# SANITARY SEWER MODIFICATIONS 760 SOUTH HANCOCK STREET

PROPOSAL 1485



LOUISVILLE METRO HOUSING AUTHORITY
420 SOUTH EIGHTH STREET
LOUISVILLE, KENTUCKY 40203
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PROJECT LOCATION

E JACOB ST

LUCKETT & ASSOCIATES
ARCHITECTS AND ENGINEERS

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DRAWN BY / CHECKED

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- 1. <u>GENERAL</u>
- A. ALL WORK SHALL BE PERFORMED IN ACCORD WITH ALL FEDERAL, STATE AND/OR LOCAL RULES, REGULATIONS, STANDARDS AND SAFETY REQUIREMENTS. UTILITIES SHALL ALSO BE INSTALLED IN ACCORD WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY.
- B. THE DRAWINGS ARE DIAGRAMMATIC ONLY AND INDICATE THE GENERAL ARRANGEMENT OF THE SYSTEMS AND ARE TO BE FOLLOWED AS FAR AS POSSIBLE. IF DEVIATIONS FROM THE LAYOUTS ARE NECESSITATED BY FIELD CONDITIONS, DETAILED LAYOUTS OF THE PROPOSED DEPARTURES SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR APPROVAL BEFORE PROCEEDING WITH THE WORK. THE CONTRACT DRAWINGS ARE NOT INTENDED TO SHOW EVERY VERTICAL OR HORIZONTAL OFFSET WHICH MAY BE NECESSARY TO COMPLETE THE SYSTEMS. CONTRACTORS SHALL, HOWEVER, ANTICIPATE THAT ADDITIONAL OFFSETS MAY BE REQUIRED AND SUBMIT THEIR BID ACCORDINGLY.
- C. THE CONTRACTOR SHALL INFORM HIMSELF OF ALL OF THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED, THE SITE OF THE WORK, THE STRUCTURE OF THE GROUND, THE OBSTACLES THAT MAY BE ENCOUNTERED, THE AVAILABILITY AND LOCATION OF NECESSARY FACILITIES AND ALL RELEVANT MATTERS CONCERNING THE WORK. THE CONTRACTOR SHALL CAREFULLY EXAMINE ALL DRAWINGS AND SPECIFICATIONS AND DETERMINE THE KIND AND TYPE OF MATERIALS TO BE USED THROUGHOUT THE PROJECT AND WHICH MAY, IN ANY WAY, AFFECT THE EXECUTION OF HIS WORK. THE CONTRACTOR SHALL FULLY ACQUAINT HIMSELF WITH ALL EXISTING CONDITIONS AS TO INGRESS AND EGRESS, DISTANCE OF HAUL FROM SUPPLY POINTS, ROUTES FOR TRANSPORTATION OF MATERIALS, FACILITIES AND SERVICES, AVAILABILITY OF UTILITIES, ETC. HIS PROPOSAL SHALL COVER ALL EXPENSES OF DISBURSEMENTS IN CONNECTION WITH SUCH MATTERS AND CONDITIONS. THE CONTRACTOR SHALL VERIFY ALL WORK SHOWN ON THE DRAWINGS AND CONDITIONS AT THE SITE, AND SHALL REPORT IMMEDIATELY TO THE ENGINEER FIVE DAYS (5) PRIOR TO BIDDING, ANY DISCREPANCIES WHICH MAY APPEAR IN ORDER THAT MISUNDERSTANDING AT A LATER DATE MAY BE PREVENTED. NO ALLOWANCE IS TO BE MADE FOR LACK OF KNOWLEDGE CONCERNING SUCH CONDITIONS AFTER
- D. THE CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT, APPARATUS, MATERIALS, AND WORKMANSHIP ENTERING INTO THIS CONTRACT TO BE THE BEST OF ITS RESPECTIVE KIND AND SHALL REPLACE ALL PARTS AT HIS OWN EXPENSE, WHICH ARE PROVEN DEFECTIVE WITHIN ONE (1) YEAR FROM FINAL ACCEPTANCE OF THE WORK BY THE ENGINEER. THE EFFECTIVE DATE OF COMPLETION OF THE WORK SHALL BE THE DATE OF THE ENGINEER'S STATEMENT OF SUBSTANTIAL COMPLETION. THE CONTRACTOR SHALL PRESENT THE ENGINEER WITH SUCH WARRANTIES AND GUARANTEES AT THE TIME OF FINAL ACCEPTANCE OF THE WORK. THE ENGINEER SHALL THEN SUBMIT THESE WARRANTIES, ETC., TO THE OWNER. THE OWNER RESERVES THE RIGHT TO USE EQUIPMENT INSTALLED BY THE CONTRACTOR PRIOR TO DATE OF FINAL ACCEPTANCE. SUCH USE OF EQUIPMENT SHALL, IN NO WAY, INVALIDATE THE GUARANTEE EXCEPT THAT THE OWNER SHALL BE LIABLE FOR ANY DAMAGE TO EQUIPMENT DURING THIS PERIOD, DUE TO NEGLIGENCE OF THE OPERATOR OR OTHER EMPLOYEES.
- E. THE CONTRACTOR SHALL PROVIDE AND LOCATE ALL SLEEVES AND INSERTS REQUIRED FOR HIS WORK OR SHALL BE RESPONSIBLE FOR THE COST OF CUTTING AND PATCHING REQUIRED FOR PIPES WHERE SLEEVES AND INSERTS WERE NOT INSTALLED, OR WHERE INCORRECTLY LOCATED. THE CONTRACTOR SHALL DO ALL DRILLING REQUIRED FOR THE INSTALLATION OF HIS HANGERS. TERMINATE SLEEVES FLUSH WITH WALLS.
- F. PATCHING AND REPAIRING MADE NECESSARY BY WORK PERFORMED UNDER THIS CONTRACT SHALL BE INCLUDED AS A PART OF THE WORK AND SHALL BE DONE BY SKILLED MECHANICS OF THE TRADE OR TRADES FOR WORK CUT OR DAMAGED. ALL WORK SHALL MATCH ADJACENT SURFACES IN A MANNER ACCEPTABLE TO THE ENGINEER.
- G. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE OWNER WITHIN THIRTY (30) DAYS AFTER THE DATE OF THE CONTRACT, A MINIMUM OF FIVE (5) COPIES OF ALL SHOP DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS, INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS, SAMPLES, WIRING DIAGRAMS, ETC. ON ALL ITEMS OF EQUIPMENT SPECIFIED HEREINAFTER.
- H. THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN AND PAY FOR ALL PERMITS, GOVERNMENT SALES TAXES, FEES, INSPECTIONS AND OTHER COSTS, INCLUDING ALL UTILITY CONNECTIONS. ETC.. IN CONNECTION WITH HIS WORK: FILE ALL NECESSARY PLANS. PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL GOVERNMENTAL DEPARTMENTS AND, OR THE APPROPRIATE MUNICIPALITY OR UTILITY COMPANY HAVING JURISDICTION, WHETHER INDICATED OR SPECIFIED OR NOT. HE SHALL ALSO OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK AND DELIVER SAME TO THE ENGINEERS BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK. IGNORANCE OF CODES, RULES, REGULATIONS, LAWS, ETC., SHALL NOT RENDER THE CONTRACTOR IRRESPONSIBLE FOR
- I. ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL COMPLY WITH THE NATIONAL FIRE CODES OF THE NATIONAL FIRE PROTECTION ASSOCIATION, WITH THE REQUIREMENTS OF LOCAL UTILITY COMPANIES, AND WITH THE REQUIREMENTS OF ALL GOVERNMENTAL DEPARTMENTS
- J. ALL HEATING, VENTILATION AND AIR CONDITIONING WORK SHALL BE ACCOMPLISHED IN STANDARDS RECOGNIZED BY THE AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING AND THE NATIONAL FIRE PROTECTION ASSOCIATION.
- K. ALL WORK RELATING TO THE HANDICAPPED SHALL BE IN ACCORD WITH REGULATIONS CURRENTLY ENFORCED BY THE STATE DEPARTMENT OF HOUSING, BUILDINGS AND

- 2. PIPE, FITTINGS AND PIPE SUPPORT
- A. THE PIPING INDICATED SHALL BE INSTALLED COMPLETE AND SHALL BE OF THE SIZES INDICATED. WHEN A PIPE SIZE IS NOT INDICATED, THE AFFECTED CONTRACTOR SHALL REQUEST The Pipe Size from the engineers. All Piping shall be installed straight and true, PARALLEL OR PERPENDICULAR TO THE BUILDING CONSTRUCTION. PIPING SHALL BE INSTALLED SO AS TO ALLOW FOR EXPANSION WITHOUT DAMAGE TO THE BUILDING FINISHES, STRUCTURE, PIPE, EQUIPMENT, ETC., USE OFFSETS AS REQUIRED. NO MITERED JOINTS OR FIELD FABRICATED PIPE BENDS SHALL BE ACCEPTED.
- B. ALL PIPE SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER. SPACING OF PIPE SUPPORTS SHALL NOT EXCEED FIVE FEET OF ALL PIPING. INSULATED PIPING SHALL BE SUPPORTED ON RIGID INSULATION BLOCK AT EACH HANGER SO AS TO PREVENT CRUSHING OF INSULATION BY HANGERS. HANGERS SHALL PASS COMPLETELY AROUND THE INSULATION JACKET AND A STEEL PROTECTIVE SADDLE SHALL BE APPLIED TO PREVENT COMPRESSION OF THE INSULATION.
- C. PIPING MATERIALS SHALL BE AS FOLLOWS:

at the expense of the Contractor.

SANITARY PIPING SERVICE WEIGHT HUBLESS CAST IRON PIPE WITH MANUFACTURER'S APPROVED BANDSOR SCHEDULE 40 PVC PIPE WITH DRAINAGE PATTERN FITTINGS AND SOLVENT CEMENT JOINTS MADE IN ACCORDANCE WITH THE PLUMBING CODE (ASTM - D2665 & D1784). REFER TO DRAWINGS FOR ADDITIONAL INFORMATION.

SLEEVING, CUTTING, PATCHING, REPAIRING AND FIRESTOPPING

1.1 The Contractor's attention is directed to the General and Special Conditions and to all other Contract Documents as they apply to this branch of the work. Attention is also directed to all other sections of the Contract Documents which affect the work of this section and which are hereby made a part of the work

1.2 The Contractor shall be responsible for all openings, sleeves, trenches, etc., that may be required in floors, roofs, ceilings, walls, etc., and shall coordinate all such work with the General Contractor and all other trades. Coordinate with the General Contractor, any openings which they are to provide before submitting a bid proposal in order to avoid conflict and disagreement during construction. Improperly located openings shall be reworked

1.3 The Contractor shall plan their work ahead and shall place sleeves, frames or forms through all walls, floors and ceilings during the initial construction, where it is necessary for piping, ductwork, conduit, etc., to route through; however, when this is not coordinated, the Contractor shall then do all cutting and patching required for the installation of their work, or pay other trades for doing this work when so directed by the Engineer. Any damage caused to the building by this Contractor shall be corrected or rectified at their expense.

concrete, masonry, etc. Set all concrete inserts and sleeves for their work. Failing to coordinate, Contractor shall cut openings for the work and patch same as required at their expense with qualified tradesman. 1.5 The Contractor shall be responsible for properly shoring, bracing, supporting, etc., any existing and/or new construction to guard against cracking, settling, collapsing, displacing or weakening while openings are being made. Any damage occurring to the existing and/or new structures, due to failure to exercise proper

1.4 The Contractor shall notify other trades in due time where they will require openings or chases in new

1.6 All work improperly performed or not performed as required in this section, shall be corrected by the General Contractor at the responsible Contractor's expense.

precautions or due to action of the elements shall be promptly and properly corrected to the satisfaction of the

2.1 Cast iron or Schedule 40 steel sleeves shall be installed through all walls where pipe enters the building below grade. Sleeves shall be flush with each face of the wall and shall be sufficiently larger than the entering pipe to permit thorough caulking between pipe and sleeve for water proofing. Horizontal sleeves passing through exterior walls or where there is a possibility of water leakage and damage shall be caulked watertight. Utilize "Link—Seal" at these locations.

2.2 In all cases, sleeves shall be at least two pipe sizes larger than nominal pipe diameter plus insulation. Sleeves through walls and floors shall be cut off flush with inside surface unless otherwise indicated.

2.3 Vertical sleeves in roofs shall be flashed and counterflashed with lead (4 lb.) or 16 oz. copper and welded or soldered to piping, lapped over sleeve and properly weather sealed. Where sleeves pass through roof construction, sleeves shall extend minimum of 12" above the roof.

3.1 All openings in plaster, gypsum board or similar materials, shall be framed by means of plaster frames, casing beads, or angle members as required. The intent of this requirement is to provide smooth, even termination of wall, floor and ceiling finishes as well as to provide a fastening means for devices, etc. 3.2 The Mechanical Contractor shall coordinate all openings in masonry walls with the General Contractor; and, unless otherwise indicated in the Contract Documents, shall provide lintels for all openings required for the mechanical work such as louvers, exhaust fans, etc. Prime paint all lintels. Lintels shall be sized as follows: Unless noted otherwise in the Structural Drawings.

3.2.1 New Openings under 48" in width: Provide one 3½"x3½"x3/8" steel angle for each 4" of masonry width. Lintel shall have 8" bearing on each end.

3.2.2 New Openings over 48" in width: Consult with Structural Engineer. 3.3 No cutting shall be performed at location that will weaken the structure and unnecessary cutting must be avoided. If in doubt, contact the Engineer.

3.4 Pipe openings in slabs and walls shall be cut with core drill. Hammer devices will not be permitted. Edges of trenches and large openings shall be scribe—cut with a masonry saw.

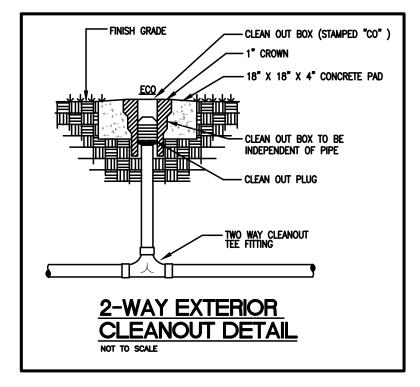
PART 4 - PATCHING, REPAIRING AND FINISHING: 4.1 Patching and repairing made necessary by work performed under this Division shall be included as a part of the work and shall be done by skilled workers of the trade. The work shall be performed in strict accordance with the provisions herein before specified to match adjacent surfaces and in a manner acceptable to

4.2 Where portions of existing sites, lawns, shrubs, paving, etc. are disturbed for installation of work of this Division, such items shall be repaired and/or replaced back to original or better condition to the satisfaction of

4.3 Piping and ductwork passing through floors, ceilings and walls in finished areas shall be fitted with chrome plated brass escutcheon trim pieces of sufficient outside diameter to amply cover the sleeved openings and an inside diameter to closely fit the pipe/duct around which it is installed.

