

# COUNTY OF EL DORADO, CA COMMUNITY DEVELOPMENT AGENCY TRANSPORTATION DIVISION

## PROJECT PLANS FOR THE CONSTRUCTION OF HEADINGTON WASH RACK FACILITY

IN THE COUNTY OF EL DORADO, DISTRICT 3  
APPROXIMATELY 0.3 MILES NORTH OF THE U.S. HWY 50/MISSOURI FLAT RD INTERCHANGE

To be supplemented with Standard Plans and Specifications dated 2010, including  
the amendments to the 2010 Standard Specifications, of the California  
Department of Transportation, unless otherwise noted.

### INDEX OF SHEETS

SHEET	PLAN SHEET	TITLE
1		TITLE SHEET
2	L-1	SITE OVERVIEW
3	L-2	SITE LAYOUT
4	G-1	GRADING PLAN
5	C-1	TIRE WASH DETAILS
6	C-2	RESERVOIR TANK DETAILS
7	C-3	UNDERGROUND ELECTRICAL CONDUITS AND PUMP CONNECTIONS
8	S-1	BUILDING ELEVATIONS
9	S-2	FOUNDATION PLAN
10	S-3	STRUCTURAL SECTIONS
11-12	S-4 THRU S-5	STRUCTURAL DETAILS
13	P-1	TIRE WASH SUPPLY & RAIN TANK PLUMBING PLAN
14	P-2	RAIN TANK SYSTEM
15	P-3	TIRE WASH SUPPLY & RAIN TANK PLUMBING QUANTITIES
16	CW-1	CATWALK - (ALTERNATIVE BID ITEM B)
17	T-1	PUMP DETAILS - (ALTERNATIVE BID ITEM C)
18	T-2	PUMP DETAILS - (ALTERNATIVE BID ITEM C)
19	T-3	FILTRATION EQUIPMENT DETAILS - (ALTERNATIVE BID ITEM C)
20	T-4	FILTRATION EQUIPMENT DETAILS - (ALTERNATIVE BID ITEM C)
21	T-5	FILTRATION EQUIPMENT DETAILS - (ALTERNATIVE BID ITEM C)
22	T-6	TREATMENT SYSTEM FLOW DIAGRAM - (ALTERNATIVE BID ITEM C)
23	T-7	TREATMENT PLAN - OVERALL - (ALTERNATIVE BID ITEM C)
24	T-8	TREATMENT PLAN - BREAKDOWN 1 - (ALTERNATIVE BID ITEM C)
25	T-9	TREATMENT PLAN - BREAKDOWN 2 - (ALTERNATIVE BID ITEM C)
26	T-10	TREATMENT PLAN - BREAKDOWN 3 - (ALTERNATIVE BID ITEM C)
27	T-11	TREATMENT PLAN - TIRE WASH BUNKER - (ALTERNATIVE BID ITEM C)
28	T-12	SERVICE AND REUSE DIAGRAM - (ALTERNATIVE BID ITEM C)
29	T-13	TREATMENT TABLES - (ALTERNATIVE BID ITEM C)

### PROJECT DATA

**PROJECT DESCRIPTION:** THE PROJECT CONSISTS OF A VEHICLE WASH FACILITY COMPRISED OF 2 TWO-LEVEL WASH BAYS, AND A CLOSED LOOP WATER RECYCLING SYSTEM WITH RAIN WATER COLLECTION AND STORAGE. THE BUILDING WILL BE A STEEL STRUCTURE WITH METAL SIDING AND ROOFING.

**SITE ADDRESS:** 2441 HEADINGTON ROAD  
PLACERVILLE, CA 95667

**BUILDING USE:** GROUP-B OCCUPANCY

**CONSTRUCTION TYPE:** TYPE I-B

**TOTAL BUILDING STORIES:** 1

**AUTOMATIC FIRE SPRINKLERS:** NO

**BUILDING AREA:** 3,200 S.F.

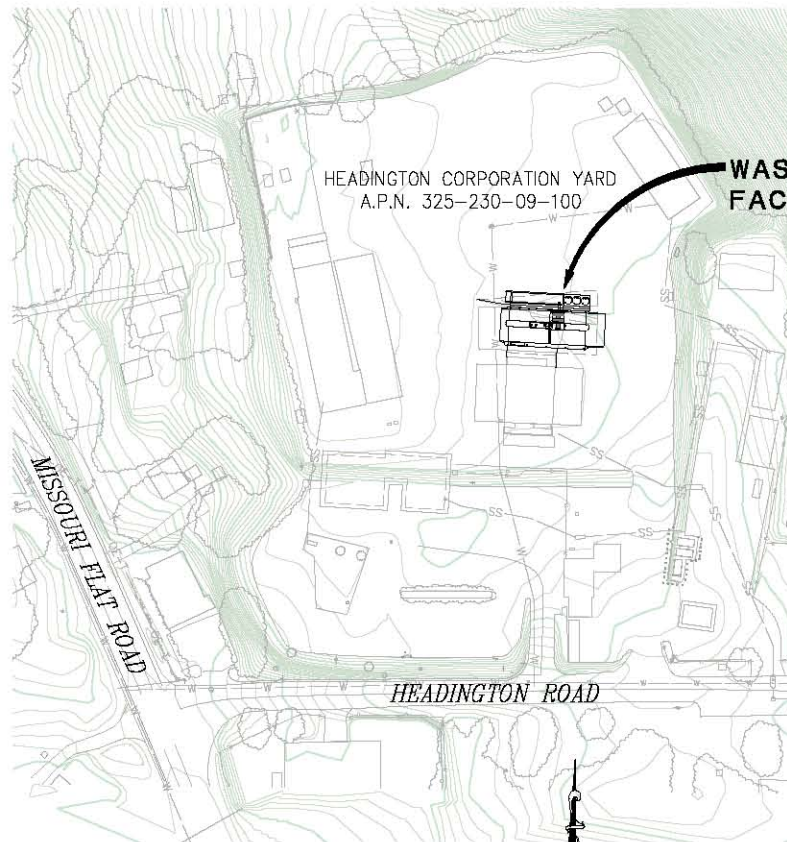
**PROJECT OWNER:** COUNTY OF EL DORADO

**PROJECT DESIGNER:** EL DORADO COUNTY COMMUNITY DEVELOPMENT  
AGENCY, TRANSPORTATION DIVISION

**CONTRACTOR'S LICENSE CLASSIFICATION:** Bidders shall be properly licensed to perform the Work pursuant to the State Contractor's License Act (Business and Professions Code section 7000 et seq.) and shall possess a CLASS A or CLASS B LICENSE or equivalent combination of Classes required by the categories and type of Work included in the Contract Documents and Plans. Failure of the successful Bidder to obtain proper and adequate licensing at the time bids are submitted shall constitute a failure to execute the Contract, and forfeiture as provided under that section.

### REVISIONS

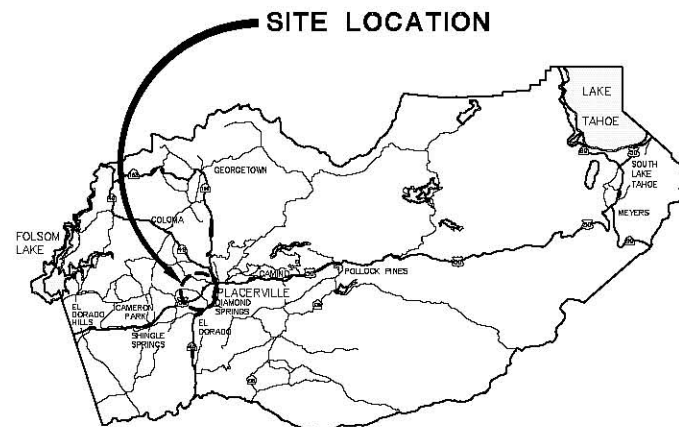
MARK	DATE	BY



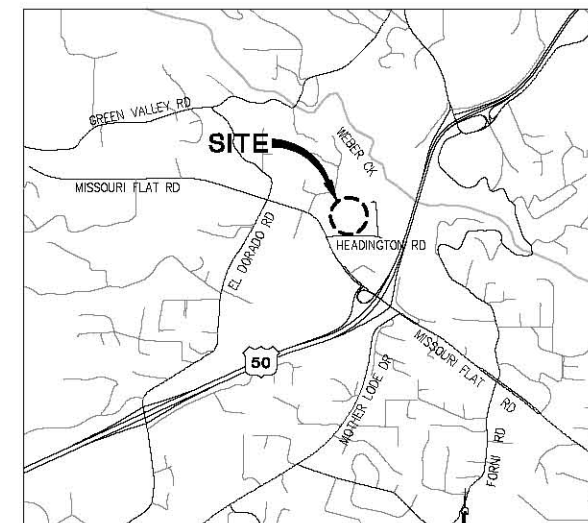
**SITE PLAN**  
SCALE: 1" = 200'

### ABBREVIATIONS

- AB - AGGREGATE BASE
- GAL - GALLON(S)
- GFCI - GROUND FAULT CIRCUIT INTERRUPTER
- GPM - GALLONS PER MINUTE
- FF - FINISHED FLOOR
- H.B. - HOSE BIB
- HDPE - HIGH DENSITY POLYETHYLENE
- HMA - HOT MIX ASPHALT
- HP - HORSE POWER
- TC - TOP OF CURB
- O.C. - ON CENTER
- PSF - POUNDS PER SQUARE FOOT
- PSI - POUNDS PER SQUARE INCH
- S.U.M.O. - SNYDER UNITIZED MOLDED OUTLET
- SW - SIDEWALK
- TYP - TYPICAL
- UV - ULTRAVIOLET
- VAR - VARIES



**VICINITY MAP**  
COUNTY OF EL DORADO



**LOCATION MAP**  
NOT TO SCALE



SUBMITTED BY:   
CIVIL ENGINEER  
STATE OF CALIFORNIA NO. \_\_\_\_\_  
DATE: 09/23/19

BOARD OF SUPERVISORS	
I	II
JOHN HIDAHL	SHIVA FRENTZEN
BRIAN VEERKAMP	LORI PARLIN
SUE NOVASEL	

**COUNTY OF EL DORADO  
COMMUNITY DEVELOPMENT AGENCY  
TRANSPORTATION DIVISION**

(530) 621-6900  
2850 FAIRLANE CT  
PLACERVILLE, CA 95667

DATE	DATE	DATE

ADOPTED AND APPROVED BY:

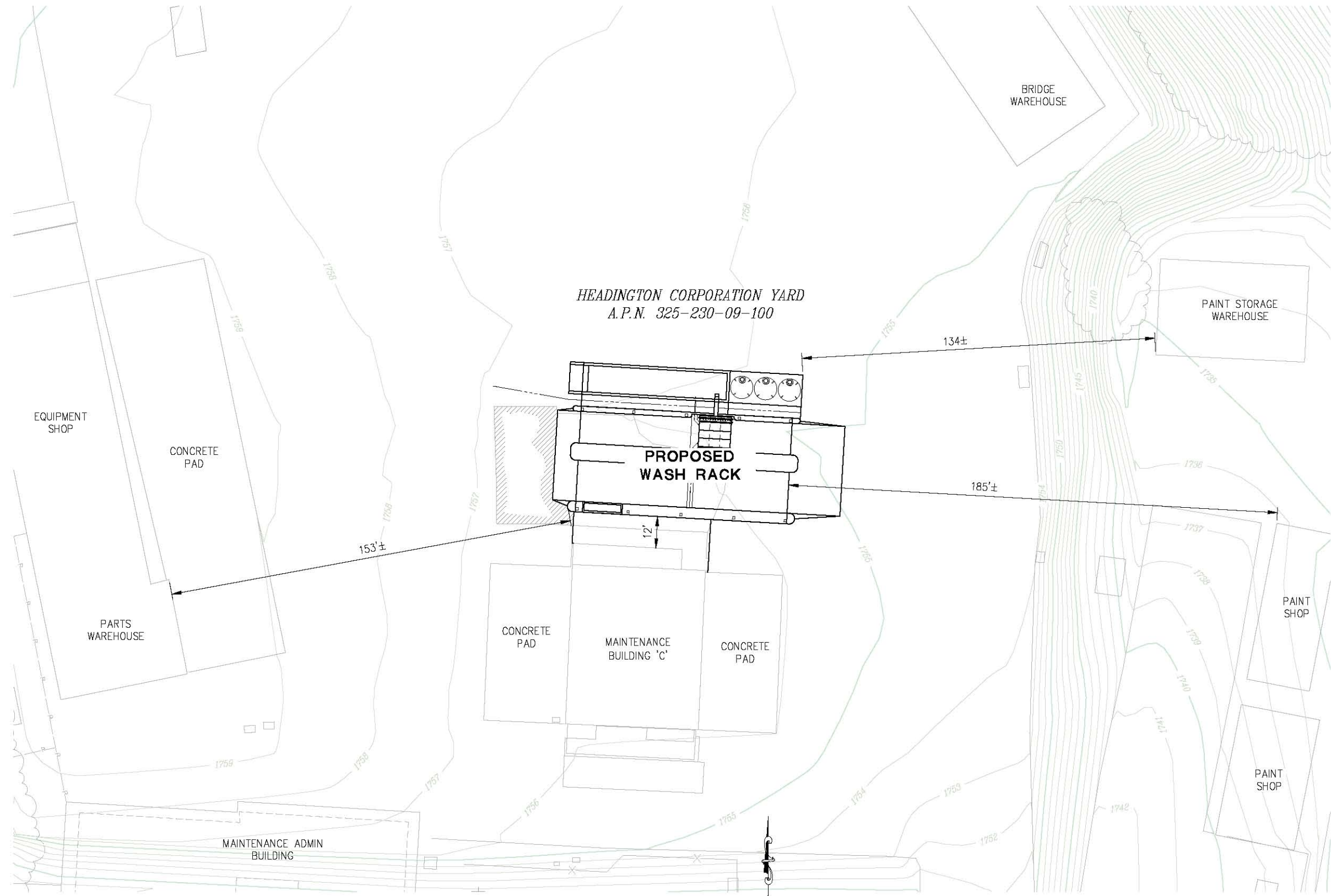
SUE NOVASEL, CHAIR, EL DORADO COUNTY BOARD OF SUPERVISORS  
APPROVED BY: RAFAEL MARTINEZ, DIRECTOR, DEPARTMENT OF TRANSPORTATION  
MATTHEW D. SMELTZER, P.E. NO. C56832, DEPUTY DIRECTOR, ENGINEERING

CONTRACT NO. 4299    PROJECT NO. 81134

## HEADINGTON WASH RACK FACILITY TITLE SHEET

SHEET 1 OF 29

ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D Projects\81134 Headington Corp. Yard\CADD Files\Sheets\Layout Tab\ L-1 Nov 25, 2019 - 1:04pm SMC\ey



**SITE PLAN**  
SCALE: 1"=20'

**SITE OVERVIEW**  
SCALE : AS SHOWN

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF :  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/23/19

DESIGNED: JB  
 DRAWN: SGM  
 CHECKED: JB  
 DATE: 09/17/19  
 ROAD NUMBER: -



**COUNTY OF EL DORADO**  
**COMMUNITY DEVELOPMENT AGENCY**  
**TRANSPORTATION DIVISION**

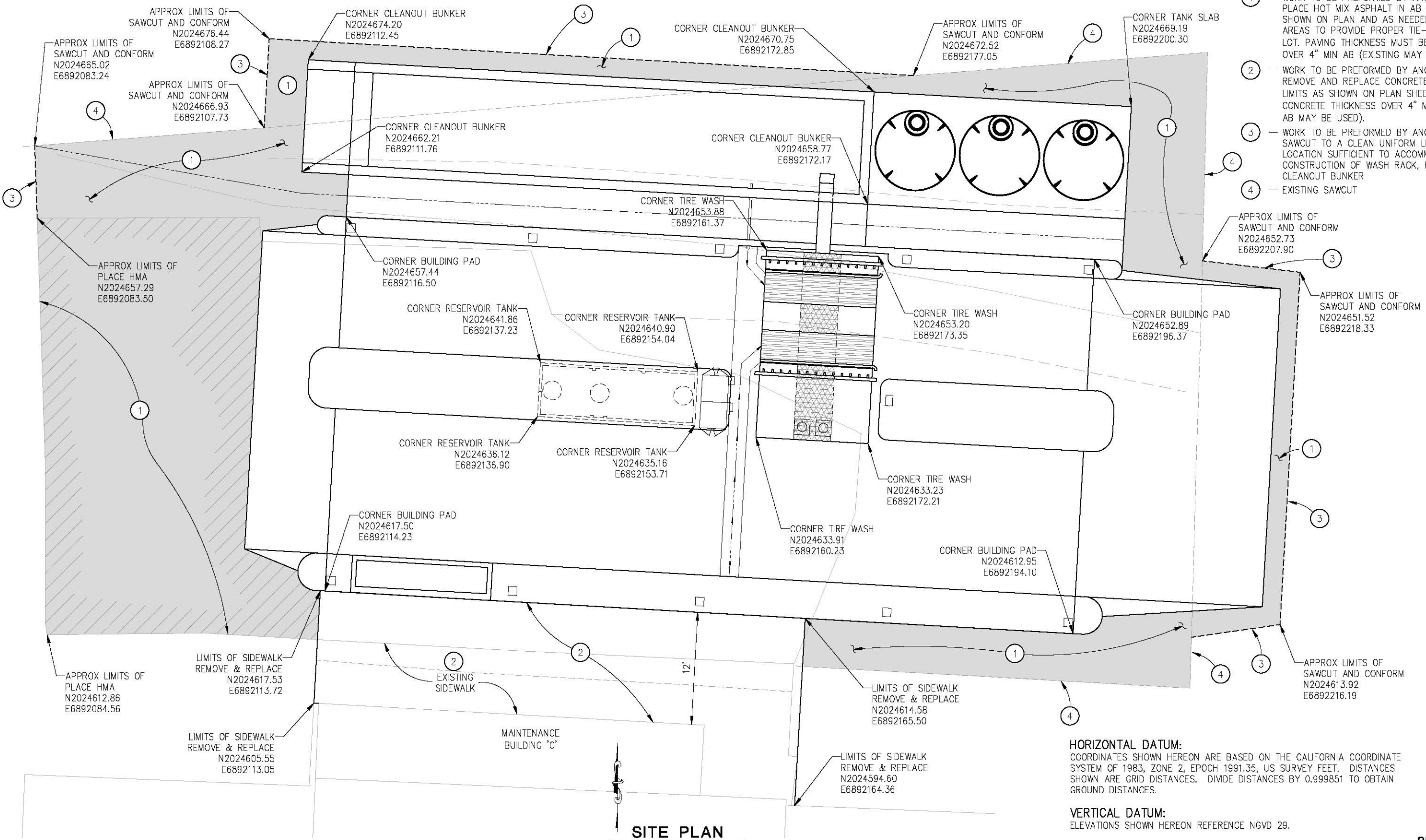
**HEADINGTON WASH RACK FACILITY**

SHEET  
**L-1**  
 2 OF 29  
 W.G. No. **81134**

ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D\Projects\81134\Headington Corp.\Yard\CADD Files\Sheets\L-2\Sheets.dwg Layout Tab: L-2 Nov 25, 2019 1:05pm SMC/ley  
 FOR REDUCED PLANS

**CONSTRUCTION NOTES:**

- ① — WORK TO BE PERFORMED BY ANOTHER— PLACE HOT MIX ASPHALT IN AB AREAS, AS SHOWN ON PLAN AND AS NEEDED IN CONFORM AREAS TO PROVIDE PROPER TIE-IN TO EXISTING LOT. PAVING THICKNESS MUST BE 3" (MIN) HMA OVER 4" MIN AB (EXISTING MAY BE USED).
- ② — WORK TO BE PERFORMED BY ANOTHER— REMOVE AND REPLACE CONCRETE SIDEWALK IN LIMITS AS SHOWN ON PLAN SHEETS. 4" MINIMUM CONCRETE THICKNESS OVER 4" MIN AB (EXISTING AB MAY BE USED).
- ③ — WORK TO BE PERFORMED BY ANOTHER— SAWCUT TO A CLEAN UNIFORM LINE AT A LOCATION SUFFICIENT TO ACCOMMODATE CONSTRUCTION OF WASH RACK, RAMPS, AND CLEANOUT BUNKER
- ④ — EXISTING SAWCUT



**SITE PLAN**  
SCALE: 1"=5'

**HORIZONTAL DATUM:**  
 COORDINATES SHOWN HEREON ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 2, EPOCH 1991.35, US SURVEY FEET. DISTANCES SHOWN ARE GRID DISTANCES. DIVIDE DISTANCES BY 0.999851 TO OBTAIN GROUND DISTANCES.

