

August 31, 2022

EISENHOWER ELEMENTARY SCHOOL ADDITIONS, RENOVATIONS, AND RELATED WORK Crown Point, IN 46307

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated August 18, 2022 by Gibraltar Design. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 1-1 and attached Addendum No. 1 from Gibraltar Design dated August 31, 2022 and consisting of 1 page and 5 drawings.



ADDENDUM ONE

Addendum One (AD.01) to the drawings and specifications prepared by Gibraltar Design for **Eisenhower Elementary School – Additions, Renovations and Related Work** for Crown Point Community School Corporation, Crown Point, Indiana.

All Contractors bidding on this project shall read all of the items covered below and shall comply with all of the requirements as set forth, including any necessary refinements or additions generated by this Addendum and required by the intent of the original contract documents. All Contractors shall acknowledge on their bid form that they have received this Addendum and include the appropriate content of same within their bid proposal.

DRAWINGS

1. Sheets S-001, S-201D, S-201E

A. Refer to three (3) revised, full size drawings, included in this Addendum, for revisions.

2. Sheet A-601

- A. Refer to revised, full size drawing, included in this Addendum for the following revisions:
 - 1. Aluminum Window Elevation 7: revised elevations.

3. Sheet FP001

- A. Refer to revised, full size drawing, included in this Addendum for the following revisions:
 - 1. Revised zoning plan.
 - 2. Revised Ex. Fire Protection Service Diagram.

Page 1 and five (5) Full-Size Drawings, constitute the total makeup of Addendum One.



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STEEL DECK NOTES

- 1. All steel deck material, fabrication and installation shall conform to the Steel Deck Institute "SDI SHORT FORM SPECIFICATIONS" and "SDI CODE OF STANDARD PRACTICE," current edition,
- unless noted 2. Provide members for deck support at all deck span changes. Provide L3x3x3/16 deck support at all
- columns where required.
- 3. All deck shall be provided in a minimum of 3-span lengths where possible. 4. All welding of steel deck shall be in conformance with AWS Specification D1.3. Provide welding
- washers for all floor decks less than 22 gauge in thickness.
- 5. Mechanical fasteners may be used in lieu of welding, providing fasteners meet, or exceed the strength of specified welds. Submit fastener design data to the Structural Engineer of Record for review.
- 6. Substitution of fiber secondary reinforcement for welded wire fabric on supported slabs is prohibited. 7. Do not suspend any items, such as ductwork, mechanical and electrical fixtures, ceilings, etc. from
- 8. Roof deck sidelaps shall be attached at ends of cantilevers and at a maximum spacing 12" o.c. from
- cantilevered roof deck ends. The roof deck must be completely fastened to the supports and at the sidelaps before any load is applied to the cantilever. 9. Submit shop drawings for review of general conformance to design concept in accordance with
- Specifications in the Project Manual. Erection drawings shall show type of deck, shop finish, accessories, method of attachment, edge details, deck openings and reinforcement, and sequence of installation. 10. Installation holes shall be sealed with a closure plate 2 gauges thicker than deck and mechanically fastened to deck. Steel deck holes visible from below will be rejected. Deck units that are bent,
- warped, or damaged in any way which would impair the strength and appearance of the deck shall be removed from the site. 1. Where gauge metal pourstops are indicated, supply pourstops designed to meet, or exceed the gauges listed in the SDI Pourstop Selection Table (min. 18 ga.) as required for slab depth, concrete
- weight, and cantilever distance, unless noted otherwise. 12. The Erector shall shim between parallel roof beams and joists with differential mill and induced cambers for level deck bearing.

STEEL JOIST NOTES

- 1. All steel joists shall be designed, fabricated, and erected in accordance with SJI Standard Specifications
- 2. Joist bridging (if shown) is schematically indicated. Provide all bridging necessary to conform to SJI Specifications.
- 3. The ends of all bridging lines terminating at walls or beams shall be anchored to the wall or beam. 4. Joist bridging and connections shall be completely installed prior to placing any construction loads on
- the joists. Construction loading shall not exceed the joist design load. 5. All roof joists shall be capable of resisting the net uplift a noted on the Structural Drawings (min. 15 psf
- net). Provide an additional row of continuous horizontal bottom chord bridging at the first panel point location at each end of all roof joists.
- 6. Special joists (SP) shall be designed for the load designations specified on the Structural Drawings. Designs shall properly account for the distribution of concentrated loads, live loads, and for the effect of openings. Designs are to meet the requirements of SJI.
- Joists shall meet the following deflection criteria per SJI. Maximum live load deflection shall not exceed: A) Roofs without suspended ceilings: L/240
- B) Roof with suspended ceilings: L/360 8. The Joist Manufacturer shall submit calculations for all special joists to Structural Engineer of Record for record purposes prior to fabrication. These calculations shall bear the seal and signature of a Professional Engineer registered in the State of Indiana.
- 9. Joists on column centerlines shall have extended bottom chord connections for erection stability, unless otherwise noted. Do not connect bottom chord extensions, unless otherwise noted or shown.
- 10. Joists on, or near column centerlines shall have field-bolted connections for erection stability, unless otherwise noted. 11. The Joist Manufacturer shall coordinate with the Structural Steel Fabricator for the design of all
- connections to support columns, beams, bearing seats, etc. prior to submittal of shop drawings.
- 12. Where a joist is part of a moment-resisting frame, delay the connection of the bottom chord to the column until all dead loads have been placed. All field-bolted and field-welded connections in momentresisting frames shall be inspected per AWS and AISC requirements.
- 13. The Joist Manufacturer shall furnish evidence that the joist meets or exceeds minimum moment of inertia (Ix) required to meet the specified loading and deflection criteria.
- 14. All steel joists shall be furnished with standard SJI camber, unless noted otherwise
- 15. All items suspended from joists such as catwalks, basketball goals, operable partitions, etc. should be installed after all dead loads of roofing, flooring, ceilings, etc. are installed. 16. All joists shall be shop primed in accordance with SJI requirements, unless note otherwise. Color to
- match structural steel primer, unless approved in writing.
- 17. Provide sloped bearing ends where joist slope exceeds 1/4" per foot. 18. Do not field cut or alter joists without the written approval of the Joist Manufacturer.

LINTEL SCHEDULE

1. Where lintels are not specifically shown or noted on the Structural or Architectural Drawings, provide the following lintels over all openings and recesses in both interior and exterior non-load-bearing walls. A) Brick: Masonry Opening Anale Size Up to 5'-0" L5x5x5/16 Over 5'-0" & up to 7'-0" L5x5x3/8

> Over 7'-0" L5x5x3/8 w/ Plate (see detail below) WELDS TO BE 3" LONG, 6" o.c. 3/8"x7" CONT. PL. L5x5x3/8

LONG LOOSE LINTEL DETAIL

- All angles are LLV (long leg vertical), unless noted otherwise. Provide 1" of bearing per foot of span each end with minimum 8". All lintels in exterior walls are to be hot-dip galvanized. B) Block: For openings up to 8'-0" long exposed in the finished room, use lintel block filled with grout.
- Grout all exposed joints and reinforce as follows: 1) For 6" thick block: 1 - #5 bar
- For 8" thick block: 2 #5 bars
- 3) For 10" thick block: 2 #6 bars
- 4) For 12" thick block: 2 #6 bars
- C) Block: For openings over 8'-0" & up to 12'-0" long exposed in the finished room, use lintel block filled with grout. Grout all exposed joints and reinforce per the "Long Masonry Lintel Detail" on the Typical
- Masonry Detail Drawing. D) Block (stack bond openings over 4'-0"): See framing plans for steel beam lintels. Where not shown on plan, the criteria in the following table shall be used. Contact Structural Engineer of Record for lintels not shown on plan which do not meet this criteria. See architectural drawings for opening quantities, sizes,

locations	, heights	of wall above, etc.						
	Block 'ť'	LINTEL	WIDTH OF OPENING	MAX. ALLOW. HEIGHT OF CMU ABOVE LINTEL				
	6"	C8x11.5 w/ CONTIN.	≤ 8'-0"	30'-0"				
	0	PL 3/8 x 5	≤ 12'-0"	8'-0"				
	0"	W8x13 w/ CONTIN.	≤ 8'-0"	30'-0"				
	0	PL 3/8 x7	≤ 12'-0"	8'-0"				
	10"	W8x13 w/ CONTIN.	≤ 8'-0"	25'-0"				
	10	PL 3/8 x 9	≤ 12'-0"	8'-0"				
	10"	W8x28 w/ CONTIN.	≤ 8'-0"	40'-0"				
	12		< 101.01	10! 0"				

2. For all new openings in existing load bearing masonry walls not shown in the Structural drawings

A. Openings ≥ 8" BUT < 6'-0", use W8x18 lintels w/ 3/8" bottom plates.

C. Openings > 12'-0" use W16x40 lintels w/ 3/8" botom plates.

Field verify all existing wall widths. New bottom plate width = (exist. wall width) - 1". All lintels to have min. 8" bearing on each end.

STRUCTURAL STEEL NOTES

- "Specification for Structural Steel Buildings" 2. All structural wide flange members shall be ASTM A992. Fv=50 ksi 3. All plates, channels, bars, angles, and rods shall be ASTM A36, unless noted. 4. All rectangular structural tube members shall be ASTM A500, Grade C, Fy = 50 ksi unless noted 5. All round structural tube members shall be ASTM A500, Grade C, Fy = 46 ksi unless noted. All structural pipe members shall be ASTM A53.Grade B. Fv=35 ksi unless noted.
- Details for design. fabrication and erection of all structural steel shall be in accordance with the latest AISC Standards, unless otherwise noted or specified. Provide temporary erection guying and bracing as required.
- 9. Unless otherwise shown or noted on the Drawings, provide 8" minimum bearing each end for all loose lintels and beams.
- 10. For loose lintels, masonry shelf angles and other such items generally not shown on the Structural Drawings, refer to the Architectural Drawings. See general notes on lintels this sheet for sizes,
- reinforcing, etc. 11. Steel columns below grade shall be encased in a minimum of 4" concrete or painted with 2 coats of asphaltum paint, unless otherwise shown.
- minor camber due to rolling or shop assembly be upward. 13. Refer to the Division 5 Structural Steel Specification of the Project Manual for structural steel
- surface preparations and prime painting requirements
- cambers for level deck bearing.
- 15. Provide cap plates/end plates to close off exposed, open ends of all tubular members, unless noted. Seal weld with partial penetration square groove welds for watertight condition.

