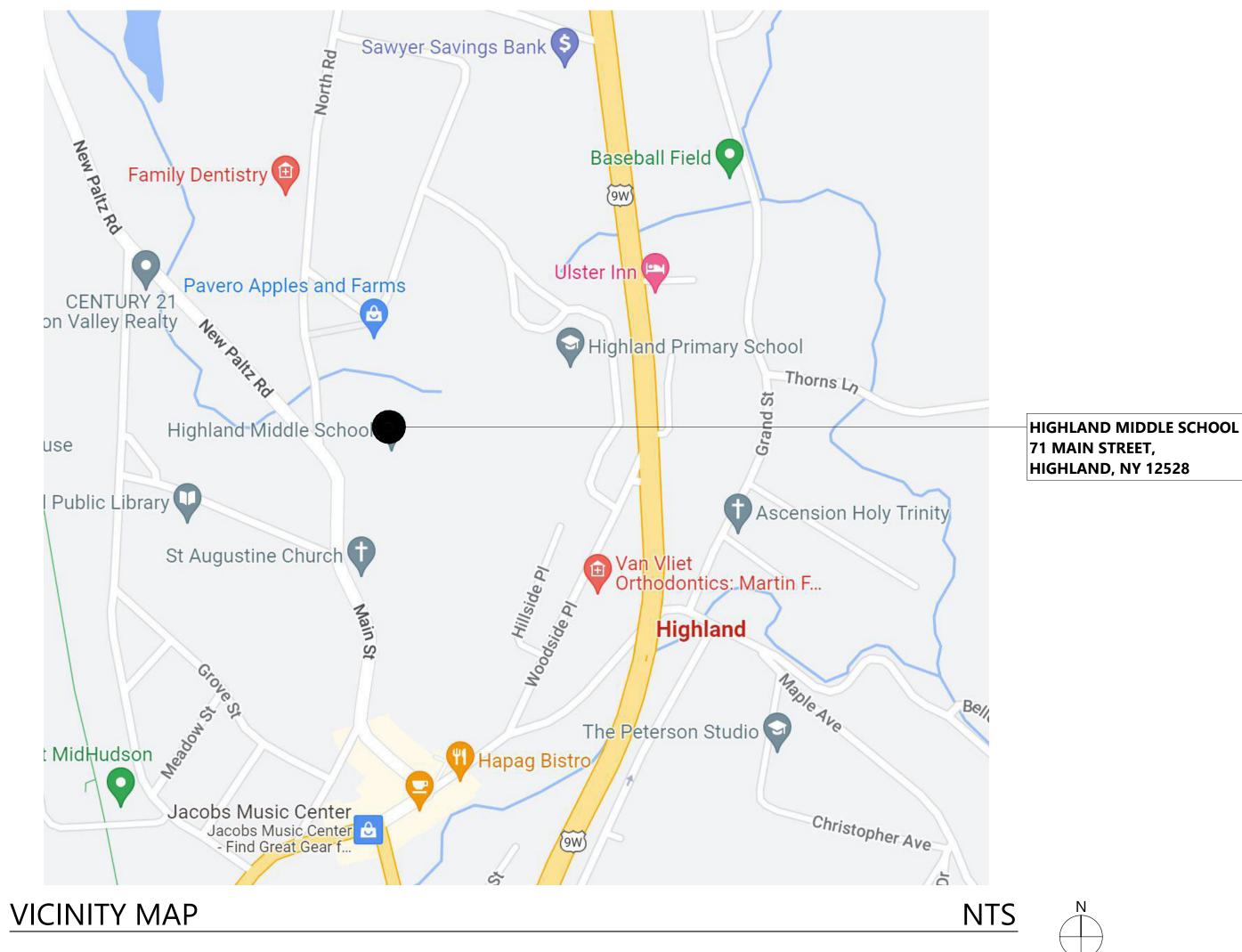
HIGHLAND CENTRAL SCHOOL DISTRICT HIGHLAND MIDDLE SCHOOL 2022 CAPITAL IMPROVEMENT PROJECT - PHASE 1

ISSUED FOR BID: 08/18/23

CSARCH - ARCHITECTS PASSERO ASSOCIATES - SITE CIVIL & STRUCTURAL ENGINEERS BLAKE ENGINEERING, PLLC - M.E.P. ENGINEERS QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC. - HAZARDOUS MATERIALS DESIGNER

STATE EDUCATION DEPARTMENT PROJECT CONTROL NUMBER: 62-08-03-04-0-001-010 HIGHLAND MIDDLE SCHOOL THE DESIGN OF THIS PROJECT CONFORMS TO APPLICABLE PROVISIONS OF THE NEW YORK STATE UNIFORM FIRE PREVENTION AND BUILDING CODE, THE NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE, AND THE MANUAL OF PLANNING STANDARDS OF THE NEW YORK STATE EDUCATION DEPARTMENT

CSArch PROJECT NO. 197-2201.01





DRAWING LIST HIGHLAND BUS GARAGE (HBG) **GENERAL DRAWINGS** HMS G000 COVER SYMBOLS, ABBREVIATIONS, KEY PLANS, AND MISC. CIVIL DRAWINGS HMS C120 EXISTING CONDITIONS AND KEY PLAN HMS C130 DEMOLITION, SITE PLAN, AND DETAILS LIFE SAFETY DRAWINGS FIRST FLOOR LIFE SAFETY PLAN - GYMNASIUM HMS LS112 ARCHITECTURAL DRAWINGS FIRST FLOOR OVERALL NEW WORK PLAN HMS A110 HMS A501 STAIRS, RAMPS, & LANDINGS PLANS STAIRS, RAMPS, & LANDINGS PHOTOS HMS A502 STAIRS, RAMPS, & LANDINGS PHOTOS HMS A503 STAIRS, RAMPS, & LANDINGS REPAIR DETAILS HMS A504 ELECTRICAL GENERAL DRAWINGS

