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	PROJECT DATA: LOCATION MAP: SQUARE LAKE ROAD BUILDING LAKE ROAD LONG LAKE ROAD TROY, MI NO SCALE ADDRESS: NEW SMITH MIDDLE SCHOOL 2835 Donaldson Troy, Michigan 48085	BU BU BU CC GO • 201 (20 • 201 • 20
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# ABBREVIATIONS

GA



DMDD	
DMPR DMPFG	DAMPER DAMPPROOFING
DL DB	DEAD LOAD DECIBLE
D DGL	DEEP DOOR GLAZING
DWG DMT PARTN	DRAWING DEMOUNTABLE PARTITION DEPARTMENT
DEPR DES	DEPRESSED DESIGN
DET DE CO	DETAIL DETROIT EDISON COMPANY
DIAG DGM	DIAGONAL DIAGRAM
DIA DIFF	DIAMETER DIFFUSER
DIM DR DIR	
DISC DISCONT	DISCONNECT DISCONTINUOUS
DW DISP	DISHWASHER DISPENSER
DIST DP	DISTANCE DISTRIBUTION PANEL
DO DIV	DITTO (DO OVER) DIVIDER/DIVISION
DR DO DR OP	DOOR DOOR OPENING DOOR OPERATOR
DBL DA	DOUBLE DOUBLE ACTING
DH DWL	DOUBLE HUNG DOWEL
DN DS	DOWN DOWNSPOUT
DRN DT DTC	DRAIN DRAIN TILE DRAIN TILE CONNECTOR
DWR DF	DRAIN THE CONNECTOR DRAWER DRINKING FOUNTAIN
DB DSP	DRY BULB DRY STAND PIPE
DBWTR DUP	DUMBWAITER DUPLICATE
ddr E	DUTCH DOOR
EA FF	EACH FACH FACE
EW	EACH WAY EAST
EIFS	EXTERIOR INSULATION FINISH SYSTEM
ELAST ELAST FLASH	ELASTOMERIC ELASTOMERIC FLASHING
ELAST WP ESR FLFC	ELASTOMERIC WATERPROOFING ELASTOMERIC SHEET ROOFING ELECTRIC/ELECTRICAL
ELEC CL ELEC CAR	ELECTRICAL CLOSET ELECTRICAL CLOSET ELECTRICAL CARINET
EC E-	ELECTRICAL CONTRACTOR ELECTRICAL DRAWING-NO
EP EWC	ELECTRICAL PANEL ELECTRICAL WATER COOLER
ELEC OPER EL	ELECTRICALLY OPERATED ELEVATION
ELEV EMERG ENCI	ELEVATOR EMERGENCY ENCLOSURE
ENGR E/F	ENGLOSORE ENGINEER END-TO-END
ENTR EP	ENTRANCE/ENTRY EPOXY
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EQ EQUIP	EQUAL EQUIPMENT
EQUIV ESC EST	EQUIVALENT ESCALATOR ESTIMATE
EXC FXH	EXCAVATED FXHAUST
ED EF	EXHAUST DUCT EXHAUST FAN
EG ER	EXHAUST GRILLE EXHAUST REGISTER
EXIST EXP	EXISTING EXPANSION
EXPB EJ EVDI D	EXPANSION BOLT EXPANSION JOINT EXPLOSION PROOF
EAFLF	
EXP'D FXT'N	EXPOSED EXTENSION
EXP'D EXT'N EXT EH	EXPOSED EXTENSION EXTERIOR EXTRA HEAVY
EXP'D EXT'N EXT EH EXTR ESP	EXPOSED EXTENSION EXTERIOR EXTRA HEAVY EXTRUDED EXTERNAL STATIC PRESSURE
EXP'D EXT'N EXT EH EXTR ESP F	EXPOSED EXTENSION EXTERIOR EXTRA HEAVY EXTRUDED EXTERNAL STATIC PRESSURE
EXP'D EXT'N EXT EH EXTR ESP FAB F/F FFIN	EXPOSED EXTENSION EXTERIOR EXTRA HEAVY EXTRUDED EXTERNAL STATIC PRESSURE FABRICATED/FABRIC FACE-TO-FACE FACTORY FINISH
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H		0
INDCP	HANDICAPPED	OBS
IBD	HANDRAIL	OBSGL
IDWE IDWD	HARDWARE HARDWOOD	OC OPQ
ID ND	HEADER	OPG
IA GL	HEAD ABSORBING GLASS	OPP
iru Itr	HEAT RECOVERY UNIT HEATER	OPP HD ORIG
ITG I/V	HEATING HEATING AND VENTILATING	ORN 07
IVAC		0/0
IHWR	HEATING HOT WATER RETURN	OD
IHWS IGT	HEATING HOT WATER SUPPLY HEIGHT	OF OHS
IEX	HEXAGON	OA OUD
ID	HIGH HIGH INTENSITY DISCHARGE	OHD OHDDR
ip Ipr	HIGH POINT HIGH PRESSURE	OXY
IS	HIGH STRENGTH POLT	Р
IV	HIGH STRENGTH BOLT HIGH VOLTAGE	PTD PR
IWY ISTWY	HIGHWAY HOISTWAY	PG
IC IM	HOLLOW CORE	PTD
INYCB	HOLLOW METAL HONEYCOMB	PTWR
ik Ioriz	HOOK HORIZONTAL	PRL
IP IR		PBD
ISP	HOSE STAND PIPE	PRTN PASS
IVC IOSP	HOSE VALVE CABINET HOSPITAL	PAT
IW IWD	HOT WATER	PVG
IWS	HOT WATER SUPPLY	PED PERF
IR IO	HOUR HUB OUTLET	PERIM
IYD	HYDRANT/HYDRAULIC	PERP
	HIDROGEN	Р РНОТО
<u></u>		PH PC
NCAND	INCANDESCENT	PCS
N OR " NCIN	INCH/INCHES INCINERATOR	PLAS PL LAM
NCL N	INCLUDE / INCLUDING	PL Pl Gl
NFO	INFORMATION	PLAT
, =	INSIDE FACE	PLWD
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		PC
NIEK NV	INTERMEDIATE INVERT	rul PVC
<b>_</b>	INVERT ELEVATION	PORC FI
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íP	KICK PLATE	PP
(V (VA	KILOVOLT KILOVOLT AMHERE	P/C PTR
Ŵ	KILOWATT	
IT	KIP (100#) KITCHEN	PTWD
íS íD	KNEE SPACE KNOCK DOWN	PG PRV
(OP	KNOCK-OUT PANEL	PRIM
		PROJ PROP
BL		PL PA
AD	LADDER	PS
B AM	LAG BOLT LAMINATE/LAMINATED	РВ
DG	LANDING	Q
GE	LARGE	QTY
DRY AV	LAUNDRY LAVATORY	QTR
H HPB	LEFT HAND	QTR RD
GTH	LENGTH	R
EV IB	LEVEL LIBRARY	RB1 RAD or F
T	LIGHT	RWC
TG	LIGHTPROOF	RECV
P RP	LIGHTING PANEL LIGHTING RECEPTACI E PANEI	RECPT RP
TWT	LIGHTWEIGHT	REC
MS	LIMESTONE	RED
tl In diff	LINTEL LINEAR DIFFUSER	RWD REF
F IN SD	LINEAR FEET/FOOT	REFL REFR
IQ		REG
PG PG	LIQUID PROPANE GAS LIQUID PETROLEUMM GAS	REINF
L		REM REP
00	LOCATION	REQ'D
KR G	LOCKER	RESIL
LH I V		PA RAD
VR	LOUVER	RAF
0 P	LOUVER OPENING LOW POINT	REV RPM
PR	LOW PRESSURE	R RH
BS OR #	POUNDS	RHRB
Μ		rtuw RVT
IACH IB	MACHINE MACHINE BOLT	RD RSC
ACH RM		RF
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ISB IAINT	MAIN DISTRIBUTION PANEL	RD
	MAIN DISTRIBUTION PANEL MAIN SWITCH BOARD MAINTENANCE	RD RFH RS
1H 1FR	MAIN DISTRIBUTION PANEL MAIN SWITCH BOARD MAINTENANCE MANHOLE MANUFACTURER	RD RFH RS RV RFG
1H 1FR 1AR	MAIN DISTRIBUTION PANEL MAIN SWITCH BOARD MAINTENANCE MANHOLE MANUFACTURER MARBLE	RD RFH RS RV RFG RTU
1H IFR IAR IAR IAS	MAIN DISTRIBUTION PANEL MAIN SWITCH BOARD MAINTENANCE MANHOLE MANUFACTURER MARBLE MARK MASONRY	RD RFH RS RV RFG RTU RM RO
1H IFR IAR IAR IAS IO IATL	MAIN DISTRIBUTION PANEL MAIN SWITCH BOARD MAINTENANCE MANUFACTURER MARUFACTURER MARBLE MARK MASONRY MASONRY OPENING MATERIAL	RD RFH RS RV RFG RTU RM RO RND RHM <sup>Q</sup>
1H IFR IAR IAS IO IATL IAX	MAIN DISTRIBUTION PANEL MAIN SWITCH BOARD MAINTENANCE MANHOLE MANUFACTURER MARBLE MARK MASONRY MASONRY OPENING MATERIAL MAXIMUM MACHANICAL	RD RFH RS RV RFG RTU RM RO RND RHMS RHWS PT
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SQUARE FEET/SQUARE FOOT

SPACE

SPARE

SPEAKER

SPRAYED

SPRINKLER

STAGGERED STAINLESS STEEL

STANDARD

SQUARE

SPECIFICATIONS

SPLITTER DAMPER

![](_page_2_Figure_0.jpeg)

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION CHANCE FLOOD THE 1% ANNUAL CHANCE FLOOD (100 YEAR FLOOD), ALS FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EXCEEDED IN ANY GIVEN YEAR. THE SPECIAL FLOOD HAZ AREA SUBJECT TO FLOODING BY THE 1% ANNUAL CHANG SPECIAL FLOOD HAZARD INCLUDE ZONES A, AE, AH, AO, BASE FLOOD ELEVATION IS THE WATER-SURFACE ELEVA ANNUAL CHANCE FLOOD.	ON BY THE 1% ANNUAL O KNOWN AS THE BASE O EQUALED OR ZARD AREA IS THE CE FLOOD. AREAS OF AR, A99, V AND VE. THE ATION OF THE 1%
OTHER AREAS ZONE X AREA TO BE DETERMINED OUTSIDE OF THE 0.2% ANNUA	L CHANCE FLOODPLAIN.
LEGAL DESCRIPTION: PARCEL ID 20-10-101-054	
Land in the City of Troy, Oakland County, Michigan, described as follows: T2N, R11E, SEC 10 PART OF NW 1/4 BEG AT PT DIST S 571.05 FT & 3 S 00-10-00 E 169 24 ET EROM NW SEC COR, TH S 89-40-00 E 624 96	S 88-57-00 E 697.50 FT &
683.20 FT, TH N 89-08-00 W 901.78 FT, TH N 00-10-00 W 637.72 FT, TI TH N 00-10-00 W 39.24 FT TO BEG 13.79 A	H S 89-02-00 E 275.00 FT,
Land in the City of Troy, Oakland County, Michigan, described as follows:	F 900 FT OF LOTS 8 & 9
ALSO LOT 10 EXC W 357.82 FT OF S 104.29 FT	
(GPS DERIVED - NAVD88) BM #300 ARROW ON A HYDRANT LOCATED AT THE SOUTHWEST CORNE	R OF
THE FRONT PARKING LOT. ELEV 724.13	
ARROW ON A HYDRANT LOCATED ON THE SOUTHWEST CORNE THE BACK PARKING LOT. ELEV 726.34	ROF
GENERAL DEMOLITION NOTES:	
THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES O I. ALL MATERIAL TO BE REMOVED, WHETHER SPECIFICALL PLANS OR NOT, SHALL BE REMOVED FROM THE SITE E AND DISPOSED OF OFF-SITE IN A LEGAL MANNER. NO BURN PITS SHALL BE ALLOWED.	N THIS PROJECT: Y NOTED IN THE BY THE CONTRACTOR ON-SITE BURY OR
2. ALL DEMOLITION WORK SHALL CONFORM TO ALL LOCAL ORDINANCES.	L CODES AND
<ol> <li>STAGING/PHASING OF DEMOLITION AND CONSTRUCTION COORDINATED WITH THE OWNER AND THE CONTRACTOR CONSTRUCTION.</li> </ol>	IS TO BE R PRIOR TO
4. SPECIFIC DEMOLITION ITEMS HAVE BEEN INDICATED ON GUIDE TO THE GENERAL SCOPE OF THE WORK. IT IS T THESE ITEMS SHALL BE COMPLETELY REMOVED BY THI AND BELOW GROUND, UNLESS SPECIFICALLY NOTED OT DEMOLITION WILL INCLUDE BUT WILL NOT NECESSARILY THESE ITEMS. CONTRACTOR SHALL VISIT SITE TO VERI CONDITIONS AND EXTENTS OF THE DEMOLITION THAT W PRIOR TO SUBMITTING A BID.	THE PLANS AS A THE INTENT THAT E CONTRACTOR ABOVE THERWISE, AND THAT BE LIMITED TO FY EXISTING MLL BE REQUIRED
<ol> <li>REMOVE ALL STRUCTURES DESIGNATED FOR REMOVAL DEMOLITION PLAN. THIS INCLUDES FOUNDATIONS, FOOT WALLS, FLOOR SLABS, UNDERGROUND UTILITIES, CONCI TREES, ETC.</li> </ol>	ACCORDING TO THE INGS, FOUNDATION RETE, ASPHALT,
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN CONTROL, STREET SWEEPING AND HOURS OF OPERATION WITH THE LOCAL CODES.	UP, NOISE, DUST DN IN ACCORDANCE
7. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BA MARKINGS, LIGHTS AND OTHER TRAFFIC CONTROL DEV WORK ZONE AND SAFELY MAINTAIN TRAFFIC PER AGE AND IN ACCORDANCE WITH THE LATEST EDITION OF OF UNIFORM TRAFFIC CONTROL DEVICES.	RRICADES, SIGNAGE, ICES TO PROTECT THE NCY REQUIREMENTS THE STATE MANUAL
B. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE TO CONFIRM THAT UTILITY LEADS HAVE BEEN TAKEN PRIOR TO DEMOLITION.	UTILITY COMPANIES OUT OF SERVICE
<ol> <li>ALL BUILDING GAS LEADS, METERS AND ASSOCIATED E REMOVED AS SHOWN ON THE PLANS. COORDINATE ALL WITH THE APPROPRIATE UTILITY COMPANY.</li> </ol>	EQUIPMENT SHALL BE ASSOCIATED WORK
10. REMOVE ALL OVERHEAD AND UNDERGROUND ELECTRIC. AREA OF CONSTRUCTION AS SHOWN ON THE PLANS. O SHUTDOWNS AND REMOVALS WITH ELECTRICAL SERVICE APPROPRIATE UTILITY COMPANY. (NOTE: PHONE AND MAY ALSO BE LOCATED ON OVERHEAD LINES.)	AL LINES WITHIN THE COORDINATE E PROVIDER OR THE CABLE T.V. SERVICES
11. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF SIGNS AND SUPPORTS WITHIN THE WORK AREA, AS FACILITATE CONSTRUCTION. SIGNS SHALL BE PROTECTI FOR REUSE AS SPECIFIED IN THE PLANS OR AS REQU OF JURISDICTION. THE CONTRACTOR SHALL REPLACE A AND SUPPORTS AT NO ADDITIONAL COST TO THE OWN	AND REPLACEMENT S NECESSARY TO ED OR STOCKPILED IRED BY THE AGENCY ANY DAMAGED SIGNS IER.
12. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE 8 LOCATING CENTER, THE CITY ENGINEER AND/OR THE / JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINN CONSTRUCTION.	11/ONE CALL UTILITY AUTHORITY HAVING NING OF
DEMOLITION LEGEND:	
TEM TO BE REMOVED	
CURB/FENCE REMOVAL CONCRETE PAVEMENT AND SIDEWALK REMOVAL	
AREA OR ITEMS TO BE REMOVED	
	•*****
SAWCUT LINE	
SYMBOLS: EROSION CONTROL:	
REFER TO O.C.W.R.C. SOIL EROSION AND SEDIMENTATION (	CONTROL DETAILS
GENERAL SITE CONDITIONS:	
<ul> <li>ACCORDING TO THE SOIL SURVEY INFORMATION SUPPL NRCS, THE SITE CONSISTS OF THE FOLLOWING SOIL TO •10B MARLETTE SANDY LOAM, 1 TO 6 PERCENT SLOPE</li> </ul>	IED BY THE USDA (PES: ES
<ul> <li>41B AQUENTS, SANDY, LOAMY, UNDULATING</li> <li>Shbhab Shebeon Sandy Loam, 0 to 4 percent sl</li> <li>Shbuab Shebeon-Urban Land Complex, 0 to 4 p</li> </ul>	OPES ERCENT SLOPES
2. IUTAL DISTURBED AREA = $\pm 12.7$ ACRES 3. N.P.D.E.S. NOTICE OF COVERAGE IS REQUIRED	
EROSION CONTROL QUANTITIES:	4,602 LF
IEMPORARY CONSTRUCTION ACCESS DRIVE	1 EA.

FLOODPLAIN:

29, 2006

PER FLOOD INSURANCE RATE MAP NUMBER 26125C0532F, DATED SEPTEMBER

BY GRAPHICAL PLOTTING, THE SITE LIES WITHIN:

![](_page_2_Picture_3.jpeg)

![](_page_2_Picture_4.jpeg)

![](_page_2_Picture_5.jpeg)

CAUTION!!

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

![](_page_2_Picture_7.jpeg)

![](_page_2_Picture_8.jpeg)

**ISSUE DATES** 

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01-23-2024	CONSTRUCTION DOCUMENTS
DATE:	ISSUED FOR:
DRAWN	JW
CHECKED	TD
APPROVED	TD
PROJECT	NO.

