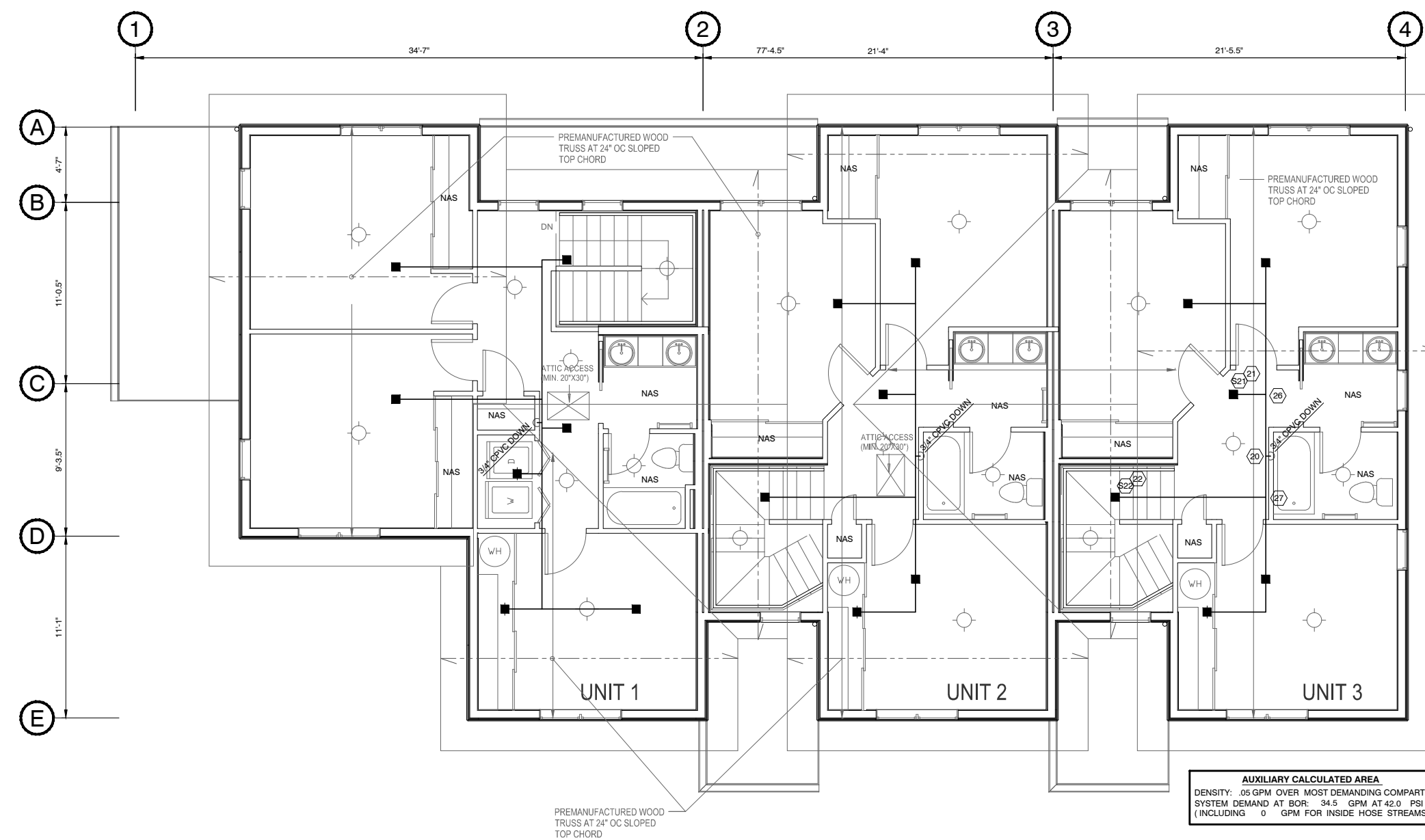
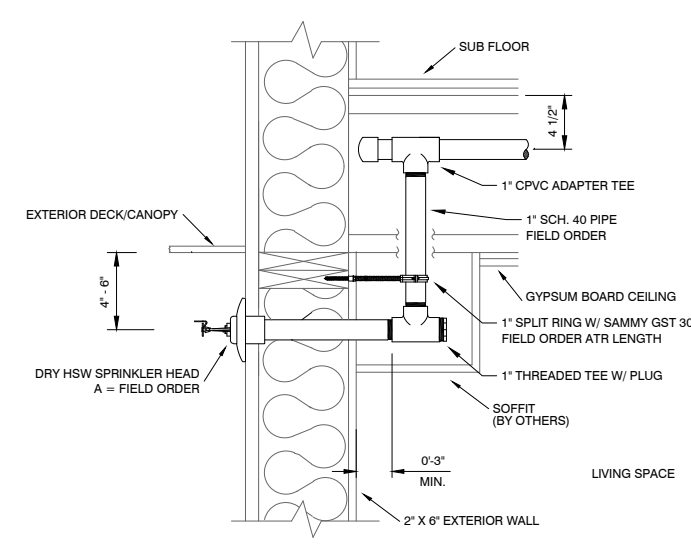


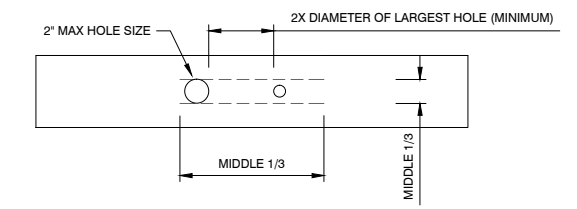
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SCALE 1/4"=1'-0"



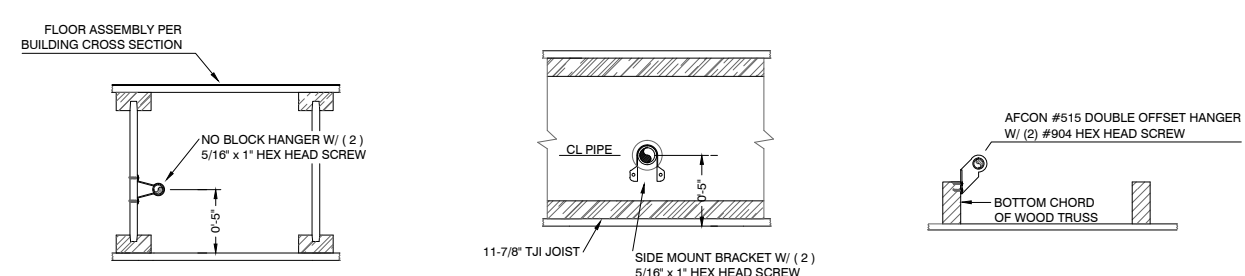
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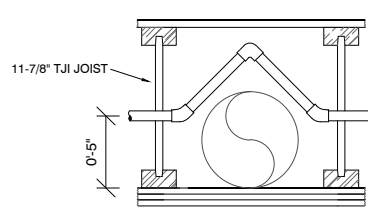
DRY SIDEWALL DETAIL



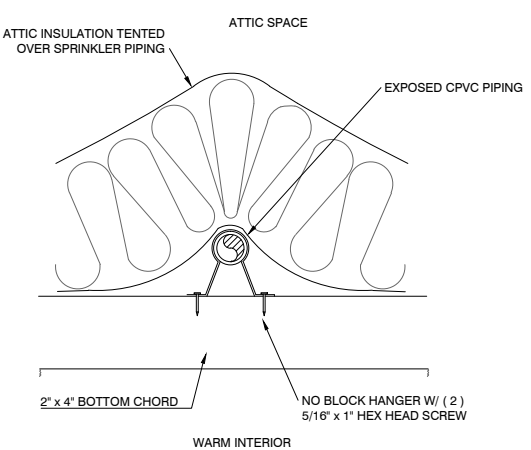
TYP BEAM PEN. DETAIL



TYPICAL CPVC HANGERS



TYP CPVC OFFSET



INSULATION TENTING DETAIL

FITTER/LISTER NOTES:

- ALL CPVC PIPING IS 3/4" U.N.O.
- ALL DROPS ARE TO BE 3/4" CPVC.
- SPRINKLER PIPING IN JOIST SPACES ARE TO BE 5" ABOVE THE BOTTOM OF JOIST (ABOV). THE CENTERLINE OF PIPING IN THE ROOF TRUSS SPACE IS TO BE INSTALLED 2" ABOVE THE TOP OF THE BOTTOM CHORD OF THE TRUSS.
- HANGERS FOR CPVC PIPING ARE NOT SHOWN ON THE PLAN. HANGERS ARE REQUIRED WITHIN 6" OF THE SPRINKLER HEAD AT THE END OF THE LINE. HANGER SPACING FOR CPVC PIPING IS PER THE MANUFACTURE'S LISTING AS FOLLOWS:  

3/4" CPVC	5'-6" OC
1" CPVC	6'-0" OC
1 1/4" CPVC	6'-6" OC
1 1/2" CPVC	7'-0" OC
2" CPVC	8'-0" OC
- RELIABLE MODEL F1 RES 49/F1 RESIDENTIAL SPRINKLER SHALL NOT BE SPACED MORE THAN 18 FEET BETWEEN SPRINKLERS OR 9 FEET FROM A WALL OR LESS THAN 8 FEET BETWEEN SPRINKLERS, UNLESS SPECIFICALLY NOTED ON THE DRAWING.
- GENERAL CONTRACTOR IS TO PROVIDE "TENTING" OF INSULATION OVER WET SPRINKLER PIPING IN ATTIC VOID SUCH THAT NO INSULATION IS BETWEEN THE HEATED SPACE AND THE WET SPRINKLER PIPING
- ALL WALLS ARE FULL HEIGHT.
- ALL STEEL PIPE IS NOTED BY SIZE AND LENGTH, FOR EXAMPLE: 1.25 3-6
- ALL CPVC PIPE IS NOTED BY SIZE ONLY, FOR EXAMPLE: 1.25 3-6
- FIRE STOPPING OF WALLS IS BY OTHERS.

BEAM SCHEDULE

B1	4X8
B2	(2)2X10
B3	(2)1 3/4 X 11 7/8
B4	5 1/2 X 11 7/8

BLDG B TOWNHOUSE SPRINKLER PLAN

HANGER LEGEND

○	RELIABLE	RA1425	SSU	F1FR56	BRASS	5.6K	1/2"	155"	1
■	RELIABLE	R3516	SSP	F1RES49	WHITE	4.9K	1/2"	155"	35
◐	RELIABLE	R2714	DRY HSW	FLOOR	CHRM	5.0K	1"	155"	9
◑	RELIABLE	R3516	SSP	F1RES49	WHITE	4.9K	1/2"	175"	6

SPRINKLER LEGEND

○	RELIABLE	RA1425	SSU	F1FR56	BRASS	5.6K	1/2"	155"	1
■	RELIABLE	R3516	SSP	F1RES49	WHITE	4.9K	1/2"	155"	35
◐	RELIABLE	R2714	DRY HSW	FLOOR	CHRM	5.0K	1"	155"	9
◑	RELIABLE	R3516	SSP	F1RES49	WHITE	4.9K	1/2"	175"	6

ABBREVIATIONS

APF	ABOVE FINISHED FLOOR
BOB	BOTTOM OF BEAM
BOB	BOTTOM OF BRICK
BOB	BOTTOM OF JOIST
BOB	BOTTOM OF PARCEL
BOB	BOTTOM OF TRUSS
CLS	CL TO SUITE
FIELD ORDER	INSIDE FACE OF WALL
DRYW	OUTSIDE FACE OF WALL
NAS	NO AUTO SPRINKLERS
UNO	UNLESS NOTED OTHERWISE

SYMBOL LEGEND

○	CENTERLINE OF PIPE TO REFERENCED STRUCTURE IN INCHES
—	2-WAY EARTHQUAKE SWAY BRACE LETTER INDICATES TYPE
—	4-WAY EARTHQUAKE SWAY BRACE LETTER INDICATES TYPE
—	HANGER LOCATION
—	ELEVATION ABOVE REFERENCED POINT IN FEET AND INCHES
○	HYDRAULIC CALCULATION NODE
—	FLEXIBLE COUPLING
—	RIGID COUPLING

