

RICHMOND Application	Application for URBAN DESIGN COMMITTEE Review							
KICHMOND VRGINIA	Department of Planning and Development Revi Planning & Preservation Divisi 900 E. Broad Street, Room 5 Richmond, Virginia 232 (804) 646-63 http://www.richmondgov.com/CommitteeUrbanDes							
Application Type Addition/Alteration to Existing Structure New Construction Streetscape Site Amenity	Encroachment Master Plan Sign Other	Review Type Conceptual Final						
Project Name: Project Address: Brief Project Description (this is not a replaceme								
Applicant Information (on all applications other than encroachments, a City agend								
Name: City Agency:								
Address:								
Main Contact (if different from Applicant):								
Company:								
Email:								

Submittal Deadlines

All applications and support materials must be filed no later than 21 days prior to the scheduled meeting of the Urban Design Committee (UDC). Please see the schedule on page 3 as actual deadlines are adjusted due to City holidays. Late or incomplete submissions will be deferred to the next meeting.

Filing

Applications can be mailed or delivered to the attention of "Urban Design Committee" at the address listed at the top of this page. It is important that the applicant discuss the proposal with appropriate City agencies, Zoning Administration staff, and area civic associations and residents prior to filing the application with the UDC.

UDC Background

The UDC is a ten member committee created by City Council in 1968 whose purpose is to advise the City Planning Commission on the design of projects on City property or right-of-way. The UDC provides advice of an aesthetic nature in connection with the performance of the duties of the Commission under Sections 17.05, 17.06 and 17.07 of the City Charter. The UDC also advises the Department of Public Works in regards to private encroachments in the public right-of-way.



CITY OF RICHMOND, VIRGINIA RICHMOND POLICE EQUESTRIAN CENTER

Project Narrative

For

Urban Design Committee 'Final' Review

May 17, 2018 Architect's Project Number: 563102



OVERVIEW

This project consists of designing and constructing a new Equestrian Center for the Richmond Police Department's mounted unit to replace the aging and operationally deficient stable currently located at 801 Brook Rd, Richmond Virginia 23220. The new building will consist of a wood framed structure with metal wall and roof panels and associated site amenities.

PURPOSE

The proposed equestrian community center should be re-located to a city owned property. This request is aligned with Focus Area 3-Community Safety & Well Being.

BACKGROUND

As early as 1894, mounted officials patrolled the outskirts of the city, thus establishing the Richmond Police Mounted Unit as the oldest mounted unit in the Commonwealth. The Mounted Unit relocated to the present location at 801 Brook Road in 1972. The current building has significant operational deficiencies and substantial ongoing facility maintenance problems. In 2004 and 2008, tropical storms hit the city causing a 3 to 4 foot high water, mud and sewage cascading through the stables. Horses were trapped and there was substantial damage and/or loss to the structure, equipment, vehicles and furnishings. The mounted stable has deteriorated to the point where it is no longer an acceptable workspace for employees nor does the building provide a healthy and safe boarding environment for the work animals.

COST

The total project budget (including soft and hard costs) is \$1.5 million. The funding Source is General Obligation Bonds

LOCATION

The new facility is proposed to be constructed at 3900 Crestview Road, Richmond VA 23223.

BUILDING

The building will include a main first floor level that will accommodate an administration area for the mounted officers and a stable area for the horses and related functions such as tack room, wash bays, laundry room, and farrier area. A hay loft will be included above the stable for the storage of hay and will include floor openings to facilitate feeding the horses by dropping hay directly into the feeders in the stalls below.

An open office area will be provided with workstations for approximately 8 to 10 mounted officers in addition to a private office for the sergeant in charge. A training classroom/conference room will be provided to accommodate approximately 20-25 persons for regional equestrian training and educational tours. The administration area will also provide a break room and storage cabinets for operational & office needs. Associated support spaces including toilet and locker facilities will be provided.

Exterior walls will be clad with metal wall panels and will metal clad facias and soffits. Exposed wood framing will support the front entry "porch".

ROOF

The roof will consist of an insulated roof assembly with metal roof panels. Asphalt shingles may also be considered if necessary to stay within the project's budget. Functional cupolas will be provided in the barn area to facilitate ventilation.

BUILDING AREA

The approximate gross floor areas (measured to the outside face of the exterior walls) of each floor level is as follows:

First Floor "Stable"	4,310 SF
First Floor "Administration"	2,220 SF
First Floor "Run-outs"	1,740 SF (Covered Overhang)
Second Floor "Hay loft"	2,400 SF (Unfinished)
Total	10,670 SF

SITE

The site amenities will include a gravel parking area for visitors, staff, police vehicles, and horse trailers. A paved accessible parking space and access aisle will also be provided to meet accessibility codes. Turning radiuses will be designed to accommodate hay deliveries via tractor trailers. Hay is purchased in bulk so the deliveries are infrequent, typically just a few times per year. Other site amenities will include pastures for the horses, a training ring comprised of sand or sand and dirt; or, clay and silt; a round pen for training, and a bin for bedding (wood shavings) storage. An area for a dumpster will also be provided with an access ramp to facilitate staff dumping wheelbarrows directly into the top of the dumpster after cleaning out the stalls.

BUILDING CODES

The building will be designed to comply with the Virginia Construction Code (2012 ICC with Virginia amendments) as well as the Americans with Disabilities Act. The occupancy use classification will be a mixed with the stable area being classified as a Group U, Utility and the administration area as a Group B, Business occupancy.

UDC COMMENTS

The UDC review comments received during the conceptual presentation were addressed as follows:

1. Consider changing the proportion and size of the windows:

The windows sizes were increased and the proportions refined. The sill height of 48 inches was retained for passive security purposes so that officers are not visible when seated in the rooms.

2. The landscape design should be minimalistic and prioritize shade trees in the parking areas.

This is reflected in the landscape design for the project.

3. Could the dumpster be relocated to a less prominent location?

The dumpster was relocated to the far side of the building away from the site entrance so that it is concealed by the building.

4. Could the building orientation or layout could be revised so that the conference room does not look directly out to the parking lot?

This request was considered, however for functional reasons this was not feasible. It is noted that due to the high sill height, the parking lot will not be visible from a seated position.

5. The site grading is difficult to understand, could the design team provide a rendering that more accurately reflects the site grading.

Please refer to the updated rendering included with this submission that more accurately reflect the proposed site topography.

6. Could the site could be modified to bring the pasture areas closer to the site so that the horses are not traversing the parking lot to get to the pastures.

There is room around the perimeter of the parking lot for the horses to be moved from the stables to the pastures. These police horses also ride in traffic with vehicles almost daily so the location of the parking lot is not considered to be problematic by the end users. The stormwater management area was relocated after the conceptual UDC submission. This allowed each of the pastures to be connected from the first pasture nearest the stables to the last pasture which is an improvement over the previous submission. The end users who will occupy this facility upon completion confirmed that for functional reasons the site layout as currently designed is preferred and will meet theirs and the horses' needs. They also indicate that it will be easy to move the horses from the eastern end of the stables around the site to the various pastures and training areas.

7. Please provide a site lighting plan and specify full cutoff LED fixtures with a color temperature of 3,000k.

This request was incorporated into the design. A photometric site plan has been included that illustrates there is no light trespass onto adjacent properties. Cut sheets are included with this submission for the proposed fixture.

