NOVA PARKS

RIPTIDE RESTROOMS RENOVATION
CAMERON RUN REGIONAL PARK

4001 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA

BID & PERMIT SUBMISSION 06/30/2025

ARCHITECT

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SANTA FE, NEW MEXICO 87506
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VIENNA, VA 22180
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COMMONWEALTH OF VIRGINIA
RICHARD E. HURDLE
Lic. No. 0401 015732
ARCHITECT
06/30/2025

ABBREVIATIONS

A.B.	ANCHOR BOLT
A/C	AIR CONDITION
A.F.F.	ABOVE FINISH FLOOR
ALT.	ALTERNATE
ALUM.	ALUMINUM
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURAL
AUX.	AUXILIARY
ATTEN.	ATTENUATION
BD.	BOARD
BIT.	BITUMINOUS
BLK'G.	BLOCKING
B.O.	BOTTOM OF
BM.	BEAM
BOT., BOTT.	BOTTOM
BR.	BRICK
BRZ.	BRONZE
BU.	BUILT-UP
C	COURSING
CER.	CERAMIC
C, COND.	CONDUIT
C.J.	CONTROL JOINT
CLG.	CEILING
CLR.	CLEAR
CMU	CONCRETE MASONRY UNIT
C.O.	CLEAN OUT
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
C.T.	CERAMIC TILE
CTR.	CENTER
C.W.	COLD WATER
DBL.	DOUBLE
DET.	DETAIL
DIA.	DIAMETER, DIAGRAM
DN.	DOUN
DTLS.	DETAILS
DWG.	DRAWING
EA.	EACH
EF.	EXHAUST FAN
E.J.	EXPANSION JOINT
ELECT.	ELECTRIC
ELEV., EL.	ELEVATION
EQ.	EQUAL
EQUIP.	EQUIPMENT
E.W.	EACH WAY
E.W.C.	ELECTRIC WATER COOLER
EXT.	EXTERIOR
EXIST.	EXISTING
F.C.	FIRE CODE
F.D.	FLOOR DRAIN
F.E.	FIRE EXTINGUISHER
FIN.	FINISH
F.F.	FINISH FLOOR
FLR.	FLOOR
FIXT.	FIXTURE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.R.	FIRE RETARDANT
F.R.P.	FIBERGLASS REINFORCED PANEL
FRTW.	FIRE RETARDANT TREATED WOOD
F.S.	FLOOR SINK
FT.	FOOT
FTG.	FOOTING
F.V.	FIELD VERIFY PRIOR TO CONSTRUCTION
GA.	GAUGE
GALV.	GALVANIZED
G.C.	GENERAL CONTRACTOR
GOVT.	GOVERNMENT
G.P.M.	GALLONS PER MINUTE
GRD.	GROUND
G.W.	GREASY WASTE
GYP.	GYPSUM
H.B.	HOSE BIB
H.C.	HOLLOW CORE
H.D.	HAND DRYER
HEX.	HEXAGONAL
H.M.	HOLLOW METAL
H.C.	HANDICAP
HR.	HOUR
HT., HGT.	HEIGHT
H.W.	HOT WATER
ICF	INSULATION CONCRETE FORMS
I.D.	INSIDE DIAMETER
IN.	INCH
INT.	INTERIOR
INSUL.	INSULATION
JAN.	JANITOR
JST.	JOIST
JSTS.	JOISTS
JT.	JOINT
K.O.	KNOCK OUT
L	LONG
LAM.	LAMINATE
LAV.	LAVATORY
L.L.H.	LONG LEG HORIZONTAL
L.L.V.	LONG LEG VERTICAL
LOC.	LOCATION
L.P.	LOW POINT
LT.	LIGHT
MAS.	MASONRY
MAT'L.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MEMB.	MEMBRANE
MEZZ.	MEZZANINE
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MTD.	MOUNTED
MTL.	METAL
N.I.C.	NOT IN CONTRACT
NO., #	NUMBER
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OFF.	OFFICE
O.H.	OVER HEAD
O/O	OUT-TO-OUT
OPNG.	OPENING
OPP.	OPPOSITE
P L	PLATE
PLYWD.	PLYWOOD
PLWD.	PLYWOOD
P.O.S.	POINT OF SALE
PREFAB.	PREFABRICATED
P.S.F.	POUNDS PER SQ. FOOT
P.S.I.	POUNDS PER SQ. INCH
P.T.	PRESSURE TREATED
PTD.	PAINTED
PTN.	PARTITION
P.V.C.	POLYVINYL CHLORIDE
RAD. (R)	RADIUS
RD.	ROOF DRAIN
REBAR	REINFORCING BAR
RECEPT.	RECEPTACLE
REF.	REFERENCE
REINF.	REINFORCING
REQ'D.	REQUIRED
REV.	REVISED, REVISION
RM.	ROOM
R.O.	ROUGH OPENING
	SOUTH
SAT	SUSPENDED ACOUSTICAL TILE
S.C.	SOLID CORE
SHT.	SHEET
SPEC.	SPECIFICATION PROJECT MANUAL
S/S, S.S.	STAINLESS STEEL
STD.	STANDARD
STOR	STORAGE
STL.	STEEL
STRUCT.	STRUCTURAL
SURF. MTD.	SURFACE MOUNTED
SUSP.	SUSPENDED
	TOILET
TEL.	TELEPHONE
TEMP.	TEMPERATURE
THRU.	THROUGH
T&G	TONGUE AND GROOVE
T.O.S.	TOP OF STEEL
TYP.	TYPICAL
U.C.	UNDER CUT
U.L.	UNDERWRITERS LABORATORY
U.O.N.	UNLESS OTHERWISE NOTED
UR.	URINAL
UTIL.	UTILITY
V.C.T.	VINYL COMPOSITION TILE
VEN.	VENEER
VENT.	VENTILATION
VERT.	VERTICAL
VEST.	VESTIBULE
V.I.F.	VERIFY IN FIELD
V.R.	VAPOR RETARDER
V.T.R.	VENT THRU ROOF
V.W.C.	VINYL WALL COVERING
W/	WITH
W.C.	WATER CLOSET
WD.	WOOD
W.H.	WATER HEATER
W/O	WITHOUT
W.P.	WATER PROOF
W.W.F.	WELDED WIRE FABRIC
W.W.M.	WELDED WIRE MESH
△	ANGLE
@	AT
℄	CENTER LINE
⌀	DIAMETER

PROJECT DATA

PROJECT — CAMERON RUN REGIONAL PARK
RIPTIDE RESTROOMS RENOVATION
4001 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA
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10614 FIESTA ROAD
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SCOPE OF WORK

INTERIOR RENOVATION AND UPGRADE OF EXISTING RESTROOM FACILITY TO MEET CURRENT ACCESSIBILITY CODES. WORK TO INCLUDE:

- REPLACEMENT OF PLUMBING FIXTURES
- REPLACEMENT OF TOILET PARTITIONS
- REPLACEMENT OF LIGHTING
- REPLACEMENT OF WASHROOM ACCESSORIES
- NEW WALL AND FLOOR FINISHES

DRAWING HIERARCHY

1. DO NOT SCALE THE DRAWINGS
2. ALL NEW WALL DIMENSIONS ARE TO THE FACE OF STUDS UNLESS NOTED OTHERWISE.
3. NOTES APPLIED TO AN ELEMENT OF DRAWING SHALL APPLY TO ALL SIMILAR INSTANCES OF THAT ELEMENT IN OTHER DRAWINGS UNLESS NOTED OTHERWISE.
4. DOCUMENT INTERPRETATIONS IN THE EVENT OF CONFLICTING INFORMATION SHALL BE RESOLVED AS FOLLOWS:

- IN THE EVENT OF SMALL SCALE DRAWING CONFLICTS WITH LARGE SCALE DRAWING - THE LARGE SCALE DRAWING PREVAILS.
- IF A DRAWING CONFLICTS WITH A SCHEDULE THE SCHEDULE PREVAILS.
- IF A DRAWING OR SCHEDULE CONFLICTS WITH THE PROJECT MANUAL THE PROJECT MANUAL PREVAILS
- IN THE EVENT OF A VARIANCE, ADDENDA PREVAIL OVER PROJECT MANUAL, DRAWINGS AND SCHEDULES
- IN THE EVENT OF A VARIANCE, REVISIONS PREVAIL OVER ADDENDA, PROJECT MANUAL, DRAWINGS AND SCHEDULES

CODES

- VIRGINIA UNIFORM STATEWIDE BUILDING CODE 2021
- VIRGINIA EXISTING BUILDING CODE 2021
- VIRGINIA ELECTRICAL CODE 2020
- VIRGINIA FUEL GAS CODE 2021
- VIRGINIA STATEWIDE FIRE PREVENTION CODE 2021
- ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES ANSI A117.1 2017
- VIRGINIA PLUMBING CODE 2021
- VIRGINIA MECHANICAL CODE 2021
- VIRGINIA ENERGY CONSERVATION CODE 2021

GENERAL NOTES

1. GENERAL CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS NECESSARY FOR COMPLETE INSTALLATION AS DETAILED HEREIN. EACH CONTRACTOR SHALL RESPECT THE WORK OF OTHER CONTRACTORS AND IS RESPONSIBLE FOR AND LIABLE TO REPAIR OR REPLACE ANY DAMAGE CAUSED BY HIS WORK.

2. THE GENERAL CONTRACTOR SHALL PROVIDE ON-SITE WEATHER-PROTECTED STORAGE SPACE IN LOCATION DIRECTED BY OWNERS REPRESENTATIVE.

3. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH LOCAL AND STATE CODES AND REGULATIONS HAVING JURISDICTION. THE CONTRACTOR SHALL PROTECT AND INDEMNIFY THE OWNER AND ARCHITECT AGAINST ANY CLAIM OR LIABILITY ARISING FROM VIOLATION OF ANY SUCH CODE OR REGULATION.

4. THE GENERAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS, INSPECTIONS, AND APPROVALS.

5. WORKMANSHIP SHALL BE OF THE HIGHEST TYPE, AND MATERIALS USED OR SPECIFIED OF THE BEST QUALITY THAT THE MARKET AFFORDS. ALL INSTALLATIONS AND APPLICATIONS SHALL CONFORM TO THE MANUFACTURERS' SPECIFICATIONS.

6. THE GENERAL CONTRACTOR SHALL COORDINATE THE WORK OF ALL SUBCONTRACTORS FOR TRADES WHETHER THEY RECEIVE THEIR CONTRACT FROM THE CONTRACTOR OR OUNER. THE GENERAL CONTRACTOR'S INSTRUCTIONS SHALL BE FOLLOWED BY ALL TRADES.

7. THE MECHANICAL AND ELECTRICAL TRADES SHALL PREPARE ALL DRAWINGS REQUIRED TO SECURE A PERMIT FOR THEIR PORTION OF THE WORK. INSTALL THEIR WORK AS RAPIDLY AS THE OTHER WORK PERMITS, AND SHALL COMPLETE THE WORK BY THE TIME THE OTHER TRADES HAVE FINISHED.

8. EXAMINATION OF SITE AND DOCUMENTS: THE GENERAL CONTRACTOR BEFORE SUBMITTING HIS PROPOSAL SHALL VISIT THE SITE AND EXAMINE FOR HIMSELF ALL EXISTING CONDITIONS AND LIMITATIONS WHICH AFFECT THE CONTRACT. HE SHALL CAREFULLY EXAMINE ALL CONTRACT DOCUMENTS. TITLES AND SUBDIVISIONS IN THESE DOCUMENTS ARE FOR CONVENIENCE, AND NO REAL OR ALLEGED ERRORS IN ARRANGEMENT OF DOCUMENTS SHALL BE REASON FOR OMISSION OR DUPLICATION BY ANY CONTRACTOR.

9. THE OUNER RESERVES THE RIGHT TO AWARD OTHER CONTRACTS IN CONNECTION WITH THIS WORK. THE GENERAL CONTRACTOR SHALL AFFORD OTHER CONTRACTORS REASONABLE OPPORTUNITY FOR THE EXECUTION OF THEIR WORK AND SHALL PROPERLY CONNECT AND COORDINATE HIS WORK WITH THEIRS.

10. ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE UNLESS SPECIFIED OTHERWISE FOR A LONGER PERIOD OF TIME.

11. AT THE END OF EACH DAY, CONTRACTORS SHALL REMOVE ALL THEIR TRASH AND DEBRIS FROM THE SITE AND/OR WITHIN THE BUILDING (AREA SHOULD BE SWEPT CLEAN). IF TRASH AND DEBRIS ARE NOT REMOVED, THE OUNER MAY (AT HIS OPTION) PAY FOR ITS REMOVAL AND BACK CHARGE THE CONTRACTOR.

12. THE GENERAL CONTRACTOR SHALL COORDINATE THE LOCATION AND SIZE OF OPENINGS FOR VENTS, PIPES, INSERTS, BOXES, HANGERS, ETC.

13. THE GENERAL CONDITIONS FOR THIS CONTRACT SHALL BE AS CONTAINED IN THE BID DOCUMENTS

14. ALL ERECTION, DETAILS, MATERIALS, METHODS, ETC., SHOWN AND/OR NOTED ON ANY PLAN OR SECTION SHALL APPLY TO ALL OTHER SIMILAR LOCATIONS UNLESS OTHERWISE NOTED.

15. THE GENERAL CONTRACTOR SHALL SAFELY SHORE, BRACE, OR SUPPORT ALL WORK AS REQUIRED. THIS WORK SHALL BE THE FULL RESPONSIBILITY OF THE GENERAL CONTRACTOR, AND NO ACT, DIRECTION, OR REVIEW OF ANY SYSTEM OR METHOD BY THE ARCHITECT SHALL RELIEVE THE CONTRACTOR OF THIS RESPONSIBILITY. ALL NEW CONSTRUCTION WORK IS TO BE PERFORMED IN STRICT ACCORDANCE WITH THE PROVISIONS LISTED UNDER CHAPTER 33 OF IBC 2012. CONTRACTOR SHALL FOLLOW SAFETY GUIDELINES ESTABLISHED BY OSHA AND OTHER LOCAL AND FEDERAL GUIDELINES.

16. IT IS NOT THE INTENT OF THESE DRAWINGS TO SHOW OR INDICATE ALL FASTENING OR FRAMING TECHNIQUES AND/OR DEVICES, OR TO SHOW ALL CONDITIONS PRESENT.

17. SUBMIT SAMPLES OF ALL PAINTS AND STAINS FOR APPROVAL.

18. PROVIDE FIRE STOPPING AT PENETRATIONS THROUGH ANY EXISTING FIRE RATED ASSEMBLIES AROUND VENTS, PIPES, HIGH AND LOW VOLTAGE ELECTRICAL WIRING, DUCTS CHUTES THROUGH CEILINGS, FLOORS AND WALLS WITH UL TESTED AND APPROVED MEANS OF PENETRATION PROTECTION SYSTEM THAT INCLUDES FIRE SAFING AND PROTECTIVE COLLAR AS APPLICABLE.

19. PROVIDE ALL ITEMS INDICATED BY NOTE OR DRAWING, UNLESS INDICATED AS EXISTING TO REMAIN.

20. CONCEALED INSULATION SHALL COMPLY WITH IBC 2012 TO HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND SMOKE DEVELOPED INDEX OF NOT MORE THAN 450.

CODE ANALYSIS

STRUCTURE ORIGINALLY BUILT IN 1982

TYPE OF CONSTRUCTION (SECTION 602)	TYPE 5B	
USE GROUP	B	
FIRE ALARM	NO	
SPRINKLERED	NO	
BUILDING HEIGHT AND AREA (TABLE 503)	MAXIMUM	PROVIDED
NO. OF STORIES	2 STORIES	1 STORY
HEIGHT	40'-0"	20'-0" TO RIDGE
BUILDING AREA / RESTROOM AREA	9,000SF	2049 SF / 296 SF

BUILDING INSULATION SCHEDULE

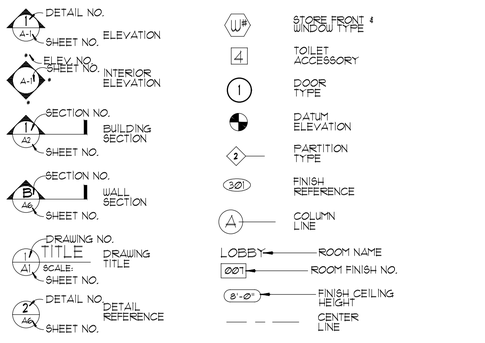
LOCATION	MATERIAL	MINIMUM R-VALUE
EXTERIOR WALLS	NONE EXISTS	Ø
SLAB PERIMETER	NONE EXISTS	Ø
ROOF	NONE EXISTS	Ø

FIXED VERTICAL FENESTRATION :NO WINDOWS ENTRANCE DOORS : NO GLASS DOORS

FIRE RESISTANCE RATINGS	IBC SECTION	REQUIRED	PROVIDED
STRUCTURAL FRAME,	TABLE 601	Ø HR	Ø HR
BEARING AND NONBEARING WALLS	TABLE 601	Ø HR	Ø HR
FLOOR CONSTRUCTION	TABLE 601	Ø HR	Ø HR
ROOF CONSTRUCTION	TABLE 601	Ø HR	Ø HR
INCIDENTAL STORAGE AREA LESS THAN 10% OF USE	TABLE 509	Ø HR	Ø HR
EXTERIOR WALLS SEPARATION DISTANCE IS 20' TO UTILITY USE STRUCTURE	TABLE 602	Ø HR	Ø HR
OCCUPANT LOAD 150 SF PER PERSON	TABLE 1004.5		5 OCCUPANTS
NUMBER OF EXITS	SECTION 1006.3.2	1	1
TRAVEL DISTANCE	TABLE 1017.2	200' MAX	15'
COMMON PATH OF TRAVEL	TABLE 1006.2.1	75' MAX	10'
SIZE OF EGRESS DOOR		32" MIN	36"
INTERIOR FINISHES	NON-SPRINKLERED	REQUIRED	PROVIDED
WALL&CEILING FINISHES-ROOMS & ENCLOSED SPACES	TABLE 803.11	CLASS C	C MIN
FLOOR FINISHES-ROOMS & ENCLOSED SPACES	SECTION 804.1	CLASS II	CLASS II
EXTERIOR FINISHES		REQUIRED	PROVIDED
ROOF COVERING	TABLE 1505.1	C	C

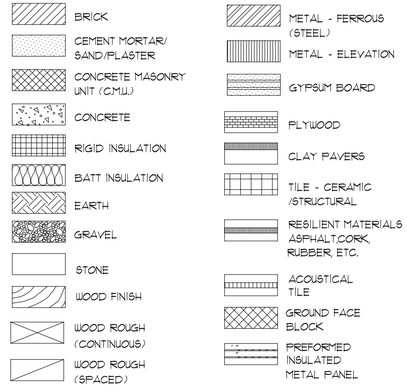
SYMBOLS

(ALL MATERIALS SHOWN BELOW MAY NOT APPEAR ON THE DWG.S)



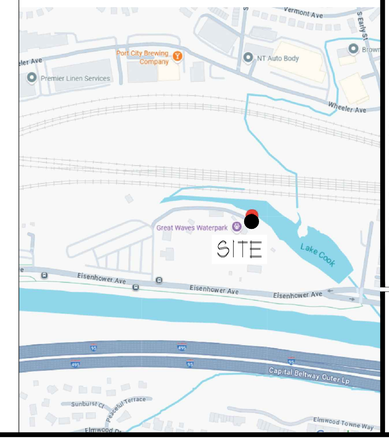
MATERIALS

(ALL MATERIALS SHOWN BELOW MAY NOT APPEAR ON THE DWG.S)



DRAWING INDEX

LOCATION MAP



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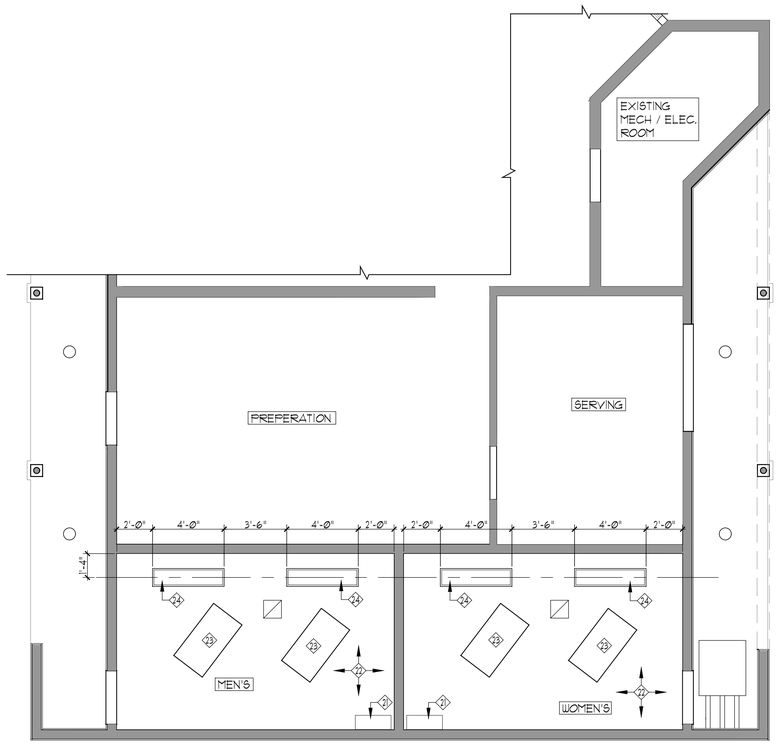
COMMONWEALTH OF VIRGINIA
RICHARD E. HURDLE
Lic. No. 0401 015732
ARCHITECT
06/30/2025

REVISION	DATE	DESCRIPTION
	06/30/2025	ISSUED FOR PERMIT
		DESIGNED BY:
		DRAWN BY:
		CHECKED BY:
		APPROVED BY:

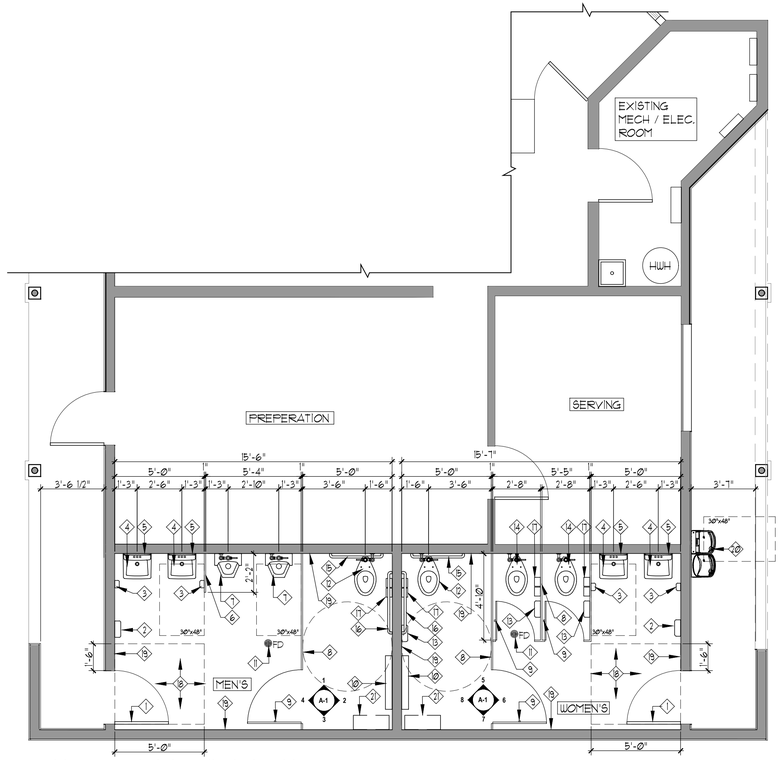
CAMERON RUN REGIONAL PARK /
RIPTIDE RESTROOM RENOVATION
4001 EISENHOWER AVE, ALEXANDRIA, VA 22304
PROJECT NUMBER: 25.0100
SCALE: AS SHOWN

PROJECT INFO, CODE ANALYSIS DRAWING INDEX & SYMBOLS

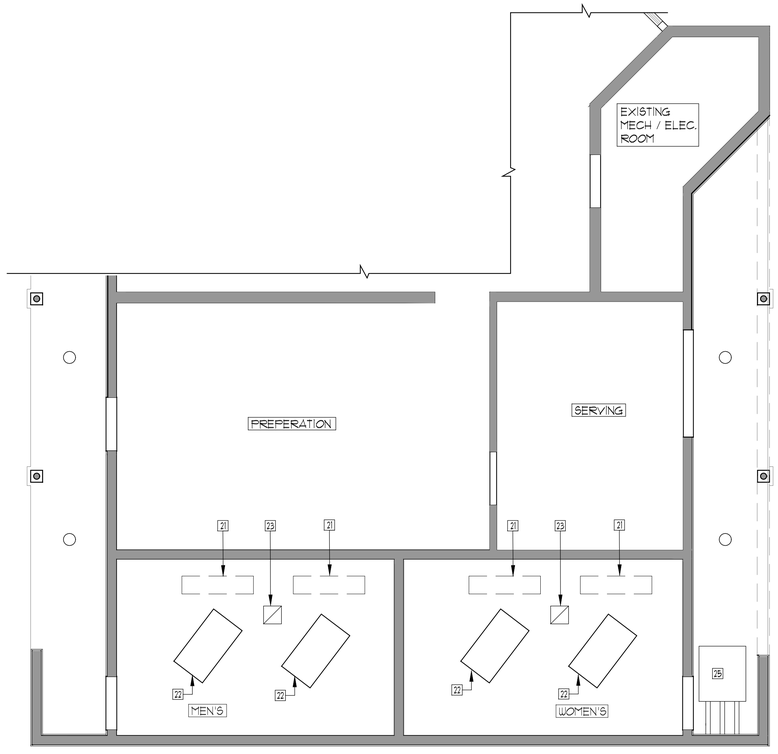
CS.2



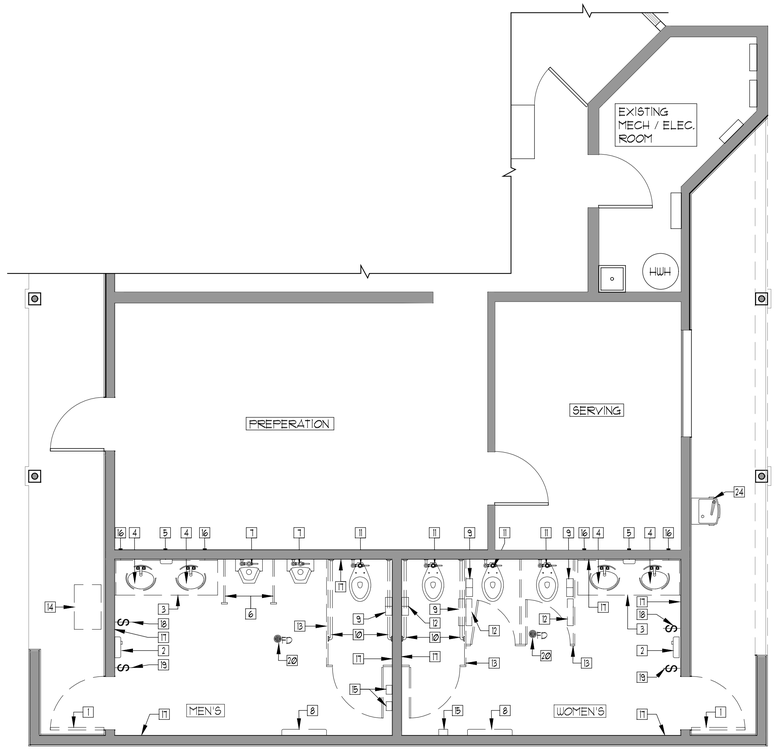
4 A-1 REFLECTED CEILING PLAN - NEW WORK
SCALE: 1/4"=1'-0"



2 A-1 FLOOR PLAN - NEW WORK
SCALE: 1/4"=1'-0"



3 A-1 REFLECTED CEILING PLAN - DEMOLITION
SCALE: 1/4"=1'-0"



1 A-1 FLOOR PLAN - DEMOLITION
SCALE: 1/4"=1'-0"

NEW WORK KEY NOTES:

1. NEW IN-SWINGING HOLLOW MTL. DOOR AND FRAME (W/ LOUVER)
2. NEW HAND DRYER
3. NEW SOAP DISPENSER
4. NEW WALL HUNG LAVATORY & FAUCET PROVIDE SUPPORT INSIDE EXISTING WALL
5. NEW 18"X30" MIRROR
6. NEW URINAL PARTITION - 24" WIDE
7. NEW URINAL WITH FLUSH VALVE
8. NEW TOILET PARTITON WITH DOOR
9. NEW ROBE HOOK
10. NEW BABY CHANGING TABLE
11. NEW FLOOR DRAIN - SEE PLUMB. DWGS
12. NEW ACCESSIBLE TOILET WITH FLUSH VALVE
13. NEW SANITARY NAPKIN DISPOSAL
14. NEW TOILET WITH FLUSH VALVE
15. NEW STAINLESS STEEL 36" LONG GRAB BAR
16. NEW STAINLESS STEEL 42" LONG GRAB BAR
17. NEW DOUBLE ROLL TOILET PAPER DISPENSER
18. NEW EPOXY FLOOR AND BASE
19. PROVIDE NEW FRP PANELS ON ALL WALLS
20. NEW HI/LOW DRINKING FOUNTAIN
21. CUSTODIAL STORAGE CABINET MTD. 6'-6" AFF TO BOTTOM
22. PAINT EXISTING CEILING
23. PAINT INSIDE EXISTING SKYLITES
24. NEW 1'-0"X4'-0" SURFACE MOUNTED LED LIGHT FIXTURE

DEMOLITION KEY NOTES:

1. REMOVE EXISTING DOOR AND FRAME
2. REMOVE EXISTING HAND DRYER
3. REMOVE EXISTING VANITY
4. REMOVE EXISTING LAVATORIES & FAUCETS
5. REMOVE EXISTING SOAP DISPENSER
6. REMOVE EXISTING URINAL PARTITION
7. REMOVE EXISTING URINAL & FLUSH VALVE
8. REMOVE EXISTING BABY CHANGING TABLE
9. REMOVE EXISTING TOILET PAPER DISPENSER
10. REMOVE EXISTING GRAB BARS
11. REMOVE EXISTING TOILET
12. REMOVE EXISTING SANITARY NAPKIN DISPOSAL
13. REMOVE EXISTING TOILET PARTITION AND DOOR
14. REMOVE EXISTING STORAGE BIN
15. REMOVE WALL MTD. DEODORIZER
16. REMOVE EXISTING MIRRORS & TURN OVER TO OWNER
17. REMOVE ALL EXISTING FRP IN MEN'S AND WOMEN'S ROOM
18. REMOVE EXISTING SWITCH FOR EXHAUST FAN - SEE ELEC. DWGS
19. REMOVE EXISTING LIGHT SWITCH - SEE ELEC. DWGS
20. REMOVE EXISTING FLOOR DRAIN - SEE PLUMB. DWGS
21. REMOVE EXISTING 1X4 LIGHT FIXTURE
22. EXISTING SKYLIGHT TO REMAIN
23. EXISTING EXHAUST TO REMAIN
24. REMOVE EXISTING DRINKING FOUNTAIN
25. EXISTING ELECTRICAL PULL BOX TO REMAIN

RCP LEGEND:

- RECESSED DOWNLIGHTS
- EXHAUST FAN & GRILLE - CEILING MOUNTED
- 1X4 LIGHT FIXTURE
- SUPPLY REGISTER
- EMERGENCY LIGHT

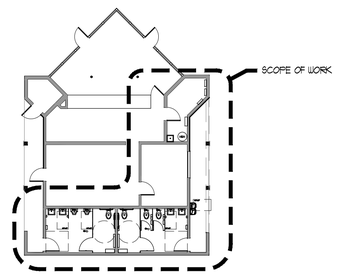
GENERAL NOTES:

1. SEE A-2 FOR ACCESSORY SCHEDULE

NEW CONSTRUCTION LEGEND:

- NEW CONSTRUCTION
- EXISTING CONSTRUCTION
- DOOR NUMBER - SEE A-2

KEY PLAN: SCALE: NTS



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COMMONWEALTH OF VIRGINIA
RICHARD E. HURDLE
Lic. No. 0401 015732
ARCHITECT
06/30/2025

REVISION	DATE	DESCRIPTION
	06/30/2025	ISSUED FOR PERMIT

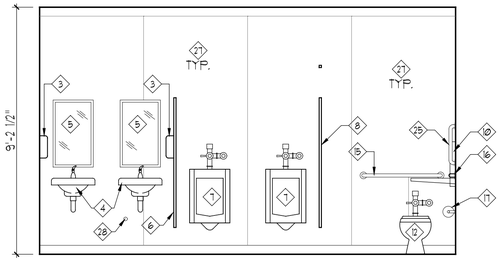
DESIGNED BY:
DRAWN BY:
CHECKED BY:
APPROVED BY:

CAMERON RUN REGIONAL PARK /
RIPTIDE RESTROOM RENOVATION
4001 EISENHOWER AVE, ALEXANDRIA, VA 22304

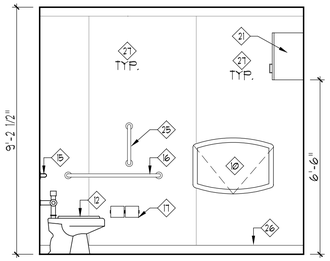
PROJECT NUMBER: 25101.00
SCALE: AS SHOWN

