

GENERAL NOTES:

- 1. THE DRAWINGS AND SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH OTHER DRAWINGS, CONTRACT
- REQUIREMENTS, THE LEGEND AND SPECIFICATIONS. MAXIMUM CONDITIONS WILL GOVERN.
- ACCURATE DIMENSIONS FOR THE WORK MUST BE OBTAINED FROM ACTUAL MEASUREMENT ON SITE. VERIFY ALL CONDITIONS AND DIMENSIONS DURING THE MANDATORY SITE VISIT, INCLUDING LOCATIONS OF EXISTING CAPPED SERVICES. AND ALLOW FOR ANY REROUTING OF EXISTING AND/OR NEW SERVICES AND EQUIPMENT IN TENDER PRICE. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY.
- REPORT TO THE CONSULTANT ALL AMBIGUITIES (INCLUDING CONSTRUCTION STAGES), DISCREPANCIES, OMISSIONS,
- ERRORS, DEPARTURES FROM BUILDING BYLAWS AND/OR FROM GOOD PRACTICE PRIOR TO TENDER CLOSING. PROVIDE ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF ALL GOVERNING AUTHORITIES, AND LOCAL
- APPLY FOR, OBTAIN AND PAY FOR ALL PERMITS, EXCEPT FOR BUILDING PERMIT, AND INSPECTIONS REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION INCLUDING PROVINCIAL AND FEDERAL SALES TAXES.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPROVED SCHEDULE TO MEET THE PROJECT COMPLETION DATE AND ALL SPECIFIED INTERIM SCHEDULES AS PROVIDED BY THE OWNER
- COMPLY WITH OWNER'S OVERALL CONSTRUCTION SCHEDULE.
- MAKE GOOD ALL DAMAGES OR AFFECTED AREA TO ADJACENT WORK.
- PROVIDE PROPER SHOP DRAWINGS OF ALL SPECIFIED PRODUCTS AND SUBMIT FOR APPROVAL TO THE CONSULTANT. DURING PROGRESS OF WORK, SUBSTITUTE PRODUCTS WILL ONLY BE CONSIDERED WHEN TENDERED PRODUCTS BECOMEUNOBTAINABLE AND WRITTEN PROOF IS SUBMITTED
- THE QUALITY AND PERFORMANCE CHARACTERISTICS OF SUBSTITUTE PRODUCTS SHALL BE EQUAL TO THE SPECIFIED PRODUCTS. IMPLEMENTATION OF SUBSTITUTE PRODUCTS IS SUBJECT TO THE REVIEW OF PROPERLY SUBMITTED SHOP DRAWINGS TO THE CONSULTANT.
- ASSUME RESPONSIBILITY AND PAY FOR ANY ADDITIONAL INSTALLATION COSTS INCURRED BY ALL DIVISIONS RESULTING FROM THE ALTERNATES AND/OR SUBSTITUTIONS. MAKE REVISIONS TO RECORD DRAWINGS INCORPORATING ALL ALTERNATES AND/OR SUBSTITUTIONS AND ALL RELATED CHANGES.
- 14. CONFER WITH ALL TRADES INSTALLING EQUIPMENT WHICH MAY AFFECT THE CONSTRUCTION WORK AND ARRANGE THE WORK IN PROPER RELATION WITH EQUIPMENT INSTALLED UNDER ALL DIVISIONS OF THE CONTRACT.
- 17. INSTALL ALL MATERIAL IN THE BEST WORKMANLIKE MANNER AND IN ACCORDANCE WITH THE BEST PRACTICES OF THE TRADE
- REUSE EXISTING MATERIALS AND/OR EQUIPMENT ONLY WITH WRITTEN PERMISSION FROM THE CONSULTANT. ALL EQUIPMENT, MATERIALS AND ASSOCIATED CONTROLS NOT USED IN THIS CONTRACT SHALL BE RETURNED TO OWNER OR PROPERLY DISPOSED OF OFF SITE AS DIRECTED BY OWNER OR CONSULTANT.
- UNDER NO CIRCUMSTANCES SHALL THE CONSTRUCTION WORK INTERFERE WITH OWNER'S OPERATION SCHEDULE. PROVIDE ALL MEASURES AS NECESSARY TO PREVENT LEAKAGE AND MINIMIZE NOISE AND DISTURBANCE DURING
- DEMOLITION AND CONSTRUCTION. 20. PROVIDE ALL SAFETY MEASURES INCLUDING OSHA ETC. TO COMPLY WITH ALL AUTHORITIES HAVING JURISDICTION.

SITE INSPECTION REPORTS & TESTING

- 1. THE ONTARIO BUILDING CODE SPECIFIES THAT GENERAL FIELD REVIEWS OF THE STRUCTURE BE CARRIED OUT DURING THE COURSE OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE START & PROGRESS OF CONSTRUCTION TO FACILITATE SUCH REVIEWS BY THE ENGINEER.
- 2. THIRD PARTY INSPECTION AND TESTING REPORTS ARE TO BE SUPPLIED TO THE CONSULTANT BY THE GENERAL CONTRACTOR FOR THE FOLLOWING:
- A). INSPECTION AND COMPACTION TESTS REPORTS OF SUBGRADE AND GRANULAR. B). INSPECTION AND COMPACTION TESTS REPORTS OF ASPHALT

<u>BACKFILL</u>

- 1. UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS, ALL BACKFILL SHALL BE GRANULAR "A" (TYPE 1) COMPACTED TO 100% SPD. MAXIMUM COMPACTION LIFT SHALL BE 200mm.
- 2. ALL BACKFILL MATERIAL SHALL COMPLY WITH OPSS.MUNI 1010 (APR. 2013) & TS1010 (SEPTEMBER 2017). ALL
- COMPACTION SHALL COMPLY WITH OPSS.MUNI 501 (NOV. 2014) & TS 501 (SEPTEMBER 2017)
- 3. ALL BACKFILL SHALL BE INSPECTED BY THE SOIL ENGINEER.

TREE & VEGETATION REMOVAL/PLANTING

- 1. NO TREES AND VEGETATION TO BE REMOVED IN THIS PROJECT. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL TREES AND VEGETATION WITHIN THE CONSTRUCTION AREA.
- 2. ALL WOODY VEGETATION TO BE REMOVED AND PRUNED DUE TO THE SCOPE OF WORK SHALL BE TAGGED BY THE GENERAL CONTRACTOR AND APPROVED WITH WRITTEN PERMISSION BY OWNER PRIOR TO CONSTRUCTION.

SHOP DRAWINGS:

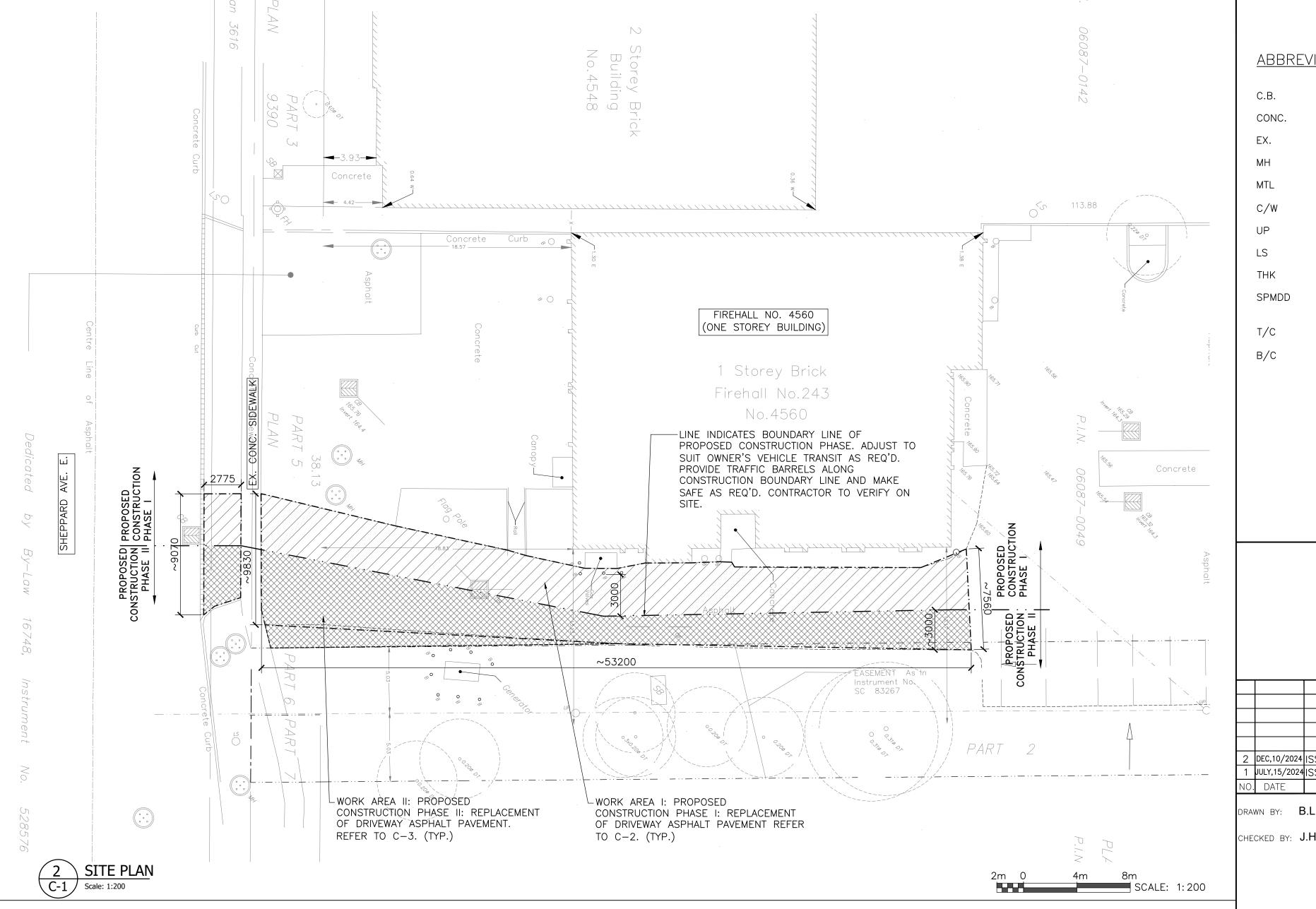
SUBMIT PDF FORMAT OF SHOP DRAWINGS FOR THE FOLLOWING:

1. ASPHALT PAVEMENT MIX PRODUCT DATA.

BENCHMARK

ELEVATIONS ARE REFEREED TO THE CITY OF TORONTO BENCHMARK No. 12419660538, HAVING AN ELEVATION OF 166.07m.

SURVEY DRAWING: SKETCH SHOWING TOPOGRAPHIC INFORMATION OF PART OF LOT 4 REGISTERED PLAN 3616 AND PART OF LOT 23 CONCESSION 3 GEOGRAPHIC TOWNSHIP OF SCARBOROUGH, CITY OF TORONTO, BY YOUNG & YOUNG SURVEYING (ETOBICOKE 2006) INC. COMPLETED ON THE 3RD DAY OF JUNE, 2024. PROJECT: 24-T11568.

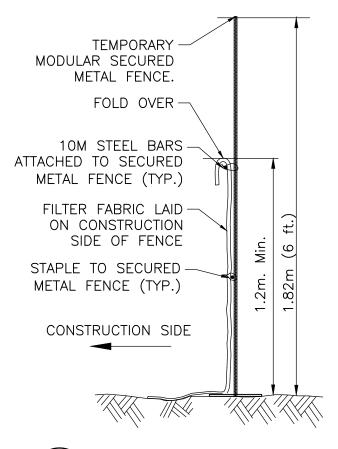


CONSTRUCTION ACCESS AND SITE PROTECTION

- 1. CONTRACTOR SHALL COORDINATE WITH OWNER AND SET UP STAGING/STORAGE AREAS AT EXISTING MOWED AREA. REFER TO 1/C-1 FOR PROPOSED STAGING/STORAGE AREAS.
- 2. THE CONSTRUCTION ACCESS ROUTE IS OFF SHEPPARD AVE. E. TO SITE. REFER TO DRAWING 1/C-1. CONTRACTOR IS NOT PERMITTED TO PARK MACHINERY / EQUIPMENT / MATERIALS ON EITHER STREET. CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR PARKING AND LOADING/ OFF LOADING AREAS. CONTRACTOR IS RESPONSIBLE TO EMPLOY FLAGMEN WHEN VEHICLES ARE TRAVELING THROUGHOUT THE SITE AND TO ERECT CONSTRUCTION FENCE OTHER THAN IN AREAS INDICATED TO CONTROL AND PROTECT PEDESTRIANS USING THE SITE.
- CONTRACTOR IS RESPONSIBLE TO INSTALL METAL PLATES OR OTHER PROTECTION MEASURES OVER EXISTING CONCRETE CURBS / SIDEWALK WAY TO PROTECT FROM DAMAGE WHEN VEHICLES / MACHINERY ARE ENTERING / EXISTING SITE. CONTRACTOR IS RESPONSIBLE TO REMEDIATE ALL DISTURBED AREAS AT NO COST TO THE CITY AND TO THE SATISFACTION OF THE CITY. CONTRACTOR IS RESPONSIBLE TO OBTAIN AND PAY FOR ANY PERMITS REQUIRED FOR ROAD CLOSURE / OCCUPANCY.
- 4. CONTRACTOR IS RESPONSIBLE TO INSTALL / MAINTAIN / REMOVE OF TEMPORARY MODULAR FENCE AND CONSTRUCTION SIGNAGE IN THE LOCATIONS, QUANTITIES AND MANNERS TO THE SATISFACTION OF THE CITY, AND CONSULTANT.

