

## MECHANICAL GENERAL NOTES

- ALL WORK AND MATERIALS SHALL BE PURCHASED AND INSTALLED IN ACCORDANCE WITH ALL NATIONAL & NEW YORK STATE CODES AND REGULATIONS (AS WELL AS ALL APPLICABLE LOCAL CODES & REGULATIONS). THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL HVAC WORK IS PROVIDED AND INSTALLED IN STRICT ACCORDANCE WITH SEISMIC REQUIREMENTS.
- DO NOT SCALE FROM THESE DRAWINGS.
- THE EXACT MOUNTING HEIGHTS AND LOCATIONS OF ALL HVAC EQUIPMENT SHALL BE FIELD VERIFIED AND COORDINATED WITH ALL OTHER MECHANICAL, ELECTRICAL, PLUMBING, FIRE SPRINKLER, ARCHITECTURAL AND STRUCTURAL SYSTEMS. DURING SHOP DRAWINGS SUBMISSIONS, SHOW ALL MOUNTING HEIGHTS OF DUCTWORK, UNITS, ETC.
- VERIFY ALL EQUIPMENT VOLTAGES WITH THE ELECTRICAL DESIGN PRIOR TO ORDERING EQUIPMENT.
- PROVIDE PHASE LOSS PROTECTION FOR ALL POLY-PHASE MOTOR DEVICES.
- DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET STEEL IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE ASHRAE, NFPA, AND SMACNA GUIDE RECOMMENDATIONS. ALL DUCTS TO HAVE PITTSBURGH TYPE LOCK FOR LONGITUDINAL SEAMS AND DRIVE SLIP / "S" SLIP FOR TRANSVERSE JOINTS. \*DUCT-MATE JOINT SYSTEM IS ACCEPTABLE IN LIEU OF PRIOR SEAM SYSTEMS. SIZES AS SHOWN INDICATE INSIDE CLEAR DIMENSIONS OF THE AIR PASSAGE. DUCTWORK SHALL BE FULLY INSULATED AS PER APPLICABLE CODES AND WRITTEN SPECIFICATIONS.
- DUCT SIZES MUST BE VERIFIED FOR CLEARANCES AT THE JOB SITE PRIOR TO FABRICATION. DIMENSIONS MAY BE CHANGED TO ACCOMMODATE CONSTRUCTION AS LONG AS EFFECTIVE CROSS-SECTIONAL AREA IS MAINTAINED. DUCT TRANSITIONS SHALL BE CONSTRUCTED WITH A SLOPE OF 1" TO 4". ALL DEVIATIONS FROM ORIGINAL CONTRACT DRAWINGS SHALL BE REVIEWED BY ENGINEER DURING THE SHOP DRAWING PROCESS.
- PROVIDE MANUAL BALANCING DAMPERS AS REQUIRED TO PROPERLY BALANCE EACH INDIVIDUAL AIR DISTRIBUTION SYSTEM. IF THE LOCATION OF THE BALANCING DAMPER IS NOT DEFINED ON THE DRAWINGS, THE FOLLOWING MINIMUMS STANDARDS SHALL GOVERN. ALL SUPPLY, RETURN, AND EXHAUST MAIN BRANCHES FROM TRUNKS, EACH SPLIT AND ALL SUB-BRANCHES FROM MAIN SHALL INCORPORATE BALANCING DAMPERS.
- PROVIDE FLEXIBLE CONNECTORS AT ALL DUCT CONNECTIONS TO VIBRATING EQUIPMENT. THESE CONNECTORS SHALL BE INSTALLED IN CLOSE PROXIMITY TO SUCH EQUIPMENT.
- PROVIDE FIRE DAMPERS WITH RATED ACCESS DOORS AT ALL DUCT PENETRATIONS THROUGH WALLS, SMOKE AND FIRE STOPPING, SHAFT, FLOORS, RATED CEILINGS AND PARTITIONS AS REQUIRED TO MAINTAIN ARCHITECTURAL FIRE RATINGS. REFER TO THE ARCHITECTURAL PLANS AND SPECIFICATIONS FOR LOCATIONS AND FIRE RATING REQUIREMENTS. CONTRACTOR MUST FULLY REVIEW ALL ARCHITECTURAL AND ENGINEERING DRAWINGS AND VISIT THE SITE PRIOR TO SUBMITTING THE BID. NO EXTRAS WILL BE ALLOWED.
- ALL ACCESS DOORS REQUIRED IN GENERAL CONSTRUCTION ARE TO BE PROVIDED AND INSTALLED BY THE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY SIZE, TYPE AND LOCATION OF SUCH DOORS FOR PROPER ACCESS TO ALL CONCEALED HVAC EQUIPMENT, VALVES AND OTHER RELATED EQUIPMENT. THE CONTRACTOR SHALL IDENTIFY THESE REQUIREMENTS ON A COORDINATED SHOP DRAWING PRIOR TO SYSTEM FABRICATION AND INSTALLATION.
- ALL CEILING MOUNTED EQUIPMENT MUST BE SUPPORTED DIRECTLY FROM BUILDING STRUCTURE WITH COMBINATION SPRINGS AND NEOPRENE-IN-SHEAR HANGERS AND ROD. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED TO ADEQUATELY SUPPORT THE LOAD.
- THE CONTRACTOR MUST CONTRACT AN INDEPENDENT NEBB CERTIFIED AIR BALANCING & TESTING COMPANY TO PERFORM THE AIR BALANCING WORK AND ASSOCIATED SYSTEM AIR BALANCING REPORT. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH ALL APPLICABLE CODES, REGULATIONS, PLANS AND WRITTEN SPECIFICATIONS. SUBMIT THE FINAL AIR BALANCE REPORT TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO SUBSTANTIAL COMPLETION OF THE PROJECT, AS DETERMINED BY THE AND OWNER/CLIENT. THE AIR BALANCE REPORT MUST INCLUDE ALL SUPPLY, RETURN, & EXHAUST AIR TERMINALS, FRESH AIR (OUTSIDE AIR) INTAKE AND VENTILATION EXHAUST CFM RATES FOR ALL UNITS. ALSO INCLUDE ACTUAL SUPPLY & RETURN AIR VELOCITY & STATIC PRESSURE READINGS ALONG WITH ALL MOTOR AMPERAGES FOR ALL UNITS.
- THE CONTRACTOR IS TO INCLUDE IN THEIR BID ALL LOW VOLTAGE CONTROL WIRING, THERMOSTATS, RELAYS, TRANSFORMERS, STARTERS ETC FOR A COMPLETE OPERATING CONTROL SYSTEM AS DESCRIBED IN THE SEQUENCE OF OPERATIONS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR LINE VOLTAGE CONTROL FOR EXHAUST FANS CONTROLLED FROM LIGHT SWITCH AND THERMOSTATS. ALL CONTROL WIRING IN THE AREAS THAT DO NOT HAVE DROPPED CEILINGS THE CONTRACTOR MUST PROVIDE ALL CONTROL WIRING CONDUIT. IN AREAS OF DROPPED CEILING PLENUM RATED CONTROL WIRING CAN BE RUN EXPOSED ABOVE CEILING.
- ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS/SPECIFICATIONS.