STEEL CONNECTION NOTES

- 1. Typical beam-to-beam and beam-to-column connections shall be bearing type using A325 bolts, unless noted otherwise.
- 2. Shop connections unless otherwise shown, may be either bolted or welded. All field connections shall be bolted unless otherwise shown on the Structural Drawings.
- 3. Connections shall be designed by the Steel Fabricator to support the reactions shown on the framing plan(s). Simple span connections without reactions listed on the Structural Drawings shall be designed by the Steel Fabricator in accordance with Table 3-6 of the AISC "Manual of Steel Construction, 14th Edition". For composite beams where reactions are not indicated, design connections for 75% of the Maximum Total Uniform Load ASD value for the applicable beam size and span given in Table 3-6. For non-composite beams, design connections for 50% of the tabulated ASD value. 4. Submit calculations for connections not detailed on the Structural Drawings and not covered by the
- AISC Tables, including but not limited to:
- A) Column Splices.
- B) Moment Connections. C) Bracing Connections including Collectors and Drag Struts.
- D) Skewed Shear Connections.
- 5. All beam-to-beam connections shall be double angle, unless shown or noted otherwise.
- 6. All beam-to-column connections shall be at the column centerline, unless noted otherwise. Shear tab connections to tubes are permitted unless otherwise noted or detailed.
- 7. Typical beam-to-beam, and beam-to-column field-bolted connections may be tightened to the snug-
- tight condition, unless otherwise shown or noted. 8. Bolted connections in moment frames, bracing connections, hangers and stub columns, crane
- connections, and those designated PT (pretensioned) on the Drawings shall be pretensioned joints utilizing tension-control (TC) bolts or direct tension indicators. Holes for PT bolts shall be 1/16" larger
- than the bolt diameter. All pretensioned joints must be inspected by the Testing Agency. 9. Connect bracing members for two components of stress unless otherwise approved by the Structural Engineer of Record. Provide a minimum 2-bolt or welded field connection. 10. Locate centerlines of all vertical bracing members on column centerlines in vertical plane and on
- column and beam centerlines in horizontal plane, unless otherwise shown on the Structural Drawings. 11. All welding shall be in conformance with AWS D1.1, using E70XX electrodes, unless shown or noted otherwise. Welding, both shop and field, shall be performed by welders certified for the weld types and positions involved according to the current edition of AWS D1.1. Perform all AESS welds with care to provide a clean, uniform appearance.
- 12. Backup bars required for welded connections shall be continuous. 13. Holes in steel shall be drilled or punched. All slotted holes shall be provided with smooth edges. Burning
- of holes in structural steel shall not be allowed without approval of the Structural Engineer of Record. 14. The minimum thickness of all connection material shall be 5/16" unless noted. 15. Continuous bent plate and angle closures, roof edges, diaphragm chords, etc. around perimeter of the
- floor and roof, as well as around openings shall be welded with a minimum 1/4" fillet weld x 3" long at 12" o.c., top & bottom, unless noted otherwise. Butt weld joints in continuous diaphragm chord for continuity. For continuous perimeter angles and bent plates perpendicular to and connected to the top chords of joists, provide a minimum 3" of 1/4" weld at each joist. Continuous angle and bent plate closures may be shop-applied to the supporting structural members only when requested and
- approved by Structural Engineer of Record. 16. Where steel beams are called to have wood nailers supporting wood floor or roof framing, provide 1/2" diameter carriage bolts spaced at 24" on center and staggered each side of the beam web, unless noted otherwise. Carriage bolts may be over-tightened to compress the rounded head in the nailer to facilitate installation of continuous band/rim joists, rafters, trusses, etc.
- 17. A qualified independent Testing Agency shall be retained to perform inspection and testing of structural steel field weldaments as follows:

WELD INSPECTION SCHEDULE

WELD TYPE	VT	MT	UT	PT	CRT	COMMENTS
FILLET (SINGLE PASS)	25%	-	-	-	-	ROOT PASS AND FINISHED WELD
FILLET (MULTIPLE PASS)	50%	25%	-	-	-	
FLARE BEVEL/ FLARE V	25%	-	-	-	-	
GROOVE (PARTIAL PENETRATION)	100%	-	100%	-	-	REFERENCE NOTE 'E' BELOW
GROOVE (FULL PENETRATION)	100%	-	100%	-	-	ALL FULL PENE- TRATION WELDS

- A) Test procedures:
- VT = Visual Test (inspection)
- MT = Magnetic Particle Test: ASTM E109, cracks or incomplete fusion or penetration not acceptable. UT = Ultrasonic Test: ASTM E164.
- PT = Penetrant Test: ASTM E165. RT = Radiographic Test: ASTM E94 and ASTM E142, min. quality level 2-21.
- B) Acceptance standards in AWS D1.1 shall be followed for each test procedure.
- C) Test procedures may be substituted to meet feasibility requirements of test based upon weld geometry or other factors with the approval of the Structural Engineer of Record.
- D) Samples shall occur at random locations; additional tests may be required at locations noted on the
- Drawings. E) Groove welds include square, bevel, V, U, and J grooves including single and double pass types.
- F) Partial penetration square groove welds at end seal plates of tubular members do not require inspection. G) Weld Procedure Specifications (WPS) shall be produced and maintained in accordance with AWS D1.1. The independent Testing Agency shall have access to all WPS's during the course of testing and
- H) For highly-restrained welded joints, especially in thick plates and/or heavy structural shapes, details the welds so that shrinkage occurs as much as possible in the direction the steel was rolled. Refer to the AISC Manual for preferred welded-joint arrangements that reduce the possibility for lamellar tearing. Members scheduled to receive highly-restrained connections shall be tested by the independent Testing Agency by Ultrasonic Testing prior to commencing welding
- I) In addition to inspection requirements for fillet welds in Table above, 100% of field welding of diagonal bracing members to gusset plates shall be visually inspected (VT)

PL 3/8 X11 ≤ 12'-0" 18'-0" (i.e. for HVAC, Plumbing, etc.) .:

B. Openings > 6'-0" BUT ≤ 12'-0", use W8x28 lintels w/ 3/8" bottom plates.

1. Structural steel construction shall conform to the American Institute of Steel Construction

- 12. Fabricate simple span beams not specifically noted to receive camber so that after erection, any
- 14. The Erector shall shim between parallel roof beams and joists with differential mill and induced

CONCRETE REINFORCING

- 1. Reinforcement, other than cold drawn wire for spirals and welded wire fabric, shall have deformed surfaces in accordance with ASTM A305. 2. Reinforcing steel shall conform to ASTM A615, Grade 60, unless noted.
- . Welded wire fabric shall conform to ASTM A1064, unless noted. 4. Where hooks are indicated, provide standard hooks per ACI and CRSI for all bars unless other
- hook dimensions are shown on the plans or details. 5. Reinforcement in footings, walls and beams shall be continuous. Lap bars a minimum of 40
- diameters, unless noted otherwise. 6. Reinforcement shall be supported and secured against displacement in accordance with the CRSI 'Manual of Standard Practice'.
- . Details of reinforcing steel fabrication and placement shall conform to ACI 315 'Details and Detailing of Concrete Reinforcement' and ACI 315R 'Manual of Engineering and Placing Drawings
- for Reinforced Concrete Structures', unless otherwise indicated. 8. Spread reinforcing steel around small openings and sleeves in slabs and walls, where possible, and where bar spacing will not exceed 1.5 times the normal spacing. Discontinue bars at all large openings where necessary, and provide an area of reinforcement, equal to the interrupted reinforcement, in full length bars, distributing one-half each side of the opening. Where shrinkage and temperature reinforcement is interrupted, add (2) #5 x opening dimension + 4'-0" on each side of the opening. Provide #5 x 4'-0" long diagonal bars in both faces, at each corner of openings larger than 12" in any direction.
- 9. Provide standees for the support of top reinforcement for footings, pile caps, and mats. 10. Provide individual high chairs with support bars, as required for the support of top reinforcement for supported slabs. Do NOT provide standees.
- 11. Provide snap-on plastic space wheels to maintain required concrete cover for vertical wall reinforcement. 12. Where walls sit on column footings, provide dowels for the wall. Dowels shall be the same size
- and spacing as the vertical wall reinforcement, unless noted otherwise, with lab splices as shown on the application sections. Install dowels in the footing forms before concrete is placed. Do NOT stick dowels into footings after concrete is placed.
- 13. Field bending of reinforcing steel is prohibited, unless noted on drawings. 14. Minimum concrete cover over reinforcing steel shall be as follows, unless noted otherwise on plan, section or note:

MINIMUM COVER FOR REINFORCEMENT								
	MINIMUM COVER							
WALLS								
FOR DRY CONDITIONS:								
#11 BARS & SMALLER	3/4"							
#14 & #18 BARS	1 1/2"							
FORMED CONCRETE SURFACES EXPOSED TO EARTH, WATER, SEWAGE, WEATHER, OR IN CONTACT WITH GROUND	2"							
FOOTINGS & BASE SLABS								
AT FORMED SURFACES & BOTTOMS BEARING ON CONCRETE WORK MAT	2"							
AT UNFORMED SURFACES & BOTTOMS IN CONTACT WITH EARTH	3"							
TOP OF FOOTINGS	SAME AS SLABS							

