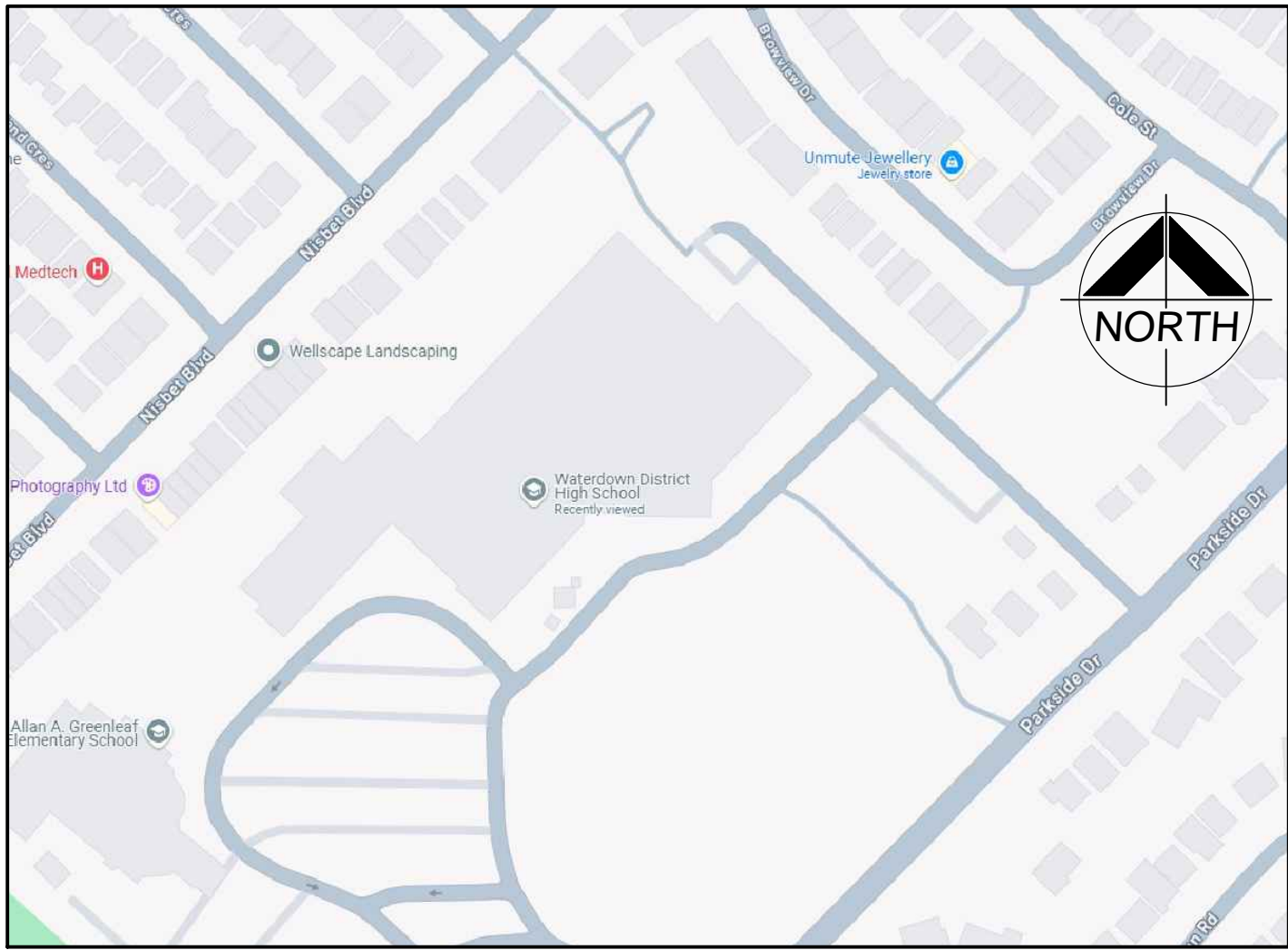
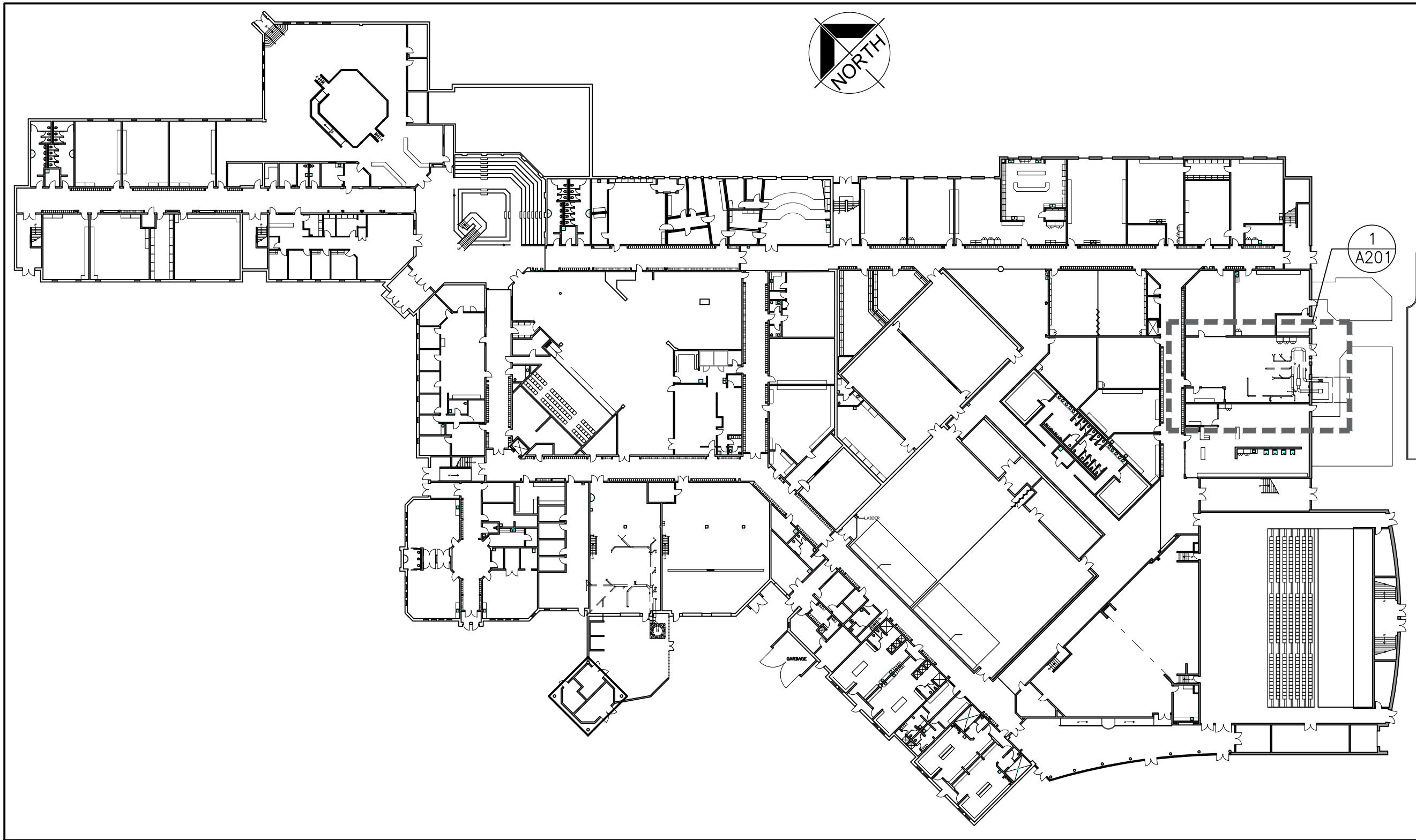


Waterdown District High School Dust Collector Replacement

215 Parkside Drive
Waterdown, Ontario



2
A001 LOCATION PLAN
N.T.S.



1
A001 OVERALL KEY PLAN
N.T.S.

LIST OF DRAWINGS

ARCHITECTURAL

- A001 OBC MATRIX, OVERALL KEY PLAN
LOCATION PLAN & DRAWING LIST
- A201 ENLARGED PART FLOOR PLANS :
DEMOLITION
- A202 ENLARGED PART FLOOR AND ROOF
PLANS : RENOVATIONS

STRUCTURAL

- S201 GENERAL NOTES AND DETAILS

MECHANICAL

- M - 0 TITLE SHEET
M - 1.1 MECHANICAL LEGEND
M - 1.2 MECHANICAL SCHEDULES AND DETAILS
M - 2.1 WOOD SHOP DUST COLLECTION SYSTEM -
DEMOLITION
M - 2.2 WOOD SHOP DUST COLLECTION SYSTEM - NEW
M - 2.3 WOOD SHOP DUST COLLECTION SYSTEM - EAST
ELEVATION

ELECTRICAL

- E - 1.1 ELECTRICAL LEGEND AND DETAILS
E - 1.2 ELECTRICAL DETAILS
E - 2.1 ELECTRICAL PLAN GROUND FLOOR
E - 4.1 ELECTRICAL GROUNDING SYSTEM DETAILS
E - 7.1 ELECTRICAL SINGLE LINE DIAGRAM
E - 9.1 ELECTRICAL PLAN WOOD SHOP
E - 9.2 ELECTRICAL DEMOLITION PLAN WOOD SHOP

NAME OF CONSULTANT : BARRY BRYAN ASSOCIATES
CERTIFICATE OF PRACTICE NUMBER : 5192
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(Toronto) (905) - 427 - 4495
FAX : (905) - 666 - 5256

NAME OF PROJECT :
WATERDOWN DISTRICT HIGH SCHOOL
DUST COLLECTOR REPLACEMENT

LOCATION OF PROJECT :
215 PARKSIDE DRIVE, WATERDOWN ONTARIO

DATE :
JANUARY 22, 2025

	Ontario Building Code Data Matrix Part 11 - Renovation of				OBC Reference															
11.00	Building Code Version: <u>O. Reg. 332/12</u> Last Amendment: <u>O. Reg. 89/23</u>																			
11.01	Project Type:	<input type="checkbox"/> Addition <input checked="" type="checkbox"/> Renovation <input type="checkbox"/> Addition and Renovation <input type="checkbox"/> Change of use Description <u>DUST COLLECTOR REPLACEMENT AT WOOD SHOP</u>			[A] 1.1.2.															
11.02	Major Occupancy Classification:	Occupancy <u>Group A, Division 2</u> Use <u>Elementary School</u>	3.1.2.1.(1) & 11.2.1																	
11.03	Superimposed Major Occupancies:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Description <u>-</u>			11.2 & 3.2.2.5. - 3.2.2.8.															
11.04	Building Area (m²)	Description <u>Wood Shop Renovation</u> <u></u> <u></u> Total= Existing <u>±1,921sf</u> New <u></u> Total <u>±1,921sf</u>	Total <u>±1,921sf</u>	[A] 1.4.1.2., 11.2. & 11.3.																
11.05	Building Height*	<u>2</u> Storeys above grade <u>-</u> (m) Above grade <u>0</u> Storeys below grade			[A] 1.4.1.2 & 3.2.1.1 & 11.3.															
11.06	Number of streets/ fire fighter access:	<u>1</u> street(s)			3.2.2.10, 3.2.5 & 11.3.															
11.07	Building Size:	<input type="checkbox"/> Small <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Large <input type="checkbox"/> > Large			T.11.2.1.1.B.-N.															
11.08	Existing Building Classification:	Change in Major Occupancy: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not Applicable (no change of major occupancy) Construction Index: <u>-</u> Hazard Index: <u>-</u> Importance Category: <input type="checkbox"/> Low <input checked="" type="checkbox"/> Normal <input type="checkbox"/> High <input type="checkbox"/> Post-disaster			11.2.1 T11.2.1.1A T11.2.1.1B to N, 4.2.1(3) & 5.2.2.1. (2)															
11.09	Renovation Type:	<input checked="" type="checkbox"/> Basic Renovation <input type="checkbox"/> Extensive Renovation			11.3.3.1 & 11.3.3.2															
11.10	Occupant Load:	<table><tr><td>Floor Level/ Area NO CHANGE</td><td>Occupancy Type</td><td>Based On</td><td>Occup. Load</td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>			Floor Level/ Area NO CHANGE	Occupancy Type	Based On	Occup. Load									3.1.17, 11.4.2.2.			
Floor Level/ Area NO CHANGE	Occupancy Type	Based On	Occup. Load																	
11.11a	Plumbing Fixture Requirements:	Ratio: Male/Female = 50:50 Except as noted otherwise <table><tr><td>Floor level/ Area NO CHANGE</td><td>Occupant Load</td><td>OBC Reference</td><td>Fixtures Required</td><td>Fixtures Provided</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>			Floor level/ Area NO CHANGE	Occupant Load	OBC Reference	Fixtures Required	Fixtures Provided											3.7.4
Floor level/ Area NO CHANGE	Occupant Load	OBC Reference	Fixtures Required	Fixtures Provided																
11.11b	Plumbing Fixture Requirements: cont.	<table><tr><td>Floor level/ Area (Repeated) NO CHANGE</td><td>B.F. Fixture Required</td><td>B.F. Fixture Provided</td><td>Uni. Fixture Required</td><td>Uni. Fixtures Provided</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>			Floor level/ Area (Repeated) NO CHANGE	B.F. Fixture Required	B.F. Fixture Provided	Uni. Fixture Required	Uni. Fixtures Provided											Tables 3.8.2.3.A and 3.8.2.3.B
Floor level/ Area (Repeated) NO CHANGE	B.F. Fixture Required	B.F. Fixture Provided	Uni. Fixture Required	Uni. Fixtures Provided																
11.12	Barrier-free Design:	SCOPE NOT RELATED TO B.F. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Barrier-Free Entrances: <u></u> Explanation <u></u>			11.3.3.2.(2)															
11.13	Reduction in Performance Level:	Structural <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes By Increase in occupant load: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes By change of major occupancy: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Plumbing <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Sewage - system: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes			11.4.2.1 11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5 11.4.2.6															
11.14	Compensating Construction:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Structural <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes By Increase in occupant load: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes By change of major occupancy: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Plumbing <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Sewage - system: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Extension of Combustible Construction: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes			11.4.2.1 11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5 11.4.2.6 11.4.2.7															
11.15	Compliance Alternatives Proposed:	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes			11.5.1.															
11.16	Notes:	REPLACE EXISTING DUST COLLECTOR WITH NEW DUST COLLECTOR IN THE SCHOOL SHOP AREAS AREA SCOPE OF WORK = ± 1,921 SF			11.5.1															

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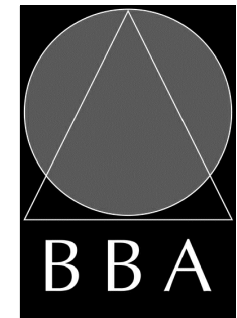
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3	ISSUED FOR TENDER	APR. 28, 2025	BBA

NO.	REVISIONS	DATE	BY

PROJECT:
**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:
**COVER SHEET, MATRIX
LOCATION PLAN
LIST OF DRAWINGS**



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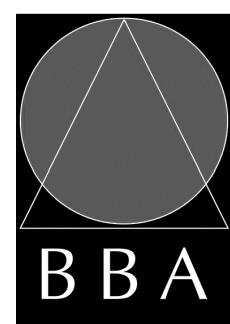
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BBA
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CHECKED BY:
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DATE:
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INITIAL:
DATE:
DEC. 06, 2024
SCALE:
AS NOTED
FILE:

PROJECT NO:
24141.2
DRAWING NO:
A001

CONSULTANTS

ARCHITECTURAL/STRUCTURAL:

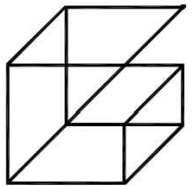


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DESIGN AND TECHNOLOGY SERVICES GROUP

HCC ENGINEERING LIMITED
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TORONTO, ONTARIO, M4P 1A2
Tel: (416) 932-2423

GENERAL DEMOLITION NOTES

1. SITE VERIFY ALL DIMENSIONS AND CONDITIONS.
2. ALL WORK TO BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
3. COMPLY WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT REGULATIONS FOR CONSTRUCTION PROJECTS.
4. PROVIDE PROTECTION IN LOCATIONS APPROVED BY THE OWNER AND CONSULTANT SO AS NOT TO DAMAGE EXISTING STRUCTURE, LANDSCAPE OR PART THEREOF.
5. COMPLETE ALL DEMOLITION WORK NECESSARY TO COMPLETE THE RENOVATIONS AS SHOWN AND AS REQUIRED. DEMOLITION OF BUILDING ELEMENTS INCLUDES BUT NOT LIMITED TO COMPLETE REMOVAL OF ALL ASSOCIATED FIXTURES, FITTINGS, HARDWARE, FASTENERS, EQUIPMENT AND ACCESSORIES UNLESS NOTED OTHERWISE.
6. ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DEMOLITION DRAWINGS ARE COMPLEMENTARY AND SHALL BE READ TOGETHER.
7. PROVIDE ALL SHORING AS REQUIRED. SHORING SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.
8. NOTIFY CONSULTANT OF LOAD BEARING MEMBERS OR ASSEMBLIES IDENTIFIED OR DISCOVERED DURING WORK AND NOT INDICATED ON DRAWINGS. DO NOT PROCEED WITH REMOVALS WITHOUT PRIOR REVIEW BY THE CONSULTANT.
9. PROVIDE TEMPORARY SUPPORT OF PIPES, DUCTS AND ELECTRICAL CHASES AS REQUIRED FOR SAFE REMOVAL. EXISTING AND PROPOSED SUPPORTS ARE TO BE REVIEWED BY THE CONSULTANT PRIOR TO THE REMOVAL OF ANY COMPONENTS WHICH MAY FALL, OR CAUSE OTHERS TO FALL.
10. DISCONNECT AND CAP OFF ALL SERVICES PRIOR TO DEMOLITION.
11. MAINTAIN ALL WORK AREAS AND ALL STORAGE AREAS CLEAN AND ORDERLY AT ALL TIMES INCLUDING EXISTING AREAS THAT REMAIN IN OPERATION DURING CONSTRUCTION. DUST CONTROL MEASURES ARE TO BE IN PLACE AT ALL TIMES AND NOISY WORK SHALL BE COORDINATED AROUND PROGRAM EVENTS.
12. DEMOLITION INCLUDES ALL ASSOCIATED MECHANICAL AND ELECTRICAL SERVICES, EQUIPMENT, FITTINGS, FIXTURES, HANGERS, BRACKETS, TRIM AND ACCESSORIES AS REQUIRED TO COMPLETE THE WORK.
13. MAINTAIN EXISTING FIRE HOSE CABINETS AND FIRE RATINGS.
14. DISPOSE OF MATERIALS OFF SITE. RECYCLE WHERE POSSIBLE (CONFIRM WITH OWNER)
15. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STRUCTURE OR FINISHES SHOWN TO REMAIN AND REPAIR/ REPLACE SAME TO THE SATISFACTION OF THE OWNER AND CONSULTANT.
16. BUILDING TO BE SECURED BY THE CONTRACTOR AT ALL TIMES.
17. COORDINATE ALL DEMOLITION WORK WITH ABATEMENT AND HAZARDOUS REMOVALS IDENTIFIED IN ASBESTOS ABATEMENT SPECIFICATION.
18. CONTRACTOR IS RESPONSIBLE FOR FINAL CLEAN OF AREA.

DEMOLITION LEGEND

- EXISTING WALL, PARTITION OR COLUMN
- DENOTES DEMOLITION OF BUILDING ELEMENT
- EXISTING DOOR, FRAME AND TRIM TO REMAIN

DEMOLITION NOTES

- 1 EXISTING CHAIN LINK FENCE AND GATE TO BE REMOVED.
- 2 EXISTING MECHANICAL DUST COLLECTOR AND DUCT WORK TO BE REMOVED IN ITS ENTIRETY. REFER TO MECHANICAL & ELECTRICAL. ALL FINISHES BY THE REMOVAL SHALL BE RESTORED TO EXISTING CONDITIONS.
- 3A EXISTING CONCRETE PAD TO BE EXTENDED AS NEEDED. PATHWAY AND SOD TO BE PATCHED, REPAIRED AND MAKE GOOD ALL AFFECTED SURFACES FOR NEW WORK.
- 3B REMOVE EXISTING CONCRETE / SOD SURFACE AT EXTENT SHOWN. PATCH AND REPAIR ALL AFFECTED SURFACES FOR NEW WORK.
- 4 EXISTING EXTERIOR WALL TO BE PROTECTED DURING NEW WORK. PATCH, REPAIR AND MAKE GOOD ALL AFFECTED SURFACES.
- 5 CUT EXISTING MASONRY CAVITY WALL FOR NEW MECHANICAL DUCT. (CO-ORDINATE WITH MECHANICAL FOR SIZE AND LOCATION)
- 6 EXISTING WINDOW TO BE PROTECTED DURING NEW WORK. PATCH, REPAIR AND MAKE GOOD ALL AFFECTED SURFACES.
- 7 REMOVE FLANGED WALL PENETRATION AND MAKE GOOD SPLIT FACE MASONRY BLOCK TO MATCH EXISTING AFTER. MAKE GOOD INTERIOR AREA FOR NEW PAINT FINISH.
- 8 EXISTING DOOR AND FRAME TO BE PROTECTED DURING NEW WORK. PATCH, REPAIR AND MAKE GOOD ALL AFFECTED SURFACES.