## CODE REFERENCE

2020 NEW YORK STATE BUILDING CODE  
2020 NEW YORK STATE MECHANICAL CODE  
2020 NEW YORK STATE ENERGY CONSERVATION CODE

## MECHANICAL DEMOLITION NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION OF MECHANICAL EQUIPMENT AND MATERIAL RELATING TO THEIR RESPECTIVE TRADE.
- THE CONTRACTOR SHALL REMOVE, RELOCATE, REPLACE, ADJUST, ADAPT AND MODIFY EXISTING EQUIPMENT AND/OR SYSTEMS AS REQUIRED WHEN SUCH WORK IS UNCOVERED AND FOUND TO INTERFERE WITH COMPLETION OF WORK IN THIS CONTRACT OR OTHER CONTRACT WORK.
- EXECUTE THE DEMOLITION IN CAREFUL AND ORDERLY MANNER WITH THE LEAST POSSIBLE DISTURBANCE TO THE PUBLIC, EGRESS OR THE FUNCTIONING OF THE EXISTING BUILDING.
- TAKE NECESSARY PRECAUTIONS TO PREVENT DUST AND DIRT FROM RISING BY WETTING DEMOLISHED DEBRIS. EXCESSIVE USE OF WATER WILL NOT BE PERMITTED.
- PRIOR TO DEMOLITION, CONTRACTOR SHALL REVIEW WITH OWNER ALL MATERIALS TO BE REMOVED, SHOULD THE OWNER WANT TO KEEP ANY MATERIALS THE CONTRACTOR SHALL REMOVE AND DELIVER THE PARTS TO THE OWNER ON THE SITE WHERE SO DIRECTED. OTHERWISE ALL DEMOLISHED OR REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND BE DISPOSED OF IN A LEGAL MANNER.
- DEMOLITION SHALL INCLUDE REMOVAL OF ALL PARTS AND PIECES IN THEIR ENTIRETY BACK TO POINTS INDICATED OR IF NOT INDICATED BACK TO THEIR POINT OF SOURCE.
- WHERE CONDITIONS PROHIBIT TOTAL REMOVAL OF THE WORK, THE REMAINING PORTION SHALL BE CUT FLUSH WITH THE SURROUNDING SURFACE AND BE CAPPED, PLUGGED OR SEALED AND THE SURROUNDING SURFACE SHALL BE REFINISHED IN AN APPROVED MANNER.
- DO NOT REMOVE EXISTING STRUCTURAL WORK. DO NOT REMOVE OPERATIONAL ELEMENTS AND SAFETY-RELATED COMPONENTS IN A MANNER RESULTING IN A REDUCTION OF CAPACITIES TO PERFORM IN THE MANNER INTENDED OR RESULTING IN DECREASED OPERATIONAL LIFE, INCREASED MAINTENANCE, OR DECREASED SAFETY.
- REMOVALS, DISCONNECTIONS, AND RELOCATIONS SHALL BE PERFORMED BY WORKMEN SKILLED IN THE TRADE INVOLVED AND SHALL BE EMPLOYED BY A CONTRACTOR LICENSED IN THE TRADE INVOLVED. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ACCEPTED TRADE PRACTICES.
- PROVIDE ADEQUATE TEMPORARY SUPPORT FOR WORK TO REMAIN, TO PREVENT FAILURE. DO NOT ENDANGER OTHER WORK.
- PROTECTION: PROVIDE ADEQUATE PROTECTION WHERE REQUIRED FOR THE PRESENT BUILDING AND ITS CONTENTS. TEMPORARY DUSTPROOF BARRIERS AND BARRICADES SHALL BE ERRECTED WHERE REQUIRED FOR PROTECTION OF PERSONNEL, PROTECTION FROM DUST AND DIRT, FOR SECURITY, FIRE AND WEATHER PROTECTIVE REASONS.
- CONTRACTOR SHALL TAKE EVERY PRECAUTION AGAINST FIRE BY EMPLOYING FIRE DEPARTMENT TYPE HOSES AND PORTABLE FIRE EXTINGUISHERS AS REQUIRED BY OSHA AND/OR THE OWNERS INSURANCE UNDERWRITER.
- BEFORE STARTING DEMOLITION OPERATIONS, PROVIDE THE NECESSARY PROTECTIVE DEVICES, WHERE REQUIRED, AND IN STRICT ACCORDANCE WITH OSHA RULES AND REGULATIONS.
- USE TEMPORARY ENCLOSURES, OR OTHER SUITABLE METHODS TO LIMIT DUST AND DIRT RISING AND SCATTERING TO LOWEST PRACTICAL LEVEL. COMPLY WITH GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
- FIELD VERIFY DEMOLITION REQUIREMENTS AND EXISTING CONDITIONS. DEMOLITION NOTES ARE INDICATED IN NOTE FORM.
- CONTRACTOR SHALL ESTABLISH A PATH OF TRAVEL AND TIME SCHEDULE FOR THE REMOVAL OF ALL DEBRIS AND WASTE, AND HAVE THIS APPROVED BY OWNER. CONTRACTOR IS TO ENSURE THAT ALL CORRIDORS AND PUBLIC AREAS BE KEPT FREE OF OBSTRUCTIONS, DEBRIS, AND ARE TO BE BROOM SWEEP CLEAN AT ALL TIMES.
- CONTRACTOR SHALL VISIT THE SITE AND BECOME INFORMED AS TO THE CONDITION OF THE PREMISES AND THE EXTENT AND CHARACTER OF WORK REQUIRED. NO ADDITIONAL COMPENSATION WILL BE APPROVED DUE TO FIELD CONDITIONS.

## NYSECC ENERGY COMPLIANCE STATEMENT:

PER SECTION C101.7 OF THE 2020 NYSECC HISTORIC BUILDINGS ARE EXEMPT FROM THE REQUIREMENTS OF THE ENERGY CODE.

## HVAC SYMBOL LIST

IDENTIFIER	DESCRIPTION
	NEW DUCTWORK OR PIPING
	EXISTING DUCTWORK OR PIPING TO BE REMOVED
	EXISTING DUCTWORK OR PIPING TO REMAIN
	DOUBLE-LINE AND SINGLE-LINE RECTANGULAR DUCT, FIRST NUMBER INDICATES SIDE IN VIEW IN INCHES, SECOND NUMBER INDICATES SIDE IN DEPTH IN INCHES
	FLEXIBLE DUCTWORK
	REGULAR SUPPLY AIR DUCT (UP AND DOWN)
	REGULAR RETURN AIR DUCT (UP AND DOWN)
	REGULAR EXHAUST AIR DUCT (UP AND DOWN)
	REGULAR OUTSIDE AIR DUCT (UP AND DOWN)
	VOLUME DAMPER
	BACKDRAFT DAMPER
	MOTOR OPERATED DAMPER
	EQUIPMENT TAG EQUIPMENT NUMBER
	DETAIL TAG/CALL OUT TAG MECHANICAL SHEET NUMBER
	THERMOSTAT
	EXHAUST GRILLE
	REFER TO SUPPLEMENTAL FIGURE INDICATED BY NUMBER (I.E. F2 REFERS TO FIGURE 2)

## HVAC ABBREVIATIONS

IDENTIFIER	DESCRIPTION
AC	DIRECT EXPANSION AIR CONDITION UNIT
CFM	CUBIC FEET PER MINUTE
COND	CONDENSATE
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
DB	DRY BULB
DN	DOWN
EA	EXHAUST AIR
EF	EXHAUST FAN
EG	EXHAUST GRILLE
EUH	ELECTRIC UNIT HEATER
EER	ENERGY EFFICIENCY RATIO
EG	EXHAUST GRILLE
FAI	FRESH AIR INTAKE
GC	GENERAL CONTRACTOR
MBH	THOUSAND BTU PER HOUR
PC	PLUMBING CONTRACTOR
RG	RETURN GRILLE
RTU	ROOFTOP UNIT
SA	SUPPLY AIR
SD	SUPPLY DIFFUSER
TYP.	TYPICAL
VIF	VERIFY IN FIELD

## SCOPE OF WORK

- DEMOLITION**
- REMOVE TWO (2) EXISTING THRU WALL AC UNITS AS INDICATED.
  - REMOVE ONE (1) EXISTING ROOFTOP FAN AND ASSOCIATED DUCTWORK, CONTROLS AND ACCESSORIES.
  - REMOVE TWO (2) EXISTING LOUVERS AS INDICATED.
  - REMOVE ONE (1) EXISTING GRAVITY VENTILATOR AS INDICATED.
- CONSTRUCTION**
- PROVIDE ONE (1) EXHAUST FAN AS INDICATED.
  - PROVIDE ONE (1) NEW RAIN RESISTANT LOUVER AS INDICATED.