HMS E101 ELECTRICAL NOTES, LEGEND, SCHEDULES & DETAILS

ELECTRICAL DRAWINGS

GYMNASIUM SOUND SYSTEM PLAN HMS E201

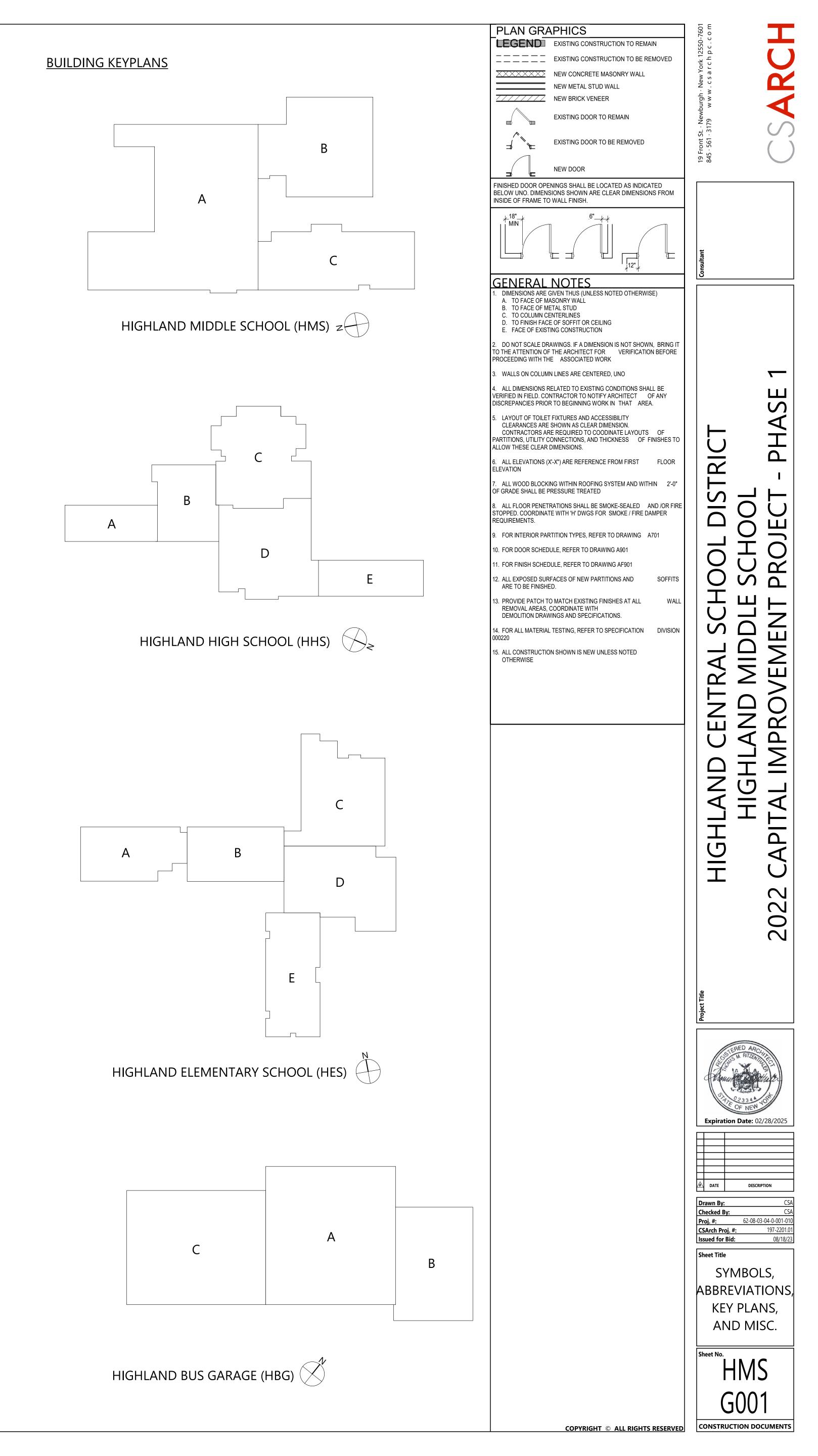


ABBREVIATIONS

ADD	ADDENDUM			
ADMIN	ADMINISTRATIVE			
AFF	ABOVE FINISHED FLOOR			
ALT	ALTERNATE			
APPROX	APPROXIMATE			
ARCH	ARCHITECT / ARCHITECTURAL			
AV	AUDIO VISUAL			
BLDG	BUILDING			
BOT OR B/ BSMT CJ	BOILDING BOTTOM OF BASEMENT CONTROL / CONSTRUCTION JOINT			
CL CLG / CLNG CLR CMU COL CONC CONF CONT COORD CORR	CENTERLINE CEILING CLEAR CONCRETE MASONRY UNIT COLUMN CONCRETE CONFERENCE CONFERENCE CONTINUOUS COORDINATE CORRIDOR			
DEMO	DEMOLITION			
DET	DETAIL			
DIA	DIAMETER			
DN	DOWN			
DWG	DRAWING			
ED	EDUCATION			
EIFS	EXTERIOR INSULATION FINISH SYSTEM			
ELECT	ELECTRIC / ELECTRICAL			
EPDM	ETHYLENE PROPYLENE DIENE MONOMER			
EQ	EQUAL			
EQUIP	EQUIPMENT			
EXST	EXISTING			
EJ	EXPANSION JOINT			
EXT	EXTERIOR			
FIN	FINISH			
FIN FL	FINISH FLOOR			
FIXT	FIXTURE			
FLR	FLOOR			
FRT	FIRE-RETARDENT-TREATED MATERIAL			
FTG	FOOTING			
GA	GAUGE			
GAL	GALLON			
GALV	GALVANIZE(D)			
GC	GENERAL CONTRACT(OR)			
GND	GROUND			
GWB	GYPSUM WALL BOARD			
GWBS	GYPSUM WALL BOARD SOFFIT			
HC	HANDICAPPED ACCESSIBLE			
HM	HOLLOW METAL			
HORIZ	HORIZONTAL			
HR	HOUR			
HT	HEIGHT			
HTG	HEATING			
HVAC	HEATING/VENTILATING/AIR CONDITIONING			
ID	INSIDE DIMENSION			
IN	INCH / INCHES			
INT	INTERIOR			
JAN	JANITOR			
JC	JANITOR'S CLOSET			
JST	JOIST			
JT	JOINT			
LAB	LABORATORY			
LB	POUND			
LIN	LINEAR			
LVL	LEVEL			
MAN	MANUAL			
MAS	MASONRY			
MAX	MAXIMUM			
MDF	MEDIUM DENSITY FIBERBOARD			
MECH	MECHANICAL			
MEZZ	MEZZANINE			
MFR	MANUFACTURE(R)			
MID	MIDDLE			
MIN	MINIMUM			
MISC	MISCELLANEOUS			
MO	MASONRY OPENING			
MTL	METAL			
NA	NOT APPLICABLE			
NIC	NOT IN CONTRACT			
NOM	NOMINAL			
NTS	NOT TO SCALE			
OA	OVERALL			
OC	ON CENTER			
OD	OUTSIDE DIAMETER			
O/HD	OVERHEAD			
OPT	OPTIONAL			
OZ	OUNCE			
PERIM	PERIMETER			
PLAM	PLASTIC LAMINATE			
PLBG	PLUMBING			
PLAS	PLASTER			
PLYWD	PLYWOOD			
PNL	PANEL			
PNT	PAINT(ED)			
POLYISO	POLYISOCYANURATE			
PPT	PRESSURE PRESERVATIVE TREATED			
PR	PAIR			
PREP	PREPARATORY			
PTN	PARTITION			
PVC	POLYVINYL CHLORIDE			
RAD	RADIUS			
RB	RUBBER / RUBBER WALL BASE			
REQD	REQUIRED			
RM	ROOM			
RND	ROUND			
RO	ROUGH OPENING			
SCH SECT SF SIM SPEC SQ SS STC STD STC STD STL STOR STRUCT SUSP SAC	SCHEDULED SECTION SQUARE FEET SIMILAR SPECIFICATION SQUARE STAINLESS STEEL SOUND TRANSMISSION CLASS STANDARD STEEL STORAGE STRUCTURAL / STRUCTURE SUSPENDED SUSPENDED ACOUSTICAL CEILING			
T&B	TOP AND BOTTOM			
T&G	TONGUE AND GROOVE			
TECH	TECHNOLOGY			
TEMP	TEMPORARY			
TMPD	TEMPERED			
TOM	TOP OF MASONRY			
TOS	TOP OF STEEL			
TYP	TYPICAL			
UL	UNDERWRITERS LABORATORY			
UNO	UNLESS NOTED OTHERWISE			
VERT	VERTICAL			
VEST	VESTIBULE			
VIF	VERIFY IN FIELD			
W/	WITH			
W/O	WITHOUT			
WD	WOOD			
WPT	WOOD PRESERVED-TREATED MATERIAL			
WT	WEIGHT			
YD	YARD			

ARCHITECTURAL LEGEND			
MATERIAL INI	DICATIONS		
	EARTH		
	GRANULAR FILL		
	BRICK		
	CONCRETE MASONRY UNIT		
	CONCRETE		
	GROUT		
	ROUGH WOOD BLOCKING		
	SHIM FINISH WOOD		
{/////////////////////////////////////	PLYWOOD		
	SHEATHING		
	BATT INSULATION		
	SPRAY FOAM INSULATION		
	EPS INSULATION		
	STEEL		
DIMENSIONIN CONVENTION			
	FACE OF STUD OR CMU		
	COLUMN CENTER LINE		
Ť Ť			
<u>SYMBOL</u> S			
S CLASSROO	ROOM NAME		
M 100 000	AREA OF ROOM		
S.F.	DOOR NUMBER, REFER TO A900 DF	RAWINGS	
$\langle 1 \rangle$	WINDOW TAG, REFER TO A900 DRA	WINGS	
(BL1)	BORROWED LIGHT NUMBER, REFE DRAWINGS	R TO A900	
S1	STOREFRONT / CURTAINWALL NUM REFER TO A900 DRAWINGS	IBER,	
	COLUMN GRID DESIGNATION		
M 1 M	PARTITION TAG, REFER TO A700 DF HOUR RATING OF PARTITION	RAWINGS	
	ADDITIONAL NOTES FOR PARTITION	N	
	KEY NOTE, NEW WORK		
< <u>1</u>) 	KEY NOTE, DEMOLITION WORK		
Ē	HANDICAPPED ACCESSIBLE		
WALL FINISH BASE FINISH BASE FINISH	ELEMENT OR FIXTURE		
FLOOR FINISH CEILING FINISH	TO AF100 DRAWINGS		
DETAIL	INDICATOR		
LEGEN	D		
SECTION			
INDICATOR		-SECTION NUMBER	
DRAWING SHEET		_	
SECTION IS DRAW		-DIRECTION OF VIEW	
DETAIL INDIC	ATOR		
(SECTION)		-SECTION NUMBER	
DRAWING SHEET			
SECTION IS DRAW		-DIRECTION OF VIEW	
ENLARGED D	DETAIL		
INDICATOR	$(\overline{)}$	- DETAIL NUMBER	
DRAWING AREA REQUIRING DETAI			
		- DRAWING SHEET NUMBER	
		DETAIL IS DRAWN ON	
DETAIL			
DETAE NUMBER		- DETAIL TYPE / NAME	
	A100 PLAN	00415	
DRAWING SHEET	NUMBER —	SCALE	
EXTERIOR E	LEVATION		
INDICATOR DIRECTION OF VIE	W	- ELEVATION NUMBER	
	A100		
DRAWING SHEET I DETAIL IS DRAWN			
ואדבסוסס בי	Ε\/ΔΤΙΩΝ		
INTERIOR EL INDICATOR BLANK ARROW INI			
ELEVATIONS NOT		ELEVATION NUMBER	
DRAWING SHEET	NUMBER		

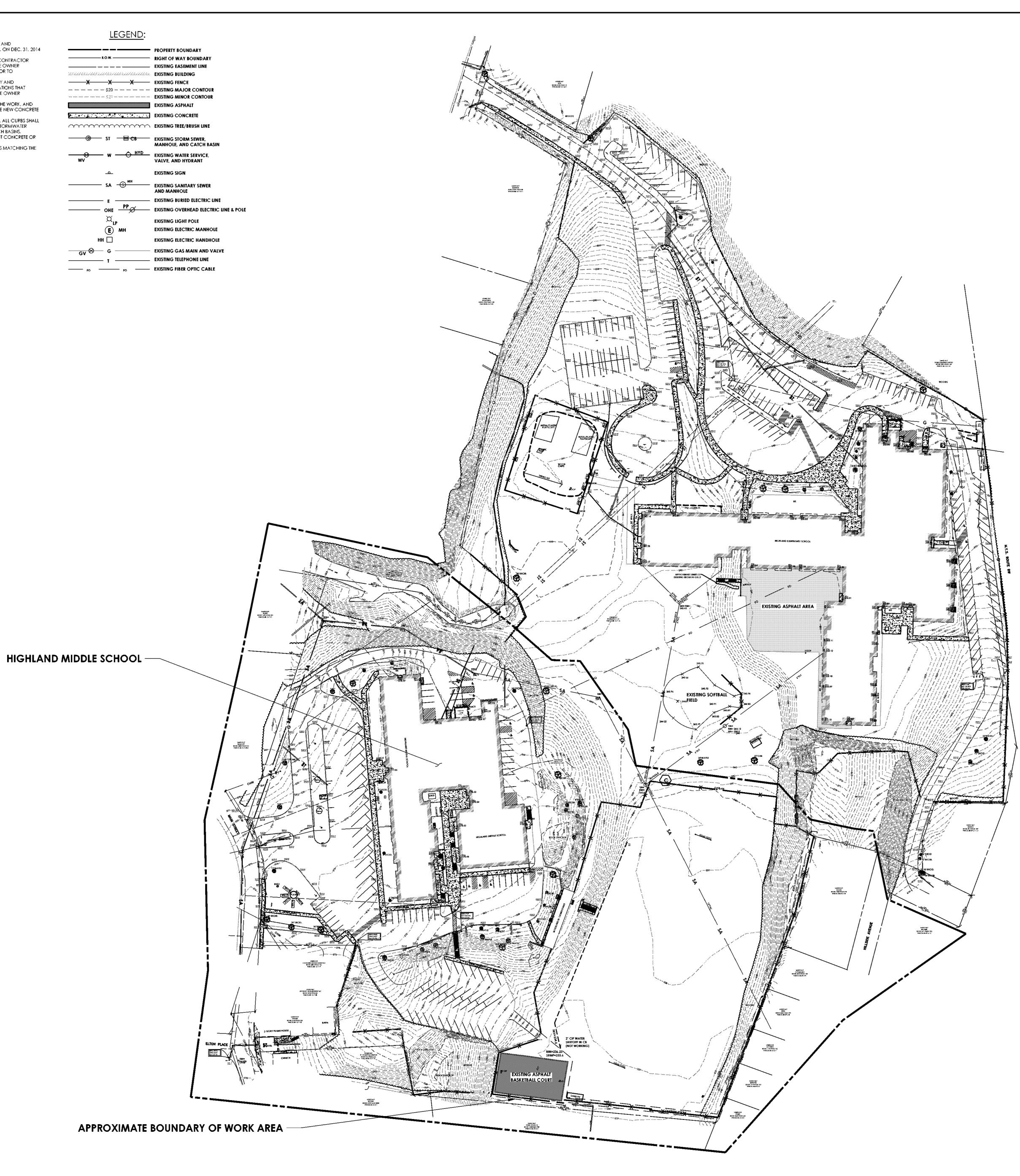
- DIRECTION OF VIEWS

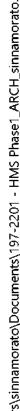


GENERAL NOTES:

- I. EXISTING CONDITIONS SHOWN ARE BASED ON THE BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED BY BOLTON SURVEYING P.C. ON DEC. 31, 2014 AND REVISED JANUARY 11, 2015.
- CONTRACTOR SHALL FIELD VERIFY ACTUAL SITE CONDITIONS. CONTRACTOR SHALL IDENTIFY DISCREPANCIES THAT AFFECT THE WORK TO THE OWNER REPRESENTATIVE AND OBTAIN APPROVAL FOR DEVIATIONS PRIOR TO PROCEEDING WITH THE WORK.
- CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY AND NOTIFY OWNER REPRESENTATIVE OF DEVIATIONS THAT AFFECT THE WORK, AND OBTAIN WRITTEN APPROVAL FROM THE OWNER REPRESENTATIVE FOR ADJUSTMENTS TO THE WORK.
- 4. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES DURING THE WORK, AND VERIFY THEIR FUNCTIONALITY FOLLOWING INSTALLATION OF THE NEW CONCRETE
- \$IDEWALK. 5. UPON COMPLETION, ALL PAVEMENT AREAS SHALL BE SMOOTH, ALL CURBS SHALL HAVE A 6-INCH REVEAL (UNLESS OTHERWISE SPECIFIED), AND STORMWATER RUNOFF SHALL DRAIN TO EITHER EXISTING OR PROPOSED CATCH BASINS.
- 6. ALL EXISTING SURFACE UTILITIES SHALL BE FLUSH WITH ADJACENT CONCRETE OR LAWN SURFACE.
- 7. RESTORE LAWN DAMAGED DURING THE WORK WITH MATERIALS MATCHING THE EXISTING CONDITION.

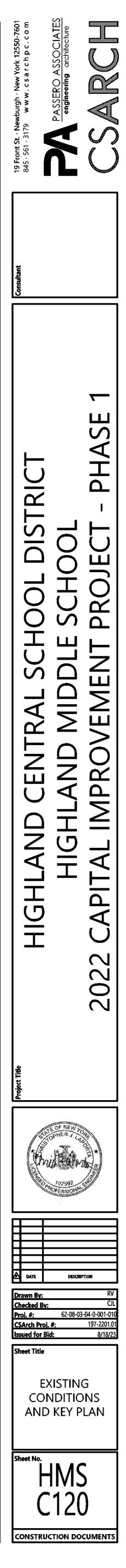
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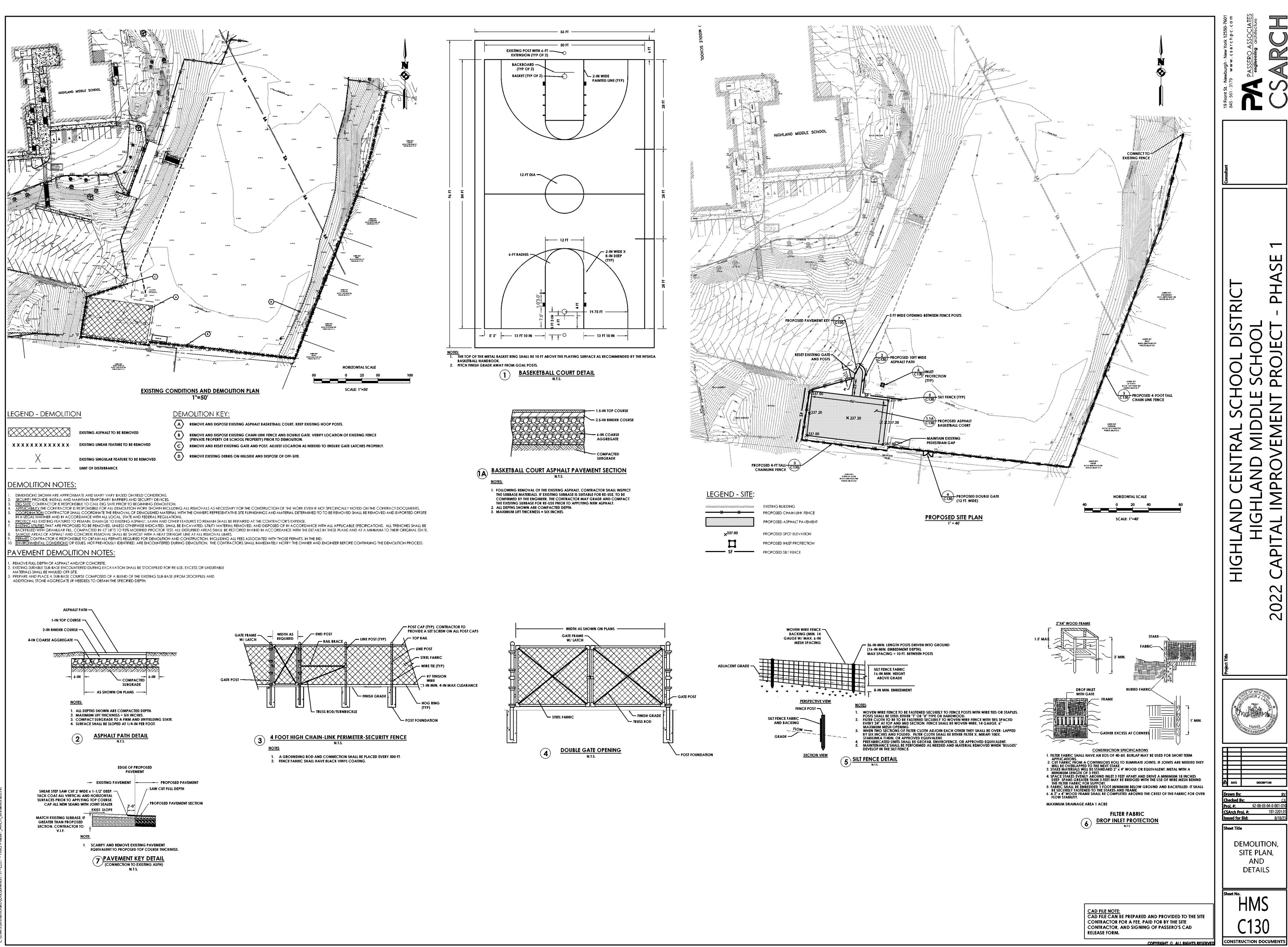


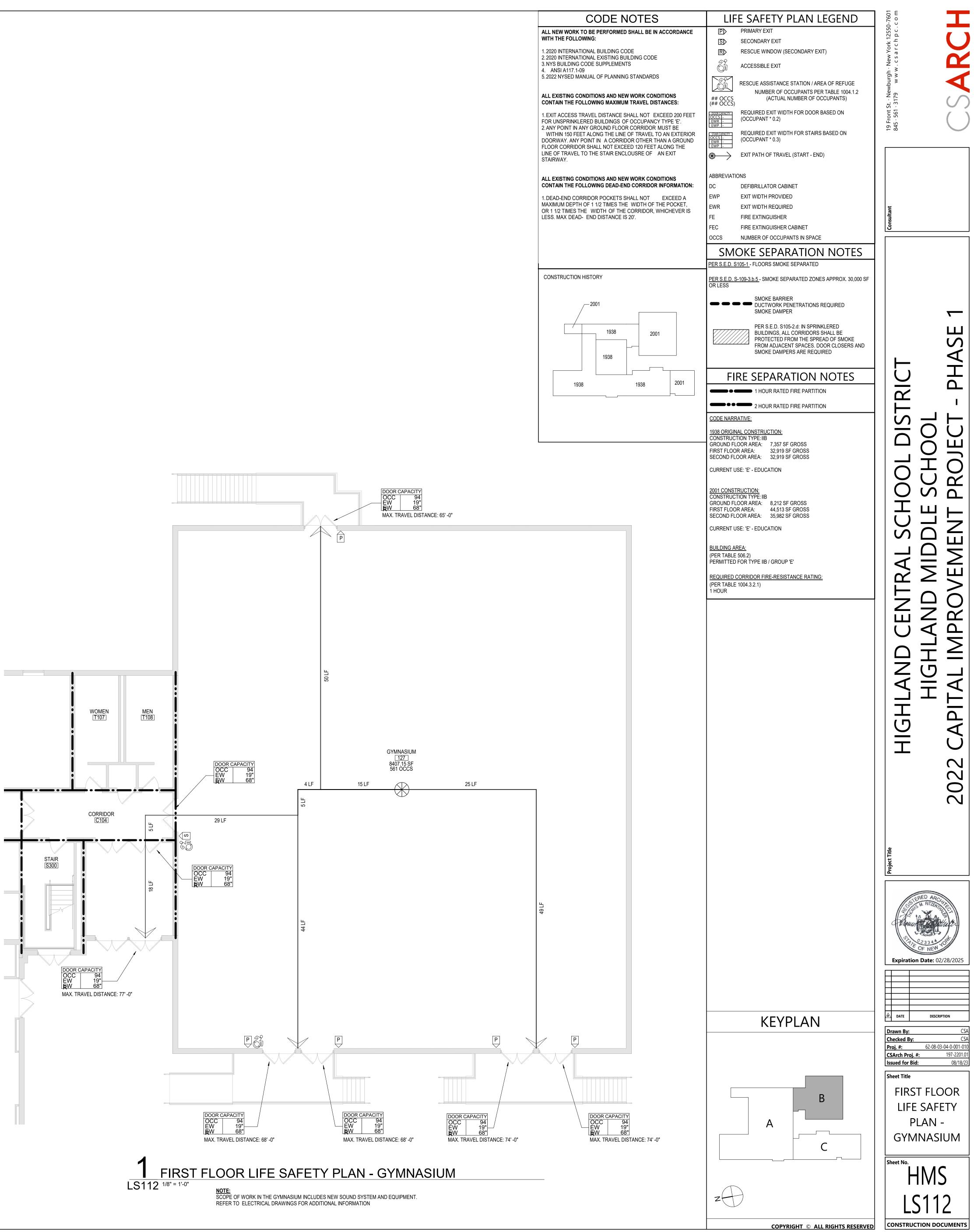


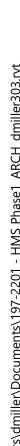
HORIZONTAL SCALE 0 30 SCALE: 1"=60' COPYRIGHT © ALL RIGHTS RESERVED

