STATE OF CONNECTICUT DEPARTMENT OF HOUSING

Community Development Block Grant

Disaster Recovery Program

Project: B-13-DS-09-001

Merritt Construction Services, Inc.

1177 High Ridge Road

Stamford, Connecticut 06905

Applicant Number 1195

5 Park Lane

Norwalk, Connecticut 06854

CODES:

THE DESIGN AND CONSTRUCTION DOCUMENTS PROVIDED WERE PREPARED IN ACCORDANCE WITH THE FOLLOWING CODES:
THE 2009 INTERNATIONAL RESIDENTIAL CODE AS MODIFIED BY:
2009 AND 2013 AMENDMENT TO THE STATE OF CONNECTICUT BUILDING CODE
2009 INTERNATIONAL ENERGY CONSERVATION CODE
2011 AMENDMENT TO THE 2009 INTERNATIONAL ENERGY CODE
2008 CONNECTICUT STATE FIRE SAFETY CODE AND
2009 AMENDMENT TO THE CONNECTICUT FIFE SAFETY CODE
2003 INTERNATIONAL PLUMBING CODE
2003 INTERNATIONAL MECHANICAL CODE
2011 NATIONAL ELECTRICAL CODE

DRAWING LIST:

T-1.0	TITLE SHEET
SE-1	SITE PLAN
ZLS	ZONING LOCATION SURVEY
EBLS	EXISTING BUILDING LOCATION SURVEY
S-1.0	GENERAL NOTES & MATERIAL SPECIFICATIONS
S-1.1	FOUNDATION & FIRST FLOOR PLANS
S-2.0	TYPICAL FOUNDATION DETAILS
DM-1.0	MECHANICAL DEMOLITION PLAN
DP-1.0	PLUMBING DEMOLITION PLANS
DE-1.0	ELECTRICAL DEMOLITIONS PLANS
M-0.0	MECHANICAL PLAN
P-0.0	PLUMBING PLAN
E-0.0	ELECTRICAL PLAN

Revisions	Date
BID SET	5/15/15
REVISED SET	1/21/16

Aris Crist Architects
34 East Putnam Avenue
Greenwich, Connecticut 06830
203 661 0661

RESIDENCE No. 1195

5 PARK LANE
NORWALK CT, 06854

TITLE

Drawn	L.F.O
Checked	
Date	08.11.14
Scale	AS NOTED
Job Number	
Sheet	**T-1.0**

GENERAL NOTES:

1. This drawing is intended only to depict the design of site grading, utilities and sediment & erosion controls. This drawing is for approval purposes only. No construction may begin prior to obtaining all necessary permits and approvals.

2. All survey data, boundary lines, topography, building locations and area calculations are from a survey prepared by Redniss & Mead entitled Existing Building Location Survey dated 12-17-2014. Elevations depicted or labeled are based on NAVD-88.

3. Refer to drawings by Aris Crist, Architect for information regarding building plans.

4. Property lies in a B Residential zone.

5. All construction shall comply with the City of Norwalk requirements, the State of Connecticut Basic Building Code Americans with Disabilities Act (ADA), the Connecticut Guidelines for Soil and Erosion and Sediment Control, OSHA, CT DOT Form 816 (latest edition), and FEMA Flood Regulations.

6. All development activities to be undertaken within the street right-of-way and other public lands shall comply fully with Norwalk standards unless approved deviation is specifically set forth as part of this application. All work within the State right-of-way will comply with the CT DOT Form 816 with the latest special Provisions and Typical State Standard Details.

7. Contractor shall supply complete shop drawings including manufacturer's product data sheets to the Site Engineer, for all construction material used in conjunction with these drawings. Contractor shall allow a 5 day review period, prior to fabrication and installation.

8. Information on existing utilities has been compiled from various sources including utility company records, municipal record maps and field survey and is not guaranteed to be correct or complete. The contractor is solely responsible for determining actual locations and elevations of all utilities including underground services.

9. The property is served by public water and sewers.

10. Prior to any excavation the Contractor and/or Applicant, in accordance with Public Act 77-350, shall be required to contact "Call Before You Dig" at 1-800-922-4455 for mark-out of underground utilities. Dig test pit(s) at utility crossing(s) to check actual clearances with new utilities prior to construction. If conflicts are found the contractor shall notify the engineer, at which time the sewer in question shall be redesigned. If such redesign is not possible, the existing pipes or utilities shall be relocated to avoid the conflict. Such relocation shall be done with knowledge of and in accordance with the owner of the utility.

11. It shall be the responsibility of the contractor to provide any excavation safeguards, necessary barricades, flagmen, etc., for traffic control and site safety. All work shall be done in accordance with OSHA requirements. The contractor shall be responsible for compliance with OSHA requirements.

12. When preparing the existing site for the proposed development, all materials removed shall be disposed of in conformance with all governing agencies.

13. Building elevations are subject to change and shall be finalized prior to building permit.

14. Prior to issuance of a Certificate of Occupancy, the Department of Public Works may require a certification letter stating that the development was constructed in accordance to the approved plans, and an "as-built" drawing shall be submitted

15. The work shall be done in conformance with the plans unless changes have been approved in writing by the design engineer prior to the work being done.

EARTHWORK & GRADING:

16. Grade away from building walls at 2% minimum (typical).

17. After the areas to be topsoiled have been brought to grade, the subgrade shall be loosened by scarifying to a depth of at least 2" to ensure bonding of the topsoil and subsoil.

18. Fill or topsoil shall not be placed nor compacted while in a frozen or muddy condition or while subgrade is frozen.

FLOOD PROTECTION:

19. The property lies within FEMA Special Flood Hazard Area Zone AE-13. Base Flood Elevation (BFE) (100 year storm) is 13.0 NAVD-88 as depicted on the Flood Insurance Rate Map Community No. 09001C0533G Panel 533 of 626, revised date July 8, 2013.

20. The construction of this development must follow the requirements set forth in the Federal Emergency Management Administration (FEMA) regulations for flood protection.

21. All utilities shall be installed per FEMA regulations for flood protection. All utilities (i.e., meters, etc.) must be set at least one foot above the BFE or waterproofed.

22. The first floor of the raised building shall be set above the calculated 500 Flood Elevation of 16.25 pursuant to FEMA Technical Fact Sheet No. 1.6.

SANITARY SEWER SYSTEM:

23. Existing sewer lateral shall be reused if approved by Department of Public Works. Video inspection may be required to determine condition of pipe.

24. All sanitary sewer pipe shall be Poly Vinyl Chloride Pipe (PVCP) and shall be Schedule 40 with solvent weld joints.

25. Flow in existing sewer system must not be interrupted. Any temporary routing of this sewer flow must be done in conformance with all applicable rules and regulations.

26. Under no circumstances shall trench water be allowed to drain off through sanitary sewer lines.

27. All crushed stone shall be Gradation No. 4 as per CT DOT Form 816, Article M.01.01. Stone shall consist of sound, tough, durable particles free from soft, thin, elongated, laminated, friable, micaceous, or disintegrated pieces of mud, dirt or other deleterious material.

UTILITIES:

28. Proposed electric, telephone, cable, gas and water services are shown for schematic purposes only and are subject to change pending utility company review. These utilities shall be designed by others and installed in conformance to the requirements of the governing utility companies.

29. All proposed utility facilities shall be raised or lowered to be flush with finished grade.

30. Where necessary, existing utilities shall be reinstalled to meet all minimum coverage requirements.

31. Utility connections at building face shall be coordinated with the building contractors.

32. In general, each utility shall have a minimum clearance of three feet to any other underground utility.

33. Any and all utilities abandoned shall be capped or removed in accordance with utility companies' requirements.

34. All utilities shall be installed per FEMA regulations for flood protection. All utilities (i.e., HVAC condensers, electric transformers, etc.) must be set one foot above the Base Flood Elevation (BFE) or waterproofed.

35. Electric, telephone, cable, gas and water services shall be compliant with the City of Norwalk Zoning Regulations Flood Hazard Zone, Article 110 and shall be installed in conformance to the requirements of the governing utility companies. Gas and electric meters shall be located one foot above the BFE.

36. Gas service to the meter shall be installed by the utility company.

PAVEMENT:

37. Areas of asphalt pavement that are disturbed by the construction of this project shall be replaced in accordance with the asphalt pavement repair detail. The finished grade of asphalt paving shall blend to existing grade and the edge of the concrete pavement smoothly with no slopes exceeding 4%.

38. Existing features such as but not limited to walks, curbs, and pavement damaged by construction activities shall be repaired at no additional cost to the owner.

39. Bituminous curbs damaged by the project shall be replaced with the new bituminous curbing machine laid Class 3 as described in Sections 8.15 and M.04 of the CT DOT Form 816.

40. Saw cut perimeter of area to be excavated. Saw cut shall be straight and vertical.

41. Compaction shall be constructed as specified in the CT DOT FORM 816 (latest edition), Section 4.06 specification, the drawings and the details. Testing lab shall verify compaction of each course of pavement as directed by the Site Engineer.

42. Finished paving shall be free of ``bird baths" and be smooth at the slopes specified on the plans.

43. The pavement shall be protected from vehicular traffic of any kind with the use of barricades, etc. for a minimum period of 24 hours after final rolling. Maintain and protect asphalt surface from scrapes, sears, spills, hydraulic leaks, and any other construction damage for the remainder of construction until Owner's Representative acceptance. Contractor is responsible for clearing, repairing, seal coating, patching, and re-striping as necessary to obtain Owner's Representative's final approval/acceptance.

SEDIMENT AND EROSION CONTROL NOTES:

44. All sediment and erosion controls shall be done in conformance with the "Connecticut Guidelines for Soil Erosion and Sediment Control" dated May 2002 prepared by The Connecticut Council on Soil and Water Conservation.

45. The contractor is assigned the responsibility for implementing this sediment and erosion control plan. This responsibility includes the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of the plan notifying the Zoning Department of any transfer of this responsibility.

46. Temporary sediment control measures and tree protection must be installed in accordance with drawings and manufacturer recommendations prior to work in any upland areas.

47. No construction or construction equipment or storage of materials will be allowed on the downhill side of the silt fence or within fenced off areas, except during construction of the proposed facilities shown beyond the fences.

48. Where existing trees are to be saved, trees shall be protected with trunk armoring where shown. Tree limbs shall be trimmed as needed to protect the trees from damage by construction operations. Such trimming shall be minimized. Armoring and any limb trimming should be done before construction begins. Tree protection should be maintained during construction. Equipment Trafficking and materials storage over the tree roots shall be avoided.

49. Anti-tracking pads shall be installed at start of construction and maintained in an effective condition throughout the duration of construction. Pads consist of 2" - 4" crushed stone, 6" minimum thickness and extend the width of the construction access. The length of the access shall be sufficient to prevent dirt from being tracked onto off site roads (minimum length of 50').

50. Silt fence shall be Mirafi envirofence, Amoco siltstop or equivalent approved by Site Engineer. Filter fabric used shall be Mirafi 100x or equivalent. Install silt fence according to manufacturer's instruction, particularly, bury lower edge of fabric into ground.

51. Land disturbance shall be kept to a minimum. All disturbed area shall be planted in where permanent plantings are called for as soon as practicable. Seed and mulch disturbed areas with grass seed where permanent plantings are not called for, as soon as practicable. Prepare seedbed (4" thick minimum) with topsoil. Seed, rake, roll, water and mulch areas according to mixes below. Water as often as necessary (up to 3 times per day) to establish cover. Mulch seeded areas at 1 to 2 tons/acre with salt hay. Maintain mulch and watering until grass is 3" high with 85% cover. Reseed or overseed if necessary.

Temporary Seed Mix:

Perennial ryegrass	40 lbs/ac.	(1 lb/1000 sf.)

Permanent Lawns:

Kentucky Bluegrass	20 lbs/ac.	
Creeping Red Fescue	20 lbs/ac.	
Perennial Ryegrass	5 lbs/ac.	
	45 lbs/ac.	(1 lb/1000 sf.)

Optimum Seeding Dates:
April 15 through June 15
August 15 through October 1

52. Any disturbed area shall be restored to the preconstruction condition. Disturbed areas shall be top soiled, seeded with grass and mulched in a manner conforming to the recommendations of the "Guidelines for Soil Erosion and Sediment Control", published by The Connecticut Council on Soil and Water Conservation, May 2002.

53. If disturbed areas can not be seeded immediately due to the time of year, mulch area until seeding can occur; remove mulch and seed and remulch when season permits.

54. Haybales shall be new and are to be replaced whenever their condition deteriorates beyond reasonable usability.

55. Affected portions of off site roads and sidewalks must be swept clean when required to keep down dust and prevent safety hazards or at least once a week during construction and as directed by Site Engineer.

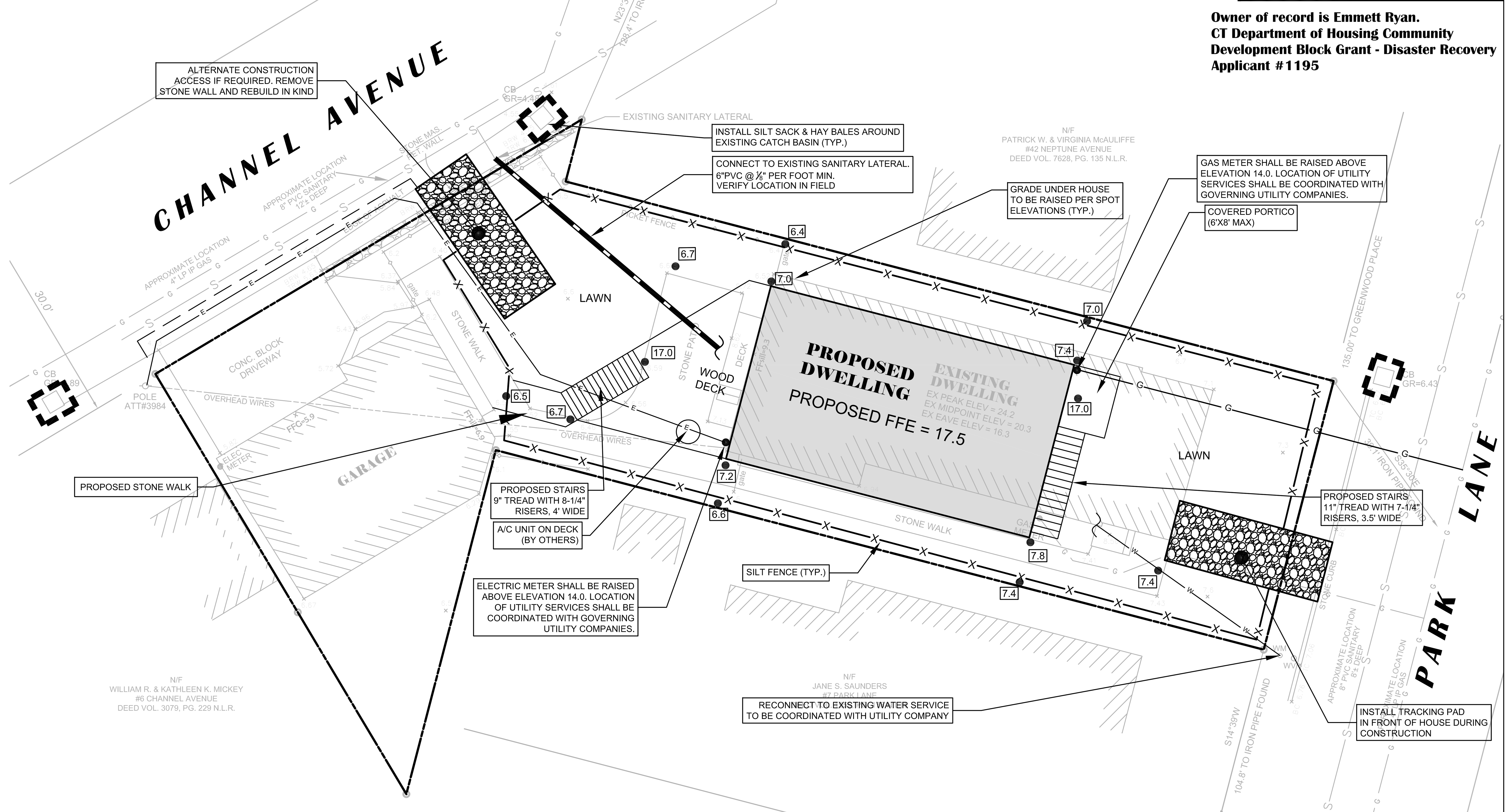
56. Dust control to be achieved with watering down disturbed areas as required.

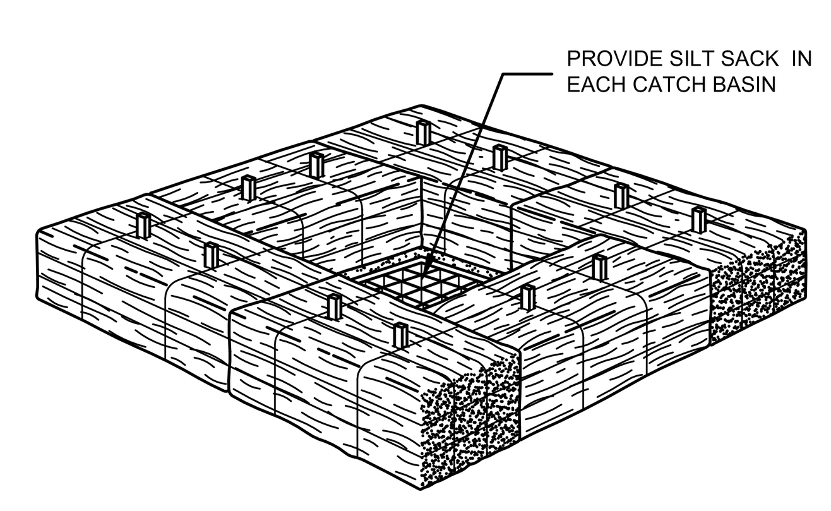
57. After each storm event or once bi-weekly, all sediment and erosion controls shall be inspected. Any corrective actions to mitigate environmental concerns will be ordered by the site engineer or environmental engineer.

58. Additional sediment and erosion control measures may be installed during the construction period if found necessary by the inspecting engineer or any Governing Agency.

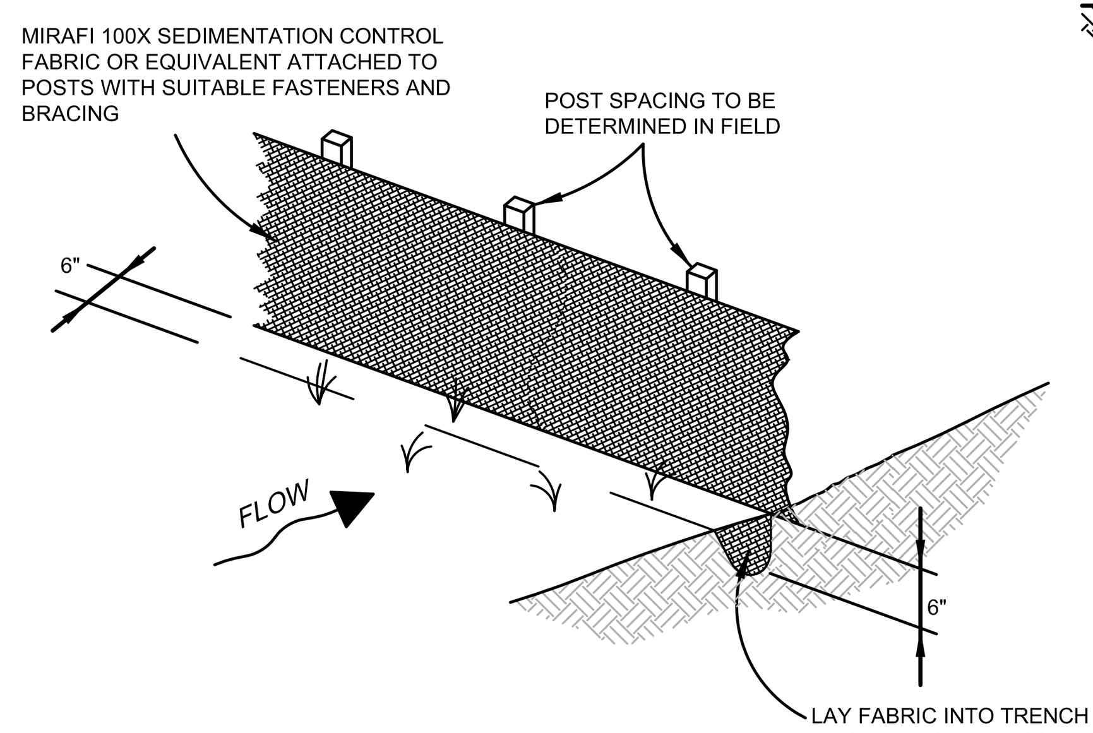
59. All permanent and temporary sediment control devices will be maintained in effective condition throughout the construction period until upland disturbed areas are thoroughly stabilized. Upon completion of work and stabilization of all upland areas, all temporary sediment control devices and tree protection should be removed from the site and any silt disposed of legally.

60. Periodically and upon completion of the job, clean silt from any effected storm sewer systems including pipes and inlets. Use silt during final landscaping or dispose off-site legally.





SEDIMENT FILTER FOR CATCH BASINS
N.T.S.



