DESIGN DATA NOTES

1. GENERAL:

   DESIGN PROVISIONS ..... 2010 BUILDING CODE OF NEW YORK STATE (BCNYS)
   2010 EXISTING BUILDING CODE OF NEW YORK STATE (EBCNYS)
   BUILDING OCCUPANCY CATEGORY IV
   TERRAIN/EXPOSURE CATEGORY ..... B

2. LIVE LOADS:

   PRECAST TUNNEL AND CAST-IN-PLACE CONCRETE VAULT..... AASHTO HS25 + IMPACT
   MECHANICAL PIPING ..... SEE PIPE TUNNEL LOAD SCHEDULE ON DRAWING S3.1.

3. DEAD LOADS:
   WEIGHT OF CONCRETE AND SOIL OVERBURDEN

4. SOIL PRESSURE:

   PRESUMPTIVE SOIL BEARING PRESSURE: 3,000 psf ON COMPACTED CRUSHED STONE.

   FOUNDATION DESIGN BASED ON RECOMMENDATIONS INCLUDED IN GEOTECHNICAL EVALUATION: STRATTON VA MEDICAL CENTER EMERGENCY DEPARTMENT, DENTE ENGINEERING PC, DATED JULY 29, 2011.

5. STRUCTURAL MATERIAL STRENGTHS:

   STRUCTURAL AND MISCELLANEOUS STEEL:

   ROLLED STEEL W SHAPES ..... – ASTM A 992
   ROLLED STEEL C AND MC SHAPES ..... – ASTM A 36, EXCEPT ASTM A 572, GRADE 50 WHERE NOTED.

   ROLLED STEEL PLATES, BARS, AND ANGLES ..... – ASTM A 36
   HOLLOW STRUCTURAL SECTIONS (HSS) ..... – ASTM A 500, GRADE B OR C
   PIPE ..... – ASTM A 53, TYPE E OR S, GRADE B

   FOR CONNECTIONS, PROVIDE HIGHER GRADE AS REQUIRED FOR CAPACITY.

   CONCRETE:

   STRUCTURAL SLABS, FOUNDATION WALLS, FOUNDATION MAT,
   CLOSURE POUR CONCRETE, BEAMS AND PIERS ..... f'c = 4,000 psi
   (SEE SPECIFICATIONS FOR SLUMP AND AIR ENTRAINMENT)

GENERAL NOTES

1. DIMENSIONS TO, OF, AND IN EXISTING STRUCTURE SHALL BE VERIFIED IN FIELD BY CONTRACTOR.
2. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES IN DIMENSIONS BETWEEN EXISTING CONDITIONS AND/OR ARCHITECTURAL DRAWINGS AND THE STRUCTURAL DRAWINGS.
3. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
4. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
5. THE NOTES ON THIS DRAWING ARE TYPICAL UNLESS OTHERWISE INDICATED.
6. CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF PROPOSED DEVIATIONS OR SUBSTITUTIONS FROM DIMENSIONS, MATERIALS, OR EQUIPMENT SHOWN ON THE DRAWINGS AND MAKE ONLY THOSE DEVIATIONS OR SUBSTITUTIONS ACCEPTED BY ENGINEER.
7. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE EXISTING UTILITIES.
8. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION SAFETY.

FOUNDATION NOTES

1. BEAR FOOTINGS ON COMPACTED CRUSHED STONE.
2. BEARING STRATUM SHALL BE VERIFIED IN FIELD BY A LICENSED GEOTECHNICAL ENGINEER BEFORE CASTING CONCRETE FOOTINGS.
3. FOOTINGS MAY BE STEPPED DOWN OR LOWERED TO REACH AN ACCEPTABLE BEARING STRATUM AS DETERMINED BY GEOTECHNICAL ENGINEER.
4. SOIL BEARING SURFACES PREVIOUSLY ACCEPTED BY GEOTECHNICAL ENGINEER WHICH ARE ALLOWED TO BECOME SATURATED, FROZEN, OR DISTURBED SHALL BE REWORKED TO SATISFACTION OF GEOTECHNICAL ENGINEER.
5. DO NOT PLACE FOOTINGS IN WATER OR ON FROZEN GROUND.
6. WALLS THAT ARE TO BE BACKFILLED ON ONE SIDE ONLY MAY BE BACKFILLED UP TO 4 FEET ABOVE THE TOP OF THE FOOTING AFTER WALLS ATTAIN MINIMUM STRENGTH OF 70% f'c. REMAINING BACKFILL MAY NOT BE PLACED UNTIL TOP SLAB IS IN PLACE, SLAB ATTAINS MINIMUM STRENGTH OF 70% f'c, AND WALLS ATTAIN MINIMUM STRENGTH 100% f'c.