4.4 Flanged metal collars shall be provided around all ducts, flues, pipes, etc. at all wall penetrations; both sides. Penetrations through any wall will require the installation of flanged collars. Openings shall not be any larger than 2" in any direction than the piping/duct passing through the wall. Openings larger than this requirement shall also be infilled to match adjacent construction. Fill void with insulation for sound reduction.

PLUMBING LEGEND	
ABOVE FINISHED FLOOR	AFF
BELOW FINISHED FLOOR	BFF
CAST IRON	CI
CLEANOUT COLD WATER	CO CW
DOMESTIC WATER CIRCULATING PUMP	DP
ELECTRICAL CONTRACTOR EXPANSION TANK	EC ET
EXTERIOR CLEANOUT	ECO
Floor Drain Floor Sink	FD FS
FREEZE PROOF WALL HYDRANT	FPWH
FREEZE PROOF ROOF HYDRANT	FPRH
GENERAL CONTRACTOR GREASE INTERCEPTOR	GC GI
HOSE BIBB	НВ
HOT WATER INVERT ELEVATION	HW IE
MECHANICAL CONTRACTOR	MC
MIXING VALVE NEUTRALIZATION TANK	MV NT
OWNER FURNISHED CONTRACTOR INSTALLED	OFCI
OPEN RECEPTACLE	OR
OPEN RECEPTACLE PLUMBING CONTRACTOR	OR PC
POLYVINYL CHLORIDE	PVC
ROOF DRAIN SUMP PUMP	RD SP
TRAP PRIMER	TP
TRENCH DRAIN	TD TVD
TYPICAL VENT THROUGH ROOF	TYP VTR
WATER HAMMER ARRESTOR	WHA
WATER HEATER WATER SOFTENER	WH WS
EXISTING SANITARY PIPING	——E(SAN)——
	, ,
EXISTING STORM PIPING	——E(SS)——
EXISTING OVERFLOW STORM PIPING	——E(OSS)——
EXISTING SANITARY VENT PIPING	E(V)
EXISTING DOMESTIC COLD WATER PIPING	———E(CW)———
EXISTING DOMESTIC HOT WATER PIPING	———E(HW)———
EXISTING DOMESTIC HOT WATER RETURN PIPING	——E(HWR)——
EXISTING NATURAL GAS PIPING	———E(GAS)———
DEMO SANITARY PIPING	E(SAN)
DEMO STORM PIPING	E(SS)
DEMO OVERFLOW STORM PIPING	E(OSS)
DEMO SANITARY VENT PIPING	E(V)
DEMO DOMESTIC COLD WATER PIPING	E(CW)
DEMO DOMESTIC HOT WATER PIPING	E(HW)
DEMO DOMESTIC HOT WATER RETURN PIPING	E(HWR)
DEMO NATURAL GAS PIPING	E(GAS)
SANITARY PIPING	——SAN——
STORM PIPING	ss
OVERFLOW STORM PIPING	
GREASE WASTE PIPING	——GL——
OIL WASTE PIPING	——OIL——
SANITARY VENT PIPING	V
DOMESTIC COLD WATER PIPING	
DOMESTIC HOT WATER PIPING (120° F)	
DOMESTIC HOT WATER RETURN PIPING (120° F)	
DOMESTIC HOT WATER PIPING (140° F)	<del></del> 140 <del></del>
DOMESTIC HOT WATER RETURN PIPING (140° F)	——140R——
FILTERED COLD WATER	——FCW——
DEIONIZED WATER	———DI———
TRAP PRIMER PIPING	TP
RELIEF VALVE DISCHARGE	RVD
PRESSURE RELIEF VALVE	<u> </u>
UNION	
DIAL THERMOMETER	<b>O</b>
PRESSURE GAUGE	<u> </u>
GATE VALVE	<u> </u>
ONIL VALVE	



BALANCING VALVE

SOLENOID VALVE

CHECK VALVE

BALL VALVE

GAS SHUT-OFF VALVE

BALL VALVE IN RISER

DOUBLE CHECK VALVE ASSEMBLY

PIPING ELBOW (TURNED UP/DOWN)

REDUCED PRESSURE BACKFLOW PREVENTER

PIPING TEE (TURNED UP/DOWN)

PRESSURE REDUCING VALVE

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## GENERAL NOTES (APPLICABLE TO ALL DRAWINGS):

- EACH CONTRACTOR, SUPPLIER AND OR MANUFACTURER SHALL REFER TO ALL DOCUMENTS PERTAINING TO THIS PROJECT AND COORDINATE ACCORDINGLY SO AS TO ENSURE ADEQUACY OF FIT, COMPLIANCE WITH SPECIFICATIONS, PROPER VOLTAGE AND CURRENT CHARACTERISTICS AND AVOID CONFLICT WITH ANY OTHER BUILDINGS SYSTEMS. VERIFY SAME WITH SHOP DRAWINGS.
- 2. ALL OFFSETS, TURNS, FITTINGS, TRIM, DETAIL, ETC., MAY NOT BE INDICATED, BUT SHALL BE PROVIDED AS REQUIRED. ADDITIONAL ALLOWANCES SHALL BE INCLUDED FOR SAME AT EACH PROPOSERS' DISCRETION.
- INSTALL NO PIPING, CONDUIT, DUCTWORK, ETC., IN A LOCATION OR IN A MANNER WHICH WILL ALLOW FREEZING AND/OR THE COLLECTION OF CONDENSATION THEREON.
- 4. OBSERVE ALL APPLICABLE CODES, RULES AND REGULATIONS (CITY, COUNTY, LOCAL, STATE, FEDERAL, MUNICIPALITY, UTILITY COMPANY, OSHA, ETC.).
- 5. ALL SYSTEMS, EQUIPMENT AND MATERIALS ARE TO BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. WORK NOT DONE SO SHALL BE REMOVED AND REINSTALLED SATISFACTORILY.
- WHERE MOUNTING HEIGHTS ARE NOT INDICATED OR ARE IN CONFLICT WITH ANY OTHER BUILDING SYSTEM,
- CONTACT THE ENGINEERS BEFORE INSTALLATION. REFER ALSO TO ARCHITECTURAL INTERIOR AND EXTERIOR WALL ELEVATIONS, CEILING HEIGHTS AND OTHER DETAIL OF THESE DOCUMENTS.
- 7. DO NOT SCALE FROM DRAWINGS, PRINTING DISTORTS SCALE. WORK SHALL BE LAID OUT FROM DIMENSIONED DRAWINGS, OR DIMENSIONS SUPPLIED TO THE CONTRACTOR.
- 8. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR HIS WORK. ALL CUTTING AND PATCHING SHALL MATCH EXISTING ADJACENT SURFACES AND BE IN ACCORD WITH FACILITY STANDARDS FOR SUCH WORK.
- 9. THESE DRAWINGS ARE ACCURATE TO THE BEST OF OUR KNOWLEDGE, HOWEVER LOCATIONS, DEPTHS, ELEVATIONS AND SIZES WERE TAKEN FROM DIFFERENT SOURCES AND ARE SUBJECT TO DEVIATION. THE CONTRACTOR SHALL ASSUME SOME DEVIATIONS AND INCLUDE OFFSETS, ADDITIONAL PIPING, ETC AT THE
- 10. WHERE PENETRATING ROOFING MEMBRANE OR OTHER MATERIALS USED FOR WEATHERPROOFING THE BUILDING, MAKE SUCH PENETRATIONS IN A WAY THAT WILL NOT VOID OR DIMINISH THE ROOFING WARRANTY OR INTEGRITY IN ANY WAY. COORDINATE ALL SUCH PENETRATIONS WITH THE ROOFING
- 11. ADVISE THE ENGINEERS OF ANY CONFLICTS, ERRORS, OMISSIONS, ETC. AT LEAST TEN DAYS PRIOR TO BID DATE, TO ALLOW CLARIFICATION BY WRITTEN ADDENDUM.
- 12. DEVIATION FROM SPECIFICATIONS OR PLANS REQUIRES PRIOR WRITTEN APPROVAL FROM THE ENGINEERS AND MUST BE SUBMITTED IN WRITING NO LATER THAN TEN DAYS PRIOR TO THE BID DATE.
- 13. COORDINATE THE LOCATION OF DRAINS, ELECTRICAL OUTLETS, ETC. WITH ALL MECHANICAL ROOM EQUIPMENT, ETC. PRIOR TO COMMENCING INSTALLATION. WORK NOT SO COORDINATED SHALL BE REMOVED AND PROPERLY INSTALLED AT THE EXPENSE OF THE RESPONSIBLE CONTRACTOR(S).
- 14. THE PURPOSE AND INTENT OF ALL THE DOCUMENTS PERTAINING TO THIS PROJECT IS TO PROVIDE A COMPLETE, FUNCTIONAL, SAFE, NEW FACILITY. ANYTHING LESS SHALL BE UNACCEPTABLE.
- 15. ANY VIBRATING, OSCILLATING OR OTHER NOISE OR MOTION PRODUCING EQUIPMENT SHALL BE ISOLATED FROM SURROUNDING SYSTEMS IN AN APPROVED MANNER. NOISY OR STRUCTURALLY DAMAGING INSTALLATIONS SHALL BE SATISFACTORILY REPLACED OR REPAIRED AT THE INSTALLING CONTRACTOR'S

EXPENSE. THE FINAL DECISION ON THE SUITABILITY OF A PARTICULAR INSTALLATION'S ACCEPTABILITY SHALL

- BE THAT OF THE ENGINEER. 16. INSTALL EQUIPMENT, MATERIALS, ETC. IN STRICT ACCORD WITH MANUFACTURER'S RECOMMENDATIONS AND DIRECTIONS. IF IN CONFLICT WITH THE DESIGN INDICATED IN CONTRACT DOCUMENTS, ADVISE THE
- ENGINEERS PRIOR TO INSTALLATION FOR CLARIFICATION. 17. ALL SUPPORTS FOR EQUIPMENT, DEVICES OR FIXTURES SHALL BE UNIQUE, FROM THE BUILDING STRUCTURE. DO NOT SUPPORT WORK FROM OTHER TRADES, EQUIPMENT OR SUPPORTS WITHOUT WRITTEN PERMISSION FROM THE ENGINEER AND CONSENT OF THE OTHER TRADE, IN WRITING. DO NOT SUPPORT EQUIPMENT FROM WALLS OR PARTITIONS
- 18. DEVIATIONS IN SIZE, CAPACITIES, FIT, FINISH, ETC. FOR EQUIPMENT FROM THAT PRIME SPECIFIED SHALL BE THE RESPONSIBILITY OF THE PURCHASER OF THAT EQUIPMENT. ANY PROVISIONS REQUIRED TO ACCOMMODATE A DEVIATION, WHETHER APPROVED BY THE ENGINEERS OR NOT, SHALL BE THE RESPONSIBILITY OF THE PURCHASER.
- 19. THE GENERAL CONTRACTOR FOR THIS CONSTRUCTION IS RESPONSIBLE FOR THE COORDINATION, APPEARANCE, SCHEDULING AND TIMELINESS OF THE WORK OF ALL TRADES, CONTRACTORS, SUPPLIERS, INSTALLERS, ETC. EACH TRADE SHALL COORDINATE THEIR WORK WITH OTHER TRADES AND THE GENERAL
- 20. VALVES, BALANCING DAMPERS OR ANY MECHANICAL/ELECTRICAL ITEM SHALL NOT BE LOCATED ABOVE A HARD CEILING. IF THIS IS NOT POSSIBLE, THEN AN APPROPRIATELY SIZED ACCESS DOOR SHALL BE
- 21. ENSURE PROPER COORDINATION BETWEEN ALL TRADES SUCH THAT CONDUITS, PIPING, DUCTWORK, ETC. DO NOT BLOCK ACCESS TO VALVES, EQUIPMENT, DUCT ACCESS DOORS, ETC. ITEMS THAT HAVE BEEN
- INSTALLED WHERE ACCESS IS COMPROMISED SHALL BE RELOCATED AT THE CONTRACTOR'S EXPENSE. 22. EXISTING CONDUIT AND WIRING: EXISTING CONDUIT AND WIRING MAY BE SUPPORTED BY EXISTING DUCT AND PIPING HANGERS. COORDINATE WORK WITH ELECTRICAL AND GENERAL CONTRACTOR TO RE-SUPPORT

WIRING BEFORE CUTTING HANGERS. CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGES CAUSED BY

- NOT COORDINATING WORK. 23. INCLUDE IN BID ALL COST ASSOCIATED WITH DRAINING AND FILLING ALL PIPING SYSTEMS AS REQUIRED TO INSTALL WORK.
- 24. PATCH HOLES IN WALLS, FLOORS, CEILINGS, ROOFS, ETC, TO MATCH ADJACENT SURFACES AS A RESULT OF REMOVAL OF MECHANICAL SYSTEMS. PATCHING SHALL BE PERFORMED BY QUALIFIED TRADESMAN.
- 25. WHERE THERMOSTATS AND OTHER WALL-MOUNTED CONTROL DEVICES ARE REMOVED AND NOT REPLACED PATCH WALL TO MATCH EXISTING CONDITIONS.
- 26. THE OWNER WILL SALVAGE CERTAIN REMOVED WORK, COORDINATE WITH THE OWNER.
- 27. ANY VALVES USED FOR TESTING PURPOSES THAT ARE NOT SHOWN ON THESE DRAWINGS MUST MINIMALLY MEET THE QUALITY AND PERFORMANCE OF THE VALVES LISTED IN THE SPECIFICATIONS AND BE PROVIDED AT THE EXPENSE OF THE CONTRACTOR.
- 28. IN AREAS WITH WORK ABOVE AN EXISTING CEILING (LAY-IN, DRYWALL, SPLINE, ETC.), THE CONTRACTOR SHALL CUT AND PATCH THE CEILING AND GRID AS REQUIRED TO PERFORM THE WORK. ANY EXISTING LAY-IN CEILING OR GRID DAMAGED OR BROKEN SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. REFER TO ARCHITECTURAL DRAWINGS FOR AREAS WHERE NEW CEILINGS ARE TO BE INSTALLED.
- 29. INACCESSIBLE PIPING BURIED IN EXISTING WALLS REMAINING AND CONCRETE SLABS MAY BE ABANDONED IN PLACE. CAP ABANDONED PIPING AND DUCTWORK. 30. ALL NEW SANITARY, STORM AND WATER PIPING SHALL BE CLOSELY COORDINATED WITH NEW STRUCTURE,
- HVAC DUCTWORK AND PIPING, AND ELECTRICAL. 31. ALL SANITARY, STORM AND VENT PIPING SHALL BE ROUTED IN BETWEEN BEAMS, AND HELD HIGH AS
- 32. INSTALL ALL WATER SHUT-OFF VALVES IN EASILY ACCESSIBLE LOCATIONS ABOVE CEILINGS. EACH PATIENT

