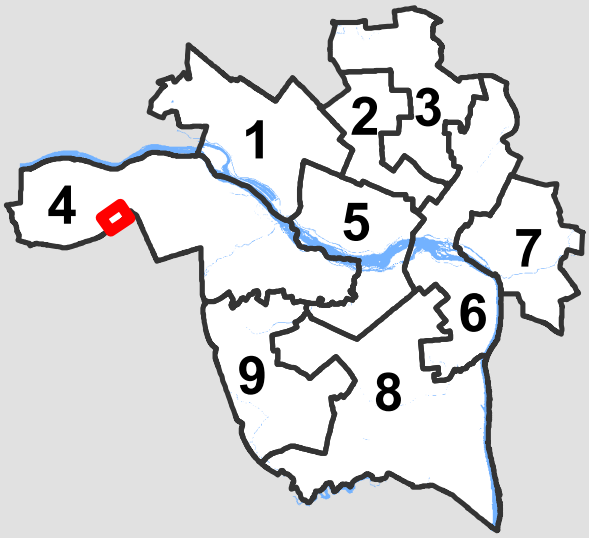
# City of Richmond
# Department of Planning & Development Review

## Location, Character, and Extent

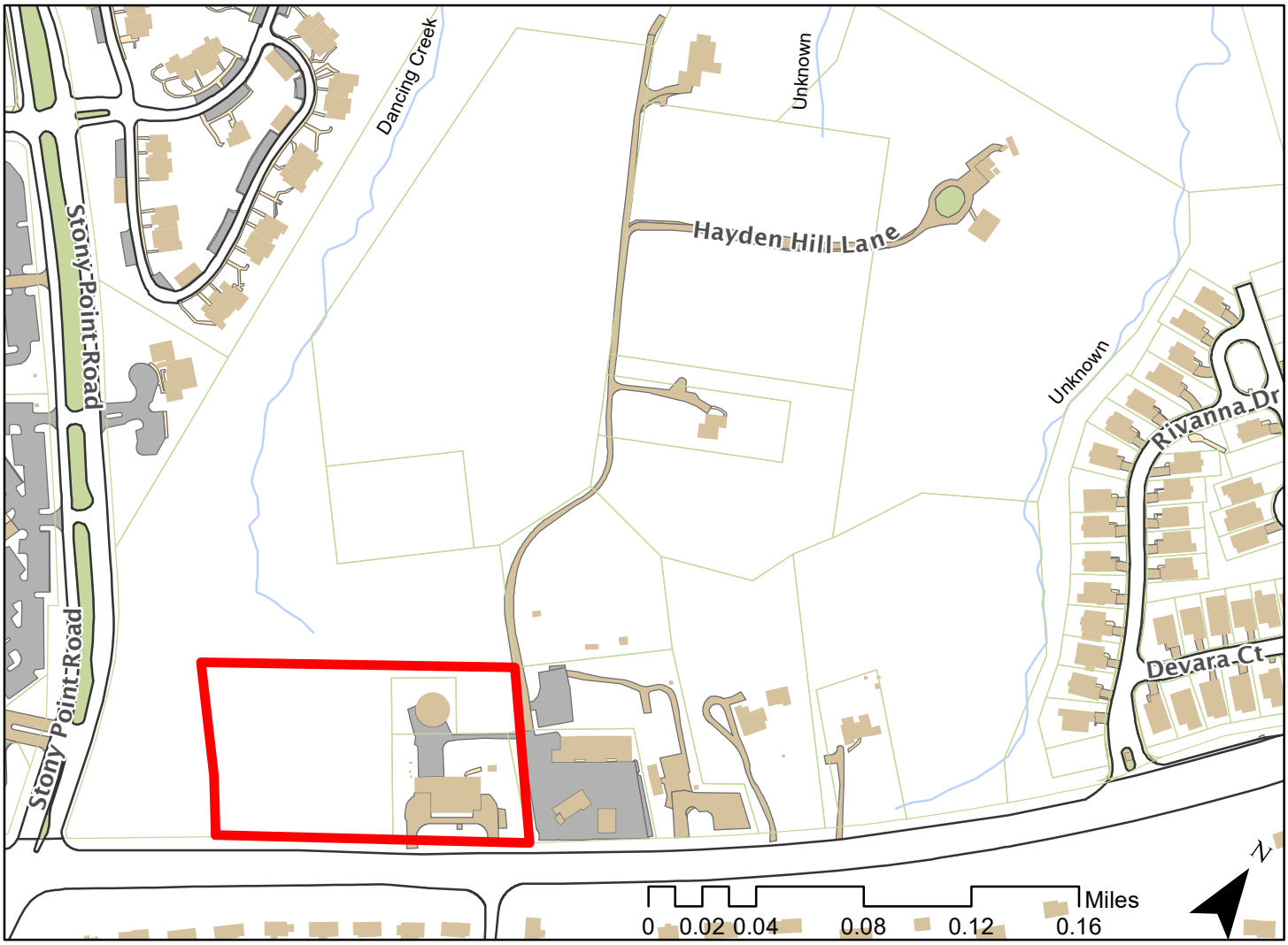
**LOCATION: 8850 W. Huguenot Rd.**

**COUNCIL DISTRICT: 4**

**PROPOSAL: Review for final location, character and extent review of a new pump station and water tank at 8850 W. Huguenot Road.**




*For questions, please contact Josh Son at 646-3741 or joshua.son@richmondgov.com*



# Application for URBAN DESIGN COMMITTEE Review

**Department of Planning and Development Review**
**Planning & Preservation Division**
**900 E. Broad Street, Room 510**
**Richmond, Virginia 23219**
**(804) 646-6335**
**http://www.richmondgov.com/CommitteeUrbanDesign**

## Application Type

- ☐ Addition/Alteration to Existing Structure
- ☑ New Construction
- ☐ Streetscape
- ☐ Site Amenity
- ☐ Encroachment
- ☑ Master Plan
- ☐ Sign
- ☐ Other

## Review Type

- ☐ Conceptual
- ☑ Final

Project Name: Huguenot Water Pump Station and Tank

Project Address: 8850 Huguenot Road

Brief Project Description (this is not a replacement for the required detailed narrative) :

Construction of a new water pump station and ground storage tank.

## Applicant Information

(on all applications other than encroachments, a City agency representative must be the applicant)

Name: Rosemary Green Email: Rosemary.Green@richmondgov.com

City Agency: Department of Public Utilities Phone: (804) 646-8517

Address: 900 E. Broad Street, Rm 115, Richmond, VA 23219

Main Contact (if different from Applicant): Stacey Le

Company: Whitman, Requardt and Associates, LLP Phone: (804) 272-8700

Email: sle@wrallp.com

## 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.

# Application for URBAN DESIGN COMMITTEE Review

**Department of Planning and Development Review**
**Planning & Preservation Division**
**900 E. Broad Street, Room 510**
**Richmond, Virginia 23219**
**(804) 646-6335**
**http://www.richmondgov.com/CommitteeUrbanDesign**

## Submission Requirements

• 10 copies of the application cover sheet and all support materials (see below), unless the application is for an encroachment, in which case only 6 copies are required. Plan sheets should be 11" x 17", folded to 8 1/2" x 11". If it is not possible to scale plans to these dimensions, please provide one set of larger, scaled plans.
• An electronic copy (PDF preferred) of all application materials, which can be burned to disc, emailed, or delivered by FTP.

All applications must include the attached cover sheet and the following support materials, as applicable to the project:

For Conceptual Review

• A detailed project narrative which includes the following: purpose of the project, project background, project budget and funding sources, description of construction program and estimated construction start date (description should also provide information on the surrounding area to provide context).
• A site plan for the project indicating site characteristics which include: building footprints, parking areas, pedestrian routes, recreation areas, open areas and areas of future expansion.
• A set of floor plans and elevations, as detailed as possible.
• A landscaping plan which shows the general location and character of plant materials and notes any existing tree to be removed.

For Final Review

• A detailed project narrative which includes the following: purpose of the project, project background, project budget and funding sources, description of construction program and estimated construction start date (description should also provide information on the surrounding area to provide context).
• A site plan for the project indicating site characteristics which include: building footprints, parking areas, pedestrian routes, recreation areas, open areas and areas of future expansion.
• A set of floor plans and elevations, as detailed as possible.
• A landscaping plan that includes a complete plant schedule, the precise location of all plant materials, and a landscape maintenance analysis. The plant schedule must show number, size and type of each planting proposed. If existing trees are to be removed, their size, type and location must be noted on the landscape plan.
• The location of all lighting units should be noted on a site plan, including wall-mounted, site and parking lot lighting. Other site details, such as benches, trash containers and special paving materials, should also be located. Include specification sheets for each item.
• Samples of all proposed exterior building materials, including but not limited to brick, mortar, shingles, siding, glass, paint and stain colors. When as actual sample cannot be provided, a product information sheet that shows the item or a photo of an existing item may be substituted.

## Review and Processing

Once an application is received, it is reviewed by staff, who compiles a report that is sent to the UDC. A copy of the report and the meeting agenda will be sent to the applicant prior to the meeting. The applicant or a representative should be present at the UDC meeting or the application may be deferred to the next regularly scheduled meeting. It is also strongly suggested that a representative of the City Agency which will have final responsibility for the item be present at the meeting (if the applicant and the representative are not the same). Once the UDC recommends action on the application, it is automatically placed on the agenda for the next City Planning Commission (CPC) meeting. An exception to this is encroachment applications, recommendations for which are forwarded to the Department of Public Works. The applicant or a representative must be present at the CPC meeting or the application may be deferred to the next regularly scheduled meeting.

February 16, 2018

Urban Design Committee
City of Richmond Department of Planning and Development Review
Planning & Preservation Division
900 E. Broad Street, Room 510
Richmond, VA 23219

Re: Final Review
Huguenot Water Pump Station and Tank

To the Members of the Urban Design Committee:

The City of Richmond Department of Public Utilities and the Chesterfield County Utilities Department plan to construct a new Huguenot Road Water Pump Station and Ground Storage Tank. The proposed facility will be owned and operated by Chesterfield County, but will be located within the City of Richmond limits on a portion of the property at 8850 Huguenot Road, currently owned by the City of Richmond Recreation and Parks. The County will lease the land required for the facilities from the City.

**PROJECT BACKGROUND**

The City of Richmond Water Treatment Plant (WTP) is a regional facility, providing water to surrounding municipalities including Hanover County, Henrico County and Chesterfield County. The water plant has a permitted capacity of 132 million gallons per day (mgd) and currently treats, on average, approximately 60 mgd to serve the water demands of City of Richmond and the surrounding municipalities.

The proposed Huguenot Pump Station and Tank will allow the City of Richmond to supply an additional 5 mgd of water to Chesterfield County to meet projected increased water demands in the County. In doing so, there is a financial benefit to the City and its water customers. The increased customer demand will result in operational advantages at the WTP, additional revenue for the City, and allow for more cost effective treatment.

The City has been providing Chesterfield County with water since the early 1990's and today provides up to 27 mgd. This project is a continuation of the long-standing mutual cooperation between the City and County Utilities Departments and is beneficial to both departments.

