



CITY OF HARRISONBURG PUBLIC UTILITIES

2155 BEERY ROAD, HARRISONBURG, VA 22801
OFFICE (540) 434-9959 • FAX (540) 434-9769

Harrisonburg Public Utilities Fairview Pump Station – Plan Description

July 1, 2021

TM#: 18 G 90

The property at 1181 Harrison St comprises of two utility structures, one of which is a sanitary sewer lift station owned and maintained by Harrisonburg Public Utilities. The existing pump station has functioned well beyond its useful life. Structural failures have occurred within the wet and dry well division wall. Motors and pumps are aging as well and considered antiquated as replacement parts are unavailable.

Design of a new Pump Station to replace the existing Fairview Pump Station includes the realignment and retrofitting of all associated appurtenances of the sewer pump station. The proposed design will separate and relocate the pumps to an elevated pump house above the flood plain. Existing wet and dry wells will be replaced in their current location.

Working within the City's existing property boundaries conflicts with setback and parking lot landscaping requirements as the new design has a larger footprint to meet current and future needs of the pump station. Challenges with the existing structures, separations, and congested utilities have caused the new structure design to encroach into minimum zoning setback requirements and makes it not possible to meet parking lot landscaping requirements. Therefore, we are requesting approval to deviate from the minimum front, side, and rear yard setback requirements and to deviate from parking lot landscaping requirements in order to proceed with the necessary improvements.

Sincerely,

Zachary A. Hinch

Engineer

Zachary.Hinch@HarrisonburgVA.gov

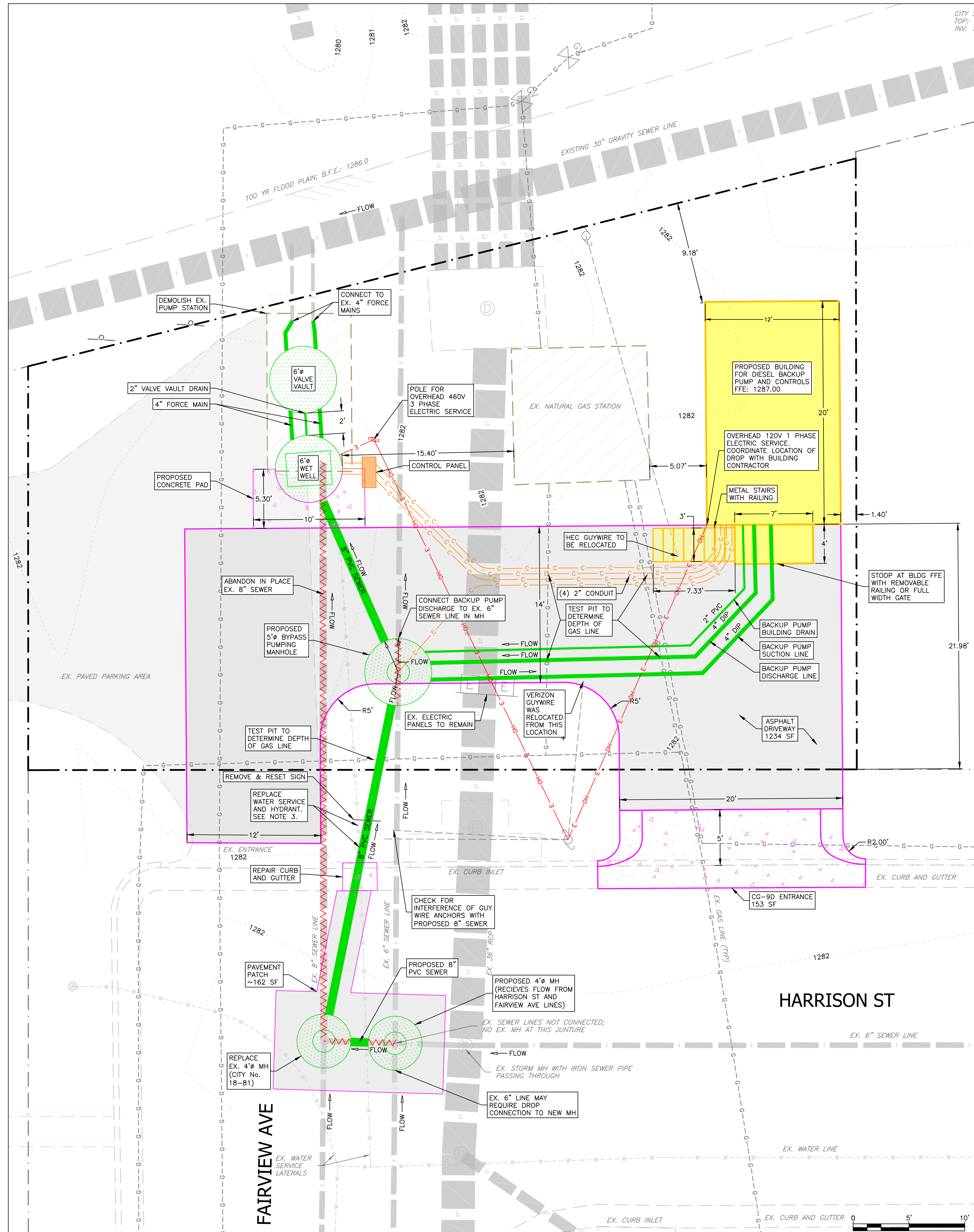
Department of Public Utilities
2155 Beery Road
Harrisonburg, VA 22801