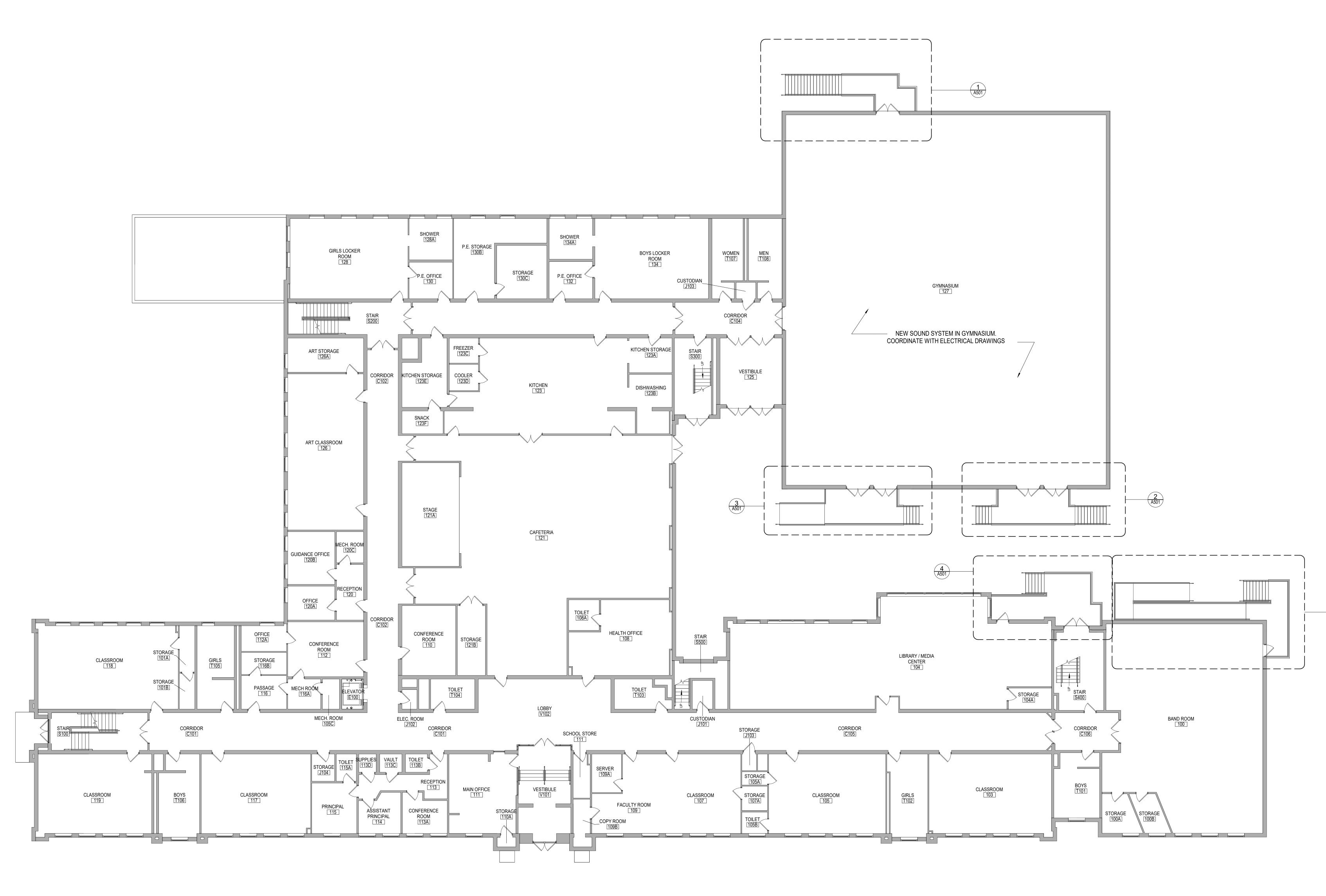




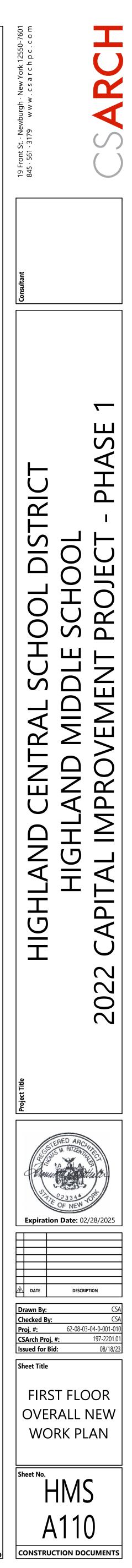






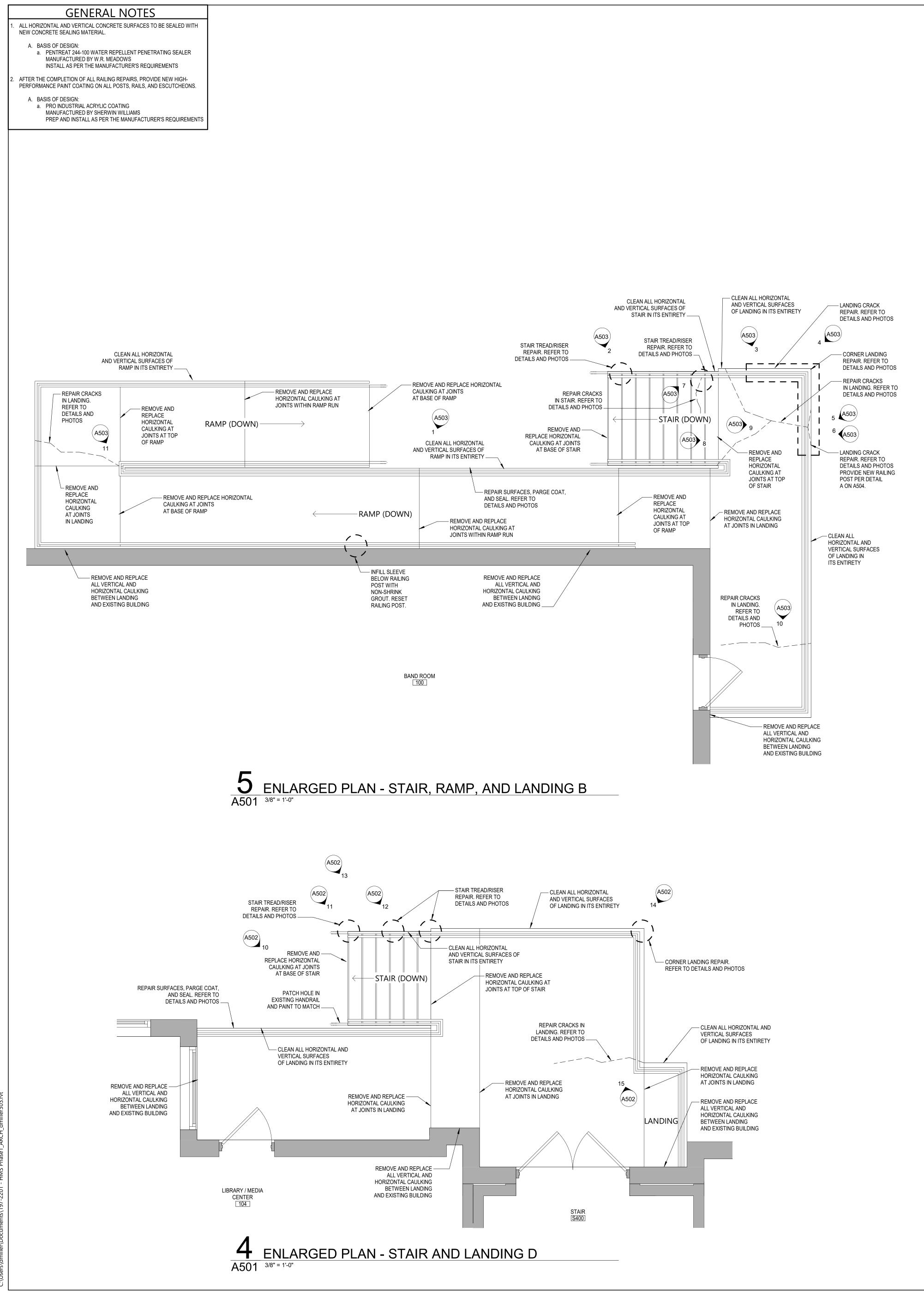


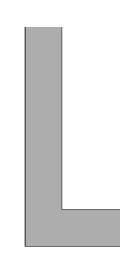
FIRST FLOOR OVERALL NEW WORK PLAN

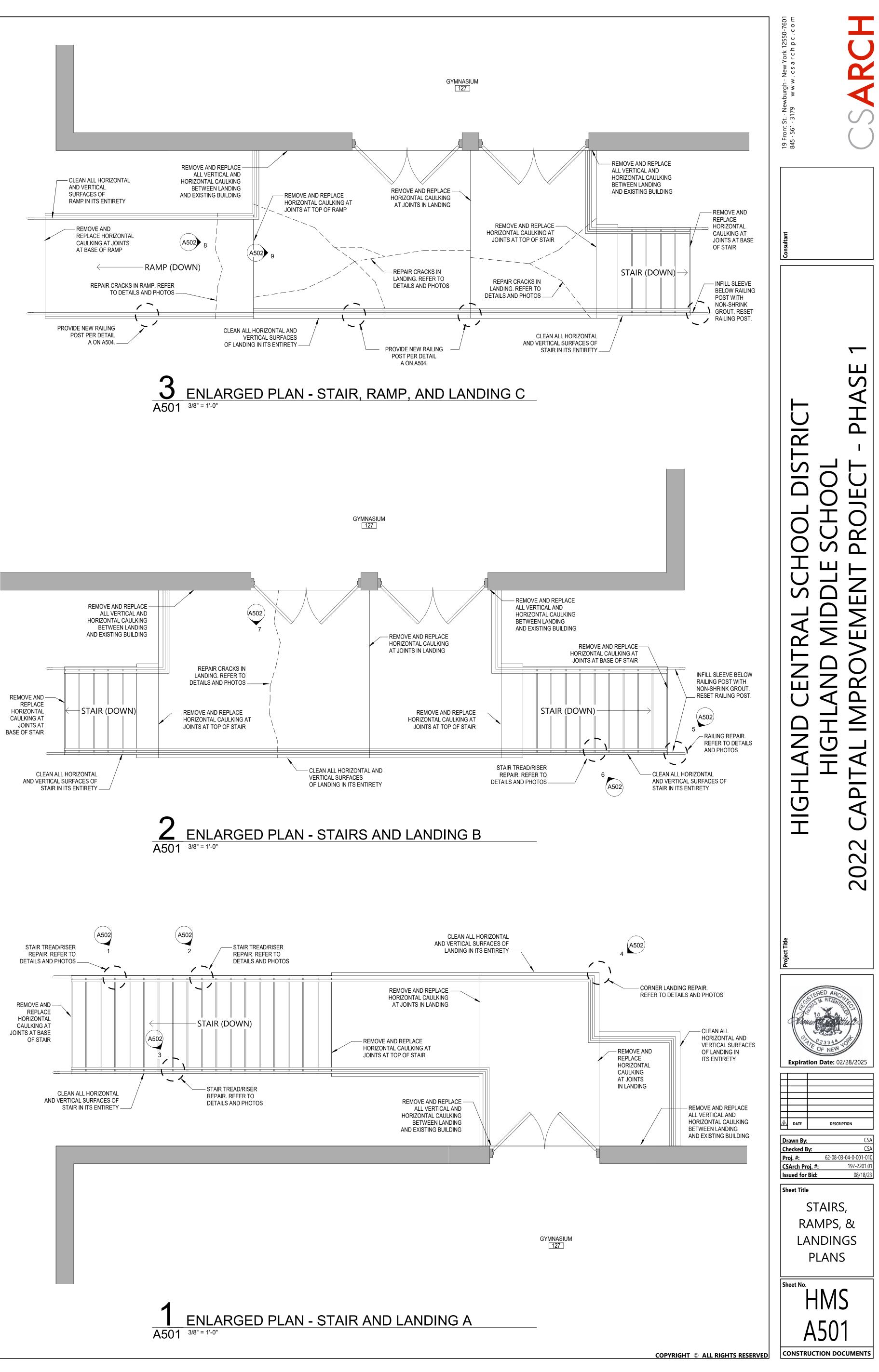


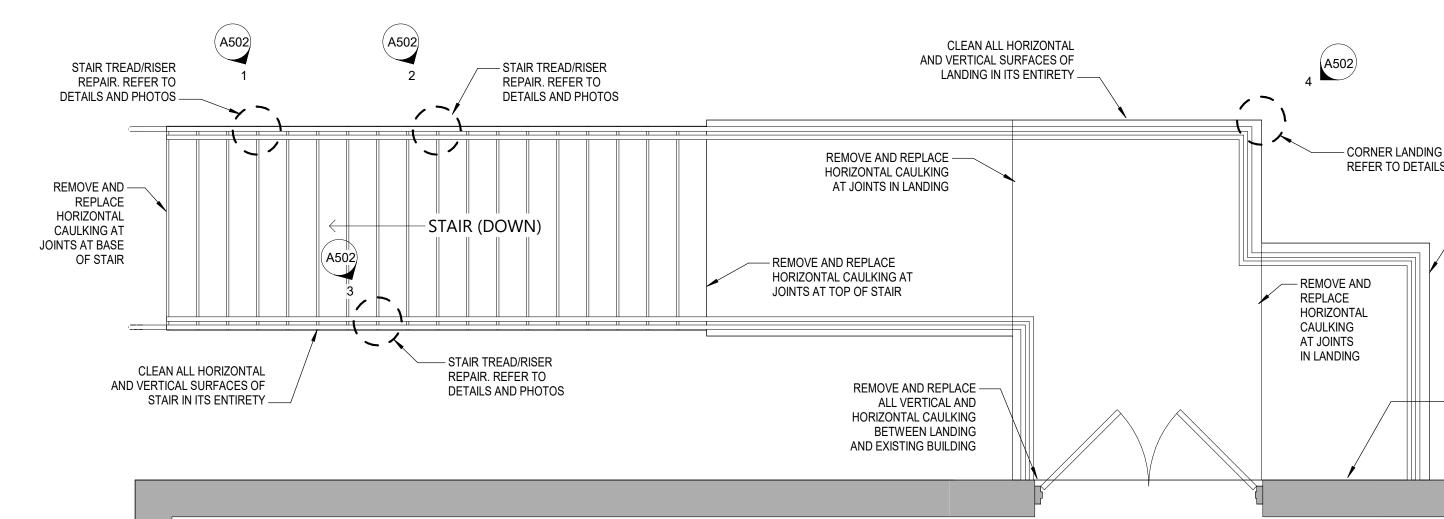
5 A501

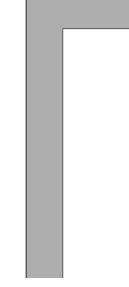
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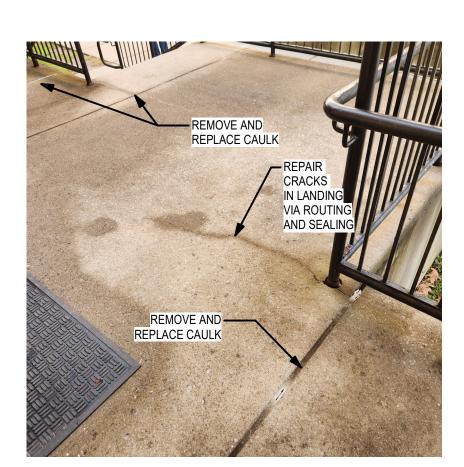


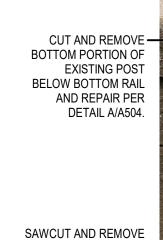


















14_{PHOTO AREA D - 005} A502 ^{12" = 1'-0"}