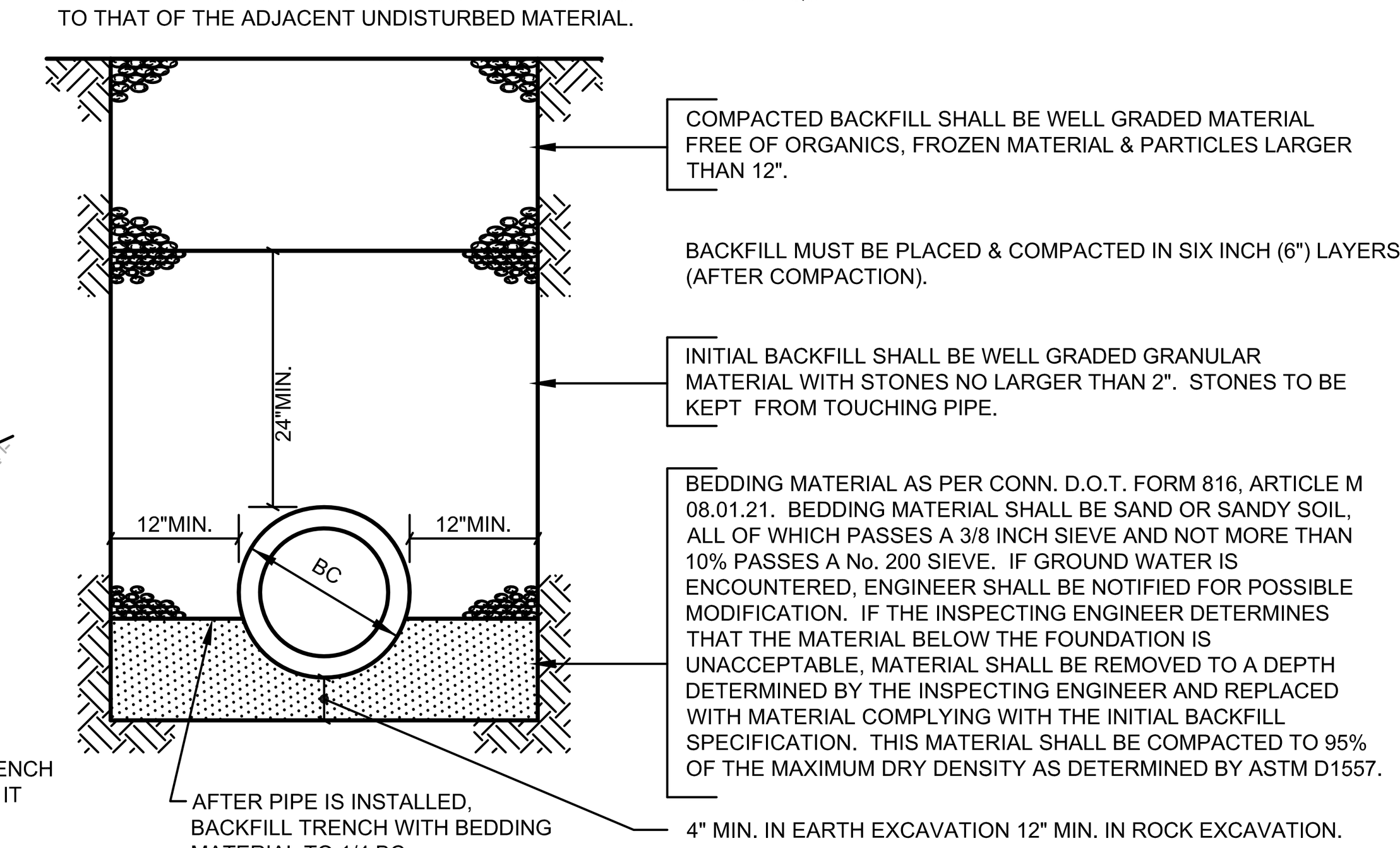
FABRIC & POST SILTATION BARRIER
(SILT FENCE)
N.T.S.

WATER STOP: 10' UPSTREAM OF STRUCTURES AND WHERE SHOWN, FOUNDATION MATERIAL, BEDDING, HAUNCHING, INITIAL BACKFILL, AND THE BOTTOM FOOT OF GENERAL BACKFILL TO BE REPLACED WITH SM, SC, OR ML SOIL AS PER UNIFIED SOIL CLASSIFICATION SYSTEM" WITH MAXIMUM PARTICLE SIZE OF 1-1/2", FOR 3 LINEAR FEET OF TRENCH. WATER STOP TO BE KEYED INTO TRENCH BOTTOM AND WALLS A MINIMUM OF ONE FOOT. NO STONES LARGER THAN 6" SHALL BE WITHIN 12" OF THE PIPE.

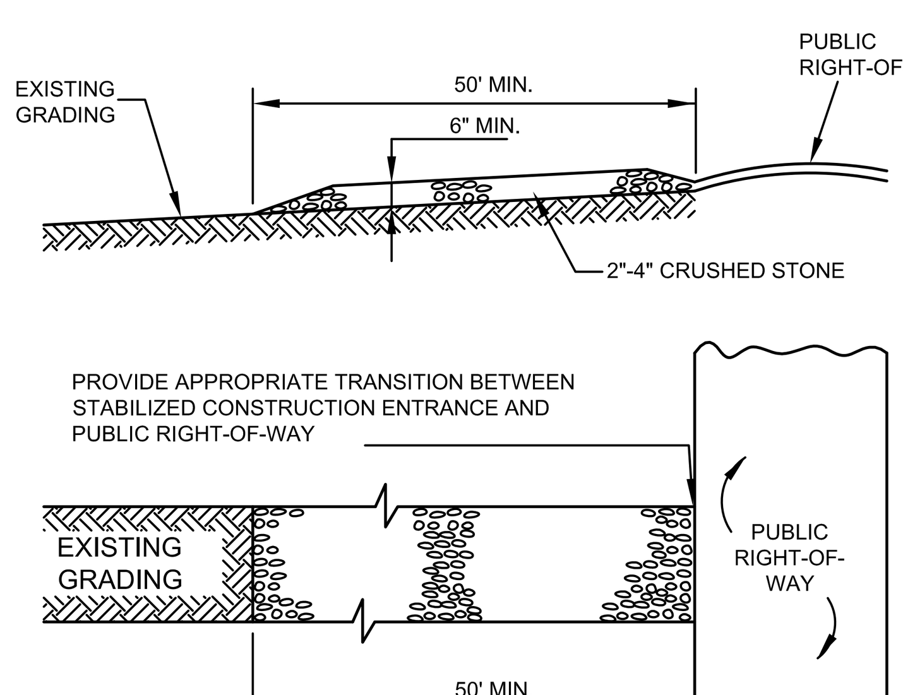
ALL FOUNDATION, INITIAL BACKFILL & BACKFILL MATERIAL TO BE APPROVED BY THE INSPECTING ENGINEER.

ANY DEVIATION FROM THESE METHODS & MATERIALS MUST BE APPROVED IN WRITING BY THE INSPECTING ENGINEER.

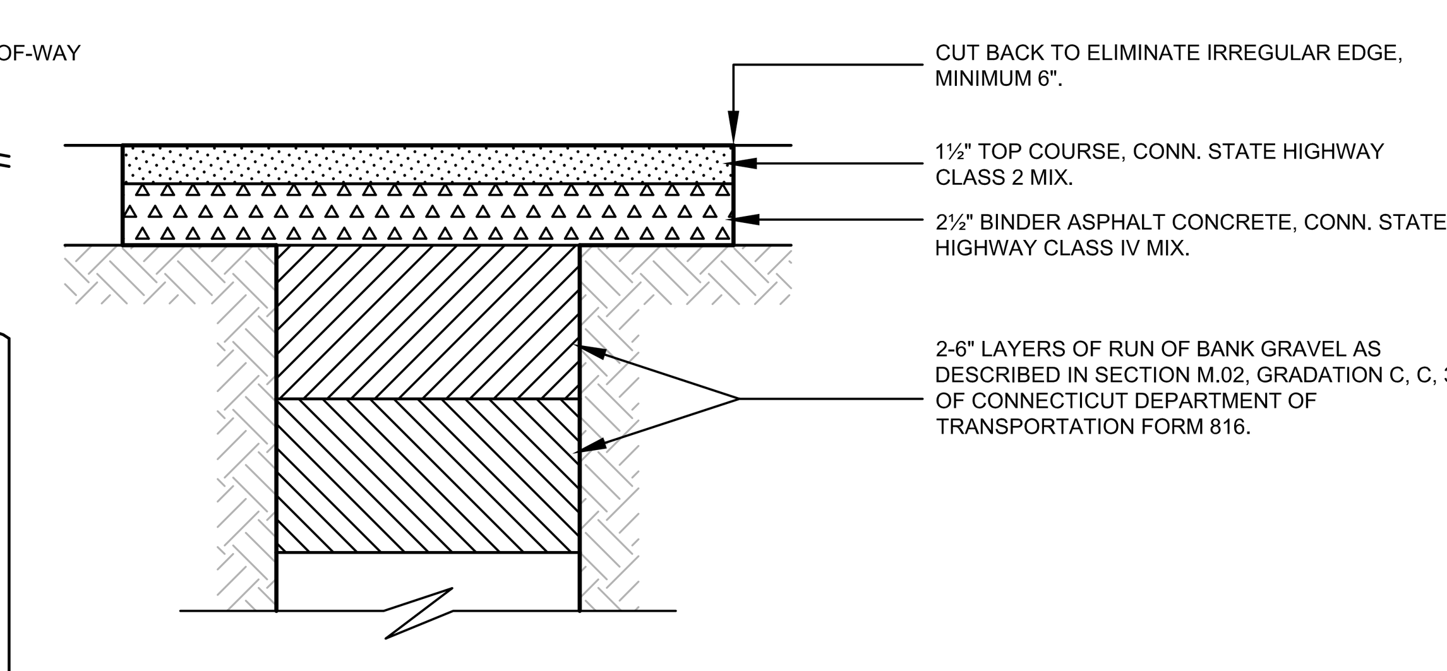
ALL MATERIAL TO BE COMPACTED TO 95% OF THE MAX. DRY DENSITY AS DETERMINED BY ASTM D1557, EXCEPT COMPACTED BACKFILL" NOT UNDER PAVEMENT WHICH SHALL BE COMPACTED TO A DENSITY AT LEAST EQUAL TO THAT OF THE ADJACENT UNDISTURBED MATERIAL.



PVC/RCP PIPE TRENCH BEDDING DETAIL
(48" DIA. & UNDER)
N.T.S.

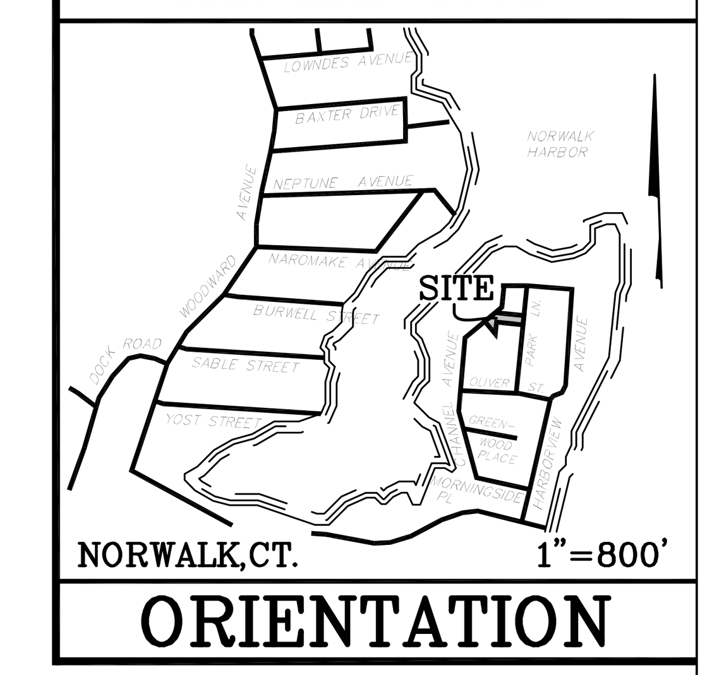


STABILIZED CONSTRUCTION ENTRANCE
(TRACKING PAD)
N.T.S.



ASPHALT TRENCH REPAIR
N.T.S.

NOT FOR CONSTRUCTION



Owner of record is Emmett Ryan.
CT Department of Housing Community Development Block Grant - Disaster Recovery Applicant #1195

Revisions	Date
BID SET	4.22.15
PERMIT SET	1.22.16

REDNISS & MEAD
Land Surveying
Civil Engineering
Planning & Zoning Consulting
Permitting
22 First Street | Stamford, CT 06905
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www.rednissmead.com

BRET D. HOLZWARTH CT. P.E. 27812
January 22, 2016
DATE

Aris Crist Architects
34 East Putnam Avenue
Greenwich, Connecticut 06830
203 661 0661

RESIDENCE: 1195
5 PARK LANE
NORWALK, CT 06854
SITE DEVELOPMENT PLAN

Drawn	M.J.L.
Checked	B.D.H.
Date	04/22/2015
Scale	1"=20'
Job Number	7885
Sheet	SE-1

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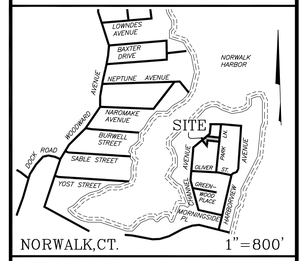
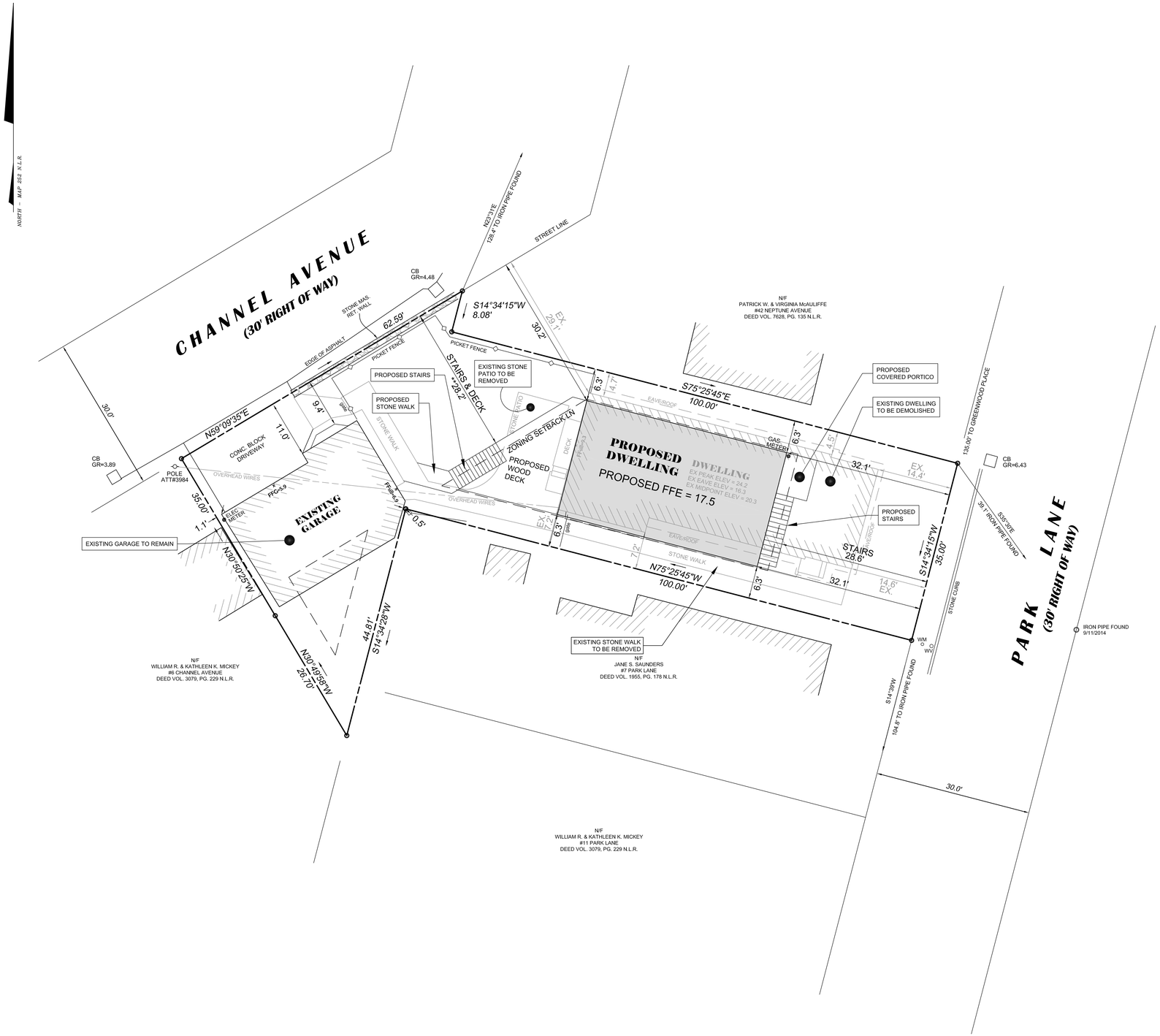


DISTRICT: 5
BLOCK: 85C
LOT: 137
ZONE: B RES.

TAX MAP 16SE



ORIENTATION

NOTES:

1. This survey has been prepared in accordance with Sections 20-300b-1 thru 20-300b-20 of the Regulations of Connecticut State Agencies and the Standards for Surveys and Maps in the State of Connecticut as adopted by the Connecticut Association of Land Surveyors, Inc. as an Existing Building Location Survey the Boundary Determination Category of which is a Resurvey conforming to Horizontal Accuracy Class A-2 and Vertical Accuracy Class V-2 intended to be used for verification of zoning compliance with respect to the location of improvements depicted hereon.
2. Reference is hereby made to the following surveys which have been evaluated and accepted as appropriate for the purpose for which this survey has been prepared: 176, 252 & 11470 N.L.R. and to Map titled "Plot Plan of 5 Park Lane Prepared for Emmett Ryan", dated January 6, 2004, prepared by Black Rock Surveyors.
3. Reference is made to deed of record found in Vol. 5268, Pg. 69 N.L.R.
4. Lot Area = 5,431 SF
5. Owner of record is Emmett Ryan. CT Department of Housing Community Develop Block Grant Disaster Recovery Applicant #1195
6. Proposed Building Area = 1,552 SF or 28.6%
7. Reference is made to FEMA Flood Insurance Rate Map Panel No. 533 of 626, Map No. 09001C0533G, Map Revised July 8, 2013. Subject Parcel lies within Special Flood Hazard Area Zone AE (EL 13).
8. Elevations depicted hereon are based on North American Vertical Datum of 1988 (NAVD-88).
9. Reference is made to benchmark CGS 456.

ZONE B RES. ZONING DATA

PRIMARY STRUCTURE	REGS.	EXISTING	PROPOSED
STREET LINE	30'	14.4'	30.2'
SIDE YARD (one side)	6'	4.5' (HOUSE)	6.3' (HOUSE)
SIDE YARD (both sides)	25% (8.75')	11.7' (HOUSE)	12.6' (HOUSE)
REAR YARD	N/A (THROUGH LOT)	N/A	N/A
BUILDING AREA	35%	1179 SF (44.5%)	1,552 SF (28.6%)
BUILDING HEIGHT	2.5 stories 31' to midpoint, 39' to peak	1 story 13.3' to midpoint, 17.2' to peak	2 stories 30.54' to midpoint, 32.46' to peak
LOT (MINIMUM)			
LOT AREA	6,250 SF	5,431 SF	5,431 SF
LOT WIDTH	50'	35.0'	35.0'

*BUILDING HEIGHT MEASURED FROM PROPOSED AVERAGE GRADE = ELEV. 7.4 (NAVD-88). REFER TO AVERAGE GRADE PLAN AND CALCULATION WORKSHEET.

*PURSUANT TO SECTION 118-810 (I) OF THE NORWALK ZONING REGULATIONS, DECKS MAY EXTEND UP TO 2' INTO YARD SETBACKS.

ZONING LOCATION SURVEY

DEPICTING

#5 PARK LANE

NORWALK, CONNECTICUT
PREPARED FOR

MERRITT CONSTRUCTION SERVICES, INC

To my knowledge and belief this map is substantially correct as noted hereon

Lawrence Posson
LAWRENCE W. POSSON JR. CT.LIC. NO. 18130
1/22/2016
DATE

This document and copies thereof are valid only if they bear the signature and embossed seal of the designated licensed professional. Unauthorized alterations render any declaration hereon null & void.

JOB NO.: 7885–1	DATE: 1/20/2016
DRAWN BY: BDH/LWP	CHECKED BY:
SCALE: 1" = 10' (0 10 20)	

CALS
7885_ZLS.dwg

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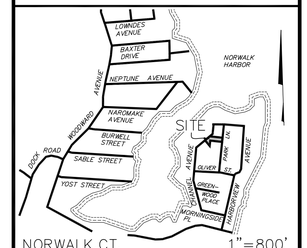
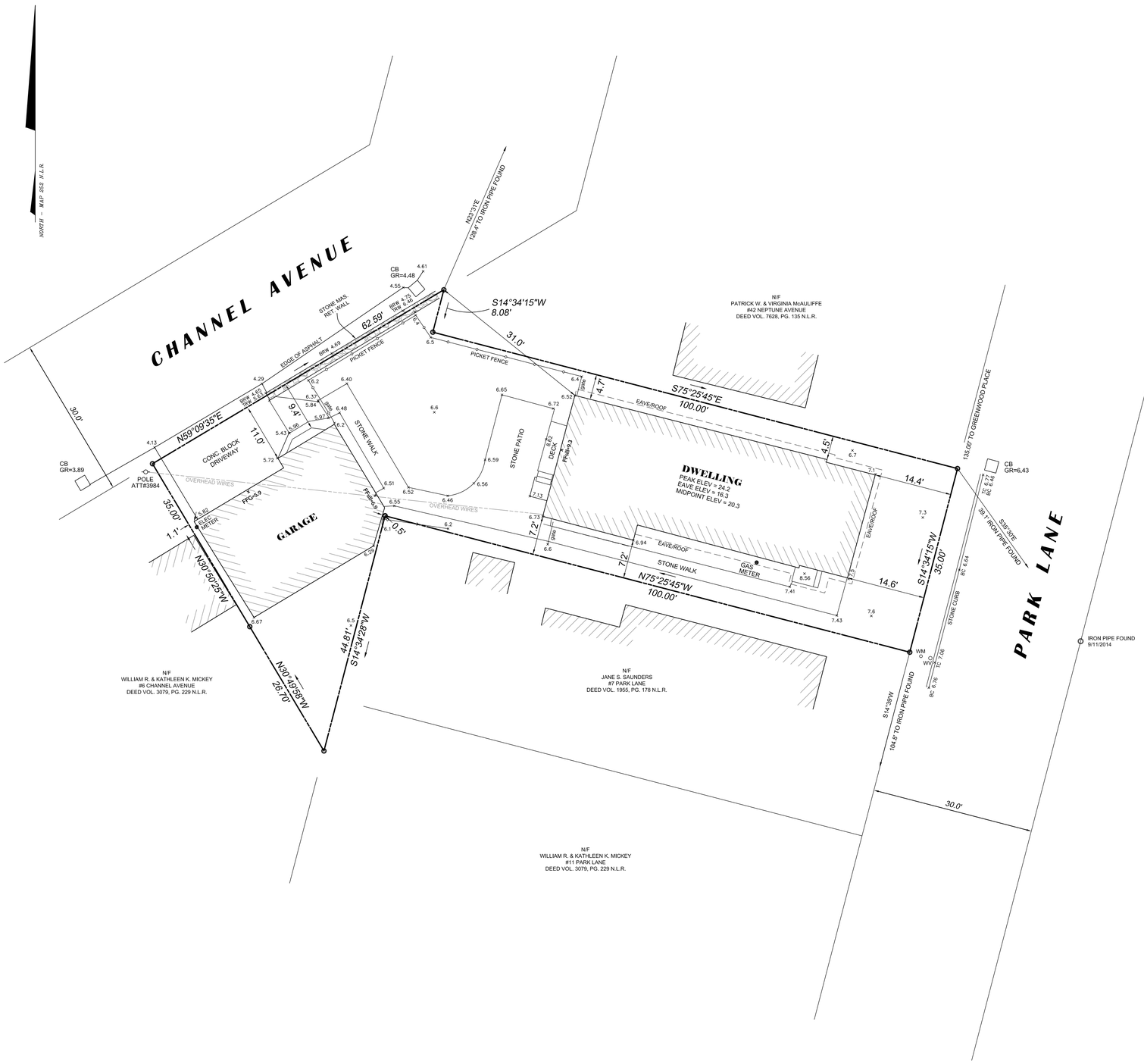
DISTRICT: 5
BLOCK: 85C
LOT: 137
ZONE: B RES.