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www.HarrisonburgVA.gov

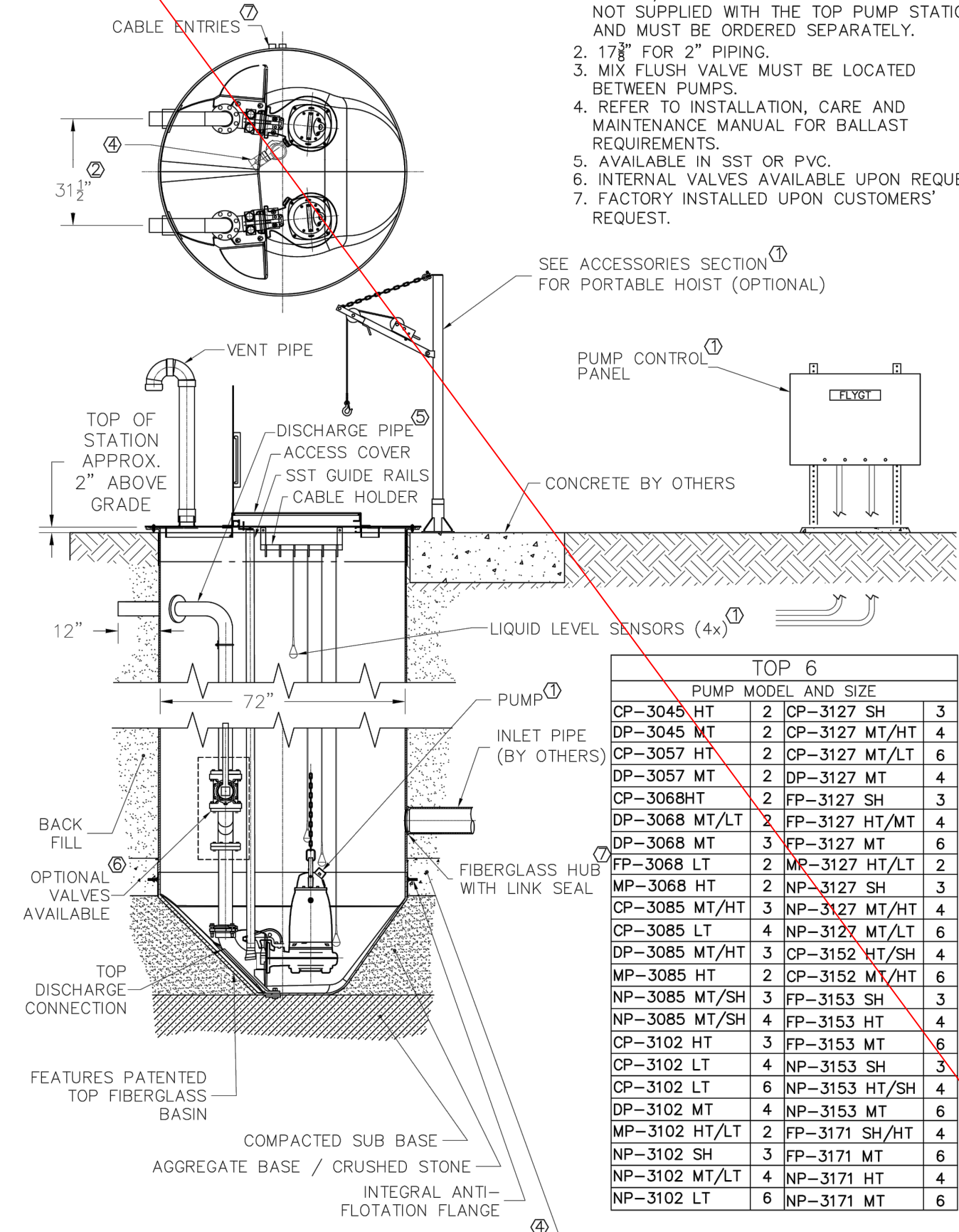
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SITE LAYOUT