ROOM SHALL BE SERVED FROM ITS OWN SET OF SHUT-OFF VALVES ABOVE THE CORRIDOR CEILING, AT

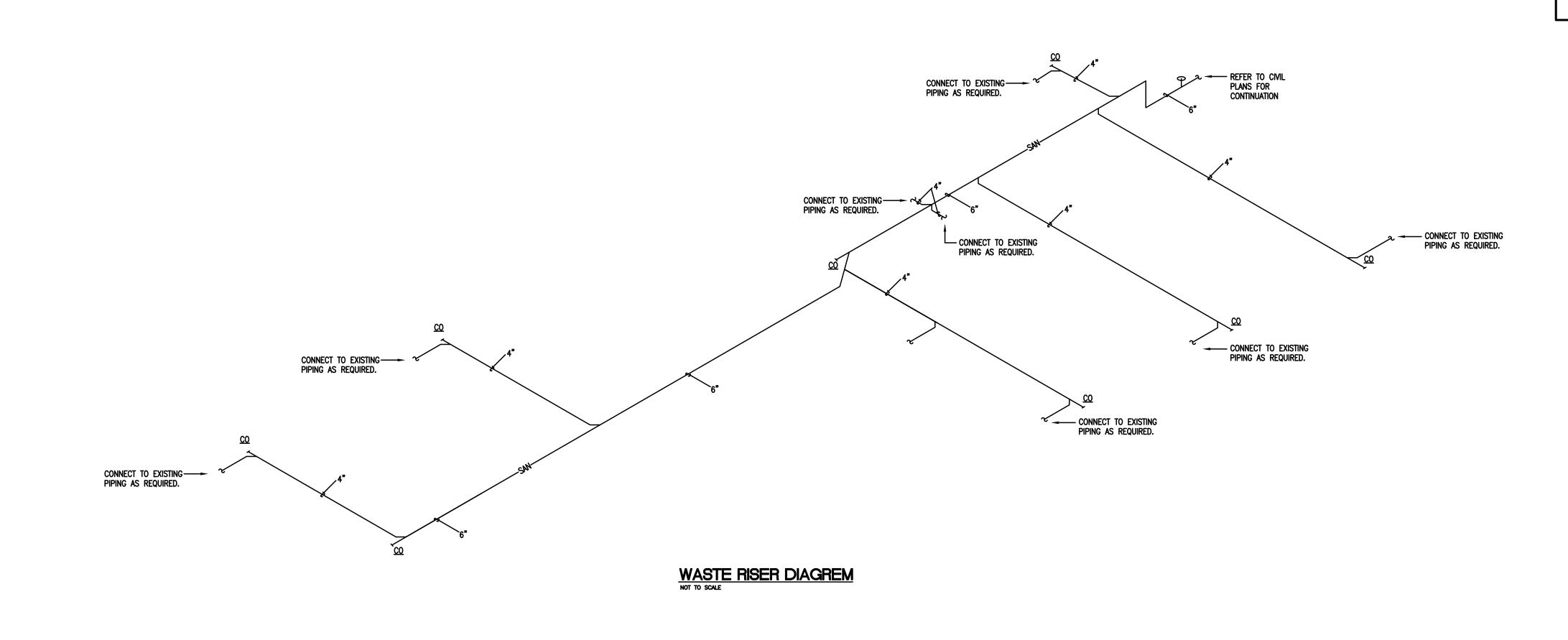
- 33. ALL PLUMBING VENTS THROUGH THE ROOF SHALL BE A MINIMUM OF 25'-0" FROM ANY AIR INTAKES.
- 34. NO PIPING SHALL BE INSTALLED ABOVE STERILE AREAS UNLESS NOTED OR INDICATED OTHERWISE. VERIFY LOCATION OF ALL STERILE AREAS WITH ARCHITECT PRIOR TO BEGINNING WORK, WHERE SANITARY OR STORM PIPING IS INDICATED ABOVE STERILE AREAS, SAME PIPING SHALL BE WELDED STAINLESS STEEL. 35. VERIFY EXACT LOCATION AND UTILITY REQUIREMENTS OF ALL MEDICAL EQUIPMENT WITH THE MEDICAL
- EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. 36. ANY WORK REQUIRED OUTSIDE OF THE PROJECTS LIMITS SHALL BE PERFORMED AT NIGHTS OR ON
- WEEKENDS AND SCHEDULED THROUGH THE FACILITY MANAGER. 37. PATCH HOLES, IN WALLS, FLOORS, CEILINGS, ROOFS, ETC. TO MATCH ADJACENT SURFACES AS A RESULT OF MECHANICAL SYSTEMS. PATCH SHALL BE PERFORMED BY QUALIFIED TRADESMAN.
- 38. WHERE WORK IS REQUIRED ABOVE EXISTING CEILINGS AND/OR OUTSIDE OF WORKSCOPE AREA, THIS CONTRACTOR SHALL BE RESPONSIBLE FOR CUT, PATCH, REMOVAL, AND REINSTALLATION (OR REPLACEMENT IF DAMAGED) OF ALL CEILING TILES, HARD CEILINGS, AND GRID MEMBERS NECESSARY TO PERFORM THE WORK. THIS SHALL BE PERFORMED AT THIS CONTRACTOR'S EXPENSE.
- ALL COORDINATION SHOULD BE ACCOMPLISHED PRIOR TO SUBMISSION. MAJOR SHUTDOWN WILL REQUIRE 4

39. ALL SYSTEM SHUTDOWN PLANS SHALL BE SUBMITTED FOR REVIEW A MINIMUM OF 2 WEEKS IN ADVANCE.

- 40. THIS CONTRACTOR SHALL CLEAN UP CONSTRUCTION DEBRIS DURING AND AFTER MECHANICAL EQUIPMENT
- 41. THIS CONTRACTOR SHALL DISPOSE OF DEMOLISHED MECHANICAL EQUIPMENT AND COORDINATE WITH THE CONSTRUCTION MANAGER.

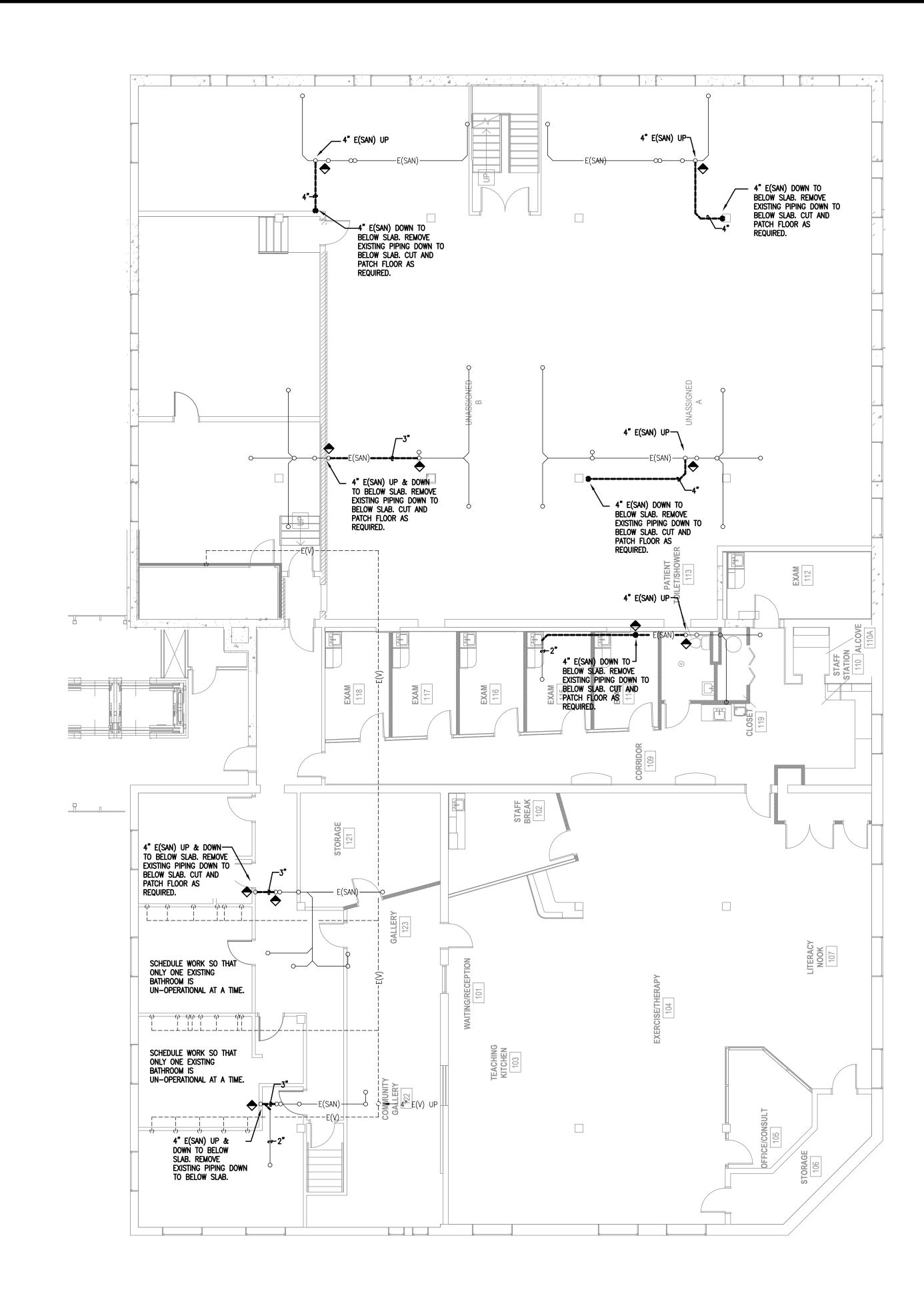
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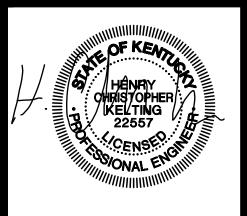


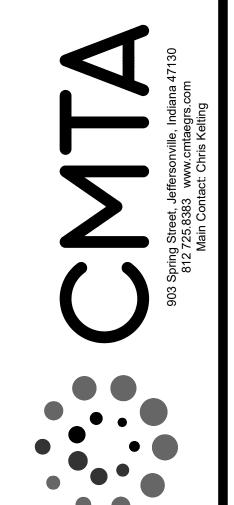
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 $01_{\text{SCALE: }\frac{1}{8}\text{"= 1'-0"}}$  basement plan - under-slab plumbing demolition



02 BASEMENT PLAN - PLUMBING DEMOLITION SCALE: 1/8"= 1'-0"





760 S. Hancock Street
Sanitary Plumbing Modificatio
Louisville Metro Housing Authority

REVISIONS

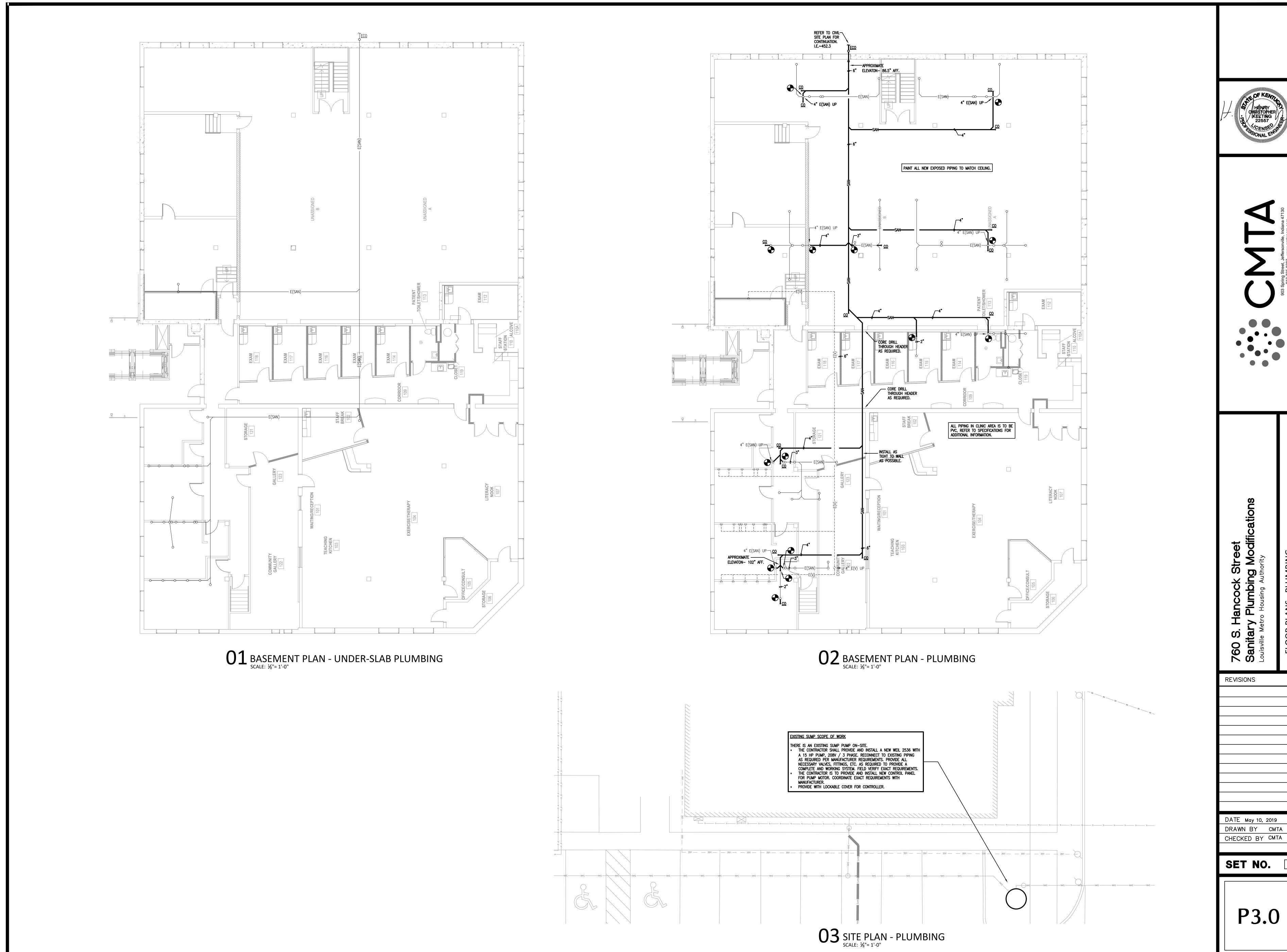
DATE May 10, 2019

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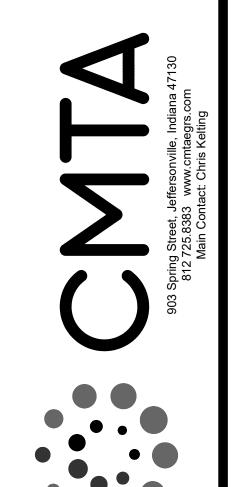
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CONSTRUCTION DOCUMENTS

B. DRAWINGS SHALL NOT BE SCALED FOR FINAL DIMENSIONS. THE CONTRACTOR SHALL OBTAIN ALL DIMENSIONS FROM FIELD MEASUREMENTS.

