



# OVERHEAD SEWER PROGRAM



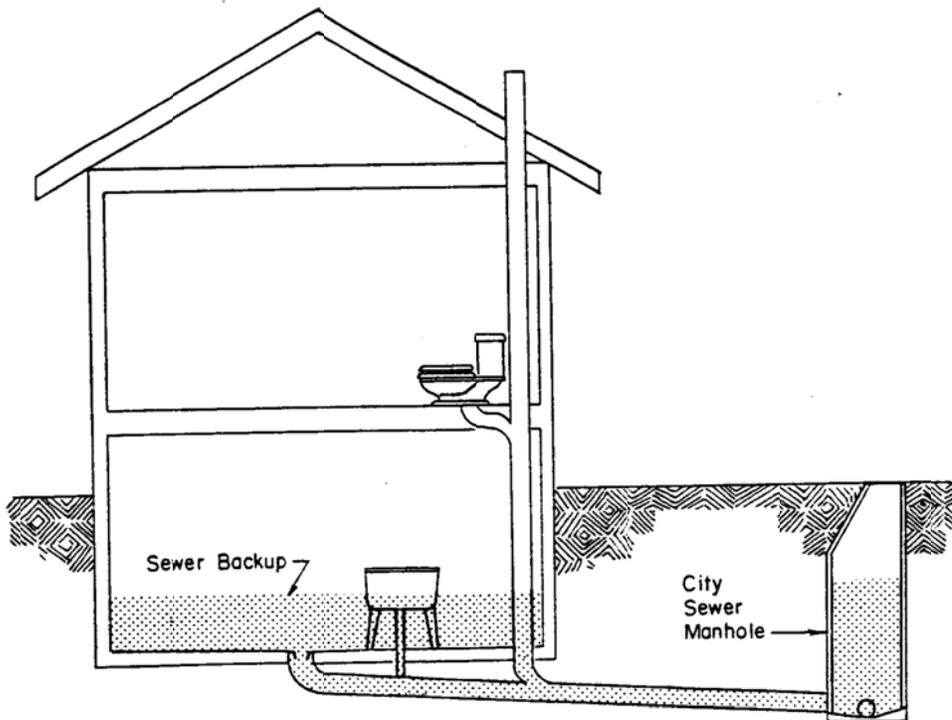
# OVERHEAD SEWER PROGRAM

## TABLE OF CONTENTS

INTRODUCTION	1
PROGRAM DESCRIPTION	2
APPLICATION FORM	5
MINIMUM SYSTEM REQUIREMENTS	7
INSTALLATION SKETCH CHECKLIST	8
INSTALLATION SKETCH FORM	9
EXAMPLE #1—INTERIOR PIT—SINGLE STACK	10
EXAMPLE #2—INTERIOR PIT—MULTIPLE STACKS	11
EXAMPLE #3—EXTERIOR PIT—SINGLE STACK	12
EXAMPLE #4—EXTERIOR PIT—MULTIPLE STACKS	13

## INTRODUCTION

Sometimes the sanitary sewer system cannot handle the water received during a heavy rain or flood. Because of footing drains, loose pipe joints, or some other reason, the sewer mains become overloaded and back-up into basements and lower levels as shown on the graphic below:



No one who has experienced a sanitary sewer backup will soon forget it. In addition to the physical damage caused by sanitary sewer backups, there is a constant fear that a backup will happen again. The City of Urbana and Urbana-Champaign Sanitary District want to help families, residing in Urbana's city limits, who have had any sanitary sewer backup occurrences. Assistance is available by participating in a cost-sharing program with the City of Urbana, Urbana-Champaign Sanitary District, and property owners willing to install a sewage ejector system with overhead sewer lines, which would *essentially eliminate* (or substantially reduce) sanitary sewer backups.

## **PROGRAM DESCRIPTION**

In 1985, the City initiated a sewer benefit tax to repair and replace aging and deteriorating sanitary sewer lines. Although the City has spent approximately \$1,000,000 each year to perform work on publicly owned sanitary sewer mains, some sanitary sewer backups still occur. The City of Urbana and the Urbana-Champaign Sanitary District have developed a program to help Urbana homeowners, who still have regular sewer backups, pay for the installation of a sewage ejector system with overhead plumbing to eliminate backup problems.

To participate in the program, the property must be located within the city limits of Urbana. The property owner must complete an application and submit plans (usually prepared by the plumbing contractor) for the installation of the system to the Urbana Public Works Department for review. After the installation has been approved, the property owner will pay a licensed plumber to install the system.

After the installation is complete, the City of Urbana will conduct final inspections of the plumbing, electrical, and sewer work. Once the installation has been approved, the property owner can submit a copy of the paid receipt to the Urbana Public Works Department for partial reimbursement (up to 75% of the cost of the project, not to exceed \$4,500).

### **DISCLAIMER**

The purpose of this program is to reduce substantially the occurrence of sanitary sewer backups. An unexpected sewer collapse or obstruction, power failure, extreme weather conditions or other unforeseen factors could cause a backup. Therefore, the City does not guarantee that a sanitary sewer backup will never occur.

### **LIABILITY**

The City of Urbana assumes no responsibility for any defective work or other damage, injury or loss resulting from any act of negligence by the Contractor or property owner while installing, operating, or maintaining the sewage ejector system with overhead plumbing.

