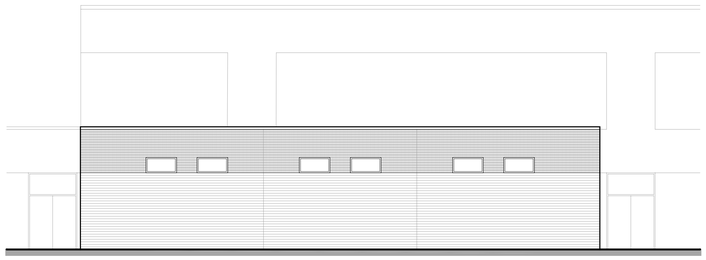
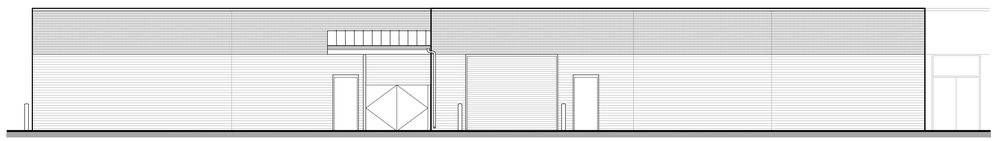
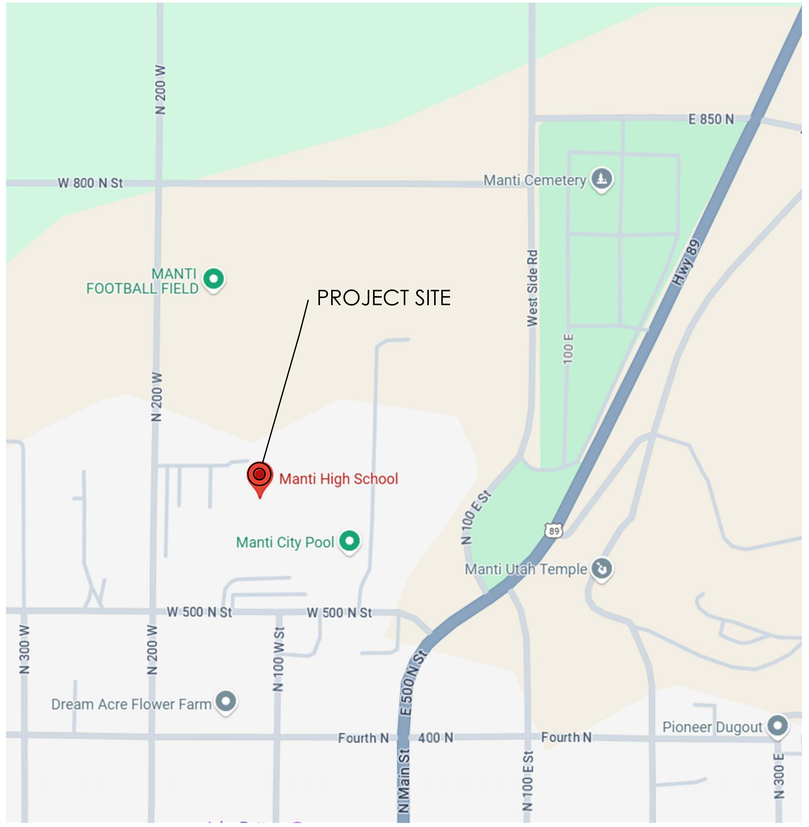
MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642





N VICINITY MAP



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SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

DRAWING ISSUE | Bid Documents
ISSUE DATE | December 9, 2024
NWL PROJECT | 0121.032

STATE OF UTAH · JOSEPH E. LUND · 7742762 · REGISTERED LICENSED ARCHITECT
12-09-2024

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

COVER SHEET

G001

DRAWING SHEET INDEX

SHEET NUMBER	SHEET NAME
GENERAL INFORMATION	
G001	COVER SHEET
G002	DRAWING SHEET INDEX
G101	CODE ANALYSIS
G201	WALL TYPES
CIVIL	
C001	GENERAL NOTES
C002	FIRE ACCESS PLAN
C100	DEMOLITION PLAN
C200	OVERALL SITE AND UTILITY PLAN
C201	SITE AND UTILITY PLAN
C202	SITE AND UTILITY PLAN
C300	OVERALL GRADING AND DRAINAGE PLAN
C301	GRADING AND DRAINAGE PLAN
C302	GRADING AND DRAINAGE PLAN
C400	DETAILS
ARCHITECTURAL	
A101	SHOP ADDITION DEMOLITION PLAN
A102	WRESTLING ADDITION DEMOLITION PLAN
A111	SHOP ADDITION FLOOR PLAN
A112	WRESTLING ADDITION FLOOR PLAN
A121	SLAB EDGE PLANS
A131	SHOP ADDITION REFLECTED CEILING PLAN
A132	WRESTLING ADDITION REFLECTED CEILING PLAN
A141	ROOF PLANS
A201	EXTERIOR ELEVATIONS
A301	BUILDING SECTIONS
A302	BUILDING SECTIONS
A401	SHOP EQUIPMENT PLAN
A410	INTERIOR ELEVATIONS
A501	BUILDING DETAILS
A601	OPENING SCHEDULE & DETAILS
STRUCTURAL	
S001	GENERAL STRUCTURAL NOTES
S002	GENERAL STRUCTURAL NOTES
S003	SPECIAL INSPECTIONS
S010	LEGENDS AND ABBREVIATIONS
S101	SHOP ADDITION FOOTING AND FOUNDATION PLAN
S102	WRESTLING ADDITION FOOTING AND FOUNDATION PLAN
S111	SHOP ADDITION ROOF FRAMING PLAN
S112	WRESTLING ADDITION ROOF FRAMING PLAN
S501	DETAILS
S502	DETAILS
S511	DETAILS
S512	DETAILS
S601	SCHEDULES
S602	SCHEDULES
S603	SCHEDULES
MECHANICAL	
MD1.1	MECHANICAL DEMOLITION PLAN - SHOPS
M1.1	MECHANICAL PLAN - SHOPS
M1.2	MECHANICAL PLAN - WRESTLING
M4.1	ENLARGED MECHANICAL WOOD SHOP PLAN
M5.1	MECHANICAL SCHEDULES
M6.1	MECHANICAL DETAILS
M6.2	MECHANICAL DETAILS
PLUMBING	
PD1.1	PLUMBING DEMOLITION PLAN - SHOPS
P1.1	PLUMBING PLAN - SHOPS
P1.2	PLUMBING NEW WORK PLAN - WRESTLING
P5.1	PLUMBING DETAILS
FIRE PROTECTION	
FPD1.1	FIRE PROTECTION DEMOLITION PLAN - SHOPS
FP1.1	FIRE PROTECTION PLAN - SHOPS
FP1.2	FIRE PROTECTION PLAN - WRESTLING
FP5.1	FIRE PROTECTION NOTES AND DETAILS
ELECTRICAL	
E001	ELECTRICAL SYMBOLS AND NOTES
E002	ELECTRICAL SCHEDULES
E060	ELECTRICAL DIAGRAMS
E080	ONE-LINE DIAGRAM
E081	PANEL BOARD SCHEDULE
E100	OVERALL ELECTRICAL PLAN
E1.111	SHOP ADDITION DEMOLITION FLOOR PLAN
E1.112	SHOP ADDITION DEMOLITION FLOOR PLAN ALTERNATE #2
E1.211	SHOP ADDITION LIGHTING PLAN
E1.212	SHOP ADDITION LIGHTING PLAN ALTERNATE #2
E1.311	SHOP ADDITION POWER PLAN
E1.411	SHOP ADDITION MECHANICAL PLAN
E1.412	SHOP ADDITION MECHANICAL ROOF PLAN
E1.511	SHOP ADDITION SYSTEMS PLAN
E2.111	WRESTLING ADDITION DEMOLITION FLOOR PLAN ALT - #1
E2.112	WRESTLING DEMOLTION FLOOR PLAN ALT - #3
E2.211	WRESTLING ADDITION LIGHTING PLAN ALT - #1
E2.212	WRESTLING ADDITION LIGHTING PLAN ALT - #3
E2.311	WRESTLING ADDITION POWER PLAN
E2.411	WRESTLING ADDITION MECHANICAL PLAN
E2.412	WRESTLING ADDITION MECHANICAL ROOF PLAN
T001	AUDIOVISUAL SYMBOLS SCHEDULES AND NOTES
T060	AUDIOVISUAL ROUGH IN DIAGRAMS
T080	AUDIOVISUAL SIGNAL FLOW DIAGRAMS
T1.211	SHOP ADDITION INTERCOM PLAN
E2.511	WRESTLING ADDITION INTERCOM PLAN

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DRAWING
SHEET INDEX

G002

CODE ANALYSIS:

CODE EDITIONS

2021	IBC, IMC, IPC, IFC, IECC
2020	NEC
CONSTRUCTION TYPE	II-B
OCCUPANCY CLASSIFICATION	GROUP E
ALLOWABLE BUILDING HEIGHT (TBL 504.3)	75'-0" (SPRINKLED)
NEW ADDITION(S) BUILDING HEIGHT	16'-0"
EXISTING BUILDING HEIGHT	34'-0"
ALLOWABLE STORIES (TBL 504.4)	3 (SPRINKLED)
NEW ADDITION(S) STORIES	1
EXISTING BUILDING STORIES	1
ALLOWABLE BUILDING AREAS (TBL 506.2)	58,000 SF
BUILDING **D** TOTAL AREA	4,646 SF
BUILDING **F** TOTAL AREA	4,866 SF

BUILDING AREA CALCULATIONS:

	EXISTING	NEW
BUILDING **A**	82,934	
BUILDING **B**	24,677	
BUILDING **C**	10,508	
BUILDING **D**	2,384	2,262
BUILDING **E**	5,490	
BUILDING **F**		4,866
BUILDING TOTAL	125,993 SF	7,128 SF = 133,121 SF

FIRE PROTECTION

SPRINKLER SYSTEM	
EXISTING BUILDING	YES
NEW BUILDING	YES
FIRE EXTINGUISHERS	YES (EXISTING)
FIRE WALLS	YES, 1 HR & 2 HR SEE FIRE SEPARATION &
EGRESS	PLAN THIS SHEET

MEANS OF EGRESS

COMMON PATH OF TRAVEL (SPRINKLED TBL 1006.2.1)	75 FT
MAX TRAVEL DISTANCE (SPRINKLED TBL 1017.2)	250 FT
RATED CORRIDORS (SPRINKLED TBL 1020.2)	NONE REQUIRED

FIRE SEPARATION & EGRESS PLAN LEGEND:

EXIT DOORS
DOORS USED IN CALCULATING EXIT WIDTH REQUIREMENTS FOR OCCUPANCY

EXITING OCCUPANTS → EXIT | C | O | R — C: EXIT WIDTH CAPACITY IN INCHES; R: EXIT WIDTH REQUIRED IN INCHES

ROOM OCCUPANCY TAGS

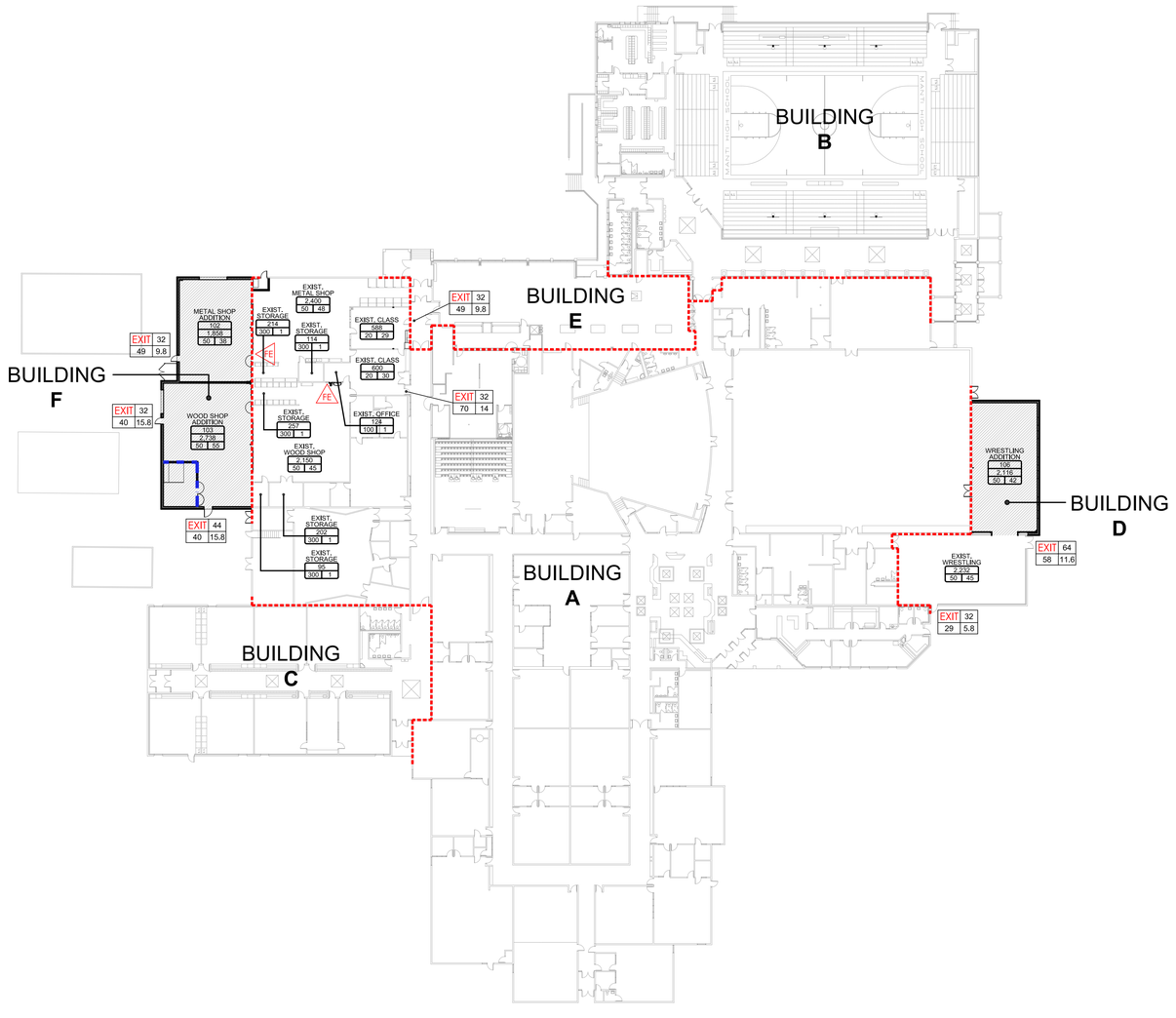
ROOM NAME / NUMBER / SQ FT / # / # — SQ FT: ROOM SIZE; #: LOAD FACTOR (TBL. 1004.5); #: OCCUPANCY LOAD

FIRE PROTECTION

1 HOUR FIRE RESISTIVE CONSTRUCTION

2 HOUR FIRE RESISTIVE CONSTRUCTION

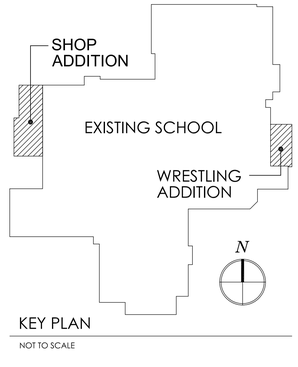
FIRE EXTINGUISHER LOCATION — FE



FIRE SEPARATION AND EGRESS PLAN

1" = 30'-0"

N



KEY PLAN

NOT TO SCALE

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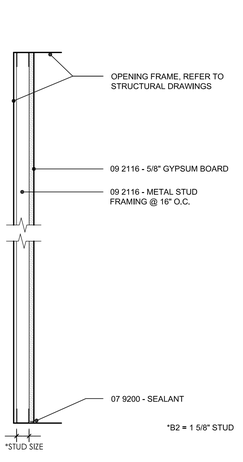
STATE OF UTAH — JOSHUA D. BOYER — 8130922 — 7724706 — LICENSED ARCHITECT

12-09-2024

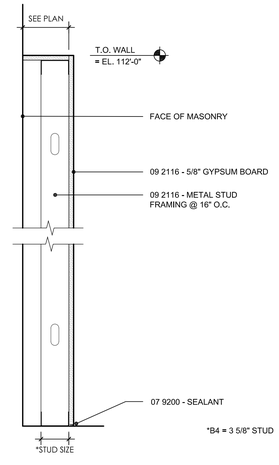
PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

CODE ANALYSIS

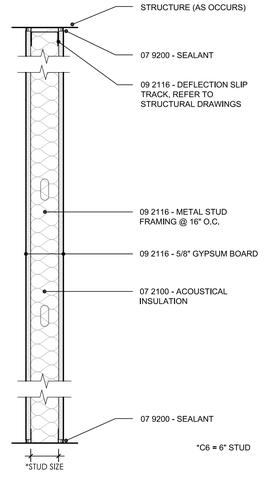
G101



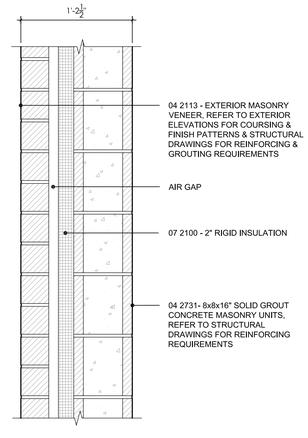
WALL TYPE - B2



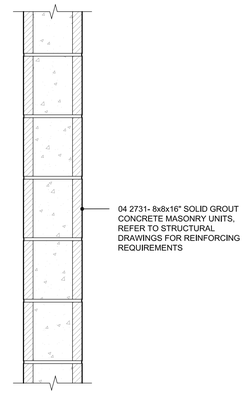
WALL TYPE - B4



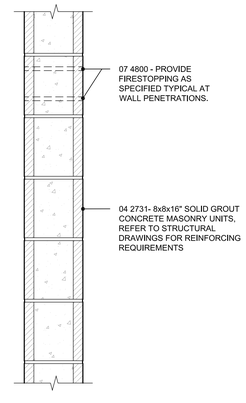
WALL TYPE - C6



WALL TYPE - M1



WALL TYPE - M2



WALL TYPE - M3

UL 1479 - 1 HR RATED WALL

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STATE OF UTAH
CHRISTOPHER M. LUND
#178764
LICENSED ARCHITECT
12-09-2024

PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

WALL TYPES

G201

811 Know what's below. Call before you dig.

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

GENERAL NOTES

1. ALL CONSTRUCTION MUST STRICTLY FOLLOW THE STANDARDS AND SPECIFICATIONS SET FORTH BY: THE DESIGN ENGINEER, LOCAL AGENCY JURISDICTION, APWA (CURRENT EDITION), AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.). THE ORDER LISTED ABOVE IS ARRANGED BY SENIORITY. THE LATEST EDITION OF ALL STANDARDS AND SPECIFICATIONS MUST BE ADHERED TO. IF A CONSTRUCTION PRACTICE IS NOT SPECIFIED BY ANY OF THE LISTED SOURCES, CONTRACTOR MUST CONTACT DESIGN ENGINEER FOR DIRECTION.
2. CONTRACTOR TO STRICTLY FOLLOW THE MOST CURRENT COPY OF THE SOILS REPORT FOR THIS PROJECT. ALL GRADING INCLUDING BUT NOT LIMITED TO CUT, FILL, COMPACTION, ASPHALT SECTION, SUBBASE, TRENCH EXCAVATION/BACKFILL, SITE GRUBBING, AND FOOTINGS MUST BE COORDINATED DIRECTLY WITH SOILS REPORT.
3. CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS BEFORE BIDDING, AND BRING UP ANY QUESTIONS BEFORE SUBMITTING BID.
4. CONTRACTOR SHALL PROVIDE A CONSTRUCTION SCHEDULE IN ACCORDANCE WITH THE CITY, STATE, OR COUNTY REGULATIONS FOR WORKING IN THE PUBLIC WAY.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ACCORDING TO GOVERNING AGENCY STANDARDS. WET DOWN DRY MATERIALS AND RUBBISH TO PREVENT BLOWING.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ADJACENT SURFACE IMPROVEMENTS.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY SETTLEMENT OF OR DAMAGE TO EXISTING UTILITIES.
8. THE CONTRACTOR IS RESPONSIBLE TO FURNISH ALL MATERIALS TO COMPLETE THE PROJECT.
9. ALL EXPOSED SURFACES WILL HAVE A TEXTURED FINISH, RUBBED, OR BROOMED. ANY "PLASTERING" OF NEW CONCRETE WILL BE DONE WHILE IT IS STILL "GREEN".
10. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
11. THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THESE PLANS ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO PROCEEDING WITH CONSTRUCTION. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE. CONTRACTOR SHALL START INSTALLATION AT LOW POINT OF ALL NEW GRAVITY UTILITY LINES.
12. ALL DIMENSIONS, GRADES, AND UTILITY DESIGN SHOWN ON THE PLANS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY DISCREPANCIES EXIST, PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO THE DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS, IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
13. NO CHANGE IN DESIGN LOCATION OR GRADE WILL BE MADE BY THE CONTRACTOR WITHOUT THE WRITTEN APPROVAL OF THE PROJECT ENGINEER.
14. NATURAL VEGETATION AND SOIL COVER SHALL NOT BE DISTURBED PRIOR TO ACTUAL CONSTRUCTION OF A REQUIRED FACILITY OR IMPROVEMENT. MASS CLEARING OF THE SITE IN ANTICIPATION OF CONSTRUCTION SHALL BE AVOIDED.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, MAINTAINING, OR RESTORING ALL MONUMENTS AND MONUMENT REFERENCE MARKS WITHIN THE PROJECT SITE. CONTACT THE CITY OR COUNTY SURVEYOR FOR MONUMENT LOCATIONS AND CONSTRUCTION DETAILS.
16. EXISTING UTILITY INFORMATION SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. IT IS DERIVED FROM ON-SITE SURVEY AND/OR UTILITY MAPPING PROVIDED TO THE ENGINEER, AND THEREFORE UTILITIES MAY NOT BE LOCATED CORRECTLY, EITHER HORIZONTALLY OR VERTICALLY, AND MAY NOT BE ALL INCLUSIVE. CONTRACTOR IS REQUIRED TO FOLLOW THE PROCEDURE OUTLINED BELOW:
    - 16.1. CONTRACTOR IS REQUIRED TO LOCATE AND POTHOLE ALL EXISTING UTILITY LINES (BOTH HORIZONTALLY AND VERTICALLY) THAT AFFECT THE PROJECT CONSTRUCTION, EITHER ON-SITE OR OFF-SITE, AND DETERMINE IF THERE ARE ANY CONFLICTS WITH THE DESIGN OF THE SITE AS SHOWN ON THE APPROVED PLANS PRIOR TO ANY CONSTRUCTION. IF IT IS DETERMINED THAT CONFLICTS EXIST BETWEEN EXISTING UTILITIES AND DESIGN UTILITIES (OR ANOTHER ASPECT OF PROPOSED CONSTRUCTION) THE ENGINEER MUST BE NOTIFIED IMMEDIATELY TO CORRECT THE CONFLICTS BEFORE ANY WORK CAN BEGIN. IF THE CONTRACTOR FAILS TO FOLLOW THIS ABSOLUTE REQUIREMENT AND CONFLICTS ARISE DURING CONSTRUCTION THE CONTRACTOR WILL BEAR THE SOLE RESPONSIBILITY TO FIX THE CONFLICTS.
    - 16.2. CONTRACTOR IS REQUIRED TO VERIFY THAT PROPER COVER AND PROTECTION OF EXISTING UTILITY LINES IS MAINTAINED OR ATTAINED WITHIN THE DESIGN ONCE VERIFICATION OF THE EXISTING UTILITIES IS COMPLETED AS OUTLINED IN 16.1 ABOVE.
    - 16.3. IN ADDITION TO 16.1 AND 16.2 ABOVE THE CONTRACTOR WILL VERIFY DEPTHS OF UTILITIES IN THE FIELD BY "POTHOLING" A MINIMUM OF 300 FEET AHEAD OF PROPOSED PIPELINE CONSTRUCTION TO AVOID POTENTIAL CONFLICTS WITH DESIGNED PIPELINE ALIGNMENT AND GRADE AND EXISTING UTILITIES.
    - 16.4. IF A CONFLICT ARISES BETWEEN EXISTING UTILITIES AND DESIGN UTILITIES (OR ANOTHER ASPECT OF PROPOSED CONSTRUCTION) AS DETERMINED UNDER 16.1, 16.2 OR 16.3 THE CONTRACTOR WILL NOTIFY THE ENGINEER IMMEDIATELY TO RESOLVE THE CONFLICT.
    - 16.5. IF A CONFLICT ARISES BETWEEN EXISTING UTILITIES AND DESIGN UTILITIES (OR ANOTHER ASPECT OF PROPOSED CONSTRUCTION) RESULTING FROM THE CONTRACTOR'S NEGLIGENCE TO IDENTIFY AND/OR "POTHOLE" EXISTING UTILITIES AS REQUIRED IN 16.1, 16.2 AND 16.3 ABOVE, THE CONTRACTOR WILL BE REQUIRED TO RESOLVE THE CONFLICT WITHOUT ADDITIONAL COST OR CLAIM TO THE OWNER OR ENGINEER.
17. ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO OWNER.
18. CONSULT ALL OF THE DRAWINGS AND SPECIFICATIONS FOR COORDINATION REQUIREMENTS BEFORE COMMENCING CONSTRUCTION.
19. AT ALL LOCATIONS WHERE EXISTING PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING PAVEMENT SHALL BE SAWCUT TO A CLEAN, SMOOTH EDGE.
20. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MOST RECENT, ADOPTED EDITION OF ADA ACCESSIBILITY GUIDELINES.
21. CONTRACTOR SHALL, AT THE TIME OF BIDDING AND THROUGHOUT THE PERIOD OF THE CONTRACT, BE LICENSED IN THE STATE OF UTAH AND SHALL BE BONDABLE FOR AN AMOUNT REQUIRED BY THE OWNER.
22. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL WATER, POWER, SANITARY FACILITIES AND TELEPHONE SERVICES AS REQUIRED FOR THE CONTRACTOR'S USE DURING CONSTRUCTION.
23. CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE REGULATORY AGENCY'S STANDARD SPECIFICATIONS. ALL RE-TESTING AND/OR RE-INSPECTION SHALL BE PAID FOR BY THE CONTRACTOR.
24. IF EXISTING IMPROVEMENTS NEED TO BE DISTURBED AND/OR REMOVED FOR THE PROPER PLACEMENT OF IMPROVEMENTS TO BE CONSTRUCTED BY THESE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE. COST OF REPLACING OR REPAIRING EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS REQUIRING REMOVAL AND/OR REPLACEMENT. THERE WILL BE NO EXTRA COST DUE TO THE CONTRACTOR FOR REPLACING OR REPAIRING EXISTING IMPROVEMENTS.
25. WHENEVER EXISTING FACILITIES ARE REMOVED, DAMAGED, BROKEN, OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS OR SPECIFICATIONS, SAID FACILITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE WITH MATERIALS EQUAL TO OR BETTER THAN THE MATERIALS USED IN THE ORIGINAL EXISTING FACILITIES. THE FINISHED PRODUCT SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER, THE ENGINEER, AND THE RESPECTIVE REGULATORY AGENCY.
26. CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL STRUCTURES AND OTHER FACILITIES. RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO THE ENGINEER ONE SET OF NEATLY MARKED RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATIONS REDLINED AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.
27. WHERE THE PLANS OR SPECIFICATIONS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS BUT NOT IN COMPLETE DETAIL, IT IS UNDERSTOOD THAT ONLY THE BEST GENERAL PRACTICE IS TO PREVAIL AND THAT ONLY MATERIALS AND WORKMANSHIP OF THE FIRST QUALITY ARE TO BE USED.
28. ALL EXISTING GATES AND FENCES TO REMAIN UNLESS OTHERWISE NOTED ON PLANS. PROTECT ALL GATES AND FENCES FROM DAMAGE.
29. ALL EXISTING TREES ARE TO REMAIN UNLESS OTHERWISE NOTED ON PLANS. PROTECT ALL TREES FROM DAMAGE.
30. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE GOVERNING AGENCY PRIOR TO THE PLACEMENT.
31. CONTRACTORS ARE RESPONSIBLE FOR ALL OSHA REQUIREMENTS ON THE PROJECT SITE.
32. A UPDES (UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM) PERMIT IS REQUIRED FOR ALL CONSTRUCTION ACTIVITIES 1 ACRE OR MORE AS WELL AS A STORM WATER POLLUTION PREVENTION PLAN.

UTILITY NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS, CITY AND STATE REQUIREMENTS AND THE MOST RECENT EDITIONS OF THE FOLLOWING: THE INTERNATIONAL PLUMBING CODE, UTAH DRINKING WATER REGULATIONS, APWA MANUAL OF STANDARD PLANS AND SPECIFICATIONS. THE CONTRACTOR IS REQUIRED TO ADHERE TO ALL OF THE ABOVE-MENTIONED DOCUMENTS UNLESS OTHERWISE NOTED AND APPROVED BY THE ENGINEER.
2. CONTRACTOR SHALL COORDINATE LOCATION OF NEW "DRY UTILITIES" WITH THE APPROPRIATE UTILITY COMPANY, INCLUDING BUT NOT LIMITED TO: TELEPHONE & INTERNET SERVICE, GAS SERVICE, CABLE, AND POWER.
3. EXISTING UTILITIES HAVE BEEN SHOWN ON THE PLANS BASED ON ON-SITE SURVEY. PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE, IN THE FIELD, THEIR MAIN AND SERVICE LINES. THE CONTRACTOR SHALL NOTIFY BLUE STAKES AT 1-800-662-4111 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK. THE CONTRACTOR SHALL RECORD THE BLUE STAKES ORDER NUMBER AND FURNISH ORDER NUMBER TO OWNER AND ENGINEER PRIOR TO ANY EXCAVATION. IT WILL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DIRECTLY CONTACT ANY OTHER UTILITY COMPANIES THAT ARE NOT MEMBERS OF BLUE STAKES. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THIS CONTRACT. ANY REPAIRS NECESSARY TO DAMAGED UTILITIES SHALL BE PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL BE REQUIRED TO COOPERATE WITH OTHER CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICE TO THE PROJECT.
4. CARE SHOULD BE TAKEN IN ALL EXCAVATIONS DUE TO POSSIBLE EXISTENCE OF UNRECORDED UTILITY LINES. EXCAVATION REQUIRED WITHIN PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT CONTRACTOR'S EXPENSE.
5. TRENCH BACKFILL MATERIAL AND COMPACTION TESTS ARE TO BE TAKEN PER APWA STANDARD SPECIFICATIONS (CURRENT EDITION), SECTION 33 05 20 - BACKFILLING TRENCHES, OR AS REQUIRED BY THE GEOTECHNICAL REPORT IF NATIVE MATERIALS ARE USED. NO NATIVE MATERIALS ARE ALLOWED IN THE PIPE ZONE. THE MAXIMUM LIFT FOR BACKFILLING EXCAVATIONS IS DETERMINED BY THE GEOTECHNICAL RECOMMENDATIONS.
6. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFORMING TO LOCAL AND FEDERAL CODES GOVERNING SHORING AND BRACING OF EXCAVATIONS AND TRENCHES AND FOR THE PROTECTION OF WORKERS.
7. THE CONTRACTOR IS REQUIRED TO KEEP ALL CONSTRUCTION ACTIVITIES WITHIN THE APPROVED PROJECT LIMITS. THIS INCLUDES, BUT IS NOT LIMITED TO VEHICLE AND EQUIPMENT STAGING, MATERIAL STORAGE AND LIMITS OF TRENCH EXCAVATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN PERMISSION AND/OR EASEMENTS FROM THE APPROPRIATE GOVERNING ENTITY AND/OR INDIVIDUAL PROPERTY OWNER(S) FOR WORK OR STAGING OUTSIDE OF THE PROJECT LIMITS.
8. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE, CAUSED BY ANY CONDITION INCLUDING SETTLEMENT, TO EXISTING UTILITIES FROM WORK PERFORMED AT OR NEAR EXISTING UTILITIES. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROTECT ALL EXISTING PUBLIC AND PRIVATE ROADWAY AND UTILITY FACILITIES. DAMAGE TO EXISTING FACILITIES CAUSED BY THE CONTRACTOR MUST BE REPAIRED BY THE CONTRACTOR AT HIS/HER EXPENSE TO THE SATISFACTION OF THE OWNER OF SAID FACILITIES.
9. ALL WATER LINE AND SEWER LINE INSTALLATION AND TESTING TO BE IN ACCORDANCE WITH LOCAL GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
10. ALL MANHOLES, HYDRANTS, VALVES, CLEANOUT BOXES, CATCH BASINS, METERS, ETC. MUST BE RAISED OR LOWERED TO FINAL GRADE PER APWA (CURRENT EDITION) STANDARDS AND INSPECTOR REQUIREMENTS. CONCRETE COLLARS MUST BE CONSTRUCTED ON ALL MANHOLES, CLEANOUT BOXES, CATCH BASINS, AND VALVES PER APWA STANDARDS. ALL MANHOLE, CATCH BASIN, OR CLEANOUT BOX CONNECTIONS MUST BE MADE WITH THE PIPE CUT FLUSH WITH THE INSIDE OF THE BOX AND GROUTED OR SEALED.
11. CONTRACTOR SHALL NOT ALLOW ANY GROUNDWATER OR DEBRIS TO ENTER THE NEW OR EXISTING PIPE DURING CONSTRUCTION.
12. SILT AND DEBRIS ARE TO BE CLEANED OUT OF ALL STORM DRAIN BOXES. CATCH BASINS ARE TO BE MAINTAINED IN A CLEANED CONDITION AS NEEDED UNTIL AFTER THE FINAL BOND RELEASE INSPECTION.
13. CONTRACTOR SHALL CLEAN ASPHALT, TAR OR OTHER ADHESIVES OFF OF ALL MANHOLE LIDS AND INLET GRATES TO ALLOW ACCESS.
14. EACH TRENCH SHALL BE EXCAVATED SO THAT THE PIPE CAN BE LAID TO THE ALIGNMENT AND GRADE AS REQUIRED. THE TRENCH WALL SHALL BE SO BRACED THAT THE WORKMEN MAY WORK SAFELY AND EFFICIENTLY. ALL TRENCHES SHALL BE DRAINED SO THE PIPE LAYING MAY TAKE PLACE IN DEWATERED CONDITIONS.
15. CONTRACTOR SHALL PROVIDE AND MAINTAIN AT ALL TIMES AMPLE MEANS AND DEVICES WITH WHICH TO REMOVE PROMPTLY AND TO PROPERLY DISPOSE OF ALL WATER ENTERING THE TRENCH EXCAVATION.
16. ALL SEWER LINES AND SEWER SERVICES SHALL HAVE A MINIMUM SEPARATION OF 10 FEET, EDGE TO EDGE, FROM THE WATER LINES. IF A 10 FOOT SEPARATION CAN NOT BE MAINTAINED, CONSTRUCT PER GOVERNING AGENCY'S MINIMUM SEPARATION STANDARDS.
17. CONTRACTOR SHALL INSTALL THRUST BLOCKING AT ALL WATERLINE ANGLE POINTS AND TEES.
18. ALL UNDERGROUND UTILITIES SHALL BE IN PLACE PRIOR TO INSTALLATION OF CURB, GUTTER, SIDEWALK AND STREET PAVING.
19. CONTRACTOR SHALL INSTALL MAGNETIC LOCATING TAPE CONTINUOUSLY OVER ALL NONMETALLIC PIPE.

TRAFFIC CONTROL AND SAFETY NOTES

1. TRAFFIC CONTROL AND STRIPING TO CONFORM TO THE CURRENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
2. BARRICADING AND DETOURING SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE CURRENT M.U.T.C.D.
3. NO STREET SHALL BE CLOSED TO TRAFFIC WITHOUT WRITTEN PERMISSION FROM THE APPROPRIATE AGENCY, EXCEPT WHEN DIRECTED BY LAW ENFORCEMENT OR FIRE OFFICIALS.
4. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROVIDE FOR SMOOTH TRAFFIC FLOW AND SAFETY. ACCESS SHALL BE MAINTAINED FOR ALL PROPERTIES ADJACENT TO THE WORK.
5. DETOURING OPERATIONS FOR A PERIOD OF SIX CONSECUTIVE CALENDAR DAYS, OR MORE, REQUIRE THE INSTALLATION OF TEMPORARY STREET STRIPING AND REMOVAL OF INTERFERING STRIPING BY SANDBLASTING. THE DETOURING STRIPING PLAN OR CONSTRUCTION TRAFFIC CONTROL PLAN MUST BE SUBMITTED TO THE GOVERNING AGENCY FOR REVIEW AND APPROVAL.
6. ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE END OF THE WORK TO THE SATISFACTION OF THE GOVERNING AGENCY.
7. TRAFFIC CONTROL DEVICES (TCDs) SHALL REMAIN VISIBLE AND OPERATIONAL AT ALL TIMES.
8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HEREUNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
9. THE CONTRACTOR SHALL PROVIDE BARRICADES, SIGNS, FLASHERS, OTHER EQUIPMENT AND FLAG PERSONS NECESSARY TO INSURE THE SAFETY OF WORKERS AND VISITORS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTAH TRANSIT AUTHORITY (UTA) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.

DEMOLITION NOTES

1. EXISTING UTILITY INFORMATION SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. IT IS DERIVED FROM ON-SITE SURVEY AND MAY NOT BE LOCATED CORRECTLY AND IS NOT ALL INCLUSIVE. CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES WITHIN THE PROJECT LIMITS BEFORE BEGINNING DEMOLITION/CONSTRUCTION.
2. THERE MAY BE BURIED UTILITIES WITHIN THE LIMITS OF DISTURBANCE THAT ARE NOT SHOWN ON THE PLANS DUE TO LACK OF MAPPING OR RECORD INFORMATION. CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN UNEXPECTED UTILITIES ARE DISCOVERED.
3. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR LOCATING AND PROTECTING FROM DAMAGE ALL EXISTING UTILITIES AND IMPROVEMENTS WHETHER OR NOT SHOWN ON THESE PLANS. THE FACILITIES AND IMPROVEMENTS ARE BELIEVED TO BE CORRECTLY SHOWN BUT THE CONTRACTOR IS REQUIRED TO SATISFY HIMSELF AS TO THE COMPLETENESS AND ACCURACY OF THE LOCATIONS. ANY CONTRACTOR PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE HIMSELF WITH THE SITE AND SHALL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY, OR INDIRECTLY, FROM HIS OPERATIONS, WHETHER OR NOT SAID FACILITIES ARE SHOWN ON THESE PLANS.

GRADING AND DRAINAGE NOTES

1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL RELATED ADDENDUMS.
2. THE CONTRACTOR SHALL STRIP AND CLEAR THE TOPSOIL, MAJOR ROOTS AND ORGANIC MATERIAL FROM ALL PROPOSED BUILDING AND PAVEMENT AREAS PRIOR TO SITE GRADING. (THE TOPSOIL MAY BE STOCKPILED FOR LATER USE IN LANDSCAPED AREAS.)
3. THE CONTRACTOR SHALL REMOVE ALL ORGANIC MATERIAL AND OTHER DELETERIOUS MATERIALS PRIOR TO PLACING GRADING FILL OR BASE COURSE. THE AREA SHOULD BE PROOF-ROLLED TO IDENTIFY ANY SOFT AREAS. WHERE SOFT AREAS ARE ENCOUNTERED, THE CONTRACTOR SHALL REMOVE THE SOIL AND REPLACE WITH COMPACTED FILL.
4. ALL DEBRIS PILES AND BERMS SHOULD BE REMOVED AND HAULED AWAY FROM SITE OR USED AS GENERAL FILL IN LANDSCAPED AREAS.
5. THE CONTRACTOR SHALL CONSTRUCT THE BUILDING PAD TO THESE DESIGN PLANS AS PART OF THE SITE GRADING CONTRACT, AND STRICTLY ADHERE TO THE SITE PREPARATION AND GRADING REQUIREMENTS OUTLINED IN THE GEOTECHNICAL REPORT.
6. THE CONTRACTOR SHALL GRADE THE PROJECT SITE TO PROVIDE A SMOOTH TRANSITION BETWEEN NEW AND EXISTING ASPHALT, CURB AND GUTTER, AND ADJOINING SITE IMPROVEMENTS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE AND DEBRIS ON ADJACENT STREETS WHEN EQUIPMENT IS TRAVELING THOSE STREETS.
8. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL CONDITIONS AND RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT AND TAKE ALL NECESSARY PRECAUTIONS AND RECOMMENDED PROCEDURES TO ASSURE SOUND GRADING PRACTICES.
9. THE CONTRACTOR SHALL TAKE APPROPRIATE GRADING MEASURES TO DIRECT STORM SURFACE RUNOFF TOWARDS CATCH BASINS.
10. THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THESE PLANS ARE BASED ON ON-SITE SURVEY. IT SHALL BE THE CONTRACTORS' FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO PROCEEDING WITH CONSTRUCTION. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES, AND SLOPES SHOWN.
12. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.
13. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED PERMIT. ALL CONTRACTOR ACTIVITIES 1 ACRE OR MORE IN SIZE ARE REQUIRED TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN.
14. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
15. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER FROM GOVERNING AGENCY.
16. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS, AND ALL OTHER PUBLIC RIGHT-OF-WAYS IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY-OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC, SHALL BE MAINTAINED IN A CLEAN, SAFE, AND USABLE CONDITION.

ABBREVIATIONS

APWA	AMERICAN PUBLIC WORKS ASSOCIATION
AR	ACCESSIBLE ROUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
BOS	BOTTOM OF STEP
BVC	BEGIN VERTICAL CURVE
C	CURVE
CB	CATCH BASIN
CF	CURB FACE OR CUBIC FEET
CL	CENTER LINE
CO	CLEAN OUT
COMM	COMMUNICATION
CONC	CONCRETE
CONT	CONTINUOUS
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
ELEC	ELECTRICAL
ELEV	ELEVATION
EOA	EDGE OF ASPHALT
EVC	END OF VERTICAL CURVE
EW	EACH WAY
EXIST	EXISTING
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE OR FLANGE
GB	GRADE BREAK
GF	GARAGE FLOOR
GV	GATE VALVE
HC	HANDICAP
HP	HIGH POINT
IRR	IRRIGATION
K	RATE OF VERTICAL CURVATURE
LD	LAND DRAIN
LF	LINEAR FEET
LP	LOW POINT
MEX	MATCH EXISTING
MH	MANHOLE
MJ	MECHANICAL JOINT
NG	NATURAL GROUND
NIC	NOT IN CONTRACT
NO	NUMBER
OC	ON CENTER
OCEW	ON CENTER EACH WAY
OHP	OVERHEAD POWER
PC	POINT OF CURVATURE OR PRESSURE CLASS
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PL	PROPERTY LINE
PRC	POINT OF REVERSE CURVATURE
PRO	PROPOSED
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
R	RADIUS
RD	ROOF DRAIN
ROW	RIGHT OF WAY
S	SLOPE
SAN SWR	SANITARY SEWER
SD	STORM DRAIN
SEC	SECONDARY
SS	SANITARY SEWER
STA	STATION
SW	SECONDARY WATER LINE
TBC	TOP BACK OF CURB
TOG	TOP OF GRATE
TOA	TOP OF ASPHALT
TOC	TOP OF CONCRETE
TOF	TOP OF FOUNDATION
TOW	TOP OF WALL
TOS	TOP OF STEP
TYP	TYPICAL
VC	VERTICAL CURVE
WIV	WALL INDICATOR VALVE
W	WATER LINE

NOTE: MAY CONTAIN ABBREVIATIONS THAT ARE NOT USED IN THIS PLAN SET.

LEGEND

SECTION CORNER	EXISTING EDGE OF ASPHALT
EXISTING MONUMENT	PROPOSED EDGE OF ASPHALT
PROPOSED MONUMENT	EXISTING STRIPING
EXISTING REBAR AND CAP	PROPOSED STRIPING
SET ENSIGN REBAR AND CAP	EXISTING FENCE
EXISTING WATER METER	PROPOSED FENCE
PROPOSED WATER METER	EXISTING FLOW LINE
EXISTING WATER MANHOLE	PROPOSED FLOW LINE
PROPOSED WATER MANHOLE	GRADE BREAK
EXISTING WATER BOX	EXISTING STORM DRAIN LINE
EXISTING WATER VALVE	PROPOSED STORM DRAIN LINE
PROPOSED WATER VALVE	ROOF DRAIN LINE
EXISTING FIRE HYDRANT	CATCHMENTS
PROPOSED FIRE HYDRANT	HIGHWATER LINE
PROPOSED FIRE DEPARTMENT CONNECTION	EXISTING SANITARY SEWER
EXISTING SECONDARY WATER VALVE	PROPOSED SANITARY SEWER LINE
PROPOSED SECONDARY WATER VALVE	PROPOSED SAN. SWR. SERVICE LINE
EXISTING IRRIGATION BOX	EXISTING LAND DRAIN LINE
EXISTING IRRIGATION VALVE	PROPOSED LAND DRAIN LINE
PROPOSED IRRIGATION VALVE	PROPOSED LAND DRAIN SERVICE LINE
EXISTING SANITARY SEWER MANHOLE	EXISTING CULINARY WATER LINE
PROPOSED SANITARY SEWER MANHOLE	PROPOSED CULINARY WATER LINE
EXISTING SANITARY CLEAN OUT	PROPOSED CULINARY WATER SERVICE LINE
EXISTING STORM DRAIN CLEAN OUT BOX	EXISTING SECONDARY WATER LINE
PROPOSED STORM DRAIN CLEAN OUT BOX	PROPOSED SECONDARY WATER LINE
EXISTING STORM DRAIN INLET BOX	PROPOSED SEC. WATER SERVICE LINE
EXISTING STORM DRAIN CATCH BASIN	EXISTING IRRIGATION LINE
PROPOSED STORM DRAIN CATCH BASIN	PROPOSED IRRIGATION LINE
EXISTING STORM DRAIN COMBO BOX	EXISTING OVERHEAD POWER LINE
PROPOSED STORM DRAIN COMBO BOX	EXISTING ELECTRICAL LINE
EXISTING STORM DRAIN CLEAN OUT	EXISTING GAS LINE
EXISTING STORM DRAIN CULVERT	EXISTING TELEPHONE LINE
PROPOSED STORM DRAIN CULVERT	ACCESSIBLE ROUTE
TEMPORARY SAG INLET PROTECTION	SAW CUT LINE
TEMPORARY IN-LINE INLET PROTECTION	STRAW WATTLE
ROOF DRAIN	TEMPORARY BERM
EXISTING ELECTRICAL MANHOLE	TEMPORARY SILT FENCE
EXISTING ELECTRICAL BOX	LIMITS OF DISTURBANCE
EXISTING TRANSFORMER	EXISTING WALL
EXISTING UTILITY POLE	PROPOSED WALL
EXISTING LIGHT	EXISTING CONTOURS
PROPOSED LIGHT	PROPOSED CONTOURS
EXISTING GAS METER	BUILDABLE AREA WITHIN SETBACKS
EXISTING GAS MANHOLE	PUBLIC DRAINAGE EASEMENT
EXISTING GAS VALVE	EXISTING ASPHALT TO BE REMOVED
EXISTING TELEPHONE MANHOLE	PROPOSED ASPHALT
EXISTING TELEPHONE BOX	EXISTING CURB AND GUTTER
EXISTING TRAFFIC SIGNAL BOX	PROPOSED CURB AND GUTTER
EXISTING CABLE BOX	PROPOSED REVERSE PAN CURB AND GUTTER
EXISTING BOLLARD	TRANSITION TO REVERSE PAN CURB
PROPOSED BOLLARD	CONCRETE TO BE REMOVED
EXISTING SIGN	EXISTING CONCRETE
PROPOSED SIGN	PROPOSED CONCRETE
EXISTING SPOT ELEVATION	BUILDING TO BE REMOVED
PROPOSED SPOT ELEVATION	EXISTING BUILDING
EXISTING FLOW DIRECTION	PROPOSED BUILDING
EXISTING TREE	
DENSE VEGETATION	

NOTE: MAY CONTAIN SYMBOLS THAT ARE NOT USED IN THIS PLAN SET.

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ENSIGN THE STANDARD IN ENGINEERING

MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

DRAWING ISSUE	BID DOCUMENTS
ISSUE DATE	DECEMBER 9, 2024
NWL PROJECT	0121.032

LICENSED PROFESSIONAL ENGINEER 10675582-2202 KELLY L. CHAPPELL 12/9/24 STATE OF UTAH

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

GENERAL NOTES

C001

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

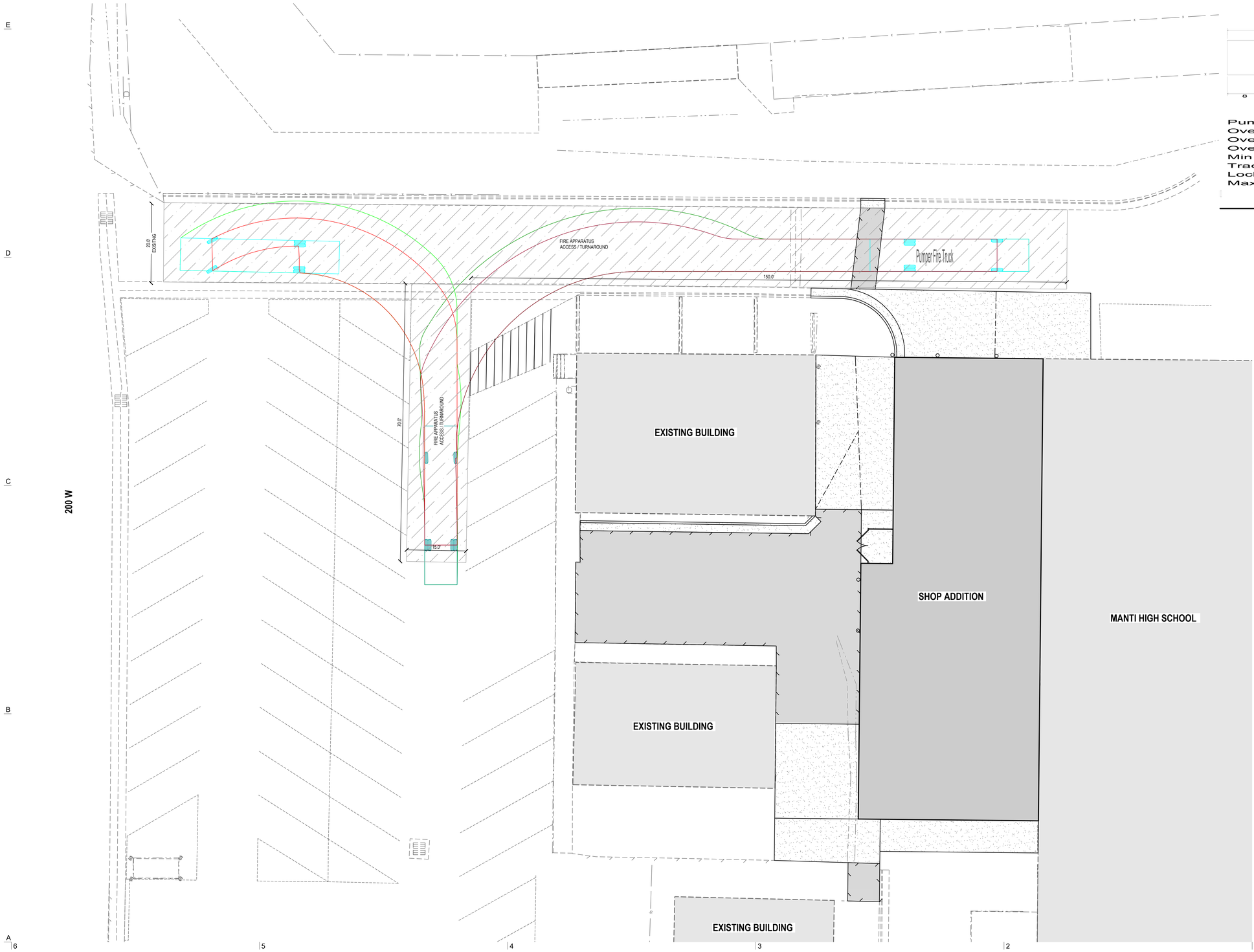
811 Know what's below. Call before you dig.

HORIZONTAL GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
HORZ. 1 inch = 10 ft.

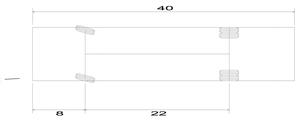
NORTH



Vehicle Tracking v25.00 - US Design Vehicles

Vehicle Tracking Vehicle Details **Ref:**

Vehicle Name:	**Pumper Fire Truck**
Type:	Rigid vehicle
Category	(Unspecified)
Classification	(Unspecified)
Source:	NCHRP Report 659
Description:	Design Vehicle. Maximum wheel angle based on E-ONE Fire Truck.
Notes:	
Unit 1 Name:	Pumper Fire Truck Tractor



Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

Every Effort Has Been Made To Ensure The Accuracy Of This Information
Please Check Data From Your Own Sources

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DRAWING ISSUE | BID DOCUMENTS
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LICENSED PROFESSIONAL ENGINEER
10075907-2202
KELLY L. CHAPPELL
STATE OF UTAH

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

FIRE ACCESS PLAN

C002

CALL BLUESTAKES
@ 811 AT LEAST 48 HOURS
PRIOR TO THE
COMMENCEMENT OF ANY
CONSTRUCTION.

811 Know what's below. Call before you dig.

HORIZONTAL GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
HORZ: 1 inch = 20 ft.

NORTH

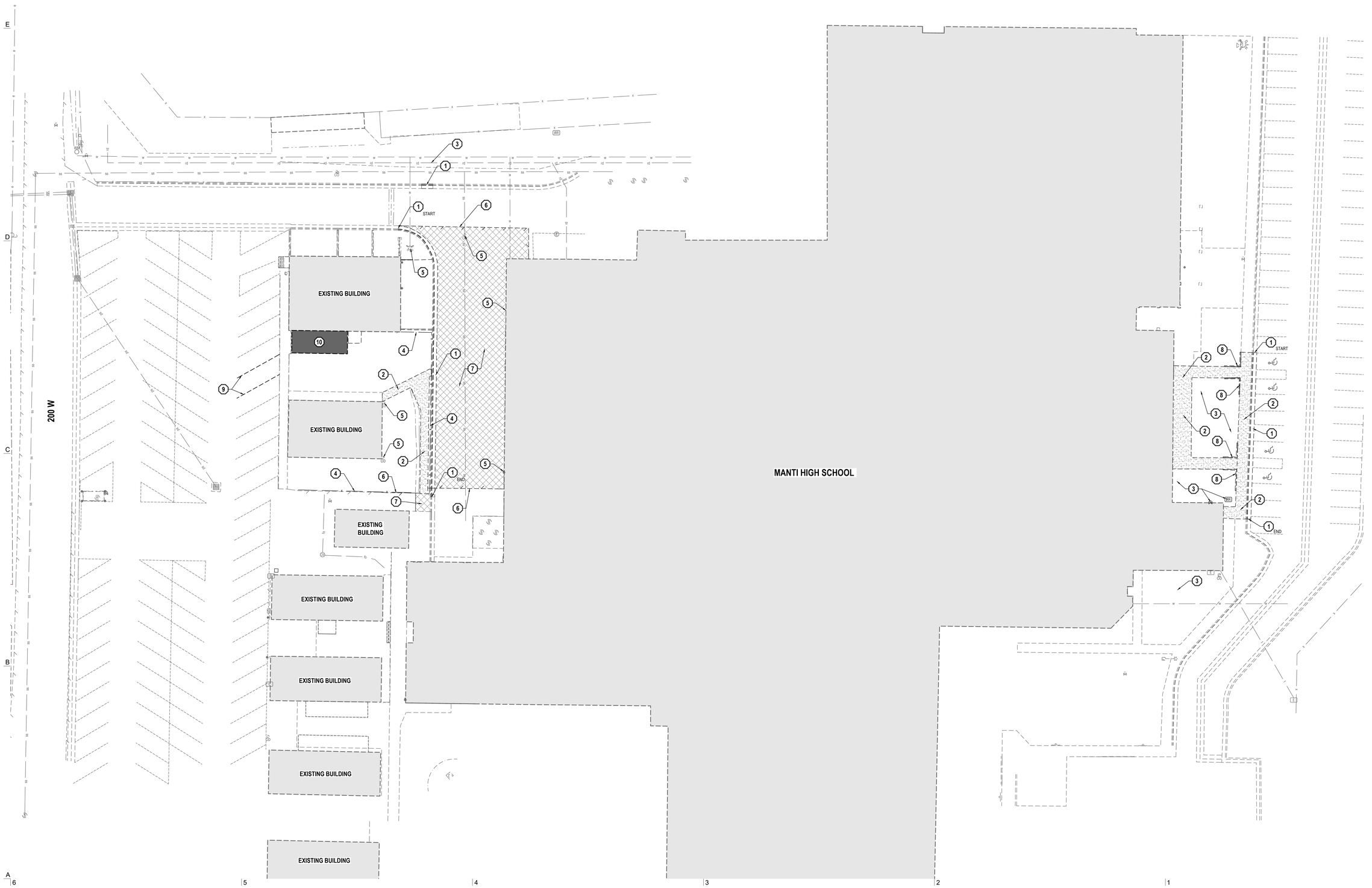
SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. SAWCUT, REMOVE, AND PROPERLY DISPOSE OF EXISTING CONCRETE CURB AND GUTTER TO THE NEAREST JOINT.
2. SAWCUT, REMOVE, AND PROPERLY DISPOSE OF EXISTING CONCRETE SIDEWALK TO THE NEAREST JOINT.
3. REMOVE EXISTING LANDSCAPING IN THIS AREA. RETROFIT AND REPAIR IRRIGATION SYSTEM AS NEEDED.
4. REMOVE AND PROPERLY DISPOSE OF EXISTING FENCE.
5. PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, SIGNS, ETC. (TYPICAL UNLESS OTHERWISE NOTED).
6. SAWCUT EXISTING ASPHALT PAVEMENT TO PROVIDE A CLEAN EDGE FOR THE TRANSITION BETWEEN EXISTING AND PROPOSED ASPHALT PAVEMENT.
7. REMOVE AND PROPERLY DISPOSE OF EXISTING ASPHALT PAVEMENT.
8. REMOVE AND DISPOSE OF CONCRETE CURB WALL
9. REMOVE EXISTING PAVEMENT MARKINGS FROM EXISTING ASPHALT PAVEMENT BY GRINDING OR WATER BLASTING, OR APPROVED EQUAL, TO MINIMIZE SURFACE SCARRING.
10. REMOVE AND PROPERLY DISPOSE OF EXISTING STRUCTURES, CONCRETE SLABS, STAIRS, ETC., INCLUDING ALL ELECTRICAL APPURTENANCES. IN THIS AREA WHETHER OR NOT IDENTIFIED ON PLANS. CONTRACTOR TO FILL IN ALL HOLES CREATED DURING DEMOLITION WITH STRUCTURAL FILL TO PROPER SUBGRADE ELEVATION.

GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTORS FAILURE TO VERIFY THE LOCATIONS OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT. THE CONTRACTOR IS TO VERIFY ALL CONNECTION POINTS WITH THE EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN. IF CONFLICTS WITH EXISTING UTILITIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.
3. ALL SURFACE IMPROVEMENTS DISTURBED BY CONSTRUCTION SHALL BE RESTORED OR REPLACED, INCLUDING TREES AND DECORATIVE SHRUBS, SOD, FENCES, WALLS AND STRUCTURES, WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN ON THE CONTRACT DOCUMENTS.
4. ALL CONSTRUCTION SIGNAGE, BARRICADES, TRAFFIC CONTROL DEVICES, ETC. SHALL CONFORM TO THE LATEST EDITION OF THE M.U.T.C.D. THE CONTRACTOR WILL MAINTAIN SUCH SO THAT THEY ARE PROPERLY PLACED AND VISIBLE AT ALL TIMES.
5. SIDEWALKS AND CURBS DESIGNATED TO BE DEMOLISHED SHALL BE DEMOLISHED TO THE NEAREST EXPANSION JOINT, MATCHING THESE PLANS AS CLOSELY AS POSSIBLE.
6. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.



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100 WEST 500 NORTH MANTI, UTAH 84642

DRAWING ISSUE | BID DOCUMENTS
ISSUE DATE | DECEMBER 9, 2024
NWL PROJECT | 0121.032

LICENSED PROFESSIONAL ENGINEER
10075842-2202
KELLY L. CHAPPELL
STATE OF UTAH

PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

DEMOLITION PLAN

C100

CALL BLUESTAKES
@ 811 AT LEAST 48 HOURS
PRIOR TO THE
COMMENCEMENT OF ANY
CONSTRUCTION.

811 Know what's below. Call before you dig.

HORIZONTAL GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
HORZ: 1 inch = 20 ft.

NORTH

GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. ALL IMPROVEMENTS MUST COMPLY WITH ADA STANDARDS AND RECOMMENDATIONS.
3. SEE LANDSCAPE/ARCHITECTURAL PLANS FOR CONCRETE MATERIAL, COLOR, FINISH, AND SCORE PATTERNS THROUGHOUT SITE.
4. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST EDITION OF THE M.U.T.C.D. (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
5. ALL SURFACE IMPROVEMENTS DISTURBED BY CONSTRUCTION SHALL BE RESTORED OR REPLACED, INCLUDING TREES AND DECORATIVE SHRUBS, SOD, FENCES, WALLS AND STRUCTURES, WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN ON THE CONTRACT DOCUMENTS.
6. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE OR ASPHALT.
7. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.

GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTORS FAILURE TO VERIFY THE LOCATIONS OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT. THE CONTRACTOR IS TO VERIFY ALL CONNECTION POINTS WITH THE EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN. IF CONFLICTS WITH EXISTING UTILITIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.
3. ALL SANITARY SEWER INFRASTRUCTURE TO BE INSTALLED PER GOVERNING AGENCY STANDARD PLANS AND SPECIFICATIONS.
4. ALL WATER INFRASTRUCTURE TO BE INSTALLED PER GOVERNING AGENCY OR APWA STANDARD PLANS AND SPECIFICATIONS.
6. DEFLECT OR LOOP ALL WATERLINES TO AVOID CONFLICTS WITH OTHER UTILITIES PER GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
7. PROJECT SHALL COMPLY WITH ALL UTAH DIVISION OF DRINKING WATER RULES AND REGULATIONS INCLUDING, BUT NOT LIMITED TO, THOSE PERTAINING TO BACKFLOW PROTECTION AND CROSS CONNECTION PREVENTION.
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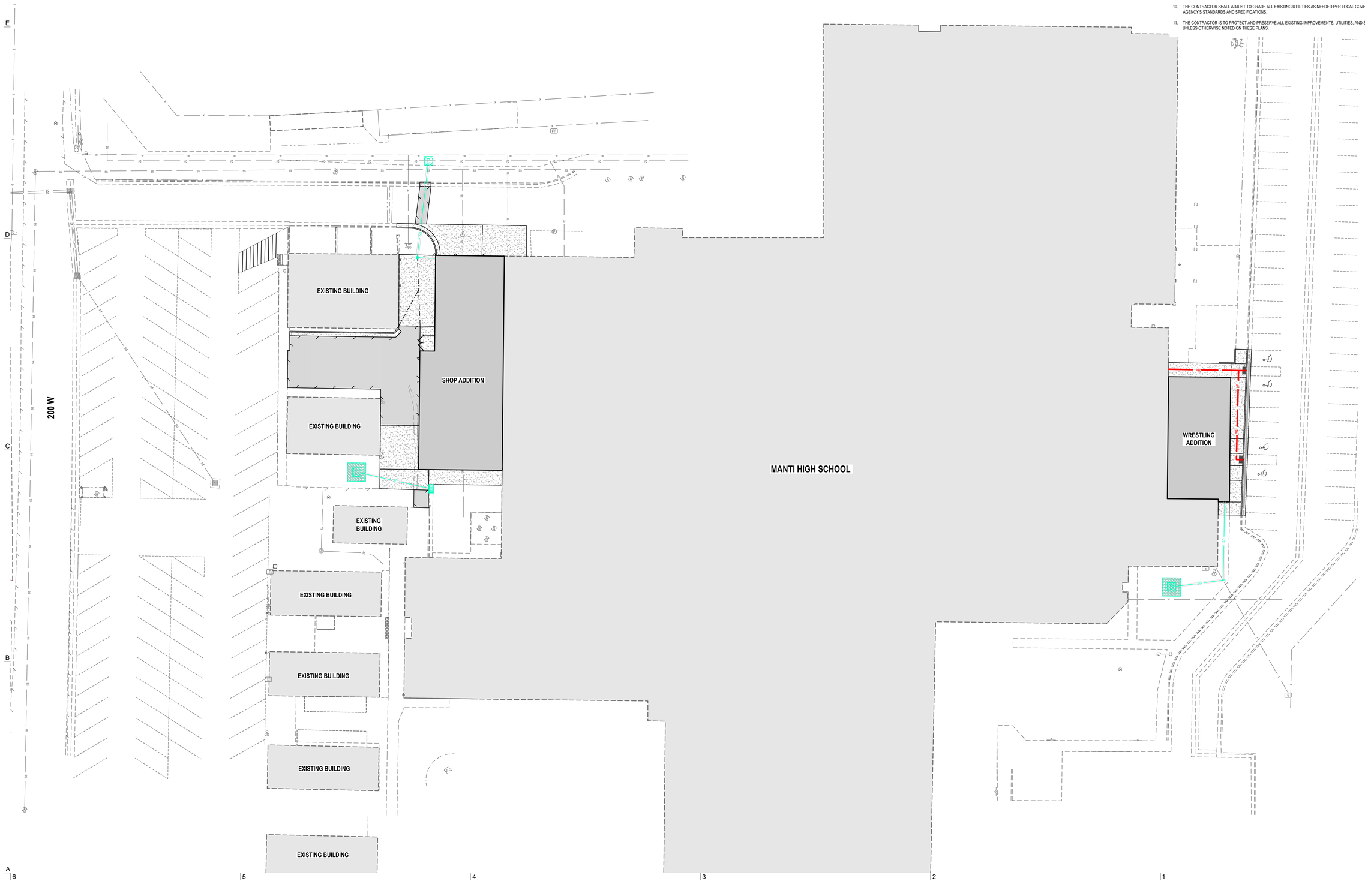

naylor wentworth lund
architects

ENSIGN
THE STANDARD IN ENGINEERING

MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
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12/9/24
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PROJECT FOR
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39 SOUTH MAIN MANTI, UTAH 84642

OVERALL SITE AND UTILITY PLAN

C200

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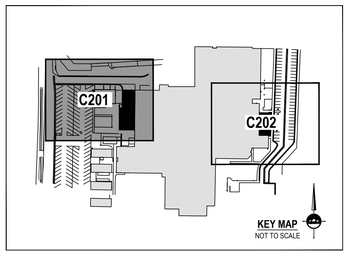

SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. ASPHALT PAVEMENT PER GEOTECHNICAL REPORT AND DETAIL 1/C400.
2. CONCRETE PAVEMENT PER GEOTECHNICAL REPORT AND DETAIL 2/C400.
3. 4" THICK CONCRETE SIDEWALK PER DETAIL 3/C400
4. 30" TYPE "A" CURB AND GUTTER PER DETAIL 4/C400
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6. 30" REVERSE PAN CURB AND GUTTER PER DETAIL 7/C400
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8. ADA ACCESS RAMP PER APWA PLAN NO. 238 AND DETAIL 8/C400
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11. 4" YELLOW STRIPING PER M.U.T.C.D. STANDARDS AND SPECIFICATIONS

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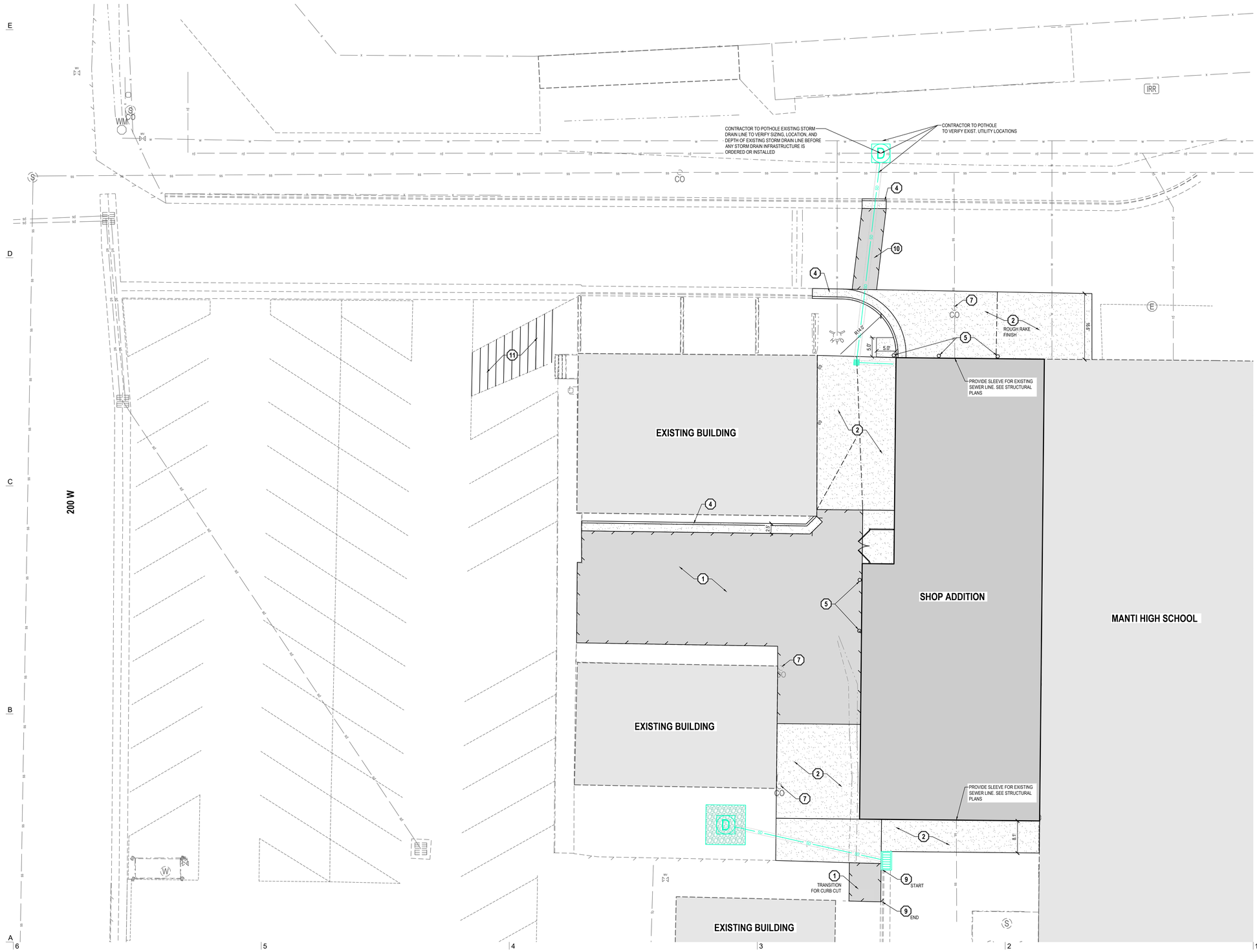

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SITE AND UTILITY PLAN

C201

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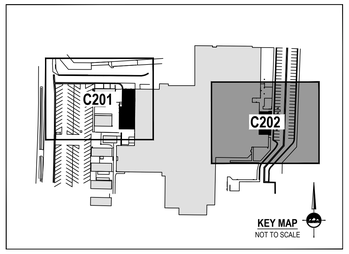

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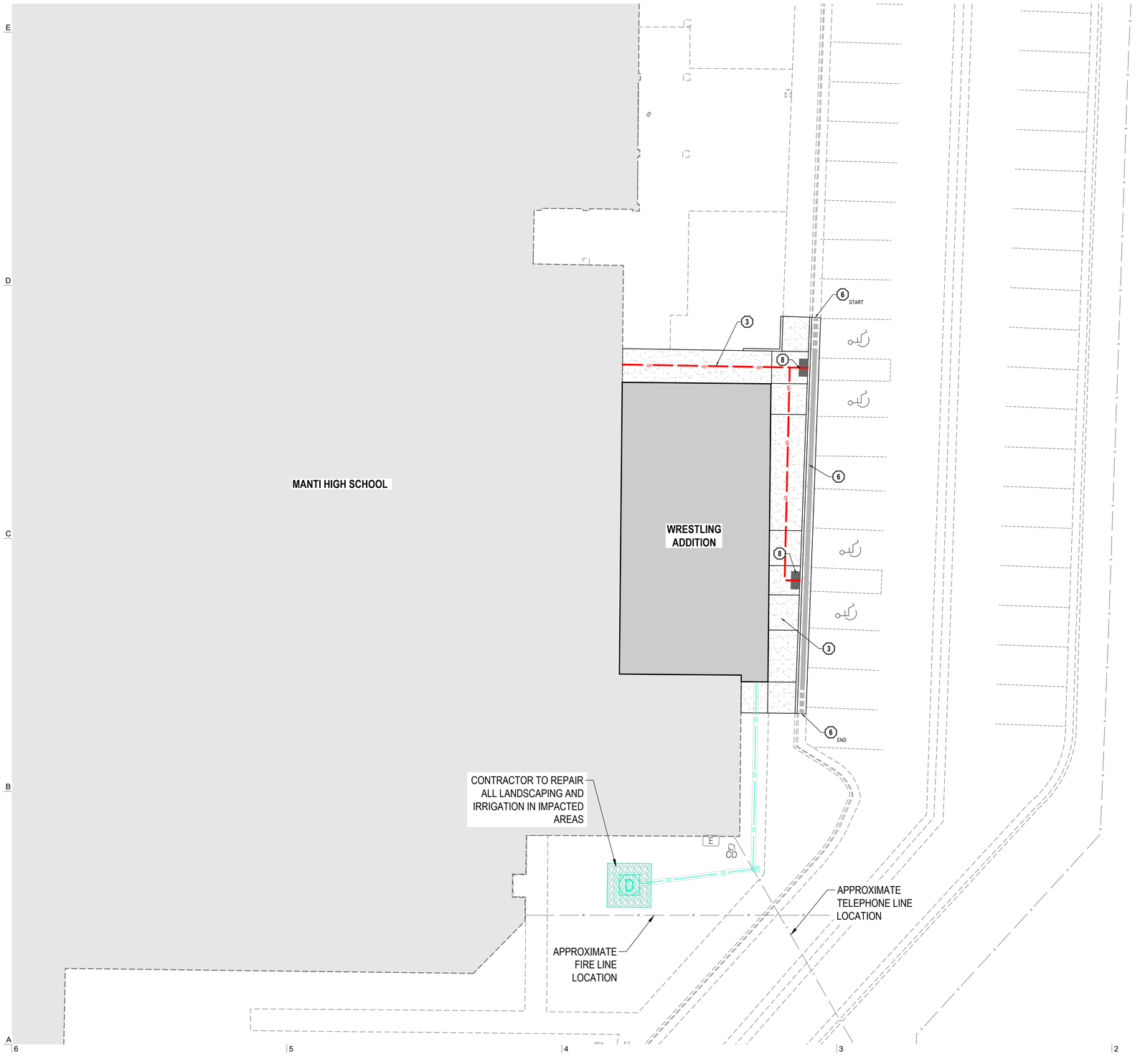

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SITE AND UTILITY PLAN

C202

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4. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE EXISTING SOIL CONDITIONS.
5. ELEVATIONS HAVE BEEN TRUNCATED FOR CLARITY. XX.XX REPRESENTS AN ELEVATION OF 48XX.XX ON THESE PLANS.
6. LANDSCAPED AREAS REQUIRE SUBGRADE TO BE MAINTAINED AT A SPECIFIC ELEVATION BELOW FINISHED GRADE AND REQUIRE SUBGRADE TO BE PROPERLY PREPARED AND SCARIFIED. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.
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9. ALL STORM DRAIN INFRASTRUCTURE TO BE INSTALLED PER GOVERNING AGENCY OR APWA STANDARD PLANS AND SPECIFICATIONS.
10. ENSURE MINIMUM COVER OVER ALL STORM DRAIN PIPES PER MANUFACTURER'S RECOMMENDATIONS. NOTIFY ENGINEER IF MINIMUM COVER CANNOT BE ATTAINED.
11. ALL FACILITIES WITH DOWNSPOUTS/ROOF DRAINS SHALL BE CONNECTED TO THE STORM DRAIN SYSTEM. SEE PLUMBING PLANS FOR DOWNSPOUT/ROOF DRAIN LOCATIONS AND SIZES. ALL ROOF DRAINS TO HAVE MINIMUM 1% SLOPE.
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EXISTING BUILDING

SHOP ADDITION

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MANTI HIGH SCHOOL

WRESTLING ADDITION

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OVERALL GRADING AND DRAINAGE PLAN

C300

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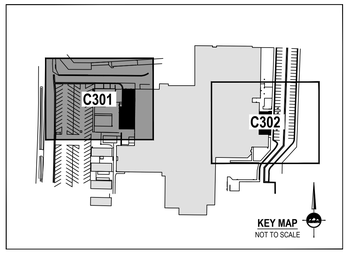

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1. CATCH BASIN PER MANTI STANDARDS AND SPECIFICATIONS.
2. GRAVEL SUMP PER MANTI STANDARDS AND SPECIFICATIONS. SEE DETAIL 6/C400
3. APPROXIMATE ROOF DRAIN LOCATION. SEE ARCHITECTURAL PLAN

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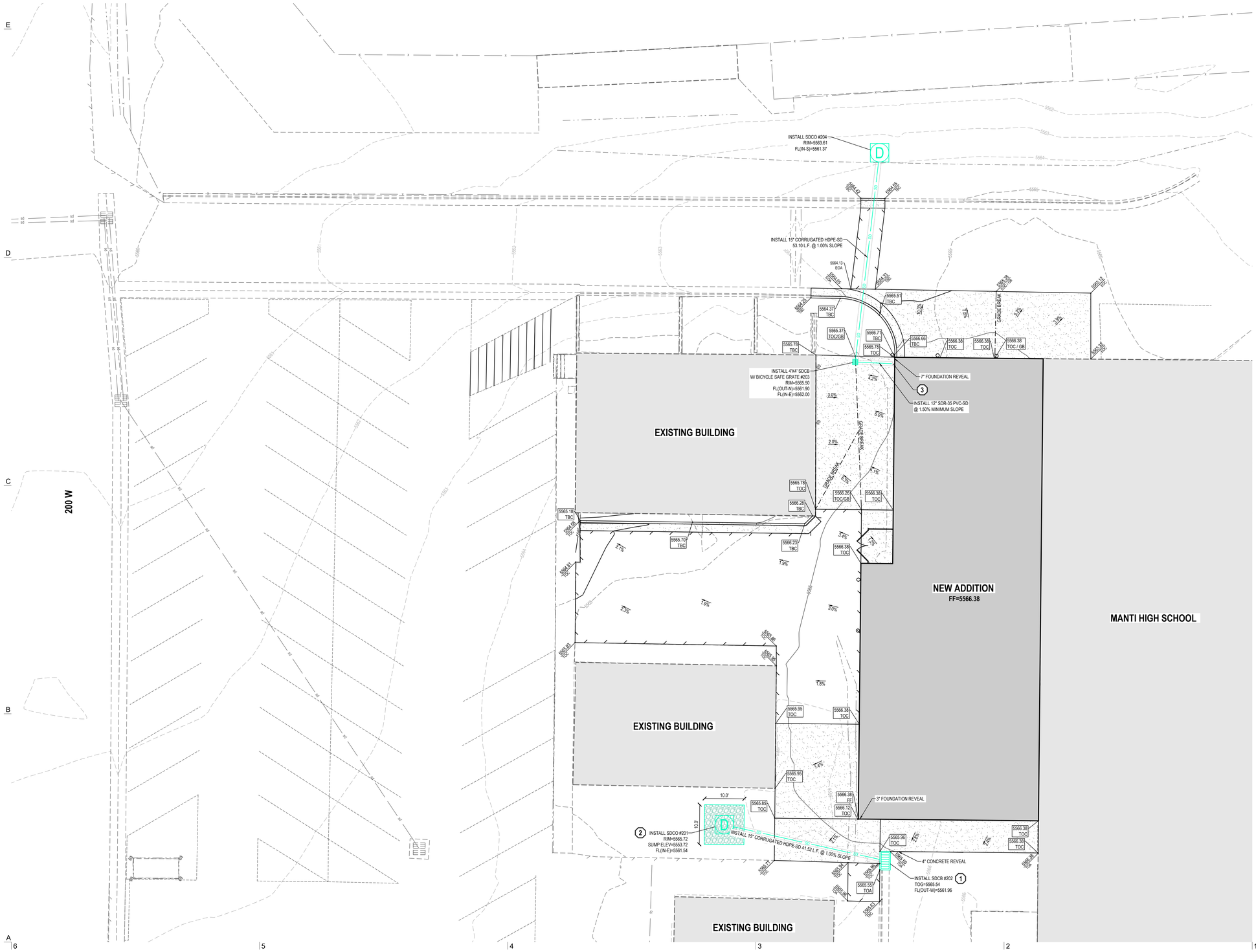
13. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE, ASPHALT, OR STORM DRAIN STRUCTURES OR PIPES.
14. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.



naylor wentworth lund
architects

ENSIGN
THE STANDARD IN ENGINEERING

MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

DRAWING ISSUE | BID DOCUMENTS
ISSUE DATE | DECEMBER 9, 2024
NWL PROJECT | 0121.032

LICENSED PROFESSIONAL ENGINEER
10075590-2202
KELLY L. CHAPPELL
STATE OF UTAH

PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

GRADING AND DRAINAGE PLAN

C301

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

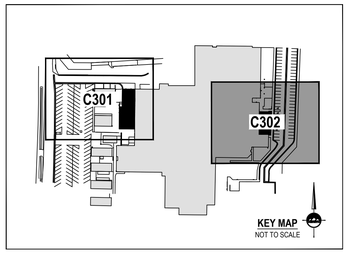
811 Know what's below. Call before you dig.

HORIZONTAL GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
HORZ: 1 inch = 10 ft.

NORTH



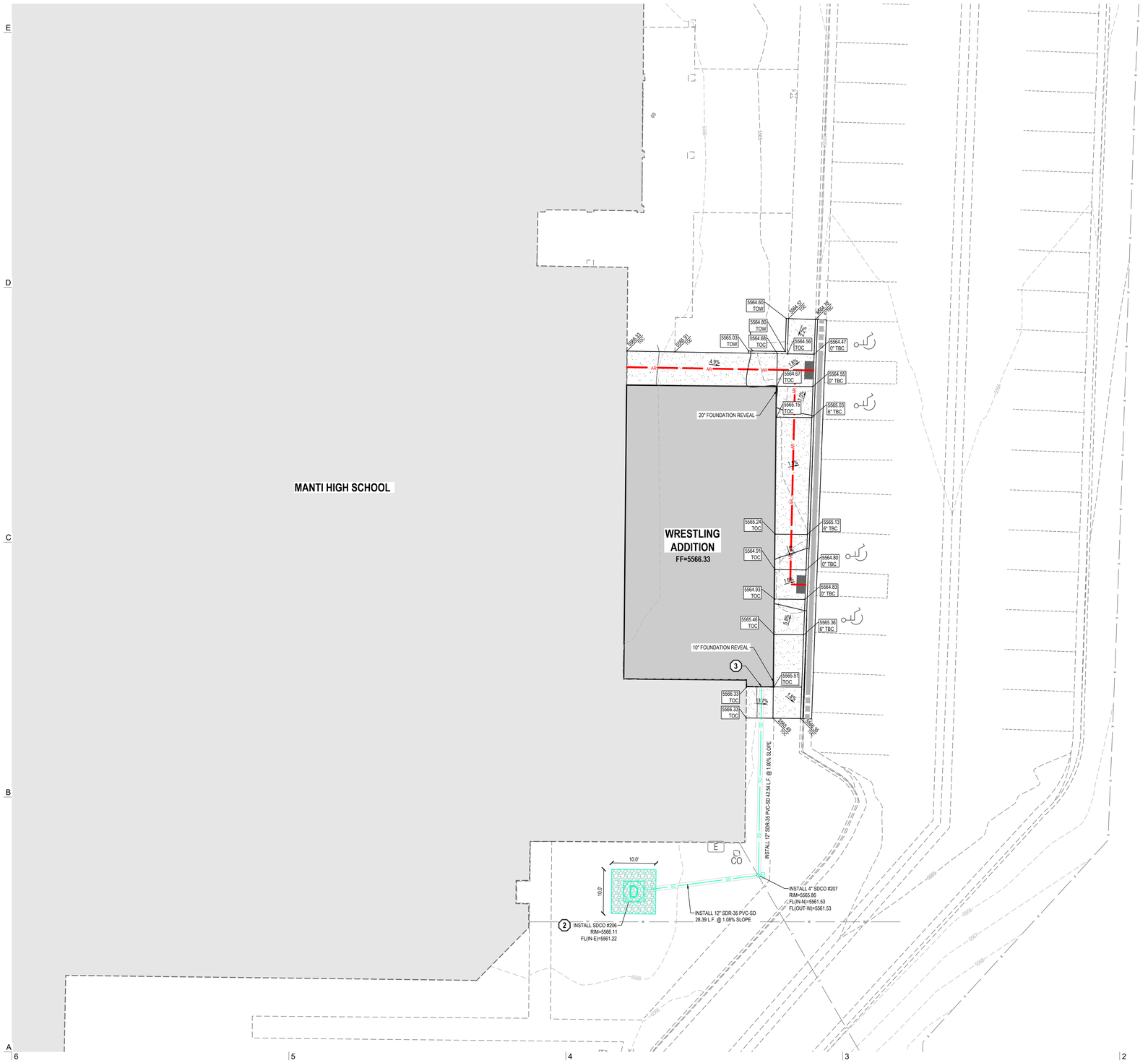
SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. CATCH BASIN PER MANTI STANDARDS AND SPECIFICATIONS.
2. GRAVEL SUMP PER MANTI STANDARDS AND SPECIFICATIONS. SEE DETAIL 6/C400
3. APPROXIMATE ROOF DRAIN LOCATION. SEE ARCHITECTURAL PLAN

GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. ALL IMPROVEMENTS MUST COMPLY WITH ADA STANDARDS AND RECOMMENDATIONS.
3. ALL WORK SHALL COMPLY WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER POSSIBLY INCLUDING, BUT NOT LIMITED TO; REMOVAL OF UNCONSOLIDATED FILL, ORGANICS, AND DEBRIS, PLACEMENT OF SUBSURFACE DRAIN LINES AND GEOTEXTILE, AND OVEREXCAVATION OF UNSUITABLE BEARING MATERIALS AND PLACEMENT OF ACCEPTABLE FILL MATERIAL.
4. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE EXISTING SOIL CONDITIONS.
5. ELEVATIONS HAVE BEEN TRUNCATED FOR CLARITY. XX.XX REPRESENTS AN ELEVATION OF 48XX.XX ON THESE PLANS.
6. LANDSCAPED AREAS REQUIRE SUBGRADE TO BE MAINTAINED AT A SPECIFIC ELEVATION BELOW FINISHED GRADE AND REQUIRE SUBGRADE TO BE PROPERLY PREPARED AND SCARIFIED. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.
7. SLOPE ALL LANDSCAPED AREAS AWAY FROM BUILDING FOUNDATIONS TOWARD CURB AND GUTTER OR STORM DRAIN INLETS.
8. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY THE LOCATIONS OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT. THE CONTRACTOR IS TO VERIFY ALL CONNECTION POINTS WITH THE EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN. IF CONFLICTS WITH EXISTING UTILITIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.
9. ALL STORM DRAIN INFRASTRUCTURE TO BE INSTALLED PER GOVERNING AGENCY OR APWA STANDARD PLANS AND SPECIFICATIONS.
10. ENSURE MINIMUM COVER OVER ALL STORM DRAIN PIPES PER MANUFACTURER'S RECOMMENDATIONS. NOTIFY ENGINEER IF MINIMUM COVER CANNOT BE ATTAINED.
11. ALL FACILITIES WITH DOWNSPOUTS/ROOF DRAINS SHALL BE CONNECTED TO THE STORM DRAIN SYSTEM. SEE PLUMBING PLANS FOR DOWNSPOUT/ROOF DRAIN LOCATIONS AND SIZES. ALL ROOF DRAINS TO HAVE MINIMUM 1% SLOPE.
12. THE CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITIES AS NEEDED PER LOCAL GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
13. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE, ASPHALT, OR STORM DRAIN STRUCTURES OR PIPES.
14. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.



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12/9/24
STATE OF UTAH

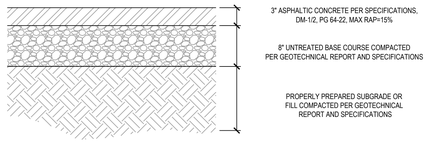
PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

GRADING AND
DRAINAGE PLAN

C302

ASPHALT NOTES

1. ALL PAVING TO BE PLACED OVER PROPERLY PREPARED NATURAL SOILS AND/OR PROPERLY PREPARED EXISTING FILL SOILS AND PROPERLY COMPACTED STRUCTURAL FILL WHERE SPECIFIED.
2. ALL STRUCTURAL FILL TO BE PLACED AND COMPACTED PER THE PROJECT GEOTECHNICAL REPORT OR TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE AASHTO T-180 (D-1557) METHOD OF COMPACTION. LIFTS SHOULD BE PLACED PER GEOTECHNICAL RECOMMENDATIONS BUT SHOULD NOT EXCEED 8" IN LOOSE THICKNESS.
3. REMOVE SURFACE VEGETATION AND OTHER DELETERIOUS MATERIALS OVER THE ENTIRE SITE IN PREPARATION OF PROPOSED IMPROVEMENTS.

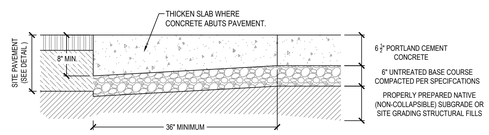


1 STANDARD ASPHALT SECTION

SCALE: NONE

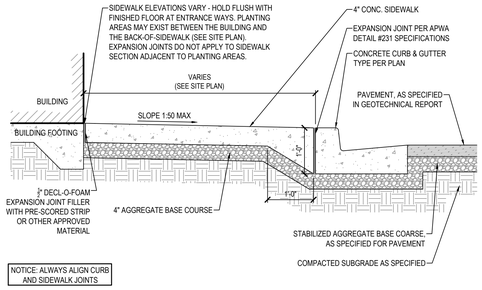
CONCRETE NOTES

1. ALL PAVING TO BE PLACED OVER PROPERLY PREPARED NATURAL SOILS AND/OR PROPERLY PREPARED EXISTING FILL SOILS AND PROPERLY COMPACTED STRUCTURAL FILL WHERE SPECIFIED.
2. ALL STRUCTURAL FILL TO BE PLACED AND COMPACTED PER THE PROJECT GEOTECHNICAL REPORT OR TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE AASHTO T-180 (D-1557) METHOD OF COMPACTION. LIFTS SHOULD BE PLACED PER GEOTECHNICAL RECOMMENDATIONS BUT SHOULD NOT EXCEED 8" IN LOOSE THICKNESS.
3. REMOVE SURFACE VEGETATION AND OTHER DELETERIOUS MATERIALS OVER THE ENTIRE SITE IN PREPARATION OF PROPOSED IMPROVEMENTS.



2 CONCRETE PAVEMENT SECTION

SCALE: NONE

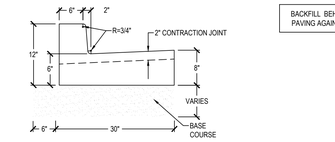


NOTICE: ALWAYS ALIGN CURB AND SIDEWALK JOINTS

3 SIDEWALK WITH CURB & GUTTER SECTION

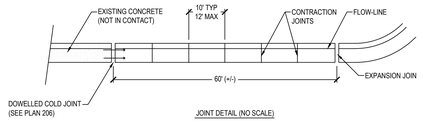
SCALE: NONE

BACKFILL BEHIND CURB BEFORE PAVING AGAINTS LIP OF GUTTER



CONCRETE AREA = 1.665 SQ. FT.

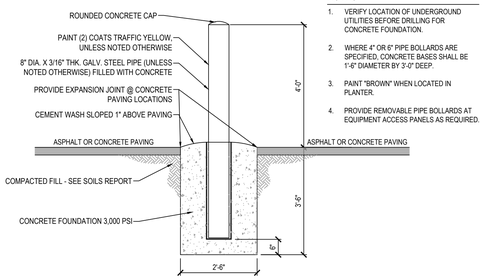
TYPE A (NO SCALE)



JOINT DETAIL (NO SCALE)

4 TYPE "A" CURB AND GUTTER

SCALE: NONE

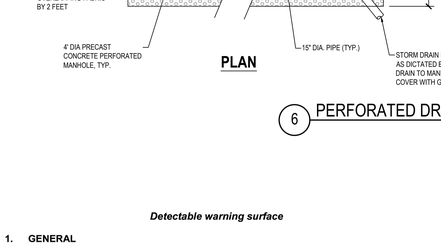


NOTES

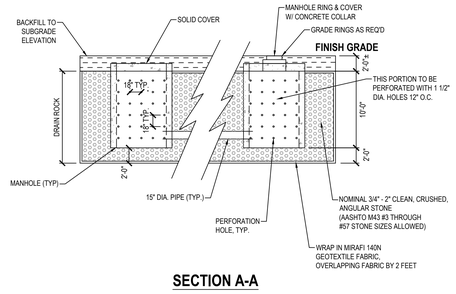
1. VERIFY LOCATION OF UNDERGROUND UTILITIES BEFORE DRILLING FOR CONCRETE FOUNDATION.
2. WHERE 4" OR 6" PIPE BOLLARDS ARE SPECIFIED, CONCRETE BASES SHALL BE 1'-6" DIAMETER BY 3'-0" DEEP.
3. PAINT "BROWN" WHEN LOCATED IN PLANTER.
4. PROVIDE REMOVABLE PIPE BOLLARDS AT EQUIPMENT ACCESS PANELS AS REQUIRED.

