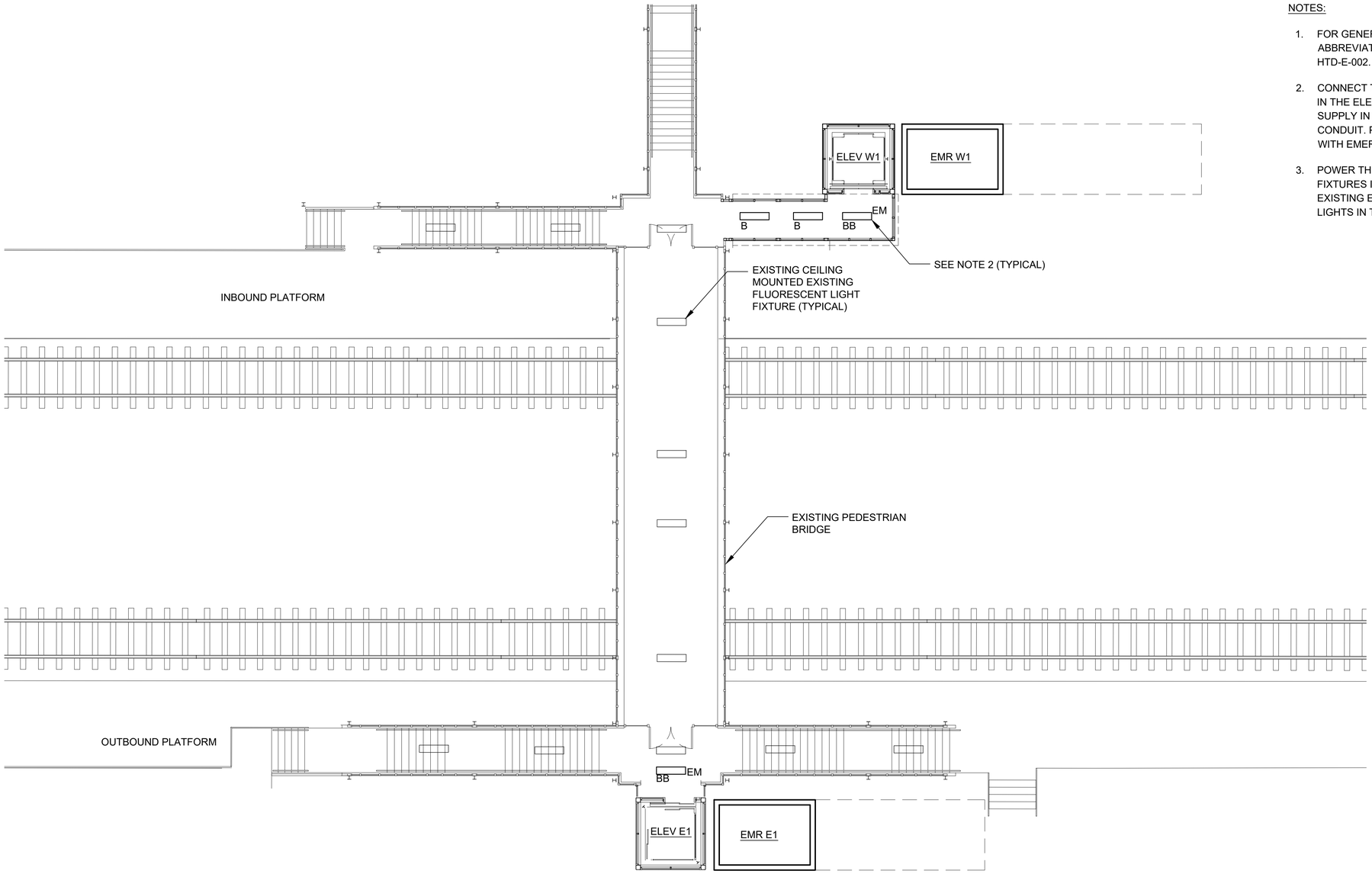
CONTRACT NO. 1000106733

SCALE	DATE
1/8"=1'-0"	08/03/2021

DRAWING NO. HTD-L-101

NOTES:

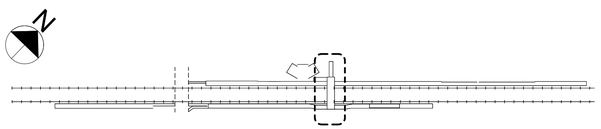
1. FOR GENERAL NOTES, SEE DRAWING HTD-E-001. FOR SYMBOLS, ABBREVIATIONS, AND LIGHTING SCHEDULE, SEE DRAWING HTD-E-002.
2. CONNECT THE POWER SUPPLY OF THE NEW LIGHTING FIXTURES IN THE ELEVATOR LOBBY TO THE EXISTING LIGHTING POWER SUPPLY IN THE PEDESTRIAN BRIDGE. EXTEND CABLE AND CONDUIT. PROVIDE UNSWITCH HOT LEG WIRING FOR FIXTURES WITH EMERGENCY BATTERY PACK OPERATION.
3. POWER THE EMERGENCY BATTERY PACKS FOR THE LIGHT FIXTURES IN OVERPASS ELEVATOR LOBBIES FROM THE EXISTING EMERGENCY CIRCUIT FEEDING THE EMERGENCY LIGHTS IN THE OVERPASS.



1 ELECTRICAL LIGHTING PLAN - OVERPASS LEVEL

1/8"=1'-0"

0 4' 8' 16'



KEY PLAN

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	SK
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK GERI I. GOLDMAN LICENSED PROFESSIONAL ENGINEER No. 039065

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TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
ELECTRICAL LIGHTING PLAN - OVERPASS LEVEL
HARTSDALE STATION

CONTRACT NO. 1000106733

SCALE 1/8"=1'-0"

DATE 08/03/2021

DRAWING NO. HTD-L-102

SHEET 80 OF 99

ELECTRONICS NOTES:

1. COORDINATE WITH THE ENGINEER FOR ALL CONNECTIONS TO THE EXISTING EQUIPMENT AND ANY DISRUPTIONS OF SERVICE.
2. CONDUIT SIZES SHOWN ARE MINIMUMS AND SIZED IN ACCORDANCE WITH NEC SPECIFICATIONS AND REQUIREMENTS. ENSURE ALL INSTALLATIONS COMPLY WITH NEC AND SPECIFICATION REQUIREMENTS AT NO ADDITIONAL COST BASED ON ACTUAL MATERIALS USED.
3. FIRE SEAL OPENINGS THROUGH FIRE RATED WALLS AND FLOOR SLABS FOR CONDUITS AND EQUIPMENT AS PER SPECIFICATION 07 84 00.
4. SEAL ALL WALL PENETRATIONS.
5. RESTORE TO EXISTING CONDITION ALL EXISTING SYSTEMS SHOWN ON THE CONTRACT DRAWINGS THAT ARE DAMAGED BY WORK UNDER THIS CONTRACT TO THE SATISFACTION OF THE ENGINEER AND AT NO ADDITIONAL COST TO THE AUTHORITY.
6. PROTECT ALL EXISTING EQUIPMENT THAT ARE TO REMAIN FROM DAMAGE IN THE WORK AREAS. ANY EQUIPMENT DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE AUTHORITY, AND TO THE SATISFACTION OF THE ENGINEER.
7. UPON COMPLETION OF THE WORK, REMOVE ALL DEBRIS, EQUIPMENT AND UNUSED MATERIALS FROM THE AUTHORITY PROPERTY AND RESTORE THE WORK AREA TO ITS ORIGINAL CONDITION, AS APPROVED BY THE ENGINEER.
8. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING DELIVERY, RECEIVING, UNLOADING, STORING, UNCRATING, SETTING IN PLACE, AND PROTECTING FROM DAMAGE, VANDALISM, THEFT OR WEATHER DURING CONSTRUCTION ALL EQUIPMENT FURNISHED BY THE CONTRACTOR OR FURNISHED BY OTHER PARTIES TO THE CONTRACTOR FOR INSTALLATION BY THE CONTRACTOR.
9. COORDINATE WORK SHOWN ON ELECTRONICS DRAWINGS WITH WORK FOR ALL OTHER TRADES.
10. CARRY OUT ALL WORK WITH NO INTERFERENCE TO MNR OPERATIONS. ANY INTERRUPTIONS TO MNR OPERATIONS SHALL BE COORDINATED WITH AND AUTHORIZED BY THE ENGINEER.
11. WORK SHALL COMPLY WITH ALL GOVERNING CODES, STANDARDS, AND ADVISORIES INCLUDING ALL UPDATES AND AMENDMENTS THAT WOULD APPLY IF THE AUTHORITY WERE A PRIVATE CORPORATION UNLESS OTHERWISE NOTED IN CONTRACT DOCUMENTS.
12. ALL EQUIPMENT AND MATERIALS FURNISHED UNDER THIS CONTRACT SHALL BE FACTORY TESTED, AT A MINIMUM. SUBMIT TEST RESULTS TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. AFTER INSTALLATION, FIELD TEST IN ACCORDANCE WITH STANDARDS THAT WOULD APPLY IF THE AUTHORITY WERE A PRIVATE CORPORATION, CONTRACT SPECIFICATIONS AND MANUFACTURERS RECOMMENDATIONS, TO VERIFY PROPER OPERATION TO THE SATISFACTION OF THE ENGINEER.
13. FOR ALL JUNCTION BOXES AND PULL BOXES INSTALLED IN OUTDOOR, DAMP, OR WET LOCATIONS, CONDUIT ENTRANCES SHALL ENTER ONLY THROUGH THE BOTTOM OR SIDES. TOP CONDUIT ENTRANCES SHALL NOT BE PERMITTED.
14. FURNISH AND INSTALL CONDUIT FITTINGS, CONDULETS, CONNECTORS, CLAMPS, HARDWARE, HANGERS, AND SUPPORTS NECESSARY FOR A COMPLETE SYSTEM INSTALLATION.
15. PRIOR TO INSTALLATION, SUBMIT CONDUIT ROUTING DETAILS IN THE FORM OF SHOP DRAWINGS FOR APPROVAL.
16. UNLESS OTHERWISE NOTED ALL CONDUITS SHALL BE 1 INCH OR LARGER. ALL CONDUITS SHALL BE THREADED GALVANIZED RIGID STEEL UNLESS OTHERWISE NOTED.
17. ALL EQUIPMENT AND ENCLOSURES SHALL BE GROUNDED USING APPROPRIATELY SIZED LUGS AND GROUNDING WIRES AS PER THE NEC, LOCAL CODES, AND SPECIFICATIONS. COORDINATE WITH THE ENGINEER FOR MEANS OF ATTACHMENT WHEN CONNECTING TO EXISTING STRUCTURES.
18. ALL EQUIPMENT SHALL BE INSTALLED TO PERMIT EASY ACCESS FOR OPERATION AND MAINTENANCE.
19. CONTRACT DRAWINGS ARE DIAGRAMMATIC IN NATURE AND NOT EVERY DETAIL OR EXACT LOCATION OF EQUIPMENT AND/OR CONDUIT IS SHOWN. VERIFY ALL CONDITIONS AND DIMENSIONS IN THE FIELD BEFORE COMMENCING ANY FABRICATION, ORDERING OF ANY MATERIAL OR PERFORMING ANY WORK. NOTIFY THE ENGINEER OF ANY CONDITIONS OR DIMENSIONS WHICH WOULD AFFECT THE PERFORMANCE OF WORK IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.
20. ALL FINISHES DAMAGED DURING THE SCOPE OF THIS CONTRACT SHALL BE RESTORED TO ORIGINAL FINISH TO THE SATISFACTION OF THE ENGINEER.

STAGING NOTES:

1. ALL ACTIVE SYSTEMS MUST BE MAINTAINED IN THEIR EXISTING OPERATIONAL CONDITION THROUGHOUT ALL PHASES OF THE PROJECT UNTIL REPLACED BY COMPONENTS INSTALLED UNDER THIS PROJECT. ANY INTERRUPTIONS SHALL BE COORDINATED WITH THE ENGINEER.
2. EXISTING SYSTEMS SHALL INCLUDE AT A MINIMUM: CCTV, PUBLIC ADDRESS, DLC CABINET, EMERGENCY ELEVATOR INTERCOM, TICKET VENDING MACHINES, AND TELEPHONE. COORDINATE WITH THE ENGINEER FOR ANY RELOCATIONS, REMOVALS OR TEMPORARY CONNECTIONS REQUIRED. MNR IN HOUSE STAFF WILL RELOCATE ALL ACTIVE SYSTEMS.
3. FURNISH AND INSTALL AT A MINIMUM TEMPORARY SUPPORTS, CABLING, CONNECTIONS TO MAINTAIN EXISTING SYSTEMS. PROTECT EXISTING INFRASTRUCTURE TO MINIMIZE INTERRUPTIONS.
4. CUT OVER AND RECONNECTION OF EXISTING SYSTEMS SHALL BE BY MNR. COORDINATE WITH THE ENGINEER.

ABBREVIATIONS:

A	AMP
AC	ALTERNATING CURRENT
AFG	ABOVE FINISHED GRADE
APPROX	APPROXIMATE
ASTM	AMERICAN STANDARD FOR TESTING AND MEASUREMENTS
AWG	AMERICAN WIRE GAUGE
BORA	BROADBAND OPTICAL RING ADAPTER
BTU/H	BRITISH THERMAL UNITS PER HOUR
C	CONDUIT
CFM	CUBIC FEET PER MINUTE
CH	COMMUNICATIONS HOUSE
CIH	CENTRAL INSTRUMENT HOUSE
COMM	COMMUNICATIONS
DC	DIRECT CURRENT
DEG	DEGREES
DIA	DIAMETER
DLC	DIGITAL LINE CIRCUIT
DWG	DRAWING
DSP	DIGITAL SIGNAL PROCESSOR
E	EAST
E/S	ETHERNET-TO-SERIAL CONVERTER
EBP	EMERGENCY BLUE LIGHT PHONE
E&W	EAST AND WEST
EL	ELEVATION
ENT	ENTERING
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
ETC	ET CETERA
ETEL	EMERGENCY TELEPHONE
EXIST OR (E)	EXISTING
F	FAHRENHEIT
FLA	FULL LOAD AMPS
FT	FEET
FDP	FIBER DISTRIBUTION PANEL
FOC	FIBER OPTIC CABLE
FRE	FIBERGLASS REINFORCED EPOXY
FS	FIRE SUPPRESSION
G, GND	GROUND
GALV	GALVANIZED
GBIC	GIGABIT INTERFACE CONVERTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HP	HORSEPOWER
HT	HEIGHT
HVAC	HEATING VENTALATION AIR CONDITIONING
HZ	HERTZ
IN	INCH
IP	INTERNET PROTOCOL
KW	KILOWATT
LBS	POUNDS
LDF	LOCAL DISTRIBUTION FRAME
LFMC	LIQUID-TIGHT FLEXIBLE METAL CONDUIT
MAX	MAXIMUM
MC	ETHERNET MEDIA CONVERTER
MCA	MINIMUM CURRENT AMPACITY
MIN	MINIMUM
MDF	MAIN DISTRIBUTION FRAME
MNR	METRO-NORTH RAILROAD
N	NEUTRAL
N/A	NOT APPLICABLE
NC	NOISE CRITERIA
NEC	NATIONAL ELECTRIC CODE
NH	NODE HOUSE
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
OTN	OPEN TRANSPORT NETWORK
PA	PUBLIC ADDRESS
PD	PLATFORM DISPLAY
PH	PHASE
PP	PATCH PANEL
POE	POWER OVER ETHERNET
QTY	QUANTITY
REF	REFERENCE
REQ'D	REQUIRED
RF	RADIO FREQUENCY
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
SCU	STATION CONTROL UNIT
SD	SCHEDULE DISPLAY
SM	SINGLE MODE
SS	STAINLESS STEEL
STA	STATION
STD	STANDARD
STR	STRUCTURE
TBD	TO BE DETERMINED
T/F	TOP OF FOUNDATION
T/R	TOP OF RAIL
TRK	TRACK
TYP	TYPICAL
UNGR	UNDERGROUND
UPS	UNINTERRUPTIBLE POWER SOURCE
V	VOLT
VIS	VARIABLE INFORMATION SIGN
VMS	VARIABLE MESSAGE SIGN
VS	VIDEO SURVEILLANCE