## ELIGIBILITY REQUIREMENTS

To participate in the Overhead Sewer Program, the applicant must:

-  Submit proof that a sanitary sewer backup occurred. (A copy of an insurance claim or a sewer report from the City will be acceptable. Be sure to include the date(s) of the backup, information about the extent of damage resulting from the backup, and any other information you feel would be helpful in determining your eligibility.)
-  Submit bids from three plumbing contractors (licensed in the State of Illinois)
-  Return the application form to the Urbana Public Works Department, Engineering Division Attn: Justin Swinford.

If you have any questions about overhead sewers or about obtaining quotes from licensed contractors and analyzing their proposals, please contact Justin Swinford at 384-2343. We are happy to answer any questions you may have.

## INSTALLATION PROCESS

Before authorizing the installation of the overhead sewer, the applicant should:

-  Secure three bids from plumbing contractors for the overhead sewer system. **A diagram of the plumbing layout for the proposed overhead sewer system must be attached to each bid.** (The applicant may choose any qualified contractors, but the City will reimburse the applicant based upon the lowest bids of the qualified contractors.)
-  Complete the application form and submit it with all bids to the Engineering Division Attn: Justin Swinford at the City of Urbana Public Works Department 706 South Glover Avenue Urbana, IL 61802.
-  The Engineering Division will review the application and notify applicants of their approval by mail. Once approval has been received from the City the applicant can:
  - ◆ Hire a Contractor to install the overhead sewer system.
  - ◆ The Contractor will be responsible for obtaining all required plumbing and electrical permits from the City. The Contractor shall contact the City of Urbana plumbing and electrical inspectors for final inspection of the overhead sewer system.
  - ◆ Pay the contractors for the work completed. Please keep the receipts!
-  Once the installation has been completed and inspected, reimbursement for the overhead sewer will occur when the applicant submits a copy of the bills and a paid receipt to the Engineering Division Attn: Justin Swinford.

The applicant will receive reimbursement for 75% of the cost of the project, up to \$4,500.

**THIS PAGE INTENTIONALLY LEFT BLANK**

# OVERHEAD SEWER PROGRAM

## APPLICATION FOR REIMBURSEMENT

**Please print or type the following information:**

Date: \_\_\_\_\_

I/We, \_\_\_\_\_, am/are  
the property

(Name of property owner)

owner(s) and primary resident(s) of the house located at \_\_\_\_\_  
\_\_\_\_\_

(Address of property)

Urbana, Illinois \_\_\_\_\_.  
(Zip Code)

I/We experienced sanitary sewer backups on the following dates:

Date of Backup	Type of Damage/Extent of Damage (Include whether the backup caused water damage, how extensive the damage was.)	Type of Evidence Supporting the Extent of the Damage (Correspondence from the City or insurance company; photographs; cleaning bills; etc.)*

\*Please attach copies of evidence. Please attach additional sheets as necessary.

Please check all of the following that apply:

- I/We submitted bids from three plumbing, which were approved by the Engineering Division.
- I/We completed \_\_\_\_\_percentage of the work by myself/ourselves and understand I/we will be reimbursed for the cost of materials and equipment rental for this portion of the project. The Engineering Division approved an itemized estimate of the project before beginning the project.

I/We understand that as part of this program, the City of Urbana assumes no liability for any defective work or other damage, injury, or loss resulting from any act or omission of the Contractor in the performance of this work.

I/We also understand that the installation of an overhead sewer is not a guarantee against future sanitary sewer backups.

---

Signature of Property Owner

---

Signature of Property Owner

---

Please mail the application and documentation to:

Justin Swinford  
Civil Engineer I  
Urbana Public Works Department  
706 South Glover Avenue  
Urbana, Illinois 61802

---

---

**For Office Use Only**

- Diagram of plumbing layout approved by the Engineering Division.
- Three bids attached and application approved by Engineering Division.
- Approval letter mailed to applicant.
- The completed work was inspected and approved by the City of Urbana's Plumbing Inspector.
- The completed work was inspected and approved by the City of Urbana's Electrical Inspector.
- Payment for the completed project has been made. (Receipts are included.)

