FIRE PROTECTION GENERAL NOTES

GENERAL NOTES FOR CONTRACTORS: SEE ALL PROJECT GENERAL NOTES AND OTHER REQUIREMENTS INCLUDING THE LIFE SAFETY AND INFECTION CONTROL WORK LOCATED WITHIN THE GENERAL DRAWINGS SECTION. COMPLY WITH ALL REQUIREMENTS AS THEY ARE A DIRECT PART OF THIS SECTION AS IF THEY WERE DIRECTLY INCLUDED AND PROVIDED HEREIN.

EQUIVALENCY SUBSTITUTIONS: THE "BASIS OF DESIGN (BOD) COMPLIANCE PROTOCOLS" ARE TO BE FOLLOWED FOR ALL MATERIALS, EQUIPMENT, ASSEMBLIES AND SYSTEMS SPECIFIED AND DETAILED THROUGHOUT ALL DRAWINGS AND SPECIFICATION SECTIONS, WHETHER THE BOD DESIGNATE IS SPECIFICALLY REFERENCED THEREIN OR NOT. SEE THE GENERAL DRAWINGS SECTION FOR THE SPECIFIC BOD COMPLIANCE REQUIREMENTS AND PROTOCOLS TO BE FOLLOWED.

1. THIS CONTRACTOR SHALL REVIEW ENTIRE SET OF CONTRACT DOCUMENTS: INCLUDING BUT NOT NECESSARILY LIMITED TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL DRAWINGS AND ENTIRE PROJECT MANUAL. THIS CONTRACTOR SHALL ACKNOWLEDGE AND INCLUDE IN THE SCOPE OF WORK (CONTRACT) ALL CONDITIONS PERTINENT TO THE COMPLETION OF THEIR WORK. THE CONTRACTOR SHALL FULLY COORDINATE THEIR WORK WITH THE INSTALLATION OF THEIR WORK WITH THE INSTALLATION OF WORK BY OTHER TRADES AND MAKE NECESSARY FIELD ADJUSTMENTS AS REQUIRED TO ACCOMMODATE THE INSTALLATION. ALL OF THE ABOVE SHALL BE INCLUDED IN THE SCOPE OF WORK AT NO ADDITIONAL CHARGE TO THE VA/GOVERNMENT.

2. THIS CONTRACTOR SHALL CAREFULLY EXAMINE THE DRAWINGS AND SPECIFICATIONS, VISIT THE SITE OF THE WORK AND FULLY INFORM THEMSELVES AS TO ALL CONDITIONS AND MATTERS THAT CAN, IN ANY WAY, AFFECT THE WORK OR THE COST THEREOF. SHOULD THIS CONTRACTOR FIND DISCREPANCIES IN, OR OMISSIONS FROM THE DRAWINGS, SPECIFICATIONS OR OTHER DOCUMENTS, OR BE IN DOUBT AS TO THEIR MEANING, NOTIFY THE VA/CO AT ONCE, IN WRITING, OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND NEW WORK, OR BETWEEN THEIR WORK AND THE WORK OF OTHER TRADES AND OBTAIN CLARIFICATION PRIOR TO SUBMITTING ANY BID. LACK OF SUCH NOTIFICATION SHALL BE CONSTRUED AS TO INDICATE NO DISCREPANCIES OR CONFLICTING CONDITIONS EXIST.

3. THE DRAWINGS INDICATE DIAGRAMMATICALLY THE INTENT, GENERAL CHARACTER, REQUIREMENTS AND LOCATION OF THE WORK SHOWN AND INCLUDED. THE WORK INDICATED BUT HAVING MINOR DETAILS OBVIOUSLY OMITTED SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE VA/GOVERNMENT.

4. THIS CONTRACTOR IS REQUIRED TO BID, AS SPECIFIED, ON THE DRAWINGS WITHOUT DEVIATION FROM THE BOD.

5. IT IS THE INTENT OF THESE DOCUMENTS THAT THE FIRE PROTECTION CONTRACTOR PROVIDE ALL LABOR, MATERIAL, EQUIPMENT AND TOOLS FOR THE COMPLETE INSTALLATION OF ALL WORK SHOWN ON THE PLANS AND/OR DESCRIBED HEREIN, INCLUDING ALL DEVICES, CONTROLS AND APPURTENANCES REQUIRED TO SET NEW SYSTEMS INTO OPERATION.

6. SHOULD CONDITIONS NECESSITATE ANY REARRANGEMENTS, OR IF PIPING CAN BE RUN TO BETTER ADVANTAGE, PREPARE AND SUBMIT SHOP DRAWINGS SHOWING THE CHANGES BEFORE PROCEEDING WITH THE WORK. IF SUCH CHANGES ARE APPROVED BY THE VA/COR AND SUCCESSFULLY REVIEWED BY THE ARCHITECT, THEY SHALL BECOME A PART OF THE CONTRACT.

7. THIS CONTRACTOR SHALL VERIFY ALL MOUNTING, ALL ARRANGEMENTS, HEIGHTS AND LOCATIONS PRIOR TO ROUGH-IN. ANY MENTION OF A SPECIFIC MOUNTING ARRANGEMENT, WEIGHT OR LOCATION SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO VERIFY THE SPECIFIC REQUIREMENT FURNISHED OR THE OTHER TRADES WORKING IN THE SAME AREA. NO ADDITIONS TO THE CONTRACT SUM WILL BE PERMITTED FOR ITEMS INSTALLED IN WRONG LOCATIONS, IN CONFLICT WITH OTHER WORK, ETC.

8. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL CURRENT FEDERAL BUILDING CODES, REGULATIONS, AND REQUIREMENTS, LOCAL UTILITY COMPANY REQUIREMENTS, NFPA, IPC, AND ASHRAE STANDARDS. ALL COMPONENTS SHALL BE UL LISTED AND FM APPROVED.

9. THIS CONTRACTOR SHALL PAY ALL PERMIT FEES, PLAN REVIEW FEES, LICENSE FEES, INSPECTIONS, AND TAXES APPLICABLE TO THEIR DIVISION AND SHALL BE INCLUDED IN THE BASE BID AS PART OF THEIR CONTRACT.

10. THIS CONTRACTOR SHALL BE LICENSED, BONDED, INSURED AND CAPABLE OF PERFORMING QUALITY WORKMANSHIP. THIS CONTRACTOR GUARANTEES ALL OF HIS WORK AND MATERIALS FOR THE PERIOD OF ONE YEAR. FROM FINAL ACCEPTANCE BY THE VA/GOVERNMENT.

11. THIS CONTRACTOR SHALL ESTABLISH SAFE WORKING PROCEDURES FOR THE PROTECTION OF THE WORKMEN IN ALL PHASES OF WORK, COMPLYING WITH ALL APPLICABLE PROVISIONS OF CITY, STATE, AND FEDERAL SAFETY LAWS (OSHA) AND AS RECOMMENDED IN THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" AS ISSUED BY THE ASSOCIATION OF GENERAL CONTRACTORS OF AMERICA, IN., 20TH AND E. STREETS, N.W. WASHINGTON, D.C.

12. THIS CONTRACTOR IS RESPONSIBLE FOR SCHEDULING THE PURCHASE, DELIVERY, RECEIVING, UNLOADING, UNCRATING, STORING, SETTING IN PLACE, AND PROTECTING ALL NEW EQUIPMENT FURNISHED BY THIS CONTRACTOR AND EQUIPMENT FURNISHED BY VA/GOVERNMENT FROM DAMAGE BY VANDALISM AND WEATHER DURING CONSTRUCTION.

13. THIS CONTRACTOR SHALL PROVIDE A COMPETENT OPERATING TECHNICIAN TO INSTRUCT THE VA/GOVERNMENT IN THE OPERATION AND MAINTENANCE OF THE NEW EQUIPMENT.

14. UPON COMPLETION OF THE WORK, THIS CONTRACTOR SHALL REVIEW AND CHECK THE ENTIRE PORTION OF WORK, CLEAN EQUIPMENT AND DEVICES. REMOVE SURPLUS MATERIALS AND RUBBISH FROM THE PROPERTY AND LEAVE THE WORK IN NEAT AND CLEAN ORDER AND IN COMPLETE WORKING CONDITION. EACH RESPECTIVE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ANY CARTONS, DEBRIS, EQUIPMENT, ETC., INSTALLED BY THIS CONTRACTOR INCLUDING EQUIPMENT FURNISHED BY OTHERS AND UNPACKED OR REMOVED FROM CARTONS BY THIS CONTRACTOR.

15. THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL STRUCTURAL STEEL MEMBERS, SLEEVES, AND SHIMS REQUIRED TO LEVEL AND SUPPORT EQUIPMENT AND PIPES.

16. BEFORE PLACING WATER SYSTEM IN OPERATION, CHLORINATE ENTIRE SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIFICATIONS AND IN CONJUNCTION WITH ALL LOCAL, STATE AND FEDERAL PLUMBING CODES, SUPPLY CERTIFICATE.

17. EXISTING SERVICE VALVES AT ALL BRANCH SUPPLY PIPING SHALL REMAIN AS IS. SUCH SERVICE VALVES SHALL BE AS PER THE SPECIFICATIONS AND/OR IN KEEPING WITH THE FACILITY STANDARDS.