![](_page_2_Picture_10.jpeg)

# PROJECT TITLE **New Smith Middle** School **Bid Package No. 03A**

![](_page_2_Picture_12.jpeg)

CONSULTANT

**REGISTRATION SEAL** 

![](_page_2_Picture_15.jpeg)

EM · INFO 
 TMP-ARCHITECTURE.COM

ARCHITECTURE

![](_page_3_Figure_0.jpeg)

## STRUCTURAL GENERAL NOTES

## GENERAL

- THIS BUILDING HAS BEEN DESIGNED AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MICHIGAN BUILDING CODE, 2015 EDITION.
- THE OWNER WILL EMPLOY QUALIFIED SPECIAL INSPECTORS TO PERFORM INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE MICHIGAN BUILDING CODE EXCEPT AS NOTED BELOW. SPECIAL INSPECTIONS WILL BE PERFORMED FOR THE FOLLOWING:
- A. SOILS. **B. CONCRETE**
- C. MASONRY I. MASONRY SPECIAL INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH TMS 402 & TMS 602 AND SHALL BE LEVEL B QUALITY ASSURANCE.
- D. STEFI I. STEEL SPECIAL INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH AISC 360 E. STEEL JOISTS.
- F. WOOD.
- WHEN "PROFESSIONAL ENGINEER" IS REFERRED TO IN THE FOLLOWING NOTES, IT DENOTES A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MICHIGAN, QUALIFIED TO PERFORM THE WORK.
- . THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS, THE OWNERS REQUIREMENTS FOR ACCESS TO THE SITE AND CONTINUED OPERATIONS DURING CONSTRUCTION.
- THE PLAN, DETAIL DIMENSIONS & ELEVATIONS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM AVAILABLE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY SUCH DIMENSIONS, ELEVATIONS & DETAILS AS NECESSARY AND MAKE APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIAL.
- THE CONTRACTOR SHALL SUBMIT PRECAST CONCRETE, CONCRETE REINFORCING. STRUCTURAL STEEL, METAL DECK, STEEL JOIST, COLD FORMED METAL, COLD FORMED METAL TRUSS AND WOOD TRUSS SHOP DRAWINGS PRIOR TO FABRICATION. THE CONTRACTOR SHALL ALSO SUBMIT MATERIAL REQUIREMENTS AND CONCRETE MIX DESIGNS. ALLOW (2) WEEKS FOR ENGINEER REVIEW.
- THE STRUCTURE SHALL BE CONSIDERED TO BE IN AN UNSTABLE CONDITION UNTIL ALL FLOOR, WALL AND ROOF STRUCTURES ARE COMPLETED. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR STABILITY AND TO RESIST LATERAL LOADS DURING ERECTION.
- 8. ALL NON LOAD BEARING WALLS, EXCEPT INDICATED SHEAR WALLS, SHALL BE CONSTRUCTED TO ALLOW FOR VERTICAL DEFLECTION OF THE STRUCTURE ABOVE.
- **DIVISION 2 DEMOLITION/SHORING** CONTRACTOR SHALL PROVIDE ALL NECESSARY SHORING WHERE REQUIRED DURING CONSTRUCTION. SHORING SHALL BE DESIGNED & DETAILED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER. SHORING PROCEDURES, DESIGNS AND DETAILS SHALL BE SUBMITTED FOR REVIEW PRIOR TO COMMENCEMENT OF WORK, ALLOW (2) WEEKS FOR ENGINEER TO REVIEW.
- THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ERECTION PROCEDURE AND SEQUENCING AND TO SUBMIT WRITTEN PROCEDURES TO ENSURE THE SAFETY OF THE STRUCTURE AND IT'S COMPONENTS DURING ERECTION.
- FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO DEMOLITION. IF CONDITIONS EXIST THAT ARE DIFFERENT FROM WHAT IS INDICATED ON THE DRAWINGS, NOTIFY ARCHITECT FOR DIRECTION BEFORE PROCEEDING.
- 4. DUE CARE MUST BE TAKEN NOT TO UNDERMINE OR DISTURB EXISTING SOIL AND FOUNDATIONS WHEN EXCAVATING ADJACENT TO EXISTING FOUNDATIONS. FIELD VERIFY THE DEPTH AND WIDTH OF ANY EXISTING FOOTINGS & NOTIFY ARCHITECT OF ANY INTERFERENCE'S WITH NEW WORK.

## DIVISION 3 - CONCRETE

- THE LATEST REVISION OF THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING, FABRICATION AND CONSTRUCTION OF ALL REINFORCED CONCRETE: A. AMERICAN CONCRETE INSTITUTE (ACI) ACI 318, BUILDING CODE REQUIREMENTS
- FOR REINFORCED CONCRETE. B. ACI 315, DETAILS & DETAILING OF CONCRETE REINFORCEMENT.
- REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING ASTM MATERIAL SPECIFICATIONS. A. DEFORMED BAR REINFORCING: ASTM A615 GRADE 60.
- B. WELDED WIRE REINFORCEMENT: A1064 (FLAT SHEETS ONLY).
- ALL EXTERIOR CONCRETE (INCLUDING FOUNDATION WALLS, PIERS & FOOTINGS) SHALL BE AS FOLLOWS: A. MINIMUM 28-DAY COMPRESSIVE STRENGTH (f'c) = 4500 PSI.
- B. SLUMP = 3" TO 5". . WATER/CEMENTITIOUS RATIO = 0.45.
- D. AIR ENTRAINMENT =  $6\% \pm 1\%$ . E. EXPOSURE CLASSES = F3, S0, W1, & C2.
- 4. ALL INTERIOR CONCRETE SHALL BE AS FOLLOWS: A. MINIMUM 28-DAY COMPRESSIVE STRENGTH (f'c) = 4000 PSI. B. SLUMP = 3" TO 5". WATER/CEMENTITIOUS RATIO = 0.50.
- D. EXPOSURE CLASSES = F0, S0, W1, & C1. SPLICES FOR DEFORMED BARS SHALL BE CLASS B WITH APPLICABLE INCREASES FOR BAR SPACING, COVER, TOP BAR EFFECT ETC. PER ACI 318.
- BEFORE PLACING CONCRETE REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS OF PIPE SLEEVES, EMBEDDED ITEMS, OPENINGS, EQUIPMENT PADS, ELECTRICAL CONDUITS, RECESSES, DRAINS, ETC. ALL OPENINGS FOR PIPE, CONDUITS, ETC. SHALL BE SLEEVED. MINIMUM SLEEVE SPACING SHALL BE 3 SLEEVE DIAMETERS.
- SUGGESTED CONSTRUCTION AND CONTROL JOINT LOCATIONS ARE INDICATED ON THE DRAWINGS. THE CONTRACTOR MAY DEVIATE FROM SUGGESTED JOINT LOCATIONS WITH PRIOR APPROVAL OF THE ARCHITECT.
- CONCRETE CONTROL JOINTS SHALL BE CUT AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT DISLODGMENT OF AGGREGATES. SAW A CONTINUOUS SLOT TO A DEPTH OF 1/4 THE THICKNESS OF THE SLAB BUT NOT LESS THAN 1". COMPLETE SAWING WITHIN 12 HOURS AFTER PLACEMENT.
- PROVIDE A RECESS IN THE TOP OF FOUNDATION WALLS AT DOOR OPENINGS FOR SUPPORT OF THICKENED FLOOR SLABS AND TO RECEIVE DOOR JAMBS. DEPTH OF RECESS TO BE 2" GREATER THAN THICKNESS OF THE FLOOR SLABS, UNLESS NOTED OTHERWISE.
- 10. PROVIDE BENT CORNER BARS IN ALL WALLS AND FOOTINGS OF THE SAME SIZE AND NUMBER AS THE CONTINUOUS REINFORCEMENT. 1. CONCRETE SHALL BE TESTED BY AN INDEPENDENT TESTING AGENCY, A SET OF (3)
- CONCRETE TEST CYLINDERS SHALL BE MADE AND TESTED FOR COMPRESSION STRENGTH AT 7 AND 28 DAYS OR EVERY 50 CUBIC YARDS OF CONCRETE CAST (MINIMUM OF (1) SET PER DAY OF CASTING). ALSO SLUMP AND UNIT WEIGHT TESTS SHALL BE PERFORMED EVERY OTHER TRUCK LOAD. CONTRACTOR MADE CONCRETE TEST CYLINDERS ARE NOT ACCEPTABLE.

### **DIVISION 3 - COMPOSITE FLOOR** 1. SHEAR CONNECTORS ARE 3/4"ø ASTM A108, GRADE 1015 HEADED STUDS. STUD LENGTH SHALL BE AS REQUIRED TO PROVIDE 1 1/2" PROJECTION ABOVE DECK. STUDS 1. THE LATEST REVISION OF THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING, SHALL BE RESISTANCE-WELDED THROUGH THE DECKING TO THE SUPPORTING STEEL BY CONTRACTOR HAVING AT LEAST 3 YEARS OF SUCCESSFUL INSTALLATION EXPERIENCE ON SIMILAR PROJECTS. 2. REFER TO TYPICAL DETAILS FOR STUD SPACING.

- 3. TEST STUD ATTACHMENT TO BEAMS PER AWS D1.1, BUT NOT LESS THAN THE FOLLOWING:
- A. VISUALLY INSPECT STUDS FOR UNIFORM WELD ALL AROUND.
- B. TAP EACH STUD WITH HAMMER TO VERIFY BY SOUND.
- C. END EVERY TENTH STUD TO A SLOPE OF 15 DEGREES FROM VERTICAL, AWAY FROM SUPPORT WITHOUT LOSING STRENGTH OF ATTACHMENT, WHERE ATTACHMENT IS LOST, TEST AT LEAST TWO STUDS EACH SIDE OF FAILED STUD. 4. REPLACE ALL FAILED STUDS. NOTIFY ARCHITECT TO COORDINATE FINAL REVIEW
- PRIOR TO CONCRETE PLACEMENT. 5. PLACE REINFORCING BARS ACROSS GIRDERS ON SUPPORTS TO MAINTAIN POSITION
- AT TOP OF SLAB & ALL RE-ENTRANT CORNERS IN SLAB. 6. CLEAN DECK OF DUST, RUBBLE AND OTHER MATERIALS THAT COULD INTERFERE WITH
- THE BOND OF THE DECK AND THE CONCRETE. 7. WHEN PLACING CONCRETE, SCREED TO A LEVEL SURFACE. THIS MAY REQUIRE PLACING CONCRETE IN ADJACENT AREAS PRIOR TO FINAL SCREEDING, SO THAT
- STEELWORK AND DECK DEFLECTION WILL BE INCLUDED IN THE FINAL ELEVATION. IT IS LIKELY THAT MORE CONCRETE WILL BE REQUIRED TO COMPENSATE FOR DEFLECTION. 8. SUBMIT CONSTRUCTION JOINT LOCATIONS FOR ARCHITECT/ENGINEER REVIEW.
- 9. APPLY CURING METHOD AS SOON AS POSSIBLE AFTER FINISHING.

## **DIVISION 4 - MASONRY**

- 1. THE LATEST REVISION OF THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING AND CONSTRUCTION OF ALL MASONRY: A. THE MASONRY SOCIETY (TMS) TMS 402, BUILDING CODE REQUIREMENTS FOR
- MASONRY STRUCTURES. B. TMS 602, SPECIFICATIONS FOR MASONRY STRUCTURES.
- ALL MASONRY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF F'm = 2000 PSI. 3. ALL MORTAR SHALL BE TYPE S, PROPORTIONED BY VOLUME ACCORDING TO ASTM
- 4. ALL GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000 PSI AND
- SHALL BE PROPORTIONED BY VOLUME ACCORDING TO ASTM C476. 5. ALL CONCRETE MASONRY UNITS SHALL BE MEDIUM OR HEAVY WEIGHT ASTM C90,
- GRADE N, UNITS UNLESS NOTED OTHERWISE. UNITS SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2800 PSI. 6. ALL MASONRY WALLS SHALL HAVE HORIZONTAL JOINT REINFORCEMENT (9 GA, HOT DIPPED GALVANIZED) AT 16" O.C. PROVIDE PREFABRICATED CORNER PIECES AT ALL
- CORNERS AND INTERSECTIONS OF WALLS. 7. ALL DEFORMED BAR REINFORCING SHALL BE ASTM A615, GRADE 60. AT LOCATIONS WHERE REINFORCING IS TO BE WELDED, THE DEFORMED BAR REINFORCING SHALL BE
- ASTM A706, GRADE 60. 8. LAP SPLICES IN WALLS SHALL BE DETERMINED IN ACCORDANCE WITH TMS 402 AND ARE INDICATED IN THE TYPICAL DETAILS, THE MINIMUM SPLICE SHALL BE 48 BAR
- DIAMETERS 9. ALL MASONRY REINFORCING SHALL BE SECURED IN PLACE WITH REBAR POSITIONERS AND SPACERS.
- 10. ALL VERTICAL MASONRY WALL REINFORCEMENT SHALL BE CENTERED ON THE WALL, DOWELED INTO THE FOOTINGS, AND GROUTED SOLID, UNLESS NOTED OTHERWISE ON DETAILS.
- 11. IN ADDITION TO ALL OTHER REINFORCING IN MASONRY WALLS PROVIDE A MINIMUM OF (1) #5 BAR AT EACH SIDE OF ALL OPENINGS, EACH SIDE OF CONTROL JOINTS, AT CORNERS OR ENDS OF WALLS AND AT BEAM OR LINTEL BEARING. BAR TO BE FULL HEIGHT OF WALL.
- 12. ALL MASONRY WALLS SHALL HAVE A CONTINUOUSLY REINFORCED BOND BEAM NEAR THE TOP OF THE WALL, WITH (2) #5 BARS U.N.O. PROVIDE BENT CORNER BARS AT ALL BOND BEAM INTERSECTIONS. REFER TO APPROPRIATE DETAILS FOR LOCATION OF BOND BEAM.
- 13. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY WALL BRACING ADEQUATE TO RESIST LATERAL LOADS.
- 14. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF WALL CONTROL JOINTS AND EXPANSION JOINTS.
- 15. UNLESS NOTED OTHERWISE ON PLANS, LINTELS IN NON-LOAD BEARING MASONRY WALLS SHALL BE SIZED AS PER THE LOOSE LINTEL SCHEDULE ON THE DRAWINGS.
- 16. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR TYPE, SIZE, LOCATION AND ATTACHMENT REQUIREMENTS FOR MASONRY VENEER AND OTHER CLADDING.

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## DIVISION 5 - STRUCTURAL STEEL

SPECIFICATIONS:

- FABRICATION AND ERECTION OF ALL STRUCTURAL STEEL. A. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) AISC 360, SPECIFICATION
- FOR STRUCTURAL STEEL BUILDINGS. B. AISC 303, CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES. 2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM MATERIAL
- A. W AND WT SHAPES: ASTM A992, GRADE 50 (Fy = 50 KSI). B. MISCELLANEOUS SHAPES AND PLATES: ASTM A36 (Fy = 36 KSI). C. PIPE: ASTM A53, GRADE B, TYPE E OR S (Fy = 35 KSI). D. HOLLOW STRUCTURAL SECTIONS: ASTM A500, GRADE C (Fy = 50 KSI). E. ALL COLUMN ANCHOR RODS SHALL BE ASTM F1554 (Fy = 36 KSI).
- . ALL WELDING SHALL BE PERFORMED USING THE ELECTRIC ARC METHOD IN ACCORDANCE WITH THE LATEST REVISION OF THE AMERICAN WELDING SOCIETY (AWS) D1.1 "STRUCTURAL WELDING CODE". E70XX ELECTRODES CONFORMING TO AWS A5.1 OR A5.5 SHALL BE USED FOR SHIELDED METAL ARC METHOD & FX7-ECXX FLUX -ELECTRODE COMBINATION CONFORMING TO AWS A5.17 FOR SUBMERGED ARC
- METHOD. 4. ALL BOLTS SHALL BE 3/4" DIAMETER ASTM F3125 GRADE A325 TYPE N BOLTS. ALL BOLTED CONNECTIONS SHALL BE SNUG-TIGHT BEARING TYPE BOLTS UNLESS NOTED OTHERWISE
- 5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING SIZES, DESIGN VALUES, MATERIALS, DIMENSIONS AND CONNECTIONS.
- 6. ALL CONNECTIONS NOT SPECIFICALLY DETAILED, SHALL BE DESIGNED AND DETAILED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER. DETAILING SHALL BE PERFORMED USING RATIONAL ENGINEERING DESIGN AND STANDARD PRACTICE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE GENERAL DETAILS SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND DO NOT INDICATE THE REQUIRED
- NUMBER OF BOLTS OR WELD SIZES, UNLESS SPECIFICALLY NOTED. 7. PROVIDE "SLIP-CRITICAL" CONNECTIONS AT BRACING, WHERE BOLTS ARE IN TENSION AND AT MOMENT CONNECTIONS.
- 8. ALL BEAM CONNECTIONS ARE TO CONFORM TO AISC STANDARD TWO ANGLE WEB CONNECTIONS CAPABLE OF SUPPORTING 66% OF THE TOTAL UNIFORM LOAD CAPACITY OF THE BEAM OR FOR LOADS INDICATED ON DRAWING. NO CONNECTION SHALL CONSIST OF LESS THAN TWO 3/4" DIAMETER BOLTS OR A WELD DEVELOPING LESS THAN 10 KIPS.
- . DESIGN HORIZONTAL AND VERTICAL BRACING END CONNECTIONS FOR LOADS INDICATED ON THE DRAWINGS OR 50% OF THE TENSILE CAPACITY OF THE MEMBER WHICHEVER IS GREATER.
- 10. ALL FIELD CONNECTIONS SHALL BE BOLTED UNLESS NOTED OTHERWISE. FIELD WELDING IS NOT ALLOWED EXCEPT WHERE SPECIFICALLY INDICATED OR APPROVED. 11. PROVIDE 3/4" DIAMETER SHOULDER BOLTS WITH LOCK WASHERS AT ALL SLOTTED CONNECTIONS OF WIND COLUMNS OR AS NOTED.
- 12. ALL SHOP AND FIELD WELDS SHALL BE VISUALLY INSPECTED PER AWS D1.1. ALL DEFICIENT OR NON CONFORMING ITEMS SHALL BE REPORTED TO THE ENGINEER WHO WILL DETERMINE THE CORRECTIVE ACTION REQUIRED.
- 13. ALL BEAMS SHALL BE FABRICATED WITH THE NATURAL CAMBER UP. PROVIDE CAMBERS AS INDICATED ON THE DRAWINGS.
- 14. GROUT REQUIRED UNDER COLUMN BASE PLATES AS SHOWN IN THE DETAILS SHALL BE A STANDARD NON-SHRINK GROUT SUCH AS "MASTERFLOW 100" BY MASTER BUILDERS.
- 15. PRIME PAINT ALL STRUCTURAL STEEL WITH FABRICATOR'S STANDARD LEAD AND CHROMATE- FREE, NONASPHALTIC, RUST-INHIBITING PRIMER COMPLYING WITH MASTER PAINTER INSTITUTE (MPI) #79. APPLY PRIMER ACCORDING TO THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND AT RATE RECOMMENDED BY SSPC TO PROVIDE A MINIMUM DRY FILM THICKNESS OF 1.5 MILS. USE PRIMING METHODS THAT RESULT IN FULL COVERAGE OF JOINTS, CORNERS, EDGES, AND EXPOSED SURFACES. TOUCH-UP DAMAGED OR MISSING PAINT AFTER STEEL ERECTION IS COMPLETE. OMIT PAINT AT: HOLES FOR SLIP CRITICAL CONNECTIONS, AT STEEL TO BE FIRE PROOFED,
- AT STEEL ENCASED IN CONCRETE AND ON THE TOP FLANGE OF STEEL BEAMS WITH SHEAR CONNECTIONS. 16. PROVIDE AND HAVE IN PLACE ADEQUATE LATERAL BRACING AND VERTICAL SUPPORTS FOR THE SAFE ERECTION AND TRUE ALIGNMENT OF THE STRUCTURAL STEEL. THIS CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR THE SAFE ERECTION AND
- TEMPORARY BRACING OF STRUCTURAL STEEL. 17. VERIFY NUMBER AND SIZE OF OPENINGS IN ROOF, WALLS AND FLOOR WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS, SEE DETAILS, AND SPECIFICATIONS, FOR STRUCTURAL REQUIREMENTS. VERIFY ALL INFORMATION WITH
- THE APPROPRIATE CONTRACTOR. 18. ALL DIMENSIONS RELATED TO STRUCTURAL STEEL USED TO SUPPORT EQUIPMENT OR FRAME OPENINGS SHALL BE VERIFIED WITH CERTIFIED AND APPROVED SHOP DRAWINGS OF PURCHASED EQUIPMENT PRIOR TO DETAILING AND FABRICATION.
- 19. PROVIDE L3x3x1/4 SHELF ANGLES AT TOPS OF COLUMNS AS REQUIRED TO SUPPORT ROOF DECK. 20. ALL EDGES OF METAL DECK SHALL BE SUPPORTED AT A CHANGE IN DECK SPAN
- WHETHER SHOWN ON DRAWINGS OR NOT. PROVIDE TUBE STEEL OR A DOUBLE ANGLE BETWEEN JOIST OR STRUCTURAL STEEL AND METAL DECK. 21. ALL FREE EDGES OF METAL DECK SHALL BE SUPPORTED WITH AN EDGE ANGLE
- L3x3x1/4 OR OTHER SUITABLE SUPPORT. THIS SHALL BE PROVIDED WHETHER SHOWN ON DRAWINGS OR NOT. 22. ALL BEAMS, JOISTS, OR LINTELS BEARING ON MASONRY WALLS SHALL HAVE BEARING PLATES WITH ANCHOR BOLTS. IF NOT NOTED ON PLAN, SEE TYPICAL DETAILS.
- 23. ALL WF BEAMS SUPPORTING MASONRY AND WITH SPANS GREATER THAN 6'-0" SHALL HAVE 1/2" DIAMETER BY 6" LONG HEADED CONCRETE ANCHORS SPACED AT 2'-0" O.C.
- 24. ALL STEEL IN EXTERIOR MASONRY WALLS IS TO BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A-123.