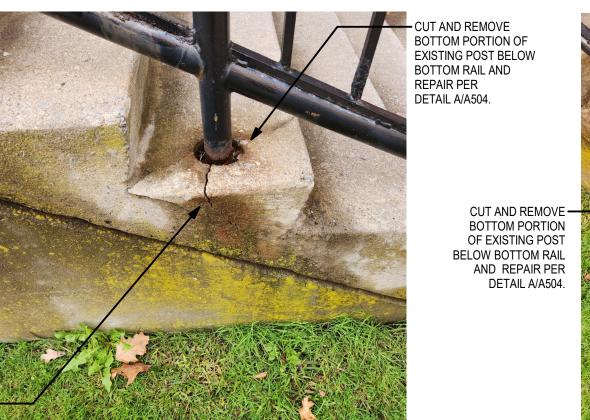




JT AND REMOVE BOTTOM PORTION OF EXISTING POST BELOW BOTTOM RAIL AND REPAIR PER DETAIL A/A504.

CLEAN SURFACE OF CONCRETE AND CONCRETE AND REPAIR CORNER OF TREAD PER DETAIL B/A504.

SAWCUT AND REMOVE DAMAGED PORTION OF CONCRETE. CLEAN SURFACE OF CONCRETE AND REPAIR PER DETAIL B/A504. -











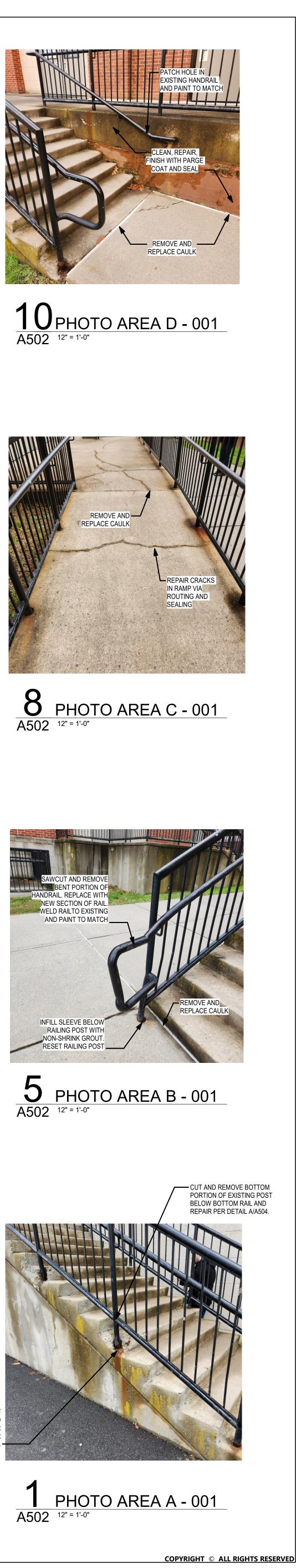




CONCRETE AND REPAIR CORNER OF TREAD PER DETAIL B/A504. AND REPLACE CAULK

LEAN SURFACE OF

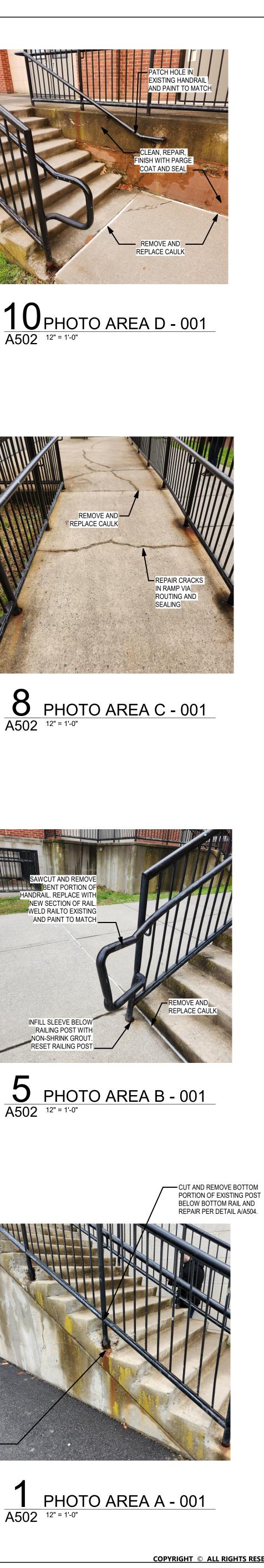
1 1 PHOTO AREA D - 002 A502 ^{12" = 1'-0"}