TAX MAP 16SE



ORIENTATION



NOTES:

1. *This survey has been prepared in accordance with Sections 20-300b-1 thru 20-300b-20 of the Regulations of Connecticut State Agencies and the Standards for Surveys and Maps in the State of Connecticut as adopted by the Connecticut Association of Land Surveyors, Inc. as an Existing Building Location Survey the Boundary Determination Category of which is a Resurvey conforming to Horizontal Accuracy Class A-2 and Vertical Accuracy Class V-2 intended to be used for verification of zoning compliance with respect to the location of improvements depicted hereon.*
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5. *Owner of record is Emmett Ryan.*
6. *Building Area = 1,904 SF or 35.0%*
7. *Reference is made to FEMA Flood Insurance Rate Map Panel No. 533 of 626, Map No. 09001C0533G, Map Revised July 8, 2013. Subject Parcel lies within Special Flood Hazard Area Zone AE (EL 13).*
8. *Elevations depicted hereon are based on North American Vertical Datum of 1988 (NAVD-88).*
9. *Reference is made to benchmark CGS 456.*

ZONE B RES. ZONING DATA	
PRIMARY STRUCTURE	**REGS.**
STREET LINE	30'
SIDE YARD (one side)	6'
SIDE YARD (both sides)	25%
REAR YARD	n/a
BUILDING AREA	35%
BUILDING HEIGHT	2.5 stories & 31' to midpoint, MAX 39' to peak
LOT (MINIMUM)	
LOT AREA	6,250 SF
LOT WIDTH	50'

EXISTING BUILDING LOCATION SURVEY

DEPICTING

#5 PARK LANE

NORWALK, CONNECTICUT
PREPARED FOR

MERRITT CONSTRUCTION SERVICES, INC

To my knowledge and belief this map is substantially correct as noted hereon

LAWRENCE W. POSSON JR. CT.LIC. NO. 18130
09/18/2014
DATE

This document and copies thereof are valid only if they bear the signature and embossed seal of the designated licensed professional. Unauthorized alterations render any declaration hereon null & void.

JOB NO.: 7885-1	DATE: 09/18/2014
DRAWN BY: CJV	CHECKED BY:
SCALE: 1" = 10' (0 — 10 — 20)	7885_GLS.dwg

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22 FIRST STREET · STAMFORD, CONNECTICUT 06905 · 203-327-0500

GENERAL NOTES:

1 THE WORK SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED IN ACCORDANCE WITH THE STRUCTURAL REQUIREMENTS OF THE 2005 CONNECTICUT STATE RESIDENTIAL BUILDING CODE WHICH IS THE 2009 INTERNATIONAL RESIDENTIAL CODE (IRC), EXCEPT AS AMENDED, ALTERED OR DELETED BY THE PROVISIONS OF THE 2013 CONNECTICUT AMENDMENT.

FLOOD ZONE: AE13

2 THE FOUNDATION AND DECK COMPONENTS HAVE BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS:

FLOOR LIVE LOADS:	
STAIRS	40 PSF
DECKS	40 PSF
WIND DESIGN DATA:	
BASIC WIND SPEED (3-SECOND GUST)	100 MPH
EXPOSURE	C

3 ALL STRUCTURAL WORK SHOWN OR SPECIFIED ON THESE DRAWINGS IS SUBJECT TO REVIEW BY THE STRUCTURAL ENGINEER OF RECORD. ASPECTS OF THE WORK FOUND TO BE DEFECTIVE BECAUSE IT DOES NOT MEET THE REQUIREMENTS SHOWN OR SPECIFIED SHALL BE CORRECTED BY THE CONTRACTOR AT NO EXTRA COST TO THE OWNER AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 24 HOURS IN ADVANCE TO ALLOW THE ENGINEER TO SCHEDULE REVIEWS AT THE FOLLOWING TIMES:

A. REVIEW OF BEARING SOIL
B. COMPLETION OF FOOTING FORM INSTALLATION
C. PRIOR TO POURING THE CONCRETE PIER
D. FINAL REVIEW OF "PUNCH LIST"

4 THIS WORK HAS BEEN DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE CONSTRUCTION HAS BEEN COMPLETED. THE STABILITY OF THE STRUCTURE PRIOR TO COMPLETION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THIS RESPONSIBILITY EXTENDS TO ALL ASPECTS OF THE CONSTRUCTION ACTIVITY INCLUDING, BUT NOT LIMITED TO, JOBSITE SAFETY, ERECTION METHODS, ERECTION SEQUENCE, TEMPORARY BRACING AND SHORING, USE OF EQUIPMENT AND SIMILAR CONSTRUCTION PROCEDURES. REVIEW OF CONSTRUCTION BY THE ENGINEER IS FOR CONFORMANCE WITH THE DESIGN ASPECTS ONLY, NOT TO REVIEW THE CONTRACTOR'S CONSTRUCTION PROCEDURES. LACK OF COMMENT ON THE PART OF THE ENGINEER WITH REGARD TO CONSTRUCTION PROCEDURES IS NOT TO BE INTERPRETED AS APPROVAL OF THOSE PROCEDURES.

5 SHOP DRAWINGS SUBMITTALS TO THE ENGINEER FOR APPROVAL ARE REQUIRED FOR:

A. CONCRETE REINFORCEMENT

FABRICATION AND/ OR DELIVERY TO THE SITE OF THESE MATERIALS PRIOR TO RECEIPT OF APPROVAL BY THE ENGINEER IS SOLELY AT THE CONTRACTOR'S OWN RISK.

6 SOME DETAILS OF THE WORK MAY BE SHOWN ON THE ARCHITECTURAL DRAWINGS. A CAREFUL REVIEW AND STUDY OF THESE DETAILS ARE NECESSARY BEFORE THE FULL SCOPE OF THE WORK CAN BE COMPREHENDED.

7 THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATION, AND ANGLES WITH ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS BEFORE PROCEEDING WITH ANY WORK.

8 DO NOT SCALE DRAWINGS.

FOUNDATION AND EXCAVATION NOTES:

1 HE FOUNDATIONS HAVE BEEN DESIGNED TO REST ON INORGANIC, UNDISTURBED SOIL OR COMPACTED GRANULAR FILL HAVING A PRESUMPTIVE BEARING VALUE OF 3000 PSF. SUCH BEARING STRATA IS ANTICIPATED AT THE BOTTOM OF FOOTING ELEVATIONS NOTED ON THE FOUNDATION PLAN. ALL BEARING STRATA SHALL BE REVIEWED BY THE ENGINEER PRIOR TO PLACING CONCRETE IN ORDER TO VERIFY THE PRESUMPTIVE BEARING VALUE.

2 IN AREAS REQUIRING FILL, THE FILL MATERIAL SHALL BE A UNIFORMLY GRADED MIXTURE OF SAND AND GRAVEL WEIGHING NO LESS THAN 120 PCF DRY DENSITY AFTER COMPACTION IN PLACE. THIS MIXTURE SHALL BE UNIFORMLY GRADED HAVING NO STONE GREATER THAN 3" IN ANY ONE DIMENSION, AND WITH LESS THAN 10%, BY WEIGHT, PASSING A #200 SIEVE. THE FILL SHALL BE PLACED IN THIN LIFTS BEFORE COMPACTION. EACH LIFT SHALL BE COMPACTED WITH APPROPRIATE EQUIPMENT TO A MINIMUM OF 95% OF ITS MAXIMUM DENSITY AT OR NEAR OPTIMUM MOISTURE. A SOILS TESTING LAB, HIRED BY THE OWNER, SHALL TEST THE MATERIAL BEFORE AND AFTER COMPACTION FOR CONFORMANCE WITH THIS SPECIFICATION. NO LIFTS SHALL BE PLACED WHEN WEATHER CONDITIONS ARE SUCH THAT THE MOISTURE CONTENT OF THE FILL CANNOT BE PROPERLY CONTROLLED.

3 WITHIN THE PERIMETER OF THE PROPOSED NEW STRUCTURE STRIP THE GROUND SURFACE OF ALL TOPSOIL, ORGANIC AND FILL MATERIAL. COMPACT TOP OF REMAINING EXCAVATED SURFACE.

4 THE SLAB-ON-GRADE SUB-BASE SHALL BE CRUSHED STONE PASSING A 2" SIEVE AND WITH LESS THAN 10%, BY WEIGHT, PASSING A #100 SIEVE.

5 THE BOTTOM OF EXTERIOR FOOTINGS NOT ON SOLID ROCK SHALL BE AT LEAST 3'-6" BELOW FINISHED GRADE. THE SURFACE OF THE SOIL BELOW ALL FOOTINGS SHALL BE MECHANICALLY COMPACTED PRIOR TO SETTING FOOTING FORMS. FOOTINGS ON LEDGE SHALL REST ON BROOM CLEAN SOLID ROCK. IF THE SLOPE OF THE ROCK SURFACE EXCEEDS 1 ON 6, THE FOOTING SHALL BE DOWELED TO THE LEDGE WITH 3/4"ø STEEL RODS DRILLED 10" INTO THE ROCK SURFACE AT 2'-0" O.C.

6 DO NOT UNDERMINE EXISTING OR NEWLY PLACED FOUNDATIONS BY EXCAVATING WITHIN A ZONE DIRECTLY BELOW THESE FOUNDATIONS AND EXTENDING DOWN AND OUTWARDS AT A 45° ANGLE.

7 PROTECT ALL SOIL UNDER FOUNDATIONS FROM FREEZING DURING CONSTRUCTION. DO NOT POUR CONCRETE ON FROZEN SOIL.

8 KEEP FOUNDATION EXCAVATIONS FREE FROM WATER AT ALL TIMES.

9 IF STANDING WATER IS PRESENT IN THE FOOTING EXCAVATION, A 4" TO 6" THICK LAYER OF 3/4" CRUSHED STONE SHALL BE COMPACTED INTO THE BOTTOM OF THE EXCAVATION AND DEWATERING METHODS SHALL BE USED THAT WILL NOT UNDERMINE THE BEARING OF ANY ADJACENT FOOTINGS.

10 IN PLACING AND COMPACTING FILL AND BACKFILL MATERIAL, DO NOT DAMAGE NOR DISPLACE CONCRETE WORK ALREADY IN PLACE BY CONTACT FROM COMPACTION MACHINERY, BY SUBJECTING IT TO OVERTURNING FROM HEAVY COMPACTING LOADINGS, OR ANY OTHER CAUSE. AT FROST WALLS BRING FILL AGAINST SUCH CONCRETE AT THE SAME RATE AS THE REMAINDER OF FILL, COMPACTING UNIFORMLY ON BOTH SIDES USING HAND OPERATED TAMPERS. IN BASEMENT AND CRAWL SPACE AREAS DO NOT BACKFILL AGAINST WALLS UNTIL THE FLOOR OR ROOF DECK BEARING ON THE WALLS HAS BEEN INSTALLED AND FULLY ATTACHED TO THE TOP OF THE FOUNDATION.

11 INVERTS OF FOOTING DRAIN, IF REQUIRED, ARE TO BE SET A MINIMUM OF 2" ABOVE THE BOTTOM OF ADJACENT FOOTINGS.

12 USE LEAN CONCRETE (f'c = 1500 PSI) OR CONTROLLED COMPACTED FILL FOR OVER-EXCAVATION OF FOOTINGS.

13 WHERE FOOTINGS ARE IN CLOSE PROXIMITY OF SUB-SURFACE PIPING, BOTTOM OF FOOTINGS SHALL BE AT LEAST 8" BELOW ELEVATION OF PIPING, UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

14 EXISTING UTILITIES: LOCATE EXISTING UNDERGROUND UTILITIES IN AREAS OF EXCAVATION WORK. PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING EARTHWORK OPERATIONS.

BELL SHAPED FOOTINGS/ PIERS:

1 BELL SHAPED FOOTINGS/ PIERS ARE MONOLITHIC CAST-IN-PLACE CONCRETE FOOTINGS AND PIERS USED TO SUPPORT ISOLATED POSTS OR BEAMS SUPPORTING ELEVATED STRUCTURES SUCH AS DECKS AND PORCHES. BELL SHAPED FOOTINGS/ PIERS (SUCH AS THOSE MANUFACTURED BY "BIGFOOT SYSTEMS") SHALL CONSIST OF A BELL SHAPED FOOTING FORM TO BE MANUFACTURED OF HIGH DENSITY POLYETHYLENE (HDPE) USED IN CONJUNCTION WITH FIBRE, SPIRALLY WOUND, CONSTRUCTION TUBES. BELL SHAPED FOOTING FORMS SHALL HAVE ADEQUATE STRENGTH TO RESIST DISTORTION OF THE FORM FROM THE PRESSURE OF THE BACKFILL AND POURED CONCRETE. THE SLOPED SIDES SHALL HAVE VENT HOLES TO ALLOW TRAPPED AIR TO ESCAPE.

2 BELL SHAPED FOOTING SIZES ARE INDICATED GENERICALLY ON PLAN AS THE DIAMETER AT THE BASE OF THE BELL SHAPED FOOTING. THE DIAMETER OF THE TOP OF THE BELL SHAPED FOOTING SHALL MATCH THE DIAMETER OF THE CONSTRUCTION TUBE. CONSTRUCTION TUBE SIZES ARE INDICATED ON PLAN AS THE INSIDE DIAMETER OF THE CONSTRUCTION TUBE.

3 THE BOTTOM OF EXCAVATION FOR BELL SHAPED FOOTING SYSTEMS SHALL BE PREPARED AS PER THE "FOUNDATION AND EXCAVATION NOTES" ON THIS SHEET.

4 BELL SHAPED FOOTINGS/ PIERS OF THE PROPER SIZE, WITH A SINGLE #5 REBAR CENTERED ON THE FOOTING/ PIER, UNLESS OTHERWISE SPECIFIED ON PLAN, ARE TO BE INSTALLED PLUMB AND LEVEL AT THE LOCATIONS SHOWN ON THE DRAWINGS USING THE MANUFACTURER'S RECOMMENDED DETAILS, UNLESS OTHERWISE NOTED ON PLANS.

CONCRETE NOTES:

1 STRUCTURAL CONCRETE WORK SHALL CONFORM TO ALL THE REQUIREMENTS OF ACI 318-08, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" IN IT'S ENTIRETY. CERTAIN PORTIONS OF THIS SPECIFICATION ARE PRESENTED HERE ONLY FOR CLARIFICATION AND THE CONTRACTOR'S CONVENIENCE AND ARE NOT INTENDED TO REPLACE OR AMEND THIS SPECIFICATION.

2 CONCRETE SHALL BE NORMAL WEIGHT AND DEVELOP A MINIMUM STRENGTH IN 28 DAYS AS FOLLOWS:

LOCATION	STRENGTH	MAX. WATER/CEMENTITIOUS (W/C) RATIO
FOOTINGS	3000 PSI	0.50
PIERS	4500 PSI	0.40

3 PORTLAND CEMENT SHALL BE TYPE I OR TYPE II AND CONFORM TO ASTM C150.

4 OTHER CEMENTITIOUS MATERIAL SUCH AS FLYASH OR GROUND GRANULATED BLAST- FURNACE SLAG MAY BE BLENDED WITH CEMENT FOR USE IN THE CONCRETE MIX. FLYASH SHALL CONFORM TO ASTM C618 AND MAY REPLACE CEMENT IF THE FOLLOWING RANGES FOR THE 2 CLASSES OF FLYASH; CLASS C, 20 TO 35%; CLASS F, 15 TO 25%. GROUND GRANULATED BLAST- FURNACE SLAG SHALL CONFORM TO ASTM C989 AND MAY NOT EXCEED 50% OF TOTAL WEIGHT OF CEMENTITIOUS MATERIALS.

5 COARSE AGGREGATE SHALL BE 3/4" AND CONFORM TO ASTM C33.

6 REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, GALVANIZED.

7 WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WITH A MINIMUM YIELD STRENGTH OF 75 KSI. LAP ONE MESH SIZE AT SIDES AND ENDS, AND WIRE TOGETHER.

8 NO WELDING OF REINFORCING WILL BE PERMITTED.

9 NO ADMIXTURES ARE PERMITTED WITHOUT THE ENGINEERS WRITTEN PERMISSION. CONCRETE EXPOSED TO THE WEATHER, SUCH AS THAT USED IN FOUNDATION WALLS AND GARAGE SLABS, SHALL CONTAIN 5% ± 1% ENTRAINED AIR. DO NOT USE AIR ENTRAINMENT ADMIXTURES FOR INTERIOR SLABS.

10 GROUT FOR USE UNDER STEEL PLATES SHALL BE CEMENT-BASED, NON-SHRINK, NON-METALLIC GROUT HAVING A MINIMUM 7 DAY STRENGTH OF 5000 PSI, SUCH AS FIVE STAR GROUT MANUFACTURED BY THE U.S. GROUT CORPORATION.

11 THE FOLLOWING CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT, UNLESS OTHERWISE NOTED ON PLANS:

	COVER (INCHES)
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 THROUGH #18 BARS:	2
#5 BAR AND SMALLER:	1 1/2
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
SLABS, WALLS, JOISTS:	
#14 AND #18 BARS	1 1/2
#11 BAR AND SMALLER	3/4
BEAMS, COLUMNS - PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS	1 1/2

12 THE CONTRACTOR SHALL BE RESPONSIBLE FOR LIMITING POURS TO MINIMIZE SHRINKAGE CRACKING. IN GENERAL, WALLS SHALL NOT BE POURED IN CONTINUOUS LENGTHS EXCEEDING 30 FEET AND SLABS NOT EXCEEDING 20 FEET WITHOUT CONTROL JOINTS. THE LOCATION AND CONFIGURATION OF JOINTS EXPOSED TO VIEW SHALL BE COORDINATED WITH THE ARCHITECT.

13 SIZES AND LOCATIONS OF ALL REQUIRED EMBEDDED ITEMS FOR ALL TRADES SUCH AS ANCHOR BOLTS, PIPING SLEEVES, HOLDOWN ANCHORS, ETC. SHALL BE COORDINATED BY THE GENERAL CONTRACTOR WITH OTHER TRADES.

14 CONCRETE FORMWORK SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 6, ACI 318. FABRICATION AND PLACEMENT OF REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 7, ACI 318. CONSTRUCTION JOINTS AND EMBEDDED ITEMS, SUCH AS PIPING SLEEVES, SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 6, ACI 318. THE PRODUCTION OF CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 5, ACI 318.

15 THE CONVEYANCE AND PLACEMENT OF THE CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 5, ACI 318. MECHANICAL VIBRATORS ARE TO BE USED TO CONSOLIDATE THE FRESHLY CAST CONCRETE AROUND THE REINFORCING AND AGAINST FORM SURFACES AND TO PREVENT THE FORMATION OF AIR OR STONE POCKETS, HONEYCOMBING, PITTING OR PLANES OF WEAKNESS. HOWEVER, CARE MUST BE USED TO AVOID OVER VIBRATION THAT CAN LEAD TO AGGREGATE SEGREGATION.

16 THE CURING AND PROTECTION OF CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 5, ACI 318. CONCRETE SLABS SHALL BE PROTECTED FROM LOSS OF SURFACE MOISTURE FOR NOT LESS THAN 7 DAYS USING A CURING COMPOUND CONFORMING TO ASTM C309 OR CONSTANTLY WETTED BURLAP. CURING COMPOUNDS SHALL BE COMPATIBLE WITH ANY INTENDED FLOORING OVERLAY. DO NOT INSTALL FINISH FLOORING UNTIL SLAB HAS ADEQUATELY DRIED PER THE FLOORING MANUFACTURER'S SPECIFICATIONS.

17 COLD WEATHER CONCRETE PLACEMENT: IF COLD WEATHER CONCRETING CONDITIONS EXIST AS DEFINED BY A PERIOD OF MORE THAN THREE DAYS WHEN THE AVERAGE OUTDOOR TEMPERATURE, (HIGH + LOW)/2, IS LESS THAN 40° F, THE PROCEDURES OUTLINED IN ACI 306.1 STANDARD SPECIFICATION FOR "COLD WEATHER CONCRETING" SHALL BE UTILIZED.

18 HOT WEATHER CONCRETE PLACEMENT: MAINTAIN CONCRETE TEMPERATURE BELOW 90° F AT TIME OF PLACEMENT AND COMPLY WITH ACI 301.

19 THE FOLLOWING SUBMITTALS ARE TO BE MADE TO AND APPROVED BY THE ENGINEER PRIOR TO COMMENCING ANY WORK:

A. CONCRETE DESIGN MIX FOR EACH STRENGTH OF CONCRETE REQUIRED ATTESTING THAT THE MIXES CAN ATTAIN THE MINIMUM REQUIRED STRENGTHS IN ACCORDANCE WITH CHAPTER 5, ACI 318.

B. CERTIFICATES OF COMPLIANCE FOR CEMENT, AGGREGATES, AND ADDITIVES.

C. SHOP DRAWINGS WITH PLANS, ELEVATIONS, SECTIONS AND BENDING SCHEDULES INDICATING ALL REINFORCING AND ACCESSORIES NEEDED IN ADDITION TO ALL PROPOSED CONSTRUCTION JOINTS LOCATIONS.

FABRICATION AND/ OR DELIVERY TO THE SITE OF THESE MATERIALS PRIOR TO RECEIPT OF AND APPROVAL OF THESE SUBMITTALS IS AT THE CONTRACTOR'S OWN RISK.

20 A DESIGNATED TESTING LABORATORY SHALL CONDUCT STRENGTH TEST IN ACCORDANCE WITH THE FOLLOWING PROCEDURES:

A. MAKE ONE STRENGTH TEST FOR EACH 50 CUBIC YARDS OR FRACTION THEREOF FROM EACH MIX DESIGN OF CONCRETE PLACED IN ANY ONE DAY, EXCEPT THAT IN NO CASE SHALL A GIVEN MIX DESIGN BE REPRESENTED BY LESS THAN FIVE TESTS.

B. SECURE COMPOSITE SAMPLES IN ACCORDANCE WITH "METHOD OF SAMPLING FRESH CONCRETE" (ASTM C172). EACH STRENGTH TEST SHALL BE OBTAINED FROM A DIFFERENT BATCH OF CONCRETE ON A REPRESENTATIVE, TRULY RANDOM BASIS. WHEN PUMPING OR PNEUMATIC EQUIPMENT IS USED, SAMPLES SHALL BE TAKEN AT THE DISCHARGE END.

C. MOLD FOUR SPECIMENS FROM EACH SAMPLE IN ACCORDANCE WITH "METHOD OF MAKING AND CURING CONCRETE COMPRESSION AND FLEXURE SPECIMENS IN THE FIELD" (ASTM C31), AND CURE UNDER STANDARD MOISTURE AND TEMPERATURE CONDITIONS, IN ACCORDANCE WITH SECTION 7(A) AND 7(B) OF THE ABOVE ASTM METHOD.