FOUNDATIONS

2"

Proofroll slab on grade areas with a medium-weight roller or other suitable equipment to check for pockets of soft material hidden beneath a thin crust of better soil. Any unsuitable materials thus exposed should be removed and replaced with compacted, engineered fill as outlined in the

OVER TOP OF PILES

- specifications. Proofrolling operations shall be monitored by the Geotechnical Testing Agency. All engineered fill beneath slabs and over footings should be compacted to a dry density of at least 93% of the Modified Proctor maximum dry density (ASTM D-1557). All fill which shall be stressed by foundation loads shall be approved granular materials compacted to a dry density of at least 95% (ASTM D-1557). Coordinate all fill and compaction operations with the Specifications and the Subsurface Investigation. Compaction shall be accomplished by placing fill in approximate 8" lifts and mechanically compacting each lift to at least the specified minimum dry density. For large areas of fill, field density tests shall be
- performed for each 3,000 square feet of building area for each lift as necessary to insure adequate compaction is being achieved. Column footings and wall/trench footings to bear on firm natural soils or well-compacted engineered with allowable bearing pressures of 2,500 PSF at Unit D and At the New Stage (4,000 PSF at Unit E as outlined in the Subsurface Investigation Report.
- It is essential that the foundations be inspected to insure that all loose, soft, or otherwise undesirable material (such as organics, existing uncontrolled fill, etc.) is removed and that the foundations will bear on satisfactory material. The Geotechnical Testing Agency shall inspect the subgrade and perform any necessarv tests to insure that the actual bearing capacities meet or exceed the design capacities. The Geotechnical Testing Agency shall verify the bearing capacity at each spread column footing and every 10 feet on center for strip footings prior to placement of concrete.
- Place footings the same day the excavation is performed. If this is not possible, the footings shall be adequately protected against any detrimental change in condition, such as from disturbance, rain, or 6. It is the responsibility of the Contractor and each Sub-Contractor to verify the location of all utilities and
- services shown, or not shown; and establish safe working conditions before commencing work. The Contractor shall layout the entire building and field verify all dimensions prior to excavation. For information regarding subsurface conditions, refer to the Subsurface Investigation & Foundation Recommendation Report prepared by ATLAS Technical Consultants LLC, Project No. 170GC01423, dated July 28th, 2022.

POST-INSTALLED DOWELS & ANCHOR BOLTS/RODS

- 1. All reinforcing steel and threaded rod anchors to be installed in a 2-part chemical anchoring system shall be treated as follows: A. Drill holes larger than bar or rod to be embedded. Coordinate hole diameter with Manufacturer's
- recommendations. B. Holes must be cleaned and prepared in accordance with Manufacturer's recommendations. C. When reinforcing steel is encountered during drilling for installation of anchors; stop drilling, use a sensor to locate the reinforcing in the surrounding area and install anchor(s) as close as possible to the original location. Contact the Structural Engineer of Record (SER) for direction when the revised location is more than 2" from the original location, or when the original function of the
- anchorage is significantly altered. When in doubt, contact the SER for direction. Drill the hole a minimum of 15 bar diameters or as shown on the plans
- E. Use a 2-part adhesive anchoring system, Hilti HY-200, or approved equal.
- F. For anchorage into hollow substrate, use Hilti HY-270, or approved equal. G. Reinforcing steel dowels shall be ASTM A615, Grade 60, unless noted.
- H. Anchor rods shall be Hilti HAS-V-36, unless noted. Provide finish as noted on the Drawings. If not noted, provide hot-dip galvanized finish for interior applications. Provide stainless steel finish for all exterior applications, unless noted.
- When column anchor bolts have been omitted, or damaged by construction operations, the Contractor must obtain the written approval of the Structural Engineer of Record prior to repair or replacement. A. As a precaution, the affected column must be guyed and braced after repair for the balance of the
- erection period. B. As an alternate to guying and bracing, the Contractor may at his option, employ a testing agency to perform a tensile pull test to confirm the strength for the repaired or replaced anchor bolt. The tensile proof load must exceed 1.33 x the design load of the original anchor without causing distress of the anchor bolt or the surrounding concrete. Reference the following table for the minimum proof loads: 3/4" diameter: 12.8 kips
- 7/8" diameter: 17.4 kips 1" diameter: 22.7 kips 1 1/8" diameter: 28.8 kips 1 1/4" diameter: 35.6 kips
- Note: Values listed above are for ASTM F-1554, Grade 36 material. When higher grade or strength materials are specified, refer to the AISC Steel Design Guide 1, Table 3.1 for minimum
- allowable loads to be multiplied by 1.33. C. When affected anchor bolts are part of a fixed moment resisting column base, such as those in moment-resisting space frames, canopies, or fixed-base installations, the repaired anchor bolts must be proof-loaded, or the affected column footing and/or pier replaced in its entirety.
- D. When affected anchor bolts are part of a braced frame the affected column footing and/or pier must be replaced in its entirety.
- . Prior to erection, the controlling Contractor must provide written notification to the Steel Erector if there has been a repair, replacement or modification of the anchor bolts for that column.

CAST IN PLACE CONCRETE

- 1. Details of fabrication of reinforcement, handling and placing of the concrete, construction of forms and placement of reinforcement not otherwise covered by the Plans and Specifications, shall comply with the ACI Code requirements of the latest revised date.
- 2. Cold weather concreting shall be in accordance with ACI 306. Cold weather is defined as a period when for more than 3 successive days the average daily air temperature drops below 40F and stays
- below 50F. The Contractor shall maintain a copy of this publication on site. 3. Hot weather concreting shall be in accordance with ACI 305. Hot weather is defined as any
- combination of the following conditions that tends to impair the quality of the freshly mixed or hardened concrete: high ambient temperature, high concrete temperature, low relative humidity, wind speed, or solar radiation The Contractor shall maintain a copy of this publication on site.
- 4. A certified Testing Agency shall be retained to perform industry standard testing including measurement of slump, air temperature, concrete cylinder testing, etc. to ensure conformance with the Contract Documents. Submit reports to Architect/Engineer.
- 5. Finishing of Slabs: After screeding, bull floating and floating operations have been completed, apply final finish as indicated below, and as described in the Division 3 Cast In Place Concrete Specification of the Project Manual.

Hard Trowel Finish

- A. Floor Slabs
- B. Ramps, Stairs, & Sidewalks Broom Finish Float Finish C. Surfaces to Receive Topping Slab
- D. Surfaces to receive thick-set mortar Float Finish beds or similar cementitious materials
- E. Driving Surfaces Rough Swirl Finish
- Sample Finishes: See Specifications for sample and mockup requirements, if any. Floor Tolerances: See the Specifications for specified Ff and Fl tolerances. Ff and Fl testing shall be performed by the Testing Agency in accordance with ASTM E-1155. Results, including acceptance or
- rejection of the work will be provided to the Contractor and the Architect/Engineer within 48 hours after data collection. Remedies for out-of-tolerance work shall be in accordance with the Specifications. When approved by the Structural Engineer of Record, measurement of the gaps beneath a 10-foot straight edge may be used in lieu of Ff and FI testing. Approval must be obtained in writing prior to the
- beginning of concrete operations. E. Finishing of Formed Surfaces: Finish formed surfaces as indicated below, and as described in the Division 3 Cast In Place Concrete Specification of the Project Manual.
- Rough Form Finish A. Sides of Footings & Pile Caps B. Sides of Grade Beams Rough Form Finish
- Rough Form Finish C. Surfaces not exposed to public view
- Smooth Form Finish D. Surfaces exposed to public view 7. The Contractor shall consult with the Structural Engineer of Record before starting concrete work to
- establish a satisfactory placing schedule and to determine the location of construction joints so as to minimize the effects of shrinkage in the floor system. 8. Sawn or tooled control/contraction joints shall be provided in all slabs on grade. For a framed structure.
- joints shall be located on all column lines. If the column spacing exceeds 20'-0", provide intermediate joints. Exterior slabs, and interior slabs without column shall have joints spaced a maximum of 15'-0"
- apart. Layout joints so that maximum aspect ratio (ratio of long side to short side) does not exceed 1.5. 9. Where vinyl composition tile, vinyl sheets goods, thin-set epoxy terrazzo, or other similar material is the
- specified finish floor material, the Contractor shall coordinate the locations of control/contraction and construction joints with the Finish Flooring Contractor. Submit a dimensioned plan showing joint locations and proposed sequence of floor pours. 10. Unless specifically noted on the Plans, composite and non-composite supported slabs on metal deck,
- and supported cast-in-place concrete slabs do not require sawn control joints. 11. Joints in slabs to receive a finished floor may remain unfilled, unless required by the finish flooring contractor. All exposed slabs shall be filled with sealant specified in Division 7, or as follows: All slabs in industrial, manufacturing, or warehouse applications subject to wheeled traffic shall be filled with specified epoxy resin sealant, all other joints shall be filled with specified elastometric sealant. Defer filling of joints as long as possible, preferably a minimum of 4 to 6 weeks after the slab has been cured. Prior to filling,
- remove all debris from the slab joints, the fill in accordance with the manufacturer's recommendations. 12. Refer to the Architectural Drawings for locations and details of reveals (1" maximum depth) in exposed walls.
- 13. Refer to the Architectural Drawings for chamfer requirements for corners of concrete. Where not indicated, provide 3/4" chamfers on exposed corners of concrete, except those abutting masonry.
- 14. Refer to the Architectural Drawings for exact locations and dimensions of recessed slabs, ramps, stairs, thickened slabs, etc. Slope slabs to drains where shown on the Architectural and Plumbing Drawings.
- 15. Sidewalks, drives, exterior retaining walls, and other site concrete are not indicated on the Structural Drawings. Refer to the Site/Civil and Architectural Drawings for locations, dimensions, elevations, jointing, and finish details.