## **MINIMUM OVERHEAD SEWER SYSTEM REQUIREMENTS TO QUALIFY FOR COST SHARE PROGRAM**

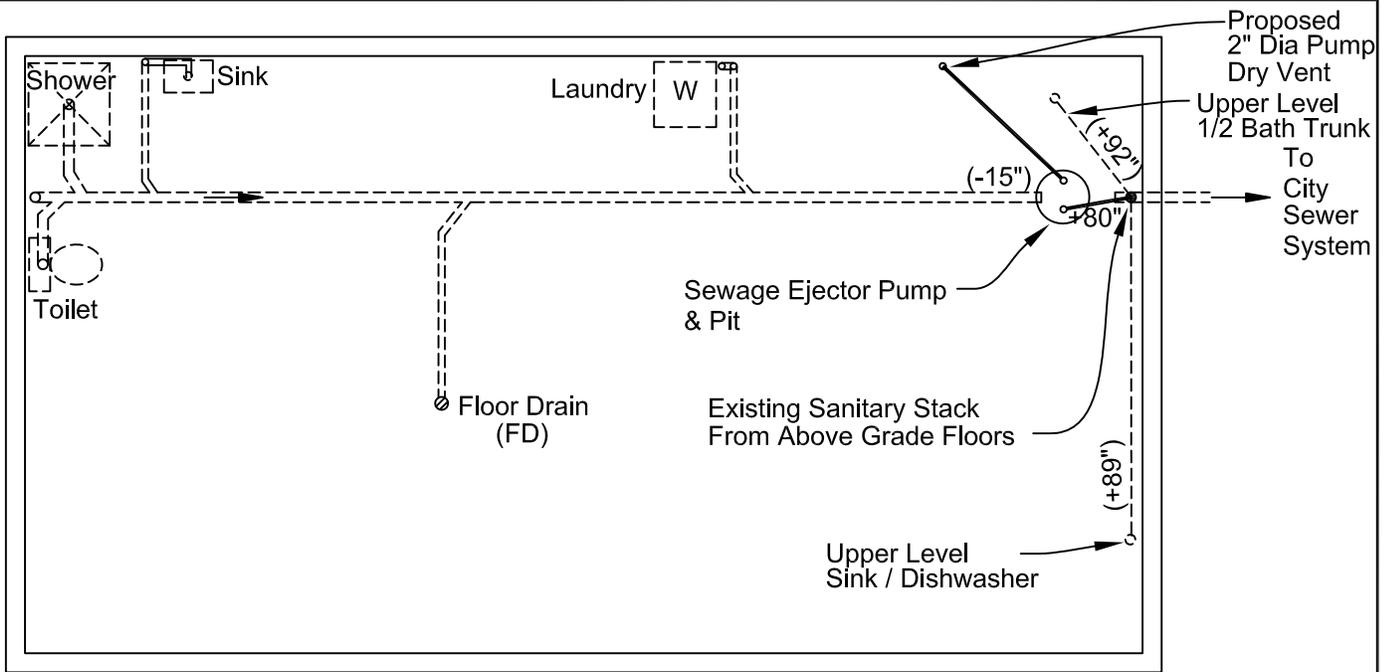
- 1) Overhead Sewer System shall pump water from below grade levels only, all above grade plumbing fixtures are required to gravity drain.
- 2) Overhead Sewer Systems shall be designed and installed in accordance with the attached details.
- 3) A battery back-up, high water and pump malfunction alarm mounted within the interior space of the residence is recommended for all installations when a pump failure could cause flooding without the owner being immediately aware of such condition (such as pumped laundry fixtures).
- 4) A sketch illustrating the proposed Overhead Sewer Installation and including the following information shall be submitted with each application:
  - a) Floor plan (not to scale) of existing lower level or basement sanitary plumbing. This Sketch shall display the location of all lower level fixtures, floor drains, and wet drains serving upper level fixtures. When needed approximate elevations of pipe may be shown in reference to basement floor. "+76" = 76" above basement floor, "-12" = 12" below basement floor. All existing items shall be shown by dashed lines. Proposed items shall be shown with continuous lines. Profile views are NOT required. (See attached sample sketches & diagrams for reference)
  - b) Proposed location of the sanitary lift station plotted on the plan of the existing. All proposed items shall be shown by solid continuous lines.
  - c) Proposed relocation of any sewer drain piping required to separate the upper (gravity) and lower (pumped) systems.
  - d) Note describing proposed pump station venting location & whether this is an existing vent or proposed new vent.
  - e) Diagram of proposed pump station and sanitary force main.
- 5) All plumbing work shall conform to current Illinois plumbing codes and acceptable practices.
- 6) All plumbing work performed within the residence or within 5' of the outside building wall must be performed by an Illinois licensed plumber.
- 7) The bid shall state in writing if the owner will need to separately perform any additional finish carpentry or other work in order to conceal any newly installed plumbing within a finished living space, upper or finished lower levels.

8) An exterior non-separated (House fully pumped) system can be installed only with the specific approval of the City of Urbana Engineering Division. Each installation will have to be individually reviewed and approved by engineering. Please contact the City of Urbana Engineering Division at (217) 384-2316 if an exterior, non-separated (House fully pumped) system is being considered.

### **OVERHEAD SEWER SYSTEM SKETCH CHECKLIST**

- North arrow
- Existing items shown by dashed lines
- Proposed items shown by continuous lines
- All existing lower level fixtures and drains are shown & labeled
- All existing wet drains serving upper level are shown
- Existing elevations are shown on all drain lines above lower level floor (as measured at the waste stack)
- Proposed approximate elevations of all
- Proposed location of sanitary lift station is shown
- Proposed pump venting location is shown
- Note regarding additional finish requirements (if not included in bid) to conceal proposed venting, or other piping.

A large grid of 20 columns and 30 rows, intended for sketching an overhead sewer system. The grid is composed of thin, light gray lines forming a uniform pattern across the page.

