GENERAL NOTES SPECIFICATIONS	REFER TO PROJECT SPECIFICATIONS FOR DETAILED REQUIREMENTS FOR MATERIAL AND WORKMANSHIP.	D - CAST-IN-PLACE CON(PROVIDE THE FOLLOWING 28 DAY COMPRESSIVE STRENGTH FOR FIELD CONCRETE:
SHOP DRAWINGS	THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND COORDINATION DRAWINGS FOR THE ENGINEER'S APPROVAL AS STATED IN THE SPECIFICATIONS.	BT) GONORETE STRENGTH	I) 4,000 PSI (MIN.) NORMAL WEIGHT FOR ALL CAST—IN—PLACE CONCRETE FOUNDATIONS, COLUMNS, BASEMENT WALLS, STRUCTURAL SLABS, SLABS—ON—GRADE, AND RETAINING
SIMILAR CONDITIONS	IN THE EVENT THAT CERTAIN DETAILS OF THE CONSTRUCTION ARE NOT FULLY SHOWN OR NOTED ON THE DRAWINGS, THEIR CONSTRUCTION SHALL BE OF THE SAME TYPE AS FOR SIMILAR CONDITIONS WHICH ARE SHOWN AND NOTED, SUBJECT TO THE STRUCTURAL ENGINEER'S APPROVAL.		WALLS. II) 4,000 PSI (MIN.) LIGHTWEIGHT CONCRETE FOR SLABS ON METAL DECK. III) 2,000 PSI (MIN.) NORMAL WEIGHT FOR ALL LEAN CONCRETE USED IN MUD MATS.
DRAWINGS BY OTHERS	SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING: A. SIZE AND LOCATION OF ALL NON—LOAD BEARING PARTITIONS, AND ROOF TOP PARAPETS.	D2) PORTLAND CEMENT D3) AGGREGATE	ASTM C150, TYPE II. WATER CEMENT RATIO AS REQUIRED FOR DESIGN STRENGTH. NORMAL WEIGHT: ASTM C33, WITH MAXIMUM SIZE OF 1 IN.
	B. SIZE AND LOCATION OF ALL CONCRETE CURBS, FLOOR DRAINS, SLOPES, INSERTS, ETC., EXCEPT AS SHOWN. C. SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS, EXCEPT AS SHOWN.	D4) WATER	LIGHTWEIGHT: ASTM C330. POTABLE. A INCL. MAYIMUM PRIOR TO APRITION OF ARMYTHRES.
	D. FLOOR AND ROOF FINISHES. E. DETAILS OF ALL ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS).	D5) SLUMP D6) ADMIXTURES	4 INCH MAXIMUM. PRIOR TO ADDITION OF ADMIXTURES. SEE SPECIFICATIONS. ASTM C260 AIR-ENTRAINING AGENT AS REQUIRED FOR A TOTAL ENTRAINED AIR CONTENT OF 6% (\pm 1%) FOR ALL CONCRETE EXPOSED TO FREEZING.
	SEE MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, & TELECOMMUNICATION DRAWINGS FOR THE FOLLOWING: A. PIPE AND DUCT RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB OPENINGS, ETC.,		ASTM CÀ94 WATER REDUCING AGENT IN ALL CONCRETE. DO NOT USE CALCIUM CHLORIDE.
	EXCEPT AS SHOWN OR NOTED. B. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS. C. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES.	D7) STEEL REINFORCEMENT	ASTM A615 GRADE 60. ASTM A185 FOR WELDED WIRE FABRIC (WWF). USE FLAT SHEETS ONLY (NO ROLLS) PROVIDE #6 CHAIR BARS, HIGH CHAIRS, TIES, CLIPS, SLAB BOLSTERS AND OTHER ACCESSORIES WHERE NOT
	D. SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES, ANCHOR BOLTS FOR MOTOR MOUNTS, EXCEPT AS SHOWN OR NOTED.		SPECIFIED ON THE DRAWINGS IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, ACI 315 OR CRSI-WRSI MANUAL OF STANDARD PRACTICE. USE PLASTIC TIPS ON ALL CHAIRS PLACED ON THE SIDES OF CONCRETE FORMWORK.
ELEVATIONS & DIMENSIONS	ALL ELEVATIONS AND DIMENSIONS SHOWN FOR NEW CONSTRUCTION ARE BASED ON THE DESIGN DRAWINGS FOR THE EXISTING BUILDINGS. FIELD VERIFY ALL ELEVATIONS AND DIMENSIONS BEFORE PROCEEDING WITH CONSTRUCTION.		FIELD WELDING OF CROSSING BARS ("TACK" OR "SPOT" WELDING) IS NOT PERMITTED. DO NOT CUT BARS OR OMIT BARS BECAUSE OF SLEEVES OR OPENINGS IN FLOORS, EXCEPT AS SPECIFICALLY
BUILDING CODE	BOCA -1999	D8) OPENINGS	DETAILED IN DRAWINGS. OPENINGS, POCKETS, ETC. LARGER THAN 6" SHALL NOT BE PLACED IN CONCRETE SLABS, DECKS, OR WALLS, UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS.
