



Golden Gate Bridge, Highway and Transportation District

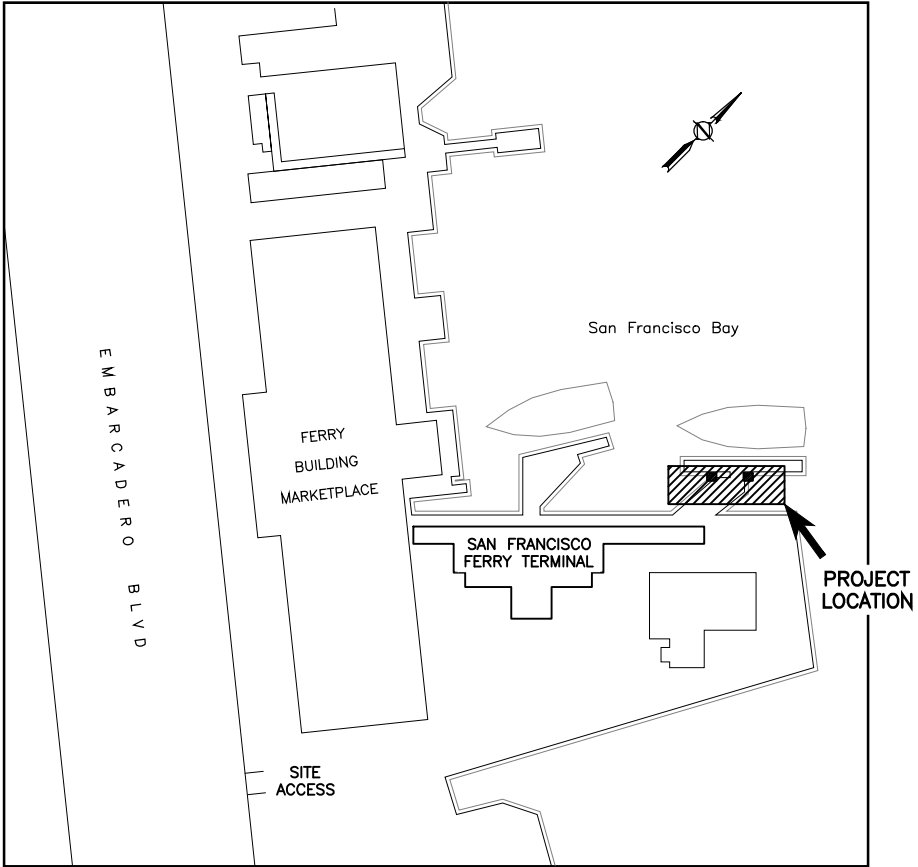
SAN FRANCISCO FERRY TERMINAL

OUTER BERTH HYDRAULIC RAMP REPAIRS

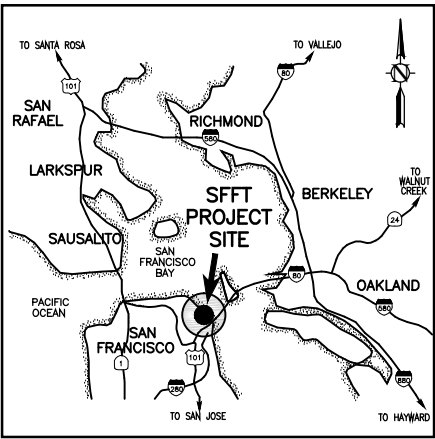
Contract No. 2019-F-026



LOCATION MAP
NO SCALE



SAN FRANCISCO FERRY TERMINAL
LOCATION PLAN
NO SCALE



VICINITY MAP
NO SCALE

ISSUED FOR BID

PROJECT ADDRESS:
FERRY BUILDING MARKETPLACE
ONE FERRY BUILDING
SAN FRANCISCO, CALIFORNIA 94111



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|------------|----|-----|---------|--------------------------------------|
| DESIGN | BY | RVG | CHECKED | RODOLFO V. GALANG PROJECT MANAGER |
| DETAILS | BY | RVG | CHECKED | |
| QUANTITIES | BY | RVG | CHECKED | |

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| APPROVED BY | | | |
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| PROJECT ENGINEER | NO. | REVISIONS | BY DATE |
| 07-16-2019 | CONTRACT NO. | 2019-F-026 | DWG NO. |
| DATE | CADD FILE: | 19F026P001.DWG | T1 |

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| DISTRICT ENGINEER | PROJECT TITLE | SAN FRANCISCO FERRY TERMINAL OUTER BERTH HYDRAULIC RAMP REPAIRS | |
| | SHEET TITLE | TITLE SHEET | |
| 07-16-2019 | DESIGNED: | RVG | CHECKED: JRE |
| DATE | SCALE: | AS NOTED | DRAWN: JTS |
| | | | DATE: July 16, 2019 |



| REV NO. | SHEET NO. | SHEET TOTAL |
|---------|-----------|-------------|
| 0 | 2 | 7 |

DRAWING INDEX:

| SHT No. | DWG No. | |
|---------|---------|---|
| 1 | T1 | TITLE SHEET |
| 2 | G1 | GENERAL NOTES, ABBREVIATIONS AND DRAWING INDEX |
| 3 | G2 | SITE PLAN |
| 4 | S1 | HYDRAULIC RAMP CYLINDER SUPPORT SITE PLAN AND REPLACEMENT |
| 5 | P1 | (E) HYDRAULIC SYSTEM SINGLE GANGWAY RAMP PIPE REPAIR PLAN |
| 6 | P2 | (E) HYDRAULIC SYSTEM SINGLE GANGWAY RAMP PIPE REPAIR PLAN |
| 7 | P3 | TYPICAL PIPING AND PIPE SUPPORT DETAILS |

