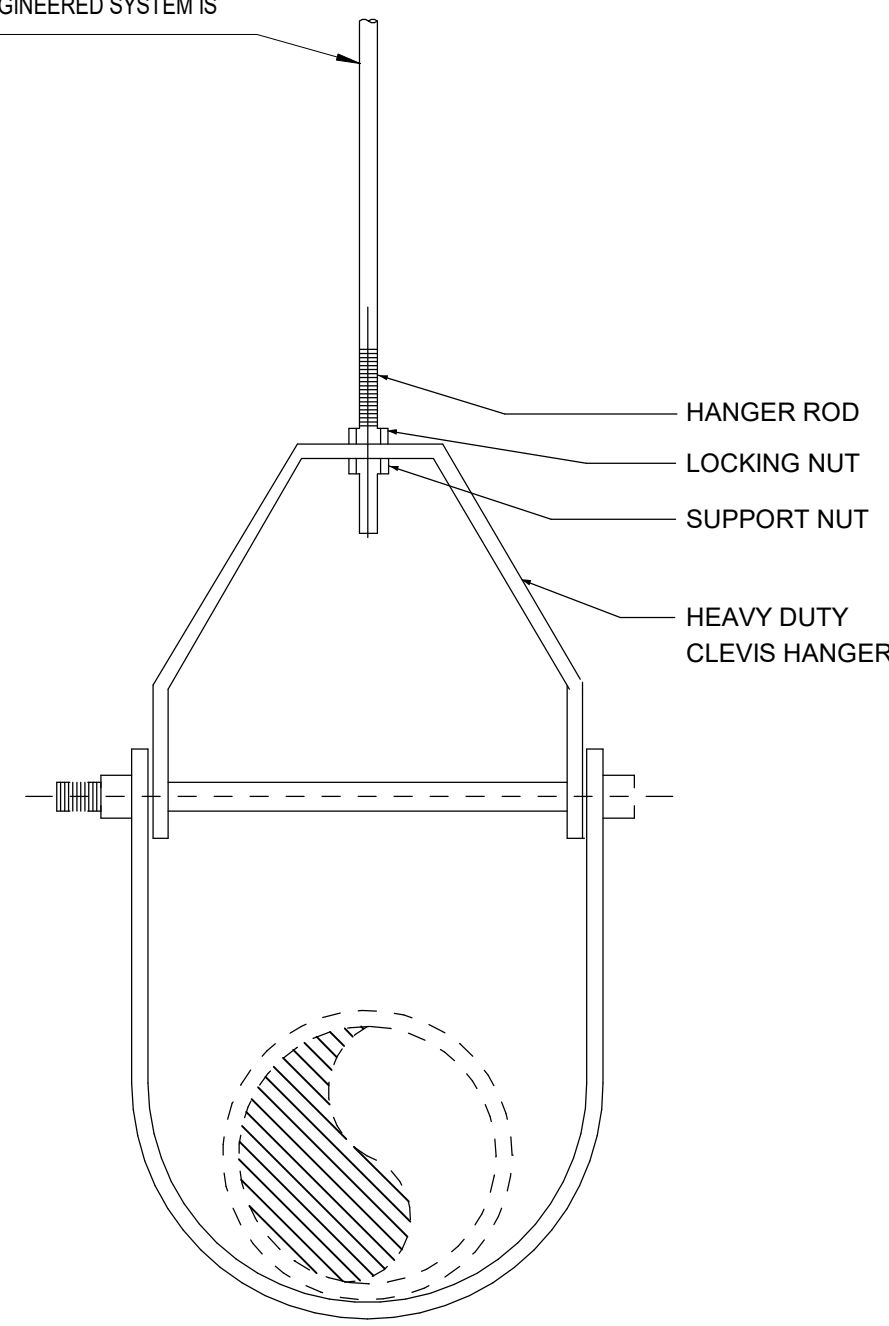


PLUMBING FIXTURE SCHEDULE					
SYMBOL	DESCRIPTION	ROUGH-IN CONNECTIONS	COMPONENT	DESCRIPTION	REMARKS
P-1	HOSE BIBB	1/2"	HOSE BIBB	WOODFORD 24 INTERIOR HOSE BIBB W/ VACUUM BREAKER AND HANDLE MOUNT 12" A.F.F.	

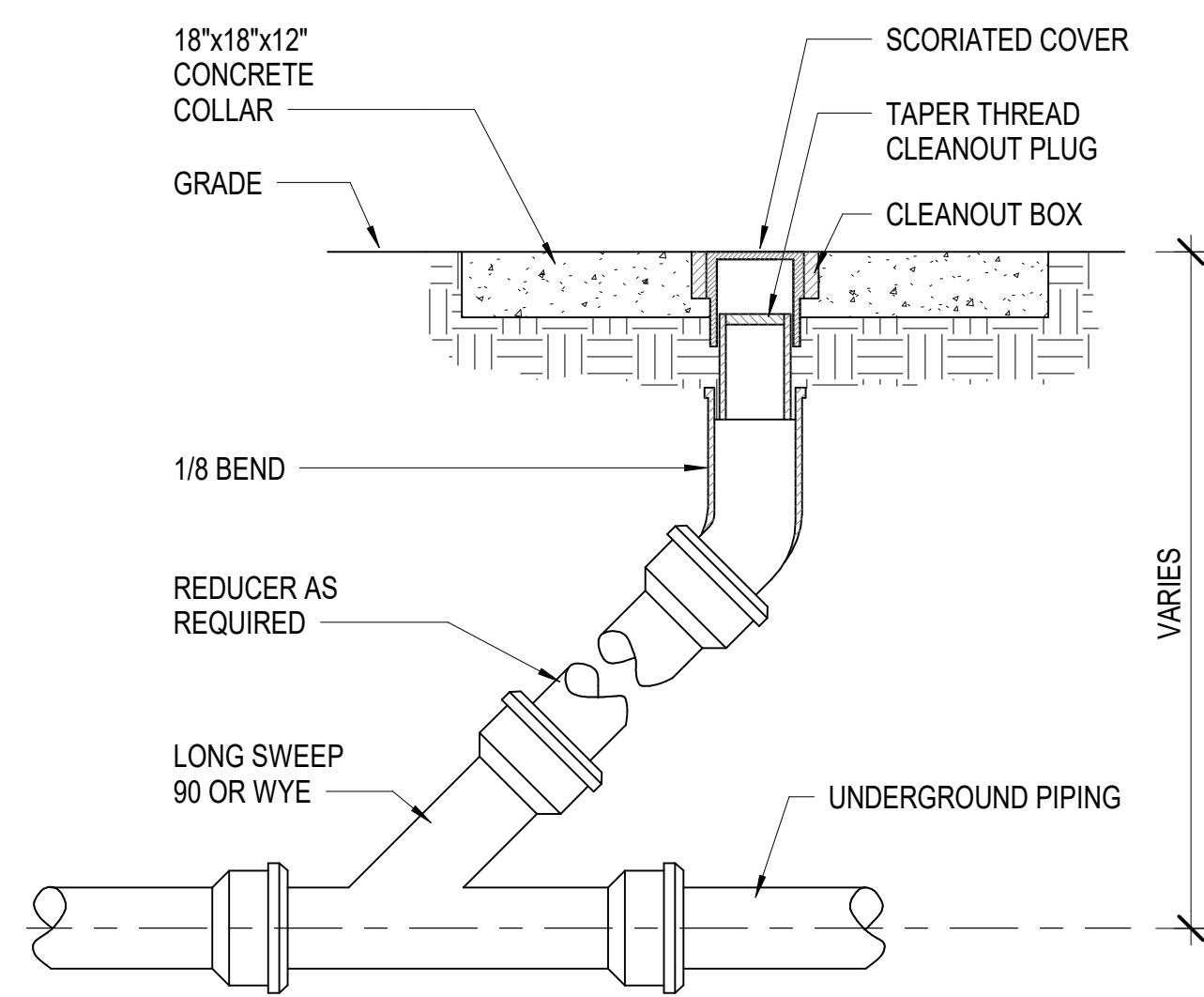
ALL PIPE HANGERS SHALL BE INDEPENDENTLY SUPPORTED FROM THE BUILDING STEEL OR STRUCTURE UNLESS AN ENGINEERED SYSTEM IS SUBMITTED.



MAXIMUM PIPE SUPPORT SPACING			
PIPE SIZE	HORIZONTAL		VERTICAL
	1" AND SMALLER	1 1/4" 1 1/2" AND LARGER	ALL PIPE SIZES
COPPER PIPING	6 FT	10 FT	10 FT
PIPE SIZE	ALL PIPE SIZES		ALL PIPE SIZES
CAST IRON PIPING	5 FT (10 FT WHERE 10 FOOT LENGTH OF PIPE ARE USED)		15 FT
PIPE SIZE	ALL PIPE SIZES		ALL PIPE SIZES
STEEL PIPING	12 FT		15 FT

NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST PIPE ON TRAPEZE.