**DESCRIPTION OF PROJECT**

<u>Operation of the Pump Station and Tank</u>

The new pump station will be constructed with a capacity of 5 mgd. A two million ground storage tank will be filled by a water supply line from the City. The pump station will pump water from the storage tank into the County's water distribution system. Chesterfield County will design, construct, own, operate and maintain the proposed pump station, tank and pipeline serving the County. The City of Richmond will design, construct, own, operate and maintain the new water supply line feeding the new ground storage tank.

The proposed location of the new County pump station and tank is adjacent to the City's existing pump station and tank along Huguenot Road. The existing pump station is located within the existing Huguenot Road Fire Station and the ground storage tank is behind the fire station building. The close proximity of the proposed County tank to the existing City tank will allow the tanks to be interconnected and allow the City the ability to utilize the County's storage if its tank is out of service. The project will include a piping interconnect between the two ground tanks with a normally closed valve. When the City's tank is taken out of service for maintenance, the associated pump station

can remain in service by drawing water from the County's ground tank. This interconnection will provide beneficial redundancy for the City.

Site Layout

The proposed County owned pump station and tank will be located on property owned by the City of Richmond and the City will lease the County the land for the proposed water facilities. The City will retain ownership of the property and it is not the intent to transfer ownership to the County.

The new water facilities have been located on the site to minimize the overall impact to park property and the existing trails. The densely wooded parcel will screen the new facility along the northern and western project boundaries. As shown on the Site Plan and Landscaping Plan, the cleared area necessary for grading north of the tank will be replanted. Along the southern project boundary, two tree buffers on either side of the overhead power line will be retained and evergreen plantings added to screen the new water facility from Huguenot Road. These new plantings will be outside of Ground Lease Area, and therefore will be included in the City's transmission main extension project and will be ultimately paid for by Chesterfield County.

For security, the new water facilities will be enclosed within an 8 foot tall chainlink fence with 3 strands of barbed wire. The fence will have a black PVC coating. The area within the fence has been minimized, allowing enough room to maneuver around the tank to address future maintenance requirements including painting. Outside the fence, a 5 foot cleared area along the entire perimeter is necessary to maintain the security of the facility. Beyond the cleared area, the remainder of the site will remain wooded.

The existing entrance to the Fire Department will be improved and will be utilized to access the new water facilities. This will eliminate the need to provide a separate entrance to the new pump station from Huguenot Road.

Aesthetic Appearance of New Structures

The new pump station architecture will be consistent with the architecture of the existing fire station. As shown on the rendering, it is the intent of this project for the façades of both buildings to be complimentary. The pump station will be constructed with a split face block exterior with a horizontal band of ground face block, and a standing seam metal roof. See the attached material cut sheets with preliminary color selections based on a representative material supplier. Please note that the colors may change slightly if the construction contractor selects a different material manufacturer.

The proposed welded steel water tank will be painted green to blend with the surrounding vegetation.

Additional Water System Improvements

With this project, the City Department of Public Utilities plans to extend public water service along the private road adjacent to the fire station to 8778 Huguenot Road. The properties along this road do not currently have public water and therefore no fire protection. This improvement will result in the extension of fire protection and water service to several residences as well as expansion of fire protection to Sneed's Nursery.

In addition, with this project the City intends to add a new water line from the pump station property north along Huguenot Road to improve water pressure to four properties.

**PROJECT STAKEHOLDER SUPPORT**

This project has the support of the following stakeholders:

- City of Richmond, Department of Recreation and Parks
- City of Richmond, Department of Public Utilities
- Chesterfield County, Utilities Department

**PROJECT BUDGET AND FUNDING SOURCES**

The estimated cost of the construction of the pump station, tank and site improvements is $9 million. These facilities will be fully funded by Chesterfield County. The new water supply line feeding the new ground tank will be designed, constructed, owned, and maintained by the City and the cost shall be allocated in accordance with the terms and conditions of the Amended Water Contract between Chesterfield County and the City of Richmond.

**CONSTRUCTION SCHEDULE**

The project is anticipated to require an 18 month construction period starting in spring 2019.

**RESPONSES TO CONCEPTUAL REVIEW COMMENTS**

Comment 1: That the final plans include a tree survey indicating location and species of any tree 4" in caliper and greater that is proposed to be removed as part of the roadway widening and realignment.

*Response 1: A tree survey has been conducted on the project site, noting the location and species of all trees 4" in caliper and greater. Due to the density of trees on the project site, this information cannot be clearly shown on a plan sheet. A summary of the trees to be removed within the project limits of disturbance is enclosed.*

*To compensate for the tree loss, in association with this project, Chesterfield County contributed funds towards the purchase an 18 acre wooded parcel from the Redford Land Trust to expand the limits of Larus Park.*

Comment 2: That the final plans include a landscape plan and schedule showing tree species, quantity, location and size at the time of installation.

*Response 2: A Landscape Plan is included in the submittal.*

Comment 3: That the applicant considers planting a row of evergreen vegetation along the Huguenot Road section of security fencing to provide year-round screening.

*Response 3: Evergreen plantings along the Huguenot Road section of fence are shown on the Landscaping Plan.*

Comment 4: That the applicant considers, in consultation with the Fire Station, planting additional evergreen screening in the island created by the Fire Station access drives in order to provide additional screening for vehicles travelling westbound on Huguenot Road.

*Response 4: An existing overhead power line, overhead utility line, and buried water, telephone, communications and gas utilities prevent the ability to add screening type landscaping to the fire station island. In addition, landscaping tall enough to screen the pump station facility will impact sight distance for vehicles exiting the site and fire station.*

Comment 5: That the applicant specify and provide renderings showing that the water tank will be painted with a color designed to blend with the surrounding vegetation.

*Response 5: Renderings included with this submittal indicate that the proposed tank shall be painted green.*

Comment 6: That the final plans include renderings of all four pump station façades.

*Response 6: Renderings are included in this submittal*

Comment 7: That the final plans include plans showing the dimensions of the tank and pump station.

*Response 7: See site plan for the tank and tank dimensions.*

Please do not hesitate to call if you need additional information.

Very truly yours,

Whitman, Requardt & Associates, LLP

Stacey Le, PE
Associate

Enclosures

- Tree Removal Summary
- Site Plan
- Landscaping Plan
- Building Elevations
- Renderings of the site and building facades
- Light fixture cut sheets
- Product information sheets for exterior building materials

cc: Mr. Bob Steidel – City of Richmond
Ms. Rosemary Green – City of Richmond, DPU
Mr. Bob Stone – City of Richmond, DPU
Mr. George Hayes – Chesterfield County Utilities Department
Mr. Scott Morris – Chesterfield County Utilities Department
Mr. David Knapp – Chesterfield County Utilities Department

# Huguenot Pump Station and Tank

# Tree Removal Summary

## Trees within Pump Station and Tank Leased Area and Easements

| Tree Size | Sweetgum | Loblolly Pine | Red Cedar | Tulip Poplar | Black Cherry | Common Persimmon | Flowering Dogwood | Callery Pear | Tree of Heaven | Red Maple | Red Mulberry | Common Hackberry | Pignut Hickory | Hickory | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4" Caliper | 15 | 0 | 18 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 36 |
| 5" Capiler | 8 | 1 | 10 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 23 |
| 6" Caliper | 14 | 8 | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 32 |
| 7" Capiler | 7 | 4 | 7 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 21 |
| 8" Caliper | 6 | 9 | 5 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 25 |
| 9" Capiler | 2 | 13 | 4 | 2 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 10" Caliper | 3 | 14 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 23 |
| 11" Caliper | 3 | 16 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 12" Caliper | 4 | 26 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 |
| 13" Caliper | 0 | 25 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 14" Caliper | 7 | 17 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 15" Caliper | 3 | 13 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| 16" Caliper | 1 | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 17" Caliper | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 18" Caliper | 5 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 19" Caliper | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 20" Caliper | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 22" Caliper | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 23" Caliper | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 24" Caliper | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 28" Caliper | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 44" Caliper | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| **TOTAL** | **84** | **163** | **70** | **6** | **6** | **4** | **3** | **2** | **2** | **2** | **2** | **2** | **1** | **1** | **348** |

## Trees within Proposed Park Parking Area

| Tree Size | Sweetgum | Loblolly Pine | Red Cedar | Black Cherry | Total |
|---|---|---|---|---|---|
| **4" Caliper** | 2 | 0 | 1 | 0 | 3 |
| **5" Capiler** | 1 | 0 | 2 | 1 | 4 |
| **6" Caliper** | 1 | 0 | 1 | 0 | 2 |
| **7" Capiler** | 0 | 0 | 0 | 0 | 0 |
| **8" Caliper** | 1 | 0 | 2 | 0 | 3 |
| **9" Capiler** | 2 | 0 | 0 | 0 | 2 |
| **10" Caliper** | 2 | 0 | 0 | 0 | 2 |
| **11" Caliper** | 0 | 1 | 0 | 0 | 1 |
| **12" Caliper** | 1 | 0 | 1 | 1 | 3 |
| **13" Caliper** | 0 | 0 | 0 | 0 | 0 |
| **14" Caliper** | 0 | 1 | 1 | 0 | 2 |
| **15" Caliper** | 1 | 0 | 0 | 0 | 1 |
| **16" Caliper** | 0 | 0 | 0 | 0 | 0 |
| **17" Caliper** | 0 | 0 | 0 | 0 | 0 |
| **18" Caliper** | 0 | 3 | 0 | 0 | 3 |
| **19" Caliper** | 0 | 0 | 0 | 0 | 0 |
| **20" Caliper** | 0 | 0 | 0 | 0 | 0 |
| **22" Caliper** | 0 | 0 | 0 | 0 | 0 |
| **23" Caliper** | 0 | 0 | 0 | 0 | 0 |
| **24" Caliper** | 0 | 1 | 0 | 0 | 1 |
| **26" Caliper** | 1 | 0 | 0 | 0 | 1 |
| **TOTAL** | **12** | **6** | **8** | **2** | **28** |

# Huguenot Pump Station and Tank

# Site Plan

CITY OF RICHMOND
D.B. 538, PG. 272 (RCH)
CITY OF RICHMOND PARCEL
ID: C0010891016
8850 W. HUGUENOT ROAD

CITY OF RICHMOND
D.B. 519, PG. 280 (RCH)
DPW NO. N-17952A
CITY OF RICHMOND PARCEL
ID: C0010891017
8820 W. HUGUENOT ROAD

COMMONWEALTH OF VIRGINIA ("THE CITY OF RICHMOND")
D.B. 206, PG. 57 (RCH)
(EXHIBIT B)
PLAT: D.B. 206, PG. 66 (RCH)

CITY OF RICHMOND
PARCEL ID:C0010891056
8850A W. HUGUENOT ROAD

2 MG TANK PAD
100' DIA.
ELEV.=335.25

66' DIAMETER METAL WATER TANK
TOP ELEV.=354.20'
BOTTOM ELEV=323.68'
AT OUTSIDE CONC. BASE

GENERATOR PAD
PAD ELEV. 330.25

F.F.E.=330.25
L.F.E.=322.08
50' 8" X 53' 4"

CONTROL VALVE VAULT
TOP=331.50

CELL TOWER AREA

CATHODIC PROTECTION BOX

CELLPHONE TOWER AREA

1-STORY AGGREGATE

RAISED CONC. WALKWAY W/HANDRAIL

CONC. PAD W/ METAL POLE

2-STORY BRICK & FRAME W/WALKOUT BASEMENT
"FIRE STATION #25"
FFE=332.72'
BFFE=322.07'

6.0' CHAINLINK W/BARB WIRE

ELECTRIC PANEL

CATHODIC PROTECTION LINE

LP #NN43 VEPCO

HAYDEN HILL LANE (PRIVATE)

30' R/W EASEMENT FOR INGRESS & EGRESS D.B 667, PG. 284 (CCH)

PARCEL #2

PARCEL #1

24" SUPPLY WATER MAIN FROM CITY

24" WATER MAIN TO CHESTERFIELD COUNTY

CITY METER VAULT
TOP=331.50

FILLER CAPS (TYP.)