WELDED TO THE TOP FLANGE.

DIVISION 5 - STEEL DECK

- 1. THE LATEST REVISION OF THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING, MANUFACTURING AND ERECTION OF STEEL DECK.
- A. STEEL DECK INSTITUTE (SDI) MOC3, MANUAL OF CONSTRUCTION WITH STEEL DECK. B. SDI FDDM, FLOOR DECK DESIGN MANUAL C. SDI RDDM, ROOF DECK DESIGN MANUAL.
- 2. ALL FLOOR DECK SHALL BE AS FOLLOWS:
- A. ALL FLOOR DECK SHALL BE 2" DEEP, 20 GA, WIDE RIB GALVANIZED DECK 2.0VL BY VULCRAFT OR APPROVED EQUAL. ALL DECKS SHALL SPAN A MINIMUM OF 3 SPANS WHERE POSSIBLE. B. GRADE 50 STEEL, FY = 50 KSI.
- ALL TYPICAL ROOF DECK SHALL BE AS FOLLOWS:
- A. ALL ROOF DECK SHALL BE 1 1/2" DEEP 20 GA WIDE RIB GALVANIZED DECK, 3 SPAN MINIMUM. 1.5B BY VULCRAFT OR AN APPROVED EQUAL. B. GRADE 50 STEEL, FY = 50 KSI.
- 4. ALL ACOUSTICAL ROOF DECK SHALL BE AS FOLLOWS:
- A. ALL ACOUSTICAL ROOF DECK SHALL BE 2" DEEP 20 GA ACOUSTICAL DOVETAIL GALVANIZED DECK, 3 SPAN MINIMUM. 2.0DA BY VULCRAFT OR AN APPROVED FQUAI B. GRADE 40 STEEL, FY = 40 KSI.
- 5. PROVIDE ADDITIONAL SUPPORT FRAMING AT OPENINGS IN ROOF AND FLOOR PER TYPICAL DETAILS. COORDINATE LOCATIONS WITH APPROPRIATE TRADES.
- 6. THE CONTRACTOR SHALL FURNISH ALL ACCESSORIES INCLUDING CLOSURES, "Z" CLOSURES, COLUMN CLOSURES, SCREED ANGLES, GIRDER FILLERS, CANT STRIP, FILLER SHEET AND REINFORCING CHANNEL, AS REQUIRED.
- 7. ALL DECKING SHALL BE WELDED TO STRUCTURAL STEEL BY QUALIFIED WELDERS USING PRE-QUALIFIED PROCEDURES. THE ERECTOR SHALL ESTABLISH A WELDING PROCEDURE FOR THE PLUG WELD OF THE STEEL DECKING TO THE STRUCTURAL STEEL FOR THE PARTICULAR GAGE USED. PRIOR TO THE START OF ERECTION OF THE STEEL DECK, EACH WELDER SHALL BE QUALIFIED USING THIS PROCEDURE AS WITNESSED BY THE OWNER'S TESTING AGENCY.
- 8. THE METAL DECK SHALL BE DESIGNED TO BE CONTINUOUS OVER THREE (3) SPANS IN THE DIRECTION INDICATED. SINGLE AND DOUBLE SPANS, IF REQUIRED, SHALL SATISFY LOAD AND DEFLECTION REQUIREMENTS.
- 9. NO LOADS SHALL BE PERMITTED TO BE HUNG FROM ANY ROOF DECK. ALL HANGERS FOR CEILINGS, DUCTWORK, ELECTRICAL CONDUIT, PIPING, ETC. SHALL BE HUNG DIRECTLY FROM STRUCTURAL STEEL WORK OR SUPPLEMENTARY MEMBERS.
- DIVISION 5 STEEL JOIST
- 1. THE LATEST REVISION OF THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING, FABRICATION AND ERECTION OF STEEL JOISTS AND JOIST GIRDERS.
- A. STEEL JOIST INSTITUTE (SJI) SJI-K, STANDARD SPECIFICATION FOR OPEN WEB STEEL JOISTS, K-SERIES. B. SJI-LH/DLH, STANDARD SPECIFICATION FOR LONGSPAN STEEL JOISTS, LH-SERIES AND DEEP LONGSPAN STEEL JOISTS, DLH-SERIES.
- C. SJI-JG, STANDARD SPECIFICATION FOR JOIST GIRDERS. D. SJI-COPS, CODE OF STANDARD PRACTICE FOR STEEL JOISTS AND JOIST GIRDERS.
- 2. ONLY STEEL JOISTS AND JOIST GIRDERS FROM A STEEL JOIST INSTITUTE APPROVED FABRICATOR WILL BE ACCEPTABLE.
- 3. PROVIDE WELDED HORIZONTAL BRIDGING AND CROSS BRIDGING AS REQUIRED PER SJI REQUIREMENTS.
- 4. REFER TO PLANS, DETAILS AND NOTES FOR ADDITIONAL SPECIAL JOIST REQUIREMENTS.
- 5. ALL CONCENTRATED LOADS DUE TO HANGERS, MECHANICAL EQUIPMENT, ETC. SHALL BE SUPPORTED ONLY AT JOIST PANEL POINTS. PROVIDE ADDITIONAL MEMBERS AS NECESSARY TO MEET THIS REQUIREMENT.
- 6. JOISTS SHALL BE FIELD WELDED TO ALL SUPPORTS WITH A 3/16" FILLET WELD 3" LONG ON EACH SIDE OF BEARING UNLESS NOTED OTHERWISE.
- 7. ALL STEEL ROOF JOISTS AND BRIDGING SHALL BE DESIGNED FOR A NET UPLIFT BASED ON DIAGRAM, SEE ROOF PLAN,
- DIVISION 5 COLD FORMED METAL FRAMING 1. THE LATEST REVISION OF THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING, FABRICATION AND ERECTION OF COLD FORMED METAL FRAMING.
- A. AMERICAN IRON AND STEEL INSTITUTE (AISI) AISI S200, NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS. B. AISI S201, NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING -
- PRODUCT DATA. C. AISI S202, CODE OF STANDARD PRACTICE FOR COLD-FORMED STEEL STRUCTURAL FRAMING.
- 2. COLD FORMED STEEL SHALL CONFORM TO THE FOLLOWING ASTM MATERIAL SPECIFICATIONS: A. ASTM A446, Fy = 33 KSI FOR MATERIAL 0.0478 INCH (18 GAGE) OR THINNER.
- B. ASTM A446, Fy = 50 KSI FOR MATERIAL 0.0598 INCH (16 GAGE) OR THICKER.
- 3. ALL COLD FORMED STEEL SHALL HAVE A GALVANIZED COATING CONFORMING TO ASTM A653-G60.
- 4. ALL WELDING SHALL CONFORM TO AWS D1.3 SPECIFICATION FOR WELDING SHEET STEEL STRUCTURES AND AWS D19.0 WELDING ZINC COATED STEEL.
- 5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING SIZES, DESIGN VALUES, MATERIALS, DIMENSIONS, CONNECTIONS AND CALCULATIONS WHICH HAVE BEEN PREPARED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER.
- 6. UNLESS SPECIFICALLY NOTED, ALL MATERIAL SHALL BE A MINIMUM 18 GAUGE (MINIMUM 16 GAUGE FOR STUDS SERVING AS BACKUP FOR BRICK VENEER) THICKNESS, AND SHALL MEET THE DEFLECTION REQUIREMENTS OF THE FINISH MATERIAL TO BE ATTACHED TO THE COLD FORMED FRAMING WORK. DEFLECTION OF COLD FORMED STUDS, UNDER WIND LOADS, SERVING AS BACKUP FOR BRICK VENEER SHALL NOT EXCEED SPAN/720.
- 7. ALL STUDS AND JOISTS SHALL BE INSTALLED AT SPACING INDICATED ON THE DRAWINGS, UNLESS NOTED, EACH SIDE OF THE OPENINGS SHALL BE FRAMED WITH DOUBLE STUDS.
- 8. ALL STUDS AND JOISTS SHALL HAVE A BRIDGING LINE INSTALLED AT A MAXIMUM DISTANCE OF 4'-0" AND 5'-0" RESPECTIVELY.
- 9. ALL JOISTS SHALL HAVE WEB STIFFENERS AT REACTION POINTS AND CONCENTRATED LOADS.
- 10. STRUCTURAL CONNECTIONS OF COLD FORMED METAL FRAMING MEMBERS SHALL BE MADE PER MANUFACTURER'S RECOMMENDATIONS, ADEQUATE TO CARRY THE IMPOSED LOADS, AND CONFORMING TO THE AISI AND AWS SPECIFICATIONS.
- 11. NON LOAD BEARING WALLS OR CURTAIN WALLS SHALL BE DESIGNED AND CONNECTED TO ALLOW FOR DEFLECTION OF THE BUILDING STRUCTURE.
- **DIVISION 31 FOUNDATIONS/BACKFILL**
- 1. CONTRACTOR SHALL REVIEW A COPY OF THE GEOTECHNICAL REPORT PREPARED BY G2 CONSULTING GROUP DATED 9/6/2023.
- 2. FOUNDATIONS ARE DESIGNED FOR A MAXIMUM ALLOWABLE BEARING CAPACITY OF 3000 PSF. FOUNDATIONS SHALL BEAR ON NATURAL UNDISTURBED SOILS OR ON ENGINEERED FILL.
- 3. THE OWNER WILL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER TO MONITOR THE FOUNDATION WORK AND DETERMINE THE QUALITY OF THE SOIL AT ALL FOOTING LOCATIONS. IF UNSUITABLE MATERIALS ARE ENCOUNTERED AT THE FOOTING LOCATIONS, THE UNSUITABLE SHALL BE REMOVED AND REPLACED OR THE FOOTINGS LOWERED AT THE DIRECTION OF THE ENGINEER.
- 4. THE CONTRACTOR SHALL BE AWARE OF AND VERIFY LOCATION OF ALL UNDERGROUND UTILITIES, TANKS, ETC. DUE CARE SHALL BE EXERCISED DURING EXCAVATION SUCH THAT EXISTING UTILITIES ARE NOT DAMAGED.
- 5. ALL EXCAVATED MATERIAL SHALL BE TRANSPORTED TO A DISPOSAL AREA DESIGNATED BY THE OWNER ALL EXCAVATIONS SHALL CONFORM TO MI-OSHA REQUIREMENTS. ANY PERCHED GROUNDWATER ENTERING THE EXCAVATION SHALL BE PUMPED PRIOR TO PLACING CONCRETE.
- 6. ALL BACKFILL MATERIALS SHALL CONFORM TO MDOT CLASS II MATERIAL. ALL BACKFILL SHALL BE PLACED IN 9" LOOSE LIFTS AND COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY DETERMINED IN ACCORDANCE WITH ASTM D-1557 (MODIFIED PROCTOR). FIELD DENSITY TESTING SHALL BE PERFORMED IN ACCORDANCE WITH ASTM D-2922 OR D-1556 WITH A MINIMUM OF 1 TEST PER 1500 SQ FEET OF AREA PER 9" LIFT (MINIMUM OF (3) TEST PER LIFT).

![](_page_4_Figure_131.jpeg)

SHALL BE 3/4" Ø X 3 1/2" LONG. LENGTH INDICATED SHALL BE THE FINAL LENGTH AFTER WELDING. SEE TYPICAL DETAILS FOR PLACEMENT.

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BC

C.L.

