

2 CAMPUS PLAN
SCALE: 1" = 40'-0"

INCLUDING BARRICADES, WARNING SIGNS, LIGHTS, ETC.

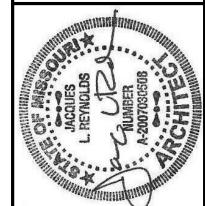
STATE OF MISSOURI

SCALE: 12" = 1'-0"

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<u>S</u>

Y R-II SCHOOL DISTRICT

GH SCHOOL ADDITIONS

ISSUED FOR BIDDING

NOT FOR

CONSTRUCTION

ISSUE DATE: 5/8/20

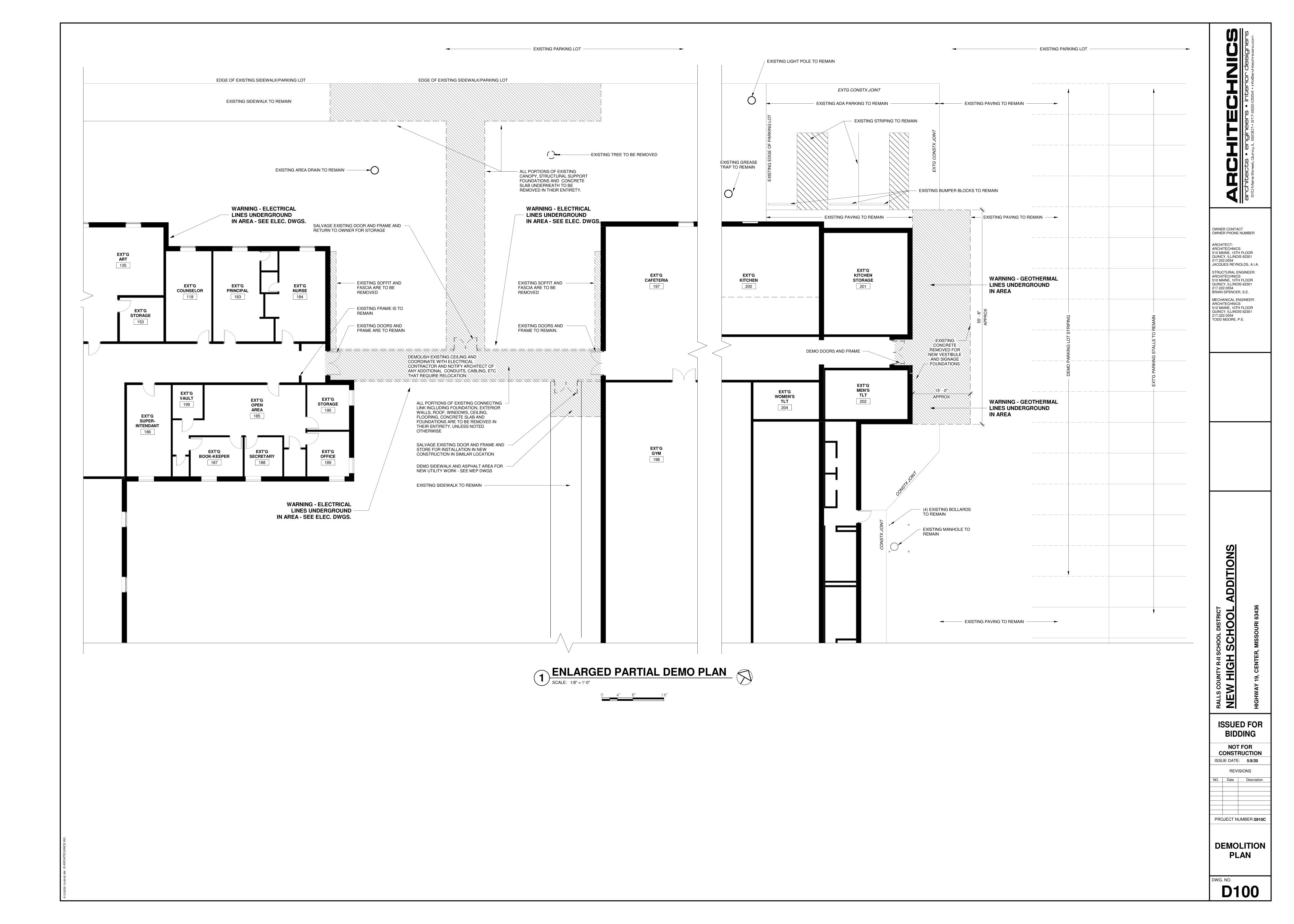
REVISIONS

NO. Date Description

PROJECT NUMBER:5910C

TITLE SHEET

G000



GENERAL NOTES

1. STRUCTURAL DRAWINGS ARE TO BE COORDINATED AND USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS. SEE MECHANICAL DRAWINGS FOR EQUIPMENT PADS, BASES, SUPPORTS, AND DUCT PENETRATIONS.

2. ARCHITECHNICS, INC. SHALL NOT BE RESPONSIBLE FOR, NOR HAVE CONTROL OR CHARGE OF CONSTRUCTION MEANS, METHODS, FECHNIQUES, SEQUENCES OR PROCEDURES FOR THE SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THIS PROJECT, AND SHALL NOT BE RESPONSIBLE FOR CONTRACTOR'S FAILURE TO CARRY OUT HIS WORK IN ACCORDANCE WITH THE

3. ARCHITECHNICS, INC. SHALL NOT BE RESPONSIBLE FOR, NOR HAVE CONTROL OVER, THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, ANY OF THEIR AGENTS, OF EMPLOYEES. OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK. OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

4. THE CONTRACTOR SHALL PROVIDE AND BE RESPONSIBLE FOR ALL TEMPORARY SHORING AND BRACING REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT. ALL SHORING AND BRACING MEMBERS AND CONNECTIONS SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT THE IMPOSED LOADS. TEMPORARY MEMBERS AND CONNECTIONS SHALL NOT BE REMOVED UNTIL PERMANENT MEMBERS ARE IN PLACE AND FINAL CONNECTIONS ARE MADE.

5. CONTRACTOR SHALL VERIFY IN FIELD ALL DIMENSIONS ELEVATIONS AND MEMBER SIZES AS SHOWN ON THE CONTRACT DRAWINGS FOR THE EXISTING CONSTRUCTION PRIOR TO TI DETAILING OR FABRICATION OF ANY NEW STRUCTURAL ELEMENT CONTRACTOR SHALL DOCUMENT ANY CONSTRUCTION-RELATEI DISCREPANCIES. CONTRACTOR SHALL FURNISH THE ABOVE IFORMATION IN THE FORM OF DETAILED SKETCHES TO TH ARCHITECT / STRUCTURAL ENGINEER FOR REVIEW (28) CALENDAR DAYS PRIOR TO THE SCHEDULED START OF ANY DETAILING OR FARRICATION

6. THE CONTRACTOR SHALL PROVIDE ALL MEASURES AND PRECAUTIONS NECESSARY TO PREVENT DAMAGE AND ITLEMENT OF EXISTING OR NEW CONSTRUCTION INSIDE OR TSIDE THE PROJECT LIMITS DURING EXCAVATION AND FOUNDATION CONSTRUCTION. ANY DAMAGE TO NEW OR EXISTING CONSTRUCTION INSIDE OR OUTSIDE OF THE PROJECT LIMITS CAUSED BY CONSTRUCTION TECHNIQUES IS THE RESPONSIBILITY

7. NO FIELD MODIFICATIONS TO ANY STRUCTURAL COMPONENTS SHALL BE MADE WITHOUT PRIOR APPROVAL BY THE ARCHITEC STRUCTURAL ENGINEER. THIS INCLUDES, BUT IS NOT LIMITED TO REVISIONS DUE TO MISLOCATION, MISFIT, OR ANY OTHER CONSTRUCTION ERRORS

8. NO OPENING SHALL BE PLACED IN ANY STRUCTURAL MEMBER (OTHER THAN AS INDICATED ON APPROVED SHOP DRAWINGS) JNTIL THE LOCATION HAS BEEN APPROVED BY THE ARCHITECT

9. PROVIDE SLEEVE LAYOUTS FOR ALL PENETRATIONS THROUGH

STRUCTURAL MEMBERS (ALL TRADES ARE INCLUDED). LAYOUTS ARE TO BE SUBMITTED TO THE ARCHITECT / STRUCTURAL ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION. 10. SUPPORT ALL ROOF MOUNTED EQUIPMENT OR EQUIPMENT USPENDED FROM FLOORS OR THE ROOF ONLY ON/FROM BEAMS

DESIGNATED FOR SUCH PURPOSE. IF NO SUPPORT HAS BEEN DESIGNATED. OR IF A QUESTION ARISES, NOTIFY ARCHITECT STRUCTURAL ENGINEER PRIOR TO ERECTION OF EQUIPMENT 11. ALL DETAILS, SECTIONS, AND NOTES ON THE DRAWINGS AF INTENDED TO BÉ TYPICAL FOR SIMILAR SITUATIONS ELSEWHER

UNLESS OTHERWISE NOTED. FOR DETAILS AND DIMENSIONS NOT INDICATED ON THE STRUCTURAL DRAWINGS, SEE THE ARCHITECTURAL DRAWINGS. 12. MATERIALS AND EQUIPMENT SHALL BE STORED AND TRANSPORTED IN A MANNER SO AS NOT TO EXCEED THE LLOWABLE FLOOR OR ROOF LOADING INDICATED IN TH

MEMBER, WHICHEVER IS SMALLER. **SHOP DRAWINGS**

PROJECT SPECIFICATION.

1. ALL SHOP DRAWING SUBMITTALS SHALL BE AS DESCRIBED IN THE PROJECT SPECIFICATIONS OR IN THESE NOTES IF THERE IS NO

CHEDULE OF BUILDING DESIGN LOADS" ON THE CONSTRUCTION

DOCUMENTS OR THE ALLOWABLE CAPACITY OF THE CONSTRUCTED

2. SHOP DRAWINGS AND RELATED MATERIALS PREPARED BY UPPLIERS AND SUBCONTRACTORS SHALL BE REVIEWED BY TH SENERAL CONTRACTOR PRIOR TO SUBMITTING TO THE ARCHITECT STRUCTURAL ENGINEER. THE GENERAL CONTRACTOR SHALL REVIEW ALL SUBMISSIONS FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, MEANS, METHODS, TECHNIQUES EQUENCES. AND OPERATION OF CONSTRUCTION. TECHNICA CONTENT COORDINATION OF TRADES DIMENSIONAL ACCURACY SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE GENERAL ONTRACTOR. THE GENERAL CONTRACTOR SHALL APPROVE AND O STAMP EACH SUBMISSION

3. THE STRUCTURAL DRAWINGS SHALL NOT BE USED AS THE BACKGROUNDS FOR THE PRODUCTION OF ANY SHOP DRAWINGS THAT ARE SUBMITTED FOR REVIEW.

4. SUBMIT (1) ONE REPRODUCIBLE AND (1) PRINT FOR REVIEW. ONE REPRODUCIBLE WILL BE RETURNED UPON COMPLETION OF REVIEW. MULTIPLE COPIES OF DRAWINGS WILL NOT BE MARKED-UP WITH REVIEW COMMENTS

5. ANY DEVIATIONS FROM THE ORIGINAL DESIGN OR DESIGN CRITERIA AS SPECIFIED ON THE CONTRACT DOCUMENTS OF THE PROJECT SHALL BE NOTED (BUBBLED, NOTE, ETC.) ON THE SHOP DRAWINGS THAT ARE SUBMITTED FOR APPROVAL.

6. ALL CHANGES TO RESUBMITTED SHOP DRAWINGS SHALL BE

1. FOUNDATION STRUCTURE IS BASED ON THE USE OF CONTINUOUS STRIP FOOTINGS AND/OR SPREAD FOOTINGS APPLYING A MAXIMUM PRESSURE OF 1500 POUNDS PER SQUARE

2. ALL ENGINEERED FILL IS TO BE COMPACTED TO ACHIEVE THIS BEARING PRESSURE AS VERIFIED BY FIFLD TESTING BY A LICENSET GEOTECHNICAL ENGINEER. IF FIELD CONDITIONS DO NOT PROVIDE IS MINIMUM VALUE. THE ARCHITECT AND ARCHITEC STRUCTURAL ENGINEER SHOULD BE NOTIFIED IMMEDIATELY.

3. SHOULD UNSUITABLE BEARING CONDITIONS BE ENCOUNTERED DURING EXCAVATION, NOTIFY THE OWNER, ARCHITECT, AND ARCHITECT / STRUCTURAL ENGINEER BEFORE CONTINUING WITH CONSTRUCTION.

4. THE CONCRETE FOR EACH ISOLATED FOOTING SHALL BE PLACED 5. ALL SLABS-ON-GRADE SHALL BE PLACED OVER AN EXTREME LOW PERMEANCE VAPOR BARRIER, 15 MIL MINIMUM THICKNESS, OVER A BASE/SUBBASE AS SPECIFIED BY THE GEOTECHNICAL ENGINEER FOR THE PROJECT. EXISTING SUBBASE WILL BE COMPACTED IN PLACE OR WILL BE CUT OUT AND REPLACED WITH AN ENGINEERED

FILL AS SPECIFIED BY A GEOTECHNICAL ENGINEER. 6. DO NOT BACKFILL AGAINST BASEMENT WALLS UNTIL PERMANENT BELOW GRADE LATERAL BRACING SYSTEM AND THE FIRST FLOOR FRAMING AND SLAB ABOVE THE BASEMENT IS IN PLACE AND THE CONCRETE HAS ATTAINED FULL DESIGN STRENGTH. 7. THE CONTRACTOR MUST PROVIDE SURFACE DRAINAGE AND PUMPS TO PROTECT ALL EXCAVATION FROM FLOODING, FLOODING OF ANY EXCAVATION AFTER APPROVAL OF THE SUBGRADE WILL BE CAUSE FOR COMPLETE RE-PREPARATION AND RE-APPROVAL OF

FOUNDATIONS (con't.)

THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEASURES PREVENT ANY WATER, FROST OR ICE FROM PENETRATING ANY OOTING OR SLAB SUBGRADE BEFORE AND AFTER PLACING OF CONCRETE AND UNTIL SUCH SUBGRADES ARE FULLY PROTECTED THE PERMANENT BUILDING STRUCTURE.

THE CONTRACTOR SHALL REVIEW ALL EXISTING SITE CONDITIONS AND THE SUBSURFACE SOILS EXPLORATION REPORT ND ESTABLISH SPECIFIC "CONSTRUCTION PROCEDURES AND SEQUENCES" FOR THE EXCAVATION, COMPACTION, FILL AND NSTALLATION OF THE NEW BUILDING FOUNDATION. SUBMIT THESE FOR REVIEW TO THE OWNER'S SOIL TESTING LABORATORY. DWNER'S REPRESENTATIVE, ARCHITECT / STRUCTURAL ENGINEER THE CONTRACTOR'S DESIGN, MEANS AND METHODS FOR FOUNDATION CONSTRUCTION SHALL MINIMIZE SETTLEMENT OF ADJACENT CONSTRUCTION. THE CONTRACTOR SHALL BEAR SOLE ESPONSIBILITY FOR ALL REMEDIAL WORK RESULTING FROM SUCH

). RECORDS OF ANY EXISTING SUBGRADE INTERFERENCES OTHER THAN THOSE INTERFERENCES SHOWN OR INDICATED ON THE CONSTRUCTION DOCUMENTS, ARE NOT CURRENTLY AVAILABLE URING EXCAVATION WORK. INTERFERENCES MAY BE SCOVERED. CONTRACTOR SHALL DOCUMENT CONSTRUC ELATED DIMENSIONS OF ALL INTERFERENCES. CONTRACTOR TO FURNISH THE ABOVE INFORMATION IN THE FORM OF DETAILED SKETCHES TO THE ARCHITECT / STRUCTURAL ENGINEER FOR

11. REFER TO THE <u>TESTING AND INSPECTION</u> SECTION OF THESE NOTES FOR THE FOUNDATION TESTING AND INSPECTION

STRUCTURAL CONCRETE

CONCRETE MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN

CONCRETE INSTITUTE PUBLICATIONS: A. ACI 301 - "SPECIFICATIONS FOR STRUCTURAL CONCRETE A FOR BUILDINGS B. ACI 302 - "RECOMMENDED PRACTICE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION" C. ACI 304 - "ACI MANUAL OF CONCRETE INSPECTION D. ACI 311 - "RECOMMENDED PRACTICE FOR MEASURING, MIXING. TRANSPORTING AND PLACING CONCRETE" E. ACI 315 - "DETAILS AND DETAILING OF CONCRETE

F. ACI 318 - "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE' G. ACI 347 - "RECOMMENDED PRACTICE FOR CONCRETE

2. PROVIDE CONCRETE TO OBTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:

REINFORCEMENT

A. SPREAD FOOTINGS	f'c = 4000 PS
B. WALL FOOTINGS	
C. COLUMNS	f'c = 4000 PS
D. SHEAR WALLS	f'c = 4000 PSI
E. BEAMS AND GIRDERS	
F. STRUCTURAL SLABS	f'c = 4000 PS
G. SLABS-ON-METAL DECK	f'c = 4000 PSI, LIGHTWEIGH
H. INTERIOR CONCRETE STAIRS	
I. INTERIOR SLABS-ON-GRADE	
J. CAISSONS	f'c = 4000 PSI
K. PILE CAPS	f'c = 4000 PS

3. EXTERIOR FLATWORK, STAIRS, RAMPS, ETC. SHALL HAVE A WATER/CEMENT RATIO≤ 0.40 I ABORATORY TEST REPORTS OR MATERIAL CERTIFICATES FOR CONCRETE MATERIALS AND MIX DESIGN TEST DATA, IN ONFORMANCE WITH ACI STANDARDS, SHALL BE SÜBMITTED FOR

WHICH THE MIX WILL BE USED. 5. ALL CONCRETE SHALL BE NORMAL WEIGHT UNLESS NOTED

EVIEW FOR EACH TYPE OF CONCRETÉ TO BE USED. EACH

SUBMITTED MIX DESIGN SHALL IDENTIFY THE APPLICATION FOR

6. ALL LIGHTWEIGHT CONCRETE SHALL HAVE A DENSITY OF 110 PCF ± 3 PCF UNLESS NOTED OTHERWISE.

7. ALL CONCRETE ELEMENTS SUBJECT TO FREEZING AND THAWING DURING CONSTRUCTION OR OVER THE SERVICE LIFE OF THE STRUCTURE SHALL CONTAIN AN AIR ENTRAINMENT ADMIXTURE AS SPECIFIED IN ACI-318, PART 3.

8. NO CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE. 9. THE CONTRACTOR SHALL SUBMIT CHECKED, DETAILED REINFORCEMENT SHOP DRAWINGS SHOWING THE LOCATIONS AND DETAILING OF ALL FOOTINGS, WALLS, PIERS, BEAMS, COLUMNS,

SLABS, CONSTRUCTION JOINTS, CONTROL JOINTS, ETC., PRIOR TO FABRICATION. DETAILS SHALL INCLUDE STEEL SIZES, LAPS, SPACING AND PLACEMENT.

10. THE MINIMUM CONCRETE COVER FOR CAST-IN-PLACE (NON-PRESTRESSED) CONCRETE SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.. B. CONCRETE EXPOSED TO EARTH OR WEATHER: i. NO. 6 THROUGH NO. 18 BARS...

ii. NO. 5 BAR, W31 OR D31 WIRE, AND SMALLER. C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: i. SLABS, WALLS, JOISTS: NO. 14 AND NO. 18 BARS. NO. 11 BAR AND SMALLER.. ii. BEAMS, COLUMNS: PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS... iii. SHELLS, FOLDED PLATE MEMBERS: NO. 6 THROUGH NO. 18 BARS. NO. 5 BAR, W31 OR D31 WIRE, AND SMALLER...

11. PROVIDE ADEQUATE BOLSTERS, HI-CHAIRS, SUPPORT BARS, ETC., TO MAINTAIN SPECIFIED CLEARANCES FOR THE ENTIRE LENGTH OF ALL REINFORCING BARS. PROVIDE CONTINUOUS #4 SPACER BARS IN WALLS AND SLABS TO SUPPORT DOWELS.

12. PROVIDE PLASTIC TIPPED ACCESSORIES FOR REINFORCEMENT AT ALL FACES OF EXPOSED CONCRETE, INTERIOR OR EXTERIOR. 13. ALL FIELD BENDING OF REINFORCEMENT SHALL BE DONE COLD HEATING OF BARS WILL NOT BE PERMITTED.

14. ALL CONSTRUCTION JOINTS, EXCLUDING SLAB-ON-GRADE CONSTRUCTION JOINTS, SHALL BE WIRE BRUSHED, CLEANED, MOISTENED AND A CONCRETE SLURRY APPLIED IMMEDIATELY PRIOR TO PLACING NEW CONCRETE.

15. CONTROL AND CONSTRUCTION JOINTS IN NON-STRUCTURAL SLABS-ON-GRADE SHALL BE PROVIDED AS SHOWN ON DRAWINGS AND DETAILS. CONTROL JOINTS SHALL BE SPACED AT A MAXIMUM OF 15'-0" ON CENTER IN ANY DIRECTION. SAWED CONTROL JOINTS SHALL BE OF THE SOFT-CUT TYPE, 0.25 TIMES THE SLAB THICKNESS DEEP, AND CUT AS SOON AS PRACTICAL WITHOUT DISLODGING THE COARSE AGGREGATE AS PART OF THE FINISHING OPERATION. CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS INDICATING ALL CONTROL JOINTS FOR ALL SLAB-ON-GRADE CONSTRUCTION FOR REVIEW PRIOR TO CONSTRUCTING ALL SLABS-ON-GRADE.