100% RFC SUBMISSION

DESIGNED	SS
DRAWN	SS
CHECKED	TB
APPROVED	CH

STATE OF NEW YORK — CHRISTOPHER T. HEIL — 089285-1 — LICENSED PROFESSIONAL ENGINEER

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
COMMUNICATION GENERAL NOTES, LEGEND, AND ABBREVIATIONS DWG. 1 OF 2
HARTSDALE STATION

CONTRACT NO. 1000106733
SCALE
DATE 07/09/2021
DRAWING NO. HTD-ES-001
SHEET 81 OF 99

COMMUNICATION SYMBOLS:

VIDEO SURVEILLANCE CAMERA (FIXED)

VIDEO SURVEILLANCE CAMERA (PAN-TILT-ZOOM)

CONDUIT ID TAG

CONDUIT TURNED DOWN

CONDUIT TURNED UP

CONDUIT UP AND DOWN

UNDERGROUND CONDUIT

GENERAL SYMBOLS:

NORTH ARROW

INDICATES SECTION NUMBER

INDICATES WHICH DRAWING SECTION APPEARS ON

INDICATES DETAIL NUMBER

INDICATES WHICH DRAWING DETAIL APPEARS ON

DEVICE/CABLE/CONDUIT REMOVAL

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DRAWN	SS
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APPROVED	CH

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COMMUNICATION GENERAL NOTES, LEGEND, AND ABBREVIATIONS DWG. 2 OF 2
HARTSDALE STATION

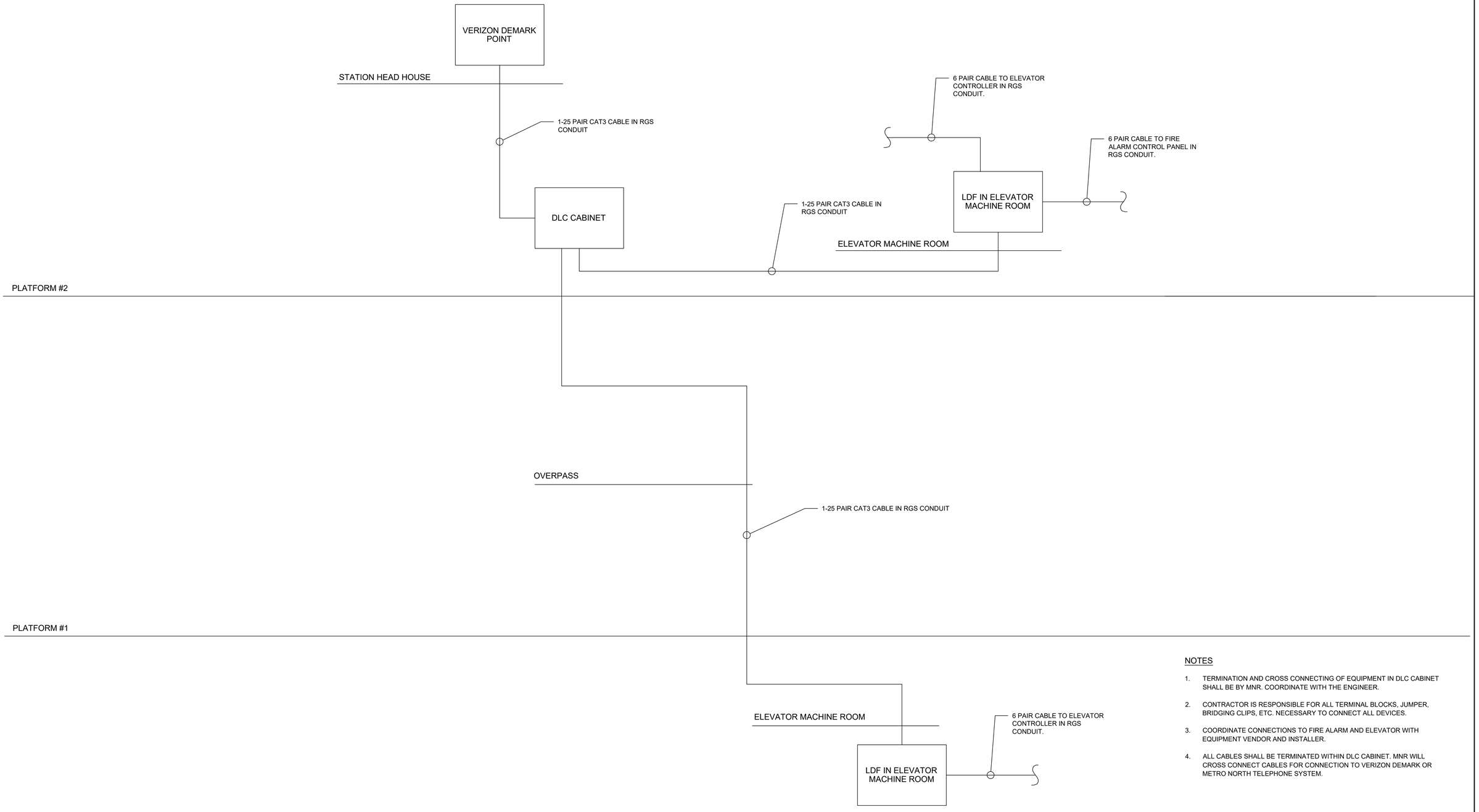
CONTRACT NO. 1000106733

SCALE

DATE 07/09/2021

DRAWING NO. HTD-ES-002

SHEET 82 *OF* 99



NOTES

1. TERMINATION AND CROSS CONNECTING OF EQUIPMENT IN DLC CABINET SHALL BE BY MNR. COORDINATE WITH THE ENGINEER.
2. CONTRACTOR IS RESPONSIBLE FOR ALL TERMINAL BLOCKS, JUMPER, BRIDGING CLIPS, ETC. NECESSARY TO CONNECT ALL DEVICES.
3. COORDINATE CONNECTIONS TO FIRE ALARM AND ELEVATOR WITH EQUIPMENT VENDOR AND INSTALLER.
4. ALL CABLES SHALL BE TERMINATED WITHIN DLC CABINET. MNR WILL CROSS CONNECT CABLES FOR CONNECTION TO VERIZON DEMARK OR METRO NORTH TELEPHONE SYSTEM.

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New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

COMMUNICATION ONE LINE DIAGRAM

HARTSDALE STATION

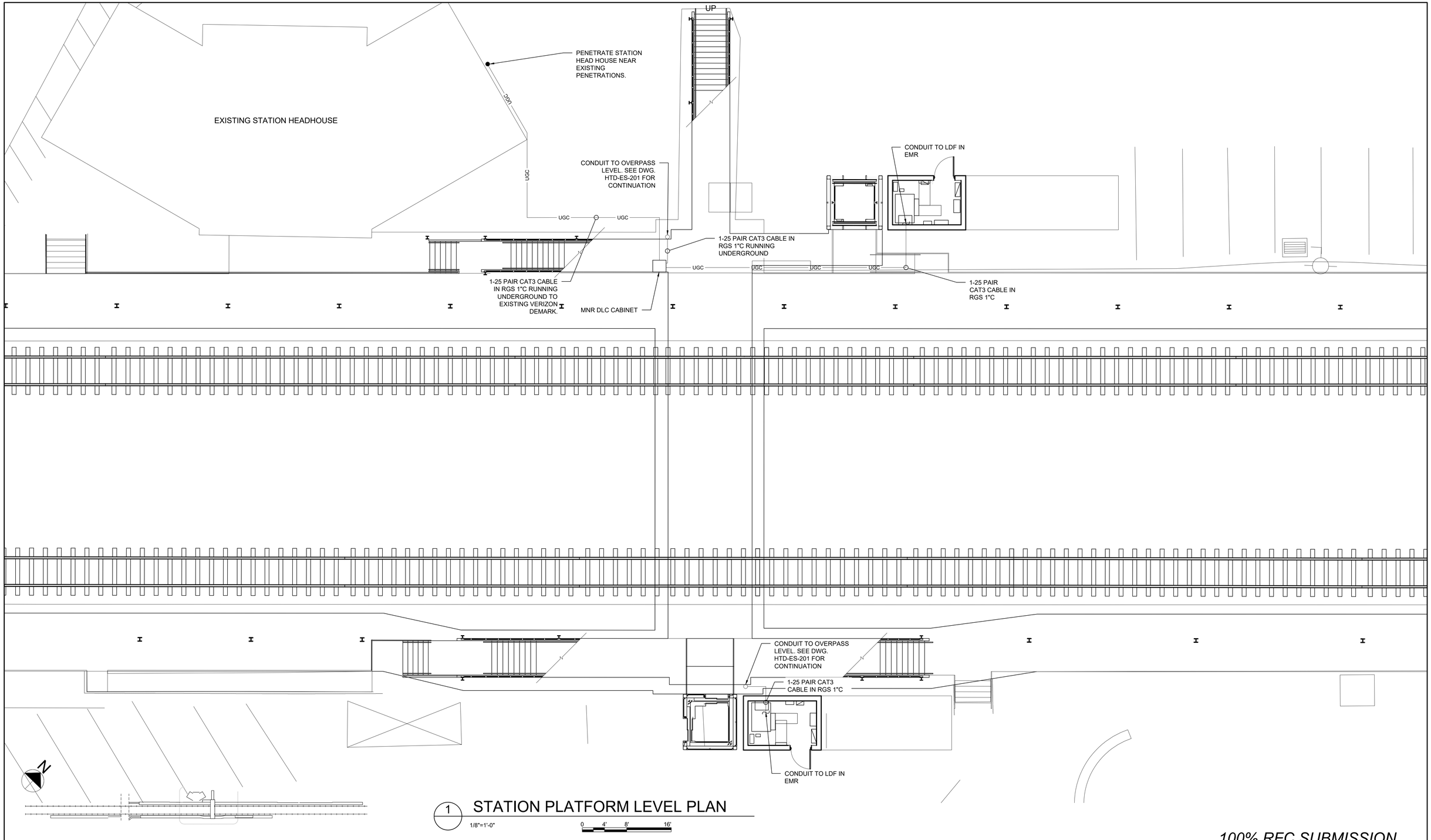
CONTRACT NO. 1000106733

SCALE 1/8" = 1'-0"

DATE 07/09/2021

DRAWING NO. HTD-ES-003

SHEET 83 OF 99



1 STATION PLATFORM LEVEL PLAN

1/8"=1'-0"

0 4' 8' 16'

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420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
PLATFORM LEVEL COMMUNICATION CONDUIT FINAL LAYOUT PLAN
HARTSDALE STATION

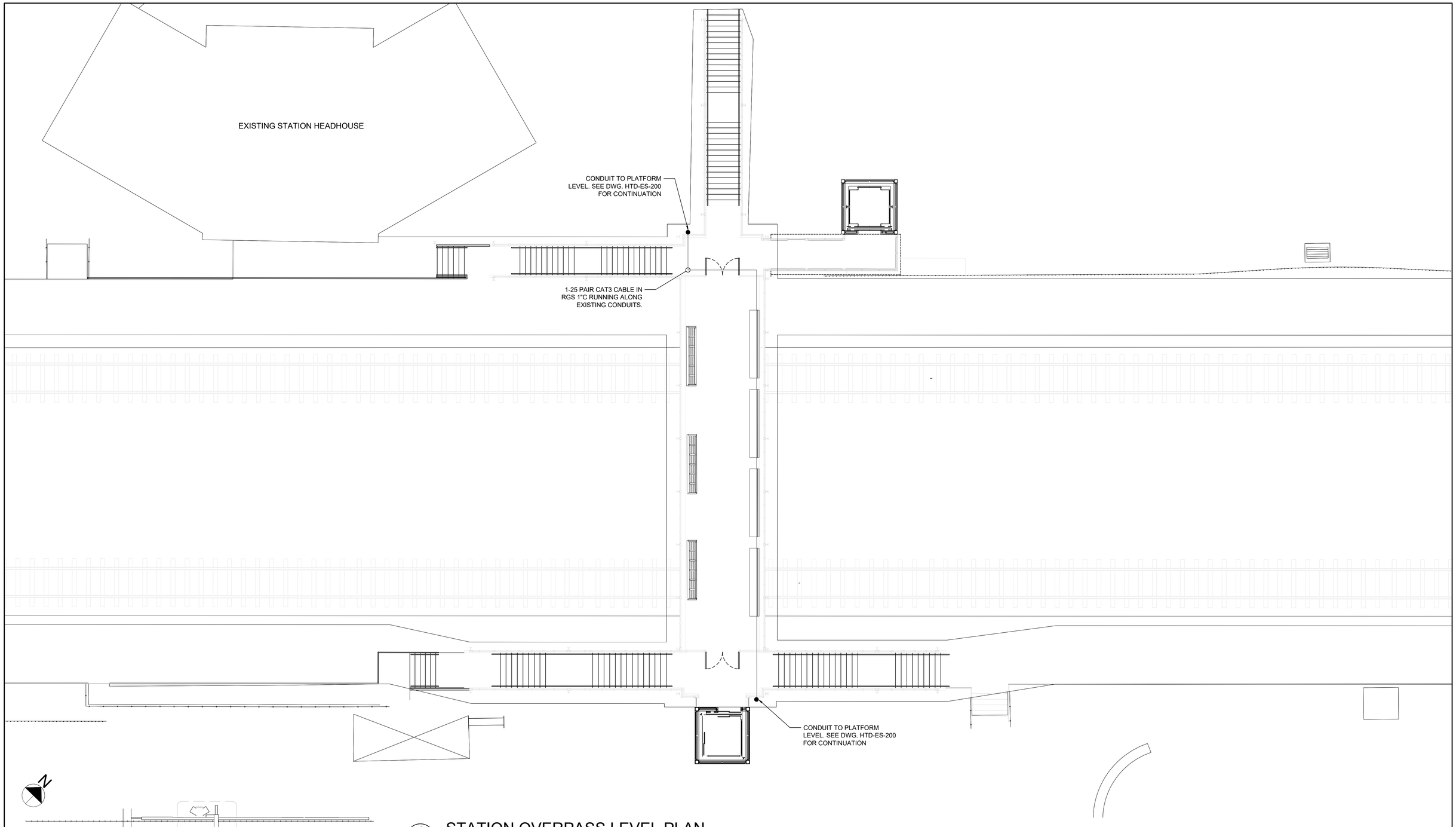
CONTRACT NO. 1000106733

SCALE 1/8" = 1'-0"

