PART 4: TECHNICAL SPECIFICATIONS AND DRAWINGS

Homewood North Community Center HVAC Replacement, AMP-20.

IFB CONTRACT NO. 600-28-26___

Homewood North - Community Center
HVAC Work Replacement

Mechanical Unit replacement in existing community center. No changes to exisitng areas, structure, fire protection or egress.
10 Albertice St.,
Pittsburgh, PA 15208

Drawing Index

Contact Schedule

Note: Any questions concerning the Construction Documents shall first be directed to the Architect. The Architect will forward questions as appropriate to the consulting engineers.

Building Owner:

HACP
412 Boulevard of the Alies
Pittsburgh,PA,15219

Architect:

Fukui Architects, PC
205 Ross Street
Pittsburgh, PA 15219
ph: 412.281.6001
fx: 412.281.6002
emma@farpc.com
contact: Emma Cline, AIA

Plan Review & Inspection:

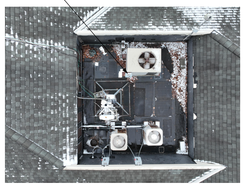
City of Pittsburgh
Departments of Permits, Licenses and Inspections
200 Ross Street
3rd floor, room 320
Pittsburgh, PA 15205
ph: 412.255.2175

Code Conformance Information

Applicable Codes	
General:	2021 International Existing Building Code
Accessibility:	ANSI/ICC A117.1 2009
Energy:	2021 International Energy Conservation Code
Electrical:	2020 NEC (NFPA 70)
Fire:	2021 International Fire Code
Fuel Gas:	2021 International Fuel Gas Code
Mechanical:	2021 International Mechanical Code
Plumbing:	2022 Allegheny County Health Department Plumbing Code
Fire Alarm:	2021 NFPA 72
Sprinkler:	2021 NFPA 13

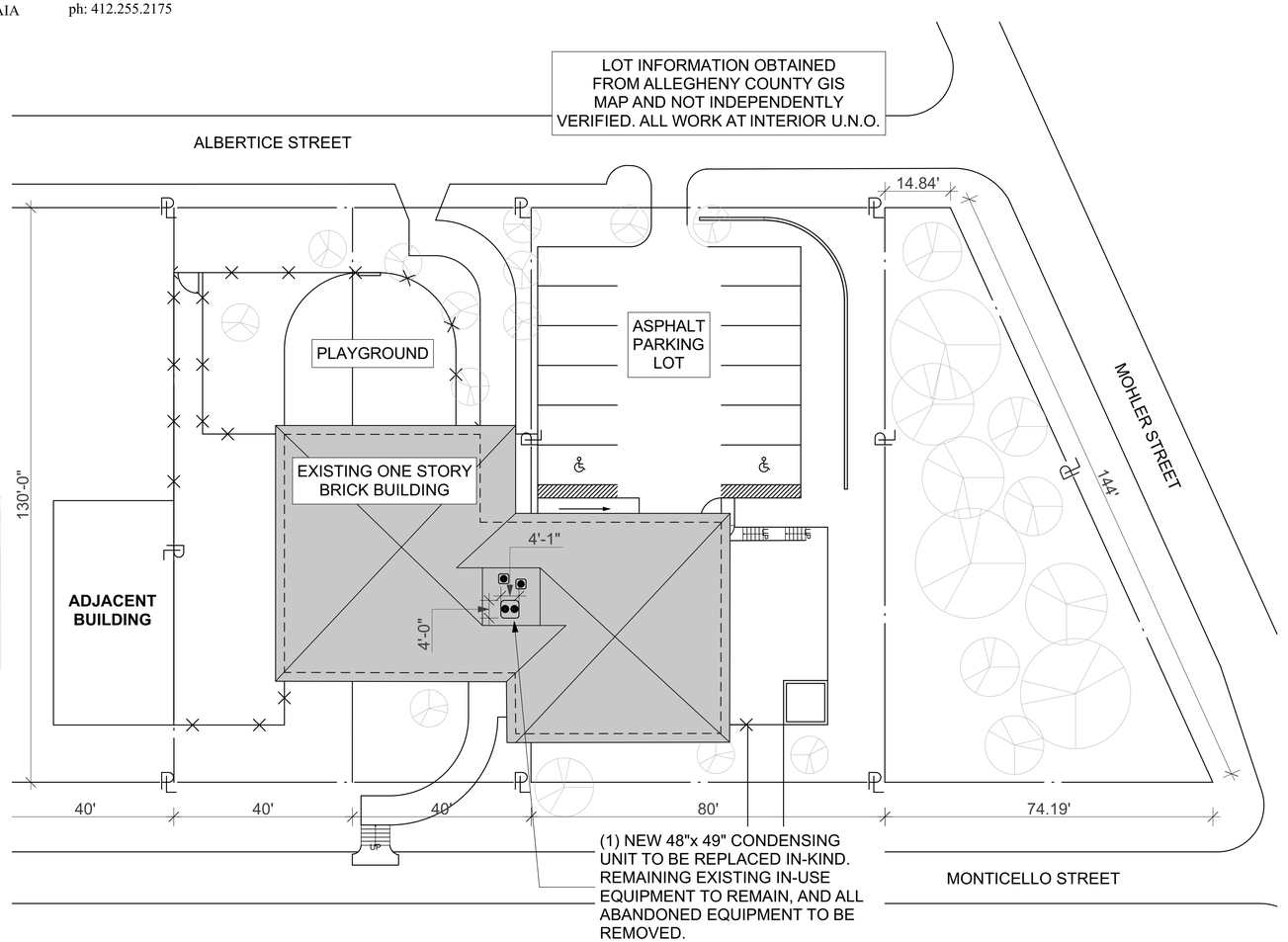
General Building / Project Information	
Compliance Method:	Work Area
Classification of Work:	Level 2 Alteration
Occupancy Group:	A-3, B, E. (Only A-3 in scope) non-separated occupancies (A-3 most restrictive)
Stories:	1 Story
Bulding Height:	+/- 25'-0"
Building Gross Area:	4,745 SF
Work Area:	37.5 SF
Construction Type:	VB
Sprinklers:	NFPA 13
Fire Alarm:	NFPA 72

IMAGE OF EXISTING ROOF EQUIPMENT



NOTE: SCOPE OF WORK LIMITED TO REPLACING EXISTING MECHANICAL EQUIPMENT, REMOVAL OF ABANDONED EQUIPMENT, CREATION OF A NEW OPENING IN THE CLG SYSTEM FOR FUTURE RTU SERVICING, AND REMOVAL OF EXISITNG TEMPORARY FURNACE AND ENCLOSURE. TEMPORARY REMOVAL OF EXISTING SMOKE/CARBON MONOXIDE DETECTORS AND LIGHTING FIXTURES TO CREATE NEW OPENING FOR FUTURE RTU SERVICING. TEMPORARY REMOVAL OF EXISTING FIRE ALARM DEVICES AND LIGHTING FIXTURES TO CREATE NEW OPENING FOR FUTURE RTU SERVICING. TEMPORARY RELOCATION OF SPRINKLER HEADS TO REMAIN ACTIVE DURING CONSTRUCTION. REINSTALLATION OF SUSPENDED GRID CEILING SYSTEM, WTIH NEW ACOUSTIC TILES.

1 Site Location Map



2 SITE PLAN
SCALE: 1/16" = 1'-0"

Fukui Architects Pc
205 Ross Street
Pittsburgh, Pennsylvania 15219
ph 412.281.6001 fx 412.281.6002

seal

general notes

1. Any conflicts in the drawings or between new and existing construction shall be referred to the Architect.
2. Contractor shall verify all dimensions and existing conditions in the field and shall advise **Fukui Architects, Pc** of any discrepancies between, additions to, deletions from, or alterations to any and all conditions prior to proceeding with any phase of work. **Do not scale drawings.**
3. All work shall be installed in accordance with applicable codes and regulations.
4. Contractor shall be responsible for the patching, repairing, and preparations of all existing floor, wall, and ceiling surfaces as required to receive scheduled finishes.
5. All items shown on drawings are finished construction assemblies. Contractor shall provide and install all material required for finished assemblies.
6. All reports, plans, specifications, computer files, field data, notices, and other documents and instruments prepared by the Architect as instruments of service shall remain the property of the Architect. The Architect shall retain all common law statutory, and other reserved rights, including the copyright thereto.

revisions

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drawing title

Cover Sheet Drawing Index, Code Conformance Information, Project Contact Schedule, Site Location Map, SITE PLAN

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Project #2441

Materials Legend

NOT ALL MATERIALS USED

- EARTH
- COMPACTED STONE FILL
- CONCRETE
- STEEL
- RIGID INSULATION
- BLOCKING
- BATT INSULATION
- GYPSUM WALL BOARD
- WOOD
- PLYWOOD SHEATHING
- SPRAY FOAM INSULATION

Abbreviations

A.F.F.	Above Finish Floor
A.P.	Access Panel
ACOUST.	Acoustical
A.C.T.	Acoustical Ceiling Tile
ADH.	Adhesive
ADJUST.	Adjustable
A/C	Air Conditioning
ALT.	Alteration
ALTN.	Alternate
ALUM.	Aluminum
A.O.R.	Area of Refuge
APPROX.	Approximate
ARCH.	Architectural
ASB.	Asbestos
ASPH.	Asphalt
AUTO.	Automatic
AVG.	Average
BLK.	Block
BD.	Board
BOT	Bottom
BLDG	Building
C.I.P.	Cast In Place
C.B.	Catch Basin
CEM.	Cement
CER.	Ceramic
CG	Corner Guard
C.M.T.	Ceramic Mosaic Tile
C.W.T.	Ceramic Wall Tile
C.O.	Cleanout
℄	Center Line
CLO.	Closet
C.W.	Cold Water
CLG.	Ceiling
COL.	Column
CONC.	Concrete
C.M.U.	Concrete Masonry Unit
CONT.	Continuous
CORR.	Corridor
C.M.P.	Corrigated Metal Pipe
CRS.	Courses
DIA.	Diameter
DET	Detail
DGL	Dens Glass Gold
DR.	Door
DN.	Down
D.S.	Downspout
DWG.	Drawing
D.F.	Drinking Fountain
D.I.P.	Ductile Iron Pipe
EA.	Each
E.W.	Each Way
ELEC.	Electrical
E.C.	Electrical Contractor
EL.	Elevation
ELEV.	Elevation
EQUIP.	Equipment
E.F.	Exhaust Fan
EXIST.	Existing
EXP.	Expansion
E.J.	Expansion Joint
ESH	Exterior Sheathing
EXIST.	Existing
EXP.	Exposed
EXT.	Exterior
E.I.F.S.	Exterior Insulation & Finish System
F.R.P.	Fiberglass Reinforced Polyester
F.F.	Finish Floor
FIN.FLR.	Finish Floor
F.A.C.P.	Fire Alarm Control Panel
F.E.	Fire Extinguisher
FLR.	Floor
F.D.	Floor Drain
FTG.	Footing
GA.	Gauge
G.C.	General Contractor
G.F.I.	Ground Fault Interrupter
GYP.	Gypsum
G.W.B.	Gypsum Wall Board
GSH	Gypsum Sheathing
H/C	Handicap
H.V.A.C.	Heating, Ventilation &
HT	Height
HC	Hollow Core
H.M.	Hollow Metal
HORIZ.	Horizontal
HR.	Hour
H.W.	Hot Water
H/S	Horn/Strobes
IN.	Inch
I.M.	Insulated Metal
INSUL.	Insulation or Insulated
INT.	Interior
INV.	Invert
ISO.	Isolation
JAN.	Janitor's Closet
J.T.	Joint
LAM.	Laminate
LAV.	Lavatory
LG.	Long
L.F.	Light Fixtures
M.D.F.	Medium Density Fiberboard
M.D.H.	Magnetic Door Holder
M.H.	Manhole
MFGR.	Manufacturer
MAX.	Maximum
MECH.	Mechanical
MET.	Metal
MIN.	Minimum
MISC.	Miscellaneous
N.I.C.	Not In Contract
N.T.S.	Not To Scale
O.C.	On Center
OPP.	Opposite
O.H.	Overhead
PR.	Pair
PLAS.	Plaster
PLAM	Plastic Laminate
P.C.	Plumbing Contractor
PLYWD.	Plywood
POLY.	Polyethylene
P.V.C.	Polyvinyl Chloride
PRE-FAB.	Prefabricated
RE.	Refer To
REF.	Refrigerator
R.C.P.	Reinforced Concrete Pipe
REINF.	Reinforcement
RD.	Roof Drain
RM.	Room
S.A.T.	Suspended Acoustical Tile
SCHED.	Schedule
SHT.	Sheet
SIM.	Similar
S.C.	Solid Core
SPECS.	Specifications
SQ.	Square
S.F.	Square Foot
S.S.	Stainless Steel
STL.	Steel
STOR.	Storage
STRUCT.	Structural
TEL.	Telephone
THK.	Thick
T.B.D.	To Be Determined
T&G	Tongue & Groove
T.O.	Top Of
T.G.	Top Of Grade
T.O.S.	Top Of Steel
TYP.	Typical
UNFIN.	Unfinished
U.N.O.	Unless Noted Otherwise
V.B.	Vapor Barrier
VERT.	Vertical
VEST.	Vestibule
V.C.T.	Vinyl Composition Tile
W.H.	Water Heater
W.W.F.	Welded Wire Fabric
WIN.	Window
W/	With
W/O	Without
WD.	Wood

Symbols

NOT ALL SYMBOLS USED

- T.O. FINISH FLOOR / ELEV: 0'-0" — ELEVATION HEIGHT
- PLAN NORTH — NORTH ARROW
- 0 4' 8' 16' — GRAPHIC SCALE
- 1 / A-000 — BUILDING/ WALL SECTION MARKER
- 1 / A1 — ELEVATION MARKER
- 1 / 4 A-000 2 / 3 — INTERIOR ELEVATION MARKER
- 1 / A1 — DETAIL REFERENCE
- XXX-X — FINISH MATERIAL DESIGNATOR

Fukui Architects Pc

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seal

general notes

1. Any conflicts in the drawings or between new and existing construction shall be referred to the Architect.
2. Contractor shall verify all dimensions and existing conditions in the field and shall advise **Fukui Architects, Pc** of any discrepancies between, additions to, deletions from, or alterations to any and all conditions prior to proceeding with any phase of work. **Do not scale drawings.**
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project title

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412 Boulevard of the Alies
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Project Location:
Homewood North - Community Center
HVAC Work Replacement
10 Albertice St.
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drawing title

Abbreviations And Accessibility Diagrams Abbreviations and Materials

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Project #2441

DEMOLITION PLAN LEGEND

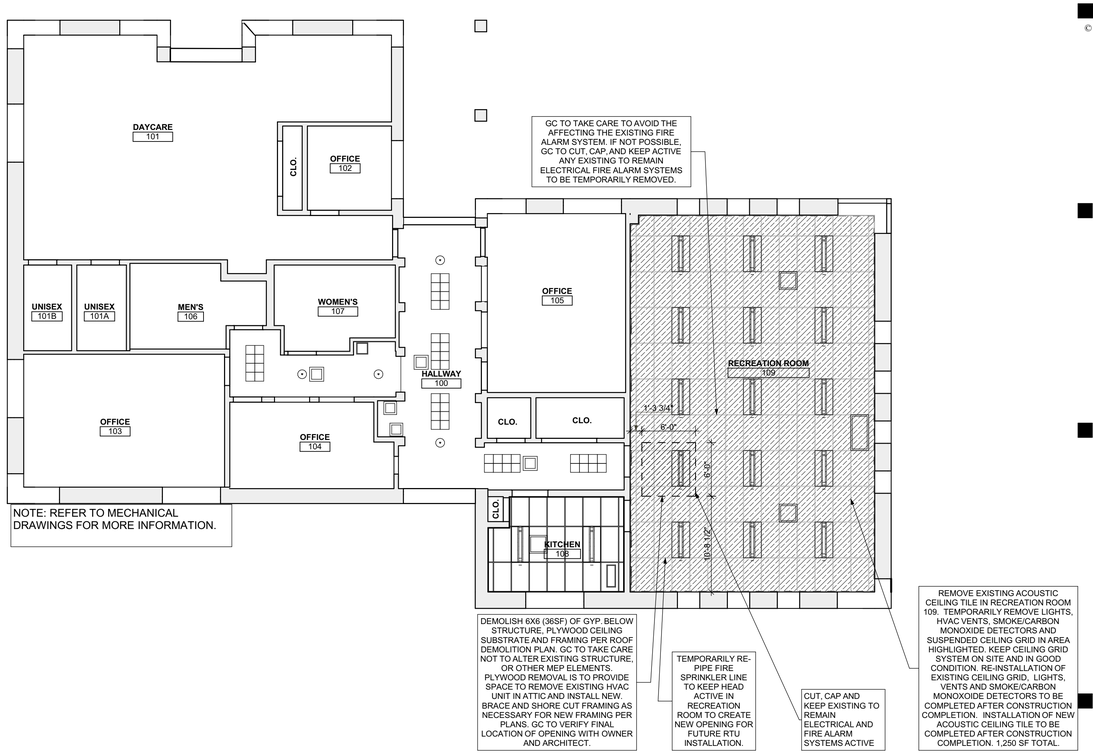
EXISTING WALL TO BE DEMOLISHED

EXISTING WALL TO REMAIN

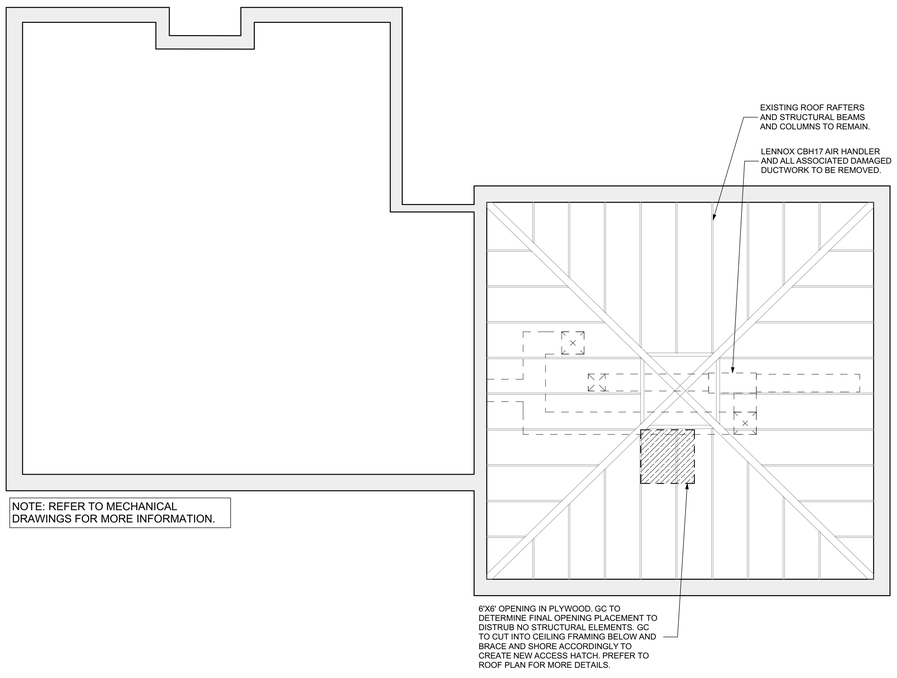
DEMOLISH EXISTING FLOORING OR CEILING IN HATCHED AREA.

GENERAL DEMOLITION NOTES

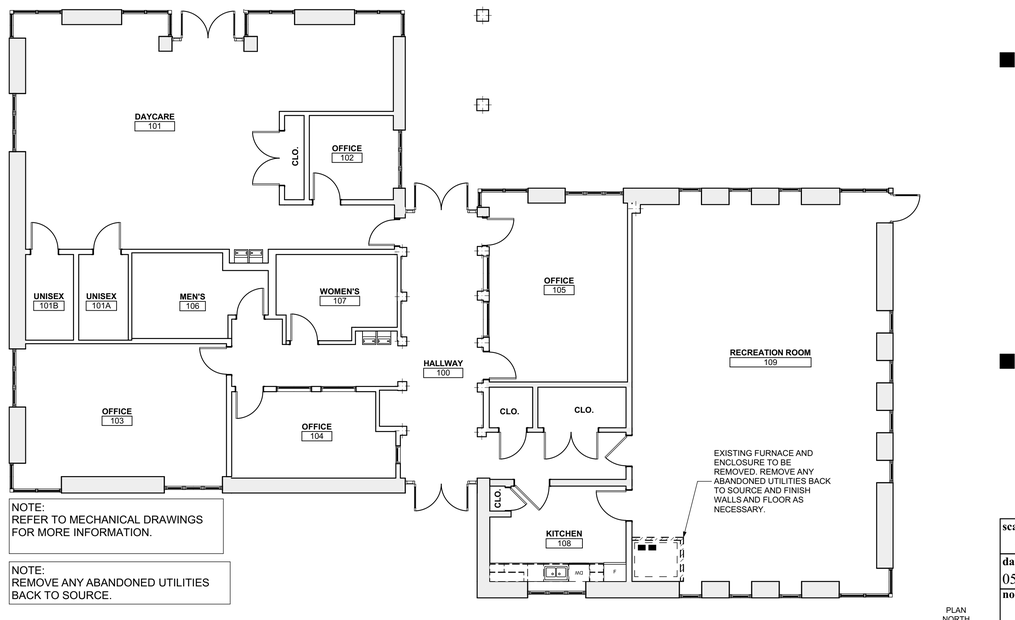
1. CONTRACTORS SHALL MAINTAIN EXISTING BUILDING IN A WEATHERTIGHT CONDITION. FOR ALL AREAS TO REMAIN OUTSIDE OF WORK AREA: TAKE CARE TO PROTECT FROM DUST, DIRT, AND DAMAGE. PROVIDE CARPET COVERINGS AND WALK OFF MATS; DO NOT DISTURB ELECTRICAL, PLUMBING, AND HVAC SERVING THESE AREAS UNLESS REQUIRED TO PERFORM CONTRACTED WORK. THE GC IS TO COORDINATE ANY NECESSARY SHUT DOWNS WITH OWNER.
2. DEMOLITION WASTE TO BE REMOVED FROM SITE BY DEMOLITION CONTRACTOR AND DISPOSED OF PROPERLY.
3. REPAIR OR REPLACE ANY ITEMS TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION TO APPEAR AS NEW.
4. COORDINATE MEPFP REMOVALS WITH MEPFP DRAWINGS.
5. ITEMS NOT LABLED OR KEYED FOR REMOVAL / DEMOLITION ARE EXISTING AND INTENDED TO REMAIN. PROTECT THESE ITEMS FROM DAMAGE.
6. PROTECT EXISTING HVAC UNITS AND DUCTWORK FROM DUST DURING CONSTRUCTION.
7. COORDINATE WITH OWNER ON EXACT DEMOLITION INTENT BEFORE DEMOLITION.