APPENDIX A

Exterior Renderings

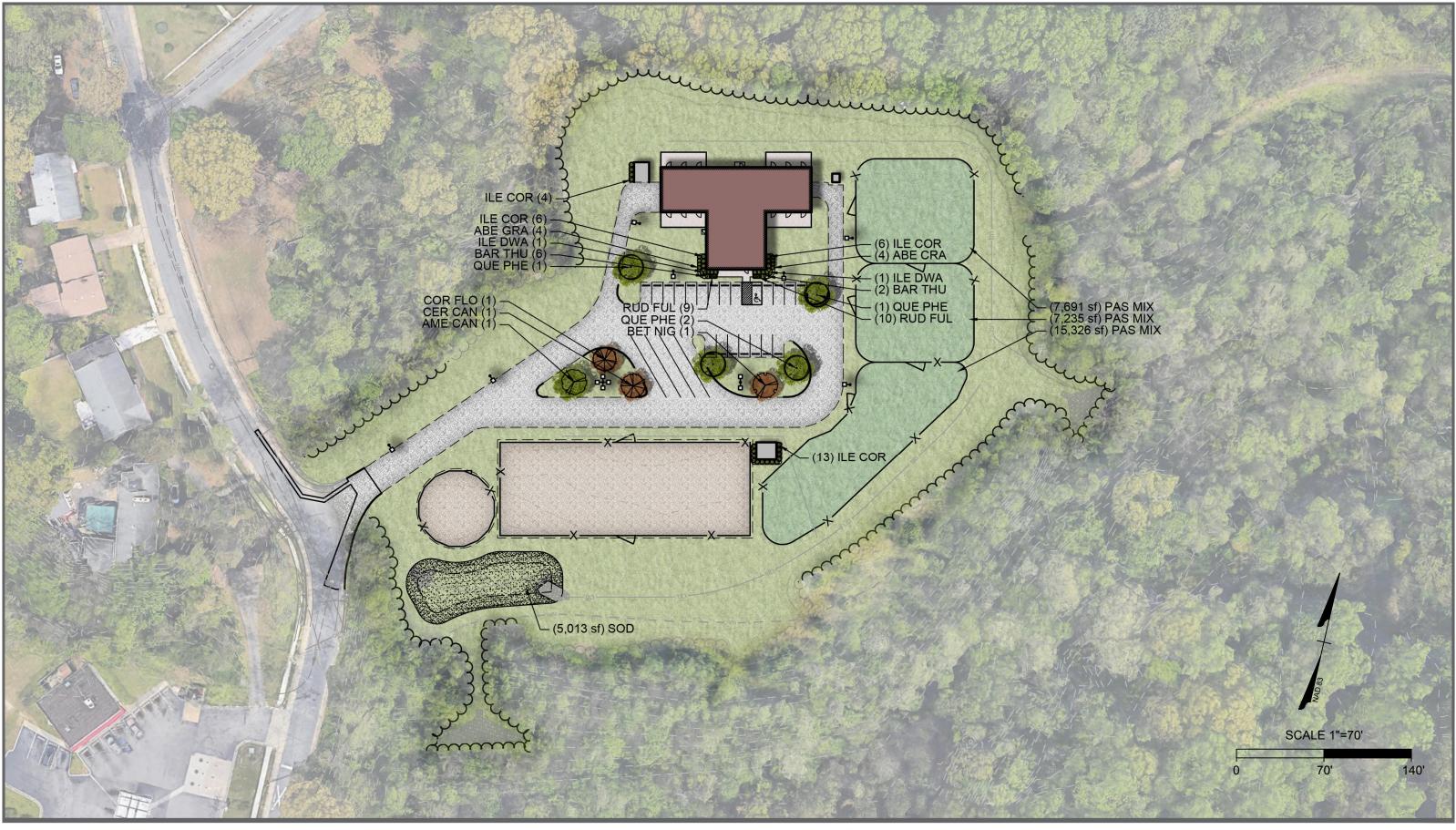






APPENDIX B

Drawings



UDC Landscape Plan

Richmond Police Equestrian Center - May 17, 2018







Miverse Volleetion Large LLL OOL IITE FEATURES



- 13 standard powder coat finishes
- Upgrade Kits



SPECIFICATIONS

distributions

3000K, 4000K, 5000K CCT 0-10V dimming ready

The first dimension is the height of fixtures with LEDs or horizontal reflectors EPA for horizontal configuration only.

HOOD	NO LUMINOUS	4 LUMINOUS WINDOW (WND)	SOLID RINGS (SR)	VERTICAL SLOTS (VSL)	LUMINOUS RINGS (LUM)
Angled (ANG)	HT: 21.4*/454 mm WT: 47 lbs EPA: 1.12	HT: 26.7"/680 mm WT: 28.55 lbs EPA: .60	HT: 26.7*/680 mm WT: 55 lbs EPA: 1.36	HT: 26.7*/680 mm WT: 48 lbs EPA: 1.35	HT: 26.7"/680 mm WT:50 lbs EPA: 1.36
Bell (BEL) DIA: 30*/760 mm	HT: 22"/560 mm WI: 47 lbs EPA: 1.16	HT: 26.7%680 mm WT: 48 lbs EPA: 1.38	HT: 26.7"/680 mm WT: 55 lbs EPA: 1.39	HT: 26.7*/680 mm WT: 48 lbs EPA: 1.38	HT: 26.7"/680 mm WT: 50 lbs EPA: 1.39
Flared (FLR)	HT: 21"/535 mm WT: 47 lbs EPA: 1.05	HT: 26.7"/680 mm WT: 48 lbs EPA: 1.27	HT: 26.7"/680 mm WT: 55 lbs EPA: 1.28	HT: 26.7"/680 mm WT: 48 lbs EPA: 1.27	HT: 26.7%680 mm WT: 50 lbs EPA: 1.28
Skirted Bell (SKB)	HT: 27.25*/693 mm WT: 48 lbs EPA: 1.72	HT: 32.5"/826 mm WT: 49 lbs EPA: 1.95	HT: 32.25*/820 mm WT: 56 lbs EPA: 1.96	HT: 32.5*/826 mm WT: 49 lbs EPA: 1.95	HT: 32.25'/820 mm WT: 50 /bs EPA: 1.96
17760	ITECTURAL AREA LIGHTIN 1 Rowland Street I City of Ind	ustry I CA 91748 JOB		ւֆլ	JS 👬 🕮
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TREES	QTY	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	ROOT	
AME CAN	1	AMELANCHIER CANADENSIS	CANADIAN SERVICEBERRY	2.5" CAL.	B&B	
BET NIG	1	BETULA NIGRA `HERITAGE`	HERITAGE RIVER BIRCH	2.5" CAL.	B&B	
CER CAN	1	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY REDBUD	2.5" CAL.	B&B	
COR FLO	1	CORNUS FLORIDA `CLOUD NINE`	CLOUD NINE EASTERN DOGWOOD	2.5" CAL.	B&B	
QUE PHE	4	QUERCUS PHELLOS	WILLOW OAK	2" CAL.	B&B	
	·					
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT	SPACING
ABE GRA	8	ABELIA X GRANDIFLORA `KALEIDOSCOPE`	GLOSSY ABELIA	24" HT./SPRD.	CONTAINER	36" o.c.
BAR THU	4	BERBERIS THUNBERGII 'CONCORDE'	CONCORDE BARBERRY	24" HT./SPRD.	CONTAINER	48" o.c.
ILE COR	29	ILEX CORNUTA `CARISSA`	CARISSA HOLLY	24" HT./SPRD.	CONTAINER	48" o.c.
ILE DWA	2	ILEX CORNUTA `DWARF BURFORD`	DWARF BURFORD HOLLY	36" HT./SPRD.	CONTAINER	72" o.c.
	•	•				•
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	ROOT	SPACING
RUD FUL	19	RUDBECKIA FULGIDA `GOLDSTRUM`	CONEFLOWER	1 QT.	CONTAINER	18" o.c.
		-			•	•
SOD/SEED	QTY	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	ROOT	SPACING
PAS MIX	25,547 SF	PRO HORSE PASTURE MIX	PASTURE MIX	SOD / SEED		
SOD	5,013 SF	SOD	SOD	SOD / SEED		

GENERAL LANDSCAPE MAINTENANCE AND CARE

A. DESIGN PHILOSOPHY

THE INTENT OF LANDSCAPE MAINTENANCE IS TO PERPETUALLY GUIDE ONGOING STEWARDSHIP OF EXISTING/RETAINED AND NEWLY INSTALLED PLANTINGS ASSOCIATED WITH SITE DISTURBING ACTIVITIES.

- FOR DESIGNED OR DOMESTICATED LANDSCAPES, MAINTENANCE SHALL BE PERFORMED IN A MANNER THAT RETAINS THE INTENT OF THE ORIGINAL/APPROVED PLANTING AND SITE DESIGN.
- FOR NATURALLY OCCURRING LANDSCAPES, MAINTENANCE SHALL BE PERFORMED IN A MANNER THAT RETAINS THE SITE'S NATURAL CHARACTER, VISUAL AND ENVIRONMENTAL QUALITY.
- ALL PLANTINGS SHALL BE CONSISTENTLY MAINTAINED IN A FLOURISHING AND VIGOROUS GROWING CONDITION.