DEMOLITION, FLOOR PLAN & REFLECTED CEILING PLAN

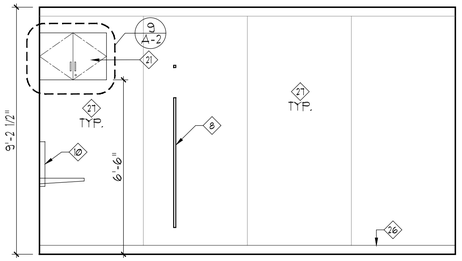
A-1



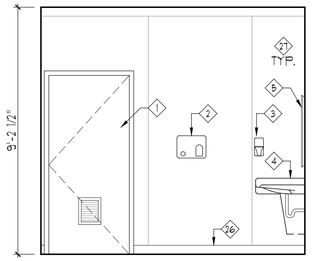
1 A-2 INTERIOR ELEVATION
SCALE: 3/8"=1'-Ø" MEN'S



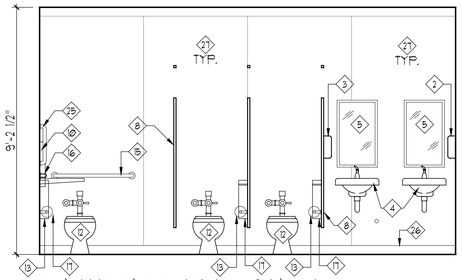
2 A-2 INTERIOR ELEVATION
SCALE: 3/8"=1'-Ø" MEN'S



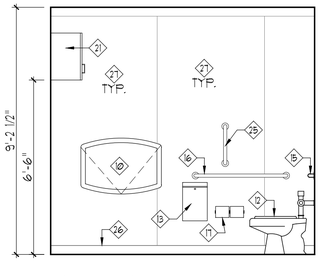
3 A-2 INTERIOR ELEVATION
SCALE: 3/8"=1'-Ø" MEN'S



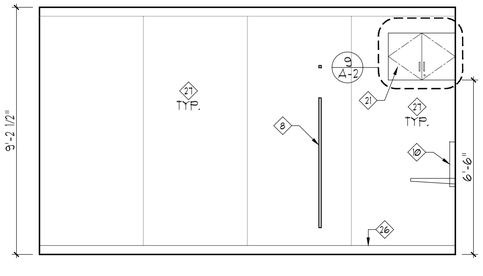
4 A-2 INTERIOR ELEVATION
SCALE: 3/8"=1'-Ø" MEN'S



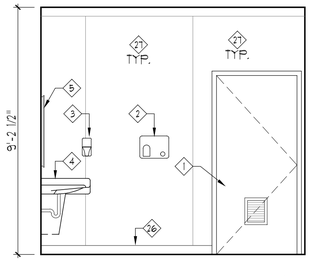
5 A-2 INTERIOR ELEVATION
SCALE: 3/8"=1'-Ø" WOMEN'S



6 A-2 INTERIOR ELEVATION
SCALE: 3/8"=1'-Ø" WOMEN'S



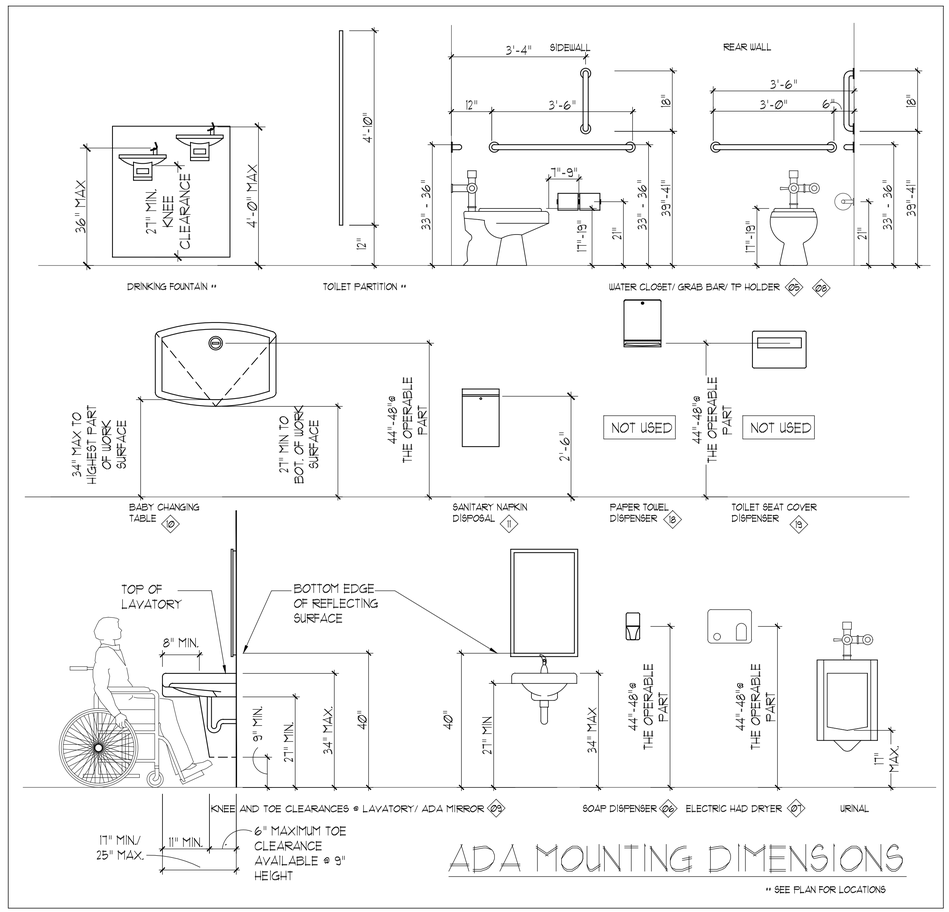
7 A-2 INTERIOR ELEVATION
SCALE: 3/8"=1'-Ø" WOMEN'S



8 A-2 INTERIOR ELEVATION
SCALE: 3/8"=1'-Ø" WOMEN'S

NEW WORK KEY NOTES: (#)

Ø NEW IN-SWINGING HOLLOW MTL. DOOR AND FRAME (W/ LOUVER), PAINTED
1 NEW HAND DRYER
2 NEW SOAP DISPENSER
3 NEW WALL HUNG LAVATORY & FAUCET PROVIDE SUPPORT INSIDE EXISTING WALL
4 NEW 18"X30" MIRROR
5 NEW URINAL PARTITION - 24" WIDE
6 NEW URINAL WITH FLUSH VALVE
7 NEW TOILET PARTITON WITH DOOR
8 NEW ROBE HOOK
9 NEW BABY CHANGING TABLE
10 NEW FLOOR DRAIN - SEE PLUMB. DWGS
11 NEW ACCESSIBLE TOILET WITH FLUSH VALVE
12 NEW SANITARY NAPKIN DISPOSAL
13 NEW TOILET WITH FLUSH VALVE
14 NEW STAINLESS STEEL 36" LONG GRAB BAR
15 NEW STAINLESS STEEL 42" LONG GRAB BAR
16 NEW DOUBLE ROLL TOILET PAPER DISPENSER
17 NEW EPOXY FLOOR AND BASE
18 NEW FRP ON PLUMBING WALL IN STALL - SEE INTERIOR ELEVATIONS FOR EXTENT (MEN'S ROOM ONLY)
20 NEW HI/LOW DRINKING FOUNTAIN
21 CUSTODIAL STORAGE CABINET MTD. 6'-6" AFF TO BOTTOM. SEE DETAIL 9/A-2
22 PAINT EXISTING CEILING
23 PAINT INSIDE EXISTING SKYLITES
24 NEW 1'-Ø"x4'-Ø" SURFACE MOUNTED LED LIGHT FIXTURE
25 NEW 18" VERTICAL GRAB BAR
26 EPOXY BASE
27 NEW FRP WALL PANEL
28 REPLACE EXISTING HOSE BIB



ADA MOUNTING DIMENSIONS

** SEE PLAN FOR LOCATIONS

TOILET ACCESSORIES SCHEDULE

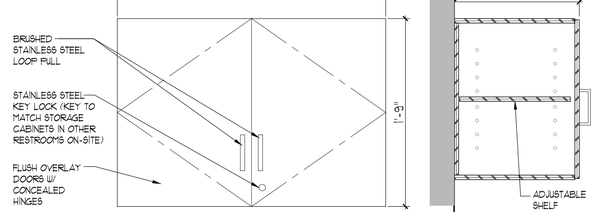
ITEM #	DESCRIPTION	MANUFACTURER	MODEL NO.	LOCATION/ COMMENTS
Ø5	NEW GRAB BARS	BOBRICK	B-6806-18" B-6806-36" B-6806-42"	MEN'S / WOMEN'S
Ø6	NEW SOAP DISPENSER	BOBRICK	B-166-1830	MEN'S / WOMEN'S
Ø7	NEW ELECTRIC HAND DRYER	BOBRICK	B-7128	MEN'S / WOMEN'S
Ø8	NEW TOILET PAPER DISPENSER	--	--	SUPPLIED BY OWNER/ INSTALLED BY CONTRACTOR
Ø9	NEW FRAMED MIRROR	BOBRICK	B-166-1830	MEN'S / WOMEN'S
10	NEW WALL MOUNTED BABY CHANGING TABLE	KOALA KARE	KB 200	MEN'S / WOMEN'S
11	NEW SANITARY NAPKIN DISPOSAL	BOBRICK	B-254	WOMEN'S

FINISH SCHEDULE

ROOM	FLOOR	BASE	WALL				CEILING	REMARKS
			NORTH	EAST	SOUTH	WEST		
MENS RESTROOM	EPOXY	EPOXY	FRP/ PAINT	FRP/ PAINT	FRP/ PAINT	FRP/ PAINT	PAINTED	WOOD TRIM AT CEILING TO BE PAINTED. COLOR TO BE SELECTED BY THE ARCHITECT
WOMENS RESTROOM	EPOXY	EPOXY	FRP/ PAINT	FRP/ PAINT	FRP/ PAINT	FRP/ PAINT	PAINTED	WOOD TRIM AT CEILING TO BE PAINTED. COLOR TO BE SELECTED BY THE ARCHITECT

DOOR SCHEDULE

NO.	ROOM	DOOR TYPE	DOOR SIZE	DOOR THICK.	DOOR MAT.	DOOR FIN.	FRAME TYPE	FRAME MAT.	FRAME FIN	HEAD	JAMB	HDWR	FIRE RATING	REMARKS
Ø1	MENS RESTROOM	A	3'-Ø" X 6'-8"	1 3/4"	HM	PAINTED	F-1	HM	PAINT	--	--	T-1	Ø	NEW DOOR FRAME
Ø2	WOMENS RESTROOM	A	3'-Ø" X 6'-8"	1 3/4"	HM	PAINTED	F-1	HM	PAINT	--	--	T-1	Ø	NEW DOOR FRAME



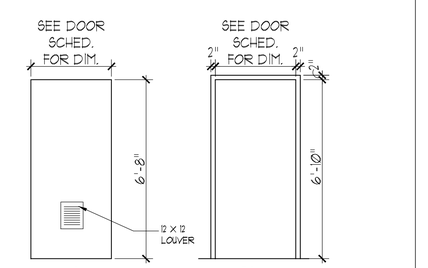
9 A-2 CUSTODIAL STORAGE CABINET
SCALE: 1 1/2"=1'-Ø"

HARDWARE SCHEDULE

HARDWARE SET - 1 MEN / WOMEN RESTROOMS

SINGLE DOORS
EA DOOR TO HAVE:

3 EA.	HINGES	TA2714 4.5 X 4.5	US 26D	MCK
1 EA.	PUSH/PULL	1Ø01-3/ 1Ø13-3B	US 26D	TRM
1 EA.	DEADBOLT	484	US 26D	SAR
1 EA.	KICKPLATE	KØ25Ø 8" X 2" LDW	US 32D	TRM
3 EA.	SILENCERS	1229 A	TRM	
1 EA.	THRESHOLD	256***	ALUM	PEMCO
1 EA	KICK DOUN DOOR STOP	460-ALM	ALUM	ROCKWOOD



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COMMONWEALTH OF VIRGINIA
RICHARD E. HURDLE
Lic. No. 0401 015732
ARCHITECT
06/30/2015

REVISION	DATE	DESCRIPTION
	06/30/2015	ISSUED FOR PERMIT
DESIGNED BY:		CHECKED BY:
DRAWN BY:		APPROVED BY:

CAMERON RUN REGIONAL PARK / RIPTIDE RESTROOM RENOVATION
4001 EISENHOWER AVE, ALEXANDRIA, VA 22304
PROJECT NUMBER: 2501000
SCALE: AS SHOWN

INTERIOR ELEVATIONS, DOOR, AND FINISH SCHEDULE

A-2

SECTION 01 11 00 – SUMMARY OF WORK

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section includes the following:

1. Work covered by the Contract Documents.
2. Type of the Contract.
3. Use of premises.
4. Work restrictions.
5. Specification formats and conventions.

1.03 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: Riptide Restrooms

1. Project Location: Cameron Run Regional Park
   4001 Eisenhower Avenue
   Alexandria, Virginia

B. Owner: NOVA Parks

1. Owner's Representative: Mr. Rodney Thomas
   NOVA Parks
   5400 Ox Road, Fairfax Station, Virginia 22039
   Email: rthomas@nvrpa.org
   Phone: 703-359-4620

C. Architect: ZHA Architects, PC
   56 Chishlom Trail
   Santa Fe, NM 87506

D. The Work consists of the following:

1. Interior renovation and upgrade of existing Restroom facilities to meet current accessibility codes. Work will include:
   a. Selected demolition.
   b. Replacement of plumbing fixtures
   c. Replacement of toilet partitions and washroom accessories
   d. Replacement of light fixtures
   e. New wall and floor finishes

1.04 TYPE OF CONTRACT

A. Project will be constructed under a single prime contract.

1.05 USE OF PREMISES

A. General: Contractor shall have full use of premises for construction operations, including use of Project site, during construction period. Contractor's use of premises is limited only by Owner's right to perform work or to retain other contractors on portions of Project.

B. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

C. Use of Existing Building: Maintain existing building in a weathertight condition throughout construction period. Repair damage caused by construction operations. Protect building during construction period.

1.06 WORK RESTRICTIONS

A. On-Site Work Hours: Work shall be generally performed inside the existing building during normal business working hours of 7:00 a.m. to 4:30 p.m., Monday through Friday, except otherwise indicated.

1. Weekend Hours: Only as approved by owner's representative.

1.07 SPECIFICATION FORMATS AND CONVENTIONS

A. Specification Format: The Specifications are provided in drawings and organized into Divisions and Sections using the 48-division format and CSI/CSC's "MasterFormat" numbering system.

1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. If necessary, insert paragraphs that explain Section-numbering and page-numbering systems used; add an explanation of line-numbering or alphanumeric paragraph-outline system used in the Specifications and the method of text subordination.

B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.

2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

   a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 013300 - SUBMITTAL AND SUBSTITUTION PROCEDURES GENERAL

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. Wherever possible throughout the Contract Documents, the minimum acceptable quality of workmanship and materials has been defined either by manufacturer's name and catalog number or reference to recognized industry standards.
2. To ensure that the specified products are furnished and installed in accordance with the design intent, procedures have been established for advance submittal of design data for its review and approval or rejection by the Architect.
3. This Section specifies administrative and procedural requirements for submittals required for performance of the work, including:
   a. Contractor's Progress Schedule
   b. Shop Drawings, Product Data, and Samples
   c. Letters of Conformance
   d. Certificates
   e. Manufacturer Installation Instructions
4. Substitution Procedures
5. Manuals
6. Miscellaneous Submittals

B. Related Documents:

1. Letter of Conformance Form
2. Contractor's Substitution Request Form

C. Related Sections:

1. Contractual Requirements for Submittals: General Conditions
   a. Two (2) copies of all Submittals, plus number of copies to be returned to Contractor, shall be submitted unless otherwise specified.
   b. Provide additional copies as required for use in Project Record Documents.
2. Individual Submittals Required: Pertinent Sections of these Specifications.

1.02 SUBMITTALS

A. Coordination: Coordinate preparation and processing of Submittals with performance of construction activities. Transmit each Submittal sufficiently in advance of performance of related construction activities to avoid delay.

1. Coordinate each Submittal with fabrication, purchasing, testing, delivery, other Submittals and related activities that require sequential activity.
2. Coordinate transmittal of different types of Submittals for related elements of the work so processing will not be delayed by the need to review Submittals concurrently for coordination.
   a. The Architect reserves the right to withhold action on a Submittal requiring coordination with other Submittals until related Submittals are received.
   b. No extension of Contract Time will be authorized because of failure to transmit Submittals to the Owner's Representative sufficiently in advance of the work to permit processing.

B. Deliver Submittals to the Architect.

C. Submittal Preparation: Place a permanent label or title block on each Submittal for identification. Indicate the name of the entity that prepared each Submittal on the label or title block.

1. Provide a space approximately 10" x 10" on the label or beside the title block on Shop Drawings to record the Contractor's and Architect review and approval markings and the action taken.
2. Include the following information on the label for processing and recording action taken:
   a. Project Name
   b. Name of the Owner
   c. Date
   d. Name and Address of Architect
   e. Name and Address of Contractor
   f. Name and Address of Subcontractor or Vendor
   g. Location Where Item is to be Used
   h. Name of Manufacturer
   i. Drawing Number and Detail References, as Appropriate
   j. Certification by the Contractor

D. Submittal Transmittal: Package each Submittal appropriately for transmittal and handling. Transmit each Submittal from Contractor to Architect. Submittals received from sources other than the Contractor will be returned without action.

1. Transmit each submittal to the Architect with "AIA Document G810 - Transmittal Letter" and "Letter of Conformance".
2. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
3. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate.
4. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Contractor's certification that Contractor has reviewed the Submittal and verified that the information submitted complies with the Specifications and all other Contract Document requirements.
5. After Architect's review of Submittal, revise and resubmit as required, identifying changes made since previous Submittal.
6. When re-submittal is required for any reason, transmit under new letter of transmittal, indicating by reference to a previous Submittal that this is a re-submittal.
   a. Identify on submittal all changes made since previous submission.
7. Distribute copies of reviewed Submittals to concerned persons. Instruct recipients to promptly report any inability to comply with provisions.
8. All Submittals shall bear the stamp of approval of the Contractor submitting same as evidence that they have been checked by him, or they will be rejected.
   a. Must be signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents.
9. Schedule submittals to expedite the Project, and deliver to Architect.

Coordinate submission of related items. Instruct parties to promptly report any inability to comply with provisions.

1.03 PROGRESS SCHEDULES

A. Submit initial Construction Progress Schedule in duplicate within 14 days after date of Owner-Contractor Contract. Submit in the form required by the General Conditions of the Contract.

B. Revise and resubmit as required.

C. Submit revised schedules with each Application for Payment, identifying changes since previous version.

1.04 LETTERS OF CONFORMANCE

A. Letter of Conformance: Short-form informational submittals which are to be used instead of shop drawings, product data and samples. They are also to be used to supplement shop drawings, product data and samples. A sample "Letter of Conformance" is located at the end of this Section. Use copies of this form for each submittal unless a more specific Letter of Conformance is located at the end of a particular Specification Section.

B. Within 30 days after date of Owner-Contractor Agreement, submit all Letters of Conformance indicating Contractor's selections for products proposed for use, with name of manufacturer, trade name, and model number of each product. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

C. Procedure:

1. Submit the number of copies which the Contractor requires, plus two copies which will be retained by the Architect. Subject to the approval of the owner, all documents can be submitted electronically in .pdf file format would be acceptable. Scanned image of the sample in lieu of actual products would not be acceptable.
2. Submit completed Letter of Conformance for products selected as indicated within each Section.
3. Fill-in required information on form and sign in ink by person authorized to sign on behalf of the Contractor. If pdf files are submitted. Scanned or digital signatures would be acceptable.
4. Clearly identify applicable products, characteristics, models, and options. Attach supplemental information including product data to each Letter of Conformance as necessary to communicate all information specific to the product.
5. No modifications to form permitted.
6. Letters of Conformance are not to be used for substitution requests.

D. By submitting a Letter of Conformance, Contractor declares that the product identified by manufacturer's name and model number:

1. Is one of the product(s) specified
2. Is suitable for the intended use as defined within the Contract Documents, and
3. Will be provided and placed in operational condition in accordance with the Contract Documents and manufacturer's published instructions.

1.05 SHOP DRAWINGS

A. Where Shop Drawings are required, submit newly prepared information drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not considered Shop Drawings.

B. Shop Drawings shall be drawn at a scale to clearly indicate all of the above conditions and allow for corrections or modifications which the Architect may wish to make. The Architect shall be the sole judge as to the acceptability of manufacturer's literature and catalog sheets as Shop Drawings.

C. Shop Drawings shall clearly indicate all dimensional data for all parts of the item; types and materials for all connections; finishes; the exact relation of the item to adjacent materials and equipment in the completed structure including clearance, any necessary isolation, and fastening methods and devices; and mechanical and electrical connections.

D. Shop Drawings include fabrication and installation Drawings, setting diagrams, schedules, patterns, templates, and similar Drawings. Include the following information:

1. Dimensions
2. Identification of Products and Materials Included
3. Compliance with Specified Standards
4. Notation of Coordination Requirements
5. Notation of Dimensions Established by Field Measurement

E. Sheet Size: Except for templates, patterns, and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2" x 11", but no larger than 36" x 48".

F. Submit in the form of one reproducible transparency and one opaque reproduction, or three opaque reproductions plus required amount to be returned to Contractor. After review, reproduce and distribute to appropriate parties.

G. Do not permit Shop Drawing copies, without an appropriate final "Action" marking by the Architect, to be used in connection with the work.

H. The Contractors shall be responsible for distribution of additional prints to vendors, etc.

1.06 PRODUCT DATA

A. Where Product Data is required, collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings."

1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:
   a. Manufacturer's Printed Recommendations
   b. Compliance with Recognized Trade Association Standards
   c. Compliance with Recognized Testing Agency Standards
   d. Application of Testing Agency Labels and Seals
   e. Notation of Dimensions Verified by Field Measurement
   f. Notation of Coordination Requirements
   g. Type and Model Numbers
2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.

B. Distribution: Furnish copies of final Submittal to installers, subcontractors, suppliers, fabricators, and others required for performance of construction activities.

Show distribution on transmittal forms.

1. Do not proceed with installation until a copy of Product Data applicable is in the installer's possession.
2. Do not permit use of unmarked copies of Product Data in connection with construction.

1.07 SAMPLES

A. Where Samples are required, submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, full color-range sets, and swatches showing color, texture, and pattern.

1. Mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. Include the following:
   a. Generic Description of the Sample
   b. Sample Source
   c. Product Name or Name of Manufacturer
   d. Compliance with Recognized Standards
   e. Availability and Delivery Time
2. Colors:
   a. General: Unless the precise color and pattern is specifically described in the Contract Documents, whenever a choice of color or pattern is available in a specified product, submit accurate color charts and pattern charts to the Architect for his review and selection.
3. Submit Samples for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between the final Submittal and the actual component as delivered and installed.
   a. Where variation in color, pattern, texture, or other characteristics are inherent in the material or product represented, submit multiple units (not less than 3) that show approximate limits of the variations.
   b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
   c. Refer to other Sections for Samples to be returned to the Contractor for incorporation in the work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample Submittals.
4. Preliminary Submittals: Where Samples are for selection of color, pattern, texture, or similar characteristics from a range of standard choices, submit a full set of choices for the material or product.
   a. Preliminary Submittals will be reviewed and returned with the Architect's mark indicating selection and other action.
5. Maintain sets of Samples, as returned, at the Project site for quality comparisons throughout the course of construction.
   a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal
   b. Sample sets may be used to obtain final acceptance of the construction associated with each set.

B. Distribution of Samples: Prepare and distribute additional sets to Subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the work.

1. Field Samples specified in individual Sections are special types of Samples. Field Samples are full-size examples erected on site to illustrate finishes, coatings, or finish materials and to establish the standard by which the work will be judged.
   a. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

1.08 CERTIFICATES

A. When specified in individual specification sections, submit certification by manufacturer to Architect, in quantities specified for Product Data.

B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Architect.

1.09 MANUFACTURER INSTALLATION INSTRUCTIONS

A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing to Architect.

B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

PART 2 PRODUCTS

2.01 SUBSTITUTIONS

A. Source Limitations: To the greatest extent possible for each unit of work, provide products, materials, or equipment of a singular generic kind from a single source.

B. Compatibility of Options: Where more than one choice is available as options for Contractor's selection of a product or materials, select an option which is compatible with other products and materials already selected (which may have been from among options for those other products and materials). Total compatibility among options, if not assured by limitations within contract documents, must be provided by Contractor. Compatibility is a basic general requirement of product/material selections.

C. Owner's Approval Required:

1. In addition to the following, refer to the General Conditions, Article 4, for additional requirements.
2. The Contract is based on the materials, equipment, and methods described in the Contract Documents.
3. The Contract Drawings and Specifications establish the "minimum standard of quality" each product and/or system must meet to be considered acceptable. Products of other manufacturers will be considered if the product and/or system meets or exceeds the "minimum standard of quality" established by the Contract Documents.
4. The Owner will consider proposals for substitutions under the "or approved substitution" and the "or approved equal" provision of materials, equipment, and methods, only when such proposals are accompanied by full and complete technical data and all other information required by the Owner and Architect to evaluate the proposed substitutions.
   a. It will be the responsibility of the submitting Contractor to prove equality.
   b. Request must include "Contractor's Substitution Request" Form, a copy of which is attached to this Section.
   c. The Submittal shall include a line-by-line, item-by-item description of the specified and proposed product.
5. Requests for substitutions must be submitted to the Architect NO later than 60 days after date of Owner-Contractor Agreement.
6. DO NOT SUBSTITUTE MATERIALS, EQUIPMENT, OR METHODS UNLESS SUCH SUBSTITUTIONS HAVE BEEN SPECIFICALLY APPROVED FOR THIS WORK IN WRITING.

1. Where the phrase "or approved equal" or "approved substitution" occurs in the Contract Documents, do not assume that material, equipment, or methods will be approved as equal by the Owner and Architect unless the item has been specifically approved for this work by the Owner.
   a. Color choices will be one of the determining factors for approval.
2. The decision of the Owner will be final.

E. Availability of Specified Items:

1. Verify prior to bidding that all specified items will be available in time for installation during orderly and timely progress of the work.
2. In the event specified item or items will not be so available, so notify the Architect prior to the receipt of Bids.
3. Costs of delay caused on non-availability of specified items, when such delays could have been avoided by the Contractor, will be back-charged as necessary and shall not be borne by the Owner.

D. "Or Approved Equal" or "Or Approved Substitution"

F. Whenever the Contractor secures approval for changing any items and such change involves a corresponding change or adjustment in any adjacent or related item, the responsibility for making the required change, or seeing that it is made, rests with the Contractor. The cost of these changes and/or adjustments shall be paid for by the Contractor unless it is otherwise agreed, in writing, at the time the change is approved. The acceptance of any change will not, in any way, relieve the Contractor from full compliance with the Contract Documents.

2.02 MANUALS

A. General: Where Manuals are required to be submitted covering items included in this work, prepare all such Manuals in durable plastic binders approximately 8-1/2 x 11 inches in size with at least the following:

1. Identification on or readable through the front cover stating the general nature of the Manual.
2. Neatly typewritten index near the front of the Manual furnishing immediate information as to location of all emergency data regarding the installation.
3. Complete instructions regarding operating and maintenance of all equipment involved.
4. Complete nomenclature of all replaceable parts, their part numbers, current cost, and name and address of nearest vendor of parts.
5. Copy of all guarantees and warranties issued.
6. Copy of approved Shop Drawing(s) with all data concerning all changes made during construction

2.03 MISCELLANEOUS SUBMITTALS

A. Inspection and Test Reports Not Performed by Owner: Classify each inspection and test report as being either "Shop Drawings" or "Product Data" depending on whether the report is specially prepared for the project or a standard publication of workmanship control testing at the point of production. Process inspection and test reports accordingly.

PART 3 EXECUTION

3.01 COORDINATION OF SUBMITTALS

A. Refer to Section 005213, for requirements..

B. General: Prior to submittal for Architect's review, use all means necessary to fully coordinate all material, including the following:

1. Secure all necessary approvals from public agencies and others. Signify by stamp or other means that all required approvals have been obtained.
2. Clearly indicate all deviations from the Contract Documents.

C. The General Contractor shall submit a prioritized tabulation by date of Submittals required during the first 90 days of construction. List those Submittals required to maintain orderly progress of the work, and those required early because of long lead time for manufacture or fabrication.

1. These dates may be shown on Construction Project Schedule at Contractor's option.

(Contd.on SP-2)

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COMMONWEALTH OF VIRGINIA
RICHARD E. HURDLE
Lic. No. 0401 015732
ARCHITECT
06/30/2025

REVISION	DATE	DESCRIPTION	ISSUE
	06/30/2025	ISSUED FOR PERMIT	
DESIGNED BY:		CHECKED BY:	
DRAWN BY:		APPROVED BY:	

CAMERON RUN REGIONAL PARK /
RIPTIDE RESTROOM RENOVATION
4001 EISENHOWER AVE. ALEXANDRIA, VA 22304
PROJECT NUMBER: 25100 SCALE: AS SHOWN

SPECIFICATIONS

SP-1

(Contd. from SP-1)

3.02 TIMING OF SUBMITTALS

A. General

1. Make all Submittals enough in advance of scheduled dates for installation to provide all required time for reviews for securing necessary approvals, for possible revision and Resubmittals, and for placing orders and securing delivery.
2. In scheduling, allow a minimum of fourteen (14) full calendar days for the Architect's initial review following receipt of the Submittals. Allow additional time if the Architect requires coordination with subsequent Submittals.
   a. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until all related Submittals are received.
   b. If an Intermediate Submittal is necessary, process the same as the initial Submittal. Allow fourteen (14) calendar days for reprocessing each Submittal.

LETTER OF CONFORMANCE

PROJECT: _____ PROJECT NO.: _____

CITY: _____ STATE: _____

CONTRACTOR: _____

The following product(s) has been selected for use in the above referenced project from the list of specified items.

Section Number: _____ Section Name: _____

Drawing Number(s): _____ Detail Number(s): _____

SPECIFIED ITEM TO BE USED:

Statement of Conformance:
This Letter of Conformance is provided as a Submittal for Information in accordance with Section 01 33 00 - Submittals and Substitutions. The undersigned hereby declares that the Product identified above by manufacturer's name and model number is (one of) the product(s) specified and is suitable for the intended use as defined within the Contract Documents and will be provided and placed in operational condition in accordance with the manufacturer's published instructions and the Contract Documents.

SUBCONTRACTOR/SUPPLIER:

_____ Phone Number: (_____) _____
(Contact name of subcontractor/supplier offering above product)

(Subcontractor / Supplier name and address)

CONTRACTOR:

(Contact name of Contractor) (Contractor signature and Title of Signatory)

CONTRACTOR'S SUBSTITUTION REQUEST
(Use separate form for each request)

Date: _____ Request No.: _____

TO: [Architect] [Owner's Representative] _____

Phone: _____ Fax: _____

PROJECT: _____ Project No.: _____

CONTRACTOR _____

SPECIFIED ITEM: _____

Section: _____ Page: Paragraph _____ : _____ Description: _____

Drawing Number(s): _____ Detail Number(s): _____

The undersigned request consideration of the following:

PROPOSED SUBSTITUTION: _____

REASON FOR NOT GIVING PRIORITY TO SPECIFIED ITEMS: _____

SAVINGS or CREDIT to OWNER for ACCEPTING SUBSTITUTE: $ _____

Attached data includes description, Specifications, Drawings, photographs, performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The undersigned certifies that the following paragraphs, unless modified by attachments, are correct:
1. Proposed substitution has been fully checked and coordinated with the Contract Documents.
2. The proposed substitution does not affect dimensions shown on Drawings.
3. The proposed substitution does not require revisions to mechanical or electrical work.
4. The undersigned will pay for changes to the building design, including architectural and engineering design, detailing, and construction costs caused by the requested substitution.
5. The proposed substitution will have no adverse effect on other trades, the construction schedule, or specified warranty requirements.
6. Maintenance and service parts will be locally available for the proposed substitution.

The undersigned further states that the function, appearance, and quality of the proposed substitution are equivalent or superior to the specified item.

Attachments: The attached data is furnished herewith for evaluation of the proposed substitution.
Catalog Drawings Samples Reports Tests Other: _____

Submitted by:

_____ _____
(Firm) (Authorized Legal Signature)

_____ (_____) _____
(Address) (Telephone)

For use by the Architect: Accepted Accepted as Noted Rejected: Submit Specified Item

BY: _____
(Authorized Signature)

Date: _____ Remarks: _____

END OF SECTION

SECTION 02 41 19 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division-1 Specification Sections apply to work of this Section.

1.02 SUMMARY

A. This Section requires the selective removal and subsequent offsite disposal of the following:

B. Portions of existing buildings indicated on drawings and as required to accommodate new construction.

C. Relocation or temporary removal and protection of pipes, conduits, ducts, and other mechanical and electrical work.

1.03 QUALITY ASSURANCE

A. Contractor Qualifications: A company who specializes in the selective demolition of buildings with a minimum of 3 years experience on projects of a similar size and scope.

1.04 SUBMITTALS

A. Schedule indicating proposed sequence of operations for selective demolition work to Owner's Representative for review prior to start of work. Include coordination for shutoff, capping, and continuation of utility services as required.