3 First Floor Reflected Ceiling Demolition Plan
SCALE: 1/8" = 1'-0"



2 Roof Demolition Plan
SCALE: 1/8" = 1'-0"



1 First Floor Demolition Plan
SCALE: 1/8" = 1'-0"

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drawing title

Demolition Plan and RCP Demolition Plan Legend, First Floor Demolition Plan, Roof Demolition Plan, First Floor Reflected Ceiling Demolition Plan

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FLOOR PLAN LEGEND

EXISTING WALL TO REMAIN

XXXXXX 000 ROOM NAME AND NUMBER

EXISTING DOOR

CEILING LEGEND

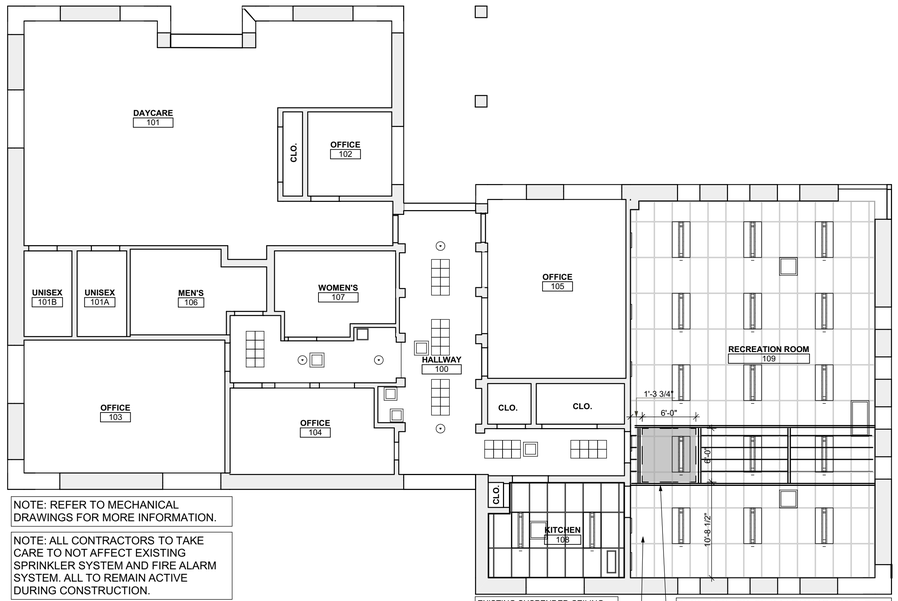
0'-0" XXX CEILING HEIGHT AND MATERIAL

XXX EXIST EXISTING CEILING, SEE GENERAL NOTE 4

CEILING GRID AND TILE.

GENERAL FLOOR PLAN NOTES

1. CONTRACTOR TO FIELD VERIFY ANY AND ALL CONDITIONS & DIMENSIONS OF WORK AREAS BEFORE BEGINNING WORK. REPORT ANY DISCREPANCIES TO THE ARCHITECT.
2. THE FINISH FLOOR OF THIS PROJECT IS IDENTIFIED AT 0'-0" IN THIS SET OF DRAWINGS.
3. ALIGN NEW WALL CONSTRUCTION WITH EXISTING WALL CONSTRUCTION. FINISH NEW PARTITION SMOOTH TO FORM A SEAMLESS JOINT BETWEEN NEW & EXISTING PARTITIONS.
4. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER GRAPHIC REPRESENTATIONS. NOTIFY ARCHITECT IN WRITING OF ANY INCONSISTENT OR MISSING DIMENSIONS.
5. DIMENSIONS SHOWN INDICATE FINISHED FACE TO FINISHED FACE, UNLESS NOTED OTHERWISE.
6. AT WALLS EXISTING TO REMAIN, PATCH AND PAINT ANY HOLES OR DAMAGE TO APPEAR NEW.



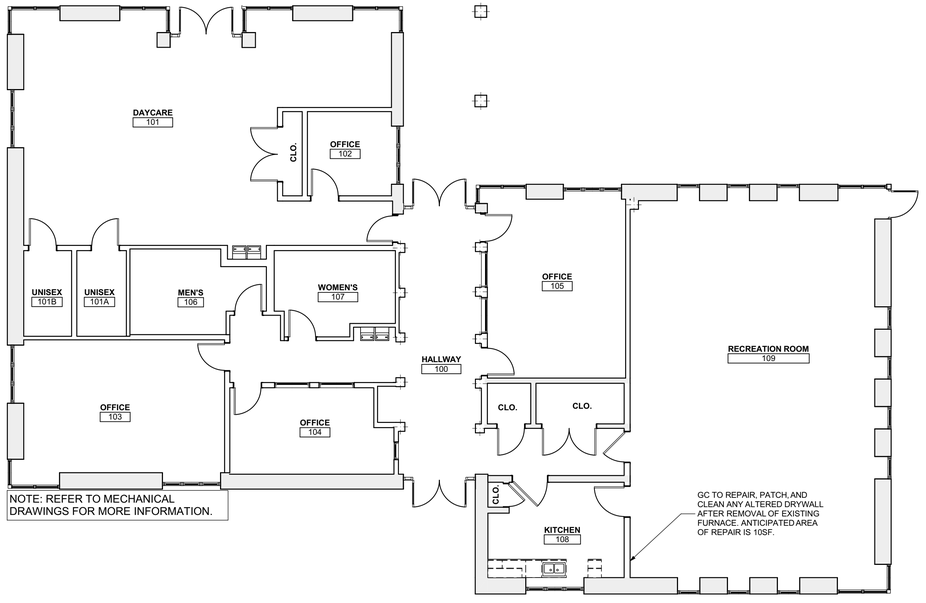
NOTE: REFER TO MECHANICAL DRAWINGS FOR MORE INFORMATION.

NOTE: ALL CONTRACTORS TO TAKE CARE TO NOT AFFECT EXISTING SPRINKLER SYSTEM AND FIRE ALARM SYSTEM. ALL TO REMAIN ACTIVE DURING CONSTRUCTION.

EXISTING SUSPENDED CEILING GRID, LIGHTING, AND HVAC GRILLE TO BE RE-INSTALLED. NEW ACOUSTIC CEILING TILES TO BE INSTALLED ACROSS ENTIRE RECREATION ROOM.

NEW TRIMMER AND HEADER JOISTS SHALL BE DOUBLED TO MATCH EXISTING STRUCTURE DEPTH PER 2308.4.4. PROVIDE JOIST HANGERS FOR TAIL JOISTS AND HEADER JOIST. DOUBLE TRIMMER JOIST SHALL BE THE ENTIRE LENGTH OF BEARING POINTS. TAIL JOISTS OVER 12 FEET IN LENGTH SHALL BE SUPPORTED AT THE HEADER BY FRAMING ANCHORS OR ON LEDGER STRIPS NOT LESS THAN 2" X 2". PROVIDE ADDITIONAL DOUBLE HEADER JOIST WHERE SPAN IS GREATER THAN 10' FOR TRIM JOISTS. PROVIDE NEW PLYWOOD COVER OVER OPENING ABOVE.

2 First Floor Reflected Ceiling Plan
SCALE: 1/8" = 1'-0"



NOTE: REFER TO MECHANICAL DRAWINGS FOR MORE INFORMATION.

GC TO REPAIR, PATCH, AND CLEAN ANY ALTERED DRYWALL AFTER REMOVAL OF EXISTING FURNACE. ANTICIPATED AREA OF REPAIR IS 10SF.

1 General Floor Plan
SCALE: 1/8" = 1'-0"

PLAN NORTH

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Floor Plan and RCP Floor Plan Legend, General Floor Plan, First Floor Reflected Ceiling Plan, Reflected Ceiling Plan Legend

scale: As Noted
date: 05.19.2026
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Sheet No.
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Project #2441

GENERAL NOTES

USE OF THE DOCUMENTS
THE USE OF THESE DOCUMENTS IS RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY WERE PREPARED. RE-USE OR REPRODUCTION OF THE DOCUMENTS (IN WHOLE OR IN PART), FOR ANY OTHER PURPOSE IS PROHIBITED. TITLE TO THESE REMAINS WITH FUKUI ARCHITECTS P.C. (FAR). VISUAL CONTACT WITH THE DOCUMENTS IS PRIMA FACIE EVIDENCE OF THE ACCEPTANCE OF THESE RESTRICTIONS.

DIVISION 1 - GENERAL CONDITIONS

APPLICABILITY OF HUD-5370 GENERAL CONDITIONS FOR CONSTRUCTION CONTRACTS- PUBLIC HOUSING PROGRAMS
THE HUD-5370, GENERAL CONDITIONS, CURRENT EDITION, SHALL APPLY TO THE PROJECT. A COPY OF THE HUD GENERAL CONDITIONS ARE INCLUDED IN THE FRONT END DOCUMENTS AS PART OF HUD FORMS. HARD COPIES ARE AVAILABLE AT HACP OFFICE.

MULTIPLE CONTRACT
1. COORDINATION
GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION BETWEEN THE GENERAL CONSTRUCTION CONTRACT, PLUMBING CONTRACT, MECHANICAL CONTRACT, ELECTRICAL CONTRACT, AND ADDITIONAL CONTRACTS APPLICABLE IN THE CONSTRUCTION DOCUMENTS.

2. GENERAL REQUIREMENTS OF CONTRACTS
UNLESS THE AGREEMENT CONTAINS A MORE SPECIFIC DESCRIPTION OF THE WORK OF EACH CONTRACT, REQUIREMENTS INDICATED ON DRAWINGS AND IN SPECIFICATION SECTIONS DETERMINE WHICH CONTRACT INCLUDES A SPECIFIC ELEMENT OF PROJECT.

3. SCOPE OF WORK RESPONSIBILITY
A. GENERAL CONSTRUCTION CONTRACT
WORK OF THE GENERAL CONSTRUCTION CONTRACT INCLUDES, BUT IS NOT LIMITED TO, THE REMAINING WORK NOT IDENTIFIED AS WORK UNDER OTHER CONTRACTS.

B. MECHANICAL CONTRACT
WORK OF THE MECHANICAL CONTRACT INCLUDES, BUT IS NOT LIMITED TO, SUPPLYING AND INSTALLING ALL MECHANICAL EQUIPMENT AND CONNECTIONS TO EQUIPMENT FURNISHED BY MECHANICAL CONTRACT AND ELECTRICAL CONTRACT. MECHANICAL EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO: FURNACES AND CONDENSERS, KITCHEN AND BATH EXHAUST FANS, THERMOSTATS AND CONTROLS, ETC.

PRE-CONSTRUCTION CONFERENCE AND NOTICE TO PROCEED
(A)WITHIN TEN CALENDAR DAYS OF CONTRACT EXECUTION, AND PRIOR TO THE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL ATTEND A PRECONSTRUCTION CONFERENCE WITH REPRESENTATIVES OF THE PHA, ITS ARCHITECT, AND OTHER INTERESTED PARTIES CONVENED BY THE PHA. THE CONFERENCE WILL SERVE TO ACQUAINT THE PARTICIPANTS WITH THE GENERAL PLAN OF THE CONSTRUCTION OPERATION AND ALL OTHER REQUIREMENTS OF THE CONTRACT. THE PHA WILL PROVIDE THE CONTRACTOR WITH THE DATE, TIME, AND PLACE OF THE CONFERENCE.
(B)THE CONTRACTOR SHALL BEGIN WORK UPON RECEIPT OF A WRITTEN NOTICE TO PROCEED FROM THE CONTRACTING OFFICER OR DESIGNEE. THE CONTRACTOR SHALL NOT BEGIN WORK PRIOR TO RECEIVING SUCH NOTICE.

CONSTRUCTION PROGRESS
(A) THE CONTRACTOR SHALL, WITHIN FIVE DAYS AFTER THE WORK COMMENCES ON THE CONTRACT OR ANOTHER PERIOD OF TIME DETERMINED BY THE CONTRACTING OFFICER, PREPARE AND SUBMIT TO THE CONTRACTING OFFICER FOR APPROVAL THREE COPIES OF A PRACTICABLE SCHEDULE SHOWING THE ORDER IN WHICH THE CONTRACTOR PROPOSES TO PERFORM THE WORK, AND THE DATES ON WHICH THE CONTRACTOR CONTEMPLATES STARTING AND COMPLETING THE SEVERAL SALIENT FEATURES OF THE WORK(INCLUDING ACQUIRING LABOR, MATERIALS, AND EQUIPMENT). THE SCHEDULE SHALL BE IN THE FORM OF A PROGRESS CHART OF SUITABLE SCALE TO INDICATE APPROPRIATELY THE PERCENTAGE OF WORK SCHEDULED FOR COMPLETION BY ANY GIVEN DATE DURING THE PERIOD. IF THE CONTRACTOR FAILS TO SUBMIT A SCHEDULE WITHIN THE TIME PRESCRIBED, THE CONTRACTING OFFICER MAY WITHHOLD APPROVAL OF PROGRESS PAYMENTS OR TAKE OTHER REMEDIES UNDER THE CONTRACT UNTIL THE CONTRACTOR SUBMITS THE REQUIRED SCHEDULE.
(B) THE CONTRACTOR SHALL ENTER THE ACTUAL PROGRESS ON THE CHART AS REQUIRED BY THE CONTRACTING OFFICER, AND IMMEDIATELY DELIVER THREE COPIES OF THE ANNOTATED SCHEDULE TO THE CONTRACTING OFFICER. IF THE CONTRACTING OFFICER DETERMINES, UPON THE BASIS OF INSPECTION CONDUCTED PURSUANT TO THE CLAUSE ENTITLED INSPECTION AND ACCEPTANCE OF CONSTRUCTION, HEREIN THAT THE CONTRACTOR IS NOT MEETING THE APPROVED SCHEDULE, THE CONTRACTOR SHALL TAKE STEPS NECESSARY TO IMPROVE ITS PROGRESS, INCLUDING THOSE THAT MAY BE REQUIRED BY THE CONTRACTING OFFICER, WITHOUT ADDITIONAL COST TO THE PHA. IN THIS CIRCUMSTANCE,THE CONTRACTING OFFICER MAY REQUIRE THE CONTRACTOR TO INCREASE THE NUMBER OF SHIFTS, OVERTIME OPERATIONS, DAYS OF WORK, AND/OR THE AMOUNT OF CONSTRUCTION PLANT, AND TO SUBMIT FOR APPROVAL ANY SUPPLEMENTARY SCHEDULE OR SCHEDULES IN CHART FORM AS THE CONTRACTING OFFICER DEEMS NECESSARY TO DEMONSTRATE HOW THE APPROVED RATE OF PROGRESS WILL BE REGAINED.
(C) FAILURE OF THE CONTRACTOR TO COMPLY WITH THE REQUIREMENTSOF THE CONTRACTING OFFICER UNDER THIS CLAUSE SHALL BE GROUNDS FOR A DETERMINATION BY THE CONTRACTING OFFICER THAT THE CONTRACTOR IS NOT PROSECUTING THE WORK WITH SUFFICIENT DILIGENCE TO ENSURE COMPLETION WITHIN THE TIME SPECIFIED IN THE CONTRACT. UPON MAKING THIS DETERMINATION, THE CONTRACTING OFFICER MAY TERMINATE THE CONTRACTOR'S RIGHT TO PROCEED WITH THE WORK, OR ANY SEPARABLE PART OF IT, IN ACCORDANCE WITH THE DEFAULT CLAUSE OF THIS CONTRACT.

SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK
(A) THE CONTRACTOR ACKNOWLEDGES THAT IT HAS TAKEN STEPS REASONABLY NECESSARY TO ASCERTAIN THE NATURE AND LOCATION OF THE WORK, AND THAT IT HAS INVESTIGATED AND SATISFIED ITSELF AS TO THE GENERAL AND LOCAL CONDITIONS WHICH CAN AFFECT THE WORK OR ITS COST, INCLUDING BUT NOT LIMITED TO, (1) CONDITIONS BEARING UPON TRANSPORTATION, DISPOSAL, HANDLING, AND STORAGE OF MATERIALS; (2) THE AVAILABILITY OF LABOR, WATER,ELECTRIC POWER, AND ROADS;(3) UNCERTAINTIES OF WEATHER, RIVER STAGES, TIDES, OR SIMILAR PHYSICAL CONDITIONS AT THE SITE; (4) THE CONFORMATION AND CONDITIONS OF THE GROUND; AND (5) THE CHARACTER OF EQUIPMENT AND FACILITIES NEEDED PRELIMINARY TO AND DURING WORK PERFORMANCE. THE CONTRACTOR ALSO ACKNOWLEDGES THAT IT HAS SATISFIED ITSELF AS TO THE CHARACTER, QUALITY, AND QUANTITY OF SURFACE AND SUBSURFACE MATERIALS OR OBSTACLES TO BE ENCOUNTERED IN SO FAR AS THIS INFORMATION IS REASONABLY ASCERTAINABLE FROM AN INSPECTION OF THE SITE, INCLUDING ALL EXPLORATORY WORK DONE BY THE PHA, AS WELL AS FROM THE DRAWINGS AND SPECIFICATIONS MADE A PART OFTHIS CONTRACT. ANY FAILURE OF THE CONTRACTOR TO TAKE THE ACTIONS DESCRIBED AND ACKNOWLEDGED IN THIS PARAGRAPH WILL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ESTIMATING PROPERLY THE DIFFICULTY AND COST OF SUCCESSFULLY PERFORMING THE WORK, OR FOR PROCEEDING TO SUCCESSFULLY PERFORM THE WORK WITHOUT ADDITIONAL EXPENSE TO THE PHA.
(B) THE PHA ASSUMES NO RESPONSIBILITY FOR ANY CONCLUSIONS OR INTERPRETATIONS MADE BY THE CONTRACTOR BASED ON THE INFORMATION MADE AVAILABLE BY THE PHA. NOR DOES THEPHA ASSUME RESPONSIBILITY FOR ANY UNDERSTANDING REACHED OR REPRESENTATION MADE CONCERNING CONDITIONS WHICH CAN AFFECT THE WORK BY ANY OF ITS OFFICERS OR AGENTS BEFORE THE EXECUTION OF THIS CONTRACT, UNLESS THAT UNDERSTANDING OR REPRESENTATION IS EXPRESSLY STATED IN THIS CONTRACT.

DIFFERING SITE CONDITIONS
(A)THE CONTRACTOR SHALL PROMPTLY, AND BEFORE THE CONDITIONS ARE DISTURBED, GIVE A WRITTEN NOTICE TO THE CONTRACTING OFFICER OF (1) SUBSURFACE OR LATENT PHYSICAL CONDITIONS AT THE SITE WHICH DIFFER MATERIALLY FROM THOSE INDICATED IN THIS CONTRACT, OR (2)UNKNOWN PHYSICAL CONDITIONS AT THE SITE(S), OF AN UNUSUAL NATURE, WHICH DIFFER MATERIALLY FROM THOSE ORDINARILY ENCOUNTERED AND GENERALLY RECOGNIZED AS INHERING IN WORK OF THE CHARACTER PROVIDED FOR IN THE CONTRACT.
(B)THE CONTRACTING OFFICER SHALL INVESTIGATE THE SITE CONDITIONS PROMPTLY AFTER RECEIVING THE NOTICE. WORK SHALL NOT PROCEED AT THE AFFECTED SITE, EXCEPT AT THE CONTRACTOR'S RISK, UNTIL THE CONTRACTING OFFICER HAS PROVIDED WRITTEN INSTRUCTIONS TO THE CONTRACTOR. IF THE CONDITIONS DO MATERIALLY SO DIFFER AND CAUSE AN INCREASE OR DECREASE IN THE CONTRACTOR'S COST OF, OR THE TIME REQUIRED FOR, PERFORMING ANY PART OF THE WORK UNDER THIS CONTRACT, WHETHER OR NOT CHANGED AS A RESULT OF THE CONDITIONS, THE CONTRACTOR SHALL FILE A CLAIM IN WRITING TO THE PHA WITHIN TEN DAYS AFTER RECEIPT OF SUCH INSTRUCTIONS AND, IN ANY EVENT, BEFORE PROCEEDING WITH THE WORK. ANEQUITABLE ADJUSTMENT IN THE CONTRACT PRICE, THE DELIVERY SCHEDULE, OR BOTH SHALL BE MADE UNDER THIS CLAUSE ANDTHE CONTRACT MODIFIED IN WRITING ACCORDINGLY.
(C)NO REQUEST BY THECONTRACTOR FOR AN EQUITABLE ADJUSTMENT TO THE CONTRACT UNDER THIS CLAUSE SHALL BE ALLOWED, UNLESS THE CONTRACTOR HAS GIVEN THE WRITTEN NOTICE REQUIRED; PROVIDED, THAT THE TIME PRESCRIBED IN (A) ABOVE FORGIVING WRITTEN NOTICE MAY BE EXTENDED BY THE CONTRACTING OFFICER.
(D)NO REQUEST BY THE CONTRACTOR FOR AN EQUITABLE ADJUSTMENTTO THE CONTRACT FOR DIFFERING SITE CONDITIONS SHALL BE ALLOWED IF MADE AFTER FINAL PAYMENT UNDER THIS CONTRACT.

SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION
(A) THE CONTRACTOR SHALL KEEP ON THE WORK SITE A COPY OF THE DRAWINGS AND SPECIFICATIONS AND SHALL AT ALL TIMES GIVE THE CONTRACTING OFFICER ACCESS THERETO. ANYTHING MENTIONED IN THE SPECIFICATIONS AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS, SHALL BE OF LIKE EFFECT AS IF SHOWN OR MENTIONED IN BOTH. IN CASE OF DIFFERENCE BETWEEN DRAWINGS AND SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN. IN CASE OF DISCREPANCY IN THE FIGURES, IN THE DRAWINGS, OR IN THE SPECIFICATIONS, THE MATTER SHALL BE PROMPTLY SUBMITTED TO THE CONTRACTING OFFICER, WHO SHALL PROMPTLY MAKE A DETERMINATION IN WRITING. ANY ADJUSTMENTBY THE CONTRACTOR WITHOUT SUCH A DETERMINATION SHALL BE ATITS OWN RISK AND EXPENSE. THE CONTRACTING OFFICER SHALLFURNISH FROM TIME TO TIME SUCH DETAILED DRAWINGS AND OTHER INFORMATION AS CONSIDERED NECESSARY, UNLESS OTHERWISE PROVIDED.
(B)WHEREVER IN THE SPECIFICATIONS OR UPON THE DRAWINGS THE WORDS "DIRECTED", "REQUIRED", "ORDERED", "DESIGNATED","PRESCRIBED", OR WORDS OF LIKE IMPORT ARE USED, IT SHALL BE UNDERSTOOD THAT THE"DIRECTION", "REQUIREMENT", "ORDER","DESIGNATION", OR "PRESCRIPTION", OF THE CONTRACTING OFFICER IS INTENDED AND SIMILARLY THE WORDS "APPROVED", "ACCEPTABLE","SATISFACTORY", OR WORDS OF LIKE IMPORT SHALL MEAN "APPROVED BY", OR "ACCEPTABLE TO", OR "SATISFACTORY TO" THE CONTRACTING OFFICER, UNLESS OTHERWISE EXPRESSLY STATED.
(C)WHERE "AS SHOWN" "AS INDICATED", "AS DETAILED", OR WORDS OF SIMILAR IMPORT ARE USED, IT SHALL BE UNDERSTOOD THAT THE REFERENCE IS MADE TO THE DRAWINGS ACCOMPANYING THIS CONTRACT UNLESS STATED OTHERWISE. THE WORD "PROVIDED" AS USED HEREIN SHALL BE UNDERSTOOD TO MEAN "PROVIDE COMPLETE IN PLACE" THAT IS "FURNISHED AND INSTALLED".
(D)"SHOP DRAWINGS" MEANS DRAWINGS, SUBMITTED TO THE PHA BY THE CONTRACTOR, SUBCONTRACTOR, OR ANY LOWER TIER SUBCONTRACTOR, SHOWING IN DETAIL (1) THE PROPOSED FABRICATION AND ASSEMBLY OF STRUCTURAL ELEMENTS AND (2) THE INSTALLATION(I.E., FORM, FIT, AND ATTACHMENT DETAILS) OF MATERIALS OF EQUIPMENT. IT INCLUDES DRAWINGS, DIAGRAMS, LAYOUTS,SCHEMATICS, DESCRIPTIVE LITERATURE, ILLUSTRATIONS, SCHEDULES,PERFORMANCE AND TEST DATA, AND SIMILAR MATERIALS FURNISHED BY THE CONTRACTOR TO EXPLAIN IN DETAIL SPECIFIC PORTIONS OF THE WORK REQUIRED BY THE CONTRACT. THE PHA MAY DUPLICATE, USE, AND DISCLOSE IN ANY MANNER AND FOR ANY PURPOSE SHOP DRAWINGS DELIVERED UNDER THIS CONTRACT.
(E)IF THIS CONTRACT REQUIRES SHOP DRAWINGS, THE CONTRACTOR SHALL COORDINATE ALL SUCH DRAWINGS, AND REVIEW THEM FOR ACCURACY, COMPLETENESS, AND COMPLIANCE WITH OTHER CONTRACT REQUIREMENTS AND SHALL INDICATE ITS APPROVAL THEREON AS EVIDENCE OF SUCH COORDINATION AND REVIEW. SHOP DRAWINGS SUBMITTED TO THE CONTRACTING OFFICER WITHOUT EVIDENCE OF THE CONTRACTOR'S APPROVAL MAY BE RETURNED FOR RESUBMISSION.THE CONTRACTING OFFICER WILL INDICATE AN APPROVAL OR DISAPPROVAL OF THE SHOP DRAWINGS AND IF NOT APPROVED AS SUBMITTED SHALL INDICATE THE PHA'S REASONS THEREFORE. ANYWORK DONE BEFORE SUCH APPROVAL SHALL BE AT THE CONTRACTOR'S RISK. APPROVAL BY THE CONTRACTING OFFICER SHALL NOT RELIEVE THECONTRACTOR FROM RESPONSIBILITY FOR ANY ERRORS OR OMISSIONS IN SUCH DRAWINGS, NOR FROM RESPONSIBILITY FOR COMPLYING WITH THE REQUIREMENTS OF THIS CONTRACT, EXCEPT WITH RESPECT TO VARIATIONS DESCRIBED AND APPROVED IN ACCORDANCE WITH (F)BELOW.
(F)IF SHOP DRAWINGS SHOW VARIATIONS FROM THE CONTRACT REQUIREMENTS, THE CONTRACTOR SHALL DESCRIBE SUCH VARIATIONS IN WRITING, SEPARATE FROM THE DRAWINGS, AT THE TIME OF SUBMISSION. IF THE ARCHITECT APPROVES ANY SUCH VARIATION AND THE CONTRACTING OFFICER CONCURS, THE CONTRACTING OFFICER SHALL ISSUE AN APPROPRIATE MODIFICATION TO THE CONTRACT, EXCEPT THAT,IF THE VARIATION IS MINOR OR DOES NOT INVOLVE A CHANGE IN PRICE OR IN TIME OF PERFORMANCE, A MODIFICATION NEED NOT BE ISSUED.(G)IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE TIMELY REQUESTS OF THE PHA FOR SUCH LARGE SCALE AND FULL SIZE DRAWINGS, COLOR SCHEMES, AND OTHER ADDITIONAL INFORMATION,NOT ALREADY IN HIS POSSESSION, WHICH SHALL BE REQUIRED IN THE PLANNING AND PRODUCTION OF THE WORK. SUCH REQUESTS MAY BE SUBMITTED AS THE NEED ARISES, BUT EACH SUCH REQUEST SHALL BE FILED IN AMPLE TIME TO PERMIT APPROPRIATE ACTION TO BE TAKEN BY ALL PARTIES INVOLVED SO AS TO AVOID DELAY.
(H)THE CONTRACTOR SHALL SUBMIT TO THE CONTRACTING OFFICER FOR APPROVAL FOUR COPIES (UNLESS OTHERWISE INDICATED) OF ALL SHOP DRAWINGS AS CALLED FOR UNDER THE VARIOUS HEADINGS OF THESE SPECIFICATIONS. THREE SETS (UNLESS OTHERWISE INDICATED) OF ALL SHOP DRAWINGS, WILL BE RETAINED BY THE PHA AND ONE SET WILL BE RETURNED TO THE CONTRACTOR. AS REQUIRED BY THE CONTRACTING OFFICER, THE CONTRACTOR, UPONCOMPLETING THE WORK UNDER THIS CONTRACT, SHALL FURNISH A COMPLETE SET OF ALL SHOP DRAWINGS AS FINALLY APPROVED.THESE DRAWINGS SHALL SHOW ALL CHANGES AND REVISION SMADE UP TO THE TIME THE WORK IS COMPLETED AND ACCEPTED.
(I)THIS CLAUSE SHALL BE INCLUDED IN ALL SUBCONTRACTS AT ANY TIER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL SHOP DRAWINGS PREPARED BY SUBCONTRACTORS ARE SUBMITTED TO THE CONTRACTING OFFICER.

AS-BUILT DRAWINGS
(A)"AS-BUILTDRAWINGS," AS USED IN THIS CLAUSE, MEANS DRAWINGS SUBMITTED BY THE CONTRACTOR OR SUBCONTRACTOR AT ANY TIER TO SHOW THE CONSTRUCTION OF A PARTICULAR STRUCTURE OR WORK AS ACTUALLY COMPLETED UNDER THE CONTRACT. "AS-BUILT DRAWINGS" SHALL BE SYNONYMOUS WITH "RECORD DRAWINGS."
(B)AS REQUIRED BY THE CONTRACTING OFFICER, THE CONTRACTOR SHALL PROVIDE THE CONTRACTING OFFICER ACCURATE INFORMATIONTO BE USED IN THE PREPARATION OF PERMANENT AS-BUILTDRAWINGS. FOR THIS PURPOSE, THE CONTRACTOR SHALL RECORD ON ONE SET OF CONTRACT DRAWINGS ALL CHANGES FROM THE INSTALLATIONS ORIGINALLY INDICATED, AND RECORD FINAL LOCATIONSOF UNDERGROUND LINES BY DEPTH FROM FINISH GRADE AND BY ACCURATE HORIZONTAL OFFSET DISTANCES TO PERMANENT SURFACE IMPROVEMENTS SUCH AS BUILDINGS, CURBS, OR EDGES OF WALKS.
(C)THIS CLAUSE SHALL BE INCLUDED IN ALL SUBCONTRACTS AT ANY TIER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL AS-BUILT DRAWINGS PREPARED BY SUBCONTRACTORS ARE SUBMITTED TO THE CONTRACTING OFFICER.

MATERIAL AND WORKMANSHIP
(A)ALL EQUIPMENT, MATERIAL, AND ARTICLES FURNISHED UNDER THIS CONTRACT SHALL BE NEW AND OF THE MOST SUITABLE GRADE FORTHE PURPOSE INTENDED, UNLESS OTHERWISE SPECIFICALLY PROVIDED IN THIS CONTRACT. REFERENCES IN THE CONTRACT TO EQUIPMENT, MATERIAL, ARTICLES, OR PATENTED PROCESSES BY TRADE NAME, MAKE, OR CATALOG NUMBER, SHALL BE REGARDED AS ESTABLISHING A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION. THE CONTRACTOR MAY, AT ITS OPTION, USE ANY EQUIPMENT, MATERIAL, ARTICLE, ORPROCESS THAT, IN THE JUDGMENT OF, AND AS APPROVED BY THE CONTRACTING OFFICER, IS EQUAL TO THAT NAMED IN THE SPECIFICATIONS, UNLESS OTHERWISE SPECIFICALLY PROVIDED IN THIS CONTRACT.
(B)APPROVAL OF EQUIPMENT AND MATERIALS.
(1) THE CONTRACTOR SHALL OBTAIN THE CONTRACTING OFFICER'S APPROVAL OF THE MACHINERY AND MECHANICAL AND OTHER EQUIPMENT TO BE INCORPORATED INTO THE WORK. WHEN REQUESTING APPROVAL, THE CONTRACTOR SHALL FURNISH TO THE CONTRACTING OFFICER THE NAME OF THE MANUFACTURER, THE MODEL NUMBER, AND OTHER INFORMATION CONCERNING THE PERFORMANCE, CAPACITY, NATURE, AND RATING OF THE MACHINERY AND MECHANICAL AND OTHER EQUIPMENT.WHEN REQUIRED BY THIS CONTRACT OR BY THE CONTRACTINGOFFICER, THE CONTRACTOR SHALL ALSO OBTAIN THE CONTRACTING OFFICER'S APPROVAL OF THE MATERIAL ORARTICLES WHICH THE CONTRACTOR CONTEMPLATES INCORPORATING INTO THE WORK. WHEN REQUESTING APPROVAL, THE CONTRACTOR SHALL PROVIDE FULL INFORMATION CONCERNING THE MATERIAL OR ARTICLES. MACHINERY,
EQUIPMENT, MATERIAL, AND ARTICLES THAT DO NOT HAVE THE REQUIRED APPROVAL SHALL BE INSTALLED OR USED AT THE RISK OF SUBSEQUENT REJECTION.
(2) WHEN REQUIRED BY THE SPECIFICATIONS OR THE CONTRACTING OFFICER, THE CONTRACTOR SHALL SUBMIT APPROPRIATELY MARKED SAMPLES (AND CERTIFICATES RELATED TO THEM) FOR APPROVAL AT THE CONTRACTOR'S
EXPENSE, WITH ALL SHIPPING CHARGES PREPAID. THE CONTRACTOR SHALL LABEL, OR OTHERWISE PROPERLY MARK ONTHE CONTAINER, THE MATERIAL OR PRODUCT REPRESENTED, ITS PLACE OF ORIGIN, THE NAME OF THE PRODUCER, THE CONTRACTOR'S NAME, AND THE IDENTIFICATION OF THE CONSTRUCTION PROJECT FOR WHICH THE MATERIAL OR PRODUCTIS INTENDED TO BE USED.
(3) CERTIFICATES SHALL BE SUBMITTED IN TRIPLICATE, DESCRIBING EACH SAMPLE SUBMITTED FOR APPROVAL AND CERTIFYING THAT THE MATERIAL, EQUIPMENT OR ACCESSORY COMPLIES WITH CONTRACT REQUIREMENTS. THE CERTIFICATES SHALL INCLUDE THE NAME AND BRAND OF THE PRODUCT, NAME OFMANUFACTURER, AND THE LOCATION WHERE PRODUCED.
(4) APPROVAL OF A SAMPLE SHALL NOT CONSTITUTE A WAIVER OFTHE PHA RIGHT TO DEMAND FULL COMPLIANCE WITH CONTRACT REQUIREMENTS. MATERIALS, EQUIPMENT AND ACCESSORIES MAY BE REJECTED FOR CAUSE EVEN THOUGH SAMPLES HAVE BEEN APPROVED.
(5) WHEREVER MATERIALS ARE REQUIRED TO COMPLY WITH RECOGNIZED STANDARDS OR SPECIFICATIONS, SUCH SPECIFICATIONS SHALL BE ACCEPTED AS ESTABLISHING THE TECHNICAL QUALITIES AND TESTING METHODS, BUT SHALL NOT GOVERN THE NUMBER OF TESTS REQUIRED TO BE MADE NOR MODIFY OTHER CONTRACT REQUIREMENTS. THE CONTRACTING OFFICER MAY REQUIRE LABORATORY TEST REPORTS ON ITEMS SUBMITTED FOR APPROVAL OR MAY APPROVE MATERIALS ON THE BASIS OF DATA SUBMITTED IN CERTIFICATES WITH SAMPLES. CHECK TESTS WILL BE MADE ON MATERIALS
DELIVERED FOR USE ONLY AS FREQUENTLY AS THE CONTRACTING OFFICER DETERMINES NECESSARY TO INSURE COMPLIANCE OF MATERIALS WITH THE SPECIFICATIONS. THE CONTRACTOR WILL ASSUME ALL COSTS OF RETESTING MATERIALS WHICH FAIL TO MEET CONTRACT REQUIREMENTS AND/OR TESTING MATERIAL SOFFERED IN SUBSTITUTION FOR THOSE FOUND DEFICIENT.
(6) AFTER APPROVAL, SAMPLES WILL BE KEPT IN THE PROJECT OFFICE UNTIL COMPLETION OF WORK. THEY MAY BE BUILT INTO THE WORK AFTER A SUBSTANTIAL QUANTITY OF THE MATERIALSTHEY REPRESENT HAS BEEN BUILT IN AND ACCEPTED.
(C) REQUIREMENTS CONCERNING LEAD-BASED PAINT. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS CONCERNING LEAD-BASED PAINT CONTAINED IN THE LEAD-BASED PAINT POISONING PREVENTION ACT (42 U.S.C. 4821-4846) AS IMPLEMENTED BY 24 CFR PART 35.

PERMITS AND CODES
(A)THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALLAPPLICABLE LAWS, ORDINANCES, CODES, RULES AND REGULATIONS. NOTWITHSTANDING THE REQUIREMENT OF THE CONTRACTOR TO COMPLY WITH THE DRAWINGS AND SPECIFICATIONS IN THE CONTRACT, ALL WORK INSTALLED SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS AS AMENDED BY ANY WAIVERS. BEFORE INSTALLING THE WORK, THE CONTRACTOR SHALL EXAMINE THE DRAWINGS AND THE SPECIFICATIONS FOR COMPLIANCE WITH APPLICABLE CODES AND REGULATIONS BEARING ON THE WORK AND SHALL IMMEDIATELY REPORT ANY DISCREPANCY IT MAY DISCOVER TO THE CONTRACTING OFFICER. WHERE THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS FAIL TO COMPLY WITH THE APPLICABLE CODE OR REGULATION, THE CONTRACTING OFFICER SHALL MODIFY THE CONTRACT BY CHANGE ORDER PURSUANT TO THE CLAUSE ENTITLED CHANGES HEREIN TO CONFORM TO THE CODE OR REGULATION.
(B) THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES,AND LICENSES NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK. WHERE THE PHA CAN ARRANGE FORTHE ISSUANCE OF ALL OR PART OF THESE PERMITS, FEES AND LICENSES, WITHOUT COST TO THE CONTRACTOR, THE CONTRACT AMOUNT SHALL BE REDUCED ACCORDINGLY.

HEALTH, SAFETY AND ACCIDENT PREVENTION
(A) IN PERFORMING THIS CONTRACT, THE CONTRACTOR SHALL: (1)ENSURE THAT NO LABORER OR MECHANIC SHALL BE REQUIRED TO WORK IN SURROUNDINGS OR UNDER WORKING CONDITIONS WHICH ARE UNSANITARY, HAZARDOUS, OR DANGEROUS TO HIS/HER HEALTH AND/OR SAFETY AS DETERMINED UNDER CONSTRUCTION SAFETY AND HEALTHSTANDARDS PROMULGATED BY THE SECRETARY OF LABOR BY REGULATION; (2)PROTECT THE LIVES, HEALTH, AND SAFETY OF OTHER PERSONS; (3)PREVENT DAMAGE TO PROPERTY, MATERIALS, SUPPLIES, AND EQUIPMENT; AND, (4)AVOID WORK INTERRUPTIONS.
(B) FOR THESE PURPOSES, THE CONTRACTOR SHALL: (1)COMPLY WITH REGULATIONS AND STANDARDS ISSUED BY THE SECRETARY OF LABOR AT 29 CFR PART 1926. FAILURE TO COMPLY MAY RESULT IN IMPOSITION OF SANCTIONS PURSUANT TO THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT(PUBLIC LAW 91-54, 83 STAT. 96), 40 U.S.C. 3701 ETSEQ.; AND (2)INCLUDE THE TERMS OF THIS CLAUSE IN EVERY SUBCONTRACT SO THAT SUCH TERMS WILL BE BINDING ON EACH SUBCONTRACTOR.
(C) THE CONTRACTOR SHALL MAINTAIN AN ACCURATE RECORD OF EXPOSURE DATA ON ALL ACCIDENTS INCIDENT TO WORK PERFORMED UNDER THIS CONTRACT RESULTING IN DEATH, TRAUMATIC INJURY,OCCUPATIONAL DISEASE, OR DAMAGE TO PROPERTY, MATERIALS,SUPPLIES, OR EQUIPMENT, AND SHALL REPORT THIS DATA IN THE MANNER PRESCRIBED BY 29 CFR PART1904.
(D) THE CONTRACTING OFFICER SHALL NOTIFY THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THESE REQUIREMENTS AND OF THE CORRECTIVE ACTION REQUIRED. THIS NOTICE, WHEN DELIVERED TOTHE CONTRACTOR OR THE CONTRACTOR'S REPRESENTATIVE AT THE SITE OF THE WORK, SHALL BE DEEMED SUFFICIENT NOTICE OF THE NON COMPLIANCE AND CORRECTIVE ACTION REQUIRED. AFTER RECEIVING THE NOTICE, THE CONTRACTOR SHALL IMMEDIATELY TAKE CORRECTIVE ACTION. IF THE CONTRACTOR FAILS OR REFUSES TO TAKE CORRECTIVE ACTION PROMPTLY, THE CONTRACTING OFFICER MAY ISSUE ANORDER STOPPING ALL OR PART OF THE WORK UNTIL SATISFACTORY CORRECTIVE ACTION HAS BEEN TAKEN. THE CONTRACTOR SHALL NOT BASE ANY CLAIM OR REQUEST FOR EQUITABLE ADJUSTMENT FOR ADDITIONAL TIME OR MONEY ON ANY STOP ORDER ISSUED UNDER THESE CIRCUMSTANCES.
(E) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS SUBCONTRACTORS' COMPLIANCE WITH THE PROVISIONS OF THIS CLAUSE. THE CONTRACTOR SHALL TAKE SUCH ACTION WITH RESPECT TO ANY SUBCONTRACT AS THE PHA, THE SECRETARY OF HOUSING AND URBAN DEVELOPMENT, OR THE SECRETARY OF LABOR SHALL DIRECT AS A MEANS OF ENFORCING SUCH PROVISIONS.

TEMPORARY HEATING
THE MECHANICAL CONTRACTOR SHALL PROVIDE AND PAY FOR TEMPORARY HEATING, COVERING, AND ENCLOSURES NECESSARY TO PROPERLY PROTECT ALL WORK AND MATERIALS AGAINST DAMAGE BY DAMPNESS AND COLD, TO DRY OUT THE WORK, AND TO FACILITATE THE COMPLETION OF THE WORK. ANY PERMANENT HEATING EQUIPMENT USED SHALL BE TURNED OVER TO THE PHA IN THE CONDITION AND AT THE TIME REQUIRED BY THE SPECIFICATIONS.

AVAILABILTIY AND USE OF UTILITY SERVICES
(A) THE PHA SHALL MAKE ALL REASONABLY REQUIRED AMOUNTS OF UTILITIES AVAILABLE TO THE CONTRACTOR FROM EXISTING OUTLETS AND SUPPLIES, AS SPECIFIED IN THE CONTRACT. UNLESS OTHERWISE PROVIDED IN THE CONTRACT, THE AMOUNT OF EACH UTILITY SERVICE CONSUMED SHALL BE CHARGED TO OR PAID FOR BY THE CONTRACTOR AT PREVAILING RATES CHARGED TO THE PHA OR,WHERE THE UTILITY IS PRODUCED BY THE PHA, AT REASONABLE RATES DETERMINED BY THE CONTRACTING OFFICER. THE CONTRACTOR SHALL CAREFULLY CONSERVE ANY UTILITIES FURNISHED WITHOUT CHARGE.
(B) THE CONTRACTOR, AT ITS EXPENSE AND IN A MANNER SATISFACTORY TO THE CONTRACTING OFFICER, SHALL INSTALL AND MAINTAIN ALL NECESSARY TEMPORARY CONNECTIONS AND DISTRIBUTION LINES, AND ALL METERS REQUIRED TO MEASURE THE AMOUNT OF EACH UTILITY USED FOR THE PURPOSE OF DETERMINING CHARGES. BEFORE FINAL ACCEPTANCE OF THE WORK BY THE PHA, THE CONTRACTOR SHALL REMOVE ALL THE TEMPORARY CONNECTIONS, DISTRIBUTION LINES, METERS, AND ASSOCIATED PARAPHERNALIA.