B.PLANT MAINTENANCE

- 1. LAWN MAINTENANCE
- a.MOWING- MOW AS NEEDED TO A HEIGHT OF 2.5" -3.5" FOR COOL SEASON VARIETIES USING SHARP BLADES. DO NOT REMOVE MORE THAN 1/3 OF THE LEAF AT ANY MOWING, WARM SEASON GRASSES CAN BE MOWED LOWER DOWN TO 1"-2".
- **b.TRIMMING- MAINTAIN ALL SHAPES AND CONFIGURATIONS OF PLANT** BEDS AS ORIGINALLY INSTALLED
- c.AERATION- CORE AERATE USING A MECHANICAL PLUG AERATOR ONCE EVERY FALL PRIOR TO SEEDING AND FERTILIZING FOR COOL SEASON GRASSES; EARLY SUMMER FOR WARM SEASON GRASSES.
- d. OVERSEEDING- OVERSEED AS NEEDED ON THIN AREAS USING DESIRED VARIETIES SELECTED FROM THE CURRENT VIRGINIA TUREGRASS VARIETY RECOMMENDATIONS PUBLISHED BY VA TECH. APPLY AT THE RATE OF 4LBS/1000SOFT FOR COOL SEASON IN THE MONTH OF SEPTEMBER. WARM SEASON GRASSES SHOULD BE SOWN BETWEEN APRIL 15 AND JULY 30 AT THE RATE OF 1.5LB PER 1000SQFT. e.FERTILIZATION- AT A MINIMUM, APPLY 1-2 LBS OF NITROGEN PER 1000 SQ FT PER YEAR IN THE FALL FOR COOL SEASON AND EARLY SUMMER FOR WARM SEASON GRASSES OR AS NECESSARY BASED ON SOIL TEST RESULTS

f. SOIL TESTING- PERFORM EVERY TWO YEARS DURING THE GROWING SEASON AND UTILIZE FOR ADJUSTMENTS IN FERTILIZER APPLICATIONS

2. WATERING

- a.LAWNS, IF IRRIGATED, SHALL BE WATERED DURING DRY CONDITIONS AT A MINIMUM OF 1.5" PER WEEK OR TO A DEPTH OF 4". DROUGHT TOLERANT SPECIES MAY BE WATERED IF ADDITIONAL GROWTH OR VIGOR IS DESIRED. AVOID OVERWATERING TO REDUCE THE POTENTIAL FOR FUNGAL DISEASES AND INSECT INFESTATIONS.
- b.TREES/ SHRUBS- DURING THE FIRST TWO GROWING SEASONS TREES/SHRUBS SHALL BE WATERED THOROUGHLY ONCE EVERY TWO TO THREE WEEKS DURING DRY PERIODS. DURING THE THIRD YEAR, WATERING WILL BE NECESSARY DURING EXTENDED DRY PERIODS GREATER THAN 3 WEEKS, ONCE ESTABLISHED WATERING NATIVE AND ADAPTIVE SPECIES SHALL ONLY BE NECESSARY DURING EXTREME DROUGHT OR IF ADDITIONAL GROWTH OR VIGOR IS DESIRED. 3. TREE/SHRUB MAINTENANCE
- a.REMOVE INSTALLATION MATERIALS (GUY WIRES, STAKES, FLAGGING) AFTER ONE YEAR OR UNTIL ANCHORING ROOTS HAVE SUFFICIENTLY ESTABLISHED
- h REMOVE DEAD, DYING OR SEVERELY DAMAGED PLANTINGS AND REPLACE DURING THE NEXT PLANTING SEASON. TREES ARE CONSIDERED DEAD OR TERMINALLY DAMAGED WHEN THE MAIN LEADER HAS DIED BACK AND/OR IF TWENTY-FIVE (25) PERCENT OF THE CROWN DOES NOT SHOW VIGOROUS, HARDY AND SUSTAINED GROWTH. SHRUBS ARE CONSIDERED DEAD OR TERMINALLY DAMAGED WHEN THE PLANTING MATERIALS DO NOT SHOW VIGOROUS, HARDY AND SUSTAINED GROWTH CHARACTERISTICS ON SEVENTY-FIVE (75) PERCENT OF THE SPECIMEN.
- c.PRUNING SHOULD BEGIN AFTER THE SECOND YEAR OF ESTABLISHMENT. THIS ENCOURAGES ROOT GROWTH. ONCE ESTABLISHED, HEAVIER PRUNING CAN BE DONE.
- 1. REMOVE ALL DEAD, BROKEN, RUBBING BRANCHES AND SUCKER GROWTH

UDC Landscape & Lighting Notes

Richmond Police Equestrian Center - May 17, 2018





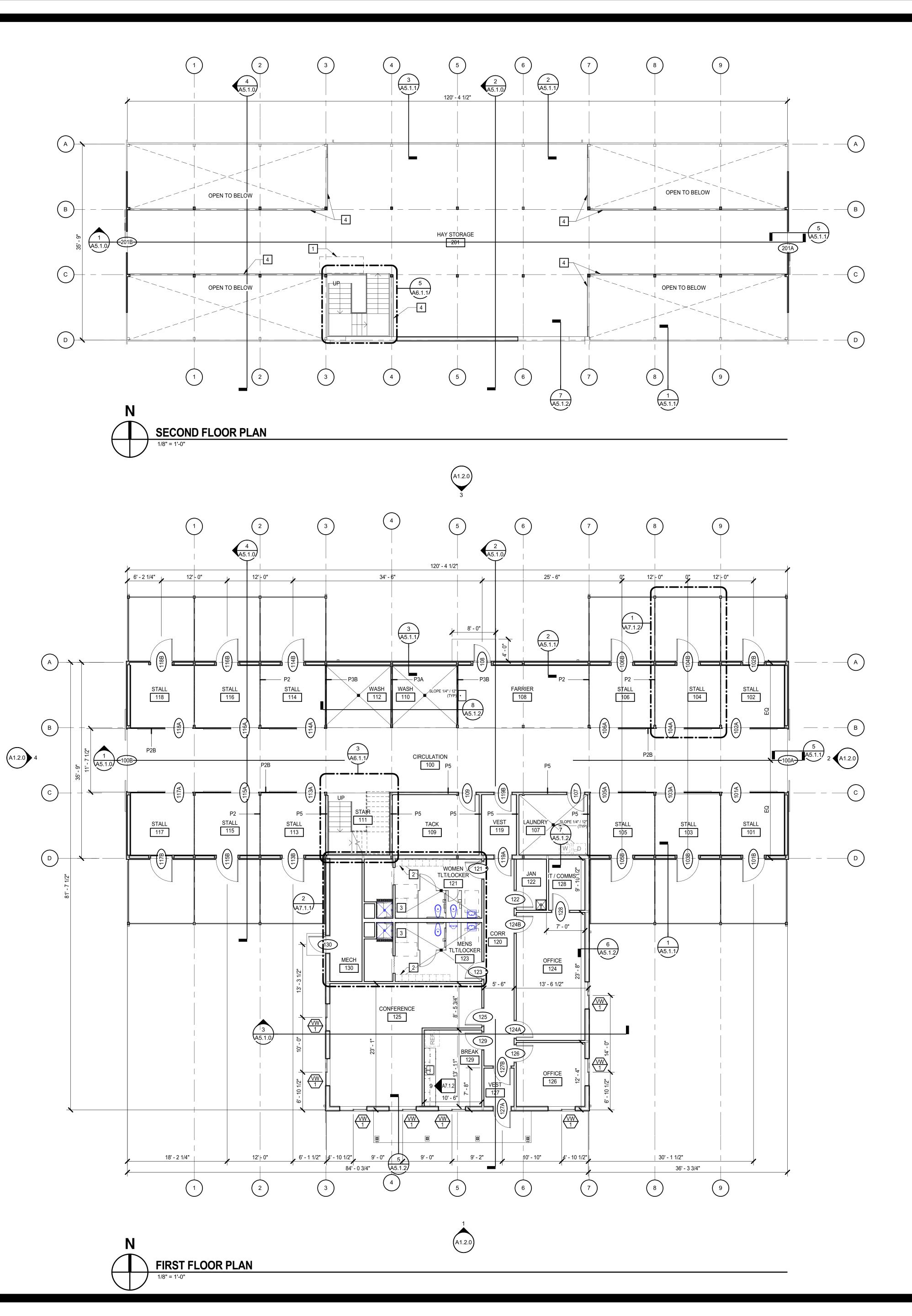
- 2. PRUNING SHALL BE ADMINISTERED DURING THE CORRECT PERIOD FOR THE SPECIES OF TREE/SHRUB. THIS IS DETERMINED BY SEASONAL FLOWERING ATTRIBUTES AND SUSCEPTIBILITY TO INSECT AND DISEASE
- 3. PRUNE FOR SAFETY/SECURITY PURPOSES AS NECESSARY, PRUNE PLANTINGS TO MINIMIZE INTERFERENCE WITH ADJACENT CONDITIONS. AS PLANTINGS MATURE. ENSURE THAT TREE BRANCHING CLEARANCE HEIGHTS ARE ELEVATED TO MAXIMUM OF 1/3 OF SPECIMEN HEIGHT. MINIMIZE INTERFERENCE IN AREAS INCLUDING
- a.ADJACENT TO SIDEWALKS/PEDESTRIAN AREAS AND OTHER PAVED AREAS
- b.ADJACENT TO VEHICULAR TRAFFIC TRAVEL WAYS.
- c.ADJACENT TO SITE LIGHTING, SIGNS, BUILDING ENTRANCES, BUILDING SERVICE AREAS, STRUCTURES OR OTHER SITE CONDITIONS AS DEEMED NECESSARY
- d.MULCHING 1. MAINTAIN A MINIMUM OF 3" DEPTH AT ALL TIMES EXTENDED OUT TO THE DRIP LINE OF THE TREE/SHRUB AND IN ALL PLANTING BEDS FOR PROTECTING THE TREE FROM MECHANICAL DAMAGE AS WELL AS MOISTURE RETENTION
- 2. DO NOT COVER TRUNKS WITH MULCH AND EXPOSE TRUNK FLARE AT ALL TIMES THIS PREVENTS THE POTENTIAL FOR BARK SPI ITTING AND ROTTING AS WELL AS INSECT/RODENT DAMAGE.
- 3. RESTORE PLANTING SAUCERS AND BED LINES.
- e.FERTILIZATION- INITIALLY, FERTILIZE ALL TREES/SHRUBS ANNUALLY DURING THE DORMANT SEASON OR SPECIFIC TO THE SPECIES WITH A SLOW RELEASE TYPE HIGHER IN POTASSIUM AND PHOSPHORUS FOR ROOT ESTABLISHMENT, AN ALL-PURPOSE FERTILIZER CAN BE USED THEREAFTER f. WEEDING
- 1. REMOVE WEEDS REGULARLY BY HAND FROM ALL TREE RINGS AND
- PLANTING BEDS. REPLACE MULCH AS NEEDED.