ABBREVIATIONS :

| | | | |
|-------------|-------------------------|--------|---------------------------------|
| AB | ANCHOR BOLT | (N) | NEW |
| APPR | APPROXIMATE | NIC | NOT IN CONTRACT |
| B | BILGE | NO | NUMBER |
| BLDG | BUILDING | NOM | NOMINAL |
| BOT | BOTTOM | NTS | NOT TO SCALE |
| BUR | BUILT UP ROOFING | OC | ON CENTER |
| C | CONDUIT | OD | OUTSIDE DIAMETER |
| CISP | CAST IRON SOIL PIPE | OH | OPPOSITE HAND |
| CLR | CLEAR | OPP | OPPOSITE |
| CO | CLEANOUT | PD | PUMPED DISCHARGE |
| COL | COLUMN | PL | PLATE |
| CONC | CONCRETE | PS | PIPE SUPPORT |
| CONN(S) | CONNECTION(S) | PSI | POUNDS PER SQUARE INCH |
| COL | COLUMN | PT | PRESSURE TREATED |
| CONT | CONTINUOUS | PVC | POLY VINYL CHLORIDE |
| CTR | CENTER | PVMT | PAVEMENT |
| CV | CONTROL VALVE | PREFAB | PREFABRICATED |
| CW | COLD WATER | R | RADIUS |
| DET | DETAIL | RD | ROOF DRAIN |
| DI | DRAIN INLET | (R) | REMOVE |
| DWG | DRAWING | (RR) | REMOVE AND REPLACE |
| EL, ELEV | ELEVATION | REQD | REQUIRED |
| ELEC, ELECT | ELECTRICAL | SCH | SCHEDULE |
| EMBED | EMBEDMENT | SECT | SECTION |
| (E), EXIST | EXISTING | SFFT | SAN FRANCISCO FERRY TERMINAL |
| EQ | EQUAL | SHT | SHEET |
| EW | EACH WAY | SIM | SIMILAR |
| EXP | EXPANSION | SOV | SHUT-OFF VALVE |
| EXT | EXTERIOR | SPECS | SPECIFICATIONS |
| FD | FLOOR DRAIN | SS | SANITARY SEWER, STAINLESS STEEL |
| FIN | FINISH | STD | STANDARD |
| FLEX | FLEXIBLE | STL | STEEL |
| GA | GAUGE | SQ | SQUARE |
| GALV | GALVANIZED | SYM | SYMMETRICAL |
| GGB | GOLDEN GATE BRIDGE | TC | TOP OF CONCRETE |
| GR | GRADE | THK | THICK |
| GSP | GALVANIZED STEEL PIPE | TOS | TOP OF STEEL |
| HD | HOT-DIPPED, HEAVY-DUTY | TOT | TOTAL |
| HDG | HOT-DIPPED GALVANIZED | TYP | TYPICAL |
| HORIZ | HORIZONTAL | UON | UNLESS OTHERWISE NOTED |
| HT | HEIGHT | VAR | VARIES |
| INT | INTERIOR | VIF | VERIFY IN FIELD |
| JT | JUNCTION BOX, JOINT | VR | VENT RISER |
| KSI | KIPS PER SQUARE INCH | W | WATER, WIDTH |
| L | ANGLE | WP | WEATHERPROOF |
| LFT | LARKSPUR FERRY TERMINAL | W/ | WITH |
| MAX | MAXIMUM | | |
| MB | MACHINE BOLT | | |
| MET, MTL | METAL | | |
| MFR | MANUFACTURER | | |
| MIN | MINIMUM | | |
| MISC | MISCELLANEOUS | | |

GENERAL NOTES:

- THE GENERAL CONTRACTOR SHALL POSSESS A VALID STATE OF CALIFORNIA CLASS "A" GENERAL ENGINEERING CONTRACTOR'S LICENSE WITH MINIMUM OF THREE PROJECTS EXPERIENCE WITH PUBLIC AGENCIES IN THE PAST FIVE YEARS. BIDDER SHALL SUBMIT REFERENCES.
- NEW CONSTRUCTION IS UNPREFIXED OR PREFIXED BY (N) OR "NEW". EXISTING CONSTRUCTION IS PREFIXED BY (E) OR "EXIST".
- CONTRACTOR SHALL VERIFY EXISTING CONDITIONS & CONTROLLING FIELD DIMENSIONS PRIOR TO ORDERING OR FABRICATING OF MATERIALS & BEGINNING OF WORK.
- CONTRACTOR SHALL PERFORM ALL LAYOUT & SURVEYING WORK NECESSARY & SHALL SUBMIT WORK PLAN INCLUDING TRAFFIC CONTROL, HEALTH & SAFETY PLAN, & WATER POLLUTION CONTROL PLAN FOR APPROVAL BY THE ENGINEER PRIOR TO BEGINNING ANY FIELD WORK.
- ALL PIPE SUPPORTS, HANGER RODS, AND FASTENERS SHALL BE STAINLESS STEEL TYPE 316L, UNLESS OTHERWISE NOTED.

SYMBOLS:

| | |
|---|------------------------------------|
| ⊙ | AT |
| ⌒ | CENTER LINE |
| ∅ | DIAMETER |
| ± | MORE OR LESS |
| ⊥ | PERPENDICULAR |
| ⬮ | WORK POINT |
| ⌚ | BALL VALVE (SOV) |
| ⌒ | CHECK VALVE |
| ⌚ | FLEX HOSE |
| ⊙ | PRESSURE GAUGE |
| ⌚ | PUMP |
| ⌚ | STRAINER |
| ⌚ | FILTER/REGULATOR |
| ⌚ | SECTION NUMBER |
| ⌚ | DRAWING NUMBER |
| ⌚ | DETAIL NUMBER |
| ⌚ | DRAWING NUMBER |
| ⌚ | (E) PILE LOCATION BELOW PLATFORM |
| ⌚ | (E) COLUMN LOCATION ABOVE PLATFORM |