CONTINUOUS. MAXIMUM DOWN TIME SHALL NOT EXCEED 2 HOURS

- C. ALL MATERIALS SHALL BE NEW, BE LISTED FOR THE INTENDED USE AND DISPLAY THE U.L. LABEL, WHEREVER POSSIBLE. ALL EQUIPMENT SHALL BE CONSTRUCTED TO NEMA STANDARDS.
- D. THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES, OBTAINING SLEEVES, TEMPLATES, INSTALLATION GUIDES. NAMEPLATE DATA, ETC., SUFFICIENTLY IN ADVANCE TO AVOID CONFLICTS AND WORK INSTALLED IN ERROR OR IN SPACES REQUIRED BY OTHERS. VERIFY ALL ROUGH-IN LOCATIONS, MOUNTING HEIGHTS, POWER REQUIREMENTS, ETC., WITH SHOP DRAWINGS TO AVOID CONFLICTS. FAILURE TO OBSERVE THESE REQUIREMENTS WILL NOT BE GROUNDS TO REQUEST AN EXTRA TO THE CONTRACT, IN MONEY OR TIME EXTENSION.
- E. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS, FOR EXACT LOCATIONS OF ALL CEILING-MOUNTED DEVICES AND EQUIPMENT.
- F. WHERE WORKING IN OR AROUND OR TYING INTO EXISTING CIRCUITS, EQUIPMENT, FIXTURES, DEVICES, ETC., THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND ASCERTAIN FOR HIMSELF THE SUITABILITY OF ANY INSTALLATION PRIOR TO BIDDING THE WORK. FAILURE TO OBSERVE THIS REQUIREMENT SHALL NOT BE GROUNDS FOR REQUESTING AN EXTRA TO THE CONTRACT IN FUNDS OR TIME OF
- G. REFER TO ALL OTHER DRAWINGS AND SPECIFICATIONS FOR ALL TRADES OF WORK FOR ADDITIONAL INFORMATION. ALL CONTRACT DOCUMENTS ARE INTENDED TO BE COMPLIMENTARY, ONE OF ANOTHER. SEPARATION OF DOCUMENTS INTO VARIOUS DISCIPLINES IS FOR CONVENIENCE ONLY, AND DOES NOT IMPLY ANY SPECIFIC ASSIGNMENTS.

- A. IT IS THE INTENTION OF THESE SPECIFICATIONS AND ALL ASSOCIATED DRAWINGS TO CALL FOR FINISHED WORK, TESTED, AND READY FOR OPERATION. WHEREVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN "FURNISH AND INSTALL COMPLETE AND READY FOR USE."
- B. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED. BUT NECESSARY FOR THE PROPER INSTALLATION AND OPERATION, SHALL BE INCLUDED IN THE WORK, THE SAME AS IF HEREIN SPECIFIED OR SHOWN.

## 3. <u>DRAWINGS AND SPECIFICATIONS</u>

- A. THE DRAWINGS ARE DIAGRAMMATIC ONLY AND INDICATE THE GENERAL ARRANGEMENT OF THE SYSTEMS AND ARE TO BE FOLLOWED INSOFAR AS POSSIBLE, IF DEVIATIONS FROM THE LAYOUTS ARE NECESSITATED BY FIELD CONDITIONS. DETAILED LAYOUTS OF THE PROPOSED DEPARTURES SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR APPROVAL BEFORE PROCEEDING WITH THE WORK. THE CONTRACT DRAWINGS ARE NOT INTENDED TO SHOW EVERY VERTICAL OR HORIZONTAL OFFSET WHICH MAY BE NECESSARY TO COMPLETE THE SYSTEMS. CONTRACTORS SHALL ANTICIPATE THAT ADDITIONAL OFFSETS MAY BE REQUIRED AND SUBMIT THEIR BID ACCORDINGLY.
- B. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT EACH OTHER. NO CONTRACTOR OR SUPPLIER SHALL TAKE ADVANTAGE OF CONFLICT BETWEEN THEM. OR BETWEEN PARTS OF EITHER. BUT SHOULD THIS CONDITION EXIST, THE CONTRACTOR OR SUPPLIER SHALL REQUEST A CLARIFICATION OF THE CONDITION AT LEAST TEN (10) DAYS PRIOR TO THE SUBMISSION OF BIDS SO THAT THE CONDITION MAY BE CLARIFIED BY ADDENDUM. IN THE EVENT THAT SUCH A CONDITION ARISES AFTER WORK IS STARTED. THE INTERPRETATION OF THE ENGINEER SHALL BE THE DETERMINING FACTOR, AND THE CONTRACT TO ACCOMPLISH THE WORK SHALL BE BINDING ON THE CONTRACTOR.
- C. THE DRAWINGS AND SPECIFICATIONS SHALL BE CONSIDERED TO BE COOPERATIVE AND ANYTHING APPEARING IN THE SPECIFICATIONS WHICH MAY NOT BE INDICATED ON THE DRAWINGS OR CONVERSELY, SHALL BE CONSIDERED AS PART OF THE CONTRACT AND MUST BE EXECUTED THE SAME AS THOUGH INDICATED BY BOTH.
- D. SHOULD OVERLAP OF WORK BETWEEN THE VARIOUS TRADES BECOME EVIDENT. THIS SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER. IN SUCH EVENT NEITHER TRADE SHALL ASSUME THAT HE IS TO BE RELIEVED OF THE WORK WHICH IS SPECIFIED UNDER HIS BRANCH UNTIL INSTRUCTIONS IN WRITING ARE RECEIVED FROM THE ENGINEER.
- E. LOCATION, MATERIAL TYPES, ETC., INDICATED ON THIS DRAWING WERE TAKEN FROM VARIOUS SOURCES, NONE OF WHICH WERE INDICATED "AS-BUILT." AND ALL ARE SUBJECT TO EXTENSIVE VARIATION AS TO LOCATIONS, SIZE, MATERIALS, ETC. ALSO, CERTAIN EXISTING ELEMENTS MAY NOT BE INDICATED. CONSEQUENTLY, ALL CONTRACTORS SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS TO INSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO ELECTRICAL LINES. ALL WORK SHALL BE PERFORMED IN ACCORD WITH ALL FEDERAL, STATE AND/OR LOCAL RULES, REGULATIONS, STANDARDS AND SAFETY REQUIREMENTS. UTILITIES SHALL ALSO BE INSTALLED IN ACCORD WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY.
- F. WHERE THE INSTALLATION OF CONDUIT, AND DUCTS IN WALLS, FLOORS, OR PARTITIONS REQUIRE THE REMOVAL OF ANY FIRESTOPPING OR PENETRATIONS OF SMOKE OR FIRE RATED WALLS, CEILINGS, FLOORS, ETC.. THE SPACE AROUND SUCH CONDUIT. DUCTS AND PIPING SHALL BE TREATED WITH A U.L. LISTED FIRESTOP SYSTEM IN ORDER TO MAINTAIN THE INTEGRITY OF THE FIRE RATING.
- G. THE CONTRACTOR SHALL INFORM HIMSELF OF ALL OF THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED, THE SITE OF THE WORK, THE STRUCTURE OF THE GROUND, THE OBSTACLES THAT MAY BE ENCOUNTERED, THE AVAILABILITY AND LOCATION OF NECESSARY FACILITIES AND ALL RELEVANT MATTERS CONCERNING THE WORK. THE CONTRACTOR SHALL CAREFULLY EXAMINE ALL DRAWINGS AND SPECIFICATIONS AND DETERMINE THE KIND AND TYPE OF MATERIALS TO BE USED THROUGHOUT THE PROJECT AND WHICH MAY, IN ANY WAY, AFFECT THE EXECUTION OF HIS WORK. THE CONTRACTOR SHALL FULLY ACQUAINT HIMSELF WITH ALL EXISTING CONDITIONS AS TO INGRESS AND EGRESS, DISTANCE OF HAUL FROM SUPPLY POINTS, ROUTES FOR TRANSPORTATION OF MATERIALS. FACILITIES AND SERVICES. AVAILABILITY OF UTILITIES, ETC. HIS PROPOSAL SHALL COVER ALL EXPENSES OR DISBURSEMENTS IN CONNECTION WITH SUCH MATTERS AND CONDITIONS. THE CONTRACTOR SHALL VERIFY ALL WORK SHOWN ON THE DRAWINGS AND CONDITIONS AT THE SITE, AND SHALL REPORT IMMEDIATELY TO THE ENGINEER TEN DAYS (10) PRIOR TO BIDDING. ANY DISCREPANCIES WHICH MAY APPEAR IN ORDER THAT MISUNDERSTANDING AT A LATER DATE MAY BE PREVENTED. NO ALLOWANCE IS TO BE MADE FOR LACK OF KNOWLEDGE CONCERNING SUCH CONDITIONS AFTER BIDS ARE ACCEPTED.
- H. THE CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT. APPARATUS. MATERIALS. AND WORKMANSHIP ENTERING INTO THIS CONTRACT TO THE BEST OF ITS RESPECTIVE KIND AND SHALL REPLACE ALL PARTS AT HIS OWN EXPENSE, WHICH ARE PROVEN DEFECTIVE WITHIN ONE (1) YEAR FROM FINAL ACCEPTANCE OF THE WORK BY THE ENGINEER. THE EFFECTIVE DATE OF COMPLETION OF THE WORK SHALL BE THE DATE OF THE ENGINEER'S STATEMENT OF SUBSTANTIAL COMPLETION. THE CONTRACTOR SHALL PRESENT THE ENGINEER WITH SUCH WARRANTIES AND GUARANTEES AT THE TIME OF FINAL ACCEPTANCE OF THE WORK. THE ENGINEER SHALL THEN SUBMIT THESE WARRANTIES, ETC. TO THE OWNER. THE OWNER RESERVES THE RIGHT TO USE EQUIPMENT INSTALLED BY THE CONTRACTOR PRIOR TO DATE OF FINAL ACCEPTANCE. SUCH USE OF EQUIPMENT SHALL, IN NO WAY, INVALIDATE THE GUARANTEE EXCEPT THAT OWNER SHALL BE LIABLE FOR ANY DAMAGE TO EQUIPMENT DURING THIS PERIOD, DUE TO NEGLIGENCE OF THE OPERATOR OR OTHER EMPLOYEES.
- I. PATCHING AND REPAIRING MADE NECESSARY BY WORK PERFORMED UNDER THIS CONTRACT SHALL BE INCLUDED AS A PART OF THE WORK AND SHALL BE DONE BY SKILLED MECHANICS OF THE TRADE OR TRADES FOR WORK CUT OR DAMAGED. ALL WORK SHALL MATCH ADJACENT SURFACES IN A MANNER ACCEPTABLE TO THE ENGINEER.

- CODES, RULES, PERMITS, FEES, REGULATIONS, ETC.
- A. THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN AND PAY FOR ALL PERMITS, GOVERNMENT SALES TAXES, FEES, AND OTHER COSTS INCLUDING UTILITY CONNECTIONS OR EXTENSIONS, IN CONNECTION WITH HIS WORK; FILE ALL NECESSARY PLANS, PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION; OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK AND DELIVER SAME TO THE ENGINEER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK. IGNORANCE OF CODES, RULES, REGULATIONS, LAWS, ETC., SHALL NOT RENDER THE ELECTRICAL CONTRACTOR IRRESPONSIBLE FOR COMPLIANCE.
- B. ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL COMPLY WITH THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODES. NATIONAL FIRE CODES OF THE NATIONAL FIRE PROTECTION ASSOCIATION, THE REQUIREMENTS OF LOCAL UTILITY COMPANIES, AND WITH THE REQUIREMENTS OF ALL GOVERNMENTAL DEPARTMENTS HAVING
- C. ALL WORK IS TO BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH PLANS AND SPECIFICATIONS WHICH HAVE BEEN APPROVED IN THEIR ENTIRETY AND/OR REFLECT ANY CHANGES REQUESTED BY THE STATE FIRE MARSHAL. WORK SHALL NOT COMMENCE UNTIL SUCH PLANS ARE IN THE HANDS OF THE CONTRACTOR.
- D. THE CONTRACTOR SHALL INSURE THAT HIS WORK IS ACCOMPLISHED IN ACCORD WITH OSHA STANDARDS.
- E. WHERE CONFLICT ARISES BETWEEN ANY CODE AND THE PLANS AND/OR SPECIFICATIONS, THE CODE SHALL APPLY EXCEPT IN THE INSTANCE WHERE THE PLANS AND SPECIFICATIONS EXCEED THE REQUIREMENTS OF THE CODE. ANY CHANGES REQUIRED AS A RESULT OF THESE CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO BID DATE, OTHERWISE THE CONTRACTOR SHALL MAKE THE REQUIRED CHANGES AT HIS OWN EXPENSE. THE PROVISIONS OF THE CODES CONSTITUTE MINIMUM STANDARDS FOR WIRING METHODS, MATERIALS, EQUIPMENT AND CONSTRUCTION AND COMPLIANCE THEREWITH WILL B REQUIRED FOR ALL ELECTRICAL WORK, EXCEPT WHERE THE DRAWINGS AND SPECIFICATIONS REQUIRE BETTER MATERIALS, EQUIPMENT, AND CONSTRUCTION THAN THESE MINIMUM STANDARDS, IN WHICH CASE THE DRAWINGS AND SPECIFICATIONS SHALL BE THE MINIMUM STANDARDS.

