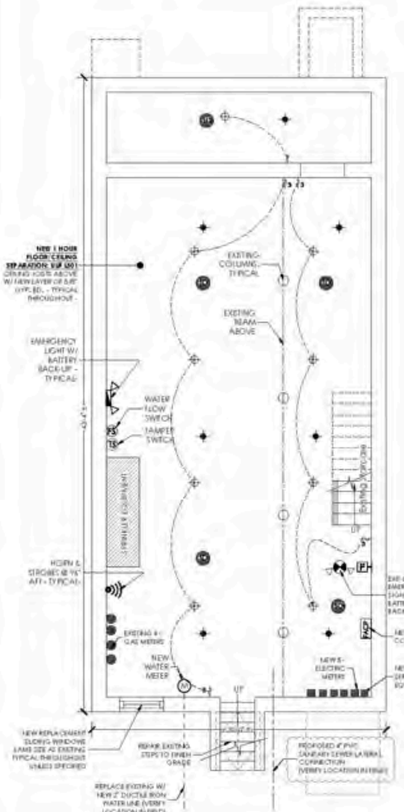
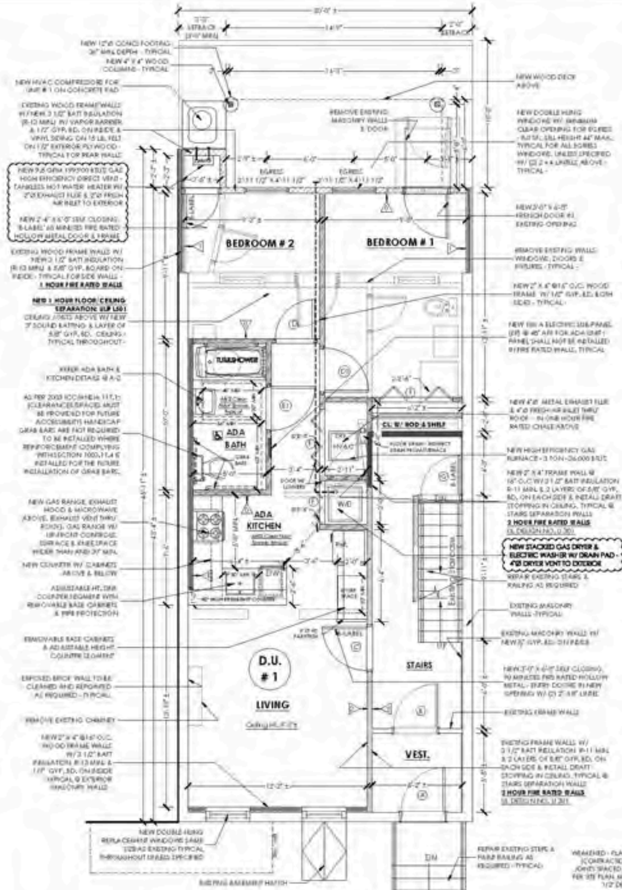


HARMON STREET

Basement Plan

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



HARMON STREET

1st Floor Plan

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

HDCP BATHROOM NOTES:-

1. G.C. TO PROVIDE MIXING VALVE FOR HDCP LAVATORIES.
2. ADA CONFORMING ELONGATED OPEN FRONT SEAT W/O COVER WATER CLOSET. KOHLER OR APPROVED EQUAL.
3. 1 1/2" DIA STAINLESS STEEL ADA APPROVED GRAB BARS. PROVIDED BACKING BEHIND DRYWALL FOR MOUNTING.
4. WATER TEMPERATURE IN RESTROOMS NOT TO EXCEED 110° F.

CONSTRUCTION COMPLY WITH THE FOLLOWING CODES:-

1. THE NEW JERSEY UNIFORM CONSTRUCTION CODE AS AMENDED BY N.J.A.C. 5:23-2.20
2. 2009 INTERNATIONAL BUILDING CODE AS AMENDED BY N.J.A.C. 5:23-3.14
3. 2009 NATIONAL STANDARD PLUMBING CODE AS AMENDED BY N.J.A.C. 5:23-3.15
4. 2011 NATIONAL ELECTRIC CODE AS AMENDED BY N.J.A.C. 5:23-3.16
5. 2009 INTERNATIONAL ENERGY CONSERVATION CODE (RESIDENTIAL) AS AMENDED BY N.J.A.C. 5:23-3.18
6. 2009 INTERNATIONAL MECHANICAL CODE AS AMENDED BY N.J.A.C. 5:23-3.20
7. 2009 INTERNATIONAL FLUE GAS CODE AS AMENDED BY N.J.A.C. 5:23-3.22
8. THE REHABILITATION SUBCODE BY N.J.A.C. 5:23-6
9. 2006 INTERNATIONAL FIRE CODE, NEW JERSEY EDITION
10. UNIFORM FIRE CODE BY N.J.A.C. 5:70 - 76
11. BARRIER FREE SUBCODE (UCC SUB-CHAPTER 7) AS AMENDED BY N.J.A.C. 5:23.7
12. 2003 ICC/ANSI A117.1 HANDICAP AS AMENDED BY N.J.A.C.

Data

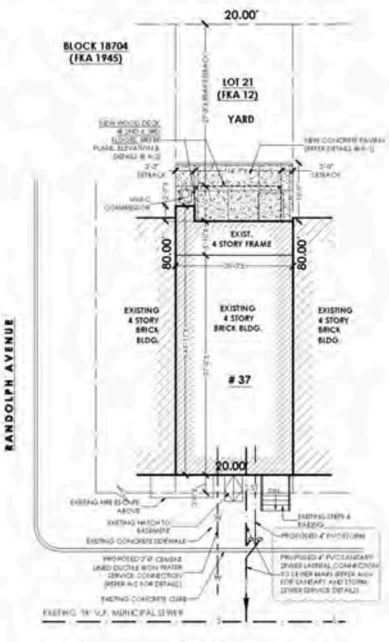
1. BLOCK NO.	18704 (FKA 1945)
2. LOT NO.	21 (FKA 12)
3. ZONING	R-1 ONE AND TWO FAMILY RESIDENTIAL
4. OCCUPANCY (NO CHANGE)	R-2 4 D.U.'s
5. SITE AREA	1,600 SF.
6. FLOOR AREAS (NO CHANGE)	
FOURTH FLOOR	951 SF.
THIRD FLOOR	876 SF.
SECOND FLOOR	876 SF.
FIRST FLOOR	876 SF.
TOTAL	3,579 SF. (NO CHANGE)
7. CONSTRUCTION:	5 A PROTECTED
8. ENTIRE BUILDING IS SPRINKLERED.	
9. FIRE GRADING	
INTERIOR NON-BEARING WALLS	0 HOUR
INTERIOR BEARING WALLS	1 HOUR - UL DESIGN U314
STAIRS SEPARATION WALLS	2 HOUR - UL DESIGN U301
BASEMENT THRU 4TH FLOOR CEILINGS	1 HOUR - UL DESIGN L501
ROOF	0 HOUR
SOUTH SIDE FRAME WALL	0 HOUR
WEST & EAST - FRAME WALLS	1 HOUR
NORTH, WEST & EAST - EXTERIOR MASONRY WALLS	1 HOUR

2 HOUR - 2 LAYERS OF 5/8" GYPSUM BOARD

1 HOUR - 1 LAYER OF 5/8" GYPSUM BOARD

0 HOUR - 1 LAYER OF 1/2" GYPSUM BOARD

NOTE:-
SPRINKLER CONTRACTOR TO SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR APPROVAL.



HARMON STREET

Site Plan

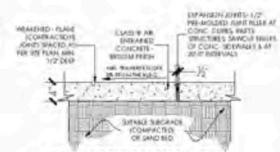
Scale: 1" = 10'-0"

Notes (Typical All Floors)

1. GC TO INSTALL ONE LAYER OF 5/8" TYPE 'X' GYP. BD. CLG. THROUGHOUT. ONE HOUR FIRE RATED
2. GC TO INSTALL 9" BATT. INSULATION (R-38) AT 4TH FLOOR CEILING.
3. GC TO INSTALL 3" SOUND BATTING AT 1ST, 2ND & 3RD FLOOR CEILINGS.
4. GC TO INSTALL ONE LAYER 1/2" THK. PLYWOOD SUB FLOOR THROUGHOUT 1ST, 2ND, 3RD & 4TH FLOORS.

2 11-24-2015 REVISED & FOOGED-IN

1 01-15-2015 REVISED AS PER HUA COMMENTS DATED 01-14-2015



CONCRETE PAVING DETAIL

SCALE: Not To Scale

Energy Chart

2009 IECC PRESCRIPTIVE PACKAGES

INSULATION & FENESTRATION ON REQUIREMENTS BY COMPONENT a

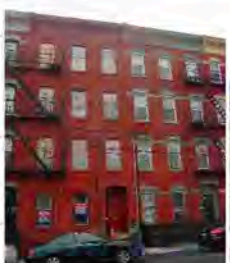
Climate Zone	Fenestration U-Factor b	Skylight U-Factor b	Ceiling R-Value	Wood Frame Wall R-Value	Mass Wall R-Value i	Floor R-Value	Basement Wall R-Value c	Slab R-Value d & Depth	Crawl Space Wall R-Value c
4	0.35	0.6	38	13	5/10	19	10/13	10, 2 ft	10/13
5	0.35	0.6	38	20 or 13+5 h	13/17	30 g	10/13	10, 2 ft	10/13
a. R-VALUES ARE MINIMUMS. U-FACTORS ARE MAXIMUMS. R-19 BATTS COMPRESSED INTO A NOMINAL 2 X 6 FRAMING CAVITY SUCH THAT THE R-VALUE IS REDUCED BY R-1 OR MORE SHALL BE MARKED WITH THE COMPRESSED BATT R-VALUE IN ADDITION TO THE FULL THICKNESS R-VALUE. (COMPRESSED R-VALUES SHOULD BE OBTAINED FROM THE MANUFACTURER.)									
b. THE FENESTRATION U-FACTOR COLUMN EXCLUDES SKYLIGHTS. IN ADDITION, THE CORRESPONDING SOLAR HEAT GAIN COEFFICIENT (SHGC) COLUMN HAS BEEN REMOVED FROM THIS TABLE AS NJ HAS NO REQUIREMENTS (NR) FOR SHGC.									
c. "10/13" MEANS R-10 CONTINUOUS INSULATED SHEATHING ON THE INTERIOR OR EXTERIOR OF THE HOME OR R-13 CAVITY INSULATION AT THE INTERIOR OF THE BASEMENT WALL.									
d. R-5 SHALL BE ADDED TO THE REQUIRED SLAB EDGE R-VALUES FOR HEATED SLABS.									
g. OR INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY, R-19 MINIMUM.									
h. "13+5" MEANS R-13 CAVITY INSULATION PLUS R-5 INSULATED SHEATHING. IF STRUCTURAL SHEATHING COVERS 25 PERCENT OR LESS OF THE EXTERIOR, INSULATED SHEATHING IS NOT REQUIRED WHERE STRUCTURAL SHEATHING IS USED. IF STRUCTURAL SHEATHING COVERS MORE THAN 25 PERCENT OF EXTERIOR, STRUCTURAL SHEATHING SHALL BE SUPPLEMENTED WITH INSULATED SHEATHING OF AT LEAST R-2.									
i. THE SECOND R-VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR OF THE MASS WALL.									
NOTE: TABLE 402.1.1 APPLIES TO TYPICAL WOOD-FRAMED CONSTRUCTION. STEEL-FRAMED CONSTRUCTION EQUIVALENTS ARE DIFFERENT AND MAY BE FOUND IN TABLE 402.2.5 OF THE 2009 IECC.									

GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIREMENTS OUTLINED IN THE NJ UCC, IBC 2009, LOCAL CODES & ORDINANCES.
2. ALL STRUCTURAL, ELECTRICAL AND MECHANICAL WORK SHALL COMPLY WITH THE GOVERNING CODES AS ADMINISTERED BY THE LOCAL BUILDING OFFICIALS AND SHALL BE CONSIDERED AS PART OF THESE CONSTRUCTION DOCUMENTS.
3. ANY CHANGES TO OR DEVIATION FROM THE DRAWINGS SHALL NOT BE MADE WITHOUT WRITTEN CONSENT FROM THE ARCHITECT.
4. CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS, NOTES AND CONDITIONS AT THE SITE BEFORE ANY CONSTRUCTION WORK IS STARTED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR CONFLICT BETWEEN THESE DRAWINGS AND FIELD CONDITIONS. THE DISCOVERY OF DISCREPANCIES AFTER THE BEGINNING OF WORK WILL BE EVIDENCE OF FAULTY WORK AND SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR TO CORRECT.
5. ALL THE WORK SHALL BE PERFORMED IN THE FIRST CLASS MANNER WITH ALL NEW MATERIALS. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY FOR THE PROPER EXECUTION AND TIMELY COMPLETION OF THE WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS AND EQUIPMENT STORED AT THE SITE.
6. DO NOT SCALE DRAWINGS. ALL WRITTEN DIMENSIONS SHALL GOVERN. ALL INSTALLATION SHALL BE ACCURATELY FIELD MEASURED BEFORE FABRICATION.
7. THESE DRAWINGS ARE INTENDED TO INDICATE THE SCOPE AND GENERAL EXTENT OF THE CONSTRUCTION WORK REQUIRED. SPECIFIC DETAILS, MATERIALS, FINISHES AND EQUIPMENT ARE PROVIDED BY THE CONTRACTOR AND AGREED UPON BY THE OWNER, UNLESS NOTED.
8. THE ARCHITECT IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR FOR THE SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THIS PROJECT.
9. ALL CONTRACTORS AND THEIR SUBCONTRACTORS SHALL CARRY INSURANCE THAT WILL PROTECT THE OWNER AND ARCHITECT FROM CLAIMS FROM DAMAGES FOR PERSONAL INJURIES, INCLUDING DEATH, WHICH MAY ARISE IN CONNECTION WITH THIS PROJECT.
10. CONTRACTOR TO OBTAIN OWNERS OR ARCHITECT APPROVAL FOR ALL MATERIALS, FINISHES AND EQUIPMENT PRIOR TO PURCHASING. ALL EQUIPMENT AND MATERIALS ARE TO BE INSTALLED AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
11. CONTRACTOR SHALL KEEP SITE CLEAN AND FREE OF DEBRIS.
12. CONTRACTOR TO INDEMNIFY ARCHITECT AND OWNER AND HOLD HARMLESS.
13. THESE DRAWINGS ARE THE PROPERTY OF THE ARCHITECT AND SHALL NOT BE USED WITHOUT HIS CONSENT. DRAWINGS SHALL NOT BE USED FOR ISSUING OF A BUILDING PERMIT UNTIL SIGNED AND SEALED BY THE ARCHITECT.
14. CONTRACTOR SHALL OBTAIN AND PAY FOR ANY AND ALL REQUIRED BUILDING PERMITS AND APPROVALS PRIOR TO COMMENCING CONSTRUCTION WORK. DISPLAY PERMITS AT SITE AS REQUIRED.
15. ARCHITECT HAS NOT BEEN RETAINED TO INSPECT CONSTRUCTION. CONTRACTOR TO NOTIFY APPROPRIATE BUILDING INSPECTORS UPON COMPLETION OF EACH SUB-TRADES WORK AND OBTAIN REQUIRED INSPECTIONS AND APPROVALS PRIOR TO PROCEEDING WITH THE NEXT PHASE OF THE WORK.
16. UPON COMPLETION OF THE PROJECT, CONTRACTOR TO SUBMIT CERTIFICATE OF OCCUPANCY, APPROVED BY THE BUILDING DEPARTMENT, TO THE OWNER.
17. ALL LUMBER TO BE MACHINE STRESS RATED 1200F-1.2E MIN. PROVIDE DOUBLE FRAMING UNDER PARTITIONS RUNNING PARALLEL TO JOISTS. TRIPLE STUDS AT ALL BEARING POINTS IN WOOD FRAME WALLS. DOUBLE STUD AT ALL OPENINGS. ALL INTERIOR HEADERS ARE (2) 2" X 6" AND EXTERIOR HEADERS ARE (2) 2" X 12", UNLESS NOTED.
18. ALL ELECTRICAL WORK SHALL BE CARRIED OUT BY A LICENSED ELECTRICIAN ONLY. ALL WORK SHALL CONFORM TO THE PROVISIONS OF THE NATIONAL ELECTRIC CODE OF NFPA, LATEST EDITION.

Wall, Floor-Ceiling Fire Rating System

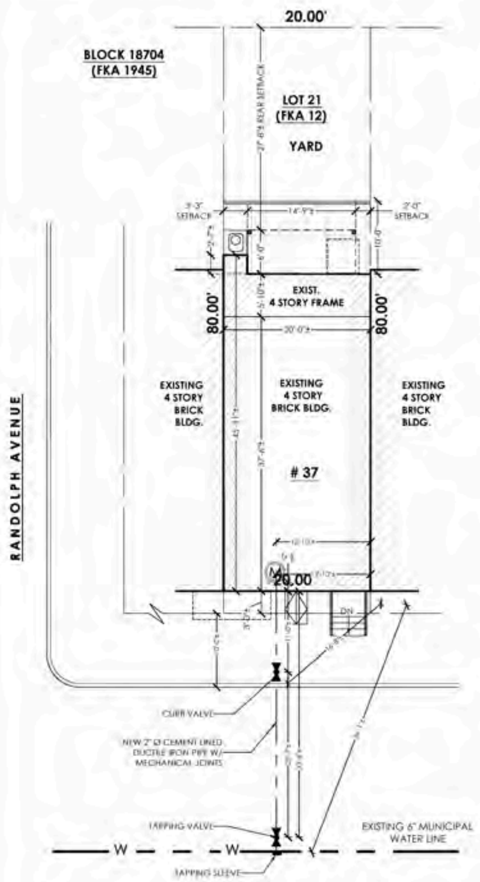
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
One Hour Floor-Ceiling System						
[illegible]	5/8" [illegible]	UL Des U305, U314	[illegible]	[illegible]	[illegible]	A-40
One Hour Wall System						
[illegible]	5/8" [illegible]	UL Des U301	[illegible]	[illegible]	[illegible]	A-50
Two Hour Wall System						



FRONT

REAR

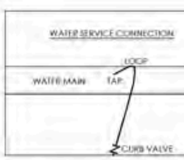
Photographs



HARMON STREET

SITE UTILITY PLAN

Scale: 1/8" = 1'-0"



NOTES:

- UPON COMPLETION OF WORK, CONTRACTOR TO SUBMIT AS-BUILT DRAWING INDICATING LOCATION OF NEW WATER LINE, SUBMIT TO JCMUA FOR FINAL APPROVAL.
- EXISTING WATER SERVICES (IF ANY) TO BE ABANDONED MUST BE CUT AND CAPPED AT THE MAIN.

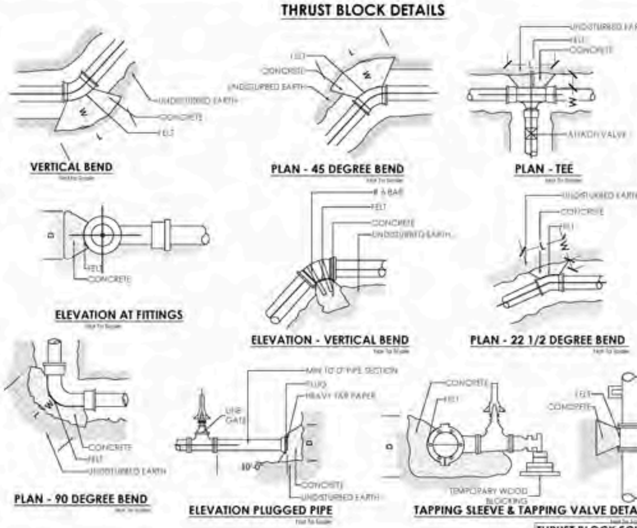
WATER USAGE CHART

TYPE	NO. OF FIXTURES	TOTAL NO. OF FIXTURES	WSFU (WATER SUPPLY FIXTURE UNITS)	TOTAL WSFU
4 APARTMENTS	1 BATH	4 X	5.0 WSFU =	20 WSFU
	1 KITCHEN	4 X	1.5 WSFU =	6 WSFU
	1 WASHER	4 X	3.0 WSFU =	12 WSFU
TOTAL				38 WSFU
38.0 WSFU	≈ 33 GPM	≈ 1 INCH DOMESTIC WATER SUPPLY		
THE SERVICE WILL BE A NEW 2 INCH DUCTILE IRON WATER LINE FOR FIRE SUPPRESSION SYSTEM.				

JERSEY CITY MUNICIPAL UTILITIES AUTHORITY REQUIREMENTS FOR FIRE AND DOMESTIC WATER LINE AND METER INSTALLATIONS

1. ALL FIRE SERVICE APPLICATIONS AND ALL DOMESTIC SERVICE APPLICATIONS TWO (2) INCHES AND LARGER MUST BE SUBMITTED TO THE JCMUA'S BUREAU OF WATER ENGINEERING FOR APPROVAL. FIVE (5) SETS OF PLANS SHALL BE SUBMITTED FOR APPROVAL. ALL PLANS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT LICENSED TO PRACTICE IN NEW JERSEY.
2. SUBMITTED PLANS SHALL BE STANDARD ENGINEERING DRAWINGS, SIZE 24 INCHES X 36 INCHES. INCLUDED SHALL BE A SITE PLAN SHOWING ADJACENT STREETS WITH WATER MAIN SERVICE, AND DETAILS INDICATED. ALSO INCLUDED SHALL BE A KEYMAP SHOWING GENERAL LOCATION WITHIN THE CITY.
3. INDICATED ON THE SUBMITTED PLANS SHALL BE THE SIZE OF TAP, LOCATION OF TAPPING AND CURB GATE VALVES, DETAILED METER SETUP, AND SIZE OF FACILITY'S METER. ALSO INDICATED ON THE PLANS SHALL BE THE TYPE OF OCCUPANCY OF THE FACILITY RECEIVING THE WATER SERVICE (I.E. HOSPITAL, WAREHOUSE, APARTMENT BUILDING, ETC.)
4. ALL EXISTING WATER SERVICE LINES TO BE ABANDONED SHALL BE CUT AND CAPPED AT THE MAIN, IN ACCORDANCE WITH JCMUA STANDARDS, AND INSPECTED WITHIN 24 HOURS AFTER INSTALLATION OF NEW TAP. THE MAXIMUM OF ONE (1) TAP SHALL BE MADE FOR BOTH DOMESTIC AND FIRE SERVICE PER FACILITY. THE TAP SHALL BE THE MAXIMUM OF ONE (1) SIZE SMALLER THAN THE CITY'S WATER MAIN. NO TAPPING SHALL BE DONE BY ANYONE EXCEPT BY UNITED WATER JERSEY CITY (UWJC) UNLESS SPECIFICALLY APPROVED BY JCMUA.
5. ONLY ONE DOMESTIC/ FIRE SERVICE IS ALLOWED FOR EACH FACILITY. APPLICANT MAY INSTALL CHECK METERS ON INDIVIDUAL BRANCH CONNECTIONS DOWNSTREAM OF DOMESTIC METER SET UP WHERE THERE IS MORE THAN ONE OWNER/ TENANT FOR A FACILITY. HOWEVER, ONLY ONE WATER BILL WILL BE ISSUED FOR THE FACILITY.
6. A SOLID DUCTILE IRON TAPPING SLEEVE SUCH AS MUELLER H-615 TAPPING SLEEVE OR APPROVED EQUAL SHALL BE UTILIZED FOR ALL TAPS 3 INCHES AND LARGER. THE TAPPING SLEEVE SHALL PASS PRESSURE TESTING BASED ON AWWA STANDARDS BEFORE TAP IS MADE.
7. FOR ALL SERVICES INCLUDED HEREIN, TWO (2) GATE VALVES ARE REQUIRED THAT ARE TO BE INSTALLED BY THE APPLICANT, A TAPPING VALVE, LOCATED AT THE TAP AND CURB VALVE, LOCATED IN THE SIDEWALK BEFORE THE METER. TAPPING GATES SHALL BE FURNISHED OPENED RIGHT. ALL TAPPING AND CURB VALVES SHALL BE DOUBLE DISC GATE VALVES AND MEET AWWA STANDARDS. THE WET TAP UP TO 12 INCHES SHALL BE PERFORMED BY UWJC.
8. FOR TAPS OFF MAINS SIXTEEN (16) INCHES AND LARGER, THE APPLICANT SHALL FURNISH AND INSTALL AN ADDITIONAL GATE VALVE ADJACENT TO THE TAPPING VALVE. NO TAPS SHALL BE PERMITTED ON MAINS LARGER THAN TWENTY (20) INCHES UNLESS THERE IS NO ALTERNATIVE WATER SOURCE, AND SPECIAL WRITTEN APPROVAL IS ISSUED BY THE JCMUA.
9. VALVE BOX PARTS FOR ALL VALVES SHALL BE PROVIDED BY THE APPLICANT. ALL TAPPING GATE VALVES LARGER THAN 2-INCHES AND ALL CURB VALVES / STOPS REGARDLESS OF SIZE REQUIRE A VALVE BOX WITH THE WORD "WATER" CAST IN THE COVER. BURIED CORPORATION VALVES / STOPS SHALL BE USED AT THE TAP FOR CLASS K COPPER SERVICES 2-INCHES AND SMALLER.
10. ALL SERVICE PIPES, SIZE 3-INCHES THROUGH 12-INCHES, SHALL BE PRESSURE CLASS 350 P.S.I. CEMENT-LINED DUCTILE IRON PIPE WITH MECHANICAL JOINTS.
11. THE APPLICANT SHALL INSTALL THE METER INSIDE THE BUILDING. IF THE BUILDING LINE IS IN EXCESS OF 75 FT. FROM THE MAIN, THE APPLICANT SHALL PLACE THE METER IN A PIT NEAR THE SIDEWALK OR STREET IN CLOSE PROXIMITY TO THE TAP.
12. FOR A REGULAR FIRE SUPPRESSION SYSTEM (COMBINED SERVICE LINE LARGER THAN 2"), A COMBINED REDUCED PRESSURE DETECTOR ASSEMBLY (AMES 3000 SS, AMES 3000 RPDA OR WATTS 909 RPDA*) SHALL BE INSTALLED ON THE MAIN FIRE SERVICE LINE AND A REDUCED PRESSURE BACKFLOW PREVENTOR ON THE BYPASS (AMES 4000 SS OR WATTS 909*) (REFER TO FIGURE)
13. ON THE LIMITED FIRE SUPPRESSION SYSTEM (COMBINED SERVICE LINE 1.5" OR 2"), A FIRE LINE DETECTOR CHECK WITH A SINGLE CHECK VALVE (AMES 1000 DCV*) SHALL BE INSTALLED ON THE MAIN FIRE LINE AND A REDUCED PRESSURE BACKFLOW PREVENTOR (AMES 4000 SS OR WATTS 909*) SHALL BE INSTALLED DOWNSTREAM OF THE BYPASS (REFER TO FIGURE)
14. ALL REGULAR FIRE SUPPRESSION SYSTEMS MUST HAVE OS& Y VALVES, HOWEVER, LIMITED FIRE SUPPRESSION SYSTEMS MAY USE BALL VALVES (VICTAULIC SERIES 700 FIRELOCK*) INSTEAD OF OS& Y VALVES. THE FIRE UNIT SHALL BE FURNISHED WITH A 5/8 INCH X 3/4 INCH METERED BYPASS. BYPASS METERS SHALL BE JERSEY CITY STANDARD SINGLE DISPLACEMENT SENSUS METERS WITH TOUCHPAD AND RADIO READ CAPABILITIES. THE SAME RADIO MIU UNIT SHALL BE USED FOR A COMBINED DOMESTIC AND FIRE SERVICE.
15. FOR DOMESTIC SERVICE, AN APPROVED REDUCED PRESSURE BACKFLOW PREVENTOR (AMES 4000 SS OR WATTS 909*) IS REQUIRED WHEN THE JCMUA DETERMINES THAT THERE IS A CROSS CONNECTION HAZARD AND THE FACILITY PRESENTS A THREAT TO THE CITY'S DISTRIBUTION SYSTEM WATER QUALITY IN ACCORDANCE WITH THE PLUMBING SUBCODE OF THE NEW JERSEY STATE UNIFORM CONSTRUCTION CODE, NJAC 5:23-3.15 AND THE NEW JERSEY SAFE DRINKING WATER ACT NJAC 7:10-10 PHYSICAL CONNECTIONS AND CROSS CONNECTIONS CONTROL BY CONTAINMENT. SOME SERVICES WHICH REQUIRE SUCH DEVICES INCLUDE: A HOSPITAL, SCHOOL, CHEMICAL PLANT, FACTORY, AND A FACILITY WITH SEWAGE EJECTORS.
16. IF A REDUCED PRESSURE BACKFLOW PREVENTOR IS NOT REQUIRED ON THE DOMESTIC SERVICE, A CHECK VALVE SHOULD BE INSTALLED DOWNSTREAM OF THE TEST TEE.
17. ALL METERS SIZES 2 INCHES THROUGH 6 INCHES SHALL BE SINGLE COMPOUND METERS AND ALL METERS 8 INCHES AND LARGER SHALL BE DUPLEX COMPOUND MANIFOLD METERS.
18. ALL METERS SHALL BE ADEQUATELY RESTRAINED WITH METAL BRACKETS FASTENED TO THE FLOOR OR WALL OR OTHER APPROVED MEANS SUCH AS UNFLANGED WHERE INTERNAL PIPE PRESSURE AND FLOW WARRANT SUCH RESTRAINTS. METERS, DETECTOR CHECKS, AND VALVES MAY BE SEATED ON CONCRETE BLOCK AND TAPERED SHIMS TO PROVIDE ADEQUATE SUPPORT. METERS SHALL BE INSTALLED APPROXIMATELY 36" ABOVE FLOOR GRADE.
19. ALL METER INSTALLATIONS IN METER PIT OR VAULT SHALL BE PRE-APPROVED BY JCMUA AND HAVE PROPER ACCESS OPENINGS FOR METER READING AND REPLACEMENT.
20. EACH COMPOUND METER SHALL HAVE STRAINER INSTALLED ON THE INLET SIDE IMMEDIATELY BEFORE THE METER. ALL STRAINERS MUST BE PURCHASED FROM JCMUA OR ITS AUTHORIZED AGENT.
21. ALL METERS 2" AND LARGER SHALL BE FURNISHED WITH SENSUS ECRW* REMOTE TOUCH PAD MODULES AND RADIO MIU UNITS FOR BOTH TYPES OF READING CAPABILITIES.
22. REMOTE TOUCH PAD MODULE WIRE SHALL BE CONNECTED TO THE METER REGISTER [illegible] ALL TERMINAL CONNECTIONS. TOUCH PADS MAY BE WALL MOUNTED OR LID MOUNTED WHERE A METER PIT IS UTILIZED. TOUCH PADS ARE TO BE INSTALLED ON EXTERIOR BUILDING WALL FACING THE STREET AND LOCATED AS CLOSE AS POSSIBLE TO STREET. [illegible] MOUNTING BRACKET AND LIKEWISE IS TO BE INSTALLED IN PROXIMITY TO STREET.
23. ALL INSTALLATIONS OF EQUIPMENT AND COMPONENTS SHALL BE PERFORMED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
24. ALL METERS INCLUDING TOUCH PAD MODULES, AND RADIO MIU UNITS SHALL BE PURCHASED THROUGH THE PERMIT CLERK AT JCMUA OFFICE. APPROVED PLANS MUST BE SUBMITTED TO THE PERMIT CLERK FOR ISSUANCE OF REQUIRED PERMITS.
25. AFTER OBTAINING THE REQUIRED PERMITS (STREET OPENING, TAP, AND METER) THE APPLICANT SHALL CALL UWJC AT (201) 239-1108 TO SCHEDULE THE TAP. THE EXCAVATION SHALL BE COMPLETED TWENTY-FOUR (24) HOURS PRIOR TO THE SCHEDULED TAP, AND VERIFIED BY JCMUA OR IT'S AUTHORIZED AGENT BEFORE THE TAP WILL BE INSTALLED. EXCAVATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA REQUIREMENTS FOR SHEETING AND SAFETY.
26. UPON COMPLETION OF THE INSTALLATION, THE APPLICANT SHALL SUBMIT THREE (3) SETS OF "AS BUILT" PLANS TO THE JCMUA'S BUREAU OF WATER ENGINEERING. THE JCMUA WILL AUTHORIZE SUPPLY WATER UPON ACCEPTANCE OF THE "AS BUILT" DRAWINGS.
27. SPECIFIED MODEL OR APPROVED EQUAL. [illegible]