B. Provide detailed sequence of demolition and removal work to ensure uninterrupted progress of Owner's on-site operations.

C. Photographs of existing conditions of structure surfaces, equipment, and adjacent improvements that might be misconstrued as damage related to removal operations. File with Owner's Representative prior to start of work.

1.05 JOB CONDITIONS

A. Occupancy: Owner will occupy portions of the building immediately adjacent to areas of selective demolition. Conduct selective demolition work in manner that will minimize need for disruption of Owner's normal operations.

B. Condition of Structures: Engineer/Architect assumes no responsibility for actual condition of items or structures to be demolished.

C. Protections: Provide temporary barricades and other forms of protection to protect Owner's personnel from injury due to selective demolition work.

D. Provide protective measures as required to provide free and safe passage of Owner's personnel to occupied portions of building.

E. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of structure or element to be demolished and adjacent facilities or work to remain.

F. Protect from damage existing finish work that is to remain in place.

G. Provide temporary weather protection during interval between demolition and removal of existing construction on exterior surfaces and installation of new construction to ensure that no water leakage or damage occurs to structure or interior areas of existing building.

H. Damages: Promptly repair damages caused to adjacent facilities by demolition work.

I. Utility Services: Maintain existing utilities to remain in service and protect them against damage during demolition operations.

J. Do not interrupt utilities serving occupied or used facilities, except when authorized in writing by authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to governing authorities.

K. Maintain fire protection services during selective demolition operations.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.01 PREPARATION

A. Cover and protect furniture, equipment, and fixtures from soilage or damage when demolition work is performed in areas where such items have not been removed.

3.02 DEMOLITION

A. Use such methods as required to complete work indicated on Drawings in accordance with demolition schedule and governing regulations.

B. Demolish concrete in small sections. Cut concrete at junctures with construction to remain using power-driven masonry saw or hand tools: do not use power-driven impact tools unless authorized by Owner's Representative.

C. If unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure both nature and extent of the conflict. Submit report to Owner's Representative in written, accurate detail. Pending receipt of directive from Engineer, rearrange selective demolition schedule as necessary to continue overall job progress without undue delay.

3.03 DISPOSAL OF DEMOLISHED MATERIALS

A. Remove from building site debris, rubbish, and other materials resulting from demolition operations. Transport and legally dispose offsite.

B. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws, and ordinances concerning removal, handling, and protection against exposure or environmental pollution.

3.04 CLEANUP AND REPAIR

A. General: Upon completion of demolition work, remove tools, equipment, and demolished materials from site.

B. Repair demolition performed in excess of that required. Return elements of construction and surfaces to remain to condition existing prior to start operations.

END OF SECTION

SECTION 08 11 13 - HOLLOW METAL DOORS

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. Exterior Hollow Metal Doors

1.02 SUBMITTALS

A. Submit Shop Drawings and product data indicating pertinent dimensioning, construction, component connections and locations, anchorage methods and locations, hardware locations and installation details, and the following:

1. Elevations of each door design.
2. Details of doors including vertical and horizontal edge details.
3. Frame details for each frame type including dimensioned profiles.
4. Details and locations of reinforcement and preparations for hardware.
5. Details of anchorages, accessories, joints, and connections.

B. Door Schedule: Submit schedule of doors and frames using same reference numbers for details and openings as those on Contract Drawings.

1.03 QUALITY ASSURANCE

A. Hollow metal doors and frames shall be fabricated in accordance with standards and specifications established by Steel Door Institute, complying with ANSI A250.8-1998 (SDI-100) "Recommended Specifications for Standard Steel Doors and Frames" and as specified.

B. Acoustical qualities: Doors shall have a minimum sound transmission classification (STC) of 29 per ASTM E413. when tested in a fixed position according to ASTM E90..

1.04 PROJECT CONDITIONS

A. Field Measurements: Verify openings by field measurements before fabrication and indicate measurements on Shop Drawings.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver hollow metal work cardboard wrapped or crated to provide protection during transit and job storage.

1. Provide additional protection to prevent damage to finish of factory-finished doors and frames.
2. Deliver welded frames with two removable spreader bars across bottom of frames.

B. Label each item, before shipping, with metal or plastic tags to show their location, size, door swing, and other pertinent information.

C. Inspect doors and frames on delivery for damage, and notify shipper and supplier if damage is found. Minor damages may be repaired provided refinished items match new work and are acceptable to Architect. Remove and replace damaged items that cannot be repaired as directed.

D. Store doors and frames at building site under cover. Place units on minimum 4-inch-high wood blocking. Avoid using non-vented plastic or canvas shelters that could create a humidity chamber. If door packaging becomes wet, remove cartons immediately. Provide minimum 1/4-inch spaces between stacked doors to permit air circulation.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Approved Manufacturers:

1. Steelcraft, an Allegion Brand (888-758-9823)
2. Ceco Door, an ASSA ABLOY Group Company (615-661-5030)
3. Republic Doors and Frames (800-733-3667)
4. CURRIES, an ASSA ABLOY Group Company (800-377-3948)

2.02 MATERIALS

A. Hot-Rolled Steel Sheets: ASTM A1011 and A568, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.

B. Cold-Rolled Steel SheetsASTM A1008 and A568, Commercial Steel (CS), Type B; suitable for exposed applications.

C. Hot dipped galvanized coated steel shall be of the alloyed type and comply with ASTM A924 and A653.

D. Hardware reinforcing on doors shall comply with ANSI/SDI A250.6. The physical performance levels shall be in accordance with ANSI/SDI A250.4.

2.03 HOLLOW METAL DOORS

A. General:

1. Fabricate steel door units to comply with ANSI/SDI A250.8. and to be rigid, neat in appearance, and free from defects including warp and buckle. Where practical, fit and assemble units in manufacturer's plant. Clearly identify work that cannot be permanently factory assembled before shipment, to assure proper assembly at Project site.

B. Hollow Metal Doors:

1. Exterior Doors: Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical-endurance level:
   a. Flush Door:
      1) Thickness: 1-3/4"
      2) Model: "L Series"; Steelcraft, an Allegion Brand, or approved substitution by other listed manufacturers.
      3) Level 3, Extra Heavy Duty, 16-gage, and Physical Performance Level B (Extra Heavy Duty), Model 2 (Seamless).
   b. Exterior doors shall be fabricated as thermal insulating door and frame assemblies and tested in accordance with ASTM C236 or ASTM C976 on fully operable door assemblies. Provide thermal-rated assemblies with U-factor of 0.24 or better. Hot-dipped galvanized with a stretcher level degree of flatness.
   c. All exterior swing-out doors shall have the top and bottoms closed to eliminate moisture penetration. Door tops shall not have holes or openings.

C. Door Fabrication:

1. Fabricate doors and frames in accordance with ANSI/SDI A250.8.
2. Workmanship: The finished work shall be rigid, neat in appearance, and free from defects; form molding members straight and true with joints coped or mitered, well formed and in true alignment. All welded joints on exposed surfaces shall be dressed smooth so they are invisible after finishing.
3. Door Sizes and Clearances: Doors shall be of type, sizes, and design indicated. The clearances for doors shall be 1/8" at jambs and heads and 3/4" at bottom, unless indicated or specified otherwise. Clearances at meeting edges of pairs of doors shall be 1/4" (1/8" on fire doors).
4. Exterior Doors: Provide weep-hole openings in bottom of exterior doors to permit moisture to escape. Seal joints in top edges of doors against water penetration.
5. Provisions for Hardware: Mortise, reinforce, drill, and tap doors at factory to receive all mortise-type hardware. Provide reinforcing only for doors to receive surface-applied hardware, except push plates and kick plates; drilling and tapping for surface-applied hardware will be done in the field. Provide metal reinforcing plates for surface-applied hardware as required. The gauges of metal for reinforcing plates shall comply with manufacturer's recommendation for the type of hardware used and the size and thickness of doors, provided that the minimum requirements are as follows:
   a. Hinge Reinforcement - 3/16 Inch
   b. Strike Reinforcement - 11 Gauge
   c. Closers and Bracket Reinforcement - 12 Gauge
   d. Mortise Covers - 26 Gauge
   e. The gauges used shall not be lighter than those required by Commercial Standard CS 242-62.

2.04 FINISHES

A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

1. Finish steel doors and frames after assembly.

B. Factory Prime Coating for Field Painted Finish: Unless specified otherwise, provide manufacturer's standard, factory-applied coat of rust-inhibiting primer complying with ANSI/SDI A250.10 for acceptance criteria.

1. Clean and chemically treat metal surfaces to assure maximum paint adherence. Follow with a dip or spray coat of lead-free, rust-inhibitive metallic oxide, zinc chromate, or synthetic resin primer on all exposed surfaces. Finished surfaces shall be smooth and free from irregularities and rough spots.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of standard steel doors and frames.

1. Examine roughing-in for embedded and built-in anchors to verify actual locations of standard steel frame connections before frame installation.

3.02 GENERAL

A. Fabricate and install hollow metal units and their accessories in strict accordance with these Specifications and manufacturer's data.

END OF SECTION

SECTION 09 96 00 - HIGH-PERFORMANCE COATINGS

PART 1 GENERAL

1.01 SUMMARY

A. SECTION INCLUDES:

1. SPECIAL COATING FOR EXTERIOR EXPOSED FERROUS METALS.
2. EPOXY FLOOR COATING
3. CONCRETE STAIN/SEALER
4. THIS SECTION INCLUDES SURFACE PREPARATION AND THE APPLICATION OF SPECIAL COATING MATERIALS TO ITEMS SCHEDULED.
   a. SURFACE PREPARATION, PRIME AND FINISH COATS SPECIFIED ARE IN ADDITION TO SHOP-PRIMING AND SURFACE TREATMENTS.
5. PAINT ALL EXPOSED SURFACES, WHETHER OR NOT COLORS ARE DESIGNATED, EXCEPT WHERE A SURFACE OR MATERIAL IS INDICATED NOT TO BE PAINTED OR IS TO REMAIN NATURAL. WHERE AN ITEM OR SURFACE IS NOT MENTIONED, PAINT THE SAME COLOR AS SIMILAR ADJACENT MATERIALS OR SURFACES. IF COLOR OR FINISH IS NOT DESIGNATED, THE ARCHITECT WILL SELECT FROM STANDARD COLORS OR FINISHES AVAILABLE.

B. RELATED SECTIONS:

1. SECTION 08 11 13 - STEEL DOORS AND FRAMES
2. SECTION 09 90 00 - PAINTING

1.02 REFERENCES

A. ASTM INTERNATIONAL (ASTM) PUBLICATIONS:

1. D16 "STANDARD TERMINOLOGY FOR PAINT, RELATED COATINGS, MATERIALS, AND APPLICATIONS"

B. THE SOCIETY FOR PROTECTIVE COATINGS (SSPC) PUBLICATIONS:

1. SP - SURFACE PREPARATION STANDARDS AND SPECIFICATIONS
   a. SSPC-SP 1, "SOLVENT CLEANING"
   b. SSPC-SP 3 "POWER TOOL CLEANING"
   c. SSPC-SP 6/NACE NO. 3, "COMMERCIAL BLAST CLEANING"
   d. SSPC-SP 10/NACE NO. 2, "NEAR-WHITE BLAST CLEANING"
   e. SSPC-SP 11, "POWER TOOL CLEANING TO BARE METAL"

C. THE PAINTING AND DECORATING CONTRACTORS OF AMERICA (PDCA)

1. PDCA P5-94 "HTTP://WWW.RLHARKINS.COM/PDF DOCS/INDUSTRY STANDARDS/P5-94 BENCHMARK SAMPLE PROCEDURES.PDFBENCHMARK SAMPLE PROCEDURES FOR PAINT AND OTHER DECORATIVE COATING SYSTEMS"

1.03 DEFINITIONS:

A. "SPECIAL COATINGS" INCLUDES COATING SYSTEMS MATERIALS, PRIMERS, EMULSIONS, ENAMELS, STAINS, SEALERS AND FILLERS, AND OTHER APPLIED MATERIALS WHETHER USED AS PRIME, INTERMEDIATE OR FINISH COATS.

1.04 SUBMITTALS

A. GENERAL: SUBMIT THE FOLLOWING IN ACCORDANCE WITH CONDITIONS OF CONTRACT AND DIVISION 01 SPECIFICATION SECTIONS.

B. SUBMIT "LETTER OF CONFORMANCE" IN ACCORDANCE WITH SECTION 01 33 00 (01330) INDICATING SPECIFIED ITEMS SELECTED FOR USE IN PROJECT WITH THE FOLLOWING SUPPORTING DATA.

1. PRODUCT DATA: SUBMIT MANUFACTURER'S TECHNICAL INFORMATION, INCLUDING BASIC MATERIALS ANALYSIS AND APPLICATION INSTRUCTIONS FOR EACH COATING MATERIAL SPECIFIED.
   a. LIST EACH MATERIAL AND CROSS-REFERENCE THE SPECIFIC COATING AND FINISH SYSTEM AND APPLICATION. IDENTIFY EACH MATERIAL BY THE MANUFACTURER'S CATALOG NUMBER AND GENERAL CLASSIFICATION.
2. COLOR CHARTS: IN DUPLICATE, FOR ALL PAINTS, STAINS AND SPECIAL COATINGS. IDENTIFY WITH NUMBERS USED ON THE "FINISH INDEX" ON DRAWINGS.
3. FERROUS METAL: PROVIDE TWO 4" SQUARE SAMPLES OF METAL SURFACES FOR EACH TYPE OF COLOR AND FINISH. DEFINE BY STEPS.

1.05 QUALITY ASSURANCE

A. SINGLE SOURCE RESPONSIBILITY: PROVIDE PRIMERS AND UNDERCOAT PAINT PRODUCED BY THE SAME MANUFACTURER, UNLESS NOTED OTHERWISE. USE ONLY THINNERS RECOMMENDED BY THE MANUFACTURER, AND ONLY WITHIN RECOMMENDED LIMITS.

B. COORDINATION OF WORK: REVIEW SECTIONS IN WHICH OTHER COATINGS ARE PROVIDED TO ENSURE COMPATIBILITY OF THE TOTAL SYSTEMS FOR VARIOUS SUBSTRATES.

1. NOTIFY THE ARCHITECT OF PROBLEMS ANTICIPATED USING THE MATERIALS SPECIFIED.

(Contd. on SP-3)

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COMMONWEALTH OF VIRGINIA
RICHARD E. HURDLE
Lic. No. 0401 015732
ARCHITECT
06/30/2015

REVISION	DATE	ISSUED
	06/30/2015	ISSUED FOR PERMIT

DESIGNED BY:
DRAWN BY:
CHECKED BY:
APPROVED BY:

CAMERON RUN REGIONAL PARK / RIPTIDE RESTROOM RENOVATION
4001 EISENHOWER AVE, ALEXANDRIA, VA 22304
PROJECT NUMBER: 2516.00
SCALE: AS SHOWN

SPECIFICATIONS

SP-2

(Contd. from SP-2)

C. ALL FERROUS METAL SHALL BE INSPECTED FOR CONFORMANCE WITH THESE SPECIFICATIONS AND MANUFACTURER SPECIFICATIONS SHALL BE FOR:
1. SURFACE PREPARATION
2. PRIME AND INTERMEDIATE COATS

1.06 DELIVERY, STORAGE, AND HANDLING
A. DELIVER MATERIALS TO THE JOB SITE IN MANUFACTURER'S ORIGINAL, UNOPENED PACKAGES AND CONTAINERS BEARING MANUFACTURER'S NAME AND LABEL WITH TRADE NAME AND MANUFACTURER'S INSTRUCTIONS.
1. PRODUCT NAME OR TITLE OF MATERIAL
2. PRODUCT DESCRIPTION (GENERIC CLASSIFICATION OR BINDER TYPE)
3. MANUFACTURER'S STOCK NUMBER AND DATE OF MANUFACTURE
4. CONTENTS BY VOLUME, FOR PIGMENT AND VEHICLE CONSTITUENTS
5. THINNING INSTRUCTIONS
6. APPLICATION INSTRUCTIONS
7. COLOR NAME AND NUMBER
8. VOC CONTENT
B. STORE MATERIALS NOT IN ACTUAL USE IN TIGHTLY COVERED CONTAINERS AT A MINIMUM AMBIENT TEMPERATURE OF 50 DEGREES F. IN A WELL-VENTILATED AREA. MAINTAIN CONTAINERS USED IN STORAGE OF COATINGS IN A CLEAN CONDITION, FREE OF FOREIGN MATERIALS AND RESIDUE.
1. PROTECT FROM FREEZING. KEEP STORAGE AREA NEAT AND ORDERLY. REMOVE OILY RAGS AND WASTE DAILY. TAKE NECESSARY PRECAUTIONARY MEASURES TO ENSURE THAT WORKMEN AND WORK AREAS ARE ADEQUATELY PROTECTED FROM FIRE HAZARDS AND HEALTH HAZARDS RESULTING FROM HANDLING, MIXING, AND APPLICATION OF COATINGS.

1.07 PROJECT CONDITIONS
A. APPLY COATINGS ONLY WHEN THE TEMPERATURE OF SURFACES TO BE COATED AND SURROUNDING AIR TEMPERATURES ARE ABOVE 50 DEGREES F., UNLESS OTHERWISE PERMITTED BY MANUFACTURER'S PRINTED INSTRUCTIONS. HIGH SOLIDS PRODUCTS REQUIRE TEMPERATURE RANGE OF 70-90 DEGREES F.
B. DO NOT APPLY COATINGS IN SNOW, RAIN, FOG, OR MIST, OR WHEN THE RELATIVE HUMIDITY EXCEEDS 85 PERCENT, OR AT TEMPERATURES LESS THAN 5 DEGREES F. ABOVE THE DEW POINT, OR TO DAMP OR WET SURFACES, UNLESS OTHERWISE PERMITTED BY MANUFACTURER'S PRINTED INSTRUCTIONS. ALLOW WET SURFACES TO DRY THOROUGHLY AND ATTAIN THE TEMPERATURE AND CONDITIONS SPECIFIED BEFORE PROCEEDING WITH OR CONTINUING THE COATING OPERATION.

1.08 WASTE MANAGEMENT AND DISPOSAL
A. PAINT, STAIN AND WOOD PRESERVATIVE FINISHES AND RELATED MATERIALS (THINNERS, SOLVENTS, ETC.) ARE REGARDED AS HAZARDOUS PRODUCTS AND ARE SUBJECT TO REGULATIONS FOR DISPOSAL. OBTAIN INFORMATION ON THESE CONTROLS FROM APPLICABLE GOVERNMENT AGENCIES HAVING JURISDICTION
B. ALL WASTE MATERIALS SHALL BE SEPARATED AND RECYCLED. WHERE PAINT RECYCLING IS AVAILABLE, COLLECT WASTE PAINT BY TYPE AND PROVIDE FOR DELIVERY TO RECYCLING OR COLLECTION FACILITY. MATERIALS THAT CANNOT BE REUSED MUST BE TREATED AS HAZARDOUS WASTE AND DISPOSED OF IN AN APPROPRIATE MANNER.
C. SET ASIDE AND PROTECT SURPLUS AND UNCONTAMINATED FINISH MATERIALS NOT REQUIRED BY THE OWNER AND DELIVER OR ARRANGE COLLECTION FOR VERIFIABLE RE_USE OR RE_MANUFACTURING.

1.09 WARRANTY
A. PROVIDE A FIVE-YEAR MATERIAL AND LABOR WARRANTY FROM THE MANUFACTURER AND THE APPLICATOR.

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. APPROVED MANUFACTURERS:
1. EXTERIOR EXPOSED FERROUS METALS: (HOLLOW METAL DOORS & FRAMES)
a. TNEMEC COMPANY, INC. (800-356-3041)
2. EPOXY COATING FOR CONCRETE FLOORS (INTERIOR):
a. EUCLID CHEMICAL CO, AN RPM COMPANY (877-438-3826 OR 800-321-7628)
b. SELBY, BASF BUILDING SYSTEMS (800-433-9517)
c. DUR-A-FLEX, INC. (800-253-3539)

2.02 MATERIALS
A. MATERIAL COMPATIBILITY: PROVIDE BLOCK FILLERS, PRIMERS, FINISH COATS, AND RELATED MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND THE SUBSTRATES INDICATED UNDER CONDITIONS OF SERVICE AND APPLICATION AS DEMONSTRATED BY THE MANUFACTURER BASED ON TESTING AND FIELD EXPERIENCE.
B. MATERIAL QUALITY: PROVIDE MANUFACTURER'S BEST-QUALITY PAINT MATERIAL OF THE VARIOUS COATING TYPES SPECIFIED THAT ARE FACTORY FORMULATED AND RECOMMENDED BY MANUFACTURER FOR APPLICATION INDICATED.
1. PAINT-MATERIAL CONTAINERS NOT DISPLAYING MANUFACTURER'S PRODUCT IDENTIFICATION WILL **NOT** BE ACCEPTABLE.
c. RECYCLED CONTENT PAINTS AND PRIMERS WILL NOT BE PERMITTED FOR INTERIOR OR EXTERIOR APPLICATION.

C. EXTERIOR STEEL DOORS AND FRAMES (GALVANIZED):
1. FACTORY PRIMER (BY DOOR MANUFACTURER)
a. TO BE SANDED OR ABRADED AS RECOMMENDED BY COATING MANUFACTURER.
2. TIE COAT:
a. "CLEAN 'N ETCH" PRETREATMENT SOLUTION BY GREAT LAKES LABORATORIES (800-888-1105).
3. BACK-PRIME FRAMES AND ALL EDGES WITH ONE OF THE FOLLOWING:
a. "SERIES 66 HB EPOXOLINE" AT 2.0 MILS DFT; TNEMEC
b. "MACROPOXY 646-100 B58 SERIES"; THE SHERWIN-WILLIAMS COMPANY
4. FINISH: ONE COAT
a. "SERIES 113 TNEME-TUFCOAT" (SEMI-GLOSS COLOR) AT 3.0 MILS DFT; TNEMEC
b. "WATER-BASED ACROLON 100 POLYURETHANE SERIES 65"; THE SHERWIN-WILLIAMS COMPANY

D. DECORATIVE EPOXY COATING FOR CONCRETE FLOORS:
1. PREPARE SURFACE AS RECOMMENDED BY MANUFACTURER. USE ABRASIVE BLAST CLEANING METHOD IF REQUESTED.
2. TWO PART EPOXY COATING:
a. APPROVED MANUFACTURERS:
1) "ARMORSEAL 650 SL/RC B58-650/B60 HARDENER - BROADCAST WITH QUARTZ"; THE SHERWIN-WILLIAMS COMPANY (800-321-8194)
d. APPROVED MANUFACTURERS:
1) "EUCOPOXY TUFCOAT DBS PIGMENTED RESIN SYSTEM WITH COLOR QUARTZ AGGREGATE"; EUCLID CHEMICAL CO, AN RPM COMPANY
3. COMPLY WITH FLOORING SYSTEM MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION.
4. PROVIDE A MINIMUM OF TWO COATS WITH TOTAL DRY FILM THICKNESS OF NOMINAL 20 - 25 MILS, AS RECOMMENDED BY MANUFACTURER.
5. PROVIDE EPOXY WALL BASE
6. COLOR SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS.
7. PROVIDE ABRASIVE IN EPOXY MEETING ADA ANSI 117.1 STANDARD FOR SLIP RESISTANCE.

2.03 COLOR SAMPLES
A. THE CONTRACTOR SHALL FURNISH SAMPLES OF ALL FINISHES IN TRIPLICATE AND OBTAIN THE APPROVAL OF COLOR MATCH BEFORE STARTING WORK. FINAL COLORS MUST MATCH EXACTLY WITH THE APPROVED SAMPLE. COLORS SELECTION AND QUANTITY OF DIFFERENT COLORS, AS SHOWN ON DRAWINGS, AND APPROVED BY THE ARCHITECT.
B. WHERE A DIFFERENT MANUFACTURER IS UTILIZED THAT PRODUCT IDENTIFIED IN PAINTING SPECIFICATION INDEX, COLOR MUST MATCH LISTED NAME OR NUMBER.

PART 3 EXECUTION

3.01 EXAMINATION
A. EXAMINE SUBSTRATES AND CONDITIONS UNDER WHICH PAINTING WILL BE PERFORMED FOR COMPLIANCE WITH REQUIREMENTS. DO NOT BEGIN APPLICATION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
B. START OF COATING WORK WILL BE CONSTRUED AS THE APPLICATOR'S ACCEPTANCE OF SURFACES WITHIN PARTICULAR AREA.

3.02 PREPARATION
A. REMOVE HARDWARE AND HARDWARE ACCESSORIES, PLATES, MACHINED SURFACES, LIGHTING FIXTURES, AND ITEMS IN PLACE THAT ARE NOT TO BE PAINTED, OR PROVIDE PROTECTION PRIOR TO SURFACE PREPARATION AND COATING. REMOVE ITEMS, IF NECESSARY, FOR COMPLETE PAINTING OF THE ITEMS AND ADJACENT SURFACES. FOLLOWING COMPLETION OF COATING OPERATION, REINSTALL ITEMS REMOVED USING WORKMEN SKILLED IN THE TRADES INVOLVED.

3.03 SURFACE PREPARATION
A. CLEAN AND PREPARE SURFACES TO BE PAINTED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS FOR EACH PARTICULAR SUBSTRATE CONDITION.
B. FERROUS METAL: CLEAN UNGALVANIZED FERROUS METAL SURFACES THAT HAVE NOT BEEN SHOP-COATED. REMOVE OIL, GREASE, DIRT, LOOSE MILL SCALE AND OTHER FOREIGN SUBSTANCES. USE SOLVENT OR MECHANICAL CLEANING METHODS THAT COMPLY WITH THE RECOMMENDATIONS OF THE STEEL STRUCTURES PAINTING COUNCIL.
5. BLAST-CLEAN STEEL SURFACES AS RECOMMENDED BY THE COATING SYSTEM MANUFACTURER AND ACCORDING TO THE REQUIREMENTS OF SSPC SPECIFICATION SSPC-SP 10.
C. GALVANIZED STEEL/NON FERROUS METALS: UTILIZE SSPC SPECIFICATION SSPC-SP 1 SOLVENT CLEANING AND CHEMICAL POWER WASH (TRI-SODIUM PHOSPHATE) TO REMOVE SOLVENT AND NON-SOLVENT SOLUBLE SEALERS AND OTHER SUBSTRATE CONTAMINANTS.
1. TOUCH-UP SHOP-APPLIED PRIME COATS THAT HAVE BEEN DAMAGED AND BARE AREAS. WIRE-BRUSH, SOLVENT CLEAN, AND TOUCH-UP WITH THE SAME PRIMER AS THE SHOP COAT.
D. MATERIAL PREPARATION: CAREFULLY MIX AND PREPARE MATERIALS ACCORDING TO THE COATING MANUFACTURER'S DIRECTIONS.
1. MAINTAIN CONTAINERS USED IN MIXING AND APPLICATION OF COATINGS ACCORDING TO THE MANUFACTURER'S DIRECTIONS.
2. STIR MATERIALS BEFORE APPLYING TO PRODUCE A MIXTURE OF UNIFORM DENSITY. STIR AS REQUIRED DURING APPLICATION. DO NOT STIR SURFACE FILM INTO THE MATERIAL. REMOVE FILM AND, IF NECESSARY, STRAIN THE COATING MATERIAL BEFORE USING.

3.04 APPLICATION
A. GENERAL: APPLY SPECIAL COATINGS BY BRUSH, ROLLER, SPRAY, SQUEEGEE, OR OTHER APPLICATORS ACCORDING TO THE MANUFACTURER'S DIRECTIONS. USE BRUSHES BEST SUITED FOR THE MATERIAL BEING APPLIED. USE ROLLERS OF CARPET, VELVET BACK, OR HIGH-PILE SHEEP'S WOOL AS RECOMMENDED BY THE MANUFACTURER FOR THE MATERIAL AND TEXTURE REQUIRED.
1. DO NOT APPLY COATINGS OVER DIRT, RUST, SCALE, GREASE, MOISTURE, SCUFFED SURFACES, OR CONDITIONS DETRIMENTAL TO FORMING A DURABLE COATING FILM.
2. PROVIDE FINISH COATS COMPATIBLE WITH THE PRIMERS USED.
B. THE NUMBER OF COATS AND FILM THICKNESS REQUIRED IS THE SAME REGARDLESS OF THE APPLICATION METHOD. DO NOT APPLY SUCCEEDING COATS UNTIL THE PREVIOUS COAT HAS CURED AS RECOMMENDED BY THE MANUFACTURER. WHERE SANDING IS REQUIRED, ACCORDING TO THE MANUFACTURER'S DIRECTIONS, SAND BETWEEN APPLICATIONS TO PRODUCE A SMOOTH, EVEN SURFACE.
C. THE TERM "EXPOSED SURFACES" INCLUDES AREAS VISIBLE WHEN PERMANENT OR BUILT-IN. EXTEND COATINGS IN THESE AREAS, AS REQUIRED, TO MAINTAIN THE SYSTEM INTEGRITY AND PROVIDE DESIRED PROTECTION.
1. COAT SURFACES BEHIND MOVABLE EQUIPMENT AND FURNITURE THE SAME AS SIMILAR EXPOSED SURFACES.
2. COAT THE BACK SIDES OF ACCESS PANELS, REMOVABLE OR HINGED COVERS, AND SIMILAR HINGED ITEMS TO MATCH EXPOSED SURFACES.
D. MINIMUM COATING THICKNESS: APPLY EACH MATERIAL NO THINNER THAN THE MANUFACTURER'S RECOMMENDED SPREADING RATE. PROVIDE TOTAL DRY FILM THICKNESS (DFT) OF THE ENTIRE SYSTEM AS RECOMMENDED BY THE MANUFACTURER.
E. PRIME COATS: BEFORE APPLYING FINISH COATS, APPLY A PRIME COAT OF MATERIAL, AS RECOMMENDED BY THE MANUFACTURER, TO THE MATERIAL REQUIRED TO BE COATED OR FINISHED THAT HAS NOT BEEN PRIME-COATED BY OTHERS.
1. RECOAT PRIMED AND SEALED SUBSTRATES WHERE THERE IS EVIDENCE OF SUCTION SPOTS OR UNSEALED AREAS IN THE FIRST COAT TO ENSURE A FINISH COAT WITH NO BURN-THROUGH OR OTHER DEFECTS CAUSED BY INSUFFICIENT SEALING.
F. BRUSH APPLICATION: BRUSH-OUT AND WORK BRUSH COATS INTO SURFACES IN AN EVEN FILM. ELIMINATE CLOUDINESS, SPOTTING, HOLIDAYS, LAPS, BRUSH MARKS, RUNS, SAGS, ROPINESS, OR OTHER SURFACE IMPERFECTIONS. NEATLY DRAW GLASS LINES AND COLOR BREAKS.
1. APPLY PRIMERS AND FIRST COATS BY BRUSH UNLESS THE MANUFACTURER'S INSTRUCTIONS PERMIT USING MECHANICAL APPLICATORS.
G. MECHANICAL APPLICATIONS: USE MECHANICAL METHODS TO APPLY COATING WHEN PERMITTED BY THE MANUFACTURER'S RECOMMENDATIONS AND GOVERNING REGULATIONS, ONLY WHEN APPROVED BY ARCHITECT.
1. WHEREVER USING SPRAY APPLICATION, APPLY EACH COAT TO PROVIDE THE EQUIVALENT HIDING OF BRUSH-APPLIED COATS. DO NOT DOUBLE-BACK WITH SPRAY EQUIPMENT BUILDING-UP FILM THICKNESS OF TWO COATS IN ONE PASS, UNLESS RECOMMENDED BY THE MANUFACTURER.
H. ALL FIELD CONNECTIONS SUCH AS BOLTS, NUTS, AND OTHER FASTENERS SHALL BE TOTALLY ENCAPSULATED WITH SPECIAL COATING SYSTEM TO MATCH ADJACENT MATERIAL.

3.05 FIELD QUALITY CONTROL
A. APPLICATOR TO MAINTAIN ACCURATE RECORDS OF THE APPLICATION AND PROVIDE COPIES OF THE RECORDS TO THE MANUFACTURER, IF REQUESTED.
1. MINIMUM INFORMATION REQUIRED IN THE RECORDS:
a. DAILY TEMPERATURES - MORNING AND EVENING
b. WEATHER CONDITIONS
c. TOTAL AREA APPLIED DAILY
d. AMOUNT OF MATERIALS USED DAILY
e. COMPUTED SQUARE FOOT COVERAGE RATE
B. MANUFACTURER'S WRITTEN INSTRUCTIONS WILL BE KEPT AT JOB SITE. BEFORE APPLICATION BEGINS, ALL PERSONNEL INVOLVED WILL READ THESE INSTRUCTIONS.

3.07 FIELD QUALITY CONTROL
A. THE OWNER RESERVES THE RIGHT TO ENGAGE THE SERVICES OF AN INDEPENDENT TESTING LABORATORY TO SAMPLE PAINT MATERIAL BEING USED. SAMPLES OF MATERIAL DELIVERED TO THE PROJECT WILL BE TAKEN, IDENTIFIED, SEALED, AND CERTIFIED IN THE PRESENCE OF THE CONTRACTOR.
B. THE TESTING LABORATORY WILL PERFORM APPROPRIATE TESTS AS REQUIRED BY THE OWNER.
C. IF TESTS SHOWN THAT MATERIAL BEING USED DOES NOT COMPLY WITH SPECIFIED REQUIREMENTS, THE CONTRACTOR MAY BE DIRECTED TO STOP PAINTING AND REMOVE NON-COMPLYING PAINT, PAY FOR TESTING, REPAINT SURFACES COATED WITH REJECTED PAINT, REMOVE REJECTED PAINT FROM PREVIOUSLY PAINTED SURFACES IF, UPON REPAINTING WITH SPECIFIED PAINT, THE TWO COATINGS ARE NON-COMPATIBLE.

