

# CITY OF PHILADELPHIA DEPARTMENT OF PUBLIC PROPERTY

MAYOR - JAMES F. KENNEY

MANAGING DIRECTOR — TUMAR ALEXANDER

COMMISSIONER OF PUBLIC PROPERTY — BRIDGET COLLINS—GREENWALD

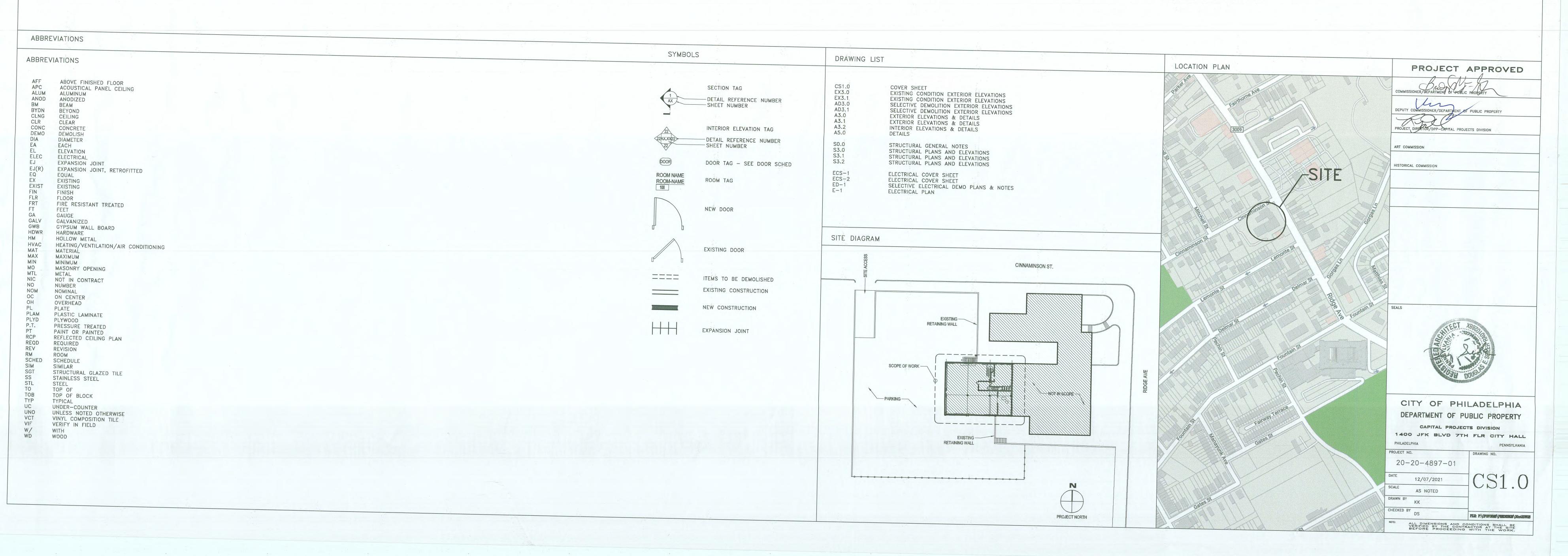
ZONE 5 GARAGE RENOVATIONS
6666 RIDGE AVENUE
PROJECT NO. 20-20-4897-01

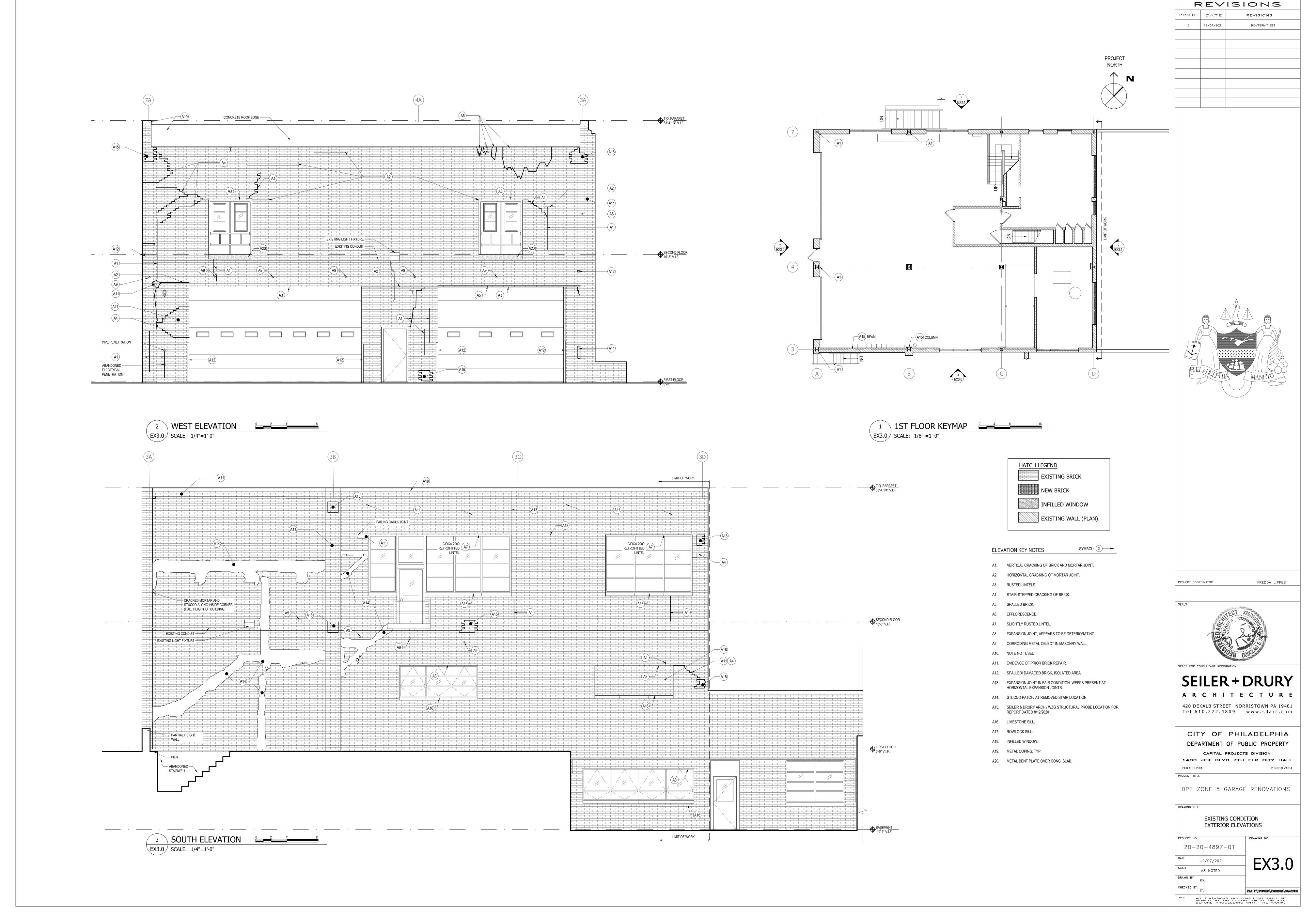
ARCHITECT

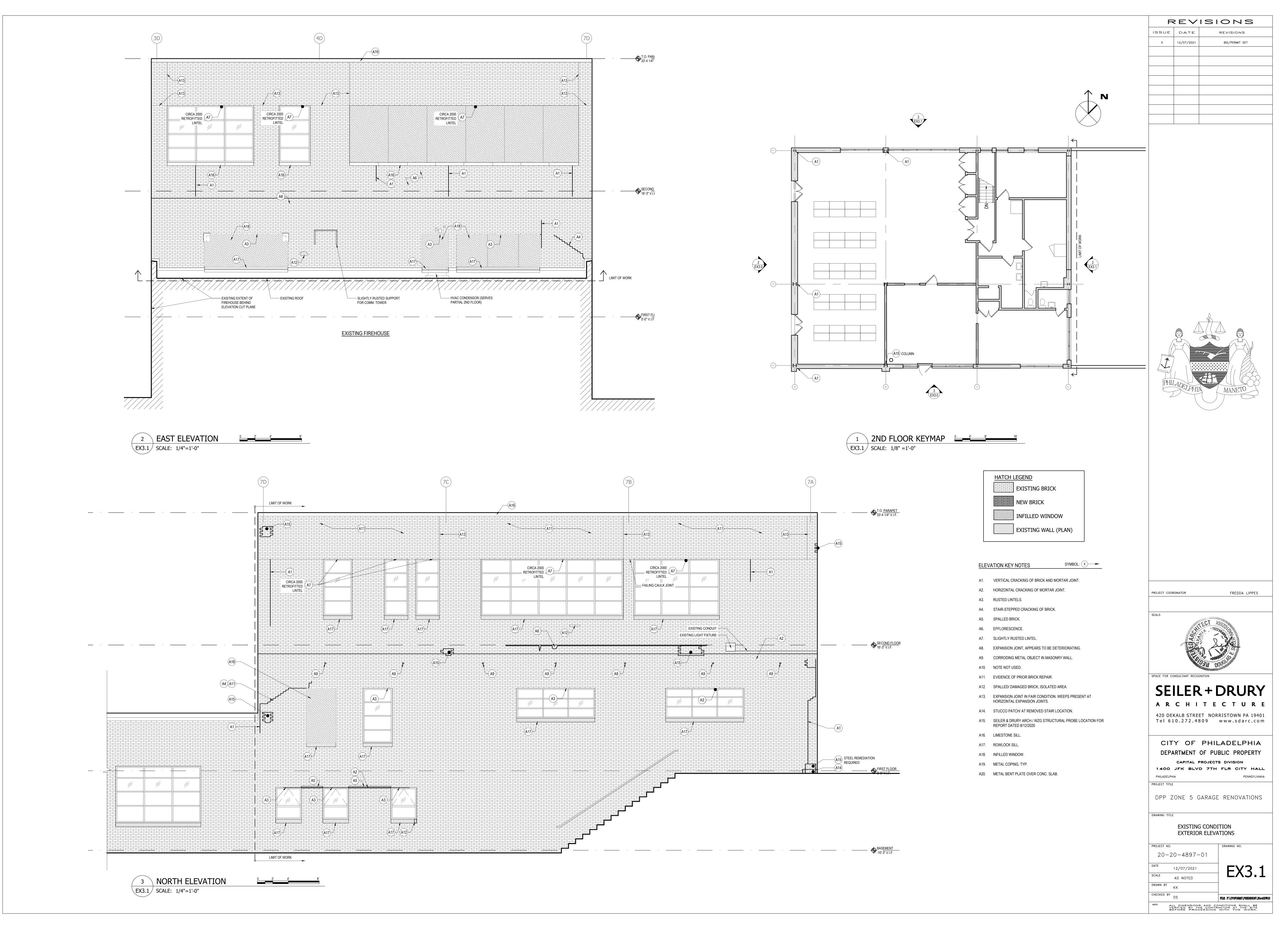
SEILER & DRURY ARCHITECTURE 420 DEKALB STREET NORRISTOWN, PA 19401 PHONE NO. 610-272-4809 STRUCTURAL ENGINEER

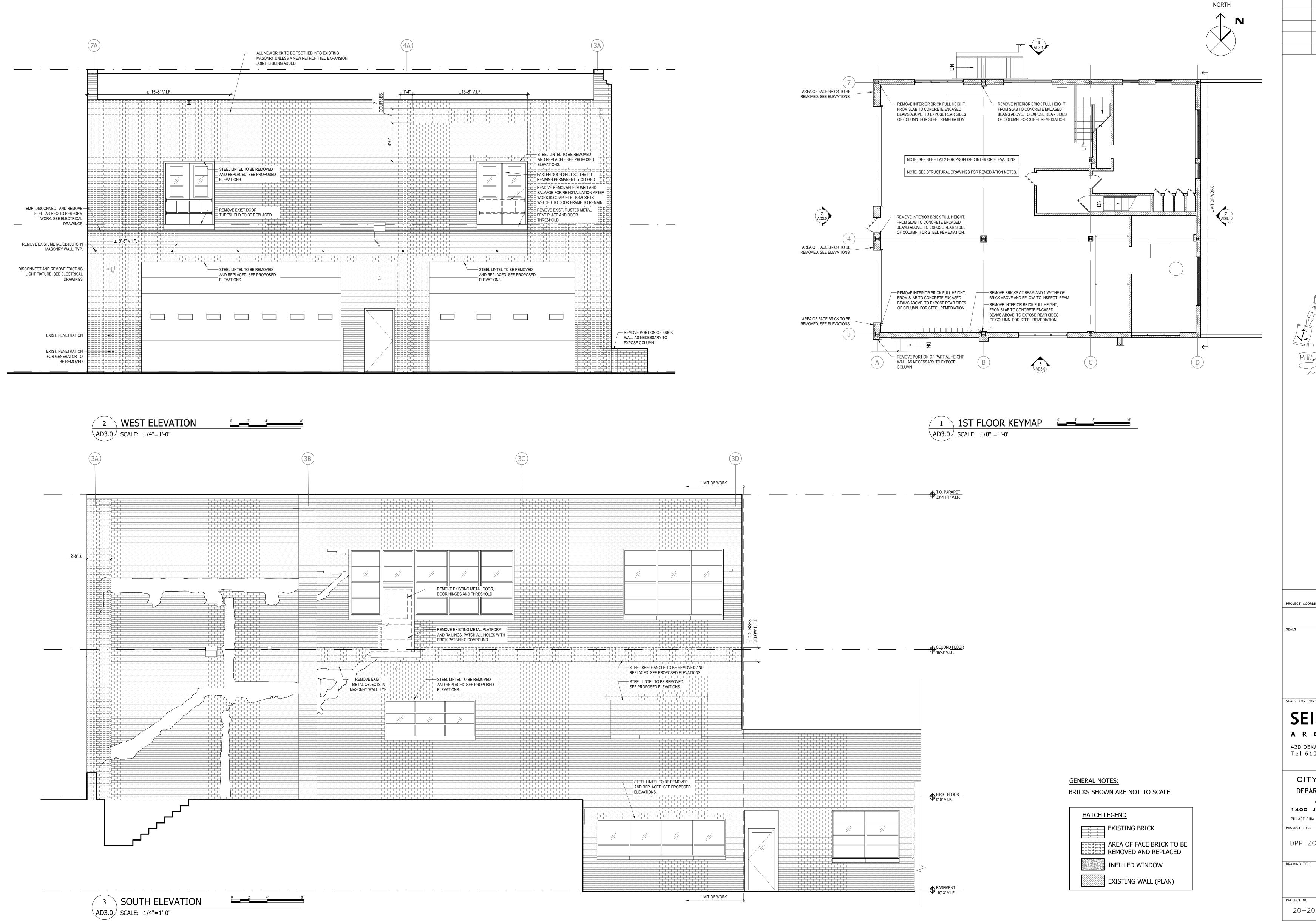
WZG STRUCTURAL CONSULTING ENGINEERING, INC 180 W. RIDGE PIKE ROYERSFORD, PA 19468 PHONE NO. 610-831-0555 ELECTRICAL ENGINEER

HUTEC ENGINEERING AND CONSULTING 304 MASTER ST., 1ST FLOOR PHILADELPHIA, PA 19122 PHONE NO. 267-800-3540







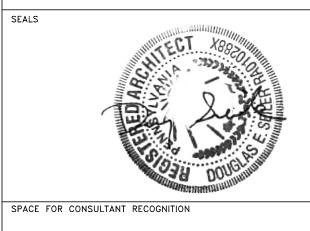


REVISIONS ISSUE DATE REVISIONS 12/07/2021 BID/PERMIT SET

PROJECT



PROJECT COORDINATOR



FREDDA LIPPES

# SEILER + DRURY

ARCHITECTURE 420 DEKALB STREET NORRISTOWN PA 19401 Tel 610.272.4809 www.sdarc.com

CITY OF PHILADELPHIA DEPARTMENT OF PUBLIC PROPERTY CAPITAL PROJECTS DIVISION 1400 JFK BLVD 7TH FLR CITY HALL

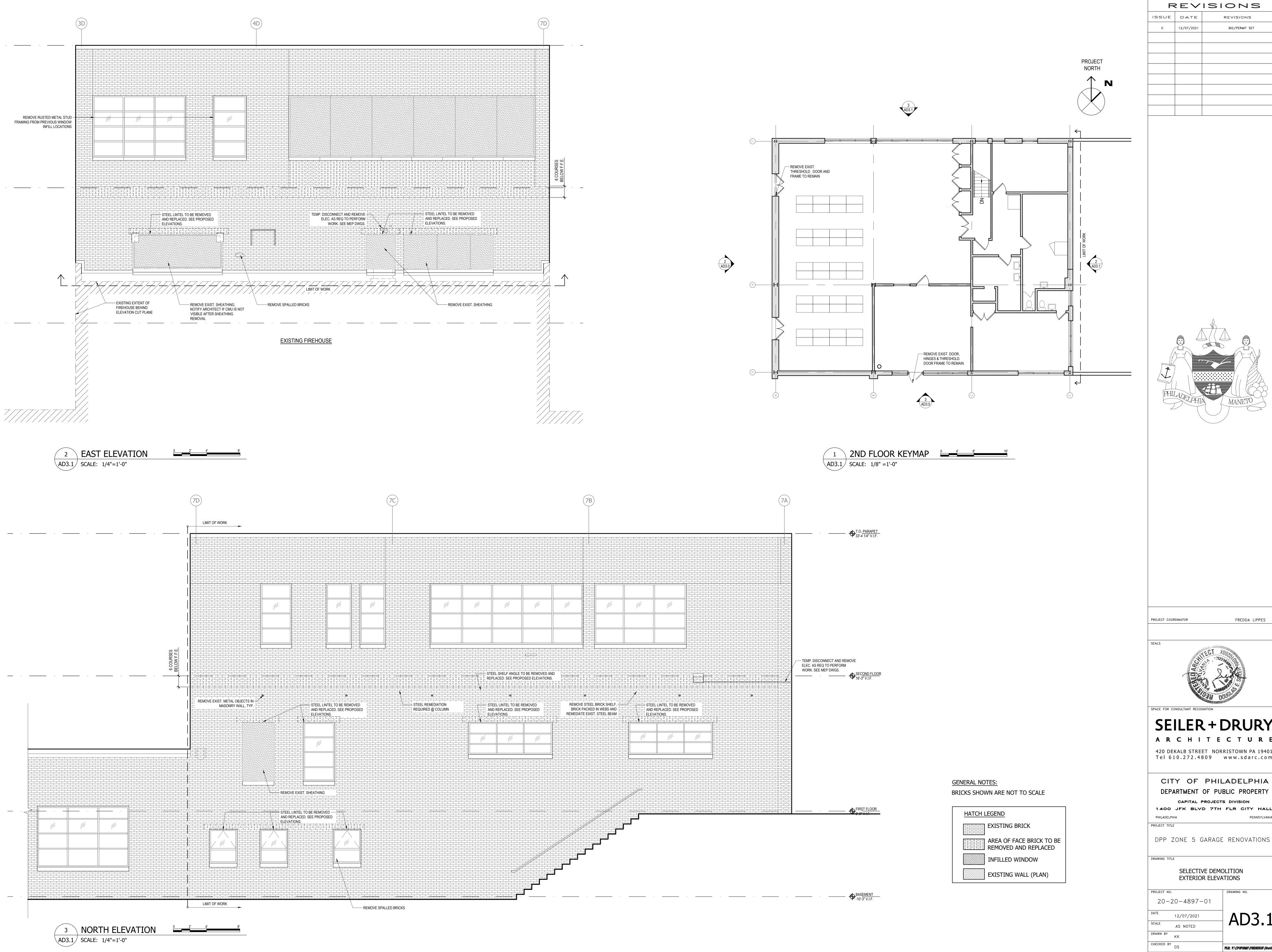
DPP ZONE 5 GARAGE RENOVATIONS

DRAWING TITLE

SELECTIVE DEMOLITION EXTERIOR ELEVATIONS

20-20-4897-01 12/07/2021 AS NOTED DRAWN BY

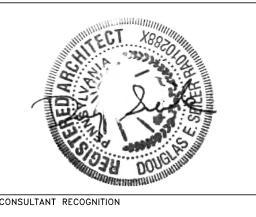
> FILE: F:\CPOFORMS\PREDESIGN\30x42DWGS ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



REVISIONS ISSUE DATE REVISIONS 12/07/2021 BID/PERMIT SET



PROJECT COORDINATOR FREDDA LIPPES



# SEILER + DRURY ARCHITECTURE

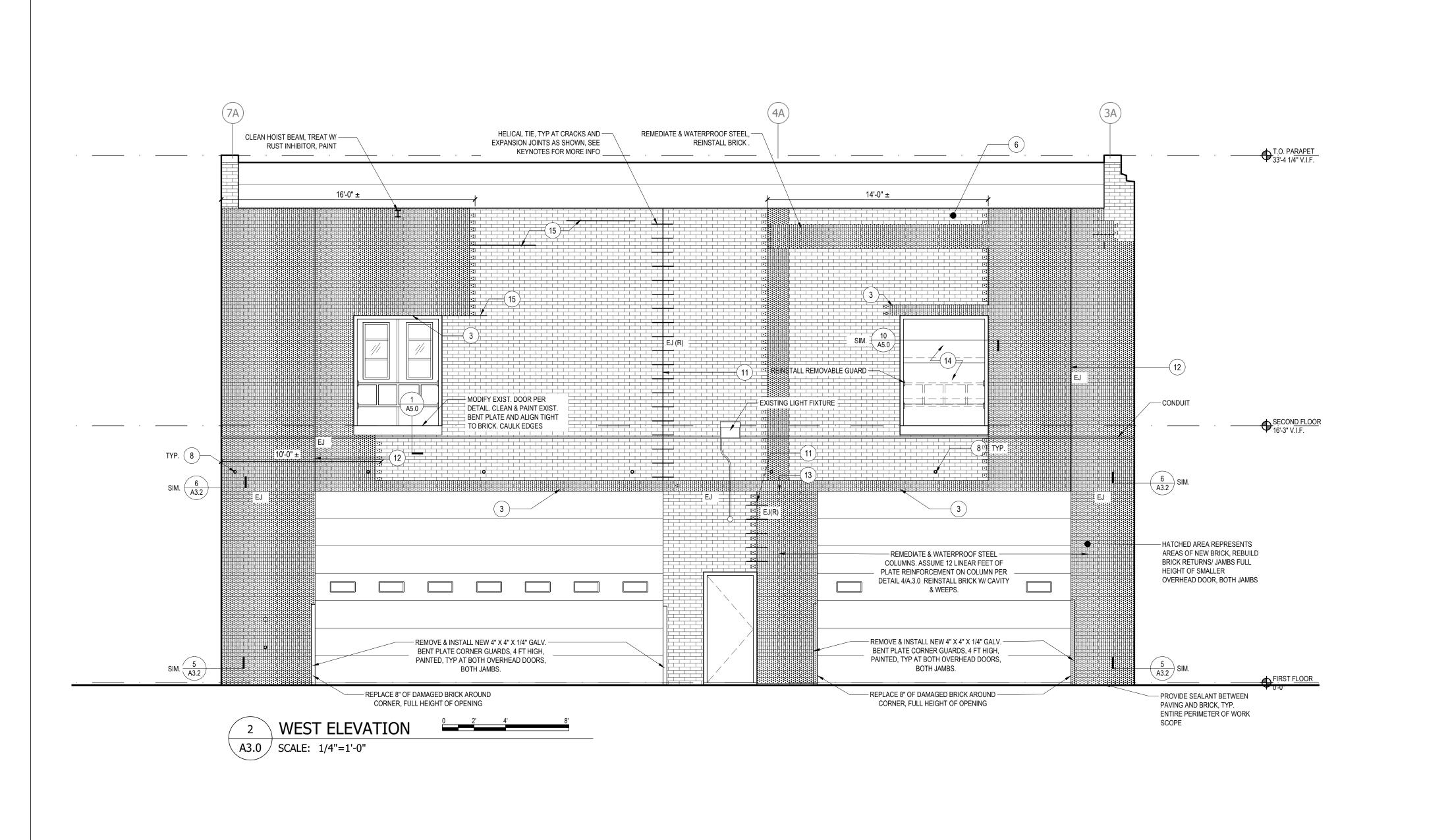
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DEPARTMENT OF PUBLIC PROPERTY CAPITAL PROJECTS DIVISION 1400 JFK BLVD 7TH FLR CITY HALL

