

Application # (for City use only): \_\_\_\_\_



## CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA · OAKLAND, CALIFORNIA 94612-2033

Oakland Public Works Department  
Bureau of Design and Construction

(510) 238-6715  
FAX (510) 238-6412  
TDD (510) 238-3254

### **TEMPORARY DISCHARGE TO STORMDRAIN SYSTEM APPLICATION**

<b>Applicant Name:</b> _____
<b>Applicant Email:</b> _____ <b>Applicant Phone:</b> _____
<b>Project Name:</b> _____
<b>Location:</b> _____
<b>Proposed Discharge Rate (gallons per minute)*:</b> _____
<b>Total Estimated Discharge Volume (gallons):</b> _____
<b>Duration of Discharge:</b> _____ month _____ day _____ year to _____ month _____ day _____ year

**\*Please note the following limitations and restrictions:**

- Discharge shall not exceed 150 gallons per minute or 10% capacity of the stormwater conduit
- Discharge shall only occur between 8 AM and 4:30 PM (Monday – Friday)
- No discharge shall be allowed 24-hours before any forecast of rain, during rain, or 24-hours after rain
- No discharge shall be allowed on Saturday, Sunday, or on any holiday

**The following information is required as part of the City’s review process:**

**A. NPDES or other permits from the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB)**

- Documentation clearly showing the means to meet the discharge requirements established by the RWQCB prior to the discharge into the City’s stormdrain system.

**B. Discharge Flow Rate and Treatment Monitoring Plan**

- Provide a water quality treatment process to address the removal of adverse elements of the proposed discharge
- Provide a monitoring plan to assure compliance with the requirements stated in this application and report on the following:
  1. Discharge flow rates, volumes, and limits stated in the approved permit
  2. Water quality and compliance with the discharge limits stated in the RWQCB permit

### C. Site Plan or Layout Map

- The site plan or layout map shall clearly identify the location of the proposed discharge activity and all City facilities to be utilized. The map shall include the following elements:
  - **Legend:** describe the symbology used in the drawing
  - **North Arrow:** arrow showing north
  - **Project Boundary:** the limits of the project area should be clearly identified
  - **Street Names:** street names should be called out and clearly visible
  - **Drainage Pathway:** the drawing should clearly trace the flow pathway of the discharge from the discharge structure to the receiving body

### D. Stormwater Conduit Capacity Analysis

- The hydraulic capacity of the stormwater conduit to be discharged to shall be determined and calculations shall be attached as a supplemental document
- The calculations shall be certified and stamped by a Professional Engineer (Civil) licensed in the State of California.
- The applicant shall demonstrate the proposed discharge rate meets the discharge requirements and can be safely conveyed by the City's stormdrain system

### Other Information:

- The applicant is required to submit a completed application with the all requested information and documentation. Incomplete applications will not be reviewed.
- At least 72-hours prior to discharge, the applicant will inform the City of the of the planned discharge.
- Discharge shall only occur at locations approved by the City.
- At the City's request, the applicant shall provide necessary staff and time for the City to conduct an inspection of the discharge facilities.
- In the event public or private infrastructure or property is damaged as a result of discharged flows, the cost of all repairs will be borne by the applicant.
- **Penalties:** In an event when discharge exceeds the agreed amount or the quality of water fails to meet the requirements stated in the application, the applicant shall be assessed \$10,000 for each incident.

### Application Checklist:

- Documentation showing compliance with NPDES/RWQCB permits (as applicable)
- Proposed discharge rate and volume
- Treatment monitoring plan
- Site plan or layout map
- Capacity analysis of City facilities to be utilized

*The applicant acknowledges that the City makes no representations or warranties as to the capacity of the City infrastructure related to the discharge. By signing this permit application, applicant agrees that it will use the public street or easement area at its own risk, is responsible for the proper coordination of its activities with all other permittees, underground utilities, contractors, or workmen operating, within the discharge area and for the safety of itself and any of its personnel in connection with its entry under this document.*

*The applicant hereby waives, and does hereby release the City from any and all claims for damages arising out of the discharge of water into the City stormwater drainage system; and,*

*The applicant further does remise, release, and forever discharge and agree to defend, indemnify and save harmless, the City, its officers, agents and employees and each of them, from any and all actions, causes of actions, claims and demands of whatsoever kind or nature, and any damage, loss or injury which may be sustained directly or indirectly or by the undersigned and any other person or persons, and arising out of, or by reason of, the occupation of said public property and the discharge of water into the City's stormwater drainage system.*