5 BOLLARD

SCALE: NONE



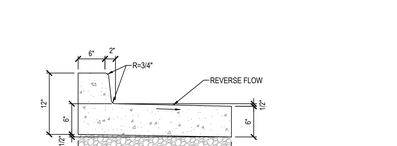
PLAN



SECTION A-A

6 PERFORATED DRY WELL - SUMP

SCALE: NONE

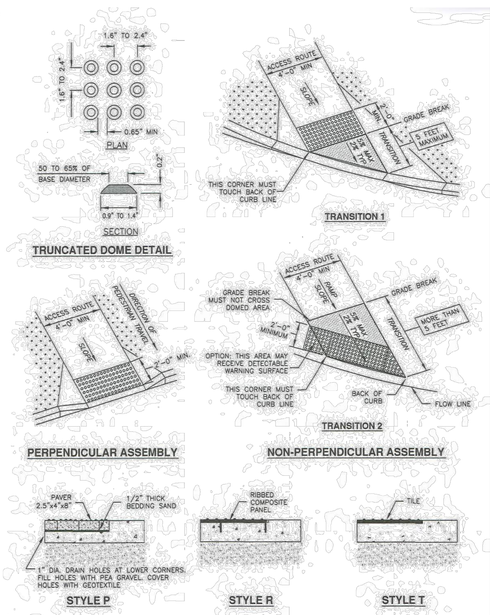


NOTE:

1. CONSTRUCT PER NOTES AND SPECIFICATIONS ASSOCIATED WITH APWA STANDARD PLAN NO. 205.

7 30" REVERSE PAN CURB AND GUTTER

SCALE: NONE

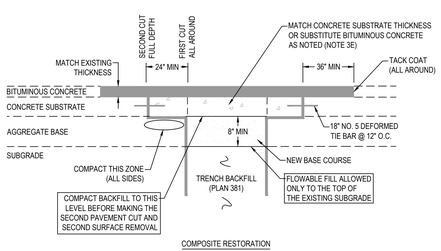


Detectable warning surface

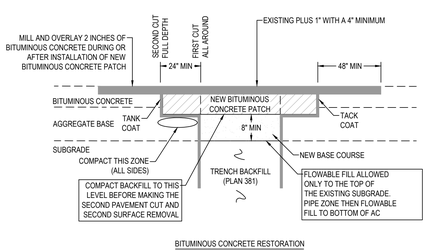
1. **GENERAL**
   A. Detectable warnings consist of a surface of truncated domes aligned in a square or radial grid pattern with dome size, dome spacing, contrast and panel size as indicated.
   C. Definitions and supplemental requirements are specified in APWA Section 32 16 14.
2. **PRODUCTS**
   A. Pavers:
      1) Concrete, APWA Section 32 14 13.
      2) Brick and Mortar, APWA Section 32 14 16.
   B. Tile: Unless indicated elsewhere, selection is by CONTRACTOR as allowed by ENGINEER.
   C. Ribbed Composite Panel: Unless indicated elsewhere, selection is by CONTRACTOR as allowed by ENGINEER.
   D. Bedding Sand, Joint Sand, Geotextile: APWA Section 32 14 13.
3. **EXECUTION**
   A. Layout:
      1) Joints Between Units: 3/16 inch maximum or manufacturer's recommendation.
      2) Flares: Do not install detectable warning units on flared surfaces.
      3) Alignment: Where a ramp, turning space, or blended transition provides access to the street continuously around a corner, align the vertical rows of truncated domes to be perpendicular or radial to the grade break between the ramp and the street for a 4 feet minimum width for each crosswalk served.
      4) Transition 1 or 2: Selection is by ENGINEER unless indicated elsewhere.
      5) At Rail Crossings: The edge of the detectable warning surface nearest the rail crossing is 6 feet minimum and 15 feet maximum from the centerline of the nearest rail.
   B. Paver Installation: APWA Section 32 14 13. If paver must be cut, minimum paver cut length is 3/4 paver, or 1/2 paver length providing the adjacent paver is also reduced no more than 1/2 its original length. Do not cut pavers longitudinally. Remove domes that were cut.
   C. Tile Installation: Install according to manufacturer's recommendations. Remove domes that were cut.
   D. Ribbed Composite Panel Installation: Install according to manufacturer's recommendation. Remove domes that were cut. Seal cuts to prevent water intrusion.

8 ADA ACCESS RAMP WARNING MATERIAL

SCALE: NONE



COMPOSITE RESTORATION

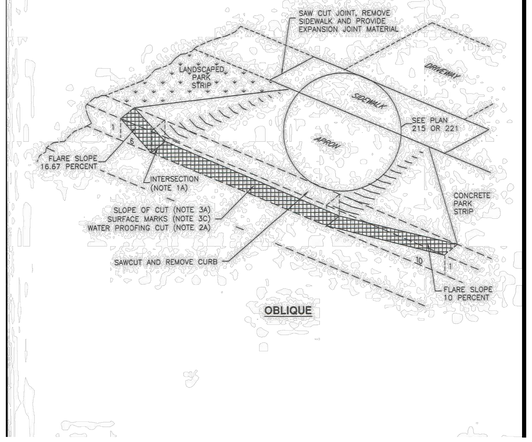


BITUMINOUS CONCRETE RESTORATION

10 ASPHALT T-PATCH

SCALE: NONE

NARRATIVE: THIS PLAN IS USED IF AN EXISTING CURB MUST BE CUT TO INSTALL A DRIVEWAY APPROACH. THE SLOPE OF THE CURB FLARE DEPENDS UPON WHETHER THE PARK STRIP IS LANDSCAPED OR IF THE PARK STRIP IS CONCRETE.



OBLIQUE

9 CURB CUT

SCALE: NONE

Saw-cut driveway approach

1. **GENERAL**
   A. The drawing shows sawing off and removing a curb for the construction of a new driveway approach. Additional requirements are specified in Plan 215 or Plan 221 for constructing driveway approach after curb is removed.
   B. The slope of the right flare is required if a pedestrian access route abuts the curb. The slope of the left flare is required if a pedestrian access rout DOES NOT abut the curb.
   C. Variance from specified slopes must be acceptable to the ENGINEER.
2. **PRODUCT**
   A. Water repellant: Penetrating compound, APWA Section 07 19 00.
   B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73..
3. **EXECUTION**
   A. At the apron, cut the curb off so the slope of the curb cut as measured perpendicular to the flow line is 16.67 percent (1:6). Unless specified otherwise, make the curb cut intersect the flow line.
   B. At the flare, cut the curb off so the slope of curb cut as measured parallel to the flow line is as follows.
      1) 8.33 percent (1:12) if curb borders a surface used by pedestrians.
      2) 16.67 percent (1:6) if curb does not border a surface used by pedestrians.
   C. No over-cutting where cuts merge. Grind sawed surface so no blade marks remain.
   D. Water proofing. Apply full coverage water repellant over cut concrete.
   E. Expansion Joint: Vertical, full depth, with top of filler set flush with concrete surface.

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DETAILS

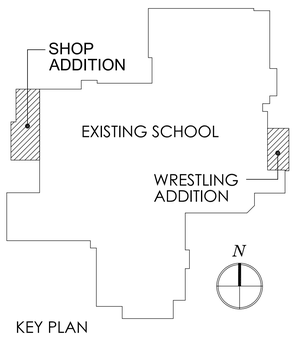
C400

SHOP ADDITION DEMOLITION PLAN

3/16" = 1'-0"

DEMOLITION NOTES:

	NOTE:
01	NEW ADDITION FOOTPRINT
02	NEW WALL OPENING, SAWCUT AND REMOVE EXISTING WALL AS REQUIRED. GRIND, LEVEL AND SEAL TOP OF EXISTING FOUNDATION WALL TO MATCH TOP OF ADJACENT CONCRETE SLABS. REFER TO STRUCTURAL DRAWINGS FOR OPENING REQUIREMENTS AND NOTED FLOOR PLAN AND OPENING SCHEDULE FOR OPENING SIZE AND LOCATION.
03	REMOVE EXISTING OVERHEAD DOOR - EXISTING OPENING FRAME TO REMAIN, PATCH AND REPAIR FRAME AS REQUIRED
04	REMOVE EXISTING MAN DOOR & TRANSOM PANEL - EXISTING FRAME TO REMAIN, PATCH AND REPAIR FRAME AS REQUIRED
05	REMOVE EXISTING MAN DOOR, TRANSOM PANEL & DOOR FRAME
06	REMOVE EXISTING WALL SAFETY PADDING AS REQUIRED FOR NEW WALL OPENING, MODIFY OR REPLACE PADDING AS NECESSARY FOR CLEAN TERMINATION AT OPENING. REFER TO DETAIL 12/A601
07	EXISTING WOOD SHOP EQUIPMENT TO BE RELOCATED, REFER TO SHOP EQUIPMENT PLAN SHEET A401
08	EXISTING DUST COLLECTOR FLOOR SWEEP AND DUCT TO BE REMOVED, REFER TO MECHANICAL DRAWINGS
09	EXISTING PLASMA CUTTER TO BE RELOCATED, REFER TO SHOP EQUIPMENT PLAN A401
10	EXISTING INTERIOR MASONRY WALL TO BE REMOVED, PATCH AND REPAIR ADJACENT WALLS AND FLOORING AS REQUIRED FROM REMOVAL
11	REMOVE AND RELOCATE EXISTING CASEWORK AND COUNTER SPACE, REFER TO SHOP ADDITION FLOOR PLAN A-111
12	REMOVE AND RELOCATE LOCKERS TO METAL SHOP ARE, COORDINATE NEW LOCATION OF LOCKERS WITH OWNER
13	EXISTING SUSPENDED CEILING IN CLASSROOM ENTRANCE AREA TO BE REMOVED, REFER TO REFLECTED CEILING PLAN SHEET A131
14	REMOVE EXISTING CEILING & FLOORING IN DEMOLISHED CLOSET AREA
15	REMOVE EXISTING CASEWORK / SHELVING
16	EXISTING RACK / ELECTRONIC EQUIPMENT , REFER TO ELECTRICAL DRAWINGS
17	REMOVE ALL EXISTING VCT FLOORING
18	EXISTING SUSPENDED CEILING IN CLASSROOM AREA TO REMAIN AND BE ADJUSTED AS NECESSARY FOR GRID EXTENSION INTO NEW CLASSROOM AREA, REFER TO REFLECTED CEILING PLAN SHEET A131
19	REMOVE EXISTING BASE CABINET AND SINKS, SAWCUT AND REMOVE EXISTING SLAB AS REQUIRED TO TIE NEW SHOP SINK AND EYE WASH DRAINS TO EXISTING FLOOR DRAIN, REFER TO PLUMBING DRAWINGS. REPLACE CONCRETE SLAB AS REQUIRED.



KEY PLAN

NOT TO SCALE

naylor wentworth lund
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MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

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12-09-2024

PROJECT FOR
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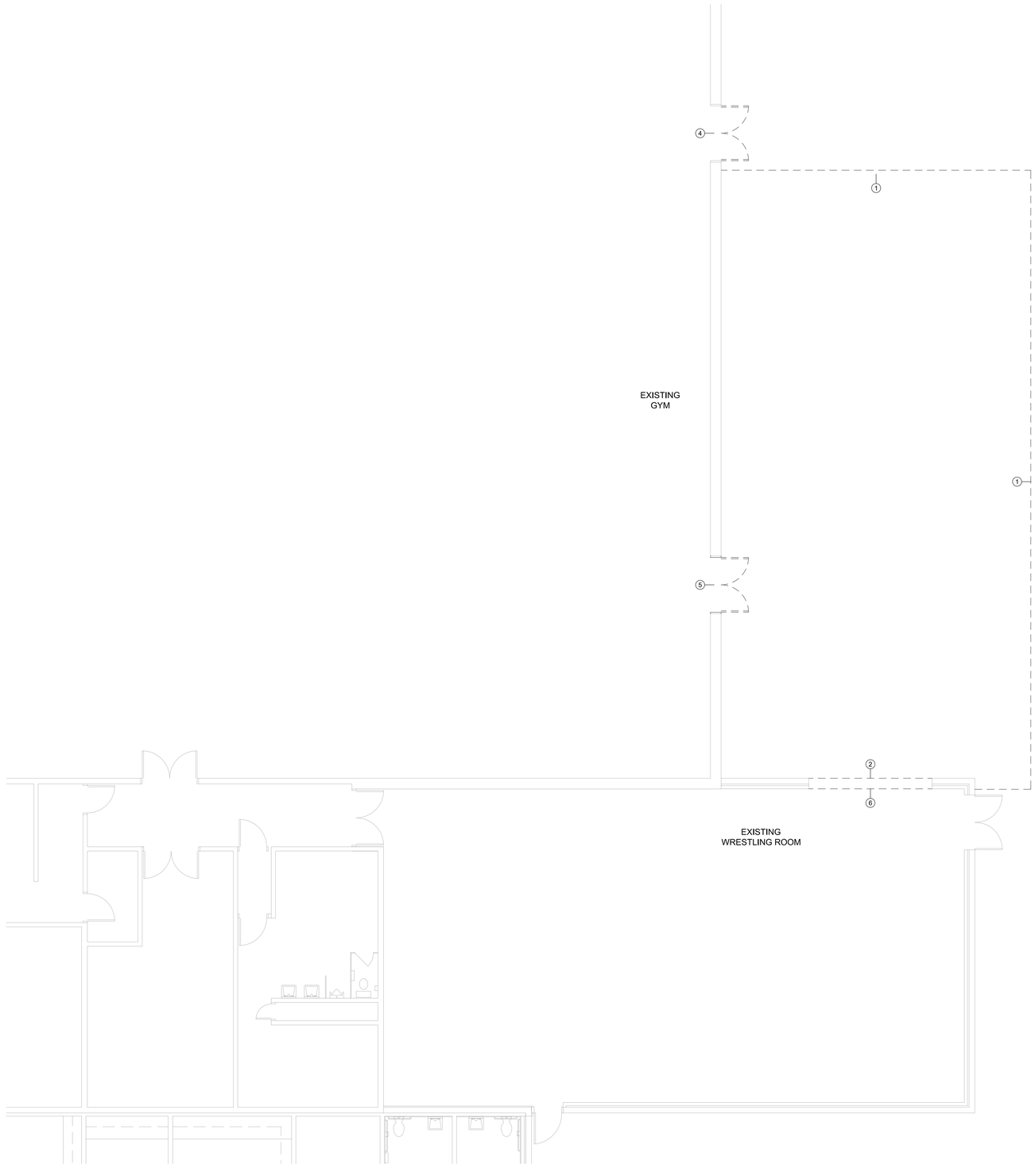
39 SOUTH MAIN MANTI, UTAH 84642

SHOP ADDITION DEMOLITION PLAN

A101



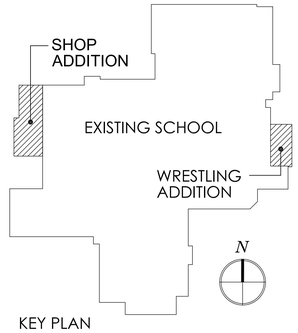
WRESTLING ADDITION DEMOLITION PLAN

3/16" = 1'-0"

BID ALTERNATE #1

DEMOLITION NOTES:

	NOTE:
01	NEW ADDITION FOOTPRINT
02	NEW WALL OPENING, SAWCUT AND REMOVE EXISTING WALL AS REQUIRED.
	GRIND, LEVEL AND SEAL TOP OF EXISTING FOUNDATION WALL TO MATCH TOP OF
	ADJACENT CONCRETE SLABS. REFER TO STRUCTURAL DRAWINGS FOR OPENING
	REQUIREMENTS AND NOTED FLOOR PLAN AND OPENING SCHEDULE FOR
	OPENING SIZE AND LOCATION.
03	REMOVE EXISTING OVERHEAD DOOR - EXISTING OPENING FRAME TO REMAIN,
	PATCH AND REPAIR FRAME AS REQUIRED
04	REMOVE EXISTING MAN DOOR & TRANSOM PANEL - EXISTING FRAME TO REMAIN,
	PATCH AND REPAIR FRAME AS REQUIRED
05	REMOVE EXISTING MAN DOOR, TRANSOM PANEL & DOOR FRAME
06	REMOVE EXISTING WALL SAFETY PADDING AS REQUIRED FOR NEW WALL
	OPENING, MODIFY OR REPLACE PADDING AS NECESSARY FOR CLEAN
	TERMINATION AT OPENING. REFER TO DETAIL 12/A601
07	EXISTING WOOD SHOP EQUIPMENT TO BE RELOCATED, REFER TO SHOP
	EQUIPMENT PLAN SHEET A401
08	EXISTING DUST COLLECTOR FLOOR SWEEP AND DUCT TO BE REMOVED, REFER
	TO MECHANICAL DRAWINGS
09	EXISTING PLASMA CUTTER TO BE RELOCATED, REFER TO SHOP EQUIPMENT
	PLAN A401
10	EXISTING INTERIOR MASONRY WALL TO BE REMOVED, PATCH AND REPAIR
	ADJACENT WALLS AND FLOORING AS REQUIRED FROM REMOVAL
11	REMOVE AND RELOCATE EXISTING CASEWORK AND COUNTER SPACE, REFER TO
	SHOP ADDITION FLOOR PLAN A-111
12	REMOVE AND RELOCATE LOCKERS TO METAL SHOP ARE, COORDINATE NEW
	LOCATION OF LOCKERS WITH OWNER
13	EXISTING SUSPENDED CEILING IN CLASSROOM ENTRANCE AREA TO BE
	REMOVED, REFER TO REFLECTED CEILING PLAN SHEET A131
14	REMOVE EXISTING CEILING & FLOORING IN DEMOLISHED CLOSET AREA
15	REMOVE EXISTING CASEWORK / SHELVING
16	EXISTING RACK / ELECTRONIC EQUIPMENT , REFER TO ELECTRICAL DRAWINGS
17	REMOVE ALL EXISTING VCT FLOORING
18	EXISTING SUSPENDED CEILING IN CLASSROOM AREA TO REMAIN AND BE
	ADJUSTED AS NECESSARY FOR GRID EXTENSION INTO NEW CLASSROOM AREA,
	REFER TO REFLECTED CEILING PLAN SHEET A131
19	REMOVE EXISTING BASE CABINET AND SINKS, SAWCUT AND REMOVE EXISTING
	SLAB AS REQUIRED TO TIE NEW SHOP SINK AND EYE WASH DRAINS TO EXISTING
	FLOOR DRAIN, REFER TO PLUMBING DRAWINGS. REPLACE CONCRETE SLAB AS
	REQUIRED.



KEY PLAN

NOT TO SCALE

naylor wentworth lund
architects

MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

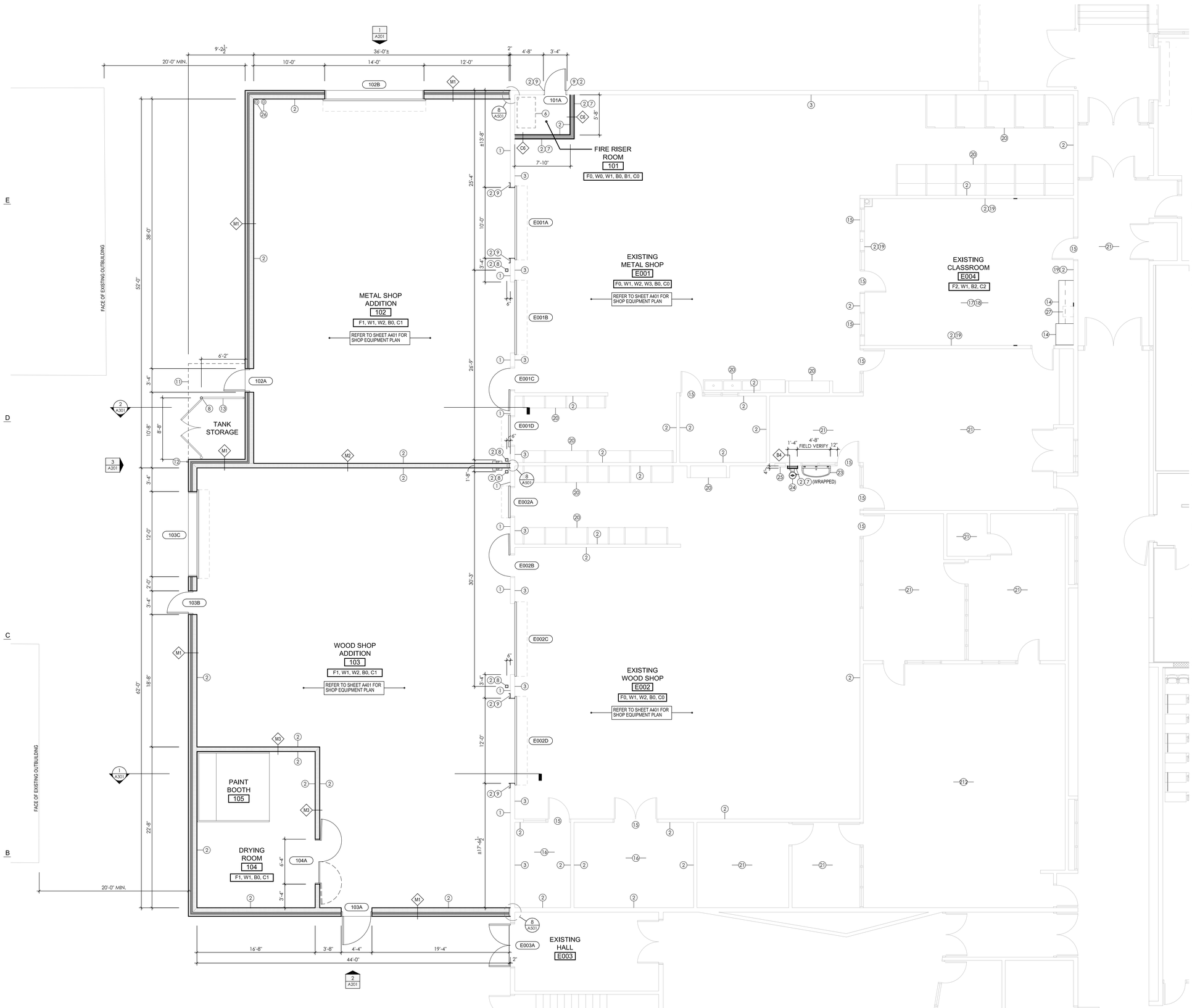
DRAWING ISSUE | Bid Documents
ISSUE DATE | December 9, 2024
NWL PROJECT | 0121.032

STATE OF UTAH
KIRK M. PYATT
LICENSED ARCHITECT
12-09-2024

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

WRESTLING ADDITION DEMOLITION PLAN

A102



SHOP ADDITION FLOOR PLAN

3/16" = 1'-0"

GENERAL NOTES - FLOOR PLANS:

1. EXISTING SCHOOL TOP OF FINISH SLAB ELEVATION = 100'-0" ADDITION ELEVATIONS RELATIVE TO THIS.
2. PROVIDE BLOCKING AT ALL STUD WALL ACCESSORY MOUNTING LOCATIONS.
3. REFER TO INTERIOR DETAILS A/501 FOR UN-REFERENCED MISCELLANEOUS DETAILS.
4. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO FACE OF CONCRETE MASONRY UNITS, FACE OF METAL STUDS AND CENTER OF COLUMNS
5. EXISTING BUILDING DIMENSIONS TO BE FIELD VERIFIED.

FLOOR PLAN SYMBOLS LEGEND:

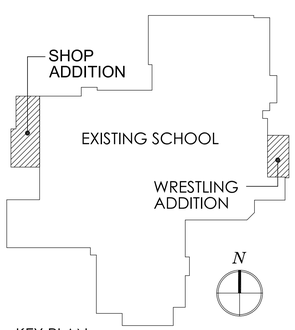
W1	WALL TYPE TAG - REFER TO WALL TYPES, SHEET G201
D	DOOR TAG - REFER TO DOOR SCHEDULE SHEET A601
W1	WINDOW TAG - REFER TO FRAME ELEVATIONS SHEETS A601
1	KEYED NOTE TAG
F, W, B, C	ROOM FINISHES, REFER TO FINISH SCHEDULE THIS SHEET

KEYED NOTES - FLOOR PLANS:

	NOTE:
01	07 1900 - EXISTING MASONRY WALL, POWER WASHED & SEALED
02	09 9123 - INTERIOR WALL / EXPOSED STEEL FRAMING TO BE PAINTED
03	07 1900 - EXISTING MASONRY WALL, CLEANED & SEALED
04	11 6623 - WALL PADDING, REFER TO INTERIOR ELEVATIONS
05	FLOOR WRESTLING MATS PROVIDED BY OWNER
06	FIRE RISER, REFER TO FIRE PROTECTION DRAWINGS
07	06 1000 - GALVANIZED SHEET METAL PROTECTIVE WALL PANEL FROM FLOOR UP TO 8'-0" AFF (@ METAL SHOP SIDE ONLY OF NEW FIRE RISER ROOM WALLS)
08	05 1200 - STEEL COLUMN, REFER TO STRUCTURAL DRAWINGS
09	05 1200 - STRUCTURAL FRAMING FOR NEW OPENING, REFER TO STRUCTURAL DRAWINGS
10	11 6623 - COLUMN WRAPPED SAFETY PAD, REFER TO INTERIOR ELEVATIONS
11	07 4100 & 05 5000 - TANK STORAGE AREA CANOPY ROOF ABOVE
12	07 6200 - CANOPY ROOF DOWNSPOUT
13	32 3113 - TANK STORAGE AREA CHAIN LINK ENCLOSURE WITH GATE
14	RELOCATED EXISTING CASEWORK (COORDINATE UPPER WALL CABINET RE-INSTALLATION WITH DATA RACK, REFER TO ELECTRICAL DRAWINGS)
15	EXISTING HOLLOW METAL DOOR AND FRAME TO BE PAINTED
16	EXISTING GYP. BOARD CEILING TO BE PAINTED
17	09 6500 - NEW VCT CLASSROOM FLOORING
18	09 9510 - NEW SUSPENDED CLASSROOM CEILING, REFER TO REFLECTED CEILING PLAN
19	09 6500 - NEW 4" RUBBER BASE IN CLASSROOM AREA
20	EXISTING RACKS / BOOTHS / CASEWORK TO REMAIN
21	EXISTING SPACE TO REMAIN UNDISTURBED, N.I.C.
22	12 2413 - MOTORIZED WINDOW SHADE IN HEAD BOX TO COVER FULL WIDTH AND HEIGHT OF WINDOW
23	NEW SHOP SINK, REFER TO PLUMBING DRAWINGS
24	NEW EYE WASH STATION MOUNTED ON NEW FURRED WALL, REFER TO PLUMBING DRAWINGS
25	EXISTING SEMI-RECESSED FIRE EXTINGUISHER CABINET TO REMAIN
26	ROOF DRAIN LINE, REFER TO PLUMBING DRAWINGS
27	DATA RACK / CABINET, REFER TO ELECTRICAL DRAWINGS
28	06 2000 - ±13'-0" x 1'-11 3/8" x WRESTLING MATT HEIGHT (VERIFY) FINISHED HARDWOOD THRESHOLD WITH ABRASIVE FINISH STRIP @ TOP FACE AT NEW OPENING, COORDINATE WITH OWNER.

FINISH SCHEDULE

FLOOR	
F0	EXISTNG CONCRETE, NO NEW FINISH
F1	03 3511 - SEALED CONCRETE
F2	09 6500 - VINYL COMPOSITION TILE, REFER TO KEYNOTE #17 THIS SHEET
WALL	
W0	EXISTNG WALL, NO NEW FINISH
W1	09 9123 - PAINTED WALL, COLOR AS SELECTED BY ARCHITECT, REFER TO KEYNOTES #2 THIS SHEET
W2	07 1900 - SEALED WALL, REFER TO KEYNOTES #1 & 3 THIS SHEET
W3	05 5000 - PROTECTIVE WALL PANEL, REFER TO KEYNOTE #7 THIS SHEET
EQ1	11 6623 - WALL MOUNTED SAFETY PADS, REFER KEYNOTE #4 THIS SHEET
BASE	
B0	NO BASE
B1	09 6519 - 4" RUBBER BASE (@ NEW GYP. BOARD WALL, FIRE RISER SIDE ONLY)
B2	09 6519 - 4" RUBBER BASE, REFER TO KEYNOTE #19 THIS SHEET
CEILING	
C0	NO NEW CEILING OR CEILING FINISH
C1	09 9123 - EXPOSED STRUCTURE, PAINTED
C2	09 5100 - SUSPENDED ACOUSTICAL CEILING, REFER TO KEYNOTE #18 THIS SHEET



KEY PLAN

NOT TO SCALE

naylor wentworth lund
a r c h i t e c t s

MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

DRAWING ISSUE: Bid Documents
ISSUE DATE: December 9, 2024
NWL PROJECT: 0121.032

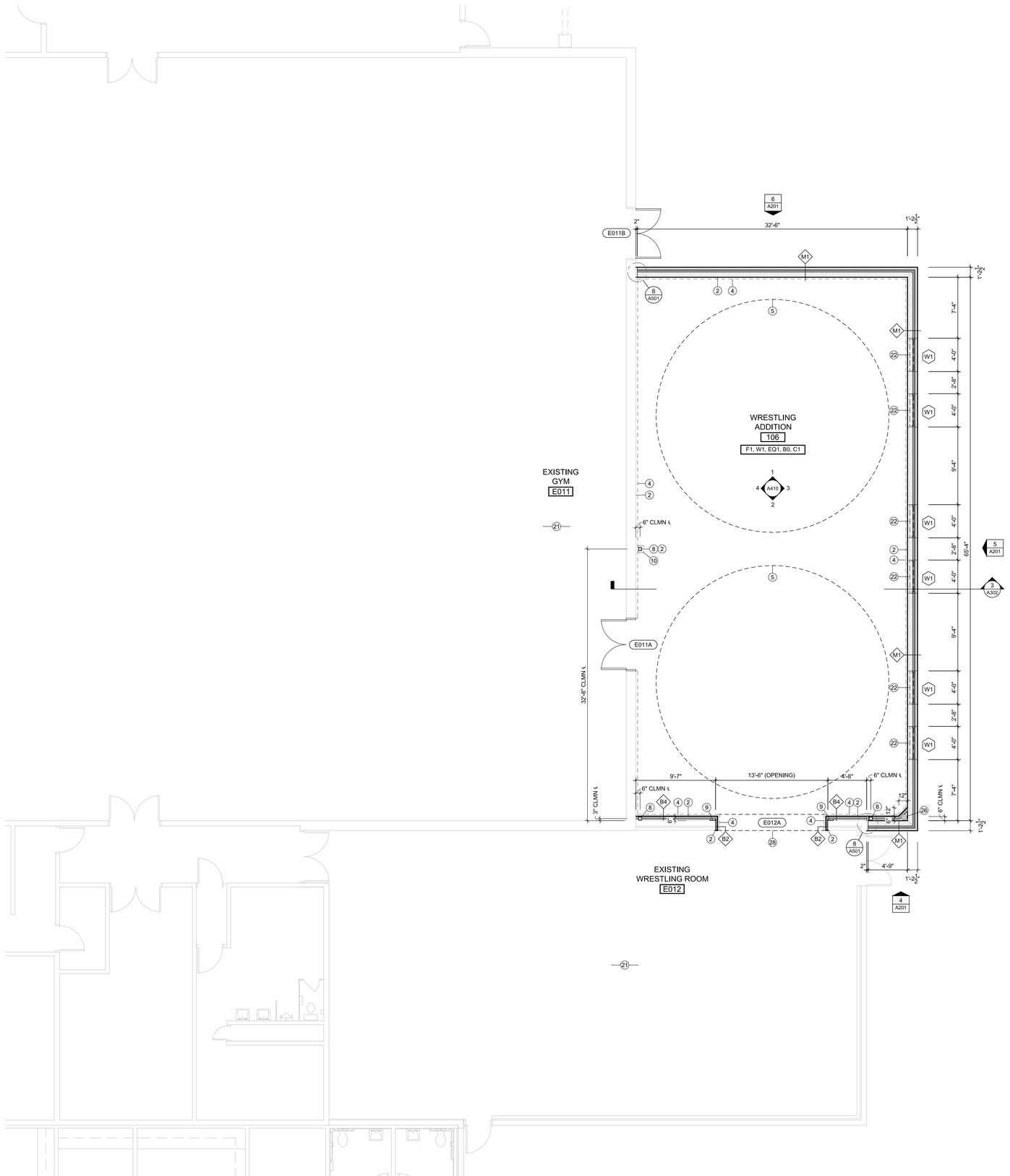
STATE OF UTAH
JEFFREY R. SMITH
LICENSED ARCHITECT
12-09-2024

PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

SHOP ADDITION FLOOR PLAN

A111

A | 6 | 5 | 4 | 3 | 2 | 1



WRESTLING ADDITION FLOOR PLAN

3/16" = 1'-0"

BID ALTERNATE #1

N

GENERAL NOTES - FLOOR PLANS:

1. EXISTING SCHOOL TOP OF FINISH SLAB ELEVATION = 100'-0" ADDITION ELEVATIONS RELATIVE TO THIS.
2. PROVIDE BLOCKING AT ALL STUD WALL ACCESSORY MOUNTING LOCATIONS.
3. REFER TO INTERIOR DETAILS A/501 FOR UN-REFERENCED MISCELLANEOUS DETAILS.
4. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO FACE OF CONCRETE MASONRY UNITS, FACE OF METAL STUDS AND CENTER OF COLUMNS
5. EXISTING BUILDING DIMENSIONS TO BE FIELD VERIFIED.

FLOOR PLAN SYMBOLS LEGEND:

- W1 — WALL TYPE TAG - REFER TO WALL TYPES, SHEET G201
- D — DOOR TAG - REFER TO DOOR SCHEDULE SHEET A601
- W1 — WINDOW TAG - REFER TO FRAME ELEVATIONS SHEETS A601
- 1 — KEYED NOTE TAG
- F, W, B, C — ROOM FINISHES, REFER TO FINISH SCHEDULE THIS SHEET

KEYED NOTES - FLOOR PLANS:

	NOTE:
01	07 1900 - EXISTING MASONRY WALL, POWER WASHED & SEALED
02	09 9123 - INTERIOR WALL / EXPOSED STEEL FRAMING TO BE PAINTED
03	07 1900 - EXISTING MASONRY WALL, CLEANED & SEALED
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05	FLOOR WRESTLING MATS PROVIDED BY OWNER
06	FIRE RISER, REFER TO FIRE PROTECTION DRAWINGS
07	06 1000 - GALVANIZED SHEET METAL PROTECTIVE WALL PANEL FROM FLOOR UP TO 8'-0" AFF (@ METAL SHOP SIDE ONLY OF NEW FIRE RISER ROOM WALLS)
08	05 1200 - STEEL COLUMN, REFER TO STRUCTURAL DRAWINGS
09	05 1200 - STRUCTURAL FRAMING FOR NEW OPENING, REFER TO STRUCTURAL DRAWINGS
10	11 6623 - COLUMN WRAPPED SAFETY PAD, REFER TO INTERIOR ELEVATIONS
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12	07 6200 - CANOPY ROOF DOWNSPOUT
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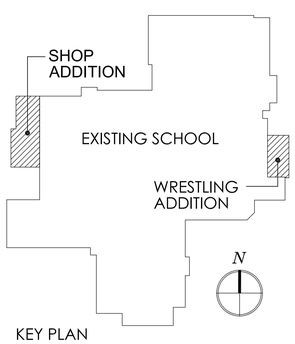
15	EXISTING HOLLOW METAL DOOR AND FRAME TO BE PAINTED
16	EXISTING GYP. BOARD CEILING TO BE PAINTED
17	09 6500 - NEW VCT CLASSROOM FLOORING
18	09 9510 - NEW SUSPENDED CLASSROOM CEILING, REFER TO REFLECTED CEILING PLAN
19	09 6500 - NEW 4" RUBBER BASE IN CLASSROOM AREA
20	EXISTING RACKS / BOOTHS / CASEWORK TO REMAIN
21	EXISTING SPACE TO REMAIN UNDISTURBED, N.I.C.
22	12 2413 - MOTORIZED WINDOW SHADE IN HEAD BOX TO COVER FULL WIDTH AND HEIGHT OF WINDOW
23	NEW SHOP SINK, REFER TO PLUMBING DRAWINGS
24	NEW EYE WASH STATION MOUNTED ON NEW FURRED WALL, REFER TO PLUMBING DRAWINGS
25	EXISTING SEMI-RECESSED FIRE EXTINGUISHER CABINET TO REMAIN
26	ROOF DRAIN LINE, REFER TO PLUMBING DRAWINGS
27	DATA RACK / CABINET, REFER TO ELECTRICAL DRAWINGS
28	06 2000 - ±13'-0" x 1'-11 3/8" x WRESTLING MATT HEIGHT (VERIFY) FINISHED HARDWOOD THRESHOLD WITH ABRASIVE FINISH STRIP @ TOP FACE AT NEW OPENING, COORDINATE WITH OWNER.

FINISH SCHEDULE

FLOOR	
F0	EXISTNG CONCRETE, NO NEW FINISH
F1	03 3511 - SEALED CONCRETE
F2	09 6500 - VINYL COMPOSITION TILE, REFER TO KEYNOTE #17 THIS SHEET
WALL	
W0	EXISTNG WALL, NO NEW FINISH
W1	09 9123 - PAINTED WALL, COLOR AS SELECTED BY ARCHITECT, REFER TO KEYNOTES #2 THIS SHEET
W2	07 1900 - SEALED WALL, REFER TO KEYNOTES #1 & 3 THIS SHEET
W3	05 5000 - PROTECTIVE WALL PANEL, REFER TO KEYNOTE #7 THIS SHEET
EQ1	11 6623 - WALL MOUNTED SAFETY PADS, REFER KEYNOTE #4 THIS SHEET
BASE	
B0	NO BASE
B1	09 6519 - 4" RUBBER BASE (@ NEW GYP. BOARD WALL, FIRE RISER SIDE ONLY)
B2	09 6519 - 4" RUBBER BASE, REFER TO KEYNOTE #19 THIS SHEET
CEILING	
C0	NO NEW CEILING OR CEILING FINISH
C1	09 9123 - EXPOSED STRUCTURE, PAINTED
C2	09 5100 - SUSPENDED ACOUSTICAL CEILING, REFER TO KEYNOTE #18 THIS SHEET



naylor wentworth lund
a r c h i t e c t s

MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

DRAWING ISSUE: Bid Documents
ISSUE DATE: December 9, 2024
NWL PROJECT: 0121.002

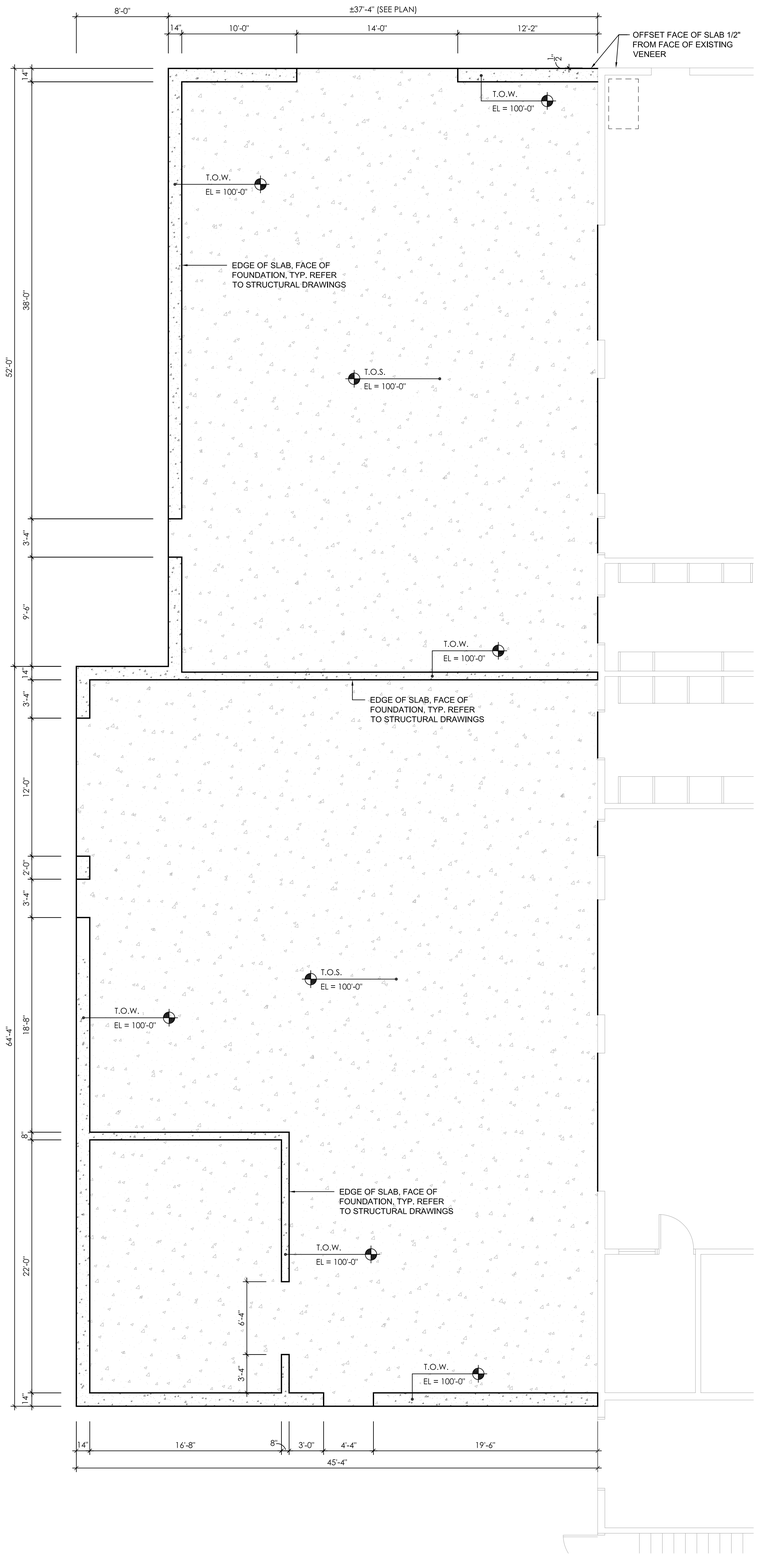
STATE OF UTAH
JEFFREY S. SMITH
REGISTERED
6124766
REGISTERED ARCHITECT
12-09-2024

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

WRESTLING
ADDITION
FLOOR PLAN

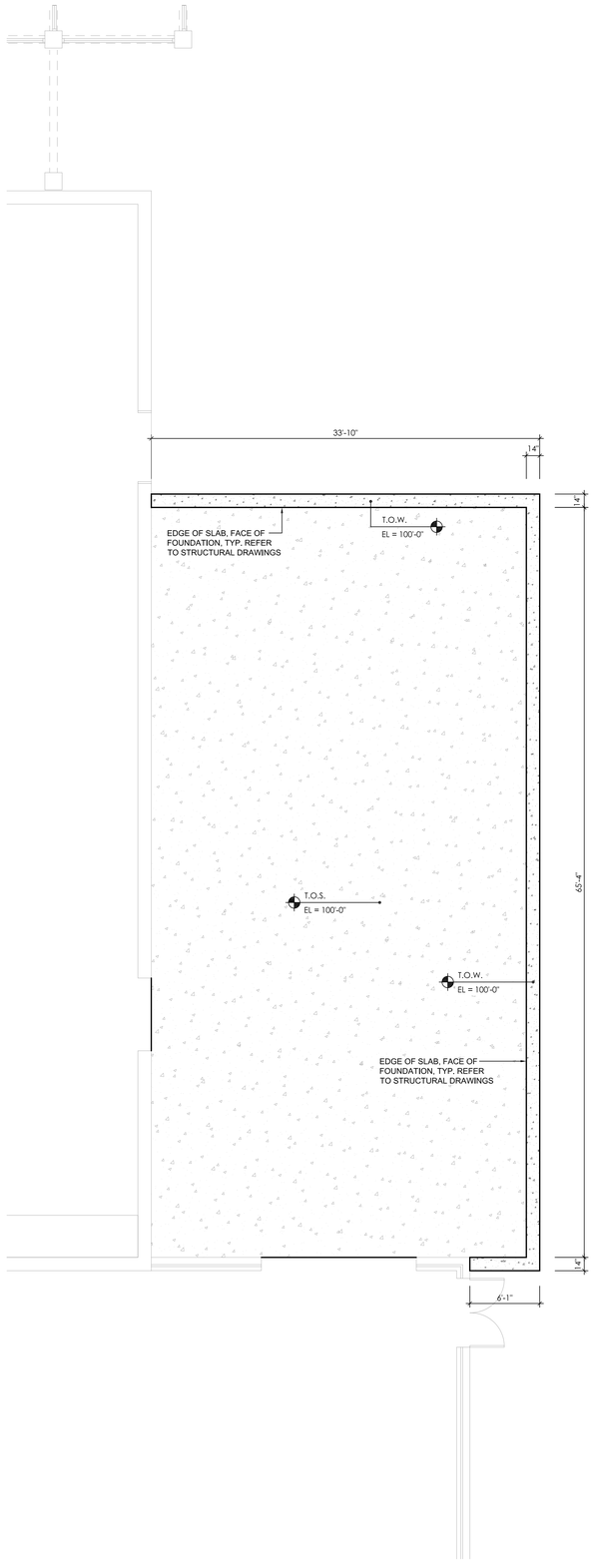
A112

A | 6 | 5 | 4 | 3 | 2 | 1
B
C
D
E



SHOP ADDITION SLAB EDGE PLAN

3/16" = 1'-0"



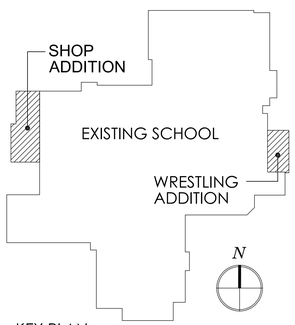
WRESTLING ADDITION SLAB EDGE PLAN

3/16" = 1'-0"

BID ALTERNATE #1

SLAB EDGE PLAN LEGEND:

TOS	TOP OF SLAB
TOW	TOP OF WALL
	CONCRETE FOUNDATION WALL, REFER TO STRUCTURAL DRAWINGS
	CONCRETE SLAB ON GRADE, REFER TO STRUCTURAL DRAWINGS, CONTRACTOR SHALL PROVIDE CONTROL JOINT LAYOUT PLAN PER REQUIREMENTS OF STRUCTURAL GENERAL NOTES



KEY PLAN

NOT TO SCALE

naylor wentworth lund
architects

MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

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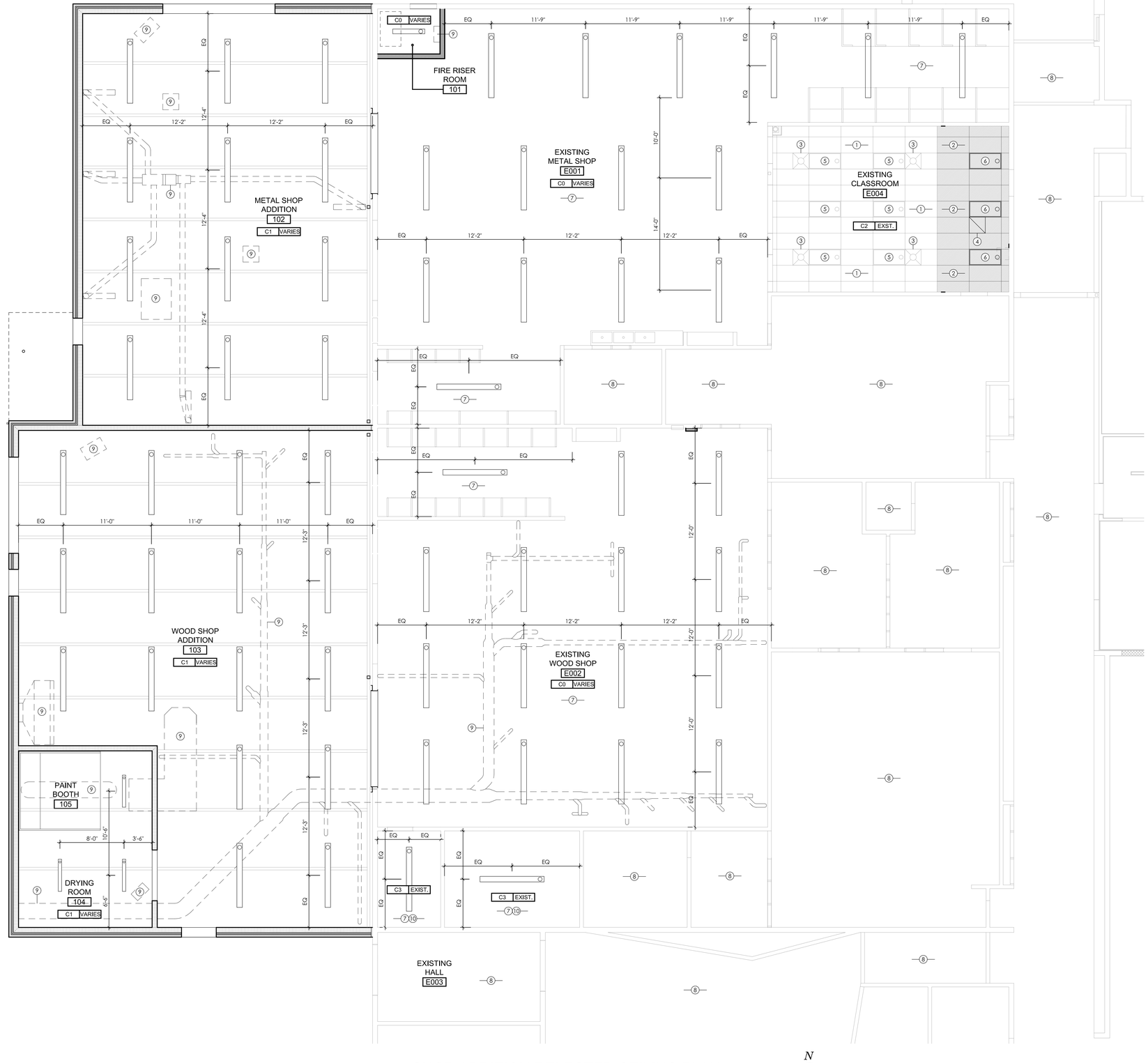
STATE OF UTAH
KEVIN R. WENTWORTH
LICENSED ARCHITECT
12-09-2024

PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

SLAB EDGE PLANS

A121

A | 6 | 5 | 4 | 3 | 2 | 1
B
C
D
E



SHOP ADDITION RELECTED CEILING PLAN

3/16" = 1'-0"

GENERAL NOTES - REFLECTED CEILING PLANS:

1. PROVIDE SEISMIC BRACING AT ALL NEW / MODIFIED SUSPENDED CEILING SYSTEMS, REFER TO SPECIFICATIONS 09 5100
2. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL LIGHTING AND DIFFUSER INFORMATION.
3. FOR PAINTED EXPOSED STRUCTURE, REFER TO SPECIFICATIONS 09 9123 FOR REQUIREMENTS OF EXPOSED ELEMENTS TO BE PAINTED.
4. CONTRACTOR SHALL COORDINATE ALL TRADES, NOTIFY ARCHITECT IF LOCATION CONFLICTS OF EQUIPMENT, FIXTURES ETC. ARISE.

REFLECTED CEILING PLAN SYMBOLS LEGEND:

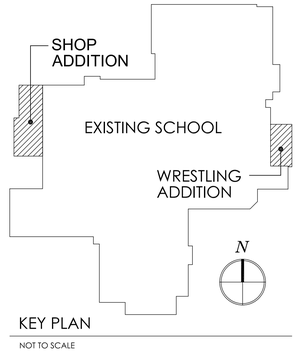
C1 | 10'-0"	CEILING TYPE | CEILING HEIGHT
1	KEYED NOTE TAG
	LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
	MECHANICAL DIFFUSER, REFER TO MECHANICAL DRAWINGS

KEYED NOTES - REFLECTED CEILING PLANS:

	NOTE:
01	EXISTING SUSPENDED CEILING GRID
02	NEW SUSPENDED CEILING GRID TO MATCH AND TIE INTO EXISTING AND PROVIDE A CONTINUOUS 2x4 GRID SYSTEM. REPLACE ANY DAMAGED OR MISFIT CEILING TILES THROUGHOUT ENTIRE CLASSROOM. MODIFY, RELOCATE OR REPLACE CEILING COMPONENTS AS NECESSARY TO ALIGN WITHIN GRID SPACING, REFER TO MECHANICAL, ELECTRICAL AND FIRE SPRINKLER DRAWINGS.
03	EXISTING MECHANICAL COMPONENT, REFER TO MECHANICAL DRAWING
04	EXISTING MECHANICAL COMPONENT RELOCATED AS NECESSARY TO FIT WITHIN NEW CEILING GRID AREA, REFER TO MECHANICAL DRAWINGS
05	EXISTING LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
06	EXISTING LIGHT FIXTURE RELOCATED AS NECESSARY TO FIT WITHIN NEW CEILING GRID AREA , REFER TO ELECTRICAL DRAWINGS
07	LIGHTING FIXTURE LAYOUT IN THIS ROOM / AREA REFLECTS NEW REPLACEMENT FIXTURE BID ALTERNATE, EXISTING TO REMAIN LAYOUT OPTION NOT SHOWN, REFER TO ELECTRICAL DRAWINGS.
08	EXISTING CEILING SPACE TO REMAIN UNDISTURBED, N.I.C.
09	NEW MECHANICAL COMPONENT, REFER TO MECHANICAL DRAWINGS
10	EXISTING GYP. BOARD CEILING - CLEAN, PRIME, PATCH AND REPAIR AS REQUIRED FOR NEW CEILING PAINT.

CEILING TYPES LEGEND

CEILING	
C0	NO NEW CEILING OR CEILING FINISH
C1	09 9123 - EXPOSED STRUCTURE, PAINTED
C2	09 5100 - SUSPENDED ACOUSTICAL CEILING, REFER TO KEYNOTE #2 THIS SHEET
C3	09 9123 - EXISTING GYP. BOARD CEILING, PAINTED, REFER TO KEYNOTE #10 THIS SHEET



KEY PLAN

NOT TO SCALE

naylor wentworth lund
a r c h i t e c t s

MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

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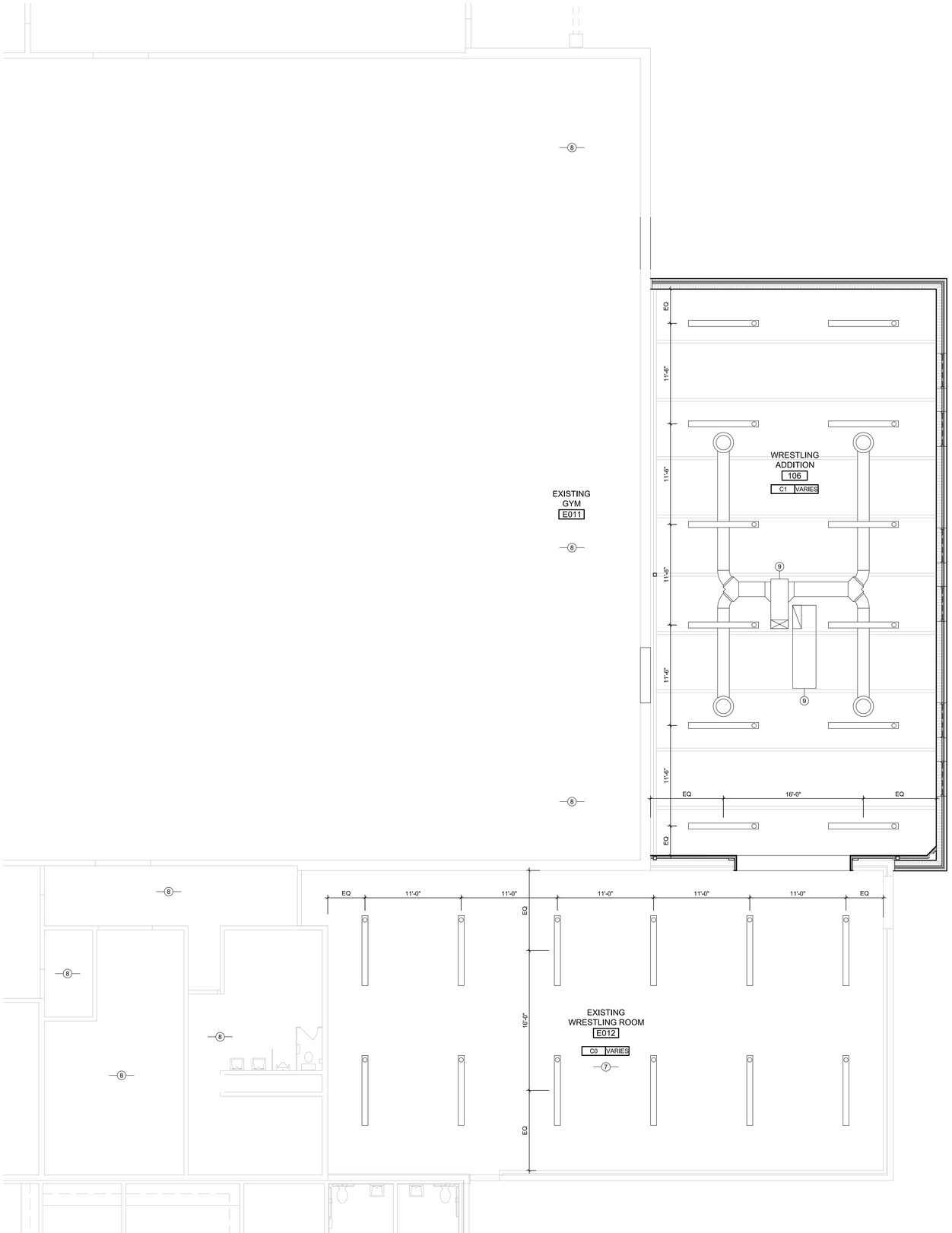
NWL PROJECT: 0121.032

STATE OF UTAH
LICENSED ARCHITECT
12-09-2024

PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

SHOP ADDITION REFLECTED CEILING PLAN

A131



WRESTLING ADDITION REFLECTED CEILING PLAN

3/16" = 1'-0"

BID ALTERNATE #1

GENERAL NOTES - REFLECTED CEILING PLANS:

1. PROVIDE SEISMIC BRACING AT ALL NEW / MODIFIED SUSPENDED CEILING SYSTEMS, REFER TO SPECIFICATIONS 09 5100
2. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL LIGHTING AND DIFFUSER INFORMATION.
3. FOR PAINTED EXPOSED STRUCTURE, REFER TO SPECIFICATIONS 09 9123 FOR REQUIREMENTS OF EXPOSED ELEMENTS TO BE PAINTED.
4. CONTRACTOR SHALL COORDINATE ALL TRADES, NOTIFY ARCHITECT IF LOCATION CONFLICTS OF EQUIPMENT, FIXTURES ETC. ARISE.

REFLECTED CEILING PLAN SYMBOLS LEGEND:

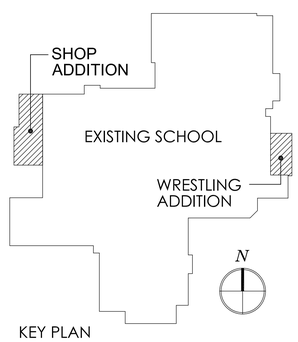
C1 | 10'-0"	CEILING TYPE | CEILING HEIGHT
1	KEYED NOTE TAG
	LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
	MECHANICAL DIFFUSER, REFER TO MECHANICAL DRAWINGS

KEYED NOTES - REFLECTED CEILING PLANS:

	NOTE:
01	EXISTING SUSPENDED CEILING GRID
02	NEW SUSPENDED CEILING GRID TO MATCH AND TIE INTO EXISTING AND PROVIDE A CONTINUOUS 2x4 GRID SYSTEM. REPLACE ANY DAMAGED OR MISFIT CEILING TILES THROUGHOUT ENTIRE CLASSROOM. MODIFY, RELOCATE OR REPLACE CEILING COMPONENTS AS NECESSARY TO ALIGN WITHIN GRID SPACING, REFER TO MECHANICAL, ELECTRICAL AND FIRE SPRINKLER DRAWINGS.
03	EXISTING MECHANICAL COMPONENT, REFER TO MECHANICAL DRAWING
04	EXISTING MECHANICAL COMPONENT RELOCATED AS NECESSARY TO FIT WITHIN NEW CEILING GRID AREA, REFER TO MECHANICAL DRAWINGS
05	EXISTING LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
06	EXISTING LIGHT FIXTURE RELOCATED AS NECESSARY TO FIT WITHIN NEW CEILING GRID AREA , REFER TO ELECTRICAL DRAWINGS
07	LIGHTING FIXTURE LAYOUT IN THIS ROOM / AREA REFLECTS NEW REPLACEMENT FIXTURE BID ALTERNATE, EXISTING TO REMAIN LAYOUT OPTION NOT SHOWN, REFER TO ELECTRICAL DRAWINGS.
08	EXISTING CEILING SPACE TO REMAIN UNDISTURBED, N.I.C.
09	NEW MECHANICAL COMPONENT, REFER TO MECHANICAL DRAWINGS
10	EXISTING GYP. BOARD CEILING - CLEAN, PRIME, PATCH AND REPAIR AS REQUIRED FOR NEW CEILING PAINT.

CEILING TYPES LEGEND

CEILING	
C0	NO NEW CEILING OR CEILING FINISH
C1	09 9123 - EXPOSED STRUCTURE, PAINTED
C2	09 5100 - SUSPENDED ACOUSTICAL CEILING. REFER TO KEYNOTE #2 THIS SHEET
C3	09 9123 - EXISTNG GYP. BOARD CEILING, PAINTED, REFER TO KEYNOTE #10
	THIS SHEET



KEY PLAN

NOT TO SCALE

naylor wentworth lund
architects

MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITION
100 WEST 500 NORTH MANTI, UTAH 84642

DRAWING ISSUE: Bid Documents
ISSUE DATE: December 9, 2024
NWL PROJECT: 0121.032

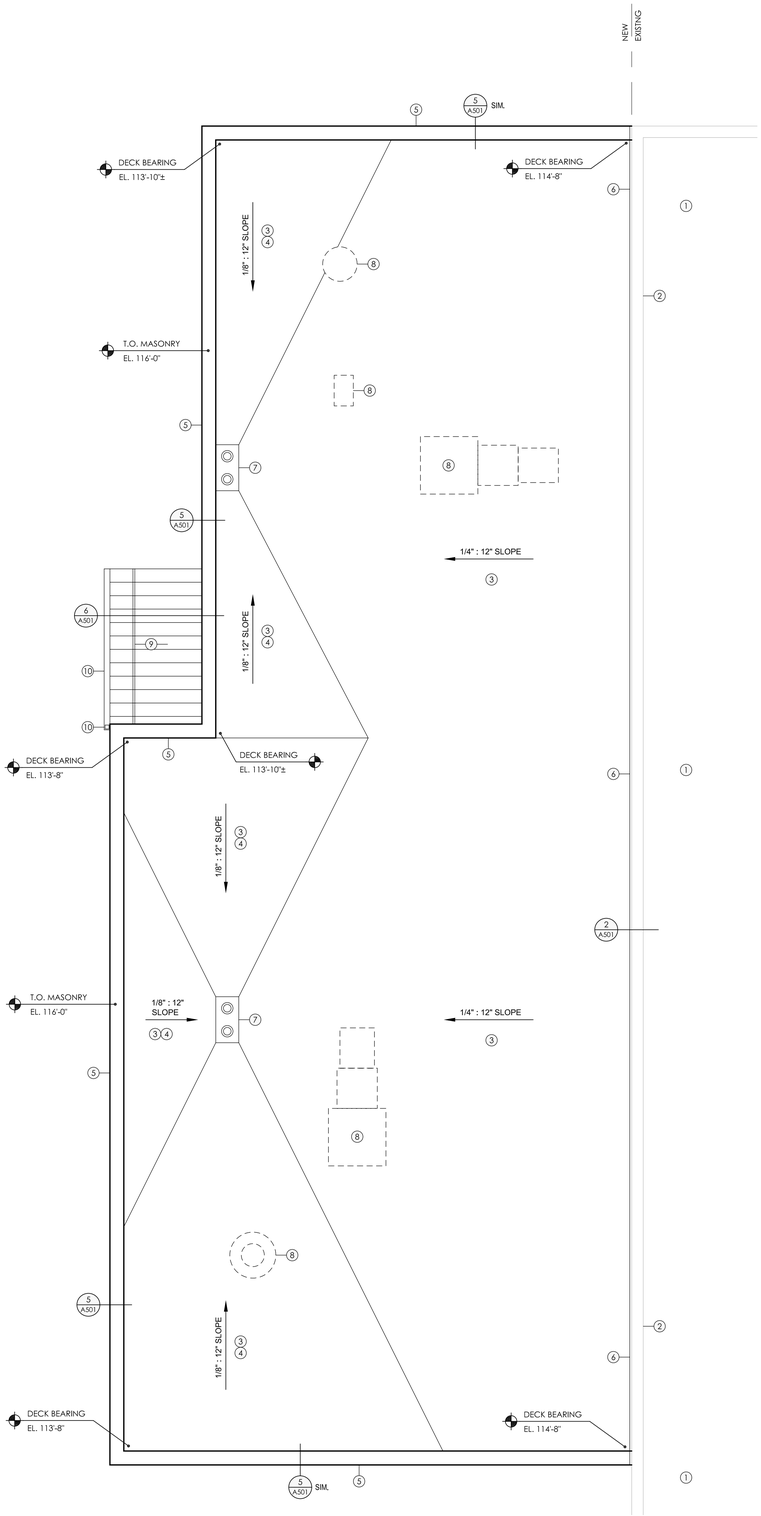
STATE OF UTAH
JOSEPH M. SMITH
6419999
REGISTERED ARCHITECT
12-09-2024

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

WRESTLING ADDITION REFLECTED CEILING PLAN

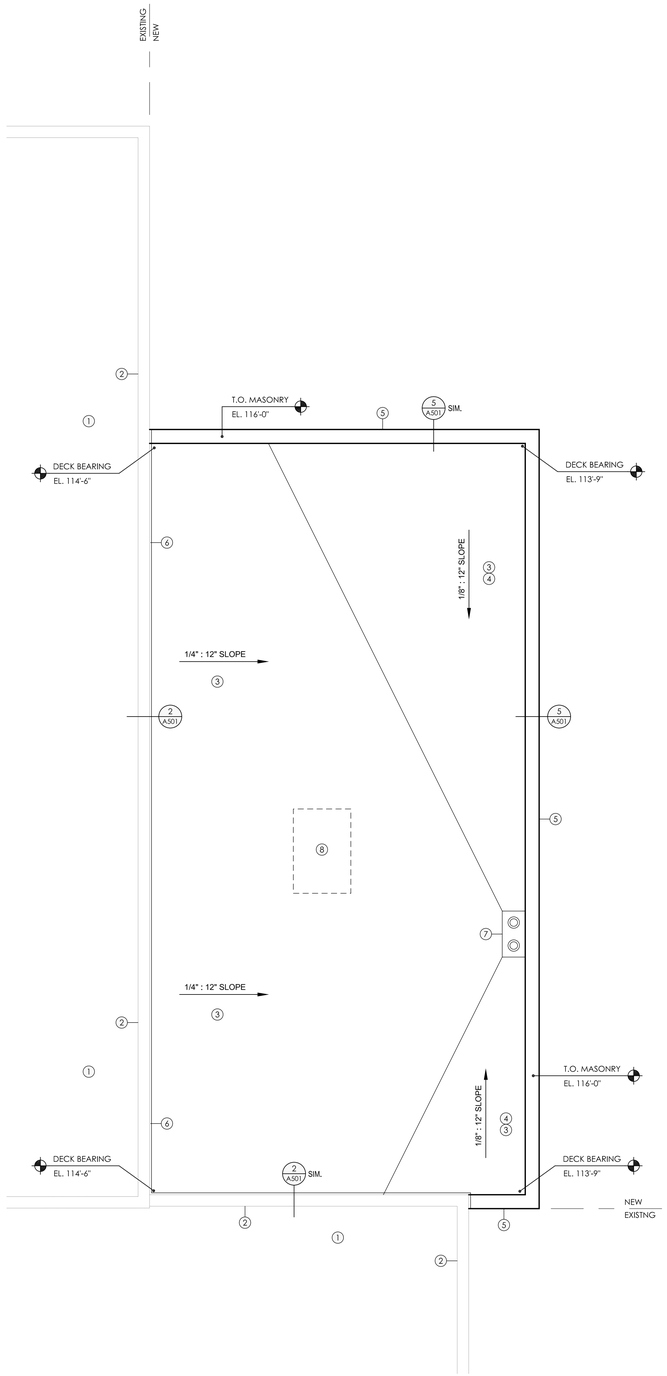
A132

A | 6 | 5 | 4 | 3 | 2 | 1
B
C
D
E



SHOP ADDITION ROOF PLAN

3/16" = 1'-0"



WRESTLING ADDITION ROOF PLAN

3/16" = 1'-0"

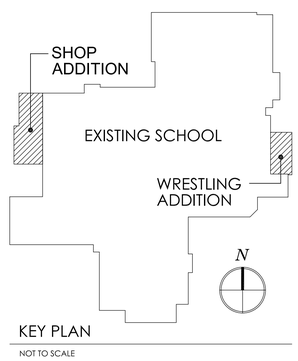
BID ALTERNATE #1

GENERAL NOTES - ROOF PLAN:

1. ALL ROOF SLOPES ARE 1/4" PER 12" MIN. UNLESS NOTED OTHERWISE.
2. PROVIDE CRICKETING AROUND ROOF HATCHES & MECHANICAL EQUIPMENT, TYP.
3. COORDINATE ROOF PENETRATIONS WITH MECHANICAL, PLUMBING, ELECTRICAL AND STRUCTURAL DRAWINGS.

KEYED NOTES - ROOF PLAN:

	NOTE:
01	EXISTING ROOFING
02	EXISTING TOP OF WALL COPING
03	07 5400 - SINGLE PLY MEMBRANE ROOFING OVER INSULATION
04	07 5323 - TAPERED CRICKETING ROOF INSULATION
05	07 6200 - PRE-FINISHED METAL COPING
06	07 9513 - TYPE A - EXPANSION JOINT COVER, REFER TO DETAIL 2/A501
07	22 0000 - PRIMARY AND SECONDARY ROOF DRAINS, REFER TO PLUMBING DRAWINGS & DETAILS 3 & 4/A501
08	23 0000 - MECHANICAL EQUIPMENT ON ROOF TOP CURBING, REFER TO MECHANICAL DRAWINGS
09	07 74100 - TANK STORAGE AREA CANOPY STANDING SEAM METAL ROOF WITH SNOW GUARD
10	07 6200 - GUTTER AND DOWNSPOUT



KEY PLAN

NOT TO SCALE

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a r c h i t e c t s

MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

DRAWING ISSUE | Bid Documents
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NWL PROJECT | 0121.032

STATE OF UTAH
JEFFREY S. WENTWORTH
REGISTERED
LICENSED ARCHITECT

12-09-2024

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

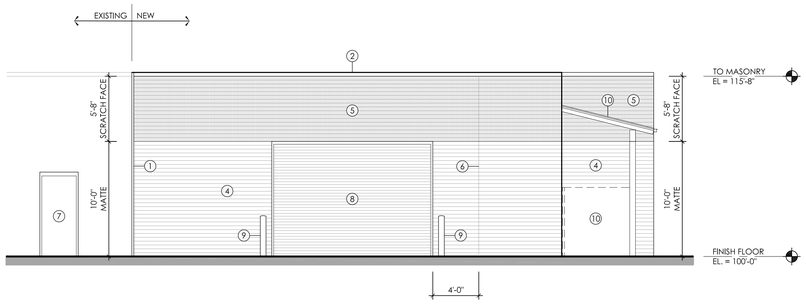
ROOF PLANS

A141

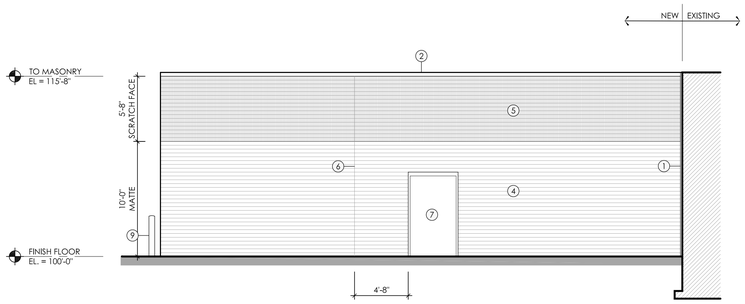
A | 6 | 5 | 4 | 3 | 2 | 1
B
C
D
E

KEYED NOTES - EXTERIOR ELEVATIONS:

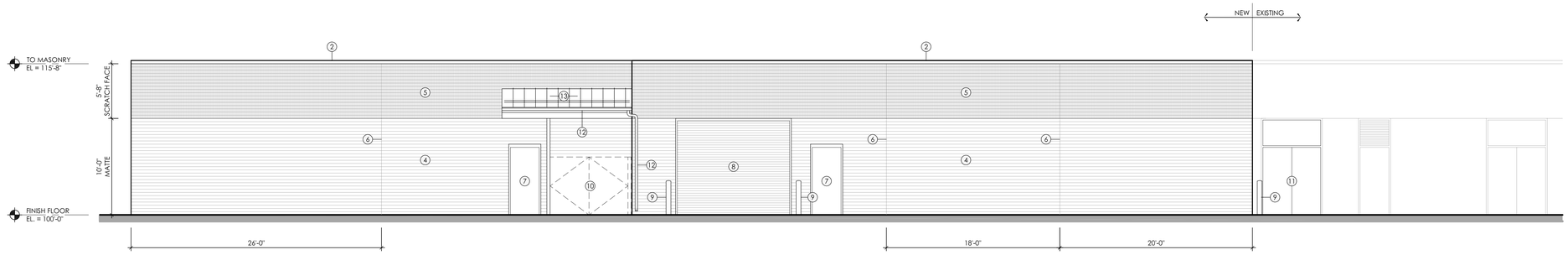
	NOTE:
01	07 9513 - TYPE 'B' EXPANSION JOINT COVER (WALL TO WALL)
02	07 6200 - PRE-FINISHED METAL WALL COPING
03	08 4313 - ALUMINUM FRAMED STOREFRONT WINDOW
04	04 2113 - MASONRY VENEER WITH MATTE FINISH
05	04 2113 - MASONRY VENEER WITH RUFF FACE FINISH
06	04 2113 - MASONRY CONTROL JOINT, REFER TO STRUCTURAL DRAWINGS
07	08 1113 & 09 9113 - PAINTED HOLLOW METAL DOOR & FRAME
08	08 3323, 05 5000 & 09 9113 - PRE-FINISHED OVERHEAD DOOR WITH PAINTED METAL FRAME
09	GALVANIZED STEEL BOLLARD, REFER TO CIVIL DRAWING
10	32 3113 - TANK STORAGE AREA CANOPY AND ENCLOSURE GATE
11	08 1113 & 09 9113 - NEW FIRE RATED PAINTED HOLLOW METAL DOOR & TRANSOM PANEL IN EXISTING FRAME
12	07 6200 - PRE-FINISHED METAL GUTTER & DOWNSPOUT
13	07 4100 - STANDING SEAM METAL ROOF WITH SNOW GUARD



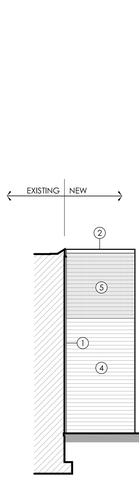
1 A201 SHOP ADDITION NORTH ELEVATION
3/16" = 1'-0"



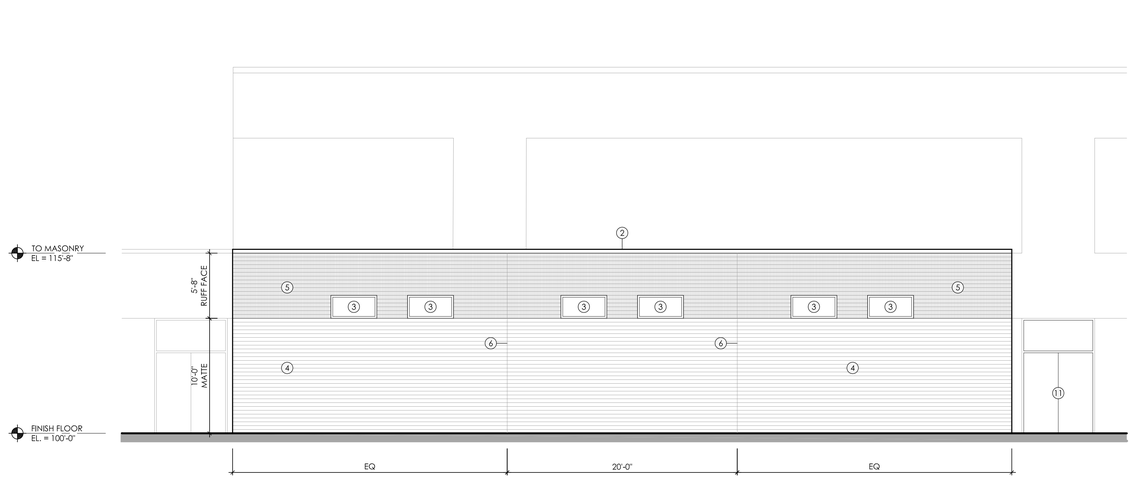
2 A201 SHOP ADDITION SOUTH ELEVATION
3/16" = 1'-0"



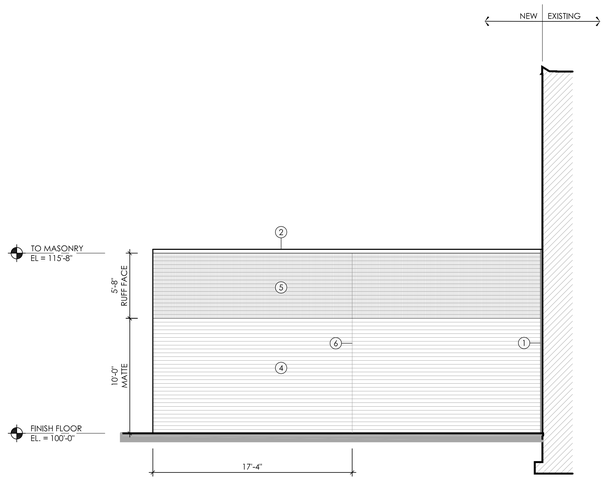
3 A201 SHOP ADDITION WEST ELEVATION
3/16" = 1'-0"



4 A201 WRESTLING ADDITION SOUTH ELEVATION
3/16" = 1'-0" BID ALTERNATE #1



5 A201 WRESTLING ADDITION EAST ELEVATION
3/16" = 1'-0" BID ALTERNATE #1



6 A201 WRESTLING ADDITION NORTH ELEVATION
3/16" = 1'-0" BID ALTERNATE #1

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MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

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STATE OF UTAH
RICHARD PAUL TAYLOR
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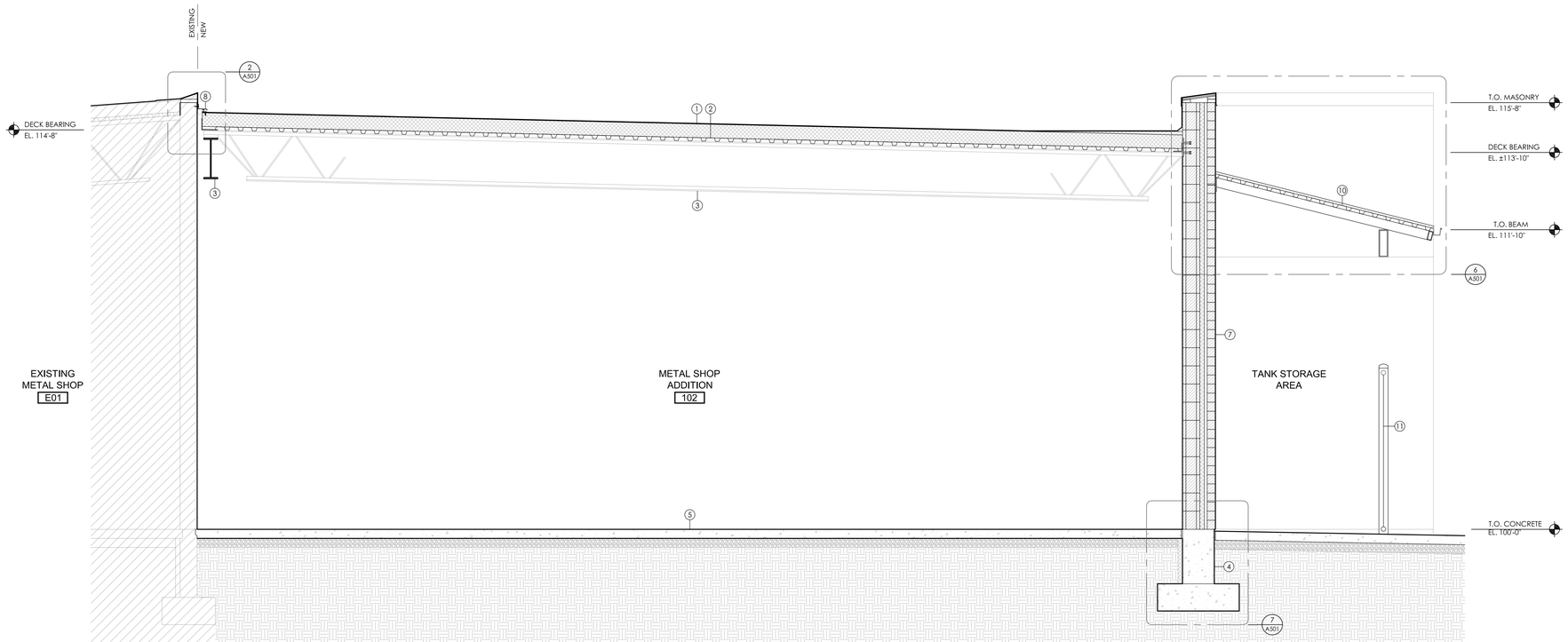
12-09-2024

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

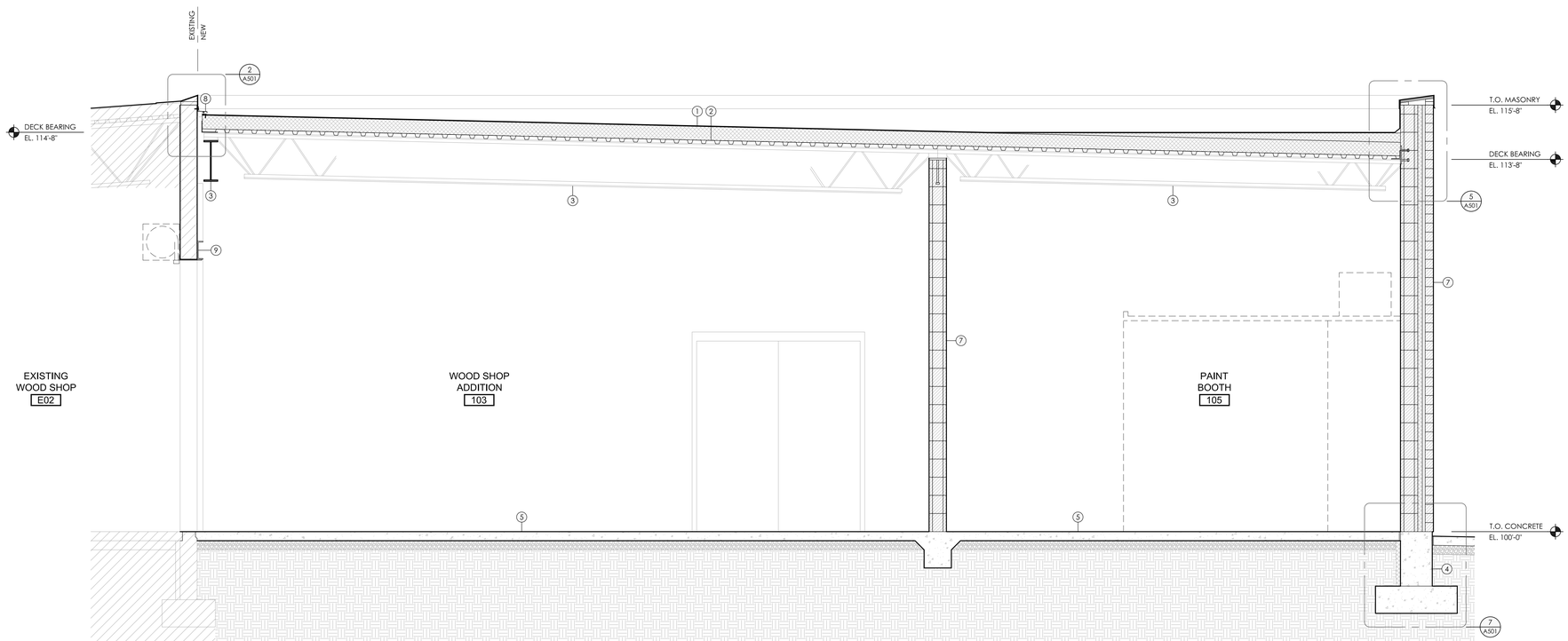
EXTERIOR ELEVATIONS

A201



1 A301 METAL SHOP ADDITION SECTION

1/2" = 1'-0"



2 A301 WOOD SHOP ADDITION SECTION

1/2" = 1'-0"

KEYED NOTES - BUILDING SECTIONS:

	NOTE:
01	07 5400 - SINGLE-PLY ROOFING MEMBRANE OVER INSULATION
02	05 3100 - METAL ROOF DECKING, REFER TO STRUCTURAL DRAWINGS
03	05 1200 - STEEL FRAMING & ROOF JOISTS, REFER TO STRUCTURAL DRAWINGS
04	03 3000 - CONCRETE FOUNDATION WALL & FOOTING, REFER TO STRUCTURAL DRAWINGS
05	03 3000 - CONCRETE SLAB ON GRADE, REFER TO STRUCTURAL DRAWINGS
06	08 4313 - ALUMINUM STOREFRONT WINDOW, REFER TO REFERENCE FLOOR PLANS
07	WALL ASSEMBLY, REFER TO REFERENCE FLOOR PLANS & WALL TYPES SHEET G201
08	07 9513 - TYPE 'A' EXPANSION JOINT COVER
09	05 1200 - STRUCTURAL FRAMING FOR NEW WALL OPENING, REFER TO STRUCTURAL DRAWINGS
10	TANK STORAGE AREA CANOPY
11	TANK STORAGE AREA FENCE ENCLOSURE WITH GATE

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MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITION
100 WEST 500 NORTH MANTI, UTAH 84642

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12-09-2024

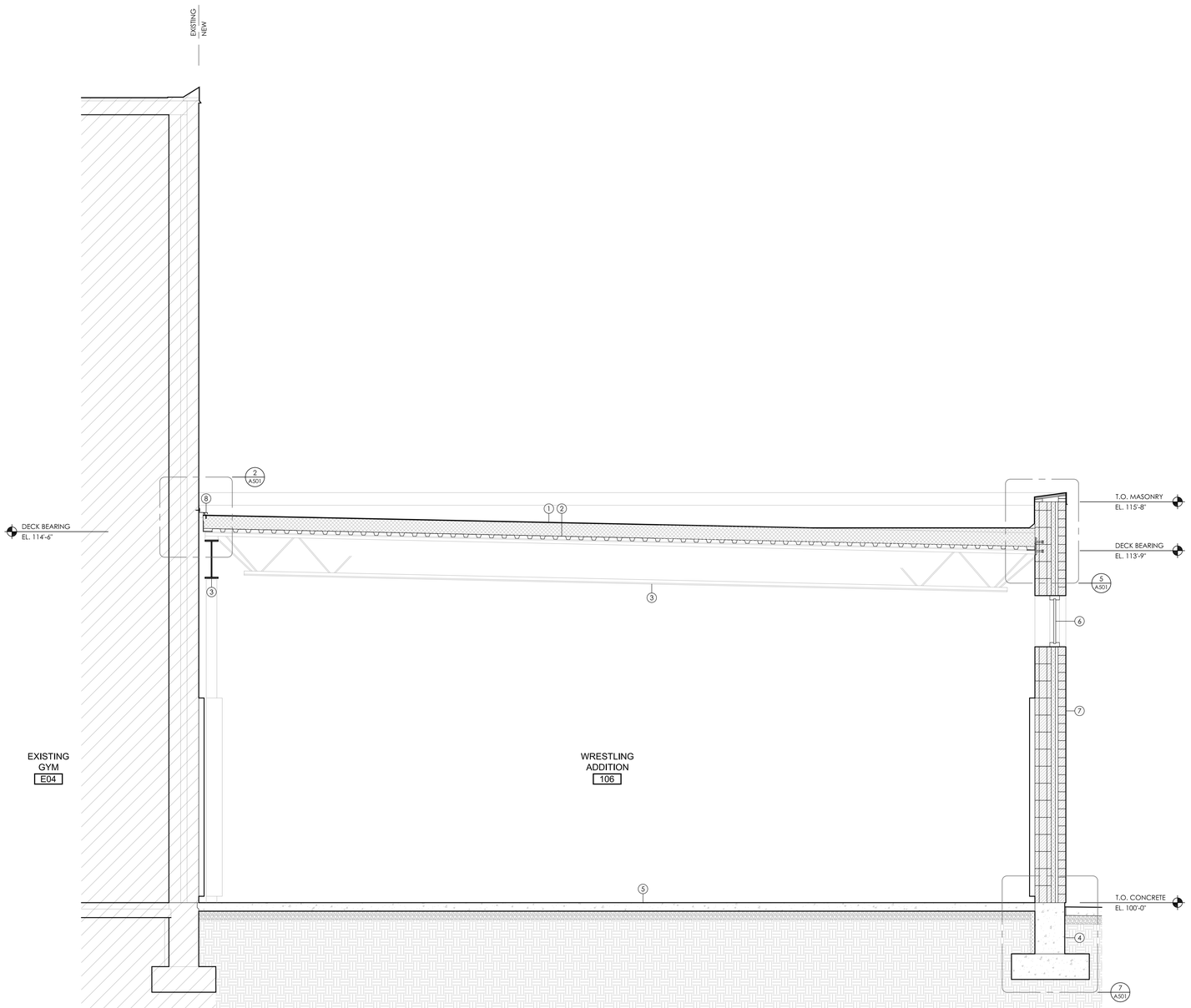
PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

BUILDING SECTIONS

A301

KEYED NOTES - BUILDING SECTIONS:

	NOTE:
01	07 5400 - SINGLE-PLY ROOFING MEMBRANE OVER INSULATION
02	05 3100 - METAL ROOF DECKING, REFER TO STRUCTURAL DRAWINGS
03	05 1200 - STEEL FRAMING & ROOF JOISTS, REFER TO STRUCTURAL DRAWINGS
04	03 3000 - CONCRETE FOUNDATION WALL & FOOTING, REFER TO STRUCTURAL DRAWINGS
05	03 3000 - CONCRETE SLAB ON GRADE, REFER TO STRUCTURAL DRAWINGS
06	08 4313 - ALUMINUM STOREFRONT WINDOW, REFER TO REFERENCE FLOOR PLANS
07	WALL ASSEMBLY, REFER TO REFERENCE FLOOR PLANS & WALL TYPES SHEET G201
08	07 9513 - TYPE 'A' EXPANSION JOINT COVER
09	05 1200 - STRUCTURAL FRAMING FOR NEW WALL OPENING, REFER TO STRUCTURAL DRAWINGS
10	TANK STORAGE AREA CANOPY
11	TANK STORAGE AREA FENCE ENCLOSURE WITH GATE



3 A302 WRESTLING ADDITION SECTION

1/2" = 1'-0"

BID ALTERNATE #1

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architects

MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

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STATE OF UTAH
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12-09-2024

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

BUILDING SECTIONS

A302

SHOP EQUIPMENT PLAN

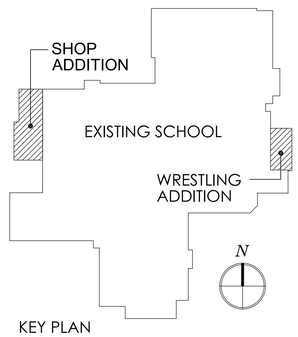
1/4" = 1'-0"

GENERAL NOTES - EQUIPMENT PLANS:

1. ALL SHOP EQUIPMENT, TOOLS, SHELVING, STORAGE, WORK BENCHES ETC. ARE EXISTING OR NEW BY OWNER.
2. REFER TO MECHANICAL PLANS FOR NEW COMPRESSED AIR DROPS AND FITTINGS. NEW AIR HOSES AND HOSE REELS BY OWNER.
3. REFER TO MECHANICAL PLANS FOR NEW SAW-DUST COLLECTOR DUCTWORK AND FITTINGS.
4. REFER TO ELECTRICAL PLANS FOR NEW REQUIRED POWER OUTLET LOCATIONS AND SIZES.