NOTES FOR CONSTRUCTION PHASING:

- 1. THE EXISTING BUILDING, BACKYARD PARKING LOT AND OFFICE BUILDING WILL BE OCCUPIED BY THE OWNER DURING PROPOSED ACCESS DRIVEWAY ASPHALT PAVEMENT REPLACEMENT WORKS. THE PROPOSED ACCESS DRIVEWAY ASPHALT PAVEMENT REPLACEMENT WORKS TO BE CARRIED OUT IN TWO PHASES. THE CONSTRUCTION PHASING SHOWN ON DRAWINGS 2/C-1,1/C-2 AND 1/C-3 ARE DEMONSTRATION ONLY. CONTRACTOR TO COORDINATE WITH OWNER FOR THE FINAL EXTENT OF CONSTRUCTION PHASING AND FOLLOW UP WITH OWNER'S OPERATION SCHEDULES AS REQUIRED.
- 2. CONTRACTOR TO CO-ORDINATE WITH OWNER'S REPRESENTATIVES FOR CONSTRUCTION STAGING/STORAGE LOCATIONS FOR EACH CONSTRUCTION PHASING.
- 3. THE WORK COMPLETED DURING PHASE I SHALL BE READY FOR THE OWNER'S USE PRIOR COMMENCEMENT OF PHASE II.

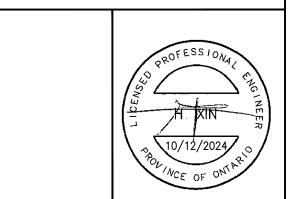


NOTES FOR TEMPORARY MODULAR SECURED METAL FENCE:

- 1. CITY REPRESENTATIVE TO REVIEW AND APPROVE PROPOSED TEMPORARY FENCE SYSTEM BEFORE INSTALLATION COMMENCES. 2. INSTALL TEMPORARY FENCING TO BE INSTALLED BY THE SUPPLIER
- AS PER MANUFACTURER'S RECOMMENDATION AND INSTALLATION 3. PROVIDE ALL NECESSARY HARDWARE AND ACCESSORIES FOR EXTRA
- SUPPORT AND STABILITY TO FENCE SYSTEM. PROVIDE FENCE SUPPLIER RECOMMENDATIONS ON "TRIANGULAR BRACING".
- 4. ALL FENCING SHALL BE INSTALLED BY THE FENCE SUPPLIER. 5. ATTACHMENT OF FENCE TO TREES IS NOT ALLOWED.
- 6. ENSURE FENCE IS LOCATED BEYOND THE DRIP LINE OF TREES. 7. FENCING TO BE INSTALLED PRIOR TO START OF CONSTRUCTION. 8. ALL TEMPORARY PROTECTIVE FENCING SHALL BE MAINTAINED BY
- THE GENERAL CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- TYP. MODULAR FENCE DETAIL $\mathsf{C-1}$ / Scale: N.T.S

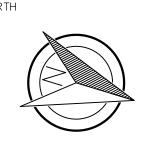
ABBREVIATION:

C.B.	CATCH BASIN
CONC.	CONCRETE
EX.	EXISTING
МН	MANHOLE
MTL	METAL
C/W	COMPLETE WITH
UP	UTILITY POLE
LS	LIGHTING STANDARD
THK	THICK
SPMDD	STANDARD PROCTOR MAXIMUM DRY DENSITY
T/C	TOP OF CURB
B/C	BOTTOM OF CURB



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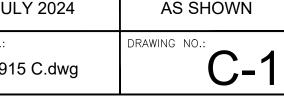


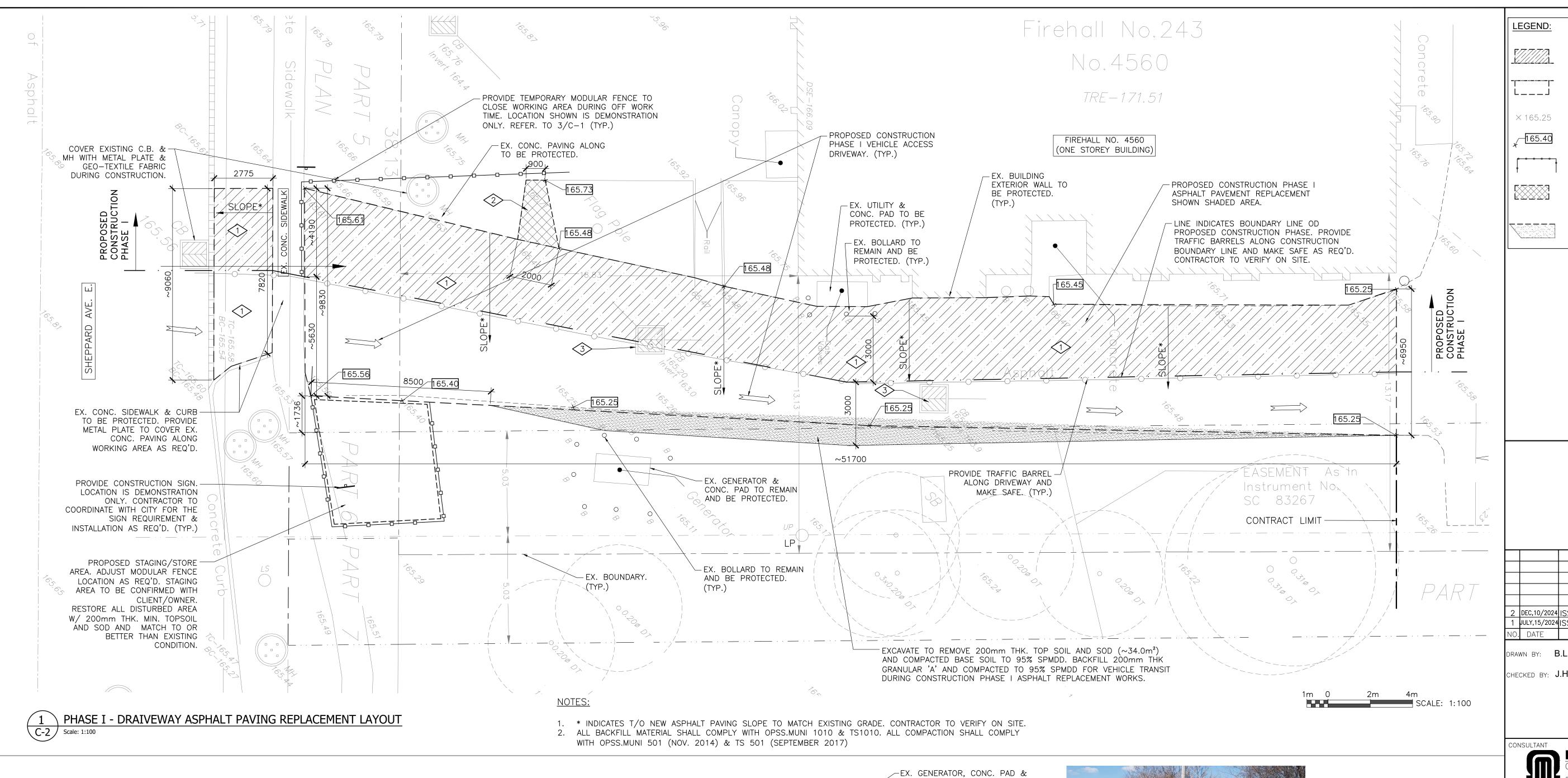
FIRE STATION 243 UPGRADES

4560 SHEPPARD AVE E, TORONTO ON

CIVIL KEY PLAN, SITE PLAN, GENERAL NOTES, ABBREVIATIONS AND MODULAR FENCE DETAIL

JULY 2024 AS SHOWN DRAWING NO. 6915 C.dwg





CONSTRUCTION PHASE I NOTES:

- REMOVE EXISTING ASPHALT PAVEMENT ~100mm THK. TO EXPOSE GRANULAR BASE (PHASE I ~198.0m²). MODIFY GRANULAR BASE AND RE-GRADE TO ACHIEVE PROPOSED SLOPE. ADD/REDUCE BASE MATERIAL TO MATCH EXISTING CONDITION AND COMPACT TO 100% SPMDD. DELIVER THE DEBRIS OF ASPHALT PAVEMENT TO ASPHALT PLANT FOR MATERIAL RECYCLING. SEE FIG.1 FOR EXISTING CONDITION. SUPPLY AND INSTALL NEW ASPHALT PAVEMENT ALONG EXISTING DRIVEWAY INCLUDING CONSTRUCTION PHASE I AS SHOWN. CONTRACTOR TO VERIFY ON SITE. REFER TO DETAIL 2/C-3 AND SPECIFICATIONS.
- 2 EXCAVATE TO REMOVE SURFACE GRASS, TOPSOIL AND SOIL OFFSITE ~500mm DEPTH MIN. AS SHOWN FOR ADDITIONAL DRIVEWAY EXTENSIONS (~5.0m2 ON PHASE I, SEE LEGEND), SEE FIG 1. FOR EXISTING CONDITION. COMPACT BASE SOIL AS REQUIRED TO 100% SPMDD. ANY SOFT SPONGY SPOTS DETECTED DURING PROOF COMPACTING SHOULD BE SUB-EXCAVATED AND REPLACED WITH GRANULAR 'A' AND COMPACT TO 100% SPMDD. SUPPLY AND INSTALL ASPHALT PAVEMENT AS SHOWN. REFER TO DETAIL 3/C-3 AND SPECIFICATIONS.
- PROVIDE METAL PLATE C/W GEO-TEXTILE FABRIC TO COVER EXISTING CATCH BASINS AND MANHOLE DURING CONSTRUCTION TO PREVENT CONSTRUCTION DEBRIS FALLING INTO AS REQ'D.
- 4 ALL THE BASE SOIL COMPACTED & ENGINEERED FILL CONSTRUCTION SHALL BE VERIFIED BY A SOIL ENGINEER.





INSTALLATION. SEE 1/C-2 AND DEMOLITION NOTE 2. -EX. DRIVEWAY ASPHALT

PAVEMENT TO BE REPLACED

-EX. CONC, PAVING DRIVEWAY TO REMAIN & BE PROTECTED.

FIG. 1 EX. DRIVEWAY OUTLINE **PHOTOS - EXISTING CONDITION** Scale: N.T.S



-EX. GENERATOR, CONC. PAD & BOLLARDS TO BE PROTECTED.

-PROPOSED DRIVEWAY EXTENSION AREA. EXCAVATE EX. SOIL & PREPARATION BASE FOR NEW ASPHALT PAVING INSTALLATION. SEE 1/C-2 AND DEMOLITION NOTE 2.



FIG. 2 EX. DRIVEWAY EASEMENT AREA OUTLINE

EXTENT OF PROPOSED CONSTRUCTION PHASE I ASPHALT PAVING REPLACEMENT

PROPOSED CONSTRUCTION PHASE I VEHICLE DRIVEWAY

 \times 165.25 **EX. GRADE ELEVATION**

PROPOSED GRADE ELEVATION

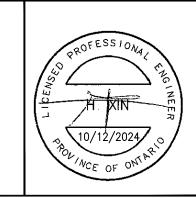
165.40

TEMPORARY MODULE FENCE PROPOSED EXTENSION

AREA OF DRIVEWAY



TEMPORARILY GRAVEL DRIVEWAY EXTENSION AREA FOR CONSTRUCTION PHASE



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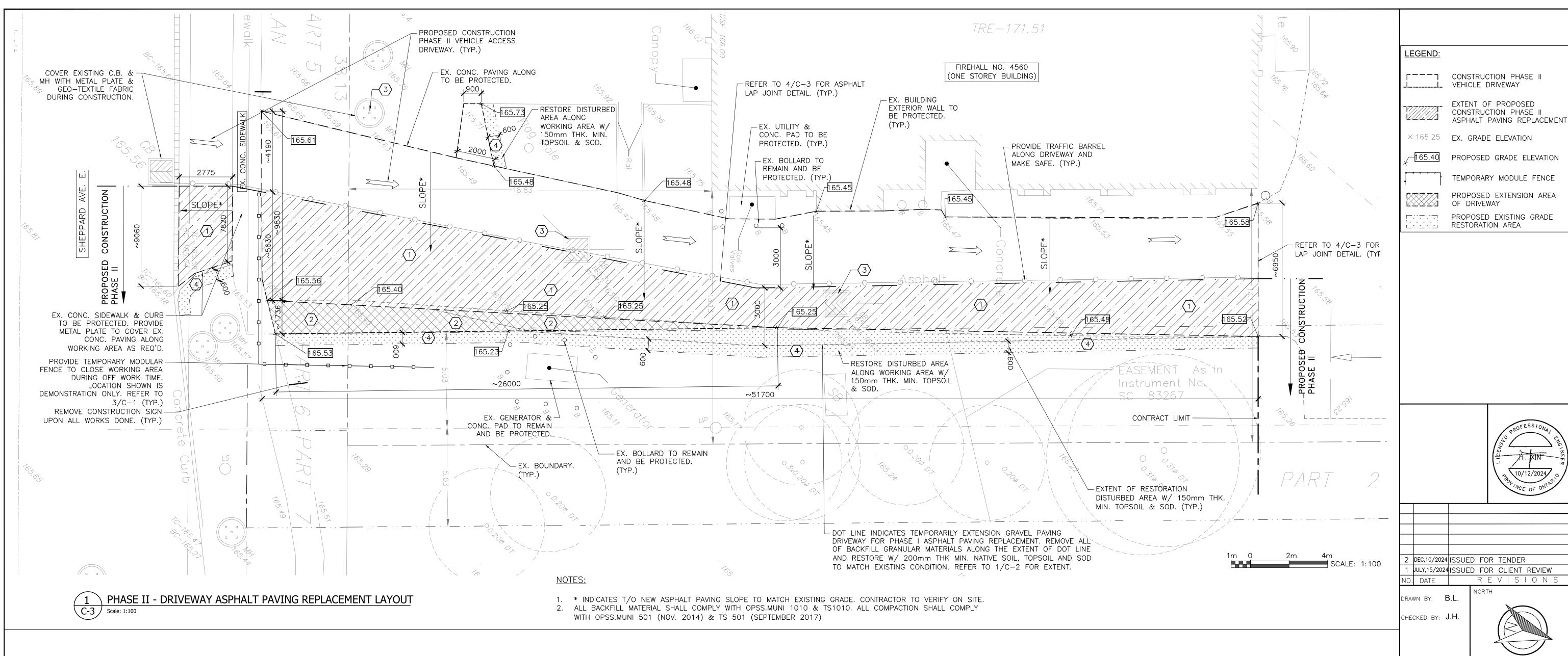