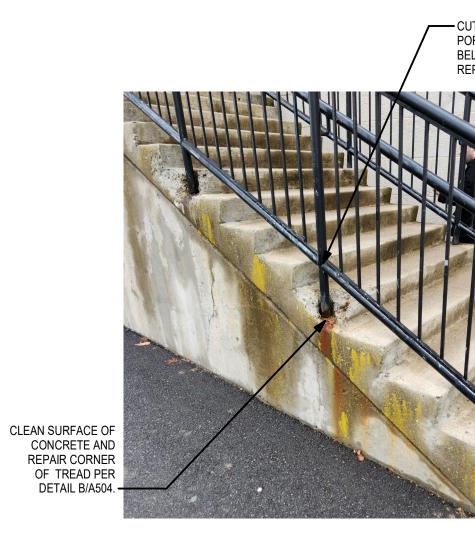




b PHOTO AREA B - 002 A502 ^{12" = 1'-0"}

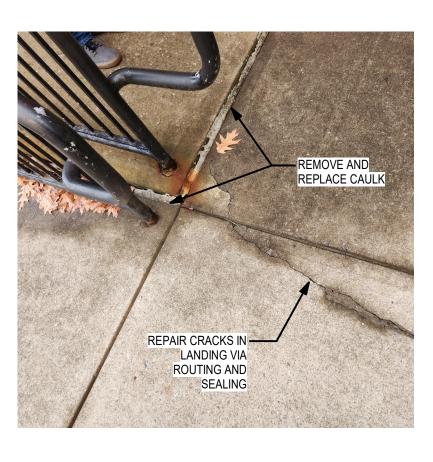




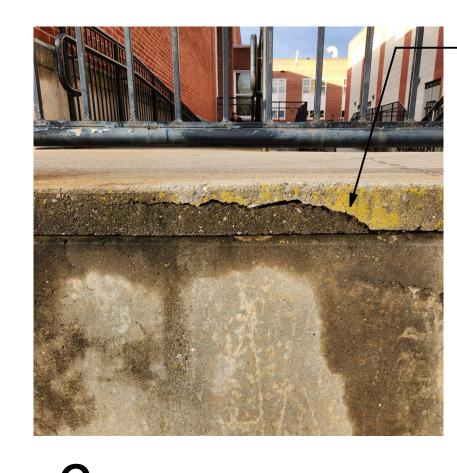








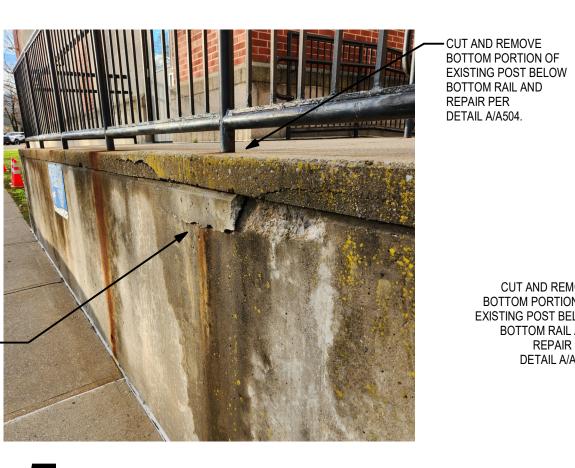
1 1 PHOTO AREA E - 011 A503 ^{12" = 1'-0"}





- SAWCUT AND REMOVE DAMAGED PORTION OF CONCRETE. CLEAN SURFACE OF CONCRETE AND REPAIR PER DETAIL B/A504.

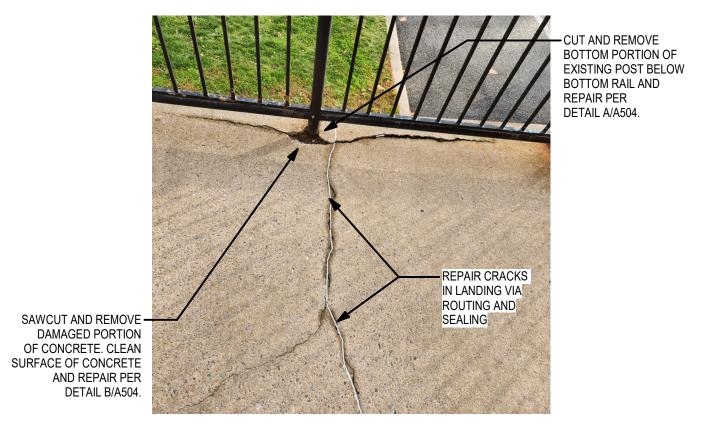
SAWCUT AND REMOVE DAMAGED PORTION OF CONCRETE. CLEAN SURFACE OF CONCRETE AND REPAIR PER DETAIL B/A504.



5 PHOTO AREA E - 005



10_{PHOTO AREA E - 010} A503 ^{12" = 1'-0"}



9 PHOTO AREA E - 009 A503 ^{12" = 1'-0"}

- SAWCUT AND REMOVE DAMAGED PORTION OF CONCRETE. CLEAN SURFACE OF CONCRETE AND REPAIR PER

DETAIL B/A504.

















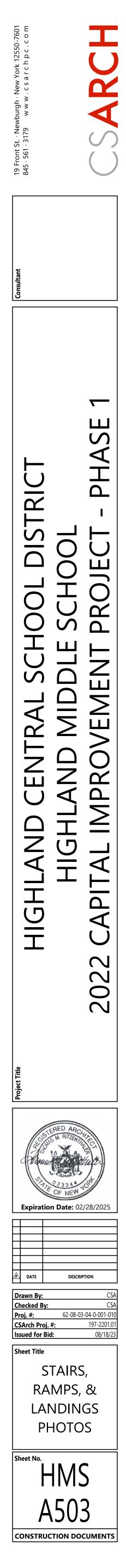


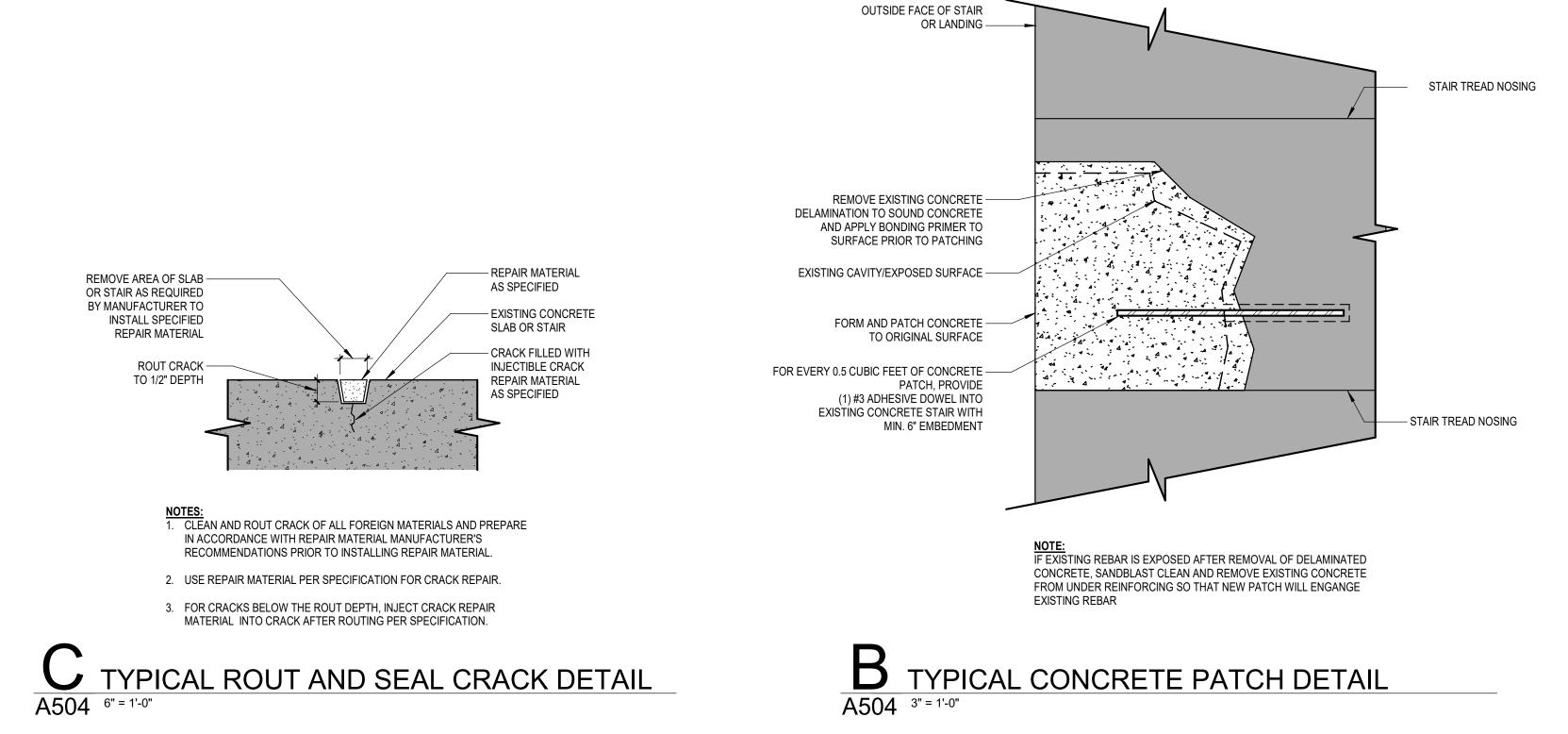
CUT AND REMOVE BOTTOM PORTION OF EXISTING POST BELOW BOTTOM RAIL AND REPAIR PER DETAIL A/A504.