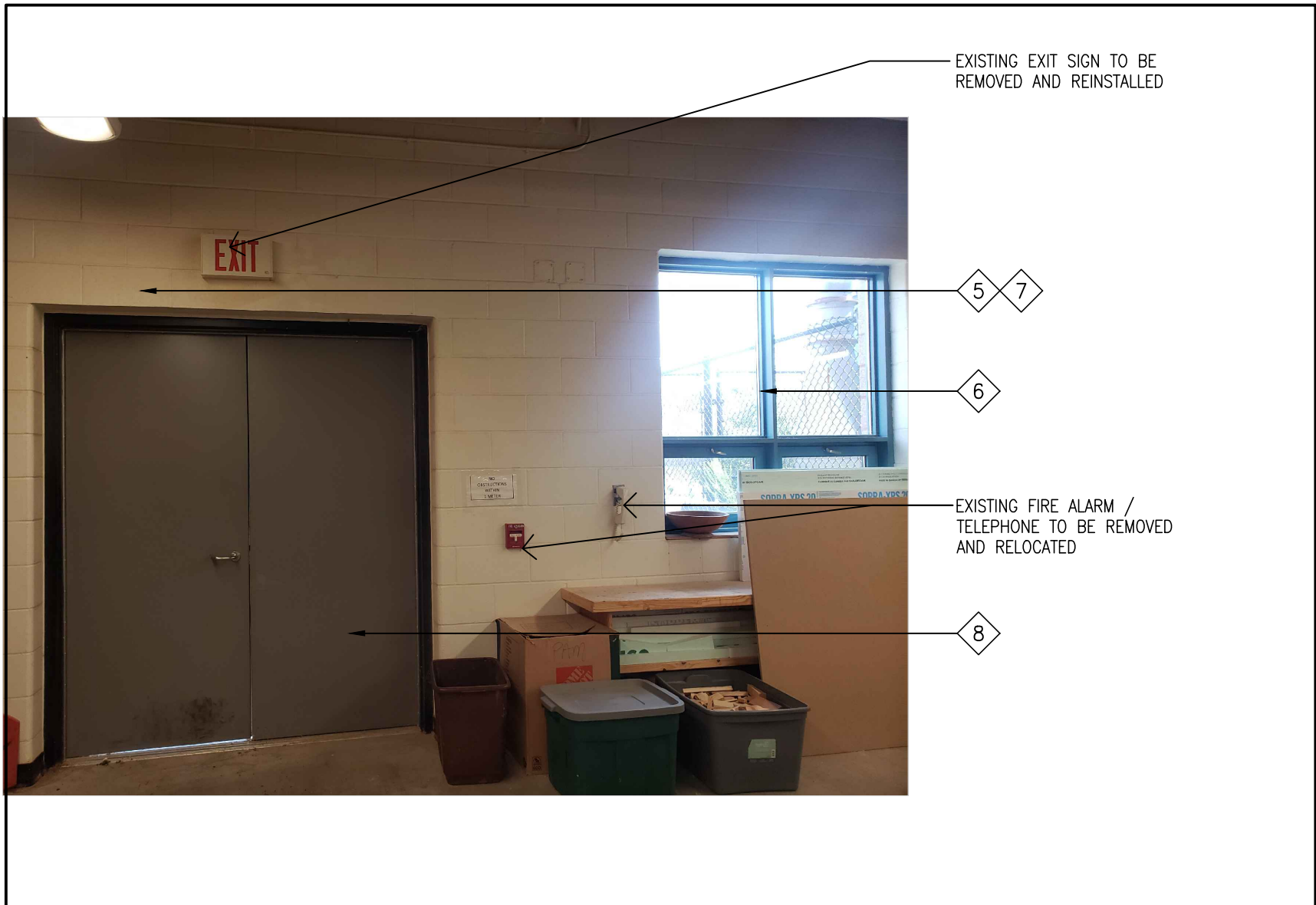


PHOTO-P2

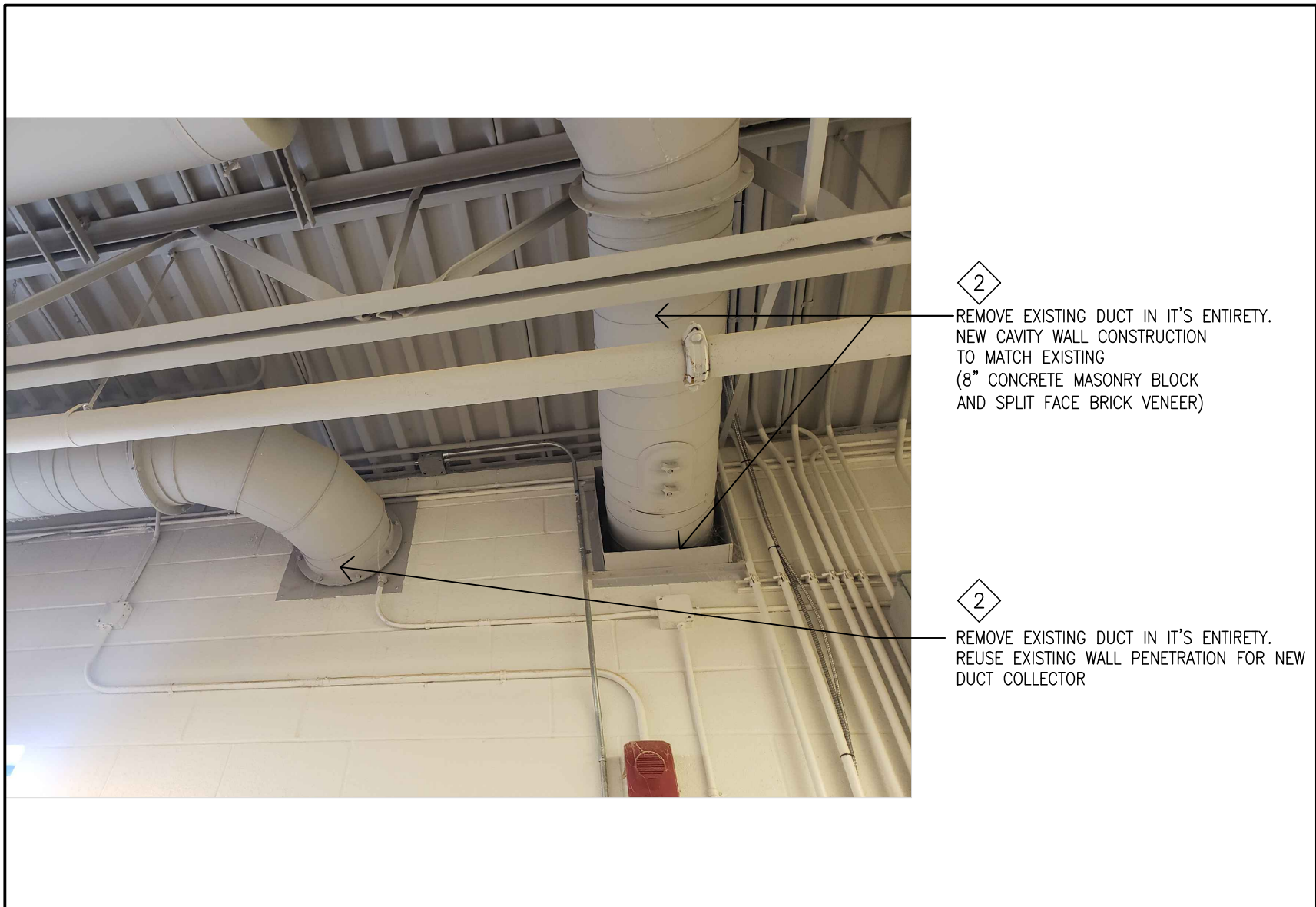
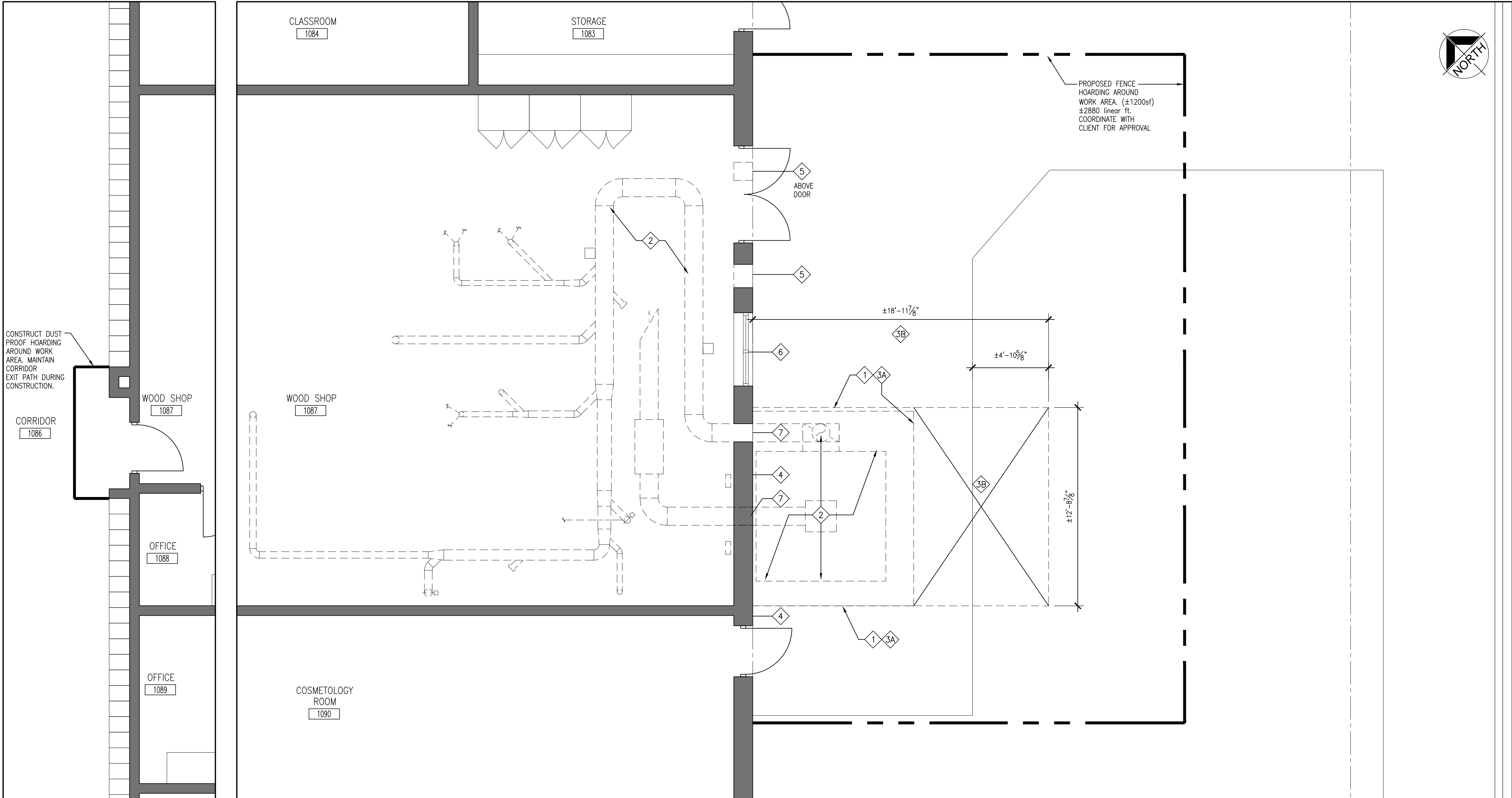


PHOTO-P1



1
A201

WOOD SHOP #1087 : DEMOLITION
1/4" = 1'-0"

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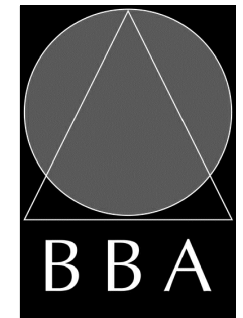
PROJECT:

**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

**ENLARGED PART FLOOR
PLANS : DEMOLITION**



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ASSOCIATES**
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Project Managers

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L1N 0G5
Tel: (905) 666-5252
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DESIGN BY: BBA	DOC. CONTROL: DATE:
DRAWN BY: JJA	% COMPLETE:
CHECKED BY:	INITIAL:

DATE:
DEC. 06, 2024

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

FILE:

PROJECT NO:
24141.2

DRAWING NO:
A201

FLOOR PLAN NOTATION LEGEND

ROOM NAME

RM #

ROOM NAME & NUMBER

WORK N.I.C.

WALL SECTION REFERENCE

BUILDING SECTION/ EXTERIOR ELEVATION REFERENCE

INTERIOR ELEVATION REFERENCE NUMBER

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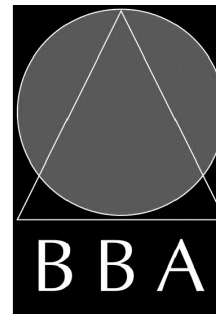
PROJECT:

**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

**ENLARGED PART FLOOR
AND ROOF PLANS :
RENOVATIONS**



**BARRY BRYAN
ASSOCIATES**

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Engineers
Project Managers

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e-mail: bba@bba-archeng.com

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BBA

DOC CONTROL:
DATE:

DRAWN BY:
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% COMPLETE:

CHECKED BY:
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INITIAL:

DATE:
DEC. 06, 2024

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

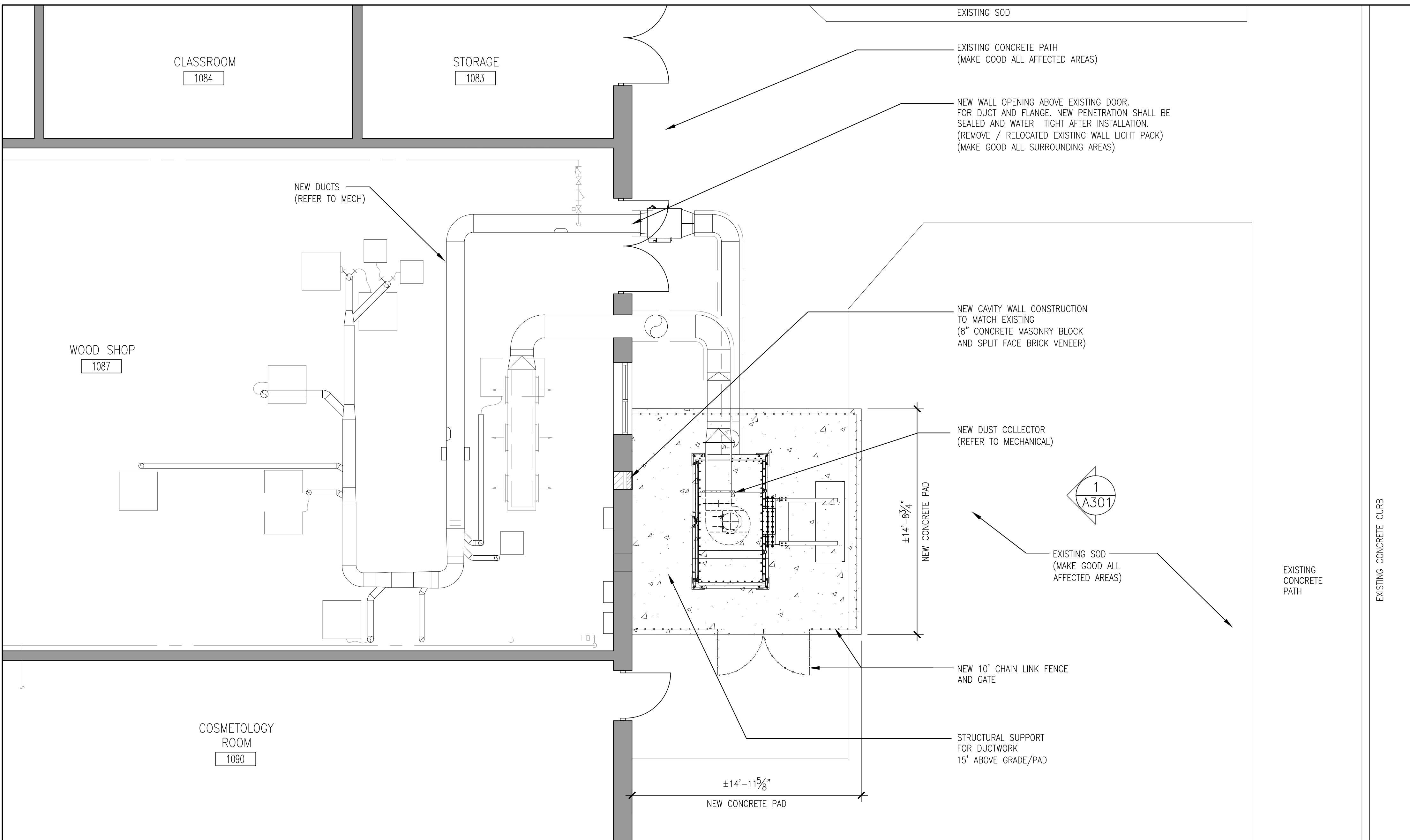
FILE:

PROJECT NO:

24141.2

DRAWING NO:

A202



1
A202

WOOD SHOP #1087 : RENOVATION

1/4" = 1'-0"



PHOTO-EL3



PHOTO-EL2



PHOTO-EL1

TYPICAL DEMOLITION NOTES

1. SITE VERIFY ALL DIMENSIONS AND CONDITIONS.
2. ALL WORK TO BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE AND THE OCCUPATIONAL HEALTH AND SAFETY ACT REGULATIONS FOR CONSTRUCTION PROJECTS.
3. PROVIDE PROTECTION IN LOCATIONS APPROVED BY THE OWNER AND CONSULTANT SO AS NOT TO DAMAGE EXISTING STRUCTURE, OR PART THEREOF.
4. COMPLETE ALL DEMOLITION WORK NECESSARY TO COMPLETE THE RENOVATIONS AS SHOWN AND AS REQUIRED. DEMOLITION OF BUILDING ELEMENTS INCLUDES COMPLETE REMOVAL OF ALL ASSOCIATED FIXTURES, FITTINGS, HARDWARE, FASTENERS, EQUIPMENT AND ACCESSORIES UNLESS NOTED OTHERWISE.
5. ARCHITECTURAL, MECHANICAL AND ELECTRICAL DEMOLITION DRAWINGS ARE COMPLEMENTARY AND SHALL BE READ TOGETHER.
6. NOTIFY CONSULTANT OF LOAD BEARING MEMBERS OR ASSEMBLIES IDENTIFIED OR DISCOVERED DURING WORK AND NOT INDICATED ON DRAWINGS. DO NOT PROCEED WITH REMOVALS WITHOUT PRIOR REVIEW BY THE CONSULTANT.
7. PROVIDE TEMPORARY SUPPORT OF PIPES, DUCTS AND ELECTRICAL CHASES AS REQUIRED FOR SAFE REMOVAL. EXISTING AND PROPOSED SUPPORTS ARE TO BE REVIEWED BY THE CONSULTANT PRIOR TO THE REMOVAL OF ANY COMPONENTS WHICH MAY FALL, OR CAUSE OTHERS TO FALL.
8. MAINTAIN WORK AREAS AND STORAGE AREAS CLEAN AND ORDERLY AT ALL TIMES.
9. DEMOLITION INCLUDES ALL ASSOCIATED MECHANICAL AND ELECTRICAL SERVICES, EQUIPMENT, FITTINGS, FIXTURES, HANGERS, BRACKETS, TRIM AND ACCESSORIES AS REQUIRED TO COMPLETE THE WORK.
10. MAINTAIN EXISTING FIRE HOSE CABINETS AND FIRE RATINGS.
11. REMOVAL OF DOORS AND FRAMES IS TO INCLUDE REMOVAL OF ALL HARDWARE.
12. REMOVAL ALL PROTRUSIONS IN FLOOR SLAB AND GRIND DOWN TO FLOOR LEVEL.
13. CLEAN AND REPAIR ALL EXISTING SURFACES TO REMAIN, AS NECESSARY TO RECEIVE NEW FINISHES.
14. DISCONNECT AND CAP OFF ALL SERVICES PRIOR TO DEMOLITION.
15. DISPOSE OF ALL MATERIALS OFF SITE. COORDINATE ITEMS FOR SALVAGE / HANDOVER WITH OWNER.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STRUCTURE OR FINISHES SHOWN TO REMAIN AND REPAIR / REPLACE SAME TO THE SATISFACTION OF THE OWNER AND CONSULTANT.
17. CONSTRUCTION AREA TO BE SECURED AT ALL TIMES.
18. WHERE EXISTING CONSTRUCTION IS FOUND TO CONTAIN ANY HAZARDOUS MATERIAL, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND THE CONSULTANT IN WRITING. NOTE: REMOVAL, DISPOSAL AND REPLACEMENT OF THE HAZARDOUS MATERIAL SHALL BE IN ACCORDANCE WITH PROVINCE, LOCAL AND FEDERAL REGULATIONS. DESIGNATED SUBSTANCE SURVEY WAS COMPLETED NO CONCERNS WERE IDENTIFIED.
19. REMOVE EXISTING CEILINGS FOR EXTENT SHOWN AND AS REQUIRED. HAND OVER REDUNDANT HVAC DIFFUSERS AND GRILLES TO OWNER FOR REUSE. PROVIDE NEW CEILING TRIM AND GRID SYSTEM TO MATCH EXISTING WHERE REQUIRED TO MAKE GOOD EXISTING CEILINGS.
20. COORDINATE ALL DEMOLITION WORK WITH ABATEMENT AND HAZARDOUS REMOVALS IDENTIFIED IN ASBESTOS ABATEMENT SPECIFICATION. BBN LOCATIONS (CITY APPROVAL)

DEMOLITION NOTES

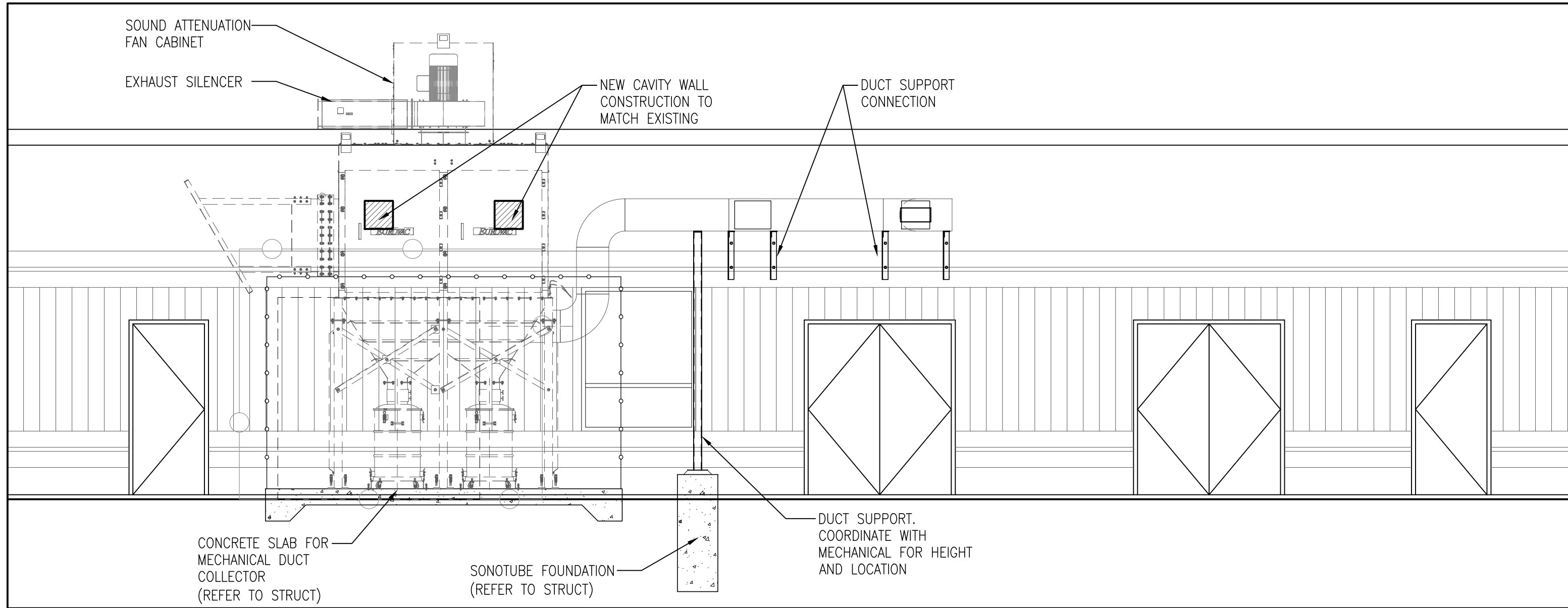
1. EXISTING CHAINLINK FENCE AND GATE TO BE REMOVED.
2. EXISTING MECHANICAL DUST COLLECTOR AND DUCT WORK TO BE REMOVED IN IT'S ENTIRETY. REFER TO MECHANICAL & ELECTRICAL. ALL FINISHES BY THE REMOVAL SHALL BE RESTORED TO EXISTING CONDITIONS.
- 3A. EXISTING CONCRETE PAD TO BE REMOVED IN IT'S ENTIRETY. PATHWAY AND SOD TO BE PATCHED, REPAIRED AND MAKE GOOD ALL AFFECTED SURFACES FOR NEW WORK.
- 3B. REMOVE EXISTING CONCRETE / SOD SURFACE AT EXTENT SHOWN. PATCH AND REPAIR ALL AFFECTED SURFACES FOR NEW WORK.
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6. EXISTING WINDOW TO BE PROTECTED DURING NEW WORK. PATCH, REPAIR AND MAKE GOOD ALL AFFECTED SURFACES.
7. REMOVE FLANGED WALL PENETRATION AND MAKE GOOD SPLIT FACE MASONRY BLOCK TO MATCH EXISTING AFTER. MAKE GOOD INTERIOR AREA FOR NEW PAINT FINISH.
8. EXISTING DOOR AND FRAME TO BE PROTECTED DURING NEW WORK. PATCH, REPAIR AND MAKE GOOD ALL AFFECTED SURFACES.

DEMOLITION LEGEND

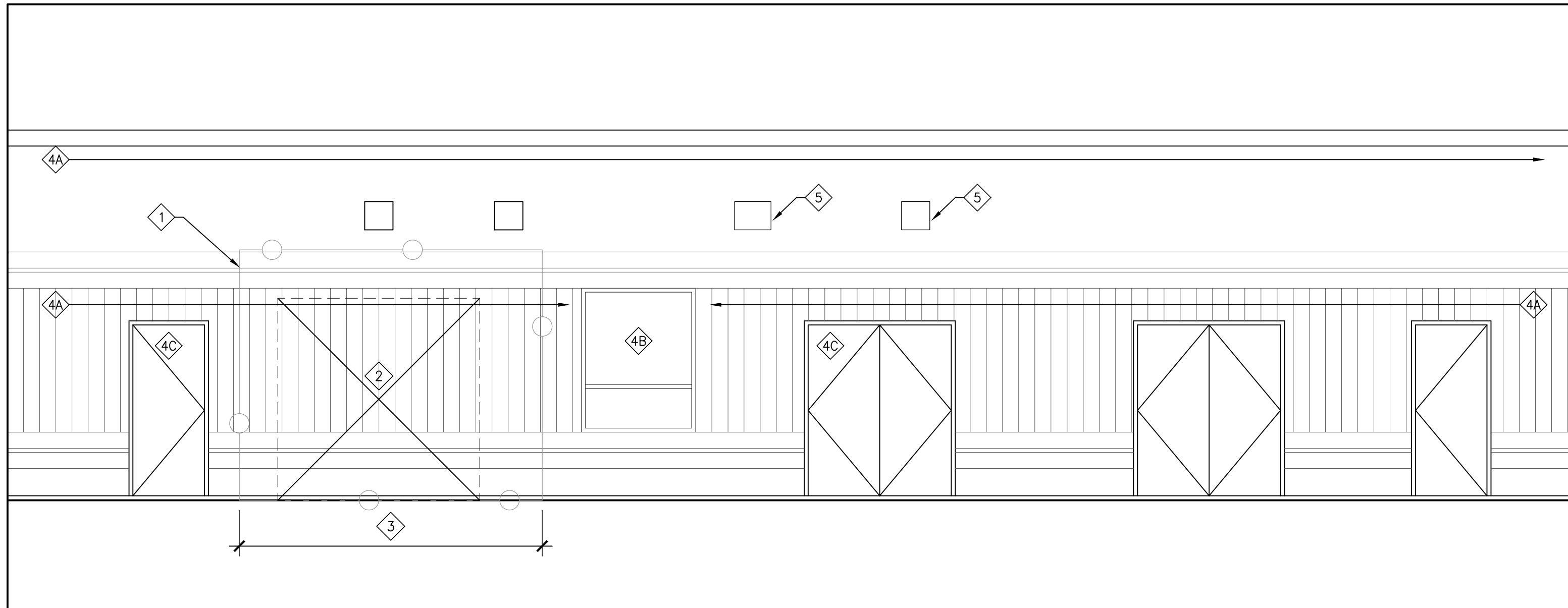
- EXISTING WALL, PARTITION OR COLUMN
- DENOTES DEMOLITION OF BUILDING ELEMENT
- EXISTING DOOR, FRAME AND TRIM TO REMAIN
- EXISTING DUST COLLECTOR UNIT AND CONCRETE PAD TO BE REMOVED.