FIRE STATION 243 UPGRADES 4560 SHEPPARD AVE E, TORONTO ON

CIVIL

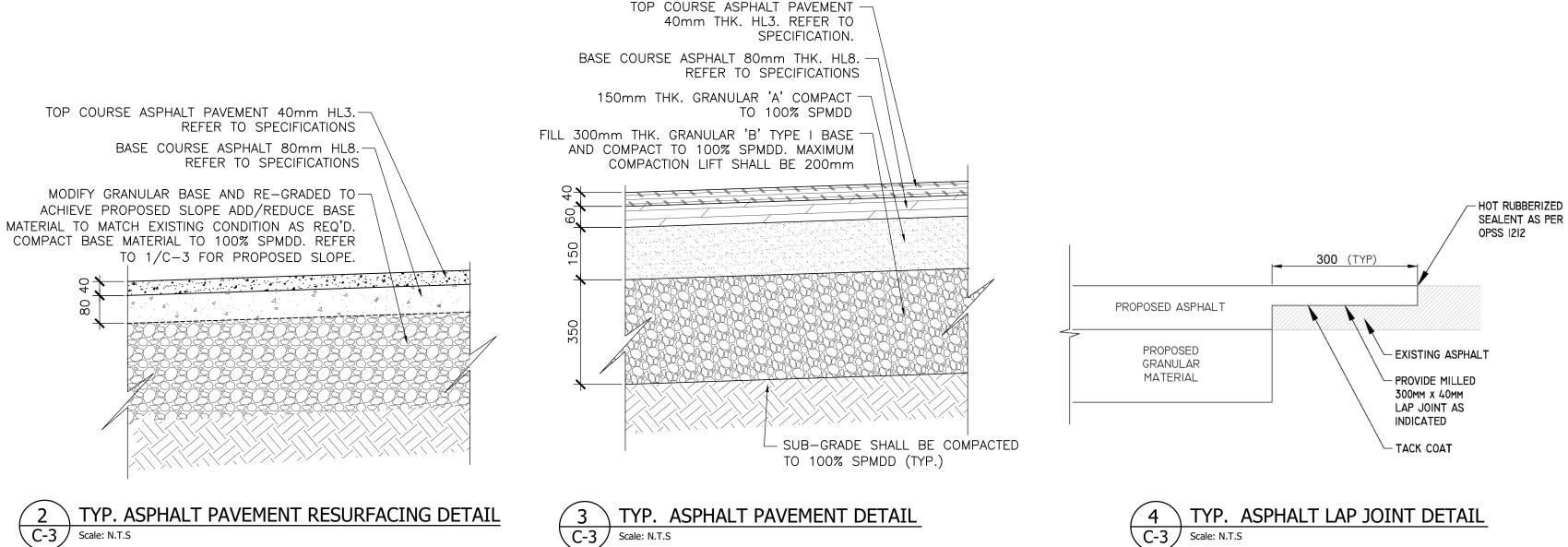
PHASE I - DRIVEWAY ASPHALT PAVING REPLACEMENT LAYOUT. NOTES AND PHOTOS

DATE:	SCALE:			
JULY 2024	AS SHOWN			
FILE NO.:	DRAWING NO.:			
6915 C.dwg	C-2			



CONSTRUCTION PHASE II NOTES:

- (1) REMOVE EXISTING ASPHALT PAVEMENT ~100mm THK. TO EXPOSE GRANULAR BASE (PHASE II ~165.0m²). MODIFY GRANULAR BASE AND RE-GRADE TO ACHIEVE PROPOSED SLOPE. ADD/REDUCE BASE MATERIAL TO MATCH EXISTING CONDITION AND COMPACT TO 100% SPMDD. DELIVER THE DEBRIS OF ASPHALT PAVEMENT TO ASPHALT PLANT FOR MATERIAL RECYCLING. SEE FIG.1 ON C-2 FOR EXISTING CONDITION. SUPPLY AND INSTALL NEW ASPHALT PAVEMENT ALONG EXISTING DRIVEWAY AS SHOWN. CONTRACTOR TO VERIFY ON SITE. REFER TO DETAIL 2/C-3 AND SPECIFICATIONS.
- 2 EXCAVATE TO REMOVE SURFACE GRASS, TOPSOIL AND SOIL OFFSITE ~500mm DEPTH MIN. ALONG EXISTING DRIVEWAY AS SHOWN FOR ADDITIONAL DRIVEWAY EXTENSIONS (~23.0m21, SEE LEGEND), SEE FIG. 2 ON DWG. C-2 FOR EXISTING CONDITION. COMPACT BASE SOIL AS REQUIRED TO 100% SPMDD. ANY SOFT SPONGY SPOTS DETECTED DURING PROOF COMPACTING SHOULD BE SUB-EXCAVATED AND REPLACED WITH GRANULAR 'A' AND COMPACT TO 100% SPMDD. SUPPLY AND INSTALL NEW ASPHALT PAVEMENT AS SHOWN. REFER TO DETAIL 3/C-3 AND SPECIFICATIONS.
- $\langle 3 \rangle$ provide metal plate c/w geo-textile fabric to cover existing catch basins and manhole during CONSTRUCTION TO PREVENT CONSTRUCTION DEBRIS FALLING INTO AS REQ'D. CLEAN AND REMOVE ALL THE DEBRIS FROM THE EXISTING CATCH BASINS, MANHOLE AND DRAINAGE PIPES UPON ALL PROPOSED WORKS COMPLETION.
- REMOVE TEMPORARILY BACKFILL GRANULAR MATERIAL ALONG DRIVEWAY SHOWN ON DRAWING 1/C-2. RESTORE ALL DISTURBED AREA W/ 200mm THK. MIN. TOPSOIL AND SOD (ALLOW ~60.0m2 ON BASE BID) AND MATCH TO OR BETTER THAN EXISTING CONDITION. REFER TO SPECIFICATIONS.
- 5. ALL THE BASE SOIL COMPACTED & ENGINEERED FILL CONSTRUCTION SHALL BE VERIFIED BY A SOIL ENGINEER. PROVIDE THE TESTING REPORTS TO THE OWNER AND CONSULTANT FOR REVIEW.



CONSTRUCTION PHASE II VEHICLE DRIVEWAY

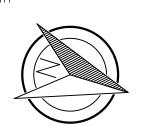
 \times 165.25 EX. GRADE ELEVATION

PROPOSED GRADE ELEVATION

PROPOSED EXTENSION AREA OF DRIVEWAY

PROPOSED EXISTING GRADE

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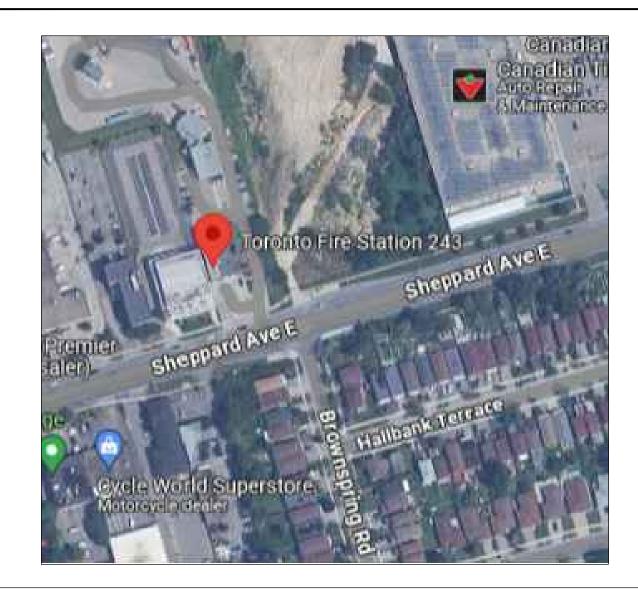


FIRE STATION 243 UPGRADES 4560 SHEPPARD AVE E,

> TORONTO ON CIVIL

PHASE II - DRIVEWAY ASPHALT PAVING REPLACEMENT LAYOUT. NOTES, DETAILS

DATE:	SCALE:
JULY 2024	AS SHOWN
FILE NO.: 6915 C.dwg	DRAWING NO.:



DRAWING NO.	MECHANICAL DRAWING LIST
M – 1	MECHANICAL GENERAL
M-2	PART GROUND FLOOR PLAN — DEMOLITION
M - 3	PART GROUND FLOOR PLAN — PROPOSED

LEGEND:

\rightarrow	× ×	REMOVE EXISTING EQUIPMENT/DUCTWORK
		NEW EQUIPMENT/DUCTWORK
	EX.	EXISTING EQUIPMENT/DUCTWORK
	CTE	CONNECT TO EXISTING
	EF	EXHAUST FAN

1 SATELLITE MAP

M-1 SCALE: NTS

EXHAUST FA	N SCHEDULE												
EQUIP. NO.	TYPE	MAKE/MODEL	CAPACITY CFM	S.P INCH.	POWER SUPPLY	FAN MOTOR HP	WEIGHT LBS	STAI	RTER	COI	NTROLS	OTHER	REQ'D
					V/PH/HZ			SUPPLIED BY	INSTALLED BY	SUPPLIED BY	INSTALLED BY	DISCONNECT	F.A. SHUT
								BY DIV. 15	BY DIV. 16	BY DIV. 15	BY DIV. 16	SWITCH BY DIV. 16	DOWN BY BY DIV. 16
EF-2	CENTRIFUGAL	NEDERMAN/N27	1150	5.5	208/3/60	2	40	X	X	N/A	N/A	X	N/A

X-INDICATES THE SCOPE OF A SPECIFIC DIVISION

<u>GENERAL NOTES:</u>

- 1. THE DESIGN DOCUMENTS HAVE BEEN PREPARED ON THE BASIS OF INFORMATION OBTAINED FROM THE GENERAL SITE REVIEW AND FROM THE EXISTING DOCUMENTS. MAKE NECESSARY ADJUSTMENTS TO LOCATIONS OF EQUIPMENT, DUCTWORK ETC. TO SUIT EXISTING SITE CONDITIONS. NO EXTRAS WILL BE ALLOWED FOR THE INTENDED SCOPE OF WORK SHOWN IN THE TENDER DOCUMENTS.
- 2. PRIOR TO COMMENCING OF WORK, THOROUGHLY FAMILIARIZE WITH SITE CONDITIONS REVIEW AND VERIFY AT SITE SIZES AND ROUTINGS OF THE EXISTING SERVICES AND ENSURE THAT THE NEW EQUIPMENT/COMPONENTS CAN BE INSTALLED TO PROVIDE A FULLY FUNCTIONAL SYSTEM. OBTAIN APPROVALS FROM THE CONSULTANTS OF DEFICIENCIES AFFECTING INTENDED EXECUTION OF WORK.
- 3. ADEQUATELY SUPPORT ALL EQUIPMENT.
- 4. PROVIDE ESA CERTIFICATE FOR ALL ELECTRICAL WORK.
- 5. CONFIRM POWER SUPPLY AT SITE PRIOR TO ORDERING OF EQUIPMENT.