D. DETERMINE SLUMP OF THE CONCRETE SAMPLE FOR EACH STRENGTH TEST AND WHENEVER CONSISTENCY OF CONCRETE APPEARS TO VARY USING "METHOD OF TEST OF SLUMP OF PORTLAND CEMENT CONCRETE" (ASTM C43).

E. DETERMINE AIR CONTENT OF NORMAL WEIGHT CONCRETE SAMPLE FOR EACH STRENGTH TEST IN ACCORDANCE WITH EITHER "METHOD OF TEST FOR AIR CONTENT OF FRESHLY MIXED CONCRETE BY PRESSURE METHOD" (ASTM C231) OR "METHOD OF TEST FOR AIR CONTENT OF FRESHLY MIXED CONCRETE BY THE VOLUMETRIC METHOD" (ASTM C173).

F. TEST THREE SPECIMENS: ONE AT SEVEN DAYS, AND TWO AT 28 DAYS IN ACCORDANCE WITH "METHOD OF TEST FOR COMPRESSIVE STRENGTH OF MOLDED CONCRETE CYLINDERS" (ASTM C39). THE 28 DAY TEST RESULT SHALL BE THE AVERAGE OF THE TWO SPECIMENS. IF THE AVERAGE OF THE TWO SPECIMENS IS LESS THAN THE REQUIRED STRENGTH, TEST THE FOURTH SPECIMEN AT 45 DAYS. WHEN HIGH EARLY STRENGTH IS REQUIRED, TWO SPECIMENS SHALL BE TESTED AT SEVEN DAYS.

CONNECTIONS TO EXISTING CAST-IN-PLACE CONCRETE:

1 ALL PROPRIETARY ANCHORING SYSTEMS (EXPANSION, ADHESIVE ANCHORING SYSTEMS, ETC.) TO BE INSTALLED INTO EXISTING CONCRETE ELEMENTS ARE TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS FOR DRILLING AND CLEANING OF HOLES, FOR SPACING AND EDGE DISTANCE REQUIREMENTS, AND FOR THE UTILIZATION OF SUPPLEMENTAL COMPONENTS FOR THE ANCHORING SYSTEMS SUCH AS SCREEN TUBES, DOWELING ADHESIVES, ETC.

2 UNLESS NOTED ON PLAN, CONNECTIONS TO EXISTING SOLID CAST-IN-PLACE CONCRETE SHALL BE MADE USING SIMPSON "SET-XP" EPOXY ANCHORING SYSTEM, HILTI "HIT-RE 500-SD" ADHESIVE ANCHORING SYSTEM, HILTI "HIT-HY 150 MAX SD" ADHESIVE ANCHORING SYSTEM OR EQUAL AS APPROVED BY THE ENGINEER. SIZE, EMBEDMENT, SPACING, AND EDGE DISTANCES OF ANCHORS AND REINFORCING BARS SHALL BE AS INDICATED ON THE DRAWINGS.

5 FOR CONNECTIONS TO EXISTING CONCRETE, CONTRACTOR MUST LOCATE THE POSITION OF EXISTING REINFORCING BARS WITH AN R-METER OR PILOT HOLES PRIOR TO THE INSTALLATION OF ANCHORS. NOTIFY ENGINEER OF FIELD CONFLICTS PRIOR TO INSTALLATION.

GENERAL WOOD NOTES:

1 WOOD DESIGN IS BASED ON THE AF&PA NDS-05 "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH THE 2005 SUPPLEMENT".

2 THE CONTRACTOR SHALL COORDINATE LOCATIONS OF ALL PLUMBING PIPING, HVAC DUCTING AND RECESSED LIGHTING FIXTURES, ETC. PRIOR TO LAYOUT TO MINIMIZE INTERFERENCE THAT MAY REQUIRE THE ALTERING OR STRENGTHENING OF THE INSTALLED FRAMING.

3 ALL WOOD FRAMING IS TO BE STORED ON SITE ABOVE THE GROUND ON "STICKERS" INDOORS OR UNDER TARPS WITH ADEQUATE CLEARANCES TO ALLOW AIR CIRCULATION.

4 JOISTS AND RAFTERS SHALL BE SUPPORTED LATERALLY AT EACH SUPPORT BY FULL DEPTH SOLID BLOCKING, EXCEPT WHERE JOISTS ARE SUPPORTED BY A FLUSH HEADER OR NAILED TO A RIM JOIST.

5 FLUSH FRAMED CONNECTIONS SHALL BE MADE WITH PREFABRICATED GALVANIZED STEEL HANGERS MADE BY SIMPSON STRONG-TIE COMPANY, INC. OR BY UNITED STEEL PRODUCTS COMPANY (USP) OF WIDTH AND DEPTH APPROPRIATE FOR THE SUPPORTED MEMBER. INSTALL WITH THE TYPE AND QUANTITY OF FASTENERS RECOMMENDED BY THE MANUFACTURER. PREFABRICATED STEEL HANGERS USED IN CONTACT WITH PRESERVATIVE PRESSURE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 OR STAINLESS STEEL, TYPE 316, OR HAVE A "TRIPLE ZINC" (ASTM G185) COATING. FASTENERS IN CONTACT WITH PRESERVATIVE PRESSURE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 OR STAINLESS STEEL, TYPE 316. DO NOT MIX STAINLESS STEEL AND GALVANIZED FASTENERS AND CONNECTORS.

6 CONTRACTOR SHALL CHOOSE METAL CONNECTOR (SIMPSON, USP, OR APPROVED EQUAL) BASED ON MEMBER REACTIONS SHOWN ON THE DRAWINGS, UNLESS OTHERWISE NOTED. CONTRACTOR TO PROVIDE PRODUCT DATA TO THE ENGINEER FOR APPROVAL.

7 STRUCTURAL WOOD FRAMING USED IN EXTERIOR APPLICATIONS OR IN CONTACT WITH CONCRETE SHALL BE SOUTHERN YELLOW PINE NO. 2 OR BETTER, ACQ (ALKALINE COPPER QUATERNARY) OR CA (COPPER AZOLE) PRESERVATIVE PRESSURE TREATED WOOD WITH A RETENTION APPROPRIATE FOR END USE.

8 BUILT-UP MEMBERS OF THREE PLIES OR LESS SHALL HAVE ADJACENT PLIES NAILED TOGETHER WITH TWO ROWS OF NAILS AT 12" O.C. (10d COMMON NAILS FOR 1-1/2" PLIES, 12d COMMON NAILS FOR 1-3/4" PLIES). BUILT-UP MEMBERS OF MORE THAN 3 PLIES SHALL BE ASSEMBLED WITH 1/2"ø THRU BOLTS AT 16" O.C. STAGGERED UP AND DOWN WITH 2" CLEARANCE AT TOP AND BOTTOM EDGES.

9 MEMBERS MAY NOT BE BORED OR NOTCHED WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

LAMINATED VENEER LUMBER (LVL), PARALLEL STRAND LUMBER (PSL), AND LAMINATED STRAND LUMBER (LSL) NOTES:

1 LAMINATED VENEER LUMBER SHALL BE "MICROLLAM" AS MANUFACTURED BY WEYERHAEUSER, "GP LAM" AS MANUFACTURED BY THE GEORGIA-PACIFIC CORPORATION OR "LP SOLIDSTART" AS MANUFACTURED BY THE LOUISIANA-PACIFIC CORPORATION. PARALLEL STRAND LUMBER SHALL BE "PARALLAM" AS MANUFACTURED BY WEYERHAEUSER. LAMINATED STRAND LUMBER SHALL BE "TIMBERSTRAND" AS MANUFACTURED BY WEYERHAEUSER.

2 MINIMUM ALLOWABLE STRESS AND STIFFNESS CHARACTERISTICS SHALL BE AS FOLLOWS:

MATERIAL	Fb	Fc (PAR)	Fc (PER)	Fv	E
1.9E LVL	2,600 PSI	2,510 PSI	750 PSI	285 PSI	1,900,000 PSI
1.8E PSL	2,900 PSI	2,900 PSI	750 PSI	290 PSI	2,000,000 PSI
1.3E LSL	1,700 PSI	1,400 PSI	680 PSI	400 PSI	1,300,000 PSI
1.5E LSL	2,250 PSI	1,950 PSI	775 PSI	400 PSI	1,500,000 PSI
1.55E LSL	2,325 PSI	2,050 PSI	800 PSI	310 PSI	1,550,000 PSI

MEMBER SIZES SHOWN ON PLAN (WIDTH X DEPTH) SPECIFIED AS LVL MAY BE CONSTRUCTED OF MULTIPLE LVL PLIES OR PSL OF THE SPECIFIED DEPTH, FASTENED TOGETHER BY NAILING OR BOLTING AS REQUIRED. MEMBER SIZES FOLLOWED ONLY BY PSL MUST BE INSTALLED AS A SOLID MEMBER, NOT BUILT-UP.

3 MEMBERS MAY NOT BE BORED OR NOTCHED WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

DEPTH \ WIDTH	1-3/4"	2-5/16"	3-1/2"
9-1/2"	TJI 110 GPI 20	TJI 230 GPI 40	---
11-7/8"	TJI 110 GPI 20	TJI 230/360 GPI 40 LPI 36	TJI 560 LPI 56
14"	TJI 110	TJI 230/360 GPI 40 LPI 36	TJI 560 LPI 56
16"	---	TJI 230/360 LPI 36	TJI 560 LPI 56

SELECTED JOIST SIZES HAVE BEEN DESIGNED WITH WEYERHAEUSER SOFTWARE FOR A TJ - PRO™ RATING OF 50 OR HIGHER. JOISTS SUPPORTING A "MUDJOB" HAVE BEEN DESIGNED FOR A TOTAL LOAD DEFLECTION OF LESS THAN L/600. IF JOISTS OTHER THAN TJI'S ARE USED THEY SHALL HAVE SIMILAR DEMONSTRATED PERFORMANCE.

3 I-JOISTS ARE TO BE HANDLED IN THE UPRIGHT POSITION. DO NOT WALK ON JOISTS UNTIL MANUFACTURER'S RECOMMENDED TEMPORARY TOP FLANGE BRACING OR PERMANENT SHEATHING IS INSTALLED. I-JOISTS ARE TO BE STORED ON SITE ABOVE THE GROUND ON "STICKERS" UNDER TARPS WITH ADEQUATE CLEARANCES TO ALLOW AIR CIRCULATION.

4 JOISTS OF THE PROPER SIZE ARE TO BE INSTALLED AT THE SPACINGS INDICATED ON THE DRAWINGS USING THE MANUFACTURER'S RECOMMENDED DETAILS, UNLESS OTHERWISE NOTED ON PLANS.

5 RIM JOISTS/ BOX NAILERS ARE TO BE 1-3/4" MINIMUM THICK RIM BOARD MEMBERS MATCHING THE JOIST DEPTH MADE OF LVL MATERIAL.

6 DO NOT CUT OR NOTCH FLANGES. WEBS OPENING MAY BE CUT ONLY AS RECOMMENDED IN THE MANUFACTURER'S LITERATURE AND THEN ONLY AFTER CONSULTATION WITH THE ENGINEER. DO NOT BEVEL CUT THE TOP END OF THE JOIST BEYOND THE EDGE OF BEARING.

7 PROVIDE SINGLE "SQUASH BLOCKS" UNDER BEARING WALLS FROM ABOVE NAILED TO THE JOIST FLANGES MATCH THE DIMENSIONS AND MATERIAL OF THE SUPPORTING STUD BELOW. "SQUASH BLOCKS" ARE TO BE CUT 1/16" LONGER THAN DEPTH OF JOIST AND ARE TO BE INSTALLED WITH GRAIN VERTICAL.

WOOD FASTENERS NOTES:

1 WOOD COMPONENTS ARE TO BE FASTENED TOGETHER AS INDICATED IN THE FOLLOWING SCHEDULE UNLESS SPECIFICALLY INDICATED OTHERWISE ON THE PLANS.

BUILDING ELEMENT	NAIL SIZE/TYPE	NUMBER AND LOCATION
FLOOR CONSTRUCTION		
BUILT UP GIRDER/BEAM (3 PLIES OR LESS):	10d FOR 1.50" PLIES 16d FOR 1.75" PLIES	2 HORIZ. ROWS (TOP & BOT) 12" O.C. DIRECT
FLOOR JOISTS TO SILL OR GIRDER:	10d COMMON	4 TOE-NAIL
RIM/BOX JOIST TO JOIST END:	16d COMMON	3 END DIRECT
BRIDGING TO JOISTS:	8d COMMON 10d COMMON	3 TOE-NAIL OR 2 DIRECT
FLOOR TRUSS CHORD TO SILL OR GIRDER:	16d COMMON	3 DIRECT
BAND JOIST TO TRUSS END:	10d COMMON	3 DIRECT
EDGE FLOOR TRUSS BOTTOM CHORD TO SILL:	16d COMMON	8" O.C. DIRECT
EDGE FLOOR JOIST/ TRUSS TO SILL:	10d COMMON	8" O.C. TOE-NAIL

2 NAILS AND SPIKES SPECIFIED ON PLAN SHALL CONFORM TO THE NOMINAL SIZES SPECIFIED IN FEDERAL SPECIFICATIONS FF-N-105B AND AS NOTED IN THE TABLE BELOW:

TYPE		PENNYWEIGHT				
		8d	10d	12d	16d	20d
COMMON	SHANK DIAMETER	0.131"	0.148"	0.148"	0.162"	0.192"
	LENGTH	2.50"	3.00"	3.25"	3.50"	4.00"
	HEAD DIAMETER	0.281"	0.312"	0.312"	0.344"	0.406"

PNEUMATIC OR ELECTRIC POWERED HAMMERS TYPICALLY UTILIZE LIGHTER GAGE FASTENERS AND NORMALLY REQUIRE ADDITIONAL FASTENERS TO BE INSTALLED. FASTENER SPECIFICATIONS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION IF POWERED HAMMERS ARE TO BE USED.

3 BOLTS SHALL CONFORM TO ASTM A307 OR ASTM A36.

4 LAG AND WOOD SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.6.1-19.81.

5 ALL FASTENERS USED IN CONTACT WITH PRESERVATIVE PRESSURE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 OR STAINLESS STEEL, TYPE 316. DO NOT MIX STAINLESS STEEL AND GALVANIZED FASTENERS AND CONNECTORS.

6 BORED LEAD HOLES FOR FASTENERS SHALL BE AS FOLLOWS:

A. NAIL AND SPIKE LEAD HOLES ARE NOT REQUIRED UNLESS TO PREVENT SPLITTING OF WOOD. IF REQUIRED, LEAD HOLE DIAMETER SHALL NOT EXCEED 75% OF NAIL/SPIKE DIAMETER.

B. WOOD SCREWS - LEAD HOLE DIAMETER EQUALS 7/8 OF UNTHREADED SHANK DIAMETER IN CONNECTED WOOD PART AND 7/8 OF DIAMETER AT ROOT OF THREAD IN WOOD RECEIVING THREAD.

C. LAG SCREWS - LEAD HOLE DIAMETER EQUALS SHANK DIAMETER FOR EXTENT OF UNTHREADED SHANK, AND 60% OF SHANK DIAMETER FOR THREADED PORTION OF SHANK.

D. THRU BOLTS - LEAD HOLE DIAMETER 1/32" TO 1/16" LARGER THAN NOMINAL BOLT DIAMETER.

7 INSERT THREADED SCREW TYPE FASTENERS BY TURNING WITH SCREWDRIVER OR WRENCH. DO NOT DRIVE BY HAMMERING. FACILITATE INSTALLATION BY PLACING SOAP OR OTHER LUBRICANT ON THREADS.

8 PROVIDE STANDARD ROUND WASHERS UNDER THE HEADS OF ALL THRU BOLTS AND LAG SCREWS AND UNDER ALL NUTS UNLESS OTHERWISE INDICATED ON THE PLANS. TIGHTEN FASTENERS WITHOUT CRUSHING WOOD FIBERS UNDER WASHERS.

GENERAL LEGEND

INDICATES DIRECTION OF CUT
INDICATES SECTION NUMBER
SECTION MARK: INDICATES A CUT SECTION.
INDICATES DRAWING NUMBER

INDICATES SECTION NUMBER
SECTION BUBBLE: DENOTES SECTION
INDICATES DRAWING NUMBER

SECTION THRU SECTION OR DETAIL.

KEYNOTE: INDICATES REPRESENTATIVE NOTE FOUND ON KEYNOTE LIST.

SHORE: INDICATES DIRECTION AND AREA WHERE SUPPORT IS NEEDED.

WEB OF CHANNEL OR VERTICAL LEG OF ANGLE
CHANNEL: INDICATES CHANNEL POSITION.
FLANGE EDGE OF CHANNEL OR HORIZONTAL LEG OF ANGLE

WORK POINT: INDICATES ORIGIN OF WORK.

TOP OF LOW SURFACE
TOP OF HIGH SURFACE
DROP: INDICATES CHANGE IN ELEVATION.

SPAN DIRECTION OF STEEL DECK OR FRAMING MEMBER.

REVISION: INDICATES REVISION NUMBER.

GRID BUBBLE (IN SECTION): INDICATES GRID LINE WITH VARYING NUMBERS/ LETTERS.

GRID BUBBLE (IN PLAN AND SECTION): INDICATES SPECIFIC GRID LINE NUMBERS/ LETTERS.

HATCH PATTERNS:

▨	STEEL	▨	CMU WALL
▨	PLYWOOD SHEATHING	▨	OVERBUILD AREA
▨	SAND AND/OR GROUT	▨	MUD JOB
▨	GRADE	▨	EXIST. BUILDING
▨	GRAVEL	▨	CONCRETE
▨	BEARING WALL	▨	ROCK
▨	SHEAR WALL	▨	UNDERPINNING
▨	BEARING/SHEAR WALL		

ABBREVIATIONS AND DESIGNATIONS

ACI	AMERICAN CONCRETE INSTITUTE
ADH	ADHESIVE
AFF	ABOVE FINISH FLOOR
AFPA	AMERICAN FOREST AND PAPER ASSOCIATION
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
ANCH	ANCHOR
APPROX	APPROXIMATE
ARCH	ARCHITECT
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS
AWS	AMERICAN WELDING SOCIETY
B-##	BEAM MARK
BD	BOARD
BM	BEAM
BOT	BOTTOM
B □	BASE PLATE
BP-##	BEARING PLATE MARK
BRG	BEARING
BS	BOTH SIDES
BTWN	BETWEEN
BW	BEARING WALL
B/	BOTTOM OF
C-##	COLUMN MARK
CA	COLUMN ABOVE
CBL	COLUMN BELOW
CB	CROSS BRACING
CANT	CANTILEVER
CJ	CONTROL/CONSTRUCTION JOINT OR CEILING JOIST
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CY	CUBIC YARD
□	CENTER LINE
DB	DIAGONAL BRACE
DBL	DOUBLE
DIAG	DIAGONAL
DIAM	DIAMETER
DIM	DIMENSION
DN	DOWN
DWG	DRAWING
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEV	ELEVATOR
EMBED	EMBEDMENT
EOD	EDGE OF DECK
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EX EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F-#.#	FOOTING MARK
FD	FLOOR DRAIN
FDN	FOUNDATION
FIN	FINISH
FL	FLOOR
FS	FAR SIDE
FT	FOOT OR FEET
FTG	FOOTING
GA	GAGE
GALV	GALVANIZED
GB-##	GRADE BEAM MARK
GEN	GENERAL
GYP	GYPSUM
HGR	HANGER
HK	HOOK
HORIZ	HORIZONTAL
HP	HIGH POINT
HT	HEIGHT
HVAC	HEATING VENTILATING AIR CONDITIONING
ID	INSIDE DIAMETER
IF	INSIDE FACE
INT	INTERIOR
INV	INVERT
J-##	JOIST MARK
JT	JOINT

K	KIPS
KLF	KIPS PER LINEAR FOOT
KSI	KIPS PER SQUARE INCH
KSF	KIPS PER SQAURE FOOT
L	STEEL ANGLE
LBS	POUNDS
LCE	LENGTH OF COMPRESSION EMBEDMENT
LCS	LENGTH OF COMRESSION SPLICE
LF	LINEAR FOOT
LH	LEFT HAND
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LOW POINT
LSL	LAMINATED STRUCTURAL LUMBER
LTE	LENGTH OF TENSION EMBEDMENT
LTS	LENGTH OF TENSION SPLICE
LVL	LAMINATED VENEER LUMBER
MAS	MASONRY
MAX	MAXIMUM
MC	MOMENT CONNECTION
MECH	MECHANICAL
MF	MOMENT FRAME
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTL	METAL
NDS	NATIONAL DESIGN SPECIFICATION
NIC	NOT IN CONTRACT
NO	NUMBER
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
P-##	PIER MARK
PAF	POWDER ACTUATED FASTENER
PC-##	PILE CAP MARK
PERP	PERPENDICULAR
PLF	POUNDS PER LINEAR FOOT
PLYWD	PLYWOOD
PROJ	PROJECT OR PROJECTION
□	PLATE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	PRESERVATIVE TREATED
QTY	QUANTITY
R-##	RAFTER MARK
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCEMENT
REQ'D	REQUIRED
RTU	ROOF TOP UNIT
RO	ROUGH OPENING
SC	SHEAR CONNECTOR
SCHED	SCHEDULE
SECT	SECTION
SF	STEPPED FOOTING OR SQUARE FOOT
SIM	SIMILAR
SJI	STEEL JOIST INSTITUTE
SL	SLAB
SOG	SLAB ON GRADE
SPEC	SPECIFICATION
STD	STANDARD
STL	STEEL
SW	SHEAR WALL
SWB	SHEAR WALL BEAM
THK	THICK
THRD	THREADED
TPI	TRUSS PLATE INSTITUTE
TYP	TYPICAL
T/	TOP OF
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VIF	VERIFY IN FIELD
WP	WATERPROOF OR WORKING POINT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
W/O	WITHOUT
W/	WITH
#	POUNDS OR NUMBER
ø	DIAMETER

Revisions	Date
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Issue for Modular	11.11.15