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STATEMENT OF SPECIAL INSPECTIONS					SPECIAL INSPECTION REQUIREMENTS - S	STRUCTURAL STEEL			SPECIAL INSPECTION REQUIREMENTS - MASONRY CONSTRUCTION				
1. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE 2015 MICHIGAN (INTERNATION	NAL) BUILDING CODE CHAPTER												
2. <u>DESIGNATIONS:</u>	, <u> </u>							REFERENCE	AGENT	VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX IN ACCORDANCE WITH ARTICLE 1.5 B.1.b.3 FOR S	VSI) AS DELIVERED TO THE PROJECT S ELF-CONSOLIDATING GROUT	ITE	
SI - SPECIAL INSPECTOR QUALIFIED WITH DEMONSTRATED COMPETENCE DOCUMENTED BY CERTIFIC MICHIGAN (MIM), ETC., AS SUBMITTED AND APPROVED BY THE BUILDING OFFICIAL. SPECIAL INSPEC	CATIONS FROM RECOGNIZED A ECTOR MAY BE A FFIRM WITH N	AGENCIES SUCH AS AWS MULTIPLE SPECIALISTS A	, ACI, MASONRY IN AND A PROJECT MA	STITUTE OF ANAGER	I. INSPECTION OF STEEL FABRICATED ITEMS SHALL BE PERFORMED ON PREMISES DURING FABRICATION.         A. EXCEPTIONS: SPECIAL INSPECTIONS DURING FABRICATION NOT REQUIRED WHERE THE	- X	CERTIFICATION	1704.2.5	SI	VERIFICATION OF <i>f</i> 'm AND <i>f</i> 'AAC IN ACCORDANCE WITH AR	ICLE 1.4 B PRIOR TO CONSTRUCTION,		
PROVIDING REPORTS. TA - TESTING AGENCY QUALIFIED TO TEST AND INSPECT MATERIALS AND ASSEMBLIES. TESTING AGE	ENCY SHALL BE UNDER THE SUP	PERVISION OF THE SPEC	CIAL INSPECTOR.		FABRICATOR IS REGISTERED AND APPROVED IN ACCORDANCE WITH SECTION 1704.2.5.1.           2.         SPECIAL INSPECTIONS AND NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL ELEMENTS IN	X X	AISC QUALITY	1704.2.5	SI	EXCEPT WHERE SPECIFICALLY EXEMP	FED BY THE CODE.		
SE - SECTECTIVICAL ENGINEER WHO PROVIDED THE ORIGINAL GEOTECHNICAL SOILS INVESTIGATION SE - SPECIALTY ENGINEER RESPONSIBLE FOR DESIGNING ASSEMBLIES SUCH AS PRECAST CONCRETE SHALL PROVIDE OBSERVATION OF FARRICATED AND INSTALLED ITEMS OF THEIR DESIGN IN ADDI	N REFURIT E, STEEL JOISTS, COLD FORME ITION TO THE SPECIAL INSPECT	ED FRAMING ASSEMBLIE	S, ETC. SPECIALTY	Y ENGINEER	BUILDINGS AND PORTIONS THEREOF SHALL BE IN ACCORDANCE WITH QUAITY ASSURANCE INSPECTION REQUIREMENTS OF AIS.		CERTIFICATION			MINIMUM INSPECTIO			CRITERIA
3. TA, GE, AND SE SHALL SUBMIT RECORDS OF THE INSPECTION RESULTS TO THE SI. THE SI SHALL COMPIL	ILE AND SUBMIT INSPECTION RE	ECORDS TO THE ARCHIT	ECT/ENGINEER AN	ND BUILDING	A. SPECIAL INSPECTIONS OF RAILING SYSTEMS COMPOSED OF STRUCTURAL STEEL ELEMENTS SHALL BE LIMITED TO WELDING INSPECTIONS AT THE BASE OF CANTILEVERED RAIL POSTS.	- X	AISC QUALITY CERTIFICATION	1704.2.5	SI	INSPECTION TASK		TMS 402/	TMS 602/
OFFICIAL. RECORDS SHALL INCLUDE STATEMENTS OF TESTS, WHETHER INSTALLED/FABRICATED ITEM C	COMPLIES WITH CONTRACT DO	OCUMENTS, REMEDIAL W	ORD PERFORMED,	RETESTS.	QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR. QUAILTY ASSURANCE (QAILTY ASSURANCE) WHEN REQUIRED BY THE AUTHORITY HAVING JURISDICTION. APPLICABLE BUILDING CODE. OWNER. OR ENG	A) SHALL BE PROVIDED BY	OTHERS				CONTINUOUS PERIODIC	ACI 530/ ASCE 5	ACI 530.1/ ASCE 6
4. SI SHALL PROVIDE A DAILY REPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND REPORTS OF COMPLIANCE CAN FOLLOW BY A MAXIMUM OF 2 WEEKS. SI SHALL PROVIDE AND SIGN FINA ENDINEER OF DEPORT AND DUILD DEPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND ENDINEER OF DEPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND ENDINEER OF DEPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND ENDINEER OF DEPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND ENDINEER OF DEPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND ENDINEER OF DEPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND ENDINEER OF DEPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND ENDINEER OF DEPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND ENDINEER OF DEPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND ENDINEER OF DEPORT OF ANY DISCREPANCIES FROM THE CONTRACT OF ANY ENDINEER OF DEPORT OF ANY DISCREPANCIES FROM THE CONTRACT OF ANY ENDINEER OF DEPORT OF ANY DISCREPANCIES FROM THE CONTRACT OF ANY ENDINEER OF DEPORT OF ANY DISCREPANCIES FROM THE CONTRACT OF ANY ENDINE FOR THE FOUND FROM THE CONTRACT OF ANY DISCREPANCIES FROM THE CONTRACT OF ANY ENDINE FOR THE FOR THE FOUND FROM THE CONTRACT OF ANY DISCREPANCIES FROM THE FOR THE FOR THE FOR THE CONTRACT OF ANY DISCREPANCIES FROM THE CONTRACT OF ANY DISCREPANCIES FROM THE FOR THE F	D ON THE SAME DAY OF THE IN AL REPORT WITH A SUMMARYOI	ISPECTION TO THE ENGI F ALL TESTS PERFORME	NEER OF RECORD	. FORMAL O THE			CY REFERENCED	IBC	RESPONSIBLE	1. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS.	- X		Art. 1.5
ENGINEER OF RECORD AND BUILDING OFFICIAL, IN ACCORDANCE WITH SECTION 1704.2.4.						QC QA	STANDARD	REFERENCE	AGENT	2. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:	- X		Art. 2.1. 2.6 A
6. WHERE FABRICATION OF STRUCTURAL LOAD-BEARING, OR LATERAL LOAD-RESISTING MEMBERS OR AS	SSEMBLIES IS BEING CONDUCTE	ED ON THE PREMISES OI	F A FABRICATOR'S	SHOP.	1. INSPECTION TASKS PRIOR TO BOLTING:					B. CONSTRUCTION OF MORTAR JOINTS.	- X		Art. 3.3. B
SPECIAL INSPECTIONS OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION. SPECI MAINTAINS APPROVED DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A	IAL INSPECTIONS DURING FABE	RICATION ARE NOT REQU	JIRED WHERE THE FABRICATORS AB	FABRICATOR ILITY TO	A. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER	0 P				C. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES.	- X		Art. 2.4 B, 2.4 H
CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND THE GOVERNING BUILDING CODE. APPROV. PROCEDURES AND PERIODIC INSPECTION OF FABRICATION PRACTICES BY THE BUILDING OFFICIAL. SPE	/AL SHALL BE BASED UPON REV ECIAL INSPECTIONS ARE NOT R	VIEW OF FABRICATION A	ND QUALITY CONT ABRICATOR IS REC	ROL GISTERED AND	B. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS.	0 0	AISC 360,	1705.2	SI/TA	3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:	=5 X		Alt. 3.4, 3.6 A
APPROVED IN ACCORDANCE WITH SECTION 1704.2.5.1.					THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE).		TABLE N5.6-1			A. GROUT SPACE.	- X		Art. 3.2 D, 3.2 F
7. REFER TO OF EGINE INCLEATION CONEDUCED AND OTHEOTOMAE GENERAL NOTED FOR ADDITIONAL QUAL					E. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND	0 0				B. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES.	- X	Sec. 1.16	Art. 2.4, 3.4
					HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS. F. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND	P O				C. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES	- X	Sec. 1.16	Art. 3.2 E, 3.4, 3.6 A
SPECIAL INSPECTION REQUIREMENTS - SOI	ILS AND FOUNDATIONS	DECEDENCED	100		DOCUMENTED FOR FASTENER ASSEMBLIES AND METHOD USED. G. PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER	0 0				D. PROPORATIONS OF SITE-PREPARED GROUT AND PRESTRESSING GORUT FOR BONDED TENDONS.	- X		Art. 2.6 B, 2.4 G.1.b
INSPECTION TASK	CONTINUOUS PERIODIC	REFERENCED STANDARD	IBC REFERENCE	AGENT	2. INSPECTION TASKS DURING BOLTING:					E. CONSTRUCTION OF MORTAR JOINTS.	- X		Art. 3.3 B
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	- X	GEOTECHNICAL REPORT	1705.6	SI/GE	A. FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED.	0 0	ALSC 260	1705.0	01/74	4. VERIFY DURING CONSTRUCTION. A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	- X		Art. 3.3 F
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	- X	GEOTECHNICAL	1705.6	SI/GE	B. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION.	0 0	AISC 360, SECTION N5, TABLE N5 6-2	1705.2	51/TA	B. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF	- X	Sec. 1.16.4.3, 1.17.1	
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	- X	GEOTECHNICAL	1705.6	SI/GE/TA	C. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTING FROM ROTATING.	0 0				C. WELDING OF REINFORCEMENT.	X -	Sec. 2.1.8.7.2,	
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND	X -	GEOTECHNICAL	1705.6	SI/GE/TA	PROGRESSING SYSTEMATICALLY FRO THE MOST RIGID POINT TOWARD THE FREE EDGES.		AISC 360	1705 2	SI/TA	D. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER	- X	3.3.3.4(c), 8.3.3.4(b)	Art. 1.8 C, 1.8 D
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN	- X	GEOTECHNICAL	1705.6	SI/GE/TA	A. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.	P P	SECTION N5, TABLE N5.6-3	.,	Sa IIX	(TEMPERATURE BELOW 40°F (4.4°C)) OR HOT WEATHER (TEMPERATURE ABOVE 90°F (32.2°C)). E. CONSTRUCTION OF MORTAR JOINTS.	- X		Art. 3.3 B
PREPARED PROPERLY.		REPORT			O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPE P: PERFORM THESE TASKS FOR EACH BOLTED CONNECTION.	ECTIONS.				5. OBSERVE PREPARTATION OF GROUT SPEICMENS, MORTAR SPECIMENS, AND/ OR PRISMS	- X		Art. 1.4 B.2.a.3,
					INSPECTION OF WELDING								1.4 B.2.0.3, 1.4 B.2.c.3, 1.4 B.3 1 4 B 4
SPECIAL INSPECTION REQUIREMENTS - CON		1			INSPECTION TASKS PRIOR TO WELDING:     A. WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS	РО				(a) FREQUENCY REFERS TO THE FREQENCY OF INSPECTION, WHICH MAY BE CONTINUOUS DURING THE T	ASK LISTED OR PERIODICALLY DURING	THE LISTED TASK, AS DEFE	NED IN THE TABLE.
INSPECTION TASK	CONTINUOUS PERIODIC	REFERENCED STANDARD	IBC REFERENCE	RESPONSIBLE AGENT	B. WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE.	P P							
1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT.	- X	ACI 318: Ch 20, 25.2, 25.3, 26.6, 1-26.6, 3	1908.4	SI	C. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES	P P							
2. REINFORCING BAR WELDING:		20.0, 20.0.1-20.0.0			D. MATERIAL IDENTIFICATION (TYPE/GRADE). E. WELDER IDENTIFICATION SYSTEM.	0 0							
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706.	- X	AWS D1.4 ACI 318: 26.36.4	-	SI	F. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY):	0 0							
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16". C. INSPECT ALL OTHER WELDS.	- X X -				- JOINT PREPARATIONS - DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) - CLEANIUNESS (CONDITION OF STEEL SUBFACES)								
3. INSPECT ANCHORS CAST IN CONCRETE.	- X	ACI 318: 17.8.2	-	SI/TA	- TACKING (TACK WELD QUALITY AND LOCATION) - BACKING TYPE AND FIT (IF AVAILABLE)		AISC 360, SECTION N5.	1705.2	SI/TA				
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	v			SI/TA	G. FIT-UP OF CJP WELDS OF HSS, T-, Y-, AND K-JOINTS WITHOUT BACKING	P O	TABLE N5.4-1						
RESIST SUSTAILED IN HORIZONTALLT OR OFWARDET INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	^ -	ACI 310. 17.0.2.4	-		- JOINT PREPARATIONS - DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)								
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.	- X	AUI 318: 17.8.2	-	SI/TA	- CLEANLINESS (CONDITION OF STEEL SURFACES) - TACKING (TACK WELD QUALITY AND LOCATION)								
5. VERIFY USE OF REQUIRED DESIGN MIX.	- X	ACI 318: Ch 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.3	SI/TA	H. CONFIGURATION AND FINISH OF ACCESS HOLES.	0 0							
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X -	ASTM C172 ASTM C31	1904.1, 1904.2, 1908.3	SI/TA	I. FIT-UP OF FILLET WELDS: - DIMENSIONS (ALIGNMENT, GAPS AT ROOT) - CLEANUMERS (CONDITION OF STEEL SUBFACES)	0 0							
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X -	ACI 318: 26.5, 26.12 ACI 318: 26.5	1908.6, 1908.7,	SI	- CLEANLINESS (CONDITION OF STEEL SURFACES) - TACKING (TACK WELD QUALITY AND LOCATION)								
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	- X	ACI 318: 26.5.3-26.5.5	1908.8 1908.9	SI	J. CHECK WELDING EQUIPMENT.	0 0							
9 INSPECT FORMWORK FOR SHAPE LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING	X	ACI 318: 26 11 1 2(b)		SI	A. CONTROL AND HANDLING OF WELDING CONSUMABLES:	0 0							
FORMED.					- PACKAGING - EXPOSURE CONTROL								
					B. NO WELDING OVER CRACKED TACK WELDS.	0 0							
SPECIAL INSPECTION REQUIREMENTS - POST	T-INSTALLED ANCHORS	5			- WIND SPEED WITHIN LIMITS - PRECIPITATION AND TEMPERATURE								
INSPECTION TASK	INSPECTION FREQUENCY	REFERENCED STANDARD	IBC REFERENCE	RESPONSIBLE AGENT	D. WPS FOLLOWED:	0 0	AISC 360,	1705.2	SI/TA				
1. INSPECT AND TEST ALL POST-INSTALLED MECHANICAL AND ADHESIVE ANCHORS MANUFACTURER'S	X -	ICC-ESR FOR EACH	1705.1.1	SI/TA	- SETTINGS ON WELDING EQUIPMENT - TRAVEL SPEED - SELECTED WELDING MATERIALS		TABLE N5.4-2						
ICC-ESR EVALUATION REPORT FOR EACH ANCHOR.		ANCHOR			- SHIELDING GAS TYPE/FLOW RATE - PREHEAT APPLIED								
					- INTERPASS TEMPERATURE MAINTAINED (MIN/MAX)								
SPECIAL INSPECTION REQUIREMENTS - STEEL CONSTRUCT	TION OTHER THAN STRU	ICTURAL STEEL			- INTERPASS AND FINAL CLEANING - FACH PASS WITHIN PROFILE LIMITATIONS								
INSPECTION TASK	CONTINUOUS PERIODIC	REFERENCED STANDARD	IBC REFERENCE	RESPONSIBLE AGENT	- EACH PASS MEETS QUALITY REQUIREMENTS								
1. MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK:					<ul> <li>F. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS.</li> <li>3. INSPECTION TASKS AFTER WELDING:</li> </ul>	P P							
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	- X	APPLICABLE ASTM MATERIAL	1705.2.2		A. WELDS CLEANED.	0 0							
B. MANUFACTURER'S CERTIFIED TEST REPORTS.	- X	-	-	_	B. SIZE, LENGTH AND LOCATION OF WELDS.	P P							
A. COLD-FORMED STEEL DECK:				SI/TA	- CRACK PROHIBITION - WELD/BASE-METAL FUSION								
1. FLOOR AND ROOF DECK WELDS.	- X	AWS D1.3	1705.2.2		- CRATER CROSS SECTION - WELD PROFILES								
B. REINFORCING STEEL:	- X	AWS D1.4. ACI 318:	1705 2 2	_	- WELD SIZE - UNDERCUT		AISC 360, SECTION N5,	1705.2	SI/TA				
2. REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND POLIDIDARY FLEXURAL OF OPENING STEEL STRUCTURE	NA -	SECTION 3.5.2			D. ARC STRIKES.	P P	TABLE N5.4-3						
SPECIAL MOMENT PRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR		_			E. K-AREA. F. WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES	Р Р Р Р							
3. SHEAR REINFORCMENT.     4. OTHER REINFORCING STEEL	NA -	_			G. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED).	P P							
	- ^					P P							
					I.       DOCUMENT ACCEPTANCE OF REJECTION OF WELDED JOINT OR         J.       NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR.	р р 0 0							
SPECIAL INSPECTION REQUIREMENTS - OPEN WEB ST	I EEL JOISTS AND JOIST	GIRDERS	150	DECDONOIDI 7	O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPE P: PERFORM THESE TASKS FOR FACH WEI DED JOINT OR MEMBER	ECTIONS.							
INSPECTION TASK	CONTINUOUS PERIODIC	STANDARD	REFERENCE	AGENT	INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT:								
INSTALLATION OF OPEN WEB STEEL JOISTS AND JOIST GIRDERS:					1. PLACEMENT AND INSTALLATION OF STEEL DECK.         2. PLACEMENT AND INSTALLATION STEEL HEADED STUD ANCHORS	P P	AISC 360, SECTION N6,	1705.2	SI/TA				
	- ^	SECTION 2207.1		51/3E	3. DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS.	P P	1 ABLE N6.1						
A. BRIDGING THAT DIFFERS FROM THE S.II SPECIFICATIONS LISTED IN SECTION 2207.1	X	_			O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPE P: PERFORM THESE TASKS FOR FACH STEEL FLEMENT	ECTIONS.	<u> </u>						