3.08 CLEAN-UP
A. AT THE END OF EACH WORK DAY, REMOVE EMPTY CANS, RAGS, RUBBISH, AND OTHER DISCARDED PAINT MATERIALS FROM THE SITE.
B. UPON COMPLETION OF PAINTING, CLEAN GLASS AND PAINT-SPATTERED SURFACES. REMOVE SPATTERED PAINT BY WASHING, SCRAPING, OR OTHER PROPER METHODS, USING CARE NOT TO SCRATCH OR DAMAGE ADJACENT FINISHED SURFACES.
C. PROTECT WORK OF OTHER TRADES, WHETHER TO BE PAINTED OR NOT, AGAINST DAMAGE FROM PAINTING. CORRECT DAMAGE BY CLEANING, REPAIRING OR REPLACING, AND REPAINTING, AS ACCEPTABLE TO OWNER'S REPRESENTATIVE.
D. PROVIDE "WET PAINT" SIGNS TO PROTECT NEWLY-PAINTED FINISHES. REMOVE TEMPORARY PROTECTIVE WRAPPINGS PROVIDED BY OTHERS FOR PROTECTION OF THEIR WORK AFTER COMPLETION OF PAINTING OPERATIONS.
1. AT COMPLETION OF CONSTRUCTION ACTIVITIES OF OTHER TRADES, TOUCH-UP AND RESTORE DAMAGED OR DEFACED PAINTED SURFACES.

END OF SECTION

SECTION 09 77 70 - FIBERGLASS REINFORCED WALL PANELS

PART 1 - GENERAL

1.1 SUMMARY
A. Section Includes: Prefinished polyester glass reinforced plastic sheets and adhered to unfinished existing masonry wall.
1. PVC trim.

1.2 SUBMITTALS
A. Product Data: Submit sufficient manufacturer's data to indicate compliance with these specifications, including:
1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.
B. Shop Drawings: Submit elevations of each wall showing location of paneling and trim members with respect to all discontinuities in the wall elevation.
C. Selection Samples: Submit manufacturer's standard color pattern selection samples representing manufacturer's full range of available colors and patterns.

1.3 QUALITY ASSURANCE
A. Conform to building code requirements for interior finish for smoke and flame spread requirements as tested in accordance with:
1. ASTM E 84 (Method of test for surface burning characteristics of building Materials)
a. Wall Required Rating – Class C.
B. Sanitary Standards: System components and finishes to comply with:
1. United States Department of Agriculture (USDA) / Food Safety & Inspection Services (FSIS) requirements for food preparation facilities, incidental contact.
2. Food and Drug Administration (FDA) 2013 Food Code 6-101.11.
3. Canadian Food Inspection Agency (CFIA) requirements.

1.4 DELIVERY, STORAGE AND HANDLING
A. Deliver materials factory packaged on strong pallets.
B. Store panels and trim lying flat, under cover and protected from the elements. Allow panels to acclimate to room temperature (range of 60 to 75°F) for 48 hours prior to installation.

1.5 PROJECT CONDITIONS
A. Environmental Limitations: Building are to be fully enclosed prior to installation with sufficient heat (70°) and ventilation consistent with good working conditions for finish work
B. During installation and for not less than 48 hours before, maintain an ambient temperature and relative humidity within limits required by type of adhesive used and recommendation of adhesive manufacturer.
1. Provide ventilation to disperse fumes during application of adhesive as recommended by the adhesive manufacturer.

1.6 WARRANTY
A. Furnish one-year guarantee against defects in material and workmanship.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURER
A. Marlite; 1 Marlite Drive, Dover, OH 44622. 800-377-1221 FAX (330) 343-4668 Email: info@marlite.com www.marlite.com
B. Product:
1. Standard FRP

2.2 PANELS
A. Fiberglass reinforced thermosetting polyester resin panel sheets complying with ASTM D 5319.
1. Dimensions:
a. Thickness – 0.090 " (2.29mm) nominal
b. Width - 4'-0" (1.22m) nominal
c. Length – [10'-0" (3.0m)][8'-0" (2.4m)][As indicated on the drawings] nominal
2. Tolerance:
a. Length and Width: +/-1/8 " (3.175mm)
b. Square - Not to exceed 1/8 " for 8 foot (2.4m) panels or 5/32 " (3.96mm) for 10 foot (2.4m) panels
B. Properties: Resistant to rot, corrosion, staining, denting, peeling, and splintering.
1. Flexural Strength - 1.7 x 104 psi per ASTM D 790.
2. Flexural Modulus – 6.0 x 105 psi per ASTM D 790.
3. Tensile Strength – 8.0 x 103 psi per ASTM D 638.
4. Tensile Modulus – 9.43 x 105 psi per ASTM D 638.
5. Water Absorption - 0.17% per ASTM D 570.
6. Barcol Hardness (scratch resistance) of 30 as per ASTM D 2583.
7. Izod Impact Strength of 7.0 ft. lbs./in ASTM D 256
C. Back Surface: Smooth. Imperfections which do not affect functional properties are not cause for rejection.
D. Front Finish:
1. Color: To match existing FRP and to be selected by Architect from Manufacturers' standard colors
2. Surface Marlite Standard FRP: Pebbled.
3. Fire Rating: Class C (III) Fire Rating.
4. Size.
a. Marlite Standard FRP
1) 48" x 108" [1.2m x 2.7m] x .090" (3mm) nom.

2.3 MOLDINGS
A. PVC Trim: Thin-wall semi-rigid extruded PVC.
1. M 350 Inside Corner, 10' length
2. M 360 Outside Corner, 10' length
3. M 365 Division, 10' length
4. M 370 Edge, 10' length
5. Color: To be selected by Architect.

2.4 ACCESSORIES
A. Adhesive: Use only specified advanced polymer adhesive.
1. Titebond Advanced Polymer Panel Adhesive – VOC compliant, non-flammable, environmentally safe adhesive.
B. Sealant:
1. Marlite Brand - Color Match Sealant.

PART 3 - EXECUTION

3.1 PREPARATION
A. Examine backup surfaces to determine that corners are plumb and straight, surfaces are smooth, uniform, clean and free from foreign matter, nails countersunk, joints and cracks filled flush and smooth with the adjoining surface.
1. Verify that existing paint has good adhesion. If not, scrape off loose material.
B. Aggressively scuff painted CMU with 40-60 grit sand paper.
1. Level wall surfaces to panel manufacturer's requirements. Remove protrusions and fill indentations.

3.2 INSTALLATION
A. Apply panels to masonry substrate, above base, vertically oriented with seams plumb and pattern aligned with adjoining panels.
1. Install panels with manufacturer's recommended gap for panel field and corner joints.
a. Adhesive trowel and application method to conform to adhesive manufacturer's recommendations.
b. Apply adhesive to panel, press against wall, pull back to flash solvents and immediately press panel against wall.
c. Drying time will be longer than installation over drywall.

3.3 CLEANING
A. Remove excess sealant from panels and moldings. Wipe panel down using a damp cloth and mild soap solution or cleaner.
B. Refer to manufacturer's specific cleaning recommendations Do not use abrasive cleaners.

END OF SECTION

(Contd. on SP-4)

ZHA ARCHITECTS
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COMMONWEALTH OF VIRGINIA
RICHARD E. HURDLE
Lic. No. 0401 015732
ARCHITECT
06/30/2025

REVISION	DATE
ISSUED FOR PERMIT	06/30/2025

DESIGNED BY:
DRAWN BY:
CHECKED BY:
APPROVED BY:

CAMERON RUN REGIONAL PARK / RIPTIDE RESTROOM RENOVATION
4001 EISENHOWER AVE, ALEXANDRIA, VA 22304
PROJECT NUMBER: 25100.00
SCALE: AS SHOWN

SPECIFICATIONS

SP-3

(Contd. from SP-3)

SECTION 09 90 00 - PAINTING

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. This Section includes surface preparation and the application of paint materials to exposed interior and exterior items and surfaces scheduled. Surface preparation, prime and finish coats specified are in addition to shop-priming and surface treatments.
2. Paint all exposed surfaces, whether or not colors are designated, except where a surface or material is indicated not to be painted or is to remain natural. Where an item or surface is not mentioned, paint the same color as similar adjacent materials or surfaces. If color or finish is not designated, the Owner will select from standard colors or finishes available.
3. Except in mechanical and electrical rooms, paint all exposed plumbing, heating, fire protection, and electrical material to match the walls and ceilings of that area unless noted otherwise. This shall include, but not be limited to, pipes, sprinkler piping, insulation, conduit, ducts, access panels, grilles, diffusers, hangers, exposed steel and iron supports, HVAC and electrical equipment that do not have a factory applied finish, whether the adjacent surfaces receive paint or not, and the like. Include dampers or baffles behind grilles.
4. Unless noted otherwise, painting is not required on pre-finished items, finished metal surfaces, concealed surfaces, operating parts, sprinkler heads, or labels.
   a. All louvers and grilles to be painted to match adjacent surface.
   b. Labels: Do not paint over Underwriter's Laboratories, FMG or other code-required labels, or equipment name, identification, performance rating, or nomenclature plates.

1.02 DEFINITIONS

A. General: Standard coating terms defined in ASTM D16 apply to this Section.

B. "Paint" includes coating systems materials, primers, emulsions, enamels, stains, sealers and fillers, and other applied materials whether used as prime, intermediate or finish coats.

1.03 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 01 Specification Sections.

B. Submit "Letter of Conformance" in accordance with Section 01 33 00 indicating specified items selected for use in project with the following supporting data.

1. Product Data: Submit manufacturer's technical information, label analysis, and application instructions for each paint material proposed for use.
2. Samples: Submit two representative samples of each major type of surface or material. Do not proceed with final painting until samples are approved.
3. Color Charts: In duplicate, for all paints, stains and special coatings. Identify with numbers used on the "Interior Finish Index" or on the Drawings.
4. Painting Schedule: In a form similar to the schedule herein outlining the type of paint to be used for each category, application, and color. Indicate each material and cross-reference specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
5. Quality Control Submittals:
   a. Certifications: Manufacturer's statement that paint materials conform to current regulations relating to lead content and air pollution emission requirements.
6. Emission Test Reports.

C. Written Permission in writing by the Owner's Representative for the use of Mechanical application methods.

1.04 QUALITY ASSURANCE

A. Single Source Responsibility: Provide primers and undercoat paint produced by the same manufacturer as the finish coats.

B. The Painting subcontractor shall have a minimum of five (5) years proven satisfactory experience and shall show proof before commencement of work that he will maintain a qualified crew of painters throughout the duration of the work.

C. Coordination of Work: Review Sections in which primers are provided to ensure compatibility of the total systems for various substrates.

D. Material Quality: Provide the manufacturer's best quality trade sale type paint material of the various types specified. Paint material containers not displaying manufacturer's product identification will not be acceptable. Proprietary names used to designate colors or materials are not intended to imply that products named are required or to exclude of equal products of other manufacturers.

E. Conform to requirements of local authorities having jurisdiction in regard to the storage, mixing, application and disposal of all paint and related waste materials.

1.05 DELIVERY AND STORAGE

A. Deliver materials to the job site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label with trade name and manufacturer's instructions.

1. Product Name or Title of Material
2. Product Description (Generic Classification or Binder Type)
3. Manufacturer's Stock Number and Date of Manufacture
4. Contents by Volume, for Pigment and Vehicle Constituents
5. Thinning Instructions
6. Application Instructions
7. Color Name and Number
8. VOC Content

B. Approved materials without the above information will NOT be allowed on the Project site.

C. Store materials not in actual use in tightly covered containers at a minimum ambient temperature of 50 degrees F. in a well-ventilated area. Maintain containers used in storage of coatings in a clean condition, free of foreign materials and residue.

1. Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary precautionary measures to ensure that workmen and work areas are adequately protected from fire hazards and health hazards resulting from handling, mixing, and application of coatings.

1.06 PROJECT CONDITIONS:

A. Do not apply coatings in snow, rain, fog, or mist, or when the relative humidity exceeds 85 percent, or at temperatures less than 5 degrees F. above the dew point, or to damp or wet surfaces, unless otherwise permitted by manufacturer's printed instructions. Allow wet surfaces to dry thoroughly and attain the temperature and conditions specified before proceeding with or continuing the coating operation.

1. Unless specifically pre-approved by Architect, and the applied product manufacturer, perform no painting or decorating work when the ambient air and substrate temperatures are below 50° F for both interior and exterior work.
2. Perform no painting work when the maximum moisture content of the substrate exceeds:
   a. 15% for wood.
   b. 12 % for plaster and gypsum board.

1.07 WASTE MANAGEMENT AND DISPOSAL

A. Paint, stain and wood preservative finishes and related materials (thinners, solvents, etc.) are regarded as hazardous products and are subject to regulations for disposal. Obtain information on these controls from applicable government agencies having jurisdiction

B. All waste materials shall be separated and recycled. Where paint recycling is available, collect waste paint by type and provide for delivery to recycling or collection facility. Materials that cannot be reused must be treated as hazardous waste and disposed of in an appropriate manner.

C. To reduce the amount of contaminants entering waterways, sanitary/storm drain systems or into the ground the following procedures shall be strictly adhered to:

1. Retain cleaning water for water-based materials to allow sediments to be filtered out. In no case shall equipment be cleaned using free draining water.
2. Retain cleaners, thinners, solvents and excess paint and place in designated containers and ensure proper disposal.
3. Return solvent and oil soaked rags used during painting operations for contaminant recovery, proper disposal, or appropriate cleaning and laundering.
4. Dispose of contaminants in an approved legal manner in accordance with hazardous waste regulations.
5. Empty paint cans are to be dry prior to disposal or recycling (where available).
6. Close and seal tightly partly used cans of materials including sealant and adhesive containers and store protected in well ventilated fire-safe area at moderate temperature.

D. Set aside and protect surplus and uncontaminated finish materials not required by the Owner and deliver or arrange collection for verifiable re-use or re-manufacturing.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Except where noted otherwise, all finishing materials, thinners, etc., shall be the best quality, first line materials as manufactured by one of the following manufacturers:

1. Approved Manufacturers:
   a. Benjamin Moore & Co. (BM) (888-236-6667)
   b. Glidden Professional, a PPG Industries Brand (888-615-8169)
   c. PPG Architectural Finishes, Inc. - Pittsburgh Paints (888-441-9695)
   d. Sherwin-Williams Co. (S-W) (800-321-8194)

2.02 PAINT MATERIALS - GENERAL

A. Material Compatibility: Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

B. Material Quality: Provide manufacturer's best-quality paint material of the various coating types specified that are factory formulated and recommended by manufacturer for application indicated.

1. Paint-material containers not displaying manufacturer's product identification will NOT be acceptable.
2. Recycled content paints and primers will not be permitted for interior or exterior application.
3. Toxicity/IEQ: Comply with applicable regulations regarding toxic and hazardous materials, and as specified. Paints and coatings must meet or exceed the VOC and chemical component limits of Green Seal requirements.
   a. Interior paint: Comply with Green Seal GS-11.
   b. Exterior paint: Comply with Green Seal GS-11.
4. All materials used shall be lead and mercury free.

C. Raw linseed oil, turpentine, benzene, gloss oil, or coal oil shall not be used in any of the materials for painting work.

D. Chemical Components of Interior Paints and Coatings: Provide products that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24) and the following chemical restrictions:

2.03 PROTECTIVE COATINGS

A. Bituminous Paint: Acid and alkali resistant type conforming to ASTM D1187.

B. Zinc Chromate Primer: Standard zinc chromate primer, selected from manufacturers listed in this Section.

C. Aluminum Pigmented Paint: Fibrated aluminum complying with ASTM D2824, Type IV.

D. Apply protective coating, bituminous paint, to isolate aluminum member as required.

2.04 PAINT SCHEDULE

A. Detailed specifications for the various surfaces are shown in the Paint Schedule. If these specifications conflict with the recommendations of the manufacturer, this discrepancy shall be brought to the attention of the Architect, the Architect shall decide which method shall be followed.

B. Refer to Paint Schedule at the end of this Section.

2.05 COLOR SAMPLES:

A. The Contractor shall furnish samples of all finishes in triplicate and obtain the approval of color match before starting work. Final colors must match exactly with the approved sample. Colors selection and quantity of different colors, as shown on Drawings, and approved by Owner's Representative.

B. Colors: To be selected by Architect.

1. Where a different manufacturer is utilized than product identified by the Architect, color must match listed name or number.

2.06 MIXING AND TINTING

A. Unless otherwise specified herein or pre-approved, all paint shall be ready-mixed and pre-tinted. Re-mix all paint in containers prior to and during application to ensure break-up of lumps, complete dispersion of settled pigment, and color and gloss uniformity.

B. Paste, powder or catalyzed paint mixes shall be mixed in strict accordance with manufacturer's written instructions.

C. Where thinner is used, addition shall not exceed paint manufacturer's recommendations. Do not use kerosene or any such organic solvents to thin water-based paints.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine substrates and conditions under which painting will be performed for compliance with requirements. Do not begin application until unsatisfactory conditions have been corrected.

1. Start of painting will be construed as Applicator's acceptance of surfaces and conditions within a particular area.

3.02 SURFACES TO BE COATED

A. Unless noted otherwise, paint access doors, panels, registers, diffusers, light fixture trim, metal speaker covers and grilles the same color as adjacent surfaces. Paint access doors and panels in open position.

B. Paint interiors of ducts showing through registers and grilles flat black.

C. Paint prime coated or previously painted hinges the same as door frame to which they are attached.

D. Finish edges of doors to match faces.

E. Do not paint electrical device faceplates or devices, sprinkler heads, smoke alarms or thermostats/covers.

F. Unless otherwise directed, remove and spray paint metal items/products that are removable such as vents, registers, access panels, covers, louvers and diffusers. Reinstall upon completion.

3.03 PREPARATION:

A. Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and items in place that are not to be painted, or provide protection prior to surface preparation and painting. Remove items if necessary for complete painting of the items and adjacent surfaces. Doors shall be removed before painting to paint bottom and top edges and then re-hung. Following completion of painting, reinstall items removed using workers skilled in the trades involved.

B. Clean surfaces before applying paint or surface treatments. Schedule cleaning and painting so dust and other contaminants will not fall on wet, newly painted surfaces.

C. Provide protection for adjacent surfaces as necessary to prevent paint from coming into contact with adjacent materials not scheduled for painting.

3.04 SURFACE PREPARATION:

A. Clean and prepare surfaces to be painted in accordance with manufacturer's instructions for each particular substrate condition. Notify Architect in writing of problems anticipated using specified finish coat material with substrates primed by others.

B. Cementitious Surfaces: Prepare concrete, concrete masonry, cement plaster and similar surfaces to be painted by removing efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze.

1. Determine alkalinity and moisture content of surfaces to be painted. Do not paint surfaces where moisture content exceeds that permitted in manufacturer's printed directions.
2. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation.
   a. Use abrasive blast-cleaning methods if recommended by paint manufacturer.
   b. Determine alkalinity and moisture content of surfaces by performing appropriate tests. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Do not paint surfaces if moisture content exceeds that permitted in manufacturer's written instructions.
   c. Clean concrete floors to be painted with a 5 percent solution of muriatic acid or other etching cleaner. Flush the floor with clean water to remove acid, neutralize with ammonia, rinse, allow to dry, and vacuum before painting.
3. At areas to receive epoxy paint, clean concrete with muriatic acid, wash per manufacturers recommendations.

C. Ferrous Metals: Clean non-galvanized ferrous metal surfaces that have not been shop-coated; remove oil, grease, dirt, loose mill scale and other foreign substances. Use solvent or mechanical cleaning methods that comply with recommendations of the Steel Structures Painting Council.

1. Touch-up shop-applied prime coats that have been damaged, and bare areas. Wire-brush, clean with solvents, and touch-up with the same primer as the shop coat.
2. At areas to receive epoxy paint, prepare steel surfaces to SSPC-SPII power tool clean.

D. Galvanized Surfaces: Utilize SSPC-SP1 solvent cleaning and chemical wash (tri-sodium phosphate). Power wash with tri-sodium phosphate type cleaner (5% solution at 140 degrees F.) and solvent clean after rinsing and drying with a non-petroleum based solvent cleaner so that surface is free of oil and surface contaminants. Remove pretreatment from galvanized sheet metal fabricated from coil stock, by mechanical methods.

1. Touch-up shop-applied prime coats that have been damaged, and bare areas. Wire-brush clean with solvents, and touch-up with the same primer as the shop coat.

E. Wood Surfaces:

1. General:
   a. Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand surfaces exposed to view smooth and dust off.
   b. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer before applying primer. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood filler. Sand smooth when dried.

3.05 MATERIALS PREPARATION

A. Mix and prepare paint in accordance with manufacturer's directions.

B. Stir material before application to produce a mixture of uniform density; stir as required during application. Do not stir surface film into material. Remove film and, if necessary, strain before using.

C. Use only thinners approved by manufacturer, and only within recommended limits.

3.06 APPLICATION

A. Apply paint in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.

B. Paint colors, surface treatments, and finishes are indicated in "schedules."

C. The number of coats and film thickness required is the same regardless of application method. Do not apply succeeding coats until previous coat has cured. Sand between applications where required to produce a smooth, even surface. Apply additional coats when undercoats or other conditions show through final coat, until paint film is of uniform finish, color, and appearance.

D. The term "exposed surfaces" includes areas visible when permanent or built-in items are in place. Extend coatings in these areas to maintain system integrity and provide desired protection.

E. Paint backsides of access panels and removable or hinged covers to match exposed surfaces.

F. Omit primer on metal surfaces that have been shop-primed, unless primer becomes worn, damaged, or more than six months old from date of delivery to job site.

G. Paint all edges of every door to match faces, including top and bottoms.

3.07 MINIMUM COATING THICKNESS

A. Apply materials at the manufacturer's recommended spreading rate. Provide total dry film thickness of the system as recommended by the manufacturer.

3.08 BLOCK FILLERS:

A. Apply block fillers at a rate to ensure complete coverage with pores filled.

3.09 PRIME COATS:

A. Before application of finish coats, apply a prime coat as recommended by the manufacturer to material required to be painted or finished, and has not been prime coated by others.

B. Tinting of primers will not be permitted.

C. Re-coat primed and sealed substrates where there is evidence of suction spots or unsealed areas in the first coat to assure a finish coat with no burn-through or other defects due to insufficient sealing.

D. Back Priming:

1. All wood trim shall be back primed before installation. Spot prime all ends of trim.
   a. Back prime and paint face and edges of plywood service panels for telephone and electrical equipment before installation to match adjacent wall surface.

3.10 BRUSH APPLICATION:

A. Brush-out and work brush coats into surfaces in an even film. Eliminate cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Draw neat glass lines and color breaks. Apply primers and first coats by brush unless manufacturer's instructions permit use of mechanical applicators.

3.11 ROLLER APPLICATION

A. Rollers: Use rollers of carpet, velvet-back, or high-pile sheep's wool as recommended by manufacturer for material and texture required.

3.12 MECHANICAL APPLICATIONS:

A. Mechanical methods for paint application will ONLY be permitted by written permission of the Architect. All suite entry doors must be brush applied.

3.13 FIELD QUALITY CONTROL

A. Match approved samples for color, texture and coverage. Remove, refinish or repaint work not in compliance with specified requirements.

B. Where touch-ups occur, match color and sheen of existing surface. Touch-ups must blend invisibly, or painting must be extended to nearest corner or other termination point, as acceptable to the Owner's Representative.

3.14 CLEANING

A. At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from the site.

1. Clean equipment and dispose of wash water / solvents as well as all other cleaning and protective materials (e.g. rags, drop cloths, masking papers, etc.), paints, thinners, paint removers / strippers in accordance with the safety requirements of authorities having jurisdiction

B. Upon completion of painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing, scraping, or other proper methods, using care not to scratch or damage adjacent finished surfaces.

C. Protect work of other trades, whether to be painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and repainting, as acceptable to Architect.

D. Provide "Wet Paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others for protection of their work after completion of painting operations. At completion of construction activities of other trades, touch-up and restore damaged or defaced painted surfaces.

END OF SECTION

(Contd. on SP-5)

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COMMONWEALTH OF VIRGINIA
RICHARD E. HURDLE
Lic. No. 0401 015732
ARCHITECT
06/30/2015

REVISION	DATE	
	06/30/2015	ISSUED FOR PERMIT
DESIGNED BY:		CHECKED BY:
DRAWN BY:		APPROVED BY:

CAMERON RUN REGIONAL PARK /
RIPTIDE RESTROOM RENOVATION
4001 EISENHOWER AVE, ALEXANDRIA, VA 22304
PROJECT NUMBER: 15100 SCALE: AS SHOWN

SPECIFICATIONS

SP-4

(Contd. from SP-4)

PAINT SCHEDULE

DESCRIPTION				MANUFACTURER											
				SHERWIN-WILLIAMS				BENJAMIN MOORE				GLIDDEN PROFESSIONAL				PPG ARCHITECTURAL FINISHES			
Surface	Vehicle and Luster	Max VOC Content 2 (g/L)	No. of Coats	Products	Dry Mil Thickness (Per Coat)	GS-111 (Y or N)	VOC2 (g/L)	Products	Dry Mil Thickness (Per Coat)	GS-111 (Y or N)	VOC2 (g/L)	Products	Dry Mil Thickness (Per Coat)	GS-111 (Y or N)	VOC2 (g/L)	Products	Dry Mil Thickness (Per Coat)	GS-111 (Y or N)	VOC2 (g/L)
1. Interior Ferrous Metal (Not Galvanized and Shop Primed)	Acrylic Latex Semi-Gloss	250	1	Pro Industrial Pro-Cryl Universal Primer (B66W310)	3.00	Y	<100	Acrylic Metal Primer (P04)	1.50	N	52	Devflex WB PF DTM Primer & Finish (4020)	2.20-3.50	Y	91	**PittTech Plus 4020 DTM Metal Primer**	2.00-3.50	Y	91
		150	2	Solo Acrylic Semigloss (A76W51)	1.50	**Y**	**<50**	**Ultra Spec 500 Interior Latex Semi Gloss Finish (N539)**	1.80	Y	0	Lifemaster Advanced Oil Semi-Gloss Enamel (1506)	1.50-2.00	Y	48	Speedhide 6-1510 Interior Alkyd WB Semi Gloss	1.60	Y	37
2. Interior Ferrous Metal (Galvanized)	Acrylic Latex Semi-Gloss	250		Self Priming- No Primer Required				**Ultra Spec 500 Interior Latex Primer Sealer(N534)**	1.80	Y	0	Devflex WB PF DTM Primer & Finish (4020)	2.20-3.50	Y	91	**PittTech Plus 4020 DTM Metal Primer**	2.00-3.50	Y	91
		150	2	Solo Acrylic Semigloss (A76W51)	1.50	**Y**	**<50**	**Ultra Spec 500 Interior Latex Semi Gloss Finish (N539)**	1.80	Y	0	Lifemaster Advanced Oil Semi-Gloss Enamel (1506)	1.50-2.00	Y	48	Speedhide 6-1510 Interior Alkyd WB Semi Gloss	1.60	Y	37
3. Interior Pipes, Ductwork, & Mechanical Equipment (Not Galvanized)	Acrylic Latex Eggshell	150	1	Pro Industrial Pro-Cryl Universal Primer (B66W310)	3.00	Y	<100	Fresh Start All-Purpose 100% Acrylic Primer (023)	1.20	N	49	Devflex WB PF DTM Primer & Finish (4020)	2.20-3.50	Y	91	**PittTech Plus 4020 DTM Metal Primer**	2.00-3.50	Y	91
		150	1	ProMar 200 ZeroVOC Interior Latex Eg-Shel (B20W2651)	1.70	Y	0	**Ultra Spec 500 Interior Latex Semi Gloss Finish (N539)**	1.80	Y	0	Lifemaster Advanced Oil Semi-Gloss Enamel (1502)	1.50-2.00	Y	<50	Speedhide 6-1410 Interior Alkyd WB Satin	1.50	Y	36
4. Interior Pipes, Ductwork, & Mechanical Equipment (Galvanized)	Acrylic Latex Eggshell	150	1	Pro Industrial Pro-Cryl Universal Primer (B66W310)	3.00	**Y**	**<100**	**Ultra Spec 500 Interior Latex Primer Sealer (N534)**	1.80	Y	0	Devflex WB PF DTM Primer & Finish (4020)	2.20-3.50	Y	91	**PittTech Plus 4020 DTM Metal Primer**	2.00-3.50	Y	91
		150	1	ProMar 200 ZeroVOC Interior Latex Eg-Shel (B20W2651)	1.70	Y	0	**Ultra Spec 500 Interior Latex Eggshell Enamel (N538)**	1.80	Y	0	Lifemaster Advanced Oil Semi-Gloss Enamel (1502)	1.50-2.00	Y	<50	Speedhide 6-1410 Interior Alkyd WB Satin	1.50	Y	36
5. Interior Concrete Masonry Units Walls or Concrete Walls/Ceilings	Acrylic Latex Semi-Gloss	150	2	PrepRite Block Filler Int/Ext Latex (B25W25)	8.00	Y	45	**Ultra Spec Hi Build Block Filler (571)**	8.50	N	45	Concrete Coatings Block Filler Interior/Exterior (3010-1200)	10.00	Y	49	Speedhide 6-7 Int/Ext Latex Block Filler	7.40-8.00	Y	18
		150	1	ProMar 200 Zero VOC Semigloss (B31W2651)	1.60	Y	0	**Ultra Spec 500 Interior Latex Semi Gloss Finish (N539)**	1.80	Y	47	Ultra Hide No VOC Interior SemiGloss Finish (1415)	1.30-1.50	Y	0	**Speedhide 6-4510XI Zero VOC Interior Latex Semi Gloss**	1.30	Y	0
6. Interior Wood	Acrylic Latex Semi-Gloss	150		Self Priming- No Primer Required				**Ultra Spec 500 Interior Latex Primer Sealer (N534)**	1.80			Gripper Multi-Purpose Interior/Exterior Water-Based Primer Sealer (3210-1200)	1.50	Y	90	SealGrip 17-921 Acrylic Universal Primer	1.60	Y	84
		150	2	Solo Acrylic Semigloss (A76W51)	1.50	**Y**	**<50**	**Ultra Spec 500 Interior Latex Semi Gloss Finish (N539)**	1.80	Y	47	LifemasterOil Semi-Gloss Wall & Trim Enamel (1506)	1.50-2.00	Y	<50	Speedhide 6-1510 Interior Alkyd WB Semi Gloss	1.80	Y	37
Exterior Metal - Galvanized				Hollow Metal Doors & Frames				Series 113 Tneme Tufcoat by Tnemec									3 MILS		

Note 1. Paints, coatings and primers meet or exceed the VOC and chemical component limits of Green Seal Standard GS-11 (First Edition May 20, 1993) requirements.
Note 2. VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24). Clear wood finishes, floor coatings, stains, and shellacs do not exceed the VOC limits of the South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings (in effect January 1, 2004). VOC Levels shown are unthinned without colorants, actual levels may vary based on colors used.
Note: 3. Revisions from last version are shown in BOLD.

SECTION 10 21 13.19 - PLASTIC TOILET COMPARTMENTS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Plastic toilet compartment partitions for following applications:

a. Toilet enclosures.
b. Urinal screens.

1.02 SUBMITTALS

A. Product Data: Manufacturer's data sheets for each type of product indicated. Include fabrication details, description of materials and finishes.

1. Product Test Reports: When requested by Architect, submit documentation by qualified independent testing agency indicating compliance of products with requirements.

B. Shop Drawings: Include overall product dimensions, floor plan, elevations, sections, details, and attachments to other work. Include choice of options with details.

C. Samples for Selection: Furnish samples of manufacturer's full range of colors for initial selection.

1.03 QUALITY ASSURANCE

A. Accessibility Requirements: Comply with requirements of ICC/ANSI 117.1, and with requirements of authorities having jurisdiction.

B. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Flame-Spread Index: Not greater than 75.
2. Smoke-Developed Index: 450.

1.04 WARRANTY

A. Special Manufacturer's Warranty: Provide manufacturer's standard form in which manufacturer agrees to repair or replace products that fail in materials or workmanship during the following period after substantial completion:

1. Plastic Toilet Partitions: Against corrosion, breakage, and delamination: 15 years.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Basis-of-Design Manufacturer: Subject to compliance with requirements, provide products of **Bradley Corporation, The Mills Company, Menomonee Falls, WI 53051.**

1. Contact Information: (800)272-3539, fax (262)251-5817; Email info@BradleyCorp.com; Website www.bradleycorp.com.

2.02 MATERIALS

A. Plastic Panels: High density polyethylene (HDPE) suitable for exposed applications, waterproof, non-absorbent, and graffiti-resistant textured surface, Class C.

1. Provide panels with minimum 30 percent pre-consumer recycled content.

2.03 PLASTIC TOILET COMPARTMENTS

A. Toilet Compartment Type:

1. Overhead braced.
a. Basis of Design Product: Bradley, Mills Partitions, Sentinel, Series 400.

B. Urinal Screen Style:

1. Floor anchored:
a. Basis of Design Product: Bradley, Mills Partitions, Model No. 3.
b. Floor mounted, requiring concrete floor, minimum 3 inches thick for anchoring.