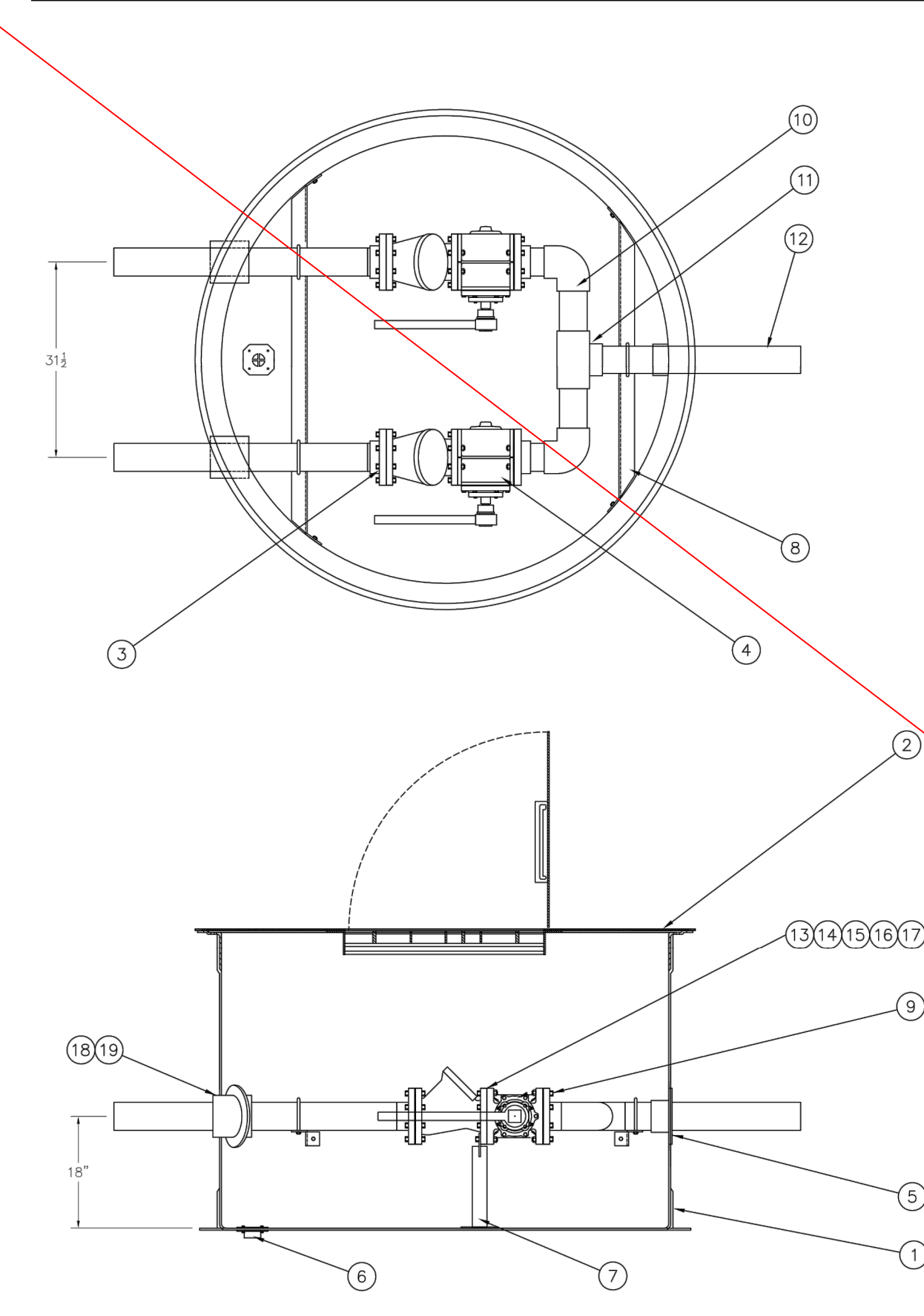
TOP 6 (Duplex Station)
(Fiberglass Station - 3045 thru 3171)