1.0 GENERAL REQUIREMENTS

1. FAN SHALL BE C/W VFD.

- 1.1 CONFORM TO ALL REQUIREMENTS OF THE CITY, ONTARIO BUILDING CODE, AND OTHER APPLICABLE CODES AND STANDARDS, AND AUTHORITIES HAVING JURISDICTION.
- 1.2 PROVIDE ALL ITEMS, ARTICLES, MATERIALS, SERVICES AND INCIDENTALS SUCH AS CRANE, ETC. WHETHER OR NOT EXPRESSLY SPECIFIED OR SHOWN ON DRAWINGS, TO MAKE FINISHED WORK COMPLETE AND FULLY OPERATIONAL, CONSISTENT WITH THE INTENT OF THE CONTRACT DOCUMENTS.
- 1.3 EXAMINE THE EXISTING BUILDING, THE SITE AND SURROUNDING AREAS AND BE FULLY INFORMED AS TO THE CONDITIONS AND LIMITATIONS UNDER WHICH THE WORK HAS TO BE EXECUTED. CLAIMS FOR ADDITIONAL COSTS WILL NOT BE ENTERTAINED WITH RESPECT TO CONDITIONS WHICH COULD REASONABLY HAVE BEEN ASCERTAINED BY AN INSPECTION PRIOR TO PRICING.
- 1.4 PRIOR TO ORDERING OF ANY EQUIPMENT, THOROUGHLY REVIEW AT SITE AND ENSURE THAT THE EQUIPMENT CAN BE TRANSPORTED AT THE LOCATION, THERE IS ADEQUATE SPACE FOR INSTALLATION, INCLUDING REQUIRED CLEARANCES, AND THAT THE EQUIPMENT CAN BE INSTALLED TO PROVIDE A FULLY FUNCTIONAL SYSTEM.
- 1.5 APPLY, PAY AND OBTAIN REQUIRED PERMITS FOR ALL MECHANICAL AND ASSOCIATED WORK. WHERE LICENSES AND INSPECTION FEES ARE REQUIRED BY THE AUTHORITIES HAVING JURISDICTION FOR THE SPECIFIC TRADE FUNCTIONS. THEY SHALL BE PAID AND OBTAINED BY THE RESPECTIVE SUB TRADE RESPONSIBLE FOR THAT WORK. SUBMIT CERTIFICATES OF APPROVALS WHEN GIVEN BY THE AUTHORITIES TO OWNER.
- 1.6 DO ALL CUTTING, PATCHING AND MAKING GOOD TO LEAVE IN A FINISHED CONDITION AND TO MAKE THE SEVERAL PARTS OF THE WORK COME TOGETHER PROPERLY. COORDINATE WORK TO KEEP CUTTING AND PATCHING TO A MINIMUM.
- 1.7 QUALITY OF WORKMANSHIP AND MATERIALS USED IN PATCHING, MAKING GOOD AND REFINISHING OF EXISTING CONSTRUCTION AND/OR COMPARTMENTS SHALL BE OF A STANDARD EQUAL TO THAT OF SPECIFIED FOR NEW CONSTRUCTION AND IF NOT SPECIFIED, EQUAL TO OR EXCEEDING THAT OF ORIGINAL EXISTING WORK.
- 1.8 BE GOVERNED BY PERTINENT SAFETY REQUIREMENTS OF FEDERAL AND PROVINCIAL GOVERNMENTS AND OF MUNICIPAL BODIES HAVING AUTHORITY; PARTICULARLY THE ONTARIO CONSTRUCTION SAFETY ACT AND REGULATIONS OF ONTARIO MINISTRY OF LABOR; AND WORK IN CONJUNCTION WITH PROPER SAFETY ASSOCIATIONS OPERATING UNDER THE AUTHORITY OF ONTARIO WORKER'S COMPENSATION ACT.
- 1.9 SUBMIT ELECTRONIC COPY OF SHOP DRAWINGS FOR ALL EQUIPMENT AND MATERIALS TO THE CONSULTANT FOR REVIEW.
- 1.10 PROVIDE ELECTRONIC COPY OF OPERATING AND MAINTENANCE MANUALS FOR ALL EQUIPMENT INSTALLED, C/W ALL TESTS AND BALANCING DATA, A COPY OF REVIEWED SHOP DRAWINGS, COMPLETE EXPLANATION OF RECOMMENDED MAINTENANCE PRACTICES, PRECAUTIONS AND CERTIFICATES OF GUARANTEES.
- 1.11 OBTAIN ELECTRONIC DRAWINGS AND MARK—UP THE CHANGES NEATLY AS THE JOB PROGRESSES TO ACCURATELY INDICATE THE WORK 'AS—BUILT'. MAINTAIN THE 'AS—BUILT' WHITE PRINTS AT SITE FOR PERIODIC INSPECTION.

- 1.12 ALL EQUIPMENT, DEVICES AND MATERIALS SHALL BE NEW AND COMMERCIAL GRADE, AND SHALL CARRY APPROPRIATE CSA, CGA, ULC, ETC. APPROVAL.
- 1.13 UNLESS NOTED OTHERWISE, ALL EQUIPMENT AND MATERIALS SHALL BE PROVIDED AS SPECIFIED. SUBSTITUTION OF EQUIPMENT AND MATERIALS ARE NOT PERMITTED UNLESS SPECIFICALLY APPROVED BY THE CONSULTANT.
- 1.14 IF OBVIOUS AMBIGUITIES OR OMISSIONS ARE NOTICED PRIOR TO BID CLOSE ARE TO BE REPORTED TO THE CITY. THE CITY WILL FORWARD THE INFORMATION TO THE CONSULTANTS. AN ADDENDUM SHALL BE ISSUED AS REQUIRED. CLAIMS FOR EXTRA FOR AMBIGUITIES OR OMISSION OF ITEMS BROUGHT TO THE ATTENTION OF THE CITY AFTER THE AWARD OF A CONTRACT, WHICH DUE TO THE NATURE OF THE AMBIGUITY OR OMISSION, SHOULD HAVE BEEN BROUGHT TO THE ATTENTION OF THE CITY DURING THE BID PERIOD, WILL NOT BE ALLOWED.
- 1.15 THE DRAWINGS ARE PERFORMANCE DRAWINGS, DIAGRAMMATIC, AND SHOW LOCATIONS FOR APPARATUS AND MATERIALS. THE DRAWINGS ARE INTENDED TO CONVEY THE SCOPE OF WORK AND DO NOT INTEND TO SHOW ARCHITECTURAL AND STRUCTURAL DETAILS. THE LOCATIONS SHOWN ARE APPROXIMATE, AND MAY BE ALTERED, WHEN APPROVED BY THE CONSULTANT, TO MEET REQUIREMENTS OF THE MATERIAL AND/OR APPARATUS, OTHER EQUIPMENT AND SYSTEMS BEING INSTALLED, AND OF THE BUILDING. DO NOT SCALE DRAWINGS.
- 1.16 ALL EQUIPMENT, MATERIALS AND WORKMANSHIP SHALL BE UNCONDITIONALLY GUARANTEED FOR A MINIMUM PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE.
- 1.17 INSTALL ALL EQUIPMENT AS PER MANUFACTURER'S INSTRUCTIONS. ALL DETAILS ARE NOT SHOWN ON THE DRAWINGS.
- 1.18 PRIOR TO COMMENCEMENT OF WORK, MAKE CAREFUL EXAMINATION OF THE ATTACHED DRAWING, SPECIFICATION AND THE EXISTING WORK. NOTIFY THE CONSULTANT OF ANY DISCREPANCIES AFFECTING INTENDED EXECUTION OF THE WORK AND OBTAIN APPROVAL BEFORE PROCEEDING WITH THE WORK.
- 1.19 PROVIDE OPERATING AND MAINTENANCE INSTRUCTIONS AND TRAINING TO THE OWNER'S OPERATING STAFF.
- 1.20 CLEARLY IDENTIFY ALL MECHANICAL EQUIPMENT USING BLACK LAMICOID NAMEPLATE, 9.5MM (3/8") ENGRAVED WHITE LETTERS, SECURELY FASTENED TO THE EQUIPMENT.
- 1.21 PAINT ALL STEEL MATERIALS THAT ARE NOT FACTORY FINISHED WITH RED LEAD PRIMER AND TOUCH—UP ALL DAMAGED PAINTED EQUIPMENT SURFACES.
 PAINT GAS PIPES WITH YELLOW COLOR.
- 1.22 CO-ORDINATE WITH ELECTRICAL AND OTHER TRADES PRIOR TO COMMENCING OF WORK AND PRIOR TO ORDERING OF THE EQUIPMENT.

2.0 <u>WORK IN AREAS</u>

- 2.1 WHERE DISRUPTIONS OF EXISTING SERVICES ARE REQUIRED, COORDINATE SHUT DOWN WITH THE OPERATING STAFF AND DO THE WORK AT A TIME AND IN A MANNER MUTUALLY ACCEPTABLE. COORDINATE WITH ALL TRADES AND UNION GAS AND CAREFULLY SCHEDULE DISRUPTIONS TO KEEP DOWN TIME TO AN ABSOLUTE MINIMUM.
- 2.2 EXISTING MATERIALS AND EQUIPMENT WHICH ARE TO BE USED IN NEW WORK SHALL BE REPAIRED AND REFINISHED AS NECESSARY. PROVIDE ADDITIONAL NEW MATERIALS AND COMPONENTS AS REQUIRED TO FACILITATE REINSTALLATION OF SUCH EXISTING MATERIALS AND EQUIPMENT.
- PRIOR TO DIGGING AND CUTTING, EXAMINE THE SITE, WALL, FLOOR AND CEILING CONSTRUCTION FOR BURIED SERVICES, INCLUDING ELECTRICAL CABLES AND PIPES, AND TAKE ADEQUATE PROTECTION. CONDUCT LOCATING TESTS TO LOCATE BURIED PIPES, CONDUITS AND CABLES IN EXISTING WORK.

- 2.4 COMPLETE ALL WORK DEFINED ON THE DRAWINGS TO INCLUDE BUT NOT LIMITED TO THE FOLLOWING:
 - 1. REPLACE EXISTING VEHICLE EXHAUST FAN COMPLETE WITH ASSOCIATED SUPPORTS, FLEXIBLE DUCT CONNECTIONS, NEDERMAN PANEL, ELECTRICAL POWER, CONTROL WIRING AND RIGID DUCTWORK.

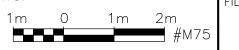
3.0 EXHAUST FAN:

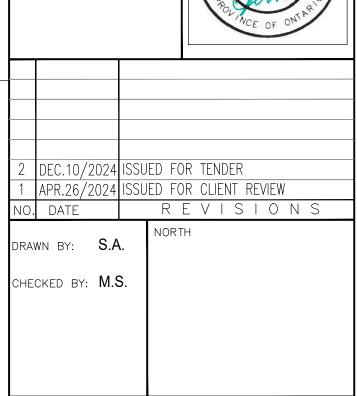
- 3.1 PROVIDE EXHAUST FAN SUITABLE FOR VEHICLE EXHAUST DUTY AS SHOWN ON THE DRAWINGS AND AS SPECIFIED.
- 3.2 THE N SERIES FAN SHALL BE THE CENTRIFUGAL BLOWER TYPE. THE FAN SHALL BE A DIRECT DRIVE DESIGN WITH THE FAN HOUSING BOLTED DIRECTLY TO THE FACE OF THE MOTOR. THE HOUSING SHALL BE MADE IN TWO PARTS, WHICH ARE BOLTED TOGETHER. BLOWER HOUSING SHALL BE 14 GAUGE. A POLYESTER EPOXY LACQUERED GALVANIZED SHEET METAL HOUSING SHALL PROVIDE ROUND OUTLET FOR EASY FLANGE, PIPE OR HOSE CONNECTION. THE DISCHARGE ORIENTATION MAY BE CHANGED BY UNBOLTING THE MOTOR MOUNTING PLATE FROM THE HOUSING AND TURNED TO THE PROPER DIRECTION. BLOWER WHEEL SHALL BE NON—SPARKING DIE—CAST SILUMIN (ALUMINUM—SILICON). TO ASSURE SMOOTH OPERATION, WHEELS SHALL BE BALANCED BY MEANS OF MATERIAL REMOVAL ONLY. WHEEL HUB SHALL BE AN INTEGRAL PART OF THE WHEEL CASTING. ALL MOTORS SHALL BE CONTINUOUS DUTY TYPE AND SHALL EXCEED IP55 PROTECTION STANDARDS. MOTORS SHALL BE HIGH EFFICIENCY TEFC TYPE SUITABLE FOR INDOOR INSTALLATION.
- 3.3 PROVIDE THE FOLLOWING ACCESSORIES WITH THE FAN:
 - 1. INLET & OUTLET ADAPTER SUITABLE FOR FAN SPECIFIED HEREIN.
- 2. SUPPORT BRACKET.
- 3. INLET & OUTLET GUARD NET.4. GASKET FOR FLANGE ADAPTER.
- 5. VFD MODEL VFD 037B

4.0 <u>DUCTWORK:</u>

- 4.1 RIGID GALVANIZED STEEL DUCT ADAPTOR TO SUIT EXISTING SITE CONDITIONS.
- 5.0 START-UP, TESTING ADJUSTING AND BALANCING:
- 5.1 COMPLETE START-UP OF THE VEHICLE EXHAUST SYSTEM AFTER COMPLETION OF INSTALLATION AND SUBMIT A REPORT FOR THE SAME.
- 5.2 COMPLETE AIR BALANCING OF THE SYSTEM TO DELIVER THE REQUIRED AIRFLOW RATES. CONFIRM FAN PERFORMANCE AS SPECIFIED.
- 6.0 <u>GAS VALVES</u>
 - 1. SUPERVISED GAS VALVES SHALL BE CGA APPROVED POSITION INDICATING TYPE. BALLOWAX EMERGENCY GENERATOR VALVE C/W DXP-GNEBT TOP WORK SWITCH OR APPROVE EQUAL. THE VALVES OPEN AND CLOSE POSITIONS SHALL INDICATE AT THE FIRE ALARM PANEL BY DIV 16. COMPLETE INSTALLATION OF THE SUPERVISORY VALVES SHALL MEET (CSA-B149 AND CSA-292) REQUIREMENTS.