THRUST BLOCK DETAILS



THRUST BLOCK SCHEDULE

PIPE SIZE	TEE		22 1/2" BEND		45° BEND		90° BEND		
Ø"	L	D	L	D	L	D	L	D	W
6"	18"	15"	18"	12"	18"	12"	18"	15"	21"
8"	2'-0"	18"	18"	12"	18"	12"	2'-0"	8"	24"
12"	3'-0"	2'-0"	2'-0"	12"	2'-0"	12"	3'-0"	2'-0"	28"
16"	4'-0"	2'-6"	2'-0"	12"	2'-4"	18"	4'-0"	2'-6"	31"
20"	5'-3"	3'-0"	2'-0"	18"	3'-0"	2'-0"	5'-3"	3'-0"	33"
24"	7'-6"	3'-0"	3'-0"	18"	4'-0"	2'-6"	7'-6"	3'-0"	36"
30"	11'-0"	4'-0"	5'-0"	2'-0"	6'-0"	4'-0"	11'-0"	4'-0"	40"

NOTE: ALL CONCRETE SHALL BE 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS

NUMBER OF 3/4" RODS REQUIRED

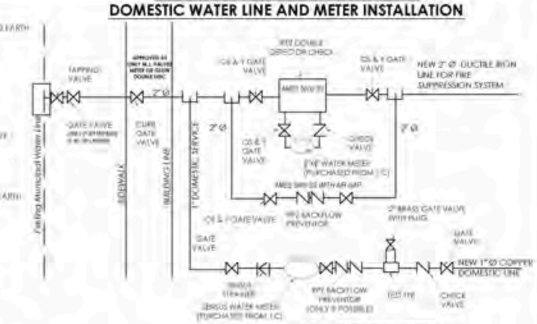
PIPE SIZE INCHES	12" OR LESS	14" & 16"	18" & 20"	24"
NUMBER OF RODS	2	4	6	8

WATER DISTRIBUTION SYSTEM STANDARDS

1. WATER MAINS SHALL BE [illegible] CLASS [illegible] CEMENT LINED DUCTILE IRON PIPE WITH MECHANICAL JOINTS AND SHALL BE IN CONFORMANCE WITH A.N.S.I. STANDARD A21.5-1976 (A.W.W.A. C151-76).
2. A SOLID DUCTILE IRON TAPPING SLEEVE SUCH AS MUELLER H-615 TAPPING SLEEVE OR APPROVED EQUAL (PLEASE REFER TO ITEM # 13).
3. GATE VALVES SHALL BE IN CONFORMANCE WITH A.N.S.I./A.W.W.A. STANDARD DOUBLE DISC GATES [illegible] AND OR AN APPROVED EQUAL C500-80 AND SHALL BE STANDARD VALVES, MAIN METROPOLITAN MECHANICAL JOINT VALVES AS MANUFACTURED BY DRESSER COMPANY OR APPROVED EQUAL. VALVES SHALL BE NON-RISING STEM, MECHANICAL JOINT SHALL BE FURNISHED WITH A (2") SQUARE OPERATING NUT SHALL OPEN BY TURNING TO THE RIGHT. GATE VALVES [illegible] AND OVER SHALL BE SUPPLIED WITH BY-PASS. VALVE SHALL BE 100% SOLID HEAT CURED EPOXY COATED HOLIDAY-FREE IN THE WATERWAY.
4. BUTTERFLY VALVES SHALL BE IN CONFORMANCE WITH A.N.S.I./A.W.W.A. STANDARD C504-80. BUTTERFLY VALVES SHALL BE CLASS 150B MECHANICAL JOINT, WITH RUBBER SEAT MOUNTED ON THE DISC, SHALL BE FURNISHED WITH A (2") INCH SQUARE OPERATING NUT AND SHALL OPEN BY TURNING TO THE RIGHT. THE VALVE SHALL BE 100% SOLID HEAT CURED EPOXY COATED HOLIDAY-FREE IN THE WATERWAY. THE USE OF BUTTERFLY VALVES WILL NOT BE PERMITTED IN MAINS (16") AND UNDER.
5. VALVES BOXES SHALL BE "STANDARD" AS MANUFACTURED BY BINGHAM AND TAYLOR, OR APPROVED EQUAL. BOXES SHALL HAVE A MINIMUM OF 9-1/2 INCH DIAMETER AND SHALL BE AN ADJUSTABLE SCREW TYPE WITH THE BOX EXTENDING FROM THE SURFACE TO (3") INCHES ABOVE THE VALVE BONNET BASE. VALVE BOX SHALL BE CAST IRON WITH A STANDARD COAL TAR FOUNDRY DIP WITH CAST IRON WATER DROP COVER AND THE WORD "WATER" CAST IN COVER. VALVE BOX COVER SHALL BE INSTALLED FLUSH WITH THE EXISTING GRADE ELEVATION.
6. CONCRETE FOR VALVE SEATS AND THRUST BLOCKS SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 4000 PSI.
7. SELECT GRANULAR BACKFILL MATERIAL SHALL BE SOIL AGGREGATE TYPE 1-6 (FOUNDS FILL, CLEAN SAND, GRAVEL OR STONE) OBTAINED FROM DRY SOURCES AND SHALL BE FREE FROM STUMPS, BRUSH, WEEDS, ROOTS, RUBBISH, WOOD AND OTHER MATERIAL THAT MAY DECAY. GRADUATION SHALL CONFORM TO TABLE 901 G. FOR TYPE 1 & III ARTICLE 901.09 OF THE (N.J.D.O.T.) NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED IN TWELVE (12) INCH LIFTS.
8. TIE RODS SHALL BE THREE QUARTER (3/4) INCH DIAMETER THREADED STEEL BARS. TIE RODS SHALL HAVE A MINIMUM YIELD STRESS OF 36,000 P.S.I.
9. COUPLINGS SHALL BE DRESSER STYLE NUMBER 153 FOR PIPE SIZES THROUGH (30") INCH DIAMETER. FOR LARGER DIAMETER PIPE, DRESSER STYLE NUMBER 38 STEEL COUPLINGS SHALL BE USED.
10. SHEETING, SHORING AND BRACING SHALL BE CLOSED VERTICAL SHEETING, TONGUE AND GROOVE WHICH IS BRACED TO PREVENT THE CAVE IN OF TRENCHES. ALL LABOR EQUIPMENT, MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. MATERIALS FOR SHEETING SHALL BE TONGUE AND GROOVE WOODEN PLANKS AND TIMBER OR STEEL CONFORMING TO THE REQUIREMENTS OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. TIMBER SHALL BE A MINIMUM OF 4" THICK.
11. BROKEN STONE FOUNDATION CUSHION SHALL BE PLACED IN THOSE AREAS WHERE THE DIRECTOR, DEPARTMENT OF ENGINEERING HAS DEEMED THE SOIL CONDITIONS INFERIOR. BROKEN STONE SHALL CONFORM TO ARTICLE 901.03 OF THE STANDARD SPECIFICATIONS AS CURRENTLY AMENDED. THE SIZE OF BROKEN STONE SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER FOR SIZE NUMBER 2, 4.5 OR 6 AS SHOWN IN TABLE 901-1, STANDARD SIZES OF COARSE AGGREGATES OF THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
12. FILTER CLOTH SHALL BE PLACED IN THOSE AREAS WHERE THE DIRECTOR, DEPARTMENT OF ENGINEERING HAS DEEMED THE SOIL CONDITIONS INFERIOR.
13. AFTER THE ENGINEER HAS INSPECTED THE COMPLETED INSTALLATION OF VALVES AND WATER MAIN, AND BEFORE BACKFILLING THE EXCAVATIONS, THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO PRESSURE TEST THE PIPE. THE PIPE SHALL BE PRESSURIZED TO 1.5 X THE WORKING PRESSURE FOR A PERIOD OF TWO (2) HOURS. THERE SHALL BE NO PRESSURE DROP IN ANY VARIATIONS. THE VALVED SECTION OF PIPE SHALL BE FILLED WITH WATER SLOWLY, AND THE TEST PRESSURE SHALL BE APPLIED BY MEANS OF A PUMP CONNECTED TO THE PIPE IN A MANNER SATISFACTORY TO THE ENGINEER. BEFORE APPLYING THE TEST PRESSURE, AIR SHALL BE EXPELLED COMPLETELY FROM THE PIPE BY INSTALLING CORPORATION COCKS AT SUCH POINTS SO THAT THE AIR CAN BE EXPELLED AS THE LINE IS FILLED WITH WATER. IF THE JOINTS LEAK, REPAIRS OR REPLACEMENTS SHALL BE MADE. TESTING SHALL BE IN CONFORMANCE WITH A.W.W.A. STANDARD C600-77.
14. THE CONTRACTOR SHALL DISINFECT ALL WATER MAINS IN ACCORDANCE WITH A.W.W.A. STANDARD FOR "DISINFECTING WATER MAINS" DESIGNATION C-601. COMMERCIAL PRODUCTS SUCH AS "HTH", "PERCHLARON" AND "MAXOCHLOR" MAY BE USED IN FLAKE OR CRYSTAL FORM, BUT IN NO INSTANCE WILL TABLETS BE PERMITTED TO BE USED IN THE DISINFECTION OF WATER MAINS. THE CHLORINE DOSAGE SHALL INITIALLY PRODUCE 50 PPM RESIDUAL TO THE WATER AND MAINTAIN A MINIMUM RESIDUAL OF 25 PPM AFTER 24 HOURS. AFTER SATISFACTORY DISINFECTION OF THE TEST SECTION, THE LINE SHALL BE CONTINUOUSLY FLUSHED UNTIL THE RESULTANT CHLORINE RESIDUAL EQUALS ONE PPM OR THE RESIDUAL OF THE SYSTEM, WHICHEVER IS GREATER. AFTER FINAL FLUSHING AND BEFORE THE WATER MAIN IS PLACED IN SERVICE SAMPLES SHALL BE COLLECTED FROM EACH END OF THE MAIN AND TESTED FOR BACTERIOLOGIC QUALITY. IF THE INITIAL DISINFECTION FAILS TO PRODUCE SATISFACTORY SAMPLES, DISINFECTION SHALL BE REPEATED UNTIL SATISFACTORY SAMPLES HAVE BEEN OBTAINED.
15. AIR RELEASE VALVES SHALL BE INSTALLED AT THE HIGH POINTS OF THE WATER MAINS.
16. ALL WATER MAINS WILL BE AT LEAST 8" IN DIAMETER. TEN (10") AND 14" DIAMETER MAINS SHALL NOT BE USED.
17. THRUST BLOCKS AND TIE RODS SHALL BE INSTALLED AT ALL BENDS AND FITTINGS.
18. ALL FIRE HYDRANTS SHALL BE TWO (2) PIECE "STANDARD" WHEN ORDERING AS FOR NEW YORK STD. AP SMITH FIRE HYDRANT (3) SERIES MANUFACTURED BY U.S. PIPE FOUNDRY COMPANY, EAST PEARL STREET, BURLINGTON, NEW JERSEY 08016 PHONE 1-609-387-6000.
19. FOR EITHER NEW CONSTRUCTION OR RELOCATION OF THE FOLLOWING SHALL BE REQUIRED:
    a. FIRE HYDRANT SPACING SHALL BE A MAXIMUM OF 250 FEET MEASURED CENTER TO CENTER.
    b. HYDRANTS SHALL BE LOCATED NO CLOSER THAN 20 FEET FROM THE POINT OF TANGENCY OR CURVATURE AT INTERSECTIONS.
    c. ALL ONE PIECE FIRE HYDRANTS SHALL BE REMOVED AND DELIVERED TO MUA'S AUTHORIZED AGENT. TWO PIECE FIRE HYDRANTS MAY BE REUSED AFTER MUA'S BUREAU OF ENGINEERING AFTER INSPECTION MADE ON CONDITION OF FIRE HYDRANT. A NEW FIRE HYDRANT WILL BE SUPPLIED BY MUA OR AUTHORIZED AGENTS FOR INSTALLATION FOR APPROVED PROJECT.
    d. HYDRANTS SHALL BE NO CLOSER THAN TEN (10') FEET FROM THE EDGE OF A RESIDENTIAL DRIVEWAY OR (30') FEET FROM THE EDGE OF COMMERCIAL DRIVEWAY. IN THE CASE WHERE DRIVEWAYS ARE EXPANDED OR NEWLY CONSTRUCTED, THE OWNER SHALL BE RESPONSIBLE FOR THE RELOCATION OF AN EXISTING HYDRANT IF ABOVE REQUIREMENTS ARE VIOLATED.
    e. ALL SINGLE GATED HYDRANTS ON (16") INCH OR LARGER MAINS SHALL REQUIRE A NEW VALVE AT THE BASE OF THE RELOCATED HYDRANT.
    f. NEW GATE VALVES AND BOXES ARE REQUIRED AT THE BASE OF RELOCATED HYDRANTS WHEN MORE THAN [illegible] FEET OF PIPE IS REQUIRED.
20. EXISTING WATER SERVICE LINES SHALL BE SHUT-OFF AND CAPPED AT THE MAIN PRIOR TO THE INSTALLATION OF NEW WATER SERVICES. PRIOR TO NEW SERVICE TAP THE MUA OR AUTHORIZED AGENTS SHALL INSPECT AND CERTIFY THE ABANDONED SERVICES.
21. WATER MAINS TO ABANDON SHALL BE CUT AND PLUGGED WITH REQUIRED FITTINGS, RODS AND CONCRETE AS CLOSE TO THE EXISTING MAIN IN SERVICE AS POSSIBLE.
22. ALL VALVES SHALL BE OPERATED BY MUA OR AUTHORIZED AGENTS PERSONNEL. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE ANY VALVES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, IN WRITING, FIVE (5) DAYS IN ADVANCE OF VALVE OPERATING REQUIREMENTS.
23. FAILURE TO COMPLY WITH THE ABOVE REQUIREMENTS WILL RESULT IN THE IMMEDIATE SHUT DOWN OF THE PROJECT.

