IRVINGTON UNION FREE SCHOOL DISTRICT

FACILITIES STORAGE BUILDING

40 N. BROADWAY, IRVINGTON, NY 10533

SED PROJECT CONTROL NUMBER 66-04-02-02-2-022-001

CONTRACT G - GENERAL CONSTRUCTION, HVAC CONSTRUCTION, ELECTRICAL CONSTRUCTION, PLUMBING CONSTRUCTION, CIVIL & SITE WORK

ABBREVIATIONS

AB	ANCHOR BOLT	FAI	FRESH AIR INTAKE
A/C	AIR CONDITIONING	F.C.	FIRE CODE
ACI	AMERICAN CONCRETE INSTITUTE	FD	FLOOR DRAIN
		FIN	FINISH
ACST	ACOUSTIC	FR	FIRE RETARDANT
ACT	ACOUSTICAL CEILING TILE	FTG	FOOTING
ACU	AIR CONDITIONING UNIT	GA	GAUGE
AD	ACCESS DOOR ADJUSTABLE	GWB	GYPSUM WALL BOARD
ADJ	A/E ARCHITECT/ENGINEER	GYP	GYPSUM
AFF	ABOVE FINISH FLOOR	GYP. BD.	GYPSUM BOARD
ALUM	ALUMINUM	HC	HANDICAPPED
ANCH	ANCHOR ANSI AMERICAN NATIONAL STANDARDS INSTITUTE	HM	HOLLOW METAL
		HOR	HORIZONTAL
		HW	HOT WATER
APA	ACCESS PANEL	INSUL	INSULATION/INSULATING
APPROX	APPROXIMATELY	INT	INTERIOR
ASPH	ASPHALT	LAV	LAVATORY
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	LDR	LEADER
		LT	LIGHT
AWS	AMERICAN WELDING SOCIETY	MAX	MAXIMUM
B	FIRE BLANKET	MECH	MECHANICAL
BAL	BALANCE	MISC	MISCELLANEOUS
BB	BULLETIN BOARD	MO	MASONRY OPENING
BD	BOARD	MR	MOISTURE RESISTANT
BLDG	BUILDING	NIC	NOT IN CONTRACT
BLK	BLOCK	NTS	NOT TO SCALE
BLKG	BLOCKING	OC	ON CENTER
BM	BEAM	OD	OUTSIDE DIAMETER
B.O.	BOTTOM OF	PLYWD	PLYWOOD
BOL	BOTTOM OF LINTEL	PSF	POUNDS PER SQUARE FOOT
BOT	BOTTOM	PSI	POUNDS PER SQUARE INCH
CEIL	CEILING	PTD	PAINTED
CEM	CEMENT	PVC	POLYVINYL CHLORIDE
CER	CERAMIC	R	RADIUS OR RISER
CLO	CLOSET	RCP	REFLECTED CEILING PLAN
CMU	CONCRETE MASONRY UNIT	RD	ROOF DRAIN
COL	COLUMN	REINF	REINFORCED
CONC	CONCRETE	RM	ROOM
CONST	CONSTRUCTION	RO	ROUGH OPENING
CONT	CONTINUOUS	SIM	SIMILAR
CORR	CORRIDOR	SPEC	SPECIFICATIONS
CPT	CARPET	SQ	SQUARE
DS	DOWNSPOUT	SS	STAINLESS STEEL
DW	DISHWASHER	STL	STEEL
DWG	DRAWING	TEMP	TEMPERATURE
EA	EACH	TER	TERRAZZO
EL	ELEVATION	THK	THICK
ELEC	ELECTRIC/ELECTRICAL	TYP	TYPICAL
ELEV	ELEVATOR	UTIL	UTILITY
EP	ELECTRICAL PANEL	VB	VAPOR BARRIER
EPY	EPOXY COATING	VCT	VINYL COMPOSITION TILE
EQ	EQUAL	VERT	VERTICAL
EQUIP	EQUIPMENT	VTR	VENT THRU ROOF
EXIST	EXISTING	WC	WATER CLOSET
EXST	EXHAUST	WH	WATER HEATER
		WWF	WELDED WIRE FABRIC

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE 2020 BUILDING CODE OF NEW YORK STATE, 2020 FIRE CODE OF NEW YORK STATE AND THE NEW YORK STATE EDUCATION DEPARTMENT MANUAL OF PLANNING STANDARDS.
2. ALL NOTES APPEARING HEREIN, WITH THOSE ON VARIOUS DRAWINGS SHALL APPLY TO ALL DRAWINGS AND FORM PART OF THE CONTRACT DOCUMENTS.
3. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL DIMENSIONS, SQUARE FOOTAGES, LOCATIONS AND QUANTITIES OF ALL ITEMS AND/OR SPACES WHETHER INDICATED IN THE DRAWINGS OR NOT.
4. DO NOT SCALE MEASURE ANY DRAWING. VERIFY THE FIGURES, DIMENSIONS AND DESIGN INTENTION SHOWN ON THE DRAWINGS BEFORE BEGINNING LAYOUT OF THE WORK AND REPORT ANY ERRORS, INACCURACIES, OR CONFLICTS TO THE ARCHITECT/ENGINEER IN WRITING BEFORE BEGINNING ANY WORK.
5. ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES, LAWS AND STATUTES AS REQUIRED. STRICTLY ADHERE TO MANUFACTURER'S PRINTED INSTRUCTIONS.
6. VERIFY EXACT LAYOUT COMPATIBILITY WITH ALL EXISTING CONDITIONS BEFORE BEGINNING WORK.
7. DISTURB ONLY THOSE AREAS OF THE SITE AFFECTED BY RENOVATION, UNLESS NOTED OTHERWISE. PROTECT ALL OTHER AREAS. CONTRACTORS SHALL BE RESPONSIBLE FOR ALL PATCH AND REPAIR OF EXISTING FINISHES WHICH ARE DAMAGED DURING CONSTRUCTION.
8. EACH CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ANSI AND PROVIDE WHERE APPLICABLE ADA COMPLIANT BUILDING COMPONENTS.
9. THE OWNER RESERVES THE RIGHT AT ALL TIMES TO DELIVER, PLACE AND INSTALL EQUIPMENT AND FURNISHINGS AS THE WORK PROGRESSES SO LONG AS THERE IS NOT A CONFLICT WITH THE CONTRACTORS.
10. THE CONTRACTOR SHALL MAINTAIN AT THE SITE ONE RECORD COPY OF ALL DRAWINGS, SPECIFICATIONS AND APPROVED SHOP DRAWINGS AND APPROVED SAMPLES MARKED CURRENTLY TO RECORD ALL CHANGES DURING CONSTRUCTION.
11. ANY CHANGES TO THE SCOPE OF WORK OR IN THE CONSTRUCTION DETAILS, WHETHER DUE TO FIELD CONDITIONS OR OMISSION SHALL BE DOCUMENTED BY THE ARCHITECT PRIOR TO EXECUTION. ANY INCREASE OR DECREASE IN THE CONTRACT PRICE MUST BE APPROVED IN WRITING PRIOR TO EXECUTION.
12. THE CONTRACTOR BY PRESENTING THEIR BID FOR THE WORK, REPRESENTS THAT HE/SHE HAS INSPECTED THE SITE AND IS COMPLETELY FAMILIAR WITH THE SCOPE OF WORK AND ALL FIELD CONDITIONS RELATED TO, AND AFFECTING THE WORK AND IT'S PERFORMANCE. EXCEPTIONS AFFECTING THE WORK AND IT'S PERFORMANCE, OR CONFLICTS BETWEEN FIELD CONDITIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE SUBMISSION OF BIDS. FAILURE TO DO SO WILL NOT RESULT IN A CHANGE TO THE CONTRACT PRICE IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE ALL NECESSARY ACCOMMODATIONS TO COMPLETE THE SCOPE OF WORK.

DRAWING LIST

INFORMATIONAL DRAWINGS
- G.0.0 GENERAL NOTES, MAPS, DRAWING LIST, STAGING PLAN, EXIT PLAN & LEGENDS
- G1.0 CODE ANALYSIS
- G1.1 COM CHECK

CIVIL DRAWINGS
- CD1.0 EXISTING CONDITIONS AND DEMOLITION SITE PLAN
- C1.0 SITE IMPROVEMENT PLAN
- C1.1 SANITARY ALIGNMENT PLAN
- C5.0 SITE DETAILS

STRUCTURAL DRAWINGS
- S1.0 GENERAL NOTES
- S1.1 FOUNDATION PLAN
- S1.1 SLAB PLAN
- S1.2 ROOF FRAMING PLAN
- S5.0 STRUCTURAL DETAILS
- S5.1 STRUCTURAL DETAILS

ARCHITECTURAL DRAWINGS
- A1.0 FLOOR PLAN & REFLECTED CEILING PLAN
- A1.1 ROOF PLAN
- A2.0 ELEVATIONS
- A3.0 BUILDING SECTION AND WALL SECTION
- A6.0 DOOR SCHEDULE AND DETAILS

PLUMBING DRAWINGS
- P0.0 PLUMBING NOTES, LEGEND ABBREVIATIONS, AND SCHEDULES
- P1.0 SITE PLAN AND EXISTING BASEMENT PLAN
- P2.0 GROUND FLOOR PLANS
- P3.0 PLUMBING DETAILS
- P4.0 PLUMBING RISER DIAGRAMS

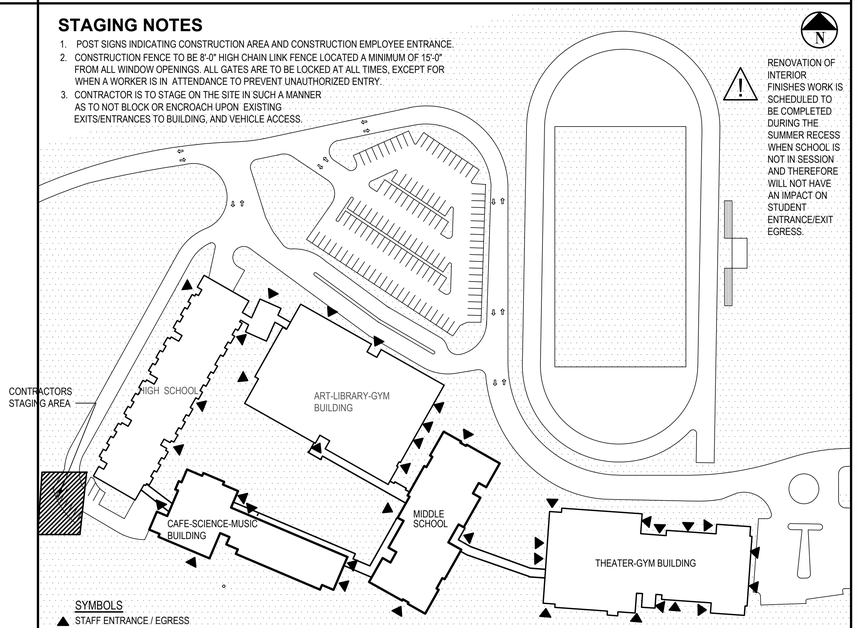
HVAC DRAWINGS
- H0.0 HVAC LEGENDS, SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES
- H1.0 HIGH SCHOOL FACILITIES STORAGE BUILDING HVAC CONSTRUCTION

ELEVATION DRAWINGS
- E0.0 ELECTRICAL LEGENDS
- E1.0 ELECTRICAL SITE PLAN
- E2.0 ELECTRICAL PARTIAL LOWER LEVEL CAFE - SCIENCE - MUSIC BUILDING POWER PLAN
- E2.1 ELECTRICAL FACILITIES STORAGE BUILDING PLAN
- E3.0 ELECTRICAL SINGLE LINE DIAGRAM, DETAILS AND SCHEDULES

STAGING PLAN

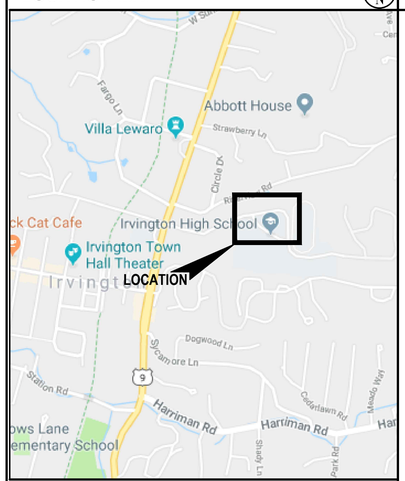
STAGING NOTES

1. POST SIGNS INDICATING CONSTRUCTION AREA AND CONSTRUCTION EMPLOYEE ENTRANCE.
2. CONSTRUCTION FENCE TO BE 8'-0" HIGH CHAIN LINK FENCE LOCATED A MINIMUM OF 15'-0" FROM ALL WINDOW OPENINGS. ALL GATES ARE TO BE LOCKED AT ALL TIMES, EXCEPT FOR WHEN A WORKER IS IN ATTENDANCE TO PREVENT UNAUTHORIZED ENTRY.
3. CONTRACTOR IS TO STAGE ON THE SITE IN SUCH A MANNER AS TO NOT BLOCK OR ENCROACH UPON EXISTING EXITS/ENTRANCES TO BUILDING, AND VEHICLE ACCESS.



RENOVATION OF INTERIOR FINISHES WORK IS SCHEDULED TO BE COMPLETED DURING THE SUMMER RECESS WHEN SCHOOL IS NOT IN SESSION AND THEREFORE WILL NOT HAVE AN IMPACT ON STUDENT ENTRANCE/EXIT EGRESS.

LOCATION MAP



SYMBOLS LEGEND

DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
ROOM DESIGNATION	GYMNASIUM -	GYPSUM	
		CONCRETE	
SECTION MARK	1 / A5.0	AGGREGATE SUB-BASE	
DETAIL SYMBOL	1 / A5.1	EARTH	
ELEVATION KEY	1 / A4.0	BATT INSULATION	
INTERIOR ELEVATION REFERENCE	A / C / D / B	PLYWOOD	
		RIGID INSULATION	
ELEVATION LINE		STEEL	
REVISION	5	WOOD	
PARTITION TYPE	3	WOOD BLOCKING	

UNIFORM SAFETY STANDARDS - FOR SCHOOL CONSTRUCTION AND MAINTENANCE PROJECTS (NYSED 155.5 REGULATION)

1. "THE OCCUPIED PORTION OF ANY SCHOOL BUILDING SHALL ALWAYS COMPLY WITH THE MINIMUM REQUIREMENTS NECESSARY TO MAINTAIN A CERTIFICATE OF OCCUPANCY."

   THE OCCUPIED PORTION OF ANY SCHOOL BUILDING SHALL COMPLY WITH THE COMMISSIONER OF EDUCATION 155.5 UNIFORM SAFETY STANDARDS.
2. PORTIONS OF WORK TO BE DISTURBED DURING THIS PROJECT ARE KNOWN TO CONTAIN ASBESTOS AND SHALL BE ABATED AS SHOWN.
3. "GENERAL SAFETY AND SECURITY STANDARDS FOR CONSTRUCTION PROJECTS:
   (1) ALL CONSTRUCTION MATERIALS SHALL BE STORED IN A SAFE AND SECURE MANNER.
   (2) FENCES AROUND CONSTRUCTION SUPPLIES OR DEBRIS SHALL BE MAINTAINED.
   (3) GATES SHALL ALWAYS BE LOCKED UNLESS A WORKER IS IN ATTENDANCE TO PREVENT UNAUTHORIZED ENTRY.
   (4) DURING EXTERIOR RENOVATION WORK, OVERHEAD PROTECTION SHALL BE PROVIDED FOR ANY SIDEWALKS OR AREAS IMMEDIATELY BENEATH THE WORK SITE OR SUCH AREAS SHALL BE FENCED OFF AND PROVIDED WITH WARNING SIGNS TO PREVENT ENTRY.
   (5) WORKERS SHALL BE REQUIRED TO WEAR PHOTO-IDENTIFICATION BADGES AT ALL TIMES FOR IDENTIFICATION AND SECURITY PURPOSES WHILE WORKING AT OCCUPIED SITES."
4. "SEPARATION OF CONSTRUCTION AREAS FROM OCCUPIED SPACES: CONSTRUCTION AREAS WHICH ARE UNDER THE CONTROL OF A CONTRACTOR AND THEREFORE NOT OCCUPIED BY DISTRICT STAFF OR STUDENTS SHALL BE SEPARATED FROM OCCUPIED AREAS. PROVISIONS SHALL BE MADE TO PREVENT THE PASSAGE OF DUST AND CONTAMINANTS INTO OCCUPIED PARTS OF THE BUILDING. PERIODIC INSPECTION AND REPAIRS OF THE CONTAINMENT BARRIERS MUST BE MADE TO PREVENT EXPOSURE TO DUST OR CONTAMINANTS. GYPSUM BOARD MUST BE USED IN EXIT WAYS OR OTHER AREAS THAT REQUIRE FIRE RATED SEPARATION. HEAVY DUTY PLASTIC SHEETING MAY BE USED ONLY FOR A VAPOR, FINE DUST OR AIR INFILTRATION BARRIER, AND SHALL NOT BE USED TO SEPARATE OCCUPIED SPACES FROM CONSTRUCTION AREAS.
   (1) A SPECIFIC STAIRWELL AND/OR ELEVATOR SHALL BE ASSIGNED OR CONSTRUCTION WORKER USE DURING WORK HOURS. IN GENERAL, WORKERS MAY NOT USE CORRIDORS, STAIRS OR ELEVATORS DESIGNATED FOR STUDENTS OR SCHOOL STAFF. WHERE NO STAIRWELL AND OR ELEVATOR IS ASSIGNED, WORKERS MUST ENTER THE CONSTRUCTION SPACES DIRECTLY FROM THE BUILDING EXTERIOR.
   (2) LARGE AMOUNTS OF DEBRIS MUST BE REMOVED BY USING ENCLOSED CHUTES OR A SIMILAR SEALED SYSTEM. THERE SHALL BE NO MOVEMENT OF DEBRIS THROUGH HALLS OF OCCUPIED SPACES OF THE BUILDING. NO MATERIAL SHALL BE DROPPED OR THROWN OUTSIDE THE WALLS OF THE BUILDING.
   (3) ALL OCCUPIED PARTS OF THE BUILDING AFFECTED BY RENOVATION ACTIVITY SHALL BE CLEANED AT THE CLOSE OF EACH WORKDAY. SCHOOL BUILDINGS OCCUPIED DURING A CONSTRUCTION PROJECT SHALL MAINTAIN REQUIRED HEALTH, SAFETY AND EDUCATIONAL CAPABILITIES AT ALL TIMES THAT CLASSES ARE IN SESSION."
5. A PLAN DETAILING HOW EXITING REQUIRED BY THE APPLICABLE BUILDING CODE WILL BE MAINTAINED.
6. WORK UNDER THIS CONTRACT WILL BE CONDUCTED DURING THE SUMMER RECESS OR DURING AFTER SCHOOL HOURS WHEN THE BUILDING IS UNOCCUPIED. IF THE BUILDING BECOMES OCCUPIED THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ALL EXISTING MEANS OF EGRESS IN A CLEAR AND FREE MANNER, INCLUDING THE STORAGE OF MATERIALS AND STAGING OF EQUIPMENT ON THE SITE. IF ANY PORTION OF THE BUILDING DOES BECOME OCCUPIED THE ARCHITECT WILL PROVIDE A DETAILED PLAN FOR EXITING, OVERHEAD PROTECTION AND EGRESS IN ACCORDANCE WITH APPLICABLE BUILDING CODES.
7. A PLAN DETAILING HOW ADEQUATE VENTILATION WILL BE MAINTAINED DURING CONSTRUCTION.
8. WORK UNDER THIS PROJECT WILL BE COMPLETED DURING OFF HOURS WHEN THE BUILDING WILL NOT BE OCCUPIED BY FACULTY, STAFF OR STUDENTS. IF A PORTION OF THE BUILDING IS TO BECOME OCCUPIED DURING THE CONSTRUCTION PROCESS THE CONTRACTOR SHALL CLOSE OFF ALL INTAKES, OPENINGS, AND MECHANICAL VENTILATION SYSTEMS ADJACENT TO THE WORK AREA. THE ARCHITECT SHALL ASSIST THE CONTRACTOR IN DEVELOPING A PLAN TO PROVIDE ALTERNATE MEANS OF FRESH AIR TO ALL OCCUPIED SPACES.
9. "CONSTRUCTION AND MAINTENANCE OPERATIONS SHALL NOT PRODUCE NOISE IN EXCESS OF 60 DBA IN OCCUPIED SPACES OR SHALL BE SCHEDULED FOR TIMES WHEN THE BUILDING OR AFFECTED BUILDING SPACES ARE NOT OCCUPIED OR ACOUSTICAL ABATEMENT MEASURES SHALL BE TAKEN."
10. "THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF CHEMICAL FUMES, GASES, AND OTHER CONTAMINATES PRODUCED BY WELDING, GASOLINE OR DIESEL ENGINES, ROOFING, PAVING, PAINTING, ETC. TO ENSURE THEY DO NOT ENTER OCCUPIED PORTIONS OF THE BUILDING OR AIR INTAKES." ALL VENTS SHALL BE SEALED TO PREVENT CONTAMINANTS FROM THE CONSTRUCTION AREA FROM ENTERING THE OCCUPIED AREAS OF THE BUILDING.
11. "THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ACTIVITIES AND MATERIALS WHICH RESULT IN "OFF-GASSING" OF VOLATILE ORGANIC COMPOUNDS SUCH AS GLUES, PAINTS, FURNITURE, CARPETING, WALL COVERING, DRAPERY, ETC. ARE SCHEDULED, CURED OR VENTILATED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS BEFORE A SPACE CAN BE OCCUPIED."
12. "LARGE AND SMALL ASBESTOS ABATEMENT PROJECTS AS DEFINED BY 12NYCRR56 SHALL NOT BE PERFORMED WHILE THE BUILDING IS OCCUPIED." IT IS OUR INTERPRETATION THAT THE TERM "BUILDING", AS REFERENCED IN THIS SECTION, MEANS A WING OR MAJOR SECTION OF A BUILDING THAT CAN BE COMPLETELY ISOLATED FROM THE REST OF THE BUILDING WITH SEALED NON COMBUSTIBLE CONSTRUCTION. THE ISOLATED PORTION OF THE BUILDING MUST CONTAIN EXITS THAT DO NOT PASS THROUGH THE OCCUPIED PORTION AND VENTILATION SYSTEMS MUST BE PHYSICALLY SEPARATED AND SEALED AT THE ISOLATION BARRIER.
13. EXTERIOR WORK SUCH AS ROOFING, FLASHING, SIDING, OR SOFFIT WORK MAY BE PERFORMED ON OCCUPIED BUILDINGS PROVIDED PROPER VARIANCES ARE IN PLACE AS REQUIRED, AND COMPLETE ISOLATION OF VENTILATION SYSTEMS AND AT WINDOWS IS PROVIDED. CARE MUST BE TAKEN TO SCHEDULE WORK SO THAT CLASSES ARE NOT DISRUPTED BY NOISE OR VISUAL DISTRACTION.
14. MINOR ASBESTOS PROJECTS DEFINED BY 12NYCRR56 AS AN ASBESTOS PROJECT INVOLVING THE REMOVAL, DISTURBANCE, REPAIR, ENCAPSULATION, ENCLOSURE OR HANDLING OF 10 SQUARE FEET OF ASBESTOS OR ASBESTOS MATERIAL MAY BE PERFORMED IN UNOCCUPIED AREAS OF AN OCCUPIED BUILDING IN ACCORDANCE WITH 12NYCRR56.
15. NONE OF THE SURFACES AND/OR MATERIALS TO BE REMOVED OR DISTURBED BY THIS RENOVATION ARE SUSPECT OF CONTAINING LEAD.
16. UNDER NEW YORK STATE LAW SMOKING IS PROHIBITED ON SCHOOL GROUNDS. EMPLOYEES FOUND TO BE SMOKING ON SCHOOL GROUNDS SHALL BE ORDERED OFF SITE AND A SECOND OFFENSE WILL BE GROUNDS FOR PERMANENT REMOVAL FROM PROJECT. LEGAL PENALTIES MAY ALSO BE APPLIED.
17. ALL CONTRACTORS SHALL TAKE EVERY PRECAUTION AND SHALL PROVIDE SUCH EQUIPMENT AND FACILITIES AS ARE NECESSARY OR REQUIRED FOR THE SAFETY OF ITS EMPLOYEES. IN CASE OF AN ACCIDENT, FIRST AID SHALL BE ADMINISTERED TO ANY WHO MAY BE INJURED IN THE PROGRESS OF THE WORK. IN ADDITION, THE CONTRACTOR SHALL BE PREPARED FOR THE REMOVAL TO THE HOSPITAL FOR TREATMENT OF ANY EMPLOYEE EITHER SERIOUSLY INJURED OR ILL.
18. THE CONTRACTOR SHALL PROVIDE TEMPORARY WEATHER-TIGHT AND INSULATED ENCLOSURES AS MAY BE REQUIRED BY THE SCOPE OF WORK FOR ALL EXTERIOR OPENINGS SO AS TO PROTECT ALL WORK FROM THE WEATHER, AND TO PROVIDE SECURITY AGAINST UNAUTHORIZED ENTRY. ENCLOSURES SHALL NOT CREATE DEAD END CONDITIONS, REQUIRED EXITS SHALL BE MAINTAINED FREE AND CLEAR.

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CONSULTANTS:

MARK	DATE	DESCRIPTION
1	11/15/2021	FINAL BID DOCUMENT

REGISTERED ARCHITECT ANDREW J. BELSHAW STATE OF NEW YORK 033063

"ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL IS ILLEGAL"

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:

PROJECT No.:	DATE:	SCALE:
IRSD1903	NOV 2021	AS SHOWN

CLIENT

Irvington Union Free School District

Facilities Storage Building at Irvington Campus

Irvington Campus
40 N. Broadway
Irvington, NY 10533

SED Number:66-04-02-02-2-022-001

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

FINAL BID DOCUMENT

SHEET TITLE

GENERAL NOTES, ABBREVIATIONS, DRAWING LIST, STAGING PLAN, LOCATION MAP AND LEGEND

DRAWING No.

G0.0

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MINIMUM NUMBER OF EXITS PER OCCUPIED LOAD

(NYS CODE TABLE (1006.3.2)

FLOOR AREA (GROSS)	OCCUPANT LOAD (300 S.F. / PERSON)	MINIMUM REQ'D # OF EXITS	# OF EXITS PROVIDED
FIRST FLOOR = 1,150SF	4	1	1

CAPACITY OF EXIT DOORS

(2020 Building Code of New York State (1005.3.2))

DOOR #	MINIMUM WIDTH	ACTUAL WIDTH	# OF PERSONS ALLOWED	# OF PERSONS PROPOSED
01	32"	34"	180	4

LEGEND

	1 HOUR MIN. FIRE RATED WALLS 45 MIN. FIRE RATED OPENING PROTECTIVES
OCCUPANCY: STORAGE; AREA (SF): 150 SF; # OF PERSONS: 1 PERSON; SQUARE FOOT/PERSON: 200 SF / PERSON	
101	EXIT DOOR
101	EXIT ACCESS DOOR
0'-0"	TRAVEL DISTANCE (DIRECTION AND DISTANCE)
	REMOTE POINT

FE - #	FIRE EXTINGUISHER & TYPE #
FEC - #	FIRE EXTINGUISHER (IN CABINET) & TYPE #
	PUBLIC ENTRANCE
	PATH OF EGRESS

BUILDING ENVELOPE REQUIREMENTS

WESTCHESTER COUNTY = 4 — 2020 Energy Conservation Code of NYS (Table C402.1.3)

	REQUIRED	PROPOSED
UNHEATED SLAB	R-10 FOR 24" BELOW	R-10 TO TOP OF FOOTING (MIN. 36")
ROOF	R-30 CI	MIN R-30 CI
ABOVE GRADE WALL- METAL FRAMED	R-13 + R-7.5 CI	R-13 (BATT) + R-10 CI
ABOVE GRADE MASS WALL	R-9.5 CI	R-10 CI
BELOW GRADE WALL	R-7.5 CI	R-7.5CI
NONSWINGING DOORS	R-4.75	R-8

REFER TO COM CHECK FOR COMPLIANCE REPORT

FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS

(NYS CODE TABLE 601)

CONSTRUCTION CLASSIFICATION: TYPE IIB

BUILDING ELEMENT	HOURS
STRUCTURAL FRAME	0
EXTERIOR BEARING WALLS	0[2,3]
EXTERIOR NON-BEARING WALLS	0[2,3]
INTERIOR BEARING WALLS	0
NON-BEARING WALLS	0[2]
FLOOR CONSTRUCTION	0
ROOF CONSTRUCTION	0

1. VALUES LISTED REPRESENT MINIMUM GENERAL VALUES, AS REQUIRED BY THE NYS BUILDING CODE. REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL FIRE RATING INFO.

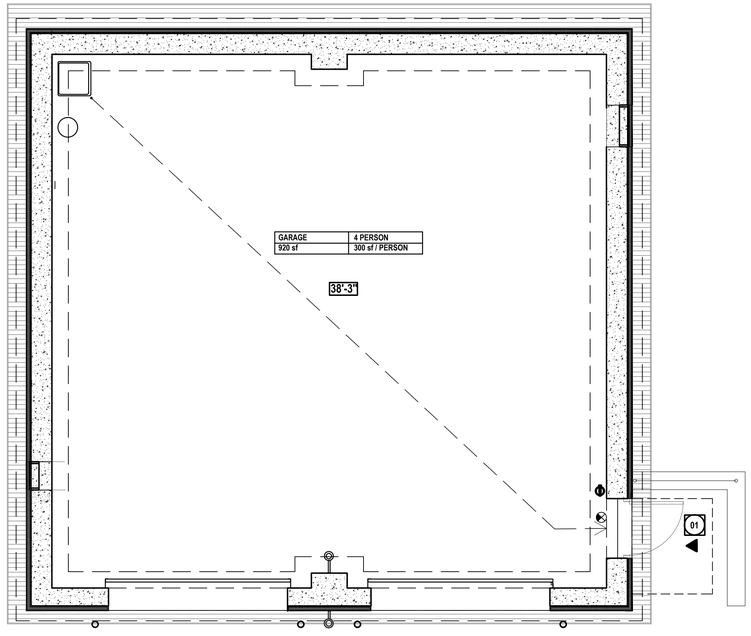
2. AS PER NYS BUILDING CODE, TABLE 602 (TYPE IIB CONSTRUCTION, OCCUPANCY GROUPS 'U', WITH >30' FIRE SEPARATION DISTANCE).

3. SEE DWG. A1.0 FOR WALL & PARTITION TYPE INFORMATION.

GENERAL CALCULATIONS NOTES:

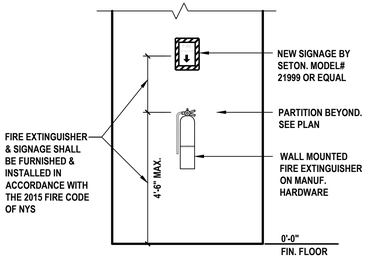
PER NYS BUILDING CODE, TABLE 1004.1.2: 2020 Building Code of New York State (Table 1004.5)

CLASSROOM OCCUPANCY CALCULATED AT 20 SF PER OCCUPANT
LIBRARY OCCUPANCY CALCULATED AT 50 SF PER OCCUPANT
STAGE/PLATFORM OCCUPANCY CALCULATED AT 15 SF PER OCCUPANT
OFFICE OCCUPANCY CALCULATED AT 100 SF PER OCCUPANT
STORAGE OCCUPANCY CALCULATED AT 300 SF PER OCCUPANT
MECHANICAL EQUIPMENT OCCUPANCY CALCULATED AT 300 SF PER OCCUPANT
CAFETERIA OCCUPANCY CALCULATED AT 15 SF PER OCCUPANT
GYM OCCUPANCY CALCULATED AT 50 SF PER OCCUPANT



1 **Enlarged Floor Plan**
SCALE: 1/4"=1'-0"

FIRST FLOOR
GROSS: 1,150
NET: 920
4 PERSONS



1 **Elevation @ Wall Mtd. Fire Extinguisher**
SCALE: N.T.S.

GENERAL NOTES:

1. PER SED; MANUAL OF PLANNING STANDARDS, S202-2;B FINISHES SHALL BE CLASS A,B OR C. CLASS A OR B FINISHES SHALL BE USED IN KITCHENS, STOREROOMS, CUSTODIAL AREAS, PLACES OF ASSEMBLY. CLASS A INTERIOR FINISHES SHALL BE USED CORRIDORS, PASSAGE WAYS AND STAIR WAYS.

2. ALL GLAZING IN DOORS, FIXED SIDE PANELS ADJOINING DOORS, INTERIOR PARTITIONS WHERE GLAZING EXTENDS TO WITHIN 1'-6" OF FINISHED FLOOR AND GLASS PANELS GREATER THAN 50 SQ. FT. TO BE FULLY TEMPERED SAFETY GLASS PER NYS CODE CHAPTER 7. ALL VISION PANELS IN INTERIOR DOORS SHALL BE FIRE RATED CERAMIC AS PER SED, MANUAL OF PLANNING STANDARDS.

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CONSULTANTS:

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DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
CWP	MKS		

PROJECT No.:	DATE:	SCALE:
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Facilities Storage Building at Irvington Campus

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CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

FINAL BID DOCUMENT

SHEET TITLE

CODE ANALYSIS

DRAWING No.

G1.0

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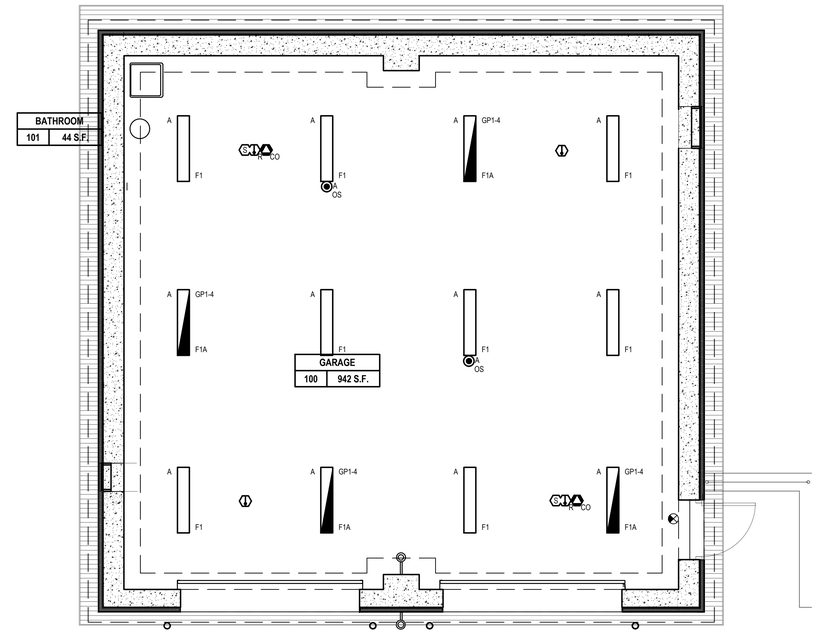


1 **Enlarged Bathroom Floor Plan**
SCALE: 1/2"=1'-0"

H 2 M architects + engineers

2700 Westchester Avenue, Suite 415
Purchase, NY 10577
914.358.5623 • www.h2m.com

CONSULTANTS:

MARK	DATE	DESCRIPTION
1	11/15/2021	FINAL BID DOCUMENT

REGISTERED ARCHITECT
RAMIRO J. BELTRAME
033063
STATE OF NEW YORK

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
CWP	MKS		
PROJECT No:	DATE:	SCALE:	
IRSD1903	NOV 2021	AS SHOWN	

CLIENT

Irvington Union Free School District

Facilities Storage Building at Irvington Campus

Irvington Campus
40 N. Broadway
Irvington, NY 10533

SED Number:66-04-02-02-2-022-001

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

FINAL BID DOCUMENT

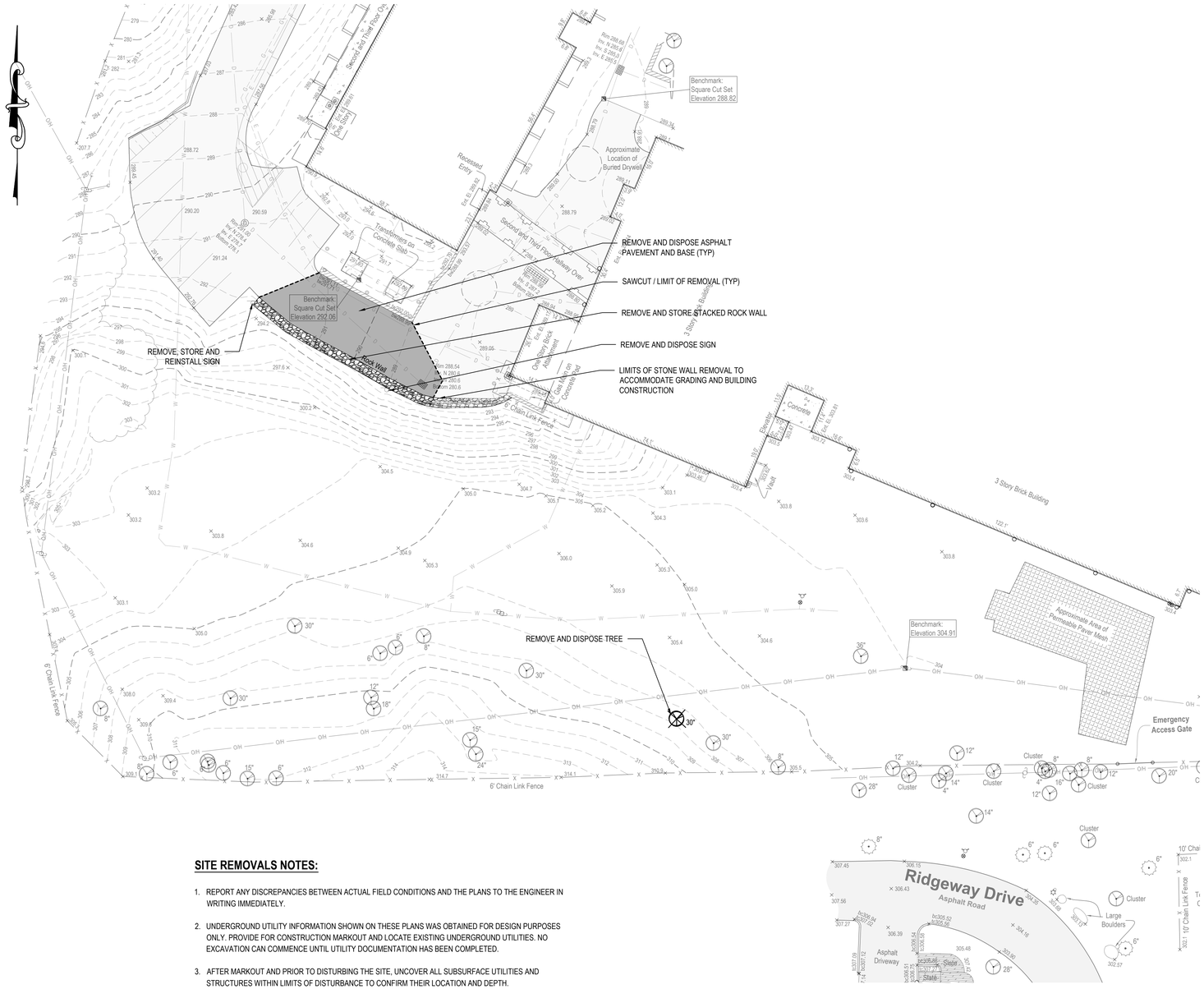
SHEET TITLE

COM CHECK

DRAWING No.

G1.1

X:\IRSD (Irvington UFSD)\IRSD 1903 (HS Facilities Storage Building)\02-Bid\CAD\Con-docs\general\G1.1 COM CHECK.dwg Last Modified: Dec 13, 2019 - 2:40pm Plotted on: Nov 02, 2021 - 1:21pm By: lahcrassen



DEMOLITION PLAN LEGEND

- REMOVE AND DISPOSE EXISTING ASPHALT PAVEMENT AND BASE
- REMOVE AND DISPOSE ROCK RETAINING WALL
- REMOVE AND DISPOSE EXISTING TREE
- SAWCUT PAVEMENT LINE

EXISTING CONDITIONS LEGEND

- MONUMENT
- BENCHMARK
- DRAINAGE MANHOLE
- CURB INLET
- CATCH BASIN
- INLET
- INLET
- HYDRANT
- WATER METER
- WATER VALVE
- SANITARY MANHOLE
- CLEAN OUT/VENT PIPE
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- ELECTRIC RISER
- UTILITY POLE/GUY POLE
- GUY WIRE
- GAS VALVE
- SIGN
- BOLLARD
- FLAG POLE
- EVERGREEN TREE
- DECIDUOUS TREE
- DOOR
- CURB
- DROP CURB
- STORM DRAIN
- ROOF LEADER
- WATER MAIN
- WATER SERVICE
- BLOW OFF LINE
- CAUSTIC SODA LINE
- SAMPLING LINE
- SANITARY SEWER
- HOUSE CONNECTION
- UNDERGROUND GAS
- UNDERGROUND ELECTRIC
- UNDERGROUND TELEPHONE
- OVERHEAD WIRES
- FENCE
- CONTOUR
- SPOT ELEVATION
- TOP/BOT CURB GRADE
- ASPHALT PAVEMENT
- ROCK WALL
- PERMEABLE PAVER MESH
- CONCRETE PAVEMENT
- EXISTING TREELINE

GRAPHIC SCALE

20 0 10 20

(IN FEET)
1 inch = 20 ft.