PROTECTION OF EXISTING VEGETATION, STRUCTURES,EQUIPMENT, UTILITIES, AND IMPROVEMENTS
(A) THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL STRUCTURES,EQUIPMENT, AND VEGETATION (SUCH AS TREES, SHRUBS, ANDGRASS) ON OR ADJACENT TO THE WORKSITE, WHICH ARE NOT TO BE REMOVED UNDER THIS CONTRACT, AND WHICH DO NOT UNREASONABLY INTERFERE WITH THE WORK REQUIRED UNDER THIS CONTRACT.
(B) THE CONTRACTOR SHALL ONLY REMOVE TREES WHEN SPECIFICALLY AUTHORIZED TO DO SO, AND SHALL AVOID DAMAGING VEGETATION THAT WILL REMAIN IN PLACE. IF ANY LIMBS OR BRANCHES OF TREES ARE BROKEN DURING PERFORMANCE OF THIS CONTRACT, OR BY THE CARELESS OPERATION OF EQUIPMENT, OR BY WORKMEN, THE CONTRACTOR SHALL TRIM THOSE LIMBS OR BRANCHES WITH A CLEANCUT AND PAINT THE CUT WITH A TREE-PRUNING COMPOUND AS DIRECTED BY THE CONTRACTING OFFICER.
(C) THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS AND UTILITIES (1) AT OR NEAR THE WORK SITE AND (2) ON ADJACENT PROPERTY OF A THIRD PARTY, THE LOCATIONS OF WHICH ARE MADE KNOWN TO OR SHOULD BE KNOWN BY THE CONTRACTOR. PRIOR TO DISTURBING THE GROUND AT THE CONSTRUCTION SITE, THE CONTRACTOR SHALL ENSURE THAT ALL UNDERGROUND UTILITY LINES ARE CLEARLY MARKED.
(D) THE CONTRACTOR SHALL SHORE UP, BRACE, UNDERPIN, SECURE,AND PROTECT AS NECESSARY ALL FOUNDATIONS AND OTHER PARTS OF EXISTING STRUCTURES ADJACENT TO, ADJOINING, AND IN THE VICINITY OF THE SITE, WHICH MAY BE AFFECTED BY THE EXCAVATIONS OR OTHER OPERATIONS CONNECTED WITH THE CONSTRUCTION OF THE PROJECT.
(E) ANY EQUIPMENT TEMPORARILY REMOVED AS A RESULT OF WORK UNDER THIS CONTRACT SHALL BE PROTECTED, CLEANED, AND REPLACED IN THE SAME CONDITION AS AT THE TIME OF AWARD OFTHIS CONTRACT.
(F)NEW WORK WHICH CONNECTS TO EXISTING WORK SHALL CORRESPOND IN ALL RESPECTS WITH THAT TO WHICH IT CONNECTS AND/OR BE SIMILAR TO EXISTING WORK UNLESS OTHERWISE REQUIRED BY THE SPECIFICATIONS.
(G)NO STRUCTURAL MEMBERS SHALL BE ALTERED OR IN ANY WAY WEAKENED WITHOUT THE WRITTEN AUTHORIZATION OF THE CONTRACTING OFFICER, UNLESS SUCH WORK IS CLEARLY SPECIFIED IN THE PLANS OR SPECIFICATIONS.
(H)IF THE REMOVAL OF THE EXISTING WORK EXPOSES DISCOLORED OR UNFINISHED SURFACES, OR WORK OUT OF ALIGNMENT, SUCH SURFACES SHALL BE REFINISHED, OR THE MATERIAL REPLACED AS NECESSARY TO MAKE THE CONTINUOUS WORK UNIFORM AND HARMONIOUS. THIS, HOWEVER, SHALL NOT BE CONSTRUED TO REQUIRE THE REFINISHING OR RECONSTRUCTION OF DISSIMILAR FINISHES PREVIOUSLY EXPOSED, OR FINISHED SURFACES IN GOOD CONDITION, BUT IN DIFFERENT PLANES OR ON DIFFERENT LEVELS WHEN BROUGHT TOGETHER BY THE REMOVAL OF INTERVENING WORK, UNLESS SUCH REFINISHING OR RECONSTRUCTION IS SPECIFIED IN THE PLANS OR SPECIFICATIONS.
(I)THE CONTRACTOR SHALL GIVE ALL REQUIRED NOTICES TO ANY ADJOINING OR ADJACENT PROPERTY OWNER OR OTHER PARTY BEFORE THE COMMENCEMENT OF ANY WORK.
(J)THE CONTRACTOR SHALL INDEMNIFY AND SAVE HARMLESS THE PHA FROM ANY DAMAGES ON ACCOUNT OF SETTLEMENT OR THE LOSS OF LATERAL SUPPORT OF ADJOINING PROPERTY, ANY DAMAGES FROM CHANGES IN TOPOGRAPHY AFFECTING DRAINAGE, AND FROM ALL LOSS OR EXPENSE AND ALL DAMAGES FOR WHICH THE PHA MAY BECOME LIABLE IN CONSEQUENCE OF SUCH INJURY OR DAMAGE TO ADJOINING AND ADJACENT STRUCTURES AND THEIR PREMISES.
(K)THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, OR IMPROVEMENTS,INCLUDING THOSE THAT ARE THE PROPERTY OF A THIRD PARTY,RESULTING FROM FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS CONTRACT OR FAILURE TO EXERCISE REASONABLE CARE IN PERFORMING THE WORK. IF THE CONTRACTOR FAILS OR REFUSES TO REPAIR THE DAMAGE PROMPTLY, THE CONTRACTING OFFICER MAY HAVE THE NECESSARY WORK PERFORMED AND CHARGE THE COST TO THE CONTRACTOR.

TEMPORARY BUILDINGS AND TRANSPORTATION OF MATERIALS
(A)TEMPORARY BUILDINGS (E.G., STORAGE SHEDS, SHOPS, OFFICES, SANITARY FACILITIES) AND UTILITIES MAY BE ERECTED BY THE CONTRACTOR ONLY WITH THE APPROVAL OF THE CONTRACTING OFFICER AND SHALL BE BUILT WITH LABOR AND MATERIALS FURNISHED BY THE CONTRACTOR WITHOUT EXPENSE TO THE PHA. THE TEMPORARY BUILDINGS AND UTILITIES SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY THE CONTRACTOR AT ITS EXPENSE UPON COMPLETION OF THE WORK. WITH THE WRITTEN CONSENT OF THE CONTRACTING OFFICER, THE BUILDINGS AND UTILITIES MAY BE ABANDONED AND NEED NOT BE REMOVED.
(B)THE CONTRACTOR SHALL, AS DIRECTED BY THE CONTRACTING OFFICER, USE ONLY ESTABLISHED ROADWAYS, OR USE TEMPORARY ROADWAYS CONSTRUCTED BY THE CONTRACTOR WHEN AND ASAUTHORIZED BY THE CONTRACTING OFFICER. WHEN MATERIALS ARE TRANSPORTED IN PROSECUTING THE WORK, VEHICLES SHALL NOT BE LOADED BEYOND THE LOADING CAPACITY RECOMMENDED BY THE MANUFACTURER OF THE VEHICLE OR PRESCRIBED BY ANY FEDERAL, STATE, OR LOCAL LAW OR REGULATION. WHEN IT IS NECESSARY TO CROSS CURBS OR SIDEWALKS, THE CONTRACTOR SHALL PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL REPAIR OR PAY FOR THE REPAIR OF ANY DAMAGED CURBS, SIDEWALKS, OR ROADS.

CLEAN AIR AND WATER
THE CONTACTOR SHALL COMPLY WITH THE CLEAN AIR ACT, ASAMENDED, 42 USC 7401 ET SEQ., THE FEDERAL WATER POLLUTION CONTROL WATER ACT, AS AMENDED, 33 U.S.C. 1251ET SEQ., AND STANDARDS ISSUED PURSUANT THERE TO IN THE FACILITIES IN WHICH THIS CONTRACT IS TO BE PERFORMED.

ENERGY EFFICIENCY
THE CONTRACTOR SHALL COMPLY WITH MANDATORY STANDARDS AND POLICIES RELATING TO ENERGY EFFICIENCY WHICH ARE CONTAINED IN THE ENERGY CONSERVATION PLAN ISSUED IN COMPLIANCE WITH THE ENERGY POLICY AND CONSERVATION ACT (PUB.L. 94-163) FOR THE STATE IN WHICH THE WORK UNDER THE CONTRACT IS PERFORMED.

INSPECTION AND ACCEPTANCE OF CONSTRUCTION
(A)DEFINITIONS. AS USED IN THIS CLAUSE- (1) "ACCEPTANCE" MEANS THE ACT OF AN AUTHORIZED REPRESENTATIVE OF THE PHA BY WHICH THE PHA APPROVES AND ASSUMES OWNERSHIP OF THE WORK PERFORMED UNDER THIS CONTRACT. ACCEPTANCE MAY BE PARTIAL OR COMPLETE. (2) "INSPECTION" MEANS EXAMINING AND TESTING THE WORK PERFORMED UNDER THE CONTRACT (INCLUDING, WHEN APPROPRIATE, RAW MATERIALS, EQUIPMENT, COMPONENTS, AND INTERMEDIATE ASSEMBLIES) TO DETERMINE WHETHER IT CONFORMS TO CONTRACT REQUIREMENTS. (3) "TESTING" MEANS THAT ELEMENT OF INSPECTION THAT DETERMINES THE PROPERTIES OR ELEMENTS, INCLUDING FUNCTIONAL OPERATION OF MATERIALS, EQUIPMENT, OR THEIR COMPONENTS, BY THE APPLICATION OF ESTABLISHED SCIENTIFIC PRINCIPLES AND PROCEDURES.
(B) THE CONTRACTOR SHALL MAINTAIN AN ADEQUATE INSPECTION SYSTEM AND PERFORM SUCH INSPECTIONS AS WILL ENSURE THAT THE WORK PERFORMED UNDER THE CONTRACT CONFORMS TO CONTRACT REQUIREMENTS. ALL WORK IS SUBJECT TO PHA INSPECTION AND TEST AT ALL PLACES AND AT ALL REASONABLE TIMES BEFORE ACCEPTANCE TO ENSURE STRICT COMPLIANCE WITH THE TERMS OF THE CONTRACT.
(C) PHA INSPECTIONS AND TESTS ARE FOR THE SOLE BENEFIT OF THE PHA AND DO NOT: (1) RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PROVIDING ADEQUATE QUALITY CONTROL MEASURES; (2) RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR LOSS OR DAMAGE OF THE MATERIAL BEFORE ACCEPTANCE; (3) CONSTITUTE OR IMPLY ACCEPTANCE; OR, (4) AFFECT THE CONTINUING RIGHTS OF THE PHA AFTER ACCEPTANCE OF THE COMPLETED WORK UNDER PARAGRAPH (J) BELOW.
(D) THE PRESENCE OR ABSENCE OF THE PHA INSPECTOR DOES NOT RELIEVE THE CONTRACTOR FROM ANY CONTRACT REQUIREMENT, NOR IS THE INSPECTOR AUTHORIZED TO CHANGE ANY TERM OR CONDITION OF THE SPECIFICATIONS WITHOUT THE CONTRACTING OFFICER'S WRITTEN AUTHORIZATION. ALL INSTRUCTIONS AND APPROVALS WITH RESPECT TO THE WORK SHALL BE GIVEN TO THECONTRACTOR BY THE CONTRACTING OFFICER.
(E) THE CONTRACTOR SHALL PROMPTLY FURNISH, WITHOUT ADDITIONAL CHARGE, ALL FACILITIES, LABOR, AND MATERIAL REASONABLY NEEDED FOR PERFORMING SUCH SAFE AND CONVENIENT INSPECTIONS AND TESTS AS MAY BE REQUIRED BY THE CONTRACTING OFFICER. THE PHA MAY CHARGE TO THECONTRACTOR ANY ADDITIONAL COST OF INSPECTION OR TEST WHEN WORK IS NOT READY AT THE TIME SPECIFIED BY THE CONTRACTOR FOR INSPECTION OR TEST, OR WHEN PRIOR REJECTION MAKES REINSPECTION OR RETEST NECESSARY. THE PHA SHALL PERFORM ALL INSPECTIONS AND TESTS IN A MANNER THAT WILL NOT UNNECESSARILY DELAY THE WORK. SPECIAL, FULL SIZE, AND PERFORMANCE TESTS SHALL BE PERFORMED AS DESCRIBED IN THE CONTRACT.
(F)THE PHA MAY CONDUCT ROUTINE INSPECTIONS OF THE CONSTRUCTION SITE ON A DAILY BASIS.
(G)THE CONTRACTOR SHALL, WITHOUT CHARGE, REPLACE OR CORRECT WORK FOUND BY THE PHA NOT TO CONFORM TO CONTRACT REQUIREMENTS, UNLESS THE PHA DECIDES THAT IT IS IN ITS INTEREST TO ACCEPT THE WORK WITH AN APPROPRIATE ADJUSTMENT IN CONTRACT PRICE. THE CONTRACTOR SHALL PROMPTLY SEGREGATE AND REMOVE REJECTED MATERIAL FROM THE PREMISES.
(H)IF THE CONTRACTOR DOES NOT PROMPTLY REPLACE OR CORRECT REJECTED WORK, THE PHA MAY (1) BY CONTRACT OR OTHERWISE, REPLACE OR CORRECT THE WORK AND CHARGE THE COST TO THE CONTRACTOR, OR (2) TERMINATE FOR DEFAULT THE CONTRACTOR'S RIGHT TO PROCEED.
(I)IF ANY WORK REQUIRING INSPECTION IS COVERED UP WITHOUT APPROVAL OF THE PHA, IT MUST, IF REQUESTED BY THE CONTRACTING OFFICER, BE UNCOVERED AT THE EXPENSE OF THE CONTRACTOR. IFAT ANY TIME BEFORE FINAL ACCEPTANCE OF THE ENTIRE WORK, THE PHA CONSIDERS IT NECESSARY OR ADVISABLE, TO EXAMINE WORK ALREADY COMPLETED BY REMOVING OR TEARING IT OUT, THE CONTRACTOR, SHALL ON REQUEST, PROMPTLY FURNISH ALL NECESSARY FACILITIES, LABOR, AND MATERIAL. IF SUCH WORK IS FOUND TO BE DEFECTIVE OR NONCONFORMING IN ANY MATERIALRESPECT DUE TO THE FAULT OF THE CONTRACTOR OR ITSSUBCONTRACTORS, THE CONTRACTOR SHALL DEFRAY ALL THE EXPENSES OF THE EXAMINATION AND OF SATISFACTORY RECONSTRUCTION. IF, HOWEVER, SUCH WORK IS FOUND TO MEET THE REQUIREMENTS OF THE CONTRACT, THE CONTRACTING OFFICER SHALL MAKE AN EQUITABLE ADJUSTMENT TO COVER THE COST OF THE EXAMINATION AND RECONSTRUCTION, INCLUDING, IF COMPLETION OF THE WORK WAS THERE BY DELAYED, AN EXTENSION OF TIME.
(J)THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER, IN WRITING, AS TO THE DATE WHEN IN ITS OPINION ALL OR A DESIGNATED PORTION OF THE WORK WILL BE SUBSTANTIALLY COMPLETED AND READY FOR INSPECTION. IF THE ARCHITECT DETERMINES THAT THE STATE OF PREPAREDNESS IS AS REPRESENTED, THE PHA WILL PROMPTLY ARRANGE FOR THE INSPECTION. UNLESS OTHERWISE SPECIFIED IN THE CONTRACT, THE PHA SHALL ACCEPT, AS SOON AS PRACTICABLE AFTER COMPLETION AND INSPECTION, ALL WORK REQUIRED BY THE CONTRACT OR THAT PORTION OF THE WORK THE CONTRACTING OFFICER DETERMINES AND DESIGNATES CAN BE ACCEPTED SEPARATELY. ACCEPTANCE SHAL LBE FINAL AND CONCLUSIVE EXCEPT FOR LATENT DEFECTS, FRAUD,GROSS MISTAKES AMOUNTING TO FRAUD, OR THE PHA'S RIGHT UNDER ANY WARRANTY OR GUARANTEE.

USE AND POSSESSION PRIOR TO COMPLETION
(A)THE PHA SHALL HAVE THE RIGHT TO TAKE POSSESSION OF OR USE ANY COMPLETED OR PARTIALLY COMPLETED PART OF THE WORK. BEFORE TAKING POSSESSION OF OR USING ANY WORK, THE CONTRACTING OFFICER SHALL FURNISH THE CONTRACTOR A LIST OF ITEMS OF WORK REMAINING TO BE PERFORMED OR CORRECTED ON THOSE PORTIONS OF THE WORK THAT THE PHA INTENDS TO TAKE POSSESSION OF OR USE. HOWEVER, FAILURE OF THE CONTRACTING OFFICER TO LIST ANY ITEM OF WORK SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR COMPLYING WITH THE TERMS OF THE CONTRACT. THE PHA'S POSSESSION OR USE SHALL NOT BE DEEMED AN ACCEPTANCE OF ANY WORK UNDER THE CONTRACT.
(B)WHILE THE PHA HAS SUCH POSSESSION OR USE, THE CONTRACTOR SHALL BE RELIEVED OF THE RESPONSIBILITY FOR (1) THE LOSS OF OR DAMAGE TO THE WORK RESULTING FROM THE PHA'S POSSESSION OR USE, NOTWITHSTANDING THE TERMS OF THE CLAUSE ENTITLED PERMITS AND CODES HEREIN; (2) ALL MAINTENANCE COSTS ON THE AREAS OCCUPIED; AND, (3)FURNISHING HEAT, LIGHT, POWER, AND WATER USED IN THE AREAS OCCUPIED WITHOUT PROPER REMUNERATION THEREFORE. IF PRIOR POSSESSION OR USE BY THE PHA DELAYS THE PROGRESS OF THE WORK OR CAUSES ADDITIONAL EXPENSE TO THE CONTRACTOR, AN EQUITABLE ADJUSTMENT SHALL BE MADE IN THE CONTRACT PRICE OR THE TIME OF COMPLETION, AND THE CONTRACT SHALL BE MODIFIED IN WRITING ACCORDINGLY.

WARRANTY OF TITLE
THE CONTRACTOR WARRANTS GOOD TITLE TO ALL MATERIALS,SUPPLIES, AND EQUIPMENT INCORPORATED IN THE WORK AND AGREES TO DELIVER THE PREMISES TOGETHER WITH ALL IMPROVEMENTS THERE ON FREE FROM ANY CLAIMS, LIENS OR CHARGES, AND AGREES FURTHER THAT NEITHER IT NOR ANY OTHER PERSON, FIRM OR CORPORATION SHALL HAVE ANY RIGHT TO A LIEN UPON THE PREMISES OR ANYTHING APPUR TENANT THERETO.

WARRANTY OF CONSTRUCTION
(A) IN ADDITION TO ANY OTHER WARRANTIES IN THIS CONTRACT, THE CONTRACTOR WARRANTS, EXCEPT ASPROVIDED IN PARAGRAPH (J)OF THIS CLAUSE, THAT WORK PERFORMED UNDER THIS CONTRACT CONFORMS TO THE CONTRACT REQUIREMENTS AND IS FREE OF ANY DEFECT IN EQUIPMENT, MATERIAL, OR WORKMANSHIP PERFORMED BY THE CONTRACTOR OR ANY SUBCONTRACTOR OR SUPPLIER AT ANY TIER. THIS WARRANTY SHALL CONTINUE FOR A PERIOD OF_ONE YEAR UNLESS OTHERWISE INDICATED FROM THE DATE OF FINAL ACCEPTANCE OFTHE WORK. IF THE PHA TAKES POSSESSION OF ANY PART OF THE WORK BEFORE FINAL ACCEPTANCE, THIS WARRANTY SHALL CONTINUE FOR A PERIOD OF ONE YEAR UNLESS OTHERWISE INDICATED FROM THE DATE THAT THE PHA TAKES POSSESSION.
(B) THE CONTRACTOR SHALL REMEDY, AT THE CONTRACTOR'S EXPENSE, ANY FAILURE TO CONFORM, OR ANY DEFECT. IN ADDITION, THE CONTRACTOR SHALL REMEDY, AT THE CONTRACTOR'S EXPENSE, ANY DAMAGE TO PHA-OWNED OR CONTROLLED REAL ORPERSONAL PROPERTY WHEN THE DAMAGE IS THE RESULT OF— (1) THE CONTRACTOR'S FAILURE TO CONFORM TO CONTRACT REQUIRE-MERITS; OR (2) ANY DEFECTS OF EQUIPMENT, MATERIAL, WORKMANSHIP OR DESIGN FURNISHED BY THE CONTRACTOR.
(C) THE CONTRACTOR SHALL RESTORE ANY WORK DAMAGED IN FULFILLING THE TERMS AND CONDITIONS OF THIS CLAUSE. THE CONTRACTOR'S WARRANTY WITH RESPECT TO WORK REPAIRED OR REPLACED WILL RUN FOR (ONE YEAR UNLESS OTHERWISEINDICATED)FROM THE DATE OF REPAIR OR REPLACEMENT.
(D) THE CONTRACTING OFFICER SHALL NOTIFY THE CONTRACTOR, IN WRITING, WITHIN A REASONABLE TIME AFTER THE DISCOVERY OFANY FAILURE, DEFECT OR DAMAGE.
HTCH(E) IF THE CONTRACTOR FAILS TO REMEDY ANY FAILURE, DEFECT, OR DAMAGE WITHIN A REASONABLE TIME AFTER RECEIPT OF NOTICE, THE PHA SHALL HAVE THE RIGHT TO REPLACE, REPAIR OR OTHERWISE REMEDY THE FAILURE, DEFECT, OR DAMAGE AT THE CONTRACTOR'S EXPENSE.
(F) WITH RESPECT TO ALL WARRANTIES, EXPRESS OR IMPLIED, FROM SUBCONTRACTORS, MANUFACTURERS, OR SUPPLIERS FOR WORK PERFORMED AND MATERIALS FURNISHED UNDER THIS CONTRACT,THE CONTRACTOR SHALL:
(1) OBTAIN ALL WARRANTIES THAT WOULD BE GIVEN IN NORMALCOMMERCIAL PRACTICE; (2) REQUIRE ALL WARRANTIES TO BE EXECUTED IN WRITING, FOR THEBENEFIT OF THE PHA; AND, (3) ENFORCE ALL WARRANTIES FOR THE BENEFIT OF THE PHA.
(G) IN THE EVENT THE CONTRACTOR'S WARRANTY UNDER PARAGRAPH (A) OF THIS CLAUSE HAS EXPIRED, THE PHA MAY BRING SUIT ATITS OWN EXPENSE TO ENFORCE A SUBCONTRACTOR'S,MANUFACTURER'S OR SUPPLIER'S WARRANTY.
(H)UNLESS A DEFECT IS CAUSED BY THE NEGLIGENCE OF THE CONTRACTOR OR SUBCONTRACTOR OR SUPPLIER AT ANY TIER, THECONTRACTOR SHALL NOT BE LIABLE FOR THE REPAIR OF ANY DEFECT OF MATERIAL OR DESIGN FURNISHED BY THE PHA NOR FOR THE REPAIR OF ANY DAMAGE THAT RESULTS FROM ANY DEFECT IN PHA FURNISHED MATERIAL OR DESIGN.
(I)NOTWITHSTANDING ANY PROVISIONS HEREIN TO THE CONTRARY, THE ESTABLISHMENT OF THE TIME PERIODS IN PARAGRAPHS (A) AND(C) ABOVE RELATE ONLY TO THE SPECIFIC OBLIGATION OF THE CONTRACTOR TO CORRECT THE WORK, AND HAVE NO RELATIONSHIPTO THE TIME WITHIN WHICH ITS OBLIGATION TO COMPLY WITH THE CONTRACT MAY BE SOUGHT TO BE ENFORCED, NOR TO THE TIME WITHIN WHICH PROCEEDINGS MAY BE COMMENCED TO ESTABLISH THE CONTRACTOR'S LIABILITY WITH RESPECT TO ITS OBLIGATION OTHER THAN SPECIFICALLY TO CORRECT THE WORK.
(J)THIS WARRANTY SHALL NOT LIMIT THE PHA'S RIGHTS UNDER THE INSPECTION AND ACCEPTANCE OF CONSTRUCTION CLAUSE OF THIS CONTRACT WITH RESPECT TO LATENT DEFECTS, GROSS MISTAKES OR FRAUD.

PROHIBITION AGAINST LIENS
THE CONTRACTOR IS PROHIBITED FROM PLACING A LIEN ON THE PHA'S PROPERTY. THIS PROHIBITION SHALL APPLY TO ALL SUBCONTRACTORS AT ANY TIER AND ALL MATERIALS SUPPLIERS.