FLOOR PLAN NOTATION

- ROOM NAME
RM #
- ROOM NAME & NUMBER
- WALL SECTION REFERENCE
- BUILDING SECTION/ EXTERIOR ELEVATION REFERENCE
- INTERIOR ELEVATION REFERENCE NUMBER



2 PART EAST ELEVATION - RENO
1/4" = 1'-0"



1 PART EAST ELEVATION - DEMO
1/4" = 1'-0"

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HWDSB

NO.	ISSUES	DATE	BY
1	ISSUED FOR PERMIT	JAN. 22, 2025	BBA
2	ISSUED FOR TENDER	APR. 28, 2025	BBA

NO.	REVISIONS	DATE	BY

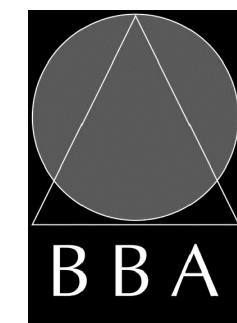
PROJECT:

**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

**#1087 WOOD SHOP
ELEVATION - DUST
COLLECTOR**



**BARRY BRYAN
ASSOCIATES**
Architects
Engineers
Project Managers

250 Water Street
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L1N 0G5
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e-mail: bba@bba-archeng.com

DESIGN BY: BBA	DOC. CONTROL: DATE:
DRAWN BY: JJA	% COMPLETE:
CHECKED BY:	INITIAL:

DATE: JAN. 17, 2025
SCALE: 3/16" = 1'-0"
FILE:

PROJECT NO: 24141.2	DRAWING NO: A301
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GENERAL

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, LATEST EDITION AND THE OCCUPATIONAL HEALTH AND SAFETY ACT/REGULATIONS FOR CONSTRUCTION PROJECTS.
2. CONFORM TO OWNER'S GENERAL SPECIFICATIONS INCLUDING ALL SAFETY REQUIREMENTS.
3. SITE VERIFY ALL DIMENSIONS AND LEVELS.
4. KEEP THE SITE THROUGHOUT THE WORK AREA IN A CLEAN AND ORDERLY CONDITION AT ALL TIMES TO THE SATISFACTION OF THE OWNER.
5. THE LATEST EDITION OF ALL CODES AND STANDARDS SHALL BE USED.
6. ALL STRUCTURAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH OTHER CONSULTANTS DRAWINGS.
7. CONTRACTOR SHALL REMOVE ALL LOOSE/UNSUITABLE FILL MATERIAL AND DISPOSE TO AN APPROPRIATE LANDFILL AS NECESSARY TO ACCOMMODATE THE NEW PAD AND SUB-BASE PROFILE.

CONCRETE

1. CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF CAN/CSA-A23.1 AND CAN/CSA-A23.3 WITH THE FOLLOWING PROVISION:

LOCATION	DESIGN STRENGTH (28 DAYS)	SLUMP	EXPOSURE CLASS
EXTERIOR SLAB ON GRADE	32 MPa	80± 30	C1 (HIGH EARLY)

2. NO ADDITIONAL WATER SHALL BE ADDED AT THE JOB SITE. CONCRETE WHICH HAS BEEN WATERED OR DOES NOT MEET SPECIFICATIONS SHALL BE REJECTED.
3. DURING WINTER WEATHER BELOW 5°C PROVIDE TEMPORARY HEATING OF CONCRETE IN ACCORDANCE WITH THE REQUIREMENTS OF CSA A23.1, LATEST EDITION.
4. STRUCTURAL GROUT SHALL BE NON-SHRINK, NON-METALLIC M-BED STANDARD PREMIX BY Sika OR APPROVED EQUAL.

CONCRETE REINFORCEMENT

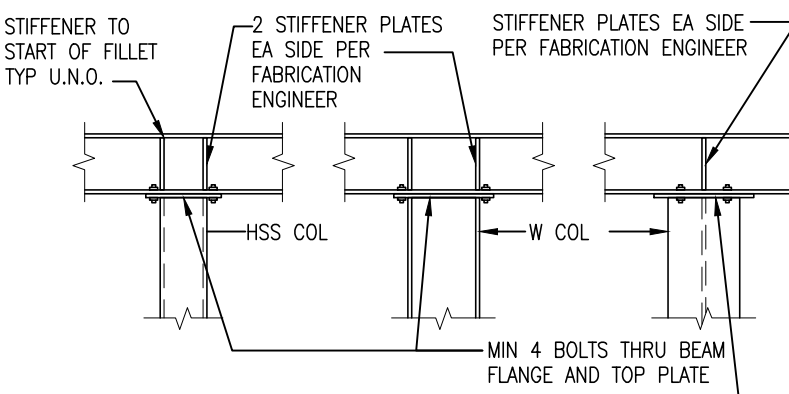
1. THE CLEAR DISTANCE BETWEEN REINFORCING STEEL AND SURFACE OF CONCRETE SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE.

LOCATION	CLEAR COVER
SLABS	25mm(1") TOP BARS 25mm(1") BOTTOM BARS
SURFACE IN CONTACT WITH GROUND	75mm(3")

2. DETAIL REINFORCING STEEL IN ACCORDANCE WITH "REINFORCING STEEL MANUAL OF STANDARD PRACTICE" LATEST EDITION.
3. REINFORCING BAR SPLICES FOR DEFORMED BARS SHALL BE A CLASS 'B' TENSION LAP UNLESS NOTED.
4. ALL REINFORCING STEEL SHALL BE DEFORMED HARD GRADE BILLET STEEL CONFORMING TO CSA G30.18 GRADE 400.
5. ALL CONCRETE REINFORCEMENT MUST BE PROPERLY CHAIED WITH APPROVED BAR SUPPORTS.
6. PROVIDE CHAIRS, SPACER BARS, SUPPORT BARS AND OTHER ACCESSORIES TO SUPPORT REINFORCING IN ACCORDANCE WITH THE LATEST EDITIONS OF CSA23.1 AND CSA23.3 CHAIRS TO BE PLASTIC, PLASTIC TIPPED OR CONCRETE. ALL THE WIRE, CHAIRS AND BAR SUPPORTS USED FOR COATED REINFORCING SHALL BE NON-METALLIC OR PROTECTED WITH ACCEPTABLE COATING.
7. CHAIRS SHALL BE SPACED AT 1200mm (4'-0") O.C. MAXIMUM.

STRUCTURAL STEEL

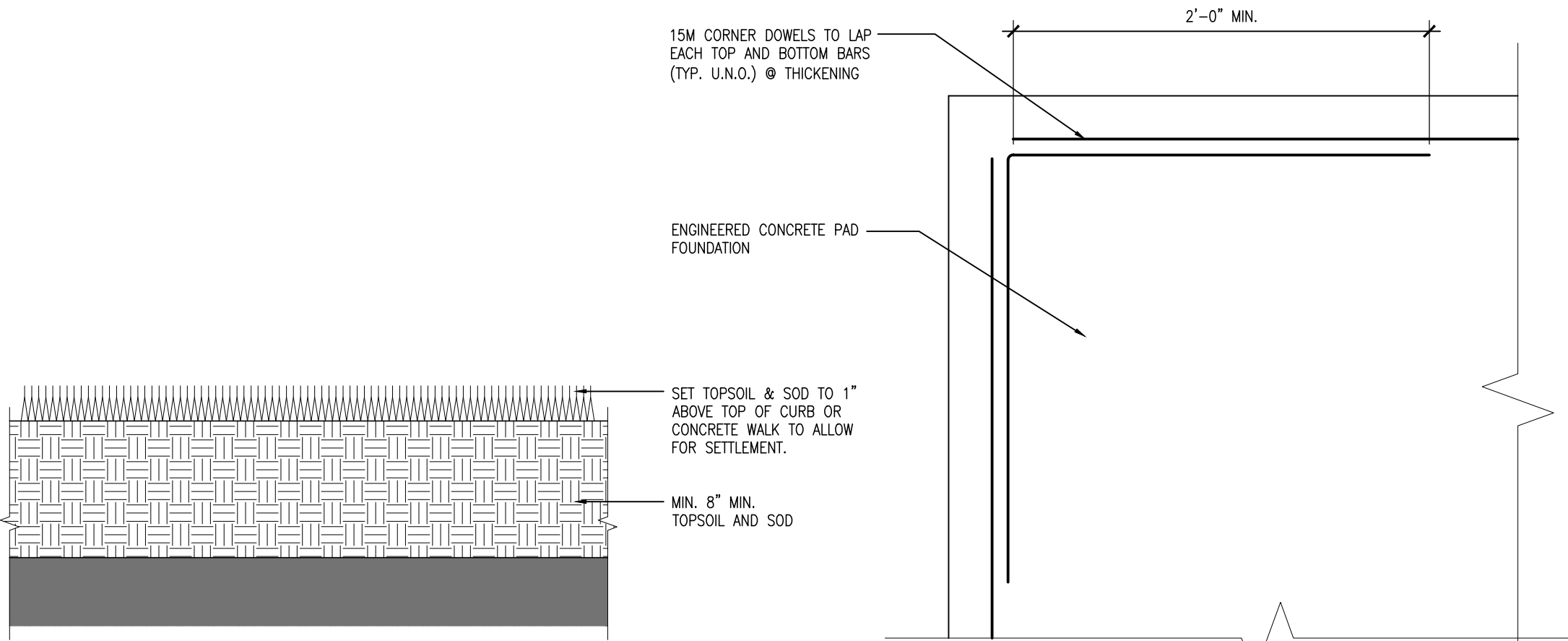
1. ALL STRUCTURAL STEEL HSS AND W SECTIONS TO BE G40.21M-350W CLASS C. ALL OTHERS TO BE G40.21M-300W.
2. DESIGN FORCES INDICATED ON DRAWINGS FOR STRUCTURAL STEEL WORK ARE UN-FACTORED FORCES UNLESS NOTED OTHERWISE.
3. ALL CONNECTIONS TO BE DESIGNED BY FABRICATOR UNLESS NOTED OTHERWISE. ALL BEAM CONNECTIONS TO BE STANDARD SHEAR CONNECTIONS IN COMPLIANCE WITH CISC, UNLESS NOTED OTHERWISE.
4. PROVIDE SHOP DRAWINGS OF COMPONENTS AND CONNECTIONS DESIGNED BY THE FABRICATOR'S ENGINEER. DRAWINGS SHALL BE SIGNED AND SEALED BY THAT ENGINEER.
5. FABRICATOR'S ENGINEER MUST BE LICENSED IN THE PROVINCE OF ONTARIO.
6. ALL ERECTION BOLTS SHALL BE ASTM GRADE A325 MINIMUM, AND SHALL BE DESIGNED BY STEEL FABRICATOR'S ENGINEER FOR TRANSFER OF ALL LOADS.
7. BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO BOLTS IN EACH CONNECTION PIECE AND DESIGNED AS BEARING CONNECTIONS U.N.O.
8. UNLESS NOTED OTHERWISE, WHERE BEAMS FRAME OVER COLUMNS, PROVIDE FULL HEIGHT, FULL WIDTH STIFFENER PLATES ON EACH SIDE OVER COLUMN AS SHOWN BELOW.



9. FABRICATOR'S ENGINEER SHALL DESIGN TOP PLATES AND THEIR CONNECTIONS TO FULLY TRANSFER VERTICAL AND HORIZONTAL LOADS AS WELL AS MOMENTS WHEN REQUIRED PER CISC STANDARDS.
10. FABRICATION, ERECTION AND WORKMANSHIP SHALL CONFORM TO CSA S16.1.
11. ALL WELDING SHALL CONFORM TO CSA W59 AND SHALL BE PERFORMED BY A WELDER QUALIFIED UNDER CSA W47.
12. REMOVE PAINT FILM FROM ALL STEEL SURFACES TO BE WELDED. SPOT PRIME AS REQUIRED.
13. ALL WELDED CONNECTIONS SHALL BE WITH CSA W48 SERIES ELECTRODES.
14. PROVIDE DRAINAGE HOLES TO ARCHITECT'S APPROVAL IN ALL EXPOSED EXTERIOR HSS FRAMING.
15. PROVIDE CAP PLATES ON ALL HSS FRAMING MEMBERS UNLESS NOTED OTHERWISE.
16. DO NOT CUT OR CORE ANY OPENINGS IN ANY STRUCTURAL STEEL MEMBERS WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER.
17. WHERE A STRUCTURAL STEEL SHAPE SHOWN ON THE DRAWINGS IS UNAVAILABLE, A SHAPE OF EQUAL OR GREATER SECTION PROPERTIES AND STRUCTURAL CAPACITY SHALL BE SUBSTITUTED, UPON APPROVAL BY OWNER AND CONSULTANT AT NO EXTRA COST.
18. ALL EXPOSED STEEL SHALL BE HOT DIP GALVANIZED.

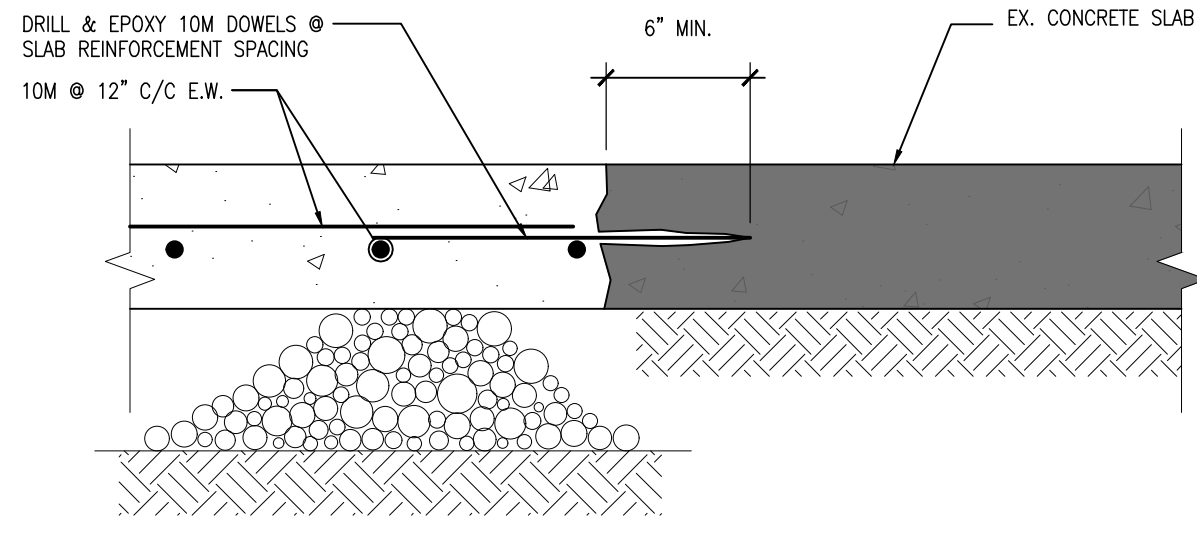
FLOATING CONCRETE SLAB FOUNDATION

1. THE FOUNDATIONS FOR THIS SLAB IS NOT BELOW THE REQUIRED FROST DEPTH FOR THIS GEOGRAPHIC LOCATION. MOVEMENT DUE TO FROST ACTION BELOW THIS SLAB COULD OCCUR. BARRY BRYAN ASSOCIATES ARE NOT CERTIFYING THAT HEAVING AND/OR SETTLEMENT WILL NOT OCCUR. THE OWNER MUST ACCEPT THE POSSIBILITY THAT MOVEMENT AND/OR SERVICE ABILITY CRACKS WILL OCCUR.
2. METHODS FOR REDUCING FROST ACTION INCLUDE GOOD SURFACE DRAINAGE AWAY FROM THE SLAB AND THE SUB-GRADE MATERIAL MUST BE FREE DRAINING TO KEEP UNDERLYING SOILS DRY.
3. REMOVE ALL EXISTING ASPHALT AND ENGINEERED FILL TO ACCOMMODATE THE NEW CRUSH STONE FILL LAYER. PLACE THE NEW CLEAR CRUSH STONE ON NEW GRANULAR "B" FILL MATERIAL COMPACTED TO 98% SPMD.
4. PROVIDE A WOVEN GEOTEXTILE LAYER BETWEEN THE CLEAR CRUSH STONE AND EXISTING COMPACTED FILL TO REMAIN.
5. IT IS RECOMMENDED THAT A GEOTECHNICAL ENGINEER BE CONSULTED TO REVIEW THE EXISTING SUBSURFACE MATERIALS AND CONFIRM METHODS FOR REDUCING RISK ASSOCIATED WITH FROST MOVEMENT. THIS MAY INCLUDE THE ADDITION OF FREE DRAINING MATERIAL, SUCH AS CLEAR STONE, INSTALLATION OF SUBDRAIN SYSTEM AND/OR INSULATION TO BE USED AS FROST PROTECTION.

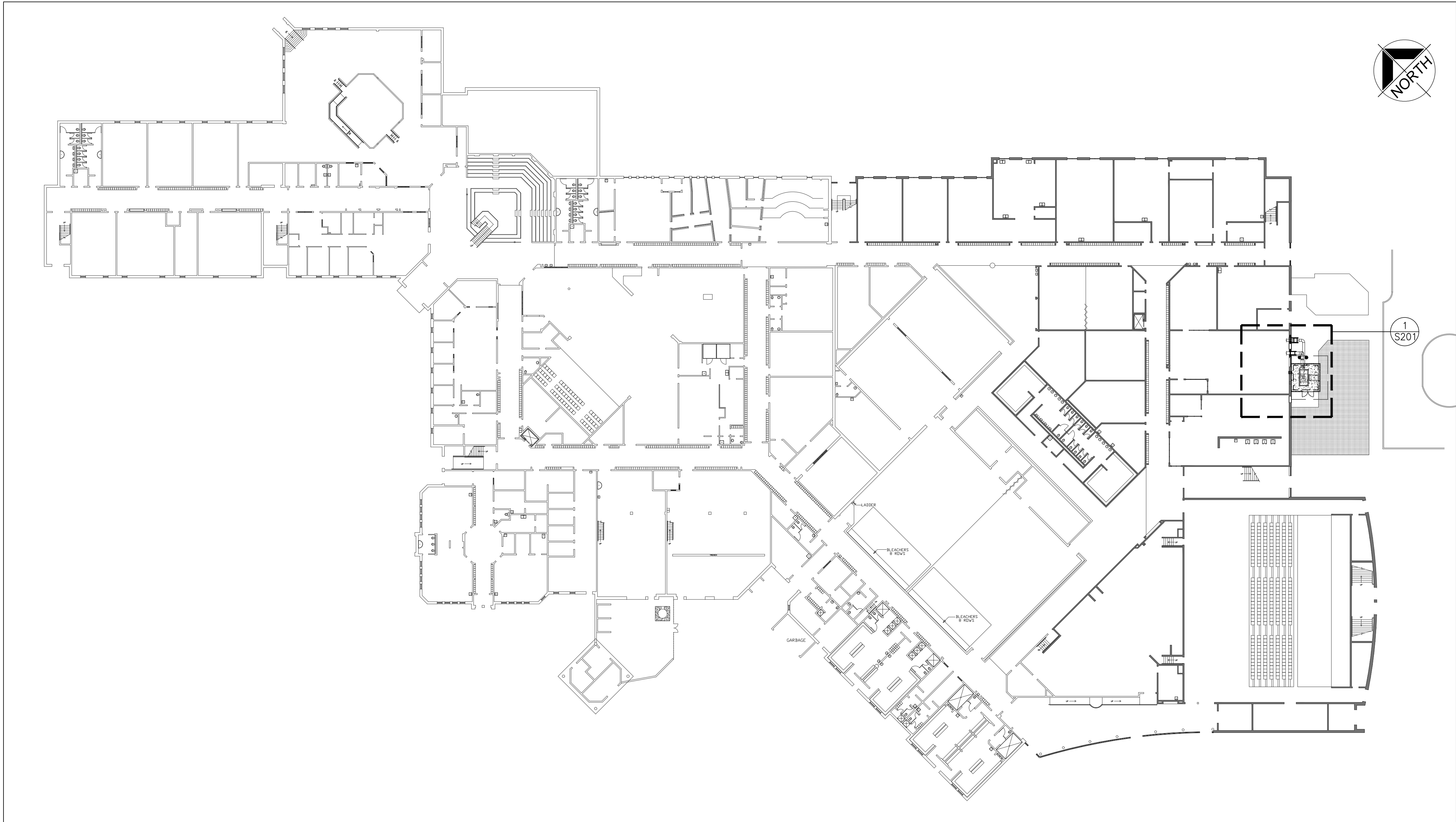


4 S101 SOD REPAIR DETAIL
N.T.S.

3 S101 CORNER LAP BAR DETAIL
1 1/2" = 1'-0"



2 S101 TYPICAL SLAB REPAIR/ CONSTRUCTION JOINT DETAIL
1 1/2" = 1'-0"



1 S101 OVERALL KEY PLAN
1/32" = 1'-0"

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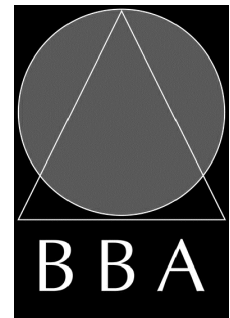
NO.	ISSUES	DATE	BY
1	ISSUED FOR 60% REVIEW	DEC. 06, 2024	BBA
2	ISSUED FOR PERMIT	JAN. 22, 2025	BBA
3	ISSUED FOR TENDER	APR. 28, 2025	BBA

NO.	REVISIONS	DATE	BY

PROJECT:
**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:
**GENERAL NOTES,
OVERALL KEY PLAN AND
TYPICAL DETAILS**



**BARRY BRYAN
ASSOCIATES**

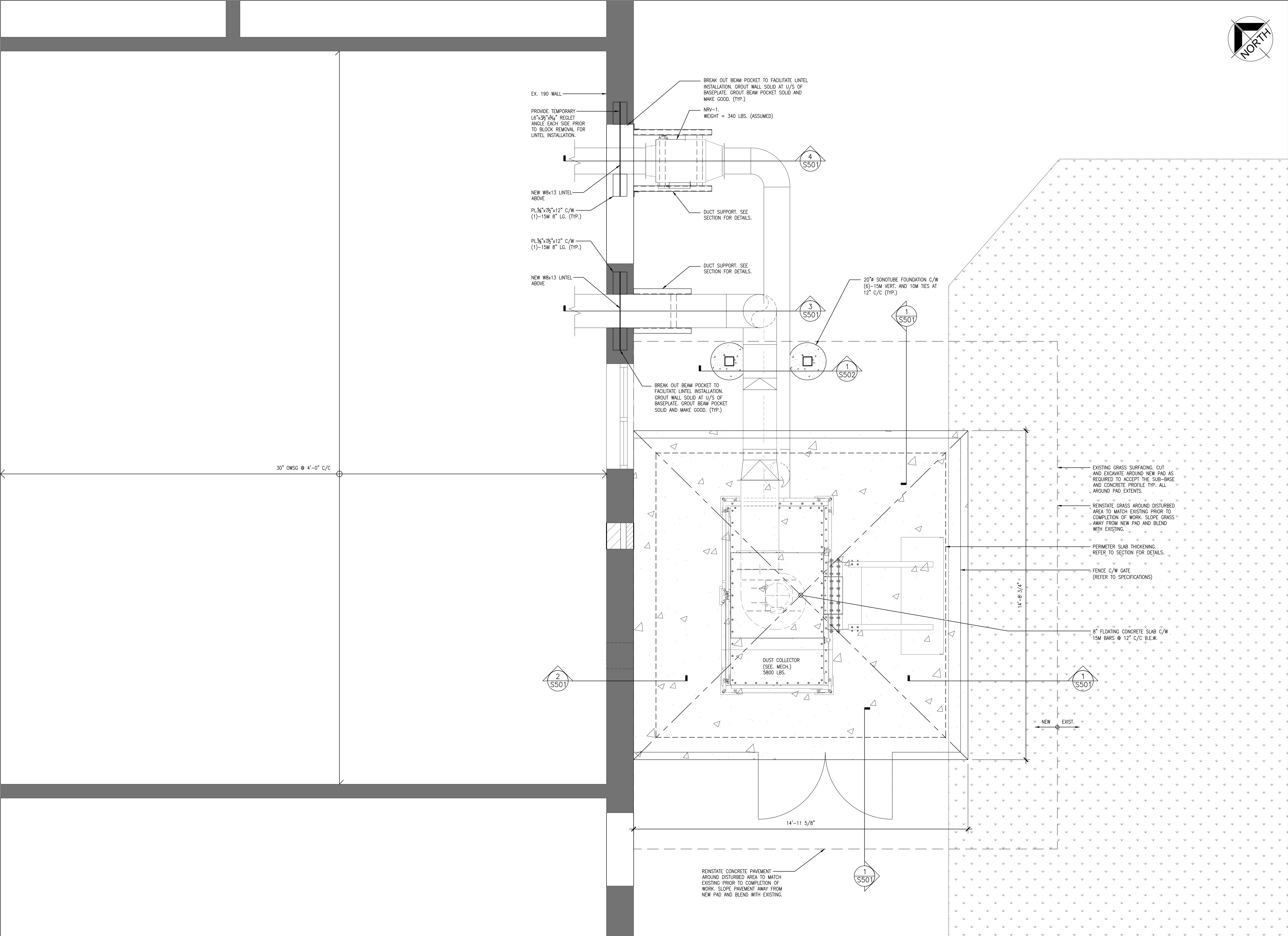
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e-mail: bba@bba-archeng.com