**VERTICAL DATUM:**  
 ELEVATIONS SHOWN HEREON REFERENCE NGVD 29.

**SITE LAYOUT**  
SCALE : AS SHOWN

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF:  
 [Signature]  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/23/19

DESIGNED: JB  
 DRAWN: SGM  
 CHECKED: JB  
 DATE: 09/17/19  
 ROAD NUMBER: -

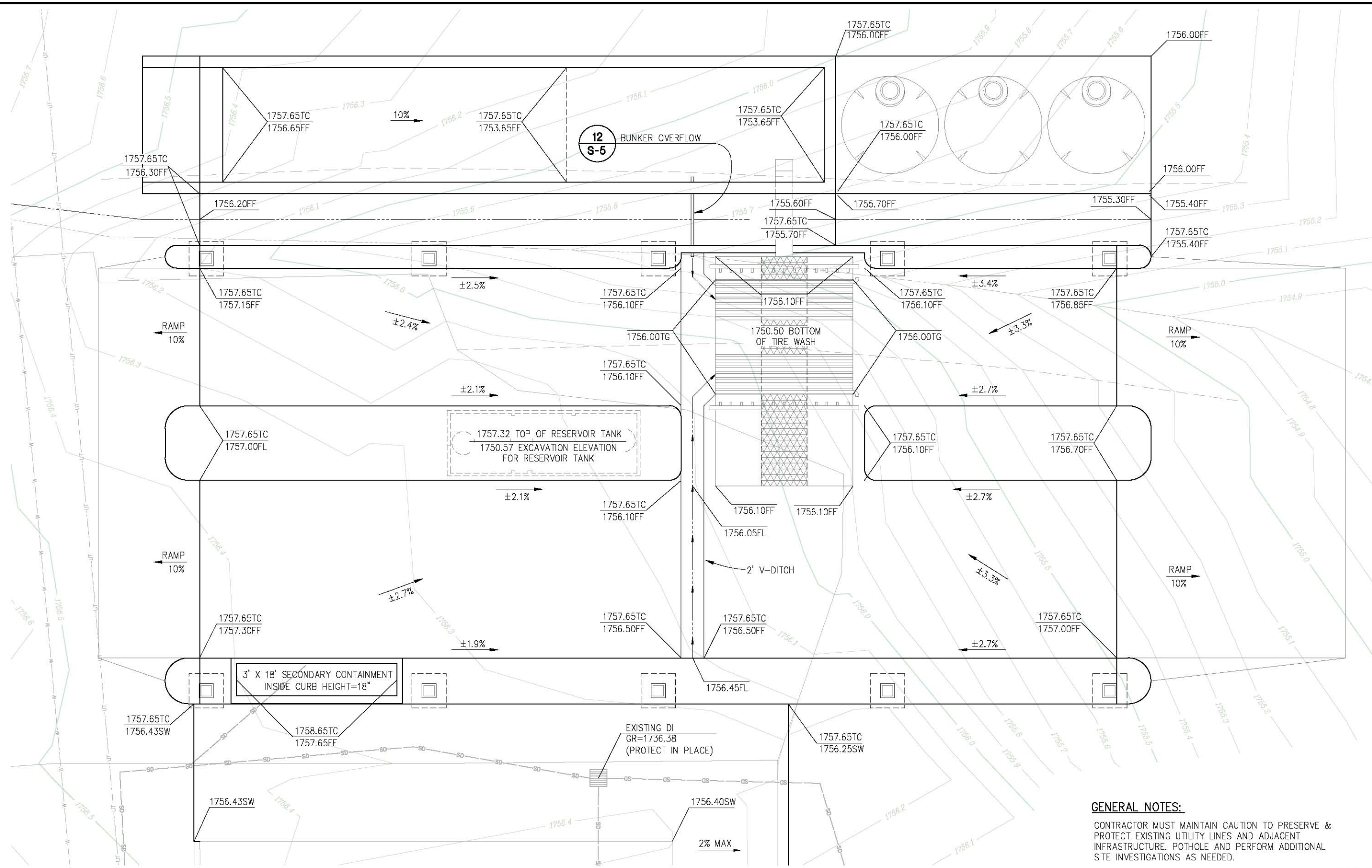


**COUNTY OF EL DORADO**  
**COMMUNITY DEVELOPMENT AGENCY**  
**TRANSPORTATION DIVISION**

**HEADINGTON WASH RACK FACILITY**

SHEET  
**L-2**  
 3 OF 29  
 W.G. No. **81134**

ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D Projects\81134 Headington Corp.\CADD Files\Sheets\G-Streets.dwg Layout Tab: G-1 Nov 25, 2019 12:59pm Shiveley  
 FOR REDUCED PLANS



**GENERAL NOTES:**  
 CONTRACTOR MUST MAINTAIN CAUTION TO PRESERVE & PROTECT EXISTING UTILITY LINES AND ADJACENT INFRASTRUCTURE. POTHOLE AND PERFORM ADDITIONAL SITE INVESTIGATIONS AS NEEDED.

**GRADING PLAN  
 SCALE : 1" = 4'**

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF:  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/23/19

DESIGNED: JOB SGM  
 DRAWN: SGM  
 CHECKED: JOB DATE: 09/17/19  
 ROAD NUMBER: -

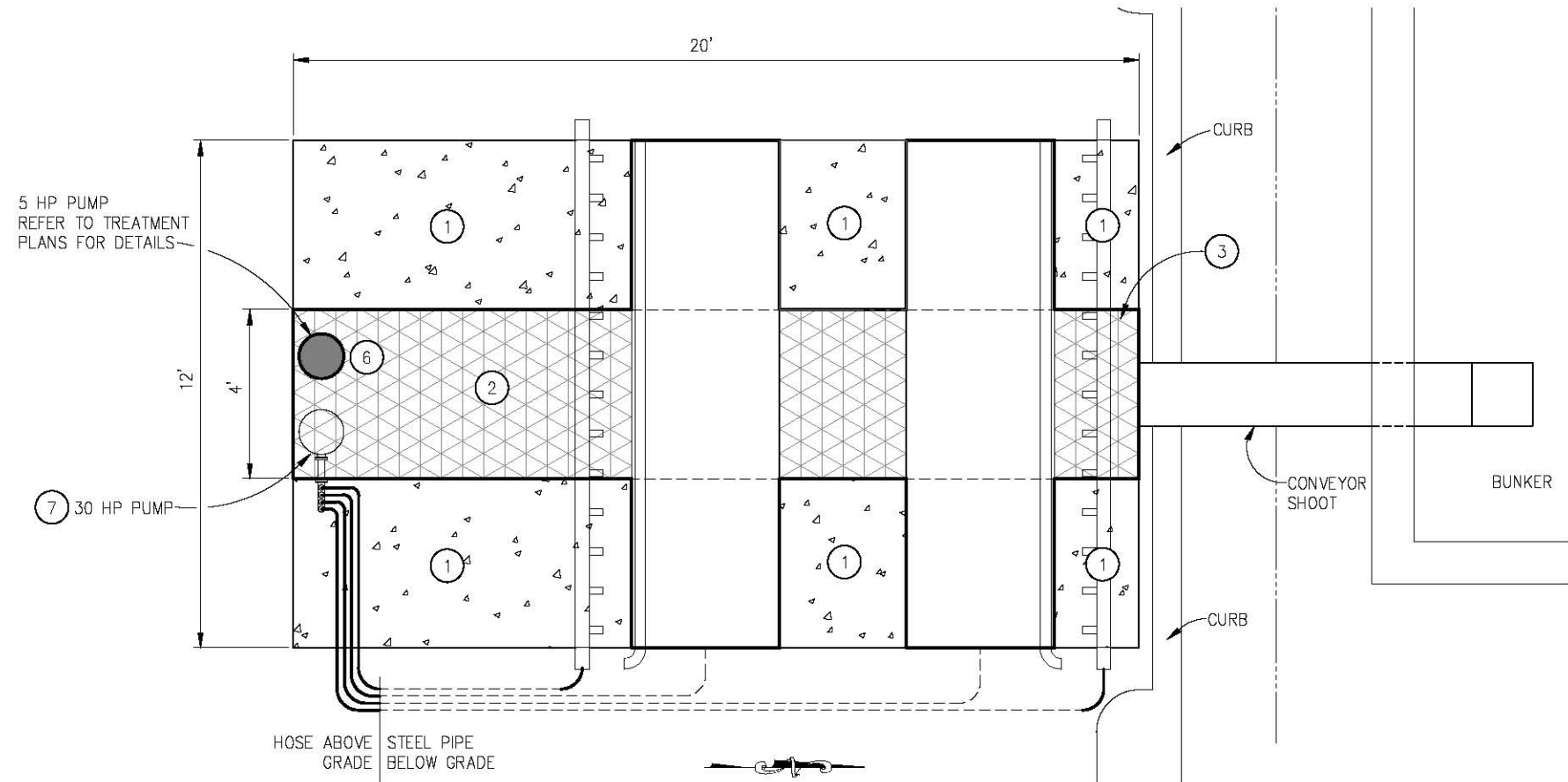


**COUNTY OF EL DORADO  
 COMMUNITY DEVELOPMENT AGENCY  
 TRANSPORTATION DIVISION**

**HEADINGTON WASH RACK FACILITY**

SHEET  
**G-1**  
 4 OF 29  
 W.G. No. 81134

ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D Projects\81134 Headington Corp. Yard\CADD Files\Sheets\C-Streets.dwg Layout Tab: C-1 Nov 25, 2019 12:55pm Shicley  
 FOR REDUCED PLANS



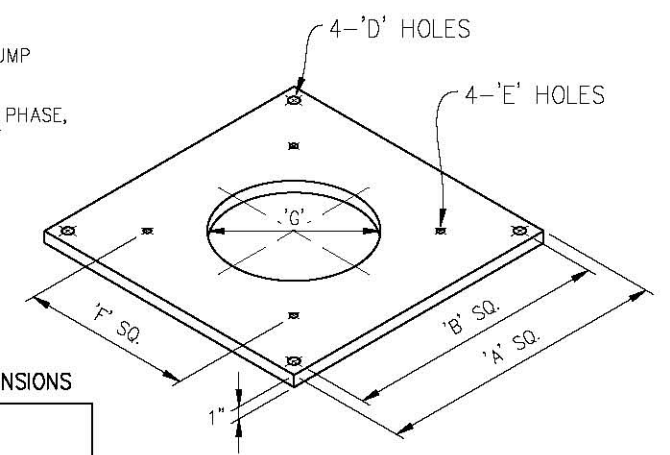
**TIRE WASH SYSTEM - PLAN**  
 (STANTON TIRE WASH SYSTEM (STB 30) OR APPROVED EQUAL)  
 SCALE: 1"=2'

**CONSTRUCTION NOTES:**

- ① — 6" PCC
- ② — DIAMOND PLATED COVERING (3 PLACES)
- ③ — OPENING FOR SUPER SUCKER CLEANOUT
- ④ — 10 SPRAY JETS EACH HEADER, 6 TOTAL HEADERS
- ⑤ — 6" COMPACTED 3/4" AB (CLASS 2)
- ⑥ — TIRE WASH SYSTEM TO INCLUDE HOLE PENETRATION & WELD MOUNTING BRACKET TO ACCEPT 5 HP PUMP. REFER TO TREATMENT PUMP MOUNTING PLATE DETAIL, THIS SHEET
- ⑦ — 30 HP VERTICAL TURBINE PUMP, 230 VOLT, 3 PHASE, APPROX 550 GPM @ 46 PSI WITH SOFT START

**GENERAL NOTES:**

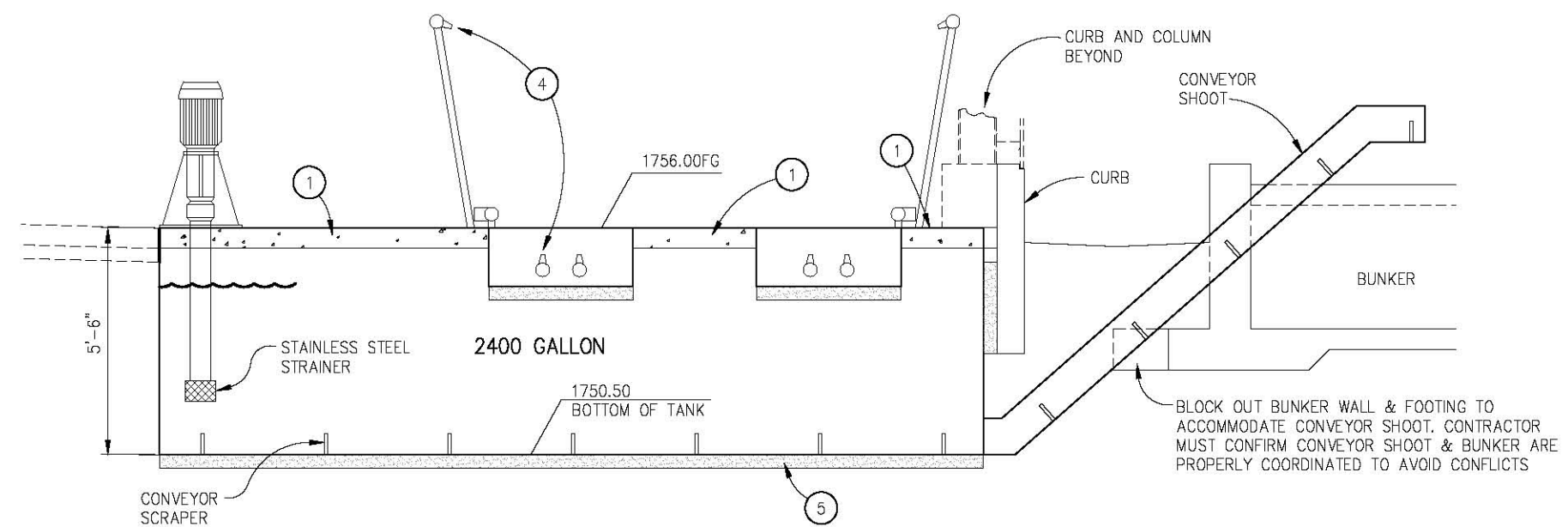
- 1. SEE SHT L-2 FOR EXACT LOCATION OF TIRE WASH TANK
- 2. SEE SHT G-1 FOR ADDITIONAL GRADING AND ELEVATION INFORMATION
- 3. TIRE WASH SYSTEM INCLUDES AUTOMATED POLYMER INJECTION SYSTEM. REFER TO SHEET C-2 & TREATMENT SHEETS FOR DETAILS.



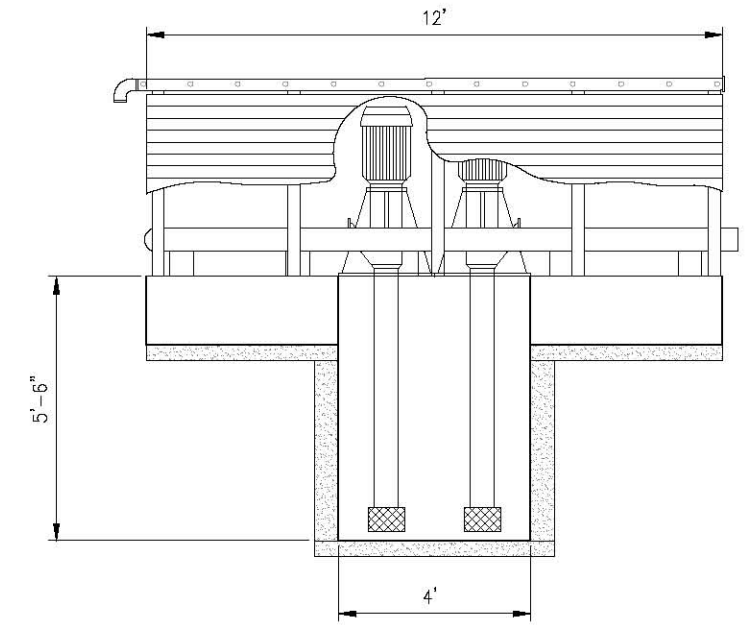
**PLATE DIMENSIONS**

A	24"
B	TBD
C	1.00"
D	1.00"
E	5/8" TAPPED
F	TBD
G	11.50"

**PUMP MOUNTING PLATE DETAIL**  
 NTS



**TIRE WASH SYSTEM - PROFILE SECTION**  
 (STANTON TIRE WASH SYSTEM (STB 30) OR APPROVED EQUAL)  
 SCALE: 1"=2'



**TIRE WASH SYSTEM - END SECTION**  
 (STANTON TIRE WASH SYSTEM (STB 30) OR APPROVED EQUAL)  
 SCALE: 1"=2'

**TIRE WASH SYSTEM DETAILS**  
 SCALE : AS SHOWN

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF :  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/02/16

DESIGNED: JIB SGM  
 DRAWN: SGM  
 CHECKED: JIB  
 DATE: 08/31/16  
 ROAD NUMBER:

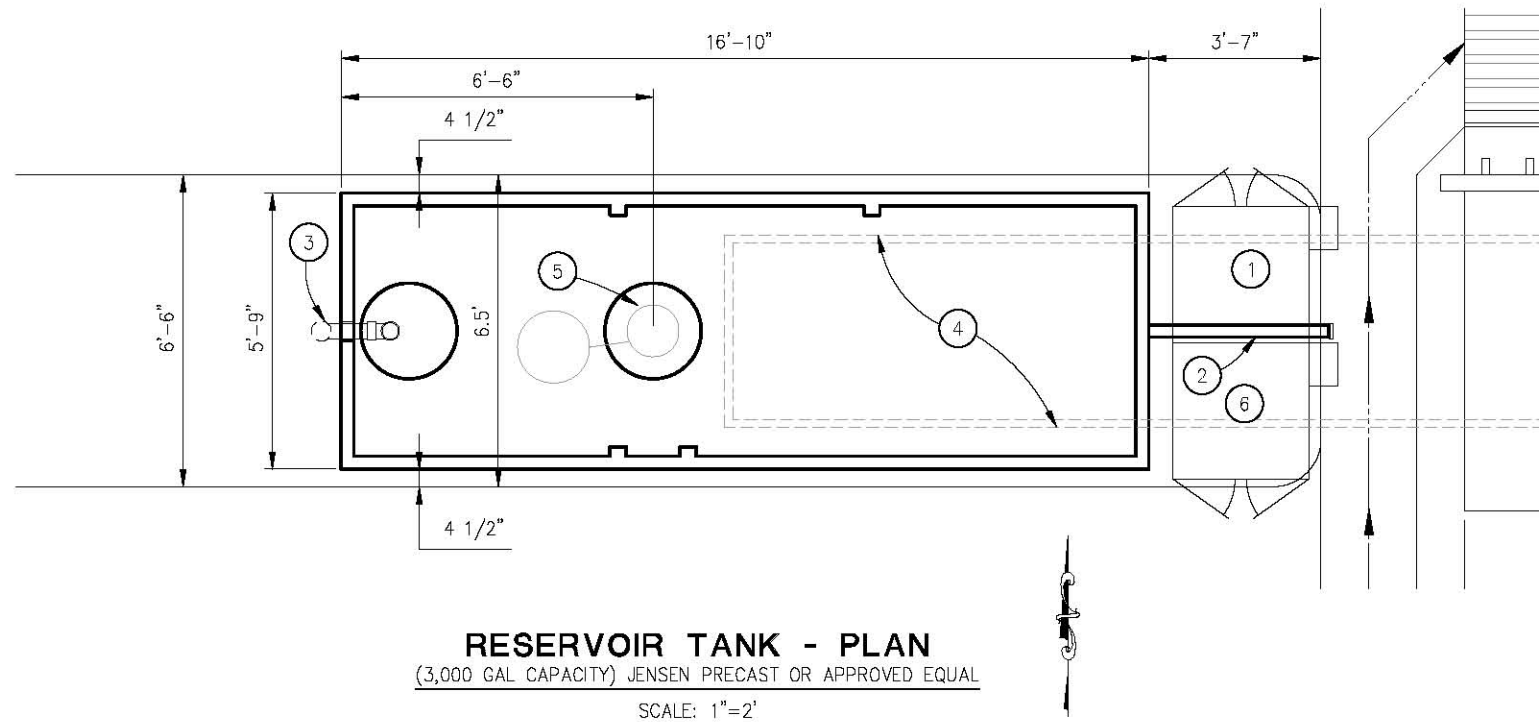


**COUNTY OF EL DORADO**  
**COMMUNITY DEVELOPMENT AGENCY**  
**TRANSPORTATION DIVISION**

**HEADINGTON WASH RACK FACILITY**

SHEET  
**C-1**  
 5 OF 29  
 W.G. No. 81134

ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D Projects\81134 Projects\81134 Headington Corp. Yard\CADD Files\Sheets\C-Streets.dwg Layout Tab: C-2 Nov 25, 2019 12:53pm Skelvey  
 FOR REDUCED PLANS