CAST-IN-PLACE CONCRETE NOTES (FOUNDATION)

1. REINFORCE CONCRETE ELEMENTS INCLUDING MATS, WALLS, PIERS, AND SLABS. REINFORCEMENT SHOWN PERTAINS TO TYPICAL CONDITIONS.
2. LAP SPLICE CONCRETE REINFORCEMENT AS INDICATED IN THE CONCRETE REINFORCEMENT LAP SPLICE SCHEDULE, UNLESS NOTED OTHERWISE.
3. CAST STEPPED FOOTINGS MONOLITHICALLY.
4. PROVIDE KEYS IN CONCRETE WALLS, AND FOOTINGS AT VERTICAL CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.
5. CAST CONCRETE PIERS IN CONCRETE WALLS MONOLITHICALLY WITH WALLS.
6. MINIMUM BAR DEVELOPMENT LENGTH EQUALS CLASS A LAP LENGTH.
7. CHAMFER EXPOSED CONCRETE CORNERS AND EDGES 3/4 INCH UNLESS NOTED OTHERWISE.
8. CONCRETE COVER FOR REINFORCEMENT SHALL BE AS INDICATED IN THE CONCRETE COVER SCHEDULE.
9. PROVIDE WATERSTOPS IN BELOW-GRADE WALL JOINTS, WALL-TO-MAT FOOTING JOINTS, AND SLAB-TO-WALL JOINTS.

CONCRETE COVER SCHEDULE

LOCATION	COVER
FOOTINGS POURED AGAINST EARTH:	3"
SURFACE EXPOSED TO WEATHER OR EARTH (INCLUDING SURFACES OF FOUNDATION WALLS COVERED WITH WATERPROOFING MEMBRANE AND/OR INSULATION): BARS LARGER THAN #5 #5 BARS OR SMALLER	 2" 1 1/2"
SURFACES NOT EXPOSED TO WEATHER OR EARTH: SLABS AND WALLS BEAMS AND PIERS	 3/4" 1 1/2"
BETWEEN BARS AND EMBEDDED ITEMS: IN CONCRETE ELEMENTS EXPOSED TO WEATHER OR EARTH IN CONCRETE ELEMENTS NOT EXPOSED TO WEATHER OR EARTH	 1 1/2" 3/4"

CONCRETE REINFORCEMENT LAP SPLICE SCHEDULE

BAR LAP LENGTHS, UNCOATED BARS
CLEAR COVER NOT LESS THAN TWO TIMES BAR DIAMETER
CLEAR SPACING NOT LESS THAN FOUR TIMES BAR DIAMETER

BAR SIZE	MINIMUM CLEAR COVER (INCH)	MINIMUM SPACING CENTER/CENTER (INCH)	CLASS B LAP NOT A TOP BAR (INCH)	CLASS B LAP TOP BAR (INCH)	CLASS A LAP NOT A TOP BAR (INCH)	CLASS A LAP TOP BAR (INCH)
#4	1	2 1/2	19	24	15	19
#5	1 1/4	3 1/8	23	30	18	23
#6	1 1/2	3 3/4	28	36	22	28
#7	1 3/4	4 3/8	33	42	25	33

NOTES FOR SCHEDULE:

1. TOP BARS ARE DEFINED AS HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE DEVELOPMENT LENGTH OR SPLICE.
2. USE CLASS B LAP SPLICES, UNLESS NOTED OTHERWISE.
3. FOR COVER AND SPACING DIMENSIONS WHICH ARE IN BETWEEN THE TABULATED VALUES, DO NOT INTERPOLATE, INSTEAD USE THE LONGER LAP LENGTH.
4. CALCULATE CENTER TO CENTER SPACING DIMENSIONS OF BARS AT SPLICE LOCATIONS.