STATEMENT OF SPECIAL INSPECTIONS					SPECIAL INSPECTION REQUIREMENTS - MASONRY CONSTRUCTION									
						SPECTION FREQUENCY	REFERENCED	IBC	RESPONSIBI F					
1. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE 2015 MICHIGAN (INTERNATIONAL)	BUILDING CODE CHAPTER	K 17 AND AS MODIFIED HE	EKIN.		INSPECTION TASK CONT	TINUOUS PERIODIC	STANDARD	REFERENCE	AGENT		I) AS DELIVERED TO THE PROJECT	SITE		
2. DESIGNATIONS: SI - SPECIAL INSPECTOR QUALIFIED WITH DEMONSTRATED COMPETENCE DOCUMENTED BY CERTIFICATI MICHIGAN (MIM) ETC. AS SUDMITTED AND ADDROVED BY THE BUILDING OFFICIAL OPECIAL INCODEST.	ONS FROM RECOGNIZED	AGENCIES SUCH AS AWS	S, ACI, MASONRY IN		1. INSPECTION OF STEEL FABRICATED ITEMS SHALL BE PERFORMED ON PREMISES DURING FABRICATION.	- X	AISC QUALITY CERTIFICATION	1704.2.5	SI					
MIGHIGAN (MIM), ETC., AS SUBMITTED AND APPROVED BY THE BUILDING OFFICIAL. SPECIAL INSPECT PROVIDING REPORTS. TA - TESTING AGENCY ONALISIED TO TEST AND INSPECT MATERIALS AND ASSEMBLIES. TESTING AGENCY				NAGER	A. EXCEPTIONS: SPECIAL INSPECTIONS DURING FABRICATION NOT REQUIRED WHERE THE FABRICATOR IS REGISTERED AND APPROVED IN ACCORDANCE WITH SECTION 1704.2.5.1.					VERIFICATION OF <i>f</i> ' <sub>m</sub> AND <i>f</i> ' <sub>AAC</sub> IN ACCORDANCE WITH ARTIC EXCEPT WHERE SPECIFICALLY EXEMPTE	LE 1.4 B PRIOR TO CONSTRUCTION D BY THE CODE.			
GE - GEOTECHNICAL ENGINEER WHO PROVIDED THE ORIGINAL GEOTECHNICAL SOILS INVESTIGATION REI	SHALL BE UNDER THE SU PORT. TEEL LOISTS COLD EORMI		SIAL INSPECTOR.		2. SPECIAL INSPECTIONS AND NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL ELEMENTS IN BUILDINGS AND PORTIONS THEREOF SHALL BE IN ACCORDANCE WITH QUAITY ASSURANCE INSPECTION	x x	AISC QUALITY CERTIFICATION	1704.2.5	SI	MINIMUM INSPECTION				
SHALL PROVIDE OBSERVATION OF FABRICATED AND INSTALLED ITEMS OF THEIR DESIGN IN ADDITION	N TO THE SPECIAL INSPEC		, ETU. UI LUIALTI		REQUIREMENTS OF AIS.         A. SPECIAL INSPECTIONS OF RAILING SYSTEMS COMPOSED OF STRUCTURAL STEFT FLEMENTS SHALL BE	_ v	AISC QUALITY	1704.2.5	SI		INSPECTION FREQUENCY	REFERENCED FOR	CRITERIA	
3. TA, GE, AND SE SHALL SUBMIT RECORDS OF THE INSPECTION RESULTS TO THE SI. THE SI SHALL COMPILE A OFFICIAL RECORDS SHALL INCLUDE STATEMENTS OF TESTS, WHETHER INSTALLED/FABRICATED ITEM COM	ND SUBMIT INSPECTION R	RECORDS TO THE ARCHI	TECT/ENGINEER AN	D BUILDING RETESTS	LIMITED TO WELDING INSPECTIONS AT THE BASE OF CANTILEVERED RAIL POSTS.		CERTIFICATION	1704.2.0		INSPECTION TASK	CONTINUOUS PERIODIC	TMS 402/ ACI 530/	TMS 602/ ACI 530.1/	
4 SI SHALL PROVIDE A DAILY REPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND ON	THE SAME DAY OF THE IN			FORMAI	QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR. QUAILITY ASSURANCE (QA) SHAL WHEN REQUIRED BY THE AUTHORITY HAVING JURISDICTION, APPLICABLE BUILDING CODE, OWNER, OR ENGINEER	R OF RECORD.	IERS					ASCE 5	ASCE 6	
REPORTS OF COMPLIANCE CAN FOLLOW BY A MAXIMUM OF 2 WEEKS. SI SHALL PROVIDE AND SIGN FINAL RE ENGINEER OF RECORD AND BUILDING OFFICIAL. IN ACCORDANCE WITH SECTION 1704.2.4.	EPORT WITH A SUMMARYC	OF ALL TESTS PERFORME	ED AND RESULTS TO	) THE		SPECTION FREQUENCY				VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS.     AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:	- X		Απ. 1.5	
5. SI. TA & GE SHALL BE ENGAGED BY THE OWNER IN COMPLIANCE WITH THE MICHIGAN (INTERNATIONAL) BUIL	DING CODE.				INSPECTION OF BOI TING	QC QA	STANDARD	REFERENCE	AGENT	A. PROPORTIONS OF SITE-PREPARED MORTAR.	- X		Art. 2.1, 2.6 A	
6. WHERE FABRICATION OF STRUCTURAL, LOAD-BEARING, OR LATERAL LOAD-RESISTING MEMBERS OR ASSEM	IBLIES IS BEING CONDUCT	ED ON THE PREMISES O	F A FABRICATOR'S	SHOP,	1. INSPECTION TASKS PRIOR TO BOLTING:		_			B. CONSTRUCTION OF MORTAR JOINTS.	- X		Art. 3.3. B	
SPECIAL INSPECTIONS OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION. SPECIAL I MAINTAINS APPROVED DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BAS	NSPECTIONS DURING FAB	RICATION ARE NOT REQUE	UIRED WHERE THE E FABRICATORS AB	FABRICATOR LITY TO	A. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER	0 P	_			C. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES.	- X		Art. 2.4 B, 2.4 H	
CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND THE GOVERNING BUILDING CODE. APPROVAL S PROCEDURES AND PERIODIC INSPECTION OF FABRICATION PRACTICES BY THE BUILDING OFFICIAL. SPECIA	SHALL BE BASED UPON RE L INSPECTIONS ARE NOT F	VIEW OF FABRICATION A REQUIRED WHERE THE F	ND QUALITY CONTR ABRICATOR IS REG	ROL ISTERED AND	B. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS.	0 0	AISC 360,	1705.2	SI/TA	3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:	X		Ап. 3.4, 3.6 А	
APPROVED IN ACCORDANCE WITH SECTION 1704.2.5.1.					THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE).	0 0	SECTION N5, TABLE N5.6-1			A. GROUT SPACE.	- X		Art. 3.2 D, 3.2 F	
7. REFER TO SPECIAL INSPECTION SCHEDULES AND STRUCTURAL GENERAL NOTES FOR ADDITIONAL QUALITY	CONTROL TESTING AND I	NSPECTIONS.			D. CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL.	0 0	_			B. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES.	- X	Sec. 1.16	Art. 2.4, 3.4	
					HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS.	0 0	_			C. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND	- X	Sec. 1.16	Art. 3.2 E, 3.4, 3.6 A	
SPECIAL INSPECTION REQUIREMENTS - SOILS	AND FOUNDATIONS				F. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHOD USED.	P 0				D. PROPORATIONS OF SITE-PREPARED GROUT AND PRESTRESSING GORUT FOR BONDED	- X		Art. 2.6 B, 2.4 G.1.b	
INSPECTION TASK		REFERENCED	IBC	RESPONSIBLE	G. PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER	0 0				TENDONS. E CONSTRUCTION OF MORTAR JOINTS	- X		Art 33B	
CC 1 VERIEV MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING	ONTINUOUS PERIODIC	GEOTECHNICAL	1705.6	SI/GE	2. INSPECTION TASKS DURING BOLTING:     A FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS	0 0	_			4. VERIFY DURING CONSTRUCITON.				
	- X	REPORT	0.00	51/GE	REQUIRED.		AISC 360,	1705.2	SI/TA	A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	- X		Art. 3.3 F	
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	- X	GEOTECHNICAL REPORT	1705.6	SI/GE	B. JUINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION.         C. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTING FROM ROTATING	0 0 0 0	SECTION N5, TABLE N5.6-2			B. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION	- X	Sec. 1.16.4.3, 1.17.1		
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	- X	GEOTECHNICAL REPORT	1705.6	SI/GE/TA	D. FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION,	0 0	-			C. WELDING OF REINFORCEMENT.	X -	Sec. 2.1.8.7.2,		
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND	Х -	GEOTECHNICAL	1705.6	SI/GE/TA	PROGRESSING SYSTEMATICALLY FRO THE MOST RIGID POINT TOWARD THE FREE EDGES. 3. INSPECTION TASKS AFTER BOLTING:		AISC 360,	1705.2	SI/TA	D. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER	- X	۰.၁.۹( <i>u</i> ), 0.3.3.4(D)	Art. 1.8 C, 1.8 D	
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN	- X	GEOTECHNICAL	1705.6	SI/GE/TA	A. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.	P P	SECTION N5, TABLE N5.6-3			(TEMPERATURE BELOW 40°F (4.4°C)) OR HOT WEATHER (TEMPERATURE ABOVE 90°F (32.2°C)). E. CONSTRUCTION OF MORTAR JOINTS.	- X		Art. 3.3 B	
PREPARED PROPERLY.		REPORT			O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTION	NS.		· · · · · · · · · · · · · · · · · · ·		5. OBSERVE PREPARTATION OF GROUT SPEICMENS, MORTAR SPECIMENS, AND/ OR PRISMS	- X		Art. 1.4 B.2.a.3,	
					INSPECTION OF WELDING								1.4 B.2.b.3, 1.4 B.2.c.3,	
SPECIAL INSPECTION REQUIREMENTS - CONCR	ETE CONSTRUCTION	N			1. INSPECTION TASKS PRIOR TO WELDING:								1.4 B.3, 1.4 B.4	
INSPECTION TASK	INSPECTION FREQUENCY	REFERENCED	IBC	RESPONSIBLE	A. WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS.	P 0	_			(a) FREQUENCE REFERS TO THE FREQENCE OF INSPECTION, WHICH MAY BE CONTINUOUS DURING THE TAS	K LISTED OR PERIODICALLY DURIN	G THE LISTED TASK, AS DEFEN	NED IN THE TABLE.	
1 INSPECT REINFORCEMENT AND VERIEY PLACEMENT	ONTINUOUS PERIODIC	ACI 318: Ch 20, 25.2	1908 4		B. WELDING PROCEDURE SPECIFICATIONS (WPSS) AVAILABLE. C. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES	P P	_							
	- ^	25.3, 26.6.1-26.6.3	1300.4	51	D. MATERIAL IDENTIFICATION (TYPE/GRADE).	0 0	_							
2. REINFORCING BAR WELDING:	- X	AWS D1 4		SI	E. WELDER IDENTIFICATION SYSTEM.	0 0	_							
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16".	- X	ACI 318: 26.36.4			F. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY): - JOINT PREPARATIONS	0 0								
C. INSPECT ALL OTHER WELDS.	Х -				- DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) - CLEANLINESS (CONDITION OF STEEL SURFACES)									
3. INSPECT ANCHORS CAST IN CONCRETE.	- X	ACI 318: 17.8.2	-	SI/TA	- TACKING (TACK WELD QUALITY AND LOCATION) - BACKING TYPE AND FIT (IF AVAILABLE)		AISC 360, SECTION N5,	1705.2	SI/TA					
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	X -	ACI 318: 17.8.2.4		SI/TA	G. FIT-UP OF CJP WELDS OF HSS, T-, Y-, AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY):	P O	TABLE N5.4-1							
RESIST SUSTAINED TENSION LOADS.					- JOINT PREPARATIONS - DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)									
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.	- X	ACI 318: 17.8.2	-	51/1A	- CLEANLINESS (CONDITION OF STEEL SURFACES) - TACKING (TACK WELD QUALITY AND LOCATION)									
5. VERIFY USE OF REQUIRED DESIGN MIX.	- X	ACI 318: Ch 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.3	SI/TA	H. CONFIGURATION AND FINISH OF ACCESS HOLES.	0 0								
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	Х -	ASTM C172 ASTM C31	1904.1, 1904.2, 1908.3	SI/TA	I. FIT-UP OF FILLET WELDS: - DIMENSIONS (ALIGNMENT, GAPS AT ROOT)	0 0								
		ACI 318: 26.5, 26.12			- CLEANLINESS (CONDITION OF STEEL SURFACES) - TACKING (TACK WELD QUALITY AND LOCATION)									
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X -	ACI 318: 26.5	1908.6, 1908.7, 1908.8	SI	J. CHECK WELDING EQUIPMENT.	0 0	_							
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	- X	ACI 318: 26.5.3-26.5.5	1908.9	SI	2. INSPECTION TASKS DURING WELDING:		_							
9. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING	- X	ACI 318: 26.11.1.2(b)	-	SI	A. CONTROL AND HANDLING OF WELDING CONSUMABLES: - PACKAGING	0 0								
FORWIED.						0 0	_							
					C. ENVIRONMENTAL CONDITIONS:	0 0 0 0	_							
SPECIAL INSPECTION REQUIREMENTS - POST-IN	ISTALLED ANCHOR	S			- WIND SPEED WITHIN LIMITS - PRECIPITATION AND TEMPERATURE									
INSPECTION TASK		REFERENCED STANDARD	IBC REFERENCE	RESPONSIBLE AGENT	D. WPS FOLLOWED:	0 0	AISC 360,	1705.2	SI/TA					
Inspect and test all post-installed mechanical and adhesive anchors manufacturer's	χ -	ICC-ESR FOR EACH	1705.1.1	SI/TA	- SETTINGS ON WELDING EQUIPMENT - TRAVEL SPEED - SELECTED WELDING MATERIALS		TABLE N5.4-2							
IGG-ESR EVALUATION REPORT FOR EACH ANCHOR.		ANCHOR			- SELECTED WELDING IVIATERIALS - SHIELDING GAS TYPE/FLOW RATE - PREHEAT APPLIED									
					- INTERPASS TEMPERATURE MAINTAINED (MIN/MAX)									
SPECIAL INSPECTION REQUIREMENTS - STEEL CONSTRUCTION	OTHER THAN STRU	JCTURAL STEEL			E. WELDING TECHNIQUES: - INTERPASS AND FINAL CLEANING	0 0								
INSPECTION TASK		REFERENCED	IBC	RESPONSIBLE	- EACH PASS WITHIN PROFILE LIMITATIONS - EACH PASS MEETS QUALITY REQUIREMENTS									
1. MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK	ONTINUOUS PERIODIC	STANDARD	REFERENCE	AGENT	F. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS.	P P	-							
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED	- X	APPLICABLE ASTM	1705.2.2	-	3. INSPECTION TASKS AFTER WELDING:		_							
CONSTRUCTION DOCUMENTS.  B MANUFACTURER'S CERTIFIED TEST REPORTS	v	MATERIAL		-	A. WELDS CLEANED. B. SIZE LENGTH AND LOCATION OF WELDS	0 0 P P	-							
2. INSPECTION OF WELDING:	^		-	-	C. WELDS MEET VISUAL ACCEPTANCE CRITERIA:	. г Р Р	-							
A. COLD-FORMED STEEL DECK:				SI/TA	- CRACK PROHIBITION - WELD/BASE-METAL FUSION									
1. FLOOR AND ROOF DECK WELDS.	- X	AWS D1.3	1705.2.2	-	- CRATER CROSS SECTION - WELD PROFILES									
B. REINFORUNG STEEL: 1. VERIFICATION OF WEI DABII ITY OF REINFORCING STEEL OTHER THAN ASTM A706	Y	AWS D1.4, ACL318	1705 2 2		- WELD SIZE - UNDERCUT		AISC 360, SECTION N5,	1705.2	SI/TA					
2. REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND	NA -	SECTION 3.5.2			D. ARC STRIKES.	P P	TABLE N5.4-3							
SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR						P P	_							
3. SHEAR REINFORCMENT.	NA -				R. WELD AUGESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES.     G. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED).	r Р Р Р	-							
4. OTHER REINFORCING STEEL.	- X				H. REPAIR ACTIVITIES.	P P								
					I. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR	P P								
SPECIAL INSPECTION REQUIREMENTS - OPEN WEB STEE	L JOISTS AND JOIST	GIRDERS			J. NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR.	0 0								
INSPECTION TASK	INSPECTION FREQUENCY	REFERENCED	IBC	RESPONSIBLE	P: PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER.	τ <b>υ</b> .								
1. INSTALLATION OF OPEN WER STEEL JOISTS AND JOIST GIRDERS	ONTINUOUS PERIODIC	STANDARD	REFERENCE	AGENT	INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT:	p p	AISC 360	1705 2	SI/TA					
A. END CONNECTIONS, WELDED OR BOLTED	- X	SJI SPECIFICATION	-	SI/SE	2. PLACEMENT AND INSTALLATION STEEL HEADED STUD ANCHORS.	. г Р Р	SECTION N6, TABLE N6 1	11 00.2	5					
2. BRIDGING, HORIZONTAL OR DIAGONAL:		SECTION 2207.1			3. DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS.	P P								
A. BRIDGING THAT DIFFERS FROM THE SJI SPECIFICATIONS LISTED IN SECTION 2207 1	_ X	—			O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTION P. PERFORM THESE TASKS FOR EACH STEEL FLEMENT	NS.								