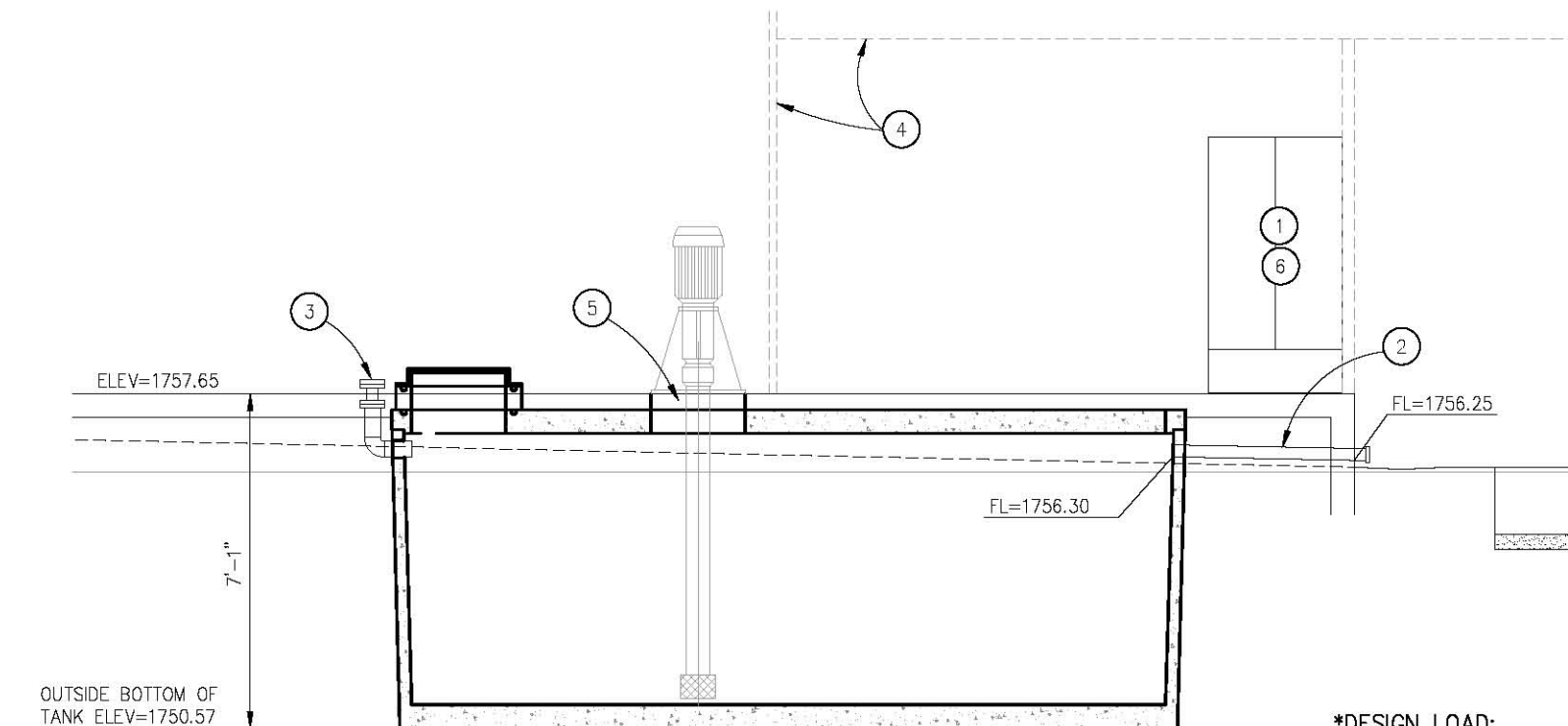


**CONSTRUCTION NOTES:**

- ① — DRUM STORAGE CABINET (FOR TIRE WASH POLYMER INJECTION SYSTEM & FOR POLYMER INJECTION PRIOR TO SAND FILTERS)
- ② — 3" RESERVOIR TANK OVERFLOW, 4.1' @ S=0.020, FLANGED END
- ③ — 3" CONNECTION FOR CARBON FILTER OUTFLOW AND BYPASS
- ④ — CATWALK
- ⑤ — PROVIDE HOLE PENETRATION AND MOUNTING BRACKET TO ACCEPT 7.5 HP PUMP. REFER TO TREATMENT PLANS FOR DETAILS
- ⑥ — AIR COMPRESSOR CABINET FOR SAND FILTERS, REFER TO TREATMENT PLANS FOR PLANS

**GENERAL NOTES:**

- 1. SEE SHT L-2 FOR EXACT LOCATION OF RESERVOIR TANK
- 2. SEE SHT G-1 FOR ADDITIONAL GRADING AND ELEVATION INFORMATION
- 3. ALL ABOVE GROUND PIPING MUST BE HDPE FUSION WELDED OR APPROVED EQUAL. UNDERGROUND PIPING MAY BE PVC SCHEDULE 40 (OR APPROVED EQUAL), IF PROPERLY BURIED AND SECURED. SLAB PENETRATIONS MUST BE DUCTILE, HDPE FUSION WELDED, OR APPROVED EQUAL



**\*DESIGN LOAD:**  
 H-20 TRAFFIC WITH DRY SOIL CONDITIONS,  
 SUITABLE SUB-BASE BEDDED WITH GRANULAR MATERIAL (AB)

**RESERVOIR TANK - SECTION**  
 (3,000 GAL CAPACITY) JENSEN PRECAST OR APPROVED EQUAL  
 SCALE: 1"=2'

**RESERVOIR TANK DETAILS**  
 SCALE : AS SHOWN

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF :  
 [Signature]  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/02/16

DESIGNED: J.B. SGM  
 DRAWN: J.B. SGM  
 CHECKED: J.B. SGM  
 DATE: 08/31/16  
 ROAD NUMBER: -



**COUNTY OF EL DORADO**  
**COMMUNITY DEVELOPMENT AGENCY**  
**TRANSPORTATION DIVISION**

**HEADINGTON WASH RACK FACILITY**

SHEET  
**C-2**  
 6 OF 29  
 W.G. No. 81134





ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D\Projects\81134 Headington Corp.\Yard\CADD Files\Sheets\C-Streets.dwg Layout Tab: C-3 Nov 25, 2019 12:52pm Skelvey  
 FOR REDUCED PLANS

### WASH RACK - ELECTRICAL WIRING

DESCRIPTION	BKR/AMPS	VOLTAGE	PHASE	WIRE SIZE	CONDUIT SIZE
(P1) TIRE WASH PUMP (30 HP)	80	208	3	3 AWG	1 1/4"
(P2) TREATMENT PUMP (5 HP)	20	208	3	10 AWG	3/4"
(P3) REUSE PUMP (7.5 HP)	20	208	3	10 AWG	3/4"

\* ACTUAL DETAILS BASED ON APPROVED SUBMITTALS & MANUFACTURER DATA. FOR ADDITIONAL INFORMATION REGARDING THE ELECTRICAL SYSTEM PERFORMED BY OTHERS REFER TO THE ELECTRICAL PLANS (SUPPLEMENTAL INFORMATION)

#### LEGEND:

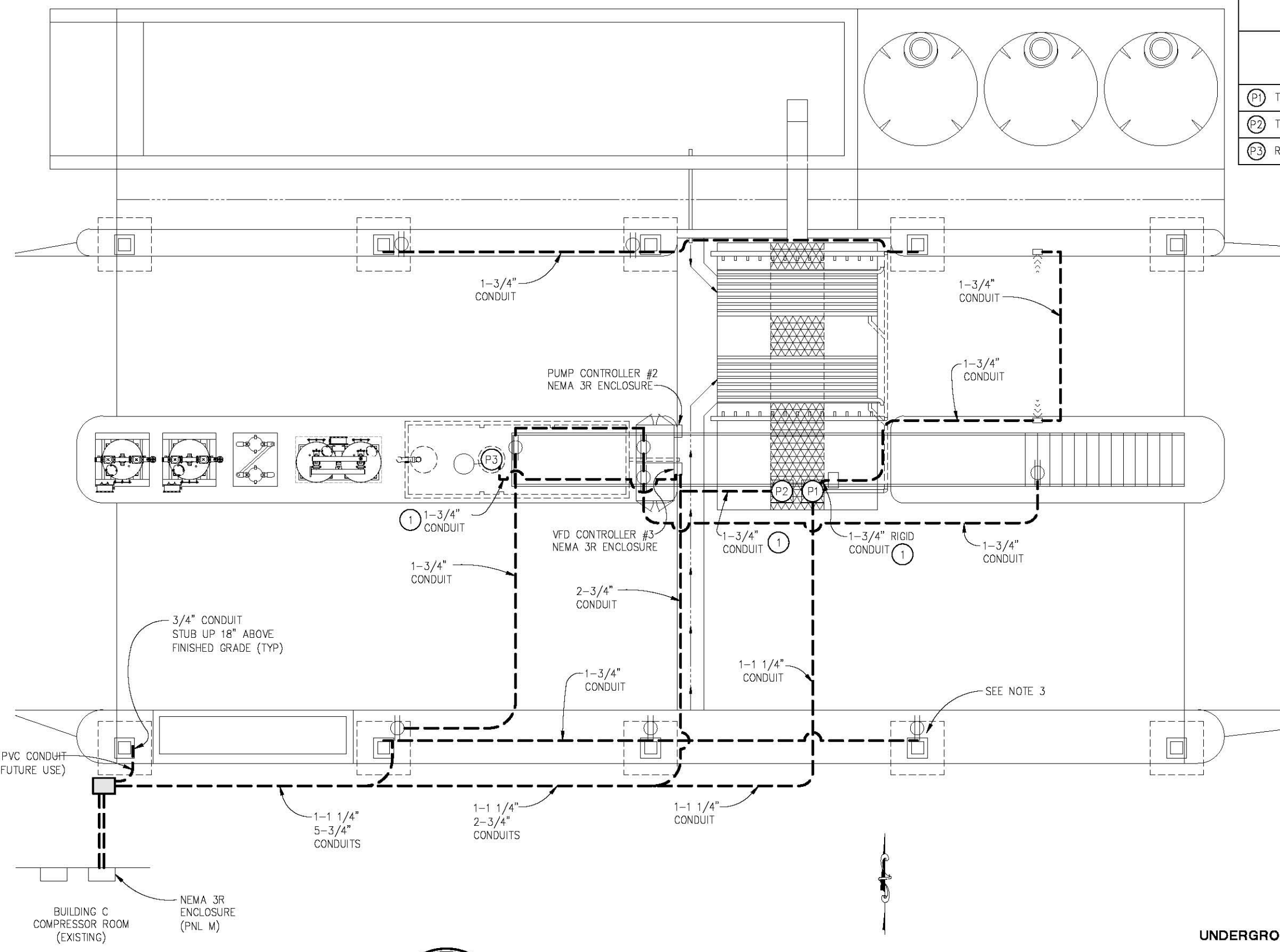
-  — ABOVE GROUND RIGID CONDUIT
-  — UNDERGROUND CONDUIT, SEE GENERAL NOTE 2 FOR DETAILS.
-  — ELECTRICAL BOX, CHRISTY N09 OR EQUIVALENT
-  — OUTLET, 110V (GFCI) W/ COVER

#### \* GENERAL NOTES:

1. ABOVE GROUND CONDUIT MUST BE RIGID, BELOW GROUND CONDUIT MAY BE FLEXIBLE
2. MINIMUM 12" RISER ABOVE FINISH GRADE FOR ALL UNDERGROUND CONDUITS (TYP). WHEN TRANSITIONING FROM BELOW GROUND TO ABOVE GROUND, CONDUIT MUST TRANSITION FROM FLEXIBLE TO RIGID.

#### CONSTRUCTION NOTES:

- (1) — ELECTRICAL WIRING BETWEEN PUMPS & PUMP CONTROL PANELS ALSO INCLUDED WITH INSTALLATION OF CONDUITS. ELECTRICAL WIRING BETWEEN POWER SOURCE AND PUMP CONTROL PANEL PERFORMED BY OTHERS.



UNDERGROUND ELECTRICAL CONDUITS AND PUMP CONNECTIONS  
 SCALE : AS SHOWN

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF :  
 [Signature]  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/02/16

DESIGNED: JB  
 DRAWN: SGM  
 CHECKED: JB  
 DATE: 08/31/16  
 ROAD NUMBER: -



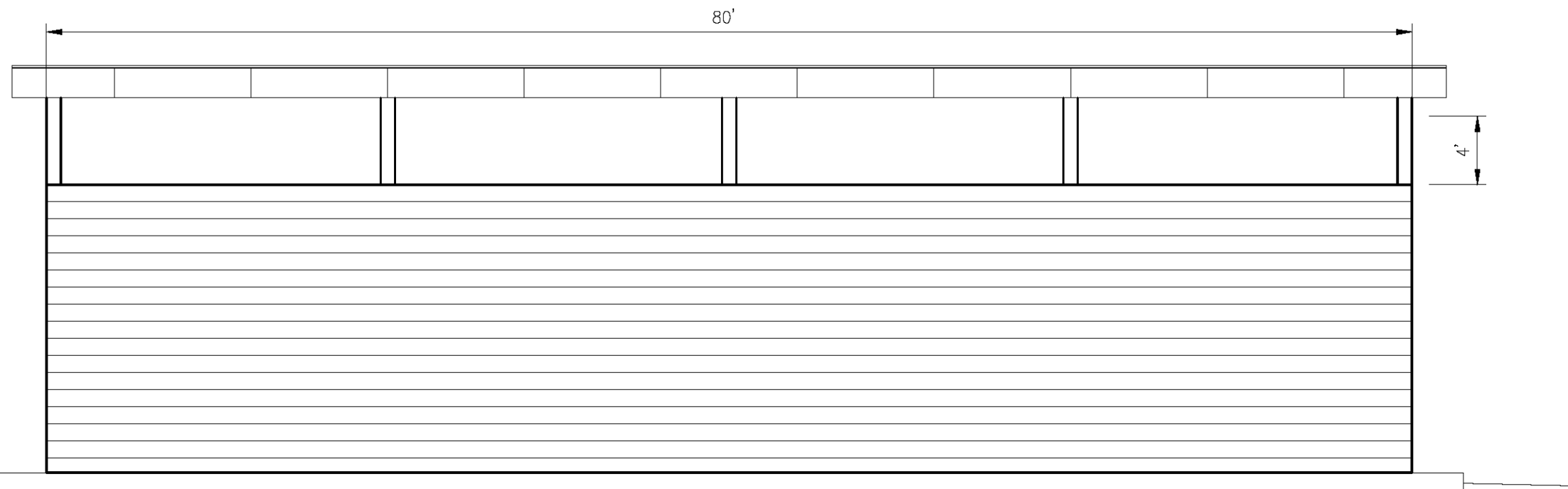
COUNTY OF EL DORADO  
 COMMUNITY DEVELOPMENT AGENCY  
 TRANSPORTATION DIVISION

HEADINGTON WASH RACK FACILITY

SHEET  
**C-3**  
 7 OF 29  
 W.G. No. 81134

ORIGINAL SCALE IS IN INCHES  
Drawing name: C:\Civil 3D Projects\81134 Headington Corp. Yard\CADD Files\Sheets\S-Sheets.dwg Layout Tab. S-1 Nov 25, 2019 12:49pm ShicVey

FOR REDUCED PLANS  
2  
1  
0



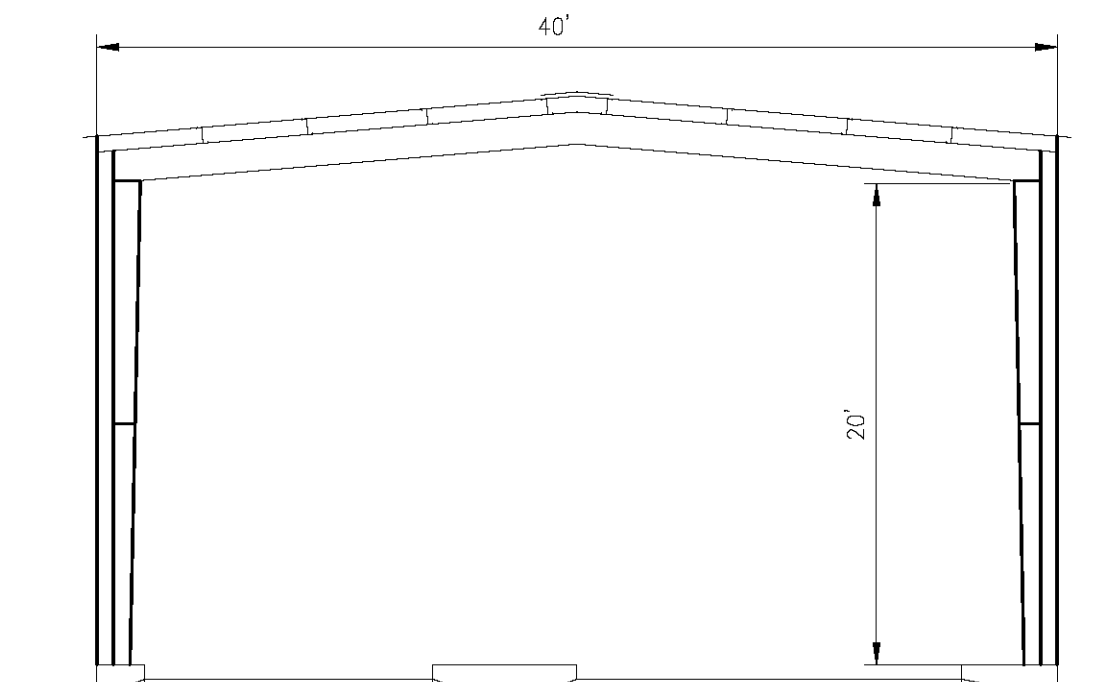
**SOUTH ELEVATION**

1/4" = 1'-0"

**GENERAL NOTES:**

PREFABRICATED METAL BUILDING  
 MANUFACTURER: DURO BEAM OR APPROVED EQUAL  
 DESIGN: CALIFORNIA BUILDING CODE 2013  
 PROJECT USE CATEGORY: COMMERCIAL  
 WIND LOAD: 110 MPH  
 SNOW LOAD: 20 PSF  
 SOLAR LOAD: 3 PSF  
 EAVE HEIGHT: 22'-0"  
 ROOF SLOPE: 1/12  
 DISTANCE TO RIDGE: 20'-0"  
 GIRTS: 8.0"  
 BAY SPACING: 20'  
 COLOR: HAWAIIAN BLUE OR AS APPROVED BY ENGINEER  
 (POWDER COATED, SILICONIZED POLYESTER, OR  
 APPROVED EQUAL, WITH A 20 YEAR MINIMUM  
 CORROSION WARRANTY ON COLOR)

PRELIMINARY INFORMATION ONLY, ACTUAL LAYOUT BASED  
 ON CONTRACTOR APPROVED SUBMITTALS



**EAST ELEVATION**

1/4" = 1'-0"

**BUILDING ELEVATIONS  
 SCALE : AS SHOWN**



PREPARED UNDER THE SUPERVISION OF :  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/23/19

DESIGNED: J.B. SGM  
 DRAWN: J.B. SGM  
 CHECKED: J.B. SGM  
 DATE: 09/17/19  
 ROAD NUMBER: -



**COUNTY OF EL DORADO  
 COMMUNITY DEVELOPMENT AGENCY  
 TRANSPORTATION DIVISION**

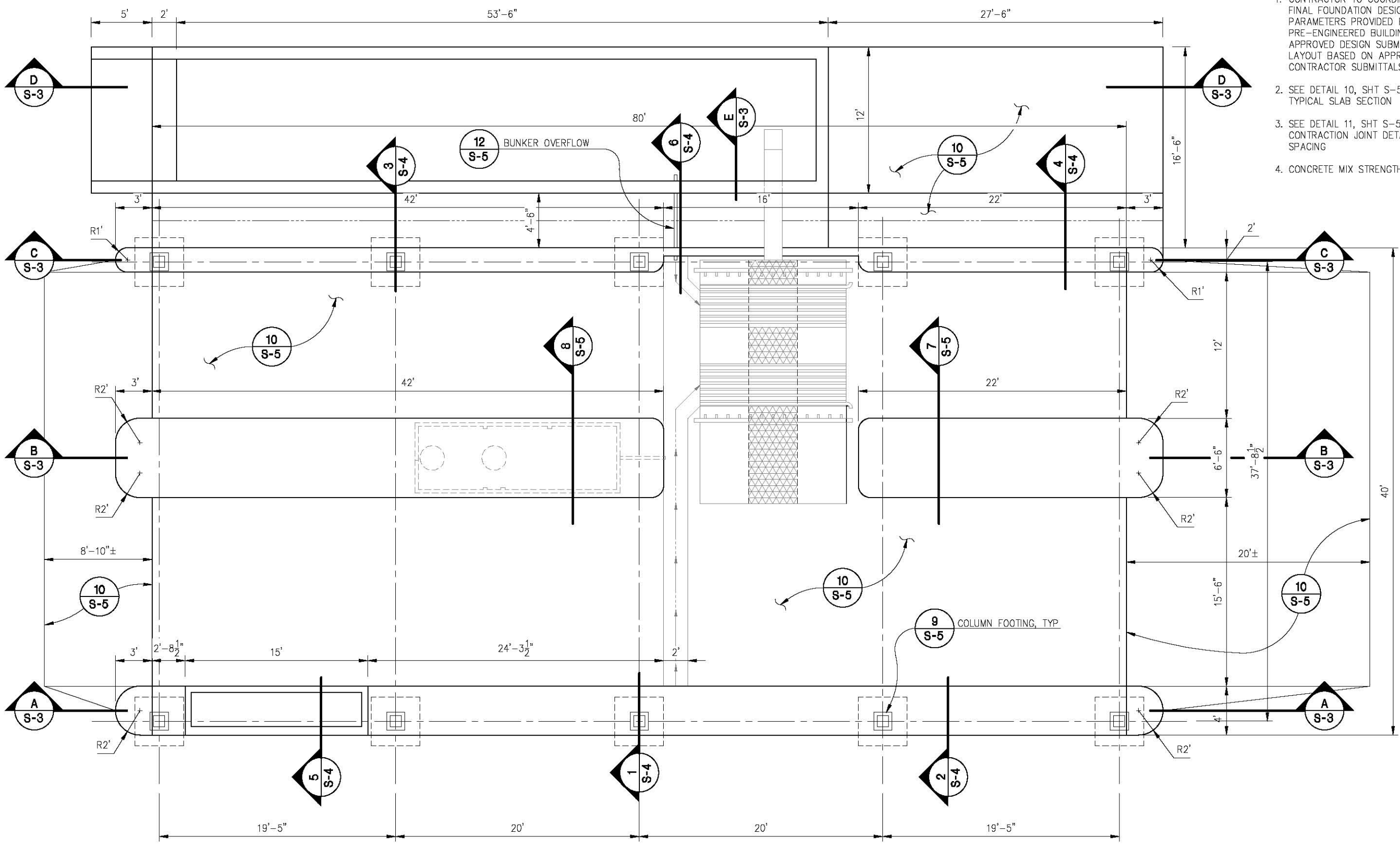
**HEADINGTON WASH RACK FACILITY**

SHEET  
**S-1**  
 8 OF 29  
 W.G. No. 81134

REVISION	NUMBER	DATE	DESCRIPTION	BY



ORIGINAL SCALE IS IN INCHES  
 FOR REDUCED PLANS  
 Drawing name: C:\Civil 3D Projects\81134 Projects\81134 Headington Corp. Yard\CADD Files\Sheets\S-Sheets.dwg Layout Tab: S-2 Nov 25, 2019 12:48pm Shicley