16. CONCRETE SLABS-ON-GRADE SHALL BE A MINIMUM OF 5 INCH THICKNESS UNLESS NOTED OTHERWISE. CONCRETE FOR SLAB-ON-GRADE CONSTRUCTION SHALL USE A DESIGN MIX THAT INCORPORATES 1-1/2" MAXIMUM SIZE AGGREGATE, WELL GRADED AND TYPE I/II CEMENT. THE MIX SHALL CONTAIN NO ADMIXTURES THAT EXACERBATE SHRINKAGE. PLACEMENT SLUMP FOR THE CONCRETE SHALL BE 5" (+/- 1") MAX. AT THE POINT OF PLACEMENT.

17. CONSTRUCTION JOINTS SHALL CONTAIN 1/4"x4-1/2" DIAMOND DOWEL PLATES SPACED AT 18" ON CENTER AND PLACED AT 1/2 OF THE SLAB DEPTH PERPENDICULAR TO THE PLANE OF THE JOINT.

STRUCTURAL CONCRETE (con't.)

CHAMFER AT EDGES.

ON THE DRAWINGS.

19. AT EXPOSED CONCRETE ELEMENTS, SEE PROJECT SPECIFICATIONS FOR TYPE OF CONCRETE FINISHING REQUIRED.

20. AT ALL EXPOSED TO VIEW CONCRETE ELEMENTS (i.e. BEAMS,

21. IF STRUCTURAL CONCRETE MEMBERS (FRAMED SLABS, WALLS, AND BEAMS) ARE NOT CONSTRUCTED IN ONE CONTINUOUS POUR THE VERTICAL CONSTRUCTION JOINT BETWEEN POURS SHALL BE CONTINUOUSLY KEYED, INTERMITENTLY KEYED FOR WALLS, AND PLACED WITHIN THE MIDDLE FIFTH OF SPANS AND SHALL BE SHORED UNTIL THE MEMBER HAS ATTAINED MINIMUM 28 DAY STRENGTH. SEE TYPICAL CONSTRUCTION JOINT DETAIL. OTHER LOCATIONS MUST BE REVIEWED BY THE ARCHITECT / STRUCTURAL ENGINEER. NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN BEAMS AND SLABS UNLESS SPECIFICALLY SHOWN

22. PITCH ALL SLABS TO DRAINS WHERE DRAINS ARE INDICATED ON CONTRACT DRAWINGS.

23. ADDITIONAL BARS SHALL BE PROVIDED AT ALL OPENINGS IN SLABS-ON-GRADE AND CONCRETE WALLS. AT ALL OPENINGS, PROVIDE MINIMUM OF (2) - #4 BARS AT EACH SIDE EXTENDING 2'-0 BEYOND EACH SIDE OF OPENING.

24. ADDITIONAL BARS PROVIDED: CORNER BARS MATCHING TO HORIZONTAL BARS SHALL BE PROVIDED AT ALL WALL CORNERS AND INTERSECTIONS.

25. AT SLABS-ON-GRADE PROVIDE ADDITIONAL REINFORCING AT RE-ENTRANT CORNERS. PROVIDE MINIMUM OF (2) - #4 BARS, 4'-0 LONG CENTERED ABOUT CORNER.

26. NO ALUMINUM OF ANY TYPE SHALL BE ALLOWED IN THE CONCRETE WORK, UNLESS COATED TO PREVENT ALUMINUM CONCRETE REACTION.

27. IN NO CASE SHALL EMBEDDED CONDUIT BE PLACED ABOVE REINFORCING IN SLAB-ON-GRADE CONSTRUCTION. MINIMUM SPACING OF ADJACENT CONDUITS SHALL BE 3 TIMES THE DIAMETER OR WIDTH OF THE LARGEST CONDUIT. MAXIMUM OUTSIDE DIAMETER OF EMBEDDED CONDUIT SHALL BE NO LARGER THAN ONE-THIRD OF THE SLAB THICKNESS.

28. IN ELEVATED STRUCTURAL SLABS, NO CONDUITS SHALL BE PLACED CLOSER TO A COLUMN FACE THAN TWELVE INCHES. 29. ELECTRICAL CONDUITS AND PLUMBING PIPES IN ELEVATED STRUCTURAL SLABS SHALL BE PLACED BETWEEN THE TOP AND BOTTOM LAYERS OF REINFORCEMENT AND SHALL NOT HAVE AN OUTSIDE DIAMETER GREATER THAN ONE-THIRD THE SLAB THICKNESS. CROSSOVERS OF CONDUITS AND/OR PIPES SHALL NOT BE PERMITTED. THE CENTER-TO-CENTER DISTANCE BETWEEN CONDUITS AND/OR PLUMBING PIPES SHALL NOT BE LESS THAN 3 TIMES THE LARGEST CONDUIT OR PIPE DIAMETER OR WIDTH.

30. UNLESS OTHERWISE NOTED ON THE DRAWINGS, SLEEVES FOR PIPES AND CONDUITS PENETRATING GRADE BEAMS AND CONCRETE WALLS SHALL BE STEEL PIPE SLEEVES OF NOMINAL DIAMETER 2 INCHES LARGER THAN THE NOMINAL SIZE OF THE PIPE PENETRATING THE STRUCTURAL MEMBER. THE THICKNESS OF THE SLEEVE SHALL CONFORM TO SCHEDULE 40 BUT NEED NOT BE MORE THAN 3/8 INCH. ALL SUCH SLEEVE LOCATIONS SHALL BE REVIEWED BY THE ARCHITECT/ENGINEER PRIOR TO INSTALLATION.

. PROVIDE WATERSTOPS AT ALL CONSTRUCTION JOINTS LOCATED BELOW GRADE AS SHOWN ON THE DRAWINGS.

32. CONCRETE SLAB OPENINGS SHOWN ON STRUCTURAL DRAWINGS ARE TO BE CONFIRMED WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS PRIOR TO CONSTRUCTION. ALL SLAB OPENINGS ARE TO BE DETAILED AND DIMENSIONED (I.E. SIZED AND LOCATED) ON REBAR SHOP DRAWING SUBMITTALS FOR CONFIRMATION WITH STRUCTURAL DRAWINGS. SHOULD ANY OPENING LOCATION OR DIMENSION CHANGE FROM LOCATIONS AND DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT STRUCTURAL ENGINEER AND ARCHITECT PRIOR TO PROCEEDING. ANY NECESSARY DESIGN REVISIONS WILL BE ISSUED BY THE ARCHITECT / STRUCTURAL ENGINEER OF RECORD.

33. WHERE SLABS ARE TO BE CAMBERED, THE CONSTRUCTED THICKNESS SHALL BE CONSTANT THROUGHOUT THE SPAN AS SHOWN ON THE STRUCTURAL DRAWINGS.

34. SLABS AND BEAMS SHALL BE CAMBERED TO COMPENSATE FOR CONSTRUCTION LOADS AND ANY DEFLECTION OF THE SHORING/FORMWORK SYSTEM. THIS CAMBER SHALL BE IN ADDITION TO ANY CAMBER SHOWN ON THE STRUCTURAL DRAWINGS.

35. REFER TO THE SPECIFICATION FOR FLOOR FLATNESS AND FLOOR LEVELNESS REQUIREMENTS.

36. NO CONSTRUCTION SHALL BE MADE WITHOUT REINFORCEMENT. UNLESS OTHERWISE NOTED, THE FOLLOWING PERCENTAGE OF THE GROSS CROSS SECTIONAL AREA SHALL BE PROVIDED AS MINIMUM REINFORCEMENT: A. SLABS: TOP & BOTTOM.

B. BEAMS: TOP & BOTTOM... ...0.33% ..#3@D" (D=MEMBER DEPTH) STIRRUPS.. C. COLUMNS: VERTICAL ...1.00% D. WALLS: VERTICAL ...0.12% (#5's) HORIZONTAL ...0.20% (#5's) E. FOOTINGS: HORIZONTAL..0.18% (#5's) 37. ALL REINFORCING STEEL SHALL BE HIGH STRENGTH NEW BILLET

STEEL, CONFORMING TO ASTM A615 GRADE 60 UNLESS NOTED 38. ALL BAR DETAILING AND ACCESSORIES TO BE FURNISHED SHALL

CONFORM TO TYPICAL DETAILS IN THE LATEST ACI STANDARD 315

DETAILING MANUAL, EXCEPT AS OTHERWISE SHOWN, NOTED, OR 39. WELDED WIRE FABRIC SHALL CONFORM TO ASTM

SPECIFICATIONS A185. ALL WELDED WIRE FABRIC SHALL BE LAPPED TWO PANELS AT EDGES AND ENDS, AND TIED SECURELY. AT EXTERIOR SLABS PROVIDE EPOXY COATED WELDED WIRE FABRIC CONFORMING TO ASTM A884, CLASS A.

40. DETAILING AND ACCESSORIES SHALL CONFORM TO THE ACI DETAILING MANUAL AND TO THE CRSI MANUAL OF STANDARD PRACTICE, CURRENT EDITIONS, UNLESS OTHERWISE NOTED BELOW, ON THE DRAWINGS, OR IN THE SPECIFICATIONS.

41. ALL HOOKS SHALL BE "STANDARD" AS PER ACI STANDARD.

42. THE MINIMUM LENGTH OF ALL SPLICES NOT DIMENSIONED ON THE DRAWINGS SHALL BE AS FOLLOWS:

BAR	410	SLAB	/BEAM	WA	ALL	COLUMN	
SIZE	f'c	TOP	OTHER	VERT.	HORIZ.	VERTICAL	
	4000	26"	21"	21"	26"		
#4	5000	24"	19"	19"	24"	-	
	6000	23"	17"	17"	23"		
	4000	33"	25"	25"	33"		
#5	5000	30"	23"	23"	30"	19"	
	6000	28"	21"	21"	28"		
	4000	39"	30"	30"	39"		
#6	5000	36"	28"	28"	36"	23"	
	6000	33"	25"	25"	33"		
	4000	71"	55"	55"	71"		
#7	5000	64"	50"	50"	64"	27"	
	6000	59"	45"	45"	59"		
	4000	81"	63"	63"	81"		
#8	5000	73"	56"	56"	73"	30"	
	6000	67"	51"	51"	67"		
	4000	91"	71"	71"	91"		
#9	5000	82"	63"	63"	82"	34"	
	6000	75"	58"	58"	75"		
	4000	102"	78"	78"	102"		
#10	5000	90"	71"	71"	90"	38"	
	6000	82"	64"	64"	82"		
	4000	111"	86"	86"	111"		
#11	5000	99"	77"	77"	99"	42"	
	0000		7411	-			

6000 91" 71" 71" 91"

A. TOP BARS ARE HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE

B. FOR EPOXY COATED BARS MULTIPLY THE LAP LENGTHS SHOWN GIRDERS, COLUMNS, TOP OF RETAINING WALLS.ETC.), PROVIDE 3/4" IN THE TABLE ABOVE BY 1.3 FOR TOP BARS AND 1.5 FOR OTHER

> C. WHERE BARS OF DIFFERENT SIZE ARE TO BE SPLICED, THE SPLICE LENGTH FOR ALL BARS SHALL BE THAT REQUIRED FOR THE LARGER BAR.

D. SPLICE LENGTHS SHALL BE SPECIFICALLY DIMENSIONED AT ALL

LOCATIONS ON THE SHOP DRAWINGS. E. FOR CONCRETE STRENGTH BETWEEN LISTED VALUES, USE

MINIMUM SPLICE LENGTH OF HIGHER LISTED VALUE. 43. MECHANICAL COUPLERS MAY BE USED IN LIEU OF LAP SPLICES. MECHANICAL COUPLERS MUST BE CAPABLE OF SUSTAINING 125% OF THE BAR CAPACITY

44. CONTINUOUS TOP AND BOTTOM BARS, OTHER THAN IN FOOTINGS, WHEN SHOWN IN CROSS SECTION ONLY, SHALL BE LAPPED AS FOLLOWS:

A. TOP BARS AT MID SPANS B. BOTTOM BARS CENTERED OVER SUPPORTS.

45. EPOXY ADHESIVE EMBEDDED DOWELS SHALL USE HILTI HY 150 ADHESIVE WITH THE FOLLOWING MINIMUM EMBEDDMENT DEPTHS. UNLESS NOTED OTHERWISE:

#3 - 3" #8 - 9' #5 - 6" #10 - 12" #6 - 7" #11 - 14"

#7 - 8"

46. REFER TO THE <u>TESTING AND INSPECTION</u> SECTION OF THESE NOTES FOR THE CONCRETE TESTING AND INSPECTION REQUIREMENTS.

POST INSTALLED ANCHORS

1. WHERE EPOXY SYSTEM IS INDICATED ON THE PLANS OR DETAILS, USE HILTI HY-150 ADHESIVE IN CONCRETE AND SOLID GROUTED MASONRY UNLESS NOTED OTHERWISE. THE CONTRACTOR MAY SUBMIT SUBSTITUTE EPOXY SYSTEMS FOR APPROVAL PROVIDED THEY MEET OR EXCEED THE CAPACITY OF HILTI HY-150 ADHESIVE.

DRILL HOLES TO EPOXY MANUFACTURER'S RECOMMENDED SIZE. CLEAN HOLES WITH A CIRCULAR WIRE OR NYLON BRUSH AND BLOW OUT WITH COMPRESSED AIR.

3. WHERE MECHANICAL EXPANSION ANCHORS ARE INDICATED ON THE PLANS OR DETAILS, USE HILTI KWIK BOLT-III IN CONCRETE UNLESS NOTED OTHERWISE. THE CONTRACTOR MAY SUBMIT SUBSTITUTE EXPANSION ANCHOR SYSTEMS FOR APPROVAL PROVIDED THEY MEET OR EXCEED THE CAPACITY OF HILTI KWIK

4. POST INSTALLED ANCHORS MUST BE INSTALLED USING THE SPACING AND EDGE DISTANCES GIVEN ON THE PLANS OR DETAILS. IF FIELD CONDITIONS DICTATE THAT THE ANCHOR SPACING OR EDGE DISTANCES BE MODIFIED, THE CONTRACTOR SHALL SUBMIT A FIELD SKETCH TO THE ARCHITECT / STRUCTURAL ENGINEER FOR REVIEW PRIOR TO MAKING ANY MODIFICATIONS.

STRUCTURAL STEEL

ANCHOR BOLT ASSEMBLIES..

1. FURNISH STRUCTURAL STEEL IN ACCORDANCE WITH AISC SPECIFICATIONS FOR THE DESIGN (ASD OR LRFD), FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS AND AISC CODE OF STANDARD PRACTICE, LATEST EDITIONS.

2. THE STEEL FABRICATOR/ERECTOR SHALL VERIFY IN FIELD ALL DIMENSIONS, ELEVATIONS AND MEMBER SIZES AS SHOWN ON THE CONTRACT DRAWINGS FOR THE EXISTING CONSTRUCTION, PRIOR TO THE DETAILING OR FABRICATION OF ANY NEW STRUCTURAL ELEMENT. THE STEEL FABRICATOR/ERECTOR SHALL DOCUMENT ANY CONSTRUCTION RELATED DISCREPANCIES. THE STEEL FABRICATOR/ERECTOR SHALL FURNISH THE ABOVE INFORMATION IN THE FORM OF DETAILED SKETCHES TO THE ARCHITECT / STRUCTURAL ENGINEER FOR REVIEW. THERE SHALL BE RESOLUTION TO THE NOTED DISCREPANCIES PRIOR TO FABRICATION OF ANY NEW STRUCTURAL ELEMENTS.

3. STRUCTURAL STEEL SHALL BE AS INDICATED BELOW U.N.O.: STRUCTURAL SHAPE/MATERIAL **ASTM SPECIFICATION** W-SHAPE CHANNELS ..A36 ANGLES... STEEL PIPE.. ..A53, GRADE B ROUND HSS. ..A500, GRADE B SQUARE & RECTANGULAR HSS. ..A500, GRADE B PLATE MATERIAL

4. ALL STRUCTURAL STEEL FRAMEWORK INCLUDED IN THESE DOCUMENTS ARE CLASSIFIED AS NON-SELF-SUPPORTING. ALL CONNECTIONS SPECIFIED HEREIN ARE BASED ON LOADING CONDITIONS OF THE FULLY COMPLETED STRUCTURE IN ITS ENTIRETY INCLUDING THE FUNCTIONS OF THE COLUMN BASE PLATES AND ANCHOR BOLTS. INSTABILITIES CAN BE EXPECTED DURING THE ERECTION PROCESS DUE TO LACK OF INSTALLED ROOF, FLOOR, WALL AND SLAB DIAPHRAGMS AS WELL AS STEE BRACINGS, CONNECTION RIDIGITIES AND OTHER SUCH STABILIZING ELEMENTS. THE GENERAL CONTRACTORRS, OTHERÛ SHALL IDENTIFY THE SEQUENCE AND SCHEDULING OF CONSTRUCTION ITEMS AND COORDINATE THE ACTIVITIES OF ALL TRADES INCLUDING THE STEEL FABRICATOR AND ERECTOR. THE ERECTOR SHALL SUBMIT AN ERECTION PLAN AND A TEMPORARY BRACING SCHEME TO THE CONTRACTOR AND OWNER WHICH IS FOR RECORD PURPOSES ONLY. THIS SUBMITTAL WILL NOT BE REVIEWED AND IS NOT A DESIGN FUNCTION OF THE ARCHITECT / STRUCTURAL ENGINEEROF RECORD.

..F1554, GRADE 36

5. THE FABRICATOR/ERECTOR SHALL SUBMIT TO THE ARCHITECT/STRUCTURAL ENGINEER, FOR REVIEW, ENGINEERED AND CHECKED DRAWINGS SHOWING FABRICATION DETAILS, FIELD ASSEMBLY DETAILS AND ERECTION DIAGRAMS FOR ALL STRUCTURAL STEEL ELEMENTS.

6. ALL BEAMS AND JOISTS SHALL BE FABRICATED WITH THE NATURAL CAMBER UP. PROVIDE FABRICATED CAMBERS AS INDICATED ON THE DRAWINGS.

7. AFTER FABRICATION, ALL STEEL SHALL BE CLEANED OF ALL RUST, LOOSE MILL SCALE, AND OTHER FOREIGN MATERIALS. STEEL SHALL BE PRIMED AND PAINTED AS OUTLINED IN THE PROJECT SPECIFICATIONS. STEEL TO RECEIVE SPRAY-ON FIREPROOFING SHALL NOT BE PRIMED OR PAINTED.

8. WELDING SHALL BE PERFORMED WITH E70XX LOW HYDROGEN ELECTRODES. ALL WELDING SHALL BE PERFORMED BY CERTIFIED/QUALIFIED WELDERS AND SHALL CONFORM TO THE AWS D1.1," STRUCTURAL WELDING CODE-STEEL," LATEST EDITION.

9. MINIMUM FILLET WELD SIZE SHALL COMPLY WITH THE AISC SPECIFICATION REQUIREMENTS, BUT SHALL NOT BE LESS THAN 3/16 INCH UNLESS NOTED OTHERWISE.

USING ASTM A325 OR A490 BOLTS," LATEST EDITION. ALL BOLT HOLES SHALL BE "SHORT SLOTTED", UNLESS NOTED OTHERWISE 11. ALL STEEL BEAM AND GIRDER CONNECTIONS SHALL BE SIMPLE SHEAR CONNECTIONS UTILIZING HIGH STRENGTH BOLTS IN BEARING-TYPE CONNECTIONS WITH THREADS EXCLUDED FROM THE SHEAR PLANE UNLESS NOTED OTHERWISE. BOLTS ARE TO BE TIGHTENED TO THE "SNUG TIGHT" CONDITION UNLESS NOTED AS "SLIP CRITICAL (SC)". BOLTS DESIGNATED AS "SLIP CRITICAL" ARE TO BE TIGHTENED PER THE ABOVE MENTIONED BOLT

SPECIFICATION.

10. ALL BOLTS. NUTS AND WASHERS SHALL CONFORM TO THE

REQUIREMENTS OF "AISC SPECIFICATION FOR STRUCTURAL JOINTS

12. BOLTED CONNECTIONS SHALL USE A MINIMUM OF (2) 3/4" BOLTS COLD FORMED STEEL FRAMING UNLESS NOTED OTHERWISE.

13. PROVIDE CONNECTIONS AS DETAILED ON THE DESIGN DRAWINGS. ALTERNATE CONNECTION DESIGNS MAY BE SUBMITTED BY THE CONTRACTOR. THE ALTERNATE DESIGNS MUST BE PROPERLY ENGINEERED AND CALCULATIONS SEALED BY A QUALIFIED ARCHITECT / STRUCTURAL ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE DESIGN BY THE SPECIALTY ARCHITECT / STRUCTURAL ENGINEER AND THE REVIEW BY THE ARCHITECT / STRUCTURAL ENGINEER OF RECORD OF ANY ALTERNATE CONNECTIONS WILL BE AT THE CONTRACTOR'S EXPENSE.

14. BEAM TO GIRDER AND BEAM OR GIRDER TO COLUMN MOMENT CONNECTIONS ARE DESIGNATED ON THE PLANS AS THUS:

15. AT COMPOSITE BEAM CONSTRUCTION PROVIDE 3/4" Ø HEADED SHEAR STUDS UNIFORMLY SPACED AT 1'-0" ON CENTER MINIMUM ON ALL BEAMS UNLESS NOTED OTHERWISE.

16. THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT THE PRIOR APPROVAL OF THE ARCHITECT / STRUCTURAL ENGINEER OF RECORD.

17. STEEL WORK TO SLOPE IN ACCORDANCE WITH ELEVATIONS GIVEN ON STRUCTURAL DRAWINGS. 18. REFER TO ARCHITECTURAL DRAWINGS FOR MISCELLANEOUS

19. ALL STEEL INDICATED TO BE ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) SHALL CONFORM TO THE AESS REQUIREMENTS OF THE AISC CODE OF STANDARD PRACTICE 20. PAINT SYSTEM FOR "EXPOSED TO OUTSIDE ATMOSPHERE"

STEEL NOT SHOWN ON STRUCTURAL DRAWINGS.

STRUCTURAL STEEL COMPONENTS: A. SURFACE PREPARATION - CLEAN SURFACES PER SSPC SP NO. 6 POWER TOOL CLEANING. B. PRIME COAT: MINIMUM DRY FILM THICKNESS = 1.75 MILS. SHOP PRIME SURFACES OF STEEL AS REQUIRED BY PROJECT

FIREPROOFING SYSTEM WHERE APPLICABLE. C. FINISH COAT: SEE PROJECT SPECIFICATIONS 21. REFER TO THE <u>TESTING AND INSPECTION</u> SECTION OF THESE NOTES FOR THE STRUCTURAL STEEL TESTING AND INSPECTION

SPECIFICATIONS. USE PRIME COAT COMPATIBLE WITH

TESTING AND INSPECTIONS 1. ALL TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE DESIGN CODE REFERENCED IN ITEM 1. OF

THE STRUCTURAL LOADING SECTION OF THESE NOTES. 2. ALL TESTING SHALL BE PERFORMED BY A QUALIFIED <u>TESTING</u> AGENCY HIRED BY THE OWNER. B. THE ARCHITECT / STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY ITEM FOUND NOT TO BE IN COMPLIANCE WITH THE DESIGN INTENT OF THESE DOCUMENTS.

L FOUNDATION EXCAVATIONS SHALL BE OBSERVED AND

FOUNDATIONS

REQUIREMENTS.

TESTED BY A REPRESENTATIVE OF A QUALIFIED GEOTECHNICAL ENGINEERING FIRM. DAILY REPORTS OF OBSERVATIONS SHALL BE PREPARED. ALL REPORTS ARE TO RESLIBMITTED TO THE ARCHITECT / STRUCTURAL ENGINEER FOR REVIEW. THE REQUIRED ST TYPE AND FREQUENCY SHALL BE AS SPECIFIED IN THE PROJECT SPECIFICATIONS.

<u>CONCRETE</u>

ALL CONCRETE PLACED ON THE PROJECT SHALL BE TESTED FOF UMP. AIR CONTENT AND STRENGTH. THE FREQUENCY OF TESTING SHALL BE AS SPECIFIED IN THE PROJECT SPECIFICATION. 6. REINFORCEMENT PLACEMENT SHALL BE INSPECTED BY THE OWNER'S TESTING LABORATORY PRIOR TO ALL CONCRETE POURS. SEE THE SPECIFICATIONS FOR REQUIREMENTS. STRUCTURAL STEEL

7. THE OWNER'S TESTING AGENCY SHALL PERFORM ALL SHOP AND

ARE TO BE SUBMITTED TO THE OWNER, ARCHITECT / STRUCTURAL

FIELD INSPECTION AND TESTING AS OLITHINED BELOW REPORTS

ENGINEER AND CONTRACTOR FOR REVIEW. THE STRUCTURA

STEEL FABRICATOR AND ERECTOR SHALL SCHEDULE ALL WORK TO ALLOW THE FOLLOWING TESTING REQUIREMENTS. A. ALL WELDS SHALL BE VISUALLY INSPECTED. 15% AT RANDOM SHALL BE MEASURED B. FILLET WELDS FOR BEAM AND GIRDER SHEAR CONNECTION. PLATES, 15% AT RANDOM, SHALL BE CHECKED BY MAGNETIC PARTICLE FOR FINAL PASS ONL 100% OF ALL FULL PENETRATION WELDS SHALL BE TRASONICALLY TESTE . 25% OF THE BOLTS, NO LESS THAN (2) BOLTS. IN EACH "SLIP RITICAL" CONNECTIONS SHALL BE CHECKED BY CALIBRATED TORQUE WRENCH E. FOR NON-"SLIP CRITICAL" CONNECTIONS, INSPECT CONNECTION INSURE THE PLIES OF THE CONNECTED ELEMENTS HAVE BEEN ROUGHT INTO SNUG CONTACT ULTRASONICALLY TEST FOR LAMINATIONS IN ALL COLUMN FLANGES GREATER THAN 1.5 INCHES THICK AT ALL MOMENTS CONNECTION AREAS.

FURNISH COLD FORM STEEL FRAMING IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE. "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRÚCTURAL MEMBERS," LATEST

2. COLD FORM STEEL FRAMING SHALL BE MANUFACTURED BY UNIMAST OR APPROVED EQUAL.

MEMBER DESIGNATION IS AS SUCH: 600S200-54 SIZE: 600 = 6" WEB200 = 2" FLANGE TYPE: S = STUD OR JOIST

GAUGE: 54 = 16 GAUGE

3. ALL MEMBERS SHALL BE FORMED FROM CORROSION RESISTANT STEEL CORRESPONDING TO THE REQUIREMENTS OF ASTM A446, WITH MINIMUM YIELD STRENGTH OF 50 KSI.

4. ALL MEMBERS SHALL BE ZINC COATED MEETING ASTM A525. FASTENING OF COMPONENTS SHALL BE WITH SELF DRILLING SCREWS OR WELDING. SCREWS AND WELDING SHALL BE SUFFICIENT SIZE TO ENSURE THE STRENGTH OF THE CONNECTION. WIRE TYING OF COMPONENTS SHALL NOT BE PERMITTED. ALL

WELDS SHALL BE TOUCHED-UP WITH A ZINC RICH PAINT. 6. ALL WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS AND SHALL CONFORM TO THE AWS D1.3," STRUCTURAL WELDING CODE-SHEET STEEL," LATEST EDITION.

7. CONNECTIONS OF ALL LIGHT GAUGE FRAMING TO LIGHT GAUGE FRAMING SHALL BE WITH MINIMUM OF THREE (3) #10 SELF TAPPING SHEET METAL SCREWS WITH LOW PROFILE HÈAD, UNLESS NOTED

B. CONTRACTOR SHALL SUBMIT COLD FORM STEEL FRAMING SHOP DRAWINGS TO THE ARCHITECT / STRUCTURAL ENGINEER FOR REVIEW PRIOR TO COMMENCING CONSTRUCTION. 9. CONNECTIONS OF ALL LIGHT GAUGE FRAMING TO STRUCTURAL

). CONTRACTOR SHALL SUBMIT EXTERIOR WALL COLD FORM STEEL FRAMING SHOP DRAWINGS TO THE ARCHITECT / STRUCTURAL ENGINEER FOR REVIEW PRIOR TO COMMENCING

STEEL FRAMING SHALL BE WITH MINIMUM OF THREE (3) 0.145" POWDER-ACTUATED FASTENING PINS, UNLESS NOTED

DEFLECTION OF COLD FORM STEEL MEMBERS SHALL BE LIMITED TO L/360 OR 3/8 INCH, WHICHEVER IS SMALLER, EXCEPT II LOCATIONS WHERE BRICK VENEER IS INDICATD IN WHICH CASE DEFLECTION SHALL BE LIMITED TO L/600 OR 0.3 INCH, WHICHEVER

ALL STRUCTURAL PLYWOOD SHALL BE GRADE CC EXTERIOR OR D INTERIOR WITH EXTERIOR GLUE. ALL PLYWOOD SHALL CONFORM TO U.S. PRODUCT STANDARD PS1-83, AND SHALL BE IDENTIFIED WITH THE GRADE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION

ALL STRUCTURAL PLYWOOD NOTED ON THE DRAWINGS SHALL CONFORM TO THE FOLLOWING: A. ROOF SHEATHING - 3/4" THICKNESS - 32/16 SPAN RATING

B. WALL SHEATHING - 5/8" THICKNESS - 24/0 SPAN RATING UNLESS OTHERWISE NOTED, PLYWOOD NAILS SHALL BE OMMON. APPROVED FASTENERS TO BE SUBSTITUTED SHALL BE EQUIVALENT IN LATERAL AND WITHDRAWAL STRENGTH TO THE

SIZE COMMON NAIL SPECIFIED.

ROOF SHEATHING: PLYWOOD ROOF SHEATHING SHALL BE LAID WITH THE GRAIN OF THE OUTER PLIES PERPENDICULAR TO THE FRAMING MEMBERS AND END JOINTS SHALL BE STAGGERED. EDGE BLOCKING OF UNSUPPORTED EDGES OF PLYWOOD SHEATHING MAY BE OMITTED - PLYCLIPS OR APPROVED FOLIAL CONNECT SHALL BE INSTALLED AT MIDSPAN BETWEEN EACH SUPPORT WHEN BAFTER SPACING EXCEEDS 16" ----- OR ----- BLOCK AL JNSUPPORTED EDGES OF PLYWOOD SHEATHING WHERE SHOWN ON PLANS. TYPICAL NAILING SHALL BE 8d AT 6" O.C. AT ALL UPPORTED EDGES AND WHERE EDGE NAILING IS NOTED, AND 8d T 12" O.C. AT ALL INTERMEDIATE SUPPORTS.

. WALL SHEATHING: WALL SHEATHING MAY BE APPLIED HORIZONTALLY OR VERTICALLY. BLOCK ALL UNSUPPORTED EDGES OF PLYWOOD SHEATHING. TYPICAL NAILING SHALL BE #10 SCREW T 6" O.C. ALL EDGES, AND #10 SCREW AT 12" O.C. ALL INTERMEDIATE SUPPORTS, UNLESS OTHERWISE NOTED

OWNER CONTACT OWNER PHONE NUMBER

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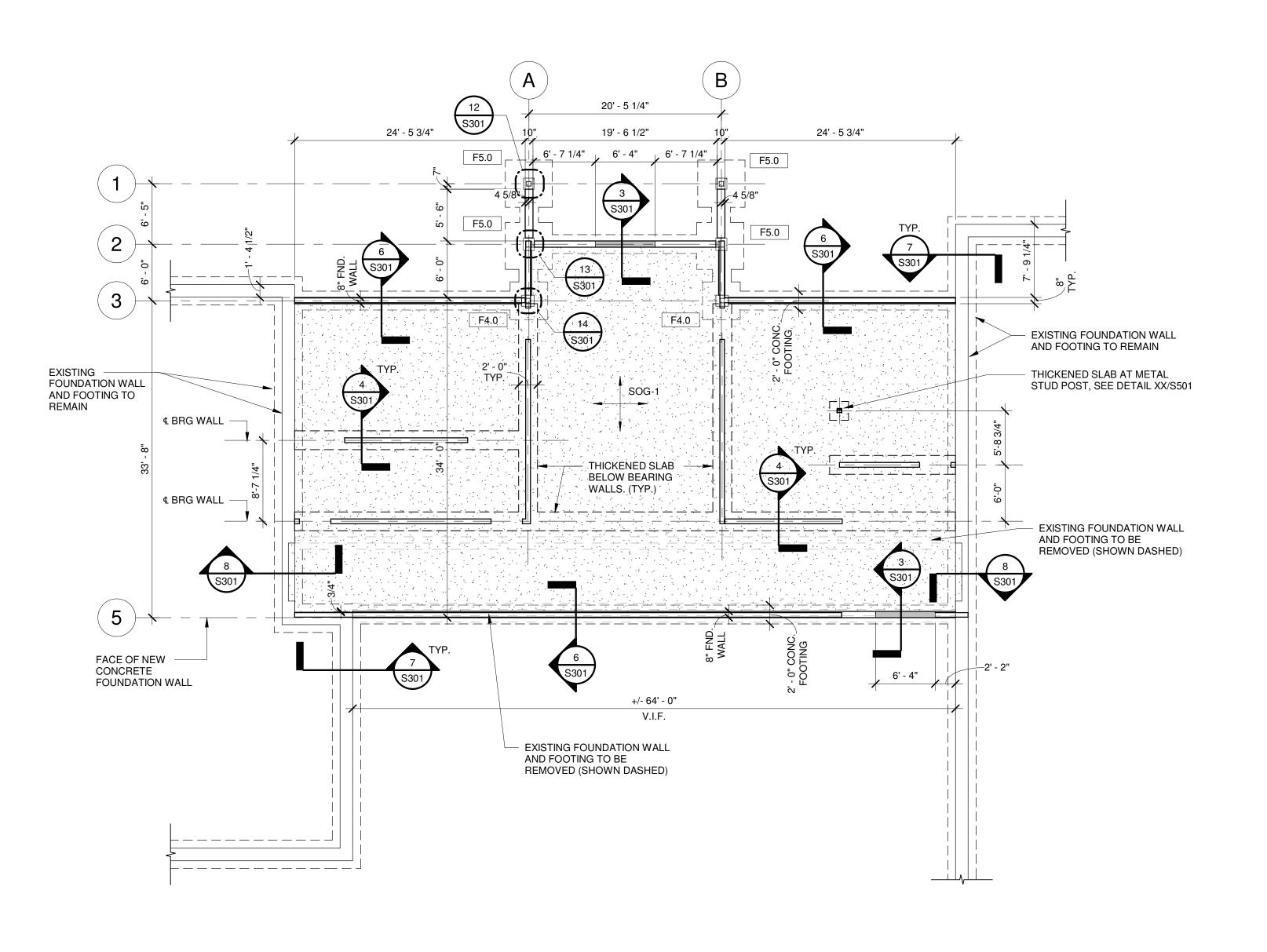
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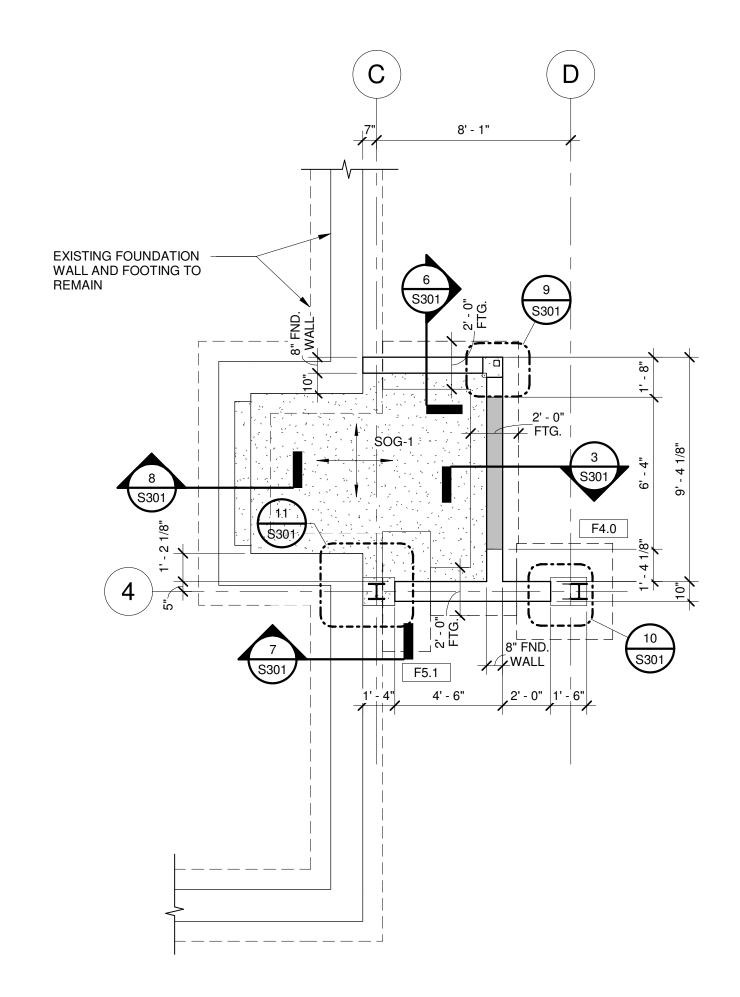
BIDDING

CONSTRUCTION ISSUE DATE: **5/8/20**

PROJECT NUMBER: 5910

STRUCTURA **NOTES**





FOUNDATION PLAN - MAIN ENTRANCE

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

16'

POUNDATION PLAN - EAST ENTRANCE

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

16'

GENERAL NOTES:

1. T.O. CONCRETE SLAB @ MAIN LEVEL EL: = 100'-0" (U.N.O.)
2. B.O. FOOTING EL: = 96'-0" (U.N.O.)

3. SOG-1 - INDICATES 5" SLAB ON GRADE CONSTRUCTION REINFORCED WITH 6x6 - W2.9xW2.9 W.W.F. ATOP 6" COMPACTED GRANULAR FILL (CA-6), SEE DETAILS 1/S301 AND 2/S301 FOR TYPICAL SLAB ON GRADE CONSTRUCTION, AND CONTROL JOINT

DETAILS.

4. FX.X - INDICATES REINFORCED CONCRETE SPREAD FOOTING, SEE SCHEDULE ON DRAWING S301

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R-III SCHOOL DISTRICT

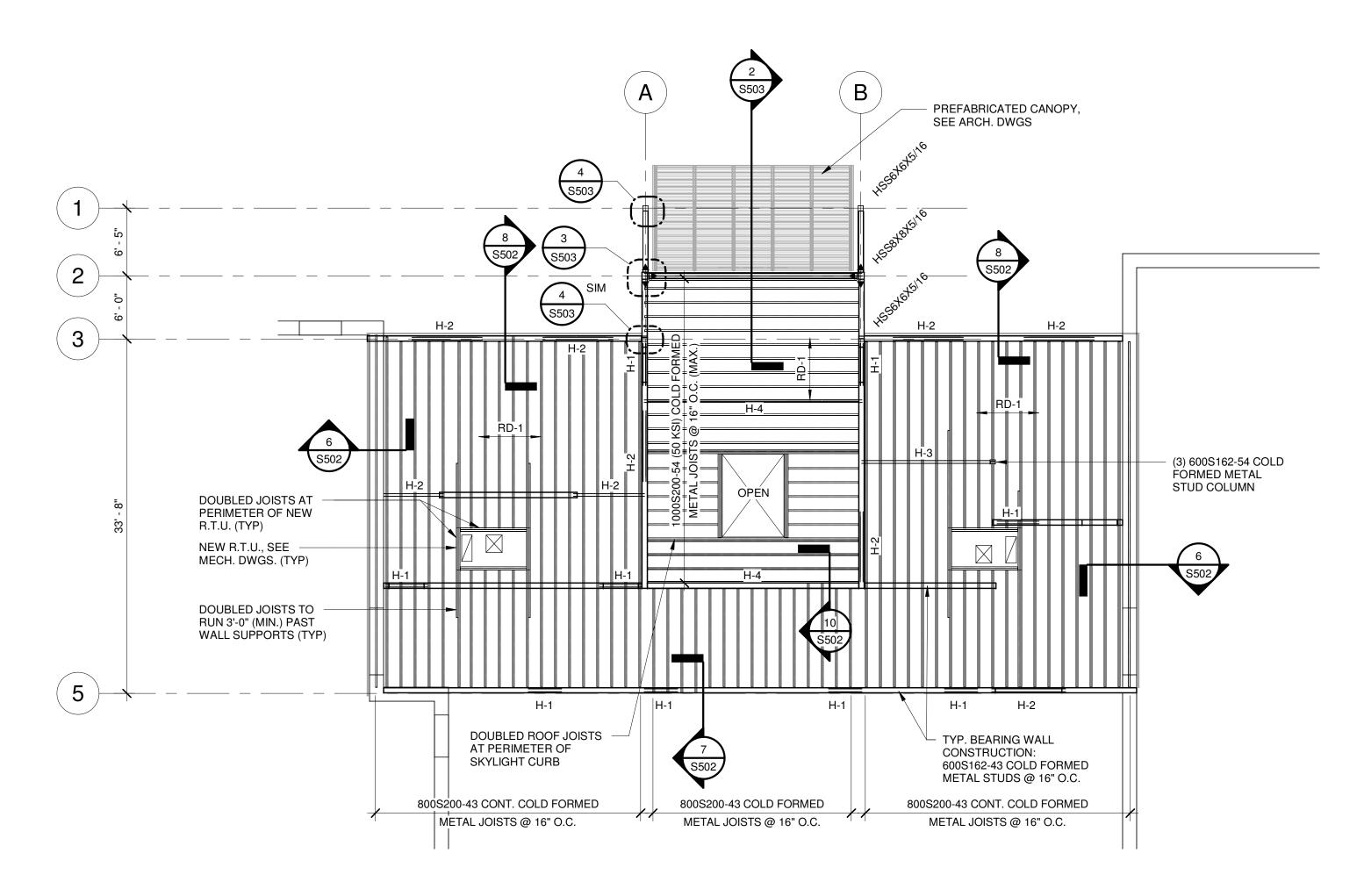
SH SCHOOL ADDITIONS

ISSUED FOR BIDDING

NOT FOR CONSTRUCTION
ISSUE DATE: 5/8/20
REVISIONS

PROJECT NUMBER: 5910

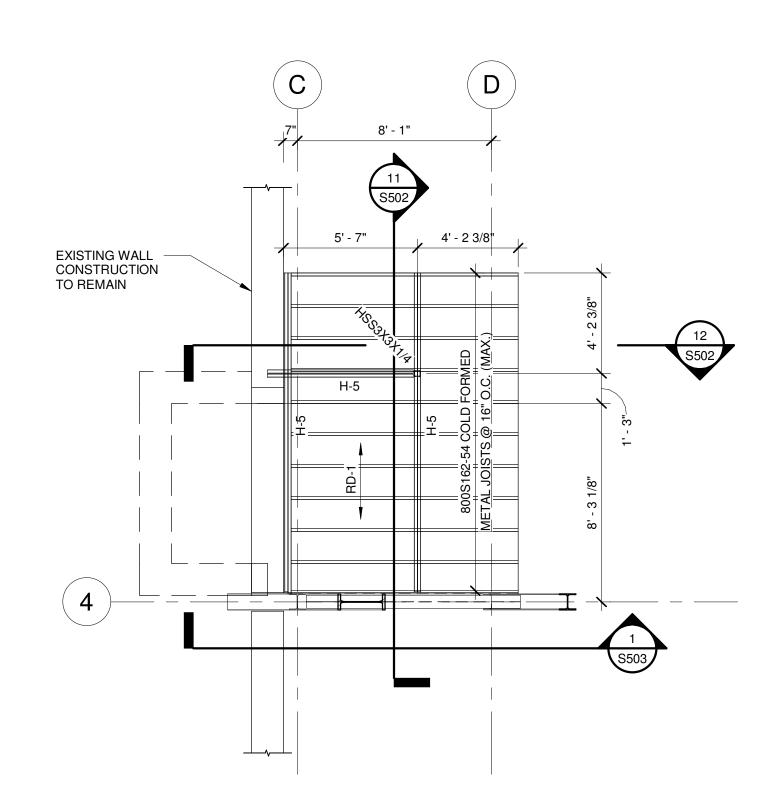
FOUNDATION PLANS



ROOF FRAMING PLAN - MAIN ENTRANCE SCALE: 1/8" = 1'-0" O 4' 8' 15'