REVISIONS

NO.	DATE	BY	REASON FOR REVISION

CONTRACT WITH  
**ANDERSEN CONSTRUCTION COMPANY**  
900 POPLAR PL.  
SEATTLE, WA 98144

PROJECT MANAGER: BEN BRODSKY  
PHONE: 206-396-7095  
FAX: 206-763-6710

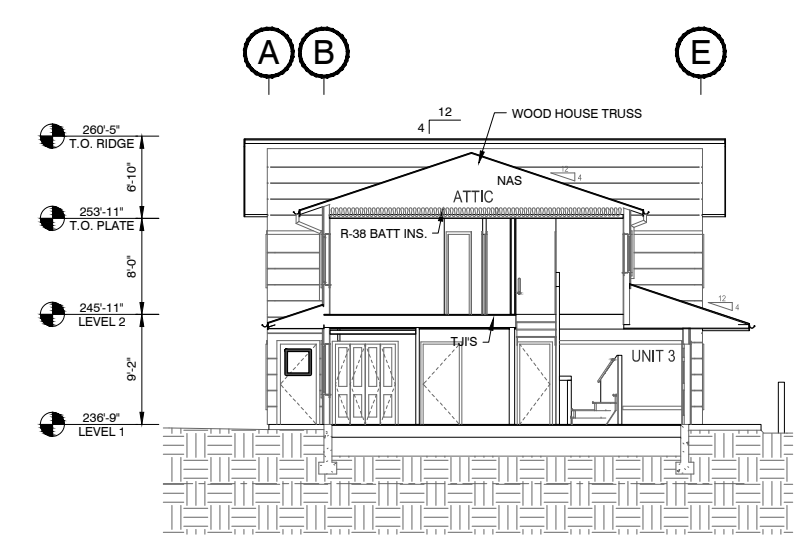
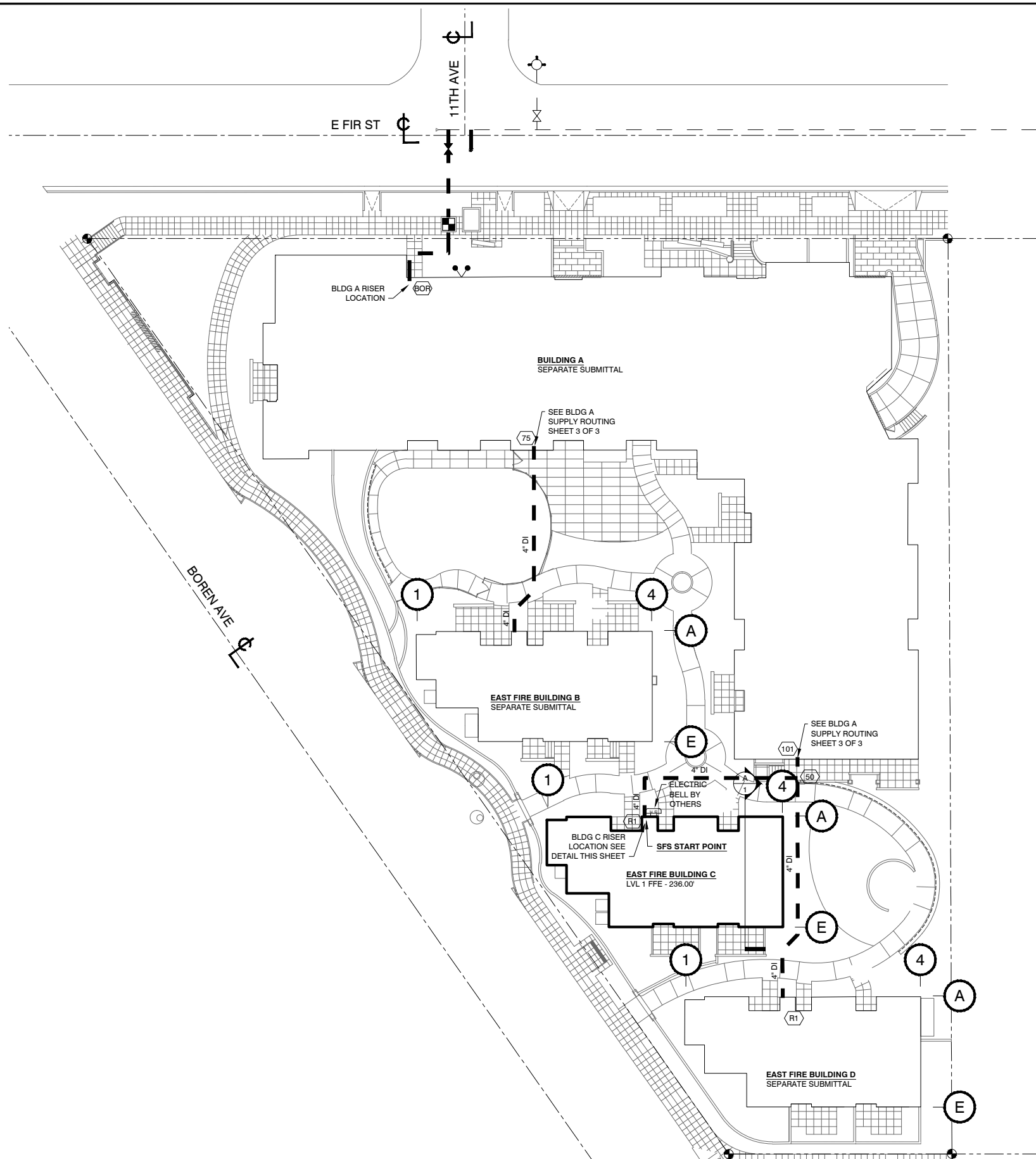
SUPERINTENDENT:  
PHONE:  
FAX:

**SMITH FIRE SYSTEMS, INC.**  
1100 54th AVE EAST  
TACOMA, WA 98404  
CONTR. REG. NO. SMTHFS13607  
Bus: (253) 926-1880 FAX: (253) 926-2350

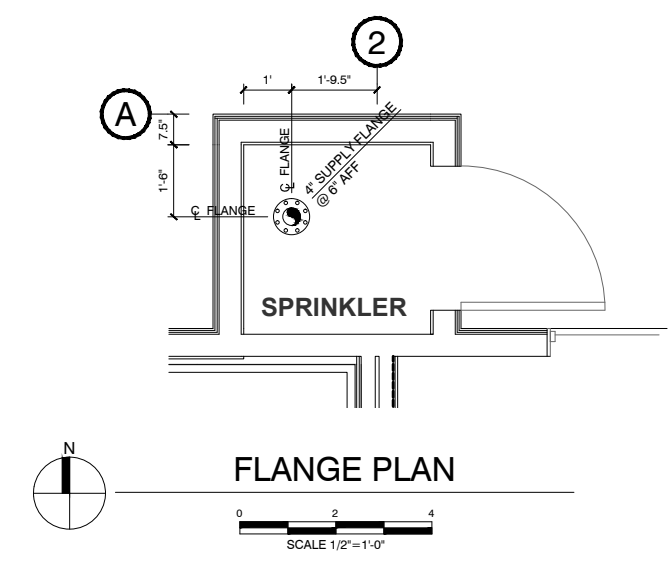
**EAST FIR APARTMENTS BUILDING B**  
1105 EAST FIR  
SEATTLE, WA 98122

DESIGNER	PROJECT MGR	DATE	SHEET	JOB NO.
AARON N.	B. COOK	11/20/13	2 OF 2	TC12012

!CAUTION! 50% REDUCED PRINTS



BLDG C SECTION A/1  
FACING EAST  
NTS



**BUILDING INFORMATION**

OCCUPANCY - RESIDENTIAL R-2  
CONSTRUCTION TYPE - VB  
PARCEL NUMBER - 9821700005

**SQUARE FOOTAGE**

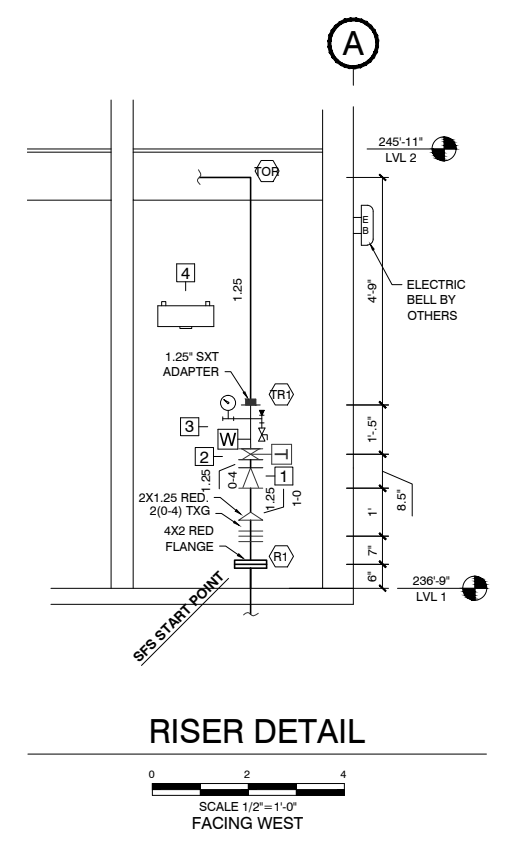
BLDG C  
LEVEL 1 - 2,373 SQ. FT.  
LEVEL 2 - 1,991 SQ. FT.  
TOTAL - 4,364 SQ. FT.

**WATER SUPPLY INFORMATION**

STATIC PRESSURE: 81 PSI  
RESIDUAL PRESSURE: 20 PSI  
FLOW: 2300 GPM  
DATE OF TEST: MODEL PROVIDED ON 4-19-13  
TEST LOCATION: EAST FIR AND 11TH AVE  
ELEVATION: 236'  
SOURCE: MODEL PROVIDED BY SPU

**SITE PLAN SYMBOLS**

- NEW UNDERGROUND BY OTHERS
- - - EXISTING UNDERGROUND
- PROPERTY LINE
- STREET CENTERLINE
- ⊕ EXISTING HYDRANT
- ⊕ EXISTING VALVE
- ⊕ NEW VALVE
- ⊕ NEW FIRE DEPARTMENT CONNECTION
- ⊕ METER BY SPU



**RISER DETAIL**

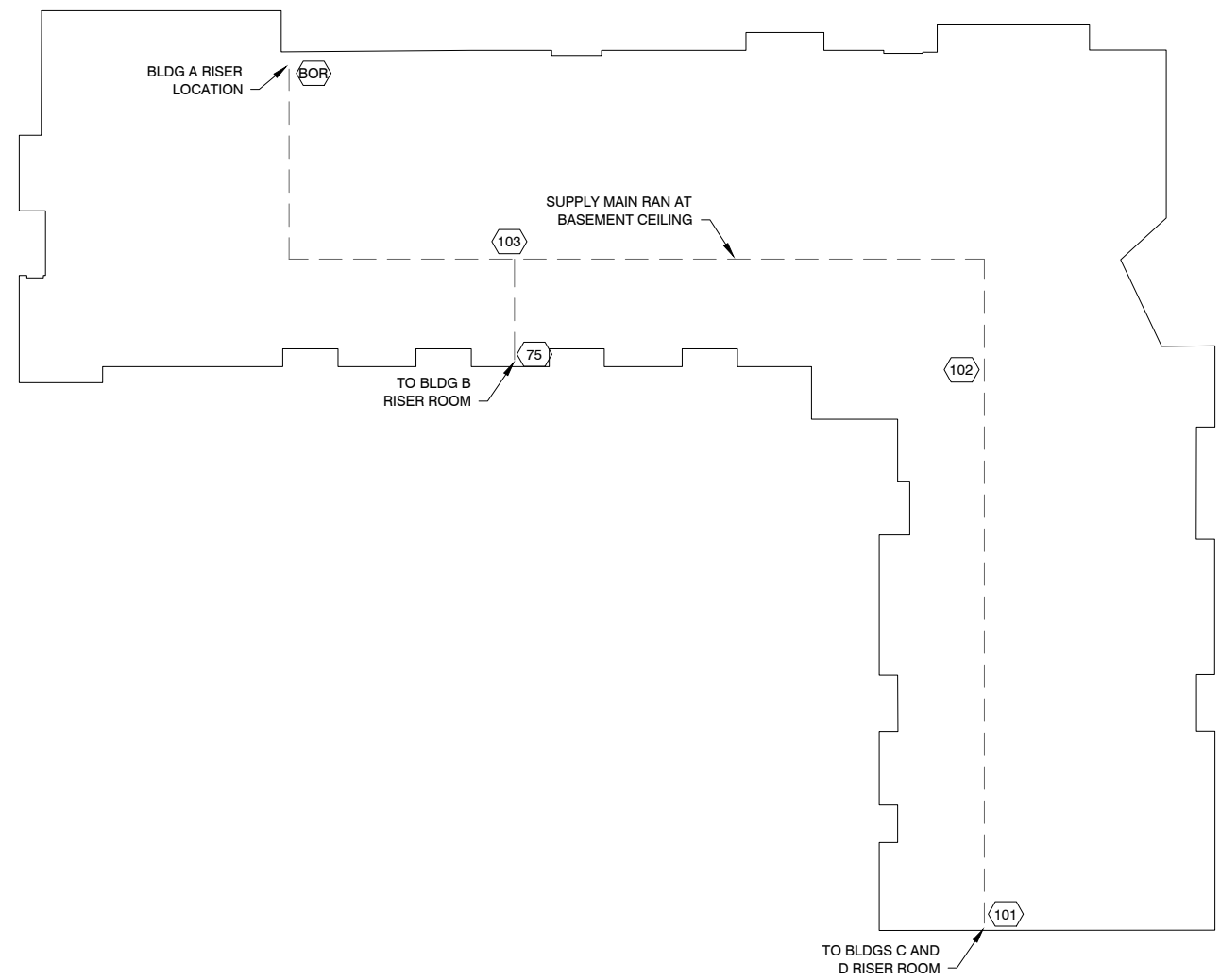
SCALE 1/2" = 1'-0"  
FACING WEST

- PIPE ALL DRAINS TO SAFE DISCHARGE OUTSIDE.
- RISER ROOM MUST BE MAINTAINED BY OTHERS AT A MINIMUM OF 40' F.
- MAINTAIN 2" ANNULAR SPACE AROUND ALL PIPING PASSING THRU CONCRETE FLOORS.