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DRAWN BY: JJA/LS	% COMPLETE:
CHECKED BY:	INITIAL:

DATE: DEC. 06, 2024
SCALE: AS NOTED
FILE:

PROJECT NO: 24141.2	DRAWING NO: S101
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3	ISSUED FOR TENDER	APR. 28, 2025	BBA

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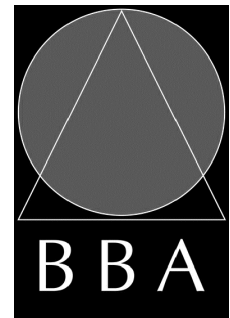
PROJECT:

**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

**PART MECHANICAL
EQUIPMENT SUPPORT
PLAN**



**BARRY BRYAN
ASSOCIATES**

Architects
Engineers
Project Managers

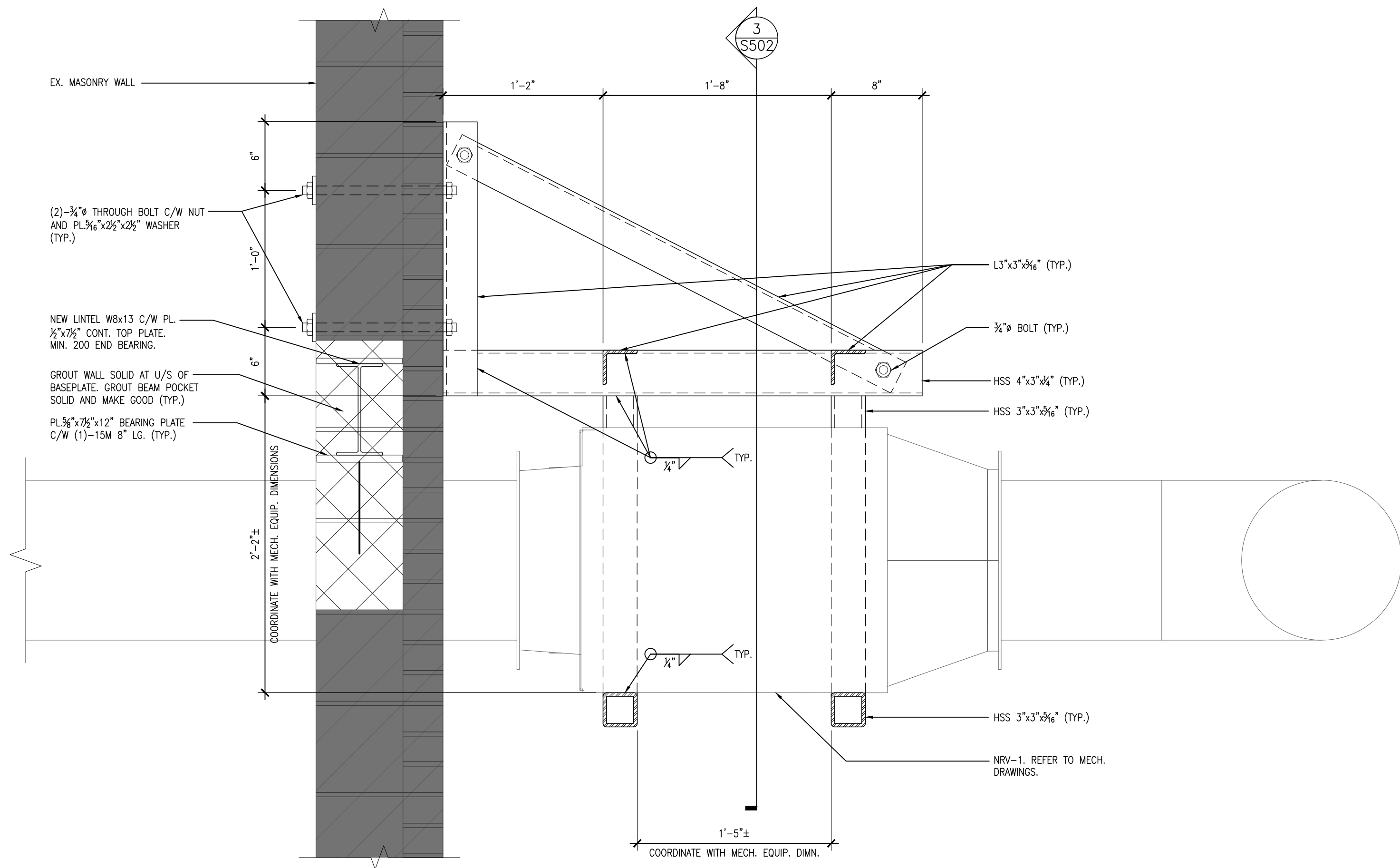
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Whitby Ontario
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Tel: (905) 666-5252
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e-mail: bba@bba-archeng.com

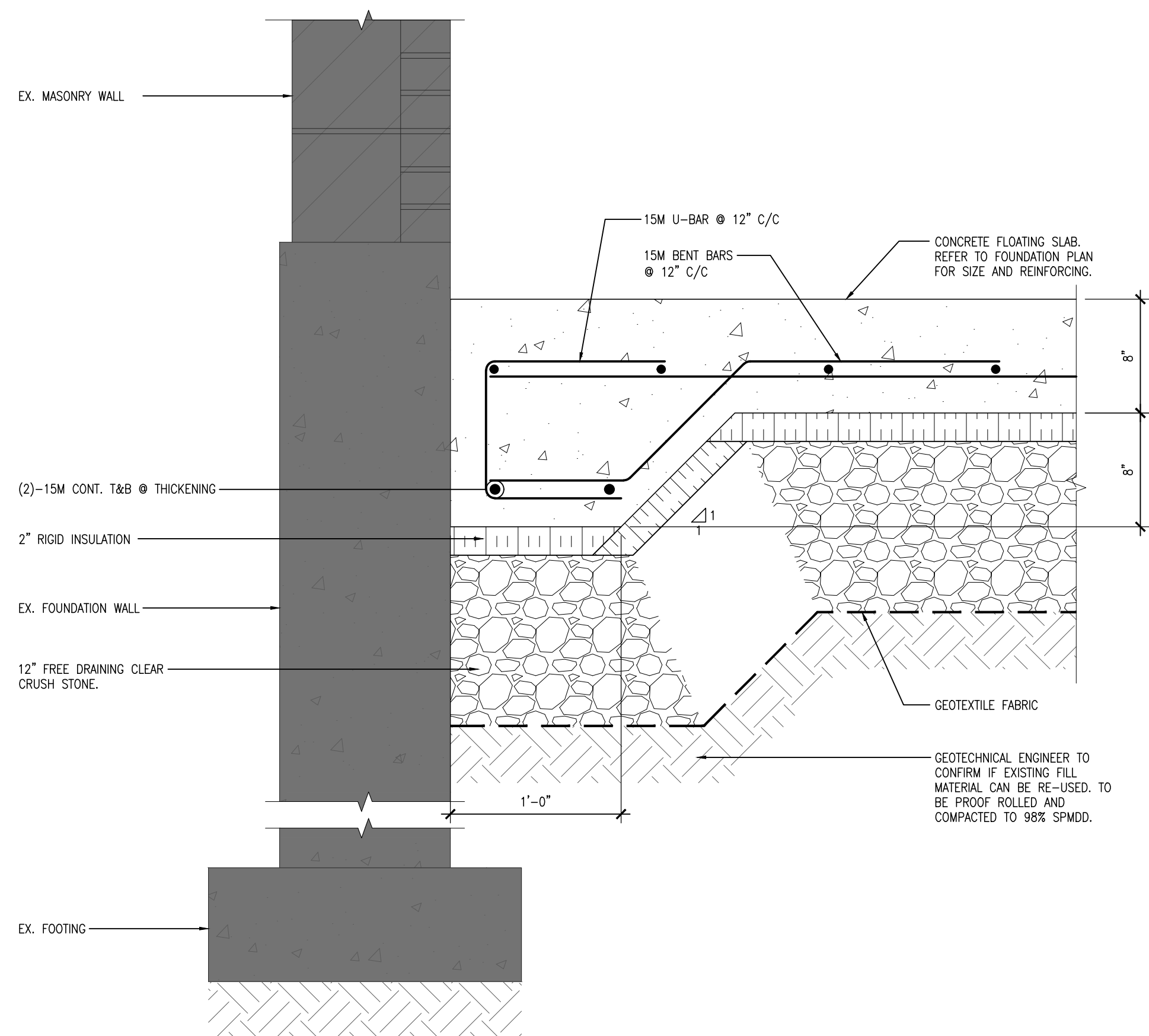
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DATE: JANUARY 2025	
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FILE:	

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24141.2

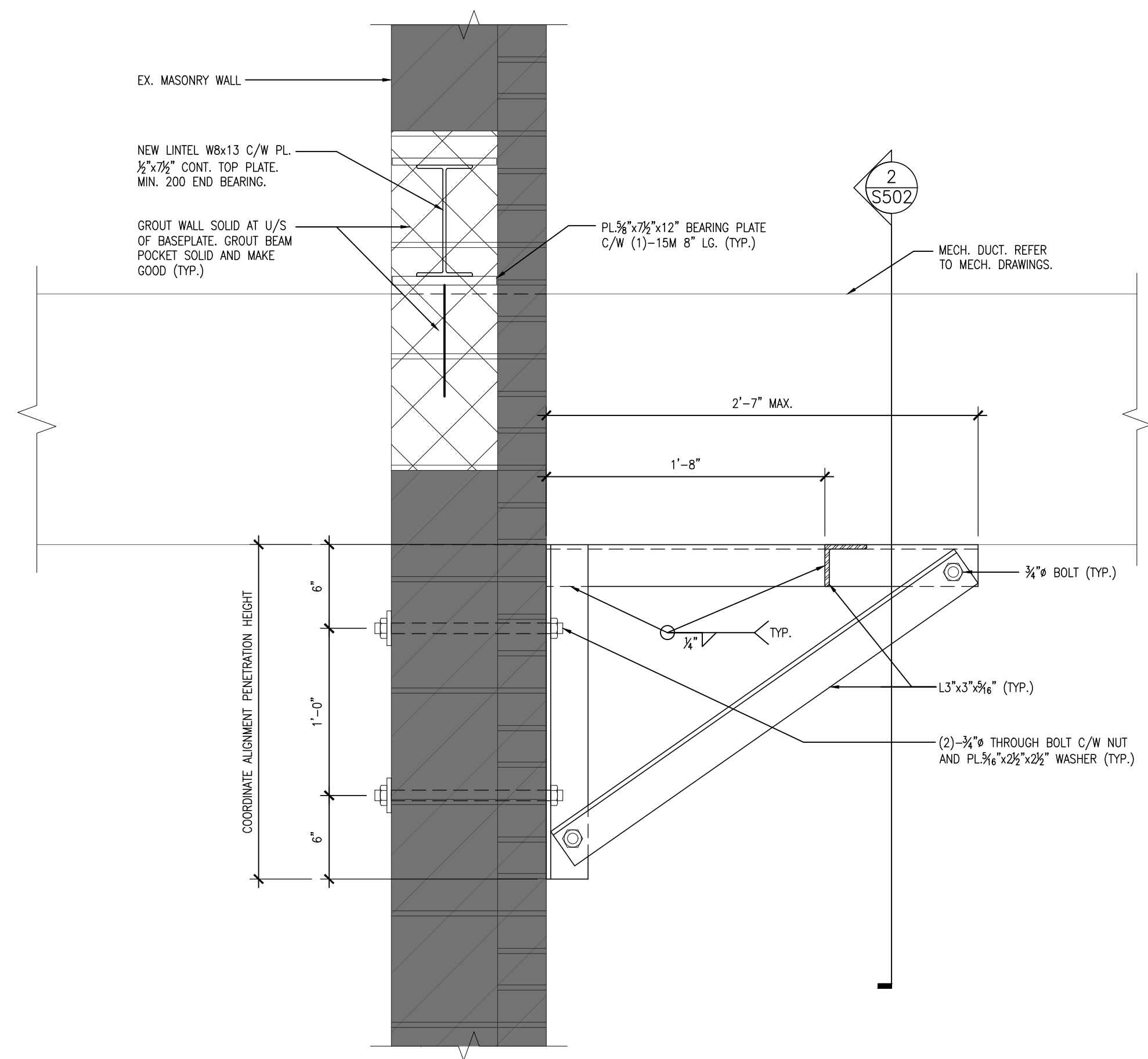
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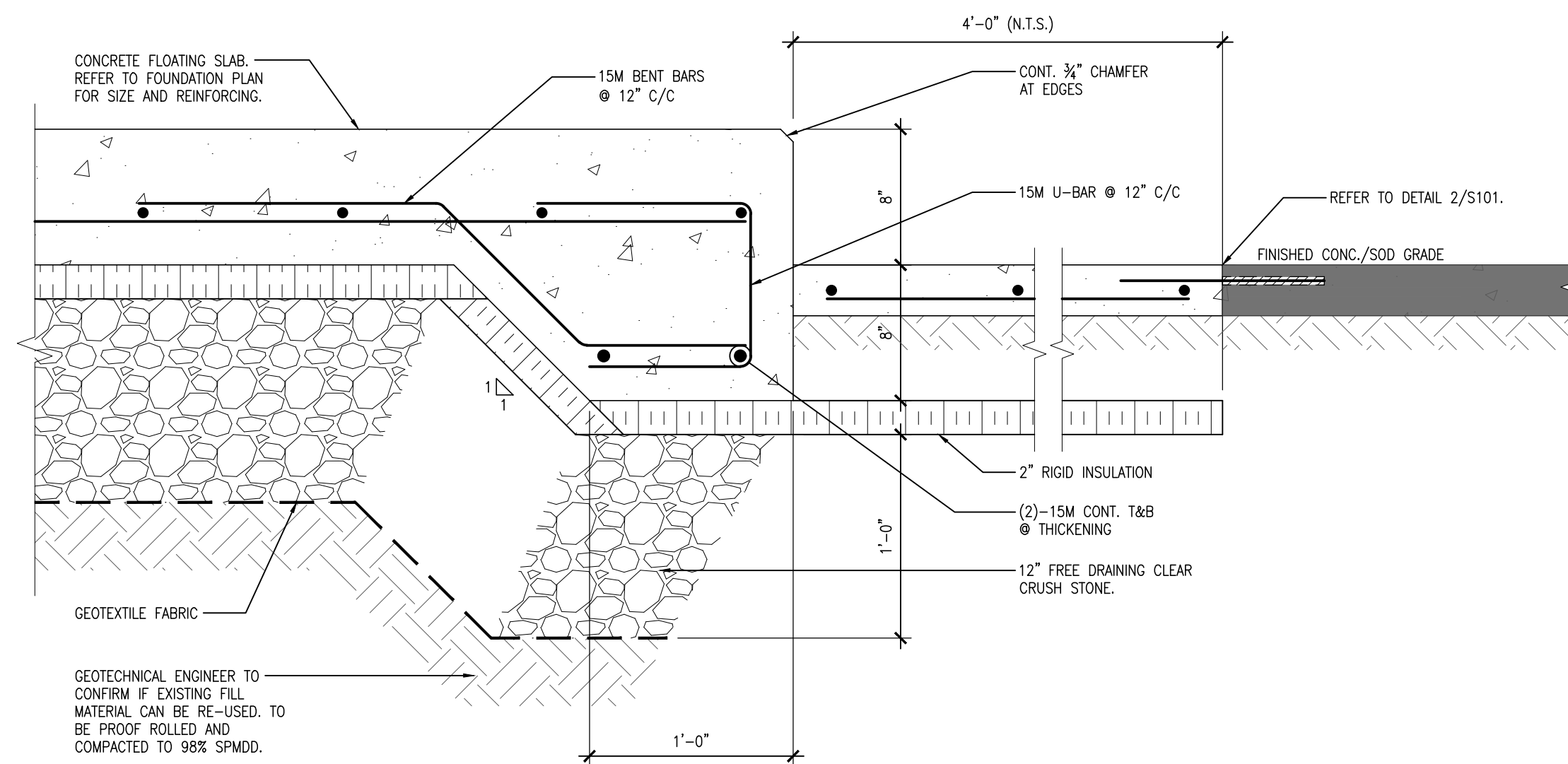
4
S501 SECTION
1 1/2" = 1'-0"



2
S501 SECTION
1 1/2" = 1'-0"



3
S501 SECTION
1 1/2" = 1'-0"



1
S501 SECTION
1 1/2" = 1'-0"

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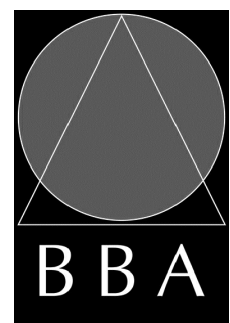
PROJECT:

**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

SECTIONS



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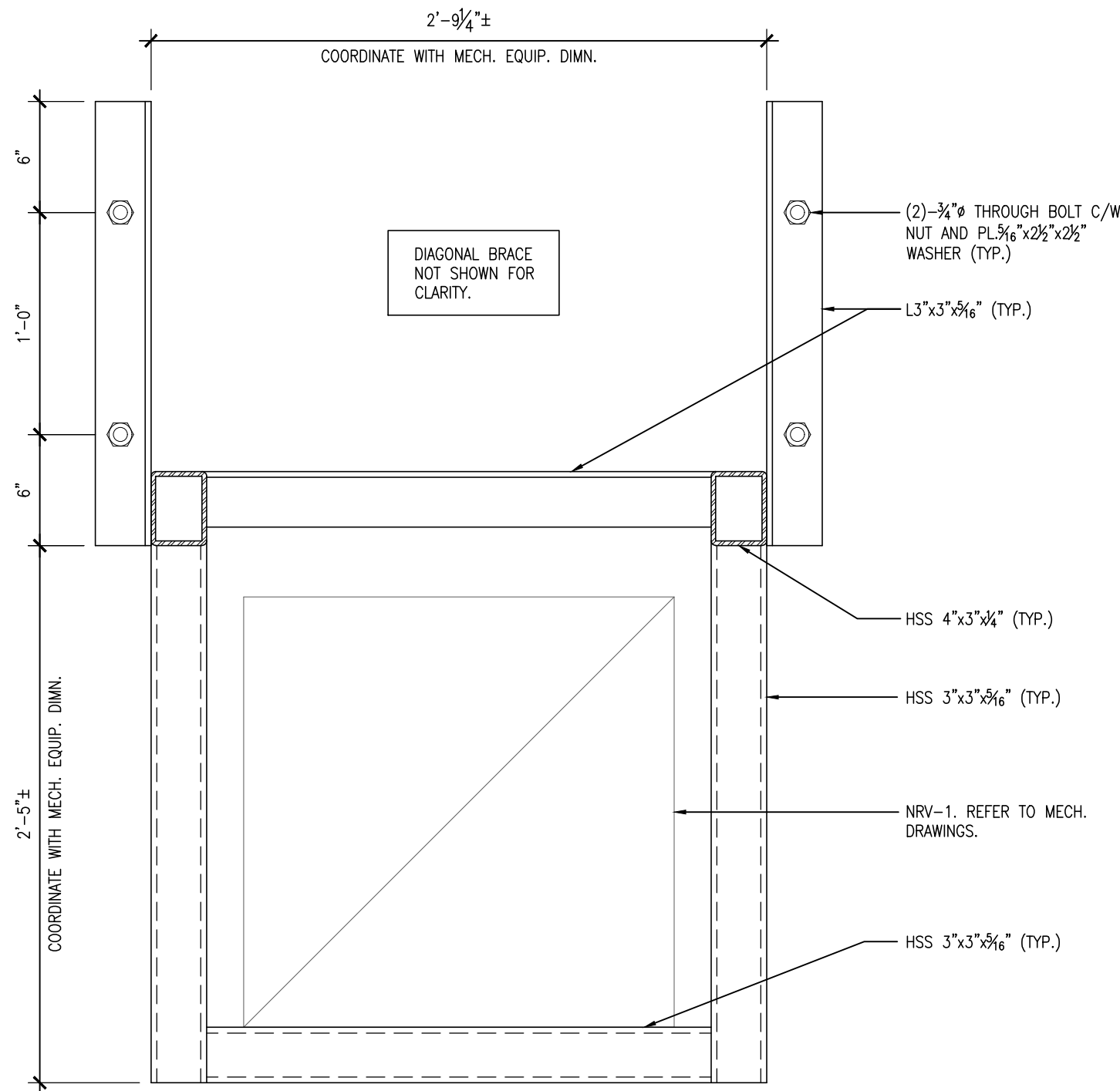
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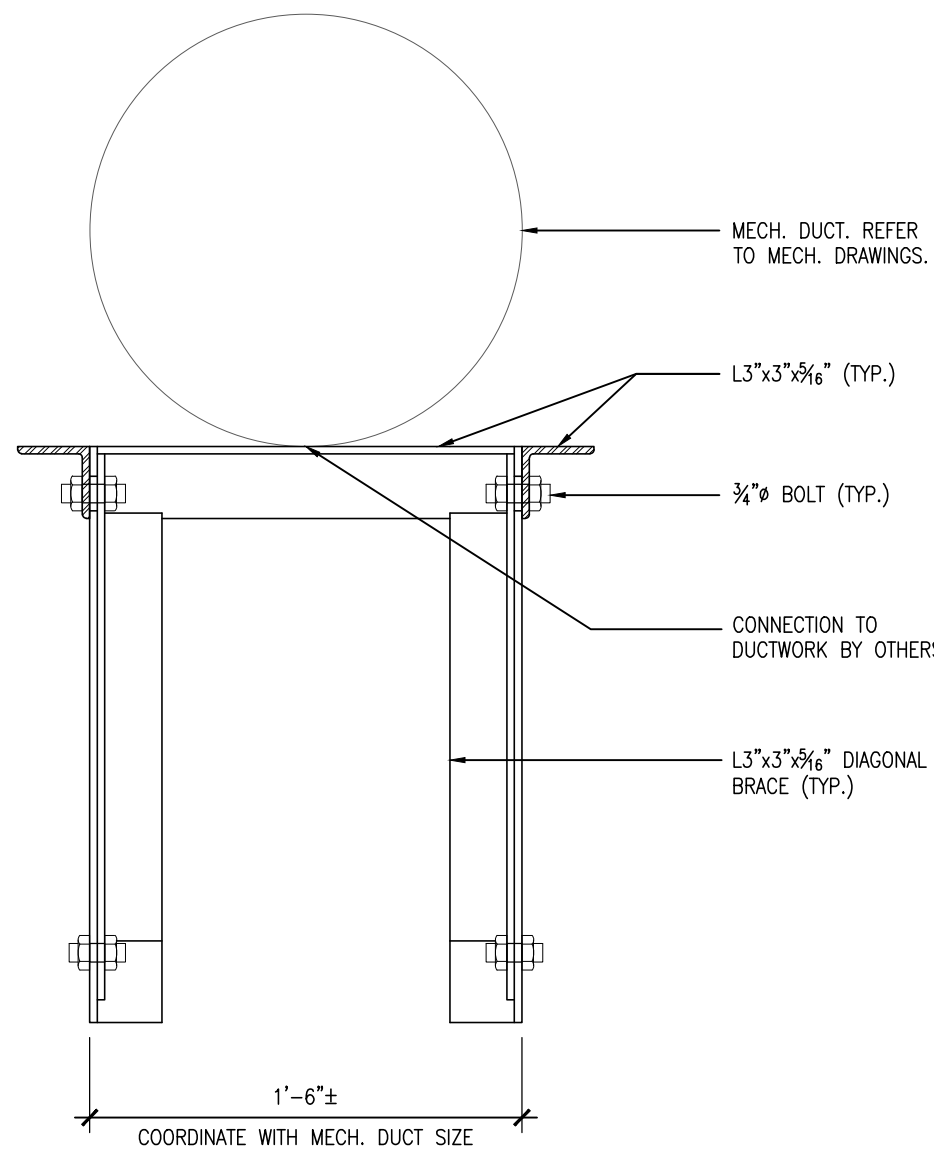
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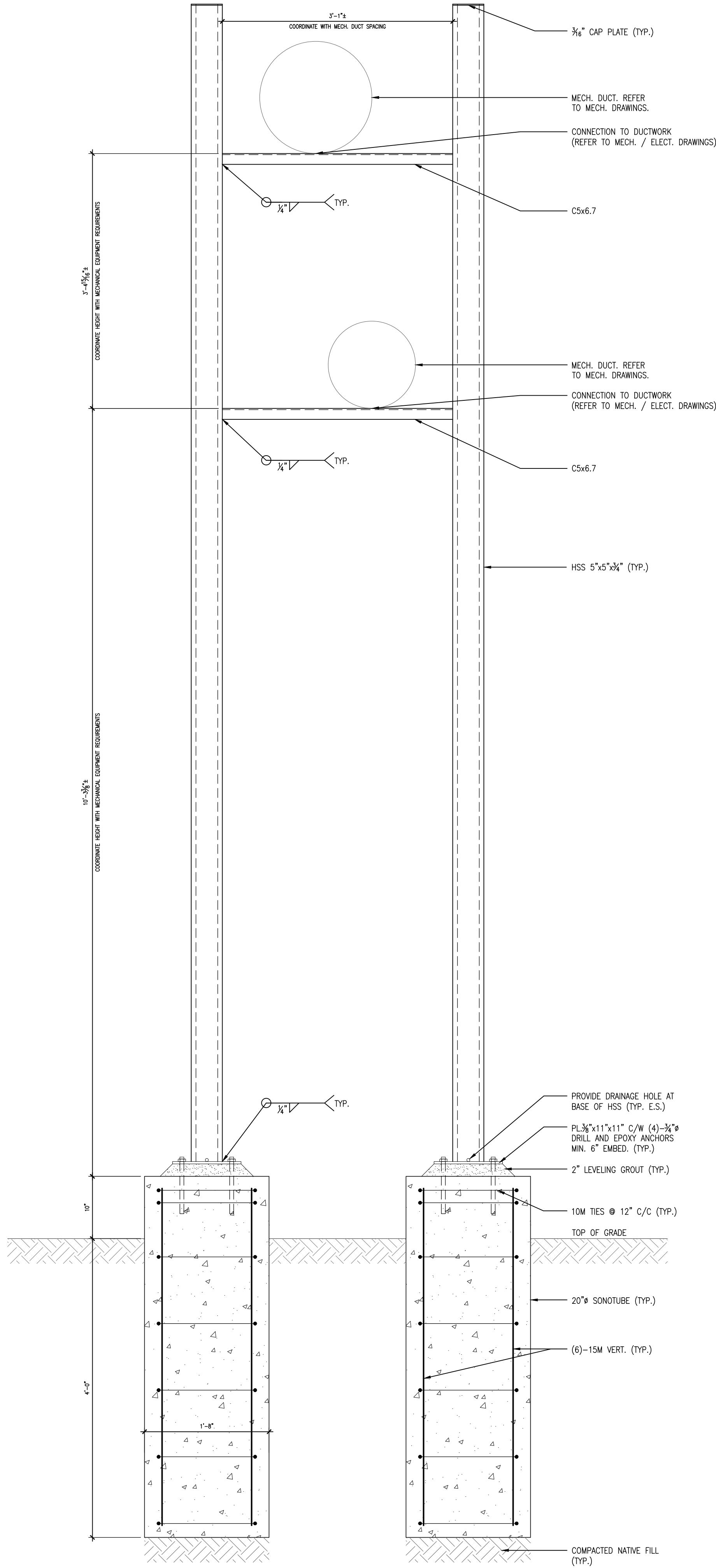
S501