- GENERAL NOTES:**
1. CONTRACTOR TO COORDINATE THE FINAL FOUNDATION DESIGN BASED ON PARAMETERS PROVIDED BY THE PRE-ENGINEERED BUILDING APPROVED DESIGN SUBMITTAL. FINAL LAYOUT BASED ON APPROVED CONTRACTOR SUBMITTALS
  2. SEE DETAIL 10, SHT S-5 FOR TYPICAL SLAB SECTION
  3. SEE DETAIL 11, SHT S-5 FOR CONTRACTION JOINT DETAIL AND SPACING
  4. CONCRETE MIX STRENGTH: 4,000 PSI

**FOUNDATION PLAN**  
 SCALE : 1/4" = 1'

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF:  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/23/19

DESIGNED: JB  
 DRAWN: SGM  
 CHECKED: JB  
 DATE: 09/17/19  
 ROAD NUMBER: -

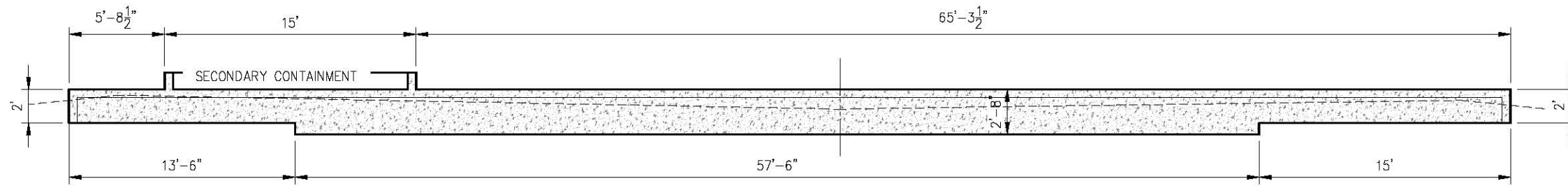


**COUNTY OF EL DORADO**  
**COMMUNITY DEVELOPMENT AGENCY**  
**TRANSPORTATION DIVISION**

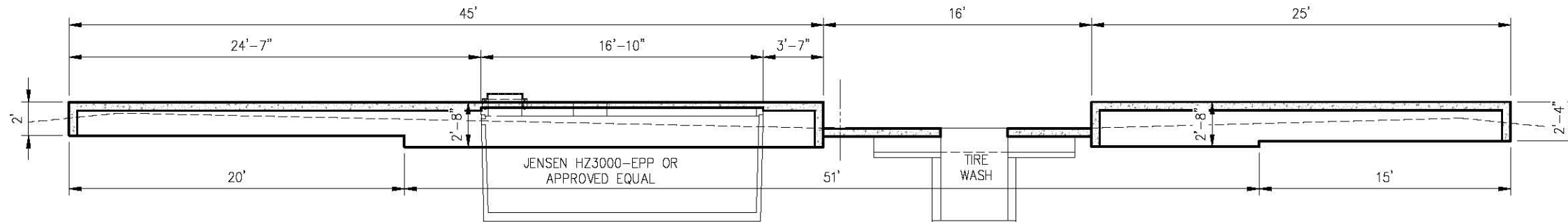
**HEADINGTON WASH RACK FACILITY**

SHEET  
**S-2**  
 9 OF 29  
 W.G. No. 81134

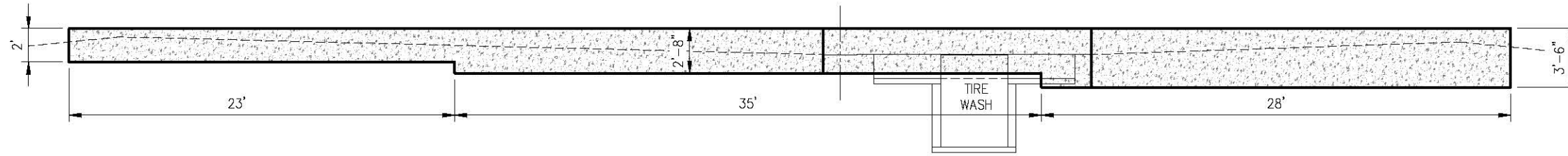
ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D Projects\81134 Headington Corp. Yard\CADD Files\Sheets\S-Sheets.dwg Layout Tab: S-3 Nov 25, 2019 12:47pm Shiveley  
 FOR REDUCED PLANS



**A**  
**S-3**  
**SOUTH ISLAND**  
1/4"=1'-0"

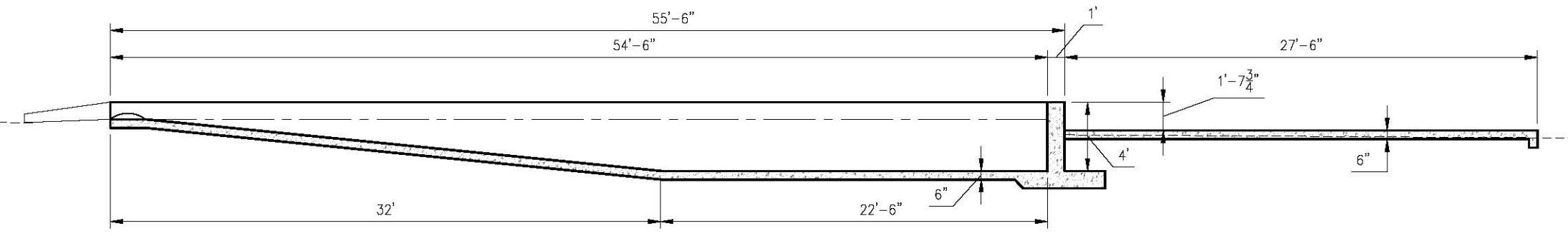


**B**  
**S-3**  
**CENTER ISLAND**  
1/4"=1'-0"

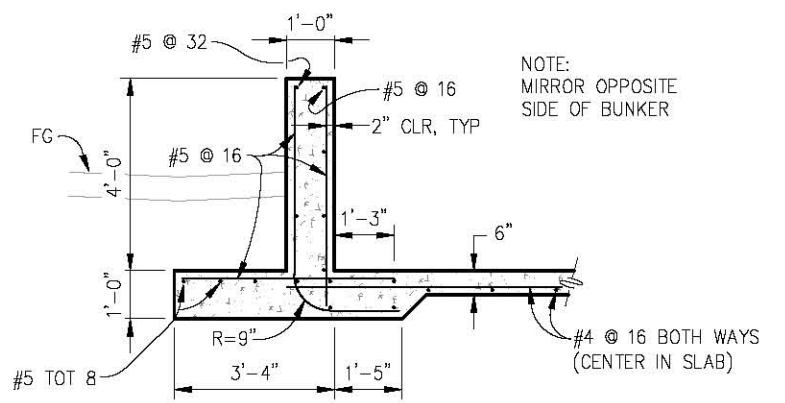


**C**  
**S-3**  
**NORTH ISLAND**  
1/4"=1'-0"

- GENERAL NOTES:**
1. CONTRACTOR TO COORDINATE THE FINAL FOUNDATION DESIGN BASED ON PARAMETERS PROVIDED BY THE PRE-ENGINEERED BUILDING APPROVED DESIGN SUBMITTAL. FINAL LAYOUT BASED ON APPROVED CONTRACTOR SUBMITTALS
  2. SEE SHEETS S-4 AND S-5 FOR REBAR PLACEMENT



**D**  
**S-3**  
**BUNKER AND WATER TANK SLAB**  
1/4"=1'-0"



**E**  
**S-3**  
**BUNKER**  
1/4"=1'-0"

NOTE:  
MIRROR OPPOSITE  
SIDE OF BUNKER

**STRUCTURAL SECTIONS**  
**SCALE: AS SHOWN**



PREPARED UNDER THE SUPERVISION OF:  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/23/19

DESIGNED: JOB SGM  
 DRAWN: SGM  
 CHECKED: DATE: 09/17/19  
 ROAD NUMBER: -

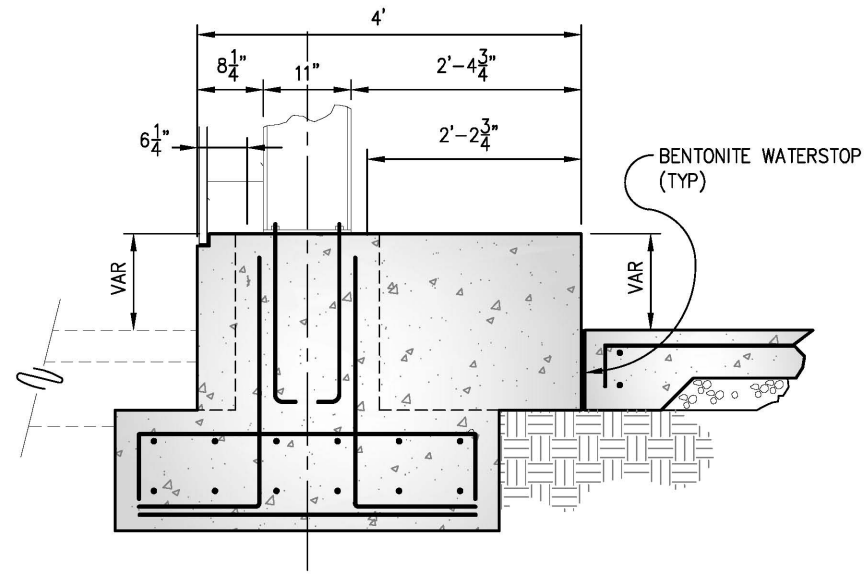


**COUNTY OF EL DORADO**  
**COMMUNITY DEVELOPMENT AGENCY**  
**TRANSPORTATION DIVISION**

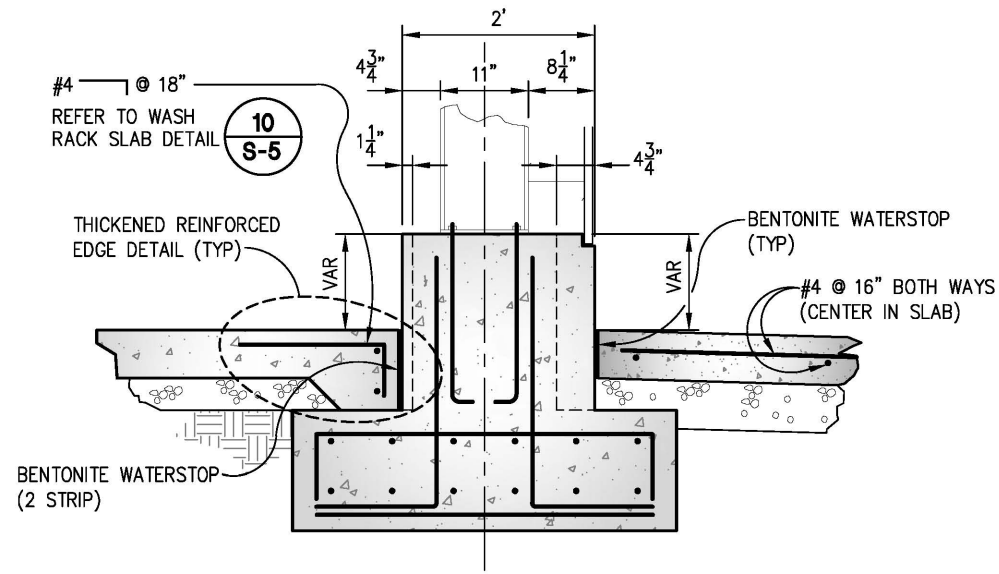
**HEADINGTON WASH RACK FACILITY**

SHEET  
**S-3**  
 10 OF 29  
 W.G. No. 81134

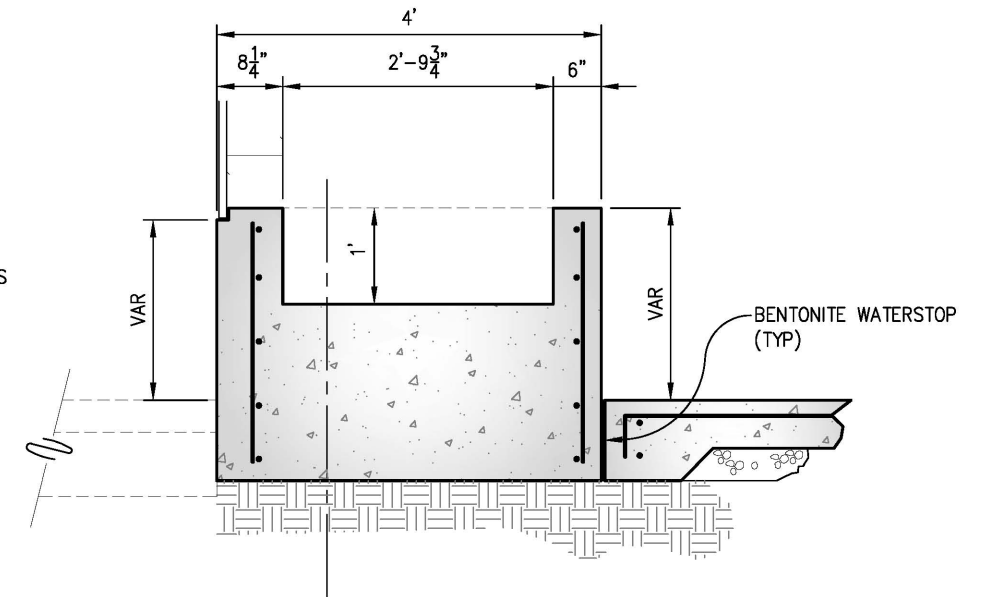
ORIGINAL SCALE: 1/8" = 1'-0" IN INCHES  
 Drawing Name: C:\Civil\_3D\Projects\81134\_Headington\_Corp.\Yard\CADD\Files\Sheets\S-Sheets.dwg Layout: Tab: S-4 Nov 25, 2019 12:45pm Skelvey  
 FOR REDUCED PLANS



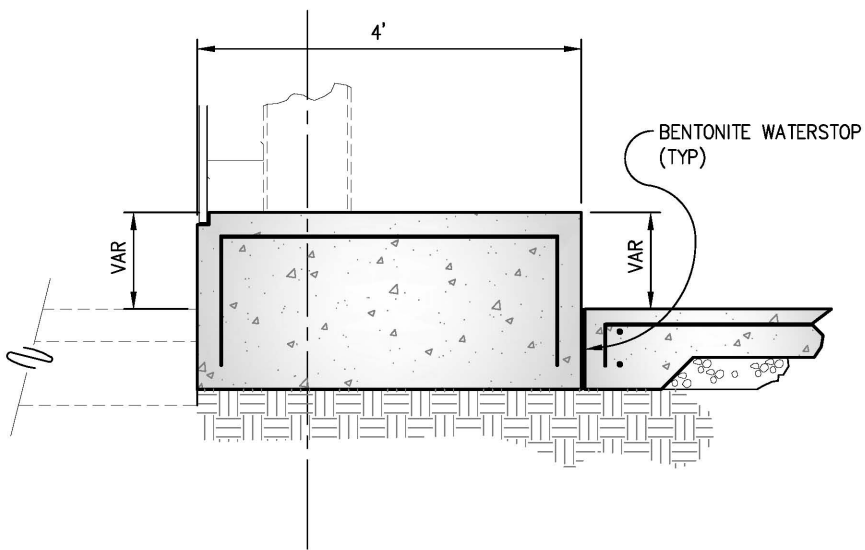
**1**  
**S-4**  
**TYPICAL EDGE FRAME AT COLUMN**  
 NTS



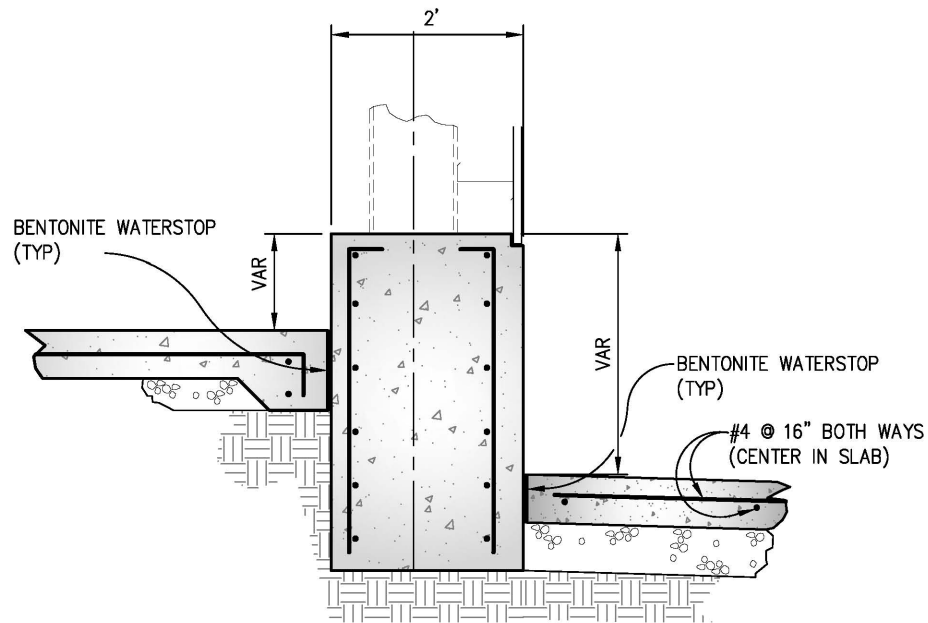
**3**  
**S-4**  
**TYPICAL EDGE FRAME AT COLUMN**  
 NTS



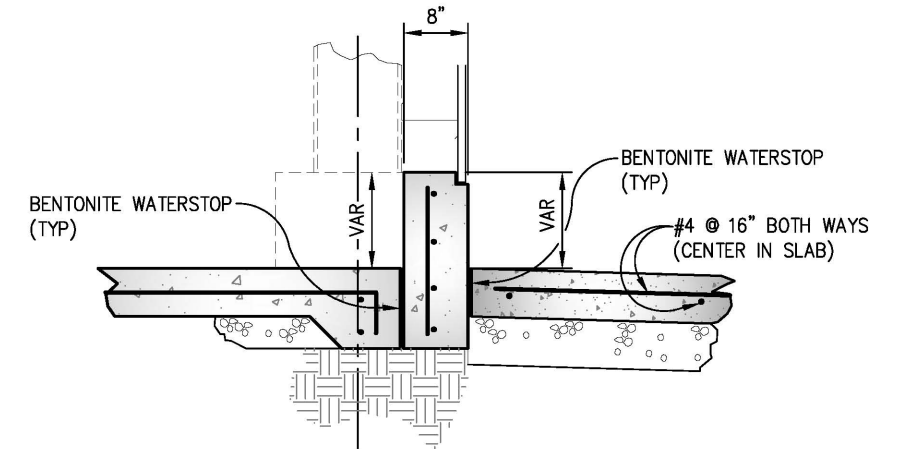
**5**  
**S-4**  
**TYPICAL EDGE FRAME AT CONTAINMENT AREA**  
 NTS



**2**  
**S-4**  
**TYPICAL EDGE FRAME BETWEEN COLUMNS**  
 NTS



**4**  
**S-4**  
**TYPICAL EDGE FRAME BETWEEN COLUMNS**  
 NTS



**6**  
**S-4**  
**TYPICAL EDGE FRAME AT TIRE WASH UNIT**  
 NTS

**GENERAL NOTES:**

- CONTRACTOR TO COORDINATE THE FINAL FOUNDATION DESIGN BASED ON PARAMETERS PROVIDED BY THE PRE-ENGINEERED BUILDING APPROVED DESIGN SUBMITTAL. FINAL LAYOUT BASED ON APPROVED CONTRACTOR SUBMITTALS