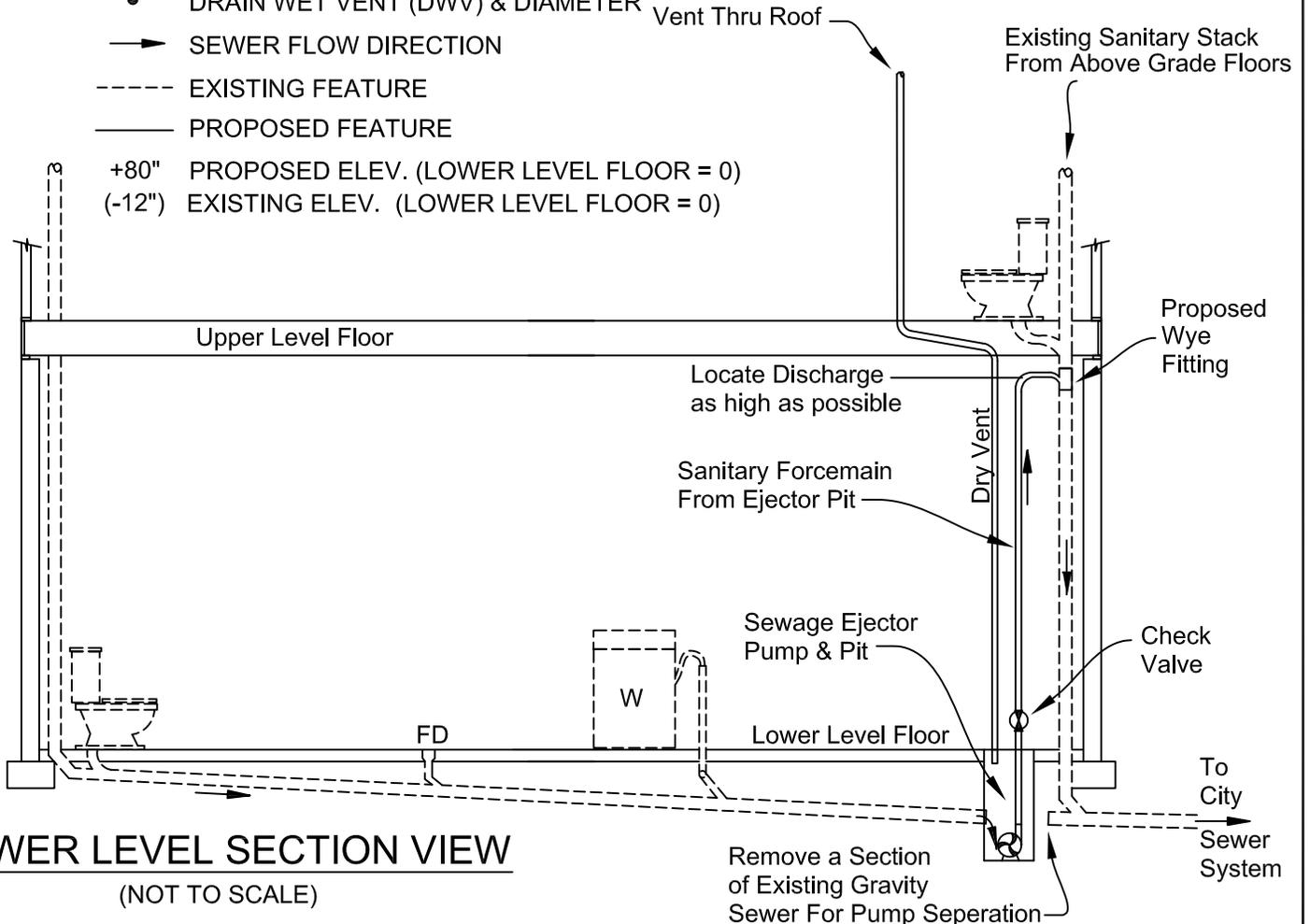


### LEGEND

- DRY VENT LOCATION
- DRAIN WET VENT (DWV) & DIAMETER
- SEWER FLOW DIRECTION
- EXISTING FEATURE
- PROPOSED FEATURE
- +80" PROPOSED ELEV. (LOWER LEVEL FLOOR = 0)
- (-12") EXISTING ELEV. (LOWER LEVEL FLOOR = 0)

### LOWER LEVEL PLAN VIEW

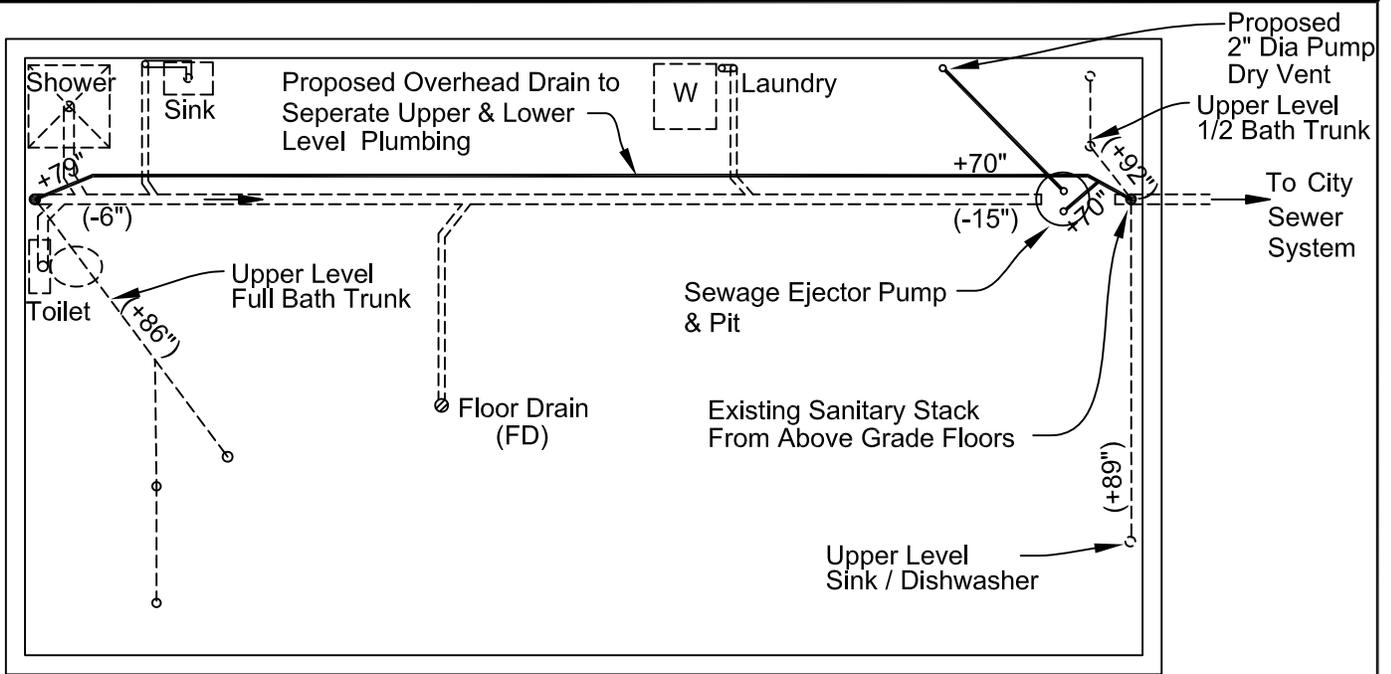
(NOT TO SCALE)