C. Door, Panel, and Pilaster Construction, General: HDPE, with a 3/16" (4.8mm) radiused edge.

1. Provide exposed surfaces free of pitting, visible seams and fabrication marks, stains, or other imperfections.

D. Door Construction: 1 inch (25 mm) thick.

E. Panel Construction: 1 inch (25 mm) thick.

F. Pilaster Construction: 1 inch (25 mm) thick.

G. Headrail: Extruded anodized aluminum headrail with anti-grip profile. Clamps around pilaster and is secured to the wall with stainless steel brackets.

H. Shoes: 4 inches (76 mm) high minimum, 300 series stainless steel with No. 4 satin brushed finish.

I. Urinal-Screen Construction: Matching toilet compartment panel construction

J. Urinal-Screen Post: Manufacturer's standard post design of material matching the thickness and construction of pilasters with shoe and sleeve (cap) matching that on the pilaster.

K. Brackets (Fittings):

1. Full-Height (Continuous) Type: Manufacturer's standard design; aluminum.

L. Plastic Panel Finish: Manufacturer's standard impregnated finish, with one color in each room.

1. Color: As selected by Architect from manufacturer's full range.

2.04 HARDWARE

A. Hardware, Standard Duty: Manufacturer's standard 6463-T-5 aluminum, including stainless steel tamper-resistant fasteners:

1. Hinges: Self-closing [integral, nylon, gravity-type] [continuous spring-loaded type] [8" wraparound type] adjustable to hold doors open at any angle up to 90 degrees, with emergency access by lifting door.
2. Latch and Keeper: Surface-mounted slide latch with flat rubber-faced combination door strike and keeper, meeting requirements for accessibility at accessible compartments.
3. Coat Hook: Combination hook and rubber-tipped stop, sized to prevent door from hitting compartment-mounted accessories. Provide wall bumper where door abuts wall. Provide formed L-shaped hook without stop at outswing doors.
4. Door Pull: Standard unit on outside of inswing doors. Provide pulls on both sides of outswing doors.

2.05 FABRICATION

A. Overhead-Braced Units: Provide manufacturer's standard corrosion-resistant supports, leveling mechanism, and anchors at pilasters to suit floor conditions. Provide shoes at pilasters to conceal supports and leveling mechanism.

B. Urinal-Screen Posts: Provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment at bottoms of posts. Provide caps, shoes, and covers at posts to conceal anchorage.

C. Door Size and Swings: Unless otherwise indicated, provide 24-inch- (610-mm-) wide, in-swinging doors for standard toilet compartments and 36-inch- (914-mm-) wide, out-swinging doors with a minimum 32-inch- (813-mm-) wide clear opening for compartments designated as accessible.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine work area to verify that measurements, substrates, supports, and environmental conditions are in accordance with manufacturer's requirements to allow installation.

1. Proceed with installation once conditions meet manufacturer's requirements.

3.02 INSTALLATION

A. General: Comply with manufacturer's written installation instructions. Install units rigid, straight, level, and plumb. Secure units in position with manufacturer's recommended anchoring devices.

B. Install toilet partitions and screens in spaces with operating, temperature controlled HVAC systems. Shield partitions and screens from direct sunlight.

C. Clearances: Install with clearances indicated on Drawings. Where clearances are not indicated, allow maximum 1/2 inch (13 mm) between pilasters and panels, and 1 inch (25 mm) between panels and walls.

D. Stirrup Brackets: Secure panels to walls and to pilasters with no fewer than three brackets attached at midpoint and near top and bottom of panel. Locate wall brackets so holes for wall anchors occur in masonry or tile joints. Align brackets at pilasters with brackets at walls.

3.03 ADJUSTING

A. Hardware Adjustment: Adjust and lubricate hardware according to hardware manufacturer's written instructions for proper operation. Set hinges on in-swinging doors to hold doors open approximately 15 degrees from closed position when unlatched. Set hinges on out-swinging doors to return doors to fully closed position.

3.04 FINAL CLEANING

A. Remove packaging and construction debris and legally dispose of off-site.

B. Clean partition and screen surfaces with materials and cleansers in accordance with manufacturer's recommendations.

END OF SECTION

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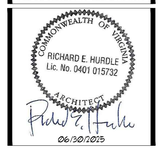

REVISION	DATE	ISSUED FOR PERMIT
	06/30/2015	DESCRIPTION
DESIGNED BY:		CHECKED BY:
DRAWN BY:		APPROVED BY:

CAMERON RUN REGIONAL PARK / RIPTIDE RESTROOM RENOVATION
4001 EISENHOWER AVE, ALEXANDRIA, VA 22304
PROJECT NUMBER: 15101.00 SCALE: AS SHOWN

SPECIFICATIONS

SP-5

ELECTRICAL SYMBOLS

COMPUTER DATA OUTLET

INTERCONNECTING TELEPHONE

ELECTRICAL PANEL

FLUSH MOUNTED PANELBOARD AND CABINET

SURFACE-MOUNTED PANELBOARD AND CABINET

WIRING, CONCEALED IN CEILING OR WALL

WIRING, CONCEALED IN FLOOR

WIRING EXPOSED

HOME RUN TO PANEL BOARD.

INDICATE NUMBER OF CIRCUITS BY NUMBER OF ARROWS. ANY CIRCUIT WITHOUT SUCH DESIGNATION INDICATES A THREE-WIRE CIRCUIT. FOR A GREATER NUMBER OF WIRES INDICATE AS FOLLOWS: (3 WIRES) (4 WIRES), ETC.

FEEDERS

USE HEAVY LINES AND DESIGNATE BY NUMBER CORRESPONDING TO LISTING IN FEEDER SCHEDULE.

WIRING TURNED UP

WIRING TURNED DOWN

9 HOME RUN TO PANEL 3-CIRCUITS 9 WIRES

CONTROLLER/STARTER

EXTERNALLY OPERATED DISCONNECT SWITCH

PULL BOX

FUSED DISCONNECT SWITCH

ENCLOSED CIRCUIT BREAKER

ENCLOSED CIRCUIT BREAKER WITH SHUNT TRIP.

DUCT DETECTOR

EXIT BATTERY PACK AND OUTLET BOX, DIRECTIONAL DIRECTIONAL ARROWS AS INDIACTED. SHADED AREAS DENOTE FACES.

JUNCTION BOX

EMERGENCY BATTERY PACK WITH CHARGER AND SEALED BEAM HEADS

LIGHT FIXTURES ARE UNSWITCHED AND SERVE AS EMERGENCY LIGHT.

PROVIDE BATTERY BACK UP WHERE INDICATED.

SINGLE RECEPTACLE OUTLET

DUPLEX RECEPTACLE OUTLET

GFI RECEPTACLE

WP GFI & WATER PROOF RECEPTACLE

QUADRUPLEX RECEPTACLE OUTLET

SINGLE SPECIAL PURPOSE RECEPTACLE OUTLET

DUPLEX SPECIAL PURPOSE RECEPTACLE OUTLET

S SINGLE POLE SWITCH

S_3 THREE-WAY SWITCH

S_D DIMMER

CEILING OR WALL MOUNTED OCCUPANCY SENSOR

POINT OF CONNECTION NEW TO EXISTING CONTRACTOR POINT OF CONNECTION

POINT OF DEMOLITION

ABREVIATIONS

M.C	MECHANICAL CONTRACTOR.	N	NORMAL POWER
E.C	ELECTRICAL CONTRACTOR.	E	EMERGENCY POWER
G.C	GENERAL CONTRACTOR.	DS	DISCONNECT
I.G	ISOLATED GROUND.	CB	CIRCUIT BREAKER
GFI	GROUND FAULT PROCTETED	SN	SOLID NEUTRAL
CM	CEILING MOUNTED.		
SF	FAN SWITCH.		
UG	UNDERGROUND.		
AFF	ABOVE FINISH FLOOR.		
SM	MASTER SWITCH		
OS	OCCUPANCY SENSOR		
SOS	WALL MOUNTED MOTION DETECTOR WITH BY PASS SWITCH		
SOSD	WALL MTD MOTION DETECTOR WITH BY PASS SWITCH & DIMMER		
WP	WATER PROOF		

CONDUITS & WIRING SCHEDULE

USE	DESCRIPTION
POWER & LIGHTING	MC-CABLES CONCEALLED AREAS
HOME RUN	MC-CABLES CONCEALLED AREAS CABLE IN EMT (ALL EXPOSED AREAS)

* BX, ROMEX ARE NOT ACCEPTABLE.

THE CONTRACTOR SHALL CONSIDER ALL THE REFERENCE CODES BELOW AS A PART OF PROJECT CONSTRUCTION DOCUMENTS

2021 VIRGINIA CONSTRUCTION CODE (IBC) USBC, PART I
2017 ACCESSIBLE AND USABLE BUILDING & FACILITIES (ICC/ANSI A117.1)
2018 VIRGINIA ENERGY CONSERVATION CODE
2021 VIRGINIA MECHANICAL CODE (IMC)
2021 VIRGINIA PLUMBING CODE (IPC)
2021 VIRGINIA FUEL GAS CODE (IFGC)
2020 NATIONAL ELECTRIC CODE
2021 VIRGINIA EXISTING BUILDING CODE (IEBC) USBC, PART II
2021 VIRGINIA MAINTENANCE CODE (IBC) USBC, PART III
2021 VIRGINIA FIRE PREVENTION CODE (IFC)

SHEET INDEX

ELECTRICAL GENERAL NOTES:

1- ALL ELECTRICAL WORKS SHALL BE IN STRICT ACCORDANCE WITH LATEST EDITIONS OF INTERNATIONAL CODES, NEC, NFPA. REQUIREMENTS OF LOCAL JURISDICTIONS AND REQUIREMENT.

2- WHENEVER THERE IS A CONFLICT BETWEEN PROJECT PLANS AND SPECIFICATIONS, OR PROJECT DOCUMENTS AND CODE REQUIREMENTS, A REQUEST FOR INFORMATION (RFI) SHALL BE GENERATED AND SUBMITTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO BID DATE.

WHEN SUBMISSION OF AN (RFI) IS NOT FEASIBLE DUE TO THE TIME LIMITATION OR OTHER FACTORS, THE MOST STRINGENT REQUIREMENT SHALL PREVAIL AND SHALL BE INCLUDED IN THE CONTRACTOR'S BID. THE (RFI) MAY BE SUBMITTED AFTER AWARD OF CONTRACT FOR CLARIFICATIONS.

3- IF CONTRACTOR'S BID EXCLUDE SOME ITEMS OF THE WORK DUE TO ANY REASON, SUCH EXCLUSIONS SHALL BE CLEARLY DEFINED IN THE BID PROPOSAL. UPON FAILURE OF THE CONTRACTOR TO INDICATE EXCLUSIONS, THE OWNER HAS THE RIGHT TO ASSUME THAT ALL ITEMS OF WORK INDICATED ON THE PROJECT PLANS, OR ADDRESSED ON THE PLANS AND SPECIFICATIONS IN ANYWAY ARE INCLUDED IN THE BID PROPOSAL AND ARE CONTRACTOR'S OBLIGATION TO PROVIDE.

4- IT IS NOT THE INTENT OF THESE PROJECT DOCUMENT TO FURNISH AND INSTALL SYSTEMS AND REQUIREMENT WHICH ARE LESS THAN THE MINIMUM CODE REQUIREMENT. MINIMUM CODE REQUIREMENTS SHALL ALWAYS PREVAIL.

5- NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS IN ONE COMMON CONDUIT. NUMBER OF WIRES ARE USUALLY INDICATED.
IF NUMBER OF WIRES IN EACH HOME RUN IS NOT INDICATED, THE CONTRACTOR SHALL RUN WIRE AS PER FOLLOWING SCHEDULE.

SINGLE PHASE CIRCUIT — THREE WIRE PER CIRCUIT
THREE PHASE CIRCUIT — FIVE WIRE PER CIRCUIT

EACH CIRCUIT SHALL INCLUDE LINE(S), NEUTRAL & GROUND. IT IS THE INTENT OF PROJECT DOCUMENTS TO RUN DEDICATED NEUTRAL FOR EACH CIRCUIT.

6- FOR WIRE & CONDUIT SIZES, SEE PANEL SCHEDULES. ALL WIRE SIZES SHOWN ON THIS PROJECT ARE COPPER. ALUMINUM IS NOT PERMITTED.

7- ELECTRICAL DRAWING SHOWS POINT OF INITIATION & TERMINATION OF EACH CIRCUIT, FEEDER OR HOME RUN & USUALLY DOES NOT INDICATE THE ACTUAL LAYOUT. IT IS THE CONTRACTOR RESPONSIBILITY TO DETERMINE LAYOUT OF THE CONDUITS OR WIRING AT SITE. PROPOSED LAYOUTS SHALL BE COORDINATED WITH OTHER TRADES & SHALL COMPLY WITH APPLICABLE CODES & SHALL ACCOMMODATE ARCHITECTURAL & STRUCTURAL FEATURES OF THE BUILDING IN GENERAL EXPOSED CONDUIT OR WIRING WILL BE ONLY PERMITTED IN UTILITY AREAS & UNFINISHED AREAS. REFER TO SPECIFICATIONS FOR METHODS & MEANS OF INSTALLATION.

8- WHENEVER THERE IS A CONFLICT BETWEEN PROPOSED EQUIPMENT & WHAT INDICATED ON DESIGN DOCUMENTS, SUCH CONFLICTS SHALL BE BROUGHT TO ATTENTION OF THE ENGINEER IN THE SHOP DRAWING PACKAGE. FAILURE OF THE CONTRACTOR TO ADDRESS THE CONFLICTS, AUTOMATICALLY VOID THE ENGINEER APPROVAL OF THE EQUIPMENT WHICH ARE NON-CONFORMING.

9- ANY V.E SHALL BE REVIEWED BY ENGINEER & APPROVED BY THE OWNER'S REPRESENTATIVE.

10- PROVIDE TRAINING TO THE OWNER'S DESIGNATED PERSONNEL ON START UP, OPERATION & PREVENTIVE MAINTENANCE OF THE FOLLOWING SYSTEM.

* LIGHTING CONTROL SYSTEMS.

NUMBERS OF TRAINING HOURS SHALL BE AS AGREED UPON BETWEEN CONTRACTOR & OWNER'S FACILITY MANAGEMENT AND NOT LESS THAN 8 MAN HOURS ON EACH SYSTEM.

11- WHENEVER ITEMS SPECIFIED OR SHOWN ON THE DESIGN DOCUMENTS CAN NOT BE INSTALLED AS INDICATED, OR MAY NOT BE FITTED INTO AVAILABLE SPACES, OR THE CONTRACTOR MAY NOT BE ABLE TO PROVIDE FOR REASONABLE SPACE FOR REPAIR AND MAINTENANCE, OR THE ITEMS AND MODEL NUMBER SPECIFIED MAY NOT ACCOMMODATE THE PROJECT REQUIREMENTS (i.e. WATER PROOF FIXTURE), SUCH PROBLEM SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN TEAM PRIOR TO ANY ORDERING OR INSTALLATION AND AS A PART OF SHOP DRAWING SUBMITTAL.
UPON FAILURE TO DO SO, THE CONTRACTOR WILL BE RESPONSIBLE TO REPLACE INSTALLED SYSTEMS, EQUIPMENT, FIXTURE OR DEVICES AND RETURN ITEMS TO MANUFACTURER WITHOUT RE STOCKING CHARGES, OR MAKE MODIFICATIONS TO THE INSTALLED SYSTEM AS REQUIRED AT NO EXTRA COST TO THE OWNER. SHOP DRAWING APPROVAL WILL NOT RELIVE THE CONTRACTOR FROM SUCH OBLIGATIONS.

12- PENETRATION THRU SHEAR WALLS & OTHER STRUCTURAL WALLS MAY BE REQUIRED AND MAY NOT BE UNAVOIDABLE. PRIOR TO ANY SUCH PENETRATIONS, THE CONTRACTOR SHALL COORDINATE THE WORK WITH G.C. PROVIDE FOR ANY MODIFICATIONS TO LAYOUT OF THE MP SYSTEM, AS REQUIRED TO ACCOMMODATE SUCH PENETRATIONS. WITHOUT ANY DAMAGES TO STRUCTURAL INTEGRITY OF THE STRUCTURE, @ NO EXTRA COST. SIZE & DETAIL OF PENETRATION SHALL BE COORDINATED & APPROVED BY STRUCTURAL ENGINEER.

13- ANY WORK EXCLUDED FROM CONTRACTOR'S BID SHALL BE CLEARLY ADDRESSED IN WRITING TO G.C AS PART OF BID DOCUMENTS. EXCLUSIONS WHICH ARE NOT ADEQUATELY QUALIFIED WILL BE AUTOMATICALLY REJECTED & CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE FOR ALL ITEMS AS INTENDED IN THE DESIGN DOCUMENTS.

14- ANY EXCEPTION TO REQUIREMENTS OF THE DESIGN DOCUMENTS OR INTENT OF THE DESIGN DOCUMENTS SHALL BE APPROVED BY ENGINEER & IN WIRITING.

15- COMMON GROUND CAN BE USED FOR LIGHTING & RECEPTACLES PERMITTED BY CODE.

CONDUIT INSTALLATION REQUIREMENTS

1- NO CONDUIT IS TO BE SURFACES MOUNTED ON TOP OF DRYWALL. ALL WIRING MUST BE BEHIND DRYWALL WHERE DRYWALL EXISTS.

2- ALL CONDUIT MUST INTERSECT DRYWALL AT A DIRECT 90-DEGREE ANGLE. THE CONDUIT MUST NOT BE CURVED AS IT ENTERS THE WALL AND MUST NOT ENTER THE DRYWALL AT ANY ANGLE OTHER THAN 90 DEGREES.

3- ALL CONDUIT SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO THE FINISHED FLOOR. ALL CONDUIT MUST BE RUN PARALLEL AND EVENLY SPACED WITH OTHER CONDUIT. CURVES IN THE CONDUIT MUST BE PARALLEL TO THE OTHER CONDUIT AND SHALL ALSO BE EVENLY SPACED.

4- NO CONDUIT IS ALLOWED ON BRICK IF PLACING IT (WIRING) INSIDE NEARBY DRYWALL WILL ADEQUATELY MEET CODE AND IS REASONABLY ACCEPTABLE AS AN ALTERNATIVE LOCATION BY OWNER. FOR CLARITY, OWNERS MAY GRANT EXCEPTION TO CONDUIT ON BRICK IF A SWITCH IS OTHERWISE TOO FAR FROM AN ENTRY.

5- NO OUTLETS WILL BE SURFACE MOUNTED ON BRICK IF CODE CAN BE MET BY PLACING THE OUTLET IN NEARBY DRYWALL AND THE CHANGE IS REASONABLY ACCEPTABLE TO OWNERS.

6- CONDUIT SHALL NOT BE INSTALLED ACROSS AN ENTIRE BRICK WALL TO CONNECT TWO SECTIONS OF DRYWALL OR TO FEED MULTIPLE OUTLETS ON A BRICKWALL. IF THE OUTLET CANNOT BE RELOCATED TO DRYWALL, THEN THE CONDUIT SHALL EXTEND OUT HORIZONTALLY FROM THE DRYWALL THAT IS CLOSEST TO THE SURFACE MOUNTED OUTLET. THE GOAL IS TO MINIMIZE THE AMOUNT OF EXPOSED CONDUIT AND TO MINIMIZE THE VERTICAL CONDUIT AS MUCH AS CODE PERMITS.

7- AROUND EXPOSED-BRICK CORNERS, E.C SHALL USE A CORNER CONNECTION FOR THE CONDUIT AND SHALL NOT BEND THE CONDUIT UNLESS THE BEND CAN REMAIN WITHIN 1" OF THE BRICK AT ALL TIMES IN THE BEND.

8- AROUND EXPOSED-CEILING BEAMS, E.C SHALL USE A CORNER CONNECTION FOR THE CONDUIT AND SHALL NOT BEND THE CONDUIT UNLESS THE BEND CAN REMAIN WITHIN 1" OF THE CEILING STRUCTURE AT ALL TIMES IN THE BEND. THE GOAL IS TO ALWAYS KEEP CONDUIT TIGHT TO THE WALL OR CEILING. STRAIGHT RUNS OF CONDUIT SHALL BE TIGHT TO THE CEILING AND NOT SUSPENDED IN THE AIR. EXCEPTIONS MAY BE MAKE WHERE CONDUIT HAS TO RUN PERPENDICULAR TO CEILING BEAMS AND THE CONDUIT IS RUN TIGHT TO THE UNDERSIDE OF THE BEAM AND NOT THE CEILING DECK. THIS MUST BE PRE-APPROVED BY OWNER.

9- CEILING MOUNTED CONDUIT IS TO BE PREPPED FOR PAINTING AND SHALL BE PAINTED THE SAME COLOR AS THE CEILING BEHIND IT. IF THE CEILING IS UNFINISHED, THEN THE CONDUIT DOES NOT NEED TO BE PREPPED OR PAINTED.

10- IF THE CONDUIT IS MOUNTED ON BRICK, IT SHALL BE UNPAINTED. IF CONDUIT IS SURFACE MOUNTED ON DRYWALL (WHICH IS ONLY IF THE WIRING IS UNABLE TO BE HIDDEN), THEN THE CONDUIT SHALL BE PREPPED AND PAINTED THE SAME AS THE DRYWALL IT IS ATTACHED TO.

DEVICE DESCRIPTION	FINISHED FLOOR ELEVATION- INCHES, TOP OF THE DEVICE TO FLOOR OR COUNTERTOP IN CASE OF KITCHENS	REMARKS
LIGHT SWITCH	48" AFF	FOR ALL ADA ROOMS INSTALL AT 44". ALWAYS CONFIRM WITH AHJ.
CONVENIENT RECEPTACLES AND OUTLETS	18" AFF	FOR ADA ROOMS 15" MINIMUM TO 48" MAXIMUM. CONFIRM WITH AHJ.
DISCONNECT SWITCHES OR ENCLOSED CIRCUIT BREAKERS	48" MINIMUM 78" MAXIMUM	
PANELS	78" MAXIMUM	MINIMUM HIGHT OF TOP OF THE PANELS SHALL BE NOT LESS THAN 68". MINIMUM HEIGHT SHALL BE CONFIRMED WITH AHJ.
FIRE ALARM DEVICES , EXIT AND EMERGENCY LIGHTING & MISC LIFE SAFETY DEVICES .	REFER TO DESIGN DETAILS & INFORMATION PROVIDED ON THE DESIGN DOCUMENTS OR SPECIFICATIONS	ALWAYS COMPLY WITH IBC, IFC CODES NFPA AND REQUIREMENTS OF AHJ.
RECEPTACLES, SWITCHES, HARD WIRED EQUIPMENT AND LIFE SAFETY OR NON LIFE SAFETY DEVICES AND ANY OTHER MISC. DEVICES FOR PROJECTS WITH SPECIFIC REQUIREMENTS.	REFER TO INFORMATION PROVIDED ON THE DESIGN DOCUMENTS	ALWAYS COORDINATE THE REQUIREMENTS AND CONFIRM WITH THE USERS.

COMMONWEALTH OF VIRGINIA
SEYED A. HEJAZI
Lic. No. 18946
PROFESSIONAL ENGINEER

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JOB NO• 25-21

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PROJECT ENGINEER: SEYED A. HEJAZI, P.E.
DRAWN BY: MIKE BASILIO

PROFESSIONAL CERTIFICATION.
PROFESSIONAL CERTIFICATE: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED AND APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF VIRGINIA.
LICENSE NUMBER 18946
EXPIRATION DATE: 11/30/2026

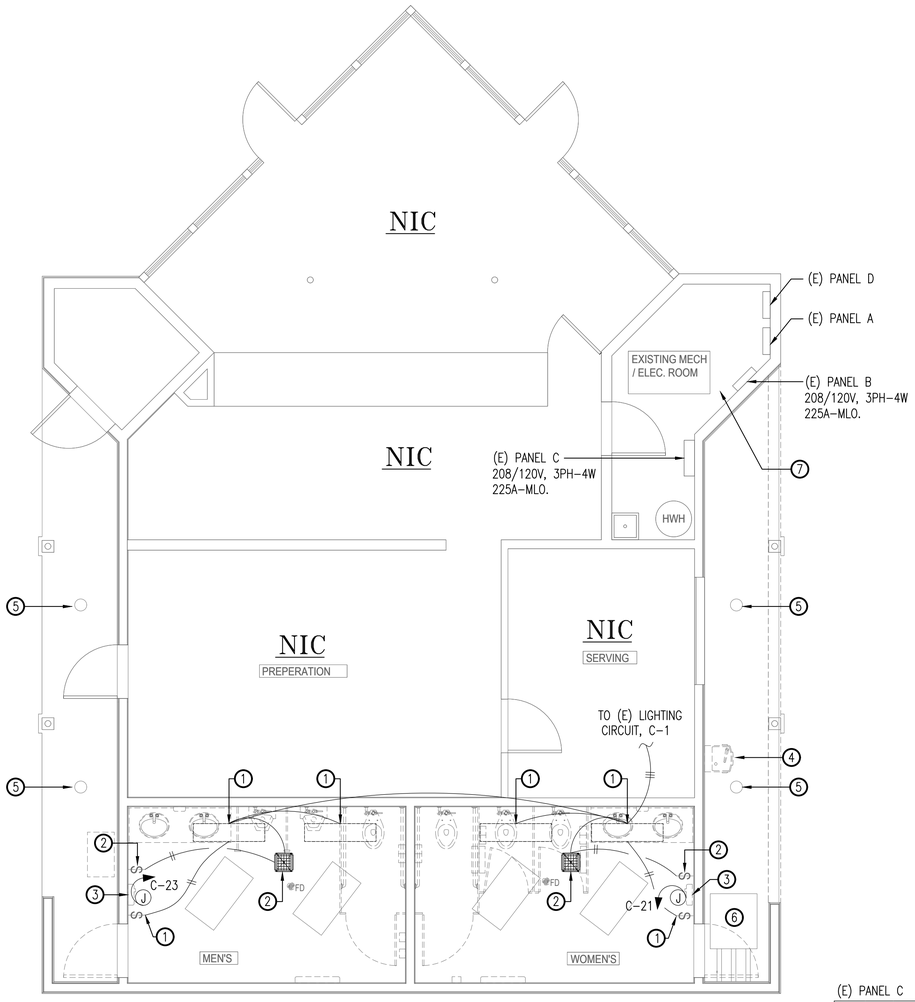
REVISION	DATE	DESCRIPTION
	06/30/2025	ISSUED FOR PERMIT
	08/18/2025	ADDENDUM #1 & OWNER REVIEW

DESIGNED BY: SAH
DRAWN BY: MB
CHECKED BY: SAH
APPROVED BY: SAH

CAMERON RUN REGIONAL PARK / RIPTIDE RESTROOM RENOVATION
4001 EISENHOWER AVE, ALEXANDIA, VA 22304
PROJECT NUMBER: 25-21
SCALE: AS SHOWN

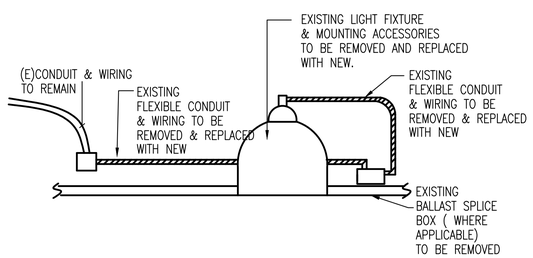
ELECTRICAL SYMBOLS & GENERAL NOTES

E000



1 DE001 ELECTRICAL DEMO BATHROOM PARTIAL PLAN

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



2 DE001 ELECTRICAL DEMOLITION DETAIL

NTS

GENERAL DEMOLITION NOTES:

* THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO PLACING BID AND BEFORE START OF CONSTRUCTION. ALL EXISTING CONDITIONS SHALL BE FIELD VERIFIED TO THE EXTENT FEASIBLE. ALL CONFLICTS BETWEEN EXISTING SYSTEMS AND WHAT SHOWN ON THE PROJECT PLANS SHALL BE REPORTED TO THE ENGINEER FOR HIS DECISION ON HOW TO PROCEED. IT MUST BE NOTED THAT THE EXISTING MEP SYSTEM IF CALLED TO BE REMOVED, SHALL BE CONSIDERED AS "TOTAL DEMOLITION".
IF THERE ARE ITEMS NOT SHOWN ON MEP DEMOLITION PLANS. THE CONTRACTOR SHALL STILL CONSIDER THEIR TOTAL DEMOLITION & REMOVAL AS PART OF THE SCOPE OF WORK, IF SUCH WORK IS NEEDED TO ACCOMMODATE THE CONSTRUCTION SCOPE OF WORK.

* THE EXISTING CONDITIONS SHOWN ON THE MEP DRAWINGS ARE BASED ON AN ENGINEERING SURVEY AND MAY NOT BE BASED ON THE VERIFIED AS– BUILT CONDITIONS OR DRAWINGS . THE CONTRACTOR SHALL FIELD VERIFY LAYOUT, AND CONDITIONS OF THE EXISTING SYSTEMS, AND SHALL REPORT TO ENGINEER REQUIRED MODIFICATIONS TO THE DESIGN DOCUMENTS, TO ACCOMMODATE THE INTENT OF THE DESIGN.

* MODIFICATIONS TO THE EXISTING SYSTEMS, IF REQUIRED TO ACCOMMODATE THE INTENT OF THE DESIGN, SHALL BE CONSIDERD AS A PART OF SCOPE OF WORK.

* ALL DEMOLITION ITEMS SHALL BE DISPOSED OFF THE JOB SITE IN AN APPROVED MANNER.

* WHENEVER AN ITEM IS CALLED TO BE REMOVED, ALL COMPONENTS RELATED TO THAT ITEM SHALL BE REMOVED AS WELL AND IN THEIR ENTIRETY. ABANDONING SYSTEMS AND EQUIPMENT IN PLACE OR ABOVE CEILING IS NOT PERMITTED.

* WHERE APPLICABLE ALL UNUSED ROOF & EXTERIOR WALL OPENING & PENETRATIONS SHALL BE PATCHED IN AN APPROVED MANNER. SURFACES SHALL BE RESTORED TO ORIGINAL CONDITION UNLESS NOTED OTHERWISE ON ARCHITECTURAL DRAWINGS.

* ANY WORK WHICH MAY REQUIRE SHUT DOWN OF ANY MAIN UTILITY OR SERVICES SHALL BE COORDINATED WITH BUILDING MANAGEMENT, 48 HRS. IN ADVANCE.

* ALL CUTTING AND PATCHING SHALL BE DONE BY ELECTRICAL CONTRACTOR. ALL SURFACES SHALL BE FINISHED AS INDICATED ON ARCHITECTURAL PLANS BY OTHERS.

ELECTRICAL DEMOLITION NOTES:

1. ALL EXISTING LIGHT FIXTURES, SWITCHES AND WIRING IN THE BATHROOMS SHALL BE REMOVED. IF REMOVAL OF THE EXISTING LIGHTING MAY AFFECT AND INTERRUPT CONTINUITY OF CIRCUIT FOR LIGHTING IN THE PREPARATION & SERVING AREAS THAT ARE NOT BEING REMOVED, THE CONTRACTOR SHALL PROVIDE FOR ALL REQUIRED WIRING, JUNCTION BOXES, AND MISC. ITEMS AS REQUIRED TO MAINTAIN CONTINUITY OF THE CIRCUITS AS REQUIRED.
2. ALL EXISTING EXHAUST FANS SHALL REMAIN INTACT. EXHAUST FAN CONTROL SWITCH SHALL BE BE REMOVED. FAN SHALL BE CONTROLLED BY THE NEW LIGHTING OCCUPANCY SENSOR. AS INDICATED ON THE NEW ELECTRICAL PLANS ON SHEET E001.
3. ALL HAND DRYERS SHALL BE REMOVED. SECURE WIRING AND HOMERUN.
4. EXISTING DRINKING FOUNTAIN SHALL BE REMOVED. SECURE WIRING AND HOMERUN FOR REUSE TO INSTALL NEW HI/LO DRINKING FOUNTAIN.
5. EXISTING EXTERIOR LIGHTING SHALL REMAIN INTACT.
6. EXISTING ELECTRICAL PULL BOX TO REMAIN INTACT.
7. ALL ELECTRICAL PANELS AND ALL CIRCUITS IN THE ELECTRICAL ROOM SHALL REMAIN INTACT UNLESS NOTED OTHERWISE.