DPP ZONE 5 GARAGE RENOVATIONS

SELECTIVE DEMOLITION EXTERIOR ELEVATIONS

PROJECT NO.		DRAWING NO.		
20-2	20-4897-01			
DATE	12/07/2021	AD3.1		
SCALE	AS NOTED	<b>AD3.1</b>		
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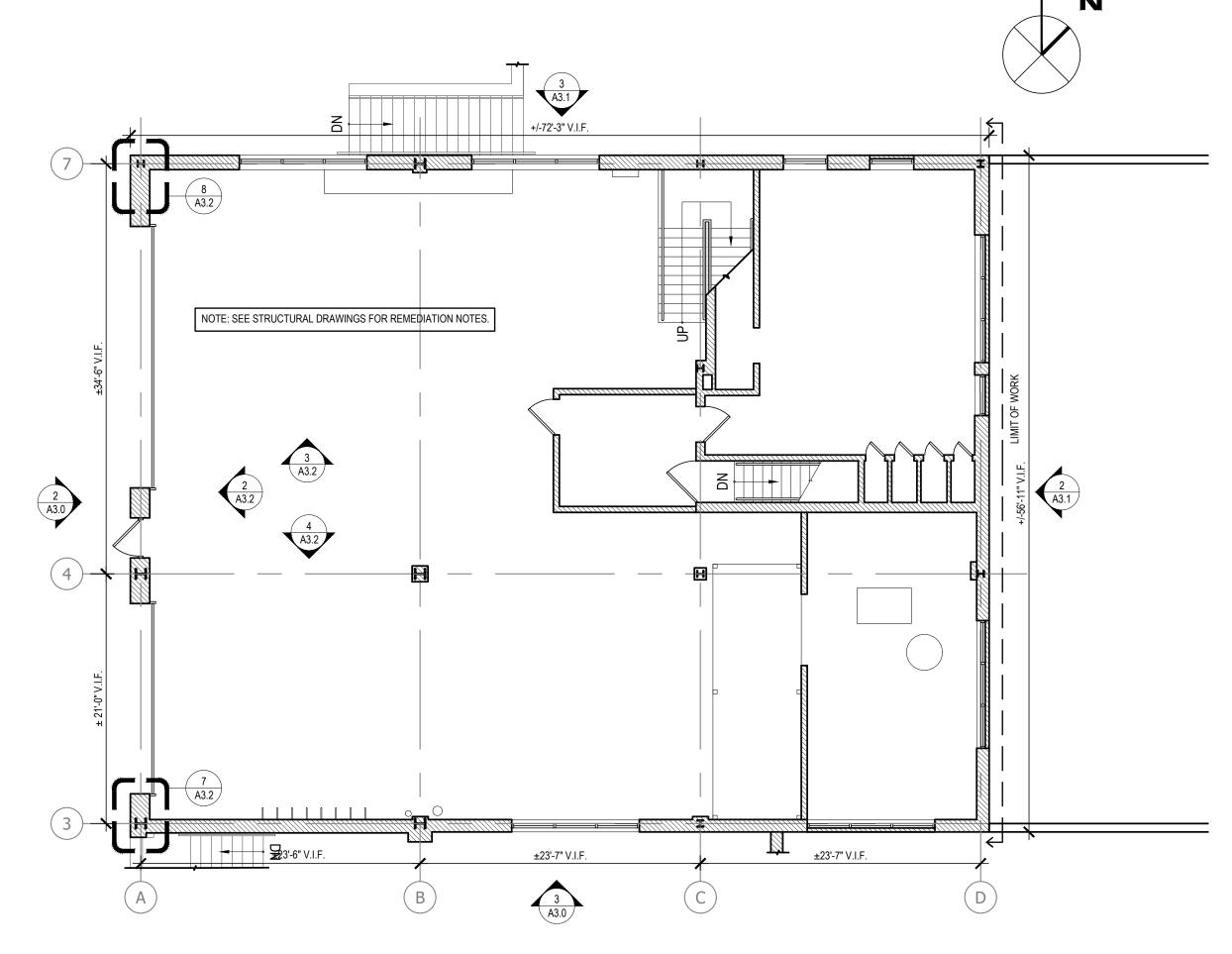
- PROVIDE SEALANT -BETWEEN PAVING

AND BRICK, TYP. ENTIRE PERIMETER

OF WORK SCOPE

A3.0 SCALE: 1/4"=1'-0"

SOUTH ELEVATION - 2 4 8



1 1ST FLOOR KEYMAP 0 4' 8'
A3.0 SCALE: 1/8" =1'-0"

BASIS OF DESIGN PRODUCTS:

EXPANSION JOINT STABILZER: SEISMIC ANCHOR AND TIES: WELD ON TIE W/ WIRE TIE:

STITCHING TIE:

FIRST FLOOR 0'-0" V.I.F.

LIMIT OF WORK

LIMIT OF WORK

4 EXTEND LOWEST STITCHING TIE 20" PAST CRACK AND AROUND CORNER,

MIN. OF 4"

PROVIDE 8" DEBOND SLEEVE UNDER WINDOW  $_{\perp}^{\pm}$  W/ HELICAL TIE EXTENDING PAST ADJACENT T CRACK 20" MIN. SEE 3/A5.0 FOR SIMILAR T DETAIL. CLEAN VERTICAL CRACK AND SEAL

🗮 2 ) 6 COURSES

INFILL AREA OF REMOVED  $\pm$ 

LINTEL WITH NEW BRICK. NEW  $\ \ \, \Box$ 

LINTEL NOT REQUIRED HERE

EX. CONDUITS

 $_{\scriptscriptstyle \perp}^{\scriptscriptstyle \perp}$  W/ CRACK BOND TE.

T2 - ALUMINUM TERMINATION BAR BY HOHMANN & BARNARD, INC. SLIP-SET STABILIZER BY HOHMANN & BARNARD, INC., GRADE 304 S.S. 345-BT W/ BRICK TIE WITH SEISMICLIP INTERLOCK SYSTEM BY HOHMANN & BARNARD, INC.

VEE-BYNA TIE WITH 359 WELD-ON TIE BY HOHMANN & BARNARD, INC. WELD ON TIE W/ COLUMN WIRE TIE: 301W COLUMN WEB TIE WITH 359 WELD-ON TIE.

DRYFIX TIE BY HELIFIX, 8 MM DIA, GRADE 304 STL, LENGTH: HELIBAR W/ DE-BOND SLEEVE:

HELIBAR TIE BY HELIFIX, 8 MM DIA, GRADE 304 S.S., LENGTH: 16" U.N.O. W/ PLASTIC DE-BOND SLEEVE HELIBAR TIE BY HELIFX, 8 MM DIA, GRADE 304 S.S., LENGHT: AS REQUIRED PER APPLICATION, MIN. LENGTH IS 40"

**GENERAL NOTES:** BRICKS SHOWN ARE NOT TO SCALE HATCH LEGEND EXISTING BRICK NEW BRICK INFILLED WINDOW EXISTING WALL (PLAN)

**ELEVATION KEY NOTES** 

SYMBOL: (X)

STITCH CRACK W/ HELICAL STITCHING TIES, EVERY 4 COURSES VERT, 20 INCH MIN EMBEDMENT EA. SIDE OF CRACK PER MANUFACTURER'S INSTRUCTIONS. REPOINT BED JOINTS AFTER INSTALLATION AND SEAL CLEANED VERTICAL CRACKS WITH HELIFIX CRACKBOND TE

- NEW GALVANIZED, WATERPROOFED SHELF ANGLE, REINSTALL BRICK W/ FLASHING & WEEPS. PROVIDE HORIZONTAL EXPANSION JOINT ONE COURSE BELOW NEW ANGLE. SEE 7/A5.0 FOR BRICK SHELF ANGLE
- NEW GALVANIZED STEEL LINTEL W/ FLASHING, WEEPS AND NEW BRICK. REMOVE AND REINSTALL WINDOW INFILL IF PRESENT AND UNLESS NOTED OTHERWISE. SEE 8/A5.0
- REMOVE EXISTING SEALANT AND STITCH STAIR-STEPPED CRACK W/ HELICAL TIES, EVERY 4 COURSES VERTICALLY, 20 INCH EMBEDMENT EA. SIDE OF CRACK. WHERE TIE EXTENDS THRU PROPOSED VERTICAL
- EXPANSION JOINT, PROVIDE DEBONDING SLEEVE ON 8" END ON OPPOSITE SIDE OF EXPANSION JOINT.
- CLEAN CRACK THROUGH BRICK AND SEAL WITH INJECTABLE REPAIR CRACK REPAIR GROUT.
- 6. CLEAN EFFLORESCENCE
- 7. CLEAN, TREAT W/ RUST INHIBITOR, AND PAINT LINTEL.
- 8. REMOVE EXISTING METAL PROTRUSIONS. SEE BRICK REPAIR SPECIFICATIONS "ABANDONED ANCHOR REMOVAL" FOR MORE INFO.
- 9. EXISTING EXPANSION JOINT REMOVE EXISTING BACKER ROD AND SEALANT AND REPLACE W/ NEW.
- 10. TOOTH IN NEW BRICKS TO REPLACE SPALLED BRICKS.
- 11. PROVIDE RETROFITTED EXPANSION JOINT, SEE DETAIL 3/A5.0
- 12. PROVIDE EXPANSION JOINT IN NEW BRICK, SEE DETAIL 6/A5.0
- 13. PROVIDE NEW HORIZONTAL EXPANSION JOINT
- 14. EXISTING MASONRY OPENING COVERED W/ EXTERIOR GRADE PLYWOOD AND CLAD WITH LAPPED SHEET METAL. SEE DETAIL ELEVATION 13/A5.0
- 15. REPOINT BED JOINT
- 16. FLASH ALL SILLS AT INFILL PANEL LOCATIONS, 6"

### **GENERAL ELEVATION NOTES:**

- RECAULK ALL EXISTING DOORS AND WINDOWS THAT ARE NOT INFILLED. (22 LOCATIONS)
- REPOINT ALL LIMESTONE & BRICK WINDOW SILLS.
- ALL METAL THROUGH PENETRATIONS TO REMAIN ARE TO BE CLEANED, TREATED WITH RUST INHIBITORS,
- LOCATE HORIZONTAL EXPANSION JOINTS IMMEDIATELY BELOW SHELF ANGLES.

REVISIONS

REVISIONS

BID/PERMIT SET

ISSUE DATE

12/07/2021

PROJECT NORTH

> PROJECT COORDINATOR FREDDA LIPPES



SEILER + DRURY ARCHITECTURE

420 DEKALB STREET NORRISTOWN PA 19401 Tel 610.272.4809 www.sdarc.com CITY OF PHILADELPHIA

DEPARTMENT OF PUBLIC PROPERTY CAPITAL PROJECTS DIVISION 1400 JFK BLVD 7TH FLR CITY HALL

PHILADELPHIA

PROJECT TITLE

EXTERIOR ELEVATIONS

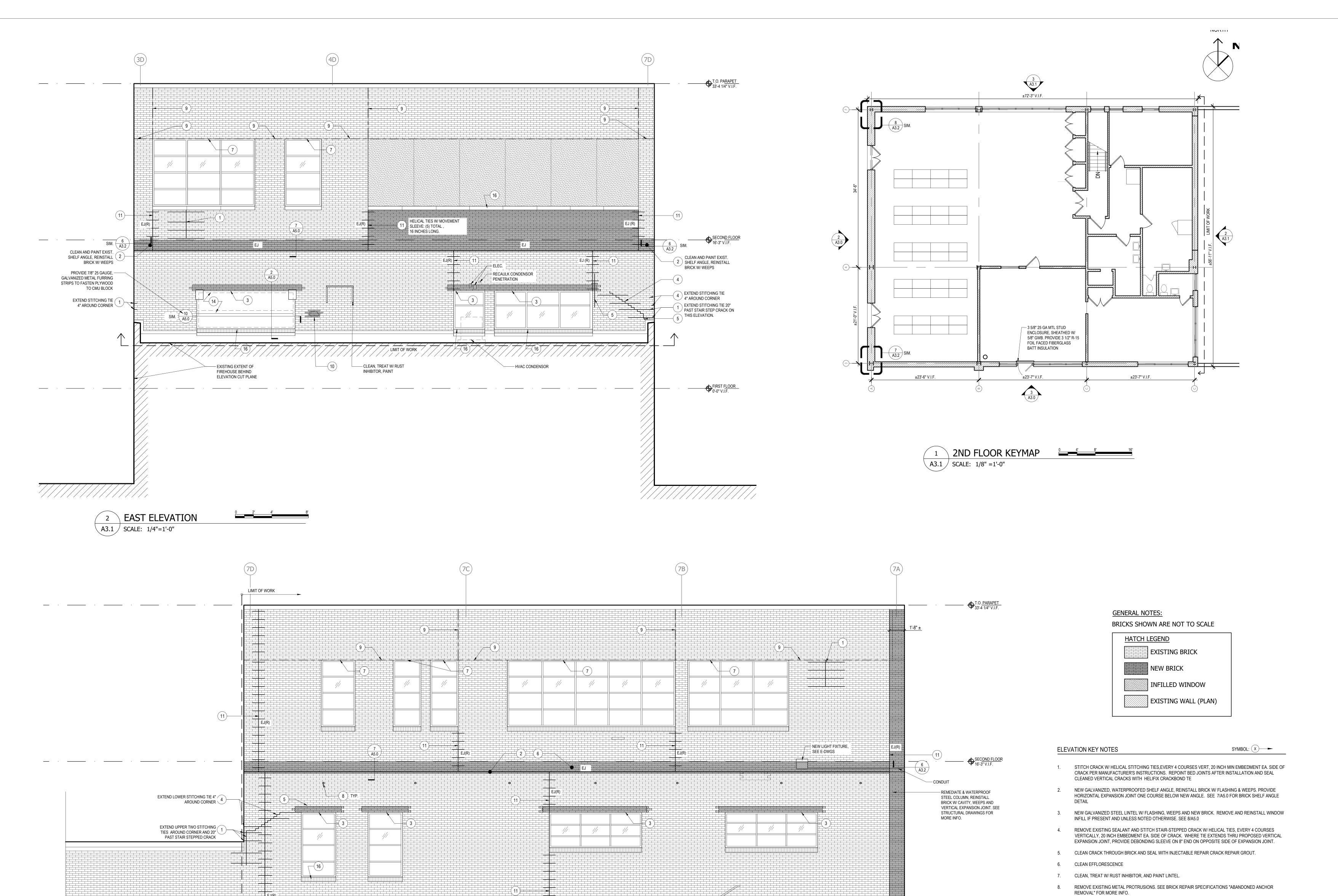
PENNSYLVANIA

DPP ZONE 5 GARAGE RENOVATIONS

DRAWING TITLE

DRAWING NO. 20-20-4897-01 12/07/2021 AS NOTED

AND SURROUNDING JOINTS SEALED. CLEAN IRON STAINING ON MASONRY. DRAWN BY CHECKED BY FILE: F:\CPOFORMS\PREDESIGN\30x42DWGS ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK.



LIMIT OF WORK

NORTH ELEVATION

A3.1 / SCALE: 1/4"=1'-0"

— PROVIDE SEALANT BETWEEN PAVING AND BRICK, TYP. ENTIRE

PERIMETER OF WORK SCOPE

REVISIONS ISSUE DATE REVISIONS 12/07/2021 BID/PERMIT SET



PROJECT COORDINATOR FREDDA LIPPES

SPACE FOR CONSULTANT RECOGNITION

SEILER + DRURY ARCHITECTURE

420 DEKALB STREET NORRISTOWN PA 19401 Tel 610.272.4809 www.sdarc.com

CITY OF PHILADELPHIA DEPARTMENT OF PUBLIC PROPERTY

CAPITAL PROJECTS DIVISION 1400 JFK BLVD 7TH FLR CITY HALL

PROJECT TITLE

PENNSYLVANIA

DPP ZONE 5 GARAGE RENOVATIONS

PHILADELPHIA

EXTERIOR ELEVATIONS

ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK.

20-20-4897-01 12/07/2021 AS NOTED

DRAWN BY CHECKED BY FILE: F:\CPOFORMS\PREDESIGN\30x42DWGS

9. EXISTING EXPANSION JOINT REMOVE EXISTING BACKER ROD AND SEALANT AND REPLACE W/ NEW.

14. EXISTING MASONRY OPENING COVERED W/ EXTERIOR GRADE PLYWOOD AND CLAD WITH LAPPED SHEET

10. TOOTH IN NEW BRICKS TO REPLACE SPALLED BRICKS.

13. PROVIDE NEW HORIZONTAL EXPANSION JOINT

METAL. SEE DETAIL ELEVATION 13/A5.0

16. FLASH ALL SILLS AT INFILL PANEL LOCATIONS, 6"

REPOINT ALL LIMESTONE & BRICK WINDOW SILLS.

15. REPOINT BED JOINT

GENERAL ELEVATION NOTES:

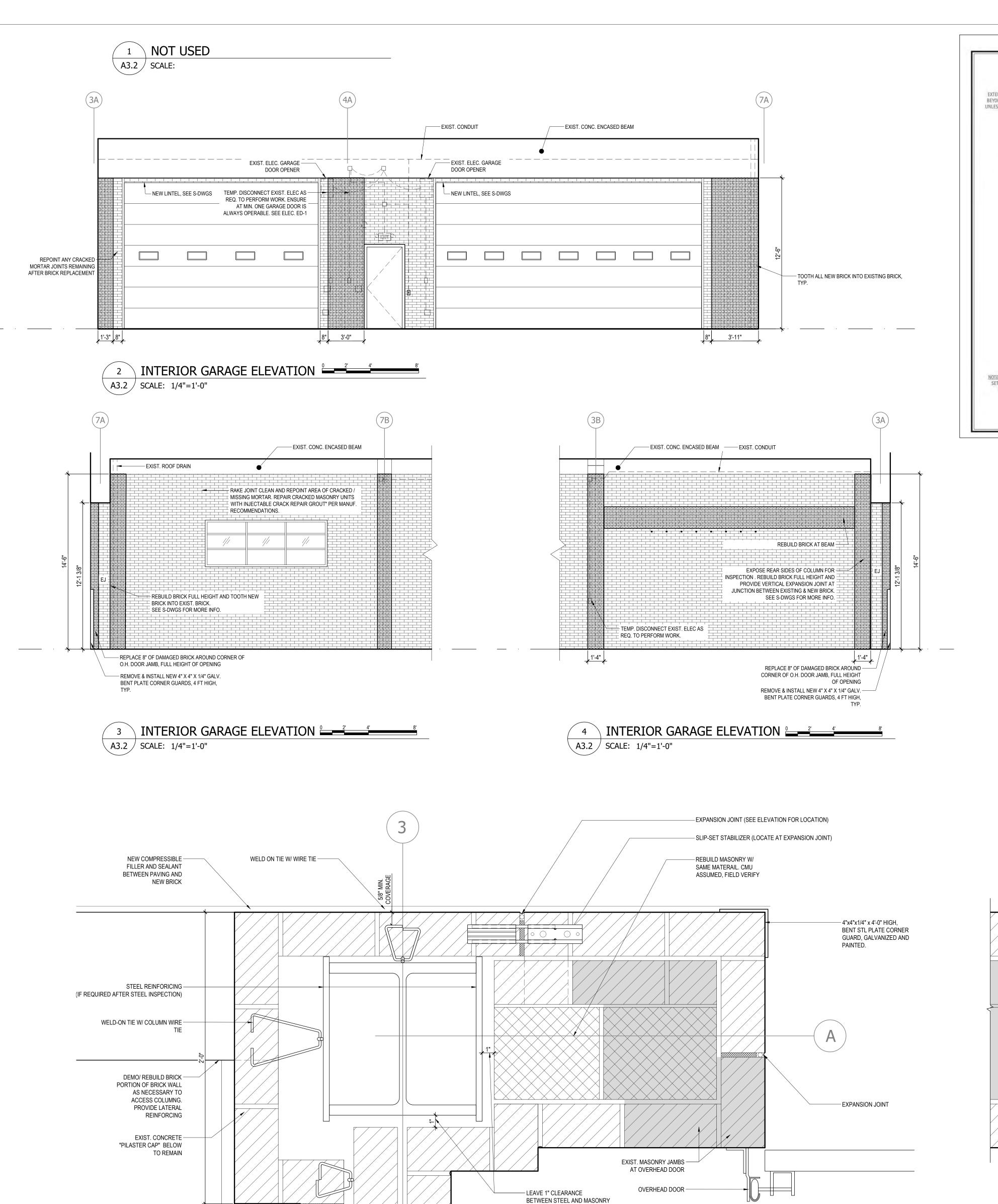
11. PROVIDE RETROFITTED EXPANSION JOINT, SEE DETAIL 3/A5.0

12. PROVIDE EXPANSION JOINT IN NEW BRICK, SEE DETAIL 6/A5.0

 ALL METAL THROUGH PENETRATIONS TO REMAIN ARE TO BE CLEANED, TREATED WITH RUST INHIBITORS, AND SURROUNDING JOINTS SEALED. CLEAN IRON STAINING ON MASONRY.

RECAULK ALL EXISTING DOORS AND WINDOWS THAT ARE NOT INFILLED. (22 LOCATIONS)

LOCATE HORIZONTAL EXPANSION JOINTS IMMEDIATELY BELOW SHELF ANGLES.