GENERAL NOTES:

- T.O. STEEL JOISTS @ LOW ROOF EL: = 112'-0" (U.N.O.)
 T.O. STEEL JOISTS @ HIGH ROOF EL: = 116'-0" (U.N.O.) 3. RD-1 - INDICATES 3/4" PLYWOOD ROOF DECK, SPAN AS INDICATED.
- 4. COLD FORMED STEEL JOISTS SHALL RUN CONTINUOUS ATOP SUPPORTS, PROVIDE WEB STIFFENERS AT ALL BEARING LOCATIONS (TYP)
- 5. H-X INDICATES COLD FORMED STEEL JOIST BOX HEADER, SEE SCHEDULE AND **DETAILS ON DRAWING S502**





GENERAL NOTES:

- T.O. STEEL JOISTS @ LOW ROOF EL: = 112'-0" (U.N.O.)
 T.O. STEEL JOISTS @ HIGH ROOF EL: = 116'-0" (U.N.O.)
 RD-1 INDICATES 3/4" PLYWOOD ROOF DECK, SPAN AS INDICATED.
- 4. COLD FORMED STEEL JOISTS SHALL RUN CONTINUOUS ATOP SUPPORTS, PROVIDE WEB STIFFENERS AT ALL BEARING LOCATIONS (TYP) 5. H-X INDICATES COLD FORMED STEEL JOIST BOX HEADER, SEE SCHEDULE AND DETAILS ON DRAWING \$502

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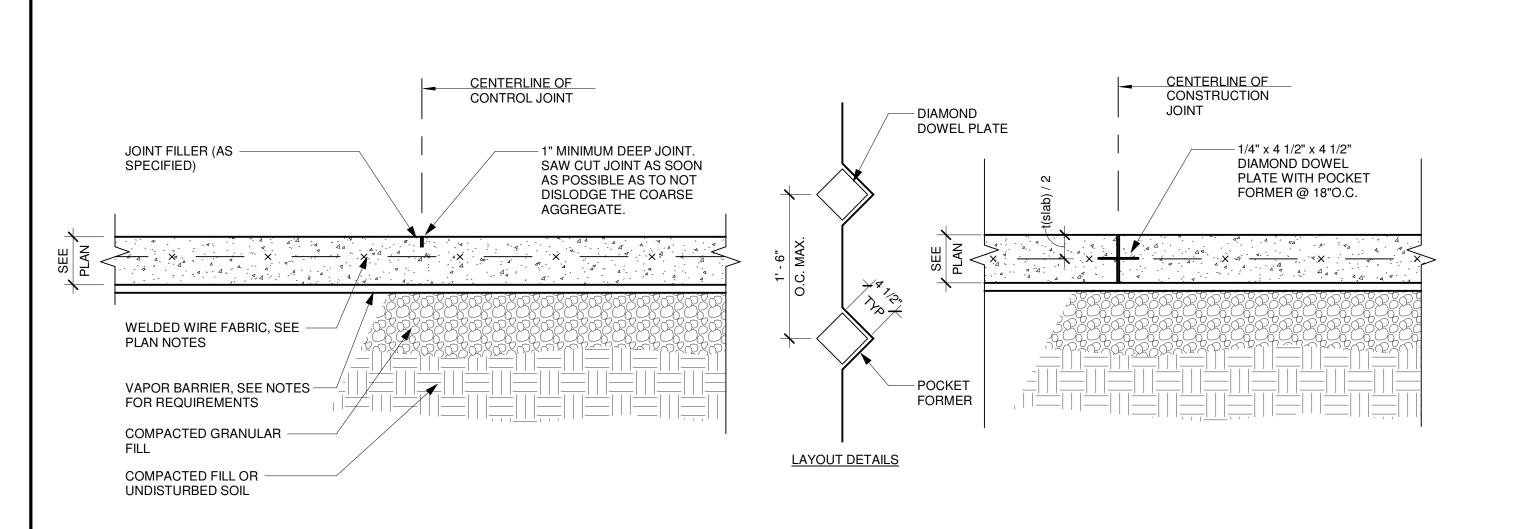
HIGH

ISSUED FOR BIDDING

NOT FOR CONSTRUCTION ISSUE DATE: 5/8/20

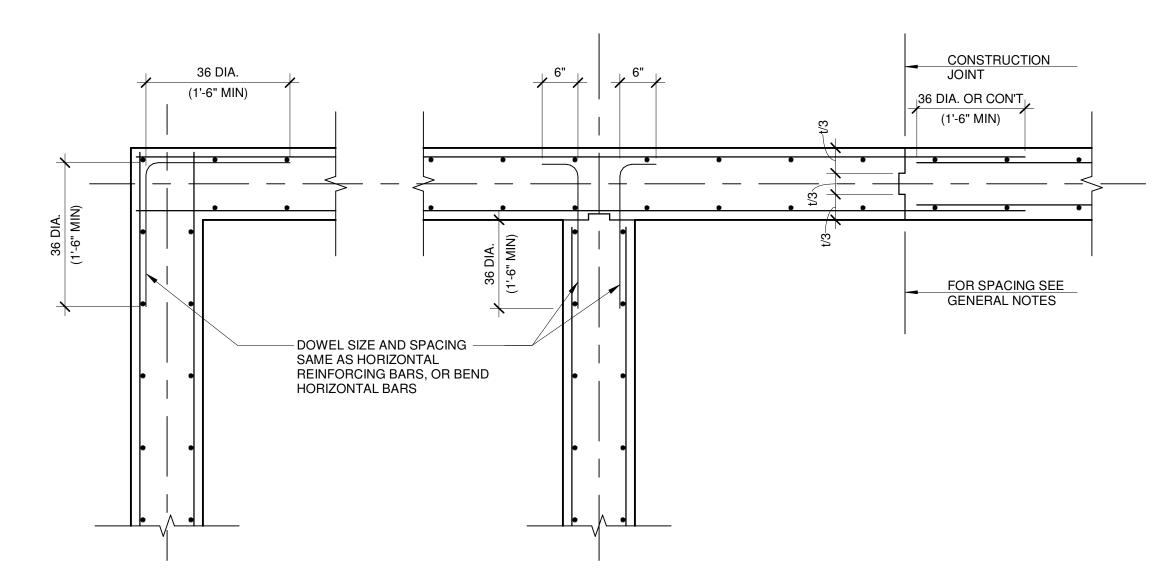
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ROOF **FRAMING PLANS**



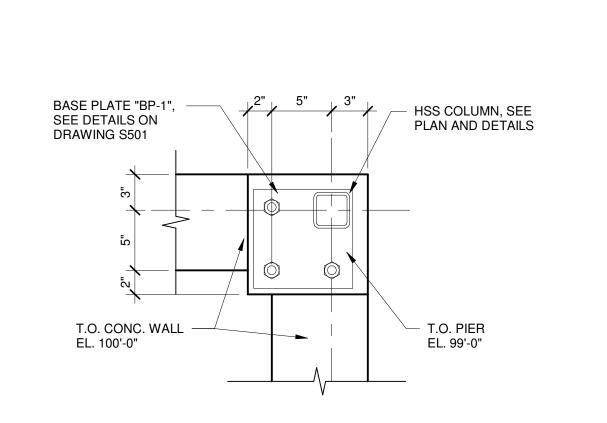


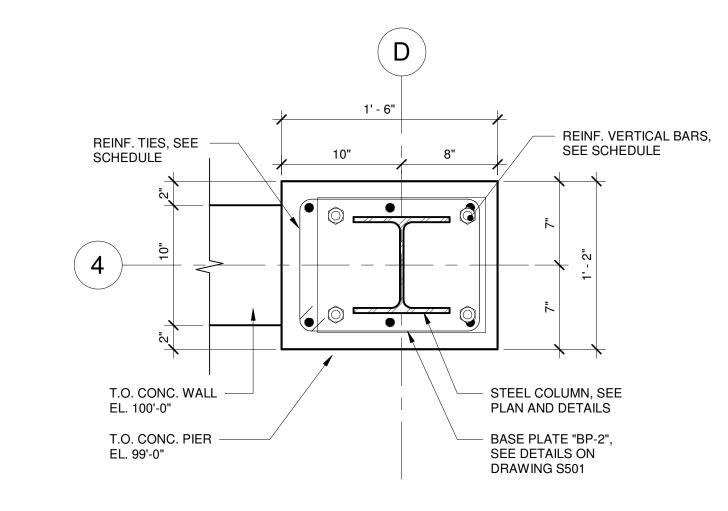
2 TYPICAL SLAB-ON-GRADE DETAIL SCALE: 1" = 1'-0"



TYP. CONC. WALL CORNER, INTERSECTION AND CONSTRUCTION JOINT DETAILS

SCALE: 3/4" = 1'-0"

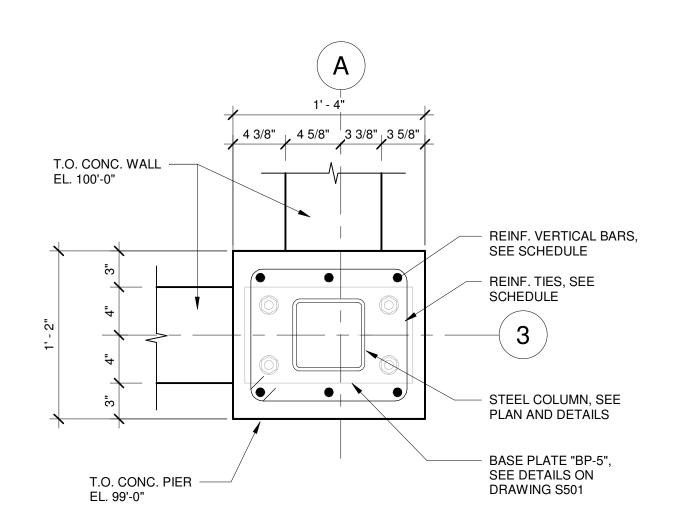




9 PIER P1 DETAIL SCALE: 1 1/2" = 1'-0"

PIER P6 DETAIL

SCALE: 1 1/2" = 1'-0"



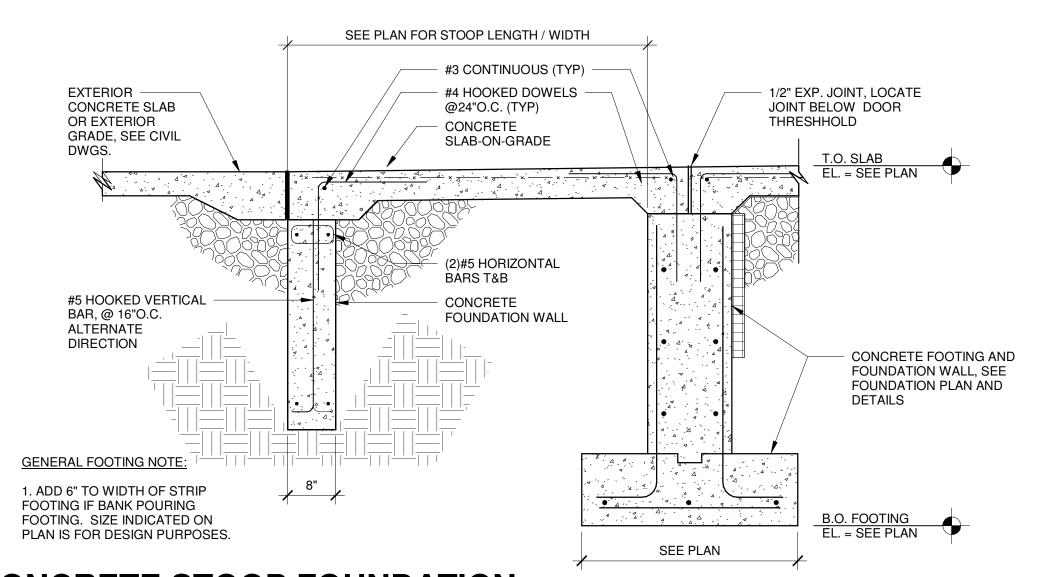
	PIER SCHEDULE							
PIER MARK	WIDTH	LENGTH	VERTICAL REINF. BARS, EXTEND INTO FOOTING	HORIZ. TIES	REMARKS			
P1.0	8"	8"	WALL BARS CONTINUOUS BENEATH COLUMN		SEE DETAIL 9/S301			
P2.0	1'-6"	1'-2"	(6) #6	#4 @ 10" (3) #4 @ 3" AT TOP	SEE DETAIL 10/S301			
P3.0	1'-4"	1'-2"	(6) #6	#4 @ 10" (3) #4 @ 3" AT TOP	SEE DETAIL 11/S301			
P4.0	1'-2"	1'-2"	(6) #5	#4 @ 10" (3) #4 @ 3" AT TOP	SEE DETAIL 12/S301			
P5.0	1'-2"	1'-4"	(6) #6	#4 @ 10" (3) #4 @ 3" AT TOP	SEE DETAIL 13/S301			
P6.0	1'-4"	1'-2"	(6) #6	#4 @ 10" (3) #4 @ 3" AT TOP	SEE DETAIL 14/S301			

PIER SCHEDULE					
PIER MARK	WIDTH	LENGTH	VERTICAL REINF. BARS, EXTEND INTO FOOTING	HORIZ. TIES	REMARKS
P1.0	8"	8"	WALL BARS CONTINUOUS BENEATH COLUMN		SEE DETAIL 9/S301
P2.0	1'-6"	1'-2"	(6) #6	#4 @ 10" (3) #4 @ 3" AT TOP	SEE DETAIL 10/S301
P3.0	1'-4"	1'-2"	(6) #6	#4 @ 10" (3) #4 @ 3" AT TOP	SEE DETAIL 11/S301
P4.0	1'-2"	1'-2"	(6) #5	#4 @ 10" (3) #4 @ 3" AT TOP	SEE DETAIL 12/S301
P5.0	1'-2"	1'-4"	(6) #6	#4 @ 10" (3) #4 @ 3" AT TOP	SEE DETAIL 13/S301
P6.0	1'-4"	1'-2"	(6) #6	#4 @ 10" (3) #4 @ 3" AT TOP	SEE DETAIL 14/S301

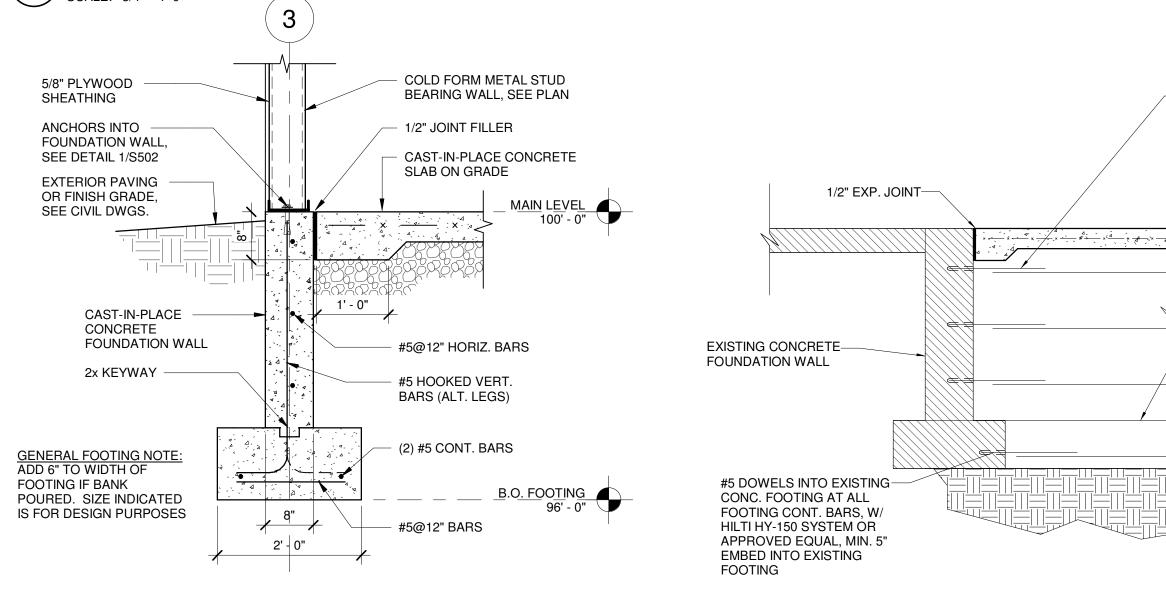


PIER P2 DETAIL

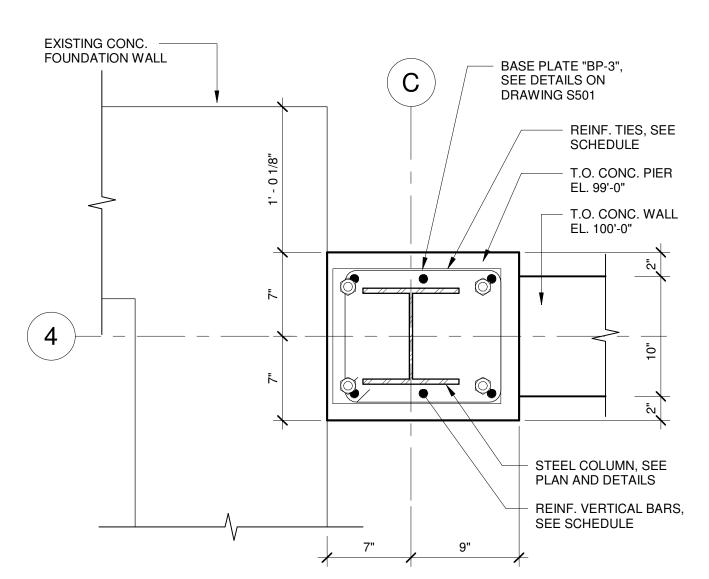
SCALE: 1 1/2" = 1'-0"



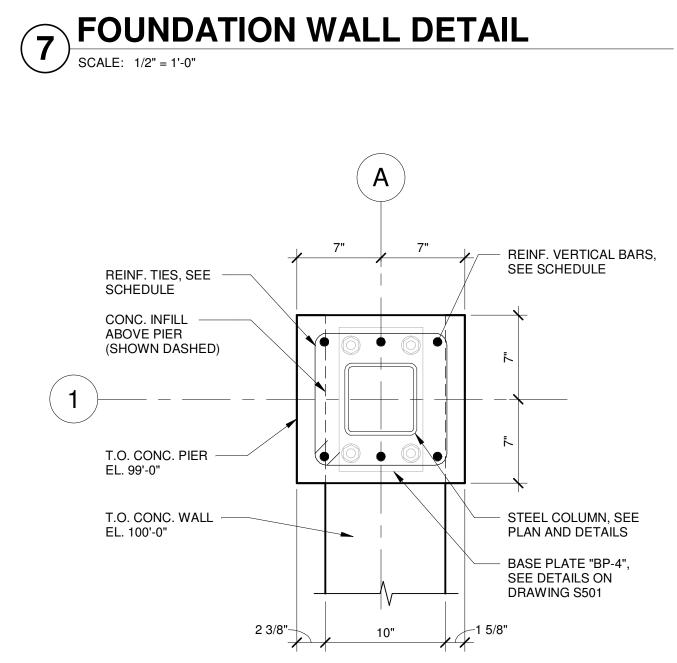




6 FOUNDATION WALL DETAIL
SCALE: 3/4" = 1'-0"







#5 DOWELS INTO EXISTING CONNCRETE FOUNDATION AT ALL WALL HORIZ. BARS.