DATE 07/09/2021

DRAWING NO. HTD-ES-200

SHEET 84 OF 99



1 STATION OVERPASS LEVEL PLAN

1/8"=1'-0"

0 4' 8' 16'

100% RFC SUBMISSION

DESIGNED	SS
DRAWN	SS
CHECKED	TB
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TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

OVERPASS LEVEL COMMUNICATION CONDUIT FINAL LAYOUT PLAN

HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE: 1/8" = 1'-0"

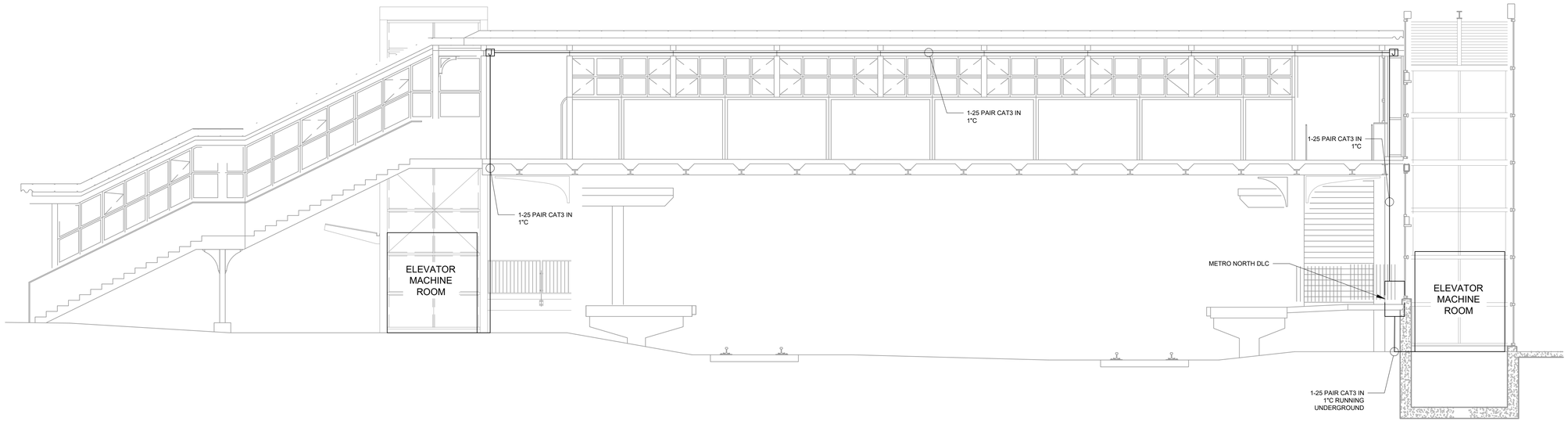
DATE: 07/09/2021

DRAWING NO.
HTD-ES-201

SHEET 85 OF 99

NOTES:

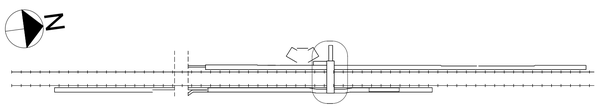
1. ALL 3 25 PAIR CABLES SHALL BE TERMINATED IN THE DLC CABINET. METRO-NORTH SHALL MAKE CROSS CONNECTIONS FOR ALL CONNECTIONS TO COMMERCIAL CARRIER OR METRO NORTH TELEPHONE SYSTEM.



1 STATION ELEVATION PLAN

1/4"=1'-0"

0 2' 4' 8'



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New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
OVERPASS LEVEL COMMUNICATION ELEVATION SOUTH VIEW FINAL
HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE	DATE
AS NOTED	07/09/2021

DRAWING NO.
HTD-ES-202

SHEET 86 OF 99

MECHANICAL INDEX SHEET

LINE DESIGNATIONS

CF	CHEMICAL FEED
D	DRAIN
E	EXPANSION
EXH	EXHAUST
G	NATURAL GAS
GHWS	GLYCOL HOT WATER SUPPLY
GHWR	GLYCOL HOT WATER RETURN
GV	GAS VENT
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
NPW	NON-POTABLE WATER
OF	OVERFLOW
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
RD	REFRIGERANT DISCHARGE
ST	STORM WATER
V	VENT PIPING

PIPING LINE SYMBOLS, ELEMENTS/VALVING

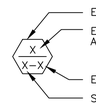
- EXISTING PIPING TO REMAIN
- EXISTING PIPING TO BE REMOVED
- NEW PIPING
- GATE VALVE
- GLOBE VALVE
- OR — BUTTERFLY VALVE
- BALL VALVE
- OS&Y GATE VALVE
- SWING CHECK VALVE
- TRIPLE DUTY VALVE
- GATE VALVE, ANGLE
- AUTO FLOW CONTROL VALVE
- CBV — CIRCUIT SETTING BALANCING VALVE
- THREE WAY CONTROL VALVE
- TWO WAY CONTROL VALVE
- VALVE-QUICK CLOSING
- RELIEF/SAFETY VALVE
- MV — MANUAL AIR VENT
- AV — AUTOMATIC AIR VENT (EXTEND DISCHARGE TO DRAIN)
- R, D — DIRECTION OF FLOW
- DIRECTION OF PITCH-RISE / DROP
- STRAINER
- STRAINER WITH BLOW OFF VALVE
- PIPE RISING UP
- PIPE DROPPING DOWN
- TEE OUTLET UP
- TEE OUTLET DOWN
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- UNION — SCREWED OR FLANGED
- A — ANCHOR
- G — GUIDE
- EJ — EXPANSION JOINT
- TI OR PI — THERMOMETER
- PG OR PG — GAUGE WITH GAUGE COCK & SYPHON (STEAM)
- AQUASTAT
- FLEXIBLE CONNECTION

NOTE: NOT ALL SYMBOLS, ABBREVIATIONS AND EQUIPMENT ABBREVIATIONS INDICATED APPEAR ON THESE CONTRACT DRAWINGS

ABBREVIATIONS

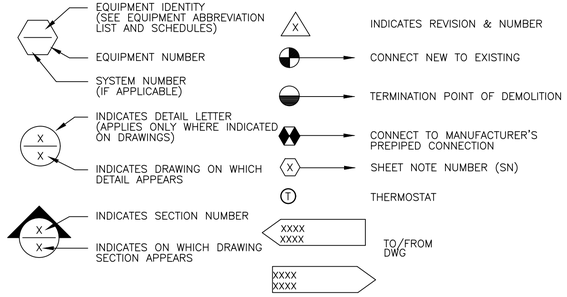
AAV	AUTOMATIC AIR VENT	GA	GAUGE	RL	REFRIGERANT LIQUID
ABV	ABOVE	GAL	GALLON	RLA	RATED LOAD AMPS
AD	ACCESS DOOR	GALV	GALVANIZED	RS	REFRIGERANT SUCTION
ADR	AREA DRAIN (SEE SYMBOLS)	GC	GENERAL CONTRACTOR	RM	ROOM
AFF	ABOVE FINISHED FLOOR	GPD	GALLONS PER DAY	RPM	REVOLUTIONS PER MINUTE
ALUM	ALUMINUM	GPH	GALLONS PER HOUR	–	–
AP	ACCESS PANEL	GPM	GALLONS PER MINUTE	SA	SUPPLY AIR
ATC	AUTOMATIC TEMPERATURE CONTROL	GR	GRILLE	SCH	SCHEDULE
AVER	AVERAGE	GRS/LB	GRAINS PER POUND	SCHEM	SCHEMATIC
AWT	AVERAGE WATER TEMPERATURE	–	–	SH	SENSIBLE HEAT
–	–	HT	HEIGHT	SIP	STERILIZE IN PLACE
BDD	BACK DRAFT DAMPER	H_2O	WATER	SP	STATIC PRESSURE
BFP	BACK FLOW PREVENTOR	HB	HOSE BIBB	SPEC	SPECIFICATION
BD	BLAST DAMPER	HD	HEAD (SEE SCHEDULES)	SQ	SQUARE
BLDG	BUILDING	HP	HORSEPOWER	SS	STAINLESS STEEL
BLW	BELOW	HR	HOUR	SSST	SUPPORT STEEL
BM	BELL MOUTH	HTR	HEATER	STD	STANDARD
BSMT	BASEMENT	HZ	HERTZ	STL	STEEL
BTU	BRITISH THERMAL UNIT	–	–	STM	STEAM
–	–	ID	INSIDE DIMENSION	STR	STRUCTURAL
CAP	CAPACITY	IN	INCHES	SUCT	SUCTION
CBV	CIRCUIT BALANCING VALVE	INCL	INCLUDING	SUP	SUPPLY
CF	INLINE EXHAUST FAN	INT	INTERNAL	SYS	SYSTEM
CFH	CUBIC FEET PER HOUR	INV	INVERT	–	–
CFM	CUBIC FEET PER MINUTE	–	–	TAD	TRANSFER AIR DUCT
CHP	CONCRETE HOUSEKEEPING PAD	KW	KILOWATT	TDH	TOTAL DYNAMIC HEAD
CI	CAST IRON	–	–	TEMP	TEMPERATURE
CIP	CLEAN IN PLACE	L	LENGTH	TOT	TOTAL
℄	CENTER LINE	LAT	LEAVING AIR TEMPERATURE	THT	TOTAL HEAT
CLG	CEILING	LB	POUND	TP	TOTAL PRESSURE
CO	CLEAN OUT	LBS/HR	POUNDS PER HOUR (#/HR)	TS	TEMPERATURE SWITCH
COL	COLUMN	LD	LINEAR DIFFUSER	TSP	TOTAL STATIC PRESSURE
COMP	COMPRESSOR	LIN	LINEAR	TT	TEMPERATURE TRANSMITTER
CON	CONCENTRIC	LIQ	LIQUID	TYP	TYPICAL
CONC	CONCRETE	LRA	LOCK ROTOR AMPS	–	–
COND	CONDENSATE	LVG	LEAVING	UC	UNDERCUT
CONN	CONNECTION	LVR	LOUVER	UNOCC	UNOCCUPIED
CONT'N	CONTINUATION	LWT	LEAVING WATER TEMPERATURE	–	–
CONTR	CONTRACTOR	–	–	V	VOLTS
CVS	CONTROL VALVE STATION	MC	MECHANICAL CONTRACTOR	VA	VALVE
–	–	MBH	THOUSANDS OF BTU PER HOUR	VB	VACUUM BREAKER
DA	DIRECT ACTING	MED	MEDIUM	VD	VOLUME DAMPER
DAMP	DAMPER	MFR	MANUFACTURER	VEL	VELOCITY
DB	DRY BULB	MH	MANHOLE	VI	VIBRATION ISOLATOR
DEPT	DEPARTMENT	MIN	MINIMUM	VOLT	VOLTAGE
DIA	DIAMETER	MISC	MISCELLANEOUS	VTR	VENT THRU ROOF
DIAG	DIAGRAM	MTD	MOUNTED	–	–
DIFF	DIFFERENTIAL	MVD	MANUAL VOLUME DAMPER	W	WIDTH
DISCH	DISCHARGE	–	–	W/	WITH
DIV	DIVISION	NC	NORMALLY CLOSED	W/O	WITHOUT
DIW	DOWN IN WALL	NEG	NEGATIVE	WB	WET BULB
DL	DOOR LOUVER	NIC	NOT IN CONTRACT	WC	WATER COLUMN
DN	DOWN	No	NUMBER	WG	WATER GAUGE
DWG	DRAWING	NO	NORMALLY OPEN	WT	WEIGHT
DX	DIRECT EXPANSION	NOM	NOMINAL		
–	–	NTS	NOT TO SCALE		
E	EXISTING	–	–		
EA	EACH	OA	OUTSIDE AIR		
EAT	ENTERING AIR TEMPERATURE	OB	OFF BOTTOM		
EC	ELECTRICAL CONTRACTOR	OD	OUTSIDE DIMENSION		
ECC	ECCENTRIC	OC	ON CENTER		
ECG	EGGCRATE GRILLE	OCC	OCCUPIED		
ECC	ENCLOSURE END CAP	OGH	OUTSIDE GROUND HYDRANT		
EFF	EFFICIENCY	OPG	OPENING		
EJ	EXPANSION JOINT	OS	OPEN SITE		
EL	ELEVATION	OT	OFF TOP		
ELEC	ELECTRIC	OV	OUTLET VELOCITY		
ELEV	ELEVATOR	OZ	OUNCE		
ENT	ENTERING	–	–		
EQ	EQUAL	PART	PARTIAL		
EQUIP	EQUIPMENT	PD	PRESSURE DROP (SEE SCHEDULE)		
ES	END SWITCH	PERF	PERFORATED		
ESP	EXTERNAL STATIC PRESSURE	PEX	CROSS-LINKED POLYETHYLENE		
ETC	AND SO FORTH	PH	PHASE		
EWT	ENTERING WATER TEMPERATURE	PG	PROPYLENE GLYCOL		
EXH	EXHAUST	PNEU	PNEUMATIC		
EXPAN	EXPANSION	POS	POSITIVE		
EXT	EXTERNAL	PPH	POUNDS PER HOUR		
–	–	PRESS	PRESSURE		
°F	DEGREES FAHRENHEIT	PS	PRESSURE SWITCH		
FA	FROM ABOVE	PSI	POUNDS PER SQUARE INCH GAUGE		
FB	FROM BELOW	PSIG	POUNDS PER SQUARE INCH GAUGE		
FC	FAIL CLOSED	PSIA	POUNDS PER SQUARE INCH ABSOLUTE		
FCV	FLOW CONTROL VALVE	PT	PRESSURE TRANSMITTER		
FD	FLOOR DRAIN	PV	PLUG VALVE		
F/D	FIRE DAMPER	PVC	POLYVINYL CHLORIDE		
FG	FILTER GRILLE	PVS	POLYVINYL COATED STEEL		
FIN	FINISHED	–	–		
FL	FLANGE	QUAN	QUANTITY		
FLA	FULL LOAD AMPS	–	–		
FLEX	FLEXIBLE	R	REGISTER		
FLR	FLOOR	RA	RETURN AIR		
FO	FAIL OPEN	RAC	RUN ABOVE CEILING		
FOB	FLAT ON BOTTOM	RAF	RUN ABOVE FLOOR		
FOT	FLAT ON TOP	RATC	RUN AT CEILING		
FP	FIRE PROTECTION	RBC	RUN BELOW CEILING		
FPH	FEET PER HOUR	RBF	RUN BELOW FLOOR		
FPM	FEET PER MINUTE	RBG	RUN BELOW GRADE		
FPS	FEET PER SECOND	RBJ	RUN BETWEEN JOIST		
FRICT	FRICTION	RCP	REINFORCED CONCRETE PIPE		
FS	FLOW SWITCH	RD	ROOF DRAIN		
F/S/D	COMBINATION FIRE AND SMOKE WITH ACCESS DOOR	RE	ROUNDED ENTRANCE/EXIT		
		REL	RELIEF		
FT	FEET	REQD	REQUIRED		
FTB	FLOOR TO BOTTOM	RET	RETURN		
FTR	FINNED TUBE RADIATION	RH	RELATIVE HUMIDITY		
FV	FACE VELOCITY	RICW	RUN IN CASEWORK		
FXC	FLEXIBLE CONNECTION	RIE	RUN IN ENCLOSURE		