### LOWER LEVEL SECTION VIEW

(NOT TO SCALE)



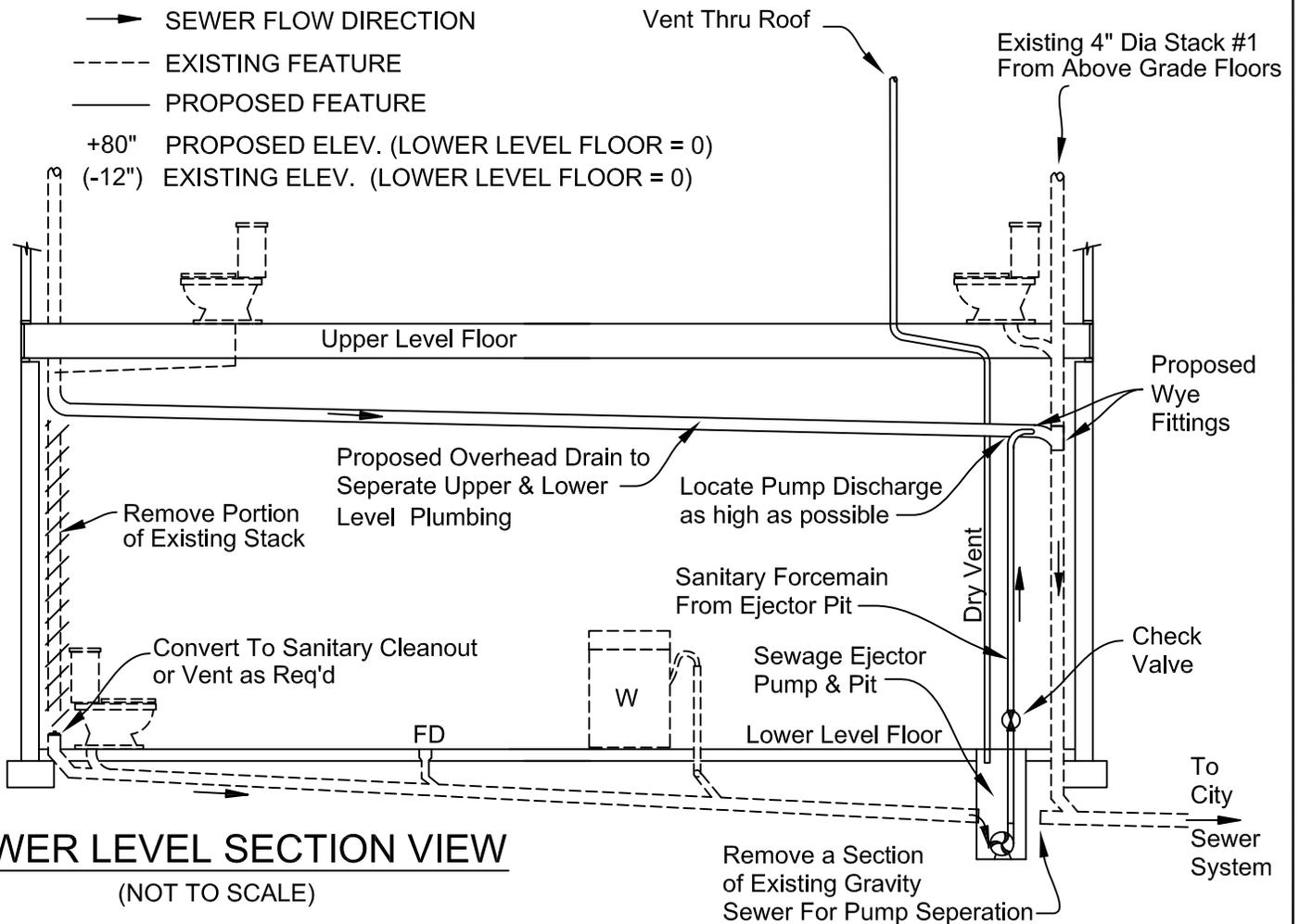


**LEGEND**

**LOWER LEVEL PLAN VIEW**

(NOT TO SCALE)