**RISER EQUIPMENT LIST**

ITEM	QTY.	SIZE	DESCRIPTION	MANUFACTURER	MODEL #
1	3	1.25"	SPRING CHECK VALVE	NIBCO	T-480
2	3	1.25"	BUTTERBALL CONTROL VALVE WITH TAMPER	MILWAUKEE	BB-SCS02
3	3	1.25"	RISER MANIFOLD INCLUDING: WATERFLOW INDICATOR, MAIN DRAIN, PRESSURE GAUGE, 4.9K INSPECTORS TEST	AGF	8111R
4	3	12 HEAD	SPARE HEAD CABINET CONTAINING THE FOLLOWING: SPARE SPRINKLERS & WRENCHES	RELIABLE	A-4

MANUFACTURER	TYPE	MODEL	HEAD FINISH	K FACTOR	THREAD SIZE	TEMP. RATING	QUANTITY
RELIABLE	SSU	F1RES49	WHITE	4.9	1/2"	155°	4
RELIABLE	SSU	F1RES49	WHITE	4.9	1/2"	175°	1
RELIABLE	SSU	F1FR	BRZ	5.6	1/2"	155°	1
RELIABLE MODEL GFR1 SPRINKLER WRENCH							1
RELIABLE MODEL D HEAD WRENCH							1



BLDG A SUPPLY MAIN ROUTING

**GENERAL NOTES**

- ALL STEEL PIPE TO BE AS FOLLOWS UNLESS NOTED OTHERWISE:
- ALL GROOVED COUPLINGS TO BE RIGID TYPE UNLESS NOTED (|||) WHICH ARE FLEXIBLE.
- ALL CPVC PIPE TO BE AS FOLLOWS UNLESS NOTED OTHERWISE:

PIPE SIZE	SCHEDULE	WALL THICKNESS	INTERNAL DIAMETER	END PREP TYPES ALLOWED	WEIGHT OF WATER PIPE	CAPACITY IN GALLONS
1	40	0.133	1.049	THREADED, CUT GROOVED, ROLL GROOVED, PLAIN END, POLISHED	2.05	0.044
1 1/4	40	0.140	1.380	THREADED, CUT GROOVED, ROLL GROOVED, PLAIN END, POLISHED	2.92	0.075
1 1/2	FLOW PIPE	0.095	1.710	ROLL GROOVED, POLISHED, PLAIN END (FOR BUTT WELDING)	2.85	0.122
2	FLOW PIPE	0.095	2.190	ROLL GROOVED, POLISHED, PLAIN END (FOR BUTT WELDING)	3.94	0.198
2 1/2	FLOW PIPE	0.095	2.703	ROLL GROOVED, PLAIN END (FOR BUTT WELDING)	5.10	0.298
3	FLOW PIPE	0.093	3.314	ROLL GROOVED, PLAIN END (FOR BUTT WELDING)	7.18	0.448
4	FLOW PIPE	0.101	4.298	ROLL GROOVED, PLAIN END (FOR BUTT WELDING)	11.03	0.758
5	10	0.134	5.295	ROLL GROOVED, PLAIN END (FOR BUTT WELDING)	17.300	1.144
6	**	0.134	6.357	ROLL GROOVED, PLAIN END (FOR BUTT WELDING)	23.000	1.549
8	**	0.188	8.249	ROLL GROOVED, PLAIN END (FOR BUTT WELDING)	40.080	2.78

\*\* WALL THICKNESS PER NFPA # 13

**SCOPE OF WORK**

SMITH FIRE SYSTEMS IS PROVIDING A WET PIPE SPRINKLER SYSTEM TO PROTECT THE HEATED INTERIOR OF THE BUILDING. THE TOWN HOME BUILDING WILL HAVE A FIRE SPRINKLER RISER ROOM WITH A 4" SUPPLY FLANGE SUPPLIED FROM BUILDING A BY OTHERS. THE BUILDING WILL BE PROTECTED PER NFPA 13R 2007 AND THE CITY OF SEATTLE.

**CLARIFICATIONS**

- ALL AREAS PROTECTED BY THE WET SYSTEM MUST BE MAINTAINED BY OTHERS AT A MINIMUM OF 40' F. TO PREVENT FREEZING.
- INSULATION CONTRACTOR TO PROVIDE TENDING OF ATTIC INSULATION OVER THE WET SPRINKLER PIPING IN THE ATTIC TO PROTECT THE SYSTEM FROM FREEZING.

**EXCLUSIONS**

- PAINTING OR LABELING OF SPRINKLER PIPING.
- ELECTRICAL WIRING OF ANY KIND.
- CENTRAL STATION ALARM EQUIPMENT, WIRING, AND MONITORING.
- ALL UNDERGROUND WORK.
- FIRESTOPPING.

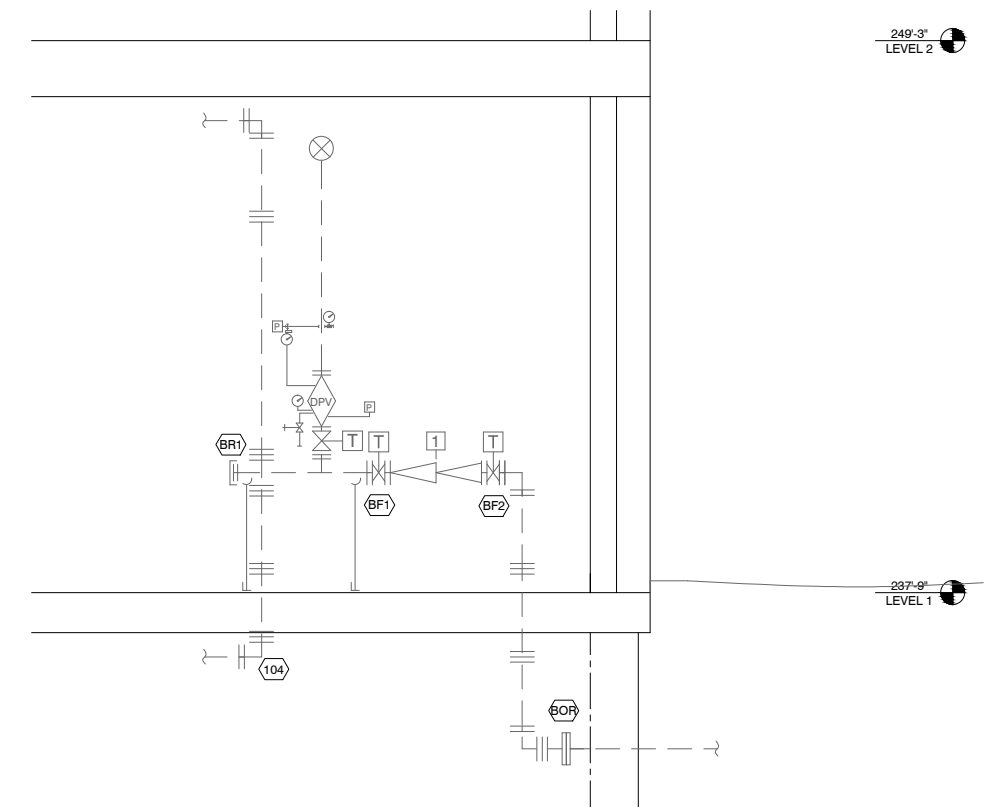
**DESIGN CRITERIA**

**RESIDENTIAL AREAS:**  
PER NFPA 13R - 2007 EDITION  
0.5 GPM/SQ. FT. OVER THE MOST DEMANDING COMPARTMENT UP TO A MAXIMUM OF FOUR SPRINKLERS, AND PER THE LISTING OF THE SPRINKLER HEAD.

BUILDING C TOWNHOUSES	
AREA DESCRIPTION	NUMBER OF SPRINKLERS
LEVEL 1	28
LEVEL 2	19
TOTAL	47

HYDRAULIC CALCULATION DATA	
ACTUAL DENSITY:	0.5 GPM / OVER ENTIRE COMPARTMENT UP TO 4 SPRINKLERS PER HEAD LISTING
DEMAND AT BASE OF RISER:	85.9 GPM AT 54.5 PSI (0 GPM INSIDE HOSE ALLOWANCE)
DEMAND AT CITY CONNECTION:	86.8 GPM AT 63.2 PSI (0 GPM TOTAL HOSE ALLOWANCE)



BLDG A RISER DETAIL

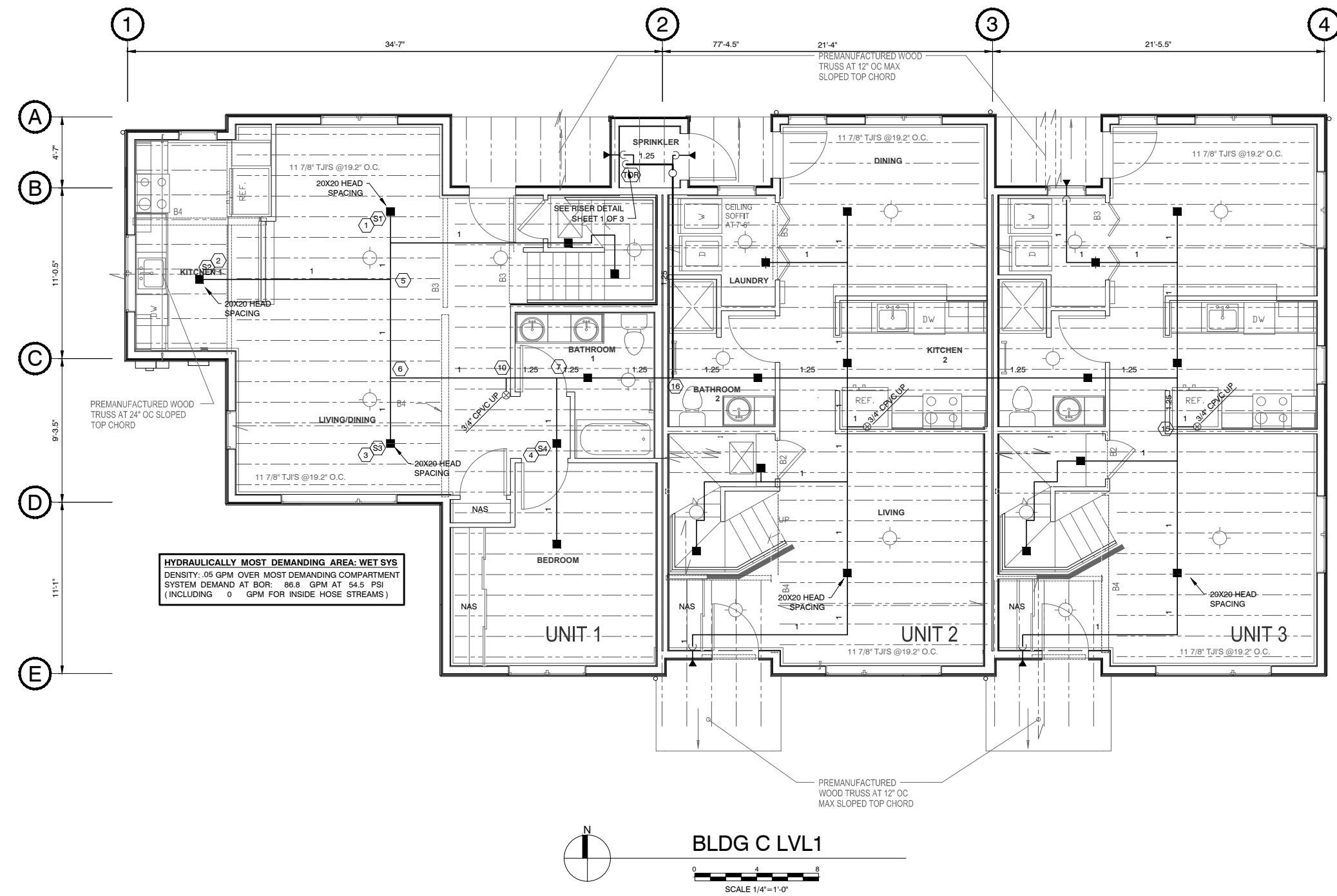
**AS-BUILT SITE PLAN**

HANGER LEGEND		SPRINKLER LEGEND				ABBREVIATIONS		SYMBOL LEGEND		REVISIONS		CONTRACT WITH	
SYM	MANUFACTURER	S.I.N.	TYPE	MODEL	APPROVED	DATE	NO.	DATE	BY	REASON FOR REVISION	NO.	DATE	BY