SITE REMOVALS NOTES:

1. REPORT ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS TO THE ENGINEER IN WRITING IMMEDIATELY.
2. UNDERGROUND UTILITY INFORMATION SHOWN ON THESE PLANS WAS OBTAINED FOR DESIGN PURPOSES ONLY. PROVIDE FOR CONSTRUCTION MARKOUT AND LOCATE EXISTING UNDERGROUND UTILITIES. NO EXCAVATION CAN COMMENCE UNTIL UTILITY DOCUMENTATION HAS BEEN COMPLETED.
3. AFTER MARKOUT AND PRIOR TO DISTURBING THE SITE, UNCOVER ALL SUBSURFACE UTILITIES AND STRUCTURES WITHIN LIMITS OF DISTURBANCE TO CONFIRM THEIR LOCATION AND DEPTH.
4. NO COMPENSATION WILL BE MADE FOR ANY INCONVENIENCE CAUSED BY ENCOUNTERING UTILITIES AND STRUCTURES WHICH ARE NOT SHOWN, OR ARE INACCURATELY SHOWN ON THE PLANS.
5. REPAIR ANY DAMAGE TO EXISTING UTILITIES RESULTING FROM CONTRACTOR OPERATIONS IMMEDIATELY AT NO COST TO OWNER.
6. REPAIR ANY DAMAGE TO EXISTING SITE FEATURES SCHEDULED TO REMAIN RESULTING FROM CONTRACTOR OPERATIONS AT NO COST TO OWNER.
7. LOCATE ALL COMPONENTS OF ANY EXISTING IRRIGATION SYSTEMS PRIOR TO CONSTRUCTION AND PROTECT THROUGHOUT THE DURATION OF THE CONTRACT. REPAIR ALL DAMAGED COMPONENTS AT NO ADDITIONAL COST TO THE OWNER.
8. PROVIDE TEMPORARY FENCING TO PROTECT WORK AREAS.
9. INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE DIMENSIONAL SITE PLAN PLAN PRIOR TO ANY GROUND DISTURBANCE.
10. DELINEATE THE LIMITS OF CLEARING AND REVIEW WITH THE OWNER PRIOR TO COMMENCING WORK.
11. NOTIFY OWNER AND ENGINEER IMMEDIATELY IN WRITING WHEN UNKNOWN STRUCTURES OR SUSPECTED HAZARDOUS OR CONTAMINATED MATERIALS ARE ENCOUNTERED PRIOR TO REMOVAL OR DISTURBANCE.
12. TAKE APPROPRIATE MEASURES TO PROTECT PEDESTRIANS AND VEHICULAR TRAFFIC DURING REMOVAL ACTIVITIES, AND PROVIDE TEMPORARY MEASURES FOR THE PROTECTION AND SAFETY OF THE PUBLIC UNTIL FINAL ACCEPTANCE BY THE OWNER.
13. BACKFILL ALL VOIDS RESULTING FROM THE REMOVAL OF EXISTING SITE FEATURES. BACKFILL TO BE SOIL, FREE OF ORGANIC MATERIAL, DEBRIS, TRASH, CLAY AND STONES LARGER THAN 4 INCHES.

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UTILITY NOTES:

SUBSURFACE UTILITY ENGINEERING (SUE) QUALITY LEVELS OF SERVICE (ACCURACY)
ALL MARKOUT IS QUALITY LEVEL B UNLESS OTHERWISE NOTED.

QL-A = QUALITY LEVEL A (TEST HOLES)
DATA TYPICALLY ACQUIRED AT ONE POINT ON AN UNDERGROUND UTILITY FEATURE EXPOSED BY AIR VACUUM EXCAVATION OR OTHER MEANS. THE HORIZONTAL AND VERTICAL LOCATION OF THIS REFERENCE POINT IS ACQUIRED AND REPORTED TO ACCEPTABLE SURVEY TOLERANCES. THE ACQUIRED DATA FULFILLS SECTION 5.4.5 ON PAGE 6 OF ASCE STANDARD 38-02.

QL-B = QUALITY LEVEL B (UTILITY DESIGNATION)
DEPICTION OF AN UNDERGROUND UTILITY LINE ESTABLISHED BY SENSING THE LOCATION WITH ELECTRONIC INSTRUMENTATION. LINEWORK AND UTILITY SURFACE FEATURES ARE ACQUIRED BY SURVEYING POINTS ALONG ALIGNMENT TO ACCEPTABLE SURVEY TOLERANCES.

QL-C = QUALITY LEVEL C (RECORDS PLOTTING)
UTILITY INFORMATION OBTAINED FROM RECORD INFORMATION AND PLOTTED TO CORRELATE WITH SURFACE UTILITY FEATURES WHICH HAVE BEEN SURVEY LOCATED AND ACCURATELY REDUCED ON TO DESIGN/CONSTRUCTION DOCUMENTS.

QL-D = QUALITY LEVEL D (RECORDS DRAFTING)
DEPICTION OF UNDERGROUND UTILITY LINES BY TRANSPOSITION FROM UTILITY RECORDS OR PLACED FROM VERBAL RECOLLECTIONS WITHOUT BENEFIT OF SURVEYED SURFACE FEATURES. ACCURACY OF INFORMATION IS QUESTIONABLE.

EOI
END OF INFORMATION PERTAINS TO THE LOSS OF SIGNAL THAT HAS BEEN APPLIED TO AN UNDERGROUND UTILITY AND THEN DETECTED TO ELECTRONICALLY LOCATE THE UTILITY. COMMONLY FOUND WHERE UTILITIES CHANGE TO NON-CONDUCTIVE MATERIALS, ARE CUT OR AT END OF UTILITY.

EXISTING CONDITIONS NOTES:

1. EXISTING SURVEY PREPARED BY H2M architects + engineers. DATED 10/22/2019 AND MOST RECENTLY REVISED 07/09/2020.
2. ELEVATIONS REFER TO N.A.V.D. 1988.
3. THIS SURVEY WAS COMPLETED WITHOUT THE BENEFIT OF A COMPLETE TITLE REPORT.
4. THE OFFSETS AND DIMENSIONS SHOWN FROM STRUCTURES TO THE PROPERTY LINE ARE FOR A SPECIFIC PURPOSE AND ARE NOT INTENDED TO GUIDE THE ERECTION OF FENCES WALLS POOLS PATIOS ADDITIONS TO BUILDINGS AND ANY OTHER CONSTRUCTION.
5. THE LOCATIONS OF UNDERGROUND STRUCTURES AND UTILITIES SHOWN HEREON ARE BASED ON ABOVEGROUND FEATURES AND/OR RECORD DRAWINGS AND MARKOUT PROVIDED BY SINGER UTILITY ENGINEERING, P.C. ON SEPTEMBER, 2019. LOCATIONS OF UNDERGROUND STRUCTURES AND UTILITIES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED STRUCTURES AND UTILITIES MAY BE ENCOUNTERED. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION.

H2M architects + engineers
2700 Westchester Avenue, Suite 415
Purchase, NY 10577
914.358.5623 • www.h2m.com

CONSULTANTS:

MARK	DATE	DESCRIPTION

LICENSED PROFESSIONAL ENGINEER — STATE OF NEW YORK — JOEL RICHARD PUCCIO — 076660

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DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
EPI	EPI	RJR	

PROJECT No.:	DATE:	SCALE:
IRSD1903	NOV 2021	AS SHOWN

CLIENT
Irvington Union Free School District

Facilities Storage Building at Irvington Campus

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SED Number:66-04-02-02-2-022-001

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GENERAL CONSTRUCTION

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SHEET TITLE
EXISTING CONDITIONS AND DEMOLITION SITE PLAN

DRAWING No.
CD100.00

GRADING AND DRAINAGE NOTES:

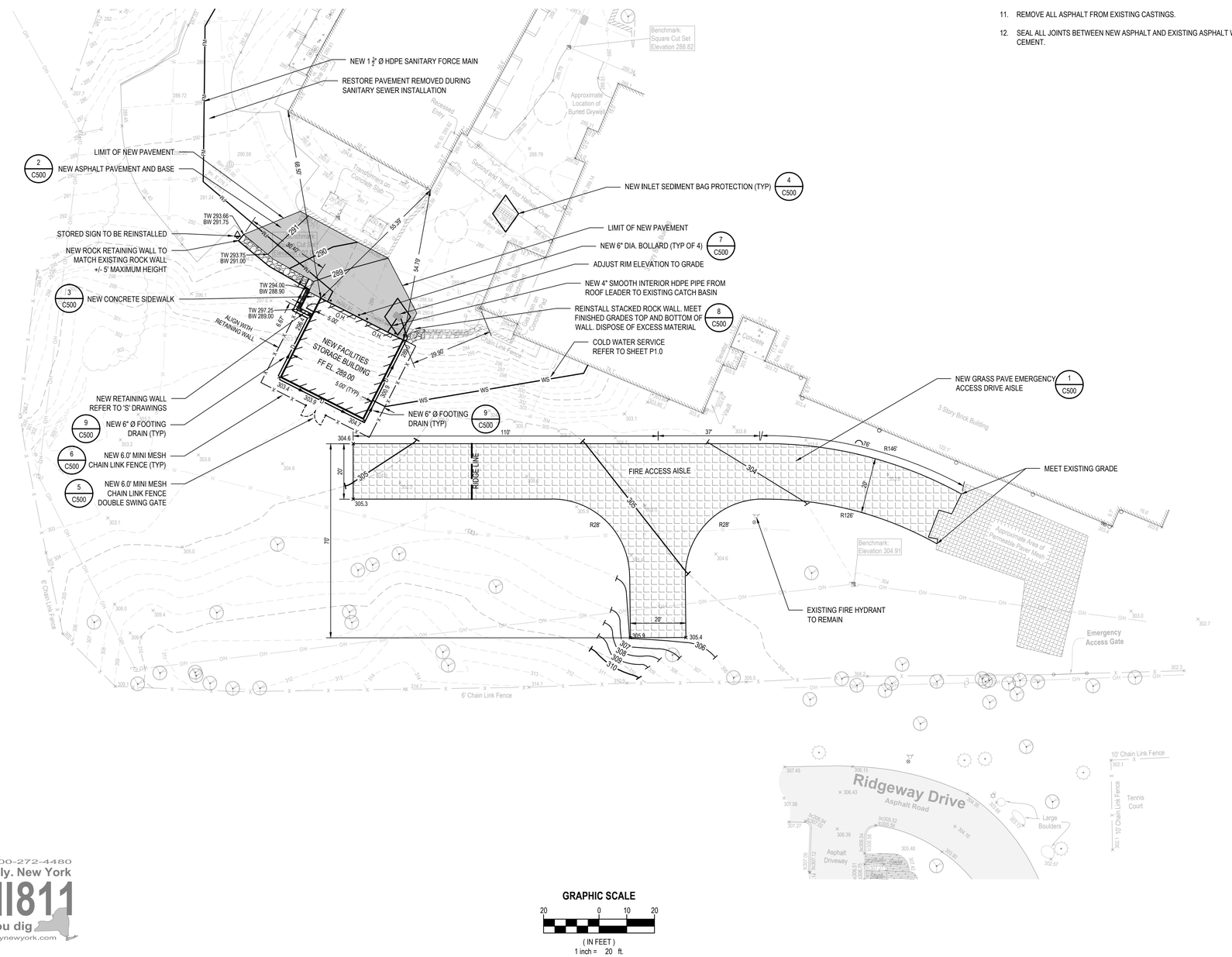
1. FOR NEW CONSTRUCTION THAT MEETS EXISTING CONDITIONS, ABUTTING SURFACES SHALL BE FLUSH AND ALIGNED.
2. ADJUST ALL EXISTING CASTINGS AND VALVE COVERS TO MEET PROPOSED GRADE.
3. CONSTRUCTION DEBRIS AND EXCESS SOIL SHALL BE REMOVED AND LEGALLY DISPOSED OFF SITE.
4. UNSUITABLE SOILS ENCOUNTERED DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IMMEDIATELY IN WRITING BEFORE REMOVAL OR DISTURBANCE.

SITE PLAN NOTES:

1. INSPECT THE SITE PRIOR TO SUBMISSION OF BIDS AND MAKE NO ADDITIONAL CLAIMS REGARDING SITE CONDITIONS THEREAFTER.
2. NOTIFY THE OWNER AND H2M (TELEPHONE 631-756-8000) AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF THE WORK. THE SAME NOTICE SHALL BE REQUIRED WHEN RESUMING WORK AFTER ANY STOPPAGE OR DELAY.
3. COMPLETE ALL SURVEY AND STAKEOUT AS REQUIRED TO PROPERLY COMPLETE THE WORK.
4. PERFORM DAILY CLEANUP OPERATIONS INCLUDING REMOVAL OF DEBRIS AND EXCESS CONSTRUCTION MATERIAL, AND DRIVEWAY/STREET CLEANING TO THE SATISFACTION OF THE OWNER.
5. DURING ALL NON-WORKING HOURS, STORE ALL EQUIPMENT AND MATERIALS WITHIN AN AREA DESIGNATED BY THE OWNER AT THE PROJECT SITE.
6. ALL CURB DIMENSIONS SHOWN REFER TO THE FACE OF CURB.
7. ALL CONSTRUCTION TO CONFORM WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODE REQUIREMENTS.
8. COORDINATE CONSTRUCTION ACTIVITIES WITH OWNER TO MINIMIZE INTERRUPTION TO THE OWNER'S OPERATIONS.
9. RESTORE SURROUNDING AREAS DAMAGED OR DISTURBED DURING CONSTRUCTION. RESTORE TO NEW CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
10. RESTORE ALL DISTURBED GRASS AREAS AND ALL AREAS NOT SPECIFICALLY IDENTIFIED FOR OTHER IMPROVEMENTS WITH 4 INCHES OF TOPSOIL AND SEED.
11. REMOVE ALL ASPHALT FROM EXISTING CASTINGS.
12. SEAL ALL JOINTS BETWEEN NEW ASPHALT AND EXISTING ASPHALT WITH HOT ASPHALT CEMENT.

LEGEND

DESCRIPTION	SYMBOL
ASPHALT PAVEMENT	
CONCRETE PAVEMENT SIDEWALK	
NEW EZ ROLL GRASS PAVE SYSTEM	
ROCK RETAINING WALL	
DOOR	
OVERHEAD DOOR	OH
SPOT ELEVATION	+121.50
TOP AND BOTTOM CURB ELEVATION	TC140.00 BC139.50
MAJOR CONTOUR	240
MINOR CONTOUR	241
RIDGE LINE	
RETAINING WALL	
SANITARY LINE	S — S
DRAINAGE LINE	D — D
FIRE SERVICE LINE	FS — FS
WATER LINE	W — W
WATER SERVICE LINE	WS — WS
SANITARY FORCEMAIN LINE	FM — FM



EROSION CONTROL NOTES:

1. DURING THE COURSE OF CONSTRUCTION, EROSION AND SEDIMENT CONTROL MEASURES ARE NECESSARY TO PREVENT THE TRANSPORT OF SEDIMENT TO UNDISTURBED AREAS, PONDS, WATER COURSES, DRAINAGE SYSTEMS, RECHARGE BASINS, AND ROADS. THE MINIMUM EROSION CONTROL MEASURES REQUIRED ARE INDICATED ON THIS PLAN. IN ADDITION, THE FOLLOWING GENERAL CONDITIONS SHALL BE OBSERVED:
   a. EXISTING VEGETATION SCHEDULED TO REMAIN SHALL BE PROTECTED AND REMAIN UNDISTURBED.
   b. INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AS REQUIRED TO PREVENT THE INCIDENTAL DISCHARGE OF SEDIMENT FROM THE SITE.
2. SPECIFIC METHODS AND MATERIALS EMPLOYED IN THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES MUST CONFORM TO THE LATEST EDITION OF THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL".
3. INSTALL PROPRIETARY EROSION AND SEDIMENT CONTROL PRODUCTS IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
4. ADJUST EROSION AND SEDIMENT CONTROL MEASURES TO ACCOMMODATE CONSTRUCTION PHASING TO MAINTAIN EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES.
5. PROTECT EXISTING DRAINAGE INLETS WITHIN THE PROJECT LIMITS AND NEW DRAINAGE INLETS INSTALLED AS PART OF THIS PROJECT FROM SEDIMENT INTRUSION.
6. PERFORM INSPECTION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES ON A WEEKLY BASIS AND AFTER HEAVY OR PROLONGED STORMS. MAINTENANCE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, CLEANING AND REPAIR OF ALL EROSION AND SEDIMENT CONTROL MEASURES.
7. UTILIZE APPROPRIATE MEANS TO CONTROL DUST DURING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO APPLYING WATER TO BARE SOIL SURFACES.
8. MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE TO PREVENT SOIL AND LOOSE DEBRIS FROM BEING TRACKED ONTO LOCAL ROADS. MAINTAIN THE CONSTRUCTION ENTRANCE WEEKLY UNTIL THE SITE IS PERMANENTLY STABILIZED.
9. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED. AFTER PERMANENT STABILIZATION, REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND ALL ACCUMULATED SEDIMENT AND DEBRIS FROM THE SITE AND DRAINAGE STRUCTURES.

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GRAPHIC SCALE
20 0 10 20
(IN FEET)
1 inch = 20 ft.

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CONSULTANTS:

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DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
EPI	EPI	RJR	

PROJECT No.:	DATE:	SCALE:
IRSD1903	NOV 2021	AS SHOWN

CLIENT
Irvington Union Free School District

Facilities Storage Building at Irvington Campus

Irvington Campus
40 N. Broadway
Irvington, NY 10533

SED Number:66-04-02-02-2-022-001

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GENERAL CONSTRUCTION

STATUS
SED - FINAL BID SET

SHEET TITLE
SITE IMPROVEMENT PLAN

DRAWING No.
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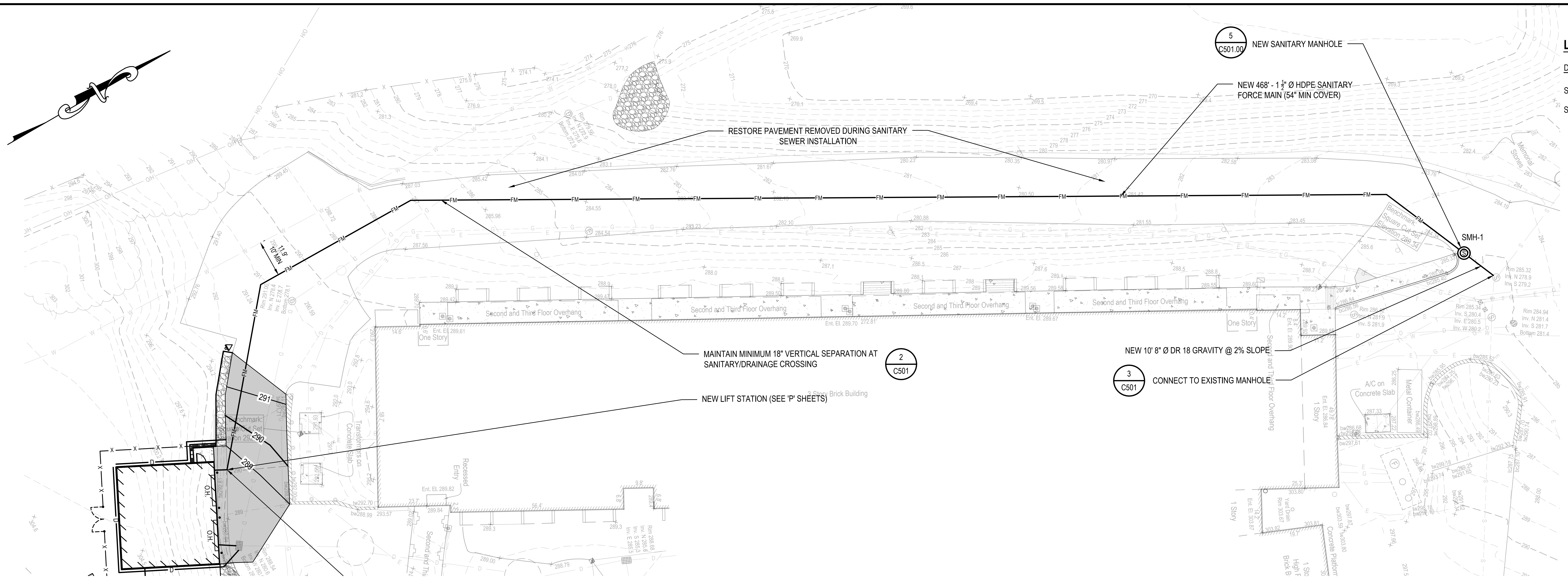


(5 / C501.00) NEW SANITARY MANHOLE

NEW 468' - 1½" Ø HDPE SANITARY FORCE MAIN (54" MIN COVER)

RESTORE PAVEMENT REMOVED DURING SANITARY SEWER INSTALLATION

MAINTAIN MINIMUM 18" VERTICAL SEPARATION AT SANITARY/DRAINAGE CROSSING (2 / C501)

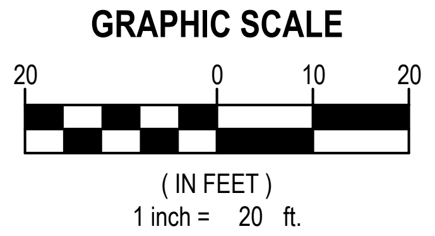
NEW LIFT STATION (SEE 'P' SHEETS)

NEW 10' 8" Ø DR 18 GRAVITY @ 2% SLOPE

(3 / C501) CONNECT TO EXISTING MANHOLE

LEGEND

DESCRIPTION	SYMBOL
SANITARY MANHOLE	◎
SANITARY FORCE MAIN	—FM—



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CONSULTANTS:

MARK	DATE	DESCRIPTION

ROBERT JOEL RICHARDSON
099970

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SHEET TITLE

SANITARY ALIGNMENT PLAN

DRAWING No.

C101.00

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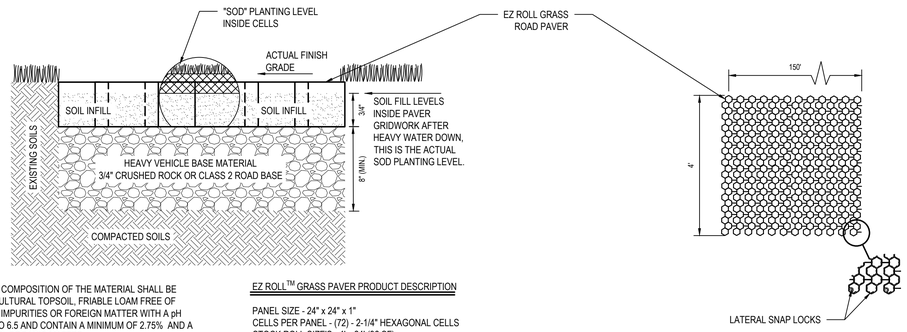


SOIL INFILL THE COMPOSITION OF THE MATERIAL SHALL BE FERTILE, AGRICULTURAL TOPSOIL, FRIABLE LOAM FREE OF SUBSOIL, CLAY, IMPURITIES OR FOREIGN MATTER WITH A pH RANGE OF 5.8 TO 6.5 AND CONTAIN A MINIMUM OF 2.75% AND A MAXIMUM OF 25% ORGANIC MATTER.

GRASS SEED OR SOD REFER TO PLANTING PLAN.

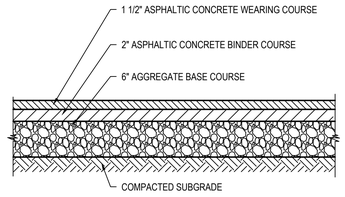
EZ ROLL™ GRASS PAVER PRODUCT DESCRIPTION

PANEL SIZE - 24" x 24" x 1"
CELLS PER PANEL - (72) - 2-1/4" HEXAGONAL CELLS
STOCK ROLL SIZE'S - 4' x 24' (96 SF)
4' x 150' (600 SF)

CUSTOM SIZES AVAILABLE UPON REQUEST
1' - 6" x 150' (225 SF)
2' x 150' (300 SF)

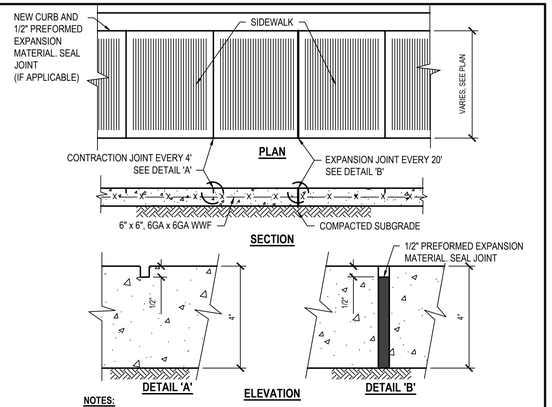
NESTED HONEYCOMB CELL LAYOUT
COMPRESSIVE STRENGTH (OPEN CELL NO FILL)
63,936 PSF
444 PSI
EXCEEDS H20 LOADING

1 EZ-Roll Grass Paver / Fire Access
N.T.S



NOTE:
COMPACT SUBGRADE TO 92% MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557.

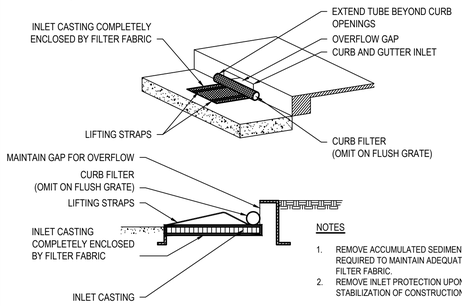
2 Asphalt Pavement - Standard Duty
SCALE: NTS (321216.13 H2MX1) - U



NOTES:
1. CONCRETE TO ACHIEVE 4000 PSI STRENGTH AT 28 DAYS
2. COMPACT SUBGRADE TO 92% MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557.
3. APPLY BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAVEL.

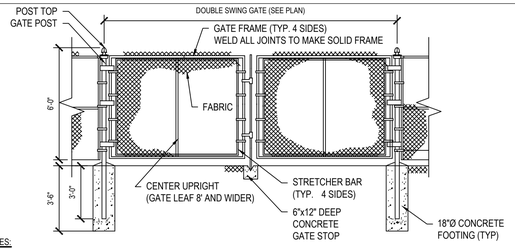
3 Concrete Sidewalk
SCALE: NTS (321313.33 H2MX1) - U

FILTER FABRIC PROPERTIES			
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	lbs	365 x 200
Grab Tensile Elongation	ASTM D 4632	%	24 x 10
Puncture Strength	ASTM D 4833	lbs	90
Mullen Burst Strength	ASTM D 3786	psi	450
Trapezoid Tear Strength	ASTM D 4533	lbs	115 x 75
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	US Std Sieve)	40
Flow Rate	ASTM D 4491	gal/min/ff	145
Permittivity	ASTM D 4491	Sec'	2.1



NOTES
1. REMOVE ACCUMULATED SEDIMENT AND DEBRIS AS REQUIRED TO MAINTAIN ADEQUATE FLOW THROUGH FILTER FABRIC.
2. REMOVE INLET PROTECTION UPON PERMANENT STABILIZATION OF CONSTRUCTION SITE.

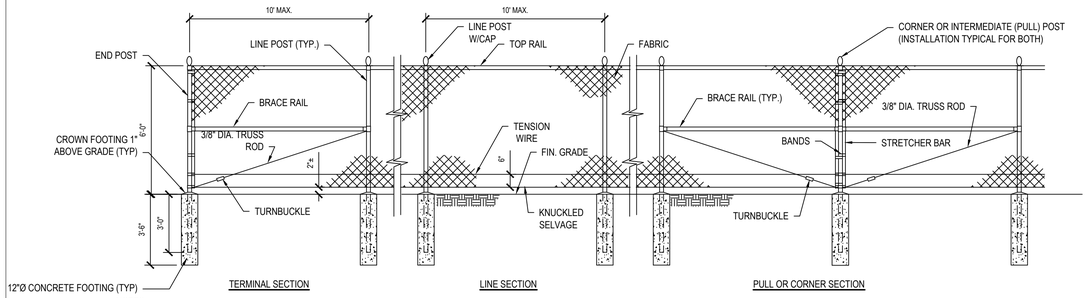
4 Curb Inlet/Flush Grade Sediment Bag Protection
SCALE: NTS (312553.13 H2MX1) - R



NOTES:
1. FABRIC: ASTM A392, 1" MESH, 9 GAUGE STEEL CHAIN LINK FENCE FABRIC. ASTM A641 GALVANIZED STEEL CORE WIRE, ZINC COATED TO 0.3 OZ/SF WITH 7-12 MIL PVC COATING IN ACCORDANCE WITH ASTM F668, CLASS 2B.
2. FRAME: ASTM F900, 1.66" O.D. (1.83 LBS./FT.) STEEL PIPE. HOT DIPPED GALVANIZED TO 1.8 OZ/SF IN ACCORDANCE WITH ASTM A123 (SEE TABLE FOR SIZE AND WEIGHT). SUPPLEMENTAL 10-15 MIL PVC POWDER COATING IN ACCORDANCE WITH ASTM F1043.
3. GATE POST: ASTM F1043, SS40 STEEL PIPE. HOT DIPPED GALVANIZED TO 1.8 OZ/SF IN ACCORDANCE WITH ASTM A123 (SEE TABLE FOR SIZE AND WEIGHT). SUPPLEMENTAL 10-15 MIL PVC POWDER COATING IN ACCORDANCE WITH ASTM F1043.
4. HINGES: ASTM F900, NON-LIFT-OFF TYPE.
5. LATCH: ASTM F900 FORKED TYPE GRAVITY DROP WITH PROVISION FOR PADLOCK.
6. FITTINGS AND ACCESSORIES: ASTM F 626, MALLEABLE OR PRESSED STEEL, HOT DIPPED GALVANIZED TP 1.2 OZ/SF. SUPPLEMENTAL 10-15 MIL PVC POWDER COATING IN ACCORDANCE WITH ASTM F1043.
7. GATE KEEPER: ASTM F900.
8. PROVIDE GATE KEEPER FOR EACH SWING GATE.
9. VINYL COATING COLOR TO BE SELECTED BY OWNER.
10. CONCRETE TO ACHIEVE 4,000 PSI STRENGTH AT 28 DAYS.

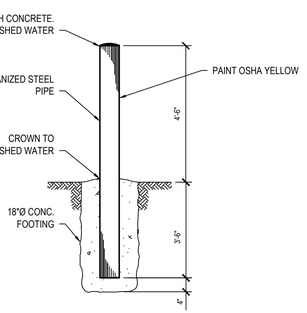
SINGLE GATE LEAF WIDTH	GATE POST OUTSIDE DIAMETER (INCHES)	MINIMUM WEIGHT (LB/FT)
UP TO 4'	2.375	3.12
5' TO 10'	2.875	4.64
11' TO 18'	4.000	6.56

5 Mini Mesh Chain Link Double Swing Gate - Vinyl Coated - 6' Height
SCALE: NTS 323113.26 - MOD



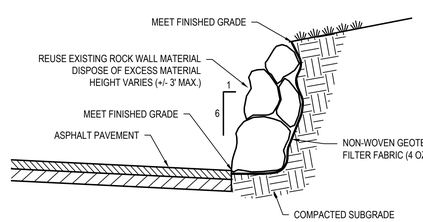
NOTES:
1. FABRIC: ASTM A392, 1" MESH, 9 GAUGE STEEL CORE CHAIN LINK FENCE FABRIC. ASTM A641 GALVANIZED STEEL CORE WIRE, ZINC COATED TO 0.3 OZ/SF WITH 7-12 MIL PVC COATING IN ACCORDANCE WITH ASTM F668 CLASS 2B.
2. TOP AND BRACE RAILS: ASTM F1043 1.66" O.D. (1.84 LBS./FT.) SS40 STEEL PIPE. HOT DIPPED GALVANIZED TO 1.8 OZ/SF IN ACCORDANCE WITH ASTM A123. SUPPLEMENTAL 10-15 MIL PVC POWDER COATING IN ACCORDANCE WITH ASTM F1043
3. LINE POSTS: ASTM F1043 1.9" O.D. (2.28 LBS./FT.) SS40 STEEL PIPE. HOT DIPPED GALVANIZED TO 1.8 OZ/SF IN ACCORDANCE WITH ASTM A123 .SUPPLEMENTAL 10-15 MIL PVC POWDER COATING IN ACCORDANCE WITH ASTM F1043.
4. END, CORNER & PULL POSTS: ASTM F1043 2.375" O.D. (3.12 LBS./FT.) SS40 STEEL PIPE. HOT DIPPED GALVANIZED TO 1.8 OZ/SF IN ACCORDANCE WITH ASTM A123. SUPPLEMENTAL 10-15 MIL PVC POWDER COATING IN ACCORDANCE WITH ASTM F1043.
5. FITTINGS AND ACCESSORIES: ASTM F626 MALLEABLE OR PRESSED STEEL. HOT DIPPED GALVANIZED TO 1.2 OZ/SF. SUPPLEMENTAL 10-15 MIL PVC POWDER COATING IN ACCORDANCE WITH ASTM F1043.
6. BOTTOM TENSION WIRE: ASTM A824 NO. 7 GAUGE STEEL-MARCELLED WIRE, ZINC COATED TO 0.4 OZ/SF WITH 7-12 MIL PVC POWDER COATING IN ACCORDANCE WITH ASTM F1664.
7. VINYL COATING COLOR: TO BE SELECTED BY OWNER.
8. CONCRETE TO ACHIEVED 4,000 PSI STRENGTH AT 28 DAYS.

6 Mini Mesh Chain Link Fence - Vinyl Coated - 6' Height
SCALE: NTS 323113.15 H2MX2 - MOD

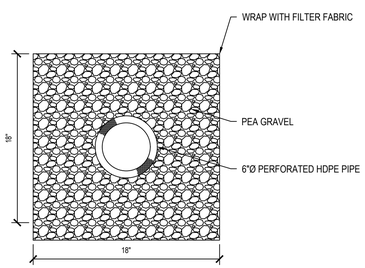


NOTE:
1. CONCRETE TO ACHIEVE 4000 PSI STRENGTH AT 28 DAYS.

7 Steel Bollard - 6" Diameter
SCALE: NTS (323613.00 H2MX2)



8 Stacked Rock Wall
SCALE: NTS



9 Footing Drain
SCALE: NTS

H2M architects + engineers
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Purchase, NY 10577
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CONSULTANTS:

MARK	DATE	DESCRIPTION

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DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
EPI	EPI	RJR	

PROJECT No.	DATE:	SCALE:
IRSD1903	NOV 2021	AS SHOWN

CLIENT

Irvington Union Free School District

Facilities Storage Building at Irvington Campus

Irvington Campus
40 N. Broadway
Irvington, NY 10533

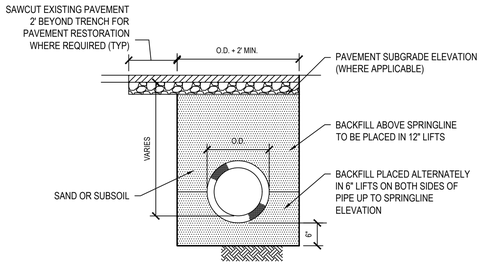
SED Number:66-04-02-02-2-022-001

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
SED - FINAL BID SET

SHEET TITLE
SITE DETAILS

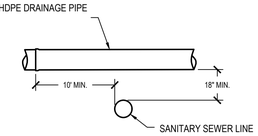
DRAWING No.
C500.00



NOTES:

1. IF DEPTH OF TRENCH EXCEEDS 5', THE CONTRACTOR MUST PROVIDE SHEETING AND BRACING OR A SHEETING BOX IN ACCORDANCE WITH OSHA REGULATIONS. AS AN ALTERNATIVE, IF PERMITTED BY THE ENGINEER, THE TRENCH WALLS MAY BE CUT BACK TO A 1:1 SLOPE OR THE NATURAL ANGLE OF REPOSE FOR THE SOIL, WHICHEVER IS GREATER.
2. WITHIN 9" OF PAVEMENT SUBGRADE ELEVATION (WHERE APPLICABLE) COMPACT BACKFILL TO 92% MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557. ALL OTHER BACKFILL MATERIAL TO BE COMPACTED TO 90% MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557.

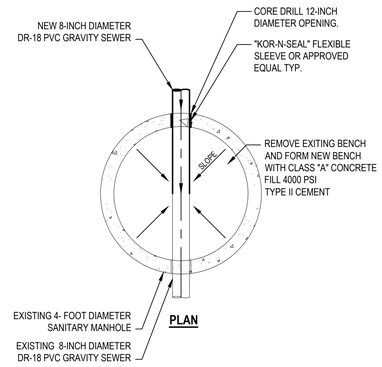
1 Pipe Trench
SCALE: NTS (312333.00 H2MX1) - U



NOTES:

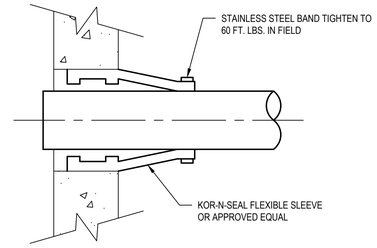
1. ALL CLEARANCE DISTANCES SHALL BE MEASURED EDGE TO EDGE.
2. WHEN DRAINAGE LINES CROSS ABOVE WATER MAINS AND THE NEAREST DRAINAGE STRUCTURE IS WITHIN 10 FEET OF THE WATER CROSSING, THE DRAINAGE LINES SHALL BE CONSTRUCTED OF MATERIALS AND JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION FOR THE ENTIRE LENGTH (E.G., CATCH BASIN TO DRYWELL). IN ADDITION, DRAINAGE PIPE JOINTS SHALL BE LOCATED AT LEAST 10 FEET FROM THE POINT OF CROSSING THE WATER MAIN.
3. WATER MAIN JOINTS SHALL BE ARRANGED TO BE A MINIMUM OF 10 FEET FROM THE POINT OF CROSSING OF THE DRAINAGE LINE.

2 Sewer/Drainage Crossing
NTS

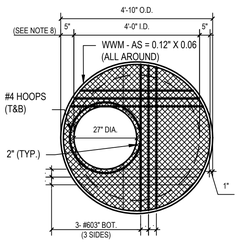


PLAN

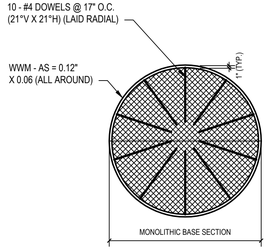
3 Gravity Sewer Connection to Existing Manhole
NO SCALE



4 Pipe to Manhole Flexible Connection
SCALE: NTS

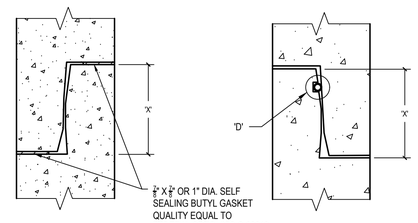


PLAN OF LOOSE TOP SLAB



PLAN OF BOTTOM REINFORCING

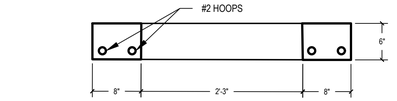
JOINT DETAILS		
M.H. I.D.	'X'	'D'
4'-0"	3" TO 5"	7" DIA.
5'-0"	3" TO 5"	7" DIA.
6'-0" AND 7'-0"	3" TO 6"	7" DIA.
8'-0" AND 10'-0"	3" TO 8"	7" DIA.



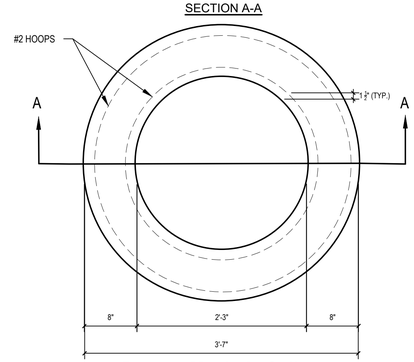
BUTYL JOINT

'O' RING JOINT

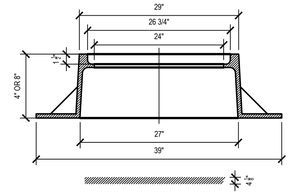
6 Precast Manhole Joints and Gaskets
SCALE: NTS

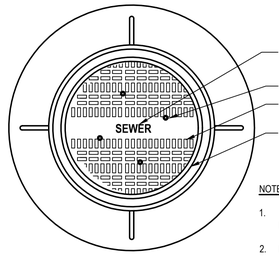


SECTION A-A



7 Precast Manhole Collar
SCALE: NTS

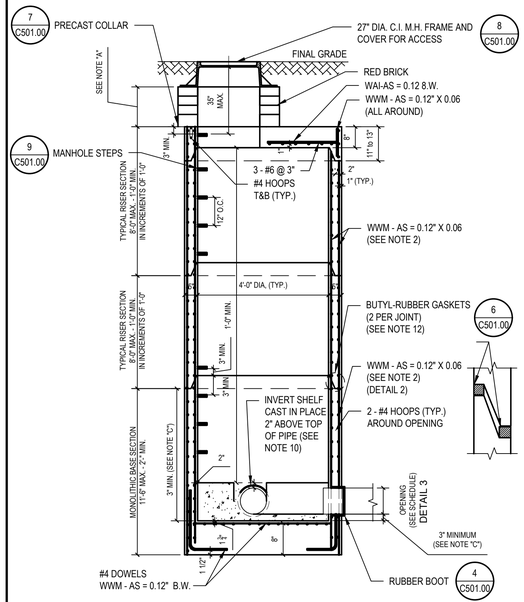




NOTES:

1. STANDARD MANHOLE HEAD & COVER MANUFACTURED BY CAMPBELL FOUNDRY CO. PATTERN #1041-195# ± OR 31041B FOR 8" - 210# ± (ROUND FLANGE ONLY)
2. FOR STORM SEWER, COVER LABELED "DRAIN"
3. FOR SANITARY, COVER LABELED "SEWER"
4. MANHOLE HEAD & COVER WEIGH 375 LBS.