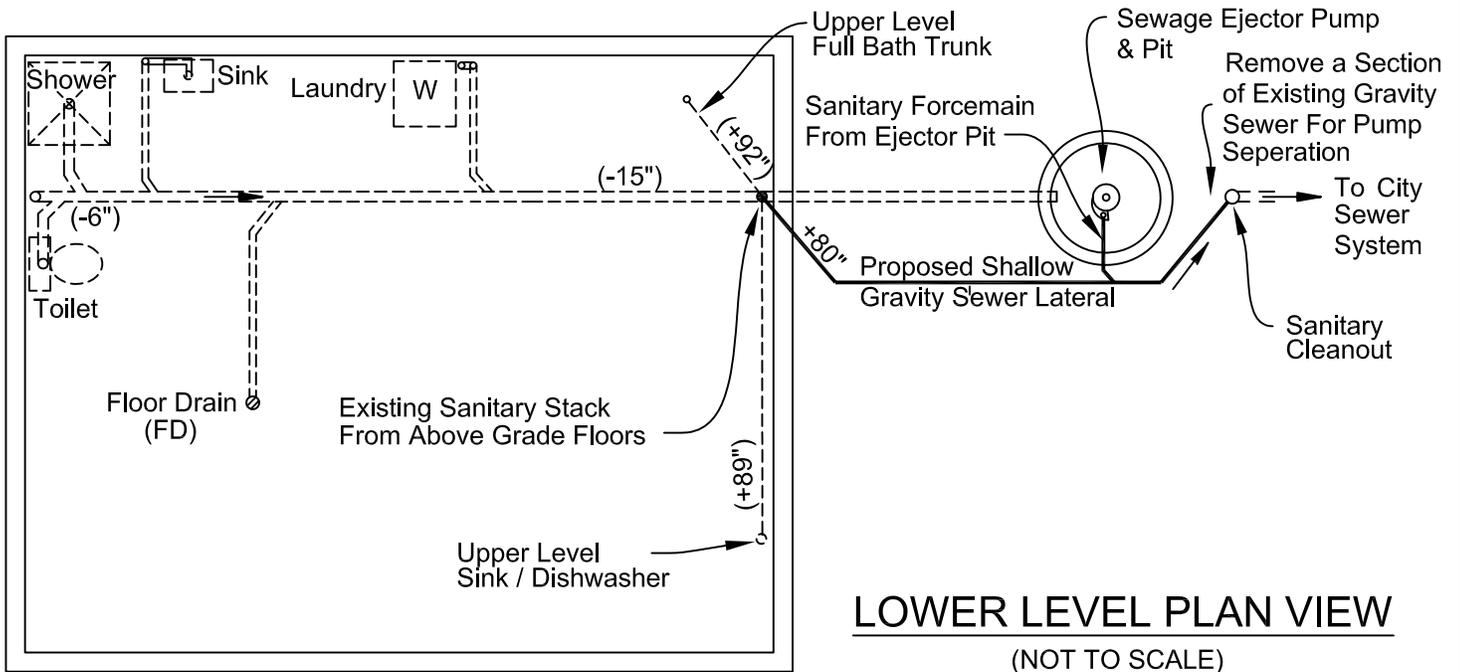
- DRY VENT LOCATION
- DRAIN WET VENT (DWV) & DIAMETER
- ➔ SEWER FLOW DIRECTION
- EXISTING FEATURE
- PROPOSED FEATURE
- +80" PROPOSED ELEV. (LOWER LEVEL FLOOR = 0)
- (-12") EXISTING ELEV. (LOWER LEVEL FLOOR = 0)



**LOWER LEVEL SECTION VIEW**

(NOT TO SCALE)