SEE ELECTRICAL DRAWINGS FOR LOCATIONS OF SUPERVISED VLAVES.







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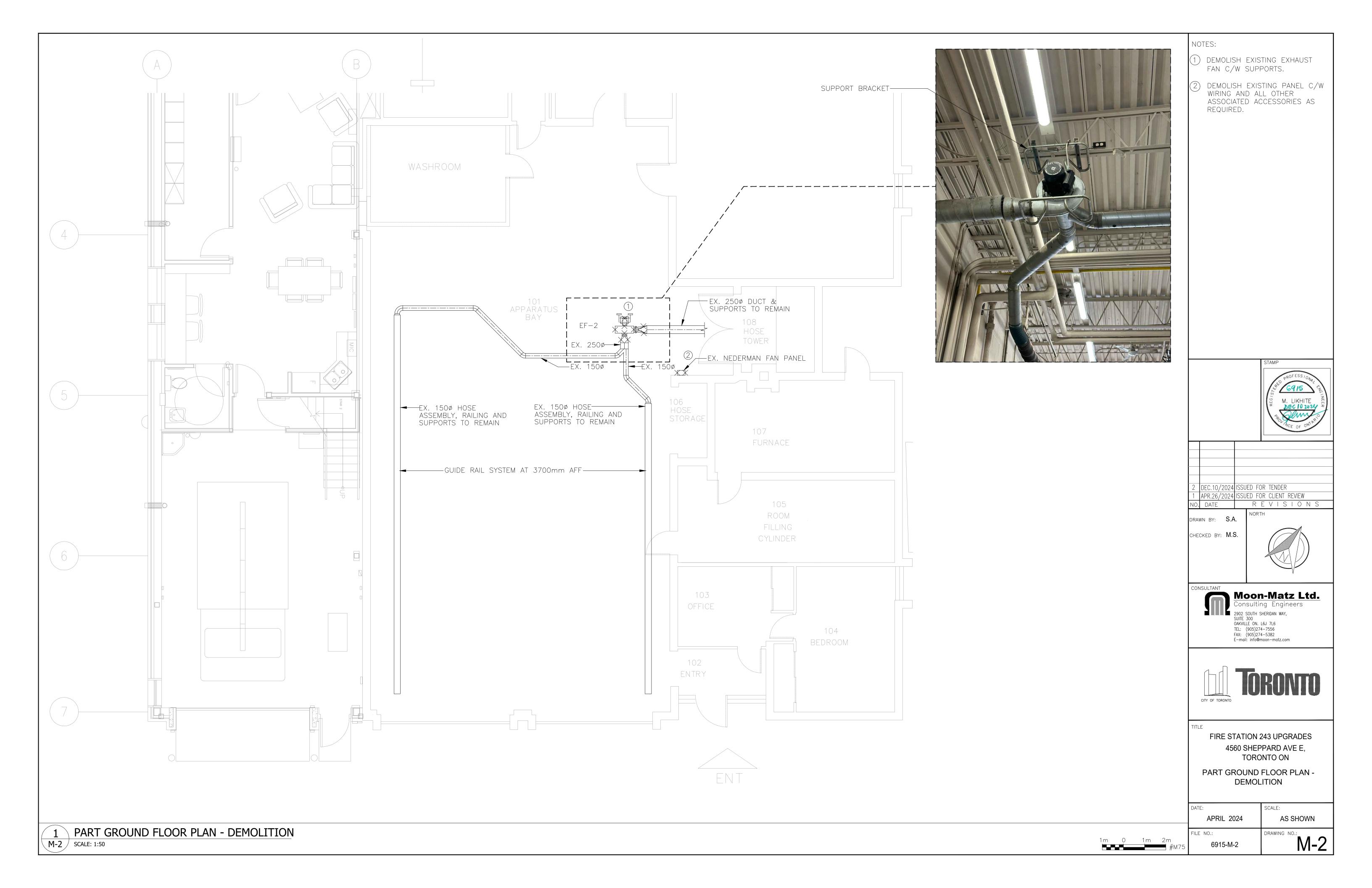
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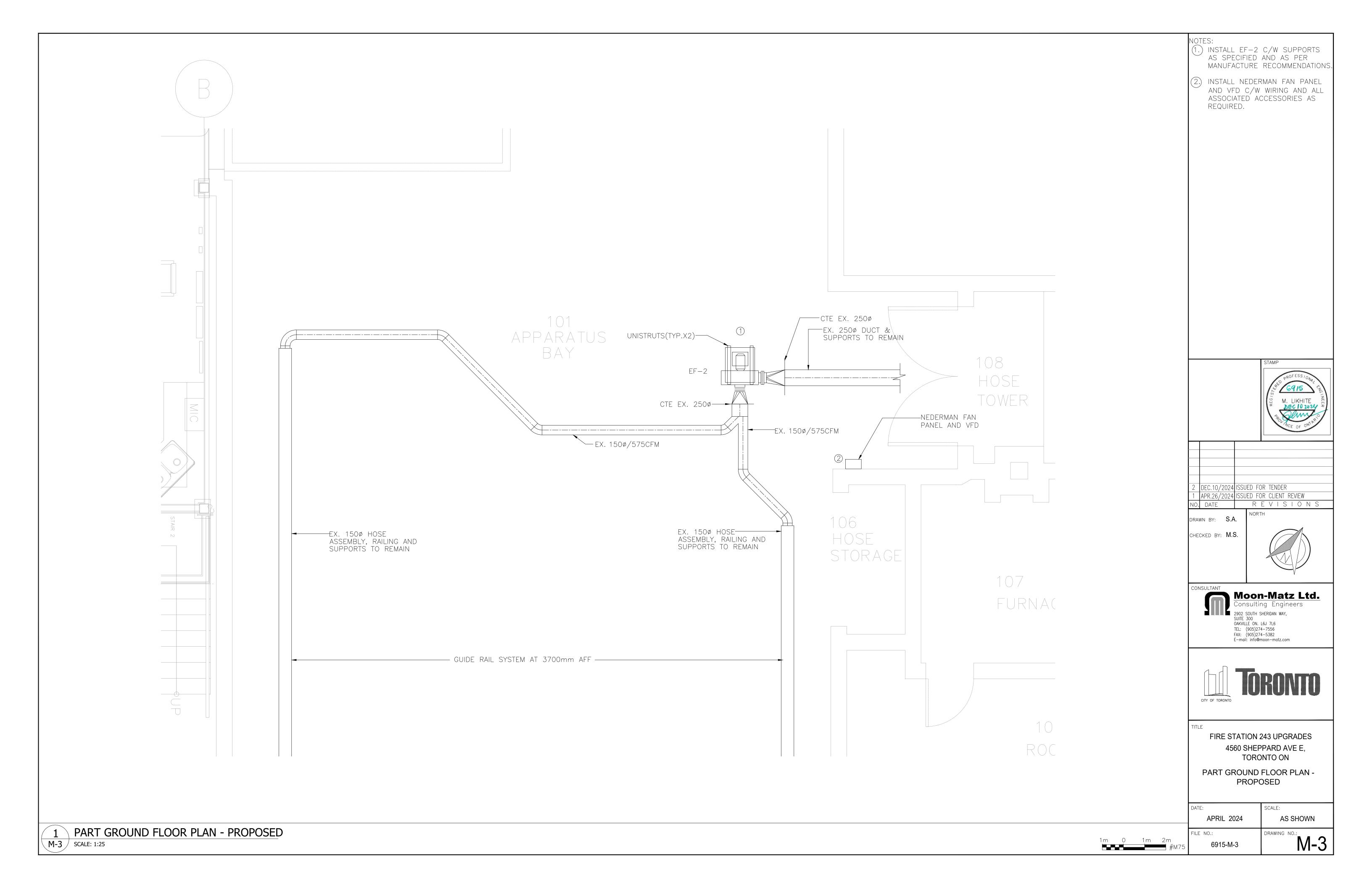
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FIRE STATION 243 UPGRADES
4560 SHEPPARD AVE E,
TORONTO ON

MECHANICAL GENERAL

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D OF	APRIL 2024	N.T.S.
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POWER		Cd	CANDELA
		AFF	ABOVE FINISHED FLOOR.
SYMBOL	DESCRIPTION	TYP.	TYPICAL.
VFD	VARIABLE FREQUENCY DRIVE SUPPLIED BY MECHANICAL	DIA.	DIAMETER.
	CONTRACTOR INSTALLED BY ELECTRICAL CONTRACTOR	Ø	PHASE
마	NON FUSED DISCONNECT SWITCH 3 POLE EEMAC 3R ENCLOSURE	ССТ	CIRCUIT
E	FUSED DISCONNECT SWITCH 3 POLE EEMAC 3R ENCLOSURE	EX	EXISTING EQUIPMENT TO REMAIN UNDISTURBED, OPERATIONAL AND PROTECTED DURING CONSTRUCTION. PROVIDE ALL TEMPORARY AND
	SINGLE PHASE DISCONNECT SWITCH.		PERMANENT WIRING, CONDUIT, SPLICING JUNCTION BOXES, PENETRATIONS AND REROUTING
€	15A, 120V, 1Ø, 3W GROUNDED DUPLEX RECEPTACLE, UNLESS OTHERWISE INDICATED. 'GFI' DENOTES - CLASS 'A' GFI TYPE RECEPTACLE. '20A' DENOTES 20A, 120V, 1Ø, 3W GROUNDED DUPLEX RECEPTACLE		NECESSARY TO KEEP EQUIPMENT OPERATIONAL DURING CONSTRUCTION AND FOR A CLEAN, PERMANENT CONDUIT INSTALLATION WITH MINIMAL CONDUIT VISIBLE.
	'W/P' DENOTES RECEPTACLE C/W WEATHERPROOF, EXTRA DUTY-RATED IN-USE COVER 'DCR' DENOTES CEILING-MOUNTED DROP CORD	R	EXISTING EQUIPMENT TO BE REMOVED AND DISPOSED OF C/W CONDUIT AND WIRING BACK TO SOURCE. MAKE CIRCUIT SAFE.
	REEL RECEPTACLE 'USB' DENOTES RECEPTACLE WITH USB PORT	SCCR	SHORT CIRCUIT CURRENT RATING
	SURFACE-MOUNTED CONDUIT C/W WIRING AS NOTED	U/S	UNDERSIDE
	EXISTING SURFACE-MOUNTED CONDUIT C/W WIRING AS NOTED	AFF	ABOVE FINISHED FLOOR
	BURIED OR CONCEALED CONDUIT, CABLE OR DUCT AS NOTED.		
	EXISTING BURIED OR CONCEALED CONDUIT, CABLE OR DUCT.		
	DENOTES CABLE OR CONDUIT TURNING DOWN.		
o	DENOTES CABLE OR CONDUIT CONCEALED TURNING UP.		
	ELECTRICAL EQUIPMENT AS NOTED.		
FIRE ALARM	SYSTEM	CONSTRUCT	TON NOTES:

SYMBOL	DESCRIPTION
SM ← CO	ADDRESSABLE COMBINATION SMOKE DETECTOR DEVIC DETECTOR CARBON MONOXIDE C/W SOUNDER BASE TH CAN EMIT AUDIBLE ALARM
•	ADDRESSABLE SMOKE DETECTOR
□◆ □	ADDRESSABLE DUCT DETECTOR
•	120V, SMOKE CO COMBINATION ALARM
Ø	ADDRESSABLE HEAT DETECTOR
CON	CONVENTIONAL HEAT DETECTOR FOR UNHEATED AREA
	ADDRESSABLE MANUAL PULL STATION
FACP	ADDRESSABLE FIRE ALARM CONTROL PANEL
ISO	ADDRESSABLE ISOLATORS
	END OF LINE RESISTOR
IAM	INDIVIDUAL ADDRESSABLE MODULE
S 15cd	FIRE ALARM STROBE - 15cd INDICATES STROBE SET AT 15 CANDELA INTENSITY
$\exists \forall$	FIRE ALARM HORN
B	FIRE ALARM SYSTEM BELL
HS 15cd	FIRE ALARM SYSTEM HORN STROBE - 15cd INDICATES STROBE SET AT 15cd INTENSITY
	ELECTRICAL EQUIPMENT AS NOTED
ANN	REMOTE ANNUNCIATOR PANEL
FAC	FIRE ALARM CONNECTION TO ANOTHER SYSTEM
\bigcirc	CARBON MONOXIDE ALARM (120V)

ABBREVIATIONS:

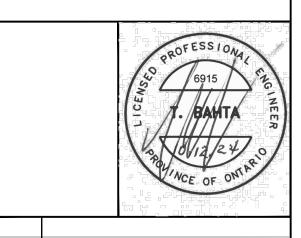
EX	EXISTING EQUIPMENT TO REMAIN
PS	PULL STATION (MANUAL)
C/W	COMPLETE WITH
W/P	WEATHERPROOF
FAS	FIRE ALARM SYSTEM
SPD	SURGE PROTECTION DEVICE
OFC	ONTARIO FIRE CODE
ОВС	ONTARIO BUILDING CODE
R	EXISTING DEVICE C/W WIRING AND CONDUIT TO BE REMOVED AND DISPOSED OF BACK TO SOURCE AN

MADE SAFE AFTER NEW SYSTEM IS OPERATIONAL.