SHOP EQUIPMENT NOTES:

	NOTE:
01	EXISTING SHOP EQUIPMENT TO REMAIN
02	RELOCATED SHOP EQUIPMENT, REFER TO DEMOLITION PLAN
03	NEW SHOP EQUIPMENT, PROVIDED BY OWNER
04	NEW DUST COLLECTOR FLOOR SWEEP, REFER TO MECHANICAL DRAWINGS
05	NEW DUST COLLECTOR DUCT DROP, REFER TO MECHANICAL DRAWINGS



KEY PLAN

NOT TO SCALE

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MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

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STATE OF UTAH
KEVIN D. WENTWORTH
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LICENSED ARCHITECT

12-09-2024

PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

SHOP EQUIPMENT PLAN

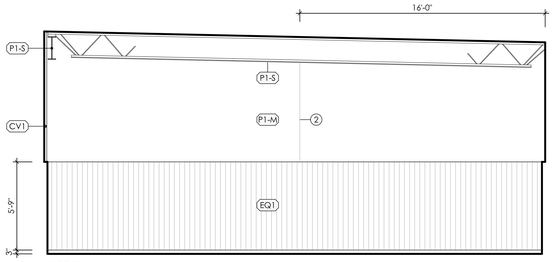
A401

KEYED NOTES - INTERIOR ELEVATIONS:

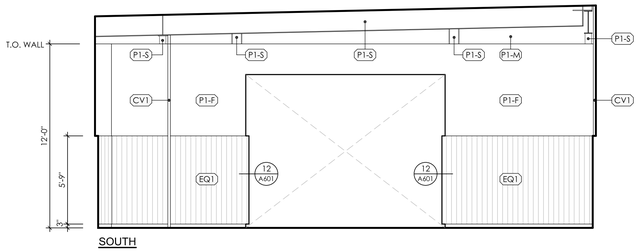
	NOTE:
01	08 4313 - ALUMINUM FRAMED STOREFRONT WINDOW
02	04 2113 - MASONRY CONTROL JOINT, REFER TO STRUCTURAL DRAWINGS

FINISH LEGEND - INTERIOR ELEVATIONS:

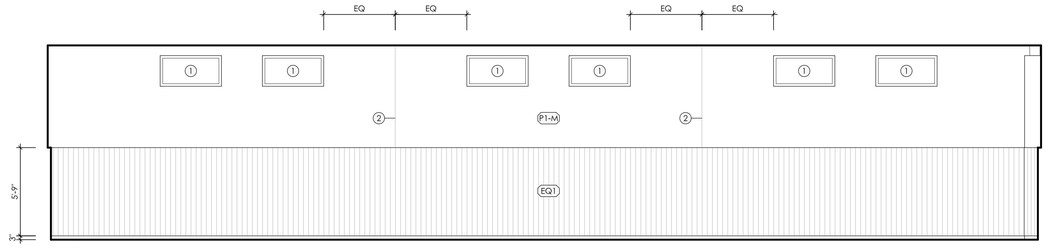
P1-F	09 9213 - PRIMARY PAINT COLOR, FRAMED WALL
P1-M	09 9213 - PRIMARY PAINT COLOR, MASONRY WALL
P1-S	09 9213 - PRIMARY PAINT COLOR, EXPOSED STRUCTURE
P2-D	09 9213 - DOOR & FRAME PAINT COLOR
EQ1	11 6623 - WALL MOUNTED SAFETY PADS
EQ2	11 6623 - COLUMN WRAPPED SAFETY PAD
CV1	07 9513 - TYPE 'C' EXPANSION JOINT COVER (INTERIOR WALL TO WALL)



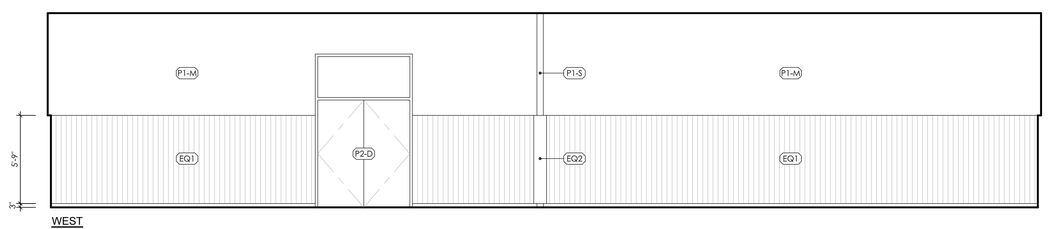
1 A410 WRESTLING ADDITION INTERIOR ELEVATION
1/4" = 1'-0"
BID ALTERNATE #1



2 A410 WRESTLING ADDITION INTERIOR ELEVATION
1/4" = 1'-0"
BID ALTERNATE #1



3 A410 WRESTLING ADDITION INTERIOR ELEVATION
1/4" = 1'-0"
BID ALTERNATE #1



4 A410 WRESTLING ADDITION INTERIOR ELEVATION
1/4" = 1'-0"
BID ALTERNATE #1

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100 WEST 500 NORTH MANTI, UTAH 84642

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STATE OF UTAH
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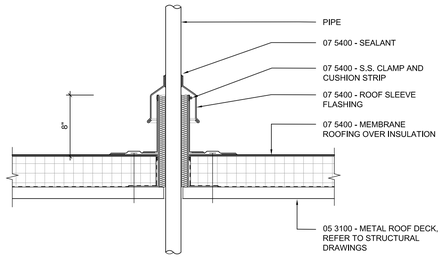
12-09-2024

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

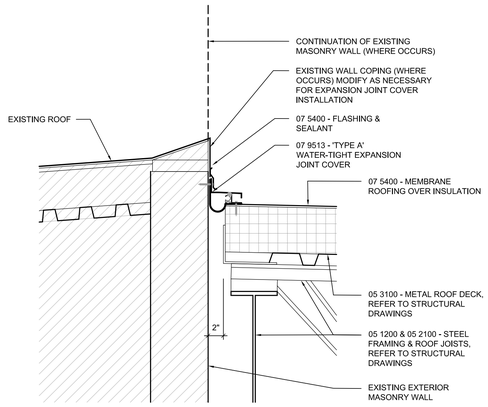
INTERIOR ELEVATIONS

A410



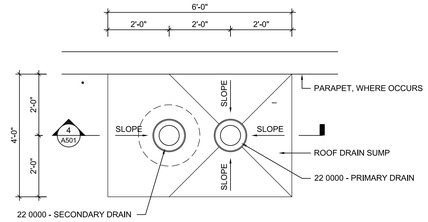
1 A501 TYP. PIPE PENETRATION DETAIL

1 1/2" = 1'-0"



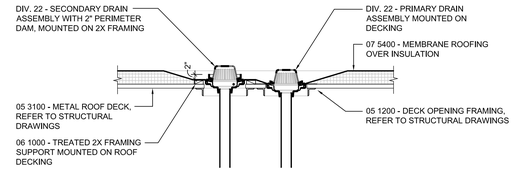
2 A501 ROOF EXPANSION JOINT DETAIL

1 1/2" = 1'-0"



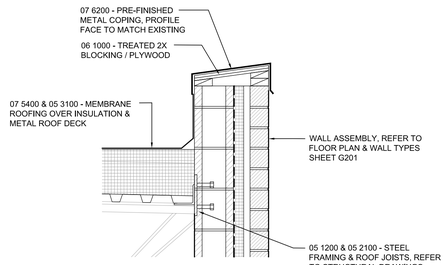
3 A501 ROOF DRAIN DETAIL (PLAN VIEW)

1/2" = 1'-0"



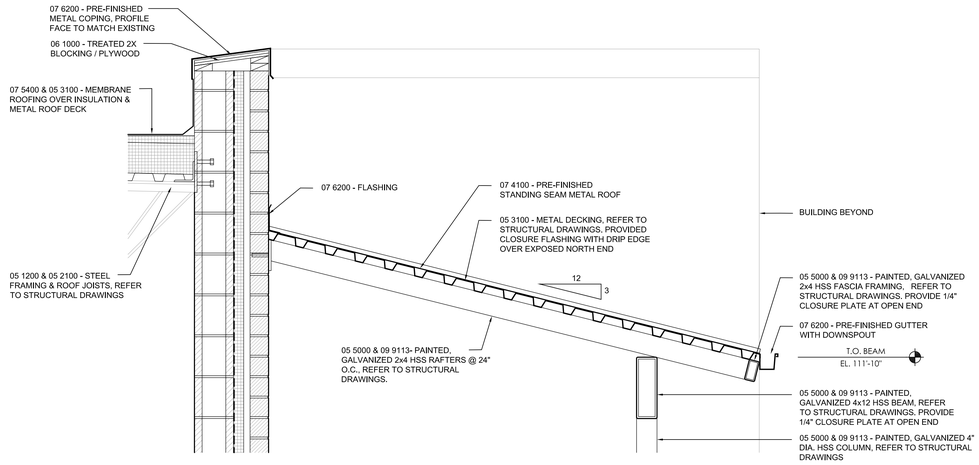
4 A501 ROOF DRAIN DETAIL (SECTION VIEW)

1/2" = 1'-0"



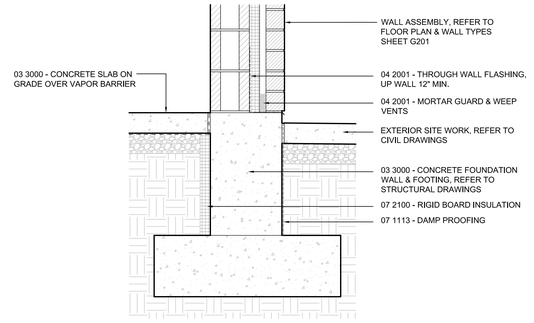
5 A501 PARAPET DETAIL

1" = 1'-0"



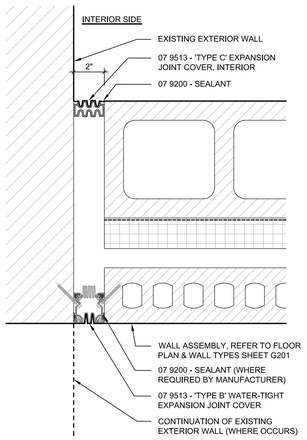
6 A501 CANOPY / PARAPET DETAIL

1" = 1'-0"



7 A501 FOUNDATION WALL DETAIL

1" = 1'-0"



8 A501 WALL EXPANSION JOINT DETAIL

3" = 1'-0"

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SHOP & WRESTLING ADDITIONS
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STATE OF UTAH
CHRISTOPHER M. LUND
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LICENSED ARCHITECT
12-09-2024

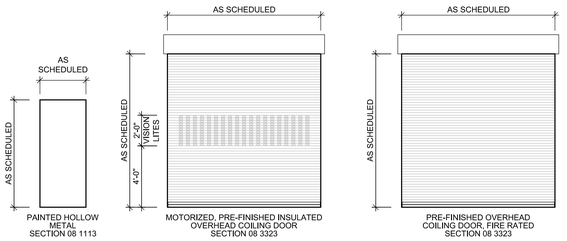
PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

BUILDING DETAILS

A501

E
D
C
B
A

6 5 4 3 2 1



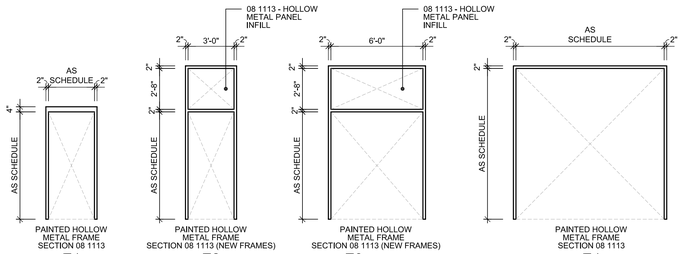
PAINTED HOLLOW METAL SECTION 08 1113
M1

MOTORIZED, PRE-FINISHED INSULATED OVERHEAD COILING DOOR SECTION 08 3323
OH1

PRE-FINISHED OVERHEAD COILING DOOR, FIRE RATED SECTION 08 3323
OH2

DOOR TYPES

1/4" = 1'-0"



PAINTED HOLLOW METAL FRAME SECTION 08 1113
F1

PAINTED HOLLOW METAL FRAME SECTION 08 1113 (NEW FRAMES)
F2

PAINTED HOLLOW METAL FRAME SECTION 08 1113 (NEW FRAMES)
F3

PAINTED HOLLOW METAL FRAME SECTION 08 1113
F4

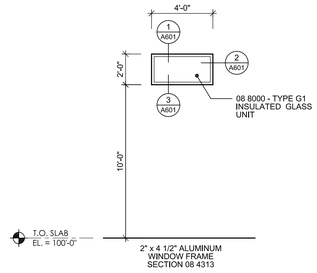
FRAME TYPES

1/4" = 1'-0"

OPENING SCHEDULE

NO.	ROOM	DOOR			FRAME		DETAILS		HARDWARE SET	NOTES	NO.
		SNGL / PAIR	TYPE	WIDTH X HEIGHT	TYPE	PROFILE	HEAD	JAMB			
101A	FIRE RISER ROOM	S	M1	3'-0" X 7'-0"	F1	SEE DETAILS	8/A601	9/A601	04		101A
102A	METAL SHOP ADDITION	S	M1	3'-0" X 7'-0"	F1	SEE DETAILS	4/A601	5/A601	03		102A
102B	METAL SHOP ADDITION	S	OH1	14'-0" X 10'-0" (OPENING SIZE)	F4	SEE DETAILS	6/A601	7/A601	01		102B
103A	WOOD SHOP ADDITION	S	M1	4'-0" X 7'-0"	F1	SEE DETAILS	4/A601	5/A601	02		103A
103B	WOOD SHOP ADDITION	S	M1	3'-0" X 7'-0"	F1	SEE DETAILS	4/A601	5/A601	03		103B
103C	WOOD SHOP ADDITION	S	OH1	12'-0" X 10'-0" (OPENING SIZE)	F4	SEE DETAILS	6/A601	7/A601	01		103C
104A	DRYING ROOM	P	M1	3'-0" X 7'-0"	F1	SEE DETAILS	10/A601	11/A601	06	45 MINUTE FIRE RATED	104A
E001A	EXISTING METAL SHOP	S	OH2	10'-0" X 10'-0" (OPENING SIZE)	SEE STRUCTURAL		SEE STRUCTURAL		01	2 HOUR FIRE RATED	E001A
E001B	EXISTING METAL SHOP	S	OH2	10'-0" X 10'-0" (OPENING SIZE)	EXISTING [1]		-		01	VERIFY SIZE, 2 HOUR FIRE RATED	E001B
E001C	EXISTING METAL SHOP	S	M1	3'-0" X 7'-0"	F2 [1, 2]	EXISTING	-		05	VERIFY SIZE, 90 MINUTE FIRE RATED	E001C
E001D	EXISTING METAL SHOP	S	OH2	4'-4" X 10'-0" (OPENING SIZE)	F4	SEE DETAILS	14/A601	14/A601	01	VERIFY SIZE, 2 HOUR FIRE RATED	E001D
E002A	EXISTING WOOD SHOP	S	OH2	4'-4" X 10'-0" (OPENING SIZE)	F4	SEE DETAILS	14/A601	14/A601	01	VERIFY SIZE, 2 HOUR FIRE RATED	E002A
E002B	EXISTING WOOD SHOP	S	M1	3'-0" X 7'-0"	F2 [1, 2]	EXISTING	-		05	VERIFY SIZE, 90 MINUTE FIRE RATED	E002B
E002C	EXISTING WOOD SHOP	S	OH2	10'-0" X 10'-0" (OPENING SIZE)	EXISTING [1]		-		01	VERIFY SIZE, 2 HOUR FIRE RATED	E002C
E002D	EXISTING WOOD SHOP	S	OH2	12'-0" X 10'-0" (OPENING SIZE)	SEE STRUCTURAL		SEE STRUCTURAL		01	2 HOUR FIRE RATED	E002D
E003A	EXISTING HALL	P	M1	3'-0" X 7'-0"	F3 [1, 2]	EXISTING	EXISTING	EXISTING	07	VERIFY SIZE, 90 MINUTE FIRE RATED	E003A
E011A	EXISTING GYM	P	M1	3'-0" X 7'-0"	F3 [2]	SEE DETAILS	13/A601	13/A601	08	VERIFY SIZE, 90 MINUTE FIRE RATED	E011A
E011B	EXISTING GYM	P	M1	3'-0" X 7'-0"	F3 [1, 2]	EXISTING	-		07	VERIFY SIZE, 90 MINUTE FIRE RATED	E011B
E012A	EXISTING WRESTLING	NONE	NONE	13'-6" X 10'-0" (OPENING SIZE)	SEE STRUCTURAL		-	12/A601	NONE	WALL OPENING ONLY	E012A

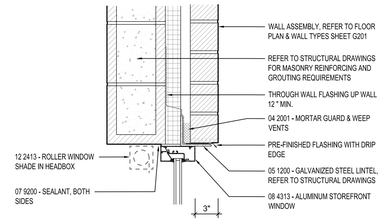
[1] EXISTING FRAME TO BE RESTORED AND PAINTED BY 09 9113 / 09 9213
[2] PROVIDE A 90 MIN. RATED TRANSOM H.M. PANEL REPLACEMENT PAINTED BY 09 9113 / 09 9213



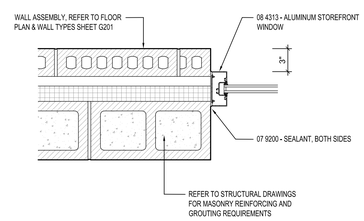
2" x 4 1/2" ALUMINUM WINDOW FRAME SECTION 08 4313

W1 (STOREFRONT WINDOW)

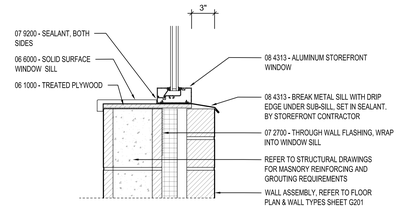
1/4" = 1'-0"



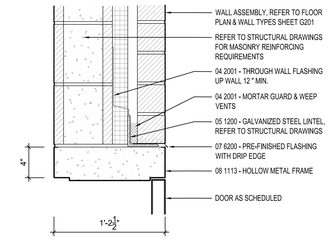
1 A601 — WINDOW HEAD DETAIL
1 1/2" = 1'-0"



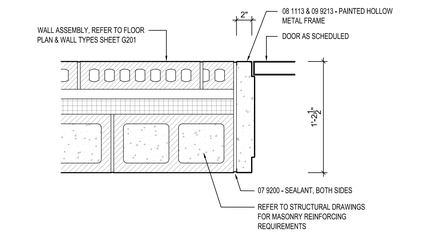
2 A601 — WINDOW JAMB DETAIL
1 1/2" = 1'-0"



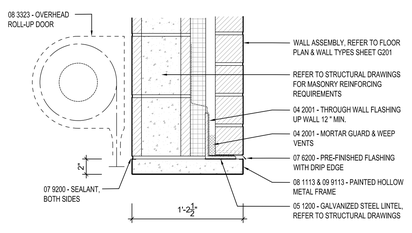
3 A601 — WINDOW SILL DETAIL
1 1/2" = 1'-0"



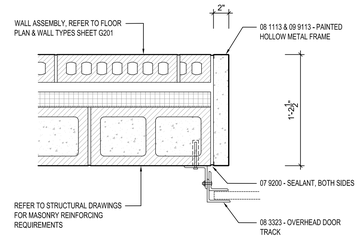
4 A601 — DOOR HEAD DETAIL
1 1/2" = 1'-0"



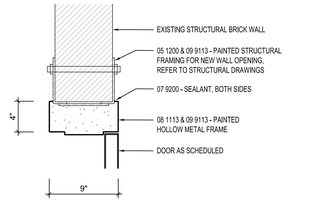
5 A601 — DOOR JAMB DETAIL
1 1/2" = 1'-0"



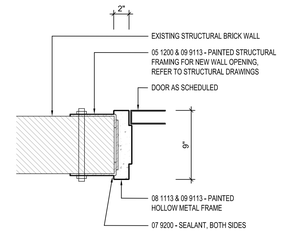
6 A601 — OVERHEAD DOOR HEAD DETAIL
1 1/2" = 1'-0"



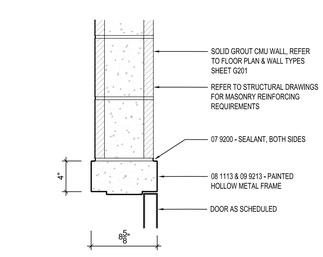
7 A601 — OVERHEAD DOOR JAMB DETAIL
1 1/2" = 1'-0"



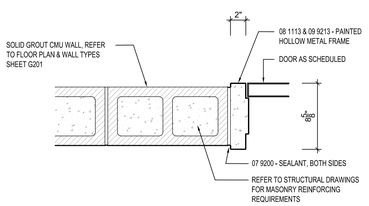
8 A601 — DOOR HEAD DETAIL
1 1/2" = 1'-0"



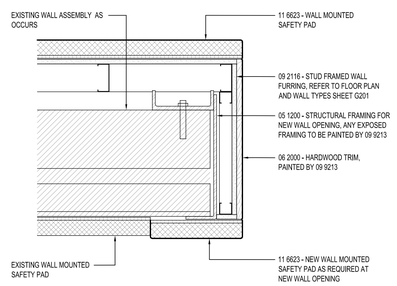
9 A601 — DOOR JAMB DETAIL
1 1/2" = 1'-0"



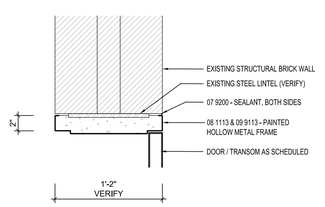
10 A601 — DOOR HEAD DETAIL
1 1/2" = 1'-0"



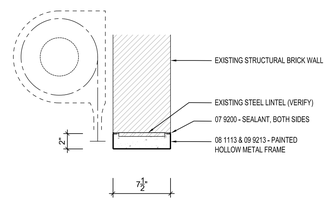
11 A601 — DOOR JAMB DETAIL
1 1/2" = 1'-0"



12 A601 — OPENING JAMB DETAIL
1 1/2" = 1'-0"



13 A601 — DOOR HEAD DETAIL / JAMB SIM.
1 1/2" = 1'-0"



14 A601 — DOOR HEAD DETAIL / JAMB SIM.
1 1/2" = 1'-0"

naylor wentworth lund
architects

MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

DRAWING ISSUE | Bid Documents
ISSUE DATE | December 9, 2024
NWL PROJECT | 0121.032

STATE OF UTAH
BRIAN D. LUND
8363922-7241705
LICENSED ARCHITECT
12-09-2024

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

OPENING SCHEDULE & DETAILS

A601

E
D
C
B
A

6 | 5 | 4 | 3 | 2 | 1

GENERAL STRUCTURAL NOTES

GENERAL

1. The structural notes are intended to complement the project specifications. Specific notes and details in the drawings shall govern over the structural notes and typical details.
2. Typical details and sections shall apply where specific details are not shown.
3. The structural drawings are not all-inclusive and do not contain all dimensions, elevations, openings, mechanical shafts, and penetrations needed to build the structure. The contractor shall coordinate these items with the Architectural, Mechanical and Electrical drawings.
4. Omissions or conflicts between the contract drawings and/or specifications shall be brought to the attention of the architect/engineer before proceeding with any work involved. In case of conflict, follow the most stringent requirement as directed by the architect/engineer at no additional cost to the owner.
5. The contractor shall submit a written request to the architect/engineer before proceeding with any changes, substitutions, or modifications. Any work done by the contractor before receiving written approval will be at the contractor's risk.
6. The contractor shall coordinate with all trades any items that are to be integrated into the structural system such as openings, penetrations, mechanical and electrical equipment, etc. Sizes and locations of mechanical and other equipment that differs from those shown on the contract drawings shall be reported to the architect/engineer.
7. The contractor shall provide adequate shoring and bracing as required for the chosen method of erection. Shoring and bracing shall remain in place until final connections for the permanent members are completed. The building shall not be considered stable until all connections are completed. Walls shall not be considered self-supporting and shall be braced until the roof system is completed.
8. The contractor shall not cut or core any holes in masonry or concrete walls without prior review by the architect/engineer.
9. Site observations by BHB Consulting Engineers' field representative shall not be construed as approval of construction procedures nor special inspection.
10. Detailing and shop drawing production for structural elements will require information (including dimensions) contained in the architectural, structural and/or other consultants' drawings. The structural drawings shall be used in conjunction with the architectural and other consultant's drawings. Some dimensions and elements such as elevations, depressions, slopes, mechanical housekeeping pads, etc. are not shown in the structural drawings. All dimensions shown on structural drawings shall be verified by contractor with architectural, mechanical, and electrical drawings.
11. Contractor shall review shop drawings for compliance with contract documents, and stamp shop drawings with review stamp prior to submission to architect for review. Review of shop drawings by BHB Consulting Engineers is for general compliance only and is not intended for approval. The shop drawing review shall not relieve the contractor from the responsibility of completing the project according to the contract documents. Fabrication shall not begin until shop drawings review process is complete. Shop drawings made from reproductions of the contract drawings will be rejected unless the contractor signs a release agreement prior to the shop drawings being reviewed.
12. Only an authorized representative of BHB Consulting Engineers may make changes to these contract drawings. BHB Consulting Engineers shall not be held responsible or liable for any claims arising directly or indirectly from changes made without written authorization by an authorized representative of BHB Consulting Engineers.

BASIS OF DESIGN

1. Governing Code — International Building Code 2021
   a. Risk Category — III
2. Snow Loads
   a. Ground Snow Load — P_g = 36 psf
   b. Snow Importance Factor — I_s = 1.1
   c. Snow Exposure Coefficient — C_e = 1.0
   d. Thermal Exposure Coefficient — C_t = 1.0
   e. Roof Snow Load — $P_f = 0.7 * C_e * C_t * I_s * P_g$ = 28 psf plus Snow Drift
3. Rain Loads
   a. Rain Intensity — i = 1.5 in/hr
4. Seismic Loads
   a. Seismic Importance Factor, I_e — 1.25
   b. Seismic Design Category — D
   c. Site Specific Ground Motion Hazard Analysis — Not Required per section 11.4.8 of ASCE 7
   d. Mapped Spectral Acceleration — S_s = 0.635g; S_1 = 0.199g
   e. Soil Site Class — D
   f. Soil Site Coefficients — F_a = 1.29; F_v = 2.20
   g. 5% Damped Design Spectral Response Acceleration — $S_{DS} = 2/3 * F_a * S_S$ = 0.547g; $S_{D1} = 2/3 * F_v * S_1$ = 0.292g
   h. Seismic-Force-Resisting System — Special Masonry Shear Walls
   i. Response Modification Coefficient — R = 5.0
   j. System Over-strength Factor — Ω_0 = 2.5
   k. Deflection Amplification Factor — C_d = 3.5
   l. Redundancy Factors — ρ_x = 1.3; ρ_y = 1.3
   m. Fundamental Building Period — T = 0.160 seconds
   n. Seismic Response Coefficient — $Cs = S_{DS} * I_e / R$
   o. W — Dead Loads of Structure
   p. Base Shear — $Vx = C_S * W = 0.137 * W$; $Vy = C_S * W = 0.137 * W$
   q. Analysis Procedure — Equivalent Lateral Force (Static)
5. Wind Loads
   a. Basic Wind Velocity (3 Second Gust) — 108 mph
   b. Exposure Type — C
   c. Internal Pressure Coefficient, GCpi — +/-0.18
   d. Topographic Factor, Kzt — 1.0
   e. Ground Elevation Factor, Ke — 0.82
   f. Components and Cladding Wind Force Table (psf, Strength Design)

Location		Tributary Area (square feet) 10	20	50	100	500
Walls	Zone 5: Within 4.5 feet of building corners	25.4	23.7	21.5	19.8	15.9
	Zone 4: All other areas	20.6	19.8	18.7	17.8	15.9
Roof	Zone 2: Within 4.5 feet of building edges	31.4	30.8	30.1	29.6	29.6
	Zone 3: Within 4.5 feet of building corners	49.0	43.7	36.7	31.4	31.4
	Zone 1: All other areas	22.5	22.5	22.5	22.5	22.5

EXISTING CONDITIONS

1. Structural connections and the framing systems shown in the structural drawings are based on a limited review of existing structural drawings. The contractor shall verify the existing conditions of exposed framing systems, connections, walls, and other structural elements within the project area. If existing conditions vary from the information in the contract documents, the contractor shall notify the architect/engineer prior to proceeding with the fabrication or construction of any affected elements.
2. Existing framing systems and foundations taking new loads are assumed to be in good condition, unless noted otherwise in the contract documents. The contractor shall immediately notify the architect/engineer of any deficiencies in the existing structure that are observed or revealed during construction (e.g. corrosion of steel members, cracking or crumbling of concrete, checking or splitting of wood members) prior to proceeding with the fabrication or construction of any affected elements.
3. The contractor shall use the foundation systems indicated on the plans for reference only, and shall field verify foundation sizes, locations, and thicknesses during construction. The contractor shall notify the architect/engineer if existing foundations vary from the information in the contract documents prior to proceeding with the fabrication or construction of any affected elements.
4. While performing work adjacent to existing structures, the contractor shall be responsible for adequate shoring and protection of all existing structures, utilities, and services which will be affected by the work in the contract documents.

FOUNDATION

1. Soils Report
   a. Author: — AGEC Applied GeoTech
   b. Dated: — September 17, 2024
   c. Project No: — 1240698
2. Soil Bearing Pressure — 3,500 psf, see Earthwork Section.
3. Frost Protection — 30" minimum to bottom of footing. Contractor shall field verify that the footing elevations and final grades indicated on the plans will provide the minimum frost protection. The contractor shall notify the architect/engineer if there are any locations where the minimum frost protection might not be achieved prior to placing concrete.
4. Lateral Soil Pressure Fluid Equivalent Density:
   a. Active — 50 pcf (retaining walls)
   b. At Rest — 65 pcf (rigid foundation walls)
   c. Passive — 250 pcf
5. Coefficient of Friction — 0.45

EARTHWORK

1. All footings shall bear on suitable natural material or compacted structural fill extending down to suitable natural material.
2. Consult the project specifications and soils report for further earthwork requirements.

CONCRETE

1. Materials, unless noted otherwise:
   a. Normal weight aggregates — ASTM C 33
      i. Combined aggregate gradation for slabs on grade and other designated concrete shall be 8% - 18% for large top size aggregates (1.1/2") or 8% - 22% for smaller top size aggregates (1" or 3/4") retained on each sieve below the top size and above the No. 100. The range for the No. 30 and No.50 sieves shall be 8% - 15% retained in each. To avoid gap gradation the following shall occur:
         1. The percent retained on two adjacent sieves shall not fall below 5%.
         2. The percent retained on three adjacent sieves shall not fall below 8%.
         3. When the percent retained on two adjacent sieves is less than 8%, the total retained on either of these sieves and the adjacent outside sieve shall be at least 13%. See ACI 302 Section 5.4.3.3 for more information.
      ii. Maximum Aggregate Size shall not be larger than:
         1. 3.1/2" or 1/5 the narrowest dimension of the forms
         2. 1/3 the depth of the slab
         3. 3/4 the minimum clear spacing between bars
   b. Reinforcing Steel — ASTM 615 Grade 60 (Fy = 60 ksi) Use Grade 40 (Fy = 40 ksi) for field bent dowels with spacings indicated reduced by 1/3.
   c. Deformed Bar Anchors (DBA) — ASTM A496
   d. Headed Stud Anchors (HSA) — ASTM A108
   e. Anchor Rods — See Structural Steel section
   f. Admixtures:
      i. Air-entraining admixtures shall comply with ASTM C 260 (when used).
      ii. Calcium chloride shall not be added to the concrete mix.
      iii. Water-reducing admixture shall comply with ASTM C 494/C 494M, Type A (when used)
      iv. Retarding admixture shall comply with ASTM C 494/C 494M, Type B (when used).
      v. Water-reducing and retarding admixture shall comply with ASTM C 494/C 494M, Type D (when used).
      vi. High-range, water-reducing admixture shall comply with ASTM C 494/C 494M, Type F (when used).
      vii. High-range, water-reducing and retarding admixture shall comply with ASTM C 494/C 494M Type G (when used).
      viii. Admixture manufacturer shall have ISO 9001 Quality Certification. To ensure compatibility all admixtures shall be from the same manufacturer.
   g. Type I/II cement complying with ASTM C-150 shall be used for all concrete. Cement source shall remain the same for the entire job. Alternatively, blended hydraulic cement complying with ASTM C595, or performance based hydraulic cement manufactured to meet the requirements of ASTM C1157 can be used with GU designation.
   h. The water/cementitious materials ratios shall meet the requirements of Table 19.3.2.1 of ACI 318-19.
   i. Cementitious Materials – Limit percentage, by weight, of cementitious materials other than portland cement as follows:
      i. Fly Ash - ASTM C618, Class F – 35% maximum cementitious content.
      ii. Slag Cement – ASTM C989, Grade 100 or 120 – 50% maximum cementitious content.
   j. Provide air entraining as recommended by Table 19.3.3.1 of ACI 318-19. Concrete that extends above grade and is exposed to freezing and thawing while moist shall be air-entrained. Concrete in unconditioned spaces shall be considered site concrete.
   k. No aluminum conduit or product containing aluminum or any other material injurious to concrete shall be embedded in concrete.
2. Compressive strengths of concrete at 28 days shall meet the following performance requirements (see ACI-318-19; Chapter 19):
   a. Footings & Interior Foundation Walls — Strength 3,000 psi; Classification F0, S0, W0, C0
   b. Exterior Foundation Walls — Strength 3,500 psi; Classification F1, S0, W0, C0
   c. Interior Slabs on Grade — Strength 3,000 psi; Classification F0, S0, W0, C0
   d. All Site Concrete — Strength 5,000 psi; Classification F3, S0, W1, C2
3. Reinforcement for concrete slabs on grade:
   a. 4" thick concrete slab on grade. Reinforce slab with #3 bars at 24" o.c. each way with 1.1/2" max cover below the top surface of the concrete.
4. Only one grade or type of concrete shall be poured on the site at any given time.
5. The contractor shall be responsible for the design, detailing, care, placement and removal of all formwork and shores.
   a. Supporting forms and shoring shall not be removed until structural members have acquired sufficient strength to safely support their own weight and any construction load to which they may be subjected. In no case, however, shall forms and shoring be removed in less than 24 hours after concrete placement.
6. Reinforcement shall have the following concrete cover:

a. Cast-in-place Concrete	Clear Cover
i. Cast against and permanently exposed to earth	3"
ii. Formed concrete exposed to earth or weather:	
#6 thru #18 bars	2"
#5 and smaller bars	1.1/2"
iii. Concrete not exposed to weather or in contact with ground:	
Slabs, Walls and their piers, Joists: #11 bars and smaller	3/4"
Beams, Columns: Primary Reinf., Ties, Stirrups, Spirals	1.1/2"

7. Detailing:
   a. Lap splice lengths shall be detailed to comply with the "Concrete Reinforcing Bar Lap Splice Schedule" in drawings. Splices may be made with mechanical splices capable of 125% tension capacity of the bar being spliced. Mechanical splices shall be the positive connecting type coupler and shall meet all International Building Code requirements and shall have a current ICC-ES report or IAPMO Certification. Use "Lenton" Standard Couplers (ICC ER-3967), "Bar-Lock" (ICC ESR-2495) or equal with internal protector. If mechanical splices are used, splices or couplers on adjacent bars shall be staggered a minimum of 24" apart along the longitudinal axis of the reinforcing bars.
   b. At joints, provide reinforcing dowels to match the member reinforcing, unless noted otherwise.
   c. At all discontinuous control or construction slab on grade joints, provide 2 - #4 x 48".
   d. Corner Bars: Provide corner bars at intersecting wall corners using the same bar size and spacing as the horizontal wall reinforcing. Corner bars shall lap the horizontal reinforcing with the required lap splice length. See "Typical Corner Wall Reinforcing at Concrete Walls" detail in drawings.
   e. All vertical reinforcing shall be doweled to footings, or to the structure below with the same size and spacing as the vertical reinforcing for the element above. Dowels extending into footings shall terminate with a 90-degree standard hook and shall extend to within 4" of the bottom of the footing. Footing dowels (#8 bars and smaller) with hooks need not extend more than 20" into footings.
   f. Horizontal wall reinforcing shall be continuous through construction and control joints.
8. Construction Joints, Control (Contraction) Joints:
   a. Construction joints in all horizontal and vertical construction joints including between top of footing and foundation walls shall be intentionally roughened to a full amplitude of approximately 1/4". The laitance on the concrete (thin, flaky layer of hardened, weakened hydrated cement) shall be mechanically removed from the surface after the concrete has achieved final set. Construction joints in slabs on grade shall not exceed a distance of 125'-0" o.c. in any direction.
   b. Control joints shall be installed in slabs on grade so the length to width ratio of the slab is no more than 1.25:1. Control joints shall be completed as soon as final set is achieved and it is okay to operate the cutter on the slab. Final set is typically achieved within the first 4 to 12 hours after the slab has been finished in an area (depending on weather conditions and concrete hydration rate; 4 hours in hot weather to 12 hours in cold weather). For early entry saw cutting, joints should be cut within the first 1 to 4 hours (depending on weather conditions and concrete hydration rate; 1 hour for hot weather and 4 hours for cold weather). Where saw cut joints cannot be cut along the entire projected length of the joint, a 90-degree hand grinder or other tool shall be used to complete the joint. Control joints may be installed by:
      i. Saw cut a depth of 1/4 the thickness of the slab (1.1/4" ± for early entry saws) minimum.
      ii. Tooled joints a depth of 1/4 the thickness of the slab
   c. For interior concrete slabs-on-grade that are to receive **no** floor covering, install construction or control joints in slabs on grade at a spacing not to exceed 24 times the slab thickness in any direction, unless noted otherwise. For interior concrete slabs-on-grade that are to receive floor coverings the contractor has the option to increase the control joint spacing to 36 times the slab thickness in any direction.
9. Construction
   a. Use chairs or other support devices recommended by the CRSI to support and tie reinforcement bars prior to placing concrete. Reinforcing steel for slabs on grade shall be adequately supported. Support reinforcing steel of slabs on grade with precast concrete units. Lifting the reinforcing off the grade during placement of concrete is not permitted.
   b. Concrete to be mechanically consolidated during placement per ACI standards.
   c. Contractor shall coordinate placement of all openings, curbs, dowels, sleeves, conduits, bolts, inserts and other embedded items prior to concrete placement.
   d. All embeds, anchors and dowels shall be securely tied to formwork or to adjacent reinforcing prior to the placement of concrete.
   e. No pipes, ducts, sleeves, etc shall be placed in structural concrete unless specifically detailed or approved by the structural engineer. Penetrations through walls when approved shall be built into the wall prior to concrete placement. Penetrations will not be allowed in footings or grade beams unless detailed. Piping shall be routed around footings and grade beams and unless detailed. Footings shall be stepped to avoid piping.
   f. Reinforcing Bars shall not be welded unless specifically shown on drawings. In such cases, use only AWS standards. Do not substitute reinforcing bars for DBAs or HSAs.

POST-INSTALLED ANCHORS

1. General Post-Installed Anchor Notes
   a. Do not install adhesive anchors in concrete if less than 21 days old; do not install mechanical anchors, screw anchor or powder actuated anchors in concrete less than 7 days old. Contractor must obtain written approval from the engineer to install prior to these time periods. Do not apply full load to anchors until concrete has reached 28-day compression strength.
   b. Anchors or adhesives specified in details shall be provided; alternative anchors or adhesives may be used if the contractor provides calculations demonstrating that the alternative can achieve the performance values of the specified product. These calculations, along with an ICC-ES ESR or IAPMO-UES ER approval for use in cracked concrete and compliant with the specified codes herein, must be submitted to the structural engineer prior to use.
   c. Follow all the manufacturer's recommendations and certification testing reports for anchor installation. See specific anchors below for more information.
   d. No anchor shall be installed within 1.5 anchor rod diameters of an abandoned hole that has been filled with non-shrink grout; increase distance to 3 anchor rod diameters when the abandoned hole has not been filled.
2. Adhesive Anchors
   a. For anchors in concrete, the adhesives shall be divided into two groups: Standard Adhesives and High Strength Adhesives. Standard adhesives can be used in general applications when details reference the "Standard Adhesive Embedment Schedule" in drawings. High Strength adhesive groups will be specified for the particular application in the drawings and details. When a High Strength Adhesive is specified, the contractor has the option to use any of the adhesives in the High Strength group. When a Standard Adhesive is specified, the contractor has the option to use any of the adhesives in either group. See below for the acceptable adhesives in each group.
      i. Standard Adhesive Group for anchors in concrete includes the following adhesives:
         1. SET-XP (ICC-ES ESR-2508) by Simpson Strong-Tie
         2. Pure 50+ (ICC-ES ESR-3576) by Dewalt
         3. AC100+ Gold (ICC-ES ESR-2582) by Dewalt
         4. HIT-RE 100 (ICC-ES ESR-3829) by Hilti, Inc.
      ii. High Strength Adhesive Group for anchors in concrete includes the following adhesives:
         1. SET-3G (ICC-ES ESR-4057) by Simpson Strong-Tie
         2. Pure 110+ (ICC-ES ESR-3298) by Dewalt
         3. AC200+ (ICC-ES ESR-4027) by Dewalt
         4. HIT-RE 500-V3 (ICC-ES ESR-3814) by Hilti Inc.
         5. HIT-HY 200 (ICC-ES ESR-3187) by Hilti Inc.
   b. For anchors in grouted masonry, the adhesive shall be HIT-HY-200-A (ICC-ES ESR-3963) by Hilti Inc., HIT-HY-200-R (ICC-ES ESR-3963) by Hilti Inc., SET-XP (IAPMO UES ER-265) by Simpson Strong-Tie Inc. or AT-XP (IAPMO UES ER-281) by Simpson Strong-Tie Inc., AC100+ (ICC-ES ESR-3200) by Dewalt or CIA GEL (ICC-ES ESR-1702) by USP.
   c. For anchors in ungrouted masonry, the adhesive shall be HIT-HY 270 (ICC-ES ESR-4143) by Hilti Inc., or SET (ICC-ES ESR-1772) by Simpson Strong-Tie Inc. or AC100+ (ICC-ES ESR-3200) by Dewalt. Plastic mesh or stainless steel screen tubes shall be used.
   d. Adhesive shall be within the manufacturer's recommended life time and prior to expiration date. Do not use adhesive that has not been stored per manufacturer's recommendations or may have experienced freeze thaw cycles or extreme heat.
   e. Do not install adhesive anchor in wet or damp hole unless product is approved for such conditions without strength reduction. Do not install adhesive anchors if concrete temperature is below 50-degree F unless adhesive is approved for lower temperature without strength reduction. Refer to manufacturer's published installation instructions.
   f. Follow all the manufacturer's recommendations and certification testing reports regarding hole cleaning prior to adhesive installation. All holes shall be drilled with ANSI standard bits designed for concrete. Diamond core drilled holes are not allowed unless indicated in specific details or approved by the structural engineer prior to use.
3. Mechanical Anchors
   a. For concrete, the mechanical anchor shall be Kwik Bolt TZ2 (ICC-ES ESR-4266) by Hilti Inc., Strong-Bolt 2 (ICC-ES ESR-3037) by Simpson Strong-Tie Inc. or Power-Stud+ SD2 (ICC-ES ESR-2502) by Dewalt.
   b. For grouted masonry, the mechanical anchor shall be Kwik Bolt 3 (ICC-ES ESR-1385) by Hilti Inc., Wedge-All (ICC-ES ESR-1396) by Simpson Strong-Tie or Strong-Bolt 2 (IAPMO-UES ER-240) by Simpson Strong-Tie or Power-Stud+ SD1 (ICC-ES ESR-2966) by Dewalt.
4. Screw Anchors
   a. For concrete and grouted masonry, the screw anchors shall be Titen HD (ICC-ES ESR-2713 for concrete only and ICC-ES ESR-1056 for grouted masonry) by Simpson Strong-Tie, or Screw-Bolt + (ICC-ER ESR-3889 for concrete only) by DeWalt, Screw-Bolt+ (ICC-ES ESR-4042 for grouted masonry) by Dewalt, or Kwik HUS-EZ (ICC-ES ESR-3027 for concrete only and ICC-ES ESR-3056 for grouted masonry) by Hilti Inc.

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PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
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GENERAL STRUCTURAL NOTES

S001

GENERAL STRUCTURAL NOTES

MASONRY

1. Materials, unless noted otherwise:
   a. Concrete Masonry Units (CMU) ASTM C90: Light weight (minimum net area unit strength of 2,000 psi). f'_m = 2,000 psi.
   b. Mortar Cement ASTM C270: Use Type "S"
   c. Masonry Grout ASTM C476: grout shall attain a minimum compressive strength of 2,500 psi at 28 days.
   d. Reinforcing Steel — ASTM 615 Grade 60 (Fy = 60 ksi)
   e. Deformed Bar Anchors (DBA) — ASTM A496
   f. Headed Stud Anchors (HSA) — ASTM A108
   g. Anchor Rods — ASTM F1554, Grade 36 with ASTM A563 heavy hex nuts and ASTM F436 hardened washers

2. Reinforcement shall have the following cover:
   a. Typical reinforcement shall have a minimum coverage of one bar diameter over all the bars, but not less than 3/4". When masonry is exposed to soil, minimum coverage shall be 1.1/2".

3. Detailing Requirement
   a. Lap all masonry reinforcing per "Masonry Reinforcing Lap Splice Schedule" in drawings.
   b. All vertical reinforcing shall be doweled to the foundation wall, footing (structure below) and to the structure below with the same size dowel, spacing (and in the same core) as the vertical wall reinforcing above.
   c. Corner Bars: Provide corner bars at intersecting wall corners using the same bar size and spacing as the horizontal wall reinforcing. Corner bars shall lap the horizontal reinforcing with the required lap splice length. See "Typical Corner Wall Reinforcing" detail in drawings.
   d. Horizontal wall reinforcing shall be continuous through joining concrete walls, masonry walls, columns, and pilasters. Provide a key between the wall and the column or pilaster. Horizontal wall reinforcing shall be placed inside the column vertical reinforcing.
   e. Horizontal wall reinforcing shall terminate with a hook at edge of openings and at each side of control joints except at floor and roof levels, lintels, beams and at top of parapets. See details in drawings.
   f. All masonry column ties shall terminate with 135-degree hooks plus a 6-bar diameter extension (4" minimum).

4. Construction Requirements:
   a. Masonry coursing shall be coordinated with the architectural drawings.
   b. All units shall be laid with full mortar beds on the face shells. All head joints shall be filled solidly with mortar for a distance in from the face of the units not less than the thickness of the longitudinal face shells. Cells which are to be grouted shall have full head joints.
   c. Masonry walls, beams and columns shall be constructed with running bond, unless noted otherwise.
   d. All cells containing reinforcement, embeds, anchor bolts, etc. shall be filled solid with grout. Grout shall be placed by mechanical vibration during placing and re-vibrated after excess moisture has been absorbed but before workability is lost. Rodding of grout is not allowed.
   e. Where walls are not grouted solid, each grout pour shall terminate flush with the top of the uppermost unit except at cells with vertical reinforcing where the grout shall be 1.1/2" below top of unit to provide construction key.
   f. Grout pours shall be limited to 5'-4" unless written approval is obtained from the engineer of record.
   g. All walls below grade shall be grouted solid.
   h. Vertical cells to be filled with grout shall have vertical alignment sufficient to maintain a clear, unobstructed vertical cell measuring not less than 2" by 3". All steel reinforcement shall be secured against displacement prior to grouting by wire positioners or other suitable devices at intervals not exceeding 200 bar diameters or 10 ft maximum, or at bar splice locations. Vertical reinforcing shall be located at the center of the wall unless noted otherwise
   i. Reinforcing Bars shall not be welded unless specifically shown on drawings. In such cases, use only AWS standards. Do not substitute reinforcing bars for DBAs or HSAs.
   j. Control Joints: Spacing shall not exceed 30'-0". Control joints shall not be placed any closer than 4'-0" to edge of openings. Control joints shall not be placed in the middle of masonry piers. See architectural drawings for locations.
   k. Grout all beam and joist pockets solid after installation of beams and joists.
   l. Embed channels and plates shall be placed so as to create a flush surface with the face of the wall.
   m. Anchor bolts and headed stud anchors shall be set in a grouted cell. Anchor bolts and headed stud anchors shall have 1" grout surrounding the shank at its penetration. Grout shall be flush with the face or top of the masonry.
   n. Pipes, conduits, and ducts shall not be placed in grouted cells without written approval from engineer.
   o. No aluminum conduit or product containing aluminum or any other material injurious to the masonry or grout shall be embedded in the masonry.
   p. Contractor shall coordinate placement of all openings, dowels, sleeves conduits, bolts, inserts and other embedded items prior to placing grout.

MASONRY VENEER

1. Masonry veneer shall be attached to masonry walls with an approved veneer anchor system spaced at 16" o.c vertically and horizontally. Where high performance continuous insulation is used on the project, provide thermally broken systems. Masonry veneer shall attach to veneer anchor system with continuous galvanized 9 gauge wire and seismic clip at all locations. See below for acceptable veneer anchors.
   a. Hohmann & Barnard HB-213S veneer anchoring system
   b. Hohmann & Barnard DW10HS veneer anchoring system
   c. Hohmann & Barnard X-SEAL veneer anchoring system
   d. Wire Bond Sure Tie veneer anchoring system
   e. Wire Bond 2407 Adjustable veneer anchoring system
   f. Heckmann Original Pos-I-Tie Brick veneer anchoring system

2. Other methods of attachment may be used after written acceptance by the architect and structural engineer.

3. Steel Lintels: Provide steel angle lintels at all openings through the masonry veneer. See Structural Steel section for requirements.

STRUCTURAL STEEL

1. Material:
   a. Wide Flange Sections — ASTM A992 (50 ksi)
   b. All Thread Rods, Other Shapes & Plates — ASTM A36 (36 ksi)
   c. Square or Rectangular HSS — ASTM A500 (50 ksi) Grade C or ASTM A1085 (50ksi)
   d. Deformed Bar Anchors (DBA) — ASTM A496
   e. Headed Stud Anchors (HSA) — ASTM A108
   f. Non-Metallic Shrinkage Resistant Grout — ASTM C 1107
   g. Anchor Rods — ASTM F1554, Grade 36, with ASTM A563 heavy hex nuts and ASTM F436 hardened washers Grade A
   h. Bolted Connections: — ASTM F3125 Grade A325 with ASTM A563 nuts and ASTM F436 hardened washers.

2. Fabrication and construction shall comply with the latest edition of the following Codes and Standards:
   a. American Institute of Steel Construction (AISC), "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings," with "Commentary".
   b. AISC "Code of Standard Practice" excluding the following: Section 3.2, Section 4.4, Section 4.4.1,
   c. AISC "Specification for Structural Joints Using High-Strength Bolts"
   d. American Welding Society (AWS), Structural Welding Code (specific items do not apply when they conflict with the AISC requirements).
   e. AISC "Seismic Provision for Structural Steel Buildings"- ANSI/AISC 341
   f. All exterior steel elements, including anchor rods and bolts shall be hot dip galvanized in accordance with ASTM A123 and A153 where applicable.

3. Welding
   a. Field weld flags that have been put in these documents are for suggestion only. The contractor has the option to substitute shop welding for field welding or vice versa. The steel fabrication and steel erection drawings must clearly distinguish between shop welds and field welds prior to any work being performed.
   b. Steel fabricators shall indicate the shop welds that are excluded from their bids. Steel erectors shall indicate the field welds that are excluded from their bids. It is the responsibility of the contractor to coordinate shop welding and field welding with the appropriate subcontractors.
   c. All welding and cutting shall be performed by AWS certified welders.
   d. Use E-70 XX (58 ksi yield, 70 ksi tensile) unless noted otherwise. E60 XX may be used for welding steel decks.
   e. All intersecting steel shapes which are not bolted shall be connected by a fillet weld all around, unless noted otherwise. Where fillet weld sizes are not shown they shall be 1/16" less than the thinnest of the connected parts for thicknesses 1/4" and larger. Fillet welds on plates less than 1/4" shall be of the same size as the thinnest of the connected part.
   f. Reinforcing Bars: Do not weld rebar except as specifically detailed in the drawings. In such cases, use only AWS standards. Do not substitute reinforcing bars for deformed bar anchors (DBAs), machine bolts, or headed stud anchors (HSAs).
   g. Do not weld anchor bolts, including "tack" welds.
   h. Headed Stud Anchors (HSAs) welding and deformed bar anchor welding shall conform to the manufacturer's specifications.

4. Bolted Connections:
   a. Use bolts for steel to steel connections, as noted herein or as noted on the drawings. Bolts shall be used in connections for simple span framing and beam (or girder) to bearing plate connections. Tighten bolts to a snug tight condition. At connections of beams marked as 'SRE' on the drawings, bolts shall be pretensioned per AISC 360 and tightened by the turn of the nut, calibrated wrench, or direct tension indicator method. Alternate fastener designs as defined by AISC shall be submitted to the engineer for review and acceptability prior to installation. See bolted connections schedule in drawings.
   b. Use hardened washers beneath the turned element of all bolts or nuts. Use hardened beveled washers, to compensate for the lack of parallelism, where the outer face of the bolted parts has a slope greater than one in twenty with respect to the plane normal to the bolt axis. At oversized holes hardened washers or plates shall conform with ASTM F-436 and shall completely cover the slot after installation.
   c. Where a steel to steel beam connection is not shown, provide a standard AISC framed connection for one half the total uniform load capacity of the beam for the span and steel specified.
   d. Bolts, nuts and washers shall not be reused.

5. Steel Lintels: Provide steel angle lintels at all openings through masonry veneer. Provide 1" of bearing for each foot of width of opening with a minimum bearing of 6". See the "Veneer Lintel Schedule" in drawings for size. Steel lintel angles shall be galvanized at all exterior conditions where exposed to weather.

6. Provide baseplate anchor rod connections to concrete elements that correlate with ACI 117. Circular or square washers are acceptable:

ANCHOR ROD DIAMETER	HOLE DIAMETER	WASHER SIZE	WASHER THICKNESS (MIN)
3/4"	1.5/16"	2"	1/4"
7/8"	1.9/16"	2.1/2"	5/16"
1"	1.7/8"	3"	3/8"
1.1/4"	2.1/8"	3.1/2"	1/2"
1.1/2"	2.3/8"	4"	1/2"
1.3/4"	2.7/8"	4.1/2"	5/8"
2"	3.1/4"	5"	3/4"
2.1/2"	3.3/4"	5.1/2"	7/8"

7. Provide full-depth web-stiffener plates where indicated in the details including at each side of all beams at all bearing points. Stiffener plate thickness shall be the greater of the following:
   a. 1/4"
   b. 1/2 the thickness of the beam flange
   c. 1/16 the width of the stiffener (half the beam flange width).
   d. 1/32 the depth of the beam
   Stiffener plates shall be welded on one side with fillet welds all around. The size of the fillet weld shall be 1/2 the stiffener plate thickness or 3/16" min.

OPEN WEB STEEL JOISTS

1. All open web steel joist shall be fabricated and erected in accordance with the latest edition of Steel Joist Institute (SJI), "Standard Specifications and Code of Standard Practice".

2. At the completion of fabrication, the steel joist manufacturer shall submit to the building official a certificate of compliance in accordance with IBC Section 1704.2.5 stating if the work was performed in accordance with approved construction documents and with SJI standard specifications.

3. Joists with slopes greater than 1/2" per foot shall be designed to meet or exceed the load capacities, listed in the SJI load tables, of the joist sizes indicated on the framing plan, as if the joists or girders were installed level.

4. Provide special bearing ends to accommodate slopes from sloped joists, or sloped bearing conditions.

5. Modifications to any joist, including holes through the top and bottom chords, without the written consent and direction from the manufacturer are not allowed.

6. Joist loads called out in the drawings are allowable stress design (ASD) loads.

7. Open web joist deflection shall be limited to L/240 for total loads and L/360 for roof live loads (or snow loads), unless noted otherwise on plans. The SJI required camber can be subtracted when considering the total load deflection requirements.

8. Camber joist per typical SJI requirements, unless noted otherwise on plans.

9. Joist bridging shown on plans is for schematic purposes only; actual size, quantity and location of bridging shall be determined by the joist supplier per SJI. Coordinate bridging locations to avoid interference with mechanical, electrical and fire protection equipment and skylights.

METAL DECKING

1. Steel deck shall comply with the latest requirements of the Steel Deck Institute.

2. All deck shall be 3-span continuous minimum. In areas where 3-span conditions are not possible, the contractor shall provide heavier gage deck as required to provide the equivalent loading of the deck under a three-span condition.

3. Steel roof deck shall not be used to support loads from plumbing, HVAC ducts, light fixtures, architectural elements or equipment of any kind, unless specifically noted. Light weight suspended acoustical ceilings with a total weight of 50 lbs per attachment may be hung from roof deck. The hangers shall be staggered to distribute the loads over multiple deck flutes.

4. All deck supporting members shall be dry before welding.

5. Clinch seams before welding interlocking seams.

Steel Roof Deck

a. Steel roof deck shall be 1.1/2" deep X 20 gage (or 18 gage as indicated on plans) minimum painted, type "B" wide rib deck with interlocking side seams with the following properties:

	20 Gage	18 Gage	16 Gage
Minimum S (in^3/ft) =	0.237	0.331	0.410
Minimum I (in^4/ft) =	0.231	0.306	0.381

b. Minimum allowable deck diaphragm shear values shall be 400 lbs/ft for a 7'-0" deck span.
c. Fasten deck to supporting framing members with powder-driven fasteners. Powder-driven fasteners shall be as indicated below based on the steel framing thicknesses:

Steel Framing Thickness	Fastener	ICC-ESR or IAPMO report number
0.125" to 0.375"	Hilti X-HSN-24	ICC-ESR 2776
0.25" and up	Hilti X-ENP-19 L15	ICC-ESR 2776
0.113" to 0.155"	Pneutek SDK61075	ICC-ESR 2941
0.155" to 0.250"	Pneutek SDK63075	ICC-ESR 2941
0.188" to 0.312"	Pneutek K64062	ICC-ESR 2941
0.281" and up	Pneutek K66062	ICC-ESR 2941

d. For type "B" metal deck, fasteners shall be placed based on a 36/7/4 attachment pattern (Closer spacings may be used to develop minimum shear requirements):
   i. Supports perpendicular to deck corrugations:
      1. At lap joints between adjacent deck sheets: 6" o.c.
      2. At intermediate supports away from lap joints: 12" o.c.
      3. At all steel elements labeled 'SRE' on plan: 6"o.c.
   ii. Supports parallel to deck corrugations: 6" o.c.
e. In lieu of mechanical fasteners, contractor may weld deck to supporting framing members with 3/4" diameter puddle welds at the same spacing for deck pins as indicated above.
f. Attach metal deck seams with one of the following:
   i. 1.1/2" long top seam welds at 24 o.c. maximum
   ii. Verco PunchLok II System at 24 o.c. maximum
   iii. ASC Delta Grip System at 36 o.c maximum
   iv. CSI Inter-Knek System at 36 o.c maximum
   Closer spacing may be used to develop minimum shear requirements. A standard button punch may **not** be used in place of Verco PunchLok, DeltaGrip or CSI Inter-Knek
g. Provide a 2" minimum bearing and a 4" lap at the splice points.

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PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

GENERAL STRUCTURAL NOTES

S002

REQUIREMENTS FOR SPECIAL INSPECTION, MATERIAL TESTING, AND STRUCTURAL OBSERVATION

STATEMENT OF SPECIAL INSPECTION AND QUALITY ASSURANCE

Special inspection and quality assurance (including structural testing), as required by section 1704 and 1705 of the 2021 IBC, shall be provided by an independent agency employed by the owner for the items in this section and other areas of the approved construction documents, unless waived by the building official.	
The names and credentials of the Special Inspectors to be used shall be submitted to the Building Official for approval.	
Responsibilities of the Special Inspector	
	Special Inspector shall review all work listed in the special inspection schedules herein for conformance with the approved construction plans, specifications and 2021 IBC.
	Testing and inspection reports shall be sent on a weekly basis to the architect, engineer, building official and contractor for review. All items not in compliance shall be brought to the immediate attention of the contractor for correction, and if uncorrected, to the architect, engineer and building official.
	Once corrections have been made by the contractor, the special inspector shall submit a final signed report to the building official stating that the work requiring special inspection was, to the best of the special inspector's knowledge, in conformance with the approved construction plans, specifications and 2021 IBC.
Responsibilities of the Contractor	
	The contractor shall submit a written statement of responsibility to the owner and the building official prior to the commencement of work in accordance with 2021 IBC section 1704.4. This statement shall indicate that the contractor will coordinate and cooperate with the required inspections contained herein.
	The contractor shall notify the designated special inspector that work is ready for inspection at least 24 hours before said inspection is required.
	All work requiring special inspection shall remain open and accessible until it has been observed by the special inspector and deemed acceptable through inspection report.
	Special inspection during fabrication is not required if the fabricator is registered and approved by the authority having jurisdiction to perform such work without special inspection. Upon completion of fabrication, the approved fabricator shall submit a certificate of compliance for submittal to the building official.
	The contractor shall be responsible for their own quality control including materials, fabrication, erection, etc.

SOILS CONSTRUCTION INSPECTIONS

Soils (2021 IBC Section 1705.6, and Table 1705.6)

ITEM FOR VERIFICATION & INSPECTION	INSPECTION FREQUENCY		COMMENTS
	CONTINUOUS	PERIODIC	
Site Preparation	-	X	Verify excavations are extended to proper depth and have reached proper materials. Verify that the site has been prepared in accordance with the soils report prior to placement of prepared fill.
Fill Material	X	-	Verify, during fill placement, that the material being used and procedures in accordance with the provisions of the approved geotechnical report. Verify densities and lift thicknesses during placement and compaction of the fill.
Continuous Footing Backfill: at least one test for each 40 linear feet or less of wall length, but no fewer than 2 tests.	-	X	At each compacted backfill layer.
Spot Footing Backfill: Minimum of one compaction test for each lift for each spot footing.	-	X	At each compacted backfill layer.
See specifications for further requirements.	-	-	

CONCRETE CONSTRUCTION INSPECTIONS

Concrete (2021 IBC Section 1705.3, Table 1705.3, and Section 1904) The following concrete elements require special inspection:

All concrete footings, All concrete walls, including foundation walls.

ITEM FOR VERIFICATION & INSPECTION	INSPECTION FREQUENCY		COMMENTS
	CONTINUOUS	PERIODIC	
Protection of concrete during cold and hot weather	-	X	Verify maintenance of specified curing temperature and techniques
Verify materials used including use of the required mix design	-	X	Verify Use of required design mix. Verify mix design meets strength and exposure requirements listed on General Structural Notes
Formwork	-	X	Verify shape, location and member dimensions
Testing of concrete prior to concrete placement	-	X	Fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.
Bolts installed in concrete	X	-	Inspection of anchors or embeds cast in concrete is required when allowable loads have been increased or where strength design is used. Prior to and during concrete placement.
Embeds and Inserts installed in concrete	X	-	Prior to and during concrete placement.
Concrete reinforcing steel placement	-	X	Verify that reinforcing is of specified type, grade and size; that it is free of oil, dirt and rust; that it is located and spaced properly; that hooks, bends, ties, stirrups and supplemental reinforcement are placed correctly; that lap lengths, stagger and offsets are provided; and that all mechanical connections are installed per the manufacturer's instructions and/or evaluation report.
Concrete placement and samples	X	-	Cylinders, slump, temperature and air-entrainment shall be done for every 150 cubic yards or each day's production if the day's production is less than 150 cubic yards nor less than once for each 5000 sq. ft of surface area for slabs and walls.
Welding of reinforcing steel	-	X	Visually inspect all welds and verify weldability of reinforcing steel based upon carbon equivalent and in accordance with AWS D1.4.
See specifications for further concrete testing requirements.	-	-	

STEEL BOLTED CONSTRUCTION INSPECTIONS

Where special inspections are listed under "Random Basis", special inspection of elements and items shall be performed on a random basis. Operations need not be delayed pending these inspections. Where special inspection items are listed under "Every Element", special inspection shall be performed for each element, joint, or member, as applicable based on the task listed below.

High Strength bolted connections (2021 IBC section 1705.2.1, section 1705.13.1 and section 1705.14.1 and AISC 360-16 Chapter N and AISC 341-16 Chapter J)

ITEM FOR VERIFICATION & INSPECTION	INSPECTION PLAN		COMMENTS
	Every Element	Random Basis	
Inspection Tasks Prior to Bolting			
Manufacturer's certifications available for fastener materials	X	-	
Fasteners	-	X	Marked in accordance with ASTM requirements
Proper fasteners selected for the joint detail	-	X	Including grade, type, bolt length if threads are to be excluded from shear plane.
Proper bolting procedure selected for joint detail	-	X	
Connecting elements	-	X	Including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements
Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used	-	X*	Not required if only snug-tight joints are specified per [Section N5.6(1) of AISC 360-16]) Special Inspector shall document the work has been performed in accordance with the contract documents, either in the shop or field, including noncompliant work and whether that work has been satisfactorily repaired.
Proper storage	-	X	Storage provided for bolts, nuts, washers and other fastener components
Inspection Tasks During Bolting			
Fastener assemblies, of suitable condition	-	X	Verify that fasteners placed in all holes and washers (if required) are positioned as required.
Joint	-	X	Verify that joint brought to the snug-tight condition (min) unless noted otherwise.
Fastener component	-	X	Verify that fastener component not turned by the wrench prevented from rotating
Pretensioned Fasteners	-	X	Verify that pretensioned fasteners are pretensioned in accordance with the RCSC *Specification*, progressing systematically from the most rigid point toward the free edges (Not required if only snug-tight joints are specified per [Section N5.6(1) of AISC 360-16]; Not required for pretensioned joints using turn-of-the-nut method with match-marking, direct-tension-indicators or twist-off type tension control bolt methods)
Inspection Tasks After Bolting			
Document acceptance or rejection of each bolted connection	X*	-	Special Inspector shall document the work has been performed in accordance with the contract documents, either in the shop or field, including noncompliant work and whether that work has been satisfactorily repaired.

*Required for elements designated in these structural drawings as "Seismic Resisting Elements – SRE".

STEEL WELDED CONSTRUCTION INSPECTIONS

Definition of Terms

Where special inspections are listed under "Random Basis", special inspection of elements and items shall be performed on a random basis. Operations need not be delayed pending these inspections. Where special inspection items are listed under "Every Element", special inspection shall be performed for each element, joint, or member, as applicable based on the task listed below.

Structural Welding (2021 IBC section 1705.2.1 and section 1705.13.1 and section 1705.14.1 and AISC 360-16 Chapter N and AISC 341-16 Chapter J)

ITEM FOR VERIFICATION & INSPECTION	INSPECTION PLAN		COMMENTS
	Every Element	Random Basis	
Inspection Tasks Prior to Welding			
Welding procedures specifications and manufacturer certifications for welding consumables shall be available	X	-	Welding procedures shall be submitted to the Engineer of Record for review.
Material identification (type/grade)	-	X	
Welder identification system	-	X	Verify there is a system in place to identify the welder who has welded a joint or member.
Fit-up of groove welds	-	X	Including joint geometry, joint preparation, dimensions, cleanliness, tacking and backing type and fit.
Configuration and finish of access holes	-	X	
Fit-up of fillet welds	-	X	Including alignment, gaps at root, dimensions, cleanliness and tacking.
Check welding equipment	-	X	
Inspection Tasks During Welding			
Use of qualified welders	-	X	
Control and handling of welding consumables	-	X	Including packaging and exposure control
Cracked tack welds	-	X	Verify no welding over cracked tack welds.
Environmental conditions	-	X	Including wind speed within limits and precipitation and temperature
WPS followed	-	X	Including settings on welding equipment, travel speed, selected welding materials, shielding gas type/flow rate, preheat applied, interpass temperature (min./max.) maintained, proper position (F, V, H, OH)
Welding techniques	-	X	Including interpass and final cleaning, each pass within profile limitations, each pass meets quality requirements
Inspection Tasks After Welding			
Welds cleaned	-	X	
Size, length and location of welds	X	-	
Welds meet visual acceptance criteria	X	-	Including crack prohibition, weld/base-metal fusion, crater cross section, weld profiles, weld size, undercut and porosity.
Arc strikes, k-area, weld access holes for flanges greater than 2", backing removed and weld tabs removed (if required), repair activities	X	-	When welding of doubler plates, continuity plates, or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3" of the weld.
Ultrasonic testing (UT) for complete-joint-penetration (CJP) groove welds, partial penetration groove welds when used in column splices, and welds subject to fatigue	X	-	Perform UT on all welds subject to transversely applied tension loading in butt, T- and corner joints, in material 5/16" thick or greater. For materials less than 5/16" thick, ultrasonic testing is not required. A reduction in the rate of UT is allowed per Section N5.5e
Document acceptance or rejection of each welded joint or member	X	-	

OPEN-WEB STEEL JOIST CONSTRUCTION INSPECTIONS

Installation of open-web steel joists (IBC 2021 Section 1705.2.3, and Table 1705.2.3)

ITEM FOR VERIFICATION & INSPECTION	INSPECTION FREQUENCY		COMMENTS
	CONTINUOUS	PERIODIC	
End connections – welding or bolted	-	X	Follow SJI references listed in section 2207
Standard horizontal and diagonal bridging	-	X	Follow SJI references listed in section 2207
Bridging that differs from SJI specifications listed in section 2207.1	-	X	

MISCELLANEOUS STEEL CONSTRUCTION INSPECTIONS

Metal Deck Construction (2021 IBC section 1705.2.2, AWS D1.3, and section 6.1 of SDI QA/QC-2011)

ITEM FOR VERIFICATION & INSPECTION	INSPECTION FREQUENCY		COMMENTS
	CONTINUOUS	PERIODIC	
Material verification of metal deck(s)	-	X	Confirm that identification markings are provided that conform to applicable ASTM standards specified on construction documents
Placement and installation of metal deck	-	X	Confirm that the deck is installed per the approved construction documents, installation drawings, shop drawings and applicable reference standards.
Steel deck welding/fastening	-	X	Visual inspection is required to verify size and spacing of welds/fasteners for deck attachment to the supporting structure. Also verify spacing and size of side-seam attachments. Confirm that welds/fasteners meet acceptance criteria of applicable referenced standards and manufacturer's instructions. Where applicable, welder qualifications should be verified.

MASONRY CONSTRUCTION INSPECTIONS

Prior to Construction (2021 IBC section 1705.4 and TMS 602 Table 3)

ITEM FOR VERIFICATION	COMMENTS
Verification of compliance of submittals	Verify that materials conform to the requirements of the approved submittals. Mix design, test results, material certificates, and construction procedures should be submitted for review.
Verification of f'm	Verify that materials conform to the requirements of the approved construction documents.
Verification of material certificates, mix designs, and test results	Mortar mix designs shall conform to ASTM C 270 while grout shall conform to ASTM C 476. Material certificates shall be provided for the following: reinforcement; anchors, ties, fasteners, and metal accessories; masonry units; mortar and grout materials. Construction procedures for cold-weather or hot-weather construction shall be reviewed.

As masonry construction begins (2021 IBC section 1705.4 and TMS 602 Table 4)

ITEM FOR VERIFICATION & INSPECTION	INSPECTION FREQUENCY		COMMENTS
	CONTINUOUS	PERIODIC	
Proportions of site-prepared mortar, construction of mortar	-	X	
Grade, type and size of reinforcement, connector, and anchors	-	X	
Sample wall panel construction	-	X	Use materials and procedures accepted for the Work to create a minimum sample panel size of 4 ft by 4 ft. The acceptable standard for the Work is established by the accepted panel and retained at the project site until Work has been accepted.

Prior to grouting and during construction - Structural Masonry shall have Level 2 special inspection (2021 IBC section 1705.4 and TMS 602 Table 4)

ITEM FOR VERIFICATION & INSPECTION	INSPECTION FREQUENCY		COMMENTS
	CONTINUOUS	PERIODIC	
Grout Space	-	X	Verify grout space is clean prior to grouting
Placement, grade, type and size of reinforcement, connectors and anchor bolts and anchorages	-	X	
Proportions of site-prepared grout	-	X	
Materials and procedures with the approved submittals	-	X	
Placement of masonry units and mortar joint construction	-	X	
Size and location of structural members	-	X	
Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction	-	X	
Welding of reinforcement.	X	-	
Protection of masonry during cold weather (below 40 deg F) and hot weather (above 90 deg F)	-	X	
Grout placement (including verification of Slump flow and Visual Stability Index (VSI) when self-consolidating grout is delivered to the project site.)	X	-	
Observe preparation of grout specimens, mortar specimens and/or prisms	-	X	The contractor has the option of using the "Prism Test Method" per ACI 530.1/ASCE 6/TMS 602 in lieu of the "Unit Strength Method."

POST-INSTALLED ANCHOR INSPECTIONS

ITEM FOR VERIFICATION & INSPECTION	INSPECTION FREQUENCY		COMMENTS
	CONTINUOUS	PERIODIC	
Post-Installed Anchors and Reinforcing Bars (2021 IBC Section 1705.1.1)			
Adhesive Anchors and Reinforcing Bars	X	-	Special inspection shall be performed per manufacturer's requirements and approved ICC-ES reports noted in POST-INSTALLED ANCHORS section of the General Structural Notes prior to installation of adhesive and anchor rod. If the anchor is not installed in a horizontal, upwardly inclined or overhead orientation meant to resist sustained tension loads, special inspection may be reduced to a periodic frequency.
Mechanical Anchors and Screw Anchors	-	X	Special inspection shall be provided per manufacturer's requirements and approved ICC-ES reports noted in POST-INSTALLED ANCHORS section of the General Structural Notes prior to installation of mechanical or screw anchor.

STRUCTURAL OBSERVATION PROGRAM

If structural observations are required, they shall be done by the Engineer of Record or an approved subordinate at the stages of construction listed in the Construction Notification Phases section of these notes. The structural observer shall visually observe representative locations of structural systems, details and load paths for general conformance with the approved construction documents. Structural observation does not include or waive the responsibility for the special inspections indicated in these structural drawings. At the conclusion of the project, the designated structural observer shall submit to the building official a written statement that the site visits have been made and identify any reported deficiencies that to the best of the structural observer's knowledge have not been resolved (See IBC 2021 1704.6).

STRUCTURAL OBSERVATION PROGRAM REQUIRED BY CODE:	YES	NO
	X	

CONSTRUCTION MILESTONE SCHEDULE

CONTRACTOR TO NOTIFY ENGINEER AT THE FOLLOWING CONSTRUCTION PHASES:	
CONCRETE	
Footings, stem walls and piers	Prior to pouring concrete
STEEL	
Roof deck	After welding/fastening and prior to roofing
MASONRY	
Masonry walls	Prior to pouring grout

DEFERRED SUBMITTALS

For the purposes of this section, deferred submittals are defined as per section 107.3.4.1 of the IBC 2021. Submittal documents for deferred submittal items shall be submitted to the engineer, architect and building official for their review for general conformance with the design of the building.

DEFERRED STRUCTURAL SUBMITTALS FOR THIS PROJECT ARE

Open web steel joists and girders (per IBC 2021 section 2207)

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No. 9072017-2203
TRAVIS ROSS BRACKUS
STATE OF UTAH

12-9-24

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39 SOUTH MAIN MANTI, UTAH 84642

SPECIAL INSPECTION

S003

LEGEND OF ABBREVIATIONS

AB	ANCHOR BOLT(S)	k	KIP(S) = 1000 POUNDS
ABV	ABOVE	KLF	KIPS PER LINEAL FOOT
ALT	ALTERNATE	KSF	KIPS PER SQUARE FOOT
APPROX	APPROXIMATE		
ARCH	ARCHITECT(URAL)	LBS	POUNDS
		LF	LINEAL FOOT
BLDG	BUILDING	LLH	LONG LEG HORIZONTAL
BLW	BELOW	LLV	LONG LEG VERTICAL
BM	BEAM	LSH	LONG SIDE HORIZONTAL
BOT	BOTTOM	LSV	LONG SIDE VERTICAL
BRG	BEARING		
BTWN	BETWEEN	MAS	MASONRY
		MAX	MAXIMUM
CC.	CENTER-TO CENTER	MCJ	MASONRY CONTROL JOINT
C.J.	CONST/CONTROL JOINT	MECH	MECHANICAL
CJP	COMPLETE JOINT PENETRATION	MFR	MANUFACTURER
	GROOVE WELD (FULL PEN WELD)	MIN	MINIMUM
CMU	CONCRETE MASONRY UNIT	MISC	MISCELLANEOUS
COL	COLUMN	ML-x	MASONRY LINTEL
CONC	CONCRETE	MP-x	MASONRY PIER
CONST	CONSTRUCTION	MW-x	MASONRY WALL
CP-x	CONCRETE PIER		
CTR	CENTER	NIC	NOT IN CONTRACT
CW-x	CONCRETE WALL	NTS	NOT TO SCALE
DB	DECK BEARING	O.C.	ON CENTER
DBA	DEFORMED BAR ANCHOR	O.F.	OUTSIDE FACE
DBE	DECK BEARING ELEVATION	OPNG	OPENING
DBL	DOUBLE	OPP	OPPOSITE
DET	DETAIL	OWSJ	OPEN WEB STEEL JOISTS
DIA	DIAMETER		
DIM	DIMENSION	PAF	POWDER-ACTUATED FASTENER
DN	DOWN	PCF	POUNDS PER CUBIC FOOT
DWG	DRAWING	PL	PLATE
DWL	DOWEL	PLF	POUNDS PER LINEAL FOOT
		PSF	POUNDS PER SQUARE FOOT
(E)	EXISTING	PSI	POUNDS PER SQUARE INCH
EA	EACH	PT	POINT
E.F.	EACH FACE		
E.J.	EXPANSION JOINT	REINF	REINFORCING
ELEC	ELECTRICAL	REQD	REQUIRED
ELEV	ELEVATION	R.D.	ROOF DRAIN
E.O.D.	EDGE OF DECK	RTU	ROOF TOP UNITS
E.O.S.	EDGE OF SLAB		
EQUIP	EQUIPMENT	SBP-x	STEEL BASE PLATE MARK
EQ	EQUAL	SCW	SEISMIC CRITICAL WELD
E.W.	EACH WAY	SC-x	STEEL COLUMN MARK
EXST	EXISTING	SCP-x	STEEL CAP PLATE MARK
EXP	EXPANSION	SHT	SHEET
EXT	EXTERIOR	SI	SPECIAL INSPECTION
		SIM	SIMILAR
FC-x	CONTINUOUS FOOTING MARK	SMU	SUSPENDED MECHANICAL UNITS
F.D.	FLOOR DRAIN	SOG	SLAB-ON-GRADE
FDN	FOUNDATION	SQ	SQUARE
F.F.	FINISHED FLOOR	SRE	SEISMIC RESISTING ELEMENT
FR-x	RECTANGULAR FOOTING	STAG	STAGGERED
FS-x	SQUARE FOOTING MARK	STD	STANDARD
FT	FOOT	STL	STEEL
FTG	FOOTING	STR	STRUCTURAL
FTS-x	THICKENED SLAB MARK	STS	SELF TAPPING SCREWS
GA	GAUGE	T&B	TOP AND BOTTOM
GALV	GALVANIZED	TEMP	TEMPERATURE
GSN	GENERAL STRUCTURAL NOTES	THDS	THREADS
		T.O.	TOP OF
HB	HORIZONTAL BRIDGING	TOC	TOP OF CONCRETE
HORIZ	HORIZONTAL	TOD	TOP OF DECK
HSA	HEADED STUD ANCHOR	TOF	TOP OF FOOTING
HT	HEIGHT	TOS	TOP OF STEEL
		TOW	TOP OF WALL
		TYP	TYPICAL
ICC	INTERNATIONAL CODE COUNCIL		
IBC	INTERNATIONAL BUILDING CODE	UNO	UNLESS NOTED OTHERWISE
I.F.	INSIDE FACE		
IN.	INCH	VERT	VERTICAL
INT	INTERIOR		
		W/	WITH
JT	JOINT	WT	WALL THICKNESS
JST	JOIST	WWF	WELDED WIRE FABRIC
		WWM	WELDED WIRE MESH

SNOW DRIFT LEGEND

- INDICATES AREA OF SNOW DRIFT. JOIST SUPPLIER TO ADD SNOW DRIFT LOAD TO JOISTS AND GIRDERS
- xx psf / 0 psf / x'-x" — INDICATES ADDITIONAL LOADING DUE TO SNOW DRIFT (SEE SNOW DRIFT NOTE)
  xx psf INDICATES LOAD AT HIGH POINT
  x'-x" INDICATES LENGTH OF DRIFT
- xx psf / x psf / x'-x" — INDICATES ADDITIONAL LOADING DUE TO SNOW DRIFT (SEE SNOW DRIFT NOTE)
  xx psf INDICATES LOAD AT HIGH POINT,
  x psf INDICATES LOAD AT LOW POINT
  x'-x" INDICATES LENGTH OF DRIFT
  SEE PLAN FOR SNOW DRIFT LOADING. THESE LOADS ARE IN ADDITION TO THE JOIST UNIFORM AND POINT LOADS SHOWN ON PLANS. JOIST SUPPLIER TO ADD SNOW DRIFT LOAD TO BOTH JOISTS AND GIRDERS

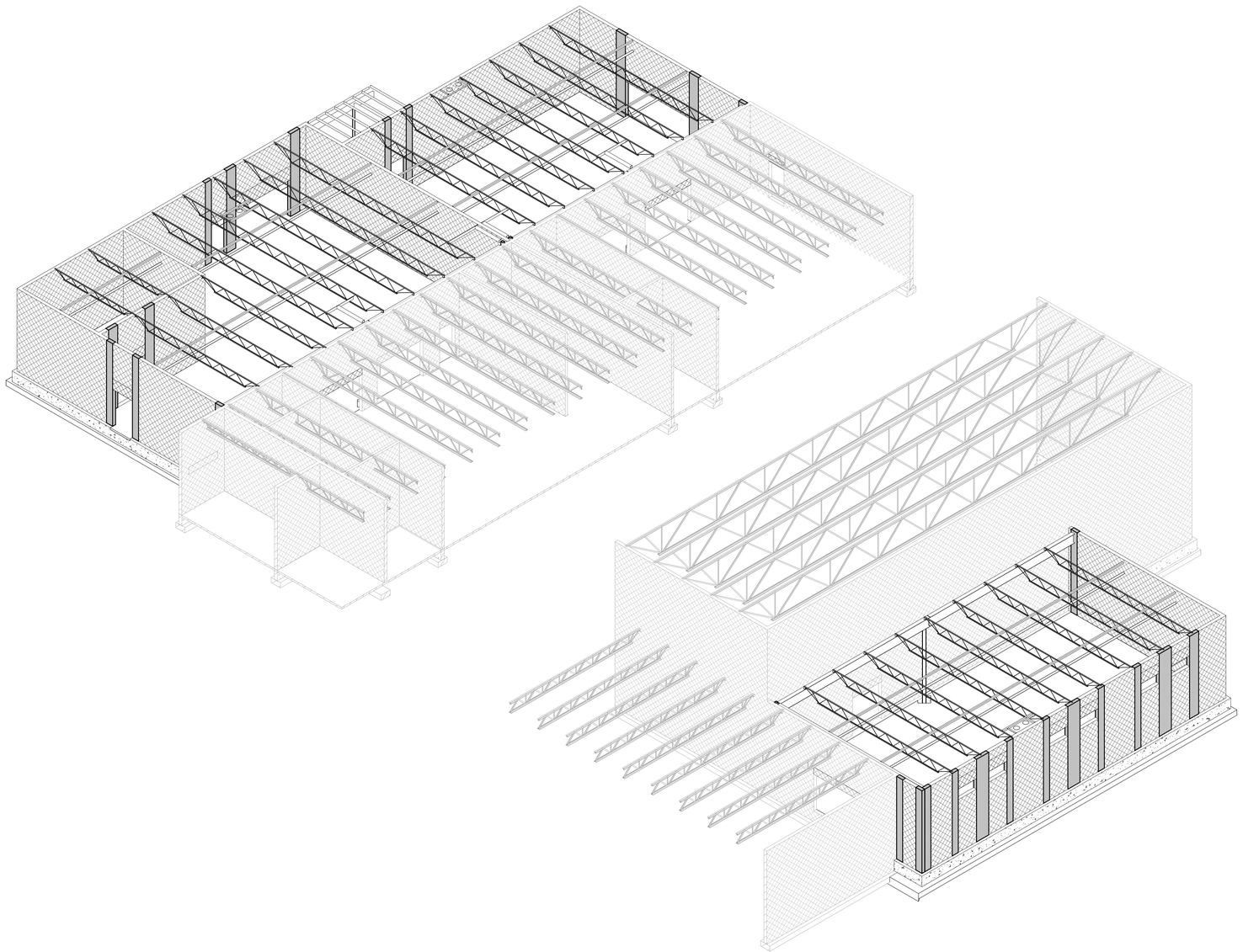
SNOW DRIFT NOTE

MARKS AND SYMBOLS LEGEND

- SECTION MARK / SHEET NUMBER
- FOOTING DESIGNATION / TOP OF FOOTING ELEVATION
- INDICATES EXISTING WALL.
- INDICATES CONCRETE WALL. DASHED WALLS STOP AT DECK
- INDICATES MASONRY WALL. DASHED WALLS STOP AT DECK
- INDICATES NON-STRUCTURAL WALL ABOVE (NOT ALL ARE SHOWN)
- DEPRESS FOUNDATION WALL AND POUR SLAB OVER. SEE DETAIL 10/S501
- INDICATES STRUCTURAL WALL ABOVE.
- CW-x — INDICATES CONCRETE FOUNDATION WALL TYPE, SEE SCHEDULE ON SHEET S601
- CW-x/MW-x — INDICATES MASONRY WALL (AND TYPE) OVER CONCRETE WALL (AND TYPE). SEE SCHEDULES ON SHEET(S) S601 AND S602
- MW-x — INDICATES MASONRY WALL TYPE, SEE SCHEDULE ON SHEET S602
- FCx.x — INDICATES CONTINUOUS FOOTING. SEE SCHEDULE ON SHEET S601
- FSx.x — INDICATES SPOT FOOTING. SEE SCHEDULE ON SHEET S601
- FTRx.x — INDICATES RECTANGULAR FOOTING, SEE SCHEDULE ON SHEET S601
- C.J. — INDICATES CONTROL / CONSTRUCTION JOINT, SEE DETAIL(S) 4/S501
- MCJ — INDICATES MASONRY CONTROL JOINT, SEE DETAIL 6/S501
- ML-x — INDICATES MASONRY LINTEL TYPE. SEE SCHEDULE ON SHEET S602
- MP-x — INDICATES MASONRY PIER TYPE. SEE SCHEDULE ON SHEET S602
- SC-x — INDICATES STEEL COLUMN, SEE SCHEDULE ON SHEET S603
- INDICATES METAL ROOF DECK. SEE GENERAL STRUCTURAL NOTES
- _K("") — INDICATES K-SERIES JOIST WITH ALLOWABLE TOTAL LOAD / ALLOWABLE LIVE (SNOW) LOAD
- R.D. — INDICATES ROOF DRAIN. SEE DETAIL 2/S511
- RTU — INDICATES ROOF MECHANICAL UNIT AND WEIGHT OF UNIT
- (SRE) — INDICATES SEISMIC RESISTING ELEMENT, SEE ELEVATIONS AND DETAILS AND FOLLOW ADDITIONAL SPECIAL INSPECTIONS.
- BF — INDICATES BOLTING REQUIRED AT SHEAR TAB CONNECTION. ARROWS INDICATE DIRECTION OF CONNECTION, SEE SCHEDULES ON SHEET(S) S603
- (HSS) — INDICATES HSS5x5 BLOCKING BETWEEN JOISTS, SEE DETAILS 1/S512 AND 13/S511

STRUCTURAL SHEET LIST

Sheet Number	Sheet Name	Current Revision
S001	GENERAL STRUCTURAL NOTES	
S002	GENERAL STRUCTURAL NOTES	
S003	SPECIAL INSPECTION	
S010	LEGENDS AND ABBREVIATIONS	
S101	SHOP ADDITON FOOTING AND FOUNDATION PLAN	
S102	WRESTLING ADDITION FOOTING AND FOUNDATION PLAN	
S111	SHOP ADDITION ROOF FRAMING PLAN	
S112	WRESTLING ADDITION ROOF FRAMING PLAN	
S501	DETAILS	
S502	DETAILS	
S511	DETAILS	
S512	DETAILS	
S601	SCHEDULES	
S602	SCHEDULES	
S603	SCHEDULES	



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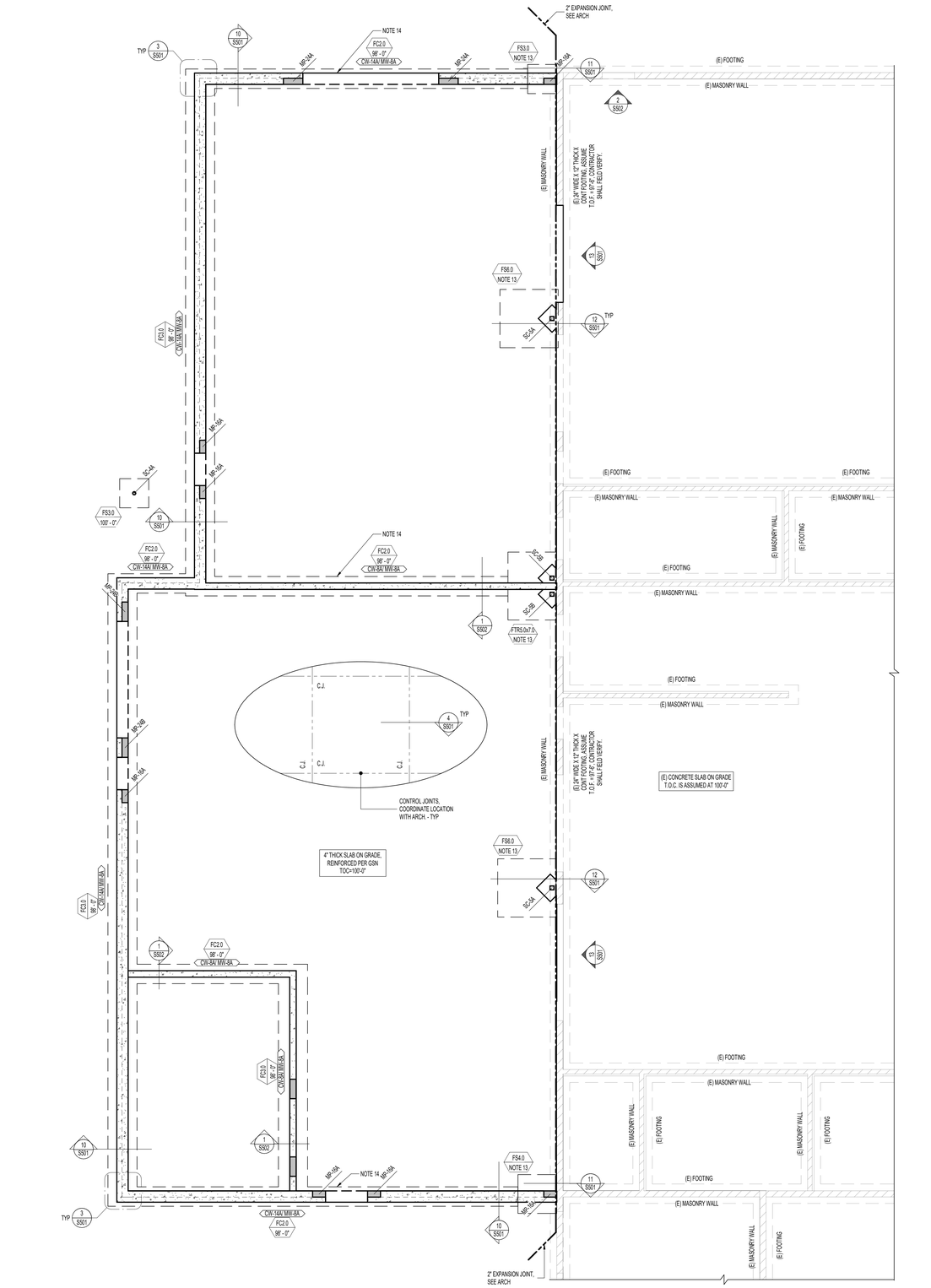
LEGENDS AND ABBREVIATIONS

S010



1 FOOTING AND FOUNDATION PLAN - SHOP

3/16" = 1'-0" 0" 4'-0" 8'-0" 16'-0"

SEE S010 FOR LEGENDS AND SYMBOLS

FOOTING AND FOUNDATION PLAN NOTES

1. COORDINATE LOCATION OF DEPRESSED SLABS, SLOPED SLABS, AND FLOOR DRAINS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS, ETC.
3. SEE ARCHITECTURAL DRAWINGS FOR CONTROL JOINT LOCATIONS.
4. ALL SPOT FOOTINGS SHALL BE CENTERED UNDER COLUMNS (UNO).
5. SEE DETAILS 1/S501 AND 2/S501 FOR CONDITION WHERE BURIED PIPES RUN PARALLEL AND PERPENDICULAR TO FOOTINGS.
6. SEE DETAIL 4/S501 FOR TYPICAL CONTROL/CONSTRUCTION JOINTS IN CONCRETE SLAB ON GRADE.
7. SEE DETAIL 5/S501 FOR SLAB REINFORCING WHERE CONTROL JOINTS ARE DISCONTINUOUS.
8. SEE DETAIL 6/S501 FOR ADDITIONAL REINFORCING AT MISCELLANEOUS OPENINGS IN MASONRY WALLS.
9. SEE DETAIL 7/S501 FOR CONDITION AT RECESSES IN MASONRY WALLS.
10. SEE DETAIL 8/S501 FOR TYPICAL CONTROL JOINTS IN MASONRY WALLS.
11. SEE DETAIL 9/S501 FOR TERMINATION OF HORIZONTAL REINFORCING IN MASONRY WALLS.
12. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS TO ALL STEEL COLUMNS.
13. WHERE NOTED, ELEVATION OF BOTTOM OF NEW FOOTING SHALL MATCH ELEVATION OF BOTTOM OF EXISTING FOOTING. CONTRACTOR SHALL FIELD VERIFY AND STEP FOOTINGS AS NEEDED PER 14/S501.
14. AT EXISTING SEWER LINE, STEP FOOTING AS NEEDED PER DETAIL 14/S501 TO HAVE ENTIRE PIPE PASS THROUGH THE FOUNDATION WALL ABOVE THE TOP OF FOOTING ELEVATION. PROVIDE STEEL SLEEVE AROUND PIPE FULL WIDTH OF FOUNDATION WALL. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING PIPE.

KEYPLAN

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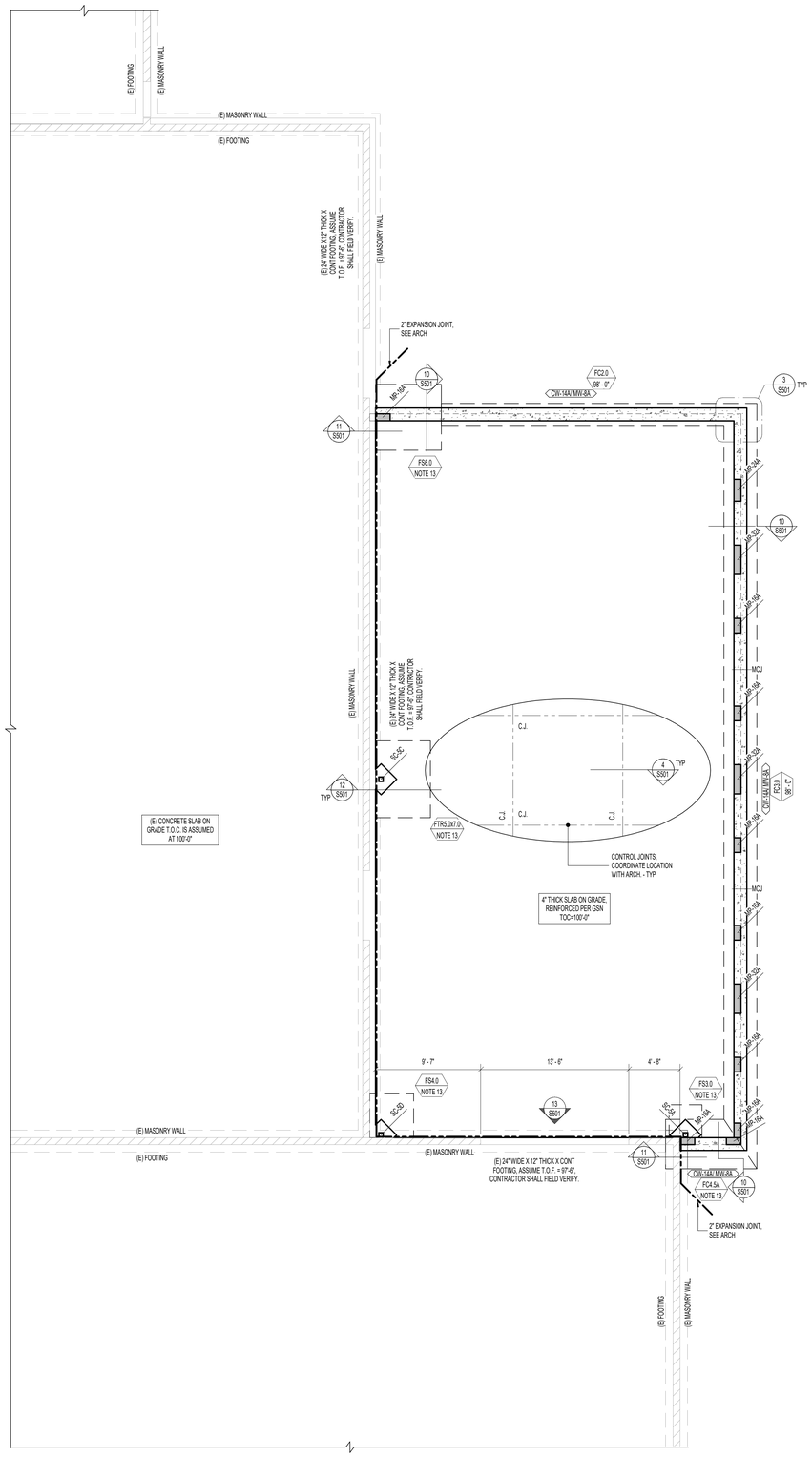
SHOP ADDITON FOOTING AND FOUNDATION PLAN

S101

SEE S010 FOR LEGENDS AND SYMBOLS

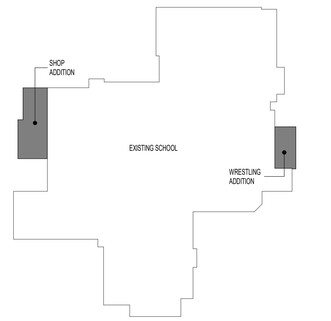
FOOTING AND FOUNDATION PLAN NOTES

1. COORDINATE LOCATION OF DEPRESSED SLABS, SLOPED SLABS, AND FLOOR DRAINS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS, ETC.
3. SEE ARCHITECTURAL DRAWINGS FOR CONTROL JOINT LOCATIONS.
4. ALL SPOT FOOTINGS SHALL BE CENTERED UNDER COLUMNS (UNO).
5. SEE DETAILS 1/S501 AND 2/S501 FOR CONDITION WHERE BURIED PIPES RUN PARALLEL AND PERPENDICULAR TO FOOTINGS.
6. SEE DETAIL 4/S501 FOR TYPICAL CONTROL/CONSTRUCTION JOINTS IN CONCRETE SLAB ON GRADE.
7. SEE DETAIL 5/S501 FOR SLAB REINFORCING WHERE CONTROL JOINTS ARE DISCONTINUOUS.
8. SEE DETAIL 6/S501 FOR ADDITIONAL REINFORCING AT MISCELLANEOUS OPENINGS IN MASONRY WALLS.
9. SEE DETAIL 7/S501 FOR CONDITION AT RECESSES IN MASONRY WALLS.
10. SEE DETAIL 8/S501 FOR TYPICAL CONTROL JOINTS IN MASONRY WALLS.
11. SEE DETAIL 9/S501 FOR TERMINATION OF HORIZONTAL REINFORCING IN MASONRY WALLS.
12. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS TO ALL STEEL COLUMNS.
13. WHERE NOTED, ELEVATION OF BOTTOM OF NEW FOOTING SHALL MATCH ELEVATION OF BOTTOM OF EXISTING FOOTING. CONTRACTOR SHALL FIELD VERIFY AND STEP FOOTINGS AS NEEDED PER 14/S501.
14. AT EXISTING SEWER LINE, STEP FOOTING AS NEEDED PER DETAIL 14/S501 TO HAVE ENTIRE PIPE PASS THROUGH THE FOUNDATION WALL ABOVE THE TOP OF FOOTING ELEVATION. PROVIDE STEEL SLEEVE AROUND PIPE FULL WIDTH OF FOUNDATION WALL. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING PIPE.