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RESIDENCE No. 1168
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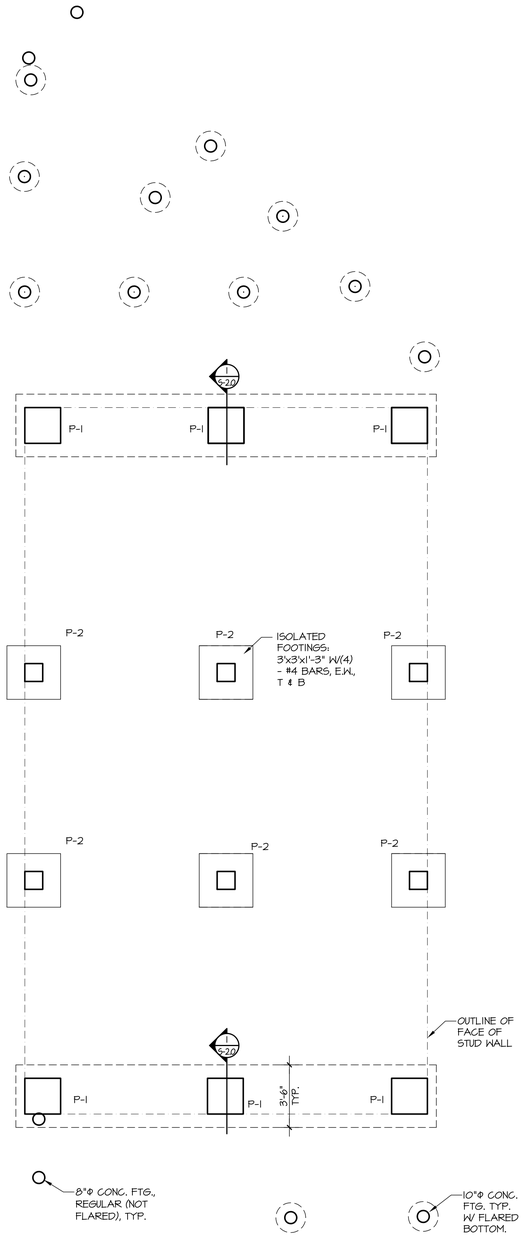
GENERAL NOTES AND MATERIAL SPECIFICATIONS

Drawn: JM
Checked: EM
Date: 10.21.15
Scale: AS NOTED
Job Number: 13288.00
Sheet: S-1.0

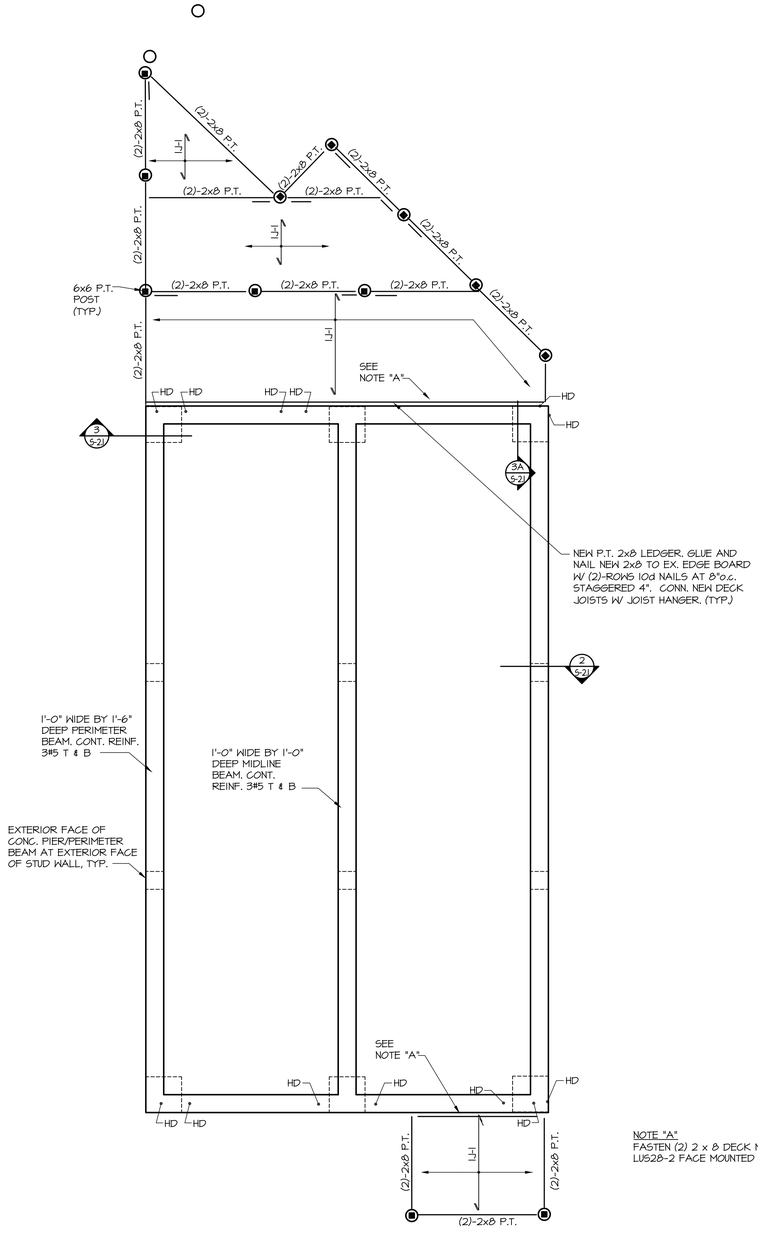


FOUNDATION PLAN

1/4" = 1'-0"

NORTH:

- DO NOT SCALE THIS DRAWING. SEE ARCHITECTURAL PLANS FOR ALL DIMENSIONS AND ELEVATIONS.
- EXTERIOR COLUMNS EXTERIOR FACES SHALL LINE UP WITH EXTERIOR FACE OF STUD WALL.
- BOTTOM OF FOOTINGS SHALL BE 3'-6" MINIMUM BELOW GRADE.
- DECK/STAIR FOUNDATIONS SHALL BE 8" TUBE-TYPE FOOTING, FLARED AND REGULAR (NOT FLARED), AS SHOWN. FLARED FOOTING SHALL BE BF20 BY BIGFOOT SYSTEMS OR APPROVED EQUAL.
- SEE PIER SCHEDULE FOR SIZES. CHAMFER CORNERS OF PIERS AND BOTTOM CORNERS OF BEAMS.
- SEE DRAWING S-1.0 FOR GENERAL NOTES AND MATERIAL SPECIFICATIONS AND DRAWING S-2.0 FOR SECTIONS AND DETAILS.



NOTE "A"
FASTEN (2) 2 x 8 DECK MEMBER TO LEDGER BEAM WITH SIMPSON LUS28-2 FACE MOUNTED HANGERS WITH ZMAX COATING

TIE-DOWN & DECK FRAMING PLAN

1/4" = 1'-0"

NORTH:

- DO NOT SCALE THIS DRAWING. SEE ARCHITECTURAL PLANS FOR ALL DIMENSIONS AND ELEVATIONS.
- HD INDICATES APPROXIMATE LOCATION OF HOLDOWNS FOR FIRST FLOOR SHEAR WALLS. SEE MODULAR DRAWING FOR HOLDOWN LOCATION & SCHEDULE.
- LJ-I INDICATES 2x8 P.T. JOISTS AT 16" O.C. WITH SIMPSON LUS28 FACE MOUNTED HANGERS WITH ZMAX COATING.
- SEE DRAWING S-1.0 FOR GENERAL NOTES AND MATERIAL SPECIFICATIONS AND DRAWING S-2.0 FOR SECTIONS AND DETAILS.

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FOUNDATION AND FIRST FLOOR PLANS

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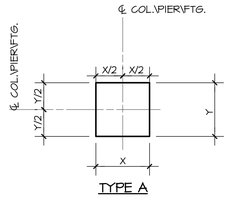
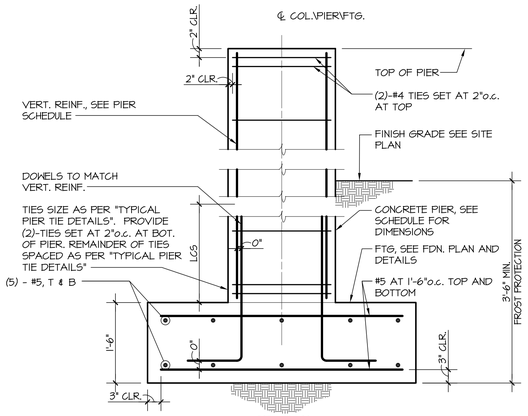


TYPE A

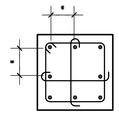


SECTION

PIER SCHEDULE

MARK	TYPE	"X" E-W DIR.	"Y" N-S DIR.	VERTICAL REINF.	REMARKS
P-1	A	2'-0"	2'-0"	(8)-#8	
P-2	A	1'-0"	1'-0"	(4)-#6	

PIER SCHEDULE AND PIER/FOOTING DETAILS
NO SCALE
1 S-2.0



8 BARS

TYPICAL TIE ARRANGEMENT

"*" INDICATES WHEN 6" OR LESS OMIT INTERIOR TIE.

MAXIMUM SPACING OF TIES

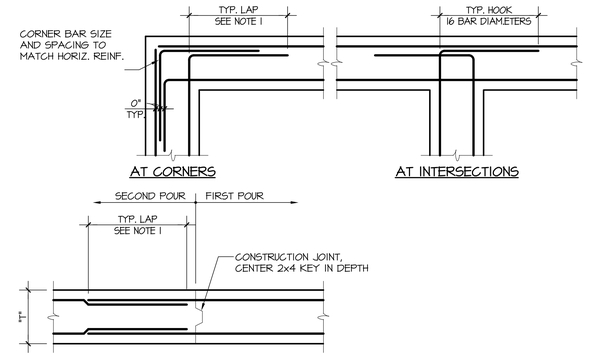
VERTICAL BAR SIZE	SIZE AND SPACING OF TIES		
	#3	#4	#5
#5	10"	-	-
#6	12"	-	-
#7	14"	-	-
#8	16"	16"	-

"*" INDICATES MAXIMUM SPACING NOT TO EXCEED LEAST DIMENSION OF COMPRESSION MEMBER.

NOTES:

1. THE VERTICAL BARS SHALL BE SPACED AROUND THE PERIMETER SO AS TO ACHIEVE APPROXIMATELY EQUAL SPACING.
2. THE MINIMUM VERTICAL BAR SPACING SHALL BE 1.5 X THE BAR DIAMETER, BUT NOT LESS THAN 1".
3. TIES SHALL BE ARRANGED SUCH THAT EVERY CORNER AND ALTERNATE VERTICAL BAR SHALL HAVE LATERAL SUPPORT PROVIDED BY THE CORNER OF A TIE WITH AN INCLUDED ANGLE OF NOT MORE THAN 135 DEGREES AND NO BAR SHALL BE FURTHER THAN 6" CLEAR ON EACH SIDE ALONG THE TIE FROM SUCH A LATERALLY SUPPORTED BAR.
4. TIES SHALL BE LOCATED VERTICALLY NOT MORE THAN ONE-HALF A TIE SPACING ABOVE THE TOP OF FOOTING OR SLAB IN ANY STORY, AND SHALL BE SPACED AS PROVIDED HEREIN TO NOT MORE THAN ONE-HALF A TIE SPACING BELOW THE LOWEST HORIZONTAL REINFORCEMENT IN SLAB OR DROP PANEL ABOVE.
5. WHERE BEAMS OR BRACKETS FRAME FROM FOUR DIRECTIONS INTO A COLUMN, PIER OR BUTRESS, TERMINATION OF TIES NOT MORE THAN 3" BELOW REINFORCEMENT IN SHALLOWEST OF SUCH BEAMS OR BRACKETS SHALL BE PERMITTED.
6. SEE THE GENERAL NOTES ON DRAWING S-1.0 FOR THE MINIMUM CONCRETE COVER REQUIREMENTS FOR REINFORCEMENT.

TYPICAL PIER TIE DETAILS
NO SCALE
2 S-2.0

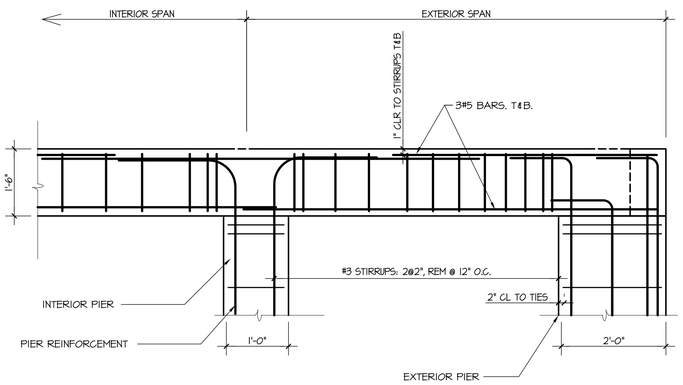


CONSTRUCTION JOINT

NOTES:

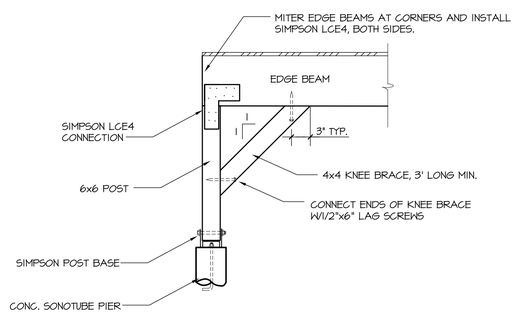
1. ALL BAR SPLICES SHALL BE CLASS "B" LAP SPLICES WITH 56 BAR DIAMETERS MINIMUM.
2. PROVIDE CONSTRUCTION JOINT AT END OF EACH DAY'S POUR. WALLS SHALL NOT BE POURED IN CONTINUOUS LENGTHS EXCEEDING 30 FEET WITHOUT PROVIDING CONSTRUCTION JOINTS OR CONTROL JOINTS.

TYPICAL CONCRETE FOOTING/BEAM CONSTRUCTION DETAIL
NO SCALE
2 S-2.0



NOTE: LAP SPLICE TOP BARS AT MID-SPAN. LAP SPLICE BOTTOM BARS OVER COLUMNS. SPLICE LENGTH FOR #5 BARS = 24". SEE SCHEDULES FOR PIER REINFORCEMENT.

TYPICAL PERIMETER BEAM DETAIL
NO SCALE
4 S-2.0



DECK KNEE BRACE CONNECTION DETAIL
NO SCALE
5 S-2.0

Revisions	Date
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TYPICAL FOUNDATION DETAILS

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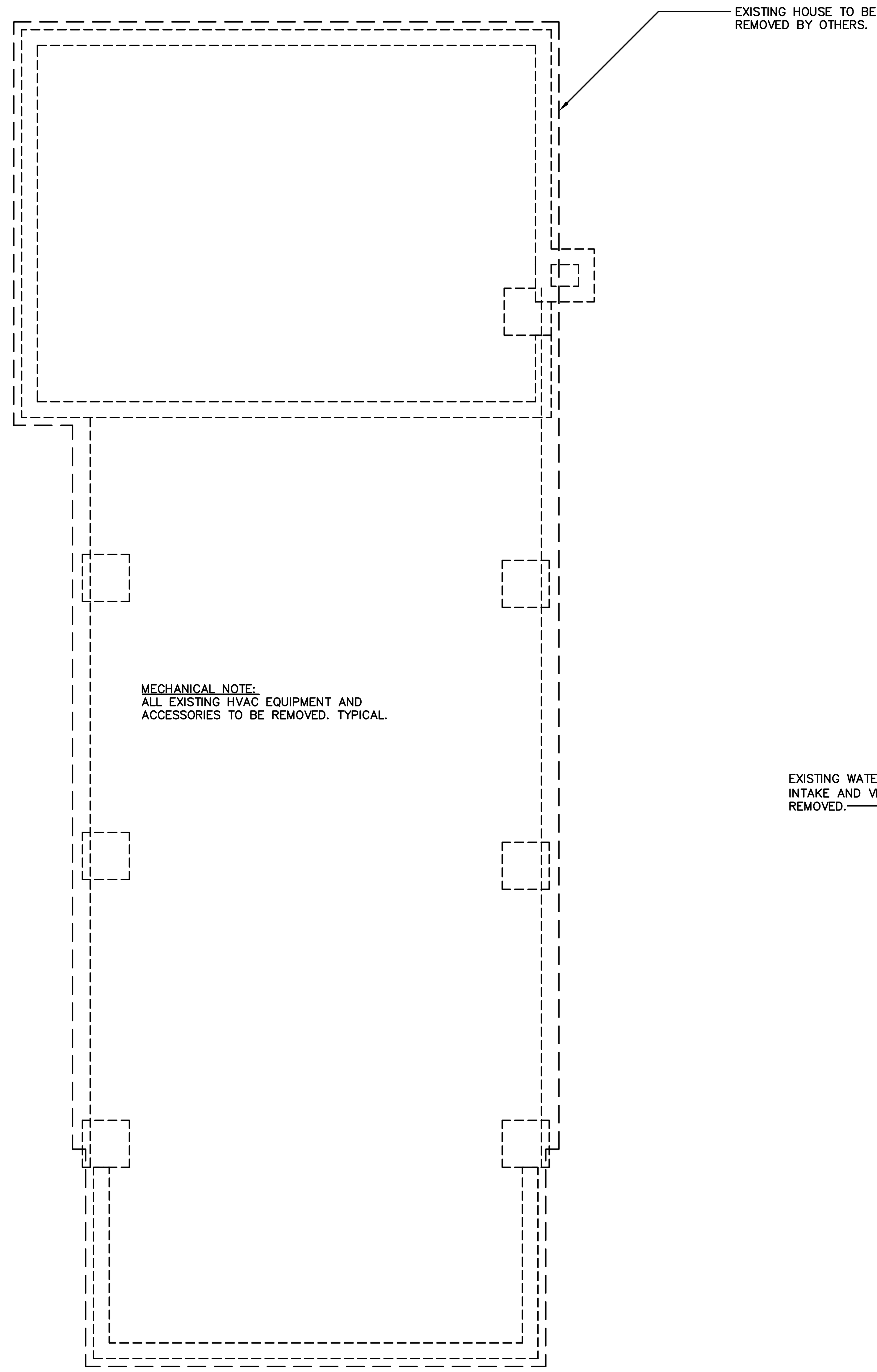
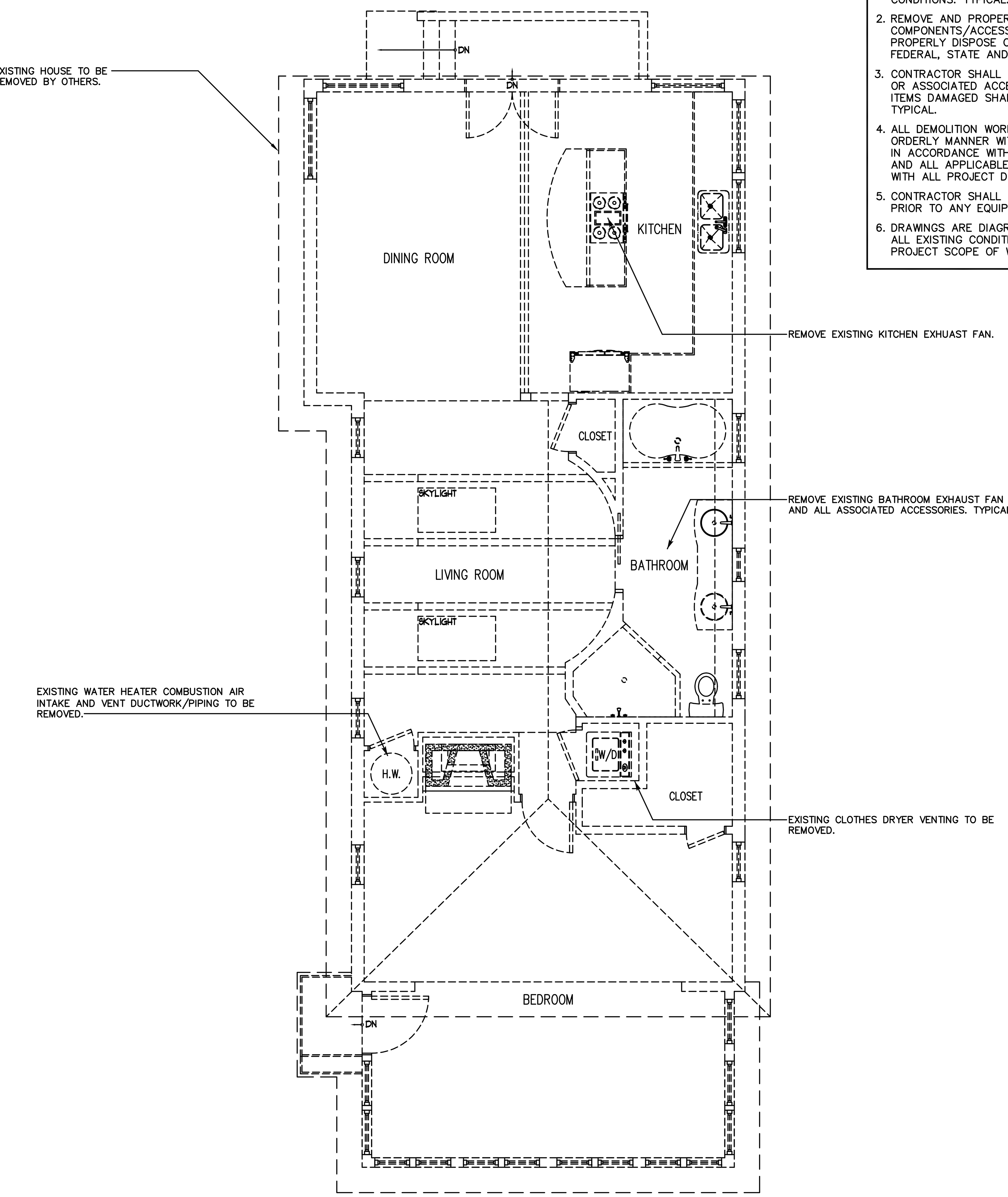


BASEMENT MECHANICAL DEMOLITION PLAN

SCALE: 1/4"=1'-0"



FIRST FLOOR MECHANICAL DEMOLITION PLAN

SCALE: 1/4"=1'-0"

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL VISIT THE PROJECT SITE AND BECOME INFORMED AS TO THE NATURE AND SCOPE OF DEMOLITION WORK REQUIRED, NOTING AND ACCOUNTING FOR EXISTING CONDITIONS. TYPICAL.
2. REMOVE AND PROPERLY DISPOSE OF EQUIPMENT AND ASSOCIATED COMPONENTS/ACCESSORIES AS INDICATED ON DEMOLITION PLANS. PROPERLY DISPOSE OF ALL DEMOLITION DEBRIS AS REQUIRED BY FEDERAL, STATE AND LOCAL CODES AND ORDINANCES. TYPICAL.
3. CONTRACTOR SHALL NOT DAMAGE ANY EXISTING EQUIPMENT, PIPING, OR ASSOCIATED ACCESSORIES WHICH ARE TO REMAIN. ANY SUCH ITEMS DAMAGED SHALL BE REPLACED AT CONTRACTOR'S EXPENSE. TYPICAL.
4. ALL DEMOLITION WORK SHALL BE PERFORMED IN A SAFE AND ORDERLY MANNER WITH QUALIFIED AND LICENSED PERSONNEL IN ACCORDANCE WITH STATE AND LOCAL GOVERNING AUTHORITIES AND ALL APPLICABLE CODES AND STANDARDS. COORDINATE WORK WITH ALL PROJECT DISCIPLINES AND EXISTING CONDITIONS. TYPICAL.
5. CONTRACTOR SHALL PROVIDE MINIMUM OF 72 HOURS NOTICE PRIOR TO ANY EQUIPMENT/SERVICE SHUT DOWN.
6. DRAWINGS ARE DIAGRAMMATIC. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INCLUDED IN AND RELATED TO THE PROJECT SCOPE OF WORK. TYPICAL.