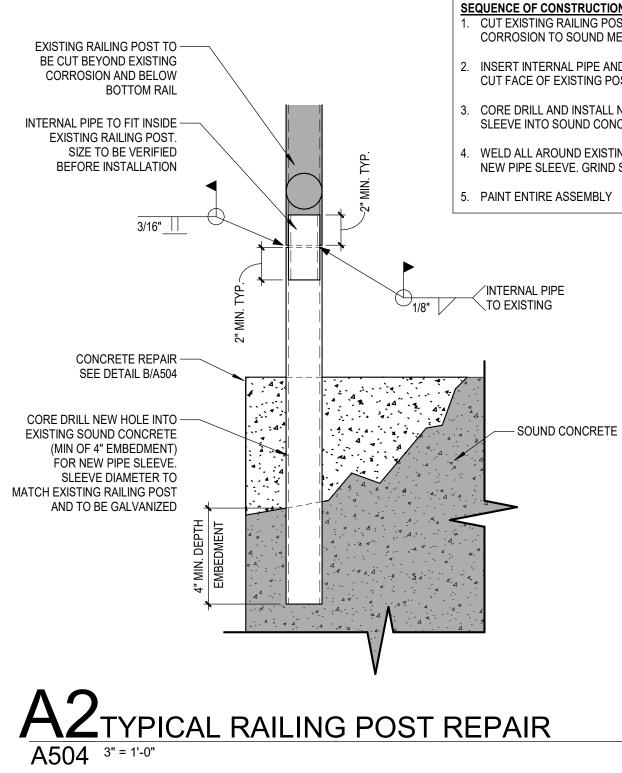
LEAN SURFACE OF CONCRETE AND REPAIR CORNER OF TREAD PER DETAIL B/A504.

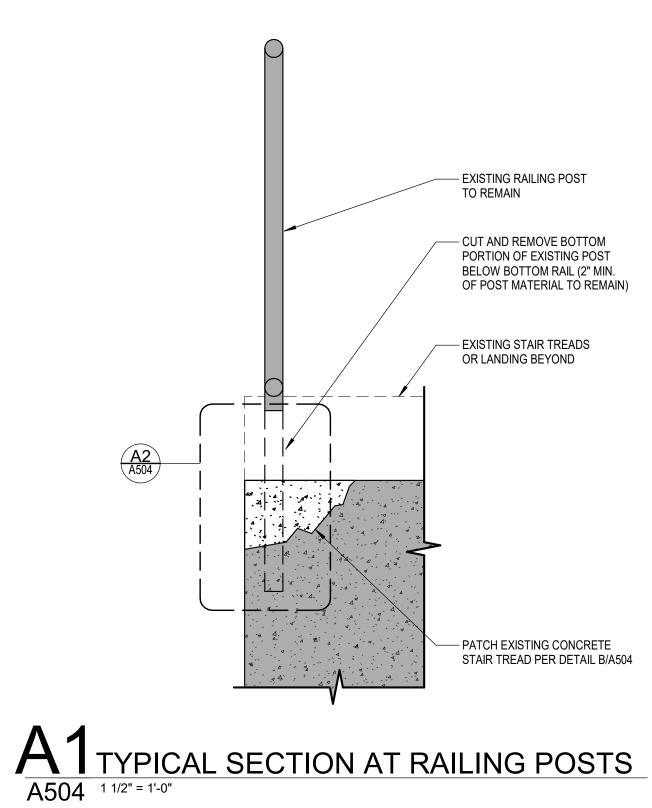


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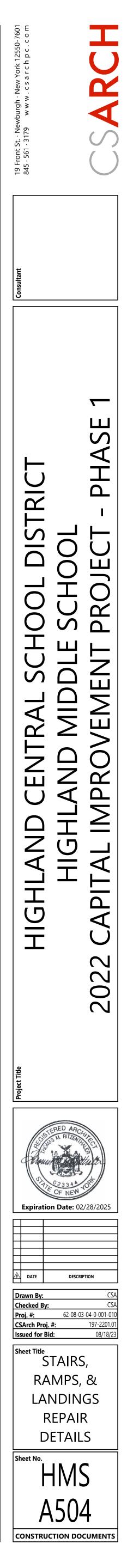


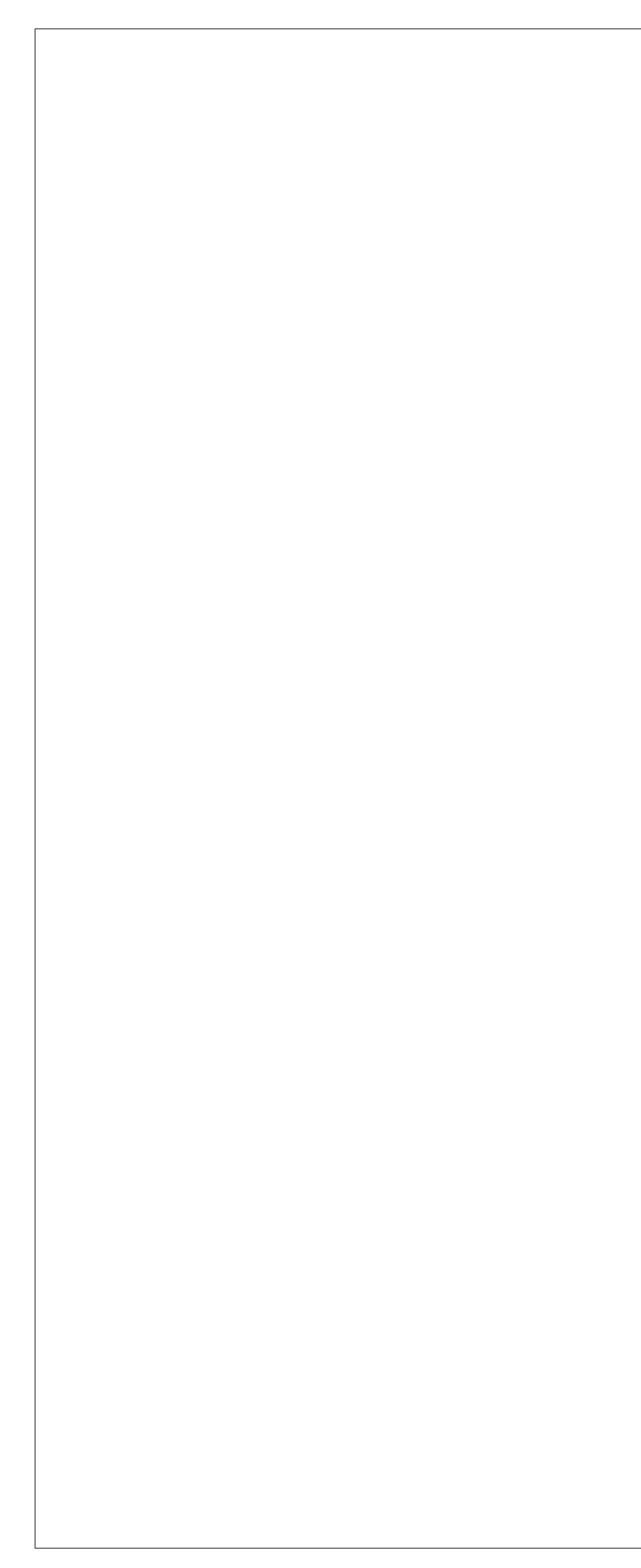






SEQUENCE OF CONSTRUCTION: 1. CUT EXISTING RAILING POST ABOVE CORROSION TO SOUND METAL. . INSERT INTERNAL PIPE AND WELD TO CUT FACE OF EXISTING POST. 3. CORE DRILL AND INSTALL NEW PIPE SLEEVE INTO SOUND CONCRETE. 4. WELD ALL AROUND EXISTING PIPE TO NEW PIPE SLEEVE. GRIND SMOOTH. — SOUND CONCRETE





ELECTRICAL LEGEND:

Ø	MOTOR				
Ē	EARTH GROUND				
0	JUNCTION BOX				
PB	PULL BOX	PULL BOX			
	FUSE WITH RATING				
\bigcirc	MOLDED CASE CIRCUIT BREAKER				
42	DISCONNECT SWITCH, FUSED				
-	DISCONNECT SWITCH, UNFUSED				
ч	STARTER, COMBINATION WITH DISCO	NNECT SWITCH			
	STARTER OR MOTOR CONTROLLER				
M	METER				
⊜	20A 120V DUPLEX CEILING MOUNTED	20A 120V DUPLEX CEILING MOUNTED RECEPTACLE			
₽	20A 120V DUPLEX WALL MOUNTED RE OTHERWISE NOTED	CEPTACLE; 18" A.F.F. UNLESS			
+	20A 120V DUPLEX WALL MOUNTED RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER				
\$	20A 120V QUADRAPLEX RECEPTACLE	20A 120V QUADRAPLEX RECEPTACLE			
- Ø	WALL MOUNTED SPECIAL PURPOSE RECEPTACLE				
€USB	20A 120V WALL MOUNTED USB CHARGER RECEPTACLE TYPICAL OF HUBBELL USB20X OR ACCEPTABLE EQUAL				
F	FLOOR BOX WITH STAINLESS COVER TYPICAL OF LEW EECTRIC #OB-1-SP OR ACCEPTABLE EQUAL; PUSH BUTTON OPEN; FULLY IP66 RATED WATER PROOF (WHEN IN CLOSED POSITION); W/ 20A 125V E60120 GFCI RECEPTACLE (UNLESS OTHERWISE NOTED)				
Δ_{M}	WALL PHONE OUTLET MTD. 48" A.F.F.; 3/4" EMT CDT. IN WALL TO ABOVE CEILING W/ PULL CORD				
\diamond	WALL BOX FOR TELEVISION CONNECTION; 1-1/4" EMT CDT. IN WALL TO ABOVE CEILING W/ PULL CORD				
Ψ	TELEPHONE/DATA COMMUNICATION BOX W/ (2) 3/4" EMT CDT. IN WALL TO ABOVE CEILING W/ PULL CORD; NO FACE PLATE				
ŧ	BRANCH CIRCUIT HOMERUN; LINES INDICATE NUMBER OF CIRCUITS, NEUTRAL, AND SWITCH LEG CONDUCTORS; ONE SEPARATE GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH HOMERUN; NOT SHOWN				
\$2	SWITCH BLANK = SINGLE POLE 3 = THREE-WAY D = DIMMER P = WITH PILOT LIGHT T = TIMER OPERATED X = EXPLOSION PROOF	2 = DOUBLE POLE 4 = FOUR-WAY K = KEY OPERATED PB= PUSH BUTTON WP= WEATHER PROOF OC= OCCUPANCY SENSOR			
\bowtie	HORN/STROBE DEVICE, ONE ASSEMB OTHERWISE NOTED; 15 CANDELA UNI				
\bowtie	STROBE DEVICE; MTD. 80" A.F.F. UNLESS OTHERWISE NOTED; 15 CANDELA UNLESS OTHERWISE NOTED				
	MANUAL PULL STATION; MTD. 48" A.F.F.				
Ŵ	WATER FLOW SWITCH				
	VALVE TAMPER SWITCH				
Øx	DETECTOR; LETTER INDICATES AS FOLLOWS: BLANK = SMOKE DETECTOR P = PHOTOELECTRIC SMOKE M = MULTIPLE STATION SMOKE ALARM D = PHOTOELECTRIC DUCT SMOKE DETECTOR				
Θ_{R}	RATE OF RISE HEAT DETECTOR, 135°F				
CO	CARBON MONOXIDE DETECTOR; MTD. 60" A.F.F.				
FACP	ADDRESSABLE FIRE ALARM CONTROL PANEL				