A — DESIGN LOADS		D9) REINFORCEMENT AT OPENINGS	PROVIDE 2 — #6 AT EACH SIDE OF ALL OPENINGS IN WALLS AND SLABS AND EXTEND 2 FT—6 IN. BEYOND THE OPENING OR AS DETAILED, EXCEPT VERTICAL BARS AT SIDES OF OPENINGS IN WALLS ARE TO EXTEND FROM FLOOR
A1) LIVE	CORRIDORS (AT OR BELOW GRADE LEVEL) 100 PSF CORRIDORS (ABOVE GRADE LEVEL) 80 PSF	D10) MINIMUM CONCRETE	TO FLOOR. BARS MAY BE MOVED ASIDE AT OPENINGS OR SLEEVES, BUT DO NOT CUT OR OMIT. CONCRETE PLACED AGAINST EARTH: 3 IN.
	PUBLIC AREAS (LOBBYS, ATRIUMS, ETC.) STAIRWAYS (EGRESS) HELIPAD (SEE SHEET S203)	COVER	SLABS-ON-GRADE BOTTOM: 1-1/2 IN. SLABS-ON-GRADE TOP: 1 IN.
A2) DEAD	MINIMUM ROOF LIVE LOAD (SNOW GOVERNS, SEE BELOW) ALL PERMANENT STATIONARY CONSTRUCTION.		SLABS-ON-GRADE TOP EXPOSED TO WATER OR WEATHER: 2 IN. FORMED CONCRETE EXPOSED TO EARTH, WATER OR WEATHER: 2 IN. FORMED SLABS, TOP AND BOTTOM: 1 IN.
A3) SEISMIC	USE GROUP I-2 WITH EMERGENCY TREATMENT FACILITIES SEISMIC HAZARD EXPOSURE GROUP III	D11) WALLS AND GRADE	INTERIOR FACES OF WALLS: COLUMNS OR PIERS (MAIN REINFORCEMENT): 1 IN. 1-1/2 IN. PLACE WALLS AND GRADE BEAMS IN LEVEL, FULL HEIGHT LIFTS WITH CONSTRUCTION JOINTS WHERE INDICATED ON
	SEISMIC PERFORMANCE CATEGORY C $A_{V} = A_{A} = 0.11$	É BEAMS	ARCHITECTURAL AND STRUCTURAL DRAWINGS. PROVIDE OPENINGS FOR WATER, ELECTRICAL, AND OTHER SERVICES AS REQUIRED. PROVIDE KEYS AND DOWELS AT ALL CONSTRUCTION JOINTS.
	SITE COEFFICIENT, S = 1.2 STRUCTURAL SYSTEMS: LOBBY CONNECTORS:	D12) SPLICING OF REINFORCEMENT	AS SHOWN IN TABLE ON THIS SHEET, BUT NOT LESS THAN 40 BAR DIAMETERS FOR SLABS AND BEAM BOTTOM BARS, AND NOT LESS THAN 48 BAR DIAMETERS FOR WALLS AND BEAM TOP STEEL. PROVIDE A LAP OF 8 IN OR 1-1/2 SPACES, WHICHEVER IS LARGER, FOR WWF. TIE WIRES TOGETHER AT LAP.
	ORDINARY MOMENT FRAME OF STEEL $R=4.5;\ C_D=4$ HELIPAD:	D13) MINIMUM REINFORCEMENT	REINFORCE ALL WALLS LESS THAN 8" THICK WITH AT LEAST #4 @ 12 IN. EACH WAY EACH FACE AND 2 — #6 EACH EDGE, UON. REINFORCE ALL WALLS 8" TO 12" THICK WITH AT LEAST #5@12" O.C., E.W., E.F. W/ 2—#7 EACH EDGE, UON.