## 5. <u>MATERIALS AND WORKMANSHIP</u>

- A. ALL CONDUIT AND/OR CONDUCTORS SHALL BE CONCEALED IN WALLS, CEILINGS OR FLOORS UNLESS OTHERWISE NOTED. ALL FIXTURES AND WIRING COVERED IN THIS SECTION SHALL BE INSTALLED TO MAKE UP COMPLETE SYSTEMS AS INDICATED ON THE DRAWINGS AND SPECIFIED
- B. ALL MATERIALS, WHERE APPLICABLE, SHALL BEAR UNDERWRITERS' LABORATORIES LABEL WHERE SUCH A STANDARD HAS BEEN
- C. EACH LENGTH OF CONDUIT, WIREWAY, DUCT, CONDUCTOR, CABLE, FITTING, FIXTURE AND DEVICE USED IN THE ELECTRICAL SYSTEMS SHALL BE STAMPED OR INDELIBLY MARKED WITH THE MANUFACTURER'S MARK
- D. ALL EQUIPMENT SHALL BEAR THE MANUFACTURER'S NAME AND ADDRESS AND SHALL INDICATE ITS ELECTRICAL CAPACITY AND CHARACTERISTICS.
- E. ALL MATERIALS, EQUIPMENT AND APPLIANCES SHALL CONFORM TO THE LATEST STANDARDS OF THE NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION (NEMA) AND THE NATIONAL BOARD OF FIRE UNDERWRITERS (NBFU) AND SHALL BE APPROVED BY THE OWNER'S INSURING AGENCY IF SO REQUIRED.

## 7. FINAL CONNECTIONS TO EQUIPMENT

A. THE ROUGHING-IN AND FINAL CONNECTIONS TO ALL ELECTRICALLY OPERATED EQUIPMENT FURNISHED UNDER THIS AND ALL OTHER SECTIONS OF THESE SPECIFICATIONS, OR BY OTHERS, SHALL BE INCLUDED IN THE CONTRACT AND CONSISTS OF FURNISHING ALL LABOR AND MATERIALS FOR CONNECTION.

A. THE CONTRACTOR SHALL, AT ALL TIMES, KEEP THE AREA OF HIS WORK PRESENTABLE TO THE PUBLIC AND CLEAN OF RUBBISH CAUSED BY HIS OPERATIONS: AND AT THE COMPLETION OF THE WORK, SHALL REMOVE ALL RUBBISH, ALL OF HIS TOOLS, EQUIPMENT, TEMPORARY WORK AND SURPLUS MATERIALS, FROM AND ABOUT THE PREMISES, AND SHALL LEAVE THE WORK CLEAN AND READY FOR USE. IF THE CONTRACTOR DOES NOT ATTEND TO SUCH CLEANING IMMEDIATELY UPON REQUEST, THE ENGINEER MAY CAUSE CLEANING TO BE DONE BY OTHERS AND CHARGE THE COST OF SAME TO THE RESPONSIBLE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE OR ALL DAMAGE FROM FIRE WHICH ORIGINATES IN, OR IS PROPOGATED BY, ACCUMULATIONS OF HIS RUBBISH OR DEBRIS.

# 10. <u>IDENTIFICATIONS</u>

- A. PROVIDE PANELS, DISCONNECTS, DISTRIBUTION EQUIPMENT, MOTOR STARTERS, ETC. WITH ENGRAVED LAMACOID PLATE INDICATING EQUIPMENT NAME, PANEL AND CIRCUIT SERVED FROM, LOCATION OF PANEL SERVED FROM, WIRE AND CIRCUIT BREAKER SIZE FOR CIRCUIT SERVED FROM, VOLTAGE AND PHASE, BRANCH OF EMERGENCY POWER IF APPLICABLE. PLATE TO BE RED FOR EMERGENCY, BLACK FOR NORMAL POWER. 1/2" WHITE LETTERING.
- B. MARK INSIDES OF WALL AND CEILING BOXES WITH PANEL AND CIRCUIT
- C. PROVIDE NEW TYPE WRITTEN PANEL SCHEDULE IN PLASTIC SLEEVE FOR ALL NEW AND EXISTING PANELS AFFECTED. SCHEDULES MUST INDICATED EXACT AREAS AND EQUIPMENT SERVED USING OWNER'S ACTUAL ROOM NUMBERS/NAMES, NOT NUMBERS/NAMES ON PLANS.
- D. ALL IDENTIFICATIONS SHALL BE CONSISTENT WITH THE OWNER'S STANDARD PRACTICES, ESPECIALLY WITHIN EXISTING FACILITIES. WHERE THE REQUIREMENTS HERE-IN ARE IN CONFLICT WITH SUCH STANDARD PRACTICES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING PRIOR TO ORDERING ANY MATERIAL FOR CLARIFICATION.

# 11. <u>Warranties</u>

A. THE CONTRACTOR SHALL GUARANTEE HIS WORK UNCONDITIONALLY IN WRITING TO THE OWNER FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY THE ARCHITECT AND/OR THE ENGINEER.

# 12. <u>COORDINATION WITH OWNER</u>

A. THE CONTRACTOR SHALL COORDINATE ALL HIS WORK WITH THE OWNER WHERE ROUTING CONDUIT OR WIRE THRU THE EXISTING BUILDING OR TYING INTO EXISTING DISTRIBUTION EQUIPMENT. PROVIDE 48 HOUR NOTICE TO OWNER IN ADVANCE OF INTERRUPTING ANY SERVICES -WORK CONTINUOUSLY TO RESTORE SERVICE AFTER INTERRUPTION OCCURS.

# 13. <u>INDEMNIFICATION</u>

A. THE CONTRACTOR SHALL HOLD HARMLESS AND INDEMNIFY THE ENGINEER, EMPLOYEES, OFFICERS, AGENTS AND CONSULTANTS FROM ALL CLAIMS, LOSS, DAMAGE, ACTIONS, CAUSES OF ACTIONS, EXPENSE AND/OR LIABILITY RESULTING FROM, BROUGHT FOR, OR ON ACCOUNT OF ANY PERSONAL INJURY OR PROPERTY DAMAGE RECEIVED OR SUSTAINED BY ANY PERSON, PERSONS, (INCLUDING THIRD PARTIES), OR ANY PROPERTY GROWING OUT OF, OCCURRING, OR ATTRIBUTABLE TO ANY WORK PERFORMED UNDER OR RELATED TO THIS CONTRACT, RESULTING IN WHOLE OR IN PART FROM THE NEGLIGENCE OF THE CONTRACTOR, ANY SUBCONTRACTOR, ANY EMPLOYEE, AGENT OR REPRESENTATIVE.

# 15. <u>METHODS AND MATERIALS</u>

# A. <u>GROUNDING</u>

A.A. ALL METALLIC CONDUIT. CABINETS. EQUIPMENT AND SERVICES SHALL BE BONDED/GROUNDED IN ACCORDANCE WITH THE LATEST ISSUE OF THE N.E.C., AND/OR AS SPECIFIED HEREIN. PROVIDE SEPARATE GREEN EQUIPMENT GROUND FOR EACH CIRCUIT. BOND SYSTEMS TOGETHER AND WITH BUILDING GROUND AS NEEDED, AND IN ACCORD WITH N.E.C.

## B. <u>CONDUIT</u>

B.F. FLEXIBLE METAL CONDUIT

B.A. ALL CONDUIT SHALL BE 3/4" MINIMUM UNLESS OTHERWISE NOTED OR REQUIRED BY THE NATIONAL ELECTRICAL CODE. B.B. TYPES OF CONDUITS REQUIRED ARE AS FOLLOWS: B.C. STEEL ELECTRICAL METALLIC TUBING. (E.M.T.) B.D. RIGID STEEL CONDUIT. (G.R.S.) B.E. RIGID NONMETALLIC CONDUIT. (P.V.C.)

- B.G. STEEL ELECTRICAL METALLIC TUBING (EMT) OF CORROSION-RESISTANT STEEL CONSTRUCTION SHALL BE PERMITTED FOR CONCEALED OR EXPOSED INSTALLATION IN DRY INTERIOR LOCATIONS. ELECTRICAL METALLIC TUBING SHALL NOT BE USED IN CONCRETE SLABS OR WHERE SUBJECT TO PHYSICAL DAMAGE.
- B.H. RIGID GALVANIZED STEEL CONDUIT SHALL BE USED WHERE SUBJECT TO PHYSICAL DAMAGE, WHERE EXPOSED ON THE EXTERIOR OR FOR OVER 600V WIRING.
- B.I. RIGID NON-METALLIC CONDUIT SHALL BE CONSTRUCTED OF P.V.C., NOMINALLY SCHEDULE 40 SHALL BE USED AS REQUIRED FOR EXTERIOR UNDERGROUND WORK AND FOR INTERIOR UNDER-SLAB CONDUITS. IT MAY NOT BE USED FOR FEEDERS OR BRANCH CIRCUITS IN HEALTHCARE FACILITIES.
- B.J. FLEXIBLE METAL CONDUIT SHALL BE STEEL, 3/4" MINIMUM, NOT USED IN LENGTHS OVER SIX FEET AND USED ONLY FOR LIGHT FIXTURES WHIPS AND CONNECTIONS TO EQUIPMENT SUBJECT TO VIBRATION.

## C. <u>CONDUIT FITTINGS</u>

- C.A. RIGID CONDUIT FITTINGS SHALL BE OF GRAY IRON, MALLEABLE IRON OR CAST ALUMINUM. ALL COVER PLATES SHALL BE GASKETED WITH NEOPRENE, RATED FOR THE ENVIRONMENT.
- C.B. EMT CONDUIT FITTINGS SHALL BE OF THE COMPRESSION TYPE. ALL EMT CONNECTORS AND COUPLINGS SHALL BE OF FORMED STEEL CONSTRUCTION.
- C.C. RIGID CONDUIT FITTINGS SHALL BE GALVANIZED, TAPERED THREADS WITH ALL BURRS REMOVED, ENDS REAMED AND CUTTING OIL WIPED
- C.D. CONDUIT BODIES, JUNCTION BOXES AND FITTINGS SHALL BE DUST TIGHT AND THREADED FOR DUSTY AREAS. WEATHERPROOF FOR EXTERIOR LOCATIONS, VAPOR TIGHT FOR DAMP AREAS. CONDUIT FITTINGS SHALL BE AS MANUFACTURED BY C-H, APPLETON, KILLARK OR APPROVED EQUIVALENT. ALL SURFACE MOUNTED CONDUIT FITTINGS (AS WITH "FS", "FD", "GUB". TYPES) SHALL BE PROVIDED WITH MOUNTING HUBS.

- D.A. CONDUCTORS SHALL BE COPPER WITH THWN 600 VOLT INSULATION. ALL CONDUCTORS SHALL BE AWG MINIMUM #12 UNLESS OTHERWISE NOTED. ALL CONDUCTORS SHALL BE U.L. LISTED, AND MANUFACTURED BY ROME, CABELEC, G.E., GENERAL CABLE, OR EQUIVALENT. OBSERVE MINIMUM BENDING RADII IN INSTALLATION. ALL CONDUCTORS SHALL BE ENCLOSED IN METAL CONDUIT.
- D.B. CONDUCTORS #10 A.W.G. AND SMALLER SHALL BE SOLID # A.W.G. AND LARGER SHALL BE STRANDED. ALL WIRING SHALL BE COLOR - CODED PER THE NATIONAL ELECTRIC CODE. USE MECHANICAL CONNECTORS SUCH AS "SCOTCH LOK," T&B, IDEAL OR EQUIVALENT, SIZED FOR THE USE INTENDED.
- D.C. MC CABLE WILL NOT BE ALLOWED.

# E. <u>DISCONNECT SWITCHES AND FUSES</u>

- E.A. DISCONNECT SWITCHES SHALL BE NEMA RATED FOR THE ENVIRONMENT, QUICK-MAKE, QUICK-BREAK, HEAVY DUTY OR BETTER, FUSED OR UNFUSED AS NOTED ON THE DRAWINGS. ALL SWITCHES SHALL BE FURNISHED WITH PAD LOCKING PROVISIONS. SUPPORT SWITCHES FROM STRUCTURE AS REQUIRED, AND MAINTAIN CODE REQUIRED CLEARANCES. PROVIDE CORROSION-RESISTANT FRAMING TO MOUNT AS NEEDED. USE 600V RATING FOR 480 VOLT SERVICES.
- E.B. ALL FUSES SHALL BE CURRENT LIMITING. DUAL ELEMENT AND SHALL BE U.L. CLASS RK1 FOR CIRCUIT BREAKER PANELBOARD PROTECTION.

# F. <u>CIRCUIT BREAKERS</u>

F.A. ALL EQUIPMENT SHALL BE RATED FOR ACTUAL AVAILABLE FAULT CURRENTS. NEW BREAKERS IN EXISTING EQUIPMENT SHALL MATCH EXISTING EQUIPMENT AIC RATING.

# 16. <u>DEMOLITION AND SALVAGE</u>

- L. IT IS THE INTENT OF THIS SECTION TO COMPLETELY REMOVE ALL COMPONENTS OF ANY EXISTING ELECTRICAL SYSTEM THAT WILL BE OPEN TO VIEW IN, OR WILL INTERFERE WITH THE OPERATIONS OF THE COMPLETED BUILDING, OR WHICH WILL, IN ANY WAY, INTERFERE WITH PROJECT CONSTRUCTION. COMPONENTS OF THE EXISTING ELECTRICAL SYSTEMS WHICH DO NOT MEET THE ABOVE CRITERIA, MAY BE ABANDONED IN PLACE IN A SAFE, WORKMANLIKE, CODE APPROVED MANNER. COMPONENTS OF ELECTRICAL SYSTEMS TO REMAIN ARE IDENTIFIED ON THE PLANS.
- L.A. CAREFULLY PROTECT ALL OCCUPIED OR IN-USE AREAS DURING ELECTRICAL DEMOLITION WORK. MAINTAIN ALL DOWNSTREAM POWER OR COMMUNICATIONS CIRCUITS TO OCCUPIED AREAS IN OPERATION BY TEMPORARY OR PERMANENT WIRING, INSTALLED AS NEEDED TO KEEP CIRCUITS OPERATIONAL. FIELD VERIFY ALL SUCH CIRCUITS, EQUIPMENT, LIGHTING, ETC.
- L.B. THIS CONTRACTOR SHALL REPAIR OR REPLACE ANY SURFACES, STRUCTURE, FINISHES, CEILING GRIDS, ETC., THAT MAY BE

DAMAGED BY HIS DEMOLITION OPERATIONS.