	FCTIONS			]							SONRY CONSTRUCTION			
						INSPECTION FREQUENCY	REEDENCED	IRC		MINIMUM TESTS				
1. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE 2015 MICHIGAN (INTERNATION	IAL) BUILDING CODE CHAPTE	R 17 AND AS MODIFIED H	IERIN.		INSPECTION TASK	CONTINUOUS PERIODIC	STANDARD	REFERENCE	AGENT	VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VS	SI) AS DELIVERED TO THE PROJECT	SITE		
<ol> <li><u>DESIGNATIONS:</u></li> <li>SI - SPECIAL INSPECTOR QUALIFIED WITH DEMONSTRATED COMPETENCE DOCUMENTED BY CERTIFIC MICHIGAN (MIM) ETC. AS SUBMITTED AND APPROVED BY THE BUILDING OFFICIAL SPECIAL INSPECTATIONS</li> </ol>	CATIONS FROM RECOGNIZED	AGENCIES SUCH AS AW	S, ACI, MASONRY INS	TITUTE OF	1. INSPECTION OF STEEL FABRICATED ITEMS SHALL BE PERFORMED ON PREMISES DURING FABRICATION.	- X	AISC QUALITY CERTIFICATION	1704.2.5	SI					
PROVIDING REPORTS. TA - TESTING AGENCY QUALIFIED TO TEST AND INSPECT MATERIALS AND ASSEMBLIES. TESTING AGEN				AGEN	A. EXCEPTIONS: SPECIAL INSPECTIONS DURING FABRICATION NOT REQUIRED WHERE THE FABRICATOR IS REGISTERED AND APPROVED IN ACCORDANCE WITH SECTION 1704.2.5.1.						.D BY THE CODE.			
GE - GEOTECHNICAL ENGINEER WHO PROVIDED THE ORIGINAL GEOTECHNICAL SOILS INVESTIGATION SE - SPECIALTY ENGINEER RESPONSIBLE FOR DESIGNING ASSEMBLIES SUCH AS PRECAST CONCRETE	I REPORT. E STEEL JOISTS COLD FORM	VED FRAMING ASSEMBL	ES ETC SPECIALTY F	NGINEER	2. SPECIAL INSPECTIONS AND NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL ELEMENTS IN BUILDINGS AND PORTIONS THEREOF SHALL BE IN ACCORDANCE WITH QUAITY ASSURANCE INSPECTION	X X	AISC QUALITY CERTIFICATION	1704.2.5	SI	MINIMUM INSPECTION				
SHALL PROVIDE OBSERVATION OF FABRICATED AND INSTALLED ITEMS OF THEIR DESIGN IN ADDI	TION TO THE SPECIAL INSPEC	CTION.			REQUIREMENTS OF AIS. A. SPECIAL INSPECTIONS OF RAILING SYSTEMS COMPOSED OF STRUCTURAL STEEL ELEMENTS SHALL BE	X	AISC QUALITY	1704.2.5	SI		INSPECTION FREQUENCY	REFERENCED FOR	CRITERIA	
3. TA, GE, AND SE SHALL SUBMIT RECORDS OF THE INSPECTION RESULTS TO THE SI. THE SI SHALL COMPIL OFFICIAL. RECORDS SHALL INCLUDE STATEMENTS OF TESTS. WHETHER INSTALLED/FABRICATED ITEM C	LE AND SUBMIT INSPECTION COMPLIES WITH CONTRACT D	RECORDS TO THE ARCH	ITECT/ENGINEER AND WORD PERFORMED. R	BUILDING ETESTS.	LIMITED TO WELDING INSPECTIONS AT THE BASE OF CANTILEVERED RAIL POSTS.					INSPECTION TASK	CONTINUOUS PERIODIC	TMS 402/ ACI 530/	TMS 602/ ACI 530.1/	
4. SI SHALL PROVIDE A DAILY REPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND	O ON THE SAME DAY OF THE I	INSPECTION TO THE ENG	GINEER OF RECORD. F	ORMAL	WHEN REQUIRED BY THE AUTHORITY HAVING JURISDICTION, APPLICABLE BUILDING CODE, OWNER, OR ENG	GINEER OF RECORD.	TIERO	1		1 VERIEY COMPLIANCE WITH THE APPROVED SUBMITTALS		ASCE 5	ASCE 6	
REPORTS OF COMPLIANCE CAN FOLLOW BY A MAXIMUM OF 2 WEEKS. SI SHALL PROVIDE AND SIGN FINA ENGINEER OF RECORD AND BUILDING OFFICIAL, IN ACCORDANCE WITH SECTION 1704.2.4.	L REPORT WITH A SUMMARY	OF ALL TESTS PERFORM	IED AND RESULTS TO	THE	INSPECTION TASK		REFERENCED	IBC REFERENCE	RESPONSIBLE	2. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:	- X			
5. SI, TA & GE SHALL BE ENGAGED BY THE OWNER IN COMPLIANCE WITH THE MICHIGAN (INTERNATIONAL) B	BUILDING CODE.				INSPECTION OF BOLTING					A. PROPORTIONS OF SITE-PREPARED MORTAR.	- X		Art. 2.1, 2.6 A	
6. WHERE FABRICATION OF STRUCTURAL, LOAD-BEARING, OR LATERAL LOAD-RESISTING MEMBERS OR AS	SEMBLIES IS BEING CONDUC	TED ON THE PREMISES (	OF A FABRICATOR'S S	HOP,	1. INSPECTION TASKS PRIOR TO BOLTING:					B. CONSTRUCTION OF MORTAR JOINTS.	- X		Art. 3.3. B	
SPECIAL INSPECTIONS OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION. SPECI MAINTAINS APPROVED DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A	AL INSPECTIONS DURING FAI BASIS FOR CONTROL OF THE	BRICATION ARE NOT REC WORKMANSHIP AND TH	QUIRED WHERE THE FARE FARE FARE FARE FARE FARE FARE FAR	ABRICATOR TY TO	A. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER	0 P				C. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES.			Art. 2.4 B, 2.4 H	
CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND THE GOVERNING BUILDING CODE. APPROV/ PROCEDURES AND PERIODIC INSPECTION OF FABRICATION PRACTICES BY THE BUILDING OFFICIAL. SPE	AL SHALL BE BASED UPON RE	EVIEW OF FABRICATION	AND QUALITY CONTRO FABRICATOR IS REGIS	DL STERED AND	B. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS.		AISC 360,	1705.2	SI/TA	3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:				
APPROVED IN ACCORDANCE WITH SECTION 1704.2.5.1.					THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE).		TABLE N5.6-1			A. GROUT SPACE.	- X		Art. 3.2 D, 3.2 F	
7. KEI EK TO SE EGIAL INSELCTION SCHEDULLS AND STRUCTURAL GENERAL NOTES FOR ADDITIONAL QUAL		INGF LOTIONS.			E. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND	0 0				B. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES.	- X	Sec. 1.16	Art. 2.4, 3.4	
					HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS.	P O				C. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES	- X	Sec. 1.16	Art. 3.2 E, 3.4, 3.6 A	
SPECIAL INSPECTION REQUIREMENTS - SOI	LS AND FOUNDATIONS	6	1		DOCUMENTED FOR FASTENER ASSEMBLIES AND METHOD USED.	r U				D. PROPORATIONS OF SITE-PREPARED GROUT AND PRESTRESSING GORUT FOR BONDED	- X		Art. 2.6 B, 2.4 G.1.b	
INSPECTION TASK		Y REFERENCED STANDARD	IBC REFERENCE	RESPONSIBLE AGENT	G. PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER 2 INSPECTION TASKS DURING BOLTING:	0 0				E. CONSTRUCTION OF MORTAR JOINTS.	- X		Art. 3.3 B	
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING	- X	GEOTECHNICAL	1705.6	SI/GE	A. FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS	0 0				4. VERIFY DURING CONSTRUCITON.				
CAPACITY. 2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	X	GEOTECHNICAI	1705.6	SI/GE	REQUIRED. B. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION.	0 0	AISC 360,	1705.2	SI/TA	A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	- X		Art. 3.3 F	
		REPORT	1705.0		C. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTING FROM ROTATING.	0 0	TABLE N5.6-2			B. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION	- X	Sec. 1.16.4.3, 1.17.1		
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	- X	REPORT	1705.6	SI/GE/TA	D. FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FRO THE MOST RIGID POINT TOWARD THE FREE EDGES	0 0				C. WELDING OF REINFORCEMENT.	X -	Sec. 2.1.8.7.2, 3.3.3.4(c), 8.3.3.4(b)		
<ol> <li>VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.</li> </ol>	X -	GEOTECHNICAL REPORT	1705.6	SI/GE/TA	3. INSPECTION TASKS AFTER BOLTING:		AISC 360,	1705.2	SI/TA	D. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°E (4.4°C)) OR HOT WEATHER (TEMPERATURE ABOVE 90°E (32.2°C))	- X		Art. 1.8 C, 1.8 D	
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	- X	GEOTECHNICAL	1705.6	SI/GE/TA	A. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.	P P	TABLE N5.6-3			E. CONSTRUCTION OF MORTAR JOINTS.	- X		Art. 3.3 B	
					O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPE P: PERFORM THESE TASKS FOR EACH BOLTED CONNECTION.	ECTIONS.				5. OBSERVE PREPARTATION OF GROUT SPEICMENS, MORTAR SPECIMENS, AND/ OR PRISMS	- X		Art. 1.4 B.2.a.3, 1 4 B 2 b 3	
					INSPECTION OF WELDING								1.4 B.2.c.3, 1.4 B.3. 1.4 B.4	
SPECIAL INSPECTION REQUIREMENTS - CON		N			INSPECTION TASKS PRIOR TO WELDING:     A WELDER OLIALIFICATION RECORDS AND CONTINUITY RECORDS	P O				(a) FREQUENCY REFERS TO THE FREQENCY OF INSPECTION, WHICH MAY BE CONTINUOUS DURING THE TAS		G THE LISTED TASK, AS DEFEI	NED IN THE TABLE.	
INSPECTION TASK		REFERENCED	IBC REFERENCE	RESPONSIBLE AGENT	B. WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE.	P P								
1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT.	- X	ACI 318: Ch 20, 25.2,	, 1908.4	SI	C. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES	P P								
2. REINFORCING BAR WELDING:		25.3, 26.6.1-26.6.3			D. MATERIAL IDENTIFICATION (TYPE/GRADE).	0 0								
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706.	- X	AWS D1.4	-	SI	E. WELDER IDENTIFICATION SYSTEM. E. FIT-UP OF GROOVE WEI DS (INCLUDING JOINT GEOMETRY):									
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16".	- X	ACI 316: 20.30.4			- JOINT PREPARATIONS - DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)									
C. INSPECT ALL OTHER WELDS.	X -			SI/TA	- CLEANLINESS (CONDITION OF STEEL SURFACES) - TACKING (TACK WELD QUALITY AND LOCATION)		AISC 360.	1705.2	SI/TA					
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.			-	0/17			SECTION N5, TABLE N5.4-1							
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO	Х -	ACI 318: 17.8.2.4	-	SI/TA	(INCLUDING JOINT GEOMETRY):									
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.	- X	ACI 318: 17.8.2	-	SI/TA	- JUINT FREFARATIONS - DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) - CLEANLINESS (CONDITION OF STEEL SUBFACES)									
5. VERIFY USE OF REQUIRED DESIGN MIX.	- X	ACI 318: Ch 19.	1904.1, 1904.2,	SI/TA	- TACKING (TACK WELD QUALITY AND LOCATION)									
	×	26.4.3, 26.4.4	1908.3		H. CONFIGURATION AND FINISH OF ACCESS HOLES.	0 0								
AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	A -	ASTM C172 ASTM C31 ACL 318: 26 5, 26 12	1904.2, 1904.2, 1908.3	51/TA	- DIMENSIONS (ALIGNMENT, GAPS AT ROOT) - CLEANLINESS (CONDITION OF STEEL SURFACES)									
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X -	ACI 318: 26.5	1908.6, 1908.7,	SI	- TACKING (TACK WELD QUALITY AND LOCATION)									
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	- X	ACI 318: 26.5.3-26.5.	1908.8 5 1908.9	SI	J. CHECK WELDING EQUIPMENT.	0 0								
		ACI 219: 26 11 1 2(b)		CI	A. CONTROL AND HANDLING OF WELDING CONSUMABLES:	0 0								
FORMED.	- X	AGI 318. 20.11.1.2(b)	-	51	- PACKAGING - EXPOSURE CONTROL									
					B. NO WELDING OVER CRACKED TACK WELDS.	0 0								
SPECIAL INSPECTION REQUIREMENTS - POST	T-INSTALLED ANCHOR	S			C. ENVIRONMENTAL CONDITIONS: - WIND SPEED WITHIN LIMITS	0 0								
	INSPECTION FREQUENC	Y REFERENCED	IBC	RESPONSIBLE	- PRECIPITATION AND TEMPERATURE			1705.2	S1/TA					
	CONTINUOUS PERIODIC	STANDARD	REFERENCE	AGENT	- SETTINGS ON WELDING EQUIPMENT		SECTION N5,	1705.2	51/TA					
1. INSPECT AND TEST ALL POST-INSTALLED MECHANICAL AND ADHESIVE ANCHORS MANUFACTURER'S ICC-ESR EVALUATION REPORT FOR EACH ANCHOR.	X -	ICC-ESR FOR EACH ANCHOR	1705.1.1	SI/TA	- SHELDING GAS TYPE/ELOW RATE		TABLE NJ.4-2							
					- PREHEAT APPLIED - INTERPASS TEMPERATURE MAINTAINED (MIN/MAX)									
				1	E. WELDING TECHNIQUES:	0 0								
SPECIAL INSPECTION REQUIREMENTS - STEEL CONSTRUCT			10.0	DESDONOIS: -	- INTERPASS AND FINAL CLEANING - EACH PASS WITHIN PROFILE LIMITATIONS									
INSPECTION TASK	CONTINUOUS PERIODIC	STANDARD	IBC REFERENCE		- EACH PASS MEETS QUALITY REQUIREMENTS		_							
1. MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK:					3. INSPECTION TASKS AFTER WELDING:				+					
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	- X	APPLICABLE ASTM MATERIAL	1705.2.2		A. WELDS CLEANED.	0 0								
B. MANUFACTURER'S CERTIFIED TEST REPORTS.	- X	-	-		B. SIZE, LENGTH AND LOCATION OF WELDS.	P P	_							
				SI/TA	C. WELDS MEET VISUAL ACCEPTANCE CRITERIA: - CRACK PROHIBITION	P P								
1. FLOOR AND ROOF DECK WELDS.	- X	AWS D1.3	1705.2.2		- WELD/BASE-METAL FUSION - CRATER CROSS SECTION WELD BROEFIES									
B. REINFORCING STEEL:					- WELD FROFILES - WELD SIZE		AISC 360,	1705.2	SI/TA					
VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706.     REINFORCING STEEL DESISTING ELEVIDAL AND AVIAL EOROES IN INTERACOUNTS AND	- X	AWS D1.4, ACI 318: SECTION 3.5.2	1705.2.2		D. ARC STRIKES.	P P	TABLE N5.4-3							
2. NEIN ONOING STELL RESISTING PLEADRAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR					E. K-AREA.	P P								
3. SHEAR REINFORCMENT.	NA -				F. WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES.	P P	_							
4. OTHER REINFORCING STEEL.	- X				G. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED).	P P	_							
					I. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR	P P	_							
				]	J. NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR.	0 0								
	INSPECTION FREQUENC		IBC	RESPONSIBI F	O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPE P: PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER.	ECTIONS.								
INSPECTION TASK	CONTINUOUS PERIODIC	STANDARD	REFERENCE	AGENT	INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT:									
INSTALLATION OF OPEN WEB STEEL JOISTS AND JOIST GIRDERS:					PLACEMENT AND INSTALLATION OF STEEL DECK.     PLACEMENT AND INSTALLATION STEEL HEADED STUD ANCHORS	P P	AISC 360, SECTION N6,	1705.2	SI/TA					
	- <b>A</b>	SECTION 2207.1		01/01	3. DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS.	P P	IABLE No.1							
A. BRIDGING THAT DIFFERS FROM THE S.II SPECIFICATIONS LISTED IN SECTION 2207.1	Y	_			O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIVE PERFORM THESE TASKS FOR EACH STEEL FLEMENT.	ECTIONS.			_					

STATEMENT OF SPECIAL INSPECTIONS					SPECIAL INSPECTION REQUIREMENTS - MASONRY CONSTRUCTION								
							DEFERENCES	150		SPECIAL INSPECTION REQUIREMENTS - MA	SONKI CONSIKUCIION		
1. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE 2015 MICHIGAN (INTERNATION	NAL) BUILDING CODE CHAPTER	17 AND AS MODIFIED HE	RIN.		INSPECTION TASK	CONTINUOUS PERIODIC	KEFERENCED STANDARD	IBC REFERENCE	RESPONSIBLE AGENT	VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VS	SI) AS DELIVERED TO THE PROJECT	SITE	
<ol> <li><u>DESIGNATIONS:</u></li> <li>SI - SPECIAL INSPECTOR QUALIFIED WITH DEMONSTRATED COMPETENCE DOCUMENTED BY CERTIFI MICHIGAN (MIM), ETC., AS SUBMITTED AND APPROVED BY THE BUILDING OFFICIAL. SPECIAL INSP</li> </ol>	CATIONS FROM RECOGNIZED A	AGENCIES SUCH AS AWS, MULTIPLE SPECIALISTS A	, ACI, MASONRY INS AND A PROJECT MAN	TITUTE OF IAGER	1. INSPECTION OF STEEL FABRICATED ITEMS SHALL BE PERFORMED ON PREMISES DURING FABRICATION.         A. EXCEPTIONS: SPECIAL INSPECTIONS DURING FABRICATION NOT REQUIRED WHERE THE	- X	AISC QUALITY CERTIFICATION	1704.2.5	SI	IN ACCORDANCE WITH ARTICLE 1.5 B.1.b.3 FOR SEL	E 1.4 B PRIOR TO CONSTRUCTION		
PROVIDING REPORTS. TA - TESTING AGENCY QUALIFIED TO TEST AND INSPECT MATERIALS AND ASSEMBLIES. TESTING AGE GE - GEOTECHNICAL ENGINEER WHO PROVIDED THE ORIGINAL GEOTECHNICAL SOILS INVESTIGATION	ENCY SHALL BE UNDER THE SUP	PERVISION OF THE SPEC	CIAL INSPECTOR.		FABRICATOR IS REGISTERED AND APPROVED IN ACCORDANCE WITH SECTION 1704.2.5.1. 2. SPECIAL INSPECTIONS AND NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL ELEMENTS IN	 X X	AISC QUALITY	1704.2.5	SI	EXCEPT WHERE SPECIFICALLY EXEMPTE	D BY THE CODE.		
SE - SPECIALTY ENGINEER RESPONSIBLE FOR DESIGNING ASSEMBLIES SUCH AS PRECAST CONCRET SHALL PROVIDE OBSERVATION OF FABRICATED AND INSTALLED ITEMS OF THEIR DESIGN IN ADD	TE, STEEL JOISTS, COLD FORME DITION TO THE SPECIAL INSPECT	ED FRAMING ASSEMBLIES TION.	S, ETC. SPECIALTY	ENGINEER	BUILDINGS AND PORTIONS THEREOF SHALL BE IN ACCORDANCE WITH QUAITY ASSURANCE INSPECTION         REQUIREMENTS OF AIS.         A. SPECIAL INSPECTIONS OF RAILING SYSTEMS COMPOSED OF STRUCTURAL STEEL FLEMENTS SHALL BE	v	CERTIFICATION	1704 2 5	SI	MINIMUM INSPECTION	INSPECTION FREQUENCY	REFERENCED FOR	CRITERIA
3. TA, GE, AND SE SHALL SUBMIT RECORDS OF THE INSPECTION RESULTS TO THE SI. THE SI SHALL COMP OFFICIAL. RECORDS SHALL INCLUDE STATEMENTS OF TESTS, WHETHER INSTALLED/FABRICATED ITEM	PILE AND SUBMIT INSPECTION RE COMPLIES WITH CONTRACT DO	ECORDS TO THE ARCHIT DCUMENTS, REMEDIAL WO	ECT/ENGINEER AND ORD PERFORMED, F	BUILDING ETESTS.	LIMITED TO WELDING INSPECTIONS AT THE BASE OF CANTILEVERED RAIL POSTS. QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR. QUALITY ASSURANCE (QA)	A) SHALL BE PROVIDED BY OTI	CERTIFICATION	1704.2.0		INSPECTION TASK	CONTINUOUS PERIODIC	TMS 402/ ACI 530/ ASCE 5	TMS 602/ ACI 530.1/ ASCE 6
4. SI SHALL PROVIDE A DAILY REPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUN REPORTS OF COMPLIANCE CAN FOLLOW BY A MAXIMUM OF 2 WEEKS. SI SHALL PROVIDE AND SIGN FIN/ ENGINEER OF RECORD AND BUILDING OFFICIAL. IN ACCORDANCE WITH SECTION 1704.2.4.	ND ON THE SAME DAY OF THE INS IAL REPORT WITH A SUMMARYOF	ISPECTION TO THE ENGI OF ALL TESTS PERFORME	NEER OF RECORD. I D AND RESULTS TO	ORMAL THE	INSPECTION TASK	INSPECTION FREQUENCY	REFERENCED	IBC	RESPONSIBLE	<ol> <li>VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS.</li> <li>AS MASONRY CONSTRUCTION BEGINS, VERIEV THAT THE FOLLOWING ARE IN COMPLIANCE:</li> </ol>	- X		Art. 1.5
5. SI, TA & GE SHALL BE ENGAGED BY THE OWNER IN COMPLIANCE WITH THE MICHIGAN (INTERNATIONAL)	) BUILDING CODE.				INSPECTION OF BOLTING	QC QA		REFERENCE	AGENI	A. PROPORTIONS OF SITE-PREPARED MORTAR.	- X		Art. 2.1, 2.6 A
6. WHERE FABRICATION OF STRUCTURAL, LOAD-BEARING, OR LATERAL LOAD-RESISTING MEMBERS OR AS	SSEMBLIES IS BEING CONDUCTE	ED ON THE PREMISES OF		HOP, ABRICATOR	1. INSPECTION TASKS PRIOR TO BOLTING:		_			B. CONSTRUCTION OF MORTAR JOINTS.	- X		Art. 3.3. B
MAINTAINS APPROVED DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND THE GOVERNING BUILDING CODE. APPROV	A BASIS FOR CONTROL OF THE V VAL SHALL BE BASED UPON REV	WORKMANSHIP AND THE VIEW OF FABRICATION AI	FABRICATORS ABIL	ITY TO DL	A. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER B. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS.	0 P 0 0	_			D. LOCATION OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES	X		Art. 3.4, 3.6 A
PROCEDURES AND PERIODIC INSPECTION OF FABRICATION PRACTICES BY THE BUILDING OFFICIAL. SPI APPROVED IN ACCORDANCE WITH SECTION 1704.2.5.1.	PECIAL INSPECTIONS ARE NOT R	REQUIRED WHERE THE F	ABRICATOR IS REGI	STERED AND	C. CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE).	0 0	AISC 360, SECTION N5, TABLE N5.6-1	1705.2	SI/TA	<ul><li>3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:</li><li>A. GROUT SPACE.</li></ul>	- X		Art. 3.2 D, 3.2 F
7. REFER TO SPECIAL INSPECTION SCHEDULES AND STRUCTURAL GENERAL NOTES FOR ADDITIONAL QUA	ALITY CONTROL TESTING AND IN	NSPECTIONS.			D. CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL.         E. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND	0 0 0 0	_			B. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES.	- X	Sec. 1.16	Art. 2.4, 3.4
					HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS. F. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND	P O	_			C. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES	- X	Sec. 1.16	Art. 3.2 E, 3.4, 3.6 A
SPECIAL INSPECTION REQUIREMENTS - SO					DOCUMENTED FOR FASTENER ASSEMBLIES AND METHOD USED.	0 0	_			D. PROPORATIONS OF SITE-PREPARED GROUT AND PRESTRESSING GORUT FOR BONDED TENDONS.	- X		Art. 2.6 B, 2.4 G.1.b
INSPECTION TASK	CONTINUOUS PERIODIC	REFERENCED STANDARD	IBC REFERENCE	RESPONSIBLE AGENT	2. INSPECTION TASKS DURING BOLTING:					E. CONSTRUCTION OF MORTAR JOINTS.	- X		Art. 3.3 B
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	- X	GEOTECHNICAL REPORT	1705.6	SI/GE	A. FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED.	0 0	4100.260	1705 0		4. VERIFY DURING CONSTRUCITON. A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	- X		Art. 3.3 F
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	- X	GEOTECHNICAL	1705.6	SI/GE	B. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION.	0 0	SECTION N5,	1705.2	51/TA	B. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF	- X	Sec. 1.16.4.3, 1.17.1	
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	- X	GEOTECHNICAL	1705.6	SI/GE/TA	C. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTING FROM ROTATING. D. FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION.	0 0 0 0				C. WELDING OF REINFORCEMENT.	X -	Sec. 2.1.8.7.2,	
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTED FULL	X -	GEOTECHNICAL	1705.6	SI/GE/TA	PROGRESSING SYSTEMATICALLY FRO THE MOST RIGID POINT TOWARD THE FREE EDGES. 3. INSPECTION TASKS AFTER BOLTING:		AISC 360,	1705.2	SI/TA	D. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER	- X	3.3.3.4(c), 8.3.3.4(b)	Art. 1.8 C, 1.8 D
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN	- X		1705.6	SI/GE/TA	A. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.	P P	SECTION N5, TABLE N5.6-3			(TEMPERATURE BELOW 40°F (4.4°C)) OR HOT WEATHER (TEMPERATURE ABOVE 90°F (32.2°C)).E. CONSTRUCTION OF MORTAR JOINTS.	- X		Art. 3.3 B
				]	O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPEC P: PERFORM THESE TASKS FOR EACH BOLTED CONNECTION.	ECTIONS.		_		5. OBSERVE PREPARTATION OF GROUT SPEICMENS, MORTAR SPECIMENS, AND/ OR PRISMS	- X		Art. 1.4 B.2.a.3, 1.4 B.2.b.3,
	NCRETE CONSTRUCTION	J			INSPECTION OF WELDING         1. INSPECTION TASKS PRIOR TO WELDING:		-						1.4 B.2.c.3, 1.4 B.3, 1.4 B.4
	INSPECTION FREQUENCY	REFERENCED	IBC	RESPONSIBI F	A. WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS.	P O				(a) FREQUENCY REFERS TO THE FREQENCY OF INSPECTION, WHICH MAY BE CONTINUOUS DURING THE TAS	K LISTED OR PERIODICALLY DURIN	G THE LISTED TASK, AS DEFEI	NED IN THE TABLE.
	CONTINUOUS PERIODIC	STANDARD	REFERENCE	AGENT	B. WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE.	P P	_						
1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT.	- X	ACI 318: Ch 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4	SI	C. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES D. MATERIAL IDENTIFICATION (TYPE/GRADE).	р Р О О	_						
2. REINFORCING BAR WELDING:				0	E. WELDER IDENTIFICATION SYSTEM.	0 0	_						
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16".	- X	AWS D1.4 ACI 318: 26.36.4	-	51	F. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY): - JOINT PREPARATIONS	0 0							
C. INSPECT ALL OTHER WELDS.	X -	_			- DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) - CLEANLINESS (CONDITION OF STEEL SURFACES)			(705.0					
INSPECT ANCHORS CAST IN CONCRETE.     INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS	- X	ACI 318: 17.8.2	-	SI/TA	- TACKING (TACK WELD QUALITY AND LOCATION) - BACKING TYPE AND FIT (IF AVAILABLE)		AISC 360, SECTION N5,	1705.2	SI/TA				
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO	X -	ACI 318: 17.8.2.4	-	SI/TA	G. FIT-UP OF CJP WELDS OF HSS, T-, Y-, AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY):	P O	TABLE NO.4-1						
RESIST SUSTAINED TENSION LOADS.         B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.	- X	ACI 318: 17.8.2	-	SI/TA	- JOINT PREPARATIONS - DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)								
5. VERIFY USE OF REQUIRED DESIGN MIX.	- X	ACI 318: Ch 19.	1904.1. 1904.2.	SI/TA	- CLEANLINESS (CONDITION OF STEEL SURFACES) - TACKING (TACK WELD QUALITY AND LOCATION)		_						
6 PRIOR TO CONCRETE PLACEMENT FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SI LIMP	X -	26.4.3, 26.4.4	1908.3 1904 1 1904 2	SI/TA	H. CONFIGURATION AND FINISH OF ACCESS HOLES.	0 0 0 0	_						
AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.		ASTM C31 ACI 318: 26.5, 26.12	1908.3		- DIMENSIONS (ALIGNMENT, GAPS AT ROOT) - CLEANLINESS (CONDITION OF STEEL SURFACES)								
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X -	ACI 318: 26.5	1908.6, 1908.7, 1908.8	SI	J. CHECK WELDING EQUIPMENT.	0 0	_						
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	- X	ACI 318: 26.5.3-26.5.5	1908.9	SI	2. INSPECTION TASKS DURING WELDING:		_						
9. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	- X	ACI 318: 26.11.1.2(b)	-	SI	A. CONTROL AND HANDLING OF WELDING CONSUMABLES: - PACKAGING - EXPOSURE CONTROL	0 0							
					B. NO WELDING OVER CRACKED TACK WELDS.	0 0							
SPECIAL INSPECTION REQUIREMENTS - POS	ST-INSTALLED ANCHORS	6			C. ENVIRONMENTAL CONDITIONS: - WIND SPEED WITHIN LIMITS - PRECIPITATION AND TEMPERATURE								
INSPECTION TASK		REFERENCED			D. WPS FOLLOWED:	0 0	AISC 360,	1705.2	SI/TA				
1. INSPECT AND TEST ALL POST-INSTALLED MECHANICAL AND ADHESIVE ANCHORS MANUFACTURER'S	CONTINUOUS     PERIODIC       X     -	ICC-ESR FOR EACH	1705.1.1	SI/TA	- SETTINGS ON WELDING EQUIPMENT - TRAVEL SPEED		SECTION N5, TABLE N5.4-2						
ICC-ESR EVALUATION REPORT FOR EACH ANCHOR.		ANCHOR			- SELECTED WELDING MATERIALS - SHIELDING GAS TYPE/FLOW RATE - PREHEAT APPLIED								
					- INTERPASS TEMPERATURE MAINTAINED (MIN/MAX)		_						
SPECIAL INSPECTION REQUIREMENTS - STEEL CONSTRUCT	TION OTHER THAN STRU	ICTURAL STEEL	1		E. WELDING TECHNIQUES: - INTERPASS AND FINAL CLEANING EACH PASS WITHIN PROFILE LIMITATIONS	0 0							
INSPECTION TASK		REFERENCED STANDARD	IBC REFERENCE	RESPONSIBLE AGENT	- EACH PASS WEITIN PROFILE LIMITATIONS - EACH PASS MEETS QUALITY REQUIREMENTS								
1. MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK:					F. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS.         3 INSPECTION TASKS AFTER WELDING:	P P							
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	- X	APPLICABLE ASTM MATERIAL	1705.2.2		A. WELDS CLEANED.	0 0	_						
B. MANUFACTURER'S CERTIFIED TEST REPORTS.	- X	-	-		B. SIZE, LENGTH AND LOCATION OF WELDS.	P P	_						
A. COLD-FORMED STEEL DECK:				SI/TA	C. WELDS MEET VISUAL ACCEPTANCE CRITERIA: - CRACK PROHIBITION WELD/PASE METAL EUSION	P P							
1. FLOOR AND ROOF DECK WELDS.	- X	AWS D1.3	1705.2.2		- WELD/DASE-WETAL FUSION - CRATER CROSS SECTION - WELD PROFILES								
			1705 0.0		- WELD SIZE - UNDERCUT		AISC 360, SECTION N5	1705.2	SI/TA				
VENERGATION OF WELDADILITY OF REINFORCING STEEL OTHER THAN ASTM A/06.      REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND	- X NA -	SECTION 3.5.2	1705.2.2		D. ARC STRIKES.	P P	TABLE N5.4-3						
SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR					E. K-AREA.	P P	_						
3. SHEAR REINFORCMENT.	NA -	_			G. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED).	P P	_						
	- X					P P							
					I. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR         J. NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR.	Р О О	-						
SPECIAL INSPECTION REQUIREMENTS - OPEN WEB ST	I EEL JOISTS AND JOIST	GIRDERS			O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPEC	ECTIONS.			·				
	CONTINUOUS PERIODIC	REFERENCED STANDARD	IBC REFERENCE	RESPONSIBLE AGENT	INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT:								
1. INSTALLATION OF OPEN WEB STEEL JOISTS AND JOIST GIRDERS:					PLACEMENT AND INSTALLATION OF STEEL DECK.	P P	AISC 360, SECTION N6,	1705.2	SI/TA				
	- X	SECTION 2207.1	-	SI/SE	2. FLACTIVITATION TALLATION STEEL READED STUD ANCHORS.         3. DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS.	P P	TABLE N6.1						
Z. BRIDGING, HORIZONTAL OR DIAGONAL:	X	_			O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPEC	ECTIONS.			·				