## MECHANICAL DRAWING LIST

SHEET NO.	SHEET NAME	REVISION NO.	REVISION DATE
DCV-M-01	MECHANICAL NOTES, SYMBOLS & LEGENDS	0	-
DCV-M-11	MECHANICAL 1ST FLOOR DEMOLITION PLAN	0	-
DCV-M-12	MECHANICAL ROOF DEMOLITION PLAN	0	-
DCV-M-21	MECHANICAL 1ST FLOOR CONSTRUCTION PLAN	0	-
DCV-M-22	MECHANICAL ATTIC CONSTRUCTION PLAN	0	-
DCV-M-61	MECHANICAL SCHEDULES	0	-
DCV-M-81	MECHANICAL DETAILS & CONTROLS	0	-

## NATURAL VENTILATION SCHEDULE

SPACE DETAILS		DESIGN				NOTES
ROOM	AREA (SF)	4% FLOOR AREA (SF)	WINDOW FREE AREA (SF)	DOOR AREA (SF)	TOTAL OPENABLE AREA (SF)	
101 VENDOR SPACE	244	10	-	78	78	1,2
103 GUEST SERVICES	208	8	7	21	28	1,2

NOTES:  
1. NEW YORK STATE MECHANICAL CODE.  
2. NATURAL VENTILATION OF AN OCCUPIED SPACE SHALL BE THROUGH WINDOWS, DOORS, LOUVERS, AND OTHER OPENINGS TO THE OUTDOORS. THE MINIMUM OPENABLE AREA TO THE OUTDOORS SHALL BE 4 PERCENT OF THE FLOOR AREA BEING VENTILATED.

## TABLE 1: ENERGY CODE ANALYSIS TABLE FOR MECHANICAL SYSTEMS

(PER 2020 NYS ENERGY CODE)

ITEM DESCRIPTION	UNIT TAG	EQUIPMENT TYPE	PROPOSED VALUE	MINIMUM EFFECIENCY	CODE PRECRIBED VALUE AND CITATION	CITATION	SUPPORTING DOCUMENTATION
DUCT LEAKAGE			SMACNA HVAC DUCT LEAKAGE TEST	-	SMACNA HVAC DUCT LEAKAGE TEST	PER C403	MECHANICAL DWGS. & SPECS

## TABLE 2: ENERGY CODE COMPLIANCE INSPECTIONS FOR MECHANICAL SYSTEMS

(IIB - MECHANICAL AND SERVICE WATER HEATING INSPECTIONS)

INSPECTION TEST	FREQUENCY	REFERENCE STANDARDS	INSPECTION DESCRIPTION	ECC CITATION
IIB2 SHUT-OFF DAMPERS	AS REQUIRED DURING INSTALLATION	APPROVED CONSTRUCTION DOCUMENTS	DAMPERS FOR STAIR AND ELEVATOR SHAFT VENTS AND OTHER OUTDOOR AIR INTAKES AND EXHAUST OPENINGS INTEGRAL TO THE BUILDING ENVELOPE SHALL BE VISUALLY INSPECTED TO VERIFY THAT SUCH DAMPERS, EXCEPT WHERE PERMITTED TO BE GRAVITY DAMPERS, COMPLY WITH APPROVED CONSTRUCTION DRAWINGS. MANUFACTURER'S LITERATURE SHALL BE REVIEWED TO VERIFY THAT THE PRODUCT HAS BEEN TESTED AND FOUND TO MEET THE STANDARD.	NYSECC C403.2.4.4, OR ASHRAE 90.1-6.4.3.4
IIB3 HVAC AND SERVICE WATER HEATING EQUIPMENT	PRIOR TO FINAL MECHANICAL AND CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS	EQUIPMENT SIZING, EFFICIENCIES AND OTHER PERFORMANCE FACTORS OF ALL MAJOR EQUIPMENT UNITS, AS DETERMINED BY THE APPLICANT OF RECORD, AND NO LESS THAN 15% OF MINOR EQUIPMENT UNITS, SHALL BE VERIFIED BY VISUAL INSPECTION AND, WHERE NECESSARY, REVIEW OF MANUFACTURER'S DATA. POOL HEATERS AND COVERS SHALL BE VERIFIED BY VISUAL INSPECTION	NYSECC C403.2, C404.2, C404.7, C406.2
IIB4 HVAC AND SERVICE WATER HEATING SYSTEM CONTROLS	AFTER INSTALLATION AND PRIOR TO FINAL ELECTRICAL AND CONSTRUCTION INSPECTION, EXCEPT THAT FOR CONTROLS WITH SEASONALLY DEPENDENT FUNCTIONALITY, SUCH TESTING SHALL BE PERFORMED BEFORE SIGN-OFF FOR ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY	APPROVED CONSTRUCTION DOCUMENTS INCLUDING CONTROL SYSTEM NARRATIVES	NO LESS THAN 20% OF EACH TYPE OF REQUIRED CONTROLS AND ECONOMIZERS SHALL BE VERIFIED BY VISUAL INSPECTION AND TESTED FOR FUNCTIONALITY AND PROPER OPERATION. SUCH CONTROLS SHALL INCLUDE, BUT ARE NOT LIMITED TO, THERMOSTATIC AND ECONOMIZER CONTROLS	NYSECC C403.2.4, C403.2.5.1, C403.2.11, C403.3, C403.4, C404.3, C404.6, C404.7

CONSULTANT INFORMATION



LiRo Engineers, Inc.  
A LiRo Group Company  
Syosset, N.Y. 516-214-8157[T]

CONSULTANT SEAL



REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  AS BUILT - NO CHANGES

CONTRACTOR: NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
PROJECT COORDINATOR: NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

INFRASTRUCTURE REHABILITATION - PHASE 3  
PLAYLAD PARK, RYE, NEW YORK  
DRAGON COASTER VENDORS  
MECHANICAL NOTES, SYMBOLS & LEGENDS