18. SPRINKLER HEADS SHALL BE LOCATED IN CEILING GRID IN A SYMMETRICAL PATTERN, COORDINATED WITH OTHER DEVICES MOUNTED IN OR ON THE CEILING. PROVIDE ADDITIONAL SPRINKLER HEADS REQUIRED TO ACHIEVE SYMMETRY. LOCATE SPRINKLER HEADS IN THE CENTER OF CEILING TILES.

19. SPRINKLER CONTRACTOR SHALL PROVIDE A COORDINATED REFLECTED CEILING PLAN AS PART OF THE SUBMITTAL TO THE VA/COR SHOWING SPRINKLER HEAD LOCATIONS COORDINATED WITH CEILING AND ALL OBJECTS MOUNTED IN OR ON THE CEILING.

20. THE SPRINKLER CONTRACTOR SHALL BE A LICENSED, AUTHORIZED INSTALLER OF COMMERCIAL SPRINKLER SYSTEM AND SHALL HAVE HAD A MINIMUM OF THREE (3) YEARS OF EXPERIENCE IN THE INSTALLATION OF SPRINKLER SYSTEMS.

21. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE DESIGN OF THE SPRINKLER SYSTEM AND TO SUBMIT HYDRAULIC CALCULATIONS PER NFPA 13 IN SUBMITTAL OF SHOP DRAWINGS AND FOR THE COMPLETE DESIGN OF THE SPRINKLER SYSTEM. THE SPRINKLER SYSTEM SHALL BE:

   A. A DESIGNED SYSTEM IN ACCORDANCE WITH NFPA 13, 2019 AND SPECIFICATION.

   B. DESIGNED TO CONFORM WITH BUILDING STRUCTURAL, MECHANICAL, AND ELECTRICAL SYSTEM, AS INDICATED AND DESCRIBED ON THE CONTRACT DOCUMENTS.

   C. ACCEPTABLE TO THE FIRE MARSHAL AND OR ALL LOCAL AUTHORITIES HAVING JURISDICTION.

22. THE SPECIFICATIONS, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE AUTHORITIES HAVING JURISDICTION, FULLY COORDINATED SHOP DRAWINGS OF SPRINKLER HEADS, HANGERS AND SUPPORTS. DESIGN PLAN SHALL BE PREPARED AND SIGNED/SEALED BY A REGISTERED FIRE PROTECTION ENGINEER IN ACCORDANCE WITH UCF REQUIREMENT OR BY A NICET LEVEL III/IV TECHNICIAN.

23. THE SPRINKLER SYSTEM SHALL BE INSPECTED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL FIRE PROTECTION CODE, AND ALL LOCAL AUTHORITIES HAVING JURISDICTION.

24. THE CONTRACTOR SHALL ARRANGE FOR INSPECTION AND TEST OF ANY OR ALL PARTS OF THE WORK AS REQUIRED BY AUTHORITIES HAVING JURISDICTION AND PAY ALL CHARGES FOR SAME.

25. ARCHITECT/ENGINEER SHALL BE RESPONSIBLE FOR OBTAINING ACCURATE FLOW TEST DATA OR PERFORMING AN UPDATED FLOW TEST AS PER NFPA 13 AND NFPA 25.

26. AREA SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENT FOR OCCUPANCY PER NFPA 13.

27. THE AUTOMATIC WET FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN SUCH A MANNER TO PREVENT THE SYSTEM PIPING OR SPRINKLER HEAD EXPOSURE TO TEMPERATURES LESS THAN 40 DEGREES F.

28. PAINT NEW SPRINKLER PIPING RED AND LABEL PER NFPA 13.

29. CONTRACTOR SHALL PROVIDE COORDINATED PIPE SLEEVE DRAWINGS SHOWING ALL PENETRATIONS THROUGH FLOORS.

30. PROVIDE OR EXTEND STANDPIPE SYSTEM IN ACCORDANCE WITH NFPA 14.

31. ALL FIRE PROTECTION VALVES SHALL BE SUPERVISED.

32. CONTRACTOR SHALL PROVIDED COORDINATED PIPE SLEEVE DRAWINGS SHOWING ALL PENETRATIONS THROUGH FLOORS.

33. INSTALLER QUALIFICATIONS: CONTRACTOR'S RESPONSIBILITY SHALL INCLUDE DESIGNING, FABRICATING AND INSTALLING FIRE-SUPPRESSION SYSTEMS AND PROVIDING PROFESSIONAL ENGINEERING SERVICES OR THE SERVICES OF A NICET LEVEL III/IV TECHNICIAN AS NEEDED TO ASSUME ENGINEERING RESPONSIBILITY. CALCULATIONS BASED ON RESULTS OF THE FIRE-HYDRANT FLOW TEST(S) THEY PERFORM.

   A. ENGINEERING RESPONSIBILITY: PREPARATION OF WORKING PLANS, CALCULATIONS, AND FIELD TEST REPORTS BY A QUALIFIED PROFESSIONAL FIRE PROTECTION ENGINEER.

34. WELDING: QUALIFY PROCESSES AND OPERATORS ACCORDING TO ASME BOILER AND PRESSURE VESSEL CODE, SECTION IX.

35. NFPA STANDARDS: FIRE SUPPRESSION SYSTEM EQUIPMENT, SPECIALTIES, ACCESSORIES, INSTALLATION AND TESTING SHALL COMPLY WITH THE FOLLOWING:

   A. NFPA 13, 2022 INSTALLATION OF SPRINKLER SYSTEMS.
   B. NFPA 101, 2024 LIFE SAFETY CODE.
   C. NFPA 72 , 2022 FIRE ALARM CODE.

36. FIRE-SUPPRESSION SPRINKLER SYSTEM DESIGN SHALL BE APPROVED BY AUTHORITIES HAVING JURISDICTION.

   A. MARGIN OF SAFETY FOR AVAILABLE WATER FLOW AND PRESSURE: 10 PERCENT, INCLUDING LOSSES THROUGH WATER-SERVICE PIPING, VALVES, AND BACKFLOW PREVENTERS.

37. CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE VA/COR A COMPLETE LIST OF ITEMS TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT. INCLUDING, BUT NOT BE LIMITED TO THE FOLLOWING:

   A. DIMENSIONED SHOP DRAWINGS OF MATERIALS AND FIXTURES. DIMENSIONED SHOP DRAWINGS OF EQUIPMENT AND PIPING PLAN LAYOUT(S).

38. REQUIRED ITEMS TO BE SUBMITTED SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

   A. PRODUCT DATA.
   B. APPROVED SPRINKLER PIPING DRAWINGS: WORKING PLANS, PREPARED ACCORDING TO NFPA, AND HAVE BEEN APPROVED BY AUTHORITIES HAVING JURISDICTION, INCLUDING HYDRAULIC CALCULATIONS.
   C. FIELD QUALITY-CONTROL TEST REPORTS.
   D. FIELD TEST CERTIFICATES.
   E. OPERATION AND MAINTENANCE DATA.

39. SEISMIC PERFORMANCE: FIRE-SUPPRESSION PIPING SHALL BE CAPABLE OF WITHSTANDING THE EFFECTS OF EARTHQUAKE MOTIONS DETERMINED ACCORDING TO NFPA 13 AND APPLICABLE CODE REQUIREMENTS. ASCE 7, VA 11-18-8. REFER TO ARCHITECTURAL DESIGN FOR SEISMIC HAZARD LEVEL CLASSIFICATIONS.

40. CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE VA/COR A COMPLETE LIST OF ITEMS TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT. INCLUDING, BUT NOT BE LIMITED TO THE FOLLOWING:

   A. DIMENSIONED SHOP DRAWINGS OF MATERIALS, FIXTURES AND EQUIPMENT.
   B. DIMENSIONED SHOP DRAWINGS OF EQUIPMENT AND PIPING PLAN LAYOUT(S).

41. FLEXIBLE CONNECTORS:

   A. FLEXIBLE CONNECTORS SHALL HAVE MATERIALS SUITABLE FOR SYSTEM FLUID. INCLUDE 175 PSIG MINIMUM WORKING-PRESSURE RATING AND ENDS ACCORDING TO THE FOLLOWING:

      a. NPS 2 AND SMALLER: THREADED.
      b. NPS 2-1/2 AND LARGER: GROOVED FOR USE WITH GROOVED-END PIPE COUPLINGS.

   B. STAINLESS-STEEL-HOSE/STEEL PIPE, FLEXIBLE CONNECTORS: CORRUGATED, STAINLESS-STEEL, INNER TUBING COVERED WITH STAINLESS-STEEL WIRE BRAID. INCLUDE STEEL NIPPLES OR FLANGES, WELDED TO HOSE.

   C. STAINLESS-STEEL-HOSE/STAINLESS-STEEL PIPE, FLEXIBLE CONNECTORS: CORRUGATED STAINLESS-STEEL, INNER TUBING COVERED WITH STAINLESS-STEEL WIRE BRAID. INCLUDE STAINLESS-STEEL NIPPLES OR FLANGES, WELDED TO HOSE.