EQUIPMENT ABBREVIATIONS



AB	AIR BLENDER	IRH	INFRARED HEATER
AC	AIR CONDITIONING UNIT	–	–
ACC	AIR COOLED CONDENSER	LFM	LAMINAR FLOW MODULE
AHU	AIR HANDLING UNIT	–	–
AM	AIR MEASURING DEVICE	MB	MIXING BOX
AS	AIR SEPERATOR	–	–
–	–	P–BF	PUMP – BOILER FEED
B	BOILER	P–C	PUMP – CONDENSER WATER
BFS	BOILER FEED SET	P–CF	PUMP – CHEMICAL FEED
BIBO	BAG IN/BAG OUT FILTER	P–CH	PUMP – CHILLED WATER
–	–	P–CO	PUMP – CONDENSATE
CC	COOLING COIL	P–DC	PUMP – DRY COOLER
CF	CHEMICAL FEED UNIT	P–ER	PUMP – ENERGY RECLAIM
CT	COOLING TOWER	P–FO	PUMP – FUEL OIL
CTF	COOLING TOWER FILTER	P–H	PUMP – HOT WATER
CU	CONDENSING UNIT	P–S	PUMP – SPARE
CUH	CABINET UNIT HEATER	P–TR	PUMP – TRANSFER
CV	AUTOMATIC CONTROL VALVE	PH	PREHEAT COIL
D	AUTOMATIC DAMPER	PHE	PENTHOUSE
DA	DEAERATOR	PRV	PRESSURE REDUCING VALVE
DC	DUST COLLECTOR	PS	PRESSURE SWITCH
DCR	DRY COOLER	–	–
DH	DOOR HEATER	R	REFRIGERATION UNIT
DHU	DEHUMIDIFICATION UNIT	RAD	RETURN AIR DEVICE
–	–	RAF	RETURN AIR FAN
(E)	EXISTING	RAH	RADIANT HEATER
EAD	EXHAUST AIR DEVICE	RD	RUPTURE DISC
EBR	ELECTRIC BASEBOARD RADIATION	RF	RELIEF AIR FAN
EDH	ELECTRIC DUCT HEATER	RH	REHEAT COIL
EF	EXHAUST FAN	RV	RELIEF VALVE
ERC	ENERGY RECLAIM COIL	RCF	RECIRCULATION AIR FAN
ET	EXPANSION TANK	–	–
EUH	ELECTRIC UNIT HEATER	SAD	SUPPLY AIR DEVICE
–	–	SF	SUPPLY FAN
F	FILTER	SRV	SAFETY RELIEF VALVE
FC	FAN COIL UNIT	ST	STORAGE TANK
FM	FLOW METER	STP	SOUND TRAP
FT	FLASH TANK	–	–
–	–	TAD	TRANSFER AIR DEVICE
GFU	GLYCOL FEED UNIT	TAF	TERMINAL AIR FILTER
–	–	TF	TRANSFER FAN
H	HUMIDIFIER	TU	TERMINAL UNIT
HC	HEATING COIL	TUE	TERMINAL UNIT – EXHAUST
HE	HEAT EXCHANGER	TUR	TERMINAL UNIT – RETURN
HP	HEAT PUMP	TUS	TERMINAL UNIT – SUPPLY
HR	HEAT RECOVERY UNIT	–	–
HTP	HEAT TRANSFER PACKAGE	UH	UNIT HEATER
HWC	HOT WATER CONVERTOR	–	–
		WF	WATER FILTER
		WS	WATER SOFTENER

REFERENCE SYMBOLS



GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER. CARE SHALL BE EXERCISED TO MINIMIZE ANY INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION. ISOLATE WORK AREAS BY MEANS OF TEMPORARY PARTITIONS AND/OR TARPS TO KEEP DUST AND DIRT WITHIN THE CONSTRUCTION AREA.
2. NO PIPING, EQUIPMENT, ETC. SHALL BE REMOVED, DISCONNECTED OR SHUT DOWN WITHOUT PRIOR REVIEW WITH THE OWNER AND/OR ENGINEER TO CONFIRM THAT AREAS TO REMAIN IN OPERATION WILL NOT BE AFFECTED. IF ANY AREAS NOT WITHIN THE SCOPE OF WORK ARE AFFECTED BY ANY SHUTDOWN, REMOVAL OR DISCONNECTION, SUFFICIENT ADVANCE NOTICE MUST BE GIVEN TO THE OWNER INDICATING WHICH AREAS WILL BE AFFECTED, WHEN THE PROPOSED SHUTDOWN WILL OCCUR, AND FOR HOW LONG A PERIOD OF TIME.
3. ALL ITEMS REMOVED SHALL BECOME PROPERTY OF THE OWNER AND SHALL BE DISPOSED OF AS PER THE OWNER'S INSTRUCTIONS, UNLESS INDICATED OTHERWISE. ALL ITEMS WHICH ARE NOT TO BE STORED ON SITE BY OWNERS SHALL BE REMOVED FROM THE BUILDING IMMEDIATELY.
4. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. WHERE DISCREPANCIES OCCUR BETWEEN THESE DOCUMENTS AND EXISTING CONDITIONS, THE DISCREPANCY SHALL BE REPORTED TO THE OWNER AND/OR ENGINEER FOR EXPEDITING AND RESOLVE.
5. CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES AGAINST FIRE, THEFT AND ENVIRONMENTAL CONDITIONS
7. SUCCESSFULLY PRESSURE TEST ALL PIPING SYSTEMS. TEST SHALL BE PERFORMED AT NORMAL SYSTEM OPERATING PRESSURES. REPAIR AND RETEST AS REQUIRED UNTIL SYSTEMS PROVE TIGHT.
8. PROVIDE ALL NECESSARY TEMPORARY OR PERMANENT CAPS OR PLUGS FOR PIPING. DO NOT LEAVE PIPING OPEN ENDED.
9. WHERE USED, THE TERM "PROVIDE" SHALL MEAN "FURNISH AND INSTALL"
10. CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES PRIOR TO FABRICATION, PURCHASE AND/OR INSTALLATION OF ALL WORK.
11. IF CONTRACTOR ENCOUNTERS WHAT APPEARS TO BE A HAZARDOUS OR QUESTIONABLE MATERIAL, HE SHALL DISCONTINUE WORK IMMEDIATELY AND CONTACT THE OWNERS REPRESENTATIVE.
12. IF A DISCREPANCY ARISES BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, CONTACT THE ARCHITECT/ENGINEER FOR RESOLUTION BEFORE PROCEEDING.
13. IN EVENT THAT ANY ASBESTOS IS FOUND ON THE JOB SITE, REMOVAL SHALL TAKE PLACE IN ACCORDANCE WITH ALL APPLICABLE CODES, OSHA REGULATION 1901.1, INCLUDING STATE AND FEDERAL DUMPING GROUNDS.
14. THE WORK SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2018 INTERNATIONAL MECHANICAL CODE AND THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE.

100% RFC SUBMISSION

DESIGNED	EJD
DRAWN	EJD
CHECKED	AVB
APPROVED	AVB

STATE OF NEW YORK — ANTHONY V. BAYER — LICENSED — 060529 — PROFESSIONAL ENGINEER

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TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
SYMBOLS LEGEND ABBREVIATIONS & GENERAL NOTES
HARTSDALE STATION

CONTRACT NO. 1000106733
SCALE
DATE 07/09/2021
DRAWING NO. HTD-M-001
SHEET 87 OF 99

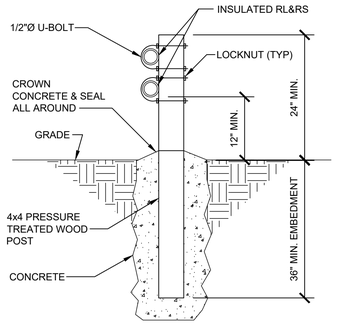
HEAT PUMP, AIR-COOLED, SPLIT-SYSTEM, DX UNIT COMPRESSOR/CONDENSER SCHEDULE

TAG. NO.	LOCATION	BASIS OF DESIGN MANUFACTURER	SYSTEM SERVED	CONDENSER FAN CFM	COOLING CAP. (BTUH)	COOLING EFFICIENCY EER	HEATING COP @ 47°F	CONDENSING O.A. TEMP. (°F DB)		COMPRESSOR MOTOR		COMPRESSOR TYPE	FAN MOTORS WATTS	MODEL No.	UNIT ELECTRICAL POWER (V/PH/HZ)	UNIT FLA (AMPS)	UNIT MCA (AMPS)	UNIT MFA (AMPS)	REFRIG. TYPE	UNIT OVERALL DIMENSIONS (IN.) (LxWxH)	REMARKS
								COOLING	HEATING	QTY.	RLA										
ACC-1	ON GRADE	MITSUBISHI	AC-1	3,880	36,000	10.8	4.52	115	0	1	8	INVERTER DRIVEN SCROLL, HERMETIC	(2) 74	PUZ-A36NKA7	208/1/60	13	25	31	R410A	18x42x53	SEE NOTES
ACC-2	ON GRADE	MITSUBISHI	AC-2	3,880	36,000	10.8	4.52	115	0	1	8	INVERTER DRIVEN SCROLL, HERMETIC	(2) 74	PUZ-A36NKA7	208/1/60	13	25	31	R410A	18x42x53	SEE NOTES

NOTES:
1. UNIT MOUNTED ON CONCRETE PAD.
2. INDOOR UNIT POWERD FROM OUTDOOR.
3. PROVIDE WITH WIND BAFFLE FOR LOW-AMBIENT OPERATION CAPABILITY DOWN TO AT LEAST ZERO °F.
4. THE CONTRACTOR SHALL CONFIRM THE CORRECT SIZES OF THE RL AND RS REFRIGERANT PIPING OF EACH AC/ACC UNIT SYSTEM WITH THE APPROVED EQUIPMENT MANUFACTURER.

HEAT PUMP, AIR-COOLED, SPLIT-SYSTEM, DX UNIT EVAPORATOR SCHEDULE

TAG. NO.	ASSOCIATED ACC UNIT	LOCATION	BASIS OF DESIGN MANUFACTURER	HIGH SPEED SUPPLY CFM	GROSS COOLING CAPACITY (BTUH)	SENSIBLE COOLING CAPACITY (BTUH)	FAN MOTOR W	UNIT ELECTRICAL POWER		MODEL No.	MOUNTING ARRANGEMENT	REMARKS
								VOLT/PH/HZ	FLA (AMPS)			
AC-1	ACC-1	EMR	MITSUBISHI	810	36000	25000	56	208/1/60	.57	PKA-36KA7	WALL MOUNTED	-
AC-2	ACC-1	EMR	MITSUBISHI	810	36000	25000	56	208/1/60	.57	PKA-36KA7	WALL MOUNTED	-



EXTERIOR REFRIGERANT PIPE SUPPORT DETAIL

NO SCALE

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DESIGNED	EJD
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TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

DETAILS & SCHEDULES

HARTSDALE STATION

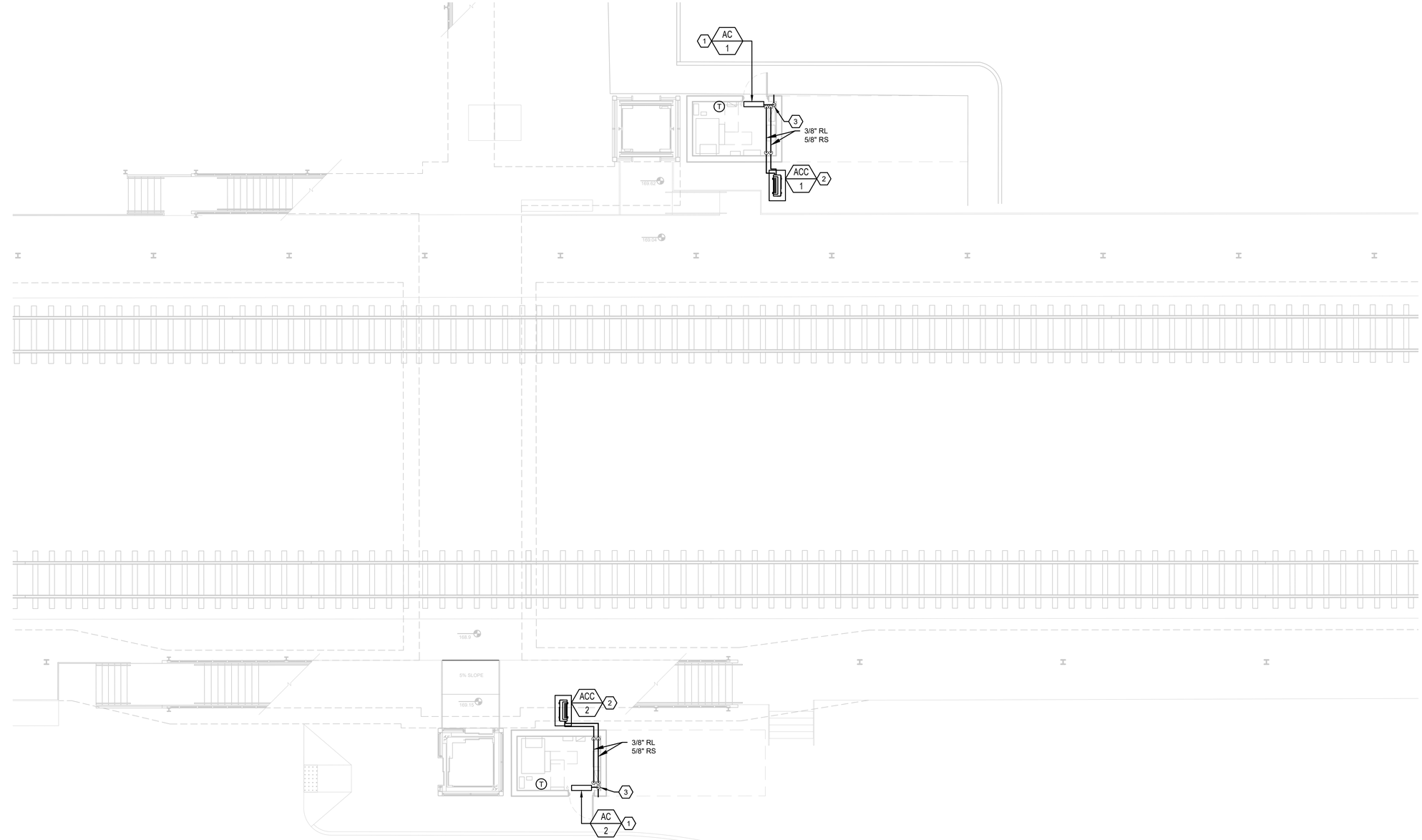
CONTRACT NO.
1000106733

SCALE

DATE
07/09/2021

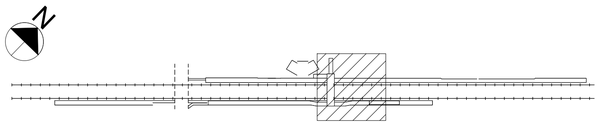
DRAWING NO.
HTD-M-002

SHEET 88 OF 99



KEY NOTES:

1. PROVIDE WALL MOUNTED AC UNITS ABOVE DOORWAY. UNITS SHALL BE PROVIDED WITH DEDICATED, FACTORY FURNISHED, THERMOSTAT CONTROLLER AS SPECIFIED WITH AUTOMATIC CHANGEOVER BETWEEN HEATING AND COOLING MODES.
2. PROVIDE ACC UNITS ON 12" HIGH CONCRETE PAD. FIELD ROUTE REFRIGERANT LINES TO ASSOCIATED INDOOR AC UNITS. SEE SPECIFICATION SECTION 230719 FOR INSULATION AND JACKETING ON BOTH RL & RS PIPING.
3. FIELD ROUTE CONDENSATE DRAIN LINE TO 1" AFF AND PENETRATE FACADE. SPILL CONDENSATE ON GRADE AND PROVIDE SLEEVE AND SEAL AT PENETRATION.