(E) PANEL C

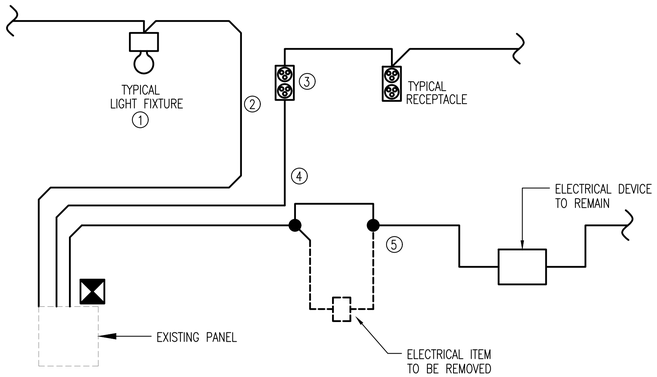
PANEL SCHEDULE - 1ST SECTION

PANEL LOCATION:		ELECTRICAL ROOL			SECTION	1ST		SUPPLIED FROM:			SPD SIZE:				-		
PANEL:		C		NEMA ENCLOSURE TYPE:	1	PANEL FRAME & BUS RATING:		225			INTERRUPTING CAPACITY (AIC):				65kAIC		
MOUNTING TYPE:		SURFACE				PHASE:		3P			MLO or MCB:				MLO		
LL VOLTAGE:		208		LN VOLTAGE:	120	WIRE:		4			MAIN BREAKER TRIP RATING FOR (MCB) OR LUG RATING FOR (MLO) PANELS				225		
OCPD							Load (kVA)							OCPD			
CKT#	AMPS	POLE	WIRE	CONDUIT	LOAD DESCRIPTION	LOAD CODE	Aø	Bø	Cø	LOAD CODE	LOAD DESCRIPTION	CONDUIT	WIRE	POLE	AMPS	CKT#	
							0.00	0.00	0.00								
1	20	1P/3W	12	1/2	COUNTER RECEPTACLE	R		A		HE	AHU	1/2	12	2P/3W	20	2	
3	20	1P/3W	12	1/2	COUNTER RECEPTACLE	R		B		HE						4	
5	20	1P/3W	12	1/2	COUNTER RECEPTACLE	R		C		M	SODA MACHINE	1/2	12	2P/3W	20	6	
7	20	1P/3W	12	1/2	COUNTER RECEPTACLE	R		A		M						8	
9	20	1P/3W	12	1/2	DOOR AIR FLY TRAP	M		B		M	CHEM PUMP ROOM	1/2	12	2P/3W	20	10	
11	20	1P/3W	12	1/2	RECEPTACLE	R		C		M						12	
13	20	1P/3W	12	1/2	RECEPTACLE	R		A		R	ELECTRICAL ROOM RECEPTACLE	1/2	12	1P/3W	20	14	
15	20	1P/3W	12	1/2	TIMECLOCK	R		B		M	TRAILER	1-1/4	3	2P/3W	100	16	
17	20	1P/3W	12	1/2	RECEPTACLE	R		C		M						18	
19	20	1P/3W	12	1/2	COUNTER RECEPTACLE	R		A		M						20	
21	20	1P/3W	12	1/2	COUNTER RECEPTACLE	R		B		M	TRASH COMPACTOR	3/4	10	3P/6W	30	22	
23	20	1P/3W	12	1/2	GENERAL RECEPTACLE	R		C		M						24	
25	20	1P/3W	12	1/2	GENERAL RECEPTACLE	R		A		HWH	ELECT WATER HEATER	1-1/2	4	3P/6W	70	26	
27	20	1P/3W	12	1/2	SNACK AREA LIGHT	L		B		HWH						28	
29	20	1P/3W	12	1/2	GENERAL RECEPTACLE	R		C		HWH						30	
31	20	1P/3W	12	1/2	GENERAL RECEPTACLE	R		A		R	EXISTING CIRCUIT	1/2	12	1P/3W	20	32	
33	20	1P/3W	12	1/2	GENERAL RECEPTACLE	R		B			SPACE					34	
35	25	1P/3W	12	1/2	GENERAL RECEPTACLE	R		C		R	SNACK BAR AREA RECEPTACLE	1/2	12	1P/3W	20	36	
37	25	1P/3W	12	1/2	KITCHEN / ELECTRICAL RH LIGHTS	L		A		CE	A/C #3	1-1/4	6	2P/3W	60	38	
39					SPACE			B		CE						40	
41					SPACE			C			SPACE					42	

SUPPLY		kVA	AMPS
TOTAL PHASE	A	0.00	0.00
TOTAL PHASE	B	0.00	0.00
TOTAL PHASE	C	0.00	0.00

GENERAL NOTES: 1- Wire sizes indicated are identical for current carrying conductors as well as Neutral and GROUNd for each home run or feeder. 2- Number of Wires indicated include the GRND. All home runs and feeders shall be provided with GRND wire. 3- In all residential application, including hotels, All circuit breakers , 120 v - 15 or 20 amps for residential aplications and hotels shall be of AFCI type. 4- Circuit breakers feeding elevators shall be provided with shunt trip as required for elevator recall. 5- All breakers feeding heating, air conditioning and refrigeration equipment shall be UL listed HACR breaker. 6- all circuit breakers shall be series rated with main panel circuit breaker. 7- Rinal rating of all circuit breakers shall be coordinated with approved cut sheet of equipment such as HVAC, Elevators, and HVAC equipment. such coordination shall be done at no cost to the project. 8- provide shunt trip for circuit breakers when the load identified as a part of load demand control. 9- provide shunt trip for all circuit breakers feeding the equipment under kitchen hoods in

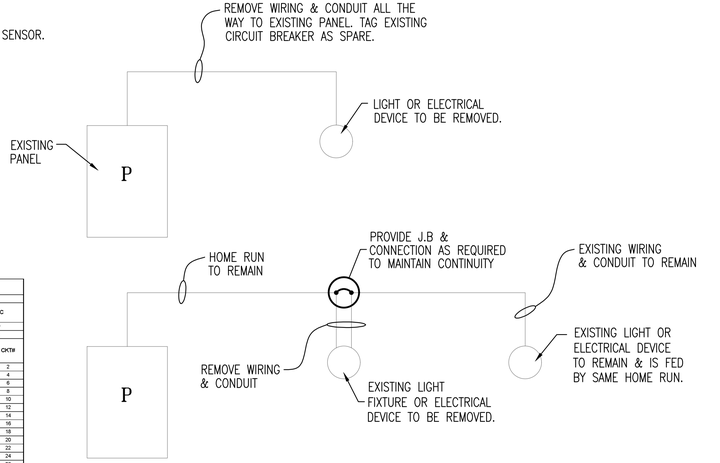
CONNECTED LOAD			kVA	LOAD DEMAND FACTOR	D. LOAD		SERVICE ENTRANCE FAC	S. LOAD	kVA
LIGHTS (L)		0.00	kVA	100%	0.00		125%	0.00	kVA
COMP (C)		0.00	kVA	100%			100%	0.00	kVA
RECEP (R)		0.00	Kva	FIRST 10kVA OR LESS @ 100% AND REMAINDER OVER 10kVA @ 50%	0.00		100%	0.00	kVA
COOLING EQUIPMENT (CE)		0.00	kVA	100%	0.00		100%	0.00	kVA
HEATING EQUIPMENT (HE)		0.00	kVA	100%	0.00		100%	0.00	kVA
HOT WATER HEATERS (HWH)		0.00	kVA	100%	0.00		100%	0.00	kVA
KITCHEN APPLIANCES (KA)		0.00	kVA	65%	0.00		100%	0.00	kVA
PUMP (P)		0.00	kVA	100%	0.00		100%	0.00	kVA
LAUNDRY EQUIPMENT (LE)		0.00	kVA	100%	0.00		100%	0.00	kVA
FITNESS EQUIPMENT (FE)		0.00	kVA	100%	0.00		100%	0.00	kVA
REFRIGERATION EQUIPMENT (RE)		0.00	kVA	100%	0.00		100%	0.00	kVA
FAN (F)		0.00	kVA	100%	0.00		100%	0.00	kVA
ELEVATOR (EL)		0.00	kVA	100%	0.00		100%	0.00	kVA
MISC MOTORS & LOADS (M)		0.00	kVA	100%	0.00		100%	0.00	kVA
			kVA	TOTAL DEMAND LOAD	0.00		PANEL SECTION LOAD	0.00	kVA
			kVA	CALCULATED DEMAND FACTOR	#DIV/0!		KVA-1 PANEL SECTION + FUTU	0.00	kVA
			kVA				AMPS-1 PANEL SECTION AMPS	0.00	AMPS
			kVA	TOTAL SERVICE LOAD= KVA-1+KVA2=KVA3=			CB- RATING 100%	0.00	AMPS
			kVA	AIC= AMPS INTERRUPTING CAPACITY/ SCCR= SHORT CIRCUIT CURRENT RATING OF THE PANEL					
TOTAL CONNECTED LOAD		0.000	kVA	LIGHT: LIGHTING, RECEP: RECEPTACLES, COMP: COMPUTER, HEATING: ELECTRIC, GAS & OTHER HEATING EQUIPMENT,					
FUTURE LOAD	0%		kVA	COOLING: RTU, HEAT PUMP, AIR CONDITIONER, CHILLER TOWER etc., HWH: HOT WATER HEATER					
ANCILLARY LOAD	0%		kVA	KITCHEN: KITCHEN EQUIPMENT, PUMP: DOMESTIC PUMP, HEATING PUMP, COOLING PUMP					
TOTAL LOAD		0.00	kVA	ELEVATOR: ELEVATOR MOTORS AND CONTROLS, MOTOR: WELDER CRANE, etc., FITNESS: FITNESS EQUIPMENT/TREADMILL					
TOTAL 1st SECTION AMPS= AMP-1		0		1P/2W=L_N 1P/3W=L1-L2 2P/3W=L1_L2 2P/4W=L1,L2,N,G 3P/3W=L1,L2,L3 3P/4W=L1,L2,L3,N,G 3P/6W=L1,L2,L3,N,G					
TOTAL 2nd SECTION AMPS= AMP-2				ALL CIRCUITS SHALL BE PROVIDED WITH GROUND, SAME SIZE AS LINE AND NEUTRAL, UNLESS NOTED OTHERWISE					
TOTAL 3rd SECTION AMPS= AMP-3				TOTAL PANEL AMPS (ALL SECTIONS)		0			



3 DE001 ELECTRICAL DEMOLITION DETAIL.

NTS

1. WHERE INDICATED, REMOVE EXISTING LIGHT FIXTURE. STOCK IF INSTRUCTED BY ARCHITECT FOR REUSE. DISPOSE OFF THE SITE OTHERWISE.
2. REMOVE CONDUIT & WIRING.
3. WHERE INDICATED REMOVE EXISTING RECEPTACLES & ANY UNUSED DEVICES.
4. REMOVE CONDUIT & WIRING.
5. WHERE INDIACTED, REMOVE ELECTRICAL DEVICES. PROVIDE J.B & WIRING AS REQUIRED TO MAINTAIN CONTINUITY OF CIRCUITS FOR ETR ITEMS.



4 DE001 ELECTRICAL DEMOLITION DETAIL

NTS

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PROJECT ENGINEER: SEYED A. HEJAZI, P.E.
DRAWN BY: MIKE BASILIO

PROFESSIONAL CERTIFICATION

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LICENSE NUMBER: 18946
EXPIRATION DATE: 11/30/2025

REVISION	DATE	DESIGNED BY: SAH / DRAWN BY: MB	CHECKED BY: SAH / APPROVED BY: SAH
ISSUED FOR PERMIT	06/30/2025		
FOR AGENCY & OWNER REVIEW	09/30/2025		

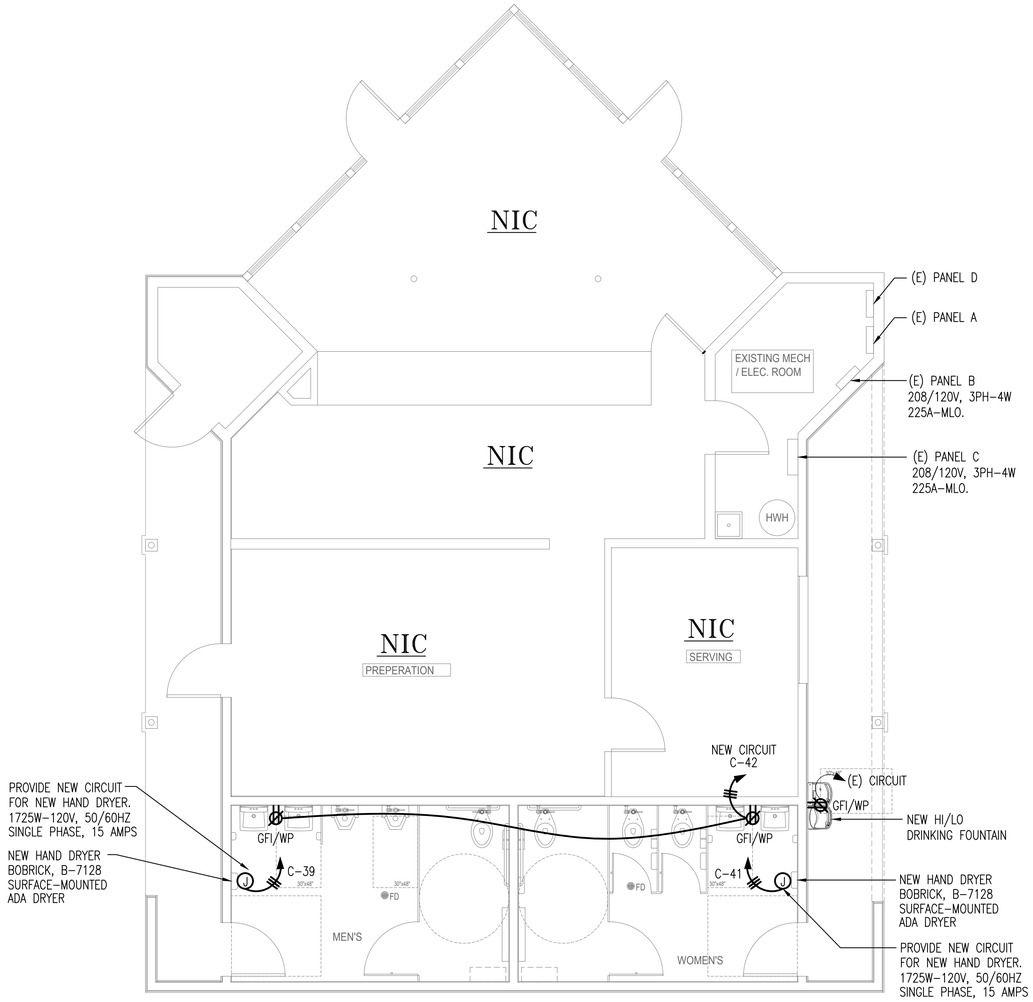
CAMERON RUN REGIONAL PARK /
RIPTIDE RESTROOM RENOVATION
4001 EISENHOWER AVE, ALEXANDIA, VA 22304

PROJECT NUMBER: 25-21

SCALE: AS SHOWN

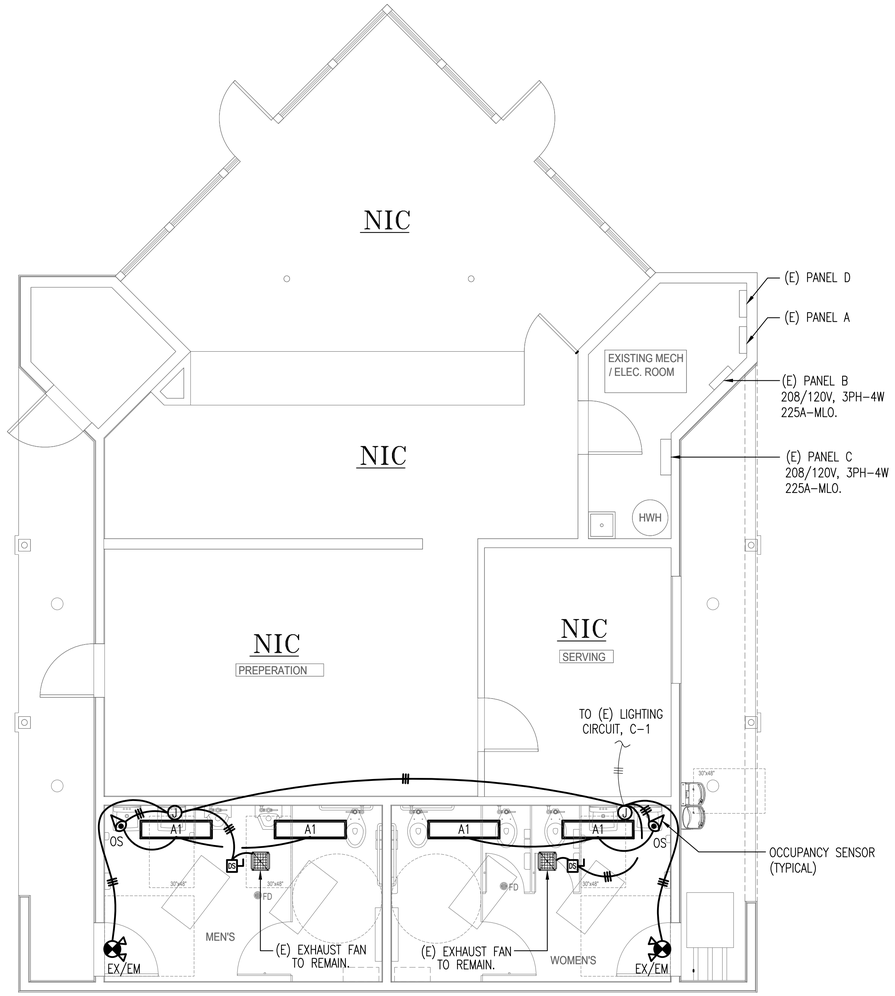
ELECTRICAL DEMO BATHROOM PARTIAL PLAN

DE001



1 E001 ELECTRICAL BATHROOM PARTIAL PLAN, POWER

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



2 E001 ELECTRICAL BATHROOM PARTIAL PLAN, LIGHTING

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

* EXHAUST FAN SHALL BE CONTROLLED BY THE NEW LIGHTING OCCUPANCY SENSOR. REFER TO DETAIL 3/E001 FOR WIRING SCHEMATIC.

ELECTRICAL DESIGN NOTES

1- PANEL SCHEDULES INDICATED ON THE PLANS ARE THE ACTUAL PANEL SCHEDULE BASED ON AN ENGINEERING SURVEY. HOWEVER THE CONTRACTOR MAY NEED TO PERFORM TRACING OF THE EXISTING CIRCUITS, AS REQUIRED TO IDENTIFY ALL CIRCUITS WHICH FEED THE AREA AFFECTED BY THIS SCOPE OF WORK.

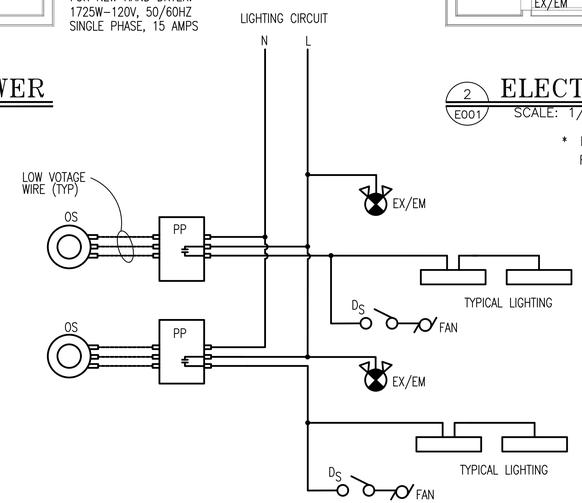
2- CONTRACTOR SHALL ENSURE THAT THE WORK IN THE AFFECTED AREAS, WILL NOT IMPACT THE CONTINUITY OF THE EXISTING LIGHTING CIRCUIT IN THE ADJACENT KITCHEN (NOT IN THIS SCOPE OF WORK).

3- PROVIDE A CEILING MTD, OCCUPANCY SENSORS FOR CONTROL OF LIGHTING AS INDICATED. SENSORS CAN BE ACROSS THE LINE OR LOW VOLTAGE AS INDICATED.

4- OBTAIN A COPY OF CUT SHEET FOR THE HAND DRYERS PROVIDED FOR THIS PROJECT, PRIOR TO ANY ELECTRICAL ROUGH INS FOR THE HAND DRYERS.

5- EMERGENCY/EXIT LIGHT SHALL BE CONNECTED AHEAD OF ANY SWITCH OR POWER PACK.

6- ALL NEW CIRCUITS SHALL BE IN (EMT) CONDUITS. MC CABLES CAN BE ONLY USED IF THE HOMERUN CANN BE CONCEALLED.



3 E001 BATHROOM LIGHTING WIRING SCHEMATIC

NTS

* LOW VOLTAGE OCCUPANCY SENSOR ARE SHOWN. LINE VOLTAGE SENSORS ARE ALSO ACCEPTABLE .

* PP = POWER PACK AS REQUIRED.

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JOB NO. 25-21

SAH
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PROJECT ENGINEER: SEYED A. HEJAZI, P.E.
DRAWN BY: MIKE BASILIO

PROFESSIONAL CERTIFICATION

PROFESSIONAL CERTIFICATE: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED AND APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF VIRGINIA.
LICENSE NUMBER: 18946
EXPIRATION DATE: 11/30/2025

REVISION	DATE	DESCRIPTION
	06/30/2025	ISSUED FOR PERMIT
	05/30/2025	FOR SUBMITTAL & OWNER REVIEW

DESIGNED BY: SAH
DRAWN BY: MB
CHECKED BY: SAH
APPROVED BY: SAH

CAMERON RUN REGIONAL PARK /
RIPTIDE RESTROOM RENOVATION
4001 EISENHOWER AVE, ALEXANDIA, VA 22304
PROJECT NUMBER: 25-21
SCALE: AS SHOWN

ELECTRICAL NEW BATHROOM FLOOR PLANS

COMMONWEALTH OF VIRGINIA
SEYED A. HEJAZI
Lic. No. 18946
PROFESSIONAL ENGINEER

E001

LIGHT FIXTURE SCHEDULE

	DESCRIPTION	MOUNT	MANUFACTURER	PROPOSED MODEL NUMBER	LAMPS	WATTS	LUMENS	VOLTS	TRIM / LENS / REFLECTOR	SERVICE	REMARKS
A1	1 X 4 LED FIXTURE WITH LENS FOR BATHROOMS	SURFACE	**H.E. WILLIAMS**	**11-4-L52/835-(L43)-S-AF12125-DIM-UNV**	LED	**42.3**	**5101**	UNV	WHITE STEEL DOOR	BATHROOMS	DAMP LOCATION LISTED

LED EXIT SIGN W/EMERGENCY LIGHTS (EX/EM)

* TWO 5.4 WATT 6V LAMPS; 3.6 WATT DOWN LIGHT.
* NICKEL–CADMIUM BATTERY PROVIDES A MINIMUM OF 90 MINUTES OF ILLUMINATION IN EMERGENCY MODE.
* FEATURES BROWNOUT PROTECTION, AC INDICATOR LED LIGHT WITH PUSH TO TEST BUTTON.
* MEETS AND EXCEEDS UL 924, NFPA 101, NEC AND OSHA ILLUMINATION STANDARDS.
* 18.3"W X 8.5"H X 2.8"D.
  EMEDCO OR APPROVED EQUAL MANUFACTURER

COMcheck Software Version COMcheckWeb

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: CAMERON RUN REGIONAL PARK
Project Type: Alteration

Construction Site:
4001 EISENHOWER AVE.
ALEXANDRIA, Virginia 22304

Owner/Agent:

Designer/Contractor:
SAH Design Group
232 DOMINION RD. NE
VIENNA, Virginia 22180
571-279-9733
MEP@SAHDESIGNGROUP.COMCAST BIZ.NET

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-BATHROOMS SQUARE FOOTAGE (Common Space Types:Restrooms)	310	0.85	264
		Total Allowed Watts =	264

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
BATHROOMS SQUARE FOOTAGE (Common Space Types: Restrooms, 310 sq.ft.)				
LED: A1: 1'X4' LIGHT FIXTURE: Other:	1	4	42	169
LED: EX/EM: EXIT & EMERGENCY: Other:	1	2	11	22
			Total Proposed Watts =	191

Interior Lighting PASSES

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title | Signature | Date

EXISTING PANEL C

PANEL SCHEDULE - 1ST SECTION

PANEL LOCATION:	ELECTRICAL ROOL		SECTION	1ST	SUPPLIED FROM:		SPD SIZE:	-
PANEL:	C	NEMA ENCLOSURE TYPE:	1	PANEL FRAME & BUS RATING:	225		INTERRUPTING CAPACITY (AIC):	65kAIC
MOUNTING TYPE:	SURFACE			PHASE:	3P		M.L.O or MCB:	MLO
LL VOLTAGE:	208	LN VOLTAGE	120	WIRE:	4		MAIN BREAKER TRIP RATING FOR (MCB) OR LUG RATING FOR (MLO) PANELS	225

OCPD CKT#	OCPD AMPS	POLE	WIRE	CONDUIT	LOAD DESCRIPTION	LOAD CODE	Load (kVA) Aø		Bø		Cø		LOAD CODE	LOAD DESCRIPTION	CONDUIT	WIRE	OCPD POLE	OCPD AMPS	OCPD CKT#
							18.60		27.23		23.89								
1	20	1P3W	12	1/2	COUNTER RECEPTACLE	R	0.40	A	1.50				HE	AHU	1/2	12	2P3W	20	2
3	20	1P3W	12	1/2	COUNTER RECEPTACLE	R	0.40	B	1.50				HE						4
5	20	1P3W	12	1/2	COUNTER RECEPTACLE	R	0.40	C	1.50				R	SODA MACHINE	1/2	12	2P3W	20	6
7	20	1P3W	12	1/2	COUNTER RECEPTACLE	R	0.40	A	1.50				R						8
9	20	1P3W	12	1/2	DOOR AIR FLY TRAP	M	0.60	B	1.50				M	CHEM PUMP ROOM	1/2	12	2P3W	20	10
11	20	1P3W	12	1/2	RECEPTACLE	R	0.40	C	1.50				M						12
13	20	1P3W	12	1/2	RECEPTACLE	R	0.40	A	0.40				R	ELECTRICAL ROOM RECEPTACLE	1/2	12	1P3W	20	14
15	20	1P3W	12	1/2	TIMECLOCK	R	0.20	B	8.00				M	TRAILER	1-1/4	3	2P3W	100	16
17	20	1P3W	12	1/2	RECEPTACLE	R	0.40	C	8.00				M						18
19	20	1P3W	12	1/2	COUNTER RECEPTACLE	R	0.40	A	2.00				M	TRASH COMPACTOR	3/4	10	3P5W	30	20
21	20	1P3W	12	1/2	COUNTER RECEPTACLE	R	0.40	B	2.00				M						22
23	20	1P3W	12	1/2	GENERAL RECEPTACLE	R	0.40	C	2.00				M						24
25	20	1P3W	12	1/2	GENERAL RECEPTACLE	R	0.40	A	6.00				HWH	ELECT WATER HEATER	1-1/2	4	3P5W	70	26
27	20	1P3W	12	1/2	SNACK AREA LIGHT	L	0.50	B	6.00				HWH						28
29	20	1P3W	12	1/2	GENERAL RECEPTACLE	R	0.40	C	6.00				HWH						30
31	20	1P3W	12	1/2	GENERAL RECEPTACLE	R	0.40	A	0.40				R	EXISTING CIRCUIT	1/2	12	1P3W	20	32
33	20	1P3W	12	1/2	GENERAL RECEPTACLE	R	0.40	B						SPACE					34
35	25	1P3W	12	1/2	GENERAL RECEPTACLE	R	0.40	C	0.40				R	SNACK BAR AREA RECEPTACLE	1/2	12	1P3W	20	36
37	25	1P3W	12	1/2	KITCHEN / ELECTRICAL RM LIGHTS	L	0.40	A	4.00				CE	A/C #3	1-1/4	6	2P3W	60	38
39	20	1P3W	12	1/2	HAND DRY ER	M	1.73	B	4.00				CE						40
41	20	1P3W	12	1/2	HAND DRY ER	M	1.73	C	0.36				R	BATHROOM GFIWP	1/2	12	1P3W	20	42

SUPPLY			kVA	AMPS
TOTAL PHASE	A		18.60	89.42
TOTAL PHASE	B		27.23	130.89
TOTAL PHASE	C		23.89	114.83

CONNECTED LOAD		kVA
LIGHTS (L)	0.90	kVA
COMP (C)	0.00	kVA
RECEP (R)	10.76	Kva
COOLING EQUIPMENT (CE)	8.00	kVA
HEATING EQUIPMENT (HE)	3.00	kVA
HOT WATER HEATERS (HWH)	18.00	kVA
KITCHEN APPLIANCES (KA)	0.00	kVA
PUMP (P)	0.00	kVA
LAUNDRY EQUIPMENT (LE)	0.00	kVA
FITNESS EQUIPMENT (FE)	0.00	kVA
REFRIGERATION EQUIPMENT (RE)	0.00	kVA
FAN (F)	0.00	kVA
ELEVATOR (EL)	0.00	kVA
MISC MOTORS & LOADS (M)	29.05	kVA
		kVA
		kVA
		kVA
TOTAL CONNECTED LOAD	69.710	kVA
FUTURE LOAD 0%		kVA
ANCILLARY LOAD 0%		kVA
TOTAL LOAD	69.33	kVA
TOTAL 1st SECTION AMPS= AMP-1	193	

LOAD DEMAND FACTOR		D. LOAD		SERVICE ENTRANCE FACT	S. LOAD	kVA
100%		0.90		125%	1.13	kVA
100%		0.00		100%	0.00	kVA
FIRST 10KVA OR LESS @ 100% AND REMAINDER OVER 10KVA @ 50%		10.38		100%	10.38	kVA
100%		8.00		100%	8.00	kVA
100%		3.00		100%	3.00	kVA
100%		18.00		100%	18.00	kVA
65%		0.00		100%	0.00	kVA
100%		0.00		100%	0.00	kVA
100%		0.00		100%	0.00	kVA
100%		0.00		100%	0.00	kVA
100%		0.00		100%	0.00	kVA
100%		0.00		100%	0.00	kVA
100%		0.00		100%	0.00	kVA
100%		29.05		100%	29.05	kVA
TOTAL DEMAND LOAD		69.33			PANEL SECTION LOAD	69.56 kVA
CALCULATED DEMAND FACTOR		99.45%	KVA-1		PANEL SECTION + PUTU	69.56 kVA
			AMPS-1		PANEL SECTION AMPS	193.07 AMPS
TOTAL SERVICE LOAD= KVA-1+KVA2=KVA3=					CB-RATING 100%	193.07 AMPS

AIC= AMPS INTERRUPTING CAPACITY= SCCR= SHORT CIRCUIT CURRENT RATING OF THE PANEL
LIGHT: LIGHTING, RECEP: RECEPTACLES, COMP: COMPUTER, HEATING: ELECTRIC, GAS & OTHER HEATING EQUIPMENT,
COOLING: RTU, HEAT PUMP, AIR CONDITIONER, CHILLER TOWER etc., HWH: HOT WATER HEATER
KITCHEN: KITCHEN EQUIPMENT, PUMP: DOMESTIC PUMP, HEATING PUMP, COOLING PUMP
ELEVATOR: ELEVATOR MOTORS AND CONTROLS, MOTOR: WELDER CRANE, etc., FITNESS: FITNESS EQUIPMENT/TREADMILL

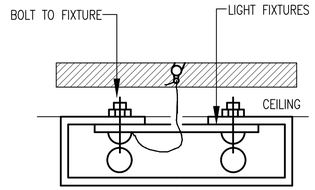
1P:2W=L_N 1P:3W= L,NG 2P:2W=L_L 2 2P:3W= L1,L2,G 2P:4W= L1,L2,NG 3P:3W=L1,L2,L3 3P:4W= L1,L2,L3,G 3P:5W= L1,L2,L3,N,G

ALL CIRCUITS SHALL BE PROVIDED WITH GROUND, SAME SIZE AS LINE AND NEUTRAL, UNLESS NOTED OTHERWISE

TOTAL PANEL AMPS (ALL SECTIONS) 193

GENERAL NOTES: 1- Wire sizes indicated are idential for current carrying conductors as well as Neutral and GRND for each home run or feeder. 2- Number of Wires indicated include the GRND. All home runs and feeders shall be provided with GRND wire. 3- In all residential application, including hotels, All circuit breakers , 120 v - 15 or 20 amps for residential aplications and hotels shall be of AFCI type. 4- Circuit breakers feeding elevators shall be provided with shunt trip as required for elevator recall. 5- All breakers feeding heating, air conditioning and refreigeration equipment shall be UL listed HACR breaker. 6- all circuit breakers shall be series rated with main panel circuit breaker. 7- Final rating of all circuit breakers shall be coordinated with approved cut sheet of equipment such as HVAC, Elevators, and HVAC equipment. such coordination shall be done at no cost to the project. 8- provide shunt trip for circuit breakers when the load identified as a part of load demand control. 9- provdie shunt trip for all circuit breakers feeding the equipment under kitchen hoods in

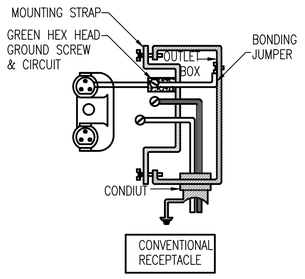
* ALL EXISTING CIRCUITS IN PANEL C SHALL REMAIN INTACT.
* ADD (3) 1P–20A ON CIRCUITS #39, # 41 & #42.



FOR EXPOSED FLUORESCENT LIGHT BULBS OR FIXTURE LENSES SUBJECT TO FALLING, SECURE IN PLACE WITH 2 WIRES THAT WRAP BENEATH THE LENS OR BULB AND ATTACH SECURELY TO THE FIXTURE.

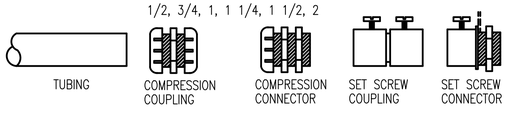
1 E002 SURFACE MT'D FIXTURE SUPPORT

NTS



2 E002 RECEPTACLE INSTALLATION.

SCALE: N.T.S.



ELECTRICAL METALLIC TUBING

* USE FOR ALL HOMERUS & FEEDERS TO MOTORS, HVAC EQUIPMENT & WHERE INDICATED.