**STRUCTURAL DETAILS**  
**SCALE: AS SHOWN**

REVISION	NUMBER	DATE	DESCRIPTION	BY



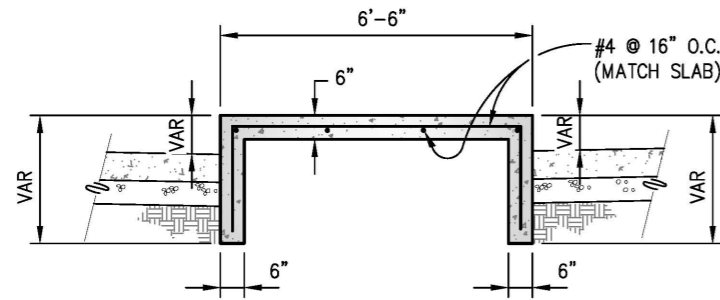
PREPARED UNDER THE SUPERVISION OF:  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/23/19

DESIGNED: JB  
 DRAWN: SGM  
 CHECKED: JB  
 DATE: 09/17/19  
 ROAD NUMBER: -

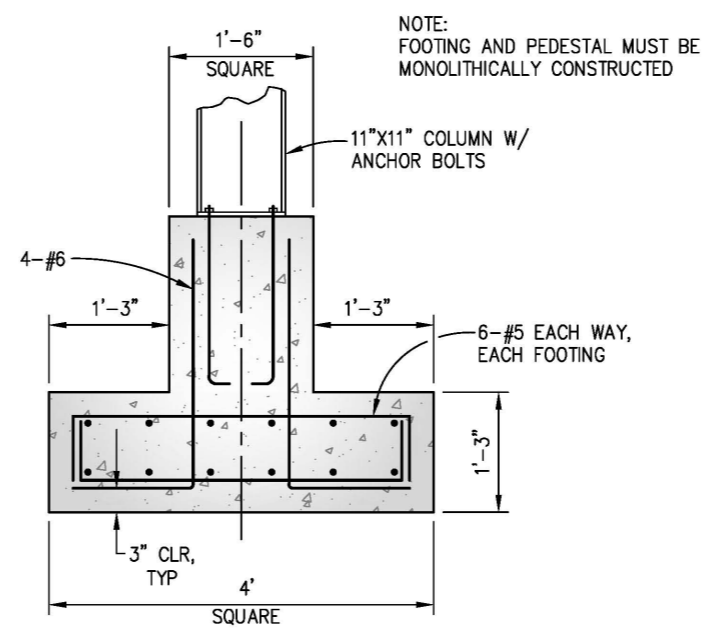


**COUNTY OF EL DORADO**  
**COMMUNITY DEVELOPMENT AGENCY**  
**TRANSPORTATION DIVISION**

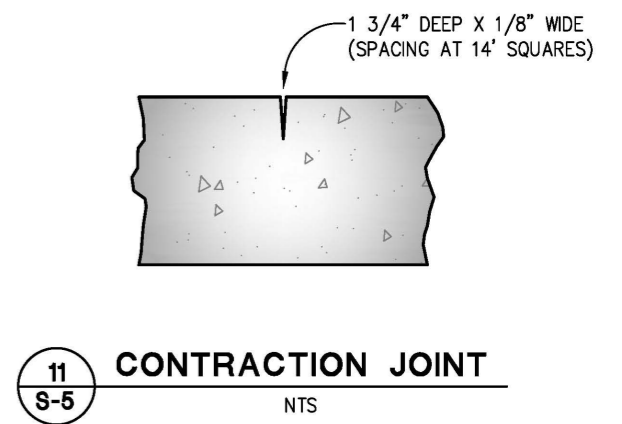
**HEADINGTON WASH RACK FACILITY**  
 SHEET **S-4**  
 11 OF 29  
 W.D. No. **81134**



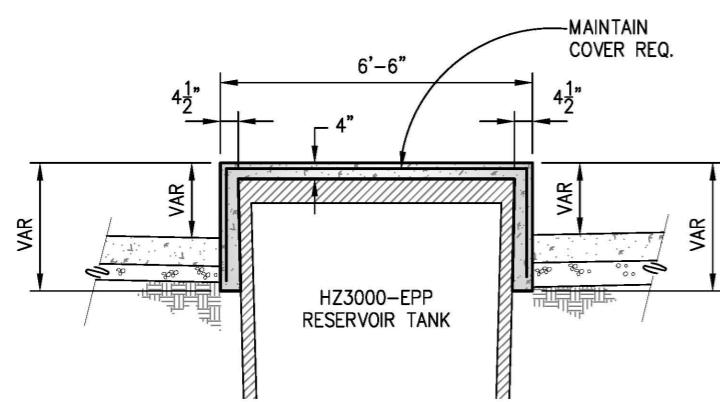
**7**  
**S-5**  
**TYPICAL CENTER ISLAND**  
NTS



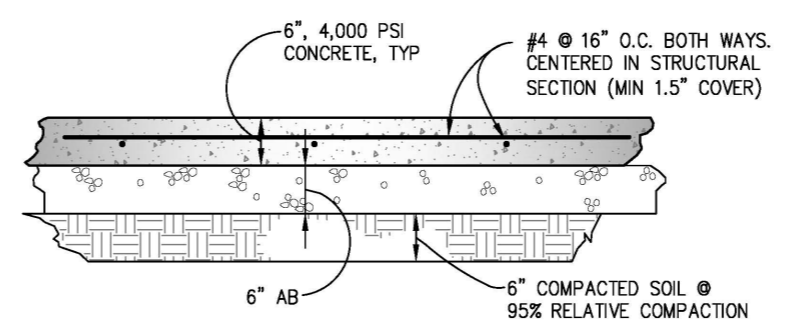
**9**  
**S-5**  
**TYPICAL COLUMN FOOTING**  
NTS



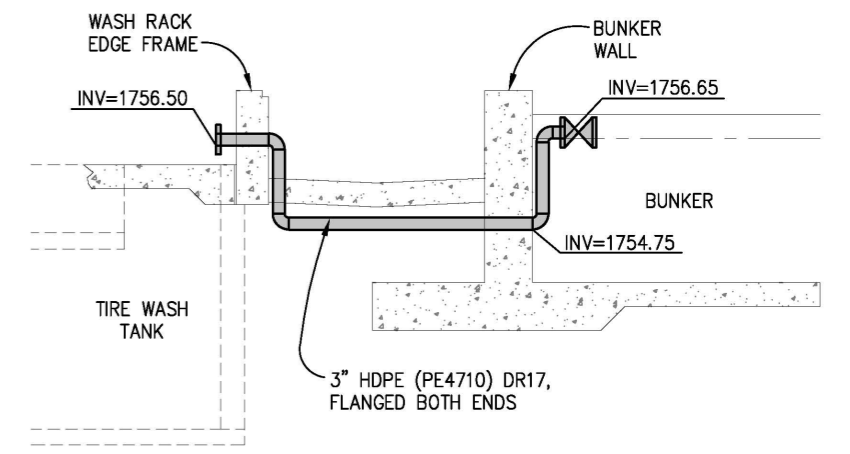
**11**  
**S-5**  
**CONTRACTION JOINT**  
NTS



**8**  
**S-5**  
**CENTER ISLAND AT RESERVOIR TANK**  
NTS



**10**  
**S-5**  
**TYPICAL WASH RACK AND TANK SLAB SECTION**  
NTS



**12**  
**S-5**  
**BUNKER OVERFLOW**  
NTS

**GENERAL NOTES:**  
1. CONTRACTOR TO COORDINATE THE FINAL FOUNDATION DESIGN BASED ON PARAMETERS PROVIDED BY THE PRE-ENGINEERED BUILDING APPROVED DESIGN SUBMITTAL. FINAL LAYOUT BASED ON APPROVED CONTRACTOR SUBMITTALS

**STRUCTURAL DETAILS**  
**SCALE: AS SHOWN**

ORIGINAL SCALE IS IN INCHES  
Drawing name: C:\Civil\_3D\Projects\81134\_Headington\_Corp.\Yard\CADD\_Files\Sheets\S-Sheets.dwg Layout Tab: S-5 Nov 25, 2019 12:43pm SMC/ley  
FOR REDUCED PLANS

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF:  
*[Signature]*  
REGISTERED CIVIL ENGINEER  
DATE: 09/23/19

DESIGNED: JIB  
DRAWN: SGM  
CHECKED: JIB  
DATE: 09/17/19  
ROAD NUMBER: -








**COUNTY OF EL DORADO**  
**COMMUNITY DEVELOPMENT AGENCY**  
**TRANSPORTATION DIVISION**

**HEADINGTON WASH RACK FACILITY**

SHEET  
**S-5**  
12 OF 29  
W.D. No. **81134**

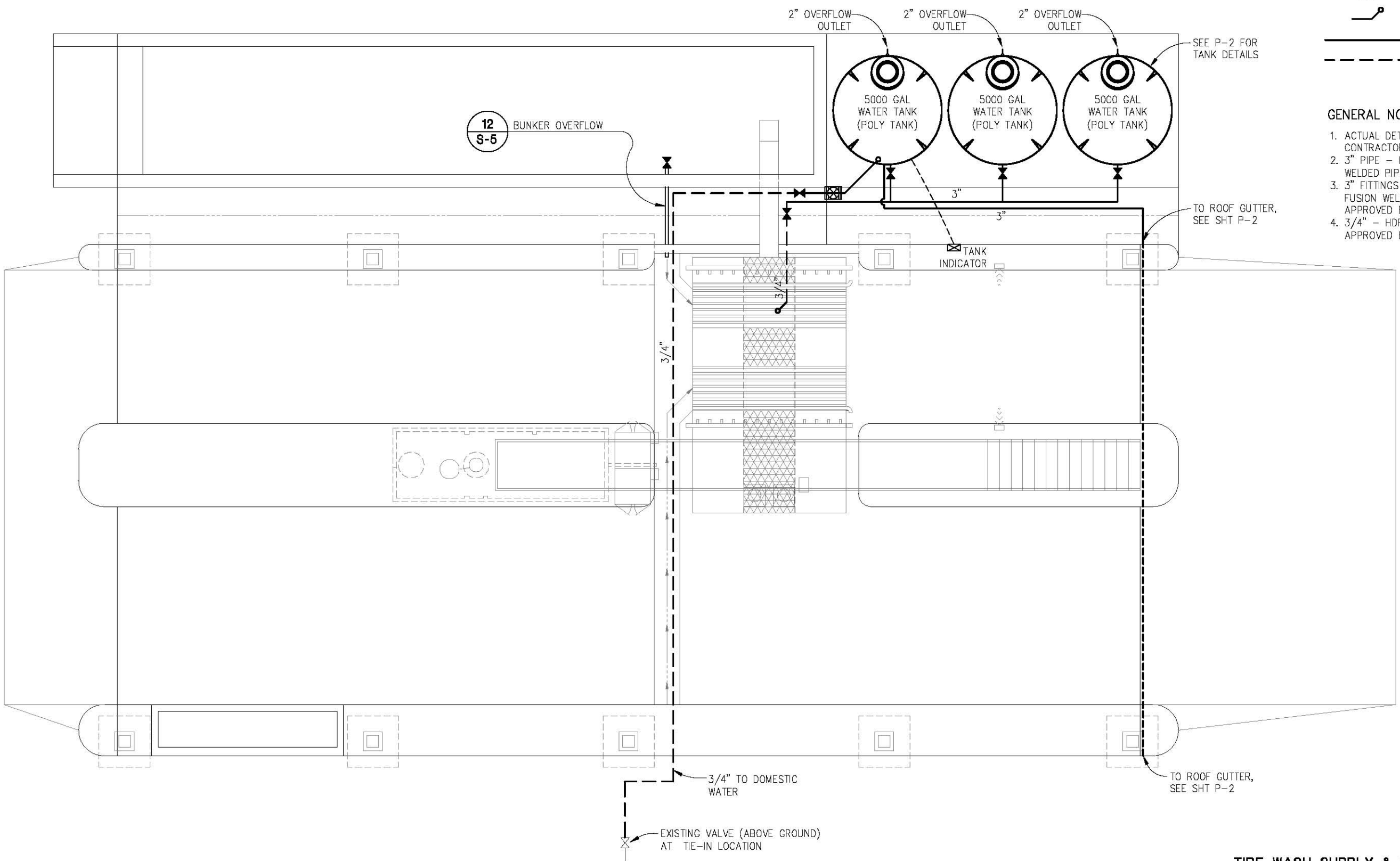
ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D Projects\81134 Headington Corp. Yard\CADD Files\Sheets\P- Streets.dwg Layout Tab: P-1 Nov 25, 2019 12:39pm Shivey  
 FOR REDUCED PLANS  
 2  
 1  
 0

**LEGEND:**

-  — GATE VALVE
-  — CHECK VALVE
-  — FLOAT CONTROL
-  — ABOVE GROUND PIPING
-  — UNDERGROUND PIPING

**GENERAL NOTES:**


1. ACTUAL DETAILS BASED ON CONTRACTOR APPROVED SUBMITTALS
2. 3" PIPE — HDPE (PE4710) DR17 FUSION WELDED PIPE OR APPROVED EQUAL
3. 3" FITTINGS — HDPE (PE4710) DR11 FUSION WELDED, FLANGED, OR APPROVED EQUAL
4. 3/4" — HDPE (PE4710) DR 11 OR APPROVED EQUAL



**TIRE WASH SUPPLY & RAIN TANK PLUMBING PLAN**  
**SCALE : 1" = 4'**

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF :  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/23/19

DESIGNED: JB  
 DRAWN: SGM  
 CHECKED: JB  
 DATE: 09/17/19  
 ROAD NUMBER: -

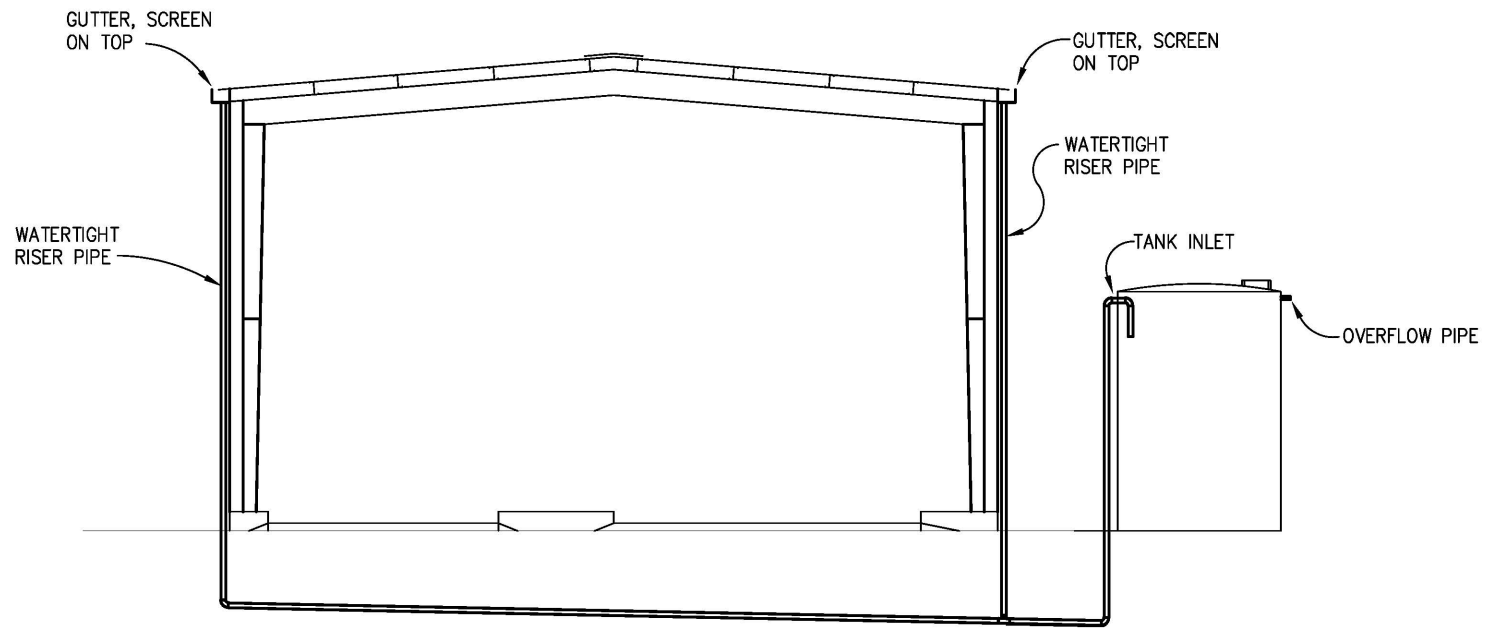


**COUNTY OF EL DORADO**  
**COMMUNITY DEVELOPMENT AGENCY**  
**TRANSPORTATION DIVISION**

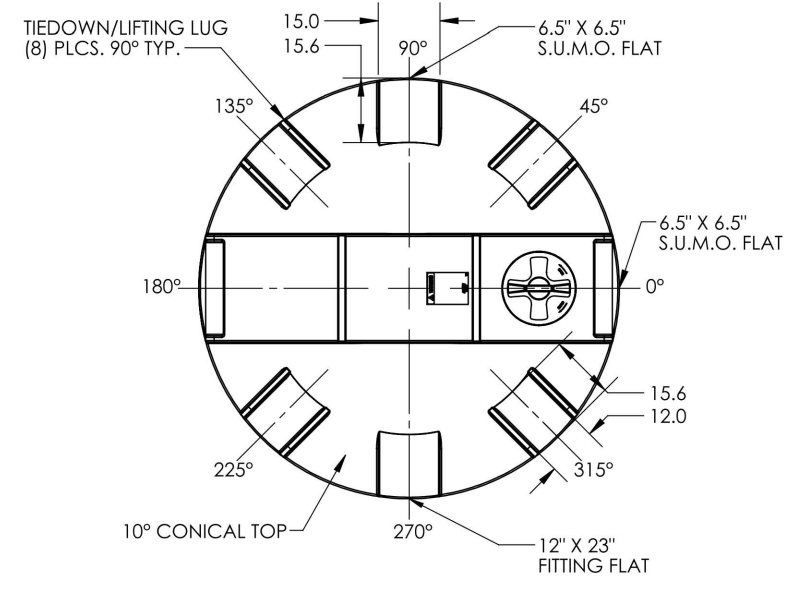
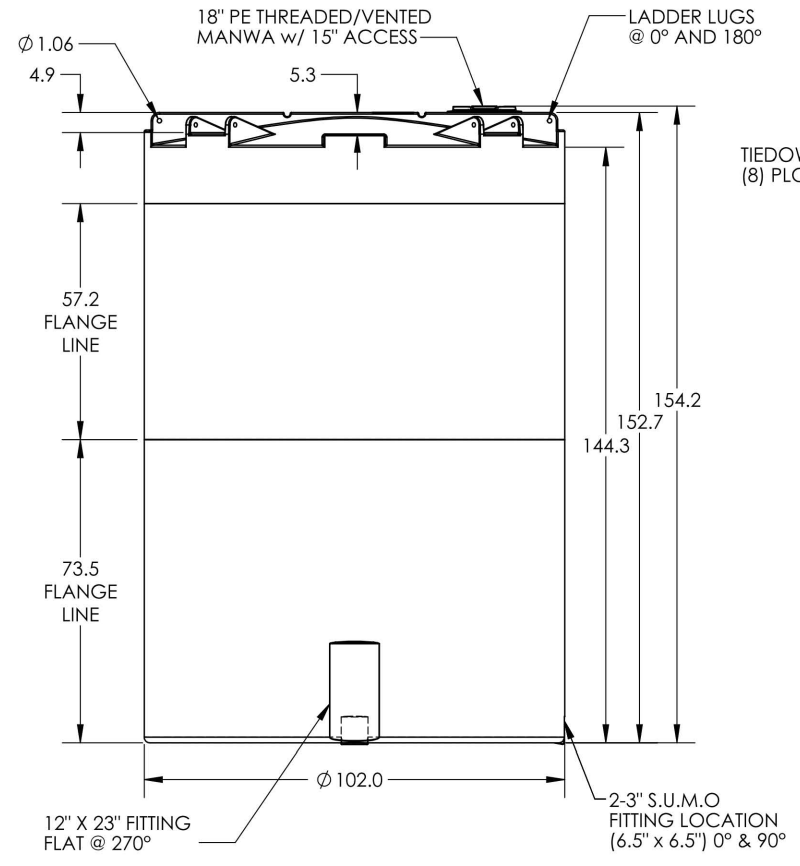
**HEADINGTON WASH RACK FACILITY**

SHEET  
**P-1**  
 13 OF 29  
 W.G. No. **81134**

ORIGINAL SCALE: 1/8" = 1' IN INCHES  
 Drawing Name: C:\Civil\_3D\Projects\81134\_Headington\_Corp.\Yard\CADD\Files\Sheets\P-Sheets.dwg Layout: Tab1\_P-2\_Nov 25, 2019 12:38pm SMC\ey  
 FOR REDUCED PLANS



**RAIN WATER COLLECTION SYSTEM**  
 SCALE: 1"=5'



**5000 GALLON POLY TANK**  
 NTS

- GENERAL NOTES:**
- POLY RAIN TANK MUST BE SOLID COLORED (GREEN) AND PROPERLY PLACED AND SECURED AS REQUIRED BY THE EL DORADO COUNTY REQUIREMENTS, CBC, AND OTHER APPLICABLE CODES AND STANDARDS
  - EXPOSED PIPING (RISER & INLET PIPE) MUST BE HDPE (PE4710) DR17 PIPE/ DR11 FITTINGS, FUSION WELDED, OR RIGID UV-PROTECTED PIPE, OR APPROVED EQUAL BASED ON CONTRACTOR SUBMITTALS
  - ACTUAL POLY TANK AND PIPING SYSTEM BASED ON CONTRACTOR APPROVED SUBMITTALS
  - UNDERGROUND PIPING DOES NOT REQUIRE U.V. PROTECTION