4 CLEVIS HANGER DETAIL
NO SCALE



5 YARD CLEANOUT DETAIL (C.O.T.G.)
NO SCALE

PLUMBING / MECHANICAL LEGEND		
SYMBOL	DESCRIPTION	
FM	FORCED MAIN	
STM	STORM DRAINAGE	
ORD	OVERFLOW ROOF DRAINAGE	
CW	COLD WATER	
D	CONDENSATE DRAIN	
Flow Arrow	FLOW ARROW	
Valve in Riser	VALVE IN RISER	
Ball Valve	BALL VALVE	
Check Valve	CHECK VALVE	
Strainer	STRAINER	
Water Pressure Regulator	WATER PRESSURE REGULATOR	
WCO	WALL CLEANOUT	
FCO	FLOOR CLEANOUT	
C.O.T.G.	CLEANOUT TO GRADE	
Invert Elevation	INVERT ELEVATION	
8" STM	PIPE SIZE	UTILITY RISER DESIGNATION

PLUMBING GENERAL NOTES	
No.	DESCRIPTION
1	NO BURIED PIPING UNDER THE SLAB SHALL BE INSTALLED WITHIN THE FOOTING BEARING.
2	CUTTING OF OPENINGS IN EXISTING CONSTRUCTION ASSOCIATED WITH THE PIPING SYSTEMS SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR.
3	ALL BURIED PRESSURE PIPING INSTALLED SHALL BE A MINIMUM OF 36" BELOW FINISHED GRADE TO TOP OF PIPE.
4	THE ISOMETRIC IS SCHEMATIC IN NATURE AND PROVIDED FOR GENERAL ROUTING AND CLARIFICATION THE ISOMETRIC SHALL NOT BE USED FOR A SPECIFIC ESTIMATE TAKE-OFF OF PIPE LENGTHS AND FITTINGS.
5	THE PLUMBING CONTRACTOR'S WORK SHALL BE COORDINATED IN SUCH A MANNER AS TO NEVER BLOCK SERVICE PATHWAYS TO AND FROM ANY BUILDING AND TO MINIMIZE INTERFERENCE WITH SITE ACCESSIBILITY.
6	THE PLUMBING CONTRACTOR IS REQUIRED TO PROVIDE 3" MINIMUM DURABLE PRINTED PLASTIC WARNING TAPE FOR EXTERIOR METALLIC PIPING WITHIN THE SCOPE OF HIS CONTRACT. THE WARNING TAPE SHALL BE IDENTIFIED FOR THE SPECIFIC UTILITY.
7	THE PLUMBING CONTRACTOR IS REQUIRED TO PROVIDE 2" MINIMUM DETECTABLE TRACER WIRE FOR EXTERIOR NON-METALLIC PIPING DISTRIBUTION WITHIN THE SCOPE OF HIS CONTRACT. THE TRACER WIRE SHALL BE IDENTIFIED FOR THE SPECIFIC UTILITY.
8	THE CONTRACTOR SHALL PROVIDE DAILY CLEAN-UP OF DEBRIS ASSOCIATED WITH THIS SCOPE OF WORK.
9	THE PLUMBING CONTRACTOR'S WORK SHALL BE COORDINATED IN SUCH A MANNER AS TO NEVER BLOCK SERVICE PATHWAYS TO AND FROM THIS BUILDING.
10	THE OMISSION OF OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS ARE NOT TO BE CONSIDERED AS THE NON-EXISTENCE OF UTILITIES OR A DEFINITE EXISTENCE OF UTILITIES.
11	CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR LOCATION AND PROTECTING UTILITIES PRIOR TO CONSTRUCTION.
12	ANY DAMAGES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
13	CONTRACTOR TO COORDINATE ANY PROBLEMS OR FIELD CONDITIONS THAT MAY CHANGE DESIGN WITH THE OWNER AND ENGINEER PRIOR TO PROCEEDING.
14	THE STOCKPILING OF EXCESS MATERIAL ON SITE WILL NOT BE ALLOWED.
15	ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL CODES OR ORDINANCES.
16	REFER TO DETAIL 3/S-550 FOR VERTICAL PIPING PROTECTION DETAILS.

PARKING DRAIN SCHEDULE					
Symbol	Description	Model	Manuf.	Comments	
3PD-2	9 INCH DIAMETER HEAVY DUTY PARKING DECK DRAIN WITH SUPPORT FLANGE	Z533-NL	ZURN	NEO LOC OUTLET, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, 16 SQ. IN. GRATE FREE AREA	
4PD-2	9 INCH DIAMETER HEAVY DUTY PARKING DECK DRAIN WITH SUPPORT FLANGE	Z533-NL	ZURN	NEO LOC OUTLET, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, 16 SQ. IN. GRATE FREE AREA	
6PD-1	15 INCH DIAMETER HEAVY DUTY PARKING DECK DRAIN WITH SUPPORT FLANGE	Z536-NL	ZURN	NEO LOC OUTLET, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, 66 SQ. IN. GRATE FREE AREA	
8OPD-1	16 INCH DIAMETER HEAVY DUTY PARKING DECK DRAIN WITH SUPPORT FLANGE	Z537-NL	ZURN	NEO LOC OUTLET, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, 79 SQ. IN. GRATE FREE AREA	
8PD-1	16 INCH DIAMETER HEAVY DUTY PARKING DECK DRAIN WITH SUPPORT FLANGE	Z537-NL	ZURN	NEO LOC OUTLET, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, 79 SQ. IN. GRATE FREE AREA	

NOTE: THE BASIS OF DESIGN MANUFACTURER IS ZURN OR EQUIVALENT BY JR SMITH OR JOSAM.

FUNNEL DRAIN SCHEDULE					
Symbol	Description	Model	Manuf.	Comments	
3FD-1	FIXED AIR GAP FUNNEL DRAIN	Z1025-3	Zurn Industries		

NOTE: THE BASIS OF DESIGN MANUFACTURER IS ZURN OR EQUIVALENT BY JR SMITH OR JOSAM.

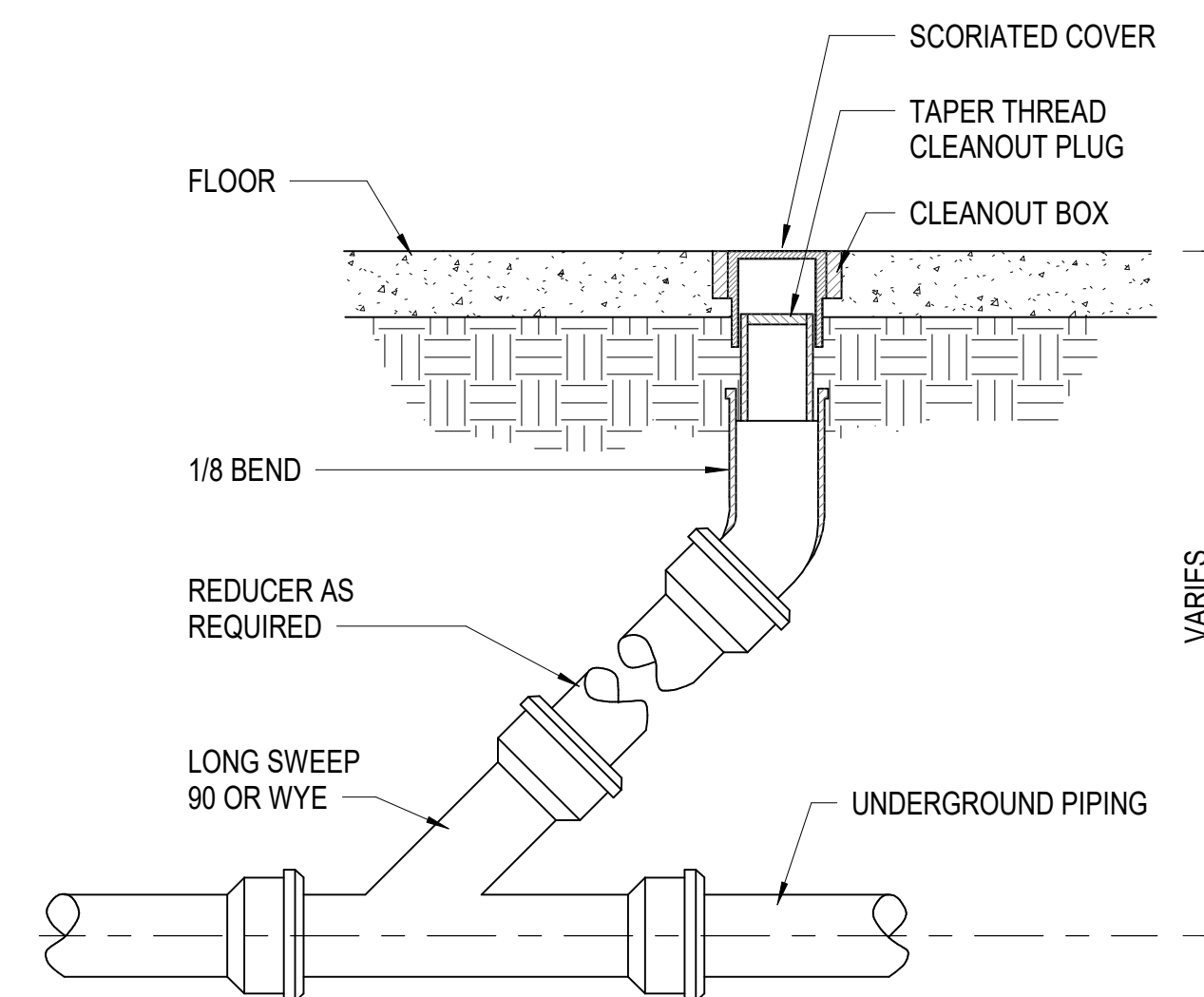
PLUMBING BACKFLOW PREVENTER SCHEDULE					
Symbol	Description	Zurn Model	Rated Flow	Pressure Drop At Rated Flow	
ZRPBP-1	Lead-Free RP Reduced Pressure Principle Assembly	373XL	100 GPM	15 PSI	

NOTE: THE BASIS OF DESIGN MANUFACTURER IS ZURN OR EQUIVALENT BY WATTS OR FEBCO.