CONCRETE MIX CLASS	ES							
FOOTINGS, FOUNDATION WALLS, PIERS, & GRADE BEAMS								
COMPRESSIVE STRENGTH	4000 PSI							
MAXIMUM WATER/CEMENT RATIO	0.45							
AIR CONTENT	0 - 3 PERCENT							
WATER-REDUCING ADMIXTURE	REQUIRED							
SLUMP	5" TO 6 1/2"							
INTERIOR CONCRETE SLABS								
COMPRESSIVE STRENGTH	4000 PSI							
MINIMUM CEMENTITIOUS MATERIAL CONTENT	517 LB/CU YD							
AIR CONTENT	0 - 3 PERCENT							
WATER-REDUCING ADMIXTURE	REQUIRED							
SLUMP	5" TO 6 1/2"							
PROVIDE ELEMENT 5 SYSTEM (INTERNAL CURE & CATALYST) PER PLAN NOTE ON FOUNDATIONS PLANS								
EXTERIOR CONCRETE SUBJECT TO FREEZE-THAW								
COMPRESSIVE STRENGTH	4000 PSI							
MINIMUM CEMENTITIOUS MATERIAL CONTENT	564 LB/CU YD							
AIR CONTENT	6 ± 1 PERCENT							
WATER-REDUCING ADMIXTURE	REQUIRED							
SLUMP	5" TO 6 1/2"							
COARSE AGGREGATE	CRUSHED STONE							
INCREASE COMPRESSIVE STRENGTH TO 4500 PSI FOR I REINFORCED CONCRETE SUBJECT TO THE USE OF DE-	exterior Icers.							
LEAN CONCRETE FILL								
COMPRESSIVE STRENGTH	2000 PSI							
MAXIMUM WATER/CEMENT RATIO	0.65							
AIR CONTENT	OPTIONAL							
WATER-REDUCING ADMIXTURE	NOT REQUIRED							
SLUMP	4" TO 7"							

1. SLUMP: MIXES CONTAINING TYPE A WRDA

- 5" MAXIMUM MIXES CONTAINING MID-RANGE WRDA 5 - 6 1/2" MIXES CONTAINING HIGH-RANGE WRDA
- SPECIFIED MINIMUM CEMENTITIOUS MATERIAL CONTENTS ARE BASED ON THE USE OF WATER REDUCING ADMIXTURES. 3. INCLUDE AN AIR-ENTRAINING ADMIXTURE FOR ALL CONCRETE EXPOSED TO FREEZING AND THAWING IN SERVICE AND FOR ALL CONCRETE EXPOSED TO COLD WEATHER DURING
- CONSTRUCTION, BEFORE ATTAINING ITS SPECIFIED DESIGN COMPRESSIVE STRENGTH. REF. ACI 306 FOR DEFINITION OF COLD WEATHER.
- 4. CLASS C FLY ASH MAY BE USED AS A CEMENT SUBSTITUTE WITH A MAXIMUM 20% SUBSTITUTION RATE ON A POUND-PER-POUND BASIS
- 5. SLAG CEMENT MAY BE USED AS A SUBSTITUTE FOR PORTLAND CEMENT WITH A MAXIMUM 50% SUBSTITUTION RATE ON A POUND-PER-POUND BASIS WITH THE EXCEPTION OF CLASS E CONCRETE, WHICH SHALL BE LIMITED TO 30%.
- . WHEN SLAB CEMENT AND FLY ASH ARE USED IN THE SAME CONCRETE MIX. THE MAXIMUM SUBSTITUTION RATES SHALL COMPLY WITH THE FOLLOWING: PORTLAND CEMENT/SLAG/FLY ASH RATIO: CLASS E EXTERIOR CONCRETE 70% / 20% / 10%
- ALL OTHER CLASSES 50% / 30% / 20% FOR CONCRETE TO BE CAST DURING COLD WEATHER. THE MAXIMUM SUBSTITUTION RATE
- FOR SLAG CEMENT SHALL BE 30%. IF SLAG CEMENT AND FLY ASH ARE USED IN THE SAME MIX, THE MAXIMUM SUBSTITUTION RATES SHALL COMPLY WITH A RATIO OF PORTLAND CEMENT/SLAG/FLY ASH OF 70% / 20% / 10%.
- . PROPORTION CONCRETE MIXES TO PROVIDE WORKABILITY AND CONSISTENCY TO PERMIT CONCRETE TO BE WORKED READILY INTO THE CORNERS AND ANGLES OF THE FORMS AND AROUND REINFORCEMENT BY THE METHODS OF PLACEMENT AND CONSOLIDATION
- TO BE EMPLOYED, WITHOUT SEGREGATION AND EXCESSIVE BLEEDING. 9. ADJUSTMENTS TO THE APPROVED MIX DESIGNS MAY BE REQUESTED BY THE CONTRACTOR WHEN JOB CONDITIONS WEATHER TEST RESULTS OR OTHER

ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO USE.

for Concrete Masonry Structures (ACI 530) and Commentary.

D) See Specifications for additional masonry wall information.

4. GROUT: ASTM C476, 2500 PSI with a slump of 8" min. and 11" max.

5. REINFORCING: fy = 60000 PSI with a min. lap of 48 bar diameters.

A) f'm = 2000 PSI

3. MORTAR: Type S required.

B) Maximum height of masonry lift: 5'-0"

C) Maximum height of grout lift: 5'-0"

CIRCUMSTANCES WARRANT. THESE REVISED MIX DESIGNS SHALL BE SUBMITTED TO THE

REINFORCED MASONRY NOTES

1. All construction of reinforced masonry walls to be in accordance with the Building Code Requirements

2. CONCRETE BLOCK: Minimum compressive test strength on the net cross-sectional area: 2800 PSI.



- 12. All field-cutting of studs must be done by sawing or shearing. Torch-cutting of cold-formed members is not allowed 13. No notching or coping of studs is allowed, unless explicitly shown on the design or shop drawings. All field-cut holes must be reinforced.
- 14. The Framing Contractor is to ensure punch out alignment when assembling lateral bracing/bridging and field-cutting studs to length. Lateral bracing/bridging must be installed at the time the wall is erected. 15. Temporary bracing shall be provided and remain in place until work is completely stabilized.
- 16. Use a minimum of three studs at the corners of all exterior walls. 17. Use a minimum of three studs at the intersections and corners of all load-bearing walls.
- 18. All headers and built-up beams must be constructed of UNPUNCHED material only. Install insulation in built-up exterior framing members, such as headers, sills, boxed joists, and multiple studs at openings, that are inaccessible on completion of framing work.
- 19. Shop drawings: Show layout, spacings, sizes, thicknesses, types of cold-formed metal framing, and fastening and anchorage details, including mechanical fasteners. Show reinforcing channels, opening framing, supplemental framing, strapping, bracing, bridging, splices, accessories, connection details,
- 20. For cold-formed metal framing indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer (SSE) responsible for their preparation. 21. Structural Performance: Provide cold-formed metal framing capable of withstanding design loads within limits and under conditions indicated. A) Design Loads: Reference the Design Criteria Notes.
- B) Deflection Limits: Design framing systems to withstand design loads without deflections greater than the following 1. Wall Framing: Horizontal deflection of 1/240 of the wall height for walls with flexible finishes,
- e.g. metal siding, wood siding, EIFS, etc. 2. Wall Framing: Horizontal deflection of 1/360 of the wall height for walls with cementitious
- finishes, e.g. cement plaster. 3. Wall Framing: Horizontal deflection of 1/600 of the wall height for walls with masonry veneer
- 22. Design framing systems to provide for movement of framing members without damage or overstressing, sheathing failure, undue strain on fasteners and anchors, or other detrimental effects when subject to an ambient temperature change of not less than 120 degrees F.
- 23. Design framing system to maintain clearances at openings, to allow for construction tolerances, and to accommodate live load deflection of primary building structure as follows: Upward and downward movement of 3/4 inch.
- 24. Design exterior non load-bearing curtain wall framing to accommodate horizontal deflection without regard for contribution or sheathing materials.