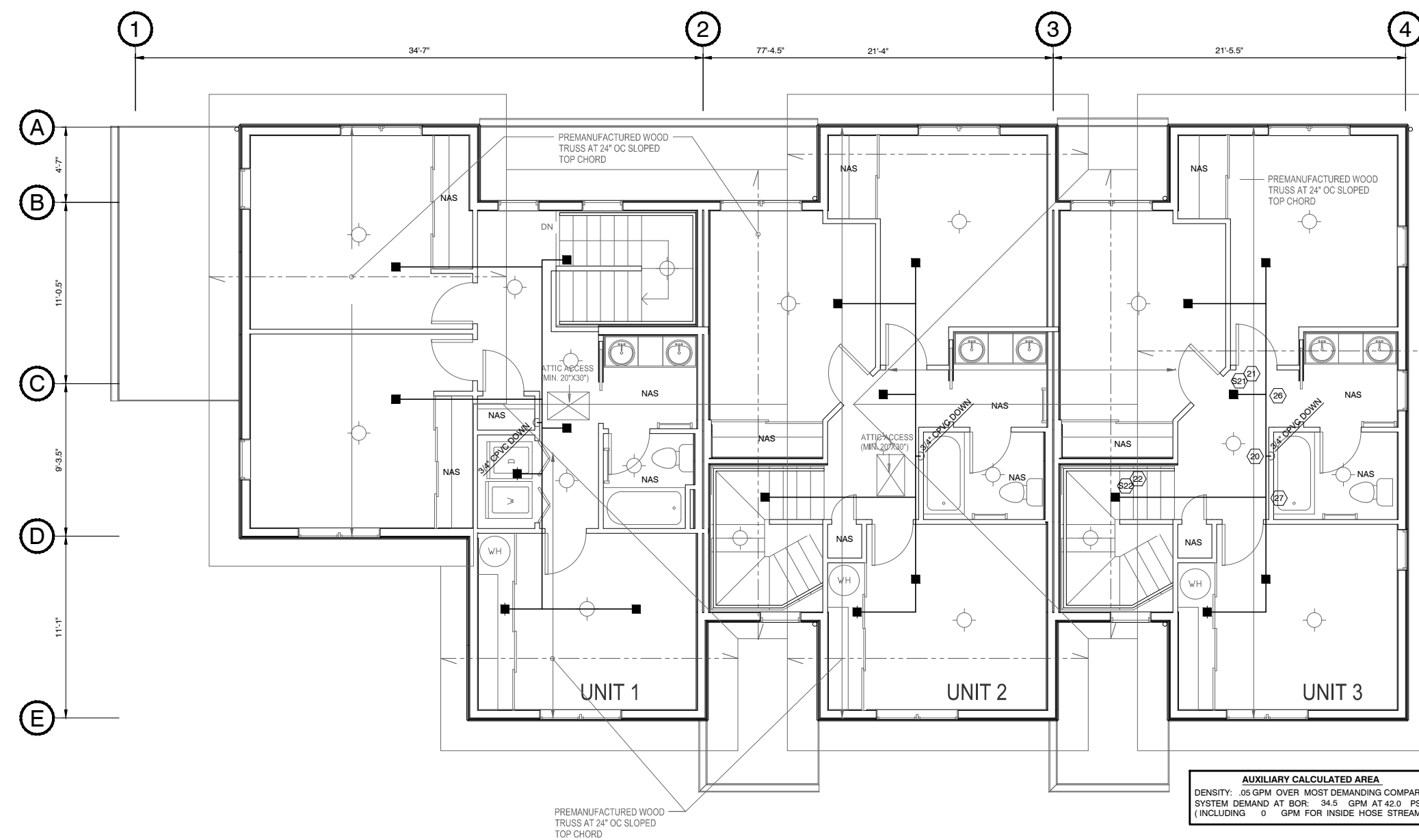
  

<p>CONTRACT WITH</p> <p><b>ANDERSEN CONSTRUCTION COMPANY</b> 900 POPLAR PL. SEATTLE, WA 98144</p> <p>PROJECT MANAGER: BEN BRODSKY PHONE: 206-396-7095 FAX: 206-763-6710</p> <p>SUPERINTENDENT: PHONE: FAX:</p>		<p><b>SMITH FIRE SYSTEMS, INC.</b> 1100 54th AVE EAST TACOMA, WA 98404 CONTR. REG. NO. SMTHFS13607 Bus: (253) 926-1880 FAX: (253) 926-2350</p> <p><b>EAST FIR APARTMENTS BUILDING C</b> 1105 EAST FIR SEATTLE, WA 98122</p> <p>DESIGNER: AARON N. B. COOK PROJECT MGR: B. COOK DATE: 11/20/13 SHEET: 1 OF 2 JOB NO.: TC12012</p>
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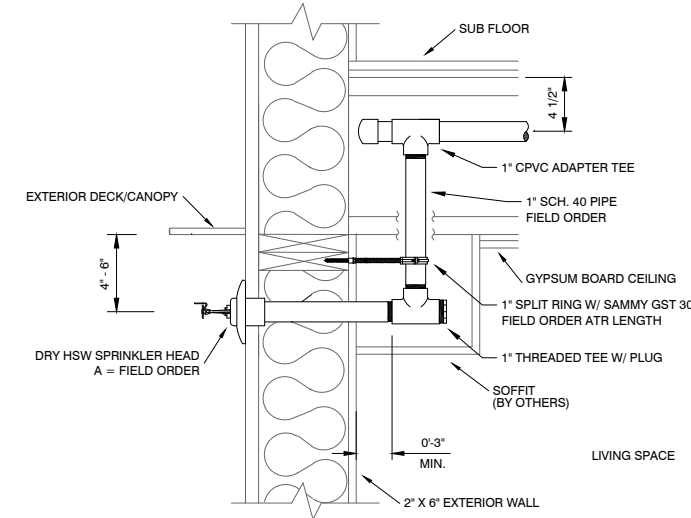
!CAUTION! 50% REDUCED PRINTS



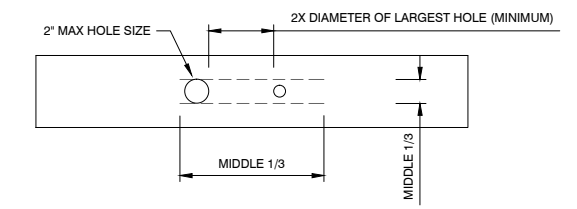
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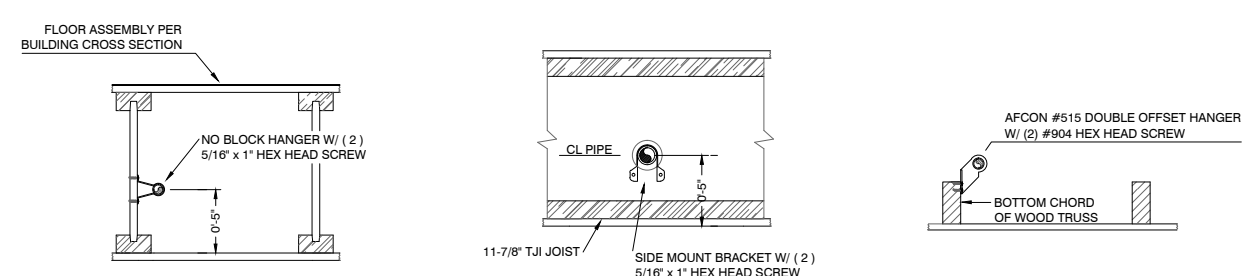
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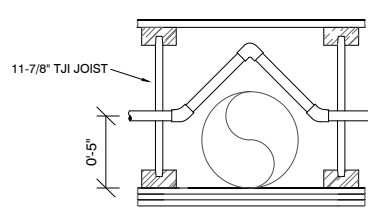
DRY SIDEWALL DETAIL



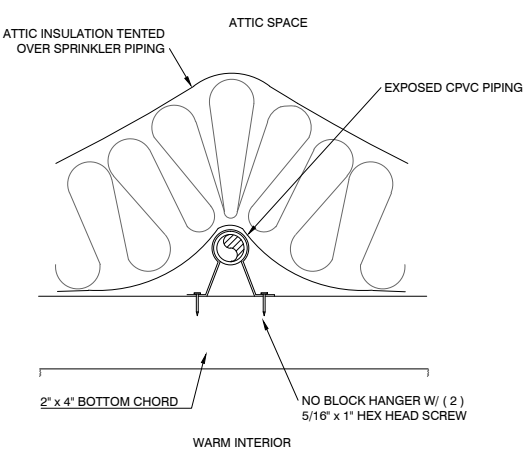
TYP BEAM PEN. DETAIL



TYPICAL CPVC HANGERS



TYP CPVC OFFSET



INSULATION TENTING DETAIL

FITTER/LISTER NOTES:

- ALL CPVC PIPING IS 3/4" U.N.O.
- ALL DROPS ARE TO BE 3/4" CPVC.
- SPRINKLER PIPING IN JOIST SPACES ARE TO BE 5" ABOVE THE BOTTOM OF JOIST (ABOJ). THE CENTERLINE OF PIPING IN THE ROOF TRUSS SPACE IS TO BE INSTALLED 2" ABOVE THE TOP OF THE BOTTOM CHORD OF THE TRUSS.
- HANGERS FOR CPVC PIPING ARE NOT SHOWN ON THE PLAN. HANGERS ARE REQUIRED WITHIN 6" OF THE SPRINKLER HEAD AT THE END OF THE LINE. HANGER SPACING FOR CPVC PIPING IS PER THE MANUFACTURE'S LISTING AS FOLLOWS:  

3/4" CPVC	5'-6" OC
1" CPVC	6'-0" OC
1 1/4" CPVC	6'-6" OC
1 1/2" CPVC	7'-0" OC
2" CPVC	8'-0" OC
- RELIABLE MODEL F1 RES 49/F1 RESIDENTIAL SPRINKLER SHALL NOT BE SPACED MORE THAN 18 FEET BETWEEN SPRINKLERS OR 9 FEET FROM A WALL OR LESS THAN 8 FEET BETWEEN SPRINKLERS, UNLESS SPECIFICALLY NOTED ON THE DRAWING.
- GENERAL CONTRACTOR IS TO PROVIDE "TENTING" OF INSULATION OVER WET SPRINKLER PIPING IN ATTIC VOID SUCH THAT NO INSULATION IS BETWEEN THE HEATED SPACE AND THE WET SPRINKLER PIPING
- ALL WALLS ARE FULL HEIGHT.
- ALL STEEL PIPE IS NOTED BY SIZE AND LENGTH, FOR EXAMPLE: 1.25 3-6
- ALL CPVC PIPE IS NOTED BY SIZE ONLY, FOR EXAMPLE: 1.25 3-6
- FIRE STOPPING OF WALLS IS BY OTHERS.