08/27/07

J.C.M.U.A REQUIREMENTS FOR FIRE & DOMESTIC WATER LINE AND METER INSTALLATION



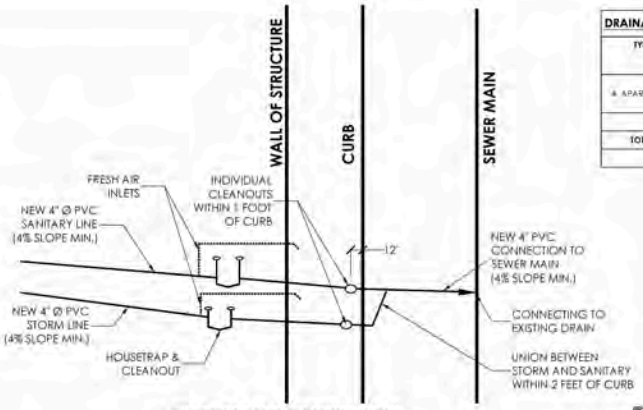
7" Shaft 3-Piece Valve Boxes

JERSEY CITY MUNICIPAL UTILITIES AUTHORITY STANDARD REQUIREMENTS FOR NEW SANITARY AND STORM SEWERS AND SERVICE LATERALS

Plans and any additional information as applicable must be presented to the JCMUA for review and comments for all proposed sanitary and storm sewer connections to the JCMUA sewer system or that are proposed in Jersey City. Repairs to existing services do not require the review and approval of the JCMUA. All plans must be signed and sealed by a Professional Engineer or Registered Architect licensed to practice in New Jersey and submitted to the JCMUA=s Sewer Engineering Office, 555 Route #40, Jersey City, NJ 07305 for approval.

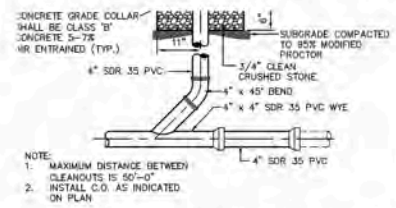
The following technical requirements shall be addressed in preparation of site/utility plans:

1.) Bedding and backfill material shall comply with the requirements of the NJDOT Standard Specification for Road and Bridge Construction, and the Design and Construction of Urban Stormwater Management Systems, ASCE Manuals and Reports of Engineering Practice No. 77, 1993, as applicable.
2.) All sewer service connections 6=inches in dia or smaller must be made directly to the sewer main and all connections 6=inches in size or larger must be made to a manhole. Where a connection to a manhole is required, manhole bench and channel may require modification.
3.) The JCMUA requires that sewer service connections to be re-used be televised to verify their integrity and that the pipe is free from any defects.
4.) Each building connection requires a curb cleanout (refer to attached detail drawings). T-Wye cleanouts which enable cleaning in both directions should be installed on both the storm and sanitary lateral.
5.) Proposed sewer lateral connection to JCMUA's sewer main shall be made above horizontal center line of pipe (refer to attached sewer service connection details).
6.) The size, material, depth, condition, direction of flow and any other relevant conditions of the existing JCMUA sewer to which you plan to connect must be field verified by developer to determine if said connection is physically possible and practical. In addition, manhole inverts and rim elevation must be known on plans. This verification is to be included on the plans for the project.
7.) Circular hole saws which are approximately sized or hand drill must be used to make the openings in the existing sewer to receive the laterals. Jackhammers, sledgehammers and other percussive tools or machinery which may damage the JCMUA's sewer main are not allowed to be used to make the lateral openings. All debris must be removed and not allowed to fall into pipe.
8.) A detail of any proposed manhole or catch basin showing all dimensions in addition to rim, grate and invert elevations of the structure and all pipes connected to the structure must be shown on plans. Refer to JCMUA standard detail drawings for manholes and catch basins.
9.) Proposed manholes constructed in the public R.O.W. or existing or proposed JCMUA sewers shall be furnished with concentric manhole covers as manufactured by Campbell Foundry Co., Pattern #4628 or equal with outside cover diameter of 31-3/4 inches and inside cover diameter of 24 inches. The letters AJCMUA@ and ASEWER@ shall be cast in the inside cover. Manhole frames shall be Campbell Foundry Co. Pattern #4628 (for 30=inch opening) or #1706 (for 41=inch opening) or equal furnished with a Pattern #4428 concentric cover as specified in the preceding paragraph.
Refer to JCMUA=s standard detail for manhole frame and cover.
10.) Storm inlets which are connected directly to JCMUA combined sewers must be furnished with a sump and trap as per JCMUA standard details.
11.) The JCMUA has a combined sewer system which surcharges during wet weather periods resulting in possible sewage backups through plumbing fixtures (sinks, toilets, floor drains, etc.) below street level. This possibility must be addressed during the design/construction phase.
12.) A drop manhole connection shall be used where there is a difference in elevation of two (2) feet or greater between the invert of a sanitary or combined inlet pipe to manhole and the crown of the outlet pipe from manhole. Refer to attached JCMUA=s standard detail for drop manhole connection which must be shown on site plan if required.
13.) Test pits must be performed at the developer=s expense during the design phase of the project to ensure that proposed sewers and sewer services may be constructed as proposed without conflicting with other underground utilities or structures.
14.) All existing sewer mains and sanitary laterals to be abandoned must be filled with concrete slurry or removed from the ground. Catch basins and manholes must be removed from the ground. Connections must be cut and sealed at the main and precautions must be undertaken by the contractor to ensure concrete and other materials do not enter the main and create obstruction(s).
15.) All proposed inlets/catch basins must be constructed with a bicycle safe grate and Campbell Foundry Co. Type "H" curbpieces where required.
16.) Proposed water services require the review and approval of the Division of Water Engineering.
17.) The contractor is responsible for obtaining permits for street openings from the Jersey City Building Department located at 30 Montgomery Street, Jersey City, NJ and all other applicable permits from agencies having jurisdiction.
The system designer is also responsible for compliance with the applicable regulations of the New Jersey Administrative Code, NJDEP Rules and Regulations Governing Treatment Works Approval Program, local codes and ordinances, federal and state regulations etc. in addition to other requirements that may be imposed by the JCMUA.
11/3/05



HOUSETRAP AND CLEANOUT DETAIL

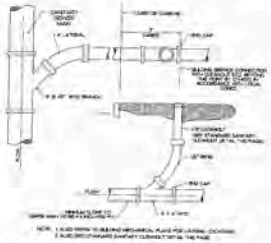
DRAINAGE USAGE CHART				
TYPE	NO. OF FIXTURES	TOTAL NO. OF FIXTURES	DFU (DRAINAGE FIXTURE UNITS)	TOTAL DFU
4 APARTMENTS	1 KITCHEN	4 X	3.0 DFU =	12 DFU
	1 BATH	4 X	3.0 DFU =	12 DFU
	1 WASHER	4 X	3.0 DFU =	12 DFU
TOTAL				24 DFU
		24 DFU	≈ 4 INCH DRAINAGE PIPE	



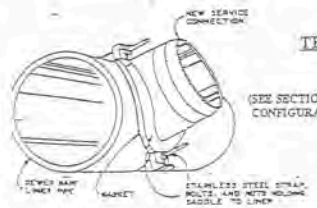
CONNECTION TO PVC,CLAY OR DUCTILE IRON SEWER