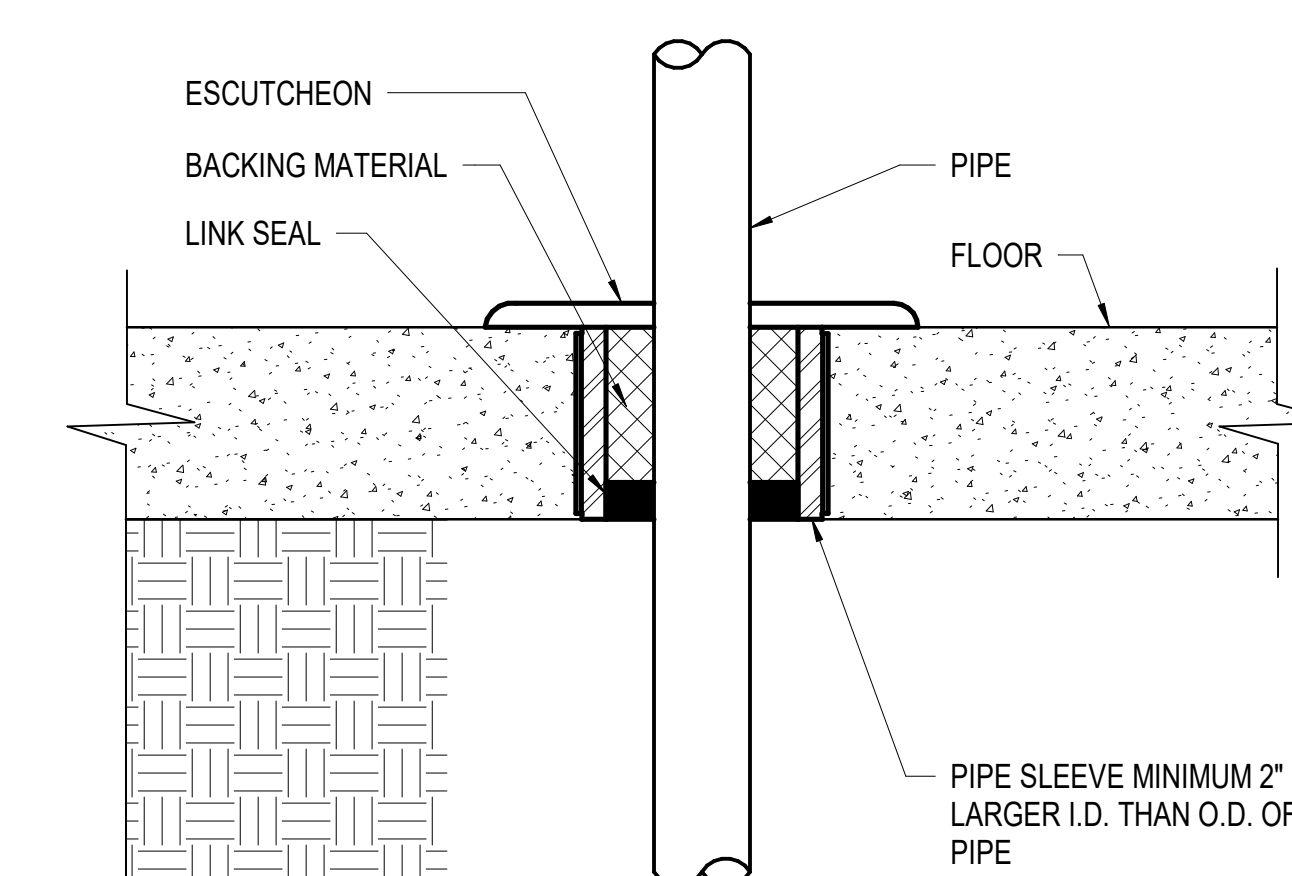
SUMP PUMP SCHEDULE									
SYMBOL	Description	GPM	Head	Model	Manufacturer	HP	Phase	Voltage	Comments
SP-1	ELEVATOR SUMP PUMP	50	20	N153	ZOELLER	.5	1	120	PROVIDED WITH ZOELLER CONTROL PANEL WITH DRY CONTACTS FOR SYSTEM ALARM
SP-2	ELEVATOR SUMP PUMP	50	20	N153	ZOELLER	.5	1	120	PROVIDED WITH ZOELLER CONTROL PANEL WITH DRY CONTACTS FOR SYSTEM ALARM

NOTE: THE BASIS OF DESIGN MANUFACTURER IS ZOELLER OR EQUIVALENT BY STANCOR OR GOULDS.

PLUMBING SPECIALTIES SCHEDULE			
MARK	DESCRIPTION	SIZE	MANUFACTURER/MODEL/DESCRIPTION
FCO	FLOOR TYPE CLEANOUT	REFER TO DRAWINGS	ZURN ZH402 FOR CONCRETE FLOORS, CAST IRON HEAVY DUTY WITH ROUND ADJUSTABLE RECESSED NICKEL-BRONZE TOP AND TAPER-THREAD BRONZE PLUG
WCO	WALL TYPE CLEANOUT	REFER TO DRAWINGS	ZURN Z1441-BP OR Z1446-BP CAST BRONZE TAPER-THREAD PLUG W/ STAINLESS STEEL COVER.

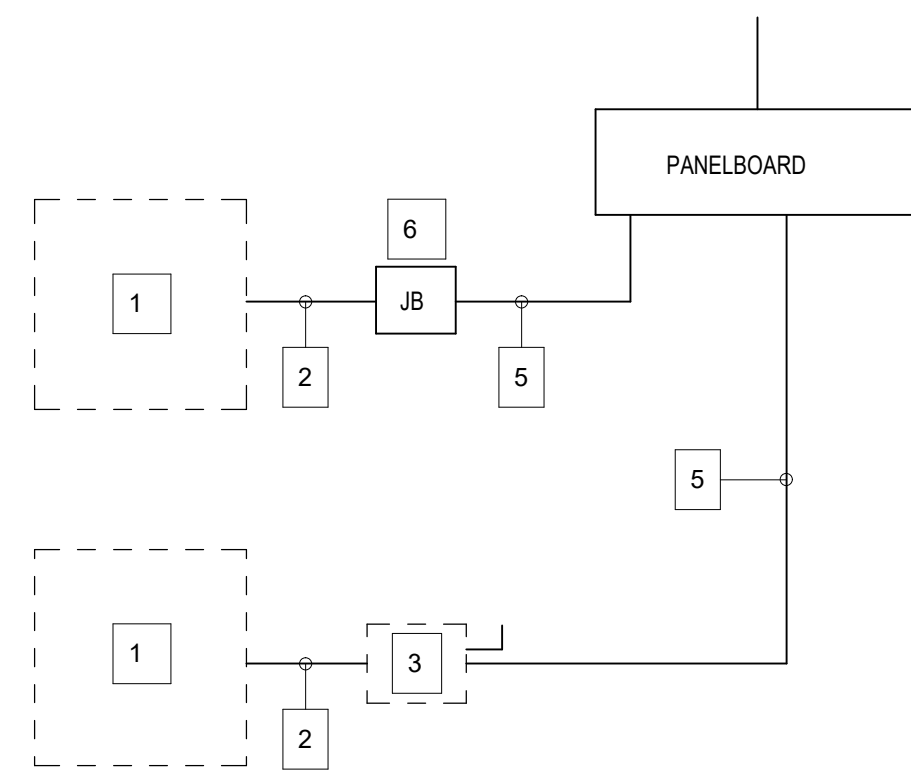


2 FLOOR CLEANOUT DETAIL
1/8" = 1'-0"



1 FLOOR PIPE PENETRATION
1/2" = 1'-0"

ELECTRICAL NOTES	
NO.	DESCRIPTION
1	EQUIPMENT OF TRADES OTHER THAN ELECTRICAL.
2	CONDUIT AND WIRING BY HVAC, PLUMBING CONTRACTOR OR OTHER TRADES.
3	IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEW, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR.
4	JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT. IF NO STARTER OR DISCONNECT IS SUPPLIED A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. LOAD SIDE WIRING WILL BE PROVIDED BY MECHANICAL CONTRACTOR OR OTHER TRADES.
5	FEEDER CIRCUIT WIRING AND CONDUIT IN ELECTRICAL WORK. SEE PANEL BOARD SCHEDULES FOR WIRE AND BREAKER SIZES.