ISSUED FOR BID

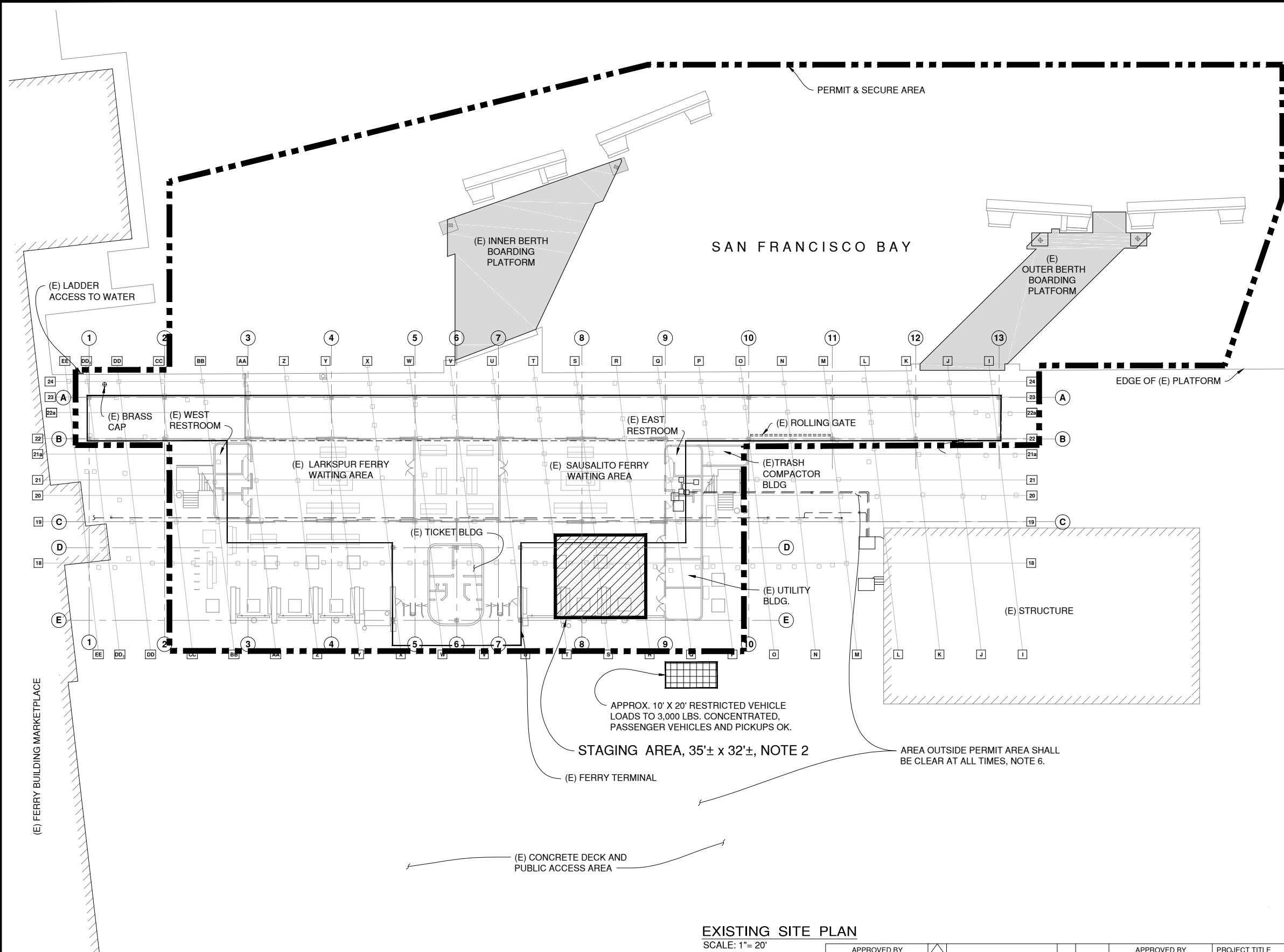


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| DESIGN | BY | RVG | CHECKED | |
| DETAILS | BY | RVG | CHECKED | RODOLFO V. GALANG PROJECT MANAGER |
| QUANTITIES | BY | RVG | CHECKED | |

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| APPROVED BY | | | | | | APPROVED BY |
| PROJECT ENGINEER | | | | | | DISTRICT ENGINEER |
| 07-16-2019 DATE | | | | | | 07-16-2019 DATE |
| | CONTRACT NO. 2019-F-026 | | DWG NO. G1 | | | |
| | CADD FILE: 19F026P002.DWG | | | | | |

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|---|---------------------|------------|
| PROJECT TITLE | | |
| SAN FRANCISCO FERRY TERMINAL OUTER BERTH HYDRAULIC RAMP REPAIRS | | |
| SHEET TITLE | | |
| GENERAL NOTES, ABBREVIATIONS AND DRAWING INDEX | | |
| DESIGNED: RVG | CHECKED: JRE | DRAWN: JTS |
| SCALE: AS NOTED | DATE: July 16, 2019 | |





- ## **NOTES:**
1. PARKING AT THE PROJECT SITE IS VERY LIMITED. CONTRACTOR IS ALLOWED TO PARK ONE (1) CONSTRUCTION VEHICLE WITHIN THE STAGING AREA AS DIRECTED BY THE ENGINEER. ALL OTHER CONSTRUCTION VEHICLES SHALL BE PARKED OFFSITE. VEHICLES, MATERIALS AND EQUIPMENT ARE NOT PERMITTED OUTSIDE OF PERMIT AREA.
 2. CONTRACTOR SHALL PROVIDE TEMPORARY FENCE, BARRICADES, SIGNS & BEACONS AROUND STAGING AREA TO PROTECT THE PUBLIC & STORED MATERIALS.
 3. BOAT LAUNCHING IS NOT ALLOWED AT THE PROJECT SITE. CONTRACTOR SHALL COORDINATE CLOSELY WITH THE ENGINEER FOR WATER ACCESS AND FLOAT PLATFORM PLACEMENT FOR THE UTILITY WORK UNDER THE CONCRETE DECK. CONTRACTOR'S BOAT AND FLOAT PLATFORM MAY BE STORED WITHIN THE PERMIT AREA, PROVIDED THEY DO NOT INTERFERE WITH DISTRICT OR BART OPERATIONS. BOAT AND FLOAT PLATFORM PARKED AT THE BERTH AFTER WORK SHIFT SHALL BE PROPERLY SECURED AT LOCATION APPROVED BY THE ENGINEER..
 4. IN GENERAL, WORK SHALL BE PERFORMED ON WEEKENDS BETWEEN 9:00 PM, FRIDAY UNTIL 5:00 AM, MONDAY. WORK HOURS FOR PIPELINE REMOVAL AND INSTALLATION UNDER THE OUTER BERTH BOARDING PLATFORM SHALL BE SCHEDULED TO SUIT DAILY TIDAL CONDITION.
 5. PROJECT SITE IS A SECURITY AREA. ALL CONTRACTOR EMPLOYEES SHALL POSSESS A VALID TRANSPORTATION WORKER IDENTIFICATION CREDENTIAL. CONTRACTOR SHALL COMPLY WITH DISTRICT'S SECURITY REQUIREMENT AS STATED IN CONTRACT DOCUMENTS.
 6. AREA OUTSIDE PERMIT AREA SHALL BE CLEAR AT ALL TIME. USE OF AREA FOR LOADING / UNLOADING MATERIAL SHALL ONLY BE ALLOWED BY SPECIAL REQUEST TO AND APPROVAL FROM THE ENGINEER.