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Applicant Signature

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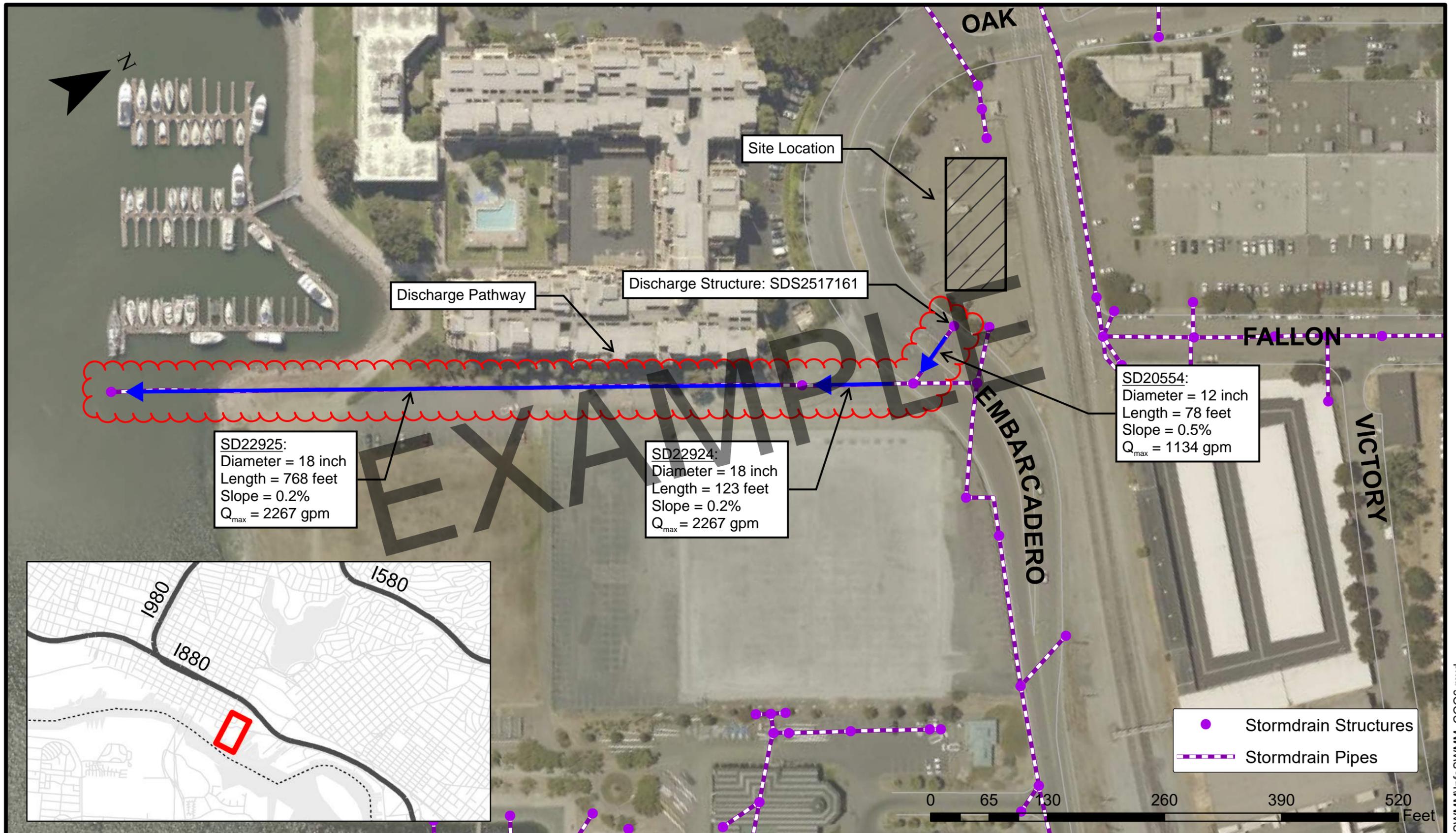
Print Name

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Date

*Certification:*

*I understand that I am legally responsible for the discharge to the City of Oakland's stormwater drainage system and for complying with the terms and conditions of this discharge permit. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possibility of fine and imprisonment for knowing violations.*