3 ELECTRICAL CONNECTION DIVISION OF WORK
NO SCALE



UNIVERSITY of NORTH CAROLINA WILMINGTON
4965 REIGEL ROAD
WILMINGTON, NORTH CAROLINA 28403

PARKING DECK II - SOUTH CAMPUS
RIEGLER ROAD

SCO ID NUMBER: 19226
CODE: 441828
ITEM: 301

CONTRACTOR
Balfour Beatty
Construction

DESIGNER

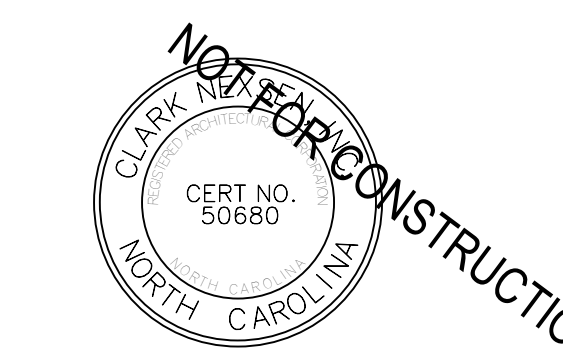
CLARK NEXSEN
1523 ELIZABETH AVENUE, SUITE 300
CHARLOTTE, NORTH CAROLINA 28204
704-377-8800

CLARK NEXSEN LICENSE NUMBER: C-1028



CIVIL ENGINEER
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910.343.1048

PROFESSIONAL SEAL



NC CORPORATE ENGINEERING LICENSE #C-1028

SUBMITTAL

03/29/2019

75% CONSTRUCTION
DOCUMENTS

REVISIONS

KEY PLAN

SHEET

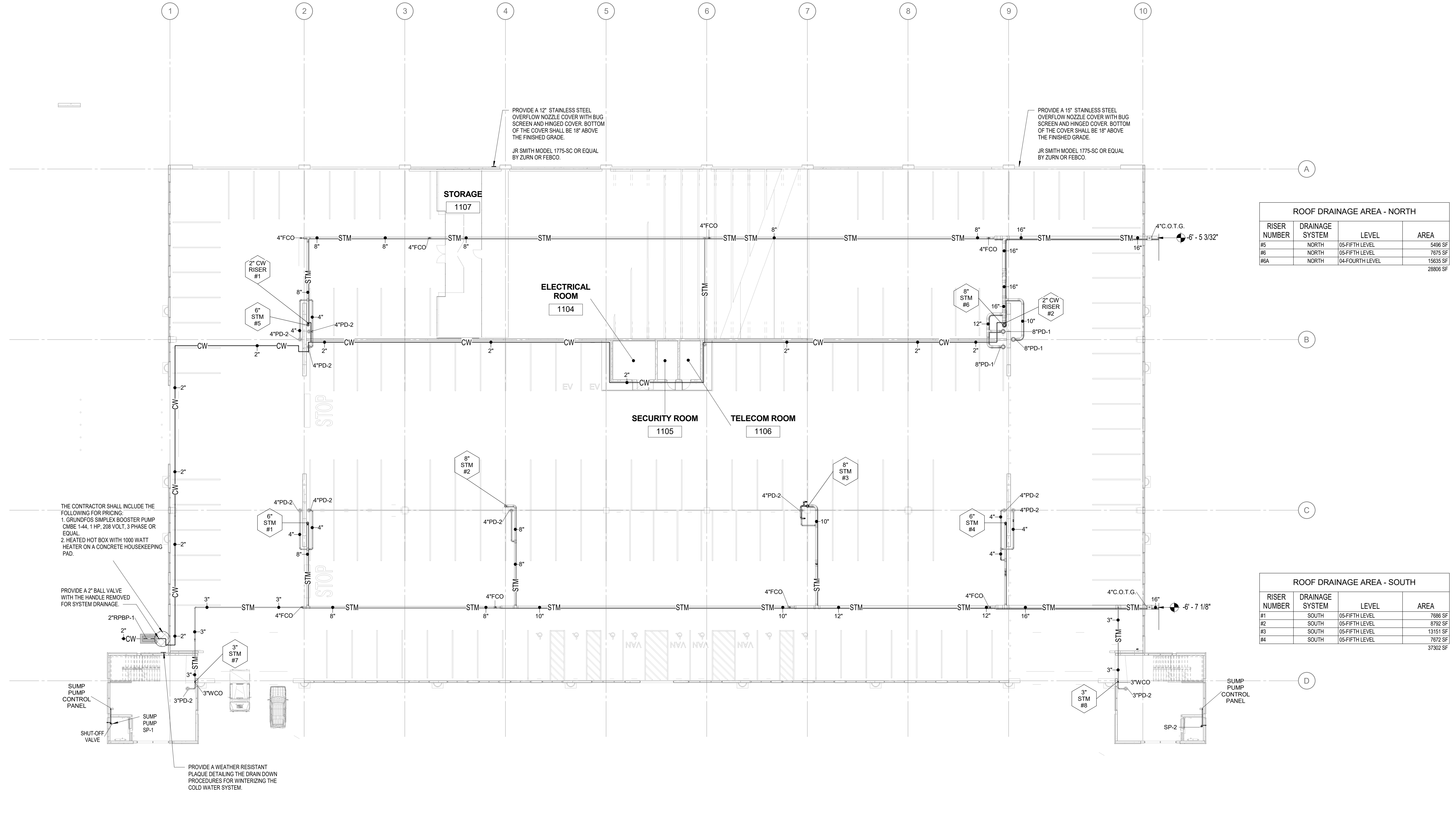
PLUMBING LEGEND,
SCHEDULES AND DETAILS

P001

DESIGN: AWB
DRAWN: AWB
REVIEW: CN

CN 8112

NO.	DATE	DESCRIPTION



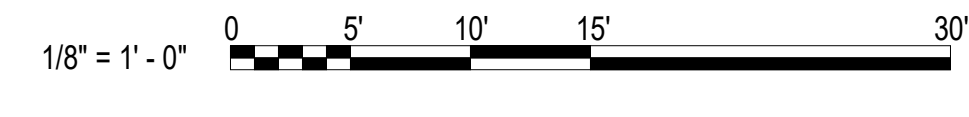
ROOF DRAINAGE AREA - NORTH

RISER NUMBER	DRAINAGE SYSTEM	LEVEL	AREA
#5	NORTH	05-FIFTH LEVEL	5406 SF
#6	NORTH	05-FIFTH LEVEL	7675 SF
#6A	NORTH	04-FOURTH LEVEL	15635 SF
			28806 SF

ROOF DRAINAGE AREA - SOUTH

RISER NUMBER	DRAINAGE SYSTEM	LEVEL	AREA
#1	SOUTH	05-FIFTH LEVEL	7886 SF
#2	SOUTH	05-FIFTH LEVEL	5762 SF
#3	SOUTH	05-FIFTH LEVEL	13151 SF
#4	SOUTH	05-FIFTH LEVEL	7672 SF
			37302 SF