- REBUILD EXISTING BRICK AFTER COLUMN STEEL IS

REMEDIATED. MATCH EXISTING COURSING

-EXISTING BRICK. SOLID HATCH REPRESENTS

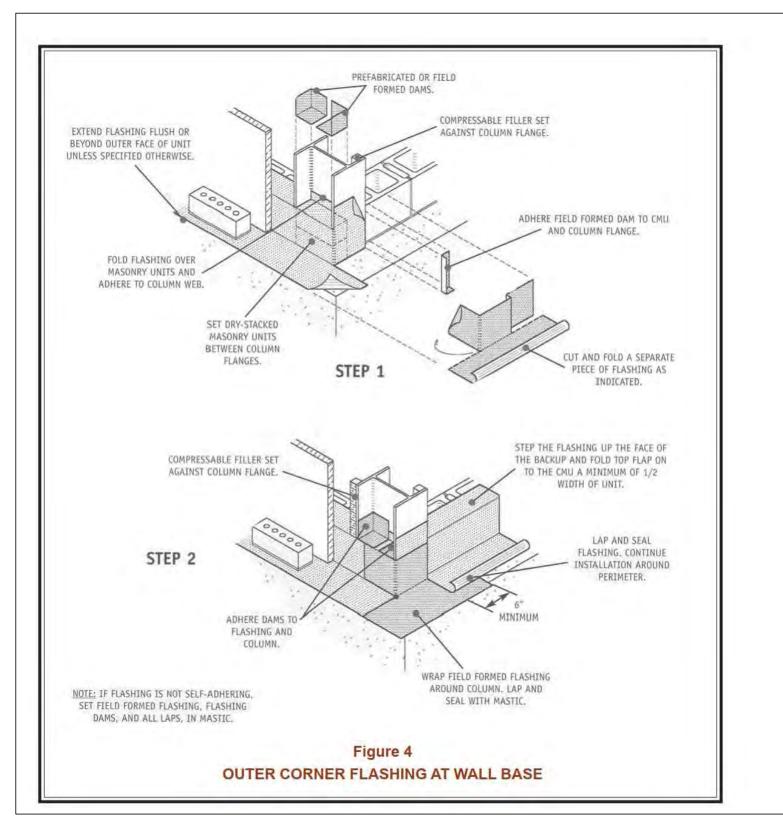
EXIST. CONSTRUCTION

EXPANSION JOINT -

TOOTH IN NEW BRICK -

COLUMN DETAIL 3" 6"

A3.2  $\int$  SCALE: 3"=1'-0"



5 COLUMN FLASHING DETAILS A3.2 SCALE: 3"=1'-0"

EXPANSION JOINT, BASIS OF -DESIGN, EMSEAL BACKERSEAL

JOINT FILLER OR APPROVED EQUAL, TOPPED W/ SEALANT

CUT BRICKS AROUND -

FILLER IF NECESSARY

REBUILD EXISTING BRICK -AFTER COLUMN STEEL IS

REMEDIATED. MATCH **EXISTING COURSING** 

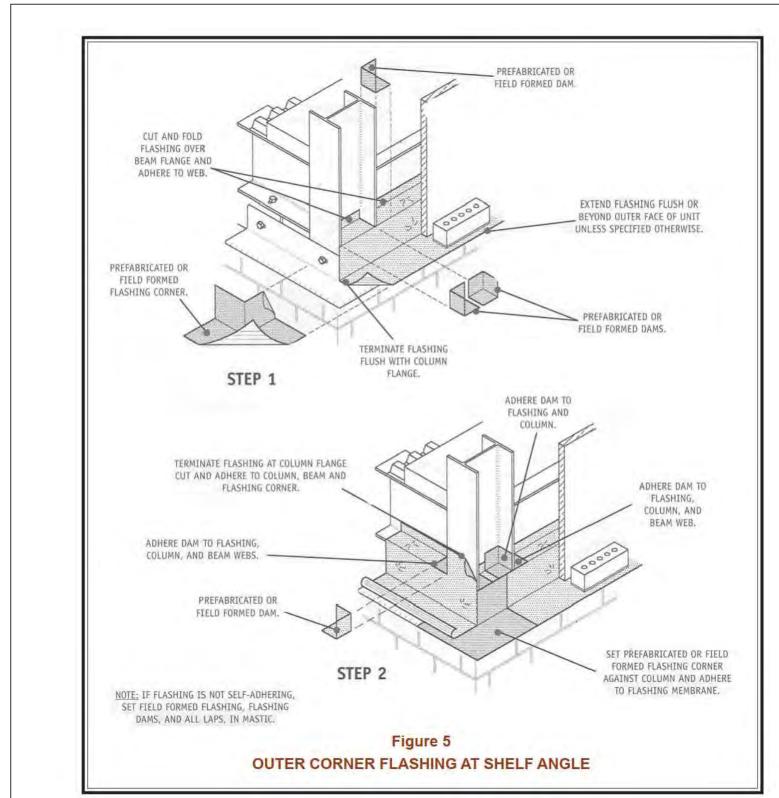
EXISTING BRICK. SOLID -

HATCH REPRESENTS

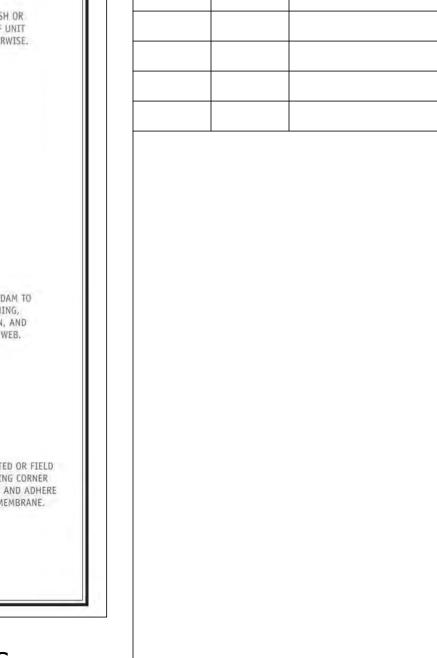
EXIST. CONSTRUCTION

A3.2 | SCALE: 3"=1'-0"

8 COLUMN DETAIL -----



6 COLUMN/SHLEF ANGLE FLASHING DETAILS A3.2 SCALE: 3"=1'-0"



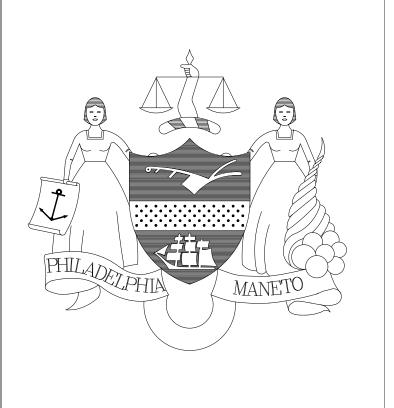
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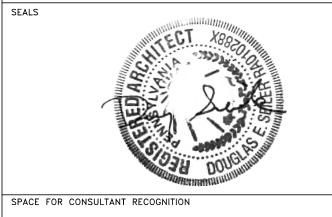
REVISIONS

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PROJECT COORDINATOR FREDDA LIPPES



SEILER + DRURY ARCHITECTURE 420 DEKALB STREET NORRISTOWN PA 19401

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CITY OF PHILADELPHIA DEPARTMENT OF PUBLIC PROPERTY CAPITAL PROJECTS DIVISION 1400 JFK BLVD 7TH FLR CITY HALL

PHILADELPHIA PENNSYLVANIA PROJECT TITLE DPP ZONE 5 GARAGE RENOVATIONS

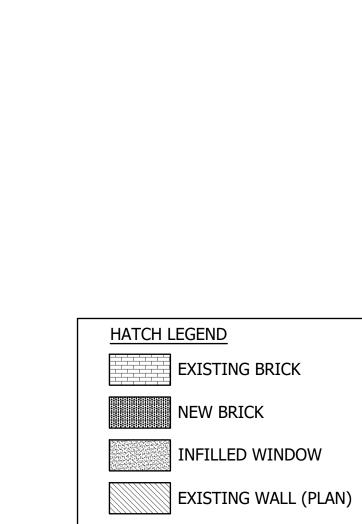
DRAWING TITLE

**INTERIOR ELEVATIONS & DETAILS** 

20-20-4897-01 12/07/2021 AS NOTED DRAWN BY

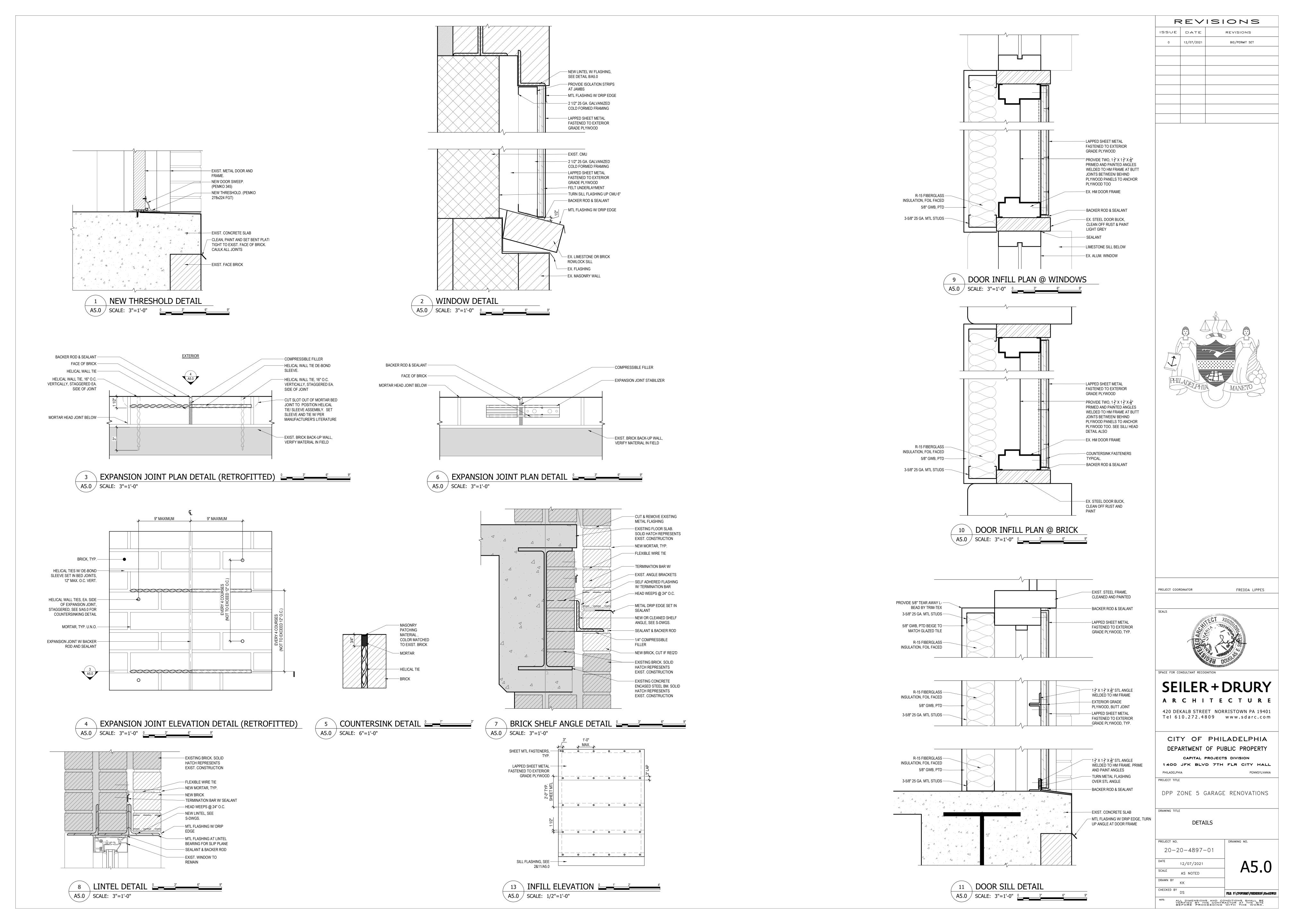
> CHECKED BY FILE: F:\CPOFORMS\PREDESIGN\30x42DWGS ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK.

EXISTING WALL (PLAN)



EXPANSION JOINT,

RETROFITTED



#### **DESIGN CRITERIA NOTES:**

- 1. THE FOLLOWING CODES AND STANDARDS, INCLUDING ALL SPECIFICATIONS REFERENCED WITHIN, SHALL APPLY TO THE DESIGN, CONSTRUCTION, QUALITY CONTROL AND SAFETY OF ALL WORK PERFORMED ON THE PROJECT. USE THE LATEST EDITIONS UNLESS NOTED OTHERWISE. INTERNATIONAL BUILDING CODE, 2018 EDITION ASCE 7-16 - MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES AISC 360-16 – SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS AISC 303-16 - CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND
- ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND MASONRY TMS 402/602-16 – SPECIFICATION OF MASONRY STRUCTURES
- 2. DESIGN LOADS ARE AS LISTED BELOW.

WIND LOADS:

- BASIC WIND SPEED, V (ULT) = 125 MPH RISK CATEGORY = IV WIND EXPOSURE = B APPLICABLE INTERNAL PRESSURE COEFFICIENT +/- 0.18
- SEISMIC LOADS: RISK CATEGORY = IV IMPORTANCE FACTOR = 1.5 MAPPED SPECTRAL RESPONSE ACCELERATIONS: Ss=18.3%g S1=4.8%g SPECTRAL RESPONSE COEFFICIENTS: SDS=19.5%g SD1=7.6%g SITE CLASS = D
- SEISMIC DESIGN CATEGORY = B **SNOW LOADS:** GROUND SNOW LOAD Pg=25 PSF FLAT ROOF SNOW LOAD = 21 PSF + DRIFT EXPOSURE FACTOR Ce=1.0

IMPORTANCE FACTOR = 1.2 THERMAL FACTOR Ct=1.0

#### SPECIAL INSPECTION:

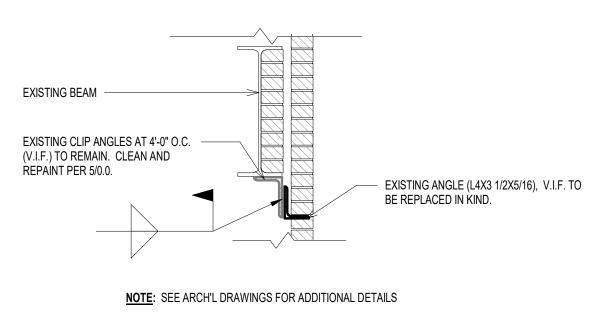
- 1. SPECIAL INSPECTION BY A QUALIFIED INSPECTOR APPROVED BY THE BUILDING OFFICIAL IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE SHALL BE REQUIRED FOR THE FOLLOWING TYPES OF WORK:
- FABRICATED STRUCTURAL STEEL WELDING: a. STRUCTURAL STEEL
- ANCHOR BOLTS HIGH STRENGTH BOLTING
- STRUCTURAL MASONRY **EXPANSION TYPE ANCHOR BOLTS** ADHESIVE TYPE ANCHOR BOLTS

#### **MISCELLANEOUS NOTES:**

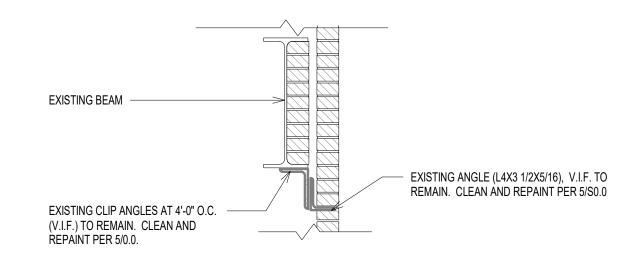
- 1. THE DETAILS DESIGNATED AS "TYPICAL DETAILS" APPLY GENERALLY TO THE DRAWINGS IN AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED IN THE DETAILS, UNLESS NOTED OTHERWISE.
- ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS, AND DETAILS. DO NOT SCALE THE DRAWINGS.
- THE STRUCTURAL DRAWINGS ARE PART OF THE CONTRACT DOCUMENTS AND DO NOT BY THEMSELVES PROVIDE ALL THE INFORMATION REQUIRED TO PROPERLY COMPLETE THE PROJECT STRUCTURE. THE GENERAL CONTRACTOR SHALL CONSULT THE ARCHITECTURAL AND ELECTRICAL DRAWINGS AND COORDINATE THE INFORMATION CONTAINED IN THESE DRAWINGS WITH THE STRUCTURAL DRAWINGS TO PROPERLY CONSTRUCT THE PROJECT. PRINCIPAL OPENINGS ARE SHOWN ON THE DRAWINGS. SEE ARCHITECTURAL AND ELEC'L DRAWINGS FOR SLEEVES, CURBS, INSERTS. OTHER OPENINGS, AND SLAB DEPRESSIONS NOT SHOWN. THE CONTRACTOR SHALL PROVIDE FOR ALL OPENINGS WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT. ANY DEVIATION FROM OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER FOR APPROVAL PRIOR TO PROCEEDING WITH ANY WORK.
- 4. THE CONTRACTOR SHALL COMPARE THE STRUCTURAL DRAWINGS WITH THE ARCH'L AND ELEC'L. DRAWINGS TO CONFIRM ALL REQUIREMENTS OF THE WORK. REPORT ANY CONFLICT/DISCREPANCY BETWEEN THE DISCIPLINES TO THE ARCHITECT PRIOR TO FABRICATING OR INSTALLING STRUCTURAL ELEMENTS. BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK, THE CONTRACTOR SHALL VERIFY ALL MEASUREMENTS TO PROPERLY SIZE OR FIT THE WORK. NO EXTRA CHARGE OR COMPENSATION WILL BE ALLOWED BY THE OWNER RESULTING FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT.
- THE HORIZONTAL AND VERTICAL DIMENSIONS OF EXISTING STRUCTURES SHALL BE VERIFIED BEFORE WORK IS BEGUN. ANY VARIATION BETWEEN DIMENSIONS SHOWN AND EXISTING DIMENSIONS SHALL BE REPORTED TO THE
- THE CONTRACTOR SHALL INSURE THAT CONSTRUCTION LOADS DO NOT EXCEED THE DESIGN LIVE LOADS INDICATED ON THE STRUCTURAL DRAWINGS AND THAT THESE LOADS ARE NOT PUT ON THE STRUCTURAL MEMBERS PRIOR TO THE TIME THAT THE CONCRETE REACHES THE FULL DESIGN STRENGTH AND ALL FRAMING MEMBERS AND THEIR CONNECTIONS ARE IN PLACE.
- 7. ALL STRUCTURES HAVE BEEN DESIGNED TO RESIST THE DESIGN LOADS LISTED ONLY AS COMPLETED STRUCTURES. THE GENERAL CONTRACTOR SHALL FULLY BRACE AND OTHERWISE PROTECT WORK IN PROGRESS UNTIL THE STRUCTURES ARE COMPLETED. THE GENERAL CONTRACTOR SHALL ALSO INSURE THAT ITS OPERATIONS AND PROCEDURES PROVIDE NO LOADING GREATER THAN THE DESIGN LOADS LISTED ON ANY MEMBER.
- PROVIDE CHAMFERS AS SPECIFIED AND/OR DETAILED ON THE ARCHITECTURAL DRAWINGS. CHAMFERS HAVE NOT BEEN SHOWN ON THE STRUCTURAL DRAWINGS.
- 9. ALL DETAILS, SECTIONS AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE UNLESS OTHERWISE SHOWN.

#### **SECLECTIVE DEMOLITION NOTES:**

- 1. REMOVAL AS DESCRIBED HEREIN SHALL BE ACCOMPLISHED WITHOUT STORING ON THE FLOOR EXCESSIVE QUANTITIES OF ANY MATERIALS, RUBBISH, DIRT, DEBRIS, OR WASTE OF ANY SORT RESULTING FROM THE REMOVAL OPERATIONS ON THE FLOOR.
- 2. ALL DEBRIS SHALL BE REMOVED FROM THE CONSTRUCTION SITE DAILY.
- 3. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO MAINTAIN FREE PROTECTED ACCESS OF ALL TENANTS AND SERVICE PERSONNEL THROUGH THE AREAS INVOLVED.
- 4. THE CONTRACTOR SHALL REMOVE ALL PIPE SLEEVES PROJECTING THROUGH SLAB; PATCH ALL PENETRATIONS, HOLES, ETC.
- 5. ALL PIPES AND CONDUITS IN WALLS THAT ARE TO BE DEMOLISHED ARE TO BE REMOVED AND/ OR RELOCATED AS REQUIRED.
- 6. CONTRACTOR SHALL REVIEW WITH ARCHITECTS/ ENGINEER ANY AND ALL ITEMS OF DEMOLITION NOT IMPLIED OR SPECIFIED ON DRAWINGS OR SPECIFICATIONS AND TO INCLUDE SUCH COSTS IN BID UNLESS OTHERWISE
- 7. PROVIDE ALL LABOR, MATERIAL, EQUIPMENT AND SERVICES AND PERFORM ALL OPERATIONS REQUIRED FOR SELECTIVE INTERIOR DEMOLITION AND RELATED WORK AS DESCRIBED AND SPECIFIED HEREIN. AND AS MAY BE REASONABLY IMPLIED AS NECESSARY TO COMPLETE WORK IN ALL RESPECTS.
- 8. JOBSITE INSPECTION MUST BE CONDUCTED TO EXAMINE EXISTING CONDITIONS, TO DETERMINE NATURE AND SCOPE OF WORK OR ANY DIFFICULTIES THAT MIGHT ARISE AT TIME OF WORK. IN ADDITION. EXAMINE ALL WORK THAT IS INTENDED TO REMAIN AS PART OF THE COMPLETED PROJECT AND REPORT ALL UNSATISFACTORY CONDITIONS TO ARCHITECT/ ENGINEER PRIOR TO COMMENCEMENT OF WORK, EXERCISE EXTREME CARE DURING DEMOLITION SO AS NOT TO DAMAGE CONSTRUCTION AND OTHER STRUCTURES THAT ARE INTENDED TO REMAIN. ANYTHING DAMAGED AT WORK IS TO BE REPAIRED AND/ OR REPLACED TO MATCH EXISTING CONSTRUCTION AT CONTRACTORS EXPENSE.
- 9. REFER TO DRAWINGS FOR EXISTING ITEMS/ SYSTEMS TO REMAIN.
- 10. CONTRACTOR TO PROVIDE DUST BARRIER FOR PROTECTION OF EXISTING AREAS TO REMAIN AS REQUIRED.
- 11. WHEN DEMOLITION TAKES PLACE, SHOULD ANY WORK AFFECT THE INTEGRITY OF THE STRUCTURE, WORK MUST STOP IMMEDIATELY, AND ARCHITECT/ ENGINEER NOTIFIED. UNDER NO CIRCUMSTANCES SHALL REINFORCING OF ANY KIND BE DAMAGED, CUT OR BROKEN.
- 12. PRIOR TO DEMOLITION OF LOAD BEARING MEMBERS, SUPPORTED MEMBERS SHALL BE SHORED.



SHELF ANGLE REPLACE DETAIL (STEEL CONNECTION) S0.0



**NOTE**: SEE ARCH'L DRAWINGS FOR ADDITIONAL DETAILS

**NOTE**: SEE ARCH'L DRAWINGS FOR ADDITIONAL DETAILS

NEW LINTEL DETAIL (LOOSE LINTEL)

CLEAN AND REPAINT EXISTING

3/4" = 1'-0"

EXPOSED STEEL ABOVE

WINDOWS PER 5/S0.0

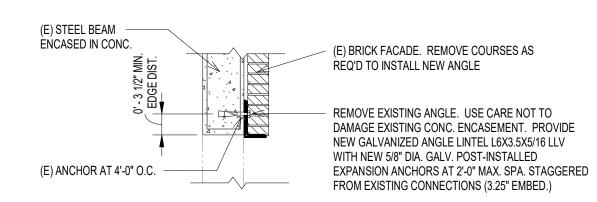
S0.0



(E) BRICK FACADE. REMOVE COURSES AS REQ'D TO INSTALL NEW ANGLE AND REINSTALL.

EXISTING (L4X3 1/2X5/16), V.I.F.

NEW GALVANIZED ANGLE LINTEL, SIZE TO MATCH



**NOTE**: SEE ARCH'L DRAWINGS FOR ADDITIONAL DETAILS

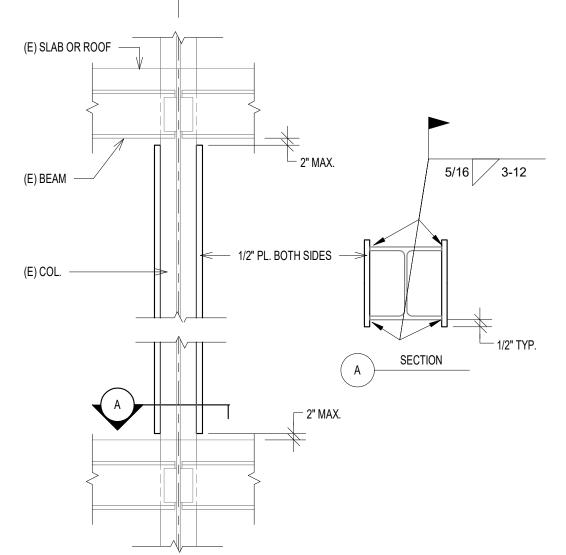
NEW LINTEL DETAIL (CONC BEAM)

### STEEL REMEDIATION NOTES:

- REFER TO PLANS FOR APPROXIMATE LOCATION OF STEEL TO BE REMEDIATED. MECHANICALLY CLEAN EXPOSED STEEL TO SSPC-SP3 AND INSPECT STEEL FOR SECTION LOSS
- ALONG FULL LENGTH OF MEMBER IF NO SECTION LOSS IS FOUND, THE STEEL SHALL BE PAINTED WITH AN EPOXY MASTIC PAINT, SUCH
- AS CARBOMASTIC 15, OR AN APPROVED EQUAL, PER MANUFACTURER RECOMMENDATIONS. IF SECTION LOSS IS FOUND, NOTIFY DESIGN PROFESSIONAL.

STEEL REMEDIATION NOTES S0.0 / 3/4" = 1'-0"





- REFER TO PLANS FOR APPROXIMATE LOCATION OF REINFORCING REQUIRED. MECHANICALLY CLEAN WEB AND FLANGES OF BEAM TO SSPC-SP3 AND INSPECT BEAM FOR SECTION LOSS ALONG FULL LENGTH OF MEMBER.
- PAINT, SUCH AS CARBOMASTIC 15, OR AN APPROVED EQUAL.
- **EXISTING BEAM REINFORCEMENT**

S0.0

REFER TO PLANS FOR APPROXIMATE LOCATION OF REINFORCING REQUIRED. MECHANICALLY CLEAN WEB AND FLANGES OF COLUMN TO SSPC-SP3 AND INSPECT

**COLUMN REINF. NOTES:** 

COLUMN FOR SECTION LOSS ALONG FULL LENGTH OF MEMBER. IF NO SECTION LOSS IS FOUND, THE COLUMN SHALL BE PAINTED WITH AN EPOXY MASTIC PAINT, SUCH AS CARBOMASTIC 15, OR AN APPROVED EQUAL. IF SECTION LOSS IS FOUND, REINFORCE COLUMN PER THE DETAIL ABOVE. FINAL EXTENT AND LAYOUT OF REPAIR SHALL BE VERIFIED IN FIELD BY THE ENGINEER.

