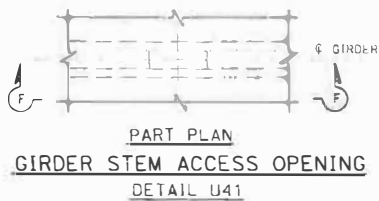
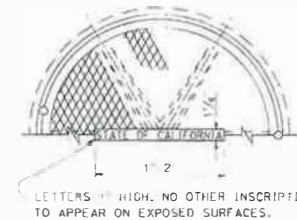


*Peter W. Naebe*  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 57519  
 STATE OF CALIFORNIA  
 May 31, 2018  
 THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION  
 SAN FRANCISCO OFFICE  
 12-31-19  
 NO SCALE



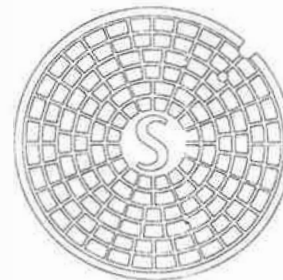
**BAR STEP  
LADDER RUNG DETAILS  
DETAIL U44**



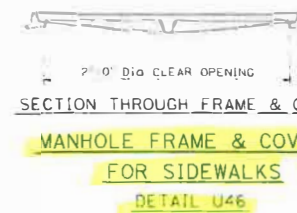
**NOTES:**

1. For exact location of openings see other sheets.
2. Location and size of manholes may be modified as directed by the Engineer, provided minimum dimensions are maintained.
3. All reinforcement detailed to be placed in addition to reinforcement shown on other sheets.

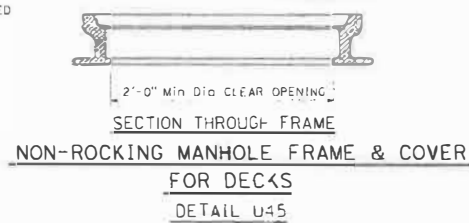
**TOP OF MANHOLE FRAME & COVER**



**TOP OF MANHOLE COVER**



**SECTION THROUGH FRAME & COVER  
MANHOLE FRAME & COVER  
FOR SIDEWALKS  
DETAIL U46**



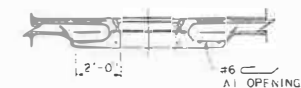
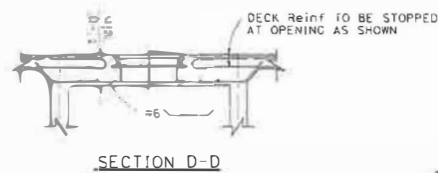
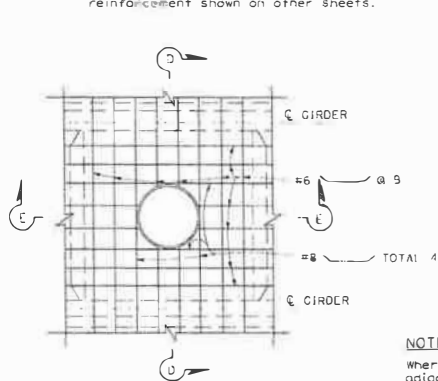
**SECTION THROUGH FRAME  
NON-ROCKING MANHOLE FRAME & COVER  
FOR DECKS  
DETAIL U45**

**NOTES:**

1. Step inserts may be substituted for the standard step detail. Step inserts shall comply with State Industrial Safety requirements.
2. Covers for use on sewer structures shall bear the letter "S"; on storm drain structures the letter "D"; on openings for utilities the letter "U".

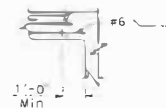
**NOTES:**

1. Frame and cover shall be cast iron.
2. Cover shall be supplied with bolt down or locking devices.



**NOTE:**

Where manhole is located adjacent to a diaphragm or abut, substitute half section E-E on one side of Section E-E.



**PART PLAN  
DECK ACCESS OPENING  
DETAIL U43**

**HALF SECTION E-E**

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**UTILITY DETAILS**  
 NO SCALE