8 Manhole Head & Cover
SCALE: NTS



SECTION A-A

5 4'-0" Diameter Precast Manhole
SCALE: NTS (ITEM NO. 15 & 15A)

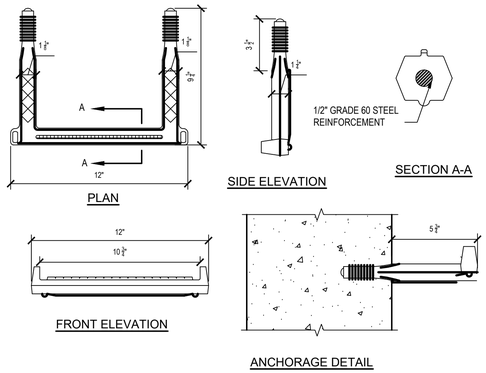
GENERAL NOTES:

1. 4'-0" DIAMETER, MANHOLE RISER REINFORCING COMPLIES WITH AREA REQUIREMENTS OF ASTM C47, EXCEPT THAT ALL WALL SECTIONS SHALL BE REINFORCED WITH WALL AS 0.12 CIRC. X 0.06 LONG -WITH 2- #4 HOOPS AROUND ALL CAST PIPE OPENING. (THE 2 - #4 HOOPS WILL NOT BE REQUIRED AT CORED OPENINGS FOR BASIN CONNECTIONS.) (ALL VALUES OF AREA OF STEEL (AS) ARE IN SQUARE INCHES ARE A MINIMUM)
2. CORED OPENINGS WILL BE PERMITTED FOR 12" DIAMETER BASIN CONNECTIONS ONLY. THE MAXIMUM CORED OPENING SHALL BE 16" FOR THESE BASIN CONNECTIONS. CORED OPENINGS WILL NOT BE PERMITTED FOR SHALLOW MANHOLES.
3. FOR DETAILS OF STEPS, JOINTS, GASKETS, PRECAST COLLARS, PIPE TO MANHOLE CONNECTIONS, SEE DETAILS INCLUDED IN CONTRACT DOCUMENTS.
4. THE MAXIMUM DEPTH OF COVER OF THE 4'-0" DIAMETER PRECAST MANHOLE, FROM FINAL GRADE TO THE OUTER TOP OF THE PIPE, SHALL BE TWENTY-FIVE (25) FEET.
5. ALL COVER DISTANCES SHOWN FOR REINFORCEMENT ARE CLEAR DISTANCES.
6. LIFTING HOLES SHALL BE LOCATED IN THE SECTIONS AS PER MANUFACTURER'S RECOMMENDATIONS.
7. SLAB THICKNESS DIMENSIONS ARE A MINIMUM.
8. CONCRETE DESIGN MIX. 5,000 PSI (MIN. 28 DAY STRENGTH = 4,000 PSI; MAX. W/C = 0.47). REBARS - FS = 50,000 PSI. MAX - FS = 65,000 PSI.
9. INVERT SHELVES SHALL HAVE A 1/2" PER LINEAR FOOT PITCH TOWARDS THE SEWER.
10. THE OPENING DIAMETERS SHOWN IN THE SCHEDULE ARE MAXIMUM VALUES. THE MINIMUM OPENING DIAMETERS SHALL BE AS FOLLOWS: 8" TO 24" DIAMETER PIPES = O.D. + 3",30" TO 48" DIA. PIPES = O.D.+4".
11. BELL-UP TYPE JOINTS SHALL BE ALLOWED FOR PRECAST MANHOLES, WITH THE FOLLOWING MODIFICATION TO THE LOOSE TOP SLAB:
    a. THE MINIMUM SLAB THICKNESS SHALL BE X + 6" (WHERE "X" IS JOINT DEPTH, BUT FOR 5'-0" DIAMETER IN NO CASE SHALL IT BE LESS THAN 10" THICK AND FOR 6'-0" IN NO CASE SHALL IT BE LESS THAN 12" THICK
    b. THE EMBEDMENT LENGTH SHALL BE T-1" (WHERE T IS THE THICKNESS OF RISER WALL)
12. PROTECTIVE COATING PAINT APPLIED SSPC - PAINT 16, COALTAR- EPOXY-POLYAMIDE 15 MIL MINIMUM THICKNESS APPLIED TO ALL EXTERIOR SURFACES OF SANITARY SEWER MANHOLES.

NOTES:

A. 9" MIN. TO 20" MAX.; 9" BRICK MIN. LAID RADIALLY, USE 1 OR 2 PRECAST COLLARS OR BRICK AS REQUIRED. (4" BRICK MIN. ONLY FOR SHALLOW MANHOLE CONSTRUCTION.)
B. ALTERNATE LOOSE BOTTOM SLAB TO BE USED ONLY IN SHALLOW MANHOLE CONSTRUCTION. MANHOLE RISERS MAY NOT BE REUIRED IN SHALLOW MANHOLE CONSTRUCTION. A SHALLOW MANHOLE IS A MANHOLE ON A SEWER WHICH HAS A COVER FROM FINAL GRADE TO THE OUTER TOP OF THE PIPE LESS THAN 4'-0". USE OF LOOSE BOTTOM SLAB IN CONJUNCTION WITH LOOSE TOP SLAB WILL NOT BE PERMITTED.
C. PIPE OPENINGS WILL NOT BE PERMITTED THROUGH JOINTS. DISTANCE FROM TOP OR BOTTOM OF ANY SECTION SHALL BE A MINIMUM OF 3" PLUS THE JOINT DEPTH FOR CAST PIPE OPENINGS AND A MINIMUM OF 12" PLUS THE JOINT DEPTH FOR CORED OPENINGS.
D. PROVIDE PRECAST MANHOLE SECTIONS WITH ADDITIONAL REINFORCEMENT WHERE REQUIRED TO RESIST DAMAGE FROM HANDLING, SHIPPING AND INSTALLATION STRESSES.

9 4'-0" Diameter Precast Manhole Notes
SCALE: NTS



(Copolymer Polypropylene Plastic) Plastic Manhole Step
SCALE: NTS

H 2 M architects + engineers

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Purchase, NY 10577
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CONSULTANTS:

MARK	DATE	DESCRIPTION

STATE OF NEW YORK · JOEL RICHARD PIERRE · 099970 · LICENSED PROFESSIONAL ENGINEER

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DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
EPI	EPI	RJR	

PROJECT No.:	DATE:	SCALE:
IRSD1903	NOV 2021	AS SHOWN

CLIENT

Irvington Union Free School District

Facilities Storage Building at Irvington Campus

Irvington Campus
40 N. Broadway
Irvington, NY 10533

SED Number:66-04-02-02-2-022-001

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

SED - FINAL BID SET

SHEET TITLE

SANITARY DETAILS

DRAWING No.

C501.00

GENERAL NOTES:

1. SPECIFICATIONS ARE PART OF THE CONSTRUCTION DOCUMENTS AND MUST BE USED IN CONJUNCTION WITH THE DRAWINGS.

2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BY MEASUREMENTS AT THE JOB SITE AND SHALL TAKE ANY AND ALL OTHER MEASUREMENTS NECESSARY TO VERIFY THE DRAWINGS AND TO PERFORM THE WORK PROPERLY. ANY DISCREPANCY BETWEEN THE DRAWINGS AND THE MEASURED DIMENSIONS OF THE EXISTING SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. NO WORK SHALL PROCEED UNTIL SUCH DISCREPANCY HAS BEEN RECTIFIED INCLUDING BUT NOT LIMITED TO FABRICATION OF MATERIALS. SUCH DISCREPANCIES BETWEEN THE DRAWINGS AND THE MEASURED DIMENSIONS SHALL NOT BE THE REASONS FOR ANY EXTRA COST OR DELAY IN THE EXECUTION OF THE WORK AND THE WORK SHALL BE PERFORMED AT NO EXTRA COST TO THE OWNER.

3. ALL CONTRACTORS ARE REQUIRED TO VISIT THE SITE AND FULLY INFORM THEMSELVES AS TO THE EXISTING CONDITIONS AND LIMITATIONS PRIOR TO SUBMITTING THEIR PROPOSAL/BID. FAILURE TO VISIT THE SITE AND NOT FAMILIARIZING THEMSELVES WITH THE CONDITIONS AND LIMITATIONS WILL IN NO WAY RELIEVE THE SUCCESSFUL BIDDER FROM FURNISHING ANY MATERIALS OR PERFORMING ANY WORK THAT MAY BE REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS AT NO ADDITIONAL COST TO THE OWNER.

4. THE CONTRACT STRUCTURAL DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR ALONE IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND SAFETY OF STRUCTURE AND WORKMEN DURING THE ENTIRE CONSTRUCTION PERIOD, WHICH SHALL INCLUDE BUT NOT BE LIMITED TO DESIGN AND INSTALLATION OF BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, FORMS AND SCAFFOLDING, SHORING OF RETAINING WALLS AND OTHER TEMPORARY SUPPORTS AS REQUIRED. ANY DAMAGE TO THE STRUCTURE IF OCCURRED SHALL BE RECTIFIED TO THE ENTIRE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL SCHEDULE THE WORK IN CONSULTATION WITH THE OWNER AND IN SUCH A WAY AS TO MINIMIZE THE CONFLICT OF THE OPERATION OF THE BUILDING. COMPLY WITH APPLICABLE REQUIREMENTS OF OSHA AND OTHER GOVERNING BODIES HAVING JURISDICTION AT THE SITE.

5. IN CASE OF ANY DAMAGE TO THE CONSTRUCTION, THE CONTRACTOR SHALL REPAIR THE SAME TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.

6. THE CONTRACTOR SHALL INFORM THE ENGINEER OF ANY DEMOLITION, ALTERATIONS REQUIRED OR INTERFERENCES NOT SHOWN ON THE DEMOLITION DRAWINGS FOR RESOLUTION. THE CONTRACTOR SHALL ALLOW 7 WORKING DAYS FOR RESOLUTION OF THE CONDITION UNLESS ADDITIONAL TIME IS STATED TO BE REQUIRED BY THE ENGINEER.

7. TYPICAL DETAILS ON DRAWINGS APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT DETAILS ARE REFERENCED AT EACH LOCATION. NOTIFY ENGINEER OF CONFLICTS REGARDING APPLICABILITY OF TYPICAL DETAILS.

8. DO NOT LOAD THE FINISHED SLAB ON GRADE OR ELEVATED SLABS WITH ERECTION EQUIPMENT. DO NOT STACK CONSTRUCTION MATERIALS ON DECKS/SLABS. DO NOT CAUSE IMPACT LOADS TO DECK/SLAB DURING CONSTRUCTION.

9. VERIFY THE LOCATION OF CHASES, INSERTS, OPENINGS, SLEEVES, FINISHES, DEPRESSIONS, PADS, AND WALL OPENINGS.

10. PRINCIPAL OPENINGS THROUGH THE FRAMING AND SLABS ARE SHOWN ON DRAWINGS. COORDINATE WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR THE ALL REQUIRED OPENINGS AND PROVIDE FOR REQUIRED OPENINGS WHETHER SHOWN ON THE STRUCTURAL DRAWINGS OR NOT. VERIFY SIZE AND LOCATION OF OPENINGS WITH THE MECHANICAL CONTRACTOR. DEVIATIONS FROM THE OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS MUST BE APPROVED PRIOR TO CONSTRUCTION/FABRICATION OF THE REQUIRED OPENINGS.

11. LOADINGS FOR MECHANICAL EQUIPMENT ARE BASED ON THE UNITS SHOWN ON THE MECHANICAL DRAWINGS. ANY CHANGES IN TYPE, SIZE OR NUMBER OF PIECES OF EQUIPMENT SHALL BE REPORTED TO THE ARCHITECT FOR VERIFICATION OF THE ADEQUACY OF SUPPORTING MEMBERS PRIOR TO THE PLACEMENT OF SUCH EQUIPMENT.

12. SEE ARCHITECTURAL DRAWINGS FOR ELEVATIONS NOT SHOWN AND FOR EXACT LOCATIONS OF ALL SLAB DEPRESSIONS AND HOUSEKEEPING PADS. THE CONTRACTOR SHALL COMPARE THE STRUCTURAL SECTIONS WITH ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATING OR INSTALLING STRUCTURAL MEMBERS.

DESIGN CRITERIA:

ALL DESIGN LOADS ARE IN ACCORDANCE WITH 2016 BC-NYS IN CONJUNCTION WITH ASCE 7-16 AND IBC 2018

1. DEAD LOADS
   - ROOF TOTAL DEAD LOAD: 25 PSF
2. LIVE LOADS
   - FIRST FLOOR LIVE LOAD: 125 PSF
   - ROOF LIVE LOAD: 20 PSF
3. SNOW LOADS
   - GROUND SNOW LOAD: Pg = 30 PSF
   - EXPOSURE FACTOR: Ce = 1.0
   - IMPORTANCE FACTOR: Is = 1.1
   - THERMAL FACTOR: Ct = 1.0
   - FLAT ROOF SNOW LOAD: Pf = 15.4 PSF
   - TOTAL DESIGN SNOW LOAD W/O DRIFT: = 30 PSF (NON-REDUCIBLE)
4. WIND LOADS
   - BASIC WIND SPEED: 124 MPH
   - EXPOSURE: B
   - EXPOSURE ADJUSTMENT FACTOR: 1.00
   - INTERNAL PRESSURE COEFFICIENT: Gcp = ±0.18 (ENCLOSED BUILDING)
   - "a" END ZONE WIDTH: 3.2 FT
   - NET UPLIFT: 29.1 PSF

		EXPOSURE B WIND LOADS		EXPOSURE ADJUSTMENT COEFFICIENT		IMPORTANCE FACTOR		ASD DESIGN WIND LOADS
MWFRS WALL (END ZONE)		28.8 PSF	x	1.0	x	1.0	=	28.8 PSF
MWFRS WALL (INT. ZONE)		19.1 PSF	x	1.0	x	1.0	=	19.1 PSF
MWFRS ROOF		10.9 PSF	x	1.0	x	1.0	=	10.9 PSF
COMPONENT & CLADDING	WALLS (END ZONE)	25.4 PSF	x	1.0	x	1.0	=	25.4 PSF
		-32.5 PSF	x	1.0	x	1.0	=	-32.5 PSF
	WALLS (INT. ZONE)	25.4 PSF	x	1.0	x	1.0	=	25.4 PSF
		-27.6PSF	x	1.0	x	1.0	=	-27.6 PSF
	ROOF (END ZONE)	10.1 PSF	x	1.0	x	1.0	=	10.1 PSF
		-40.0 PSF	x	1.0	x	1.0	=	-40.0 PSF
	ROOF (INT. ZONE)	10.1 PSF	x	1.0	x	1.0	=	10.1 PSF
		-25.9 PSF	x	1.0	x	1.0	=	-25.9 PSF
	ROOF (CORNER ZONE)	10.1 PSF	x	1.0	x	1.0	=	10.1 PSF
		-61.1 PSF	x	1.0	x	1.0	=	-61.1 PSF

COMPONENT AND CLADDING VALUES LISTED ARE BASED ON 10 SQUARE FOOT "EFFECTIVE AREA" AS DEFINED BY SEI/ ASCE 7-10 STANDARD - MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES. ALL ITEMS SPECIFIED TO BE DESIGNED BY OTHERS SHALL BE DESIGNED TO WITHSTAND COMPONENT AND CLADDING LOADS UNLESS SPECIFICALLY NOTED OTHERWISE IN PLANS, SPECIFICATIONS OR BY RFI RESPONSE. WIND LOADS MAY BE REDUCED BASED ON INCREASED "EFFECTIVE AREA" WHEN CALCULATIONS ARE SUBMITTED AND REVIEWED BY ENGINEER PRIOR TO FINAL DESIGN SUBMISSION. SUBMITTAL SHALL INCLUDE EFFECTIVE AREA ASSUMPTIONS FOR EACH COMPONENT AND WIND LOAD CALCULATIONS USING PARAMETERS SPECIFIED HEREIN.

5. SEISMIC CRITERIA:
   - SITE CLASS: D — OCCUPANCY CATEGORY: III
   - IMPORTANCE FACTOR — Ie = 1.25
   - Ss = 0.273 — S1 = 0.072
   - Fa = 1.42 — Fv = 2.4
   - Sms = 0.387 — Sm1 = 0.173
   - Sds = 0.258 — Sd1 = 0.115
   - SEISMIC DESIGN CATEGORY: B
   - EQUIVALENT LATERAL FORCE ANALYSIS PROCEDURE
   - SEISMIC LATERAL FORCE RESISTING SYSTEM:
     - ORDINARY REINFORCED CONCRETE SHEAR WALLS
     - R = 4.0 Ω = 2.5 Cd = 4.0
     - SEISMIC RESPONSE COEFFICIENT CS = 0.0807
   - TOTAL BASE SHEAR = 16.4 KIPS (ULTIMATE)

EXCAVATION NOTES:

1. PROTECT ABOVE AND BELOW GRADE UTILITIES WHICH ARE TO REMAIN.
2. PROTECT PLANT LIFE, LAWNS AND OTHER FEATURES REMAINING AS A PORTION OF FINAL LANDSCAPING.
3. PROTECT BENCH MARKS, EXISTING STRUCTURES, FENCES, SIDEWALKS, PAVING AND CURBS FROM EXCAVATION EQUIPMENT AND VEHICULAR TRAFFIC.
4. GRADE TOP PERIMETER OF EXCAVATION TO PREVENT SURFACE WATER FROM DRAINING INTO EXCAVATION.
5. HAND TRIM EXCAVATION. REMOVE LOOSE MATTER.
6. REMOVE LUMPED SUB-SOIL, BOULDERS AND ROCK.
7. NOTIFY ENGINEER OF UNEXPECTED SUBSURFACE CONDITIONS AND DISCONTINUE AFFECTED WORK AREA UNTIL NOTIFIED TO RESUME WORK.
8. CORRECT UNAUTHORIZED EXCAVATION AT NO EXTRA COST TO OWNER IN ACCORDANCE WITH BACKFILLING NOTES.
9. STOCKPILE EXCAVATED MATERIAL IN AREA DESIGNATED ON SITE AND REMOVE EXCESS MATERIAL NOT BEING REUSED FROM SITE.
10. PROTECT EXCAVATIONS BY METHODS REQUIRED TO PREVENT CAVE-IN OR LOOSE SOIL FROM FALLING INTO EXCAVATION.
11. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING STRUCTURES AND UTILITIES PRIOR TO EXCAVATION. CONTRACTOR SHALL ENSURE ALL SURROUNDING STRUCTURES ARE PROTECTED FROM THE EFFECTS OF ALL EXCAVATION.

BACKFILLING NOTES:

1. TYPE C SAND: NATURAL RIVER OR BANK SAND, WASHED, FREE OF SILT, CLAY, LOAM, FRIABLE OR SOLUBLE MATERIALS, OR ORGANIC MATTER, GRADED IN ACCORDANCE WITH ANSI/ASTM C136 WITHIN THE FOLLOWING LIMITS:

SIEVE SIZE :	PERCENT PASSING
NO. 4	100
NO.14	10-100
NO. 50	5-90
NO.100	4-30
NO. 200	0-1

2. VERIFY EXISTING CONDITIONS AND SUBSTRATE.
3. VERIFY FILL MATERIALS TO BE REUSED ARE ACCEPTABLE.
4. COMPACT SUBGRADE TO 95 PERCENT MAXIMUM DRY DENSITY IN ACCORDANCE WITH ANSI/ASTMD1557.
5. CUT OUT SOFT AREAS OF SUBGRADE NOT CAPABLE OF IN-SITU COMPACTIONS. BACKFILL WITH TYPE D FILL AND COMPACT TO DENSITY EQUAL TO OR GREATER THAN REQUIREMENTS FOR SUBSEQUENT BACKFILL MATERIAL.
6. BACKFILL AREAS TO CONTOURS AND ELEVATIONS WITH UNFROZEN MATERIALS.
7. SYSTEMATICALLY BACKFILL TO ALLOW MAXIMUM TIME FOR NATURAL SETTLEMENT. DO NOT BACKFILL OVER POROUS, WET, FROZEN OR SPONGY MATERIALS.
8. PLACE AND COMPACT MATERIALS IN CONTINUOUS LAYERS NOT EXCEEDING 6 INCHES COMPACTED DENSITY.
9. ALL BACKFILL MATERIALS SHALL BE COMPACTED TO 95 PERCENT MAXIMUM DRY DENSITY IN ACCORDANCE WITH ANSI/ASTM D1557. MAINTAIN OPTIMUM MOISTURE CONTENT TO ATTAIN REQUIRED DENSITY.
10. AT COMPLETIONS OF WALL CONSTRUCTIONS, BACKFILL SHALL BE PLACED LEVEL WITH FINAL TOP OF WALL ELEVATION. IF FINAL GRADING, PAVING, LANDSCAPING AND/OR STORM DRAINAGE INSTALLATION ADJACENT TO THE WALL IS NOT PLACED IMMEDIATELY AFTER WALL COMPLETION, TEMPORARY GRADING AND DRAINAGE SHALL BE PROVIDED TO ENSURE WATER RUNOFF IS NOT DIRECTED AT THE WALL OR ALLOWED TO COLLECT OR POND BEHIND THE WALL UNTIL FINAL CONSTRUCTION ADJACENT TO THE WALL IS COMPLETED.

FOUNDATION NOTES:

1. FOUNDATION DESIGN IS BASED UPON THE GEOTECHNICAL ENGINEERING REPORT DATED 01/29/2020 BY WHITESTONE ASSOCIATES, INC. COORDINATE STRUCTURAL PLANS AND DETAILS WITH REQUIREMENTS OF GEOTECHNICAL REPORT AND ADDENDUM. FOOTING DESIGN IS BASED ON 3000 PSF NET ALLOWABLE SOIL PRESSURE.
2. REFER TO THE GEOTECHNICAL REPORT AND SPECIFICATIONS FOR GENERAL REQUIREMENTS OF EARTHWORK, OVER EXCAVATION, SUBGRADE PREPARATION, FILL AND COMPACTION, WATERPROOFING AND OTHER PERTINENT REQUIREMENTS AND INFORMATION. IF THERE IS A CONFLICT BETWEEN GEOTECHNICAL REPORT AND STRUCTURAL PLANS OR SPECIFICATIONS THEN THE MORE STRINGENT CRITERIA SHALL APPLY UNLESS OTHERWISE DIRECTED BY AN RFI.
3. PROTECT PIPES AND CONDUITS RUNNING THROUGH WALLS AND SLABS WITH 1/2 INCH EXPANSION JOINT MATERIAL. LOWER CONTINUOUS FOOTINGS AND GRADE BEAMS PERPENDICULAR TO PIPE RUNS TO ALLOW PIPES TO PASS ABOVE THE FOOTINGS. LOWER FOOTINGS AND GRADE BEAMS PARALLEL TO PIPE RUNS TO AVOID SURCHARGE ONTO ADJACENT TRENCH EXCAVATIONS.
4. MAINTAIN SPECIFIED SUBGRADE AND FILL MOISTURE CONTENT UNTIL FOUNDATIONS ARE PLACED.
5. ARRANGE FOR OWNER'S INDEPENDENT TESTING AGENCY TO MONITOR CUT AND FILL OPERATIONS AND PERFORM FIELD DENSITY AND MOISTURE CONTENT TESTS TO VERIFY COMPACTION AND APPROVE FOOTING SUBGRADES PRIOR TO PLACING CONCRETE.
6. DO NOT PLACE FOOTINGS OR SLABS AGAINST SUBGRADE CONTAINING FREE WATER, FROST, OR ICE.
7. MAINTAIN PROPER SITE DRAINAGE DURING CONSTRUCTION TO ENSURE SURFACE RUNOFF AWAY FROM STRUCTURES AND TO PREVENT PONDING OF SURFACE RUNOFF NEAR THE STRUCTURES.
8. ARRANGE FOR OWNER'S INDEPENDENT TESTING AGENCY TO MONITOR CUT AND FILL OPERATIONS AND PERFORM FIELD DENSITY AND MOISTURE CONTENT TESTS TO VERIFY COMPACTION AND APPROVE FOOTING SUBGRADES PRIOR TO PLACING CONCRETE.

CONCRETE NOTES:

1. PROVIDE BATCH MIXING, TRANSPORTATION, PLACING AND CURING OF CONCRETE IN ACCORDANCE WITH RECOMMENDATIONS OF ACI 301 AND ACI 318. USE TYPE I PORTLAND CEMENT UNLESS NOTED OTHERWISE. PROVIDE ADMIXTURES AND SPECIAL REQUIREMENTS AS SPECIFIED.
   A. ALL CONCRETE SHALL BE NORMAL WEIGHT (145 PCF) CONCRETE f'c = 4000 PSI AT 28 DAYS.
2. PROVIDE CONCRETE MIXES DESIGNED BY A QUALIFIED TESTING LABORATORY FOR REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER.
3. PROVIDE CONSTRUCTION AND CONTROL JOINTS AS REQUIRED BY A.C.I. CODE AND AS INDICATED ON DRAWINGS. HORIZONTAL CONSTRUCTION JOINTS ARE NOT ALLOWED UNLESS SPECIFICALLY NOTED OR APPROVED BY STRUCTURAL ENGINEER. SUBMIT PLAN TO ENGINEER INDICATING PROPOSED CONTROL AND EXPANSION JOINT LOCATIONS IN CONCRETE SLABS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
4. CHAMFER EXPOSED CONCRETE EDGES 3/4 INCH UNLESS NOTED OTHERWISE.
5. WIRE BRUSH AND CLEAN CONSTRUCTION JOINTS PRIOR TO POURING NEW CONCRETE.
6. PROVIDE ADEQUATE STRUCTURAL FRAMING AS APPROVED BY STRUCTURAL ENGINEER FOR MECHANICAL OPENINGS THROUGH THE SLABS, WALLS AND FLOOR DECK.

CONCRETE REINFORCING NOTES:

1. PROVIDE DETAILING, FABRICATION, AND INSTALLATION OF REINFORCING AND ACCESSORIES IN ACCORDANCE WITH ACI 315 AND ACI 318.
2. PROVIDE NEW BILLET STEEL REINFORCING BARS IN ACCORDANCE WITH ASTM A 615, GRADE 60.
3. COORDINATE PLACEMENT OF CAST-IN-PLACE EMBEDMENTS AND ANCHOR RODS. SET ANCHOR RODS WITH A TEMPLATE. SECURELY ATTACH EMBEDDED ITEMS TO FORMWORK OR REINFORCING.
4. PROVIDE CLASS "B" REINFORCEMENT SPLICES FOR CONTINUOUS REINFORCEMENT. PROVIDE STANDARD 90-DEGREE HOOKS IN ACCORDANCE WITH ACI 318, UNLESS NOTED OTHERWISE.
5. MAINTAIN THE FOLLOWING CONCRETE COVERAGE FOR REINFORCING STEEL UNLESS NOTED OTHERWISE:
   A. CONCRETE CAST AGAINST EARTH: 3 INCHES
   B. CONCRETE EXPOSED TO WEATHER
      NO. 6 AND LARGER: 2 INCHES
      NO. 5 AND SMALLER: 1 1/2 INCHES
   C. CONCRETE NOT EXPOSED TO WEATHER OR CONCRETE NOT IN CONTACT WITH THE GROUND:
      SLABS AND WALLS
      NO. 11 AND SMALLER: 3/4 INCHES
6. DO NOT WELD OR BEND REINFORCEMENT IN THE FIELD UNLESS SPECIFICALLY SHOWN OR APPROVED BY STRUCTURAL ENGINEER.
7. WHEN SPECIFICALLY APPROVED, PROVIDE WELDED REINFORCEMENT IN ACCORDANCE WITH ASTM A 706 GRADE 60. USE LOW HYDROGEN ELECTRODES FOR WELDING OF REINFORCEMENT IN CONFORMANCE WITH "RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL", AMERICAN WELDING SOCIETY, AWS D12.1. PROVIDE ASTM GRADE 40 REINFORCING BARS WHERE DETAILED BARS ARE TO BE WELDED TO A STEEL SECTION.
8. WHERE REQUIRED, PROVIDE DOWELS TO MATCH SIZE AND SPACING OF MAIN REINFORCING.
9. PROVIDE CONTINUOUS HORIZONTAL WALL REINFORCEMENT WITH 90-DEGREE BENDS AND EXTENSIONS AT CORNERS AND INTERSECTIONS AS SHOWN ON TYPICAL BAR PLACING DETAILS.

STRUCTURAL STEEL NOTES:

1. DETAIL AND ERECT STRUCTURAL STEEL ELEMENTS IN ACCORDANCE WITH THE FOLLOWING:
   A. AISC SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
   B. AISC MANUAL OF STEEL CONSTRUCTION.
   C. AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
   D. AWS STRUCTURAL WELDING CODE, D1.1.
2. PROVIDE STRUCTURAL STEEL OF THE FOLLOWING ASTM DESIGNATIONS UNLESS NOTED OTHERWISE:
   A. STRUCTURAL STEEL WIDE FLANGE SHAPES: ASTM A 992, Fy = 50 KSI
   B. EDGE ANGLES, BENT PLATES, HANGERS AND BRACES: ASTM A 36, Fy = 36 KSI
   C. STRUCTURAL PIPE: ASTM A 53, GRADE B, TYPE E OR S, FY = 46 KSI
   D. HOLLOW STRUCTURAL SHAPES: ASTM A 500, GRADE B, FY = 46 KSI
   E. BASE PLATES AND MISCELLANEOUS STEEL PLATES: ASTM A 36, FY = 46 KSI
   F. ANCHOR RODS: ASTM F 1554, GRADE 36 U.N.O.
3. CONNECTION MATERIALS:
   A. BEAM-COLUMN STIFFENER PLATES AND DOUBLER PLATES TO MATCH THE GRADE STEEL OF STRUCTURAL ELEMENT:
   B. HIGH STRENGTH BOLTS: ASTM A 325 OR A 490. SEE NOTE D.
   C. HARDENED STEEL WASHERS: ASTM F 436
   D. CONNECTION DESIGNER SHALL BE CONSISTENT WITH BOLT SIZE AND GRADE THROUGHOUT JOB AT SIMILAR CONNECTIONS. ONLY ONE GRADE OF STEEL BOLT SHALL BE USED FOR ENTIRE CONSTRUCTION FOR EACH BOLT SIZE SPECIFIED AND INSTALLED.
4. WELD MINIMUM SIZE AND STRENGTH:
   A. PROVIDE MINIMUM SIZE OF FILLET WELDS AS SPECIFIED IN TABLE J2.4 OF THE AISC MANUAL.
   B. PROVIDE MINIMUM EFFECTIVE THROAT THICKNESS OF PARTIAL PENETRATION GROOVE WELDS AS SPECIFIED IN TABLE J2.3 OF THE AISC MANUAL.
   C. DEVELOP THE FULL TENSILE STRENGTH OF THE MEMBER ELEMENT JOINED, ON ALL SHOP AND FIELD WELDS, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
   D. WHERE CONNECTIONS ARE NOTED ON DRAWINGS AS MOMENT CONNECTIONS, PROVIDE WELDS TO DEVELOP FULL FLEXURAL CAPACITY OF THE LESSER MEMBER.
   E. PROVIDE ELECTRODES FOR FIELD OR SHOP WELDING THAT CONFORM TO ASTM A 233 (CLASS 70).
   F. ALL WELDS ARE CONTINUOUS FOR THE FULL LENGTH OF THE CONNECTION UNLESS NOTED OTHERWISE ON DRAWINGS.
5. PROVIDE MINIMUM OF TWO BOLTS PER CONNECTION. PROVIDE MINIMUM BOLT DIAMETER OF 3/4 INCH.
6. PROVIDE BOLTS, NUTS AND WASHERS THAT ARE HOT DIP GALVANIZED ACCORDING TO ASTM A 153, CLASS C WHEN USED TO CONNECT STEEL ELEMENTS THAT ARE HOT DIP GALVANIZED AFTER FABRICATION.
7. SUBMIT CALCULATIONS FOR CONNECTION DESIGNS NOT FULLY DETAILED ON DRAWINGS. DESIGN CONNECTIONS UNDER SUPERVISION OF REGISTERED PROFESSIONAL ENGINEER, REGISTERED IN THE STATE WHERE PROJECT IS BEING CONSTRUCTED, EMPLOYED BY THE STEEL FABRICATOR. DESIGN CALCULATIONS TO BE SEALED BY FABRICATOR'S REGISTERED PROFESSIONAL ENGINEER. SHOP DRAWINGS SUBMITTED WITHOUT COMPLETE DESIGN CALCULATIONS WILL NOT BE REVIEWED.
8. PROVIDE SIMPLE SHEAR CONNECTIONS FOR STEEL CONNECTIONS NOT FULLY DETAILED BY UTILIZING HIGH STRENGTH BEARING BOLTS IN SINGLE OR DOUBLE SHEAR. PROVIDE DOUBLE ANGLE BOLTED CONNECTIONS WHERE POSSIBLE. UNLESS LARGER REACTION IS SHOWN ON DRAWINGS, CONNECTION DESIGNER SHALL DESIGN EACH CONNECTION FOR MAXIMUM END REACTION RESULTING FROM THE APPLICATION OF THE ALLOWABLE UNIFORM LOADS LISTED IN TABLES OF PART 2 OF THE AISC MANUAL OF STEEL CONSTRUCTION.
   A. ADD TO REACTIONS LISTED ABOVE, LOADS OR REACTIONS OF MEMBERS SUPPORTED BY BEAM WITHIN THREE FEET OF BEAM END AND VERTICAL COMPONENTS OF FORCES IN BRACE MEMBERS FRAMING INTO BEAM.
9. STEEL FABRICATION:
   A. FABRICATE AND ASSEMBLE STRUCTURAL MEMBERS/ASSEMBLIES IN SHOP TO GREATEST EXTENT POSSIBLE.
   B. SPLICING OF STRUCTURAL STEEL MEMBERS IS PROHIBITED WITHOUT PRIOR APPROVAL BY THE A/E.
   C. FABRICATOR SHALL BE RESPONSIBLE FOR ALL ERRORS OF DETAILING ON THE SHOP DRAWINGS, ERRORS IN FABRICATION, AND THE CORRECT FITTING OF STRUCTURAL STEEL MEMBERS.
   D. CONFORM TO THE AISC CODE OF STANDARD PRACTICE, FOR ERECTION TOLERANCES. FIELD MODIFICATION TO STRUCTURAL STEEL IS PROHIBITED WITHOUT PRIOR APPROVAL BY THE A/E.
   E. CLEAN STEEL OF RUST, LOOSE MILL SCALE AND OTHER FOREIGN MATERIALS WHERE REQUIRED FOR FABRICATION, FITTING UP, OR WELDING.
   F. DO NOT CUT STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT PRIOR REVIEW AND APPROVAL OF THE ARCHITECT/ENGINEER.
   G. SHOP PRIME ALL MEMBERS NOT SCHEDULED FOR GALVANIZING WITH RED OXIDE PRIMER UNLESS NOTED OTHERWISE. DO NOT PAINT AT LOCATIONS OF FIELD WELDS.
10. HOT DIP GALVANIZE AFTER FABRICATION ALL STRUCTURAL STEEL AND THEIR CONNECTIONS PERMANENTLY EXPOSED TO THE OUTSIDE. ITEMS INCLUDED BUT NOT LIMITED TO:
    A. SHELF ANGLES.
    B. EMBEDDED PLATES IN CONCRETE
    C. EXAMINE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR OTHER ITEMS THAT REQUIRE HOT DIPPED GALVANIZATION.
11. PROVIDE GROUT FOR BASE PLATES THAT IS NON-SHRINK, NON-METALLIC GROUT WITH MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 6000 PSI.
12. FURNISH STEEL SHOP DRAWINGS FOR ARCHITECT'S AND STRUCTURAL ENGINEER'S REVIEW PRIOR TO FABRICATION. INCLUDE WELDING PROCEDURES, TESTING PROGRAMS FOR WELDING AND HIGH STRENGTH BOLTING, COATING MATERIAL AND ERECTION SEQUENCE ON SHOP DRAWINGS. SHOP DRAWINGS SHALL NOT BE REPRODUCTIONS OF CONTRACT DOCUMENTS. SHOP DRAWINGS SHALL BE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER AND ALL DRAWINGS SHALL BE SIGNED AND SEALED BY SAID ENGINEER REGISTERED IN THE STATE OF NEW YORK.
13. MILL STEEL COLUMN ENDS TO FIT FLUSH WITH BASE PLATE, CAP PLATE AND END PLATES. FIELD ASSEMBLY OF THESE STEEL ELEMENTS TO THE COLUMNS IS PROHIBITED.
14. WHERE A GIRDER SUPPORTS A COLUMN OR RUNS OVER A COLUMN, PROVIDE STIFFENER PLATES EACH SIDE OF THE BEAM WEB EQUAL IN THICKNESS TO COLUMN FLANGES. STIFFENER PLATES SHALL OCCUR DIRECTLY UNDER OR OVER COLUMN FLANGES (OR WEBS IF NECESSARY). MILL STIFFENER PLATES FOR BEARING AT TOP AND BOTTOM OF PLATES.
15. WHERE SHELF ANGLES ARE ATTACHED TO SPANDREL BEAMS, SHIMS SHALL BE PROVIDED FOR VERTICAL ADJUSTMENT AND SLOTTED HOLES FOR HORIZONTAL ADJUSTMENT.
16. PROVIDE TEMPORARY SHORING OR BRACING DURING CONSTRUCTION PHASE PRIOR TO COMPLETING CONNECTIONS AND INSTALLATION OF FLOOR SLAB. TEMPORARY CONSTRUCTION BRACING OF THE STRUCTURAL STEEL FRAME IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL REMAIN IN PLACE UNTIL AFTER THE PERMANENT BRACING SYSTEM HAS BEEN COMPLETED.
17. HEADED STUDS (SHEAR AND ANCHOR) AND DEFORMED ANCHORS:AR
    A. PROVIDE HEADED STUDS (SHEAR AND ANCHOR) MADE OF MATERIAL CONFORMING TO ASTM A 108.
    B. PROVIDE DEFORMED ANCHORS MADE OF MATERIAL CONFORMING TO ASTM A 496.
    C. WELD STUDS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. MANUAL ARC (STICK) WELDING OF HEADER STUDS AND/OR DEFORMED ANCHORS IS NOT ALLOWED.

METAL DECK:

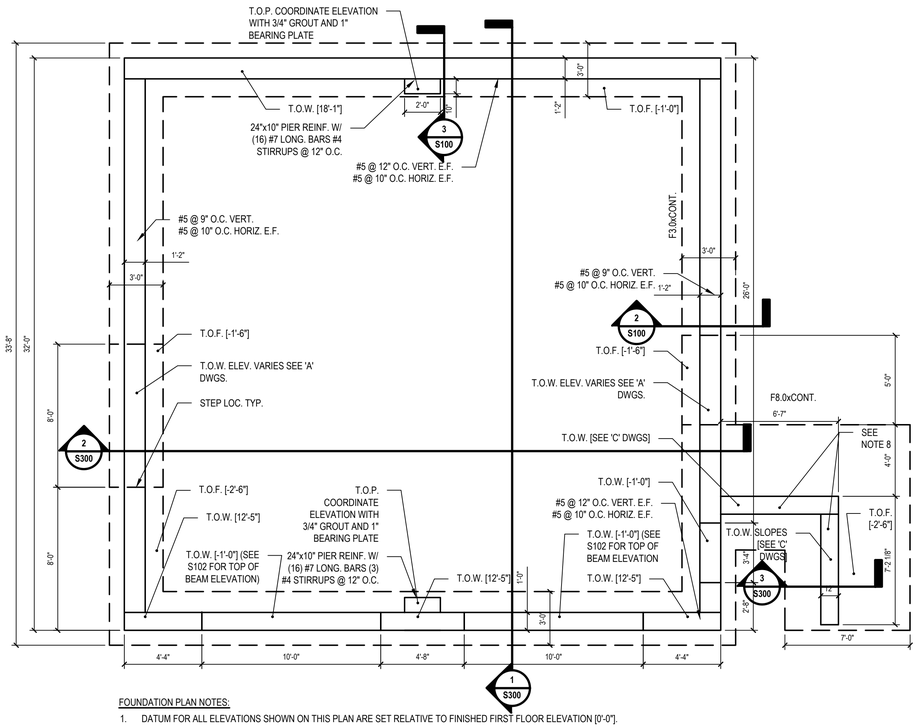
1. PROVIDE DESIGN, FABRICATION, AND ERECTION OF METAL DECK CONFORMING TO THE STEEL DECK INSTITUTE'S "CODE OF RECOMMENDED STANDARD PRACTICE AND BASIC DESIGN SPECIFICATIONS".
2. FORM ROOF AND FLOOR DECK FROM STEEL SHEETS CONFORMING TO ASTM A 611 GRADE C AND D OR A 653 OR HIGHER SPECIFICATIONS WITH A MINIMUM YIELD STRENGTH OF 33 KSI.
3. ATTACH SHEETS TO STEEL SUPPORT MEMBERS AS INDICATED AND IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION. WHEN DECK IS SCHEDULED TO BE EXPOSED, DE-SLAG, CLEAN AND TOUCHED UP WELDS WITH A ZINC-RICH PRIMER.
4. LAP ROOF AND FLOOR DECK ENDS MINIMUM OF 2 INCHES. WHEN FASTENING DECK TO SUPPORT MEMBERS PROVIDE WELDING MATERIALS INSTALLATION PROCEDURES TO PREVENT BURNING OF HOLES IN DECK.
5. PROVIDE SIX INCH CLOSURE STRIP WHERE CHANGES IN DECK DIRECTION OCCUR. CLOSURE TO BE SAME GAGE AS DECK.
6. AT ENDS OF DECKS OR WHERE CHANGES OF DECK DIRECTION OCCUR, FASTEN TO SUPPORTS AT EACH FLUTE. PROVIDE ADEQUATE CLOSURES AND FASTENERS TO SIDES AT EIGHTEEN INCHES ON CENTER.
7. WHERE PARTIAL PANELS MAY BE REQUIRED TO COMPLETE DECK INSTALLATION AT PERIMETER OF STRUCTURE, PROVIDE WELDS IN EACH FLUTE TO STRUCTURAL MEMBERS. INSTALL DECK IN THREE CONTINUOUS SPAN LENGTHS.
8. AT PERIMETER OF DECK, SECURE DECK TO STRUCTURAL MEMBERS WITH SAME ATTACHMENT AND SPACING SUPPORT ATTACHMENT AS INDICATED ON PLANS.