- 1. ALL EXISTING INFORMATION SHALL BE CONFIRMED. UNDERGROUND CONDUITS AND WIRING ARE SHOWN BASED ON AVAILABLE AS-BUILT INFORMATION ONLY AND CONTRACTOR SHALL CONFIRM ON SITE AS REQUIRED. INFORMATION IS PROVIDED AS A REFERENCE FOR DEMOLITION AND RE-FEEDING/RE-ROUTING REQUIREMENTS AS DESCRIBED WITHIN THE CONTRACT.
- 2. ALL DIMENSIONS AND INFORMATION SHALL BE CHECKED AND VERIFIED ON THE JOB AND ANY DISCREPANCIES SHALL BE REPORTED BEFORE COMMENCING THE WORK.
- 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME INFORMED OF THE EXACT LOCATION OF, AND ASSUME ALL LIABILITY FOR DAMAGE TO ALL UTILITIES, SERVICES, AND STRUCTURES WHETHER ABOVE GROUND OR BELOW GRADE BEFORE COMMENCING THE WORK. SUCH INFORMATION IS NOT NECESSARILY SHOWN ON THE DRAWINGS AND WHERE SHOWN, THE ACCURACY CANNOT BE GUARANTEED.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING SERVICES AND UTILITIES IN WORKING AREA PRIOR TO CONSTRUCTION AND SHALL PROTECT THESE UTILITIES AND SERVICES TO THE SATISFACTION OF THE CONCERNED UTILITY COMPANIES AND OWNER. DAMAGES BY THE CONTRACTOR SHALL BE RESTORED TO THE SATISFACTION OF THE CONCERNED UTILITY COMPANY AND THE OWNER AT NO EXPENSE TO THE OWNER.
- 5. EXPOSE EXISTING UTILITIES AND SERVICES, MAINTAIN REQUIRED CLEARANCES, PROVIDE HAND DIGGING AND STRUCTURAL SUPPORT OF UTILITIES AND SERVICES IN ORDER TO PROTECT THE UTILITIES AND SERVICES TO THE SATISFACTION OF THE OWNERS.
- 6. ONCE ALL LOCATES FOR BURIED SERVICES ARE OBTAINED, PREPARE ROUTING PLAN FOR NEW BURIED SERVICES, ADHERING TO ALL MINIMUM HORIZONTAL AND VERTICAL SEPARATION REQUIREMENTS. FOR CROSSING OVER OR PASSING UNDER UTILITIES REFER TO O.P.S.D. STANDARD NO. 2103.05.
- 7. ALL MISCELLANEOUS ELECTRICAL EQUIPMENT BEING REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER AND IF THE OWNER HAS NO USE FOR IT, IT SHALL BE DISPOSED OF. PROVIDE STORAGE, TRANSPORTATION AND DELIVERY OF SALVAGED EQUIPMENT AS REQUIRED BY OWNER.
- 8. WIRING LOCATED IN AREAS BEING ALTERED OR DEMOLISHED, BUT FEEDING LIGHTING, OUTLETS OR EQUIPMENT REQUIRED TO REMAIN IN SERVICE SHALL BE REROUTED AS REQUIRED TO MAINTAIN THE CONTINUITY OF THESE SERVICES.
- 9. A 6.35mm POLYPROPYLENE ROPE SHALL BE LEFT IN ALL NEW AND UPDATED EXISTING CONDUITS.
- 10. FISH ALL CONDUIT AND PROVIDE POLY PULL ROPE. PROVIDE SPARE POLY PULL ROPE IN ALL NEW & EXISTING CONDUITS WHERE WIRING IS INSTALLED AND WHERE CONDUITS ARE BEING LEFT AS SPARES.
- 11. WHEN TRENCHING/HANDWELL INSTALLED AT ASPHALT SURFACES, THE CONTRACTOR SHALL ROUTE AND SEAL ALL JOINTS WITH HOT POURED RUBBERIZED ASPHALT JOINTS.
- 12. AREAS NEAR UTILITIES SHALL BE HAND DIG OR HYDRO VAC.
- 13. PROVIDE 1m SLACK CABLES AT MANHOLES, HANDWELLS AND AT EACH END OF CABLE RUNS.
- 14. ALL PENETRATIONS IN WALLS AND CEILING FOR CONDUIT CROSSING SHALL BE SEALED WITH FIRE-STOPPING SEALANT.
- 15. ALL CONDUITS, HANDWELLS AND BOXES SHALL BE LABELED AS PER CONSULTANT'S/OWNER'S
- 16. MOUNT NEW EQUIPMENT AT LOCATIONS SUCH THAT THERE IS ROOM TO INSTALL THEM AND ADEQUATE CLEARANCE IN FRONT PER THE ONTARIO ELECTRICAL SAFETY CODE. THE DRAWINGS ARE DIAGRAMMATIC ONLY. PROVIDE CONDUIT AND WIRING AS REQUIRED TO MOUNT NEW EQUIPMENT.
- 17. MINIMUM CONDUIT SIZE SHALL BE 21mmØ.
- 18. FOLLOW CITY OF TORONTO TREE PROTECTION POLICY WHEN TRENCHING OR EXCAVATING NEAR

FIRE ALARM SYSTEM CONSTRUCTION NOTES:

- 1. ISOLATORS MUST BE INSTALLED ON THE WALLS BELOW T-BAR CEILINGS AND LABELED, ISOLATORS MUST NOT BE INSTALLED ON CEILING TILES OR ABOVE CEILINGS.
- STROBES SHALL BE SYNCHRONIZED. PROVIDE REQUIRED MODULES TO ACHIEVE THIS TASK.
- USE/SET STROBES FOR 15cd MINIMUM AND 35cd MAXIMUM, UNLESS NOTED.
- 4. MAXIMUM OUTPUT SIGNAL CURRENT SHALL BE 80% OF OUTPUT MODEL.
- 5. PROVIDE NEW WIRING IN CONDUIT FROM ALL DEVICES TO NEW FIRE ALARM PANEL. PVC CONDUIT IS NOT ALLOWED.
- NEW FIRE ALARM PANEL SHALL HAVE SUFFICIENT LOAD AND CIRCUITS INCLUDING 30% SPARE CAPACITY. PROVIDE BATTERY SIZING CALCULATIONS AND SELECTIONS IN SHOP DRAWING
- NEW SYSTEM SHALL MEET AODA REQUIREMENTS.
- 8. THIS CONTRACTOR SHALL HIRE THE MANUFACTURER OR ITS REPRESENTATIVE TO PROGRAM AND COMMISSION THE NEW FIRE ALARM SYSTEM.
- 9. THE NEW F/A SYSTEM SHALL BE TESTED AND VERIFIED BY THE MANUFACTURER OR ITS REPRESENTATIVE. THE SAME SHALL CERTIFY THE INSTALLATION. PROVIDE ALL VERIFICATION WORK COMPLETE WITH VERIFICATION REPORT.
- 10. PROVIDE SURFACE MOUNT BACK BOX FOR ALL ON-WALL NOTIFICATION APPLIANCES.
- 11. PROVIDE SURFACE MOUNT BACK BOX FOR ALL ON-WALL ISOLATORS.
- 12. REFER TO MANUFACTURER'S WIRING DIAGRAMS AND FIRE ALARM RISER DIAGRAM PRIOR TO ROUGH-IN. PROVIDE ALL CONDUIT, WIRING, OUTLET BOXES, JUNCTION BOXES, DEVICE, ACCESSORIES AND NECESSARY COMPONENTS AND HARDWARE AS REQUIRED FOR A COMPLETE AND OPERATIONAL FIRE ALARM SYSTEM.
- 13. WHERE PENETRATING WALLS, PROVIDE FIRE STOP AND SMOKE SEAL TO MAINTAIN INTEGRITY OF THE
- 14. CONTRACTOR MUST CONFIRM ROOM NAMES AND NUMBERS AND STAIR NUMBERS ETC. WITH CITY OF TORONTO STAFF AND MAKE NECESSARY MODIFICATIONS TO ZONE INDICATION MESSAGES.
- 15. CONTRACTOR WILL BE RESPONSIBLE FOR EXPENSES INCURRED FOR CHANGES IN THE EVENT OF NON-COMPLIANCE.
- 16. CONTRACTOR SHALL VERIFY THE COMPLETE DESIGN WITH FIRE ALARM SYSTEM VENDOR PRIOR TO OBTAINING A TENDER PRICE FROM VENDOR. IF THE VENDOR ADVISES ADDITION OR DELETION OF DEVICES, THE CONTRACTOR SHALL REPORT THIS INFORMATION TO CITY OF TORONTO SO THAT AN ADDENDUM CAN BE ISSUED. NO EXTRA CHARGES SHALL BE ENTERTAINED FOR ADDITIONAL DEVICES PROPOSED BY FIRE ALARM SYSTEM VENDER AFTER THE TENDER IS CLOSED.
- 17. PROVIDE FIRE ALARM CONTROL PANEL C/W PRINTER CARD, LAN CARD AND BYPASS SWITCH TO ALLOW VERIFICATION OF SYSTEM WITHOUT SHUTDOWN SIGNAL.
- 18. PROGRAM THE SYSTEM IN ACCORDANCE WITH ROOM AND CORRIDOR NAMES AND NUMBER LABELS. CO-ORDINATE WITH CITY OF TORONTO FOR THE LATEST ROOM NAMES AND NUMBERS.
- 19. PROVIDE AUDIBILITY TEST (dB TEST) WITH dB LEVELS PLOTTED ON FLOOR PLANS IN BUILDING WITH DOORS CLOSED AFTER NEW FIRE ALARM SYSTEM IS INSTALLED AND TWO WEEKS PRIOR TO FIRE INSPECTION. INCLUDE COSTS TO ADJUST DEVICES TO LOWEST TAP SETTING AND/OR MASKING TO ENSURE AUDIBILITY LEVELS. DO NOT EXCEED MORE THAN 100dBA IN ROOMS OR ROOMS WITH NON-ABSORPANT SURFACES.
- 20. PROVIDE FINAL AUDIBILITY TEST (dB TEST) WITH dB LEVELS PLOTTED ON FLOOR PLANS IN BUILDING WITH DOORS CLOSED UPON VERIFICATION OF SYSTEM.
- 21. END OF LINE RESISTORS SHALL BE LOCATED IN EASILY ACCESSIBLE AND UNOBSTRUCTED AREAS SUCH AS STAIR WELLS AND SERVICE ROOMS.
- 22. EXISTING DEVICE LOCATIONS SHALL NOT BE REUSED UNLESS NOTED. NEW DEVICE LOCATIONS SHALL MEET CODE REQUIREMENTS AND BE CLEAR OF MAINTENANCE OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO BOILERS. VENTILATION EQUIPMENT AND SWITCHBOARDS. DEVICES SHALL BE LOCATED WITHIN 600mm OF WALLS IN ROOMS WITH HIGH CEILINGS.
- 23. PROVIDE SINGLE STAGE ADDRESSABLE FIRE ALARM SYSTEM COMPLETE WITH DEVICES, WIRING, CONDUIT AND ACCESSORIES AS SHOWN ON THE DRAWINGS AND SPECIFICATIONS.
- 24. THE CONTRACTOR IS RESPONSIBLE TO CLEAN UP, REMOVE AND DISPOSE OF EXISTING FAS DEVICES, WIRING AND CONDUIT AFTER THE NEW FAS IS COMMISSIONED AND APPROVED BY CITY OF TORONTO. MAKE REMOVAL SAFE AND TIDY. DISPOSE OF EXISTING EQUIPMENT REMOVED OFF-SITE.
- 25. PROVIDE TESTING, PROGRAMMING, INTERFACING AND COMMISSIONING SERVICES FROM THE MANUFACTURER OF THE FIRE ALARM SYSTEM OR THEIR APPROVED REPRESENTATIVE.
- 26. FIRE ALARM SYSTEM INSTALLATION SHALL BE IN STAGES TO SUIT FACILITY REQUIREMENTS.
- 27. CONSTRUCTION WORK FOR THIS PROJECT CAN PROCEED DURING AS CO-ORDINATED WITH CITY OF TORONTO. ACTIVITIES REQUIRING INTERRUPTION OF BUILDING SERVICES SHALL NOT OCCUR UNTIL AFTER PERMISSION IS PROVIDED BY THE CITY OF TORONTO IN WRITING. APPLY FOR THE CITY OF TORONTO'S PERMISSION TWO (2) WEEKS PRIOR INTERRUPTIONS TO EXISTING BUILDING SERVICES.
- 28. ALL MISCELLANEOUS ELECTRICAL EQUIPMENT BEING REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER AND IF THE OWNER HAS NO USE FOR IT, IT SHALL BE DISPOSED OF OFF-SITE
- 29. PROVIDE ALL WIRING, CONDUIT AND PROGRAMMING SERVICES NECESSARY TO MAKE COMPLETE FIRE ALARM WORKING SYSTEM.
- 30. SEAL ALL PENETRATIONS IN FLOORS AND WALLS WITH FIRE-STOPPING SEALANT. PROVIDE FIRE STOPPING SEALANT.
- 31. PROVIDE FIRE ALARM SYSTEM DIALER PANEL. PROVIDE THE SERVICES OF THE CITY OF TORONTO'S FIRE ALARM MONITORING COMPANY TO CONNECT THE NEW SYSTEM TO THE DIALER PANEL. PROVIDE THE SERVICES OF THE SECURITY SYSTEM SUPPLIER TO CONNECT TO THE EXISTING SECURITY
- 32. PROVIDE ULC-S1001 TESTING OF THE FIRE ALARM SYSTEM AND CONNECTED SYSTEMS. ULC-S1001 TESTING SHALL BE PERFORMED BY A CERTIFIED SYSTEM INTEGRATOR CERTIFIED IN ACCORDANCE WITH ULC REQUIREMENTS. PROVIDE THE SERVICES OF THE CERTIFIED SYSTEM INTEGRATOR AND ALL MATERIAL REQUIRED BY THE INTEGRATOR TO COMPLETE THE ULC-S1001 TESTING. PROVIDE ULC-S1001 TEST PROCEDURE AS SHOP DRAWING SUBMISSION TO CITY OF TORONTO AND CONSULTANT. PROVIDE ULC-S1001 TEST REPORT TO CONSULTANT AFTER COMPLETION OF THE ULC-S1001 TESTING.