1 FIRST LEVEL - PLUMBING PLAN
1/16" = 1'-0"

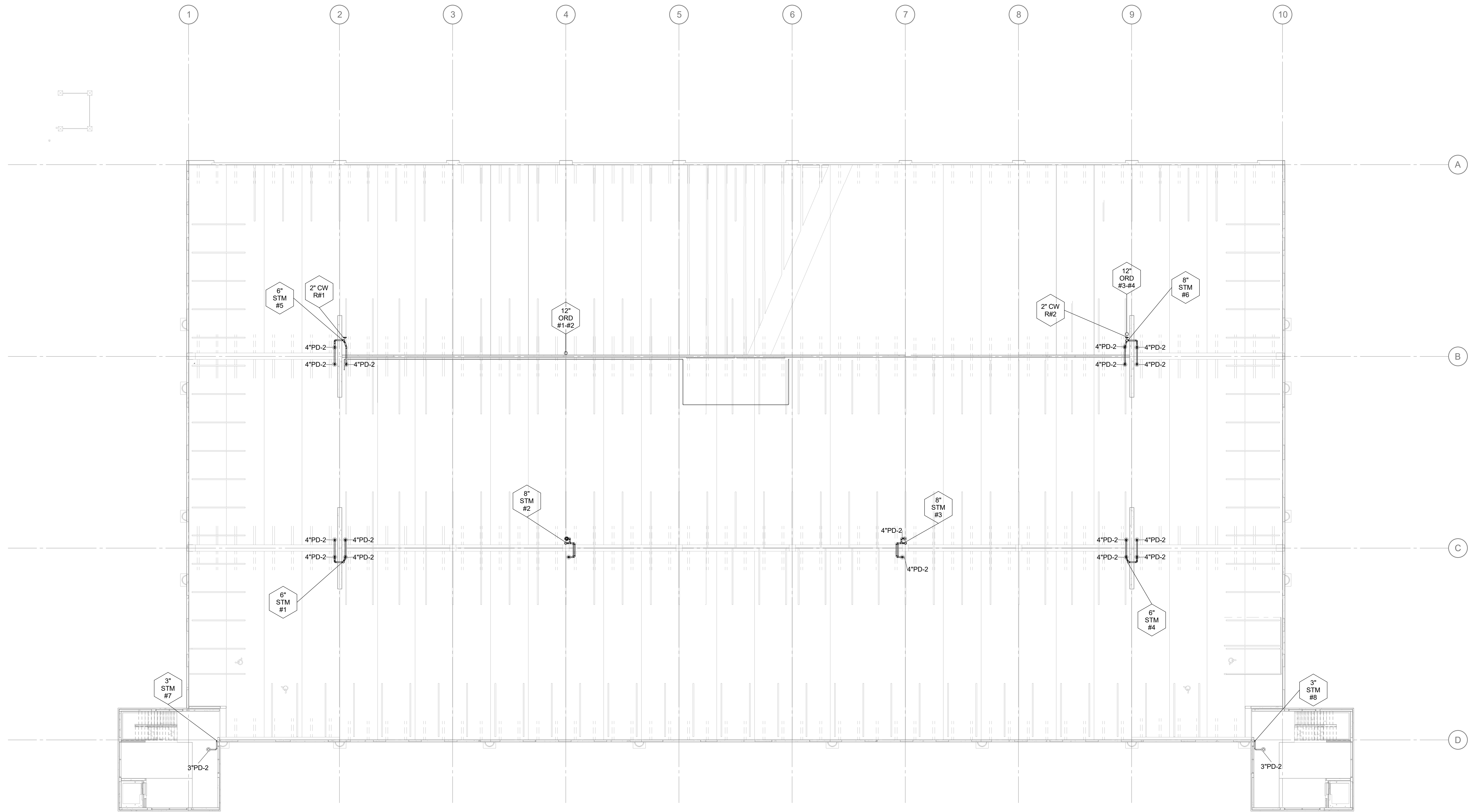


ALTERNATE 3: DOMESTIC WATER

3a. ADD DOMESTIC WATER SOURCE FROM THE SOUTHWEST SITE NEW FIRE HYDRANT TO THE WEST SIDE OF THE DECK WITH A 2" REDUCED PRESSURE BACKFLOW PREVENTER, HOTBOX AND 2" DOMESTIC WATER MAIN STUBBED INTO THE DECK.

3b. PROVIDE 2" PIPING AND TWO (2) HOSE CONNECTIONS ON LEVELS 1 THROUGH 5 AT EACH END OF RAMP.

3/27/2019 4:38:27 PM Client: Project: 175-UNCW Parking Deck II - PIT_ABRANDON@CLARKNEXSEN.COM/14



1 SECOND LEVEL - PLUMBING PLAN
 1/16" = 1'-0"
 1/8" = 1'-0"

ALTERNATE 3: DOMESTIC WATER
 3a: ADD DOMESTIC WATER SOURCE FROM THE SOUTHWEST SITE NEW FIRE HYDRANT TO THE WEST SIDE OF THE DECK WITH A 2" REDUCED PRESSURE BACKFLOW PREVENTER, HOTBOX AND 2" DOMESTIC WATER MAIN STUBBED INTO THE DECK.
 3b: PROVIDE 2" PIPING AND TWO (2) HOSE CONNECTIONS ON LEVELS 1 THROUGH 5 AT EACH END OF RAMP.

SCO ID NUMBER: 18-19226-01A
 CODE: 441828
 ITEM: 301

CONTRACTOR
**Balfour Beatty
 Construction**

DESIGNER
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 CLARK NEXSEN LICENSE NUMBER: C-1028

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 NC CORPORATE ENGINEERING LICENSE #C-1028

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 DOCUMENTS**

REVISIONS

NO.	DATE	DESCRIPTION

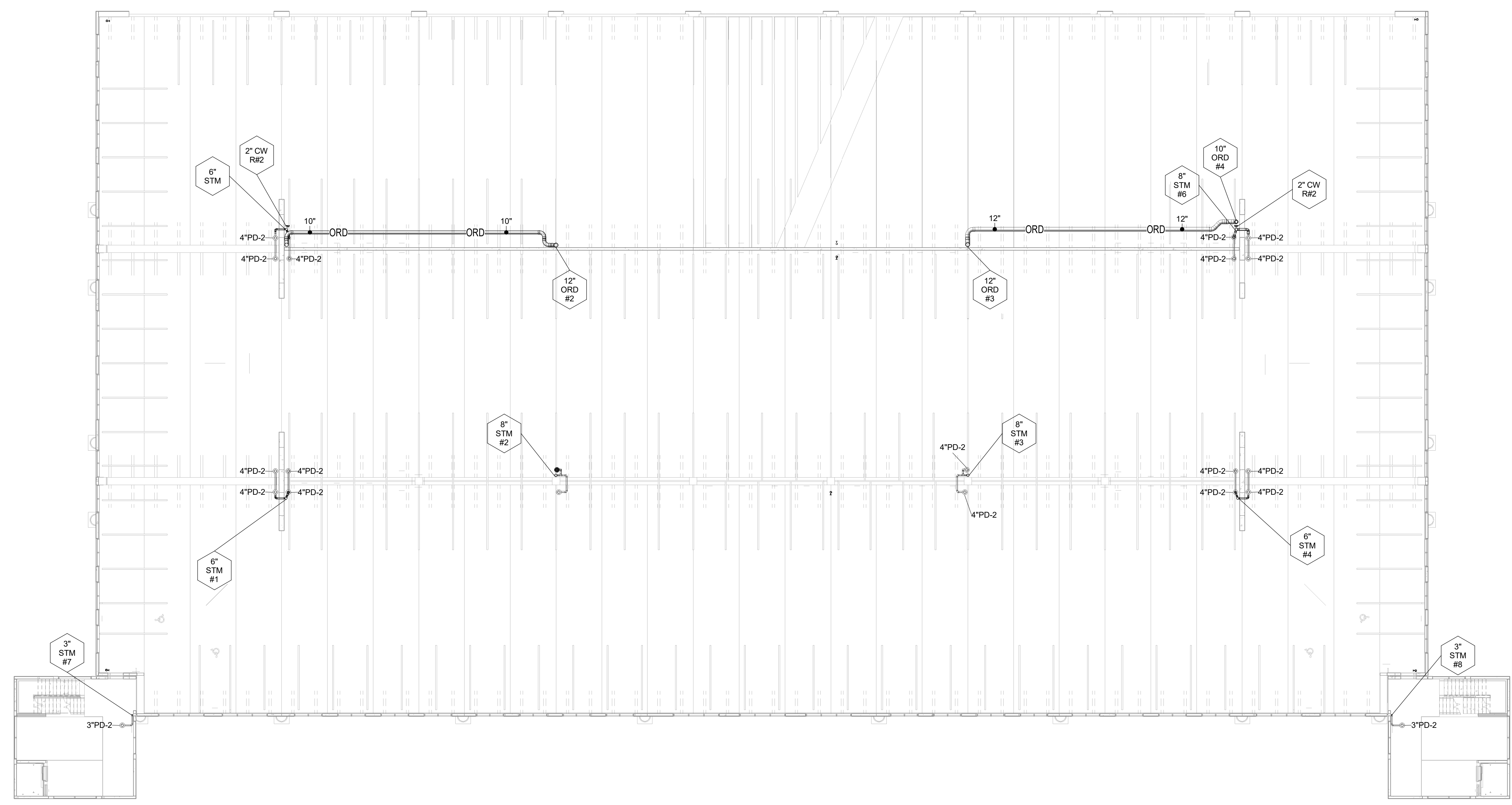
KEY PLAN

SHEET
**SECOND LEVEL - PLUMBING
 PLAN**

P102

DESIGN: AWB
 DRAWN: AWB
 REVIEW: CN
 CN 8112

3/27/2019 4:38:32 PM
 Client: Project: 175-UNCW Parking Deck II - P17_ABRANDON@CLARKNEXSEN.COM\14