COLD FORMED STEEL NOTES:

1. PROVIDE ALL STUDS AND/OR JOISTS AND ACCESSORIES OF THE TYPE, SIZE, GAGE AND SPACING SHOWN ON THE DRAWINGS.
2. DESIGN ALL STRUCTURAL MEMBERS IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE (AISI) "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION.
3. FORM ALL FRAMING MEMBERS FROM CORROSION RESISTANT STEEL, CORRESPONDING TO THE REQUIREMENTS OF ASTM A653 AND THE FOLLOWING STRENGTH REQUIREMENTS:

FRAMING MEMBER	GA. THICKNESS	(MIL)	MINIMUM YIELD
STUDS, JOISTS	18	43	33 KSI
STUDS, JOISTS	16,14	54,68,	50 KSI
TRACKS, SOLID BLOCKING	16 MIN.	54	50 KSI

4. PLACE ALL COLD-FORMED STEEL STUD WALL BRIDGING HORIZONTALLY WITH A MAXIMUM VERTICAL SPACING OF FOUR FEET UNLESS NOTED OTHERWISE. AS AN OPTION, CONTINUOUS COLD-FORMED CHANNELS MAY BE POSITIONED THROUGH THE STUD PUNCH OUTS AS BRIDGING PROVIDED THE CHANNEL IS PROPERLY FASTENED TO EACH STUD.
5. INSTALL AXIALLY LOADED STUDS IN A MANNER WHICH WILL ASSURE THAT THEIR ENDS ARE POSITIONED AGAINST THE INSIDE OF RUNNER WEB PRIOR TO FASTENING.
6. FASTEN COMPONENTS WITH SELF-DRILLING SCREWS OR WELDING. PROVIDE SCREWS OF SUFFICIENT SIZE TO ENSURE THE STRENGTH OF THE CONNECTION. WIRE TYING O

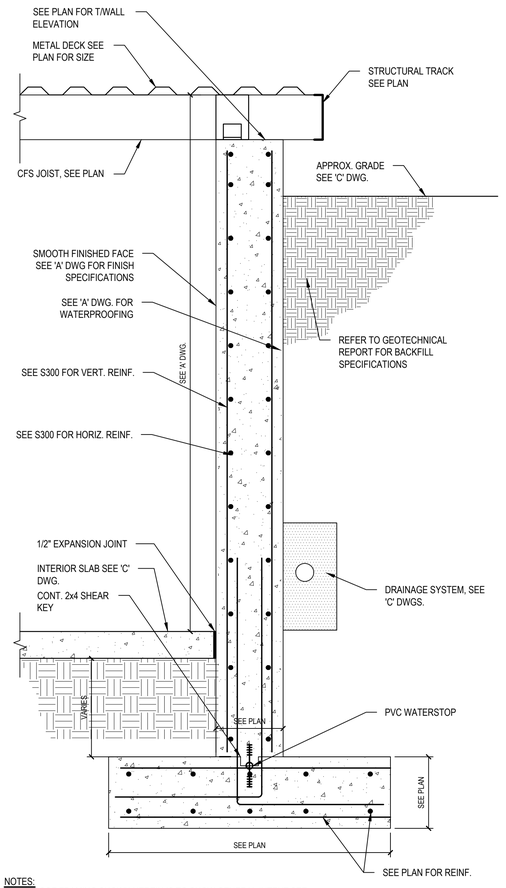


FOUNDATION PLAN NOTES:

1. DATUM FOR ALL ELEVATIONS SHOWN ON THIS PLAN ARE SET RELATIVE TO FINISHED FIRST FLOOR ELEVATION [0'-0"].
2. ALL EXCAVATED EARTH SHALL BE REPLACED WITH TYPE 'C' CONTROLLED FILL AS PER SPECIFICATION 02223.
3. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF ALL REQUIRED PIPING AND CONDUIT PENETRATION WALL WITH ALL OTHER WORK.
4. BACKFILLING NOTE: CONTRACTOR SHALL NOT BACKFILL BEHIND RETAINING WALLS UNTIL INTERIOR BASEMENT SLAB IS IN PLACE AND CURED FOR A MINIMUM OF FOURTEEN (14) DAYS. ALL BACKFILL SHALL BE WELL GRADED GRANULAR MATERIAL COMPACTED TO 95% MAX. DRY DENSITY AT 6" LIFTS AND AT OPTIMUM MOISTURE CONTENT TO UNDERSIDE OF TOP SOIL LIMITS OF FILL TO BE REMOVED AND REPLACED, AND OTHER CONSIDERATIONS REQUIRED BY CONTRACTOR.
5. BACKFILLING SHALL NOT COMMENCE AT AREAS ADJACENT TO THE BASEMENT FOUNDATION WALLS UNTIL THE WALL HAS BEEN BRACED BY THE FRAMING ON THESE PLANS.
6. CONTRACTOR SHALL COORDINATE LOCATION AND DEPTHS OF BEAM POCKETS IN THE FOUNDATION WALLS
7. INSTALL PVC WATERSTOP AT ALL FOUNDATION WALL KEYS EXCEPT AT THE SOUTH WALL.
8. CONTRACTOR TO COORDINATE INSTALLATION OF CHAIN-LINK FENCE TO BE EMBEDDED INTO TOP OF RETAINING WALL. SEE 'C' DRAWINGS FOR FENCE REQUIREMENTS.
9. BOTTOM OF FOOTINGS SHALL EXTEND AT LEAST 42" BELOW GRADE.

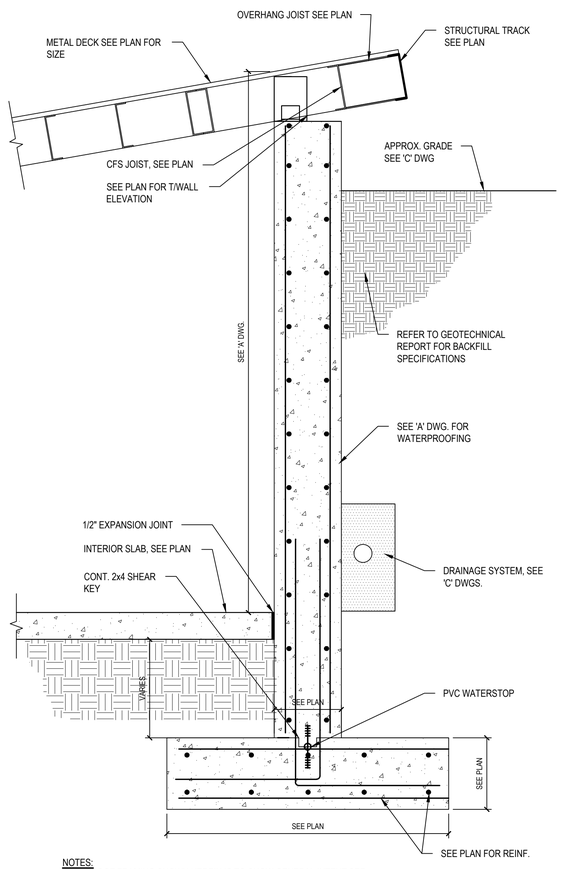
Foundation Plan
SCALE: 1/4"=1'-0"

FOOTING SCHEDULE				
FOOTING TYPE	SIZE	THICKNESS	REINFORCEMENT	COMMENTS
F3.0xCONT.	3'-0" x CONT.	12"	#5 @ 12" O.C. E.W.	PLACE SHORT BARS FIRST
F8.0xCONT.	7'-0" x CONT.	12"	#5 @ 12" O.C. E.W. T&B	PLACE SHORT BARS FIRST



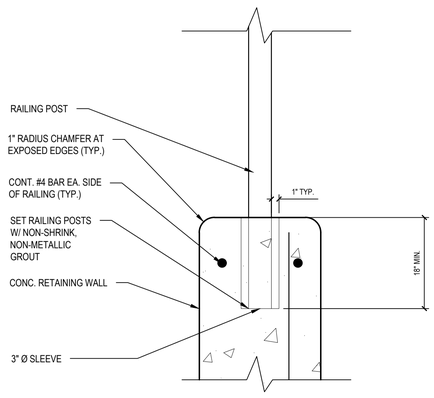
NOTES:
1. ROOF FRAMING SHOWN HEREIN IS TO SHOW GENERAL INTENT SEE BUILDING SECTIONS AND CFS DETAILS FOR MORE INFORMATION
2. SEE 'A' DWGS FOR RIGID INSULATION REQUIREMENTS

2 Section at Side Foundation Wall
SCALE: NTS



NOTES:
1. ROOF FRAMING SHOWN HEREIN IS TO SHOW GENERAL INTENT SEE BUILDING SECTIONS AND CFS DETAILS FOR MORE INFORMATION
2. SEE 'A' DWGS FOR RIGID INSULATION REQUIREMENTS

3 Section at Rear Foundation Wall
SCALE: NTS



4 Railing Attachment Detail
SCALE: NTS

H2M architects + engineers
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CONSULTANTS:

MARK	DATE	DESCRIPTION
1	07-13-21	SED ADDENDUM 1

STATE OF NEW YORK SCOTT D LEHR 087145 LICENSED PROFESSIONAL ENGINEER

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JJN	JJN	DJA	SDL

PROJECT No.:	DATE:	SCALE:
IRSD1903	NOV 2021	AS SHOWN

CLIENT
Irvington Union Free School District

Facilities Storage Building at Irvington Campus

Irvington Campus
40 N. Broadway
Irvington, NY 10533

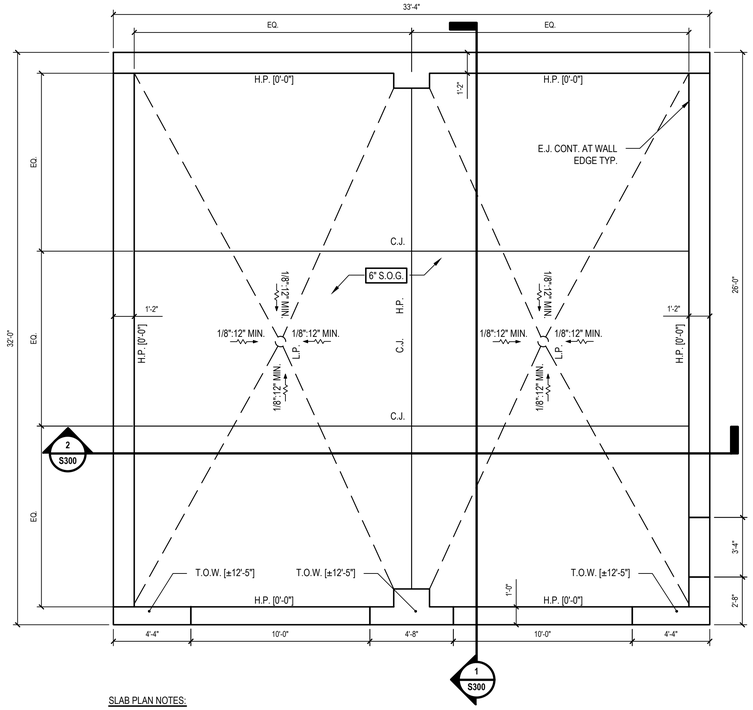
SED Number:66-04-02-02-2-022-001

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
FINAL BID SET

SHEET TITLE
FOUNDATION PLAN

DRAWING No.
S100.00



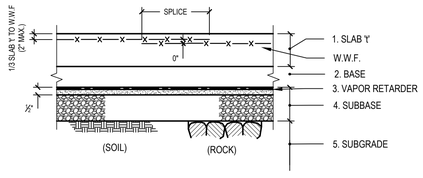
LEGEND:

C.J. = CONTROL JOINT
E.J. = 1/2" PREMOLDED EXPANSION JOINT WITH SEALANT
H.P. = HIGH POINT OF PITCHED SLAB
L.P. = LOW POINT OF PITCHED SLAB
INDICATES PITCH DIRECTION OF SLAB
INDICATES STEP IN SLAB

SLAB PLAN NOTES:

1. DATUM FOR ALL ELEVATIONS SHOWN ON THIS PLAN ARE SET RELATIVE TO FINISHED FIRST FLOOR ELEVATION [0'-0"].
2. SLAB SHOWN IS 6" SLAB REINFORCED W/ 6 x 6 - W2.9 x W2.9 U.O.N.

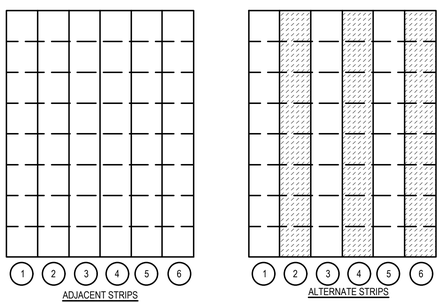
Slab Plan
SCALE: 1/4"=1'-0"



TYPICAL DETAIL- SLAB ON GROUND

NOTE:

1. SLAB THICKNESS 't'=6" UNLESS OTHERWISE NOTED ON PLANS.
2. BASE =4" LAYER OF PROCESSED AGGREGATE, SIZE NO. 10 PER ASTM D448. (SAND OF UNIFORM PARTICLE SIZE OR CONCRETE FINE AGGREGATE IS NOT ACCEPTABLE).
3. VAPOR RETARDER (VAPOR "BARRIER"): 10 MILS THICK POLYETHYLENE.
4. SLAB SUBBASE: 4" LAYER OVER SOIL, 5" MIN. OVER ROCK SUBGRADE, COMPACTABLE GRANULAR FILL. COVER ROUGH FILL WITH 4" OF BASE AGGREGATE AND COMPACT IT ONTO SUBBASE.
5. SUBGRADE: COMPACTED FILL, BACKFILL OR UNDISTURBED SOIL, OR LEVELED ROCK SURFACE.



SUGGESTED SEQUENCE OF CASTING STRIPS

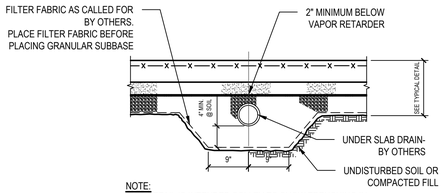
SLAB ON GROUND NOTES:

1. SLAB ON GROUND SHALL BE PLACED IN STRIPS, AS SHOWN IN "SUGGESTED SEQUENCE OF CASTING STRIPS" AT MINIMUM OR IN LOCATIONS SHOWN ON THE SLAB PLANS.
2. CONTROL JOINTS SHALL BE SAWCUT AS SOON CONCRETE IS HARD ENOUGH NOT TO BE TORN OR DAMAGED BY THE BLADE, AND BEFORE THE CONCRETE STARTS TO COOL. TYPICALLY JOINTS SHOULD BE CUT 4 TO 12 HOURS AFTER THE SLAB HAS BEEN FINISHED, DEPENDING UPON WEATHER AND JOB CONDITIONS.
3. SPACING OF SAWCUT CONTROL JOINTS (IN FEET) TO BE APPROXIMATELY THREE TIMES THE SLAB THICKNESS IN INCHES, WITH A MAXIMUM OF TWENTY (20) FEET.
4. A MAXIMUM RATIO OF 1.5 SHALL BE MAINTAINED BETWEEN LONG AND SHORT DIMENSIONS OF PANELS FORMED BY CONSTRUCTION AND CONTROL JOINTS.

LEGEND:

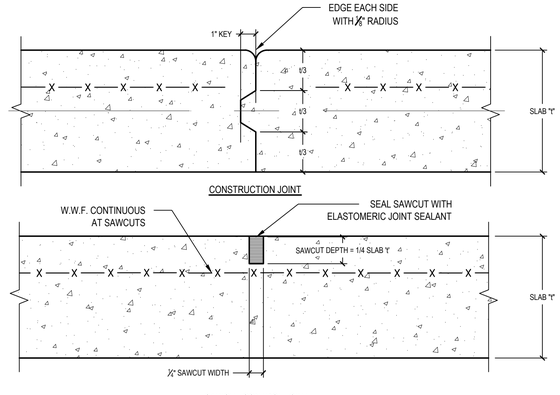
STRIPS CAST FIRST
INFILL STRIPS
FORMED JOINTS
SAWCUT JOINTS

2 Typical Slab-on-Grade Detail
SCALE: NTS



NOTE:
THIS DETAIL IS INTENDED SOLLEY TO SHOW TRENCHING IN SUBGRADE WHERE DRAINS ARE CALLED FOR BY OTHERS

3 Typical Under Slab Drain Detail
SCALE: NTS



SAWCUT CONTROL JOINT

4 Typical Slab-on-Grade Joint Detail
SCALE: NTS

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MARK	DATE	DESCRIPTION
1	07-13-21	SED ADDENDUM 1

STATE OF NEW YORK · SCOTT D LEHR · 087145 · LICENSED PROFESSIONAL ENGINEER

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JJN	JJN	DJA	SDL

PROJECT No.:	DATE:	SCALE:
IRSD1903	NOV 2021	AS SHOWN

CLIENT
Irvington Union Free School District

Facilities Storage Building at Irvington Campus

Irvington Campus
40 N. Broadway
Irvington, NY 10533

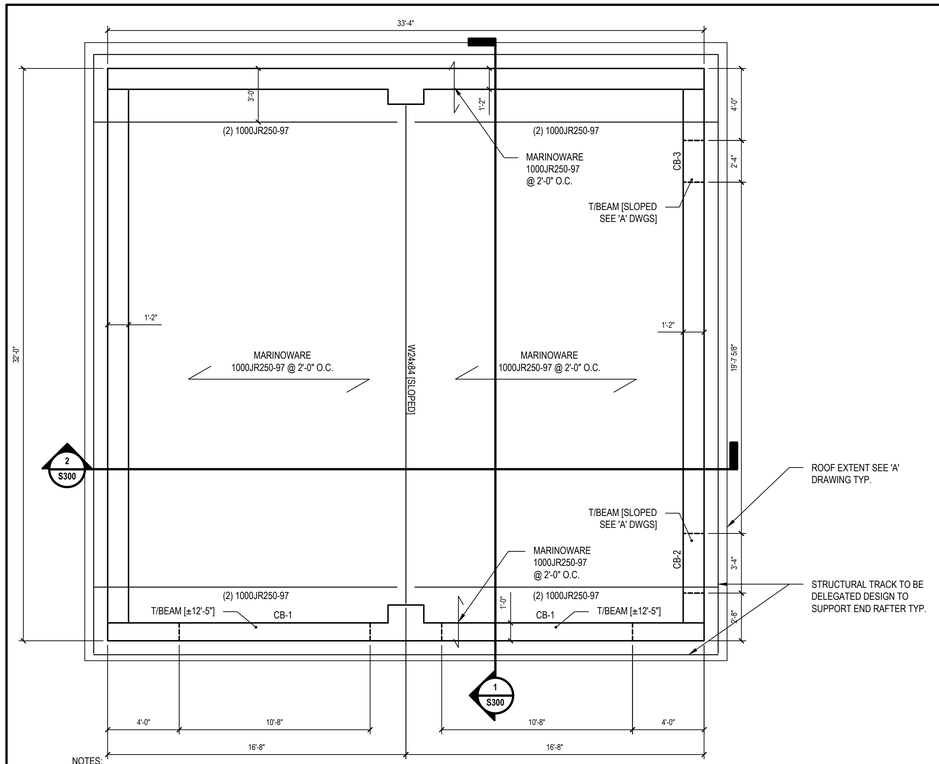
SED Number:66-04-02-02-2-022-001

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
FINAL BID SET

SHEET TITLE
SLAB PLAN

DRAWING No.
S101.00

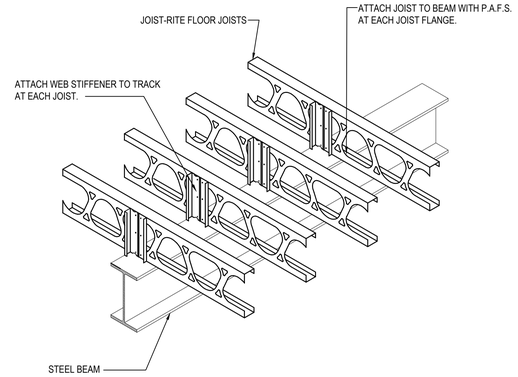


NOTES:

1. [X'-X"] INDICATES T/CONC. BEAM ELEVATIONS. T/STEEL ELEVATION VARIES SEE T/PIER ELEVATIONS.
2. THE ROOF SHALL BE CONSTRUCTED OF 1.5B 22 GAUGE METAL ROOF DECK MANUFACTURED BY VULCRAFT NUCOR OR APPROVED EQUAL.
3. CB-1 INDICATES 12X24 CONCRETE BEAM REINFORCED WITH (3) # 5 T/B W/ #3 STIRRUPS @ 12" O.C. SEE 'A' DWG. FOR BEAM ELEVATION.
4. CB-2 INDICATES 14X24 CONCRETE BEAM REINFORCED WITH (3) # 5 T/B W/ #3 STIRRUPS @ 12" O.C. SEE 'A' DWG. FOR BEAM ELEVATION.
5. CB-3 INDICATES 14X12 CONCRETE BEAM REINFORCED WITH (2) # 5 T/B W/ #3 STIRRUPS @ 12" O.C. SEE 'A' DWG. FOR BEAM ELEVATION.

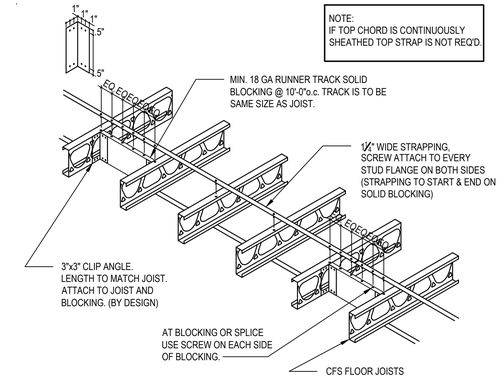
Roof Plan

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



2 Joist Bearing on Structural Beam (Intermediate Condition)

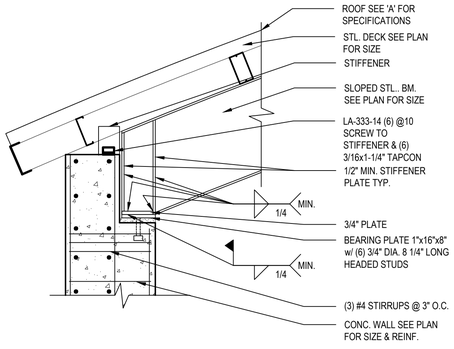
SCALE: NTS



BLOCKING NOTE:
PLACE SOLID BLOCKING AT ENDS OF FLOOR SYSTEM, ADJACENT TO ALL OPENINGS, AND AT 10'-0"o.c. PERPENDICULAR TO JOIST SPAN MAX.

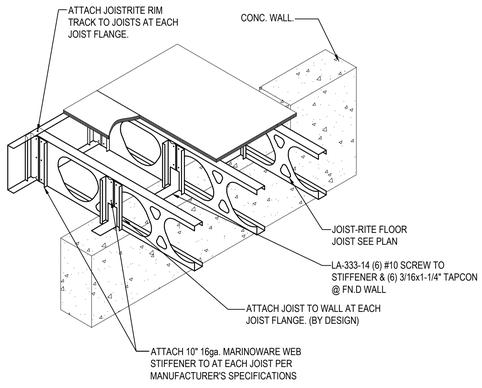
3 Typical CFS Strapping Detail

SCALE: NTS



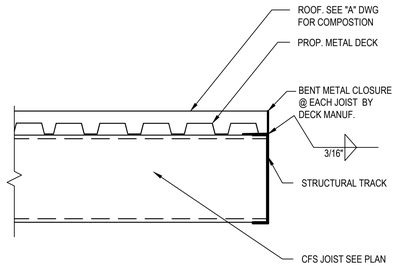
4 Typical Detail at Cantilever Stub with Deck Perpendicular

SCALE: NTS



5 Joist Cantilevered Over Conc. Wall

SCALE: NTS



6 Deck Weak Axis Support

SCALE: NTS

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GENERAL CONSTRUCTION

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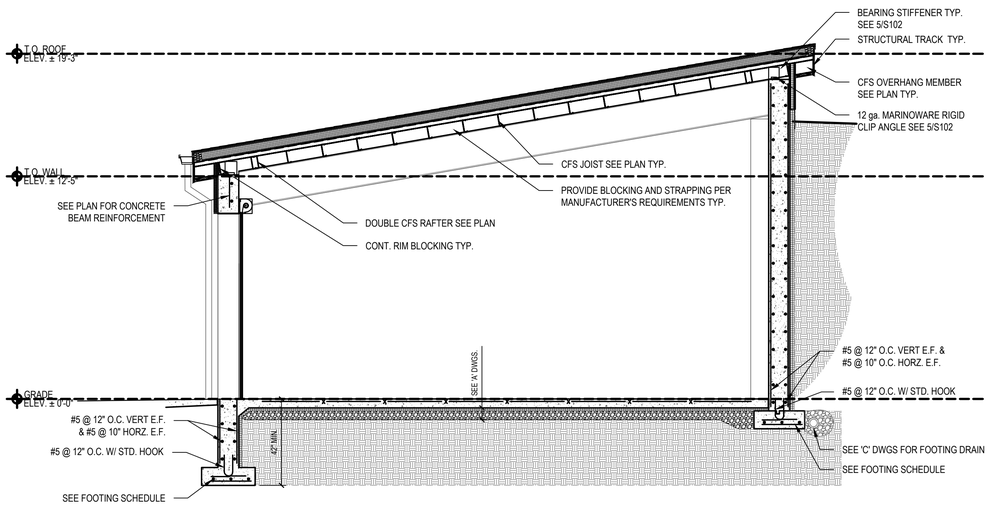
SHEET TITLE

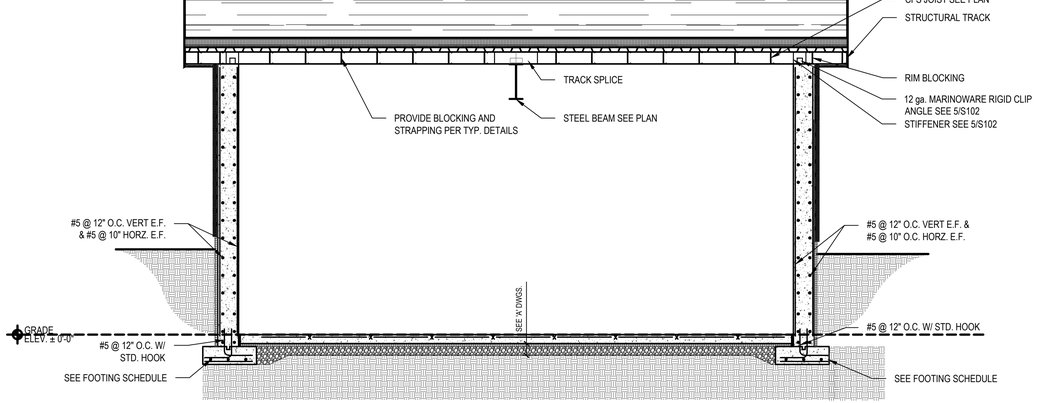
ROOF FRAMING PLAN

DRAWING No.

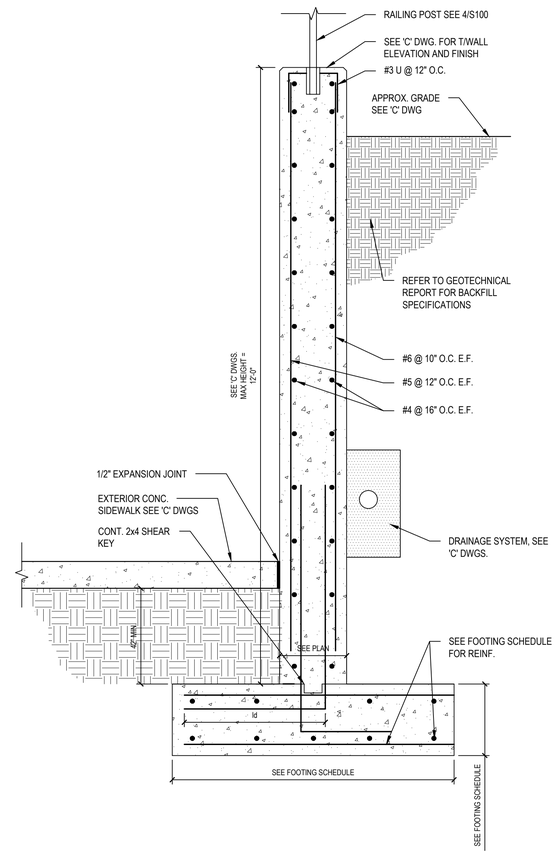
S102.00



1 Structural Section
SCALE: 1/4"=1'-0"



2 Structural Section
SCALE: 1/4"=1'-0"



3 Section at Retaining Wall
SCALE: NTS

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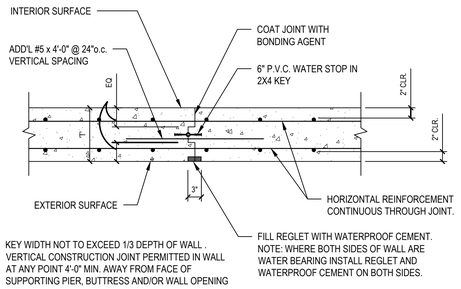
STRUCTURAL SECTIONS

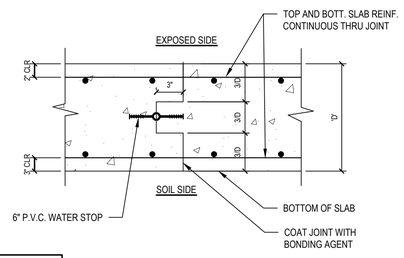
DRAWING No.

S300.00

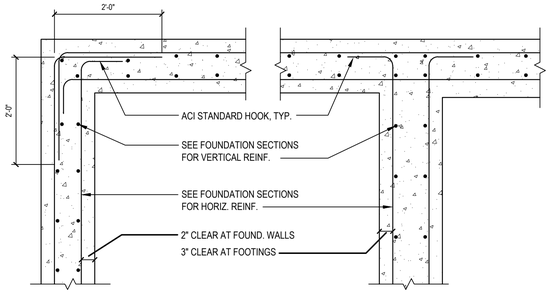


VERTICAL CONSTRUCTION JOINT IN WALL

NOTE:
SUBMIT CONSTRUCTION JOINT LAYOUT FOR ALL CONCRETE STRUCTURES FOR ENGINEER'S REVIEW.

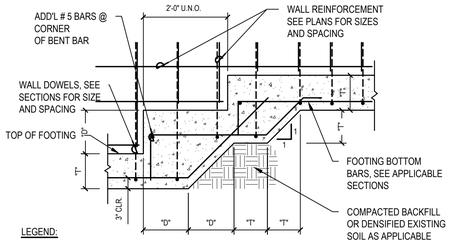


CONSTRUCTION JOINT IN SLAB or MAT



OUTSIDE CORNER

INTERSECTION



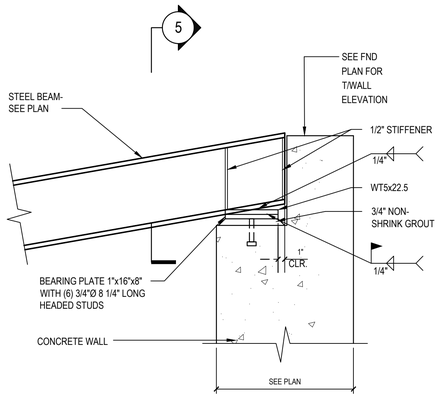
LEGEND:

"T"= THICKNESS OF FOOTING
"D" = DEPTH OF FOOTING CHANGE

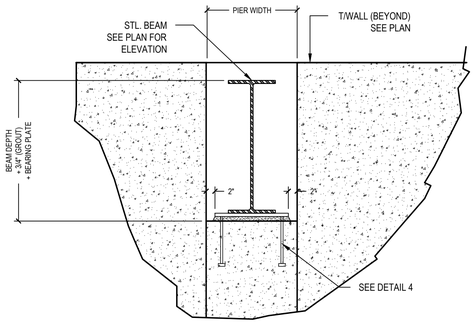
NOTES:

1. LOCATIONS OF STEPPED FOOTING AND DEPTH OF FOOTINGS SHALL BE COORDINATED BY THE CONTRACTOR, WHERE NOT SPECIFICALLY DESIGNATED OTHERWISE. MINIMUM FROST PROTECTION FOR FOOTINGS SHALL BE MAINTAINED IN ALL INSTANCES.
2. FOOTINGS SHALL ONLY BE PERMITTED FOR STEPPING IN AREAS WHERE SUITABLE SOIL BEARING CONDITIONS ARE PROVIDED BELOW FOOTINGS. REFER TO GEOTECHNICAL REPORT FOR REQUIREMENTS.
3. TOP BARS OF RETAINING WALL FOOTING NOT SHOWN FOR CLARITY.

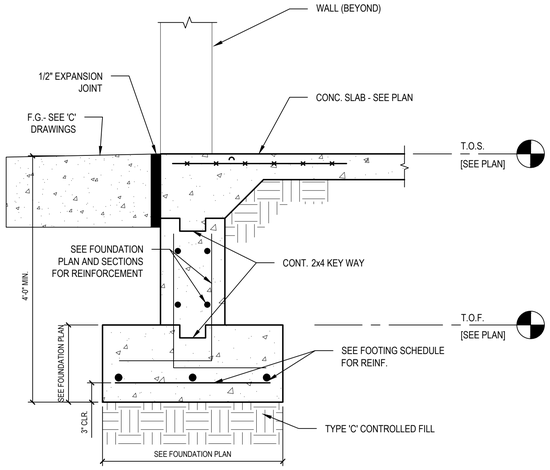
1 Construction Joints w/ Waterstop
SCALE: NTS

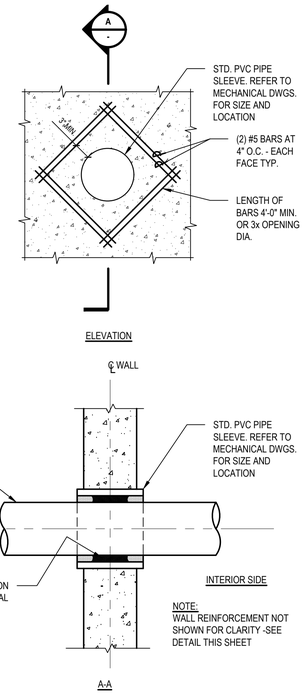


2 Wall, Foundation and Grade Beam Horizontal Reinforcement Detail
SCALE: NTS



3 Typical Stepped Footing Detail
SCALE: NTS





4 Steel Beam at Concrete Pier Detail
SCALE: NTS

5 Steel Beam at Concrete Pier Detail
SCALE: NTS

6 Typical Haunched Slab at Doorway Detail
SCALE: NTS

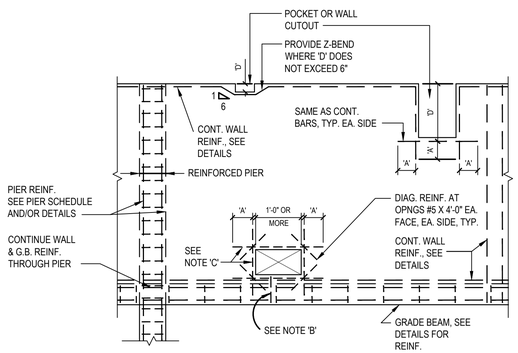
7 Typical Pipe Sleeve Detail
SCALE: NTS

NOTE 'A':
DIMENSION 'A' EQUALS 36 BAR DIA. OR HOOK

NOTE 'B':
WHERE EDGE OF OPNG. IS 2'-0" OR LESS FROM TOP OR BOTTOM OF WALL, PROVIDE #3 TIES @ 12" O.C.

NOTE 'C':
PROVIDE HORIZONTAL AND VERTICAL REINF. AT ALL SIDES OF OPENINGS TO MATCH WALL CONT. HORIZ. AND VERT. REINF.

NOTE 'D':
FOR DEPTH OF BEAM OR COLUMN POCKETS, SEE PLAN OR SCHEDULES



8 Reinforcement Layout at Various Conditions
SCALE: NTS

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JJN	JJN	DJA	SDL

PROJECT No.:	DATE:	SCALE:
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CLIENT

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SED Number:66-04-02-02-2-022-001

CONTRACT

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GENERAL CONSTRUCTION

STATUS

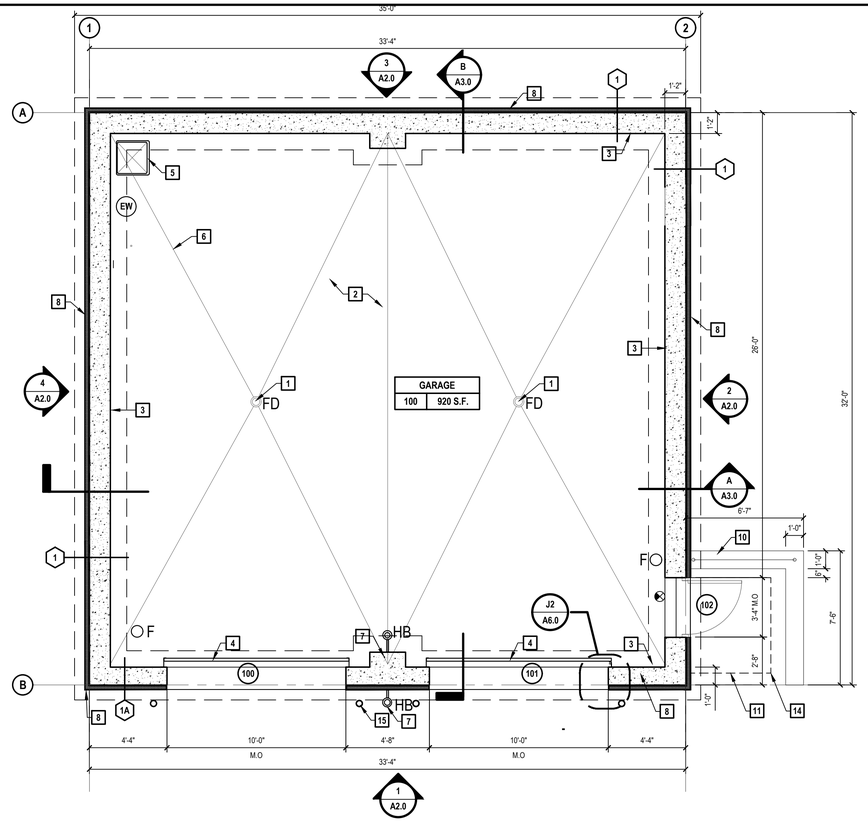
FINAL BID SET

SHEET TITLE

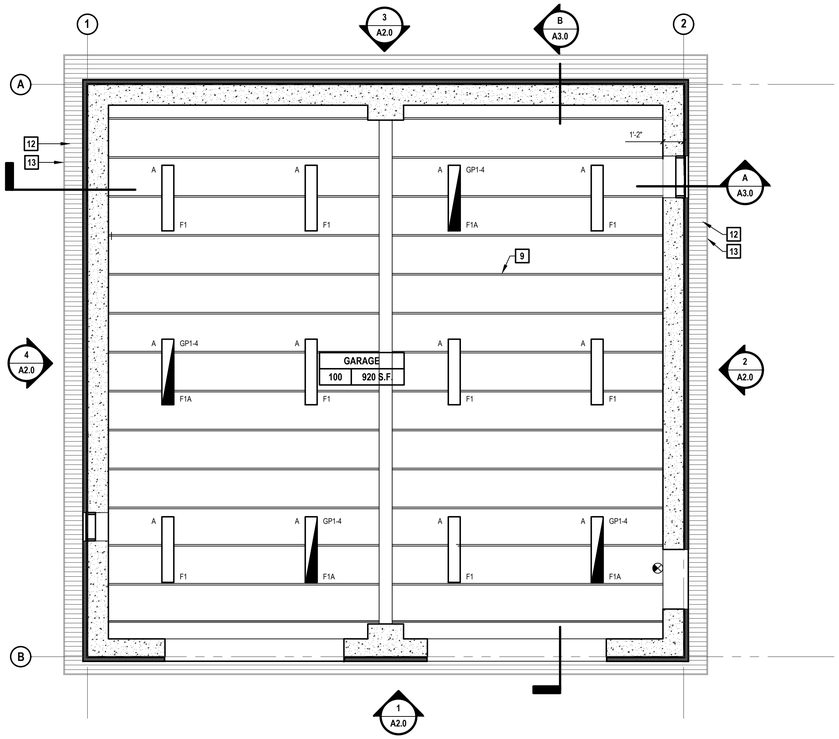
STRUCTURAL DETAILS

DRAWING No.

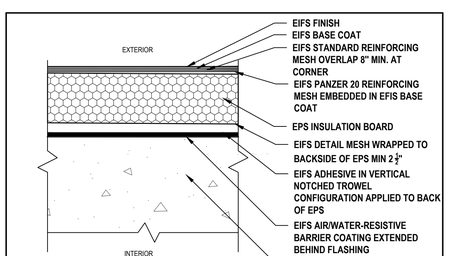
S500.00



A **Facilities Storage Building Plan**
SCALE: 1/4"=1'-0"



B **Facilities Storage Building Reflected Ceiling Plan**
SCALE: 1/4"=1'-0"



NOTE: ALL HEIGHTS AND LOCATIONS TO BE COORDINATED WITH ELEVATIONS ON SHEET A3.0.

WALL TYPE	OVERALL DIMENSIONS	CONC. SIZE	FIRE RATING	UL No.	STC RATING	COMMENTS
1	1'-5"	1-2"	-	-	-	-
1A	1'-3"	1-0"	-	-	-	-

1 **Synthetic Stucco System**
Exterior Partition

GENERAL NOTES

A. THESE DRAWINGS SERVE AS A GRAPHICAL REPRESENTATION OF THE INTENDED SCOPE OF WORK AND CONSTITUTE ONE PORTION OF THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION BETWEEN THESE DRAWINGS AND THE SPECIFICATIONS.