LUMPS FO LINE

8" CPP A.D.
INV.= 316.29'

6" D.I. A.D.

8" CONC. A.D.
#11727

8" PVC A.D.
#11597

6" PVC
#11601

6" PVC

6" PVC
#11364

6" PVC
PIPE

INV. = 333.06'

INV. = 333.09'

INV. =330.82'

INV. = 329.56'

INV. =328.44'

12" CMP

12" CMP

12" CMP

9.0' SIDE YARD SETBACK

40.0' FRONT YARD SETBACK

17.5' (TYP.)

8.5' (TYP.)

23.0' (TYP.)

N:3,720,901.98'
E:11,755,112.47'
ELEV:341.42'
H&B TBAR #150

N:3,721,058.24'
E:11,755,377.07'
ELEV:335.39'
H&B T-BAR #103

CITY OF RICHMOND
D.B. 369, PG. 659 (RCH)
DPW NO. N-17952
PARCEL 2 (ESM'T FOR ROAD PURPOSES)
D.B. 780, PG. 567 (CCH)
CITY OF RICHMOND PARCEL ID: C0010891020
8800 W. HUGUENOT ROAD

SHORT DASHED WHITE PAINTED LINES

SOLID WHITE PAINTED

DASHED WHITE PAINTED LINES

SOLID YELLOW PAINTED LINES

DASHED YELLOW PAINTED LINES

WEST HUGUENOT ROAD
VARIABLE WIDTH R/W (SR 147)

ASPHALT

CONC. CURB & GUTTER

CONC. CURB

ASPHALT DITCH

GRAVEL

WOODS

GENERATOR

(INACCESSIBLE)

(INACC-ESSIBLE)

| NO. | DATE | BY | REVISIONS |
|---|---|---|---|
| | | | |

N:\46501-031\CADD\CIVIL\C46501031-SP01.DWG

Whitman, Requardt & Associates, LLP
9030 Stony Point Parkway, Suite 220, Richmond, Virginia 23235

PRELIMINARY DESIGN
NOT TO BE USED
FOR CONSTRUCTION

SCALE:
HORIZ: 1"=20'
VERT.: N/A
DATE: DEC. 2016
DESIGNED: Y.L.M.
DRAWN: Y.L.M.
CHECKED: S.L.L.
PROJECT NO.: 46501-031

CHESTERFIELD COUNTY
DEPARTMENT OF PUBLIC UTILITIES
9840 GOVERNMENT CENTER PKWY CHESTERFIELD, VA 23832

HUGUENOT ROAD PUMP STATION AND TANK
PRELIMINARY SITE LAYOUT AND GRADING PLAN

SHEET X OF X

# Huguenot Pump Station and Tank

# Landscaping Plan

VA. STATE GRID (SOUTH ZONE)
NAD83 (HORIZONTAL)
NGVD29 (VERTICAL)

## PROPOSED PLANTING LEGEND/SCHEDULE

6 LARGE SHADE TREES (ST)
MIN. 2.5" CALIPER, 6' HEIGHT
SPECIES:
NORTHERN RED OAK
YELLOW POPLAR

21 EVERGREEN TREE (ET)
MIN. 8' HEIGHT
SPECIES:
LOBLOLLY PINE
EASTERN RED CEDAR

26 LARGE SHRUBS (LS)
MIN. 3' HEIGHT
SPECIES:
ALLEGHANY SERVICEBERRY
HAZELNUT
INKBERRY

NOTE: NEW PLANTINGS SHALL BE INSTALLED TO MAINTAIN 5' FEET OF CLEAR SPACE BETWEEN FENCE AND MATURE LANDSCAPING.

CITY OF RICHMOND
D.B. 538, PG. 272 (RCH)
CITY OF RICHMOND PARCEL
ID: C0010891016
8850 W. HUGUENOT ROAD

CITY OF RICHMOND
D.B. 519, PG. 280 (RCH)
DPW NO. N-17952A
CITY OF RICHMOND PARCEL
ID: C0010891017
8820 W. HUGUENOT ROAD

COMMONWEALTH OF VIRGINIA
("THE CITY OF RICHMOND")
D.B. 206, PG. 57 (RCH)
(EXHIBIT B)
PLAT: D.B. 206, PG. 66 (RCH)
CITY OF RICHMOND PARCEL ID: C0010891056
8850 W. HUGUENOT ROAD

3 ST
4 ET
8 LS
3 LS
6 LS
1 ET
5 LS
13 ET
L10
L12
L13
L1
L2
L3
L4

66' DIAMETER METAL WATER TANK
TOP ELEV.=354.20'
BOTTOM ELEV=323.68'
AT OUTSIDE CONC. BASE

2 MG TANK PAD
100' DIA.
ELEV.=335.25

GENERATOR PAD
PAD ELEV. 330.25

F.F.E.=330.25
L.F.E.=322.08
50' 8" X 53' 4"
4 LS

CONTROL VALVE VAULT
TOP=331.50

+ 335.15

322.08 322.08

24" SUPPLY WATER MAIN FROM CITY
24" WATER MAIN TO CHESTERFIELD COUNTY
CITY METER VAULT
TOP=331.50

N:3,720,901.98'
E:11,755,112.47'
ELEV:341.42'
H&B TBAR #150

N:3,721,058.24'
E:11,755,377.07'
ELEV:335.39'
H&B T-BAR #103

CITY OF RICHMOND
D.B. 369, PG. 659 (RCH)
DPW NO. N-17952
PARCEL 2 (ESM'T FOR ROAD PURPOSES)
D.B. 780, PG. 567 (CCH)
CITY OF RICHMOND PARCEL ID: C0010891020
8800 W. HUGUENOT ROAD

9.0' SIDE YARD SETBACK
40.0' FRONT YARD SETBACK

CELL TOWER AREA
(INACCESSIBLE)
CATHODIC PROTECTION BOX
CELLPHONE TOWER AREA
ELECTRIC CATHODIC PROTECTION PANEL
6.0' CHAINLINK W/BARB WIRE
1-STORY AGGREGATE
RAISED CONC. WALKWAY W/HANDRAIL
CONC. PAD W/ METAL POLE
2-STORY BRICK & FRAME W/WALKOUT BASEMENT "FIRE STATION #25"
FFE=332.72'
BFFE=322.07'
GENERATOR
FILLER CAPS (TYP.)
MON/F
SHORT DASHED WHITE PAINTED LINES
SOLID WHITE PAINTED
DASHED WHITE PAINTED LINES
SOLID YELLOW PAINTED LINES
DASHED YELLOW PAINTED LINES
CONC. CURB
CONC. CURB & GUTTER
ASPHALT DITCH
GRASS DITCH
WOODS
GRAVEL
ASPHALT
CONC.
HAYDEN HILL LANE (PRIVATE)
30' R/W EASEMENT FOR INGRESS & EGRESS D.B 667, PG. 284 (CCH)
LP #NN43 VEPCO
PARCEL #2
PARCEL #1
#11349
6" PVC
PIPE F
12" CMP
WEST HUGUENOT ROAD
VARIABLE WIDTH R/W (SR 147)

0 10' 20' 40'
SCALE: 1" = 20'

| NO. | DATE | BY | REVISIONS |
|---|---|---|---|
| | | | |

Whitman, Requardt & Associates, LLP
9030 Stony Point Parkway, Suite 220, Richmond, Virginia 23235

PRELIMINARY DESIGN
NOT TO BE USED
FOR CONSTRUCTION

SCALE:
HORIZ: 1"=20'
VERT.: N/A
DATE: DEC. 2016
DESIGNED: Y.L.M.
DRAWN: Y.L.M.
CHECKED: S.L.L.
PROJECT NO.: 46501-031

CHESTERFIELD COUNTY
DEPARTMENT OF PUBLIC UTILITIES
9840 GOVERNMENT CENTER PKWY CHESTERFIELD, VA 23832

HUGUENOT ROAD PUMP STATION AND TANK
LANDSCAPING PLAN

SHEET X OF X

N:\46501-031\CADD\46501031L1-01.DWG

# Huguenot Pump Station and Tank

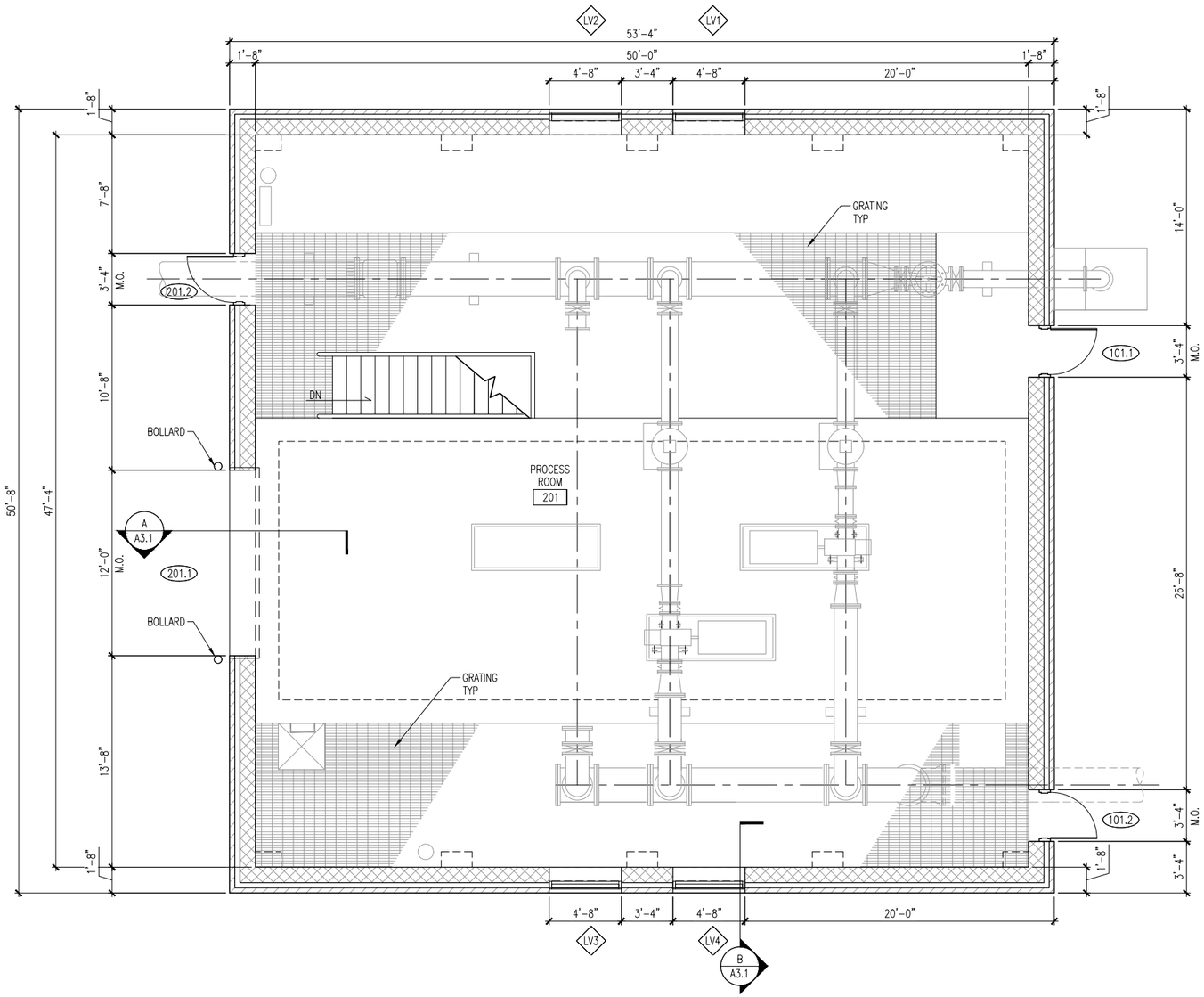
# Floor Plan, Wall Section and Elevations