**EXISTING COLUMN REINFORCEMENT** 

S0.0 3/4" = 1'-0"

REQUIRED VERIFICATION AND INSPECTION OF STEEL CO MANUAL - CHAPTER N - QUALITY CONTROL A		ON
TABLE N5.4-1 - INSPECTION TA	<u> </u>	
INSPECTION TASK PRIOR TO WELDING	QUALITY CONTROL	QUALITY ASSURANCE
WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	P	P
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P	P
MATERIAL IDENTIFICATION (TYPE/GRADE)	0	0
WELDER IDENTIFICATION SYSTEM (SEE NOTE 1)	0	0
FIT - UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) JOINT PREPARATION DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) CLEANLINESS (CONDITION OF STEEL SURFACE) TACKING (TACK WELD QUALITY AND LOCATION) BACKING TYPE AND FIT (IF APPLICABLE)	0	0
CONFIGURATION AND FINISH OF ACCESS HOLES	0	0
FIT - UP OF FILLET WELDS DIMENSIONS (ALIGNMENT, GAPS OF ROOT CLEANLINESS (CONDITION OF STEEL SURFACE) TACKING (TACK WELD QUALITY AND LOCATION)	0	0
CHECK WELDING EQUIPMENT	0	
NOTE 1 - THE FABRICATOR OF ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY STAMPS, IF USED, SHALL BE THE LOW - STRESS TYPE.	WHICH A WELDER WHO HAS WELDED A JOINT C	R MEMBER CAN BE IDENTIFIED.
TABLE N5.4-2 - INSPECTION T	ASKS DURING WELDING	
INSPECTION TASK DURING WELDING	QUALITY CONTROL	QUALITY ASSURANCE
USE OF QUALIFIED WELDERS	0	0
CONTROL AND HANDLING OF WELDING CONSUMABLES PACKAGING EXPOSURE CONTROL	О	0
NO WELDING OVER CRACKED TACK WELDS	0	0
ENVIRONMENTAL CONDITIONS WIND SPEED WITHIN LIMITS PRECIPITATION AND TEMPERATURE	О	0
WPS FOLLOWED SETTINGS ON WELDING EQUIPMENT TRAVEL SPEED SELECTED WELDING MATERIALS SHIELDING GAS TYPE/FLOW RATE PREHEAT APPLIED INTERPASS TEMPERATURE MAINTAINED (MIN./MAX) PROPER POSITION (F, V, H, OH)	0	0
WELDING TECHNIQUES INTERPASS AND FINAL CLEANING EACH PASS WITHIN PROFILE LIMITATIONS EACH PASS MEETS QUALITY REQUIREMENTS	0	0
TABLE N5.4-3 - INSPECTION 1	ASKS AFTER WELDING	
INSPECTION TASK DURING WELDING	QUALITY CONTROL	QUALITY ASSURANCE
WELDS CLEANED	0	0
SIZE, LENGTH, AND LOCATION OF WELDS	Р	Р
WELDS MEET VISUAL ACCEPTANCE CRITERIA CRACK PROHIBITION WELD/BASE-METAL FUSION CRATER CROSS SECTION WELD PROFILES WELD SIZE UNDERCUT POROSITY	Р	P
ARC STRIKES	Р	Р
k-AREA (SEE NOTE 1)	Р	Р
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	Р	Р
DEDAID ACTIVITIES	Р	Р
REPAIR ACTIVITIES		

TABLE N5.6-1 - INSPECTION TASKS PRIO	R TO BOLTING	
INSPECTION TASKS PRIOR TO BOLTING	QUALITY CONTROL	QUALITY ASSURANCE
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	0	0
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	0	0
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM THE SHEAR PLANE)	0	0
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	0	0
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	0	0
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	Р	0
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS, AND OTHER FASTENER COMPONENTS	0	0
TABLE N5.6-2 - INSPECTION TASKS DUR	ING BOLTING	
INSPECTION TASKS DURING BOLTING	QUALITY CONTROL	QUALITY ASSURANCE
FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	0	0
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	0	0
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	0	0
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARDS THE FREE EDGES	0	0
TABLE N5.6-2 - INSPECTION TASKS AFT	ER BOLTING	
INSPECTION TASKS AFTER BOLTING	QUALITY CONTROL	QUALITY ASSURANCE
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	Р	Р
TABLE N6.1 - INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONST	RUCTION PRIOR TO CONCRETE PLAC	EMENT
INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT	QUALITY CONTROL	QUALITY ASSURANCE
PLACEMENT AND INSTALLATION OF STEEL DECK	Р	Р

PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS

DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS

THESES TABLES WERE TAKEN FROM THE 14TH EDITION AISC STEEL CONSTRUCTION MANUAL - CHAPTER N - QUALITY CONTROL AND QUALITY ASSURANCE P USED IN THE ABOVE TABLE STANDS FOR "PERFORM THESE TASKS FOR EACH WELDED CONNECTION, BOLTED CONNECTION, OR STEEL ELEMENT" O USED IN THE ABOVE TABLE STANDS FOR "OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS"



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DEPARTMENT OF PUBLIC PROPERTY CAPITAL PROJECTS DIVISION

1400 JFK BLVD 7TH FLR CITY HALL PHILADELPHIA

DPP ZONE 5 GARAGE RENOVATIONS

STRUCTURAL GENERAL NOTES

DRAWING NO.

20-20-4897-01 12/07/2021 AS NOTED DRAWN BY

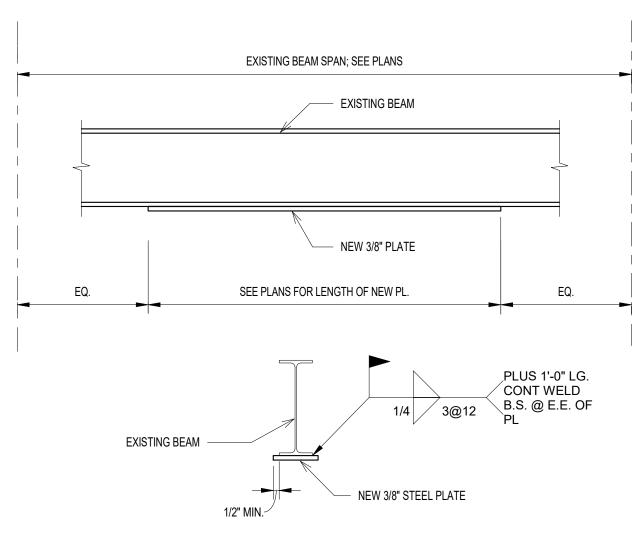
CJW

WZG PROJECT NO. 297 ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SIT BEFORE PROCEEDING WITH THE WORK

#### REUSE EXISTING ANGLE BRACKETS AT 48" O.C. CLEAN AND PAINT EXISTING ANGLE PER 5/S0.0 NEW BOLTS TO MATCH EXISTING EXISTING STEEL BEAM WITH CONC. ENCASEMENT NEW GALV. SHELF ANGLE, SIZE TO MATCH EXISTING (L4X3 1/2X5/16), V.I.F.

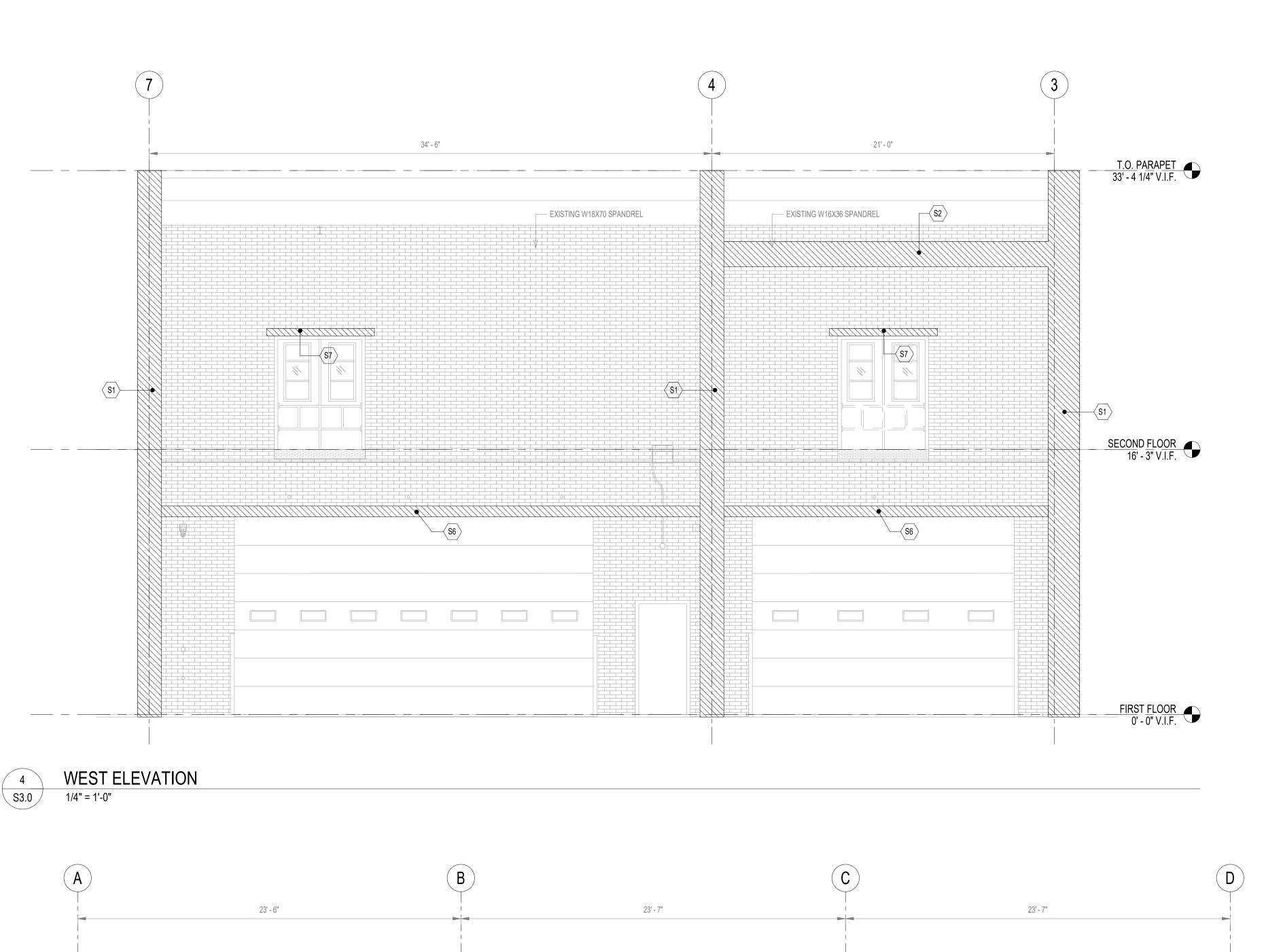
NOTE: SEE ARCH'L DRAWINGS FOR ADDITIONAL DETAILS

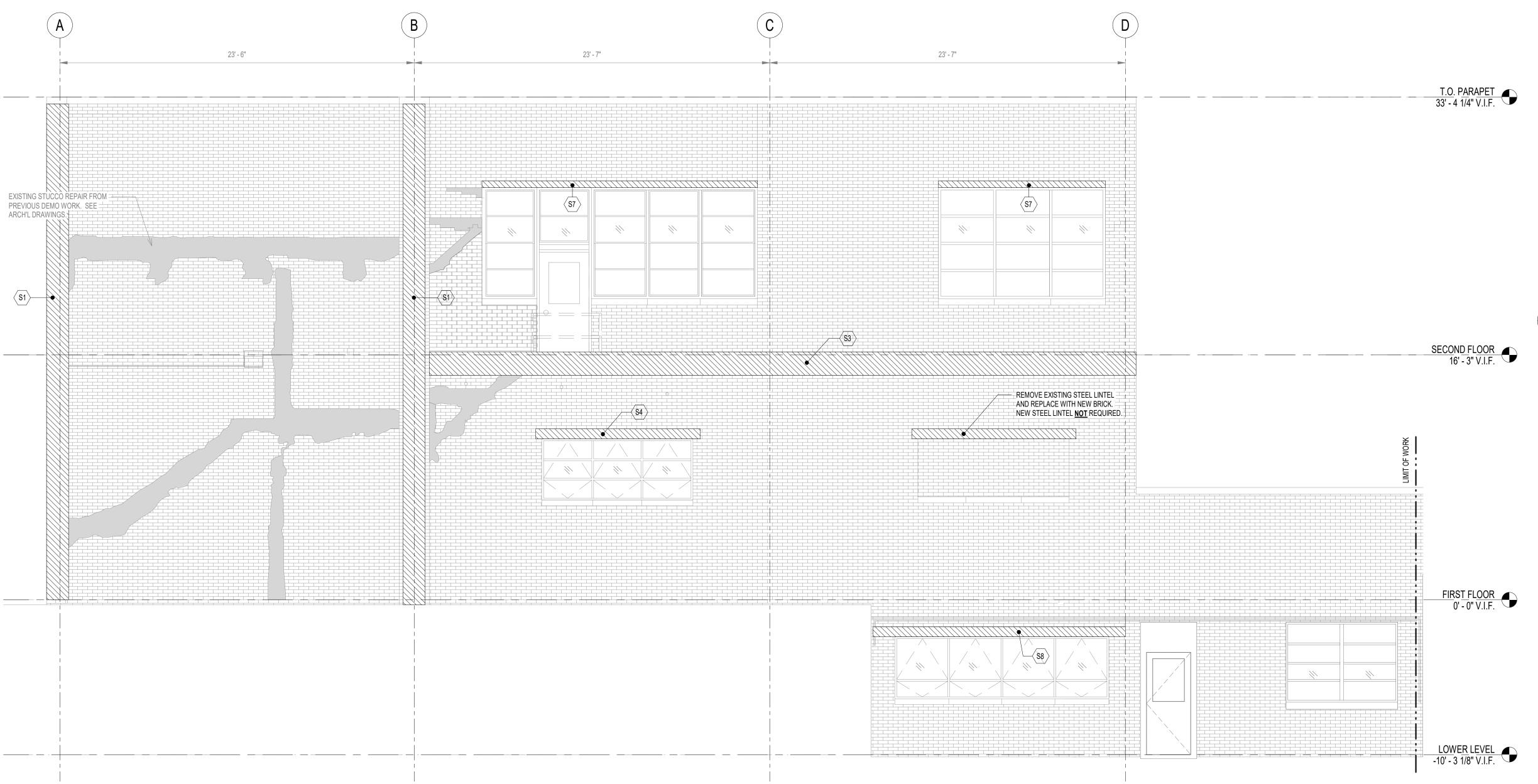
NEW SHELF ANGLE DETAIL (SECOND FLOOR) S0.0 1" = 1'-0"

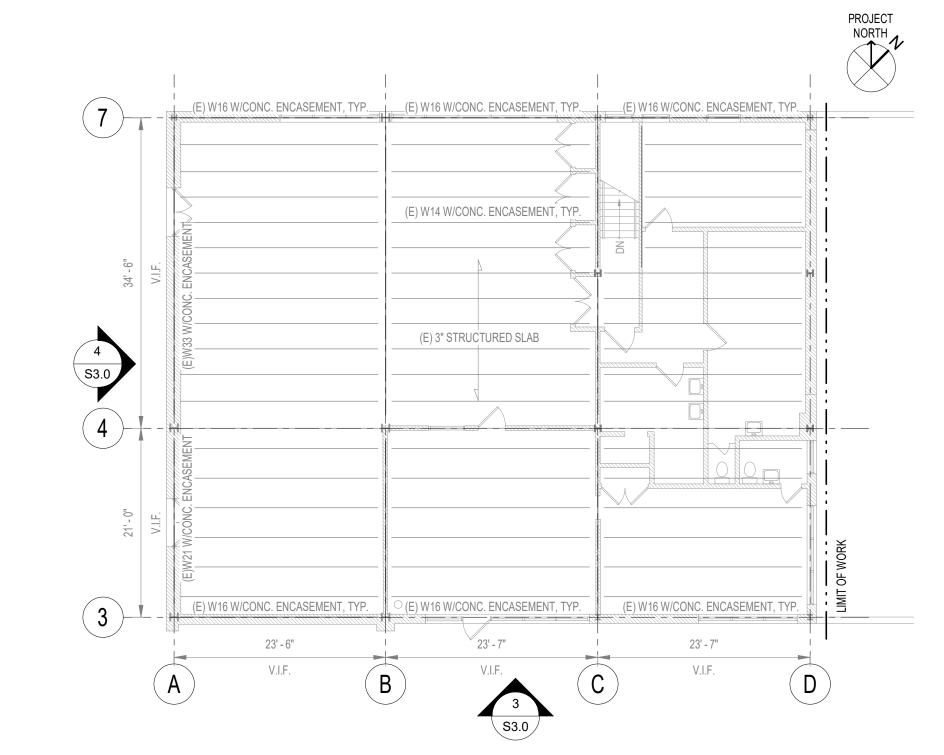


## **BEAM REINF NOTES:**

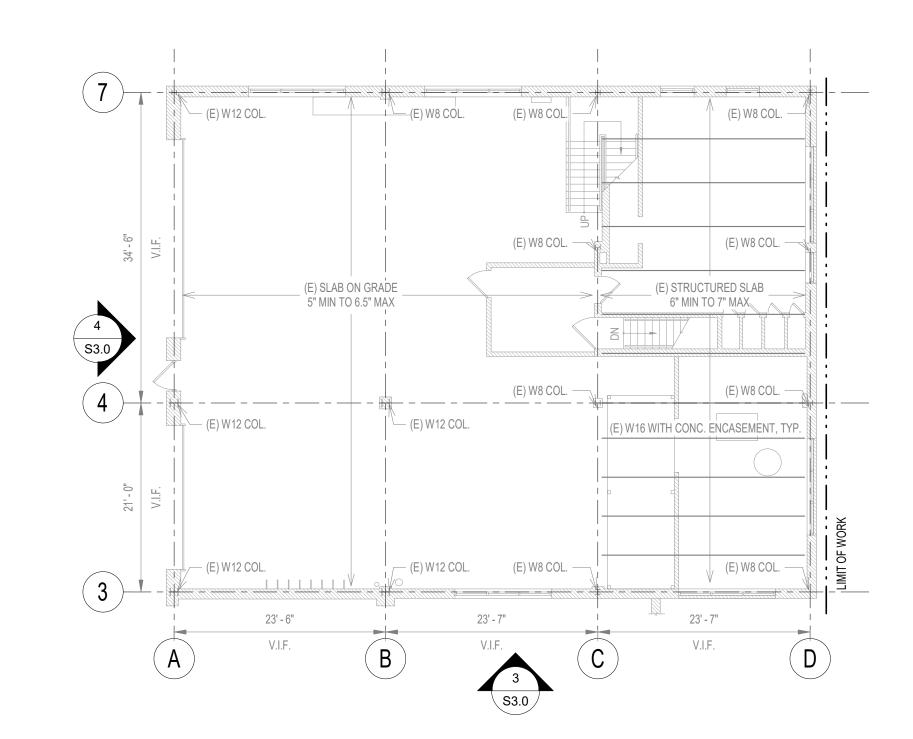
- IF NO SECTION LOSS IS FOUND, THE BEAM SHALL BE PAINTED WITH AN EPOXY MASTIC
- IF SECTION LOSS IS FOUND, REINFORCE BEAM PER THE DETAIL ABOVE. FINAL EXTENT AND LAYOUT OF REPAIR SHALL BE VERIFIED IN FIELD BY THE ENGINEER.
- 3/4" = 1'-0"











1ST FLOOR KEYMAP

3/32" = 1'-0"

### STRUCTURAL NOTES:

- - DIAGONAL DOWN HATCH PATTERN INDICATES AREA OF STRUCTURAL REPAIRS REQUIRED. SEE REPAIR SCHEDULE FOR FURTHER INFORMATION.
- 2. ALL EXPOSED STEEL SHALL BE GALVANIZED.
- 3. ALL EXISTING DIMENSIONS AND FRAMING SHALL BE FIELD VERIFIED.

STRUCTURAL REPAIR SCHEDULE				
MARK	REPAIR	DETAIL		
<b>S1</b>	CLEAN AND PAINT STEEL COLUMN AND REINFORCE PER DETAIL REFERENCED.	1/S0.0		
S2	CLEAN AND PAINT STEEL BEAM AND REINFORCE PER REFERENCED DETAIL.	2/\$0.0		
<b>S3</b>	REPLACE EXISTING SHELF ANGLE IN KIND WITH GALVANIZED ANGLE. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	3/\$0.0		
<b>S4</b>	REPLACE EXISTING ANGLE IN KIND WITH GALVANIZED LINTEL. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	4/S0.0		
<b>S5</b>	CLEAN AND PAINT EXISTING STEEL LINTEL OR SHELF ANGLE PER DETAIL REFERENCED.	5/\$0.0		
<b>S6</b>	REPLACE EXISTING ANGLE PER DETAIL WITH GALVANIZED LINTEL. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	6/S0.0		
<b>S7</b>	CLEAN EXISTING SHELF ANGLE PER DETAIL. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	7/S0.0		
<b>S8</b>	REPLACE EXISTING ANGLE PER DETAIL WITH GALVANIZED LINTEL. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	8/\$0.0		

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CAPITAL PROJECTS DIVISION 1400 JFK BLVD 7TH FLR CITY HALL PHILADELPHIA

DPP ZONE 5 GARAGE RENOVATIONS

STRUCTURAL PLANS AND ELEVATIONS

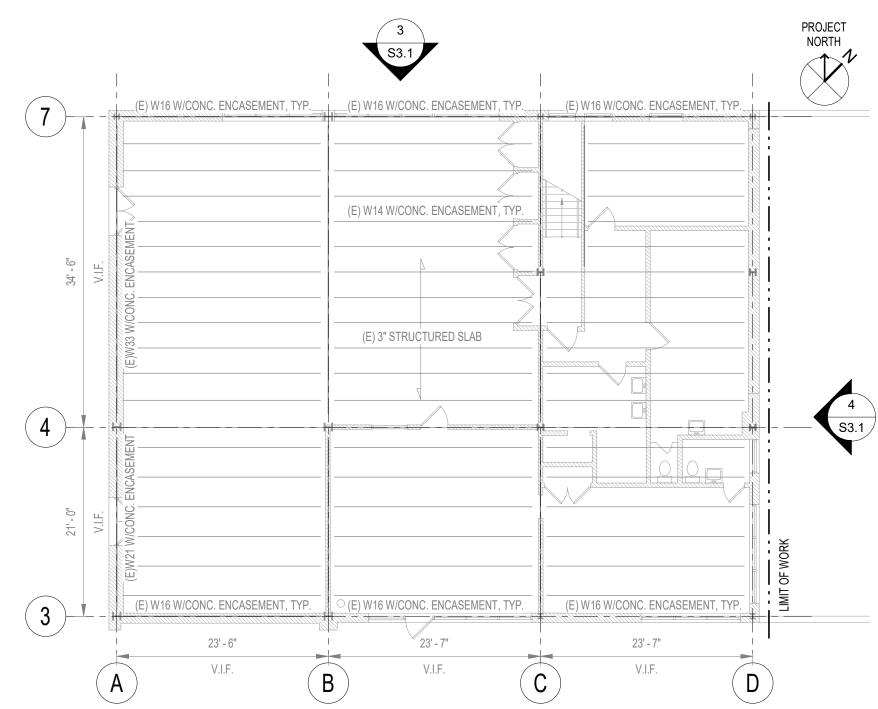
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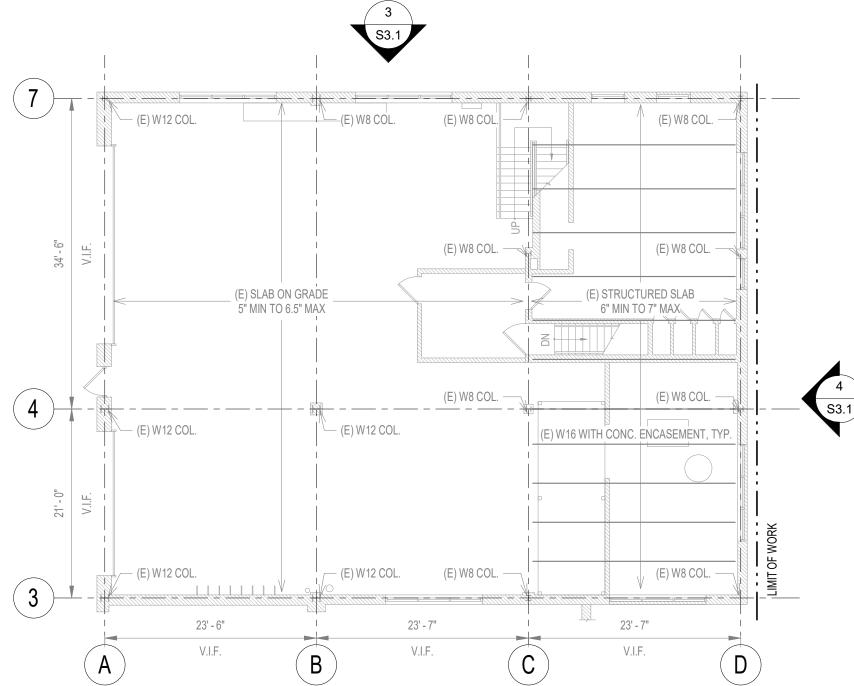
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SOUTH ELEVATION







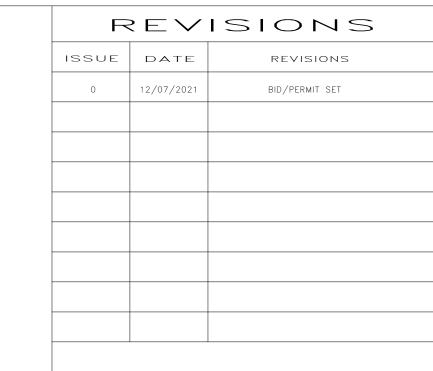


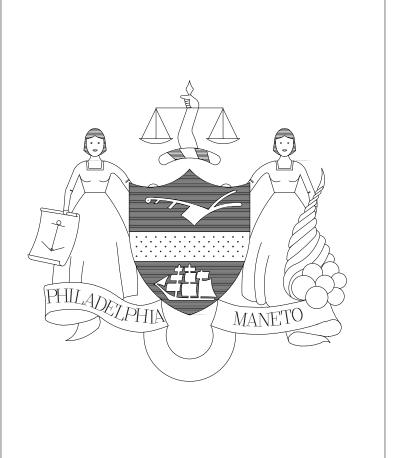


### STRUCTURAL NOTES:

- 1. DIAGONAL DOWN HATCH PATTERN INDICATES AREA OF STRUCTURAL REPAIRS REQUIRED. SEE REPAIR SCHEDULE FOR FURTHER INFORMATION.
- 2. ALL EXPOSED STEEL SHALL BE GALVANIZED.
- 3. ALL EXISTING DIMENSIONS AND FRAMING SHALL BE FIELD VERIFIED.