ISSUED FOR BID

EXISTING SITE PLAN
SCALE: 1" = 20'

| | | |
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| DESIGN | BY RVG | CHECKED |
| DETAILS | BY RVG | CHECKED |
| QUANTITIES | BY RVG | CHECKED |

RODOLFO V. GALANG
PROJECT MANAGER

APPROVED BY

A circular professional engineer seal for the State of California. The outer ring contains the text "REGISTERED PROFESSIONAL ENGINEER" at the top and "STATE OF CALIFORNIA" at the bottom, separated by two stars. The center of the seal contains the handwritten signature "John C. [illegible]", the number "No. C66235", the expiration date "Exp. 6/30/20", and the word "CIVIL" at the bottom.


PROJECT ENGINEER

07-16-2019

DATE

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| NO. | REVISIONS | BY | DATE |
| CONTRACT NO. 2019-F-026 | | DWG NO. | |
| CADD FILE: 19F026P003.DWG | | G2 | |

APPROVED BY



DISTRICT ENGINEER

07-16-2019

DATE

| | | |
|---|---------------------|------------|
| PROJECT TITLE | | |
| <h1 style="margin: 0;">SAN FRANCISCO FERRY TERMINAL</h1> <h2 style="margin: 0;">OUTER BERTH HYDRAULIC RAMP</h2> <h2 style="margin: 0;">REPAIRS</h2> | | |
| SHEET TITLE | | |
| <h1 style="margin: 0;">SITE PLAN</h1> | | |
| DESIGNED: RVG | CHECKED: JRE | DRAWN: JTS |
| SCALE: AS NOTED | DATE: July 16, 2019 | |



LEGEND:

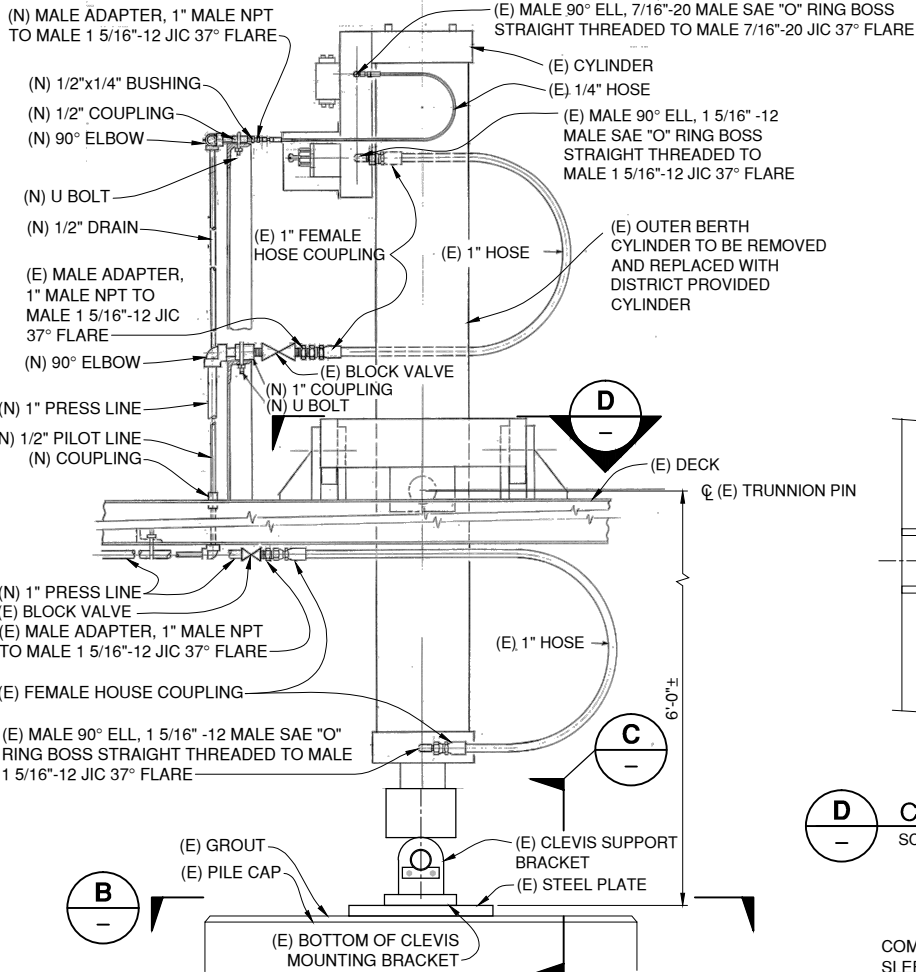
(E) CYLINDER SUPPORT LOCATION

EXISTING HYDRAULIC RAMP CYLINDER SUPPORT PLAN

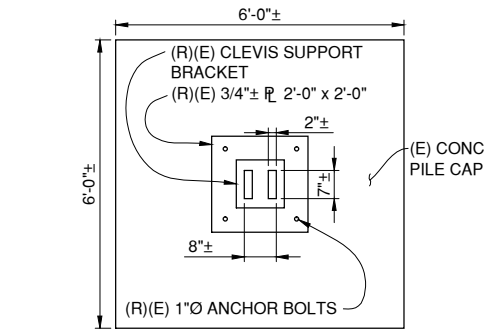
SCALE: 1"=20'

NOTES:

- CONTRACTOR SHALL FIELD VERIFY ALL CONTROLLING DIMENSIONS, LOCATION AND ORIENTATION OF (E) HYDRAULIC CYLINDERS.
- CONTRACTOR SHALL INSTALL CONTAINMENT TO THE WORK AREA TO PREVENT WATER POLLUTION OF THE BAY WATER.
- STABILIZE AND LOWER BOARDING RAMP. CONTRACTOR IS RESPONSIBLE FOR STABILIZING THE BOARDING RAMP AND FOR FURNISHING AND INSTALLING TEMPORARY SUPPORT FOR THE RAMP SUPPORT STRUCTURE IN ORDER TO (RR) HYDRAULIC CYLINDERS.
- IN ORDER TO MINIMIZE THE INTERRUPTION TO THE FERRY DAILY OPERATION, WORK AT HYDRAULIC CYLINDER AT OUTER BERTH SHALL BE SCHEDULED AND COMPLETED ON ONE WEEKEND. OUTER BERTH MAY BE CLOSED STARTING 9:00PM FRIDAY AND ENDING 5:00AM MONDAY. FOR THE REMOVAL AND REPLACEMENT OF THE HYDRAULIC CYLINDER, CONTRACTOR SHALL SUBMIT THE PROPOSED CLOSURES TO THE ENGINEER FOR APPROVAL. THE CLOSURES MUST BE APPROVED BY THE ENGINEER A MINIMUM OF TWO WEEKS PRIOR TO THE START OF THE CLOSURE.
- REMOVE AND REPLACE (E) HYDRAULIC CYLINDERS USING THE FOLLOWING PROCEDURE AT THE OUTER BERTH (EAST AND WEST CYLINDER):
 - INSTALL SHORING AND STABILIZE THE BOARDING RAMP.
 - LOCK OUT/TAG OUT HYDRAULIC SYSTEM.
 - DISCONNECT THE (E) 3 1/2" DIAMETER STAINLESS STEEL PIN. (E) STAINLESS STEEL PINS AND ROD EYE W/ SELF ALIGNING BUSHINGS TO BE PROTECTED AND PRESERVED FOR REINSTALLATION.
 - REMOVE (E) KEEPER PLATE.
 - DISCONNECT (E) HOSE, (E) HOSE COUPLING AND (E) CONNECTION ATTACHMENTS FROM (E) HYDRAULIC CYLINDER. ALL (E) FACILITIES SHALL BE PROTECTED, PRESERVED AND RECONNECTED AFTER THE INSTALLATION OF (N) HYDRAULIC CYLINDERS.
 - DISCONNECT THE TRUNNION PIN.
 - REMOVE (E) HYDRAULIC CYLINDER AND DELIVER TO DISTRICT AT A LOCATION SPECIFIED BY THE ENGINEER.
 - INSTALL (N) HYDRAULIC CYLINDER FURNISHED BY THE DISTRICT.
 - RECONNECT (E) PIPINGS, (E) HOSES, (E) HOSE COUPLINGS AND (E) CONNECTION ATTACHMENTS.
 - REMOVE SHORING.
 - TEST THE OPERATION OF THE RAMP FOR 10 CYCLES OR TO THE SATISFACTION OF THE ENGINEER.

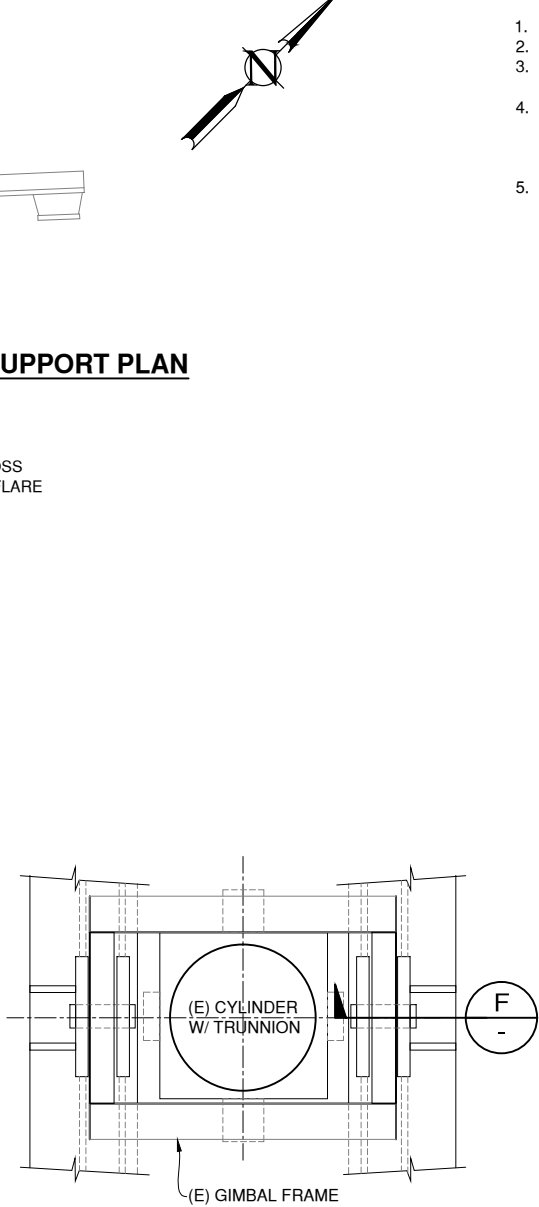


A TYPICAL (E) HYDRAULIC RAMP CYLINDER and CLEVIS SUPPORT ELEVATION
NOT TO SCALE

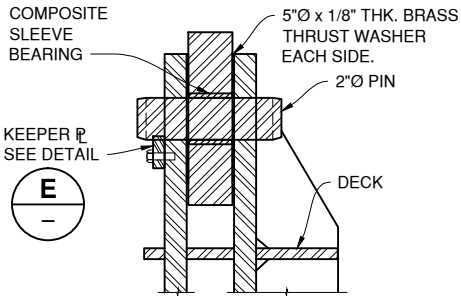


B (E) CYLINDER CLEVIS SUPPORT PLAN
SCALE: 1/2"=1'-0"

GRAPHIC SCALE SHOWN IN FULL SIZE
VERIFY SCALE FOR REDUCED PLANS



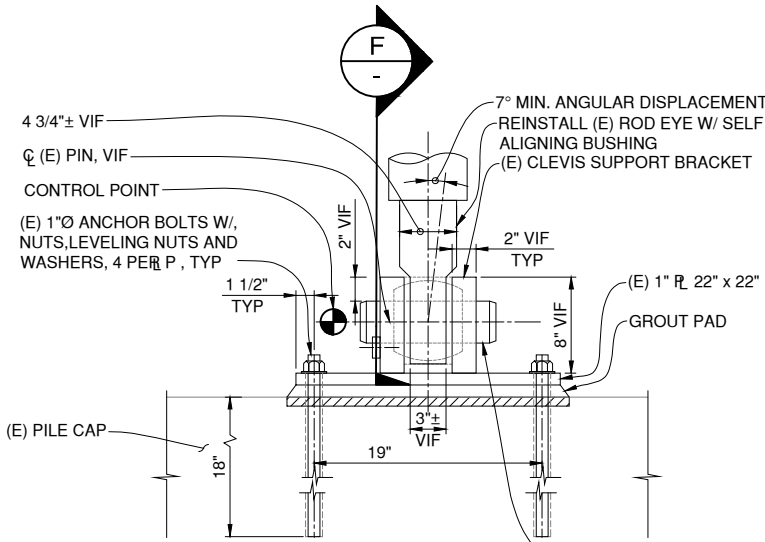
D CYLINDER W/ (E) TRUNNION SECTION
SCALE: 1 1/2"=1'-0"