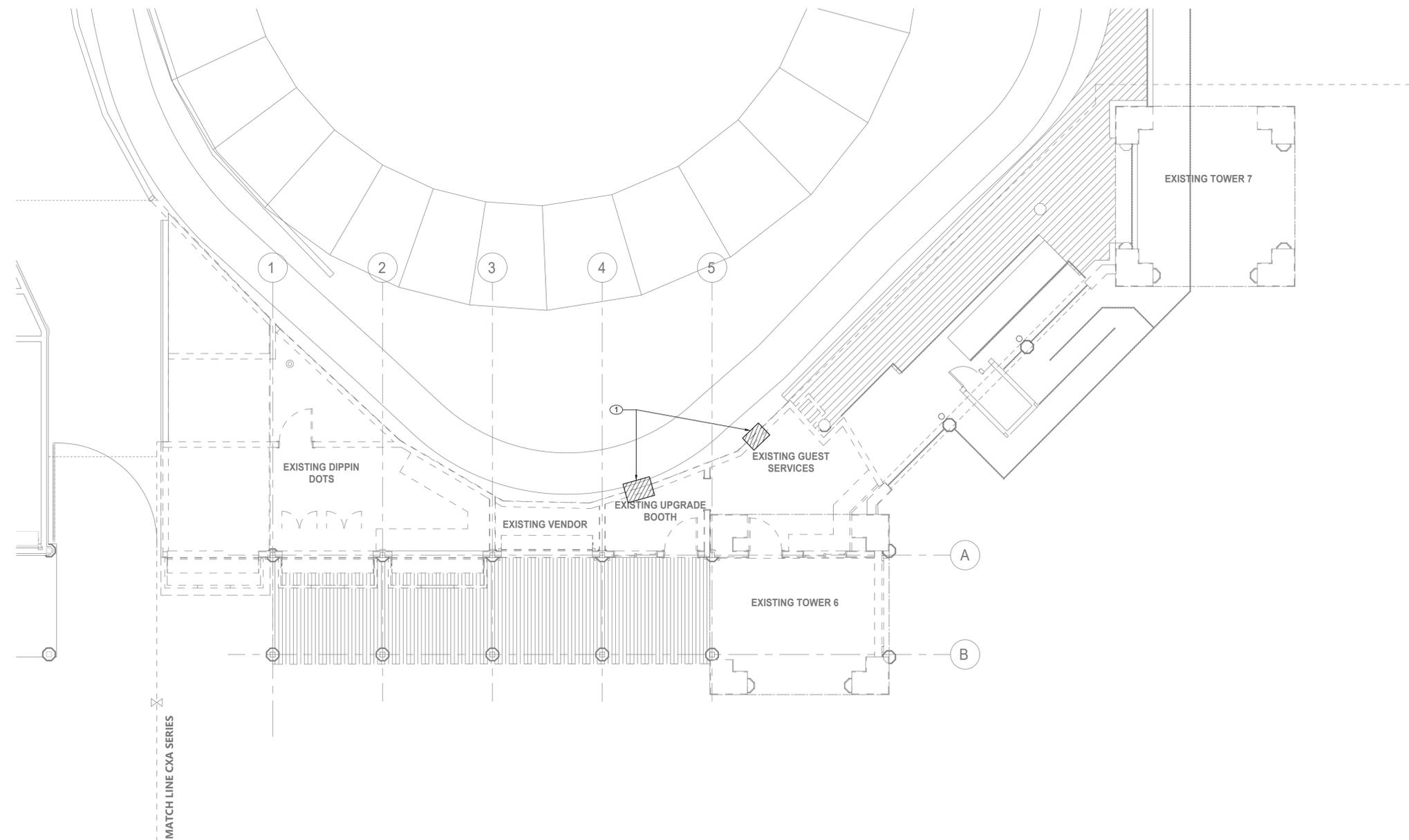
CONTRACT NUMBER 22-523	SHEET NUMBER DCV-M-01
DWG NO.: 468 of 664	SCALE: AS INDICATED
DATE: 08/23/2022	DPW FILE NUMBER: 1-118-M-1217-0
REV. NO.: 0	

**GENERAL NOTES:**

1. RETURN REMOVED EXISTING EQUIPMENT TO OWNER IF IT IS IN WORKING CONDITION.
2. CONTRACTOR TO COORDINATE WITH FACILITY WHEN WORKING AROUND OR ABOVE THE RIDE COMPONENTS, AND PROVIDE ALL NECESSARY MEASURES TO PROTECT THESE COMPONENTS PER THE REQUIREMENTS OF THE FACILITY.

**MECHANICAL DEMOLITION NOTES:**

- ① REMOVE EXISTING THRU WALL AC UNIT. IF NO LONGER IN WORKING CONDITION, DISPOSAL SHALL BE IN ACCORDANCE WITH EPA REQUIREMENTS.



**MECHANICAL FIRST FLOOR DEMOLITION PLAN**  
SCALE: 3/16" = 1'-0"

CONSULTANT INFORMATION



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RECORD DRAWING CERTIFICATION

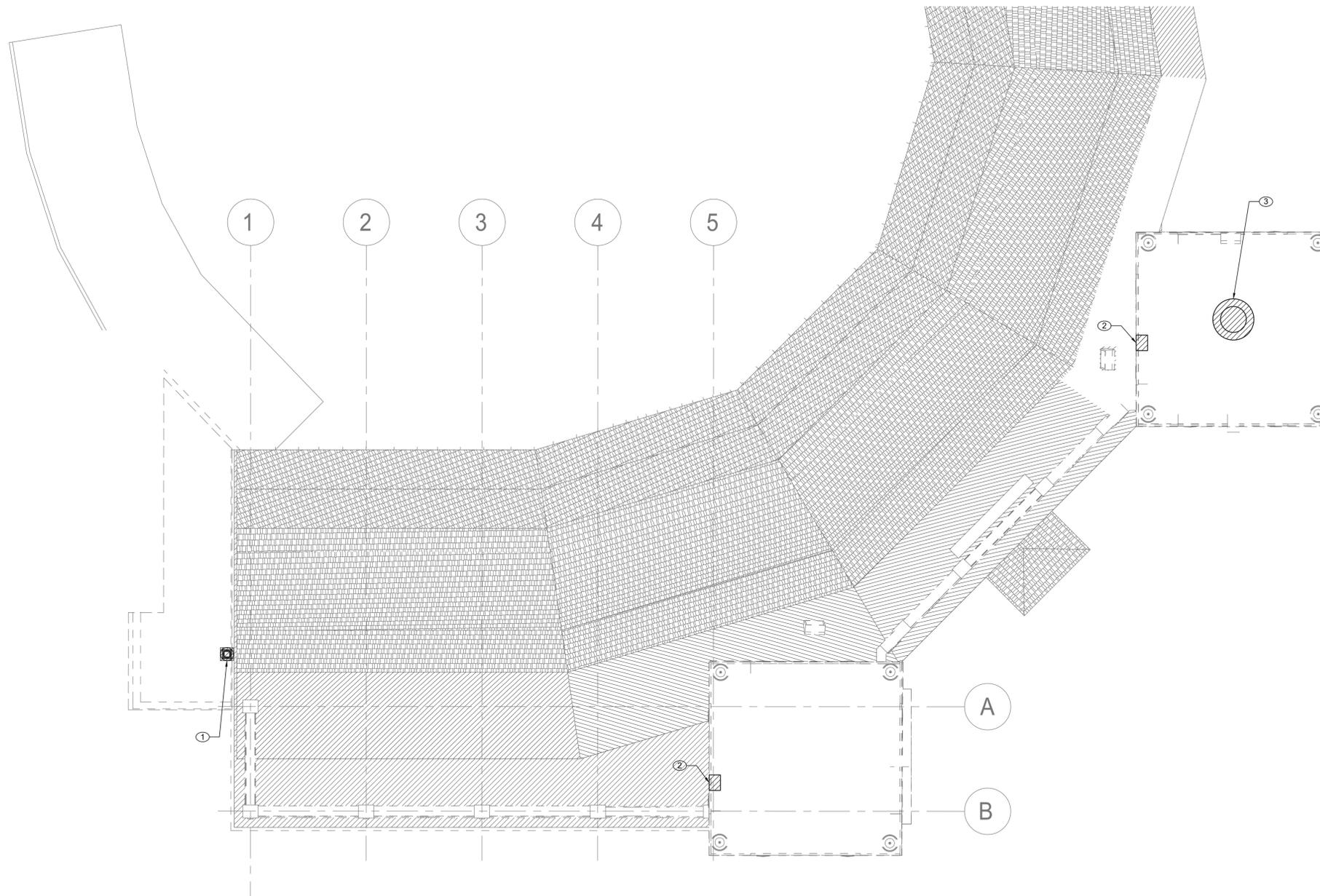
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
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**INFRASTRUCTURE REHABILITATION - PHASE 3**  
**PLAYLAND PARK, RYE, NEW YORK**  
**DRAGON COASTER VENDORS**  
**MECHANICAL FIRST FLOOR DEMOLITION PLAN**