HILTI HY-150 SYSTEM OR

APPROVED EQUAL, MIN. 5"

EMBED INTO EXISTING WALL

T.O. SLAB

EL. = SEE PLAN

NEW CONCRETE FOOTING,

MATCH EXISTING B.O.

FOOTING ELEVATION,

FIELD VERIFY

B.O. FOOTING EL. = SEE PLAN

(MATCH EXISTING,

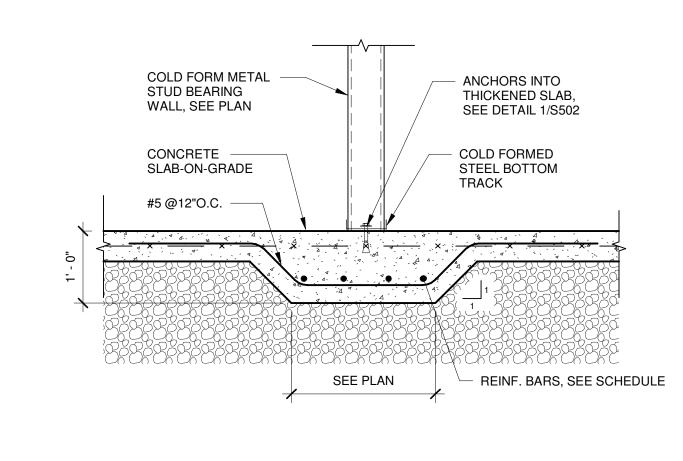
FIELD VERIFY)

(MATCH EXISTING,

FIELD VERIFY)

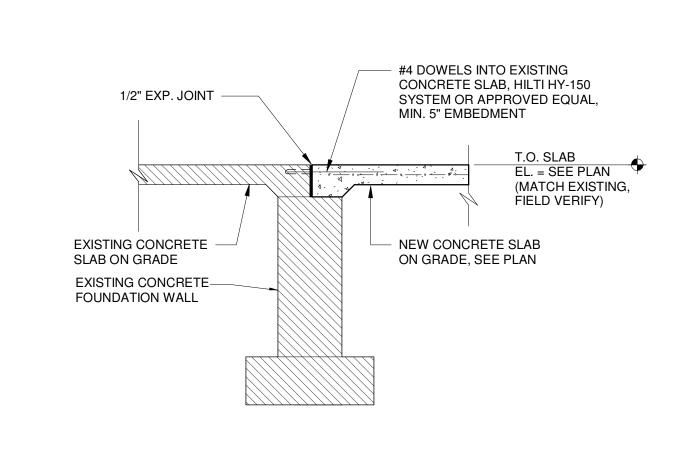
PIER P4 DETAIL

SCALE: 1 1/2" = 1'-0"

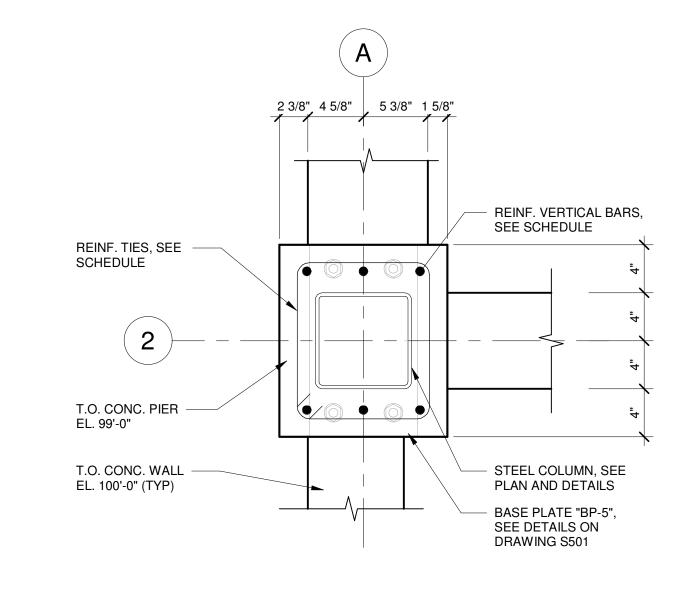


4 INTERIOR THICKENED SLAB DETAIL

SCALE: 3/4" = 1'-0"



8 FOUNDATION WALL DETAIL
SCALE: 1/2" = 1'-0"



PIER P5 DETAIL

SCALE: 1 1/2" = 1'-0"

FOOTING SCHEDULE						f _{bearing} = 1,500 psf
FOOTING MARK	WIDTH - W (FT)	LENGTH - L (FT)	THICKNESS (FT)	BOTTOM REINFORCING	TOP REINFORCING	
F3.0	3'-0"	3'-0"	1'-0"	(4) #5 EACH WAY		B.O. FOOTING EL. 96'-0"
F4.0	4'-0"	4'-0"	1'-0"	(5) #5 EACH WAY		B.O. FOOTING EL. 96'-0"
F5.0	5'-0"	5'-0"	1'-0"	(6) #5 EACH WAY		B.O. FOOTING EL. 96'-0"
F5.1	2'-0"	5'-0"	1'-0"	(3) #5 (N-S) (6) #5 (E-W)		B.O. FOOTING EL. 96'-0" DOWEL E-W BARS INTO EXISTING FOOTING

GENERAL FOOTING NOTES:

1. ADD 6" TO WIDTH AND LENGTH OF FOOTING IF BANK POURING FOOTING. SIZE INDICATED ABOVE IS FOR DESIGN PURPOSES. 2. BOTTOM OF FOOTING ELEVATIONS NOTED ABOVE ARE UNLESS OTHERWISE NOTED ON FOUNDATION PLANS OR DETAILS.

(16)	FOOTING SCHEDULE SCALE: 1" = 1'-0"
	SCALE: 1" = 1'-0"

R CONTACT R PHONE N	

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MECHANICAL ENGINEER: ARCHITECHNICS 510 MAINE, 10TH FLOOR QUINCY, ILLINOIS 62301 217.222.0554 TODD MOORE, P.E.	

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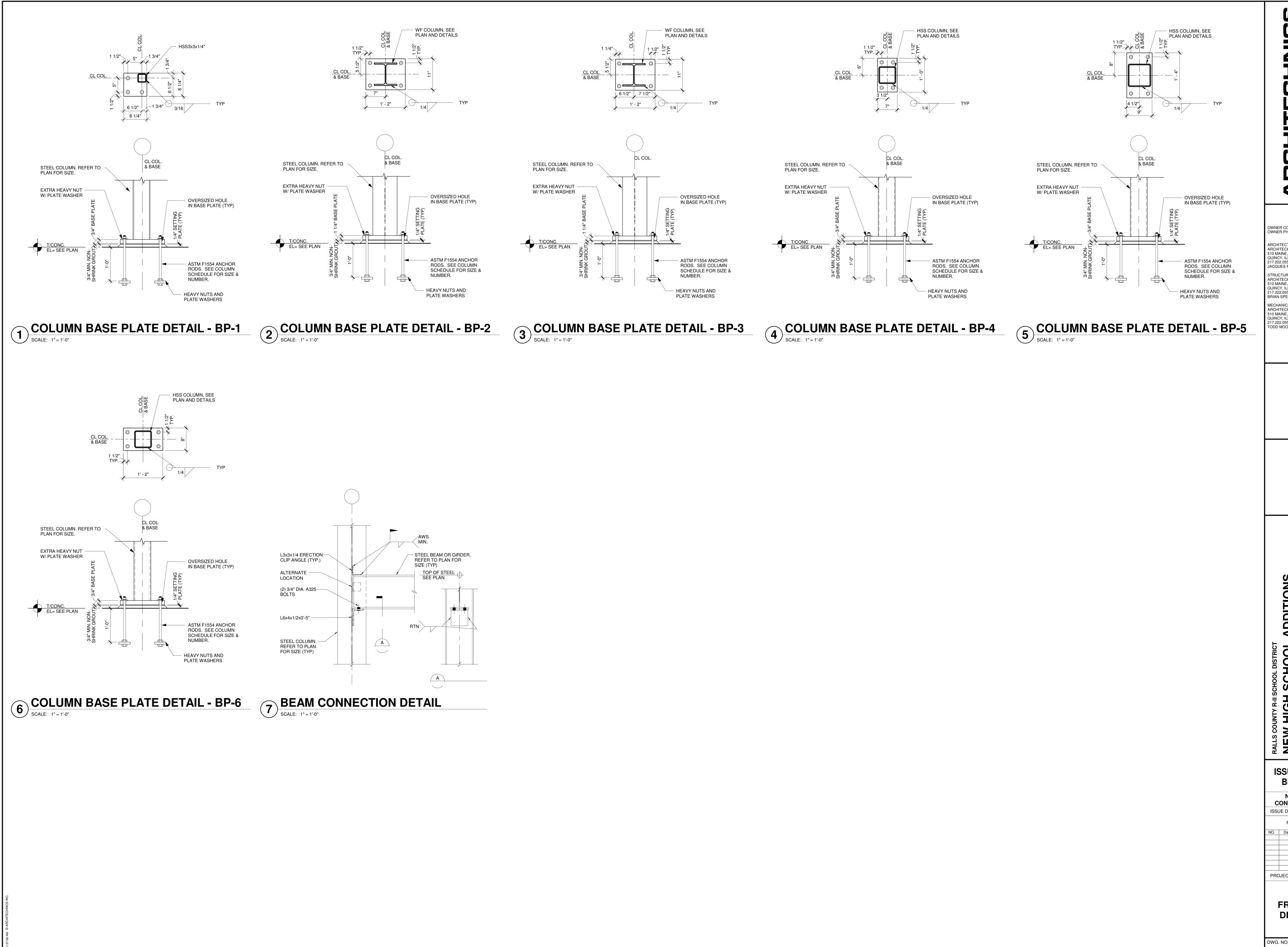
NEW HIGH SCI

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ISSUE DATE:		5/8/20		
REVISIONS				
NO.	Date		Description	
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PROJECT NUMBER: 5910

FOUNDATION **DETAILS**



Chitects • engineers • interior designers
Chitects • engineers • interior designers
Chitects • engineers • interior designers

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HIGH SCHOOL DISTRICT

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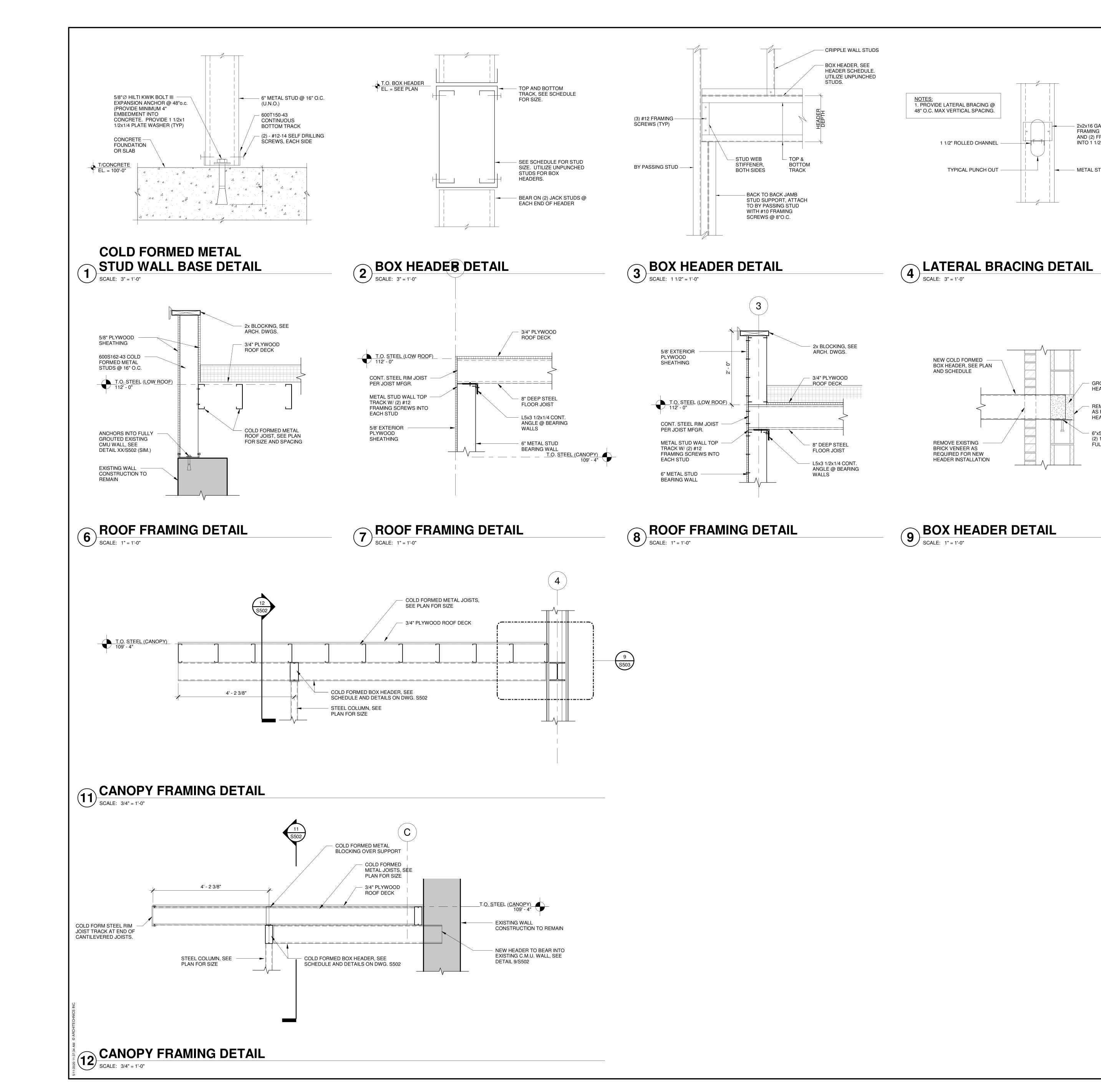
ISSUE DATE: 5/8/20

REVISIONS

NO. Date Description

PROJECT NUMBER: **5910**

FRAMING DETAILS



STEEL STUD BOX HEADER SCHEDULE HEADER REMARKS **BOX HEADER** PR. 600S162-43 AND 600T162-43's TO BEAR ATOP DOUBLE STUDS, WEB STIFFENERS AT SUPPORTS PR. 600S200-54 AND 600T162-43's TO BEAR ATOP H-2 DOUBLE STUDS, WEB STIFFENERS AT SUPPORTS PR. 1200S200-54 (50 KSI) AND 600T162-43's TO BEAR ATOP DOUBLE STUDS, WEB STIFFENERS AT SUPPORTS (3) 1200S200-54 (50 KSI) AND 600T162-43's TO BEAR ATOP DOUBLE STUDS, WEB STIFFENERS AT SUPPORTS PR. 800S162-54 AND 362T162-33's TO BEAR ATOP DOUBLE STUDS, WEB STIFFENERS AT SUPPORTS

BOX HEADER SCHEDULE

2x2x16 GA. CLIP ANGLE W/(2) FRAMING SCREWS INTO STUD

GROUT SOLID AFTER

HEADER IS SET TO PLACE

REMOVE EXISTING CMU

AS REQUIRED FOR NEW

HEADER INSTALLATION

- 6"x5/16"x1'-0" PLATE W/

FULLY GROUTED CELLS

(2) 1/2" H.A.S. INTO

AND (2) FRAMING SCREWS

INTO 1 1/2" CHANNEL.

- METAL STUD WALL

- 3/4" PLYWOOD ROOF DECK T.O. <u>STEEL (HIGH ROOF)</u>
116' - 0" - 10" DEEP STEEL FLOOR JOIST 5/8' EXTERIOR PLYWOOD SHEATHING 6" METAL STUD **BEARING WALL** 3/4" PLYWOOD **ROOF DECK** T.O. <u>STEEL (LOW ROOF)</u>
112' - 0" — CONT. STEEL RIM JOIST PER JOIST MFGR. METAL STUD WALL TOP 8" DEEP STEEL TRACK W/ (2) #12 FLOOR JOIST FRAMING SCREWS INTO EACH STUD L5x3 1/2x1/4 CONT. ANGLE @ BEARING WALLS - 6" METAL STUD **BEARING WALL** METAL STUD BOX
 HEADER, SEE PLAN
 AND SCHEDULE

ROOF FRAMING DETAIL

SCALE: 1" = 1'-0"