1 FOOTING AND FOUNDATION PLAN - WRESTLING - BID ALTERNATE #1

3/16" = 1'-0" 0" 4'-0" 8'-0" 16'-0"



KEYPLAN

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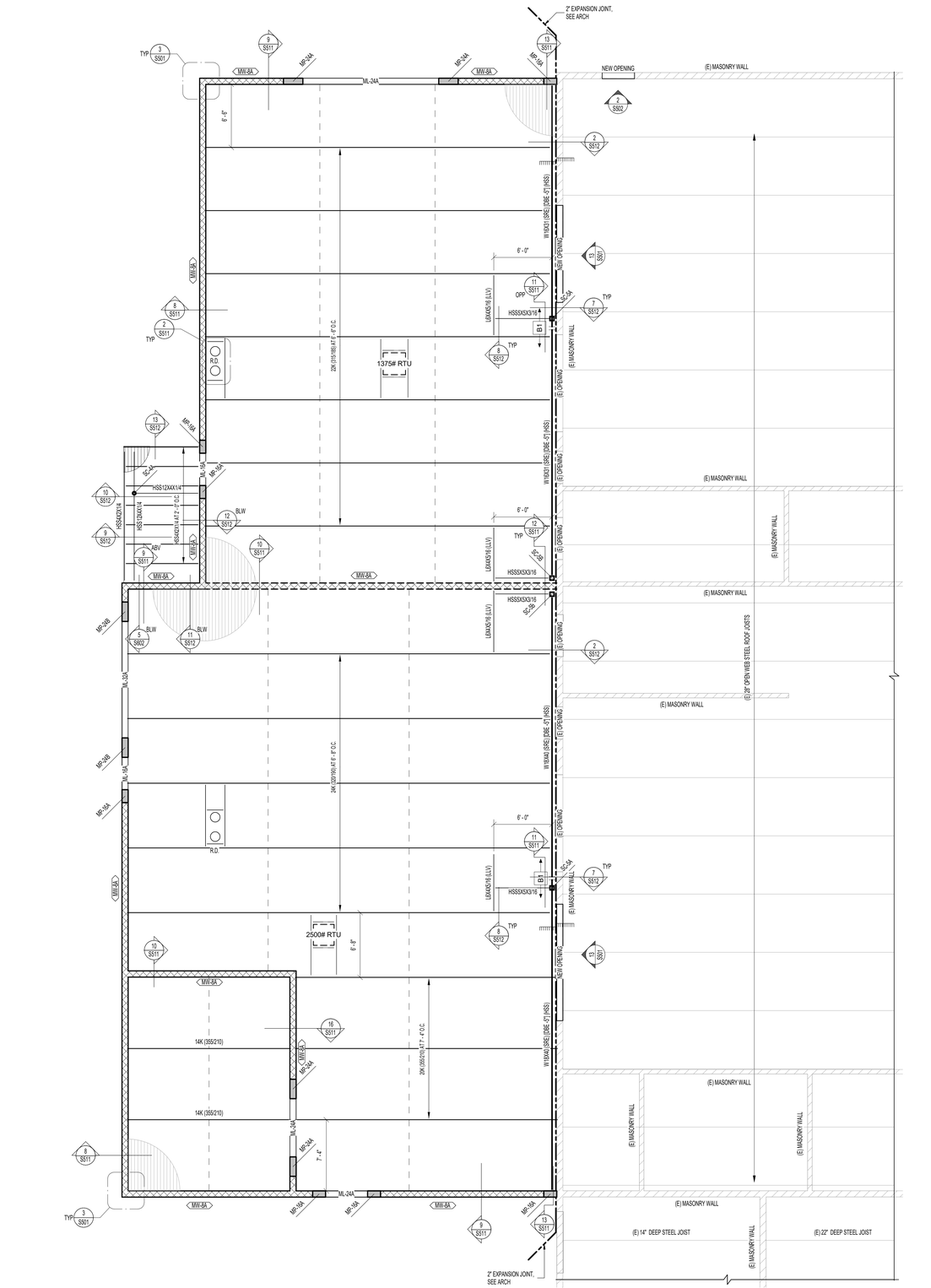
WRESTLING ADDITION FOOTING AND FOUNDATION PLAN

S102



1 ROOF FRAMING PLAN - SHOP

3/16" = 1'-0" 0" 4'-0" 8'-0" 16'-0"

KEYPLAN

SEE S010 FOR LEGENDS AND SYMBOLS

ROOF FRAMING PLAN NOTES

1. VERIFY ALL ROOF OPENINGS FOR MECHANICAL SHAFTS, DRAINS, ETC. WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. JOIST SUPPLIER SHALL DESIGN ALL ROOF JOIST BEARING ENDS AT MASONRY WALLS TO TRANSFER 16000# (ALLOWABLE) AXIAL LOAD THROUGH JOIST BEARING SHOE.
3. ALL JOISTS SHALL HAVE 5" DEEP BEARING ENDS (UNO).
4. ALL ROOF OPENINGS GREATER THAN, OR EQUAL TO, 12" x 12" SHALL BE FRAMED AS INDICATED IN DETAILS 1/S511 AND 2/S511. FOR OPENINGS WHICH CUT LESS THAN TWO DECK FLUTES, SEE DETAIL 3/S511.
5. SEE DETAIL 4/S511 WHEN CONCENTRATED LOADS ARE LOCATED MORE THAN 6" FROM JOIST OR JOIST GIRDER PANEL POINT.
6. SEE DETAIL 5/S511 WHEN MECHANICAL UNITS ARE HUNG BELOW JOISTS.
7. VERIFY SIZE, WEIGHT, AND LOCATION OF ALL ROOF TOP MECHANICAL UNITS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. SEE DETAIL 6/S511 FOR STEEL FRAMES AT ALL ROOF TOP EQUIPMENT. COORDINATE OPENINGS WITH MECHANICAL, ELECTRICAL, AND GENERAL CONTRACTORS.
8. LOCATE MISCELLANEOUS MECHANICAL OPENINGS BETWEEN JOISTS, NOT UNDERNEATH THEM.
9. OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE MECHANICAL AND LATERAL LOADS SHOWN ON THE ROOF FRAMING PLANS IN ADDITION TO THE UNIFORM AND POINT LOADS SHOWN.
10. JOIST BRIDGING SHOWN ON PLANS IS FOR REPRESENTATION ONLY; ACTUAL SIZE, QUANTITY, AND LOCATION WILL BE DETERMINED BY THE JOIST SUPPLIER PER SJI REQUIREMENTS. ALL BRIDGING AND BRIDGING ANCHORS NEED TO BE IN PLACE BEFORE APPLYING ANY LOADS. WHERE SKYLIGHT OR MECHANICAL UNITS/DUCTS INTERRUPT HORIZONTAL BRIDGING, PROVIDE CROSS BRIDGING AT JOIST SPACES ON EACH SIDE OF THE OPENING. WHERE DIAGONAL BRIDGING CONFLICTS WITH MECHANICAL DUCTS, REMOVE DIAGONAL BRIDGING AND REPLACE WITH HORIZONTAL BRIDGING AFTER ROOF DECK IS IN PLACE.
11. JOIST DESIGNER SHALL DESIGN JOISTS AND SUPPLY ADDITIONAL BRIDGING AS REQUIRED FOR UPLIFT DUE TO WIND. ASSUME:
    - 0.6DL + 12psf
    - 0.6WL + 18psf (UPLIFT).
    - 6psf NET UPLIFT (ASD)
    - NO 1/3 STRESS INCREASE ALLOWED.
12. SEE DETAIL 6/S501 FOR ADDITIONAL REINFORCING AT MISCELLANEOUS OPENINGS IN MASONRY WALLS.
13. SEE DETAIL 7/S501 FOR CONDITION AT RECESSES IN MASONRY WALLS.
14. SEE DETAIL 8/S501 FOR TYPICAL CONTROL JOINTS IN MASONRY WALLS.
15. SEE DETAIL 9/S501 FOR TERMINATION OF HORIZONTAL REINFORCING IN MASONRY WALLS.
16. SEE ARCHITECTURAL PLANS FOR DIMENSIONS TO ALL STEEL COLUMNS.

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DRAWING ISSUE	Bid Documents
ISSUE DATE	December 9, 2024
WWL PROJECT	240766

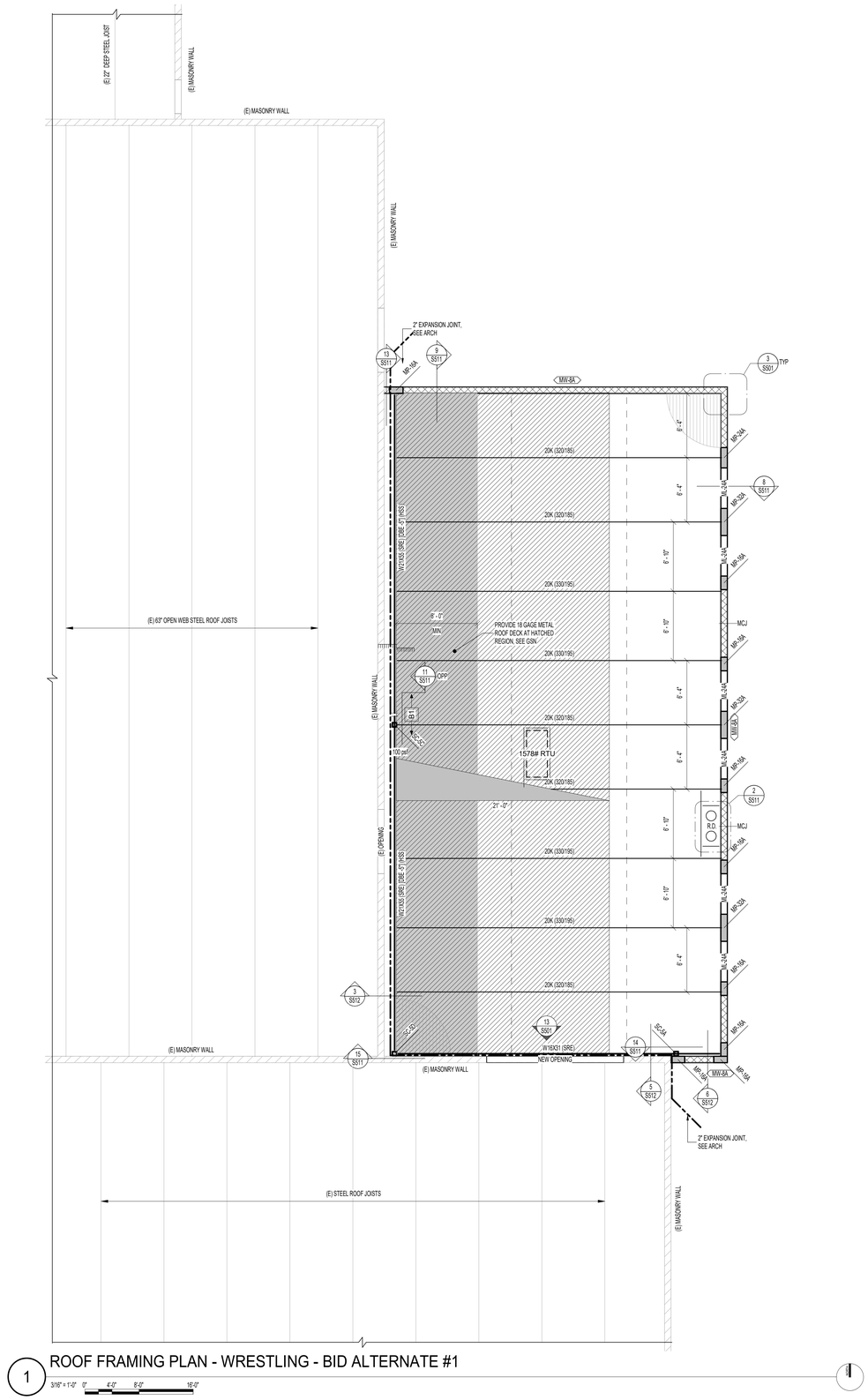
PROFESSIONAL STRUCTURAL ENGINEER
No. 9072017-2203
TRAVIS ROSS BRACKUS
STATE OF UTAH
12-9-24

DATE	REVISION

PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

SHOP ADDITION ROOF FRAMING PLAN

S111



1 ROOF FRAMING PLAN - WRESTLING - BID ALTERNATE #1

3/16" = 1'-0" 0" 4'-0" 8'-0" 16'-0"

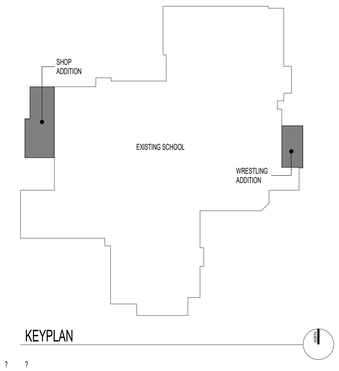
SEE S010 FOR LEGENDS AND SYMBOLS

ROOF FRAMING PLAN NOTES

1. VERIFY ALL ROOF OPENINGS FOR MECHANICAL SHAFTS, DRAINS, ETC. WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. JOIST SUPPLIER SHALL DESIGN ALL ROOF JOIST BEARING ENDS AT MASONRY WALLS TO TRANSFER 16000# (ALLOWABLE) AXIAL LOAD THROUGH JOIST BEARING SHOE.
3. ALL JOISTS SHALL HAVE 5" DEEP BEARING ENDS (UNO).
4. ALL ROOF OPENINGS GREATER THAN, OR EQUAL TO, 12" x 12" SHALL BE FRAMED AS INDICATED IN DETAILS 1/S511 AND 2/S511. FOR OPENINGS WHICH CUT LESS THAN TWO DECK FLUTES, SEE DETAIL 3/S511.
5. SEE DETAIL 4/S511 WHEN CONCENTRATED LOADS ARE LOCATED MORE THAN 6" FROM JOIST OR JOIST GIRDER PANEL POINT.
6. SEE DETAIL 5/S511 WHEN MECHANICAL UNITS ARE HUNG BELOW JOISTS.
7. VERIFY SIZE, WEIGHT, AND LOCATION OF ALL ROOF TOP MECHANICAL UNITS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. SEE DETAIL 6/S511 FOR STEEL FRAMES AT ALL ROOF TOP EQUIPMENT. COORDINATE OPENINGS WITH MECHANICAL, ELECTRICAL, AND GENERAL CONTRACTORS.
8. LOCATE MISCELLANEOUS MECHANICAL OPENINGS BETWEEN JOISTS, NOT UNDERNEATH THEM.
9. OPEN WEB STEEL JOISTS AND JOIST GIRDERS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE MECHANICAL AND LATERAL LOADS SHOWN ON THE ROOF FRAMING PLANS IN ADDITION TO THE UNIFORM AND POINT LOADS SHOWN.
10. JOIST BRIDGING SHOWN ON PLANS IS FOR REPRESENTATION ONLY; ACTUAL SIZE, QUANTITY, AND LOCATION WILL BE DETERMINED BY THE JOIST SUPPLIER PER SJI' REQUIREMENTS. ALL BRIDGING AND BRIDGING ANCHORS NEED TO BE IN PLACE BEFORE APPLYING ANY LOADS. WHERE SKYLIGHT OR MECHANICAL UNITS/DUCTS INTERRUPT HORIZONTAL BRIDGING, PROVIDE CROSS BRIDGING AT JOIST SPACES ON EACH SIDE OF THE OPENING. WHERE DIAGONAL BRIDGING CONFLICTS WITH MECHANICAL DUCTS, REMOVE DIAGONAL BRIDGING AND REPLACE WITH HORIZONTAL BRIDGING AFTER ROOF DECK IS IN PLACE.
11. JOIST DESIGNER SHALL DESIGN JOISTS AND SUPPLY ADDITIONAL BRIDGING AS REQUIRED FOR UPLIFT DUE TO WIND. ASSUME:
    - 0.6DL = 12psf
    - 0.6WL = 18psf (UPLIFT).
    - 6psf NET UPLIFT (ASD)
    - NO 1/3 STRESS INCREASE ALLOWED.
12. SEE DETAIL 6/S501 FOR ADDITIONAL REINFORCING AT MISCELLANEOUS OPENINGS IN MASONRY WALLS.
13. SEE DETAIL 7/S501 FOR CONDITION AT RECESSES IN MASONRY WALLS.
14. SEE DETAIL 8/S501 FOR TYPICAL CONTROL JOINTS IN MASONRY WALLS.
15. SEE DETAIL 9/S501 FOR TERMINATION OF HORIZONTAL REINFORCING IN MASONRY WALLS.
16. SEE ARCHITECTURAL PLANS FOR DIMENSIONS TO ALL STEEL COLUMNS.

SNOW DRIFT LEGEND

- INDICATES AREA OF SNOW DRIFT. JOIST SUPPLIER TO ADD SNOW DRIFT LOAD TO JOISTS AND GIRDERS
- xx psf / x psf / x'-x" — INDICATES ADDITIONAL LOADING DUE TO SNOW DRIFT (SEE SNOW DRIFT NOTE)
  xx psf INDICATES LOAD AT HIGH POINT
  x'-x" INDICATES LENGTH OF DRIFT
- xx psf / x psf / x'-x" — INDICATES ADDITIONAL LOADING DUE TO SNOW DRIFT (SEE SNOW DRIFT NOTE)
  xx psf INDICATES LOAD AT HIGH POINT,
  x psf INDICATES LOAD AT LOW POINT
  x'-x" INDICATES LENGTH OF DRIFT
  SEE PLAN FOR SNOW DRIFT LOADING.
  THESE LOADS ARE IN ADDITION TO THE JOIST UNIFORM AND POINT LOADS SHOWN ON PLANS. JOIST SUPPLIER TO ADD SNOW DRIFT LOAD TO BOTH JOISTS AND GIRDERS



KEYPLAN

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PROJECT FOR
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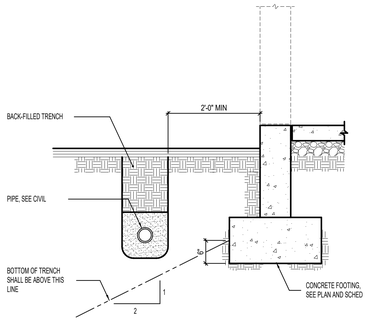
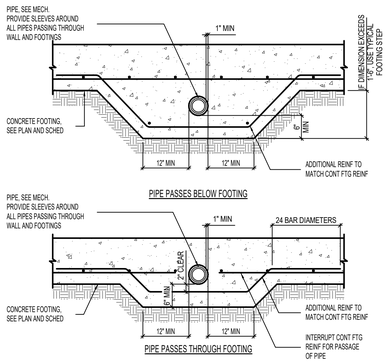
39 SOUTH MAIN MANTI, UTAH 84642

WRESTLING ADDITION ROOF FRAMING PLAN

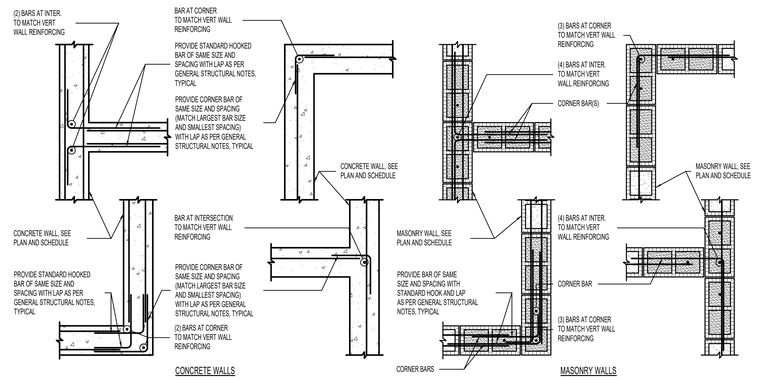
S112



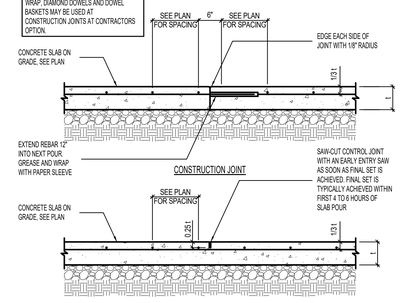
1 CONDITION AT PIPE PARALLEL TO CONCRETE FOOTING — NO SCALE



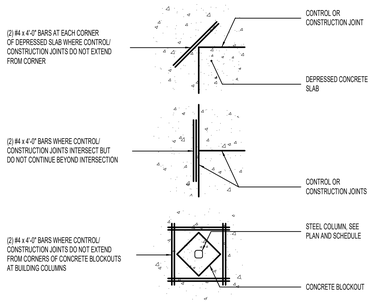
2 CONDITIONS AT PIPE PERPENDICULAR TO FOOTING — NO SCALE



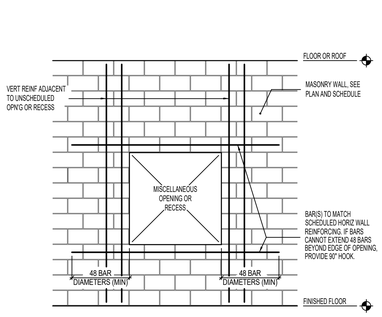
3 TYPICAL CORNER WALL REINFORCING [PLAN VIEW] — NO SCALE



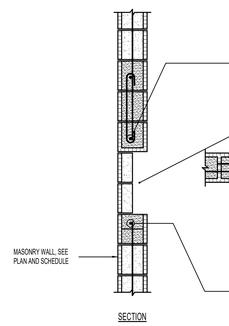
4 TYPICAL SLAB ON GRADE JOINT DETAILS — NO SCALE



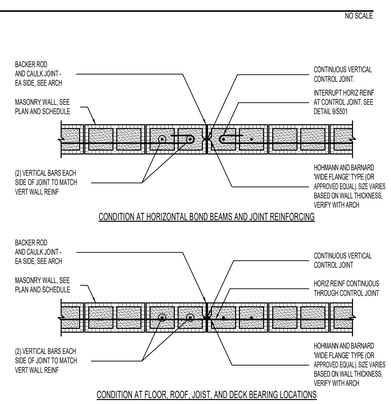
5 LOCATIONS REQUIRING ADDITIONAL SLAB REINFORCING [PLAN VIEW] — NO SCALE



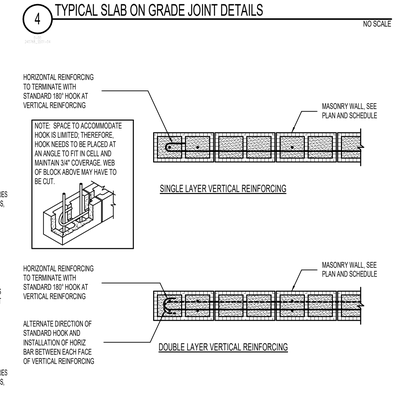
6 REINFORCING AT UNSCHEDULED MISCELLANEOUS OPENINGS OR RECESSES IN MASONRY WALLS — NO SCALE



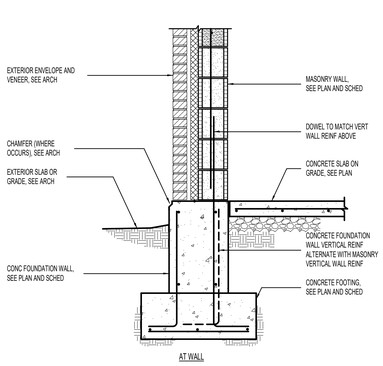
7 TYPICAL REINFORCING AT RECESS IN MASONRY WALLS — NO SCALE

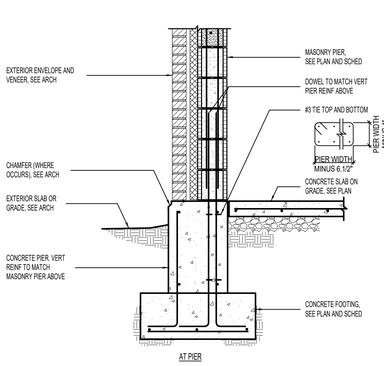


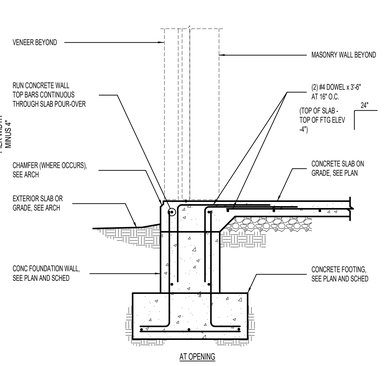
8 MASONRY CONTROL JOINT DETAIL AT MASONRY WALLS [PLAN VIEW] — NO SCALE



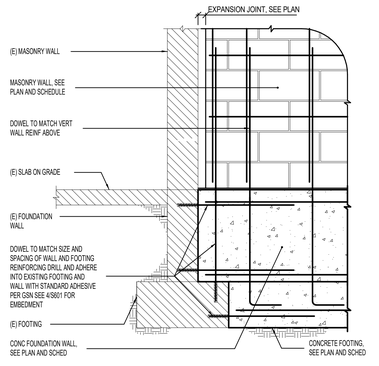
9 TERMINATION OF HORIZONTAL REINFORCING IN MASONRY WALL [PLAN VIEW] — NO SCALE



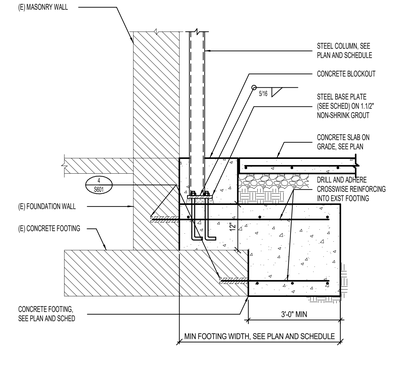




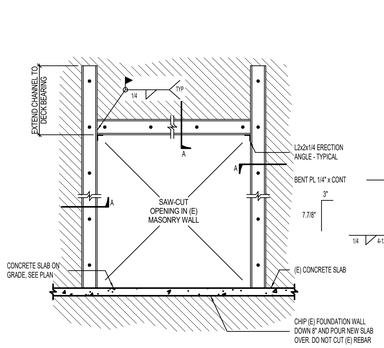
10 FOUNDATION WALL DETAIL AT MASONRY WALLS WITH VENEER — NO SCALE

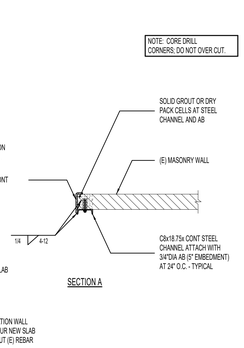


11 FOUNDATION WALL AT EXISTING STRUCTURE — NO SCALE

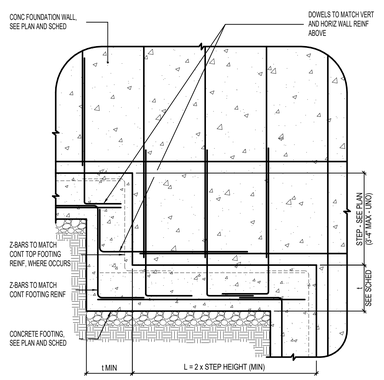


12 STEEL COLUMN AT EXISTING FOOTING — NO SCALE





13 NEW OPENING THROUGH EXISTING MASONRY WALL — NO SCALE



14 TYPICAL FOOTING STEP DETAIL — NO SCALE

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PROJECT FOR
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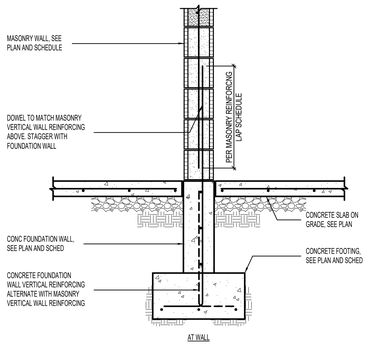
39 SOUTH MAIN MANTI, UTAH 84642

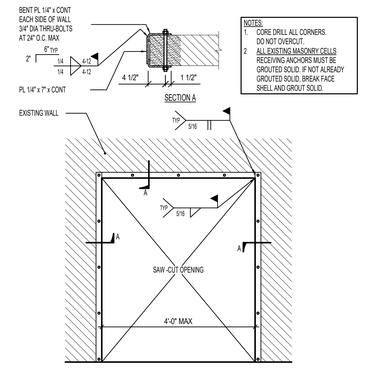
DETAILS

S501



1 INTERIOR MASONRY WALL DETAIL

NO SCALE



2 NEW OPENING THROUGH EXISTING MASONRY WALL

NO SCALE

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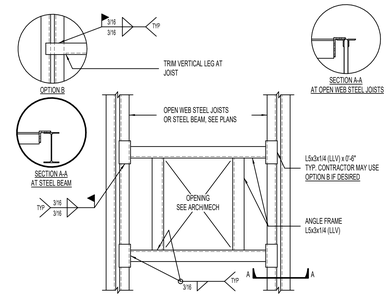
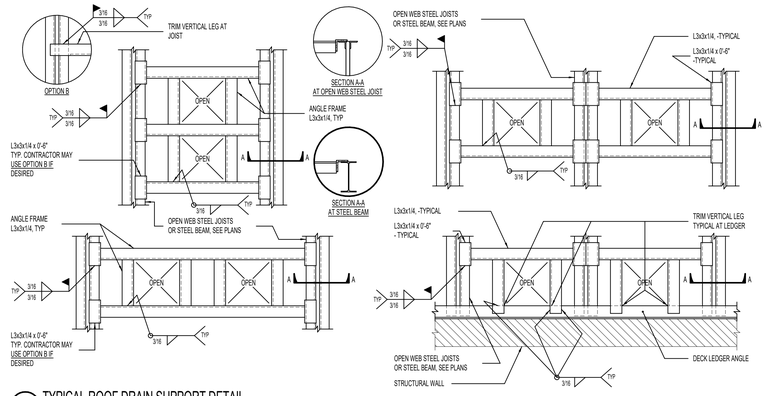
DETAILS

S502

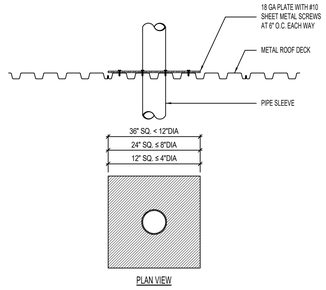


NOTES:
1. SEE DETAIL 3/S511 FOR OPENINGS LESS THAN 12" IN DIAMETER.
2. PROVIDE EXTRA WEB MEMBERS AT OPEN WEB STEEL JOISTS PER DETAIL 4/S511 FOR OPENINGS 6'-0" AND LARGER.
3. SEE TYPICAL ROOF TOP MECHANICAL UNIT SUPPORT DETAIL(S) FOR FRAMES UNDER MECHANICAL UNITS.
4. ROOF DECK TO BE FASTENED TO ANGLE FRAMING PER GSN REQUIREMENTS.

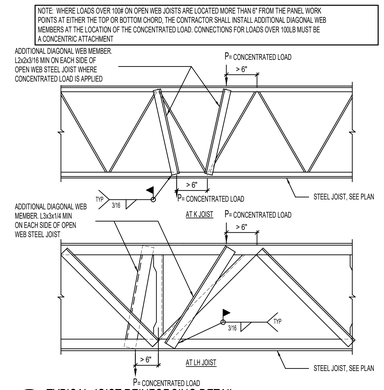
1 TYPICAL ROOF OPENING DETAIL [PLAN VIEW] NO SCALE



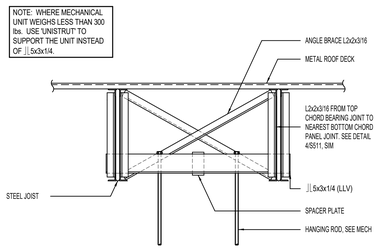
2 TYPICAL ROOF DRAIN SUPPORT DETAIL [PLAN VIEW] NO SCALE



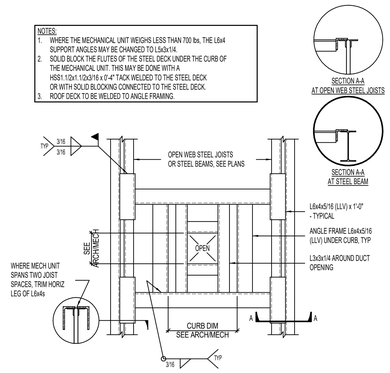
3 TYPICAL PIPE SLEEVE THROUGH ROOF DECK NO SCALE



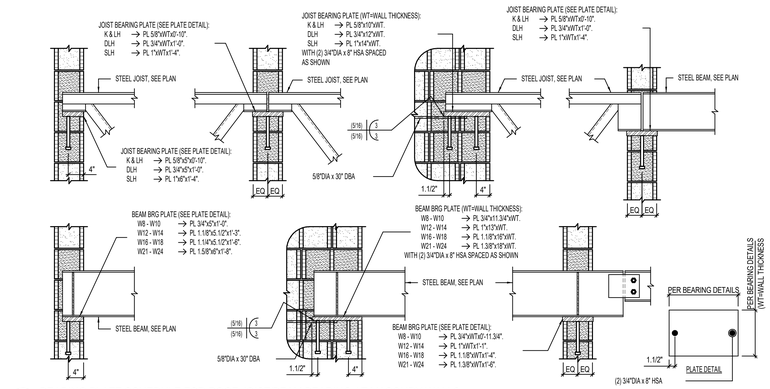
4 TYPICAL JOIST REINFORCING DETAIL FOR LOADS GREATER THAN 100 POUNDS NO SCALE



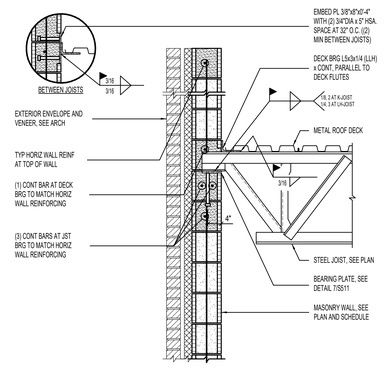
5 TYPICAL HANGING MECHANICAL UNIT SUPPORT DETAIL NO SCALE



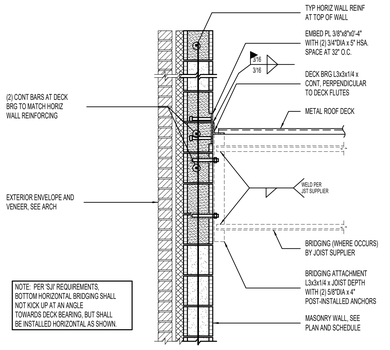
6 TYPICAL ROOF TOP MECHANICAL UNIT SUPPORT DETAIL [PLAN VIEW] NO SCALE



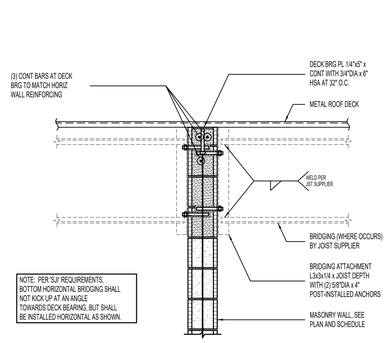
7 BEARING PLATE SCHEDULE FOR ROOF JOIST/BEAM BEARING AT MASONRY WALLS NO SCALE



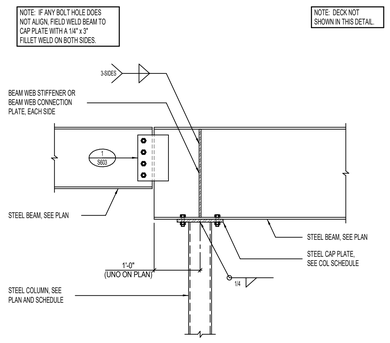
8 TYPICAL JOIST BEARING AT MASONRY WALL NO SCALE



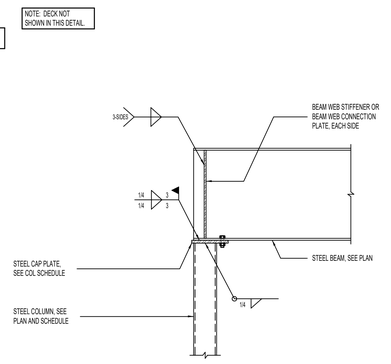
9 TYPICAL DECK BEARING WITH BRIDGING ATTACHMENT AT MASONRY WALL NO SCALE



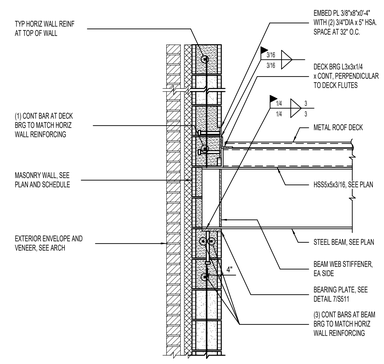
10 TYPICAL DECK BEARING AT MASONRY WALL WITH BRIDGING ATTACHMENT NO SCALE



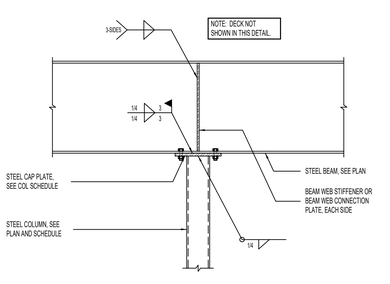
11 TYPICAL DROP-IN STEEL BEAM CONNECTION AT STEEL COLUMN NO SCALE



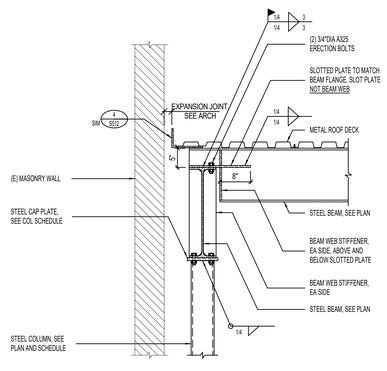
12 STEEL BEAM BEARING AT STEEL COLUMN NO SCALE



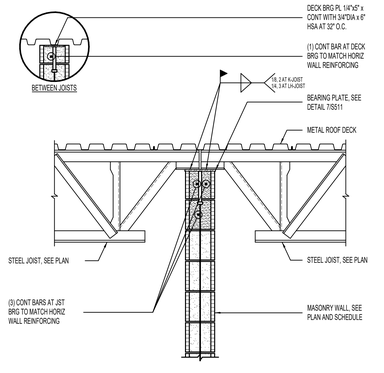
13 TYPICAL STEEL BEAM/DECK BEARING DETAIL AT MASONRY WALL WITH VENEER NO SCALE



14 TYPICAL STEEL BEAM BEARING AT STEEL COLUMN NO SCALE



15 BEAM BEARING DETAIL AT STEEL BEAM NO SCALE



16 TYPICAL JOIST/DECK BEARING AT MASONRY WALLS NO SCALE

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DRAWING ISSUE	ISSUE DATE	MHL PROJECT
Bid Documents	December 9, 2024	240766

PROFESSIONAL STRUCTURAL ENGINEER
No. 9072017-2203
TRAVIS ROSS BRACKUS
STATE OF UTAH

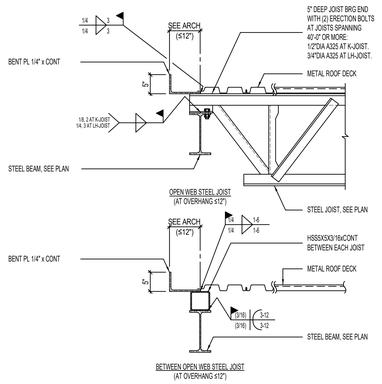
12-9-24

DATE	REVISION

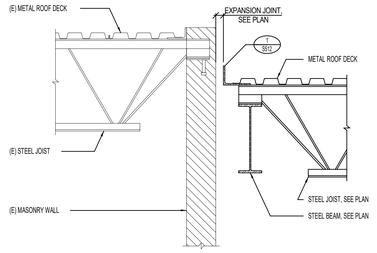
PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

DETAILS

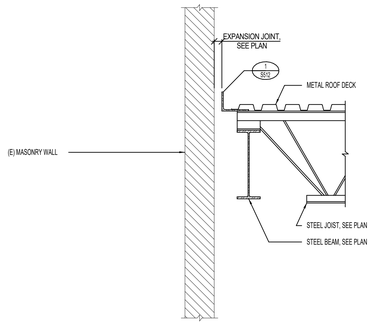
S511



1 TYPICAL SLAB EDGE DETAIL AT OPEN WEB STEEL JOIST — NO SCALE



2 ROOF DETAIL AT EXISTING MASONRY WALL — NO SCALE



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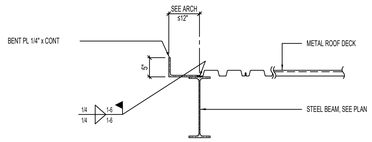
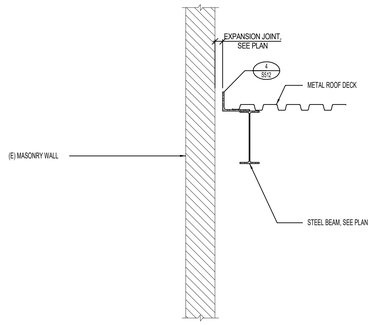
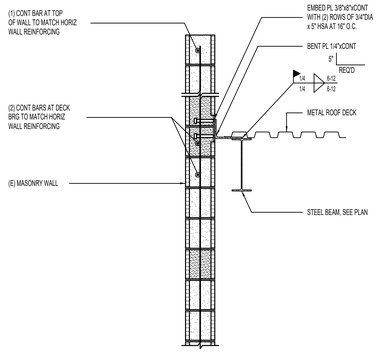


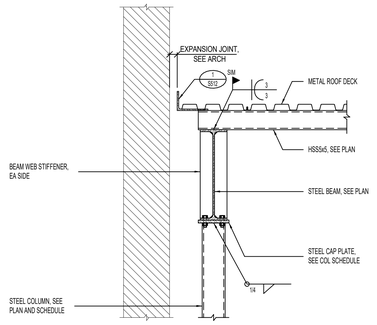
4 TYPICAL DECK EDGE DETAIL — NO SCALE



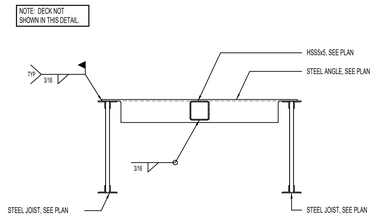
5 ROOF DETAIL AT EXISTING MASONRY WALL — NO SCALE



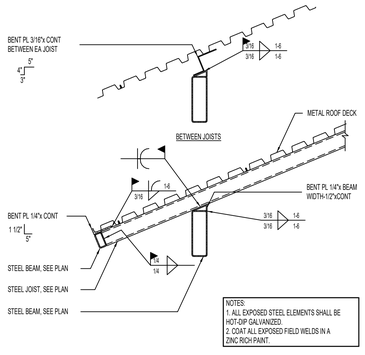
6 ROOF DETAIL AT MASONRY WALL WITH DRAG BEAM — NO SCALE



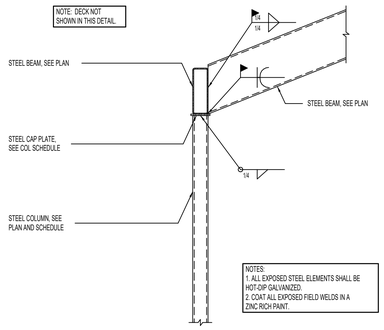
7 COLUMN BRACING DETAIL — NO SCALE



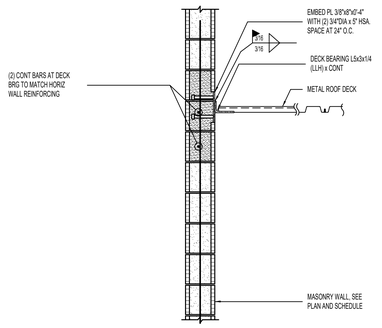
8 COLUMN BRACING DETAIL — NO SCALE



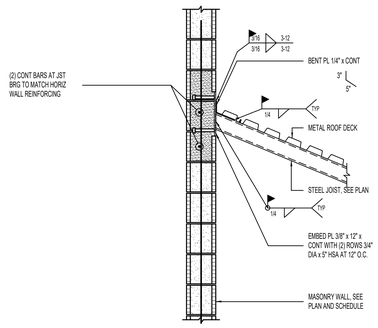
9 CANOPY FRAMING DETAIL — NO SCALE



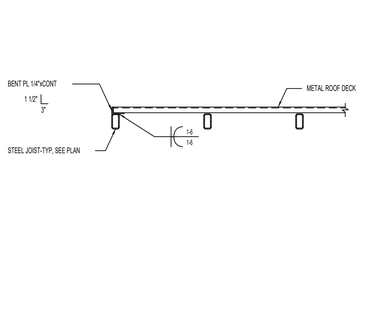
10 STEEL TUBE AT COLUMN DETAIL — NO SCALE



11 DECK BEARING AT MASONRY WALL — NO SCALE



12 CANOPY DETAIL AT MASONRY WALL — NO SCALE



13 CANOPY DETAIL — NO SCALE

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DETAILS

S512

CONCRETE RECTANGULAR FOOTING SCHEDULE (FTR)

MARK	WIDTH	Length	DEPTH	REINFORCING CROSSWISE				REINFORCING LENGTHWISE				COMMENTS
				No.	SIZE	LENGTH	SPACING	No.	SIZE	LENGTH	SPACING	
FTR5.0x7.0	5' - 0"	7' - 0"	SEE DETAIL 12/S501	6	#5	4'-6"	EQ	5	#5	6'-6"	EQ	REINFORCE TOP AND BOTTOM

CONCRETE CONTINUOUS FOOTING SCHEDULE (FC)

MARK	WIDTH	LENGTH	DEPTH	REINFORCING CROSSWISE				REINFORCING LENGTHWISE				COMMENTS
				No.	SIZE	LENGTH	SPACING	No.	SIZE	LENGTH	SPACING	
FC2.0	2' - 0"	CONT	12"	-	#4	1' - 6"	48"	3	#4	CONT	EQ	
FC3.0	3' - 0"	CONT	12"	-	#5	2' - 6"	14"	3	#5	CONT	EQ	
FC4.5A	4' - 6"	CONT	18"	-	#6	4' - 0"	14"	4	#6	CONT	EQ	REINFORCE TOP AND BOTTOM

CONCRETE SPOT FOOTING SCHEDULE (FS)

MARK	WIDTH	Length	DEPTH	REINFORCING CROSSWISE				REINFORCING LENGTHWISE				COMMENTS
				No.	SIZE	LENGTH	SPACING	No.	SIZE	LENGTH	SPACING	
FS3.0	3' - 0"	3' - 0"	SEE DETAIL 11/S501 AND 12/S501	3	#5	2' - 6"	EQ	3	#5	2' - 6"	EQ	REINFORCE TOP AND BOTTOM
FS4.0	4' - 0"	4' - 0"	SEE DETAIL 11/S501 AND 12/S501	4	#5	3' - 6"	EQ	4	#5	3' - 6"	EQ	REINFORCE TOP AND BOTTOM
FS6.0	6' - 0"	6' - 0"	SEE DETAIL 11/S501 AND 12/S501	6	#5	5' - 6"	EQ	6	#5	5' - 6"	EQ	REINFORCE TOP AND BOTTOM

CONCRETE FOOTING NOTES:
1. PLACE ALL FOOTING REINFORCING IN THE BOTTOM OF THE FOOTING WITH 3" CLEAR CONCRETE COVER (UNO).
2. TOP REINFORCING, WHERE OCCURS, SHALL BE PLACED IN THE TOP OF THE FOOTING WITH 2" MINIMUM CONCRETE COVER.
3. IF FOOTINGS ARE EARTH-FORMED, FOOTINGS SHALL BE 6" LONGER AND WIDER THAN SCHEDULED.
4. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
5. SOME SCHEDULED FOOTINGS MAY NOT BE USED, SEE FOOTING AND FOUNDATION PLAN FOR FOOTING MARKS.

1 CONCRETE FOOTING SCHEDULE NOTES (C3000-S3500)

CONCRETE REINFORCING BAR LAP SPLICE SCHEDULE

BAR SIZE	f'c = 3000psi & f'c = 3500 psi				f'c = 4000psi & f'c = 4500 psi				f'c = 5000psi				f'c = 6000psi			
	REGULAR		TOP		REGULAR		TOP		REGULAR		TOP		REGULAR		TOP	
	CLASS		CLASS		CLASS		CLASS		CLASS		CLASS		CLASS		CLASS	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
#3	17"	22"	22"	28"	15"	19"	19"	24"	13"	17"	17"	22"	12"	16"	15"	20"
#4	22"	29"	29"	37"	19"	25"	25"	32"	17"	22"	22"	29"	16"	20"	20"	27"
#5	28"	36"	36"	47"	24"	31"	31"	40"	22"	28"	28"	36"	20"	26"	26"	33"
#6	33"	43"	43"	56"	29"	37"	37"	48"	26"	33"	33"	43"	24"	31"	31"	40"
#7	48"	63"	63"	81"	42"	54"	54"	70"	37"	49"	49"	63"	34"	44"	44"	56"
#8	55"	72"	72"	93"	48"	62"	62"	80"	43"	56"	55"	72"	39"	51"	51"	66"
#9	62"	81"	81"	105"	54"	70"	70"	91"	48"	63"	63"	81"	44"	57"	57"	74"
#10	70"	91"	91"	118"	61"	79"	79"	102"	54"	70"	70"	91"	50"	64"	64"	83"
#11	78"	101"	101"	131"	67"	87"	87"	113"	60"	78"	78"	101"	55"	71"	71"	93"

TABULATED VALUES ARE FOR CASE 1 REINFORCEMENT, WHERE THE REQUIREMENTS OF TABLE BELOW ARE MET. WHERE THESE CONDITIONS ARE NOT MET, MULTIPLY THE LAP LENGTHS (l_d) BY 1.5.

REQUIREMENT FOR CASE 1 LAP LENGTHS

BAR CLEAR SPACING	CLEAR COVER	STIRRUPS OR TIES
>=db	>=db	>=CODE MINIMUM THROUGHOUT l_d
>=2db	>=db	NO REQUIREMENT

db = BAR DIAMETER
l_d = LAP SPLICE LENGTH
l_d = DEVELOPMENT LENGTH = CLASS A SPLICE LENGTH

CONCRETE REINFORCING BAR LAP SPLICE NOTES:
1. THIS SCHEDULE SHALL BE USED FOR ALL BAR SPLICES IN CONCRETE, UNLESS NOTED OTHERWISE.
2. CLASS 'A' SPLICES MAY BE USED ONLY AT SLABS ON GRADE OR WHERE APPROVED BY EOR IN CASES WHERE 50% OR LESS OF THE BARS ARE SPLICED WITHIN THE LAP SPLICE LENGTH.
3. CLASS 'B' SPLICES SHALL BE USED FOR ALL SPLICES UNLESS NOTED OTHERWISE.
4. TIES AND STIRRUPS SHALL NOT BE SPLICED.
5. DO NOT SPLICE VERTICAL BARS IN RETAINING WALLS UNLESS SPECIFICALLY SHOWN.
6. THE VALUES TABULATED IN SCHEDULE ARE FOR GRADE 60 REINFORCING BARS. FOR GRADE 80, MULTIPLY LAP LENGTHS BY 1.53.
7. THE VALUES TABULATED IN SCHEDULE ARE MINIMUM REQUIREMENTS. LONGER LENGTHS MAY BE USED FOR CONSTRUCTIBILITY.
8. LAP SPLICES ARE NOT ALLOWED FOR BARS GREATER THAN #11 BAR. THE LENGTHS IN SCHEDULE ARE FOR TENSION DEVELOPMENT LENGTH.
9. TOP BARS ARE CLASSIFIED AS HORIZONTAL BARS WHERE 12", OR MORE, OF FRESH CONCRETE IS CAST BELOW THE REINFORCING BAR.
10. FOR EPOXY-COATED OR ZINC AND EPOXY DUAL-COATED BARS WITH CLEAR COVER < 3db OR CLEAR SPACING <6db , MULTIPLY LAP LENGTHS BY 1.5. FOR ALL OTHER CASES MULTIPLY BY 1.2
11. FOR LIGHT WEIGHT CONCRETE, MULTIPLY LAP LENGTHS BY 1.33.
12. SPLICES FOR BUNDLED BARS:
    A. FOR BUNDLED BARS OF THREE OR LESS, LAP SPLICE LENGTHS SHALL BE MULTIPLIED BY 1.2.
    B. FOR BUNDLED BARS OF FOUR OR MORE, LAP SPLICE LENGTHS SHALL BE MULTIPLIED BY 1.33.
    C. INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP.
    D. ENTIRE BUNDLES SHALL NOT BE LAP SPLICED.
13. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

2 CONCRETE REINFORCING - BAR LAP SPLICE SCHEDULE

CONCRETE WALL SCHEDULES

MARK	THICKNESS	REINFORCING			WALL TYPE	COMMENTS
		VERTICAL	HORIZONTAL	TOP AND BOTTOM		
CW-8A	8"	#4 AT 32" O.C.	#4 AT 12" O.C.	(1) #4	A	STAGGER VERTICAL REINFORCING WITH MASONRY WALL DOWELS
CW-14A	14"	#5 AT 16" O.C. O.F. AND #5 AT 32 " O.C. I.F.	#5 AT 16" O.C. E.F.	(2) #5	C	STAGGER VERTICAL REINFORCING WITH MASONRY WALL DOWELS

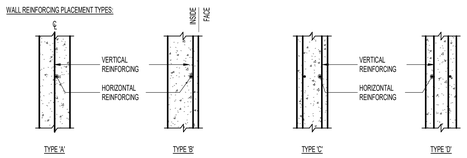
CONCRETE FOUNDATION WALL NOTES:
1. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

ABBREVIATIONS:
EACH FACE E.F.
INSIDE FACE I.F.
OUTSIDE FACE O.F.

WALLS NOT DESIGNATED IN PLAN

THICKNESS	REINFORCING	
	VERTICAL	HORIZONTAL
6"	#4 BARS AT 18" O.C.	#4 BARS AT 18" O.C.
8"	#4 BARS AT 18" O.C.	#4 BARS AT 12" O.C.
10"	#4 BARS AT 16" O.C.	#5 BARS AT 15" O.C.
12"	#4 BARS AT 18" O.C. E.F.	#4 BARS AT 16" O.C. E.F.

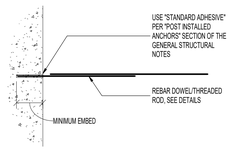
WALL REINFORCING PLACEMENT TYPES:



3 CONCRETE WALL SCHEDULE

STANDARD ADHESIVE EMBEDMENT SCHEDULE

REBAR DOWEL (THREADED ROD SIZE)	MIN EMBEDMENT INTO CONCRETE OR GROUTED MASONRY
#3 (3/8")	3 3/8"
#4 (1/2")	4 1/2"
#5 (5/8")	5 5/8"
#6 (3/4")	6 3/4"



STANDARD ADHESIVE EMBEDMENT NOTES:
1. SPECIFIC EMBEDMENTS, NOTES AND DETAILS IN DRAWINGS SHALL GOVERN OVER THIS SCHEDULE.
2. HOLE DIAMETER SHALL BE DOWEL/ROD DIAMETER PLUS 1/8". FOLLOW MANUFACTURER'S INSTRUCTIONS FOR HOLE PREPARATION.
3. PROVIDE A 3" MINIMUM EDGE DISTANCE TO CENTER OF HOLE.
4. CONTACT STRUCTURAL ENGINEER IF MINIMUM EMBEDMENTS INDICATED ABOVE ARE NOT ACHIEVABLE.
5. SEE "POST INSTALLED ANCHORS" SECTION OF GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

4 STANDARD ADHESIVE EMBEDMENT SCHEDULE

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TRAVIS ROSS BRADKUS
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DATE REVISION

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

SCHEDULES

S601

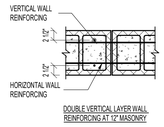
MASONRY WALL SCHEDULES

MARK	THICKNESS	MATERIAL	SOLID GROUT	TYPICAL REINFORCING (SEE NOTE 1)		COMMENTS
				VERTICAL	HORIZONTAL	
MW-8A	8"	SEE ARCH	Yes	#5 AT 32" O.C.	#4 AT 16" O.C.	SEE NOTE 11

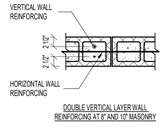
MASONRY WALLS NOT DESIGNATED IN PLAN

THICKNESS	REINFORCING		
	VERTICAL	HORIZONTAL (NOT SOLID GROUTED)	HORIZONTAL (SOLID GROUTED)
6"	#5 AT 32" O.C.	#4 AT 48" O.C.	#4 AT 24" O.C.
8"	#5 AT 32" O.C.	#5 AT 48" O.C.	#4 AT 24" O.C.
10"	#5 AT 24" O.C.	#6 AT 48" O.C.	#5 AT 24" O.C.
12"	#5 AT 24" O.C.	(2) #5 AT 48" O.C.	(2) #4 AT 24" O.C.

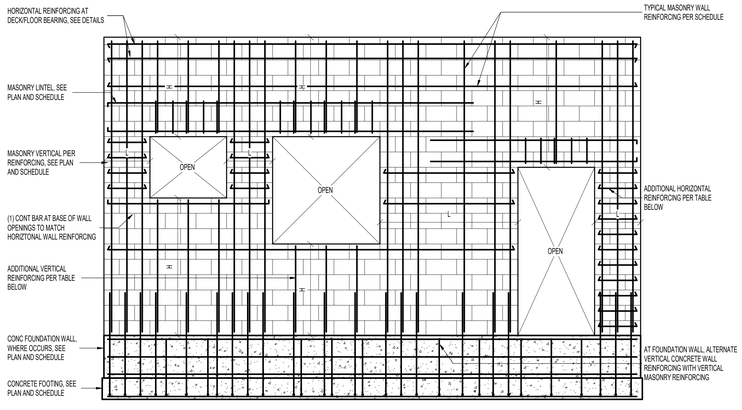
MASONRY WALL NOTES:
1. SPACING OF MASONRY WALL REINFORCING SHALL NOT EXCEED TYPICAL SCHEDULED REINFORCING. SEE ELEVATION AND MASONRY WALL SECTION REINFORCING TABLE BELOW FOR LOCATIONS WHERE TIGHTER SPACING IS REQUIRED.
2. COORDINATE WALL FINISHES, MATERIALS, COURSING, ETC. WITH ARCHITECTURAL DRAWINGS.
3. DO NOT SOLID GROUT WALLS UNLESS REQUIRED BY SCHEDULE, NOTES, OR DETAILS.
4. SOLID GROUT ALL MASONRY COURSES BELOW GRADE.
5. SINGLE LAYER OF VERTICAL REINFORCING SHALL BE CENTERED IN WALL (UNO).
6. VERTICAL REINFORCING SHALL EXTEND INTO FOOTINGS AND TERMINATE WITH STANDARD HOOK. FOR CONCRETE FOUNDATION WALLS 4'-0" OR TALLER, VERTICAL WALL REINFORCING SHALL DOWEL 3'-0" MINIMUM INTO THE FOUNDATION WALL (UNO).
7. PROVIDE TWO VERTICAL BARS (MIN) AT ALL CORNERS AND END OF WALLS.
8. HORIZONTAL WALL REINFORCING SHALL BE PLACED BETWEEN DOUBLE LAYER OF VERTICAL MASONRY REINFORCING, WHERE OCCURS.
9. HORIZONTAL WALL REINFORCING SHALL CONTINUE THROUGH MASONRY LINTELS. WHERE BOTH HORIZONTAL WALL REINFORCING AND LINTEL REINFORCING OCCUR IN THE SAME COURSE, USE THE LARGER REINFORCING.
10. SEE DETAIL 9/S501 FOR WHERE HORIZONTAL REINFORCING TERMINATES AT EDGE OF OPENINGS.
11. IN CONCRETE FOUNDATION WALL BELOW, ALTERNATE VERTICAL CONCRETE WALL REINFORCING WITH VERTICAL MASONRY REINFORCING.
12. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.



DOUBLE VERTICAL LAYER WALL REINFORCING AT 12" MASONRY



DOUBLE VERTICAL LAYER WALL REINFORCING AT 8" AND 10" MASONRY



MARKS AND SYMBOLS LEGEND

———	INDICATES SCHEDULED MASONRY WALL, PIER, OR LINTEL REINFORCING
- - - -	INDICATES ADDITIONAL REINFORCING AS REQUIRED PER MASONRY WALL SECTION REINFORCING TABLE
L	INDICATES LENGTH OF WALL SECTION
H	INDICATES HEIGHT OF WALL SECTION

MASONRY WALL SECTION REINFORCING TABLE

HEIGHT OR LENGTH	MAXIMUM SPACING
H OR L ≤ 4'-0"	8" O.C.
4'-0" < H OR L ≤ 6'-0"	16" O.C.
6'-0" < H OR L ≤ 8'-0"	24" O.C.
8'-0" < H OR L ≤ 10'-0"	32" O.C.
10'-0" < H OR L ≤ 12'-0"	40" O.C.
H OR L > 12'-0"	48" O.C.

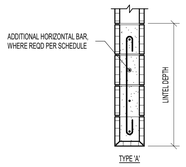
NOTES:
1. ADDITIONAL VERTICAL AND HORIZONTAL REINFORCING SHALL MATCH BAR SIZE OF SCHEDULED WALL REINFORCING AT SPACING INDICATED IN TABLE ABOVE.
2. WHERE 8" SPACING IS REQUIRED, #3 BAR MAY BE USED FOR HORIZONTAL REINFORCING.
3. WHERE SPACING OF SCHEDULED WALL REINFORCING IS LESS THAN TABLE ABOVE, SCHEDULED SPACING SHALL GOVERN.

1 MASONRY WALL SCHEDULE

MASONRY LINTEL SCHEDULE NEW

MARK	LINTEL DEPTH	REINFORCING		TYPE	COMMENTS
		HORIZONTAL	STIRRUPS		
ML-16A	16"	(1) #5 x CONT TOP AND BOTTOM	NONE	A	
ML-24A	24"	(1) #6 x CONT TOP AND BOTTOM	#4 AT 8" O.C.	A	
ML-32A	32"	(1) #6 x CONT TOP AND BOTTOM	#4 AT 8" O.C.	A	

MASONRY LINTEL NOTES:
1. LINTEL WIDTH AND MATERIAL TYPE SHALL BE THE SAME AS THE WALL IN WHICH THE LINTEL IS CONSTRUCTED.
2. GROUT MASONRY LINTELS MONOLITHICALLY WITH THE SUPPORT WALL OR PIER AT EACH END.
3. MASONRY LINTEL ML-8A, SHALL BE USED OVER OPENINGS IN MASONRY WALLS WHEN A SPECIFIC MASONRY LINTEL IS NOT OTHERWISE SPECIFIED. WHEN A LINTEL IS SPECIFIED ON THE PLANS, THE MAXIMUM SPAN AS NOTED IN THIS SCHEDULE SHALL NOT APPLY. CONSULT THE STRUCTURAL ENGINEER FOR LINTELS NOT SPECIFIED ON THE PLANS WHICH HAVE A SPAN GREATERTHAN 3'-4".
4. MASONRY LINTEL ML-8A SHALL NOT BE LOCATED DIRECTLY BELOW FLOOR OR ROOF BEAMS OR GIRDERS UNLESS NOTED OTHERWISE ON THE PLANS. JOISTS SHALL NOT BEAR ON ANY LINTEL LESS THAN 10" DEEP. CONSULT THE STRUCTURAL ENGINEER FOR LINTELS NOT SHOWN ON THE PLANS WHICH ARE LOCATED DIRECTLY BELOW FLOOR OR ROOF BEAMS OR GIRDERS.
5. EXTEND ALL HORIZONTAL REINFORCING 48 BAR DIAMETERS MINIMUM BEYOND THE EDGE OF ALL OPENINGS. IF HORIZONTAL REINFORCING CANNOT EXTEND 48 BAR DIAMETERS BEYOND EDGE OF OPENING, PROVIDE 90° STANDARD HOOK.
6. SPLICE TOP BARS AT MIDSPAN OF LINTEL ONLY AND BOTTOM BARS OVER SUPPORTS ONLY.
7. HORIZONTAL WALL REINFORCING SHALL CONTINUE THROUGH MASONRY LINTELS. WHERE BOTH HORIZONTAL WALL REINFORCING AND LINTEL REINFORCING OCCUR IN THE SAME COURSE, USE THE LARGER REINFORCING.
8. DOWEL VERTICAL REINFORCING OF WALL ABOVE LINTEL INTO THE FULL DEPTH OF LINTEL OR 48 BAR DIAMETERS, WHICHEVER IS LESS.
9. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.



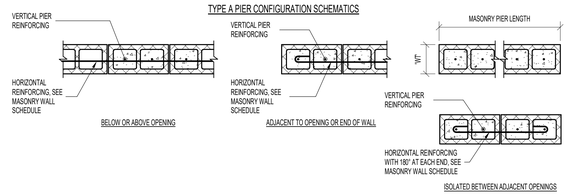
2 MASONRY LINTEL SCHEDULE

MASONRY PIER SCHEDULE

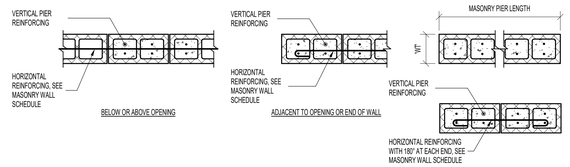
MARK	PIER SIZE "WT" x L	VERTICAL REINFORCING	TYPE	COMMENTS
MP-16A	"WT" x 16"	(2) #5	A	
MP-24A	"WT" x 24"	(3) #5	A	
MP-24B	"WT" x 24"	(6) #5	B	
MP-32A	"WT" x 32"	(4) #5	A	

MASONRY PIER NOTES:
1. SEE MASONRY WALL SCHEDULE FOR HORIZONTAL REINFORCING REQUIREMENTS FOR ALL PIERS.
2. VERTICAL REINFORCING AND TIES SHALL EXTEND FULL HEIGHT OF WALL (UNO).
3. VERTICAL MASONRY PIER REINFORCING SHALL EXTEND INTO THE FOOTING AND TERMINATE WITH A STANDARD 90° HOOK. FOR CONCRETE FOUNDATION WALLS 4'-0" OR TALLER, VERTICAL PIER REINFORCING SHALL DOWEL 3'-0" MINIMUM INTO THE FOUNDATION WALL (UNO).
4. IN CONCRETE FOUNDATION WALLS, VERTICAL REINFORCING AT TYPE 'B' MASONRY PIERS SHALL BE TIED WITH #3 TIES AT TOP AND BOTTOM OF FOUNDATION WALL, SEE DETAILS.
5. HORIZONTAL REINFORCING OF ADJACENT WALLS SHALL RUN CONTINUOUS THROUGH MASONRY PIERS.
6. WHERE HORIZONTAL REINFORCING TERMINATES AT PIER, PROVIDE 180° HOOK, SEE SCHEMATICS BELOW.
7. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

TYPE A PIER CONFIGURATION SCHEMATICS



TYPE B PIER CONFIGURATION SCHEMATICS



3 MASONRY PIER SCHEDULE

MASONRY REINFORCING LAP SPLICE SCHEDULE

BAR SIZE	8" MASONRY	
	(1) BAR PER CELL	(2) BARS PER CELL
#3	12"	12"
#4	13"	21"
#5	20"	35"
#6	38"	SEE NOTE 1
#7	52"	SEE NOTE 1
#8	SEE NOTE 1	SEE NOTE 1

2021 IBC

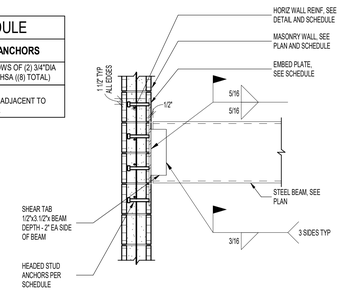
NOTES:
1. WHERE INDICATED, USE MECHANICAL SPLICE COUPLER. SEE G5N FOR REQUIREMENTS.
2. WHERE VERTICAL BARS HAVE A SPECIFIED LAP SPLICE GREATER THAN THE HEIGHT OF THE GROUT POUR, USE MECHANICAL SPLICE COUPLER.

4 MASONRY REINFORCING LAP SPLICE SCHEDULE (f'm=2000psi)

CONNECTION SCHEDULE

BEAM DEPTH	EMBED PLATE	ANCHORS
HSS12	PL 1/2"x21"x1'-0"	(4) ROWS OF (2) 3/4"DIA x 5" HSA ((8) TOTAL)

CONNECTION NOTES:
1. ALL MASONRY CELLS WITH ANCHORS AND ADJACENT TO ANCHORS SHALL BE GROUTED SOLID, TYP.



5 EMBED PLATE CONNECTION SCHEDULE FOR MASONRY WALLS
3/4" = 1'-0"
[1/S111]

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39 SOUTH MAIN MANTI, UTAH 84642

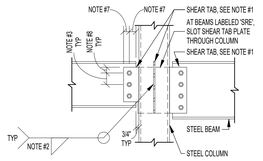
SCHEDULES

S602

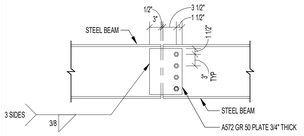
A-325 BOLT SCHEDULE

MAXIMUM BEAM SIZE IN EACH BEAM DEPTH GROUP	A-325N BOLTS			
	No. PER BEAM	SIZE	ASD CAPACITY	SEISMIC AXIAL CAPACITY
W8	2	3/4"DIA	16.4K	12K
W10	2	3/4"DIA	21.1K	25K
W12	3	3/4"DIA	24.4K	25K
W14	3	3/4"DIA	34.4K	20K
W16	4	3/4"DIA	46.3K	35K
W18	5	3/4"DIA	58.7K	65K
W21	6	3/4"DIA	70.8K	85K
W24	7	3/4"DIA	83.0K	100K

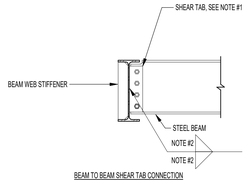
1. SHEAR TAB SHALL BE 1/2" THICK AT STEEL BEAMS LABELED WITH 'SRE' ON PLAN. INCREASE THICKNESS OF SHEAR TAB TO 3/4" AND ALL BOLTS SHALL BE PRETENSIONED WITH CLASS A FAYING SURFACES
2. 5/16" FILLET WELD EACH SIDE OF SHEAR TAB.
3. BOLT SPACING SHALL BE 3" MIN, TYP. REDUCE BOLT SPACING TO 2 7/8 WHERE NEEDED TO FIT THE REQUIRED QUANTITY OF BOLTS.
4. WHEN MORE THAN ONE ROW OF BOLTS IS NEEDED, THE FIRST ROW SHALL BE A COMPLETE ROW WITH THE REMAINDER OF THE BOLTS PLACED IN THE SECOND ROW WITH (3) BOLTS MIN AT SECOND ROW.
5. HSS COLUMN THAT DO NOT HAVE A MINIMUM 1/4" WALL THICKNESS SHALL USE A SINGLE ANGLE CONNECTION WHERE STEEL TUBE WALL IS TOO THIN.
6. BOLT EDGE DISTANCE, Leh SHALL BE EQUAL TO TWICE THE BOLT DIAMETER FOR BOTH THE PLATE AND THE BEAM WEB.
7. BOLT EDGE DISTANCE, Lev SHALL BE 1.1/4" FOR BOLT DIAMETERS 7/8" OR LESS AND 1.3/4xBOLT DIAMETER FOR BOLT DIAMETERS GREATER THAN 7/8".
8. ANGLE SIZE SHALL BE 3" FOR SHORT LEG AND 4 TIMES THE BOLT DIAMETER +1" FOR THE LONG LEG.
9. AT STEEL BEAMS LABELED WITH 'SRE' ON PLAN THAT FRAME INTO HSS COLUMNS, THE SHEAR TAB SHALL RUN CONTINUOUSLY THROUGH A SLOT IN THE COLUMN
10. WELD THICKNESS WHERE NOTED SHALL BE:
    AT W16 BEAMS AND SMALLER: 5/16"
    AT W18 BEAMS TO W24 BEAMS: 3/8"
    AT W27 BEAMS AND LARGER: 1/2"



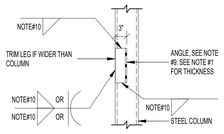
BEAM TO HSS COLUMN SHEAR TAB CONNECTION



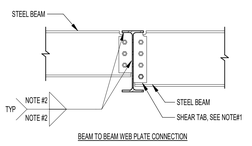
TYPE 'B1' CONNECTION AT BEAM



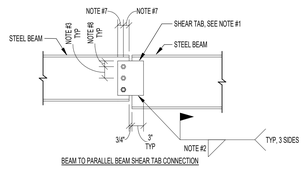
BEAM TO BEAM SHEAR TAB CONNECTION



SINGLE ANGLE CONNECTION WHERE REQUIRED BY NOTE No. 5



BEAM TO BEAM WEB PLATE CONNECTION



BEAM TO PARALLEL BEAM SHEAR TAB CONNECTION

1 TYPICAL 3/4" DIA BOLTED WEB PLATE CONNECTIONS WITH BOLT SCHEDULE

STEEL COLUMN SCHEDULE

MARK	STEEL COLUMN - TYPE: SIZE	STEEL BASE PLATE		STEEL CAP PLATE		COMMENTS
		THICKNESS	PLATE TYPE	THICKNESS	PLATE TYPE	
SC-4A	SC - HSS Rnd : HSS4.000X0.250	3/4"	C	1/2"	C	
SC-5A	SC - HSS : HSS5X5X3/16	3/4"	A	1/2"	A	
SC-5B	SC - HSS : HSS5X5X3/16	3/4"	B	1/2"	B	
SC-5C	SC - HSS : HSS5X5X5/16	3/4"	A	1/2"	A	
SC-5D	SC - HSS : HSS5X5X5/16	3/4"	B	1/2"	B	

STEEL COLUMN NOTES:
1. UNLESS NOTED OTHERWISE, ALL COLUMNS SHALL BE INSTALLED WITH (4) 3/4"DIA ANCHOR RODS WITH 3" MINIMUM HOOKS. PROJECT ANCHOR RODS 3" MINIMUM ABOVE THE TOP OF THE BASE PLATE. EMBEDMENT SHALL BE 9" MINIMUM. ALL RODS SHALL BE INSTALLED WITH HARDENED WASHERS BENEATH THE NUT. ANY BOLT HOLES LARGER THAN THE ROD DIAMETER PLUS 5/16" SHALL HAVE 5/16" PLATE WASHERS INSTALLED BENEATH THE HARDENED WASHERS.
2. ALL CAP PLATE BOLTS SHALL BE 3/4"DIA A325N BOLTS. TYPICAL UNLESS NOTED OTHERWISE.
3. ANCHOR RODS SHALL NOT BE WELDED (INCLUDING TACK WELDS).
4. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

STEEL BASE PLATE TYPES:

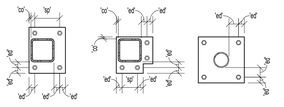
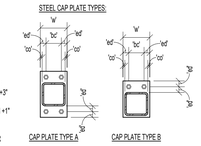


PLATE LEGEND
ca = 1/2" MINIMUM
ed = 1 1/2" MINIMUM
so = 3" MINIMUM
bc = BEAM OR GIRDER GAGE
w = BEAM OR GIRDER GAGE +3"
OR
BEAM OR GIRDER WIDTH +1"
OR
COLUMN WIDTH + 1"
WHICHEVER IS GREATER

STEEL CAP PLATE TYPES:



2 STEEL COLUMN SCHEDULE

VENEER LINTEL SCHEDULE

CLEAR OPENING	SIZE OF ANGLE
UP TO 5'-0"	L3.1/2x3x1/4 (LLH)
5'-1" TO 7'-0"	L3.1/2x3.1/2x1/4
7'-1" TO 9'-0"	L5x3.1/2x1/4 (LLV)
9'-1" TO 10'-0"	L5x3.1/2x5/16 (LLV)
10'-1" TO 11'-0"	L5x3.1/2x3/8 (LLV)
11'-1" TO 12'-0"	L6x4x3/8 (LLV)
12'-1" AND OVER	REQUIRES SPECIAL ANALYSIS

NOTE:
LINTELS CARRY VENEER ONLY. WHERE FLOORS, ROOFS, OR CONCENTRATED LOADS OCCUR, FURTHER ANALYSIS IS NECESSARY. PROVIDE 1" OF BEARING AT EACH END FOR EACH FOOT OF SPAN. MINIMUM BEARING OF 6" EACH SIDE OF OPENING. USE THIS SCHEDULE UNLESS NOTED OTHERWISE. STEEL ANGLES SHALL BE GALVANIZED AT EXTERIOR CONDITIONS.

3 VENEER LINTEL SCHEDULE

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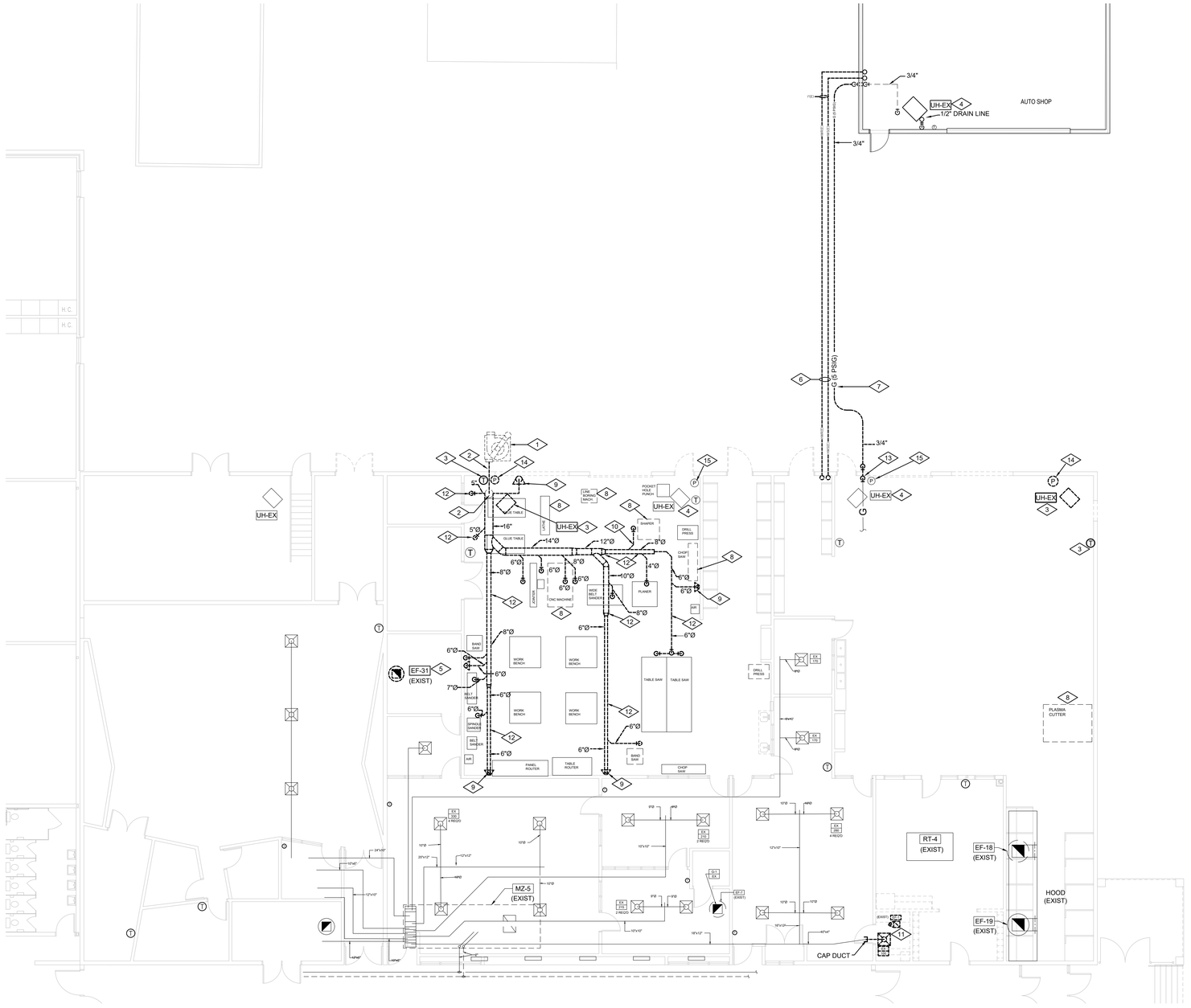
SCHEDULES

S603



MECHANICAL DEMOLITION PLAN- SHOPS

NORTH

0 4' 8' 16'

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

GENERAL DEMOLITION NOTE

ALL WOODSHOP DUST COLLECTION DUCTWORK TO REMAIN AS-IS DURING CONSTRUCTION OF NEW WOOD SHOP AREA; DEMOLTION OCCURS AFTER BUILDING IS COMPLETE.

8 REFERENCE NOTES

1. RELOCATE EXISTING DUST COLLECTION SYSTEM FOR TEMPORARY USE DURING CONSTRUCTION OF NEW WOOD SHOP. CONTRACTOR IS TO FIELD VERIFY EXACT LOCATION OF EXISTING DUST COLLECTION SYSTEM, AND MOVE TO NEW LOCATION AS SHOWN ON M1.1. CONTRACTOR RESPONSIBLE FOR COORDINATION OF ALL CONTROL AND POWER WIRING, SEISMIC BRACING OF DUST COLLECTOR AND ASSOCIATED DUCTWORK.
2. 16" DIAMETER DUST COLLECTION MAIN EXHAUST DUCT TO BE REMOVED FROM POINT ABOVE EXISTING ROOF PENETRATION JUST BEYOND ELBOW; PROVIDE ENOUGH EXISTING DUCTWORK TO REMAIN TO ALLOW INSTALLATION OF NEW EXTENSION OF TEMPORARY DUCTWORK FROM DUST COLLECTOR TO THIS POINT.
3. REMOVE EXISTING GAS FIRE UNIT HEATER, ASSOCIATED PIPING AND VALVING, POWER WIRING AND FLUE THRU ROOF. PATCH ROOF TO MATCH EXISTING. CONTRACTOR RESPONSIBLE FOR PATCHING ROOF. COORDINATE WITH OWNER FOR PREFERRED ROOFING CONTRACTOR.
4. EXISTING GAS FIRE UNIT HEATER TO REMAIN.
5. EXISTING PAINT BOOTH EXHAUST FAN AND ALL ASSOCIATED WIRING, CONTROL WIRING, DUCTWORK AND GRILLES TO BE REMOVED COMPLETE. CONTRACTOR RESPONSIBLE FOR PATCHING ROOF. COORDINATE WITH OWNER FOR PREFERRED ROOFING CONTRACTOR
6. REMOVE ALL ABANDONED UNDERGROUND PIPE.
7. REMOVE EXISTING GAS LINE AND REPLACE; COORDINATE WITH SHEET P1.1 FOR NEW GAS LINE REQUIREMENTS.
8. EXISTING WOODSHOP EQUIPMENT TO BE RELOCATED; SEE SHEET M4.1 FOR NEW LOCATIONS. COORDINATE WITH OWNER FOR TEMPORARY LOCATION FOR STORAGE OF EXISTING EQUIPMENT DURING CONSTRUCTION OF NEW WOODSHOP ADDITION PRIOR TO COMMENCEMENT OF WORK.
9. DEMO 6" FLOOR SWEEP AND ASSOCIATED DUCTWORK.
10. DEMO DUCTWORK COMPLETE.
11. REMOVE EXISTING EXHAUST FAN AND CAP DUCT DROP BELOW ROOF; REMOVE EXISTING SUPPLY AIR GRILLE AND ASSOCIATED DUCTWORK AND CAP WHERE SHOWN.
12. REMOVE ALL DUST COLLECTION DUCTWORK COMPLETE.
13. REMOVE GAS LINE AT DROP; COORDINATE WITH NEW WORK.
14. REMOVE CONDENSATE LIFT PUMP ON WALL ADJACENT TO UNIT HEATER AND ALL ASSOCIATED CONDENSATE DRAIN LINES.
15. CONDENSATE LIFT PUMP ON WALL ADJACENT TO UNIT HEATER AND ALL ASSOCIATED CONDENSATE DRAIN LINES TO REMAIN. PROTECT DURING DEMOLITION, AND REPLACE WITH LIKE IF DAMAGED.

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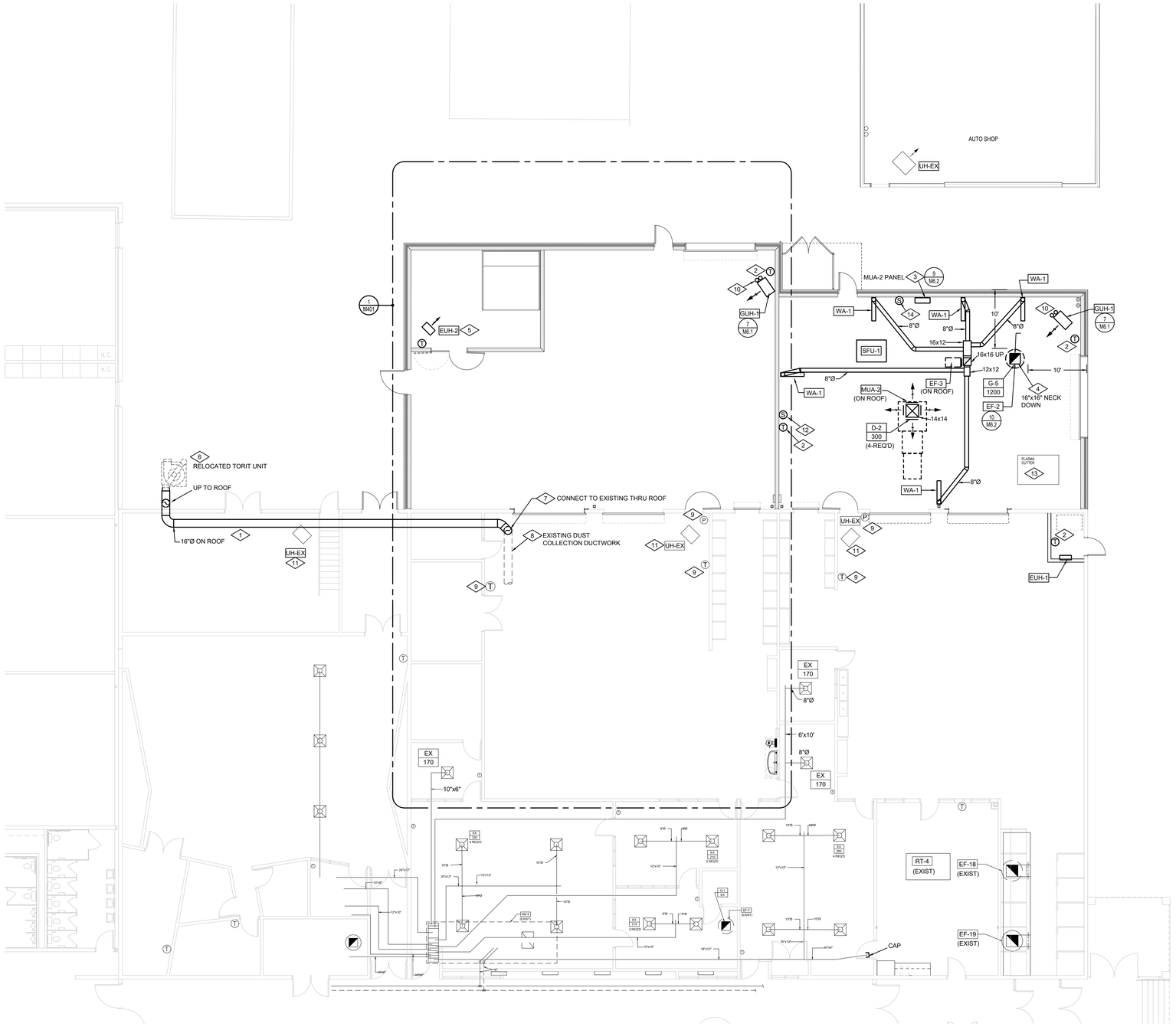
MECHANICAL DEMOLITION PLAN-SHOPS

MD1.1



MECHANICAL PLAN- SHOPS

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

NORTH

REFERENCE NOTES

1. TEMPORARY DUST COLLECTION DUCTWORK TO RUN ABOVE ROOF. PROVIDE STRUCTURAL SUPPORTS. COORDINATE ROUTING WITH STRUCTURE AND ALL TRADES. (TYPICAL)
2. WALL MOUNTED HEATING THERMOSTAT. (TYPICAL)
3. MAU CONTROL PANEL.
4. RUN TIGHT AT STRUCTURE.
5. EXPLOSION PROOF EXHAUST FAN. SEE SHEET M4.1.
6. RELOCATED EXISTING TORIT UNIT; UNIT TO BE MOVED TO NEW LOCATION COMPLETE WITH EXTENDED DUCTWORK AND POWER WIRING BY ELECTRICAL. FIELD COORDINATE EXACT LOCATION PRIOR TO COMMENCEMENT OF WORK. UNIT TO BE OPERATIONAL DURING ENTIRE CONSTRUCTION OF NEW WOOD SHOP. CONTRACTOR TO COORDINATE WITH OWNER FOR PHASING OF REMOVAL OF EXISTING TORIT SYSTEM AFTER NEW SYSTEM INSTALLATION IS COMPLETE. CONTRACTOR RESPONSIBLE FOR REMOVAL AND DISPOSAL OF EXISTING SYSTEM AND TEMPORARY EXHAUST DUCT ROUTED UP TO ROOF. PATCH ROOF HOLE AFTER 16"Ø DUCT IS REMOVED. SEE SHEET M4.1 FOR ENLARGED PLANS.
7. CONTRACTOR TO SUPPLY NEW 16"Ø EXHAUST DUCT TO MATCH EXISTING FOR TEMPORARY OPERATION OF EXISTING DUST COLLECTION SYSTEM. CONTRACTOR RESPONSIBLE FOR REMOVAL AND DISPOSAL OF EXISTING SYSTEM AND TEMPORARY EXHAUST DUCT ROUTED UP TO ROOF. PATCH ROOF HOLE AFTER 16"Ø DUCT IS REMOVED. SEE SHEET M4.1 FOR ENLARGED PLANS.
8. EXISTING DUST COLLECTION SYSTEM AND DUCTWORK TO REMAIN UNTIL AFTER BUILDING IS CONSTRUCTED.
9. EXISTING CONDENSATE PUMPS TO REMAIN.
10. CONBUSTION AIR AND EXHAUST FLUES UP THRU ROOF TO CONCENTRIC KIT. COORDINATE LOCATIONS WITH STRUCTURAL PRIOR TO COMMENCEMENT OF WORK.
11. EXISTING GAS FIRED UNIT HEATER TO REMAIN.
12. EF-3 OFF/ON SWITCH.
13. RELOCATED EXISTING PLASMA CUTTER; COORDINATE WITH OWNER FOR EXACT LOCATION PRIOR TO COMMENCEMENT OF WORK. PROVIDE PLASMA CUTTER EXHAUST DUCT THRU SIDE OF WALL AT THIS APPROXIMATE LOCATION. COORDINATE WITH EQUIPMENT FOR DUCT SIZE AND CONNECTION REQUIREMENTS.
14. ON/OFF SWITCH FOR SMOKE FILTRATION UNIT SFU-1.
15. GENERAL EXHAUST FAN 0-2 HOUR TIMER SWITCH WITH PILOT LIGHT.