Revisions	Date
Bid Set	01.18.16

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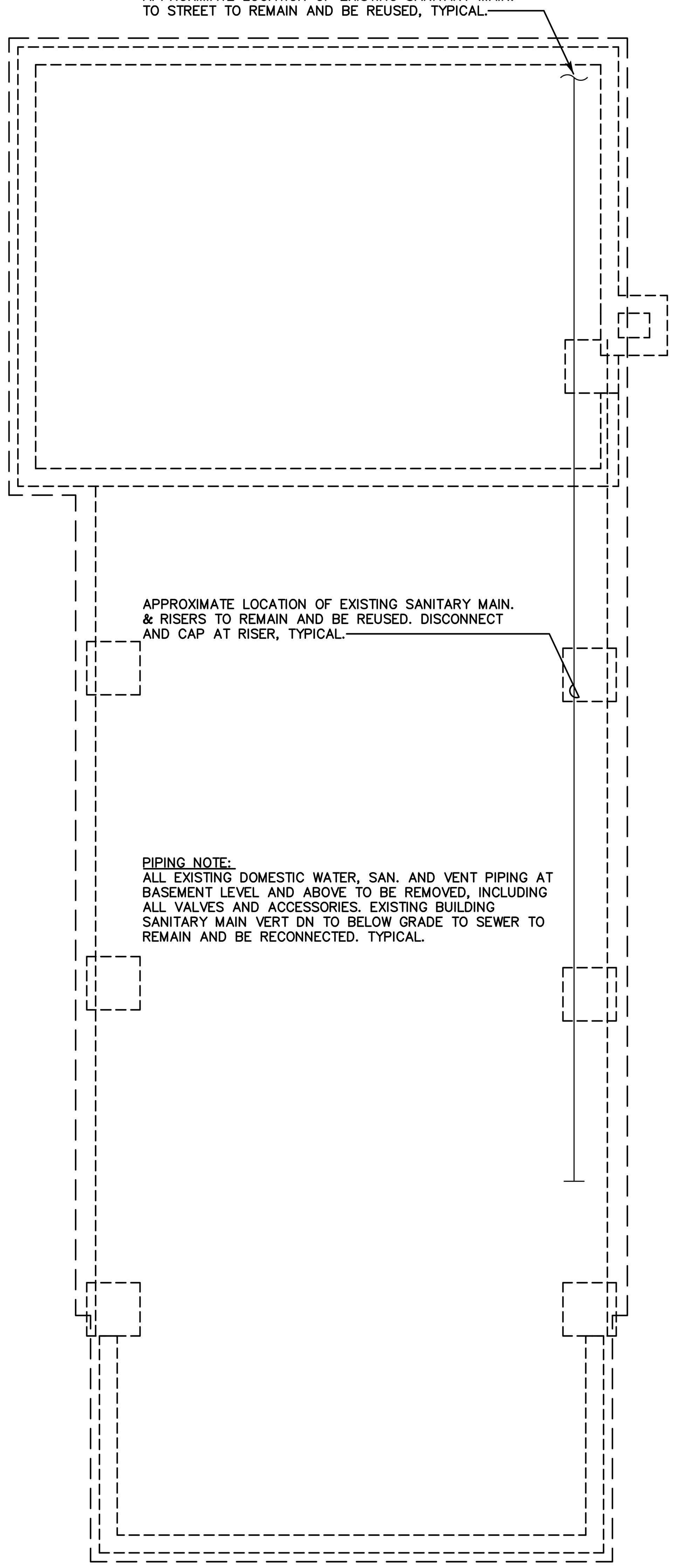
MECHANICAL DEMOLITION PLANS

Drawn	JDB
Checked	JAS
Date	08.11.2014
Scale	AS NOTED
Job Number	
Sheet	DM-1.0



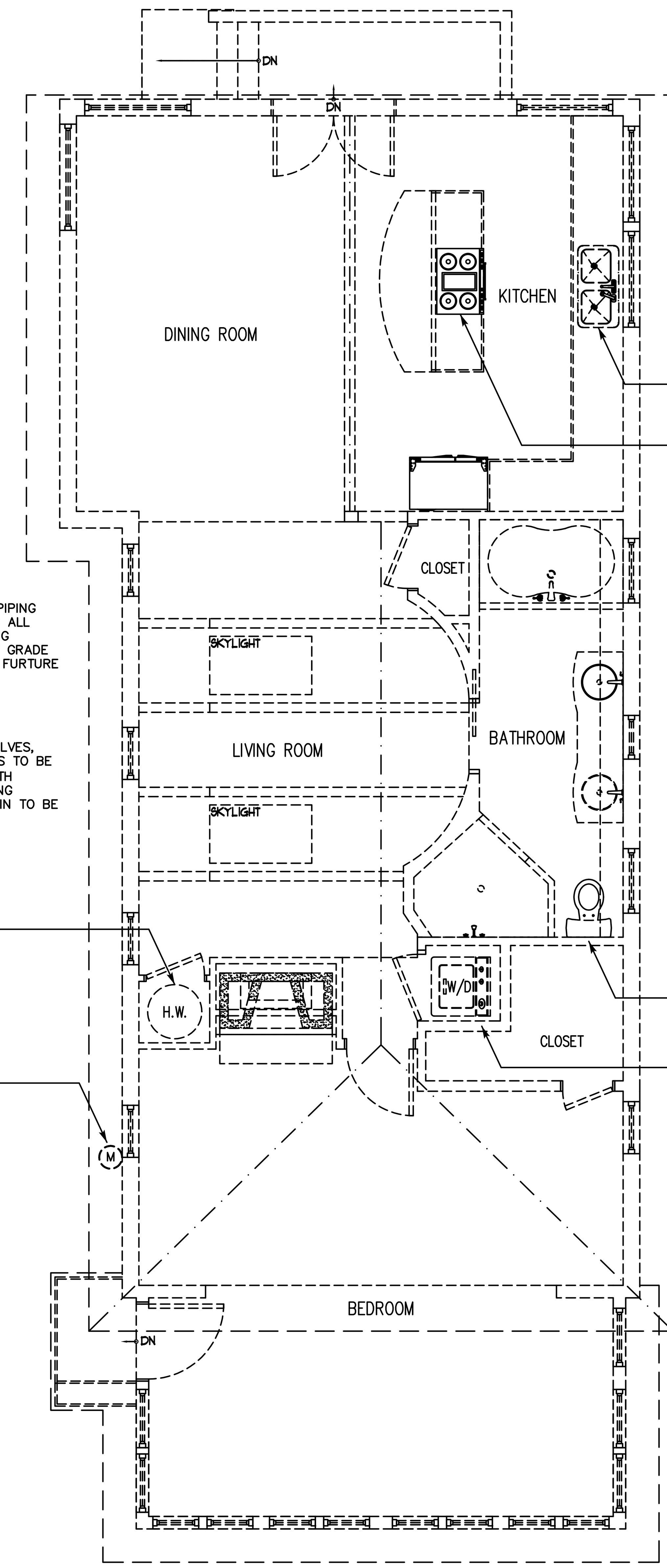
APPROXIMATE LOCATION OF EXISTING SANITARY MAIN. TO STREET TO REMAIN AND BE REUSED, TYPICAL.

APPROXIMATE LOCATION OF EXISTING SANITARY MAIN. & RISERS TO REMAIN AND BE REUSED. DISCONNECT AND CAP AT RISER, TYPICAL.

PIPING NOTE:
ALL EXISTING DOMESTIC WATER, SAN. AND VENT PIPING AT BASEMENT LEVEL AND ABOVE TO BE REMOVED, INCLUDING ALL VALVES AND ACCESSORIES. EXISTING BUILDING SANITARY MAIN VERT DN TO BELOW GRADE TO SEWER TO REMAIN AND BE RECONNECTED. TYPICAL.

BASEMENT PLUMBING DEMOLITION PLAN

SCALE: ¼"=1'-0"



PIPING NOTE:
EXISTING DOMESTIC WATER, SAN AND VENT PIPING WITHIN BUILDING TO BE REMOVED, INCLUDING ALL VALVES AND ACCESSORIES. EXISTING BUILDING SANITARY MAIN DN TO LATERAL PIPE BELOW GRADE TO SEWER TO REMAIN AND BE CAPPED FOR FURTURE USE.

WATER METER NOTE:
EXISTING WATER METER AND ASSOCIATED VALVES, FITTINGS, APPURTENANCES AND ACCESSORIES TO BE REMOVED AND RELOCATED/RECONNECTED WITH BUILDING ABOVE FLOOD PLAIN LEVEL. EXISTING UNDERGROUND DOMESTIC WATER SUPPLY MAIN TO BE EXTENDED TO PROPOSED LOCATION.

EXISTING CLOTHES WASHER AND DRYER TO BE REMOVED AND REINSTALLED. REMOVE ASSOCIATED PLUMBING CONNECTIONS AND PIPING.

APPROXIMATE LOCATION OF EXISTING GAS METER AND ASSOCIATED VALVES AND ACCESSORIES TO REMAIN AND BE RELOCATED. EXISTING NG PIPING AND ASSOCIATED APPLIANCE/EQUIPMENT VALVES AND CONNECTIONS WITHIN BUILDING TO BE REMOVED.

REMOVE EXISTING PLUMBING FIXTURES AND ALL ASSOCIATED VALVES AND PIPING. TYPICAL.

REMOVE EXISTING NG CONNECTION TO GAS RANGE AND ALL ASSOCIATED VALVES AND PIPING BACK TO SOURCE.

REMOVE EXISTING PLUMBING FIXTURES AND ALL ASSOCIATED VALVES AND PIPING. TYPICAL.

EXISTING CLOTHES WASHER AND DRYER TO BE REMOVED AND REINSTALLED. REMOVE ASSOCIATED PLUMBING CONNECTIONS AND PIPING.

FIRST FLOOR PLUMBING DEMOLITION PLAN

SCALE: ¼"=1'-0"

PLUMBING DEMOLITION NOTES:

1. THE CONTRACTOR SHALL VISIT THE PROJECT SITE, PRIOR TO BIDDING, AND BECOME INFORMED AS TO THE NATURE AND SCOPE OF DEMOLITION WORK REQUIRED, NOTING AND ACCOUNTING FOR EXISTING CONDITIONS. TYPICAL.
2. PROPERLY DISPOSE OF ALL DEMOLITION DEBRIS AS REQUIRED BY FEDERAL, STATE AND LOCAL CODES AND ORDINANCES.
3. ALL DEMOLITION WORK SHALL BE PERFORMED IN A SAFE AND ORDERLY MANNER WITH QUALIFIED AND LICENSED PERSONNEL IN ACCORDANCE WITH STATE AND LOCAL GOVERNING AUTHORITIES AND ALL APPLICABLE CODES. TYPICAL.
4. DO NOT DAMAGE EXISTING EQUIPMENT AND/OR SYSTEMS NOT BEING REMOVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING EQUIPMENT AND/OR SYSTEMS NOT BEING REMOVED.
5. DRAWINGS ARE DIAGRAMMATIC. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INCLUDED IN AND RELATED TO THE PROJECT SCOPE OF WORK. TYPICAL.

Revisions	Date
Bid Set	01.18.16

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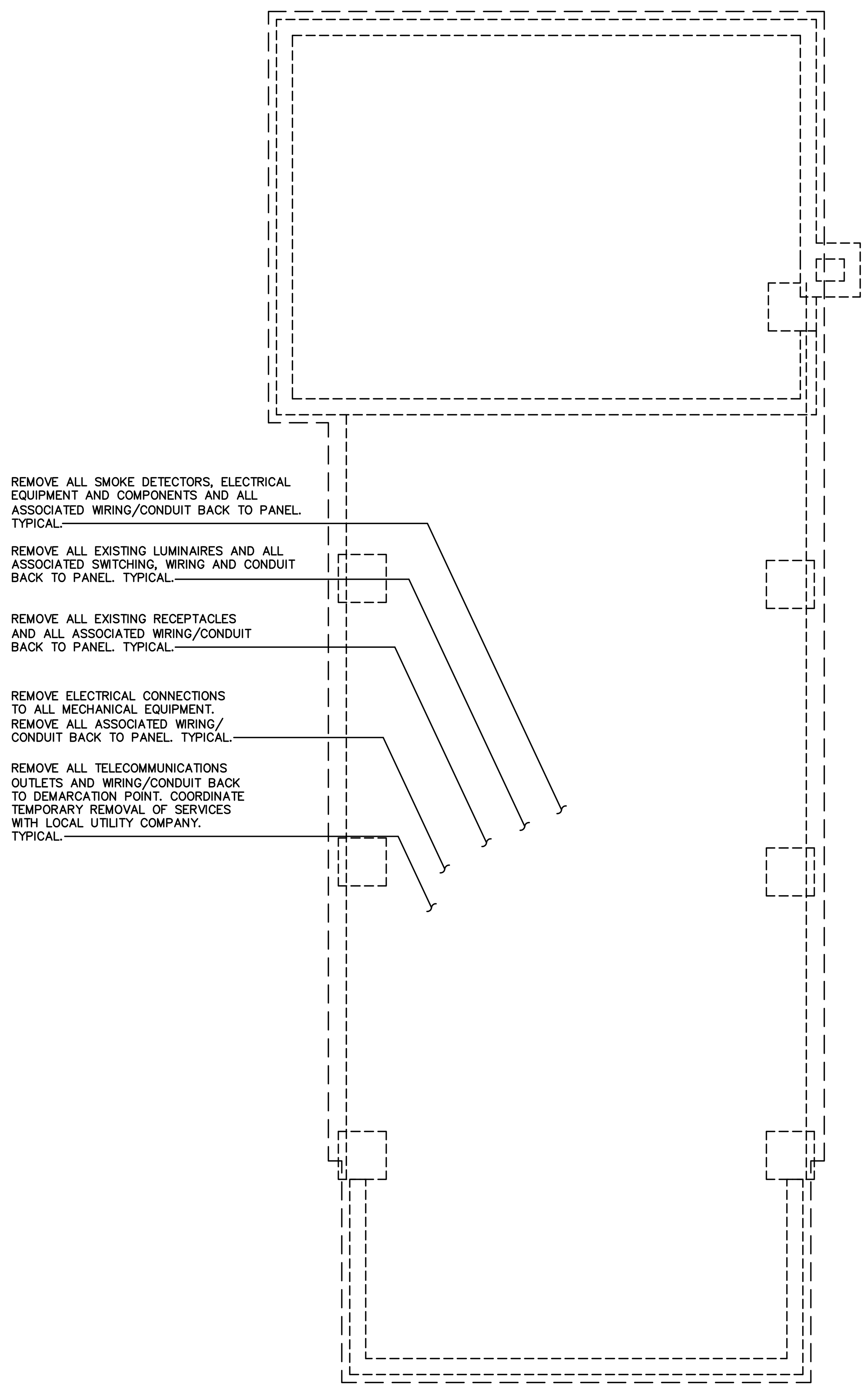
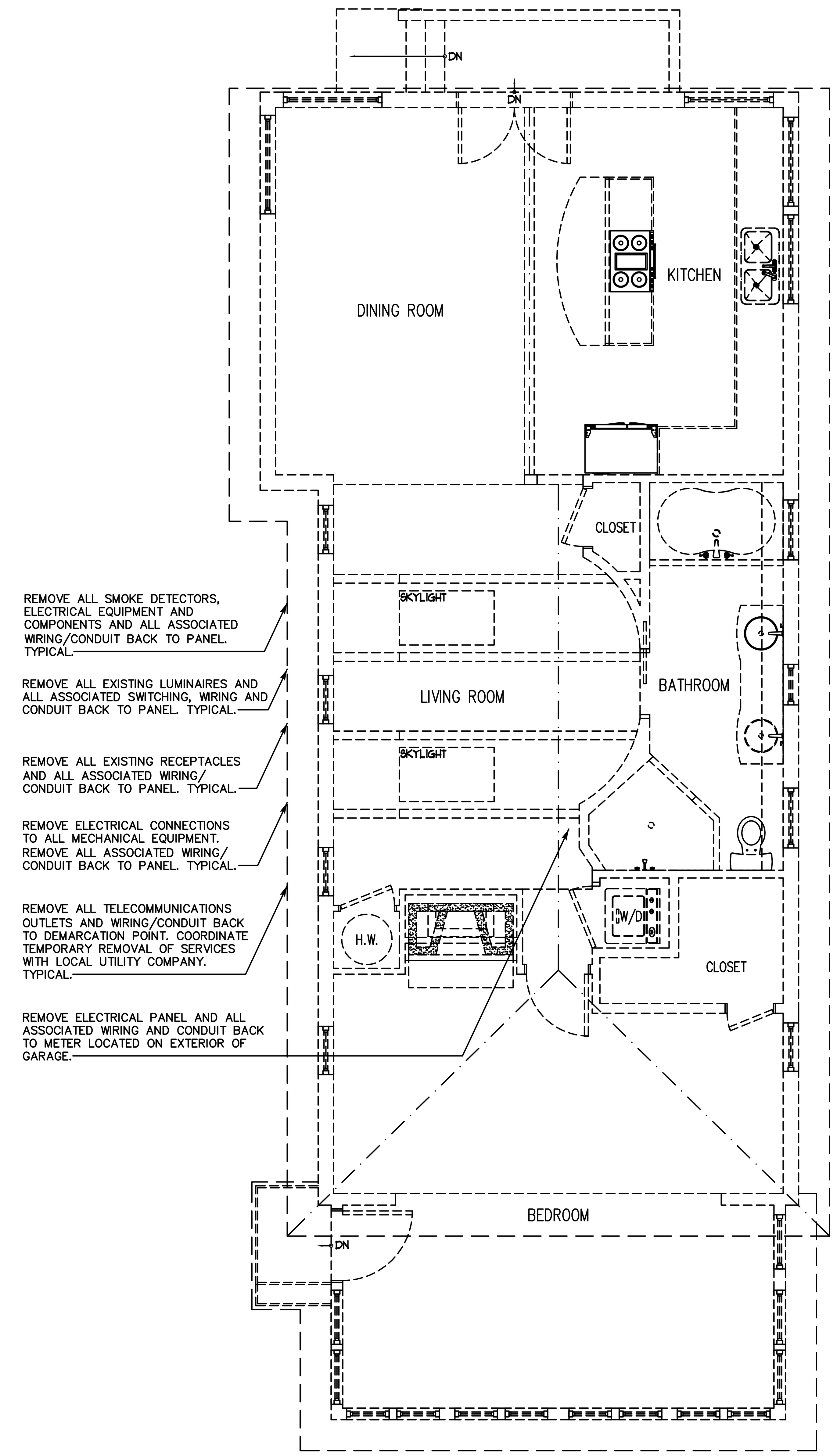
PLUMBING DEMOLITION PLANS

Drawn: JDB
Checked: JAS
Date: 08.11.2014
Scale: AS NOTED
Job Number:
Sheet: DP-1.0



BASEMENT ELECTRICAL DEMOLITION PLAN

SCALE: ¼"=1'-0"



FIRST FLOOR ELECTRICAL DEMOLITION PLAN

SCALE: ¼"=1'-0"

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL VISIT THE PROJECT SITE AND BECOME INFORMED AS TO THE NATURE AND SCOPE OF DEMOLITION WORK REQUIRED, NOTING AND ACCOUNTING FOR EXISTING CONDITIONS. TYPICAL.
2. REMOVE AND PROPERLY DISPOSE OF EQUIPMENT AND ASSOCIATED COMPONENTS/ACCESSORIES AS INDICATED ON DEMOLITION PLANS. PROPERLY DISPOSE OF ALL DEMOLITION DEBRIS AS REQUIRED BY FEDERAL, STATE AND LOCAL CODES AND ORDINANCES. TYPICAL.
3. CONTRACTOR SHALL NOT DAMAGE ANY EXISTING EQUIPMENT, PIPING, OR ASSOCIATED ACCESSORIES WHICH ARE TO REMAIN. ANY SUCH ITEMS DAMAGED SHALL BE REPLACED AT CONTRACTOR'S EXPENSE. TYPICAL.
4. CONTRACTOR SHALL NOT DAMAGE ANY EXISTING ELECTRICAL CONNECTIONS, WIRING AND ASSOCIATED ACCESSORIES WHICH ARE TO REMAIN. ANY SUCH ITEMS DAMAGED SHALL BE REPLACED AT CONTRACTOR'S EXPENSE. TYPICAL.
5. ALL DEMOLITION WORK SHALL BE PERFORMED IN A SAFE AND ORDERLY MANNER WITH QUALIFIED AND LICENSED PERSONNEL IN ACCORDANCE WITH STATE AND LOCAL GOVERNING AUTHORITIES AND ALL APPLICABLE CODES AND STANDARDS. COORDINATE WORK WITH ALL PROJECT DISCIPLINES AND EXISTING CONDITIONS. TYPICAL.
6. DRAWINGS ARE DIAGRAMMATIC. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INCLUDED IN AND RELATED TO THE PROJECT SCOPE OF WORK. TYPICAL.
7. DO NOT DISTURB ANY SUSPECTED HAZARDOUS MATERIALS. NOTIFY OWNERS REPRESENTATIVE OR ANY SUSPECTED MATERIALS IMPEDING PERFORMANCE OF WORK. TYPICAL.
8. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANIES. CONTRACTOR RESPONSIBLE FOR ALL FEES ASSOCIATED WITH ANY AND ALL UTILITY COMPANIES TO COMPLETE SCOPE OF WORK.
9. CONTRACTOR SHALL VERIFY ALL EXISTING EQUIPMENT SIZES AND LOCATIONS INFIELD AND PRIOR TO BIDDING.

GARAGE DEMOLITION NOTES:

1. CONTRACTOR SHALL REMOVE EXISTING ELECTRICAL PANEL LOCATED IN GARAGE. EXISTING GARAGE BRANCH CIRCUIT WIRING/CONDUIT TO REMAIN AND BE REUSED. TYPICAL.
2. CONTRACTOR SHALL REMOVE EXISTING METER SOCKET, MAST, WEATHERHEAD AND SERVICE ENTRANCE CONDUCTORS TO ELECTRICAL PANEL.
3. CONTRACTOR SHALL COORDINATE DISCONNECTION OF ELECTRICAL SERVICE TO PROPERTY WITH LOCAL UTILITY COMPANY.

