

## **City of Burbank – Public Works Department Storm Drain Connection Permit Guidelines**

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The following shall be submitted to obtain a permit to connect to a City of Burbank storm drain facility pursuant to BMC Section 25-1002-1-12.80.420:

- Permit application.
- Two collated and stapled sets of final construction plans, signed and stamped by a professional civil engineer licensed to practice in California, in the City of Burbank standard format. Plans shall include plan number, benchmark, and basis of bearing.
- A copy of the City of Burbank record plans with a sketch showing the correct location of the proposed connection.
- Two sets of signed and stamped hydrology calculations.
- Two sets of signed and stamped hydraulic calculations.
- One copy of SUSMP calculation as submitted to Building Division. (See page 6 for requirements).
- If applicable, two sets of signed and stamped structural calculations
- For non-storm water discharges, submit a copy of the NPDES permit issued by the California Regional Water Quality Control Board. (A list of allowable stormwater discharges is shown on page 6).
- A completed, signed and notarized Water Quality Agreement (see Exhibit A)
- An electronic copy of all submitted plans and calculations in .dwg, .dxf, and/or .pdf formats.

### Notes:

- Prior to submitting an application for permit, applicant should verify that the system being connected to is owned by the City of Burbank. If system is not owned by the City of Burbank, contact Los Angeles County Public Works.
- Additional comments or requirements may be applicable and not covered in these guidelines based on the proposed work.

### I. Permit Applications

The owner shall be the person (Permittee) liable to maintain the proposed connection unless other arrangements are clearly stated on the permit application.

## PUBLIC WORKS

- II. A copy of the City of Burbank record plans may be obtained from the Public Works counter. An accurate sketch of the correct location for the proposed connection to the City's storm drain or channel system shall be made on a copy of the record plan. The sketch should indicate all the appropriate junction structures and any other pertinent connection data.
- III. Submit two sets of plans showing the following information:
  - a. A vicinity map
  - b. North arrow, engineering scale used, and elevations on plans and profiles. Plans shall be wet stamped and signed by a professional Civil engineer licensed to practice in California.
  - c. The alignment of the storm drain and/or channel being connected to with the mainline labeled with City of Burbank.
  - d. Show the centerline and indicate the mainline storm drain stations at all points of the work that affect City of Burbank facilities. Show bearings and distances, and curve data on a line-curve data table.
  - e. Show dimensioned and labeled property and right-of-way lines and easements. Show street centerline and stationing.
  - f. Plans stamped "preliminary", "Bid Set" and/or "not for construction", etc. are not acceptable for permit issuance.
  - g. Show the full plan, profile, details, and dimensions for all proposed connections.
  - h. Label the station of the proposed line at the connection (centerline intersection). Show the D-load for reinforced concrete pipe (RCP). For polyvinyl chloride pipe (PVC) use a minimum Schedule 80 within the public right-of-way, City of Burbank Property or City of Burbank easements. Corrugated metal pipe (CMP) is not acceptable for connection to City of Burbank facilities.
  - i. Plans must include a statement indicating that the proposed pipe is to be owned and maintained by the property owner.
  - j. The APWA standard plan drawing number must be called out for all connections. A copy of the appropriate APWA standard plan must be provided. If connection is not per standard, details and cross sections of the connection must be included on the plan.

- k. Show a profile with the following items: Allowable “Q” in cfs, Velocity “v” in fps at the point of connection for connections 24-inches in diameter or larger, slope, size of pipe, and pipe material.
- l. Show all utilities affecting design on the plan and profile. There is to be a minimum of 1-foot of clearance between the storm drain and adjacent substructures, otherwise concrete encasement is required.
- m. A copy of as-constructed plans shall be submitted at the completion of construction.
- n. The following are the most common types of connections and their requirements:

**i. Direct Connection to Mainline**

- 1. Show the invert elevation of the mainline and of the proposed pipe at the point of connection. Show the elevation of the top of grate or inlet on the site.
- 2. Show the slope of the pipe.
- 3. Include the “Concrete Removal Notes” on page 7.

**ii. Connection to Back or Side of Catch Basin**

- 1. The point of discharge shall not be on the steps of the catch basin
- 2. Only one connection to a catch basin is allowed.
- 3. Connections larger than 12-inches must show a detail of the connection and include calculations showing that no adverse structural or hydraulic condition occurs in the catch basin.
- 4. Label the invert elevation of the catch basin, the proposed pipe at the point of connection, and the top of curb at the catch basin.
- 5. Label the elevation of the invert and the elevation of the top of the grate on-site.

**iii. Direct Connection to a Channel**

1. Show the profile of the proposed pipe including the elevations at the top of the channel, at the invert of the channel, and at the invert of the proposed line.
2. A flap gate will be required when the elevation of the proposed catch basin inlet is below the top of the channel wall elevation.
3. Include the "Concrete Removal Notes" on page 7.