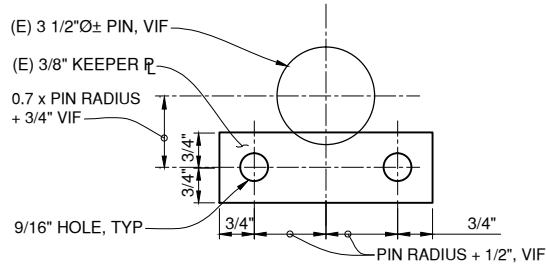
F SECTION
NOT TO SCALE

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| DETAILS | BY | RVG | CHECKED | |
| QUANTITIES | BY | RVG | CHECKED | |

RODOLFO V. GALANG
PROJECT MANAGER



C SECTION
SCALE: 1 1/2"=1'-0"



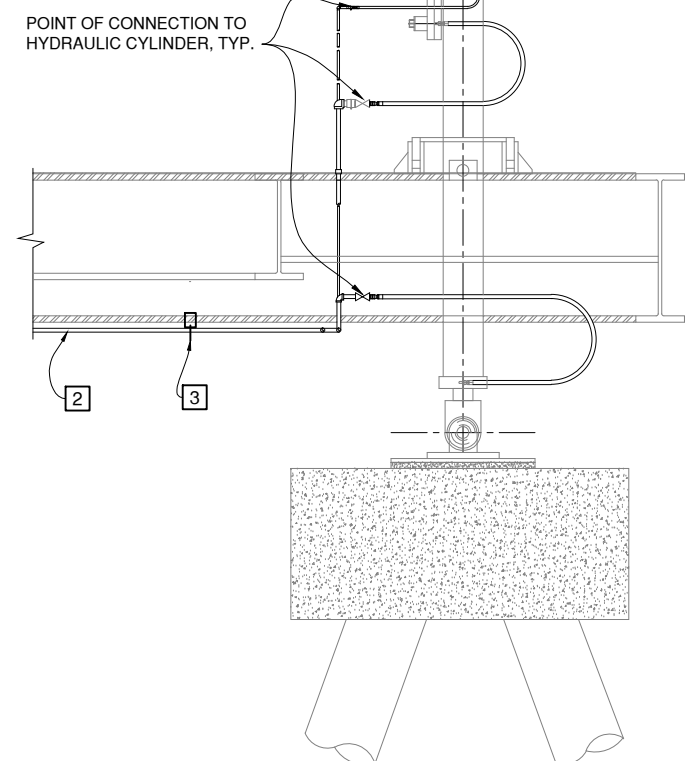
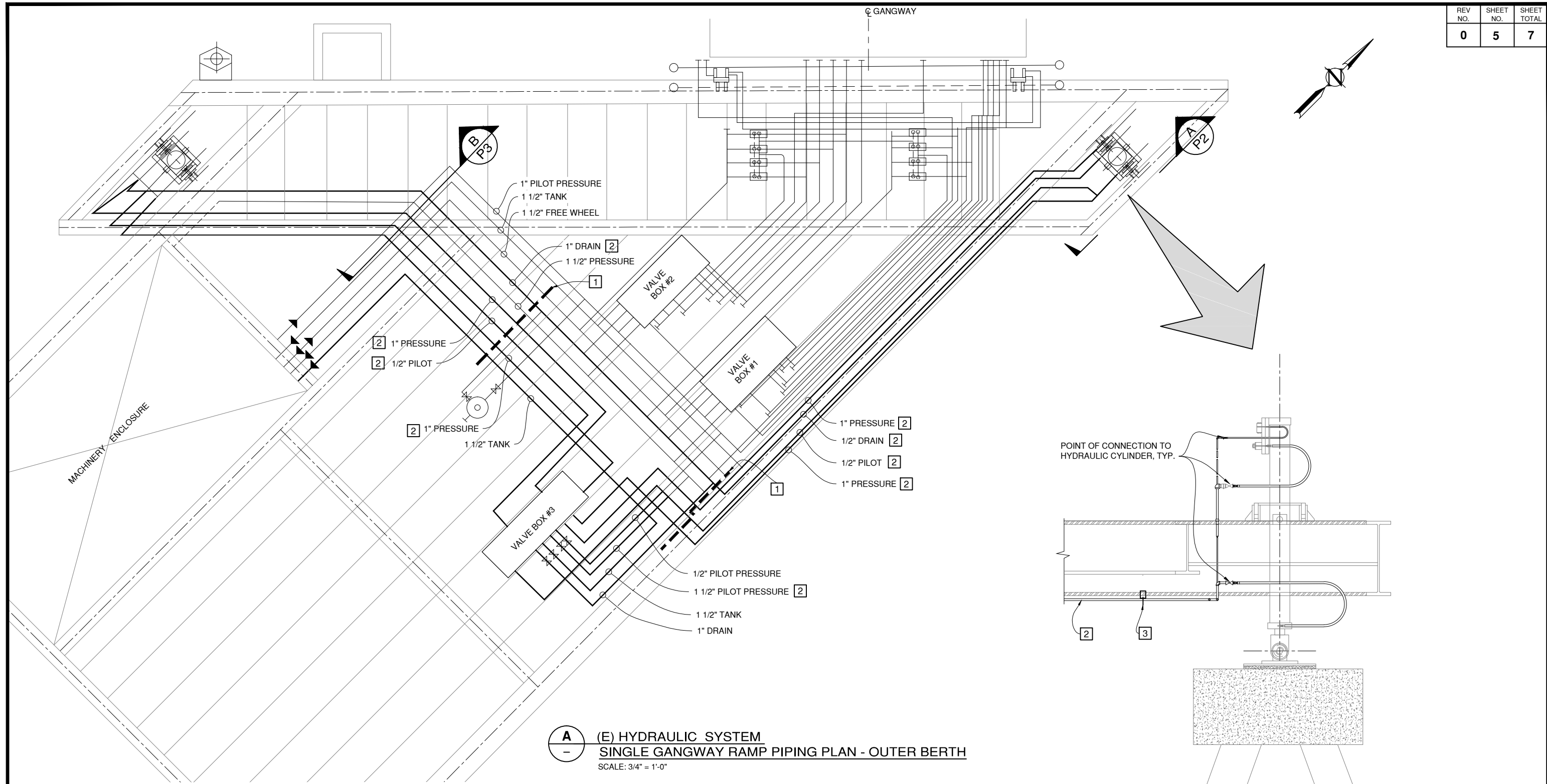
E (E) KEEPER PLATE DETAIL
NOT TO SCALE