PRECAST CONCRETE NOTES

1. DESIGN PRECAST MEMBERS FOR LOADS INDICATED. FABRICATOR SHALL PROVIDE CALCULATIONS, SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER.
2. GALVANIZE PRECAST HARDWARE EXPOSED TO EXTERIOR ATMOSPHERE AND IN AREAS WHERE CONCRETE SURFACES WILL BE LEFT EXPOSED TO VIEW AND UNPAINTED UNLESS NOTED OTHERWISE.
3. LOCATE HANDLING AND ERECTION INSERTS IN INCONSPICUOUS LOCATIONS. SUBMIT TYPE AND LOCATION ON SHOP DRAWINGS.
4. CURE PRECAST CONCRETE MEMBERS A MINIMUM OF 28 DAYS BEFORE SHIPPING TO SITE.
5. COVER PRECAST SHIMS AND ANCHORAGE HARDWARE THAT WILL BE EXPOSED TO BACKFILL WITH 2 INCHES OF CONCRETE.

LINTEL NOTES

1. WELD TOGETHER BACK-TO-BACK LINTELS. MAXIMUM WELD SPACING SHALL NOT EXCEED 18 INCHES ON CENTER.
2. BEAR LINTELS A MINIMUM OF 8 INCHES EACH END UNLESS NOTED OTHERWISE.
3. HOT-DIP GALVANIZE LINTELS IN EXTERIOR WALLS.

STRUCTURAL OBSERVATION NOTES

1. THE REGISTERED DESIGN PROFESSIONAL WILL MAKE VISITS TO THE SITE AT APPROPRIATE INTERVALS FOR THE PURPOSE OF OBSERVING THE CONSTRUCTION FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE FOLLOWING LIST INCLUDES SOME APPROPRIATE TIMES FOR VISITING THE SITE: THE CONTRACTOR SHALL NOTIFY THE REGISTERED DESIGN PROFESSIONAL AT LEAST 48 HOURS PRIOR TO PERFORMING THESE ACTIVITIES SO THAT SITE VISITS CAN BE SCHEDULED.
   - INITIAL PLACEMENT OF REINFORCING BARS FOR FOOTINGS, FOUNDATION WALLS, (AFTER EXCAVATION AND PRIOR TO THE CLOSING OF FORMS).
   - EACH PLACEMENT OF REINFORCING BARS FOR STRUCTURAL CONCRETE (SLABS AND BEAMS).
   - COMPLETION OF THE STRUCTURAL SYSTEM.
   - OTHER TIMES AS REQUIRED DUE TO FIELD CONDITIONS OR SPECIAL CONSTRUCTION TYPES.
2. THE REGISTERED DESIGN PROFESSIONAL MAY VISIT THE SITE AT TIMES OTHER THAN THOSE LISTED IN NOTE 1.
3. THE REGISTERED DESIGN PROFESSIONAL WILL PREPARE A FIELD OBSERVATION REPORT FOR EACH SITE VISIT MADE TO OBSERVE CONSTRUCTION. PARTS II AND III OF EACH REPORT ARE FOR CONTRACTOR VERIFICATION AND FOR THE CONTRACTOR TO COMMENT ON ITEMS IN PART I OF THE REPORT. PART II IS MANDATORY AND MUST BE COMPLETED (SIGNED BY THE CONTRACTOR VERIFYING THAT THE REQUIRED ACTION WAS TAKEN AND LISTING THE DATE COMPLETED) AND RETURNED TO THE ENGINEER IN A TIMELY MANNER. PART III IS OPTIONAL.