1 - MECHANICAL PLATFORM PART PLAN

1/8"=1'-0"

0 4' 8' 16'

100% RFC SUBMISSION

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DRAWN	EJD
CHECKED	AVB
APPROVED	AVB

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225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

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420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
MECHANICAL PLATFORM PART PLAN
HARTSDALE STATION

CONTRACT NO. 1000106733
SCALE
DATE 07/09/2021
DRAWING NO. HTD-M-003
SHEET 89 OF 99

GENERAL NOTES

1. THE WORK INCLUDES PROVIDING ALL LABOR, EQUIPMENT, MATERIALS AND NECESSARY SERVICES TO PROVIDE A COMPLETE NEW ADDRESSABLE FIRE ALARM SYSTEM AT MNR HARTSDALE STATION AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS

2. ALL WORK SHALL COMPLY WITH NFPA 72-2013, THE INTERNATIONAL BUILDING CODE 2015 WITH 2016 SUPPLEMENTS, NFPA 70-2014 (AS APPLIED TO CABLE APPROVALS ONLY).

3. LOCATION OF CONDUITS AND DEVICES
   A. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE EXISTING CONDITIONS AS SHOWN ON THE CONTRACT DRAWINGS BEFORE SUBMITTING THE BID TO ENSURE THAT CONDITIONS AT THE TIME OF BID ARE ACCOUNTED FOR.
   B. THE CONTRACTOR SHALL SUBMIT THE CONDUIT LAYOUT FOR APPROVAL BEFORE COMMENCEMENT OF INSTALLATION WORK.
   C. THE CONTRACTOR SHALL SUBMIT CONDUITS AND DEVICES INSTALLATION DETAILS BEFORE COMMENCEMENT OF WORK.

4. CONDUIT MOUNTING
   A. THE CONTRACTOR SHALL CONDUCT SITE SURVEYS AS REQUIRED TO DESIGN THE CONDUIT LAYOUT INCLUDING CONDUIT SIZE AND MOUNTING BRACKETS.
   B. FIRE ALARM CONDUIT SHALL BE ROUTED IN COORDINATION WITH EXISTING CONDITIONS. THE CONDUITS SHOWN ON THE DRAWINGS REPRESENTS A SUGGESTED PATH OF ROUTINGS BASED ON FIELD CONDITIONS. CONTRACTOR SHALL SURVEY THE FIELD AND OBTAIN APPROVAL OF THE CONDUIT ROUTINGS FROM MNR. APPROVED CONDUIT LAYOUT AND APPROVAL SHALL BE SUBMITTED.
   C. CONDUIT SHALL BE PERMITTED TO BE WALL MOUNTED AT THE CEILING OR CEILING MOUNTED AT WALL.
   D. ALL MOUNTING BRACKETS SHALL BE NEW.
   E. CLASS A CONDUIT SHALL COMPLY WITH NFPA 72.
   F. CONDUIT PERCENTAGE (%) FILL REQUIREMENTS PER NEC SHALL BE APPLIED UNDER THIS CONTRACT.

5. PRIOR TO TESTING THE SYSTEM, ALL CABLE SEGMENTS BETWEEN DEVICES SHALL BE TESTED IN ACCORDANCE WITH THE APPROVED CABLE TEST. PROCEDURE. NO DEVICES SHALL BE TERMINATED PRIOR TO THE SUCCESSFUL COMPLETION OF INSULATION RESISTANCE TESTS.

6. THE SYSTEM SHALL BE TESTED IN ACCORDANCE WITH NFPA 72 REQUIREMENTS.

7. THE NEW FIRE ALARM SYSTEM SHALL REPORT TO LOCAL FIRE DEPARTMENT. THE CONTRACTOR SHALL TEST AND VERIFY THE TRANSMISSION OF FIRE ALARM CONDITIONS TO CAMS AS A PART OF THE FIRE ALARM SYSTEM TESTING PROCEDURE.

8. ANY DEFICIENCIES IDENTIFIED DURING INSPECTION AS RESULT OF FALLURE TO COMPLY WITH CONTRACTUAL AND NFPA 72 INSTALLATION REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE AUTHORITY OR THE CONTRACTING PARTY.

9. DEVICE LOCATION SHOWN ON THE DRAWINGS IS APPROXIMATE. THE CONTRACTOR SHALL INSTALL EACH DEVICE PER NFPA 72 AND MNR REQUIREMENTS AS APPLICABLE.

10. REFER TO SEQUENCE OF OPERATIONS FOR PROGRAMMING DETAILS.

11. ALL SYMBOLS ARE NOT DRAWN TO SCALE.

12. FOR DETAILS AND PROVISIONS REFER TO CONTRACT SPECIFICATIONS.

13. FACP SHALL BE ABLE TO ACCEPT INITIATION SIGNALS THAT CAN BE PROGRAMMED TO TRANSMIT 4 SIGNALS: FIRE, CARBON MONOXIDE, SUPERVISORY, AND TROUBLE.

14. FACP SHALL HAVE MONITORING CONNECTION VIA 2 POTS. THE MONITORING CONTRACT SHALL BE COVERED FOR ONE YEAR BY THE CAPITAL PROJECT AND SHALL USE THE OSS-FIRE SAFETY CONTRACTOR. THE PROJECT SHALL BE RESPONSIBLE FOR ANY CHANGES TO THE FIRE ALARM SYSTEM TO INTEGRATE INTO THE OSS-FIRE SAFETY CONTRACTOR.

15. MONITORING CALL DOWN LIST FOR THE DIFFERENT SIGNALS SHALL BE APPROVED BY OSS-FIRE SAFETY.

16. SMOKE AND HEAT DETECTORS SHALL BE LISTED FOR THE CONDITIONS THEY ARE PLACED IN OR ALTERNATIVE COVERAGE, PERMITTED BY NFPA 72 AND ASME A17.1, SHALL BE PROVIDED. NO DEVICES SHALL BE INSTALLED OUTSIDE THE LIMITATIONS OF THEIR LISTING.

17. TECHNICIAN LEVEL TRAINING SHALL BE PROVIDED TO OSS-FIRE SAFETY STAFF (UP TO 5) AND APPROPRIATE MNR TECHNICIANS ON THE SPECIFIC BRAND AND TYPE OF FACP INSTALLED.

INSTALLATION NOTES

1. THE INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF NFPA 72.

2. ALL CONDUIT SHALL BE RIGID STEEL HOT-DIPPED GALVANIZED. PROVIDE PVC COATED CONDUIT OUTSIDE ABOVE GROUND.

3. ALL WALL PENETRATIONS SHALL BE FIRE STOPPED (2 HOUR RATING).

4. CONDUIT SHALL BE INTERNALLY SEALED AT THE POINT OF PANEL ENTRY.

5. FOLLOWING THE INSTALLATION AND APPROVAL OF THE NEW FIRE ALARM SYSTEM THE CONTRACTOR SHALL REPAIR, PATCH AND PAINT ALL DAMAGED AREAS TO MATCH SURROUNDING AREAS TO THE SATISFACTION OF THE ENGINEER.

6. COORDINATE ALL WORK WITH EXISTING FIELD CONDITIONS TO AVOID INTERFERENCES.

7. PROVIDE JUNCTION AND PULL BOXES AS REQUIRED TO FACILITATE PULLING OF WIRES. ALL BOXES SHALL BE ACCESSIBLE WITHOUT DAMAGING THE BUILDING STRUCTURE/FINISH.

8. CONTROL/SIGNAL/ AUXILIARY RELAYS SHALL BE 5 ½- 7 FT AFF OR AS PER FIELD CONDITIONS WITH THE ENGINEER'S APPROVAL. CONTROL AND SIGNAL MODULES SHALL BE LOCATED WITHIN 3 FT OF INTERFACED EQUIPMENT.

9. INSTALL MONITOR MODULES, CONTROL RELAYS, TEST STATIONS, AUXILIARY RELAYS AT 60-96" AFF OR AS DIRECTED BY THE ENGINEER.

10. THE FACP SHALL BE MOUNTED SUCH THAT THE DISPLAY IS 5 ½- 6 FT AFF.

11. NOTIFICATION, SIGNALING AND AUXILIARY POWER CIRCUITS ARE PERMITTED TO BE CO-LOCATED WITHIN THE SAME CONDUIT.

12. 120 VAC WIRING FOR FIRE ALARM SYSTEM EQUIPMENT SHALL BE INSTALLED IN ITS OWN SEPARATE AND DEDICATED RACEWAY. REFER TO ELECTRICAL DRAWINGS FOR THESE CIRCUITS.

13. USE OF WIRE NUTS IS NOT ACCEPTABLE FOR ANY WIRING TERMINATIONS.

14. HEAT DETECTORS SHALL BE PROVIDED AS SHOWN ON THE CONTRACT DRAWINGS AND MUST BE COORDINATED WITH THE ELECTRICAL AND MECHANICAL EQUIPMENT FOR EXACT PLACEMENT OF THE DEVICE PRIOR TO THE ISSUANCE OF SHOP DRAWINGS. ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND RESOLVED PRIOR TO INSTALLATION. DISPOSITION OF THE SHOP DRAWING SHALL NOT RELIEVE THE CONTRACTOR OF PROVIDING A MAINTAINABLE SYSTEM.

15. PROVIDE LABELS AND TAGGING FOR ALL PANELS, CONDUITS AND ADDRESSABLE DEVICES.

16. PROVIDE CIRCUIT ID LABELS FOR ALL NOTIFICATION APPLIANCES. FOR LAST DEVICE ON A CIRCUIT INDICATE "EOL".

SYMBOL	DESCRIPTION
G WP	AREA SMOKE DETECTOR (G-WIRE GUARD, WP-WEATHER PROOF)
H G WP	AREA HEAT DETECTOR (G-WIRE GUARD, WP-WEATHER PROOF)
WP 15	STROBE (75 CANDEL SETTING FOR WEATHER PROOF APPLIANCES, 15 CANDELA FOR ALL OTHERS) "WP" INDICATES WEATHERPROOF (CEILING MOUNTING)
WP 15	HORN/STROBE (15 CANDELA). "WP" INDICATES WEATHERPROOF.
FACP	FIRE ALARM CONTROL PANEL
F	PULL STATION
K	KNOX BOX THAT IS KEYED TO LOCAL FIRE DEPT.
	PROPOSED UNDERGROUND CONDUIT
	PROPOSED ABOVE GROUND CONDUIT
	CONDUIT UP
	CONDUIT DOWN
RR	REMOTE RELAY
RI	RELAY INPUT MODULE
MM	MONITOR MODULE
EOL	END OF LINE RESISTOR

ABBREVIATION	DESCRIPTION
EMR	ELEVATOR MACHINE ROOM
MNR	METRO-NORTH RAILROAD
NAC	NOTIFICATION APPLIANCE CIRCUIT
R	RELAY CIRCUIT
RM	ROOM
SLC	SIGNAL LINE CIRCUIT
WP	WEATHER PROOF

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DESIGNED	VC
DRAWN	WF
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK GERI I. GOLDMAN LICENSED PROFESSIONAL ENGINEER No. 032965

NO.	DATE		DRWN	CHKD	APPVD

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225 PARK AVENUE SOUTH,
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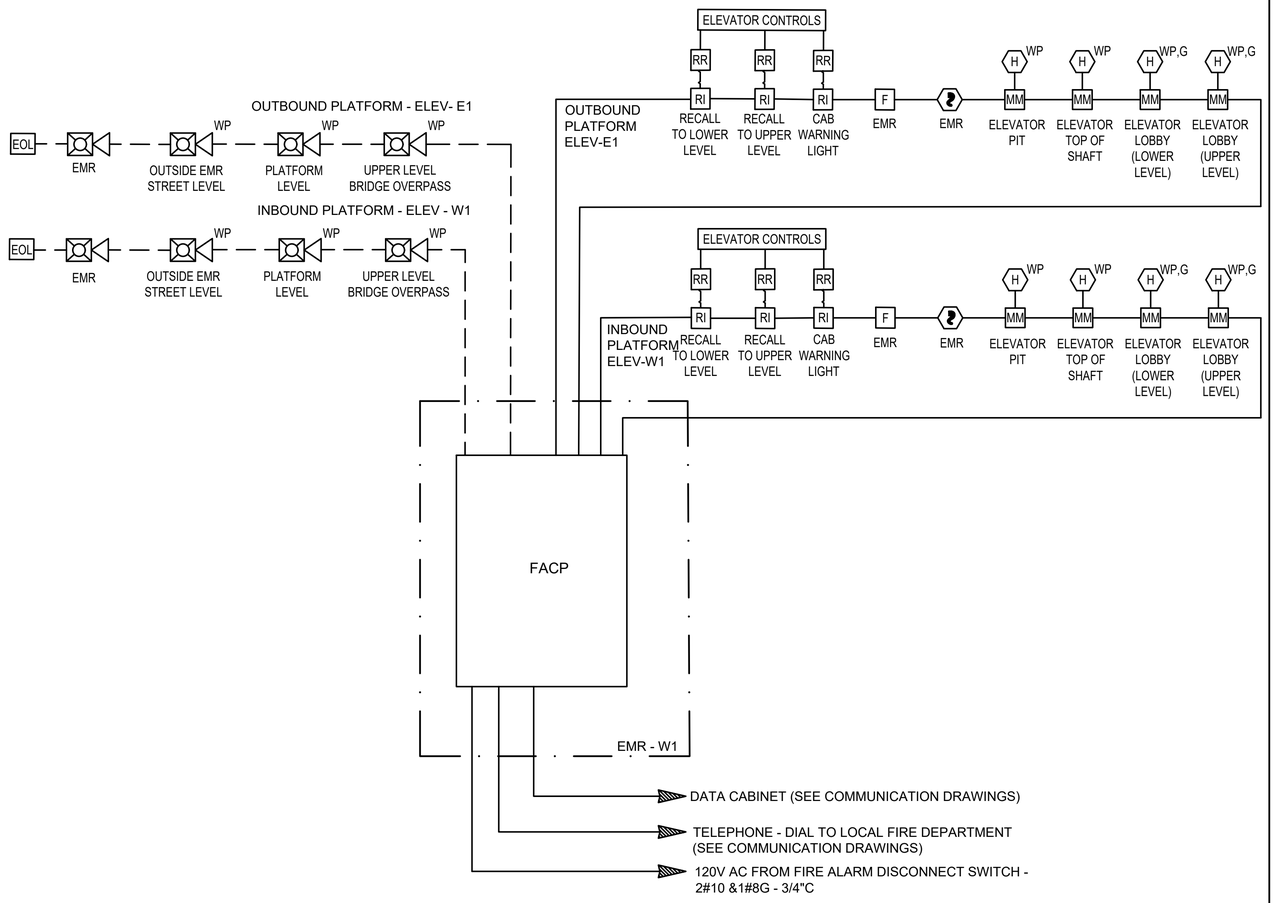
TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
FIRE ALARM SYSTEM GENERAL NOTES, SYMBOL LIST & ABBREVIATION LIST
HARTSDALE STATION