STRUCTURAL REPAIR SCHEDULE				
MARK	REPAIR	DETAIL		
<b>⟨S1</b> ⟩	CLEAN AND PAINT STEEL COLUMN AND REINFORCE PER DETAIL REFERENCED.	1/S0.0		
S2	CLEAN AND PAINT STEEL BEAM AND REINFORCE PER REFERENCED DETAIL.	2/\$0.0		
<b>S3</b>	REPLACE EXISTING SHELF ANGLE IN KIND WITH GALVANIZED ANGLE. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	3/\$0.0		
<b>S4</b>	REPLACE EXISTING ANGLE IN KIND WITH GALVANIZED LINTEL. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	4/S0.0		
<b>S5</b>	CLEAN AND PAINT EXISTING STEEL LINTEL OR SHELF ANGLE PER DETAIL REFERENCED.	5/\$0.0		
<b>S6 S</b> 6 <b>S</b> 6 <b>S</b> 6 <b>S</b> 6 <b>S</b> 6 <b>S</b> 6 <b>S</b> 6	REPLACE EXISTING ANGLE PER DETAIL WITH GALVANIZED LINTEL. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	6/S0.0		
<b>S7</b> >	CLEAN EXISTING SHELF ANGLE PER DETAIL. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	7/S0.0		
<b>S8</b>	REPLACE EXISTING ANGLE PER DETAIL WITH GALVANIZED LINTEL. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	8/S0.0		
	-			





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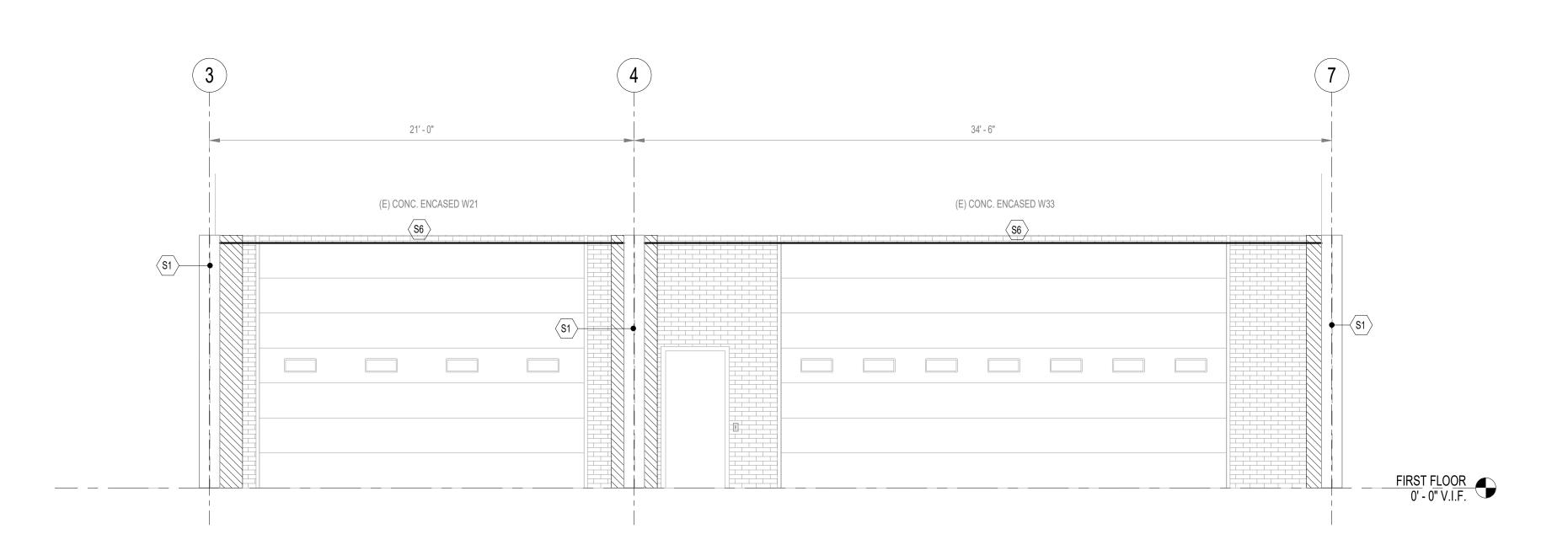
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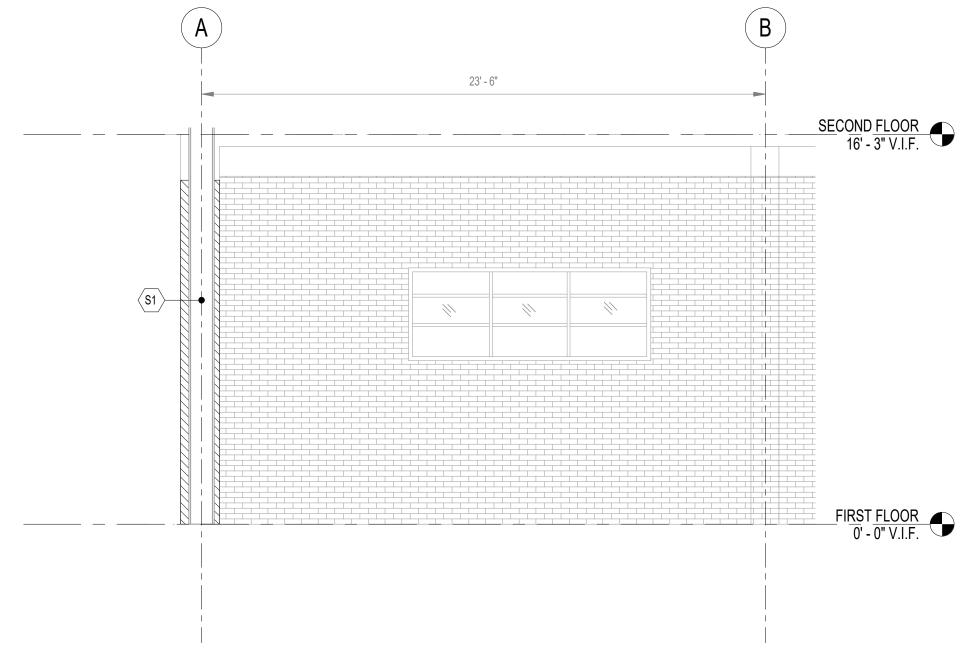
WZG PROJECT NO. 297

NOTE:

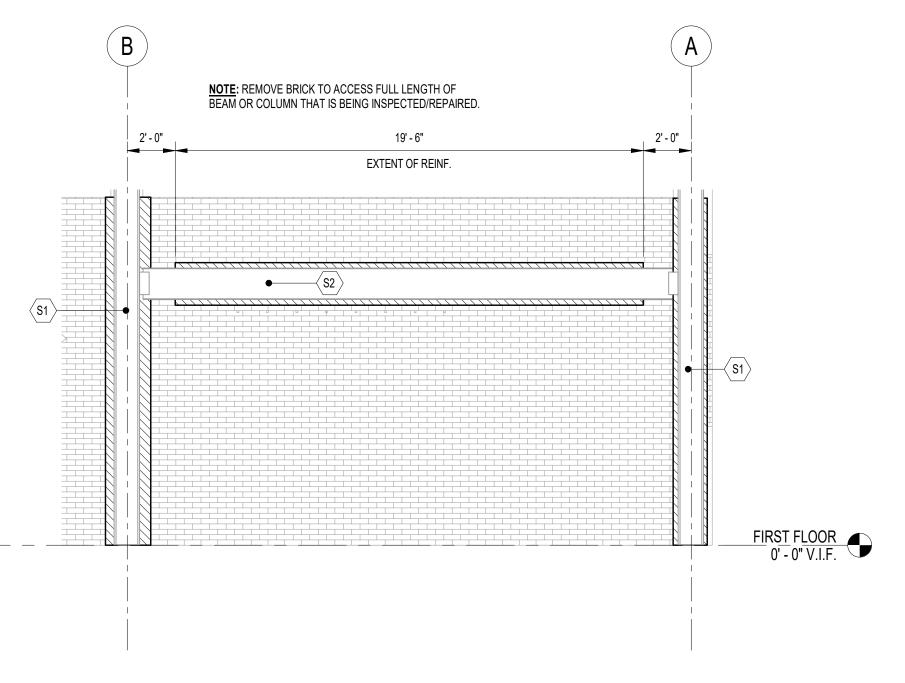
ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK.



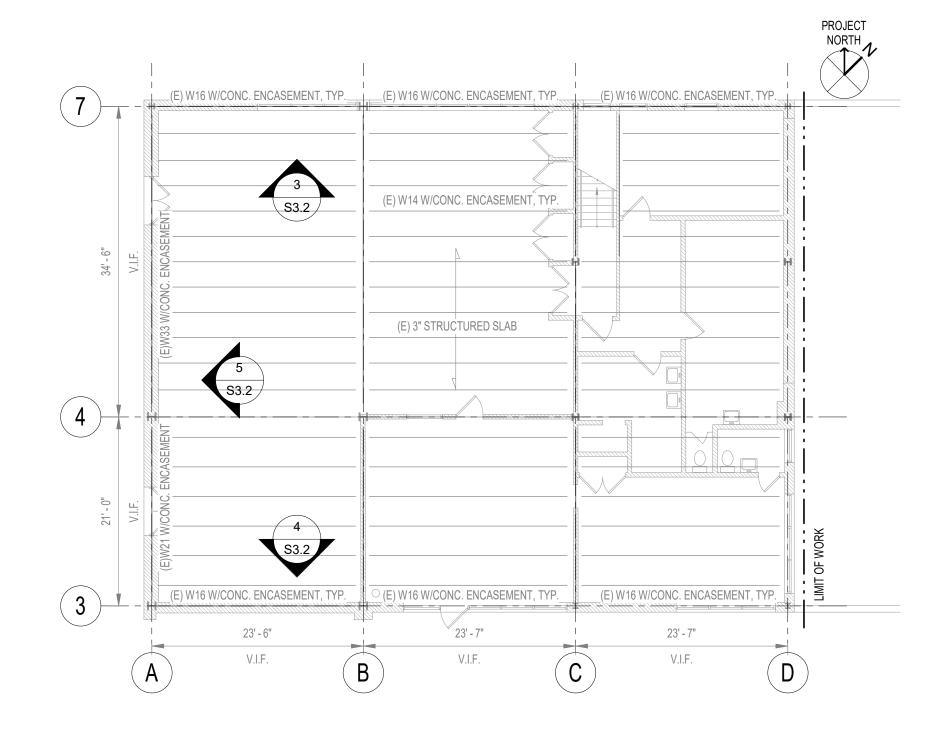
INTERIOR GARAGE ELEVATION S3.2 1/4" = 1'-0"

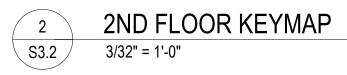


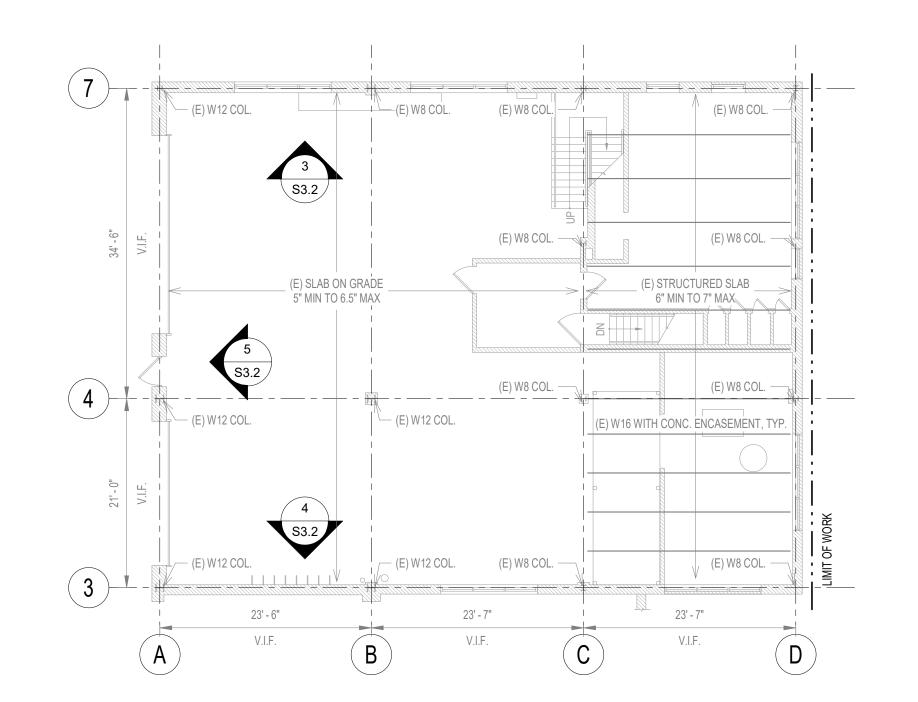
INTERIOR GARAGE ELEVATION 1/4" = 1'-0"



INTERIOR GARAGE ELEVATION









### STRUCTURAL NOTES:

- DIAGONAL DOWN HATCH PATTERN INDICATES AREA OF STRUCTURAL REPAIRS REQUIRED. SEE REPAIR SCHEDULE FOR FURTHER INFORMATION.
- 2. ALL EXPOSED STEEL SHALL BE GALVANIZED.
- 3. ALL EXISTING DIMENSIONS AND FRAMING SHALL BE FIELD VERIFIED.

STRUCTURAL REPAIR SCHEDULE				
ARK	REPAIR	DETAIL		
S1>	CLEAN AND PAINT STEEL COLUMN AND REINFORCE PER DETAIL REFERENCED.	1/S0.0		
S2	CLEAN AND PAINT STEEL BEAM AND REINFORCE PER REFERENCED DETAIL.	2/\$0.0		
33	REPLACE EXISTING SHELF ANGLE IN KIND WITH GALVANIZED ANGLE. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	3/S0.0		
64	REPLACE EXISTING ANGLE IN KIND WITH GALVANIZED LINTEL. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	4/S0.0		
35>	CLEAN AND PAINT EXISTING STEEL LINTEL OR SHELF ANGLE PER DETAIL REFERENCED.	5/\$0.0		
S6>	REPLACE EXISTING ANGLE PER DETAIL WITH GALVANIZED LINTEL. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	6/S0.0		
S7>	CLEAN EXISTING SHELF ANGLE PER DETAIL. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	7/S0.0		
88	REPLACE EXISTING ANGLE PER DETAIL WITH GALVANIZED LINTEL. REMOVE EXISTING BRICK AS REQ'D AND REPLACE.	8/\$0.0		

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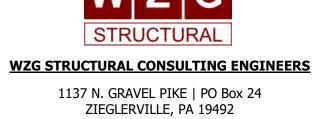
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20-20-4897-01

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ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK.

## BASIC ELECTRICAL REQUIREMENTS:

- 1. GENERAL: ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST APPROVED 11.CLEANING: UPON COMPLETION OF INSTALLATION, INSPECT INTERIOR AND EXTERIOR OF ALL PHILADELPHIA CODE AND NATIONAL ELECTRICAL CODE (NEC) AND NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) STANDARDS UNLESS MORE STRINGENT REQUIREMENTS ARE INDICATED. ALL ELECTRICAL WORK SHALL COMPLY WITH ADA RECOMMENDATIONS. ALL ELECTRICAL WORK SHALL BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER BY A LICENSED ELECTRICIAN, OR A CERTIFIED APPRENTICE WORKING UNDER THE DIRECT SUPERVISION OF A LICENSED ELECTRICIAN, USING THE BEST METHODS KNOWN TO THE TRADE AND SHALL PRESENT A NEAT AND PROFESSIONAL APPEARANCE WHEN COMPLETED. THE OWNER RESERVES THE RIGHT TO CHANGE, WITHOUT ADDITIONAL COST. THE LOCATION OF ANY APPARATUS OR OUTLET, PROVIDED SUCH CHANGE DOES NOT ADD MORE THAN 10 FT TO THE FEEDER AND IS ORDERED BEFORE INSTALLATION OF THE AFFECTED PORTION OF THE WORK IS COMMENCED. CONTRACTOR SHALL BRING ALL CONFLICTS ON THE DRAWINGS TO THE OWNERS ATTENTION FOR HIS RESOLUTION PRIOR TO PERFORMING THAT WORK.
- 2. THE CONTRACTOR SHALL SURVEY THE PROJECT SITE PRIOR TO THE BID TO ASSESS ACTUAL FIELD CONDITIONS. FAILURE TO PERFORM THIS INSPECTION BINDS THE CONTRACTOR TO PERFORM THE WORK WITH OUT EXTRA CHARGES DESPITE THE IGNORANCE OF REASONABLY ANTICIPATED CONDITIONS.
- 3. ROUGH-INS: THE CONTRACTOR SHALL VERIFY AND COORDINATE THE ROUGH-IN REQUIREMENTS OF EACH ITEM OF EQUIPMENT WITH THE CONTRACTOR SUPPLYING THE EQUIPMENT.
- 4. INSTALLATION: THE ELECTRICAL DRAWINGS INDICATE THE EXTENT AND GENERAL LOCATION AND ARRANGEMENT OF EQUIPMENT AND MATERIALS. THE CONTRACTOR SHALL BECOME FAMILIAR WITH ALL DETAILS OF THE WORK AND VERIFY ALL DIMENSIONS IN THE FIELD SO THAT EQUIPMENT AND MATERIALS WILL BE PROPERLY LOCATED AND READILY ACCESSIBLE. THE CONTRACTOR SHALL SEQUENCE, COORDINATE, AND INTEGRATE THE VARIOUS ELEMENTS OF ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS. COMPLY WITH THE FOLLOWING REQUIREMENTS:
- A. VERIFY ALL DIMENSIONS BY FIELD MEASUREMENTS.
- COORDINATE ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS INSTALLATION WITH OTHER
- ARRANGE FOR CHASES, SLOTS, AND OPENINGS IN OTHER BUILDING COMPONENTS DURING PROGRESS OF CONSTRUCTION, TO ALLOW FOR INSTALLATION OF ELECTRICAL SYSTEMS, FOUIPMENT AND MATERIALS
- SEQUENCE, COORDINATE, AND INTEGRATE INSTALLATION OF ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS FOR EFFICIENT FLOW OF THE WORK.
- WHERE MOUNTING HEIGHTS ARE NOT INDICATED, INSTALL ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS TO PROVIDE MAXIMUM HEADROOM POSSIBLE. INSTALL ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS TO CONFORM WITH APPROVED
- SUBMITTAL DATA TO THE GREATEST EXTENT POSSIBLE. CONFORM TO THE ARRANGEMENTS INDICATED ON THE ELECTRICAL DRAWINGS, RECOGNIZING THAT PORTIONS OF THE WORK ARE SHOWN ONLY IN DIAGRAMATIC FORM. WHERE COORDINATION REQUIREMENTS CONFLICT WITH INDIVIDUAL SYSTEM REQUIREMENTS, REFER CONFLICT TO THE ARCHITECT/ENGINEER OR OWNER'S REPRESENTATIVE FOR RESOLUTION.
- IN GENERAL, INSTALL ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO BUILDING LINES AND/OR FEATURES AND/OR OTHER BUILDING SYSTEMS.
- INSTALL ELECTRICAL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR OR REPLACEMENT OF EQUIPMENT AND COMPONENT PARTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM OF INTERFERENCE WITH OTHER
- TO SYSTEMS REQUIRED TO BE INSTALLED AT A SPECIFIC SLOPE(INCL. SPRINKLER SYSTEMS). CUTTING AND PATCHING: ALL ELECTRICAL WORK SHALL BE CAREFULLY LAID OUT IN ADVANCE, AND WHERE CUTTING, CHANNELING, CHASING, OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS, OR OTHER SURFACES IS NECESSARY FOR THE PROPER INSTALLATION, SUPPORT, OR ANCHORAGE OF CONDUIT OR OTHER ELECTRICAL WORK, THIS WORK SHALL BE CAREFULLY DONE. ANY RESULTING DAMAGE TO THE BUILDING OR OTHER SYSTEMS, EQUIPMENT, OR MATERIALS SHALL BE REPAIRED BY

INSTALL ELECTRICAL SYSTEMS, EQUIPMENT, AND MATERIALS GIVING RIGHT-OF-WAY PRIORITY

6. PRODUCTS: SYSTEMS, EQUIPMENT, AND MATERIALS DESCRIBED ON THE ELECTRICAL DRAWINGS ESTABLISH THE MINIMUM STANDARDS FOR QUALITY AND STYLE AND SHALL BE THE BASIS OF THE BID. ALL SYSTEMS, EQUIPMENT, AND MATERIALS SHALL BE NEW AND SHALL BEAR THE UL LABEL OR BE UL LISTED, WHERE APPLICABLE, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC AND NEMA

SKILLED MECHANICS OF THE TRADES INVOLVED, AT NO ADDITIONAL COST TO THE OWNER.