CHANGES
(A) THE CONTRACTING OFFICER MAY, AT ANY TIME, WITHOUT NOTICE TO THE SURETIES, BY WRITTEN ORDER DESIGNATED OR INDICATED TO BE A CHANGE ORDER, MAKE CHANGES IN THE WORK WITHIN THE GENERAL SCOPE OF THE CONTRACT INCLUDING CHANGES: (1) IN THE SPECIFICATIONS (INCLUDING DRAWINGS AND DESIGNS); (2) IN THE METHOD OR MANNER OF PERFORMANCE OF THE WORK; (3) PHA-FURNISHED FACILITIES, EQUIPMENT, MATERIALS,SERVICES, OR SITE; OR, (4) DIRECTING THE ACCELERATION IN THE PERFORMANCE OF THEWORK.
(B) ANY OTHER WRITTEN ORDER OR ORAL ORDER (WHICH, AS USED IN THIS PARAGRAPH (B), INCLUDES DIRECTION, INSTRUCTION,INTERPRETATION, OR DETERMINATION) FROM THE CONTRACTING OFFICER THAT CAUSES A CHANGE SHALL BE TREATED AS ACHANGE ORDER UNDER THIS CLAUSE; PROVIDED, THAT THE CONTRACTOR GIVES THE CONTRACTING OFFICER WRITTEN NOTICE STATING (1) THE DATE, CIRCUMSTANCES AND SOURCE OF THEORDER AND (2) THAT THE CONTRACTOR REGARDS THE ORDER AS ACHANGE ORDER.
(C) EXCEPT AS PROVIDED IN THIS CLAUSE, NO ORDER, STATEMENT OR CONDUCT OF THE CONTRACTING OFFICER SHALL BE TREATED AS A CHANGE UNDER THIS CLAUSE OR ENTITLE THE CONTRACTOR TO AN EQUITABLE ADJUSTMENT.
(D) IF ANY CHANGE UNDER THIS CLAUSE CAUSES AN INCREASE OR DECREASE IN THE CONTRACTOR'S COST OF, OR THE TIME REQUIRED FOR THE PERFORMANCE OF ANY PART OF THE WORK UNDER THIS CONTRACT, WHETHER OR NOT CHANGED BY ANY SUCH ORDER, THE CONTRACTING OFFICER SHALL MAKE AN EQUITABLE ADJUSTMENTAND MODIFY THE CONTRACT IN WRITING. HOWEVER, EXCEPT FOR A ADJUSTMENT BASED ON DEFECTIVE SPECIFICATIONS, NO PROPOSAL FOR ANY CHANGE UNDER PARAGRAPH (B) ABOVE SHALL BE ALLOWED FORANY COSTS INCURRED MORE THAN 20 DAYS (5 DAYS FOR ORAL ORDERS) BEFORE THE CONTRACTOR GIVES WRITTEN NOTICE
AS REQUIRED. IN THE CASE OF DEFECTIVE SPECIFICATIONS FOR WHICH THE PHA IS RESPONSIBLE, THE EQUITABLE ADJUSTMENTSHALL INCLUDE ANY INCREASED COST REASONABLY INCURRED BY THE CONTRACTOR IN ATTEMPTING TO COMPLY WITH THE DEFECTIVE SPECIFICATIONS.
(E) THE CONTRACTOR MUST ASSERT ITS RIGHT TO AN ADJUSTMENTUNDER THIS CLAUSE WITHIN 30 DAYS AFTER (1) RECEIPT OF A WRITTEN CHANGE ORDER UNDER PARAGRAPH (A) OF THIS CLAUSE,OR (2) THE FURNISHING OF A WRITTEN NOTICE UNDER PARAGRAPH(B) OF THIS CLAUSE, BY SUBMITTING A WRITTEN STATEMENT DESCRIBING THE GENERAL NATURE AND THE AMOUNT OF THE PROPOSAL. IF THE FACTS JUSTIFY IT, THE CONTRACTING OFFICER MAY EXTEND THE PERIOD FOR SUBMISSION. THE PROPOSAL MAY BE INCLUDED IN THE NOTICE REQUIRED UNDER PARAGRAPH (B) ABOVE. NO PROPOSAL BY THE CONTRACTOR FOR AN EQUITABLE ADJUSTMENT SHALL BE ALLOWED IF ASSERTED AFTER FINAL PAYMENT UNDER THIS CONTRACT.
(F) THE CONTRACTOR'S WRITTEN PROPOSAL FOR EQUITABLE ADJUSTMENT SHALL BE SUBMITTED IN THE FORM OF A LUMP SUMPROPOSAL SUPPORTED WITH AN ITEMIZED BREAKDOWN OF ALL INCREASES AND DECREASES IN THE CONTRACT IN AT LEAST THE FOLLOWING DETAILS: (1)DIRECT COSTS. MATERIALS (LIST INDIVIDUAL ITEMS, THE QUANTITY AND UNIT COST OF EACH, AND THE AGGREGATE COST); TRANSPORTATION AND DELIVERY COSTS ASSOCIATED WITH MATERIALS; LABOR BREAKDOWNS BY HOURS OR UNIT COSTS (IDENTIFIED WITH SPECIFIC WORK TO BE PERFORMED);CONSTRUCTION EQUIPMENT EXCLUSIVELY NECESSARY FOR THE CHANGE; COSTS OF PREPARATION AND/ OR REVISION TO SHOP DRAWINGS RESULTING FROM THE CHANGE; WORKER'S COMPENSATION AND PUBLIC LIABILITY INSURANCE;EMPLOYMENT TAXES UNDER FICA AND FUTA; AND, BOND COSTS WHEN SIZE OF CHANGE WARRANTS REVISION. (2)INDIRECT COSTS. INDIRECT COSTS MAY INCLUDE OVERHEAD,GENERAL AND ADMINISTRATIVE EXPENSES, AND FRINGE BENEFITS NOT NORMALLY TREATED AS DIRECT COSTS. (3)PROFIT. THE AMOUNT OF PROFIT SHALL BE NEGOTIATED AND MAY VARY ACCORDING TO THE NATURE, EXTENT, AND COMPLEXITY OF THE WORK REQUIRED BY THE CHANGE. THE ALLOWABILITY OF THE DIRECT AND INDIRECT COSTS SHALL BE DETERMINED IN ACCORDANCE WITH THE CONTRACT COST PRINCIPLES AND PROCEDURES FOR COMMERCIAL FIRMS IN PART 31 OF THE FEDERAL ACQUISITION REGULATION (48 CFR 1-31),AS IMPLEMENTED BY HUD HANDBOOK 2210.18, IN EFFECT ONTHE DATE OF THIS CONTRACT. THE CONTRACTOR SHALL NOT BE ALLOWED A PROFIT ON THE PROFIT RECEIVED BY ANY SUBCONTRACTOR. EQUITABLE ADJUSTMENTS FOR DELETED WORK SHALL INCLUDE A CREDIT FOR PROFIT AND MAY INCLUDE A CREDIT FOR INDIRECT COSTS. ON PROPOSALS COVERING BOTH INCREASES AND DECREASES IN THE AMOUNT OF THE CONTRACT, THE APPLICATION OF INDIRECT COSTS AND PROFIT SHALL BE ON THE NET-CHANGE INDIRECT COSTS FOR THE CONTRACTOR OR SUBCONTRACTOR PERFORMING THE WORK.
(G)THE CONTRACTOR SHALL INCLUDE IN THE PROPOSAL ITS REQUESTFOR TIME EXTENSION (IF ANY), AND SHALL INCLUDE SUFFICIENT INFORMATION AND DATES TO DEMONSTRATE WHETHER AND TO WHAT EXTENT THE CHANGE WILL DELAY THE COMPLETION OF THE CONTRACT IN ITS ENTIRETY.
(H)THE CONTRACTING OFFICER SHALL ACT ON PROPOSALS WITHIN 30DAYS AFTER THEIR RECEIPT, OR NOTIFY THE CONTRACTOR OF THE DATE WHEN SUCH ACTION WILL BE TAKEN.
(I)FAILURE TO REACH AN AGREEMENT ON ANY PROPOSAL SHALL BE ADISPUTE UNDER THE CLAUSE ENTITLED DISPUTES HEREIN.NOTHING IN THIS CLAUSE, HOWEVER, SHALL EXCUSE THE CONTRACTOR FROM PROCEEDING WITH THE CONTRACT AS CHANGED.
(J)EXCEPT IN AN EMERGENCY ENDANGERING LIFE OR PROPERTY, NOCHANGE SHALL BE MADE BY THE CONTRACTOR WITHOUT A PRIOR ORDER FROM THE CONTRACTING OFFICER.

DEMOLITION/ALTERATION NOTES

HAZARDOUS MATERIALS REMOVAL
IF NOT ALREADY IDENTIFIED OR REMOVED, ANY MATERIALS DISCOVERED IN THE COURSE OF CONSTRUCTION THAT ARE DEEMED AS HAZARDOUS, SUCH AS BUT NOT LIMITED TO, ASBESTOS OR LEAD PAINTS, SHALL BE REMOVED, ENCAPSULATED OR LEFT IN ITS PRESENT CONDITION AS REQUIRED BY FEDERAL, STATE AND LOCAL CODES. CONTRACTOR SHALL UTILIZE THE APPROPRIATE TECHNIQUES, PROCEDURES AND DISPOSAL METHODS AS PER STANDARD PRACTICE, FEDERAL, STATE AND LOCAL CODES. REMOVAL OF HAZARDOUS MATERIALS NOT PREVIOUSLY IDENTIFIED SHALL BE AT AN EXTRA COST TO THE CONTRACT, EXCEPT THAT HACP SHALL HAVE THE OPPORTUNITY TO HAVE THE MATERIALS REMEDIATED AT ITS OWN EXPENSE.

HAZARDOUS MATERIALS REPORTS ARE AVAILABLE FOR REVIEW BY GC. WHERE RECOMMENDED BY THE HACP HAZARDOUS MATERIAL CONSULTANT AS STATED ON THE REPORT, REMOVAL OR ENCAPSULATION SHOULD BE INCLUDED IN THE SCOPE OF THE GENERAL CONTRACT. ABATEMENT SHOULD FOLLOW THE SPECIFICATIONS AND RECOMMENDATIONS STATED IN THE REPORT FOR EACH PROPERTY.

IF GC SUSPECTS OR ENCOUNTER ANY HAZARDOUS MATERIALS NOT INCLUDED IN THE REPORT, GC SHOULD SUBMIT A RFI TO HACP TO TEST THE SUSPECTED MATERIAL OR AREAS BEFORE REMOVAL.

ABANDONED OR REMOVED EQUIPMENT
ALL PLUMBING, DUCT WORK, ROOF TOP UNITS, SEWER & WATER LINES TO BE REMOVED MUST BE CAPPED AND REMOVED TO THE POINT OF CONNECTION TO BUILDING MAIN UTILITY LOCATION - NO EXCEPTIONS. GENERAL CONTRACTOR TO VERIFY WITH HACP REPRESENTATIVE AND ARCHITECT PRIOR TO ANY SUCH WORK, INCLUDING ROOF PENETRATIONS. EACH PRIME CONTRACTOR SHALL REMOVE ALL THEIR RESPECTIVE EXISTING MECHANICAL EQUIPMENT, DUCTWORK, PLUMBING FIXTURES, PIPING SYSTEMS, WIRING, ETC., NOT BEING REUSED…. **DO NOT ABANDON IN PLACE.**

EACH PRIME CONTRACTOR IS RESPONSIBLE TO VERIFY VISUALLY ALL CONDITIONS RELATIVE TO SERVICE REQUIREMENTS AND CODE CONFORMANCE FOR THIS SPACE, AND TO COORDINATE ALL WITH HACPS REPRESENTATIVE, REPORT ANY DEVIATION FROM INFORMATION ON DRAWINGS TO ARCHITECT PRIOR TO COMMENCING WORK. FAILURE TO DO SO WILL RESULT IN CONTRACTOR BEING HELD RESPONSIBLE FOR ANY COSTS FOR SUBSEQUENT CHARGES.

SELECTIVE DEMOLITION
DEMOLISH AND REMOVE EXISTING CONSTRUCTION ONLY TO THE EXTENT REQUIRED BY NEW CONSTRUCTION AND AS INDICATED ON THE DRAWINGS. USE METHODS REQUIRED TO COMPLETE THE WORK WITHIN LIMITATIONS OF GOVERNING REGULATIONS.

CONDUCT SELECTIVE DEMOLITION AND DEBRIS-REMOVAL OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, WALKWAYS, AND OTHER ADJACENT OCCUPIED AND USED FACILITIES.

PROTECT CONSTRUCTION INDICATED TO REMAIN AGAINST DAMAGE AND SOILING DURING SELECTIVE DEMOLITION. WHEN PERMITTED BY ARCHITECT, ITEMS MAY BE REMOVED TO A SUITABLE, PROTECTED STORAGE LOCATION DURING SELECTIVE DEMOLITION AND CLEANED AND REINSTALLED IN THEIR ORIGINAL LOCATIONS AFTER SELECTIVE DEMOLITION OPERATIONS ARE COMPLETE. EACH INDIVDUAL PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIING ANY DAMAGE CAUSED BY THEIR OWN ACTIVITIES OR REQUIRED DEMOLITION.

CLEANLINESS OF JOB SITE, PROTECTION OF PREMISES, AFTER HOURS WORK
THE ENTIRE AREA OF WORK IS TO BE MAINTAINED IN A NEAT AND ORDERLY MANNER AT ALL TIMES AND POLICED AT THE END OF EACH WORK DAY TO PREVENT ACCUMULATION OF TRASH AND DERBRIS. ALL MATERIALS SHALL BE DISPOSED FOLLOWING LOCAL REGULATIONS AND LEGALLY. ALL MATERIALS SHALL BE STACKED NEATLY IN CENTRAL LOCATIONS APPROVED BY THE HACP AND/OR THE GENERAL CONTRACTOR. IF CONTRACTORS DO NOT MAINTAIN PROPER ORDER OR REQUIRE CONTINUED NOTICE TO COMPLY, HEREWITH, HACP MAY AFTER 24 HOURS WRITTEN NOTICE TO THE INDIVIDUAL OFFENDING CONTRACTOR, HIRE THE NECESSARY LABOR TO ADEQUATELY CLEAN. CHARGES FOR SUCH WORK SHALL BE DEDUCTED FROM PAYMENTS DUE THE CONTRACTOR. CONTRACTOR AND HIS/HER SUBCONTRACTORS MUST LEAVE THEIR WORK IN A NEAT AND CLEAN CONDITION READY FOR WORK TO BE PERFORMED BY OTHERS. THE GENERAL CONTRACTOR SHALL PROVIDE DUMPSTERS AS REQUIRED. THE GENERAL CONTRACROT SHALL PROVIDE PROTECTION OF MATERIAL AND EQUIPMENT, SECURITY MEASURES, OF THE WORK AREA FOR THE DURATION OF THE CONTRACT.

PRESERVATION OF EXISTING SPRINKLER SYSTEM
THE EXISTING SPRINKLER SYSTEM IS TO REMAIN IN PLACE THROUGHOUT THE DURATION OF CONSTRUCTION. IN THE EVENT THAT CONTRACTOR AND/OR SUBCONTRACTORS INFLICT ANY DEGREE OF DAMAGE TO THIS EXISTING SYSTEM, THE CONTRACTOR IS LIABLE FOR THE REPLACEMENT OF THE SYSTEM. THE CONTRACTOR'S RESPONSIBILITY SHALL INCLUDE:
1. PAYMENT AND COORDINATION OF REINSTALLMENT OF SPRINKLER SYSTEM.
2. PAYMENT AND COORDINATION OF A FIRE WATCH SERVICE UNTIL THE SPRINKLER SYSTEM IS FULLY REPAIRED AND FUNCTIONAL.
3. IN THE EVENT THAT THE SPRINKLER SYSTEM IS DAMAGED, THE CONTRACTOR WILL BE FINANCIALLY LIABLE FOR ANY RESULTANT DAMAGE TO THE PROPERTY AND LOSS OF USE.

CONTRACT CLOSEOUT:

THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND HACP'S REPRESENTATIVE TO PERFORM A PRELIMINARY FINAL INSPECTION. A PUNCH LIST OUTLINING WORK TO BE CORRECTED, FINISHED, PERFORMED OR COMPLETED SHALL BE SUBMITTED BY EACH PRIME CONTRACTOR. ALL WORK OUTLINED ON THE INITIAL PUNCH LIST SHALL BE COMPLETED BY THE CONTRACTOR PRIOR TO THE FINAL INSPECTION AND BEFORE THE PROJECT WILL BE ACCEPTED FOR FINAL COMPLETION. AFTER ALL REQUIREMENTS PREPARATORY TO THE FINAL INSPECTION HAVE BEEN COMPLETED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER TO PERFORM A FINAL INSPECTION. IF ALL THE WORK HAS BEEN COMPLETED, INCLUDING PUNCH LIST ITEMS FROM EARLIER INSPECTIONS, AND NO FURTHER CORRECTIONS ARE REQUIRED, THE ARCHITECT SHALL RECOMMEND FINAL ACCEPTANCE OF THE PROJECT WHEN ALL THE CLOSEOUT DOCUMENTS ARE RECEIVED, INCLUDING BUT NOT LIMITED TO:WARRANTIES, O&M MANUALS, FINAL TESTING, CERTIFICATES, PERMITS, PUNCH LIST, SUBMITTALS, RFIS, AS

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seal

general notes

1. Any conflicts in the drawings or between new and existing construction shall be referred to the Architect.
2. Contractor shall verify all dimensions and existing conditions in the field and shall advise **Fukui Architects, Pc** of any discrepancies between, additions to, deletions from, or alterations to any and all conditions prior to proceeding with any phase of work. **Do not scale drawings.**
3. All work shall be installed in accordance with applicable codes and regulations.
4. Contractor shall be responsible for the patching, repairing, and preparations of all existing floor, wall, and ceiling surfaces as required to receive scheduled finishes.
5. All items shown on drawings are finished construction assemblies. Contractor shall provide and install all material required for finished assemblies.
6. All reports, plans, specifications, computer files, field data, notices, and other documents and instruments prepared by the Architect as instruments of service shall remain the property of the Architect. The Architect shall retain all common law statutory, and other reserved rights, including the copyright thereto.

revisions

1 ISSUE FOR CLIENT REVIEW 02.28.2025
2 ISSUE FOR BID AND PERMIT 09.24.2025
3 ISSUE FOR ZDR REVISIONS 01.07.2026
4 IFC & IFB 05.19.2026

project title

Owner:
HACP
412 Boulevard of the Alies
Pittsburgh,PA,15219

Project Location:
Homewood North - Community Center
HVAC Work Replacement
10 Albertice St.
Pittsburgh, PA 15208

drawing title

Specifications 10-08 Outline Specifications

scale: As Noted
date: 05.19.2026
no. 5 of. 10

Sheet No.
A5
Project #2441

BUILD DRAWINGS AND ANY ADDITIONAL DOCUMENTATION REQUIRED BY HACP FOR CLOSEOUT.

ALL PUNCH LIST ITEMS TO BE COMPLETED WITHIN THIRTY (30) WORKING DAYS OF RECEIPT, OR FINAL 10% DRAW WILL BE FORFEITED. ALL WORK NOT COMPLETED WITHIN THE ALLOTTED TIME WILL BE COMPLETED BY HACP AT PRIME CONTRACTOR'S EXPENSE. FINAL COMPLETION OCCURS WHEN ALL PUNCH LIST ITEMS HAVE BEEN COMPLETED AND OCCUPANCY PERMIT HAS BEEN ISSUED.

PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR THE START UP OF ALL EQUIPMENT FURNISHED, INSTALLED OR SERVICED UNDER THIS AND THEIR CONTRACTS. EACH PRIME CONTRACTOR SHALL VERIFY THAT IT'S EQUIPMENT, ELECTRICAL SYSTEMS AND APPLIANCES ARE FUNCTIONAL AND OPERATIONAL AND THAT ALL PLUMBING AND MECHANICAL EQUIPMENT IS OPERATING QUIETLY AND FREE FROM VIBRATION. CONTRACTOR SHALL PROVIDE A BINDER FOR HACP AND TENANT CONTAINING MAINTENANCE MANUALS, INCLUDING OPERATION INSTRUCTIONS, SPARE PARTS, WARRANTIES, INSPECTION PROCEDURES, AND DATA FOR EACH SYSTEM OR EQUIPMENT ITEM.

ALL ELECTRICAL PANELS AND BREAKERS TO BE PROPERLY MARKED AND A TYPED SCHEDULE TO BE FURNISHED.

FINAL CLEANING: AT THE TIME OF THE PROJECT CLOSE OUT, THE GENERAL CONTRACTOR SHALL PROVIDE AND THOROUGHLY CLEAN AND READY THE SPACE FOR OCCUPANCY. THIS SHALL AT MINIMUM, INCLUDE HARDWARE, SECURITY EQUIPMENT, LIGHT FIXTURES, REPLACEMENT OF BURNED OUT LAMPS, REMOVAL OF NON PERMANENT PROTECTION AND LABELS, TOUCH UP OF ANY MINOR FINISH DAMAGE, AND CLEANING OR REPLACEMENT OF MECHANICAL SYSTEM FILTERS. DAMAGE TO ANY FINISH, SURFACE, EQUIPMENT OR OBJECT CAUSED DURING CLEANING SHALL BE REPAIRED OR REPLACED BY THE GENERAL CONTRACTOR AT HIS/HER OWN COST.

UPON COMPLETION OF THE PROJECT, GENERAL CONTRACTOR SHALL OBTAIN A CERTIFICATE OF OCCUPANCY FROM THE BUILDING DEPARTMENT AND PROVIDE A COPY OF THE ORIGINAL TO HACP AND ARCHITECT IF REQUIRED.

AT EACH PAYMENT REQUEST AND BEFORE PAYMENT IS MADE, EACH CONTRACTOR SHALL DELIVER TO THE HACP A COMPLETE RELEASE OF ALL SUB CONTRACTOR'S AND SUPPLIER'S LIENS ARISING OUT OF THIS CONTRACT, OR RECEIPTS IN FULL COVERING ALL LABOR AND MATERIALS FOR WHICH A LIEN COULD BE FILED OR A BOND SATISFACTORY TO THE HACP INDEMNIFYING HACP AGAINST ANY LIENS.

DIVISION 2 – SITE WORK – NOT APPLICABLE

DIVISION 3 – CONCRETE – NOT APPLICABLE

DIVISION 4 – MASONRY – NOT APPLICABLE

DIVISION 5 – METALS – NOT APPLICABLE

DIVISION 6 – WOOD AND PLASTICS

WOOD FRAMING AND BLOCKING
SELECT STRUCTURAL GRADE DOUGLAS FIR SOUTH, SIZES AS INDICATED ON DRAWINGS. COMPLY WITH THE "RECOMMENDED NAILING SCHEDULE" OF THE "MANUAL FOR HOUSING FRAMING."

FLOOR SHEATHING (IF REQUIRED) - PROVIDE 3/4" T&G PLYWOOD FLOOR SHEATHING OR OSB STRUCTURAL FIBERBOARD. ALIGN PANELS ACROSS A MINIMUM OF TWO SUPPORTS WITH STRENGTH AXIS PERPENDICULAR TO AXIS OF JOISTS, STAGGER JOINTS. GLUE TO JOISTS AND EDGES WITH ELASTOMERIC SOLVENT-BASED GLUE CONFORMING TO APA SPECIFICATION AFG-101. FASTEN WITH 8D COMMON OR 6D ANNULAR OR SPIRAL NAILS AT 6" O.C. ALONG EDGES AND 10" ALONG INTERMEDIATE SUPPORTS. FOLLOW PANEL MANUFACTURER'S INSTALLATION RECOMMENDATIONS FOR SUB-FLOOR PREP, PRIOR TO INSTALLATION OF FINISH FLOORING.