2 DEC.10/2024 ISSUED FOR TENDER 1 APR.26/2024 ISSUED FOR CLIENT REVIEW

NORTH

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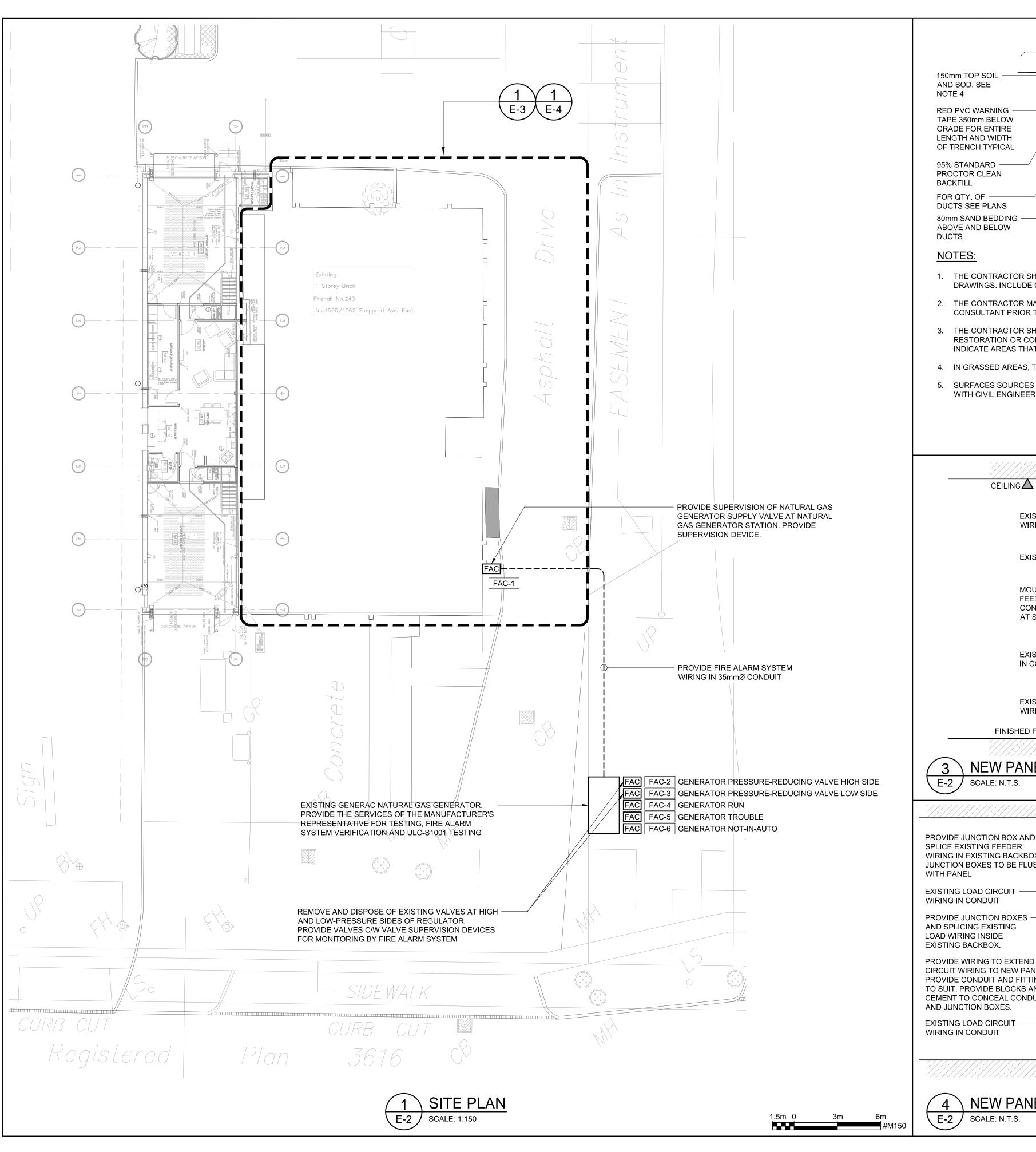


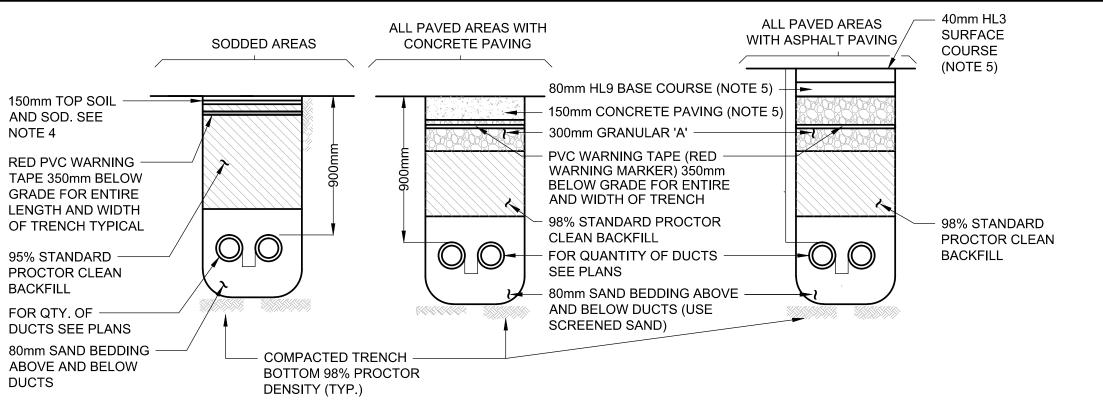
FIRE STATION 243 UPGRADES 4560 SHEPPARD AVE E,

ELECTRICAL LEGEND, ABBREVIATIONS AND NOTES

TORONTO ON

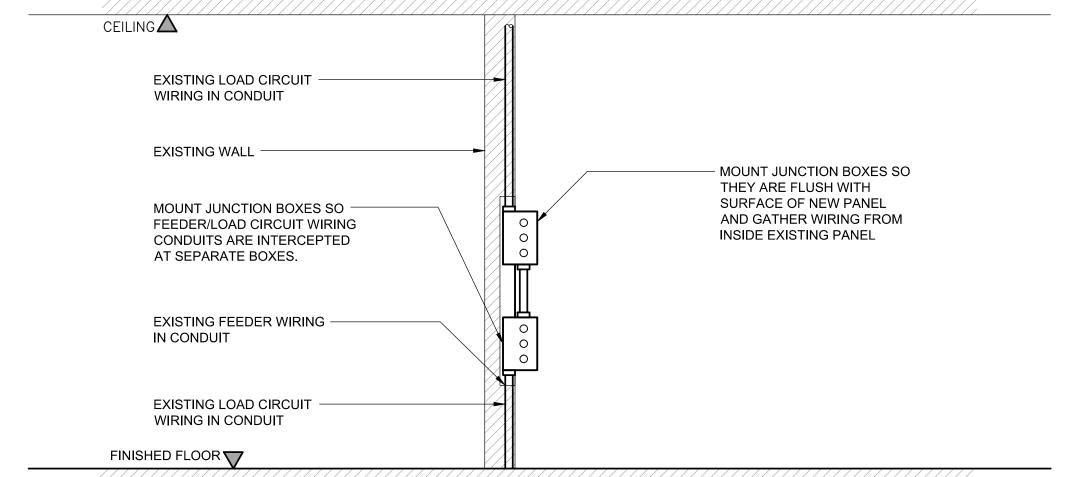
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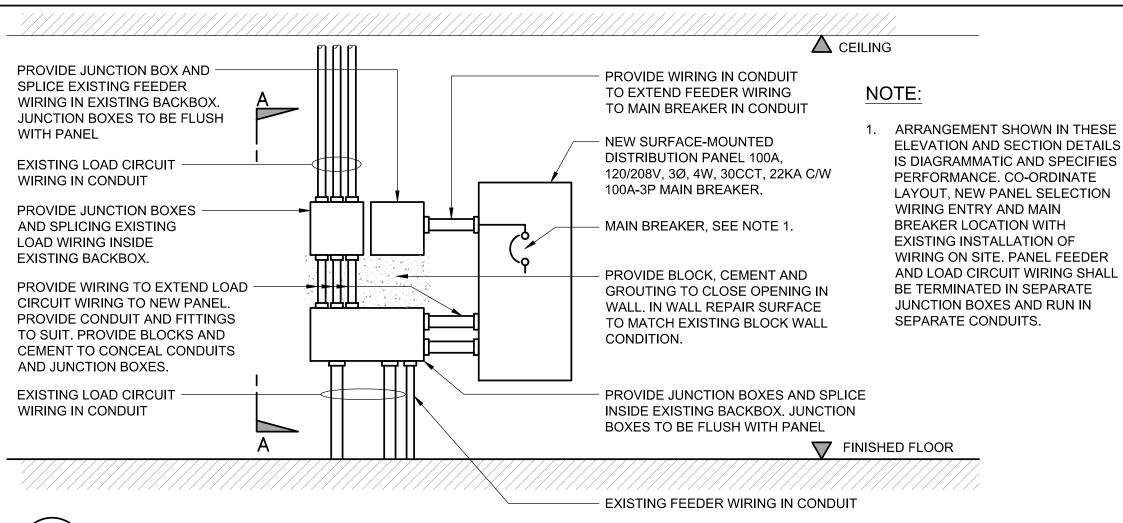


- 1. THE CONTRACTOR SHALL SAW CUT ASPHALT AND OR CONCRETE PAVING AS REQUIRED TO PROVIDE TRENCHING WHERE SHOWN ON DRAWINGS. INCLUDE COSTS FOR SAW CUTTING AND SEALING OF ASPHALT JOINT WITH HOT POURED RUBBERIZED ASPHALT SEALANT.
- 2. THE CONTRACTOR MAY TORPEDO OR AUGER UNDER CONCRETE PAVING. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM CONSULTANT PRIOR TO INSTALLATION.
- 3. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO TENDER AND INFORM THEMSELVES OF ALL AREAS THAT REQUIRE ASPHALT RESTORATION OR CONCRETE RESTORATION AND PROVIDE ALL RESTORATION REQUIRED UNDER THIS CONTRACT. DRAWINGS DO NOT INDICATE AREAS THAT ARE ASPHALT OR CONCRETE.
- 4. IN GRASSED AREAS, THE CONTRACTOR SHALL PROVIDE 150mm TOP SOIL AND SOD. MAINTAIN SOD UNTIL ACCEPTANCE BY CONSULTANT.
- 5. SURFACES SOURCES AND REQUIREMENTS SHOWN FOR REFERENCE ONLY. PROVIDE SURFACES COURSES AND FINISHES IN ACCORDANCE WITH CIVIL ENGINEERING DRAWINGS, SITE CONDITIONS AND TO MAKE REPAIRS TO RESEMBLE EXISTING SITE CONDITIONS.



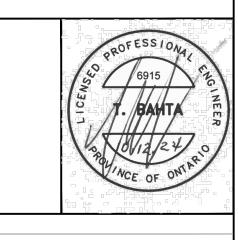


NEW PANEL INSTALLATION AND EXISTING WIRING INTERCEPTION SECTION DETAIL 'A-A'



NEW PANEL INSTALLATION AND EXISTING WIRING INTERCEPTION ELEVATION DETAIL

E-2 SCALE: N.T.S.