**RAIN TANK SYSTEM**  
 SCALE : AS SHOWN

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF :  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/23/19

DESIGNED: JB SGM  
 DRAWN: SGM  
 CHECKED: JB  
 DATE: 09/17/19  
 ROAD NUMBER: -



**COUNTY OF EL DORADO**  
**COMMUNITY DEVELOPMENT AGENCY**  
**TRANSPORTATION DIVISION**

**HEADINGTON WASH RACK FACILITY**

SHEET  
**P-2**  
 14 OF 29  
 W.D. No. **81134**

ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D Projects\81134 Headington Corp. Yard\CADD Files\Sheets\1- Streets.dwg Layout Tab: P-3 Nov 25, 2019 12:37pm Skelvey  
 FOR REDUCED PLANS

PUMP TABLE - TIRE WASH SYSTEM					
DESCRIPTION	PUMP TYPE	PERFORMANCE REQUIREMENTS MAX GPM + TDH	QUANTITY	AUTOMATION	NOTES
TIRE WASH SYSTEM	30 HP VERTICAL PUMP	FURNISHED BY TIRE WASH SUPPLIER APPROX 550 GPM @ 45 PSI	1	OPTI-EYE	OPTI-EYE TO START TIRE WASH CYCLE

PLUMBING TABLE TIRE WASH SYSTEM, SUPPLY, AND BUNKER OVERFLOW	
COMPONENT	QUANTITY
POLYTANK (5000 GAL)	3 EA
3" FUSABLE HDPE (PE4710) DR17 *	311 LF
3" GATE VALVE	6 EA
3" CHECK VALVE	1 EA
3/4" BALL VALVE	1 EA
3/4" 45° ELBOW (PE4710) DR11*	1 EA
3" 45° ELBOW (PE4710) DR11 *	1 EA
3" 90° ELBOW (PE4710) DR11 *	12 EA
3" TEE (PE4710) DR11 *	3 EA
3" TO 3/4" REDUCER (PE4710) DR11*	1 EA
3/4" FUSABLE HDPE (PE4710) DR11 *	4 LF
2" TANK OVERFLOW ASSEMBLY	3 EA
TANK WATER LEVEL INDICATOR	1 EA

\* FUSION WELDED, FLANGED, OR APPROVED EQUAL

**GENERAL NOTES:**

- ALL QUANTITIES ARE APPROXIMATE, ACTUAL QUANTITIES MAY VARY BASED ON APPROVED CONTRACTOR SUBMITTAL LAY DRAWINGS AND PRODUCT DATA SUBMITTALS

**TIRE WASH SUPPLY & RAIN TANK PLUMBING QUANTITIES  
SCALE: NONE**

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF:  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/23/19

DESIGNED: JB SGM  
 DRAWN: SGM  
 CHECKED: JB DATE: 09/17/19  
 ROAD NUMBER: -

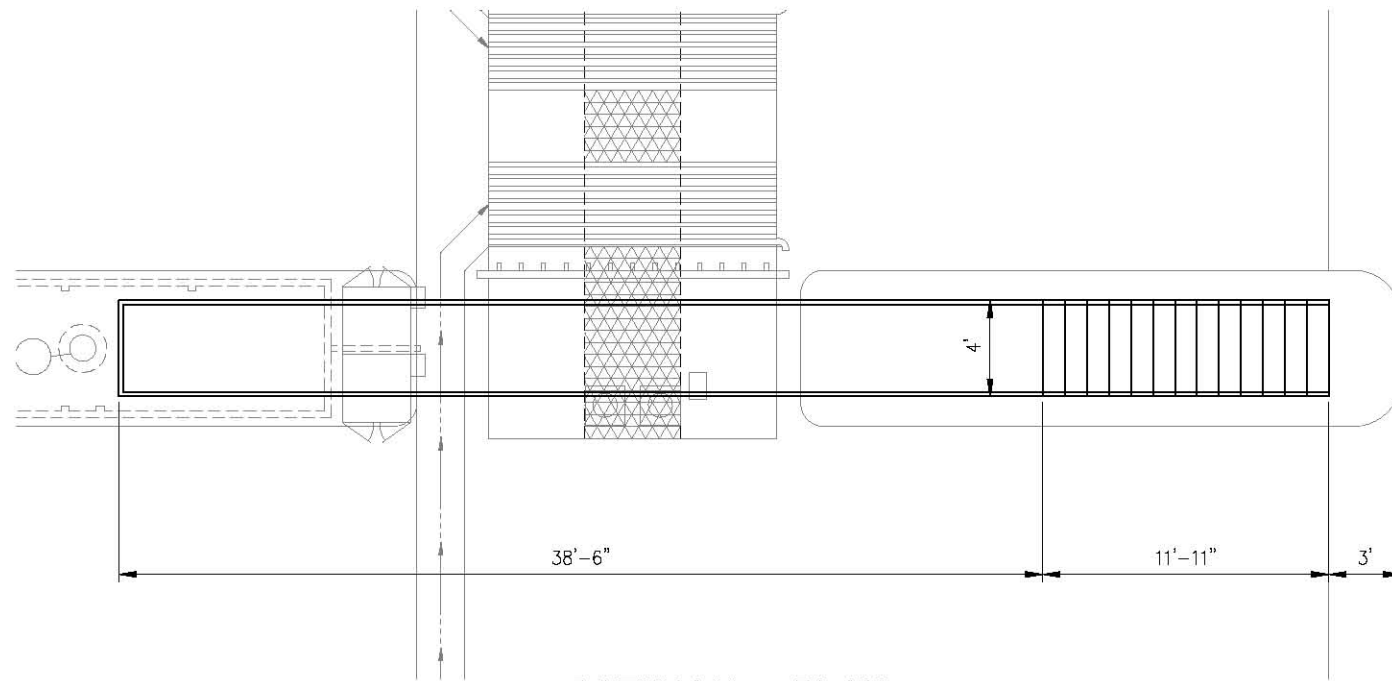


**COUNTY OF EL DORADO  
 COMMUNITY DEVELOPMENT AGENCY  
 TRANSPORTATION DIVISION**

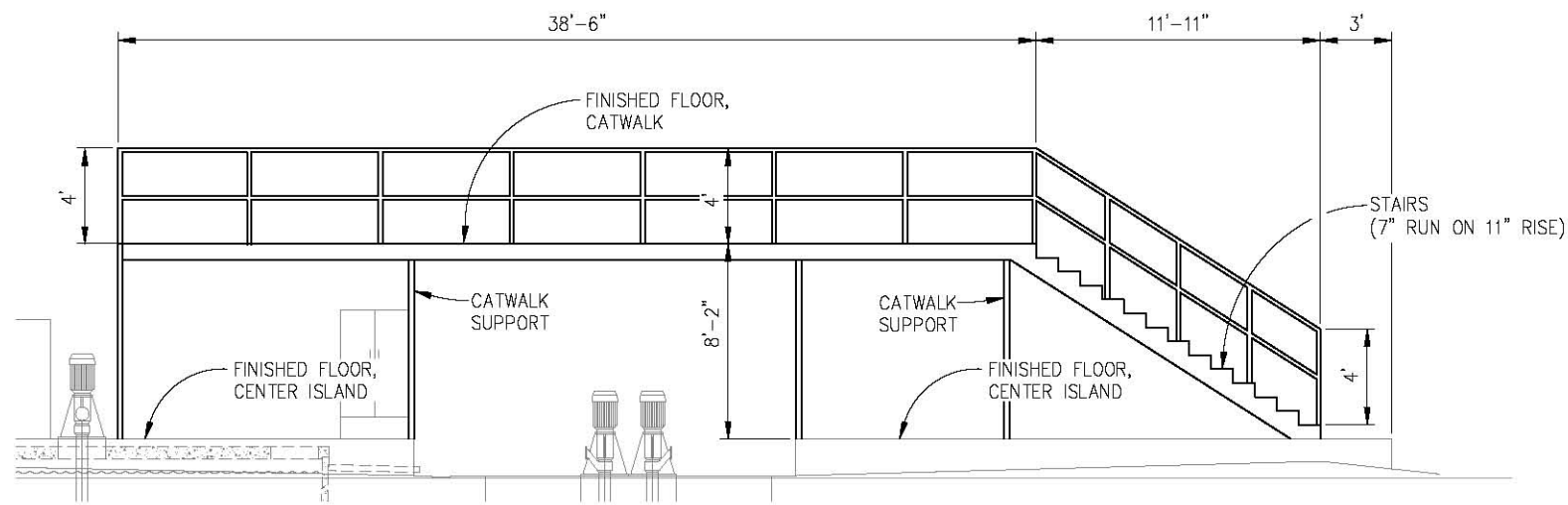
**HEADINGTON WASH RACK FACILITY**

SHEET  
**P-3**  
 15 OF 29  
 W.G. No. **81134**

ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D Projects\81134 Headington Corp. Yard\CADD Files\Sheets\CW-Sheets.dwg Layout Tab: CW-1 Nov 25, 2019 - 12:35pm Smeley  
 FOR REDUCED PLANS  
 2  
 1  
 0



**CATWALK - PLAN**  
SCALE: 1"=4'



**CATWALK - ELEVATION**  
SCALE: 1"=4'

**GENERAL NOTES:**

1. DISCLOSED CATWALK INFORMATION FOR PRELIMINARY PURPOSES ONLY. ACTUAL DETAILS MAY VARY, BASED UPON CONTRACTOR APPROVED SUBMITTALS. CATWALK MATERIAL MUST BE GALVANIZED ALUMINUM (OR APPROVED EQUAL) FOR CORROSION PROTECTION
2. CATWALK DESIGN & LAYOUT MUST ADHERE TO A MINIMUM OF CALIFORNIA BUILDING CODE (CBC) AND CAL OSHA STANDARDS

(ALTERNATIVE BID ITEM B)  
**CATWALK**  
 SCALE : AS SHOWN



PREPARED UNDER THE SUPERVISION OF :  
 [Signature]  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/02/16

DESIGNED: JB SGM  
 DRAWN: SGM  
 CHECKED: JB  
 DATE: 08/16/16  
 ROAD NUMBER: -



**COUNTY OF EL DORADO**  
**COMMUNITY DEVELOPMENT AGENCY**  
**TRANSPORTATION DIVISION**

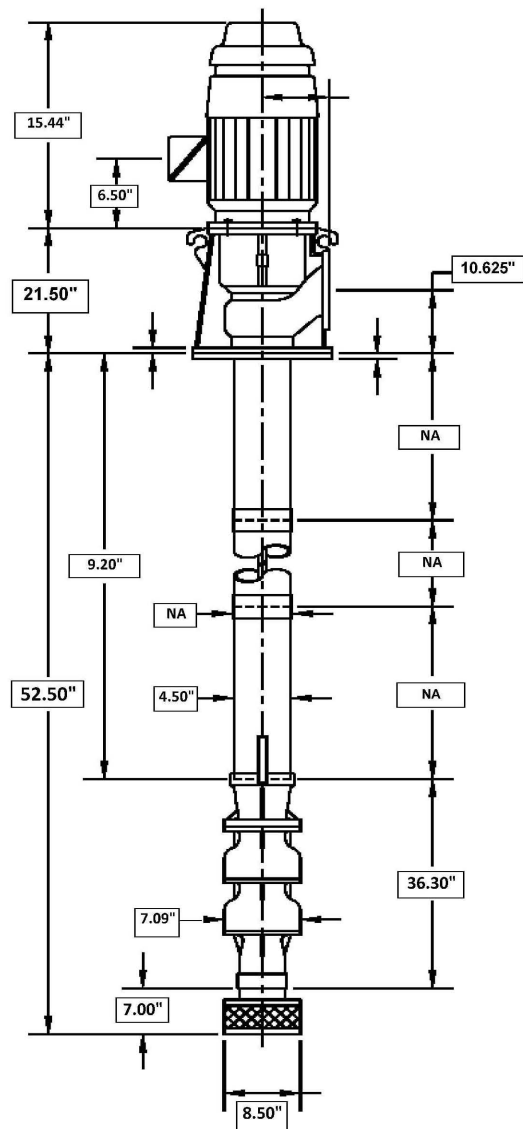
**HEADINGTON WASH RACK FACILITY**

SHEET  
**CW-1**  
 16 OF 29  
 W.G. No. 81134

REVISION	NUMBER	DATE	DESCRIPTION	BY



# 5 HP TREATMENT PUMP DIAGRAM



**GPM** 70 GPM  
**TDH** 50 PSI  
**Strainer Type** Basket Type 304SS  
**Bowl Model** 7LL 4 Stage  
**Column & Shaft** A53A / 416 Stainless PSQ  
**Foundation Plate** A36 Steel  
**Discharge Head** HF-4 4" 125 LB. ANSI Flange  
**Seal Type** Mechanical  
**Imp. Dia.** 5.4"  
**Imp. Type** Stainless Steel  
**Lineshaft Brgs** Bronze  
**Other**

### Motor Information

**Make** USEM  
**Enclosure** TEFC  
**NRR or SRC** NA  
**HP** 5hp  
**SF** 1.15  
**RPM** 1800  
**Phase** 3  
**Cycle** 60  
**Voltage** 230/460  
**VHS or VSS** VSS  
**Other** 1400 Lb Thrust

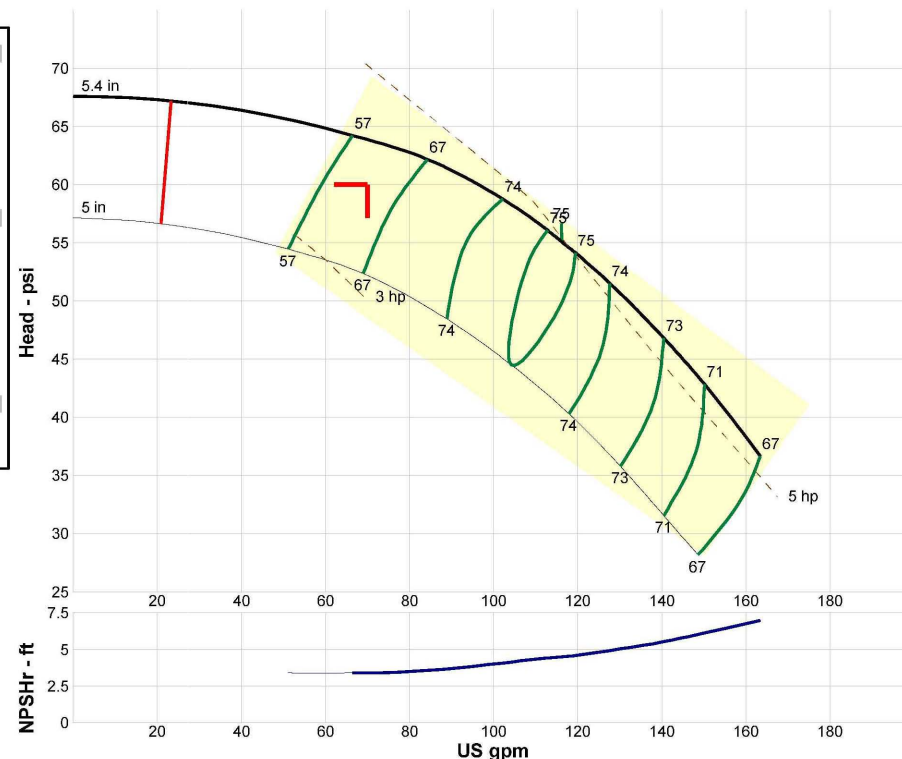
**Pump:**  
 Size: 7LL (5 stage)  
 Type: Vertical  
 Synch speed: 1800 rpm  
 Curve: 7LL  
 Specific Speeds:  
 Dimensions:  
 Vertical Turbine:

Speed: 1760 rpm  
 Dia: 5.4 in  
 Impeller: 7LL SS ENCL  
 Ns: ---  
 Nss: ---  
 Suction: 4 in  
 Discharge: 4 in  
 Bowl size: 7.13 in  
 Max lateral: 0.5 in  
 Thrust K factor: 2.63 lb/ft

**Search Criteria:**  
 Flow: 70 US gpm  
 Head: 60 psi  
**Fluid:**  
 Water  
 SG: 1  
 Viscosity: 1.105 cP  
 NPSHa: ---  
 Temperature: 60 °F  
 Vapor pressure: 0.2563 psi a  
 Atm pressure: 14.7 psi a  
**Motor:**  
 Standard: NEMA  
 Enclosure: WP1  
 Sizing criteria: Max Power on Design Curve  
 Size: 5 hp  
 Speed: 1800  
 Frame: 213T

**Pump Limits:**  
 Temperature: 140 °F  
 Pressure: 425 psi g  
 Sphere size: 0.25 in  
 Power: 125 hp  
 Eye area: ---

--- Data Point ---	
Flow:	70 US gpm
Head:	63.8 psi
Eff:	59.1%
Power:	4.4 hp
NPSHr:	3.44 ft
--- Design Curve ---	
Shutoff head:	67.6 psi
Shutoff dP:	67.6 psi
Min flow:	23.2 US gpm
BEP:	75% @ 116 US gpm
NOL power:	5.28 hp @ 150 US gpm
-- Max Curve --	
Max power:	5.28 hp @ 150 US gpm



Flow US gpm	Speed rpm	Head psi	Efficiency %	Power hp	NPSHr ft
84	1760	62.2	66.9	4.55	3.58
70	1760	63.8	59.1	4.4	3.44
56	1760	64.8	51.2	4.24	3.31
42	1760	65.5	43.4	4.09	3.17
28	1760	66.2	35.5	3.94	3.04

## TREATMENT PUMP

(HYDRO FLOW 5 HP VERTICAL TURBINE PUMP OR APPROVED EQUAL)

NTS

(ALTERNATIVE BID ITEM C)  
PUMP DETAILS  
SCALE : AS SHOWN

ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D\Projects\81134\_Headington\_Corp.\Yard\CADD\Files\Sheets\T-Sheets.dwg Layout: Tab: T-1 Nov 25, 2019 12:39pm SMC/vey  
 FOR REDUCED PLANS

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF :  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/02/16

DESIGNED: JB  
 DRAWN: SGM  
 CHECKED: JB  
 DATE: 08/31/16  
 ROAD NUMBER: -

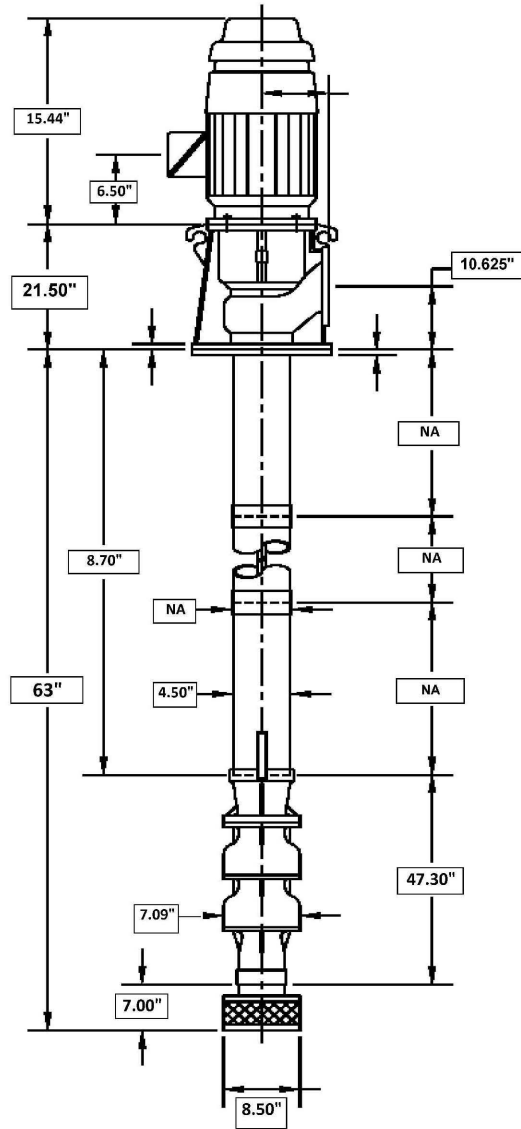


COUNTY OF EL DORADO  
 COMMUNITY DEVELOPMENT AGENCY  
 TRANSPORTATION DIVISION

HEADINGTON WASH RACK FACILITY

SHEET  
**T-1**  
 17 OF 29  
 W.D. No. **81134**

# 7.5 HP REUSE PUMP DIAGRAM



**GPM** 70 GPM  
**TDH** 75 PSI  
**Strainer Type** Basket Type 304SS  
**Bowl Model** 7LL 6 Stage  
**Column & Shaft** A53A / 416 Stainless PSQ  
**Foundation Plate** A36 Steel  
**Discharge Head** HF-4 4" 125 LB. ANSI Flange  
**Seal Type** Mechanical  
**Imp. Dia.** 5.4"  
**Imp. Type** Stainless Steel  
**Lineshaft Brgs** Bronze  
**Other**