CONTRACT NUMBER <b>22-523</b>	SHEET NUMBER <b>DCV-M-11</b>
DWG NO.: 469 of 664	
SCALE: <b>AS INDICATED</b>	
DATE: 08/23/2022	
DPW FILE NUMBER <b>1-118-M-1218-0</b>	REV. NO. <b>0</b>



**GENERAL NOTES:**

1. RETURN REMOVED EXISTING EQUIPMENT TO OWNER IF IT IS IN WORKING CONDITION.
2. CONTRACTOR TO COORDINATE WITH FACILITY WHEN WORKING AROUND OR ABOVE THE RIDE COMPONENTS, AND PROVIDE ALL NECESSARY MEASURES TO PROTECT THESE COMPONENTS PER THE REQUIREMENTS OF THE FACILITY.

**MECHANICAL DEMOLITION NOTES:**

- ① DEMOLISH EXISTING ROOF MOUNTED EXHAUST FAN AND ASSOCIATED DUCTWORK. COORDINATE REMOVAL OF ELECTRICAL POWER AND WIRING WITH ELECTRICAL CONTRACTOR.
- ② DEMOLISH EXISTING LOUVER.
- ③ DEMOLISH EXISTING GRAVITY VENTILATOR.

**MECHANICAL ROOF DEMOLITION PLAN**  
SCALE: 3/16" = 1'-0"

CONSULTANT INFORMATION



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SIGNATURE _____		SIGNATURE _____	
TITLE _____		TITLE _____	

WESTCHESTER COUNTY, NEW YORK  
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**INFRASTRUCTURE REHABILITATION - PHASE 3**  
**PLAYLAND PARK, RYE, NEW YORK**  
**DRAGON COASTER VENDORS**  
**MECHANICAL ROOF DEMOLITION PLAN**

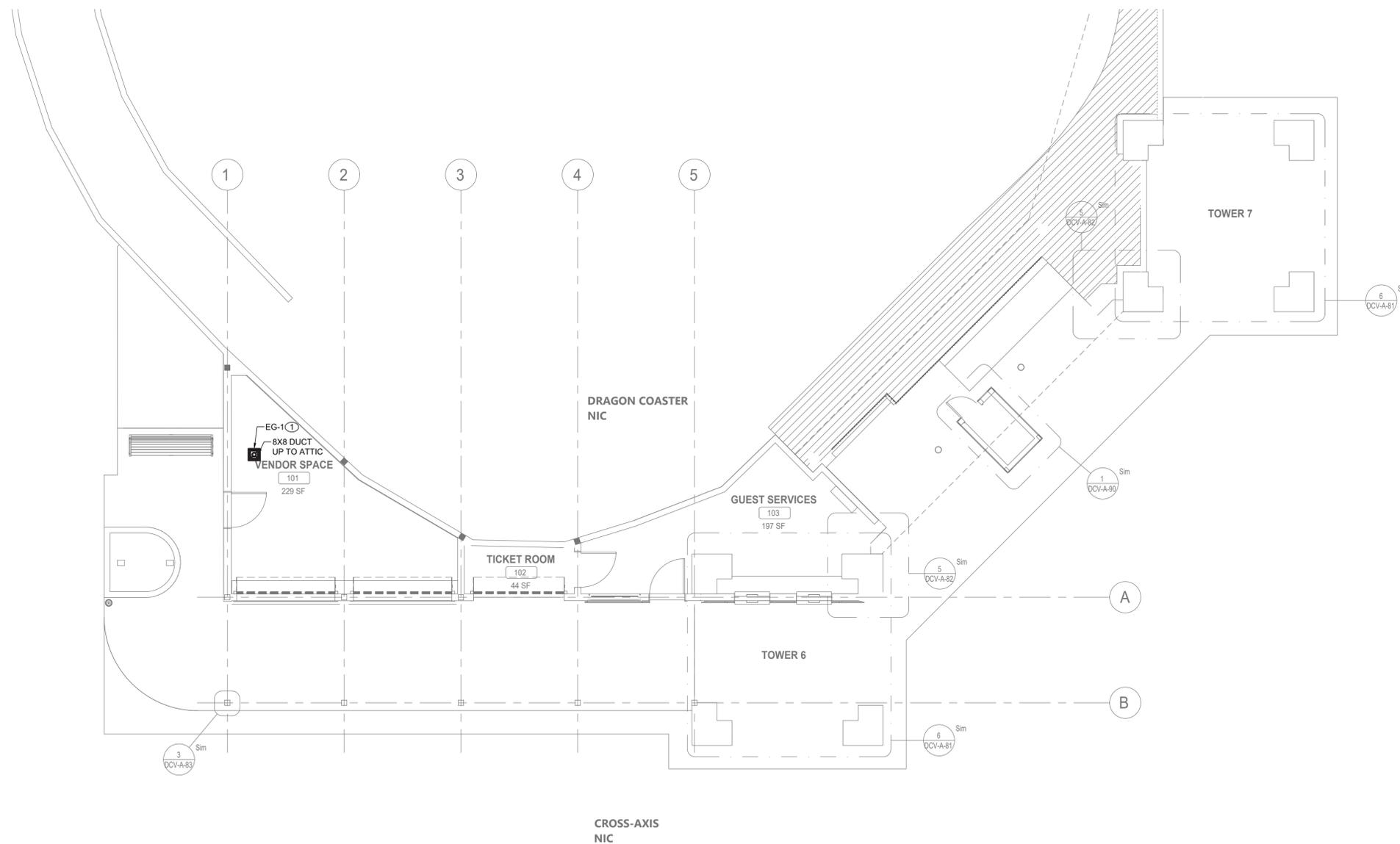
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DWG NO.: 470 of 664	
SCALE: <b>AS INDICATED</b>	
DATE: 08/23/2022	
DPW FILE NUMBER <b>1-118-M-1219-0</b>	REV. NO. <b>0</b>

**GENERAL NOTES:**

- CONTRACTOR TO COORDINATE WITH FACILITY WHEN WORKING AROUND OR ABOVE THE RIDE COMPONENTS, AND PROVIDE ALL NECESSARY MEASURES TO PROTECT THESE COMPONENTS PER THE REQUIREMENTS OF THE FACILITY.
- UPON COMPLETION, SYSTEM SHALL BE TESTED FOR PROPER OPERATION.