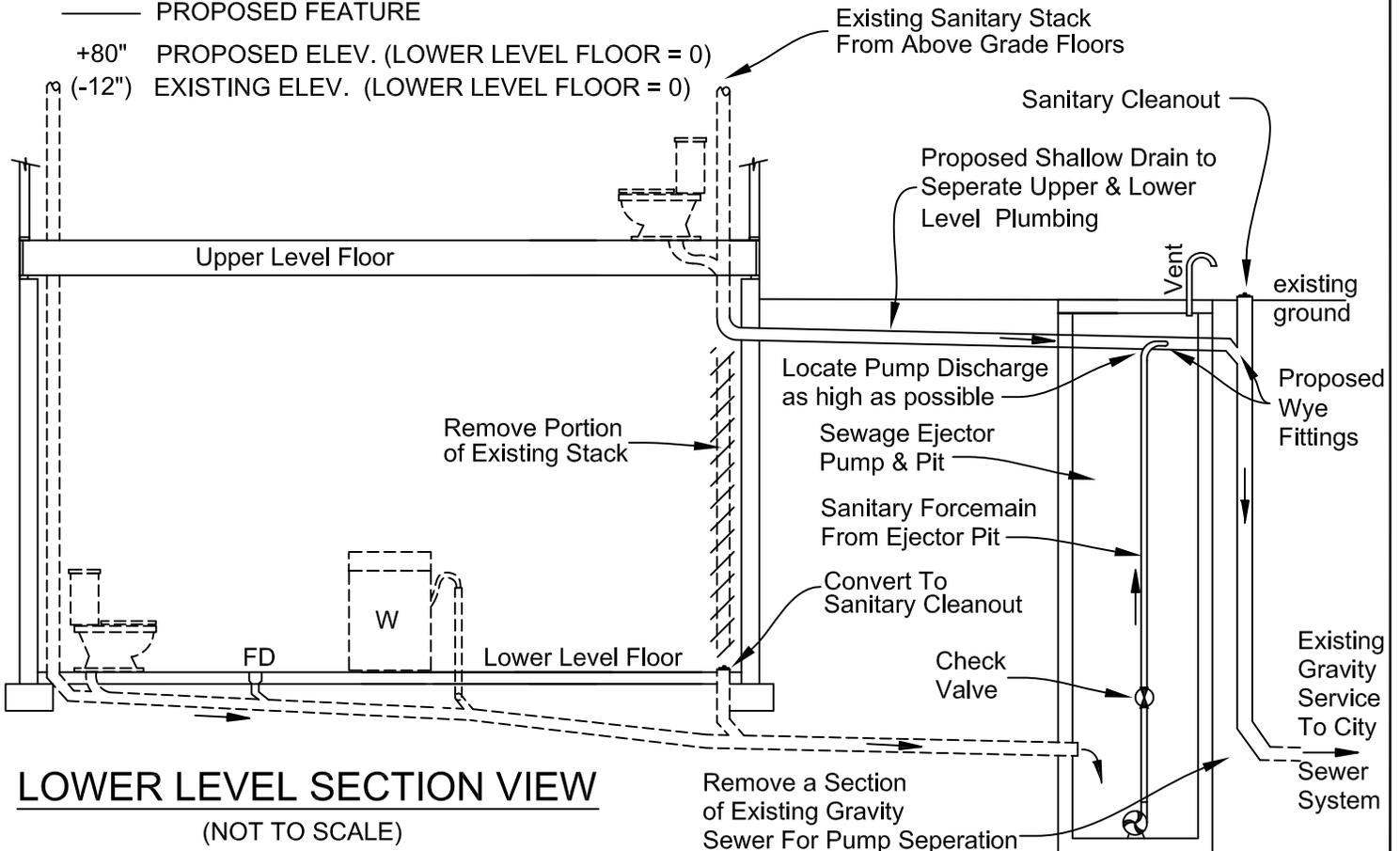


**LOWER LEVEL PLAN VIEW**  
(NOT TO SCALE)

**LEGEND**

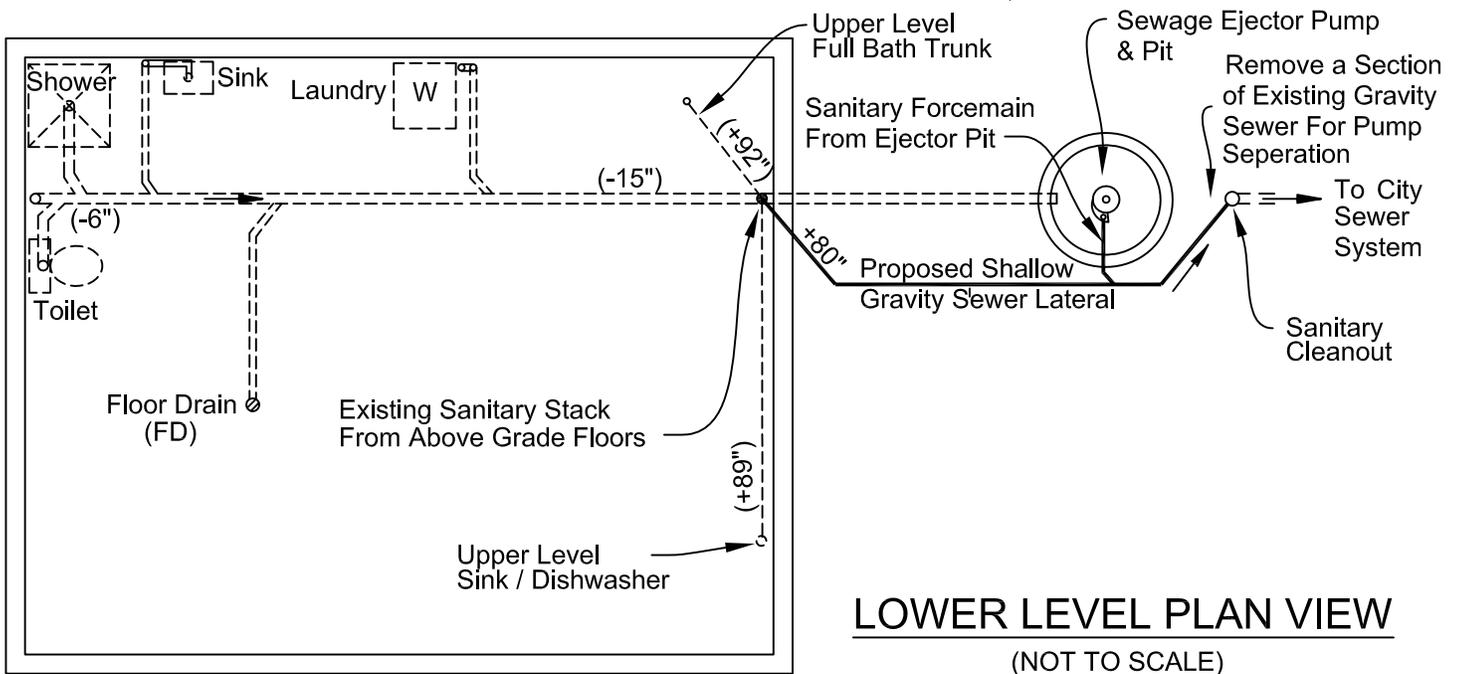
- DRY VENT LOCATION
- DRAIN WET VENT (DWV) & DIAMETER
- ➔ SEWER FLOW DIRECTION
- EXISTING FEATURE
- PROPOSED FEATURE