JCMUA CLEANOUT DETAIL

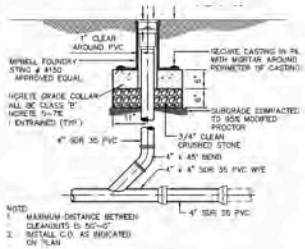
SCALE: NONE



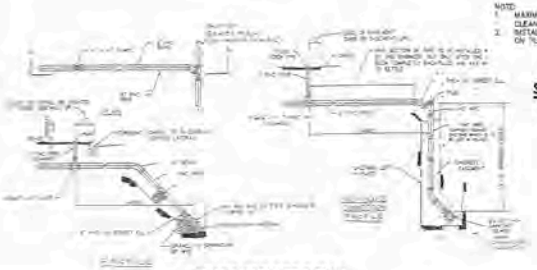
SANITARY SEWER SERVICE LATERAL DETAIL



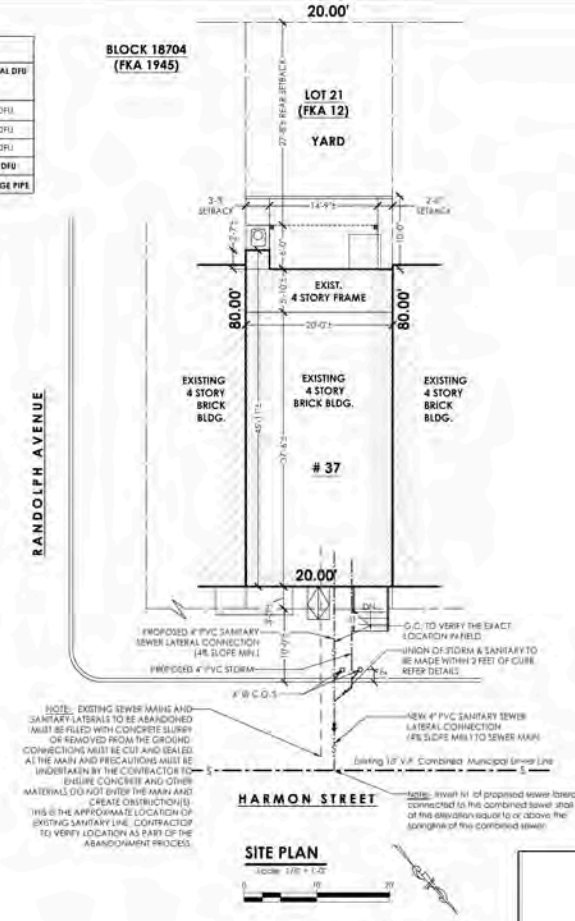
TEE SADDLE



SEWER/STORM PIPE TRENCH DETAIL

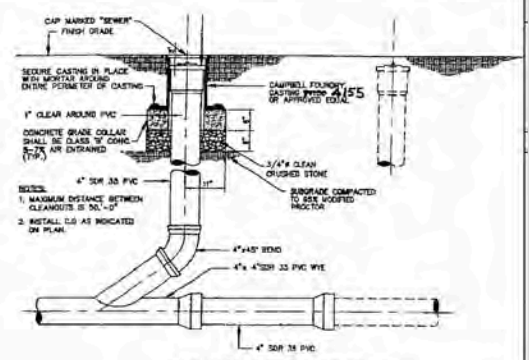


SEWER SERVICE DETAIL

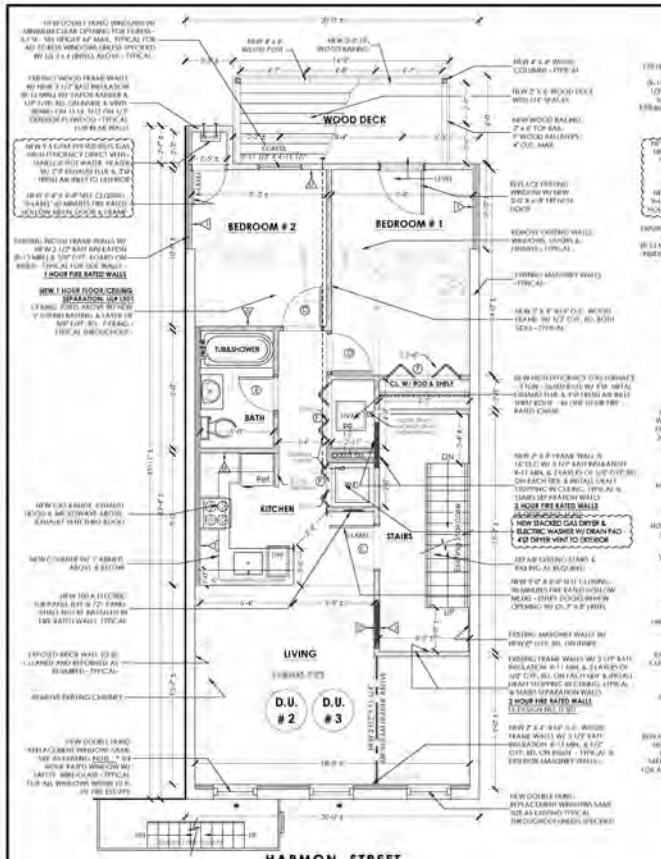


SITE PLAN

SCALE: 1/16" = 1'-0"

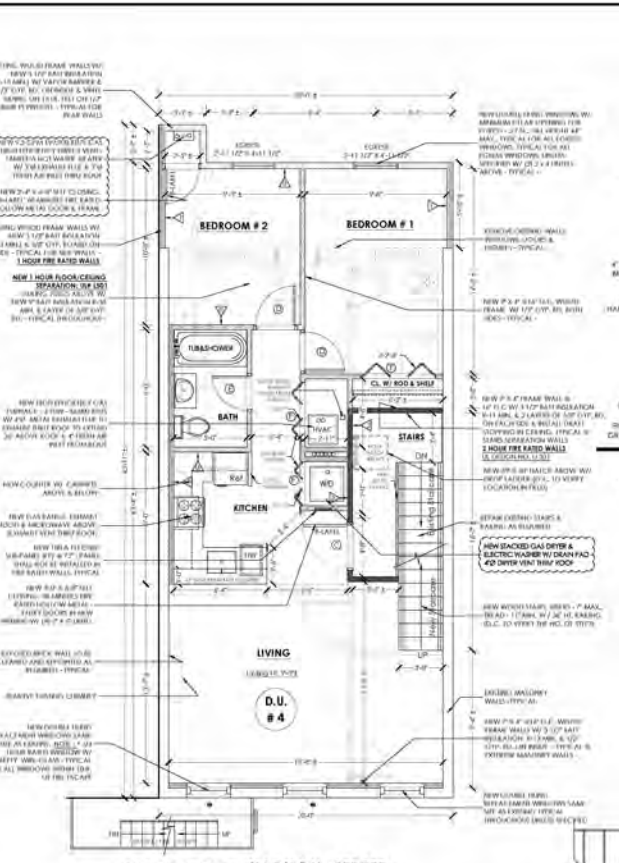


STANDARD SANITARY CELANOUT



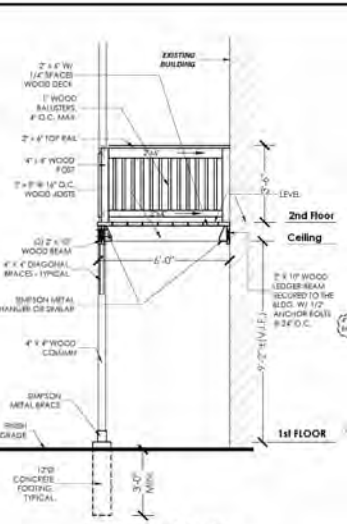
2nd & 3rd Floor Plan

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



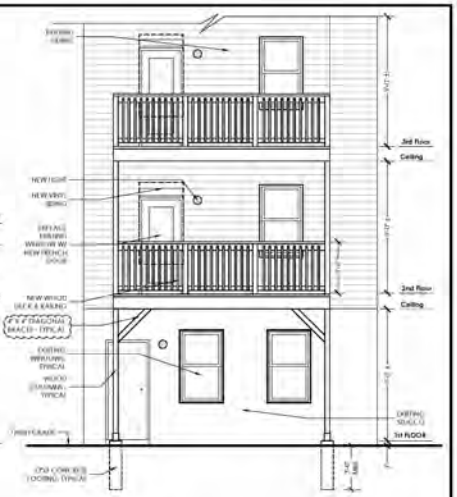
4th Floor Plan

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



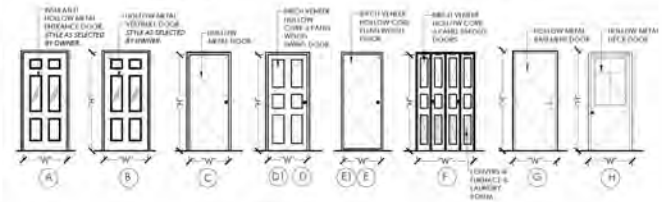
Section thru' Deck

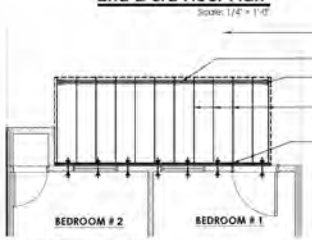
Scale: 3/8" = 1'-0"



Rear Elevation

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





Deck Framing Plan

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

DECK NOTES:-

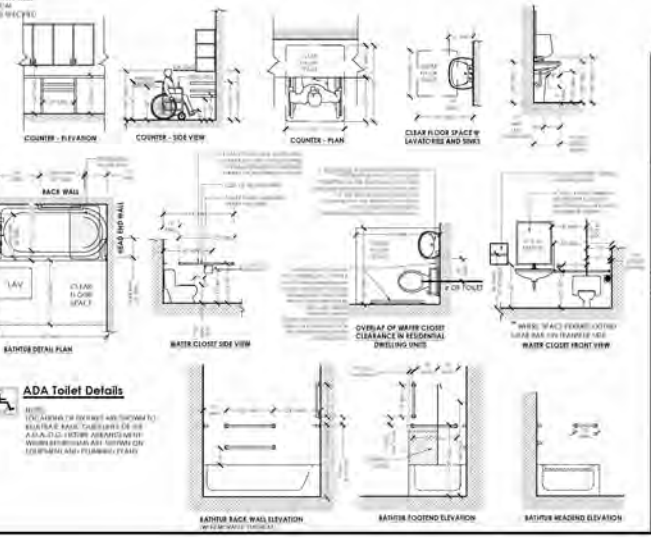
1. ALL WOOD USED IN THE CONSTRUCTION OF DECK & RAILINGS, ETC. TO BE PRESSURE TREATED. APPLY BUILDING PAPER BETWEEN DECKING & JOISTS.
2. ALL METAL TO BE HOT DIPPED GALVANIZED.
3. DO NOT SCALE DRAWINGS.
4. DECK DESIGN LOAD IS BASED ON ON 2009 IBC NJ EDITION.

Door Schedule *(see schedule & hardware set)*

DOOR TYPE								
TYPE	W	H	THK.	MAT.	RATING	HARDWARE SET #	LOCATION
A	[illegible]	[illegible]	1 3/4"	MTL.		1	MAIN ENTRANCE
B	[illegible]	[illegible]	1 3/4"	MTL.		1	INTERNAL DOOR
C	3'-0"	6'-8"	1 3/4"	MTL.	90 Minutes	2	DWELLING UNIT THRESHOLD
D 1	3'-0"	6'-8"	1 1/2"	WOOD		4	ADA BEDROOM
D	2'-8"	6'-8"	1 1/2"	WOOD		4	BEDROOM
E 1	3'-0"	6'-8"	1 1/2"	WOOD		5	ADA BATH
E	2'-4"	6'-8"	1 1/2"	WOOD		5	BATH
F	SEE PLAN	6'-8"	1 1/2"	WOOD		6	CLOSET
G	3'-0"	6'-8"	1 1/2"	MTL.	90 Minutes	7	BASEMENT DOOR
H	2'-8"	6'-8"	1 1/2"	MTL. W/ GLAZING		8	MAIN PLAZA DOOR

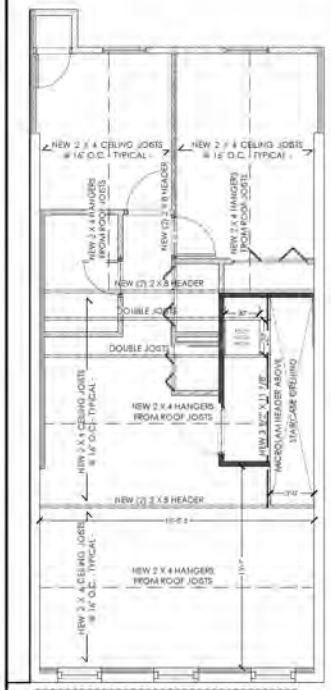
DOOR HARDWARE SETS

HARDWARE SET 1	HARDWARE SET 2	HARDWARE SET 3	HARDWARE SET 4	HARDWARE SET 5	HARDWARE SET 6	HARDWARE SET 7	HARDWARE SET 8
HOLLOW METAL DOOR W/ SAFETY GLASS 1 - LOCKSET 1 - CLOSER 1 - SET (4 PR.) HINGES 1 - PEDAL STOP 1 - PIECE ALUMINUM THRESHOLD 1 - SET WEATHER STRIPPING 1 - METAL SUPPORT 1 - DOOR GUARD 1 - DOOR STOP 3 - SEALANTS 1 - CLOSER 1 - PLATE 1 - OVERHEAD STOP 1 - SILENCERS DOOR FINISHES FOR ALL HARDWARE SHALL MATCH DOOR FINISH PAINT	SELF CLOSING HOLLOW METAL DOOR 1 - LOCKSET / SELF CLOSING 1 - SET (4 PR.) HINGES 1 - LOCKSET WITH LEVER SET 1 - PIECE ALUMINUM THRESHOLD 1 - DOOR GUARD 1 - DOOR STOP 3 - SEALANTS 1 - CLOSER 1 - CHAIN 1 - SILENCER 1 - STOP SETS PAINT - SEE LABEL	BIRCH VENEER HOLLOW CORE WOOD DOOR W/ FRENCH WOOD DOOR 1 - PRIVACY 1 - 1/2 - PAIR BUTT HINGES 1 - DOOR SWEEP 1 - PLAIN WOOD JAMB 1 - LEVER HANDLE 3 - SEALANTS 1 - CLOSER MAIN DR PAINT	BIRCH VENEER HOLLOW CORE WOOD DOOR 1 - PASSAGE LOCKSET 1 - 1/2 - PAIR BUTT HINGES 1 - FLAT WOOD JAMB PAINT 1 - MARBLE THRESHOLD 2 - LABRINTH 1 - LEVER HANDLE 1 - DOOR SWEEP MAIN DR PAINT	BIRCH VENEER HOLLOW CORE FLUSH DOOR 1 - SET - BIFOLD DOOR 1 PAIR SET (4 PR.) STEEL HINGES 1 - NO LOCKSET 1 - FLAT DOOR JAMB PAINT 1 - TOP TRACK 1 - BOTTOM GUIDE 3 - SEALANTS DOOR FINISHES AS SELECTED BY OWNER MAIN DR PAINT (BIFOLD FOR AN FURNACE ROOM GOOD)	HOLLOW METAL DOOR 1 - LOCKSET 1 - (2) - PAIR BUTT HINGES 1 - PIECE ALUMINUM THRESHOLD 1 - FLAT DOOR JAMB PAINT 1 - FLUSH BOLTS 1 - DOOR GUARD 1 - DOOR STOP 3 - SEALANTS 1 - KICK PLATE 1 - LEVER HANDLE 1 - CLOSER PAINT BASEMENT DOOR - SELF CLOSING & 3 LABEL	HOLLOW METAL DOOR W/ SAFETY GLASS 1 - LOCKSET 1 - 1/2 - PAIR BUTT HINGES 1 - PIECE ALUMINUM THRESHOLD 1 - FLAT DOOR JAMB PAINT 1 - FLUSH BOLTS 1 - DOOR GUARD 1 - DOOR STOP 3 - SEALANTS 1 - KICK PLATE 1 - LEVER HANDLE 1 - CLOSER 1 - DOOR SWEEP MAIN DR PAINT