2 SECTION
S502
1 1/2" = 1'-0"



2 SECTION
S502
1 1/2" = 1'-0"



1 SECTION
S502
1" = 1'-0"

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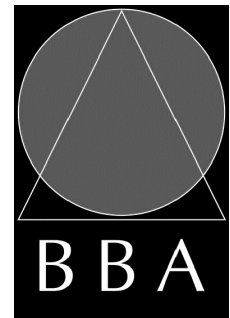
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3	ISSUED FOR TENDER	APR. 28, 2025	BBA

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PROJECT:
**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**
215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:
SECTIONS



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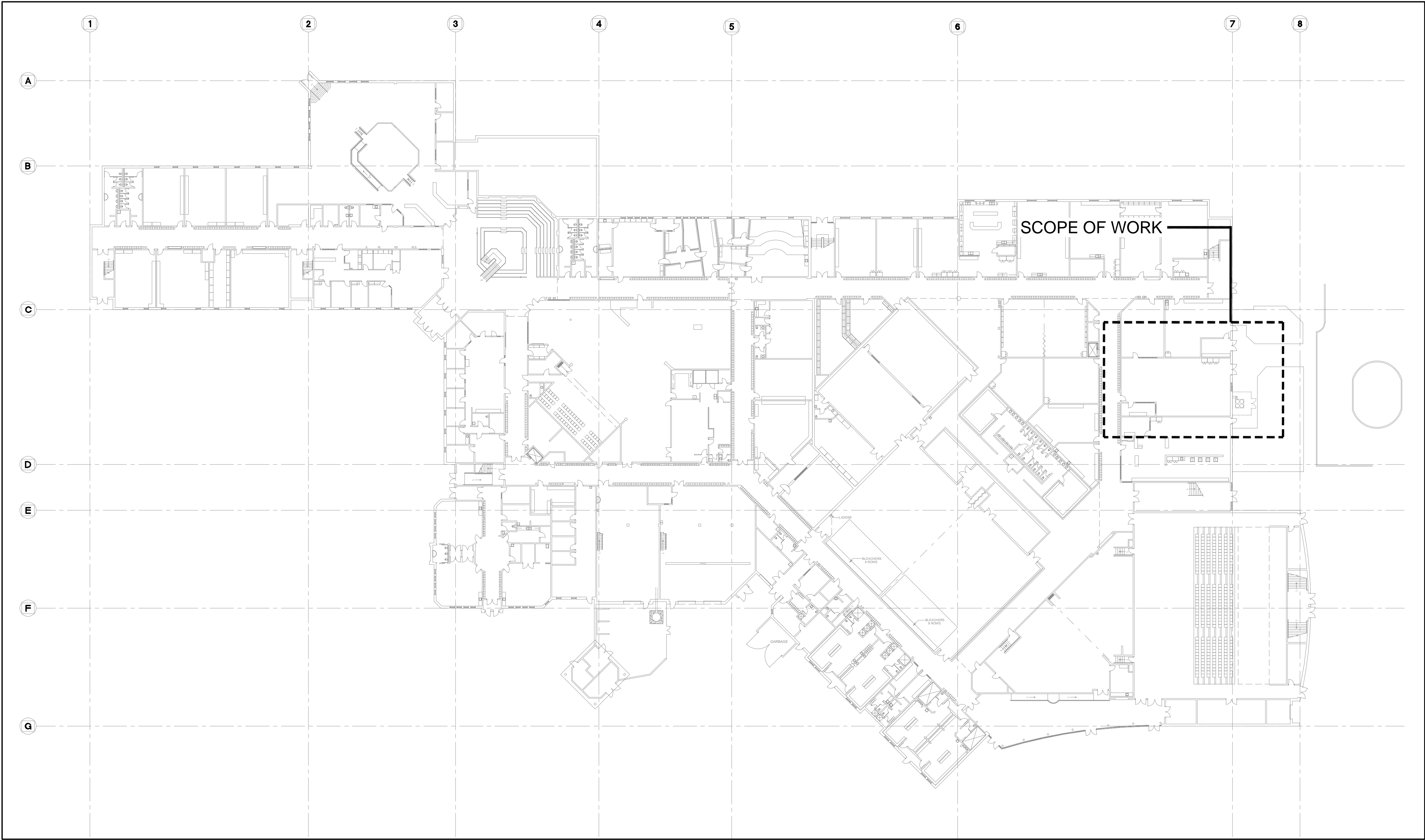
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PROJECT NO:
24141.2
DRAWING NO:
S502

DUST COLLECTOR REPLACEMENT
WATERDOWN DISTRICT HIGHSCHOOL
WATERDOWN, ON

MECHANICAL DRAWINGS



1 KEY PLAN
M-0 NTS

DRAWING LIST	
DWG. NO.	DRAWING NAME
M-0	TITLE SHEET
M-1.1	MECHANICAL LEGEND
M-1.2	MECHANICAL SCHEDULES AND DETAILS
M-2.1	WOOD SHOP DUST COLLECTION SYSTEM – DEMOLITION
M-2.2	WOOD SHOP DUST COLLECTION SYSTEM – NEW
M-2.3	WOOD SHOP DUST COLLECTION SYSTEM – EAST ELEVATION



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This drawing shall be read in conjunction with the architectural, structural, electrical and all other consultant's drawings prior to proceeding with the work. Do not scale the drawings.

The contractor is to verify and accept responsibility for all dimensions and conditions on site and must notify GIALONARDO ENGINEERING INC. of any variations from the drawings.



NO.	ISSUES	DATE	BY
1	ISSUED FOR 60% REVIEW	DEC. 04 2024	JH
2	ISSUED FOR EQUIPMENT PURCHASE	DEC. 27 2024	JH
3	ISSUED FOR PERMIT	JAN. 23 2025	JH
4	ISSUED FOR TENDER	APR. 17 2025	SW

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PROJECT:

**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

TITLE SHEET



BARRY BRYAN
ASSOCIATES

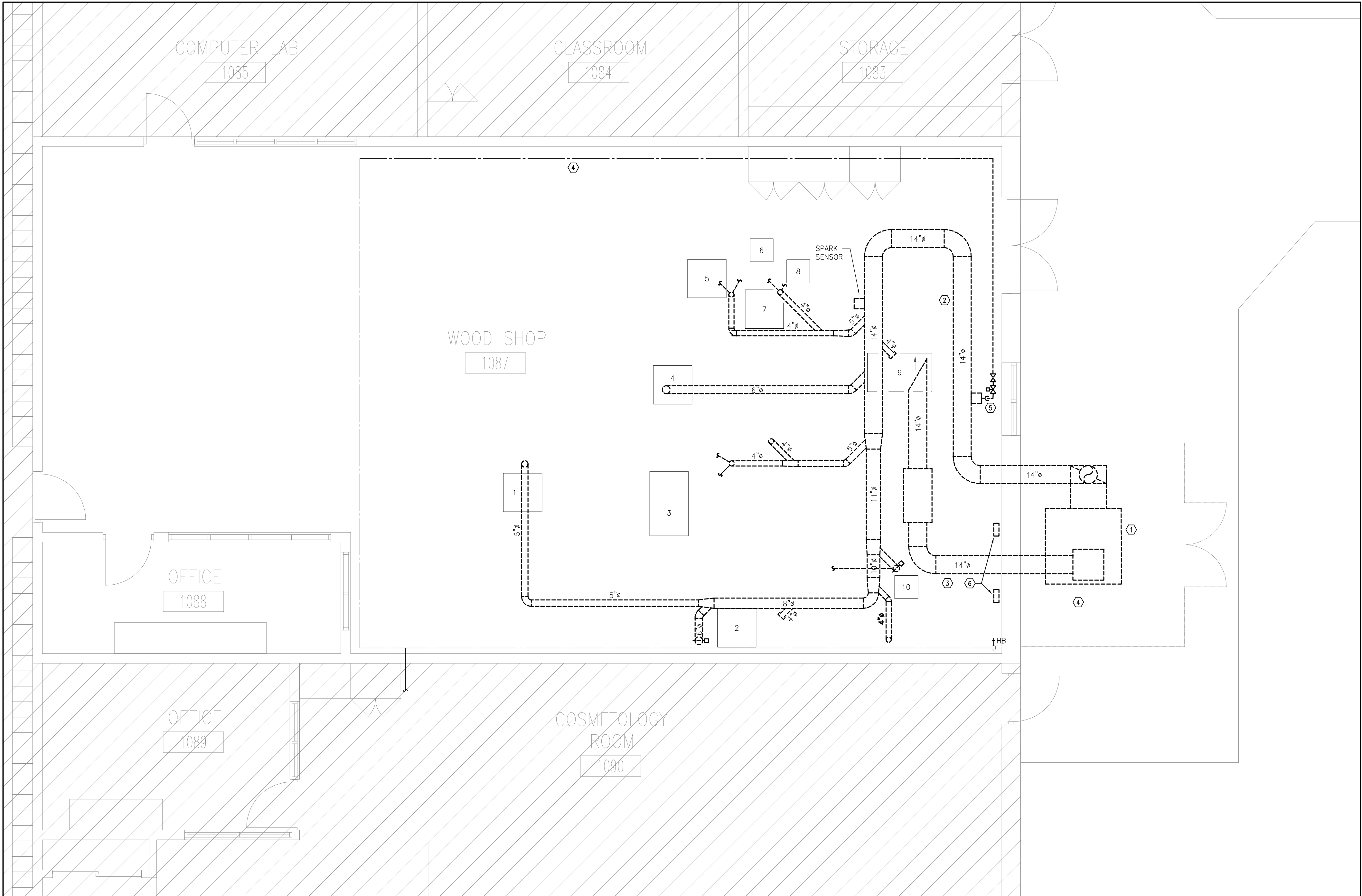
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FILE:	

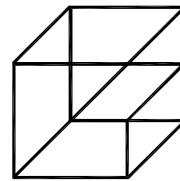
PROJECT NO: 24154B	DRAWING NO: M-0
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1
M-2.1
WOOD SHOP DUST COLLECTION SYSTEM - DEMOLITION
1/4" = 1'-0"

- MECHANICAL DRAWING NOTES
- EXISTING DUST COLLECTOR AND ALL ASSOCIATED CONTROLS, SUPPORTS, ETC. TO BE REMOVED AND DISPOSED OF.
 - EXISTING EXHAUST DUCTWORK AND ALL ASSOCIATED HANGERS, SUPPORTS, DROPS, ETC. TO BE REMOVED AND DISPOSED OF. RETAIN ALL EQUIPMENT FLEX CONNECTIONS FOR REINSTALLATION (TYPICAL).
 - EXISTING SUPPLY DUCTWORK AND ALL ASSOCIATED HANGERS, SUPPORTS, ETC. TO BE REMOVED AND DISPOSED OF.
 - EXISTING DCW PIPING AT HIGH LEVEL TO REMAIN.
 - EXISTING SPRAY NOZZLE, SOLENOID VALVE, STRAINER AND SUPERVISED VALVE TO BE REMOVED AND DISPOSED OF. CUT DCW PIPING BACK TO WHERE SHOWN AND PREPARE FOR NEW CONNECTION.
 - EXISTING MAIN CONTROL PANEL, SPARK DETECTION PANEL AND ALL ASSOCIATED CONTROLS, WIRING, CONDUIT, ETC. TO BE REMOVED AND DISPOSED OF.

- GENERAL NOTES
- THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE, IF REQUIRED, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.
 - THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.23 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.
 - THIS CONTRACTOR SHALL VISIT THE SITE AND COMPLETELY INVESTIGATE AND UNDERSTAND THE EXISTING CONDITIONS AND THEIR RELATION TO THE DESIGN DRAWINGS/DOCUMENTS. NO CONSIDERATION WILL BE GIVEN TO THE CONTRACTOR FOR ANY HINDRANCES TO THE MECHANICAL INSTALLATION FROM SITE CONDITIONS WHICH EXISTED PRIOR TO TENDER SUBMISSION. AS SUCH AND WHERE REQUIRED, THE CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS AND SHALL SUBMIT THEM TO THE CONSULTANT FOR REVIEW.



Giallardo —
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the drawings.
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1	ISSUED FOR 60% REVIEW	DEC. 04 2024	JH
2	ISSUED FOR EQUIPMENT PURCHASE	DEC. 27 2024	JH
3	ISSUED FOR PERMIT	JAN. 23 2025	JH
4	ISSUED FOR TENDER	APR. 17 2025	SW

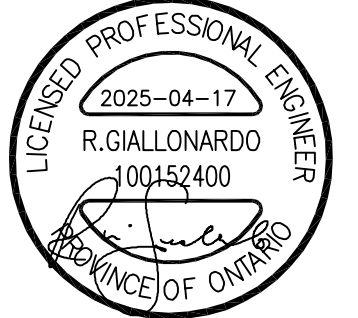
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PROJECT:
**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**
215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:
**WOOD SHOP DUST
COLLECTION SYSTEM -
DEMOLITION**

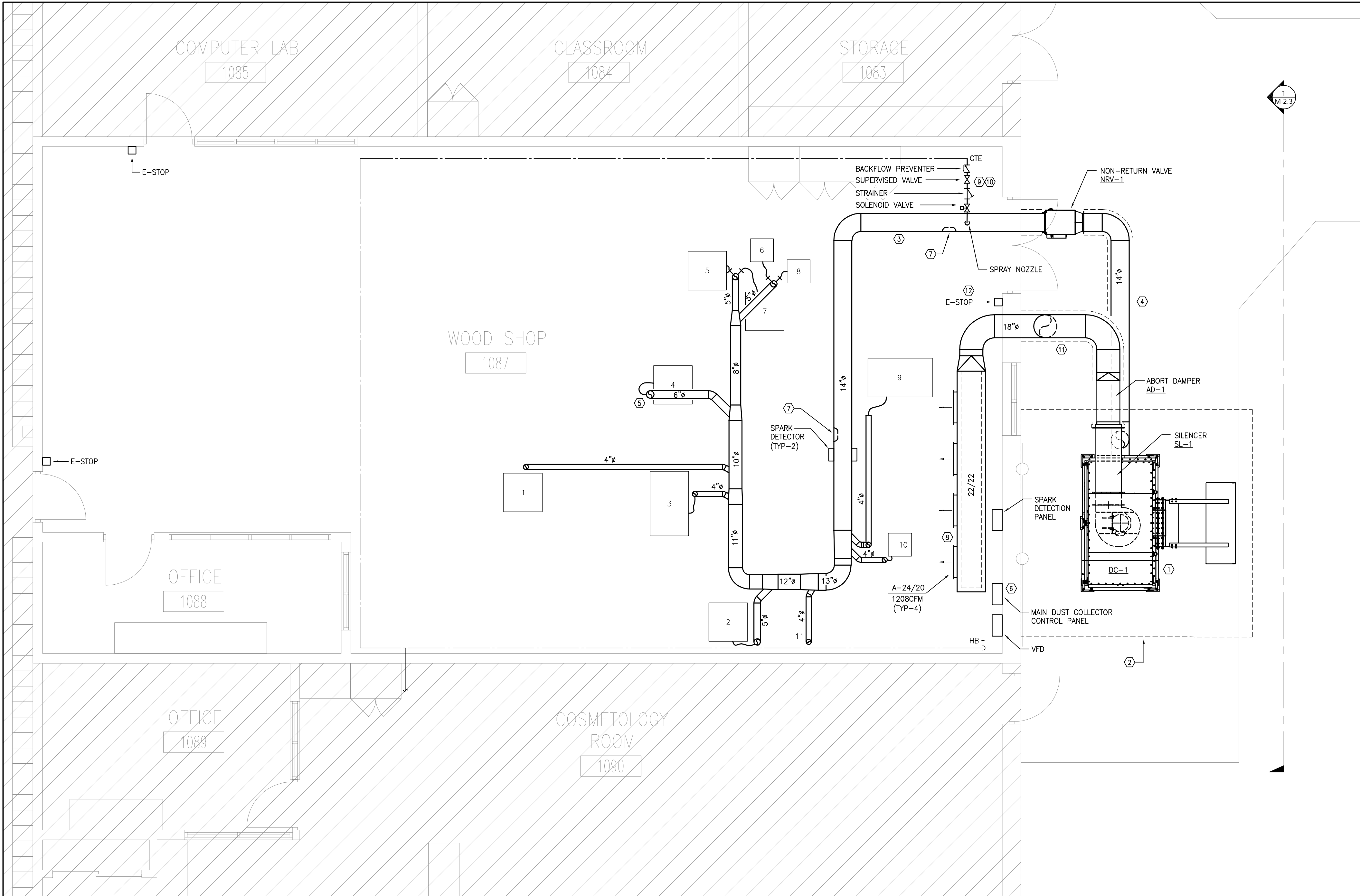


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CHECKED BY: JH	INITIAL:
DATE: SEPTEMBER 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO:
24154B
DRAWING NO:
M-2.1



1 WOOD SHOP DUST COLLECTION SYSTEM - NEW
M-2.2
1/4" = 1'-0"

- MECHANICAL DRAWING NOTES
- NEW DUST COLLECTOR AS SPECIFIED C/W SILENCER (SL-1), ABORT DAMPER (AD-1), NON-RETURN VALVE (NRV-1), SPARK DETECTOR, SPRAY ASSEMBLY, MAIN CONTROL PANEL, SPARK DETECTION CONTROL PANEL, VFD, ETC. THIS EQUIPMENT IS PRE-PURCHASED BY HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND ACCEPTING DELIVERY, INSTALLATION AND ASSUMING ALL MANUFACTURER WARRANTIES.
 - NEW HOUSEKEEPING PAD AND FENCED ENCLOSURE, REFER TO ARCHITECTURAL DRAWINGS.
 - PROVIDE GALVANIZED DUCTWORK EQUAL TO **NORDFAB QUICK-FIT** C/W METAL QUICK FIT CLAMPS AT INTERIOR OF BUILDING. REFER TO SPECIFICATIONS.
 - PROVIDE 12 GAUGE GALVANIZED WELDED AND FLANGED DUCTWORK AT EXTERIOR OF BUILDING BETWEEN DC-1 AND NRV-1. REFER TO SPECIFICATIONS. ALL EXTERIOR DUCTWORK SHALL BE INSULATED AND JACKETED AS PER MECHANICAL SPECIFICATIONS.
 - PROVIDE DUCT DROP DOWN TO EXISTING WOODWORKING EQUIPMENT. PROVIDE MANUAL SLIDE GATE AT FLEX CONNECTION MOUNTED AT 7'-8" AFF. SLIDE GATE SHALL BE C/W SCREW-PIN TO LOCK IN PLACE AFTER BALANCING. CONNECT TO EXISTING EQUIPMENT FLEXIBLE DUCTWORK. COORDINATE EXACT LOCATION OF DUCT DROP WITH EXISTING EQUIPMENT LAYOUT (TYPICAL).
 - PROVIDE NEW MAIN CONTROL PANEL, SPARK DETECTION PANEL AND FAN VFD. REFER TO WIRING SYSTEM SCHEMATIC DETAIL AND INSTALL AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - PROVIDE EXPLOSION PROOF DUCT ACCESS DOOR.
 - PROVIDE NEW ACOUSTICALLY INSULATED RECTANGULAR S/A DUCTWORK C/W DIFFUSERS AS SPECIFIED. BALANCE AS INDICATED.
 - INSTALL NEW SPRAY ASSEMBLY INCLUDING SUPERVISED VALVE, STRAINER, FLOW SWITCH AND SOLENOID VALVE. INSTALL AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - PROVIDE NEW BACKFLOW PREVENTER UPSTREAM OF NEW SPRAY ASSEMBLY.
 - PROVIDE NEW THERMALLY INSULATED AND JACKETED S/A DUCTWORK AS SPECIFIED (TYPICAL).
 - PROVIDE NEW E-STOP AND INTERLOCK WITH NEW DUST COLLECTOR MAIN PANEL. PROVIDE A LABEL INDICATING "DUST COLLECTOR EMERGENCY STOP". CONFIRM EXACT WORDING WITH HWDSB (TYP-3).

- GENERAL NOTES
- THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE, IF REQUIRED, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.
 - THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.23 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.
 - THIS CONTRACTOR SHALL VISIT THE SITE AND COMPLETELY INVESTIGATE AND UNDERSTAND THE EXISTING CONDITIONS AND THEIR RELATION TO THE DESIGN DRAWINGS/DOCUMENTS. NO CONSIDERATION WILL BE GIVEN TO THE CONTRACTOR FOR ANY HINDRANCES TO THE MECHANICAL INSTALLATION FROM SITE CONDITIONS WHICH EXISTED PRIOR TO TENDER SUBMISSION. AS SUCH AND WHERE REQUIRED, THE CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS AND SHALL SUBMIT THEM TO THE CONSULTANT FOR REVIEW.