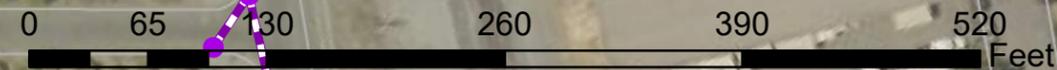
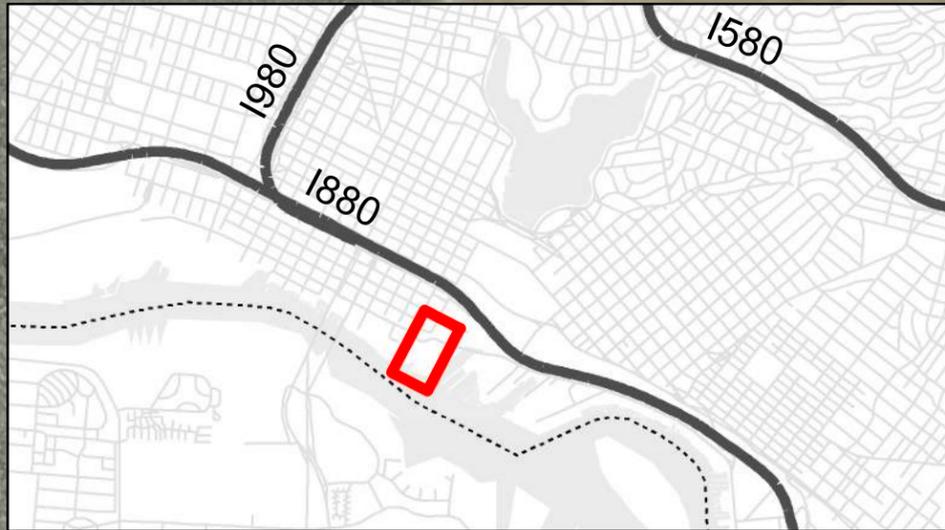


SD22925:  
 Diameter = 18 inch  
 Length = 768 feet  
 Slope = 0.2%  
 Q<sub>max</sub> = 2267 gpm

SD22924:  
 Diameter = 18 inch  
 Length = 123 feet  
 Slope = 0.2%  
 Q<sub>max</sub> = 2267 gpm

SD20554:  
 Diameter = 12 inch  
 Length = 78 feet  
 Slope = 0.5%  
 Q<sub>max</sub> = 1134 gpm

● Stormdrain Structures  
 - - - Stormdrain Pipes



APPLICANT NAME APPLICANT ADDRESS	PROJECT NAME	<table border="1"> <tr> <th>No.</th> <th>DATE</th> <th>BY</th> <th>REFERENCE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>CHECKED BY</td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>DESIGNED BY</td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>DRAWN BY</td> <td> </td> <td> </td> <td> </td> </tr> </table>	No.	DATE	BY	REFERENCE					CHECKED BY				DESIGNED BY				DRAWN BY				PROPOSED DISCHARGE PATHWAY	0000000
			No.	DATE	BY	REFERENCE																		
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SCALE: 1" = 100'	Sheet No. 1 of 1																							

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## Pipe Capacity Analysis

### Pipe Characteristics (circular):

- Pipe Diameter ( $D_0$ ): 18 inch
- Manning's Roughness ( $n$ ): 0.013 (RCP)
- Pipe Length ( $L$ ): 300 ft
- Upstream Invert Elevation: 10.0 ft
- Downstream Invert Elevation: 7.0 ft

### Calculations:

- Proposed Discharge ( $Q_P$ ): 150 gpm = 0.33 cfs

- Area ( $A$ ): 1.77 ft<sup>2</sup>

$$A = \pi(9 \text{ in})^2 = 254 \text{ in}^2 = 1.77 \text{ ft}^2$$

- Wetted Perimeter ( $P$ ): 56.55 in = 4.71 ft

$$P = 2\pi(9 \text{ in}) = 56.55 \text{ in} = 4.71 \text{ ft}$$

- Hydraulic Radius ( $R$ ): 0.38 ft

$$R = \frac{A}{P} = \frac{1.77 \text{ ft}^2}{4.71 \text{ ft}} = 0.38 \text{ ft}$$

- Slope ( $S_0$ ): 1%

$$S_0 = \frac{\text{rise}}{\text{run}} = \frac{10' - 7'}{300'} = 1\%$$

- Maximum Pipe Flow ( $Q_{\max}$ ): 10.53 cfs

$$Q = VA = \left(\frac{1.49}{n}\right) AR^{\frac{2}{3}} S^{\frac{1}{2}} = \left(\frac{1.49}{0.013}\right) 1.77 \text{ ft}^2 \times (0.38 \text{ ft})^{\frac{2}{3}} \times (0.01)^{\frac{1}{2}} = 10.53 \text{ cfs}$$

- Proposed Pipe Capacity ( $Q_P/Q_{\max}$ ): 3%

$$\frac{Q_P}{Q_{\max}} = \frac{0.33 \text{ cfs}}{10.53 \text{ cfs}} = 3\%$$