B. ALL WORK SHALL BE IN COMPLIANCE WITH ALL FEDERAL AND NEW YORK STATE APPLICABLE BUILDING AND LIFE AND SAFETY REGULATIONS.

C. BUILDING DIMENSIONS AND SQUARE FOOTAGE SHOWN ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE TO FILED VERIFY ALL DIMENSIONS FOR QUANTITY MATERIALS.

D. PROVIDE AND TURN OVER TO THE SCHOOL DISTRICT ALL EXTRA MATERIALS IN THE QUANTITIES INDICATED WITHIN THE SPECIFICATIONS.

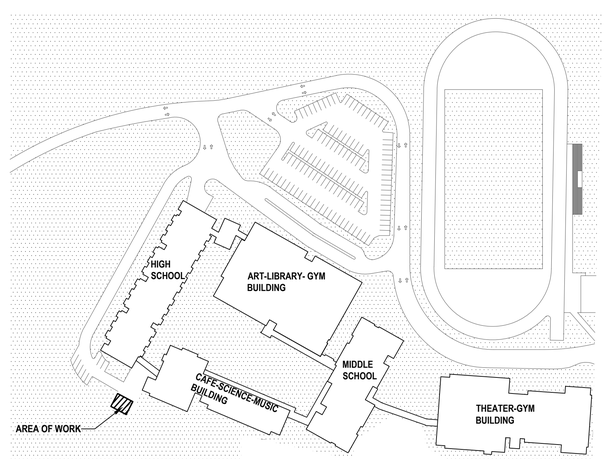
E CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY ALL EXISTING FLOOR PENETRATIONS OR FLOOR MOUNTED ITEMS.

KEY WORK NOTES

1. FLOOR DRAIN TO CONNECT TO OIL WATER SEPARATOR. REFER TO PLUMBING DRAWING FOR ADDITIONAL INFORMATION.
2. CONTRACTOR TO PROVIDE NEW EPOXY FLOORING AND WALL BASE OVER LEVELING COMPOUND AS DESCRIBED IN SPECIFICATION 096716. FLOOR TO SLOPE TO TRENCH DRAINS.
3. CONTRACTOR TO PAINT BLOCK WALL WITH EPOXY PAINT.
4. CONTRACTOR TO INSTALL ROLL UP DOOR. REFER TO DOOR SCHEDULE ON A6.0
5. SLOP SINK. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
6. PITCH FLOOR DOWN TO FLOOR DRAINS. (TYPICAL)
7. HOSE BIB. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
8. EIFS EXTERIOR FINISH. REFER TO PARTITION TYPE FOR ADDITIONAL INFORMATION.
9. CFS JOISTS REFER TO 'S' DWGS
10. RETAINING WALL SEE 'S' DRAWINGS
11. REQUIRED ADA CLEAR
12. METAL SOFFIT
13. SOFFIT BOARD
14. CONCRETE SIDEWALK SEE 'C' DWGS FOR ADDITIONAL INFORMATION
15. BOLLARD. REFER TO 'C' DRAWINGS.

LEGEND

NAME / NO. / S.F.	ROOM DESIGNATION TAG	# / X.XX	ELEVATION MARKER
#	KEY NOTE TAG	X / X.XX	CALLOUT SYMBOL
1	DOOR TAG	0'-0"	CEILING HEIGHT TAG
HB	HOSE BIB		NEW REINFORCED CONCRETE WALL
F	FIRE EXTINGUISHER		SINK. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION
	NEW DOOR	FD	FLOOR DRAIN. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
	NEW ROLL UP DOOR		
EW	EYEWASH STATION		



Key Plan
SCALE: N.T.S.

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CONSULTANTS:

MARK	DATE	DESCRIPTION
1	11/18/2021	FINAL BID DOCUMENT

REGISTERED ARCHITECT MARIO J. BELFIORE 033063 STATE OF NEW YORK

"ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL IS ILLEGAL"

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
MKS	MFV		
PROJECT No.: IRSD1903	DATE: NOV 2021	SCALE: AS SHOWN	

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CONTRACT
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STATUS
FINAL BID DOCUMENT

SHEET TITLE
FACILITIES STORAGE BUILDING PLAN AND REFLECTED CEILING PLAN

DRAWING No.
A1.0

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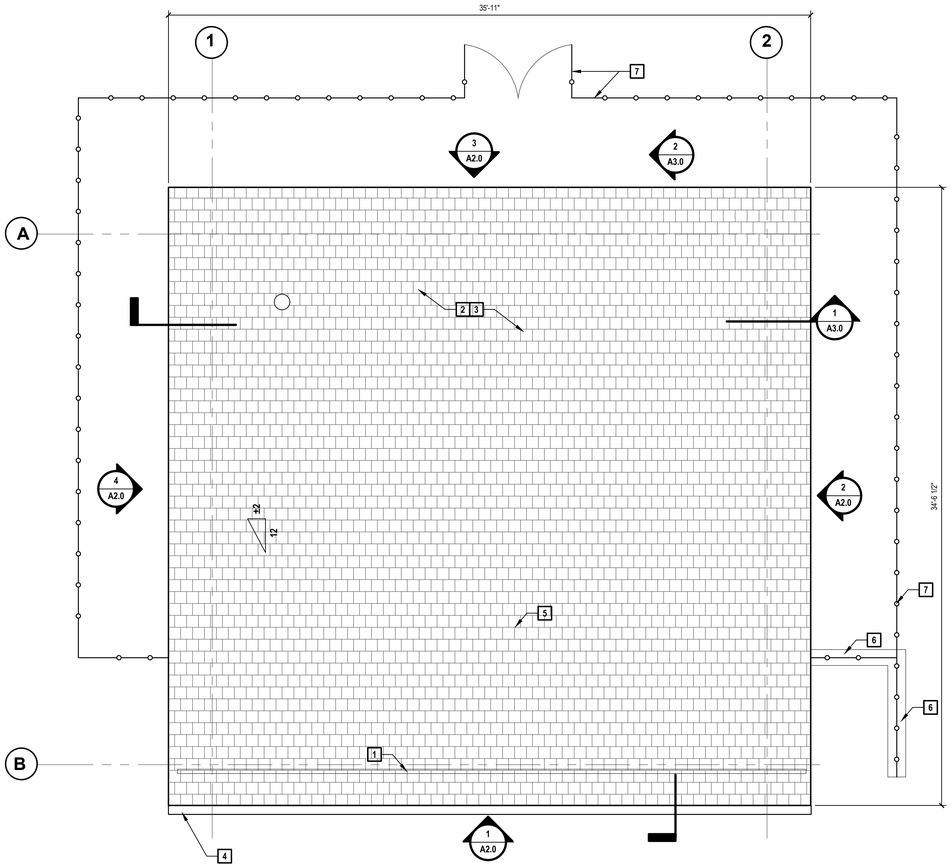


1 Roof Plan
SCALE: 1/4"=1'-0"

GENERAL ROOFING NOTES:

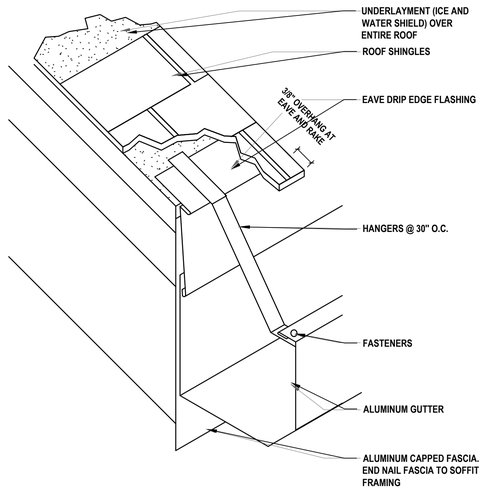
1. THESE DRAWINGS SERVE AS A GRAPHICAL REPRESENTATION OF THE INTENDED SCOPE OF THE WORK, AND CONSTITUTE ONE PORTION OF THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION BETWEEN THESE DRAWINGS AND THE SPECIFICATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES TO THE INTERIOR AND EXTERIOR OF THE BUILDING THAT RESULT FROM ROOFING INSTALLATION INCLUDING BUT NOT LIMITED TO CEILING TILE DAMAGE, WATER LEAKS, FURNITURE DAMAGE, EQUIPMENT DAMAGE, ETC.
3. ROOFING TAPER INDICATED ON PLAN IS APPROXIMATE. CONTRACTOR SHALL COORDINATE ACTUAL TAPER WITH ROOFING MANUFACTURER AND PROVIDE DRAWINGS TO ARCHITECT FOR REVIEW. ROOF PITCH MUST BE INDICATED AND PROVIDE POSITIVE ROOF DRAINAGE TO ROOF DRAINS. INSULATION SHALL BE MINIMUM R30.

KEY WORK NOTES

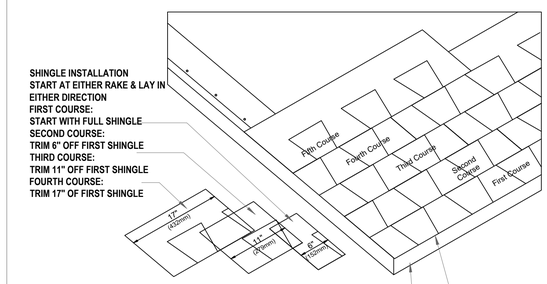
1. CONTRACTOR TO PROVIDE AND INSTALL SNOW GUARDS. REFER TO SPECIFICATION SECTION 077253
2. ICE AND WATER SHIELD TO COVER ENTIRE ROOF.
3. ASPHALT SHINGLE ROOF SYSTEM.
4. 6" SQUARE ALUMINUM GUTTER AND 4" SQUARE DOWNSPOUTS WITH STRAINERS AT TOP OF LEADERS TO UNDERGROUND DRAINAGE - SEE 'C' DRAWINGS FOR ADDITIONAL INFORMATION
5. ROOF VENT TO EXTEND 18"ABOVE FINISH ROOF. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
6. RETAINING WALL BELOW.
7. VINYL COATED CHAIN LINK FENCE AND GATE - SEE 'C' DRAWINGS FOR ADDITIONAL INFORMATION

LEGEND

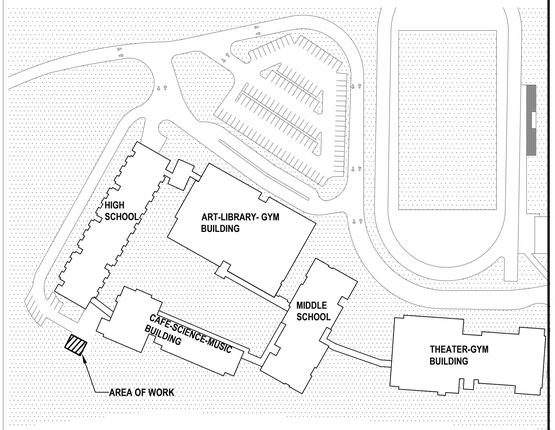
- SNOW GUARDS
- # — KEY NOTE TAG
- 6'-0" HIGH BLACK VINYL TIGHT MESH CAIN LINK FENCE WITH 6'-0" WIDE GATE. REFER TO 'C' DWGS FOR ADDITIONAL INFORMATION
- # / X.XX — ELEVATION MARKER
- X / X.XX — CALLOUT SYMBOL
- VENT - REFER TO 'P' DRWGS



2 Gutter Detail
SCALE: 1/4"=1'-0"



3 Shingle Installation Detail
SCALE: N.T.S.



Key Plan
SCALE: N.T.S.

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CONSULTANTS:

MARK	DATE	DESCRIPTION
1	11/18/2021	FINAL BID DOCUMENT

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
BSP	MKS		

PROJECT No.:	DATE:	SCALE:
IRSD1903	NOV 2021	AS SHOWN

CLIENT

Irvington Union Free School District

Facilities Storage Building at Irvington Campus

Irvington Campus
40 N. Broadway
Irvington, NY 10533

SED Number:66-04-02-02-2-022-001

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

FINAL BID DOCUMENT

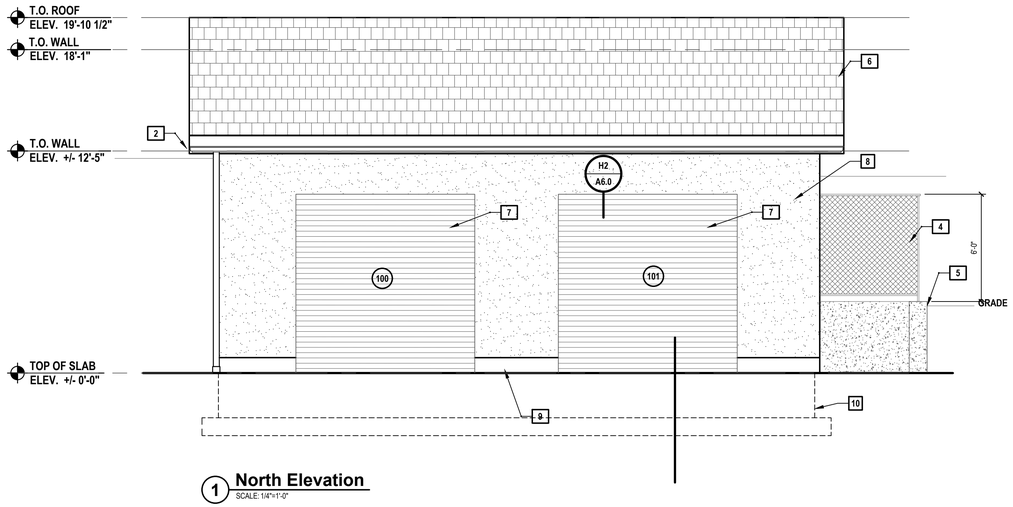
SHEET TITLE

ROOF PLAN

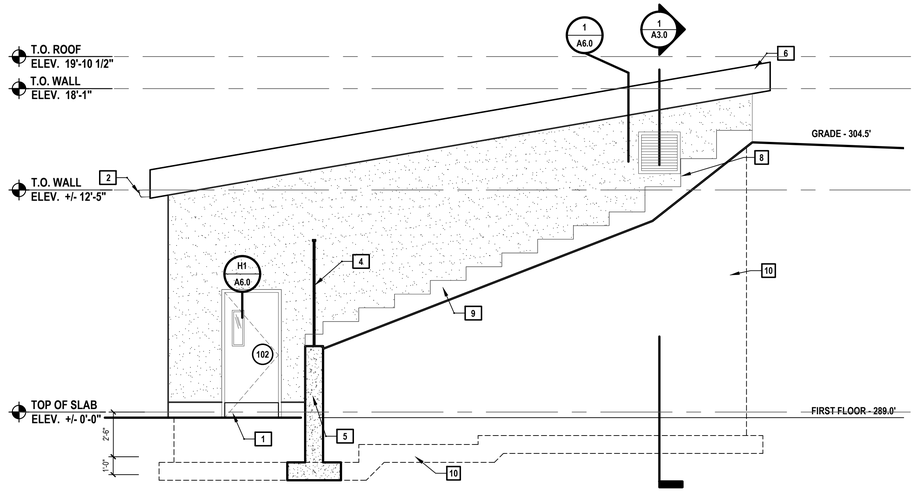
DRAWING No.

A1.1

C:\Users\jmoskowitz\appdata\local\temp\AcPublish_37\20A1.1 Roof plan.dwg, Last Modified: Nov 16, 2021 - 2:20pm, Plotted on: Nov 16, 2021 - 2:44pm By jmoskowitz



1 North Elevation
SCALE: 1/4"=1'-0"



2 East Elevation
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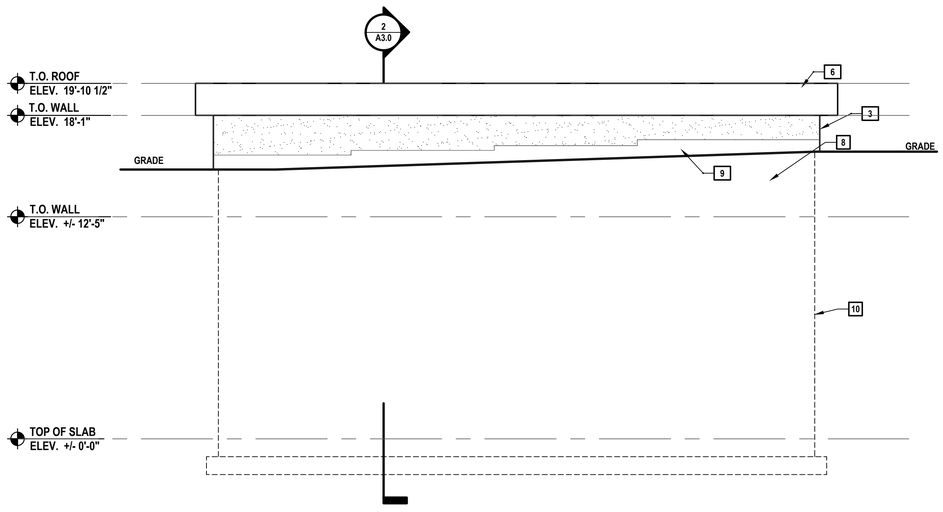
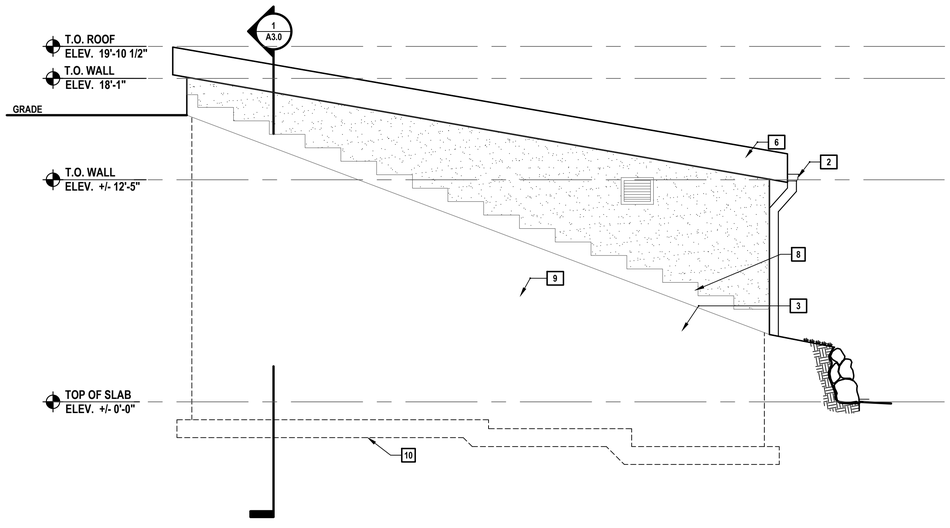


3 South Elevation
SCALE: 1/4"=1'-0"



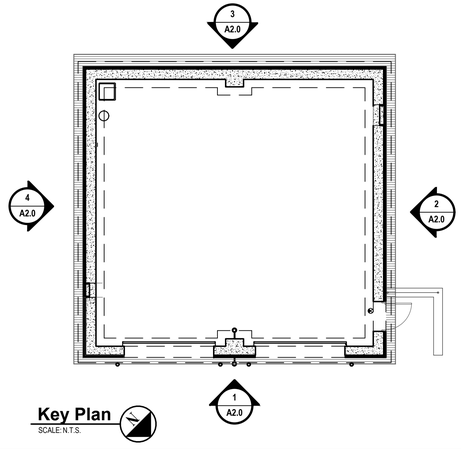
4 West Elevation
SCALE: 1/4"=1'-0"

LEGEND:

X	KEYED WORK NOTE	GRADE ELEV. +/- 0'-0"	ELEVATION TAG
	ASPHALT SHINGLE ROOF, COLOR TO BE SELECTED BY OWNER	X	DOOR TAG, SEE DOOR SCHEDULE FOR ADDITIONAL INFORMATION
	EIFS, COLOR TO BE SELECTED BY OWNER		

KEYED ELEVATION WORK NOTES:

1. THE CONTRACTOR SHALL PROVIDE FRP DOOR, FRAME AND HARDWARE. SEE DOOR SCHEDULE ON SHEET A6.0 FOR ADDITIONAL INFORMATION.
2. THE CONTRACTOR SHALL PROVIDE AND INSTALL NEW ALUMINUM GUTTER AND LEADER. COLOR T.B.D. COORDINATE WITH 'C' DRAWINGS.
3. .032 TWO PIECE CAP FLASHING WITH DRIP EDGE. FLASHING SHALL BE STEPPED DOWN TO ACCOMMODATE GRADE CHANGE. ALL FLASHING SHALL BE END DAMMED AT ELEVATION CHANGES.
4. THE CONTRACTOR SHALL PROVIDE BLACK VINYL COATED GUARDRAIL FENCING AS PER BUILDING CODE. SEE 'C' DRAWINGS FOR ADDITIONAL INFORMATION.
5. NEW CONCRETE RETAINING WALL. COORDINATE WITH 'S' DRAWINGS.
6. THE CONTRACTOR SHALL PROVIDE AND INSTALL NEW ASPHALT SHINGLE ROOF. COLOR T.B.D.
7. THE CONTRACTOR SHALL PROVIDE ROLL UP DOOR. SEE DOOR SCHEDULE ON SHEET A6.0 FOR ADDITIONAL INFORMATION.
8. EIFS EXTERIOR SYSTEM
9. CONCRETE FACED INSULATED PERIMETER WALL PANELS
10. FOOTING AND FOUNDATION DEPTH, SIZE, ETC. PROVIDED ON ELEVATIONS ARE FOR DIAGRAMMATIC PURPOSES ONLY, SEE 'S' DRAWINGS FOR ADDITIONAL INFORMATION



Key Plan
SCALE: N.T.S.

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CONSULTANTS:

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1	11/18/2021	FINAL BID DOCUMENT

REGISTERED ARCHITECT
MARIO J. BELFIORE
033063
STATE OF NEW YORK

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
BSP	MKS	BSP	

PROJECT No.:	DATE:	SCALE:
IRSD1903	NOV 2021	AS SHOWN

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Irvington Union Free School District

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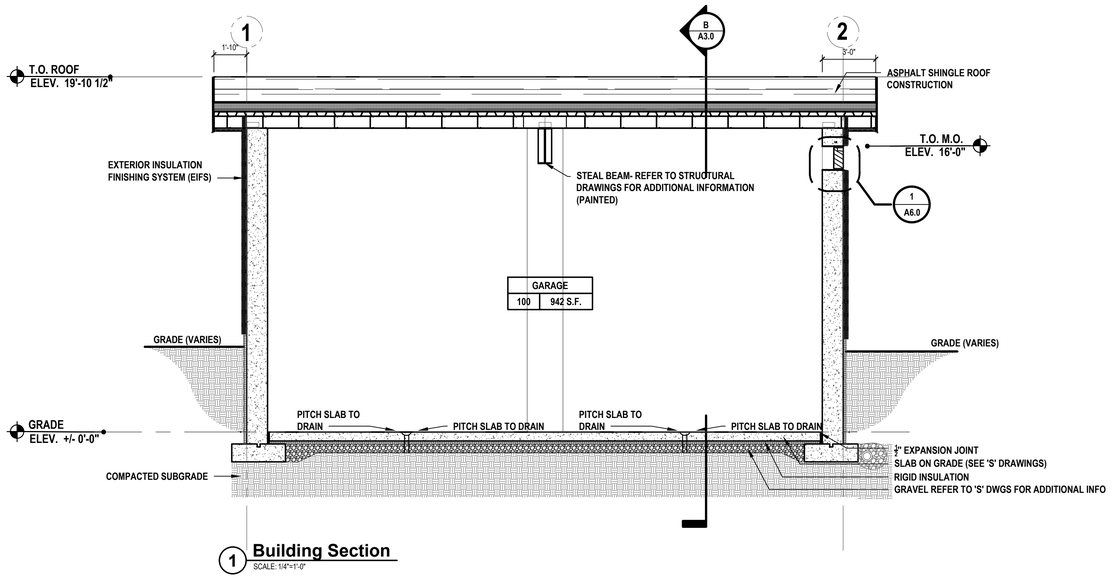
CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

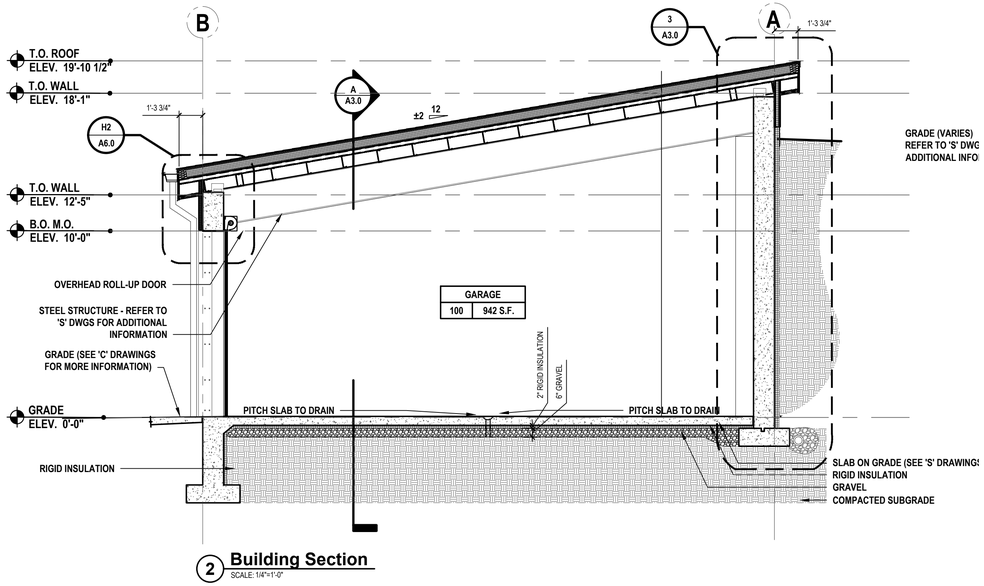
STATUS
FINAL BID DOCUMENT

SHEET TITLE
ELEVATIONS

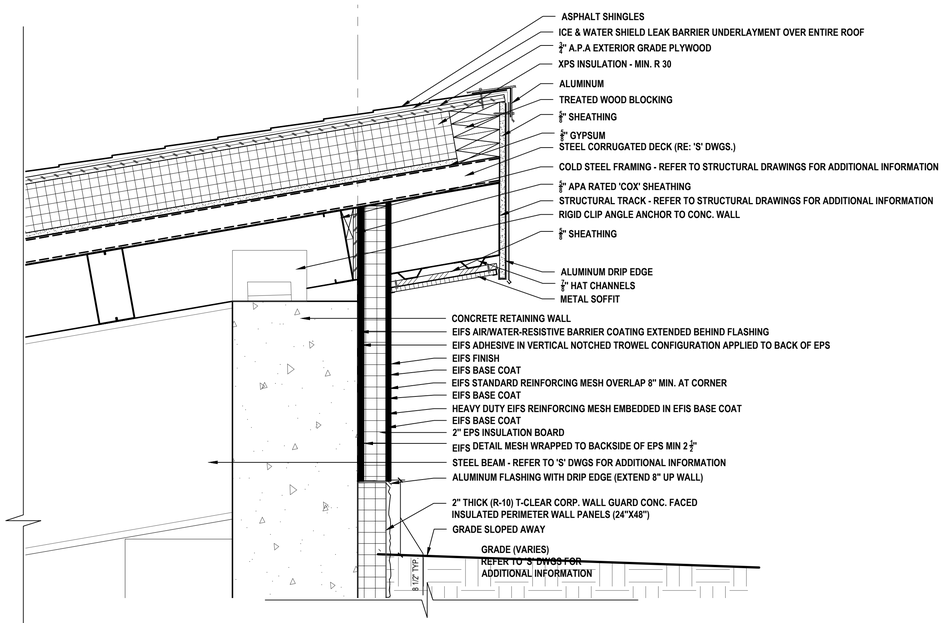
DRAWING No.
A2.0



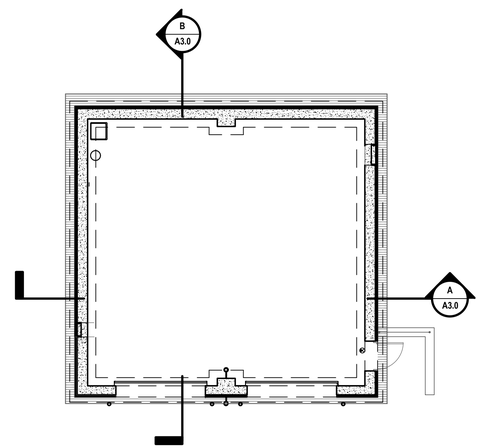
1 Building Section
SCALE: 1/4"=1'-0"



2 Building Section
SCALE: 1/4"=1'-0"



3 Wall Section
SCALE: 1 1/2"=1'-0"



Key Plan
SCALE: N.T.S.

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REGISTERED ARCHITECT
RAIMUNDO J. BELISTRE
STATE OF NEW YORK
033063

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
BSP	MKS		
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CONTRACT
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STATUS
FINAL BID DOCUMENT

SHEET TITLE
BUILDING SECTION, WALL SECTION

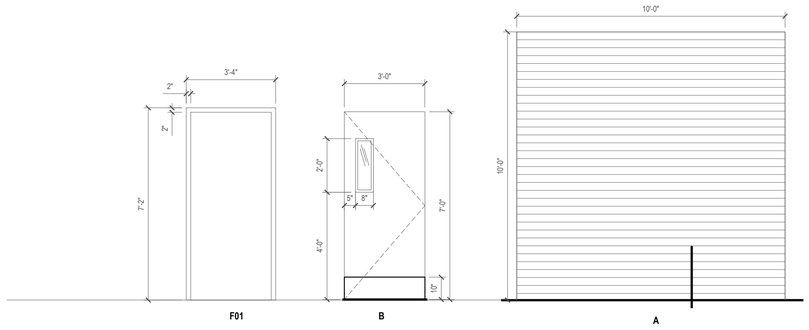
DRAWING No.
A3.0

DOOR SCHEDULE

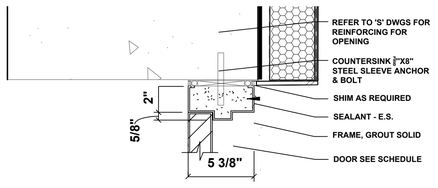
DOOR NO.	FROM ROOM NAME	FROM ROOM NO.	TO ROOM NAME	TO ROOM NO.	DOOR SIZE WIDTH X HEIGHT	DOOR SIZE THICKNESS	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	DETAIL HEAD	DETAIL JAMB	DETAIL SADDLE	FIRE RATING	HARDWARE SET	SECURITY ACCESS	DOOR SIGNAGE	WEATHER STRIPPING	PANIC HARDWARE	COMMENTS
100	EXTERIOR	-	GARAGE	100	OPENING 10'-0" X10'-0" DIMS	-	A	FRP	PT	–	-	PT	H2	J2	-	0	X	•	•	YES	•	
101	EXTERIOR	-	GARAGE	100	OPENING 10'-0" X10'-0" DIMS	-	**A**	FRP	PT	–	-	PT	H2	J2	-	0	X	•	•	YES	•	
102	EXTERIOR	-	GARAGE	100	3'-0" X 7'-0"	1 3/4"	B	FRP	PT	F01	HM	PT	H1	J1	S1	0	01	YES	YES	YES	YES	S.S KICKPLATE ON EACH SIDE

FINISH SCHEDULE

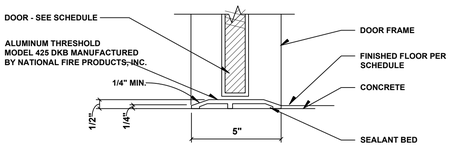
ROOM NUMBER	ROOM NAME	FLOOR MATL.	FLOOR FIN.	FLOOR BASE	WALLS NORTH MATL.	WALLS NORTH FIN.	WALLS EAST MATL.	WALLS EAST FIN.	WALLS SOUTH MATL.	WALLS SOUTH FIN.	WALLS WEST MATL.	WALLS WEST FIN.	CEILING MATL.	CEILING FIN.	CEILING HGT.	COMMENTS
100	GARAGE	CONC.	EPOXY	-	CONC.	EPOXY	CONC.	EPOXY	CONC.	EPOXY	CONC.	PT	EXPOSED	-	-	



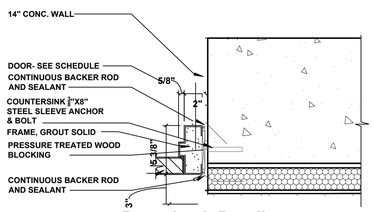
1 **Door & Frame Types**
SCALE: 1/4"=1'-0"



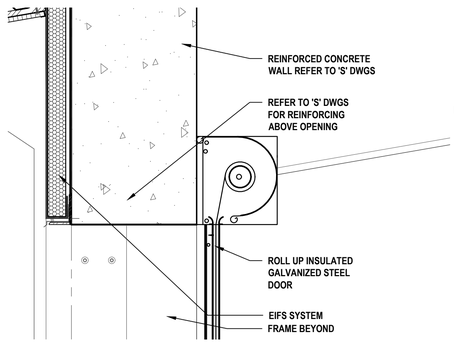
H1 **Door Head Detail**
SCALE: 1 1/2"=1'-0"



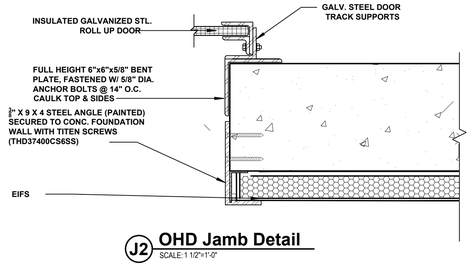
S1 **Saddle Detail**
SCALE: 3"=1'-0"



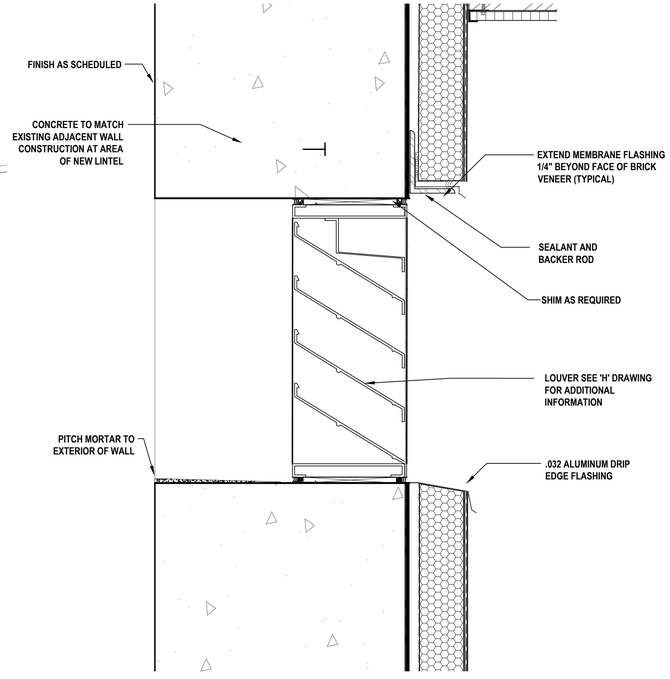
J1 **Door Jamb Detail**
SCALE: 1 1/2"=1'-0"



H2 **OHD Head Detail**
SCALE: 1 1/2"=1'-0"



J2 **OHD Jamb Detail**
SCALE: 1 1/2"=1'-0"



1 **Louver Detail**
SCALE: 3"=1'-0"

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REGISTERED ARCHITECT BIAGIO J. BELSITO 033063 STATE OF NEW YORK

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SHEET TITLE
DOOR SCHEDULE AND DETAILS

DRAWING No.
A6.0

SYMBOLS LIST

LEGEND

SYMBOL	DESCRIPTION
	PIPING UP
	PIPING DOWN
	REDUCER
	CLEANOUT
	CLEANOUT DECKPLATE
	CAPPED PIPE
M	METER
	FLOOR DRAIN
	AQUASTAT
	FROST FREE HOSE BIBB
	PUMP
	STRAINER
	UNION
	THERMOSTATIC MIXING VALVE
	BALANCING VALVE (BV)
	GLOBE VALVE (GLV)
	CHECK VALVE
	GAS COCK
	BALL VALVE (BV)
	GATE VALVE (GV)
	COLD WATER (CW)
	HOT WATER (HW)
	HOT WATER RETURN (HWR)
	WASTE PIPING (W,S,OW)
	BELOW SLAB WASTE PIPING
	VENT PIPING (V)
G	GAS PIPING (G)
	PIPING / EQUIPMENT TO BE REMOVED
	POINT OF CONNECTION
	POINT OF DISCONNECTION

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CLG	CEILING
CO	CLEAN OUT
CODP	CLEAN OUT DECK PLATE
COWP	CLEAN OUT WALL PLATE
CW	COLD WATER
(D)	DEMOLISH
DEG. F	° FAHRENHEIT
DIA	DIAMETER
DN	DOWN
(E)	EXISTING
EA	EACH
FAI	FRESH AIR INTAKE
FD	FLOOR DRAIN
G	GAS
'GC'	GENERAL CONSTRUCTION CONTRACTOR
GPM	GALLONS PER MINUTE
GPH	GALLONS PER HOUR
'H'	HVAC CONTRACTOR
HP	HORSEPOWER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
IN.	INCHES
IN. W.C. (W.G.)	INCHES WATER COLUMN (WATER GAUGE)
KW	KILOWATTS
LBS	POUNDS
M	METER
MAX	MAXIMUM
MIN	MINIMUM
NTS	NOT TO SCALE
OD	OUTER DIAMETER
(P)	PROPOSED
'P'	PLUMBING CONTRACTOR
PD	PRESSURE DROP
RD	ROOF DRAIN
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE
SAN / S	SANITARY
ST	STORM DRAIN
TEMP	TEMPERATURE
TYP	TYPICAL
TWS	TEMPERED WATER SUPPLY
TWR	TEMPERED WATER RETURN
V	VENT
VTR	VENT THROUGH ROOF
W	WASTE

APPLICABLE CODES

- 2020 NEW YORK STATE RESIDENTIAL CODE (NYSRC) 1ST PRINTING (INCLUDES PLUMBING, MECHANICAL, FUEL GAS, AND ENERGY CONSERVATION)
- 2020 NEW YORK STATE BUILDING CODE (NYSBC) 1ST PRINTING
- 2020 NEW YORK STATE FIRE CODE (NYSFC) 1ST PRINTING
- 2020 NEW YORK STATE PLUMBING CODE (NYSPC) 1ST PRINTING
- 2020 NEW YORK STATE FUEL GAS CODE (NYSFGC) 1ST PRINTING
- 2020 NEW YORK STATE MECHANICAL CODE (NYSMC) 1ST PRINTING
- 2020 NEW YORK STATE ENERGY CONSERVATION CODE (NYSECC) 1ST PRINTING

GENERAL PLUMBING NOTES

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PLUMBING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
2. THE CONTRACTOR, BY PRESENTING THEIR BID FOR THE WORK, REPRESENTS THAT HE/SHE HAS INSPECTED THE SITE AND IS COMPLETELY FAMILIAR WITH THE SCOPE OF WORK AND ALL FIELD CONDITIONS RELATED TO, AND AFFECTING THE WORK AND ITS PERFORMANCE. EXCEPTIONS AFFECTING THE WORK AND ITS PERFORMANCE, OR CONFLICTS BETWEEN FIELD CONDITIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE SUBMISSION OF BIDS.
3. PERFORM ALL WORK IN ACCORDANCE WITH THE 2020 NEW YORK STATE PLUMBING (NYSPC), FIRE (NYSFC), MECHANICAL (NYSMC), ENERGY CONSERVATION CONSTRUCTION (NYSECC), AND FUEL GAS (NYSFGC) CODE AND THE REQUIREMENTS OF THE LOCAL AUTHORITIES HAVING JURISDICTION.
4. COMPLY WITH THE NATIONAL ELECTRIC CODE AND THE REQUIREMENTS OF DIVISION 26 FOR ALL ELECTRICAL INSTALLATIONS.
5. APPLY FOR AND SECURE ALL REQUIRED PERMITS AND INSPECTIONS AND PAY ALL COSTS FOR THE SAME.
6. FIRE STOP ALL OPENINGS IN FIRE RATED CONSTRUCTION FOR PIPING, CONDUIT, ETC.
7. DO NOT SCALE DRAWINGS. DRAWINGS FOR PLUMBING WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY. THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE.
8. COORDINATE CONTRACT DOCUMENTS PROJECT REQUIREMENTS, WORK OF OTHERS, AND EQUIPMENT AND MATERIALS PURCHASED WITH FIELD DIMENSIONS, MANUFACTURERS REQUIREMENTS FOR INSTALLATION, OPERATION, AND MAINTENANCE, CONTRACTORS INTENDED MEANS AND METHODS OF INSTALLATION AND CONTRACTORS FABRICATED ITEMS TO ENSURE A PROPER "FIT" AND INSTALLATION. BRING ANY CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER DURING THE SUBMITTAL PHASE FOR RESOLUTION PRIOR TO PURCHASING ANY EQUIPMENT.
9. MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS. WHERE HEADROOM AND SPACE CONDITIONS APPEAR INADEQUATE, NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH INSTALLATION. MAINTAIN A MINIMUM OF 6'-8" CLEARANCE FROM FINISHED FLOOR TO UNDERSIDE OF PIPES, CONDUITS, SUSPENDED EQUIPMENT, ETC., THROUGHOUT ACCESS ROUTES IN MECHANICAL ROOMS.
10. FIELD VERIFY AND COORDINATE ALL PIPING DIMENSIONS BEFORE FABRICATION. MAKE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER EXECUTION OF THE WORK. OBTAIN THE APPROVAL OF THE ARCHITECT/ENGINEER FOR MODIFICATIONS.
11. PROVIDE PRODUCTS OF ONE MANUFACTURER WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF MATERIAL OR EQUIPMENT IS REQUIRED.
12. INSTALL ALL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS. REFER TO DETAILS FOR ADDITIONAL PIPING AND EQUIPMENT INSTALLATION REQUIREMENTS.
13. LOCATE ALL TEMPERATURE, PRESSURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE UP- AND DOWNSTREAM AS RECOMMENDED BY THE MANUFACTURER TO ENSURE MANUFACTURER CERTIFIED ACCURACY.
14. COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. COORDINATE AND PROVIDE ALL PIPING TRANSITIONS REQUIRED FOR FINAL CONNECTIONS TO EQUIPMENT.
15. COORDINATE LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS WITH ALL OTHER TRADES. COORDINATE ALL PIPING AND EQUIPMENT SUPPORTED FROM STRUCTURE WITH GENERAL CONSTRUCTION WORK.
16. COMPLETE ALL PRESSURE TESTS BEFORE ANY PLUMBING EQUIPMENT, OR PIPING INSULATION IS APPLIED.
17. MAKE ALL ATTACHMENTS TO JOISTS, TRUSSES, OR JOIST GIRDERS AT PANEL POINTS. PROVIDE BEAM CLAMPS MEETING MSS STANDARDS. THE USE OF C-CLAMPS IS NOT PERMITTED.
18. PROVIDE CONCRETE PADS A MINIMUM OF 4 INCHES HIGH FOR ALL FLOOR MOUNTED EQUIPMENT. EXTEND PAD 4 INCHES BEYOND THE EQUIPMENT ON ALL SIDES.
19. INSTALL PIPING, AND CONDUIT CONCEALED IN AREAS HAVING HUNG CEILINGS AND/OR FURRED SPACES UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
20. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL ACCESSIBLE FIXTURES. MOUNT ALL SUCH FIXTURES IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
21. PROVIDE ACCESS DOORS IN WALLS, PARTITIONS, AND CEILINGS AS REQUIRED TO MAKE VALVES, WATER HAMMER ARRESTERS, ETC. READILY ACCESSIBLE.
22. ARRANGE FOR, COORDINATE, AND MAKE CONNECTION TO ALL SERVICES PROVIDED BY OTHERS. CONFORM TO ALL REQUIREMENTS APPLICABLE TO CONNECTIONS IMPOSED BY UTILITY COMPANIES AND AUTHORITIES HAVING JURISDICTION.
23. INSTALL FIXTURES AND EQUIPMENT WITH VALVES, UNIONS, ETC. TO ALLOW FOR EASE OF SERVICE AND/OR REMOVAL.
24. CORE DRILL ALL PENETRATIONS THROUGH CONCRETE FLOORS, WALLS, AND FOOTINGS.
25. INSTALL LINK SEAL TYPE PROTECTION FOR WATER RESISTANT SEALS AT ALL SLAB AND BELOW GROUND WALL FOOTING PENETRATIONS.
26. FURNISH AND INSTALL WATER PRESSURE REDUCING VALVE AND PRESSURE RELIEF VALVE IN ACCORDANCE WITH THE NEW YORK STATE PLUMBING CODE ON ALL INCOMING DOMESTIC WATER SYSTEMS IN EXCESS OF 80 P.S.I.G.
27. COVER ALL COPPER PIPING BELOW SLAB WITH "ARMAFLEX" TYPE INSULATION.
28. SLOPE ALL VENT PIPING TO DRAIN BACK TO THE DRAINAGE SYSTEM.
29. FLUSH AND DISINFECT ALL DOMESTIC POTABLE WATER PIPING AND TEST THE WATER IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE. PROVIDE CERTIFICATE OF PERFORMANCE AND LABORATORY TEST REPORT TO LOCAL AUTHORITIES HAVING JURISDICTION AND OBTAIN THEIR APPROVAL.
30. PROVIDE WATER HAMMER ARRESTORS AT ALL QUICK CLOSING FIXTURE VALVE LOCATIONS.
31. ALL PIPING, VALVES AND FITTINGS USED FOR POTABLE WATER SHALL BE NSF 61/372 COMPLIANT AND BE TESTED FOR LOW LEAD.
32. ANY PENETRATIONS THROUGH AIR BARRIER SHALL BE SEALED AS PER 2020 NYSECC RESIDENTIAL AND COMMERCIAL PROVISIONS.
33. ALL PIPING IN PLENUM SPACES SHALL BE CAST IRON FOR SANITARY, STORM, VENT SYSTEMS, AND COPPER PIPING FOR DOMESTIC SYSTEMS, AND STEEL PIPING FOR GAS SYSTEMS. NO PLASTIC PIPING ALLOWED.