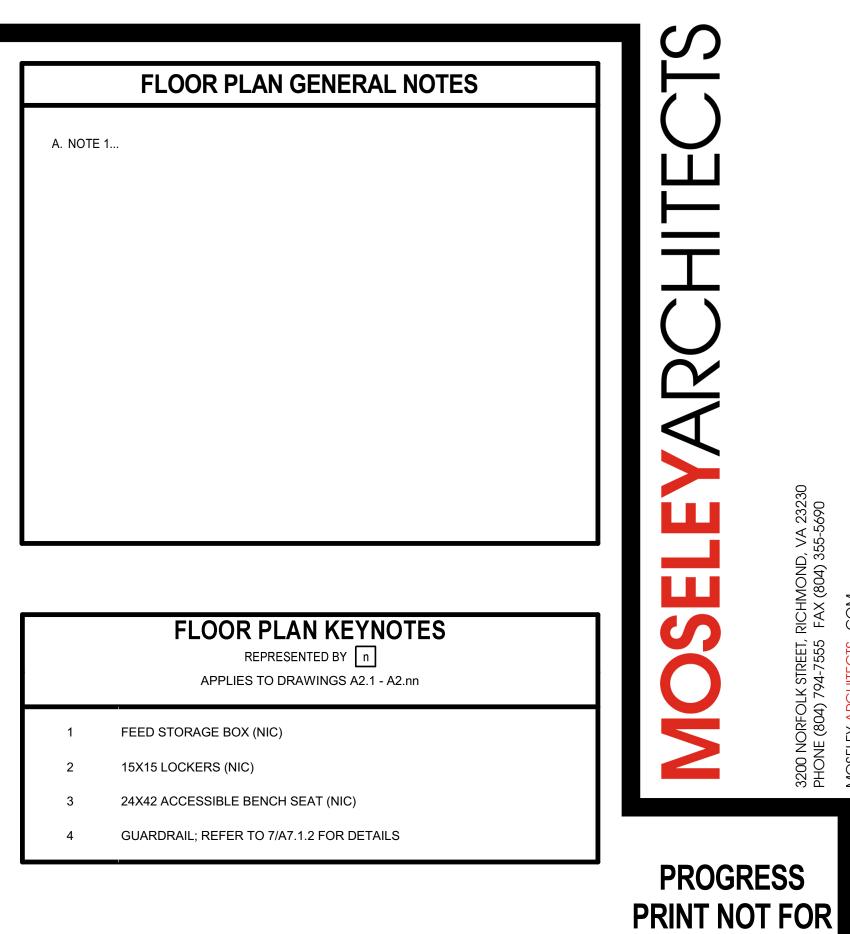
PRE AND POST-EMERGENT HERBICIDES MAY BE USED WHERE CHEMICAL APPLICATIONS ARE ACCEPTABLE.



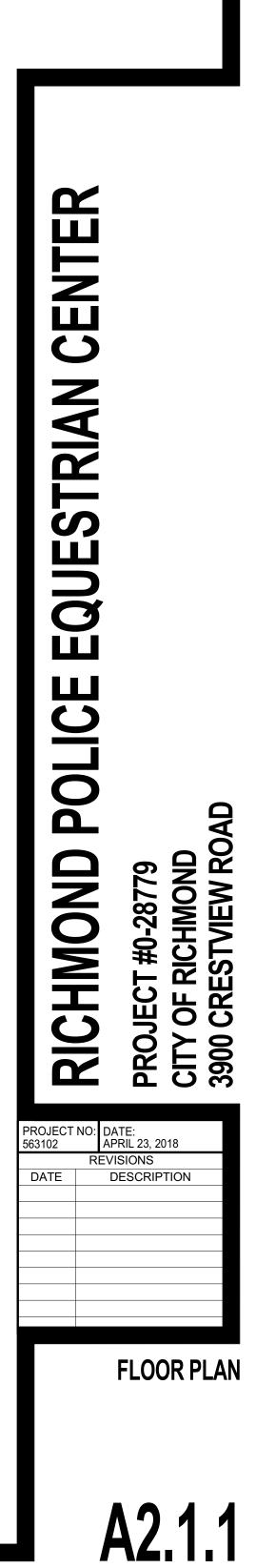
TIMMONS GROUP

YOUR VISION ACHIEVED THROUGH OURS.