	(SEE SHEET S203) ANALYSIS PROCEDURE – EQUIVALENT LATERAL FORCE (PER CODE)		REINFORCE ALL WALLS THICKER THAN 12" WITH AT LEAST #6@12" O.C., E.W., E.F. W/ 2-#8 EACH EDGE, UON. IN SLABS, PROVIDE AT LEAST 0.0018 TIMES THE AREA OF CONCRETE IN EACH DIRECTION. REINFORCE ALL SLAB-ON-GRADE WITH MINIMUM W5xW5-6x6
A4) WIND	REFERENCE WIND PRESSURE = 20.7 PSF BASIC WIND VELOCITY = 90 MPH EXPOSURE C	D14) SHOP DRAWINGS	SUBMIT FOR ENGINEER'S APPROVAL COMPLETE BENDING AND PLACING DETAILS OF ALL REINFORCING STEEL INCLUDING WELDED WIRE FABRIC, INDICATING POSITION OF SPLICES. INCLUDE ACCESSORY DRAWINGS. INCLUDE
A5) SNOW	I = 1.23 GROUND SNOW = 60 PSF I = 1.2	D15) STANDARD	PRECISE LOCATIONS OF ALL SLEEVES CAST INTO CONCRETE TO ACCOMMODATE PLUMBING AND ELECTRICAL WORK. COMPLY WITH THE LATEST RECOMMENDATIONS AND SPECIFICATIONS OF THE AMERICAN CONCRETE INSTITUTE:
	FLAT ROOF SNOW = 51 PSF DRIFT LOADING = (PER ASCE 7-95)	SPECIFICATIONS	ACI 301 STRUCTURAL CONCRETE FOR BUILDINGS ACI 302 CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 304 MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE
			ACI 305 HOT WEATHER CONCRETING ACI 306 COLD WEATHER CONCRETING
<u>B – FOUNDATIONS</u>			ACI 315 DETAILING REINFORCING STEEL ACI 318 GENERAL DESIGN OF ITEMS NOT OTHERWISE SPECIFIED ACI 347 FORMWORK
B1) GEOTECHNICAL REPORTS	THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING, UNDERSTANDING & IMPLEMENTING THE RECOMMENDATIONS OUTLINED IN THE FOLLOWING GEOTECHNICAL REPORTS BY S.W. COLE, INC.:	D16) CONSTRUCTION JOINTS	CRSI MANUAL OF STANDARD PRACTICE PROVIDE KEYS AND DOWELS AT ALL CONSTRUCTION JOINTS. PROVIDE DOWELS WITH AN AREA EQUAL TO THE WALL OR SLAB REINF, BUT NOT LESS THAN 0.003 TIMES THE CONCRETE CROSS SECTIONAL AREA AT THE CONSTRUCTION
	I) "GEOTECHNICAL ENGINEERING SERVICES PROPOSED PARKING GARAGE, MAINE MEDICAL CENTER FACILITY, CRESCENT AND CONGRESS STREETS, PORTLAND, MAINE", DATED 31 MARCH 2004.		JOINT. SUBMIT THE PROPOSED LOCATION OF CONSTRUCTION JOINTS TO THE DESIGNER FOR APPROVAL. MAXIMUM SPACING OF CONSTRUCTION JOINTS TO BE 60 FT. FOR WALLS AND STRUCTURAL FLOORS AND 80 FT. FOR SLABS ON GRADE.
	II) "GEOTECHNICAL ENGINEERING SERVICES PRELIMINARY INVESTIGATION PROPOSED PARKING GARAGE, MAINE MEDICAL CENTER FACILITY CRESCENT AND CONGRESS STREETS, PORTLAND, MAINE", DATED 2 APRIL 2002. III) "GEOTECHNICAL ENGINEERING INVESTIGATION PROPOSED MEDICAL OFFICE BUILDING AND PARKING GARAGE	D17) FOUNDATION DOWELS	PROVIDE HOOKED DOWELS TO MATCH SIZE AND SPACING OF LONGITUDINAL BARS IN WALLS UON.
	WOMEN AND INFANTS FACILITY CHARLES STREET, PORTLAND, MAINE", DATED 29 MARCH 2002. COPIES OF THE GEOTECHNICAL REPORT ARE AVAILABLE FROM THE PROJECT ARCHITECT. WHERE RECOMMENDATIONS	D18) SURFACE TREATMENT D19) STRUCTURAL TESTING & INSPECTION	ROUGHEN ALL EXISTING CONCRETE SURFACES COMMON WITH NEW CONCRETE TO AN AMPLITUDE OF 1/4" (MIN.). A MINIMUM OF THREE (3) CYLINDERS SHALL BE TAKEN NOT LESS THAN ONCE A DAY NOR LESS THAN ONCE FOR 100 CUBIC YARDS OF CONCRETE FOR COMPRESSIVE STRENGTH TESTING. TESTING IS TO BE PAID FOR BY THE
	IN THESE REPORTS VARY FROM INFORMATION CONTAINED IN THESE DRAWINGS & THE PROJECT SPECIFICATIONS, THE MORE STRINGENT RECOMMENDATIONS SHALL GOVERN.		OWNER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD AT LEAST 24 HOURS PRIOR TO CASTING ANY CONCRETE SO THAT STRUCTURAL TESTING & INSPECTION CAN BE COORDINATED. ABSOLUTELY NO CONCRETE IS TO BE CAST PRIOR TO REBAR BEING INSPECTED AND APPROVED BY THE OWNER'S
B2) SOIL BEARING	CONCRETE SPREAD & STRIP FOOTINGS ARE DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 5,000 PSF AT A DEPTH OF 4.5 FEET BELOW THE EXISTING GRADE. BEAR ALL FOOTINGS ON UNDISTURBED SOIL, U.O.N. ALL FOUNDATION EXCAVATION TO BE INSPECTED BY THE GEOTECHNICAL ENGINEER. EXCAVATE TO LINES AND	D20) EMBEDDED ITEMS	TESTING AGENCY. ALL CONDUIT, PIPING, DUCTWORK, ETC. TO BE EMBEDDED WITHIN CIP SLABS, WALLS, BEAMS OR COLUMNS SHALL
B3) EXCAVATION	GRADES TO PROPERLY INSTALL FOUNDATIONS ON UNDISTURBED SOIL APPROVED BY THE GEOTECHNICAL ENGINEER FOR THE REQUIRED BEARING CAPACITY. THE ELEVATIONS SHOWN ON THE DRAWINGS ARE ANTICIPATED		BE CLEARLY SHOWN ON THE SHOP DRAWINGS AND SHALL BE SUBJECT TO APPROVAL BY THE EOR. APPROVED EMBEDDED ITEMS SHALL BE LOCATED AND EVENLY DISTRIBUTED IN SUCH A MANNER TO PREVENT ADVERSELY AFFECTING THE STRENGTH OF CONCRETE MEMBERS.