PLUMBING FIXTURES

FIXTURE NO.	DESCRIPTION	MINIMUM CONNECTION SIZES (IN)							
		COLD WATER		HOT WATER		TEMPERED WATER	DRAIN		V
		SIZE	FU	SIZE	FU	SIZE	SIZE	DFU	
EW-1	EMERGENCY EYEWASH STATION - BRADLEY S19-210B	-	-	-	-	3/4	1-1/4	-	-
MS-1	MOP SINK - BASIN - MUSTEE MODEL 28CF (INCLUDES 24" PULL-OUT SPOUT AND LEVER HANDLES FAUCET	3/4	2.25	3/4	2.25	-	3	2	2
FD-1	FLOOR DRAIN - ZURN MODEL ZN415BZ-P	-	-	-	-	-	3	2	1 1/2
HB-1	INTERIOR HOSE BIBB - ACORN MODEL 8121	3/4	-	-	-	-	-	-	-
HB-2	FROST FREE WALL HYDRANT - JOSAM 71000 SERIES	3/4	-	-	-	-	-	-	-

NOTES:

1. CHROME PLATE ALL DRAIN PIPE, FITTINGS, P-TRAPS AND SUPPLY LINES THAT ARE EXPOSED, LOCATED WITHIN VANITIES OR ACCESSIBLE CABINETS OR BEHIND WATER CLOSETS
2. MINIMUM CONNECTION SIZES INDICATED ARE EQUIPMENT CONNECTION SIZES OR CODE MINIMUM SIZES, SEE PLANS AND DIAGRAMS FOR ACTUAL SIZES REQUIRED

MIXING VALVE

EQUIPMENT NO.	LOCATION	BASIS OF DESIGN INFORMATION						REMARKS
		MAXIMUM PRESSURE RANGE	MINIMUM FLOW	MAXIMUM FLOW	MANUFACTUER	MODEL	NOMINAL DIMENSIONS (W X H)	
MV-1	EYEWASH	125 PSI	1.5 GPM	60 GPM	BRADLEY	S19-2000EFX	3 1/2" X 7 5/8"	PROVIDE UNDER EYEWASH W/ CONNECTIONS TO CW & HW.

OIL/WATER SEPARATOR

EQUIPMENT NO.	LOCATION	BASIS OF DESIGN INFORMATION						REMARKS
		FLUID	FLOW (GPM)	INLET AND OUTLET SIZE	MANUFACTUER	MODEL	NOMINAL DIMENSIONS (L X W X H)	
OWS-1	GARAGE	OIL	100	3"	ZURN	Z1188	42-3/4" X 33-5/8" X 27"	PROVIDE COLLAR EXTENSION AS REQUIRED FOR COVER TO BE FLUSH WITH FINISHED FLOOR.

EXPANSION TANKS [ASME CERTIFIED]

EQUIPMENT NO.	LOCATION	SYSTEM SERVED	PERFORMANCE/CONSTRUCTION REQUIREMENTS			EQUIPMENT SPECIFICATIONS				
			SYSTEM DATA			MNF	MODEL NO.	DIMENSION DIA. x H	WATER CONNECTION	OPERATING WEIGHT (LBS.)
			ESTIMATED VOLUME (GAL.)	MAX. OPERATING PRESS. RANGE (PSIG)	MAX. OPERATING TEMP. RANGE (DEG. F)					
ET-1	GARAGE	MOP SINK & EYEWASH	2	150	200	AMTROL	ST-5C	8" X 13"	3/4"	21

PUMP SCHEDULE

PUMP NO.	LOCATION	TYPE	SERVICE	GPM (EA)	TDH (FT)	MOTOR DATA					REMARKS
						RPM	HP (EA)	PHASE	CYCLE	VOLTS	
SP-1	GARAGE	SIMPLEX	SANITARY WASTE	70	13	1725	0.4	1	60	115 V	LITTLE GIANT MODEL #WCR-9SP. PROVIDE COLLAR EXTENSION AS REQUIRED FOR COVER TO BE FLUSH WITH FINISHED FLOOR.

PLUMBING NOTES

1. ALL FAUCETS, FITTINGS, AND VALVES MUST COMPLY WITH NSF 61 AND ANSI / NSF 372 FOR LOW LEAD PERCENTAGE
2. CONTRACTOR SHALL BE RESPONSIBLE TO DEMONSTRATE COMPLIANCE WITH THE NYS DEPARTMENT OF HEALTH LEAD IN WATER REGULATION (10 NYCRR 67-4).
3. AT THE CONCLUSION OF NEW PLUMBING WORK, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE SERVICES OF A THIRD PARTY NYS LICENSED ENVIRONMENTAL TESTING LABORATORY TO PROVIDE LEAD TESTING AT ALL NEW LAVATORIES, SINKS, DRINKING FOUNTAINS AND ALL OTHER FIXTURES WHERE WATER MAY BE CONSUMED FOR DRINKING. TWO COPIES OF THE REPORT MUST BE SUBMITTED, ONE COPY TO THE ENGINEER AND THE OTHER ONE TO THE OWNER.

ELECTRIC WATER HEATER [ASME]

EQUIPMENT NO.	LOCATION	SYSTEM SERVED	EQUIPMENT SPECIFICATIONS							MINIMUM PERFORMANCE OF WATER HEATING (TABLE C404.2)					REMARKS
			ELECTRIC POWER	WATER CONNECTION	MNF	MODEL NO.	NOMINAL DIMENSION (DIA X HEIGHT)	CAPACITY (GAL)	NOMINAL OPERATING WEIGHT (LBS.)	VOLTS / PHASE	EQUIPMENT TYPE	SIZE CATEGORY	SUBCATEGORY	PERFORMANCE REQUIRED	ENERGY FACTOR	
WH-1	GARAGE	MOP SINK & EYEWASH	2 KW	3/4	AO SMITH	DEL-15	18" X 26"	15	185	208/1	WATER HEATER, ELECTRIC	< 12 KW	RESISTANCE	0.97-0.0013V EFFICIENCY	97 PERCENT	

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MARK	DATE	DESCRIPTION
1	11/18/2021	FINAL BID DOCUMENT

STATE OF NEW YORK · JONATHAN RICHARD MEADOWS · LICENSED PROFESSIONAL ENGINEER · 096440-1

"ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL IS ILLEGAL"

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JRM	PMA	JRM	

PROJECT No.:	DATE:	SCALE:
IRSD1903	NOV 2021	AS SHOWN

CLIENT

Irvington Union Free School District

Facilities Storage Building at Irvington Campus

Irvington Campus
40 N. Broadway
Irvington, NY 10533

SED Number:66-04-02-02-2-022-001

CONTRACT

STATUS

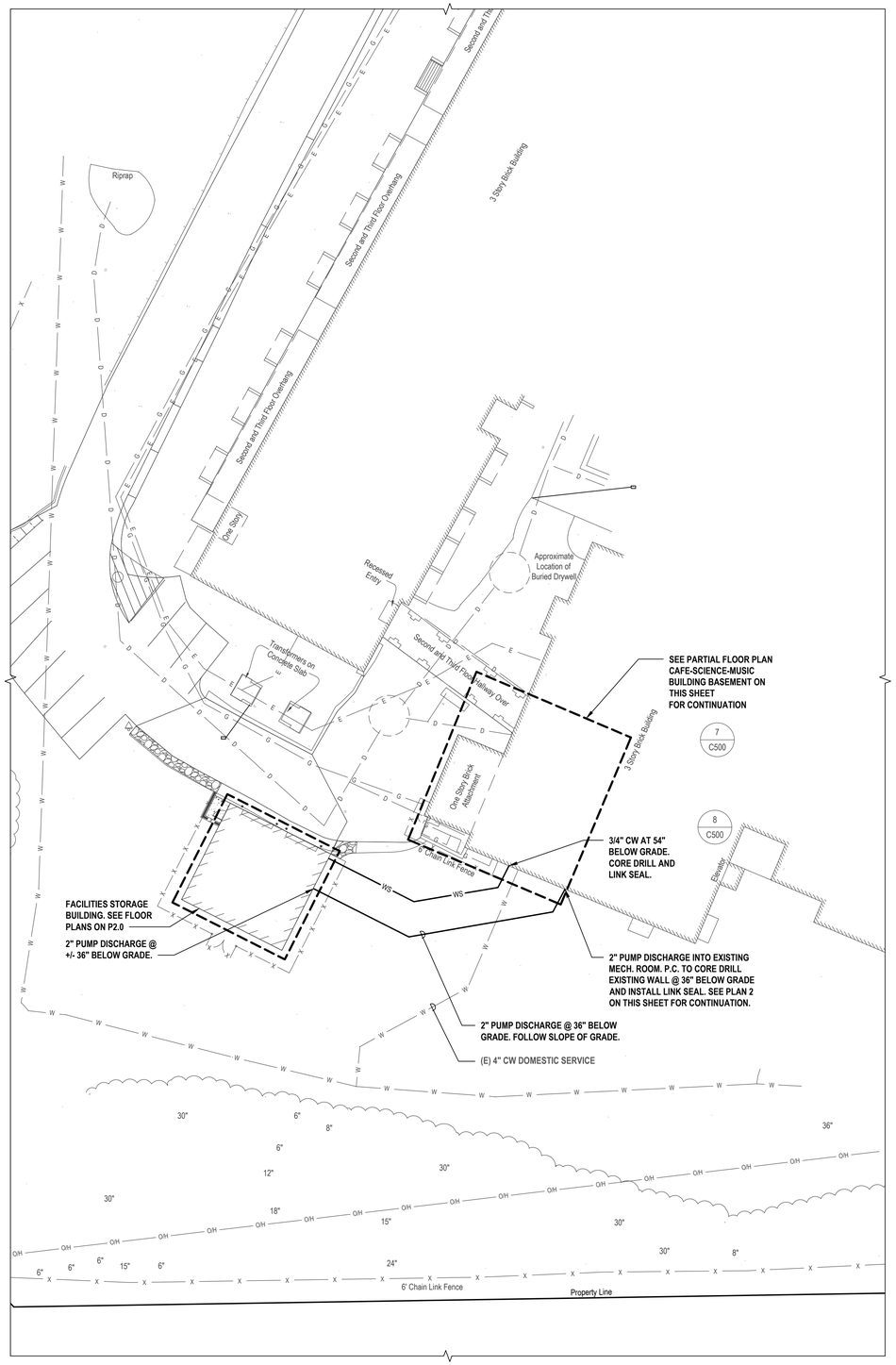
FINAL BID DOCUMENT

SHEET TITLE

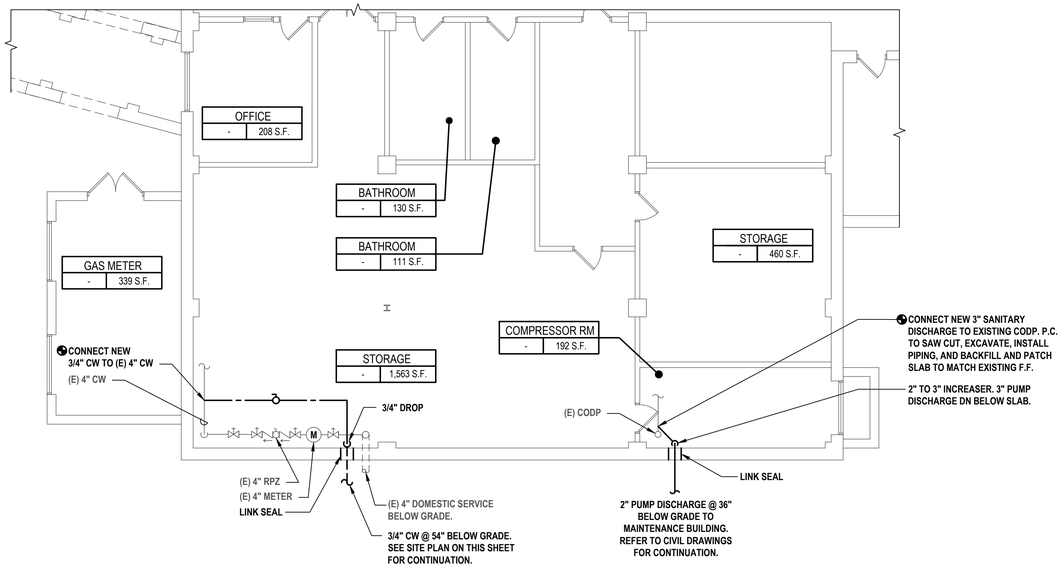
PLUMBING GENERAL NOTES, LEGENDS, AND SCHEDULES

DRAWING No.

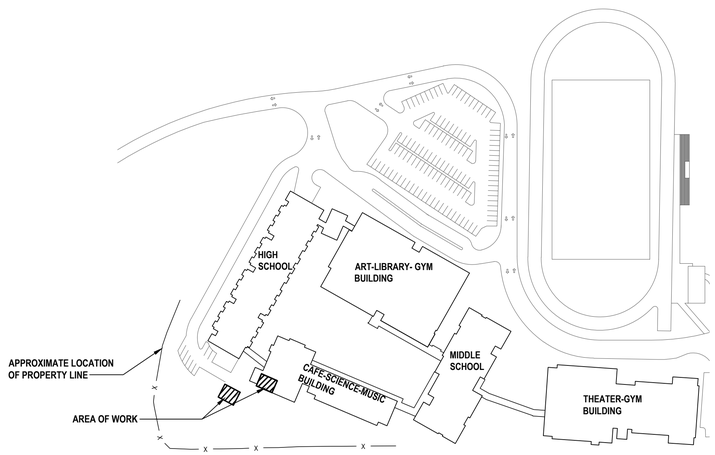
P0.0



1 Plumbing Site Plan
SCALE: 1"=20'-0"



2 Partial Floor Plan Cafe-Science-Music Building Basement
SCALE: 1/8"=1'-0"



3 Key Plan
SCALE: N.T.S.

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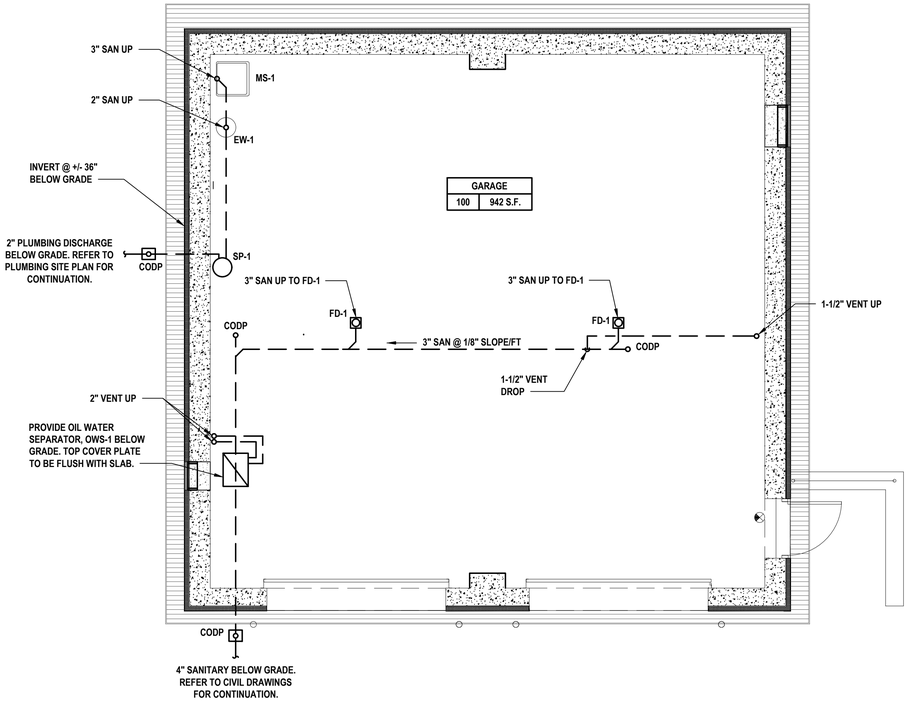
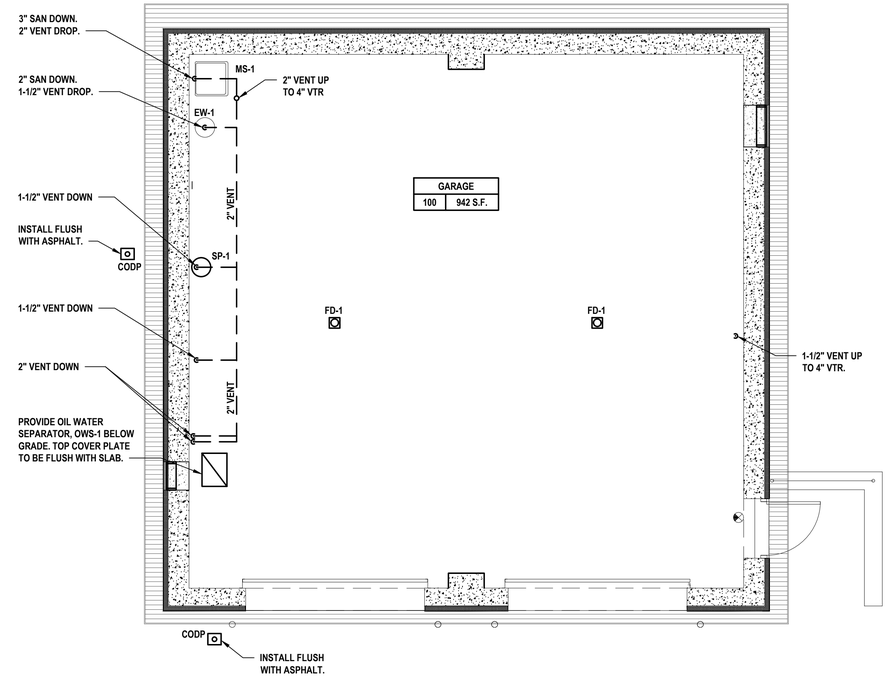
SHEET TITLE
PLUMBING SITE PLAN AND PARTIAL FLOOR PLAN CAFE-SCIENCE-MUSIC BUILDING BASEMENT

DRAWING No.
P1.0

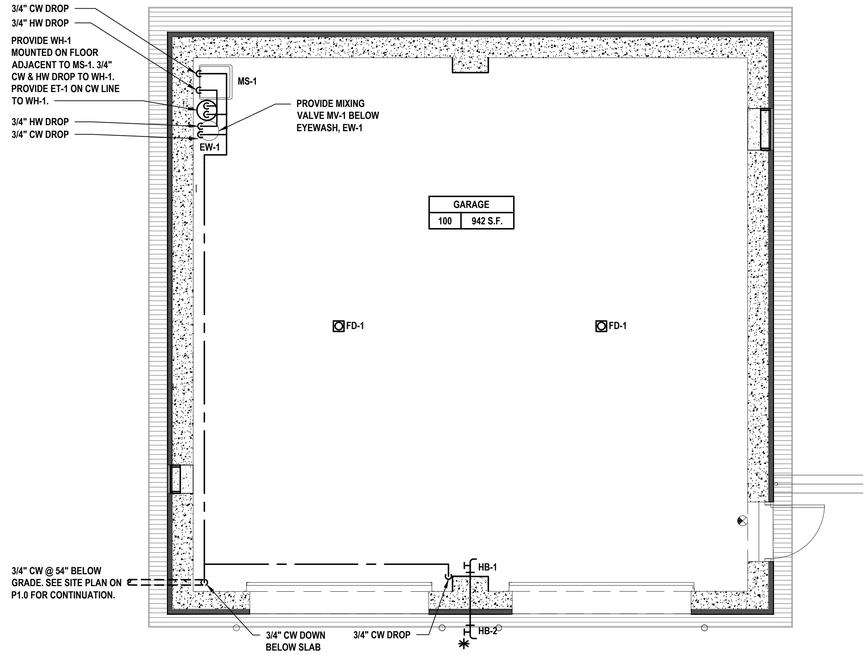
X:\IRSD (Irvington)\SD\IRSD 1903\IS Facilities Storage Building\02-BM-CADD\Con-docs\plan\P1.0 - SITE PLAN AND EXISTING BASEMENT PLAN.dwg Last Modified: Nov 11, 2021 - 2:21pm Plotted on: Nov 12, 2021 - 10:20am By: pangelone



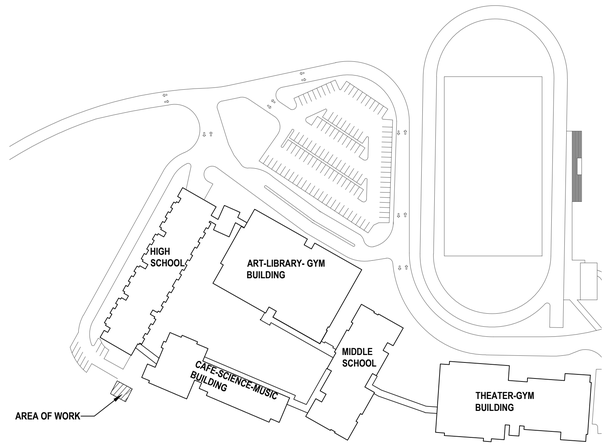
1 **Plumbing Underslab Sanitary & Vent Plan**
SCALE: 1/4"=1'-0"



2 **Plumbing Sanitary & Vent Plan**
SCALE: 1/4"=1'-0"



3 **Plumbing Domestic Water Plan**
SCALE: 1/4"=1'-0"



4 **Key Plan**
SCALE: N.T.S.

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PLUMBING FLOOR PLANS

DRAWING No.

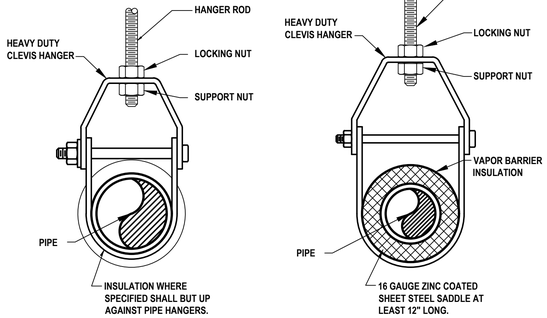
P2.0

HANGER SPACING

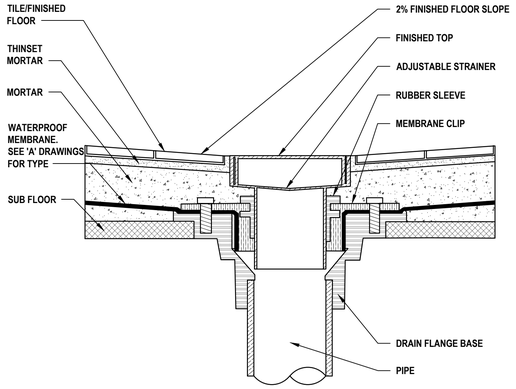
PIPING MATERIAL	MAX. HORIZONTAL (FT)	MAX. VERTICAL (FT)
ABS PIPE	4	10
ALUMINUM TUBING	10	15
BRASS PIPE	10	10
CAST-IRON PIPE	5	15
COPPER OR COPPER ALLOY PIPE	12	10
COPPER OR COPPER ALLOY PIPE 1¼"Ø OR SMALLER	6	10
COPPER OR COPPER ALLOY PIPE 1¼"Ø OR LARGER	10	10
PEX	2.67	10
CPVC 1" OR SMALLER	3	10
CPVC 1¼" OR LARGER	4	10
STEEL PIPE	12	15
POLYETHYLENE /ALUMINUM/ POLYETHYLENE	2.67	4
PVC PIPE	4	10
STAINLESS STEEL DRAINAGE	10	10

HANGER ROD SCHEDULE

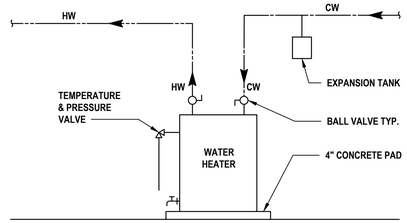
PIPE SIZE	ROD SIZE	PIPE SIZE	ROD SIZE
UP TO 2"	3/8" DIA.	4" THRU 5"	5/8" DIA.
2 1/2" THRU 3"	1/2" DIA		



1 Pipe Hanger Detail
SCALE: NTS



2 Floor Drain Detail
SCALE: NTS



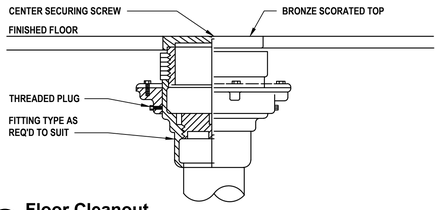
3 Water Heater Schematic
SCALE: NTS

NOTES:
1. PRIMER VALVE SHALL BE INSTALLED A MINIMUM OF 12 INCHES ABOVE THE FINISH FLOOR.
2. SINGLE TRAP PRIMER VALVE CAN SERVE UP TO (8) FLOOR DRAINS WITH THE USE OF "WYE" SPLITTER AND MANIFOLD FITTINGS.

4 Trap Primer Connection Detail
SCALE: NTS

5 Link-Seal Pipe Penetration Detail
SCALE: NTS

6 Pedestal Mount Eye/Face Wash Detail
SCALE: NTS



7 Floor Cleanout
SCALE: NTS

8 Freeze Proof Wall Hydrant Detail
SCALE: NTS

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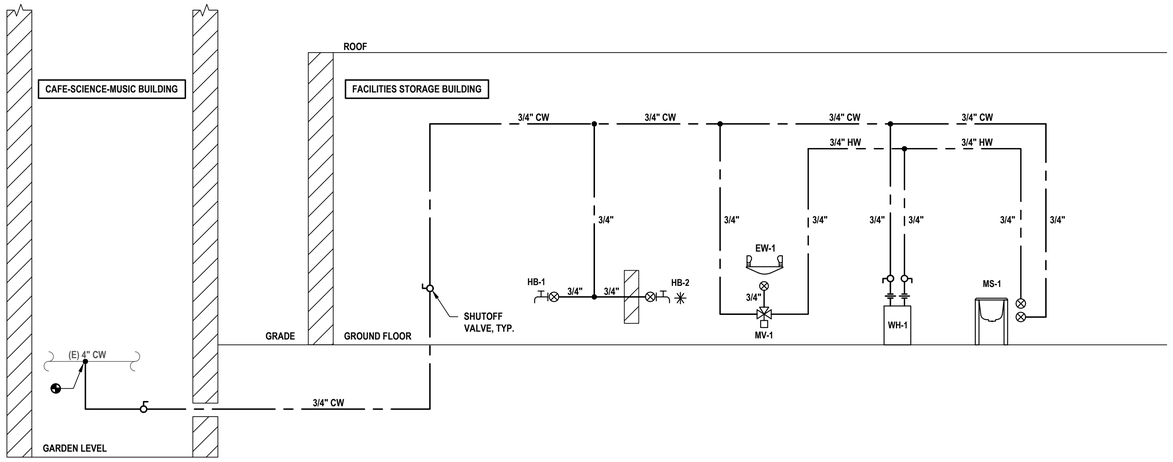
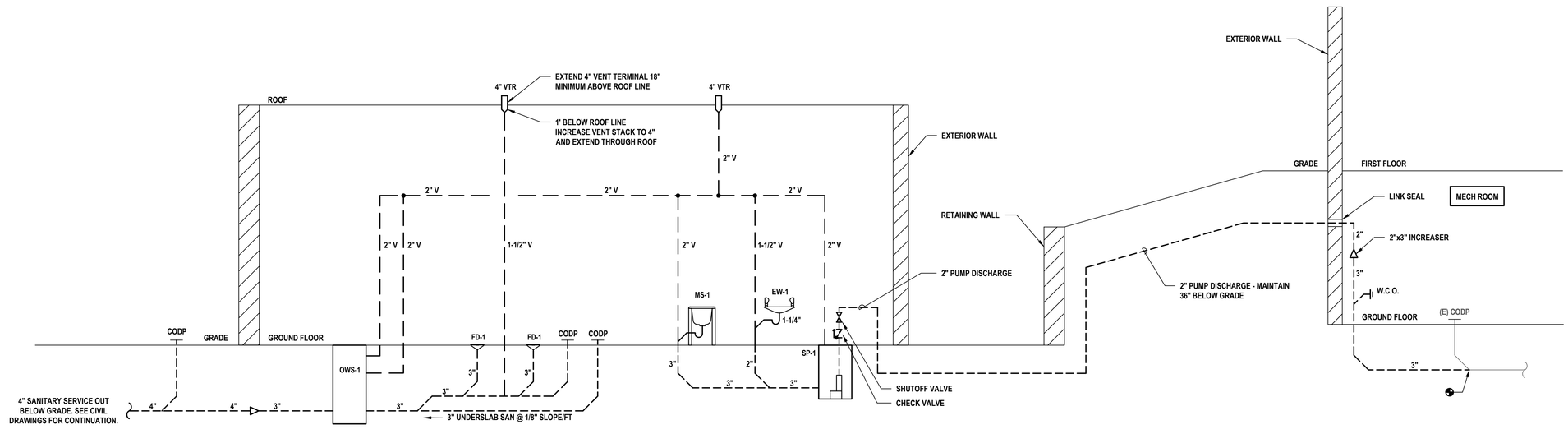
PLUMBING DETAILS

DRAWING No.
P3.0

X:\IRSD (Irvington UFSD)\IRSD 1903 (HS Facilities Storage Building)\BIM CAD\Dwg\sheets\P3.0 PLUMBING DETAILS.dwg Last Modified: Nov 01, 2021 - 9:00am Plotted on: Nov 12, 2021 - 10:20am By: jpingatore



1 Domestic Water Riser Diagram
SCALE: NTS



2 Sanitary and Vent Riser Diagram
SCALE: NTS

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JONATHAN RICHARD MELATORE — STATE OF NEW YORK — 096440-1 — LICENSED PROFESSIONAL ENGINEER

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JRM	PMA	JRM	

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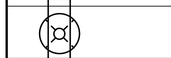
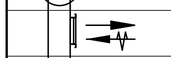
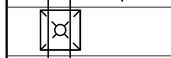
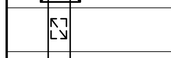
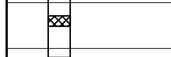
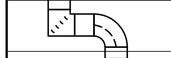
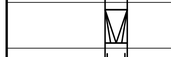
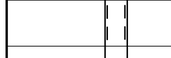
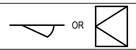
SHEET TITLE
PLUMBING RISER DIAGRAMS

DRAWING No.
P4.0

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
BCU	BUILDING CONTROL UNIT
BTU	BRITISH THERMAL UNIT
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
COMM.	COMMUNICATION
CV	CONTROL VALVE
(D)	DEMOLISH
DB	DRY BULB
DCV	DEMAND CONTROLLED VENTILATION
DEG. F	DEGREES FAHRENHEIT
DIA	DIAMETER
DX	DIRECT EXPANSION
'E'	ELECTRICAL CONTRACTOR
(E)	EXISTING
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATING
ESP	EXTERNAL STATIC PRESSURE
FAI	FRESH AIR INTAKE
FD	FLOOR DRAIN
FLA	FULL LOAD AMPS
FT. H20	FEET OF WATER
'G'	GENERAL CONSTRUCTION CONTRACTOR
GPM	GALLONS PER MINUTE
GPH	GALLONS PER HOUR
H	HEIGHT
'H'	HVAC CONTRACTOR
HP	HORSEPOWER
IN.	INCHES
IN. W.C. (W.G.)	INCHES WATER COLUMN (WATER GAUGE)
KW	KILOWATTS
L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LCD	LIQUID CRYSTAL DISPLAY
LDB	LEAVING DRY BULB TEMPERATURE
LPR	STEAM CONDENSATE RETURN
LPS	LOW PRESSURE STEAM
LWB	LEAVING WET BULB TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
M	METER
MAX	MAXIMUM
MBH	1,000 BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
MNF	MANUFACTURER
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
OAI	OUTDOOR AIR INTAKE
OD	OUTER DIAMETER
OED	OPEN ENDED DUCT
'P'	PLUMBING CONTRACTOR
(P)	PROPOSED
PD	PRESSURE DROP
PSIG	LBS / SQUARE INCH (GAUGE PRESSURE)
RD	ROOF DRAIN
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE
SAT	SUPPLY AIR TEMPERATURE
SEER	SEASONAL ENERGY EFFICIENCY RATING
TEMP	TEMPERATURE
TG	TRANSFER GRILLE
TYP	TYPICAL
VFD	VARIABLE FREQUENCY DRIVE
W	WIDTH
WB	WET BULB
WMS	WIRE MESH SCREEN

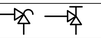
DUCTWORK LEGEND

SYMBOL	ABBREV	DESCRIPTION
		DUCTWORK BRANCH CONNECTION
	VD	VOLUME DAMPER
	CD	ROUND FACE SUPPLY DIFFUSER
	SEE AIR DEVICE SCHEDULE	SIDEWALL SUPPLY, RETURN OR EXHAUST GRILLE/REGISTER
	SEE AIR DEVICE SCHEDULE	SQUARE FACE SUPPLY DIFFUSER
	SEE AIR DEVICE SCHEDULE	BOTTOM RETURN OR EXHAUST GRILLE/REGISTER
	FC	FLEXIBLE CONNECTION
		TURNING VANES
		RECTANGULAR TO ROUND TRANSITION
	AL	ACOUSTICAL LINING
		END CAP
	SEE AIR DEVICE SCHEDULE	SUPPLY DIFFUSER WITH DIRECTIONAL FLOW (SOLID HATCH INDICATES BLANK OFF PANEL)
		SUPPLY DUCT DROP (TURN DOWN)
		RETURN/EXHAUST DUCT DROP (TURN DOWN)
		SUPPLY DUCT RISE
		RETURN/EXHAUST DUCT RISE
	DSD	DUCT SMOKE DETECTOR
	MD	MOTORIZED DAMPER WITH ACTUATOR
	AD	ACCESS DOOR
	FD/AD	FIRE DAMPER WITH ACCESS DOOR
	FSD/AD	FIRE SMOKE DAMPER WITH ACCESS DOOR
		FAN
		WORK TO BE REMOVED
		POINT OF DISCONNECTION FROM EXISTING
		POINT OF CONNECTION TO EXISTING

CONTROLS LEGEND

SYMBOL	ABBREV	DESCRIPTION
C		CARBON MONOXIDE SENSOR
T		THERMOSTAT
S		DIGITAL TEMPERATURE SENSOR
H		HUMIDITY SENSOR
CO2		CARBON DIOXIDE SENSOR
P		PRESSURE SENSOR

PIPING LEGEND

SYMBOL	ABBREV	DESCRIPTION
		NEW WORK
		PIPING DOWN/ PIPING UP
		BALL VALVE WITH HOSE END CONNECTION
	TH	THERMOMETER
	U	UNION
	FPC	FLEXIBLE PIPE CONNECTION
		DIRECTION OF FLOW
	PSR	PRESSURE SAFETY AND RELIEF VALVE
	PRV	PRESSURE REDUCING VALVE
	BV	BALL VALVE
	BA	BALANCING VALVE
	BFV	BUTTERFLY VALVE
		TEMPERATURE SENSOR WITH THERMOWELL
	GA	GATE VALVE
	GB	GLOBE VALVE
	AV	AUTOMATIC AIR VENT
	CV	2-WAY ELECTRONIC CONTROL VALVE
	CV	3-WAY ELECTRONIC CONTROL VALVE
	CV	2-WAY PNEUMATIC CONTROL VALVE
	CV	3-WAY PNEUMATIC CONTROL VALVE
	STR	STRAINER WITH BLOW OFF VALVE WITH HOSE END CONNECTION
	FD	FLOOR DRAIN
		AIR SEPARATOR
		STEAM TRAPS (INDICATE TYPE)
	CH	CHECK VALVE
	PG	PRESSURE GAUGE WITH GAUGE COCK
	RED	REDUCER
	CO	CLEANOUT END CAP
		PIPE GUIDE
		PIPE ANCHOR
		CAPPED PIPE
		PUMP
		WORK TO BE REMOVED
		POINT OF DISCONNECTION FROM EXISTING
		POINT OF CONNECTION TO EXISTING
	TDV	TRIPLE DUTY VALVE