EXTERIOR WOOD FRAMING EXPOSED TO WEATHERING AND INSECTS SHALL BE MINIMUM 2" X PRESSURE TREATED LUMBER. KILN DRIED TO 19% MOISTURE CONTENT BEFORE INSTALLATION.

WOOD TRIM AND MOLDINGS
PROVIDE FURNITURE GRADE SOLID HARDWOOD TRIM AND MOLDINGS. STAIN ALL SIDES AND ENDS. WOOD TRIM AND MOLDINGS TO MATCH EXISTING UNLESS OTHERWISE NOTED ON DRAWINGS.

INSTALL WOOD TRIM AND MOLDINGS WITH MITER AT CORNERS, MITERED LAP SPLICES, AND SET WITH COUNTER SUNK GALVANIZED FINISH NAILS CAPPED WITH WOOD PUTTY SANDED SMOOTH. COMPLY WITH AWI 300 FOR ALL STANDING AND RUNNING TRIM.

FABRICATOR QUALIFICATIONS
FIRM EXPERIENCED IN PRODUCING ARCHITECTURAL WOODWORK SIMILAR TO THAT INDICATED FOR THIS PROJECT AND WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE, AS WELL AS SUFFICIENT PRODUCTION CAPACITY TO PRODUCE REQUIRED UNITS WITHOUT DELAYING THE WORK.

DRAWER CONSTRUCTION: FABRICATE WITH EXPOSED FRONTS FASTENED TO SUBFRONT WITH MOUNTING SCREWS FROM INTERIOR OF BODY.
1. JOIN SUBFRONTS, BACKS, AND SIDES WITH GLUED RABBETED JOINTS SUPPLEMENTED BY MECHANICAL FASTENERS OR GLUED DOVETAIL JOINTS.

COLORS, PATTERNS, AND FINISHES: PROVIDE MATERIALS AND PRODUCTS THAT RESULT IN COLORS AND TEXTURES OF EXPOSED LAMINATE SURFACES COMPLYING WITH THE FOLLOWING REQUIREMENTS:
1. AS SELECTED BY ARCHITECT FROM LAMINATE MANUFACTURER'S FULL RANGE IN THE FOLLOWING CATEGORIES:
   A. SOLID COLORS, MATTE FINISH.
   B. SOLID COLORS WITH CORE SAME COLOR AS SURFACE, MATTE FINISH.
   C. WOOD GRAINS, MATTE FINISH.
   D. PATTERNS, MATTE FINISH.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION – NOT APPLICABLE

DIVISION 8 - DOORS, WINDOWS AND HARDWARE– NOT APPLICABLE

DIVISION 9 - FINISHES

ALL FINISH TRIM TO BE PAINT GRADE POPLAR OR OTHER TIGHT-GRAINED HARDWOOD, SMOOTH SANDED FINISHED WITH SCARFED JOINTS, GLUED AND NAILED. NO BUTT JOINTS.

GYPSUM BOARD TO BE FINISHED AS SPECIFIED ACCORDING TO THE FOLLOWING:

STANDARD FINISH (LEVEL 4 PER GA 216-96): ALL JOINTS AND INTERIOR ANGLES HAVE TAPE EMBEDDED IN JOINT COMPOUND AND TWO SEPARATE COATS OF JOINT COMPOUND APPLIED OVER ALL FLAT JOINTS AND ONE SEPARATE COAT OF JOINT COMPOUND APPLIED OVER INTERIOR ANGLES. FASTENER HEADS AND ACCESSORIES SHALL BE COVERED WITH THREE SEPARATE COATS OF JOINT COMPOUND. ALL JOINT COMPOUND SHALL BE SMOOTH AND FREE FROM TOOL MARKS AND RIDGES. BEFORE FINAL DECORATION PREPARE SURFACE BE COATED WITH A DRYWALL PRIMER PRIOR TO THE APPLICATION OF FINAL FINISHES.

TREAT GYPSUM BOARD JOINTS, INTERIOR ANGLES, EDGE TRIM, CONTROL JOINTS, PENETRATIONS, FASTENER HEADS, SURFACE DEFECTS, AND ELSEWHERE AS REQUIRED TO PREPARE GYPSUM BOARD SURFACES FOR DECORATION. PROMPTLY REMOVE RESIDUAL JOINT COMPOUND FROM ADJACENT SURFACES. PREFILL OPEN JOINTS, ROUNDED OR BEVELED EDGES, AND DAMAGED SURFACE AREAS. APPLY JOINT TAPE OVER GYPSUM BOARD JOINTS, EXCEPT THOSE WITH TRIM HAVING FLANGES NOT INTENDED FOR TAPE.

ALL INTERIOR GYPSUM BOARD WALLS AND CEILINGS TO BE 1/2" THICK BY USG OR EQUAL UNLESS NOTED OTHERWISE. SUPPLY AND INSTALL 1/2" "AQUATOUGH" BY USG OR EQUAL AT ALL LOCATIONS UNLESS THE WET LOCATIONS. ON GARAGE CEILINGS UNDER LIVING SPACES SUPPLY AND INSTALL 5/8" TYPE X TO COVER CEILING AND DUCTWORK BY USG OR EQUAL UNLESS NOTED OTHERWISE.

ALL PARTITIONS ARE TO BE SET IN CAULK.

ALL WORK TO BE COMPLETED IN A FIRST CLASS MANNER WITH NO EXPOSED, UNFINISHED EDGES, NAILS, SCREWS, ETC.

PAINTING

ALL EXTERIOR SURFACES IDENTIFIED TO BE PAINTED SHALL RECEIVE 3-COAT SYSTEM, INCLUDING ONE PRIME COAT (WHERE NOT PROVIDED BY FACTORY) AND TWO FINISH COATS EXTERIOR ENAMEL AS APPROPRIATE FOR SUBSTRATE.

ALL INTERIOR DRYWALL AND PLASTER SURFACES SHALL RECEIVE A 3-COAT SYSTEM, INCLUDING ONE COAT PRIMER SEALER OR AS RECOMMENDED BY PAINT MANUFACTURER (COLORED TO MATCH FINISH TOPCOAT), AND TWO FINISH COATS. PAINT SHALL BE INTERIOR GRADE LATEX PAINT BY SHERWIN WILLIAMS, PITTSBURGH PAINTS, OR APPROVED EQUIVALENT. ALL COLORS TO BE SELECTED BY ARCHITECT FROM MANUFACTURERS FULL LINE OF COLORS.

CEILINGS TO RECEIVE FLAT FINISH PAINT- UNLESS NOTED OTHERWISE.
WALLS TO RECEIVE EGG-SHELL FINISH – UNLESS NOTED OTHERWISE.
TRIM AND DOORS SHALL RECEIVE SEMI-GLOSS FINISH.

ACOUSTIC CEILING TILE

ALL ACOUSTICAL TILE CEILING SYSTEMS SHALL CONSIST OF LAY-IN PANELS INSTALLED WITHIN A STANDARD EXPOSED TEE SUSPENSION GRID.

THE BASIS OF DESIGN SHALL BE ARMSTRONG WORLD INDUSTRIES 2' X 4' LAY-IN ACOUSTICAL PANELS. ACCEPTABLE MANUFACTURERS INCLUDE ARMSTRONG, USG, CERTAINTEED, OR APPROVED EQUIVALENT. ALL PANELS SHALL BE 24" X 48" X 5/8" NOMINAL SIZE WITH A SQUARE LAY-IN EDGE PROFILE FOR A STANDARD 15/16" GRID, UNLESS NOTED OTHERWISE ON DRAWINGS. PANELS SHALL FEATURE A STANDARD FACTORY WHITE, LIGHT-REFLECTIVE, NON-DIRECTIONAL TEXTURED SURFACE, PROVIDING A MINIMUM NRC OF 0.55 AND A MINIMUM CAC OF 35.

CONTRACTOR SHALL SUBMIT MANUFACTURER'S PRODUCT DATA SHEETS AND A MINIMUM 6" X 6" SAMPLE FOR COLOR AND TEXTURE VERIFICATION PRIOR TO PROCUREMENT.

INSTALLATION OF THE CEILING PANELS SHALL BE IN STRICT ACCORDANCE WITH ASTM C636, MANUFACTURER'S WRITTEN INSTRUCTIONS, AND CISCA INSTALLATION STANDARDS.

ALL DAMAGED, SOILED, SAGGING, OR BROKEN TILES SHALL BE REPLACED PRIOR TO FINAL PROJECT CLOSEOUT. CONTRACTOR SHALL DELIVER ONE (1) FULL, UNOPENED BOX OF MATCHING 2X4 PANELS TO THE OWNER AS EXTRA MATERIALS UPON COMPLETION.

CONCRETE AND MASONRY COATINGS
BASIS-OF-DESIGN INTERIOR PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE NEOGARD, A PART OF HEMPEL; NEOFLEX NEOCRYLIC H8 WALL-GARD HD, SERIES 1 WALL-GARD HD, SERIES 2 WITH REINFORCED FABRIC LAYER BASECOAT AND TOPCOAT SYSTEM OR COMPARABLE PRODUCT BY ONE OF THE FOLLOWING: PPG PAINTS, SHERWIN-WILLIAMS COMPANY OR EQUAL.

CLEAN SUBSTRATES OF SUBSTANCES THAT COULD IMPAIR BOND OF COATINGS, INCLUDING DUST, DIRT, OIL, GREASE, AND INCOMPATIBLE PAINTS AND ENCAPSULANTS.

CONCRETE SUBSTRATES: REMOVE RELEASE AGENTS, CURING COMPOUNDS, EFFLORESCENCE, AND CHALK.

DO NOT COAT SURFACES IF MOISTURE CONTENT OR ALKALINITY OF SURFACES TO BE COATED EXCEEDS THAT PERMITTED IN COATING MANUFACTURER'S WRITTEN INSTRUCTIONS.

TILE & FLOORS
PROPERLY PREPARE SUB FLOOR TO RECEIVE SPECIFIED FINISH FLOORING.

ON VERTICAL SURFACES, TILE MAY BE SET OVER 1/2" MOISTURE RESISTANT DRYWALL ABOVE 6 FEET. FASTEN BACKER USING CORROSION RESISTANT STEEL DRILL SCREWS AS RECOMMENDED BY MANUFACTURER. TAPE ALL JOINTS AS RECOMMENDED BY MANUFACTURER USING POLYMER-COATED, OPEN GLASS-FIBER MESH. TILE SETTING MATERIAL SHALL BE A LATEX-PORTLAND CEMENT MORTAR WITH A DRY POLYMER ADDITIVE. TILE GROUT SHALL BE EPOXY GROUT. VERIFY WITH MANUFACTURER'S INSTALLATION RECOMMENDATIONS. PROVIDE EXPANSION JOINTS AT ALL INTERIOR CORNERS BOTH HORIZONTALLY AND VERTICALLY SEAL WITH ONE PART MILDEW RESISTANT SILICONE SEALANT. FOLLOW "TILE COUNCIL OF AMERICA 2003 EDITION HANDBOOK FOR THE CERAMIC TILE INSTALLATION".

FLOORING PREP
GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING FLOORS PREPPED AND LEVEL READY TO RECEIVE SCHEDULED FLOOR FINISH. CONCRETE SLAB SURFACES SHALL BE CLEANED AND MADE SMOOTH WITH LEVELING COMPOUND AND SUBSTRATE PRIMER PRIOR TO THE INSTALLATION OF ANY TILE OR CARPET. ALL PREPARATORY WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE FLOORING MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

LVT FLOORING
BASIS OF DESIGN: PROVIDE LUXE PLANK AND TILE WITH FASTAK INSTALLATION LUXURY VINYL TILE BY ARMSTRONG COMMERCIAL FLOORINGS OR EQUAL. APPROVAL BY ARCHITECT AND HACP REQUIRED.

THICKNESS: 12 MIL WEAR LAYER X 4 MM OVERALL THICKNESS, NO WAX. .

SIZE: 7 INCHES BY 48 INCHES AND 18 INCHES BY 18 INCHES .

COLORS AND PATTERNS: ARCHITECT TO SELECT FROM MANUFACTURER'S FULL RANGE OF COLORS AND SIZES AND TO BE APPROVED BY HACP.

FLOOR SURFACE IS TO BE PROPERLY PREPARED WITHOUT HOLES, CRACKS, OR BUMPS. ALL EDGE CONDITIONS TO BE FLOATED UP FOR SMOOTH EVEN FLUSH TRANSITION.

DIVISION 10 - SPECIALTIES– NOT APPLICABLE

DIVISION 11 - EQUIPMENT– NOT APPLICABLE

DIVISION 12 – FURNISHINGS– NOT APPLICABLE

PLUMBING REQUIREMENTS– NOT APPLICABLE

MECHANICAL REQUIREMENTS

GENERAL CONDITIONS OF THE MECHANICAL CONTRACT
PLUMBING CONTRACT TO FOLLOW HUD GENERAL CONDITIONS AS SPECIFIED EARLIER IN DIVISION 1.

ALL MECHANICAL WORK TO COMPLY WITH LOCAL CODE AND REGULATIONS.

CUTTING AND PATCHING
ALL CHASES, RECESSES, HOLES, AND OPENINGS FOR EQUIPMENT AND DUCTWORK WILL BE PROVIDED BY THE GENERAL CONTRACTOR.

SHOULD THE MECHANICAL CONTRACTOR FAIL TO SET SLEEVES OR LOCATE OPENINGS BEFORE THE WORK OF THE GENERAL CONTRACTOR HAS BEEN COMPLETED IN THAT PARTICULAR AREA, THE MECHANICAL CONTRACTOR SHALL CUT WHATEVER HOLES ARE NECESSARY FOR THE INSTALLATION OF EQUIPMENT. ALL PATCHING NECESSITATED BY THE CUTTING OF SUCH HOLES SHALL BE DONE AT THE EXPENSE OF THE MECHANICAL CONTRACTOR.

REPAIR ALL FIREPROOFING DAMAGED BY THE WORK UNDER THIS CONTRACT.

MECHANICAL EQUIPMENT
THE EQUIPMENT DESCRIBED IN THIS SECTION IS BASIS OF DESIGN, MECHANICAL CONTRACTOR TO PROVIDE EQUIPMENT TO MATCH EXISTING SYSTEM CAPACITY AT A MINIMUM.

MECHANICAL CONTRACTOR TO PROVIDE HACP AND ARCHITECT WITH SPECIFICATION SHEETS OF EQUIPMENT.

AIR HANDLING UNIT
MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
- LENNOX
- CARRIER
- BRYANT

CONDENSING UNIT
MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
- LENNOX
- CARRIER
- BRYANT

SHEET METAL
DUCT SIZES INDICATED ON THE DRAWINGS ARE THE CLEAR INSIDE DIMENSIONS.

ALL DUCTS SHALL BE COMPLETE WITH FOUR SIDES AND SHALL BE OF AIRTIGHT CONSTRUCTION. ALL DUCTS, UNLESS OTHERWISE NOTED, SHALL BE CONSTRUCTED OF 24 GAGE GALVANIZED SHEET STEEL AT 2" PRESSURE CLASS.

JOINTS, SEAMS AND DUCT WALL PENETRATIONS SHALL BE SEALED IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS. SEALANT MATERIAL SHALL BE CAULKING COMPOUND SPECIFICALLY MANUFACTURED FOR DUCT APPLICATION FOR INDOOR USE.

JOINTS BETWEEN SHEET METAL SECTIONS MAY BE MADE WITH PREFABRICATED JOINING SYSTEM SUCH AS THE DUCTMATE INDUSTRIES SYSTEM.
STIFFENERS SHALL BE PLACED AT NOT MORE THAN 8-FOOT INTERVALS.

ALL DUCTS SHALL BE ADEQUATELY SUPPORTED FROM CONSTRUCTION ABOVE BY MEANS OF GALVANIZED STEEL STRAP HANGERS SPACED AT NOT MORE THAN 8-FOOT INTERVALS. DUCTS SHALL BE SUPPORTED IN ACCORDANCE WITH SMACNA STANDARDS.

DUCTWORK CONNECTIONS TO AIR HANDLING AND AIR CONDITIONING UNITS SHALL HAVE FLEXIBLE CONNECTIONS. WHEN CONNECTION IS OUTDOORS, CONNECTION LENGTH SHALL BE INSULATED AND WEATHERPROOFED.

TUNING VANES SHALL BE INSTALLED IN ALL ELBOWS HAVING SQUARE THROATS OR A THROAT RADIUS LESS THAN HALF THE DUCT WIDTH. TURNING VANES MAY BE PREFABRICATED. IF JOB FABRICATED, DESIGN AND CONSTRUCTION SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT. VANES SHALL BE AIRFOIL TYPE.

MANUAL VOLUME CONTROL DAMPERS IN DUCTS SHALL BE CONSTRUCTED OF NOT LIGHTER THAN US GAGE NO. 16 GALVANIZED SHEET STEEL. DAMPER BLADES SHALL BE SUPPORTED ON AN END BEARING ON ONE SIDE AND A COMBINATION BEARING AND DAMPER REGULATOR ON THE OTHER SIDE. REGULATOR SHALL BE EQUIPPED WITH A LOCKING DEVICE. MANUAL DAMPERS SHALL BE OPPOSED BLADE TYPE.

FURNISH AND INSTALL FIRE DAMPERS WHERE INDICATED OR WHERE REQUIRED. DAMPERS SHALL COMPLY WITH LATEST EDITION OF NFPA 90A, AND SHALL BE UL LABELED. BLADE STACK SHALL BE OUT OF AIRSTREAM. FUSIBLE FIRE LINKS SHALL HAVE A MELTING POINT OF 165F. DAMPERS SHALL BE MODEL IBD AS MADE BY RUSKIN, OR APPROVED EQUAL BY SAFE-AIR. FURNISH ACCESS DOORS TO ALL DAMPERS.

ACCESS DOORS IN DUCTS SHALL BE RIGIDLY CONSTRUCTED AND TIGHTLY FITTED. DOORS SHALL BE SUPPORTED ON TWO STEEL BUTT HINGES AND SHALL BE SECURED WITH A SASH LOCK. DOORS SHALL BE GASKETED AND INSULATED.

REPAIR ALL FIREPROOFING DAMAGED BY THE WORK UNDER THIS CONTRACT.

FLEXIBLE DUCTS
FLEXIBLE DUCTS SHALL BE SOUND ATTENUATING, THERMAL INSULATED, WIRE WOUND, REINFORCED TYPE WITH A MOISTURE TIGHT FLAME PROOF VINYL BARRIER. FLEXIBLE DUCTS TO BE USED ONLY TO CONNECT INDIVIDUAL DIFFUSERS WITH MAIN OR BRANCH DUCTS. HVAC CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PORTION OF THE EXISTING SYSTEM WHICH DOES NOT MEET THESE REQUIREMENTS WITH PROPERLY SIZED AND INSULATED SHEET METAL DUCTS. THIS WORK TO BE INCLUDED IN BASE BID.

DIFFUSERS
DIFFUSERS SHALL BE SQUARE OR RECTANGULAR FACED, RECESSED TYPE, WITH REMOVABLE CORES. DIFFUSER CAPACITIES, SIZES AND DIRECTIONAL BLOWS ARE INDICATED ON THE DRAWINGS. FURNISH EACH DIFFUSER WITH DEFLECTING VANES AND KEY OPERATED, OPPOSED BLADE VOLUME DAMPERS. DIFFUSERS SHALL BE FURNISHED WITH BAKED, WHITE FINISH.

SUPPLY REGISTERS
SUPPLY REGISTERS SHALL HAVE INDIVIDUALLY ADJUSTABLE FINS WITH VERTICAL FRONT BARS AND HORIZONTAL REAR BARS. FINS SHALL BE STREAMLINED AND OF STURDY CONSTRUCTION. FLANGES SHALL BE 5/8 INCH CHANNEL BORDER. FURNISH RUBBER GASKET AROUND PERIMETER OF FLANGE, AND KEY OPERATED, OPPOSED BLADE VOLUME CONTROL DAMPERS. RUBBER GASKET SHALL BE NON-CHLORINATED RUBBER AND NON-POROUS. FURNISH WITH PRIME COAT OF PAINT.

GRILLES
GRILLES AND REGISTERS FOR MECHANICAL TO MATCH EXISTING. GRILLES AND REGISTERS SHALL BE OUT OF STEEL, WITH DAMPER, PRIMED PAINTED WHITE. SIZE OF GRILLE TO MATCH EXISTING OPENING ON TOE KICK, WALL OR CEILING.

CONTROLS
THE HEATING CONTRACTOR SHALL FURNISH AND INSTALL ALL CONTROL DEVICES NECESSARY TO ACHIEVE THE CONTROL SEQUENCE DESCRIBED HEREIN.

CONTROL SYSTEMS SHALL BE GUARANTEED FOR 2 YEARS FROM DATE OF ACCEPTANCE BY HACP.

CONTROL WIRING SHALL BE CONCEALED AND INSTALLED IN ACCORDANCE WITH SECTION 16.

MOTOR STARTERS - MOTOR STARTERS FOR ALL MECHANICAL ITEMS SHALL BE FURNISHED BY THE HEATING CONTRACTOR. STARTERS SHALL HAVE HAND–OFF–AUTO SWITCHES AND CONTROL TRANSFORMERS.

DAMPERS - DAMPERS SHALL BE OPPOSED MULTI-BLADE. BLADES SHALL BE CONSTRUCTED OF 16 GAGE STEEL WITH NEOPRENE GASKETED EDGES, AND SHALL BE MOUNTED IN CORROSION RESISTANT BUSHINGS. DAMPERS SHALL HAVE STOPS ON ALL FOUR SIDES. MOTORS SHALL BE MODULATING WITH OIL-IMMERSED GEAR TRAINS. DAMPERS SHALL BE 2% LOW LEAKAGE TYPE.

FREEZE PROTECTION THERMOSTAT - FREEZE PROTECTION THERMOSTAT SHALL BE MERCURY TUBE, MANUAL RESET TYPE SET AT 45F. INSTALL AN ADJUSTABLE TIME DELAY RELAY TO PERMIT AIR TO ESTABLISH SATISFACTORY TEMPERATURE TO AVOID FALSE TRIPS.

INSULATION
ALL SUPPLY AIR DUCTS SHALL BE INSULATED WITH 2" THICK, 1.00 DENSITY, OWENS-CORNING OR APPROVED EQUAL FLEXIBLE DUCT INSULATION WITH FLAME RETARDANT REINFORCED FRK 25 FOIL COVERING. SEAL ALL JOINTS, BOLTS AND ALL EXPOSED EDGES WITH 4" WIDE STRIPS OF SEALING TAPE USING A SUITABLE ADHESIVE. INSULATION SHALL HAVE A 2" FLAP AT ALL JOINTS AND SEAMS WHICH SHALL BE STAPLED AND SECURED WITH ADHESIVE. APPLY ADHESIVE TO DUCTS IN SIX-INCH-WIDE STRIPS AT ONE FOOT INTERVALS. DUCTWORK EXPOSED WITHIN THE SPACE MAY BE LEFT UN-INSULATED.