3 E002 POWER CABLE CONDUITS & TUBING.

SCALE: N.T.S.

COMMONWEALTH OF VIRGINIA
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LICENSE NUMBER: 18946
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REVISION	DATE	DESCRIPTION
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2	09/12/2025	

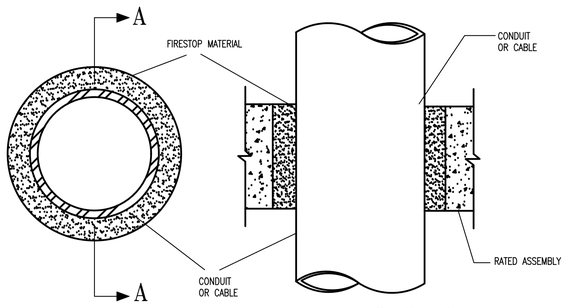
DESIGNED BY: SAH CHECKED BY: SAH
DRAWN BY: MB APPROVED BY: SAH

CAMERON RUN REGIONAL PARK / RIPTIDE RESTROOM RENOVATION
4001 EISENHOWER AVE, ALEXANDIA, VA 22304

PROJECT NUMBER: 25-21
SCALE: AS SHOWN

ELECTRICAL DETAILS

E002



SECTION A-A

1 E003 THROUGH-PENETRATION FIRESTOP SYSTEMS

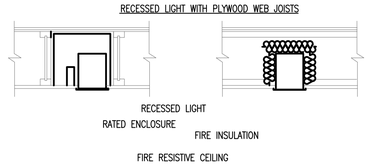
SCALE: NTS

1. ALL CONDUITS OR CABLES SHALL BE CENTERED IN THE OPENING. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE T RATING OF THE SYSTEM IS DEPENDENT ON THE SIZE OF THE PIPE AND THROUGH OPENING AS SHOWN IN THE TABLE BELOW.

2. FILL, VOID OR CAVITY MATERIAL WITH APPROVED SEALANT AND FIRESTOP. FILL MATERIAL APPLIED WITHIN ANNUALS, FLUSH WITH TOP SURFACE OF FLOOR OR WITH BOTH SURFACES OF WALL. THE T RATING OF THE SYSTEM IS DEPENDENT UPON SIZE OF THE OPENING SIZE OF THE PENETRATING ITEM, NOM ANNULAR SPACE WITHIN OPENING AND THICKNESS OF THE FILL MATERIAL AS SHOWN IN THE TABLE BELOW.

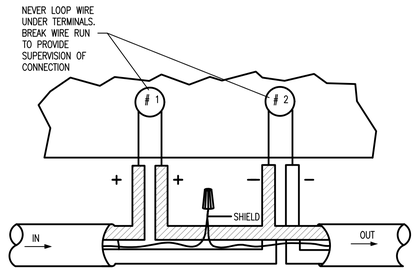
MAX. OPENING SIZE	MAX. DIAM PENETRATION ITEM IN.	NOM. ANNULAR SPACE IN.	MIN. FILL MTL Thk IN.	T RATING HR
3	1-1/2	9/16	4-1/2	1-1/2
5	3	3/4	4-1/2	2
5	1/2	2	3-1/2	2
8	6	11/16	3-1/2	2
8	6	11/16	4-1/2	2

* THE SYSTEM FIRE RATING SHALL BE SAME AS THE ASSEMBLY RATING OR MORE AND NOT LESS THAN VALUES IDENTIFIED IN THE ABOVE TABLE.

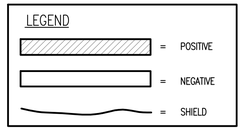


3 E003 LIGHT FIXTURE @ LIGHT FIXTURE PARTITION

SCALE: NTS



SHIELD NOTE: IF SHIELDED WIRE IS USED, NEVER LAND THE SHIELD ON THE DEVICE. FOLD AND TAPE THE SHIELD SO IT FORMS A CONTINUOUS CIRCUIT. LAND THE SHIELD ONLY AT THE PANEL WHERE THE CIRCUIT ORIGINATED.



4 E003 WIRING SCHEMATIC

SCALE: NTS

ELECTRICAL DESIGN NOTES

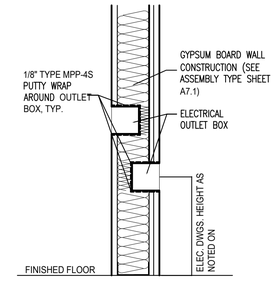
1- CONTRACTOR SHALL CAREFULLY REVIEW THE ARCHITECTURAL CEILING PLANS AND FLOOR PLANS AND SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO LOCATE ALL RATED CHASES AND RATED CEILING AND WALL ASSEMBLIES.

2- AVOID INSTALLATION OF CONDUITS AND WIRINGS OR ELECTRICAL EQUIPMENT IN RATED ASSEMBLIES. IF SUCH INSTALLATION CAN NOT BE AVOIDED OR SHOWN ON THE DESIGN DOCUMENTS, PROVIDE FOR FIRE RATED ASSEMBLIES AROUND THE PIPING OR EQUIPMENT AS INDICATED IN DETAIL ON THIS SHEET.

3- ALL CONDUITS AND WIRINGS (POWER HOME RUNS, LIGHTING HOME RUNS, LOW VOLTAGE WIRING , FIRE ALARM WIRING) PENETRATIONS OF THE RATED ASSEMBLIES SHALL BE PROVIDED WITH FIRE STOPPING. . REFER TO DESIGN DOCUMENTS AND THE DETAILS ON THIS SHEET.

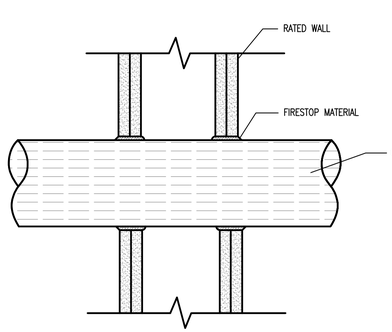
4- ALL SLABS, RATED WALLS , AND RATED CEILING ASSEMBLIES PENETRATIONS FOR ALL HIGH AND LOW VOLTAGE WIRINGS AND CONDUITS (TO INCLUDE POWER FEEDS, LIGHTING HOME RUNS, LOW VOLTAGE SYSTEM SUCH AS CABLE TV, SOUND SYSTEM WIRING, SECURITY AND ACCESS SYSTEM WIRING ETC.) AND OTHER MISCELLANEOUS ELECTRICAL ITEMS, SHALL BE PROVIDED WITH FIRE STOP MATERIAL. REFER TO DETAILS ON THIS SHEET.

5- IN ADDITION TO DETAILS PROVIDED ON THE ELECTRICAL DRAWINGS REFER TO ARCHITECTURAL DETAILS FOR FIRE STOPPING AND FIRE PROTECTION OF THE RATED ASSEMBLIES.



6 E003 OUTLET DETAILS

SCALE: N.T.S.



2 E003 CONDUIT PENETRATION THRU FIRE RATED WALL

SCALE: NTS

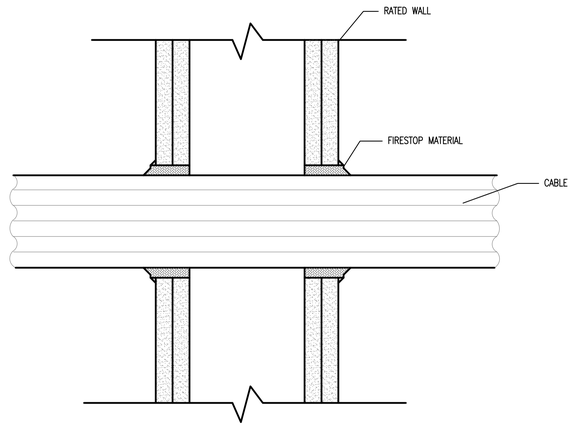
NOTES:

1. CONDUIT NOM 4" DIA OR SMALLER STEEL ELECTRICAL METALLIC TUBING. A MAX OF ONE CONDUIT IS PERMITTED IN THE FIRE STOP SYSTEM. CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

2. FILL VOID OR CAVITY MATERIAL-CAULK FILL MATERIAL BEARING THE UL CLASSIFICATION MARKING INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN CONDUIT AND GYPSUM WALLBOARD AND WITH MIN 1/4" DIAM BEAD OF CAULK APPLIED TO PERIMETER OF CONDUIT AT ITS EGRESS FROM THE WALL CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW

MAX. CONDUIT DIAM, IN	ANNULAR SPACE IN
1	0 TO 3/16
1	1/4 TO 1/2
4	0 TO 1-1/2
6	1/4 TO 1/2
12	3/4 TO 3/8

ALL ELECTRICAL WIRING, CONDUITS, RACEWAYS, CATV, TELEPHONE, ALARM AND I.T. WIRING PENETRATING FIRE-RESISTANCE RATED MEMBRANES MUST BE PROPERLY SEALED TO ASSURE THAT THE REQUIRED FIRE-RESISTANCE RATING IS NOT REDUCED.



5 E003 CABLE PENETRATION THRU FIRE RATED WALL

SCALE: NTS

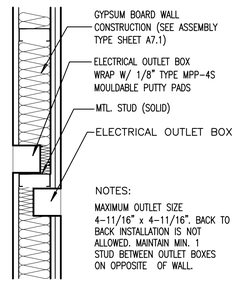
NOTES:

1. CABLES-MAX 4" DIAM TIGHT BUNDLE OF CABLES CENTERED IN CIRCULAR CUTOUTS IN GYPSUM WALL BOARD AND RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. ANY COMBINATION OF FOLLOWING TYPES AND SIZES OF COOPER CONDUCTOR CABLES MAY BE USE

   A: MAX 350 KCMIL SINGLE CONDUCTOR POWER CABLES, CROSS-POLYETHYLENE (XLPE) OR POLYVINYL CHLORIDE (PV) INSULATION.
   B: MAX 7/C NO. 12 AWG CABLES: PVC INSULATION AND JACKET.
   C: MAX 3/C NO. 2/0 AWG MULTICONDUCTOR POWER AND CONTROL CABLES: XLPE OR PVC INSULATION, XLPE OR PVC JACKET.
   D: MAX 200 PAIR NO. 24 AWG TELECOMMUNICATION CABLES: PVC INSULATION AND JACKET.
   E: MAX 6/94 FIBER OPTIC CABLE: PVC INSULATION AND JACKET.

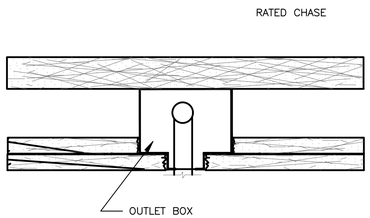
2. FILL VOID OR CAVITY MATERIAL-WRAP STRIP BEARING THE UL CLASSIFICATION MARKING-NOM 1/4" THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL, SUPPLIED IN NOM 2" WIDE STRIPS. NOM 2" WIDE STRIP TIGHTLY WRAPPED AROUND CABLE BUNDLE (FOIL SIDE OUT) WITH SEAM BUTTED. WRAP STRIP LAYER SECURELY BOUND WITH STEEL WIRE TIE AND SLID INTO ANNULAR SPACE APPROX 1-1/4" SUCH THAT APPROX 3/4" OF THE WRAP STRIP PROTRUDES FROM THE WALL SURFACE ON EACH SIDE OF ASSEMBLY.

3. FILL VOID OR CAVITY MATERIAL-CAULK OR PUTTY BEARING THE UL CLASSIFICATION MARKING-MIN 1/4" DIAM CONTINUOUS BEAD OF CAULK OR PUTTY APPLIED TO THE WRAP STRIP/WALL INTERFACE AND TO THE EXPOSED EDGE OF THE WRAP STRIP APPROX 3/4" FROM THE WALL SURFACE ON EACH SIDE OF THE WALL ASSEMBLY. CAULK OR PUTTY TO BE FORCED INTO THE INTERSTICES OF THE CABLE BUNDLE TO THE MAX EXTENT POSSIBLE.



7 E003 OUTLET DETAILS (UL DES R9700)

SCALE: N.T.S.



8 E003 SHAFT WALL OUTLET BOX DETAIL

SCALE: NTS

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DESIGNED BY: SAH
DRAWN BY: MB
CHECKED BY: SAH
APPROVED BY: SAH

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PROJECT NUMBER: 25-21
SCALE: AS SHOWN

ELECTRICAL PENETRATION DETAILS

E003

PLUMBING PIPING SYMBOLS

COLD WATER	—— - ——
HOT WATER	—— -- ——
HOT WATER RETURN	—— --- ——
SOIL,WASTE OR LEADER (ABOVE GRADE)	——————
SOIL,WASTE OR LEADER (BELOW GRADE)	—— UG ——
VENT	- - - - - -
GAS–LOW PRESSURE	—G—— G—
TANK TYPE	
WALL HUNG	
BUILT–IN COUNTER	
MOP	
HI/LO ADA APPROVED	
FLOOR DRAIN FD	
CHECK VALVE	
BALL VALVE	
RELIEF VALVE PRESSURE & TEMPERATURE	

GENERAL ABBREVIATIONS

	POINT OF CONNECTION NEW TO EXISTING CONTRACTOR POINT OF CONNECTION
	POINT OF DEMOLITION
	NEW WORK
	EXISTING WORK
(E)	EXISTING
(ETR)	EXISTING TO REMAIN
(R)	RELOCATED
(TIR)	TRANSITION IN RISE
(DN)	DOWN
(UP)	UP
(VTR)	VENT THRU ROOF
M.C	HVAC CONTRACTOR
ATC	AUTOMATIC TEMPERATURE CONTROL SUB CONTRACTOR TO M.C.
E.C	ELECTRICAL CONTRACTOR
G.C	GENERAL CONTRACTOR
P.C	PLUMBING CONTRACTOR
S.C	SPRINKLER CONTRACTOR
S	SEWER
ST	STORM
G	GAS
CD	CONDENSATE DRAIN
UG	UNDERGROUND

PIPE INSULATION THICKNESS & R VALUE.

TYPE	PIPE SIZE				
	1" <	1– < 1 1/2"	1 1/2" < 4"	4" < 8"	8"
COLD WATER DOMESTIC	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	N/A
DOMESTIC HOT WATER & HOT WATER RETURN	1"	1"	1 1/2"	1 1/2"	1 1/2"
	R–4	R–4	R–6	R–6	R–6

* IN GENERAL INSTALLATION SHALL HAVE CONDUCTIVITY. OF 0.22 TO 0.29.
  DOMESTIC HOT WATER & CIRCULATION: 0.22 TO 0.29
* USE CLOSED CELL ELASTOMERIC INSTALLATION FOR FOR ALL EXPOSED PIPING AND METAL CONDENSATE DRAIN
* FIBER GLASS WITH JACKET CAN BE USED ON ALL PIPING EXCEPT EXPOSED PIPING.
* ALL INSULATION EXPOSED TO WEATHER SHALL HAVE UV PROTECTION. SUCH PIPING INCLUDE BUT IT IS NOT NECESSARILY LIMITED TO REFRIGERANT SUCTION AND LIQUID PIPING.

SPECIFIC INSULATION REQUIREMENT

DOMESTIC WATER PIPING	1–ALL PIPING SHALL BE INSULATED AS INDICATED BELOW PROVIDE FIBER GLASS INSULATION WITH VAPOR BARRIER AND FACTORY FABRICATED JACKET INSULATE THE FOLLOWING DUCTWORK. * SUPPLY PIPE * RETURN PIPE 2–ALL PIPING INSULATION FOR ANY PIPING WHICH MAYBE EASILY ACCESSIBLE TO BUILDING OCCUPANTS SHALL BE OF CLOSE CELL ELASTOMERIC TYPE 3–ALL INSULATION IN INTERIOR AREA'S SHALL BE PROVIDED WITH FACTORY FABRICATED JACKET AND ALUMINUM COVER. 4–IN ADDITION TO REQUIRMENTS OF NO. 2 PROVIDE VAPOR BARRIERS WITH ALL PIPING WHICH CARRY AIR BELOW 60° F 5–PROVIDE HARD COVER (PVC OR APPROVED COVER) FOR ALL PIPING IN UTILITY AREA'S AND EXTERIOR OF THE BUILDING 6–ALL INSULATION JOINTS AND COVER FOR EXTERIOR DUCTWORK SHALL BE WATER PROOF.

GENERAL PLUMBING DESIGN NOTES:

1. QUALIFY YOUR BID IF ANY WORK, INDICATED ON PROJECT DOCUMENTS, IS NOT INCLUDED IN THE BID FOR ANY REASON.
2. CONTRACTOR SHALL PROVIDE FOR ALL OFFSETS, PIPE UP & DOWN AS REQUIRED TO CLEAR STRUCTURAL ELEMENTS, WORK OF OTHER TRADES & AS REQUIRED TO ACCOMMODATE CEILING HEIGHTS. IN SHOP DRAWING PHASE REPORT TO ENGINEER/ARCHITECT IF PROPOSED PIPING LAYOUT MAY NEED ADJUSTMENT FOR REVIEW & APPROVAL.
3. LOCATION & INVERT OF ALL EXISTING UTILITIES SHALL BE DETERMINED AT SITE.
4. ALL EXCLUSIONS SHALL BE QUALIFIED IN CONTRACTOR'S BID.
5. ALL FLOOR DRAINS IN BATHROOMS & ALSO AT OTHER AREAS REQUIRED BY LOCAL CODES SHALL BE PROVIDED WITH TRAP GUARD.
6. ALL DIRECT & INDIRECT WASTES SHALL BE PROVIDED BY P.C.
7. PLUMBING PIPING SHALL BE SUPPORTED AS REQUIRED BY IPC, AS INDICATED ON DESIGN PLANS.
8. DO NOT SCALE ENGINEERING DRAWINGS FOR CORE DRILLS FOR RISERS. EXACT LOCATIONS SHALL BE FIELD VERIFIED.
9. ALL PLUMBING PIPING SHALL BE CONCEALLED ABOVE CEILING, UNDER SLAB OR IN WALLS. EXPOSED PIPING IS NOT PERMITTED IN FINISHED AREAS, UNLESS ARCHITECTURAL DESIGN CAN NOT ACCOMMODATE CONCEALMENT. ONLY IN UTILITY AREAS AND STAIRS EXPOSED PIPING IS PERMITTED.
10. ALL ISOLATION VALVES SHALL BE 1/4 TURN BALL VALVES.

PIPING SCHEDULE

USE	DESCRIPTION
DOMESTIC WATER	TYPE L, SEAMLESS COPPER WITH SOLDERED JOINTS 2" & SMALLER, BRAZED JOINTS 2 1/2" & LARGER.

SEWER & VENT PIPING SCHEDULE

LOCATION	DESCRIPTION
HORIZONTAL ABOVE CEILING	PVC
UNDERGROUND	PVC

TESTING REQUIREMENTS

SEWER PIPING	UNDER 9' OF WATER HEAD FOR 6 HRS.
DOMESTIC WATER PIPING	@ 1.50 TIMES OF CITY INCOMING PRESSURE OR BUILDING OPERATING PRESSURE FOR 6 HRS.

* IF CODE REQUIREMENT ARE MORE STRINGENT THAN WHAT SPECIFIED, USE CODE & REQUIREMENT OF LOCAL JURISDICTIONS.
* SUBMIT TEST REPORT TO ENGINEER FOR RECORD. TEST REPORT SHALL INCLUDE OUTCOME OF TEST & NAME OF PARTICIPANTS & THEIR SIGNATURE.

THE CONTRACTOR SHALL CONSIDER ALL THE REFERENCE CODES BELOW AS A PART OF PROJECT CONSTRUCTION DOCUMENTS

2021 VIRGINIA CONSTRUCTION CODE (IBC) USBC, PART I
2017 ACCESSIBLE AND USABLE BUILDING & FACILITIES (ICC/ANSI A117.1)
2018 VIRGINIA ENERGY CONSERVATION CODE
2021 VIRGINIA MECHANICAL CODE (IMC)
2021 VIRGINIA PLUMBING CODE (IPC)
2021 VIRGINIA FUEL GAS CODE (IFGC)
2020 NATIONAL ELECTRIC CODE
2021 VIRGINIA EXISTING BUILDING CODE (IEBC) USBC, PART II
2021 VIRGINIA MAINTENANCE CODE (IBC) USBC, PART III
2021 VIRGINIA FIRE PREVENTION CODE (IFC)

SHEET INDEX

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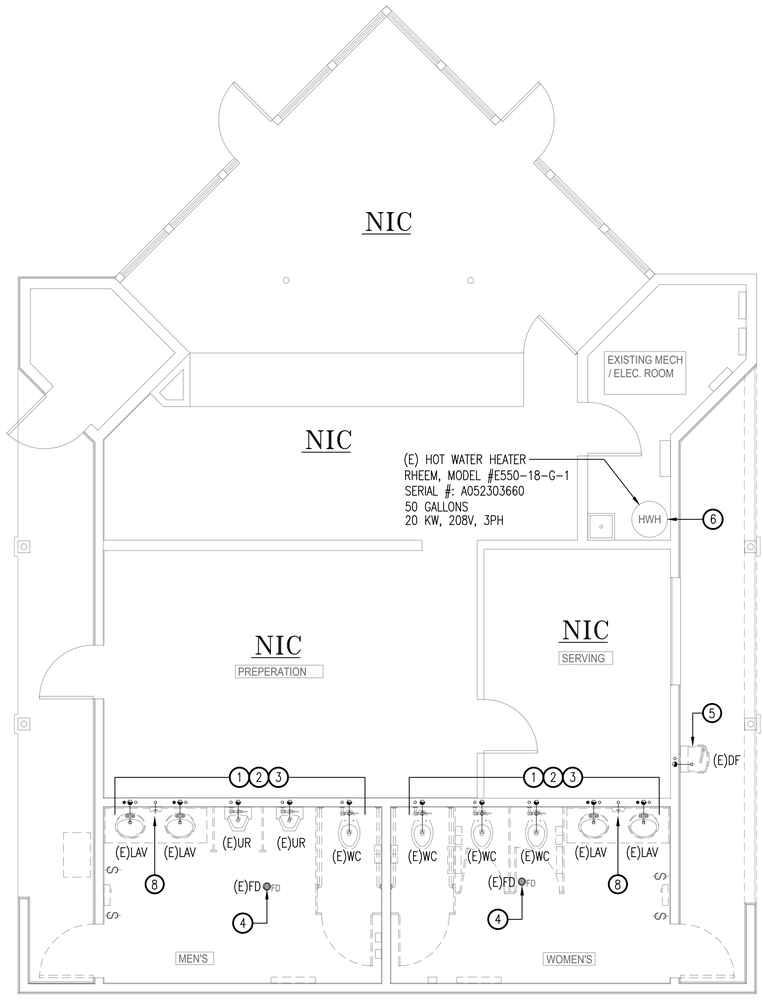
PROJECT NUMBER: 25-21 SCALE: AS SHOWN

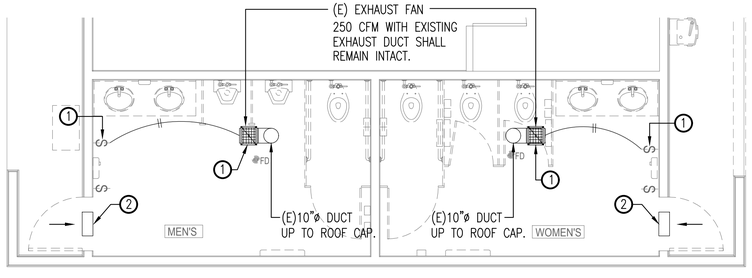
PLUMBING SYMBOLS & GENERAL NOTES

P000



1 DP001 PLUMBING DEMO BATHROOM PARTIAL PLAN

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



2 DP001 MECHANICAL EXISTING BATHROOM PARTIAL PLAN

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

* MECHANICAL PLAN IS SHOWN ONLY FOR INFORMATION. NO MECHANICAL WORK IS NEEDED.

GENERAL DEMOLITION NOTES:

* THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO PLACING BID AND BEFORE START OF CONSTRUCTION. ALL EXISTING CONDITIONS SHALL BE FIELD VERIFIED TO THE EXTENT FEASIBLE. ALL CONFLICTS BETWEEN EXISTING SYSTEMS AND WHAT SHOWN ON THE PROJECT PLANS SHALL BE REPORTED TO THE ENGINEER FOR HIS DECISION ON HOW TO PROCEED. IT MUST BE NOTED THAT THE EXISTING MEP SYSTEM IF CALLED TO BE REMOVED, SHALL BE CONSIDERED AS "TOTAL DEMOLITION".

IF THERE ARE ITEMS NOT SHOWN ON MEP DEMOLITION PLANS. THE CONTRACTOR SHALL STILL CONSIDER THEIR TOTAL DEMOLITION & REMOVAL AS PART OF THE SCOPE OF WORK, IF SUCH WORK IS NEEDED TO ACCOMMODATE THE CONSTRUCTION SCOPE OF WORK.

* THE EXISTING CONDITIONS SHOWN ON THE MEP DRAWINGS ARE BASED ON AN ENGINEERING SURVEY AND MAY NOT BE BASED ON THE VERIFIED AS– BUILT CONDITIONS OR DRAWINGS . THE CONTRACTOR SHALL FIELD VERIFY LAYOUT, AND CONDITIONS OF THE EXISTING SYSTEMS, AND SHALL REPORT TO ENGINEER REQUIRED MODIFICATIONS TO THE DESIGN DOCUMENTS, TO ACCOMMODATE THE INTENT OF THE DESIGN.

* MODIFICATIONS TO THE EXISTING SYSTEMS, IF REQUIRED TO ACCOMMODATE THE INTENT OF THE DESIGN, SHALL BE CONSIDERD AS A PART OF SCOPE OF WORK.

* ALL DEMOLITION ITEMS SHALL BE DISPOSED OFF THE JOB SITE IN AN APPROVED MANNER.

* WHENEVER AN ITEM IS CALLED TO BE REMOVED, ALL COMPONENTS RELATED TO THAT ITEM SHALL BE REMOVED AS WELL AND IN THEIR ENTIRETY. ABANDONING SYSTEMS AND EQUIPMENT IN PLACE OR ABOVE CEILING IS NOT PERMITTED.

* WHERE APPLICABLE ALL UNUSED ROOF & EXTERIOR WALL OPENING & PENETRATIONS SHALL BE PATCHED IN AN APPROVED MANNER. SURFACES SHALL BE RESTORED TO ORIGINAL CONDITION UNLESS NOTED OTHERWISE ON ARCHITECTURAL DRAWINGS.

* ANY WORK WHICH MAY REQUIRE SHUT DOWN OF ANY MAIN UTILITY OR SERVICES SHALL BE COORDINATED WITH BUILDING MANAGEMENT, 48 HRS. IN ADVANCE.

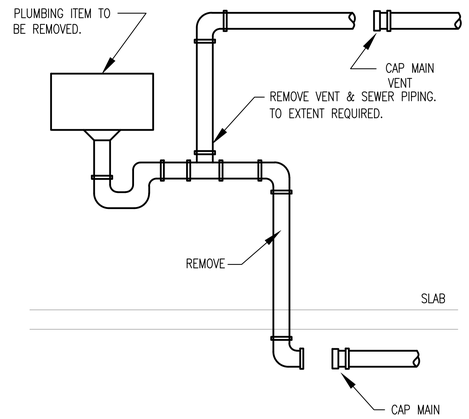
* ALL CUTTING AND PATCHING SHALL BE DONE BY PLUMBING CONTRACTOR. ALL SURFACES SHALL BE FINISHED AS INDICATED ON ARCHITECTURAL PLANS BY OTHERS.

PLUMBING DEMOLITION NOTES:

1. REMOVE ALL EXISTING PLUMBING FIXTURES (FLOOR MTD TOILETS, URINALS, AND DECK MOUNTED LAVATORIES) WITH ALL ASSOCIATED PIPING. REMOVE PIPING AS REQUIRED. REMOVE ANY EXISTING UN–USED PIPING IN THE BATHROOMS.
2. REMOVE ALL STOP VALVES, FAUCETS AND ALL ACCESSORIES INSIDE EACH BATHROOM.
3. MAKE MODIFICATIONS TO THE PIPING AS REQUIRED TO ACCOMMODATE DEMOLITION OF EXISTING PLUMBING FIXTURES AND INSTALLATION OF NEW PLUMBING FIXTURES.
4. EXISTING FLOOR DRAINS SHALL BE REMOVED. NEW FLOOR SHALL BE INSTALLED AND CONNECT TO MAIN EXISTING PIPING.
5. EXISTING DRINKING FOUNTAIN WITH ASSOCIATED VALVES AND ACCESSORIES SHALL BE REMOVED IN ITS ENTIRETY. CAP ALL MAIN PIPING AND MAKE IT READY TO INSTALL NEW HI/LO DRINKING FOUNTAIN. REFER TO NEW LAYOUT ON SHEET P001.
6. EXISTING HOT WATER HEATER SHALL REMAIN INTACT.
7. REFER TO NEW PLUMBING PLAN FOR NEW REQUIREMENTS.
8. EXISTING HOSE BIB UNDER THE COUNTER SHALL BE REPLACED.

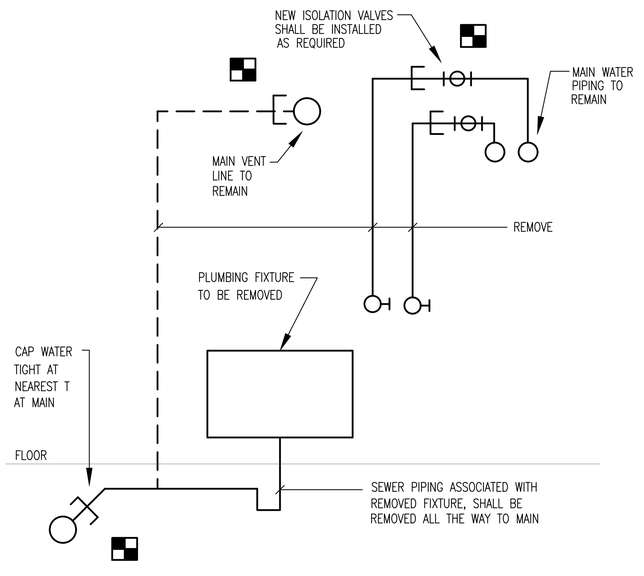
MECHANICAL DEMOLITION NOTES:

1. ALL EXISTING EXHAUST FANS SHALL REMAIN INTACT. EXHAUST FAN CONTROL SWITCH SHALL BE REMOVED. FAN SHALL BE CONTROLLED BY THE NEW LIGHTING OCCUPANCY SENSOR AS INDICATED ON THE NEW ELECTRICAL PLANS ON SHEET E001.
2. EXISTING DOOR WITH 12"X12" LOUVER SHALL BE REPLACED WITH NEW DOOR WITH LOUVER.



3 DP001 PLUMBING DEMOLITION DETAIL.

SCALE: N.T.S.