CONTRACT NO. 1000106733
SCALE
DATE 08/03/2021
DRAWING NO. HTD-FA-001
SHEET 90 OF 99

SYSTEM INPUTS		SYSTEM OUTPUTS												
		FACP FUNCTIONALITY			NOTIFICATION	CONTROL								
		ACTIVATE SOUNDER, FIRE LED AND TEXTUALE DISPLAY ON PANEL	ACTIVATE SOUNDER, SUPERVISORY LED AND TEXTUALE DISPLAY ON PANEL AND ANNUNCIATOR	ACTIVATE SOUNDER, TROUBLE LED AND TEXTUALE DISPLAY ON PANEL AND ANNUNCIATOR	ACTIVATE HORN/STROBES IN EMR AND OUTSIDE EMR	NOTIFY RCC CAMS OF ALARM CONDITION VIA IP CAPTURE CARD OR DACT	NOTIFY RCC CAMS OF SUPERVISORY CONDITION CIA IP CAPTURE CARD OR DACT	NOTIFY RCC CAMS OF TROUBLE CONDITION VIS IP CAPTURE CARD OR DACT	RECALL W1 TO LOWER LEVEL (STREET)	RECALL W1 TO UPPER LEVEL (OVERPASS)	ACTIVATE CAB WARNING SIGNAL SIGN IN W1	RECALL E1 TO LOWER LEVEL (STREET)	RECALL E1 TO UPPER LEVEL (OVERPASS)	ACTIVATE CAB WARNING SIGNAL SIGN IN E1
		A	B	C	D	E	F	G	H	I	J	K	L	M
W1 FIRE ALARM MANUAL PULL STATION IN EMR	1	X			X	X								
W1 EMR DETECTOR	2	X			X	X				X	X			
W1 TOP OF SHAFT DETECTOR	3	X			X	X			X		X			
W1 PIT DETECTOR	4	X			X	X				X	X			
W1 PLATFORM DETECTOR (LOWER LEVEL)	5	X			X	X				X	X			
W1 OVERPASS DETECTOR (UPPER LEVEL)	6	X			X	X			X		X			
E1 FIRE ALARM MANUAL PULL STATION IN EMR	7	X			X	X								
E1 EMR DETECTOR	8	X			X	X							X	X
E1 TOP OF SHAFT DETECTOR	9	X			X	X						X		X
E1 PIT DETECTOR	10	X			X	X							X	X
E1 PLATFORM DETECTOR (LOWER LEVEL)	11	X			X	X							X	
E1 OVERPASS DETECTOR (UPPER LEVEL)	12	X			X	X						X		
GENERAL TROUBLE	13			X				X						
AC POWER LOSS	14			X				X						
BATTERY TROUBLE	15			X				X						
DIRTY SMOKE DETECTOR	16			X				X						
EXCESSIVELY DIRTY SD	17			X				X						
CLASS A TROUBLE	18			X				X						
SHORT CKT TROUBLE	19			X				X						
24 VDC LOSS	20			X				X						
IP CAPTURE CARD TBL	21		X				X							
IP CAPTURE POWER LOSS	22		X				X							



NOTES:

1. REFER TO PLAN DRAWINGS FOR THE LOCATION OF THE DEVICES.
2. PHASE 1 ELEVATOR CONTROL
   A. PRIMARY LEVEL IS LOWER LEVEL:
      - RECALL TO PRIMARY LEVEL WHEN TOP OF SHAFT DETECTOR OR UPPER LOBBY DETECTOR IS ACTIVATED.
   B. ALTERNATE LEVEL IS UPPER LEVEL:
      - RECALL TO ALTERNATE LEVEL WHEN LOWER LOBBY DETECTOR , ELEVATOR MACHINE ROOM DETECTOR, OR PIT DETECTOR IS ACTIVATED.
   C. PROVIDE REQUIRED MODULE TO CONNECT TO THE ELEVATOR CONTROLLERS.
3. PROVIDE REQUIRED COMMUNICATION EQUIPMENT TO INTERFACE WITH THE TELEPHONE PROVIDER TO DIAL TO MTA POLICE AND OCC IN THE EVENT OF ALARM.

CIRCUIT DESTINATION	CIRCUIT TYPE	CABLE TYPE
— — — — —	NAC	2-1PR. #12 AWG NYC FPLP - 3/4"C
————	SLC	1PR. #16 AWG NYC FPLP, T/S - 3/4"C
- - - - - - - - - -	R	2/C #14 AWG

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DESIGNED VC
DRAWN WF
CHECKED GG
APPROVED GG

STATE OF NEW YORK GERI I. GOLDMAN LICENSED PROFESSIONAL ENGINEER No. 075965

NO.	DATE		DRWN	CHKD	APPVD

REVISION

NO.	DATE	CONFORMED	DRWN	CHKD	APPVD

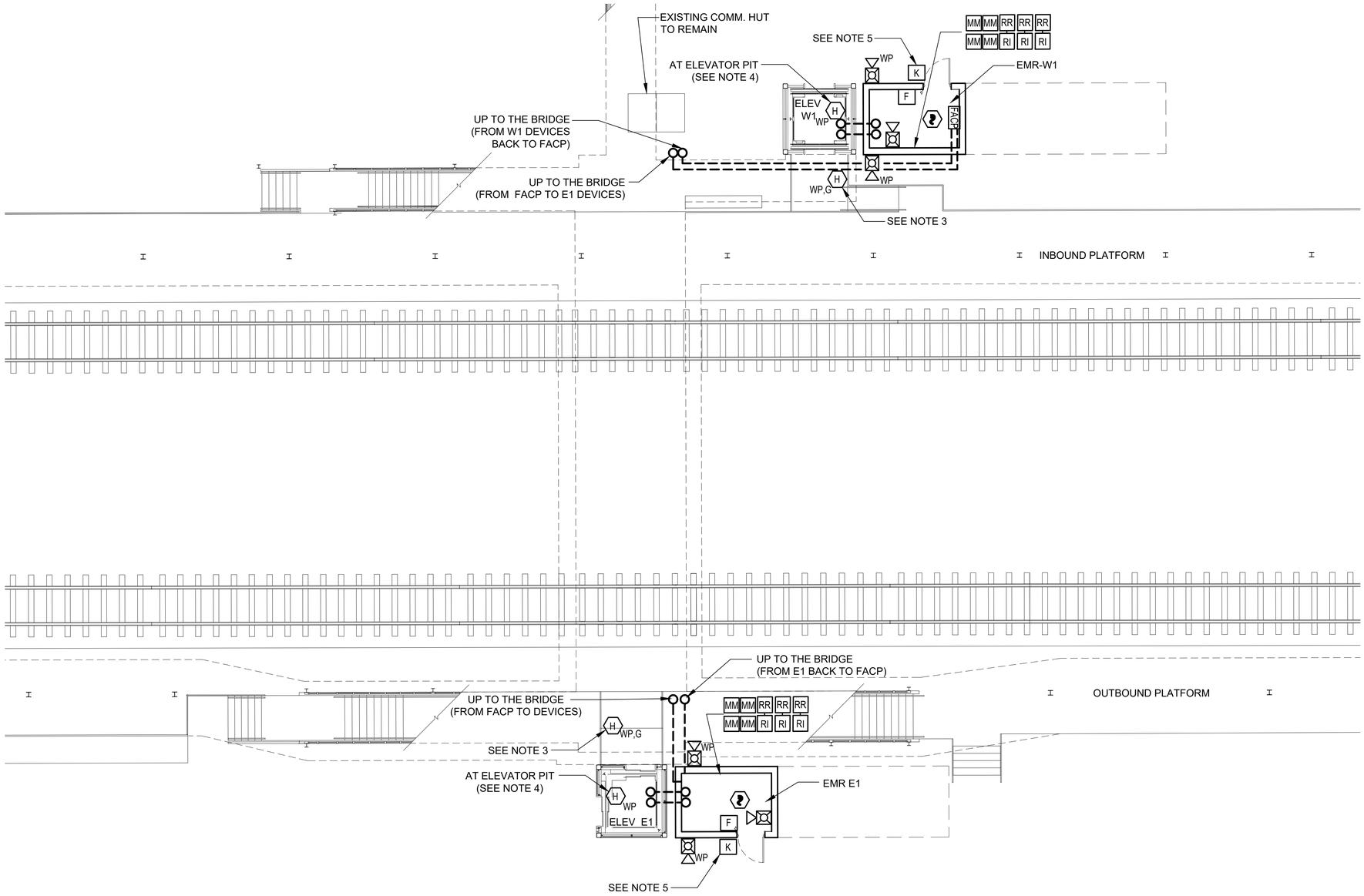
REVISION

STV 100 Years
225 PARK AVENUE SOUTH,
NEW YORK, NY 10003

Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
FIRE ALARM SYSTEM RISER DIAGRAM & SEQUENCE OF OPERATION
HARTSDALE STATION

CONTRACT NO. 1000106733
SCALE
DATE 08/03/2021
DRAWING NO. HTD-FA-002
SHEET 91 OF 99



1 FIRE ALARM PLAN - PLATFORM LEVEL

1/8"=1'-0"

0 4' 8' 16'

NOTES:

1. FOR SYMBOLS, ABBREVIATIONS, NOTES, RISER DIAGRAM AND SEQUENCE OF OPERATION, SEE DRAWING HTD-FA-001 AND HTD-FA-002.
2. EXACT LOCATION OF THE EXTERIOR HORN/STROBE SHALL COMPLY WITH METRO-NORTH REQUIREMENTS.
3. HEAT DETECTOR SHALL BE MOUNTED WITHIN 21 FEET OF THE ELEVATOR DOOR.
4. HEAT DETECTOR SHALL BE MOUNTED AT HIGHEST LEVEL POSSIBLE WHEN ELEVATOR CAB IS AT THE LOWEST LEVEL.
5. KNOX BOX TO BE IN ACCORDANCE WITH METRO NORTH AND LOCAL FIRE DEPARTMENT REQUIREMENT. PROVIDE SUBMITTAL FOR APPROVAL. ELEVATOR KEY SHALL BE 2642.

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	SK
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK GERI I. GOLDMAN LICENSED PROFESSIONAL ENGINEER No. 039858

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MTA Metro-North Railroad
420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

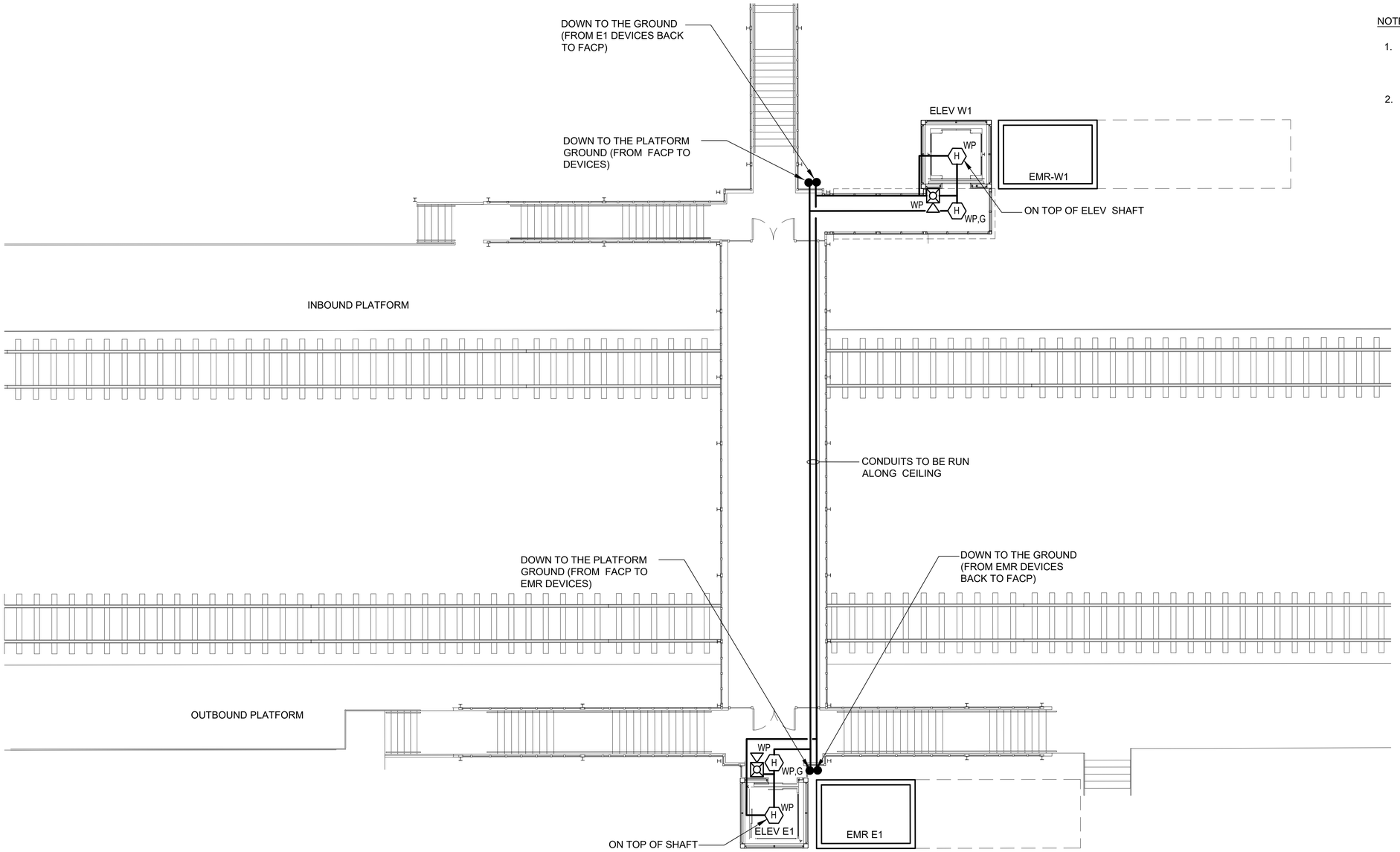
FIRE ALARM PLAN - PLATFORM LEVEL

HARTSDALE STATION

CONTRACT NO.	
1000106733	
SCALE	DATE
1/8"=1'-0"	08/03/2021

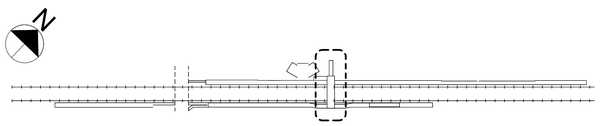
DRAWING NO.
HTD-FA-100

SHEET 92 OF 99



NOTES:

1. FOR SYMBOLS, ABBREVIATIONS, NOTES, RISER DIAGRAM AND SEQUENCE OF OPERATION, SEE DRAWINGS HTD-FA-001 AND HTD-FA-002.
2. EXACT LOCATION OF THE EXTERIOR HORN/STROBE SHALL COMPLY WITH METRO-NORTH REQUIREMENTS.