   D. ALL CONNECTIONS AND FLEXIBLE HOSES SHALL BE FM APPROVED.

FIRE PROTECTION SYMBOL LIST

SYMBOL	DESCRIPTION
	SCOPE OF WORK BOUNDARY
	CHECK VALVE
	NORMALLY CLOSED VALVE
	WALL MOUNTED FIRE DEPARTMENT CONNECTION. - STD. CONNECTION
	RISER
F	DRY STANDPIPE RISER NAME

FIRE PROTECTION DELEGATED-DESIGN NOTE

THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING AND PROVIDING A COMPLETE, FUNCTIONAL, AND CODE COMPLIANT DRY PIPE STANDPIPE SYSTEM. REFER TO GENERAL NOTES FOR ADDITIONAL DETAIL CONCERNING DESIGN PER NFPA 13, 14 TO BE SUBMITTED, COORDINATION AND SHOP DRAWINGS REQUIREMENTS.

ISSUE FOR BID	08-09-2024
Revisions:	Date:

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08-09-2024

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRE PROTECTION - GEN NOTES ABBREVIATIONS AND SYMBOLS

Phase: ISSUE FOR BID

Project Title: PARKING RAMP EXPANSION

Project Number: 528-18-375

Building Number: 29

Approved: Project Director

Location: 3495 BAILEY AVE., BUFFALO, NY 14215

Issue Date: 08-09-2024 | Checked: RH | Drawn: HS

Drawing Number: FP001

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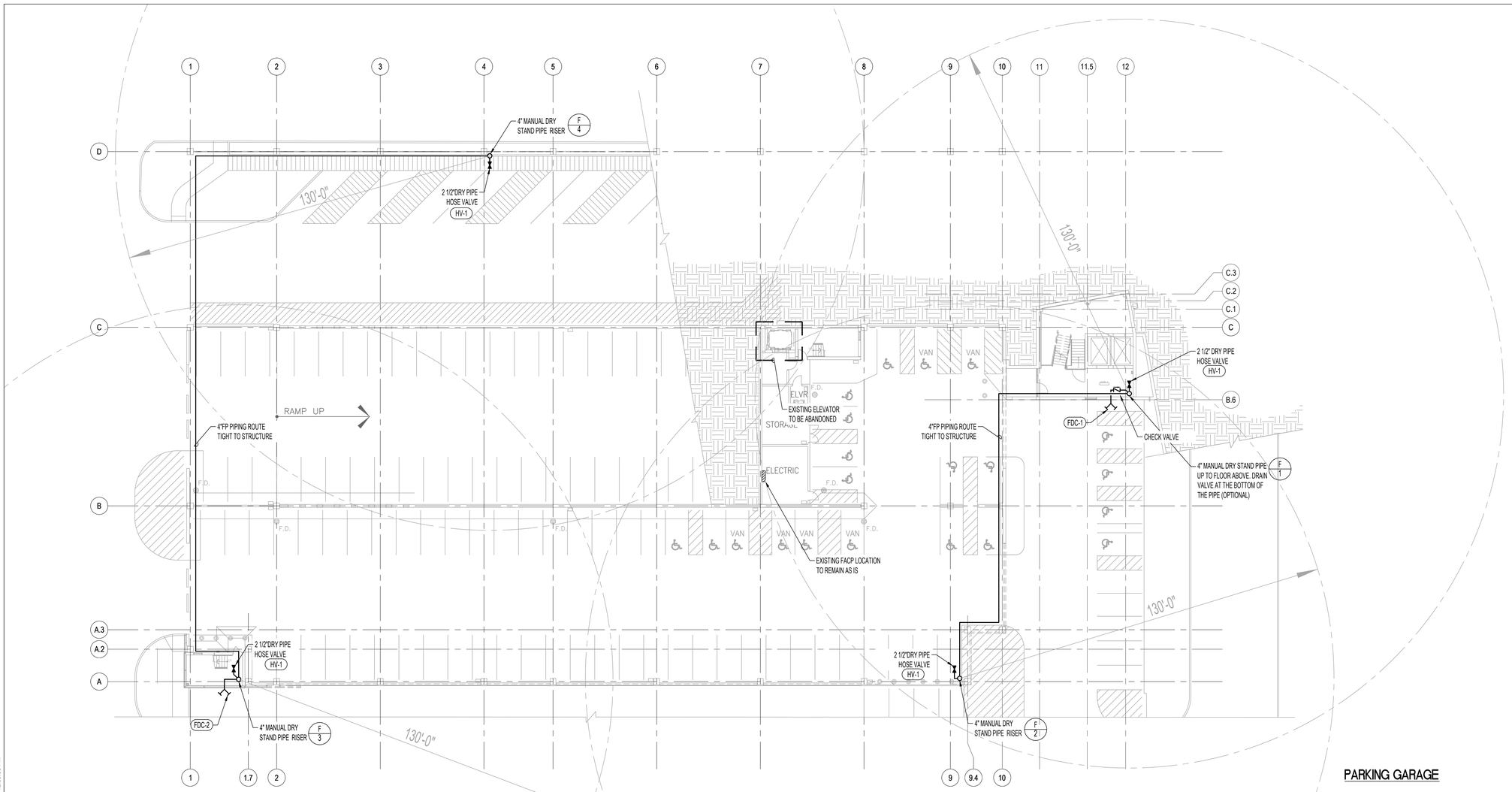

1 FIRE PROTECTION DRY STANDPIPE PIPING PLAN - LEVEL 1

1/16"=1'-0"

FIRE PROTECTION GENERAL NOTES

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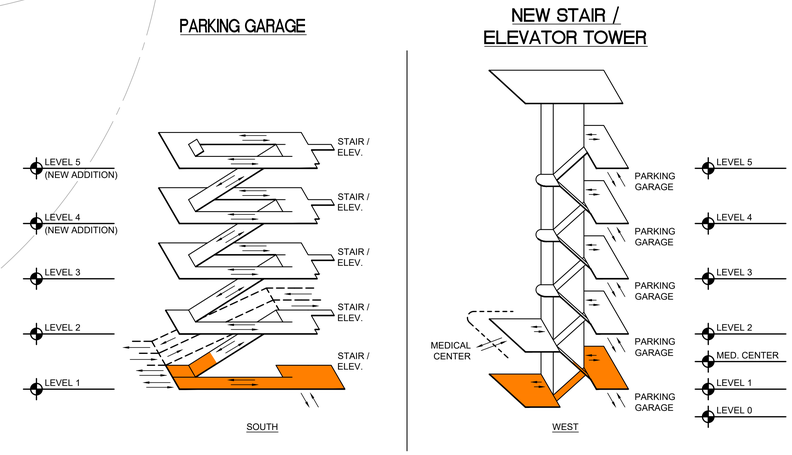
B. DESIGN TO BE IN ACCORDANCE WITH THE VA FIRE PROTECTION DESIGN MANUAL, DATED JUNE 1, 2021 AND THE LATEST EDITION OF THE NATIONAL FIRE PROTECTION STANDARD #13.

C. CONTRACTOR TO TO PROTECT EXISTING HEADS FROM DAMAGE DURING CONSTRUCTION ACTIVITIES.

D. CONTRACTOR TO UTILIZE EXISTING BRANCH LINES, CROSS MAINS, AND FEED MAINS, SERVING NEW SPRINKLER LOCATIONS WITH MODIFIED ARM-OVER CONNECTIONS FED FROM EXISTING OUTLET . SHOW ALL PIPING ON SHOP DRAWING SUBMITTAL.

E. CONTRACTOR TO TURN SPRINKLER HEADS OVER AND KEEP FIRE PROTECTION PIPING ACTIVE DURING CONSTRUCTION.

F. REFER TO SHEET 1/GC400 FOR FIRE TRUCK TURNING RADIUS.



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08-09-2024

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRE PROTECTION - DRY STANDPIPE PIPING PLAN - LEVEL 1	Phase: ISSUE FOR BID	Project Title: PARKING RAMP EXPANSION	Project Number: 528-18-375
			Building Number: 29
Approved: Project Director		Location: 3495 BAILEY AVE., BUFFALO, NY 14215	Drawing Number: FP101
		Issue Date: 08-09-2024 · Checked: RH · Drawn: HS	