	AND ACTUAL ELEVATIONS ARE TO BE ESTABLISHED IN THE FIELD BY THE GEOTECHNICAL ENGINEER, BUT IN NO CASE SHALL THE BOTTOM OF FOOTING BE LOCATED LESS THAN 4.5 FEET BELOW THE LOWEST ADJACENT SURFACE EXPOSED TO FREEZING. THE DIFFERENCE IN ELEVATION BETWEEN THE BOTTOMS OF ADJACENT	D21) FOOTING SUBGRADE	NO CONCRETE FOOTING SHALL BE POURED UNTIL SUBGRADE FOR SAME HAS BEEN APPROVED BY A LICENSED PROFESSIONAL ENGINEER.
DA) LITHITIES AND OTHER	FOOTINGS SHALL BE EQUAL TO OR LESS THAN THE HORIZONTAL DISTANCE BETWEEN THEM. ANY ADJUSTMENT OF FOOTING ELEVATIONS DUE TO FIELD CONDITIONS MUST HAVE THE PRIOR APPROVAL OF THE ENGINEER.	D22) BASE PLATE GROUTING D23) CURING COMPOUNDS	8000 PSI 28-DAY COMPRESSIVE STRENGTH. DO NOT USE CURING COMPOUNDS WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.
B4) UTILITIES AND OTHER UNDERGROUND STRUCT. B5) DEWATERING SYSTEM	FOOTINGS TO BEAR BELOW AN IMAGINARY REFERENCE LINE DRAWN UPWARD AND OUTWARD ON A 1V:1H SLOPE FROM THE BOTTOM OF ANY ADJACENT UTILITIES OR OTHER UNDERGROUND STRUCTURES. A DEWATERING SYSTEM SHALL BE USED TO REMOVE EXCESS WATER FROM THE EXCAVATION AND TO PREVENT	D24) SHEAR KEYS	UNLESS OTHERWISE NOTED ON THE DRAWINGS, SHEAR KEYS BELOW WALL BOTTOMS SHALL BE 4" WIDE BY 3" DEEP. SHEAR KEYS AT WALL TOPS SHALL BE 3" WIDE BY 2" DEEP. DO NOT USE EPS MATERIAL FOR FORMING KEYS UNLESS IT IS FIRMLY ATTACHED TO RIGID BACKUP MATERIALS.
	PREMATURE HYDROSTATIC UPLIFT PRESSURES ON THE FOUNDATIONS. THE DEWATERING SYSTEM CAN BE DEACTIVATED AFTER THE FOUNDATIONS ARE COMPLETELY CAST AND THE FOUNDATION WALLS HAVE BEEN WATERPROOFED.	D25) HOUSEKEEPING PADS AND CURBS	PADS AND CURBS MAY BE SHOWN ON PLAN IN CERTAIN INSTANCES FOR REFERENCE ONLY. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS AND COORDINATE WITH EQUIPMENT
B6) FOOTING SUBGRADE PREPARATION AND FILL	FOLLOW RECOMMENDATIONS OF GEOTECHNICAL REPORT INCLUDED IN PROJECT MANUAL. PLACE ALL SPREAD AND STRIP FOOTINGS ON 2" LEAN CONCRETE "MUD" MAT. ALL FOOTINGS SHALL EXTEND AT LEAST 4'-6"		MANUFACTURER'S REQUIREMENTS AND LOCATION. USE SAME CONCRETE AS BASE SLAB U.O.N. MAXIMUM PAD THICKNESS IS 6 INCHES, U.O.N.