- 7. SUBSTITUTIONS: WHERE SYSTEMS, EQUIPMENT, OR MATERIALS ARE SPECIFIED BY MANUFACTURER OR BRAND NAME AND CATALOG NUMBER, SUCH SPECIFICATION SHALL ESTABLISH THE MINIMUM STANDARDS FOR QUALITY AND STYLE AND SHALL BE THE BASIS OF THE BID. SYSTEMS, EQUIPMENT, AND MATERIALS SO SPECIFIED SHALL BE FURNISHED UNDER THE CONTRACT UNLESS CHANGED BY WRITTEN AGREEMENT. SHOULD THE CONTRACTOR PROPOSE TO FURNISH PRODUCTS OTHER THAN THOSE SPECIFIED. AS PERMITTED BY "OR APPROVED EQUAL" CLAUSES. HE SHALL SUBMIT A WRITTEN REQUEST FOR SAID SUBSTITUTIONS THROUGH APPROPRIATE CHANNELS TO THE ARCHITECT/ENGINEER FOR HIS REVIEW. SUCH REQUEST SHALL BE ACCOMPANIED WITH COMPLETE DESCRIPTIVE LITERATURE INCLUDING, BUT NOT LIMITED TO, CATALOG CUT SHEETS, BROCHURES, CIRCULARS, SPECIFICATIONS, PERFORMANCE DATA, INSTALLATION INSTRUCTIONS, SHOP DRAWINGS, AND OTHER PRINTED INFORMATION IN SUFFICIENT DETAIL AND SCOPE TO VERIFY COMPLIANCE WITH THE REQUIREMENTS O THE CONTRACT. DESCRIPTIVE LITERATURE ON PROPOSED SUBSTITUTIONS SHALL BE CLEAR, CONCISE, AND LOGICALLY ARRANGED. ALL DATA WHICH IS, AND IS NOT, APPLICABLE SHALL BE CLEARLY IDENTIFIED AS SUCH. IF REQUESTED, THE CONTRACTOR SHALL SUBMIT SAMPLES OF BOTH SPECIFIED ELECTRICAL MATERIALS: AND PROPOSED ITEMS FOR INSPECTION. DESCRIPTIVE LITERATURE ON PROPOSED SUBSTITUTIONS SHALL BE RETURNED WITHOUT REVIEW IF NOT PROPERLY PREPARED. ACCEPTANCE OR REJECTION OF PROPOSED SUBSTITUTIONS SHALL BE UP TO THE DESCRETION OF THE ARCHITECT/ENGINEER AND/OR
- 8. SUBMITTALS: THE CONTRACTOR SHALL FOLLOW THE GENERAL PROVISIONS OF THE CONTRACT AND ESTABLISHED PROCEDURES. SUBMITTALS SHALL CONSIST OF COMPLETE DESCRIPTIVE LITERATURE INCLUDING, BUT NOT LIMITED TO, CATALOG CUT SHEETS, BROCHURES, CIRCULARS, SPECIFICATIONS, PERFORMANCE DATA. INSTALLATION INSTRUCTIONS. SHOP DRAWINGS. AND OTHER PRINTED INFORMATION IN SUFFICIENT DETAIL AND SCOPE TO VERIFY COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT. DESCRIPTIVE LITERATURE SHALL BE CLEAR, CONCISE, AND LOGICALLY ARRANGED. ALL DATA WHICH IS, AND IS NOT, APPLICABLE SHALL BE CLEARLY IDENTIFIED AS SUCH. IF REQUESTED, THE CONTRACTOR SHALL SUBMIT SAMPLES OF SPECIFIED ITEMS FOR INSPECTION. DESCRIPTIVE LITERATURE SHALL BE RETURNED WITHOUT REVIEW IF NOT PROPERLY PREPARED. THE FOLLOWING SYSTEMS, EQUIPMENT, AND MATERIALS, AS A MINIMUM, REQUIRE SUBMITTALS:
- A. ANY PROPOSED SUBSTITUTIONS.
- WIRING DEVICES.
- PANELBOARDS.
- DISCONNECT SWITCHES.
- CIRCUIT BREAKERS. LIGHTING FIXTURES INCLUDING BALLASTS.
- 9. RECORD DRAWINGS: THE CONTRACTOR SHALL MAINTAIN AT THE SITE A CLEAN, UNDAMAGED SET OF BLUE- OR BLACK-LINE WHITE PRINTS OF CONTRACT DRAWINGS. THIS RECORD SET OF CONTRACT DRAWINGS SHALL BE MARKED TO SHOW THE ACTUAL INSTALLATION AND WHERE THE ACTUAL INSTALLATION VARIES SUBSTANTIALLY FROM THE ELECTRICAL WORK AS ORIGINALLY SHOWN.  $\,$  MARK  $\,$ WHICHEVER DRAWINGS ARE MOST CAPABLE OF SHOWING CONDITIONS FULLY AND ACCURATELY. GIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE. MARK RECORD DRAWINGS WITH A RED ERASABLE PENCIL; USE OTHER
- NOTE CONTRACT MODIFICATIONS AND APPROVED SUBSTITUTIONS WHERE APPLICABLE. OPROTECTION OF INSTALLED SYSTEMS, EQUIPMENT, AND MATERIALS: PROTECT INSTALLED SYSTEMS, EQUIPMENT, AND MATERIALS FROM DAMAGE UNTIL FINAL ACCEPTANCE BY THE OWNER. REPAIR OR REPLACE, AT NO ADDITIONAL COST TO THE OWNER, DAMAGED SYSTEMS, EQUIPMENT, AND MATERIALS TO THE SATISFACTION OF THE ARCHITECT/ ENGINEER AND/OR OWNER.

COLORS TO DISTINGUISH BETWEEN VARIATIONS IN SEPARATE CATEGORIES OF THE ELECTRICAL WORK.

- ELECTRICAL EQUIPMENT. REMOVE PAINT SPLATTERS AND OTHER SPOTS, DIRT, AND DEBRIS. TOUCH-UP SCRATCHES AND MARS OF FINISH TO MATCH ORIGINAL FINISH. 12.CERTIFICATIONS: THE FOLLOWING SHALL BE OBTAINED AND SUBMITTED TO THE OWNER PRIOR TO
- ELECTRICAL SYSTEMS: A CERTIFICATE OF FINAL INSPECTION AND APPROVAL BY THE AUTHORITIES HAVING JURISDICTION
- 13.GUARANTEE: THE CONTRACTOR SHALL SUBMIT A WRITTEN GUARANTEE TO THE OWNER, PRIOR TO FINAL PAYMENT, THAT WARRANTS THE INSTALLATION SHALL REMAIN FREE OF DEFECTS FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE BY THE OWNER. THE GUARANTEE SHALL STATE THAT THE OWNER IS NOT LIABLE FOR PARTS AND LABOR COSTS INCURRED BY THE CONTRACTOR IN THE REPAIR OF ACTUAL PRODUCT OR INSTALLATION DEFECTS. THE GUARANTEE SHALL ALSO STATE THAT THE ON-SITE RESPONSE TIME TO REQUESTS FOR ASSISTANCE WILL BE 24 HOURS FOR NON-EMERGENCY CONDITIONS AND 2 HOURS FOR EMERGENCY CONDITIONS.

#### STANDARD MOUNTING HEIGHTS (UNLESS OTHERWISE NOTED)

9" BELOW FINISHED CEILING 6" ABOVE FIRE — HOUSE CABINET	WALL-MOUNTED CLOCKS, PROGRAM BELLS(OR AS SHOWN ON ARCHITECTURAL DETAILS).  BLUE SIGNAL LIGHT.
10'-0"	BATTERY LIGHTING UNITS AND REMOTE WALL MOUNTED LIGHT HEADS(OR 1'-0" BELOW FINISHED CEILING OF TOP OF UNIT).
8'-6"	PEDANT-HUNG INDUSTRIAL AND STRIP LIGHTING FIXTURES.
CENTER ABOVE DOOR OR WINDOW OPENING	- WARNING AND SIGNALING FIXTURES/SIGNS.
6'-8"	BOTTOM OF FIRE ALARM NOTIFICATION DEVICES.  (OR WITHIN 6" OF FINISHED CEILING IF CEILING IS NOT HIGH ENOUGH).
6'-6"	TOP OF FLUSH AND SURFACE MOUNTED ELECTRICAL LIGHTING OR POWER PANELBOARDS WHOSE OPERABLE PARTS ARE EXCLUDED FORM 2010 ADA STANDARD SECTION 205.
6'-0"	TOP OF HIGHEST ELECTRICAL SAFETY DISCONNECT SWITCHES, MAGNETIC STARTERS, CONTACTORS EXCLUDED FROM ACCESSIBLE ADA COMPLIANT DEVICES/ OPERABLE PARTS COVERED BY 2010 ADA STANDARD SECTION 205, 309.
4'-0" MAX -	TOP OF ACCESSIBLE PART OF LIGHT SWITCHES, MANUAL MOTORS STARTERS, THERMOSTATS, GFI RECEPTACLES IN TOILET ROOM OR FOR SEPARATE SINKS, FIRE ALARM PULL STATION.TOP OF OPERABLE PARTS(CIRCUIT BREAKERS,SWITCHES ETC.) OF ACCESSIBLE DEVICES COVERED BY 2010 STANDARD SECTION 205, 309.
1'-4"	BOTTOM OF RECEPTACLES, DESK TYPE TELEPHONE OUTLETS, LOW TELEVISION OUTLETS, DATA OUTLETS
0'-0"	- FINISHED FLOOR(FF)
MOUNTING	HEIGHT NOTES:

1. STANDARD MOUNTING HEIGHTS: (COORDINATE WITH ARCH DRAWINGS) ALL MOUNTING HEIGHTS SHALL BE AS INDICATED BY ARCHITECT. IF NOT

INDICATED BY ARCHITECT THEN PROVIDE AS NOTED ABOVE.

- 2. MOUNTING HEIGHTS TO CENTER OF OUTLETS UNLESS NOTED IN STANDARD MOUNTING HEIGHTS ABOVE. IN MASONRY CONTRUCTION THE ABOVE MOUNTING HEIGHTS SHALL
- BE USED FOR REFERENCE TO NEAREST BLOCK OR BRICK COURSING.
- 3. THE ABOVE MOUNTING HEIGHTS SHALL BE ADHERED TO UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE ON THE DRAWING OR SPECIFICATIONS. 4. INDICATION (+) NEXT TO A DEVICE INDICATES THAT DEVICE IS MOUNTED ABOVE
- OUNTER OR CASEWORK. COORDINATE WITH ARCHITECTURAL DETAILS AND CASEWORK CONTRACTOR. 5. ALL ACCESSIBLE ADA COMPLIANT DEVICES AND ITS OPERABLE PARTS SHALL BE MOUNTED PER 2010 ADA STANDARD SECTION 205,309.

- RIGID GALVANIZED STEEL (RGS) CONDUIT: ANSI C80.1. ELECTRICAL METALLIC TUBING (EMT) AND FITTINGS: ANSI C80.3 WITH COMPRESSION TYPE FITTINGS. LIQUIDTIGHT FLEXIBLE METAL CONDUIT: UL 360. FLEXIBLE STEEL CONDUIT WITH PVC JACKET. NONMETALIC CONDUIT AND TUBING (ENT): NEMA TC 13
- A. SHEET METAL: NEMA OS 1.
- CAST METAL: NEMA FB 1, TYPE FD, CAST FERALLOY BOX WITH GASKETED COVER. HINGED COVER ENCLOSURES: NEMA 250, GALVANIZED STEEL ENCLOSURE WITH CONTINUOUS HINGE COVER, QUICK RELEASE TYPE LATCHES, REMOVABLE INTERIOR PANEL, AND MANUFACTURER'S STANDARD GRAY ENAMEL INSIDE AND OUT.
- CONDUCTOR MATERIAL: ANNEALED COPPER OR ALUMINUM.
- INSULATION: THHN/THWN CONFORMING TO WC 5. CONDUCTORS #16 AWG AND SMALLER SHALL BE SOLID: CONDUCTORS #14 AWG AND LARGER SHALL BE STRANDED. MC CABLE IS PERMITTED FOR BRANCH CIRCUITRY, AND SHALL UTILIZE SOLID CONDUCTORS.
- GROUND CONDUCTORS #10 AWG AND SMALLER SHALL HAVE GREEN THHN/THWN INSULATION. 4. WIRING DEVICES: GENERAL: COMPLY WITH NEMA WD 1, "GENERAL PURPOSE WIRING DEVICES." COLOR: WHITE, BLACK, GRAY, IVORY, OR BROWN TO BE AS SELECTED BY THE ARCHITECT/
- ENGINEER AND/OR THE OWNER. RECEPTACLES: COMPLY WITH UL 498, "ELECTRICAL ATTACHMENT PLUGS AND RECEPTACLES, "HEAVY DUTY SPECIFICATION GRADE EXCEPT AS OTHERWISE INDICATED. GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE RECEPTACLES SHALL COMPLY WITH UL 943, "GROUND FAULT CIRCUIT INTERRUPTERS," WITH INTEGRAL NEMA 5-20R DUPLEX RECEPTACLE DESIGNED FOR
- INSTALLATION IN A 2-3/4" DEEP DEVICE BOX WITHOUT ADAPTER. TOGGLE SWITCHES: 20A, 120-277V AC, QUIET TYPE, SPECIFICATION GRADE AND SHALL COMPLY WITH UL 20, "GENERAL USE SNAP SWITCHES." SINGLE-POLE, TWO-POLE, THREE-WAY,
- AND FOUR-WAY AS INDICATED AND/OR REQUIRED. DEVICE PLATES: SINGLE AND COMBINATION TYPES WHICH MATE AND MATCH WITH CORRESPONDING WIRING DEVICES.
- MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS AS MANUFACTURED BY HUBBEL INC., OR APPROVED EQUAL BY LEVITON.

- 5. GROUNDING: GROUNDING AND BONDING PRODUCTS: OF TYPES INDICATED AND/OR OF SIZES AND RATINGS TO COMPLY WITH THE NEC. WHERE TYPES, SIZES, RATINGS, AND QUANTITIES ARE IN EXCESS OF NEC REQUIREMENTS. THE MORE STRINGENT REQUIREMENTS AND THE GREATER SIZE, RATING, AND QUANTITY INDICATIONS SHALL GOVERN. SMOOTH MATCHING NYLON IN ALL AREAS.
- CONDUCTOR MATERIAL: COPPER.
  WIRE AND CABLE CONDUCTORS: CONFORM TO NEC TABLE 8, EXCEPT AS OTHERWISE
- INDICATED, FOR CONDUCTOR PROPERTIES, INCLUDING STRANDING.
  CONNECTOR PRODUCTS: UL LISTED AND LABELED AS GROUNDING CONNECTORS FOR THE MATERIALS USED. 6. PANELBOARDS
- BREAKERS: PROVIDE TYPE, RATING, AND FEATURES INDICATED. BOLT—ON EXCEPT WHERE PLUG-IN FOR USE ON EXISTING PANELBOARDS(NOT BEING UPGRADED) TANDEM CIRCUIT BREAKERS SHALL NOT BE USED. MULTIPOLE CIRCUIT BREAKERS SHALL HAVÉ AN INTERNAL
- COMMON TRIP AND A SINGLE HANDLE. ENCLOSURES: NEMA TYPE 1, UNLESS OTHERWISE INDICATED. FRONT: SECURED TO BOX WITH CONCEALED TRIM CLAMPS EXCEPT AS INDICATED. FRONT FOR SURFACE MOUNTED PANELBOARDS SHALL BE SAME DIMENSIONS AS BOX. DIRECTORY FRAME: METAL WITH CLEAR PLASTIC COVER MOUNTED ON INSIDE OF PANELBOARD
- BUS WORK: HARD DRAWN COPPER OF 98% CONDUCTIVITY. MAIN AND NEUTRAL LUGS: COMPRESSION TYPE. EQUIPMENT GROUND BUS: ADEQUATE FOR FEEDER AND BRANCH CIRCUIT EQUIPMENT GROUND CONDUCTORS. BONDED TO BOX.
- PROVISIONS FOR FUTURE DEVICES: EQUIP WITH MOUNTING BRACKETS, BUS CONNECTION, AND NECESSARY APPURTENANCES, FOR THE CIRCUIT BREAKER AMPERE RATINGS INDICATED FOR
- FUTURE INSTALLATION OF DÉVICES.
  MAIN AND SUBFEED LUGS: PROVIDE WHERE INDICATED. NAMEPLATE: CUSTOM ENGRAVED PLASTIC LAMINATE, WHITE LETTERS ON BLACK FIELD, FOR EACH PANELBOARD MOUNTED WITH EPOXY OR INDUSTRIAL CEMENT OR ADHESIVE. MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS AS MANUFACTURED BY SQUARE-D, SIEMENS OR CUTLER HAMMER CO.
- FUSIBLE SWITCH, 800A AND SMALLER: NEMA KS 1, TYPE HD, CLIPS TO ACCOMODATE SPECIFIED FUSES, ENCLOSURE SUITABLE FOR THE ENVIRONMENT WHERE INSTALLED, HANDLE LOCKABLE WITH 2) PAD LOCKS, AND INTERLOCKED WITH COVER IN "CLOSED" POSITION. ENCLOSURES SHALL COMPLY WITH NEMA KS 1; TYPE 1 INDOOR DRY LOCATIONS; MOLDED CASE CIRCUIT BREAKER: NEMA AB 1. HANDLE LOCKABLE WITH TWO (2) PADLOCKS.

FRAME SIZE, TRIP RATING, NUMBER OF POLES, AND AUXILLARY DEVICES AS INDICATED.

MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS AS SUITABLE FOR INSTALLATION IN EXISTING PANELS. DISCONNECTS SHALL BE BY SQUARE-D.

ENCLOSURES SHALL COMPLY WITH NEMA AB 1; TYPE 1. INDOOR DRY LOCATIONS.

CIRCUIT BREAKERS SHALL HAVE A MINIMUM INTERRUPTING CAPACITY AS FOLLOWS:

#### GENERAL ELECTRICAL NOTES:

SLABS AND FIRE RATED WALLS SHALL BE FIRESTOPPED

DISCONNECTS AND CIRCUIT BREAKERS:

- 1. WIRING METHODS: WIRING SHALL CONSIST OF CABLES AND WIRES INSTALLED IN RGS CONDUIT , EMT, LIQUIDTIGHT FLEXIBLE METAL CONDUIT AND MC CABLES. RACEWAYS SHALL BE CONCEALED WITHIN FINISHED WALLS AND CEILINGS UNLESS OTHERWISE INDICATED. OTHER THAN ROOF PENETRATIONS REQUIRED TO FEED ROOF MOUNTED EQUIPMENT, RACEWAYS WILL NOT BE ROUTED EXPOSED OUTSIDE
- 2. RACEWAYS: RACEWAYS SHALL BE PROVIDED WHERE INDICATED AND REQUIRED AND SHALL BE INSTALLED AS SPECIFIED BELOW, UNLESS OTHERWISE INDICATED. MINIMUM RACEWAY SIZE SHALL BE 3/4 IN. RGS CONDUIT SHALL BE USED FOR ALL OUTDOOR INSTALLATIONS. EMT SHALL BE USED FOR ALL INDOOR INSTALLATIONS. LIQUIDTIGHT FLEXIBLE METAL CONDUIT, 6 FT MAXIMUM LENGTH, SHALL BE USED FOR ALL CONDUIT TERMINATIONS AT EQUIPMENT SUBJECT TO VIBRATION. BUSHINGS, MANUFACTURED FITTINGS, OR BOXES PROVIDING EQUIVALENT MEANS OF PROTECTION SHALL BE INSTALLED ON THE ENDS OF ALL CONDUITS AND SHALL BE OF THE INSULATING TYPE WHERE REQUIRED BY THE N.E.C. ONLY LISTED ADAPTERS SHALL BE USED TO CONNECT EMT TO RGS CONDUIT AND CAST METAL BOXES AND CONDUIT BODIES. PENETRATIONS OF
- KEEP RACEWAYS AT LEAST 6 IN. AWAY FROM PARALLEL RUNS OF FLUES AND STEAM OR HOT WATER PIPING. INSTALL HORIZONTAL RACEWAY RUNS HIGHER THAN WATER AND STEAM PIPING. RACEWAYS CROSSING STRUCTURAL EXPANSION JOINTS SHALL BE PROVIDED WITH SUITABLE EXPANSION FITTINGS OR OTHER SUITABLE MEANS TO COMPENSATE FOR THE BUILDING EXPANSION AND CONTRACTION. RACEWAYS SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO WALLS. STRUCTURAL MEMBERS AND FEATURES, MECHANICAL DUCT AND PIPING SYSTEMS, OR INTERSECTIONS OF VERTICAL PLANES AND CEILINGS. CHANGES IN DIRECTION OF RUNS SHALL BE ACCOMPLISHED WITH SYMMETRICAL BENDS OR CAST METAL FITTINGS. FIELD—MADE ELBOWS AND OFFSETS SHALL BE MADE WITH AN APPROVED HICKEY OR CONDUIT BENDING MACHINE. CRUSHED OR DEFORMED RACEWAY SHALL NOT BE INSTALLED. CARE SHALL BE TAKEN TO PREVENT THE LODGMENT OF DIRT, AND CONSTRUCTION MATERIALS AND DEBRIS IN RACEWAYS DURING THE COURSE OF CONSTRUCTION. CLOGGED RACEWAYS SHALL BE ENTIRELY FREED OF OBSTRUCTIONS OR SHALL BE REPLACED.
- RGS CONDUIT AND EMT SHALL BE SECURELY AND RIGIDLY FASTENED IN PLACE AT INTERVALS OF NOT MORE THAN 10 FT AND WITHIN 3 FT OF FITTINGS AND BOXES WITH APPROVED PIPE STRAPS, WALL BRACKETS, CONDUIT CLAMPS, CONDUIT HANGERS, THREADED C—CLAMPS, OR CEILING TRAPEZÉ. C—CLAMPS OR BEAM CLAMPS SHALL HAVE STRAP OR ROD TYPE RETAINERS. LOADS AND SUPPORTS SHALL BE COORDINATED WITH SUPPORTING STRUCTURES TO PREVENT DEFORMATION OR DAMAGE TO STRUCTURES, BUT NO LOAD SHALL BE APPLIED TO JOIST BRIDGING. FASTENINGS SHALL BE BY WOOD SCREWS OR SCREW TYPE NAILS TO WOOD; BY TOGGLE BOLTS ON HOLLOW CMU; BY EXPANSION BOLTS ON CONCRETE OR BRICK; AND BY MACHINE SCREWS, WELDED THREADED STUDS, HEAT TREATED OR SPRING STEEL TENSION CLAMPS ON STEEL WORK. NAIL TYPE NYLON ANCHORS OR THREADED STUDS DRIVEN IN BY A POWDER CHARGE AND PROVIDED WITH LOCK WASHERS AND NUTS MAY BE USED IN LIEU OF EXPANSION BOLTS OR MACHINE SCREWS. RACEWAYS OR PIPE STRAPS SHALL NOT BE WELDED TO STEEL STRUCTURES. IN PARTITIONS OF LIGHT STEEL CONSTRUCTION. SHEET METAL SCREWS MAY BE USED. CONDUIT SHALL NOT BE SUPPORTED USING WIRE OR NYLON TIES. RACEWAYS SHALL BE INSTALLED AS A COMPLETE SYSTEM AND BE INDEPENDENTLY SUPPORTED FROM THE STRUCTURE. UPPER RACEWAYS SHALL NOT BE THE SUPPORT OF LOWER RACEWAYS. SUPPORTING MEANS WILL NOT BE SHARED BETWEEN ELECTRICAL RACEWAYS AND MECHANICAL DUCTS OR PIPING. MOUNTING HARDWARE SHALL NOT PRESENT SHARP EDGES WHERE PERSONNEL CONTACT IS POSSIBLE. IN MECHANICAL SPACES, "MINERALAC" SUPPORTS SHALL NOT BE USED
- 3. BOXES: BOXES SHALL BE PROVIDED IN RACEWAY SYSTEMS WHEREVER REQUIRED FOR PULLING OF WIRES. MAKING CONNECTIONS, AND MOUNTING OF DEVICES OR LIGHTING FIXTURES. IN GENERAL, BOXES SHALL BE CONSTRUCTED OF HOT-DIPPED GALVANIZED FINISHED SHEET STEEL. BOXES FOR METALLIC RACEWAYS, 4 IN BY 4 IN. NOMINAL SIZE AND SMALLER, SHALL BE OF THE CAST METAL HUB TYPE AND GASKETED WHEN LOCATED OUTSIDE OF THE BUILDING. BOXES SHALL BE LISTED AS SUITABLE FOR THE ENVIRONMENTAL CONDITIONS OF THE LOCATION THEY ARE INSTALLED. BOXES FOR MOUNTING OF LIGHTING FIXTURES SHALL BE NOT LESS THAN 4 IN. SQUARE EXCEPT SMALLER BOXES SHALL BE INSTALLED WHERE REQUIRED BY FIXTURE CONFIGURATION. UNLESS OTHERWISE INDICATED, DEVICE BOXES FOR RECEPTACLES SHALL BE MOUNTED WITH THE CENTER OF THE DEVICE BOX APPROXIMATELY 18 IN. AFF. INDICATED, DEVICE BOXES FOR TOGGLE SWITCHES SHALL BE MOUNTED WITH THE TOP OF THE ACCESSIBLE PART APPROXIMATELY 48 IN. AFF. BOXES AND BOX SUPPORTS SHALL BE FASTENED TO WOOD WITH WOOD SCREWS OR SCREW TYPE NAILS OF EQUAL HOLDING STRENGTH, WITH BOLTS AND METAL EXPANSION SHIELDS ON CONCRETE AND BRICK, WITH TOGGLE BOLTS ON HOLLOW CMU, AND WITH MACHINE SCREWS OR WELDED STUDS ON STEEL WORK. THREADED STUDS DRIVEN IN BY POWDER CHARGE AND PROVIDED WITH LOCKWASHERS AND NUTS, OR NAIL TYPE NYLON ANCHORS MAY BE USED IN LIEU OF EXPANSION SHIELDS OR MACHINE SCREWS. HANGERS SHALL NOT BE FASTENED OR SUPPORTED FROM JOIST BRIDGING.
- 4. WIRES AND CABLES: EXAMINE RACEWAYS AND BUILDING FINISHES TO RECEIVE WIRES AND CABLES FOR COMPLIANCE WITH INSTALLATION TOLERANCES AND OTHER CONDITIONS. DO NOT PROCEED WITH INSTALLATION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. PULL WIRES AND CABLES INTO RACEWAY SIMULTANEOUSLY WHERE MORE THAN ONE IS BEING INSTALLED IN THE SAME RACEWAY. USE PULLING COMPOUND OR LUBRICANT WHERE NECESSARY: COMPOUND USED MUST NOT DETERIORATE CONDUCTORS OR INSULATION. USE PULLING MEANS, INCLUDING FISH TAPE, CABLE, ROPE, AND BASKET—WEAVE WIRE/CABLE GRIPS THAT WILL NOT DAMAGE WIRES/CABLES OR RACEWAY. INSTALI EXPOSED CABLE, PARALLEL AND PERPENDICULAR TO WALLS, STRUCTURAL MEMBERS AND FEATURES, MECHANICAL DUCT AND PIPING SYSTEMS, OR INTERSECTIONS OF VERTICAL PLANES AND CEILINGS. HORIZONTAL RUNS OF MC CABLE SHALL BE SUPPORTED ON 3 FT MAXIMUM CENTERS. VERTICAL RUNS OF MC CABLES SHALL BE SUPPORTED ON 6 FT MAXIMUM CENTERS. EXPOSED PLENUM CABLE SHALL BE SUPPORTED ON 3 FT MAXIMUM CENTERS. THE NUMBER OF SPLICES SHALL BE KEPT TO AN ABSOLUTE MINIMUM. WIRING AT EACH OUTLET SHALL BE INSTALLED WITH AT LEAST 8 IN. SLACK.
- 5. WIRING DEVICES: INSTALL WIRING DEVICES WHERE INDICATED IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTION, APPLICABLE REQUIREMENTS OF THE NEC, AND RECOGNIZED INDUSTRY PRACTICES. INSTALL WIRING DEVICES IN DEVICE BOXES WHICH ARE CLEAN AND FREE FROM DIRT AND CONSTRUCTION MATERIALS AND DEBRIS. INSTALL WIRING DEVICES AFTER WIRING WORK IS COMPLETE. INSTALL DEVICE PLATES AFTER PAINTING WORK IS COMPLETE. TIGHTEN CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. PRIOR TO ENERGIZING CIRCUITS, TEST WIRING FOR ELECTRICAL CONTINUITY AND SHORTS. ENSURE PROPER POLARITY OF CONNECTIONS IS MAINTAINED. SUBSEQUENT TO ENERGIZING, TEST WIRING DEVICES AND DEMONSTRATE COMPLIANCE WITH REQUIREMENTS.
- 6. GROUNDING: ELECTRICAL SYSTEMS AND EQUIPMENT, METALLIC RACEWAYS AND BOXES, CABLE SHIELDS, METALLIC CABLE SHEATHS AND ARMOR, AND OTHER NON-CURRENT CARRYING METALLIC PARTS OF EQUIPMENT SHALL BE GROUNDED IN CONFORMANCE WITH THE NEC. EQUIPMENT GROUND CONDUCTORS SHALL COMPLY WITH NEC ARTICLE 250 FOR SIZES AND QUANTITIES, EXCEPT WHERE LARGER SIZES AND/OR MORE CONDUCTORS ARE INDICATED. PROVIDE SEPARATE INSULATED GROUND CONDUCTOR IN ALL RACEWAYS, REGARDLESS OF RACEWAY TYPE. SEPARATELY DERIVED SYSTEMS AS DEFINED BY THE NEC SHALL BE GROUNDED IN CONFORMANCE WITH NEC ARTICLE 250 PARA. 26. TERMINATE EQUIPMENT GROUND WIRES FOR FEEDERS AND BRANCH CIRCUITS WITH PRESSURE TYPE GROUND LUGS. WHERE METALLIC CONDUITS TERMINATE AT METALLIC HOUSINGS WITHOUT MECHANICAL AND ELECTRICAL CONNECTION TO HOUSING, TERMINATE EACH CONDUIT WITH A GROUNDING BUSHING. CONNECT GROUNDING BUSHINGS WITH A GROUND WIRE TO THE GROUND BUS IN THE HOUSING. BOND ELECTRICALLY NONCONTINUOUS CONDUITS AT BOTH ENTRANCES AND EXITS WITH GROUNDING BUSHINGS AND GROUND WIRES. TIGHTEN GROUNDING AND BONDING CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH

MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES.

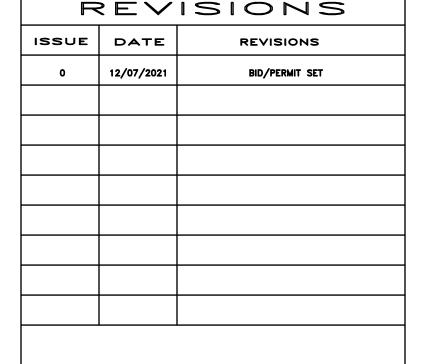
PANELBOARDS: INSTALL PANELBOARDS AND ACCESSORY ITEMS IN ACCORDANCE WITH NEMA PB 1.1 "GENERAL INSTRUCTIONS FOR PROPER INSTALLATION, OPERATION, AND MAINTENANCE OF PANELBOARDS RATED 600 VOLTS OR LESS." AND MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. MOUNT PANELBOARDS PLUMB AND RIGID WITHOUT DISTORTION OF BOX AND WITH THE TOP OF THE TRIM AT 78 IN. AFF UNLESS OTHERWISE INDICATED. PROVIDE NEATLY TYPED AND ACCURATE CIRCUIT DIRECTORIES IN EACH PANELBOARD, REFLECTIVE OF FINAL CIRCUIT CONFIGURATION. PROVIDE FILLER PLATES IN ALL UNUSED SPACES. TRAIN WIRES IN PANELBOARDS GUTTERS NEATLY IN GROUPS, BUNDLE, AND WRAP WITH WIRE TIES. GROUND PANELBOARD IN CONFORMANCE WITH THE NEC. TIGHTEN ELECTRICAL CONNECTORS AND TERMINALS, INCLUDING GROUNDING CONNECTIONS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. PERFORM INSULATION RESISTANCE TESTS OF PANELBOARD BUSES, COMPONENTS, AND FEEDER AND BRANCH CIRCUIT WIRING; INSULATION RESISTANCE LESS THAN 100

FREDDA LIPPES

- 8. DISCONNECTS AND CIRCUIT BREAKERS: PROVIDE DISCONNECTS AND CIRCUIT BREAKERS WHERE INDICATED ON THE ELECTRICAL DRAWINGS AND/OR WHERE REQUIRED BY THE NEC. WHETHER INDICATED ON THE ELECTRICAL DRAWINGS OR NOT. INSTALL DISCONNECTS AND CIRCUIT BREAKERS PLUMB AND LEVEL AND IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. UPON COMPLETION OF INSTALLATION OF DISCONNECTS AND CIRCUIT BREAKERS, ENERGIZE CIRCUITS AND DEMONSTRATE CAPABILITY AND COMPLIANCE WITH REQUIREMENTS. EXCEPT AS OTHERWISE INDICATED, DO NOT DEMONSTRATE DISCONNECTS AND CIRCUIT BREAKERS BY OPERATING THEM UNDER LOAD; HOWEVER, DEMONSTRATE DISCONNECT AND CIRCUIT BREAKER OPERATION THROUGH SIX OPENING/CLOSING CYCLES WITH CIRCUIT UNLOADED. OPEN DISCONNECT AND CIRCUIT BREAKER ENCLOSURES FOR INSPECTION OF INTERIOR. MECHANICAL AND ELECTRICAL CONNECTIONS, FUSE INSTALLATION IF APPLICABLE, AND FOR VERIFICATION OF TYPE AND RATING OF FUSES INSTALLED IF APPLICABLE. CORRECT DEFICIENCIES THEN RETEST TO DEMONSTRATE COMPLIANCE WITH REQUIREMENTS. REMOVE AND REPLACE DEFECTIVE UNITS WITH NEW UNITS AND RETEST.
- 9. LIGHTING FIXTURES: INSTALL FIXTURES WHERE, AND AT HEIGHTS, INDICATED IN ACCORDANCE WITH FIXTURE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS, REQUIREMENTS OF THE NEC, AND RECOGNIZED INDUSTRY PRACTICES. TIGHTEN ELECTRICAL CONNECTORS AND TERMINALS, INCLUDING GROUND CONNECTIONS. IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. RECESSED OR SEMIRECESSED FIXTURES MAY BE SUPPORTED BY CEILING SUPPORT SYSTEM. INSTALL CEILING SUPPORT SYSTEM RODS OR WIRES AT A MINIMUM OF FOUR (4) RODS OR WIRES PER FIXTURE LOCATED NOT MORE THAN 6 IN. FROM FIXTURE CORNERS. FIXTURES WHICH ARE SMALLER THAN CEILING GRID SHALL BE CENTERED IN ACOUSTICAL CEILING PANEL AND SUPPORTED BY AT LEAST TWO (2) 3/4 IN. METAL CHANNELS SPANNING AND SECURED TO CEILING SYSTEM GRID TEES. FIXTURES WHICH LAY—IN CEILING GRID SYSTEM SHALL BE SECURED IN PLACE BY INSTALLATION OF CLIPS WHICH SECURELY FASTEN FIXTURE TO CEILING GRID TEES. SUPPORT SURFACE MOUNT FIXTURES GREATER THAN 2 FT IN LENGTH AT A POINT IN ADDITION TO THE OUTLET BOX FIXTURE STUD. UPON COMPLETION OF INSTALLATION AND JUST PRIOR TO DEMONSTRATION, CLEAN AND RELAMP FIXTURES. LAMP FIXTURES WITH SPECIFIED LAMPS IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS. UPON COMPLETION OF INSTALLATION, DEMONSTRATE CAPABILITY AND COMPLIANCE WITH REQUIREMENTS. WHERE POSSIBLE, CORRECT MALFUNCTIONING FIXTURES AT THE SITE, THEN RETEST TO DEMONSTRATE COMPLIANCE: OTHERWISE, REMOVE MALFUNCTIONING UNITS AND REPLACE WITH NEW UNITS AND PROCEED WITH RETESTING.
- 10. ELECTRICAL POWER & LIGHTING PLANS ARE DIAGRAMMATIC, FINAL LOCATIONS OF OUTLETS AND LIGHT FIXTURES ARE APPROXIMATE. EXACT ROUTING OF WIRING, LOCATIONS OF SWITCHES, OUTLETS & LIGHT FIXTURES SHALL BE GOVERNED BY STRUCTURAL, MECHANICAL AND PLUMBING CONDITIONS AND OBSTRUCTIONS. FINAL LOCATIONS OF ELECTRICAL FIXTURES SHALL BE DETERMINED DURING WALKTHROUGH
- 11. THE MOUNTING HEIGHT OF ALL ELECTRICAL DEVICES. EQUIPMENT. FIXTURES SHALL COMPLY WITH THE STANDARD MOUNTING HEIGHT TABLE AND MOUNTING HEIGHT NOTES UNLESS OTHERWISE NOTED.

W/ GENERAL CONTRACTOR AND OWNER PRIOR TO START OF ROUGH-IN.

ALL ELECTRICAL AND LIGHTING DEVICE INSTALLATION SHALL MAINTAIN THE FIRE RATING SPECIFIED BY THE <sup>2</sup> ARCHITECTURE PLANS





YIQIANG LIN ENGINEER

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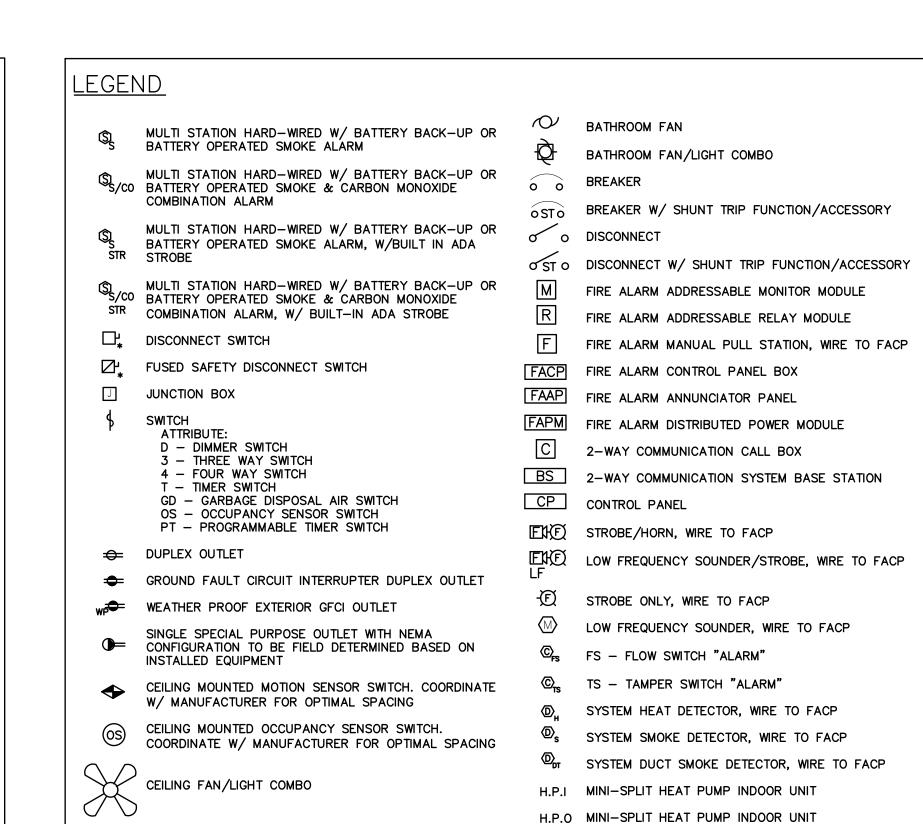
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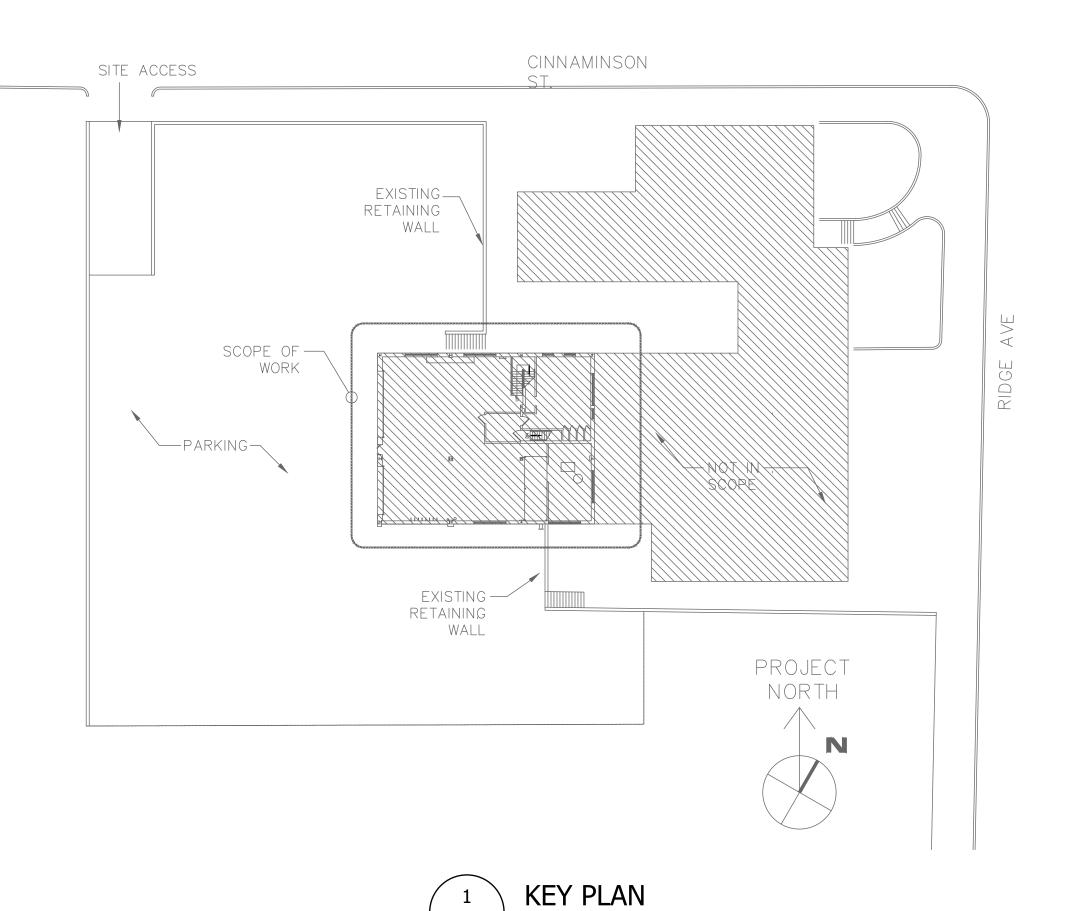
DPP ZONE 5 GARAGE RENOVATIONS

ELECTRICAL COVER SHEET

PROJECT NO.	DRAWING NO.
20-20-4897-01	
DATE 12/07/2021	
SCALE AS NOTED	+ ECS-
DRAWN BY MY	
CHECKED BY LH	
NOTE: ALL DIMENSIONS AND ( VERIFIED BY THE CONT BEFORE PROCEEDING	TRACTOR AT THE SITE

•	AT	FC	FLUID COOLER	0C	ON CENTER
MBV	AT ABOVE	F	FUSE(D)	OCB	OIL CIRCUIT BREAKER
		FA	FIRE ALARM	OCP	OVERCURRENT PROTECTION
DO	AUTOMATIC DOOR OPENER	FACP	FIRE ALARM CONTROL PANEL	PMP	PUMP
Æ	AERIAL ELECTRIC	FAAP	FIRE ALARM ANNUNCIATOR PANEL	PB	PULL BOX
FC.	AMP FRAME	FCU	FAN COIL UNIT	PC	PLUMBING CONTRACTOR
VEC	ABOVE FINISHED CEILING	FDR	FEEDER	P	POLE
vFF	ABOVE FINISHED FLOOR	FI	FILM ILLUMINATOR	PF	POWER FACTOR
'IC	AMPERE INTERRUPTING CAPACITY	FIXT	FIXTURE	POD	POWER OPERATED DAMPER
L	ALTERNATE	FL	FLOOR	PH	PHASE
LT	ALTERNATE	FLUOR	FLUORESCENT	PL	PILOT LIGHT
MD /A	AMMETER	FS	FLOW SWITCH	PNL	PANEL
MP/A	AMPERE	FSS	FUSED SAFETY SWITCH	PRI	PRIMARY
NNUN	ANNUNCIATOR	FUT	FUTURE	PS	PULL STATION
NT	ANTENNA	GA	GAUGE	PSI	POUNDS PER SQUARE INCH
S.	AMMETER SWITCH	GC	GENERAL CONTRACTOR	PT	POTENTIAL TRANSFORMER
TO.	AMP TRIP	GEN	GENERATOR	PWR	POWER
TC	AUTOMATIC TEMPERATURE CONTROL	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	PP	POWER PANEL
TS	AUTOMATIC TRANSFER SWITCH	GFSC	GROUND FAULT SENSING RELAY COIL	R	EXISTING TO RELOCATE
/UX	AUXILIARY	G/GND	GROUND	RECPT	RECEPTACLE(S)
SC SC	BARE COPPER	GTB	GROUND TERMINAL BOX	RGIP	REMOTE GROUND INDICATOR PANI
BKBD	BACKBOARD	1111	HANDUOLE	PE0	REQUIRED
BKR	BREAKER	HH	HANDHOLE	REQ SEC	SECONDARY
BLDG	BUILDING	HOA	HAND-OFF-AUTO		
SEDG SSMT		HT	HEIGHT	SIG	SIGNAL
C/COND	BASEMENT CONDUIT	HVAC	HEATING/VENTILATING/AIR CONDITIONING	SPEC	SPECIFICATION
CAB	CABINET	HID	HIGH INTENSITY DISCHARGE	SS ST	SAFTY SWITCH SHUNT TRIP
B, C/B		HORZ	HORIZONTAL	31	SHUNI IKIP
BL	CABLE	HV	HIGH VOLTAGE	CTD	STANDARD
CTV	CLOSED CIRCUIT TV	HP	HORSEPOWER	STD	STANDARD
	CABINET UNIT HEATER	INCAND	INCANDESCENT	STR	STARTER
CUH CKT		INST	INSTANT	SW	SWITCHOFAR
	CIRCUIT CEILING	ILL	ILLUMINATION	SWGR	SWITCHGEAR
CONINI		IMC	INTERMEDIATE METAL CONDUIT	SYS	SYSTEM
CONCT	CONNECTION	JB	JUNCTION BOX	TEL	TELEPHONE
CONST	CONSTRUCTION	JUNC	JUNCTION	TEMP	TEMPERATURE
CONT	CONTROLLER	kVA	KILOVOLT AMPERE	TP	TAMPERPROOF (CONSTRUCTION)
	CONTRACTOR	kW	KILOWATT	TV	TELEVISION
CT No.	CURRENT TRANSFORMER	kWH	KILOWATT HOUR	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
Cu ND	COPPER	LIM	LINE ISOLATION MONITOR	TVD	
)B	DIRECT BURIAL	LO	LUGS ONLY	TYP	TYPICAL
EMO	DEMOLITION DIRECT CHERENT	LS	LIMIT SWITCH	UC	UNDERCOUNTER
)C	DIRECT CURRENT	LTS	LIGHTS	U/F	UNFUSED
IA	DIAMETER	LTO	LICHTING	UNO	UNLESS NOTED OTHERWISE
OISC	DISCONNECT	LTG	LIGHTING DANIEL	UL	UNDERWRITERS' LABORATORY
IST	DISTRIBUTION	LP	LIGHTING PANEL	UV	
)WG	DRAWING	LV	LOW VOLTAGE		UNDER VOLTAGE
	EXISTING TO REMAIN	MC	MECHANICAL CONTRACTOR	UH V	UNIT HEATER
A	EACH	MCB	MAIN CIRCUIT BREAKER		VOLT
.A .C	EMPTY CONDUIT	MDP	MAIN LUCE ONLY	VERT	VERTICAL VOLTMETER
.C :F	EXHAUST FAN	MLO	MAIN LUGS ONLY	VM VD	VOLTMETER
.г :G	EQUIPMENT GROUND	MFR	MANUFACTURER	VP VS	VAPOR PROOF
.G .J	EXPANSION JOINT	MH	MANHOLE CAMERON CONTROLL	VS WSUD	VOLTMETER SWITCH
.J ILEC	ELECTRICAL	MTS	MANUAL TRANSFER SWITCH	WSHP	WATER SOURCE HEAT PUMP
LEC LEV		MCC	MOTOR CONTROL CENTER	W	WATT
LEV MERG	ELEVATOR EMERCENCY	MO	MECHANICALLY OPERATED	W WP	WIRE
	EMERGENCY	MIN	MINIMUM		WEATHERPROOF
UH	ELECTRIC UNIT HEATER	MSP	MOTOR STARTER PANEL	WT	WATER TIGHT
MT	ELECTRICAL METALLIC TUBING	MTD	MOUNTED	XFMR	TRANSFORMER
NCL	ENCLOSURE			XFR	TRANSFER
.0 	ELECTRICALLY OPERATED	NC	NORMALLY CLOSED	XMTR	TRANSMITTER
BBH CUID	ELECTRIC BASEBOARD HEATER	NIC	NOT IN CONTRACT	XPDR	TRANSPONDER
QUIP	EQUIPMENT	NFSS	NON-FUSED SAFETY SWITCH	XΡ	EXPLOSION PROOF
WC	ELECTRIC WATER COOLER	NO	NORMALLY OPEN	Ø	PHASE
ΪX	EXISTING	NTS	NOT TO SCALE		