**iv. Catch Basin Relocation Requirements**

1. Need a minimum pipe slope of 1% for the proposed connector pipe.
2. Call-out the D-load for new pipes.
3. Indicate that the horizontal deflection angle of the connector pipe does not exceed 30 degrees.
4. If the horizontal deflection angle of the connector pipe is greater than 30 degrees a manhole must be used.
5. A maximum of one angle point per connector pipe.
6. Call out the abandonment of the connector pipe and the removal of the catch basin. Abandoned pipe must be sealed at both ends with 6" concrete or 8" brick and mortar and filled with dry inert material per APWA Standard Plan 381-1.
7. If the proposed catch basin has a size or "V-depth" or if a different local depression is used, applicant must submit calculations to demonstrate that the capacity of the proposed catch basin is at least equal to that of the original catch basin. If an identical catch basin and local depression are used, hydrology and hydraulic calculations are not required.
8. Indicate the type of local depression on the plans for proposed catch basins. Dimension the local depression in accordance with the latest edition of the APWA standard.
9. If an existing catch basin is located in a sump condition, and the proposed relocation is upstream of the low point,

nuisance water will not be allowed to pond in the low point where the existing catch basin is to be removed.

**v. Hydrology Calculations:**

1. Non-tributary areas will be considered on an individual basis. In order for a proposed diversion to be approved, it must be conclusively shown that said diversion would not adversely affect the City of Burbank's storm drain system or the area served by the City of Burbank's storm drain system.
2. Prepare a drainage area map of the proposed site with existing and proposed drainage areas/sub areas clearly labeled.
3. Show any off-site flows affecting the proposed drainage system.
4. Perform the hydrology calculations in accordance with the hydrologic method in the Los Angeles County Department of Public Works Hydrology/Sedimentation Manual 1991 for the proposed site. Hillside and sump areas shall be designed to accommodate at least the 50-year storm event. Non-hillside, non-sump areas shall be designed to accommodate at least the 10-year storm event. Hillside areas are defined as all areas within the City of Burbank northeasterly of Kenneth Road.
5. Design the proposed connection based on the smaller of the existing or the proposed flows from the site.

**vi. Hydraulic Calculations:**

1. Identify the hydraulic grade line (HGL) of the existing City of Burbank storm drain system.
2. Show hydraulic calculations for sizing the connection pipe to pick up only the smaller of the existing or the proposed site flows as described above. Use Manning's equation assuming the pipe will be flowing full.
3. Show the flow capacity and the velocity of the proposed pipe.

vii. **SUSMP Requirements:** - for the following sites, submit Exhibit “A” Connection Permit Water Quality Agreement (Page 8) and two sets of SUSMP calculations:

1. Hillside located Single-family dwellings.
2. Housing developments (including single-family homes, multifamily homes, condominiums, and apartments) of ten units or more.
3. An industrial commercial development one acre or greater.
4. Automotive service facilities.
5. Retail gasoline outlets.
6. Restaurants.
7. Parking lots 5,000 square feet or more of surface area, or with 25 or more parking spaces.
8. Projects located within or directly adjacent to or discharging to an environmentally sensitive area.

viii. **Non-Storm Water Discharge** – for non-stormwater discharges, submit a copy of the NPDES permit issued by the California Regional Water Quality Control Board.

ix. **Allowable Storm Water Discharge** – the following discharges are allowed without an NPDES permit:

- Natural flows from springs and seeps
- Flows from emergency fire fighting activities
- Landscape irrigation runoff
- Potable drinking water supply system releases
- Drains for foundations, footings, and crawl spaces
- Air conditioning condensate
- Dechlorinated swimming pool discharges
- Decorative fountain dewatering
- Non-commercial car washing (residents & non-profit orgs)
- Sidewalk rinsing (high pressure, low volume)

CONCRETE REMOVAL NOTES

- I. WHERE A SECTION OF AN EXISTING STRUCTURE IS TO BE SEPARATED FROM A NEW STRUCTURE, AND THE REINFORCEMENT IS TO BE CUT AT THE POINT OF SEPARATION, THE CONTRACTOR SHALL SAW CUT THROUGH THE WALL WITH AN APPROPRIATE CONCRETE SAW. ANY SAW CUT OR IRREGULARITIES IN THE SURFACE OF THE REMAINING WALL OR JOINT SHALL BE FILLED WITH AN EPOXY GROUT MIXTURE TO OBTAIN A SMOOTH PLANE SURFACE. THE REINFORCING STEEL EXPOSED BY CONCRETE REMOVAL SHALL BE BURNED OFF ONE INCH BELOW THE SURFACE OF THE REMAINING CONCRETE AND THE RESULTING VOIDS SHALL BE PATCHED WITH EPOXY ADHESIVE. EPOXY SHALL BE A COMMERCIAL QUALITY, TWO-COMPONENT MIXTURE, SPECIFICALLY MANUFACTURED FOR THE INTENDED PURPOSE, AND BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ONE-HALF INCH THICK PRE-MOLDED EXPANSION JOINT MATERIAL SHALL BE USED TO SEPARATE THE FACES OF THE EXISTING AND NEW WALL.
  