ELECTRICAL NOTES:

- 1. ALL MATERIALS AND EQUIPMENT ARE TO BE NEW, UNUSED, AND FREE FROM DEFECTS OF ANY KIND. THE BASIS OF QUALITY SHALL BE THE LATEST REVISION OF ASTM, ANSI, OR OTHER ACCEPTABLE STANDARDS.
- 2. THESE DRAWINGS ARE DIAGRAMMATIC, AND INDICATE GENERAL ARRANGEMENT OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO HAVE REVIEWED THE SITE FOR HIS WORK PRIOR TO HAVING SUBMITTED HIS PROPOSAL. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR CONDITIONS FOUND DURING THE COURSE OF THE CONTRACT.
- 3. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF ALL OTHER TRADES.
- ALL WORK INCLUDING LABOR AND MATERIALS SHALL BE FULLY GUARANTEED FOR ONE (1) YEAR FROM THE DATE OF PAYMENT AND FINAL ACCEPTANCE BY THE OWNER AND ENGINEER.
- 5. ALL CUTTING, PATCHING, FIRE-STOPPING, AND SURFACE RESTORATION IN CONNECTION WITH THIS TRADE SHALL BE COMPLETED BY THIS CONTRACTOR.
- 6. A MINIMUM OF FOUR (4) COPIES OF SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO ORDERING AND INSTALLATION OF THE EQUIPMENT AND/OR MATERIALS. BY SUBMITTING SHOP DRAWINGS, THE CONTRACTOR REPRESENTS THAT ACTUAL FIELD CONDITIONS ARE VERIFIED BY HIM AND ARE REFLECTED ON HIS SUBMITTALS.
- 7. THIS CONTRACTOR SHALL PAY ALL FEES, GIVE ALL NOTICES, FILE ALL NECESSARY DRAWINGS, AND OBTAIN ALL PERMITS, INSPECTIONS AND CERTIFICATES OF APPROVAL REQUIRED IN CONNECTION WITH WORK UNDER THIS CONTRACT.
- EQUIPMENT AND MATERIALS FOR WHICH UNDERWRITERS LABORATORIES INC. (UL) PROVIDES PRODUCT LISTING SERVICE SHALL BE LISTED AND BEAR THE LISTING MARK.
- 9. ALL WORK IN ASSOCIATION WITH THIS CONTRACT SHALL BE COMPLETED IN STRICT COMPLIANCE WITH THE 2017 NATIONAL ELECTRIC CODE, 2020 BUILDING CODE OF NEW YORK STATE, 2020 FIRE CODE OF NEW YORK STATE & 2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE.
- 10. ALL NEW LIGHTING FIXTURES SHALL BE INSTALLED FULLY LAMPED AND OPERABLE. THE CONTRACTOR SHALL TURN OVER TO THE OWNER SPARE LAMPS OF EVERY TYPE ON THE PROJECT IN AN AMOUNT NOT LESS THAN 20% OF THE TOTAL NUMBER OF EACH TYPE (MINIMUM 1 PER TYPE).
- 11. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION, APPLICATIONS AND FEES OF ALL WORK ASSOCIATED WITH THE LOCAL UTILITY COMPANY AND/OR THE TELEPHONE COMPANY. ALL WORK INVOLVING THE UTILITY COMPANY SHALL BE COMPLETED IN ACCORDANCE WITH THEIR REGULATIONS AND GUIDELINES.
- ALL CONDUCTORS SHALL BE COPPER, SHALL NOT BE LESS THAN #12 AWG, AND SHALL NOT EXCEED 70 FEET FROM PANEL BOARD TO FURTHEST CONNECTION UNLESS OTHERWISE NOTED ON PLANS.
- 13. LIGHTING LOADS SHALL NOT BE COMBINED ON THE SAME CIRCUIT AS ANY OTHER ELECTRICAL LOADS.
- 14. CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH & INSTALL ALL SMALL DETAILS AND INCIDENTAL WORK NOT SHOWN OR SPECIFIED, BUT WHICH CAN BE REASONABLY INFERRED AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM OF HIGH QUALITY MEETING ALL APPLICABLE CODES AND REGULATIONS.
- 15. FOR EACH NEW OR MODIFIED ELECTRICAL PANEL, THE CONTRACTOR SHALL PROVIDE A TYPE WRITTEN DIRECTORY CARD TO REFLECT ALL CIRCUITING. ADDITIONALLY, THE CONTRACTOR SHALL LABEL (WITH A PERMANENT MARKER OR LABEL) EACH RECEPTACLE ON THE INSIDE OF EACH FACE PLATE WITH PANEL AND CIRCUIT NUMBER DESIGNATION.
- 16. MINIMUM REQUIREMENT FOR EQUIPMENT GROUNDING SHALL BE GOVERNED BY THE NEC. ALL GROUNDS, BONDING, ETC. SHALL MEET THESE REQUIREMENTS. THE CONTRACTOR SHALL FURNISH AND INSTALL ANY AND ALL ITEMS NECESSARY TO MEET THESE REQUIREMENTS AT NO EXTRA COST, EVEN IF SUCH ITEMS ARE NOT DETAILED ON THE DRAWINGS.
- 17. ALL CONDUIT AND CABLE SHALL BE PROPERLY SUPPORTED AND ROUTED PARALLEL OR PERPENDICULAR TO BUILDING WALLS. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL SUPPORT HANGERS AND MISCELLANEOUS METALS REQUIRED FOR PROPER INSTALLATION OF WORK.
- 18. THE CONTRACTOR IS RESPONSIBLE TO TEST ALL EQUIPMENT, WIRING, DEVICES, AND SYSTEMS INSTALLED UNDER THIS CONTRACT TO ENSURE PROPER OPERATION PRIOR TO FINAL ACCEPTANCE BY THE OWNER AND ENGINEER.
- 19. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE WHETHER SPECIAL LICENSING IS REQUIRED IN ORDER TO PERFORM THE REQUIRED WORK IN THE MUNICIPALITY WHERE THE PROJECT IS LOCATED. IF THE CONTRACTOR CANNOT OBTAIN THE REQUIRED LICENSING TO COMPLETE THE WORK WITHIN THE PROJECT SCHEDULE, THEN THE CONTRACTOR SHALL NOT BE PERMITTED TO BID ON THIS PROJECT.

	WIF	RE CO	LOR	COD	ING '	TABL	E
PHASE	WIRES	VOLTAGE	L1	L2	L3	NEUTRAL	G
1	2 (1)	120	BLACK	-	-	WHITE	
1	2 (1)	208	BLACK	RED	-	-	
1	3	120	BLACK	-	-	WHITE	G
1	3	208	BLACK	RED	-	-	G
3	4	208	BLACK	RED	BLUE	-	G
3	5	208	BLACK	RED	BLUE	WHITE	G
1	3	277	BROWN	-	-	GRAY	G
1	3	480	BROWN	ORANGE	-	-	G
3	4	480	BROWN	ORANGE	YELLOW	-	G
3	5	480	BROWN	ORANGE	YELLOW	GRAY	G
NOTES:		•		•	•		I

FOR DOUBLE INSULATED EQUIPMENT ONLY. GREEN/YELLOW MAY BE USED:

- GREEN/YELLOW SHALL BE GREEN WITH ONE OR MORE YELLOW STRIPES.
- GREEN = 50 TO 70%, YELLOW = 50 TO 30%.
- GREEN/YELLOW IS THE ONLY COLOR INTERNATIONALLY ACCEPTED FOR

USE AS AN EQUIPMENT GROUNDING CONDUCTOR.

- GREEN OR GREEN/YELLOW <u>MUST</u>ONLY BE USED FOR GROUNDING CONDUCTORS.

DEVICE MOUNTING HEIGHTS		
POWER RECEPTACLES (INTERIOR)	18" A.F.F.	
POWER RECEPTACLES (EXTERIOR)	36" A.F.G.	
POWER RECEPTACLES (@ COUNTER)	44" A.F.F.	
LIGHT SWITCHES	44" A.F.F. TO TOP OF I	
DISCONNECT SWITCHES	SEE NEC 404.8(A)	
TELEPHONE/DATA RECEPTACLES	18" A.F.F.	
TELEPHONE/DATA RECEPTACLES (@ COUNTER)	44" A.F.F.	
WALL TELEPHONE RECEPTACLES	48" A.F.F. TO TOP OF I	
FIRE ALARM PULL STATIONS	42" A.F.F. MIN./44" A.F.	
FIRE ALARM AUDIO/VISUAL DEVICES	80" A.F.F. MIN./96" A.F.	
EXIT LIGHTS (WALL MOUNTED)	12" ABOVE DOOR	
EMERGENCY LIGHTS (WALL MOUNTED)	90" A.F.F.	
TV & A/V OUTLETS	18" A.F.F.	
NOTE: ALL DIMENSIONS ARE TO CENTER OF DEVIC	E UNLESS OTHERWISE	