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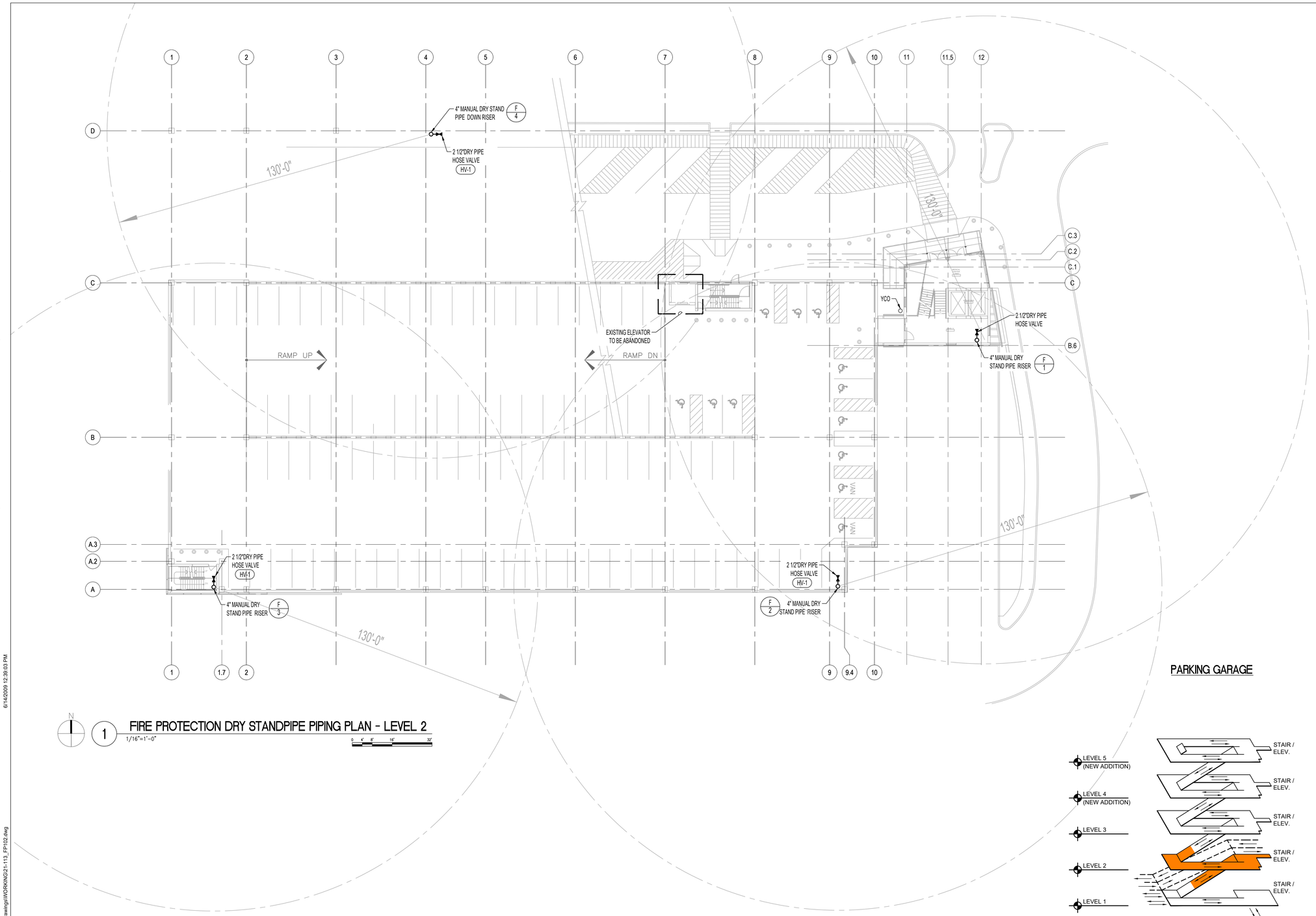

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1 FIRE PROTECTION DRY STANDPIPE PIPING PLAN - LEVEL 2

1/16"=1'-0"

0 4' 8' 16' 32'

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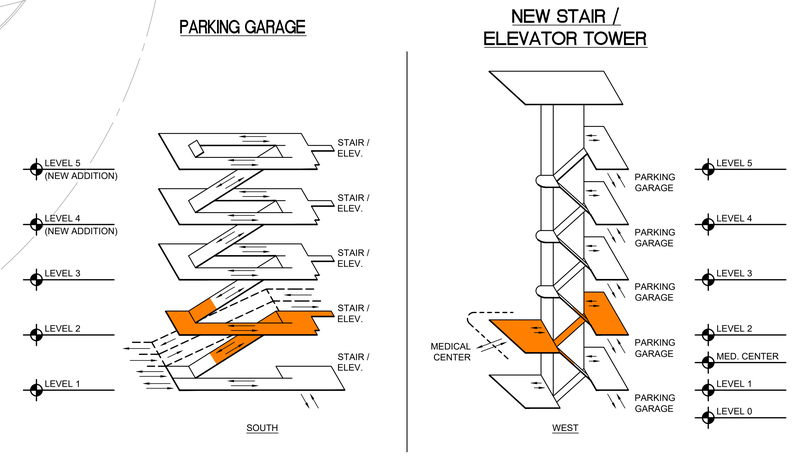
B. DESIGN TO BE IN ACCORDANCE WITH THE VA FIRE PROTECTION DESIGN MANUAL, DATED JUNE 1, 2021 AND THE LATEST EDITION OF THE NATIONAL FIRE PROTECTION STANDARD #13.

C. CONTRACTOR TO TO PROTECT EXISTING HEADS FROM DAMAGE DURING CONSTRUCTION ACTIVITIES.

D. CONTRACTOR TO UTILIZE EXISTING BRANCH LINES, CROSS MAINS, AND FEED MAINS, SERVING NEW SPRINKLER LOCATIONS WITH MODIFIED ARM-OVER CONNECTIONS FED FROM EXISTING OUTLET . SHOW ALL PIPING ON SHOP DRAWING SUBMITTAL.

E. CONTRACTOR TO TURN SPRINKLER HEADS OVER AND KEEP FIRE PROTECTION PIPING ACTIVE DURING CONSTRUCTION.

F. REFER TO SHEET 1/GC400 FOR FIRE TRUCK TURNING RADIUS.



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Drawing Title	Phase	Project Title	Project Number
FIRE PROTECTION - DRY STANDPIPE PIPING PLAN - LEVEL 2	ISSUE FOR BID	PARKING RAMP EXPANSION	528-18-375
Approved: Project Director		Location: 3495 BAILEY AVE., BUFFALO, NY 14215	Building Number: 29
		Issue Date: 08-09-2024 · Checked: RH · Drawn: HS	Drawing Number: FP102

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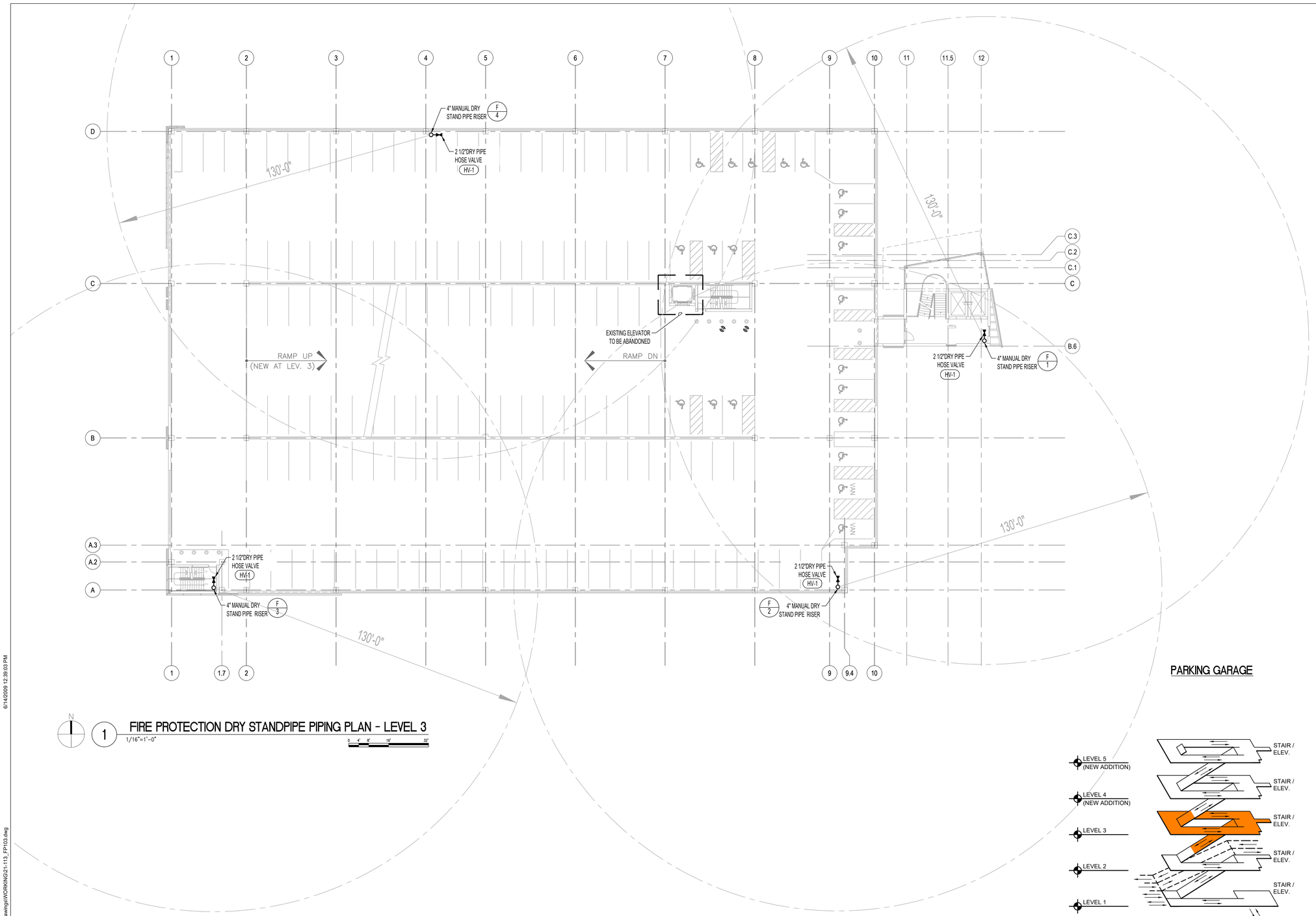