GENERAL NOTES

- 1. The Contractor shall be responsible for complying with all safety precautions and regulations during the work. The Structural Engineer of Record will not advise on, nor issue direction as to safety precautions and programs. 2. The Structural Drawings herein represent the finished structure. The Contractor shall provide all temporary guying and bracing required to erect and hold the structure in proper alignment until all Structural Work and connections have been completed. The investigation, design, safety, adequacy and inspection of erection
- bracing, shoring, temporary supports, etc. is the sole responsibility of the Contractor. 3. The Structural Engineer of Record (SER) shall not be responsible for the methods, techniques and sequences
- are not specifically shown, similar details of construction shall be used, subject to approval of the SER. 4. Drawings indicate general and typical details of construction. Where conditions are not specifically shown, similar details of construction shall be used, subject to approval of the Structural Engineer of Record.
- 5. All structural systems which are to be composed of components to be field erected shall be supervised by the Supplier during manufacturing, delivery, handling, storage, and erection in accordance with the
- Supplier's instructions and requirements. Loading applied to the structure during the process of construction shall not exceed the safe load-
- carrying capacity of the structural members. The live loading used in the design of this structure are indicated in the "Design Criteria Notes." Do not apply any construction loads until structural framing is properly connected together and until all temporary bracing is in place.
- All ASTM and other referenced standards and codes are for the latest editions of these publications, unless otherwise noted. 8. Shop drawings and other items shall be submitted to the Structural Engineer of Record (SER) for review prior to fabrication. All Shop Drawings shall be reviewed by the Contractor before submittal. The SER's review is to be fore conformance with the design concept and general compliance with the relevant Contract Documents. The SER's review does not relieve the Contractor of the sole responsibility to review, check, and coordinate the Shop Drawings prior to submission. The Contractor remains solely responsible for errors and omissions associated with the preparation of Shop Drawings
- as they pertain to member sizes details dimensions etc. Submit Shop Drawings in the form of blueline/blackline prints (min. 2 sets/ max. 5 sets) and one reproducible blackline or sepia copy. In no case shall reproductions of the Contract Documents be used as shop drawings. As a minimum, submit the following items for review.
- A. Concrete Mix Design(s). B. Reinforcing Steel Shop Drawings.
- C. Structural Steel Shop Drawings
- D. Steel Joist Shop Drawings. E. Steel Deck Shop Drawings.
- F. Cold-Formed Steel Framing Systems. 10. Resubmitted Shop Drawings: Resubmitted shop drawings are reviewed only for responses to
- comments made in the previous submittal. 11. When calculations are included in the submittals for components of work designed and certified by a Specialty Structural Engineer (SSE), the review by the Structural Engineer of Record (SER) shall be for conformance with the relevant Contract Documents. The SER's review does not relieve the SSE from responsibility for the design of the system(s) and the coordination with the elements of the structure
- under the certification of the SER, or other SSE's. The SER's review does not constitute a warranty of the accuracy or completeness of the SSE's design. 12. Contractors shall visit the site prior to bid to ascertain conditions which may adversely affect the work
- or cost thereof. 13. No structural member may be cut, notched, or otherwise reduced in strength without written direction
- from the Structural Engineer of Record. 14. When modifications are proposed to structural elements under the design and certification of a Specialty Structural Engineer (SSE), written authorization by the SSE must be obtained and submitted

to the Structural Engineer of Record for review, prior to performing the proposed modification.

EXISTING CONSTRUCTION

- 1. The contractor shall field verify the dimensions, elevations, etc. necessary for the proper construction and alignment of the new portions of the work to the existing work. The Contractor shall make all necessary measurements for fabrication and erection of the structural members. Any discrepancy
- shall be immediately brought to the attention of the Structural Engineer of Record. 2. Before proceeding with any work within the existing facility, the Contractor shall familiarize himself with existing structural and other conditions. Any shoring shown or noted on the Plans is a partial and schematic representation of that required. It shall be the Contractor's responsibility to provide all necessary bracing, shoring, and other safeguards to maintain all parts of the work in a safe condition during the progress of demolition and construction, and to protect from damage those portions of the existing work which are to remain. Shoring shall remain in place until the structural work is complete, has been inspected by the Testing Agency, and is certified to be in substantial compliance with the Contract Documents.
- 3. When required by the Specifications or by Plan Note, the Contractor shall submit for the Structural Engineer of Record's review, a "Proposed Shoring Plan," including, but not limited to: plans, sections, details, notes, description of proposed sequence of work, and calculations prepared by, or under the supervision of a Specialty Structural Engineer (SSE). The SSE shall be registered in the State where the project is located. Welding to and within an existing facility presents potential hazards including
- A. Fire Hazard Due to the existing construction and building contents B. Structural Liquefaction - Due to welding across the full section of the structural members.
- Recommendations to prevent these hazards include: A. Fire Hazard - Protect existing combustibles prior to welding. Keep a separate watchman and
- several fire extinguishers on hand. B. Structural Liguefaction - weld in small increments. Allow welds to harden before continuing to the
- next increment. C. Do not leave the site until satisfied that no fire hazard exists.
- D. Preference should be given to the use of beam clamps, mechanical fasteners, or bolted connections in lieu of welding within existing facilities, whenever possible. Do not field-drill existing structural members without the written permission of the Structural Engineer of Record.

COORDINATION WITH OTHER TRADES

- 1. The Contractor shall coordinate and check all dimensions relating to Architectural finishes, mechanical equipment and openings, elevator shafts and overrides, etc. and notify the Architect/Engineer of any discrepancies before proceeding with any work in the area under question. 2. The Structural Drawings shall be used in conjunction with the Drawings of all other disciplines and the
- Specifications. The Contractor shall verify the requirements of other trades as to sleeves, chases, hangers, inserts, anchors, holes, and other items to be placed or set in the Structural Work. 3. There shall be no vertical or horizontal sleeves set, or holes cut or drilled in any beam or column unless
- it is shown on the Structural Drawings or approved in writing by the Structural Engineer of Record.
- 4. Mechanical and electrical openings through supported slabs and walls, 8" diameter or larger, not shown on the Structural Drawings must be approved by the Structural Engineer of Record (SER). Openings less
- than 8" in diameter shall have at least 1'-0" clear between openings, unless approved in writing by the SER. 5. Verify locations and dimensions of mechanical and electrical openings through supported slabs and
- walls shown on the Structural Drawings with the Mechanical and Electrical Contractors. 6. Do not install conduit in supported slabs, slabs on grade, or concrete walls unless explicitly shown or
- noted on the Structural Drawings. 7. Do not suspend any items, such as ductwork, mechanical or electrical fixtures, ceilings, etc. from steel
- roof deck or wood roof sheathing.
- 8. The Mechanical Contractor shall verify that mechanical units supported by the steel framing are capable of spanning the distance between the supporting members indicated on the Structural
- Drawings. The Mechanical Contractor shall supply additional support framing as required. 9. If drawings and specifications are in conflict, the most stringent restrictions and requirements shall govern.

SPECIALTY STRUCTURAL ENGINEERING (SSE)

- 1. A Specialty Structural Engineer is defined as a Professional Engineer licensed in the State of Indiana, not the Structural Engineer of Record, who performs Structural Engineering functions necessary for the
- structure to be completed and who has shown experience and/or training in the specific speciality. 2. It is the Specialty Structural Engineer's responsibility to review the Construction Drawings and
- Specifications to determine the appropriate scope of engineering. 3. It is the intent of the Drawings and Specifications to provide sufficient information for the Specialty
- Structural Engineer (SSE) to perform his design and analysis. If the SSE determines there are details, features, or unanticipated project limits which conflict with the engineering requirements as described in the project documents, the SSE shall in a timely manner, contact the Structural Engineer of Record for resolution of conflicts 4. The Specialty Structural Engineer (SSE) shall forward documents to the Structural Engineer of Record
- for review. Such documents shall bear the stamp of the SSE and include: A) Drawings introducing engineering input, such as defining the configuration or structural capacity of structural components and/or their assembly into structural systems. B) Calculations.
- C) Computer printouts which are an acceptable substitute for manual calculations provided they are accompanied by sufficient design assumptions and identified input and output information to permit their proper evaluation. Such information shall bear the stamp of the Specialty Engineer as
- an indication that said engineer has accepted responsibility for the results. 5. Contractors are referred to the specific technical specification sections and the structural drawings for those elements requiring Specialty Structural Engineering. Examples of components requiring Specialty Structural Engineering include, but are not limited to the following: A) Structural Steel Connections.
- B) Steel Joist Systems. C) Cold-Formed Steel Framing.
- 6. When modifications are proposed to elements under the design and certification of the Specialty Structural Engineer (SSE), written authorization by the SSE must be obtained and submitted to the Engineer of Record for review, prior to performing the proposed modification.

