ABBREVIATIONS LEGEND

ADDL	– ADDITIONAL	EXT	– EXTERIOR	PAF	– POWDER-ACTUATED FASTENER
ADJ	– ADJACENT	EOD	– EDGE OF DECK		
L	– ANGLE	EOS	– EDGE OF SLAB	PE	– PROFESSIONAL ENGINEER
APPROX	– APPROXIMATE	FD	– FLOOR DRAIN	PERP	– PERPENDICULAR
ARCH	– ARCHITECT ARCHITECTURAL	FDN	– FOUNDATION	PLF	– POUNDS PER LINEAL FOOT
		FTG	– FOOTING		
B/	– BOTTOM OF	GA	– GAUGE	PSF	– POUNDS PER SQUARE FOOT
BLDG	– BUILDING	GALV	– GALVANIZED		
BRG	– BEARING	HSS	– HOLLOW STEEL SECTION	PSI	– POUNDS PER SQUARE INCH
BP	– BASE PLATE	HORIZ	– HORIZONTAL		
CANT	– CANTILEVER	HI	– HIGH	PCF	– POUNDS PER CUBIC FOOT
CJ	– CONTROL, CONTRACTION, CONSTRUCTION JOINT	HP	– HIGH POINT		
		HVAC	– HEATING/VENTILATING/ AIR CONDITIONING	PC	– PRECAST
				PSL	– PARALLEL STRAND LUMBER
℄	– CENTERLINE	INFO	– INFORMATION		
CMU	– CONCRETE MASONRY UNITS(S)	INT	– INTERIOR	PT	– PRESSURE TREATED
		INV	– INVERT	R	– RADIUS
CONC	– CONCRETE	K	– KIPS	RD	– ROOF DRAIN
CONT	– CONTINUOUS	LG	– LONG	RDP	– REGISTERED DESIGN PROFESSIONAL
COL	– COLUMN	LLH	– LONG LEG HORIZONTAL		
CFMF	– COLD-FORMED METAL FRAMING	LLV	– LONG LEG VERTICAL	REQD	– REQUIRED
		LOC	– LOCATION	REINF	– REINFORCING OR REINFORCED
COORD	– COORDINATE	LW	– LIGHT WEIGHT		
ø	– DIAMETER	L.VL	– LAMINATED VENEER LUMBER	REV	– REVISION OR REVISED
DIM	– DIMENSION			RO	– ROUGH OPENING
DN	– DOWN	LO	– LOW	SIM	– SIMILAR
do	– DITTO	MANUF	– MANUFACTURER	SPA	– SPACE
DWG	– DRAWING	MAX	– MAXIMUM	STD	– STANDARD
EA	– EACH	MECH	– MECHANICAL	SF	– SQUARE FEET
EF	– EACH FACE	MIN	– MINIMUM	SS	– STAINLESS STEEL
EJ	– EXPANSION JOINT	MISC	– MISCELLANEOUS	STL	– STEEL
ELEC	– ELECTRICAL	MO	– MASONRY OPENING	SQ	– SQUARE
EL	– ELEVATION	NA	– NOT APPLICABLE	T/	– TOP OF
ELEV	– ELEVATOR	NIC	– NOT IN CONTRACT	TYP	– TYPICAL
ENGR	– ENGINEER	NOM	– NOMINAL	UNO	– UNLESS NOTED OTHERWISE
EMBD	– EMBEDDED	NW	– NORMAL WEIGHT		
EQ	– EQUAL	OC	– ON CENTER	VERT	– VERTICAL
EQUIP	– EQUIPMENT	OD	– OUTSIDE DIAMETER	VIF	– VERIFY IN FIELD
ES	– EACH SIDE	OPNG	– OPENING	W/	– WITH
EW	– EACH WAY	OPP	– OPPOSITE	WP	– WORK POINT
EXIST	– EXISTING	ℙ	– PLATE	WWR	– WELDED WIRE REINFORCEMENT
EXP	– EXPANSION			WCJ	– WALL CONTROL OR CONSTRUCTION JOINT

UNREVIEWED FINAL DESIGN (100%)
NOT FOR CONSTRUCTION

Revisions:	Date

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Approved Project Director

Project Title: REPAIR HOT WATER LINES PHASE III
Stratton VA Medical Center

Location: Albany, New York

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Project Number: VA 528A8-10-814

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Drawing Number: S0.1
Dwg. 8 of 18

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