- II. WHERE REINFORCEMENT IS REQUIRED TO EXTEND THROUGH THE NEW JOINT, CONCRETE SHALL BE REMOVED IN THE FOLLOWING SEQUENCE:
  - a. A SAW CUT SHALL BE MADE ONE AND ONE-HALF INCHES DEEP AT THE REMOVAL LIMITS. CARE SHALL BE EXERCISED IN SAWING AT THE REMOVAL LIMITS SO AS NOT TO CUT THE REINFORCING STEEL IN THE REMAINING SLAB. THE EXISTING REINFORCING STEEL SHALL BE RETAINED AND EXTENDED INTO THE NEW CONSTRUCTION AS INDICATED ON THE PLANS.
  
  - b. EXISTING REINFORCEMENT SHALL BE CUT TO THE EXISTING BAR EXTENSION.
  
  - c. THE REMAINING CONCRETE MAY BE REMOVED BY ANY SUITABLE METHOD UPON APPROVAL OF THE ENGINEER, WHO SHALL BE THE SOLE JUDGE OF THE USE OF ANY CONCRETE REMOVAL EQUIPMENT. EXPLOSIVES, WRECKING BALL, OR OTHER SIMILAR DEVICES, WHICH ARE LIKELY TO DAMAGE THE CONCRETE TO BE LEFT IN PLACE, SHALL NOT BE USED.

**EXHIBIT "A"**  
**CONNECTION PERMIT**  
**WATER QUALITY AGREEMENT**

- I. The owner(s) of the property described below agrees to acknowledge for himself, his heirs, successors or interests or assigns, the following:
- That the property maintains a connection permit with the City of Burbank for the privilege of connection and discharge of only normal storm water to the City's drainage facilities.
  - That in the event non-storm water/material is released through the said connection, whether intentional or otherwise, the owner(s) shall take immediate and appropriate corrective measures. The owner(s) shall report the incident and the measures taken to the City of Burbank, Department of Public Works immediately by telephone (818) 238-3000, to be followed by a detailed written report of the incident. Corrective actions taken shall be subject to acceptance by the City of Burbank.
  - To reimburse the City of Burbank for the full cost of cleaning or repairing of storm drain, water course or channel which may be necessary because of misuse of the storm drain connection.
  - To give irrevocable consent to representatives for the Department of Public Works to enter the premises during normal business hours for the purpose of inspecting the drainage facilities at the site.
- II. Property/Project Name and Site Address:
- III. Legal Description of the Property:
- IV. Name(s) and **Notarized** Signature(s) of Owner(s):



# City of Burbank Public Works Department STORM DRAIN CONNECTION PERMIT

The applicant must show that the proposed work will not adversely affect the City's interests: a. Hydraulic and Hydrologic Design; b. Maintenance standards; c. structural integrity; d. the City's property rights, etc.

**A. TO BE FILLED OUT BY OWNER/AGENT**

**OWNER:** \_\_\_\_\_ TELEPHONE:(\_\_\_\_) \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_  
Street City zip code

**AGENT:** \_\_\_\_\_ TELEPHONE:(\_\_\_\_) \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_  
Street City zip code

**E-MAIL:** \_\_\_\_\_

**SITE ADDRESS:** \_\_\_\_\_ **CROSS STREET** \_\_\_\_\_  
Street Street

**PERSON/COMPANY RESPONSIBLE FOR THE MAINTENANCE OF THE PROPOSED FACILITY:** \_\_\_\_\_ TELEPHONE:(\_\_\_\_) \_\_\_\_\_

\_\_\_\_\_  
Print Name of Owner/Agent Signature of Owner/Agent Date

**B. Description of Proposed Work:** \_\_\_\_\_  
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- Please submit the following with your application:
1. Two sets of final construction plans with structural details and profiles of existing and proposed facilities signed and sealed by a registered civil engineer licensed to practice in the State of California.
  2. Two sets of letter size hydraulic and hydrologic and/or structural calculations signed and sealed by a registered civil engineer licensed to practice in the State of California.
  3. A copy of the City of Burbank record plans with a sketch showing the proposed connection.
  4. One copy of SUSMP calculation as submitted to Building Division.
  5. Fee will be charged according to the current Annual City-Wide Fee Schedule.
  6. A signed and notarized Water Quality Agreement