APPROXIMATE LOCATION OF EXISTING PIPE TO BE REPLACED. COORDINATE WITH PLUMBNING DRAWINGS AND FIELD VERIFY EXACT LOCATION AND DEPTH. PROVIDE STEPS IN FOOTING AND SLEEVES THROUGH FOUNDATION WALLS AS REQUIRED PER	 REF. S-001 FOR STRUCTURAL NOTES, DESIGN DATA & SCHEDULES. ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS. THE MECHANICAL, ELECTRICAL, AND PLUMBING ASPECTS ARE NOT
THE TYPICAL DETAILS ON SHEET S-401. (2) IF PIPE INDICATED IN NOTE 1 IS LOCATED BELOW A NEW COLUMN FOOTING, AND THE DEPTH TO THE TOP OF THE PIPE IS LESS THAN 6 FEET BELOW THE BOTTOM OF THE	IN THE SCOPE OF THESE DRAWINGS. THEREFORE, ALL REQUIRED MATERIALS AND WORK MAY NOT BE INDICATED. 3. COORDINATE EXACT SIZE & LOCATION OF ALL MECHANICAL OPENINGS IN FOUNDATION
COLUMN FOOTING, PROVIDE A "BRIDGE" DETAIL AS INDICATED IN SECTION 9/S-402.	 WALLS WITH THE MECHANICAL, ELECTRICAL & PLUMBING CONTRACTORS. ALL ELEVATIONS ARE REFERENCED FROM THE FIRST FLOOR FINISH FLOOR ELEVATION 100'-0" (TO MATCH EXISTING). REFER TO THE CIVIL DRAWINGS FOR EXACT U.S.G.S. ELEV.
	 REF. ARCH. DRAWINGS FOR ALL DIMENSIONS NOT SHOWN. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
	 REF. S-401 FOR TYPICAL FOUNDATION DETAILS. 6. NOTE: PERIMETER WALL AND COLUMN FOOTINGS SHALL BE LOWERED AND/OR SLEEVED TO PASS BELOW PLUMBING LINES (I.E. SANITARY & STORM SEWERS, WATER LINES, ETC.)
	 SHOWN ON THE PLOMBING DRAWINGS. PROVIDE FOOTING STEPS AS REQUIRED PER THE TYPICAL DETAILS ON S-401. 7. ALL SLAB RECESSES SHALL BE LOCATED PER THE ARCHITECTURAL DRAWINGS. COORDINATE DEPTHS OF ALL SLAB RECESSES WITH THE ARCHITECTURAL DRAWINGS AND/OR THE FLOORING SUPPLIER.
	 COORDINATE REINFORCING DOWELS FOR CMU VERTICAL REINFORCING WITH REINF. NOTED ON PLANS & SECTIONS. GROUT ALL CORES OF CMU BELOW FINISH FLOOR SOLID. COLUMN FOOTINGS, TRENCH FOOTINGS AND WALL FOOTINGS SHALL BEAR ON ADDITIONAL CONTROL OF CO
	APPROVED SOILS W/ A MINIMUM BEARING CAPACITY OF2,500 PSF AT UNIT D AND AT NEW3 (STAGE (4,000 PSF IN UNIT E). 11. COLUMN FOOTINGS SUPPORTING MORE THAN ONE COLUMN SHALL BE CENTERED AT THE MIDPOINT BETWEEN THE COLUMNS, UNLESS NOTED OTHERWISE ON PLAN. 12. PROVIDE THICKENED SLAP UNDER ALL INTERIOR CMULWALLS WITHOUT FOOTINGS. SEE
	 4/S-401 FOR THICKENED SLAB DETAIL. LAYOUT THICKENED SLABS FROM DIMENSIONS ON THE ARCHITECT FLOOR PLANS. 13. PROVIDE CONTROL/CONTRACTION JOINTS IN SLABS ON GRADE (REF. THE TYPICAL DETAILS ON SHEET S-401). ALL JOINTS IN SLABS TO RECEIVE THIN OR THICK-SET
	TERRAZZO, CERAMIC OR PORCELAIN TILE, VINYL-COMPOSITION TILE (VCT) OR VINYL SHEET GOODS, EPOXY OR SIMILAR THIN-FILM FINISH FLOORING SHALL BE CAREFULLY COORDINATED WITH THE FLOORING CONTRACTOR. THE CONTRACTOR SHALL SUBMIT SLAB JOINT LAYOUT TO ARCHITECT/ENGINEER FOR REVIEW PRIOR TO PLACING SLABS.
	 14. FOR ARCHITECTURAL PILASTERS NOT SUPPORTING STEEL COLUMNS, CONSTRUCT AS FULLY-GROUTED MASONRY PIERS OR CAST-IN-PLACE CONCRETE PIERS REINF'D W/ #5 VERTICAL REINFORCING AT 12" O.C. ALL FACES, AT CONTRACTOR'S OPTION. 15. LOWER BOTTOM OF FOOTING AS REQUIRED FOR PIPE SLEEVE. REFER TO DETAIL 14.5. 401, COORD, EXACT LOCATION AND INVERTICE EVATION III UMPING CONTRACTOR
	 STEP TOP OF FOOTING DOWN AS REQUIRED FOR PIPE SLEEVE. REFER TO DETAILS 13 & 18/S-401. COORD. EXACT LOCATION AND INVERT ELEVATION W/ PLUMBING CONTRACTOR. 16. DENOTES INTERIOR CONC. BLOCK PARTITION WALL w/ #4 @ 48" o.c. (GROUT SOLID AT BARS) ON THICKENED SLAB PER DETAIL 4/S-401.
	PLAN LEGEND: F.F. DENOTES FINISH FLOOR
	T/'X' DENOTES TOP OF FTG., GRADE BEAM, SLAB, PIER, ETC. B/'X' DENOTES BOTTOM OF FTG. GRADE BEAM_ETC.
	C.J. DENOTES SLAB ON GRADE CONTROL/CONTRACTION JOINT
	GB32x24 -8'-0" DENOTES CONCRETE GRADE BEAM SIZE & TOP OF GRADE BEAM ELEVATION (SEE SCHEDULE)
	DENOTES WALL FOOTING WITH STEPS, REF. TYP.
	비는 비는 DENOTES COLUMN FOOTING MARK & TOP OF FTG. ELEVATION (SEE FTG. SCHED.)
	(REF. FRAMING PLANS FOR STUB COL'S NOT ON FDNS)
	DENOTES BASE PLATE SIZE / I / / / / / / / / / / / / / / / / /
	DETAILS ON S-401 & S-402)
	DENOTES PIPE PENETRATION THROUGH EXTERIOR WALL. REFER TO PLUMBING DRAWINGS FOR EXACT SIZE, LOCATION, AND INVERT ELEVATION. SEE DETAILS ON SHEET S-401 FOR STEPPED FOOTINGS, SLEEVES, ETC.
	AF.F. = SEE PLANDENOTES 4" CONC. SLAB ON GRADE w/ "FIBERFORCE 300"FIBERS @ 1.5 LB/C.Y. (OR EQUAL) & E5 SYSTEM BY SPECIFICATION PRODUCTS, INC. CONSISTING OF : E5 INTERNAL CURE ADMIXTURE @ 4 OZ/CWT & E5 CATALYST SPRAYED ON BETWEEN 800-1,000 SF/GAL OVER 15 MIL VAPOR BARRIER, ON 6" COMPACTED COMPACTED FOLLIOL
	E DENOTES WALL OR TRENCH
	$ \left\{ \begin{array}{c} \text{FOOTING ELEVATION (SEE} \\ \text{WALL/TRENCH FOOTING} \\ \text{SCHEDULE} \end{array} \right\} \xrightarrow{\text{WFXX OR TFXX} + X' - XX''} \xrightarrow{\text{CONC. TRENCH OR}} \\ \begin{array}{c} \text{WALL FOOTING} \\ \text{WALL FOOTING} \\ \end{array} \right\} $
	CONC. BLOCK WALL, SEE AGGREGATE PIER FOUNDATION (BY SUPPLIER) , , , , , , , , , , , , , , , , , , ,
	COLUMN FOOTING SCHEDULE
	 CENTER FOOTINGS BENEATH COLUMNS, U.N.O. ALL FOOTINGS MUST BE BOARD-FORMED, UNLESS APPROVED. INCREASE FOOTING DEPTH WHERE REQ'D TO ENCASE COLUMN ANCHOR RODS WF STEEL COLUMN SHOWN, TUBE & PIPE COLUMNS SIM.
	Length PER SCHED
-402	
	SEE NOTE #3
	COLUMN FOOTING SCHEDULE
	FOOTING MARK LENGTH WIDTH DEPTH REINFORCING F5.0E 5' - 0" 5' - 0" 2' - 4" (6) #5 x 4'-6" F6.0 6' 0" 6' 0" 4' 0" (7) "5 5' 0"
	F6.0 $6' - 0''$ $1' - 2''$ $(7) \# 5 \times 5^{-} 6''$ F6.0E $6' - 0''$ $2' - 8''$ $(7) \# 5 \times 5^{-} 6''$ F12.0x6.0 $6' - 0''$ $12' - 0''$ $2' - 4''$ $(13) \# 5 \times 5^{-} 6''$ V.1.E. $11' - 6''$ $(Y.1.E.)$ $(Y.1.E.)$ $(Y.1.E.)$
	FIG. FOOTING SIZE FOOTING SIZE MARK MIDTH DEDTH LONOTHEDINAL
	WIDTHDEPTHLONGITUDINALTRANSVERSETF302'-6"2'-4"(4) #6 x CONTINUOUS#3 x 2'-0" @ 96" O.C.1. CENTER FOOTINGS BENEATH WALLS, U.N.O.
	2. TRENCH FOOTINGS MAY BE CAST DIRECTLY AGAINST SOIL WITHOUT FORMING WHERE EXISTING SOIL CONDITIONS PERMIT. FORM TOP OF TRENCH FOOTINGS WHERE SOIL HAS SLOUGHED SIGNIFICANTLY, WHERE GRADE IS
	LOWER THAN THE INDICATED TOP OF FOOTING ELEVATION, OR WHEREVER TRENCH FOOTING WOULD INTERFERE WITH THE INSTALLATION OF DOWNSPOUTS, CONDUIT, BOLLARDS, ETC. COORDINATE WITH MECHANICAL, ELECTRICAL, PLUMBING & SITE/CIVIL DRAWINGS.