BEAM SCHEDULE

B1	4X8
B2	(2)2X10
B3	(2)1 3/4 X 11 7/8
B4	5 1/2 X 11 7/8

BLDG C TOWNHOUSE SPRINKLER PLAN

HANGER LEGEND

○	RELIABLE	RA1425	SSU	F1FR56	BRASS	5.6K	1/2"	155"	1
■	RELIABLE	R3516	SSP	F1RES49	WHITE	4.9K	1/2"	175"	35
◐	RELIABLE	R2714	DRY HSW	F1FR59	CHRM	5.0K	1"	155"	9
◑	RELIABLE	R3516	SSP	F1RES49	WHITE	4.9K	1/2"	175"	6

SPRINKLER LEGEND

○	RELIABLE	RA1425	SSU	F1FR56	BRASS	5.6K	1/2"	155"	1
■	RELIABLE	R3516	SSP	F1RES49	WHITE	4.9K	1/2"	175"	35
◐	RELIABLE	R2714	DRY HSW	F1FR59	CHRM	5.0K	1"	155"	9
◑	RELIABLE	R3516	SSP	F1RES49	WHITE	4.9K	1/2"	175"	6

ABBREVIATIONS

APP	ABOVE FINISHED FLOOR
BOB	BOTTOM OF BEAM
BOB	BOTTOM OF BRICK
BOB	BOTTOM OF JOIST
BOB	BOTTOM OF PARCEL
BOB	BOTTOM OF TRUSS
CLS	CL TO SUITE
FIELD ORDER	INSIDE FACE OF WALL
DRYW	OUTSIDE FACE OF WALL
NAS	NO AUTO SPRINKLERS
UNO	UNLESS NOTED OTHERWISE

SYMBOL LEGEND

(12)	CENTERLINE OF PIPE TO REFERENCED STRUCTURE IN INCHES
↔	2-WAY EARTHQUAKE SWAY BRACE LETTER INDICATES TYPE
↔	4-WAY EARTHQUAKE SWAY BRACE LETTER INDICATES TYPE
⊙	HANGER LOCATION
⊙	ELEVATION ABOVE REFERENCED POINT IN FEET AND INCHES
○	HYDRAULIC CALCULATION NODE
—○—	FLEXIBLE COUPLING
—○—	RIGID COUPLING

REVISIONS

NO.	DATE	BY	REASON FOR REVISION

CONTRACT WITH  
**ANDERSEN CONSTRUCTION COMPANY**  
900 POPLAR PL.  
SEATTLE, WA 98144

PROJECT MANAGER: BEN BRODSKY  
PHONE: 206-396-7095  
FAX: 206-763-6710

SUPERINTENDENT:  
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**SMITH FIRE SYSTEMS, INC.**  
1100 54th AVE EAST  
TACOMA, WA 98404  
CONTR. REG. NO. SMTHFS13607  
Bus: (253) 926-1880 FAX: (253) 926-2350

**EAST FIR APARTMENTS BUILDING C**  
1105 EAST FIR  
SEATTLE, WA 98122

DESIGNER	PROJECT MGR	DATE	SHEET	JOB NO.
AARON N.	B. COOK	11/20/13	2 OF 2	TC12012

!CAUTION! 50% REDUCED PRINTS

# GENERAL NOTES

1. ALL STEEL PIPE TO BE AS FOLLOWS UNLESS NOTED OTHERWISE:

PIPE SIZE	SCHEDULE	WALL THICKNESS	INTERNAL DIAMETER	END PREP TYPES ALLOWED	WEIGHT OF WET PIPE	CAPACITY (GALLONS)
1	40	0.133	1.069	THREADED, CUT GROOVED, ROLL GROOVED, PLAN END, POLISHED	2.05	0.044
1 1/4	40	0.140	1.380	THREADED, CUT GROOVED, ROLL GROOVED, PLAN END, POLISHED	2.92	0.078
1 1/2	FLOW PIPE	0.095	1.710	ROLL GROOVED, POLISHED, PLAN END (FOR BUTT WELDING)	2.83	0.122
2	FLOW PIPE	0.095	2.185	ROLL GROOVED, POLISHED, PLAN END (FOR BUTT WELDING)	3.84	0.198
2 1/2	FLOW PIPE	0.095	2.703	ROLL GROOVED, PLAN END (FOR BUTT WELDING)	5.10	0.298
3	FLOW PIPE	0.093	3.314	ROLL GROOVED, PLAN END (FOR BUTT WELDING)	7.15	0.449
4	FLOW PIPE	0.101	4.298	ROLL GROOVED, PLAN END (FOR BUTT WELDING)	11.03	0.758
5	10	0.134	5.295	ROLL GROOVED, PLAN END (FOR BUTT WELDING)	17.300	1.144
6	**	0.134	6.357	ROLL GROOVED, PLAN END (FOR BUTT WELDING)	23.030	1.649
8	**	0.188	8.249	ROLL GROOVED, PLAN END (FOR BUTT WELDING)	40.080	2.78

\*\* WALL THICKNESS PER NFPA # 13

2. ALL GROOVED COUPLINGS TO BE RIGID TYPE UNLESS NOTED (|||) WHICH ARE FLEXIBLE.

3. ALL CPVC PIPE TO BE AS FOLLOWS UNLESS NOTED OTHERWISE:

PIPE SIZE	INTERNAL DIAMETER	WALL THICKNESS	END PREP TYPES ALLOWED	WEIGHT OF WET PIPE	CAPACITY (GALLONS)
3/4	0.874	0.088	PLAN END	0.427	0.0312
1	1.101	0.107	PLAN END	0.674	0.0495
1 1/4	1.394	0.133	PLAN END	1.078	0.0793
1 1/2	1.588	0.151	PLAN END	1.412	0.1042
2	2.003	0.186	PLAN END	2.223	0.1637

\*\* PER SDR 13.5 ASTM F 442

## SCOPE OF WORK

SMITH FIRE SYSTEMS IS PROVIDING A WET PIPE SPRINKLER SYSTEM TO PROTECT THE HEATED INTERIOR OF THE BUILDING. THE TOWN HOME BUILDING WILL HAVE A FIRE SPRINKLER RISER ROOM WITH A 4" SUPPLY FLANGE SUPPLIED FROM BUILDING A BY OTHERS. THE BUILDING WILL BE PROTECTED PER NFPA 13R 2007 AND THE CITY OF SEATTLE.

## CLARIFICATIONS

- ALL AREAS PROTECTED BY THE WET SYSTEM MUST BE MAINTAINED BY OTHERS AT A MINIMUM OF 40' F. TO PREVENT FREEZING.
- INSULATION CONTRACTOR TO PROVIDE TENTING OF ATTIC INSULATION OVER THE WET SPRINKLER PIPING IN THE ATTIC TO PROTECT THE SYSTEM FROM FREEZING.

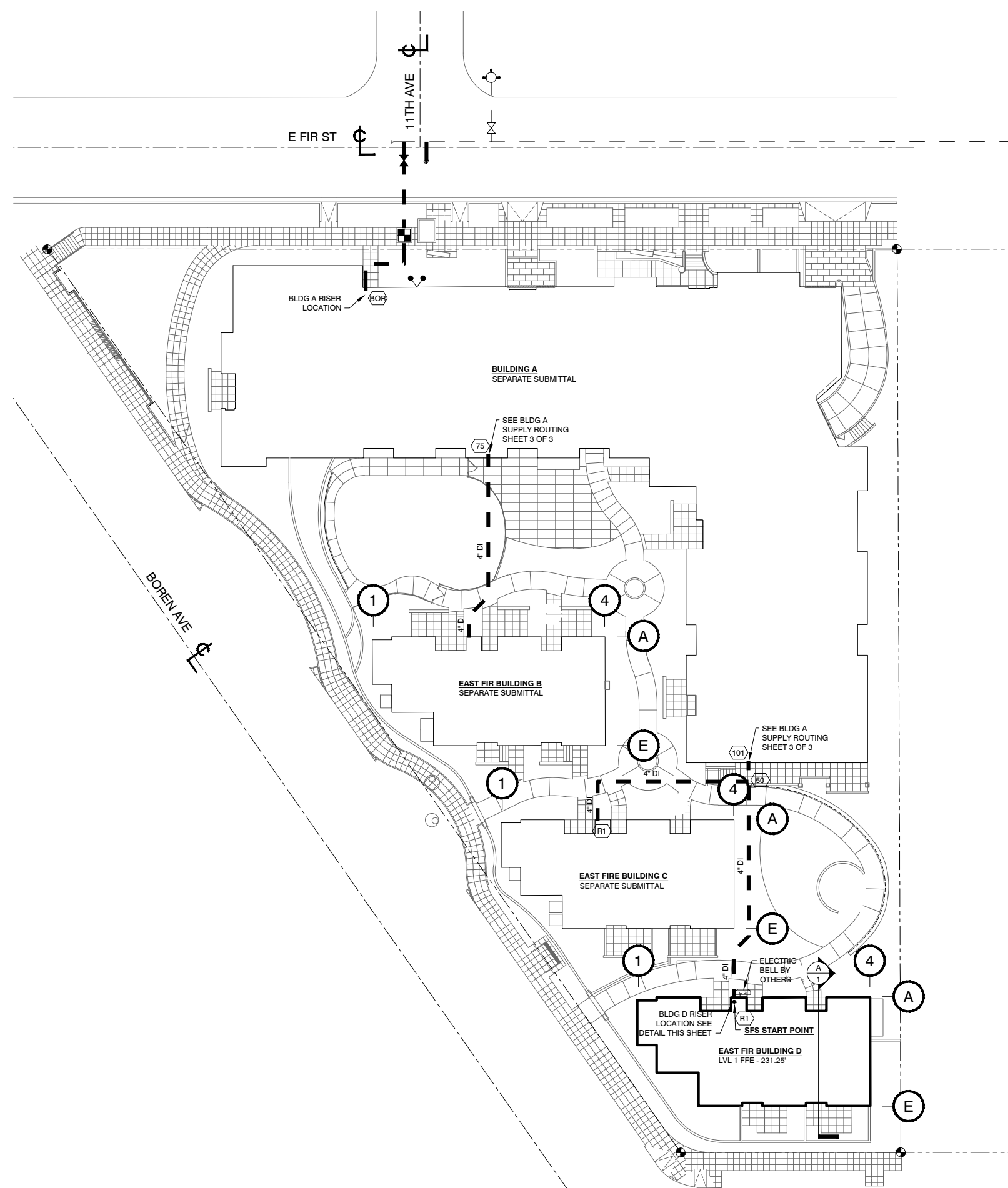
## EXCLUSIONS

- PAINING OR LABELING OF SPRINKLER PIPING.
- ELECTRICAL WIRING OF ANY KIND.
- CENTRAL STATION ALARM EQUIPMENT, WIRING, AND MONITORING.
- ALL UNDERGROUND WORK.
- FIRESTOPPING.

## DESIGN CRITERIA

### RESIDENTIAL AREAS:

PER NFPA 13R - 2007 EDITION.  
DESIGN DENSITY: .05 GPM/SQ. FT. OVER THE MOST DEMANDING COMPARTMENT UP TO A MAXIMUM OF FOUR SPRINKLERS, AND PER THE LISTING OF THE SPRINKLER HEAD.



## BUILDING INFORMATION

OCCUPANCY - RESIDENTIAL R-2  
CONSTRUCTION TYPE - VB  
PARCEL NUMBER - 9821700005

### SQUARE FOOTAGE

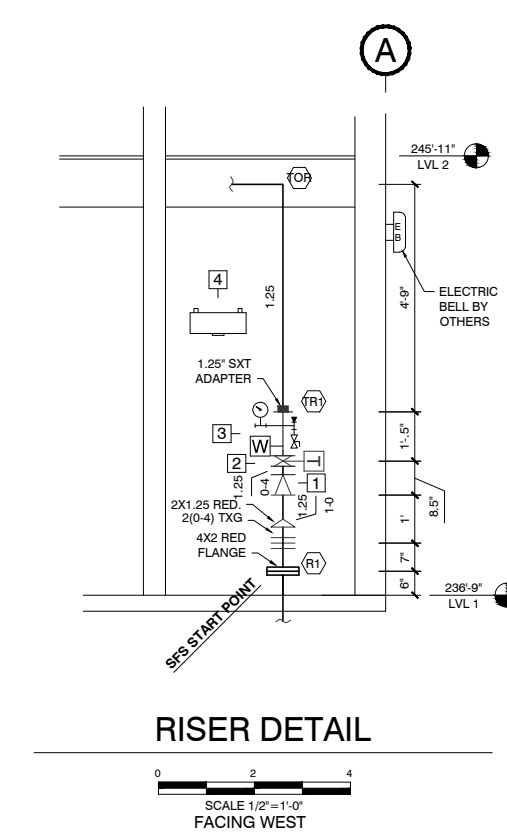
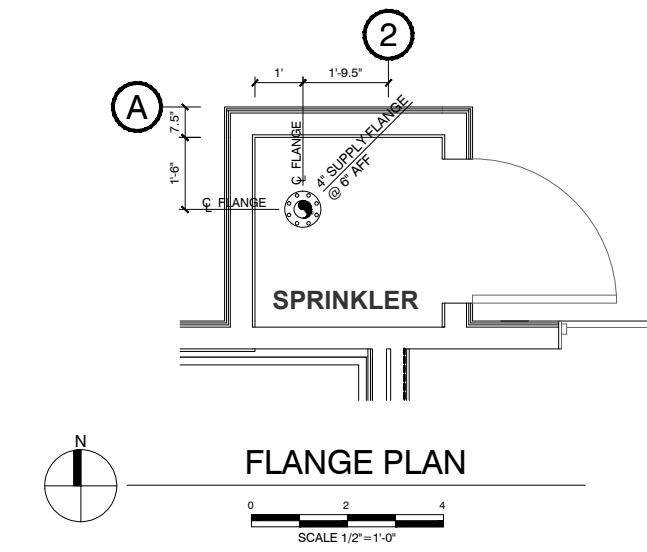
BLDG D  
LEVEL B - 697 SQ. FT.  
LEVEL 1 - 2,373 SQ. FT.  
LEVEL 2 - 1,991 SQ. FT.  
TOTAL - 5,061 SQ. FT.