1 THIRD LEVEL - PLUMBING PLAN
 1/16" = 1'-0"
 1/8" = 1' - 0"

ALTERNATE 3: DOMESTIC WATER

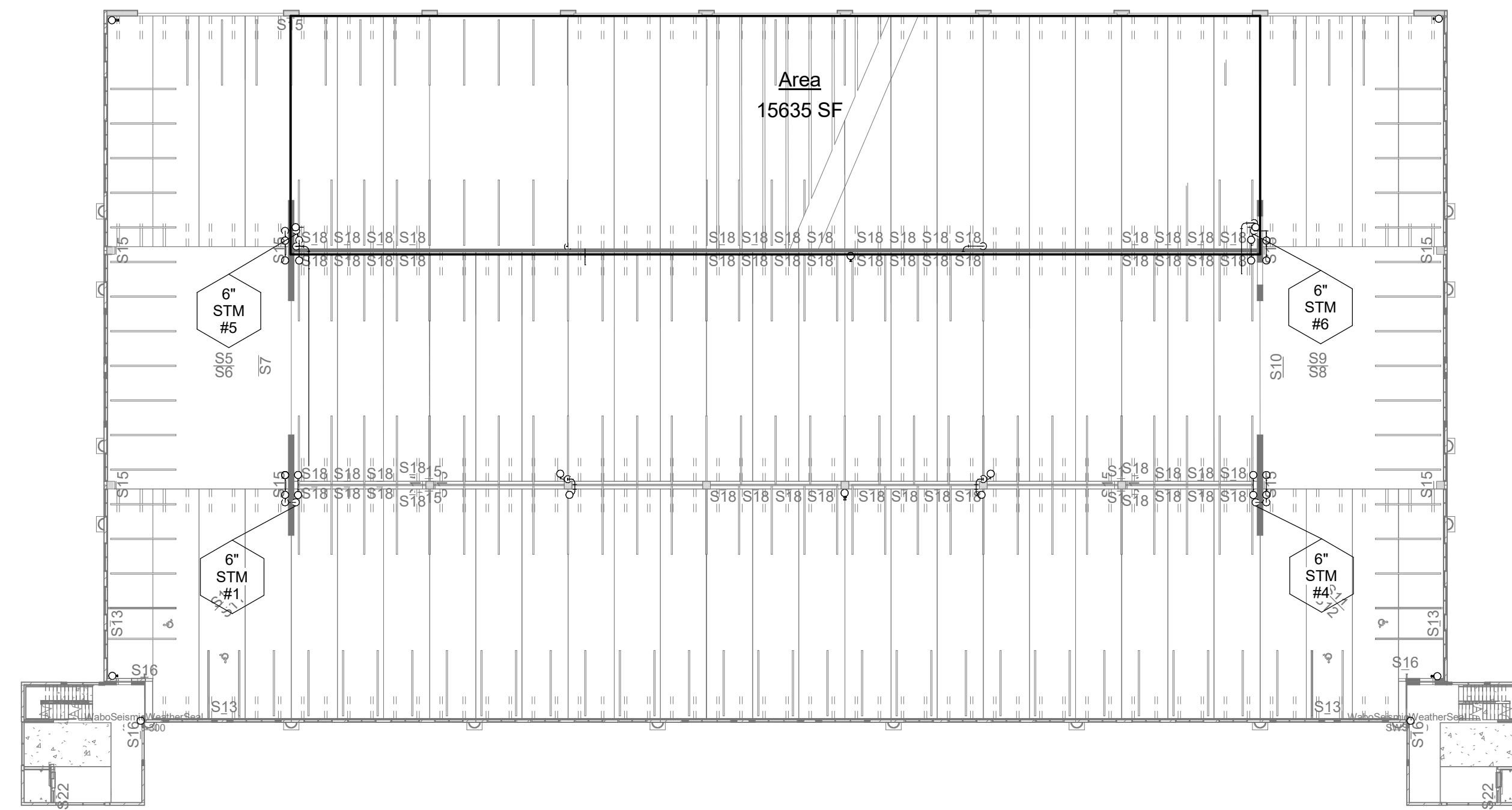
3a: ADD DOMESTIC WATER SOURCE FROM THE SOUTHWEST SITE NEW FIRE HYDRANT TO THE WEST SIDE OF THE DECK WITH A 2" REDUCED PRESSURE BACKFLOW PREVENTER, HOTBOX AND 2" DOMESTIC WATER MAIN STUBBED INTO THE DECK.

3b: PROVIDE 2" PIPING AND TWO (2) HOSE CONNECTIONS ON LEVELS 1 THROUGH 5 AT EACH END OF RAMP.

REVISIONS

NO.	DESCRIPTION

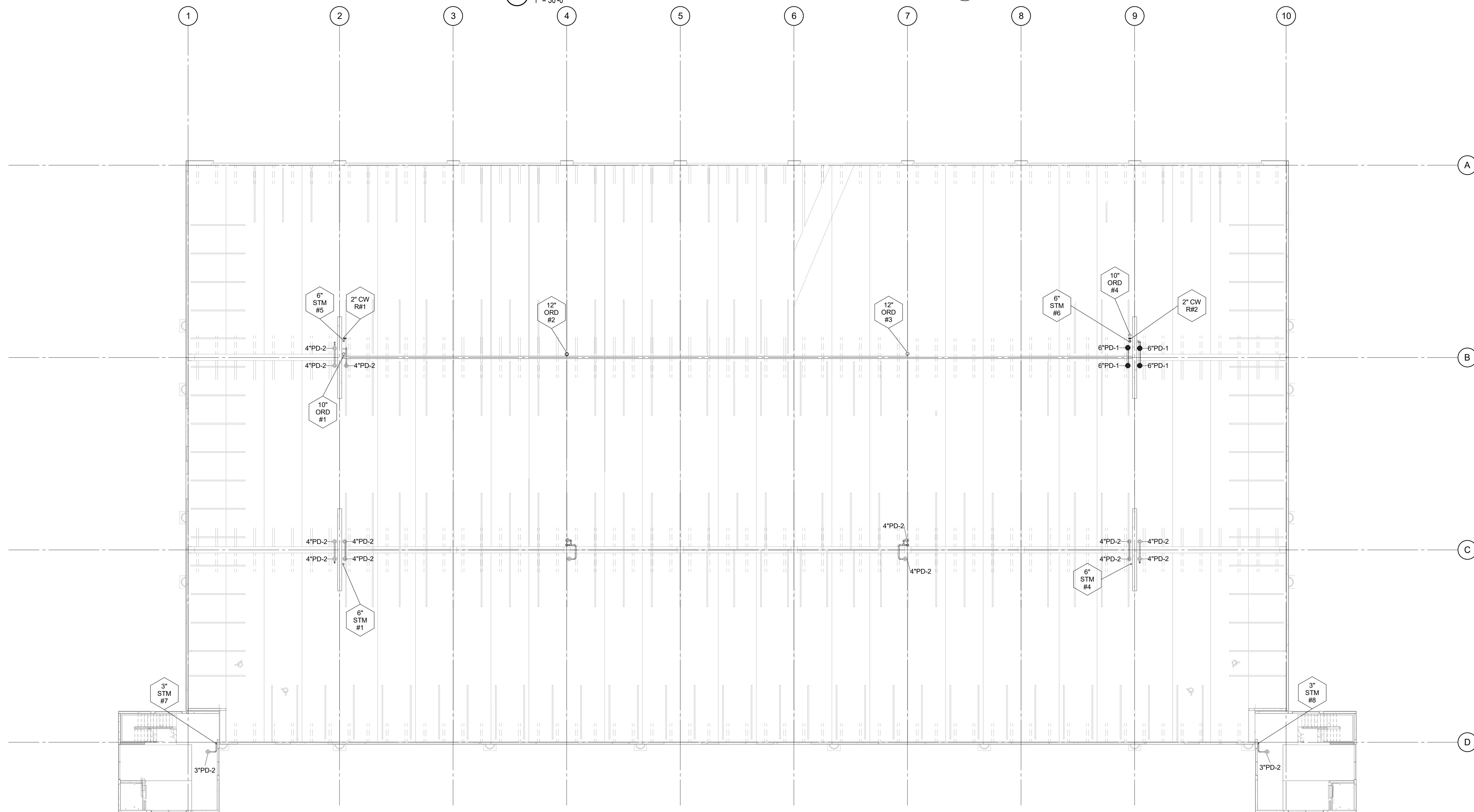
NO.	DATE	DESCRIPTION



ROOF DRAINAGE AREA - NORTH			
RISER NUMBER	DRAINAGE SYSTEM	LEVEL	AREA
#5	NORTH	05-FIFTH LEVEL	5496 SF
#6	NORTH	05-FIFTH LEVEL	7675 SF
#6A	NORTH	04-FOURTH LEVEL	15635 SF
			28806 SF

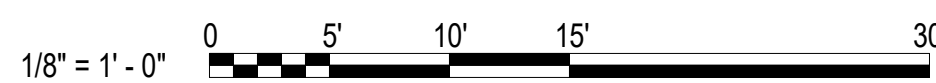
② FOURTH LEVEL - DRAINAGE SQUARE FOOTAGE

1" = 30'-0"