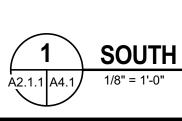


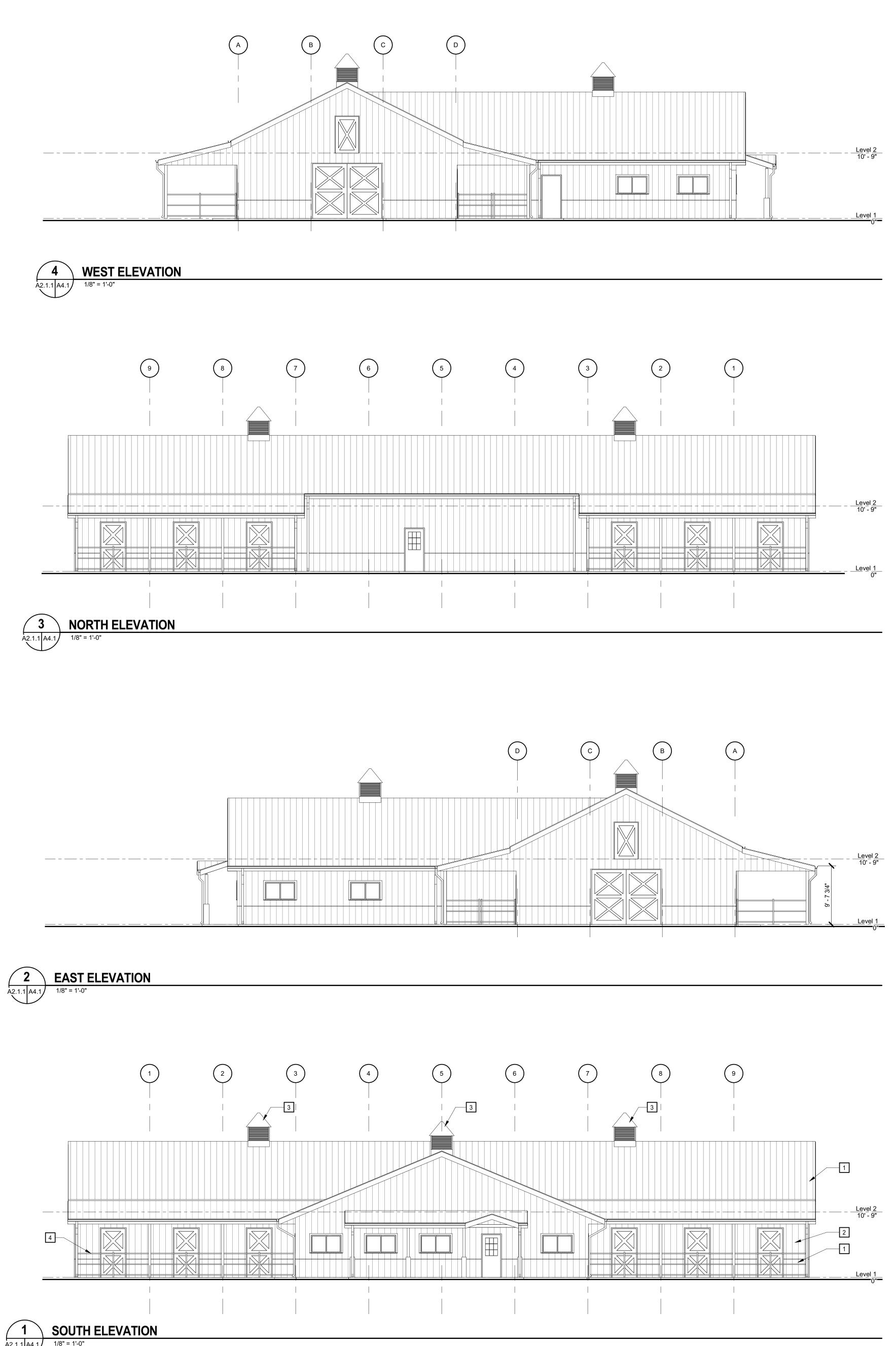


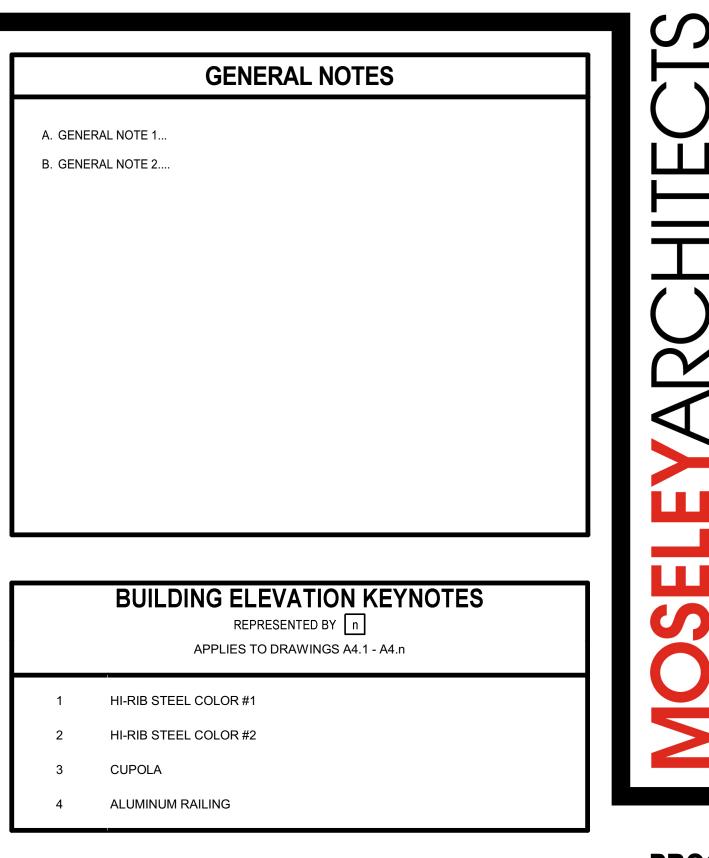
	REPRESENTED BY n APPLIES TO DRAWINGS A2.1 - A2.nn
1	FEED STORAGE BOX (NIC)
2	15X15 LOCKERS (NIC)
3	24X42 ACCESSIBLE BENCH SEAT (NIC)
4	GUARDRAIL; REFER TO 7/A7.1.2 FOR DETAILS



CONSTRUCTION

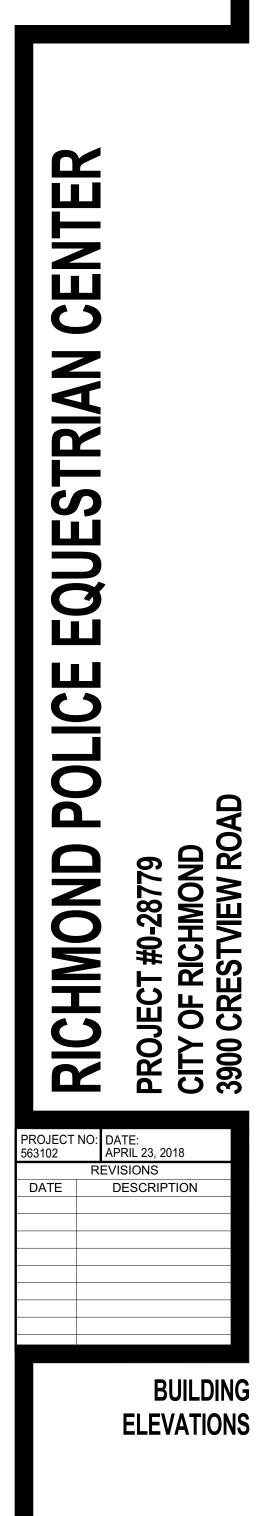






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PROGRESS **PRINT NOT FOR** CONSTRUCTION





Symbol	Qty	Label	Arrangement	Lum. Lumens	LLF	[MANUFAC]	Description
Ð	4	U2	SINGLE	12055	0.950	ARCHITECTURAL AREA LIGHTING	UCL-T2-56LED-3K-700
Ð	2	U3	SINGLE	12123	0.950	ARCHITECTURAL AREA LIGHTING	UCL-T3-56LED-3K-700
Ð	1	U4	SINGLE	11718	0.950	ARCHITECTURAL AREA LIGHTING	UCL-T4-56LED-3K-700
0-0	1	U4 2B	BACK-BACK	11718	0.950	ARCHITECTURAL AREA LIGHTING	UCL-T4-56LED-3K-700
ക്	1	U4 4Q	4 @ 90 DEGREES	11718	0.950	ARCHITECTURAL AREA LIGHTING	UCL-T4-56LED-3K-700

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Area Site	Illuminance	Fc	0.91	8.6	0.0	N.A.	N.A.
Parking	Illuminance	Fc	2.74	6.8	0.4	6.85	17.00
	·						

Prepared by: LIGHTING VIRGINIA CENTRAL 400G-2 Southlake Blvd. Richmond, VA 23236 Tel: 804-379-7777 www.lightingvirginia.com



MH = MOUNTING HEIGHT IN FEET

NOTES:

1. NO ALTERATIONS OR MODIFICATIONS SHALL BE MADE TO THIS PLAN WITHOUT THE PERMISSION OF LIGHTING VIRGINIA CENTRAL. ADAMS PARNELL. LLC

2. THE OUTPUT ON THIS PHOTOMETRIC LAYOUT IS SPECIFIC TO THE MANUFACTURER AND CATALOG NUMBERS LISTED IN THE LUMINAIRE SCHEDULE. SUBSTITUTIONS OR DEVIATIONS FROM THIS PLAN MAY INCUR SIGNIFICANTLY DIFFERENT RESULTS. ANY SUBSTITUTIONS MUST RECEIVE ENGINEER AND ARCHITECT APPROVAL REVIEW COSTS. REWORKED PHOTOMETRIC LAYOUTS. PRODUCT SUBMITTALS AND A FULL SET OF ITL REPORTS WILL SOLELY BE THE RESPONSIBILITY OF ANY CONTRACTING FIRM MAKING A SUBSTITUTION, AND MUST COMPLY WITH DESIGN CRITERIA AND WITH ANY APPLICABLE JURISDICTIONAL CODES.

3. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT.

4. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS AND SUPPLIED BY OTHERS TO LIGHTING VIRGINIA. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS.

5. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.

6. CHECK GRAPHIC SCALE. DOCUMENTS PRINTED OR PLOTTED FROM ELECTRONIC FILES MAY OCCUR AT OTHER THAN THE DESIRED OR ASSUMED GRAPHIC SCALES. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED-TO-SCALE DRAWING IS PRINTED TO SCALE.



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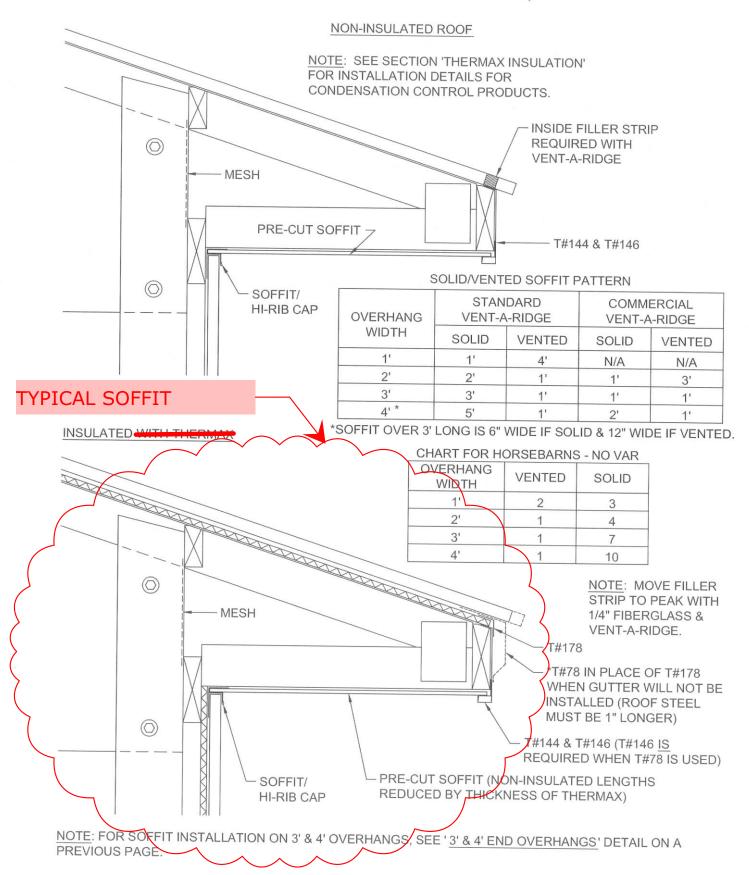
APPENDIX C