## WATER SUPPLY INFORMATION

STATIC PRESSURE: 81 PSI  
RESIDUAL PRESSURE: 20 PSI  
FLOW: 2300 GPM  
DATE OF TEST: MODEL PROVIDED ON 4-19-13  
TEST LOCATION: EAST FIR AND 11TH AVE  
ELEVATION: 238'  
SOURCE: MODEL PROVIDED BY SPU

## SITE PLAN SYMBOLS

- NEW UNDERGROUND BY OTHERS
- - - EXISTING UNDERGROUND
- PROPERTY LINE
- STREET CENTERLINE
- ⊕ EXISTING HYDRANT
- ⊕ EXISTING VALVE
- ⊕ NEW VALVE
- ⊕ NEW FIRE DEPARTMENT CONNECTION
- ⊕ METER BY SPU

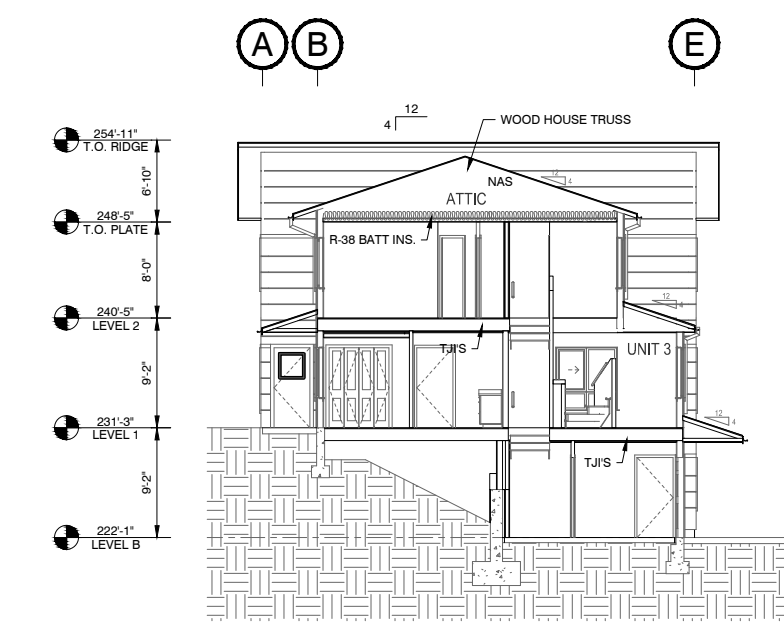


- PIPE ALL DRAINS TO SAFE DISCHARGE OUTSIDE.
- RISER ROOM MUST BE MAINTAINED BY OTHERS AT A MINIMUM OF 40' F.
- MAINTAIN 2" ANNULAR SPACE AROUND ALL PIPING PASSING THRU CONCRETE FLOORS.

## RISER EQUIPMENT LIST

ITEM	QTY.	SIZE	DESCRIPTION	MANUFACTURER	MODEL #
1	3	1.25"	SPRING CHECK VALVE	NIBCO	T-480
2	3	1.25"	BUTTERBALL CONTROL VALVE WITH TAMPER	MILWAUKEE	BB-SCS02
3	3	1.25"	RISER MANIFOLD INCLUDING: WATERFLOW INDICATOR, MAIN DRAIN, PRESSURE GAUGE, 4.9K INSPECTORS TEST	AGF	8111R
4	3	12 HEAD	SPARE HEAD CABINET CONTAINING THE FOLLOWING: SPARE SPRINKLERS & WRENCHES	RELIABLE	A-4

MANUFACTURER	TYPE	MODEL	HEAD FINISH	K-FACTOR	THREAD SIZE	TEMP. RATING	QUANTITY
RELIABLE	SSU	F1RES49	WHITE	4.9	1/2"	155°	4
RELIABLE	SSU	F1RES49	WHITE	4.9	1/2"	175°	1
RELIABLE	SSU	F1FR	BRZ	5.6	1/2"	155°	1
RELIABLE	MODEL	GFR1	SPRINKLER WRENCH				1
RELIABLE	MODEL	D	HEAD WRENCH				1



BLDG D SECTION A/1  
FACING EAST  
NTS

BUILDING D TOWNHOUSES	
AREA DESCRIPTION	NUMBER OF SPRINKLERS
BASEMENT	8
LEVEL 1	24
LEVEL 2	19
<b>TOTAL</b>	<b>51</b>

HYDRAULIC CALCULATION DATA	
ACTUAL DENSITY:	.05 GPM / OVER ENTIRE COMPARTMENT UP TO 4 SPRINKLERS PER HEAD LISTING
DEMAND AT BASE OF RISER:	86.8 GPM AT 54.5 PSI (0 GPM INSIDE HOSE ALLOWANCE)
DEMAND AT CITY CONNECTION:	86.8 GPM AT 61.1 PSI (0 GPM TOTAL HOSE ALLOWANCE)

# AS-BUILT SITE PLAN

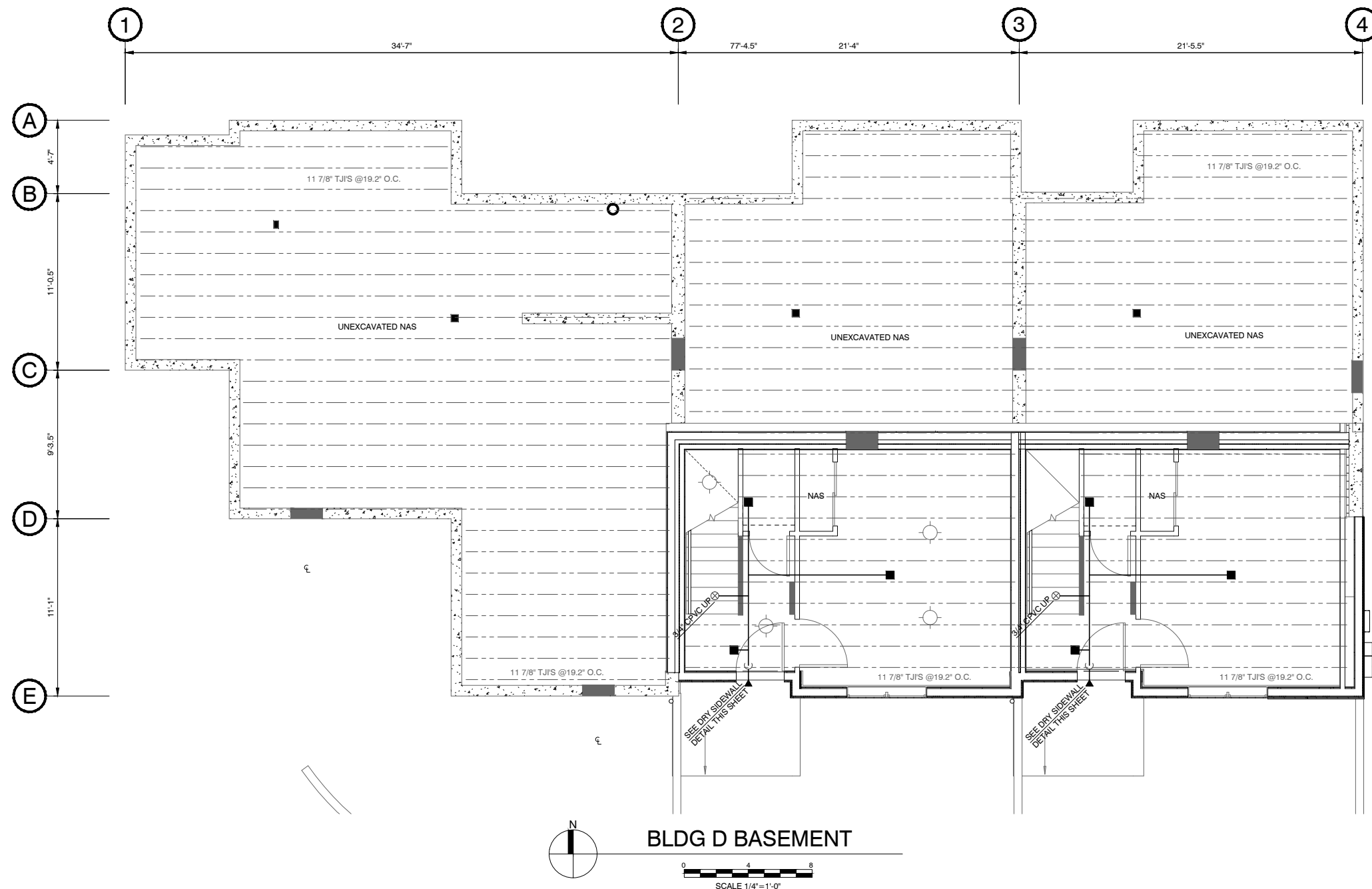
HANGER LEGEND		SPRINKLER LEGEND		ABBREVIATIONS		SYMBOL LEGEND		REVISIONS		CONTRACT WITH	
SYM	MANUFACTURER	S.I.N.	TYPE	MODEL	SYMBOL	DESCRIPTION	NO.	DATE	BY	REASON FOR REVISION	ANDERSEN CONSTRUCTION COMPANY 900 POPLAR PL. SEATTLE, WA 98144
					12	CENTERLINE OF PIPE TO REFERENCED STRUCTURE IN INCHES					PROJECT MANAGER: BEN BRODSKY PHONE: 206-396-7095 FAX: 206-763-6710
					10	2-WAY EARTHQUAKE SWAY BRACE LETTER INDICATES TYPE					SUPERINTENDENT: PHONE: FAX:
					11	4-WAY EARTHQUAKE SWAY BRACE LETTER INDICATES TYPE					
					12	HANGER LOCATION					
					13	ELEVATION ABOVE REFERENCED POINT IN FEET AND INCHES					
					14	HYDRAULIC CALCULATION NODE					
					15	FLEXIBLE COUPLING					
					16	RIGID COUPLING					

!CAUTION! 50% REDUCED PRINTS

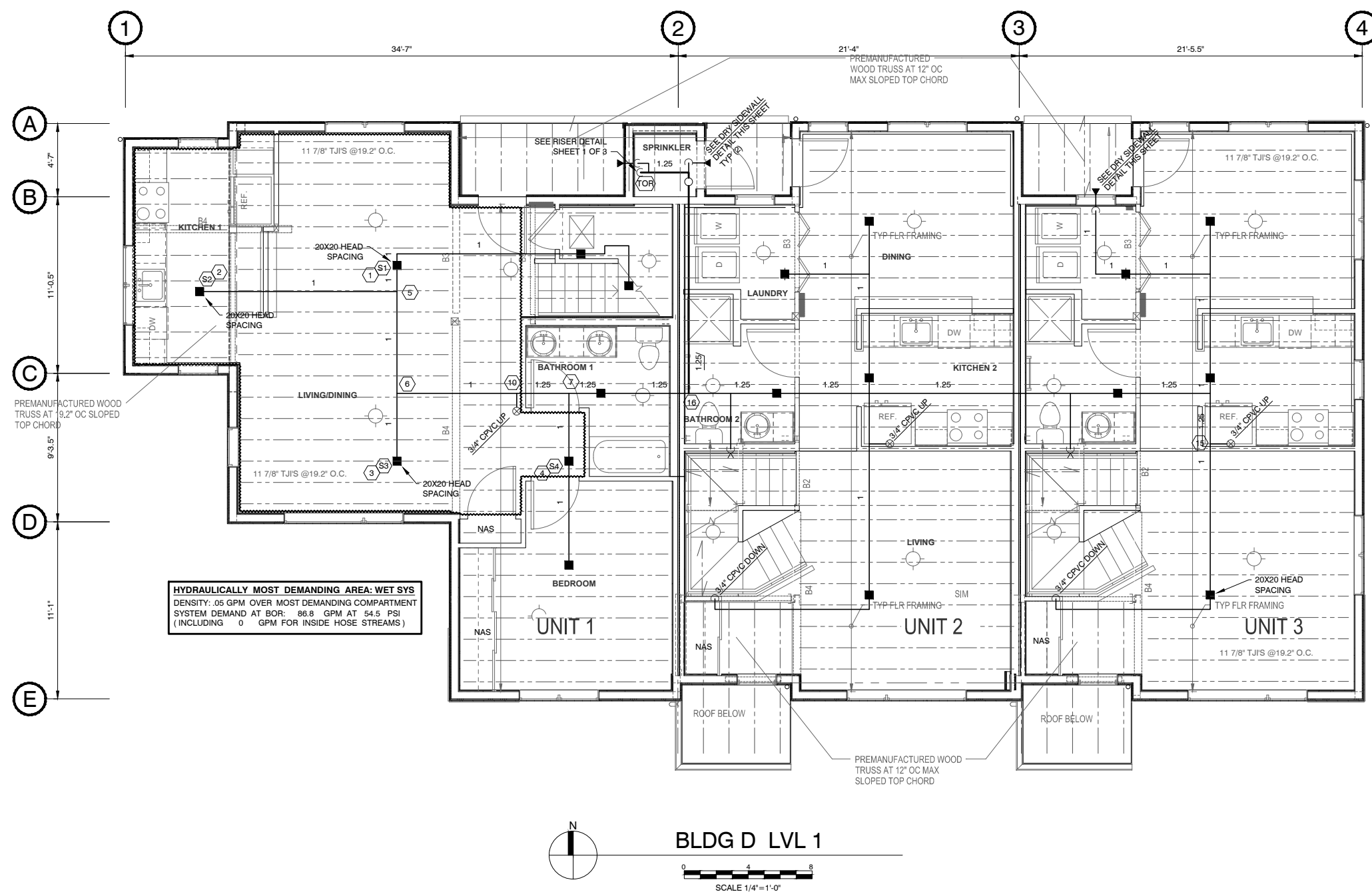
**SMITH FIRE SYSTEMS, INC.**  
1100 54th AVE EAST  
TACOMA, WA 98404  
CONTR. REG. NO. SMTHFS13607  
Bus: (253) 926-1880 FAX: (253) 926-2350