WOODWORKING EQUIPMENT SCHEDULE				
ITEM NO.	DESCRIPTION	EXHAUST CAP. (CFM)	CONNECTION SIZE (IN)	REMARKS
1	CNC ROUTER	390	4"	CAPPED DUCT FOR FUTURE EQUIPMENT CONNECTION
2	BELT/DISC SANDER	700	2X3"	TWO SEPARATE CONNECTIONS TO SANDER
3	JOINTER	390	4"	
4	PLANER	820	4"	
5	BAND SAW	350	3"	
6	MITRE SAW	350	3"	
7	BAND SAW	350	3"	
8	SPINDLE SANDER	350	3"	
9	TABLE SAW	390	4"	
10	ROUTER	350	3"	
11	SPARE	390	4"	CAPPED DUCT FOR FUTURE EQUIPMENT CONNECTION

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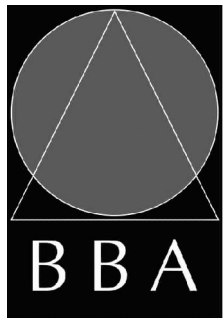
PROJECT:

**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

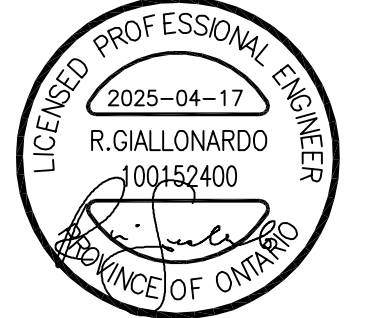
215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

**WOOD SHOP DUST
COLLECTION SYSTEM -
NEW**



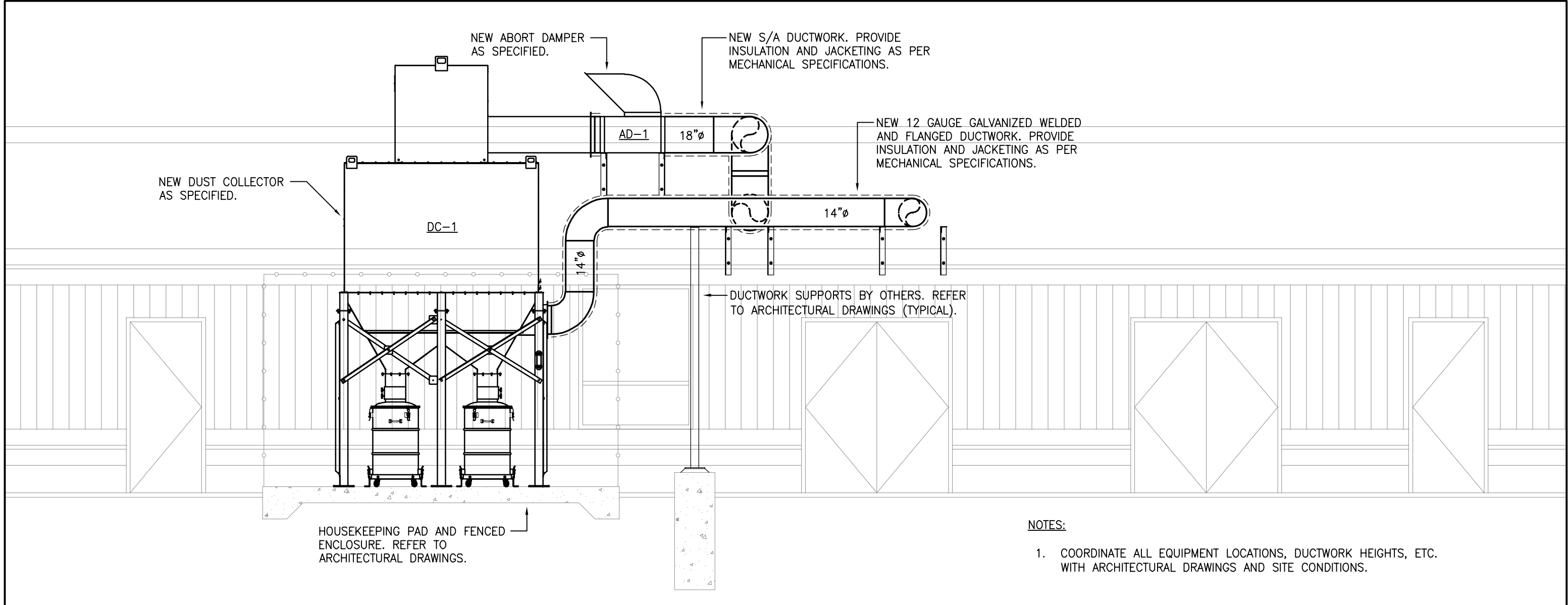
BARRY BRYAN
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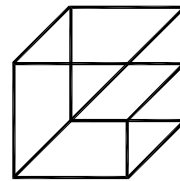
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FILE:	

PROJECT NO:
24154B

DRAWING NO:
M-2.2



1
M-2.3
WOOD SHOP DUST COLLECTION SYSTEM - EAST ELEVATION
1/4" = 1'-0"



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PROJECT:

**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

**WOOD SHOP DUST
COLLECTION SYSTEM -
EAST ELEVATION**



BARRY BRYAN
ASSOCIATES

Architects
Engineers
Project Managers

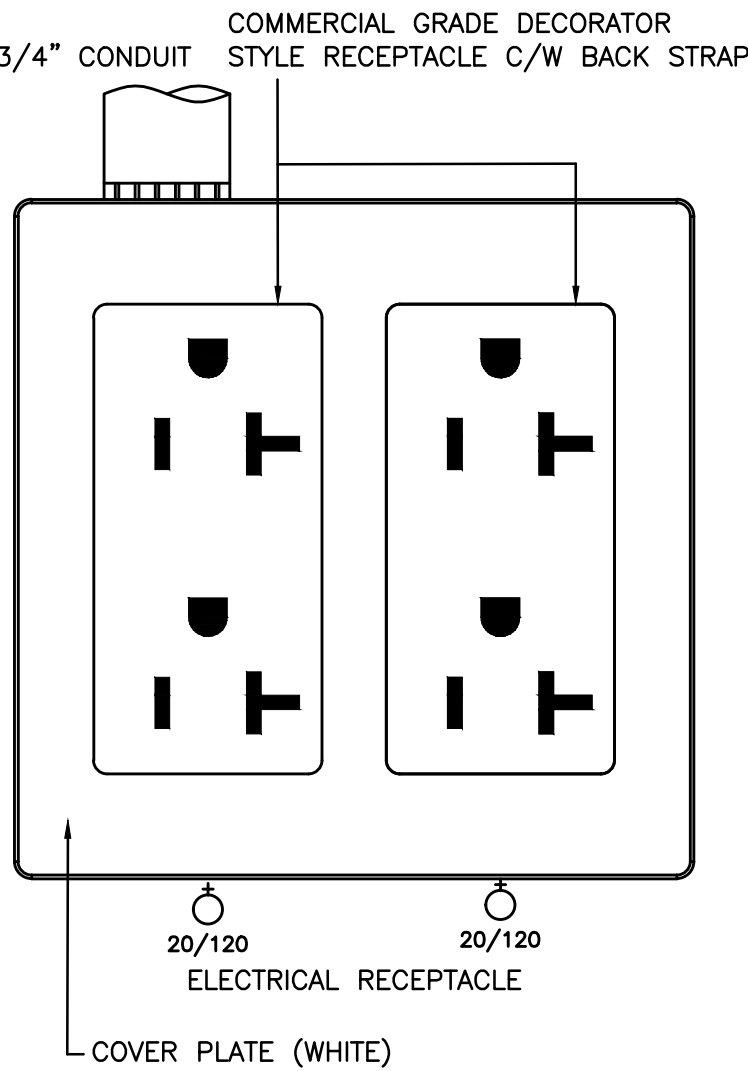
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PROJECT NO:
24154B

DRAWING NO:
M-2.3

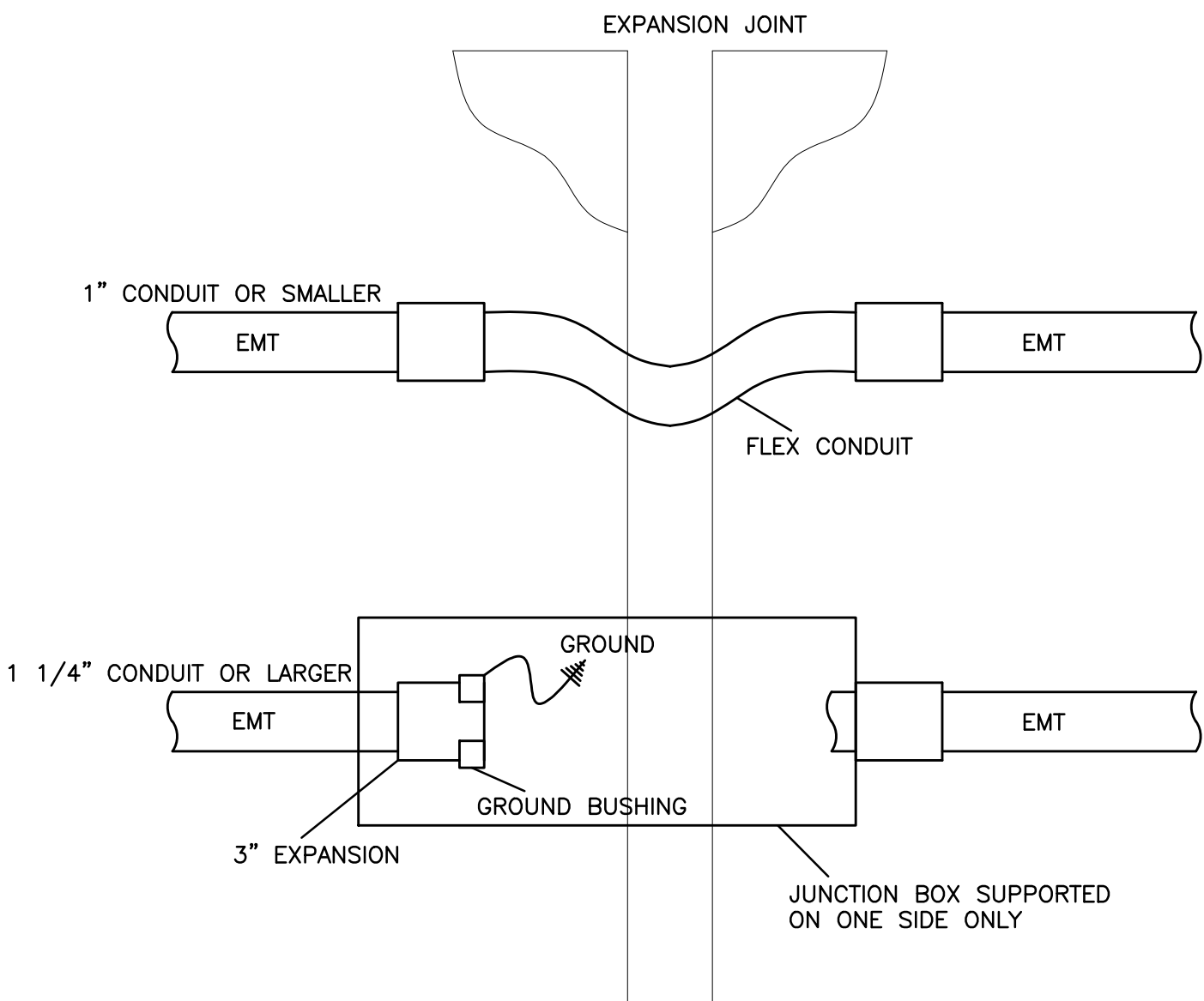


(N-1) NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS, UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.

UTILITY CCT – WHITE RECEPTACLE (WALLS)

MOUNT RECEPTACLES
GROUND PIN UP

1 TYPICAL WALL MOUNTED DEVICE DETAIL
E-1.1 SCALE: NTS



2 EXPANSION JOINT CROSSING DETAIL
E-1.1 SCALE: NTS

LEGEND

- ⌀^{GFI} 15AMP/120VOLT, U-GROUND DUPLEX RECEPTACLE. GFI DENOTES OUTLET C/W GROUND FAULT INTERRUPT PROTECTION.
- RECEPTACLE, REQUIREMENT AS NOTED.
- _{20/120} 20A/120V DUPLEX RECEPTACLE, CSA 5-20R (T-SLOT). HUBBELL DR20 SERIES.
- E INDICATES EXISTING DEVICE TO REMAIN.
- ER INDICATES EXISTING DEVICE TO BE REMOVED. REMOVE CONDUIT AND WIRE BACK TO SOURCE.
- R DENOTES EXISTING DEVICE IN RELOCATED POSITION. PROVIDE CONDUIT AND WIRE BACK TO SOURCE.
- RE DENOTES EXISTING DEVICE TO REMAIN. RECIRCUIT AS SHOWN. REMOVE EXISTING CONDUIT AND WIRE BACK TO EXISTING SOURCE. PROVIDE CONDUIT AND WIRE BACK TO NEW SOURCE.
- WP DENOTES NEMA TYPE 4X ENCLOSURE SUITABLE FOR HOSE DIRECTED WATER
- ⊕ DIRECT CONNECTION.
- ⊞ NON-FUSED HORSEPOWER RATED VISIBLE BLADE HEAVY DUTY DISCONNECT SWITCH C/W PADLOCK PROVISION IN OFF POSITION.
- ⊞_{30/15A/3P} VISIBLE BLADE HEAVY DUTY DISCONNECT SWITCH C/W PADLOCK PROVISION IN OFF POSITION FUSED AT '15A'
- ⊞_{FA} CONTROL ZONE MODULE. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM.
- ⊞ ISOLATION MODULE. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM.
- ⊞ INITIATING DEVICE INTERFACE ZONE MODULE. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM.
- ⊞_{R1} RELAY / COIL

- SUBSTITUTES ARE NOT PERMITTED FOR ALL SPECIFIED PRODUCTS.
- SHOP DRAWINGS ARE REQUIRED FOR ALL PRODUCTS SPECIFIED FOR THIS PROJECT INCLUDING BUT NOT LIMITED TO AC DISTRIBUTION EQUIPMENT, TRANSFORMERS, RECEPTACLE PANELS, FIRE ALARM SYSTEMS, LIGHTING FIXTURES, LIGHTING CONTROLS, LAMACOIDS AND GROUNDING SYSTEM MATERIALS.
- ELECTRICAL CONTRACTOR AND ALL SUBCONTRACTORS MUST READ AND COMPLY WITH ELECTRICAL SPECIFICATIONS (ISSUED AS A SEPARATE DOCUMENT).
- CIRCUITING MUST BE COMPLETED AS SHOWN ON DRAWINGS. DO NOT CHANGE CIRCUIT NUMBERS.
- INSTALLATION AND MANUFACTURING OF ALL DEVICES AND SERVICES INCLUDING DISTRIBUTION, LIGHT FIXTURES, FEEDERS, BRANCH CIRCUITS, VARIOUS SYSTEMS, ETC., MUST COMPLY WITH ALL LOCAL SEISMIC RESTRAINT REQUIREMENTS.
- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, MOUNTING HEIGHTS, CONSTRUCTION DETAILS, LOCATION OF LIGHT FIXTURES, FINISHES AND COLOURS.
- AS PART OF THIS SCOPE OF WORK AND PRIOR TO CONSTRUCTION, ELECTRICAL CONTRACTOR SHALL COORDINATE AND PAY FOR THE SERVICES OF THE FIRE ALARM MANUFACTURER, FIRE INSPECTOR AND BUILDING INSPECTOR TO THOROUGHLY REVIEW THE PROPOSED INSTALLATION LOCATIONS FOR EACH AND EVERY CONTROL PANEL, REMOTE ANNUNCIATOR PANEL, ANCILLARY DEVICE, FIELD DEVICE, ETC., TO ENSURE THAT THE PROPOSED INSTALLATION IS FULLY COMPLIANT WITH CAN/ULC S524:2019 AND ONTARIO BUILDING CODE. COMPLIANCE SHALL INCLUDE INTERFERENCE AND PROXIMITY TO EXISTING DEVICES AND OBSTRUCTIONS (INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, SUPPLY AIR DUCTS, EXPOSED DUCT WORK, BEAMS, RACEWAYS, ETC.), SPACING BETWEEN FIELD DEVICES PROVIDED AS PART OF THIS SCOPE OF WORK IN PROPOSED INSTALLATION LOCATIONS, ETC..
- AS PART OF THE BASE BID PRICE ELECTRICAL CONTRACTOR SHALL PROVIDE A FIRE WATCH THROUGHOUT THE DURATION OF THE PROJECT.
- FIRE ALARM SYSTEM TESTING AND VERIFICATIONS MUST TAKE PLACE BETWEEN 11PM AND 5AM DURING THE WEEK.
- AS BUILT DRAWING REQUIREMENTS:
AS BUILT DRAWINGS TO BE PREPARED AND SUBMITTED IN AUTOCAD FORMAT BY THE ELECTRICAL CONTRACTOR.
 - ALL DEMOLITION SCOPES OF WORK ARE TO BE ERASED FROM AS BUILT DRAWINGS.
 - ROUTING OF ALL FEEDERS, BRANCH WIRING (LIGHTING, EMERGENCY LIGHTING, POWER, ETC), LOW VOLTAGE WIRING, MISCELLANEOUS SYSTEMS WIRING, MISCELLANEOUS CONDUIT SYSTEMS, ETC. TO BE SHOWN ON AS BUILT DRAWINGS. REFER TO DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- ALL SCOPES OF WORK REQUIRED TO BE COMPLETED IN OCCUPIED AREAS OF THE FACILITY INCLUDING WORK RELATED TO DEFICIENCIES MUST BE COMPLETED BETWEEN 11PM AND 5AM DURING THE WEEK. REMOVAL AND REINSTALLATION OF CEILING TILES AND RAISED FLOOR TILES TO ACCOMMODATE ALL SCOPES OF WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
- REMOVAL AND REINSTALLATION OF CEILING TILES IN OCCUPIED AREAS TO ACCOMMODATE ALL SCOPES OF WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
- ALL PANEL SCHEDULE DIRECTORIES MUST BE UPDATED AND TYPEWRITTEN PANEL SCHEDULE DIRECTORIES MUST BE PROVIDED. SELF-ADHESIVE LABELING TAPE MUST BE USED FOR ALL LABELING AT ALL OUTLETS. LAMACOIDS MUST BE USED FOR LABELING OF ALL ELECTRICAL ENCLOSURES.
- THE CONTRACTOR MUST ENSURE THAT FIRESTOPPING AND SEALANTS ARE INSTALLED AT NEW FLOOR OPENINGS IN ACCORDANCE WITH THE CURRENT FIRE CODE REQUIREMENTS AND TO PREVENT WATER LEAKAGE TO THE FLOORS BELOW. AREAS PRONE TO WATER LEAKAGE ARE TO BE WATERPROOFED PRIOR TO INSTALLATION OF THE TENANT FLOOR COVERINGS. THE LANDLORD WILL APPROVE THE PROPOSED WATERPROOFING METHOD PRIOR TO THE TENANT PROCEEDING WITH CONSTRUCTION.
- PROVIDE A REPORT FROM THE MANUFACTURER FOR ALL FIRESTOP ASSEMBLIES PROVIDED AS PART OF THIS SCOPE OF WORK. REPORT MUST DETAIL COMPLIANCE WITH ONTARIO BUILDING CODE.

DRAWING LIST

E-1.1 – ELECTRICAL LEGEND AND DETAILS
E-1.2 – ELECTRICAL DETAILS
E-2.1 – ELECTRICAL PLAN – GROUND FLOOR
E-4.1 – ELECTRICAL GROUNDING SYSTEM DETAILS
E-7.1 – ELECTRICAL SINGLE LINE DIAGRAM
E-9.1 – ELECTRICAL PLAN – WOOD SHOP
E-9.2 – ELECTRICAL DEMOLITION PLAN – WOOD SHOP

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BUT ENGINEERING LIMITED

200 KING STREET WEST

SUITE 310

TORONTO, ONTARIO, M5H 3T4

TEL: (416) 932-2423

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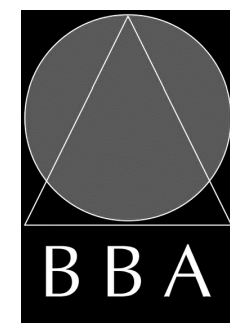
PROJECT:

**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

**ELECTRICAL LEGEND
AND DETAILS**



**BARRY BRYAN
ASSOCIATES**

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Engineers
Project Managers

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e-mail: bba@bba-archeng.com

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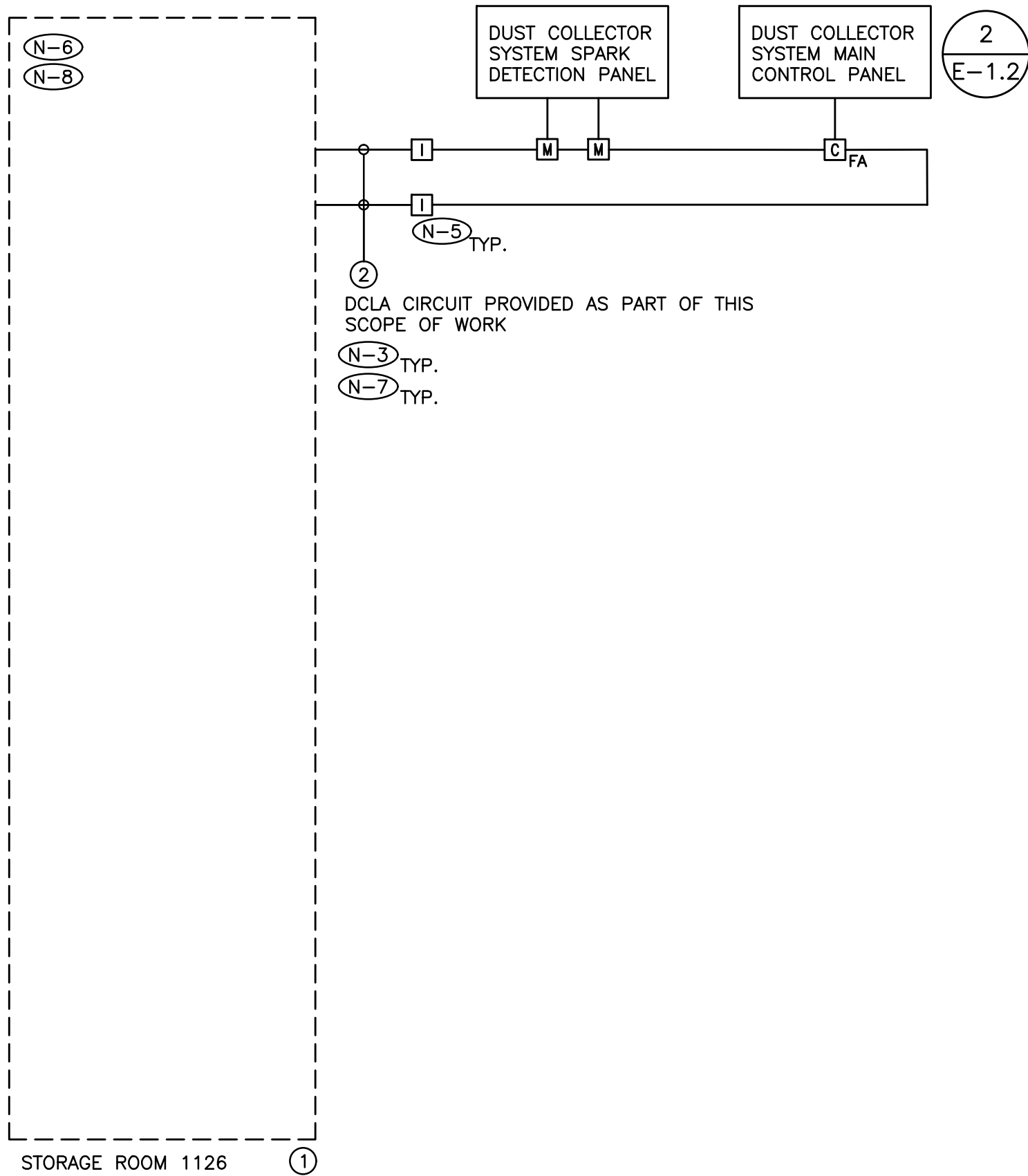
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PROJECT NO:

24141.2

DRAWING NO:

E-1.1



- (N-1) RISER IS DIAGRAMMATIC ONLY. PROVIDE QUANTITY OF STROBE LIGHT CIRCUITS, BELL CIRCUITS, INITIATING DEVICE CIRCUITS, HARDWARE, MODULES, ACCESSORIES, DEVICES, CONDUIT, WIRE, ETC., TO ENSURE A FULLY OPERATIONAL FIRE ALARM SYSTEM.
- (N-2) REFER TO FLOOR PLANS AND REFLECTED CEILING PLANS FOR EXACT QUANTITY AND LOCATION OF DEVICES, DEVICE PERIPHERALS AND ACCESSORIES (IE. WIRE GUARD, EXPLOSION PROOF DEVICES, WEATHER PROOF DEVICES, ETC.).
- (N-3) PROVIDE POWER, CONDUIT, BACKBOX AND WIRING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. MINIMUM CONDUIT SIZE 3/4".
- (N-4) PROVIDE DEDICATED CORE DRILLED FLOOR AND WALL PENETRATIONS ON EVERY FLOOR AS REQUIRED FOR FIRE ALARM SYSTEM CONDUITS/MI CABLE. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY X-RAYING RESULTS.
- (N-5) PROVIDE LINE ISOLATOR MODULES TO ISOLATE DCIA SEGMENTS ON A PER FIRE ALARM ZONE BASIS, ON A PER FLOOR BASIS AND AS REQUIRED BY THE MANUFACTURER AND BY ONTARIO BUILDING CODE. NOTE: PROVIDE ADDITIONAL LINE ISOLATOR MODULES AS REQUIRED OVER AND ABOVE THOSE SHOWN ON RISER DIAGRAM TO SATISFY ISOLATION REQUIREMENTS.
- (N-6) MODIFY, REWORK AND PROVIDE ALL COMPONENTS AND ACCESSORIES FOR CONTROL PANEL AS REQUIRED TO ACCOMMODATE ALL SCOPES OF WORK AS NOTED ON DRAWINGS AND IN SPECIFICATION.
- (N-7) EACH DCIA WIRING LOOP SHALL BE LIMITED TO SERVING DEVICES ON ONE FLOOR.
- (N-8) PROVIDE ADDITIONAL BATTERIES IN EXISTING CONTROL PANEL AS REQUIRED TO SUPPORT THE TOTAL LOAD REQUIREMENTS AT THE COMPLETION OF THIS PROJECT.
- (N-9) PROVIDE 24VDC CIRCUITS FOR STROBES AND OTHER 24VDC DEVICES. MAXIMUM LOAD ON EACH CIRCUIT SHALL NOT EXCEED 70%. CIRCUIT REQUIREMENTS NOT SHOWN ON RISER DIAGRAM.
- (N-10) AS PART OF THE BASE BID PRICE ELECTRICAL CONTRACTOR SHALL PROVIDE A FIRE WATCH THROUGHOUT THE DURATION OF THE PROJECT.