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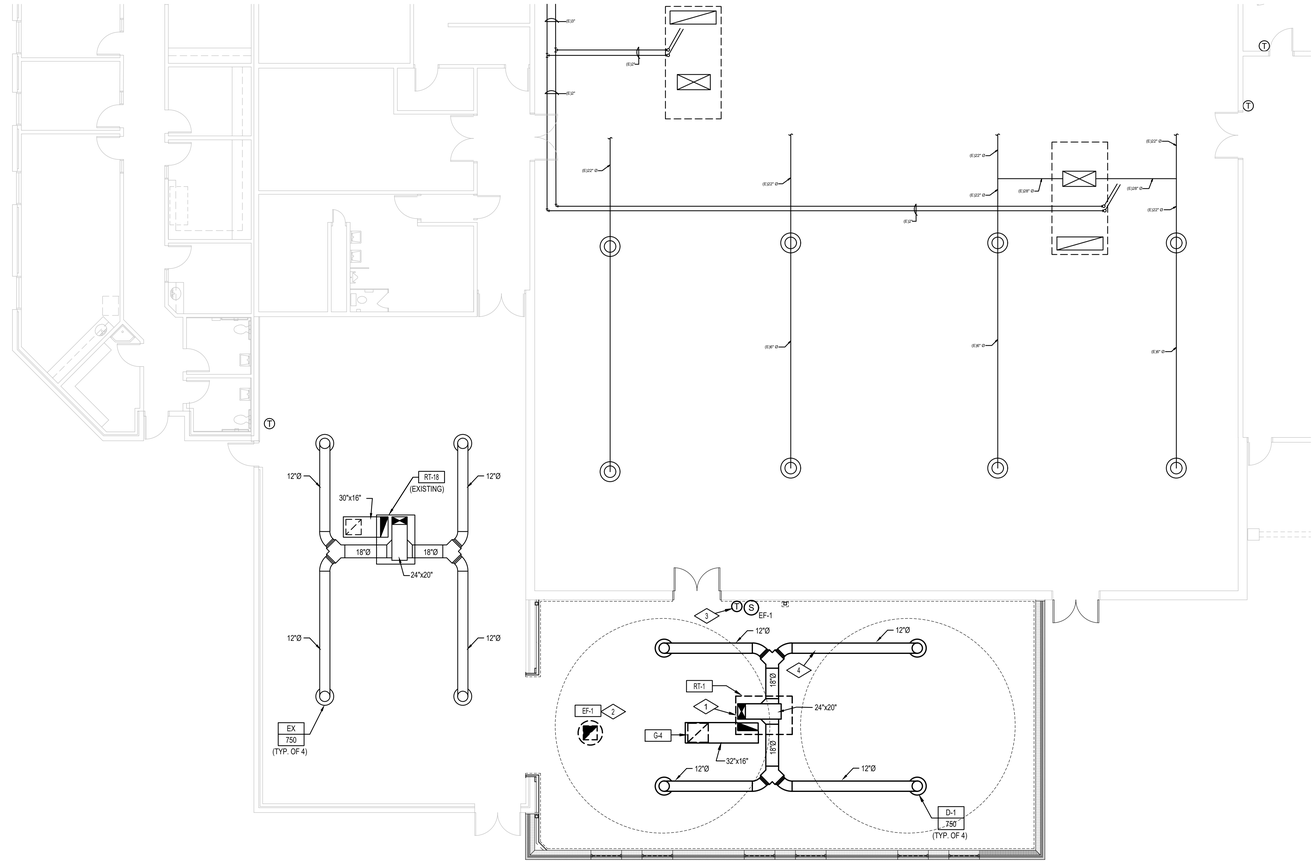
MECHANICAL PLAN- SHOPS

M1.1



REFERENCE NOTES

1. MOUNT RETURN GRILLE ON BOTTOM OF DUCT.
2. PROVIDE 14"x14" NECK DOWN TO 16" BELOW ROOF DECK. PROVIDE 1/4" HARDWARE CLOTH OVER OPENING OF EXHAUST DUCT.
3. HEATING AND COOLING THERMOSTAT FOR RT-1.
4. RUN DUCTWORK BELOW STRUCTURE. FIELD COORDINATE ELEVATION OF DUCTWORK PRIOR TO COMMENCEMENT OF WORK.

MECHANICAL PLAN- WRESTLING

BID ALTERNATE #1

0 4' 8' 16'

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

NORTH

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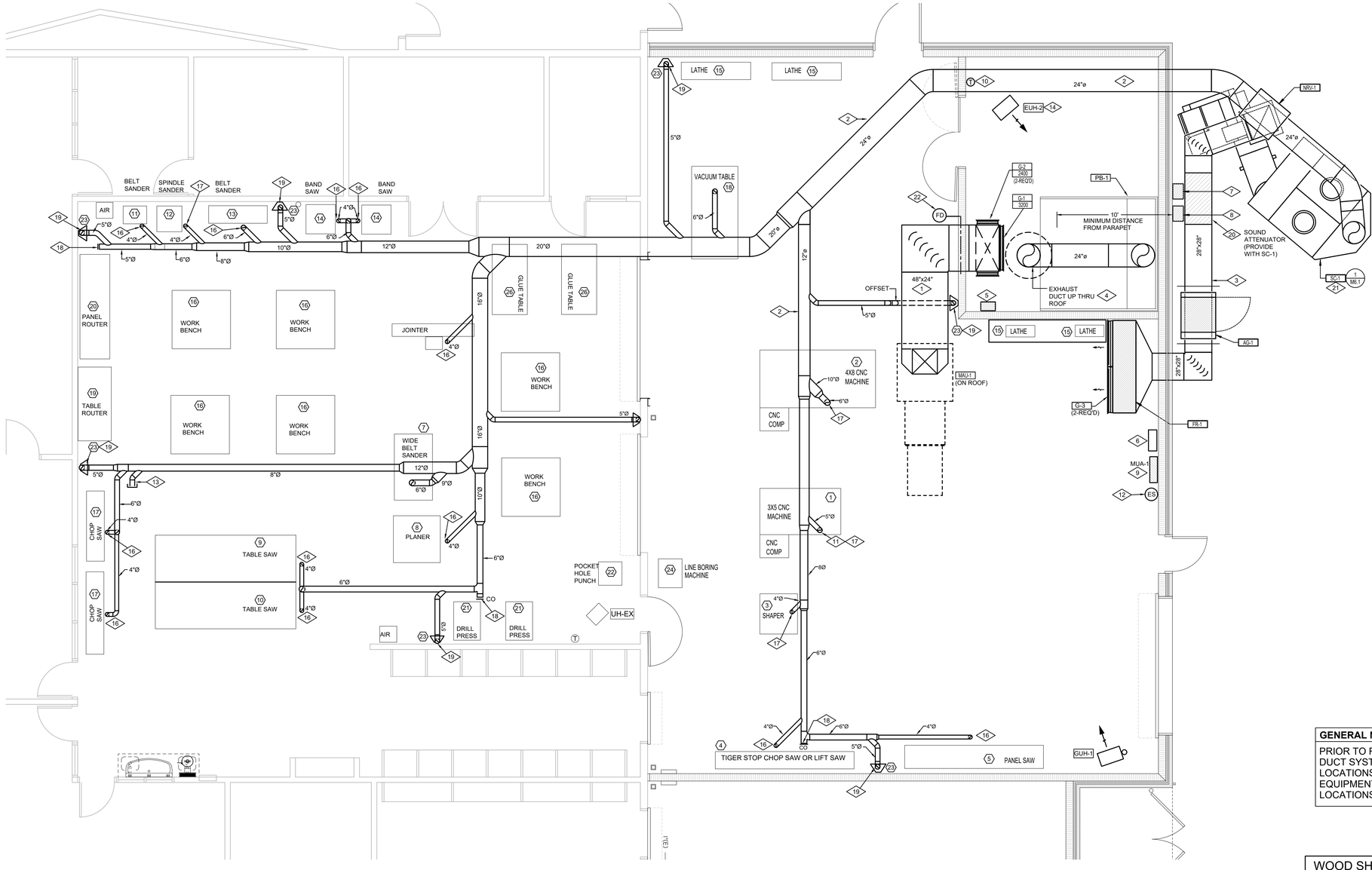
MECHANICAL PLAN- WRESTLING

M1.2



ENLARGED WOOD SHOP MECHANICAL PLAN

0 2' - 0" 4' - 0" 8' - 0"

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

NORTH

REFERENCE NOTES

1 HVAC DUCT TO RUN EXPOSED, BELOW STRUCTURE AS HIGH AS POSSIBLE.

2 DUCT COLLECTION DUCTWORK. DUCTWORK TO BE FREE FROM DENTS AND BLEMISHES IN PREPARATION FOR PAINTING. RUN AS HIGH AS POSSIBLE.

3 DUCT COLLECTION DUCTWORK TO RUN EXTERIOR TO BUILDING. SUPPORT FROM WALL MOUNTED SUPPORT BRACKETS.

4 PAINT BOOTH EXHAUST DUCT UP THRU ROOF. SEE DETAILS.

5 PAINT BOOTH CONTROL PANEL.

6 SAWDUST COLLECTOR CONTROL PANEL. COORDINATE LOCATION WITH OWNER AND EQUIPMENT LAYOUT.

7 NO RETURN VALVE CONTROL PANEL.

8 ABORT GATE CONTROL PANEL.

9 MAU-1 CONTROL PANEL.

10 WALL MOUNTED HEATING THERMOSTAT (TYPICAL).

11 STUB OUT 5" DIA DUCT FOR FUTURE CONNECTION TO CNC MACHINE.

12 SAWDUST COLLECTOR "SC-1" ON/OFF WALL SWITCH EMERGENCY STOP SWITCH. SEE SPECIFICATIONS DIVISION 25.

13 PROVIDE 5" DIA CAPPED OUTLET FOR FUTURE CONNECTION.

14 EXPLOSION PROOF ELECTRIC UNIT HEATER; INSTALL AS PER MANUFACTURERS INSTRUCTIONS.

15 SOUND ATTENUATOR; PROVIDE WITH SAWDUST COLLECTION UNIT; COORDINATE SIZE AND STATIC PRESSURE DROP WITH VENDOR PRIOR TO COMMENCEMENT OF WORK.

16 DUCT DROP WITH BLAST GATE TO SHOP EQUIPMENT. COORDINATE TERMINATION HEIGHT AND LOCATION WITH EQUIPMENT. BLAST GATE TO BE LOCATED ABOVE EQUIPMENT. PROVIDE TRANSITION, FLEX DUCT AND FINAL CONNECTION TO EQUIPMENT. PROVIDE ALL SUPPORTS AS NEEDED FOR STURDY INSTALLATION. PROVIDE STRUCTURAL STRUT STANCHIONS FROM FLOOR TO ROOF STRUCTURE WHERE NEEDED.

17 DUCT DROP WITHOUT BLAST GATE TO SHOP EQUIPMENT. COORDINATE TERMINATION HEIGHT AND LOCATION WITH EQUIPMENT. BLAST GATE TO BE LOCATED ABOVE EQUIPMENT. PROVIDE TRANSITION, FLEX DUCT AND FINAL CONNECTION TO EQUIPMENT. PROVIDE ALL SUPPORTS AS NEEDED FOR STURDY INSTALLATION. PROVIDE STRUCTURAL STRUT STANCHIONS FROM FLOOR TO ROOF STRUCTURE WHERE NEEDED.

18 REMOVABLE CLEANOUT CAP AT END OF DUCT.

19 DUCT DROP WITH BLAST GATE FOR FLOOR SWEEP. BLAST GATE AT 72" ABOVE FLOOR.

20 SOUND ATTENUATOR PROVIDED WITH SAWDUST COLLECTOR; CONTACTOR TO VERIFY EXACT SIZE OF SOUND ATTENUATOR PRIOR TO COMMENCEMENT OF WORK. PROVIDE DUCT TRANSITIONS AS REQUIRED TO MATCH INLET/OUTLET OF ATTENUATOR.

21 CONTRACTOR TO COORDINATE WITH FIRE SPRINKLER CONTRACTOR FOR REQUIREMENTS OF FIRE SPRINKLER SYSTEM CONNECTIONS PRIOR TO COMMENCEMENT OF WORK.

22 PROVIDE ONE HOUR FIRE DAMPER; SEE SPECIFICATIONS.

GENERAL NOTE:

PRIOR TO FABRICATION OF DUCT SYSTEMS COORDINATE LOCATIONS OF ALL SHOP EQUIPMENT AND DROP LOCATIONS WITH OWNER

WOOD SHOP EQUIPMENT MECHANICAL SCHEDULE

MARK	DESCRIPTION	DUST COLLECTOR	
		DUCT SIZE (DIAM)	CFM
1	CNC 3X5	4"	500
2	CNC 4X8	6"	750
3	SHAPER	4"	500
4	CHOP SAW	4"	400
5	PANEL SAW	4"	350
6	8" JOINTER	4"	600
7	WIDE BELT SANDER	6"	1,600
8	PLANER	4"	900
9	TABLE SAW 1	4"	400
10	TABLE SAW 2	4"	400
11	BELT SANDER	4"	400
12	SPINDLE SANDER	4"	600
13	BELT SANDER	6"	820
14	18" BAND SAW	4"	600
15	LATHE		
16	WORK BENCH		
17	CHOP SAW	4"	400
18	VACCUUM TABLE	6"	600
19	TABLE ROUTER		
20	PANEL ROUTER		
21	DRILL PRESS		
22	POCKET HOLE PUNCH		
23	FLOOR SWEEP		
24	LINE BORING MACHINE		
25	BELT SANDER		
26	GLUE TABLE		

OWNER PROVIDED OWNER INSTALLED

NOTES:

(1) PROVIDE BLAST GATE AT ALL DUCT DROPS AT APPROXIMATELY 5'-0" ABOVE FINISHED FLOOR.

(2) COORDINATE FINAL DROP LOCATIONS WITH EQUIPMENT PROVIDED, LOCATION AND ORIENTATION PRIOR TO FABRICATION OF EXHAUST DUCT SYSTEM.

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MANTI HIGH SCHOOL
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LICENSED PROFESSIONAL ENGINEER #334624-2202 JAMES AUSTIN BERRETT 12/9/2024 UTAH

PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

ENLARGED MECHANICAL WOODSHOP PLAN

M4.1

ROOFTOP UNIT SCHEDULE

SYMBOL	CFM	ESP	FAN SIZE	FAN MOTOR HP	COOLING CAPACITY					HEATING CAPACITY				POWER	MCA	MODEL & MANUFACTURER	OPERATING WEIGHT
					EAT	LAT	MIN TCT MBH	COIL SIZE	EER	TYPE	GAS PR.	MBH IN	MBH OUT				
RT-1	3000	1.00"	15"x15"	3 H.P.	80°F	55°F	118.9	10.0	9.0	NAT. GAS	4 OZ.	224	180	460/3/60	24.2	CARRIER 48TJE012 (1)(2)(4)	1262

NOTES:
(1) UNIT TO BE COMPLETE WITH CURB.
(2) UNIT TO HAVE AN OUTSIDE AIR/RETURN AIR/ RELIEF AIR ECONOMIZER.
(3) UNIT TO HAVE AN OUTSIDE AIR/RETURN AIR/ RELIEF AIR ECONOMIZER WITH POWER RELIEF FANS.
(4) UNIT TO HAVE HEAD PRESSURE CONTROL PACKAGE.

MAKE-UP AIR UNIT SCHEDULE

SYMBOL	AREA SERVED	CFM	ESP	EVAP SECTION	FLOW CONFIG	NATURAL GAS - HEATING CAPACITY			ELECTRICAL VOLTAGE	FLA	MCA	SIZE L"xW"xH" WEIGHT	MODEL & MANUFACTURER (1)(2)(3)(4)	
						MBH INPUT	MBH OUTPUT	EFFICIENCY						
MAU-1	WOOD SHOP - PAINT BOOTH	8,000	0.3"	NO	DOWN	575.8	529.8	92%	5.0 HP 460/3/60	6.9	9.2 A	157"L x 58"W x 58"H 2,000 LBS	ECON-AIR EA4-D.1000-30D	(6)
MAU-2	METAL SHOP	1200	.50"	NO	DOWN	90	80	92%	.50 H.P. 460/3/60	0.9	1.7 A	178"L x 50"W x 40"H 1100 LBS	ECON-AIR EA1-D.500-15D	(5)

NOTES:
(1) DIRECT NATURAL GAS FIRED.
(2) FAN CFM AT PROJECT ALTITUDE OF 5611'.
(3) 2" PLEATED FILTERS, 20" FACTORY ROOF CURB, FACTORY DISCONNECT, RAIN HOOD, AND HAIL GUARDS.
(4) FACTORY UN-POWERED 20 AMP@ 120/1/60 CONVENIENCE OUTLET.
(5) INTERLOCK WITH EF-2.
(6) INTERLOCK WITH PAINT BOOTH EXHAUST FAN.

EXHAUST FAN SCHEDULE

	SYMBOL	AREA SERVED	TYPE	C.F.M	S.P.	R.P.M.	MOTOR	DRIVE	WEIGHT	MAKE & MODEL	NOTES
GENERAL	EF-1	WRESTLING	ROOF	1200	0.25"	1097	1/4 H.P. 120/1/60	BELT	164 LBS.	TWIN CITY BCRD-120D	(1)(2)(3)
GENERAL	EF-2	WELD. SHOP	ROOF	1200	0.25"	1097	1/4 H.P. 120/1/60	BELT	164 LBS.	TWIN CITY BCRD-120D	(1)(2)
WELD ARMS	EF-3	WELD. SHOP	ROOF	2000	.50"	1750	3/4 H.P. 120/1/60	DIRECT	250 LBS.	TWIN CITY 135 DCV	(4)

NOTES:
(1) EXHAUST FANS TO BE ROOF-MOUNTED CENTRIFUGAL TYPE, COMPLETE WITH SPUN ALUMINUM HOOD, BIRDSCREEN, DISCONNECT SWITCH UNDER HOOD AND BACKDRAFT DAMPER.
(2) EXHAUST FAN SHALL BE COMPLETE WITH 18" HIGH PRE-FAB ROOF CURB.
(3) FAN TO OPERATE DURING OCCUPIED HOURS. BY ATC CONTRACTOR. SEE SPECIFICATIONS.
(4) FAN TO BE UPBLAST, HAVE MOTORIZED SHUTTER, VIBRATION ISOLATION RAILS, NEMA RATED DISCONNECT SWITCH

ELECTRIC UNIT HEATER SCHEDULE

SYMBOL	TYPE	SIZE	CFM	ELECTRICAL	MAKE & MODEL
EH-1	SURFACE MTD.	10"W x 13"H x 4"D	100	1000 WATT (4.8 AMP) @ 208/1/60	MARKEL F3052TDWB
EH-2	HORIZ.	14"x21"x22" DEEP	580	3KW @ 208/1/60 16.3 AMPS	MARKEL EXPLOSION PROOF HLA 12-208160-3.0

NOTES:
PROVIDE DISCONNECT AND INTEGRAL THERMOSTAT.

DIFFUSER SCHEDULE

SYMBOL	TYPE	NECK SIZE	LOCATION	AIR PATTERN	MAKE & MODEL
D-1 CFM	ROUND FACE	12"Ø	DUCT	4-WAY	TITUS TMRA (1)
D-2 CFM	SUPPLY AIR	6"x12"	MUA-2	ADJUSTABLE	PRICE HCD2 (2)

NOTES:
(1) TO HAVE OFF-WHITE FINISH.
(2) DIFFUSER SHALL BE COMPLETE WITH OPPOSED BLADE BALANCING DAMPER

GRILLE SCHEDULE

SYMBOL	NECK SIZE	LOCATION	TYPE	MAKE & MODEL (1)
G-1	46" x 24"	DUCT MOUNTED	SUPPLY AIR	TITUS 33RL (2)
G-2	22" x 30"	DUCT MOUNTED	SUPPLY AIR	TITUS 33RL (2)
G-3	48" x 40"	DUCT MOUNTED	SUPPLY AIR	TITUS 272RS (4)
G-4	30" x 30"	DUCT MOUNTED	RETURN	TITUS 355 (3)
G-5	16" x 16"	DUCT MOUNTED	EXHAUST	PRICE 500-45 (5)

NOTES:
(1) GRILLE SHALL HAVE BRIGHT WHITE FINISH.
(2) GRILLE SHALL BE HEAVY DUTY GYMNASIUM TYPE.
(3) GRILLE TO BE ALUMINUM CONSTRUCTION.
(4) FILTER GRILLE TO BE PROVIDED WITH 2" FILTER AND HINGES ON THE RIGHT (FIELD VERIFY).
(5) REGISTER TO BE HEAVY DUTY GYMNASIUM TYPE.

GAS FIRED UNIT HEATER SCHEDULE

SYMBOL	TYPE	MBH INPUT	MBH OUTPUT	FLUE	CFM	MOTOR	MAKE & MODEL
GUH-1	HORIZONTAL	400	332	6"Ø	5123	0.5 HP 120/1/60	REZNOR UDXC-400

NOTES:
(1) PROVIDE FACTORY ROOF VENT/INTAKE TERMINATION KIT.

MECHANICAL EQUIPMENT SCHEDULE

PB-1 PAINT BOOTH: OPEN FRONT, 18 GA GALVANIZED STEEL CONSTRUCTION, POWDER COATED WHITE, FILTERED EXHAUST, INTEGRAL 30" IN-LINE TUBE-AXIAL FAN AND MOTOR, CAPACITY 7,500 CFM @ 0.5" S.P., INTERIOR SIZE 6'W x 5'D x 10'H, LED LIGHT, ELECTRICAL CLASS 1 DIVISION 2, FILTER BANK WITH BLANKET MEDIA (2-STAGE FILTRATION) AND TIGHTLY SEALED SECURING HARDWARE. PROVIDE TWO SETS OF FILTER MEDIA SUITABLE FOR WOOD FINISH SPRAY. PROVIDE SOLENOID VALVE FOR ASSOCIATED COMPRESSED AIR PIPING AND CONTROL PANEL FOR ACTIVATION OF PAINT BOOTH FAN, LIGHTS, AND MAKE-UP AIR UNIT. COORDINATE WITH ELECTRICAL [POWER TO CONTROL PANEL. ELECTRICIAN TO WIRE FROM CONTROL PANEL TO FAN MOTOR AND LIGHTS. BAS (ATC) CONTRACTOR TO WIRE FROM CONTROL PANEL TO SOLENOID.]

MANUFACTURER: RTT SOLUTIONS
MODEL: IB-06-10-05-00-S
ELECTRICAL: FAN - 2.0 HP @ 460/3/60
CONTROL PNL/LIGHTS - 15 AMP @ 120/1/60
SIZE: 6'-4"W x 7'-8"D x 10'-2"H
WEIGHT: 1,650 LBS

SC-1 SAWDUST COLLECTOR: CARTRIDGE PULSE TYPE. 10,570 CFM AT 14" WGSP (10 " ESP), WEATHERPROOF CONSTRUCTION, SPUN BONDED POLY CARTRIDGE FILTERS FOR WOOD DUST. AUTOMATIC COMPRESSED AIR PULSE TYPE FILTER CLEANER (3.4 SCF PER PULSE @ 90 TO 110 PSIG / 20.4 SCFM @ 6 PULSES PER MINUTE), LEG EXTENSIONS AS REQUIRED, HIGH LEVEL INDICATOR, AND SLIDE GATE AT HOPPER OUTLET. GROUND MOUNTED FAN. CABINET WITH CONTROLS, DISCONNECT, AND MOTOR STARTER. PROVIDE DUMPSTER LID WITH ADAPTER FOR HOPPER OUTLET. SHEET METAL CONTRACTOR TO PROVIDE DUCTWORK FROM DUST COLLECTOR TO FAN. PROVIDE SOUND ATTENUATOR WITH SAWDUST COLLECTOR.

MANUFACTURER: UNITED AIR SPECIALTIES
MODEL: SCF 32-4
ELECTRICAL: 40 HP @ 460/3/60 (FAN)
120/1/60 (CONTROLS & VALVES)
SIZE: 90"W X 87"D X 226"H

SD-1 SAWDUST DUMPSTER: SELF DUMPING HOPPER, 1.5 CUBIC YARD, 2,000 LB CAPACITY, ALL STEEL CONSTRUCTION, FORKLIFT TRANSPORTABLE, DUMP LATCH, RETAINING CHAIN, POWDER COATED PAINT FINISH (COLOR BY ARCHITECT), PROVIDE 6" CASTERS AND CUSTOM LID (SEE DETAIL FOR LID). COORDINATE ALL COMPONENT SIZES PRIOR TO ORDERING.

MANUFACTURER: VESTIL (OR EQUAL OF DONALDSON OR OTHER PRIOR APPROVED)
MODEL: HOP-150-LD
SIZE: 60"W X 62"D X 43"H (W/ CASTERS)

NRV-1 NO RETURN VALVE, 23", WITH MICRO-SWITCH, DUST LEVEL SENSOR, CONTROLLER, AND NEMA 4 CONTROL CABINET. COORDINATE ALL COMPONENT SIZES PRIOR TO ORDERING.

MANUFACTURER: BOSS PRODUCTS
MODEL: NRV.
SIZE: 41"L X 32"W X 34"H

AG-1 ABORT GATE, 28"x28" (23" DIA.), NFPA APPROVED, SPARK DETECTOR, GMCU1610SD CONTROLLER, DUCT MOUNTED FIRE SPRINKLER, AND NEMA 4 CONTROL CABINET. COORDINATE ALL COMPONENT SIZES PRIOR TO ORDERING.

MANUFACTURER: BOSS PRODUCTS
MODEL: EM-HSAG
ELECTRICAL: 3 AMPS @ 120/1/60
SIZE: 49"L X 36"W X 64"H

FR-1 FILTER RACK: TWO STAGE FILTER HOUSING, 16 GA STEEL CONSTRUCTION, SIDE ACCESS HINGED DOORS, WITH TRACKS FOR SIX (6) 12" BOX FILTERS, AND SIX (6) 2" PRE FILTERS.

MANUFACTURER: AAF
MODEL: SURESEAL 20H 30W
BOX FILTER: 24"X24" VARICEL XL (MERV 11)
PRE-FILTER: 24"X24" PERFECTPLEAT SC M8 (MERV 8)
SIZE: 74"W X 50"H X 24"D

WA-1 WELDING ARM: WALL MOUNTED, 8"Ø TELESCOPIC EXTRACTION ARM WITH ROTATABLE HOOD, 400 CFM, FOCUS EXTRACTION SPOILER, AND INTEGRAL THROTTLE VALVE THAT CAN BE FULLY OPENED, PARTIALLY OPENED, OR FULLY CLOSED. PROVIDE TELESCOPIC TUBE WITH COUNTERWEIGHT MECHANISM ALLOWING FOR 4 FT TO 6 FT WORKING RADIUS. MOUNT AS PER MANUFACTURERS INSTRUCTIONS.

MANUFACTURER: LINCOLN (OR EQUAL OF GREENE MFG, OR CAR-MON PRODUCTS)
MODEL: PRISM K1655-15
WEIGHT: 57 LBS

SFU-1 SMOKE FILTRATION UNIT: 4000 CFM NOMINAL AIRFLOW, 5 H.P. TEFC MOTOR, 480/3/60, TWO STAGE PENNEY-TYPE ELECTROSTATIC AIR CLEANER, UL RECOGNIZED/CSA CERTIFIED, 4-WAY ADJUSTABLE EXHAUST DIFFUSER.
MANUFACTURER: UNITED AIR SPECIALISTS
MODEL: SHN-40-S

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#334524-2202
JAMES AUSTIN BEBRETT
12/9/2024
UTAH

PROJECT FOR
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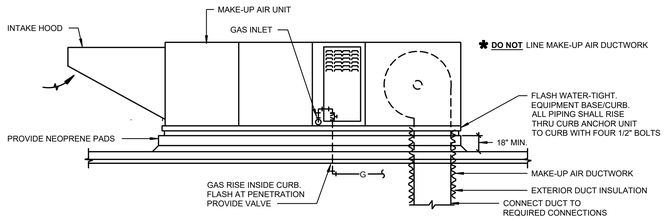
MECHANICAL SCHEDULES

M5.1

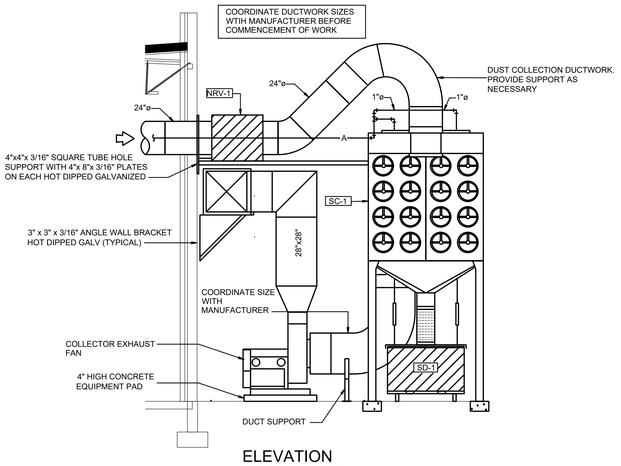
A | 6 | 5 | 4 | 3 | 2 | 1



MAKE-UP AIR UNIT MAU-1 DETAIL - NO EVAP

6 / M6.1

SCALE: NTS (MUA-2 SIMILAR)



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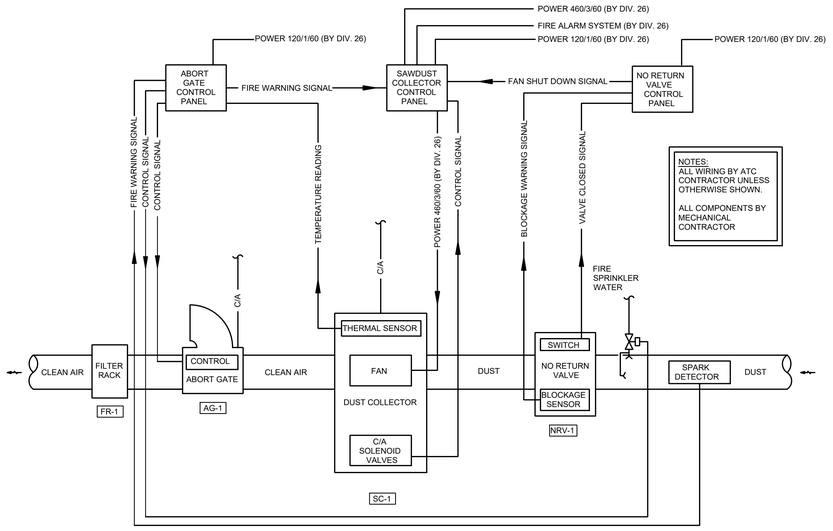

DUST COLLECTOR SCHEMATIC

1 / M6.1

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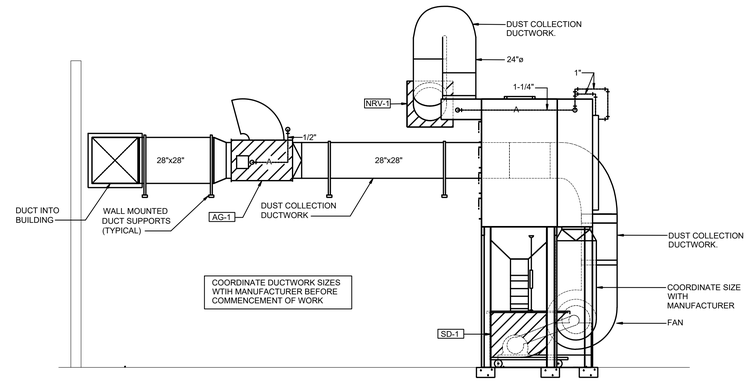

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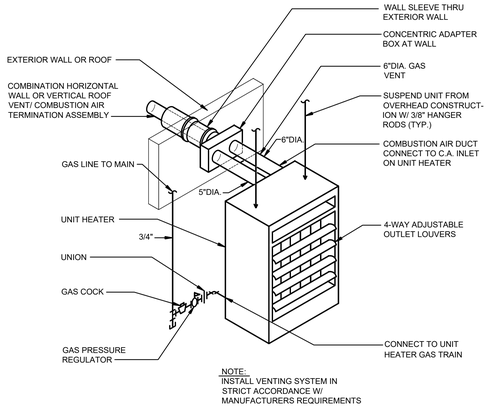


GAS FIRED UNIT HEATER PIPING SCHEMATIC

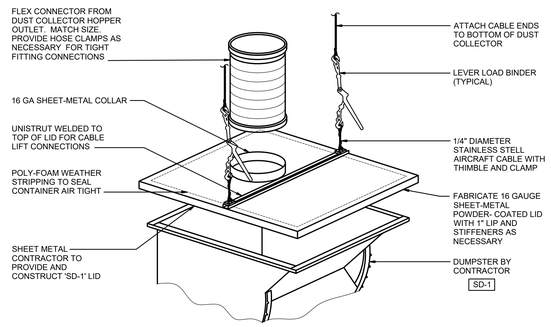
7 / M6.1

NOT TO SCALE

SAWDUST COLLECTOR DETAIL

4 / M6.1

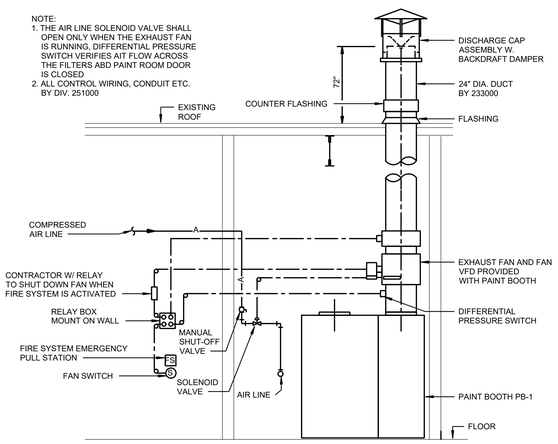
SCALE: NTS



SAWDUST COLLECTOR LID DETAIL

5 / M6.1

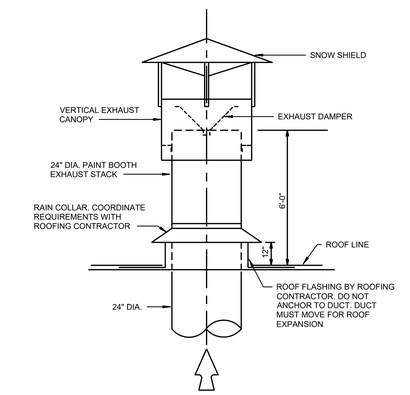
SCALE: NTS



PAINT BOOTH PB-1 DETAIL

2 / M6.1

SCALE: NTS



PAINT BOOTH PB-1 EXHAUST STACK DETAIL

3 / M6.1

SCALE: NTS

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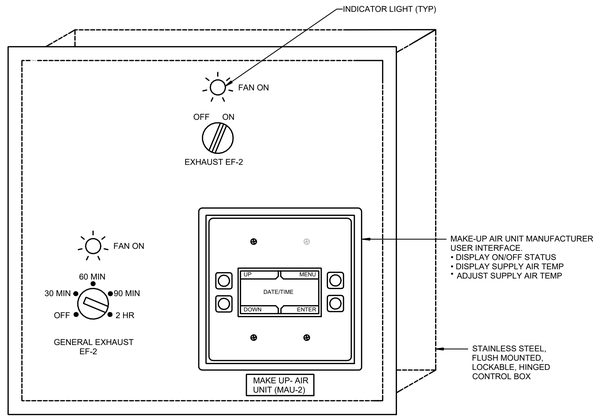
MECHANICAL DETAILS

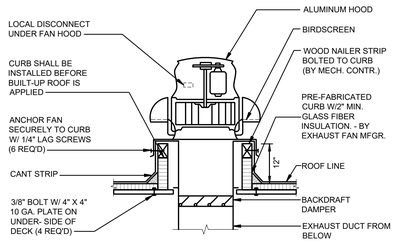
M6.1



METAL SHOP EXHAUST AND MAKE-UP AIR CONTROL PANEL DETAIL

NOT TO SCALE

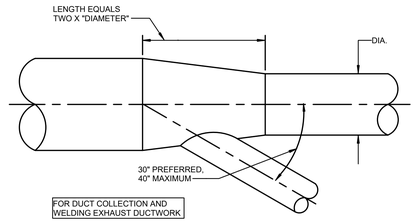
9 / M6.2



ROOF MOUNTED EXHAUST FAN DETAIL

NOT TO SCALE

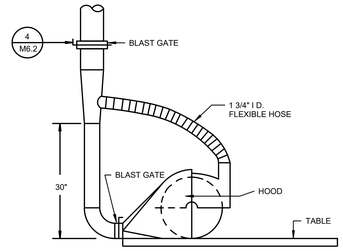
10 / M6.2



DUCT TAKEOFF DETAIL

SCALE: NTS

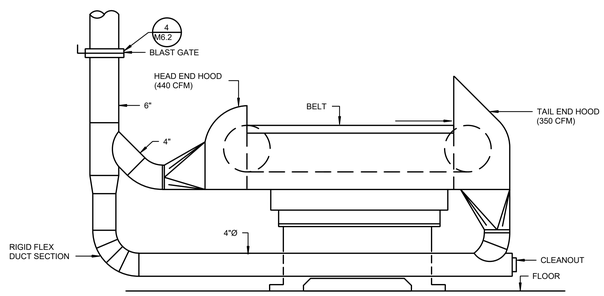
5 / M6.2



MITER SAW DETAIL

SCALE: NTS

6 / M6.2



HORIZONTAL BELT SANDER DETAIL

SCALE: NTS

7 / M6.2

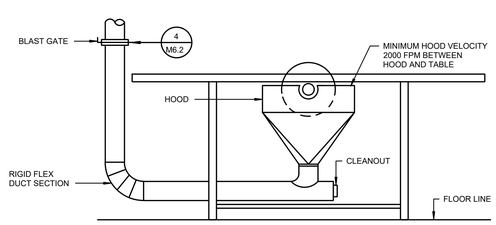
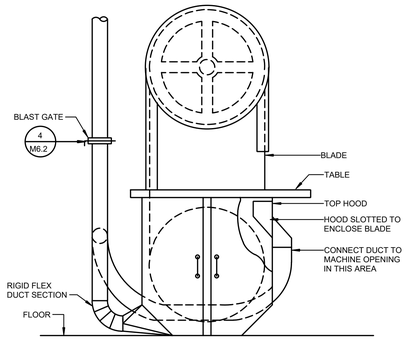


TABLE SAW DETAIL

SCALE: NTS

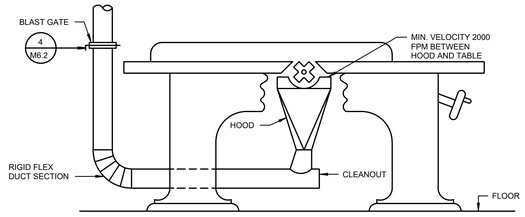
8 / M6.2



BAND SAW DETAIL

SCALE: NTS

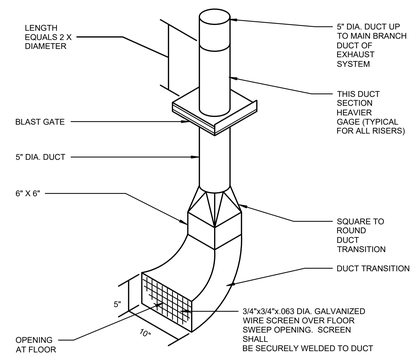
1 / M6.2



JOINTER DETAIL

SCALE: NTS

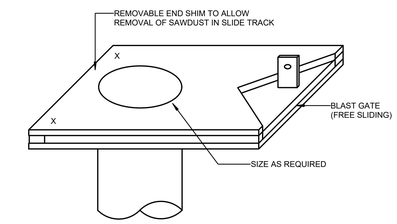
2 / M6.2



FLOOR SWEEP DETAIL

SCALE: NTS

3 / M6.2



BLAST GATE DETAIL

SCALE: NTS

4 / M6.2

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MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

DRAWING ISSUE	BID DOCUMENTS
ISSUE DATE	12-09-2024
NWL PROJECT	0121.032

LICENSED PROFESSIONAL ENGINEER
#334524-2202
JAMES
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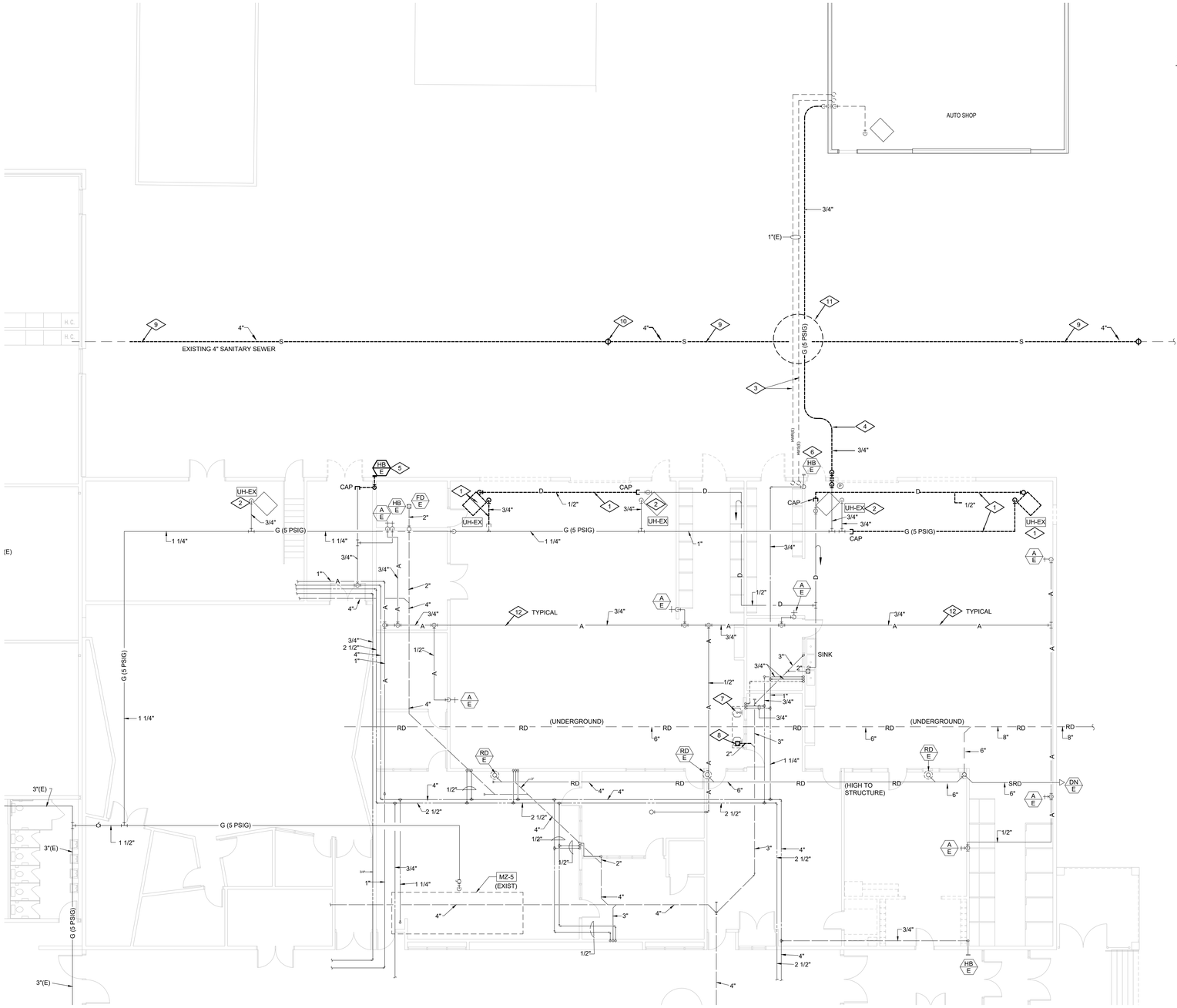
12/9/2024
UTAH

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

MECHANICAL
DETAILS

M6.2

E
D
C
B
A
6 | 5 | 4 | 3 | 2 | 1



REFERENCE NOTES

#	
1	REMOVE EXISTING GAS FIRED UNIT HEATER AND ALL ASSOCIATED PIPING AND DRAINS.
2	EXISTING GAS FIRE UNIT HEATER TO REMAIN.
3	REMOVE ALL ABANDONED UNDERGROUND PIPE.
4	REMOVE EXISTING GAS LINE AND REPLACE; COORDINATE WITH SHEET P1.1 FOR NEW GAS LINE REQUIREMENTS.
5	REMOVE EXISTING HOSE BIBB; REMOVE CW LINE BACK THRU WALL AND UP TO MAIN LINE; RE-CONNECT FOR EXTENSION TO NEW HOSE BIBB, COORDINATE WITH SHEET P1.1.
6	EXISTING HOSE BIBB TO REMAIN.
7	DEMOLISH EXISTING SINK CABINET AND REMOVE SINK, WASTE LINES, WATER LINES AND SUPPORTS COMPLETE.
8	DEMOLISH EXISTING FLOOR DRAIN AND CAP BELOW FLOOR.
9	EXISTING SANITARY SEWER LINE TO BE REMOVED AND REPLACED. CONTRACTOR TO FIELD VERIFY DEPTH OF LINE AND COORDINATE WITH NEW WORK FOR INSTALLATION OF NEW PIPE IN SAME TRENCH.
10	REMOVE EXISTING CLEANOUT COMPLETE.
11	COORDINATE REMOVAL OF EXISTING SANITARY SEWER LINE WITH EXISTING UNDERGROUND GAS LINE
12	EXISTING COMPRESSED AIR PIPING TO REMAIN.

PLUMBING DEMOLITION PLAN- SHOPS

NORTH

0 4' 8' 16'

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

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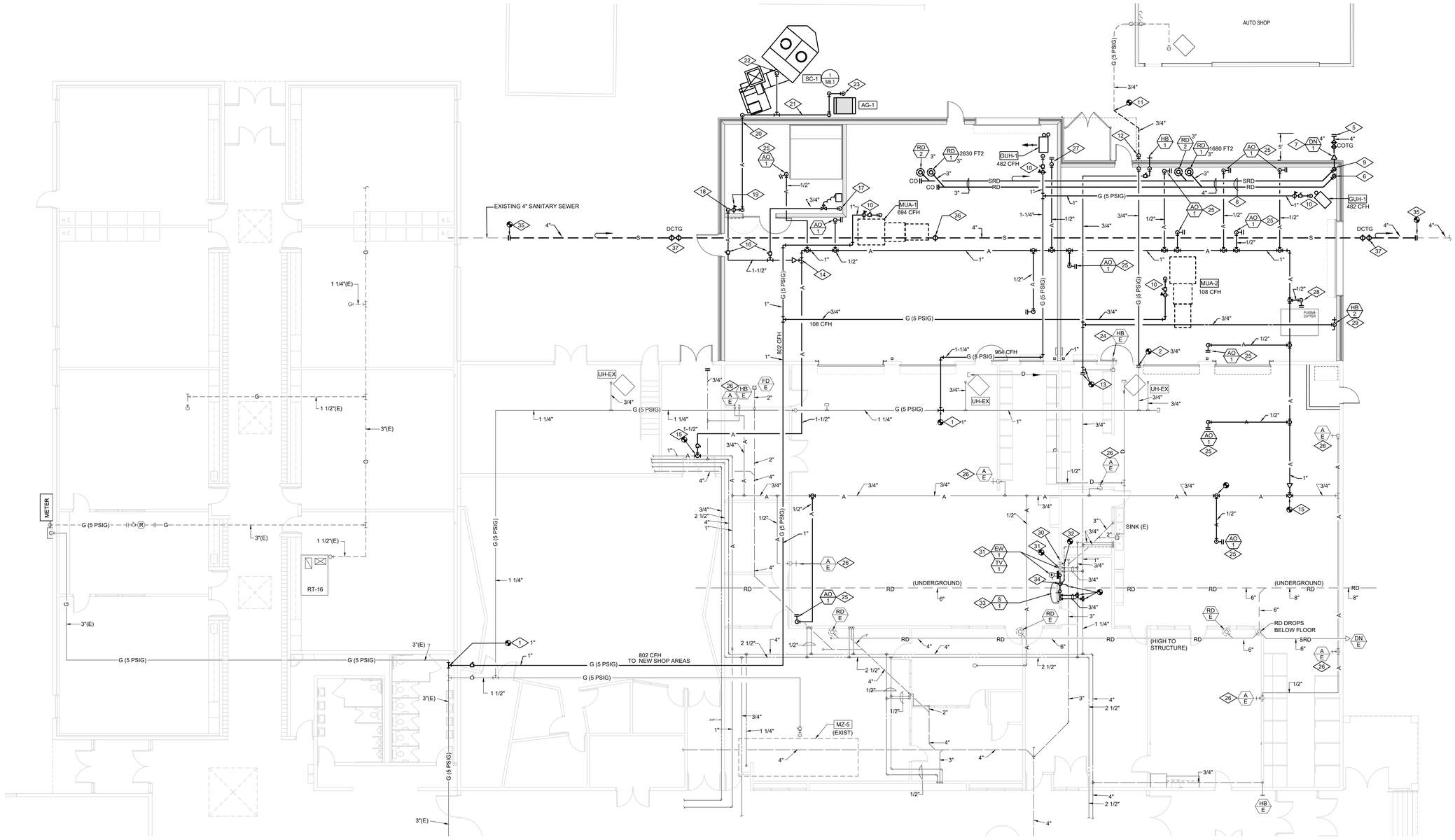
PLUMBING DEMOLITION PLAN- SHOPS

PD1.1



PLUMBING PLAN- SHOPS

NORTH

0 4' 8' 16'

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

GENERAL NOTES

PROVIDE (2) DRYERS FOR (2) 1/2" AIR DROPS; COORDINATE LOCATION OF DRYERS WITH OWNER PRIOR TO COMMENCEMENT OF WORK.

REFERENCE NOTES

1. TIE IN NEW 5# GAS LINE TO EXISTING 3" 5LBS GAS LINE AT THIS APPROXIMATE LOCATION. FIELD VERIFY BEST ROUTE FOR NEW PIPE BELOW STRUCTURE.
2. TIE IN NEW 5# GAS LINE AT THIS APPROXIMATE LOCATION TO SERVE AUTO SHOP UNIT HEATER. FIELD VERIFY BEST ROUTE FOR NEW PIPE BELOW STRUCTURE.
3. TIE IN NEW 5# GAS LINE AT THIS APPROXIMATE LOCATION TO SERVE AUTO SHOP UNIT HEATER. FIELD VERIFY BEST ROUTE FOR NEW PIPE BELOW STRUCTURE.
4. TIE IN NEW 5# GAS LINE AT THIS APPROXIMATE LOCATION TO SERVE AUTO SHOP UNIT HEATER. FIELD VERIFY BEST ROUTE FOR NEW PIPE BELOW STRUCTURE.
5. PIPING RUNS BELOW FINISHED GRADE. (TYPICAL)
6. PRIMARY ROOF DRAIN LINE TO DROP BELOW FINISHED FLOOR. COORDINATE WITH STRUCTURAL FOOTINGS.
7. DN-1 AT 30" ABOVE FINISHED GRADE.
8. PIPING TO RUN EXPOSED HIGH AND TIGHT AT STRUCTURE. COORDINATE WITH BUILDING STRUCTURE.
9. DROP SECONDARY ROOF DRAIN LINE TO 30" ABOVE FINISHED GRADE.
10. PROVIDE LINE SIZED GAS SHUTOFF VALVE AND 5# TO 4OZ PRESSURE REGULATOR; GAS UP THRU ROOF.
11. GAS PIPING TO SERVE AUTO SHOP; GAS PIPING TO BE RUN UNDERGROUND WITH CATHODIC PROTECTION; FIELD COORDINATE EXACT LOCATION OF EXISTING GAS LINE FOR TIE IN BELOW GRADE.
12. GAS PIPING TO SERVE AUTO SHOP TO DROP DOWN OUTSIDE OF WALL AND BELOW GRADE; FIELD COORDINATE EXACT LOCATION OF EXISTING GAS LINE FOR TIE IN BELOW GRADE.
13. EXTEND EXISTING 3/4" COLD WATER LINE AS SHOWN. TIE EXISTING HOSE BIBB BRANCH LINE BACK INTO NEW 3/4" EXTENSION AS SHOWN.
14. UPSIZE NEW AIR LINE FROM 1" TO 1-1/2" FOR SERVICE TO DUST COLLECTOR.
15. CONNECT NEW 1-1/2" AIR LINE TO EXISTING 1" AIR LINE AT THIS APPROXIMATE LOCATION. FIELD VERIFY LOCATION OF EXISTING AIR COMPRESSOR AND SIZE OF MAIN AIR BRANCH PRIOR TO COMMENCMENT OF WORK. LINE SIZED FOR FUTURE CAPACITY.
16. LINE SIZE BALL VALVE (TYPICAL). VALVE MUST BE ACCESSIBLE.
17. 3/4" COMPRESSED AIR CONNECTION TO PB-1. PROVIDE AUTOMATIC VALVE (BY DIVISION 25) TO INTERLOCK WITH SPRAY SYSTEM AND DOOR.
18. DROP TO 48" A.F.F.
19. AIR PRESSURE REGULATOR WITH SHUT OFF AND FILTER/DRYER. MOUNT AT 48" A.F.F.
20. SEAL PENETRATION WATER TIGHT.
21. SUPPORT AIR PIPING AT WALL.
22. 1-1/2" COMPRESSED AIR TO SAW DUST COLLECTOR. FIELD COORDINATE SIZE AND LOCATION WITH UNIT PROVIDER.
23. CONNECT AIR TO ABORT GATE PER MANUFACTURER'S RECOMMENDATIONS.
24. EXISTING HOSE BIBB TO REMAIN.
25. DROP AIR PIPE TO EQUIPMENT. CONTRACTOR TO COORDINATE EXACT LOCATION OF EQUIPMENT PRIOR TO COMMENCEMENT OF WORK.
26. EXISTING AIR DROP TO REMAIN, TYPICAL.
27. 1/2" AIR DROP FOR PANEL SAW.
28. PROVIDE 1/2" AIR DROP FOR RELOCATED PLASMA CUTTER. COORDINATE WITH OWNER FOR EXACT LOCATION OF DROP.
29. PROVIDE 3/4" CW DROP WITH LINE SIZED SHUTOFF VALVE AND HB-2 FOR RELOCATED PLASMA CUTTER. COORDINATE WITH OWNER FOR EXACT LOCATION OF DROP. TERMINATE AT 60" AFF.
30. CONTRACTOR TO DEMO AND REWORK WALL AS REQUIRED TO INSTALL NEW PLUMBING; COORDINATE WITH GC.
31. EMERGENCY EYEWASH; PROVIDE 2" DRAIN, OFFSET IN WALL TOWARDS SINK S-1 DRAIN; COMBINE WITH SINK DRAIN IN WALL TO SINGLE 2" DROP WITH 1-1/2" VENT UP TO EXISTING VENT LINE. FIELD COORDINATE ALL REQUIRED CONNECTIONS PRIOR TO COMMENCEMENT OF WORK. PROVIDE TEMPERING VALVE STATION TV-1 HIGH ABOVE EW-1; RUN 1/2" COLD WATER AND HOT WATER LINES TO TV-1, AND PROVIDE 1/2" TEMPERED WATER LINE DOWN TO SUPPLY EW-1.
32. EXTEND NEW 1-1/2" VENT LINE TO EXISTING AT THIS APPROXIMATE LOCATION; FIELD VERIFY LOCATION.
33. 3-STATION HAND SINK; ROUTE 3/4" CW & HW DOWN IN WALL AS REQUIRED; PROVIDE 1-1/2" DRAIN LINE IN WALL, OFFSET TO GATHER DRAIN LINE FROM EW-1 AND DROP IN A SINGLE 2" DRAIN LINE. PROVIDE PIPE TRANS CONNECTION AS REQUIRED.
34. CONTRACTOR TO SAW CUT FLOOR TO PROVIDE NEW 2" SANITARY SEWER LINE TO CONNECT TO EXISTING LINE ADJACENT AS SHOWN ON PLANS. FIELD COORDINATE EXACT LOCATION AND INVERT OF EXISTING SEWER LINE PRIOR TO COMMENCEMENT OF WORK. INSTALL AS PER SPECIFICATIONS. PATCH FLOOR TO MATCH EXISTING. 1-1/2" VENT LINE UP FROM COMMON 2" DROP IN WALL TO CONNECT TO EXSTING VENT LINE.
35. PROVIDE NEW 4" SANITARY SEWER LINE; FIELD COORDINATE DEPTH OF INVERT REQUIRED BETWEEN BUILDING OUTLET AND CONNECTION TO EXISTING ON NORTH SIDE OF METAL SHOP.
36. 4" FLOOR CLEANOUT. COORDINATE WITH LOCATION OF SHOP EQUIPMENT. SHIFT FOR BEST ACCESS ALONG LENGTH OF SANITARY SEWER LINE.
37. PROVIDE DOUBLE CLEANOUT TO GRADE. SEE DETAILS.

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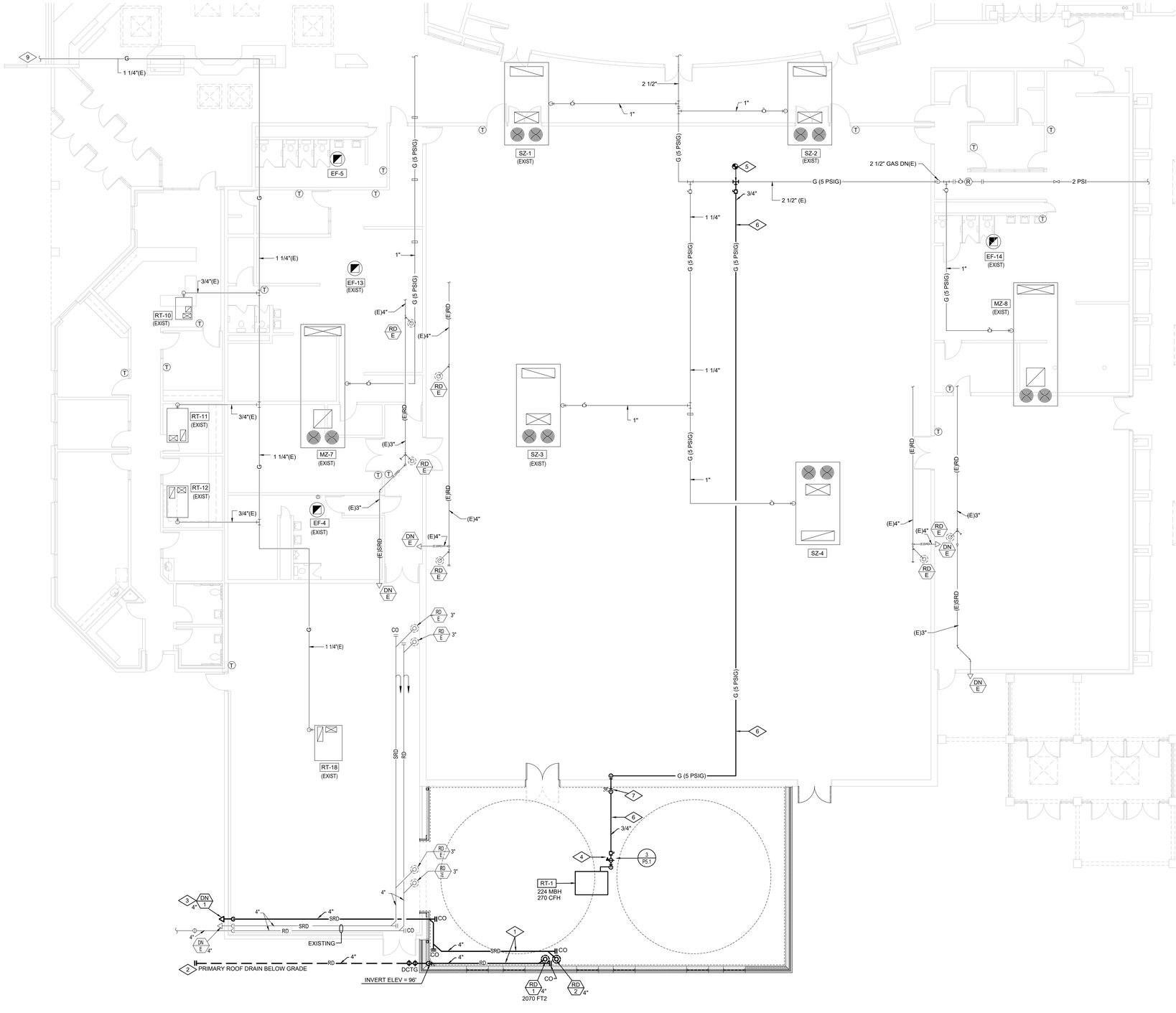
PLUMBING PLAN- SHOPS

P1.1



REFERENCE NOTES

1. RUN ROOF DRAIN AS HIGH AS POSSIBLE THRU STRUCTURE. FIELD VERIFY BEST ROUTE FOR NEW ROOF DRAIN.
2. TIE IN PRIMARY ROOF DRAIN BELOW GRADE AT 5'-0" PAST EDGE OF BUILDING. COORDINATE WITH CIVIL.
3. SECONDARY ROOF DRAIN DOWNSPOUT; TAKE OUT HIGH AND CENTERED IN BLOCK COURSE. FIELD COORDINATE LOCATION OF SECONDARY DRAIN OUTLET; CAULK AND SEAL WATER TIGHT.
4. LINE SIZE GAS SHUTOFF VALVE AND 5 LBS TO 1 LBS GAS PRESSURE REGULATOR, IN ACCESSIBLE LOCATION.
5. TIE NEW 3/4" 5 LBS GAS LINE INTO EXISTING 2-1/2" 5 LBS GAS LINE AT THIS APPROXIMATE LOCATION. CONTRACTOR TO FIELD VERIFY EXACT LOCATION PRIOR TO BIDDING AND COMMENCEMENT OF WORK. SUPPORT PIPE AS PER SPECIFICATIONS.
6. RUN GAS LINE AS HIGH AS POSSIBLE BELOW STRUCTURE.
7. PROVIDE PAINT-LOCK METAL COVER AT EXPOSED GAS LINE AT EXTERIOR WALL. COORDINATE WITH OWNER FOR COLOR OF PAINT.

PLUMBING PLAN- WRESTLING

BID ALTERNATE #1

0 4' 8' 16'

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

NORTH

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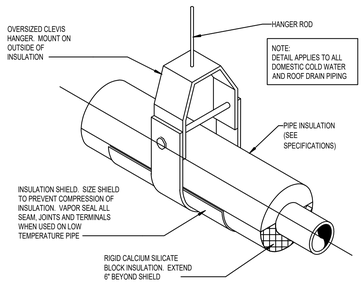
PLUMBING PLAN- WRESTLING

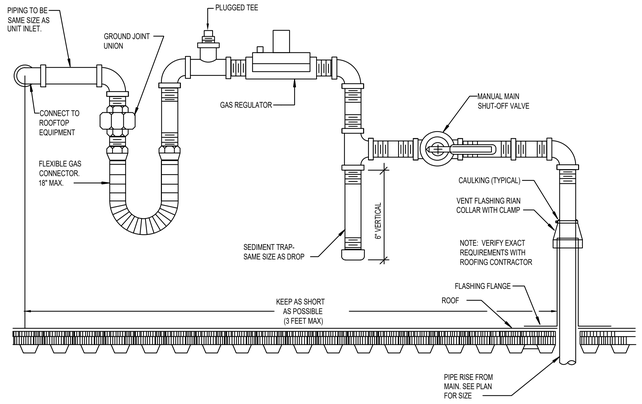
P1.2



PIPE SUPPORT DETAIL1

SCALE: NTS

6 / P5.1



ROOFTOP GAS LINE CONNECTION DETAIL

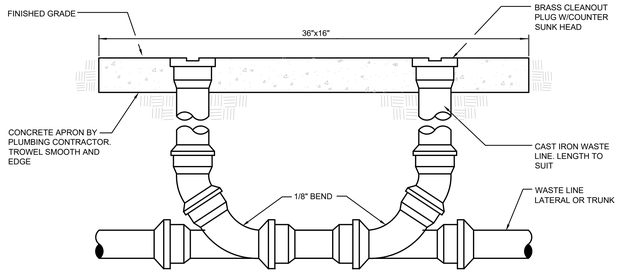
SCALE: NTS

3 / P5.1

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	WASTE	VENT	C.W.	H.W.	TEMP.	NOTES (1)
AO 1	AIR OUTLET	--	--	--	--		1/2" QUICK DISCONNECT COUPLING WITH BOTH MALE AND FEMALE PORTIONS. LINCOLN OR EQUAL
HB 1	HOSE BIBB	--	--	3/4"	--		EXTERIOR NON-FREEZE TYPE
HB 2	HOSE BIBB	--	--	3/4"	--		CHROME EXPOSED
S 1	SINK (SHOPS)	2"	--	-	-	1/2"	ELLIPTICAL BASE MOUNTED
EW 1	EMERGENCY EYEWASH	2"	--	-	-	1/2"	WALL MOUNTED
TV 1	TEMPERING VALVE (EW-1)	-	--	1/2"	1/2"	1/2"	MIXING VALVE WITH MANIFOLD
RD 1	ROOF DRAIN	--	--	--	--	--	SEE DRAWINGS FOR SIZES
RD 2	SECONDARY ROOF DRAIN	--	--	--	--	--	SEE DRAWINGS FOR SIZES
DN 1	DOWNSPOUT	--	--	--	--	--	SEE DRAWINGS FOR SIZES

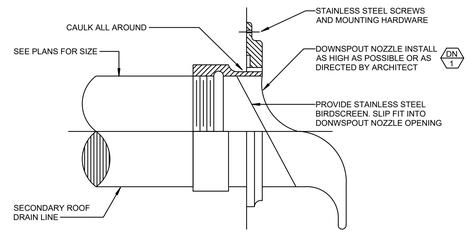
NOTES:
(1) CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL PLUMBING FIXTURES ACCORDING TO ARCHITECTURAL DRAWINGS PRIOR TO ANY ROUGH-IN OR INSTALLATION WORK,



DOUBLE CLEANOUT TO GRADE DETAIL

NOT TO SCALE

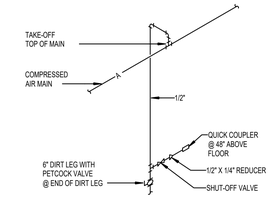
7 / P5.1



DOWNSPOUT NOZZLE DETAIL

SCALE: NTS

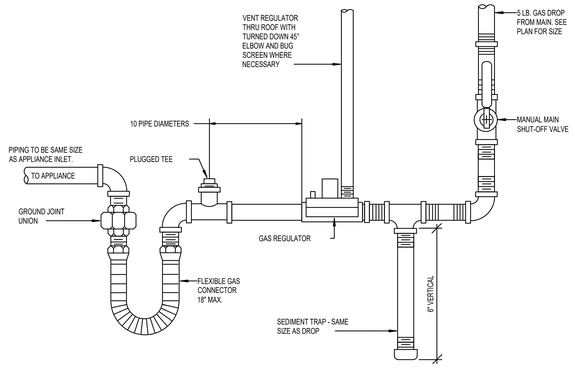
4 / P5.1



AIR OUTLET DETAIL

SCALE: NTS

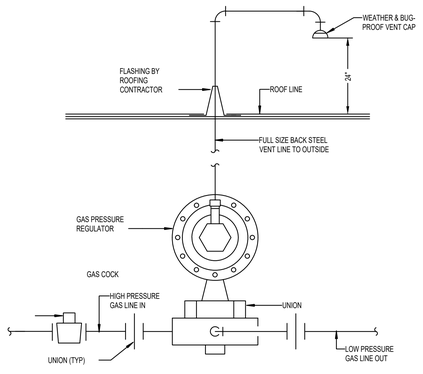
1 / P5.1



TYPICAL GAS CONNECTION TO EQUIPMENT

SCALE: NTS

5 / P5.1



GAS PRESSURE REGULATOR DETAIL

SCALE: NTS

2 / P5.1

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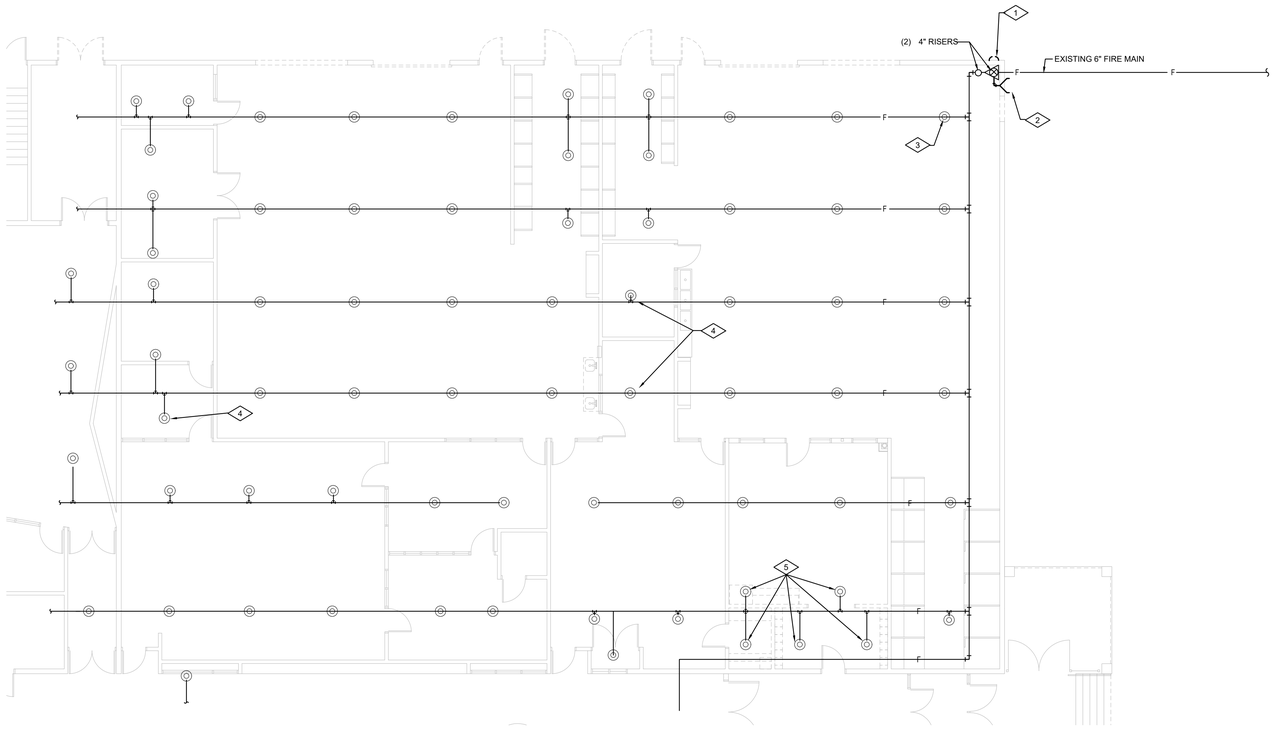
PLUMBING DETAILS

P5.1



REFERENCE NOTES

1. EXISTING ALARM BELL TO BE DEMOLISHED.
2. EXISTING SIAMESE CONNECTION TO BE DEMOLISHED AND RELOCATED; SEE SHEET FP1.1.
3. EXISTING UPRIGHT BRASS PENDANT TO REMAIN, TYPICAL SHOP AREAS.
4. EXISTING BRASS PENDANT TO REMAIN, TYPICAL OFFICES
5. EXISTING BRASS PENDANT SPINKLER HEADS TO BE PROTECTED DURING DEMOLITION; IF DAMAGED, CONTRACTOR IS TO PROVIDE NEW HEADS TO MATCH EXISTING.

FIRE PROTECTION DEMOLITION PLAN- SHOPS

NORTH

0 4' 8' 16'

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

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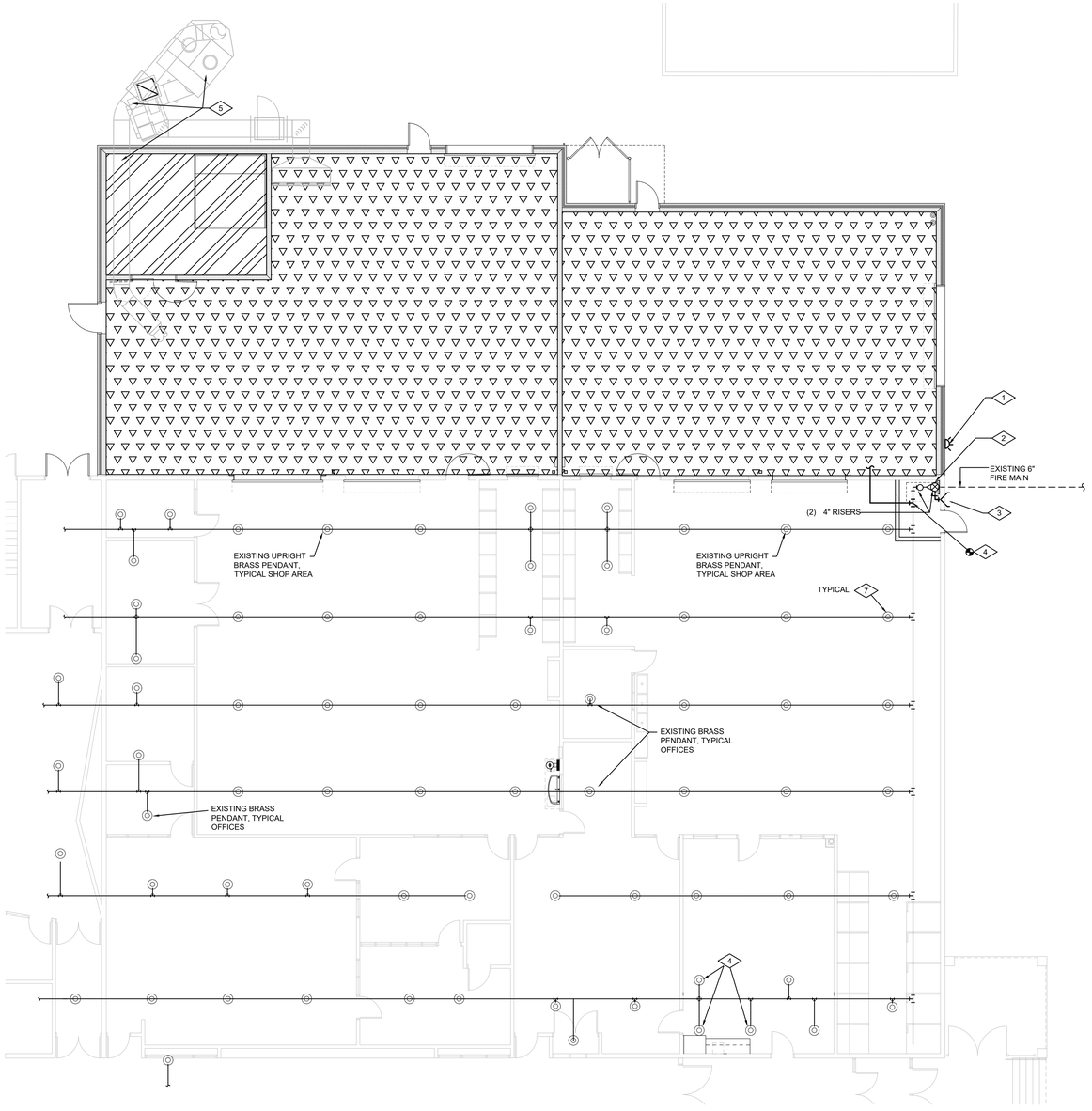
FPD1.1



REFERENCE NOTES

1. NEW FIRE ALARM BELL LOCATION.
2. CONTRACTOR TO VERIFY WITH FIRE MARSHALL THAT EXISTING FIRE RISER MEETS CURRENT CODE REQUIRMENTS. EXISTING FIRE RISER TO BE FULLY UPDATED.
3. PROVIDE NEW SIAMESE CONNECTION.
4. APPROXIMATE LOCATION FOR TIE IN OF NEW FIRE PROTECTION BRANCH LINE TO SERVE NEW AREAS. FIELD COORDINATE EXACT LOCATION PRIOR TO COMMENCEMENT OF WORK.
5. DUST COLLECTION SYSTEM; PROVIDE FIRE HEADS IN SAWDUST COLLECTOR DUCTWORK. COORDINATE WITH INSTALLING CONTRACTOR. SEE SCHEMATIC 1/M601 FOR FOR CONNECTIONS AND CONTROLS.
5. DUST COLLECTION SYSTEM; PROVIDE FIRE HEADS IN SAWDUST COLLECTOR DUCTWORK. COORDINATE WITH INSTALLING CONTRACTOR. SEE SCHEMATIC 1/M601 FOR FOR CONNECTIONS AND CONTROLS.
6. REPLACE SPINKLER HEADS IF DAMAGED DURING DEMOLITION.
7. REPLACE ANY SPINKLER HEAD IF DAMAGED OR NON-WORKING, TYPICAL ALL HEADS IN ACTIVE SCOPE AREAS.

FIRE PROTECTION PLAN- SHOPS

0 4' 8' 16'

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

NORTH

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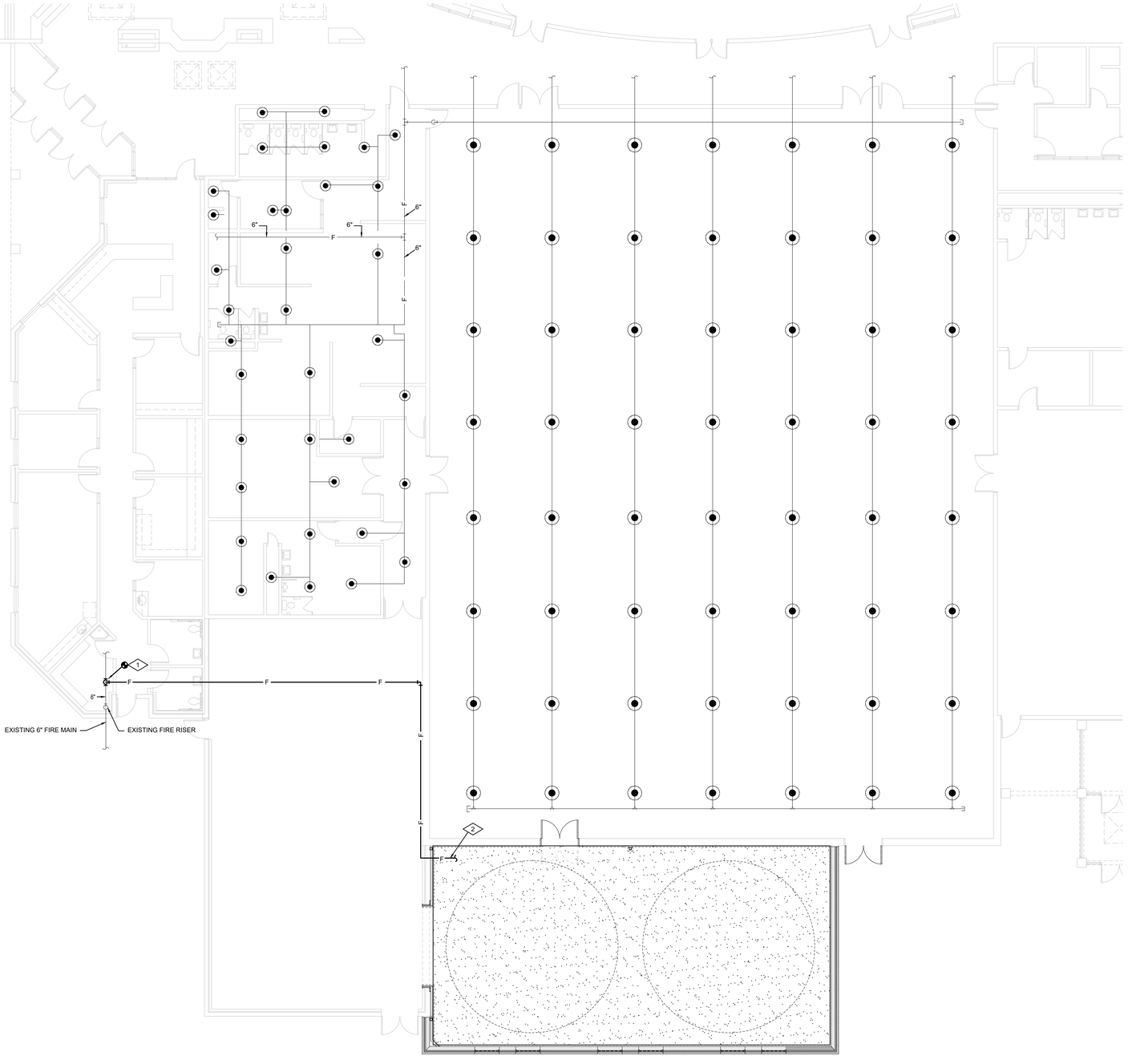
FIRE PROTECTION PLAN-SHOPS

FP1.1



REFERENCE NOTES

1. TIE IN NEW FIRE PROTECTION BRANCH LINE AT THIS APPROXIMATE LOCATION. FIELD COORDINATE LOCATION PRIOR TO COMMENCEMENT OF WORK. SIZE TO BE DETERMINED BY SPRINKLER CONTRACTOR.

2. SUGGESTED PATH FOR NEW FIRE SPINKLER BRANCH TO SERVE WRESTLING. FIELD COORDINATE BEST LOCATION PRIOR TO COMMENCEMENT OF WORK.

FIRE PROTECTION PLAN- WRESTLING

BID ALTERNATE #1

NORTH

0 4' 8' 16'

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

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FIRE PROTECTION PLAN-WRESTLING

FP1.2

FIRE PROTECTION LEGEND

- ORDINARY HAZARD, GROUP 2
- EXPOSED STRUCTURE (NO CEILING)
- QUICK RESPONSE UPRIGHT ROUGH BRASS HEADS ON EXPOSED PIPING

- ORDINARY HAZARD, GROUP 2
- LAY-IN OR GYP. BOARD CEILING (VERIFY AND COORDINATE WITH ARCHITECTURAL DRAWINGS)
- FLUSH TYPE FULLY RECESSED HEADS INSTALLED TIGHT TO CEILING WITH OFF-WHITE DISC SIMILAR TO "RELIABLE" G4QR QUICK RESPONSE TYPE.

- LIGHT HAZARD
- EXPOSED STRUCTURE (NO CEILING)
- UPRIGHT WHITE HEADS ON EXPOSED PIPING

FIRE SPRINKLER RISER

SPRINKLER ALARM BELL

WALL MOUNTED SIAMESE FIRE DEPARTMENT CONNECTION

REMOTE SIAMESE FIRE DEPARTMENT CONNECTION WITH BALL DRIP INSPECTION BOX

NOTE: CONTRACTOR SHALL COORDINATE ALL PIPING HUNG FROM STRUCTURE WITH REQUIREMENTS OF STRUCTURAL ENGINEERS DRAWINGS

GENERAL FIRE PROTECTION NOTES

1. THE FIRE SPRINKLER CONTRACTOR SHALL COORDINATE HIS WORK WITH THE ELECTRICAL, SHEET METAL, PLUMBING, AND CEILING CONTRACTORS TO AVOID ANY CONFLICTS IN PIPE ROUTING OR HEAD LOCATIONS.
2. RUN SPRINKLING PIPING AS HIGH AS POSSIBLE IN JOIST SPACE ABOVE CEILING AND COORDINATE WITH DUCTWORK.
3. FIRE SPRINKLER PLANS SHALL BE APPROVED BY ALL GOVERNING AGENCIES PRIOR TO SUBMITTING PLANS TO THE ARCHITECT.
4. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE COMPLETE FIRE SPRINKLER SYSTEMS, INCLUDING ALL ITEMS AS REQUIRED OR RECOMMENDED BY ALL GOVERNING AGENCIES.
5. FIRE SPRINKLER SYSTEM SHALL COMPLY WITH N.F.P.A. 13, AND ALL GOVERNING AGENCIES.
6. PIPE SLEEVES THROUGH FIRE-RATED WALLS, PARTITIONS, AND CEILINGS SHALL BE OF FIRE RATED CONSTRUCTION. SPACE BETWEEN PIPE AND SLEEVE SHALL BE PACKED WITH FIREPROOF MATERIAL, U.L. LISTED. (FIRE SHIELDS, INC. MODEL DFB-CS)
7. FIRE SPRINKLER HEADS IN INDIVIDUAL ROOMS TO BE RUN IN STRAIGHT LINES AND COORDINATED WITH CEILING AND LIGHTS.
8. FIRE SPRINKLER CONTRACTOR SHALL COORDINATE HIS LOCATION OF PIPING VERY CAREFULLY WITH THE ARCHITECTURAL AND STRUCTURAL PLANS AND AS APPROVED BY THE ARCHITECT.
9. HEAD GUARDS TO BE PROVIDED IN ACCORDANCE WITH N.F.P.A.
10. FIRE SPRINKLER TEST VALVES TO BE LOCATED IN AREAS CONVENIENT TO MAINTENANCE PERSONNEL, BUT AWAY FROM PUBLIC ACCESS.
11. THE UTAH STATE FIRE MARSHALS OFFICE SHALL BE NOTIFIED (IN WRITING) AT LEAST THREE DAYS IN ADVANCE OF THE FOLLOWING:
    - A. HYDROSTATIC TEST AND FINAL INSPECTION OF OVERHEAD SYSTEMS PRIOR TO INSTALLATION OF CEILINGS.
    - B. FLUSHING OF UNDERGROUND PRIOR TO CONNECTION OF OVERHEAD.
    - C. HYDROSTATIC TEST AND FINAL INSPECTION OF UNDERGROUND PRIOR TO BACKFILLING.
12. CONTRACTOR SHALL FIELD VERIFY ALL PIPE LOCATIONS PRIOR TO FABRICATION OF PIPE SYSTEMS.
13. FIRE PROTECTION DRAWINGS ARE DIAGRAMMATIC ONLY.
14. FIRE PROTECTION CONTRACTOR SHALL COORDINATE ROUTING, HANGING AND BRACING WITH ROOF STRUCTURE. ALL FIRE SPRINKLER PIPING SHALL COMPLY WITH THE FOLLOWING.

    CORE DRILLING WALLS AND SLABS

    A. CONTRACTOR SHALL USE GROUND PENETRATING RADAR OR OTHER APPROVED METHOD TO SCAN CONCRETE OVER METAL DECK, CONCRETE SUSPENDED SLABS, MASONRY WALLS, AND CONCRETE WALLS TO LOCATE REBAR PRIOR TO CORE DRILLING ANY HOLES. HOLES SHALL BE LOCATED TO AVOID REBAR DETECTED. ALL OPENINGS AND GROUPS OF OPENINGS SHALL BE REINFORCED AS SHOWN ON THE STRUCTURAL DRAWINGS. OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER PRIOR TO DRILLING.

    ATTACHMENT TO STEEL DECK

    A. STEEL DECK WITHOUT CONCRETE FILL SHALL NOT BE USED TO SUPPORT LOADS FROM PLUMBING, HVAC DUCTS, LIGHT FIXTURES, ARCHITECTURAL ELEMENTS OR EQUIPMENT OF ANY KIND, UNLESS SPECIFICALLY NOTED OTHERWISE.

    B. STEEL DECK WITH CONCRETE FILL MAY BE USED TO SUPPORT LOADS OF UP TO 500# FROM PLUMBING, HVAC DUCTS, LIGHT FIXTURE, ARCHITECTURAL ELEMENTS AND MISCELLANEOUS EQUIPMENT. LOADS SHALL BE DISTRIBUTED SUCH THAT THE AVERAGE LOAD DOES NOT EXCEED 50 LBS/SQ.FT. AND NOT MORE THAN 500# IS LOCATED ON ANY SINGLE DECK FLUTE SPAN BETWEEN SUPPORT BEAMS. ATTACHMENTS TO STEEL DECK WITH CONCRETE FILL SHALL ENGAGE THE CONCRETE, AND SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.

    ATTACHMENT TO OPEN WEB STEEL JOISTS AND GIRDERS

    A. ALL CONCENTRATED LOADS GREATER THAN 100 POUNDS AND NOT MEETING THE REQUIREMENTS OF ITEM 2 BELOW SHALL BE LOCATED WITHIN 6 INCHES OF THE JOIST OR GIRDER PANEL POINTS OR THE JOIST OR GIRDER SHALL BE REINFORCED WITH AND ADDITIONAL WEB MEMBER. REFER TO THE GENERAL STRUCTURAL NOTES AND THE "TYPICAL DETAIL AT ADDITIONAL CONCENTRATED POINT LOAD" ON THE STRUCTURAL DRAWINGS.

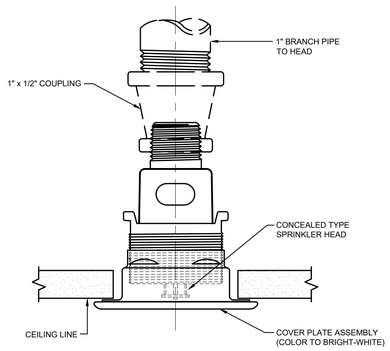
    B. CONCENTRATED POINT LOADS, SINGLE OR MULTIPLE, TOTALING 100 POUNDS OR LESS BETWEEN PANEL POINTS CAN BE LOCATED AT ANY POINT ALONG THE TOP OR BOTTOM CHORD OF A JOIST OR GIRDER BETWEEN ADJACENT PANEL POINTS WITHOUT MEETING THE REQUIREMENTS OF ITEM 1 ABOVE, PROVIDED THE LOADS ARE APPLIED TO THE JOIST SUCH THAT BOTH ANGLES OF THE TOP OR BOTTOM CHORD ARE EQUALLY LOADED (I.E. NO SINGLE BEAM CLAMPS).

    C. JOIST BRACING SHALL NOT BE USED TO SUPPORT HANGING LOADS

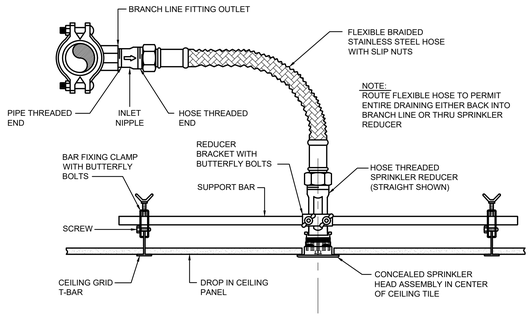
    D. BRACING OF MISCELLANEOUS ITEMS INCLUDING MECHANICAL, PLUMBING, CONDUIT, ARCHITECTURAL ELEMENTS, ETC. SHALL CONNECT TO THE TOP CHORD OF THE JOIST OR GIRDER UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.

    ATTACHMENT TO STEEL BEAMS

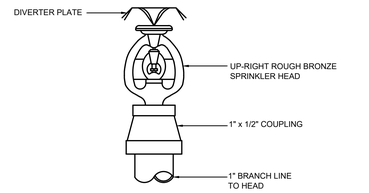
    A. BRACING FOR SEISMIC LOADS SHALL ATTACH WITHIN 4" OF THE TOP FLANGE OF THE BEAM, UNLESS NOTED OTHERWISE.
15. STEEL ROOF DECKING SHALL NOT BE USED TO SUPPORT LOADS FROM FIRE SPRINKLER ELEMENTS OR EQUIPMENT OF ANY KIND, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.
16. ALL FIRE SPRINKLER PIPING RUNNING IN OCCUPIED AREAS WITH EXPOSED STRUCTURE SHALL RUN WITH SLOPE OF ROOF DECK.
17. FIRE SPRINKLER CONTRACTOR SHALL COORDINATE ANY CROSSOVERS OR DROPS AT MAIN CORRIDOR TO AVOID CONFLICTS WITH SKYLIGHTS. DROPS & CROSSOVER LOCATIONS SHALL BE VERIFIED WITH PROJECT ARCHITECT PRIOR TO INSTALLATION.
18. ALL FIRE MAINS SHALL RUN ABOVE AREAS WITH CEILINGS WHERE APPLICABLE.
19. IN EXPOSED AREAS THE FIRE SPRINKLER CONTRACTOR SHALL COORDINATE PIPING & HEAD LOCATIONS WITH HVAC DUCTWORK, DIFFUSERS AND ALL LIGHTING LAYOUT.
20. FIRE SPRINKLER HEADS IN ALL CORRIDORS SHALL BE INSTALLED AS CLOSE TO THE CENTERLINE OF THE CORRIDOR AS POSSIBLE.
21. ALL SPRINKLER MAINS SHALL RUN THRU TRUSSES OR BETWEEN TRUSSES IN TRUSS SPACE. INSTALLING MAINS BELOW BOTTOM CHORD OF TRUSSES WILL NOT BE ALLOWED.
22. FIRE SPRINKLER CONTRACTOR SHALL CAREFULLY COORDINATE SPRINKLER SYSTEM WITH ARCHITECTURAL REFLECTED CEILING PLANS FOR VARIATIONS IN CEILING TYPE AND CEILING ELEVATION CHANGES..
23. ALL PENETRATIONS AT 1 HOUR AND 2 HOUR WALLS SHALL BE FIRE CAULKED PER RATING REQUIRED. COORDINATE WITH LIFE SAFETY PLAN.
24. ALL INSTALLATION OF SPRINKLER PIPING, FIRE HEADS & LAYOUT IN EXPOSED, OCCUPIED AREA SHALL BE REVIEWED AND APPROVED BY PROJECT ARCHITECT PRIOR TO INSTALLATION AS TO LOCATION, AND TYPE OF HEADS TO BE PROVIDED.



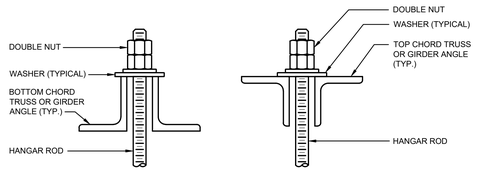
FLUSH SPRINKLER HEAD DETAIL — 3 / FP5.1
NOT TO SCALE



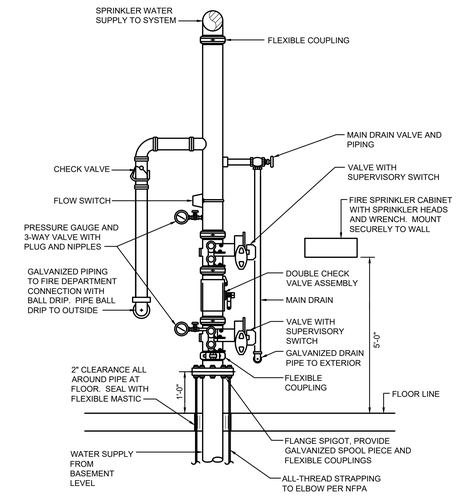
SPRINKLER HOSE DETAIL — 1 / FP5.1
NOT TO SCALE



UPRIGHT ROUGH BRONZE, WHITE OR CHROME SPRINKLER HEAD DETAIL — 4 / FP5.1
NOT TO SCALE



PIPING OR EQUIPMENT HANGAR ATTACHMENT TO TRUSS OR GIRDER — 5 / FP5.1
NOT TO SCALE



FIRE SPRINKLER RISER DETAIL — 2 / FP5.1
NOT TO SCALE (FOR REFERENCE ONLY, IF FIRE MARSHALL DEEMS EXISTING RISER MUST BE UPDATED)

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MANTI HIGH SCHOOL
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100 WEST 500 NORTH MANTI, UTAH 84642

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#334524-2202
JAMES AUSTIN BERRETT
12/9/2024
UTAH

PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

FIRE PROTECTION NOTES AND DETAILS

FP5.1

SYMBOL LEGEND

NOTES:

1. SEE FIXTURE SCHEDULE FOR TYPE, MOUNTING AND WATTAGE.
2. HEIGHT MEASURED TO CENTER LINE OF THE BOX FROM THE FINISHED FLOOR.
3. REFER TO DRAWINGS FOR DIRECTIONAL ARROWS.
4. SUBSCRIPT INDICATES FIXTURES TO BE CONTROLLED.
5. NEMA TYPE 'ND' NON-FUSED UNLESS NOTED 'F' (FUSED). USE 'HD' 480 V.
6. HEIGHT MEASURED TO TOP OF THE BOX FROM FINISHED FLOOR.
7. PROVIDE H.O.A. AND S.S. PUSHBUTTONS AS REQUIRED.
8. DOUBLE ARROWS INDICATES A DOUBLE FACE UNIT.
9. DEVICES NOTED WITH AN 'A' INDICATE TO COORDINATE WITH MILLWORK SHOP DRAWINGS AND ELEVATIONS FOR HEIGHT.
10. SUBSCRIPT INDICATES NEMA CONFIGURATION.
11. SOLID BOX AROUND DEVICE INDICATES INSTALLED IN FLOOR. DASHED BOX AROUND DEVICE INDICATES INSTALLED IN CEILING.
12. COORDINATE WITH DOOR HARDWARE SUPPLIER.
13. FOR WATER COOLER LOCATION, SEE DIAGRAM R002. FOR ALL OTHER LOCATIONS, MOUNT AT +16" TO BOTTOM OF BOX FROM FINISHED FLOOR, OR AS NOTED.
14. ARROWS SHOWN ON DEVICE INDICATE SENSOR AIMING DIRECTION.
15. CAMERA NUMBERS ARE SHOWN INSIDE THE CAMERA SYMBOL. CAMERA TYPES ARE INDICATED IN TAG.
16. MOUNT ON TRACK OF OVERHEAD DOOR, 6" FROM TOP OF DOOR, UNLESS OVERHEAD DOOR IS A ROLL UP DOOR, THEN MOUNT PER MANUFACTURER'S INSTRUCTIONS.
17. INSTALL DEVICES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
18. DASHED LINE INDICATES EQUIPMENT CLEARANCES. ARROW INDICATES FRONT OF RACK.
19. SPEAKER TO BE MOUNTED IN HORIZONTAL POSITION.
20. MOUNTING HEIGHT IS TO BOTTOM OF DISPLAY.