Material Cut Sheets

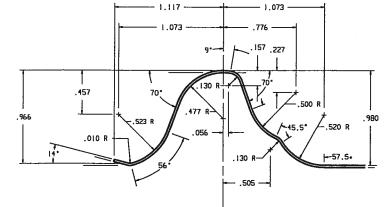
MORTON BUILDINGS

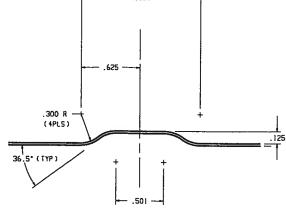
FLASHING VENTED SIDE OVERHANGS

(2' OVERHANG WITH 2x4 PURLINS SHOWN)

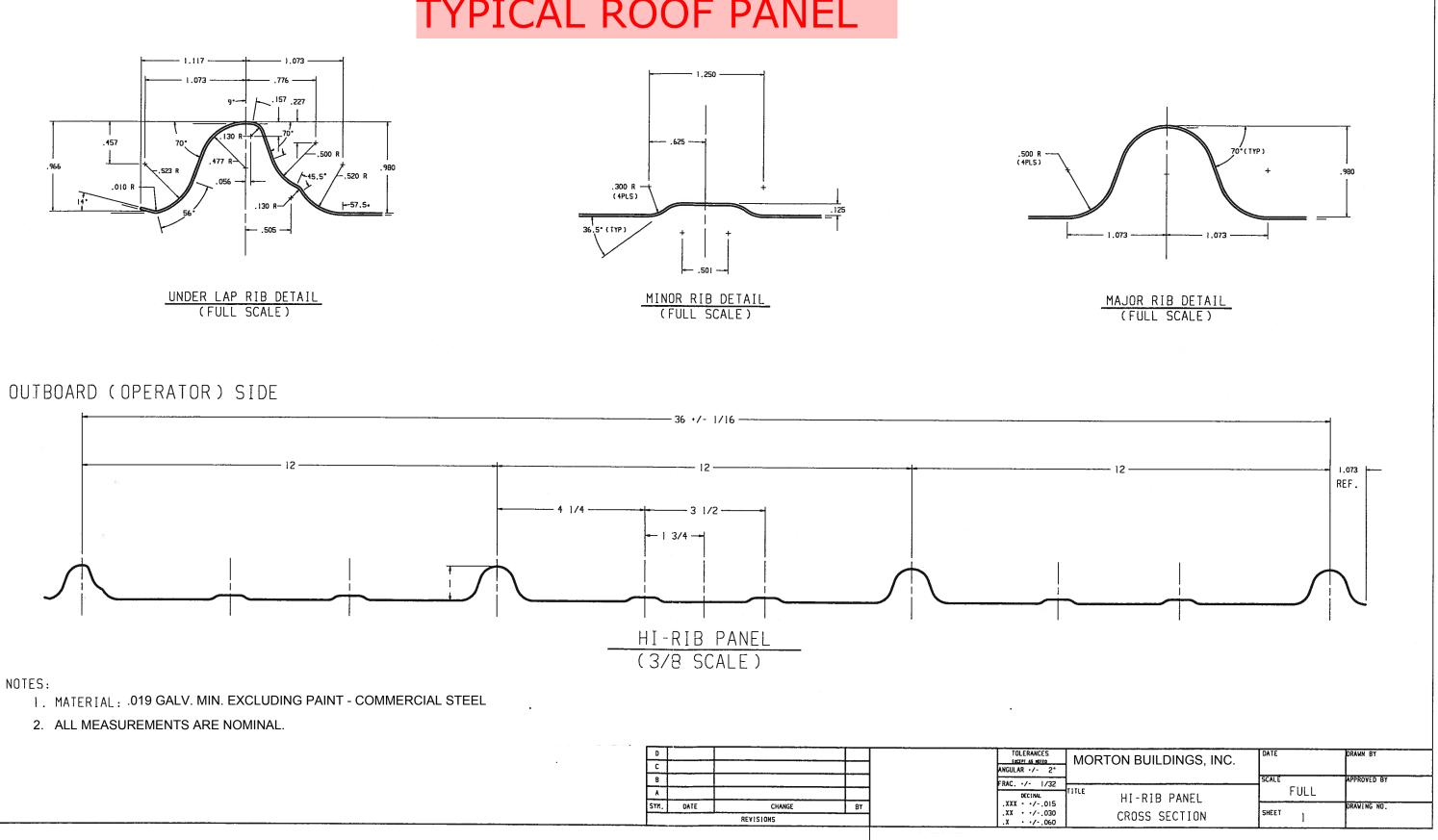


TYPICAL WALL PANEL TYPICAL ROOF PANEL





N.







- 3-1/4" DEPTH BEVELED FRAME (2-1/16" INSIDE OF NAIL FIN)
- DUAL WALLED PERIMETER
- INNERGY® RIGID THERMAL REINFORCED MEETING RAIL -STRENGTH WITH SAGGING OR PERMANENT SET
- O NO METAL REINFORCING TO TRANSMIT ENERGY LOSSES
- SLOPED SILL AND BAFFLED WEEP HOLES FOR IMPROVED WATER SHEDDIN AND WATER INFILTRATION PROTECTION

COLORS

HI-RIB STEEL

SCREEN

4429 LINDSAY VINYL

SLIDING WINDOW

FILLER PLUG

HEADER TRIM

BASE TRIM

TREATED SPLASHBOARD

VINYL WINDOW

2x4 BLOCK

HEADER

SILL

NAILERS

- WHITE
- BEIGE

GLAZING

- 3 /4 " DOUBLE STRENGTH INSULATED GLASS
- SOLARBAN[®] 70 TRIPLE COAT LOW-E
- ARGON GAS FILLED
- SUPER SPACER[®], 10 DEGREES WARMER AT GLASS EDGE ELIMINATING ICII AND CONDENSATION

PERFORMANCE

- MEETS ENERGY STAR QUALIFICATION CRITERIA 5.0 IN ALL STATES. (LOWEF RATING IS BETTER)
 - U- VALUE = 0.29 (HEAT TRANSFER DUE TO TEMPERATURE DIFFEREN SHGC = 0.22 (SOLAR HEAT GAIN COEFFICIENT)
- AIR INFILTRATION = 0.08

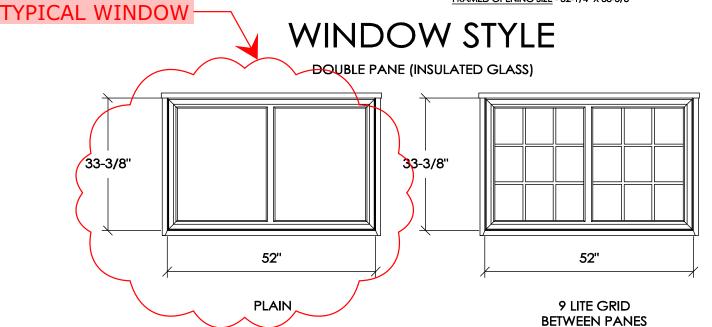
HARDWARE

- SCREEN, ALUMINUM , NO VISIBLE CLIPS, EASY REMOVAL FROM INSIDE
- CAM LOCK, COMPOSITE MATERIAL (RATHER THAN ZINC) 30% STRONGER / NON-METAL
- DOUBLE WEATHER STRIPPING, DOUBLE MYLAR FINS, CONTINUOUS SEAL & MEETING RAIL
- SLIDERS: BRASS ROLLERS UNDER SLIDING SASH
- HUNG: DUAL TILT-IN SASHES, DOUBLE NIGHT VENT LATCHES

SIZE

- UNIT / ROUGH OPENING SIZE
 - O INTERIOR OF NAILING FIN
 - 52" X 33-3/8" UNIT (52-1/4" X 33-5/8" R.O.)
 - O EXTERIOR OF NAILING FIN
 - 52-1/2" X 33-7/8" UNIT

FRAMED OPENING SIZE - 52-1/4" X 33-5/8"



STOPSOL®



PRODUCT DESCRIPTION

AGC's Stopsol[®] is a hard-coated architectural glass with a medium-performance reflective coating. Ideal for a variety of commercial buildings, Stopsol is an attractive choice when a reflective appearance is part of the architectural vision. This innovative glass combines a beautiful reflective appearance with excellent solar control properties.