B7) SLAB SUBGRADE PREPARATION AND FILL	BELOW GRADE FOR FROST PROTECTION. FOLLOW RECOMMENDATIONS OF GEOTECHNICAL REPORT INCLUDED IN PROJECT MANUAL. PLACE SLAB ON GRADE ON A 7" BED OF GRANULAR FILL WITH CONTINUOUS VAPOR BARRIER (LAP 8" AND TAPE ALL JOINTS)	D26) EPOXY DOWELS AND ANCHORS	USE HILTI HSE 2421 EPOXY ADHESIVE ANCHOR SYSTEM, OR APPROVED EQUAL, FOR ALL EPOXY DOWELS AND ANCHORS.
B8) BACKFILL UNDER	BETWEEN THE SLAB AND GRANULAR FILL. (U.O.N.) PROOF-ROLL EXISTING SOILS PER SPECIFICATION #02200 "EARTHWORK". BACKFILL WHERE REQUIRED BELOW	D27) EXPANSION ANCHORS	USE HILTI KWIK BOLT II EXPANSION ANCHOR, OR APPROVED EQUAL.
SLAB-ON-GRADE	SLABS-ON-GRADE WITH APPROVED GRANULAR SOIL PLACED IN 6 IN. LAYERS AND COMPACTED TO 95% DENSITY AT OPTIMUM MOISTURE CONTENT AS DEFINED BY ASTM D-1557, METHOD D. USE A POLYETHYLENE	<u>F – STRUCTURAL STEEL</u>	
B9) BACKFILL AGAINST	VAPOR BARRIER BETWEEN THE COMPACTED GRANULAR FILL AND THE SLAB—ON—GRADE, TYP., U.O.N. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL WALL CONCRETE IS AT FULL DESIGN STRENGTH. BACKFILL WITH APPROVED MATERIAL PLACED IN 6 IN LAYERS AND COMPACTED TO BE OF DENSITY AT OPTIMISM MOISTURE.	F1) STRUCTURAL SHAPES	WIDE FLANGE SHAPES AND CHANNELS: ASTM A992, OR ASTM A572 GRADE 50 (F _Y = 50,000 PSI) ANGLES, BARS AND PLATES: ASTM A36 UON
CANTILEVERED RETAINING WALLS B10) BACKFILL AGAINST	WITH APPROVED MATERIAL PLACED IN 6 IN. LAYERS AND COMPACTED TO 95% DENSITY AT OPTIMUM MOISTURE CONTENT AS DEFINED BY ASTM D-1557, METHOD D. DO NOT BACKFILL AGAINST FOUNDATION WALLS UNTIL WALL CONCRETE IS AT FULL DESIGN STRENGTH AND	F2) HOLLOW STRUCTURAL SECTIONS (HSS)	ASTM A500 - GRADE B ($F_Y = 46,000 \text{ PSI}$).
FOUNDATION WALLS	UNTIL SLABS AT BASE AND TOP OF WALL ARE IN PLACE, AND HAVE REACHED THEIR DESIGN STRENGTH. U.O.N. IN GEOTECHNICAL REPORT, BACKFILL WITH APPROVED MATERIAL PLACED IN 6 IN. LAYERS AND COMPACTED TO 95% DENSITY AT OPTIMUM MOISTURE CONTENT AS DEFINED BY ASTM D-1557, METHOD D.	F3) PIPE F4) BOLTED CONNECTIONS	ASTM A53 TYPE E GRADE B OR ASTM A501 FOR BOLTED BEAM CONNECTIONS NOT SHOWN ON THE DRAWINGS, PROVIDE THE FOLLOWING MINIMUM NUMBER OF 3/4" DIAMETER A325X OR A490X BOLTS:
B11) FOUNDATION PLACEMENT & PROTECTION	PROTECT ALL SOIL BEARING SURFACES FROM FREEZING BEFORE AND AFTER FOUNDATION CONSTRUCTION. IF CONSTRUCTION IS PERFORMED DURING FREEZING WEATHER, BACKFILL FOOTINGS TO A SUFFICIENT DEPTH (UP		2 FOR W8 AND W10 BEAMS 3 FOR W12, W14, AND W16 BEAMS 4 FOR W18 AND W21 BEAMS
	TO FOUR AND ONE HALF FEET) AS SOON AS POSSIBLE AFTER CONSTRUCTION. ALTERNATIVELY, USE APPROVED INSULATING BLANKETS OR OTHER APPROVED MEANS FOR PROTECTION AGAINST FREEZING. DO NOT PLACE FOUNDATION CONCRETE IN WATER OR ON FROZEN GROUND. PROTECT IN-PLACE FOUNDATIONS AND		5 FOR W24 AND W27 BEAMS 7 FOR W30 AND W33 BEAMS
B12) DE-ICING	SLABS FROM FROST PENETRATION UNTIL THE PROJECT IS COMPLETE. DO NOT USE SALT OR CHLORIDE—COMPOUNDS TO DE—ICE SITE.	F5) ANCHOR BOLTS	PROVIDE ANGLES OR PLATES WITH A THICKNESS TO DEVELOP THE CAPACITY OF THE BOLTS PROVIDED. TENSION CONTROL BOLTS ARE ACCEPTABLE. SEE TYPICAL STEEL DETAILS. ASTM A307 OR ASTM F1554 GRADE 36 BOLTS UON ON THE DRAWINGS. "J" BOLTS ARE NOT ALLOWED.