PUMP STATION CUT SHEET - SAMPLE

NOTES:
1. ELECTRICAL AND BUILDING DESIGN BY OTHERS.
2. DISCHARGE LINES FROM PUMP WET WELL AND BACKUP PUMP MAY BE CONNECTED DIRECTLY TO EX. 6" GRAVITY SEWER LINE ADJACENT TO EX. PUMP STATION.
3. RESERVE EX. WATER METER FOR RE-USE. IF NEEDED, INSTALL NEW WATER LATERAL, SERVICE LINE, AND YARD HYDRANT, LOCATED PER CLIENT PREFERENCE.

- NOTE:**
- PUMPS, CONTROLS AND ACCESSORIES ARE NOT SUPPLIED WITH THE TOP PUMP STATION AND MUST BE ORDERED SEPARATELY.
 - 17" FOR 2" PIPING.
 - MIX FLUSH VALVE MUST BE LOCATED BETWEEN PUMPS.
 - REFER TO INSTALLATION, CARE AND MAINTENANCE MANUAL FOR BALLAST REQUIREMENTS.
 - AVAILABLE IN SST OR PVC.
 - INTERNAL VALVES AVAILABLE UPON REQUEST.
 - FACTORY INSTALLED UPON CUSTOMERS' REQUEST.



- NOTES:**
- VAULT DEPTH AS ORDERED.
 - DISCHARGE C/L MUST BE AT LEAST 18" FROM BOTTOM OF VAULT.
 - DISCHARGE C/L OF VAULT MUST EQUAL DISCHARGE C/L OF ORDERED STATION UNLESS OTHERWISE SPECIFIED.
 - INLET AND OUTLET PIPES SHALL PROTRUDE 12" OUTSIDE BASIN.
 - PIPING BETWEEN VALVE VAULT DRAIN AND STATION SUPPLIED BY OTHERS.
 - TWO DRESSER COUPLINGS, STYLE 38, WILL BE PROVIDED WITH VALVE VAULT FOR CONNECTION WITH STATION.
 - OPTIONAL ALUMINUM COVER W/O SAFE HATCH OPTION IS AVAILABLE UPON REQUEST. PLEASE SPECIFY WHEN ORDER IS PLACED.

ITEM	DESCRIPTION	PART NUMBER	QTY
19	4" LINK SEAL		2
18	4" ALUMINUM HUB		2
17	3/4" 18-8 SS WASHER		86
16	3/4" 18-8 SS SPIT WASHER		48
15	3/4" - 11 18-8 SS NUT		48
14	3/4" - 11 18-8 SS HHCS, LENGTHS AS REQD.		48
13	4" FLANGE GASKET		7
12	4" SCH80 PVC PIPE CUT TO LENGTH		7
11	4" SCH80 PVC TEE		1
10	4" SCH80 PVC EL		2
9	4" SCH80 PVC VAN STONE FLANGE		4
8	PIPE SUPPORT BRACKET		2
7	FLANGE MOUNTED PIPE SUPPORT		2
6	12" MFT DRAIN		1
5	4" FLEXIBLE ENTRY BOOT		1
4	4" HUB VALVE, HANDLE		2
3	4" HUB CHECK VALVE		2
2	ALUMINUM SAFE HATCH COVER		1
1	72" DIA. FILAMENT WOUND BASIN W/ANTI-FLOAT		1