## GENERAL SHEET NOTES

1. GENERAL SHEET NOTES TEXT
2. GENERAL SHEET NOTES TEXT

## SHEET KEYNOTES

1. SHEET KEYNOTES TEXT
2. SHEET KEYNOTES TEXT




1 / A1.1 GRADE LEVEL PLAN
SCALE: 1/4" = 1'-0"
REF:

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

| NO. | DATE | BY | REVISIONS |
|---|---|---|---|
| | | | |

N:\46501-031\CADD\46501031A1-01.DWG
FILENAME: N:\46501-031\CADD\46501031A1-01.DWG

PLOT DATE: 5/30/2017 3:58:24 PM PAGE SETUP: WRA-PDF (36x24) PLOT STYLE: WRA_2006.CTB PAPER SIZE:ARCH FULL BLEED D (36.00 X 24.00 INCHES)


Whitman, Requardt & Associates, LLP
9030 Stony Point Parkway, Suite 220, Richmond, Virginia 23235


PRELIMINARY DESIGN
NOT TO BE USED
FOR CONSTRUCTION

SCALE:
HORIZ:
VERT.:
DATE: DEC. 2016
DESIGNED:
DRAWN:
CHECKED:
PROJECT NO.: 46501-031

CHESTERFIELD COUNTY
DEPARTMENT OF PUBLIC UTILITIES
9840 GOVERNMENT CENTER PKWY CHESTERFIELD, VA 23832

HUGUENOT ROAD PUMP STATION AND TANK

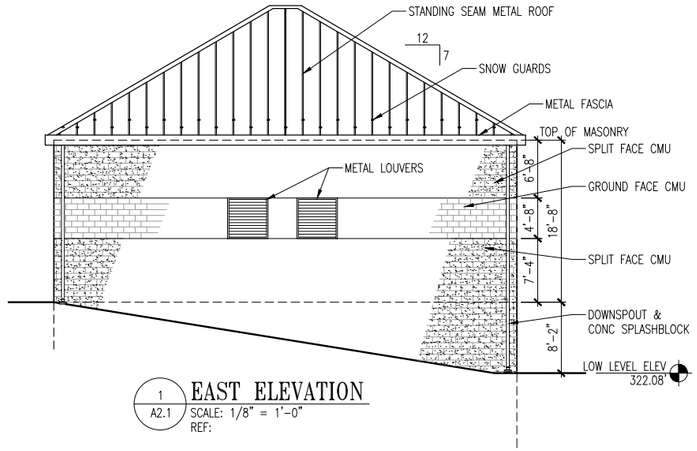
SHEET
OF
A1.1

## GENERAL SHEET NOTES

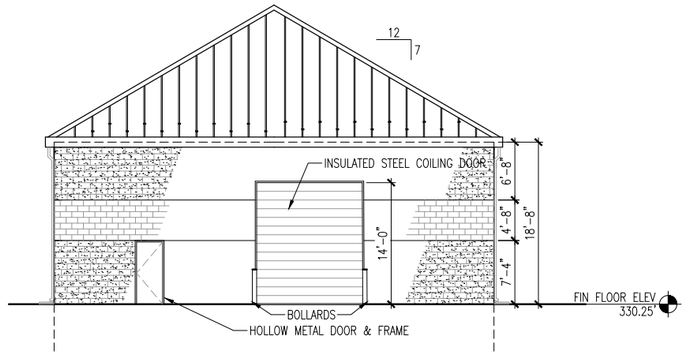
1. GENERAL SHEET NOTES TEXT
2. GENERAL SHEET NOTES TEXT

## SHEET KEYNOTES

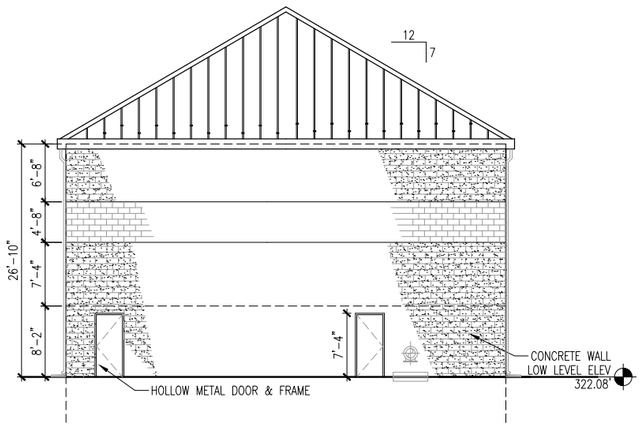
1. SHEET KEYNOTES TEXT
2. SHEET KEYNOTES TEXT



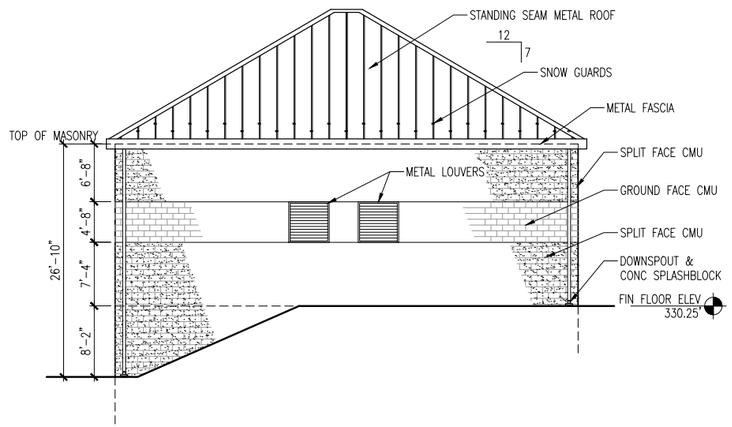

1 / A2.1 EAST ELEVATION
SCALE: 1/8" = 1'-0"
REF:




2 / A2.1 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"
REF:




3 / A2.1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"
REF:




4 / A2.1 WEST ELEVATION
SCALE: 1/8" = 1'-0"
REF:

0 4' 8' 16'
SCALE: 1/8" = 1'-0"

| NO. | DATE | BY | REVISIONS |
|---|---|---|---|
| | | | |


Whitman, Requardt & Associates, LLP
9030 Stony Point Parkway, Suite 220, Richmond, Virginia 23235


PRELIMINARY DESIGN
NOT TO BE USED
FOR CONSTRUCTION

SCALE:
HORIZ:
VERT.:
DATE: DEC. 2016
DESIGNED:
DRAWN:
CHECKED:
PROJECT NO.: 46501-031

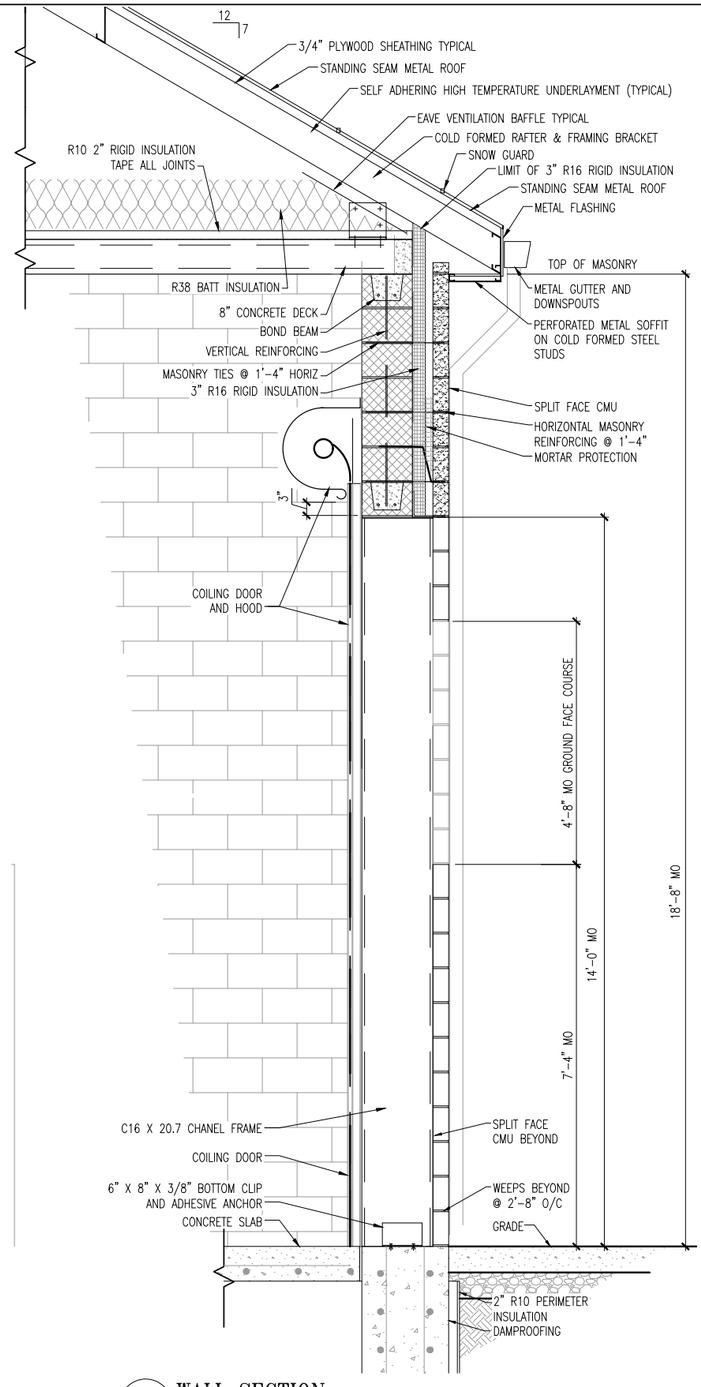
CHESTERFIELD COUNTY
DEPARTMENT OF PUBLIC UTILITIES
9840 GOVERNMENT CENTER PKWY CHESTERFIELD, VA 23832