1 FIRE PROTECTION DRY STANDPIPE PIPING PLAN - LEVEL 3

1/16"=1'-0"

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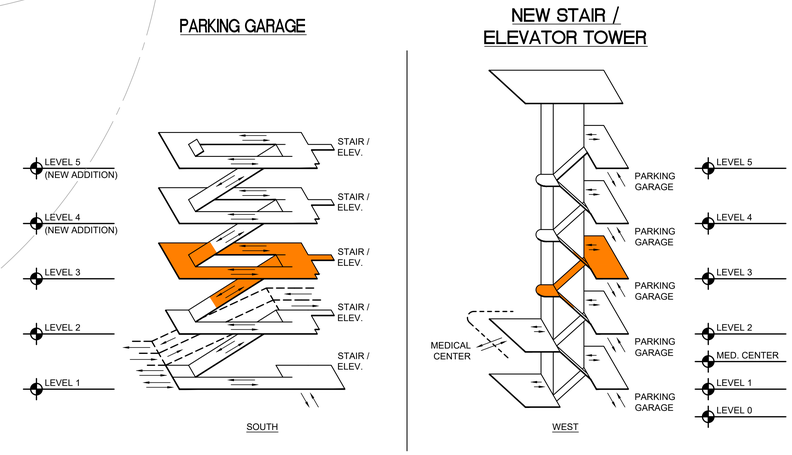
E. CONTRACTOR TO TURN SPRINKLER HEADS OVER AND KEEP FIRE PROTECTION PIPING ACTIVE DURING CONSTRUCTION.



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Drawing Title	Phase	Project Title	Project Number
FIRE PROTECTION - DRY STANDPIPE PIPING PLAN - LEVEL 3	ISSUE FOR BID	PARKING RAMP EXPANSION	528-18-375
Approved: Project Director		Location: 3495 BAILEY AVE., BUFFALO, NY 14215	Building Number: 29
		Issue Date: 08-09-2024 · Checked: RH · Drawn: HS	Drawing Number: FP103

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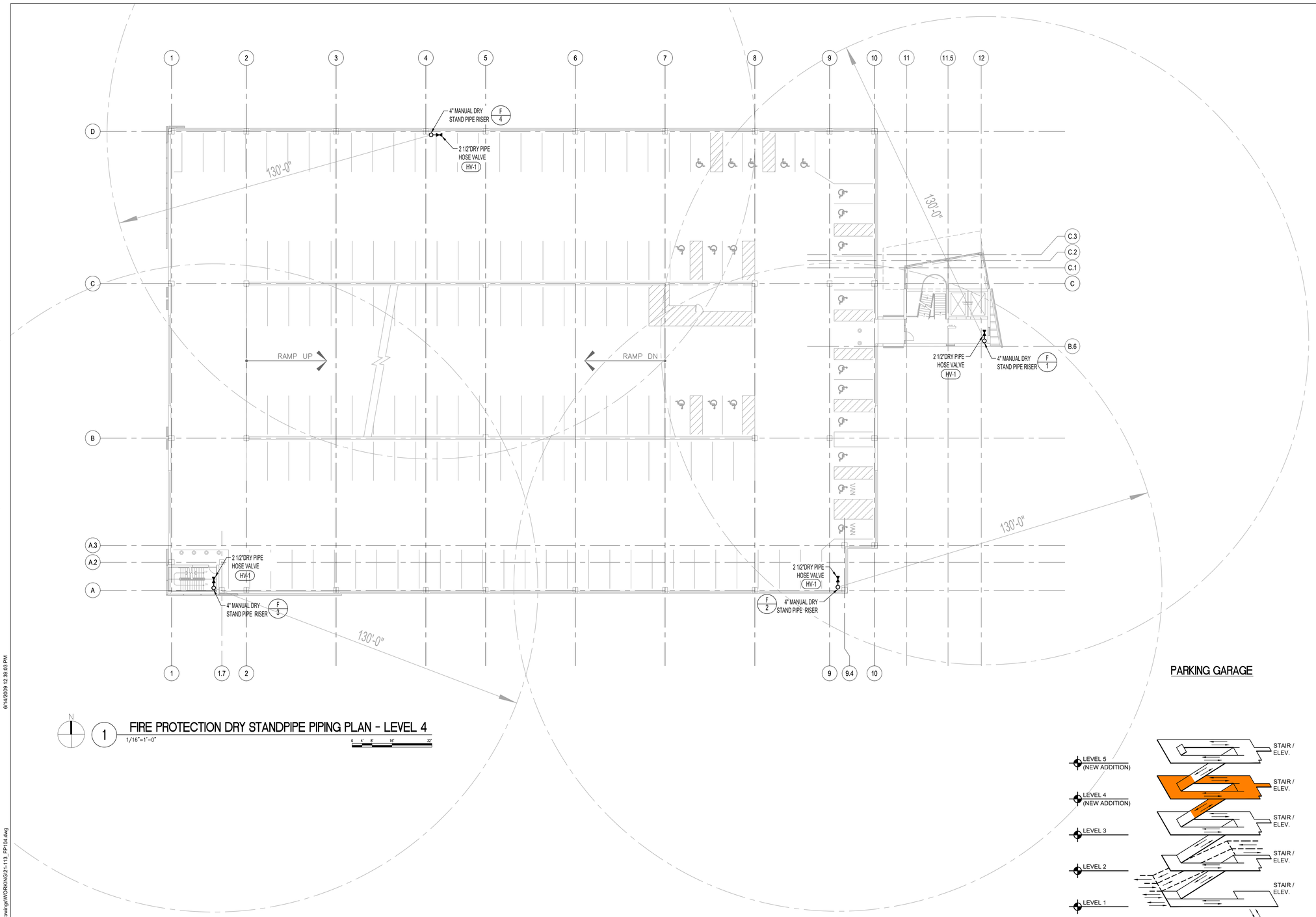

1 FIRE PROTECTION DRY STANDPIPE PIPING PLAN - LEVEL 4

1/16"=1'-0"

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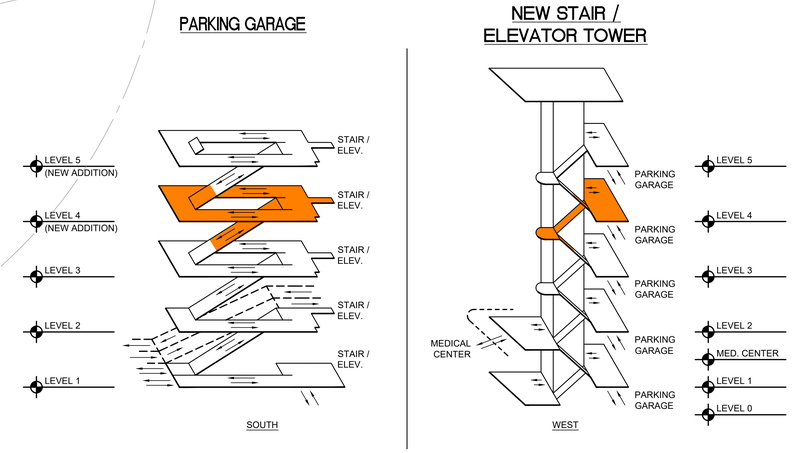
C. CONTRACTOR TO TO PROTECT EXISTING HEADS FROM DAMAGE DURING CONSTRUCTION ACTIVITIES.

D. CONTRACTOR TO UTILIZE EXISTING BRANCH LINES, CROSS MAINS, AND FEED MAINS, SERVING NEW SPRINKLER LOCATIONS WITH MODIFIED ARM-OVER CONNECTIONS FED FROM EXISTING OUTLET . SHOW ALL PIPING ON SHOP DRAWING SUBMITTAL.

E. CONTRACTOR TO TURN SPRINKLER HEADS OVER AND KEEP FIRE PROTECTION PIPING ACTIVE DURING CONSTRUCTION.



ISOMETRIC DIAGRAM

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ISSUE FOR BID	08-09-2024
Revisions:	Date:

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08-09-2024

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRE PROTECTION - DRY STANDPIPE PIPING PLAN - LEVEL 4	Phase: ISSUE FOR BID	Project Title: PARKING RAMP EXPANSION	Project Number: 528-18-375
			Building Number: 29
Approved: Project Director		Location: 3495 BAILEY AVE., BUFFALO, NY 14215	Drawing Number: FP104
		Issue Date: 08-09-2024 · Checked: RH · Drawn: HS	