B12) DE IGINO	DO NOT OSE SHELL ON OTEONIDE COMPONED TO DE 10E SHE.	F6) WELDING ELECTRODES F7) ERECTION	CONFORM TO AWS SPECIFICATIONS FOR ELECTRODES BASED ON WELDING PROCESS AND THE TYPE AND GRADE OF STEEL. PROVIDE ANCHOR BOLTS, STEEL WEDGES, THREADED SCREWS OR SHIMS TO SUPPORT AND PLUMB ALL COLUMNS.
		17) ENECTION	GROUT SOLID UNDER BASE PLATES IMMEDIATELY AFTER COLUMNS ARE PLUMB. PROVIDE BEARING PLATES AND WALL ANCHORS OR ANCHOR BOLTS FOR ALL BEAMS RESTING ON CONCRETE AND
			ALL OTHER NECESSARY CONNECTING HARDWARE. SET ANCHOR BOLTS USING TEMPLATE. DO NOT FIELD CUT OR FIELD MODIFY ANY STRUCTURAL STEEL WITHOUT PRIOR WRITTEN APPROVAL BY ARCHITECT FOR EACH SPECIFIC CASE.
		F8) PAINT	SHOP PRIME ALL STEEL NOT ENCASED IN CONCRETE OR TO BE FIREPROOFED. FOR ALL EXPOSED STEEL, USE A THREE COAT PAINT SYSTEM WITH A ZINC—RICH PRIMER, AN EPOXY INTERMEDIATE COAT, AND A PROTECTIVE TOP COAT, OR HOT—DIP GALVANIZE THE STEEL AFTER FABRICATION IS COMPLETE.
		F9) FABRICATION	SHOP FABRICATE TO GREATEST EXTENT POSSIBLE BY WELDING INCLUDING BEAM STIFFENERS, COLUMN CAPS AND BASE PLATES, HOLES AND CONNECTIONS.
			SUBMIT COMPLETE SHOP DRAWINGS, FROM FIELD DIMENSIONS, FOR DESIGNER'S APPROVAL. DO NOT START FABRICATION OF STRUCTURAL STEEL MEMBERS UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED BY THE ENGINEER OF RECORD (EOR).
		F10) STANDARD SPECIFICATIONS	COMPLY WITH THE LATEST RECOMMENDATIONS AND SPECIFICATIONS OF : AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN.
			AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN. AISC LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS. LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR STEEL HOLLOW STRUCTURAL SECTIONS. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.
			AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES. AWS D1.1 STRUCTURAL WELDING CODE — STEEL.
		F11) LINTELS	FOR OPENINGS IN MASONRY WALLS NOT OTHERWISE PROVIDED FOR ON ARCHITECT'S DRAWINGS, PROVIDE LOOSE LINTEL PER SCHEDULE IN TYPICAL STEEL DETAILS. STEEL ANGLES IN PAIRS SHALL BE PLUG WELDED TOGETHER EVERY 12 INCHES.
			PROVIDE A MINIMUM OF SIX INCHES OF BEARING FOR ALL LINTELS. ALL EXTERIOR LINTELS TO BE HOT-DIPPED GALVANIZED.
		F12) FIREPROOFING F13) FRAMING	FIREPROOF BEAMS AND COLUMNS AS SHOWN ON THE ARCHITECTURAL DRAWINGS AND/OR SPECIFICATIONS. BEAMS EQUALLY SPACED U.O.N.
		·	CANTILEVER BEAMS ARE SAME SIZE AS BACKSPAN U.O.N. U.O.N. ON PLANS, MINIMUM BOLT SIZE SHALL BE 3/4" DIAMETER. ALL SHOP CONNECTIONS SHALL BE HIGH STRENGTH BOLTED OR WELDED.
			ALL ENDS OF COLUMNS AT SPLICES AND OTHER SURFACES IN CONTACT ON BEARING CONNECTIONS SHALL BE SQUARE CUT TO COMPLETE TRUE BEARING. U.O.N., ALL BEAM TO BEAM MOMENT CONNECTIONS SHALL DEVELOP THE STRENGTH OF THE SMALLER MEMBER BEING CONNECTED.
			CONNECTION FORCES SHOWN ON DRAWINGS ARE SERVICE FORCES U.O.N. SHEAR REACTIONS SHOWN ON PLAN AT ONE BEAM END ARE THE SAME AT BOTH BEAM ENDS. DO NOT TAKE 33% ALLOWABLE STRESS INCREASE.