SHEET 1 OF 1

VALVE VAULT CUT SHEET - SAMPLE

Date: 9/16/2020
Scale: 1" = 5'
Designed by: Gil Colman, PE
Drawn by: Deron Weaver
Reviewed by: GLC

Revision	Date

COLMAN ENGINEERING, PLC
1123 South High Street | Harrisonburg, VA 22801 | Ph: (540) 246-3712
Email: contact@colmanengineering.com | www.colmanengineering.com

PRELIMINARY
NOT FOR CONSTRUCTION

SITE LAYOUT
FAIRVIEW PUMP STATION REHABILITATION
City of Harrisonburg Public Utilities
1811 Harrison St
Harrisonburg, VA 22801

Project No.
CE201867

Sheet
C0



City of Harrisonburg, VA
Department of Public Works

**Determination of Need for a
Traffic Impact Analysis (TIA)**

www.harrisonburgva.gov/traffic-impact-analysis

For inclusion in an application for Planning Commission review (for Special Use Permit, Rezoning or Preliminary Plat), this form must be submitted to the Public Works Department at least 5 business days prior to the Planning Commission application deadline.

Contact Information				
Consultant Name: Telephone: E-mail:				
Owner Name: Telephone: E-mail:	City of Harrisonburg (c/o Dept. of Public Utilities) 540-434-9959			
Project Information				
Project Name:	Fairview Pump Station Rehabilitation			
Project Address: TM #:	1177 Harrison St 18 G 90			
Existing Land Use(s):	Pump station and natural gas station			
Proposed Land Use(s): (if applicable)	Relocated pump station and existing natural gas station			
Submission Type:	Comprehensive Site Plan <input type="radio"/>	Special Use Permit <input checked="" type="radio"/>	Rezoning <input type="radio"/>	Preliminary Plat <input type="radio"/>
Project Description: (Include site plan or preliminary sketch and additional details on land use, acreage, access to site, etc)	Replacing a small pump station: relocating the main pump structure and reusing the existing structure for wet wells.			
Peak Hour Trip Generation (from row 15 on the second page)				
AM Peak Hour Trips:	0			
PM Peak Hour Trips:	0			

(reserved for City staff)

TIA required? Yes _____ No X

Comments:

Accepted by: Jahel Zunfeld

Date: 5/24/21

Peak Hour Trip Generation by Land Use

Row	ITE Land Use		ITE Land Use Code	Unit	Quantity	AM Peak Hour of Adjacent Street Traffic	PM Peak Hour of Adjacent Street Traffic
1	Proposed #1	No relevant code	N/A	N/A	N/A	1	1
2	Proposed #2						
3	Proposed #3						
4	Proposed #4						
5	Proposed #5						
6	Proposed #6						
7	Total New Trips					1	1
8	Existing #1	No relevant code	N/A	N/A	N/A	1	1
9	Existing #2						
10	Existing #3						
11	Existing #4						
12	Existing #5						
13	Existing #6						
14	Total Existing Trips					1	1
15	Final Total (Total New – Total Existing)					0	0

Instructions

Determination of trip generation rates shall be in conformance with ITE guidelines.

1. Based on the intended use(s), calculate the AM Peak and PM Peak trip generation using the AM and PM Peak Hour of Adjacent Street Traffic rates from the most current version of the ITE Trip Generation Manual (rows 1-6). Attach additional sheets as necessary for more uses.
2. Sum up all of the trips generated for the new uses in the Total New Trips row (row 7).
3. If the development has any existing uses, calculate the AM Peak and PM Peak trip generations using the AM and PM Peak Hour of Adjacent Street Traffic rates from the most current version of the ITE Trip Generation Manual (rows 8-13). Attach additional sheets as necessary for more uses.
4. Sum up all of the trips generated for the existing uses in the Total Existing Trips row (row 14).
5. Subtract the total existing trips from the total new trips to get the final total number of trips generated by the development (row 15). Enter these numbers on the first page.