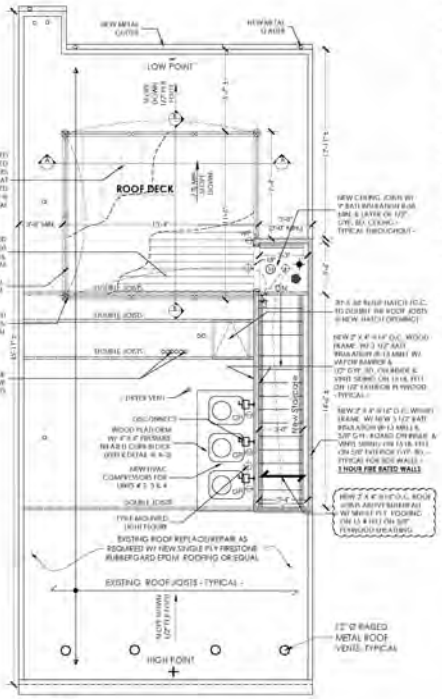
ADA Toilet Details

1 11-26-2015 REVISED & FOLDED HR



4th Floor Ceiling Framing Plan

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

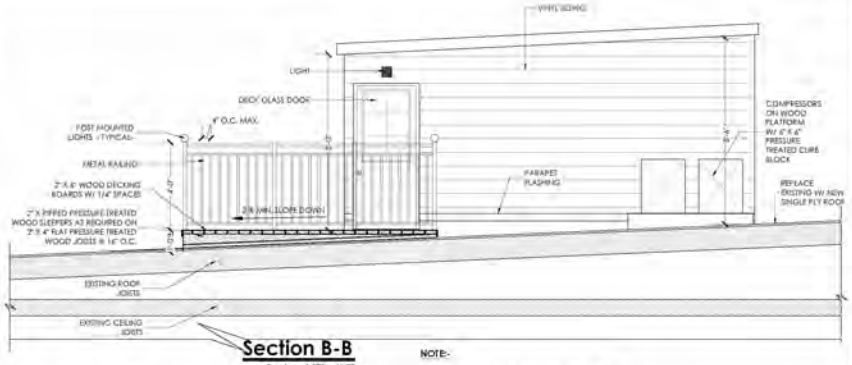


Roof Plan

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

STAIR NOTES:

1. HANDRAILS
   A. PROVIDE HANDRAILS - MINIMUM ONE SIDE
   B. HEIGHT OF RAILING ABOVE TREADS - 30" (30" MIN - 34" MAX.)
   C. EXTEND HANDRAILS 12" HORIZ. OF TOP TREAD AND 12" PLUS TREAD WIDTH BEYOND THE BOTTOM NOSING
   D. RETURN AND TERMINATE END OF HANDRAILS TO WALL OR POST
   E. PROVIDE 1 1/2" CLEAR BETWEEN HANDRAIL AND WALL
   F. CROSS-SECTIONAL DIMENSION HAND GRIP PORTION OF HANDRAILS: 1 1/4" MINIMUM.
2. TREADS
   A. ALL TREADS SURFACES ARE TO BE SLIP RESISTANT
   B. ALL EXPOSED EDGES OF TREADS ARE TO BE SMOOTH, ROUNDED OR CHAMFERED. NO ABRUPT EDGES AT LOWER FRONT EDGE OF NOSING
3. NOSING
   NOSING PROJECTION PAST FACE OF RISER BELOW TO BE 1 1/2" MAXIMUM.
4. RISERS
   SUFFICIENTLY SOLID TO PREVENT PASSAGE OF OBJECTS LARGER THAN 1/8".
5. DIMENSIONS (UNLESS NOTED OTHERWISE)
   - RISERS: 7" MAXIMUM
   - TREADS: 11" MINIMUM
   - MAXIMUM VARIATION IN HEIGHT OF RISERS OR WIDTH OF TREADS IN ANY SINGLE FLIGHT: 1/4"
   - MINIMUM HEADROOM CLEARANCES MEASURED VERTICALLY FROM THE PLANE OF THE CEILING FINISH TANGENT TO THE TREAD NOSING AT THE STAIRWELL: 6'-8" MINIMUM CLEAR.
   - MAXIMUM VERTICAL DISTANCE BETWEEN STAIRWAY LANDINGS: 12'-0"
6. STAIR LANDINGS:
   A. STAIR LANDINGS SHALL BE THE SAME WIDTH AND DEPTH AS THE STAIR IT SERVES WITH MINIMUM DIMENSIONS OF 36" EACH WAY.
   B. PROVIDE HANDRAIL AT STAIRS AND 36" HIGH GUARD RAIL (42" HIGH MINIMUM IF OCCUPANCY LOAD IS HIGHER THAN 10) AT STAIR LANDINGS WITH CLEAR SPACE BETWEEN BALUSTERS AND HORIZONTAL TOP RAIL AT 4"(MIN) CLR. TYPICAL
7. HANDICAPPED COMPLIANCE:
   - MARK WITH A 2" WIDE STRIPE OF CONTRASTING COLOR PARALLEL TO (AND NOT MORE THAN 1" FROM THE NOSE OF THE STEP OR LANDING) THE UPPER APPROACH AND LOWER TREAD OF EACH STAIR.
   - USE A SLIP RESISTANT MATERIAL FOR THE STRIP AT EACH NOSING AND LANDING.
8. ENCLOSED USABLE SPACE UNDER STAIRS:
   SHALL BE PROTECTED WITH ONE-HOUR FIRE RESISTIVE PROTECTION.

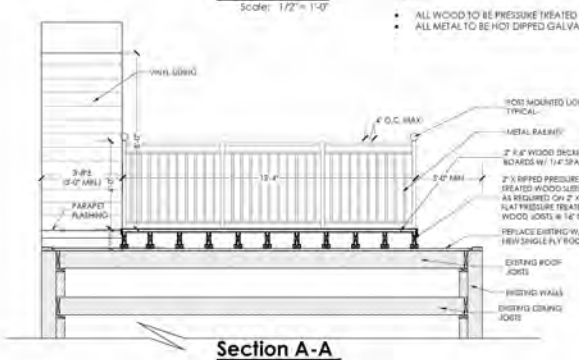


Section B-B

Scale: 1/2" = 1'-0"

NOTE:-

- ALL WOOD TO BE PRESSURE TREATED
- ALL METAL TO BE HOT DIPPED GALVANIZED.



Section A-A

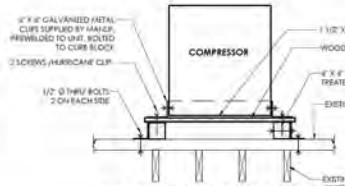
Scale: 1/2" = 1'-0"

Finish Schedule

(SEE MATERIALS LEGEND ABOVE)

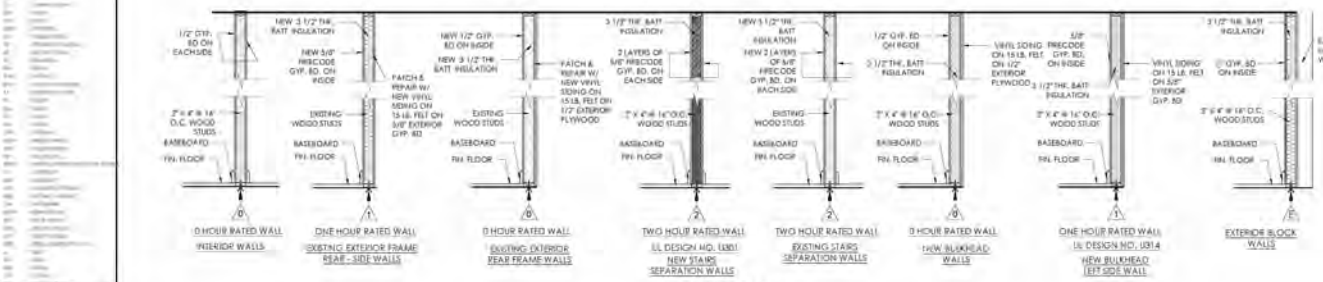
ROOM NAME	FLOOR	BASE	WALL	CEILING	HEIGHT
BASEMENT	CONC.	—	P	P	
STAIRS	VCT	V	P	P	
TYPICAL DWELLING UNIT					
LIVING/DINING	WD	WD	P	P	
BEDROOM	WD	WD	P	P	
KITCHEN	CT	CT	P	P	
BATH	CT	CT	P/CT	P	4'-0"

Abbreviations

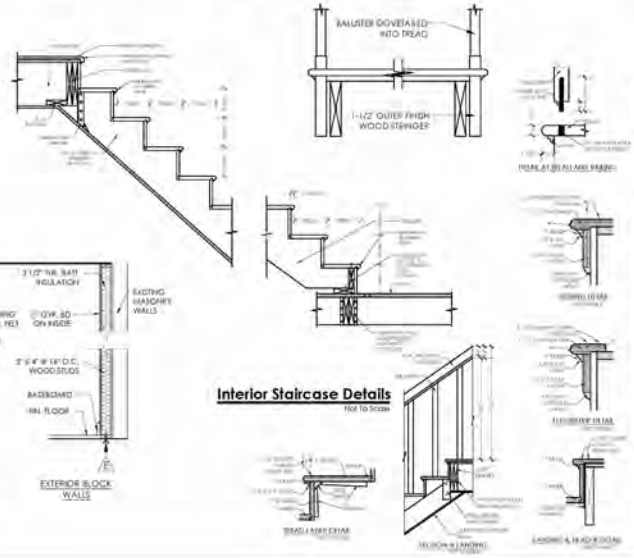


HVAC COMPRESSOR ON ROOF DETAIL

Material Legend



Partition Types



Interior Staircase Details

Not To Scale

1st Floor Electrical Plan

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

2nd & 3rd Floor Electrical Plan

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

4th Floor Electrical Plan

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

Electric Notes

1. ELECTRICAL RENOVATIONS DRAWING.
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH 2011 NATIONAL ELECTRIC CODE, LATEST EDITION AND ALL LOCAL REGULATIONS.
3. OBTAIN AND PAY FOR ALL PERMITS, INSPECTIONS, ETC. REQUIRED.
4. VERIFY FIELD CONDITIONS PRIOR TO DRAWING BID.
5. OBTAIN CERTIFICATE OF FINAL INSPECTION TO OWNER BEFORE ATTEMPTING FOR FINAL PAYMENT.
6. [illegible]
7. CONFIRM WITH ALL TRADES PRIOR TO ROUGH-IN OF WORK TO VERIFY LOCATIONS OF OUTLETS, LIGHTS, DOWNLIGHTS, ETC.
8. WIRE AND CONNECT ALL HVAC EQUIPMENT INCLUDING CONTROLS, THERMOSTATS, ETC.
9. WIRING WITHIN BUILDING WALLS, PARTITIONS AND CEILING SPACES SHALL BE FREE OF ABRASIVE CONDITIONS WHERE PROTECTED BY ELECTRICAL CODE.
10. MINIMUM WIRE SIZE TO BE #12 AWG UNLESS OTHERWISE NOTED. WIRING AS INTERPRETED BY ELECTRICAL CODE WITH #10 NO. 6 AWG AND LARGER AND SHALL BE STRANDED. WIRE SIZE TO BE NO LESS THAN #12 AWG. ALL WIRE SHALL BE COPPER. WIRE THAT HAS BEEN EXPOSED THAT ABRADED OR HAS MADE CONTACT WITH INSULATION.
11. ALL CONDUITS SHALL BE KEPT MINIMUM 6" FROM SEWER AND HOT WATER PIPING OR ANY HEAT PRODUCING EQUIPMENT AND DUCTS OF CONDITIONED AIRING.
12. ALL EXPOSED CONDUIT RUNS SHALL BE PERPENDICULAR OR PARALLEL TO WALLS, CEILINGS AND OTHER ARCHITECTURAL MEMBERS AND SYMMETRICAL WITH RESPECT TO ROOM OR AREA AND MAINTAIN NEATNESS.
13. ALL OTHER INTERIOR TO BE REMOVED, DISPOSED OF BY OWNER, MODIFIED OR REPAIRED BY MECHANICAL DAMAGE SHALL BE CAUSED BY THE ELECTRICAL CONTRACTOR.
14. ELECTRICAL CONTRACTOR SHALL SUPPLY ALL MATERIALS AND PARTS OF A PACKAGE UNIT.
15. OBTAIN PRIOR APPROVAL FROM ARCHITECT OR OWNER FOR ANY CHANGES OR SUBSTITUTIONS.
16. GUARANTEE ALL WORK, MATERIAL AND EQUIPMENT FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE.