OPERATING INSTRUCTIONS
THE CONTRACTOR SHALL FURNISH THREE COMPLETE SETS OF OPERATING AND MAINTENANCE INSTRUCTIONS. THIS SHALL INCLUDE FINAL CONTROL DIAGRAMS, CATALOG DATA INCLUDING CONSTRUCTION AND MAINTENANCE INFORMATION ON ALL EQUIPMENT, AND MAINTENANCE INFORMATION ON THE COMPLETE SYSTEM.

ONE COMPLETE CONTROL DIAGRAM SHALL BE INCLUDED IN EACH O&M MANUAL.

THE CONTRACTOR SHALL FORMALLY INSTRUCT THE HACP'S STAFF ON THE OPERATION OF THE SYSTEM. THE INSTRUCTION SHALL CONSIST OF NOT LESS THAN 2 PERIODS, EACH PERIOD OF 4 HOURS DURATION. THE CONTRACTOR SHALL ARRANGE FOR THIS INSTRUCTION WITH THE HACP.

FUNCTIONS AND ALL ACTUATORS OPERATE IN ACCORDANCE WITH THE SPECIFICATIONS.
TESTS AND INSPECTION

THE FOLLOWING OPERATIONS SHALL BE PERFORMED IN PREPARATION FOR FINAL INSPECTION BY THE ARCHITECT. THE MECHANICAL CONTRACTOR SHALL DEMONSTRATE TO THE ARCHITECT THAT THE SYSTEM IS OPERATING IN COMPLIANCE WITH THE DRAWINGS AND SPECIFICATIONS. ALL TESTS AND INSPECTIONS SHALL BE COMPLETED BEFORE FINAL PAYMENT IS MADE TO THE HEATING (MECHANICAL) CONTRACTOR.

CONTROLS - ALL CONTROLS SHALL BE TESTED AND ADJUSTED TO ACHIEVE THE INTENT OF THESE SPECIFICATIONS. CONTROLS SHALL BE ADJUSTED WHILE THE SYSTEM IS OPERATING UNDER FULL-LOAD CONDITIONS, BOTH HEATING AND COOLING. CONTROL SUB-CONTRACTOR SHALL SUBMIT WRITTEN CERTIFICATION THAT ALL ON/OFF AND ALARM.

AIR DISTRIBUTION SYSTEM - AIR BALANCING SHALL BE PERFORMED BY AN INDEPENDENT AIR BALANCE SUBCONTRACTOR. THE COST OF THE SUB-CONTRACTOR SHALL BE INCLUDED IN THE CONTRACTOR'S BID PRICE. THE INDEPENDENT AIR BALANCER SHALL NOT BE AN EMPLOYEE NOR A SUBSIDIARY OF THE CONTRACTOR.

GUARANTEE
THE MECHANICAL CONTRACTOR SHALL GUARANTEE FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE JOB THAT ALL EQUIPMENT, MATERIAL AND LABOR FURNISHED BY HIM ARE FREE FROM DEFECTS. ANY DEFECTS IN MATERIAL AND WORKMANSHIP SHALL BE CORRECTED BY THE CONTRACTOR WITHOUT FURTHER EXPENSE TO THE HACP. ALL ITEMS SPECIFIED TO HAVE A LONGER WARRANTEE SHALL BE GUARANTEED FOR THAT LONGER PERIOD. CONTROLS SHALL HAVE A 2-YEAR GUARANTEE ON PARTS AND LABOR.

CONTROLS
SOLID-STATE THERMOSTAT: WALL-MOUNTED, PROGRAMMABLE, MICROPROCESSOR-BASED UNIT WITH MANUAL SWITCHING FROM HEATING TO COOLING, PREFERENTIAL RATE CONTROL, SEVEN-DAY PROGRAMMABILITY WITH MINIMUM OF FOUR TEMPERATURE PRESETS PER DAY, VACATION MODE, AND BATTERY BACKUP PROTECTION AGAINST POWER FAILURE FOR PROGRAM SETTINGS.

DIVISION 26 - ELECTRICAL WORK– NOT APPLICABLE

SECTION 32- EXTERIOR IMPROVEMENTS– NOT APPLICABLE

SECTION 33- UTILITIES– NOT APPLICABLE

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seal

general notes

1. Any conflicts in the drawings or between new and existing construction shall be referred to the Architect.
2. Contractor shall verify all dimensions and existing conditions in the field and shall advise **Fukui Architects, Pc** of any discrepancies between, additions to, deletions from, or alterations to any and all conditions prior to proceeding with any phase of work. **Do not scale drawings.**
3. All work shall be installed in accordance with applicable codes and regulations.
4. Contractor shall be responsible for the patching, repairing, and preparations of all existing floor, wall, and ceiling surfaces as required to receive scheduled finishes.
5. All items shown on drawings are finished construction assemblies. Contractor shall provide and install all material required for finished assemblies.
6. All reports, plans, specifications, computer files, field data, notices, and other documents and instruments prepared by the Architect as instruments of service shall remain the property of the Architect. The Architect shall retain all common law statutory, and other reserved rights, including the copyright thereto.

revisions

1	ISSUE FOR CLIENT REVIEW 02.28.2025
2	ISSUE FOR BID AND PERMIT 09.24.2025
3	ISSUE FOR ZDR REVISIONS 01.07.2026
4	IFC & IFB 05.19.2026

project title

Owner:
HACP
412 Boulevard of the Alies
Pittsburgh,PA,15219

Project Location:
Homewood North - Community Center
HVAC Work Replacement
10 Albertice St.
Pittsburgh, PA 15208

drawing title

Specifications 10-08 Outline Specifications

scale: As Noted
date: 05.19.2026
no. 6 of. 10

Sheet No.
A6
Project #2441

HVAC DEMOLITION SYMBOLS:

- DEMOLISHED SUPPLY DUCT UP/DOWN
- DEMOLISHED RETURN DUCT UP/DOWN
- DEMOLISHED SUPPLY/RETURN DUCT
- DEMOLISHED THERMOSTAT/CONTROLS
- DEMOLISHED STEAM PIPING
- DEMOLISHEDCONDENSATE RETURN PIPING
- DEMOLISHED CHILLED WATER SUPPLY PIPING
- DEMOLISHED CHILLED WATER RETURN PIPING
- DEMOLISHED CONDENSER WATER SUPPLY PIPING
- DEMOLISHED CONDENSER WATER RETURN PIPING
- DEMOLISHED ELBOW DOWN
- DEMOLISHED ELBOW UP

HVAC SYMBOLS & LEGEND:

- NEW DUCT (WIDTH x DEPTH, NOT INCLUDING INSULATION)
- DUCT WITH INTERNAL LINING
- SUPPLY DUCT (UP & DOWN)
- EXHAUST DUCT (UP & DOWN)
- FLEXIBLE CONNECTION
- ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES ON SUPPLY AIR)
- VANED ELBOW (SHORT RADIUS)
- STANDARD RADIUS ELBOW
- VANED ELBOW & AIR SPLIT TYPE DUCT TAKE-OFF
- CONNECT NEW DUCT TO EXISTING DUCT
- INCLINED RISE, IN DIRECTION OF AIR FLOW
- INCLINED DROP, IN DIRECTION OF AIR FLOW
- MANUAL SPLITTER DAMPER
- STANDARD BRANCH SUPPLY OR
- RETURN, NO SPLITTER (45° TAP)
- CEILING DIFFUSERS
- SUPPLY TOP REGISTER OR GRILLE (WALL TYPE)
- EXHAUST OR RETURN CEILING REGISTER OR GRILLE
- EXHAUST OR RETURN BOTTOM REGISTER OR GRILLE (WALL TYPE)
- EXHAUST OR RETURN REGISTER OR TOP GRILLE (WALL TYPE)
- MANUAL VOLUME DAMPER
- HORIZONTAL FIRE DAMPER
- VERTICAL FIRE DAMPER
- VERTICAL FIRE SMOKE DAMPER
- BACK DRAFT DAMPER
- MOTORIZED DAMPER
- DUCT MOUNTED COIL (HOT WATER OR STEAM COIL)
- VARIABLE VOLUME TERMINAL UNIT
- FAN POWERED VARIABLE VOLUME TERMINAL UNIT
- UNIT HEATER (HORIZONTAL)

HVAC SYMBOLS & LEGEND (CONT.):

- REFRIGERANT LIQUID
- REFRIGERANT SUCTION
- REFRIGERANT HOT GAS
- CONDENSER WATER TO TOWER
- CONDENSER WATER FROM TOWER
- CHILLED WATER SUPPLY
- CHILLED WATER RETURN
- CHILLED GLYCOL-WATER SUPPLY
- CHILLED GLYCOL-WATER RETURN
- CONDENSATE
- HOT WATER HEATING SUPPLY
- HOT WATER HEATING RETURN
- HOT GLYCOL-WATER HEATING SUPPLY
- HOT GLYCOL-WATER HEATING RETURN
- STEAM SUPPLY
- STEAM CONDENSATE RETURN
- PIPE CONNECTION, 45° OR 90°
- CAPPED OUTLET
- RISE OR DROP IN PIPE
- UNION
- STRAINER
- THERMOMETER
- PRESSURE GAGE
- WATER FLOW MEASURING DEVICE
- ANCHOR
- REDUCER OR INCREASER
- GATE VALVE
- GLOBE VALVE
- GATE VALVE WITH 3/4 " HOSE ADAPTER
- CHECK VALVE
- ANGLE GLOBE VALVE
- BUTTERFLY VALVE
- BALL VALVE
- BALANCING VALVE
- CIRCUIT SETTER
- STRAIGHT-THRU MODULATING CONTROL VALVE
- STRAIGHT-THRU TWO POSITION CONTROL VALVE
- THREE-WAY MODULATING CONTROL VALVE
- AUTOMATIC FLOW CONTROL VALVE
- SAFETY OR PRESSURE RELIEF VALVE
- PRESSURE REDUCING VALVE
- MANUAL AIR VENT
- TEST PLUG (PRESSURE/TEMPERATURE)
- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
- THERMOSTAT
- HUMIDISTAT
- DUCT DETECTOR
- DUCT HIGH PRESSURE SENSOR
- DUCT STATIC PRESSURE SENSOR
- CARBON DIOXIDE SENSOR
- DETAIL NUMBER
- DRAWING NUMBER WHERE DRAWN
- SECTION LETTER
- DRAWING NUMBER WHERE SHOWN
- VARIABLE AIR VOLUME
- AHU SYSTEM #
- BOX #
- TYPICAL UNIT NO.
- CFM
- DIAMETER
- DIFFUSER CALLOUT
- RETURN/EXHAUST/TRANSFER GRILLE

HVAC ABBREVIATIONS:

AC	AIR CONDITIONING UNIT
ACC	AIR COOLED CONDENSER
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
BFC	BELOW FINISHED CEILING
BIW	BACKWARD INCLINED WHEEL
BG	BOTTOM GRILLE (WALL TYPE)
BJ	BETWEEN JOISTS
BOD	BOTTOM OF DUCT
BR	BOTTOM REGISTER (WALL TYPE)
C	CONVERTOR
CC	COOLING COIL
CCF	CENTRIFUGAL CEILING FAN
CD	CEILING DIFFUSER
CF	CENTRIFUGAL FAN
CG	CEILING GRILLE
CH	CHILLER UNIT
CO	CLEAN OUT
COMP.	COMPRESSOR
CONV.	CONVECTOR
CP	CONDENSATE PUMP
CR	CEILING REGISTER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CW	COLD WATER
Db	DRY BULB TEMPERATURE
dB	DECIBELS
DD	DUCT SMOKE DETECTOR
Dp	DEWPOINT TEMPERATURE
DPR	DAMPER
DWG(S)	DRAWING(S)
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EC	ELECTRICAL CONTRACTOR
EDH	ELECTRIC COIL DUCT HEATER
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EFR	EXHAUST FAN ROOF
EMD	END OF MAIN DRIP (STEAM)
ERV	ENERGY RECOVERY UNIT
ERP	ELECTRIC RADIANT CEILING PANEL
ET	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
EX	EXISTING
ETR	EXISTING TO REMAIN
FC	FAN COIL UNIT
FCW	FORWARD CURVED FAN
FLR	FLOOR
FDPR	FIRE DAMPER
FTR	FIN TUBE RADIATION
GH	GRAVITY HOOD
GC	GENERAL CONTRACTOR
GRV	GRAVITY RELIEF VENTILATOR
HC	HEATING COIL
HD	HOOD
HEX	HEAT EXCHANGER
HF	HEPA FILTER
HP	HORSEPOWER
HPR	HIGH PRESSURE STEAM CONDENSATE RETURN
HPS	HIGH PRESSURE STEAM
HRP	HYDRONIC RADIANT CEILING PANEL
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
IFB	INTEGRAL FACE AND BYPASS
IU	INDUCTION UNIT
IV	INLET VANES
LCD	LINEAR CEILING DIFFUSER
LPR	LOW PRESSURE STEAM CONDENSATE RETURN
LPS	LOW PRESSURE STEAM
LBS/HR	POUNDS PER HOUR
MA	MAKEUP AIR
MB	MIXING BOX
MC	MECHANICAL CONTRACTOR
MAX	MAXIMUM
MIN	MINIMUM
NOM	NOMINAL
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
OA	OUTDOOR AIR
P	PUMP
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PRV	PRESSURE REDUCING VALVE
RA	RETURN AIR
RF	RETURN FAN
RH	REHEAT COIL
Rh	RELATIVE HUMIDITY
RV	POWER TYPE ROOF VENTILATOR
SA	SUPPLY AIR
SD	SMOKE DAMPER
Sp. Gr.	SPECIFIC GRAVITY
SP	STATIC PRESSURE
SPS	STATIC PRESSURE SENSOR
TJ	THROUGH JOISTS
TYP	TYPICAL
UC	UNDERCUT
UH	UNIT HEATER
UJ	UNDER JOISTS
UV	UNIT VENTILATOR
VAV	VARIABLE AIR VOLUME
VCC	VOLUMETRIC CONTROL CENTER
VD	VOLUME DAMPER (MANUAL OPPOSED BLADE)
VFD	VARIABLE FREQUENCY DRIVE
VP	VACUUM PUMP
VR	VACUUM STEAM CONDENSATE RETURN
Wb	WET BULB TEMPERATURE
WF	WATER FILTER
WFMD	WATER FLOW MEASURING DEVICE
WP	WEATHER PROOF

HVAC GENERAL NOTES:

1. ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER AND ALL APPLICABLE CODES AND REGULATIONS, INCLUDING BUT NOT LIMITED TO THE LATEST APPLICABLE EDITIONS OF NFPA, IEEE, OSHA, SMACNA, INTERNATIONAL MECHANICAL CODE, INTERNATIONAL BUILDING CODE, STATE, COUNTY, AND LOCAL CODES.
2. HVAC CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS FOR A COMPLETE AND OPERABLE SYSTEM AS PART OF THE CONTRACT. FAILURE TO REVIEW DOES NOT RELIEVE THE CONTRACTOR OF FULFILLING THE CONTRACTUAL OBLIGATIONS.
3. THE HVAC CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL TAXES, FEES, AND OTHER COSTS IN CONNECTION WITH HIS WORK. THE CONTRACTOR SHALL FILE ALL NECESSARY APPROVALS OF ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK JURISDICTION, THE CONTRACTOR SHALL INCLUDE IN HIS SCOPE OF WORK, WITHOUT EXTRA COST TO THE OWNER, ALL LABOR, MATERIALS, SERVICES, APPARATUS, IN ORDER TO COMPLY WITH ALL APPLICABLE CODES, LAWS, ORDINANCES, RULES AND REGULATIONS.
4. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, RIGGING, APPLIANCES, TOOLS AND ACCESSORIES REQUIRED TO PROVIDE, INSTALL, CONNECT, AND TEST THE COMPLETE HEATING, VENTILATING AND AIR CONDITIONING SYSTEM AND ASSOCIATED EQUIPMENT IN ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS.
5. THE EXACT MOUNTING HEIGHTS AND LOCATIONS OF ALL HVAC EQUIPMENT SHALL BE FIELD VERIFIED AND COORDINATED WITH ALL OTHER MECHANICAL, ELECTRICAL, ARCHITECTURAL, AND STRUCTURAL SYSTEMS.
6. COORDINATE INSTALLATION OF ALL NEW WORK WITH ARCHITECTURAL AND STRUCTURAL PLANS AND ALL OTHER TRADES. CONTRACTOR SHALL TAKE ALL INTERFERENCES INTO CONSIDERATION. PROVIDE ALL NECESSARY OFFSETS AND TRANSITIONS WITH AREAS EQUIVALENT TO DUCT SIZES INDICATED ON DRAWINGS.
7. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ALL DIMENSIONS AND STRUCTURAL STEEL LOCATIONS AND SIZES. COORDINATE INSTALLATION OF ALL PIPING AND DUCTWORK, AND INSTALL ALL PIPING IN JOIST SPACE OR AS HIGH AS POSSIBLE TO PERMIT INSTALLATION OF ALL DUCTWORK. OFFSET DUCTWORK AS REQUIRED IN ORDER TO ACCOMMODATE WORK OF ALL OTHER TRADES.
8. DO NOT INSTALL ANY MECHANICAL WORK ABOVE ELECTRICAL PANELS OR EQUIPMENT.
9. FOR ALL BRANCH DUCT CONNECTIONS TO MAIN TRUNK, PROVIDE 45 DEGREE TRANSITION FITTING OR CONICAL TAP FOR ROUND DUCT. BUTT FITTINGS ARE NOT PERMITTED. PROVIDE MANUAL VOLUME DAMPER WITH LOCKING QUADRANT IN ALL BRANCH RUNOUTS TO GRILLES AND DIFFUSERS.
10. PROVIDE MITERED ELBOW WITH TURNING VANES OR ELBOW WITH CENTERLINE RADIUS EQUAL TO 1.5 TIMES DUCT WIDTH AT ALL CHANGES IN DIRECTION.
11. INSTALL ALL FIRE DAMPERS IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PROVIDE UL FIRE DAMPERS WITH BLADES OUT OF AIR STREAM. PROVIDE ACCESS DOOR AT ALL FIRE DAMPER LOCATIONS. FIRE DAMPERS IN RETURN AIR TRANSFER DUCTS ONLY MAY HAVE BLADES IN AIR STREAM.
12. THE FINISH AND COLOR OF ALL EXPOSED DUCTWORK, EQUIPMENT, AND AIR DEVICES SHALL BE COORDINATED WITH THE ARCHITECT. DUCTWORK THAT IS TO BE PAINTED SHALL BE OIL FREE.
13. VERIFY ALL EQUIPMENT VOLTAGES WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT.
14. PROVIDE DISCONNECT SWITCHES FOR ALL HVAC EQUIPMENT INCLUDING WEATHERPROOF UNITS AS REQUIRED.
15. PROVIDE PHASE LOSS PROTECTION FOR ALL POLY-PHASE MOTOR DEVICES.
16. THE FINAL LOCATION OF AIR DEVICES MUST BE COORDINATED WITH THE REFLECTED CEILING PLAN AND ALL OTHER MECHANICAL, ELECTRICAL, ARCHITECTURAL, AND STRUCTURAL SYSTEMS.
17. DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET STEEL, EXCEPT WHERE NOTED, IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE ASHRAE, NFPA, AND SMACNA RECOMMENDATIONS. SIZES AS SHOWN INDICATE INSIDE CLEAR DIMENSIONS OF THE AIR PASSAGE.
18. DUCT SIZES MUST BE VERIFIED FOR CLEARANCES AT THE JOB SITE PRIOR TO FABRICATION. DIMENSIONS MAY BE CHANGED TO ACCOMMODATE CONSTRUCTION AS LONG AS EFFECTIVE CROSS-SECTIONAL AREA IS MAINTAINED.
19. ALL CEILING MOUNTED EQUIPMENT MUST BE SUPPORTED DIRECTLY FROM BUILDING STRUCTURE WITH COMBINATION SPRING AND NEOPRENE- IN-SHEAR HANGERS AND ROD. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED TO ADEQUATELY SUPPORT THE LOAD.
20. PROVIDE FLEXIBLE CONNECTIONS AND VIBRATION ISOLATION ON ALL HVAC EQUIPMENT .
21. HVAC EQUIPMENT SHALL NOT RUN DURING CONSTRUCTION.
22. PROVIDE AIR VENTS AT HIGHEST POINTS OF HYDRONIC SYSTEM.
23. ALL MOTORS SHALL BE NEMA PREMIUM EFFICIENCY MOTORS.
24. PROVIDE COGGED BELTS FOR ALL FAN DRIVES.
25. M.C. SHALL BE RESPONSIBLE FOR ALL LOOSE LINTELS NECESSARY FOR INSTALLATION OF HIS MATERIALS. SIZES OF LINTELS SHOWN ON STRUCTURAL DRAWINGS.

HVAC GENERAL NOTES (CONT.):

26. CONTRACTOR TO VERIFY THAT ALL MATERIALS, CONDUITS, PIPES, AND WIRING SHALL BE PLENUM RATED IF EXPOSED IN PLENUM SPACE. NON-PLENUM RATED MATERIALS MUST BE PROTECTED SUCH THAT A PLENUM RATING IS MAINTAINED BETWEEN THE MATERIAL OR DEVICE AND THE PLENUM SPACE. CONTRACTOR SHALL NOTIFY ENGINEER IF NON-PLENUM-RATED WIRING EXISTS.
27. ALL METALLIC AND NON-METALLIC DUCTWORK JOINTS AND SEAMS SHALL BE SEALED, TAPED OR GASKETED.
28. ALL METALLIC AND NON-METALLIC DUCTWORK JOINTS AND SEAMS SHALL BE SEALED, TAPED OR GASKETED.THE MECHANICAL CONTRACTOR SHALL HAVE A THIRD PARTY CONTRACTOR TEST AND BALANCE ALL SYSTEMS PER DESIGN DOCUMENTS, PROVIDE A COPY OF THE TESTING AND BALANCING REPORT TO THE ENGINEER AND A COPY TO THE MECHANICAL INSPECTOR FOR REVIEW.
29. ALL CONTROL DEVICES, HEAT EXCHANGERS, AND HVAC SYSTEM COMPONENTS SHALL BE ACCESSIBLE WIHTOUT DISABLING FUNCTION OR VIOLATING A FIRE RATED ASSEMBLY OR REMOVING PERMANENT CONSTRUCTION, OTHER APPLIANCES, VENTING SYSTEMS OR PIPING/DUCTS NOT CONNECTED TO THE APPLIANCE BEING INSPECTED. A LEVEL WORKING SURFACE OF AT LEAST 30" DEEP BY 30" WIDE SHALL BE PROVIDED ON CONTROL SIDE OF APPLIANCE.
30. FLOAT CONTROL SWITCHES SHALL BE INSTALLED ON ALL HVAC EQUIPMENT IN WHICH CONDENSATE DRAIN PIPING IS UTILIZED AND REQUIRED. A DETECTION OF OVERFLOW OR FAILURE BY THE FLOAT CONTROL SWITCH SHALL DEACTIVATE THE HVAC EQUIPMENT IT IS ASSOCIATED WITH.
31. CONDENSATE PUMPS SHALL BE CONNECTED TO APPLIANCES OR EQUIPMENT WHERE NOTED SUCH THAT WHEN THE CONDENSATE PUMP FAILS, THE APPLIANCE OR EQUIPMENT BEING SERVED BY THE PUMP WILL BE DE-ENERGIZED AND SHALL SHUT DOWN. FLOAT CONTROLS SHALL BE WIRED IN SERIES WITH HVAC EQUIPMENT TO ENSURE THIS CONDITION.
32. THE MAXIMUM LENGTH OF EXHAUST DUCT FOR A DRYER SHALL BE DETERMINED BY THE INSTALLATION AND MAXIMUM EQUIVALENT LENGTH REQUIREMENTS OF THE DRYER MANUFACTURER.
33. REFRIGERATION ACCESS PORTS SHALL BE PROTECTED IN ACCORDANCE WITH IMC 2015 SECTION 1101.10 WHENEVER REFRIGERANT IS ADDED TO OR REMOVED FROM REFRIGERATION OR AIR CONDITIONING SYSTEMS.
34. CONDENSATE DRAIN LINES TO BE CONFIGURED OR EQUIPPED TO ALLOW FOR MAINTENANCE OF THE DRAIN, CAPS OR TEES, CROSS FITTINGS, UNIONS, REMOVABLE MECHANICAL CUFFLINKS AND SPECIALTY DEVICES MAY BE USED TO ALLOW FOR MAINTENANCE OF CONDENSATE DRAIN PIPING.
35. ALL EXHAUST AIR AND INTAKE OPENINGS THAT TERMINATE OUTDOORS SHALL BE PROTECTED WITH CORROSION-RESISTANT SCREENS, LOUVERS OR GRILLES. BIRDSCREENS ARE TO BE PROVIDED FOR ALL MECHANICAL AIR INTAKE AND EXHAUST OUTLET LOUVERS.
36. PROVIDE DRIP PANS AND EQUIPMENT PADS AT ALL NEW OR REINSTALLED EQUIPMENT.