ISSUED FOR BID

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| APPROVED BY | | APPROVED BY | |
| PROJECT ENGINEER 07-16-2019 DATE | NO. REVISIONS CONTRACT NO. 2019-F-026 CADD FILE: 19F026P004.DWG | BY DATE DWG NO. S1 DATE | DISTRICT ENGINEER 07-16-2019 DATE |

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| PROJECT TITLE | | |
| SAN FRANCISCO FERRY TERMINAL OUTER BERTH HYDRAULIC RAMP REPAIRS | | |
| SHEET TITLE | | |
| HYDRAULIC RAMP CYLINDER SUPPORT SITE PLAN AND REPLACEMENT | | |
| DESIGNED: RVG | CHECKED: JRE | DRAWN: JTS |
| SCALE: AS NOTED | DATE: July 16, 2019 | |





ISSUED FOR BID

KEY NOTES:

- [1] THREAD (E) SCH. 80 CARBON STEEL PIPE TO CONNECT (N) SCH. 80 SS PIPE TYPE 316L FROM CUT LINE TO HYDRAULIC CYLINDER CONNECTIONS. SEE DETAIL C, DRAWING P4.
- [2] (N)TYPE 316 STAINLESS STEEL PIPE FROM CUT LINE TO HYDRAULIC CYLINDERS.
- [3] (N) UNISTRUT STAINLESS STEEL TYPE 316L BEAM CLAMP, STRUT AND U-BOLT SUPPORT SPACED AT 5'-0" MAXIMUM, TYP.

LEGEND:

----- CUT LINE

GENERAL NOTE:

CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO ORDERING & FABRICATING OF MATERIALS & BEGINNING OF WORK, AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER.

**(E) HYDRAULIC SYSTEM
SINGLE GANGWAY RAMP PIPING PLAN - OUTER BERTH**
SCALE: 3/4" = 1'-0"



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| DESIGN | BY | RVG | CHECKED | RODOLFO V. GALANG PROJECT MANAGER |
| DETAILS | BY | RVG | CHECKED | |
| QUANTITIES | BY | RVG | CHECKED | |

APPROVED BY

PROJECT ENGINEER
07-16-2019
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CONTRACT NO. 2019-F-026
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DWG NO. **P1**

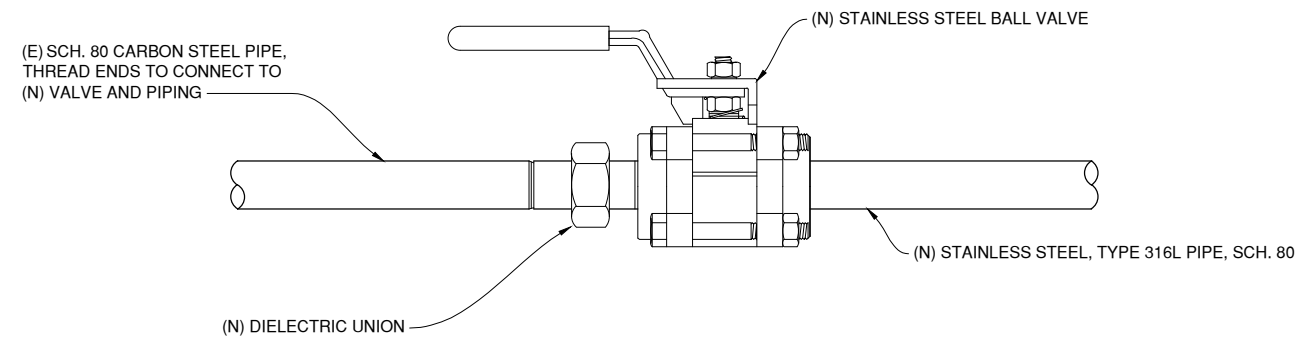
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DISTRICT ENGINEER
07-16-2019
DATE