+80" PROPOSED ELEV. (LOWER LEVEL FLOOR = 0)  
 (-12") EXISTING ELEV. (LOWER LEVEL FLOOR = 0)



**LOWER LEVEL SECTION VIEW**  
(NOT TO SCALE)





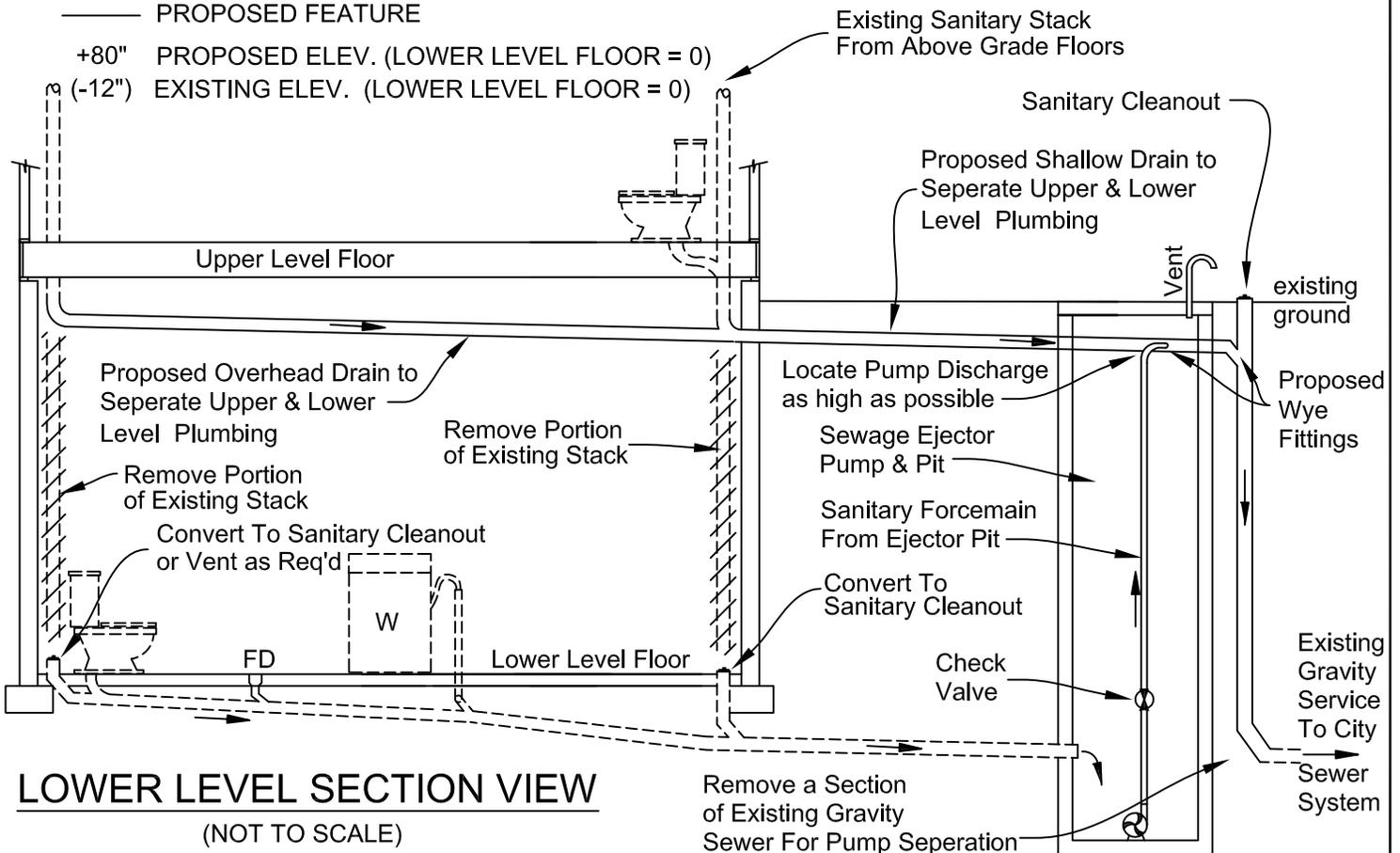
**LOWER LEVEL PLAN VIEW**  
(NOT TO SCALE)

**LEGEND**

- DRY VENT LOCATION
- DRAIN WET VENT (DWV) & DIAMETER
- ➔ SEWER FLOW DIRECTION
- EXISTING FEATURE
- PROPOSED FEATURE

**NOTE:** A High Water and Pump Malfunction Alarm shall be installed within the residence on all Exterior Sewage Ejector Systems

+80" PROPOSED ELEV. (LOWER LEVEL FLOOR = 0)  
(-12") EXISTING ELEV. (LOWER LEVEL FLOOR = 0)



**LOWER LEVEL SECTION VIEW**  
(NOT TO SCALE)