### Motor Information

**Make** USEM  
**Enclosure** TEFC  
**NRR or SRC** NA  
**HP** 7.5hp  
**SF** 1.15  
**RPM** 1800  
**Phase** 3  
**Cycle** 60  
**Voltage** 230/460  
**VHS or VSS** VSS  
**Other** 1400 Lb Thrust

### Pump:

**Size:** 7LL (6 stage)  
**Type:** Vertical  
**Synch speed:** 1800 rpm  
**Curve:** 7LL  
**Specific Speeds:**  
**Dimensions:**  
**Vertical Turbine:**

**Speed:** 1760 rpm  
**Dia:** 5.4 in  
**Impeller:** 7LL SS ENCL  
**Ns:** ---  
**Nss:** ---  
**Suction:** 6 in  
**Discharge:** 6 in  
**Bowl size:** 7.13 in  
**Max lateral:** 0.5 in  
**Thrust K factor:** 2.63 lb/ft

### Search Criteria:

**Flow:** 70 US gpm  
**Head:** 75 psi

### Fluid:

**Water**  
**SG:** 1  
**Viscosity:** 1.105 cP  
**NPSHa:** ---

**Temperature:** 60 °F  
**Vapor pressure:** 0.2563 psi a  
**Atm pressure:** 14.7 psi a

### Motor:

**Standard:** NEMA  
**Enclosure:** WP1  
**Sizing criteria:** Max Power on Design Curve

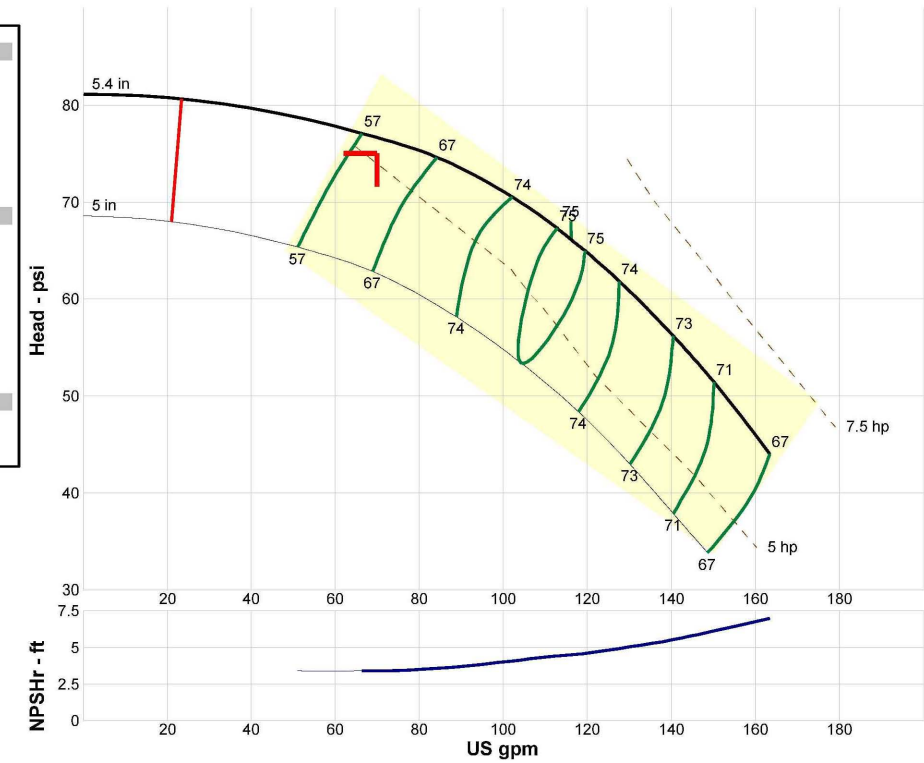
**Size:** 7.5 hp  
**Speed:** 1800  
**Frame:** 213T

### Pump Limits:

**Temperature:** 140 °F  
**Pressure:** 425 psi g  
**Sphere size:** 0.25 in

**Power:** 125 hp  
**Eye area:** ---

---- Data Point ----	
Flow:	70 US gpm
Head:	76.6 psi
Eff:	59.1%
Power:	5.28 hp
NPSHr:	3.44 ft
---- Design Curve ----	
Shutoff head:	81.2 psi
Shutoff dP:	81.2 psi
Min flow:	23.2 US gpm
BEP:	75% @ 116 US gpm
NOL power:	6.33 hp @ 150 US gpm
-- Max Curve --	
Max power:	6.33 hp @ 150 US gpm



### Performance Evaluation:

Flow US gpm	Speed rpm	Head psi	Efficiency %	Power hp	NPSHr ft
84	1760	74.6	66.9	5.46	3.58
70	1760	76.6	59.1	5.28	3.44
56	1760	77.7	51.2	5.09	3.31
42	1760	78.6	43.4	4.91	3.17
28	1760	79.4	35.5	4.72	3.04

## REUSE PUMP

(HYDRO FLOW 7.5 HP VERTICAL TURBINE PUMP OR APPROVED EQUAL)

NTS

(ALTERNATIVE BID ITEM C)  
PUMP DETAILS  
SCALE : AS SHOWN

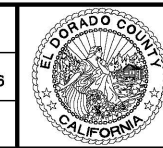
ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D\Projects\81134\Projects\81134\_Headington\_Corp.\Yard\CADD\Files\Sheets\T-Sheets.dwg Layout: Tab: T-2 Nov 25, 2019 12:31pm SMC/vey  
 FOR REDUCED PLANS

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF :  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/02/16

DESIGNED: JB	DRAWN: SGM
CHECKED: JB	DATE: 08/31/16
ROAD NUMBER: -	

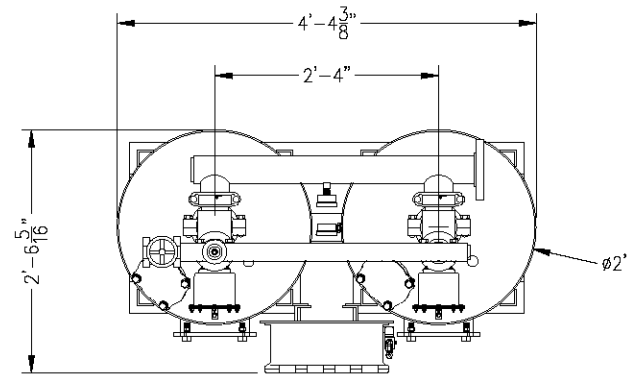


COUNTY OF EL DORADO  
 COMMUNITY DEVELOPMENT AGENCY  
 TRANSPORTATION DIVISION

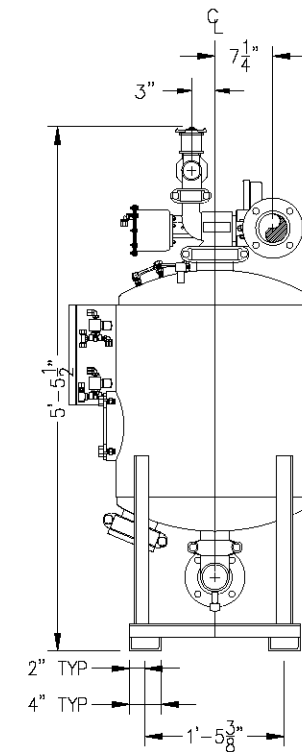
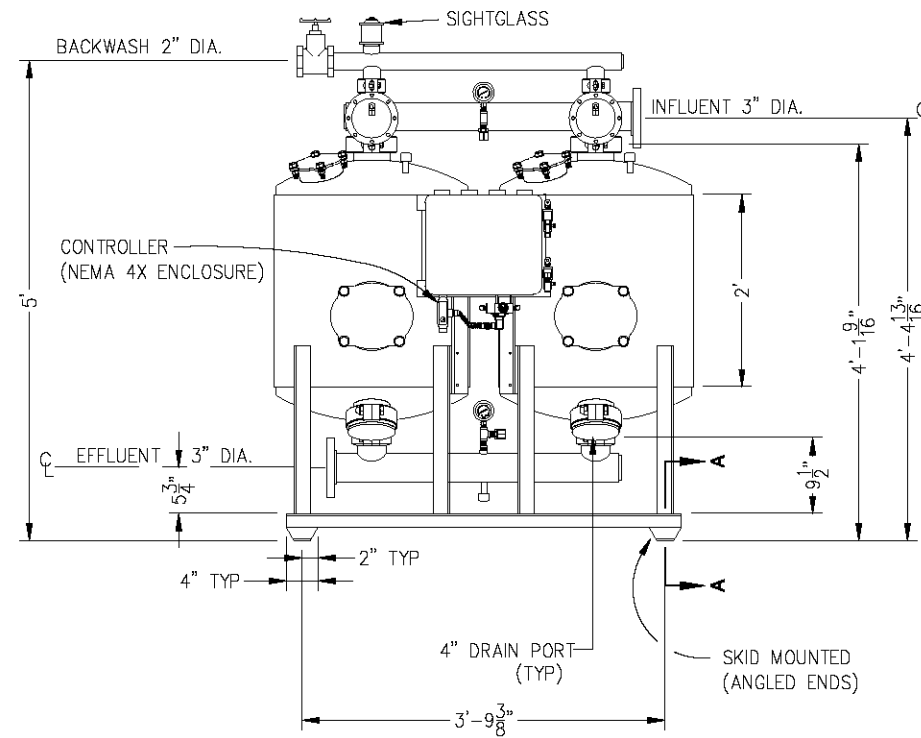
HEADINGTON WASH RACK FACILITY

SHEET	T-2
18 OF 29	
W.D. No.	81134

ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D Projects\81134 Headington Corp. Yard\CADD Files\Sheets\T-Sheets.dwg Layout Tab: T-3 Nov 26, 2019 10:37am Shicley  
 FOR REDUCED PLANS



- NOTES:
- FLOW RATE DESIGN: 63-95 GPM  
BACKWASH RATE: 15 GPM/FT<sup>2</sup>
  - MAXIMUM WORKING PRESSURE: 100 PSI
  - ELECTRICAL REQUIREMENTS:  
CONTROLLER 120V;  
SOLENOIDS 24VAC, FACTORY WIRE
  - AIR SUPPLY REQUIRED: 2 CFM @ 70 PSIG (MIN)
  - MEDIA REQUIREMENTS PER TANK:  
A. 1/2" X 3/4" CRUSHED ROCK: 1.5 CF  
B. 0.47 mm CRUSHED SILICA SAND: 4.5 CF
  - WEIGHTS: (APPROX)  
EQUIPMENT: 590 LBS (LESS MEDIA)  
MEDIA: 1,200 LBS  
OPERATION: 2,300 LBS



**SAND FILTER SYSTEM**  
 (YARDNEY IL 2424-2A OR APPROVED EQUAL)  
 NTS

(ALTERNATIVE BID ITEM C)  
 FILTRATION EQUIPMENT DETAILS  
 SCALE : AS SHOWN

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF :  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/02/16

DESIGNED: J.B. SGM  
 DRAWN: SGM  
 CHECKED: J.B. 08/31/16  
 ROAD NUMBER: -



**COUNTY OF EL DORADO**  
**COMMUNITY DEVELOPMENT AGENCY**  
**TRANSPORTATION DIVISION**

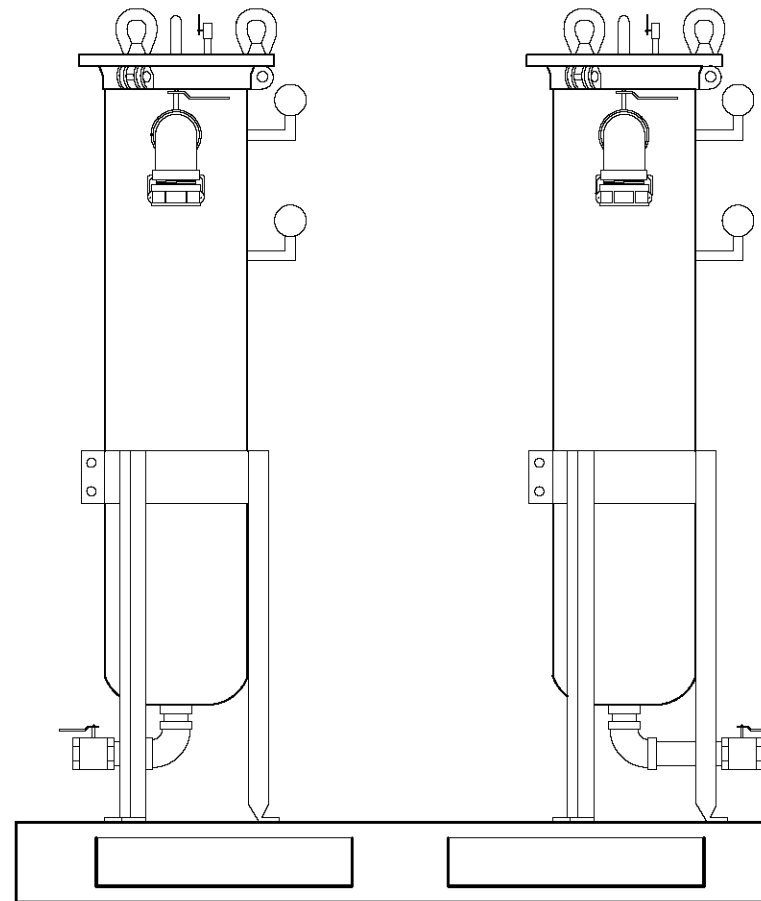
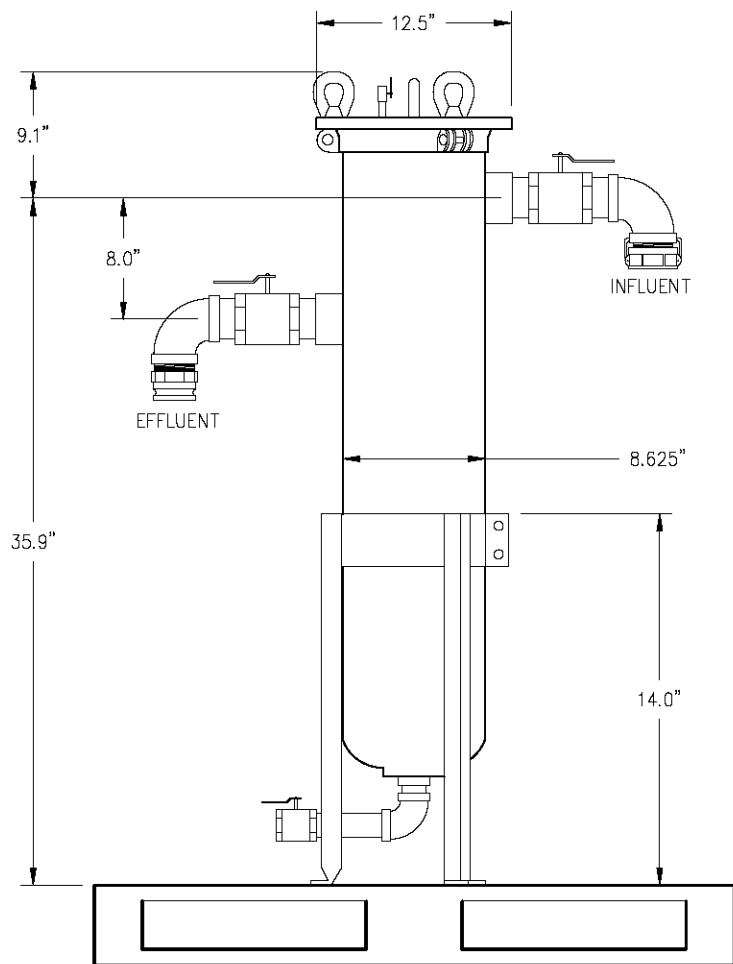
HEADINGTON WASH RACK FACILITY

SHEET  
**T-3**  
 19 OF 29  
 W.G. No. 81134

ORIGINAL SCALE IS IN INCHES  
Drawing name: C:\Civil 3D Projects\81134 Headington Corp. Yard\CADD Files\Sheets\T-Sheets.dwg Layout Tab: T-4 Nov 26, 2019 10:44am ShicVey

FOR REDUCED PLANS

2  
1  
0



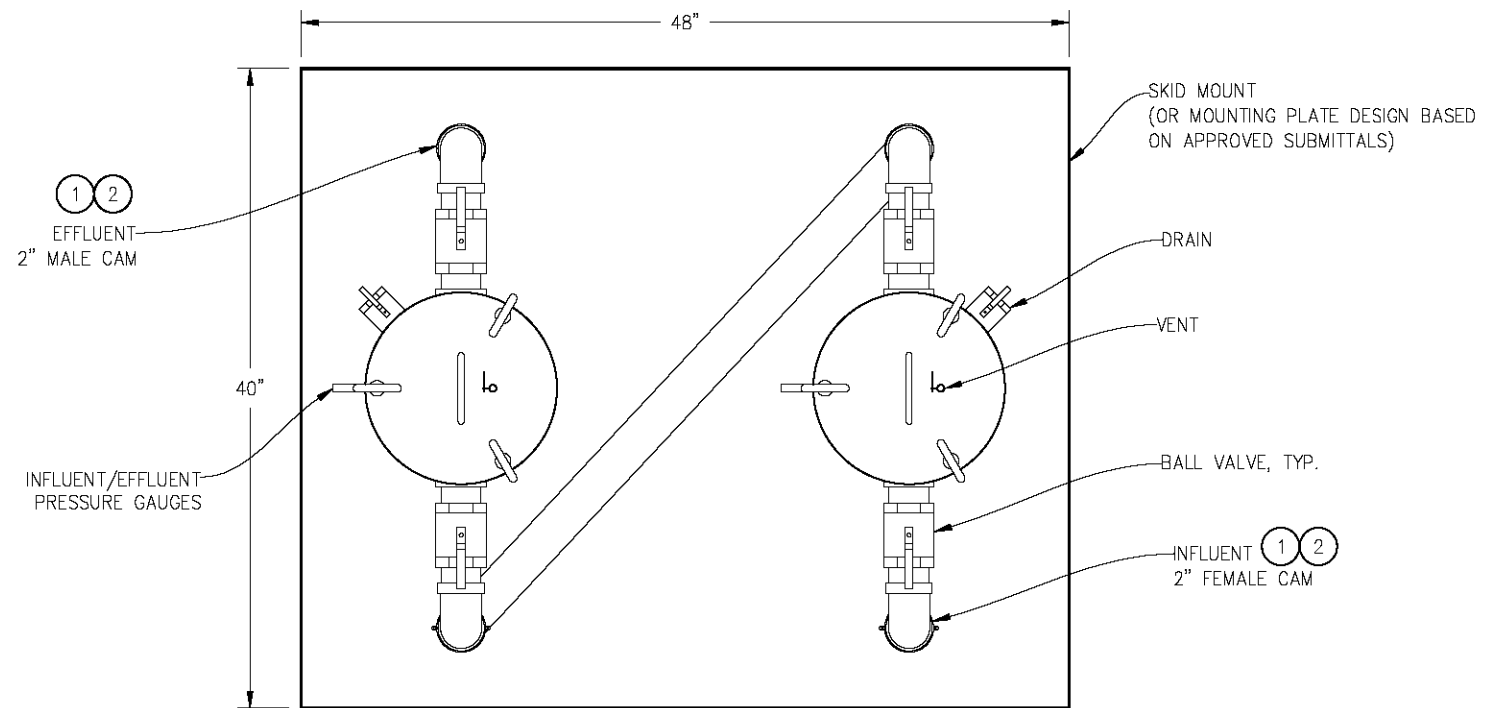
PRESSURE RATING: 150 PSI  
FLOW RATE: 1-100 GPM  
BAGS PER HOUSING: 1 BAG

**CONSTRUCTION NOTES:**

- ① — 2" CAM TO BE USED IF HIGH PRESSURE RUBBERIZED SUCTION HOISING IS SELECTED. IF HDPE OR METAL PIPING IS SELECTED, FLANGED CONNECTIONS SHOULD BE USED.
- ② — INFLUENT AND EFFLUENT DIAMETER MAY BE 2" OR 3" AS DETERMINED BY APPROVED SUBMITTALS.