- L.C. LIMIT EXTENT OF DEMOLITION WORK TO MINIMIZE PATCHING AND REPAIR WORK NEEDED.
- M. IT IS THE INTENT OF THIS SECTION TO DELIVER TO THE OWNER ALL COMPONENTS OF ANY ELECTRICAL SYSTEM WHICH MAY BE ECONOMICALLY REUSED BY HIM. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO REMOVE REUSABLE COMPONENTS WITHOUT DAMAGE.
- M.A. COMPONENTS TO BE DELIVERED TO THE OWNER SHALL BE SPECIFICALLY IDENTIFIED BY THE OWNERS REPRESENTATIVE PRIOR TO BEGINNING THE DEMOLITION. OTHER ITEMS BECOME THE PROPERTY OF THE CONTRACTOR.

## GENERAL NOTES (LEGEND):

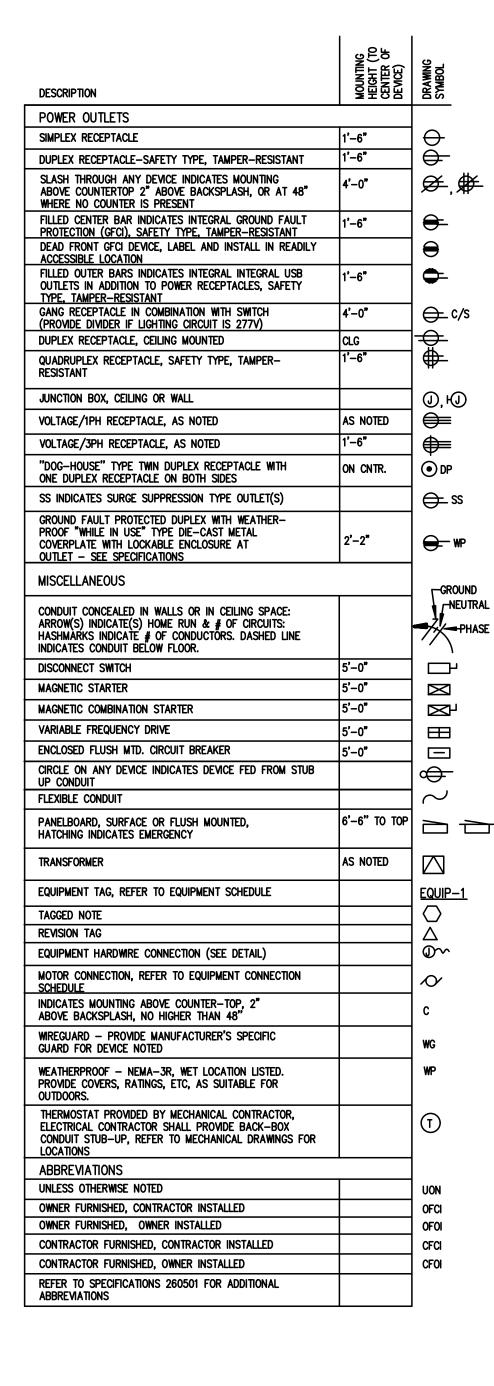
- A. ADDITIONAL ELECTRICAL REQUIREMENTS MAY BE SHOWN ON PLANS FROM OTHER DISCIPLINES IN THIS SET. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL PLANS AND SPECIFICATIONS FOR A COMPLETE UNDERSTANDING OF THE PROJECT REQUIREMENTS. B. WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ALL LOCAL, STATE, AND NATIONAL CODES. INCLUDING BUT NOT LIMITED TO NFPA 70 (NEC), NFPA 72, CONTRACTOR SHALL FOLLOW SEISMIC RESTRAINT AND DESIGN REQUIREMENTS CONTAINED IN LATEST ADOPTED STATE AND INTERNATIONAL BUILDING CODES, WITH ALL AMENDMENTS AS ADOPTED BY THE CURRENT LEGISLATION. REFER TO ELECTRICAL AND STRUCTURAL SPECIFICATIONS FOR ADDITIONAL INFORMATION. D. ALL OFFSETS, TURNS, FITTINGS, TRIM, DETAIL, ETC. MAY NOT BE INDICATED, BUT SHALL BE PROVIDED AS REQUIRED. ADDITIONAL ALLOWANCES SHALL BE INCLUDED FOR INSTALL NO PIPING, CONDUIT, DUCTWORK, ETC. IN A LOCATION OR IN A MANNER WHICH WILL ALLOW FREEZING OR THE COLLECTION OF CONDENSATION THEREON. IF IN DOUBT, CONTACT THE ENGINEER.
- ADVISE THE ENGINEER OF ANY CONFLICTS, ERRORS, OMISSIONS, ETC. AT LEAST TEN DAYS PRIOR TO BID DATE, TO ALLOW CLARIFICATION BY WRITTEN ADDENDUM. WHERE CONFLICTS ARE FOUND BETWEEN DRAWINGS, DETAILS, OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY. NOTIFY ARCHITECT OF DISCREPANCY IN WRITING H. DEVIATION FROM SPECIFICATIONS OR PLANS REQUIRES PRIOR WRITTEN APPROVAL FROM THE ENGINEERS AND MUST BE SUBMITTED IN WRITING NO LATER THAN TEN OBSERVE ALL APPLICABLE CODES, RULES AND REGULATIONS THAT MAY APPLY TO THE WORK UNDER THIS CONTRACT. (CITY, COUNTY, LOCAL, STATE, FEDERAL,
- MUNICIPALITY, UTILITY COMPANY, OSHA, ETC.). MOUNTING HEIGHTS FOR WALL MOUNTED DEVICES INDICATED ABOVE FINISHED FLOOR ARE TO CENTER OF DEVICE UON. MOUNTING HEIGHTS TO CEILING SUSPENDED DEVICES ARE TO BOTTOM OF DEVICE UON. INSTALL EQUIPMENT, MATERIALS, ETC. IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND DIRECTIONS. IF IN CONFLICT WITH THE DESIGN INDICATED IN CONTRACT DOCUMENTS, ADVISE THE ENGINEER PRIOR TO INSTALLATION FOR CLARIFICATION. DO NOT RECESS PANELBOARD TUBS OR OTHER FLUSH-MOUNTED EQUIPMENT IN WALLS THAT HAVE A FIRE RATING. NO INSTALLATION SHALL DIMINISH OR VOID FIRE
- M. THE PURPOSE AND INTENT OF ALL OF THE DOCUMENTS PERTAINING TO THIS PROJECT IS TO PROVIDE A COMPLETE, FUNCTIONAL, SAFE, LIKE-NEW FACILITY. ANYTHING LESS SHALL BE UNACCEPTABLE N. ALL SYSTEMS, EQUIPMENT AND MATERIALS ARE TO BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. WORK NOT MEETING THIS CRITERION SHALL BE REMOVED and reinstalled satisfactorily. Final determination of the acceptability of the quality of work resides with the engineer O. ALL WORK, MATERIALS, EQUIPMENT, ETC. SHALL BE FULLY GUARANTEED FOR ONE FULL CALENDAR YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION AS DOCUMENTED BY THE ENGINEER, UNLESS LONGER WARRANTY PERIODS FOR EQUIPMENT ARE SPECIFIED.
- P. UNLESS OTHERWISE SPECIFIED OR INDICATED, ALL EQUIPMENT AND/OR MATERIALS WITHIN OCCUPIED SPACES OR EXPOSED TO VIEW ON THE BUILDING EXTERIOR SHALL BE PRIMED AND FINISHED SO AS TO COMPLEMENT ADJACENT SURFACE, UNLESS OTHERWISE NOTED, COORDINATE WORK AND COLORS WITH ARCHITEC' WHERE PENETRATING ROOFING MEMBRANE OR OTHER MATERIALS USED FOR WEATHERPROOFING THE BUILDING, MAKE SUCH PENETRATION IN A WAY THAT WILL NOT VOID OR DIMINISH THE ROOFING WARRANTY OR INTEGRITY IN ANYWAY. COORDINATE ALL SUCH PENETRATIONS WITH THE ROOFING MANUFACTURER AND ARCHITECT. R. ANY VIBRATING, OSCILLATING OR OTHER NOISE OR MOTION PRODUCING EQUIPMENT SHALL BE ISOLATED FROM SURROUNDING SYSTEMS IN AN APPROVED MANNER. NOISY OR STRUCTURALLY DAMAGING INSTALLATIONS SHALL BE SATISFACTORILY REPLACED OR REPAIRED AT THE INSTALLING CONTRACTORS' EXPENSE. THE FINAL DECISION ON THE SUITABILITY OF A PARTICULAR INSTALLATION'S ACCEPTABILITY SHALL BE THAT OF THE ENGINEER.
- CHECK ALL THREE PHASE MOTORS WITH A PHASE ROTATION METER, PRIOR TO PLACING IN SERVICE. PROVIDE DETAILED SHOP DRAWINGS TO ENGINEER PRIOR TO PURCHASING OR INSTALLING ANY EQUIPMEN DEVIATIONS IN SIZES, CAPACITIES, FIT. FINISH, ETC. FOR EQUIPMENT FROM THAT PRIME SPECIFIED SHALL BE THE RESPONSIBILITY OF THE PURCHASER OF THAT
- EQUIPMENT. ANY PROVISIONS REQUIRED TO ACCOMMODATE A DEVIATION, WHETHER APPROVED BY THE ENGINEER OR NOT, SHALL BE THE RESPONSIBILITY OF THE V. THE CONSTRUCTION MANAGER, GENERAL CONTRACTOR, OR WHOMEVER HOLDS THE PRIME CONTRACT(S) FOR THIS CONSTRUCTION IS RESPONSIBLE FOR THE COORDINATION, APPEARANCE, SCHEDULING AND TIMELINESS OF THE WORK OF ALL TRADES, CONTRACTORS, SUPPLIERS, INSTALLERS, ETC. POOR OR UNTIMELY WORK ON THE PART OF ANY SUBCONTRACTOR SHALL BE RESOLVED BY THE PARTY WHO ENGAGED THEM ON THIS PROJECT.
- W. WHERE MOUNTING HEIGHTS ARE NOT INDICATED OR ARE IN CONFLICT WITH ANY OTHER BUILDING SYSTEM, CONTACT THE ENGINEER BEFORE AFFECTING INSTALLATION. REFER ALSO TO ARCHITECTURAL INTERIOR AND EXTERIOR ELEVATIONS, CEILING HEIGHTS AND OTHER DETAILS OF THESE DOCUMENTS, AS APPLICABLE. WHERE FIRE-RATED CEILING ASSEMBLIES ARE NOTED, PROVIDE UL-LISTED FIRE-RATED GYPSUM BOARD OR PRE-MANUFACTURED ENCLOSURES ABOVE LUMINAIRES, CEILING DEVICES, ETC. IN OR ON CEILING, AS REQUIRED TO MAINTAIN CEILING RATINGS COORDINATE THE LOCATION OF DRAINS, ELECTRICAL OUTLETS, GAS OUTLETS, ETC. WITH ALL CASEWORK, KITCHEN EQUIPMENT, MECHANICAL ROOM EQUIPMENT, ETC.
- PRIOR TO COMMENCING INSTALLATION. WORK NOT SO COORDINATED SHALL BE REMOVED AND PROPERLY INSTALLED AT THE EXPENSE OF THE RESPONSIBLE Z. ALL ELECTRICAL COMPONENTS OR EQUIPMENT SHALL BE LISTED AND LABELED BY UNDERWRITER'S LABORATORIES OR OTHER APPROVED LISTING AGENCY. APPROVA AND LABELING OF INDIVIDUAL COMPONENTS ON AN ASSEMBLY IS NOT ACCEPTABLE AS MEETING THIS REQUIREMENT, UNLESS WAIVED BY THE ENGINEER IN WRITING
- AA. ALL WIRING SYSTEMS SHALL BE INSTALLED WITH A MINIMUM OF SPLICES. CONDUCTORS, WHETHER SINGLE OR MULTI-PAIR, SHALL BE INSTALLED CONTINUOUS INSOFAF AS POSSIBLE FROM TERMINAL POINT TO TERMINAL POINT. AB. NO CONDUIT, SUPPORTS, ETC. SHALL BE RUN THROUGH ACCESS CLEARANCES OF EQUIPMENT BY OTHER TRADES (I.E. VAV BOXES). COORDINATE WITH ALL TRADES PRIOR TO CONSTRUCTION. AC. ALL CONTRACTORS SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS TO ENSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE ( SUB-SERVICE FOR SAFETY PURPOSES. PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. VERIFY THE LOCATION, SIZE, TYPE, ETC. OF EACH UNDERGROUND OR OVERHEAD UTILITY. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL FEDERAL, STATE AND/OR LOCAL RULES,
- REGULATIONS, STANDARD AND SAFETY REQUIREMENTS. UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY. AD. ALL SUPPORTS FOR EQUIPMENT, DEVICES OR FIXTURES SHALL BE UNIQUE, DIRECTLY FROM THE BUILDING STRUCTURE. DO NOT SUPPORT WORK FROM OTHER TRADES EQUIPMENT OR SUPPORTS WITHOUT WRITTEN PERMISSION FROM THE ENGINEER AND CONSENT OF THE OTHER TRADE, IN WRITING. . AE. WHERE INTERRUPTING AN EXISTING UTILITY OR SERVICE DELIBERATELY OR ACCIDENTALLY, THE RESPONSIBLE CONTRACTOR SHALL WORK CONTINUOUSLY AS NEEDED TO RESTORE SAME. PROVIDING PREMIUM TIME AS NEEDED.
- AF. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR HIS WORK. ALL CUTTING AND PATCHING SHALL BE IN ACCORDANCE WITH AG. ALL WORK SHALL BE CONCEALED UNLESS SPECIFICALLY INDICATED TO BE EXPOSED, OR REQUIRED TO BE EXPOSED. IF IN DOUBT, CONTACT THE ENGINEER FOR
- CLARIFICATIONS PRIOR TO INSTALLING ANY SUCH WORK. AH. WHERE BACKBOXES ARE LOCATED IN THE SAME VERTICAL CHANNEL/STUD SPACE ON OPPOSITE SIDES OF THE SAME WALL, PROVIDE SOUND-INSULATING PUTTY AROUND BOXES AS REQUIRED TO ELIMINATE SOUND TRANSMISSION FROM ROOM TO ROOM.
- JUNCTION BOXES LOCATED ABOVE ACCESSIBLE CEILINGS SHALL BE LOCATED NO MORE THAN 36 "ABOVE CEILING LEVEL. LABEL EACH BOX IN AREA OF WORK WITH A PERMANENT MARKER OR IN ACCORDANCE WITH SPECIFICATIONS, WHICHEVER IS MORE STRINGENT. AJ. ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL COMPLY WITH THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODES, NATIONAL FIRE CODES OF
- IE NATIONAL FIRE PROTECTION ASSOCIATION, THE REQUIREMENTS OF LOCAL UTILITY COMPANIES, AND WITH THE REQUIREMENTS OF ALL GOVERNMENTAL AGENCIES OR DEPARTMENTS HAVING JURISDICTION. IF ANY CONFLICTS OR DISCREPANCIES OCCUR THE MOST STRINGENT SHALL APPLY. AK. DO NOT SCALE FROM DRAWINGS, AS PRINTING DISTORTS SCALE. WORK SHALL BE LAID OUT FROM DIMENSIONED DRAWINGS, OR DIMENSIONS SUPPLIED TO THE
- AL. NOISY WORK, WORK OUTSIDE CONSTRUCTION BARRIERS, WORK IN OCCUPIED AREAS, ETC. SHALL BE PERFORMED AFTER HOURS OR ON WEEKENDS. COORDINATE EXACT SCHEDULING WITH FACILITY PRIOR TO CONSTRUCTION. AM. ALL ITEMS HAVING KEYED LOCKS/OPERATORS SHALL HAVE CORED LOCKS/OPERATORS. ALL KEYING SHALL MATCH THE OWNER'S EXISTING KEY-WAYS. COORDINATE
- EXACT REQUIREMENTS WITH OWNER PRIOR TO CONSTRUCTION. AN. REFER TO ARCHITECTURAL PLANS FOR PHASING REQUIREMENTS. WORK SHALL BE COMPLETED IN PHASES PER THE PHASING PLAN AND AS COORDINATED WITH OWNER AND GENERAL CONTRACTOR. PROVIDE ALL REQUIRED INCREMENTAL INSPECTIONS, CERTIFICATIONS, ETC. AND ALL TEMPORARY SERVICES AS REQUIRED BY OWNER TO