GENERAL NOTES

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
2. THE CONTRACTOR, BY PRESENTING THEIR BID FOR THE WORK, REPRESENTS THAT HE/SHE HAS INSPECTED THE SITE AND IS COMPLETELY FAMILIAR WITH THE SCOPE OF WORK AND ALL FIELD CONDITIONS RELATED TO, AND AFFECTING THE WORK AND ITS PERFORMANCE. EXCEPTIONS AFFECTING THE WORK AND ITS PERFORMANCE, OR CONFLICTS BETWEEN FIELD CONDITIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE SUBMISSION OF BIDS.
3. PERFORM ALL WORK IN ACCORDANCE WITH THE PLUMBING CODE, FIRE CODE, MECHANICAL CODE, ENERGY CONSERVATION CONSTRUCTION CODE, AND FUEL GAS CODE OF NEW YORK STATE AND THE REQUIREMENTS OF THE LOCAL AUTHORITIES HAVING JURISDICTION.
4. COMPLY WITH THE NATIONAL ELECTRIC CODE AND THE REQUIREMENTS OF DIVISION 26 FOR ALL ELECTRICAL INSTALLATIONS.
5. FIRE STOP ALL OPENINGS IN FIRE RATED CONSTRUCTION FOR PIPING, DUCTWORK, CONDUIT, ETC. PROVIDE FIRE DAMPERS AND ACCESS DOORS IN ALL OPENINGS IN FIRE RATED FLOORS, PARTITIONS, AND WALLS FOR DUCTWORK AS PER THE MECHANICAL CODE OF NEW YORK STATE. (SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF FIRE RATED CONSTRUCTION.)
6. DO NOT SCALE DRAWINGS. DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY. THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE. COORDINATE CONTRACT DOCUMENTS, PROJECT REQUIREMENTS, WORK OF OTHERS, AND EQUIPMENT AND MATERIALS PURCHASED WITH FIELD DIMENSIONS. INSTALL ALL EQUIPMENT AS PER MANUFACTURER'S REQUIREMENTS TO PROVIDE PROPER CLEARANCE FOR INSTALLATION, OPERATION, AND MAINTENANCE. CONTRACTOR'S INTENDED MEANS AND METHODS OF INSTALLATION AND CONTRACTOR'S FABRICATED ITEMS SHALL ENSURE A PROPER "FIT" AND INSTALLATION. BRING ANY CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER DURING THE SUBMITTAL PHASE FOR RESOLUTION PRIOR TO PURCHASING ANY EQUIPMENT.
7. MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS, WHERE HEADROOM AND SPACE CONDITIONS APPEAR INADEQUATE, NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH INSTALLATION. MAINTAIN A MINIMUM OF 6'-8" CLEARANCE FROM FINISHED FLOOR TO UNDERSIDE OF PIPES, DUCTS, CONDUITS, SUSPENDED EQUIPMENT, ETC., THROUGHOUT ACCESS ROUTES IN MECHANICAL ROOMS.
8. FIELD VERIFY AND COORDINATE ALL DUCT AND PIPING DIMENSIONS BEFORE FABRICATION. MAKE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER EXECUTION OF THE WORK. OBTAIN THE APPROVAL OF THE ARCHITECT/ENGINEER FOR MODIFICATIONS.
9. PROVIDE PRODUCTS OF ONE MANUFACTURER WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF MATERIAL OR EQUIPMENT IS REQUIRED.
10. INSTALL ALL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS. REFER TO DETAILS FOR ADDITIONAL PIPING AND EQUIPMENT INSTALLATION REQUIREMENTS.
11. LOCATE ALL TEMPERATURE, PRESSURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE OR DUCT UP- AND DOWNSTREAM AS RECOMMENDED BY THE MANUFACTURER TO ENSURE MANUFACTURER CERTIFIED ACCURACY.
12. COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. COORDINATE AND PROVIDE ALL PIPING AND DUCT TRANSITIONS REQUIRED FOR FINAL CONNECTIONS TO EQUIPMENT.
13. COORDINATE LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS WITH ALL OTHER TRADES. COORDINATE ALL PIPING AND EQUIPMENT SUPPORTED FROM STRUCTURE WITH GENERAL CONSTRUCTION WORK.
14. COORDINATE INSTALLATION OF SUPPLY AND RETURN GRILLES WITH INSTALLATION OF FINISHED CEILINGS.
15. COMPLETE ALL PRESSURE TESTS BEFORE ANY MECHANICAL EQUIPMENT, DUCTWORK, OR PIPING INSULATION IS APPLIED.
16. TESTING, ADJUSTING, AND BALANCING AGENCY SHALL BE A MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). PERFORM ALL TESTING, ADJUSTING, AND BALANCING IN ACCORDANCE WITH THE SPECIFICATIONS.
17. MAKE ALL ATTACHMENTS TO JOISTS, TRUSSES, OR JOIST GIRDERS AT PANEL POINTS. PROVIDE BEAM CLAMPS MEETING MSS STANDARDS. THE USE OF C-CLAMPS IS NOT PERMITTED.
18. PROVIDE CONCRETE PADS A MINIMUM OF 6 INCHES HIGH FOR ALL FLOOR MOUNTED EQUIPMENT. EXTEND PAD 4 INCHES BEYOND THE EQUIPMENT ON ALL SIDES.
19. INTERNALLY LINE ALL SUPPLY AND RETURN DUCTWORK WITHIN 20 FEET UPSTREAM AND DOWNSTREAM OF FANS WITH 1" THICK INSULATION. INTERNALLY LINED DUCTWORK MEETING THIS REQUIREMENT SHALL ALSO BE PROVIDED WITH EXTERNALLY APPLIED INSULATION AS REQUIRED BY THE SPECIFICATIONS. SEE SPECIFICATION SECTION 230719 FOR ADDITIONAL REQUIREMENTS.
20. PROVIDE TRAPPED DRAIN PIPING FROM DRAIN PANS OF ALL COOLING COILS, FANS, AND OTHER ACTIVE DRAINS EXPOSED TO SYSTEM AIR STREAM. PROVIDE TRAP AT CONNECTION, WATER SEAL DEPTH 1 INCH GREATER THAN UNIT OPERATING PRESSURE. DIRECT DRAINS TO NEAREST FLOOR DRAIN, MOP SINK, OR OTHER LOCATION APPROVED BY THE ARCHITECT/ENGINEER.
21. INSTALL PIPING, DUCTWORK, AND CONDUIT CONCEALED IN AREAS HAVING HUNG CEILINGS AND/OR FURRED SPACES UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

LEGENDS/ABBREVIATIONS NOTES

1. ABBREVIATIONS AND SYMBOLS ON THIS SHEET DO NOT DEFINE THE SCOPE OF WORK.

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CONSULTANTS:

MARK	DATE	DESCRIPTION
1	XX-XX-XX	FINAL BID DOCUMENT

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DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
CAK	CAK	BMC	AEH

PROJECT No.:	DATE:	SCALE:
IRSD1903	OCTOBER 2021	AS SHOWN

CLIENT
Irvington Union Free School District

Facilities Storage Building at Irvington Campus

Irvington Campus
40 N. Broadway
Irvington, NY 10533

SED Number:66-04-02-02-2-022-001

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
FINAL BID DOCUMENT

SHEET TITLE
HVAC
HVAC LEGENDS, SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES

DRAWING No.
H0.0

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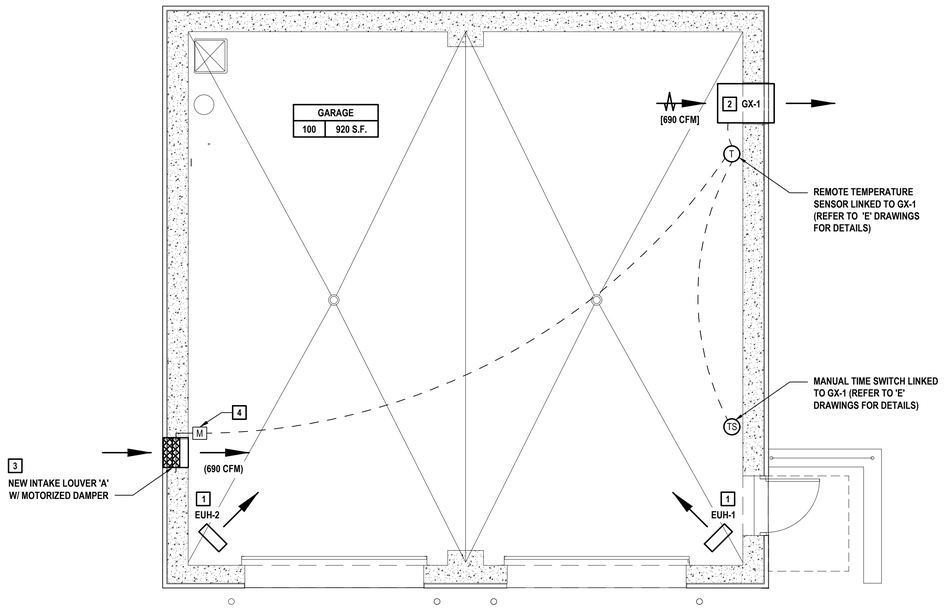


1 **Facilities Storage Building Plan**
SCALE: 1/4"=1'-0"

GENERAL NOTES

A. THESE DRAWINGS SERVE AS A GRAPHICAL REPRESENTATION OF THE INTENDED SCOPE OF WORK AND CONSTITUTE ONE PORTION OF THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION BETWEEN THESE DRAWINGS AND THE SPECIFICATIONS.

B. ALL WORK SHALL BE IN COMPLIANCE WITH ALL FEDERAL AND NEW YORK STATE APPLICABLE BUILDING CODE.

C. REFER TO SEQUENCE OF OPERATIONS FOR DETAILS REGARDING EXHAUST FAN (GX-1) CONTROLS.

D. ALL WORK SHALL BE IN COMPLIANCE WITH MANUFACTURER'S CLEARANCE REQUIREMENTS.

E. DO NOT SCALE DRAWINGS. LINE WORK IS SHOWN FOR REFERENCE ONLY.

F. COORDINATE FINAL LOCATIONS OF SENSORS / SWITCHES WITH OWNER.

G. COORDINATE NEW WORK WITH OTHER TRADES.

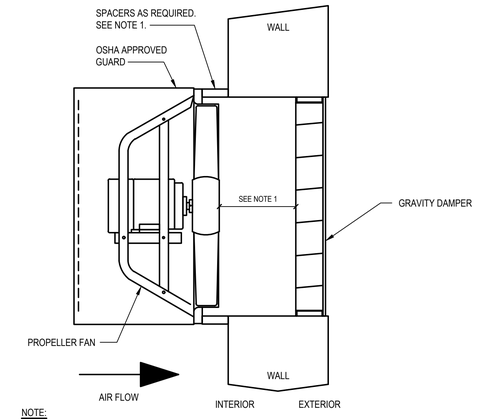
KEY WORK NOTES

1 PROVIDE AND INSTALL NEW ELECTRIC UNIT HEATER EUH-1, 2 WITH APPROPRIATE MOUNTING HARDWARE. MOUNT NEW ELECTRIC UNIT HEATER AS PER MANUFACTURER'S SPECIFICATIONS.

2 PROVIDE AND INSTALL NEW SIDEWALL EXHAUST FAN GX-1 WITH APPROPRIATE MOUNTING HARDWARE. MOUNT NEW SIDEWALL EXHAUST FAN AS PER MANUFACTURER'S SPECIFICATIONS. COORDINATE FINAL HEIGHT WITH ARCHITECTURAL / STRUCTURAL PLANS, AND EXISTING SLOPE OF GRADE.

3 PROVIDE AND INSTALL NEW SIDEWALL INTAKE LOUVER 'A' WITH APPROPRIATE MOUNTING HARDWARE. MOUNT NEW SIDEWALL INTAKE LOUVER AS PER MANUFACTURER'S SPECIFICATIONS. COORDINATE FINAL HEIGHT WITH ARCHITECTURAL / STRUCTURAL PLANS, AND EXISTING SLOPE OF GRADE.

4 NEW MOTORIZED DAMPER SHALL BE INTERLOCKED WITH NEW EXHAUST FAN GX-1. DAMPER SHALL OPEN WHEN GX-1 ACTIVATES (REFER TO SPECIFICATIONS AND ELECTRICAL DRAWINGS FOR DETAILS).



NOTE:

1. MAINTAIN MINIMUM CLEARANCE BETWEEN FAN PROPELLER AND LOUVER AS PER MANUFACTURER'S INSTALLATION MANUAL. PROVIDE SPACERS AS NECESSARY TO MAINTAIN CLEARANCE CALLED FOR IN MANUAL.

2 **Sidewall Fan with OSHA Guard**
SCALE:NTS (DETAIL #)

UNIT HEATERS

EQUIPMENT NO.	LOCATION	AREA SERVED	FAN DATA			TOTAL CAPACITY (MBH)	AIR DATA		HEATING COIL DATA			BASIS OF DESIGN INFORMATION				REMARKS
			FLOW (CFM)	HP	VOLTS/ PHASE		TEMP. CHANGE (DEG. F)	THROW (FT.)	ELECTRIC DATA			MNF	MODEL NO.	NOMINAL DIMENSIONS L x W x H	NOMINAL OPERATING WEIGHT (LBS.)	
									VOLTS/ PHASE	TOTAL KW	AMPS					
EUH-1, 2	SEE PLANS	STORAGE AREA	650	1/30	208/1	25.6	37	18	208/1	7.5	36	QMARK	MUH-07-8	19 x 7.5 x 21.75	38	1-4

NOTES:
1. PROVIDE AND INSTALL MANUFACTURER SPECIFIED MOUNTING BRACKET
2. SINGLE POLE INTERNAL THERMOSTAT ACCESSORY (UHMT1)
3. 3-POLE POWER DISCONNECT SWITCH (MPDS60)
4. OUTLET MESH (BIRD SCREEN)

FANS

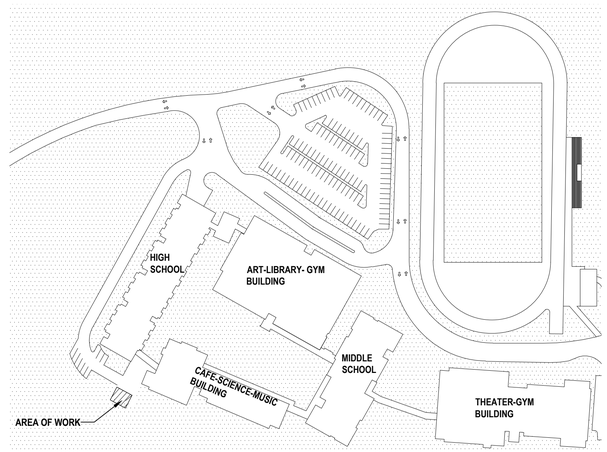
EQUIPMENT NO.	LOCATION	SYSTEM SERVED	PERFORMANCE/CONSTRUCTION REQUIREMENTS				BASIS OF DESIGN INFORMATION						REMARKS
			CFM	EXT S. P. (IN. W.C.)	FAN/MOTOR RPM	BHP	MNF	MODEL NO.	NOMINAL DIMENSIONL x W. x H	NOMINAL OPERATING WEIGHT (LBS.)	ELECTRICAL DATA		
											VOLTS/PHASE	MOTOR HP	
GX-1	SEE PLANS	STORAGE AREA	690	0.3	776	0.18	GREENHECK	SBE-1H20-4	38 x 26.25 x 26.25	152	115/1	1/4	1-4

NOTES:
1. LONG WALL HOUSING WITH OSHA GUARD
2. NEMA 3R POWERED DISCONNECT SWITCH
6. DAMPER MOUNTED WD-320-PB-22X22
7. SINGLE POINT POWER CONNECTION
8. DAMPER ACTUATOR (MP-310)

AIR OUTLETS

DESIGNATION	TYPE	BASIS OF DESIGN: MANUFACTURER	BASIS OF DESIGN: MODEL NO.	NOM. DIMENSIONS	FREE AREA (%)	VOLUME (CFM)	FREE AREA VELOCITY (FPM)	PRESSURE DROP (IN. W.G.)	REMARKS
A	INTAKE LOUVER	GREENHECK	ESD-635HP	20 x 20 x 6	42.5	690	566	0.05	1-3

NOTES:
1. (20x20) VCD-23 LOW LEAKAGE 3V BLADE VOLUME CONTROL DAMPER
2. HONEYWELL MS4103F1225 ACTUATOR
3. GREENHECK POC RETAINING ANGLE



Key Plan
SCALE: N.T.S.

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CAK	CAK	BMC	AEH

PROJECT No.:	DATE:	SCALE:
IRSD1903	OCTOBER 2021	AS SHOWN

CLIENT
Irvington Union Free School District

Facilities Storage Building at Irvington Campus

Irvington Campus
40 N. Broadway
Irvington, NY 10533

SED Number:66-04-02-02-2-022-001

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
FINAL BID DOCUMENT

SHEET TITLE
HVAC
HIGH SCHOOL FACILITIES STORAGE BUILDING HVAC CONSTRUCTION

DRAWING No.
H1.0

ELECTRICAL LEGENDS

SYMBOL	DESCRIPTION	COMMENTS
S3	THREE - WAY SWITCH	46" AFF TO CL UON
S4	FOUR - WAY SWITCH	46" AFF TO CL UON
SI	ILLUMINATED SWITCH	46" AFF TO CL UON
SA	SINGLE POLE SWITCH; "A" INDICATES SWITCH CONTROL	46" AFF TO CL UON
SD	SINGLE POLE DIMMER SWITCH	46" AFF TO CL UON
S3D	THREE - WAY DIMMER SWITCH	46" AFF TO CL UON
SK	SINGLE POLE KEYED SWITCH	46" AFF TO CL UON
SK3	KEYED THREE - WAY SWITCH	46" AFF TO CL UON
SK4	KEYED FOUR - WAY SWITCH	46" AFF TO CL UON
SP	SWITCH AND PILOT LIGHT	
ST	SWITCH WITH THERMAL OVERLOAD PROTECTION (CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE WITH EQUIPMENT)	
SOSVS	OCCUPANCY/VACANCY SENSOR WITH MANUAL OVERRIDE, WALL MOUNT	
TC	TIME CLOCK	
E,G	EMERGENCY SHUT OFF SWITCH; 'E' INDICATES ELECTRICAL; 'G' INDICATES GAS	
	2 #12 AWG + #12 AWG GND IN 3/4" E.C. CONCEALED IN WALL OR CEILING	
	3 #12 AWG + #12 AWG GND IN 3/4" E.C. CONCEALED IN OR BELOW SLAB	
LP1-3S	DEDICATED HOME RUN TO PANEL LP1 FOR CIRCUIT NO. 35 ONLY. 2 #12 AWG + #12 AWG GND IN 3/4" E.C. CONCEALED IN WALL OR CEILING	
	SIMPLEX RECEPTACLE: 120V, 20A. COORDINATE MOUNTING HEIGHT WITH MECHANICAL CONTRACTOR TO CLEAR BASEBOARDS.	FLUSH
	DUPLEX RECEPTACLE: 120V, 20A. COORDINATE MOUNTING HEIGHT WITH MECHANICAL CONTRACTOR TO CLEAR BASEBOARDS.	FLUSH
	QUAD RECEPTACLE, DOUBLE DUPLEX RECEPTACLE: 120V, 20A. COORDINATE MOUNTING HEIGHT WITH MECHANICAL CONTRACTOR TO CLEAR BASEBOARDS.	FLUSH
C	DUPLEX RECEPTACLE: 120V, 20A; SUBSCRIPT "C" INDICATES CEILING MOUNT.	FLUSH
	DUPLEX RECEPTACLE: 120V, 20A; FLOOR MOUNTED.	FLUSH
	QUAD RECEPTACLE: 120V, 20A; FLOOR MOUNTED.	
D/T	DUPLEX RECEPTACLE AND DATA JACK: 120V, 20A; FLOOR MOUNTED.	
D/T	DATA JACK; FLOOR MOUNTED.	
IG	ISOLATED GROUND DUPLEX RECEPTACLE. COORDINATE MOUNTING HEIGHT WITH MECHANICAL CONTRACTOR TO CLEAR BASEBOARDS.	FLUSH
GFI	DUPLEX RECEPTACLE: 120V, 20A; WITH GROUND FAULT INDICATOR. COORDINATE MOUNTING HEIGHT WITH MECHANICAL CONTRACTOR TO CLEAR BASEBOARDS.	FLUSH
UC	DUPLEX RECEPTACLE: 120V, 20A; SUBSCRIPT "UC" INDICATES UNDER COUNTER	AS PER ENGINEER
CT	DUPLEX RECEPTACLE: 120V, 20A; SUBSCRIPT "CT" INDICATES COUNTER TOP.	AS PER ENGINEER
WP	DUPLEX RECEPTACLE: 120V, 20A; SUBSCRIPT "WP" INDICATED WEATHER PROOF.	AS PER ENGINEER
USB	DUPLEX RECEPTACLE: 120V, 20A; SUBSCRIPT "USB" INDICATES INTEGRAL USB.	FLUSH
40 240	SPECIAL PURPOSE OUTLET: 240V, 40A. VERIFY NEMA CONFIGURATION WITH EQUIPMENT MANUFACTURER.	AS PER ENGINEER
TL	TWISTED LOCK RECEPTACLE: 125V, 20A, 3 WIRE; UNLESS OTHERWISE NOTED.	AS PER ENGINEER
	SURFACE RACEWAY WITH 2 GROUNDED AND ISOLATED TYPE DUPLEX RECEPTACLES AND 1 DATA OUTLET PER POSITION, 18" AFF UNLESS OTHERWISE NOTED.	
S1	MAGNETIC STARTER "S1"; SEE STARTER SCHEDULE	
DS1	DISCONNECTION SWITCH "DS1"; SEE DISCONNECT SWITCH SCHEDULE.	
J	JUNCTION BOX.	
J 4X	NEMA 4X STAINLESS STEEL JUNCTION BOX WITH GASKET COVER.	
J S	JUNCTION BOX RECESSED IN WALL WITH BLANK COVER. PROVIDE 3/4" E.C. AND DRAG LINE TO ABOVE FINISHED CEILING. MOUNT 18" AFF, UNLESS OTHERWISE NOTED.	
J CCTV	FOR CCTV. JUNCTION BOX RECESSED IN WALL (UON) WITH BLANK COVER. PROVIDE AND INSTALL 3/4" E.C. WITH NYLON PULL STRING TO SERVER RACK "S1" COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH OWNER PRIOR TO INSTALLATION.	
J HD	FOR HAND DRYER, JUNCTION BOX RECESSED IN WALL WITH BLANK COVER. PROVIDE 3/4" E.C. AND DRAG LINE TO ABOVE FINISHED CEILING. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.	
T T1	TRANSFORMER "T1"; SEE TRANSFORMER SCHEDULE.	
P1	ELECTRICAL PANEL "P1", RECESSED; SEE PANEL SCHEDULE.	
P1	ELECTRICAL PANEL "P1", SURFACE MOUNT; SEE PANEL SCHEDULE.	
	CONDUIT GOING UP.	
	CONDUIT GOING DOWN.	
D	DATA. PROVIDE CAT 6 CABLE IN 3/4" E.C. TO DATA SWITCH "S1", UON. PROVIDE AND INSTALL A RJ45 JACK AND FACEPLATE. ALL FINAL TERMINATION TO SERVER RACK BY OWNER. COORDINATE ALL ROUTING AND LABELING WITH OWNER PRIOR TO INSTALLATION.	
S	SECURITY CAMERA. PROVIDE 3/4" E.C. WITH DRAG LINE TO AFC AND EMPTY J. BOX RECESSED IN WALL WITH BLANK COVER.	

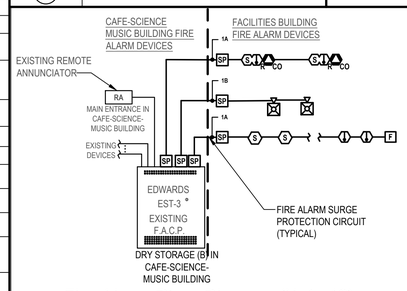
ABBREVIATION	DESCRIPTION	COMMENTS
AFF	ABOVE FINISHED FLOOR	
AFC	ABOVE FINISHED CEILING	
AFCI	ARC FAULT CIRCUIT INTERRUPTER	
AFG	ABOVE FINISHED GRADE	
AHJ	AUTHORITY HAVING JURISDICTION	
AMP, A	AMPERE	
ATS	AUTOMATIC TRANSFER SWITCH; SEE TRANSFER SWITCH SCHEDULE	
AWG	AMERICAN WIRE GAUGE	
BFC	BELOW FINISHED CEILING	
CL	CENTERLINE	
CT	COUNTER TOP	
E.C.	ELECTRICAL CONDUIT	
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	
GFI	GROUND FAULT INDICATOR	
GND	GROUND	
CON-ED	CONSOLIDATED EDISON, INC.	
MCB	MAIN CIRCUIT BREAKER	
MLO	MAIN LUGS ONLY	
N.T.S.	NOT TO SCALE	
TYP	TYPICAL	
UON	UNLESS OTHERWISE NOTED	
UC	UNDER COUNTER	
V	VOLT	
VAC	VOLTS ALTERNATING CURRENT	
VDC	VOLTS DIRECT CURRENT	
X-FMR	TRANSFORMER	
WP	WEATHERPROOF	

FIRE ALARM LEGEND

SYMBOL	DESCRIPTION	COMMENTS
S	SMOKE DETECTOR	
	STROBE	
S/CO	COMBINATION SMOKE - HEAT- CARBON MONOXIDE DETECTOR	
	HEAT DETECTOR	
F	PULL STATION	
SP	SURGE PROTECTION	
	HORN STROBE	

ACCESS CONTROL SYMBOLS LEGEND

GW	GATEWAY (SALTO MODEL GATEWAY X2C)	-



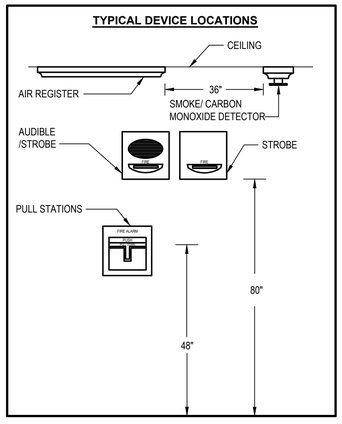
1 Fire Alarm Riser Diagram (Note 13)
SCALE:N.T.S

WIRE LEGEND

	WIRE DESCRIPTION	TYPE	NOTES
A	1 PAIR TWISTED SHIELDED #18 AWG	FPLP	-
B	1 PAIR #14 AWG. NON SHIELDED	FPLP	-

SINGLE LINE DIAGRAM LEGEND

SYMBOL	DESCRIPTION	COMMENTS
T	LINE VOLTAGE THERMOSTAT, 120V, 10A.	
100AF 100AT	CIRCUIT BREAKER WITH TRIP AND POLES AS NOTED; 100 AMP FRAME, 100 AMP TRIP.	
ATS1	TRANSFER SWITCH 'TS1'; SEE TRANSFER SWITCH SCHEDULE.	
M.C.B 100A/3P PANEL "P1" 100AS	DISTRIBUTION PANEL P1 WITH 30A, 2 POLE M.C.B.; SEE DISTRIBUTION PANEL SCHEDULE.	
	UNFUSED DISCONNECT SWITCH DS1, 100 AMP; SEE DISCONNECT SWITCH SCHEDULE.	
DS1 100AS 100AF	FUSED DISCONNECT SWITCH 'DSI', FUSED AT 100 AMP SIZE, 100 AMP FUSED, 3 POLES; SEE DISCONNECT SWITCH SCHEDULE.	
G	GENERATOR SET 'G'	
M	ELECTRIC METER AND METER PAN AS PER PSEG REQUIREMENTS.	
5HP	MOTOR, NUMBER INDICATES HORSEPOWER.	
CTS	CURRENT TRANSFORMERS.	
PTS	VOLTAGE TRANSFORMERS.	
UPS	UNINTERRUPTIBLE POWER SUPPLY	
120/208V 277/480 T2	TRANSFORMER 'T2' WITH SIZE, PRIMARY AND SECONDARY VOLTAGES AS NOTED.	
100AF 100AT	RACK OUT CIRCUIT BREAKER	
RVRM 10	REDUCED VOLTAGE SOLID STATE RAMPING MODULE, SIZED FOR 10 H.P.	
RVSS 150	REDUCED VOLTAGE SOLID STATE STARTER, SIZED FOR 150 H.P.	
VFD 25	VARIABLE FREQUENCY DRIVE, RATED FOR 25 H.P.	
FVNR 6	FULL VOLTAGE NON-REVERSING STARTER, NEMA SIZE 6	
FVR 5	FULL VOLTAGE REVERSING STARTER, NEMA SIZE 5	
JJS	FAST ACTING SOLID STATE FUSES AS PER MANUFACTURER.	
	MULTIPLE BRANCH CIRCUITS AS REQUIRED.	
	CONTROL CIRCUIT; MIN 2 #12 AWG IN 3/4" E.C.	



2 Typical Fire Alarm Device Location
SCALE:N.T.S

LIST OF DRAWINGS

E0.0	ELECTRICAL LEGENDS, FIRE ALARM RISER, DETAILS AND NOTES
E1.0	ELECTRICAL SITE PLAN
E2.0	ELECTRICAL PARTIAL LOWER LEVEL CAFE-SCIENCE-MUSIC BUILDING PLAN
E2.1	ELECTRICAL FACILITIES STORAGE BUILDING PLANS
E3.0	ELECTRICAL SINGLE LINE DIAGRAM, DETAILS AND SCHEDULES

SITE PLAN LEGEND

	CURB
	UTILITY POWER/TELEPHONE POLE
G	EXISTING NATURAL GAS SERVICE
S	EXISTING SEWER SERVICE
W	EXISTING WATER SERVICE
T	EXISTING TELEPHONE SERVICE
T	NEW TELEPHONE SERVICE
E	EXISTING ELECTRICAL LINES
E	NEW ELECTRICAL LINES
PE	EXISTING PRIMARY ELECTRIC SERVICE
PE	NEW PRIMARY ELECTRIC SERVICE
OH/E	EXISTING OVERHEAD ELECTRIC LINES
X X X X	EXISTING FENCE
	ELECTRIC PULL BOX
HH	HANDHOLE
T	TRANSFORMER

SYMBOLS LEGEND

100	ROOM DESIGNATION
1 A2.2	BUILDING SECTION CUT
1 A2.2	WALL SECTION CUT
1 A2.2	DETAIL KEY
A2.2	ELEVATION KEY
H	COLUMN GRID
	ELEVATION LINE
1 Title SCALE:	DRAWING TITLE
4 3 5 A2.2 1 2	INTERIOR ELEVATION REFERENCE
# #	SEE NOTE # ON DWG #

FIRE ALARM GENERAL NOTES:

1. ALL WIRING TO BE INSTALLED ACCORDING TO THE LATEST REVISION OF THE NATIONAL ELECTRIC CODE OR AS DICTATED BY CONTRACT SPECIFICATIONS, AND OF N.F.P.A 72 OR AS REQUIRED BY LOCAL ORDINANCE.
2. ALL CONDUCTORS MUST BE TEST FREE OF OPENS, SHORTS AND GROUNDS.
3. GROUNDING MUST COMPLY WITH THE NATIONAL ELECTRIC CODE. GROUNDING MUST BE NO. 12 A.W.G.
4. ALL PANEL TERMINATIONS TO BE SUPERVISED BY A FACTORY AUTHORIZED TECHNICIAN PRIOR TO POWERING EQUIPMENT.
5. FOR COMPONENT WIRING AND INSTALLATION INFORMATION REFER TO MANUFACTURERS REQUIREMENTS.
6. REFER TO CONTRACT DRAWINGS FOR APPROXIMATE DEVICE LOCATIONS. DRAWINGS REPRESENT DEVICE QUANTITIES. SHOP DRAWINGS SHALL BE SUBMITTED SHOWING SCALED LOCATIONS. CONTRACTOR TO SUBMIT PLANS STAMPED BY LICENSED NEW YORK PROFESSIONAL ENGINEER ONLY. SHOP DRAWINGS WITHOUT P.E STAMP WILL BE AUTOMATICALLY REJECTED.
7. INSTALL DETECTORS A MINIMUM OF 3'-0" FROM ANY SUPPLY OR RETURN AIR REGISTERS. COORDINATE EXACT LOCATIONS OF SUPPLY/RETURNS REGISTERS WITH MECHANICAL CONTRACTOR
8. WHEN INSTALLING SHIELDED CABLE THE FOLLOWING MUST BE OBSERVED:
   A. METALLIC CONTINUITY MUST BE MAINTAINED THROUGHOUT THE CABLE RUN.
   B. THE CABLE SHIELD MUST BE ISOLATED FROM GROUND AND TERMINATED ONLY IN THE ASSOCIATED CONTROL PANEL AT THE TERMINAL INDICATED ON THE CONTROL PANEL DRAWINGS. THE REMOTE END OF THE SHIELD (AT LAST DEVICE) MUST BE TAPED AND ISOLATED FROM GROUND.
9. ALL STROBE APPLIANCES SHALL BE SYNCHRONIZED. ALL ALARM INDICATING APPLIANCES SHALL SOUND A 'TEMPORAL 3' CODE PATTERN FOR GENERAL FIRE ALARM AND 'TEMPORAL 4' CODE PATTERN FOR CARBON MONOXIDE ALARM.
10. AFTER ALARM INDICATION, ALL FANS SHALL BE MANUALLY RESET INDEPENDENT FROM F.A.C.P. SYSTEM RESET. PROVIDE ALL REQUIRED HARDWARE ACCESSORIES, MOTOR STARTERS, CONTROLS, POWER AND CONTROL WIRING AND CONDUITS TO PROVIDE INDEPENDENT RESET OF ALL FANS AFTER ALARM INDICATION.
11. INSTALL ALL DEVICES IN ACCORDANCE WITH A.D.A REQUIREMENTS. ALL DEVICES SHALL BE MOUNTED AS FOLLOWS:
    A. MANUAL PULL STATIONS 48" O.C.
    B. ALARM INDICATING APPLIANCE 80" A.F.F.
    C. VERIFY WITH CONTRACT SPECIFICATIONS FOR ANY DEVIATIONS.
12. STROBES SHALL BE WIRED TO REMAIN ACTIVE AFTER SILENCE FUNCTION IS PERFORMED.
13. FIRE ALARM RISER DIAGRAM IS SCHEMATIC. REFER TO FLOOR PLANS FOR DEVICE TYPES AND QUANTITIES.
14. IN ADDITION TO DEVICES SHOWN ON THE DRAWINGS CONTRACTOR TO PROVIDE ONE SMOKE DETECTOR, ONE HEAT DETECTOR, ONE PULL STATION, ONE HORN STROBE AND ONE CARBON MONOXIDE DETECTOR. EACH DEVICE SHALL BE INCLUDED WITH 100' OF WIRING AND/OR CONDUIT.
15. PROTECTIVE SHIELDS SHALL BE PROVIDED FOR ALL PULL STATIONS. SHIELDS SHALL FIT OVER MANUAL PULL STATIONS AND SHALL INCLUDE A BATTERY OPERATED PIERCING HORN WHEN THE SHIELD IS REMOVED.
16. PLENUM WIRING TO BE USED IN ALL AREAS ABOVE DROP CEILINGS. CONDUIT MUST BE USED IN ALL MECHANICAL AND ELECTRICAL ROOMS. CONDUIT MUST ALSO BE USED IN ALL AREAS WITH OPEN CEILINGS.
17. ALL EQUIPMENT TO BE RECESSED MOUNTED AND ALL WIRING AND CONDUIT TO BE RUN CONCEALED.

	CONTROL UNIT ANNUNCIATION						NOTIFICATION			SUPPLEMENTARY			
	ACTUATE COMMON ALARM SIGNAL INDICATOR	ACTUATE VISUAL ALARM SIGNAL	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTUATE COMMON TROUBLE SIGNAL	ACTUATE ZONE INDICATION	ACTUATE FULL BUILDING EVACUATION SIGNAL	DISPLAY CHANGE OF STATUS	TRANSMIT FIRE ALARM SIGNAL TO SUPERVISING STATION	TRANSMIT SUPERVISION SIGNAL TO SUPERVISING STATION	TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION	HVAC FAN SHUTDOWN	INITIATE EXTERIOR STROBE	
MANUAL PULL STATION	●	●		●	●	●	●	●			●	●	
SMOKE DETECTOR	●	●		●	●	●	●	●			●	●	
HEAT DETECTOR	●	●		●	●	●	●	●			●	●	
DUCT DETECTOR	●	●		●	●	●	●	●			●	●	
CARBON MONOXIDE DETECTOR					●		●		●				
FIRE PANEL AC POWER FAILURE			●						●				
FA SYSTEM LOW BATTERY				●						●			
OPEN CIRCUIT				●						●			
GROUND FAULT				●						●			
NOTIFICATION APPLIANCE CIRCUIT SHORT				●						●			

3 Fire Alarm Sequence of Operation
SCALE:N.T.S

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CONSULTANTS:

MARK	DATE	DESCRIPTION
1	11/18/2021	FINAL BID DOCUMENT

STATE OF NEW YORK — LICENSED PROFESSIONAL ENGINEER — LUKASZ KOZIOL — 092583

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
LK	GT		

PROJECT No.:	DATE:	SCALE:
IRSD1903	NOV 2021	AS SHOWN

CLIENT
Irvington Union Free School District

Facilities Storage Building at Irvington Campus

IRVINGTON UNION FREE SCHOOL DISTRICT — NEW YORK 1856 — ESTO ASPERA AD ASTRA

Irvington Campus
40 N. Broadway
Irvington, NY 10533

SED Number:66-04-02-02-2-022-001

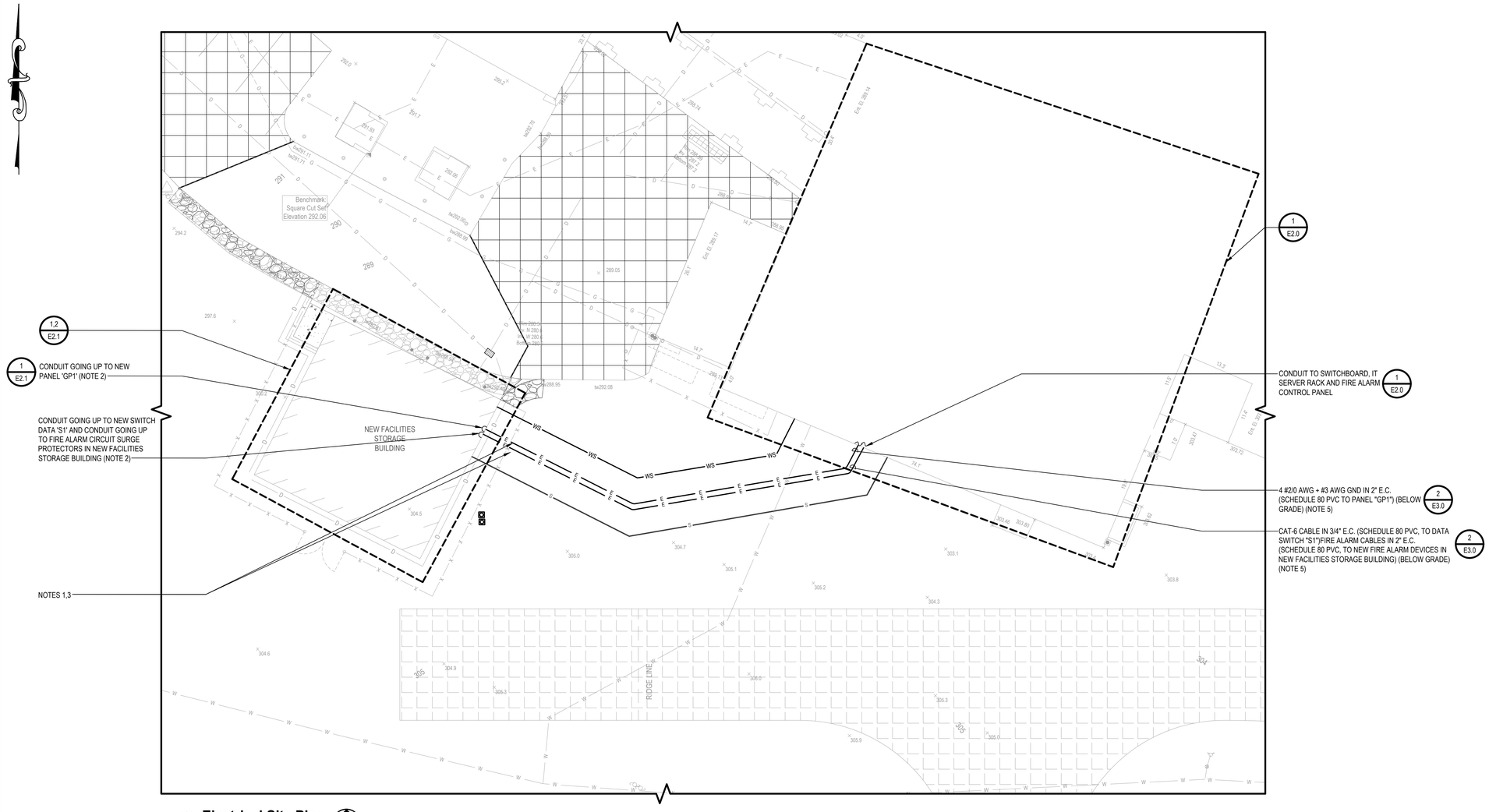
CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
FINAL BID DOCUMENT

SHEET TITLE
ELECTRICAL LEGENDS, FIRE ALARM RISER, DETAILS AND NOTES

DRAWING No.
E0.0

X:\IRSD (Irvington UFSD)\IRSD 1903 (IS Facilities Storage Building)\02 BM CAD\Con-ste\sheet\E0\Electrical Legends.dwg Last Modified: Oct 13, 2021 - 12:04pm Plotted on: Nov 12, 2021 - 12:01pm By dhansen



1 **Electrical Site Plan**
SCALE: 1"=10'-0"

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 inch = 10 ft.

ELECTRICAL GENERAL SITE PLAN NOTES:

G1. CONTRACTOR SHALL INSPECT CONSTRUCTION SITE PRIOR TO SUBMISSION OF BIDS AND SHALL MAKE NO ADDITIONAL CLAIMS REGARDING SITE CONDITIONS THEREAFTER.

G2. LOCATION OF ALL UNDERGROUND UTILITIES BOTH PUBLIC AND CUSTOMER OWNED, WERE OBTAINED FROM EITHER MAPS, SURVEYS, DRAWINGS AND RECORDS SUPPLIED BY OTHERS. THE OWNER AND ENGINEER DO NOT GUARANTEE OR ACCEPT RESPONSIBILITY FOR ANY DAMAGE TO SUCH FACILITIES DUE TO DISCREPANCIES IN LOCATION AND SIZE SHOWN ON THE PLANS OR THOSE UTILITIES NOT SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A PRIVATE MARKOUT COMPANY FOR DETERMINING THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK. CONTRACTOR SHALL LOCATE ALL UTILITIES WITHIN PROXIMITY OF CONSTRUCTION LIMITS.

G3. CONTRACTOR SHALL COMPLETELY RESTORE ALL AREAS DISTURBED DURING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO GRASS AREAS, LANDSCAPING, PAVEMENTS, SIDEWALKS, CURBING AND IN-GROUND SPRINKLER SYSTEMS.