ECS-2 SCALE: NOT TO SCALE



REVISIONS

REVISIONS

BID/PERMIT SET

ISSUE DATE

12/07/2021

PROJECT COORDINATOR FREDDA LIPPES



SEILER + DRURY

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1400 JFK BLVD 7TH FLR CITY HALL

PHILADELPHIA PENNSYLVANIA

DPP ZONE 5 GARAGE RENOVATIONS

RAWING TITLE

ELECTRICAL COVER SHEET

PROJECT NO.	DRAWING NO.
20-20-4897-01	
DATE 12/07/2021	ECS-2
SCALE AS NOTED	
DRAWN BY MY	
CHECKED BY LH	
MOTE: ALL DIMENSIONS AND CO VERIFIED BY THE CONTR BEFORE PROCEEDING	ACTOR AT THE SITE

#### HATCH LEGEND:



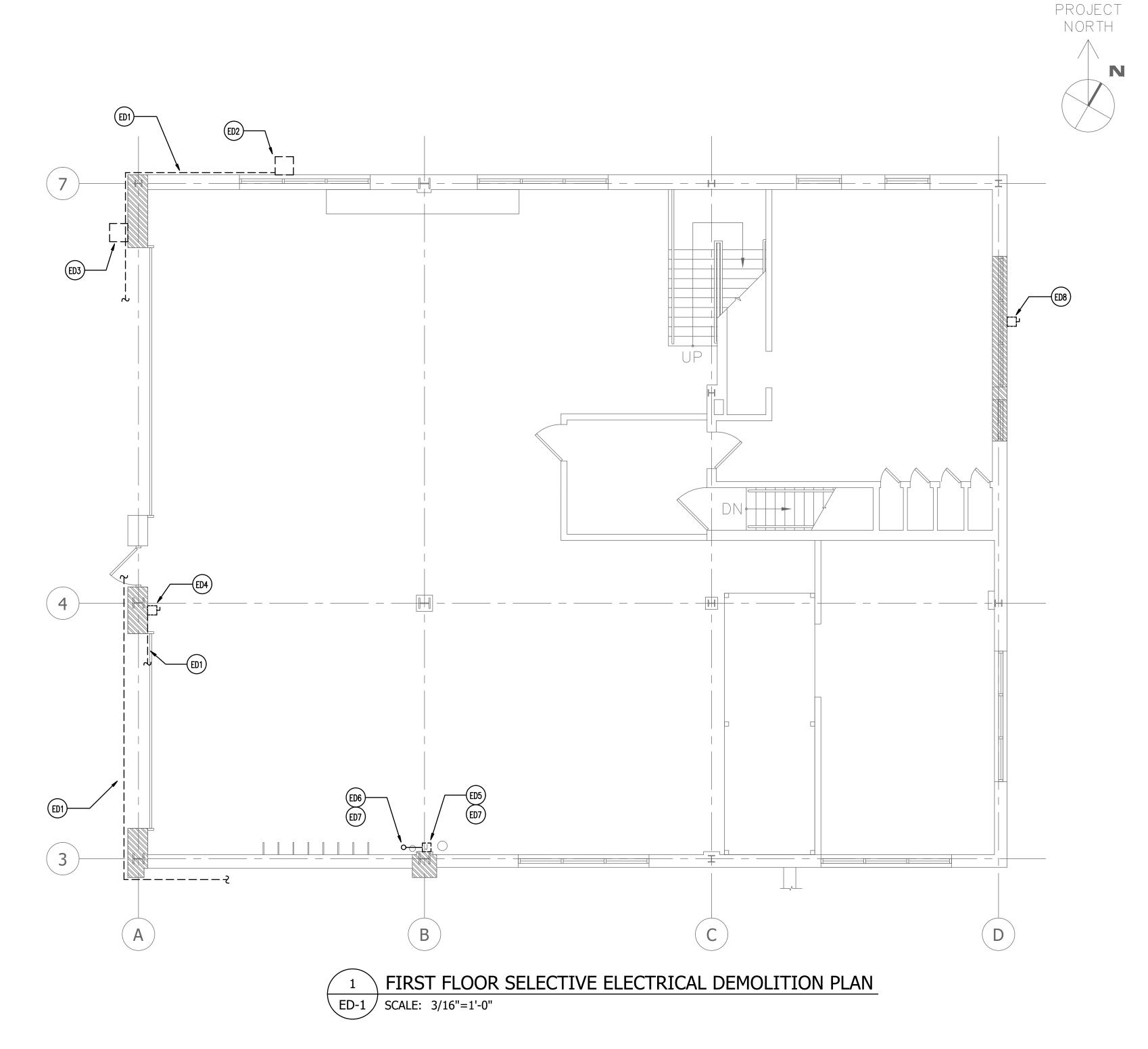
STRUCTURAL REPAIR AREA. COORDINATE WITH THE ARCHITECT AND STRUCTURAL ENGINEER FOR EXACT LOCATION.

#### SELECTIVE ELECTRICAL DEMOLITION PLAN GENERAL NOTES:

- 1. FOR GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS SEE DRAWING ECS-1 & ECS-2.
- 2. ALL ELECTRICAL DEVICES, EQUIPMENT, WIRES, CONDUITS THAT ARE NOT SHOWN ARE EXISTING TO REMAIN. PROPERLY PROTECT THEM FROM DAMAGE DURING DEMOLITION.
- 3. LOCATION OF ALL EXISTING CONDUITS, EQUIPMENT ARE APPROXIMATE. VERIFY IN FIELD PRIOR TO COMMENCING WORK.
- 4. THE WORK HEREIN CONSISTS OF PROVIDING MATERIALS, EQUIPMENT, LABOR AND SERVICES, AND PERFORMING OPERATIONS REQUIRED TO REMOVE/RELOCATE ANY ELECTRICAL CONDUITS, EQUIPMENT AND ASSOCIATED WRING THAT INTERFERE WITH THE PERFORMING OF THE STRUCTURAL REPAIRS.
- 5. PRIOR ANY REMOVAL, THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING WIRING IN FIELD AND MAINTAIN THE ELECTRICAL SERVICES OF ANY EQUIPMENT AND OTHER AREAS THAT NEED TO REMAIN OPERATIONS, UPON OWNER'S REQUEST, DURING THE STRUCTURAL REPAIRS BY MAINTAINING EXISTING WIRING OR
- 6. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN THE POWER SUPPLY, CIRCUIT INTEGRITY AND FULLY FUNCTION OF THE EXISTING FIRE ALARM & COMMUNICATION SYSTEM. IF ANY TEMPORARILY REMOVAL OF FIRE ALARM & COMMUNICATION DEVICES AND WIRING IS REQUIRED, CONTRACTOR SHALL COORDINATE WITH OWNER, FIRE ALARM COMPANY AND FIRE DEPARTMENT PRIOR TO THE REMOVAL.
- 7. THE CONTRACTOR SHALL PERFORM ALL THE WORK UNDER THIS SECTION WITH MINIMAL INTERFERENCE WITH FUNCTIONING EXISTING ELECTRICAL SYSTEMS WITHIN AND OUTSIDE THE CONTRACT AREAS. ALL EXISTING SYSTEMS THAT NEED TO REMAIN IN SERVICES SHALL BE PROTECTED AGAINST DAMAGE. SHOULD ANY EXISTING SYSTEMS OF THEM BE AFFECTED, THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH OWNER AND THE AFFECTED SYSTEMS SHALL BE RESTORED.
- 8. DEMOLITION WORK SHALL BE SUBJECT TO DIRECTION AND APPROVAL OF THE CITY OR THE CITY'S REPRESENTATIVE, AND SHALL NOT INTERFERE WITH ACTIVITIES IN OTHER BUILDING AREAS.
- 9. THE WORK UNDER THIS SECTION SHALL BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER. THE CONTRACTOR SHALL PATCH, REPAIR OR OTHERWISE RESTORE ANY DAMAGED INTERIOR OR EXTERIOR BUILDING SURFACE TO ITS ORIGINAL CONDITION/OR TO RECEIVE NEW FINISHES AT NO ADDITIONAL COST.
- 10. THE CONTRACTOR SHALL REVIEW WITH OWNER ALL MATERIALS TO BE REMOVED OR DEMOLISHED PRIOR TO DEMOLITION WORK, UPON ANY REQUEST BY OWNER TO KEEP ANY MATERIALS, THE CONTRACTOR SHALL REMOVE AND DELIVER THE MATERIALS TO AN APPROVED LOCATION.
- 11. ALL EXISTING EQUIPMENT AND MATERIALS TO BE SALVAGED OR REUSED AS INDICATED BY THE PLAN SHALL BE STORED IN A SAFE PLACE AS DIRECTED BY OWNER AND BE CLEANED, RECONDITIONED, CALIBRATED AND ADJUSTED TO THE CONTRACTOR'S BEST CAPACITY. IN CASE WHERE THE EXISTING EQUIPMENT OR MATERIALS CANNOT BE PROPERLY RESTORED DUE TO PRIOR DEFECTS, THE CONTRACTOR SHALL REPORT TO ENGINEER AND OWNER FOR DIRECTIONS
- 12. UNLESS OTHERWISE, THE CONTRACTOR OWNS ALL DEMOLISHED OR REMOVED MATERIALS ON SITE, AND IS RESPONSIBLE TO PROMPTLY DISPOSE IN A LEGAL MANNER.
- 13. THE CONTRACTOR SHALL COORDINATE THE PROJECTED DEMOLITION WORK AND PHASING SCHEDULES WITH OWNER AND OTHER TRADES AT THE APPROPRIATE TIME SO THAT THE REMOVAL OR RELOCATION OF ANY EXISTING CONDUITS, WIRING AND EQUIPMENT MAY BE CARRIED OUT IN COORDINATION WITH THE PROJECT
- 14. ANY ELECTRICAL SERVICE SHUTDOWNS REQUIRED SHALL BE COORDINATED WITH AND APPROVED BY THE OWNER BEFORE THEY ARE IMPLEMENTED. SUFFICIENT ADVANCE NOTICE MUST BE PROVIDED TO THE OWNER.
- 15. ALL WORK UNDER THIS SECTION SHALL BE COORDINATED WITH ALL OTHER DISCIPLINES PRIOR TO THE WORK.

  IDENTIFY ALL ELECTRICAL CONDUIT TO REMAIN. TRANSMIT TO OTHER TRADES AND PARTICIPATE IN ALL TRADES

  COORDINATION DRAWNICS
- 16. WHERE EXISTING ELECTRICAL OR COMMUNICATION SERVICES ARE TO BE ABANDONED IN PLACE, SERVICES SHALL BE TERMINATED IN ACCORDANCE WITH THE N.E.C.

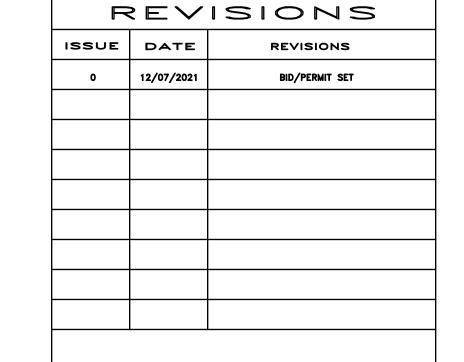


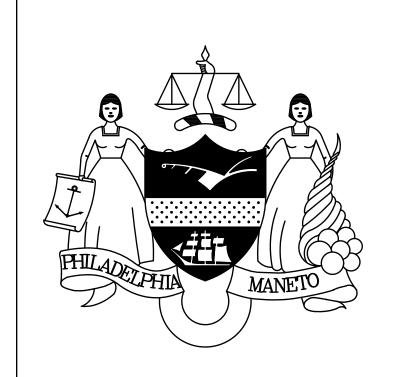
## SELECTIVE ELECTRICAL DEMOLITION PLAN KEY NOTES

- DISCONNECT AND REMOVE THE EXISTING ELECTRICAL CONDUIT, ASSOCIATED WIRING AND ACCESSORIES ATTACHED TO THE EXTERIOR WALL. SALVAGE THE EXISTING CONDUIT FOR REUSE IF FEASIBLE. IDENTIFY, DISCONNECT AND TEMPORARILY "SAFE-OFF" AND CLEARLY TAG/MARK ASSOCIATED EXISTING WIRING, PREPARE FOR RECONNECTION.
- DISCONNECT AND REMOVE THE EXISTING EXTERIOR LIGHT FIXTURE, ASSOCIATED WIRING/CONDUIT AND THE JUNCTION BOX. REMOVE ANY ACCESSORIES ATTACHED TO THE EXTERIOR WALL. SALVAGE THE EXISTING LIGHT FIXTURE AND DELIVER TO OWNER. PREPARE FOR INSTALLATION OF NEW LED LIGHT FIXTURE AT THE ORIGINAL LOCATION.
- DISCONNECT AND DEMOLISH THE EXISTING EXTERIOR LIGHT FIXTURE, ASSOCIATED WIRING/CONDUIT AND THE JUNCTION BOX. REMOVE ANY ACCESSORIES ATTACHED TO THE EXTERIOR WALL.
- VERIFY THE EXISTING MOTOR AND THE DISCONNECT FOR THE GARAGE DOOR IN FIELD. REMOVE AND DISCONNECT THE EXISTING MOTOR, DISCONNECT, CONDUIT AND ASSOCIATED ACCESSORIES FROM THE INTERIOR WALL.SALVAGE, IDENTIFY, TEMPORARILY "SAFE—OFF" AND CLEARLY TAG/MARK ASSOCIATED EXISTING WIRING, PREPARE FOR RECONNECTION IN FIELD.
- VERIFY THE EXISTING JUNCTION BOX IN FIELD. REMOVE THE EXISTING JUNCTION BOX, CONDUIT AND ASSOCIATED ACCESSORIES ON THE INTERIOR WALL. IF THE EXISTING WIRING IS NOT IN SERVICE ANYMORE, DISCONNECT AND DEMOLISH THE EXISTING WIRING BACK TO THE JUNCTION BOX WHERE IT ORIGINATES FROM. OTHERWISE, IDENTIFY, DISCONNECT, TEMPORARILY "SAFE—OFF" AND CLEARLY TAG/MARK ASSOCIATED EXISTING WIRING, PREPARE FOR RECONNECTION.

### SYMBOL: X

- DISCONNECT AND REMOVE THE EXISTING VERTICAL & HORIZONTAL ELECTRICAL CONDUIT MOUNTED ON THE INTERIOR WALL. REMOVE THE ASSOCIATED ACCESSORIES. SALVAGE THE EXISTING CONDUITS FOR REUSE IF FEASIBLE. IDENTIFY, DISCONNECT, TEMPORARILY "SAFE-OFF" AND CLEARLY TAG/MARK ALL ASSOCIATED EXISTING WIRING, PREPARE FOR RECONNECTION.
- PROVIDE NEW TEMPORARY SUPPORTS FOR THE EXISTING CONDUITS AND JUNCTION BOX FROM FLOOR OR OTHER NEAR STRUCTURES PER NEC SUCH THAT THE TEMPORARY SUPPORTS OR THEIR ACCESSORIES WILL NOT ATTACH TO THE INTERIOR WALL STRUCTURAL REPAIR AREA AND WILL NOT INTERFERE WITH THE PERFORMING THE STRUCTURAL REPAIR. THEN REMOVE THE EXISTING WALL MOUNT HANGERS FOR THE EXISTING CONDUITS IN THE AREA OF STRUCTURAL REPAIR.
- VERIFY THE EXISTING ELECTRICAL DISCONNECT FOR THE EXISTING HEAT-PUMP CONDENSER IN FIELD. DISCONNECT AND REMOVE THE EXISTING DISCONNECT, CONDUIT AND ASSOCIATED ACCESSORIES FROM THE EXTERIOR WALL. SALVAGE, IDENTIFY, TEMPORARILY "SAFE-OFF" AND CLEARLY TAG/MARK ASSOCIATED EXISTING WIRING, PREPARE FOR RECONNECTION.





PROJECT COORDINATOR

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SEALS

PROFESSIONAL

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CAPITAL PROJECTS DIVISION
1400 JFK BLVD 7TH FLR CITY HALL

PROJECT TITLE

DPP ZONE 5 GARAGE RENOVATIONS

RAWING TITLE

SELECTIVE ELECTRICAL DEMO
PLANS & NOTES

ED-1

PROJECT NO.
20-20-4897-01

12/07/2021

AS NOTED

WWN BY
MY

MOTE:

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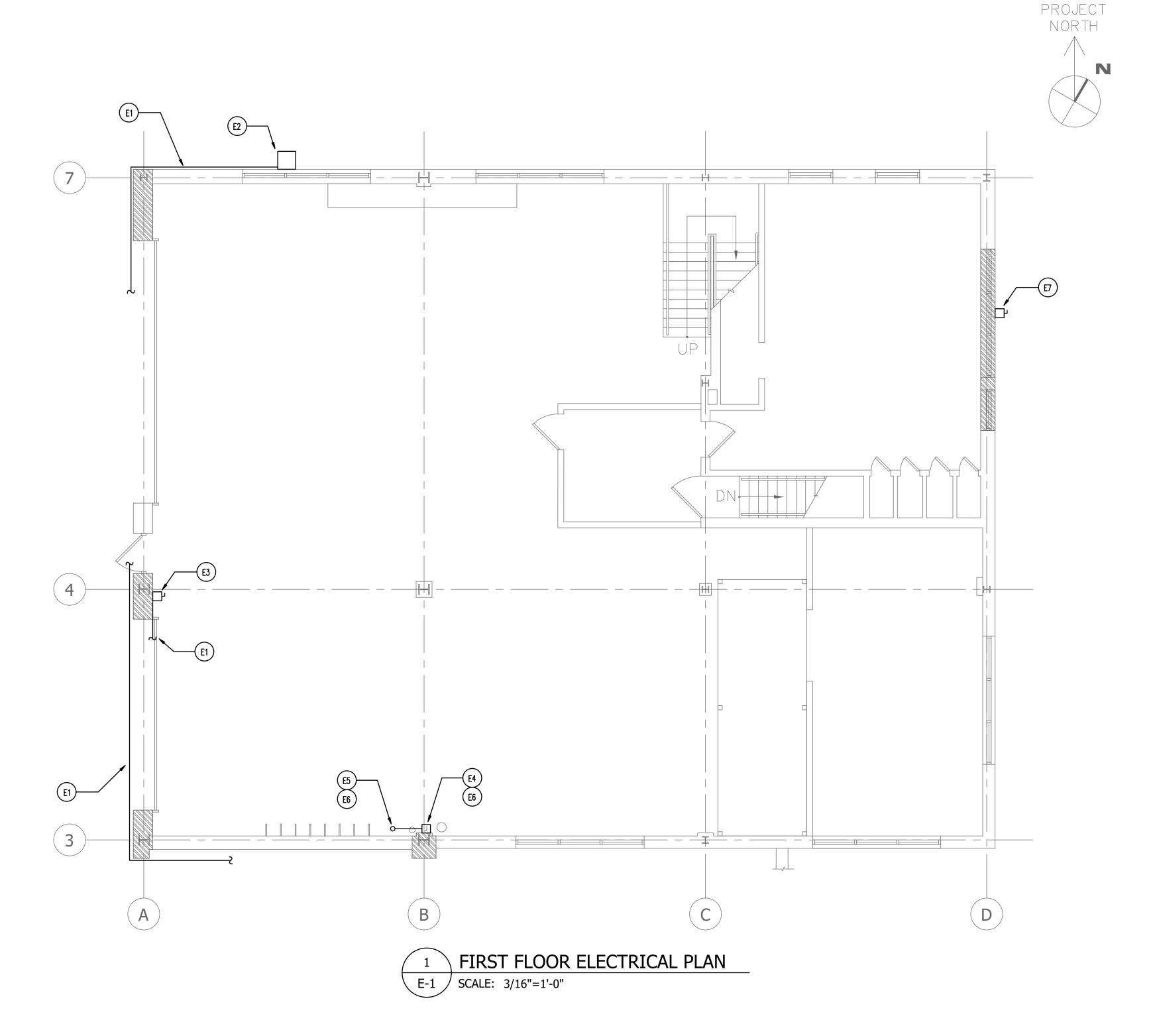
ELECTRICAL PLAN KEY NOTES

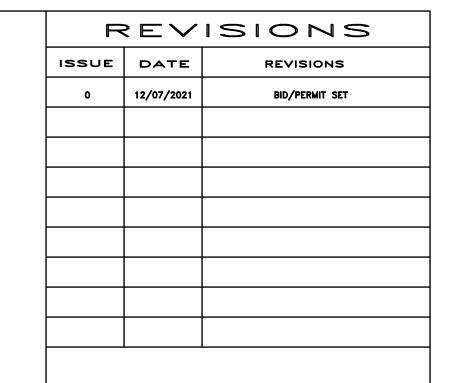
SYMBOL: X

- REUSE AND RECONNECT THE EXISTING WIRING. REINSTALL THE CONDUIT AND ASSOCIATED SUPPORTS AND ACCESSORIES AT THE ORIGINAL LOCATION PER NEC.
- REUSE AND EXTEND THE EXISTING WIRING, INSTALL NEW LED LIGHT FIXTURE AT THE ORIGINAL LOCATION.
- REUSE AND REINSTALL THE EXISTING MOTOR, DISCONNECT, WIRING, CONDUIT, ASSOCIATED SUPPORTS AND ACCESSORIES AT THE ORIGINAL LOCATION AS SHOWN IN THE PLAN PER NEC.
- REUSE AND REINSTALL THE EXISTING JUNCTION BOX AND ASSOCIATED SUPPORTS AT THE ORIGINAL LOCATION PER NEC.
- REUSE AND RECONNECT THE EXISTING WIRING. REINSTALL THE VERTICAL & HORIZONTAL CONDUIT, ASSOCIATED SUPPORTS AND ACCESSORIES AT THE ORIGINAL LOCATION PER NEC.
- REMOVE THE TEMPORARY SUPPORTS FROM FLOOR OR NEAR STRUCTURES FOR THE EXISTING CONDUITS AND PROVIDE NEW SUPPORTS AND ACCESSORIES ON THE INTERIOR WALL FOR THE EXISTING CONDUIT.
- REUSE AND REINSTALL THE EXISTING DISCONNECT, WIRING, CONDUIT, ASSOCIATED SUPPORTS AND ACCESSORIES AT THE ORIGINAL LOCATION PER NEC.

	LIGHTIN	G FIXTURE SCHEDU	LE			
SYMBOL/TAG	DESCRIPTION	BASIS OF DESIGN	CATALOG NUMBER	LAMP	WATTAGE	VOLTS
	EXTERIOR LED WALL LUMINAIRE	LITHONIA	TWX2 LED — ALO — 30K — MVOLT — PE — DDBXD	LED	54W	120V

NOTE: 1. ALL MANUFACTURE AND CATALOG NUMBER IN LIGHTING FIXTURE SCHEDULE ARE BASIS OF DESIGN. CONTRACTOR SHALL SELECT AS THE SAME OR THE EQUIVALENT.

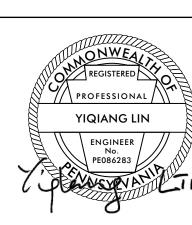






PROJECT COORDINATOR

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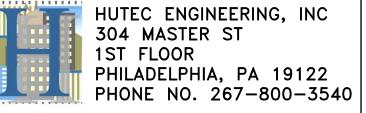


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PHILADELPHIA PENNSYLVANIA

PHILADELPHIA PENN
PROJECT TITLE

DPP ZONE 5 GARAGE RENOVATIONS

DRAWING TITLE

ELECTRICAL PLAN

PROJECT	NO.	DRAWING NO.
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