1 FIRE ALARM PLAN - OVERPASS LEVEL

1/8"=1'-0"

0 4' 8' 16'

100% RFC SUBMISSION

DESIGNED	VC
DRAWN	SK
CHECKED	GG
APPROVED	GG

STATE OF NEW YORK GERI I. GOLDMAN No. 032858 LICENSED PROFESSIONAL ENGINEER

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New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

FIRE ALARM PLAN - OVERPASS LEVEL

HARTSDALE STATION

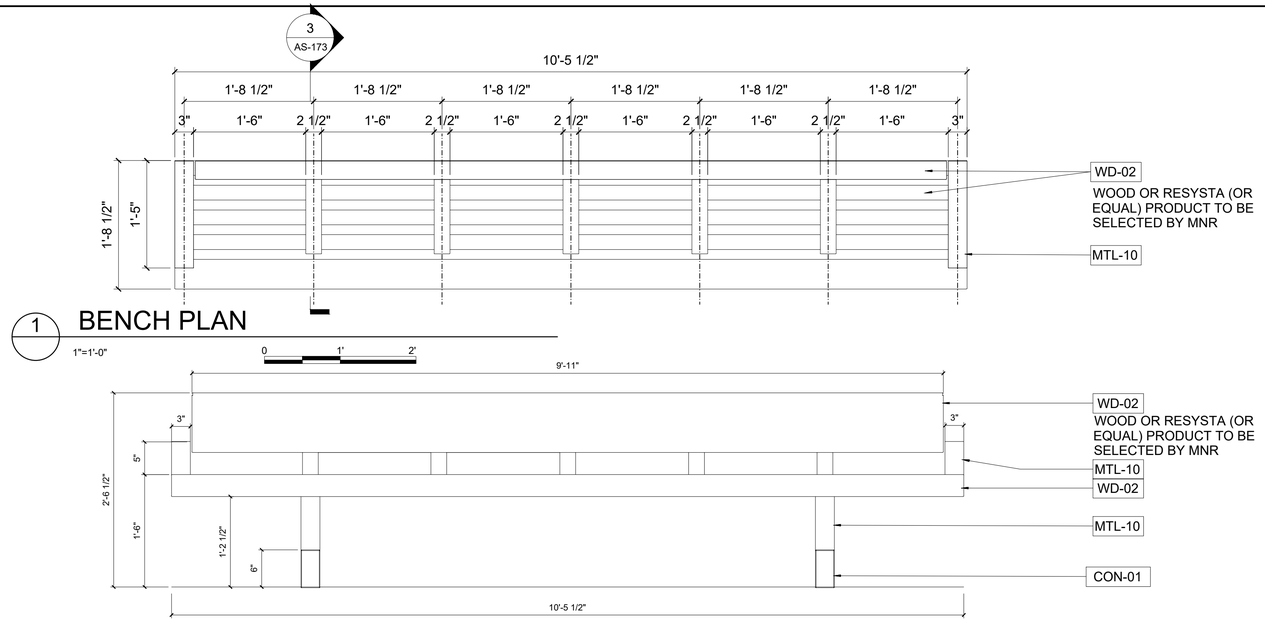
CONTRACT NO.
1000106733

SCALE
1/8"=1'-0"

DATE
08/03/2021

DRAWING NO.
HTD-FA-101

SHEET 93 OF 99



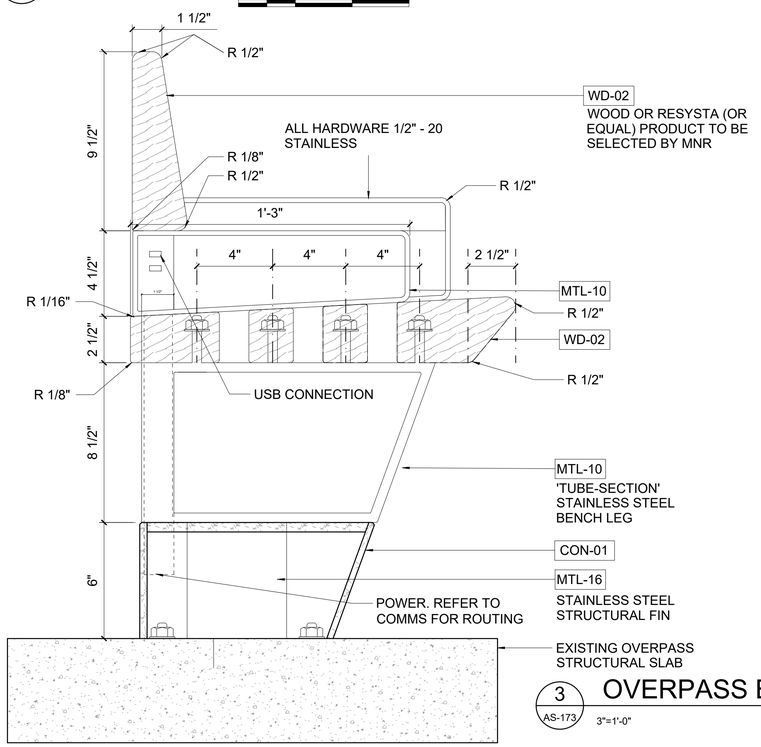
1 BENCH PLAN

1"=1'-0"

2 BENCH - FRONT ELEVATION

AS-173

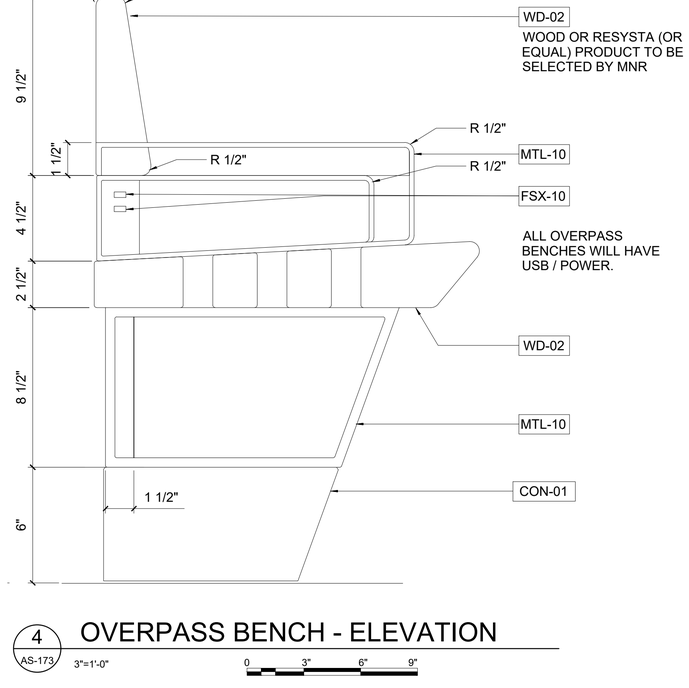
1 1/2"=1'-0"



3 OVERPASS BENCH - SECTION

AS-173

3"=1'-0"



4 OVERPASS BENCH - ELEVATION

AS-173

3"=1'-0"

100% RFC SUBMISSION

DESIGNED	PL
DRAWN	VD
CHECKED	EC
APPROVED	PL

REGISTERED ARCHITECT PAUL N. LIGHTNER 26219 STATE OF NEW YORK

7.9.2021

NO.	DATE		DRWN	CHKD	APPVD

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New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

BENCH - PLANS, ELEVATIONS & DETAILS

HARTSDALE STATION

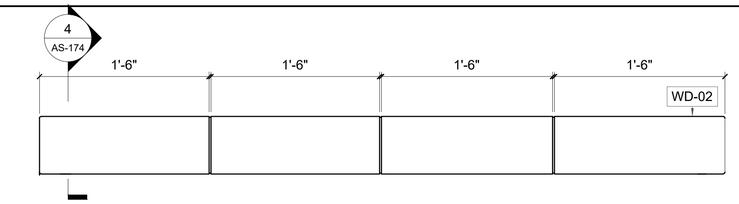
CONTRACT NO.
1000106733

SCALE
AS NOTED

DATE
07/09/2021

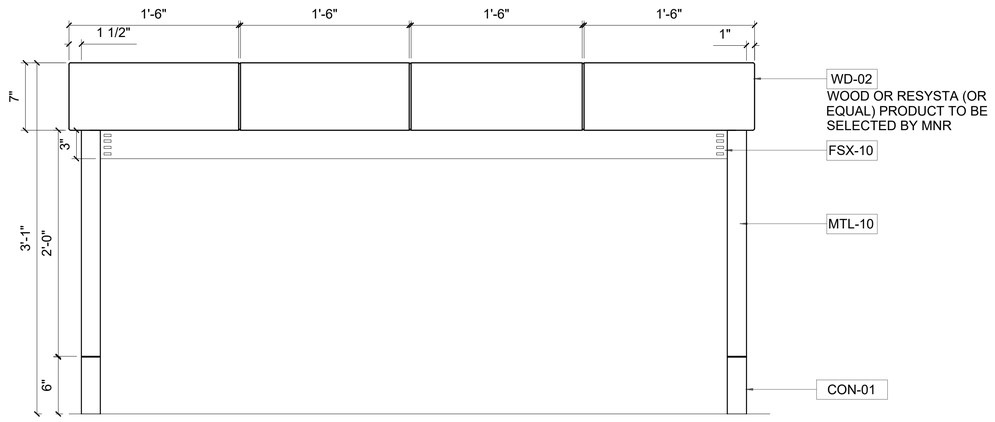
DRAWING NO.
STD-AS-173

SHEET 94 OF 99



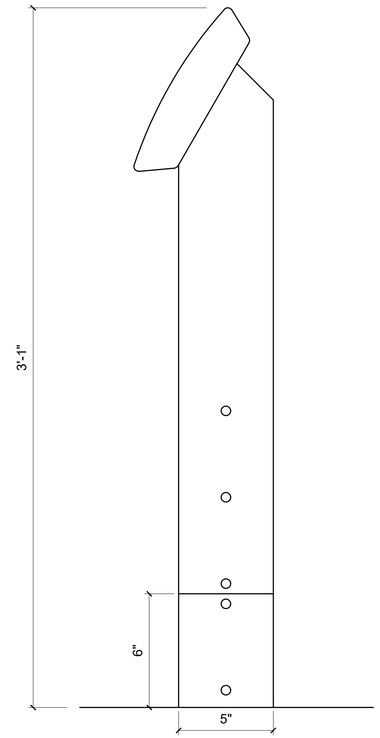
1 LEANING BAR - PLAN

1 1/2"=1'-0"



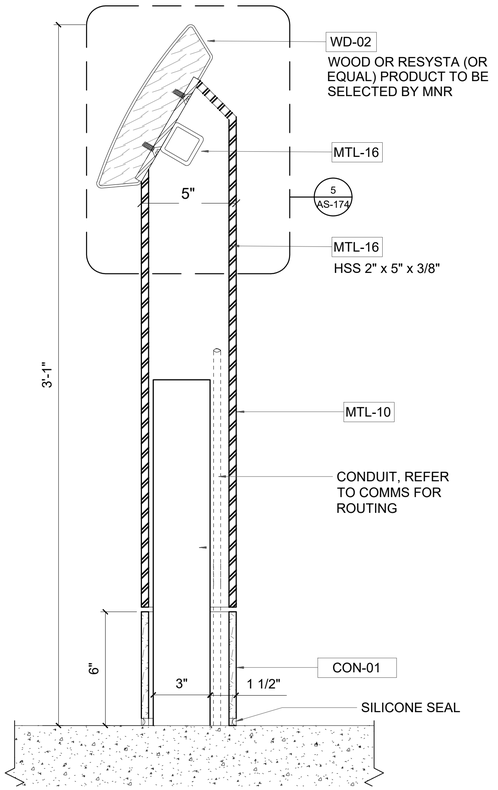
2 AS-174 LEANING BAR - FRONT ELEVATION

1 1/2"=1'-0"



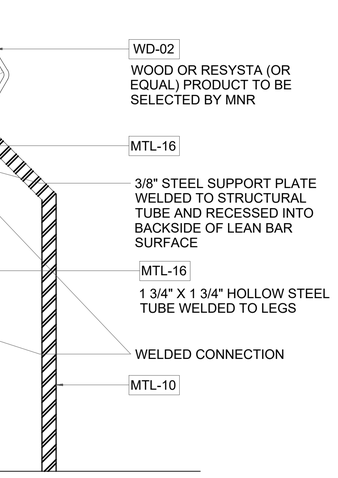
3 AS-174 LEANING BAR - SIDE ELEVATION

3"=1'-0"



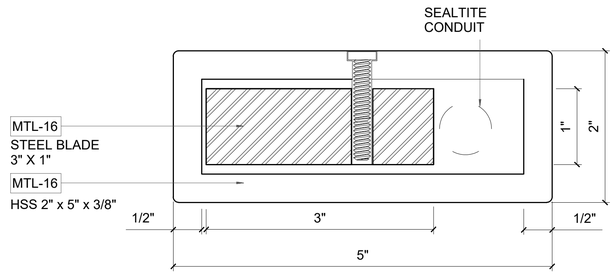
4 AS-174 LEANING BAR - SECTION AA

3"=1'-0"



5 AS-174 LEANING BAR - DETAIL SECTION

6"=1'-0"



6 AS-174 LEANING BAR - PLAN SECTION

6"=1'-0"

100% RFC SUBMISSION

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CHECKED	EC
APPROVED	PL

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420 Lexington Avenue
New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS

LEANING BAR - PLANS, ELEVATIONS & DETAILS

HARTSDALE STATION

CONTRACT NO.	
1000106733	
SCALE	DATE
AS NOTED	07/09/2021

DRAWING NO.
STD-AS-174

SHEET 95 OF 99

PLUMBING INDEX SHEET

GENERAL NOTES

1. ALL MATERIALS AND APPARATUS SHALL BE INSTALLED IN ACCORDANCE WITH ALL THE RULES AND REGULATIONS OF THE NEW YORK STATE BUILDING CODES AND ALL OTHER AUTHORITIES HAVING JURISDICTION.
2. BEFORE SUBMITTING PROPOSAL, BIDDERS SHALL CAREFULLY EXAMINE EXISTING FIELD CONDITIONS AND CONTRACT DRAWINGS OF ALL TRADES. SUBMISSION OF PROPOSAL WILL BE CONSTRUCTED AS EVIDENCE THAT REQUIRED EXAMINATION HAS BEEN MADE. TATER CLAIMS FOR EXTRA LABOR, EQUIPMENT AND MATERIALS REQUIRED DUE TO EXISTING FIELD CONDITIONS, WHICH COULD HAVE BEEN FORESEEN, WILL NOT BE RECOGNIZED.
3. PROCUREMENT OF ALL PERMITS AND CERTIFICATES FOR THE INSTALLATION OF THESE SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH ALL THE RULES AND REGULATIONS OF THE NEW YORK STATE BUILDING CODES AND ALL OTHER AUTHORITIES HAVING JURISDICTION.
4. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES AND ALL EXISTING CONDITIONS, AND PROVIDE ALL REQUIRED TO OFFSET ALL ADDITIONAL PIPING AND FITTINGS AT NO EXTRA COST. TO AVOID EXISTING / NEW STRUCTURE. ARCHITECTURAL, MECHANICAL AND ELECTRICAL INTERFERENCES, WHETHER INDICATED OR NOT, BEFORE INSTALLING WORK.
5. CONNECTION TO EXISTING SERVICES SHALL BE PERFORMED DURING OFF-WORK HOURS OF ON WEEKENDS IN PREMIUM TIME. CONNECTION OF NEW WORK TO EXISTING WORK SHALL BE PERFORMED IN NEAT AND APPROVE MANNER, RESTORING EXISTING WORK DISTURBED TO ORIGINAL CONDITION.
6. ALL NEW PIPING SHALL BE RUN CLOSE TO BEAMS, WALLS AND SLABS, SQUARE TO BUILDING CONSTRUCTION, CONCEALED ABOVE HUNG CEILINGS AND WITHIN FURRED SPACES.
7. ALL EXISTING PIPING, INDICATED AND /OR NOTED TO REMOVED, SHALL BE REMOVED BACK TO EXISTING STACKS, RISERS OR MAINS AND CAPPED / PLUGGED AT TERMINAL POINT UNLESS OTHERWISE DIRECTED BY OWNER OR ENGINEER.
8. THE CONTRACTOR SHALL NOT INTERRUPT ANY OF SERVICES OF THE EXISTING BUILDING WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE OWNER AND SUCH INTERRUPTIONS SHALL BE AS BRIEF AS POSSIBLE, AND AT THE TIME AGREED TO WITH THE OWNER.
9. UNDER NO CIRCUMSTANCES WILL THIS CONTRACTOR OR HIS WORKMEN BE PERMITTED TO USE ANY PART OF THE BUILDING AS A SHOP EXCEPT AREAS DESIGNATED BY OWNER.
10. EXISTING PIPING DAMAGED AS A RESULT OF PERFORMING THE WORK OF THIS CONTRACT SHALL BE REPAIRED OF REPLACE AS REQUIRED WITH MATERIAL AND FINIS TO MATCH EXISTING.
11. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT.
12. THIS CONTRACTOR SHALL PATCH AND FIRE PROOF ALL OPENINGS IN FLOORS OR WALLS AS REQUIRED.