Revisions	Date
Bid Set	01.18.16

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ELECTRICAL DEMOLITION PLANS

Drawn	JDB
Checked	JAS
Date	08.11.2014
Scale	AS NOTED
Job Number	
Sheet	DE–1.0

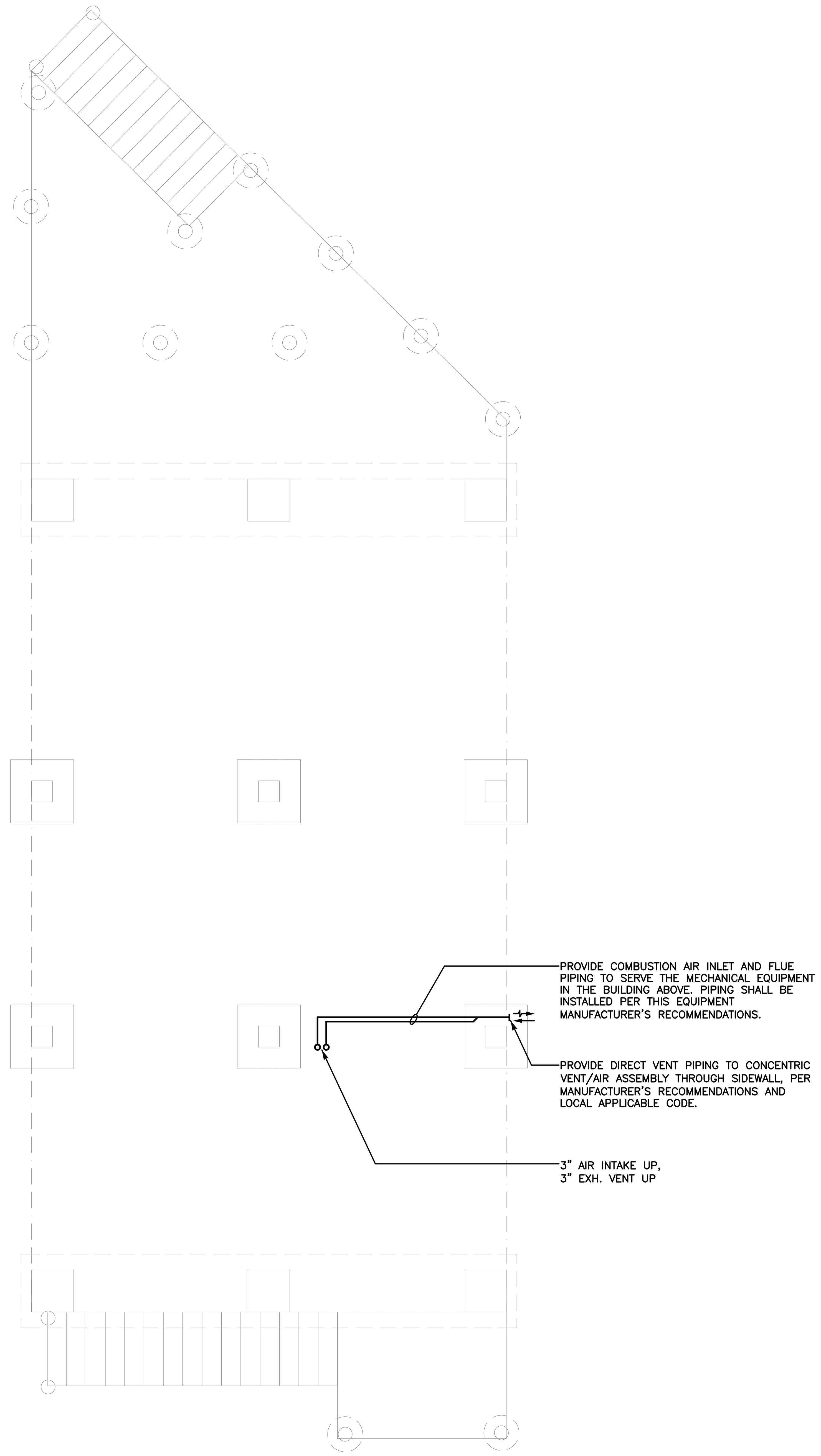
Revisions	Date
Bid Set	01.18.16

GENERAL MECHANICAL NOTES:

1. THE CONTRACTOR SHALL VISIT THE PROJECT SITE, PRIOR TO BIDDING, AND BECOME INFORMED AS TO THE NATURE AND SCOPE OF WORK REQUIRED, NOTING AND ACCOUNTING FOR EXISTING CONDITIONS. TYPICAL.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK INCLUDING TOOLS, MATERIAL, MANPOWER, ETC. REQUIRED FOR COMPLETE AND PROPER INSTALLATION OF PROPOSED MATERIALS, FIXTURES AND/OR EQUIPMENT.
3. ALL WORK SHALL BE PERFORMED IN A SAFE AND ORDERLY MANNER WITH QUALIFIED AND LICENSED PERSONNEL IN ACCORDANCE WITH STATE AND LOCAL GOVERNING AUTHORITIES AND ALL APPLICABLE CODES AND STANDARDS. TYPICAL.
4. ROUTING OF ALL PIPING SHALL BE COORDINATED WITH STRUCTURAL FRAMING ELEMENTS AND ALL OTHER PROJECT DISCIPLINES. TYPICAL.

PROPOSED MECHANICAL NOTES:

1. CONTRACTOR TO PROVIDE FIRE DAMPERS IF REQUIRED, COORDINATE WITH ARCHITECTURAL CODE SHEET.
2. CONTRACTOR TO MAINTAIN A MINIMUM 10'-0" DISTANCE BETWEEN ANY AIR INTAKE AND THE GAS METER.
3. CONTRACTOR TO MAINTAIN MANUFACTURER'S RECOMENDED DISTANCE BETWEEN DIRECT VENTS.
4. CONTRACTOR TO MAINTAIN A MINIMUM 10'-0" DISTANCE BETWEEN ANY AIR INTAKE AND BATHROOM EXHAUST.
5. ALL DUCTWORK IN JOIST BAYS OF THE FIRST FLOOR ASSEMBLY TO BE INSULATED SIMILAR TO FLOOR ASSEMBLY.
6. ALL DUCTWORK BELOW JOISTS OF FIRST FLOOR ASSEMBLY TO BE ENCLOSED WITH A MINIMUM OF 2" OF INSLUATION WRAP WITH WATERPROOF BARRIER, INSTALLED PER LOCAL CODE REQUIREMENTS AND MANUFACTURER'S RECOMENDATIONS.
7. CONTRACTOR TO MAINTAIN THAT ALL DUCTWORK AND DUCTWORK ACCESSORIES BE INSTALLED AT MIN. 1'-0" ABOVE THE 100 YEAR BASE FLOOD ELEVATION, PER LOCAL CODE REQUIREMENTS.
8. CONTRACTOR TO PROVIDE A MOUNTING PAD FOR THE CONDENSING UNIT, IF PROPOSED, PER MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE CODES. TYPICAL.



BASEMENT MECHANICAL PLAN

SCALE: ¼"=1'-0"

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MECHANICAL PLAN

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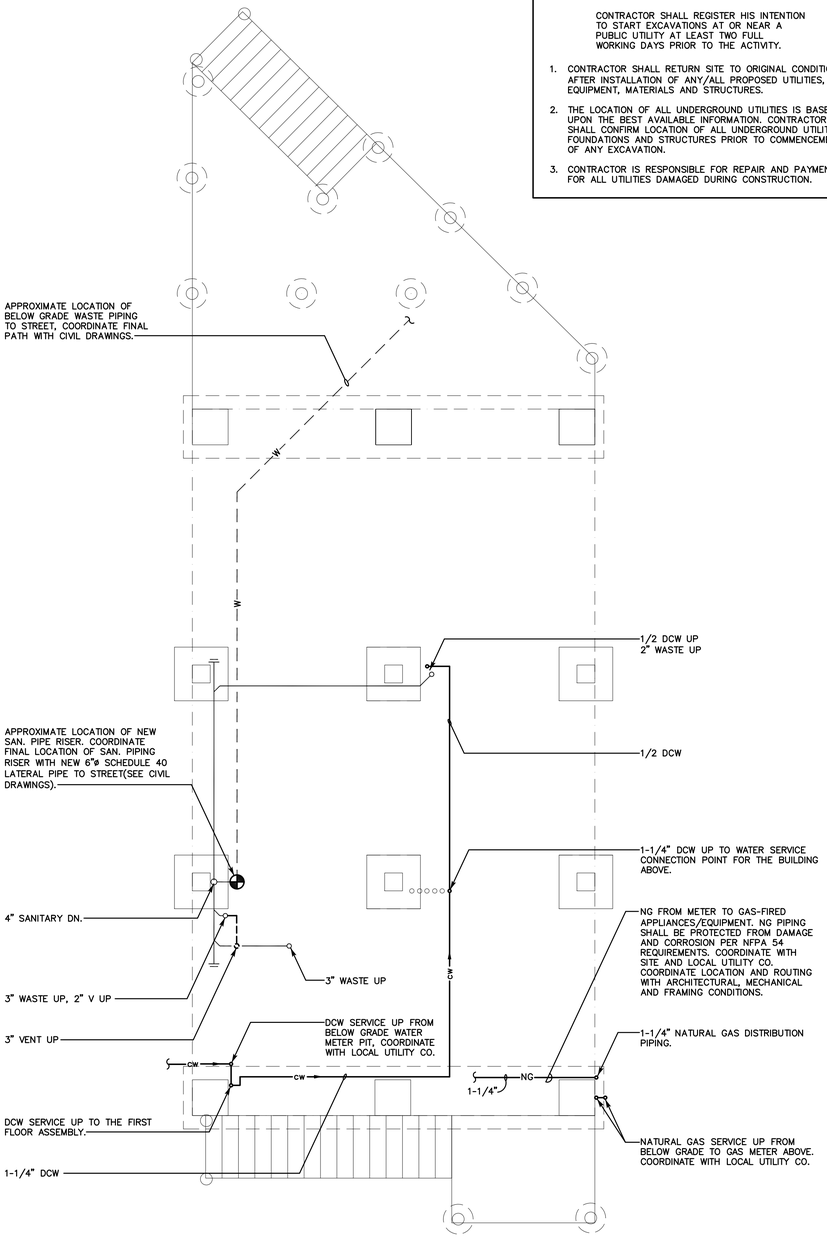


FIRST FLOOR PLUMBING PLAN

SCALE: 1/4"=1'-0"

WARNING

"CALL BEFORE YOU DIG"
1-800-922-4455

CONTRACTOR SHALL REGISTER HIS INTENTION TO START EXCAVATIONS AT OR NEAR A PUBLIC UTILITY AT LEAST TWO FULL WORKING DAYS PRIOR TO THE ACTIVITY.

1. CONTRACTOR SHALL RETURN SITE TO ORIGINAL CONDITION AFTER INSTALLATION OF ANY/ALL PROPOSED UTILITIES, EQUIPMENT, MATERIALS AND STRUCTURES.
2. THE LOCATION OF ALL UNDERGROUND UTILITIES IS BASED UPON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL CONFIRM LOCATION OF ALL UNDERGROUND UTILITIES, FOUNDATIONS AND STRUCTURES PRIOR TO COMMENCEMENT OF ANY EXCAVATION.
3. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND PAYMENT FOR ALL UTILITIES DAMAGED DURING CONSTRUCTION.

PLUMBING GENERAL NOTES:

1. THE CONTRACTOR SHALL VISIT THE PROJECT SITE, PRIOR TO BIDDING, AND BECOME INFORMED AS TO THE NATURE AND SCOPE OF WORK REQUIRED, NOTING AND ACCOUNTING FOR EXISTING CONDITIONS. TYPICAL.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK INCLUDING TOOLS, MATERIAL, MANPOWER, ETC. REQUIRED FOR COMPLETE AND PROPER INSTALLATION OF PROPOSED MATERIALS, FIXTURES AND/OR EQUIPMENT.
3. ALL WORK SHALL BE PERFORMED IN A SAFE AND ORDERLY MANNER WITH QUALIFIED AND LICENSED PERSONNEL IN ACCORDANCE WITH STATE AND LOCAL GOVERNING AUTHORITIES AND ALL APPLICABLE CODES AND STANDARDS. TYPICAL.
4. CONTRACTOR SHALL PROVIDE CLEANOUTS FOR PROPOSED SANITARY PIPING AS REQUIRED PER CURRENT APPLICABLE CODES AND STANDARDS. TYPICAL.
5. ROUTING OF ALL PIPING SHALL BE COORDINATED WITH STRUCTURAL FRAMING ELEMENTS AND ALL OTHER PROJECT DISCIPLINES. TYPICAL
6. PROVIDE DOUBLE CHECK VALVE BACKFLOW PREVENTER AND PRESSURE REDUCING VALVE ON DOMESTIC WATER SERVICE AS REQUIRED PER LOCAL WATER AUTHORITY AND CURRENT CODES AND STANDARDS.
7. CONTRACTOR SHALL CONFIRM COMPATIBILITY OF SPRAY FOAM INSULATION WITH EXISTING SANITARY PVC/CPVC/ABS PIPING.
8. CONTRACTOR SHALL CONFIRM COMPATIBILITY OF SPRAY FOAM INSULATION WITH PEX, PVC, CPVC, ABS PIPING WHERE APPLICABLE.
8. NO VALVES SHALL BE ENCASED IN SPRAY FOAM INSULATION.

GAS METER NOTE:
EXISTING NG METER AND ASSOCIATED VALVES AND ACCESSORIES TO BE REMOVED AND RELOCATED ABOVE 100 YEAR FLOOD PLAIN LEVEL. COORDINATE LOCATION WITH ARCHITECT. METER SHALL BE ACCESSIBLE FOR READING AND MAINTENANCE. REINSTALL AND PROVIDE PROPER SUPPORT PER NFPA 54 REQUIREMENTS AND CURRENT CODE. PROVIDE ADDITIONAL PIPING ACCORDINGLY. PROVIDE NG PIPING MAIN FROM METER TO BUILDING. COORDINATE ALL WORK LOCATIONS, ROUTING AND EXACT REQUIRMENTS WITH LOCAL GAS COMPANY. ALL WORK SHALL BE PER NFPA 54 CODE REQUIREMENTS AND RECOMMENDATIONS. GAS METER SHALL BE MINIMUM 10 FT FROM ANY MECHANICAL AIR INTAKE AS PER CODE.

WATER METER NOTE:
EXISTING WATER METER AND ASSOCIATED VALVES AND ACCESSORIES TO BE REMOVED AND RELOCATED. COORDINATE WITH MODULAR DESIGN. EXISTING UNDERGROUND DOMESTIC WATER SUPPLY MAIN TO BE EXTENDED TO PROPOSED LOCATION. PROVIDE DOMESTIC COLD WATER SUPPLY MAIN UP THROUGH BUILDING TO WATER METER. PROVIDE ALL PIPING, FITTINGS, VALVES AND CONNECTIONS AS REQUIRED FOR PROPER SYSTEM INSTALLATION/REINSTALLATION. INSULATE PIPING. EXPOSED RISERS SHALL BE PROTECTED FROM FREEZING. COORDINATE PROTECTION/INSULATION WITH ARCHITECT. COORDINATE METER WITH MODULAR DESIGN AND LOCAL UTILITY CO.

GENERAL PLUMBING NOTES:
PROVIDE SAN, VENT, & DCW TO PROPOSED PLUMBING FIXTURE RISERS AT THE UNDER SIDE OF THE FIRST FLOOR. PROVIDE SHUT-OFFS, CLEANOUTS, P-TRAPS AND ALL PIPING, FITTINGS AND ACCESSORIES AS REQUIRED FOR FULL AND PROPER INSTALLATION.

COORDINATE ALL PIPING ROUTING WITH MODULAR DESIGN AND ALL OTHER PROJECT DISCIPLINES. PIPING SHALL BE INSTALLED PER CURRENT CODES AND STANDARDS. TYPICAL.

ALL DOMESTIC WATER & SANITARY PIPING EXTERIOR RISERS SHALL BE PROTECTED FROM IMPACTS, FREEZING, AND WEATHER. COORDINATE PROTECTION WITH STRUCTURAL DRAWINGS, INSULATION WITH ARCHITECTURAL DRAWINGS, AND HEAT TRACE WITH ELECTRICAL DRAWINGS.

ALL NG PIPING EXTERIOR RISERS SHALL BE PROTECTED FROM IMPACTS AND WEATHER. COORDINATE PROTECTION WITH STRUCTURAL DRAWINGS.

PLUMBING SYMBOL LIST

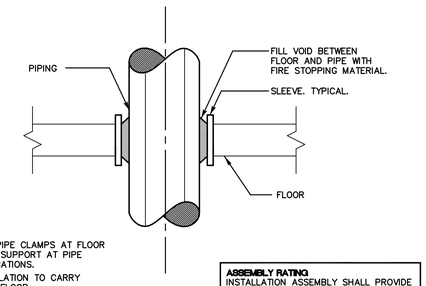
	SHUT OFF VALVE
—W—	MAIN WATER SUPPLY PIPING
—CW—	DOM. COLD WATER SUPPLY PIPING
—HW—	DOM. HOT WATER SUPPLY PIPING
—NG—	NATURAL GAS SUPPLY PIPING
— —W— —	UNDERFLOOR OR UNDERGROUND WASTE PIPING TO BE PROVIDED
—S—	SANITARY PIPING TO BE PROVIDED
— —S— —	UNDERFLOOR SANITARY PIPING TO BE PROVIDED
FCO	FLOOR CLEAN OUT
- - - - - -	VENT PIPING
	PIPING TO BE PROVIDED
	PIPE ELBOW, TURNED UP
	PIPE ELBOW, TURNED DOWN
	CLEAN OUT
	INDICATES CONNECTION TO EXISTING PIPING.

PLUMBING ABBREVIATIONS

DCW	DOMESTIC COLD WATER SUPPLY
DN	DOWN
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
NTS	NOT TO SCALE
SAN	SANITARY
VTR	SANITARY VENT THROUGH ROOF

PLUMBING GENERAL NOTES

1. NOTES BELOW ARE NOT INTENDED TO REPLACE SPECIFICATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO GENERAL NOTES.
2. PROVIDE FIXTURE SHUT-OFF VALVES AND P-TRAPS FOR ALL FIXTURES PROVIDED. PROVIDE SANITARY, WASTE AND DOMESTIC WATER PIPING AS REQUIRED FOR ALL FIXTURES PROVIDED.
3. REFER TO AND CAREFULLY CHECK ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS AND DETAILS, NOTING LOCATIONS WHERE WALLS, PARTITIONS, CEILINGS AND OTHER SURFACES ARE FURRED, LOCATION OF PIPE SLEEVES, LOCATIONS OF PIPE SHAFTS AND CONFLICTS WITH WORK OF OTHER TRADES AND ARRANGE WORK ACCORDINGLY. FURNISH ALL OFFSETS, FITTINGS, VALVES, DRAINS, ETC. REQUIRED TO MEET SUCH CONDITIONS.
4. DUE TO SCALE OF DRAWINGS, ALL REQUIRED OFFSETS, FITTINGS, VALVES, DRAINS, ETC. MAY NOT BE INDICATED.
5. ALL PIPING PASSING THROUGH FIRE RATED WALLS SHALL BE PROVIDED WITH SCHEDULE 40 STEEL PIPE SLEEVES AND SPACE BETWEEN EXTERIOR OF PIPE AND INTERIOR OF PIPE SLEEVE PACKED WITH A FIRE RATED MATERIAL EQUAL TO THE RATING OF THE WALL.
6. UNLESS OTHERWISE INDICATED, PROVIDE A COMPLETE AND OPERATIONAL MECHANICAL SYSTEM INCLUDING ALL NECESSARY MATERIAL, LABOR AND EQUIPMENT.
7. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND ARRANGE FOR ALL REQUIRED INSPECTIONS IN ACCORDANCE WITH STATE AND LOCAL GOVERNING CODES.
8. THE TERM "PROVIDE" SHALL MEAN "TO FURNISH, INSTALL AND CONNECT COMPLETELY."
9. WHERE THE CONTRACTOR PROPOSES TO USE AN ITEM OF EQUIPMENT OTHER THAN THAT SPECIFIED OR DETAILED ON THE DRAWINGS WHICH REQUIRES ANY REDESIGN OF THE STRUCTURE, PARTITIONS, FOUNDATIONS, PIPING, WIRING OR ANY OTHER PART OF THE MECHANICAL, ELECTRICAL OR ARCHITECTURAL LAYOUT, ALL SUCH REDESIGN AND ALL NEW DRAWINGS AND DETAILING REQUIRED THEREFORE, SHALL BE PREPARED AT THE CONTRACTOR'S EXPENSE AND ARE SUBJECT TO THE REVIEW AND APPROVAL OF THE OWNER OR HIS AUTHORIZED REPRESENTATIVE. OWNER RESERVES THE RIGHT TO HAVE THE ARCHITECT OR ENGINEER OF HIS CHOICE PREPARE ANY REDESIGN WORK.
10. ALL WORK SHALL BE DONE WITH LICENSED WORKMEN IN ACCORDANCE WITH STATE AND LOCAL GOVERNING AUTHORITIES.
11. CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS FOR PIPE SLOPE AND ANCHORAGE.
12. BEFORE CUTTING OR DRILLING INTO BUILDING ELEMENTS, INSPECT AND LAYOUT WORK TO AVOID DAMAGING STRUCTURAL ELEMENTS AND BUILDING UTILITIES.
13. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ACCEPTED:
    A. INTERNATIONAL BUILDING CODE
    B. CONNECTICUT SUPPLEMENT
    C. BASIC MECHANICAL CODE
    D. ASTM & ANSI STANDARDS.
    E. INTERNATIONAL PLUMBING CODE
    F. FIRE SAFETY CODE
14. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND PAYMENT FOR ALL UTILITIES DAMAGED DURING CONSTRUCTION.
15. CONTRACTOR TO CONFIRM PIPE LOCATIONS, ELEVATIONS, AND SIZES BEFORE ANY WORK IS STARTED. IF ANY DISCREPANCIES ARE FOUND NOTIFY ENGINEER BEFORE PROCEEDING WITH WORK.
16. PROVIDE WATER SERVICE SHUT OFF VALVES ON WATER SUPPLY IMMEDIATELY ADJACENT TO PLUMBING FIXTURES.
17. PROVIDE SEISMIC BRACING OF ALL PLUMBING PIPES PER THE CONNECTICUT BUILDING CODE.
18. PROVIDE WATER HAMMER ARRESTERS FOR ALL FLUSH VALVES. SIZE AND LOCATE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
19. FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS FOR INSTALLATION OF PROVIDED EQUIPMENT.
20. ALL PIPES THAT PENETRATE WALLS, FLOORS AND CEILINGS IN FINISHED AREAS SHALL RECEIVE CHROME PLATED METAL ESCUTCHEONS.
21. ALL SHOP DRAWINGS OF INDIVIDUAL COMPONENTS ARE TO BE SUBMITTED AS A COMPLETE PACKAGE.
22. ALL SHOP DRAWINGS OF RELATED COMPONENTS SHALL BE SUBMITTED AS A COMPLETE PACKAGE.
23. ALL WORK IN INTERIOR FINISHED SPACES IS TO BE CONCEALED BEHIND WALLS, ABOVE CEILINGS WHERE POSSIBLE, OR UNDER THE FLOOR. PROVIDE ALL NECESSARY CUTTING, PATCHING, REPAINTING AND/OR REPLACEMENT OF FINISHES AS REQUIRED TO PERFORM WORK.
24. WRITTEN REQUESTS FOR PLANNED SHUTDOWN OR INTERRUPTION OF BUILDING SERVICES, SYSTEMS OR EQUIPMENT SHALL BE MADE IN WRITING 72 HOURS PRIOR TO START OF THE REQUESTED SHUTDOWN PERIOD.
25. SUPPORT PIPING ABOVE SUSPENDED CEILING, FROM CONSTRUCTION ABOVE, AS CLOSE AS POSSIBLE TO BOTTOM OF SLABS, BEAMS, MAINTAINING MAXIMUM HEADROOM AT ALL TIMES.
26. PROVIDE CLEANOUTS PER PLUMBING CODE.