Available in Clear, Green, Grey, Bronze, and Blue substrate colors, Stopsol is also offered in a range of thicknesses to meet a spectrum of architectural and performance needs. The Stopsol family offers three coating options: Classic (amber look), Supersilver (silvered look), and Silverlight (bluish look). Stopsol offers architects a highly customized look.

Stopsol can be used monolithically, or combined with other AGC products as part of an insulating glass unit to deliver custom-tailored energy performance that meets specific regional needs. Stopsol coatings may be used with Matelux[®] acid-etched glass to achieve a unique aesthetic effect.

BENEFITS

- High reflectivity for privacy and visual comfort
- Outstanding flexibility—customers can select from multiple combinations of solar-control and light-transmission levels, as well as a variety of colors
- Durable hard coating means worry-free handling, stacking, storage, and transportation
- Can be heat-treated, laminated, bent, or otherwise processed—just as traditional float glass
- Can be combined with other AGC products to deliver specialized performance and design effects

COMMITTED TO ENVIRONMENTAL STEWARDSHIP

AGC Glass Company is committed to promoting environmental stewardship and sustainable building design. This commitment is evident in product innovations that optimize energy performance and improve natural daylighting. AGC's dedication to environmental responsibility extends to the company's manufacturing processes as well. AGC utilizes recycled, recovered, and reusable materials in its operations, including recycled packaging materials and returnable steel racks. Additionally, AGC's internal recycling program is designed to minimize waste and encourage environmental stewardship among employees.



AGC GLASS COMPANY NORTH AMERICA

us.agc.com P: 888.234.8380 info@us.agc.com



STOPSOL®

PERFORMANCE DATA COMPARISONS

TYPICAL GLAZING

Stopsol® Reflective Insulating Glass Coating or #2 Surface - All data based on 1" (25mm) Unit: 1/4" (6mm) - 1/2" (13mm) airspace - 1/4" (6mm)

Product		Tr	ansmittan	ce		Reflectanc	e	Winter	U-Value	Shading	SHGC	LSG	DW
Outboard	Inboard	Visible	Solar	UV	Out	In	Solar	Air	Argon	Coefficient	51100	250	Index
Stopsol Classic Clear (2)	Clear	34%	40%	16%	28%	35%	22%	0.47	0.45	0.56	0.49	0.70	0.26
Stopsol Classic Clear (2)	Energy Select 63 (3)	33%	26%	10%	28%	31%	33%	0.30	0.26	0.41	0.35	0.93	0.24
Stopsol Classic Grey (2)	Clear	17%	23%	6%	10%	35%	10%	0.47	0.45	0.41	0.36	0.47	0.13
Stopsol Classic Grey (2)	Energy Select 63 (3)	16%	15%	4%	10%	31%	15%	0.30	0.26	0.28	0.24	0.67	0.12
Stopsol Classic Bronze (2)	Clear	20%	26%	5%	12%	35%	11%	0.47	0.45	0.44	0.38	0.51	0.13
Stopsol Classic Bronze (2)	Energy Select 63 (3)	19%	16%	4%	12%	31%	17%	0.30	0.26	0.30	0.26	0.73	0.12
Stopsol Classic Green (2)	Clear	28%	18%	6%	20%	35%	11%	0.47	0.45	0.36	0.31	0.90	0.19
Stopsol Classic Green (2)	Energy Select 63 (3)	27%	14%	4%	20%	31%	12%	0.30	0.26	0.26	0.22	1.21	0.18
Stopsol Classic Dark Blue (2)	Clear	22%	19%	8%	14%	35%	10%	0.47	0.45	0.37	0.32	0.67	0.18
Stopsol Classic Dark Blue (2)	Energy Select 63 (3)	21%	13%	6%	14%	31%	12%	0.30	0.26	0.26	0.22	0.93	0.17
Stopsol Supersilver Clear (2)	Clear	56%	53%	29%	36%	36%	26%	0.47	0.45	0.69	0.60	0.93	0.45
Stopsol Supersilver Clear (2)	Energy Select 63 (3)	54%	38%	19%	35%	32%	37%	0.30	0.26	0.54	0.47	1.16	0.41
Stopsol Supersilver Grey (2)	Clear	27%	29%	10%	12%	35%	10%	0.47	0.45	0.47	0.41	0.65	0.22
Stopsol Supersilver Grey (2)	Energy Select 63 (3)	26%	20%	7%	11%	31%	14%	0.30	0.26	0.34	0.29	0.87	0.20
Stopsol Supersilver Green (2)	Clear	46%	27%	11%	26%	35%	13%	0.47	0.45	0.43	0.38	1.22	0.33
Stopsol Supersilver Green (2)	Energy Select 63 (3)	45%	21%	7%	25%	32%	14%	0.30	0.26	0.34	0.30	1.49	0.31
Stopsol Supersilver Dark Blue (2)	Clear	38%	28%	18%	17%	32%	11%	0.47	0.45	0.46	0.40	0.95	0.36
Stopsol Supersilver Dark Blue (2)	Energy Select 63 (3)	37%	21%	12%	16%	29%	13%	0.30	0.26	0.35	0.30	1.20	0.33
Stopsol Silverlight PrivaBlue (2)	Clear	24%	12%	8%	8%	27%	6%	0.47	0.45	0.30	0.26	0.92	0.23
Stopsol Silverlight PrivaBlue (2)	Energy Select 63 (3)	23%	10%	6%	8%	24%	6%	0.30	0.26	0.22	0.19	1.23	0.21

Performance values are based on representative production samples and product modeling data using LBNL Window 6.3 Software. Actual values may differ due to variations in the manufacturing process. Calculations based on generic clear. Environmental conditions based on NFRC 100-2010. Argon data based on 10% air and 90% argon. (2) or (3) indicates coating surface. Thermal stress analysis or building codes may determine the requirement for heat-treated glass. Contact AGC Technical Services at

888-234-8380 to ensure the correct form of glass to be supplied.

Damage Weight Index [Tdw-ISO] is a comprehensive measure of UV and visible parts of the solar spectrum from 300-700 nanometers, and a more accurate measure of fading potential.

To obtain additional performance data use the AGC Glass Calculator at us.agc.com/glass-calculator.

PROCESSING CAPABILITIES



CONVENTIONS IN COATING POSITIONS



Indicates laminated interlayer positions

THE AGC VERTICAL INTEGRATION ADVANTAGE

AGC is a vertically integrated company, managing every process in the value chain. As a result, we're able to align all resources to deliver innovative solutions through a network of fabricators for architectural, interior, fire-rated, and residential glass applications.

Acid-Etched » Back-Painted » Clear and Tinted Float » Coated Glass » Custom Fabrication » Digital Imaging » Fire-Rated » Heat-Treated » Insulated » Laminated » Low-Iron » Reflective » Silk-Screen » Spandrel

GLASS CALCULATOR



Create quick and accurate glass configurations from our entire catalog of product offerings. Scan code to use the glass calculator.

us.agc.com/glass-calculator



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Universe[®] Collection Large LED – UCL

FEATURES

- DLC QPL Listed
- Reliable, uniform, glare free illumination
- Types II, III, IV, V and custom . distributions
- 3000K, 4000K, 5000K CCT ٠
- 0-10V dimming ready

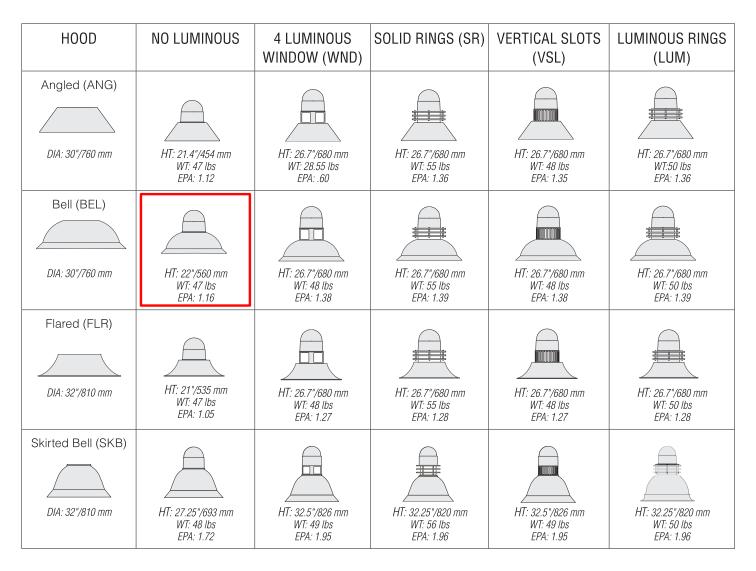
- Integral surge suppression •
- LifeShield[™] thermal protection
- 13 standard powder coat finishes •
- Upgrade Kits



TYPE TYPICAL SITE LIGHT

SPECIFICATIONS

The first dimension is the height of fixtures with LEDs or horizontal reflectors. EPA for horizontal configuration only.