**MECHANICAL CONSTRUCTION NOTES:**

- PROVIDE EXHAUST GRILLE AS INDICATED.



**MECHANICAL FIRST FLOOR CONSTRUCTION PLAN**  
SCALE: 3/16" = 1'-0"

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WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
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**INFRASTRUCTURE REHABILITATION - PHASE 3  
PLAYLAND PARK, RYE, NEW YORK  
DRAGON COASTER VENDORS  
MECHANICAL FIRST FLOOR CONSTRUCTION PLAN**

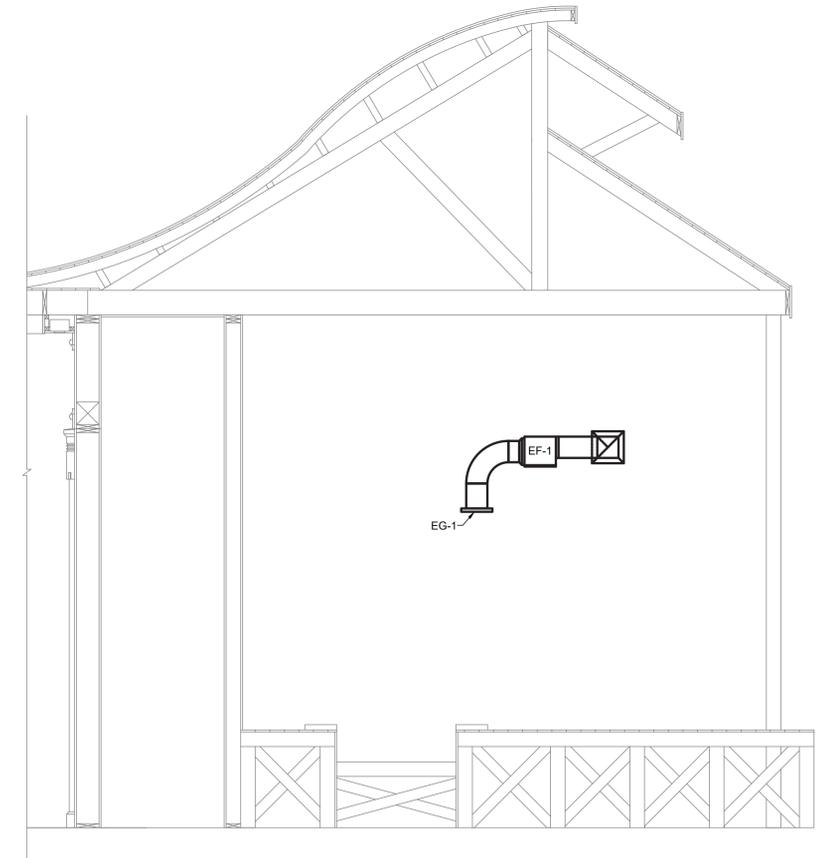
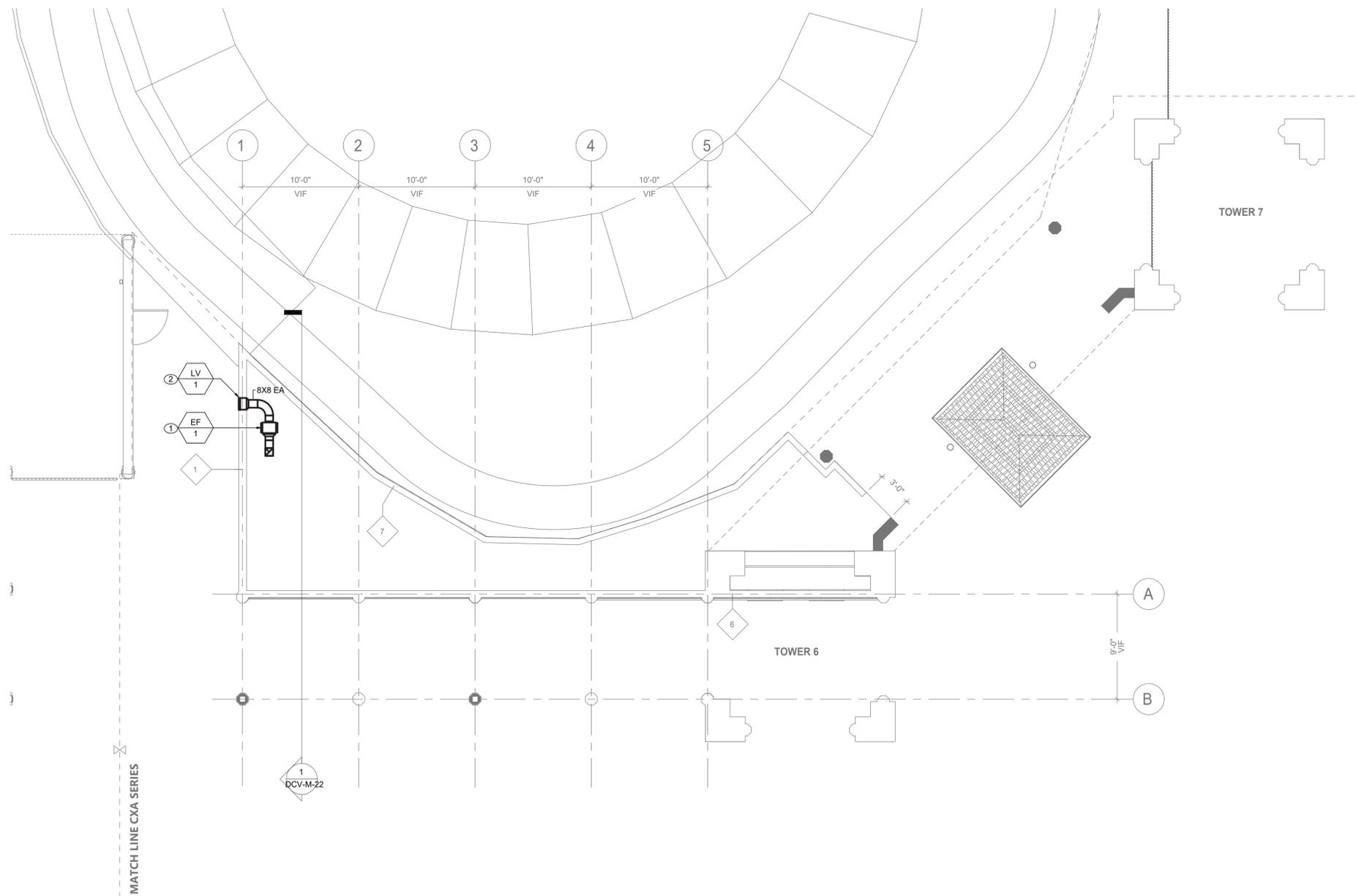
CONTRACT NUMBER	SHEET NUMBER
22-523	DCV-M-21
DWG NO.: 471 of 664	
SCALE: AS INDICATED	
DATE: 08/23/2022	
DPW FILE NUMBER: 1-118-M-1220-0	REV. NO.: 0

**GENERAL NOTES:**

1. CONTRACTOR TO COORDINATE WITH FACILITY WHEN WORKING AROUND OR ABOVE THE RIDE COMPONENTS, AND PROVIDE ALL NECESSARY MEASURES TO PROTECT THESE COMPONENTS PER THE REQUIREMENTS OF THE FACILITY.
2. UPON COMPLETION, SYSTEM SHALL BE TESTED FOR PROPER OPERATION.