**EAST FIR APARTMENTS BUILDING D**  
1105 EAST FIR  
SEATTLE, WA 98122

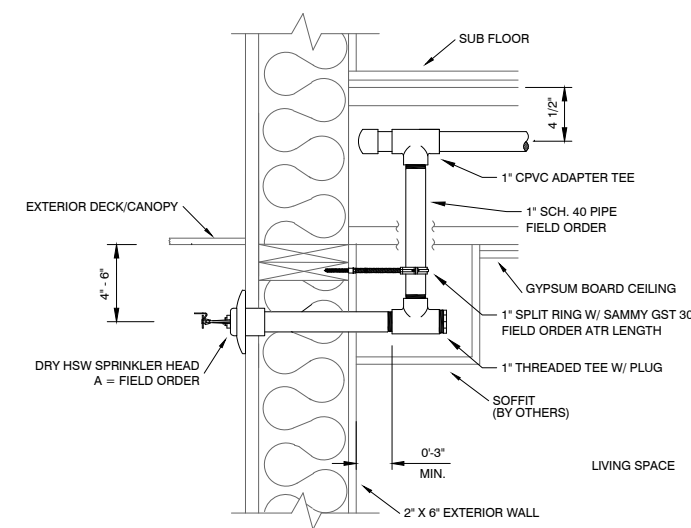
DESIGNER	PROJECT MGR	DATE	SHEET	JOB NO.
AARON N.	B. COOK	11-20-13	1 OF 3	TC12012



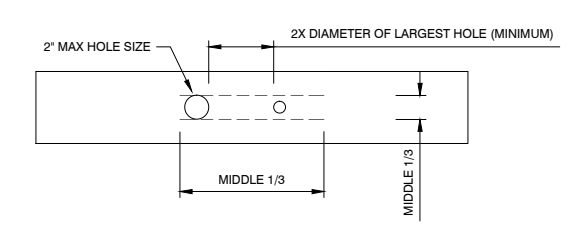
BLDG D BASEMENT  
SCALE 1/4"=1'-0"



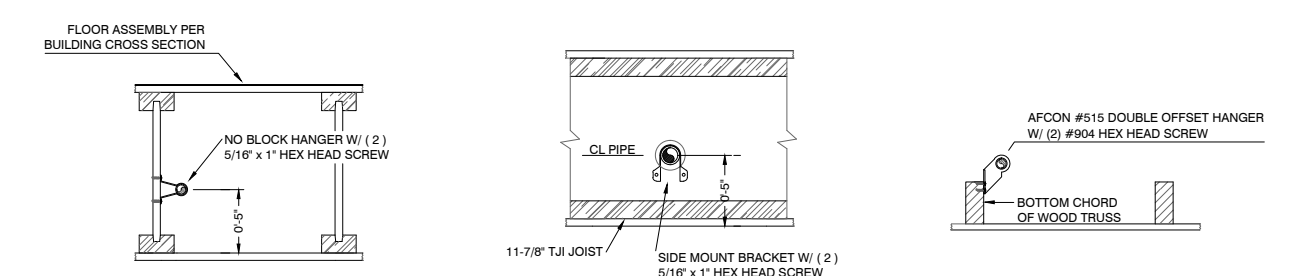
BLDG D LVL 1  
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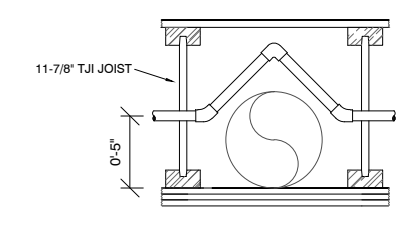
DRY SIDEWALL DETAIL



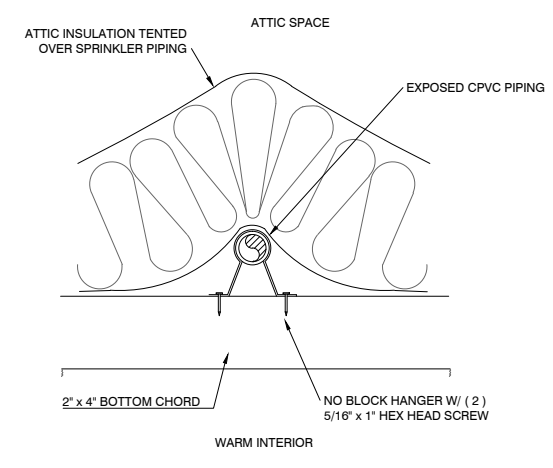
TYP BEAM PEN. DETAIL



TYPICAL CPVC HANGERS



TYP CPVC OFFSET



INSULATION TENTING DETAIL

FITTER/LISTER NOTES:

1. ALL CPVC PIPING IS 3/4" U.N.O.
2. ALL DROPS ARE TO BE 3/4" CPVC.
3. SPRINKLER PIPING IN JOIST SPACES ARE TO BE 5" ABOVE THE BOTTOM OF JOIST (ABOV). THE CENTERLINE OF PIPING IN THE ROOF TRUSS SPACE IS TO BE INSTALLED 2" ABOVE THE TOP OF THE BOTTOM CHORD OF THE TRUSS.
4. HANGERS FOR CPVC PIPING ARE NOT SHOWN ON THE PLAN. HANGERS ARE REQUIRED WITHIN 6" OF THE SPRINKLER HEAD AT THE END OF THE LINE. HANGER SPACING FOR CPVC PIPING IS PER THE MANUFACTURE'S LISTING AS FOLLOWS:  
 3/4" CPVC 5'-6" OC  
 1" CPVC 6'-0" OC  
 1 1/4" CPVC 6'-0" OC  
 1 1/2" CPVC 7'-0" OC  
 2" CPVC 8'-0" OC
5. RELIABLE MODEL F1 RES 49/F1 RESIDENTIAL SPRINKLER SHALL NOT BE SPACED MORE THAN 18 FEET BETWEEN SPRINKLERS OR 9 FEET FROM A WALL OR LESS THAN 8 FEET BETWEEN SPRINKLERS, UNLESS SPECIFICALLY NOTED ON THE DRAWING.
6. GENERAL CONTRACTOR IS TO PROVIDE "TENTING" OF INSULATION OVER WET SPRINKLER PIPING IN ATTIC VOID SUCH THAT NO INSULATION IS BETWEEN THE HEATED SPACE AND THE WET SPRINKLER PIPING
7. ALL WALLS ARE FULL HEIGHT.
8. ALL STEEL PIPE IS NOTED BY SIZE AND LENGTH, FOR EXAMPLE: 1.25 125
9. ALL CPVC PIPE IS NOTED BY SIZE ONLY, FOR EXAMPLE: 1.25 3-6
10. FIRE STOPPING OF WALLS IS BY OTHERS.

BEAM SCHEDULE

Beam	Size
B1	4X8
B2	(2)2X10
B3	(2)1 3/4 X 11 7/8
B4	5 1/2 X 11 7/8

HANGER LEGEND

SYM	MANUFACTURER	S.I.N.	TYPE	MODEL	SPACING	NOTE
○	RELIABLE	RA1425	SSU	F1FR56	BRASS	5.6K 1/2" 155" 1
■	RELIABLE	R3516	SSP	F1RES49	WHITE	4.9K 1/2" 155" 22
◐	RELIABLE	R5714	DRY HSW	F1RES49	CHRM	5.0K 1" 155" 5
◑	RELIABLE	R3516	SSP	F1RES49	WHITE	4.9K 1/2" 175" 2
<	RELIABLE	R3531	HSW	F1RES44	WHITE	4.4K 1/2" 155" 2

SPRINKLER LEGEND

SYM	MANUFACTURER	S.I.N.	TYPE	MODEL	SPACING	NOTE
○	RELIABLE	RA1425	SSU	F1FR56	BRASS	5.6K 1/2" 155" 1
■	RELIABLE	R3516	SSP	F1RES49	WHITE	4.9K 1/2" 155" 22
◐	RELIABLE	R5714	DRY HSW	F1RES49	CHRM	5.0K 1" 155" 5
◑	RELIABLE	R3516	SSP	F1RES49	WHITE	4.9K 1/2" 175" 2
<	RELIABLE	R3531	HSW	F1RES44	WHITE	4.4K 1/2" 155" 2

ABBREVIATIONS

APP	APPROVED FLOOR
BOB	BOTTOM OF BEAM
BOB	BOTTOM OF BRICK
BOB	BOTTOM OF JOIST
BOB	BOTTOM OF PARLOR
BOB	BOTTOM OF TRUSS
CLS	FIELD ORDER
FLR	FLOOR
INS	INSIDE FACE OF WALL
OUT	OUTSIDE FACE OF WALL
NAS	NO AUTO SPRINKLERS
UNO	UNLESS NOTED OTHERWISE

SYMBOL LEGEND

○	CENTERLINE OF PIPE TO REFERENCED STRUCTURE IN INCHES
—	2-WAY EARTHQUAKE SWAY BRACE LETTER INDICATES TYPE
—	4-WAY EARTHQUAKE SWAY BRACE LETTER INDICATES TYPE
—	HANGER LOCATION
—	ELEVATION ABOVE REFERENCED POINT IN FEET AND INCHES
○	HYDRAULIC CALCULATION NODE
—	FLEXIBLE COUPLING
—	RIGID COUPLING

REVISIONS

NO.	DATE	BY	REASON FOR REVISION

CONTRACT WITH  
**ANDERSEN CONSTRUCTION COMPANY**  
 900 POPLAR PL.  
 SEATTLE, WA 98144

PROJECT MANAGER: BEN BRODSKY  
 PHONE: 206-396-7095  
 FAX: 206-763-6710

SUPERINTENDENT:  
 PHONE:  
 FAX:

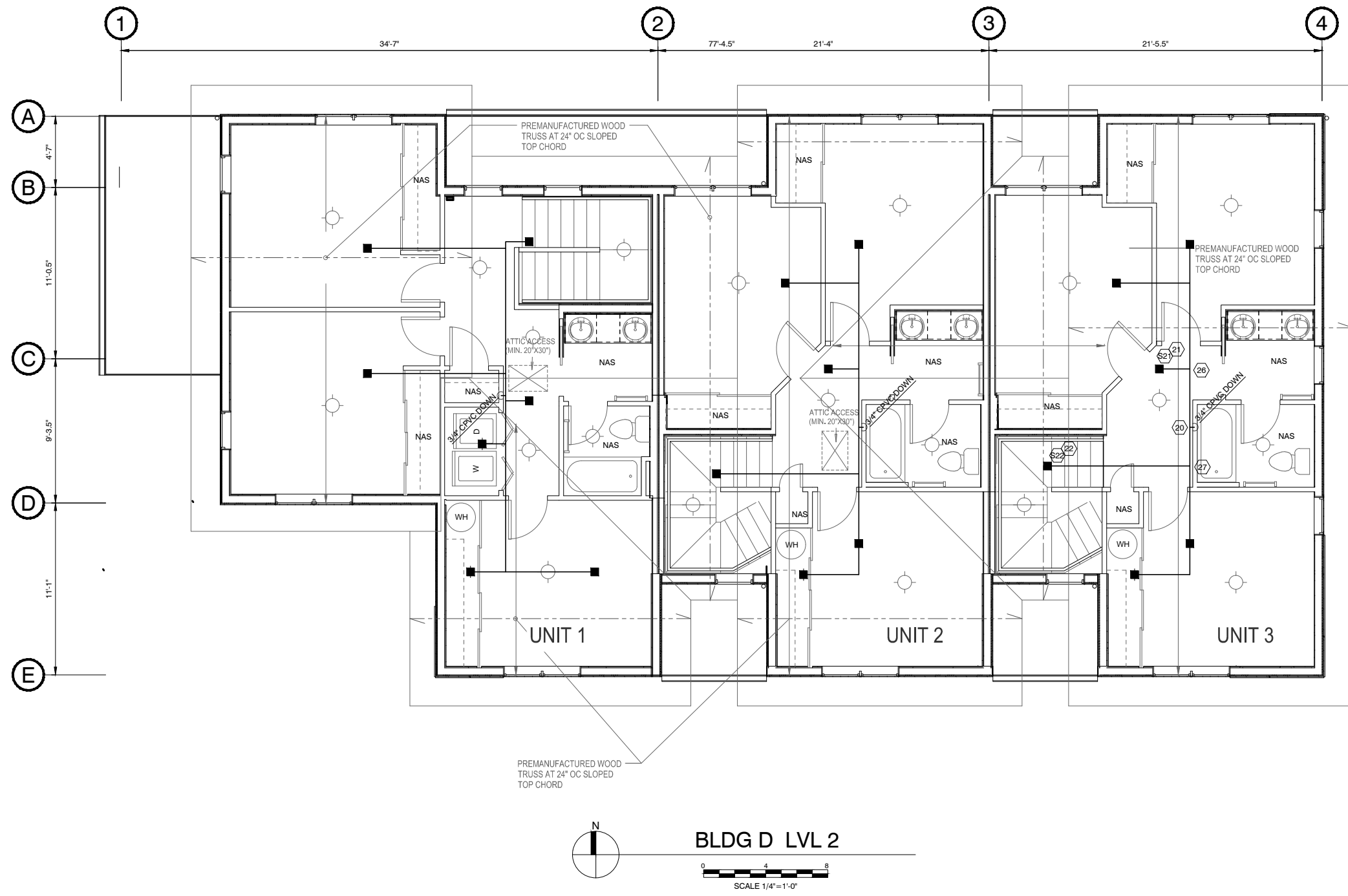
**SMITH FIRE SYSTEMS, INC.**  
 1100 54th AVE EAST  
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**EAST FIR APARTMENTS BUILDING D**  
 1105 EAST FIR  
 SEATTLE, WA 98122

DESIGNER: AARON N. PROJECT MGR: B. COOK DATE: 11/20/2013 SHEET: 2 OF 3 JOB NO.: TC12012

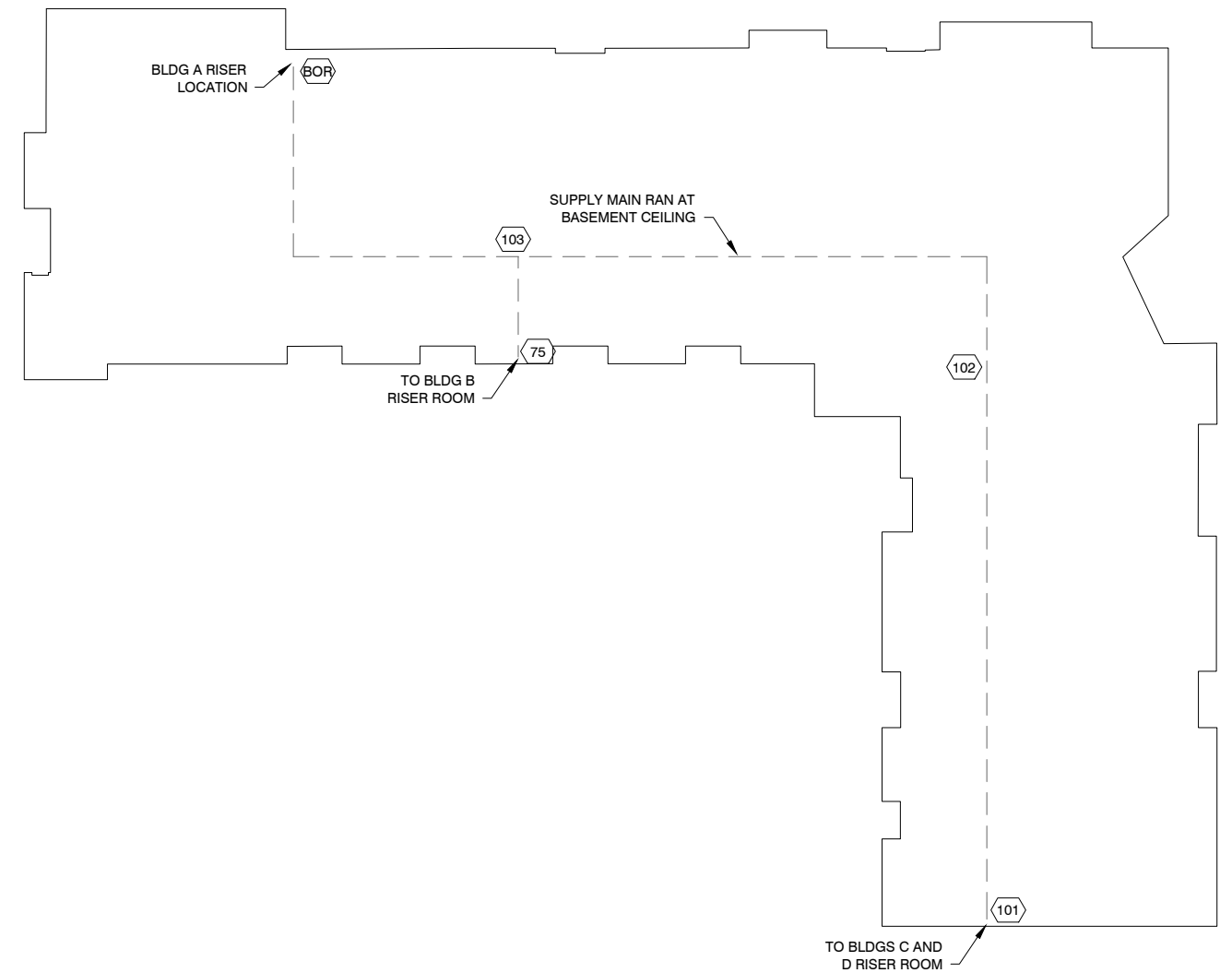
!CAUTION! 50% REDUCED PRINTS

BLDG D TOWNHOUSE SPRINKLER PLAN

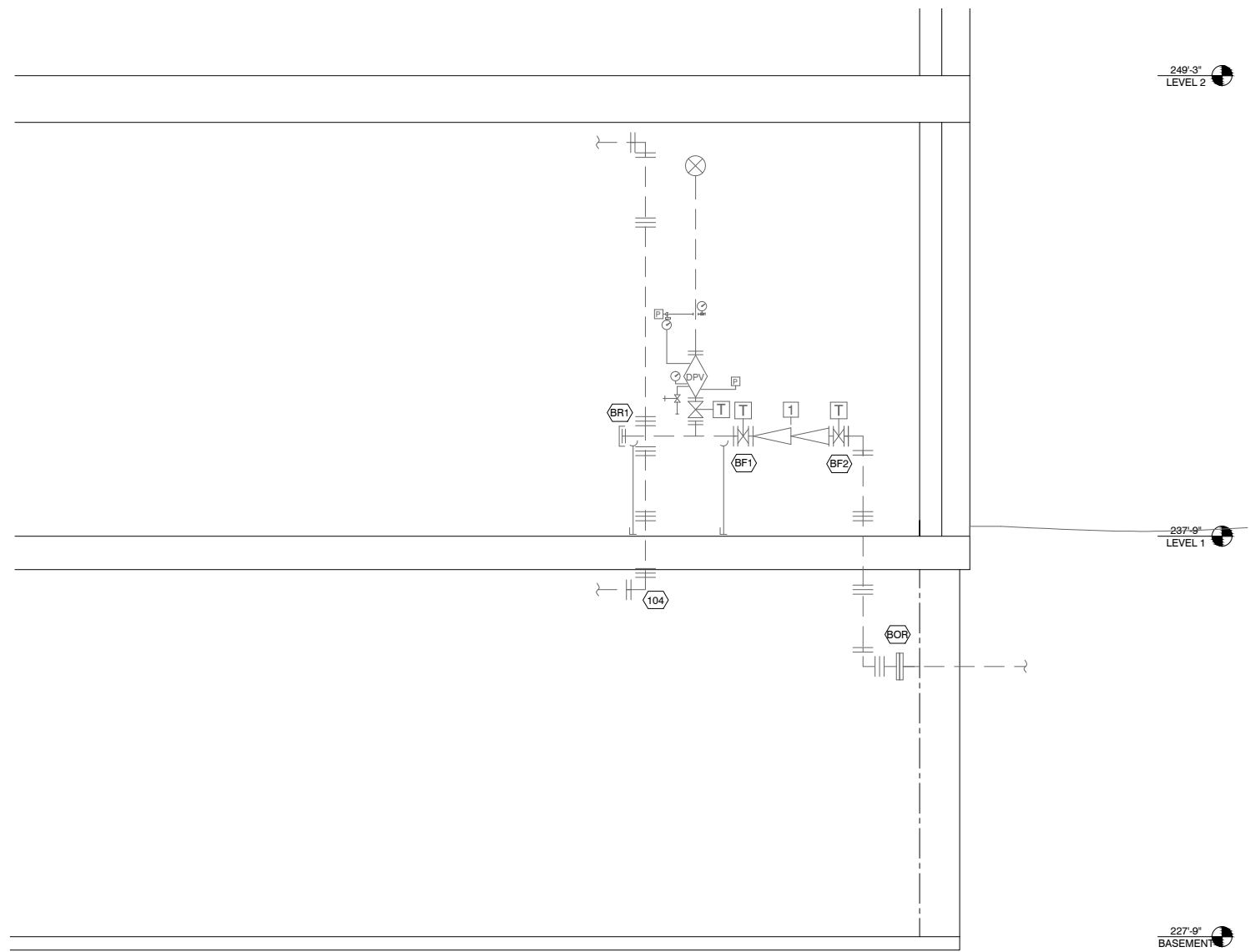


**AUXILIARY CALCULATED AREA**  
 DENSITY: .05 GPM OVER MOST DEMANDING COMPARTMENT  
 SYSTEM DEMAND AT BOR: 34.5 GPM AT 42.0 PSI  
 (INCLUDING 9 GPM FOR INSIDE HOSE STREAMS)

- FITTER/LISTER NOTES:**
- ALL CPVC PIPING IS 3/4" U.N.O.
  - ALL DROPS ARE TO BE 3/4" CPVC.
  - SPRINKLER PIPING IN JOIST SPACES ARE TO BE 5" ABOVE THE BOTTOM OF JOIST (ABOJ). THE CENTERLINE OF PIPING IN THE ROOF TRUSS SPACE IS TO BE INSTALLED 2" ABOVE THE TOP OF THE BOTTOM CHORD OF THE TRUSS.
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  - GENERAL CONTRACTOR IS TO PROVIDE "TENTING" OF INSULATION OVER WET SPRINKLER PIPING IN ATTIC VOID SUCH THAT NO INSULATION IS BETWEEN THE HEATED SPACE AND THE WET SPRINKLER PIPING
  - ALL WALLS ARE FULL HEIGHT.
  - ALL STEEL PIPE IS NOTED BY SIZE AND LENGTH, FOR EXAMPLE: 1.25 3-6
  - ALL CPVC PIPE IS NOTED BY SIZE ONLY, FOR EXAMPLE: 1.25 3-6
  - FIRE STOPPING OF WALLS IS BY OTHERS.



BLDG A SUPPLY MAIN ROUTING



BLDG A RISER DETAIL

!CAUTION! 50% REDUCED PRINTS

**BLDG D TOWNHOUSE SPRINKLER PLAN**

<b>HANGER LEGEND</b>				<b>SPRINKLER LEGEND</b>				<b>ABBREVIATIONS</b>				<b>SYMBOL LEGEND</b>				<b>REVISIONS</b>				<b>CONTRACT WITH</b>			
																ANDERSEN CONSTRUCTION COMPANY 900 POPLAR PL. SEATTLE, WA 98144							
																PROJECT MANAGER: BEN BRODSKY PHONE: 206-396-7095 FAX: 206-763-6710 SUPERINTENDENT: PHONE: FAX:							
																				<b>EAST FIR APARTMENTS BUILDING D</b> 1105 EAST FIR SEATTLE, WA 98122 DESIGNER: AARON N. PROJECT MGR: B. COOK DATE: 11/20/2013 SHEET: 3 OF 3 JOB NO.: TC12012			