NOTES:
1. PROVIDE PIPE CLAMPS AT FLOOR FOR PIPE SUPPORT AT PIPE RISER LOCATIONS.
2. PIPE INSULATION TO CARRY THROUGH FLOOR.

ASSEMBLY RATING
INSTALLATION ASSEMBLY SHALL PROVIDE AN APPROVED THROUGH-PENETRATION THAT HAS BEEN LISTED IN ACCORDANCE WITH ASTM E814

TYPICAL FLOOR PIPE PENETRATION FIRE STOPPING DETAIL

SCALE: N.T.S.

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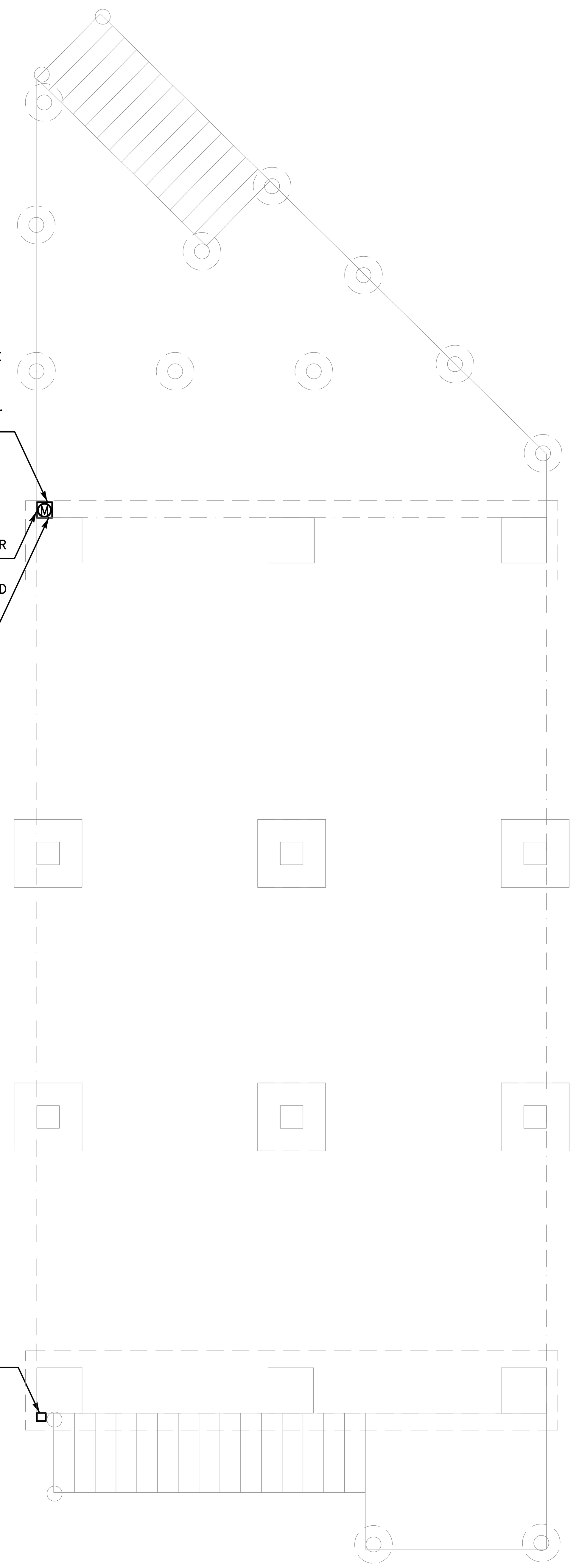
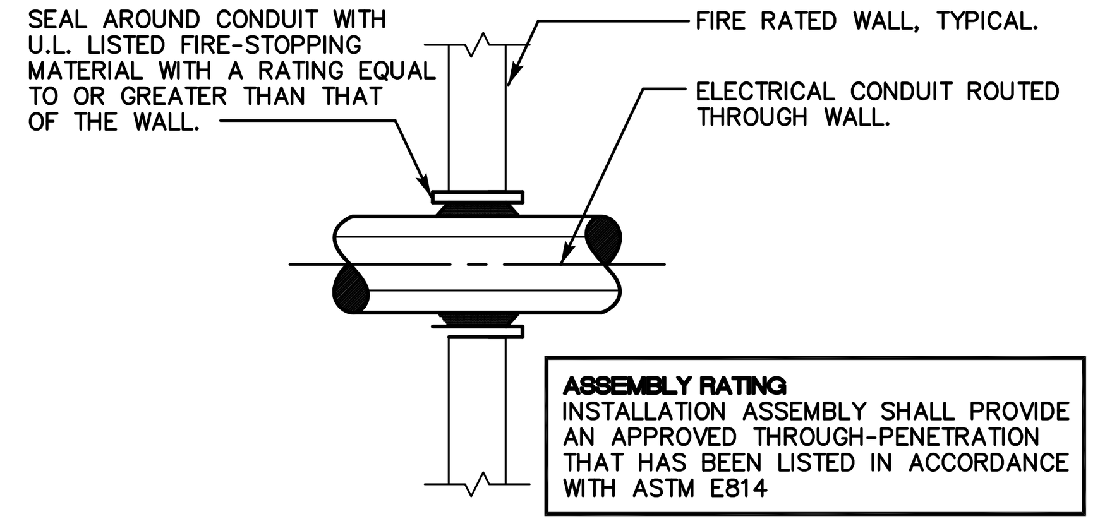


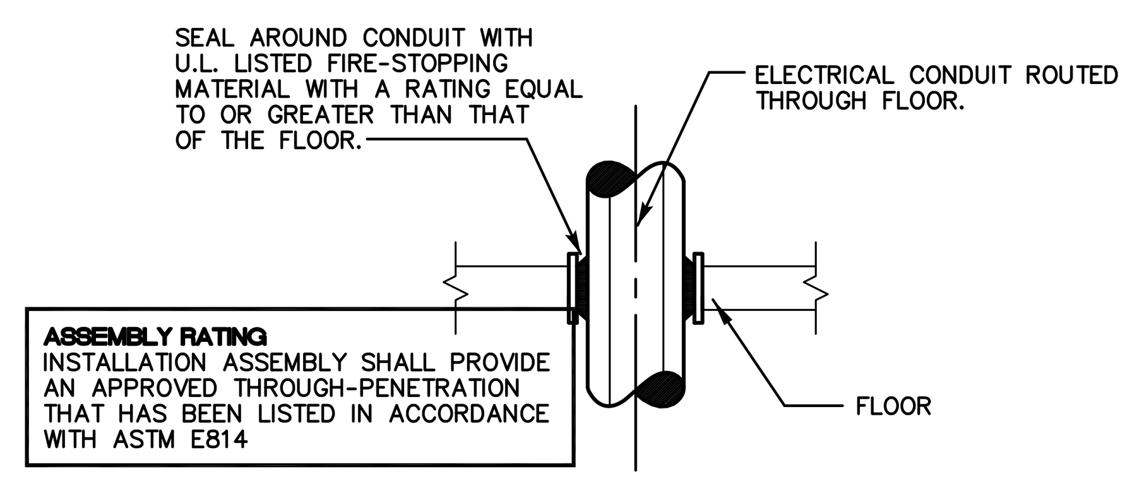
FIRST FLOOR ELECTRICAL PLAN

SCALE: 1/4"=1'-0"



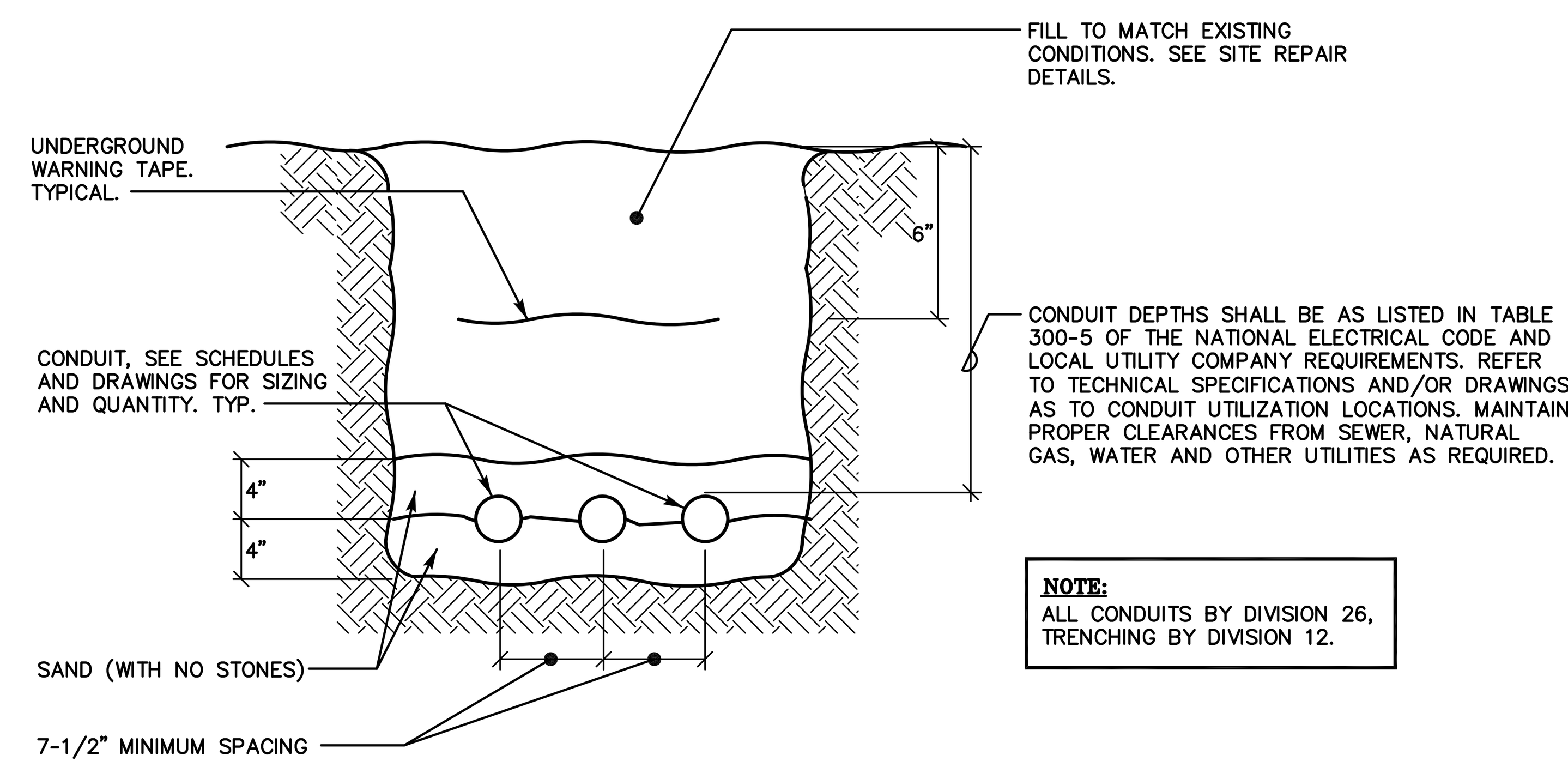
TYPICAL CONDUIT WALL PENETRATION DETAIL

SCALE: N.T.S.



TYPICAL CONDUIT FLOOR PENETRATION DETAIL

SCALE: N.T.S.



TYPICAL BELOW GRADE CONDUIT DETAIL

SCALE: N.T.S.

ELECTRICAL NOTES:

1. THE CONTRACTOR(S) SHALL VISIT THE PROJECT SITE PRIOR TO BIDDING, NOTING EXISTING CONDITIONS AND EQUIPMENT.
2. REMOVE AND PROPERLY DISPOSE OF EQUIPMENT AND ASSOCIATED COMPONENTS/ACCESSORIES AS INDICATED ON DEMOLITION PLANS. PROPERLY DISPOSE OF ALL DEMOLITION DEBRIS AS REQUIRED BY FEDERAL, STATE AND LOCAL CODES AND ORDINANCES. TYPICAL.
3. CONTRACTOR SHALL NOT DAMAGE ANY EXISTING EQUIPMENT, PIPING, OR ASSOCIATED ACCESSORIES WHICH ARE TO REMAIN. ANY SUCH ITEMS DAMAGED SHALL BE REPLACED AT CONTRACTOR'S EXPENSE. TYPICAL.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK INCLUDING TOOLS, MATERIAL, MANPOWER, ETC. REQUIRED FOR COMPLETE AND PROPER INSTALLATION OF PROPOSED MATERIALS, FIXTURES AND/OR EQUIPMENT.
5. DO NOT DISTURB ANY SUSPECTED HAZARDOUS MATERIALS. NOTIFY OWNERS REPRESENTATIVE OF ANY SUSPECTED MATERIALS IMPEDING PERFORMANCE OF WORK. TYPICAL.
6. ALL DEMOLITION WORK SHALL BE PERFORMED IN A SAFE AND ORDERLY MANNER WITH QUALIFIED AND LICENSED PERSONNEL IN ACCORDANCE WITH STATE AND LOCAL GOVERNING AUTHORITIES AND ALL APPLICABLE CODES AND STANDARDS. COORDINATE WORK WITH ALL PROJECT DISCIPLINES AND EXISTING CONDITIONS. TYPICAL.

HEAT TRACE NOTES:

1. CONTRACTOR SHALL PROVIDE 3 WATTS PER FOOT, LOW TEMP., SELF REGULATING HEAT TRACE (THERMOSTATICALLY CONTROLLED) FOR EXPOSED EXTERIOR COPPER DOMESTIC WATER SERVICE PIPING. COORDINATE LENGTH REQUIRED WITH PLUMBING CONTRACTOR. EMERSON FREEZE FREE WITH EH38 THERMOSTAT CONTROL.
2. CONTRACTOR SHALL PROVIDE 5 WATTS PER FOOT, IN-LINE HEAT TRACE WITH THERMOSTAT FOR EXPOSED EXTERIOR PE TYPE DOMESTIC WATER SERVICE PIPING WITH PIPE SIZES OF 1" AND 1-1/4". ALL OTHER SIZES PROVIDE HEAT TRACE PER NOTES #1 ABOVE. COORDINATE LENGTH REQUIRED WITH PLUMBING CONTRACTOR. EMERSON EASY HEAT WITH SL2G CONTROL.
3. CONTRACTOR SHALL PROVIDE 3 WATTS PER FOOT, LOW TEMP., SELF REGULATING HEAT TRACE (THERMOSTATICALLY CONTROLLED) FOR EXPOSED EXTERIOR SANITARY PIPING. COORDINATE LENGTH REQUIRED WITH PLUMBING CONTRACTOR. EMERSON FREEZE FREE WITH EH38 THERMOSTAT CONTROL.
4. PROVIDE ELECTRICAL CONNECTION AND INSTALL PER NEC AND MANUFACTURERS REQUIREMENTS. CONNECT TO PROPOSED ELECTRICAL PANEL. PROVIDE 15A/1P, 240V CIRCUIT BREAKERS FOR PANEL. USE NEXT AVAILABLE SPACES. TYPICAL EACH HEAT TRACE INSTALLED.

ELECTRICAL GENERAL NOTES

1. SEE SPECIFICATIONS, DIVISION 26 ELECTRICAL.
2. UNLESS OTHERWISE INDICATED, PROVIDE A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM INCLUDING ALL NECESSARY MATERIAL, LABOR AND EQUIPMENT.
3. ELECTRICAL PLANS AND DETAILS AND ONE LINE DIAGRAMS SHOW THE GENERAL LOCATION AND ARRANGEMENT OF THE ELECTRICAL SYSTEM. THEY ARE DIAGRAMMATIC AND DO NOT SHOW ALL CONDUIT BODIES, CONNECTORS, BENDS, FITTINGS, HANGERS AND ADDITIONAL PULL AND JUNCTION BOXES
4. PROVIDE FIRE ALARM DETECTION DEVICES.
5. ALL EQUIPMENT AND MATERIAL SHALL BE LABELED, LISTED AND INSTALLED IN ACCORDANCE WITH THEIR LISTING.
6. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND ARRANGE FOR ALL REQUIRED INSPECTIONS IN ACCORDANCE WITH STATE AND LOCAL GOVERNING AUTHORITIES.
7. ALL WORK SHALL BE DONE WITH LICENSED WORKMEN IN ACCORDANCE WITH STATE AND LOCAL GOVERNING AUTHORITIES.
8. THE DEFINITION OF ELECTRICAL TERMS USED SHALL BE AS DEFINED IN THE 2011 NATIONAL ELECTRICAL CODE (NEC) WITH CONNECTICUT AMENDMENTS.
9. THE TERM "INDICATED" SHALL MEAN "AS SHOWN ON CONTRACT DOCUMENTS (SPECIFICATIONS, DRAWINGS AND RELATED ATTACHMENTS)".
10. THE TERM "PROVIDE" SHALL MEAN "TO FURNISH, INSTALL AND CONNECT COMPLETELY".
11. THE TERM "SIZE" SHALL MEAN ONE OR MORE OF THE FOLLOWING: "LENGTH, CURRENT AND VOLTAGE RATING, NUMBER OF POLES, NEMA SIZE AND OTHER SIMILAR ELECTRICAL CHARACTERISTICS".
12. THE TERM "SPACE" ON PANELBOARD AND SWITCHBOARD SCHEDULES SHALL MEAN "PROVIDE SPACE TO INSTALL THE NUMBER OF POLES AND SIZE OF THE PROTECTIVE DEVICE INDICATED WITH ALL NECESSARY BUS AND FITTINGS TO INSTALL THE DEVICE AT SOME FUTURE DATE".
13. ELECTRICAL PLANS AND DETAILS DO NOT SHOW ALL INTERFERENCES AND CONDITIONS, VISIBLE AND/OR HIDDEN, THAT MAY EXIST; THUS REQUIRING THE CONTRACTOR TO INSPECT AND SURVEY THE SPACE BEFORE PERFORMING THE WORK.
14. COORDINATE ELECTRICAL WORK WITH OWNER.
15. COORDINATE ELECTRICAL WORK WITH OTHER DIVISIONS OF THIS PROJECT.
16. TURN OVER TO THE OWNER ALL MANUFACTURERS WARRANTIES FOR EQUIPMENT AND MATERIAL PROVIDED.
17. UNLESS OTHERWISE INDICATED, ALL ELECTRICAL EQUIPMENT HAS BEEN BASED ON SQUARE D PRODUCTS.
18. THE CONTRACTOR MAY SUBSTITUTE EQUIPMENT OF ANOTHER MANUFACTURER IF IT IS OF EQUAL QUALITY AND RATING, SUBJECT TO OWNER'S AND ENGINEER'S REVIEW AND ACCEPTANCE.
19. UNLESS OTHERWISE INDICATED, ALL ENCLOSURES FOR EQUIPMENT PROVIDED SHALL BE NEMA TYPE 1.
20. UNLESS OTHERWISE INDICATED, ALL CONDUCTORS TO BE COPPER THHN/THWN.
21. UNLESS OTHERWISE INDICATED, ALL OUTLET AND SWITCH BOXES TO BE CAST IRON WITH THREADED HUBS.
22. IN INTERIOR PROTECTED LOCATIONS, OUTLET AND SWITCH BOXES MAY BE STEEL.
23. BEFORE SELECTING MATERIAL AND EQUIPMENT, AND PROCEEDING WITH WORK, INSPECT AREAS WHERE MATERIAL AND EQUIPMENT ARE TO BE INSTALLED TO INSURE SUITABILITY, AND CHECK NEEDED SPACE FOR PLACEMENT, CLEARANCES AND INTERCONNECTIONS.
24. BEFORE CUTTING OR DRILLING INTO BUILDING ELEMENTS, INSPECT AND LAYOUT WORK TO AVOID DAMAGING STRUCTURAL ELEMENTS AND BUILDING UTILITIES.
25. ALL WORK SHALL BE DONE IN ACCORDANCE WITH 2011 NATIONAL ELECTRIC CODE (NEC) ANSI/NFPA 70, NFPA 72, NFPA 101.
26. THE MEASUREMENT FROM ABOVE FINISHED FLOOR (AFF) SHALL BE TAKEN FROM THE FINISHED FLOOR SURFACE TO THE TOP OF WALL RECEPTACLES AND SWITCH BOXES, TO THE CENTER LINE OF WALL LIGHTING OUTLET BOXES, TO THE TOP OF WALL MOUNTED EQUIPMENT ENCLOSURES, TO THE CENTER LINE OF THE TOP MOST SWITCH HANDLE, OR TO THE LOWEST SURFACE OF CEILING LIGHTING FIXTURES OTHER CEILING MOUNTED EQUIPMENT.
27. UNLESS OTHERWISE INDICATED, ALL CONDUCTORS ARE NO. 12 AWG.
28. CONDUIT SIZE FOR INDICATED CONDUCTORS SHALL BE BASED ON CHAPTER 9 OF NEC.
29. THE CONTRACTOR MAY GROUP BRANCH CIRCUIT HOME RUN CONDUCTORS IN A SINGLE RACEWAY IN ACCORDANCE WITH NEC ARTICLE 300-17, AND ARTICLE 310, NOTE 8 OF NOTES TO TABLES 310-16 THROUGH 310-19.
30. ALL BLANK COVER PLATES TO BE STAINLESS STEEL.
31. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LOCAL UTILITY COMPANIES (POWER, TELEPHONE, CABLE TV) CHARGES FOR SERVICE INSTALLATION.

ELECTRICAL ABBREVIATIONS

A	AMPERES
A.F.F.	ABOVE FINISHED FLOOR
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CIR	CIRCUIT
FT	FEET
G	GROUNDED
HP	HORSEPOWER
KAIC	INTERRUPTING CAPACITY (KILOAMPERE)
KVA	KILOVOLT-AMPERE
KW	KILOWATT
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASS.
NIC	NOT IN CONTRACT
P	POLE
UL	UNDERWRITER'S LABORATORY
UTIL	UTILITY
V	VOLTS
VA	VOLT-AMPERES
W	WATTS
#	WIRE SIZE IN AWG, OR MCM WHEN INDICATED

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