**MECHANICAL CONSTRUCTION NOTES:**

1. PROVIDE NEW EXHAUST FAN AND ASSOCIATED DUCTWORK AS SCHEDULED. COORDINATE ELECTRICAL POWER AND WIRING WITH ELECTRICAL DRAWINGS.
2. PROVIDE NEW RAIN RESISTANT LOUVER AS SCHEDULED. REFER TO INSTALLATION DETAIL ON DVC-M-61.



**1 INTERIOR SECTION - NORTH**  
SCALE: 3/8" = 1'-0"

**MECHANICAL ATTIC CONSTRUCTION PLAN**  
SCALE: 3/16" = 1'-0"

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**INFRASTRUCTURE REHABILITATION - PHASE 3**  
**PLAYLAND PARK, RYE, NEW YORK**  
**DRAGON COASTER VENDORS**  
**MECHANICAL ATTIC CONSTRUCTION PLAN**

CONTRACT NUMBER	SHEET NUMBER
22-523	DCV-M-22
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DPW FILE NUMBER: 1-118-M-1221-0	REV. NO.: 0

### FAN SCHEDULE

TAG	MANUFACTURER	MODEL	LOCATION	SERVICE	TYPE	DRIVE	AIR FLOW (CFM)	TSP (IN. WG)	ELECTRICAL				OPERATING WEIGHT (±LBS)	DIMENSIONS DxWxH (IN)	NOTES
									HP	BHP	RPM	V-PH-HZ			
EF-1	GREENHECK	CSP-A390-VG	VENDOR SPACE 101 ATTIC	VENDOR SPACE 101	CENTRIFUGAL	DIRECT	200	0.20	0.07	0.03	887	115-1-60	24	12X14X11	1-5

- NOTES:
1. PROVIDE ALL CONTACTS, RELAYS, AND DEVICES NECESSARY FOR BMS CONTROL OF FANS PER SEQUENCE OF OPERATIONS.
  2. PROVIDE WALL MOUNT SWITCH FOR EF-1, REFER TO CONTROLS.
  3. PROVIDE THERMAL OVERLOAD FOR ALL SINGLE PHASE MOTORS.
  4. PROVIDE SALT WATER RESISTANT HI-PRO POLYESTER COATING FOR ALL FANS.
  5. FAN SHALL BE FURNISHED WITH NON FUSED DISCONNECT.

### LOUVER SCHEDULE

TAG	MANUFACTURER	MODEL	SERVICE	LOCATION	MATERIAL	FINISH TYPE	WIDTH (INCH)	HEIGHT (INCH)	FREE AIR VELOCITY (FPM)	PRESSURE DROP (IN. WG)	MINIMUM FREE AREA (SQUARE FEET)	NOTES
LV-1	GREENHECK	ESD-635	EXHAUST	VENDOR SPACE ATTIC	ALUMINUM	BAKED ENAMEL	12	12	1053	0.14	0.19	1

- NOTES:
1. PROVIDE WITH ALUMINUM BIRD SCREEN AND BACKDRAFT DAMPERS.

### DIFFUSER SCHEDULE

TAG	MANUFACTURER	MODEL	SERVICE	NECK SIZE (IN)	FACE SIZE (IN)	MOUNTING	CFM	MAX PD (wg)	MAX VELOCITY (FPM)	MAX NC	NOTES
EG-1	TITUS	50F	GENERAL EXHAUST	8X8	11.75X11.75	LAY-IN / GYP	177-354	0.05	600	20	1, 3, 4

- NOTES:
1. COORDINATE AND CONFIRM CEILING AND/OR WALL MOUNT (T-BAR, SURFACE, REINFORCEMENT, ETC) WITH ARCHITECTURAL RCP AND WALL CONSTRUCTION BEFORE ORDERING.
  2. PROVIDE WITH MOLDED INSULATION BLANKET.
  3. INTEGRAL VOLUME DAMPERS NOT ACCEPTABLE. VOLUME DAMPERS PROVIDED BY MECHANICAL CONTRACTOR ON ALL RUN-OUTS. EXCEPTIONS REQUIRE APPROVAL WHEN REQUIRED.
  4. PROVIDE ALL ALUMINUM CONSTRUCTION VERSION FOR GRDS LOCATED IN GYM, BATHROOM, LOCKER, SHOWER AREAS, AND IMAGING/MRI ROOMS.

CONSULTANT INFORMATION



CONSULTANT SEAL



REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

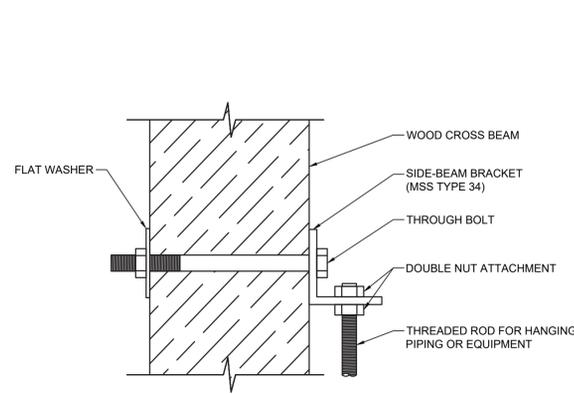
AS BUILT - CHANGES AS NOTED       AS BUILT - NO CHANGES

<p style="text-align: center;">CONTRACTOR</p> <p>NAME _____</p> <p>SIGNATURE _____</p> <p>TITLE _____ DATE _____</p>	<p style="text-align: center;">PROJECT COORDINATOR</p> <p>NAME _____</p> <p>SIGNATURE _____</p> <p>TITLE _____ DATE _____</p>
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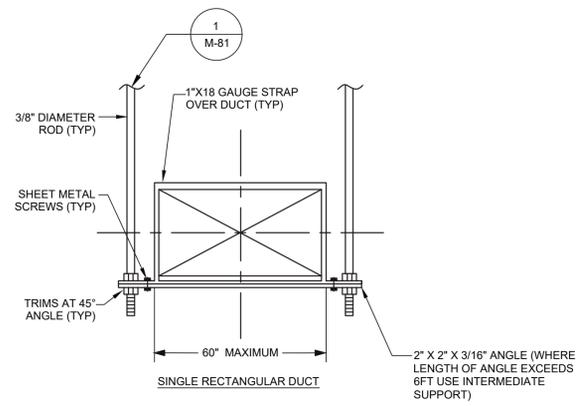
WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

**INFRASTRUCTURE REHABILITATION - PHASE 3  
PLAYLAND PARK, RYE, NEW YORK  
DRAGON COASTER VENDORS  
MECHANICAL SCHEDULES**

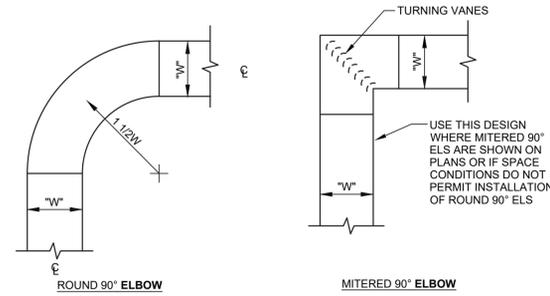
CONTRACT NUMBER <b>22-523</b>	SHEET NUMBER <b>DCV-M-61</b>
DWG NO.: <b>473 of 664</b>	
SCALE: <b>AS INDICATED</b>	
DATE: <b>08/23/2022</b>	
DPW FILE NUMBER <b>1-118-M-1222-0</b>	REV. NO. <b>0</b>