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FIRE STATION 243 UPGRADES

4560 SHEPPARD AVE E,
TORONTO ON

ELECTRICAL SITE PLAN AND DETAILS

DATE:

APRIL 2024

SCALE:

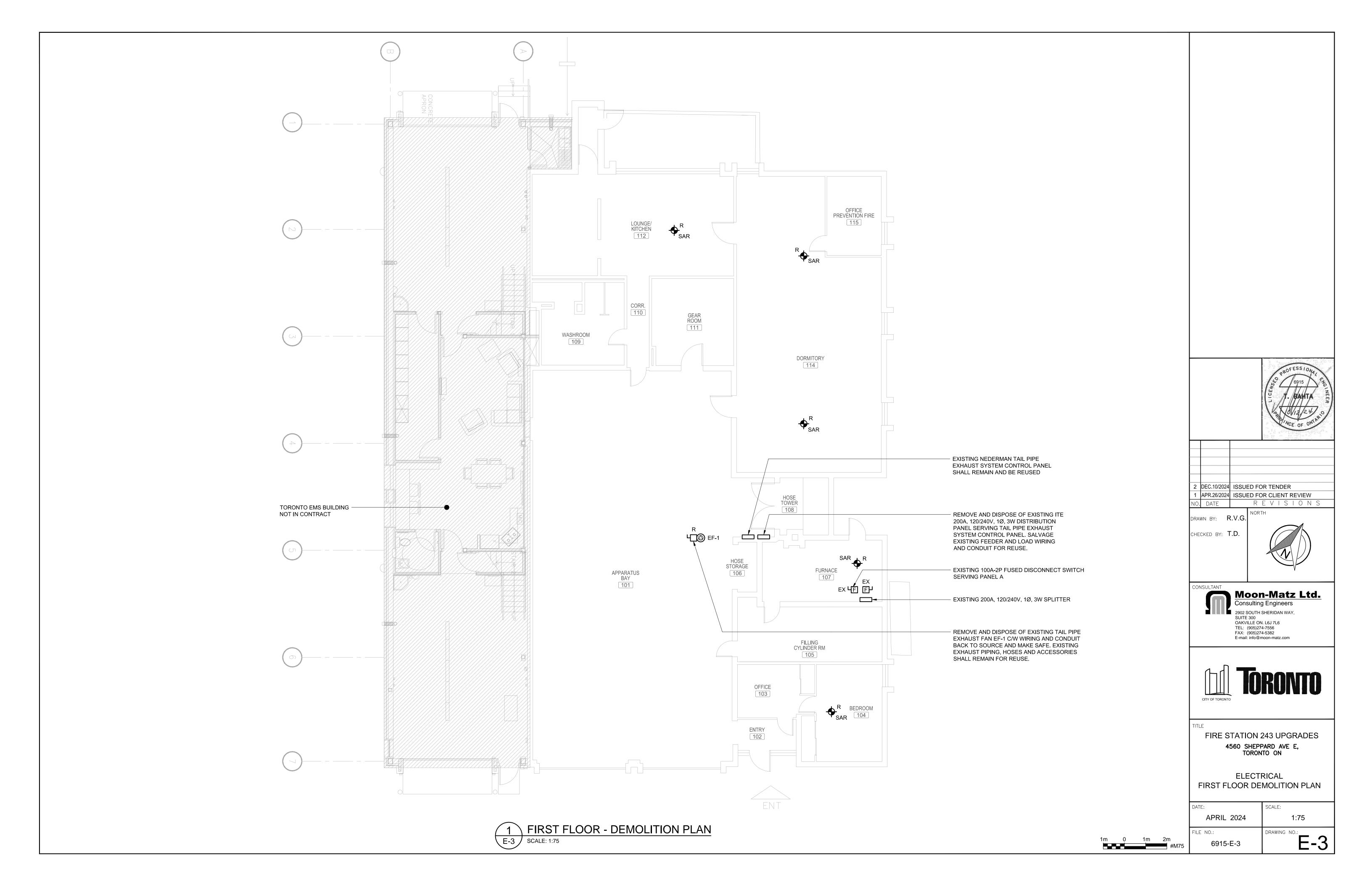
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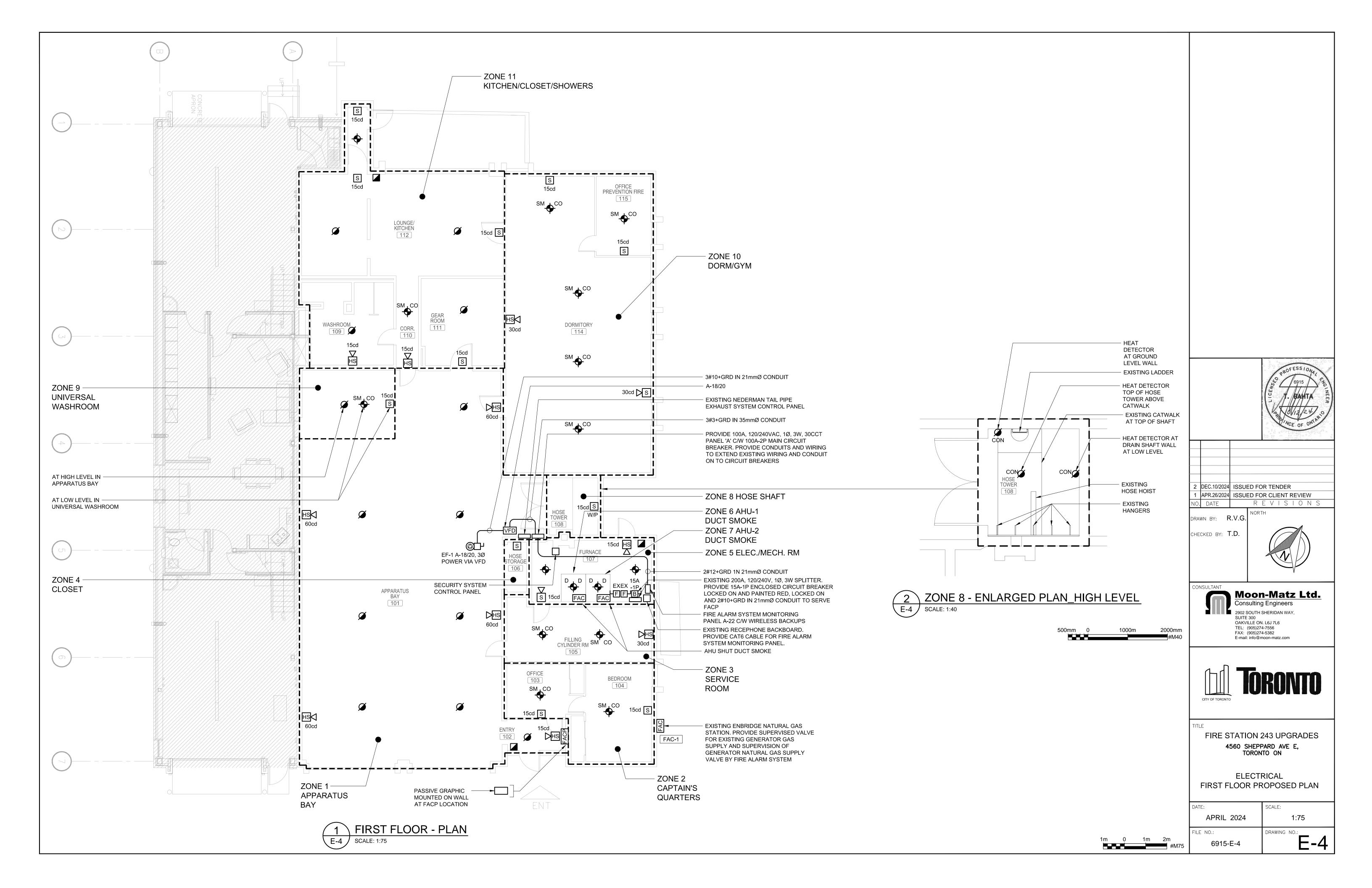
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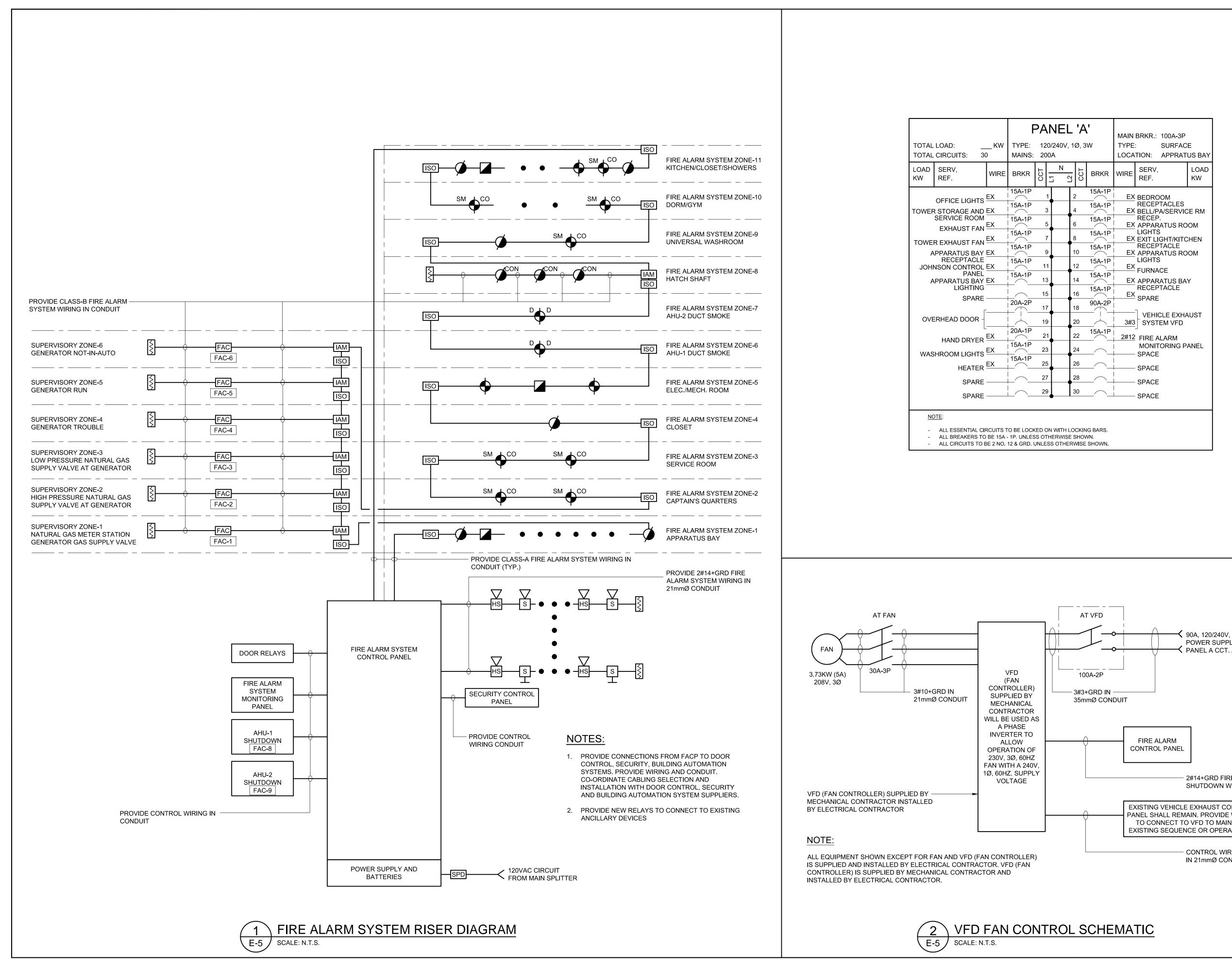
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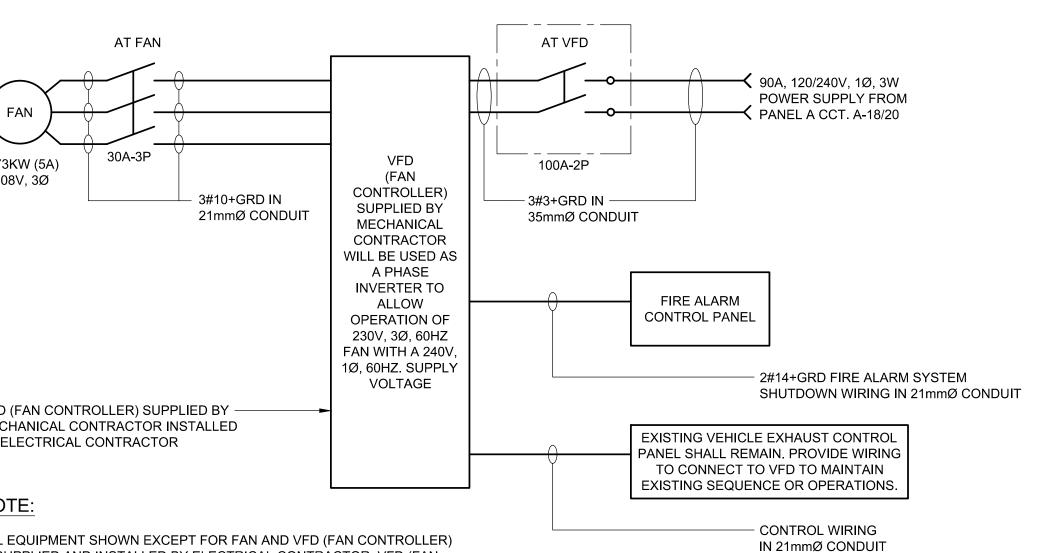
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FIRE STATION 243 UPGRADES 4560 SHEPPARD AVE E, TORONTO ON

ELECTRICAL FIRE ALARM SYSTEM RISER DIAGRAM, SCHEMATIC AND SCHEDULE

SCALE: APRIL 2024 N.T.S. FILE NO.: DRAWING NO .: 6915-E-5