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seal

general notes

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revisions

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2	ISSUE FOR BID AND PERMIT 09.24.2025
3	ISSUE FOR ZDR REVISIONS 01.07.2026
4	IFC & IFB 05.19.2026

project title

Owner:
HACP
412 Boulevard of the Alies
Pittsburgh,PA,15219

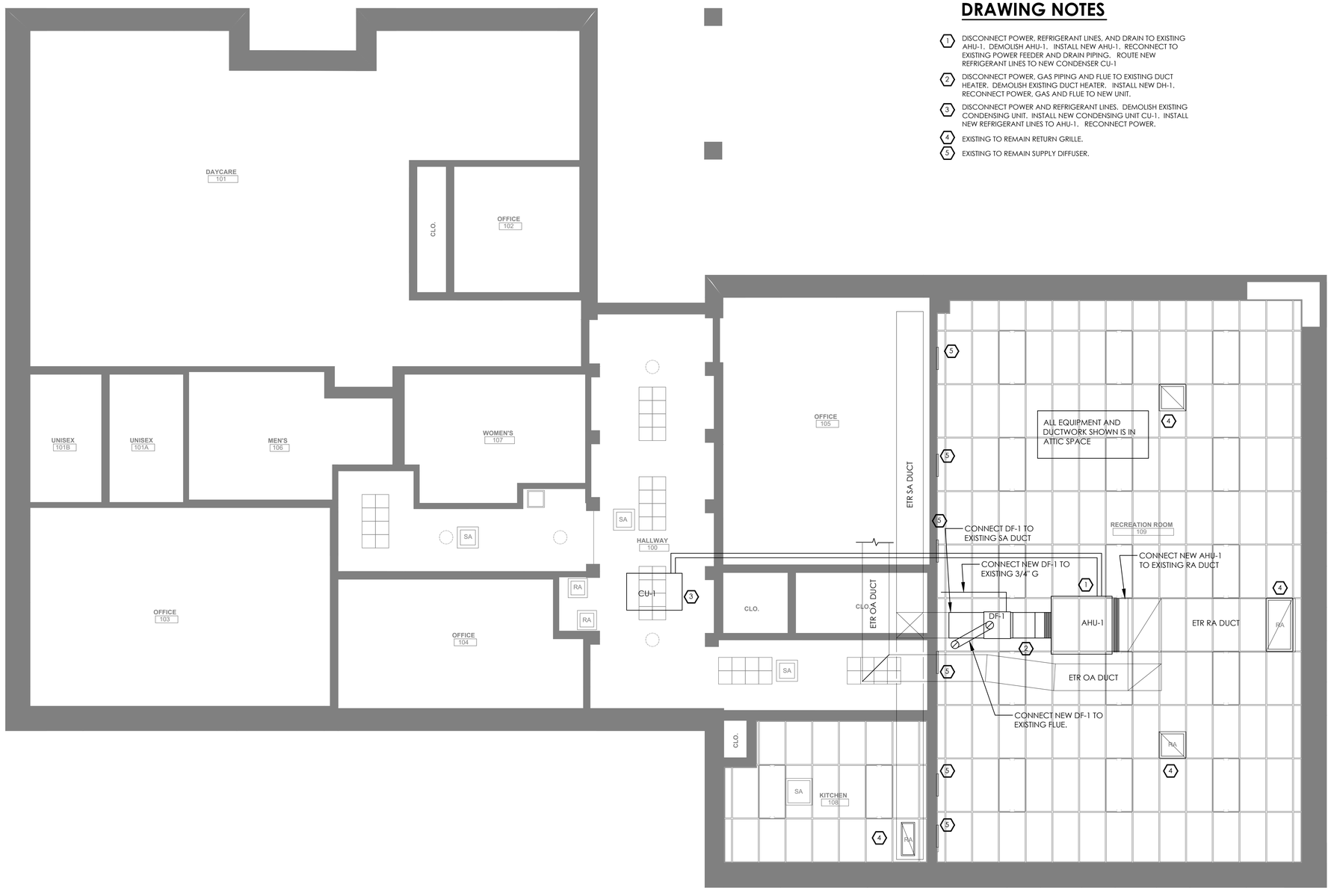
Project Location:
Homewood North - Community Center
HVAC Work Replacement
10 Albertice St.
Pittsburgh, PA 15208

drawing title

Mechanical Notes HACP
Homewood_Mechanical Set

scale As Noted
date 05.19.2026
no. 7 **of.** 10

Sheet No.
M000
Project #2441



DRAWING NOTES

1. DISCONNECT POWER, REFRIGERANT LINES, AND DRAIN TO EXISTING AHU-1. DEMOLISH AHU-1. INSTALL NEW AHU-1. RECONNECT TO EXISTING POWER FEEDER AND DRAIN PIPING. ROUTE NEW REFRIGERANT LINES TO NEW CONDENSER CU-1
2. DISCONNECT POWER, GAS PIPING AND FLUE TO EXISTING DUCT HEATER. DEMOLISH EXISTING DUCT HEATER. INSTALL NEW DH-1. RECONNECT POWER, GAS AND FLUE TO NEW UNIT.
3. DISCONNECT POWER AND REFRIGERANT LINES. DEMOLISH EXISTING CONDENSING UNIT. INSTALL NEW CONDENSING UNIT CU-1. INSTALL NEW REFRIGERANT LINES TO AHU-1. RECONNECT POWER.
4. EXISTING TO REMAIN RETURN GRILLE.
5. EXISTING TO REMAIN SUPPLY DIFFUSER.

1 / M100 MECHANICAL FLOOR PLAN

1/4" = 1' 0"

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Mechanical Plan HACP
Homewood_Mechanical Set

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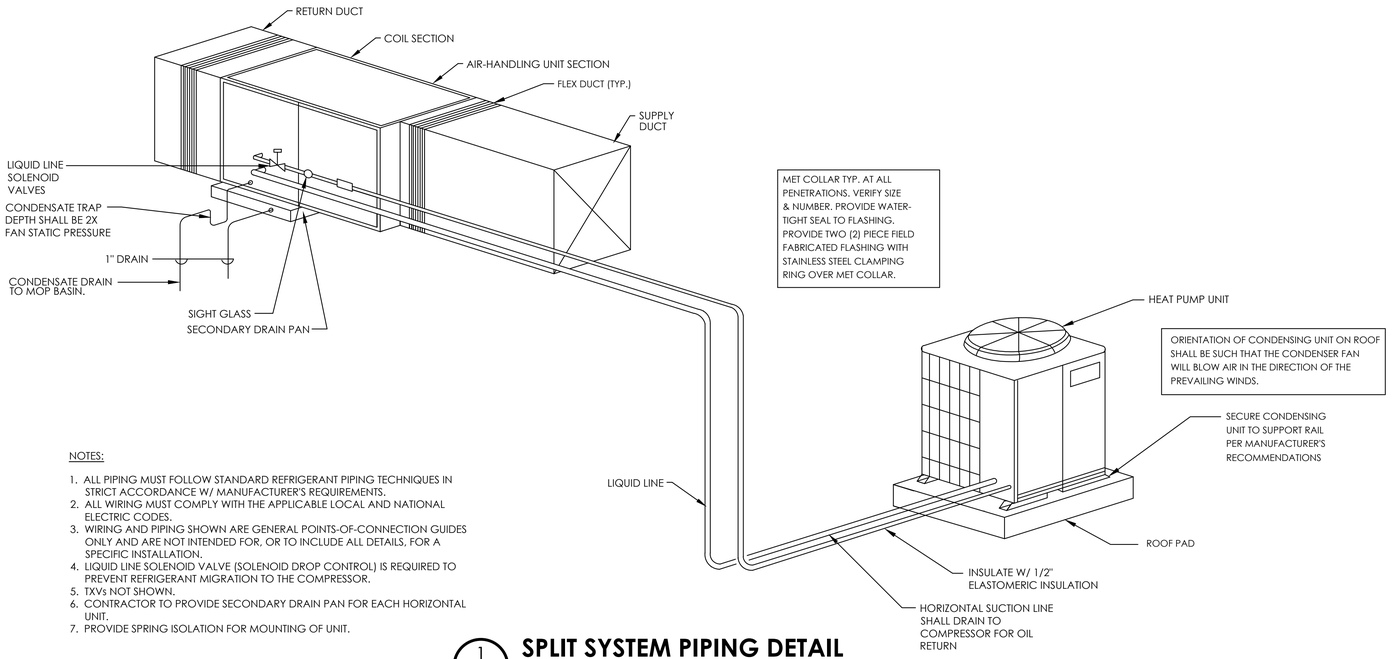
no.	8
of.	10

Sheet No.

M100

Project #2441

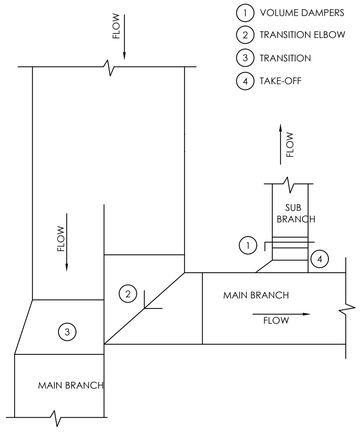


NOTES:

1. ALL PIPING MUST FOLLOW STANDARD REFRIGERANT PIPING TECHNIQUES IN STRICT ACCORDANCE W/ MANUFACTURER'S REQUIREMENTS.
2. ALL WIRING MUST COMPLY WITH THE APPLICABLE LOCAL AND NATIONAL ELECTRIC CODES.
3. WIRING AND PIPING SHOWN ARE GENERAL POINTS-OF-CONNECTION GUIDES ONLY AND ARE NOT INTENDED FOR, OR TO INCLUDE ALL DETAILS, FOR A SPECIFIC INSTALLATION.
4. LIQUID LINE SOLENOID VALVE (SOLENOID DROP CONTROL) IS REQUIRED TO PREVENT REFRIGERANT MIGRATION TO THE COMPRESSOR.
5. TXVs NOT SHOWN.
6. CONTRACTOR TO PROVIDE SECONDARY DRAIN PAN FOR EACH HORIZONTAL UNIT.
7. PROVIDE SPRING ISOLATION FOR MOUNTING OF UNIT.

1 / M200 **SPLIT SYSTEM PIPING DETAIL**

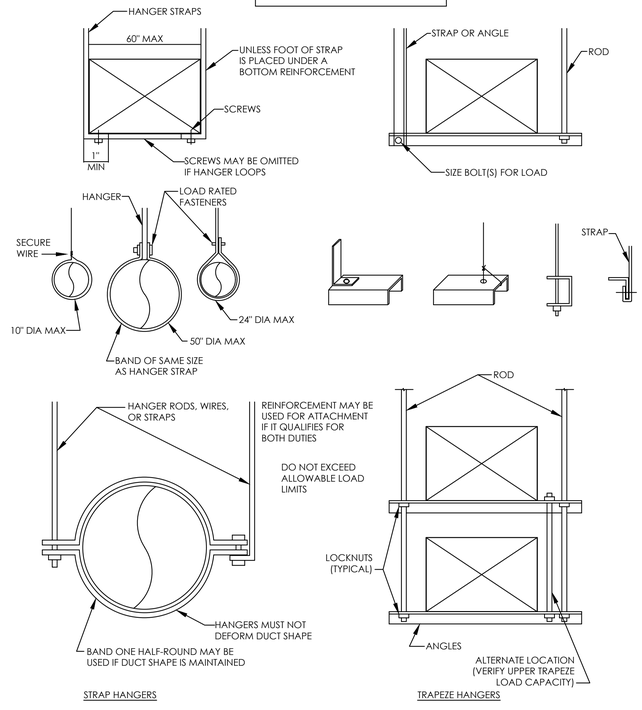
NTS



2 / M200 **BRANCH DUCT DETAIL**

NTS

NOTE: ATTACH ALL HANGERS FROM TOP CHORD OF JOISTS.



3 / M200 **HANGER ATTACHMENT DETAIL**

NTS

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Mechanical Details HACP
Homewood_Mechanical Set

scale	As Noted
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Project #2441

AHU SCHEDULE

MARK	CFM	MIN. OA	DX COOLING						ELECTRICAL			WEIGHT	MANUFACTURER	MODEL	REMARKS
			TOTAL	SENSIBLE	EDB	EWB	LDB	LWB	V/PH/HZ	MCA	MOP				
AHU-1	3000	1035	91.8 MBH	72.6 MBH	80	67	55.2	55.2	208/3/60	36	60	345	LENNOX	EL090KASD-1Y	* SEE NOTE 1 BELOW.

NOTE (1): HORIZONTAL AIR HANDLER, BELT-DRIVEN BLOWER MOTOR, FULLY INSULATED CABINET, MULTI-CIRCUIT, COPPER EVAPORATOR COILS, R454B REFRIGERANT, DRAIN PAN, EXTERNAL FILTER RACK, MULTISTAGE AIR VOLUME, SECONDARY DRAIN PAN, AIR FLOW SWITCH, STANDARD FILTERS, DISCONNECT, 7-DAY PROGRAMMABLE THERMOSTAT.

CONDENSING UNIT SCHEDULE

MARK	MFR.	MODEL	NOMINAL TONS	ELECTRICAL	MCA	MAX. FUSE	SUCTION LINE	LIQUID LINE	WEIGHT	REMARKS
CU-1	LENNOX	EL090KSST1Y	7.5	208/3/60	36	60	1-1/8"	5/8"	345 LBS	* SEE NOTE BELOW.

* CRANKCASE HEATER, IEER 14.8, EVAPORATOR FREEZE T-STAT, LOW AMBIENT PRESSURE SWITCH KIT, HARD START KIT, THERMOSTATIC EXPANSION VALVE, LIQUID LINE SOLENOID VALVE, HIGH & LOW PRESSURE SWITCHES, FILTER DRYER, FUSED DISCONNECT & SITE GLASS. INSTALL REFRIGERATION LINES IN ACCORDANCE WITH MANUFACTURERS LONG LINE APPLICATION GUIDE FOR LINE SETS OVER 80 FEET.

OUTDOOR AIR VENTILATION SCHEDULE

THERMAL ZONE	OCCUPANCY TYPE	AREA (SQ.FT.)	AREA OA RATE (CFM/SQ.FT.)	PEOPLE OA RATE (CFM/PERSON)	ZONE POPULATION	TOTAL OA REQUIRED (CFM)	VENTILATION TYPE	TOTAL EA REQUIRED (CFM)
		Az	Ra	Rp	Pz	Vz		Vz
COMMUNITY RM	MULTIPURPOSE	1500	0.06	5	180	990	MECHANICAL	-
OFFICE	OFFICE	310	0.06	5	2	30	MECHANICAL	-
BREAK ROOM	KITCHEN	150	0.06	5	1	15	MECHANICAL	-

GAS DUCT FURNACE SCHEDULE

MARK	LOCATION	MFR.	MODEL	BTUH/HR	ELECTRICAL	AMPS	REMARKS
DF-1	ATTIC	MODINE	DFG200	200,000	120/1Ø/60	14.5	PROVIDE DISCONNECT, INTEGRAL THERMOSTAT, MOUNTING BRACKETS

DUCTWORK MATERIAL AND INSULATION SCHEDULE

MARK	SYSTEM	MATERIAL	PRESSURE CLASS	INSULATION
SA	SUPPLY AIR - ATTIC	GALVANIZED, G90	SMACNA 1"	2" FIBERGLASS WRAP WITH VAPOR BARRIER
OA	OUTSIDE AIR - ATTIC	GALVANIZED, G90	SMACNA 1"	2" FIBERGLASS WRAP
RA	RETURN AIR - ATTIC	GALVANIZED, G90	SMACNA 1"	2" FIBERGLASS WRAP WITH VAPOR BARRIER

SEQUENCE OF OPERATION:

AHU(s) & CU(s)

THE FOLLOWING SEQUENCE OF OPERATION SHALL BE PROVIDED:

UNOCCUPIED MODE:

DURING THE UNOCCUPIED MODE THE OUTSIDE AIR DAMPER SHALL BE CLOSED. THE HEAT PUMP HEATING SHALL MAINTAIN A MINIMUM TEMPERATURE OF 60 DEGREES F. IF TEMPERATURE CONTINUES TO FALL, THE ELECTRIC RESISTANCE HEATER SHALL ENERGIZE. THE DX COOLING SHALL MAINTAIN A MAXIMUM TEMPERATURE OF 80 DEGREES. THE SUPPLY FAN SHALL OPERATE INTERMITTENTLY AS NECESSARY TO MAINTAIN SPACE TEMPERATURE.

OCCUPIED MODE:

DURING THE OCCUPIED MODE THE OUTSIDE AIR DAMPER SHALL OPEN TO 100% OPEN POSITION.

A PRESSURE SWITCH ACROSS THE AIR FILTER SHALL BE PROVIDED. THIS SHALL PROVIDE AN ALARM ON THE 7-DAY PROGRAMMABLE THERMOSTAT.

SPACE TEMPERATURE SHALL BE MAINTAINED VIA A PROGRAMMABLE 7-DAY THERMOSTAT. THE THERMOSTAT SHALL BE SET TO MAINTAIN 74 DEGREES IN THE SUMMER AND 72 DEGREES IN THE WINTER. AS THE SPACE TEMPERATURE RISES ABOVE THE TEMPERATURE SETPOINT, THE DX COOLING SHALL BE ENERGIZED. AS THE SPACE TEMPERATURE FALLS BELOW SPACE TEMPERATURE THE THE DX COOLING SHALL BE DE-ENERGIZED.
THE SUPPLY FAN SHALL BE ENERGIZED CONTINUOUSLY DURING THE OCCUPIED MODE.

DF(s) & CU(s)

THE FOLLOWING SEQUENCE OF OPERATION SHALL BE PROVIDED:

UNOCCUPIED MODE:

DURING THE UNOCCUPIED MODE THE OUTSIDE AIR DAMPER SHALL BE CLOSED. THE GAS-FIRED HEATING SHALL MAINTAIN A MINIMUM TEMPERATURE OF 60 DEGREES F. THE DX COOLING SHALL MAINTAIN A MAXIMUM TEMPERATURE OF 80 DEGREES. THE SUPPLY FAN SHALL OPERATE INTERMITTENTLY AS NECESSARY TO MAINTAIN SPACE TEMPERATURE.

OCCUPIED MODE:

DURING THE OCCUPIED MODE THE OUTSIDE AIR DAMPER SHALL OPEN TO 100% OPEN POSITION.

A PRESSURE SWITCH ACROSS THE AIR FILTER SHALL BE PROVIDED. THIS SHALL PROVIDE AN ALARM ON THE 7-DAY PROGRAMMABLE THERMOSTAT.

SPACE TEMPERATURE SHALL BE MAINTAINED VIA A PROGRAMMABLE 7-DAY THERMOSTAT. THE THERMOSTAT SHALL BE SET TO MAINTAIN 74 DEGREES IN THE SUMMER AND 72 DEGREES IN THE WINTER. AS THE SPACE TEMPERATURE RISES ABOVE THE TEMPERATURE SETPOINT, THE DX COOLING SHALL BE ENERGIZED. AS THE SPACE TEMPERATURE FALLS BELOW SPACE TEMPERATURE THE THE DX COOLING SHALL BE DE-ENERGIZED. IF THE SPACE TEMPERATURE CONTINUES TO FALL BELOW THE HEATING MINIMUM SETPOINT, THE AIR HANDLING UNITS GAS-FIRED HEATING SECTION SHALL ENERGIZE TO MAINTAIN THE SPACE TEMPERATURE.

THE SUPPLY FAN SHALL BE ENERGIZED CONTINUOUSLY DURING THE OCCUPIED MODE..

UNIT TO SHUTDOWN UPON SENSING WATER IN SECONDARY CONTAINMENT PAN. PROVIDE ALARM AT 7-DAY PROGRAMMABLE THERMOSTAT.

Fukui Architects Pc
205 Ross Street
Pittsburgh, Pennsylvania 15219
ph 412.281.6001 fx 412.281.6002

seal

general notes

1. Any conflicts in the drawings or between new and existing construction shall be referred to the Architect.
2. Contractor shall verify all dimensions and existing conditions in the field and shall advise **Fukui Architects, Pc** of any discrepancies between, additions to, deletions from, or alterations to any and all conditions prior to proceeding with any phase of work. **Do not scale drawings.**
3. All work shall be installed in accordance with applicable codes and regulations.
4. Contractor shall be responsible for the patching, repairing, and preparations of all existing floor, wall, and ceiling surfaces as required to receive scheduled finishes.
5. All items shown on drawings are finished construction assemblies. Contractor shall provide and install all material required for finished assemblies.
6. All reports, plans, specifications, computer files, field data, notices, and other documents and instruments prepared by the Architect as instruments of service shall remain the property of the Architect. The Architect shall retain all common law statutory, and other reserved rights, including the copyright thereto.

revisions

1 ISSUE FOR CLIENT REVIEW 02.28.2025
2 ISSUE FOR BID AND PERMIT 09.24.2025
3 ISSUE FOR ZDR REVISIONS 01.07.2026
4 IFC & IFB 05.19.2026

project title

Owner:
HACP
412 Boulevard of the Alies
Pittsburgh,PA,15219

Project Location:
Homewood North - Community Center
HVAC Work Replacement
10 Albertice St.
Pittsburgh, PA 15208

drawing title

Mechanical Schedules HACP
Homewood_Mechanical Set

scale As Noted
date 05.19.2026
no. 10 **of.** 10

Sheet No.
M300
Project #2441