Plumbing Notes

1. [illegible]
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL STANDARD PLUMBING CODE (NSPC).
3. OBTAIN AND PAY FOR ALL PERMITS, INSPECTIONS, ETC. REQUIRED.
4. VERIFY FIELD CONDITIONS AND LOCAL CODES BEFORE SUBMITTING BID.
5. OBTAIN CERTIFICATE OF FINAL INSPECTION TO OWNER BEFORE ATTEMPTING FOR FINAL PAYMENT.
6. [illegible]
7. [illegible]
8. [illegible]
9. [illegible]
10. [illegible]
11. [illegible]
12. [illegible]
13. [illegible]
14. [illegible]
15. [illegible]
16. [illegible]
17. [illegible]
18. [illegible]
19. [illegible]
20. [illegible]
21. [illegible]
22. [illegible]
23. [illegible]
24. [illegible]

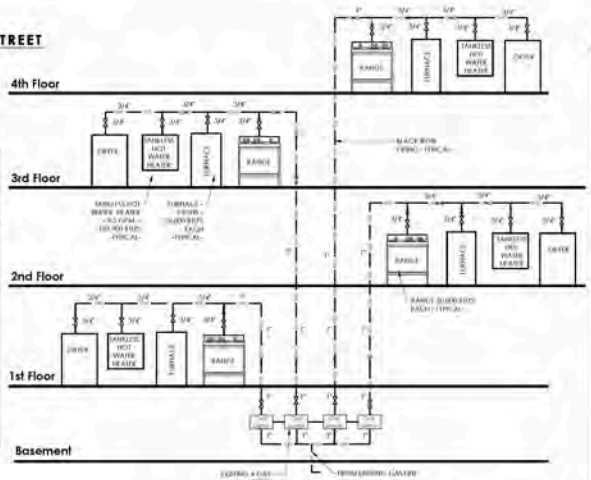
Smoke Detector Notes

1. ALL SMOKE DETECTORS, HEAT DETECTOR, PULL-STATIONS AND HORN & STROBES IN ALL COMMON AREAS & BASEMENT & HORN & STROBE FOR ADA UNIT TO BE OF LOW VOLTAGE TYPE WITH BATTERY BACK-UP.
2. **ALL CIRCUITS WITH BATTERY BACK-UP.**
3. INTERCONNECT ALL SMOKE DETECTORS, HEAT DECTECTOR, PULL-STATION(S) AND HORN & STROBE (S) IN ALL COMMON AREAS & BASEMENT & HORN & STROBE FOR ADA UNIT.
4. EACH DWELLING UNITS SHALL HAVE ITS OWN INDIVIDUAL CIRCUIT OF 110 V A/C OPERATED SMOKE DETECTOR(S), HEAT DETECTOR(S) AND SMOKE & CARBON MONOXIDE DETECTOR COMBO (S).

ADA DWELLING UNITS MOUNTING HEIGHT	
OUTLET	15" aff MINIMUM
GFI OUTLET	42" aff MAXIMUM
SWITCH	48" aff MAXIMUM
ELECTRIC PANEL	48" aff MAXIMUM
THERMOSTAT	48" aff MAXIMUM
BUZZER	48" aff MAXIMUM

SYMBOLS

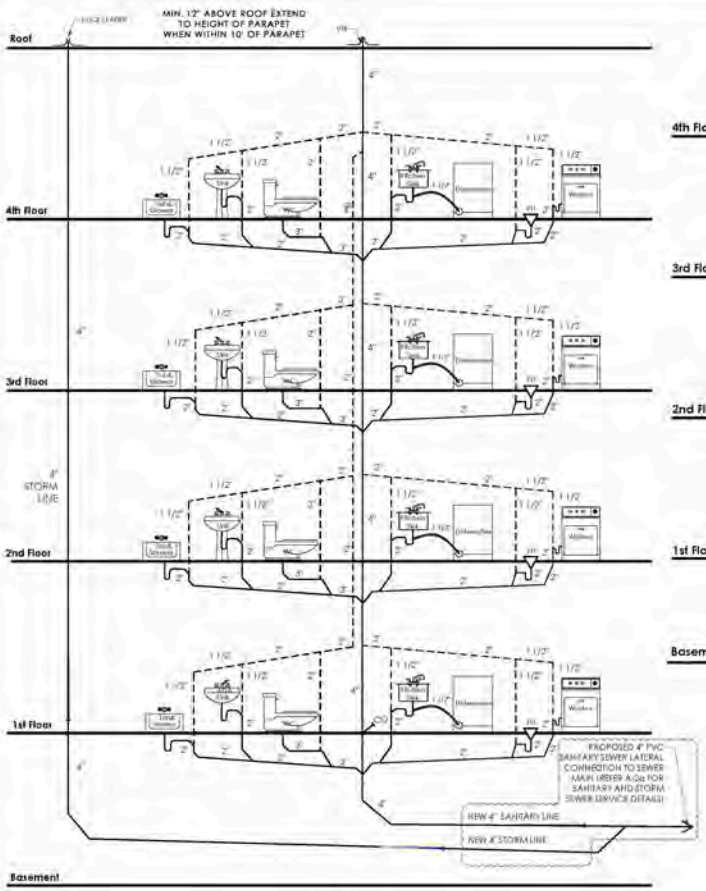
	120 VOLT GENERAL PURPOSE DUPLEX RECEPTACLE @ 18" A.F.F. MIN. (@ 15" AFF FOR ADA UNIT)
GFI	120 VOLT DUPLEX WITH GROUND FAULT INTERRUPTER @ 42" A.F.F. MIN.
	WALL TOGGLE SWITCH @ 48" A.F.F. MAX.
3	3 - WAY SWITCH @ 48" A.F.F. MAX.
	INCANDESCENT LIGHT FIXTURE
	HANGING LIGHTS
E	TOILET EXHAUST AND COOP EXHAUST FAN
	FIRE ALARM AUDIO VISUAL SIGNAL (HORN/STROBE) @ 96" A.F.F. MAX. - LOW VOLTAGE
MP	MANUAL PULL STATION @ 48" A.F.F. MAX. - LOW VOLTAGE
	SMOKE DETECTOR per code - LOW VOLTAGE
	SMOKE DETECTOR per code - 110 V HARDWIRED
C	SMOKE DETECTOR & CARBON MONOXIDE COMBO per code - 110 V HARDWIRED
HD	HEAT DETECTOR per code - 110 V HARDWIRED
	ELECTRIC PANEL @ 72" AFF (@ 48" AFF FOR ADA UNIT)
MD	MOTION DETECTOR
	EMERGENCY LIGHT W/ BATTERY BACK-UP
HT	THERMOSTAT @ 48" A.F.F. MAX.
HI	BUZZER/INTERCOM @ 48" AFF MAX.
FACP	FIRE ALARM CONTROL PANEL
ANNC	ANNUNCIATOR PANEL
R	RED LIGHT & SIREN
	SIAMESE CONNECTION
	SPRINKLER HEAD
	EXIT & EMERGENCY LIGHT PACK



Gas Riser Diagram

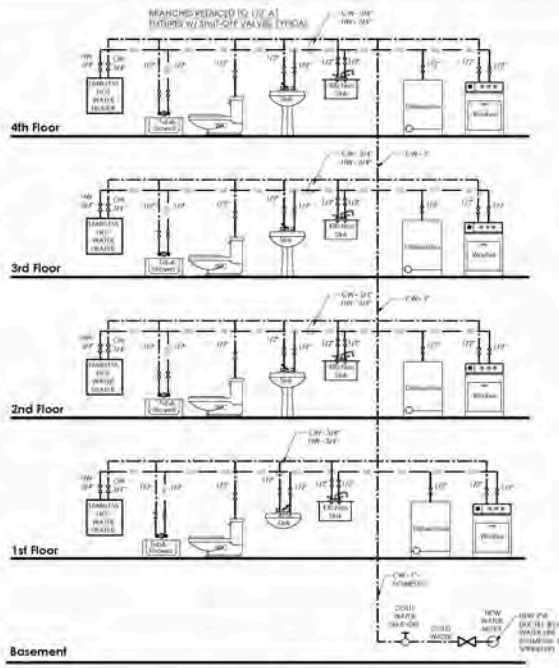
NOT to SCALE

1 11-24-2015 REVISED & EDGEDED



Plumbing Riser Diagram

Not To Scale



Water Riser Diagram

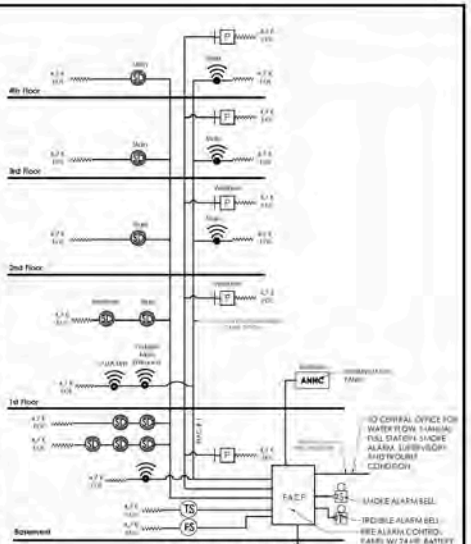
Not To Scale

NOTES - AS PER I&C 2009, NJ EDITION
SECTION 907 - FIRE ALARM AND DETECTION SYSTEMS
907.1.2 FIRE ALARM SHOP DRAWINGS.

SHOP DRAWINGS FOR FIRE ALARM SYSTEMS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO SYSTEM INSTALLATION, AND SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL OF THE FOLLOWING:

1. A FLOOR PLAN THAT INDICATES THE USE OF ALL ROOMS.
2. LOCATIONS OF ALARM-INITIATING DEVICES.
3. LOCATIONS OF ALARM NOTIFICATION APPLIANCES, INCLUDING CANDELA RATINGS FOR VISIBLE ALARM NOTIFICATION APPLIANCES.
4. LOCATION OF FIRE ALARM CONTROL UNIT, TRANSPONDERS AND NOTIFICATION POWER SUPPLIES.
5. ANNUNCIATORS.
6. POWER CONNECTION.
7. BATTERY CALCULATIONS.
8. CONDUCTOR TYPE AND SIZES.
9. VOLTAGE DROP CALCULATIONS.
10. MANUFACTURERS' DATA SHEETS INDICATING MODEL NUMBERS AND LISTING INFORMATION FOR EQUIPMENT, DEVICES AND MATERIALS.
11. DETAILS ON CEILING HEIGHT AND CONSTRUCTION.
12. THE INTERFACE OF FIRE SAFETY CONTROL FUNCTIONS.
13. CLASSIFICATION OF THE SUPERVISING STATION.

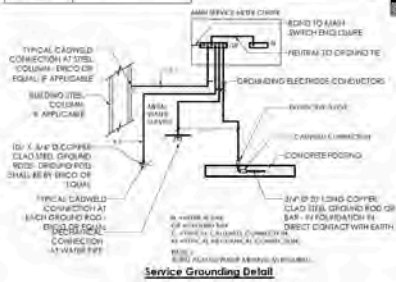
FIRE ALARM SCHEDULE LEGEND	
LOW VOLTAGE FIRE ALARM SYSTEM	
SD	SMOKE DETECTOR
P	FIRE ALARM MANUAL PULL STATION
FACP	FIRE ALARM CONTROL PANEL
R	RED LIGHT & SIREN
	FIRE ALARM AUDIO - VISUAL SIGNAL (HORN/STROBE)
	TROUBLE ALARM BELL
	SMOKE ALARM BELL
	SIAMESE CONNECTION
ANNC	ANNUNCIATOR
TS	TAMPER SWITCH
FS	FLOW SWITCH



FIRE ALARM RISER DIAGRAM

NOTE:
FOR EXACT QUANTITY AND LOCATION OF DEVICES, REFER TO FLOOR PLANS.

FIRE ALARM LEGEND	
110 V HARDWIRED FIRE ALARM	
	SMOKE DETECTOR
	SMOKE AND CARBON MONOXIDE DETECTOR
HD	HEAT DETECTOR



Service Grounding Detail

Ground Rod Detail

1 01-15-2015 REVISED AS PER MIA COMMENTS DATED 01-14-2015

Plumbing Pipe Sizes

TYPE	FIXTURE CONNECTION PIPE SIZE			
	COLD	HOT	DRAIN	VENT
WC	1/2"	—	3"	3"
LAVS (ONE TIME)	1/2"	1/2"	2"	1 1/2"
TUB & SHOWER	1/2"	1/2"	2"	1 1/2"
WASHER	1/2"	1/2"	2"	1 1/2"
FLOOR DRAIN	—	—	2"	1 1/2"
KITCHEN SINK	1/2"	1/2"	2"	1 1/2"
DISH WASHER	—	1/2"	1 1/2" (MIN.)	—
HOT WATER HEATER	3/4"	3/4"		3"

NOTES:
1. ALL PIPING AS PER ANNEX AA SUMMARY (NEW CONSTRUCTION WORK).
2. CHANGE TO SUITE THE CONDITIONS EXISTING.