HUGUENOT ROAD PUMP STATION AND TANK

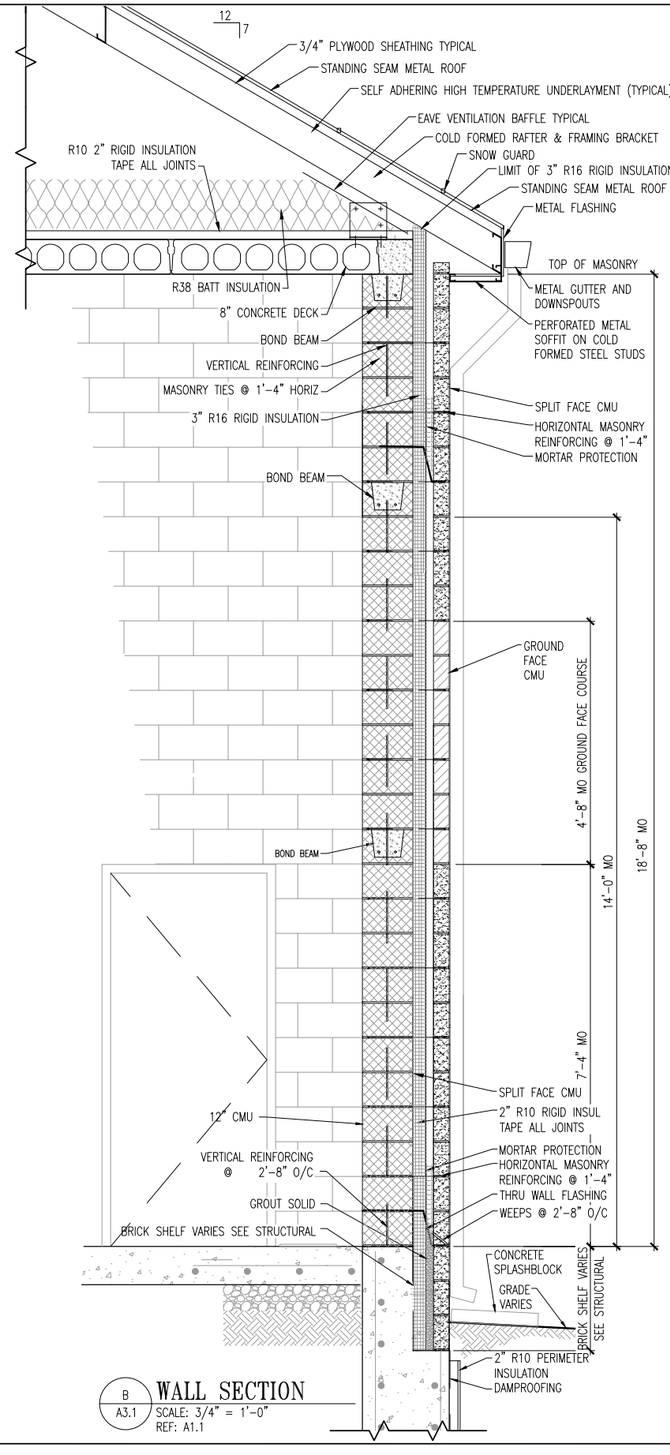
SHEET
OF
A2.1

N:\46501-031\CADD\46501031A2-01.DWG
PLOT DATE: 5/30/2017 3:56:34 PM PAGE SETUP: WRA-PDF (36X24) PLOT STYLE: WRA_ED96.CTB PAPER SIZE:ARCH FULL BLEED D (36.00 X 24.00 INCHES)

Xref .\General\Border\wra_bldg_36Hsb.dwg




A A3.1 **WALL SECTION**
SCALE: 3/4" = 1'-0"
REF: A1.1




B A3.1 **WALL SECTION**
SCALE: 3/4" = 1'-0"
REF: A1.1

## GENERAL SHEET NOTES

1. GENERAL SHEET NOTES TEXT
2. GENERAL SHEET NOTES TEXT

## SHEET KEYNOTES

1. SHEET KEYNOTES TEXT
2. SHEET KEYNOTES TEXT

0 1' 2' 3'
SCALE: 3/4" = 1'-0"

| NO. | DATE | BY | REVISIONS |
|---|---|---|---|
| | | | |

N:\46501-031\CAD\46501031A3-01.DWG

PLOT DATE: 5/30/2017 3:50:15 PM PAGE SETUP: WRA-PSF CB42A0 PLOT STYLE: WRA_BW&CTB PAPER SIZE:ARCH FULL BLEED D (36.00 X 24.00 INCHES)

Whitman, Requardt & Associates, LLP
9030 Stony Point Parkway, Suite 220, Richmond, Virginia 23235

PRELIMINARY DESIGN
NOT TO BE USED
FOR CONSTRUCTION

SCALE:
HORIZ:
VERT.:
DATE: DEC. 2016
DESIGNED:
DRAWN:
CHECKED:
PROJECT NO.: 46501-031

CHESTERFIELD COUNTY
DEPARTMENT OF PUBLIC UTILITIES
9840 GOVERNMENT CENTER PKWY CHESTERFIELD, VA 23832

HUGUENOT ROAD PUMP STATION AND TANK

SHEET
OF
A3.1

# Huguenot Pump Station and Tank

# Renderings

East Elevation

North Elevation

Huguenot Pump Station and Tank

**City of Richmond, Department of Public Utilities**

Elevations

2017.05.25

West Elevation

South Elevation

Huguenot Pump Station and Tank

**City of Richmond, Department of Public Utilities**

Elevations

2017.05.25

Huguenot Pump Station and Tank

**City of Richmond, Department of Public Utilities**

Rendering View 01 - Tank Option 01

2018.01.22

Huguenot Pump Station and Tank

**City of Richmond, Department of Public Utilities**

Rendering View 02 - Tank Option 01

2018.02.08

# Huguenot Pump Station and Tank

# Light Fixture Cut Sheets

# TWH LED
## LED Wall Luminaire

Catalog Number

Notes Garage Door Light Fixture

Type West Elevation Light Fixture

*Hit the Tab key or mouse over the page to see all interactive elements.*

## Introduction

The popular TWH luminaire is now available with LED technology. Cast in a traditional dayform, the TWH LED offers a classic appearance and is powered by advanced LEDs.

The new TWH LED luminaire is powerful yet energy efficient, capable of replacing up to a 400W metal halide luminaire while saving up to 77% in energy costs. Offering an expected service life of more than 20 years, the TWH LED eliminates frequent lamp and ballast replacements associated with traditional technologies.

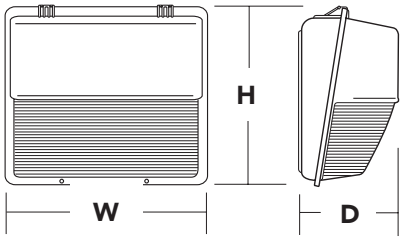
## Specifications

**Width:** 16-1/4" *(41.3 cm)*

**Height:** 15-3/4" *(40.0 cm)*

**Depth:** 8" *(20.3 cm)*

**Weight:** 28 lbs *(12.7 kg)*




## Ordering Information

**EXAMPLE:** TWH LED 30C 1000 50K T3M MVOLT DDBXD

| TWH LED | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Series** | **LEDs** | **Drive current** | **Color temperature** | **Distribution** | **Voltage** | **Control Options** | **Other Options** | **Finish** *(required)* |
| TWH LED | 10C 10 LEDs (one engine)<br>20C 20 LEDs (two engines)<br>30C 30 LEDs (one engine) | 1000 1000 mA (1 A) | 40K 4000K<br>50K 5000K | T3M Type III Medium | MVOLT [1]<br>120 [1]<br>208 [1]<br>240 [1]<br>277 [1]<br>347 [2]<br>480 [2,3] | **Shipped installed**<br>PER NEMA twist-lock receptacle only (no controls)<br>PE Photoelectric cell, button type [4] | **Shipped installed**<br>SF Single fuse (120, 277, 347V) [5]<br>DF Double fuse (208, 240, 480V) [5]<br>TP Tamper proof screws<br>NOM NOM Certified<br>SPD Separate surge protection [6]<br>ELSW Emergency battery backup (standard 0°C) [7]<br>ELCW Emergency battery backup (cold weather -20°C) [7]<br>**Shipped separately**<br>VG Vandal guard [8]<br>WG Wire guard [8] | DDBXD Dark bronze<br>DBLXD Black<br>DNAXD Natural aluminum<br>DWHXD White<br>DDBTXD Textured dark bronze<br>DBLBXD Textured black<br>DNATXD Textured natural aluminum<br>DWHGXD Textured white |

***Stock configurations are offered for shorter lead times:***

| Standard Part Number | Stock Part Number |
|---|---|
| TWH LED 10C 1000 40K T3M MVOLT DDBXD | **TWH LED 10C 40K** |
| TWH LED 20C 1000 40K T3M MVOLT DDBXD | **TWH LED 20C 40K** |
| TWH LED 30C 1000 40K T3M MVOLT DDBXD | **TWH LED 30C 40K** |
| TWH LED 10C 1000 50K T3M MVOLT DDBXD | **TWH LED 10C 50K** |
| TWH LED 20C 1000 50K T3M MVOLT DDBXD | **TWH LED 20C 50K** |
| TWH LED 30C 1000 50K T3M MVOLT DDBXD | **TWH LED 30C 50K** |

## Accessories

*Ordered and shipped separately.*

| | |
|---|---|
| DLL127F 1.5 JU | Photocell - SSL twist-lock (120-277V) [9] |
| DLL347 1.5 CUL JU | Photocell - SSL twist-lock (347V) [9] |
| DLL480 1.5 CUL JU | Photocell - SSL twist-lock (480V) [9] |
| DSHORT SBK U | Shorting cap [9] |
| TWHVG U | Vandal guard accessory [10] |
| TWHWG U | Wire guard accessory [10] |

For more control options, visit *DTL* and *ROAM* online.

NOTES

1. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options) or photocontrol (PE).
2. Not available with 10C option.
3. Not available with PE option.
4. Must specify voltage; not available with MVOLT. Not available with 480V.
5. Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
6. See the electrical section on page 2 for more details.
7. Not available with 30C, 347, 480, PER, or SPD. Emergency mode IES files located on product page at www.lithonia.com. ELSW and ELCW warranty is 3-year period.
8. VG and WG options cannot be installed together. Also available as a separate accessory; see Accessories information at left.
9. Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item.
10. Requires field modification (only when ordered as a separate accessory).