			INCLUDE FULL DEPTH SHEAR CONNECTION IN DESIGN OF BEAMS WITH AXIAL FORCE SHOWN ON PLAN IN ADDITION TO THE FLANGE CONNECTIONS REQUIRED TO TRANSFER THE LOADS.
		F14) SLIP CRITICAL	GALVANIZED NUTS AND BOLTS TO BE MATCHED ASSEMBLIES. — BOLTED MOMENT CONNECTIONS — TRUSS MEMBER CONNECTIONS
		CONNECTIONS	TRUSS MEMBER CONNECTIONSAS REQUIRED BY DETAILS AND SECTIONS

F15) SLIDE BEARING CONNECTIONS

APPROVED EQUAL FOR ALL SLIDÉ BEARING ELEMENTS.

USE FLUOROGOLD (FC-1025-CS) TEFLON BEARING PAD BY SEISMIC ENERGY PRODUCTS, ATHENS, TEXAS, OR

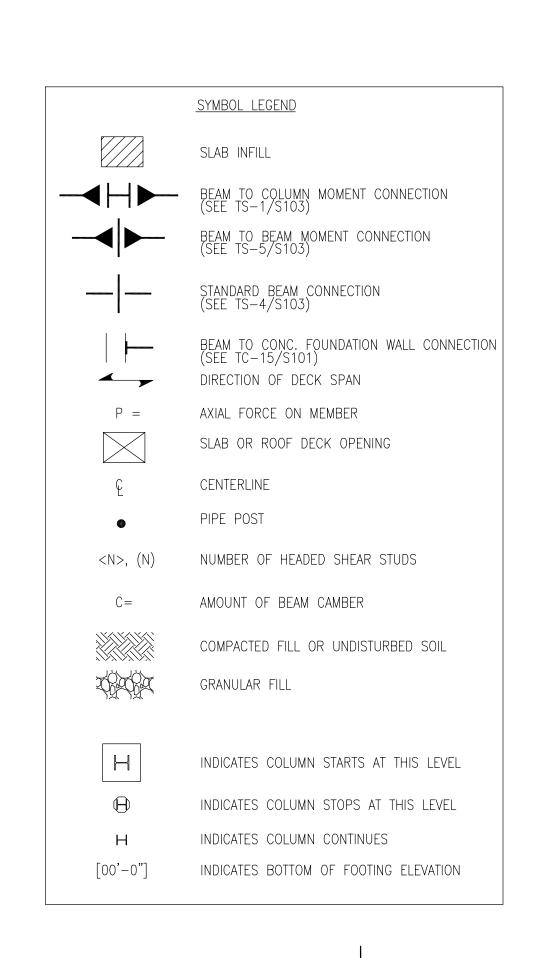
THE FLUOROGOLD MATERIAL SHALL BE 3/32" MIN. THICKNESS, SUITABLY BONDED TO STEEL SUBSTRATE. ATTACHMENT IN FIELD WILL BE TACK WELDING.

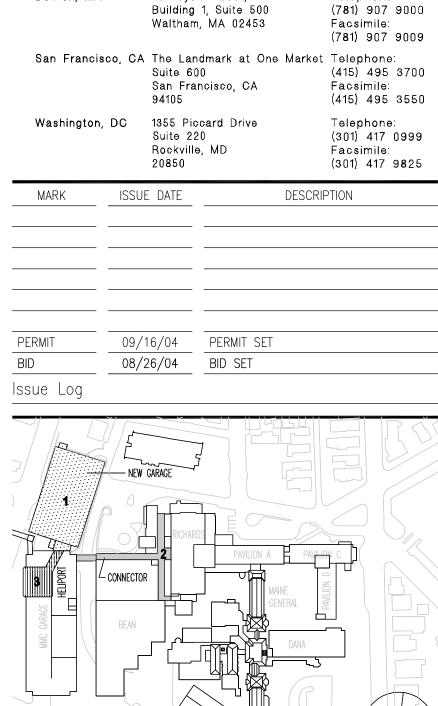
METAL DECK	PROVIDE METAL DECK MADE F SEE DRAWINGS AND SPECIFICA PROVIDE SHEET METAL POUR	ATIONS F	OR GAUGE	AND PF	ROFILE.			TH OF 3	J NSI.		
SHEAR STUDS	(SDI PUBLICATION #29): 14 (SAUGE MI	N. THICKN	ESS.)20 COL	D FINISH	HED CARBO	n stee
CTUD DI ACEMENT	THE NUMBER OF SHEAR STUDS REQUIRED PER BEAM IS INDICATED BY [$\#$] ON THE DRAWINGS. PROVIDE $3/4$ IN. DIAMETER BY 5 IN. LONG STUDS UON.										
STANDARD	OF ANY STUD AND THE FACE	OF ANY STUD AND THE FACE OF CONCRETE, A METAL DECK RIB OR SIMILAR DISCONTINUITY.									