*TYPICAL SYMBOL SCHEDULE. SOME SYMBOLS MAY NOT BE USED ON THIS SET OF DRAWINGS.

STANDARD MOUNTING HEIGHT UNLESS OTHERWISE NOTED ON PLANS

GENERAL

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
	ONE CIRCUIT, HOME RUN TO PANEL		
	2 CIRCUIT, HOME RUN TO PANEL		
	3 CIRCUIT, HOME RUN TO PANEL		
	CONDUIT RUN CONCEALED IN WALL OR CEILING		
	CONDUIT RUN CONCEALED IN FLOOR OR GROUND		
	CONDUIT UP		
	CONDUIT DOWN		
	CONDUIT STUB LOCATION	CAP CONDUIT	
	CONDUIT / CIRCUIT CONTINUATION		

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
	EQUIPMENT PANEL, SEE DRAWINGS	+72"	6.
	CABLE TRAY	AS NOTED	
	GROUND BUS BAR	+18"	6.
X	LIGHT FIXTURE (LETTER DESIGNATES TYPE)		
X/X	EQUIPMENT NUMBER		
X	ARCHITECTURAL ROOM NUMBER		
X	DEVICE / EQUIPMENT (TEXT DESIGNATES TYPE) SEE SCHEDULE		
X	DEVICE / EQUIPMENT (TEXT DESIGNATES TYPE) SEE SCHEDULE / LEGEND		

MULTIPLE SYSTEM SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
R	RECEPTACLE SWITCH PACK	ABOVE CEILING	
	DUPLEX RECEPTACLE — UPPER OUTLET SWITCH CONTROLLED	+18" OR AS NOTED	2. 9.
	SIMPLEX RECEPTACLE	+18" OR AS NOTED	2. 9.
	DUPLEX RECEPTACLE	+18" OR AS NOTED	2. 9. 11.
A	DUPLEX RECEPTACLE		9.
G	5mA GFCI CIRCUIT BREAKER PROTECTED RECEPTACLE		13.
WP	WEATHERPROOF RECEPTACLE	+24" OR AS NOTED	2. 9.
	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE	+18" OR AS NOTED	2. 9.
	DUPLEX RECEPTACLE EMERGENCY POWER (RED)	+18" OR AS NOTED	2. 9. 11.
	FOURPLEX RECEPTACLE	+18" OR AS NOTED	2. 9. 11.
	GROUND FAULT INTERRUPTER FOURPLEX RECEPT	+18" OR AS NOTED	2. 9.
J F	JUNCTION BOX ('F' IN FLOOR)	AS NOTED	
	MOTOR OUTLET	TO SUIT EQUIP.	2.
	PUSHBUTTON	+46"	2.
	NON-FUSED DISCONNECT SWITCH	+60"	5. 6.
F	FUSED DISCONNECT SWITCH	+60"	5. 6.
B	BREAKER DISCONNECT SWITCH	+60"	5. 6.
S	SINGLE POLE SWITCH	+46"	2. 4.
S^T	MANUAL STARTER THERMAL OVERLOAD SWITCH WITH PILOT LIGHT	+46"	2.
	MAGNETIC STARTER	+60"	6. 7.
	MAGNETIC STARTER / DISCONNECT COMBINATION	+60"	6. 7.
VFD	VARIABLE FREQUENCY DRIVE	+66"	6.

LIGHTING

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
	CEILING LIGHT FIXTURE	CEILING	1.
	WALL LIGHT FIXTURE	AS NOTED	1.
	RECESSED DOWNLIGHT FIXTURE	CEILING	1.
	RECESSED WALL-WASH DOWNLIGHT FIXTURE	CEILING	1.
	LIGHT FIXTURE	AS NOTED	1.
	EGRESS LIGHT FIXTURE	AS NOTED	1.
	AREA LIGHT POLE AND FIXTURE POST TOP LIGHT POLE AND FIXTURE	CONCRETE BASE	1. 14. SEE DIAGRAM
	BOLLARD	CONCRETE BASE	1. 14. SEE DIAGRAM
	STEP LIGHT FIXTURE	AS NOTED	1.
	IN-GRADE LIGHT FIXTURE	CONCRETE BASE	1.
	FLOOD OR TRACK FIXTURE	AS NOTED	1.
	CEILING / WALL MOUNTED EXIT LIGHT	CEILING/ AS NOTED	1. 3. 8.
	EMERGENCY LIGHT FIXTURE	AS NOTED	1.
	COMBO EXIT / EMERGENCY LIGHT FIXTURE	AS NOTED	1.
TC	TIME CLOCK	+60"	2.
PP	POWER PACK	ABOVE CEILING	SEE DIAGRAM, SPEC.
RC_X	DIGITAL ROOM CONTROLLER (SUBSCRIPT INDICATES NUMBER OF RELAYS)	ABOVE CEILING	SEE DIAGRAM, SPEC.
EP	EMERGENCY LIGHTING CONTROL UNIT	ABOVE CEILING	SEE DIAGRAM, SPEC.
S^3	THREE-WAY SWITCH	+46"	2. 4.
S^4	FOUR-WAY SWITCH	+46"	2. 4.
S^K	KEY OPERATED SWITCH	+46"	2. 4.
S^P	SWITCH WITH PILOT LIGHT	+46"	2. 4.
S^D	VARIABLE INTENSITY SWITCH	+46"	2. 4.
S^{TM}	TIMER SWITCH	+46"	2. 4.
S^M	MOMENTARY CONTACT SWITCH	+46"	2. 4.
S^X	LOW VOLTAGE WALLSTATION (SUBSCRIPT INDICATES CONFIGURATION & CONTROL SEQUENCE)	+46"	2. SEE DIAGRAM, SPEC.
	DUAL TECH. CEILING MOUNTED OCCUPANCY SENSOR (PROVIDE WITH ALL PP AND ROOM CONTROLLERS)	CEILING	SEE DIAGRAM, SPEC.
	DUAL TECH. WALL MOUNTED OCCUPANCY SENSOR (SUBSCIPT D = DIMMING AND DAYLIGHT CONTROL)	+46"	2. 4. SEE DIAGRAM, SPEC.
P	PHOTO-ELECTRIC CONTROL (LOCATE ON ROOF, FACE NORTH)	AS NOTED	MOUNT AS PER MFR.
	DIGITAL DAYLIGHT SENSOR	CEILING	SEE DIAGRAM, SPEC.

POWER

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
IG	ISOLATED GROUND RECEPTACLE	+18" OR AS NOTED	2. 9.
T	TAMPER-PROOF RECEPTACLE	+18" OR AS NOTED	2. 9.
U	DUPLEX RECEPTACLE WITH USB OUTLET	+18" OR AS NOTED	2. 9.
	CONTROLLED DUPLEX RECEPTACLE	+18" OR AS NOTED	2. 9.
	FOURPLEX RECEPTACLE EMERGENCY POWER (RED)	+18" OR AS NOTED	2. 9. 11.
	CONTROLLED FOURPLEX RECEPTACLE	+18" OR AS NOTED	2. 9.
	TVSS PROTECTED RECEPTACLE	+18" OR AS NOTED	2. 9.
	SPECIAL PURPOSE OUTLET	+18" OR AS NOTED	2. 10. W/ CAP.
	CORD DROP		SEE DIAGRAM
	CORD REEL		SEE DIAGRAM
	TOMBSTONE RECEPTACLE		
	POWER POLE		
EV EV	SINGLE / DUAL PORT ELECTRICAL VEHICLE CHARGER		
	PLUGMOLD	+46" OR AS NOTED	2. SEE SPEC.
DP	FLAT PANEL DISPLAY WALL BOX TVSS RECEPT., DATA AND OTHER DEVICES, REFER TO DIAGRAMS	AS NOTED	SEE DIAGRAM, SPEC. 26 2726
CP	CEILING PROJECTION SYSTEM CEILING BOX	ABOVE CEILING	SEE DIAGRAM, SPEC.
	DOORBELL CHIME	+90"	2.
FB	FLOOR BOX - SEE SCHEDULE	FLOOR	SEE DIAGRAM, SPEC.
PT	POKE THRU - SEE SCHEDULE	FLOOR	SEE DIAGRAM, SPEC.
	PANELBOARD	+72"	6.
	MAIN DISTRIBUTION PANEL		
	TELEPHONE DEMARCATION BOARD		
CLG	EQUIPMENT CEILING RACK	CEILING	
	EQUIPMENT 4-POST RACK / CABINET	AS NOTED	18. SEE SPEC.
	EQUIPMENT 2-POST RACK	AS NOTED	18. SEE SPEC.
M	UTILITY METER / CT CABINET	+72"	6.

SECURITY

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
####	IP SURVEILLANCE CAMERA - SEE CAMERA SURVEILLANCE TYPE SCHEDULE	AS NOTED	9. 10. 12.
NVR	NETWORK VIDEO RECORDER / SERVER		12.
DC_1	ACCESS CONTROL DOOR / WINDOW SWITCH / CONTACT	DOOR JAMB	12.
DC_2	SPECIALIZED SWITCH / CONTACT (GARAGE DOOR, ROOF ACCESS DOOR / HATCH)		12.
XX X	DR=DOOR RELEASE, LD=LOCKDOWN, PE=PUSH TO EXIT, DB=DURESS / PANIC, T=TRANSMITTER, R=RECEIVER, H=HARDWIRED		12.
MD MD	INTRUSION MOTION DETECTOR SOLID - WALL MOUNTED, DASHED = CEILING		12.
GB GB	GLASS BREAK DETECTOR: SOLID = WALL MOUNTED, DASHED = CEILING		12.
AS AS	INTRUSION DETECTION ALARM SIREN AND/OR STROBE		12.
PI	INTRUSION DETECTION POP-IT MODULE		12.
KP	INTRUSION DETECTION KEYPAD (ARM/DISARM)		12.
INT	IP TWO-WAY AUDIO & VIDEO INTERCOM (ANSWERING BASE STATION & DOOR STATION)		12.
ML	ELECTROMAGNETIC LOCK (MAG LOCK)		8. 12.
SC SC	SMOKE & C/O DETECTOR COMBO: SOLID = WALL MOUNTED, DASHED = CEILING		12.
SH SH	SMOKE & HEAT DETECTOR COMBO: SOLID = WALL MOUNTED, DASHED = CEILING		12.
DH	MAGNETIC DOOR HOLD OPENER	AS NOTED	8. 12.
ES	ELECTRIFIED DOOR STRIKE	DOOR JAMB	8. 12.
DP	INTRUSION DETECTION DOOR / WINDOW CONTACT	DOOR JAMB	12.
EL	ELECTRIFIED DOOR LOCK	DOOR JAMB	8. 12.
RX	ACCESS CONTROL REQUEST TO EXIT MOTION		8. 12.
EC	ELECTRIFIED EXIT RIM DEVICE (CRASH BAR)		8. 12.
CR	ACCESS CONTROL CREDENTIAL CARD READER	+46"	1. 12.
BR	ACCESS CONTROL BIOMETRIC READER	+46"	1. 12.
KS	KEY OVERRIDE SWITCH	+46"	1. 12.
ICR	INTEGRATED LOCKSET WITH CREDENTIAL CARD READER		8. 12.
KCR	ACCESS CONTROL CREDENTIAL CARD READER WITH KEYPAD	+46"	1. 12.
WS	SECURITY WORKSTATION		12.
'ACS'	ACCESS CONTROL PANEL		12.
'IDS'	INTRUSION DETECTION PANEL		12.
'SEC'	ELECTRIFIED DOOR HARDWARE POWER SUPPLY		12.

COLOR LEGEND

	LIGHTING FIXTURES		POWER DEVICES		
	LIGHTING DEVICES				SECURITY
	POWER EQUIPMENT		FIRE ALARM		
	CABLE TRAY		CONDUIT		

ABBREVIATIONS INDEX

ABBREV.	DESCRIPTION	ABBREV.	DESCRIPTION
#	NUMBER	MH	MANHOLE
AC	ALTERNATING CURRENT	MIC	MICROPHONE
A.F.F.	ABOVE FINISH FLOOR	MIN	MINIMUM
AIC	AMPS INTERRUPTING CAPACITY	MTG	MOUNTING
AM	AMPS METER	MTR	MOTOR
AMP	AMPERE	N/A	NOT APPLICABLE
ANN	ANNUNCIATOR	NC	NORMALLY CLOSED
ATS	AUTOMATIC TRANSFER SWITCH	NEC	NATIONAL ELECTRICAL CODE
AUX	AUXILIARY	NEMA	NATIONAL ELECT. MANUFAC. ASSOC.
AWG	AMERICAN WIRE GAUGE	NFPA	NATIONAL FIRE PROTECTION ASSOC.
BC	BARE COPPER	N.I.C.	NOT IN CONTRACT
BFG	BELOW FINISH GRADE	NO	NORMALLY OPENED
C	CONDUIT	NTS	NOT TO SCALE
CAB	CABINET	OS & Y	OUTSIDE SCREW & YOKE
CATB	COMMUNITY ANTENNA TELEVISION	PB	PUSHBUTTON
CATV	CABLE TELEVISION	PF	POWER FACTOR
CKT	CIRCUIT	PFR	PHASE FAILURE RELAY
CLG	CEILING	PNL	PANEL
CNTR	CONTRACTOR	PT	POTENTIAL TRANSFORMER
C.O.	CONDUIT ONLY	PVC	POLYVINYL CHLORIDE CONDUIT
CRT	COMPUTER TERMINAL	(R)	RELOCATE
CT	CURRENT TRANSFORMER	RECEP	RECEPTACLE
CU	COPPER	REQ	REQUIREMENT
C/W	COMPLETE WITH	RLA	RATED LOAD AMPS
DB	DECIBEL	RMP	ROCKY MOUNTAIN POWER
DC	DIRECT CURRENT	RMS	ROOT MEAN SQUARE
DWG	DRAWING	SE	SERVICE ENTRANCE
(E)	EXISTING	SPEC	SPECIFICATIONS
EC	EMPTY CONDUIT	SPKR	SPEAKER
EG	EMERGENCY GENERATOR	SS	SELECTOR SWITCH
EMT	ELECTRICAL METALLIC TUBING	SW	SWITCH
EX	EXPLOSION PROOF	SWBD	SWITCHBOARD
FACP	FIRE ALARM CONTROL PANEL	SWGR	SWITCHGEAR
FC	FOOT CANDLE	TTB	TELEPHONE TERMINAL BOARD
FT	FOOT	TTC	TELEPHONE TERMINAL CABINET
GFI	GROUND FAULT INTERRUPTER	TV	TELEVISION
GND	GROUND	TYP	TYPICAL
GRC	GALVANIZED RIGID CONDUIT	UG	UNDERGROUND
HP	HORSE POWER	UPS	UNINTERRUPTED POWER SUPPLY
HZ	HERTZ	V	VOLT (KV-KILOVOLT)
IFC	INTERNATIONAL FIRE CODE	VA/R	VOLT-AMPS/REACTIVE
IG	ISOLATED GROUND	VM	VOLT METER
IMC	INTERMEDIATE METALLIC CONDUIT	W	WATTS
IN	INCH	W/	WITH
J-BOX	JUNCTION BOX	WH	WATTHOUR METER
KV	KILOVOLT	W/O	WITHOUT
KVA	KILOVOLT AMPERES	WP	WEATHERPROOF
KVAR	KILOVARS	XFMR	TRANSFORMER
KW	KILOWATT	XFMR SW	TRANSFER SWITCH
LRA	LOCKED ROTOR AMPS	XP	EXPLOSION PROOF
LTG	LIGHTING	1P	SINGLE-PHASE
MNF	MANUFACTURER	2P	TWO-POLE
MAX	MAXIMUM	3P	THREE-POLE
MB	MAIN BUS	4P	FOUR-POLE
MCC	MOTOR CONTROL CENTER	∅	PHASE
MCM	1000 CIRCULAR MILLS		

SHEET INDEX

GENERAL NOTES

1. CONSULT ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES.
2. VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH IN. CONSULT ALL APPLICABLE CONTRACT DRAWINGS AND SHOP DRAWINGS TO INSURE NEC CODE CLEARANCES REQUIRED AROUND ALL ELECTRICAL EQUIPMENT.
3. CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC) OF ALL EQUIPMENT FURNISHED UNDER ALL DIVISIONS, INCLUDING ALL EXISTING EQUIPMENT TO BE RE-USED. REVIEW ALL SHOP DRAWINGS AND EXISTING EQUIPMENT BEFORE BEGINNING ROUGH-IN.
4. SEE SECTION 265100 (16510) OF THE SPECIFICATION FOR REQUIRED COORDINATION MEETINGS WITH MECHANICAL AND CEILING CONTRACTORS.
5. SEE APPLICABLE SHOP DRAWINGS FOR ROUGH IN LOCATION OF ALL EQUIPMENT, WIRING DEVICES, ETC. WHERE APPLICABLE MOUNT ALL WIRING DEVICES ABOVE BACK SPLASH EXCEPT THOSE SERVING UNDER COUNTER EQUIPMENT.
6. SEE SPECIFICATION FOR ENERGY SAVING LAMP AND BALLAST REQUIREMENTS.
7. FINISHES OF ALL LIGHT FIXTURES SHALL BE AS SELECTED BY ARCHITECT.
8. THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO PIPING, DUCTS, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS THRU ELECTRICAL ROOMS OR SPACES, OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN OTHER AREAS.
9. ELECTRICAL BOXES SHALL NOT BE LOCATED IN MASONRY COLUMNS IN BRICK WALLS OR IN GROUTED CELLS ADJACENT TO OPENINGS. COORDINATE LOCATION OF BOXES WITH MASONRY CONTRACTOR.
10. ALL PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL TO MAINTAIN FIRE RATING OF SURFACE PENETRATED.
11. CONTRACTOR SHALL VERIFY FURNITURE LAYOUT PRIOR TO ANY FLOORBOX OR POKE-THRU INSTALLATION. COORDINATE EXACT LOCATION OF FLOOR BOX OR POKE-THRU WITH OWNER AND FURNITURE PROVIDER PRIOR TO ROUGH-IN.
12. CIRCUITS EXTENDING OVER 70' FOR 120 VOLT AND 115' FOR 277 VOLT 20 AMP CIRCUITS SHALL BE RUN WITH CONDUCTORS PER TABLE BELOW.

20 AMP MINIMUM BRANCH CIRCUIT CONDUCTOR SIZING		
MAXIMUM LENGTH	BRANCH CIRCUIT VOLTAGE	
CONDUCTOR LENGTH (FT)	120 VOLT	277 VOLT
<70	MIN. #12 AWG	MIN. #12 AWG
70 - 115	MIN. #10 AWG	MIN. #12 AWG
115 - 170	MIN. #8 AWG	MIN. #10 AWG
170 - 270	MIN. #6 AWG	MIN. #8 AWG
271 - 380	NOTE B	MIN. #8 AWG
>380	NOTE B	NOTE B

A. THESE ARE BASED ON MAXIMUM LENGTH OF CIRCUIT.

B. PERFORM VOLTAGE DROP CALCULATIONS AND PROVIDE CONDUCTOR SIZE TO KEEP BRANCH CIRCUIT VOLTAGE DROP LESS THAN 3% WITH A 15 AMP LOAD.

C. CONTRACTOR SHALL ENSURE THAT THE INSTALLATION OF EACH BRANCH CIRCUIT STAYS WITHIN 3% VOLTAGE DROP FOR A 15 AMP LOAD. IF NECESSARY,CONTRACTOR SHALL INCREASE WIRE AND CONDUIT SIZE TO MEET THE STANDARD AT NO ADDITIONAL COST TO OWNER.

13. ALL CONDUIT SHALL BE INSTALLED IN STRAIGHT LINES PARALLEL TO, OR AT RIGHT ANGLES TO, THE STRUCTURE OR ADJACENT BUILDING ELEMENTS. SEPARATIONS BETWEEN CONDUITS AND FASTENINGS OF CONDUITS SHALL BE NEAT AND CONSISTENT. CONDUIT SHALL BE INSTALLED AS TIGHT TO THE BOTTOM OF STRUCTURAL ELEMENTS WHEN PARALLEL TO JOISTS AS CODE WILL ALLOW. OVERALL INSTALLATION SHALL BE ACCOMPLISHED IN AN AESTHETIC AND WORKMANLIKE MANNER. NO CONDUITS SHALL BE ALLOWED TO RUN PERPENDICULAR TO THE BOTTOM CHORD OF THE JOISTS.
14. DIVISION 26 SHALL VISIT SITE PRIOR TO BIDDING. BIDS SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS. FIELD VERIFIES ALL ELECTRICAL EQUIPMENT. BIDDERS SHALL EXAMINE THE SITE AND THE COMPLETE SET OF PLANS AND SPECIFICATIONS COVERING THE ENTIRE PROJECT. THEY SHALL BECOME FULLY CONVERSANT WITH THE TYPE OF GENERAL CONSTRUCTION AS WELL AS ALL PERTINENT FACTS AFFECTING THE COST OF CARRYING OUT THE WORK THEY WILL CONTRACT TO PERFORM.
15. CAREFULLY REVIEW THE ENTIRE DRAWING PACKAGE PRIOR TO PROVIDING BID, INCLUDING THE ARCHITECTURAL AND MECHANICAL DRAWINGS. NOT REVIEWING THE ENTIRE SET IS NOT ACCEPTABLE.
16. ELECTRICAL CONTRACTOR SHALL COORDINATE PROJECT PHASING WITH GENERAL CONTRACTOR BID AND PERFORM RESPONSIBILITIES FOR THIS PROJECT TO GENERAL CONTRACTOR EXPECTATIONS.
17. COORDINATE ELECTRICAL DEMOLITION WITH ARCHITECTURAL DRAWINGS AND GENERAL CONTRACTOR.
18. CLOSELY COORDINATE ANY REQUIRED POWER SHUTDOWNS WITH HEAD CUSTODIAN AND OWNER.
19. WHERE JOB CONDITIONS REQUIRE CHANGES FROM THE CONTRACT DOCUMENTS THAT DO NOT CHANGE THE SCOPE OF INSTALLATION OR NATURE OF WORK REQUIRED, THE CONTRACTOR WILL MAKE SUCH CHANGES WITHOUT ADDITIONAL COST TO THE OWNER. NO OTHER CHANGES MAY BE MADE WITHOUT WRITTEN PERMISSION OF THE OWNER.
20. SEQUENCE, COORDINATE AND INTEGRATE INSTALLATIONS OF ELECTRICAL MATERIALS AND EQUIPMENT FOR EFFICIENT FLOW OF THE WORK, GIVE PARTICULAR ATTENTION TO LARGE EQUIPMENT REQUIRING POSITIONING PRIOR TO CLOSING IN THE BUILDING. COORDINATE THE CUTTING AND PATCHING OF BUILDING COMPONENTS TO ACCOMMODATE INSTALLATION OF ELECTRICAL EQUIPMENT AND MATERIALS.
21. DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOFS, ETC.
22. DISCONNECT AND RECONNECT ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC, REQUIRED FOR PROPER COMPLETION OF THE WORK.
23. CONTRACTOR MUST CONCEAL ALL RACEWAYS THROUGHOUT THE PROJECT. SURFACE MOUNT RACEWAY IS UNACCEPTABLE EXCEPT WHERE THE USE OF PAINTED SURFACE METAL RACEWAYS (EMT) IS APPROVED SOLELY BY THE ARCHITECT. PAINT TO MATCH SURROUNDING SURFACE.
24. ALL CONCRETE CUT AND PATCHWORK REQUIRED FOR FLOOR BOXES INSTALLATION AND/OR RELOCATION OF ELECTRICAL DEVICES AND PANELS THAT REQUIRE WORK WITHIN THE FLOORS SHALL BE DONE BY AN ELECTRICAL CONTRACTOR, ALL CORE, CUTTING FOR NEW SERVICE SHALL ALSO BE COVERED UNDER ELECTRICAL CONTRACTORS REQUIRED WORK.
25. CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE OF ALL WASTE, SURPLUS MATERIALS, RUBBISH, OR DEBRIS WHICH IS CAUSED BY HIS EMPLOYEES OR RESULTING FROM HIS WORK. AFTER ALL EQUIPMENT AND DEVICES HAVE BEEN INSTALLED, REMOVE ALL LABELS, STICKERS, STAINS, TEMPORARY COVERS, ETC. IDENTIFICATION PLATES ON ALL EQUIPMENT.
26. IT IS THE INTENT THAT THE FOREGOING WORK SHALL BE COMPLETE IN EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO FULLY COMPLETE THE WORK SHALL BE FURNISHED BY ELECTRICAL CONTRACTOR.
27. PROVIDE GFC CIRCUIT BREAKERS SERVING RECEPTACLES PROVIDING POWER TO DRINKING FOUNTAINS, REFRIGERATORS, VENDING MACHINES, DISPOSALS AND WASHING MACHINES.
28. PROVIDE CONDUIT FROM DEVICE TO DEVICE IN OPEN AND/OR EXPOSED CEILINGS. CEILINGS WITH CLOUDS ARE CONSIDERED OPEN/EXPOSED CEILINGS, NO EXPOSED CABLES SHALL BE SEEN FROM BELOW.
29. PROVIDE WEATHERPROOF, NEMA 3R RATED EQUIPMENT FOR ALL EXTERIOR APPLICATIONS.
30. CONSULT ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES.
31. VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH-IN. CONSULT ALL APPLICABLE CONTRACT DRAWINGS AND SHOP DRAWINGS TO INSURE NEC CODE CLEARANCES ARE REQUIRED AROUND ALL ELECTRICAL EQUIPMENT.
32. CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC) OF ALL EQUIPMENTS FURNISHED UNDER ALL DIVISIONS. REVIEW ALL SHOP DRAWINGS BEFORE BEGINNING ROUGH-IN.
33. SEE SECTION 265100 (16510) OF THE SPECIFICATION FOR REQUIRED COORDINATION MEETINGS WITH MECHANICAL AND CEILING CONTRACTORS.
34. SEE APPLICABLE SHOP DRAWINGS FOR ROUGH-IN LOCATION OF ALL EQUIPMENT. WIRING DEVICES, ETC, WHERE APPLICABLE MOUNT ALL WIRING DEVICES ABOVE BACKSPLASH EXCEPT THOSE SERVING UNDER-COUNTER EQUIPMENT.
35. FINISHES OF ALL LIGHT FIXTURES SHALL BE AS SELECTED BY ARCHITECT.
36. THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO PIPING, DUCTS, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS-THRU ELECTRICAL ROOMS OR SPACES, OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN OTHER AREAS.
37. CONTRACTOR SHALL VERIFY FURNITURE LAYOUT PRIOR TO ANY FLOORBOX OR POKE-THRU INSTALLATION. COORDINATE EXACT LOCATION OF FLOOR BOX OR POKE-THRU WITH OWNER AND FURNITURE PROVIDER PRIOR TO ROUGH-IN.
38. ELECTRICAL BOXES SHALL NOT BE LOCATED IN MASONRY COLUMNS IN BRICK WALLS OR IN GROUTED CELLS ADJACENT TO OPENINGS, COORDINATE LOCATION OF BOXES WITH MASONRY CONTRACTOR.
39. ALL PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL TO MAINTAIN FIRE RATING OF SURFACE PENETRATED. AT THE COMPLETION OF THE PROJECT, ALL SPARE CONDUITS FOR FUTURE USE.
40. ALL PREMISES WIRING (SYSTEMS); INTERIOR AND EXTERIOR WIRING, INCLUDING POWER, LIGHTING, CONTROL, AND SIGNAL CIRCUIT WIRING TOGETHER WITH ALL THEIR ASSOCIATED HARDWARE; FITTINGS, AND WIRING DEVICES, BOTH PERMANENTLY AND TEMPORARILY INSTALLED MUST BE LABELED WITH THE APPROPRIATE STANDARDS OR PERFORMANCES AS SPECIFIED HEREIN, INTEGRAL SYSTEM WIRING, WITH THE EXCEPTION OF SPECIFIC TIE-IN POINTS, MUST BE CONTAINED WITHIN ITS OWN EQUIPMENT APPARATUSES E.G. SECURITY AND FIRE ALARM WIRING SHALL NOT SHARE OR RUN THROUGH THE SAME CABINET/JUNCTION BOX.
41. CIRCUITS EXTENDING OVER 70' FOR 120 VOLT AND 115' FOR 277 VOLT 20 AMP CIRCUITS SHALL BE RUN WITH CONDUCTORS PER TABLE BELOW.

naylor wentworth lund
a r c h i t e c t s

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BID DOCUMENTS
DECEMBER 9, 2024
24310

DRAWING ISSUE
HWL

△ DATE REVISION

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

ELECTRICAL SYMBOLS AND NOTES

E001

EQUIPMENT SCHEDULE

CONNECTION TYPE NOTES:

1. NON-FUSED DISCONNECT SWITCH
2. FUSED DISCONNECT SWITCH
3. BREAKER IN ENCLOSURE
4. MANUAL STARTER WITH THERMAL OVERLOAD
5. MAGNETIC STARTER
6. MAGNETIC STARTER/NON-FUSED DISCONNECT COMBINATION
7. MAGNETIC STARTER/FUSED DISCONNECT COMBINATION
8. MAGNETIC STARTER/BREAKER COMBINATION
9. VARIABLE FREQUENCY DRIVE
10. REDUCED VOLTAGE STARTER
11. DIRECT CONNECTION
12. RECEPTACLE/SPECIAL PURPOSE OUTLET/ETC.
13. TWO-SPEED STARTER. COORDINATE WITH MOTOR TYPE
14. SOLID STATE SOFT-STARTER

RESPONSIBILITY LEGEND:

A. FURNISHED, INSTALLED AND CONNECTED UNDER DIVISION 26(16)
B. FURNISHED AND INSTALLED UNDER ANOTHER DIVISION. REQUIRED CONNECTION UNDER DIVISION 26(16)
C. FURNISHED UNDER ANOTHER DIVISION BUT INSTALLED AND CONNECTED UNDER DIVISION 26(16)
D. FURNISHED, INSTALLED AND CONNECTED UNDER ANOTHER DIVISION

CB = CIRCUIT BREAKER

NOTE 1: PER 250.122(A), EQUIPMENT GROUND IS NOT REQUIRED TO BE LARGER THAN THE PHASE CONDUCTOR
NOTE 2: OVERCURRENT PROTECTION DEVICE (OCPD) SHOWN IS LOCATED AT POWER PANEL. ALL FUSING TO BE SIZED IN ACCORDANCE WITH FUSE MFR RECOMMENDATION FOR MOTOR NAME PLATE RATING.
NOTE 3: ALL EQUIPMENT TO BE RATED FOR THE ENVIRONMENT FOR WHICH IT IS INSTALLED.

UNIT	#	DESCRIPTION	ELECTRICAL EQUIPMENT INFORMATION							CONDUIT SIZE	WIRE				OCPD		REMARKS
			LOAD														
			HP	FLA	MCA	VA	VOLTAGE	PHASE	FULL LOAD AMPS		SETS	QTY	SIZE	EQ. GROUND	TYPE	AMPS	STARTER/ DISC/ VFD OTHER (SEE NOTES)
AG	1	ABORT GATE	0.00	3 A	0 A	0 VA	120 V	1	3.0 A	3/4"	1	2	12	12	CB	15 A	4 A
EF	1	EXHAUST FAN	0.25	0 A	0 A	0 VA	120 V	1	5.8 A	3/4"	1	2	12	12	CB	15 A	4 A
EF	2	EXHAUST FAN	0.25	0 A	0 A	0 VA	120 V	1	5.8 A	3/4"	1	2	12	12	CB	15 A	4 A
EF	3	EXHAUST FAN	0.75	0 A	0 A	0 VA	120 V	1	13.8 A	3/4"	1	2	12	12	CB	25 A	4 A
EH	1	ELECTRIC UNIT HEATER	0.00	0 A	0 A	1500 VA	208 V	1	4.8 A	3/4"	1	2	12	12	CB	15 A	1 A
EH	2	ELECTRIC UNIT HEATER	0.00	0 A	0 A	3000 VA	208 V	1	14.4 A	3/4"	1	2	12	12	CB	25 A	1 A
GUH	1	GAS FIRED UNIT HEATER	0.50	0 A	0 A	0 VA	120 V	1	9.8 A	3/4"	1	2	12	12	CB	15 A	4 A
MAU	1	MAKE-UP AIR UNIT	5.00	0 A	0 A	0 VA	480 V	3	7.6 A	3/4"	1	3	12	12	CB	15 A	2 A
MAU	2	MAKE-UP AIR UNIT	0.50	0 A	0 A	0 VA	480 V	3	1.1 A	3/4"	1	3	12	12	CB	15 A	2 A
PBC	1	PAINT BOOTH CTR PNL	0.00	15 A	0 A	0 VA	120 V	1	15.0 A	3/4"	1	2	12	12	CB	25 A	2 A
PBF	1	PAINT BOOTH FAN	2.00	0 A	0 A	0 VA	480 V	3	3.4 A	3/4"	1	3	12	12	CB	15 A	2 A
RT	1	ROOFTOP UNIT	0.00	0 A	24.2 A	0 VA	480 V	3	19.4 A	3/4"	1	3	10	10	CB	30 A	2 A
SFU	1	SMOKE FIL TRATION UNIT	5.00	0 A	0 A	0 VA	480 V	3	7.6 A	3/4"	1	3	12	12	CB	15 A	7 A

LIGHT FIXTURE SCHEDULE

LIGHT FIXTURE ABBREVIATION SCHEDULE — PROJECT MANAGER: DAREN OAKESON

A.F.F.	ABOVE FINISH FLOOR	SCBA	STANDARD PAINTED COLOR AS SELECTED BY THE ARCHITECT
WALL@CLG	WALL MOUNT AT CORNER OF WALL AND CEILING	CFBA	CUSTOM FINISH AS SELECTED BY THE ARCHITECT
CCBA	CUSTOM PAINTED COLOR AS SELECTED BY THE ARCHITECT	SFBA	STANDARD FINISH AS SELECTED BY THE ARCHITECT

LIGHT FIXTURE GENERAL NOTES

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF LIGHT FIXTURES AND, CONFIRM CEILING TYPES WITH LIGHT FIXTURE TRIMS. BRING ALL DISCREPANCIES OF LOCATIONS AND QUANTITIES TO THE ATTENTION OF THE ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO BIDDING.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS AND LOCATIONS OF LIGHT FIXTURES. BRING ALL DISCREPENCIES TO THE ATTENTION OF THE ARCHITECT PRIOR TO BIDDING.
3. REFER TO THE SPECIFICATIONS FOR OTHER LIGHT FIXTURE, FUSING, LED DRIVERS, AND LAMP REQUIREMENTS AND ACCEPTABLE MANUFACTURERS.
4. CONFIRM AVAILABLE MOUNTING DEPTHS OF ALL LIGHT FIXTURES AND COMPARE WITH DEPTHS SHOWN ON SHOP DRAWINGS. BRING ALL POTENTIAL CONFLICT AREAS TO THE ATTENTION OF THE ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO RELEASE.
5. REFER TO LIGHTING PLANS FOR ALL LINEAR FIXTURE LENGTHS. THE CATALOG NUMBER IS BASED ON THE FIXTURE SPECIFIED AND MAY NOT REFLECT THE QUANTITY OR OVERALL LENGTH OF LINEAR FIXTURES REQUIRED. CONTRACTOR TO NOTE THAT VARIOUS FIXTURE LENGTHS MAY BE REQUIRED TO ACHIEVE THE OVERALL RUN LENGTH.
6. REFER TO LIGHTING PLANS FOR ALL UNDERCABINET FIXTURE LENGTHS. THE CATALOG NUMBER IS BASED ON THE FIXTURE SPECIFIED AND MAY NOT REFLECT THE QUANTITY OR OVERALL LENGTH OF THE UNDERCABINET FIXTURES REQUIRED. CONTRACTOR TO NOTE THAT VARIOUS FIXTURE LENGTHS MAY BE REQUIRED TO ACHIEVE THE OVERALL RUN LENGTH OR TO FIT WITHIN THE MILLWORK. COORDINATE FIXTURE LAYOUT WITH MILLWORK SHOP DRAWINGS PRIOR TO LIGHTING SUBMITTALS.
7. WHEN A CONTRADICTION EXISTS BETWEEN A SPECIFIC MODEL NUMBER AND THE DESCRIPTION, NOTIFY THE ELECTRICAL ENGINEER AND/OR LIGHTING DESIGNER.
8. PRIOR APPROVALS ARE REQUIRED BEFORE BIDDING THE PROJECT AND SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER'S OFFICE AT LEAST (8) EIGHT WORKING DAYS BEFORE THE BID. PRIOR APPROVALS RECEIVED AFTER THIS TIME PERIOD SHALL BE...
9. REFER TO SPECIFICATIONS 20 0500, 26 5100 & 26 5600 (16001, 16510 & 16551).
10. VALUE ENGINEERING CONDUCTED WITHOUT THE DESIGN TEAM IE; ARCHITECT, ENGINEER & LIGHTING CONSULTANT/DESIGNER WILL NOT BE ALLOWED, REVIEWED OR APPROVED.

TYPE	DESCRIPTION	MFR.	CATALOG #	VOLTS	TOTAL WATTS	LAMP TYPE	DELIVERED LUMENS	COLOR TEMP	CRI
G24	2'X4' RECESSED LED LAY-IN LUMINAIRE; RECESSED INTO ACCESSIBLE ARCHITECTURAL CEILING; EASY TO CLEAN; 60,000 HOUR (L73); 5 YR. WARRANTY; 0-10 DIMMING; FIELD-SELECTABLE LUMEN OUTPUT (MEDIUM, 4000K)	METALUX	24FPSL2SCT3	277 V	56 VA	LED	4,620	4000 K	80+
G24E	2'X4' RECESSED LED LAY-IN LUMINAIRE; RECESSED INTO ACCESSIBLE ARCHITECTURAL CEILING; EASY TO CLEAN; 60,000 HOUR (L73); 5 YR. WARRANTY; 0-10 DIMMING; FIELD-SELECTABLE LUMEN OUTPUT (MEDIUM, 4000K)	METALUX	24FPSL2SCT3-EL10W	277 V	56 VA	LED	4,620	4000 K	80+
LW8H	8' WAVESTREAM LINEAR PENDANT LED LUMINAIRE; WAVESTREAM W/ ACCU-AIM OPTICS; 60,000 HOUR (L80); 5 YR WARRANTY; 0-10 DIMMING; WITH 8% UPLIGHT; PROVIDE ALL ASSEMBLY AND MOUNTING MATERIALS REQUIRED FOR A FULL INSTALLATION; COORDINATE EXACT CEILING SYSTEM AND SUSPENSION HEIGHT WITH ARCHITECT	METALUX	8WSL-LD2-150-SPS-UPL8-UNV-L840-CD-1-CC A-XX	277 V	149 VA	LED	15,000	4000 K	80+
LW8HE	8' WAVESTREAM LINEAR PENDANT LED LUMINAIRE; WAVESTREAM W/ ACCU-AIM OPTICS; 60,000 HOUR (L80); 5 YR WARRANTY; 0-10 DIMMING; WITH 8% UPLIGHT; PROVIDE ALL ASSEMBLY AND MOUNTING MATERIALS REQUIRED FOR A FULL INSTALLATION; COORDINATE EXACT CEILING SYSTEM AND SUSPENSION HEIGHT WITH ARCHITECT. EMERGENCY BATTERY BACKUP	METALUX	8WSL-LD2-150-SPS-UPL8-UNV-EL14W-L840-CD-1-CC A-XX	277 V	149 VA	LED	15,000	4000 K	80+
LW8M	8' WAVESTREAM LINEAR SURFACE MOUNTED LED LUMINAIRE; WAVESTREAM W/ ACCU-AIM OPTICS; 100,000 HOUR (L80); 5 YR WARRANTY; 0-10 DIMMING; PROVIDE ALL ASSEMBLY AND MOUNTING MATERIALS REQUIRED FOR A FULL INSTALLATION; COORDINATE EXACT CEILING SYSTEM WITH ARCHITECTURAL DRAWINGS	METALUX	8WSL-LD2-120-SRS-UNV-L840-CD-1	277 V	91 VA	LED	12,000	4000 K	80+
LW8ME	8' WAVESTREAM LINEAR SURFACE MOUNTED LED LUMINAIRE; WAVESTREAM W/ ACCU-AIM OPTICS; 100,000 HOUR (L80); 5 YR WARRANTY; 0-10 DIMMING; PROVIDE ALL ASSEMBLY AND MOUNTING MATERIALS REQUIRED FOR A FULL INSTALLATION; COORDINATE EXACT CEILING SYSTEM WITH ARCHITECTURAL DRAWINGS. EMERGENCY BATTERY BACKUP	METALUX	8WSL-LD2-120-SRS-UNV-EL14W-L840-CD-1	277 V	91 VA	LED	12,000	4000 K	80+
OW1	LED WALL PACK	LITHONIA	DSXW1-LED-20C-530-40K-T3M-MVOLT-DDL-SCBA-EM-PC	277 V	35 VA	LED	4,315	4000 K	70
S4	LOW BAY LED LUMINAIRE; DIE-CAST ALUMINUM HOUSING; PRECISION 120 DEGREE BEAM ANGLE; DIFFUSED LENS; 5 YR WARRANTY; 0-10 DIMMING; 100,000 HOUR (L70)	WILLIAMS	80-4-L53-8-40-DIM-UNV	277 V	34 VA	LED	5,327	4000 K	80+
S4P	SAFESITE LINEAR - LOW PROFILE, CHAIN HUNG; 7100 LUMENS, 60 WATTS, 100-277 VAC, COOL WHITE 5000K, DIFFUSED POLYCARBONATE LENS [CID2]	DIALIGHT	LPD3C4H2W-LSENDCAPKIT	277 V	60 VA	LED	7,100	5000 K	80+
S4PE	SAFESITE LINEAR - LOW PROFILE, CHAIN HUNG; 7100 LUMENS, 60 WATTS, 100-277 VAC, COOL WHITE 5000K, DIFFUSED POLYCARBONATE LENS [CID2]. EMERGENCY BATTERY BACKUP	DIALIGHT	LPD3C4H2W-LSENDCAPKIT-EM	277 V	60 VA	LED	7,100	5000 K	80+
X1	UNIVERSAL EDGE-LIT EXIT SIGN; BRUSHED ALUMINUM HOUSING AND BLACK PLASTIC END-CAPS, WITH HIGH GRADE ACRYLIC PANEL; UNIVERSAL FACE, SINGLE, DOUBLE; UNIVERSAL MOUNTING, SURFACE, RECESSED OR END-MOUNT; AC ONLY	EMERGI-LITE	PAG6	277 V	5 VA	LED			82

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24310

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PROJECT FOR
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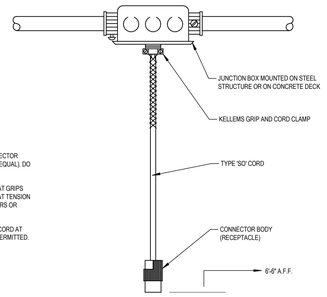
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

ELECTRICAL SCHEDULES

E002



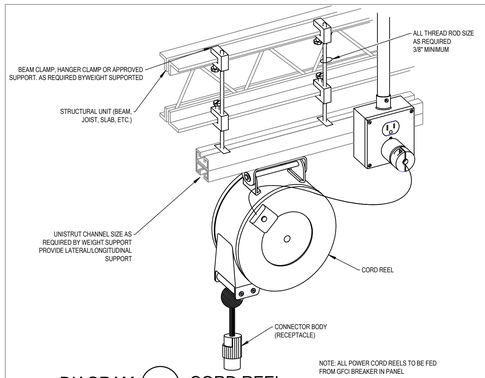
NOTES:

USE LOOKING BLADE TYPE OF CONNECTOR BODY (WOODHEAD 'TWIST LOCK' OR EQUAL). DO NOT USE STRAIGHT BLADE TYPES.

USE TYPE OF CONNECTOR BODY THAT GRIPS ON INSULATION OF 'SO' CORD SO THAT TENSION IS NOT TRANSMITTED TO CONDUCTORS OR TERMINAL SCREWS.

USE CONTINUOUS LENGTHS OF 'SO' CORD AT EACH LOCATION SPLICES ARE NOT PERMITTED.

DIAGRAM K004 CORD DROP
NTS



NOTE: ALL POWER CORD REELS TO BE FED FROM GFCI BREAKER IN PANEL

DIAGRAM K003 CORD REEL
NTS

NOTE:
TYPICAL OF 2'X2', 2'X4', 1'X4', AND 4'X4' FIXTURES

1. #12 GA. WIRE HANGER AT EACH CORNER OF FIXTURE (TYP.) INDEPENDENT OF CEILING SUPPORT SYSTEM AND IDENTIFIED AS PER SPECIFICATIONS.
2. FIXTURE CLAMP. PROVIDE ONE PER SIDE PER FIXTURE.

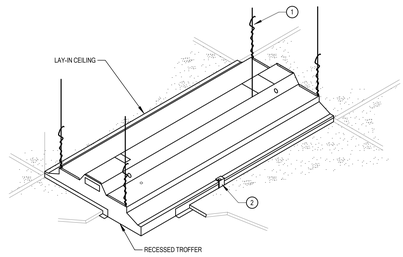


DIAGRAM A001 TYP. RECESSED FIXTURE MOUNTING
NTS

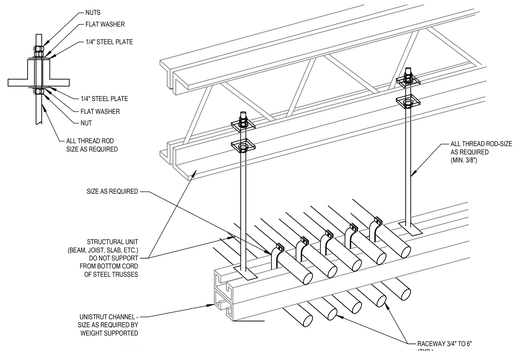
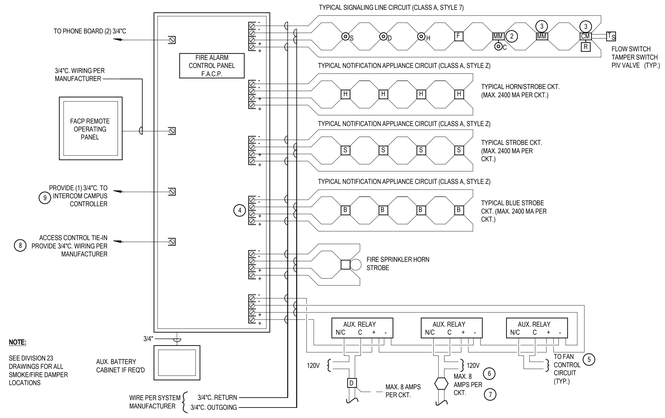


DIAGRAM H001 TYPICAL TRAPEZE CONDUIT RACK
NTS

NOTE:

1. PROVIDE ADDRESSABLE INITIATION LOOP(S) AND POWER CIRCUIT FOR THE CARBON MONOXIDE DETECTORS.
2. PROVIDE CARBON MONOXIDE DETECTOR WITH ASSOCIATED MONITOR MODULE. SEE PLANS FOR QUANTITY AND LOCATION.
3. PROVIDE CONTROL MODULE WITH FAN SHUTDOWN RELAY TO SHUTDOWN MECHANICAL UNIT ON LOCAL CARBON MONOXIDE DETECTOR ACTIVATION.
4. PROVIDE FIRE ALARM BLUE STROBE(S). SEE PLANS FOR QUANTITY AND LOCATIONS.
5. PROVIDE DUCT SMOKE DETECTORS AND FAN RELAYS AT ALL FAN UNITS 2000 CFM AND OVER. SHUT DOWN ALL SUPPLY AND RETURN FANS UPON A GENERAL ALARM SIGNAL.
6. PROVIDE KEY OVERRIDE SWITCH FOR EVERY PAIR OF ELECTROMAGNETIC DOOR HOLDERS/RELEASES.
7. PROVIDE KEY OVERRIDE SWITCH IN MAIN ADMINISTRATION OFFICE THAT WILL RELEASE ALL ELECTROMAGNETIC DOOR HOLDER/RELEASES THROUGHOUT THE BUILDING.
8. COORDINATE WITH THE ACCESS CONTROL PROVIDER TO PROVIDE INPUT POINT THAT WILL ALLOW THE ACCESS CONTROL SYSTEM TO RELEASE ALL ELECTROMAGNETIC DOOR HOLDER/RELEASES THROUGHOUT THE BUILDING DURING A LOCK DOWN EVENT OR PER THE OWNERS REQUIREMENTS.
9. COORDINATE WITH THE INTERCOM PROVIDER TO PROVIDE INPUT POINT THAT WILL ALLOW THE INTERCOM SYSTEM TO RELEASE ALL ELECTROMAGNETIC DOOR HOLDER/RELEASES THROUGHOUT THE BUILDING DURING A LOCK DOWN EVENT OR PER THE OWNERS REQUIREMENTS.



NOTE:
SEE DIVISION 23 DRAWINGS FOR ALL SMOKE/FIRE DAMPER LOCATIONS

DIAGRAM D016 TYPICAL FIRE ALARM RISER
NTS

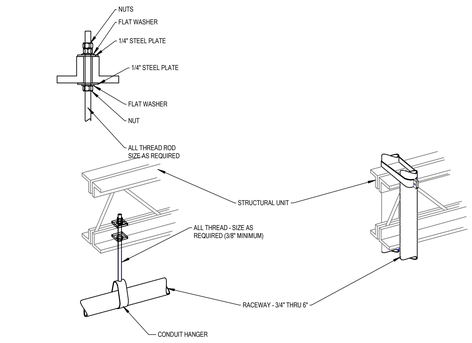
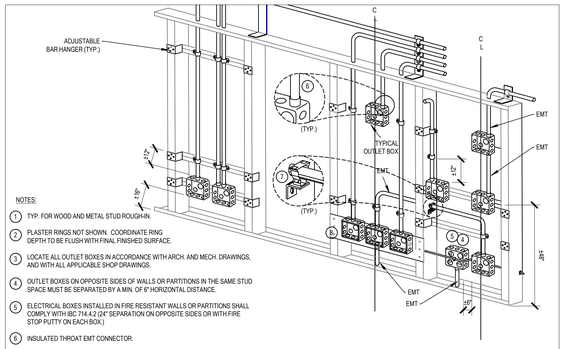


DIAGRAM H003 TYPICAL RACEWAY SUPPORT METHODS
NTS



NOTES:

1. TYP. FOR WOOD AND METAL STUD ROUGH-IN.
2. PLASTER RINGS NOT SHOWN. COORDINATE RING DEPTH TO BE FLUSH WITH FINAL FINISHED SURFACE.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCH. AND MECH. DRAWINGS, AND WITH ALL APPLICABLE SHOP DRAWINGS.
4. OUTLET BOXES ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE MUST BE SEPARATED BY A MIN. OF 6" HORIZONTAL DISTANCE.
5. ELECTRICAL BOXES INSTALLED IN FIRE RESISTANT WALLS OR PARTITIONS SHALL COMPLY WITH IBC 714.4.2 (24" SEPARATION ON OPPOSITE SIDES OR WITH FIRE STOP PUTTY ON EACH BOX.)
6. INSULATED THROAT EMT CONNECTOR.
7. CADDY FASTENER, THROUGH STUD CABLE/CONDUIT SUPPORT .
8. CADDY BOX MOUNTING BRACKET .

DIAGRAM H004 TYPICAL ROUGH IN REQUIREMENTS
NTS

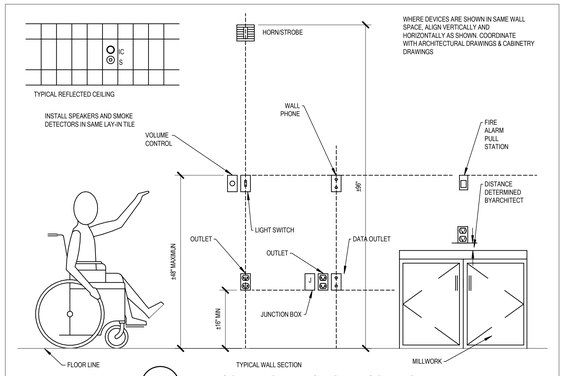
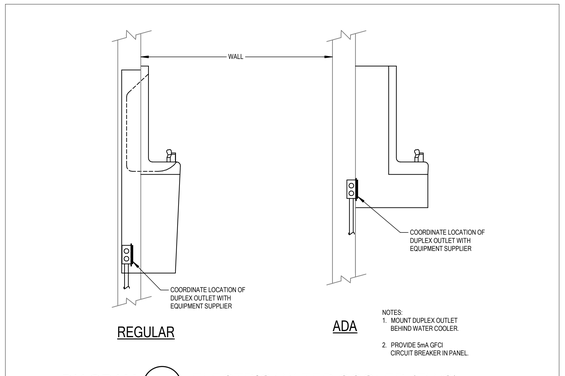


DIAGRAM R001 DEVICE MOUNTING HEIGHTS
NTS



REGULAR

ADA

NOTES:
1. MOUNT DUPLEX OUTLET BEHIND WATER COOLER.
2. PROVIDE 5mA GFCI CIRCUIT BREAKER IN PANEL.

DIAGRAM R002 ELECTRIC WATER COOLER (EWC)
NTS

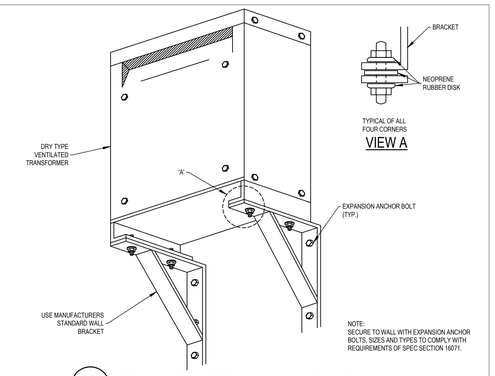


DIAGRAM Q002 TRANFORMER WALLL MOUNTING
NTS

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MANTI HIGH SCHOOL
SHOP & WRESTLING ADDITIONS
100 WEST 500 NORTH MANTI, UTAH 84642

DRAWING ISSUE | BID DOCUMENTS | DECEMBER 9, 2024 | NWL | 24310

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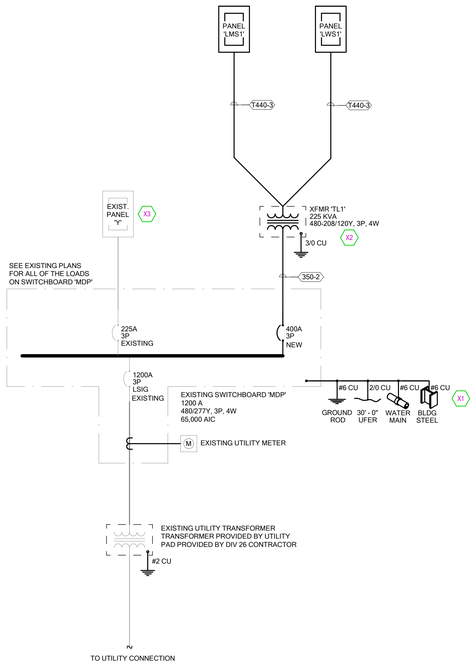
PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

ELECTRICAL DIAGRAMS

E060



1 ONE-LINE DIAGRAM

ALUMINUM CONDUCTOR & O.C. PROT. FOR TRANSFORMER PRIMARY					ALUMINUM XHHW-2 CONDUCTOR & O.C. PROT. FOR TRANSFORMER SECONDARY △ 480-208/120 Y						
TRANS KVA	O.C. PROT.	TYPE COND.*	GEC (1)	MIN. Z%	O.C. PROT.	TYPE COND.*	COND. AMPS	SETS	CONDUCTOR (3) QUAN.	CONDUCTOR (3) SIZE	CONDUIT SIZE	BONDING JUMPER (2)
15	30	30	8 CU	3	60	T44-1	70	1	4	4 CU	1-1/2"	8 CU
30	50	36	8 CU	3	100	T41X-1	120	1	4	1/0	2"	8 CU
45	70	34	4 CU	3	175	T44X-1	180	1	4	4/0	2-1/2"	4 CU
75	125	32X	2 CU	3	225	T435-1	250	1	4	350	3"	1/0 AL
112.5	175	34X	2 CU	4	400	T425-2	410	2	4	250	3"	1/0 AL
150	300	350	2/0 CU	4	600	T450-2	620	2	4	500	4"	4/0 AL
225	400	375	2/0 CU	4	800	T440-3	810	3	4	400	4"	4/0 AL
300	600	350-2	3/0 CU	5	1200	T450-4	1240	4	4	500	4"	250 AL
500	800	340-3	3/0 CU	5	1600	T440-6	1620	6	4	400	4"	300 AL
750	1200	350-4	3/0 CU	5	3000	T450-10	3100	10	4	500	4"	750 AL

ALUMINUM CONDUCTOR & O.C. PROT. FOR TRANSFORMER PRIMARY					ALUMINUM XHHW-2 CONDUCTOR & O.C. PROT. FOR TRANSFORMER SECONDARY (200% NEUTRAL) △480-208/120 Y						
TRANS KVA	O.C. PROT.	TYPE COND.*	GEC (1)	MIN. Z%	O.C. PROT.	TYPE COND.*	COND. AMPS	SETS	CONDUCTOR (3) QUAN.	CONDUCTOR (3) SIZE	CONDUIT SIZE	BONDING JUMPER (2)
15	30	30	8 CU	3	60	TS3-1	53	1	5	3 CU	2"	8 CU
30	50	36	6 CU	3	100	TS2X-1	108	1	5	2/0	2-1/2"	6 CU
45	70	34	2 CU	3	175	TS30-1	184	1	5	300	3"	1/0 AL
75	125	32X	2 CU	3	225	TS50-1	248	1	5	500	4"	1/0 AL
112.5	175	34X	1/0 CU	4	400	TS35-2	400	2	5	350	3"	3/0 AL
150	300	350	2/0 CU	4	600	TS35-3	600	3	5	350	4"	4/0 AL
225	400	375	2/0 CU	4	800	TS35-4	800	4	5	350	4"	4/0 AL
300	600	350-2	3/0 CU	5	1200	TS50-5	1240	5	5	500	4"	350 AL
500	800	340-3	3/0 CU	5	1600	TS50-7	1736	7	5	500	4"	500 AL
750	1200	350-4	3/0 CU	5	3000	TS75-10	3080	10	5	750	4"	750 AL

* SEE SCHEDULE FOR CONDUIT AND WIRE SIZE

NOTES:
(1) GROUNDING ELECTRODE CONDUCTOR. (NEC 250.66)
(2) SUPPLY SIDE BONDING JUMPER. (NEC 250.102 (C)(1))
(3) XHHW INSULATION.

SHEET KEYNOTES

X1 EXISTING GROUNDING SYSTEM. MAINTAIN AND PRESERVE DURING REMODEL.

X2 PROVIDE STEP DOWN DRY TYPE TRANSFORMER WITH TWO SETS OF MAIN LUGS, ONE FOR EACH PANELBOARD.

X3 PANEL Y IS EXISTING TO BE REPLACED. PLEASE FIELD VERIFY EXISTING POWER DRAW FROM PANEL. IF PANEL IS LOADED WITH 150A OR MORE, WE WILL NEED TO UPSIZE THE POWER FEED. OTHERWISE, WE WILL REPLACE THE EXISTING PANEL WITH A NEW 225A PANEL AND REUSE THE FEEDERS. REFER TO THE POWER PLANS FOR MORE INFORMATION.

ALUMINUM CONDUCTOR & CONDUIT SCHEDULE

TYPE	AMP.	COND. SIZE	CONDUCTOR QUAN.	CONDUCTOR SIZE	INSULATION	EQ. GND COND.(AL)
31X	120	2"	3	1/0	XHHW-2	4
41X	120	2"	4	1/0	XHHW-2	4
51X	96	2"	5*	1/0	XHHW-2	4
32X	135	2"	3	2/0	XHHW-2	4
42X	135	2"	4	2/0	XHHW-2	4
52X	108	2"	5*	2/0	XHHW-2	4
33X	155	2"	3	3/0	XHHW-2	4
43X	155	2"	4	3/0	XHHW-2	4
53X	124	3"	5*	3/0	XHHW-2	4
34X	180	2"	3	4/0	XHHW-2	4
44X	180	3"	4	4/0	XHHW-2	4
54X	144	3"	5*	4/0	XHHW-2	2
325	205	2"	3	250	XHHW-2	2
425	205	3"	4	250	XHHW-2	2
525	164	3"	5*	250	XHHW-2	2
330	230	3"	3	300	XHHW-2	2
430	230	3"	4	300	XHHW-2	2
530	184	3"	5*	300	XHHW-2	2
335	250	3"	3	350	XHHW-2	2
435	250	3"	4	350	XHHW-2	2
535	200	3"	5*	350	XHHW-2	2
340	270	3"	3	400	XHHW-2	2
440	270	3"	4	400	XHHW-2	2
540	216	3"	5*	400	XHHW-2	2
350	310	4"	3	500	XHHW-2	1
450	310	4"	4	500	XHHW-2	1
550	248	4"	5*	500	XHHW-2	1
375	385	4"	3	750	XHHW-2	1
475	385	4"	4	750	XHHW-2	1
575	308	4"	5*	750	XHHW-2	1

ALUMINUM CONDUCTOR & CONDUIT SCHEDULE FOR PARALLEL RUNS

TYPE	MAX. O.C. PROT.	COND. AMPS	SETS	CONDUCTOR QUAN.	CONDUCTOR SIZE	CONDUIT SIZE	EQ. GND. COND.(AL)
325-2	400	410	2	3	250	2-1/2"	2/0
425-2	400	410	2	4	250	2-1/2"	2/0
535-2	400	400	2	5*	350	3"	2/0
350-2	600	620	2	3	500	3"	2/0
450-2	600	620	2	4	500	3"	2/0
535-3	600	600	3	5*	350	3"	2/0
340-3	800	810	3	3	400	2-1/2"	3/0
440-3	800	810	3	4	400	3"	3/0
535-4	800	800	4	5*	350	4"	3/0
375-3	1000	1155	3	3	750	4"	4/0
475-3	1000	1155	3	4	750	4"	4/0
535-5	1000	1000	5	5*	350	4"	4/0
350-4	1200	1240	4	3	500	4"	250
450-4	1200	1240	4	4	500	4"	250
550-5	1200	1240	5	5*	500	4"	250
340-6	1600	1620	6	3	400	4"	350
440-6	1600	1620	6	4	400	4"	350
550-7	1600	1736	7	5*	500	4"	350
475-6	2000	2310	6	4	750	4"	400
475-7	2500	2695	7	4	750	5"	600
475-8	3000	3080	8	4	750	5"	600
475-11	4000	4235	11	4	750	5"	750

NOTES:
IN PARALLEL RUNS SIZE GND. COND. IN ACCORDANCE WITH NEC PARA. 250-122.

GND. CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS

* 200% NEUTRAL, DERATED TO 80% BASED ON NEC 310.15.B(5)(C)

** COPPER CONDUCTOR (XHHW)

PROVIDE COMPACT STRANDED ALUMINUM ASSOCIATION 8000 SERIES ALLOY CONDUCTORS.

PROVIDE TERMINATION FOR ALUMINUM ALLOY CONDUCTORS OF HYDRAULIC COMPRESSION TYPE ONLY, LISTED UNDER UL 486-B, MARKED "AL7CU" FOR 75 DEGREE RATED CIRCUITS.

PROVIDE ALL ELECTRICAL EQUIPMENT WITH PROPER SIZING TO ACCOMMODATE ALUMINUM CONDUCTORS. COORDINATE WITH EQUIPMENT SUPPLIER.

COPPER CONDUCTOR & CONDUIT SCHEDULE

TYPE	AMP.	COND. SIZE	CONDUCTOR QUAN.	CONDUCTOR SIZE	INSULATION	EQ. GND. COND.(CU)
20	30	3/4"	2	10	THHN THWN	10
30	30	3/4"	3	10	THHN THWN	10
40	30	3/4"	4	10	THHN THWN	10
28	40	1"	2	8	THHN THWN	10
38	40	1"	3	8	THHN THWN	10
48	40	1"	4	8	THHN THWN	10
26	55	1"	2	6	THHN THWN	8
36	55	1"	3	6	THHN THWN	8
46	55	1"	4	6	THHN THWN	8
24	70	1"	2	4	THHN THWN	8
34	70	1-1/4"	3	4	THHN THWN	8
44	70	1-1/4"	4	4	THHN THWN	8
23	85	1-1/4"	2	3	THHN THWN	8
33	85	1-1/4"	3	3	THHN THWN	8
43	85	1-1/2"	4	3	THHN THWN	8
32	95	1-1/2"	3	2	THHN THWN	6
42	95	1-1/2"	4	2	THHN THWN	6

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PROJECT FOR
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DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

ONE-LINE DIAGRAM

E080

PANELBOARD SCHEDULE

PANEL: Y **TYPE:** Type 1 **VOLTS:** 480/277 Y **PHASE:** 3 **WIRES:** 4

MOUNTING: SURFACE **LOCATION:** EXISTING WOOD SHOP 119 **MAINS:** MLO

BUSSING: ALUMINUM **FED FROM:** ____ ____ SUBFEED LUGS

AMP: 225 A ____ DOOR-IN-DOOR ____ ISO GROUND ____ 200% NEUTRAL ____ SPD

BRANCH BREAKERS

ITEM	AMPS	TYPE	POLE	WIRE SIZE	CIR. NO.	A	B	C	A	B	C	CIR. NO.	WIRE SIZE	POLE	TYPE	AMPS	ITEM
LIGHTING RM 232-36	20 A	--	1	--	1	0			0			2	--	1	--	20 A	LIGHTS RM 217-219 & 231
LIGHTS 216	20 A	--	1	--	3		0			0		4	--	1	--	20 A	LIGHTS 220-222, 226, 227
LIGHTS 210-215	20 A	--	1	--	5			0			0	6	--	1	--	20 A	LIGHTS 223 WELDING ROOM
LIGHTS 228-230	20 A	--	1	--	7	0			0			8	--	1	--	20 A	EXHAUST FAN - FOUNDRY
LIGHTS 225	20 A	--	1	--	9		0			0		10	--	--	--	--	--
* - LIGHTING WOOD SHOP 125	20 A		1	12	11			2579			0	12	--	--	--	--	--
EXHAUST FAN PAINT BOOTH	20 A	--	3	--	13	0			0			14	--	3	--	20 A	TRANSFORMER Q
--	--	--	--	--	15		0			0		16	--	--	--	--	--
--	--	--	--	--	17			0			0	18	--	--	--	--	--
TRANSFORMER L1	20 A	--	3	--	19	0			0			20	--	3	--	20 A	MIG WELDER
--	--	--	--	--	21		0			0		22	--	--	--	--	--
--	--	--	--	--	23			0			0	24	--	--	--	--	--
TRANSFORMER L2	20 A	--	3	--	25	0			0			26	--	3	--	20 A	VAC. SYSTEM
--	--	--	--	--	27		0			0		28	--	--	--	--	--
--	--	--	--	--	29			0			0	30	--	--	--	--	--
TIG WELDER	20 A	--	3	--	31	0			0			32	--	3	--	20 A	DRUM SANDER
--	--	--	--	--	33		0			0		34	--	--	--	--	--
--	--	--	--	--	35			0			0	36	--	--	--	--	--
					37				942			38	12	3		15 A	PBF-1, PAINT BOOTH FAN
					39					942		40	--	--	--	--	--
* - LIGHTING METAL SHOP 115	20 A		1	12	41			1827			942	42	--	--	--	--	--
SC-1, SAWDUST COLLECTOR	125 A		3	1	43	21339						44					
--	--	--	--	--	45		21339					46					
--	--	--	--	--	47			21339				48					
MAU-1, MAKE-UP AIR UNIT	15 A		3	12	49	2106						50					
--	--	--	--	--	51		2106					52					
--	--	--	--	--	53			2106				54					
MAU-2, MAKE-UP AIR UNIT	15 A		3	12	55	305						56					
--	--	--	--	--	57		305					58					
--	--	--	--	--	59			305				60					
HVAC METAL SHOP ADDITION...	20 A		3		61	2106						62					
--	--	--	--	--	63		2106					64					
--	--	--	--	--	65			2106				66					
					67							68					
					69							70					
					71							72					
						26798	26798	31204	**TOTAL (VA)**								**CONNECTED LOAD TOTAL**
FEED THRU LOAD						97 A	97 A	113 A	**AMPS/PHASE**								84801 VA
0 VA																	

AIC RATING ____ **AMPS RMS SYSM.**

NOTES:
* - NEW CIRCUIT BREAKER
REUSE OLD CIRCUITS OR AVAILABLE CIRCUITS

CIRCUIT BREAKER TYPE:
<BLANK> THERMAL MAGNETIC CIRCUIT BREAKER
GF 5 mA GROUND FAULT CIRCUIT BREAKER
AF ARC-FAULT CIRCUIT BREAKER
CO COMBINATION AFCI/GFCI CIRCUIT BREAKER
EG 30 mA EQUIPMENT GROUND FAULT CIRCUIT BREAKER
ST SHUNT TRIP CIRCUIT BREAKER

PANELBOARD SCHEDULE

PANEL: LMS1 **TYPE:** Type 1 **VOLTS:** 120/208 Y **PHASE:** 3 **WIRES:** 4

MOUNTING: SURFACE **LOCATION:** WOOD SHOP ADDITION 125 **MAINS:** MCB

BUSSING: ALUMINUM **FED FROM:** TL1 ____ SUBFEED LUGS

AMP: 400 A ____ DOOR-IN-DOOR ____ ISO GROUND ____ 200% NEUTRAL ____ SPD

BRANCH BREAKERS

ITEM	AMPS	TYPE	POLE	WIRE SIZE	CIR. NO.	A	B	C	A	B	C	CIR. NO.	WIRE SIZE	POLE	TYPE	AMPS	ITEM
POWER METAL SHOP...	20 A		1	10	1	0			180			2	8	1		20 A	RECEPT METAL SHOP ADDITION...
EF-2, EXHAUST FAN	15 A		1	12	3		2352			1200		4	10	1		20 A	POWER METAL SHOP ADDITION...
METAL SHOP ADDITION 115	20 A		1	10	5			3960			1500	6	12	1		20 A	POWER METAL SHOP ADDITION...
RECEPT	20 A	GF	1	10	7	500			500			8	12	1	GF	20 A	RECEPT
POWER METAL SHOP...	20 A		1	10	9		1500			2080		10	6	2	GF	50 A	WELDER-5
RECEPT	20 A	GF	1	12	11			1200			2080	12	--	--	--	--	--
RECEPT METAL SHOP...	20 A		1	10	13	360			500			14	12	2		15 A	EH-1, ELECTRIC UNIT HEATER
WELDER-2	50 A	GF	2	6	15		2080			500		16	--	--	--	--	--
--	--	--	--	--	17			2080			180	18		1		20 A	RECEPT METAL SHOP ADDITION...
POWER METAL SHOP...	20 A		1	10	19	1500			2080			20	6	2	GF	50 A	WELDER-4
RECEPT METAL SHOP...	20 A		1	21		360		2080				22	--	--	--	--	--
WELDER-6	20 A		2	10	23		2080			360		24		1		20 A	RECEPT METAL SHOP ADDITION...
--	--	--	--	--	25	2080			2080			26	6	2	GF	50 A	WELDER-1
RECEPT METAL SHOP...	20 A		1		27		180			2080		28	--	--	--	--	--
WELDER-3	50 A	GF	2	6	29			2080			180	30		1		20 A	RECEPT METAL SHOP ADDITION...
--	--	--	--	--	31	2080						32					
PT-1, PLASMA TABLE	20 A		2	12	33		1250					34					
--	--	--	--	--	35			1250				36					
POWER METAL SHOP...	20 A		2	8	37	750						38					
--	--	--	--	--	39		750					40					
RECEPT METAL SHOP...	20 A		1		41			180				42					
						12610	16412	17130	**TOTAL (VA)**								**CONNECTED LOAD TOTAL**
FEED THRU LOAD						105 A	142 A	148 A	**AMPS/PHASE**								46152 VA
0 VA																	

AIC RATING ____ **AMPS RMS SYSM.**

NOTES:
MAIN CIRCUIT BREAKER SHOULD BE OF SHUNT TRIP TYPE FOR EMERGENCY STOP SWITCH.

CIRCUIT BREAKER TYPE:
<BLANK> THERMAL MAGNETIC CIRCUIT BREAKER
GF 5 mA GROUND FAULT CIRCUIT BREAKER
AF ARC-FAULT CIRCUIT BREAKER
CO COMBINATION AFCI/GFCI CIRCUIT BREAKER
EG 30 mA EQUIPMENT GROUND FAULT CIRCUIT BREAKER
ST SHUNT TRIP CIRCUIT BREAKER

PANELBOARD SCHEDULE

PANEL: RL **TYPE:** Type 1 **VOLTS:** 120/208 Y **PHASE:** 3 **WIRES:** 4

EXISTING

MOUNTING: SURFACE **LOCATION:** **MAINS:** MLO

BUSSING: ALUMINUM **FED FROM:** ____ ____ SUBFEED LUGS

AMP: 225 A ____ DOOR-IN-DOOR ____ ISO GROUND ____ 200% NEUTRAL ____ SPD

BRANCH BREAKERS

ITEM	AMPS	TYPE	POLE	WIRE SIZE	CIR. NO.	A	B	C	A	B	C	CIR. NO.	WIRE SIZE	POLE	TYPE	AMPS	ITEM
RECEPTACLES A-100,101	20 A	--	1	--	1	0			0			2	--	1	--	20 A	F.A.C.P
RECEPTACLES A-117	20 A	--	1	--	3		0			0		4	--	1	--	20 A	RECEPTACLES A-105
RECEPTACLES A-104	20 A	--	1	--	5			0			0	6	--	1	--	20 A	RECEPTACLES A-108
RECEPTACLES A-104	20 A	--	1	--	7	0			0			8	--	1	--	20 A	RECEPTACLES A-108
RECEPTACLES A-104	20 A	--	1	--	9		0			0		10	--	1	--	20 A	RECEPTACLES A-110 (COPIER)
RECEPTACLES A-106	20 A	--	1	--	11			0			0	12	--	1	--	20 A	RECEPTACLES A-110 (COPIER)
RECEPTACLES A-107,109	20 A	--	1	--	13	0			0			14	--	1	--	20 A	RECEPTACLES A-112
RECEPTACLES A-111	20 A	--	1	--	15		0			0		16	--	1	--	20 A	RECEPTACLES A-111,116
REFRIDGERATOR A-111	20 A	--	1	--	17			0			0	18	--	1	--	20 A	RECEPTACLES A-116
RECEPTACLES A-111	20 A	--	1	--	19	0			0			20	--	1	--	20 A	DATA HUB A-110
RECEPTACLES A-113,114,115	20 A	--	1	--	21		0			0		22	--	1	--	20 A	LIGHTING A-110, 104
MASTER CLOCK	20 A	--	1	--	23			0			0	24	--	1	--	20 A	EF-6,EF-7 & EF-9, RT/UNTS
EXISTING LOAD	20 A	--	1	--	25	0			0			26	--	1	--	20 A	SPARE
EXISTING LOAD	20 A	--	1	--	27		0			0		28	--	1	--	20 A	HAND DRYER
EXISTING LOAD	20 A	--	1	--	29			0			0	30	--	1	--	20 A	HAND DRYER
EXISTING LOAD	20 A	--	1	--	31	0			0			32	--	1	--	20 A	RT-10 ROOF TOP UNIT
EXISTING LOAD	20 A	--	1	--	33		0			1260		34	6	1		20 A	* RECEPT
EXISTING LOAD	20 A	--	1	--	35			0			696	36	8	1		20 A	*EXHAUST FAN 1
* POWER WRESTLING ADD. 129	20 A		1	6	37	1200			1200			38	8	1		20 A	* POWER WRESTLING ADD. 129
* POWER WRESTLING ADD. 129	20 A		1	8	39		1200					40					
					41							42					
						2400	2460	696	**TOTAL (VA)**								**CONNECTED LOAD TOTAL**
FEED THRU LOAD						22 A	23 A	6 A	**AMPS/PHASE**								5556 VA
0 VA																	

AIC RATING ____ **AMPS RMS SYSM.**

NOTES:
PROVIDE POWER FROM OPEN AND AVAILABLE CIRCUITS IN EXISTING PANEL.
* - NEW CIRCUIT BREAKER

CIRCUIT BREAKER TYPE:
<BLANK> THERMAL MAGNETIC CIRCUIT BREAKER
GF 5 mA GROUND FAULT CIRCUIT BREAKER
AF ARC-FAULT CIRCUIT BREAKER
CO COMBINATION AFCI/GFCI CIRCUIT BREAKER
EG 30 mA EQUIPMENT GROUND FAULT CIRCUIT BREAKER
ST SHUNT TRIP CIRCUIT BREAKER

PANELBOARD SCHEDULE

PANEL: LWS1 **TYPE:** Type 1 **VOLTS:** 120/208 Y **PHASE:** 3 **WIRES:** 4

MOUNTING: FLUSH **LOCATION:** METAL SHOP ADDITION 115 **MAINS:** MCB

BUSSING: ALUMINUM **FED FROM:** TL1 ____ SUBFEED LUGS

AMP: 400 A ____ DOOR-IN-DOOR ____ ISO GROUND ____ 200% NEUTRAL ____ SPD

BRANCH BREAKERS

ITEM	AMPS	TYPE	POLE	WIRE SIZE	CIR. NO.	A	B	C	A	B	C	CIR. NO.	WIRE SIZE	POLE	TYPE	AMPS	ITEM
L-3, LATHE	20 A		1	12	1	1600			500			2	10	1	GF	20 A	RECEPT
DC-1, DUST COLLECTOR	25 A		2	12	3		1500			500		4	10	1	GF	20 A	RECEPT
--	--	--	--	--	5			1500			1600	6	12	1		20 A	PS-1, PANEL SAW
AG-1, ABORT GATE	15 A		1	12	7	360			180			8	12	1		20 A	RECEPT DRYING ROOM 124
PBC-1, PAINT BOOTH CTR PNL	20 A		1	12	9		1800			1600		10	12	1		20 A	TS-1, TIGER STOP CHOP SAW/ LI...
EH-2, ELECTRIC UNIT HEATER	25 A		2	12	11			1500			1560	12	10	1		20 A	RECEPT WOOD SHOP ADDITION...
--	--	--	--	--	13	1500			500			14	10	1	GF	20 A	WORKBENCHES
GUH-1, GAS FIRED UNIT...	15 A		1	12	15		1176			180		16		1		20 A	RECEPT WOOD SHOP ADDITION...
RECEPT	20 A		1	8	17			1380			3599	18	8	3	GF	30 A	CNC MACHINE-1
L-2, LATHE	20 A		1	12	19	1600			3599			20	--	--	--	--	--
L-1, LATHE	20 A		1	12	21		1600			3599		22	--	--	--	--	--
RECEPT WOOD SHOP...	20 A		1	8	23			1560			1600	24	12	1	GF	20 A	CNC COMPUTER-1
POWER WOOD SHOP ADDITI...	20 A		1	8	25	1500			3599			26	8	3	GF	30 A	CNC MACHINE-2
L-4, LATHE	20 A		1	12	27		1600			3599		28	--	--	--	--	--
CNC COMPUTER-2	20 A	GF	1	12	29			1600			3599	30	--	--	--	--	--
RECEPT WOOD SHOP...	20 A		1	1	31	180			500			32		1		20 A	RECEPT
SHAPER-1	20 A	GF	1	10	33		2400			180		34		1		20 A	RECEPT WOOD SHOP ADDITION...
VT-1, VACUUM TABLE	30 A		2	8	35			3120			180	36		1		20 A	RECEPT DRYING ROOM 124
--	--	--	--	--	37	3120			180			38	12	1		20 A	RECEPT EXISTING WOOD SHOP...
POWER WOOD SHOP ADDITI...	20 A		2	8	39		1000			180		40	12	1		20 A	RECEPT EXISTING WOOD SHOP...
--	--	--	--	--	41			1000			0	42	12	1		20 A	POWER EXISTING WOOD SHOP...
RECEPT WOOD SHOP...	20 A		1	10	43	180						44					
RECEPT WOOD SHOP...	20 A		1		45		180					46					
RECEPT	20 A		1		47			180				48					
RECEPT WOOD SHOP...	20 A		1		49	180						50					
					51							52					
					53							54					
						19277	21093	23977	**TOTAL (VA)**								**CONNECTED LOAD TOTAL**
FEED THRU LOAD						161 A	178 A	202 A	**AMPS/PHASE**								64348 VA
0 VA																	

AIC RATING ____ **AMPS RMS SYSM.**

NOTES:
MAIN CIRCUIT BREAKER SHOULD BE OF SHUNT TRIP TYPE FOR EMERGENCY STOP SWITCH.

CIRCUIT BREAKER TYPE:
<BLANK> THERMAL MAGNETIC CIRCUIT BREAKER
GF 5 mA GROUND FAULT CIRCUIT BREAKER
AF ARC-FAULT CIRCUIT BREAKER
CO COMBINATION AFCI/GFCI CIRCUIT BREAKER
EG 30 mA EQUIPMENT GROUND FAULT CIRCUIT BREAKER
ST SHUNT TRIP CIRCUIT BREAKER

PANELBOARD SCHEDULE

PANEL: RH **TYPE:** Type 1 **VOLTS:** 480/277 Y **PHASE:** 3 **WIRES:** 4

EXISTING

MOUNTING: SURFACE **LOCATION:** **MAINS:** MLO

BUSSING: ALUMINUM **FED FROM:** ____ ____ SUBFEED LUGS

AMP: 225 A ____ DOOR-IN-DOOR ____ ISO GROUND ____ 200% NEUTRAL ____ SPD

BRANCH BREAKERS

ITEM	AMPS	TYPE	POLE	WIRE SIZE	CIR. NO.	A	B	C	A	B	C	CIR. NO.	WIRE SIZE	POLE	TYPE	AMPS	ITEM
TRANSFORMER T1	20 A	--	3	--	1	0			0			2	--	3	--	20 A	RT-12 ROOF TOP UNIT
--	--	--	--	--	3		0			0		4	--	--	--	--	--
--	--	--	--	--	5			0			0	6	--	--	--	--	--
RT-18 ROOF TOP UNIT	20 A	--	3	--	7	0			0			8	--	3	--	20 A	RT-11 ROOF TOP UNIT
--	--	--	--	--	9		0			0		10	--	--	--	--	--
--	--	--	--	--	11			0			0	12	--	--	--	--	--
LIGHTING A-112, 113, 114	20 A	--	1	--	13	0			5365			14	8	3		20 A	HVAC WRESTLING ADDITION 129
LIGHTING A-116	20 A	--	1	--	15		0			5365		16	--	--	--	--	--
LIGHTING A-116	20 A	--	1	--	17			0			5365	18	--	--	--	--	--
LIGHTING A-100	20 A	--	1	--	19	0			1097			20	8	1		20 A	LIGHTING WRESTLING ROOMS
LIGHTING A-100	20 A	--	1	--	21		0					22					
LIGHTING A-111	20 A	--	1	--	23			0				24					
POLE LIGHTING (NOT PARKING)	20 A	--	1	--	25	0			0			26	--	1	--	20 A	SPARE
SPARE	20 A	--	1	--	27		0			0		28	--	1	--	20 A	SPARE
SPARE	20 A	--	1	--	29			0			0	30	--	1	--	20 A	SPARE
SPACE ONLY	--	--	1	--	31	--			--			32	--	1	--	--	SPACE ONLY
SPACE ONLY	--	--	1	--	33		--			--		34	--	1	--	--	SPACE ONLY
SPACE ONLY	--	--	1	--	35			--			--	36	--	1	--	--	SPACE ONLY
SPACE ONLY	--	--	1	--	37	--			--			38	--	1	--	--	SPACE ONLY
SPACE ONLY	--	--	1	--	39		--			--		40	--	1	--	--	SPACE ONLY
SPACE ONLY	--	--	1	--	41			--			--	42	--	1	--	--	SPACE ONLY
						6462	5365	5365	**TOTAL (VA)**								**CONNECTED LOAD TOTAL**
FEED THRU LOAD						23 A	19 A	19 A	**AMPS/PHASE**								17193 VA
0 VA																	

AIC RATING ____ **AMPS RMS SYSM.**

NOTES:
REUSE OLD CIRCUITS OR AVAILABLE CIRCUITS

CIRCUIT BREAKER TYPE:
<BLANK> THERMAL MAGNETIC CIRCUIT BREAKER
GF 5 mA GROUND FAULT CIRCUIT BREAKER
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CO COMBINATION AFCI/GFCI CIRCUIT BREAKER
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BID DOCUMENTS
DECEMBER 9, 2024
24310

DRAWING
ISSUE
NWL

DATE REVISION

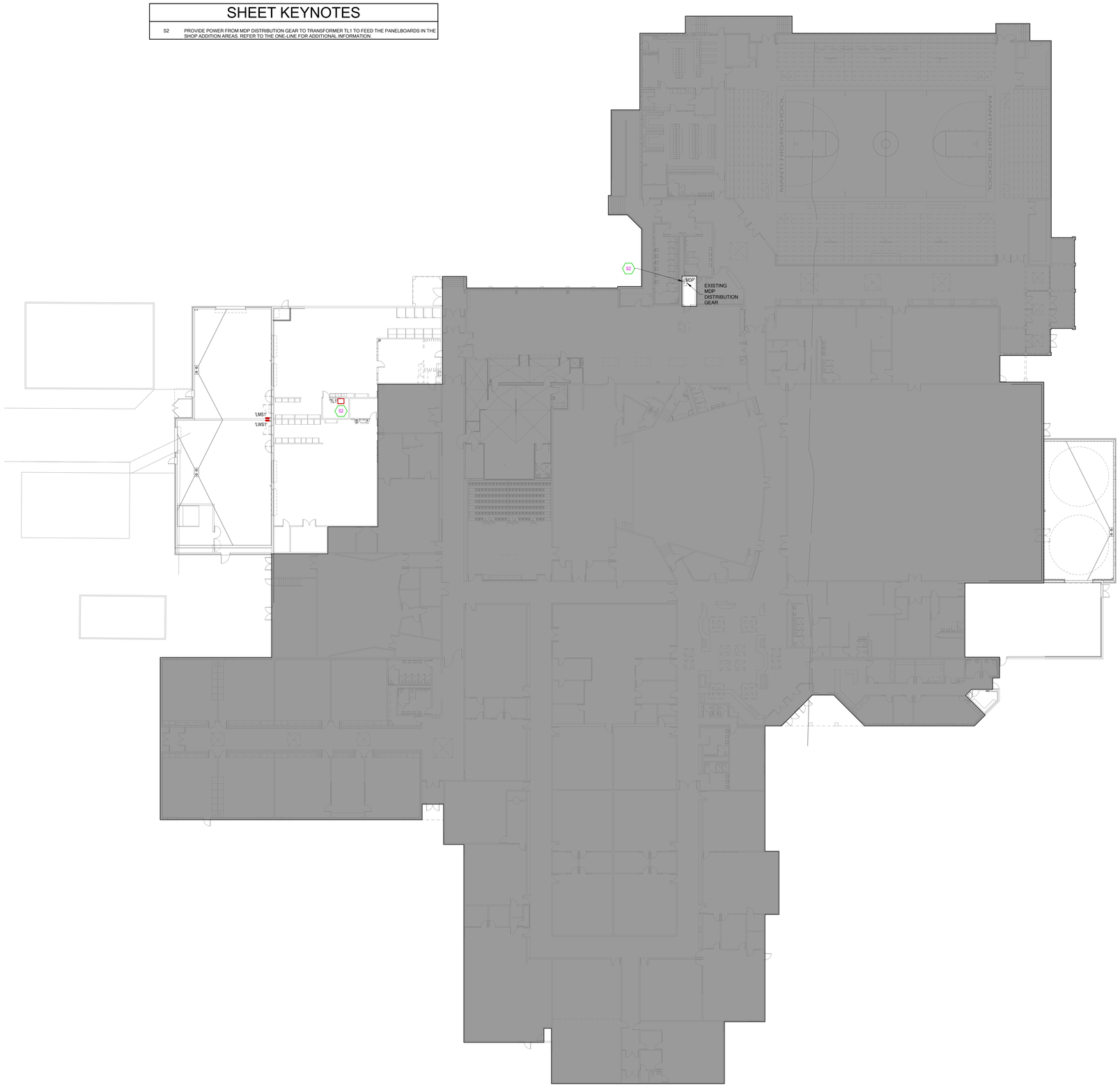
PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

PANELBOARD SCHEDULES

E081

SHEET KEYNOTES

S2	PROVIDE POWER FROM MDP DISTRIBUTION GEAR TO TRANSFORMER TL1 TO FEED THE PANELBOARDS IN THE SHOP ADDITION AREAS. REFER TO THE ONE-LINE FOR ADDITIONAL INFORMATION.



OVERALL BUILDING PLAN
SCALE = 1" = 20'-0"

GENERAL SITE PLAN NOTES

1. DIVISION 26 SHALL VISIT THE SITE PRIOR TO BIDDING. BIDS SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS. BIDDERS SHALL EXAMINE THE SITE AND THE COMPLETE SET OF PLANS AND SPECIFICATIONS COVERING THE ENTIRE PROJECT. THEY SHALL BECOME FULLY CONVERSANT WITH THE TYPE OF GENERAL CONSTRUCTIONS, AS WELL AS ALL PERTINENT FACTS AFFECTING THE COST OF CARRYING OUT THE WORK THEY WILL CONTRACT TO PERFORM. DIVISION 26 SHALL COORDINATE PROJECT PHASING WITH THE GENERAL CONTRACTOR AND BID AND PERFORM RESPONSIBILITIES FOR THIS PROJECT TO CONTRACT EXPECTATIONS.
2. MAINTAIN AND PROTECT EXISTING UTILITY SERVICES AND ELECTRIFIED EQUIPMENT FOR EXISTING FACILITIES. COORDINATE REQUIRED DISRUPTION OF THESE SERVICES WITH OWNER PRIOR TO DISCONNECTING. PROVIDE TEMPORARY UTILITY SERVICES TO KEEP FACILITIES IN OPERATION DURING UTILITY RELOCATION, INCLUDING BUT NOT LIMITED TO FIRE WATCHES, ELECTRICAL GENERATORS, ETC.
3. ANY ELECTRICAL ROUGH-IN, EQUIPMENT AND CONDUIT PATHWAYS ARE DIAGRAMMATICALLY SHOWN ON THE DRAWINGS. FINAL ROUTING OF THE CONDUITS, CIRCUITING, AND CABLING SHALL BE DETERMINED BY THE CONTRACTOR.
4. DIVISION 26 SHALL BLUE STAKE THE AREA OF NEW CONSTRUCTION PRIOR TO EXCAVATION FOR FOOTINGS, ETC. IDENTIFY BURIED ELECTRICAL SYSTEMS(UTILITIES, POWER, COMMUNICATIONS, ETC.) AND COORDINATE LOCATIONS WITH THE GENERAL CONTRACTOR, IF EXISTING ELECTRICAL SYSTEMS ARE DISTURBED (POWER, AUXILIARY, ETC.) E.C. SHALL MAKE NECESSARY REPAIRS (AS APPROVED BY DISTRICT REPRESENTATIVE) AS PART OF THIS CONTRACT.
5. CONTRACTOR TO CLOSELY COORDINATE ALL NEW AND EXISTING DEVICE LOCATIONS WITH CIVIL DRAWINGS. CONTRACTOR TO VERIFY ALL FINAL GRADE REQUIREMENTS WITH CIVIL DRAWINGS.
6. CLOSELY COORDINATE ANY REQUIRED POWER SHUTDOWNS WITH THE GENERAL, HEAD CUSTODIAN, AND OWNER.
7. RADIUS SWEEPS FOR ALL SFCP CONDUITS. COORDINATE ALL ROUGH-IN AND INSTALLATION REQUIREMENTS WITH LATEST SFCP ELECTRICAL SERVICE REQUIREMENTS AND CONTACT PERSON PROVIDED ON PLAN ALL NEW DEVELOPMENTS WILL BE SERVICED UNDERGROUND. CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE AND INSTALL ALL UNDERGROUND CONDUIT, SECONDARY CONDUCTORS, TRANSFORMER PADS, AND SECONDARY BOXES, THE UNDERGROUND ELECTRICAL DISTRIBUTION LAYOUT SHALL BE COMPLETED OR APPROVED BY RMP ENGINEERING DIVISION.
8. TRENCHING AND BACKFILL: LOCATE AND PROTECT EXISTING UTILITIES AND OTHER UNDERGROUND WORK IN A MANNER THAT WILL ENSURE THAT NO DAMAGE OR SERVICE INTERRUPTIONS WILL RESULT FROM EXCAVATING AND BACKFILLING PERFORM EXCAVATION IN A MANNER THAT PROTECTS WALLS, FOOTINGS, AND OTHER STRUCTURAL MEMBERS FROM BEING DISTURBED OR DAMAGED IN ANY WAY. BURIAL DEPTHS MUST COMPLY WITH NEC SECTION 300-5 (OR STATE OF UTAH REQUIREMENTS, WHICHEVER IS MORE STRINGENT), UNLESS NOTED OTHERWISE. PATCH AND REPAIR ROADS, PARKING AREAS, SIDEWALKS, CURBS, OTHER PAVED AREAS, PLANTING AND ANY OTHER DISTURBED AREAS CAUSED BY THE ELECTRICAL CONTRACTOR DURING CONSTRUCTION.
9. BORING, TRENCHING, ASPHALT CUTTING AND PATCHWORK BY DIVISION 26, ANY CONCRETE THAT NEEDS TO BE REMOVED TO COMPLETE WORK WILL BE THE RESPONSIBILITY OF DIVISION 26. SCHEDULING OF THE TRENCHING SHALL BE COORDINATED WITH OTHER TRADES AND APPROVED BY THE OWNER.
10. CABLE RUNS SHALL BE MARKED WITH RED PLASTIC MARKING TAPE INSTALLED IN THE TRENCH ONE FOOT BELOW SURFACE. BACKFILL SHALL BE FREE OF ROCKS AND OTHER OBJECTS WHICH MIGHT DAMAGE THE CABLE.
11. TRENCHING, ASPHALT CUTTING AND PATCHWORK BY DIVISION 26. ANY CONCRETE THAT NEEDS TO BE REMOVED TO COMPLETE WORK WILL BE THE RESPONSIBILITY OF DIVISION 26. SCHEDULING OF THE TRENCHING AND INSTALLATION OF CABLE SHALL BE COORDINATED WITH OTHER TRADES AND APPROVED BY THE OWNER.
12. PROVIDE PLANS, PHOTO DOCUMENTATION AND GPS COORDINATES INDICATING THE LOCATION OF ANY AND ALL CONDUITS INTENDED FOR FUTURE USE BY OWNER. SUBMIT DOCUMENTATION WITH O&Ms.
13. CONTRACTOR TO PROVIDE PULL BOXES AS REQUIRED PER NEC AND NECESSARY TO PROVIDE SUCCESSFUL CABLE PULLS.
14. PROVIDE TEMPORARY POWER FOR PROJECT AS REQUIRED BY GENERAL CONTRACTOR.
15. LABEL ALL ELECTRICAL GEAR WITH BOTH CONSTRUCTION DRAWING-ROOM #S AND FINAL CONSUMER ROOM #S.