FOUNDATION PLAN KEYED NOTES

FOUNDATION PLAN NOTES

AD-1





		GL/	ASS SCHEDULE							/	/ERIFY	HEIGHT OF PAI	NIC DE	VICE				LOUV	ER SCHEI
RE	NOTES	MK A 1/4"	GLASS TYPES	ED		8	" ~~~	►1	5"	-	v∕ MFF 5" —∣ - _∣	R. MID-RAIL CE 8" 8 	NTER }" ─────	LINE T	0 MAT(CH "8" }+ ► I		IK	_OUVER S
.OSER		B 1' INS	SUL. GLASS														┇		
	8,9	GLASS	LAMINATED SAF	ΕIΥ				2'-8"					2'-8") 			
		·			\neg \mid \mid					•	<u>~</u>								
	8,9	<u> </u>			-												-		
							2			3		4			4				
	8,9	-			D	OOF	<u> </u>		<u>) F</u>	RA	ME	E SCHE	EDI	JL					
	10745	NO	DESCRIPTION	TYPE	DOOR SIZE (WxH)	MATERIAL	LOU	DOOR	SIDE	TRA	MAT'L	F WIDTH	JAMB	HEAD	SILL	ELEV	LABEL	EXIT	WARE CLOSER
YES	1,2,0,4,0	Δ-122Δ			(INCHES)				LGI			Q"						DEVICE	
YES			SINGLE TO REMAIN	2	36 x 84	WD					нм	5							
		4 4074										• "							
		A-123A	EXISTING SINGLE TO	1	36 x 84	WD					НМ	Ø							
			REMAIN																
		A-124A	SINGLE	1	36 x 84	WD					НМ	7 1/8"	J2	H2		HM1			
	<u> </u>	A-125A	SINGLE	1	36 x 84	WD					НМ	7 1/8"	J2	H2		HM1			
	0,9	A-125B	SINGLE	1	36 x 84	WD					НМ	6"	J2	H2		HM1			
		A-126A			76 94							9"							
	8,9	12011	SINGLE TO REMAIN	2	JO X 64	VVD						Ű							
YES	1,2,3,4,5	A 109A										E 7 / 4"	10			111.4.1			
		A-120A	SINGLE	2	36 x 84	WD		С			НМ	5 5/4	JZ						
YES		A-128B	SINGLE	1	36 x 84	WD					НМ	6"	J2	H2		HM1			
		A-128C	BORROWED	1	28 x 48						НМ	5 3/4"	J1	H1	S1	HM3			
			LIGHT																
5/4" X	3/4" X	A-132A	SINGLE	1	36 x 84	WD					НМ	5 3/4"	J2	H2		HM1			
, /8" A NGLE	LÚMINUM AT	A-133A	DOUBLE	1	PR 36 x 84	WD					НМ	5 3/4"	J2	H2		HM2			
XTERI RAMES	OR 5 ONLY	B-104D	SINGI F	1		WD					НМ	8 3/8"	J2	Н2		HM1			
	JAMB (J1	D 1064										7 1 /0"	10			111.4.1			
X 3/4	"X 1/8"	B-106A	SINGLE	1	36 x 82	WD					НМ	/ 1/8	JZ	ΗΖ		нмт			
NUM / IOR F	ANGLE AT RAMES	B-111A	SINGLE	1	36 x 82	WD					НМ	7 1/8"	J2	H2		HM1			
	EILING	B-119A	SINGLE	1	36 x 82	WD					НМ	7 1/8"	J2	H2		HM1			
NUM		B-132A	SINGLE	1		WD					НМ	7 1/8"	J2	Н2		HM1			
FRON	T SYSTEM	D 1744										7 1 /0"	12	112		11541			
GLASS		B-134A	SINGLE	1	36 x 82	WD					НМ	/ 1/8	JZ	ΗΖ		нмт			
5		B-149A	SINGLE	1	36 x 82	WD					НМ	7 1/8"	J2	H2		HM1			
_	A-601	B-150A	SINGLE	1	36 x 82	WD					НМ	7 1/8"	J2	H2		HM1			
		B-152A	SINGLE	1		WD					НМ	7 1/8"	J2	Н2		HM1			
											1 1101	, , , , , , , , , ,							
		B-158A	SINGLE	1	36 x 84	WD					НМ	6 3/8	J2	H2		НМТ			
		C-113A	EXISTING SINGLE	1	36 x 84	WD					НМ	6 3/8"							
			RELOCATED																
		C-114A	SINGLE	1	36 x 84	WD					НМ	8 3/8"	J2	H2		HM1			
		C-114B	SINGLE	1	36 x 84	WD					НМ	8 3/8"	J2	Н2		HM1			
		C-115A			70 04							8 3 /8"	12	Ц2		<u>ым</u> 1			
			SINGLE		JU X 04	VVD													
		C-116A	SINGLE	1	36 x 84	WD					НМ	8 3/8"	J2	H2		HM1			
28C		C-117A	SINGLE	1	36 x 84	WD					НМ	8 3/8"	J2	H2		HM1			
A-1		C-118A	EXISTING	1	36 x 84	WD					НМ	6 3/8"							
2" AT			SINGLE RELOCATED																
	SILL SI	C-118B	EXISTING	1		WD					НМ	6 3/8"							
<u>ES</u>	$\left(\begin{array}{c} 3 \\ \hline A & 601 \end{array}\right)$		SINGLE RELOCATED																
		D-102A	SINGI F	1	.36 x 84	WD					НМ	6 3/8"	J2	Н2		HM2			
META	<u>al (HM)</u>	D 1044										7 1 /0"	10			111.44			
AL HE ETAILS S AND	AD, REFER	104A	SINGLE	1	36 x 82	WD					НМ	/ 1/ð	JZ						
IM) FF	, RAME	D-112A	SINGLE	1	36 x 84	WD					НМ	6 3/8"	J2	H2		HM1			
AROU _ FRA	ND MES.	D-113A	SINGLE	1	36 x 84	WD					НМ	6 3/8"	J2	H2		HM1			
'N ARI ERIFY	E ALL IOR TO	D-116A	SINGLE	2		WD		Δ			нм	8 3/8"	J2	H2		HM1			
INSTA SILL	LLATION. DO NOT			2								, , , , , , , , , ,							
TRUCT FOR	ION. WALL	D-117A	SINGLE	2	36 x 84	WD		A			НМ	8 3/8	J2	H2		HM1			
OOM ALL F	FINISH INISHES. GLASS	D-118A	SINGLE	2	36 x 84	WD		А			НМ	8 3/8"	J2	H2		HM1			
ED.	66433	D-118B	SINGLE	1	36 x 84	WD					НМ	8 3/8"	J2	H2		HM1			
		D-119A		2	76 × 94							8.3/8"	J2	Н2		HM1			
	$\begin{pmatrix} 2 \\ A-601 \end{pmatrix}$		SINGLE	Z	JO X 04	VVD		A			ΗМ	0 0/0	02	112					
TO ND MILAR METER TION BROKEI	N	GENER A. JAM B. SEA C. PRC ALU D. PRC E. FIEL F. SHIN G. FOR H. FOR I. FOR J. FOR K. GLA L. REF	AL DOOR NOT B, HEAD, AND SI L ALL JAMBS AND VIDE A SCRIBE M MINUM FRAMES. VIDE GLAZING AN D VERIFY ALL DI M SPACE IS NOT DOOR POSITION ELECTRICAL ROU HOLLOW METAL ALUMINUM STOR SS NOTED IN SIE ER TO FLOOR PL	TES: LL DO D HEAD AOLD A SET SC ID GLA MENSIC SHOW WITHIN JGH-IN FRAME EFRON DELIGHT ANS F DTES	NOT SHOW WALL CON DS WHERE FRAMES ME AT ALL EXTERIOR DOOR CRIBE MOLDS IN SEALA SS STOPS AS REQUIRE DNS, WALL THICKNESS, N ON DOOR FRAME EL N WALL REFER TO FRA N AT DOORS REFER TO E ELEVATIONS (HM) RE IT ELEVATIONS (SF) RE COLUMN FOR STORED OR LOCATIONS OF ADA	STRUCTION ET EXPOSE FRAMES NT. ED. EVATIONS ME MOUNT DETAIL 6 FER TO 2- FER TO 2- FER TO 1- FRONT OR PUSH PA	I. SEE ED MA AND Y FOR J ING E –A601 –A601 –A601 DS F	E FLOO SONRY WHERE NS, BC ALUMIN DETAIL 1. . FOR I FOR AIN WA DR PO	R PLAN AND/ NOTED TH NE UM STO 5-A60 HOLLO STOREI LL FRA WER AS	V FOR OR GYP ON D W AND DREFRC 1. W MET FRONT WES W SSISTED	WALL M PSUM B RAWING EXISTIN ONT. TAK AL (HM) (SF) FF /ITH NO OPERA	ATERIALS. REFER OARD. S. SCRIBE MOLD NG. (E THESE DIMENS FRAME PROFILES AME PROFILES F DOOR APPLIES TORS.	TO A8 TO BE SIONS I S REFE REFER TO ALL	3/4" 3/4" NTO AC ER TO S TO 4-A OPENII	RIES DR X 3/4" COUNT 3–A601 NGS IN	AWINGS X 1/8 AND AE FRAME	FOR WAL " ALUMIN DJUST DIN UNLESS	L FINISHE UM AT BC IENSIONS NOTED OT	S. 'TH SIDES ACCORDING 'HERWISE.
ES ER O'	÷	1. PANI 2. DOO	C DEVICE TO H R TO BE CONT	AVE E	ELECTRIC LATCH BOL	T. PREPAI	RE FI TO EI	RAME _ECTRI	FOR E CAL D	LECTR RAWIN	IFIED H GS FOR	HINGE. ROUGH IN.							
ER OI SET	-	3. PRO 4. KFY	VIDE ALUMINUM ED REMOVABLE	THRE	ESHOLD SET IN FULL	BED OF	MAS	TIC. R	EFER	TO 3/	A-610.								
		5. PRE	PARE DOOR AN	D FRA	ME FOR DOOR POSI	TION SWIT	ГСН.												