BUILT. CORING OF ANY ELEVATED DECK SHALL NOT BE ACCEPTED. ALL METAL DECK PENETRATIONS SHALL BE COORDINATED AND SLEEVED. ANY COSTS INCURRED DUE

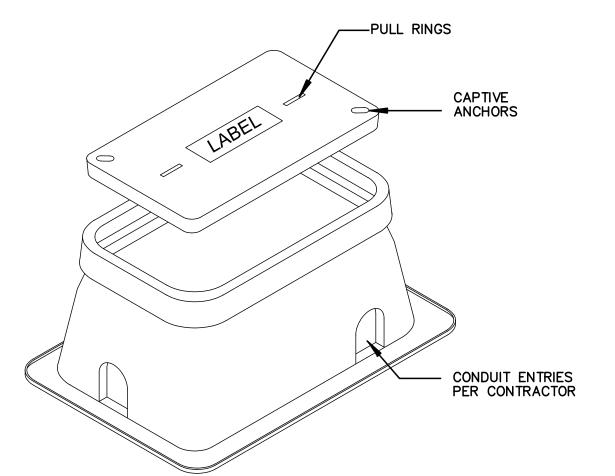
TO LACK OF COORDINATION SHALL BE BORNE BY THIS CONTRACTOR. WHERE SLEEVES ARE PLACED IN EXTERIOR WALLS OR IN SLABS ON GRADES, THE SPACE BETWEEN

AO. CONTRACTOR SHALL INSTALL INTERIOR DISCONNECT SWITCHES, MOTOR RATED SWITCHES, STARTERS, ETC. IN A NEMA 1 ENCLOSURE AND IN A NEMA 3R ENCLOSURE FOR EXTERIOR UNITS, UON. DEVICES ARE TO BE WITHIN SIGHT OF THE UNIT SERVING, IN A MAINTENANCE ACCESSIBLE LOCATION. COORDINATE ALL SIZES WITH FINAL EQUIPMENT SHOP DRAWING DATA PRIOR TO ROUGH-IN AND/OR START OF WORK. ap. All floor sleeves shall be sealed water tight. AQ. THE CONTRACTOR SHALL PROVIDE AND LOCATE ALL SLEEVES AND INSERTS REQUIRED FOR HIS WORK BEFORE THE FLOORS AND SURFACE BEING PENETRATED ARE

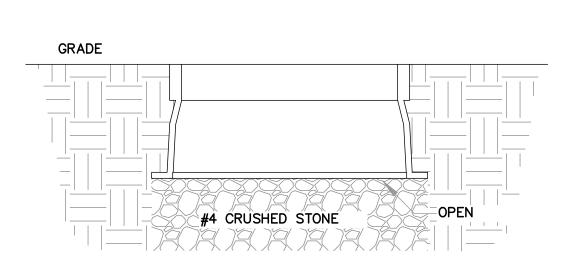
AR. ALL EXPOSED JUNCTION, OUTLET AND PULLBOXES LEFT EMPTY SHALL BE REMOVED. WALL/CEILING SHALL BE REPAIRED/PATCHED TO LIKE NEW CONDITION.



BEFORE YOU DIG THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL CONTACT LOCAL ORGANIZATION CAPABLE OF OBTAINING UNDERGROUND UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION. ANY CONTRACTOR OR SUBCONTRACTOR PERFORMING ANY TYPE OF EXCAVATION ON THIS PROJECT SHALL HAVE THIS PROCEDURE DONE TO OBTAIN AN AUTHORIZATION NUMBER. PHONE NUMBER: 800-752-6007 OR 811



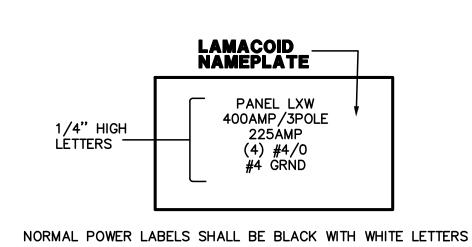
THE PIPE OR CONDUIT AND THE SLEEVES SHALL BE MADE COMPLETELY AND PERMANENTLY WATER TIGHT.



INSTALLED LOCATION.

- 1. BOXES TO BE SIZED PER NEC 314.28 BASED UPON FIELD CONFIGURATION OF CONDUIT ENTRIES. PROVIDE EXTENSIONS WHERE REQUIRED. 2. BOX AND LID TO BE CONSTRUCTED OF POLYMER CONCRETE. LID TIER RATING PER
- 3. REFER TO SPECIFICATIONS FOR RELATED INFORMATION.

**OUTDOOR PULL-BOX DETAIL** 



EMERGENCY POWER LABELS SHALL BE RED WITH WHITE LETTERS UTILIZE SCREW-ON TYPE LAMACOID PLATES. TYPICAL SWITCHBOARD AND DISTRIBUTION <u>Panelboard Circuit Label Nameplate Detail</u>

LAMACOID - NAMEPLATE 1/2" HIGH **→** PUMP LETTERS -208V/3PH/4W 1/4" HIGH FEED: 600 AMPS

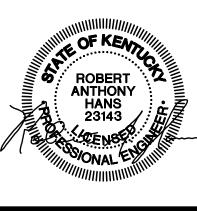
LÉTTERS -

NORMAL POWER LABELS SHALL BE BLACK WITH WHITE LETTERS EMERGENCY POWER LABELS SHALL BE RED WITH WHITE LETTERS UTILIZE SCREW-ON TYPE LAMACOID PLATES.

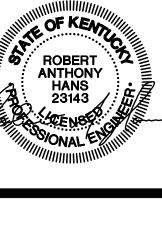
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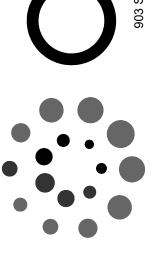
TYPICAL DISCONNECT AND COMBINATION STARTER/DISCONNECT NAMEPLATE DETAIL











60 anit

REVISIONS

DATE May 5, 2019 DRAWN BY CMTA

CHECKED BY CMTA

TAGGED NOTES:

- EXISTING SEWAGE EJECTOR PUMP AND CONTROL PANEL TO BE REMOVED AS A PART OF MECHANICAL WORK. DISCONNECT POWER TO MAKE DEVICES SAFE FOR REMOVAL AND REMOVE ALL WIRING AND CONDUIT.
- 2. REMOVE EXISTING DISCONNECT SWITCH ALL ASSOCIATED WIRING BACK TO PANEL "EP1" IN MAIN ELECTRIC ROOM. BELOW GRADE CONDUIT AND STUB UP TO REMAIN FOR RE-USE IN NEW WORK PLAN.
- 3. APPROXIMATE LOCATION OF MAIN ELECTRIC ROOM LOCATED ON THE BASEMENT FLOOR. REFER TO ENLARGED PLAN ON THIS SHEET FOR FURTHER REQUIREMENTS.
   4. ROUTE (4) #6 AWG CONDUCTORS AND (1) #8 AWG GND IN EXISTING
- UNDERGROUND CONDUIT TO PANEL "EP1". CONNECT TO NEW 90A CIRCUIT BREAKER.
- 5. PROVIDE NEW 2" SCHEDULE 40 PVC CONDUIT MIN 24" BELOW GRADE FROM NEW PUMP CONTROLLER TO PUMP LOCATION. TERMINATE TO PUMP MOTOR USING LIQUID TIGHT FLEXIBLE CONNECTION. COORDINATE CONNECTION DETAILS WITH PUMP INSTALLER.

6. PROVIDE NEW IN-GRADE PULL BOX TIER 8 LISTING AT EXISTING CONDUIT STUB
-UP LOCATION. CONCRETE POLYMER CONSTRUCTION. BOX SHALL BE QUAZITE

MODEL PG SERIES OR EQUAL. REFER TO DETAIL ON SHEET E1.0 FOR ADDITIONAL REQUIREMENTS.

7. PROVIDE NEW 240V, 3P, 100A FUSIBLE DISCONNECT SWITCH IN NEMA 3R ENCLOSURE. PROVIDE FUSES SIZED TO EQUIPMENT NAMEPLATE RATING. MOUNT DISCONNECT TO SIDE OF BUILDING. PROVIDE UNISTRUT SUPPORT AS REQUIRED.

COORDINATE EXACT MOUNTING LOCATION WITH OWNER PRIOR TO ROUGH-IN.

CONNECT (3) #4 AWG CONDUCTORS AND (1) #8 AWG GND IN 1-1/4" RGS

- 8. ROUTE (4) #6 AWG CONDUCTORS AND (1) #8 AWG GND IN 1-1/4" SCHEDULE 40 PVC CONDUIT MIN 24" BELOW GRADE FROM PULL BOX TO DISCONNECT.
- 9. NEW PUMP CONTROLLER PROVIDED BY PUMP INSTALLER, INSTALLED COMPLETE BY ELECTRICAL CONTRACTOR.
- 10. PROVIDE NEW 90A/3P CIRCUIT BREAKER IN EXISTING EMERGENCY PANEL EP1. CIRCUIT BREAKER SHALL BE COMPATIBLE WITH EXISTING PANEL. PROVIDE NEW LAMACOID LABELS PER DETAIL ON SHEET E1.0. RE—LABEL CIRCUIT BREAKER PREVIOUSLY SERVING PUMUP REMOVED DURING DEMOLITION AS SPARE.

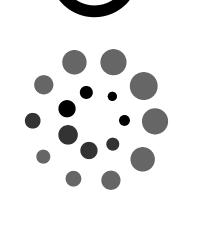
GENERAL SHEET NOTES

- A. DO NOT SCALE FROM MECHANICAL AND ELECTRICAL DRAWINGS. FIELD VERIFY REQUIRED DIMENSIONS AND COORDINATE WITH CIVIL DRAWINGS AND SURVEYS.
- B. REFER ALSO TO ALL OTHER PLANS AND THE SPECIFICATION, BUT ESPECIALLY TO: THE SITE SURVEY & APPROPRIATE MECHANICAL & ELECTRICAL FLOOR PLANS FOR SERVICE CONTINUATIONS. WHERE THERE ARE CONFLICTS AMONG THESE PLANS AND/OR RELATED SPECIFICATIONS, ADVISE THESE ENGINEERS AT LEAST TEN DAYS PRIOR TO SUBMISSION OF BIDS.
- C. FEDERAL, STATE, LOCAL, MUNICIPALITY AND UTILITY COMPANY CODES, RULES, REGULATIONS AND REQUIREMENTS APPLY UNLESS EXCEEDED BY THIS DESIGN.
- D. WHEN INTERRUPTION OF AN EXISTING UTILITY OR SERVICE IS PLANNED OR OCCURS ACCIDENTALLY, THE CONTRACTOR(S) SHALL WORK CONTINUOUSLY AS NEEDED TO RESTORE SAME PROVIDING PREMIUM TIME AS NEEDED AT NO INCREASE IN THE CONTRACT PRICE.
- E. LOCATIONS, DEPTHS, MATERIAL TYPES, ELEVATIONS, ETC. OF ALL APPURTENANCES, LINES, BUILDINGS, ETC. INDICATED ON THESE DRAWINGS WERE TAKEN FROM VARIOUS SOURCES, ARE DIAGRAMMATIC ONLY AND ARE SUBJECT TO SUBSTANTIAL VARIATION FROM EXISTING CONDITIONS, EXISTING UTILITIES LOCATIONS MAY VARY. CONSEQUENTLY ALL CONTRACTORS SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS TO ENSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL FEDERAL, STATE, AND/OR LOCAL RULES, REGULATIONS, STANDARDS AND SAFETY REQUIREMENTS.
- F. PROVIDE GALVANIZED RIGID CONDUIT FOR EXTERIOR UNDERGROUND TRANSITIONS TO ABOVE GRADE; EXTEND CONDUIT A MINIMUM OF 6" ABOVE GRADE.
- G. CONTRACTOR SHALL PERFORM A SMOKE TEST ON ALL CONDUITS INSTALLED ON SITE AND SHALL TAKE ALL NECESSARY CORRECTIVE ACTION IF NOT FOUND IN COMPLIANCE WITH FACILITY STANDARDS.
- H. CONTRACTOR SHALL CONTACT ENGINEER FOR INSPECTION OF TRENCHES PRIOR TO INSTALLATION OF CONDUITS OR RACEWAYS. PROVIDE PHOTOS UPON REQUEST.
- I. CONTRACTOR SHALL CUT AND PATCH ALL PAVEMENT, CURBING, ETC.
  AS REQUIRED FOR WORK. CONTRACTOR SHALL REPAIR ALL
  LANDSCAPING THAT IS DAMAGED FOR WORK. FINISH GRADE, SEED AND
  STRAW ALL DISTURBED GREEN SPACES. ALL PATCH AND REPAIR WORK
  SHALL BE IN ACCORDANCE WITH BOTH CIVIL AND LANDSCAPE
  DRAWINGS AND SPECIFICATIONS.