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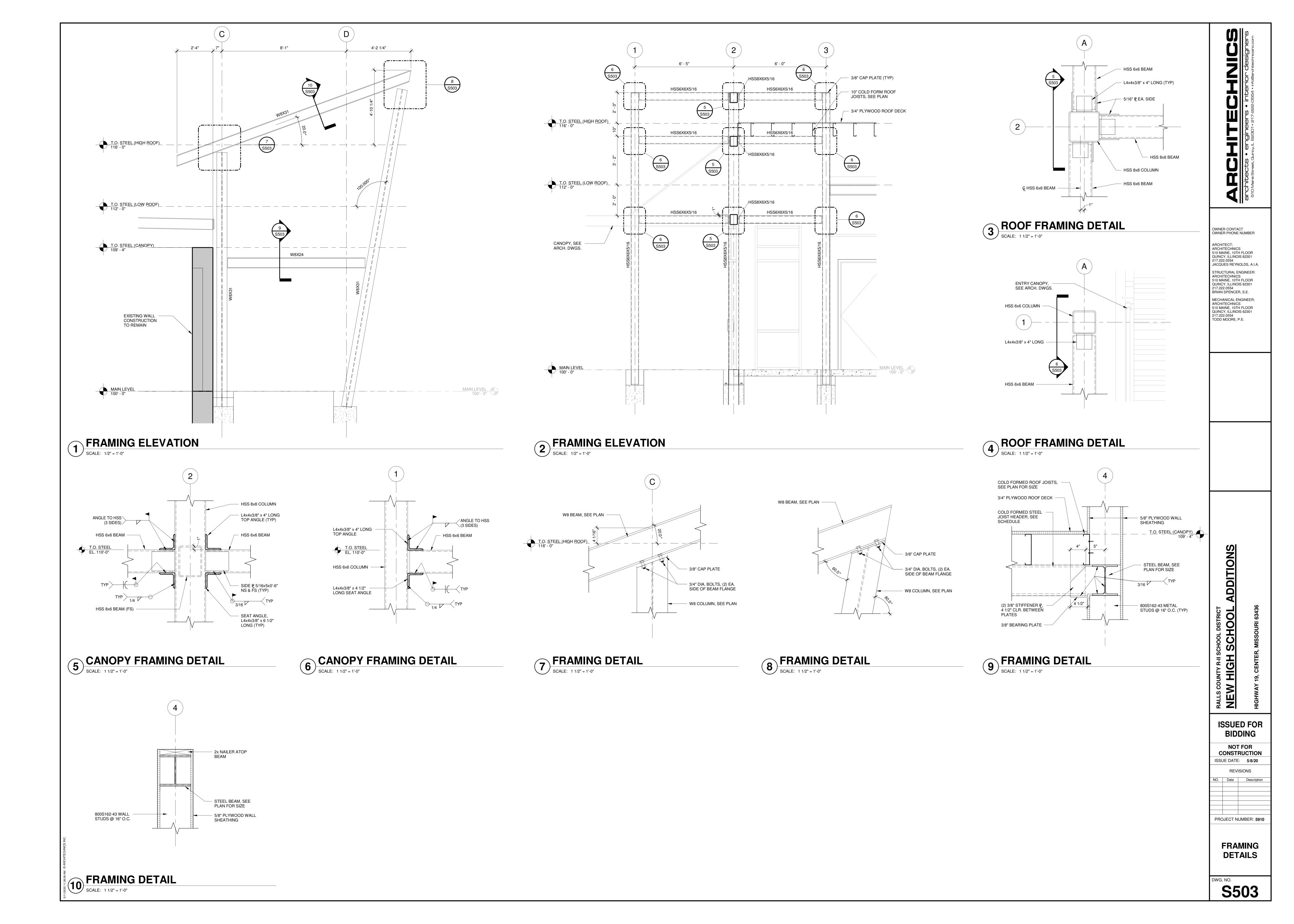
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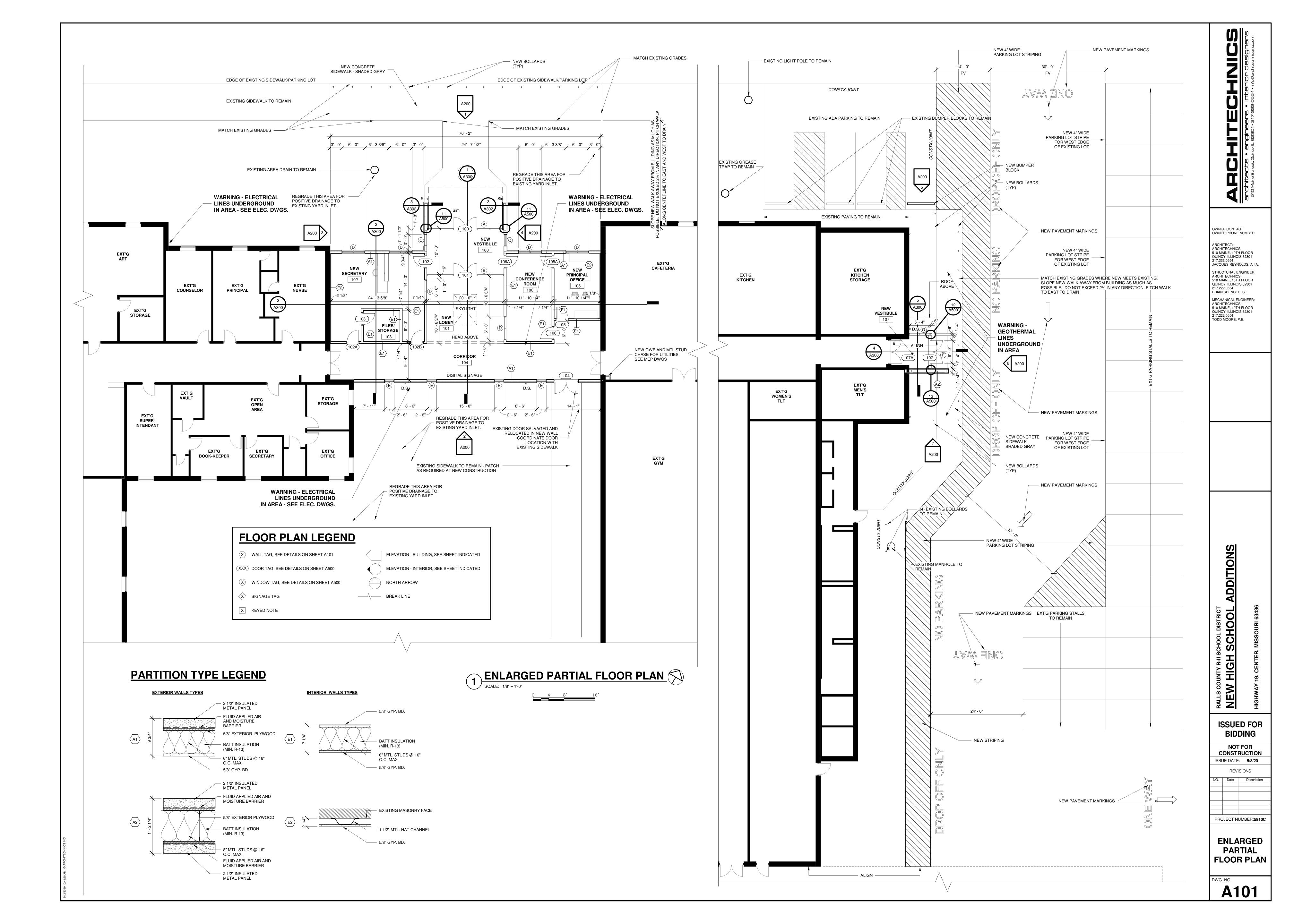
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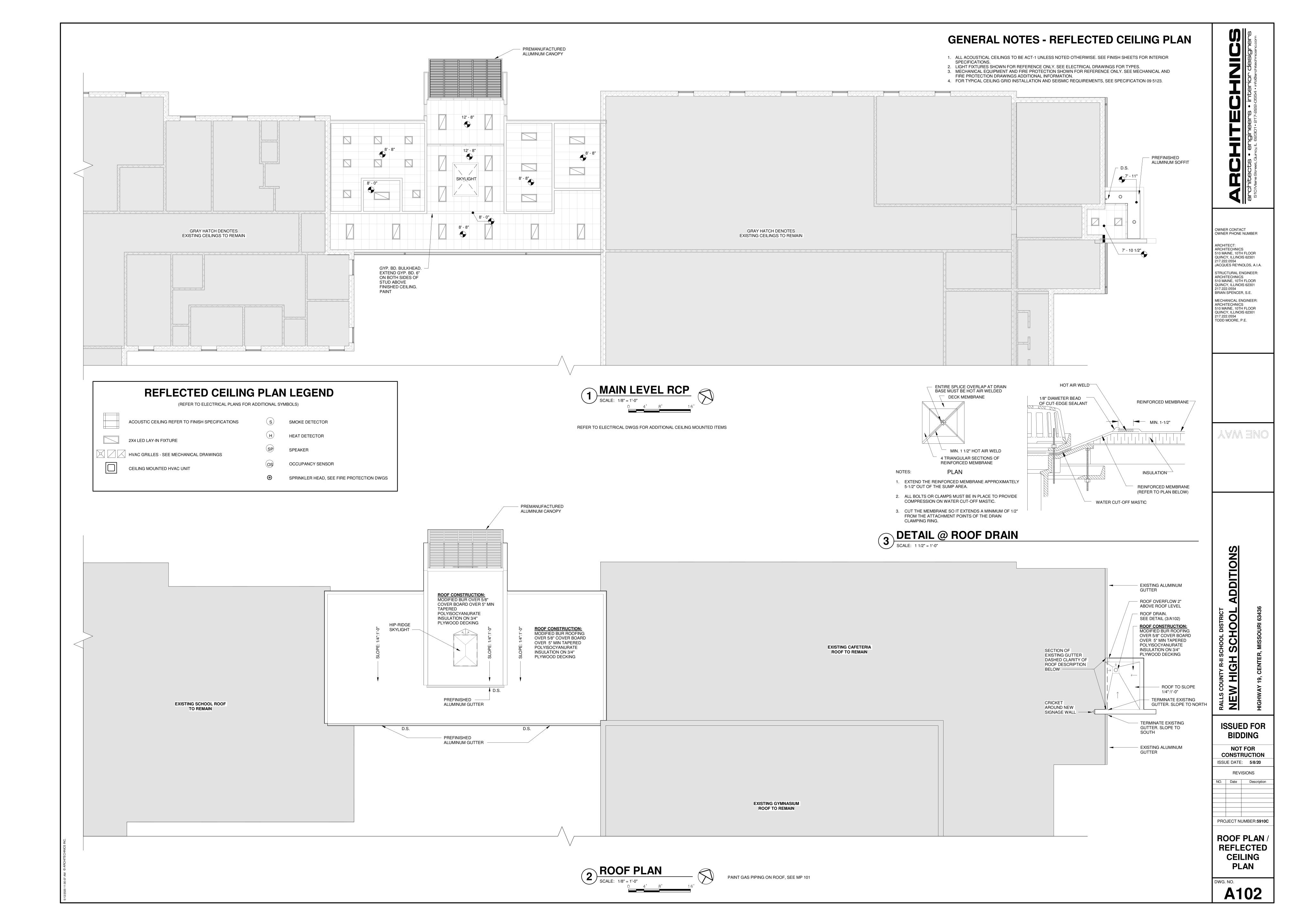
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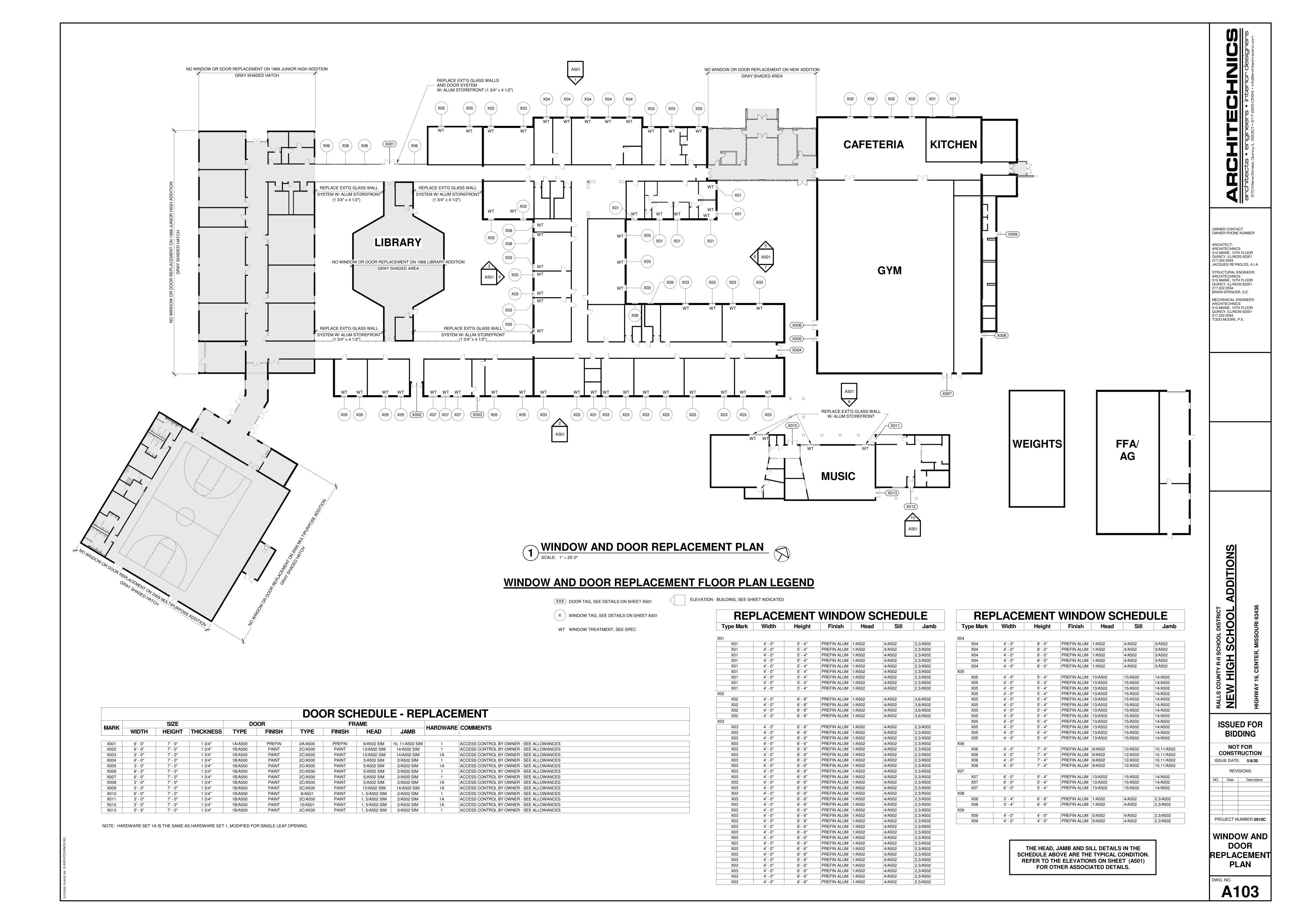
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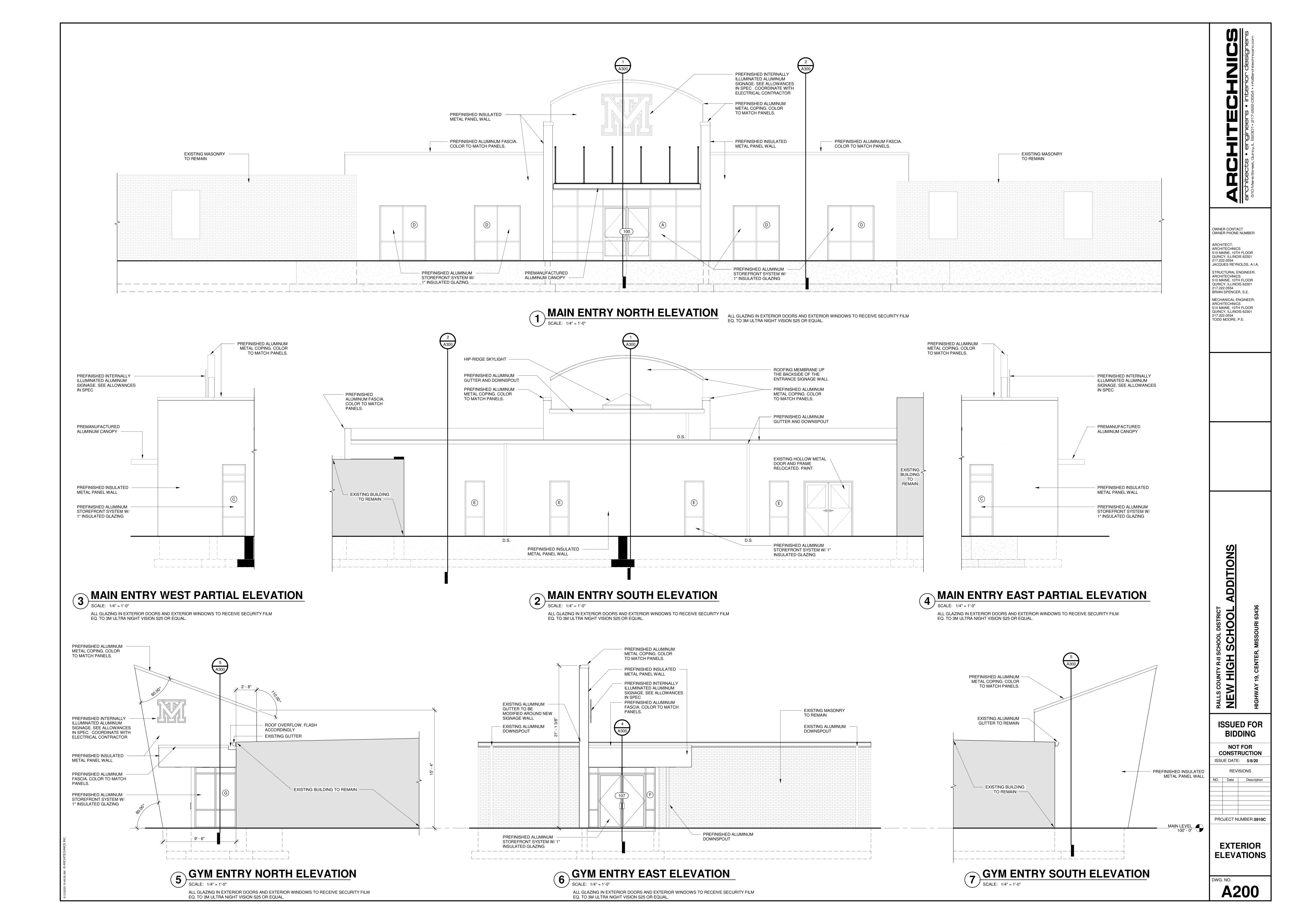
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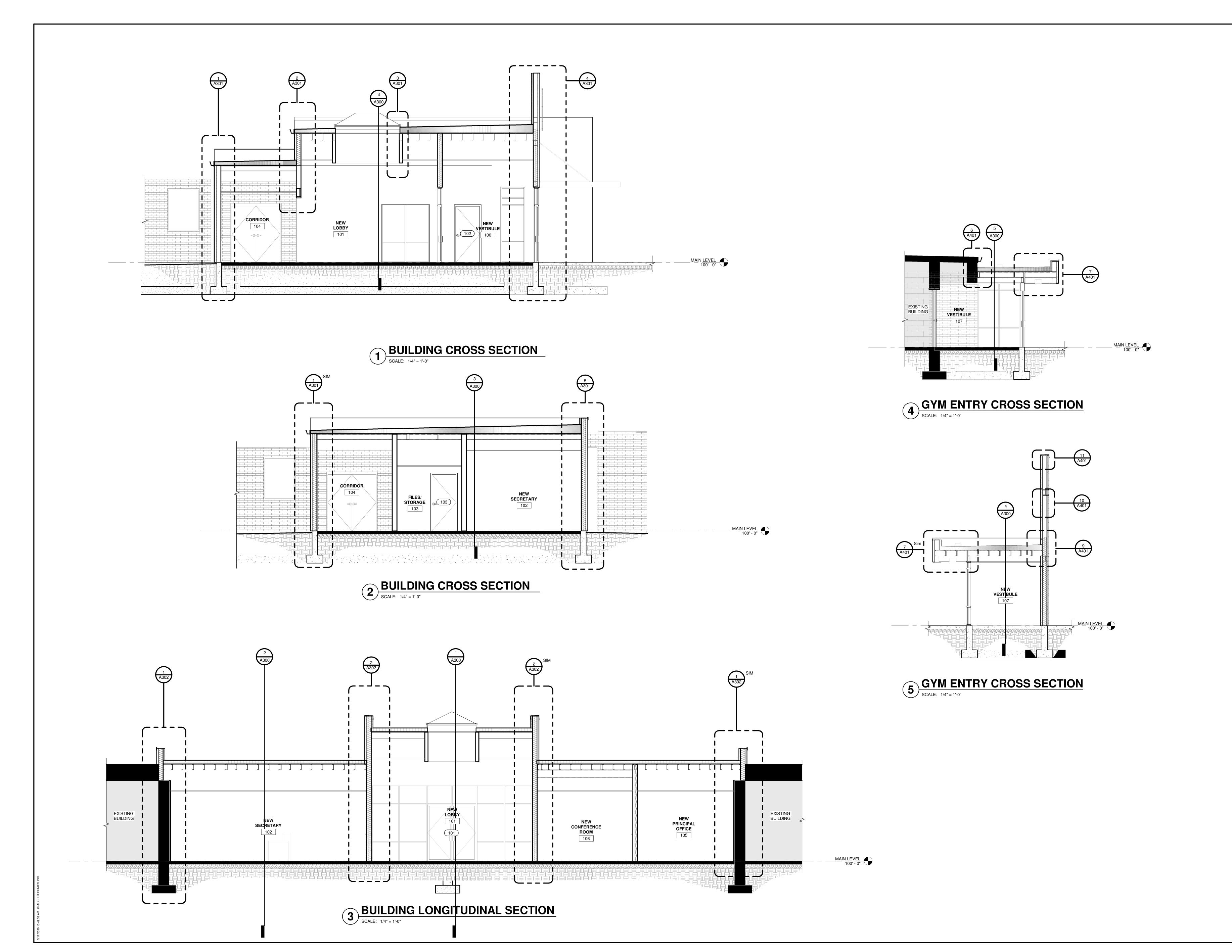












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1 SCHOOL DISTRICT

1 SCHOOL ADDITIONS

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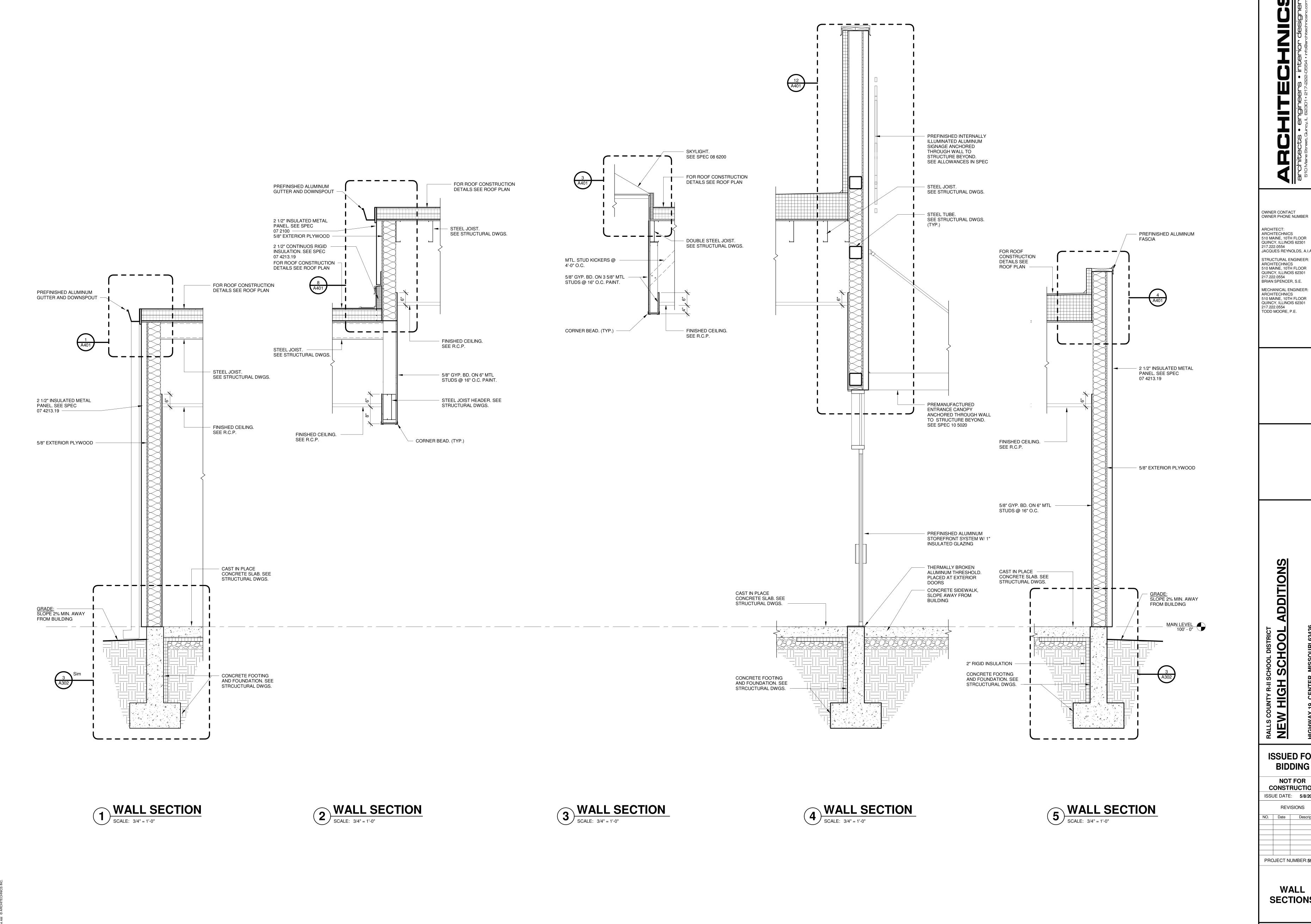
REVISIONS