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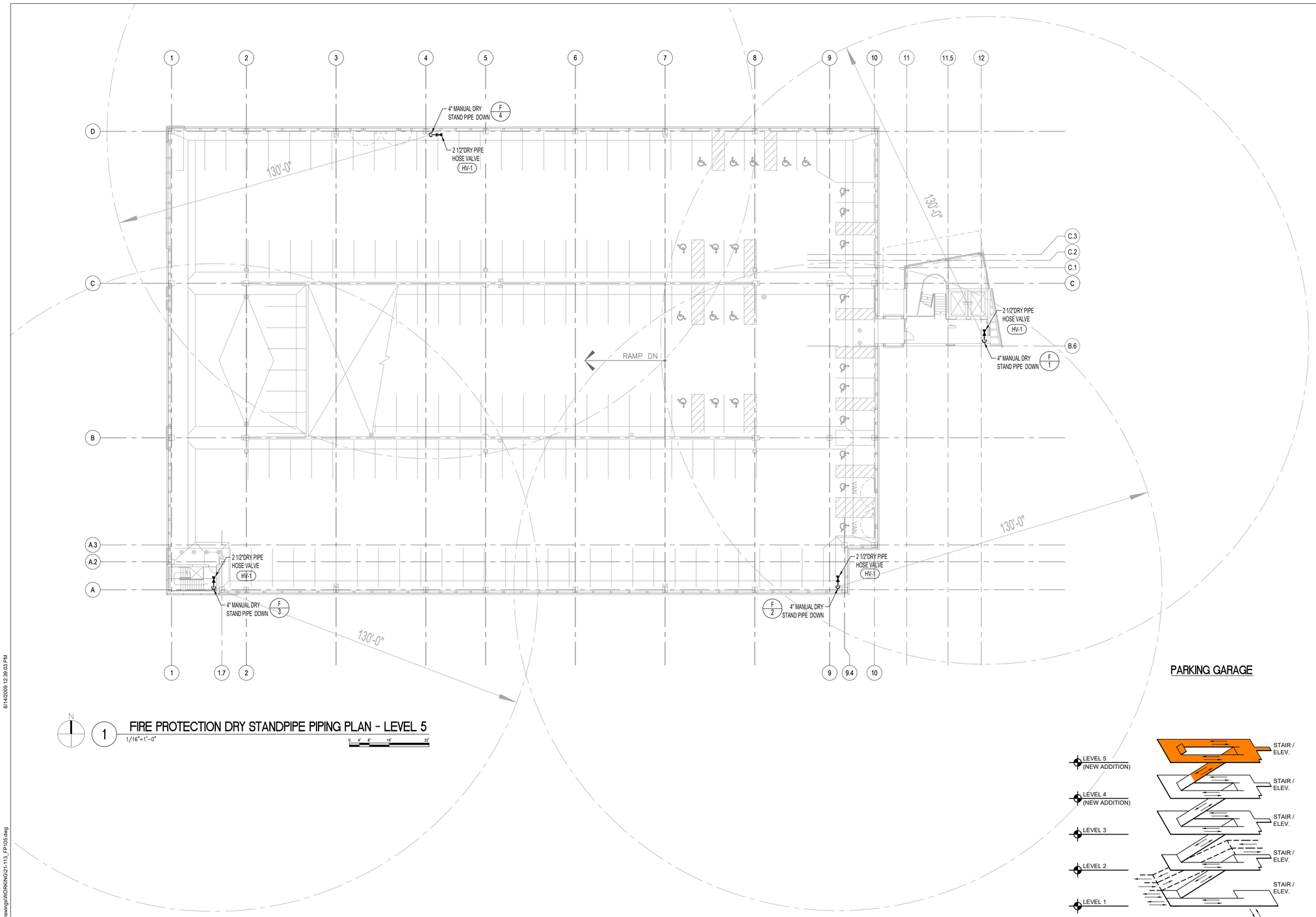

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1 FIRE PROTECTION DRY STANDPIPE PIPING PLAN - LEVEL 5

1/16"=1'-0"

0 4' 8' 16' 32'

FIRE PROTECTION GENERAL NOTES

A. THE FIRE PROTECTION DRAWINGS ARE CONCEPTUAL. FOR GENERAL INFORMATION ONLY AND SHALL NOT BE CONSTRUED AS FINAL DESIGN OR INSTALLATION DOCUMENTS. THE SPRINKLER DESIGN AND INSTALLATION SHALL BE THE RESPONSIBILITY OF THE DESIGN BUILD FIRE PROTECTION CONTRACTOR. THIS INCLUDES THE RELOCATION OF SPRINKLER MAINS, BRANCH PIPING AND HEADS AS NECESSARY FOR THE NEW DESIGN. REFER SPECIFICATION FOR DESIGN CRITERIA.

B. DESIGN TO BE IN ACCORDANCE WITH THE VA FIRE PROTECTION DESIGN MANUAL, DATED JUNE 1, 2021 AND THE LATEST EDITION OF THE NATIONAL FIRE PROTECTION STANDARD #13.

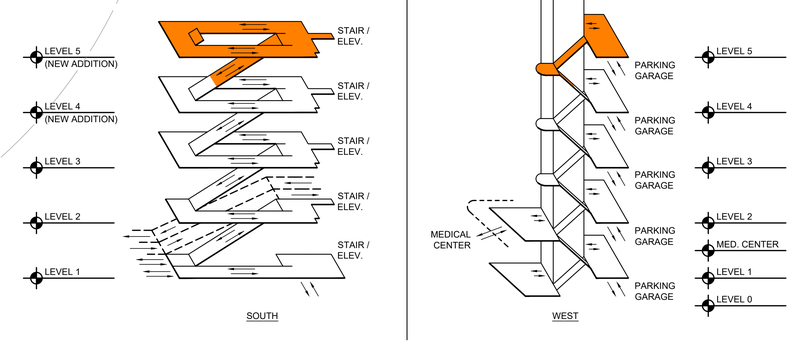
C. CONTRACTOR TO TO PROTECT EXISTING HEADS FROM DAMAGE DURING CONSTRUCTION ACTIVITIES.

D. CONTRACTOR TO UTILIZE EXISTING BRANCH LINES, CROSS MAINS, AND FEED MAINS, SERVING NEW SPRINKLER LOCATIONS WITH MODIFIED ARM-OVER CONNECTIONS FED FROM EXISTING OUTLET . SHOW ALL PIPING ON SHOP DRAWING SUBMITTAL.

E. CONTRACTOR TO TURN SPRINKLER HEADS OVER AND KEEP FIRE PROTECTION PIPING ACTIVE DURING CONSTRUCTION.

PARKING GARAGE

NEW STAIR / ELEVATOR TOWER



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Drawing Title: FIRE PROTECTION - DRY STANDPIPE PIPING PLAN - LEVEL 5	Phase: ISSUE FOR BID	Project Title: PARKING RAMP EXPANSION	Project Number: 528-18-375
			Building Number: 29
Approved: Project Director		Location: 3495 BAILEY AVE., BUFFALO, NY 14215	Drawing Number: FP105
		Issue Date: 08-09-2024 · Checked: RH · Drawn: HS	