7. INSTALL SALVAGED METAL FRAME, DOOR, AND HARDWARE. 8. PROVIDE DROP SEAL, SOUND GASKETING AND ADA COMPLIANT THRESHOLD.

9. DOORS TO BE LOCKABLE FROM BOTH SIDE.

10. ALTERNATE.

A-601



GENERAL NOTES

 A. WORK SHALL COMPLY WITH LOCAL, MUNICIPAL, STATE FIRE PROTECTION CODES, THE LATEST NEPA 13 REQUIREMENTS. B. THE SCOPE OF WORK SPECIFIED HEREIN AND IN THE SPECIFICATIONS SHALL BE COORDINATED WITH THE CONSTRUCTION MANAGER - REFER TO THE SCOPE OF WORK FOR EACH TRADE. ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND CONSTRUCTION MANAGERS SCOPE SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR CLARIFICATION. THE ARCHITECT/ENGINEER FOR 	M.REFER FOR HY SPECIA LIGHTIN SYSTEM N.VISIT SI CONDIT EXISTIN EQUIPY AVOID FIRE PE
 SHALL BE FINAL. C.THE ENTIRE BUILDING OR THE NEW ADDITIONS SHALL BE FURNISHED AND INSTALLED WITH A COMPLETE AUTOMATIC SPRINKLER SYSTEM. EXISTING, REMODELED AND NEW ADDITION AREAS OF THIS BUILDING SHALL BE COVERED INCLUDING TUNNEL, ATTIC, CRAWLSPACE AND INTERSTITIAL SPACES. D. CONNECT EXISTING LOCAL AND EXISTING MAIN FIRE PROTECTION SERVICES TO NEW SERVICE AS REQUIRE. PROVIDE NECESSARY ZONING AND FIRE PROTECTION 	ALLOW FIELD C FULLY C REQUIN O. EXIS DOCUM CONTR. CONDIT INSTALL IDENTIF REVIEU AND B
MAINS TO EXISTING LOCATIONS AS REQUIRED. E.THE SPRINKLER SYSTEM SHALL BE DESIGNED TO DELIVER A DENSITY OF .10 GPM OVER THE MOST REMOTE IS00 SQ.FT., WITH ALLOWANCE FOR 100 GPM OUTSIDE HOSE STREAM. CALCULATIONS SHALL BE IN ACCORDANCE WITH THE LATEST NEPA #13 CHAPTER FOR LIGHT HAZARD.	RELOC P.HIDDEN OF CON WRITTEN DO SO FOR RE HIDDEN
F. THE BUILDING HAS MULTIPLE OCCUPANCY CLASSIFICATIONS AND THE SPRINKLER SYSTEM SHALL BE DESIGNED FOR EACH CLASSIFICATION ACCORDING TO NFPA REQUIREMENTS. FOR PORTIONS OF THE FACILITY WITH AREAS OF DIFFERENT CLASSIFICATIONS THAT ARE NOT PHYSICALLY SEPARATED BY A BARRIER OR PARTITION, THE REQUIRED SPRINKLER PROTECTION FOR THE MORE DEMANDING AREA SHALL EXTEND 15'-0' BEYOND ITS PERIMETER.	Q. COO SYSTEM EQUIPM AVOID FIRE PE ALLOWE FIELD O FULLY U REQUIR
1. GENERAL AREAS ARE LIGHT HAZARD, Ø.10 GPM/SQFT. FOR THE MOST REMOTE 1500 SQFT. 2. KITCHEN AREA IS ORDINARY HAZARD (GROUP 1), Ø.15 GPM SQFT. FOR THE MOST REMOTE 1500 SQFT.	RPROVIE EXISTIN FOR TH PENETR STRUCT STOPPI SLEEVE
 3. STAGE AREA IS ORDINARY HAZARD (GROUP 2), 020 GPM SQFT. FOR THE MOST REMOTE IS00 SQFT. G.THE REMODELED AREA SHALL HAVE THE EXISTING SPRINKLER SYSTEM MODIFIED WITH NEW SPRINKLER HEADS DESIGNED TO DELIVER A DENSITY OF .10 GPM OVER THE MOST REMOTE IS00 SQFT. CALCULATIONS SHALL BE IN ACCORDANCE WITH THE LATEST NFPA #13 CHAPTER FOR LIGHT HAZARD. H.LAYOUT IS DIAGRAMMATIC. INSTALL PIPING AND 	S.CUT OR AS REG EXISTIN REQUIR T. REMOV OF NEW WORK - MATCH CONCE
EQUIPMENT TO MEET ACTUAL FIELD CONDITIONS. REVIEW PROJECT SPECIFICATIONS BEFORE STARTING ANY WORK. SUBMIT SHOP DRAWINGS OF WORK AS PER SPECIFICATIONS. I. VERIFY IF EXISTING ASBESTOS WILL BE ENCOUNTERED PRIOR TO STARTING ASBESTOS WILL BE ENCOUNTERED PRIOR TO STARTING ANY WORK. IF ASBESTOS IS PRESENT, THE OWNER WILL PROVIDE FOR THE REMOVAL OF ANY MATERIAL CONTAINING ASBESTOS. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS.	EXISTIN TO EXIS EXISTIN U. EXISTIN OWNER TO BE OR IF I
J. COORDINATE PHASING OF WORK AND PROVIDE TEMPORARY PIPING AND SERVICES AS REQUIRED FOR THE IMPLEMENTATION OF WORK WHILE MAINTAINING SERVICES TO PORTIONS OF BUILDING TO REMAIN OCCUPIED. KSCHEDULE WORK TO AVOID DOWNTIME AND INCONVENIENCE TO OWNER. OWNER'S EXISTING FACILITY SHALL REMAIN IN OPERATION AT TIMES. REQUIRED SHUTDOWN OF EXISTING UTILITIES SHALL BE SCHEDULED WITH OWNER'S OPERATING PERSONNEL. NOTIFY OWNER'S REPRESENTATIVE 48 HOURS IN ADVANCE PRIOR TO ANY	BRANC EXTENI NEW SF U.REMOV BACK PROVII CONTIN REMOV PIPING, ABAND ELEVA
L. FIRE PROTECTION PIPING ROUTING TO BE FIELD COORDINATED WITH NEW AND EXISTING HYAC DUCTWORK, HYAC PIPING, PLUMBING PIPING AND STRUCTURE TO ENSURE NO CONFLICTS WILL OCCUR DUE TO INTERFERENCE.	X.PATCH OPENIN REMOV THAT FI AREAS

- AC DIFFUSER LAYOUT AND ELECTRICAL ALTY DEVICES IN CONJUCTION WITH ELECTRICAL NG, SPRINKLER HEAD LAYOUT, AND CEILING GRID
- BITE PRIOR TO BIDDING TO DETERMINE FIELD TIONS. COORDINATE NEW INSTALLATIONS WITH NG SYSTEMS. EXISTING CONDUIT, PIPING, DUCTWORK, MENT, ETC., SHALL BE REWORKED AS REQUIRED TO CONFLICTS WITH THE INSTALLATION OF THE NEW ROTECTION SYSTEMS, NO EXTRAS WILL BE ED AFTER BIDDING FOR ANY REWORK OF EXISTING CONDITIONS TO RESOLVE CONFLICTS OR NOT UNDERSTANDING THE SCOPE OF THE WORK
- STING INFORMATION IDENTIFIED ON THE CONTRACT 1ENTS IS SCHEMATIC ONLY AS AN AID TO THE ACTOR. PROPERLY ADDRESS EXISTING TIONS FOR A COMPLETE AND PROPER LATION OF NEW SYSTEMS. EXISTING EQUIPMENT NOT FIED SHALL BE REPORTED IN WRITTEN FORM FOR JAS TO WHETHER THE EQUIPMENT SHALL REMAIN E RECONNECTED TO THE NEW SERVICES, BE CATED, BE ABANDONED, ETC.
- N CONDITIONS IDENTIFIED THROUGH THE COURSE NSTRUCTION SHALL BE IMMEDIATELY REPORTED IN IN FORM FOR REVIEW AND DIRECTION, FAILURE TO SHALL MAKE THE CONTRACTOR RESPONSIBLE EQUIRED CHANGES AND COSTS TO CORRECT SAID N CONDITION.
- ORDINATE NEW INSTALLATIONS WITH EXISTING MS. EXISTING CONDUIT, PIPING, DUCTWORK, TENT, ETC., SHALL BE REWORKED AS REQUIRED TO CONFLICTS WITH THE INSTALLATION OF THE NEW ROTECTION SYSTEMS. NO EXTRAS WILL BE JED AFTER BIDDING FOR ANY REWORK OF EXISTING CONDITIONS TO RESOLVE CONFLICTS OR NOT UNDERSTANDING THE SCOPE OF THE WORK RED
- DE CUTTING, CORE DRILLING AND PATCHING OF NG FLOOR AND WALL CONSTRUCTIONS REQUIRED HE INSTALLATION OF NEW PIPING. SEAL RATIONS THROUGH FLOOR, WALL AND ROOF TURE WATERTIGHT AND WITH AN APPROVED FIRE PING MATERIAL, INCLUDING APPROVED FIRE RATED
- R CHANNEL INTO EXISTING WALL CONSTRUCTIONS QUIRED FOR INSTALLATION OF NEW PIPING WITHIN NG WALLS. PATCH WALL SURFACES AND FINISH AS RED TO MATCH EXISTING CONDITIONS
- A EXISTING CEILINGS REQUIRED FOR INSTALLATION WORK REINSTALL CEILING UPON COMPLETION OF REPLACE DAMAGED CEILING MATERIALS TO EXISTING. GYPSUM BOARD CEILINGS: PROVIDE EALED CONTROL JOINT AT EDGES ABUTTING NG GYPSUM BOARD CEILINGS. TAPE IN NEW AREAS ISTING FLUSH - PROVIDE TEXTURE TO MATCH
- ING EQUIPMENT SHALL REMAIN PROPERTY OF THE AND OWNER SHALL DETERMINE IF EQUIPMENT IS STORED ON SITE AT OWNER SELECTED LOCATION
- E EXISTING SPRINKLER HEADS AND ASSOCIATED CH SPRINKLER PIPING COMPLETE AS REQUIRED. D AND MODIFY EXISTING PIPING AS REQUIRED FOR PRINKLER HEAD LAYOUT.
- /ED PIPING IS TO BE TERMINATED PROPERLY TO EXISTING MAINS. CAP PIPING WATERTIGHT. DE ADDITIONAL PIPING AS REQUIRED TO MAINTAIN NUITY OF EXISTING SYSTEMS MODIFIED DUE TO AL OF PORTION OF SYSTEMS. NO EQUIPMENT, SUPPORTS, HANGERS, ETC, IS TO BE LEFT DONED. VERIFY QUANTITY, LOCATION AND TION OF EXISTING TO BE REMOVED IN FIELD.
- EXISTING CEILING, FLOOR, WALL AND ROOF NGS AND SURROUNDING FINISHES RESULTING FROM AL OF EXISTING MATERIALS AND EQUIPMENT SO INISH WILL MATCH EXISTING IN SURROUNDING