SPECIFICATIONS	SDI CODE OF RECOMMENDED AWS STRUCTURAL WELDING CO	PRACTICI DDE - S	E AND SP TEEL AND	ECIFICATI STRUCT	ONS FOR URAL STE	COMPOSI EL WELDIN	TE STEEL IG CODE	FLOOR - SHEE		_•	
REINFORCEMENT EMBEDDED CONDUIT AND PIPE	MAXIMUM OUTER DIAMETER 1" MINIMUM CONCRETE COVER: 3	, SPACE 5/4". DO	NO CLOS	ER THAN ANY AL	3 DIAMET UMINUM P	TERS ON TIPE OR C	CENTER.				
SHORING	COMPOSITE BEAM DESIGN ASS	SUMES UI	NSHORED	DECK CO	ONSTRUCTI		CANNOT E	BE SATIS	FIED.		
EXPANSION ANCHORS	SET EXPANSION ANCHORS AT	DECK RI	BS ONLY.		LIJ.						
DEVIATIONS											
	OR PHASE			<u>AE</u>	BREVIATIO	<u>N</u>	<u>word</u>	OR PHA	<u>SE</u>		
AI TFR	NΔTF	IOTION		K K:	SF		JOINT KIP (KIPS/	1000 PC SQUARE	UNDS) FOOT		
AMERI AMERI AMERI	CAN INSTITUTE OF STEEL CONSTRU CAN IRON AND STEEL INSTITUTE CAN SOCIETY FOR TESTING AND M	JCTION ATERIALS		LE LV	<u>=</u> N		LIGHT	NEIGHT NEIGHT (rc	
AMER ANCH ARCHI ARCHI	OR BOLT TECT TECTURALLY EXPOSED STRUCTURAL	_ STFFI		LF LL LL	RFD _H _V		LOAD LONG LONG	& RESIS LEG HO LEG VFI	STANCE RIZONTA RTICAI	FACTOR DE	SIGN
BALAN BEAM	CE	~· -		LF LS M	> SH FR		MANUI	FACTURE) HOLE R		
BOT. BOTTO BOTTO	M M EACH WAY			M, M, M	ATL AX. ECH.		MATER MAXIM MECH	RIAL UM ANICAI			
CAST-	IN-PLACE			NI Ni	F WC		NORM.	AL WEIGH	HT CON	CRETE	
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CLASS B TENSION SPLICE Fy=60000 PSI											
	MINIMUM SPLIC	E and DEVELOPME	INT L	ENG	TH S	SCHE	DULE	_ - -			
		(UNLESS OTHERWISE SHOW	VN ON E	RAWING	S)						
			#3	#4	#5	#6	#7	#8	#9	#10	#11
f'c=4000 PSI	SPLICE LENGTH	TOP BARS	24"	32"	40"	48"	70"	80"	90"	102"	113"
		OTHER BARS	18"	25"	31"	37"	54"	62"	70"	78"	87"
	DEVELOPMENT LENGTH	TOP BARS	18"	25"	31"	37"	54"	62"	70"	78"	87"
		OTHER BARS	14"	19"	24"	28"	42"	47"	54"	60"	67"
			#3	#4	#5	#6	#7	#8	#9	#10	#11
=5000 PS	SPLICE	TOP BARS	22"	29"	36"	43"	63"	72"	81"	91"	101"
	LENGTH	OTHER BARS	17"	22"	28"	33"	48"	55"	62"	70"	78"
	DEVELOPMENT	TOP BARS	17"	22"	28"	33"	48"	55"	62"	70"	78"
	LENGTH	OTHER BARS	13"	17"	21"	25"	37"	42"	48"	54"	60"

AVOID SPLICES IN REGIONS OF MAXIMUM MOMENT. IF THIS IS NOT POSSIBLE STAGGER SPLICES SO THAT NOT MORE THAN 50% OF THE BARS ARE SPLICED WITHIN A REQUIRED SPLICE LENGTH OTHERWISE INCREASE SPLICE LENGTH BY 30%.

TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST IN THE MEMBER BELOW THE REINFORCEMENT. WALL REINFORCING IS CLASSIFIED AS OTHER BARS.



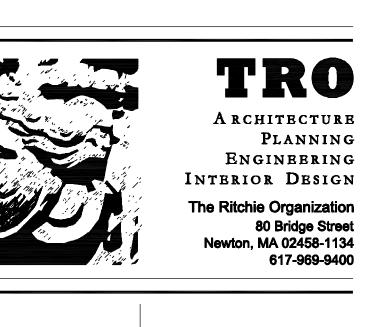


Simpson Gumpertz & Heger Inc.

Consulting Engineers

Boston, MA 41 Seyon Street,

General Notes:



Pkg F - Garage / Vault / Conn / Heliport Portland, ME MMC Project No. 21845

GENERAL NOTES