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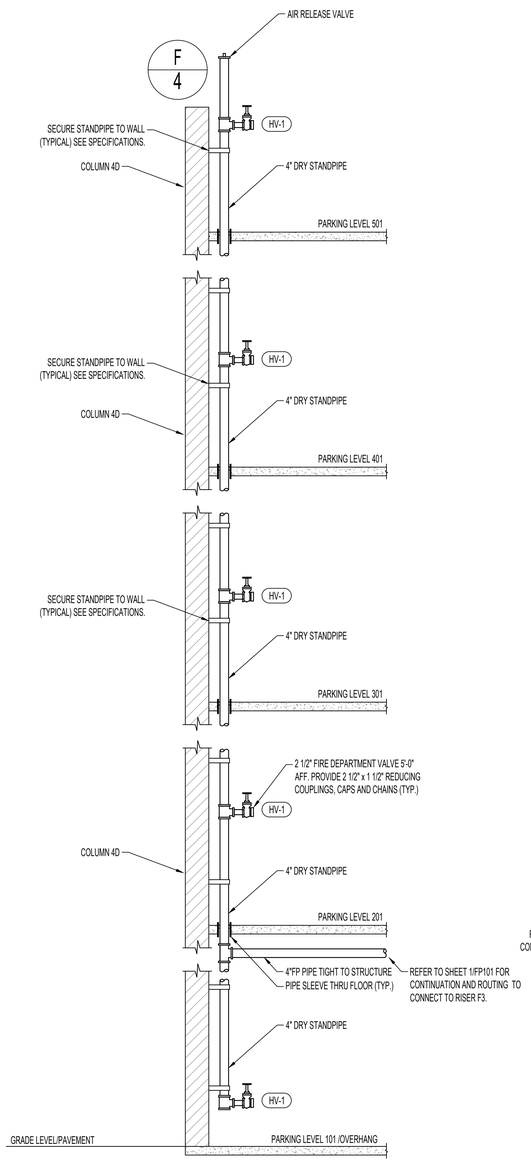
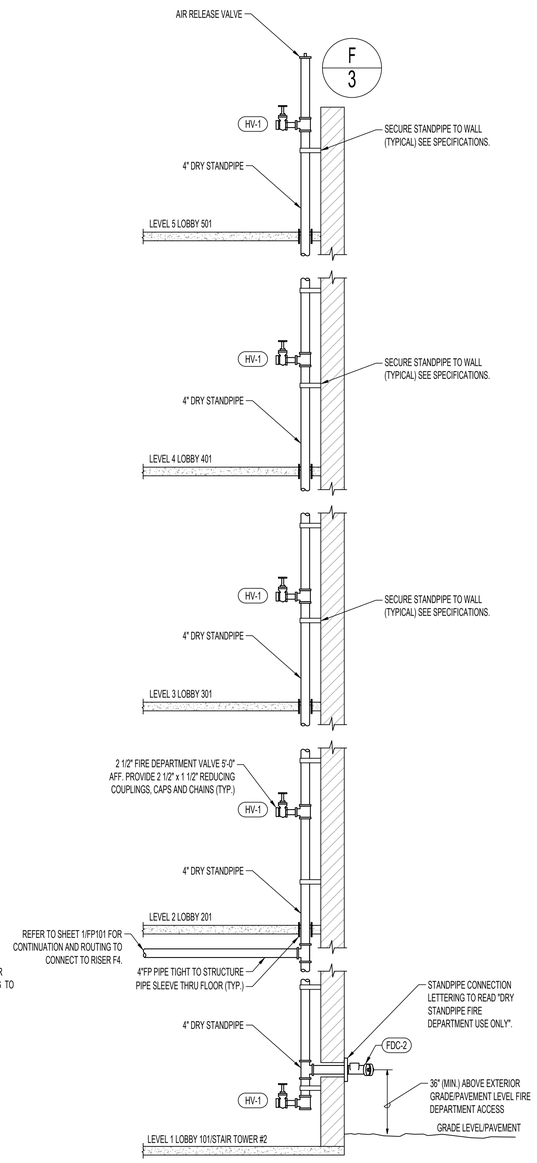
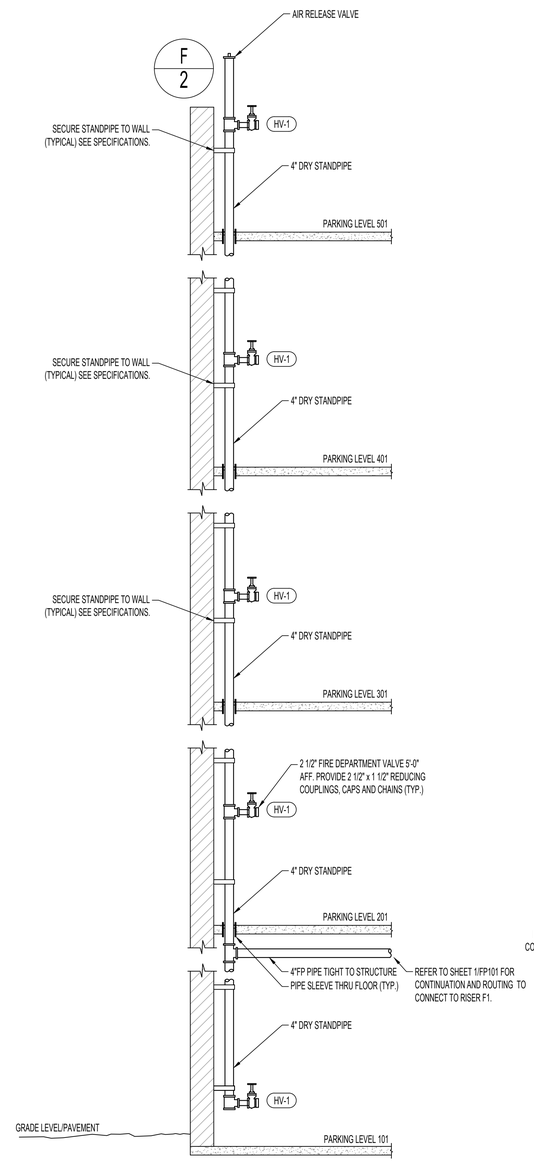


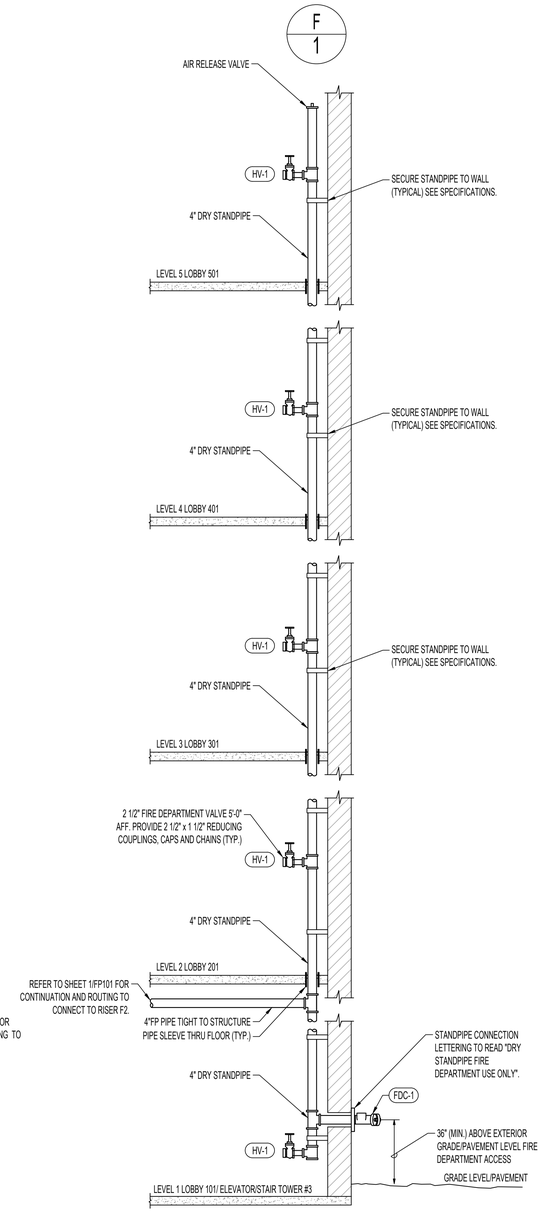
4 HOSE VALVE DRY PIPE RISER CONNECTION DETAIL
N.T.S.



3 FIRE DEPARTMENT CONNECTION AND HOSE VALVE DRY PIPE RISER DETAIL - STAIR TOWER #2
N.T.S.



2 HOSE VALVE DRY PIPE RISER CONNECTION DETAIL
N.T.S.



1 FIRE DEPARTMENT CONNECTION AND HOSE VALVE DRY PIPE RISER DETAIL - ELEVATOR/STAIR TOWER #3
N.T.S.

ISSUE FOR BID	08-09-2024
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Office of Construction and Facilities Management

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Drawing Title: FIRE PROTECTION - DRY STANDPIPE RISER	Phase: ISSUE FOR BID	Project Title: PARKING RAMP EXPANSION	Project Number: 528-18-375
			Building Number: 29
Approved: Project Director		Location: 3495 BAILEY AVE., BUFFALO, NY 14215	Drawing Number: FP601
		Issue Date: 08-09-2024 · Checked: RH · Drawn: HS	

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FIRE PROTECTION SCHEDULE

MARK	LOCATION	MANUFACTURER	MODEL	SIZE	DESCRIPTION
HV-1	REFER TO SHEETS	POTTER ROEMER	4315	2 1/2"	HOSE GATE VALVES, CAST BRASS VALVE WITH NON-RISING STEM, READ HANDWHEEL. FEMALE N.P.T. INLET x MALE HOSE THREAD OUTLET. BRASS SOLID WEDGE DISC AND TAPERED SEAT. THREADS SHALL CONFORM TO LOCAL FIRE DEPARTMENT CONFIGURATION. PROVIDE BALL DRIP CAST BRASS CAP WITH CHAIN.
FDC-1	ELEVATOR/STAIR TOWER #3	POTTER ROEMER	5751	4" x 2 1/2" x 2 1/2"	EXPOSED FIRE DEPARTMENT INLET CONNECTIONS, 2-WAY DOUBLE CLAPPER TYPE. CAST BRASS, PIN LUG SWIVELS AND PLUGS AND CHAINS. CAST BRASS ROUND WALL PLATE WITH LETTERIN "DRY STANDPIPE".
FDC-2	STAIR TOWER #1	POTTER ROEMER	5751	4" x 2 1/2" x 2 1/2"	EXPOSED FIRE DEPARTMENT INLET CONNECTIONS, 2-WAY DOUBLE CLAPPER TYPE. CAST BRASS, PIN LUG SWIVELS AND PLUGS AND CHAINS. CAST BRASS ROUND WALL PLATE WITH LETTERIN "DRY STANDPIPE".