PLUMBING INSTALLATION CRITERIA:

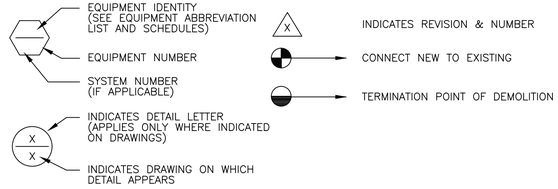
EACH BIDDER SHALL VISIT THE SITE AND BECOME INFORMED AS TO THE CONDITION OF THE PREMISES AND THE EXTENT AND CHARACTER OF WORK REQUIRED. NO ADDITIONAL COMPENSATION WILL BE APPROVED DUE TO FIELD CONDITIONS.

1. COORDINATE POSITION OF SLEEVES AND OPENINGS THROUGH FLOOR WITH THE GENERAL CONTRACTOR.
2. ALL PIPING AND EQUIPMENT SHALL BE SUBSTANTIALLY SUPPORTED FROM THE BUILDING STRUCTURE. HANGER AND SUPPORTS SHALL BE SPECIFICALLY APPROVED FOR USE IN PLUMBING SYSTEMS.
   A. WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING OF HANGER RODS IN REQUIRED LOCATIONS, PROVIDE ADDITIONAL STEEL FRAMING AS REQUIRED AND APPROVED.
   B. NO PLUMBING PIPING SHALL BE HUNG FROM THE PIPING OF OTHER TRADES OR DUCTWORK. HANGERS SHALL BE OF HEAVY CONSTRUCTION SUITABLE FOR THE SIZE OF PIPE TO BE SUPPORTED.
3. ALL HORIZONTAL PIPING RUNS WILL BE AT THE HIGHEST PRACTICAL ELEVATION AND NOT LESS THAN 6" ABOVE THE FLOOR SO AS TO PROVIDE CLEARANCE.

LIST OF SYMBOLS	
PD	PUMP DISCHARGE
	PIPE UP OR RISE
	PIPE DN OR DROP
	CAP
	CUT AND RECONNECT
	PIPE BREAK
	GAS SAFETY SHUT OFF VALVE – MAXON
	GAS SERVICE VALVE
	GAS COCK
	VALVE ON VERTICAL – VOV
	SHUT OFF VALVE
	CHECK VALVE

NOTE: NOT ALL SYMBOLS, ABBREVIATIONS AND EQUIPMENT ABBREVIATIONS INDICATED APPEAR ON THESE CONTRACT DRAWINGS

REFERENCE SYMBOLS



LIST OF ABBREVIATIONS	
AFF	ABOVE FINISH FLOOR
BLDG	BUILDING
CLG	CEILING
CONN	CONNECTION
CONT	CONTINUED
CFH	CUBIC FEET PER HOUR
DIM	DIMENSION
DN	PIPE DOWN THRU FLOOR
DROP	PIPE DROPPING BETWEEN FLOORS
DWG	DRAWING
EL	ELEVATION
EXIST	EXISTING
FL	FLOOR
GPM	GALLONS PER MINUTE
HP	HORSE POWER
INV EL	INVERT ELEVATION
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
N.T.S	NOT TO SCALE
PD	PUMP DISCHARGE
PLBG	PLUMBING
RISE	PIPE RISING BETWEEN FLOORS
RM	ROOM
RPM	ROTATION PER MINUTE
SQ FT	SQUARE FEET
TYP	TYPICAL
UP	PIPE RISING THRU FLOOR
VIF	VERIFY IN FIELD
VOV	VALVE ON VERTICAL
WC	WATER COLUMN
WTS	WATER TIGHT SLEEVE

100% RFC SUBMISSION

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DRAWN	AD
CHECKED	JP
APPROVED	JP

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New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
SYMBOLS LEGEND ABBREVIATIONS & GENERAL NOTES
HARTSDALE STATION

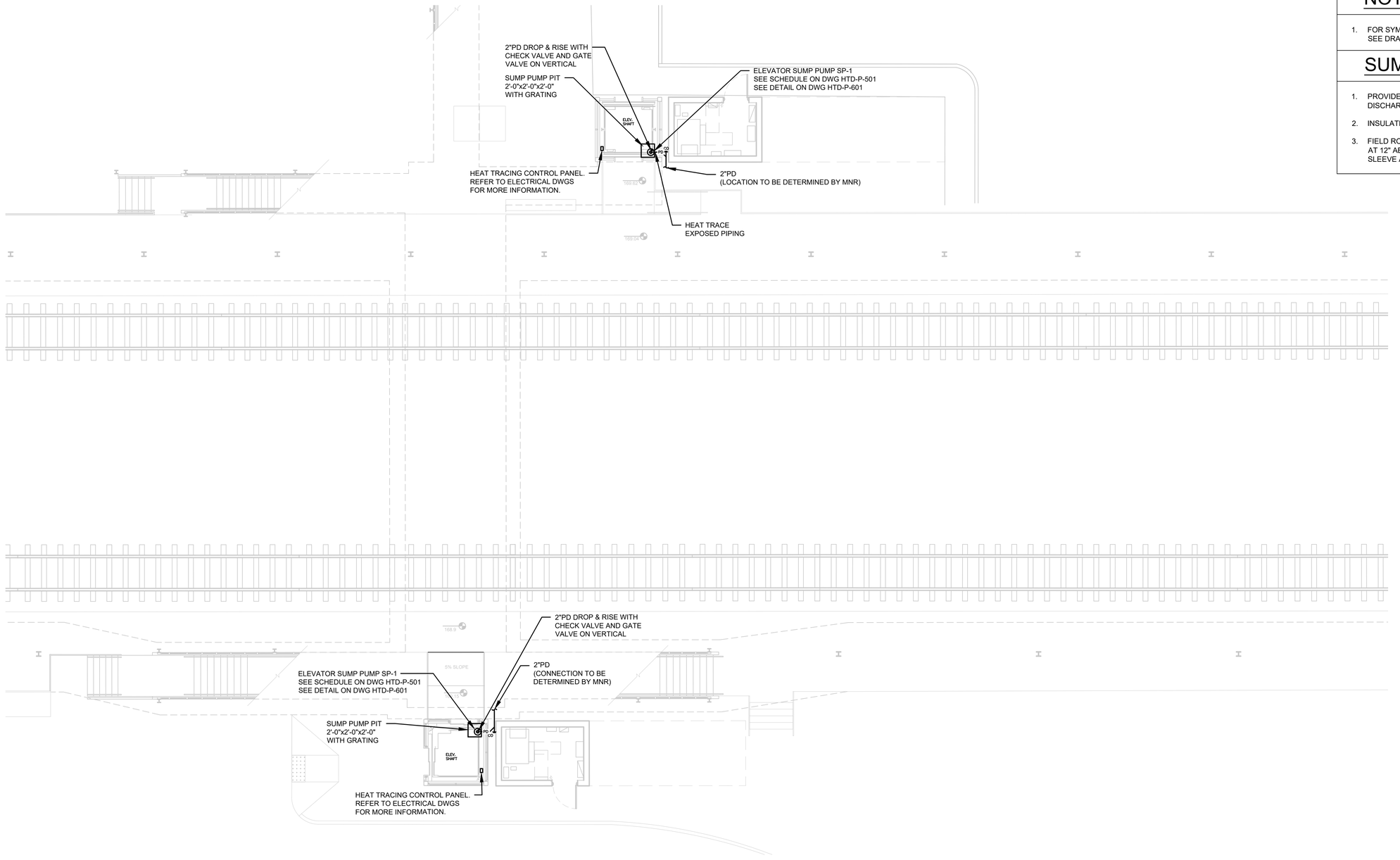
CONTRACT NO.
1000106733

SCALE

DATE
07/09/2021

DRAWING NO.
HTD-P-001

SHEET 96 OF 99

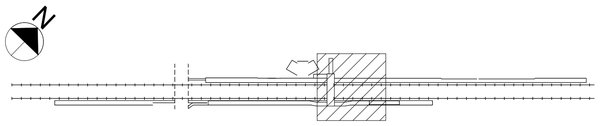


NOTES:

1. FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES SEE DRAWING HTD-P-001

SUMP PUMP DISCHARGE NOTES:

1. PROVIDE ELECTRICAL HEAT TRACING ON PUMP AND PUMP DISCHARGE LINES CONTAINING STANDING WATER.
2. INSULATE ALL HEAT TRACED PUMP DISCHARGE LINES.
3. FIELD ROUTE AND COORDINATE WITH MNR DISCHARGE DRAIN LINE AT 12" ABOVE GRADE. SPILL DISCHARGE ON GRADE AND PROVIDE SLEEVE AND SEAL AT PENETRATION.



PLUMBING
PLATFORM PART PLAN

1/8"=1'-0"

0 4' 8' 16'

100% RFC SUBMISSION

DESIGNED	AD
DRAWN	AD
CHECKED	JP
APPROVED	JP

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TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
PLUMBING
HARTSDALE STATION
PLATFORM PART PLAN
HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE

DATE
07/09/2021

DRAWING NO.
HTD-P-101

SHEET 97 OF 99

PUMP SCHEDULE

PUMP NO.	LOCATION	TYPE	SERVICE	MANUFACTURER	MODEL		MAX FLOW (GPM)	MAX HD (FT)	RPM	MOTOR DATA				REMARKS
										HP	PHASE	CYCLE	VOLTS	
SP-1	PASSENGER ELEVATOR	SIMPLEX SUBMERSIBLE PUMP	ELEVATOR PIT	STANCOR	SE50		74	37	1,750	$\frac{1}{2}$	1	60	115	SIMPLEX OIL SENSING ELEVATOR SUMP PUMP. SINGLE DIRECT PLUG-IN POWER.

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New York, NY 10017

TITLE
HARTSDALE AND SCARSDALE STATION IMPROVEMENTS
PLUMBING
HARTSDALE STATION
SCHEDULES
HARTSDALE STATION

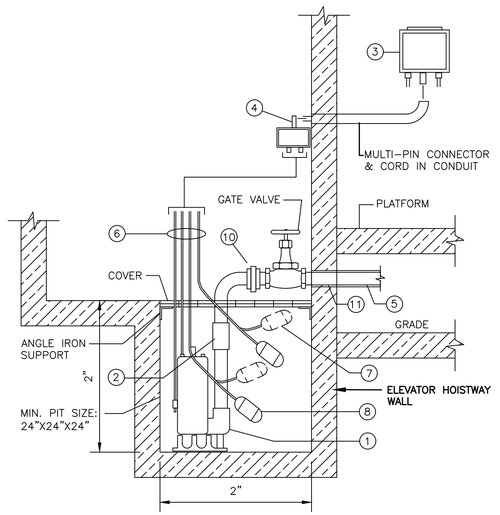
CONTRACT NO.
1000106733

SCALE

DATE
07/09/2021

DRAWING NO.
HTD-P-501

SHEET 98 OF 99



KEY NOTES:

1. SUBMERSIBLE SUMP PUMP 1/2 HP, 115 VOLT, 1,750 RPM, 2" DISCHARGE CONNECTION
2. CHECK VALVE
3. 115V, SINGLE PHASE (1Ø) CONTROL SYSTEM WITH BUILT-IN AUDIBLE AND VISUAL ALARM FOR WHEN PUMP DOES NOT RUN DUE TO OIL IN PIT OR HIGH LIQUID ALARM. PROVIDE SILENCING BUTTON FOR AUDIBLE ALARM BUILT INTO PANEL. PANEL SHALL HAVE ADDITIONAL CONTACT FOR A REMOTE ALARM LOCATION. LIGHTS FOR OIL SPILL, POWER, HIGH LIQUID LEVEL, OVERLOAD, & PUMP RUN.
4. JUNCTION BOX SHALL BE PROVIDED WITH MULTI-PIN CONNECTOR AND CORD OF REQUIRED LENGTHS TO REACH PANEL.
5. ALL PUMP PRESSURE DISCHARGE PIPING SHALL BE PROTECTED WITH TAPECOAT CORROSION PROTECTION TAPE AND PROVIDED WITH HEAT TRACING WHEN PIPE IS BELOW FREEZING. IN ADDITION, DISCHARGE PIPING SHALL CONNECT TO THE SITE DRAINAGE SYSTEM (CONNECTION TO BE DETERMINED BY MNR).
6. OIL-MINDER CABLES: POWER CABLE, PROBE CABLE, HIGH- LIQUID ALARM CABLE AND PUMP-ON FLOAT CABLE.
7. HIGH-LIQUID ALARM FLOAT WITH CLAMP DEVICE TO MOUNT TO PUMP DISCHARGE PIPING.
8. PUMP-ON FLOAT
9. PROVIDE A MINIMUM FIVE FEET EXTRA OF EACH CABLE (SLACK) ROLLED CLAMPED TO THE DISCHARGE PIPE TO ALLOW FOR THE REMOVAL OF THE PUMP FROM THE PIT.
10. HEAT TRACING
11. PROVIDE LINK SEAL OR EQUAL AT WALL PENETRATION.

1/601 HYDRAULIC ELEVATOR SUMP PUMP DETAIL

NOT TO SCALE

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TITLE
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PLUMBING
HARTSDALE STATION
DETAILS
HARTSDALE STATION

CONTRACT NO.
1000106733

SCALE

DATE
07/09/2021

DRAWING NO.
HTD-P-601

SHEET 99 OF 99