LITHONIA LIGHTING

One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • www.lithonia.com

# Performance Data

## Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

| LEDs | Drive Current (mA) | Performance Package | System Watts | Dist. Type | 40K (4000K, 70 CRI) | | | | | 50K (5000K, 70 CRI) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Lumens | B | U | G | LPW | Lumens | B | U | G | LPW |
| 10C (10 LEDs) | 1000 | 10C 1000 --K | 39W | T3M | 3,377 | 0 | 3 | 3 | 87 | 3,398 | 0 | 3 | 3 | 87 |
| 20C (20 LEDs) | 1000 | 20C 1000 --K | 72W | T3M | 6,983 | 1 | 3 | 4 | 97 | 7,027 | 1 | 3 | 4 | 97 |
| 30C (30 LEDs) | 1000 | 30C 1000 --K | 104W | T3M | 8,375 | 1 | 3 | 5 | 81 | 8,427 | 1 | 3 | 5 | 81 |

## Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

| Ambient | | Lumen Multiplier |
|---|---|---|
| 0°C | 32°F | 1.02 |
| 10°C | 50°F | 1.01 |
| 20°C | 68°F | 1.00 |
| **25°C** | **77°F** | **1.00** |
| 30°C | 86°F | 1.00 |
| 40°C | 104°F | 0.98 |

## Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **TWH LED 30C 1000** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

| Operating Hours | 0 | 25,000 | 50,000 | 100,000 |
|---|---|---|---|---|
| Lumen Maintenance Factor | 1.00 | 0.97 | 0.93 | 0.87 |

## Electrical Load

| LEDs | Drive Current (mA) | System Watts | Current (A) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 120 | 208 | 240 | 277 | 347 | 480 |
| 10C | 1000 | 39 W | 0.36 | 0.21 | 0.18 | 0.16 | - | - |
| 20C | 1000 | 72 W | 0.67 | 0.38 | 0.33 | 0.29 | 0.23 | 0.17 |
| 30C | 1000 | 104 W | 0.96 | 0.56 | 0.48 | 0.42 | 0.33 | 0.24 |

# Options and Accessories

VG - Vandal guard

WG - Wire guard

## FEATURES & SPECIFICATIONS

**INTENDED USE**
The energy savings, long life and easy-to-install design of the TWH LED make it the smart choice for building-mounted doorway and pathway illumination for nearly any facility.

**CONSTRUCTION**
Die-cast aluminum housing has an impact-resistant, tempered glass lens that is fully gasketed. Modular design allows for ease of maintenance. The LED driver is mounted to the front casting to thermally isolate it from the light engine for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants.

**FINISH**
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in textured and non-textured finishes.

**OPTICS**
Protective glass lens covers the light engine's precision-molded proprietary acrylic lenses. Light engines are available in 4000K and 5000K configurations.

**ELECTRICAL**
Light engine(s) consist of 10 or 30 high-efficacy LEDs mounted to a metal-core circuit board and integral aluminum heat sink to maximize heat dissipation and promote long life (L87/100,000 hrs at 25°C). The electronic driver has a power factor of >90%, THD <20%, and a minimum 2.5 KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C low operation (per ANSI/IEEE C62.41.2).

**INSTALLATION**
Back housing is separated from front housing, eliminating ballast weight and promoting easy handling. Top 3/4" threaded wiring access. Back access through removable 3/4" knockout. Feed-thru wiring can be achieved by using a condulet tee. Mount on any vertical surface. Not recommended in applications where a sprayed stream of water can come in direct contact with glass lens.

**LISTINGS**
UL listed for wet locations. Rated for -40°C minimum ambient. Luminaire is IP55 rated.

**WARRANTY**
Five-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

**Note:** Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

# WST LED
## Architectural Wall Sconce

Catalog Number

Notes Pedestrian Door Light Fixture

Type

*Hit the Tab key or mouse over the page to see all interactive elements.*

## Specifications

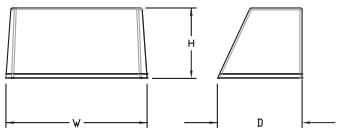
### Luminaire

**Height:** 8-1/2" *(21.59 cm)*

**Width:** 17" *(43.18 cm)*

**Depth:** 10-3/16" *(25.9 cm)*

**Weight:** 20 lbs *(9.1 kg)*

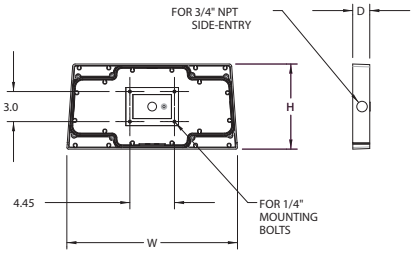



### Optional Back Box (BBW)

**Height:** 4" *(10.2 cm)*

**Width:** 5-1/2" *(14.0 cm)*

**Depth:** 1-1/2" *(3.8 cm)*




## Introduction

The WST LED is designed with the specifier in mind. The traditional, trapezoidal shape offers a soft, non-pixilated light source for end-user visual comfort. For emergency egress lighting, the WST LED offers six battery options, including remote. For additional code compliance and energy savings, there is also a Bi-level motion sensor option. With so many standard and optional features, three lumen packages, and high LPW, the WST LED is your "go to" luminaire for most any application.

## Ordering Information

**EXAMPLE:** WST LED P1 40K VF MVOLT DDBTXD

| WST LED | | | | | |
|---|---|---|---|---|---|
| **Series** | **Performance Package** | **Color temperature** | **Distribution** | **Voltage** | **Mounting** |
| WST LED | P1 1,500 Lumen package<br>P2 3,000 Lumen package<br>P3 6,000 Lumen package | 27K 2700 K<br>30K 3000 K<br>40K 4000 K<br>50K 5000 K | VF Visual comfort forward throw<br>VW Visual comfort wide | MVOLT[1] 277[1]<br>120[1] 347<br>208[1] 480<br>240[1] | **Shipped included**<br>(blank) Surface mounting bracket<br>**Shipped separately**<br>BBW Surface-mounted back box[2]<br>PBBW Premium surface-mounted back box[2,3] |

| Options | | Finish *(required)* | |
|---|---|---|---|
| PE | Photoelectric cell, button type | DDBXD | Dark bronze |
| PER | NEMA twist-lock receptacle only | DBLXD | Black |
| PER5 | Five-wire receptacle only | DNAXD | Natural aluminum |
| PER7 | Seven-wire receptacle only | DWHXD | White |
| DMG | 0-10V dimming extend out back of honsing for external control (no control)[4] | DSSXD | Sandstone |
| PIR | Motion/Ambient Light Sensor, 8-15' mounting height[5] | DDBTXD | Textured dark bronze |
| PIR1FC3V | Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[5] | DBLBXD | Textured black |
| PIRH | 180° motion/ambient light sensor, 15-30' mounting height[5] | DNATXD | Textured natural aluminum |
| PIRH1FC3V | Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[5] | DWHGXD | Textured white |
| SF | Single fuse (120, 277, 347V)[6] | DSSTXD | Textured sandstone |
| DF | Double fuse (208, 240, 480V)[6] | | |
| DS | Dual switching[7] | | |
| E7WH | Emergency battery backup (7W)[8] | | |
| E7WC | Emergency battery backup (cold, 7W)[8,9] | | |
| E7WHR | Remote emergency battery backup (remote 7W)[8,10] | | |
| E20WH | Emergency battery backup (20W)[8,11] | | |
| E20WC | Emergency battery backup (cold, 20W)[8,9,11] | | |
| E23WHR | Remote emergency battery backup (remote 20W)[8,10] | | |
| LCE | Left side conduit entry[12] | | |
| RCE | Right side conduit entry[12] | | |
| **Shipped separately** | | | |
| RBPW | Retrofit back plate[2] | | |
| VG | Vandal guard[13] | | |
| WG | Wire guard[13] | | |

## Accessories

*Ordered and shipped separately.*

| | |
|---|---|
| WSTVCPBBW DDBXD U | Premium Surface - mounted back box |
| WSBBW DDBTX U | Surface - mounted back box |
| RBPW DDBXD U | Retrofit back plate |

NOTES

1 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only. when ordering with button type photocell (PE), fusing (SF, DF), or dual switching (DS).
2 Also available as a separate accessory; see accessories information.
3 Top conduit entry standard.
4 Not available with E7WH, E7WC, E7WHR, E20WC, E20WH, or E23WHR. Not available with PER5 & PER7.
5 Not available with PE, PER, PER5, PER7, VG or WG.
6 Not available with MVOLT option. Button photocell (PE) can be ordered with a dedicated voltage option. Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
7 Not available with E7WH, E7WC, E7WHR, E20WC, E20WH, or E23WHR. Used with inverter system. Not available with 347/480V. Not available with PE, PER, PER5 & PER7.
8 Not available with 347/480V.
9 Battery pack rated for -20° to 40°C.
10 Comes with PBBW.
11 Warranty period is 3-years.
12 Not available with BBW.
13 Must order with fixture; not an accessory.

## Emergency Battery Operation

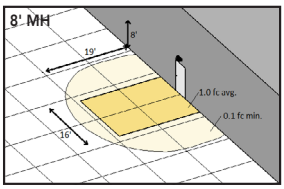
The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product.

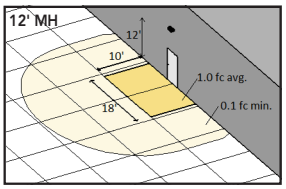
All emergency backup configurations include an independent secondary driver with an integral relay to immediately detect AC power loss, meeting interpretations of NFPA 70/NEC 2008 - 700.16

The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time supply power is lost, per International Building Code Section 1006 and NFPA 101 Life Safety Code Section 7.9, provided luminaires are mounted at an appropriate height and illuminate an open space with no major obstructions.

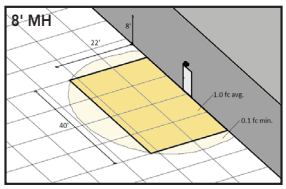
The examples below show illuminance of 1 fc average and 0.1 fc minimum of the P1 power package and VF distribution product in emergency mode.

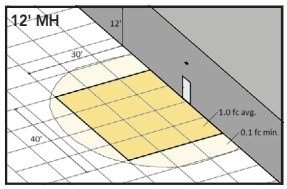
10' x 10' Gridlines
8' and 12' Mounting Height




WST LED P1 27K VF MVOLT E7WH




WST LED P2 40K VF MVOLT E20WH

# Performance Data

## Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts.

| Performance Package | System Watts (MVOLT[1]) | Dist. Type | 27K (2700K, 70 CRI) | | | | | 30K (3000K, 70 CRI) | | | | | 40K (4000K, 70 CRI) | | | | | 50K (5000K, 70 CRI) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Lumens | B | U | G | LPW | Lumens | B | U | G | LPW | Lumens | B | U | G | LPW | Lumens | B | U | G | LPW |
| P1 | 12W | VF | 1,494 | 0 | 0 | 0 | 125 | 1,529 | 0 | 0 | 0 | 127 | 1,639 | 0 | 0 | 0 | 137 | 1,639 | 0 | 0 | 0 | 137 |
| | | VW | 1,513 | 0 | 0 | 0 | 126 | 1,548 | 0 | 0 | 0 | 129 | 1,660 | 0 | 0 | 0 | 138 | 1,660 | 0 | 0 | 0 | 138 |
| P2 | 25W | VF | 3,162 | 1 | 0 | 1 | 126 | 3,236 | 1 | 0 | 1 | 129 | 3,468 | 1 | 0 | 1 | 139 | 3,468 | 1 | 0 | 1 | 139 |
| | | VW | 3,202 | 1 | 0 | 0 | 128 | 3,277 | 1 | 0 | 0 | 131 | 3,512 | 1 | 0 | 0 | 140 | 3,512 | 1 | 0 | 0 | 140 |
| P3 | 50W | VF | 6,023 | 1 | 0 | 1 | 120 | 6,164 | 1 | 0 | 1 | 123 | 6,607 | 1 | 0 | 1 | 132 | 6,607 | 1 | 0 | 1 | 132 |
| | | VW | 6,100 | 1 | 0 | 1 | 122 | 6,242 | 1 | 0 | 1 | 125 | 6,691 | 1 | 0 | 1 | 134 | 6,691 | 1 | 0 | 1 | 134 |

## Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

| Ambient | | Lumen Multiplier |
|---|---|---|
| 0°C | 32°F | 1.03 |
| 10°C | 50°F | 1.02 |
| 20°C | 68°F | 1.01 |
| **25°C** | **77°F** | **1.00** |
| 30°C | 86°F | 0.99 |
| 40°C | 104°F | 0.98 |

## Projected LED Lumen Maintenance

Values calculated according to IESNA TM-21-11 methodology and valid up to 40°C.

| Operating Hours | 0 | 25,000 | 50,000 | 100,000 |
|---|---|---|---|---|
| Lumen Maintenance Factor | 1.0 | >0.95 | >0.92 | >0.87 |

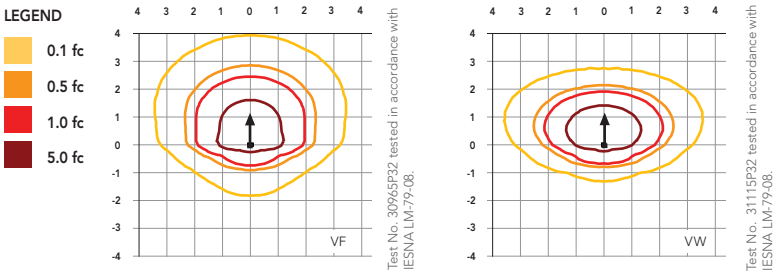
## Electrical Load

| Performance package | System Watts | Current (A) | | | | | |
|---|---|---|---|---|---|---|---|
| | | 120 | 208 | 240 | 277 | 347 | 480 |
| P1 | 11 | 0.1 | 0.06 | 0.05 | 0.04 | --- | --- |
| | 14 | --- | --- | --- | --- | 0.04 | 0.03 |
| P1 DS | 14 | 0.12 | 0.07 | 0.06 | 0.06 | --- | --- |
| P2 | 25 | 0.21 | 0.13 | 0.11 | 0.1 | --- | --- |
| | 30 | --- | --- | --- | --- | 0.09 | 0.06 |
| P2 DS | 25 | 0.21 | 0.13 | 0.11 | 0.1 | --- | --- |
| P3 | 50 | 0.42 | 0.24 | 0.21 | 0.19 | --- | --- |
| | 56 | --- | --- | --- | --- | 0.16 | 0.12 |
| P3 DS | 52 | 0.43 | 0.26 | 0.23 | 0.21 | --- | --- |

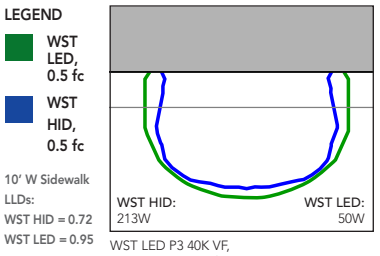
## Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's WST LED homepage.

Isofootcandle plots for the WST LED P3 40K VF and VW. Distances are in units of mounting height (10').




Distribution overlay comparison to 175W metal halide.




WST LED P3 40K VF,
WST 175M FT Probe, 12' Mounting Ht

## FEATURES & SPECIFICATIONS

### INTENDED USE
The classic architectural shape of the WST LED was designed for applications such as hospitals, schools, malls, restaurants, and commercial buildings. The long life LEDs and driver make this luminaire nearly maintenance-free.

### CONSTRUCTION
The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP65 rating for the luminaire.

### FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

### OPTICS
Well crafted reflector optics allow the light engine to be recessed within the luminaire, providing visual comfort, superior distribution, uniformity, and spacing in wall-mount applications. The WST LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

### ELECTRICAL
Light engine(s) consist of 98 high-efficacy LEDs mounted to a metal core circuit board and integral aluminum heat sinks to maximize heat dissipation and promote long life (100,000 hrs at 40°C, L87). Class 2 electronic driver has a power factor >90%, THD <20%. Easily-serviceable surge protection device meets a minimum Category B (per ANSI/IEEE C62.41.2).

### INSTALLATION
A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections.

### LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. PIR and back box options are rated for wet location. Rated for -30°C to 40°C ambient.

DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

### WARRANTY
5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

**Note:** Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

# Huguenot Pump Station and Tank

## Product Information for Exterior Building Materials

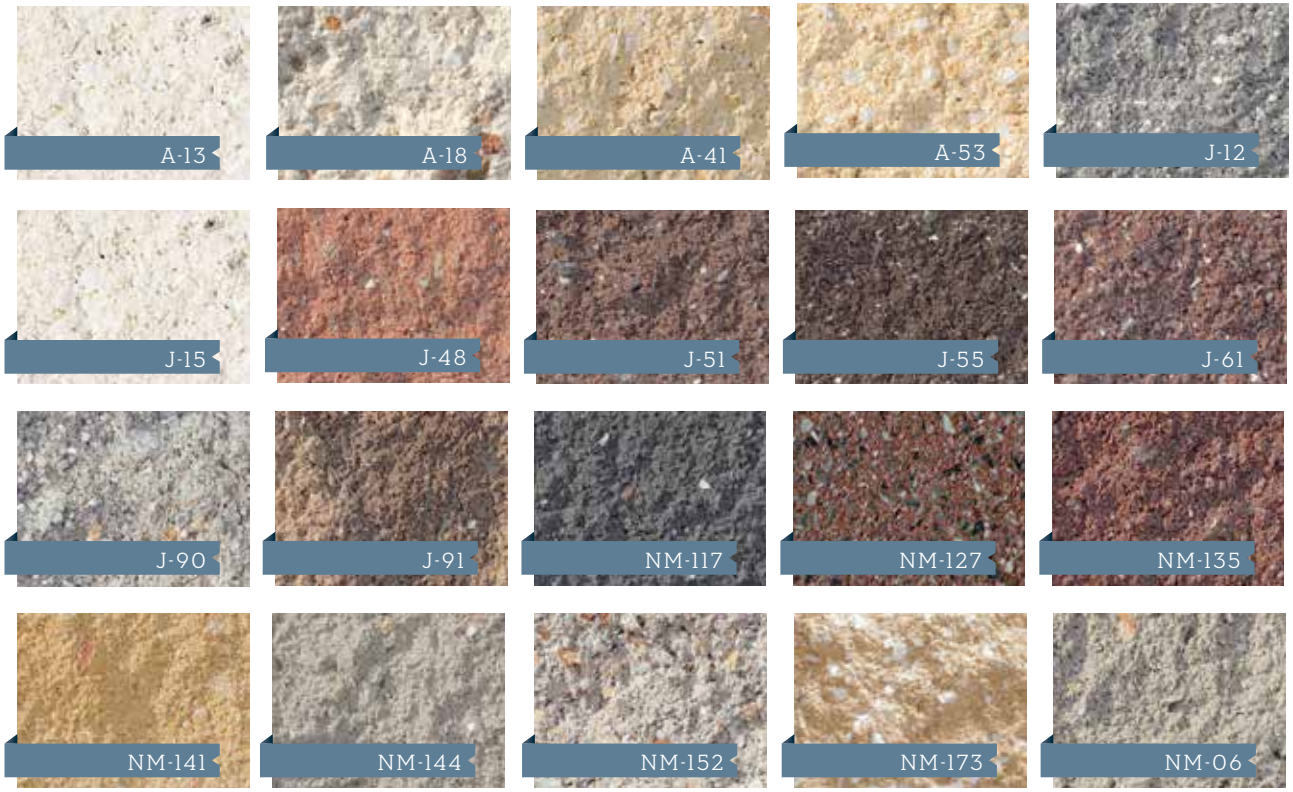

Split Face CMU - color J46S Earth Brown

## IDEAL FOR

- Interior & exterior facades
- Adding texture & drama
- Accent band

## PHOTO

**PetSmart**
Chambersburg, PA
Color: NM-141

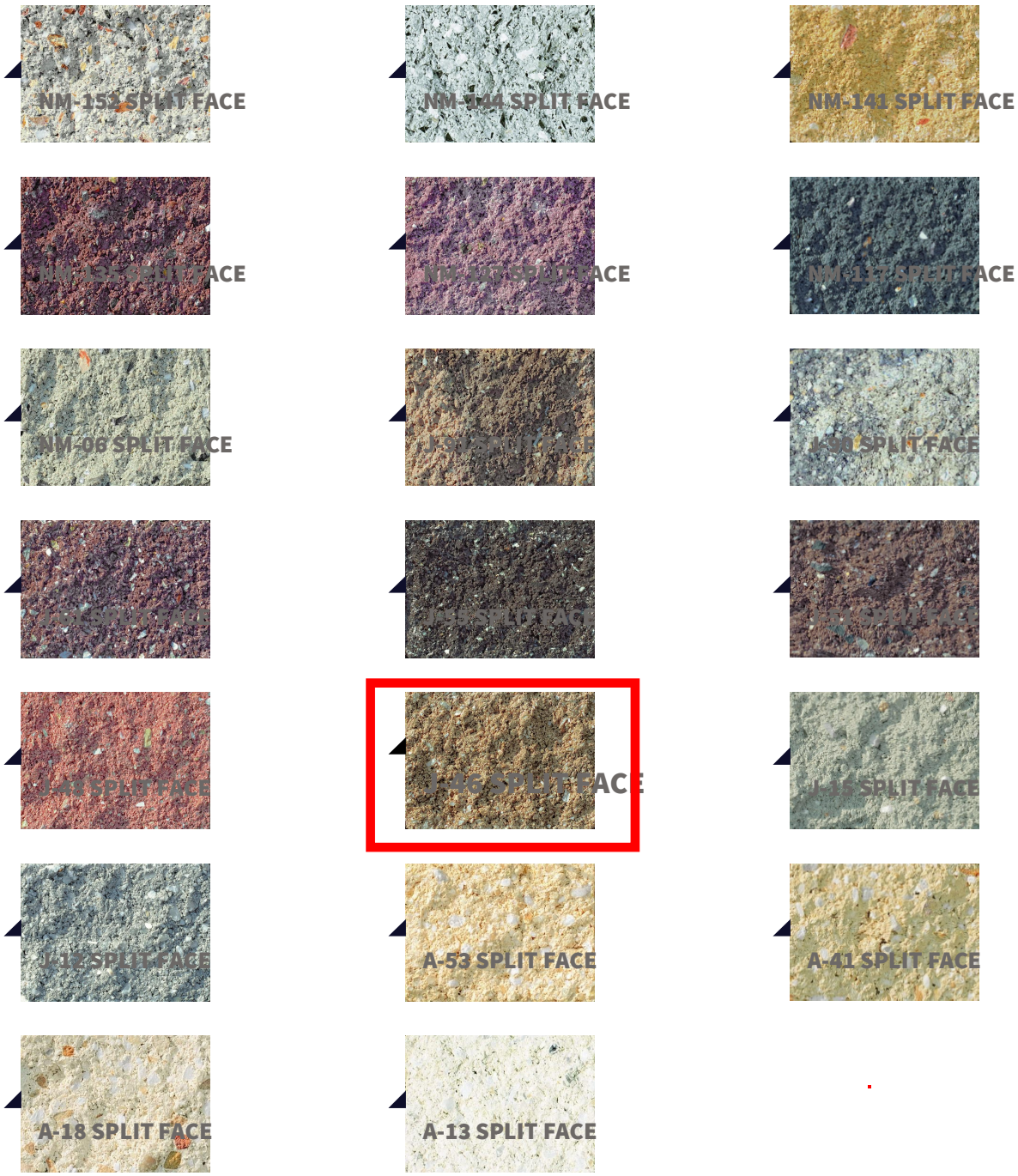



# SPLIT FACE FINISH

## SUPERIOR DURABILITY WITH DEPTH & DIMENSION

Nitterhouse's split face block is produced with a textured relief look that provides depth and dimension to each individual block while still providing superior quality and durability. Our split face block meets ASTM-C90 standard specification for loadbearing concrete masonry units and can also be used at and below grade. All of Nitterhouse's CMU's come in a wide variety of colors and matching Type-S mortar. Custom colors are also available. Contact your representative for more information.