① FOURTH LEVEL - PLUMBING PLAN

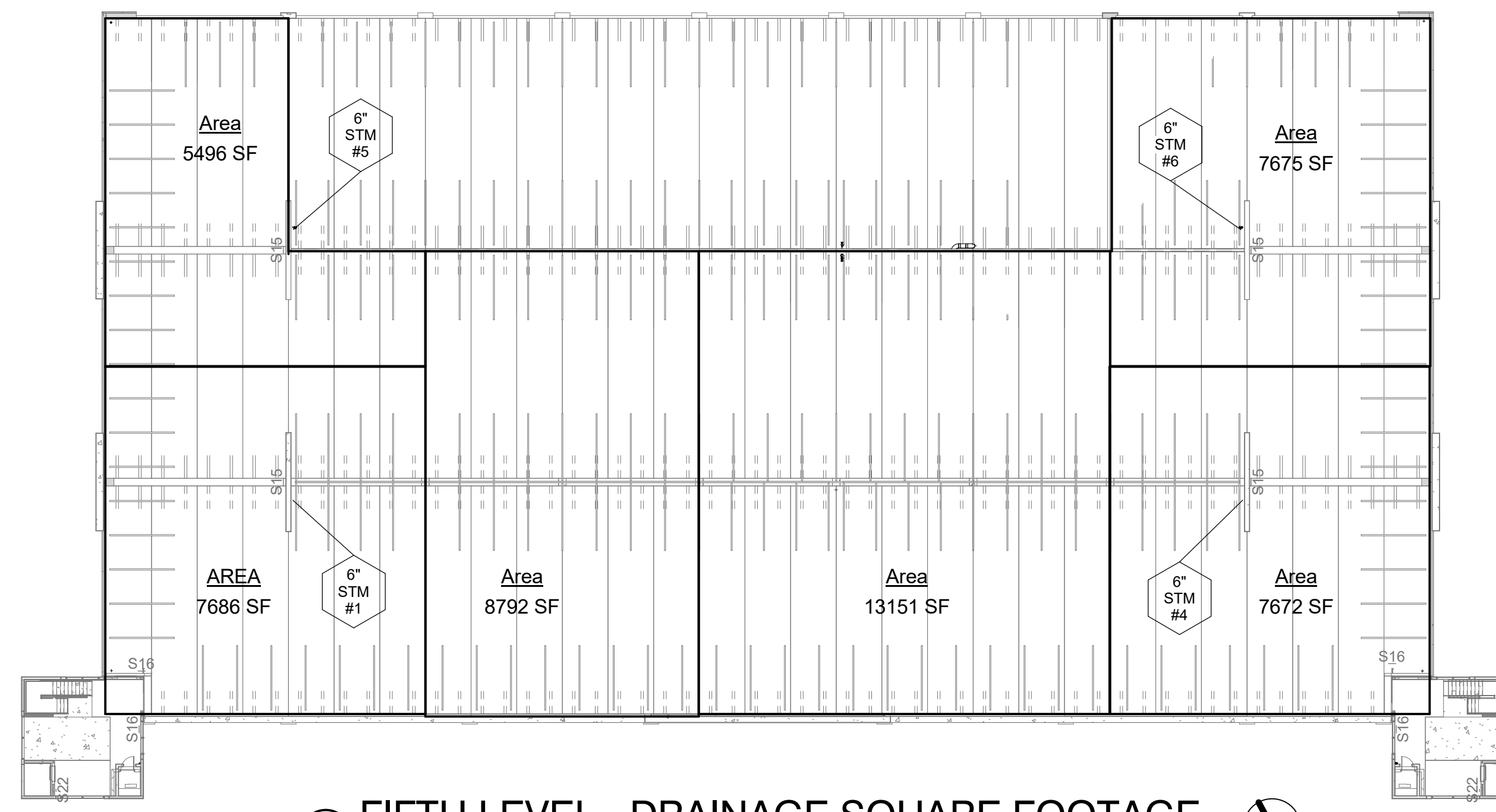
1/8" = 1'-0"



ALTERNATE 3: DOMESTIC WATER

3a: ADD DOMESTIC WATER SOURCE FROM THE SOUTHWEST SITE NEW FIRE HYDRANT TO THE WEST SIDE OF THE DECK WITH A 2" REDUCED PRESSURE BACKFLOW PREVENTER, HOTBOX AND 2" DOMESTIC WATER MAIN STUBBED INTO THE DECK.

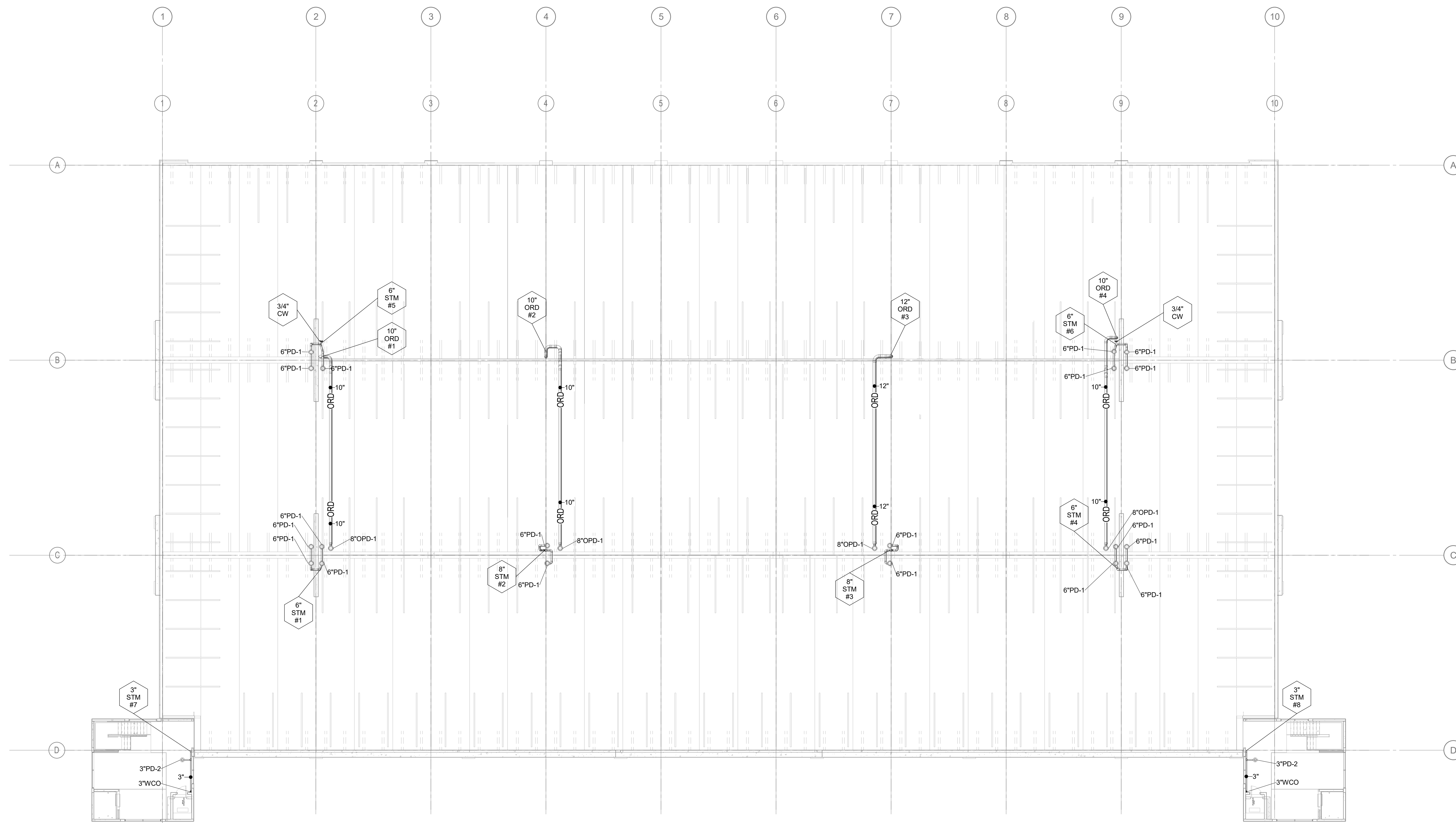
3b: PROVIDE 2" PIPING AND TWO (2) HOSE CONNECTIONS ON LEVELS 1 THROUGH 5 AT EACH END OF RAMP.



ROOF DRAINAGE AREA - NORTH			
RISER NUMBER	DRAINAGE SYSTEM	LEVEL	AREA
#5	NORTH	05-FIFTH LEVEL	5496 SF
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			28806 SF

ROOF DRAINAGE AREA - SOUTH			
RISER NUMBER	DRAINAGE SYSTEM	LEVEL	AREA
#1	SOUTH	05-FIFTH LEVEL	7686 SF
#2	SOUTH	05-FIFTH LEVEL	8792 SF
#3	SOUTH	05-FIFTH LEVEL	13151 SF
#4	SOUTH	05-FIFTH LEVEL	7672 SF
			37302 SF

2 FIFTH LEVEL - DRAINAGE SQUARE FOOTAGE
1" = 30'-0"



1 FIFTH LEVEL - PLUMBING PLAN
1/16" = 1'-0"
1/8" = 1'-0"

ALTERNATE 3: DOMESTIC WATER
3a: ADD DOMESTIC WATER SOURCE FROM THE SOUTHWEST SITE NEW FIRE HYDRANT TO THE WEST SIDE OF THE DECK WITH A 2" REDUCED PRESSURE BACKFLOW PREVENTER, HOTBOX AND 2" DOMESTIC WATER MAIN STUBBED INTO THE DECK.
3b: PROVIDE 2" PIPING AND TWO (2) HOSE CONNECTIONS ON LEVELS 1 THROUGH 5 AT EACH END OF RAMP.