REVISIONS

Date Description

BUILDING SECTIONS

PROJECT NUMBER:5910C



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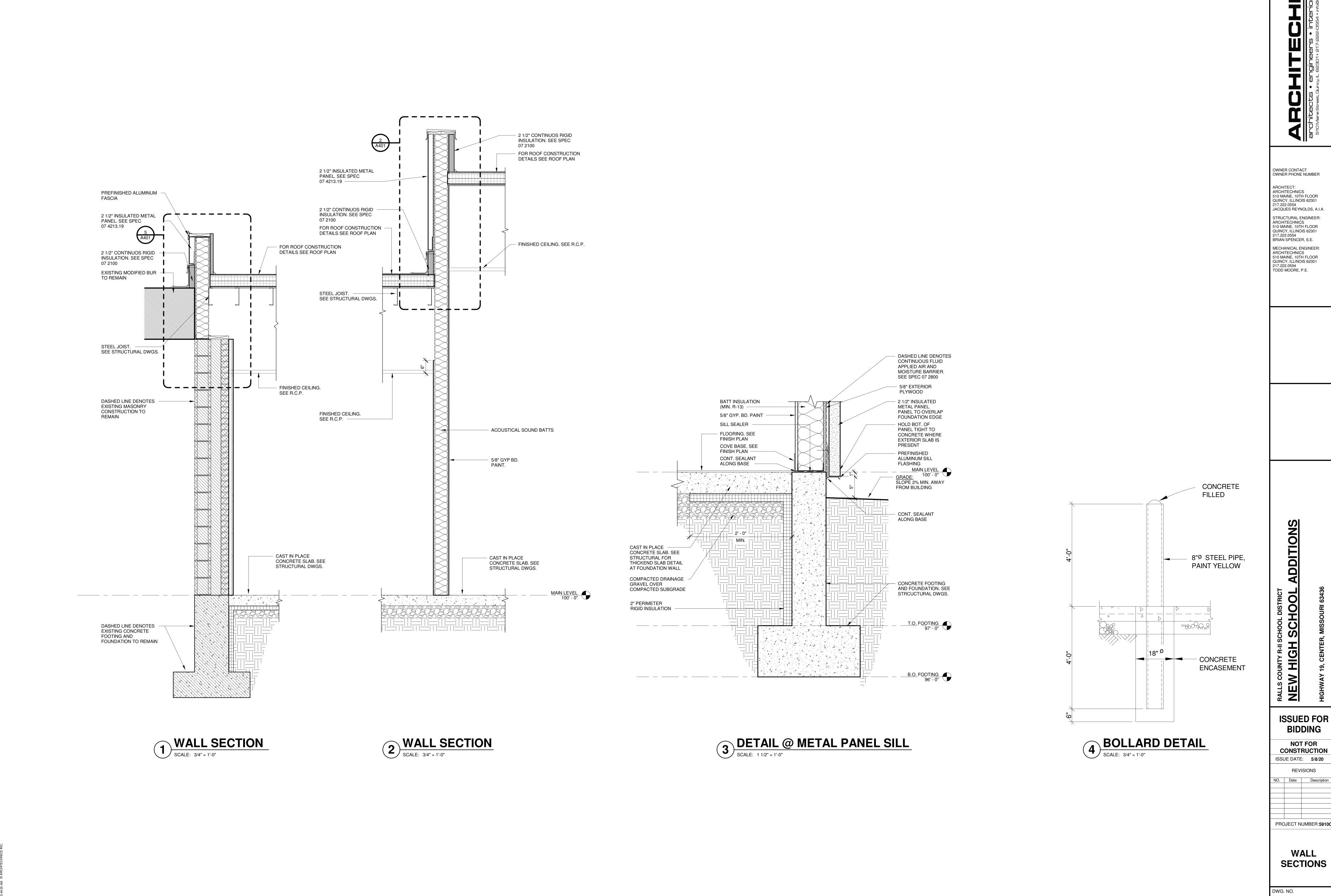
510 MAINE, 10TH FLOOR QUINCY, ILLINOIS 62301 217.222.0554 JACQUES REYNOLDS, A.I.A. STRUCTURAL ENGINEER: ARCHITECHNICS 510 MAINE, 10TH FLOOR QUINCY, ILLINOIS 62301 217.222.0554 BRIAN SPENCER, S.E.

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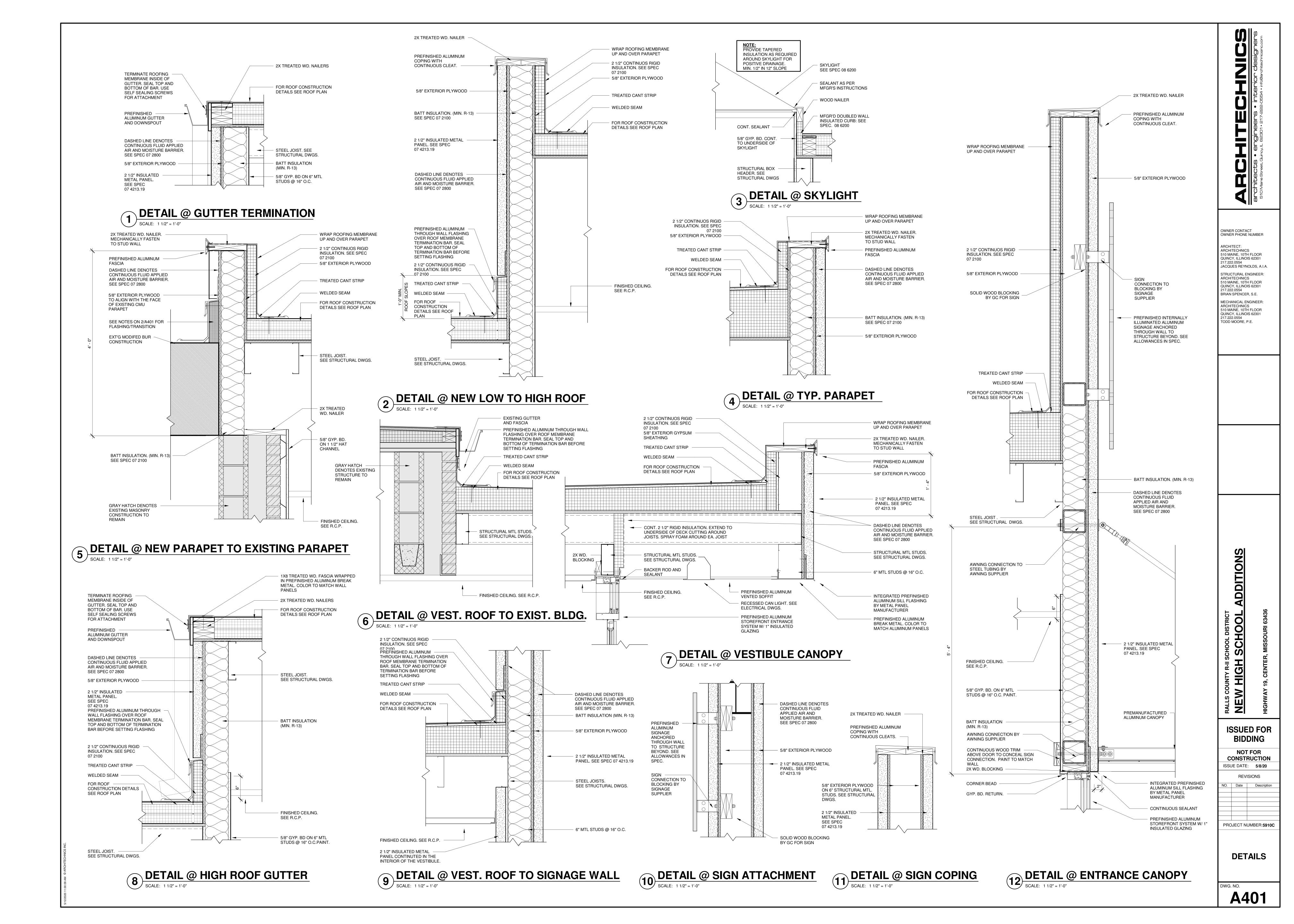
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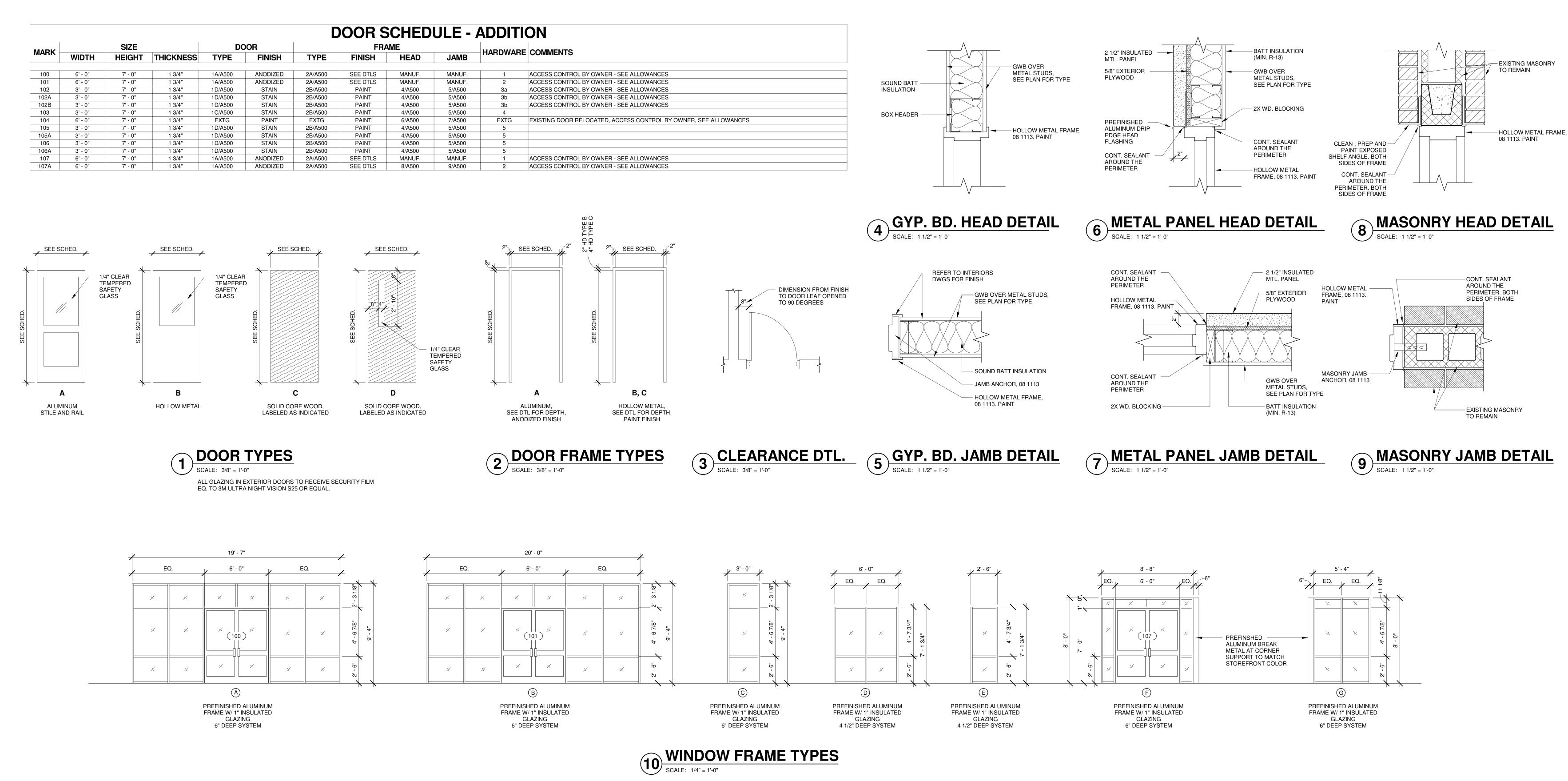


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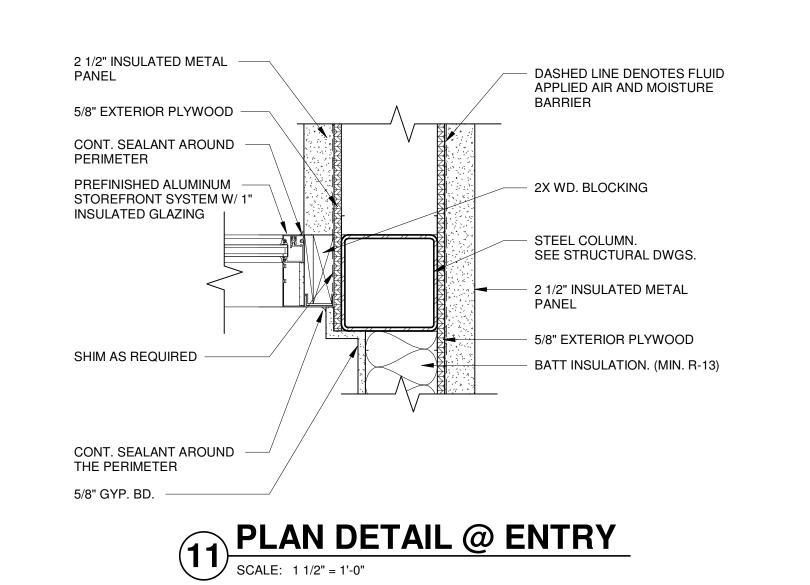
CONSTRUCTION ISSUE DATE: 5/8/20

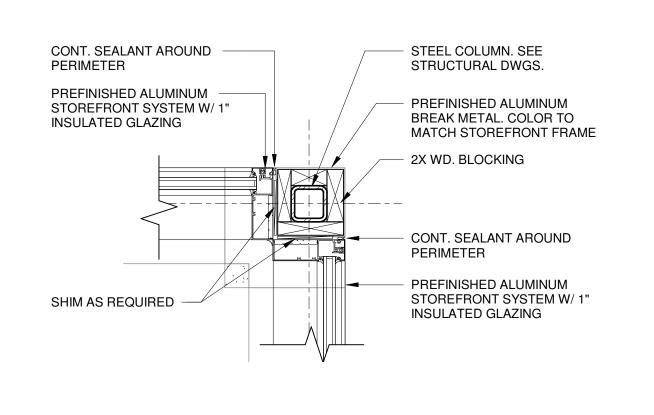
PROJECT NUMBER:5910C

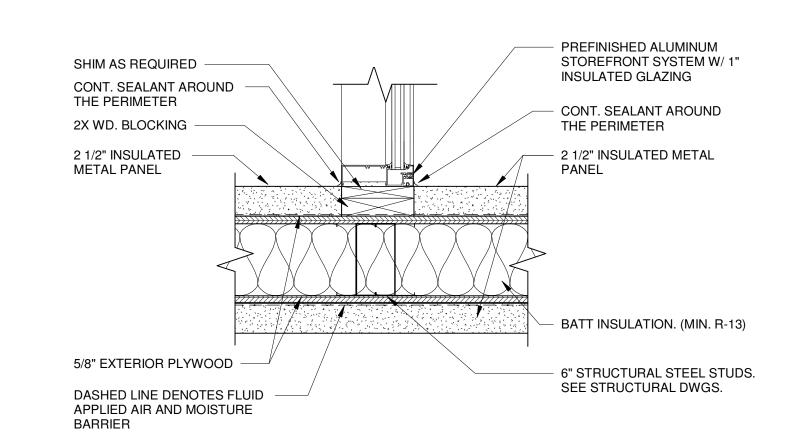




ALL GLAZING IN EXTERIOR DOORS AND EXTERIOR WINDOWS TO RECEIVE SECURITY FILM EQ. TO 3M ULTRA NIGHT VISION S25 OR EQUAL.







PLAN DETAIL @ STOREFRONT CORNER

SCALE: 1 1/2" = 1'-0"

PLAN DETAIL @ SIGNAGE WALL

SCALE: 1 1/2" = 1'-0"

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ISSUE DATE: 5/8/20

REVISIONS

HIG

OWNER CONTACT OWNER PHONE NUMBER

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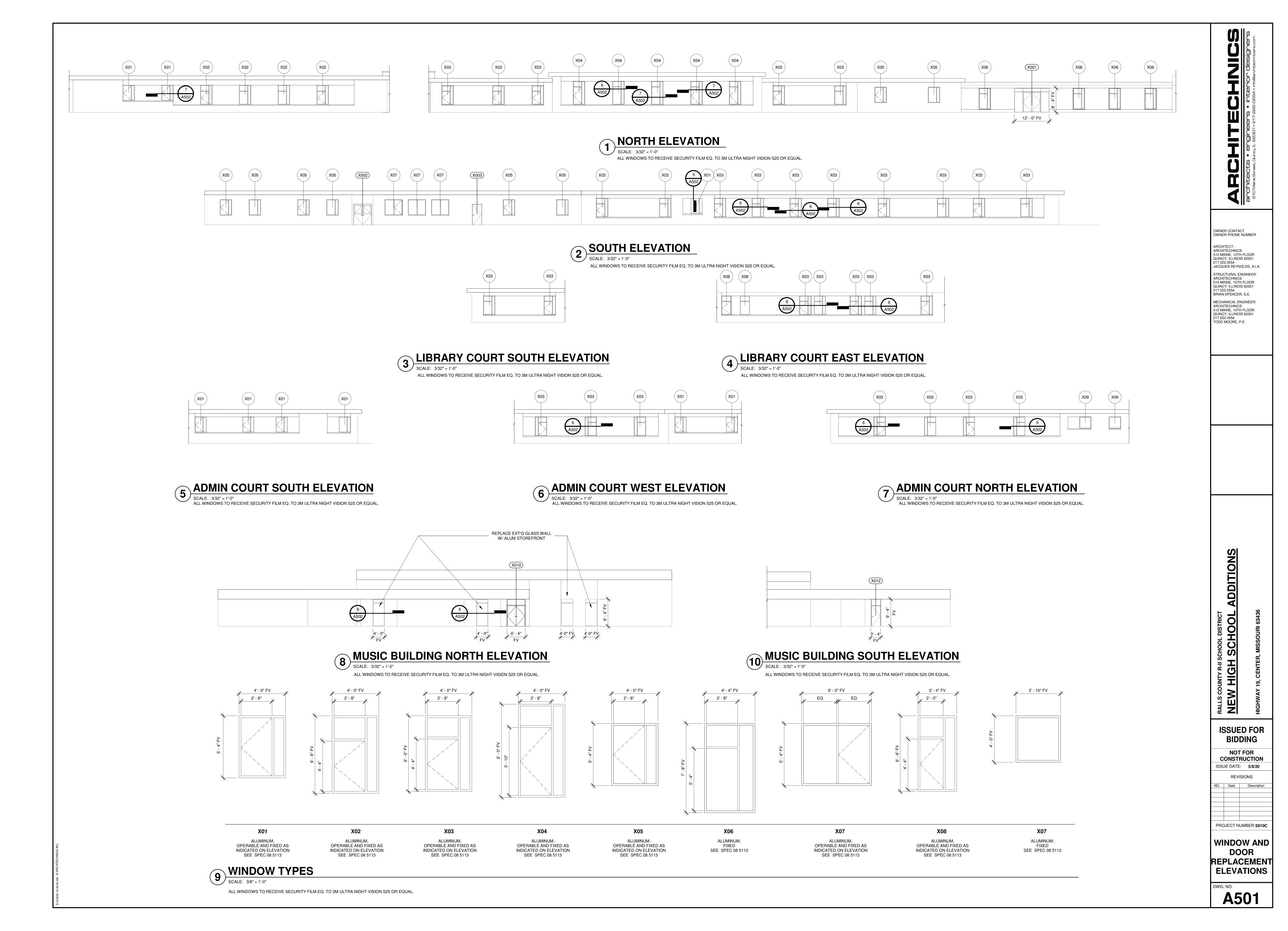
217.222.0554