## J-46 Split Face



Ground Face CMU - color A-53 Vanilla

## IDEAL FOR

- Interior & exterior facades
- Adding appeal & uniform finish
- Accent band
- Natural beauty due to aggregates

## PHOTO

**Shippensburg University Dorm**
Shippensburg, PA
Colors: A-18 (not shown) & NM-173


# GROUND FACE FINISH

## LOADBEARING, UNIFORM CMU'S

Nitterhouse's ground face CMU is produced with the highest quality materials and made with extreme attention, making every block uniform. Not only does our ground face block meet ASTM-C90 standard specification for loadbearing concrete masonry units, they can also be used both at and below grade. We offer a vast variety of colors and matching Type-S mortar. Custom colors are also available. Contact your representative for more information.

# Merchant & Evans, Inc.

Architectural and Structural Roofing Products

Standing Seam Roof - color Dove Grey (13)

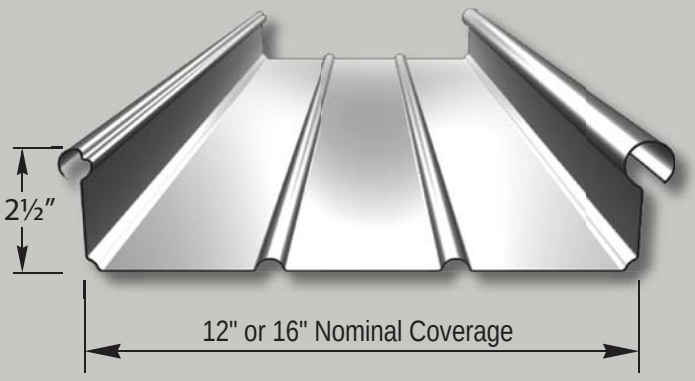
800-257-6215
www.ziprib.com

# ZIP-RIB®

Structural Standing Seam Roof & Wall Panel System

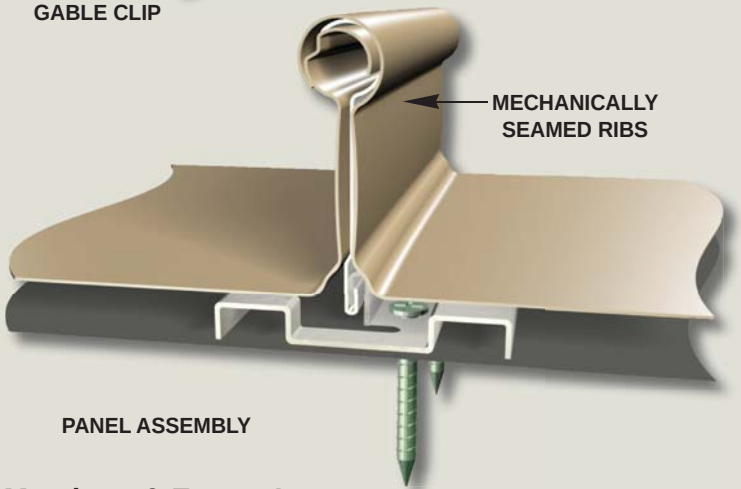
# ZIP-RIB®

## Structural Standing Seam Roof & Wall Panel System




SLIDING HOOK PANEL CLIP

GABLE CLIP




PANEL ASSEMBLY

Applications
Structural roofing on slopes 1/4" per foot or greater.
Continuous lengths exceeding 460 ft.
Vertical walls. Conical tapers. Convex / Concave curves.

Substrates
Open purlin / Re-Roof framing / Plywood / Metal Deck

Standard Materials
24 , 22, 20 Ga. Galvalume (Aluminum/Zinc Coated Steel)
24, 22 Ga. Stainless Steel
.032, .040, .050 Aluminum
Mill Finish or with 1.0 Mil Kynar Coating System.
Smooth or Stucco-Embossed Surface.
Factory or field roll formed / mechanically curved.
Other Materials, Gauges & Custom Coatings available.

Performance
UL-90 Uplift, UL Class "A", UL P-XYZ Assemblies.
Factory Mutual Approved, Dade County Approved.
AAMA-501 Tested ASTM E-1592 Tested
ASTM E-1646 Tested ASTM E-1680 Tested
ASTM E-283 Tested ASTM E-331 Tested
ASTM E-2140 Tested F.B.C. Approved
New York City MEA, Thermal-Cycle Clip Test.
US Army Corps of Engineers.

**Merchant & Evans, Inc.** (East Coast) 308 Connecticut Dr. Burlington, NJ 08016 ♦ (West Coast) 419 E. Juanita Ave. Mesa, AZ 85204
phone: 800-257-6215 fax: 609-387-4838 website: www.ziprib.com

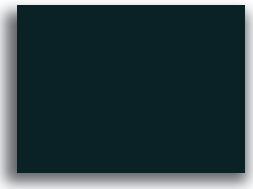
Updated June 2012

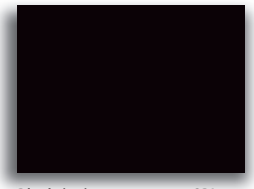
# Merchant & Evans, Inc.

## ZIP-RIB®

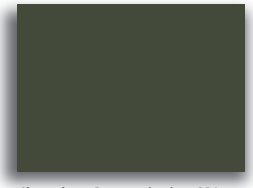
Architectural and Structural Roofing Products

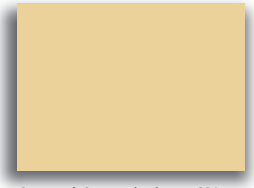
## Standard Colors

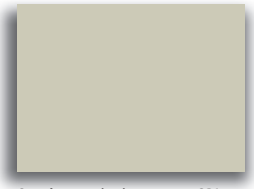

Classic Bronze (01) SRI:3

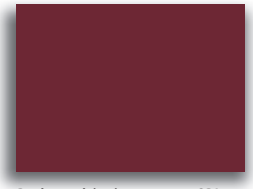

Black (02) SRI: -1

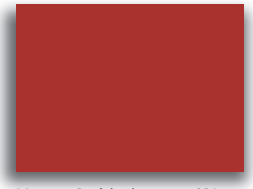

Medium Bronze (03) SRI:33

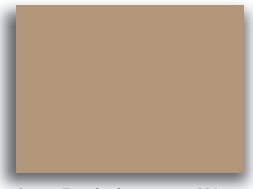

Chocolate Brown (04) SRI:25

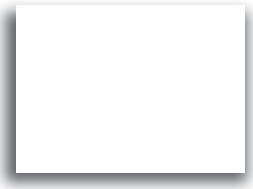

Concord Cream (05) SRI:78

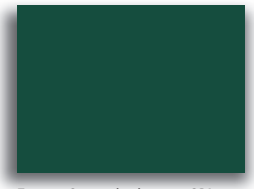

Sandstone (06) SRI:66


Redwood (07) SRI:29

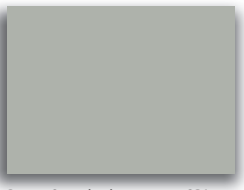

Mission Red (08) SRI:48


Sierra Tan (09) SRI:51

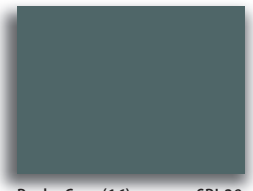

Ascot White (10) SRI:80

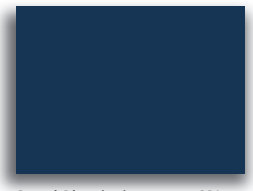

Forest Green (11) SRI:23

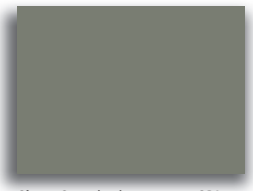

Patina Green (12) SRI:47

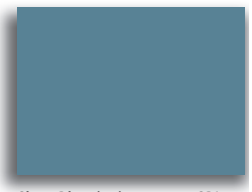

Dove Grey (13) SRI:54

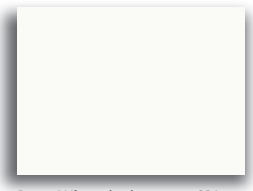

Rawhide (15) SRI:64


Rocky Grey (16) SRI:28


Regal Blue (18) SRI:23


Slate Grey (20) SRI:42


Slate Blue (21) SRI:31


Bone White (26) SRI:89

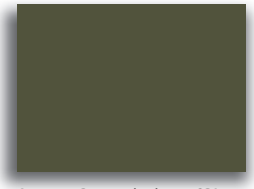

Charcoal Grey (62) SRI:27

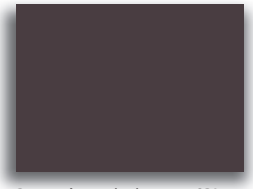
## Premium Colors


Siam Blue (14) SRI:35

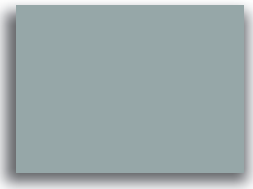

Teal (19) SRI:30


Coppertone (23) SRI:57


Antique Patina (24) SRI:25

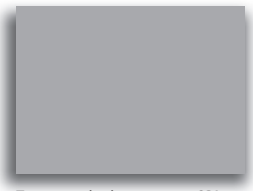

Boysenberry (25) SRI:27


Hartford Green (27) SRI:23


Silversmith (28) SRI:51


Hemlock Green (30) SRI:30


Champagne (31) SRI:62


Titanium (35) SRI:59

Colors shown are for representation purposes only. Actual color samples available upon request. Contact Merchant & Evans, Inc. for more info.

SRI=Solar Reflectance Index

CRRC COOL ROOF RATING COUNCIL

ENERGY STAR

Updated Mar 7 2016

**Merchant & Evans, Inc.**
Burlington, NJ / Mesa, AZ

800-257-6215
www.ziprib.com