ARCHITECTURAL AREA LIGHTING 17760 Rowland Street | City of Industry | CA 91748 P 626.968.5666 | F 626.369.2695 | www.aal.net Copyright © 2014 December 1, 2016 10:39 AM

JOB		
TYPE		
NOTES	1	1

APPENDIX D

Forest Stand Assessment



1001 Boulders Parkway Suite 300 Richmond, VA 23225 P 804.200.6500 F 804.560.1016 www.timmons.com

MEMORANDUM

TO:	Greg Nelson – Timmons Group
FROM:	Ben Sagara, <u>ben.sagara@timmons.com</u> - Timmons Group
RE:	Richmond Police Equestrian Center Forest Stand Assessment
DATE:	May 15, 2018

Timmons Group environmental technician, Ben Sagara, visited the Richmond Police Equestrian Center site (Site) on May 15, 2018 in order to perform a Forest Stand Assessment. This assessment was conducted to document existing onsite conditions – specifically the dominant tree species, approximate age, and general condition of forest stands located onsite. The Site was divided into three (3) major forest stands based on differences in composition, age, general condition, and geographic location (see <u>Attachment 1:</u> <u>Map of Forest Stand Assessment Locations</u>). Photographs in each cardinal direction (see <u>Attachment 2:</u> <u>Forest Stand Photolog</u>), observed tree species, approximate diameter at breast height (DBH) of the largest observed trees (to assess age), and a qualitative assessment of condition was conducted at the specified location in each of the forest stands. These stands will hereafter be referred to as Forest Stand 1, Forest Stand 2, and Forest Stand 3.

Forest Stand 1 is the youngest stand and is the most dominated by invasive tree species. This stand is dominated by several invasive species including tree-of-heaven (*Ailanthus altissima*), Bradford pear (*Pyrus calleryana*), mimosa tree (*Albizia julibrissin*) and white mulberry (*Morus alba*). Black locust (*Robinia pseudoacacia*), hackberry (*Celtis occidentalis*), and slippery elm (*Ulmus rubra*) were also observed as dominant tree species. Forest Stand 1 is estimated to be 10-15 years old, as the largest observed trees in this area have a maximum DBH of 10 inches. Areal imagery from Google Earth confirms that this area was not forested in 2003.

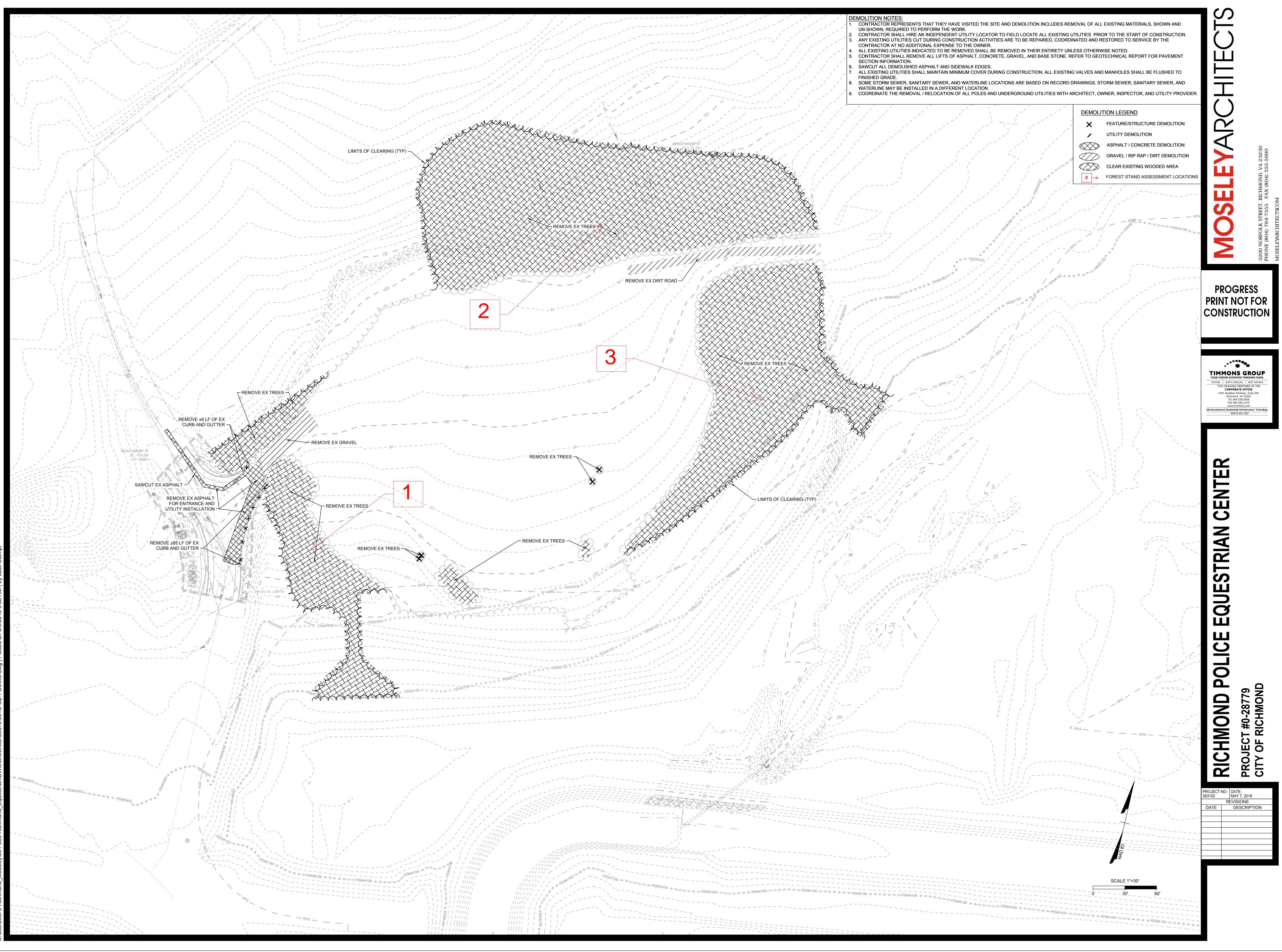
Forest Stand 2 is the oldest, most diverse, and least invaded of the 3 onsite forest stands. This stand is currently dominated by large willow oaks (*Quercus phellos*), with a few large northern red oaks (*Quercus rubra*), white oaks (Quercus alba), American Beeches (*Fagus grandifolia*), black gums (*Nyssa sylvatica*), and tulip trees (*Liriodendron tulipifera*). These dominant canopy trees have DBHs >30 inches. This indicates that Forest Stand 2 is >50 years old and possibly >100 years old. Other canopy and subcanopy tree species observed in Forest Stand 2 include red maple (Acer rubrum), sugar maple (*Acer saccharum*), sassafras tree (*Sassafras albidum*), paw-paw (*Asimina trilobal*), sweetgum (*Liquidambar styraciflua*), mockernut hickory (*Carya tomentosa*), black locust, tree-of-heaven, and Bradford pear.

Forest Stand 3 is a young, early successional forest stand dominated by cottonwood (*Populus deltoides*) black locust, hackberry, black willow (*Salix nigra*), slippery elm, tree-of-heaven, and Bradford pear. Cottonwood, black locust, Bradford pear and hackberry were the largest and most abundant of the

observed tree species in Forest Stand 3, with maximum DBHs ranging from 12-15 inches. This puts the age of this forest stand somewhere in between Forest Stands 1 and 2, likely 20-30 years old. This forest stand showed evidence of past disturbance with several large canopy openings. Many tree-of-heaven and Bradford pear saplings have begun dominating the canopy openings.

Enclosed:

Attachment 1: Map of Forest Stand Assessment Locations Attachment 2: Forest Stand Photolog ATTACHMENT 1 MAP OF FOREST STAND ASSESSMENT LOCATIONS



ATTACHMENT 2 FOREST STAND PHOTOLOG



Forest Stand Photolog Richmond Police Equestrian Center Richmond Virginia



Forest Stand 1 North (5/15/2018, Ben Sagara)



Forest Stand 1 East (5/15/2018, Ben Sagara)



Forest Stand 1 South (5/15/2018, Ben Sagara)



Forest Stand 1 West (5/15/2018, Ben Sagara)



Forest Stand Photolog Richmond Police Equestrian Center Richmond Virginia



Forest Stand 2 North (5/15/2018, Ben Sagara)



Forest Stand 2 East (5/15/2018, Ben Sagara)



Forest Stand 2 South (5/15/2018, Ben Sagara)



Forest Stand 2 West (5/15/2018, Ben Sagara)



Forest Stand Photolog Richmond Police Equestrian Center Richmond Virginia



Forest Stand 3 North (5/15/2018, Ben Sagara)



Forest Stand 3 East (5/15/2018, Ben Sagara)



Forest Stand 3 South (5/15/2018, Ben Sagara)



Forest Stand 3 West (5/15/2018, Ben Sagara)