STATEMENT OF SPECIAL INSPECTIONS					SPECIAL INSPECTION REQUIREMENTS - ST	SPECIAL INSPECTION REQUIREMENTS - MASONRY CONSTRUCTION							
1. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE 2015 MICHIGAN (INTERNATION	IAL) BUILDING CODE CHAPTER 1	17 AND AS MODIFIED HE	RIN.	———————————————————————————————————————			REFERENCED	IBC	RESPONSIBLE				
2. <u>DESIGNATIONS:</u>		וועסואיסא פאי דע וובט חב חבי הביי הביי הביי הביי הביי הביי				CONTINUOUS PERIODIC	STANDARD	REFERENCE	AGENT	VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX ( IN ACCORDANCE WITH ARTICLE 1.5 B.1.b.3 FOR SE	/SI) AS DELIVERED TO THE PROJECT SI ELF-CONSOLIDATING GROUT	TE	
SI - SPECIAL INSPECTOR QUALIFIED WITH DEMONSTRATED COMPETENCE DOCUMENTED BY CERTIFIC MICHIGAN (MIM), ETC., AS SUBMITTED AND APPROVED BY THE BUILDING OFFICIAL. SPECIAL INSPE	CATIONS FROM RECOGNIZED AGE COR MAY BE A FFIRM WITH M	GENCIES SUCH AS AWS, IULTIPLE SPECIALISTS A	, ACI, MASONRY INS ND A PROJECT MAN	TITUTE OF IAGER	1. INSPECTION OF STEEL FABRICATED ITEMS SHALL BE PERFORMED ON PREMISES DURING FABRICATION.         A. EXCEPTIONS: SPECIAL INSPECTIONS DURING FABRICATION NOT REQUIRED WHERE THF	- X	AISC QUALITY CERTIFICATION	1704.2.5	SI	VERIFICATION OF <i>f</i> 'm AND <i>f</i> 'AAC IN ACCORDANCE WITH ART	CLE 1.4 B PRIOR TO CONSTRUCTION		
PROVIDING REPORTS. TA - TESTING AGENCY QUALIFIED TO TEST AND INSPECT MATERIALS AND ASSEMBLIES. TESTING AGEN	NCY SHALL BE UNDER THE SUP	ERVISION OF THE SPEC	CIAL INSPECTOR.		FABRICATOR IS REGISTERED AND APPROVED IN ACCORDANCE WITH SECTION 1704.2.5.1.         2. SPECIAL INSPECTIONS AND NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL FLEMENTS IN			1704 9 5	<u>e</u> i	EXCEPT WHERE SPECIFICALLY EXEMPT			
GE - GEOTECHNICAL ENGINEER WHO PROVIDED THE ORIGINAL GEOTECHNICAL SOILS INVESTIGATION SE - SPECIALTY ENGINEER RESPONSIBLE FOR DESIGNING ASSEMBLIES SUCH AS PRECAST CONCRETE	REPORT. E, STEEL JOISTS, COLD FORMEI	D FRAMING ASSEMBLIES	S, ETC. SPECIALTY	ENGINEER	BUILDINGS AND PORTIONS THEREOF SHALL BE IN ACCORDANCE WITH QUAITY ASSURANCE INSPECTION REQUIREMENTS OF AIS.	X X	CERTIFICATION	1704.2.5	ા				
SHALL PROVIDE OBSERVATION OF FABRICATED AND INSTALLED ITEMS OF THEIR DESIGN IN ADDIT					A. SPECIAL INSPECTIONS OF RAILING SYSTEMS COMPOSED OF STRUCTURAL STEEL ELEMENTS SHALL BE	- X	AISC QUALITY	1704.2.5	SI	INSPECTION TASK	INSPECTION FREQUENCY	TMS 402/	CRITERIA TMS 602/
OFFICIAL. RECORDS SHALL INCLUDE STATEMENTS OF TESTS, WHETHER INSTALLED/FABRICATED ITEM C	COMPLIES WITH CONTRACT DOC	CUMENTS, REMEDIAL W	ORD PERFORMED, F	RETESTS.	QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR. QUALITY ASSURANCE (QA)	SHALL BE PROVIDED BY OTH	IERS		<u> </u>		CONTINUOUS PERIODIC	ACI 530/ ASCE 5	ACI 530.1/ ASCE 6
4. SI SHALL PROVIDE A DAILY REPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND REPORTS OF COMPLIANCE CAN FOLLOW BY A MAXIMUM OF 2 WEEKS. SI SHALL PROVIDE AND SIGN FINAL ENGINEER OF RECORD AND BUILDING OFFICIAL, IN ACCORDANCE WITH SECTION 1704 2.4.	O ON THE SAME DAY OF THE INS L REPORT WITH A SUMMARYOF	SPECTION TO THE ENGIN ALL TESTS PERFORME	NEER OF RECORD. F D AND RESULTS TO	FORMAL THE			REFERENCED			<ol> <li>VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS.</li> <li>AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:</li> </ol>	- X	-	Art. 1.5
5. SI, TA & GE SHALL BE ENGAGED BY THE OWNER IN COMPLIANCE WITH THE MICHIGAN (INTERNATIONAL) E	BUILDING CODE.				INSPECTION OF BOLTING					A. PROPORTIONS OF SITE-PREPARED MORTAR.	- X		Art. 2.1, 2.6 A
6. WHERE FABRICATION OF STRUCTURAL, LOAD-BEARING, OR LATERAL LOAD-RESISTING MEMBERS OR ASS	SEMBLIES IS BEING CONDUCTE	D ON THE PREMISES OF	F A FABRICATOR'S S	HOP,	1. INSPECTION TASKS PRIOR TO BOLTING:		_			B. CONSTRUCTION OF MORTAR JOINTS.	- X		Art. 3.3. B
SPECIAL INSPECTIONS OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION. SPECIA MAINTAINS APPROVED DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A B CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND THE COVERNING BUILDING CORE APPROVED	AL INSPECTIONS DURING FABR BASIS FOR CONTROL OF THE W	VICATION ARE NOT REQU	JIRED WHERE THE F	ABRICATOR ITY TO	A. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER	0 P	_			C. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES.	- X ES X		Art. 2.4 B, 2.4 H Art. 3.4, 3.6 A
PROCEDURES AND PERIODIC INSPECTION OF FABRICATION PRACTICES BY THE BUILDING OFFICIAL. SPECARD	CIAL INSPECTIONS ARE NOT RE	EQUIRED WHERE THE FA	ABRICATOR IS REGI	STERED AND	C. CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF	0 0	AISC 360,	1705.2	SI/TA	3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:			
7. REFER TO SPECIAL INSPECTION SCHEDULES AND STRUCTURAL GENERAL NOTES FOR ADDITIONAL QUAL	LITY CONTROL TESTING AND IN	SPECTIONS.			THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE).         D. CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL.	0 0	TABLE N5.6-1			A. GROUT SPACE.	- X	Sec. 1.16	Art. 3.2 D, 3.2 F
					E. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND	0 0	_			B. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES.	- X	Sec. 1.16	Απ. 2.4, 3.4
					F. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND	P O	_			C. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES	- X	Sec. 1.16	Art. 3.2 E, 3.4, 3.6 A
SPECIAL INSPECTION REQUIREMENTS - SOIL	IS AND FOUNDATIONS	DEEEDENGED	100		DOCUMENTED FOR FASTENER ASSEMBLIES AND METHOD USED. G. PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER	0 0	_			D. PROPORATIONS OF SITE-PREPARED GROUT AND PRESTRESSING GORUT FOR BONDED TENDONS.	- X		Art. 2.6 B, 2.4 G.1.b
INSPECTION TASK	CONTINUOUS PERIODIC	STANDARD	REFERENCE	AGENT	2. INSPECTION TASKS DURING BOLTING:					E. CONSTRUCTION OF MORTAR JOINTS.	- X		Art. 3.3 B
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	- X	GEOTECHNICAL REPORT	1705.6	SI/GE	A. FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED.	0 0	4100.000	4705.0		4. VERIFY DURING CONSTRUCTION.	- X		Art 33 F
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	- X	GEOTECHNICAL	1705.6	SI/GE	B. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION.	0 0	AISC 360, SECTION N5,	1705.2	SI/TA	B. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF	- X	Sec. 1.16.4.3, 1.17.1	
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	- X	GEOTECHNICAL	1705.6	SI/GE/TA	C. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTING FROM ROTATING.	0 0	TABLE N0.0-2			MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION C. WELDING OF REINFORCEMENT.	X -	Sec. 2.1.8.7.2,	
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND	X -	GEOTECHNICAL	1705.6	SI/GE/TA	D. PASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FRO THE MOST RIGID POINT TOWARD THE FREE EDGES.	0 0	4100.200	4705.0		D. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER	X	3.3.3.4(c), 8.3.3.4(b)	
COMPACTION OF COMPACTED FILL. 5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN	¥	GEOTECHNICAI	1705.6	SI/GE/TA	INSPECTION TASKS AFTER BOLTING:     A. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.	 P P	AISC 360, SECTION N5, TABLE N5.6-3	1705.2	SI/TA	(TEMPERATURE BELOW 40°F (4.4°C)) OR HOT WEATHER (TEMPERATURE ABOVE 90°F (32.2°C)).			
PREPARED PROPERLY.		REPORT	1700.0		O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPEC	TIONS.	TADEL NJ.0-3			5. OBSERVE PREPARTATION OF GROUT SPEICMENS, MORTAR SPECIMENS, AND/ OR PRISMS	- X		Art. 3.3 B Art. 1.4 B.2.a.3,
					P: PERFORM THESE TASKS FOR EACH BOLTED CONNECTION. INSPECTION OF WELDING								1.4 B.2.b.3, 1.4 B.2.c.3,
SPECIAL INSPECTION REQUIREMENTS - CONC	CRETE CONSTRUCTION				1. INSPECTION TASKS PRIOR TO WELDING:		_						1.4 B.3, 1.4 B.4
INSPECTION TASK					A. WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS.	P O	_			(a) TREQUENCT REFERS TO THE TREQUENCE OF INSPECTION, WHICH MAY BE CONTINUOUS DURING THE TA			NED IN THE FADLE.
1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT.	- X	ACI 318: Ch 20, 25.2,	1908.4	SI	C. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES	P P	_						
2 REINFORCING BAR WEI DING		25.3, 26.6.1-26.6.3			D. MATERIAL IDENTIFICATION (TYPE/GRADE).	0 0	_						
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706.	- X	AWS D1.4	-	SI	E. WELDER IDENTIFICATION SYSTEM.	0 0	_						
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16".	- X	ACI 318: 26.36.4			- JOINT PREPARATIONS - DIMENSIONS (ALIGNMENT ROOT OPENING ROOT FACE BEVEL)	0 0							
C. INSPECT ALL OTHER WELDS.	X -	ΔCI 318: 17.8.2		SI/TA	- CLEANLINESS (CONDITION OF STEEL SURFACES) - TACKING (TACK WELD QUALITY AND LOCATION)		AISC 360.	1705.2	SI/TA				
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	- ^	A01310. 17.0.2	-	JITA	- BACKING TYPE AND FIT (IF AVAILABLE)	P O	SECTION N5, TABLE N5.4-1						
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	X -	ACI 318: 17.8.2.4	-	SI/TA	(INCLUDING JOINT GEOMETRY):	P U							
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.	- X	ACI 318: 17.8.2	-	SI/TA	- DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) - CLEANLINESS (CONDITION OF STEEL SURFACES)								
5. VERIFY USE OF REQUIRED DESIGN MIX.	- X	ACI 318: Ch 19,	1904.1, 1904.2,	SI/TA	- TACKING (TACK WELD QUALITY AND LOCATION)		_						
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP	X -	26.4.3, 26.4.4 ASTM C172	1908.3 1904.1, 1904.2,	SI/TA	I. FIT-UP OF FILLET WELDS:	0 0	_						
AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.		ASTM C31 ACI 318: 26.5, 26.12	1908.3		- DIMENSIONS (ALIGNMENT, GAPS AT ROOT) - CLEANLINESS (CONDITION OF STEEL SURFACES)								
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X -	ACI 318: 26.5	1908.6, 1908.7, 1908.8	SI	- TACKING (TACK WELD QUALITY AND LOCATION)	0 0	_						
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	- X	ACI 318: 26.5.3-26.5.5	1908.9	SI	2. INSPECTION TASKS DURING WELDING:	<u> </u>							
9. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING	- X	ACI 318: 26.11.1.2(b)	-	SI	A. CONTROL AND HANDLING OF WELDING CONSUMABLES: - PACKAGING	0 0							
FORMED.					- EXPOSURE CONTROL		_						
					B. NO WELDING OVER CRACKED TACK WELDS. C. ENVIRONMENTAL CONDITIONS:	0 0	_						
SPECIAL INSPECTION REQUIREMENTS - POST	-INSTALLED ANCHORS				- WIND SPEED WITHIN LIMITS - PRECIPITATION AND TEMPERATURE								
INSPECTION TASK	INSPECTION FREQUENCY	REFERENCED STANDARD	IBC REFERENCE	RESPONSIBLE AGENT	D. WPS FOLLOWED:	0 0	AISC 360,	1705.2	SI/TA				
1. INSPECT AND TEST ALL POST-INSTALLED MECHANICAL AND ADHESIVE ANCHORS MANUFACTURER'S	X -	ICC-ESR FOR EACH	1705.1.1	SI/TA	- SETTINGS ON WELDING EQUIPMENT - TRAVEL SPEED - SELECTED WEI DING MATERIALS		TABLE N5.4-2						
IUU-EOR EVALUATION REPURT FOR EAUH ANUHUK.			1	]	- SHIELDING GAS TYPE/FLOW RATE - PREHEAT APPLIED								
					- INTERPASS TEMPERATURE MAINTAINED (MIN/MAX)		_						
SPECIAL INSPECTION REQUIREMENTS - STEEL CONSTRUCT	ION OTHER THAN STRU	CTURAL STEEL			E. WELDING LEGINIQUES: - INTERPASS AND FINAL CLEANING - FACH PASS WITHIN PROFILE LIMITATIONS	0							
INSPECTION TASK		REFERENCED STANDARD	IBC REFERENCE	RESPONSIBLE AGENT	- EACH PASS MEETS QUALITY REQUIREMENTS								
1. MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK:					F. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS.	P P							
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	- X	APPLICABLE ASTM MATERIAL	1705.2.2		A. WELDS CLEANED.	0 0	_						
B. MANUFACTURER'S CERTIFIED TEST REPORTS.	- X	-	-		B. SIZE, LENGTH AND LOCATION OF WELDS.	P P							
					C. WELDS MEET VISUAL ACCEPTANCE CRITERIA: - CRACK PROHIBITION	РР							
1. FLOOR AND ROOF DECK WELDS.	- X	AWS D1.3	1705.2.2	51/ I A	- WELD/BASE-METAL FUSION - CRATER CROSS SECTION								
B. REINFORCING STEEL:					- WELD PROFILES - WELD SIZE		AISC 360,	1705.2	SI/TA				
VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706.	- X	AWS D1.4, ACI 318: SECTION 3.5.2	1705.2.2		D. ARC STRIKES.	P P	SECTION N5, TABLE N5.4-3						
2. REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORGES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR	NA -				E. K-AREA.	P P							
3. SHEAR REINFORCMENT.	NA -	-			F. WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES.	P P	_						
4. OTHER REINFORCING STEEL.	- X				G. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED). H. REPAIR ACTIVITIES.	Р Р	_						
					I. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR	P P							
SPECIAL INSPECTION REQUIREMENTS - OPEN WEB ST	EEL JOISTS AND JOIST	GIRDERS			J. NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR.	0 0							
INSPECTION TASK	INSPECTION FREQUENCY	REFERENCED	IBC	RESPONSIBLE	0: OBSERVE THESE TIEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPEC P: PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER.	HUNS.		1					
1. INSTALLATION OF OPEN WEB STEEL JOISTS AND JOIST GIRDERS	CONTINUOUS PERIODIC	STANDARD	REFERENCE	AGENT	INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT:	p D	AISC 360	1705 2	SI/TA				
A. END CONNECTIONS, WELDED OR BOLTED	- X	SJI SPECIFICATION	-	SI/SE	2. PLACEMENT AND INSTALLATION STEEL HEADED STUD ANCHORS.	P P	SECTION N6, TABLE N6.1						
2. BRIDGING, HORIZONTAL OR DIAGONAL:		SECTION 2207.1			3. DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS.	P P							
A. BRIDGING THAT DIFFERS FROM THE SJI SPECIFICATIONS LISTED IN SECTION 2207.1.	- X	-			O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPEC P: PERFORM THESE TASKS FOR EACH STEEL ELEMENT.	TIONS.							