UNIVERSITY of NORTH CAROLINA WILMINGTON
601 S COLLEGE ROAD
WILMINGTON, NORTH CAROLINA 28403
PARKING DECK II AND SURFACE
PARKING (DESIGN-BUILD)
SOUTH CAMPUS - 4965 RIEGEL ROAD

SCO ID NUMBER: 18-19226-01A
CODE: 441828
ITEM: 301

CONTRACTOR
**Balfour Beatty
Construction**

DESIGNER

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1523 ELIZABETH AVENUE, SUITE 300
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704-377-8800

CLARK NEXSEN LICENSE NUMBER: C-1028

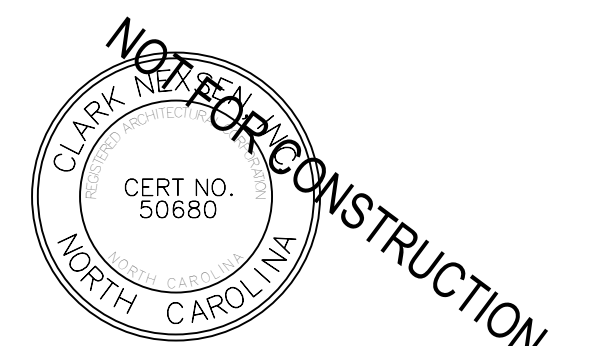


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03/29/2019

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DOCUMENTS

REVISIONS

NO.	DESCRIPTION

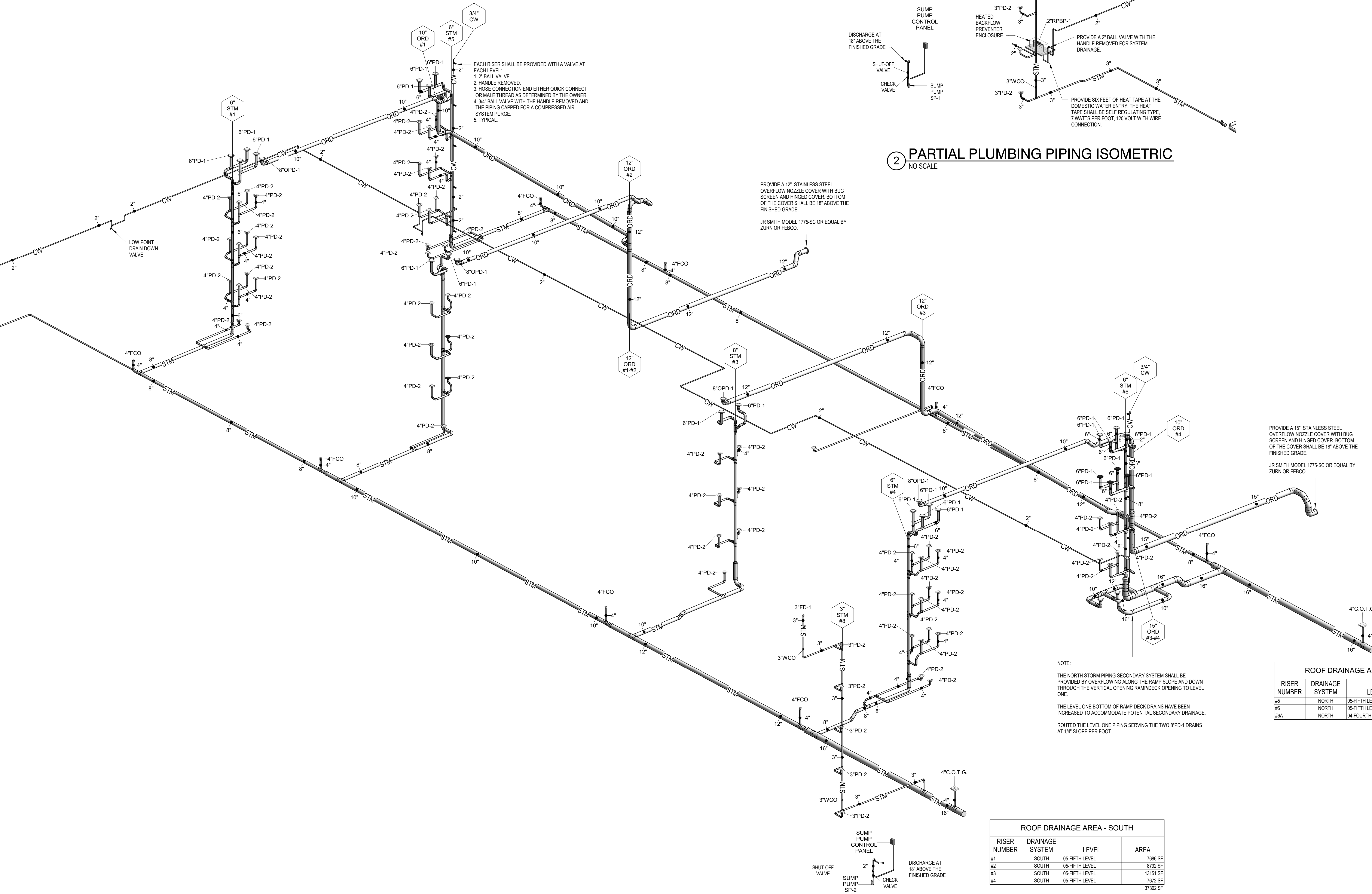
KEY PLAN

SHEET
FIFTH LEVEL - PLUMBING PLAN

P105

DESIGN: AWB
DRAWN: AWB
REVIEW: CN

CN 8112



2 PARTIAL PLUMBING PIPING ISOMETRIC NO SCALE

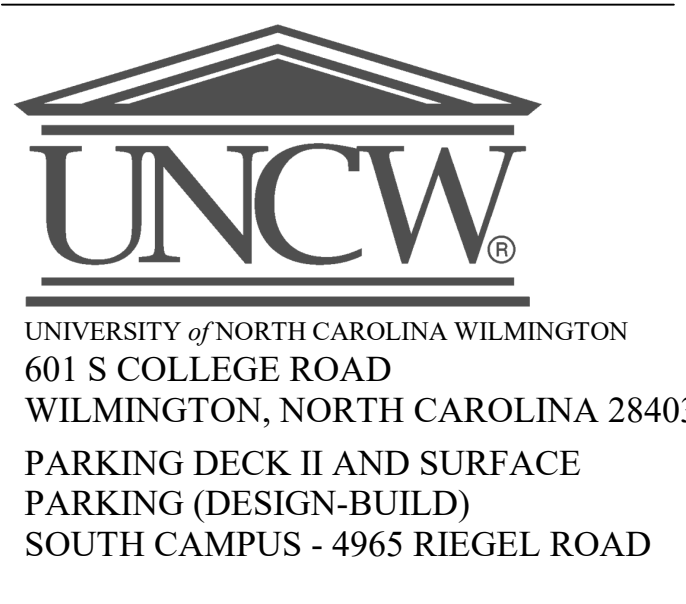
1 PLUMBING PIPING ISOMETRIC NO SCALE

ALTERNATE 3: DOMESTIC WATER
3a: ADD DOMESTIC WATER SOURCE FROM THE SOUTHWEST SITE NEW FIRE HYDRANT TO THE WEST SIDE OF THE DECK WITH A 2" REDUCED PRESSURE BACKFLOW PREVENTER, HOTBOX AND 2" DOMESTIC WATER MAIN STUBBED INTO THE DECK.
3b: PROVIDE 2" PIPING AND TWO (2) HOSE CONNECTIONS ON LEVELS 1 THROUGH 5 AT EACH END OF RAMP.

Table with 4 columns: RISER NUMBER, DRAINAGE SYSTEM, LEVEL, AREA. Rows #1, #2, #3, #4.

Table with 4 columns: RISER NUMBER, DRAINAGE SYSTEM, LEVEL, AREA. Rows #5, #6, #8A.

NOTE: THE NORTH STORM PIPING SECONDARY SYSTEM SHALL BE PROVIDED BY OVERFLOWING ALONG THE RAMP SLOPE AND DOWN THROUGH THE VERTICAL OPENING RAMPSIDE OPENING TO LEVEL ONE.
THE LEVEL ONE BOTTOM OF RAMP DECK DRAINS HAVE BEEN INCREASED TO ACCOMMODATE POTENTIAL SECONDARY DRAINAGE.
ROUTED THE LEVEL ONE PIPING SERVING THE TWO 6"PD-1 DRAINS AT 1/4" SLOPE PER FOOT.



SCO ID NUMBER: 18-19226-01A
CODE: 441828
ITEM: 301



CONTRACTOR
DESIGNER

CLARK NEXSEN
1523 ELIZABETH AVENUE, SUITE 300
CHARLOTTE, NORTH CAROLINA 28204
704-377-8800

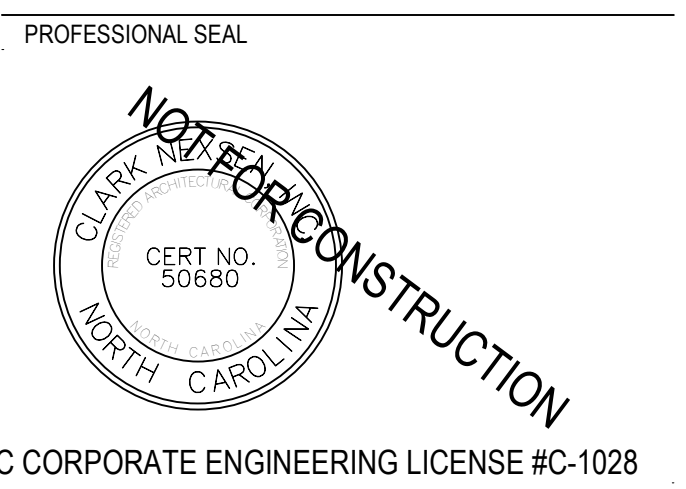
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NC CORPORATE ENGINEERING LICENSE #C-1028

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Table with 2 columns: REVISIONS, KEY PLAN.

SHEET
PLUMBING PIPING ISOMETRIC

P201

DESIGN: AWB
DRAWN: AWB
REVIEW: CN
CN 8112