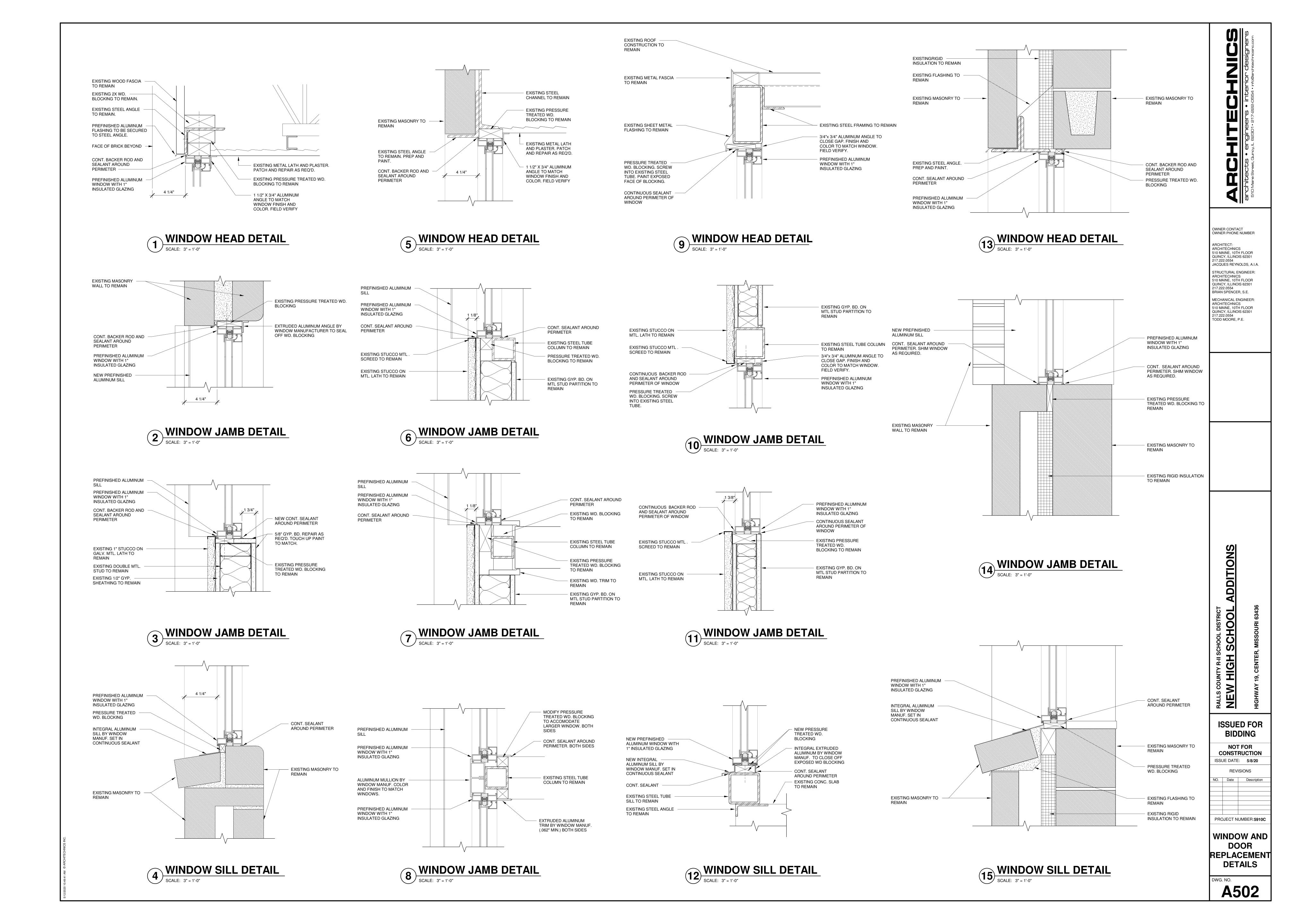
REVISIONS

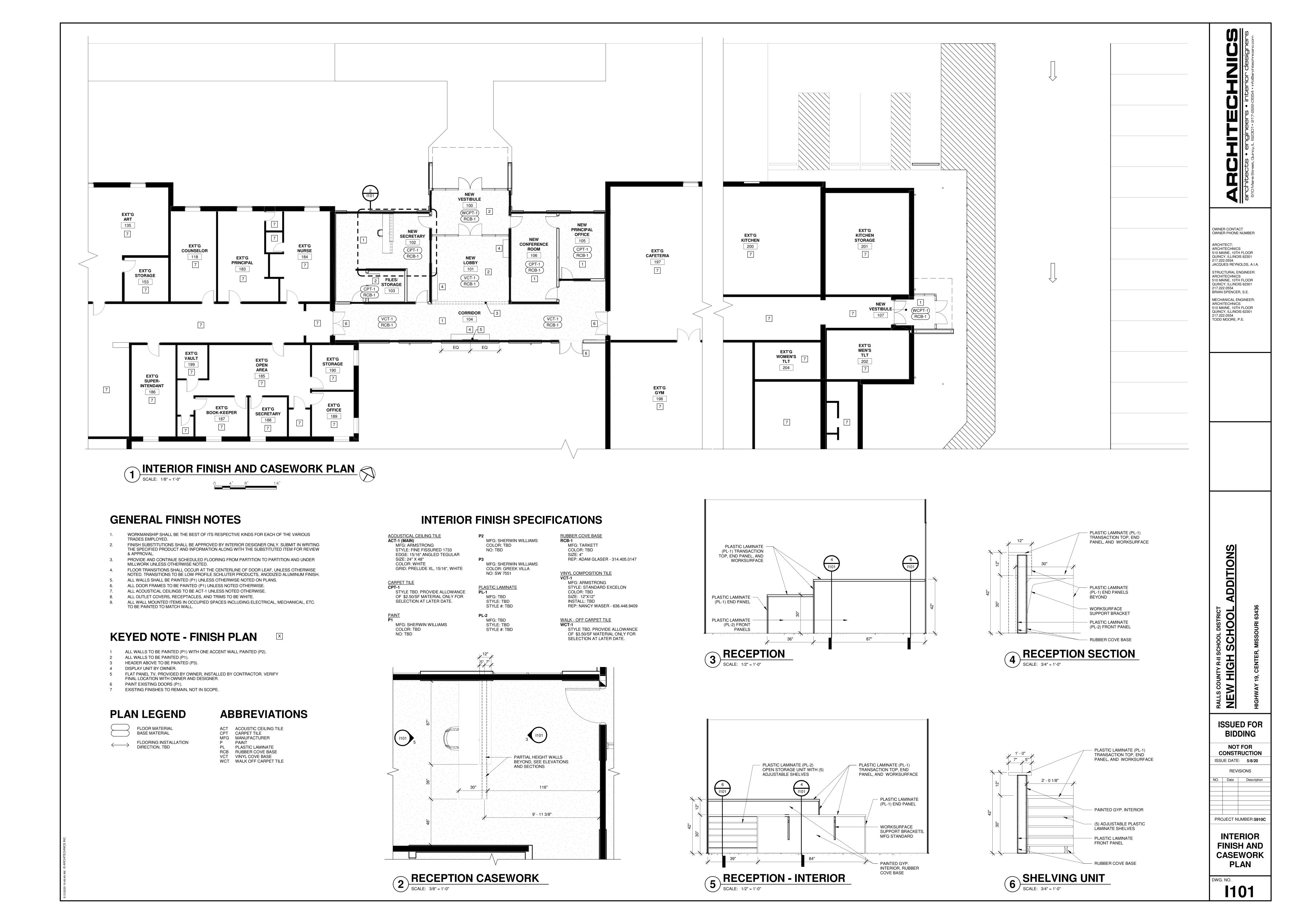
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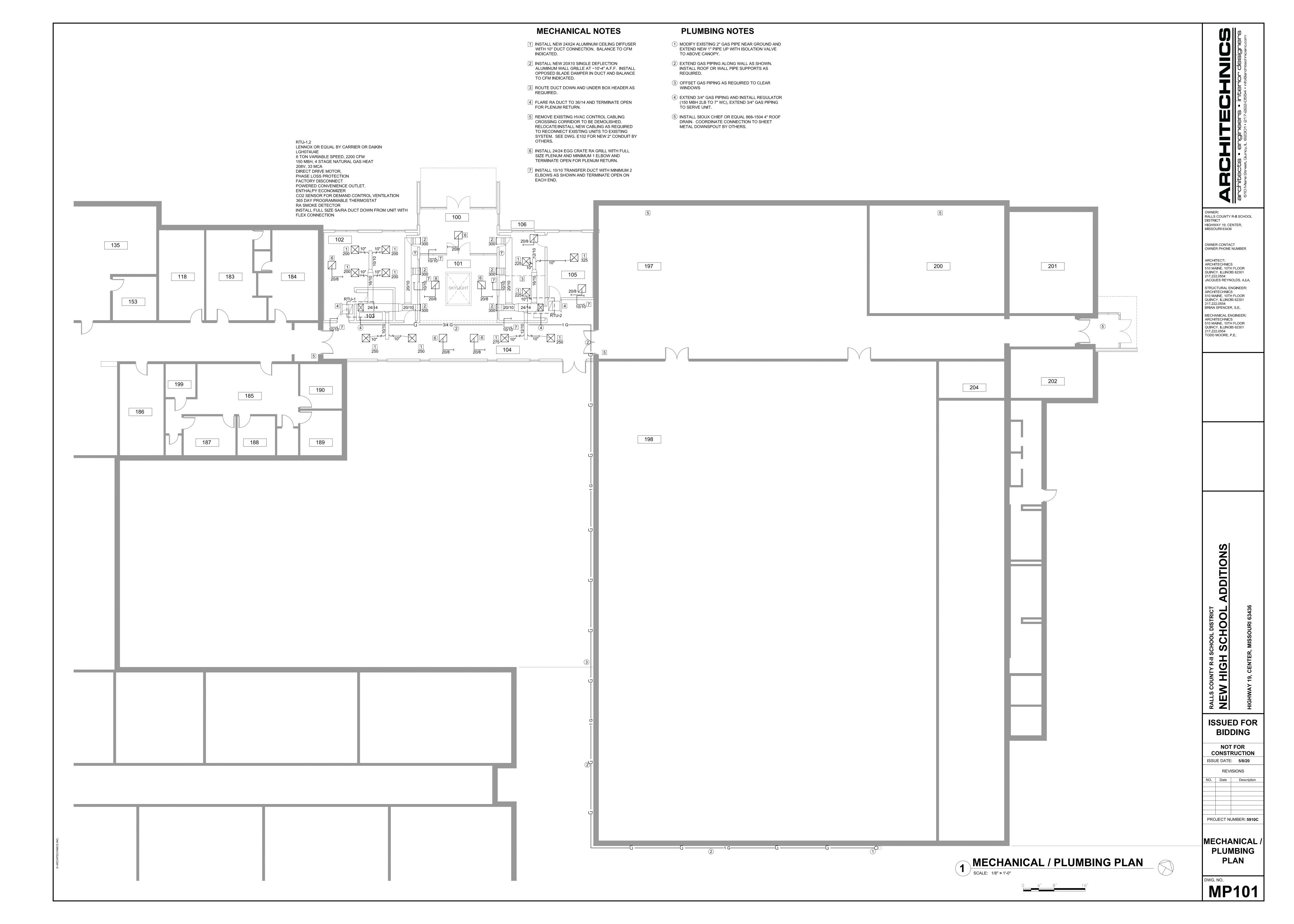
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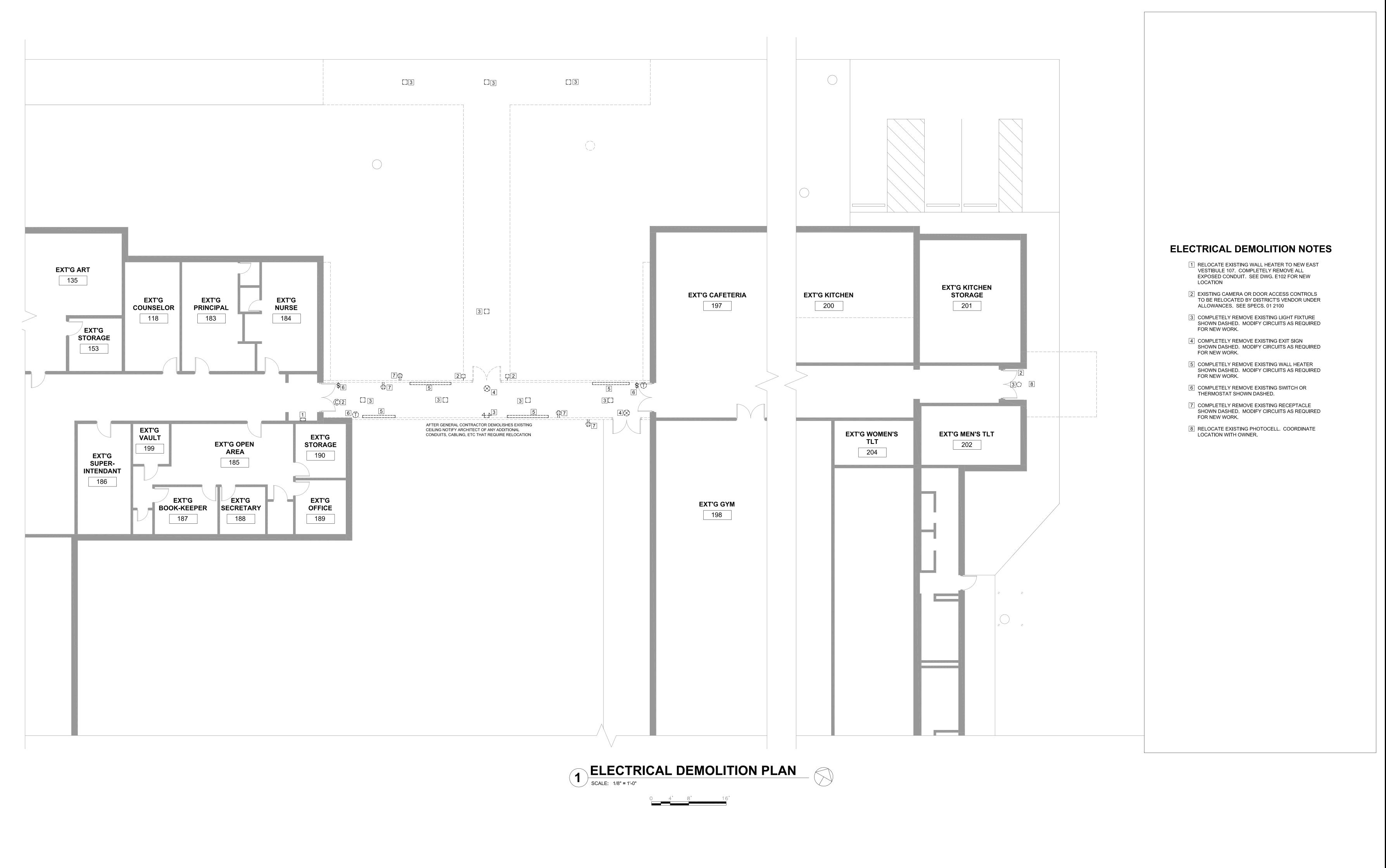
DOOR AND
WINDOW
SCHEDULE
AND DETAILS











RALLS COUNTY R-II SCHOOL DISTRICT HIGHWAY 19, CENTER, MISSOURI 63436

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ADDITIONS

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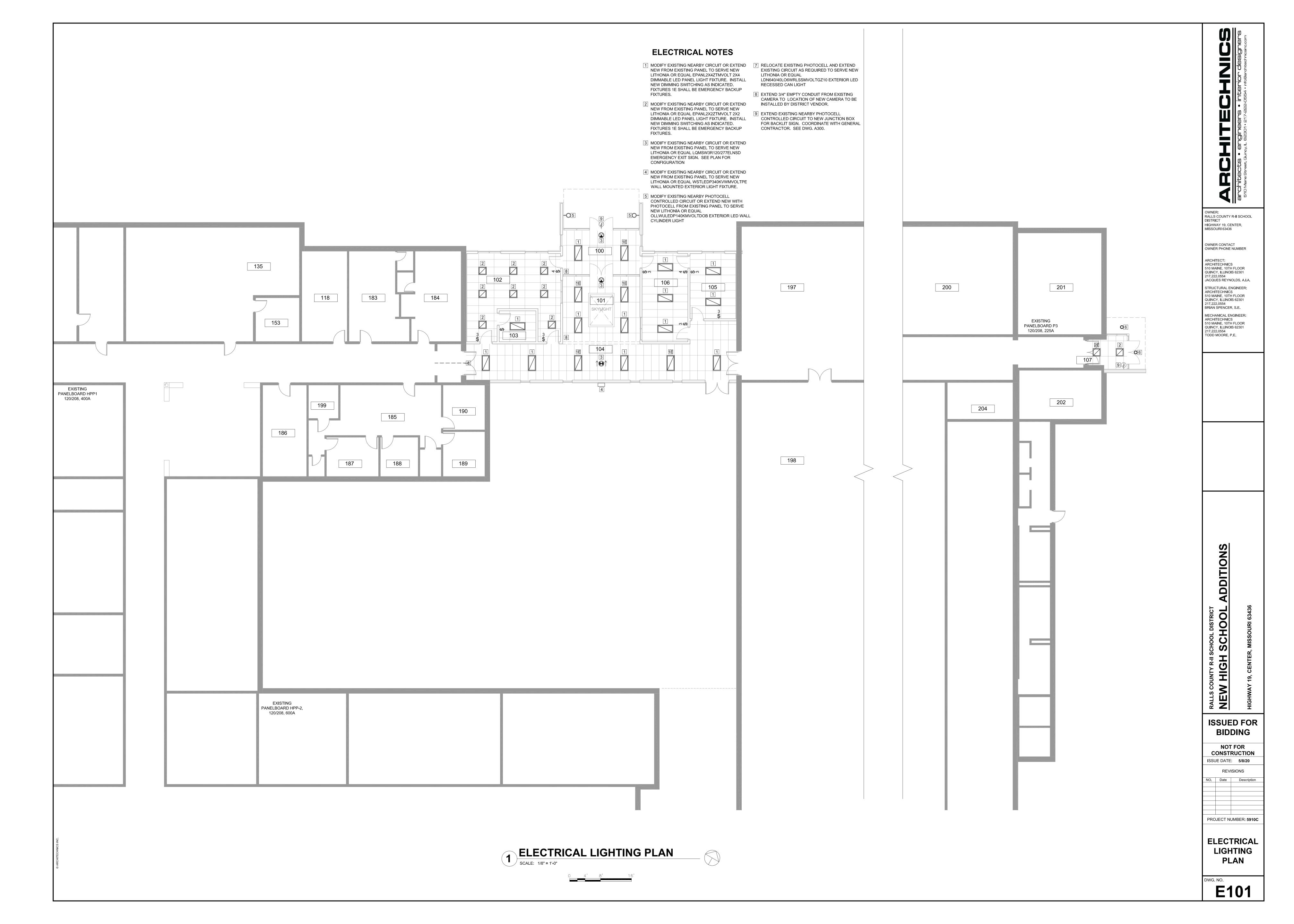
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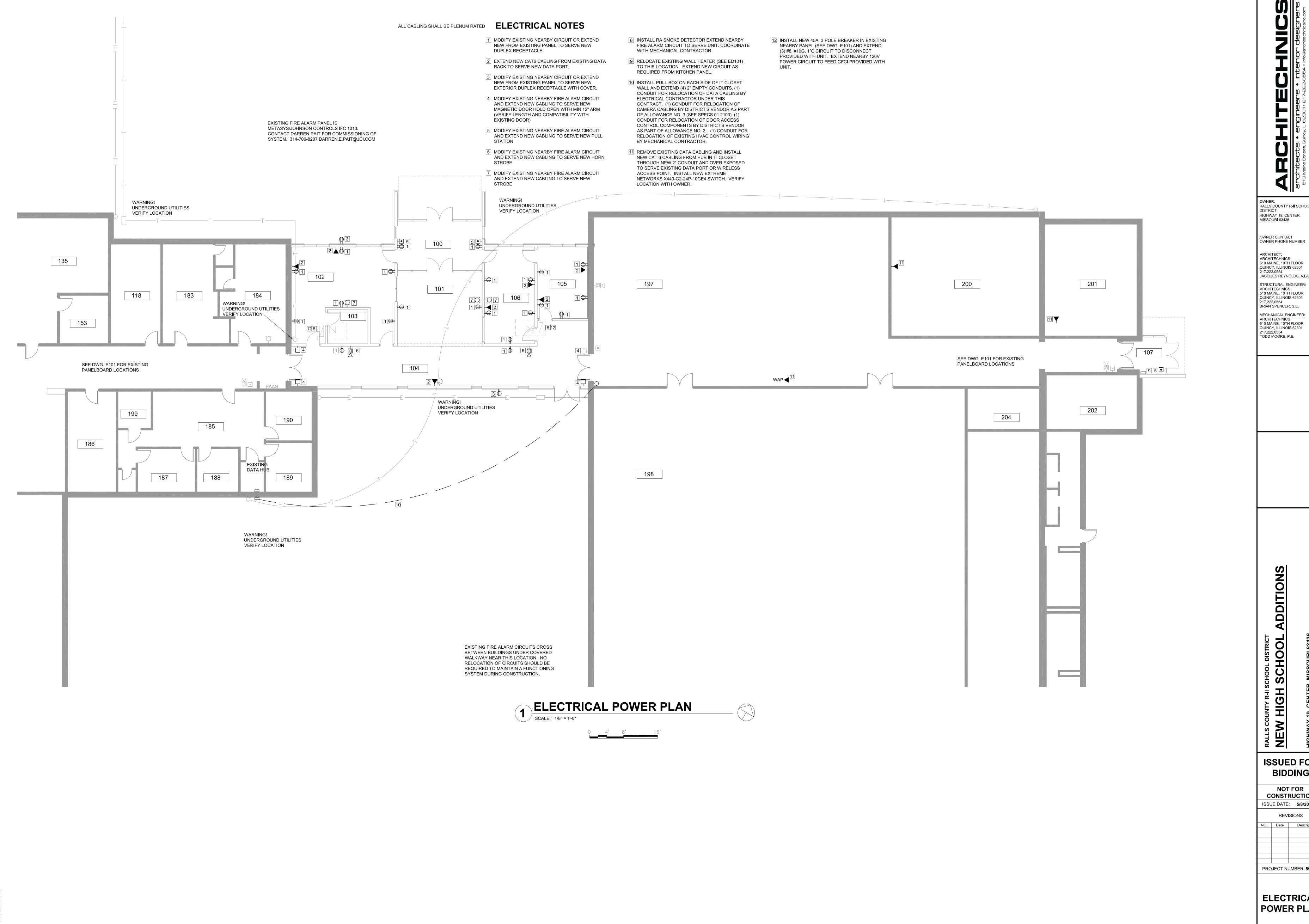
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PROJECT NUMBER: 5910C

ELECTRICAL DEMOLITION PLAN

DWG. NO.
ED101





RALLS COUNTY R-II SCHOOL HIGHWAY 19, CENTER,

510 MAINE, 10TH FLOOR QUINCY, ILLINOIS 62301 217.222.0554 JACQUES REYNOLDS, A.I.A. STRUCTURAL ENGINEER: ARCHITECHNICS 510 MAINE, 10TH FLOOR

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ELECTRICAL POWER PLAN

E102