- ① EXISTING FIRE ALARM SYSTEM CONTROL PANEL - SIMPLEX 4100ES
- ② CONDUIT AND WIRE PER MANUFACTURER'S REQUIREMENTS

BASE BUILDING FIRE ALARM SYSTEM MANUFACTURER
TYCO INTEGRATED FIRE & SECURITY
MATT FLINTOFF
CELL: 289-260-9830
MATTHEW.FLINTOFF@JCI.COM

- DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR.
- - - - - DENOTES EXISTING TO REMAIN.
- *-*-*-*-*- DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR.

DWG FIRE ZONE NO.	FIRE ZONE ID LABEL (N-1) TYP	INITIATING DEVICE	ALARM SIGNAL	TROUBLE SIGNAL
01	DUST COLLECTOR ALARM	[M]	*	
02	DUST COLLECTOR TROUBLE	[M]		*

- (N-1) ZONE DESCRIPTION TO BE DETERMINED ON SITE.
- (N-2) 'SC' DENOTES SUPERVISORY CONTACT.
- (N-3) SEQUENCE OF OPERATIONS AND ALARM/ALERT SIGNALING REQUIREMENTS TO BE COORDINATED WITH AUTHORITY HAVING JURISDICTION, CONSULTANT, MECHANICAL CONTRACTOR, FIRE ALARM MANUFACTURER AND LANDLORD THROUGH SHOP DRAWING APPROVAL PROCESS.

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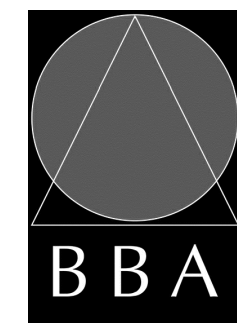
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PROJECT:
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HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:
ELECTRICAL DETAILS



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ASSOCIATES**

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Engineers
Project Managers

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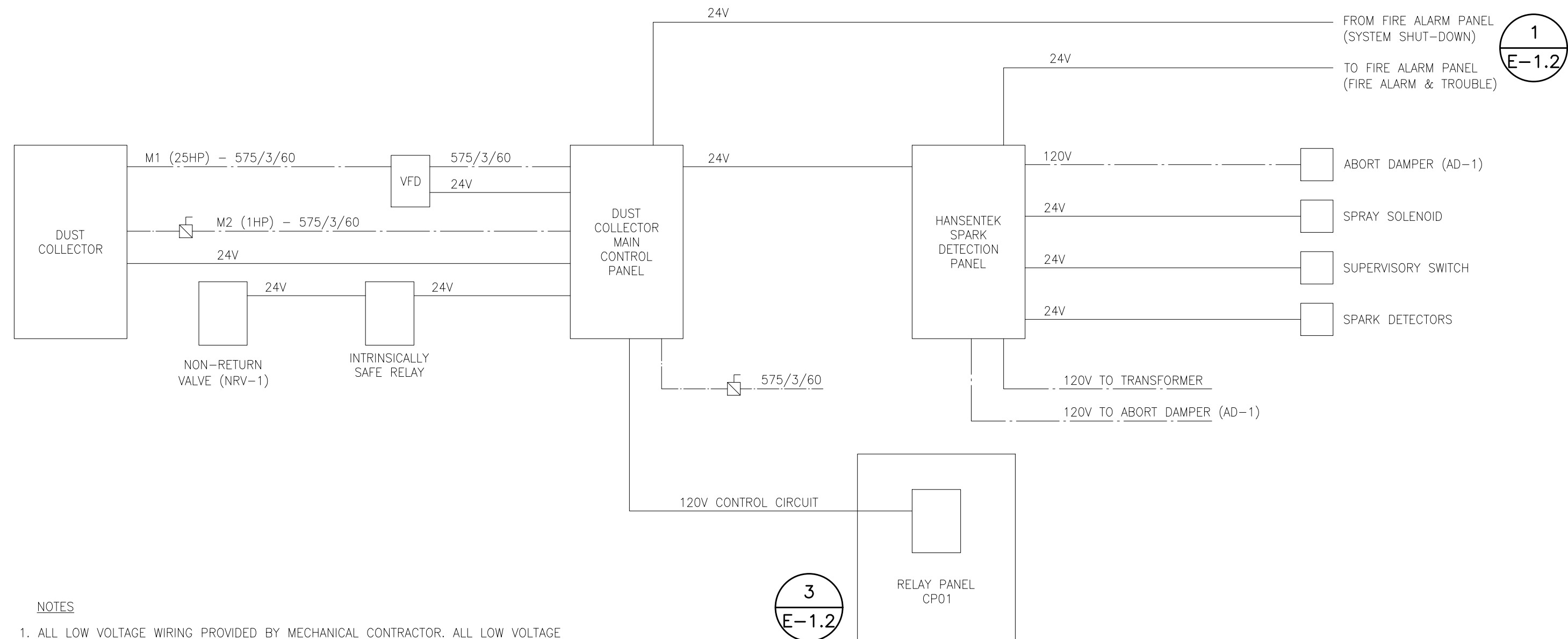
FILE:

PROJECT NO:
24141.2

DRAWING NO:
E-1.2

1
PARTIAL BASE BUILDING FIRE ALARM SYSTEM RISER DIAGRAM
SCALE: NTS

2
FIRE ALARM SYSTEM ZONE SCHEDULE
SCALE: NTS



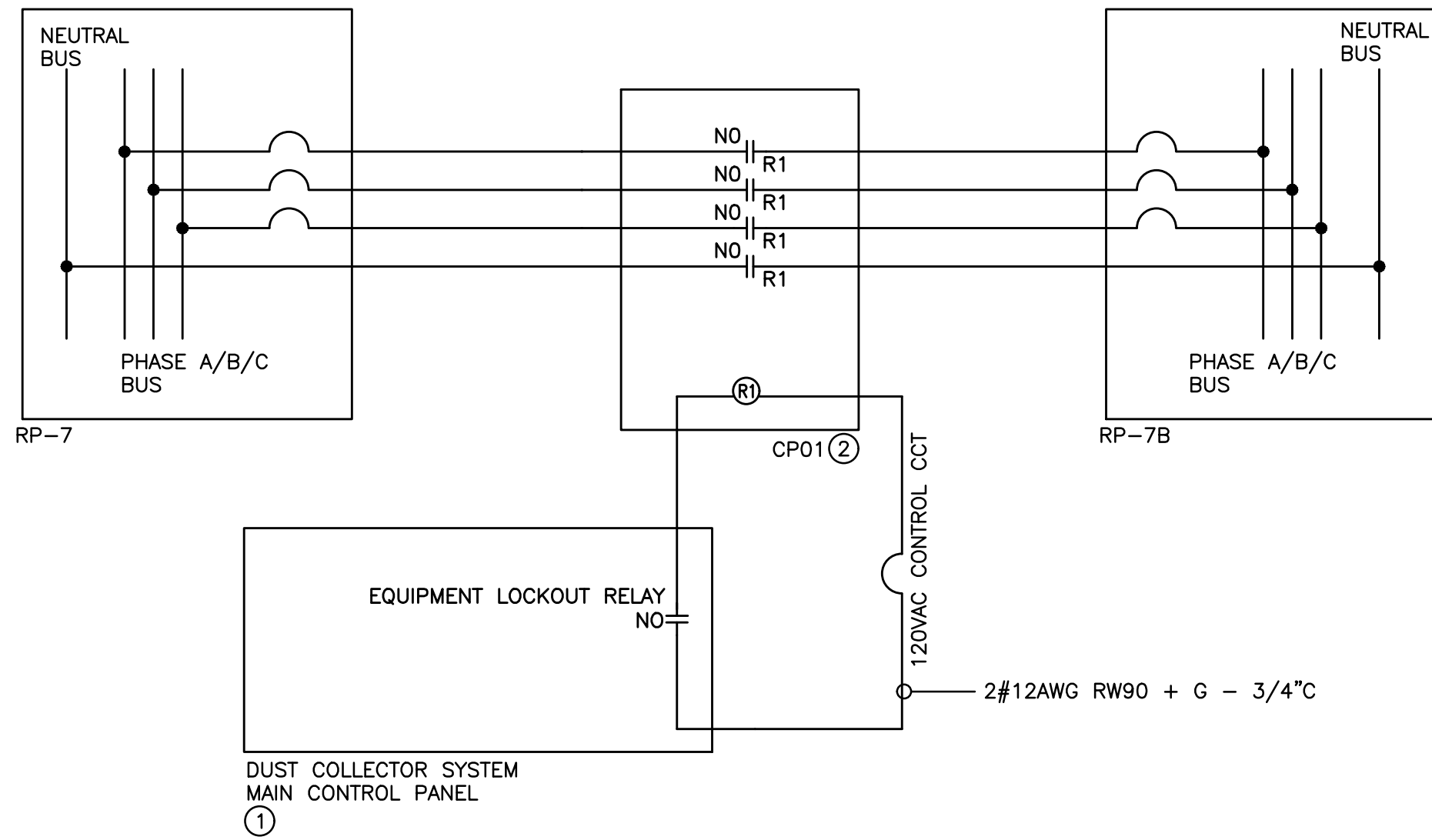
- NOTES
- ALL LOW VOLTAGE WIRING PROVIDED BY MECHANICAL CONTRACTOR; ALL LOW VOLTAGE CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR.
 - ALL LINE VOLTAGE WIRING AND CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR.
 - REFER TO FLOOR PLANS FOR EQUIPMENT LOCATIONS.
 - PROVIDE THE MOST SUITABLE ROUTING FOR CONDUIT/WIRING BETWEEN EQUIPMENT.
 - FIRESTOP ALL CONDUIT PENETRATIONS IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION.
 - THIS SCHEMATIC IS A GENERAL REPRESENTATION ONLY; REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WIRING DIAGRAMS FOR EXACT CONNECTION DETAILS AND FOR ADDITIONAL REQUIREMENTS.

LEGEND:

————— LINE VOLTAGE WIRING PROVIDED AS PART OF THIS SCOPE OF WORK

————— LOW VOLTAGE WIRING PROVIDED BY MECHANICAL CONTRACTOR

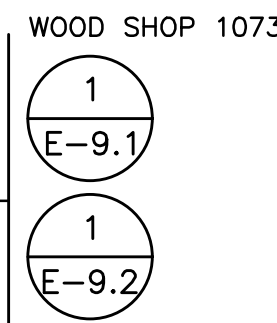
3
DUST COLLECTOR SYSTEM SCHEMATIC
SCALE: NTS



- (N-1) SCHEMATIC IS DIAGRAMMATIC ONLY. PROVIDE QUANTITY OF CONTROL PANELS, CONTROLLERS, SENSORS, HARDWARE, MODULES, ACCESSORIES, DEVICES, CONDUIT, WIRE, POWER SOURCES, ETC., TESTING AND COMMISSIONING TO ENSURE A FULLY OPERATIONAL GAS DETECTION SYSTEM.
- (N-2) REFER TO FLOOR PLAN FOR EXACT QUANTITY AND LOCATION OF DEVICES, DEVICE PERIPHERALS AND ACCESSORIES.
- (N-3) PROVIDE POWER, CONDUIT, BACKBOX AND WIRING IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. MINIMUM CONDUIT SIZE 3/4".
- (N-4) PROVIDE ALL SOFTWARE, PROGRAMMING, LICENSES, COMPONENTS, ACCESSORIES AND TESTING AS REQUIRED TO ACCOMMODATE ALL SCOPES OF WORK NOTED ON DRAWINGS AND IN SPECIFICATIONS.
- (N-5) ALL LOW VOLTAGE WIRING TO BE ENCLOSED IN A CONDUIT SYSTEM.

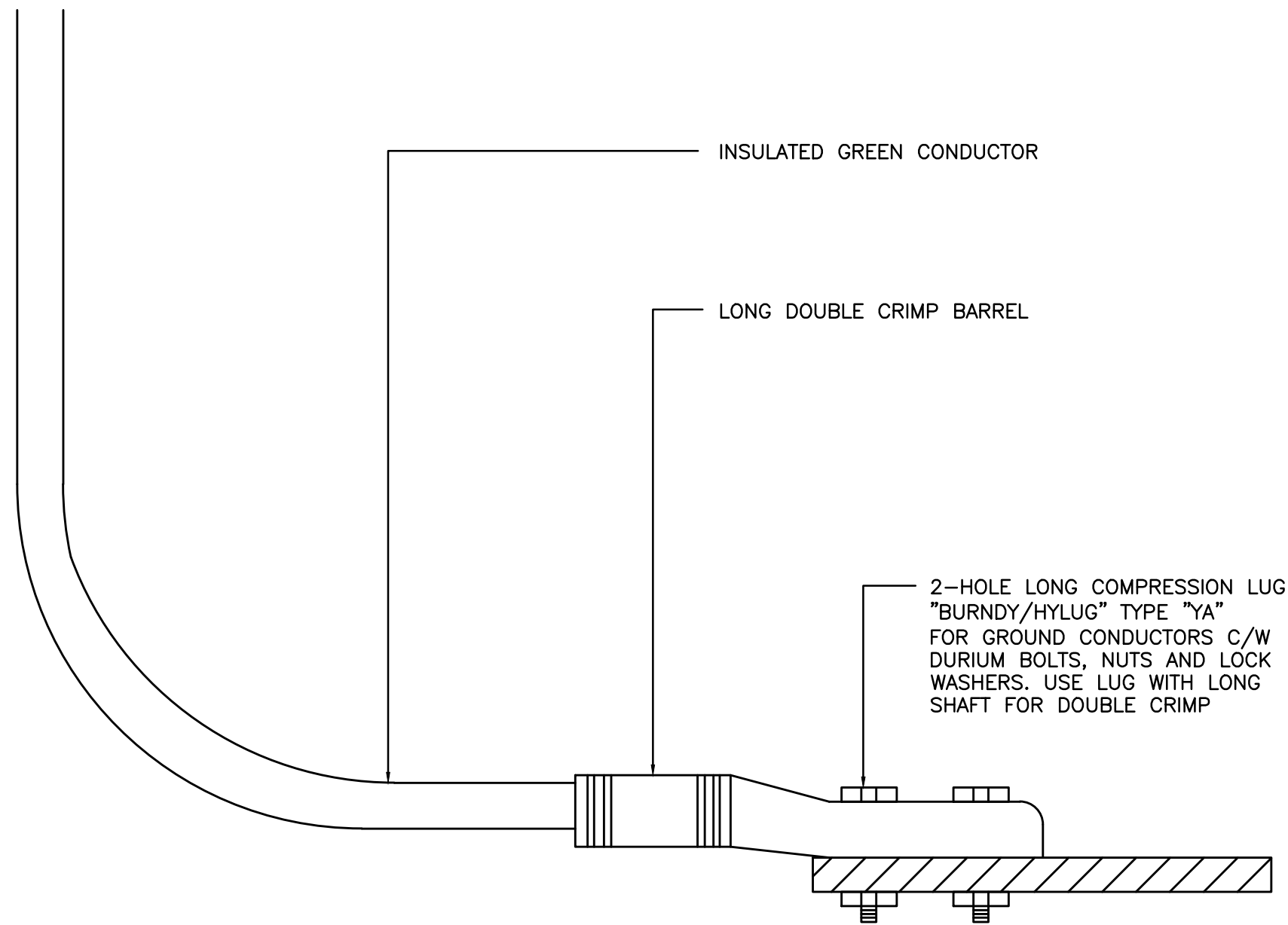
- ① DUST COLLECTOR SYSTEM MAIN CONTROL PANEL PROVIDED BY MECHANICAL CONTRACTOR
- ② RELAY PANEL C/W MULTI-POLE CONTACTOR PROVIDED AS PART OF THIS SCOPE OF WORK - SCHNEIDER 8903SQG3V84FF4TX22/18.15"W X 29.15"H X 9.24"D WALL MOUNTED ENCLOSURE

4
WOOD SHOP EQUIPMENT PANEL WIRNG SCHEMATIC
SCALE: NTS



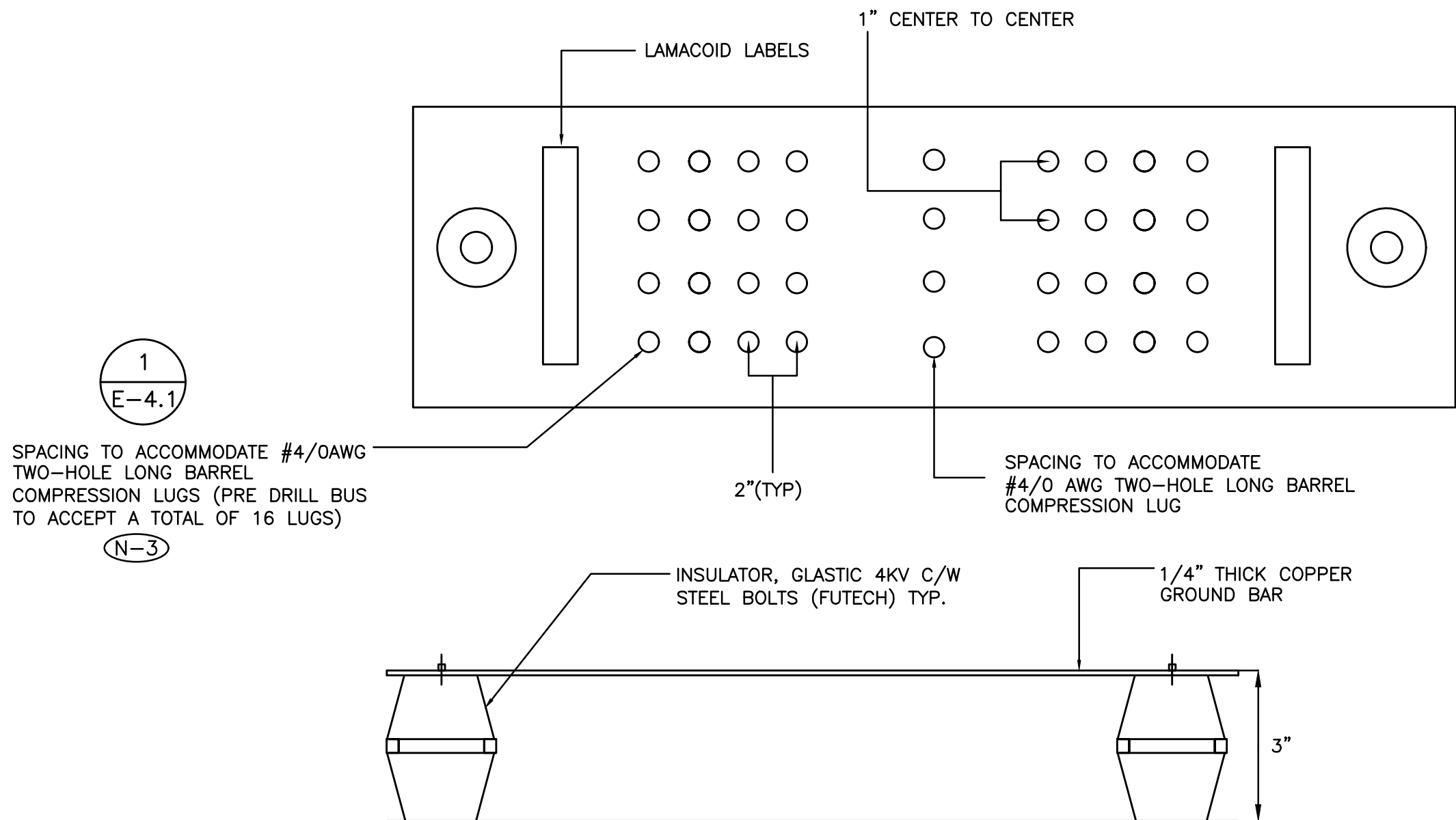
① EXISTING FIRE ALARM SYSTEM CONTROL PANEL


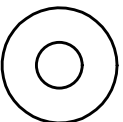
PROJECT NO:	DRAWING NO:
24141.2	E-2.1



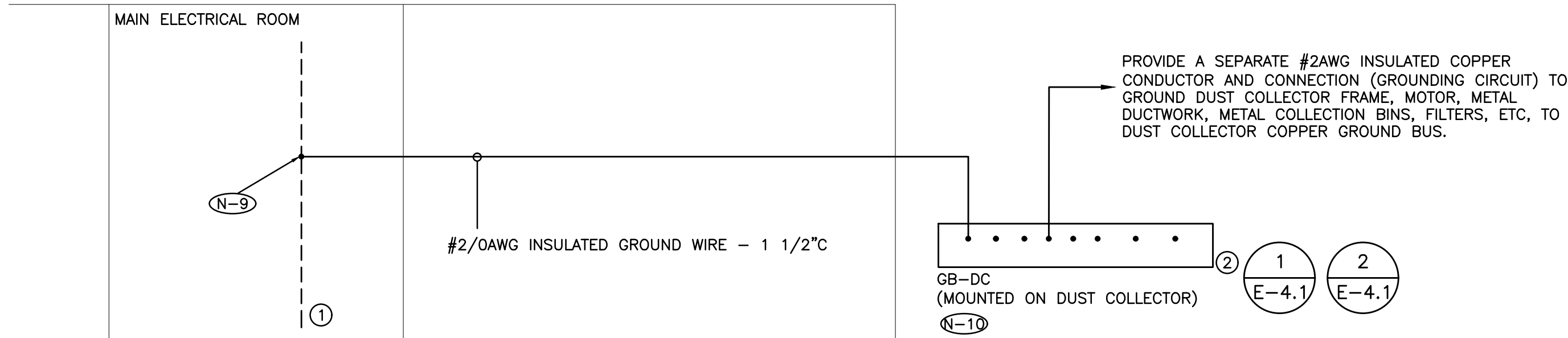
(N-1) UTILIZE 2-HOLE LONG COMPRESSION LUGS FOR ALL CONNECTIONS TO BUS BARS AND TO ALL EQUIPMENT, CABINETS, RACKS, ETC.

1
E-4.1 GROUND LUG DETAIL
SCALE: NTS



- (N-1) COVER TIPS, LUGS AND COPPER GROUND BAR WITH "PENETROX E" FROM "BURNDY" OR "KOPR-SHIELD" FROM "T&B".
- (N-2) INSTALL 2-HOLE LONG COMPRESSION LUGS FOR GROUND CONDUCTORS C/W DURIMUM BOLTS, NUTS AND WASHERS.
- (N-3) BUS BAR SHALL BE PRE-DRILLED BY THE MANUFACTURER TO MATCH PATTERN INDICATED. FIELD DRILLING IS NOT ACCEPTABLE.
- (N-4) FASTEN BUS BAR TO WALL MOUNTED FIRE RATED PLYWOOD BACKBOARD (BACKBOARD PROVIDED AND PAINTED AS PART OF THIS SCOPE OF WORK).
- HOLES:  DIAMETER TO SUITE LUG
-  13/16" DIAMETER

2
E-4.1 BUILDING GROUND BUS BAR (BGB) DETAIL
SCALE: NTS



- (N-1) RISER IS DIAGRAMMATIC ONLY. REFER TO DRAWING NO. E-7.1 AND E-9.1 FOR QUANTITY AND LOCATION OF ALL BUS BARS AND GROUNDING CONNECTIONS.
- (N-2) SIZE ALL NEUTRAL SYSTEM GROUNDS IN ACCORDANCE WITH THE ELECTRICAL SAFETY CODE AND AUTHORITY HAVING JURISDICTION.
- (N-3) GROUNDING AND BONDING OF ALL EQUIPMENT NOT SHOWN ON THIS DETAIL SHALL BE COMPLETED IN ACCORDANCE WITH THE ELECTRICAL SAFETY CODE AND AUTHORITY HAVING JURISDICTION.
- (N-4) NOT USED.
- (N-5) NOT USED.
- (N-6) PROVIDE DEDICATED CORE DRILLED WALL AND FLOOR PENETRATIONS. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY X-RAY RESULTS.
- (N-7) NOT USED.
- (N-8) PROVIDE REQUIRED PENETRATIONS THROUGH ROOF AND BUILDING ENVELOP. COORDINATE WORK AND WEATHERPROOF SEALING REQUIREMENTS WITH LANDLORD.
- (N-9) PROVIDE BURNDY TYPE YC-C SERVICES HIGH GROUND COMPRESSION SYSTEM CONNECTORS.
- (N-10) NOT USED.
- (N-11) ELECTRICAL CONTRACTOR TO REVIEW GROUNDING SYSTEM PROVIDED AS PART OF THIS SCOPE OF WORK AND BASE BUILDING CONNECTION POINTS WITH ESA INSPECTOR PRIOR TO CONSTRUCTION.