G4. THE CONTRACTOR SHALL PERFORM DAILY CLEAN-UP OPERATIONS WHICH INCLUDE REMOVAL OF DEBRIS AND EXCESS CONSTRUCTION MATERIAL TO THE SATISFACTION OF THE OWNER AND THE ENGINEER.

G5. DURING ALL NON-WORKING HOURS, THE CONTRACTOR WILL BE REQUIRED TO STORE ALL EQUIPMENT AND MATERIALS WITHIN THE AREA DESIGNATED BY THE ENGINEER AT THE PROJECT SITE.

G6. PROVIDE TEMPORARY FENCING TO PROTECT WORK AREAS.

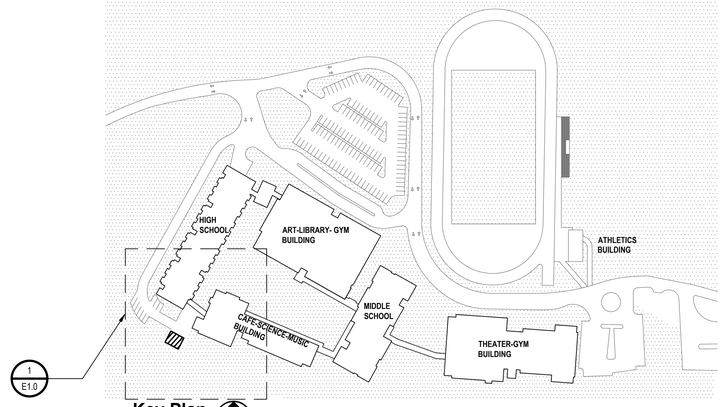
G7. CONTRACTOR SHALL MINIMIZE REMOVAL OF EXISTING TREES. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE LAYOUT, TAGGING AND REMOVAL OF TREES REQUIRED TO COMPLETE ALL WORK. OWNER SHALL APPROVE TREES TO BE REMOVED PRIOR TO ACTUAL REMOVALS. REMOVALS SHALL INCLUDE REMOVAL OF COMPLETE STUMP AND ROOT SYSTEM. CONTRACTOR NOT PERMITTED TO GRIND STUMPS.

G8. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LAYOUT SURVEY, ETC. AS REQUIRED TO COMPLETE THE WORK.

G9. CONCRETE SIDEWALKS SHALL BE SAWCUT BACK TO EXPANSION/CONTROL JOINTS.

ELECTRICAL KEY NOTES:

1. NEW PULL BOX, BELOW GRADE. SITE PLAN SHOWS MINIMUM REQUIRED PULL BOXES. PROVIDE ADDITIONAL PULL BOXES AS REQUIRED BY NEC AND AS REQUIRED FOR INSTALLATION PURPOSE. PROVIDE AND INSTALL DUCT SEALS ON ALL CONDUITS ENTERING AND EXITING PULL BOXES.
2. REFER TO DETAIL 1 ON DRAWING E2.1 FOR APPROXIMATE LOCATION OF NEW PANEL AND FOR ADDITIONAL INFORMATION.
3. CONTACTOR SHALL PROVIDE AND INSTALL TW0 (2) PULL BOXES AT THIS LOCATION. ONE (1) PULL BOX FOR POWER CONDUIT AND ONE (1) PULL BOX FOR COMMUNICATION CONDUIT.
4. REFER TO DETAIL 1 ON DRAWING E2.0 FOR APPROXIMATE LOCATION OF EXISTING SWITCHBOARD SECTION, IT SERVER RACK, FIRE ALARM CONTROL PANEL AND FOR ADDITIONAL INFORMATION.
5. ALL EXTERIOR CONDUITS BETWEEN BUILDINGS SHALL BE INSTALLED 24" BELOW GRADE. CONDUITS SHALL BE PITCHED DOWN AND AWAY FROM BUILDINGS.
6. CONTRACTOR SHALL STUB ALL CONDUITS INTO BUILDINGS BELOW GRADE. NO EXTERIOR CONDUITS PERMITTED TO RUN EXPOSED ON EXTERIOR WALLS. CORE DRILL AS REQUIRED. RESTORE ALL FINISHES TO MATCH EXISTING. CONTRACTOR SHALL PROVIDE AND INSTALL LINK SEALS ON ALL CONDUITS ENTERING/EXITING THE BUILDING FOR ALL BELOW GRADE PENETRATIONS. CONTRACTOR SHALL PROVIDE AND INSTALL DUCT SEAL IN ALL CONDUITS ENTERING/EXITING THE BUILDING FOR ALL ABOVE GRADE PENETRATIONS.



Key Plan
SCALE: N.T.S.

H 2 M architects + engineers

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CONSULTANTS:

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1	11/18/2021	FINAL BID DOCUMENT

STATE OF NEW YORK — MICHAEL WOJNAR — 092583 — LICENSED PROFESSIONAL ENGINEER

"ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL IS ILLEGAL"

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
LK	GT		

PROJECT No.:	DATE:	SCALE:
IRSD1903	NOV 2021	AS SHOWN

CLIENT

Irvington Union Free School District

Facilities Storage Building at Irvington Campus

Irvington Campus
40 N. Broadway
Irvington, NY 10533

SED Number:66-04-02-02-2-022-001

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

FINAL BID DOCUMENT

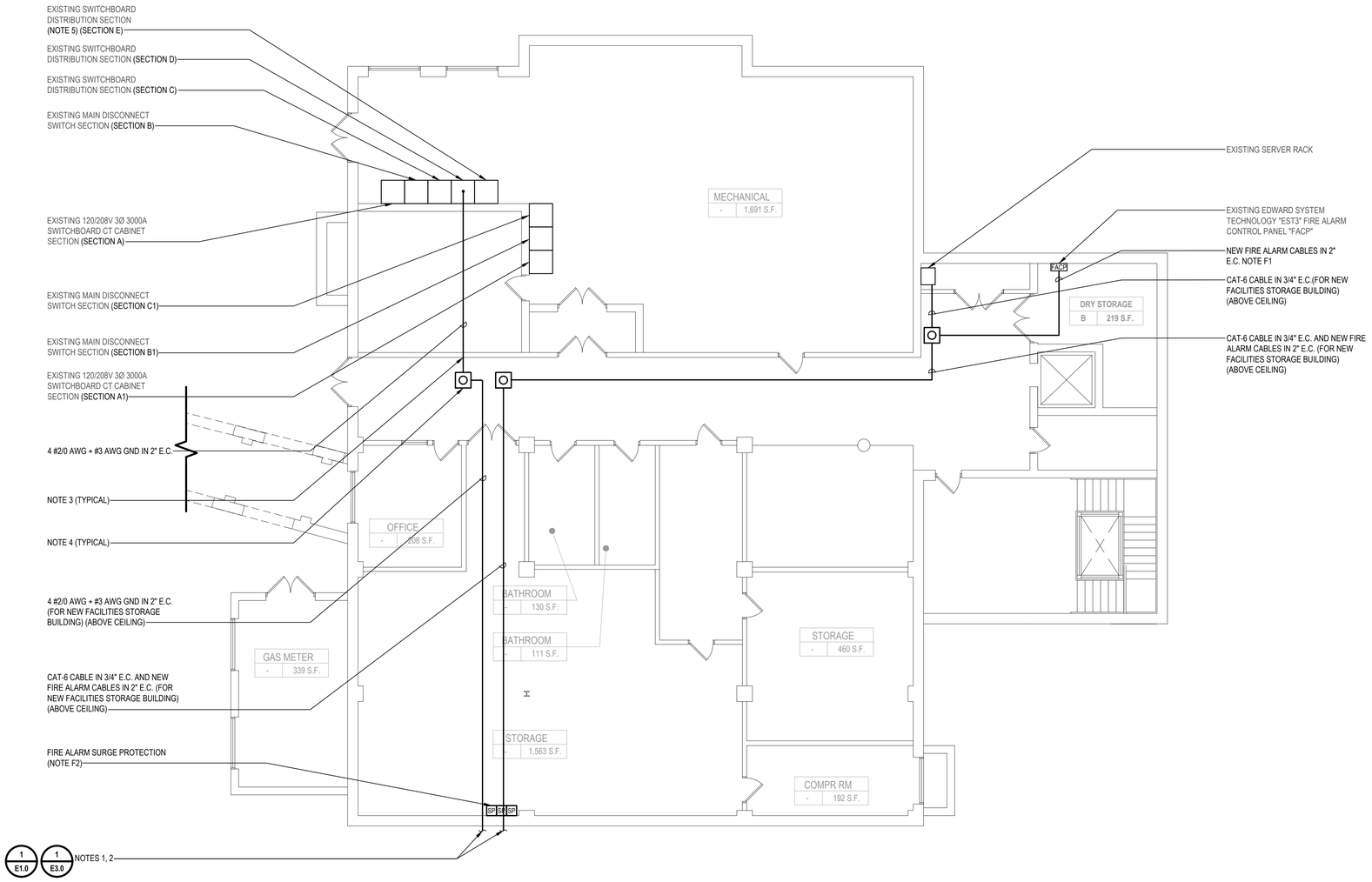
SHEET TITLE

ELECTRICAL SITE PLAN

DRAWING No.

E1.0

X:\IRSD Irvington\1 SD\IRSD 1903 IHS Facilities Storage Building\02 BIM CAD\Dwg\sheets\E1.0 Electrical Site Plan.dwg Last Modified: Nov 09, 2021 - 9:11am Plotted on: Nov 12, 2021 - 11:56am By dhansen



1 Electrical Partial Lower Level Cafe-Science-Music Plan

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

ELECTRICAL KEY NOTES:

1. REFER TO DRAWING E1.0 FOR WIRE AND CONDUIT CONTINUATION AND FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL STUB ALL CONDUITS INTO BUILDINGS BELOW GRADE. NO EXTERIOR CONDUITS PERMITTED TO RUN EXPOSED ON EXTERIOR WALLS. CORE DRILL AS REQUIRED. RESTORE ALL FINISHES TO MATCH EXISTING. CONTRACTOR SHALL PROVIDE AND INSTALL LINK SEALS ON ALL CONDUITS ENTERING/EXITING THE BUILDING FOR ALL BELOW GRADE PENETRATIONS. CONTRACTOR SHALL PROVIDE AND INSTALL DUCT SEAL IN ALL CONDUITS ENTERING/EXITING THE BUILDING FOR ALL ABOVE GRADE PENETRATIONS.
3. CONTRACTOR SHALL COREDRILL WALL AS REQUIRED. INSTALL NON SHRINK GROUT/FIREPROOFING SEALANT FOR ALL CONDUIT PENETRATIONS. RESTORE ALL FINISH TO MATCH EXISTING.
4. NEW PULL BOX ATTACHED TO ABOVE THE CEILING JOISTS. FLOOR PLAN SHOWS MINIMUM REQUIRED PULL BOXES. PROVIDE ADDITIONAL PULL BOXES AS REQUIRED BY NEC AND AS REQUIRED FOR INSTALLATION PURPOSE. PULL BOX SIZE SHALL BE IN ACCORDANCE WITH NEC.
5. CONTRACTOR SHALL PROVIDE AND INSTALL THREE (3) NEW 100 AMP FUSES IN EXISTING SPARE 100 AMP SWITCH FRAME IN EXISTING SWITCHBOARD (SECTION D). ALL NEW EQUIPMENT SHALL BE LISTED/LABELED FOR USE IN EXISTING SWITCHBOARD.

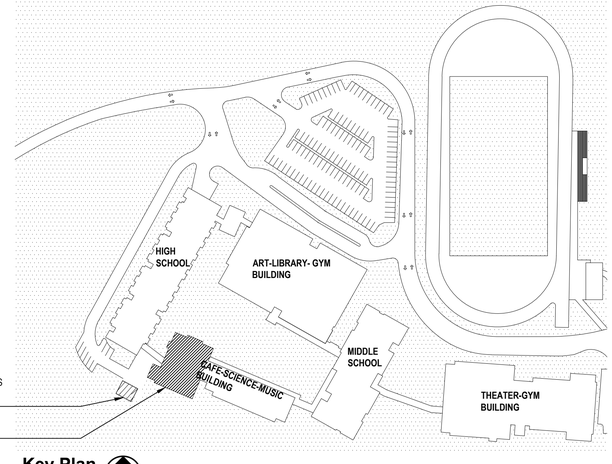
ELECTRICAL GENERAL FIRE ALARM NOTE:

GF1. CONTRACTOR SHALL NOTIFY FIRE ALARM MONITORING COMPANY PRIOR TO INSTALLING/ MODIFYING ANY NEW AND EXISTING DEVICES. PROGRAM SYSTEM AS REQUIRED TO INSTALL NEW DEVICES.

ELECTRICAL FIRE ALARM KEY NOTES:

F1. CONTRACTOR SHALL PROVIDE NEW FIRE ALARM CABLES IN NEW 2" CONDUIT FROM THE EXISTING FIRE ALARM CONTROL PANEL (EDWARDS EST-3 IN CAFE-SCIENCE-MUSIC BUILDING) TO NEW FACILITIES STORAGE BUILDING.

F2. CONTRACTOR SHALL PROVIDE AND INSTALL SURGE PROTECTORS ON ALL FIRE ALARM CABLES PRIOR TO LEAVING THE NEW FACILITIES STORAGE BUILDING AND UPON ENTERING THE CAFE-SCIENCE-MUSIC BUILDING. SURGE PROTECTORS SHALL BE COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM. PROVIDE ALL WIRING AND CONDUIT TO EXISTING GROUNDING SYSTEM AS REQUIRED.



Key Plan

SCALE: N.T.S.

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SED Number:66-04-02-02-2-022-001

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

STATUS

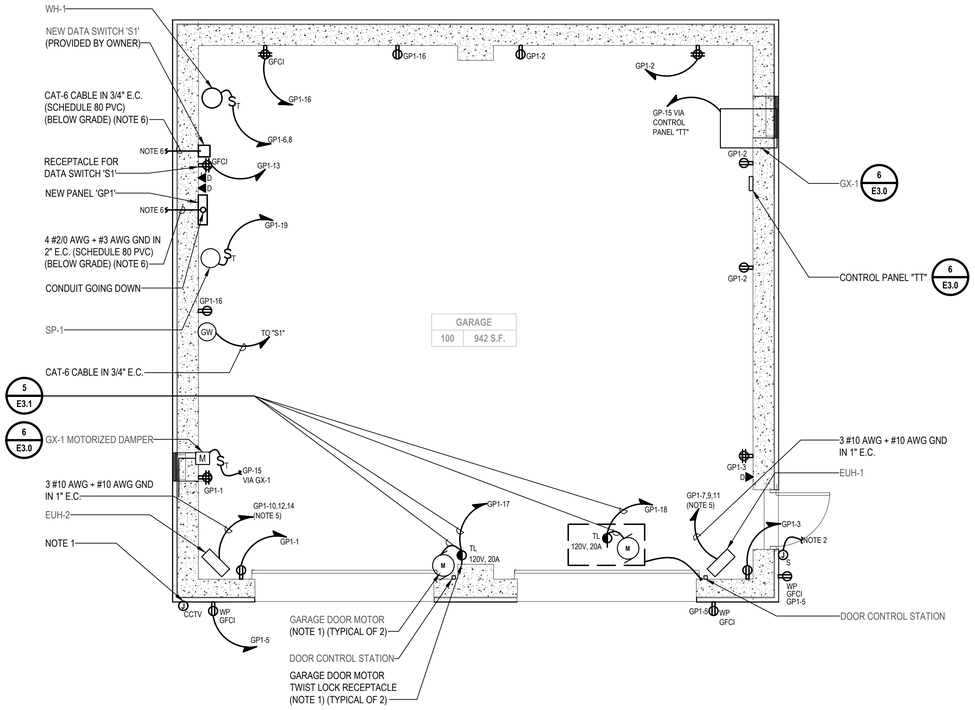
FINAL BID DOCUMENT

SHEET TITLE

ELECTRICAL PARTIAL LOWER LEVEL CAFE-SCIENCE-MUSIC BUILDING PLAN

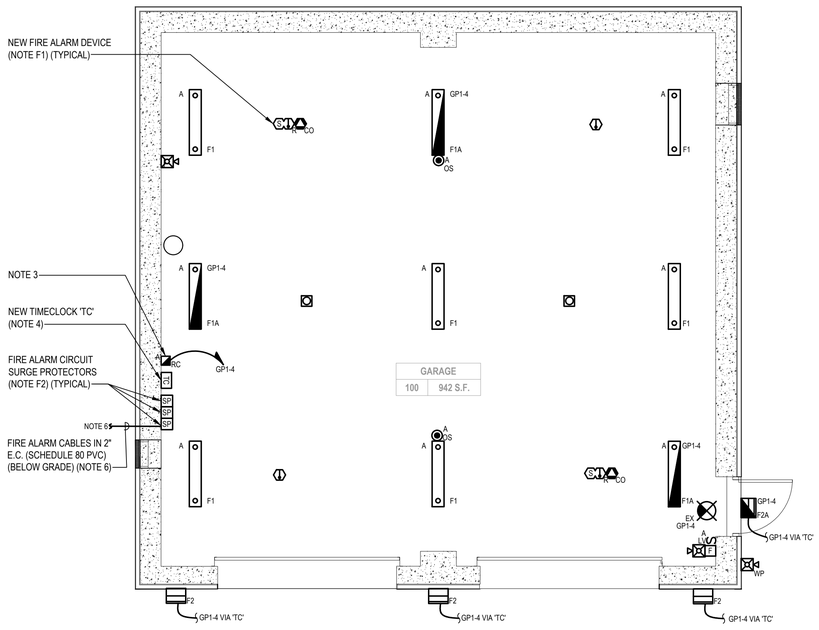
DRAWING No.

E2.0



1 Electrical Facilities Storage Building Power and HVAC Plan

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



2 Electrical Facilities Storage Building Lighting and Fire Alarm Plan

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

ELECTRICAL KEY NOTES:

1. CONTRACTOR SHALL COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH OWNER PRIOR TO INSTALLATION
2. COORDINATE EXACT MOUNTING LOCATION WITH OWNER PRIOR TO INSTALLATION. PROVIDE AND INSTALL A PHENOLIC NAMEPLATE STATING "JUNCTION BOX FOR FUTURE USE".
3. CONTRACTOR SHALL PROVIDE AND INSTALL A JUNCTION BOX (6"W X 6"L X 4"D, MINIMUM) APPROXIMATELY 7'-6" AFF FOR NEW ROOM CONTROLLER. PROVIDE AND INSTALL ALL MOUNTING HARDWARE TO SECURELY MOUNT TO WALL. PROVIDE AND INSTALL PHENOLIC NAMEPLATE STATING "LIGHTING CONTROL ROOM CONTROLLER".
4. NEW TIME CLOCK SHALL BE TORK MODEL DG100A OR APPROVED EQUAL. COORDINATE EXACT TIME CLOCK SCHEDULES WITH OWNER AND PROGRAM AS REQUIRED.
5. CONTRACTOR SHALL PROVIDE AND INSTALL ALL WIRE AND CONDUIT AS REQUIRED TO FIELD INSTALL FACTORY PROVIDED DISCONNECT SWITCH.
6. REFER TO DRAWING E1.0 FOR CONDUIT CONTINUATION AND ADDITIONAL INFORMATION.

ELECTRICAL GENERAL LIGHTING NOTES:

GL1. PROVIDE ALL REQUIRED WIRING NECESSARY BETWEEN SWITCHES, CONTROLLERS AND/OR OCCUPANCY SENSORS FOR COMPLETE LIGHTING CONTROL. PROVIDE ALL REQUIRED WIRING BETWEEN SWITCHES. WIRE SIZE SHALL EQUAL POWER FEED SIZE.

GL2. FIXTURES INDICATED WITH CIRCUIT DESIGNATIONS SHALL BE CONNECTED TO LINE SIDE OF CIRCUIT.

GL3. FIXTURES INDICATED WITH LETTER DESIGNATIONS SHALL BE CONNECTED TO THE SWITCH, OCCUPANCY SENSOR AND/OR ROOM CONTROLLER WITH CORRESPONDING LETTER DESIGNATION.

GL4. PROVIDE AND INSTALL A DEDICATED NEUTRAL FOR EACH CIRCUIT. CONTRACTOR IS NOT PERMITTED TO USE COMMON NEUTRALS.

GL5. PROVIDE BOX AND ACCESSORIES AS PER MANUFACTURER'S RECOMMENDATION FOR ALL SWITCHES OCCUPANCY SENSORS, AND/OR POWER PACKS.

GL6. VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT/ENGINEER IN FIELD.

GL7. ALL FIXTURES WITH EMERGENCY DRIVERS AND ALL FIXTURES THAT ARE PART OF AN EMERGENCY LIGHTING SYSTEM, FED FROM A BATTERY SYSTEM SHALL BE LABELED. THESE LABELS SHALL BE EASILY READ FROM THE FLOOR LEVEL AND STATE THAT THE FIXTURE IS AN EMERGENCY FIXTURE AND CONTAIN THE PANEL NAME AND CIRCUIT NUMBER THAT IT IS FEED FROM.

GL8. WIRING FOR EMERGENCY DRIVER IS NOT SHOWN ON PLANS. FIXTURES WITH EMERGENCY DRIVER SHALL BE PROVIDED WITH AN UNSWITCHED POWER FEED FROM CIRCUIT FEEDING LIGHT FIXTURE.

GL9. CONTRACTOR SHALL USE SILICONE WATER PROOF SEALANT TO SEAL TOP, LEFT, AND RIGHT EDGES OF LIGHT FIXTURES TO WALL TO PREVENT MOISTURE FROM ACCUMULATING BEHIND FIXTURE. BOTTOM EDGE SHALL BE LEFT UNSEALED FOR DRAINAGE. COLOR OF SILICONE SHALL MATCH EITHER WALL COLOR OR FIXTURE COLOR. (TYPICAL OF ALL WALL MOUNTED EXTERIOR LIGHTING)

ELECTRICAL GENERAL FIRE ALARM NOTE:

GF1. CONTRACTOR SHALL NOTIFY FIRE ALARM MONITORING COMPANY PRIOR TO INSTALLING/ MODIFYING ANY NEW AND EXISTING DEVICES. PROGRAM SYSTEM AS REQUIRED TO INSTALL NEW DEVICES.

ELECTRICAL FIRE ALARM KEY NOTES:

F1. CONTRACTOR SHALL PROVIDE AND INSTALL NEW FIRE ALARM DEVICES AND ALL NECESSARY EQUIPMENT TO MAKE A PROPER CONNECTION TO EXISTING FIRE ALARM CONTROL PANEL "FACP" WHICH IS LOCATED IN THE STORAGE ROOM ON THE LOWER FLOOR IN THE CAFE-SCIENCE-MUSIC BUILDING USING MANUFACTURERS RECOMMENDED WIRING IN 3/4" E.C. CONTRACTOR SHALL PROVIDE AND EXTEND POWER/DATA FEEDS TO NEW FIRE ALARM DEVICE LOCATION. PROVIDE AND INSTALL ALL EXPANSION CARDS, WIRE, CONDUIT, RELAYS, POWER SUPPLIES, BATTERIES, EXTENDERS, PROGRAMMING, MOUNTING HARDWARE, AND JUNCTION BOXES AS REQUIRED. COORDINATE EXACT MOUNTING LOCATION AND HEIGHT WITH ARCHITECT PRIOR TO INSTALLATION. TYPICAL OF ALL FIRE ALARM DEVICES. REFER TO DRAWING E2.0 FOR APPROXIMATE LOCATION OF EXISTING FACP.

F2. CONTRACTOR SHALL PROVIDE AND INSTALL SURGE PROTECTORS ON ALL FIRE ALARM CABLES PRIOR TO LEAVING THE NEW FACILITIES STORAGE BUILDING AND UPON ENTERING THE CAFE-SCIENCE-MUSIC BUILDING. SURGE PROTECTORS SHALL BE COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM. PROVIDE ALL WIRING AND CONDUIT TO EXISTING GROUNDING SYSTEM AS REQUIRED.

FACILITIES STORAGE BUILDING FIRE ALARM SEQUENCE OF OPERATION:

FS1. OPERATION OF ANY MANUAL FIRE ALARM PULL STATION OR ACTIVATION OF AN HEAT/SMOKE DETECTOR THROUGHOUT THE FACILITIES STORAGE BUILDING SHALL AUTOMATICALLY:

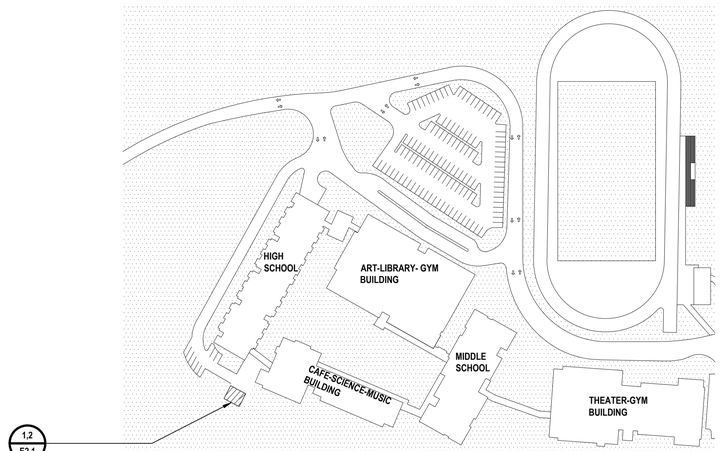
A. SOUND ALL HORNS THROUGHOUT THE FACILITIES STORAGE BUILDING WITH A "TEMPORAL 3" CODE. THE ALARM SIGNALS MAY BE SILENCED DURING THE ALARM CONDITION BY OPERATION OF THE FACP ALARM SILENCE SWITCH. SUBSEQUENT ALARM CONDITIONS SHALL RE-SOUND THE ALARM HORNS. HORNS SHALL NOT SOUND THROUGHOUT THE CAFE-SCIENCE-MUSIC SCHOOL BUILDING.

B. FLASH ALL ALARM STROBE LIGHTS THROUGHOUT THE FACILITIES STORAGE BUILDING. THE ALARM STROBE LIGHTS SHALL BE TURNED OFF WHEN THE SYSTEM IS RESET. STROBE LIGHTS SHALL NOT FLASH THROUGHOUT THE CAFE-SCIENCE-MUSIC SCHOOL BUILDING.

C. DISPLAY A GENERAL ALARM INDICATION AND SYSTEM STATUS SUMMARY (NUMBERS OF ALARM. SUPERVISORY AND/OR TROUBLE CONDITIONS) ON FACP LIQUID CRYSTAL DISPLAY (LCD). PRESSING THE ALARM ACKNOWLEDGE KEY SHALL DISPLAY, FOR THIRTY (30) SECONDS, THE INDIVIDUAL DEVICE OR CIRCUIT DISPLAY, TO INCLUDE THE "ALARM" STATUS AND CUSTOM LABEL (UP TO FORTY CHARACTERS AND SPACES) FOR THE ADDRESSABLE DEVICE OR CIRCUIT OF ALARM INITIATION ON THE LIQUID CRYSTAL DISPLAY (LCD). AT THE END OF THE THIRTY (30) SECOND PERIOD, THE GENERAL ALARM INDICATION AND SYSTEM STATUS SUMMARY SHALL AGAIN BE DISPLAYED. THE INDIVIDUAL DEVICE/CIRCUIT DISPLAY MAY BE RECALLED AT ANY TIME BY REPRESSING THE FIRE ALARM ACKNOWLEDGE KEY OR UNTIL ALARM CONDITION IS SET TO NORMAL.

D. ENTER THE ALARM CONDITION CUSTOM LABEL WITH TIME AND DATE OF OCCURRENCE INTO THE FACP HISTORICAL ALARM LOG FOR THE FUTURE CALL.

E. ACTIVATE CIRCUIT TO INITIATE ALARM TO CENTRAL STATION. THE CENTRAL STATION MONITORING SHALL BE FURNISHED BY OWNER.



Key Plan

SCALE: N.T.S.

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CONSULTANTS:

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STATE OF NEW YORK
ANTHONY J. WORDEN
092583
LICENSED PROFESSIONAL ENGINEER

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
LK	GT		

PROJECT No.:	DATE:	SCALE:
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SHEET TITLE

ELECTRICAL FACILITIES STORAGE BUILDING PLANS

DRAWING No.

E2.1

Panel Wiring Schedule (3-Phase)

Panelboard: GP1 | Voltage: 120/208 | Phase: 3 | Wire: 4 | AIC Rating: 42,000
Manufacturer: SIEMENS | Mains: 100A MCB | Mains Rating: 100A
Panel Type: P2 | Mounting: SURFACE | Options: - | Note: -
NEMA Type Enclosure: 1

LOAD DESCRIPTION	BREAKER OPTION	TRIP AMPS & POLES	CONNECTED LOAD VOLT AMPERES ØA	ØB	ØC	CIRC. NO	A B C	CIRC. NO	CONNECTED LOAD VOLT AMPERES ØA	ØB	ØC	TRIP AMPS & POLES	BREAKER OPTION	LOAD DESCRIPTION
GARAGE RECEPTACLE		20A/1P	540			1		2	900			20A/1P		GARAGE RECEPTACLE
GARAGE RECEPTACLE		20A/1P		540		3		4		552		20A/1P		GARAGE LIGHTS
EXTERIOR RECEPTACLE		20A/1P			360	5		6			999	15A/2P		WH-1
EUH-1	HACR	30A/3P	2522			7		8	998					
				2522		9		10		2522		30A/3P	HACR	EUH-2
					2522	11		12			2522			
GARAGE RECEPTACLE		20A/1P	360			13		14	2522					
GX-1 AND MOTORIZED DAMPER		15A/1P		673		15		16		720		20A/1P		GARAGE RECEPTACLE
GARAGE DOOR MOTOR RECEPT.		20A/1P			828	17		18			828	20A/1P		GARAGE DOOR MOTOR RECEPT.
SP-1		30A/1P	1438			19		20	-			20A/1P		SPARE
SPARE		20A/1P		-		21		22		-		20A/1P		SPARE
SPARE		20A/1P			-	23		24			-	20A/1P		SPARE
SPARE		20A/1P	-			25		26	-			20A/1P		SPARE
SPARE		20A/1P		-		27		28		-		20A/1P		SPARE
SPARE		20A/1P			-	29		30			-	20A/1P		SPARE
SPARE		20A/1P	-			31		32	-			20A/1P		SPARE
SPARE		20A/1P		-		33		34		-		20A/1P		SPARE
SPARE		20A/1P			-	35		36			-	20A/1P		SPARE
SPARE		20A/1P	-			37		38	-			20A/1P		SPARE
SPARE		20A/1P		-		39		40		-		20A/1P		SPARE
SPARE		20A/1P			-	41		42			-	20A/1P		SPARE

Connected Totals: ØA 9.28 KVA; ØB 7.53 KVA; ØC 8.06 KVA; Total 24.87 KVA; 69.03 Amperes

(All Phases to be balanced to within 7% using Actual Load Totals.)

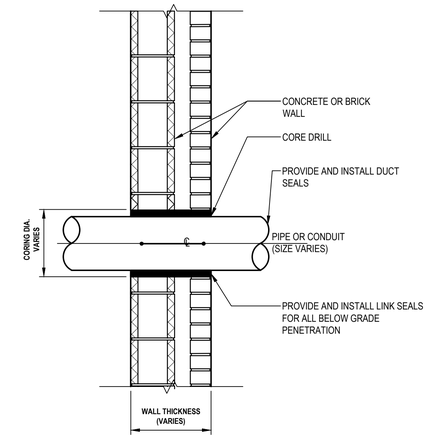
Breaker Options:
AS - Powerlink AS Breaker
LO - Handle lock-off device
ST - Shunt Trip Type
AUX - Auxiliary Contacts
PA - Handle Padlock Attachment
GFCI - Ground Fault Circuit Interrupter
HACR - Heating, A/C & Refrigeration
SF - Subfeed
TC - Time Clock Control

LIGHTING FIXTURE SCHEDULE

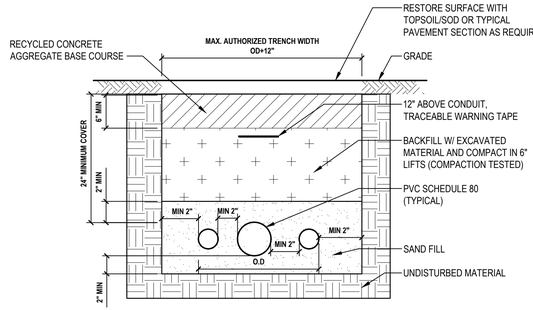
DESIGNATION	SYMBOL	MANUFACTURER	MODEL NUMBER	TYPE	WATTS	COLOR TEMP	VOLT	LUMENS	MOUNTING	REMARKS	MOUNTING HEIGHT	DETAIL
F1		COLUMBIA LIGHTING	LXEM4-40ML-RFA-EDU - XEDPM- XEHC	LED	38.5	4000	120-277	4560	PENDANT	-	11'-6" AFG	-
F1E		COMPASS LIGHTING	LXEM4-40ML-RFA-EDU-ELL14 XEDPM- XEHC	LED	38.5	4000	120-277	4560	PENDANT	EMERGENCY BATTERY BACKUP WITH 90 MINUTES OF BACK-UP CAPACITY	11'-6" AFG	3 E3.0
F2		HUBBELL LIGHTING	TRP2-24L-30-3K8-1-UNV	LED	30	3000	120-277	4075	SURFACE (WALL MOUNTED)	-	10'-0" AFG	-
F2A		HUBBELL LIGHTING	TRP2-24L-30-3K8-1-UNV-EH	LED	30	3000	120-277	4075	SURFACE (WALL MOUNTED)	EMERGENCY BATTERY BACKUP WITH 90 MINUTES OF BACK-UP CAPACITY	1'-0" ABOVE DOOR FRAME	3 E3.0
EX		DUAL-LITE	SESRWEI	LED	3.3	-	-	-	SURFACE	EMERGENCY BATTERY BACKUP WITH 90 MINUTES OF BACK-UP CAPACITY	1'-0" ABOVE DOOR FRAME	-
LV	S	HUBBELL	NXSW	-	-	-	24	-	RECESSED	LOW VOLTAGE MOMENTARY LIGHT SWITCH	4'-0" AFF	7 E3.0
RC		HUBBELL	NXRCFX-2R-UNV	-	-	-	24	-	RECESSED	ROOM CONTROLLER	REFER TO DRAWING	7 E3.0
OS		HUBBELL CONTROL SOLUTIONS	WSPEM24V (LENS: WSPL360WH)	-	-	-	24	-	END MOUNT	OS DENOTES OCCUPANCY SENSOR. PROVIDE RJ-45 ADAPTER AS REQUIRED TO USE WITH NX CONTROLLER, (NOTE 1)	END MOUNT OCCUPANCY SENSOR	7 E3.0

NOTE:

1. CONTRACTOR SHALL NOTE THAT THE END MOUNT OPTION IS ONLY SELECTED AS A MEAN OF MOUNTING OPTION. CONTRACTOR SHALL WIRE THE LIGHTING CONTROL AS PER DETAIL 7 ON THIS DRAWING.



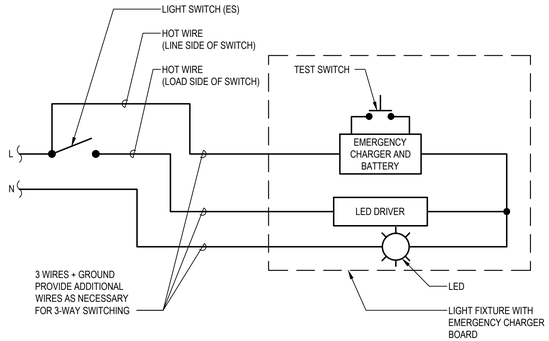
1 Typical Penetration Through Brick or Concrete Wall
SCALE:N.T.S.



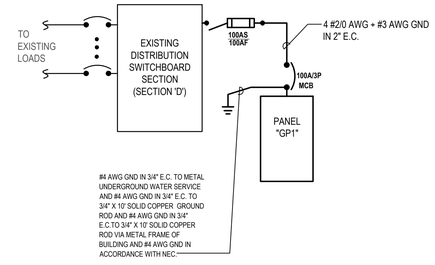
2 Typical Conduit Trench Detail
SCALE:N.T.S.

NOTE:

1. MINIMIZE ALL TRENCH WIDTHS IN ORDER TO AVOID EXCESSIVE DISTURBANCE OF ADJACENT AREAS. TRENCH WALLS SHALL BE VERTICAL. USE SHEET PILING OR A SHEETING BOX TO MAINTAIN THE SPECIFIED TRENCH.



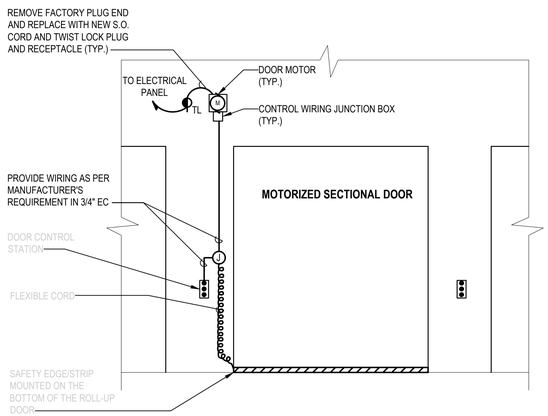
3 Typical Detail of Light Fixture with Emergency Battery Backup
SCALE:N.T.S.



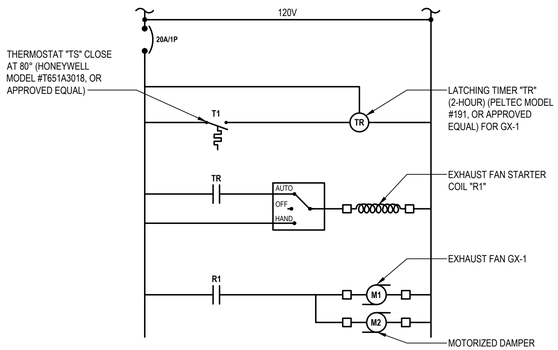
4 Partial Single Line Diagram (Note 1)
SCALE:N.T.S.

SINGLE LINE DIAGRAM NOTE:

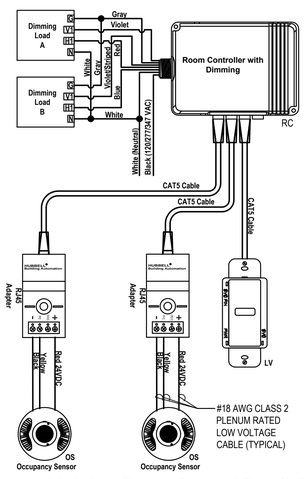
1. NOT ALL EXISTING CIRCUITS ARE SHOWN IN SINGLE LINE DIAGRAM FOR CLARITY PURPOSE, REFER TO FLOOR PLANS FOR ADDITIONAL INFORMATION.



5 Garage Door Control - Elevation Plan
SCALE:N.T.S.



6 Exhaust Fan Control Panel "TT" Schematic
SCALE:N.T.S.



#18 AWG CLASS 2 PLENUM RATED LOW VOLTAGE CABLE (TYPICAL)

7 Lighting Room Control Detail (Notes LC1,LC2)
SCALE:N.T.S.

LIGHTING CONTROL DETAIL NOTES:

LC1. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND ACCESSORIES AS REQUIRED TO PROVIDE FULL FUNCTIONING HUBBELL NX LIGHTING CONTROL SYSTEM TO FUNCTION AS SHOWN IN THE CONSTRUCTION DOCUMENTS. DESIGN OF THE LIGHTING CONTROL SYSTEM WAS DEVELOPED AROUND THE HUBBELL NX CONTROL SYSTEM. ALL SUBSTITUTE CONTROLS WILL REQUIRE SUBMISSION OF NEW CONTROL LAYOUT, STAMPED BY A PROFESSIONAL ENGINEER. SUBSTITUTE CONTROLS SHALL FUNCTION AS DESIGNED ON THE CONTRACT DOCUMENTS AND CONTRACTOR SHALL GUARANTEE FUNCTIONALITY.

LC2. CONTRACTOR SHALL HIRE A TECHNICIAN (HUBBELL AUTOMATION OR APPROVED EQUAL) TO COMMISSION, PROGRAM AND CALIBRATE THE NX LIGHTING CONTROL SYSTEM. LIGHTING CONTROL SYSTEM BE PROGRAMMED FOR THE LIGHT FIXTURE TO OUTPUT LIGHT LEVELS AS DESCRIBED IN SPECIFICATION SECTION 265000, SUBSECTION 2.03.

H2M architects + engineers
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Purchase, NY 10577
914.358.5623 • www.h2m.com

CONSULTANTS:

MARK	DATE	DESCRIPTION
1	11/18/2021	FINAL BID DOCUMENT

STATE OF NEW YORK — LAWRENCE KOPPELMAN — 092583 — PROFESSIONAL ENGINEER

"ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL IS ILLEGAL"

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
LK	GT		

PROJECT No.:	DATE:	SCALE:
IRSD1903	NOV 2021	AS SHOWN

CLIENT
Irvington Union Free School District

Facilities Storage Building at Irvington Campus

Irvington Campus
40 N. Broadway
Irvington, NY 10533

SED Number:66-04-02-02-2-022-001

CONTRACT
CONTRACT G
GENERAL CONSTRUCTION

STATUS
FINAL BID DOCUMENT

SHEET TITLE
ELECTRICAL SINGLE LINE DIAGRAM, DETAILS AND SCHEDULES

DRAWING No.
E3.0

X:\IRSD (Irvington UFSD)\IRSD 1903 (HS Facilities Storage Building)\Bid Set\CAD\Dcm docs\detail E3.0 Electrical Single Line Diagram, Details and Schedules.dwg Last Modified: Nov 10, 2021 - 1:14pm Plotted on: Nov 12, 2021 - 12:04pm By dtranam