Plumbing Notes

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]
6. [illegible]
7. [illegible]
8. [illegible]
9. [illegible]

Sprinkler Notes

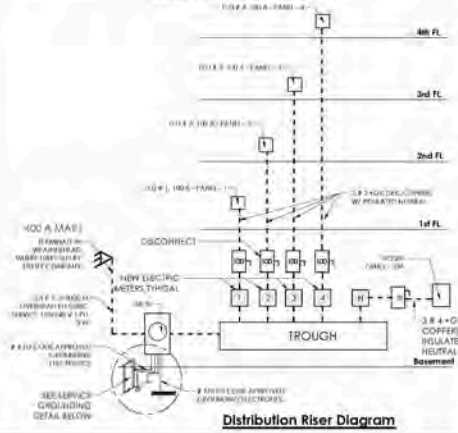
NOTE:-
SPRINKLER CONTRACTOR TO SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR APPROVAL.

METER CENTER 400 A MLO 120/240V, 3 PH 4W NEMA 3R MIN. 10 KAIC (SERIES RATED) GROUND BAR				
CIRCUIT	SERVING	BREAKER	FEEDER	GROUND
M 1	HOUSE PANEL - H	70/2	3 # 4	# 8
M 2	PANEL - 2	100/2	3 # 3	# 6
M 3	PANEL - 3	100/2	3 # 3	# 6
M 4	PANEL - 4	100/2	3 # 3	# 6
M 5	PANEL - 5	100/2	3 # 3	# 6

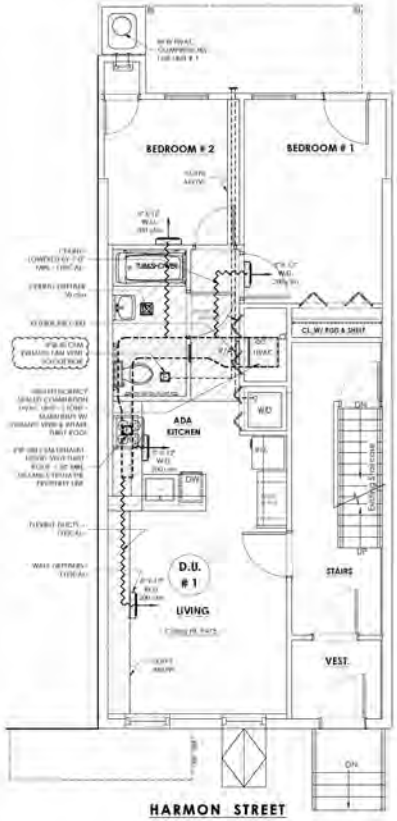
HOUSE PANEL - H - 70 A 120/240 V MLO 1 PH 3 W 10 KAIC GROUND BAR SURFACE NEMA - 3R 10 POLES				
CIRCUIT	SERVING	BREAKER	WIRE SIZE	REMARKS
1	LIGHTING	20/1	2 # 12 + GR	
2	RECEPTACLES	20/1	2 # 12 + GR	
3	SMOKE / CO DETECTORS	20/1	2 # 12 + GR	LOCK-ON
4	FIRE ALARM CONTROL PANEL	20/1	2 # 12 + GR	1 CIRCS.
5 - 10	SPARES	20/1	—	6 TOTAL

DWELLING UNIT - ELECTRIC SUB PANEL - 100 A MLO 120/240 V 1 PH 3 W 10 KAIC GROUND BAR 24 POLES									
CIRCUIT	SERVING	BREAKER	WIRE SIZE	REMARKS	CIRCUIT	SERVING	BREAKER	WIRE SIZE	REMARKS
1	LIVING ROOM LIGHTS	15/1	2 # 14 + GR	1 CIRCS	2	LIVING ROOM OUTLETS	20/1	2 # 12 + GR	1 CIRCS
3	KITCHEN OUTLETS	20/1	2 # 12 + GR	1 CIRCS	4	KITCHEN GFI OUTLETS	20/1	2 # 12 + GR	1 CIRCS
5	KITCHEN LIGHTS	15/1	2 # 14 + GR	1 CIRCS	6	KITCHEN HOOD FANS	20/1	2 # 12 + GR	1 CIRCS
7	REFRIGERATOR	20/1	2 # 12 + GR	1 CIRCS	8	MICROWAVE	20/1	2 # 12 + GR	1 CIRCS
9	BATH GFI OUTLETS	20/1	2 # 12 + GR	1 CIRCS	10	BATH LIGHTS	15/1	2 # 14 + GR	1 CIRCS
11	BED ROOM # 1 OUTLETS	20/1	2 # 12 + GR	1 CIRCS	12	BED ROOM # 1 LIGHTS	15/1	2 # 14 + GR	1 CIRCS
13	BED ROOM # 2 OUTLETS	20/1	2 # 12 + GR	1 CIRCS	14	BED ROOM # 2 LIGHTS	15/1	2 # 14 + GR	1 CIRCS
15	HVAC COMPRESSOR	30 A	2 # 10 + GR	NOTE 1, 2	16	HVAC UNIT	10 A	2 # 10 (8+) + GR	(NOTE 1, 2)
17	WASHER	20/1	2 # 12 + GR	1 CIRCS	18	DRYER	20/1	2 # 12 + GR	1 CIRCS
19	SMOKE / CO DETECTORS	15/1	2 # 14 + GR	LOCK-ON	20	SPARE	20/1	—	—
21	SPARE	20/1	—	—	22	SPARE	20/1	—	—
23	SPARE	20/1	—	—	24	SPARE	20/1	—	—

NOTES:-
1. BREAKER AND WIRE RATINGS ARE ESTIMATES.
2. VERIFY ACTUAL REQ'S. W/ HVAC CONTRACTOR PRIOR TO ORDERING EQUIPMENT.
3. PROVIDE FLUSH OR SURFACE PANEL TO SUIT CONDITIONS.
4. VERIFY BREAKER AND WIRE W/ MANUFACTURER.
5. COPPER WIRE FEEDER TYPE RZ.
6. G.C. TO INSTALL ALL NEW WIRING AS / 2011 N.E.C.
7. ALL RECEPTACLES ARE PER SECTION 210.52 N.E.C. 2011.

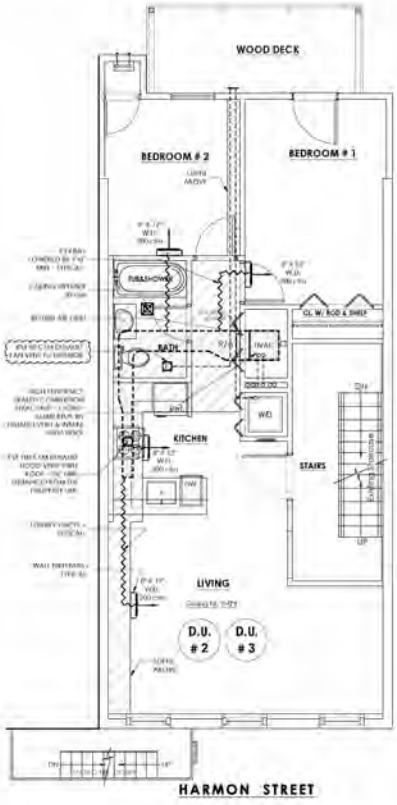


Distribution Riser Diagram



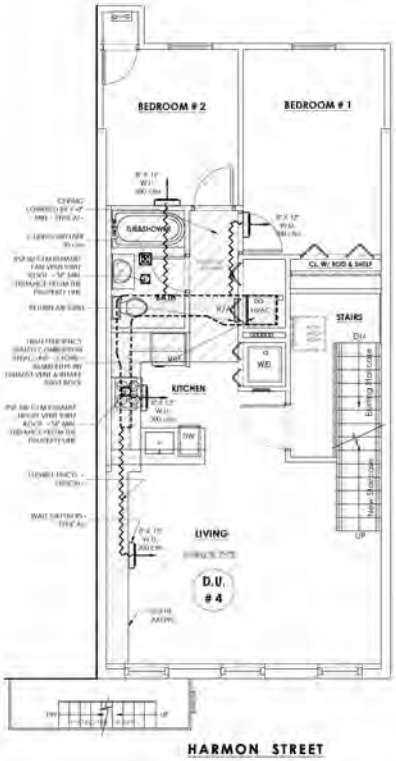
1st Floor HVAC Ducting Plan

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



2nd & 3rd Floor HVAC Ducting Plan

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



4th Floor HVAC Ducting Plan

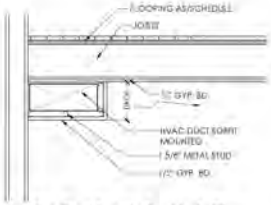
Scale: 1/4" = 1'-0"

NOTES :-

1. G.C. TO INSTALL FIRE DAMPER (FD) IN ALL FIRE RATED ASSEMBLIES.
2. REFER SHOP DRAWINGS FOR HVAC SUPPLY & RETURN DUCT SIZES, CFM AREA FOR SCHEMATIC PURPOSES.
3. G.C. TO INSTALL HVAC COMPRESSORS FOR UNIT # 1 IN THE REAR YARD & HVAC COMPRESSORS FOR UNIT # 2, 3 & 4 ON THE ROOF. VERIFY THE LOCATION IN FIELD.

General Ducting Notes

1. ALL FEES, LICENSES, PERMITS AND INSPECTIONS REQUIRED BY LOCAL AUTHORITY SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR AS PART OF THE CONTRACT.
2. MATERIALS, EQUIPMENT, WORKMANSHIP AND ARRANGEMENT OF WORK INSTALLED BY THE CONTRACTOR SHALL CONFORM OF GOVERNING CODES, ORDINANCES AND REGULATIONS OF CITY, COUNTY AND STATE AND SHALL BE SUBJECT TO APPROVAL OF ARCHITECT AND OF ENGINEER.
3. DUCTWORK SHALL BE INSTALLED AS SHOWN IN LAYOUT PLANS. DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET STEEL OF GAUGE AND WITH CONNECTIONS AND BRACING IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE LATEST EDITION OF SMACNA.
4. SPLITTER OR BALANCING DAMPERS WHERE SHOWN SHALL BE OF SUFFICIENT GAUGE TO PREVENT BUCKLING OR VIBRATING, AND SHALL BE OPERATED BY A QUADRANT DAMPER ADJUSTER WITH LOCKING FEATURES WHICH WILL HOLD DAMPER SECURELY IN POSITION AT DESIRED SETTING.
5. DUCT CONNECTIONS TO EQUIPMENT SHALL BE MADE THROUGH AIRTIGHT CANVAS OR OTHER APPROVED FLEXIBLE CONNECTIONS.
6. SHEET METAL DUCTS SHALL BE INSULATED WITH MINIMUM 1-1/2 INCH THICK FIBERGLASS FACED DUCT WRAP BY OWENS CORNING, OR APPROVED EQUAL, HAVING AN 'R' VALUE OF 3.4 AND FACTORS APPLIED FOIL FACING AND ONE 2 INCH FLANGE INSULATION SHALL BE INSTALLED ACCORDING TO NFPA 5 RECOMMENDATIONS. INSULATION AND VAPOR BARRIER SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS AND SMOKE DEVELOPMENT RATING OF 50.
7. REGISTERS, DIFFUSERS AND GRILLES SHALL BE PROVIDED IN SIZES AND LOCATIONS AS SHOWN ON DRAWINGS. CEILING AND WALL MOUNTED REGISTERS, DIFFUSERS AND GRILLES SHALL BE EQUIPPED WITH OAK ST. SERIES FACE FLANGES, WHICH SHALL HAVE A AIRTIGHT SEAL BETWEEN OUTLET AND FACE OF WALL OR CEILING. OUTLETS SHALL BE INSTALLED PLUMB, LEVEL AND PARALLEL TO BUILDING WALLS OR FLOORS. SUPPLY DIFFUSERS SHALL BE TRUS-AIR, OR APPROVED EQUAL. ALUMINUM CONSTRUCTION WITH 1/2 X 1/2 X 1/2 INCH GRID AND OPPOSED BLADE BALANCING DAMPER FINISH TO BE WHITE.
8. PROVIDE CERTIFIED TEST AND BALANCE OF HVAC SYSTEM (AND EXHAUST SYSTEM WHERE APPLICABLE) NO LATER THAN THIRTY (30) DAYS AFTER SYSTEMS INSTALLED TO ARCHITECT FOR APPROVAL BY LANDLORD.
9. THE USE OF FLEXIBLE DUCTS AT DIFFUSERS IS REQUIRED. FLEXIBLE DUCTS SHALL NOT EXCEED 5' IN LENGTH AND MAY BE USED AS THE FINAL CONNECTION ONLY.
10. MAXIMUM CONTROL SYSTEM WIRING VOLTAGE SHALL BE TWENTY FOUR (24) VOLTS AND ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES AND LANDLORD CRITERIA.
11. UNLESS SPECIFICALLY NOTED IN THE ARCHITECTURAL OR MECH. DRAWINGS, ALL DUCTWORK SHALL BE INSTALLED AS HIGH AS POSSIBLE WITHIN THE PREMISES. ALL DUCTWORK EQUIPMENT AND OTHER ACCESSORIES IN PUBLIC OR SALES AREAS SHALL BE CONCEALED.
12. PRIOR TO OPENING THE PREMISES FOR BUSINESS, TENANT SHALL PROVIDE, WITH WRITTEN VERIFICATION FROM AN AUTHORIZED REPRESENTATIVE OF TENANT'S H.V.A.C. EQUIPMENT IS INSTALLED AND OPERATING IN ACCORDANCE WITH MFR.'S RECOMMENDATIONS.
13. ALL H.V.A.C. EQUIPMENT AND DUCTS SHALL BE PROVIDED WITH VIBRATION ISOLATORS, SOUND TRAPS, DUCT LINING, ACOUSTICAL HOUSINGS, ACOUSTICAL LOUVERS ETC.



Section Thru' Supply Duct in Soffit

Section Thru' Supply Duct & Ceiling Diffuser

1 11-26-2019 REVISED & FOGGED IN