ROBERT ANTHONY
HANS
23143

SONAL EMILIANIA





O S. Hancock Street nitary Plumbing Modifications sville Metro Housing Authority

VISIONS

REVISIONS

DATE May 5, 2019

DRAWN BY CMTA

CHECKED BY CMTA

SET NO.

E2.0

ELEC/MECH

OII

NORMAL POWER

PAMEL HIPI

TO REMAIN

EXISTING 120/208V 36 4W

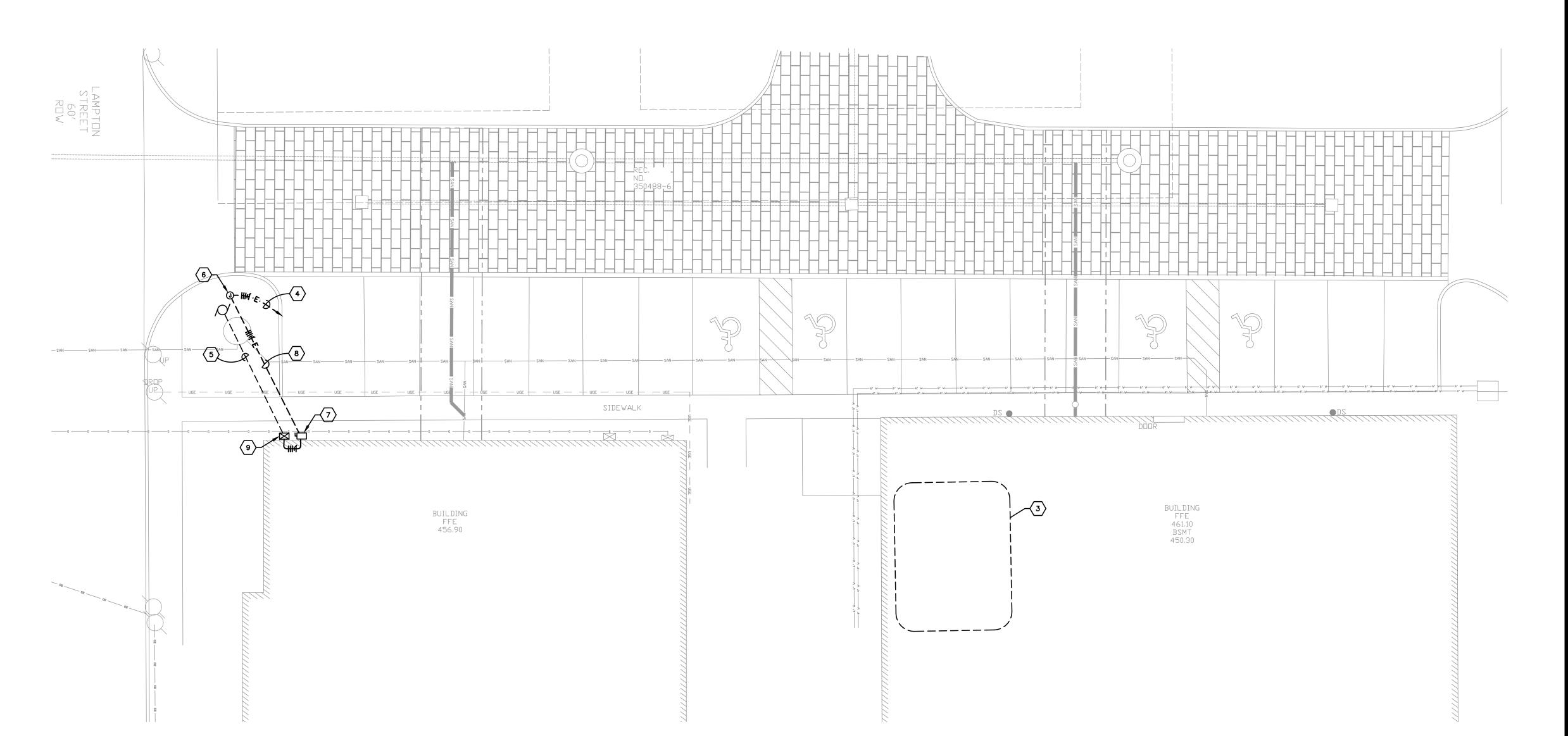
EXISTING 120/208V 36 4W

EMERGENCY POWER

PAMEL EIPI

TO REMAIN

03 ENLARGED PLAN - MAIN ELECTRIC ROOM SCALE: 1/4"= 1'-0"



02 PARTIAL SITE PLAN - ELECTRICAL NEW WORK SCALE: 1"= 10'-0"



## **GENERAL NOTES:**

- 1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL FEDERAL, STATE AND LOCAL PERMITS NECESSARY TO PERFORM AND COMPLETE THE PROJECT AS SHOWN ON THESE PLANS.
- 2. CONSTRUCTION STAKING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. ADDITIONAL INFORMATION FOR STAKING THE PROJECTS LINES AND GRADES WILL BE PROVIDED IN AUTOCAD DRAWING FILE FORMAT UPON REQUEST.
- 3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE UTILITY COMPANIES SUCH THAT ACCESS TO WORK AREAS OR SCHEDULE CONFLICTS DO NOT INTERRUPT OR DELAY THE PROJECT SCHEDULE.
- 4. THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND VERIFY ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION. NOTIFY THE ENGINEER OF CONFLICTS OR DISCREPANCIES FOUND, AND TO COORDINATE ALL UTILITY RELOCATES, CONNECTS, AND DISCONNECTS WITH THE APPROPRIATE UTILITY COMPANY.
- 5. CONCRETE AND ASPHALT PAVING MATERIALS AND PLACEMENT SHALL BE IN ACCORDANCE WITH KDOT STANDARD SPECIFICATIONS AND DRAWINGS.
- 6. ALL EXISTING PLANT MATERIALS NOT DESIGNATED FOR REMOVAL SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS OF RESTORING/REPLACING DAMAGED PLANT MATERIALS.
- 7. CONTRACTOR SHALL KEEP ALL SURROUNDING PUBLIC ROADWAYS, PEDESTRIAN WAYS AND DRAINAGE SYSTEMS FREE FROM DIRT, MUD AND CONSTRUCTION DEBRIS AT ALL TIMES.

## **EXISTING UTILITY NOTES:**

- 1. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON RECORDS OF VARIOUS UTILITY COMPANIES, RECORD DRAWINGS, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION SHOWN IS NOT TO BE RELIED ON AS BEING EXACT OR ALL INCLUSIVE.
- 2. CONTRACTOR SHALL UNCOVER AND VERIFY ALL LOCATIONS AND ELEVATIONS AT TIE IN AND CROSSING LOCATIONS PRIOR TO ANY UNDERGROUND PIPE INSTALLATION.
- 3. CONTRACTOR SHALL LOCATE ALL EXISTING ACTIVE UTILITIES IN THE PROJECT AREA, PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING CONSTRUCTION ACTIVITIES AND COORDINATE ANY DISRUPTION OF SERVICE WITH THE UTILITY COMPANY, OWNER AND CONSTRUCTION MANAGER.
- 4. CONTRACTOR SHALL TAKE NECESSARY MEASURES TO MINIMIZE ENVIRONMENTAL CONTAMINATION ENTERING UTILITY LINES BEING CONSTRUCTED TO ENSURE CONTAMINATION DOES NOT LEAVE THE SITE.

## **SANITARY SEWER NOTES:**

- 1. SANITARY SEWER CONNECTION FEE (\$250 FOR EACH TAP) SHALL BE PAID TO MSD PRIOR TO BEGINNING CONSTRUCTION.
- 2. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE METROPOLITAN SEWER DISTRICT'S STANDARD SPECIFICATIONS AND DRAWINGS UNLESS SHOWN OTHERWISE.
- 3. SANITARY CLEANOUT SHALL BE TWO-WAY PER MSD STANDARD DRAWING SS-02-02.
- 4. PROPERTY SERVICE CONNECTION CROSSING UNDER (OVER) THE STORM DRAIN OR UTILITY CONDUIT PROPOSED OR EXISTING WITH LESS THAN 2 (TWO) FEET OF CLEARANCE SHALL BE CAPPED (ENCASED) WITH 6" CLASS "B" CONCRETE IN ACCORDANCE WITH THE TYPICAL CONCRETE CAP (CONCRETE ENCASEMENT)
- 5. CONTRACTOR SHALL RESTORE EXISTING PAVEMENT (PAVERS, CONCRETE, ASPHALT) WITHIN UTILITY CUTS IN ACCORDANCE WITH APPLICABLE MSD STANDARD DRAWINGS.

## MSD NOTE:

MSD DOES NOT WARRANT THE DESIGN OR COMPUTATIONS CONTAINED IN THIS PLAN. THE CORRECTNESS OR ACCURACY OF ALL ENGINEERING COMPUTATIONS REMAIN THE SOLE RESPONSIBILITY OF THE APPLICANT'S DESIGN PROFESSIONAL. MSD'S APPROVAL TO PROCEED WITH CONSTRUCTION IS BASED SOLELY ON THAT DESIGN PROFESSIONAL'S SEAL AND SIGNATURE.

## APPLICABLE MSD STANDARD DRAWINGS:

### SANITARY DRAWINGS PROPERTY SERVICE CONNECTION SP-01-01 SC-02-02 TWO-WAY CLEANOUT

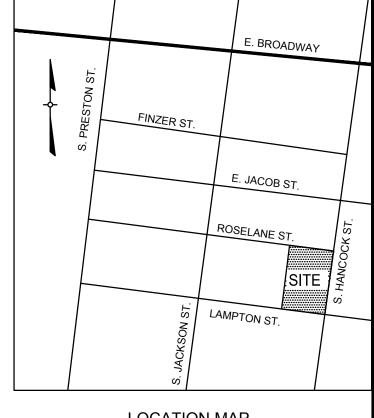
**GENERAL DRAWINGS** CRUSHED STONE CRADLE GC-01-01 CONCRETE CAP GC-03-01

GC-04-01

# PAVEMENT RESTORATION

CONCRETE ENCASEMENT

CONCRETE PAVEMENT RESTORATION PR-01-01 ASPHALT PAVEMENT RESTORATION PR-02-02 (LATEST REVISIONS SHALL BE USED)



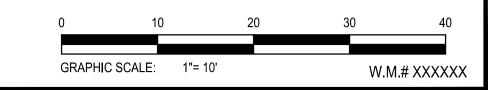
EX. 15' SAN. SEWER EX. 15' SAN. SEWER & DRAIN. ESM'T.-— & DRAIN. ESM'T. -D.B. 10089, PG. 239 D.B. 10089, PG. 239 TIE PROPOSED PSC INTO EXISTING SAN. LINE. TIE PROPOSED PSC INTO EXISTING SAN. LINE. SAN. M.H. COORDINATE TAP CONNECTION WITH MSD TL-455.83 COORDINATE TAP CONNECTION WITH MSD IE-446.08 PRIOR TO BEGINNING CONSTRUCTION PRIOR TO BEGINNING CONSTRUCTION REC. NO. 350488-6 | IE 447.75 IE 448.75 TG-454.82 SAN. M.H. SAN M.H. TL-455.27 TL-454.88 IE-448.27 -IE-448.82 N 08°52'42" E, 211.16' STRM IE 451.5 TG-454.51 STRM IE 450.5 \_TG-453.90\_ SAN IE 448.9 IE-450.16 SAN IE 449.4 IE-450.96 **APPROXIMATE APPROXIMATE** LIMITS OF DISTURBANCE LIMITS OF DISTURBANCE AND PAVEMENT RESTORATION AND PAVEMENT RESTORATION EXISTING CONNECTION TO REMAIN AND SERVE 6" SAN PSC 6" SAN PSC BASEMENT ONLY @15.9% GRADE @8.8% GRADE EXISTING 6" PSC PLUG AND ABANDON TL 456.45 DROP EXISTING PSC SIDEWALK SAN. CO — G —— G —— G — TL 455.30 IE 452.30 SAN. CO TL 456.47 DISCONNECT EXISTING PSC IE 454.51 DOWNSTREAM OF CLEANOUT CONNECT NEW 6" PSC 760 S. HANCOCK STREET BUILDING BUILDING FFE 461.10 FFE 456.90 LOUISVILLE METRO HOUSING BSMT 450.30 **AUTHORITY** P.B. 54, PG. 38 TAX BLOCK 21A LOT 00360013



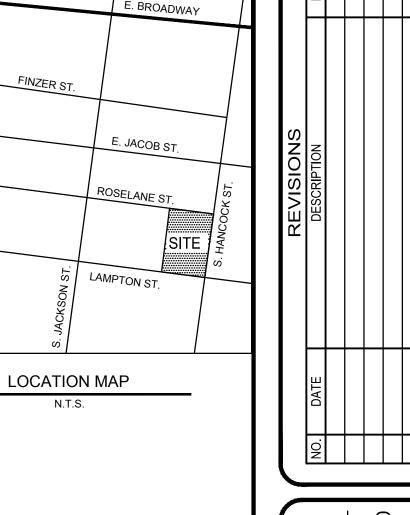
## **UTILITY PROTECTION NOTE:**

ALL UTILITIES ON THESE PLANS ARE APPROXIMATE. INDIVIDUAL SERVICE LINES ARE NOT SHOWN. THE CONTRACTOR OR SUBCONTRACTOR SHALL NOTIFY THE UTILITY PROTECTION CENTER KENTUCKY 811 (TOLL FREE PHONE NO. 1-800-752-6007 OR LOCAL NO. 502-266-5123) FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION ON THIS PROJECT. THIS NUMBER WAS ESTABLISHED TO PROVIDE ACCURATE LOCATIONS OF EXISTING BELOW GROUND UTILITIES (I.E. CABLES, ELECTRIC WIRES, GAS & WATER LINES). THE CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING FAMILIAR WITH ALL UTILITY REQUIREMENTS SET FORTH ON THE PLANS AND IN THE TECHNICAL SPECIFICATIONS & SPECIAL PROVISIONS.

GRAPHIC SCALE: 1"= 10' W.M.# XXXXXX



CDI PROJECT R3683.01



02/14/2019

VILLE

FEB. 14, 2019 1"= 10'