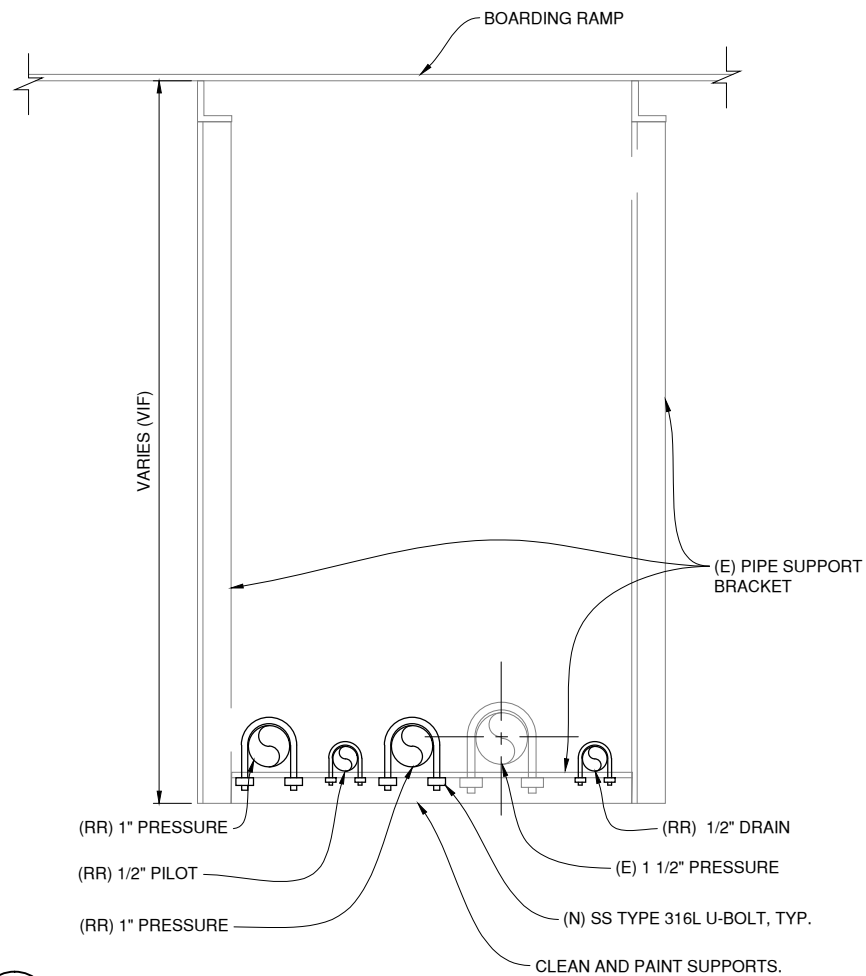
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| PROJECT TITLE SAN FRANCISCO FERRY TERMINAL OUTER BERTH HYDRAULIC RAMP REPAIRS | | |
| SHEET TITLE (E) HYDRAULIC SYSTEM SINGLE GANGWAY RAMP PIPING REPAIR PLAN | | |
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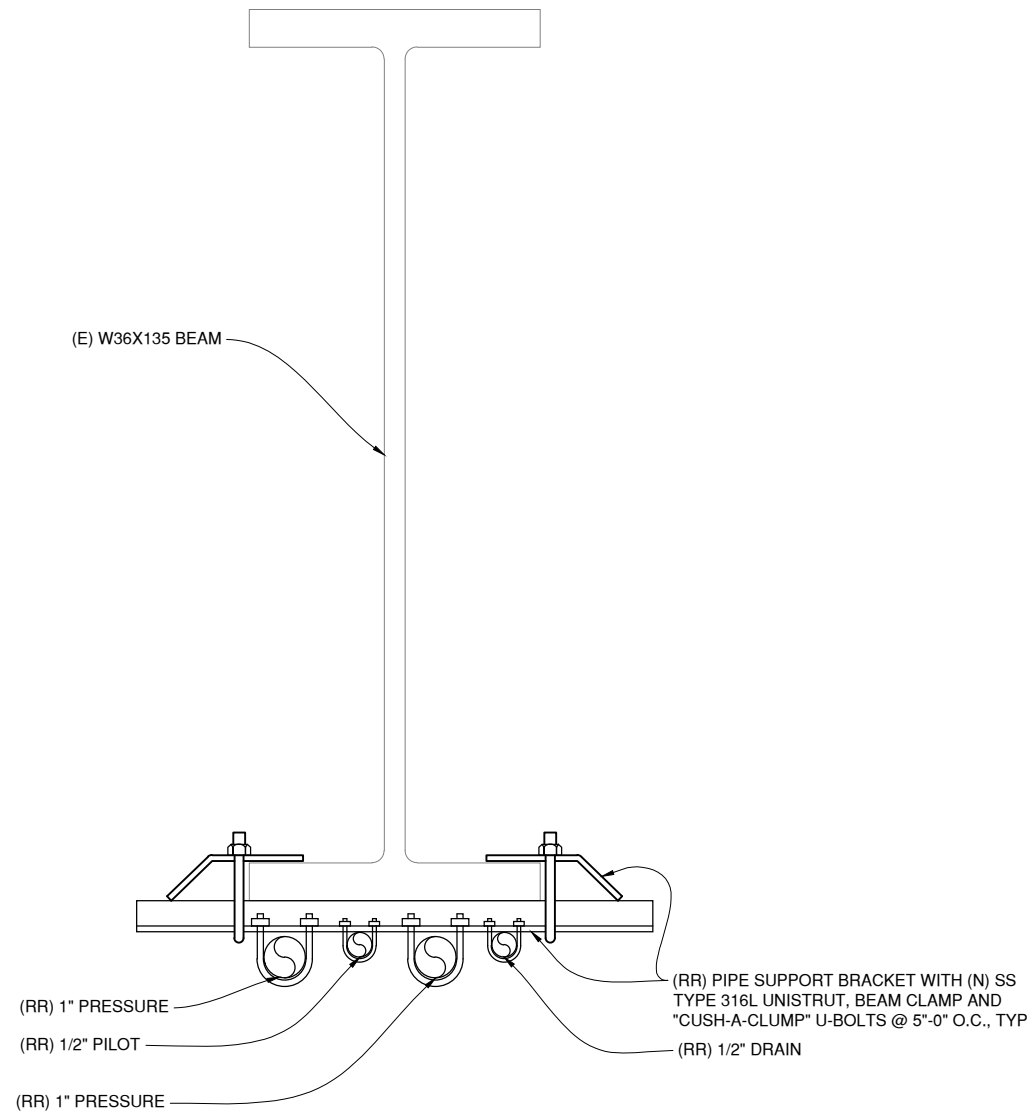
| REV NO. | SHEET NO. | SHEET TOTAL |
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| 0 | 7 | 7 |



C
— (E) PIPE TO (N) SS PIPE CONNECTION DETAIL
NOT TO SCALE



B
P1 PIPE SUPPORT BRACKET DETAIL
NOT TO SCALE



B
P2 PIPE BEAM SUPPORT DETAIL
NOT TO SCALE

ISSUED FOR BID



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| DESIGN | BY | RVG | CHECKED | RODOLFO V. GALANG PROJECT MANAGER |
| DETAILS | BY | RVG | CHECKED | |
| QUANTITIES | BY | RVG | CHECKED | |

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PROJECT ENGINEER

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CONTRACT NO. 2019-F-026
CADD FILE: 19F026P007.DWG

DWG NO. **P3**

APPROVED BY

DISTRICT ENGINEER

07-16-2019
DATE

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|---|---------------------|------------|
| PROJECT TITLE SAN FRANCISCO FERRY TERMINAL OUTER BERTH HYDRAULIC RAMP REPAIRS | | |
| SHEET TITLE TYPICAL PIPING AND PIPE SUPPORT DETAILS | | |
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GOLDEN GATE BRIDGE
HIGHWAY & TRANSPORTATION DISTRICT