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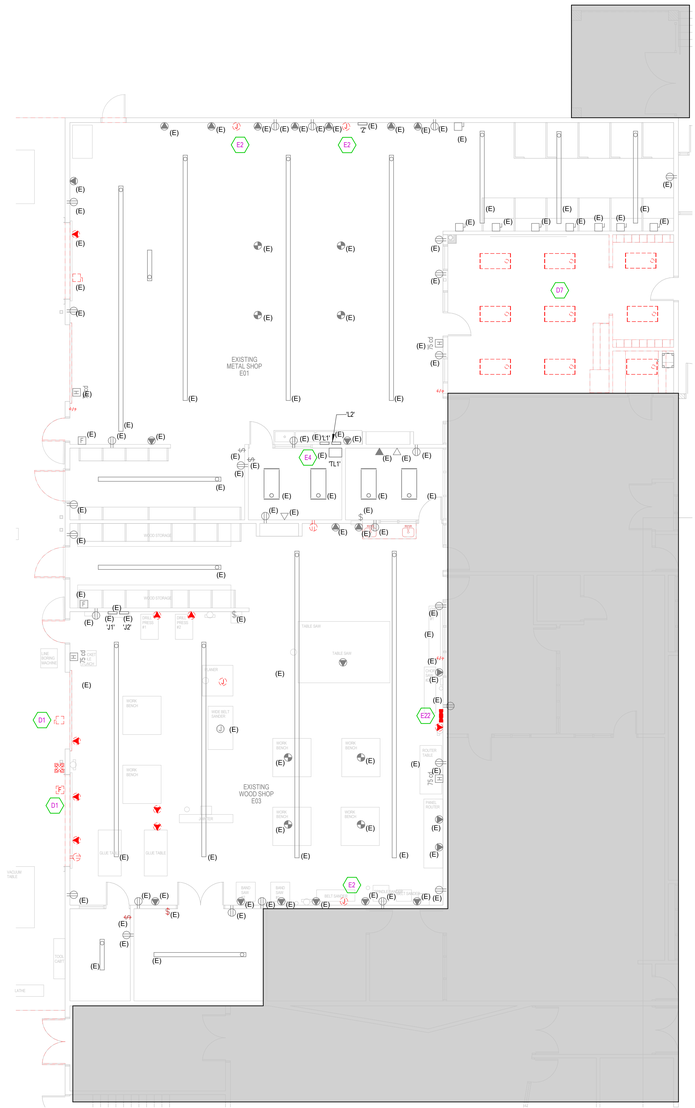
△	DATE	REVISION

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

OVERALL
ELECTRICAL PLAN

E100



SHOP ADDITION DEMOLITION FLOOR PLAN BASE BID

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

SHEET KEYNOTES

D1	EXISITING DUST COLLECTOR TO BE RELOCATED TO NEW LOCATION TEMPORARILY DURING CONSTRUCTION SO THAT THE EXISTING WOOD SHOP CAN REMAIN ACTIVE. SEE SHEET E1.411 FOR TEMPORARY LOCATION.
D7	MAINTAIN CURRENT CIRCUIT AND CONTROLS FOR THE LIGHTING IN THIS AREA. LIGHT FIXTURE IN THE LITTLE STORAGE ROOM WILL BE ADDED TO CIRCUIT AND CONTROLS. NEW FIXTURES WILL BE INSTALLED. SEE SHEET E1.211 AND E1.212.
E2	EXISTING CLOCK AND INTERCOMM, PLEASE REPLACE EXISTING INTERCOM SPEAKER WITH NEW DEVICE. REFER TO AV PLANS FOR MORE INFORMATION.
E4	EXISTING TRANSFORMERS MOUNTED IN CEILING SPACE TO REMAIN.
E22	REPLACE EXISTING PANEL 'Y' IN PLACE. REFER TO POWER PLANS FOR MORE INFORMATION.

GENERAL ELECTRICAL DEMOLITION NOTES

1. COORDINATE ALL NEW ELECTRICAL EQUIPMENT REQUIREMENTS AND MAKE CONNECTION TO EXISTING SYSTEMS. THIS INCLUDES LIGHTING, POWER, SIGNAL, RACEWAY AND OTHER SYSTEMS INCLUDED UNDER DIVISION 26 (16).
2. RELOCATE, REWIRE AND/OR RECONNECT EXISTING ELECTRICAL DEVICES AND/OR EQUIPMENT THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION.
3. CONCEAL ALL RACEWAY AND WIRING IN EXISTING WALLS, CEILING, FLOORS, ETC. EXCEPT WHERE THE USE OF SURFACE METAL RACEWAYS (E.G. WIRE MOLD) IS INDICATED ON DRAWINGS OR IN SPEC.
4. LEAVE ALL EXISTING EQUIPMENT, IN PORTION OF THE BUILDING NOT BEING REMODELLED, IN WORKING CONDITION. RESTORE ALL INTERRUPTED BRANCH CIRCUITS, FEEDERS, ETC. TO WORKING CONDITION.
5. EXISTING RACEWAYS MAYBE REUSED (IN PLACE) WHERE POSSIBLE, AND WHERE IN COMPLIANCE WITH THE SPECIFICATIONS AND THE INTENT OF THE CONTRACT DOCUMENTS. INSURE INTEGRITY OF EXISTING RACEWAY BEFORE REUSE.
6. REMOVE ALL RACEWAYS, CONDUCTORS, BOXES, DEVICES, EQUIPMENT, ETC. THAT ARE NOT TO BE REUSED.
7. REMOVE EXISTING LIGHT FIXTURES WHICH ARE NOT TO BE REUSED, PLACE IN CARTON, LABEL APPROPRIATELY, AND RETURN TO OWNER, OR PROPERLY DISPOSE OF FIXTURES THAT THE OWNER CHOOSES NOT TO KEEP.
8. DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOFS, ETC.
9. DISCONNECT AND RECONNECT ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. REQUIRED FOR PROPER COMPLETION OF THE WORK.
10. ALL DEMOLITION DEVICES ARE APPROCIMATE LOCATIONS. EXACT LOCATIONS NEED TO BE VERIFIED.
11. DIVISION 26 SHALL CONFIRM EXACT LOCATION OF EXISTING AND NEW EQUIPMENT WITH OWNERS. FIXTURE LOCATIONS ARE DIAGRAMMATICALLY SHOWN ON THE DRAWINGS, EXISTING ELECTRICAL FIXTURES, DEVICES, EQUIPMENT, CIRCUITING AND/OR CIRCUITING AND/OR CONDUITS ARE NOT SPECIFIED UNLESS NOTED ON DRAWINGS. FINAL ROUTING OF THE CONDUITS, CIRCUITING AND CABLING SHALL BE DETERMINED BY THE CONTRACTOR AND CLOSELY COORDINATED WITH OWNER. ALL EXISTING CONDITIONS MUST BE VERIFIED WITHOUT EXCEPTION. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING DEMOLITION DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.
12. DURING DEMOLITION AND NEW CONSTRUCTION, THE CONTINUATION OF BUILDING SYSTEMS MAY BE NECESSARY. TRACE AND IDENTIFY EXISTING ELECTRICAL SYSTEM (POWER, LIGHTING, FIRE ALARM AND SECURITY) WIRING IN AREAS PRIOR TO DEMOLITION. ELECTRICAL CONTRACTOR SHALL DISCONNECT ALL NECESSARY EQUIPMENT TO MAKE IT SAFE FOR DEMOLITION. WHERE LIVE CIRCUITS OR FEEDERS PASS THROUGH A REMODEL AREA, CONTRACTOR SHALL MAINTAIN ELECTRIC THROUGH. WHERE FEEDERS AND/OR BRANCH CIRCUITS FEED BOTH LOADS IN A REMODELED AREA AND OUTSIDE OF A REMODELED AREA, CONTRACTOR SHALL DISCONNECT AND REMOVE PORTIONS OF THE ELECTRICAL BRANCH CIRCUITS AND/OR FEEDERS WITHIN THE REMODELED AREA AND REWORK BRANCH CIRCUITS AND/OR FEEDERS TO MAINTAIN ELECTRICAL CONTINUITY TO LOADS OUTSIDE OF THE REMODELED AREA.
13. DEVICES AND EQUIPMENT TO BE DEMOLISHED SHALL BE REMOVED, INCLUDING ALL RELATED CONDUCTORS, RACEWAY, JUNCTION AND SPLICE BOXES UP TO THE PANELBOARD/SWITCHBOARD. ALL CONDUITS AND BOXES THAT ARE SURFACE MOUNTED AND NO LONGER REQUIRE ACTIVE CIRCUITS SHALL BE COMPLETELY REMOVED. DEVICES TO BE REMOVED ON DRYWALL OR PLASTER TYPE WALLS THAT ARE TO REMAIN SHALL HAVE THE WALL SURFACE PATCHED TO MATCH THE EXISTING FINISH. THE CONTRACTOR SHALL IDENTIFY ALL DEMOLISHED AND ABANDONED BRANCH CIRCUITS. THESE SHALL BE NOTED AS SPARE ON PANELBOARD SCHEDULES. THIS INCLUDES IDENTIFYING EXISTING ABANDONED AND SPARE CIRCUITS THAT ARE CURRENTLY IDENTIFIED AS USED. THE CONTRACTOR SHALL FURNISH NEW TYPED DIRECTORIES FOR ALL PANELBOARDS.
14. THE OWNER HAS THE RIGHT TO RETAIN ALL SALVAGEABLE MATERIAL. ANY MATERIAL THE OWNER CHOOSES NOT TO ACCEPT SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR.
15. FULLY COORDINATE MECHANICAL EQUIPMENT ELECTRICAL CONNECTION REMOVAL AND RELOCATION WITH THE MECHANICAL CONTRACTOR.
16. CONTRACTOR TO VERIFY THAT ALL EXISTING EQUIPMENT THAT IS TO REMAIN, BE REMOVED AND RE-INSTALLED ARE IN WORKING CONDITIONS. CONTRACTOR IS TO PROVIDE OWNER WRITTEN DOCUMENTATION OF ANY ITEMS NOT IN WORKING CONDITION PRIOR TO COMMENCING WORK IN AN AREA.
17. CONTRACTOR IS TO PROTECT IN PLACE ALL MECHANICAL, PLUMBING, ELECTRICAL ABOVE CEILINGS. THIS MAY INCLUDE BUT NOT LIMITED TO: NETWORK CABLING, COAX CABLING, CONDUITS, PIPING, DUCTWORK, ETC. PROVIDE ADDITIONAL CABLING SUPPORTS AS REQUIRED FOR ANY UNSUPPORTED CABLING, RACEWAY, ETC.
18. WHERE DEVICES OR EQUIPMENT IS TO BE RELOCATED, CONTRACTOR SHALL EXTEND EXISTING CIRCUITING TO NEW LOCATION. ENSURE CIRCUIT CONTINUITY FOR OTHER DEVICES OR EQUIPMENT ON THE SAME BRANCH CIRCUIT.
19. WHERE FLOORS ARE BEING REMOVED AND/OR REPLACED, CONTRACTOR SHALL PROTECT ELECTRICAL FEEDERS AND BRANCH CIRCUITS WHICH ARE EITHER TO REMAIN PERMANENTLY OR UNTIL DEMOLITION IN FUTURE PHASING WHILE STRUCTURAL WORK IS PERFORMED. PROVIDE ALL NECESSARY LABOR AND MATERIALS TO PERFORM WORK AS COORDINATED WITH THE CONSTRUCTION MANAGER.
20. ANY FIRE ALARM DEVICE(S) REMOVED DURING DEMOLITION ARE REQUIRED TO BE RELOCATED IN THE LOCATION NECESSARY TO PROVIDE COVERAGE PER NFPA 72, AND CIRCUITED SAME AS BEFORE. FIRE ALARM DEVICE(S) ARE NOT ALLOWED TO BE LOCATED CENTER OF ANY ROOM OR SPACE. IF MORE FIRE ALARM DEVICES ARE REQUIRED CONTRACTOR SHALL PROVIDE THEM COMPLETELY, REFER TO SHEET E401 FOR MORE INFORMATION.
21. SEE NEW SYSTEMS SHEETS FOR NEW FIRE ALARM INFORMATION. REMOVE EXISTING FIRE ALARM DEVICE (S) AS NECESSARY FOR REMOVAL OF CEILING SYSTEM. RE-INSTALL ONCE NEW CEILING IS INSTALLED.
22. REMOVE VOICE/DATA CABLING BACK TO DATA ROOM UNLESS NOTED OTHERWISE.
23. PROVIDE BLANK COVERPLATE ON ALL EXISTING BOXES LOCATED IN MASONRY THAT ARE NOT BEING RE-USED, PROVIDE BLANK COVERPLATE ON ALL UNUSED BOXES.
24. COORDINATE THE DEMOLITION, PATCH, AND REPAIR OF CEILING FOR ALL LIGHTING AND ELECTRICAL APPARATUSES IN THIS AREA. DISCONNECT AND RE-CONNECT AS REQUIRED TO MAINTAIN ALL SYSTEMS.
25. KEEP CLASSROOM SYSTEMS TOGETHER, LOUDSPEAKERS, AMPLIFIERS, IR SENSORS, NUMBER THEY ARE REMOVED FROM. BOX EACH LOCATION IN SEPARATE BOXES AND LABEL WITH CLASSROOM NUMBER PRIOR TO RETURNING TO OWNER.
26. DEVICES NOTED WITH SUBSCRIPT '(E)' DENOTES THE DEVICES ARE EXISTING AND TO REMAIN UNTOUCHED DURING DEMOLITION, UNLESS OTHERWISE NOTED.
27. DEVICES NOTED WITH SUBSCRIPT '(E)' DENOTES THE DEVICES ARE EXISTING AND TO REMAIN REMOVE AND REINSTALL DEVICES AND NOTED OR AS REQUIRED FOR CONSTRUCTION.
28. CIRCUIT #S, IF SHOWN, ARE FROM RECORD DRAWING AND SHOWN FOR REFERENCE ONLY. VERIFY EXISTING CONDITIONS PRIOR TO WORK.
29. DEVICES SHOWN WITH RED HATCH ARE TO BE DEMOLISHED.

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BID DOCUMENTS
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PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

SHOP ADDITION DEMOLITION FLOOR PLAN

E1.111

SHOP ADDITION DEMOLITION FLOOR PLAN ALTERNATE #2

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

SHEET KEYNOTES

D7	MAINTAIN CURRENT CIRCUIT AND CONTROLS FOR THE LIGHTING IN THIS AREA. LIGHT FIXTURE IN THE LITTLE STORAGE ROOM WILL BE ADDED TO CIRCUIT AND CONTROLS. NEW FIXTURES WILL BE INSTALLED. SEE SHEEET E1.211 AND E1.212.
E2	EXISTING CLOCK AND INTERCOMM, PLEASE REPLACE EXISTING INTERCOM SPEAKER WITH NEW DEVICE. REFER TO AV PLANS FOR MORE INFORMATION.
E4	EXISTING TRANSFORMERS MOUNTED IN CEILING SPACE TO REMAIN.
L7	REMOVE EXISTING LIGHT FIXTURES AND REUSE EXISTING CIRCUIT FOR NEW LIGHT FIXTURES.

GENERAL ELECTRICAL DEMOLITION NOTES

1. COORDINATE ALL NEW ELECTRICAL EQUIPMENT REQUIREMENTS AND MAKE CONNECTION TO EXISTING SYSTEMS. THIS INCLUDES LIGHTING, POWER, SIGNAL, RACEWAY AND OTHER SYSTEMS INCLUDED UNDER DIVISION 26 (16).
2. RELOCATE, REWIRE AND/OR RECONNECT EXISTING ELECTRICAL DEVICES AND/OR EQUIPMENT THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION.
3. CONCEAL ALL RACEWAY AND WIRING IN EXISTING WALLS, CEILING, FLOORS, ETC. EXCEPT WHERE THE USE OF SURFACE METAL RACEWAYS (E.G. WIRE MOLD) IS INDICATED ON DRAWINGS OR IN SPEC.
4. LEAVE ALL EXISTING EQUIPMENT, IN PORTION OF THE BUILDING NOT BEING REMODELLED, IN WORKING CONDITION. RESTORE ALL INTERRUPTED BRANCH CIRCUITS, FEEDERS, ETC. TO WORKING CONDITION.
5. EXISTING RACEWAYS MAYBE REUSED (IN PLACE) WHERE POSSIBLE, AND WHERE IN COMPLIANCE WITH THE SPECIFICATIONS AND THE INTENT OF THE CONTRACT DOCUMENTS. INSURE INTEGRITY OF EXISTING RACEWAY BEFORE REUSE.
6. REMOVE ALL RACEWAYS, CONDUCTORS, BOXES, DEVICES, EQUIPMENT, ETC. THAT ARE NOT TO BE REUSED.
7. REMOVE EXISTING LIGHT FIXTURES WHICH ARE NOT TO BE REUSED, PLACE IN CARTON, LABEL APPROPRIATELY, AND RETURN TO OWNER, OR PROPERLY DISPOSE OF FIXTURES THAT THE OWNER CHOOSES NOT TO KEEP.
8. DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOFS, ETC.
9. DISCONNECT AND RECONNECT ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. REQUIRED FOR PROPER COMPLETION OF THE WORK.
10. ALL DEMOLITION DEVICES ARE APPROCIMATE LOCATIONS. EXACT LOCATIONS NEED TO BE VERIFIED.
11. DIVISION 26 SHALL CONFIRM EXACT LOCATION OF EXISTING AND NEW EQUIPMENT WITH OWNERS. FIXTURE LOCATIONS ARE DIAGRAMMATICALLY SHOWN ON THE DRAWINGS. EXISTING ELECTRICAL FIXTURES, DEVICES, EQUIPMENT, CIRCUITING AND/OR CIRCUITING AND/OR CONDUITS ARE NOT SPECIFIED UNLESS NOTED ON DRAWINGS. FINAL ROUTING OF THE CONDUITS, CIRCUITING AND CABLING SHALL BE DETERMINED BY THE CONTRACTOR AND CLOSELY COORDINATED WITH OWNER. ALL EXISTING CONDITIONS MUST BE VERIFIED WITHOUT EXCEPTION. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING DEMOLITION DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.
12. DURING DEMOLITION AND NEW CONSTRUCTION, THE CONTINUATION OF BUILDING SYSTEMS MAY BE NECESSARY. TRACE AND IDENTIFY EXISTING ELECTRICAL SYSTEM (POWER, LIGHTING, FIRE ALARM AND SECURITY) WIRING IN AREAS PRIOR TO DEMOLITION. ELECTRICAL CONTRACTOR SHALL DISCONNECT ALL NECESSARY EQUIPMENT TO MAKE IT SAFE FOR DEMOLITION. WHERE LIVE CIRCUITS OR FEEDERS PASS THROUGH A REMODEL AREA, CONTRACTOR SHALL MAINTAIN ELECTRIC THROUGH. WHERE FEEDERS AND/OR BRANCH CIRCUITS FEED BOTH LOADS IN A REMODELED AREA AND OUTSIDE OF A REMODELED AREA, CONTRACTOR SHALL DISCONNECT AND REMOVE PORTIONS OF THE ELECTRICAL BRANCH CIRCUITS AND/OR FEEDERS WITHIN THE REMODELED AREA AND REWORK BRANCH CIRCUITS AND/OR FEEDERS TO MAINTAIN ELECTRICAL CONTINUITY TO LOADS OUTSIDE OF THE REMODELED AREA.
13. DEVICES AND EQUIPMENT TO BE DEMOLISHED SHALL BE REMOVED, INCLUDING ALL RELATED CONDUCTORS, RACEWAY, JUNCTION AND SPLICE BOXES UP TO THE PANELBOARD/SWITCHBOARD. ALL CONDUITS AND BOXES THAT ARE SURFACE MOUNTED AND NO LONGER REQUIRE ACTIVE CIRCUITS SHALL BE COMPLETELY REMOVED. DEVICES TO BE REMOVED ON DRYWALL OR PLASTER TYPE WALLS THAT ARE TO REMAIN SHALL HAVE THE WALL SURFACE PATCHED TO MATCH THE EXISTING FINISH. THE CONTRACTOR SHALL IDENTIFY ALL DEMOLISHED AND ABANDONED BRANCH CIRCUITS. THESE SHALL BE NOTED AS SPARE ON PANELBOARD SCHEDULES. THIS INCLUDES IDENTIFYING EXISTING ABANDONED AND SPARE CIRCUITS THAT ARE CURRENTLY IDENTIFIED AS USED. THE CONTRACTOR SHALL FURNISH NEW TYPED DIRECTORIES FOR ALL PANELBOARDS.
14. THE OWNER HAS THE RIGHT TO RETAIN ALL SALVAGEABLE MATERIAL. ANY MATERIAL THE OWNER CHOOSES NOT TO ACCEPT SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR.
15. FULLY COORDINATE MECHANICAL EQUIPMENT ELECTRICAL CONNECTION REMOVAL AND RELOCATION WITH THE MECHANICAL CONTRACTOR.
16. CONTRACTOR TO VERIFY THAT ALL EXISTING EQUIPMENT THAT IS TO REMAIN, BE REMOVED AND RE-INSTALLED ARE IN WORKING CONDITIONS. CONTRACTOR IS TO PROVIDE OWNER WRITTEN DOCUMENTATION OF ANY ITEMS NOT IN WORKING CONDITION PRIOR TO COMMENCING WORK IN AN AREA.
17. CONTRACTOR IS TO PROTECT IN PLACE ALL MECHANICAL, PLUMBING, ELECTRICAL ABOVE CEILINGS. THIS MAY INCLUDE BUT NOT LIMITED TO; NETWORK CABLING, COAX CABLING, CONDUITS, PIPING, DUCTWORK, ETC. PROVIDE ADDITIONAL CABLING SUPPORTS AS REQUIRED FOR ANY UNSUPPORTED CABLING, RACEWAY, ETC.
18. WHERE DEVICES OR EQUIPMENT IS TO BE RELOCATED, CONTRACTOR SHALL EXTEND EXISTING CIRCUITING TO NEW LOCATION. ENSURE CIRCUIT CONTINUITY FOR OTHER DEVICES OR EQUIPMENT ON THE SAME BRANCH CIRCUIT.
19. WHERE FLOORS ARE BEING REMOVED AND/OR REPLACED, CONTRACTOR SHALL PROTECT ELECTRICAL FEEDERS AND BRANCH CIRCUITS WHICH ARE EITHER TO REMAIN PERMANENTLY OR UNTIL DEMOLITION IN FUTURE PHASING WHILE STRUCTURAL WORK IS PERFORMED. PROVIDE ALL NECESSARY LABOR AND MATERIALS TO PERFORM WORK AS COORDINATED WITH THE CONSTRUCTION MANAGER.
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21. SEE NEW SYSTEMS SHEETS FOR NEW FIRE ALARM INFORMATION. REMOVE EXISTING FIRE ALARM DEVICE (S) AS NECESSARY FOR REMOVAL OF CEILING SYSTEM. RE-INSTALL ONCE NEW CEILING IS INSTALLED.
22. REMOVE VOICE/DATA CABLING BACK TO DATA ROOM UNLESS NOTED OTHERWISE.
23. PROVIDE BLANK COVERPLATE ON ALL EXISTING BOXES LOCATED IN MASONRY THAT ARE NOT BEING RE-USED, PROVIDE BLANK COVERPLATE ON ALL UNUSED BOXES.
24. COORDINATE THE DEMOLITION, PATCH, AND REPAIR OF CEILING FOR ALL LIGHTING AND ELECTRICAL APPARATUSES IN THIS AREA. DISCONNECT AND RE-CONNECT AS REQUIRED TO MAINTAIN ALL SYSTEMS.
25. KEEP CLASSROOM SYSTEMS TOGETHER, LOUDSPEAKERS, AMPLIFIERS, IR SENSORS, NUMBER THEY ARE REMOVED FROM. BOX EACH LOCATION IN SEPARATE BOXES AND LABEL WITH CLASSROOM NUMBER PRIOR TO RETURNING TO OWNER.
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BID DOCUMENTS
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PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

SHOP ADD. DEMOLITION FLOOR PLAN ALT. #2

E1.112

SHOP ADDITION LIGHTING PLAN
BASE BID
SCALE = 1/8" = 1'-0"

SHEET KEYNOTES

L6 EXTEND POWER FROM EXISTING LOCATIONS AND TIE INTO THE EXISTING EXTERIOR CONTROLS FOR LIGHTING. MOUNT AT THE SAME HEIGHT AS THE OTHER EXTERIOR LIGHT FIXTURES. PROVIDE POWER AND CONTROLS FOR EXTERIOR FACADE FIXTURES FROM NEARBY EXISTING CIRCUITS. EXTEND EXISTING CONNECTIONS TO THE NEW LOCATIONS.

L9 ALL LIGHTING, POWER, AND MECHANICAL CONNECTIONS TO BE EXPLOSION PROOF. PROVIDE CONDUIT SEAL OFFS ON ALL CONDUITS ENTERING THE AREA.

L10 REUSE EXISTING CIRCUIT FROM THE DEMOLITION OF THE EXISTING LIGHTING TO INSTALL NEW LIGHTING FIXTURES. SEE SHEET E1.111 AND E1.112.

LIGHTING GENERAL SHEET NOTES

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ALL FIXTURE LOCATIONS WITHIN A CEILING OR CEILING GRID. FOR AREAS WITHOUT CEILINGS, FIXTURE LOCATIONS ARE DIAGRAMMATIC. THE INTENT IS TO ALIGN, CENTER, OR SPACE FIXTURES BETWEEN ARCHITECTURAL AND STRUCTURAL ELEMENTS. COORDINATE WITH PAINTING CONTRACTOR FOR PAINTING OF EXPOSED RACEWAY.
2. FIELD VERIFY EXACT FIXTURE LENGTHS FOR CONTINUOUS ILLUMINATION FOR COVES AND LINEAR RUNS. PROVIDE CONTINUOUS ILLUMINATION WITH NO MORE THAN A 1" GAP BETWEEN THE END OF THE EDGE OF THE WALL / CEILING AND THE FIXTURE.
3. ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR PLACEMENT OF FIXTURES WITHIN MECHANICAL ROOMS.
4. ALL ROOM CONTROLLERS AND/OR POWER PACKS SHALL BE INSTALLED IN THE CEILING SPACE DIRECTLY ABOVE THE ENTRY DOOR TO THE SPACE IT IS CONTROLLING.
5. ALL UNDERCABINET LIGHTS MUST BE COORDINATED WITH MILLWORK FOR EXACT LENGTHS. ALL UNDERCABINET LIGHTS SHALL BE COORDINATED WITH MILLWORK SHOP DRAWINGS.
6. PROVIDE 0-10V DIMMING CONDUCTORS FOR ALL AREAS AND/OR ROOMS WHERE 0-10V DIMMING IS INDICATED BY THE RELAY PANEL SCHEDULE AND/OR WALL STATION CONTROL SEQUENCE.
7. SUBSCRIPT ADJACENT TO LIGHT FIXTURE INDICATES CONTROLS, PROVIDE LIGHTING CONTROLS WITH THE REQUIRED NUMBER OF RELAY/DIMMERS. PROVIDE ADDITIONAL RELAY/DIMMERS FOR DAYLIGHT ZONES AS REQUIRED.
8. SEE CORRESPONDING LIGHTING DIAGRAMS FOR GENERAL INSTALLATION REQUIREMENTS, CONNECTIONS, AND CABLE TYPES.
9. PROVIDE UNSWITCHED NORMAL CIRCUIT HOT LEG TO ALL EMERGENCY POWER CONTROL DEVICES FOR PROPER POWER SENSING.
10. PROVIDE UNSWITCHED HOT AHEAD OF RELAY, OCCUPANCY SENSOR, OR SWITCH TO ALL EXIT SIGNS, IF SHOWN, SUBSCRIPT NEAR LIGHT FIXTURES INDICATES CONTROL INTENT. PROVIDE LIGHTING CONTROLLERS WITH THE REQUIRED NUMBER OF RELAYS/DIMMERS.
11. MANUFACTURER'S REPRESENTATIVE FOR DIVISION 26 AND BIDDING CONTROLS SHALL BE ACCOUNTABLE FOR THE COMPREHENSIVE LIGHTING CONTROLS PACKAGE'S FINALIZATION IN ALIGNMENT WITH THE DESIGN INTENT REFLECTED IN THE DRAWINGS AND COMPLYING WITH ECC 2021 REQUIREMENTS. THE LIGHTING REPRESENTATIVE IS REQUIRED TO DEVELOP DETAILED SHOP DRAWINGS DEMONSTRATING THE LIGHTING CONTROL SYSTEM'S TOPOLOGY AND THE ESSENTIAL CONNECTIONS NECESSARY FOR ITS PROPER FUNCTIONING. LIGHTING CONTROL DEVICES SHOWN ARE TO PROVIDE GENERAL INTENT ONLY. MANUFACTURERS REPRESENTATIVE TO PROVIDE ALL ADDITIONAL DEVICES AND MODIFY DEVICE LOCATIONS AS REQUIRED TO MEET ECC 2021 REQUIREMENTS.
12. PROVIDE ADDITIONAL RELAYS/DIMMERS FOR DAYLIGHT ZONES AS NEEDED. PROVIDE 0-10V DIMMING FOR ALL AREAS AND/OR ROOMS WHERE 0-10V DIMMING IS INDICATED BY THE WALLSTATION CONTROL SEQUENCE AND OR BY TYPE OF CONTROL INTERFACE SHOWN.
13. CAREFULLY COORDINATE FIXTURE PLACEMENT WITHIN BAFFLED CEILINGS, PENDANT MOUNTED FIXTURES SHALL BE MOUNTED AT THE SAME ELEVATION AS BAFFLES. COORDINATE WITH ARCHITECTURAL RCP AND DETAILS PRIOR TO ROUGHAN-IN.
14. PROVIDE CONDUIT FROM DEVICE TO DEVICE IN OPEN AND/OR EXPOSED CEILINGS, CEILINGS WITH CLOUDS ARE CONSIDERED OPEN/EXPOSED CEILINGS. NO EXPOSED CABLES SHALL BE SEEN FROM BELOW.
15. WHERE INDICATED ON FIXTURE SCHEDULE AND/OR PROVIDED BY THE FIXTURE MANUFACTURER, ALL REMOTE DRIVERS SHALL BE LOCATED IN THE NEAREST ACCESSIBLE CEILING, DIVISION 26 SHALL UPSIZE CONDUCTORS BETWEEN DRIVER AND FIXTURE(S) AS REQUIRED BY MANUFACTURER TO MAINTAIN AN ACCEPTABLE VOLTAGE DROP RANGE. DIVISION 26 TO DETERMINE FINAL LOCATION AND PROVIDE A DESIGNATION MARKER (GREEN DOT) AT THE CEILING TO ALLOW FOR EASY FUTURE MAINTENANCE.

LIGHTING SENSOR GENERAL NOTES

1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE SENSOR MANUFACTURER FOR PROPER PLACEMENT AND ADJUSTMENT OF OCCUPANCY SENSORS.
2. EACH ZONE SHALL HAVE COVERAGE BY OCCUPANCY SENSOR SUCH THAT NO BLIND SPOT EXIST.
3. UPON COMPLETION OF THE INSTALLATION, THE SYSTEM SHALL BE COMPLETELY COMMISSIONED BY THE MANUFACTURER'S FACTORY AUTHORIZED TECHNICIAN WHO WILL VERIFY ALL ADJUSTMENTS AND SENSOR PLACEMENT TO ENSURE A TROUBLE-FREE INSTALLATION.
4. THE LOCATION AND QUANTITIES OF SENSORS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE ONLY THE ROOMS WHICH ARE TO BE PROVIDED WITH SENSORS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ADDITIONAL SENSORS AS REQUIRED TO PROPERLY COVER THE RESPECTIVE ROOM.
5. PROVIDE DAYLIGHT ZONE CONTROL REQUIREMENTS PER IECC-2015 C405.2.2.3. LOCATE DAYLIGHT SENSOR(S) PER MANUFACTURER'S RECOMMENDATION AND WHERE REQUIRED WITHIN THE ROOM FOR PROPER COVERAGE.
6. PROVIDE OCCUPANCY SENSOR WITH AN ADDITIONAL SET OF DRY CONTACTS FOR HVAC CONTROL AT EACH VAV BOX LOCATION.

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DATE REVISION

PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

SHOP ADDITION
LIGHTING PLAN

E1.211

SHOP ADDITION LIGHTING PLAN
ALTERNATE #2
SCALE = 1/8" = 1'-0"

SHEET KEYNOTES

L1	PROVIDE EXPLOSION PROOF LIGHT.
L4	TO SWITCH ON BOTH PLANS: PROVIDE EXPLOSION PROOF TYPE LIGHT SWITCH.
L5	PROVIDE POWER FROM EXISTING LIGHTING CIRCUIT WITHIN THE SPACE.
L6	EXTEND POWER FROM EXISTING LOCATIONS AND TIE INTO THE EXISTING EXTERIOR CONTROLS FOR LIGHTING. MOUNT AT THE SAME HEIGHT AS THE OTHER EXTERIOR LIGHT FIXTURES. PROVIDE POWER AND CONTROLS FOR EXTERIOR FACADE FIXTURES FROM NEARBY EXISTING CIRCUITS. EXTEND EXISTING CONNECTIONS TO THE NEW LOCATIONS.
L9	ALL LIGHTING, POWER, AND MECHANICAL CONNECTIONS TO BE EXPLOSION PROOF. PROVIDE CONDUIT SEAL OFFS ON ALL CONDUITS ENTERING THE AREA.
L10	REUSE EXISTING CIRCUIT FROM THE DEMOLITION OF THE EXISTING LIGHTING TO INSTALL NEW LIGHTING FIXTURES. SEE SHEET E1.111 AND E1.112.

LIGHTING GENERAL SHEET NOTES

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ALL FIXTURE LOCATIONS WITHIN A CEILING OR CEILING GRID. FOR AREAS WITHOUT CEILINGS, FIXTURE LOCATIONS ARE DIAGRAMMATIC. THE INTENT IS TO ALIGN, CENTER, OR SPACE FIXTURES BETWEEN ARCHITECTURAL AND STRUCTURAL ELEMENTS. COORDINATE WITH PAINTING CONTRACTOR FOR PAINTING OF EXPOSED RACEWAY.
2. FIELD VERIFY EXACT FIXTURE LENGTHS FOR CONTINUOUS ILLUMINATION FOR COVES AND LINEAR RUNS. PROVIDE CONTINUOUS ILLUMINATION WITH NO MORE THAN A 1" GAP BETWEEN THE END OF THE EDGE OF THE WALL / CEILING AND THE FIXTURE.
3. ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR PLACEMENT OF FIXTURES WITHIN MECHANICAL ROOMS.
4. ALL ROOM CONTROLLERS AND/OR POWER PACKS SHALL BE INSTALLED IN THE CEILING SPACE DIRECTLY ABOVE THE ENTRY DOOR TO THE SPACE IT IS CONTROLLING.
5. ALL UNDERCABINET LIGHTS MUST BE COORDINATED WITH MILLWORK FOR EXACT LENGTHS. ALL UNDERCABINET LIGHTS SHALL BE COORDINATED WITH MILLWORK SHOP DRAWINGS.
6. PROVIDE 0-10V DIMMING CONDUCTORS FOR ALL AREAS AND/OR ROOMS WHERE 0-10V DIMMING IS INDICATED BY THE RELAY PANEL SCHEDULE AND/OR WALL STATION CONTROL SEQUENCE.
7. SUBSCRIPT ADJACENT TO LIGHT FIXTURE INDICATES CONTROLS, PROVIDE LIGHTING CONTROLS WITH THE REQUIRED NUMBER OF RELAY/DIMMERS. PROVIDE ADDITIONAL RELAY/DIMMERS FOR DAYLIGHT ZONES AS REQUIRED.
8. SEE CORRESPONDING LIGHTING DIAGRAMS FOR GENERAL INSTALLATION REQUIREMENTS, CONNECTIONS, AND CABLE TYPES.
9. PROVIDE UNSWITCHED NORMAL CIRCUIT HOT LEG TO ALL EMERGENCY POWER CONTROL DEVICES FOR PROPER POWER SENSING.
10. PROVIDE UNSWITCHED HOT AHEAD OF RELAY, OCCUPANCY SENSOR, OR SWITCH TO ALL EXIT SIGNS, IF SHOWN, SUBSCRIPT NEAR LIGHT FIXTURES INDICATES CONTROL INTENT. PROVIDE LIGHTING CONTROLLERS WITH THE REQUIRED NUMBER OF RELAYS/DIMMERS.
11. MANUFACTURER'S REPRESENTATIVE FOR DIVISION 26 AND BIDDING CONTROLS SHALL BE ACCOUNTABLE FOR THE COMPREHENSIVE LIGHTING CONTROLS PACKAGE'S FINALIZATION IN ALIGNMENT WITH THE DESIGN INTENT DEPICTED IN THE DRAWINGS AND COMPLYING WITH IECC 2021 REQUIREMENTS. THE LIGHTING REPRESENTATIVE IS REQUIRED TO DEVELOP DETAILED SHOP DRAWINGS DEMONSTRATING THE LIGHTING CONTROL SYSTEM'S TOPOLOGY AND THE ESSENTIAL CONNECTIONS NECESSARY FOR ITS PROPER FUNCTIONING. LIGHTING CONTROL DEVICES SHOWN ARE TO PROVIDE GENERAL INTENT ONLY. MANUFACTURERS REPRESENTATIVE TO PROVIDE ALL ADDITIONAL DEVICES AND MODIFY DEVICE LOCATIONS AS REQUIRED TO MEET ECC 2021 REQUIREMENTS.
12. PROVIDE ADDITIONAL RELAYS/DIMMERS FOR DAYLIGHT ZONES AS NEEDED. PROVIDE 0-10V DIMMING FOR ALL AREAS AND/OR ROOMS WHERE 0-10V DIMMING IS INDICATED BY THE WALLSTATION CONTROL SEQUENCE AND OR BY TYPE OF CONTROL INTERFACE SHOWN.
13. CAREFULLY COORDINATE FIXTURE PLACEMENT WITHIN BAFFLED CEILINGS, PENDANT MOUNTED FIXTURES SHALL BE MOUNTED AT THE SAME ELEVATION AS BAFFLES. COORDINATE WITH ARCHITECTURAL RCP AND DETAILS PRIOR TO ROUGHAN-IN.
14. PROVIDE CONDUIT FROM DEVICE TO DEVICE IN OPEN AND/OR EXPOSED CEILINGS, CEILINGS WITH CLOUDS ARE CONSIDERED OPEN/EXPOSED CEILINGS. NO EXPOSED CABLES SHALL BE SEEN FROM BELOW.
15. WHERE INDICATED ON FIXTURE SCHEDULE AND/OR PROVIDED BY THE FIXTURE MANUFACTURER, ALL REMOTE DRIVERS SHALL BE LOCATED IN THE NEAREST ACCESSIBLE CEILING, DIVISION 26 SHALL UPSIZE CONDUCTORS BETWEEN DRIVER AND FIXTURE(S) AS REQUIRED BY MANUFACTURER TO MAINTAIN AN ACCEPTABLE VOLTAGE DROP RANGE. DIVISION 26 TO DETERMINE FINAL LOCATION AND PROVIDE A DESIGNATION MARKER (GREEN DOT) AT THE CEILING TO ALLOW FOR EASY FUTURE MAINTENANCE.

LIGHTING SENSOR GENERAL NOTES

1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE SENSOR MANUFACTURER FOR PROPER PLACEMENT AND ADJUSTMENT OF OCCUPANCY SENSORS.
2. EACH ZONE SHALL HAVE COVERAGE BY OCCUPANCY SENSOR SUCH THAT NO BLIND SPOT EXIST.
3. UPON COMPLETION OF THE INSTALLATION, THE SYSTEM SHALL BE COMPLETELY COMMISSIONED BY THE MANUFACTURER'S FACTORY AUTHORIZED TECHNICIAN WHO WILL VERIFY ALL ADJUSTMENTS AND SENSOR PLACEMENT TO ENSURE A TROUBLE-FREE INSTALLATION.
4. THE LOCATION AND QUANTITIES OF SENSORS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE ONLY THE ROOMS WHICH ARE TO BE PROVIDED WITH SENSORS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ADDITIONAL SENSORS AS REQUIRED TO PROPERLY COVER THE RESPECTIVE ROOM.
5. PROVIDE DAYLIGHT ZONE CONTROL REQUIREMENTS PER IECC-2015 C405.2.2.3. LOCATE DAYLIGHT SENSOR(S) PER MANUFACTURER'S RECOMMENDATION AND WHERE REQUIRED WITHIN THE ROOM FOR PROPER COVERAGE.
6. PROVIDE OCCUPANCY SENSOR WITH AN ADDITIONAL SET OF DRY CONTACTS FOR HVAC CONTROL AT EACH VAV BOX LOCATION.

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PROJECT FOR
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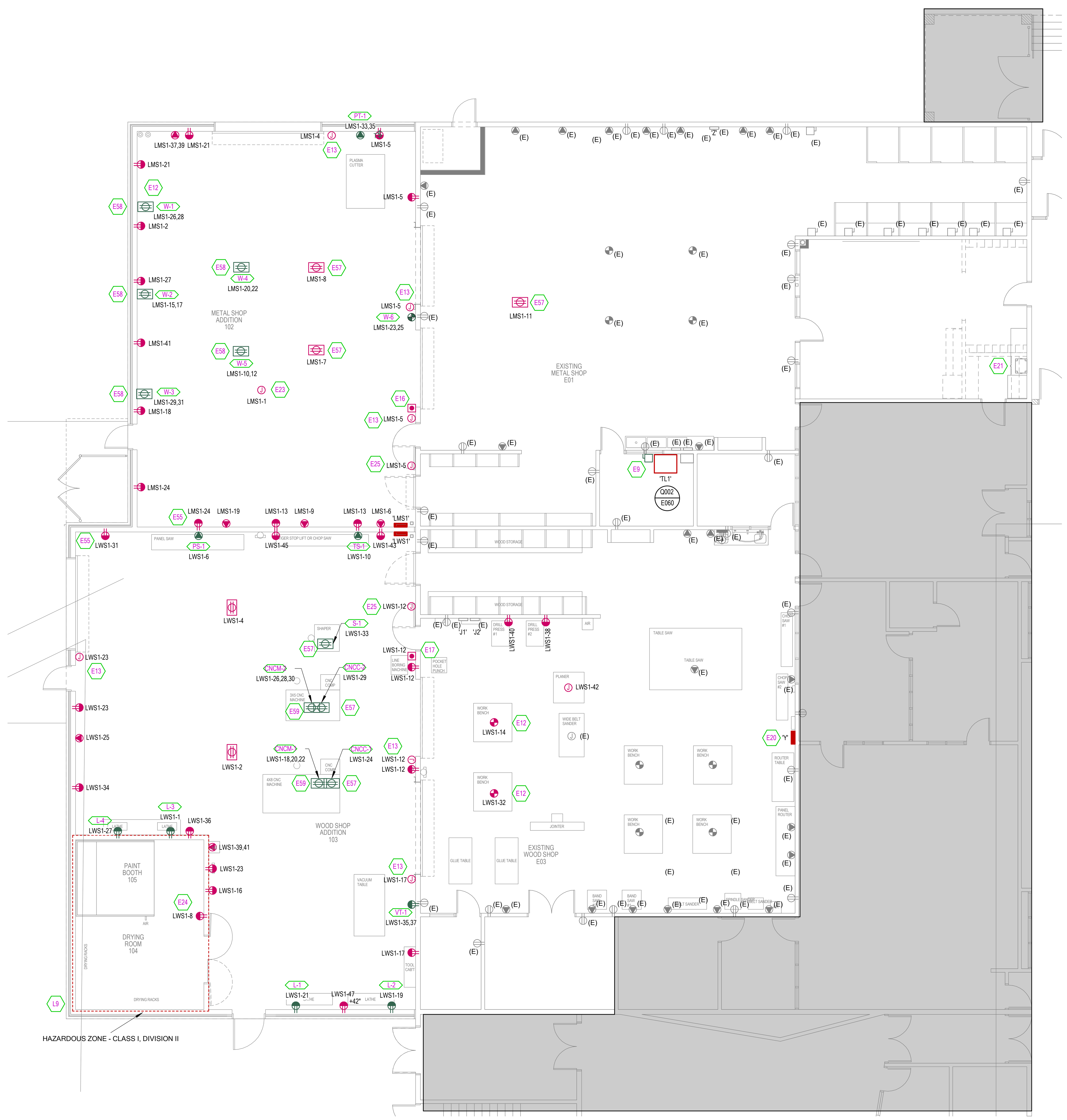
39 SOUTH MAIN MANTI, UTAH 84642

SHOP ADDITION
LIGHTING PLAN
ALT. #2

E1.212



SHOP ADDITION FLOOR POWER PLAN

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

POWER GENERAL SHEET NOTES

1. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL MECHANICAL UNITS WITH MECHANICAL CONTRACTOR.
2. CIRCUITS TO ALL MECHANICAL EQUIPMENT SHALL BE DEDICATED UNLESS NOTED OTHERWISE.
3. FOR VAV POWER, PROVIDE A DEDICATED 120V/20A CIRCUIT FROM A PANEL LOCATED IN THE ELECTRICAL ROOM OF THE ASSOCIATED QUADRANT. COORDINATE EXACT LOCATION OF ALL VAV BOXES WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
4. PROVIDE 120V CIRCUIT FROM THE NEAREST PANELBOARD FOR FIRE/SMOKE DAMPER RELAYS. PROVIDE FIRE ALARM MODULES AND RELAYS AS NECESSARY FOR ALL FIRE/SMOKE DAMPERS SHOWN ON DIVISION 23 DRAWINGS. ALL FIRE/SMOKE DAMPERS SHALL HAVE A MANUAL OVERRIDE SWITCH. PROVIDE DUCT DETECTOR WITHIN 5 FEET OF EACH FIRE/SMOKE DAMPER.
5. COORDINATE PLACEMENT OF ELECTRICAL DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN. WHERE DEVICES ARE SHOWN IN SAME WALL SPACE, ALIGN VERTICALLY AND HORIZONTALLY, COORDINATE WITH ARCHITECTURAL DRAWINGS, ATHLETIC SAFETY WALL PADDING AND CABINETRY DRAWINGS.
6. ALL THE LOW VOLTAGE WIRE/CABLE FOR LIGHTING SENSORS, AUDIO/VISUAL EQUIPMENT, SOUND AMPLIFICATION, ETC, TO BE ROUTED THROUGH CONDUIT IN EXPOSED AND CLOUDED CEILING AREAS.
7. ALL LOW VOLTAGE WIRE/CABLE FOR LIGHTING SENSORS, AUDIO/VISUAL EQUIPMENT, CLASSROOM SOUND AMPLIFICATION, ETC, TO BE PROPERLY SUPPORTED PER THE TELE/DATA SPEC, AND AT 5'-0" INTERVALS AND TO FOLLOW BUILDING STRUCTURAL LINES. PULLING WIRE DIAGONALLY ACROSS ROOMS IS NOT ALLOWED, USING CEILING SYSTEM OR LIGHT FIXTURE SUPPORT/SEISMIC WIRES FOR SUPPORT IS NOT ALLOWED.
8. PROVIDE GFC PROTECTION ON ALL DEVICES AND EQUIPMENT PER THE NEC REQUIREMENTS, DEVICES SHALL BE READILY ACCESSIBLE, IF ANY OUTLET IS INSTALLED WITHIN 6 FEET OF OUTSIDE EDGE OF SINK, CONTRACTOR SHALL PROVIDE GFCI RECEPTACLE PER NEC, WHETHER SHOWN OR NOT.
9. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL MECHANICAL UNITS WITH MECHANICAL CONTRACTOR, CIRCUITS TO ALL MECHANICAL EQUIPMENT SHALL BE DEDICATED UNLESS NOTED OTHERWISE.
10. FOR VAV POWER, PROVIDE A DEDICATED 120V/20A CIRCUIT FROM A PANEL LOCATED IN THE ELECTRICAL ROOM OF THE ASSOCIATED QUADRANT, COORDINATE EXACT LOCATION OF ALL VAV BOXES WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
11. PROVIDE 120V CIRCUIT FROM NEAREST PROVIDED CIRCUIT FOR FIRE/SMOKE DAMPER RELAYS. PROVIDE FIRE ALARM MODULES AND RELAYS AS NECESSARY FOR ALL FIRE/SMOKE DAMPERS SHOWN ON DIVISION 23 DRAWINGS. ALL FIRE/SMOKE DAMPERS SHALL HAVE A MANUAL OVERRIDE SWITCH, PROVIDE DUCT DETECTOR WITHIN 5 FEET OF EACH FIRE/SMOKE DAMPER.
12. CONTRACTOR TO COORDINATE ALL LOCATIONS OF FIRE/SMOKE AND SMOKE DAMPERS WITH MECHANICAL CONTRACTOR. CONTRACTOR TO PROVIDE POWER, MONITOR MODULES, AND RELAYS AS REQUIRED FOR A COMPLETE SYSTEM.
13. DIVISION-26 IS RESPONSIBLE TO PROVIDE CONDUIT AND ROUGH-IN FOR ALL THERMOSTAT CONTROLS LOCATED WITH WALLS. COORDINATE WITH THE CONTROLS CONTRACTOR AND VERIFY EXCAT LOCATION OF ALL THERMOSTATS.
14. DEVICES NOTED WITH SUBSCRIPT '(E)' DENOTES THE DEVICES ARE EXISTING AND TO REMAIN UNTOUCHED DURING DEMOLITION, UNLESS OTHERWISE NOTED.
15. CIRCUIT #S, IF SHOWN, ARE FROM RECORD DRAWING AND SHOWN FOR REFERENCE ONLY. VERIFY EXISTING CONDITIONS PRIOR TO WORK.

SHEET KEYNOTES

E9	PROVIDE A DRY TYPE TRANSFORMER ABOVE THIS ROOM, LOCATED NEXT TO THE OTHER TWO EXISTING ELECTRICAL TRANSFORMERS.PROVIDE A DISCONNECT FROM THE TRANSFORMER TO THE NEW PANELS LMS1 AND LWS1 ON THE WALL FOR EASY ACCESS. RUN CONDUIT AND WIRE BACK TO MDP PANEL LOCATED ON SITE PLAN. REFER TO THE ONE LINE FOR MORE INFORMATION.
E12	COORDINATE LOCATION OF 120V, 20A CORD DROP WITH SHOP TEACHER. CORD DROP TO HANG AT 7' ABOVE THE FLOOR.
E13	PROVIDE POWER FOR DOORS. COORDINATE LOCATION WITH OWNER.
E16	PROVIDE EMERGENCY OFF BUTTON AT DOOR LOCATION. PROVIDE CONTROL CABLING FROM SWITCH TO SHUNT BREAKER ON THE 'LMS1' PANEL FOR EMERGENCY SHUTOFF OF PANEL.
E17	PROVIDE EMERGENCY OFF BUTTON AT DOOR LOCATION. PROVIDE CONTROL CABLING FROM SWITCH TO SHUNT BREAKER ON THE 'LWS1' PANEL FOR EMERGENCY SHUTOFF OF PANEL.
E20	PROVIDE A NEW PANEL 'Y' IN PLACE OF THE EXISTING PANEL. SEE PANELBOARD SCHEDULE FOR MORE INFORMATION. PLEASE FIELD VERIFY EXISTING POWER DRAW. IF PANEL EXCEEDS 150A, PLEASE PROVIDE NEW 300A RATED CONDUCTORS, SIZE 500, IN 4" CONDUIT BACK TO THE MDP SHOWN ON OVERALL PLAN. PROVIDE A NEW 300A BREAKER IN MDP. PROVIDE NEW 300A PANEL 'Y' AND RE-WIRE ALL EXISTING CIRCUITING TO NEW PANEL. OTHERWISE, REPLACE PANEL Y WITH NEW 225A PANEL. PROVIDE ALL NECESSARY PARTS AND CONNECTIONS. REUSE EXISTING CONDUITS AND WIRE WHERE POSSIBLE.
E21	REPLACE EXISTING DATA SERVER WITH DATA CABINET THAT HAS SIDES AND HAS A LOCK. COORDINATE WITH OWNER THE BEST APPROACH TO MAINTAIN THE EXISTING SYSTEM THROUGHOUT THE REMODEL. THE EXISTING RACK SHOULD BEW RELOCATED IN THE CORNER OF THE EXPANDEND METAL SHOP, NEAR THE CEILING.
E23	PROVIDE POWER FOR FUTURE HOIST TROLLEY. COORDINATE EXACT LOCATION WITH OWNER.
E24	PROVIDE EXPLOSION PROOF RECEPTACLE FOR PAINT BOOTH.
E25	PROVIDE POWER FOR MAGNETIC HOLD OPEN.
E55	PROVIDE EXTRA HEAVY DUTY/HOSPITAL GRADE RECEPTACLES AND STAINLESS STEEL PLATES THROUGHOUT THE WOOD AND METAL SHOPS.
E57	PROVIDE KH INDUSTRIES HEAVY DUTY 20A/120V, 3-CONDUCTOR RTBB3LB-1GB520-J12K+20A DUPLEX RECEPTACLE PAYOUT END, BLACK COLORED 50' CORD REEL. MOUNT 20A TWIST LOCK DUPLEX RECEPTACLE NEAR STRUCTURE FOR FEEDER END AND ATTACH CORD REEL TO STRUCTURE AS REQUIRED. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
E58	PROVIDE KH INDUSTRIES HEAVY DUTY 50A/208V, 4-CONDUCTOR RTMH4L-WW-K6K+50A NEMA 10-50R RECEPTACLE PAYOUT END, YELLOW COLORED 50' CORD REEL. MOUNT 50A TWIST LOCK PLUG NEAR STRUCTURE FOR FEEDER END AND ATTACH CORD REEL TO STRUCTURE AS REQUIRED. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
E59	PROVIDE KH INDUSTRIES HEAVY DUTY 30A/208V, 4 CONDUCTOR NEMA 18-30R RECEPTACLE PAYOUT END 50' CORD REEL. MOUNT 30A TWIST LOCK PLUG NEAR STRUCTURE FOR FEEDER END AND ATTACH CORD REEL TO STRUCTURE AS REQUIRED. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
L9	ALL LIGHTING, POWER, AND MECHANICAL CONNECTIONS TO BE EXPLOSION PROOF. PROVIDE CONDUIT SEAL OFFS ON ALL CONDUITS ENTERING THE AREA.

SHOP EQUIPMENT SCHEDULE

CONNECTION TYPE NOTES:

1. NON-FUSE DISCONNECT SWITCH
2. FUSED DISCONNECT SWITCH
3. CIRCUIT BREAKER IN ENCLOSURE
4. MANUAL STARTER WITH THERMAL OVERLOAD
5. MAGNETIC STARTER
6. MAGNETIC STARTER / NON-FUSED DISCONNECT COMBINATION
7. MAGNETIC STARTER / FUSED DISCONNECT COMBINATION
8. MAGNETIC STARTER / CIRCUIT BREAKER COMBINATION
9. VARIAGBLE FREQUENCY DRIVE
10. REDUCED VOLTAGE STARTER
11. DIRECT CONNECTION
12. RECEPTACLE / SPECIAL PURPOSE OUTLET / ETC.
13. TWO SPEED STARTER. COORDINATE WITH MOTOR TYPE
14. SOLID STATE SOFT-STARTER.

RESPONSIBILITY LEGEND:

A. FURNISHED, INSTALLED AND CONNECTED UNDER DIVISION 26(16)
B. FURNISHED AND INSTALLED UNDER ANOTHER DIVISION. REQUIRED CONNECTION UNDER DIVISION 26(16)
C. FURNISHED UNDER ANOTHER DIVISION BUT INSTALLED AND CONNECTED UNDER DIVISION...
D. FURNISHED, INSTALLED AND CONNECTED UNDER ANOTHER DIVISION

CB = CIRCUIT BREAKER

NOTE 1: PER 250.122(A), EQUIPMENT GROUND IS NOT REQUIRED TO BE LARGER THAN THE PHASE CONDUCTOR.

NOTE 2: OVERCURRENT PROTECTION DEVICE (OCPD) SHOWN IS LOCATED AT POWER PANEL. ALL FUSING TO BE SIZED IN ACCORDANCE WITH FUSE MFR RECOMMENDATION FOR MOTOR NAME PLATE RATING.

NOTE 3: ALL EQUIPMENT TO BE RATED FOR THE ENVIRONMENT FOR WHICH IT IS INSTALLED.

GENERAL NOTES:

1. EQUIPMENT SHOWN IS FOR ELECTRICAL INFORMATION ONLY. THERE IS NO REFERENCE TO THE QUANTITY OF EQUIPMENT LOCATED IN EACH SPACE.
2. LOAD-CENTERS SHOWN ARE FURNISHED AND INSTALLED BY ANOTHER DIVISION. ELECTRICAL CONTRACTOR SHALL PROVIDE SINGLE POINT CONNECTION TO LOAD CENTER.
3. PER 250.122(A), EQUIPMENT GROUND IS NOT REQUIRED TO BE LARGER THAN PHASE CONDUCTOR.
4. CONTRACTOR SHALL REFER TO FOOD SERVICE EQUIPMENT DRAWINGS FOR ALL DEVICE AND HARDWARE CONNECTION DIMENSIONS INCLUDING MOUNTING HEIGHTS FOR ALL DEVICES SERVING FOOD SERVICE EQUIPMENT.
5. EQUIPMENT CONNECTIONS, VOLTAGES, AMPERAGES AND DEVICE RATINGS INDICATED IN THE KITCHEN EQUIPMENT SCHEDULE ARE BASED UPON THE LATEST DRAWINGS, SPECIFICATIONS AND CUTSHEETS THAT COULD BE PROCURED FROM THE FOOD SERVICE CONSULTANT'S DOCUMENTS. PRIOR TO FINAL CONNECTION THE CONTRACTOR SHALL VERIFY THE CONNECTION REQUIREMENTS WITH THE MOST CURRENT FOOD SERVICE DOCUMENTS OR ACTUAL EQUIPMENT PURCHASED. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT AND ENGINEER.
6. PROVIDE ALL CONDUITS REQUIRED FOR REFRIGERATION AND BEVERAGE SYSTEM LINES.
7. PROVIDE FLEXIBLE CONDUIT AND FITTINGS AS REQUIRED FOR KITCHEN EQUIPMENT THAT WILL BE CONNECTED PERMANENTLY. ALLOW ENOUGH SLACK TO MOVE EQUIPMENT FOR CLEANING.
8. COORDINATE WITH PLUMBING AND MECHANICAL PIPING TO AVOID CONFLICTS.
9. PROVIDE ALL INTERCONNECTING CONDUIT AND WIRE BETWEEN EACH DISPENSER AND THE SWITCH AND ALL COMPONENTS.
10. PRE-FABRICATED COLD STORAGE ROOMS (CSR) (WALK-IN COOLER/FREEZER): PROVIDE ALL INTERCONNECTING CONDUIT, SEAL-OFFS, SEALANT, WIRE AND ALL FINAL CONNECTIONS TO PROVIDE THE FOLLOWING:
    - INSTALL AND CONNECT LIGHT FIXTURES, SPLICE BOXES, LAMPS, LIGHT SWITCHES AND DOOR HEATERS SUPPLIED BY THE KES.
    - CONNECT CRS DEFROST, DRAIN LINE, HEATERS, THERMOSTATS, TIME CLOCKS, EVAPORATIVE TERMINAL BLOCK, SWITCH, FAN DOOR SWITCH AND COMPRESSOR CONTROL PANEL, ETC. SUPPLIED BY THE KES.
    - PROVIDE CONDUIT AND WIRE BETWEEN CONDENSERS AND EVAPORATORS PER KES DETAILS.
    - INSTALL CONDUIT ON THE EXTERIOR OF THE CRS AND PENETRATE THE CRS CEILING AT A POINT WHERE THE CONDUIT CAN DROP DIRECTLY INTO THE POINT OF CONNECTION. DO NOT INSTALL CONDUIT ON THE INTERIOR OF THE CRS. SEAL ALL PENETRATIONS WITH CAULKING AND INSTALL INTERIOR AND EXTERIOR ESCUTCHEON PLATES.
11. PROVIDE ALL DISCONNECT SWITCHES WHERE REQUIRED BY NEC.
12. ALL 20A 120V RECEPTACLES IN FOOD PREPARATION AREA SHALL BE GFCI TYPE.
13. TYPE 1 HOODS (VENTILATORS): PROVIDE ALL INTERCONNECTING CONDUIT AND WIRE TO ACCOMPLISH THE FOLLOWING:
    - PROVIDE CONNECTIONS EQUIPMENT SHUT-OFFS.
    - SHUT DOWN ALL ELECTRICAL POWER UNDER THE HOOD.
    - INTERLOCK MAKEUP AIR AND EXHAUST.
    - MONITOR CONTROL PANEL ALARM WITH BUILDING FIRE ALARM.

UNIT	#	DESCRIPTION	ELECTRICAL EQUIPMENT INFORMATION: LOAD HP	FLA	MCA	VA	VOLTAGE	PHASE	FULL LOAD AMPS	CONDUIT SIZE	WIRE: SETS	QTY	SIZE	EQ. GROUND	OCPD: TYPE	AMPS	STARTER/ DISC/ VFD	OTHER (SEE NOTES)	REMARKS
CNCC	1	CNC COMP	0.00	0 A	0 A	1600 VA	120 V	1	13 A	3/4"	1	2	12	12	CB	20 A	2	A	SHOP
CNCC	2	CNC COMP	0.00	0 A	0 A	1600 VA	120 V	1	13 A	3/4"	1	2	12	12	CB	20 A	2	A	SHOP
CNCM	1	CNC MACHINE	0.00	0 A	0 A	10796 VA	208 V	3	30 A	3/4"	1	3	8	10	CB	30 A	2	A	SHOP
CNCM	2	CNC MACHINE	0.00	0 A	0 A	10796 VA	208 V	3	30 A	3/4"	1	3	8	10	CB	30 A	2	A	SHOP
DC	1	DUST COLLECTOR	0.00	0 A	0 A	3000 VA	208 V	1	14 A	3/4"	1	2	12	12	CB	25 A	11	A	SHOP
L	1	LATHE	0.00	0 A	0 A	1600 VA	120 V	1	13 A	3/4"	1	2	12	12	CB	20 A	12	A	SHOP
L	2	LATHE	0.00	0 A	0 A	1600 VA	120 V	1	13 A	3/4"	1	2	12	12	CB	20 A	12	A	SHOP
L	3	LATHE	0.00	0 A	0 A	1600 VA	120 V	1	13 A	3/4"	1	2	12	12	CB	20 A	12	A	SHOP
L	4	LATHE	0.00	0 A	0 A	1600 VA	120 V	1	13 A	3/4"	1	2	12	12	CB	20 A	12	A	SHOP
PS	1	PANEL SAW	0.00	0 A	0 A	1600 VA	120 V	1	13 A	3/4"	1	2	12	12	CB	20 A	12	A	SHOP
PT	1	PLASMA TABLE	0.00	0 A	0 A	2500 VA	208 V	1	12 A	3/4"	1	2	12	12	CB	20 A	12	A	SHOP
S	1	SHAPER	0.00	0 A	0 A	2400 VA	120 V	1	20 A	3/4"	1	2	10	10	CB	20 A	2	A	SHOP
SC	1	SAWDUST COLLECTOR	60.00	0 A	0 A	0 VA	480 V	3	77 A	1 1/4"	1	3	1	6	CB	125 A	2	A	SHOP
TS	1	TIGER STOP CHOP SAW/ LIFT SAW	0.00	0 A	0 A	1600 VA	120 V	1	13 A	3/4"	1	2	12	12	CB	20 A	12	A	SHOP
VT	1	VACUUM TABLE	0.00	0 A	0 A	6240 VA	208 V	1	30 A	3/4"	1	2	8	10	CB	30 A	30	A	SHOP
W	1	WELDER	0.00	0 A	0 A	4160 VA	208 V	1	20 A	3/4"	1	2	10	10	CB	50 A	2	A	SHOP
W	2	WELDER	0.00	0 A	0 A	4160 VA	208 V	1	20 A	3/4"	1	2	10	10	CB	50 A	2	A	SHOP
W	3	WELDER	0.00	0 A	0 A	4160 VA	208 V	1	20 A	3/4"	1	2	10	10	CB	50 A	0	A	SHOP
W	4	WELDER	0.00	0 A	0 A	4160 VA	208 V	1	20 A	3/4"	1	2	10	10	CB	50 A	0	A	SHOP
W	5	WELDER	0.00	0 A	0 A	4160 VA	208 V	1	20 A	3/4"	1	2	10	10	CB	50 A	2	A	SHOP
W	6	WELDER	0.00	0 A	0 A	4160 VA	208 V	1	20 A	3/4"	1	2	10	10	CB	50 A	2	A	SHOP

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PROJECT FOR
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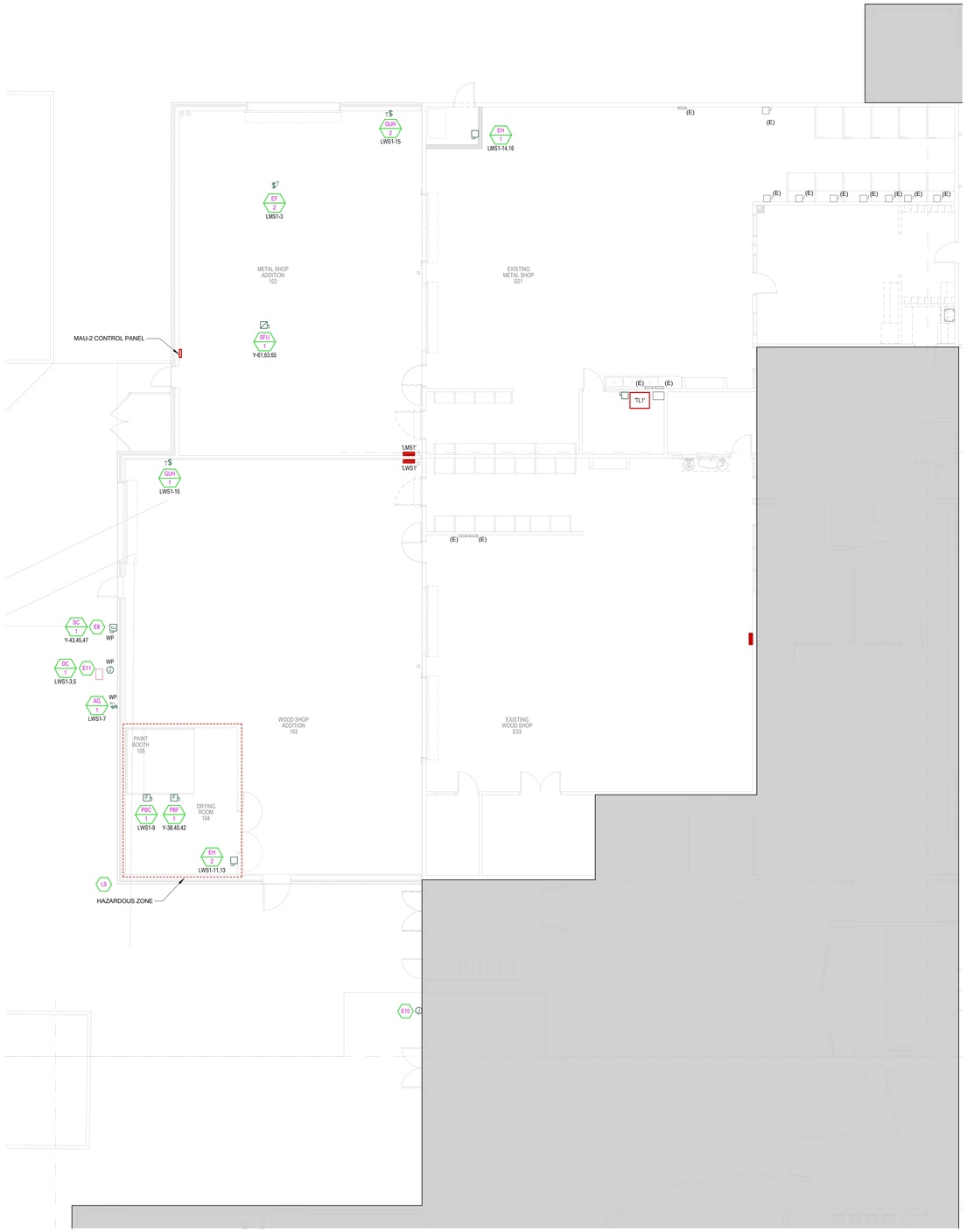
39 SOUTH MAIN MANTI, UTAH 84642

SHOP ADDITION POWER PLAN

E1.311



SHOP ADDITION MECHANICAL FLOOR PLAN

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

SHEET KEYNOTES

E8	PROVIDE ELECTRICAL CONNECTIONS TO SAW DUST COLLECTOR CONTROL PANEL PROVIDE 480V 3P CONNECTION TO CONTROL PANEL AS SHOWN BEFORE CONTINUING ON TO DUST COLLECTOR FAN. DIV. 26 TO ALSO PROVIDE 120V 1P POWER AND A DEDICATED FIRE ALARM INITIATION LOOP TO SAWDUST COLLECTOR CONTROL PANEL. WIRE COMPLETELY AND INCLUDE ALL AUX CONTROLS AND VALVES AS PART OF THE SAWDUST COLLECTOR. COORDINATE EXACT CONNECTION LOCATION WITH DIST COLLECTOR SHOP DRAWINGS PRIOR TO ELECTRICAL ROUGH-IN. DIV. 26 TO PROVIDE 120V 1P POWER TO NO RETURN VALVE AND ABORT GATE CONTROL PANELS LOCATED NEAR DUST COLLECTOR. REFER TO MECHANICAL DIAGRAM 4/M6.10 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
E10	TEMPORARY POWER FOR DUST COLLECTOR. EXTEND EXISTING CIRCUIT TO THIS LOCATION. COORDINATE EXACT NEEDS AND TEMPORARY LOCATION WITH MECHANICAL DRAWINGS PRIOR TO ROUGH-IN.
E11	PROVIDE NEW DUST COLLECTOR, AND POWER FEED. UPON COMPLETION OF INSTALL, EXISTING DUST COLLECTOR IN TEMPORARY LOCATION AND EXISTING POWER FEED WILL BE REMOVED. FOLLOW ALL GENERAL DEMOLITION NOTE GUILDELINES.
L9	ALL LIGHTING, POWER, AND MECHANICAL CONNECTIONS TO BE EXPLOSION PROOF. PROVIDE CONDUIT SEAL OFFS ON ALL CONDUITS ENTERING THE AREA.

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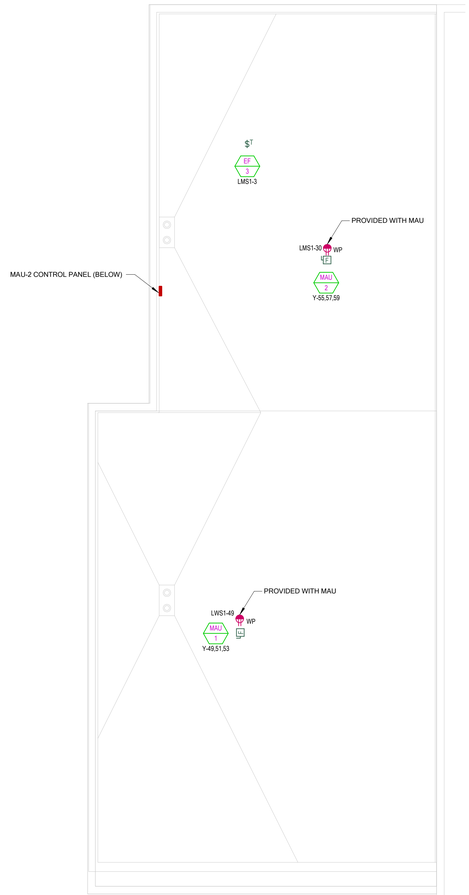
SHOP ADDITION MECHANICAL PLAN

E1.411



SHOP ADDITION MECHANICAL ROOF PLAN

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

SHEET KEYNOTES

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SHOP ADDITION MECHANICAL ROOF PLAN

E1.412

GENERAL SYSTEM SHEET NOTES

1. FIRE ALARM DEVICES SHOWN ARE FOR REFERENCE ONLY AND BASED UPON A PERFORMANCE SPECIFICATION. ALL NEW EQUIPMENT/DEVICE QUANTITIES, LOCATION, AND ALL NATIONAL & LOCAL CODE COMPLIANCE TO BE PROVIDED AND STAMPED BY A LICENSED FIRE ALARM ENGINEER AND INCLUDED IN THE FIRE ALARM CONTRACTORS BID. IN NO WAY ARE THE DEVICES SHOWN ON THESE DRAWINGS TO BE IMPLEMENTED AS FINAL DESIGN DOCUMENTS.
2. PROVIDE #14 AWG MINIMUM WIRING FOR ALL SIGNAL AND INITIATION DEVICES.
3. ALL BACK BOXES SHALL BE FLUSH MOUNTED UNLESS OTHERWISE NOTED. CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AND BACK BOXES IN POURED CONCRETE, PRECAST CONCRETE, MASONRY AND GYP WALLS.
4. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT QUANTITY AND LOCATIONS OF ALL FIRE SPRINKLER SYSTEM TAMPER AND FLOW SWITCHES WITH FIRE SPRINKLER DRAWINGS. CONNECT ALL TAMPER AND FLOW SWITCHES TO FIRE ALARM SYSTEM.
5. CONTRACTOR SHALL COORDINATE EXACT LOCATION AND QUANTITY OF ALL DUCT TYPE SMOKE DETECTORS WITH MECHANICAL CONTRACTOR. HARDWIRE TO RELAY STARTER.
6. PROVIDE FIRE ALARM AND ACCESS CONTROL INTERFACE TO UNLOCK ALL INDICATED LOCKS UPON ANY FIRE ALARM INITIATION.
7. ALL VISUAL DEVICES SHALL BE SYNCHRONIZED WITHIN THE BUILDING REGARDLESS OF PROJECT SCOPE BOUNDARIES.
8. PROVIDE FIRE ALARM RELAY MODULES FOR ALL DOORS WITH ACCESS CONTROL DEVICES.
9. PROVIDE (2) DUCT TYPE SMOKE DETECTOR FOR EACH FAN COIL UNIT, AHU, SUPPLY FAN AND HEAT PUMP OF 2000 CFM OR GREATER.
10. PROVIDE 120V CIRCUIT FROM THE NEAREST EQUIPMENT BRANCH PANELBOARD FOR FIRE/SMOKE DAMPER RELAYS AND/OR JUNCTIONS BOXES POWER J-BOXES PROVIDED THROUGHOUT PLANS, PROVIDE FIRE ALARM MODULES AND RELAYS AS NECESSARY FOR ALL FIRE/SMOKE DAMPERS SHOWN ON DIVISION 23 DRAWINGS. ALL FIRE/SMOKE DAMPERS SHALL HAVE A MANUAL OVERRIDE SWITCH, PROVIDE DUCT DETECTOR WITHIN 5-0" OF EACH FIRE/SMOKE DAMPER, REFER TO DIAGRAM D012.
11. ALL PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL TO MAINTAIN FIRE RATING OF SURFACE PENETRATED.

SHEET KEYNOTES

F1	PROVIDE CONNECTION FOR NEW HEAT DETECTOR. UPON ACTIVATION, HEAT DETECTOR WILL CLOSE OVERHEAD DOORS BETWEEN THE NEW AND EXISTING SHOP AREAS. RUN SIGNAL CONTROL THROUGH COMMAND MODULE LOCATED AT OVERHEAD DOOR MOTOR.
F2	PROVIDE 3/4" CONDUIT FROM MAIN TELECOM ROOM TO A STUB OUT FOR PLACEMENT OF CAMERAS BY THE SCHOOL DISTRICT. COORDINATE LOCATION WITH OWNER.
F3	PROVIDE EXPLOSION PROOF HORN STROBE.
F4	TIE MAGNETIC HOLD OPEN FOR DOORS TO EXISTING FIRE ALARM SYSTEM. RELEASE TO SHUT DOORS UPON FIRE ALARM SIGNAL

SHOP ADDITION SYSTEMS FLOOR PLAN

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

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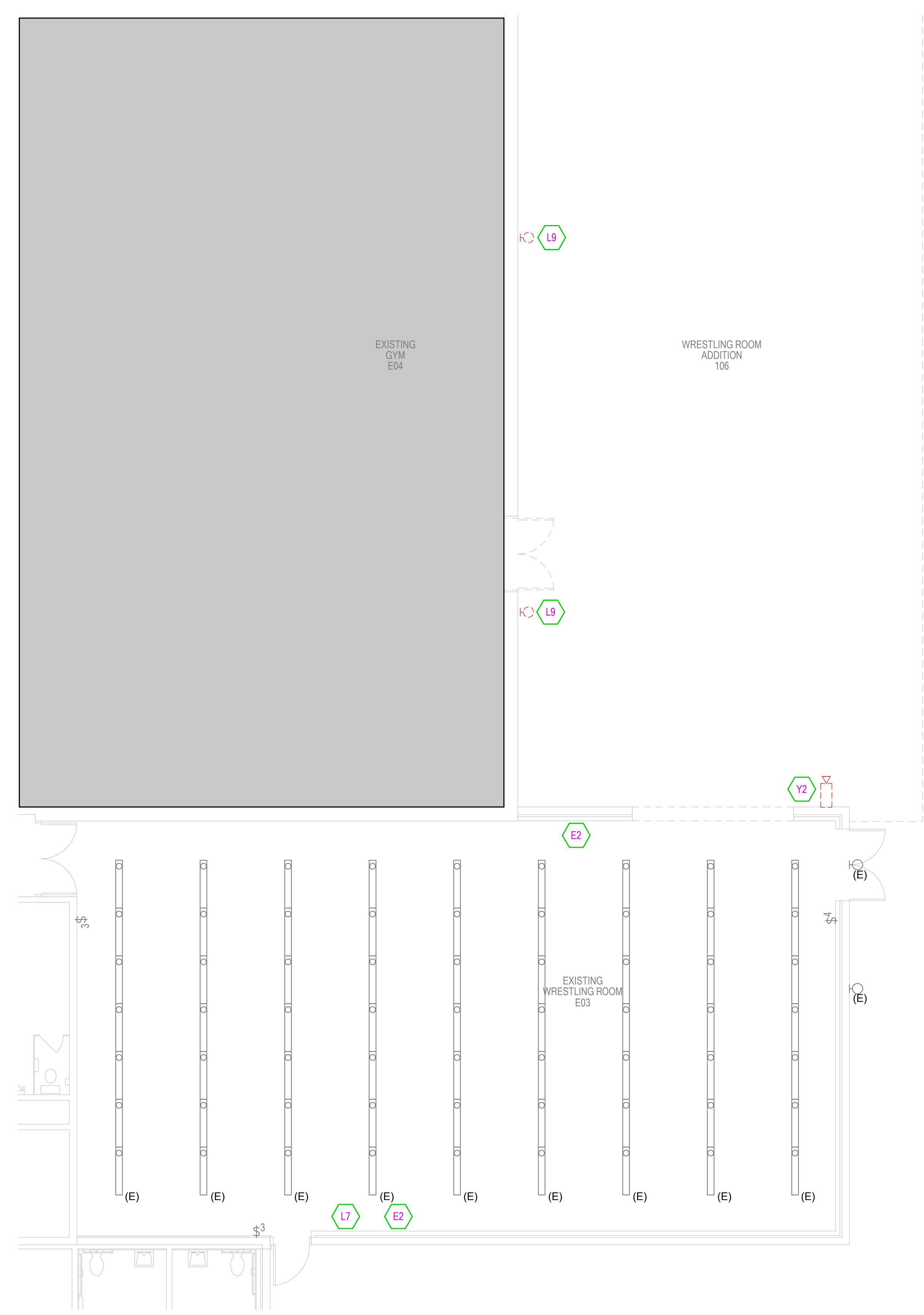
SHOP ADDITION SYSTEMS PLAN

E1.511



WRESTLING ADDITION DEMOLITION FLOOR PLAN ALTERNATE #1

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

GENERAL ELECTRICAL DEMOLITION NOTES

1. COORDINATE ALL NEW ELECTRICAL EQUIPMENT REQUIREMENTS AND MAKE CONNECTION TO EXISTING SYSTEMS. THIS INCLUDES LIGHTING, POWER, SIGNAL, RACEWAY AND OTHER SYSTEMS INCLUDED UNDER DIVISION 26 (16).
2. RELOCATE, REWIRE AND/OR RECONNECT EXISTING ELECTRICAL DEVICES AND/OR EQUIPMENT THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION.
3. CONCEAL ALL RACEWAY AND WIRING IN EXISTING WALLS, CEILING, FLOORS, ETC. EXCEPT WHERE THE USE OF SURFACE METAL RACEWAYS (E.G. WIRE MOLD) IS INDICATED ON DRAWINGS OR IN SPEC.
4. LEAVE ALL EXISTING EQUIPMENT, IN PORTION OF THE BUILDING NOT BEING REMODELLED, IN WORKING CONDITION. RESTORE ALL INTERRUPTED BRANCH CIRCUITS, FEEDERS, ETC. TO WORKING CONDITION.
5. EXISTING RACEWAYS MAYBE REUSED (IN PLACE) WHERE POSSIBLE, AND WHERE IN COMPLIANCE WITH THE SPECIFICATIONS AND THE INTENT OF THE CONTRACT DOCUMENTS. INSURE INTEGRITY OF EXISTING RACEWAY BEFORE REUSE.
6. REMOVE ALL RACEWAYS, CONDUCTORS, BOXES, DEVICES, EQUIPMENT, ETC. THAT ARE NOT TO BE REUSED.
7. REMOVE EXISTING LIGHT FIXTURES WHICH ARE NOT TO BE REUSED, PLACE IN CARTON, LABEL APPROPRIATELY, AND RETURN TO OWNER, OR PROPERLY DISPOSE OF FIXTURES THAT THE OWNER CHOOSES NOT TO KEEP.
8. DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOFS, ETC.
9. DISCONNECT AND RECONNECT ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. REQUIRED FOR PROPER COMPLETION OF THE WORK.
10. ALL DEMOLITION DEVICES ARE APPROCIMATE LOCATIONS. EXACT LOCATIONS NEED TO BE VERIFIED.
11. DIVISION 26 SHALL CONFIRM EXACT LOCATION OF EXISTING AND NEW EQUIPMENT WITH OWNERS. FIXTURE LOCATIONS ARE DIAGRAMMATICALLY SHOWN ON THE DRAWINGS. EXISTING ELECTRICAL FIXTURES, DEVICES, EQUIPMENT, CIRCUITING AND/OR CIRCUITING AND/OR CONDUITS ARE NOT SPECIFIED UNLESS NOTED ON DRAWINGS. FINAL ROUTING OF THE CONDUITS, CIRCUITING AND CABLING SHALL BE DETERMINED BY THE CONTRACTOR AND CLOSELY COORDINATED WITH OWNER. ALL EXISTING CONDITIONS MUST BE VERIFIED WITHOUT EXCEPTION. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING DEMOLITION DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.
12. DURING DEMOLITION AND NEW CONSTRUCTION, THE CONTINUATION OF BUILDING SYSTEMS MAY BE NECESSARY. TRACE AND IDENTIFY EXISTING ELECTRICAL SYSTEM (POWER, LIGHTING, FIRE ALARM AND SECURITY) WIRING IN AREAS PRIOR TO DEMOLITION, ELECTRICAL CONTRACTOR SHALL DISCONNECT ALL NECESSARY EQUIPMENT TO MAKE IT SAFE FOR DEMOLITION. WHERE LIVE CIRCUITS OR FEEDERS PASS THROUGH A REMODEL AREA, CONTRACTOR SHALL MAINTAIN ELECTRIC THROUGH. WHERE FEEDERS AND/OR BRANCH CIRCUITS FEED BOTH LOADS IN A REMODELED AREA AND OUTSIDE OF A REMODELED AREA, CONTRACTOR SHALL DISCONNECT AND REMOVE PORTIONS OF THE ELECTRICAL BRANCH CIRCUITS AND/OR FEEDERS WITHIN THE REMODELED AREA AND REWORK BRANCH CIRCUITS AND/OR FEEDERS TO MAINTAIN ELECTRICAL CONTINUITY TO LOADS OUTSIDE OF THE REMODELED AREA.
13. DEVICES AND EQUIPMENT TO BE DEMOLISHED SHALL BE REMOVED, INCLUDING ALL RELATED CONDUCTORS, RACEWAY, JUNCTION AND SPLICE BOXES UP TO THE PANELBOARD/SWITCHBOARD. ALL CONDUITS AND BOXES THAT ARE SURFACE MOUNTED AND NO LONGER REQUIRE ACTIVE CIRCUITS SHALL BE COMPLETELY REMOVED. DEVICES TO BE REMOVED ON DRYWALL OR PLASTER TYPE WALLS THAT ARE TO REMAIN SHALL HAVE THE WALL SURFACE PATCHED TO MATCH THE EXISTING FINISH. THE CONTRACTOR SHALL IDENTIFY ALL DEMOLISHED AND ABANDONED BRANCH CIRCUITS. THESE SHALL BE NOTED AS SPARE ON PANELBOARD SCHEDULES. THIS INCLUDES IDENTIFYING EXISTING ABANDONED AND SPARE CIRCUITS THAT ARE CURRENTLY IDENTIFIED AS USED. THE CONTRACTOR SHALL FURNISH NEW TYPED DIRECTORIES FOR ALL PANELBOARDS.
14. THE OWNER HAS THE RIGHT TO RETAIN ALL SALVAGEABLE MATERIAL. ANY MATERIAL THE OWNER CHOOSES NOT TO ACCEPT SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR.
15. FULLY COORDINATE MECHANICAL EQUIPMENT ELECTRICAL CONNECTION REMOVAL AND RELOCATION WITH THE MECHANICAL CONTRACTOR.
16. CONTRACTOR TO VERIFY THAT ALL EXISTING EQUIPMENT THAT IS TO REMAIN, BE REMOVED AND RE-INSTALLED ARE IN WORKING CONDITIONS. CONTRACTOR IS TO PROVIDE OWNER WRITTEN DOCUMENTATION OF ANY ITEMS NOT IN WORKING CONDITION PRIOR TO COMMENCING WORK IN AN AREA.
17. CONTRACTOR IS TO PROTECT IN PLACE ALL MECHANICAL, PLUMBING, ELECTRICAL ABOVE CEILINGS. THIS MAY INCLUDE BUT NOT LIMITED TO: NETWORK CABLING, COAX CABLING, CONDUITS, PIPING, DUCTWORK, ETC. PROVIDE ADDITIONAL CABLING SUPPORTS AS REQUIRED FOR ANY UNSUPPORTED CABLING, RACEWAY, ETC.
18. WHERE DEVICES OR EQUIPMENT IS TO BE RELOCATED, CONTRACTOR SHALL EXTEND EXISTING CIRCUITING TO NEW LOCATION. ENSURE CIRCUIT CONTINUITY FOR OTHER DEVICES OR EQUIPMENT ON THE SAME BRANCH CIRCUIT.
19. WHERE FLOORS ARE BEING REMOVED AND/OR REPLACED, CONTRACTOR SHALL PROTECT ELECTRICAL FEEDERS AND BRANCH CIRCUITS WHICH ARE EITHER TO REMAIN PERMANENTLY OR UNTIL DEMOLITION IN FUTURE PHASING WHILE STRUCTURAL WORK IS PERFORMED. PROVIDE ALL NECESSARY LABOR AND MATERIALS TO PERFORM WORK AS COORDINATED WITH THE CONSTRUCTION MANAGER.
20. ANY FIRE ALARM DEVICE(S) REMOVED DURING DEMOLITION ARE REQUIRED TO BE RELOCATED IN THE LOCATION NECESSARY TO PROVIDE COVERAGE PER NFPA 72, AND CIRCUITED SAME AS BEFORE. FIRE ALARM DEVICE(S) ARE NOT ALLOWED TO BE LOCATED CENTER OF ANY ROOM OR SPACE. IF MORE FIRE ALARM DEVICES ARE REQUIRED CONTRACTOR SHALL PROVIDE THEM COMPLETELY, REFER TO SHEET E401 FOR MORE INFORMATION.
21. SEE NEW SYSTEMS SHEETS FOR NEW FIRE ALARM INFORMATION. REMOVE EXISTING FIRE ALARM DEVICE (S) AS NECESSARY FOR REMOVAL OF CEILING SYSTEM. RE-INSTALL ONCE NEW CEILING IS INSTALLED.
22. REMOVE VOICE/DATA CABLING BACK TO DATA ROOM UNLESS NOTED OTHERWISE.
23. PROVIDE BLANK COVERPLATE ON ALL EXISTING BOXES LOCATED IN MASONRY THAT ARE NOT BEING RE-USED, PROVIDE BLANK COVERPLATE ON ALL UNUSED BOXES.
24. COORDINATE THE DEMOLITION, PATCH, AND REPAIR OF CEILING FOR ALL LIGHTING AND ELECTRICAL APPARATUSES IN THIS AREA. DISCONNECT AND RE-CONNECT AS REQUIRED TO MAINTAIN ALL SYSTEMS.
25. KEEP CLASSROOM SYSTEMS TOGETHER, LOUDSPEAKERS, AMPLIFIERS, IR SENSORS, NUMBER THEY ARE REMOVED FROM. BOX EACH LOCATION IN SEPARATE BOXES AND LABEL WITH CLASSROOM NUMBER PRIOR TO RETURNING TO OWNER.
26. DEVICES NOTED WITH SUBSCRIPT '(E)' DENOTES THE DEVICES ARE EXISTING AND TO REMAIN UNTOUCHED DURING DEMOLITION, UNLESS OTHERWISE NOTED.
27. DEVICES NOTED WITH SUBSCRIPT '(E)' DENOTES THE DEVICES ARE EXISTING AND TO REMAIN REMOVE AND REINSTALL DEVICES AND NOTED OR AS REQUIRED FOR CONSTRUCTION.
28. CIRCUIT #S, IF SHOWN, ARE FROM RECORD DRAWING AND SHOWN FOR REFERENCE ONLY. VERIFY EXISTING CONDITIONS PRIOR TO WORK.
29. DEVICES SHOWN WITH RED HATCH ARE TO BE DEMOLISHED.

SHEET KEYNOTES

E2	EXISTING CLOCK AND INTERCOMM, PLEASE REPLACE EXISTING INTERCOM SPEAKER WITH NEW DEVICE. REFER TO AV PLANS FOR MORE INFORMATION.
L7	REMOVE EXISTING LIGHT FIXTURES AND REUSE EXISTING CIRCUIT FOR NEW LIGHT FIXTURES.
L9	ALL LIGHTING, POWER, AND MECHANICAL CONNECTIONS TO BE EXPLOSION PROOF. PROVIDE CONDUIT SEAL OFFS ON ALL CONDUITS ENTERING THE AREA.
Y2	REMOVE AND RELOCATE EXISTING SECURITY CAMERA TO NEW EXTERIOR OF BUILDING. COORDINATE THE EXACT PLACEMENT WITH THE OWNER PRIOR TO ROUGH-IN. ALSO, RELOCATE THE EXISTING SPRINGLKER CONTROL HUB TO NEW EXTERIOR WALL. ENSURE A COMPLETE AND WORKING SYSTEM.