4 DP001 PLUMBING DEMOLITION DETAIL

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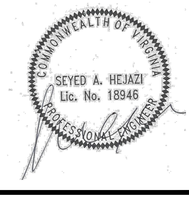
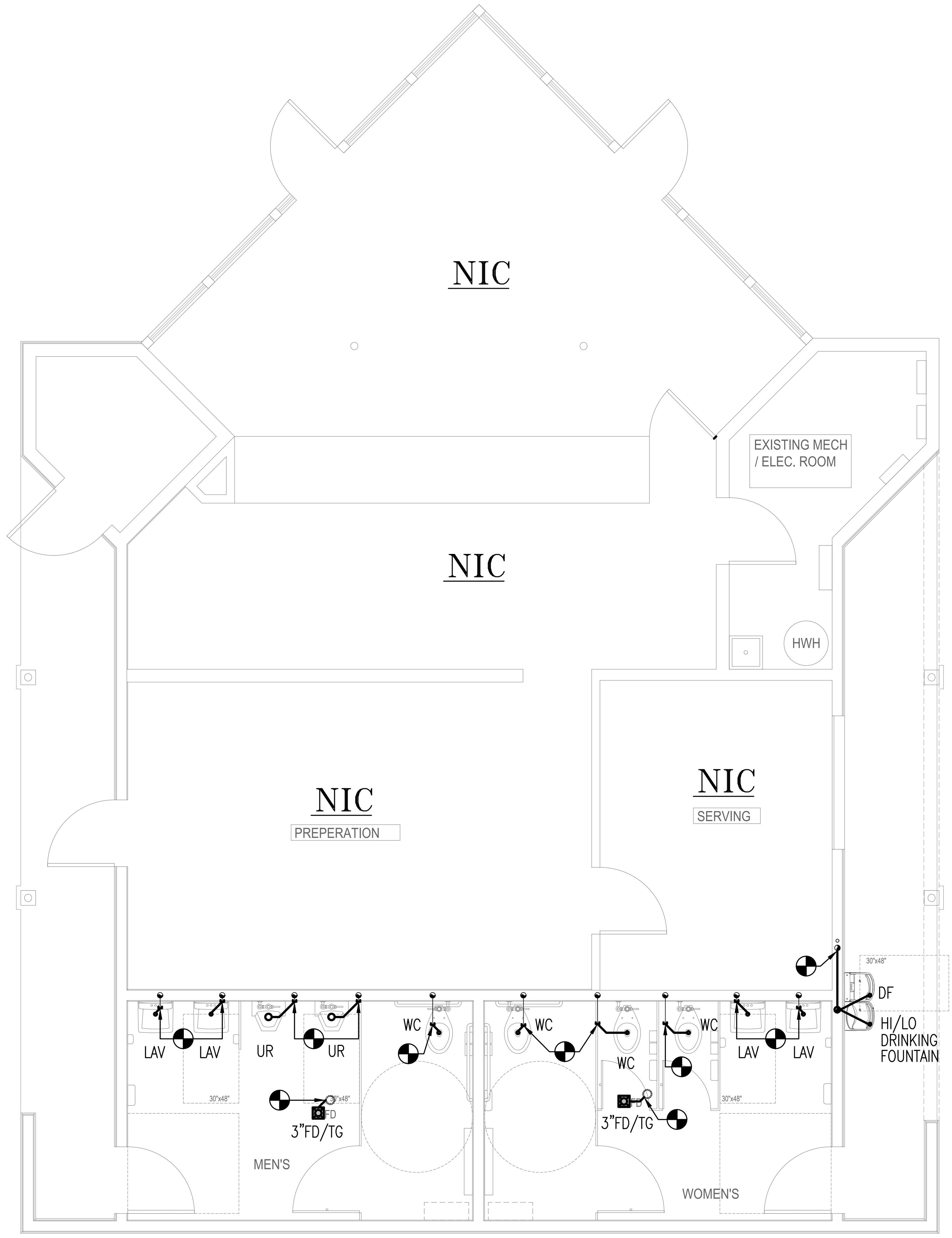
PLUMBING DEMO BATHROOM PARTIAL PLANS



DP001

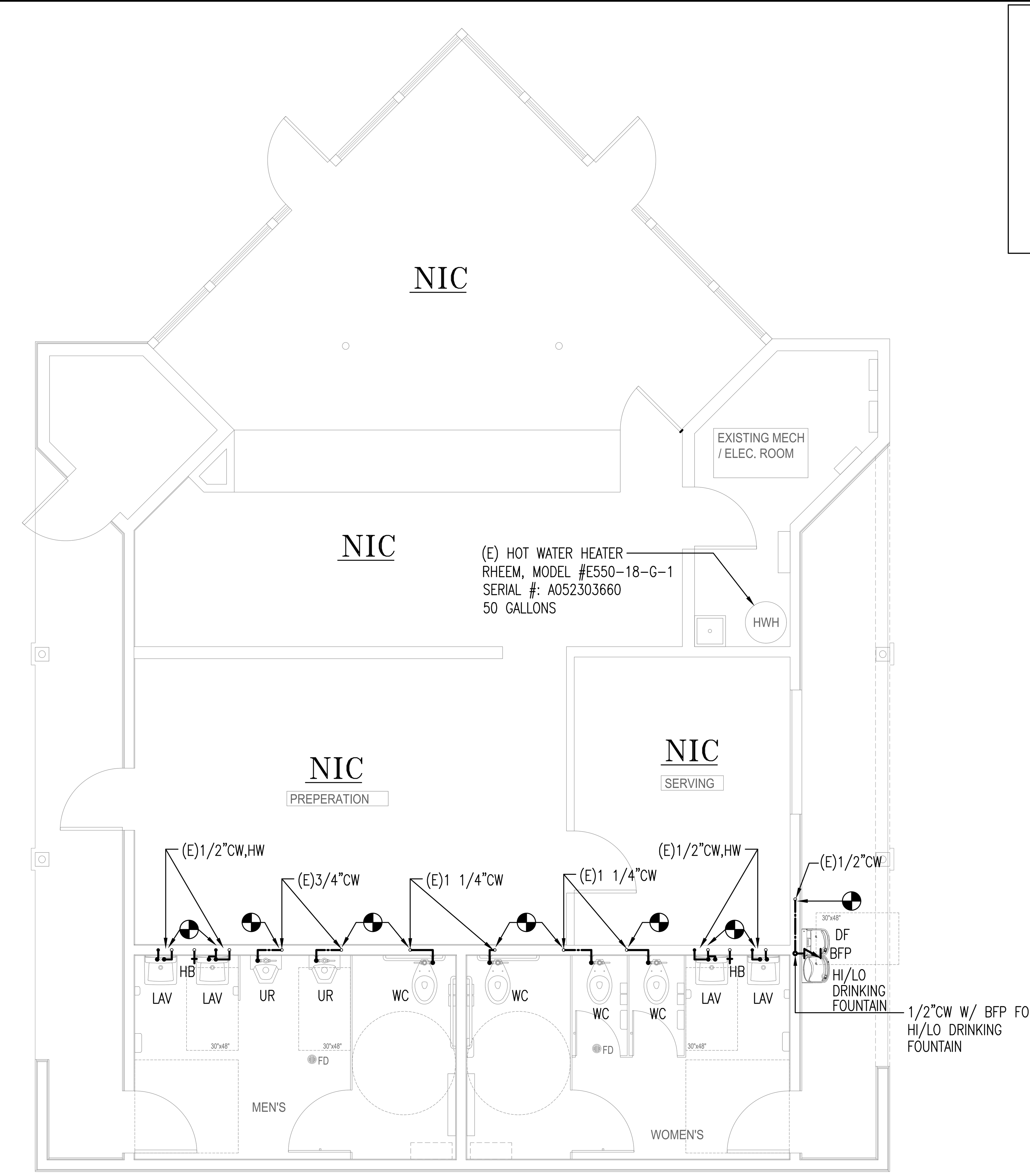


(1/P001) PLUMBING BATHROOM PARTIAL PLAN, SEWER

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

PLUMBING DESIGN NOTES

1. INSTALL NEW WATER CLOSET. PROVIDE NEW 1 1/4" COLD WATER LINE AND CONNECT TO THE NEW FLUSH VALVE.
2. INSTALL NEW TOILET FLUSH VALVE.
3. CONNECT NEW WATER CLOSET TO EXISTING PIPING. WORK WILL INCLUDE CUTTING OF THE SLAB AS REQUIRED. PROVIDE 3" SEWER PIPE FROM NEW WATER CLOSET AND CONNECT TO EXISTING PIPING UNDER SLAB. REUSE EXISTING VENT LINE.
4. INSTALL NEW URINALS IN MEN'S ROOM. PROVIDE 2" DRAIN AND 3/4" WATER LINE AND CONNECT TO EXISTING PIPING. INSTALL NEW URINAL FLUSH VALVE.
5. INSTALL NEW WALL HUNG LAVATORY WITH TRAP. PROVIDE 1 1/2" SEWER LINE AND VENT LINE AND CONNECT TO EXISTING PIPING. PROVIDE 1/2" COLD AND HOT WATER WITH STOP VALVES, AND CONNECT TO EXISTING PIPING. INSTALL NEW FAUCETS.
6. ALL EXISTING AND NEW DOMESTIC WATER PIPING, AFTER INSTALLATION OF THE NEW FIXTURES AND COMPLETION OF THE JOB, SHALL BE TESTED UNDER CITY PRESSURE AND SHALL BE CLEANED, FLUSHED AND DISINFECTED.
7. ALL NEW TRAPS, AND HOT WATER PIPING SHALL BE INSULATED.
8. REPLACE EXISTING HOSE BIBS WITH NEW.



(2/P001) PLUMBING BATHROOM PARTIAL PLAN, WATER

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

PLUMBING GENERAL NOTES

1- ALL EXISTING FIXTURES IN BATHROOMS SHALL BE REPLACED WITH NEW FIXTURES AT SLIGHTLY DIFFERENT LOCATIONS.

2- THE INTENT OF DESIGN IS TO REUSE THE EXISTING PLUMBING PIPING, HOWEVER ADDITIONAL PIPING OR RELOCATION OF EXISTING PIPING ARE NEEDED AS INDICATED.

3- INSTALL NEW FIXTURES AT LOCATIONS SHOWN AND PROVIDE FOR ALL REQUIRED SEWER, VENT AND WATER PIPING, AS INDICATED AND REQUIRED. CONTRACTOR SHALL REALIZE THAT ALL REQUIRED OFFSETS AND FITTINGS SHALL BE PROVIDED AS REQUIRED, AND EXTENT OF WORK SHALL BE DETERMINED AFTER OPENING WALLS.

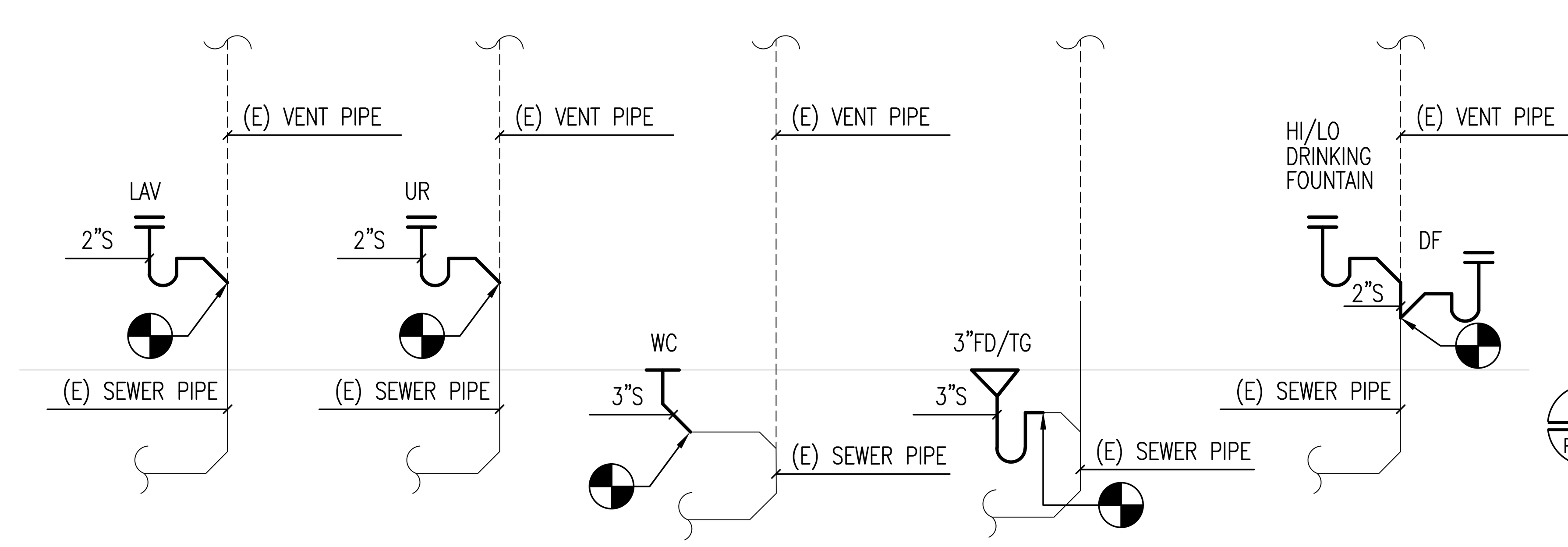
4- ALL STOP VALVES SHALL BE REPLACED WITH NEW.

5- ALL HOT OR COLD WATER TAIL PIPING, AND FINAL CONNECTORS SHALL BE REPLACED WITH NEW.

6- ALL VALVES AND ACCESSORIES AND PIPING IN THE BATHROOMS SHALL BE CHROME PLATED.

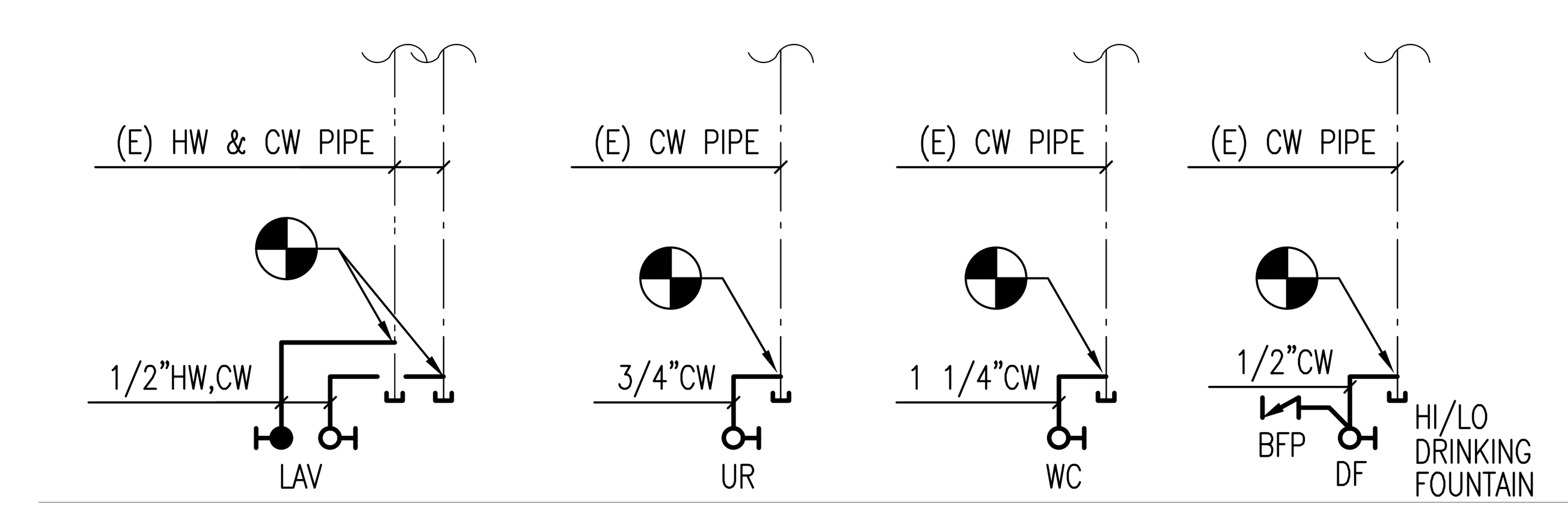
7- ALL SEWER, VENT & DOMESTIC WATER PIPING SHALL MATCH THE EXISTING PIPING. FOR SEWER AND VENT PIPING, PVC SCHEDULE 40 CAN BE USED. FOR DOMESTIC WATER, TYPE L- COPPER PIPE AND TUBES CAN BE USED AS INDICATED.

8- FLOOR DRAIN SHALL BE REPLACED WITH NEW DRAIN WITH TRAP GUARD.



(3/P001) TYPICAL PLUMBING FIXTURE SEWER RISER DIAGRAM

NTS



(4/P001) TYPICAL PLUMBING FIXTURE WATER RISER DIAGRAM

NTS

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PLUMBING NEW BATHROOM FLOOR PLANS

P001

PLUMBING FIXTURE DESCRIPTION

WC ADA, WATER CLOSET, AMERICAN STANDARD, MADERA FLO WISE 16-1/2" HEIGHT ELONGATED FLUSHOMETER TOILET, VITREOUS CHINA, HIGH EFFICIENCY TOILET (1.1 GPF TO 1.6 GPF) FULLY GLAZED 2-1/8" TRAPWAY, ELONGATED BOWL, POWERFUL DIRECT-FED SIPHON JET ACTION 16-1/2" RIM HEIGHT, 1-1/2" INLET SPUD. 2 BOLT CAPS.

WC STANDARD, WATER CLOSET, AMERICAN STANDARD, MADERA 15" HEIGHT, MODEL: 2234511.02 WITH TOUCH LESS SELECTRONIC PISTON FLUSH VALVE, 1.1 GPF/4.2 LPF ELONGATED FLOOR MOUNT FLUSHOMETER BOWL, TOP SPUD, LESS SEAT. 15" RIM HEIGHT, 1-1/2" INLET SPUD. 2 BOLT CAPS.

SEAT: AMERICAN STANDARD # 5901.100 HEAVY DUTY OPEN FRONT LESS COVER. FLUSHOMETER VALVE: 1.6 GPF, SENSOR-OPERATED, AMERICAN STANDARD SELECTRONIC DC POWER # 6065.161.002

LAV ADA, LAVATORY, AMERICAN STANDARD, LUCERNE WALL-HUNG LAVATORY, 0356.041, VITREOUS CHINA, FRONT OVERFLOW, D-SHAPED BOWL, SELF-DRAINING DECK AREA WITH CONTOURED BACK AND SIDE SPLASH SHIELDS, FAUCET LEDGE.

FAUCET ADA, AMERICAN STANDARD ELECTRONIC 0.5 GPM DECK MOUNTED ELECTRONIC BATHROOM FAUCET WITH TOUCH FREE SENSOR.

UR ADA, URINAL, AMERICAN STANDARD, WASHBROOK FLOWISE UNIVERSAL URINAL, VITREOUS CHINA WITH EVERCLEAN, PERMANENT EVERCLEAN, ULTRA HIGH EFFICIENCY, LOW CONSUMPTION. OPERATES IN THE RANGE OF 0.125 GPF TO 1.0 GPF, FLUSHING RIM, ELONGATED 14" RIM FROM FINISHED WALL, WASHOUT FLUSH ACTION, 3/4" INLET SPUD, OUTLET CONNECTION THREADED 2" INSIDE, 2 WALL HANGERS FLUSH VALVE: 1.0 GPF FLUSH VALVE: SENSOR-OPERATED, AMERICAN STANDARD SELECTRONIC #6063.101.002 DC POWER

DF ADA, DRINKING FOUNTAIN, HAWS, MODEL 1117B ADA VANDAL-RESISTANT WALL MOUNT DRINKING FOUNTAIN. HI-LOW WALL MOUNTED, ONE PIECE DRINKING FOUNTAIN WITH LOW PROFILE DESIGN, 14 GAUGE TYPE 304 STAINLESS STEEL WITH 1/4" THICK STAINLESS BACK PLATES WELDED IN AND VANDAL RESISTANT STAINLESS BOTTOM PLATES. SATIN FINISH RESISTS STAINS AND CORROSION. 2"S, 1 1/2"V, 1/2" CW PUSH BUTTONS, ADA

FLOOR DRAINS WITH TRAP GUARD
WHERE INDICATED FD/TG PROVIDE FLOOR DRAIN WITH TRAP GUARD.

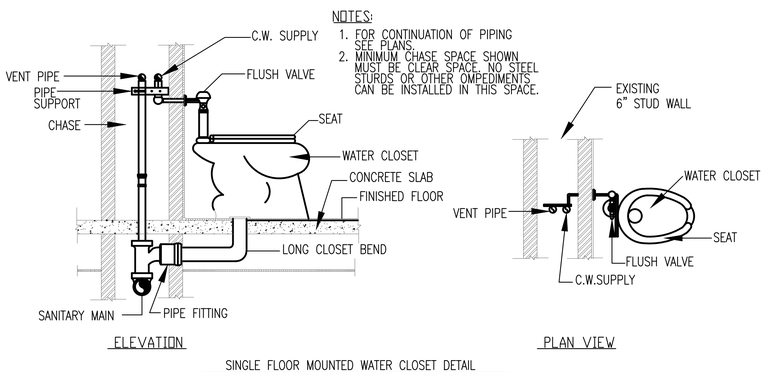
THE TRAP GUARD SHALL BE NORMALLY IN THE CLOSED POSITION, SEALED TIGHT. IT SHALL OPEN WITH AS LITTLE AS ONE OUNCE OF WATER BUT WILL BE ABLE TO ALLOW A FLOW OF 34.5 GPM OF WASTE WATER WHEN FULLY OPENED.

THE TRAP GUARD SHALL BE TESTED IN ACCORDANCE WITH THE ASSE 1072 TEST STANDARD FOR ANSI/ASME A112.6.3 DRAINS AND BY WARNOCK HERSEY FOR THE CSA B79 GENERAL PURPOSE DRAINS. IS SHALL BE EVALUATED BY THE ICC EVALUATION SERVICE AND LISTED UNDER ICC-ES-PMG LISTING 1091. THE TRAP GUARD HAS NO MECAHNICAL MOVING PARTS AND PROVIDES A 10 YEAR LIMITED WARRANTY. PROVIDE TRAP GUARD FROM PRO SET OR APPROVED EQUAL MANUFACTURER.

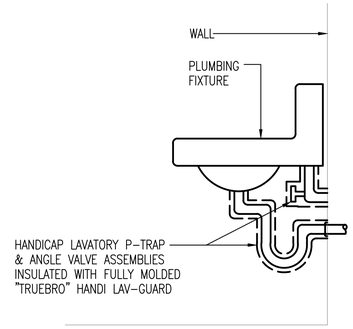
PLUMBING FIXTURE ROUGH IN SCHEDULE.

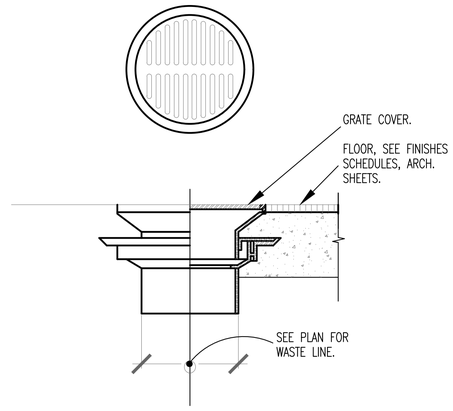
TAG	DESCRIPTION	SERVICE	SEWER & VENT ROUGH INS.			WATER ROUGH INS		REMARKS.
			MIN TRAP	SEWER	VENT	COLD	HOT	
WC	WATER CLOSET	PUBLIC BATHROOM	NA	3"	2"	1 1/4"	NA	FLUSH VALVE FLOOR MOUNTED ACCESSIBLE & STANDARD
LAV	LAVATORY	PUBLIC BATHROOM	1 1/2"	2"	1 1/2"	1/2"	1/2"	WALL MOUNTED, ADA WALL HUNG
UR	URINAL	PUBLIC BATHROOM	2"	2"	2"	3/4"	NA	ACCESSIBLE & STANDARD
DF	DRINKING	PUBLIC	NA	2"	1 1/2"	1/2"	NA	HI-LO. ADA APPROVED

* ALL PLUMBING FIXTURES SHALL BE PROVIDED FROM AMERICAN STANDARD OR APPROVED EQUAL MANUFACTURER.
* PROVIDE SEATS, WC-LIDS, MOUNTING BRACKETS, ISOLATION VALVES, FAUCETS, MIXING VALVES & ANY AND ALL ACCESSORIES NEEDED FOR COMPLETE INSTALLATION AND OPERATION.
* ALL PLUMBING FIXTURES SHALL BE APPROVED BY OWNER, ARCHITECT & ENGINEER PRIOR TO ORDERING.
* LAVATORIES SHALL HAVE OVERFLOW OUTLETS.
* WATER SUPPLY FOR TOILETS MUST BE MOUNTED 10"AFF.
* ABS PIPES ARE NOT PERMITTED.
* ALL EXPOSED PIPING (FAUCETS, PIPES ETC.) MUST BE FIRST LINE CHROME PLATED BRASS BY APPROVED MANUFACTURER. ESCUTCHEON PLATES ARE ALLOWED TO BE CHROME PLATED PLASTIC.
* SUBMIT A COPY OF THE PLUMBING FIXTURE SUBMITTALS TO OWNER FOR REVIEW & APPROVAL. ANY UN-APPROVED FIXTURE SHALL BE REPLACED @ CONTRACTOR'S EXPENSE.



SINGLE FLOOR MOUNTED WATER CLOSET DETAIL





NOTE: 1 SEE ARCHITECTURAL PLANS FOR SLOPING REQUIREMENTS AT SPECIFIED FLOOR DRAINS.

2. DIMENSIONS SHOWN IN ( ) ARE ZURN FIXTURES. DIMENSIONS SHOWN WITHOUT ARE MANUFACTURED BY PLASTIC ODDITIES.

1 P002 FLOOR MTD. WATER CLOSET
SCALE: N.T.S.

2 P002 TRAP INSULATION DETAIL
SCALE: N.T.S.

3 P002 FLOOD DRAIN DETAIL.
N.T.S.

* FLOOR DRAIN SHALL BE NEW DRAIN WITH TRAP GUARD.

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JOB NO• 25-21

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EMAIL: MEP@SAHDESIGNGROUP.COMCASTBIZ.NET
PROJECT ENGINEER: SEYED A. HEJAZI, P.E.
DRAWN BY: MIKE BASILIO

PROFESSIONAL CERTIFICATION
PROFESSIONAL CERTIFICATE. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED AND APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF VIRGINIA.
LICENSE NUMBER: 18946
EXPIRATION DATE: 11/30/2025

REVISION	DATE	DESIGNED BY: SAH
	06/30/2025	ISSUED FOR PERMIT
1	09/10/2025	FOR ARCHITECT & OWNER REVIEW
		DRAWN BY: MB
		DESCRIPTION
		CHECKED BY: SAH
		APPROVED BY:

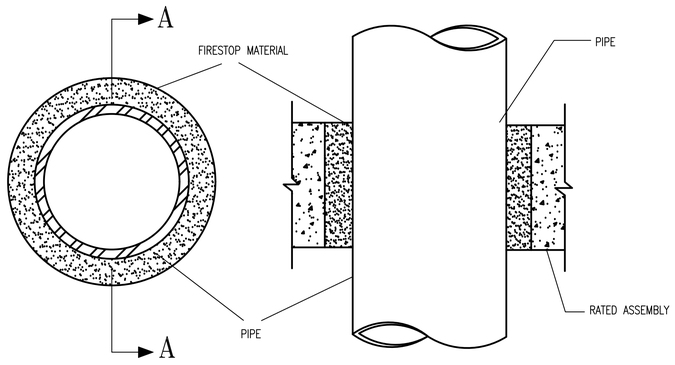
CAMERON RUN REGIONAL PARK /
RIPTIDE RESTROOM RENOVATION
4001 EISENHOWER AVE, ALEXANDIA, VA 22304

PROJECT NUMBER: 25-21
SCALE: AS SHOWN

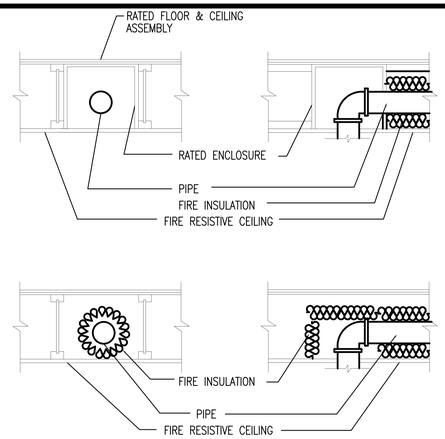
PLUMBING DETAILS

COMMONWEALTH OF VIRGINIA
SEYED A. HEJAZI
Lic. No. 18946
PROFESSIONAL ENGINEER

P002



SECTION A-A



PLUMBING DESIGN NOTES

1- CONTRACTOR SHALL CAREFULLY REVIEW THE ARCHITECTURAL CEILING PLANS AND FLOOR PLANS AND SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO LOCATE ALL RATED CHASES AND RATED CEILING AND WALL ASSEMBLIES.

2- AVOID INSTALLATION OF PIPING OR PLUMBING EQUIPMENT IN RATED ASSEMBLIES. IF SUCH INSTALLATION CAN NOT BE AVOIDED OR SHOWN ON THE DESIGN DOCUMENTS, PROVIDE FOR FIRE RATED ASSEMBLIES AROUND THE PIPING OR EQUIPMENT AS INDICATED IN DETAIL ON THIS SHEET.

3- ALL PIPING (DOMESTIC WATER PIPING, SANITARY PIPING ETC.) PENETRATIONS OF THE RATED ASSEMBLIES SHALL BE PROVIDED WITH FIRE STOPPING. REFER TO DESIGN DOCUMENTS AND THE DETAILS ON THIS SHEET.

4- ALL SLABS, RATED WALLS, AND RATED CEILING ASSEMBLIES' PENETRATIONS FOR COLD WATER, HOT WATER, HOT WATER RECIRCULATION, SEWER OR STORM PIPING AND OTHER MISCELLANEOUS PIPING SHALL BE PROVIDED WITH FIRE STOP MATERIAL. REFER TO DETAILS ON THIS SHEET.

5- IN ADDITION TO DETAILS PROVIDED ON THE PLUMBING DRAWINGS REFER TO ARCHITECTURAL DETAILS FOR FIRE STOPPING AND FIRE PROTECTION OF THE RATED ASSEMBLIES.

1 P003 THROUGH-PENETRATION FIRESTOP SYSTEMS

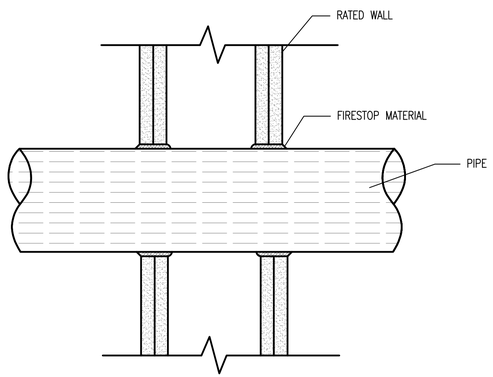
SCALE: NTS

1. ALL PIPING (STEEL, GALVANIZE STEEL, COPPER, PVC, OR CPVC AND MISC. PIPING) SHALL BE CENTERED IN THE OPENING. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE T RATING OF THE SYSTEM IS DEPENDENT ON THE SIZE OF THE PIPE AND THROUGH OPENING AS SHOWN IN THE TABLE BELOW.

2. FILL, VOID OR CAVITY MATERIAL WITH APPROVED SEALANT AND FIRESTOP. FILL MATERIAL APPLIED WITHIN ANNUALS, FLUSH WITH TOP SURFACE OF FLOOR OR WITH BOTH SURFACES OF WALL. THE T RATING OF THE SYSTEM IS DEPENDENT UPON SIZE OF THE OPENING SIZE OF THE PENETRATING ITEM, NOM ANNULAR SPACE WITHIN OPENING AND THICKNESS OF THE FILL MATERIAL AS SHOWN IN THE TABLE BELOW.

MAX OPENING SIZE	MAX DIAM PENETRATION ITEM IN.	NOM ANNULAR SPACE IN.	MIN FILL Mtl Thk IN.	T RATING HR
3	1-1/2	9/16	4-1/2	1-1/2
5	3	3/4	4-1/2	2
5	1/2	2	3-1/2	2
8	6	11/16	3-1/2	2
8	6	11/16	4-1/2	2

* THE SYSTEM FIRE RATING SHALL BE SAME AS THE ASSEMBLY RATING OR MORE AND NOT LESS THAN VALUES IDENTIFIED IN THE ABOVE TABLE.



2 P003 PIPE PENETRATION THRU FIRE RATED WALL

SCALE: NTS

NOTES:

1. PIPE-NOM 4" DIA OR SMALLER STEEL ELECTRICAL METALLIC TUBING. A MAX OF ONE PIPE IS PERMITTED IN THE FIRE STOP SYSTEM. PIPE TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

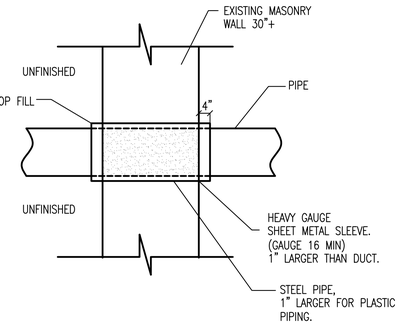
2. FILL VOID OR CAVITY MATERIAL-CAULK FILL MATERIAL BEARING THE UL CLASSIFICATION MARKING INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR PIPE AND GYPSUM WALLBOARD AND WITH MIN 1/4" DIAM BEAD OF CAULK APPLIED TO PERIMETER OF PIPE AT ITS EGRESS FROM THE WALL CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW

MAX PIPE DIAM, IN	ANNULAR SPACE IN
1	0 TO 3/16
1	1/4 TO 1/2
4	0 TO 1-1/2
6	1/4 TO 1/2
12	3/4 TO 3/8

3 P003 PIPE & MISC. ITEM INSTALLATION IN RATED CEILING

SCALE: NTS

* FIRE INSULATION SHALL BE PROVIDED THE SAME RATING AS THE RATED ASSEMBLY. USE 3M INSULATION OR APPROVED EQUAL.

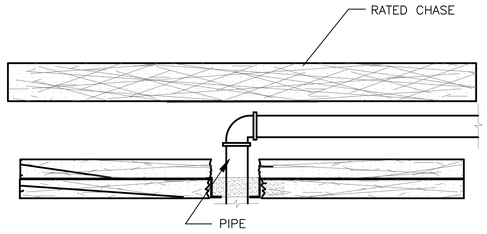


4 P003 SLEEVE DETAIL

NTS

WALL SLEEVE REQUIREMENTS

1. PROVIDE SLEEVE FOR ANY PENETRATION THRU WALLS WITH FIRE RATING OF 2HRS & ABOVE.
2. PROVIDE FIRE STOP IN ANNULAR SPACE BETWEEN SLEEVE & PIPE. PROVIDE APPROVED GROUT OR MORTAR OUTSIDE.
3. PROVIDE SHEET METAL SLEEVE FOR DUCTWORK, 1" LARGER THAN DUCT. PROVIDE APPROVED STEEL PIPE SLEEVE FOR ANY PIPING, 1" LARGER THAN PIPE.
4. SLEEVES ARE NOT REQUIRED IN NON-RATED OR 1 HR RATED WALLS UNLESS SPECIFICALLY DIRECTED BY ARCHITECT AND STRUCTURAL ENGINEER.
5. FIRE STOPPING SHALL BE PROVIDED FOR ALL PENETRATION OF RATED WALLS AND SLABS.
6. SOUND ATTNUATIONS SHALL BE PROVIDED @ ALL PENETRATION OF CORRIDOR WALLS & DEMISING WALLS BETWEEN APARTMENTS.
7. PROVIDE FIRE STOPPING AS REQUIRED BY APPLICABLE CODES & REQUIREMENT OF AHJ.



5 P003 SHAFT WALL PIPE DETAIL

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