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRE PROTECTION - SCHEDULES

Approved: Project Director

Phase: ISSUE FOR BID

Project Title: PARKING RAMP EXPANSION

Location: 3495 BAILEY AVE., BUFFALO, NY 14215

Issue Date: 08-09-2024

Checked: RH

Drawn: HS

Project Number: 528-18-375

Building Number: 29

Drawing Number: FP701

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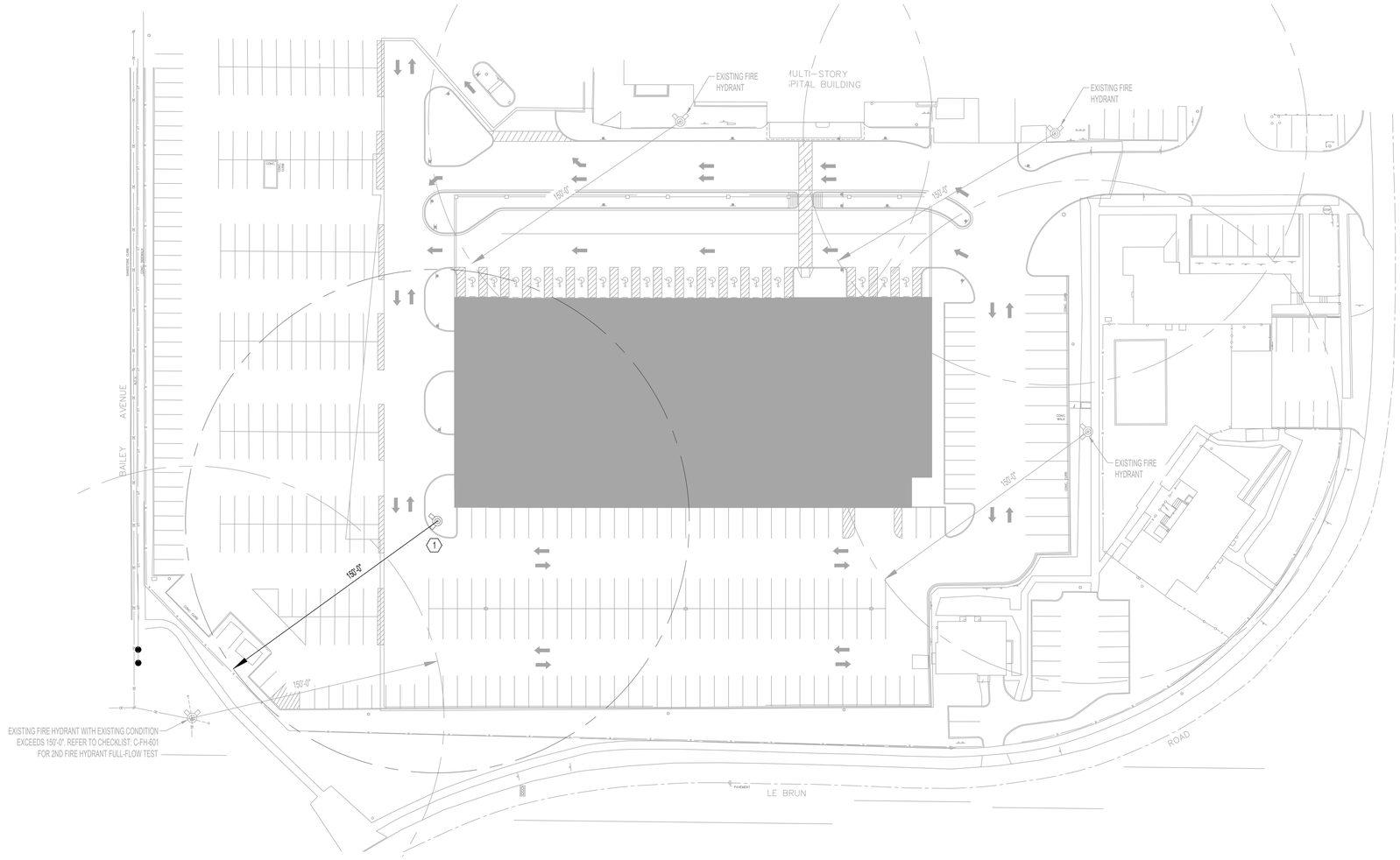

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1 FIRE PROTECTION SITE PLAN - EXISTING FIRE HYDRANT LOCATIONS

1/32"=1'-0"

0 8' 16' 32' 64'

CHECKLIST No.: C-FH-601

FIRE HYDRANTS- Full Flow Test
NFPA 25 (2014 Edition): 7.3.1* (T); NO TJC

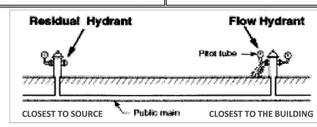
YEAR	FREQUENCY:	5 YEAR
2022	COMPLETED BY:	S DiSalvo
	DATE:	8/24/2022

NAME OF PROPERTY:	VA Healthcare WNY
ADDRESS:	3495 Bailey Ave. Buffalo, NY 14215

One hydrant flowing

TIME COMPLETED:	16:00	*in military time*
WEATHER CONDITIONS: AT TIME OF TEST:	Sunny	
WEATHER CONDITIONS: GENERAL FOR THE LAST WEEK:	Sunny	

RESIDUAL HYDRANT (CLOSEST TO SOURCE)				FLOW HYDRANT (CLOSEST TO BUILDING)			
LOCATION:	corner of building 7			LOCATION:	Near bulk oxygen tanks		
STATIC PRESSURE:	42	PSI	Pressure reading before water flows.	ORIFICE SIZE:	2.5	IN.	Internal diameter of the hydrant butt.
RESIDUAL PRESSURE:	40	PSI	Pressure reading while water is flowing from flow hydrant & same time as pitot reading.	ELEVATION CHANGES:	2'	FT.	Between Residual and flow hydrants.
Results with one hydrant flowing				NOZZLE COEFFICIENT *(circle)* :	Discharge Coefficient = .70 / Discharge Coefficient = .80 / Discharge Coefficient = .90		FLOWTIME = 1
Approx flow of 1000 GPM				PITOT PRESSURE:	35	PSI	Reading taken by a pitot gauge inserted into the center of the flowing outlet, at a distance away from the lip of the outlet of about half the nozzle's (orifice) diameter.



COMMENT(S)/WORK ORDERS REQUIRED:	WORD ORDER #	COMPLETED BY	DATE COMPLETED
Pitot reading of 35psi with coefficient of .9 = an approximate flow of 1000 GPM	N/A		

Page 1 of 2 *Department of Veterans Affairs* *2022 CHECKLIST No C-FH 601 1 hydrant flowed*

CHECKLIST No.: C-FH-601

FIRE HYDRANTS- Full Flow Test
NFPA 25 (2014 Edition): 7.3.1* (T); NO TJC

YEAR	FREQUENCY:	5 YEAR
2022	COMPLETED BY:	S. DiSalvo
	DATE:	8/24/2022

NAME OF PROPERTY:	VA Healthcare WNY
ADDRESS:	3495 Bailey Ave. Buffalo, NY 14215

Flowing 2 hydrants

TIME COMPLETED:	16:30	*in military time*
WEATHER CONDITIONS: AT TIME OF TEST:	Sunny	
WEATHER CONDITIONS: GENERAL FOR THE LAST WEEK:	Sunny	

RESIDUAL HYDRANT (CLOSEST TO SOURCE)				FLOW HYDRANT (CLOSEST TO BUILDING) 1st			
LOCATION:	corner of building 7			LOCATION:	Near bulk oxygen tanks		
STATIC PRESSURE:	42	PSI	Pressure reading before water flows.	ORIFICE SIZE:	2.5	IN.	Internal diameter of the hydrant butt.
RESIDUAL PRESSURE:	36	PSI	Pressure reading while water is flowing from flow hydrant & same time as pitot reading.	ELEVATION CHANGES:	2'	FT.	Between Residual and flow hydrants.
Results with two hydrants flowing				NOZZLE COEFFICIENT	0.90		
1st hydrant Approx flow of 920 GPM				PITOT PRESSURE:	30	PSI	Reading taken by a pitot gauge inserted into the center of the flowing outlet, at a distance away from the lip of the outlet of about half the nozzle's (orifice) diameter.
2nd hydrant Approx flow of 920 GPM							

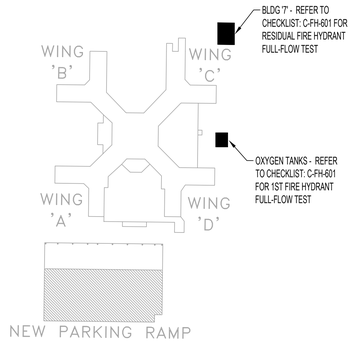
FLOW HYDRANT (Furthest from BUILDING) 2nd			
LOCATION:	Lebrun St. Exit		
ORIFICE SIZE:	2.5	IN.	Internal diameter of the hydrant butt.
ELEVATION CHANGES:	2'	FT.	Between Residual and flow hydrants.
NOZZLE COEFFICIENT	0.9		
PITOT PRESSURE:	30	PSI	Reading taken by a pitot gauge inserted into the center of the flowing outlet, at a distance away from the lip of the outlet of about half the nozzle's (orifice) diameter.

COMMENT(S)/WORK ORDERS REQUIRED:	WORD ORDER #	COMPLETED BY	DATE COMPLETED
Pitot reading of 30psi with coefficient of .9 = an approximate flow of 920 GPM	N/A		

Page 1 of 3 *Department of Veterans Affairs* *2022 CHECKLIST No C-FH 601 2 hydrants flowed*

FIRE PROTECTION KEY NOTES

1. REFER TO CIVIL DRAWINGS FOR FINAL LOCATION OF NEW FIRE HYDRANT. FIRE HYDRANT SHALL HAVE NO LESS THAN 950 GPM FLOW RATE WITH A PRESSURE NO LESS THAN 40 PSI STATIC AND 35 PSI RESIDUAL. NOTE, CIVIL ENGINEER TO COORDINATE MANUFACTURER MAKE AND MODEL OF FIRE HYDRANT WITH EXISTING.



SITE HYDRANT PLAN

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Drawing Title	Phase	Project Title	Project Number
FIRE PROTECTION - SITE PLAN	ISSUE FOR BID	PARKING RAMP EXPANSION	528-18-375
			Building Number: 29
Approved: Project Director		Location: 3495 BAILEY AVE., BUFFALO, NY 14215	Drawing Number: FP801
		Issue Date: 08-09-2024 / Checked: RH / Drawn: HS	

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