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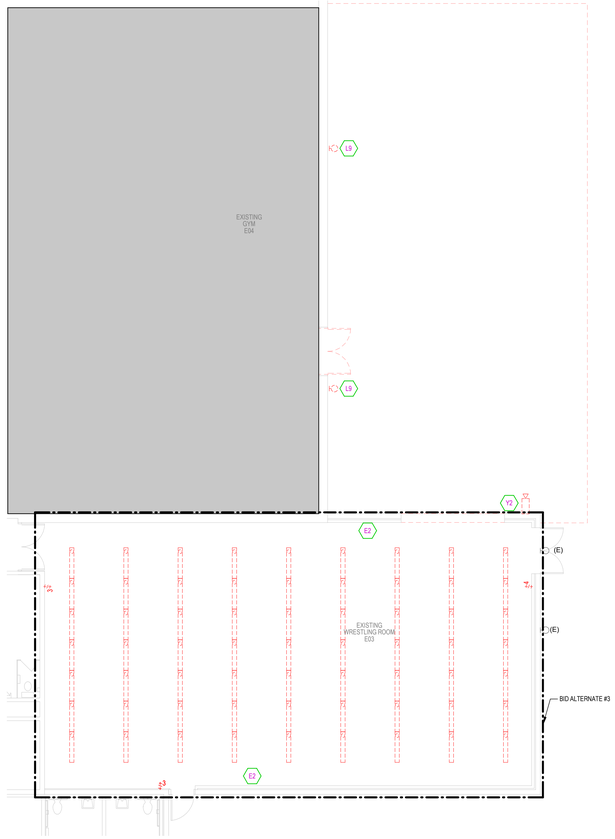
DRAWING BID DOCUMENTS
ISSUE DECEMBER 9, 2024
NWL 24310

DATE REVISION

PROJECT FOR
THE SOUTH SANPETE SCHOOL DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

WRESTLING ADDITION DEMOLITION FLOOR PLAN ALT-#1

E2.111



WRESTLING DEMOLITION FLOOR PLAN ALTERNATE #3

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

GENERAL ELECTRICAL DEMOLITION NOTES

1. COORDINATE ALL NEW ELECTRICAL EQUIPMENT REQUIREMENTS AND MAKE CONNECTION TO EXISTING SYSTEMS. THIS INCLUDES LIGHTING, POWER, SIGNAL, RACEWAY AND OTHER SYSTEMS INCLUDED UNDER DIVISION 26 (16).
2. RELOCATE, REWIRE AND/OR RECONNECT EXISTING ELECTRICAL DEVICES AND/OR EQUIPMENT THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION.
3. CONCEAL ALL RACEWAY AND WIRING IN EXISTING WALLS, CEILING, FLOORS, ETC. EXCEPT WHERE THE USE OF SURFACE METAL RACEWAYS (E.G. WIRE MOLD) IS INDICATED ON DRAWINGS OR IN SPEC.
4. LEAVE ALL EXISTING EQUIPMENT, IN PORTION OF THE BUILDING NOT BEING REMODELLED, IN WORKING CONDITION. RESTORE ALL INTERRUPTED BRANCH CIRCUITS, FEEDERS, ETC. TO WORKING CONDITION.
5. EXISTING RACEWAYS MAYBE REUSED (IN PLACE) WHERE POSSIBLE, AND WHERE IN COMPLIANCE WITH THE SPECIFICATIONS AND THE INTENT OF THE CONTRACT DOCUMENTS. INSURE INTEGRITY OF EXISTING RACEWAY BEFORE REUSE.
6. REMOVE ALL RACEWAYS, CONDUCTORS, BOXES, DEVICES, EQUIPMENT, ETC. THAT ARE NOT TO BE REUSED.
7. REMOVE EXISTING LIGHT FIXTURES WHICH ARE NOT TO BE REUSED, PLACE IN CARTON, LABEL APPROPRIATELY, AND RETURN TO OWNER, OR PROPERLY DISPOSE OF FIXTURES THAT THE OWNER CHOOSES NOT TO KEEP.
8. DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOFS, ETC.
9. DISCONNECT AND RECONNECT ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. REQUIRED FOR PROPER COMPLETION OF THE WORK.
10. ALL DEMOLITION DEVICES ARE APPROCIMATE LOCATIONS. EXACT LOCATIONS NEED TO BE VERIFIED.
11. DIVISION 26 SHALL CONFIRM EXACT LOCATION OF EXISTING AND NEW EQUIPMENT WITH OWNERS. FIXTURE LOCATIONS ARE DIAGRAMMATICALLY SHOWN ON THE DRAWINGS. EXISTING ELECTRICAL FIXTURES, DEVICES, EQUIPMENT, CIRCUITING AND/OR CIRCUITING AND/OR CONDUITS ARE NOT SPECIFIED UNLESS NOTED ON DRAWINGS. FINAL ROUTING OF THE CONDUITS, CIRCUITING AND CABLING SHALL BE DETERMINED BY THE CONTRACTOR AND CLOSELY COORDINATED WITH OWNER. ALL EXISTING CONDITIONS MUST BE VERIFIED WITHOUT EXCEPTION. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING DEMOLITION DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.
12. DURING DEMOLITION AND NEW CONSTRUCTION, THE CONTINUATION OF BUILDING SYSTEMS MAY BE NECESSARY. TRACE AND IDENTIFY EXISTING ELECTRICAL SYSTEM (POWER, LIGHTING, FIRE ALARM AND SECURITY) WIRING IN AREAS PRIOR TO DEMOLITION. ELECTRICAL CONTRACTOR SHALL DISCONNECT ALL NECESSARY EQUIPMENT TO MAKE IT SAFE FOR DEMOLITION. WHERE LIVE CIRCUITS OR FEEDERS PASS THROUGH A REMODEL AREA, CONTRACTOR SHALL MAINTAIN ELECTRIC THROUGH. WHERE FEEDERS AND/OR BRANCH CIRCUITS FEED BOTH LOADS IN A REMODELED AREA AND OUTSIDE OF A REMODELED AREA, CONTRACTOR SHALL DISCONNECT AND REMOVE PORTIONS OF THE ELECTRICAL BRANCH CIRCUITS AND/OR FEEDERS WITHIN THE REMODELED AREA AND REWORK BRANCH CIRCUITS AND/OR FEEDERS TO MAINTAIN ELECTRICAL CONTINUITY TO LOADS OUTSIDE OF THE REMODELED AREA.
13. DEVICES AND EQUIPMENT TO BE DEMOLISHED SHALL BE REMOVED, INCLUDING ALL RELATED CONDUCTORS, RACEWAY, JUNCTION AND SPLICE BOXES UP TO THE PANELBOARD/SWITCHBOARD. ALL CONDUITS AND BOXES THAT ARE SURFACE MOUNTED AND NO LONGER REQUIRE ACTIVE CIRCUITS SHALL BE COMPLETELY REMOVED. DEVICES TO BE REMOVED ON DRYWALL OR PLASTER TYPE WALLS THAT ARE TO REMAIN SHALL HAVE THE WALL SURFACE PATCHED TO MATCH THE EXISTING FINISH. THE CONTRACTOR SHALL IDENTIFY ALL DEMOLISHED AND ABANDONED BRANCH CIRCUITS. THESE SHALL BE NOTED AS SPARE ON PANELBOARD SCHEDULES. THIS INCLUDES IDENTIFYING EXISTING ABANDONED AND SPARE CIRCUITS THAT ARE CURRENTLY IDENTIFIED AS USED. THE CONTRACTOR SHALL FURNISH NEW TYPED DIRECTORIES FOR ALL PANELBOARDS.
14. THE OWNER HAS THE RIGHT TO RETAIN ALL SALVAGEABLE MATERIAL. ANY MATERIAL THE OWNER CHOOSES NOT TO ACCEPT SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR.
15. FULLY COORDINATE MECHANICAL EQUIPMENT ELECTRICAL CONNECTION REMOVAL AND RELOCATION WITH THE MECHANICAL CONTRACTOR.
16. CONTRACTOR TO VERIFY THAT ALL EXISTING EQUIPMENT THAT IS TO REMAIN, BE REMOVED AND RE-INSTALLED ARE IN WORKING CONDITIONS. CONTRACTOR IS TO PROVIDE OWNER WRITTEN DOCUMENTATION OF ANY ITEMS NOT IN WORKING CONDITION PRIOR TO COMMENCING WORK IN AN AREA.
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21. SEE NEW SYSTEMS SHEETS FOR NEW FIRE ALARM INFORMATION. REMOVE EXISTING FIRE ALARM DEVICE (S) AS NECESSARY FOR REMOVAL OF CEILING SYSTEM. RE-INSTALL ONCE NEW CEILING IS INSTALLED.
22. REMOVE VOICE/DATA CABLING BACK TO DATA ROOM UNLESS NOTED OTHERWISE.
23. PROVIDE BLANK COVERPLATE ON ALL EXISTING BOXES LOCATED IN MASONRY THAT ARE NOT BEING RE-USED. PROVIDE BLANK COVERPLATE ON ALL UNUSED BOXES.
24. COORDINATE THE DEMOLITION, PATCH, AND REPAIR OF CEILING FOR ALL LIGHTING AND ELECTRICAL APPARATUSES IN THIS AREA. DISCONNECT AND RE-CONNECT AS REQUIRED TO MAINTAIN ALL SYSTEMS.
25. KEEP CLASSROOM SYSTEMS TOGETHER, LOUDSPEAKERS, AMPLIFIERS, IR SENSORS, NUMBER THEY ARE REMOVED FROM. BOX EACH LOCATION IN SEPARATE BOXES AND LABEL WITH CLASSROOM NUMBER PRIOR TO RETURNING TO OWNER.
26. DEVICES NOTED WITH SUBSCRIPT '(E)' DENOTES THE DEVICES ARE EXISTING AND TO REMAIN UNTOUCHED DURING DEMOLITION, UNLESS OTHERWISE NOTED.
27. DEVICES NOTED WITH SUBSCRIPT '(E)' DENOTES THE DEVICES ARE EXISTING AND TO REMAIN REMOVE AND REINSTALL DEVICES AND NOTED OR AS REQUIRED FOR CONSTRUCTION.
28. CIRCUIT #S, IF SHOWN, ARE FROM RECORD DRAWING AND SHOWN FOR REFERENCE ONLY. VERIFY EXISTING CONDITIONS PRIOR TO WORK.
29. DEVICES SHOWN WITH RED HATCH ARE TO BE DEMOLISHED.

SHEET KEYNOTES

E2	EXISTING CLOCK AND INTERCOMM. PLEASE REPLACE EXISTING INTERCOM SPEAKER WITH NEW DEVICE. REFER TO AV PLANS FOR MORE INFORMATION.
L9	ALL LIGHTING, POWER, AND MECHANICAL CONNECTIONS TO BE EXPLOSION PROOF. PROVIDE CONDUIT SEAL OFFS ON ALL CONDUITS ENTERING THE AREA.
Y2	REMOVE AND RELOCATE EXISTING SECURITY CAMERA TO NEW EXTERIOR OF BUILDING. COORDINATE THE EXACT PLACEMENT WITH THE OWNER PRIOR TO ROUGH-IN. ALSO, RELOCATE THE EXISTING SPRINGLKER CONTROL HUB TO NEW EXTERIOR WALL. ENSURE A COMPLETE AND WORKING SYSTEM.

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PROJECT FOR
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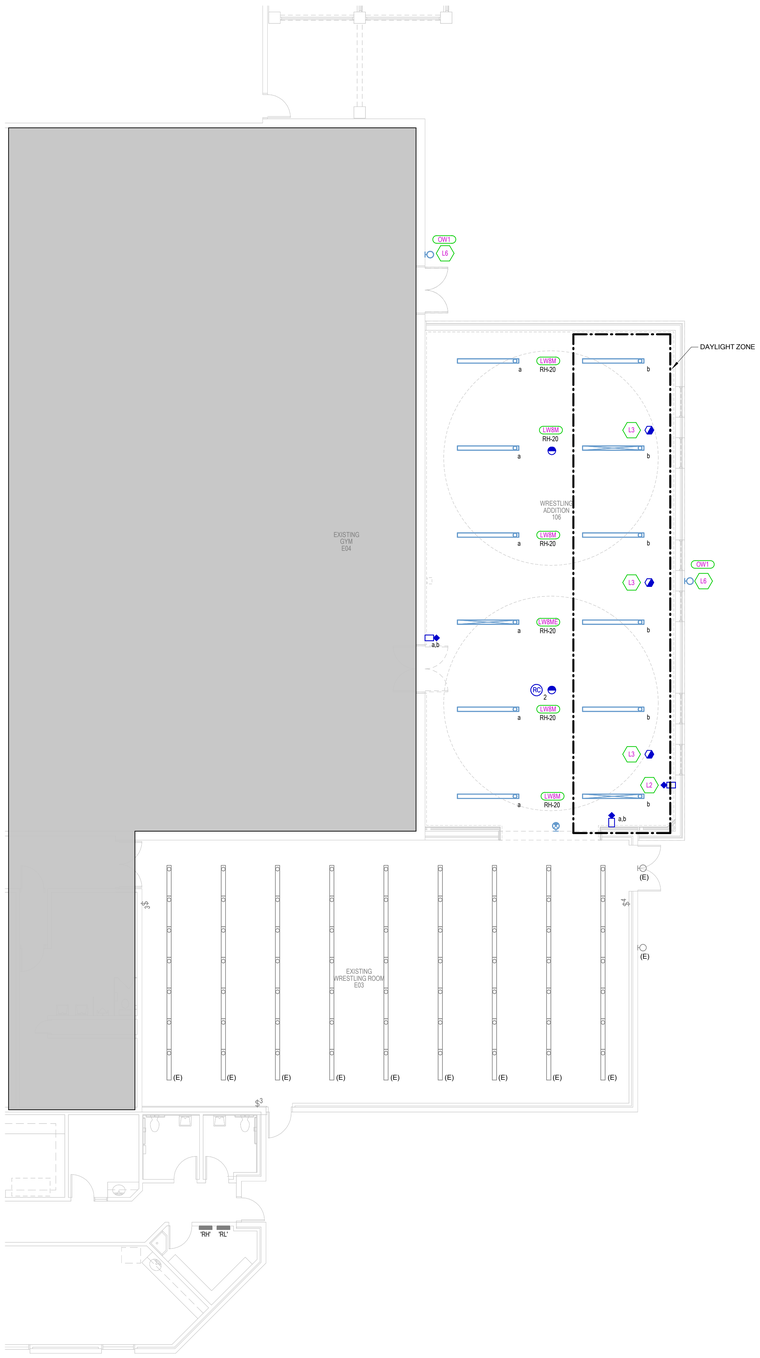
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

WRESTLING DEMOLITION FLOOR PLAN ALT - #3

E2.112



WRESTLING ADDITION LIGHTING PLAN ALTERNATE #1

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

SHEET KEYNOTES

L2	PROVIDE MANUAL OVERRIDE SWITCH FOR WINDOW SHADE CONTROL.
L3	PROVIDE DAYLIGHT SENSOR FOR MOTORIZED WINDOW SHADE CONTROL. PROVIDE ALL NECESSARY WIRING FROM SENSOR TO CENTRAL CONTROLLER TO WINDOW SHADES. REFER TO POWER PLANS FOR MORE INFORMATION.
L6	EXTEND POWER FROM EXISTING LOCATIONS AND TIE INTO THE EXISTING EXTERIOR CONTROLS FOR LIGHTING. MOUNT AT THE SAME HEIGHT AS THE OTHER EXTERIOR LIGHT FIXTURES. PROVIDE POWER AND CONTROLS FOR EXTERIOR FACADE FIXTURES FROM NEARBY EXISTING CIRCUITS. EXTEND EXISTING CONNECTIONS TO THE NEW LOCATIONS.

LIGHTING GENERAL SHEET NOTES

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ALL FIXTURE LOCATIONS WITHIN A CEILING OR CEILING GRID. FOR AREAS WITHOUT CEILINGS, FIXTURE LOCATIONS ARE DIAGRAMMATIC. THE INTENT IS TO ALIGN, CENTER, OR SPACE FIXTURES BETWEEN ARCHITECTURAL AND STRUCTURAL ELEMENTS. COORDINATE WITH PAINTING CONTRACTOR FOR PAINTING OF EXPOSED RACEWAY.
2. FIELD VERIFY EXACT FIXTURE LENGTHS FOR CONTINUOUS ILLUMINATION FOR COVES AND LINEAR RUNS. PROVIDE CONTINUOUS ILLUMINATION WITH NO MORE THAN A 1" GAP BETWEEN THE END OF THE EDGE OF THE WALL / CEILING AND THE FIXTURE.
3. ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR PLACEMENT OF FIXTURES WITHIN MECHANICAL ROOMS.
4. ALL ROOM CONTROLLERS AND/OR POWER PACKS SHALL BE INSTALLED IN THE CEILING SPACE DIRECTLY ABOVE THE ENTRY DOOR TO THE SPACE IT IS CONTROLLING.
5. ALL UNDERCABINET LIGHTS MUST BE COORDINATED WITH MILLWORK FOR EXACT LENGTHS. ALL UNDERCABINET LIGHTS SHALL BE COORDINATED WITH MILLWORK SHOP DRAWINGS.
6. PROVIDE 0-10V DIMMING CONDUCTORS FOR ALL AREAS AND/OR ROOMS WHERE 0-10V DIMMING IS INDICATED BY THE RELAY PANEL SCHEDULE AND/OR WALL STATION CONTROL SEQUENCE.
7. SUBSCRIPT ADJACENT TO LIGHT FIXTURE INDICATES CONTROLS, PROVIDE LIGHTING CONTROLS WITH THE REQUIRED NUMBER OF RELAY/DIMMERS. PROVIDE ADDITIONAL RELAY/DIMMERS FOR DAYLIGHT ZONES AS REQUIRED.
8. SEE CORRESPONDING LIGHTING DIAGRAMS FOR GENERAL INSTALLATION REQUIREMENTS, CONNECTIONS, AND CABLE TYPES.
9. PROVIDE UNSWITCHED NORMAL CIRCUIT HOT LEG TO ALL EMERGENCY POWER CONTROL DEVICES FOR PROPER POWER SENSING.
10. PROVIDE UNSWITCHED HOT AHEAD OF RELAY, OCCUPANCY SENSOR, OR SWITCH TO ALL EXIT SIGNS, IF SHOWN. SUBSCRIPT NEAR LIGHT FIXTURES INDICATES CONTROL INTENT. PROVIDE LIGHTING CONTROLLERS WITH THE REQUIRED NUMBER OF RELAYS/DIMMERS.
11. MANUFACTURER'S REPRESENTATIVE FOR DIVISION 26 AND BIDDING CONTROLS SHALL BE ACCOUNTABLE FOR THE COMPREHENSIVE LIGHTING CONTROLS PACKAGE'S FINALIZATION IN ALIGNMENT WITH THE DESIGN INTENT DEPICTED IN THE DRAWINGS AND COMPLYING WITH ECC 2021 REQUIREMENTS. THE LIGHTING REPRESENTATIVE IS REQUIRED TO DEVELOP DETAILED SHOP DRAWINGS DEMONSTRATING THE LIGHTING CONTROL SYSTEM'S TOPOLOGY AND THE ESSENTIAL CONNECTIONS NECESSARY FOR ITS PROPER FUNCTIONING, LIGHTING CONTROL DEVICES SHOWN ARE TO PROVIDE GENERAL INTENT ONLY. MANUFACTURERS REPRESENTATIVE TO PROVIDE ALL ADDITIONAL DEVICES AND MODIFY DEVICE LOCATIONS AS REQUIRED TO MEET ECC 2021 REQUIREMENTS.
12. PROVIDE ADDITIONAL RELAYS/DIMMERS FOR DAYLIGHT ZONES AS NEEDED. PROVIDE 0-10V DIMMING FOR ALL AREAS AND/OR ROOMS WHERE 0-10V DIMMING IS INDICATED BY THE WALLSTATION CONTROL SEQUENCE AND OR BY TYPE OF CONTROL INTERFACE SHOWN.
13. CAREFULLY COORDINATE FIXTURE PLACEMENT WITHIN BAFFLED CEILINGS, PENDANT MOUNTED FIXTURES SHALL BE MOUNTED AT THE SAME ELEVATION AS BAFFLES. COORDINATE WITH ARCHITECTURAL RCP AND DETAILS PRIOR TO ROUGHAN-IN.
14. PROVIDE CONDUIT FROM DEVICE TO DEVICE IN OPEN AND/OR EXPOSED CEILINGS, CEILINGS WITH CLOUDS ARE CONSIDERED OPEN/EXPOSED CEILINGS. NO EXPOSED CABLES SHALL BE SEEN FROM BELOW.
15. WHERE INDICATED ON FIXTURE SCHEDULE AND/OR PROVIDED BY THE FIXTURE MANUFACTURER, ALL REMOTE DRIVERS SHALL BE LOCATED IN THE NEAREST ACCESSIBLE CEILING. DIVISION 26 SHALL UPSIZE CONDUCTORS BETWEEN DRIVER AND FIXTURE(S) AS REQUIRED BY MANUFACTURER TO MAINTAIN AN ACCEPTABLE VOLTAGE DROP RANGE. DIVISION 26 TO DETERMINE FINAL LOCATION AND PROVIDE A DESIGNATION MARKER (GREEN DOT) AT THE CEILING TO ALLOW FOR EASY FUTURE MAINTENANCE.

LIGHTING SENSOR GENERAL NOTES

1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE SENSOR MANUFACTURER FOR PROPER PLACEMENT AND ADJUSTMENT OF OCCUPANCY SENSORS.
2. EACH ZONE SHALL HAVE COVERAGE BY OCCUPANCY SENSOR SUCH THAT NO BLIND SPOT EXIST.
3. UPON COMPLETION OF THE INSTALLATION, THE SYSTEM SHALL BE COMPLETELY COMMISSIONED BY THE MANUFACTURER'S FACTORY AUTHORIZED TECHNICIAN WHO WILL VERIFY ALL ADJUSTMENTS AND SENSOR PLACEMENT TO ENSURE A TROUBLE-FREE INSTALLATION.
4. THE LOCATION AND QUANTITIES OF SENSORS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE ONLY THE ROOMS WHICH ARE TO BE PROVIDED WITH SENSORS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ADDITIONAL SENSORS AS REQUIRED TO PROPERLY COVER THE RESPECTIVE ROOM.
5. PROVIDE DAYLIGHT ZONE CONTROL REQUIREMENTS PER IECC-2015 C405.2.2.3. LOCATE DAYLIGHT SENSOR(S) PER MANUFACTURER'S RECOMMENDATION AND WHERE REQUIRED WITHIN THE ROOM FOR PROPER COVERAGE.
6. PROVIDE OCCUPANCY SENSOR WITH AN ADDITIONAL SET OF DRY CONTACTS FOR HVAC CONTROL AT EACH VAV BOX LOCATION.

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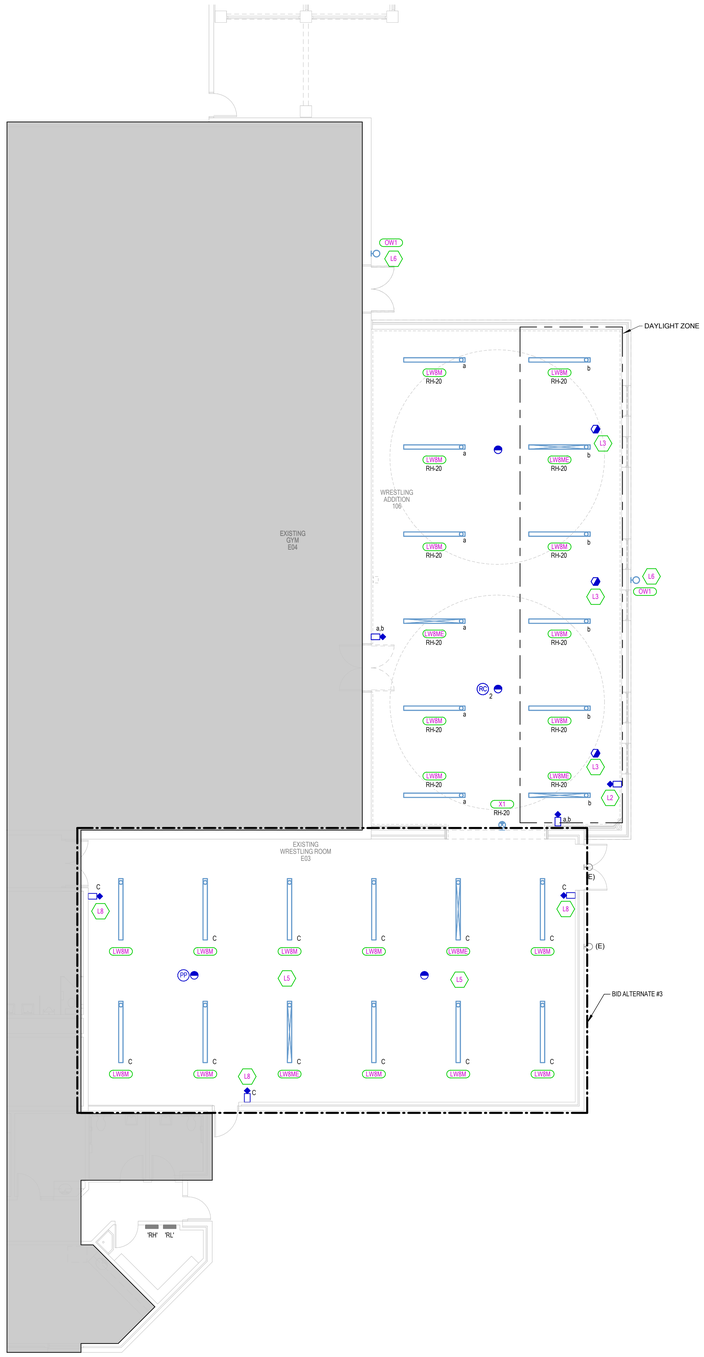
WRESTLING ADDITION LIGHTING PLAN ALT- #1

E2.211



WRESTLING ADDITION LIGHTING PLAN ALTERNATE #3

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

LIGHTING GENERAL SHEET NOTES

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ALL FIXTURE LOCATIONS WITHIN A CEILING OR CEILING GRID. FOR AREAS WITHOUT CEILINGS, FIXTURE LOCATIONS ARE DIAGRAMMATIC. THE INTENT IS TO ALIGN, CENTER, OR SPACE FIXTURES BETWEEN ARCHITECTURAL AND STRUCTURAL ELEMENTS. COORDINATE WITH PAINTING CONTRACTOR FOR PAINTING OF EXPOSED RACEWAY.
2. FIELD VERIFY EXACT FIXTURE LENGTHS FOR CONTINUOUS ILLUMINATION FOR COVES AND LINEAR RUNS. PROVIDE CONTINUOUS ILLUMINATION WITH NO MORE THAN A 1" GAP BETWEEN THE END OF THE EDGE OF THE WALL / CEILING AND THE FIXTURE.
3. ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR PLACEMENT OF FIXTURES WITHIN MECHANICAL ROOMS.
4. ALL ROOM CONTROLLERS AND/OR POWER PACKS SHALL BE INSTALLED IN THE CEILING SPACE DIRECTLY ABOVE THE ENTRY DOOR TO THE SPACE IT IS CONTROLLING.
5. ALL UNDERCABINET LIGHTS MUST BE COORDINATED WITH MILLWORK FOR EXACT LENGTHS. ALL UNDERCABINET LIGHTS SHALL BE COORDINATED WITH MILLWORK SHOP DRAWINGS.
6. PROVIDE 0-10V DIMMING CONDUCTORS FOR ALL AREAS AND/OR ROOMS WHERE 0-10V DIMMING IS INDICATED BY THE RELAY PANEL SCHEDULE AND/OR WALL STATION CONTROL SEQUENCE.
7. SUBSCRIPT ADJACENT TO LIGHT FIXTURE INDICATES CONTROLS, PROVIDE LIGHTING CONTROLS WITH THE REQUIRED NUMBER OF RELAY/DIMMERS. PROVIDE ADDITIONAL RELAY/DIMMERS FOR DAYLIGHT ZONES AS REQUIRED.
8. SEE CORRESPONDING LIGHTING DIAGRAMS FOR GENERAL INSTALLATION REQUIREMENTS, CONNECTIONS, AND CABLE TYPES.
9. PROVIDE UNSWITCHED NORMAL CIRCUIT HOT LEG TO ALL EMERGENCY POWER CONTROL DEVICES FOR PROPER POWER SENSING.
10. PROVIDE UNSWITCHED HOT AHEAD OF RELAY, OCCUPANCY SENSOR, OR SWITCH TO ALL EXIT SIGNS, IF SHOWN, SUBSCRIPT NEAR LIGHT FIXTURES INDICATES CONTROL INTENT. PROVIDE LIGHTING CONTROLLERS WITH THE REQUIRED NUMBER OF RELAYS/DIMMERS.
11. MANUFACTURER'S REPRESENTATIVE FOR DIVISION 26 AND BIDDING CONTROLS SHALL BE ACCOUNTABLE FOR THE COMPREHENSIVE LIGHTING CONTROLS PACKAGE'S FINALIZATION IN ALIGNMENT WITH THE DESIGN INTENT DEPICTED IN THE DRAWINGS AND COMPLYING WITH IECC 2021 REQUIREMENTS. THE LIGHTING REPRESENTATIVE IS REQUIRED TO DEVELOP DETAILED SHOP DRAWINGS DEMONSTRATING THE LIGHTING CONTROL SYSTEM'S TOPOLOGY AND THE ESSENTIAL CONNECTIONS NECESSARY FOR ITS PROPER FUNCTIONING. LIGHTING CONTROL DEVICES SHOWN ARE TO PROVIDE GENERAL INTENT ONLY. MANUFACTURERS REPRESENTATIVE TO PROVIDE ALL ADDITIONAL DEVICES AND MODIFY DEVICE LOCATIONS AS REQUIRED TO MEET ECC 2021 REQUIREMENTS.
12. PROVIDE ADDITIONAL RELAYS/DIMMERS FOR DAYLIGHT ZONES AS NEEDED. PROVIDE 0-10V DIMMING FOR ALL AREAS AND/OR ROOMS WHERE 0-10V DIMMING IS INDICATED BY THE WALLSTATION CONTROL SEQUENCE AND OR BY TYPE OF CONTROL INTERFACE SHOWN.
13. CAREFULLY COORDINATE FIXTURE PLACEMENT WITHIN BAFFLED CEILINGS, PENDANT MOUNTED FIXTURES SHALL BE MOUNTED AT THE SAME ELEVATION AS BAFFLES. COORDINATE WITH ARCHITECTURAL RCP AND DETAILS PRIOR TO ROUGHIN-IN.
14. PROVIDE CONDUIT FROM DEVICE TO DEVICE IN OPEN AND/OR EXPOSED CEILINGS. CEILINGS WITH CLOUDS ARE CONSIDERED OPEN/EXPOSED CEILINGS. NO EXPOSED CABLES SHALL BE SEEN FROM BELOW.
15. WHERE INDICATED ON FIXTURE SCHEDULE AND/OR PROVIDED BY THE FIXTURE MANUFACTURER, ALL REMOTE DRIVERS SHALL BE LOCATED IN THE NEAREST ACCESSIBLE CEILING, DIVISION 26 SHALL UPSIZE CONDUCTORS BETWEEN DRIVER AND FIXTURE(S) AS REQUIRED BY MANUFACTURER TO MAINTAIN AN ACCEPTABLE VOLTAGE DROP RANGE. DIVISION 26 TO DETERMINE FINAL LOCATION AND PROVIDE A DESIGNATION MARKER (GREEN DOT) AT THE CEILING TO ALLOW FOR EASY FUTURE MAINTENANCE.

LIGHTING SENSOR GENERAL NOTES

1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE SENSOR MANUFACTURER FOR PROPER PLACEMENT AND ADJUSTMENT OF OCCUPANCY SENSORS.
2. EACH ZONE SHALL HAVE COVERAGE BY OCCUPANCY SENSOR SUCH THAT NO BLIND SPOT EXIST.
3. UPON COMPLETION OF THE INSTALLATION, THE SYSTEM SHALL BE COMPLETELY COMMISSIONED BY THE MANUFACTURERS FACTORY AUTHORIZED TECHNICIAN WHO WILL VERIFY ALL ADJUSTMENTS AND SENSOR PLACEMENT TO ENSURE A TROUBLE-FREE INSTALLATION.
4. THE LOCATION AND QUANTITIES OF SENSORS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE ONLY THE ROOMS WHICH ARE TO BE PROVIDED WITH SENSORS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ADDITIONAL SENSORS AS REQUIRED TO PROPERLY COVER THE RESPECTIVE ROOM.
5. PROVIDE DAYLIGHT ZONE CONTROL REQUIREMENTS PER IECC-2015 C405.2.2.3. LOCATE DAYLIGHT SENSOR(S) PER MANUFACTURER'S RECOMMENDATION AND WHERE REQUIRED WITHIN THE ROOM FOR PROPER COVERAGE.
6. PROVIDE OCCUPANCY SENSOR WITH AN ADDITIONAL SET OF DRY CONTACTS FOR HVAC CONTROL AT EACH VAV BOX LOCATION.

SHEET KEYNOTES

L2	PROVIDE MANUAL OVERRIDE SWITCH FOR WINDOW SHADE CONTROL.
L3	PROVIDE DAYLIGHT SENSOR FOR MOTORIZED WINDOW SHADE CONTROL. PROVIDE ALL NECESSARY WIRING FROM SENSOR TO CENTRAL CONTROLLER TO WINDOW SHADES. REFER TO POWER PLANS FOR MORE INFORMATION.
L5	PROVIDE POWER FROM EXISTING LIGHTING CIRCUIT WITHIN THE SPACE.
L6	EXTEND POWER FROM EXISTING LOCATIONS AND TIE INTO THE EXISTING EXTERIOR CONTROLS FOR LIGHTING. MOUNT AT THE SAME HEIGHT AS THE OTHER EXTERIOR LIGHT FIXTURES. PROVIDE POWER AND CONTROLS FOR EXTERIOR FACADE FIXTURES FROM NEARBY EXISTING CIRCUITS. EXTEND EXISTING CONNECTIONS TO THE NEW LOCATIONS.
L8	PROVIDE NEW LIGHTING CONTROLS WITHIN SPACE.

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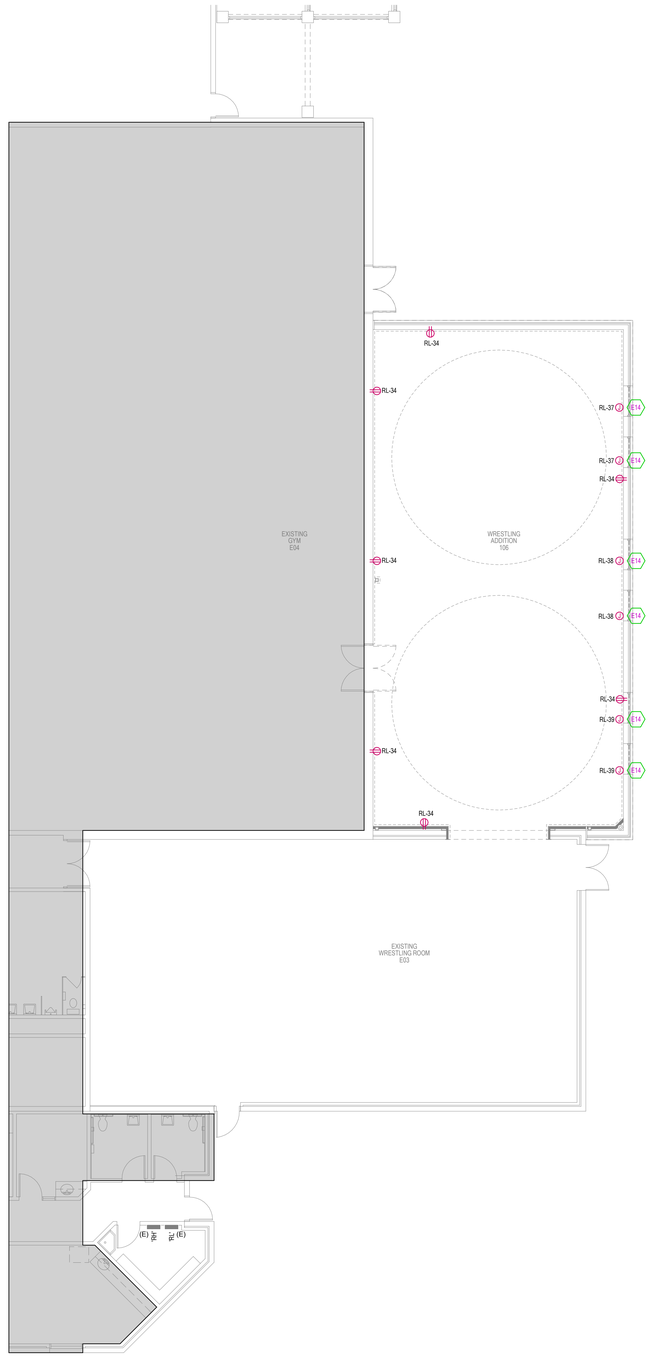
PROJECT FOR
THE SOUTH SANPETE SCHOOL
DISTRICT BOARD OF EDUCATION
39 SOUTH MAIN MANTI, UTAH 84642

WRESTLING ADDITION LIGHTING PLAN ALT. #3

E2.212



WRESTLING ADDITION POWER FLOOR PLAN ALTERNATE #1

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

POWER GENERAL SHEET NOTES

1. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL MECHANICAL UNITS WITH MECHANICAL CONTRACTOR.
2. CIRCUITS TO ALL MECHANICAL EQUIPMENT SHALL BE DEDICATED UNLESS NOTED OTHERWISE.
3. FOR VAV POWER, PROVIDE A DEDICATED 120V/20A CIRCUIT FROM A PANEL LOCATED IN THE ELECTRICAL ROOM OF THE ASSOCIATED QUADRANT. COORDINATE EXACT LOCATION OF ALL VAV BOXES WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
4. PROVIDE 120V CIRCUIT FROM THE NEAREST PANELBOARD FOR FIRE/SMOKE DAMPER RELAYS. PROVIDE FIRE ALARM MODULES AND RELAYS AS NECESSARY FOR ALL FIRE/SMOKE DAMPERS SHOWN ON DIVISION 23 DRAWINGS. ALL FIRE/SMOKE DAMPERS SHALL HAVE A MANUAL OVERRIDE SWITCH. PROVIDE DUCT DETECTOR WITHIN 5 FEET OF EACH FIRE/SMOKE DAMPER.
5. COORDINATE PLACEMENT OF ELECTRICAL DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN. WHERE DEVICES ARE SHOWN IN SAME WALL SPACE, ALIGN VERTICALLY AND HORIZONTALLY. COORDINATE WITH ARCHITECTURAL DRAWINGS, ATHLETIC SAFETY WALL PADDING AND CABINETRY DRAWINGS.
6. ALL THE LOW VOLTAGE WIRE/CABLE FOR LIGHTING SENSORS, AUDIO/VISUAL EQUIPMENT, SOUND AMPLIFICATION, ETC, TO BE ROUTED THROUGH CONDUIT IN EXPOSED AND CLOUDED CEILING AREAS.
7. ALL LOW VOLTAGE WIRE/CABLE FOR LIGHTING SENSORS, AUDIO/VISUAL EQUIPMENT, CLASSROOM SOUND AMPLIFICATION, ETC, TO BE PROPERLY SUPPORTED PER THE TELE/DATA SPEC, AND AT 5'-0" INTERVALS AND TO FOLLOW BUILDING STRUCTURAL LINES. PULLING WIRE DIAGONALLY ACROSS ROOMS IS NOT ALLOWED, USING CEILING SYSTEM OR LIGHT FIXTURE SUPPORT/SEISMIC WIRES FOR SUPPORT IS NOT ALLOWED.
8. PROVIDE GFC PROTECTION ON ALL DEVICES AND EQUIPMENT PER THE NEC REQUIREMENTS, DEVICES SHALL BE READILY ACCESSIBLE, IF ANY OUTLET IS INSTALLED WITHIN 6 FEET OF OUTSIDE EDGE OF SINK, CONTRACTOR SHALL PROVIDE GFCI RECEPTACLE PER NEC, WHETHER SHOWN OR NOT.
9. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL MECHANICAL UNITS WITH MECHANICAL CONTRACTOR, CIRCUITS TO ALL MECHANICAL EQUIPMENT SHALL BE DEDICATED UNLESS NOTED OTHERWISE.
10. FOR VAV POWER, PROVIDE A DEDICATED 120V/20A CIRCUIT FROM A PANEL LOCATED IN THE ELECTRICAL ROOM OF THE ASSOCIATED QUADRANT, COORDINATE EXACT LOCATION OF ALL VAV BOXES WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
11. PROVIDE 120V CIRCUIT FROM NEAREST PROVIDED CIRCUIT FOR FIRE/SMOKE DAMPER RELAYS. PROVIDE FIRE ALARM MODULES AND RELAYS AS NECESSARY FOR ALL FIRE/SMOKE DAMPERS SHOWN ON DIVISION 23 DRAWINGS. ALL FIRE/SMOKE DAMPERS SHALL HAVE A MANUAL OVERRIDE SWITCH, PROVIDE DUCT DETECTOR WITHIN 5 FEET OF EACH FIRE/SMOKE DAMPER.
12. CONTRACTOR TO COORDINATE ALL LOCATIONS OF FIRE/SMOKE AND SMOKE DAMPERS WITH MECHANICAL CONTRACTOR. CONTRACTOR TO PROVIDE POWER, MONITOR MODULES, AND RELAYS AS REQUIRED FOR A COMPLETE SYSTEM.
13. DIVISION-26 IS RESPONSIBLE TO PROVIDE CONDUIT AND ROUGH-IN FOR ALL THERMOSTAT CONTROLS LOCATED WITH WALLS. COORDINATE WITH THE CONTROLS CONTRACTOR AND VERIFY EXCAT LOCATION OF ALL THERMOSTATS.
14. DEVICES NOTED WITH SUBSCRIPT '(E)' DENOTES THE DEVICES ARE EXISTING AND TO REMAIN UNTOUCHED DURING DEMOLITION, UNLESS OTHERWISE NOTED.
15. CIRCUIT #S, IF SHOWN, ARE FROM RECORD DRAWING AND SHOWN FOR REFERENCE ONLY. VERIFY EXISTING CONDITIONS PRIOR TO WORK.

SHEET KEYNOTES

E14	PROVIDE POWER FOR MOTORIZED WINDOW SHADES. 120V, 2A CONNECTION. PROVIDE CONTROLS VIA DAYLIGHTING SENSORS SHOWN ON LIGHTING PLANS. ALSO PROVIDE MANUAL OVERRIDE CONTROLS ON A LOCAL WALL STATION. COORDINATE EXACT REQUIREMENTS WITH WINDOW SHADE SHOP DRAWINGS.

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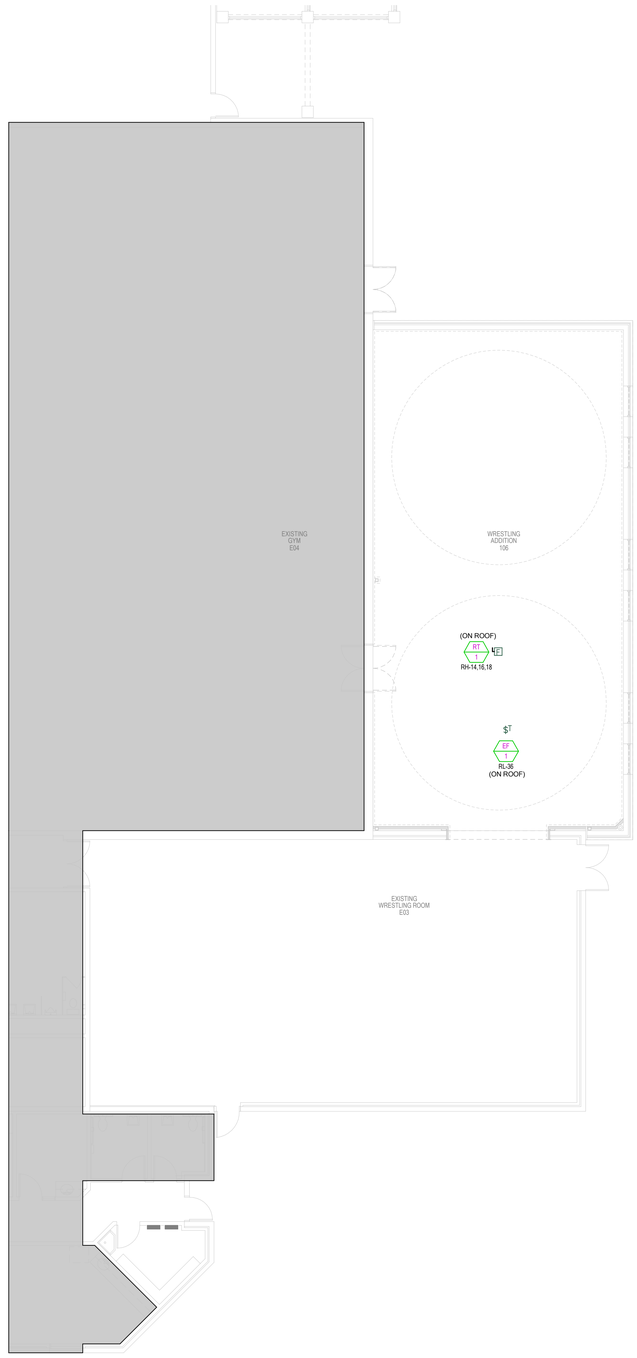
39 SOUTH MAIN MANTI, UTAH 84642

WRESTLING ADDITION POWER FLOOR PLAN ALT - #1

E2.311

SHEET KEYNOTES



WRESTLING ADDITION MECHANICAL
FLOOR PLAN BID ALTERNATE #1
SCALE = 1/8" = 1'-0"

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WRESTLING
ADDITION
MECHANICAL
PLAN

E2.411

E
D
C
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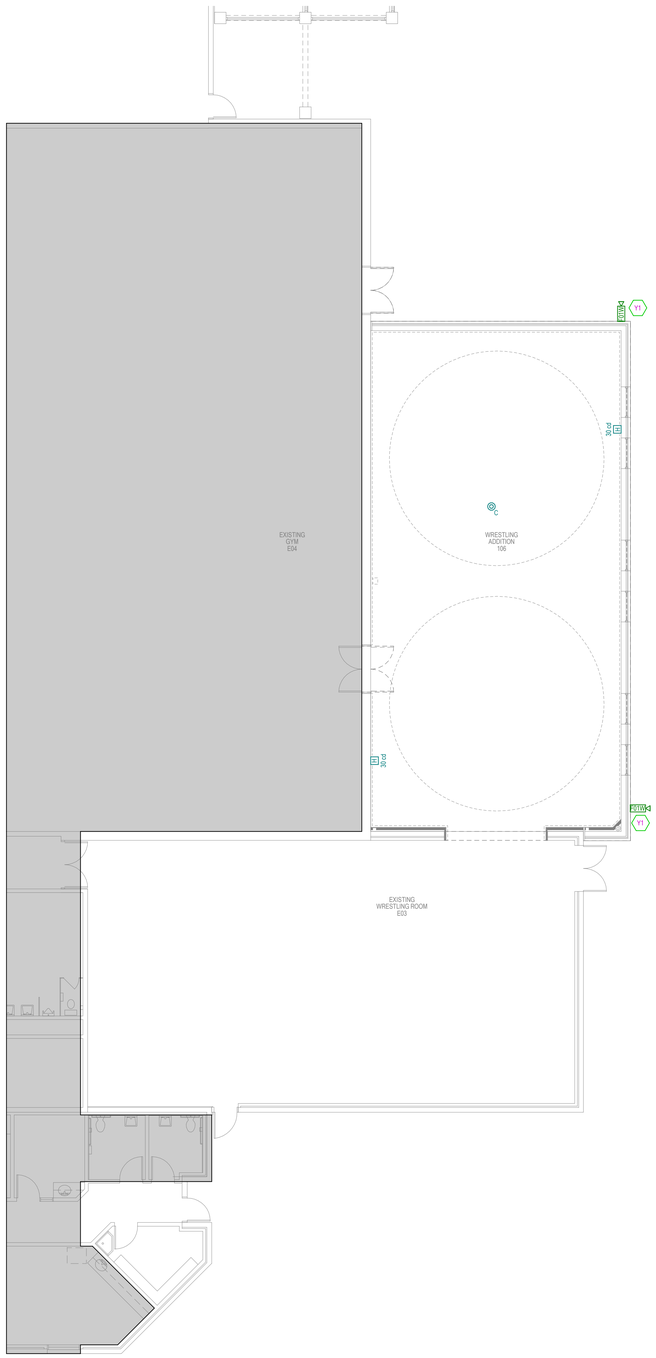
1 2 3 4 5 6



WRESTLING ADDITION SYSTEMS
FLOOR PLAN BID ALTERNATE #1
SCALE = 1/8" = 1'-0"

SHEET KEYNOTES

Y1 PROVIDE A STUB OUT FOR PLACEMENT OF CAMERAS BY DISTRICT. COORDINATE LOCATION WITH OWNER.

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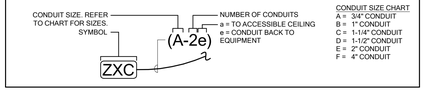
WRESTLING ADDITION SYSTEMS PLAN

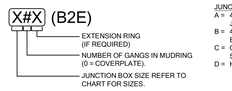
E2.511

CONDUIT SCHEDULE LEGEND:



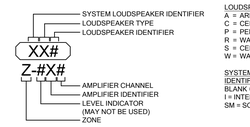
CONDUIT SIZE CHART
A = 3/4" CONDUIT
B = 1" CONDUIT
C = 1-1/4" CONDUIT
D = 1-1/2" CONDUIT
E = 2" CONDUIT
F = 4" CONDUIT

ROUGH-IN JUNCTION BOX LEGEND:



JUNCTION BOX SIZE
A = 4" SQ. 2-1/8" DEEP JUNCTION BOX
B = 4-11/16" SQ. JUNCTION BOX
C = CUSTOM JUNCTION BOX, SEE SCHEDULE FOR SIZE
D = HUBBELL - HBL2620/HBL985

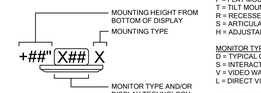
LOUDSPEAKER LEGEND:



LOUDSPEAKER TYPES
A = ARRAY, CABINET, CLUSTER
C = CEILING RECESSED
P = PENDANT MOUNTED
R = WALL RECESSED
S = CEILING SURFACE MOUNTED
W = WALL SURFACE MOUNTED

SYSTEM LOUDSPEAKER IDENTIFIER
BLANK = SYSTEM SPECIFIC
I = INTERCOM SYSTEM
SM = SOUND MASKING SYSTEM

FLAT PANEL MONITOR LEGEND:

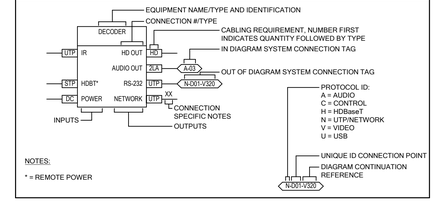


MOUNT TYPES
CLG = CEILING (POLE) MOUNT
F = FLAT MOUNT
T = TILT MOUNT
R = RECESSED MOUNT
S = ARTICULATING MOUNT
H = ADJUSTABLE HEIGHT MOUNT*

MONITOR TYPES
D = TYPICAL COMMERCIAL GRADE
S = INTERACTIVE COMMERCIAL GRADE
V = VIDEO WALL (SLIM BEZEL)
L = DIRECT VIEW LED PRODUCT

* HEIGHT INDICATED IS THE MAX HEIGHT, MOUNT SHALL ADJUST DOWN

SIGNAL FLOW LEGEND:



NOTES:

* = REMOTE POWER

CABLING GROUPS AND CONDUIT SEPARATION SCHEDULE

AUDIO AND VIDEO WIRING TYPES:

AUDIO AND VIDEO SYSTEM WIRING IS DIVIDED INTO WIRING GROUPS ACCORDING TO THEIR NOMINAL LEVELS:

GROUP	WIRING TYPE
GROUP 1	FIBER OPTIC CABLE
GROUP 2	O mV TO 100 mV SIGNALS, EXAMPLE: MICROPHONE LEVEL SIGNAL
GROUP 3	100 mV TO 10 V SIGNALS, EXAMPLE: LINE-LEVEL SIGNAL
GROUP 4	10 V TO 70 V SIGNALS, EXAMPLE: SPEAKER LEVEL SIGNAL
GROUP 5	CONTROL, DIGITAL CIRCUITS, DATA AND VIDEO

NOTE: GROUPS LISTED ABOVE SHALL NEVER BE COMBINED WITHIN THE SAME CONDUIT

AUDIO AND VIDEO CONDUIT SEPARATION

MINIMUM CONDUIT SEPARATION BETWEEN CONDUITS CARRYING WIRING OF DIFFERENT AUDIO AND VIDEO GROUPS IS AS FOLLOWS:

GROUP	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5
GROUP 1	ADJACENT	ADJACENT	ADJACENT	ADJACENT	ADJACENT
GROUP 2	ADJACENT	ADJACENT	6"	12"	12"
GROUP 3	ADJACENT	6"	ADJACENT	12"	6"
GROUP 4	ADJACENT	12"	12"	ADJACENT	6"
GROUP 5	ADJACENT	12"	6"	6"	ADJACENT

NOTE: NINETY DEGREE CROSSING IN CLOSE PROXIMITY IS PERMITTED.

ELECTRICAL CONDUIT SEPARATION

MINIMUM CONDUIT SEPARATION BETWEEN CONDUITS CARRYING AUDIO AND VIDEO WIRING AND OTHER ELECTRICAL SERVICE CONDUIT IS AS FOLLOWS:

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5
277/480V AC CIRCUIT	ADJACENT	24"	24"	24"	24"
120/208V AC CIRCUIT	ADJACENT	24"	12"	12"	24"

NOTE: CONDUITS SHALL NOT RUN MORE THAN 20 FEET IN PARALLEL WITHIN THE GIVEN DISTANCES ABOVE.

AUDIOVISUAL CABLE AND CONDUIT SCHEDULE

NOTES:

1. APPROVED EQUALS FROM OTHER MANUFACTURERS ARE BELDEN, GEPCO/GENERAL, ICE, KRAMER, EXTRON, CRESTRON, LIBERTY CABLE, AND WINDY CITY WIRE.
2. PROVIDE PLENUM RATED CABLES IN ANY "AIR HANDLING" SPACES E.G. ABOVE CEILINGS, RAISED FLOORS, CHASES, ETC.
3. CABLE QUANTITY INDICATED ON DRAWINGS SHOWS ON FINAL RUN. IF NOT NOTED PROVIDE CABLING FOR SINGLE DEVICE.
4. CONDUIT REQUIREMENTS SHOWN ARE MINIMUM CONDUIT SIZE REQUIRED FOR A SINGLE CABLE, UNLESS OTHERWISE NOTED ON DRAWINGS. NUMBER OF CABLES LISTED IS THE MAXIMUM AMOUNT ALLOWED FOR CONDUIT SIZE INDICATED.
5. WHEN COMBINING CABLE TYPES OF THE SAME GROUP, THE TYPE WITH THE LARGEST CONDUIT REQUIREMENT DICTATES CONDUIT SIZE.
6. PROVIDE ON ALL HDMI CABLES LONGER THAN 35' OR WITH MORE THAN (3) CONNECTION POINTS (1) ACTIVE HDMI EXTENSION DEVICE.
7. ALL CATEGORY CABLE SHALL BE TESTED AND CERTIFIED TO ANSI/TIA/EIA-568C AND IEEE 802.3an STANDARDS USING A LEVEL IIIe TESTER.
8. REFER TO SPECIFICATIONS FOR STP CABLE REQUIREMENTS. ALL UNSHIELDED (UTP) CATEGORY CABLES WITHIN THE PROJECT SHALL BE SUPPLIED FROM A SINGLE MANUFACTURER AND MATCH MAKE/MODEL.
9. HDMI CABLES ARE INTENDED TO PASS 4K 60 4:4:4 FROM SOURCE TO DESTINATION. CONTRACTOR TO VERIFY THE LENGTH OF ALL CABLES USED MEET THIS REQUIREMENT.

* INDICATES DEFAULT CABLE IF MANUFACTURER DOES NOT RECOMMEND A SPECIFIC CABLE.
** INDICATES DEFAULT CABLE IF HORIZONTAL CABLING IS EXCLUDED FROM THE PROJECT AND NOT OWNER PROVIDED.

CABLE TYPE	DESCRIPTION	CONDUIT REQUIREMENTS	MANUFACTURER	MODEL NUMBER	CABLE GROUP
(#)AT	ANTENNA, COAXIAL RG8X	1" CONDUIT = (7) CABLES 1 1/2" CONDUIT = (12) CABLES	WEST PENN	807 *	5
(#)CT	CONTROL, 2/22 SHIELDED, 2/18 UNSHIELDED	1" CONDUIT = (7) CABLES 1 1/4" CONDUIT = (12) CABLES	WEST PENN	77350 * D25350 (P) *	5
(#)HD	HDMI < 20', ULTRA FLEXIBLE	1 1/4" CONDUIT = (1) CABLES 2" CONDUIT = (3) CABLES	EXTRON CRESTRON	HDMI ULTRA/## CBL-HD-##	5
(#)HD	HDMI > 20'	1 1/4" CONDUIT = (1) CABLES 2" CONDUIT = (3) CABLES	EXTRON KRAMER	HDMI PRO P/XX CP-HM/HM/ETH (P)	5
(#)LA (#)MA	LINE LEVEL, 22 AWG MICROPHONE, 22 AWG	1" CONDUIT = (23) CABLES 1 1/2" CONDUIT = (77) CABLES	WEST PENN	291 D25454 (P)	3 2
(#)MFB	MULTIMODE FIBER OPTIC	1" CONDUIT MINIMUM	PER SPEC	27 1500	1
(#)RG6	RG-6 COAXIAL CABLE	1" CONDUIT = (8) CABLES 1 1/2" CONDUIT = (18) CABLES	WEST PENN	841 25841 (P)	5
(#)RG11	RG-11 COAXIAL CABLE	1" CONDUIT = (3) CABLES 1 1/4" CONDUIT = (6) CABLES	WEST PENN	821 D25821 (P)	5
(#)S12	SPEAKER, 12 AWG	1" CONDUIT = (3) CABLES 1 1/2" CONDUIT = (7) CABLES 2" CONDUIT = (11) CABLES	WEST PENN	227 25227B (P)	4
(#)S16	SPEAKER, 16 AWG	1" CONDUIT = (10) CABLES 1 1/4" CONDUIT = (17) CABLES	WEST PENN	225 25225B (P)	4
(#)SFB	SINGLE MODE FIBER OPTIC	1" CONDUIT MINIMUM	PER SPEC	27 1500	1
(#)STP	SHIELDED TWISTED PAIR, CAT 6A	1" CONDUIT = (4) CABLES 1 1/4" CONDUIT = (8) CABLES	PER MFG WEST PENN	4246F * 254246AF (P) *	5
(#)UTP	UN-SHIELDED TWISTED PAIR CAT 6	1" CONDUIT = (9) CABLES 1 1/4" CONDUIT = (15) CABLES	PER SPEC WEST PENN	4246 ** 254246 (P) ** SPEC 27 1500	5
(#)VG	HIGH RESOLUTION VIDEO	1" CONDUIT = (1) CABLES 1 1/4" CONDUIT = (4) CABLES	WEST PENN	5CRGB 255CRGB (P)	5
(#)SDI	SERIAL DIGITAL INTERFACE (RG-6 COAX)	1" CONDUIT = (8) CABLES 1 1/2" CONDUIT = (18) CABLES	WEST PENN	841 25841 (P)	5
(#)USB	USB EXTENSION CABLE	1" CONDUIT = (3) CABLES 1 1/4" CONDUIT = (10) CABLES	CABLES TO GO	52108	5
(#)X#	MANUFACTURER PROPRIETARY CABLE	AS NOTED	SPEC. 27 4100	SPEC. 27 4100	NA

ABBREVIATIONS INDEX

ABBREV.	DESCRIPTION	ABBREV.	DESCRIPTION
#	NUMBER	MEP	MECHANICAL, ELECTRICAL AND PLUMBING
AFF	ABOVE FINISH FLOOR	MFG	MANUFACTURER
ARCH	ARCHITECTURE	MAX	MAXIMUM
AUX	AUXILIARY	MIC	MICROPHONE
AWG	AMERICAN WIRE GAUGE	MIN	MINIMUM
BC	BARE COPPER	MTG	MOUNTING
C	CONDUIT	N/A	NOT APPLICABLE
CATV	CABLE TELEVISION	NIC	NOT IN CONTRACT
CLG	CEILING	NTS	NOT TO SCALE
CNTR	CONTRACTOR	PLEN	PLENUM
CU	COPPER	(R)	RELOCATE
C/W	COMPLETE WITH	RECPT	RECEPTACLE
DWG	DRAWING	SPEC	SPECIFICATIONS
(E)	EXISTING	SPKR	SPEAKER
FT	FOOT	TV	TELEVISION
GND	GROUND	TYP	TYPICAL
IG	ISOLATED GROUND	UG	UNDERGROUND
IN	INCH	UPS	UNINTERRUPTED POWER SUPPLY
J-BOX	JUNCTION BOX	W	WATTS
LTG	LIGHTING	W/O	WITHOUT

AUDIOVISUAL SYMBOL SCHEDULE

NOTES:

1. HEIGHT MEASURED TO BOTTOM OF THE DEVICE FROM FINISHED FLOOR.
2. HEIGHT MEASURED TO CENTER LINE OF THE DEVICE FROM THE FINISHED FLOOR.
3. REFER TO DIAGRAMS AND ELEVATIONS FOR CUSTOM ROUGH-IN REQUIREMENTS.
4. STANDARD MOUNTING HEIGHT UNLESS OTHERWISE NOTED ON PLANS.
5. ROUGH-IN TO BE HORIZONTAL.
6. ROUGH-IN TO BE INSTALLED ABOVE ACCESSIBLE CEILING.
7. ROUGH-IN TO BE INSTALLED ABOVE CEILING.
8. DEVICE IS TYPICALLY LOCATED IN MILLWORK, FURNITURE, BEHIND A MONITOR OR ABOVE A PROJECTOR.
9. ABOVE TABLE/COUNTER MOUNTED DEVICE.
10. REFER TO MANUFACTURER'S RECOMMENDED CABLE REQUIREMENTS FOR EXACT CABLE REQUIRED.
11. FOLLOW BICSI STANDARDS FOR CABLE ROUTING AND DISTANCES.
12. JUNCTION BOX INDICATED IS FOR MOST INSTALLATIONS. DEVICE WILL BE NOTED WHEN JUNCTION BOX SIZE REQUIREMENTS ARE DIFFERENT FROM INDICATED.
13. MOUNTING HEIGHT SHOWN IS FROM THE BOTTOM OF THE MONITOR TO THE FINISHED FLOOR.

GENERAL SCHEDULE NOTES:

A. TYPICAL SYMBOL SCHEDULE. SOME SYMBOLS MAY NOT BE USED IN THIS SET OF DRAWINGS.
B. DEVICES WITH "A" ADJACENT TO IT INDICATE DEVICE TO BE COORDINATED WITH MILLWORK PRIOR TO ROUGH-IN.
C. ROUGH-IN JUNCTION BOX, CONDUIT, AND MOUNTING HEIGHT ARE DEFAULT REQUIREMENTS. REFER TO PLANS FOR SPECIFIC NOTES AND REQUIREMENTS FOR A SPECIFIC INSTANCE.
D. CONDUIT STUBBED INTO ACCESSIBLE CEILING UNLESS OTHERWISE NOTED.
E. CABLE FROM DEVICE TO BE HOMERUN TO DESTINATION WITHOUT SPLICES.

SYMBOL	DESCRIPTION	J-BOX	CONDUIT	MOUNTING HEIGHT	CABLE TYPE	NOTES
M#	MICROPHONE INPUT, WALL PLATE (M1/M2 = D1, M3/M4 = D2)	D1,D2	(1) 3/4"	RECEPTACLE HEIGHT	(#) MA	2,4.
AX	AUXILIARY INPUT, 3.5MM/RCA CONNECTION, WALL PLATE	D1	(1) 3/4"	RECEPTACLE HEIGHT	(1) LA	2,4.
T TS	AUDIO OUTPUT, WALL PLATE, T = XLR MALE CONNECTION, TS = 1/4 TS CONNECTION	D1	(1) 3/4"	RECEPTACLE HEIGHT	(1) LA	2,4.
MA	MICROPHONE INPUT WITH AUXILIARY INPUT, WALL PLATE	D1	(1) 3/4"	RECEPTACLE HEIGHT	(1) MA (1) LA	2,4.
MC	MICROPHONE INPUT, CEILING	D1	(1) 3/4"	CEILING	(1) MA	2,4.
MB	TABLE TOP BOUNDARY MICROPHONE		(1) 1/2"	ON TABLE/ MILLWORK	(1) MA	2,3,9.
MW	WALL MOUNTED, PUSH TO TALK MICROPHONE	D1	(1) 3/4"	SWITCH HEIGHT	(1) MA	2,4.
MDT	DUAL MICROPHONE INPUT, WALL PLATE, UTP TRANSMITTER EXTENDER	D1	(1) 3/4"	RECEPTACLE HEIGHT	(1) UTP	2,4.
MAT	MICROPHONE AND AUXILIARY INPUT, WALL PLATE, UTP TRANSMITTER EXTENDER	D1	(1) 3/4"	RECEPTACLE HEIGHT	(1) UTP	2,4,11.
MXT	MICROPHONE AND AUXILIARY INPUT, WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D2	(1) 1"	RECEPTACLE HEIGHT	(1) UTP	2,4,11.
MT	DUAL MICROPHONE INPUT/OUTPUT WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D1	(1) 1"	RECEPTACLE HEIGHT	(1) UTP	2,4,11.
M2D	DUAL MICROPHONE INPUT/OUTPUT WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D2	(1) 1"	RECEPTACLE HEIGHT	(1) UTP	2,4,11.
M4D	FOUR MICROPHONE INPUT WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D2	(1) 1"	RECEPTACLE HEIGHT	(1) UTP	2,4,11.
AXT	BLUETOOTH AND AUXILIARY INPUT, WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D2	(1) 1"	SWITCH HEIGHT	(1) UTP	2,4,11.
CI	CREWCOM HEADSET INPUT, WALL PLATE	D1	(1) 3/4"	SWITCH HEIGHT	(1) MA	2,4.
CIS	CREWCOM WALL STATION, WALL PLATE	D3	(1) 3/4"	SWITCH HEIGHT	(1) MA	2,4.
BT	BLUETOOTH, WALL PLATE, AUDIO EXTENDER	D1	(1) 1"	SWITCH HEIGHT	(1) UTP	2,4,11.
VG	VGA INPUT, WALL PLATE	D1	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) VG	2,4.
HD	HDMI INPUT, WALL PLATE	D1	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) HD (1) LA	2,4.
HV	HDMI AND VGA INPUT, WALL PLATE	D2	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) HD (1) VG	2,4.
EN#	AVoIP ENCODER, WALL PLATE (# IDENTIFIES UNIQUE PLATES)	SCH	(1) 1"		(1) UTP	2,4,11.
DC#	AVoIP DECODER, WALL PLATE (# IDENTIFIES UNIQUE PLATES)	SCH	(1) 1"		(1) UTP	2,4,11.
TxH	HDBaseT, HDMI INPUT TRANSMITTER, WALL PLATE	D1	(1) 1"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
TxD	HDBaseT, HDMI AND VGA TRANSMITTER, WALL PLATE	D2	(1) 1"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
TxM	HDBaseT, HDMI, DISPLAY PORT AND/OR VGA TRANSMITTER BOX, SURFACE MOUNTED			IN MILLWORK/ UNDER TABLE	(1) STP	2,4,11.
TxT	HDBaseT CATEGORY INPUT, WALL PLATE	D1	(1) 1"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
RxH	HDBaseT, HDMI RECEIVER, WALL PLATE	D1	(1) 1"	AS NOTED	(1) STP	2,4,11.
US	USB INPUT, WALL PLATE, UTP EXTENSION	D1	(1) 1"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
Rx	HDBaseT RECEIVER DEVICE, SURFACE MOUNTED		(1) 1"	IN MILLWORK/ UNDER TABLE	(1) STP	2,4,8,11.
CHV	HDMI AND VGA TRANSMITTER, WALL PLATE (CLASSROOM SYSTEM)	D2	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
CHD	DUAL HDMI TRANSMITTER, WALL PLATE (CLASSROOM SYSTEM)	D2	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
HDU	HDMI AND USB TRANSMITTER, WALL PLATE	D1	(1) 1"	RECEPTACLE HEIGHT	(2) STP	2,4,11.
CAL	2-WAY INTERCOMMUNICATION PUSHBUTTON STATION	D1	(1) 3/4"	SWITCH HEIGHT	AS NOTED	2,7,10.
CSA	CLASSROOM SOUND AMPLIFICATION SYSTEM		(1) 1 1/4" (1) 1"	IN MILLWORK/ AS NOTED		2,3.
IR	INFRARED SENSOR, WALL/CEILING	D1	(1) 3/4"	CEILING	(1) UTP OR (1) CT	2,6,11.
ALS	ASSISTIVE LISTENING SYSTEM ANTENNA/EMITTER, WALL/CEILING	A1	(1) 1"	AS NOTED	AS NOTED	2,6.
AT	AV ANTENNA, WALL/CEILING	D1	(1) 1"	AS NOTED	(1) AT	2,6.
V	VOLUME CONTROL	D1	(1) 1"	SWITCH HEIGHT	(1) S16	2,4.
SV	VOLUME CONTROL WITH SOURCE SELECTOR	D2	(1) 1"	SWITCH HEIGHT	(1) S16 (1) UTP	2,4,9,11.
TPT	TOUCH PANEL, TABLE TOP		(1) 1"	AS NOTED	(1) UTP	
TP#	TOUCH PANEL, WALL MOUNTED, REFER TO SPECIFICATIONS FOR TOUCH PANEL TYPE AND ORIENTATION	SCH	(1) 1"	SWITCH HEIGHT	(1) UTP	2,4,5,11.
KP#	KEYPAD, WALL MOUNTED, REFER TO SPECIFICATIONS FOR KEYPAD TYPE	SCH	(1) 1"	SWITCH HEIGHT	(1) CT or (1) UTP	2,4,10.
RS#	ROOM SCHEDULING TOUCHPANEL	SCH	(1) 1"	SWITCH HEIGHT	(1) STP	
TB#	TABLE/FURNITURE BOX. NUMBER REFERS TO TYPE REFER TO SPECIFICATIONS/DIAGRAMS FOR REQUIREMENTS			IN MILLWORK	SEE DIAGRAMS.	
	LOUDSPEAKER, WALL MOUNTED	C#	(1) 3/4"	AS NOTED	(1) S16	2,4.
	LOUDSPEAKER, ARRAY, CABINET, CLUSTER	A0	(1) 3/4"	AS NOTED	(1) S12	2,4.
	LOUDSPEAKER, CEILING RECESSED OR PENDANT	C#	(1) 3/4"	CEILING	(1) S16	2,7.
SB#	SOUND BAR, REFER TO SPECIFICATIONS FOR TYPE	D1	(1) 1"	UNDER DISPLAY OR AS NOTED		1,5.
X##	DISPLAY, REFER TO SPECIFICATIONS FOR DISPLAY TYPE AND SIZE	PER SCH	(1) 1 1/4" (1) 1"	AS NOTED	AS NOTED	4,13.
SC#	PROJECTION SCREEN REFER TO SPECIFICATIONS FOR SCREEN TYPE AND SIZE	(2) A0	(1) 3/4"	CEILING OR WALL	(1) UTP	2,7.
P#	PROJECTOR	D2	(1) 1 1/4"	CEILING OR AS NOTED	AS NOTED	2,6.
	AV CAMERA	C#	(1) 1"	AS NOTED	AS NOTED	1.
	EQUIPMENT CABINET/RACK	C#	SCH	AS NOTED		
CLG	EQUIPMENT CEILING RACK	C#	SCH	AS NOTED		
	EQUIPMENT 2-POST CABINET/RACK	C#	SCH	AS NOTED		
GP#	PASS THROUGH PLATE, # = NUMBER OF GANGS	D#	(1) 1-1/2"	AS NOTED		2.
J	JUNCTION BOX, ABOVE ACCESSIBLE CEILING	A0	AS NOTED	AS NOTED		
C#	CUSTOM JUNCTION BOX, REFER TO SCHEDULE AND DIAGRAM FOR EQUIPMENT, JUNCTION BOX AND CONDUIT	SCH	SCH	AS NOTED	AS NOTED	
FB	FLOOR BOX - REFER TO ELECTRICAL DOCUMENTS FOR MAKE/MODEL - REFER TO DIAGRAMS FOR AV DEVICE LAYOUT		AS NOTED		AS NOTED	
PT	POKE THRU - REFER TO ELECTRICAL DOCUMENTS FOR MAKE/MODEL - REFER TO DIAGRAMS FOR AV DEVICE LAYOUT		(1) 1 1/2"		AS NOTED	
	CONDUIT RUN CONCEALED IN WALL OR CEILING		AS NOTED			
	CONDUIT RUN CONCEALED IN FLOOR OR GROUND		AS NOTED			
	CONDUIT UP		AS NOTED			
	CONDUIT DOWN		AS NOTED			
	CONDUIT STUB LOCATION		AS NOTED			
	CONDUIT/CIRCUIT CONTINUATION		AS NOTED			
####	DEVICE/EQUIPMENT TYPE CALLOUT					
	ELEVATION VIEW TAG (# = VIEW NUMBER, ## = SHEET NUMBER)					
	DIAGRAM CALLOUT TAG					

AUDIOVISUAL GENERAL NOTES

1. THIS SHEET SET SHOWS WORK AND MATERIALS BY DIVISION 26 AND DIVISION 27. SEE SPECIFICATIONS AND DRAWING NOTES FOR RESPONSIBILITY FOR EACH ITEM.
2. ELECTRICAL CONTRACTOR SHALL COORDINATE REQUIRED PROVISIONS WITH THE PROJECT AV SYSTEMS INTEGRATOR PRIOR TO INSTALLATION OF AV SYSTEM ROUGH-IN. WHERE CONDUIT AND JUNCTION BOX PROVISIONS ARE SIGNIFICANTLY DIFFERENT FROM THOSE SHOWN ON THE DRAWINGS, NOTIFY THE AV CONSULTANT IN WRITING OF THE REQUIREMENTS. WHERE MINOR MODIFICATIONS TO PROVISIONS ARE REQUIRED, THEY SHALL BE MADE AT NO ADDITIONAL COST AS A MATTER OF JOB COORDINATION.
3. BIDDERS SHALL THOROUGHLY ACQUAINT AND EXAMINE THE EXISTING PROJECT CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. INCLUDING THE COMPLETE SET OF PLANS AND SPECIFICATIONS COVERING THE ENTIRE PROJECT. BIDDERS SHALL BECOME FULLY CONVERSANT WITH THE TYPE OF GENERAL CONSTRUCTION AS WELL AS ALL PERTINENT FACTS AFFECTING THE COST OF CARRYING OUT THE WORK THEY WILL CONTRACT TO PERFORM AND BRING ANY DISCREPANCIES OR OMISSIONS FOUND IN THE DRAWINGS TO THE AV CONSULTANT'S ATTENTION BEFORE SUBMITTING BID.
4. AV SYSTEMS INTEGRATOR SHALL PROVIDE A FULLY FUNCTIONING SYSTEM IN EVERY RESPECT. ANY DISCREPANCIES IN THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT AV CONSULTANT PRIOR TO BIDDING.
5. THE FOREGOING WORK SHALL BE COMPLETE IN EVERY RESPECT, AND ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO FULLY COMPLETE THE WORK, SHALL BE FURNISHED BY THE PROJECT AV SYSTEMS INTEGRATOR.
6. NO CHANGES TO THE DESIGN SHALL BE MADE WITHOUT THE PROJECT AV CONSULTANT'S WRITTEN CONSENT.
7. WHERE APPLICABLE, AV SYSTEMS INTEGRATOR SHALL FOLLOW ALL MANUFACTURER'S INSTALLATION GUIDELINES.
8. REFER TO DRAWINGS FOR EXACT NUMBER OF COMPONENTS USED IF NOT SPECIFIED IN EQUIPMENT LIST.
9. COORDINATE EXACT SPEAKER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS. ANY CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT AV CONSULTANT PRIOR TO BIDDING.
10. CONFIRM AVAILABLE MOUNTING DEPTHS OF ALL SPEAKERS AND COMPARE WITH DEPTHS SHOWN ON SHOP DRAWINGS. BRING ALL POTENTIAL CONFLICT AREAS TO THE ATTENTION OF THE ARCHITECT AND AV CONSULTANT PRIOR TO RELEASE.
11. INSTALL/SUSPEND ALL AUDIOVISUAL SYSTEMS EQUIPMENT IN COMPLIANCE WITH SEISMIC CODES, MANUFACTURER'S WRITTEN INSTRUCTIONS, AND INDUSTRY BEST PRACTICES. DURING THE SUBMITTAL PROCESS, PROVIDE SHOP DRAWINGS WHICH DETAIL PROPOSED MOUNTING FOR ALL SUCH EQUIPMENT.
12. ALL TWISTED-PAIR (U/UTP, F/UTP, U/FTP, S/FTP) CATEGORY TYPE CABLING SHALL BE TERMINATED BY CERTIFIED DATA TECHNICIANS. TEST PER SPECIFICATIONS REQUIREMENTS AND PROVIDE DATA TO AV CONSULTANT.
13. ALL HDBaseT SIGNAL CABLING, TERMINATIONS, AND TERMINATION HARDWARE SHALL COMPLY WITH TIA/EIA WIRING CONFIGURATION T568 B. ALL HDBaseT SIGNAL CABLING SHALL BE SHIELDED/FOIL (S/F/UTP) CATEGORY TYPE CABLE.
14. CONDUCT A RADIO FREQUENCY AUDIT OF THE SITE PRIOR TO SELECTING RF OPERATIONAL FREQUENCIES. AV SYSTEMS INTEGRATOR TO ENSURE INTERFERENCE FREE OPERATION OF ALL RF DEVICES. AV SYSTEMS INTEGRATOR SHALL COORDINATE AUDIT RESULTS WITH MANUFACTURER PRIOR TO PURCHASING RF EQUIPMENT.
15. PROVIDE RACK MOUNT KITS FOR ALL RACK MOUNTED EQUIPMENT. PROVIDE CUSTOM RACK MOUNT KITS WHEN NOT AVAILABLE FROM THE EQUIPMENT MANUFACTURER.
16. PROVIDE SURGE PROTECTION DEVICE (SPD) IN ALL AV EQUIPMENT RACKS.
17. ALL AV EQUIPMENT RACKS SHALL BE GROUNDED AND BONDED TO MEET OR EXCEED THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE (NED), IEC 1000-5-2 ANSI/J-STD-607-A.
18. ALL AV EQUIPMENT SHALL BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS.
19. PROVIDE MANUFACTURER RECOMMENDED POWER SUPPLIES OR TRANSFORMERS FOR ALL SPECIFIED EQUIPMENT.
20. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR LACK OF COORDINATION WITH AV CONSULTANT AS ADDRESSED IN THE DOCUMENTS
21. UNLESS SPECIFICALLY SPECIFIED OR NOTED PROVIDE COMMERCIAL QUALITY EQUIPMENT, MATERIALS AND COMPONENTS DESIGNED FOR CONTINUOUS USE. CONSUMER QUALITY COMPONENTS ARE NOT ACCEPTABLE.

AUDIOVISUAL SHEET INDEX

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AUDIOVISUAL SYMBOLS SCHEDULES AND NOTES

T001

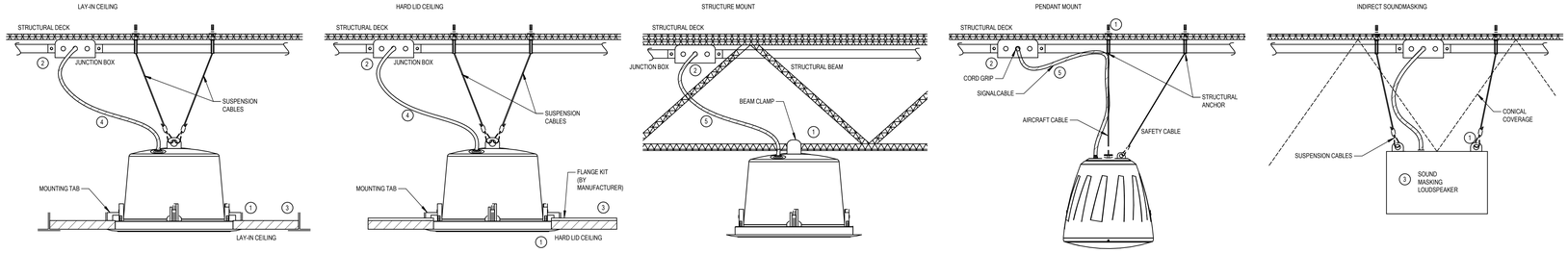

DIAGRAM V010 TYPICAL CEILING LOUDSPEAKER INSTALLATION METHODS

NTS

DIAGRAM KEY NOTES:

1. AV CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINAL MOUNTING METHOD AND REQUIRED MOUNTING ACCESSORIES BASED ON CEILING TYPE AND INSTALLATION REQUIREMENTS.
2. POSITION JUNCTION BOX OVER LOUDSPEAKER LOCATION SHOWN. INSTALL WITH BLANK COVER FACING DOWNWARD. REFER TO SPECIFICATIONS AND DRAWINGS FOR PATHWAY REQUIREMENTS.
3. PROVIDE TILE BRIDGE FOR LAY-IN TILE INSTALLATION. PROVIDE SECONDARY SEISMIC SUPPORT HARDWARE FROM STRUCTURE ABOVE (AS REQUIRED PER AHJ).
4. PROVIDE 1/2" FLEXIBLE CONDUIT AS REQUIRED PER INSTALLATION. FLEXIBLE CONDUIT AND/OR CABLING SHALL NOT DIP BELOW THE LOUDSPEAKER BUT ALLOW ENOUGH CABLE FOR THE LOUDSPEAKER TO BE REPLACED.
5. PROVIDE CABLE GRIP IN JUNCTION BOX WHERE CABLING EXITS. CABLING SHALL BE NEATLY SECURED, OUT OF SITE, TO THE LOUDSPEAKER.
6. PROVIDE SEISMIC SUSPENSION CABLES LONG ENOUGH TO PROVIDE ACCESS TO THE MOUNTING POINT PRIOR TO THE LOUDSPEAKER INSTALLATION. SEISMIC SAFETY CABLES SHALL PREVENT THE LOUDSPEAKER FROM FALLING TO THE FLOOR.

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AUDIOVISUAL ROUGH IN DIAGRAMS

T060

GENERAL DIAGRAM NOTES:

A. INTEGRATOR IS RESPONSIBLE TO ENSURE COMPLETE FUNCTIONALITY OF INTERCOM SYSTEMS IN ALL OCCUPIED AREAS OF THE SCHOOL THROUGHOUT ALL ZONES OF CONSTRUCTION. USING CEILING SYSTEM OR LIGHT FIXTURE SUPPORT/SEISMIC WIRES FOR SUPPORT IS NOT ALLOWED. AT SERVICE LOOPS MAINTAIN PROPER BEND RADIUS ON ALL CABLE.
B. PROVIDE (1) PAGING MODULE FOR EACH CORRIDOR THAT WILL REQUIRE A SEPARATE ZONE. REFER TO DRAWINGS AND SPECIFICATIONS FOR ZONE DESIGNATION.
C. MULTIPLE ZONES SHALL NOT SHARE A SINGLE AMPLIFIER CHANNEL OR IP MODULE.
D. AMPLIFIER REFERENCES SHOWN ON PLANS ARE INTENDED TO SHOW ZONING INFORMATION NOT MULTI-CHANNEL AMPLIFIER REQUIREMENTS. REFER TO SPECIFICATIONS FOR AMPLIFIER REQUIREMENTS.
E. REFER TO FLOOR PLANS FOR QUANTITY OF CLASSROOMS REQUIRING CLASSROOM MODULE CONNECTIONS.
F. EXTERIOR LOUDSPEAKERS SHALL EACH BE HOME RUN BACK TO THE AMPLIFIER CHANNEL FOR THEIR ZONE. LABEL AND CONNECT THE ZONES AS INDICATED ON PLANS.

DIAGRAM NOTES: (#)

1. PROVIDE (1) RELAY FROM INTERCOM SYSTEM TO ACCESS CONTROL SYSTEM. PROGRAM THIS RELAY TO TRIGGER A PREVENTATIVE LOCK DOWN, WHICH LOCKS THE OFFICE ENTRANCES. COORDINATE EXACT TERMINATION AND PROGRAMMING REQUIREMENTS WITH ACCESS CONTROL INSTALLER.
2. CONFIRM EXACT LOCATION OF DEVICE(S) WITH OWNER. REFER TO E SERIES SHEETS FOR LOCATION OF DATA CONNECTIONS.
3. REFER TO CLASSROOM SIGNAL FLOWS FOR ADDITIONAL REQUIREMENTS.
4. AMPLIFIERS ARE SHOWN FOR REFERENCE ONLY. COORDINATE WITH THE PLANS FOR ZONE REQUIREMENTS.
5. LOCATE NETWORK SWITCH(ES) IN THE ER/TR (MDF/IDF) FOR THE AREA REQUIRING DEVICE CONNECTION(S). NETWORK SWITCH(ES) WILL USE THE OWNERS BACKBONE FOR SIGNAL ROUTING BETWEEN EACH OTHER. REFER TO SPECIFICATIONS FOR NETWORK COORDINATION AND ADDITIONAL REQUIREMENTS.
6. ROOM SPECIFIC REQUIREMENT. REFER TO FLOOR PLANS FOR LOCATION AND REQUIREMENTS. ZONES UNDER 3 LOUDSPEAKERS MAY USE THE CARD ZONE AMPLIFIER. ZONES WITH 3 AND MORE WILL REQUIRE AN ADDITIONAL AMPLIFIER.
7. EXTERIOR LOUDSPEAKERS ARE HOMERUNS BACK TO HEADEND. CONNECT NO MORE THAN 1 TO A PORT.
8. ROOMS INDICATED ON PLANS WITH CALL SWITCHES SHALL HAVE A CALL SWITCH AND LOUDSPEAKER WITHIN THE ROOM. REFER TO TYPICAL CALL SWITCH CONNECTION DIAGRAM FOR REQUIREMENTS.

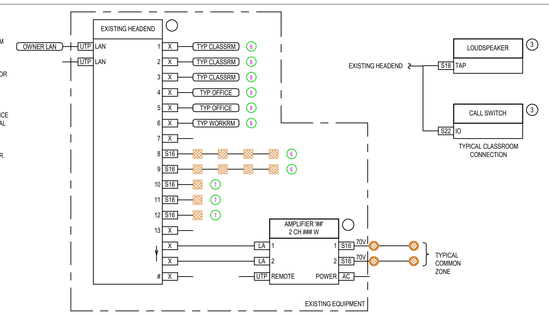

DIAGRAM V350 EXISTING INTERCOM SYSTEM SIGNAL FLOW

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AUDIOVISUAL SIGNAL FLOW DIAGRAMS

T080

INTERCOM ZONES LEGEND

- NO INTERCOM
- Z-EX
- Z-ID

INTERCOM GENERAL NOTES

1. INTERCOM SYSTEM IS A PERFORMANCE BASED SYSTEM. THE WINNING CONTRACTOR SHALL BE RESPONSIBLE FOR INCLUDING A COMPLETE AND FUNCTIONAL SYSTEM AS INDICATED WITHIN THE DOCUMENTS.
2. INTERCOM CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE NEEDS OF THEIR SYSTEM WITH THE OTHER TRADES REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM. THIS INCLUDES BUT NOT LIMITED TO, ELECTRICAL CONTRACTOR FOR ROUGH-IN, PATHWAYS ETC. STRUCTURED CABLING INSTALLER, MECHANICAL CONTRACTOR, CEILING INSTALLER, ETC.
3. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF LOUDSPEAKERS WITH REFLECTED CEILING PLAN DEVICES AND LOCATE PER MANUFACTURER'S DETAILED CEILING LOUDSPEAKER COVERAGE MAP INPUT EXACT ROOM DIMENSIONS AND EDGE-TO-EDGE ISOBAR SPACING OF 948.
4. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL LOUDSPEAKER AND CEILING EQUIPMENT RACK LOCATIONS WITH LIGHTING AND CEILING INSTALLER A MINIMUM OF TWO TIMES PRIOR TO ROUGH-IN OF ANY LOUDSPEAKER. CENTER LOUDSPEAKERS IN 1/2 OF THE CEILING TILE IN LINE WITH THE LIGHT FIXTURES. LOUDSPEAKERS MAY SHARE A LAY-IN CEILING TILE WITH OTHER DEVICES IF THE CEILING TILE IS LARGE ENOUGH FOR BOTH DEVICES TO FIT COMFORTABLY AND NEATLY. FOR EXAMPLE A 2X4 CEILING TILE CAN FIT A 14" LOUDSPEAKER ON HALF OF THE TILE WHILE A FIRE SPRINKLER, HORN STROBE, LIGHTING CONTROL OR SIMILAR SIZED DEVICE CAN OCCUPY THE OTHER HALF.
5. REFER TO SPECIFICATION 27 5123 FOR EQUIPMENT REQUIREMENTS PER ROOM AND ZONE TYPE.
6. REFER TO DIAGRAM V350 FOR TYPICAL INTERCOM DEVICE CONNECTIONS. QUANTITY OF ZONES WILL BE SHOWN ON THE FLOOR PLAN ALONG WITH WHICH AREAS SHALL BE ON WHICH ZONE.
7. ZONING IDENTIFICATION SHOWN IS INTENDED TO SHOW WHICH AREAS SHALL BE GROUPED TOGETHER. WINNING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE CORRECT EQUIPMENT REQUIRED FOR COMBINING ADJACENT ROOMS TO MAKE ZONING FUNCTION AS INDICATED.
8. ZONES WITH 'Z-ID' ARE INTENDED AS INDIVIDUAL ZONES. WHERE SPACES GROUPED WITH #X# ARE INDICATING WHICH SPACES SHALL BE COMBINED INTO A SINGLE ZONE.
9. EXTERIOR LOUDSPEAKERS SHALL BE ADJACENT TO NEARBY HORN STROBE, MAXIMUM OF WITHIN 15' OF LOCATIONS SHOWN. MOUNT EXTERIOR LOUDSPEAKER TYPE 'WX' AT THE SAME MOUNTING HEIGHT AS HORN STROBES, UNLESS OTHERWISE NOTED, AND 'WX' 36" BELOW THE ROOF LINE, UNLESS OTHERWISE NOTED. NOTED INSTALLATION HEIGHTS ARE FROM THE FINISHED FLOOR.
10. INTERIOR LOUDSPEAKERS SHALL BE MOUNTED AT 108" AFF, UNLESS OTHERWISE NOTED. VERTICALLY ALIGN OTHER DEVICES (LIGHT SWITCHES, HORNSTROBES, OUTLETS, ETC.) WITH LOUDSPEAKER. NOTED INSTALLATION HEIGHTS ARE FROM THE FINISHED FLOOR.
11. ALL SPECIFIED CONDUIT SHALL BE STUBBED UP INTO ACCESSIBLE CEILING SPACE, UNLESS OTHERWISE NOTED. PROVIDE PLASTIC CONDUIT BUSHING AT THE END OF CONDUIT.
12. ALL LOW VOLTAGE WIRE/CABLE FOR INTERCOM SHALL BE PROPERLY SUPPORTED AT 5'-0" INTERVALS AND TO FOLLOW BUILDING STRUCTURAL LINES PULLING WIRE DIAGONALLY ACROSS ROOMS IS NOT ALLOWED. USING CEILING SYSTEM OF LIGHT FIXTURE SUPPORTS. SEISMIC WIRES FOR SUPPORT IS NOT ALLOWED. AT SERVICE LOOPS MAINTAIN PROPER BEND RADIUS ON ALL CABLE

SHEET KEYNOTES

SHOP ADDITION INTERCOM PLAN
SCALE = 1/8" = 1'-0"

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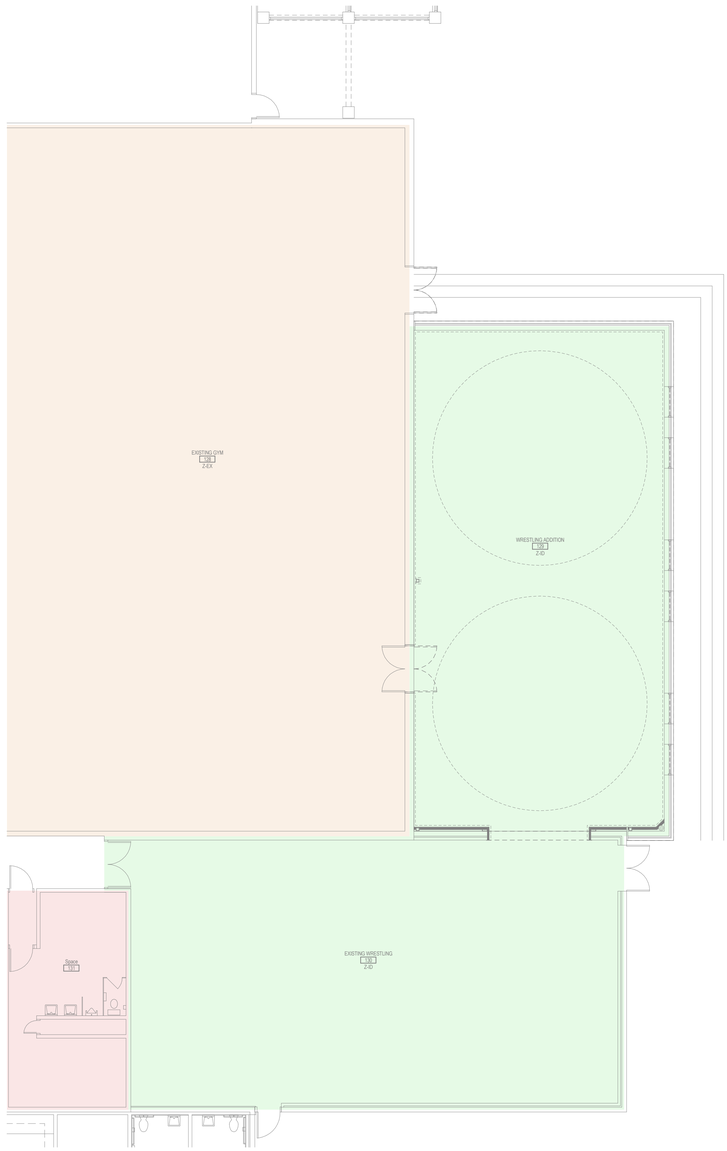
SHOP ADDITION
INTERCOM PLAN

T1.211



WRESTLING ADDITION INTERCOM PLAN
SCALE = 1/8" = 1'-0"

INTERCOM ZONES LEGEND

- NO INTERCOM
- Z-EX
- Z-ID

INTERCOM GENERAL NOTES

1. INTERCOM SYSTEM IS A PERFORMANCE BASED SYSTEM. THE WINNING CONTRACTOR SHALL BE RESPONSIBLE FOR INCLUDING A COMPLETE AND FUNCTIONAL SYSTEM AS INDICATED WITHIN THE DOCUMENTS.
2. INTERCOM CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE NEEDS OF THEIR SYSTEM WITH THE OTHER TRADES REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM. THIS INCLUDES BUT NOT LIMITED TO, ELECTRICAL CONTRACTOR FOR ROUGH-IN, PATHWAYS ETC. STRUCTURED CABLING INSTALLER, MECHANICAL CONTRACTOR, CEILING INSTALLER, ETC.
3. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF LOUDSPEAKERS WITH REFLECTED CEILING PLAN DEVICES AND LOCATE PER MANUFACTURER'S DETAILED CEILING LOUDSPEAKER COVERAGE MAP INPUT EXACT ROOM DIMENSIONS AND EDGE-TO-EDGE ISOBAR SPACING OF 948.
4. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL LOUDSPEAKER AND CEILING EQUIPMENT RACK LOCATIONS WITH LIGHTING AND CEILING INSTALLER A MINIMUM OF TWO TIMES PRIOR TO ROUGH-IN OF ANY LOUDSPEAKER. CENTER LOUDSPEAKERS IN 1/2 OF THE CEILING TILE IN LINE WITH THE LIGHT FIXTURES. LOUDSPEAKERS MAY SHARE A LAY-IN CEILING TILE WITH OTHER DEVICES IF THE CEILING TILE IS LARGE ENOUGH FOR BOTH DEVICES TO FIT COMFORTABLY AND NEATLY. FOR EXAMPLE A 2X4 CEILING TILE CAN FIT A 14" LOUDSPEAKER ON HALF OF THE TILE WHILE A FIRE SPRINKLER, HORN STROBE, LIGHTING CONTROL OR SIMILAR SIZED DEVICE CAN OCCUPY THE OTHER HALF.
5. REFER TO SPECIFICATION 27 5123 FOR EQUIPMENT REQUIREMENTS PER ROOM AND ZONE TYPE.
6. REFER TO DIAGRAM V350 FOR TYPICAL INTERCOM DEVICE CONNECTIONS. QUANTITY OF ZONES WILL BE SHOWN ON THE FLOOR PLAN ALONG WITH WHICH AREAS SHALL BE ON WHICH ZONE.
7. ZONING IDENTIFICATION SHOWN IS INTENDED TO SHOW WHICH AREAS SHALL BE GROUPED TOGETHER. WINNING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE CORRECT EQUIPMENT REQUIRED FOR COMBINING ADJACENT ROOMS TO MAKE ZONING FUNCTION AS INDICATED.
8. ZONES WITH 'Z-ID' ARE INTENDED AS INDIVIDUAL ZONES. WHERE SPACES GROUPED WITH #X# ARE INDICATING WHICH SPACES SHALL BE COMBINED INTO A SINGLE ZONE.
9. EXTERIOR LOUDSPEAKERS SHALL BE ADJACENT TO NEARBY HORN STROBE, MAXIMUM OF WITHIN 15' OF LOCATIONS SHOWN. MOUNT EXTERIOR LOUDSPEAKER TYPE 'XV2' AT THE SAME MOUNTING HEIGHT AS HORN STROBES, UNLESS OTHERWISE NOTED, AND 'XV3' 35" BELOW THE ROOF LINE, UNLESS OTHERWISE NOTED. NOTED INSTALLATION HEIGHTS ARE FROM THE FINISHED FLOOR.
10. INTERIOR LOUDSPEAKERS SHALL BE MOUNTED AT 108" AFF, UNLESS OTHERWISE NOTED. VERTICALLY ALIGN OTHER DEVICES (LIGHT SWITCHES, HORNSTROBES, OUTLETS, ETC.) WITH LOUDSPEAKER. NOTED INSTALLATION HEIGHTS ARE FROM THE FINISHED FLOOR.
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