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![](_page_8_Figure_1.jpeg)

NOTES:
 B.O.F. = 96'-0" U.N.O.
 REFER TO S4.1 FOR FOOTING AND PIER SCHEDULE.
 REFER TO S6.1 FOR COLUMN SCHEDULE.
 PROVIDE (2) #5 X 4'-0" LONG AT ALL RE-ENTRANT CORNERS.
 MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT YET BEEN ISSUED..

![](_page_8_Picture_11.jpeg)

CONSULTANT

![](_page_8_Picture_13.jpeg)

**REGISTRATION SEAL** 

A R C H I T E C T U R E

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![](_page_9_Figure_1.jpeg)

![](_page_10_Figure_0.jpeg)

NOTES: 1. B.O.F. = 96'-0" U.N.O. 2. REFER TO S4.1 FOR FOOTING AND PIER SCHEDULE. 3. REFER TO S6.1 FOR COLUMN SCHEDULE. 4. PROVIDE (2) #5 X 4'-0" LONG AT ALL RE-ENTRANT CORNERS.
 5. MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT YET BEEN ISSUED..

DATE:

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 NOTES:
 B.O.F. = 96'-0" U.N.O.
 REFER TO S4.1 FOR FOOTING AND PIER SCHEDULE.
 REFER TO S6.1 FOR COLUMN SCHEDULE.
 PROVIDE (2) #5 X 4'-0" LONG AT ALL RE-ENTRANT CORNERS.
 MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT YET BEEN ISSUED..

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![](_page_12_Figure_0.jpeg)

8. SEE S6.1 FOR COLUMN AND BEARING PLATE SCHEDULES. 9. MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT

YET BEEN ISSUED.

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8. SEE S6.1 FOR COLUMN AND BEARING PLATE SCHEDULES. 9. MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT YET BEEN ISSUED.

![](_page_14_Figure_1.jpeg)

65 KIPS NOTE: DESIGN ALL SHEAR CONNECTIONS FOR LOADS IN ABOVE TABLE U.N.O.

NOTES: 1. SEE S5.1 FOR TYPICAL LOOSE LINTEL SCHEDULE U.N.O., SEE ARCH FOR OPENING SIZES AND LOCATIONS. 2. SEE S5.1 FOR TYPICAL MASONRY LINTEL SCHEDULE U.N.O., SEE ARCH FOR OPENING SIZES AND LOCATIONS. JOIST MANUFACTURER SHALL DESIGN ALL JOIST / BRIDGING FOR A NET UPLIFT PER UPLIFT DIAGRAMS, SEE S3.1. 4. REFER TO \$3.1 FOR SPECIAL JOIST LOAD DIAGRAMS. 5. SEE DRAWING S3.1 FOR ROOF DECK ATTACHMENT DETAIL.

6. ► INDICATES MOMENT CONNECTION. DESIGN CONNECTION FOR LOADS SHOWN. 7. SEE 4/S6.1 FOR TYP RTU SUPPORT FRAME. COORDINATE ALL RTU AND OPENING DIMENSIONS WITH MECHANICAL.

8. SEE S6.1 FOR COLUMN AND BEARING PLATE SCHEDULES. 9. MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT YET BEEN ISSUED.

.RFD	SHEAR REACTIONS
SIZE	SIZE
W8	15 KIPS
W10	15 KIPS
W12	25 KIPS
W14	25 KIPS
W16	40 KIPS
W18	50 KIPS
W21	55 KIPS
N24	65 KIPS

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![](_page_15_Figure_0.jpeg)

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SIZE	SIZE
W8	15 KIPS
W10	15 KIPS
W12	25 KIPS
W14	25 KIPS
W16	40 KIPS
W18	50 KIPS
W21	55 KIPS
W24	65 KIPS

NOTES: 1. SEE S5.1 FOR TYPICAL LOOSE LINTEL SCHEDULE U.N.O., SEE ARCH FOR OPENING SIZES AND LOCATIONS. 2. SEE S5.1 FOR TYPICAL MASONRY LINTEL SCHEDULE U.N.O., SEE ARCH FOR OPENING SIZES AND LOCATIONS. 3. JOIST MANUFACTURER SHALL DESIGN ALL JOIST / BRIDGING FOR A NET UPLIFT PER UPLIFT DIAGRAMS, SEE S3.1. 4. REFER TO \$3.1 FOR SPECIAL JOIST LOAD DIAGRAMS.

- 5. SEE DRAWING S3.1 FOR ROOF DECK ATTACHMENT DETAIL. 6. ► INDICATES MOMENT CONNECTION. DESIGN CONNECTION FOR LOADS SHOWN. 7. SEE 4/S6.1 FOR TYP RTU SUPPORT FRAME. COORDINATE ALL RTU AND
- OPENING DIMENSIONS WITH MECHANICAL. 8. SEE S6.1 FOR COLUMN AND BEARING PLATE SCHEDULES. 9. MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT YET BEEN ISSUED.

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![](_page_18_Picture_1.jpeg)

HIGH ROOF FRAMING PLAN - ZONE 'A'

**'A'** 

LRFD	SHEAR REACTIONS
SIZE	SIZE

SIZE	SIZE
W8	15 KIPS
W10	15 KIPS
W12	25 KIPS
W14	25 KIPS
W16	40 KIPS
W18	50 KIPS
W21	55 KIPS
W24	65 KIPS
NOTE:	

DESIGN ALL SHEAR CONNECTIONS FOR LOADS IN ABOVE TABLE U.N.O.

NOTES: 1. SEE S5.1 FOR TYPICAL LOOSE LINTEL SCHEDULE U.N.O., SEE ARCH FOR OPENING SIZES AND LOCATIONS. 2. SEE S5.1 FOR TYPICAL MASONRY LINTEL SCHEDULE U.N.O., SEE ARCH FOR OPENING SIZES AND LOCATIONS. JOIST MANUFACTURER SHALL DESIGN ALL JOIST / BRIDGING FOR A NET UPLIFT PER UPLIFT DIAGRAMS, SEE S3.1. 4. REFER TO \$3.1 FOR SPECIAL JOIST LOAD DIAGRAMS.

5. SEE DRAWING S3.1 FOR ROOF DECK ATTACHMENT DETAIL. 6. ► INDICATES MOMENT CONNECTION. DESIGN CONNECTION FOR LOADS SHOWN. 7. SEE 4/S6.1 FOR TYP RTU SUPPORT FRAME. COORDINATE ALL RTU AND

OPENING DIMENSIONS WITH MECHANICAL. 8. SEE S6.1 FOR COLUMN AND BEARING PLATE SCHEDULES. 9. MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT

YET BEEN ISSUED.

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![](_page_19_Figure_1.jpeg)

![](_page_19_Figure_2.jpeg)

HIGH ROOF FRAMING PLAN - ZONE 'B'

![](_page_19_Figure_4.jpeg)

RFD SHEAR REACTIONS		
IZE	SIZE	
N8	15 KIPS	
V10	15 KIPS	
V12	25 KIPS	
V14	25 KIPS	
V16	40 KIPS	
V18	50 KIPS	
V21	55 KIPS	
V24	65 KIPS	
TE:		

DESIGN ALL SHEAR CONNECTIONS FOR LOADS IN ABOVE TABLE U.N.O.

NOTES: 1. SEE S5.1 FOR TYPICAL LOOSE LINTEL SCHEDULE U.N.O., SEE ARCH FOR OPENING SIZES AND LOCATIONS. 2. SEE S5.1 FOR TYPICAL MASONRY LINTEL SCHEDULE U.N.O., SEE ARCH FOR OPENING SIZES AND LOCATIONS. JOIST MANUFACTURER SHALL DESIGN ALL JOIST / BRIDGING FOR A NET UPLIFT PER UPLIFT DIAGRAMS, SEE S3.1. 4. REFER TO \$3.1 FOR SPECIAL JOIST LOAD DIAGRAMS. 5. SEE DRAWING S3.1 FOR ROOF DECK ATTACHMENT DETAIL.

6. ► INDICATES MOMENT CONNECTION. DESIGN CONNECTION FOR LOADS SHOWN. 7. SEE 4/S6.1 FOR TYP RTU SUPPORT FRAME. COORDINATE ALL RTU AND OPENING DIMENSIONS WITH MECHANICAL.

8. SEE S6.1 FOR COLUMN AND BEARING PLATE SCHEDULES. 9. MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT YET BEEN ISSUED.

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![](_page_19_Picture_21.jpeg)

![](_page_20_Figure_1.jpeg)

HIGH ROOF FRAMING PLAN – ZONE 'C'

# LRFD SHEAR REACTIONS SIZE

SIZE	SIZE
W8	15 KIPS
W10	15 KIPS
W12	25 KIPS
W14	25 KIPS
W16	40 KIPS
W18	50 KIPS
W21	55 KIPS
W24	65 KIPS
NOTE:	

DESIGN ALL SHEAR CONNECTIONS FOR LOADS IN ABOVE TABLE U.N.O.

NOTES:

 SEE S5.1 FOR TYPICAL LOOSE LINTEL SCHEDULE U.N.O., SEE ARCH FOR OPENING SIZES AND LOCATIONS.
 SEE S5.1 FOR TYPICAL MASONRY LINTEL SCHEDULE U.N.O., SEE ARCH FOR OPENING SIZES AND LOCATIONS.
 JOIST MANUFACTURER SHALL DESIGN ALL JOIST / BRIDGING FOR A NET UPLIFT PER UPLIFT DIAGRAMS, SEE S3.1.

 REFER TO S3.1 FOR SPECIAL JOIST LOAD DIAGRAMS.
 SEE DRAWING S3.1 FOR ROOF DECK ATTACHMENT DETAIL

 SEE DRAWING S3.1 FOR ROOF DECK ATTACHMENT DETAIL.
 ► INDICATES MOMENT CONNECTION. DESIGN CONNECTION FOR LOADS SHOWN.
 SEE 4/S6.1 FOR TYP RTU SUPPORT FRAME. COORDINATE ALL RTU AND OPENING DIMENSIONS WITH MECHANICAL.

 SEE S6.1 FOR COLUMN AND BEARING PLATE SCHEDULES.
 MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT YET BEEN ISSUED.

![](_page_20_Picture_9.jpeg)

![](_page_21_Figure_0.jpeg)

![](_page_21_Figure_2.jpeg)

![](_page_21_Figure_3.jpeg)

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5. SEE DRAWING S3.1 FOR ROOF DECK ATTACHMENT DETAIL. 6. ► INDICATES MOMENT CONNECTION. DESIGN CONNECTION FOR LOADS SHOWN. 7. SEE 4/S6.1 FOR TYP RTU SUPPORT FRAME. COORDINATE ALL RTU AND OPENING DIMENSIONS WITH MECHANICAL. 8. SEE S6.1 FOR COLUMN AND BEARING PLATE SCHEDULES.

9. MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT YET BEEN ISSUED.

![](_page_21_Picture_15.jpeg)

![](_page_22_Figure_0.jpeg)

![](_page_22_Figure_1.jpeg)

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IRFD SHEAR REACTIONS           SIZE         SIZE           W8         15 KIPS           W10         15 KIPS           W12         25 KIPS           W14         25 KIPS           W16         40 KIPS           W18         50 KIPS           W21         55 KIPS			
SIZE         SIZE           W8         15 KIPS           W10         15 KIPS           W12         25 KIPS           W14         25 KIPS           W16         40 KIPS           W18         50 KIPS           W21         55 KIPS	LRFD SHEAR REACTIONS		
W8         15 KIPS           W10         15 KIPS           W12         25 KIPS           W14         25 KIPS           W16         40 KIPS           W18         50 KIPS           W21         55 KIPS	SIZE	SIZE	
W10         15 KIPS           W12         25 KIPS           W14         25 KIPS           W16         40 KIPS           W18         50 KIPS           W21         55 KIPS	W8	15 KIPS	
W12         25 KIPS           W14         25 KIPS           W16         40 KIPS           W18         50 KIPS           W21         55 KIPS	W10	15 KIPS	
W14         25 KIPS           W16         40 KIPS           W18         50 KIPS           W21         55 KIPS	W12	25 KIPS	
W16         40 KIPS           W18         50 KIPS           W21         55 KIPS	W14	25 KIPS	
W18         50 KIPS           W21         55 KIPS	W16	40 KIPS	
W21 55 KIPS	W18	50 KIPS	
	W21	55 KIPS	
W24 65 KIPS	W24	65 KIPS	

NOTE: DESIGN ALL SHEAR CONNECTIONS FOR LOADS IN ABOVE TABLE U.N.O.

NOTES: 1. SEE S5.1 FOR TYPICAL LOOSE LINTEL SCHEDULE U.N.O., SEE ARCH FOR OPENING SIZES AND LOCATIONS. 2. SEE S5.1 FOR TYPICAL MASONRY LINTEL SCHEDULE U.N.O., SEE ARCH FOR OPENING SIZES AND LOCATIONS. 3. JOIST MANUFACTURER SHALL DESIGN ALL JOIST / BRIDGING FOR A NET UPLIFT PER UPLIFT DIAGRAMS, SEE S3.1. 4. REFER TO \$3.1 FOR SPECIAL JOIST LOAD DIAGRAMS. 5. SEE DRAWING S3.1 FOR ROOF DECK ATTACHMENT DETAIL.

6. ► INDICATES MOMENT CONNECTION. DESIGN CONNECTION FOR LOADS SHOWN. 7. SEE 4/S6.1 FOR TYP RTU SUPPORT FRAME. COORDINATE ALL RTU AND OPENING DIMENSIONS WITH MECHANICAL.

8. SEE S6.1 FOR COLUMN AND BEARING PLATE SCHEDULES. 9. MASONRY SHOWN FOR REFERENCE. MASONRY BID DOCUMENTS HAVE NOT YET BEEN ISSUED.

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DATE:

![](_page_22_Picture_15.jpeg)

![](_page_23_Figure_0.jpeg)

![](_page_24_Figure_0.jpeg)

![](_page_25_Figure_0.jpeg)

![](_page_26_Figure_0.jpeg)

![](_page_26_Picture_6.jpeg)

![](_page_27_Figure_0.jpeg)

![](_page_28_Figure_0.jpeg)

![](_page_28_Figure_6.jpeg)

![](_page_29_Figure_0.jpeg)

![](_page_29_Figure_4.jpeg)

![](_page_29_Picture_11.jpeg)

![](_page_30_Figure_0.jpeg)

![](_page_31_Figure_0.jpeg)

![](_page_32_Figure_0.jpeg)

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![](_page_33_Figure_0.jpeg)

![](_page_34_Figure_0.jpeg)

![](_page_34_Figure_2.jpeg)

![](_page_34_Picture_9.jpeg)