- 1 EXISTING GROUNDING CONNECTION POINT AT SERVICE ENTRANCE SWITCHBOARD
- 2 1/4" X 6" X 2' BUILDING GROUND BUS BAR (BGB)

3
E-4.1 GROUNDING SYSTM RISER DIAGRAM
SCALE: NTS

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SUITE 310
TORONTO, ONTARIO, M5H 3T4
Tel: (416) 932-2423

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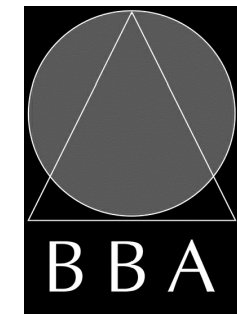
PROJECT:

**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

**ELECTRICAL
GROUNDING SYSTEM
DETAILS**



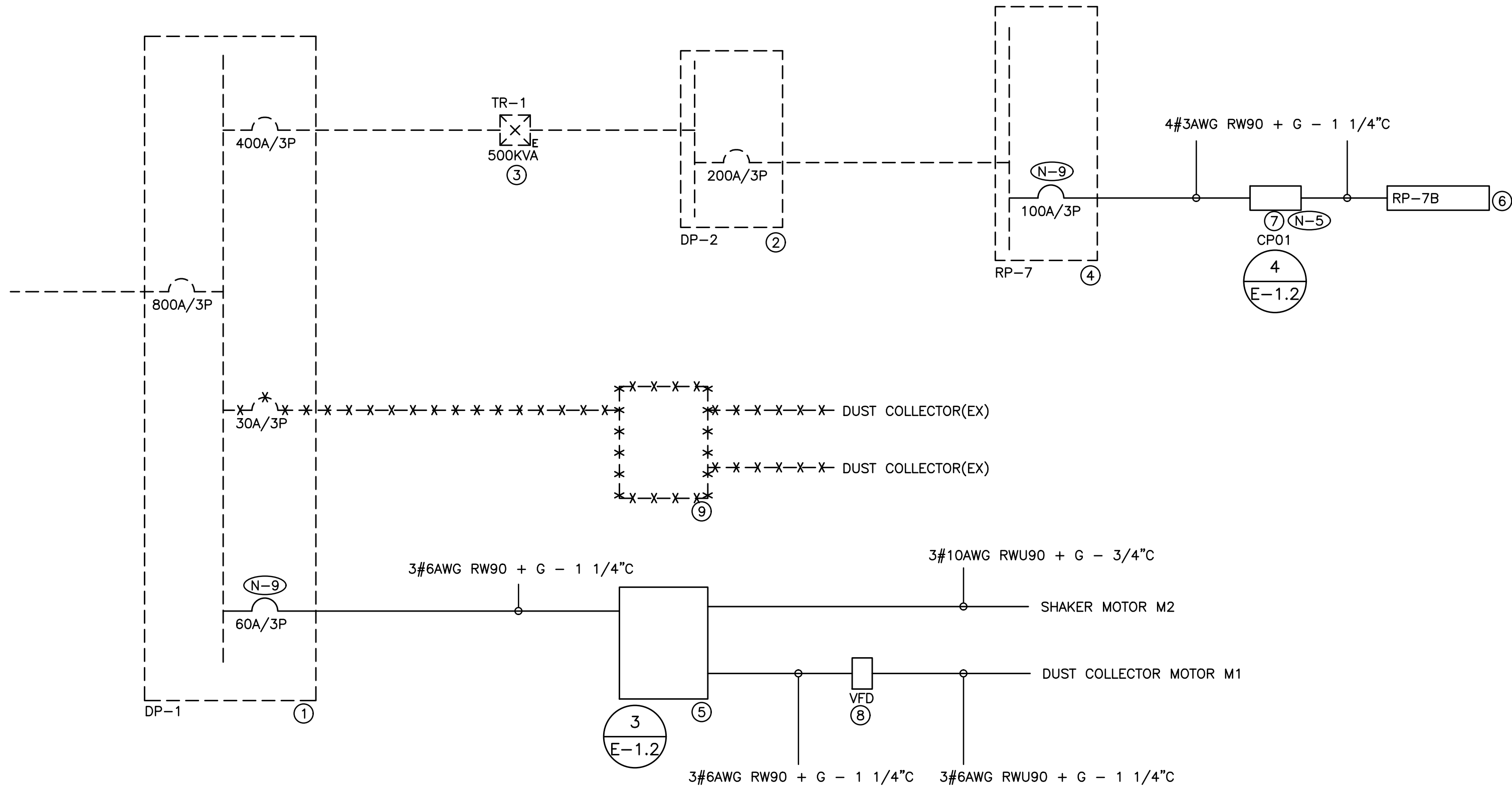
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SCALE: AS SHOWN
FILE:

PROJECT NO: **24141.2**

DRAWING NO: **E-4.1**



- (N-1) RISER IS DIAGRAMMATIC ONLY. REFER TO FLOOR PLANS FOR DEVICE QUANTITY AND LOCATIONS.
- (N-2) PROVIDE FIRE RATED PLYWOOD BACKBOARDS FOR ALL ELECTRICAL DISTRIBUTION EQUIPMENT PROVIDED AS PART OF THIS CONTRACT. PAINT BACKBOARDS WITH FIRE RETARDANT PAINT (COLOUR AS DIRECTED ON SITE BY PROJECT MANAGER). FIRE RATED STAMP MUST BE ON ALL PIECES PROVIDED AND MUST BE VISIBLE WHEN INSTALLED. DO NOT PAINT OVER STAMP.
- (N-3) ALL INDOOR DISTRIBUTION PROVIDED AS PART OF THIS SCOPE OF WORK MUST BE TYPE 2/TYPE 3R ENCLOSURE, UNLESS SPECIFICALLY NOTED OTHERWISE. PROVIDE COMPRESSION FITTINGS FOR SERVICES ENTERING DISTRIBUTION.
- (N-4) PROVIDE DEDICATED CORE DRILLED WALL AND FLOOR PENETRATIONS ON EVERY FLOOR. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY X-RAY RESULTS. ALL X-RAYS MUST BE REVIEWED AND APPROVED BY LANDLORD PRIOR TO CORE DRILLING.
- (N-5) AS PART OF THIS SCOPE OF WORK, PROVIDE LAMACOID PLATE DETAILING OPERATION OF CONTACTOR IN RESPONSE TO ON/OFF STATUS OF DUST COLLECTOR.
- (N-6) ALL BREAKERS REQUIRED TO COMPLETE ALL SCOPES OF WORK TO BE NEW. DO NOT REUSE EXISTING BREAKERS.
- (N-7) ROUTE ALL CONDUIT SYSTEMS AROUND EXISTING DUCT WORK, BEAMS, NEW DUCT WORK AND PIPING AS REQUIRED TO ACCOMMODATE ALL INSTALLATION REQUIREMENTS. REFER TO MECHANICAL DRAWINGS AND DESIGNER DRAWINGS FOR ADDITIONAL DETAILS.
- (N-8) PROVIDE TEMPORARY POWER AND LIGHTING THROUGHOUT PROJECT TO ACCOMMODATE REQUIREMENTS OF ALL TRADES. REQUIREMENTS INCLUDE PROVIDING EXTENSION CORDS, EXTENSION LIGHTING AND EQUIPMENT REQUIRED FOR THE WORK OF ALL TRADES. ALL COSTS RELATED TO THIS WORK SHALL BE INCLUDED IN THE BASE BID PRICE.
- (N-9) PROVIDE NEW BREAKER INDICATED. PROVIDE MOUNTING HARDWARE TO ACCOMMODATE EXISTING PANEL BUS. PROVIDE LUGS TO ACCOMMODATE WIRE SIZE INDICATED. PROVIDE THE SERVICE OF A PANEL MANUFACTURER TO EXTEND, REWORK, MODIFY AND RECERTIFY EXISTING PANEL BUS AS REQUIRED TO FACILITATE INSTALLATION OF BREAKER PROVIDED AS PART OF THIS SCOPE OF WORK.
- (N-10) PROVIDE REQUIRED PENETRATIONS THROUGH ROOF AND BUILDING ENVELOP. COORDINATE WORK AND WEATHERPROOF SEALING REQUIREMENTS WITH LANDLORD.
- (N-1) USE GALVANIZED RIGID STEEL CONDUIT IN ALL OUTDOOR LOCATIONS AND IN AREAS THAT ARE NOT ENVIRONMENTALLY CONTROLLED.

- ① EXISTING SWITCHBOARD - 347/600V/3PH/4W/800A MCB/EATON PRL 4/25KA RMS
- ② EXISTING SWITCHBOARD - 120/208V/3PH/4W/1200A MCB/EATON PRL C/22KA RMS
- ③ EXISTING DRY TYPE TRANSFORMER - 600/120/208V/3PH/4W/HAMMOND
- ④ EXISTING RECEPTACLE PANEL - 120/208V/3PH/4W/225A MAINS/84 CCT/EATON PRL1 A/10KA RMS
- ⑤ DUST COLLECTOR MAIN CONTROL PANEL C/W SPARK DETECTION PANEL PROVIDED BY MECHANICAL CONTRACTOR
- ⑥ RECEPTACLE PANEL - 120/208V/3PH/4W/100A MCB/42 CCT/SQ D NQ/22KA RMS
- ⑦ RELAY PANEL PROVIDED AS PART OF THIS SCOPE OF WORK. REFER TO DETAIL NO. 3 ON DRAWING NO. E-1.2 FOR ADDITIONAL REQUIREMENTS.
- ⑧ VARIABLE FREQUENCY DRIVE (VFD) PROVIDED BY MECHANICAL CONTRACTOR
- ⑨ EXISTING DUST COLLECTOR MAIN CONTROL PANEL C/W SPARK DETECTION PANEL TO BE REMOVED BY MECHANICAL CONTRACTOR

————— DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR

----- DENOTES EXISTING TO REMAIN

--*-* DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR

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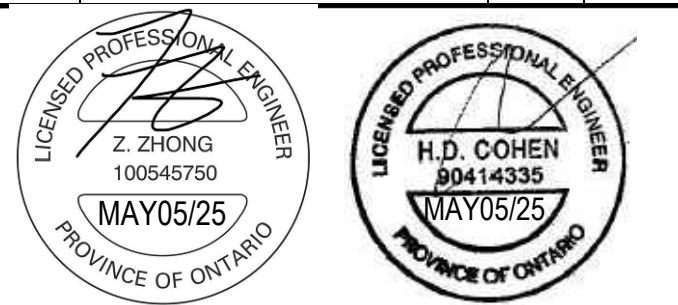
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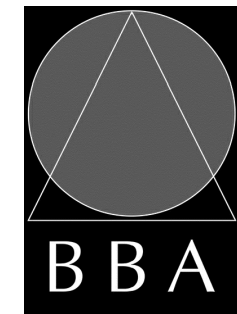
PROJECT:

**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

**ELECTRICAL
SINGLE LINE DIAGRAM**



**BARRY BRYAN
ASSOCIATES**
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e-mail: bba@bba-archeng.com

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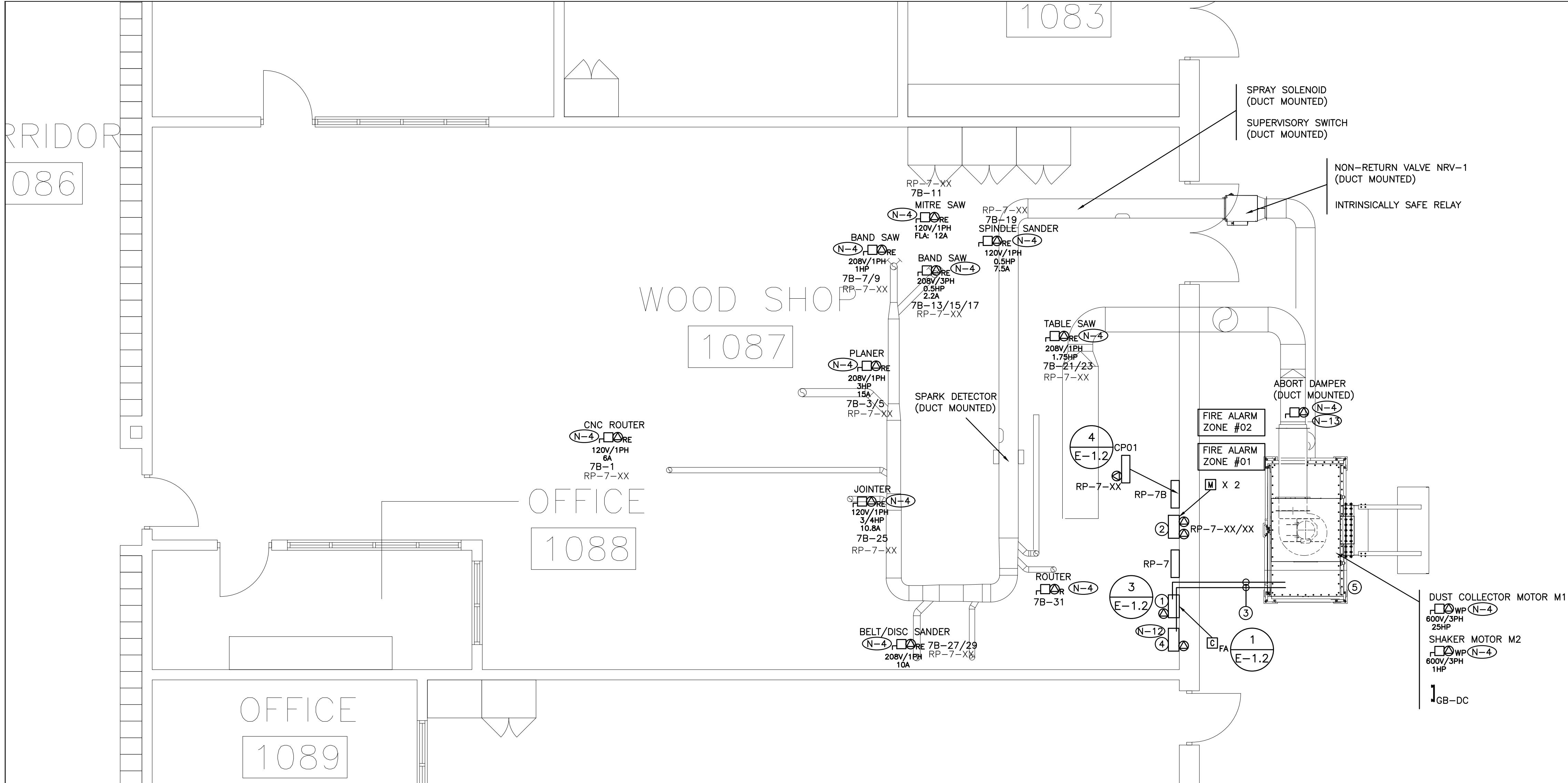
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FILE:

PROJECT NO:
24141.2

DRAWING NO:
E-7.1



- (N-1) EXACT LOCATION OF ALL DEVICES AND RESPECTIVE HEIGHTS TO BE COORDINATED ON SITE WITH ARCHITECT
- (N-2) NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS AND UTILITY POLES WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS. UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.
- (N-3) CIRCUIT NUMBERS MAY NOT BE CHANGED WITHOUT PRIOR APPROVAL FROM THE ELECTRICAL ENGINEER.
- (N-4) CONFIRM BREAKER/FUSE AND RECEPTACLE/DISCONNECT REQUIREMENTS PRIOR TO INSTALLATION.
- (N-5) COORDINATE WIRING REQUIREMENTS FOR MECHANICAL EQUIPMENT ON SITE WITH MECHANICAL CONTRACTOR.
- (N-6) CONFIRM ELECTRICAL REQUIREMENTS AND EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION OF ELECTRICAL SERVICES.
- (N-7) ALL FINAL CONNECTIONS TO MECHANICAL EQUIPMENT ARE TO BE IN LIQUID TIGHT FLEXIBLE CONDUIT.
- (N-8) ROUTE ALL CONDUIT SYSTEMS AROUND EXISTING DUCT WORK, BEAMS, NEW DUCT WORK AND PIPING AS REQUIRED TO ACCOMMODATE INSTALLATION. REFER TO MECHANICAL DRAWINGS AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL DETAILS.
- (N-9) MINIMUM WIRE SIZE #10AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 90 FEET IN LENGTH.
- (N-10) MINIMUM WIRE SIZE #8AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 200 FEET IN LENGTH.
- (N-11) USE GALVANIZED RIGID STEEL CONDUIT IN ALL OUTDOOR LOCATIONS, IN WASHROOMS AND IN AREAS THAT ARE NOT ENVIRONMENTALLY CONTROLLED.
- (N-12) DUST COLLECTOR VFD POWERED THROUGH DUST COLLECTOR MAIN CONTROL PANEL. PROVIDE CONDUIT AND WIRE.
- (N-13) DUST COLLECTOR ABORT DAMPER POWERED THROUGH DUST COLLECTOR SPARK DETECTION PANEL. PROVIDE CONDUIT AND WIRE.

- ① DUST COLLECTOR CONTROL PANEL PROVIDED BY MECHANICAL CONTRACTOR
- ② DUST COLLECTOR SPARK DETECTION PANEL PROVIDED BY MECHANICAL CONTRACTOR
- ③ APPROXIMATE ROUTING OF CONDUITS PROVIDED AS PART OF THIS SCOPE OF WORK FOR BRANCH CIRCUITS/FEEDERS/ETC., PROVIDED AS PART OF THIS SCOPE OF WORK. REFER TO DETAIL NO. 3 ON DRAWING NO. E-1.2 AND TO DRAWING NO. E-7.1 FOR ADDITIONAL REQUIREMENTS.
- ④ DUST COLLECTOR VFD PROVIDED BY MECHANICAL CONTRACTOR
- ⑤ DUST COLLECTOR PROVIDED BY MECHANICAL CONTRACTOR

INSULATION FOR ALL EXTERIOR WIRING MUST BE RWU90.

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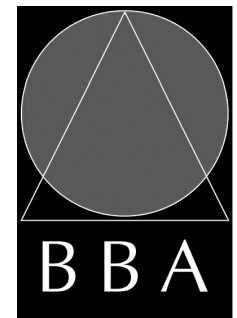
LICENSED PROFESSIONAL ENGINEER
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100545750
MAY05/25
PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
H.D. COHEN
80414335
MAY05/25
PROVINCE OF ONTARIO

PROJECT:
**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:
**ELECTRICAL PLAN
WOOD SHOP**



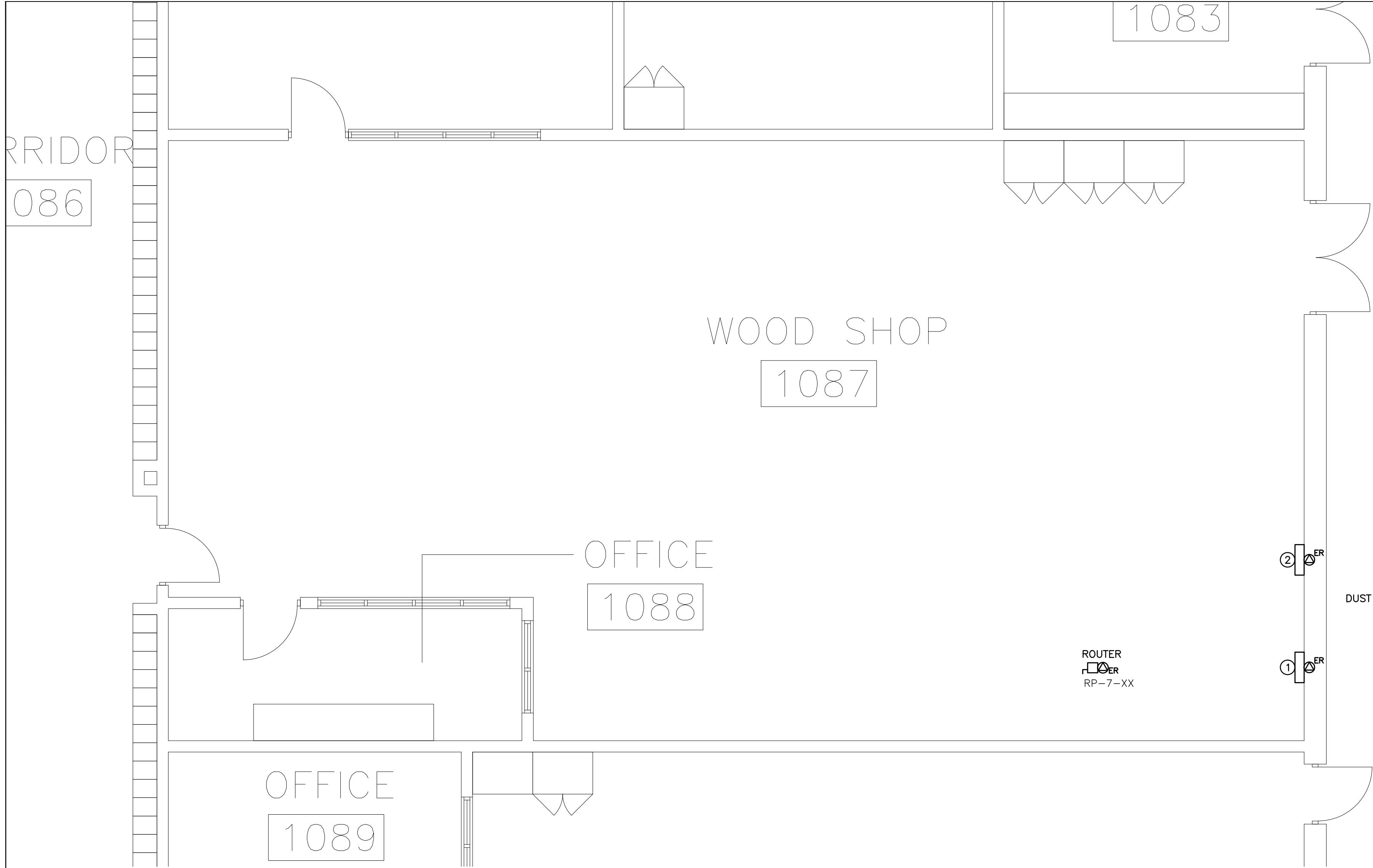
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DRAWING NO:
E-9.1



- N-1

ALL EXISTING BRANCH WIRING AND RACEWAYS, INCLUDING THOSE COILED IN CEILING SPACE SHALL BE REMOVED BACK TO SOURCE PANEL. REFER TO SPECIFICATIONS FOR ADDITIONAL DEMOLITION REQUIREMENTS. DO NOT REUSE EXISTING WIRING OR CONDUIT SYSTEMS.
- N-2

REMOVE ALL ABANDONED ZONE CONDUITS INCLUDING THOSE IN CEILING SPACE. EXISTING ZONE CONDUITS NOT SHOWN ON DRAWING.
- N-3

BASE BID PRICE SHALL INCLUDE FOR THE REMOVAL OF TWO (2) ADDITIONAL RECEPTACLES/DIRECT CONNECTIONS, COMMUNICATIONS ROUGH-INS, ETC., OVER AND ABOVE THOSE SHOWN ON DRAWING NO. E-9.2. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- N-4

DO NOT REUSE ANY DEVICES, BACKBOXES, CONTROL SYSTEMS, ETC., REMOVED AS PART OF THIS SCOPE OF WORK.
- N-5

REWIRE ALL EXISTING TO REMAIN DEVICES AS REQUIRED TO ENSURE CONTINUITY OF SERVICES. EXISTING TO REMAIN DEVICES NOT SHOWN ON DRAWING.
- N-6

NOT USED
- N-7

CONFIRM DEMOLITION REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO DISCONNECTING MECHANICAL EQUIPMENT.
- N-8

ALL EXISTING CIRCUITS SHOWN ARE FOR REFERENCE PURPOSES ONLY. CONTRACTOR MUST TRACE CIRCUITS AND CONFIRM INFORMATION PRIOR TO DISCONNECTION AND REWORKING / REMOVING OF CIRCUITS.

- 1

EXISTING DUST COLLECTOR CONTROL PANEL TO BE REMOVED BY MECHANICAL CONTRACTOR.
- 2

EXISTING DUST COLLECTOR SPARK DETECTION PANEL TO BE REMOVED BY MECHANICAL CONTRACTOR.

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LICENSED PROFESSIONAL ENGINEER

Z. ZHONG

100545750

MAY05/25

PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER

H.D. COHEN

80414335

MAY05/25

PROVINCE OF ONTARIO

PROJECT:

**WATERDOWN DISTRICT
HIGH SCHOOL
DUST COLLECTOR REPLACEMENT**

215 PARKSIDE DRIVE
WATERDOWN, ONTARIO L8B 1B9
HAMILTON-WENTWORTH DISTRICT SCHOOL BOARD

DRAWING:

**ELECTRICAL
DEMOLITION PLAN
WOOD SHOP**

BBA

BARRY BRYAN ASSOCIATES

Architects
Engineers
Project Managers

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Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

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