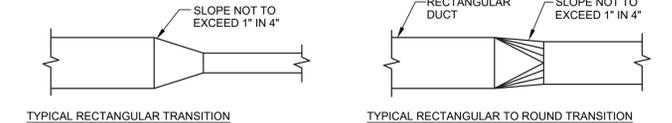
**1 MECHANICAL ANCHORING DETAIL**  
M-81 SCALE: NOT TO SCALE



**2 MECHANICAL DUCT HANGER DETAIL**  
M-81 SCALE: NOT TO SCALE

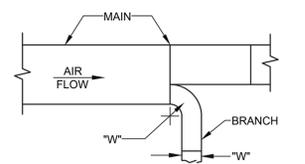


CONSTRUCTION OF 90° ELBOWS

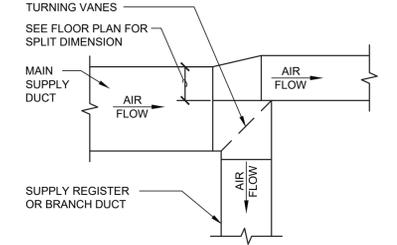


TYPICAL RECTANGULAR TRANSITION

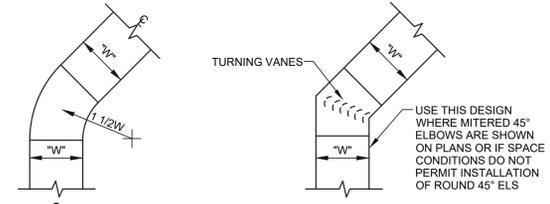
TYPICAL RECTANGULAR TO ROUND TRANSITION



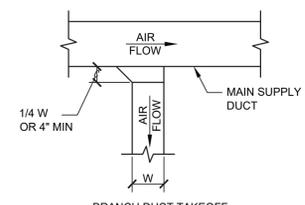
ROUND BRANCH TAKEOFF



SQUARE BRANCH TAKEOFF

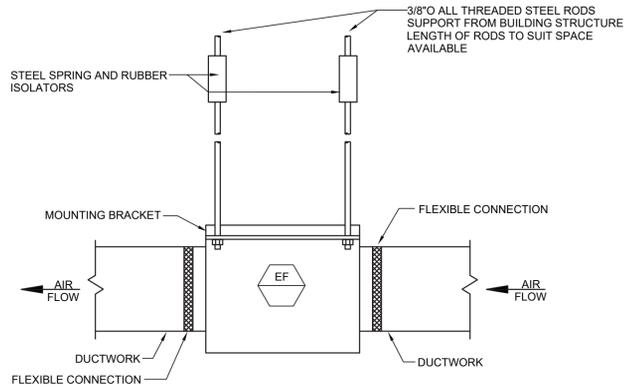


CONSTRUCTION OF 45° ELBOWS

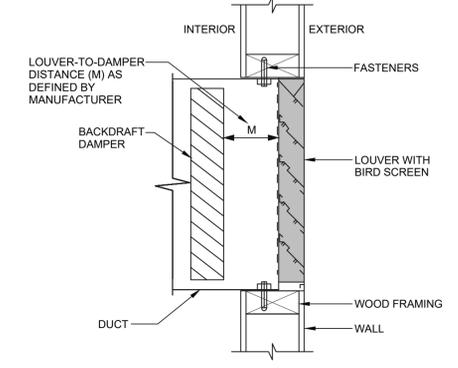


BRANCH DUCT TAKEOFF

CONSTRUCTION OF TAKEOFFS



**3 MECHANICAL FAN HANGING DETAIL**  
M-81 SCALE: NOT TO SCALE

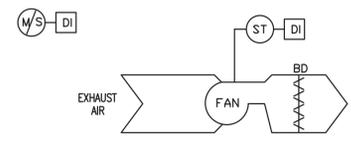


**4 MECHANICAL LOUVER**  
M-81 SCALE: NOT TO SCALE

**INSTALLATION NOTES:**

1. ALL DUCT TRANSITIONS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
2. ALL DUCTS SHALL BE CONSTRUCTED AND ERECTED IN A NEAT AND WORKABLE MANNER.
3. DUCTS SHALL BE CONSTRUCTED OF THE WEIGHTS, GAUGES AND MATERIAL SPECIFIED.
4. THE DIMENSION SHOWN FOR ALL DUCTS SHOWN IN PLAN GIVE THE WIDTH FIRST AND THEN THE HEIGHT.
5. DUCT RISERS SHOULD BE SUPPORTED BY ANGLES AT EVERY FLOOR.
6. AIR TURN SHALL BE INSTALLED IN ALL ABRUPT ELBOWS TO PREVENT TURBULENCE.
7. DUCTS SHALL BE SECURELY ATTACHED TO THE BUILDING CONSTRUCTION IN AN APPROVED MANNER.
8. DIVERGING TRANSITION PIECES SHALL BE MADE AS GRADUAL AS POSSIBLE.
9. INSTALL FIRE DAMPERS IN ACCORDANCE WITH UL 555.
10. ACCESS PANELS SHOULD BE PLACED BEFORE AND/OR AFTER EQUIPMENT INSTALLED IN THE DUCT.
11. DUCT AREA SHOULD NOT BE DECREASED MORE THAN 10 PERCENT WHEN OBSTRUCTIONS CANNOT BE AVOIDED, AND THEN A STREAMLINED FITTING SHOULD BE USED.
12. FLEXIBLE FABRIC CONNECTIONS (OR EQUAL) SHOULD BE USED ON BOTH INLETS AND OUTLETS OF ALL FANS AND AIR HANDLING UNIT.
13. JOINTS AND SEAMS OF SUPPLY DUCTS SHALL BE FASTENED SECURELY AND MADE AIR TIGHT.
14. VANES SHORTER THAN 36\"/>

**5 MECHANICAL DUCT CONSTRUCTION DETAIL**  
M-81 SCALE: NOT TO SCALE



EXHAUST FAN - CONSTANT SPEED - SEQUENCE OF OPERATIONS:  
GENERAL: EACH EXHAUST FAN CONSISTS OF FAN, BACKDRAFT DAMPER, AND EC MOTOR CONTROLLER  
EXHAUST FAN TO BE LOCALLY CONTROLLED FROM SWITCH MOUNTED ADJACENT TO FAN.

1. OCCUPIED MODE:
  - a. THE EXHAUST FAN SHALL RUN AT A CONSTANT VOLUME WHEN SWITCHED ON.
3. UNOCCUPIED MODE:
  - a. THE EXHAUST FAN SHALL BE OFF WHEN SWITCHED OFF.

**6 EXHAUST FAN - CONSTANT SPEED**  
M-81 SCALE: NOT TO SCALE

CONSULTANT INFORMATION  
**LiRo Engineers, Inc.**  
A LiRo Group Company  
Syosset, N.Y. 516-214-8157[T]

CONSULTANT SEAL  
STATE OF NEW YORK  
FRANK F. URSO  
REGISTERED PROFESSIONAL ENGINEER  
No. 099111114

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED     AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
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**INFRASTRUCTURE REHABILITATION - PHASE 3**  
**PLAYLAND PARK, RYE, NEW YORK**  
**DRAGON COASTER VENDORS**  
**MECHANICAL DETAILS AND CONTROLS**

CONTRACT NUMBER <b>22-523</b>	SHEET NUMBER <b>DCV-M-81</b>
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