**GENERAL NOTES:**

- 1. ACTUAL DETAILS BASED ON CONTRACTOR APPROVED SUBMITTALS

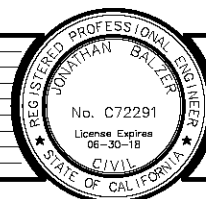


**BAG FILTERS SYSTEM**

(HAYWARD FLV SERIES OR APPROVED EQUAL)

NTS

(ALTERNATIVE BID ITEM C)  
FILTRATION EQUIPMENT DETAILS  
SCALE : AS SHOWN



PREPARED UNDER THE SUPERVISION OF:  
*[Signature]*  
REGISTERED CIVIL ENGINEER  
DATE: 09/02/16

DESIGNED: JB  
DRAWN: SGM  
CHECKED: JB  
DATE: 06/08/16  
ROAD NUMBER: -

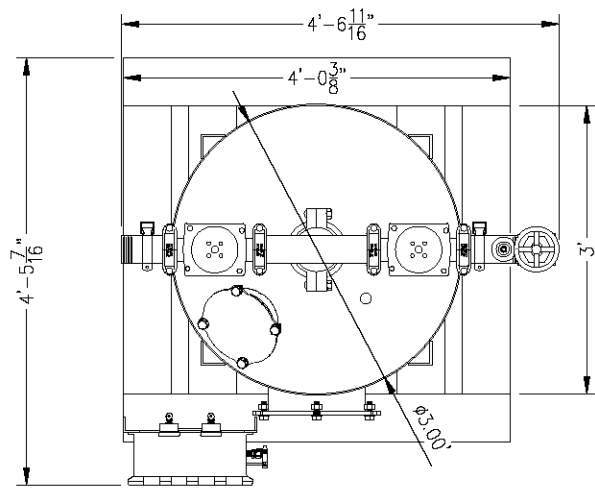


COUNTY OF EL DORADO  
COMMUNITY DEVELOPMENT AGENCY  
TRANSPORTATION DIVISION

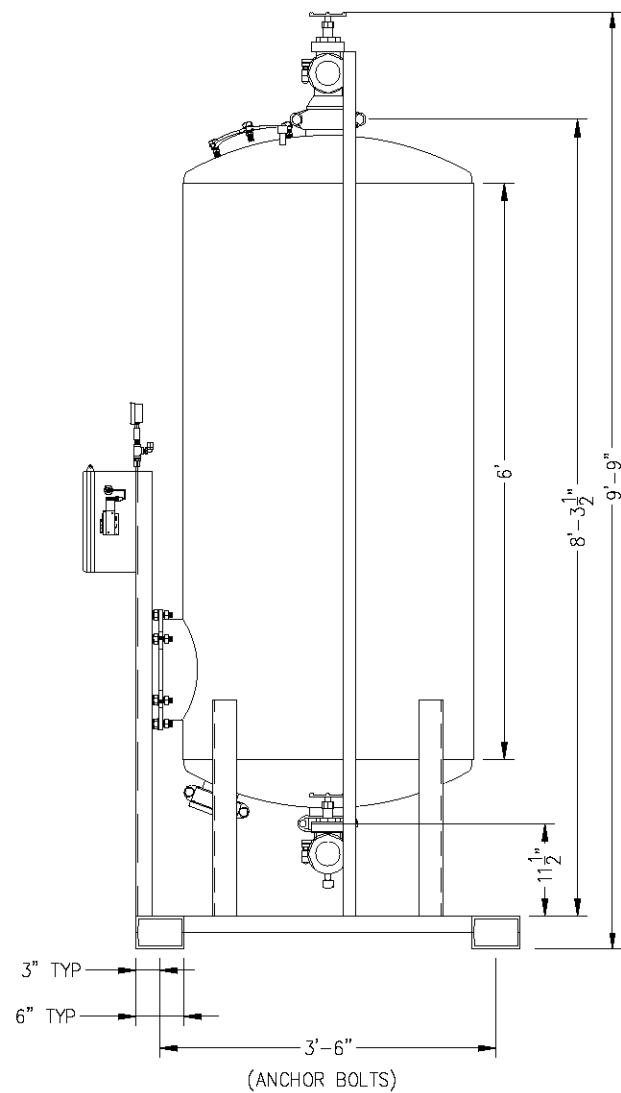
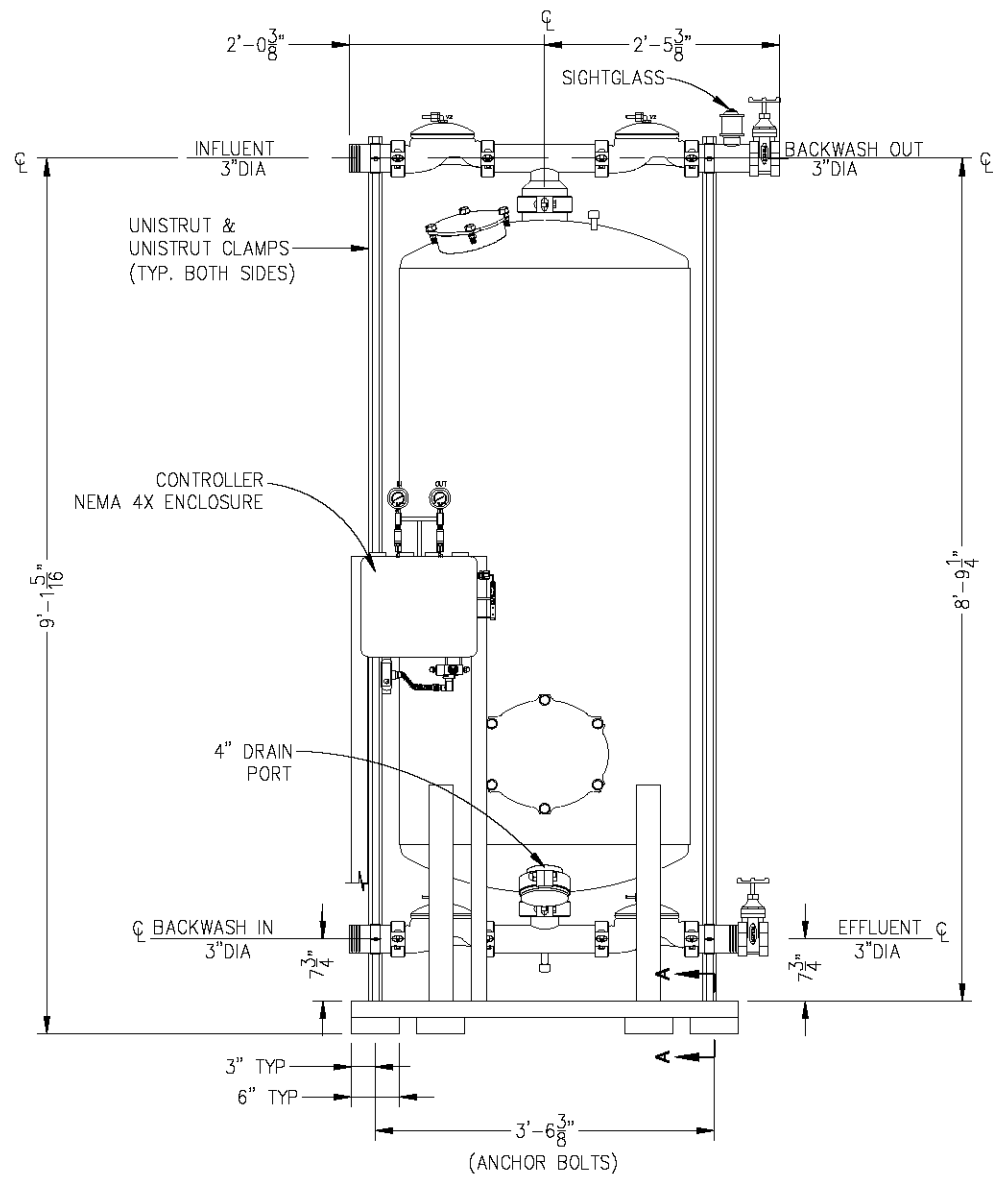
HEADINGTON WASH RACK FACILITY

SHEET  
T-4  
20 OF 29  
W.G. No. 81134

ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D Projects\81134 Headington Corp. Yard\CADD Files\Sheets\T-Sheets.dwg Layout Tab: T-5 Nov 26, 2019 10:49am Shicley  
 FOR REDUCED PLANS



- NOTES:
1. FLOW RATE DESIGN: 35-70 GPM  
BACKWASH RATE: 10GPM/FT<sup>2</sup>
  2. MAXIMUM WORKING PRESSURE: 100 PSI
  3. ELECTRICAL REQUIREMENTS:  
CONTROLLER 120V;  
SOLENOIDS 24VAC, FACTORY WIRED
  4. AIR SUPPLY REQUIRED: 2 CFM @ 70 PSIG (MIN)
  5. MEDIA REQUIREMENTS PER TANK:  
A. 1/2" X 3/4" CRUSHED ROCK: 4.0 CF  
B. GRANULAR ACTIVATED CARBON: 28.0 CF  
C. ORGANOCLAY MEDIA USED IN 1<sup>ST</sup> FILTER UNIT,  
FOLLOWED BY ACTIVATED CARBON IN 2<sup>ND</sup> FILTER UNIT.  
REFER TO TREATMENT SYSTEM PLANS FOR DETAILS.
  6. WEIGHTS: (APPROX)  
EQUIPMENT: 910 LBS (LESS MEDIA)  
MEDIA: 1,262 LBS  
OPERATION: 3,800 LBS



**CLAY/CARBON FILTER SYSTEM**  
 (YARDNEY GAC 3672-1A OR APPROVED EQUAL)  
 NTS

(ALTERNATIVE BID ITEM C)  
 FILTRATION EQUIPMENT DETAILS  
 SCALE : AS SHOWN



PREPARED UNDER THE SUPERVISION OF:  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/02/16

DESIGNED: J.B. SGM  
 DRAWN: SGM  
 CHECKED: J.B. 08/31/16  
 ROAD NUMBER: -



**COUNTY OF EL DORADO**  
**COMMUNITY DEVELOPMENT AGENCY**  
**TRANSPORTATION DIVISION**

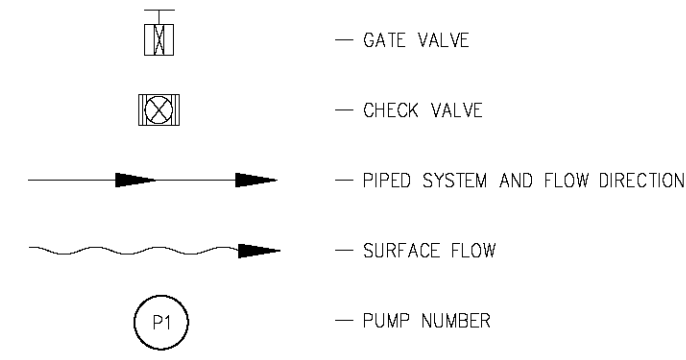
**HEADINGTON WASH RACK FACILITY**

SHEET  
**T-5**  
 21 OF 29  
 W.G. No. **81134**

REVISION	NUMBER	DATE	DESCRIPTION	BY

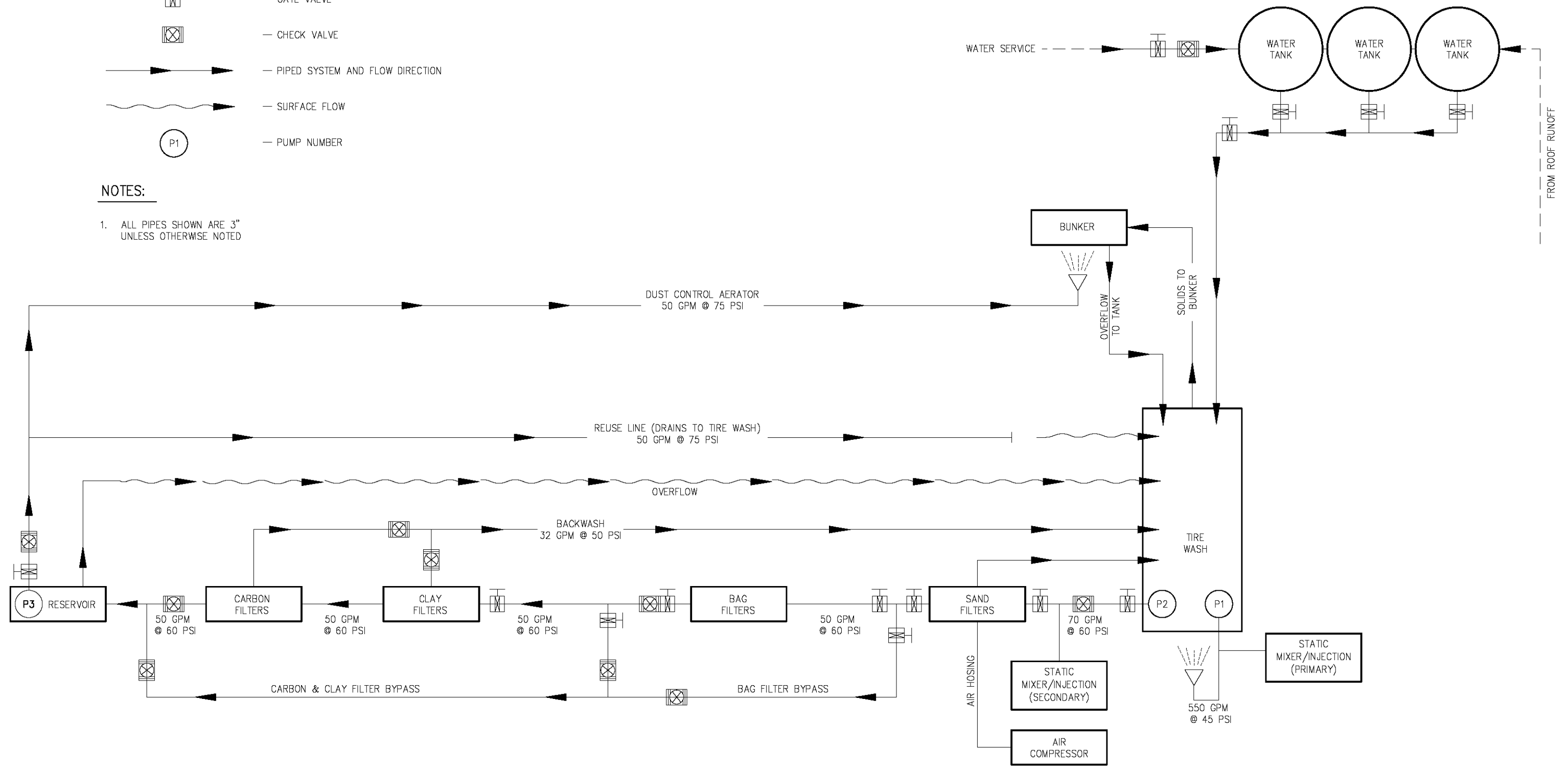
ORIGINAL SCALE IS IN INCHES  
Drawing name: C:\Civil 3D\Projects\81134 Headington Corp.\Yard\CADD Files\Sheets\T-Sheets.dwg Layout Tab: T-6 Nov 26, 2019 10:55am Shicley

**LEGEND:**



**NOTES:**

1. ALL PIPES SHOWN ARE 3" UNLESS OTHERWISE NOTED



(ALTERNATIVE BID ITEM C)  
TREATMENT SYSTEM FLOW DIAGRAM  
SCALE: NONE

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF:  
*[Signature]*  
REGISTERED CIVIL ENGINEER  
DATE: 09/02/16

DESIGNED: JOB SGM  
DRAWN: SGM  
CHECKED: DATE: 08/31/16  
JOB ROAD NUMBER: -



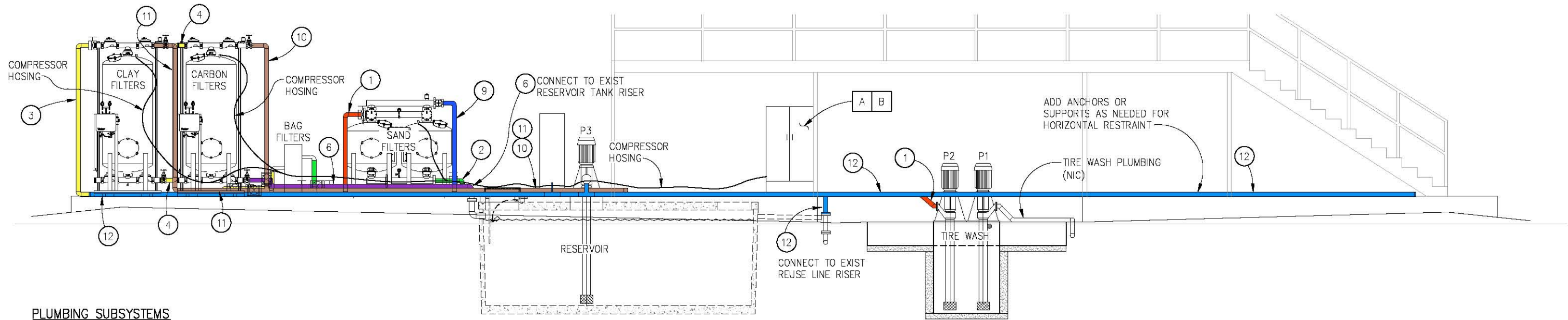
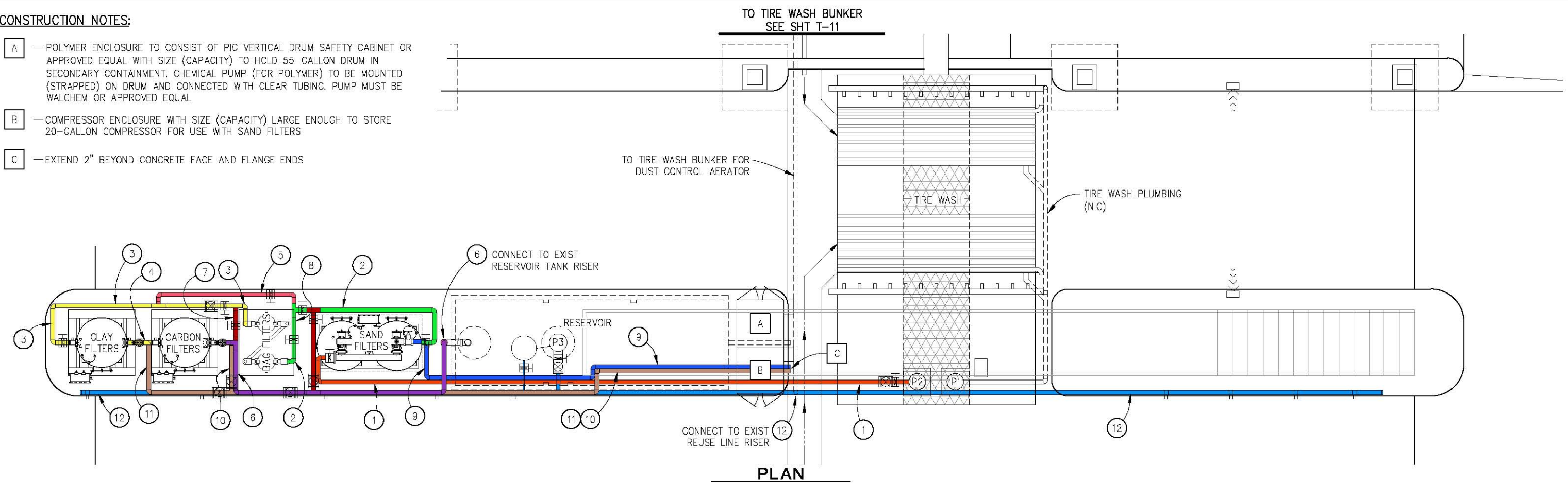
**COUNTY OF EL DORADO  
COMMUNITY DEVELOPMENT AGENCY  
TRANSPORTATION DIVISION**

**HEADINGTON WASH RACK FACILITY**

SHEET  
**T-6**  
22 OF 29  
W.G. No. **81134**

**CONSTRUCTION NOTES:**

- A** — POLYMER ENCLOSURE TO CONSIST OF PIG VERTICAL DRUM SAFETY CABINET OR APPROVED EQUAL WITH SIZE (CAPACITY) TO HOLD 55-GALLON DRUM IN SECONDARY CONTAINMENT. CHEMICAL PUMP (FOR POLYMER) TO BE MOUNTED (STRAPPED) ON DRUM AND CONNECTED WITH CLEAR TUBING. PUMP MUST BE WALCHEM OR APPROVED EQUAL
- B** — COMPRESSOR ENCLOSURE WITH SIZE (CAPACITY) LARGE ENOUGH TO STORE 20-GALLON COMPRESSOR FOR USE WITH SAND FILTERS
- C** — EXTEND 2" BEYOND CONCRETE FACE AND FLANGE ENDS



**PLUMBING SUBSYSTEMS**

- ① — TIRE WASH TO SAND FILTERS
- ② — SAND FILTERS TO BAG FILTERS
- ③ — BAG FILTERS TO CLAY FILTERS
- ④ — CLAY FILTERS TO CARBON FILTERS
- ⑤ — BAG FILTER BYPASS
- ⑥ — CARBON FILTERS TO RESERVOIR
- ⑦ — CLAY AND CARBON FILTER BYPASS
- ⑧ — SECONDARY FILTRATION BYPASS
- ⑨ — SAND FILTERS BACKWASH
- ⑩ — CARBON FILTERS BACKWASH
- ⑪ — CLAY FILTER BACKWASH
- ⑫ — REUSE LINE

**GENERAL NOTES:**

- 1. ACTUAL SYSTEM DETAILS BASED ON CONTRACTOR APPROVED SUBMITTALS

(ALTERNATIVE BID ITEM C)  
TREATMENT PLAN-OVERALL  
SCALE : 1" = 3'

ORIGINAL SCALE IS IN INCHES  
Drawing name: C:\Civil 3D\Projects\81134\Projects\81134\CADD\Files\Sheets\T-Sheets.dwg Layout Tab: T-7 Nov 26, 2019 11:01am SMC\ey

FOR REDUCED PLANS

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF:  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/02/16

DESIGNED: J.B. SGM  
 DRAWN: SGM  
 CHECKED: J.B. 08/31/16  
 ROAD NUMBER: -

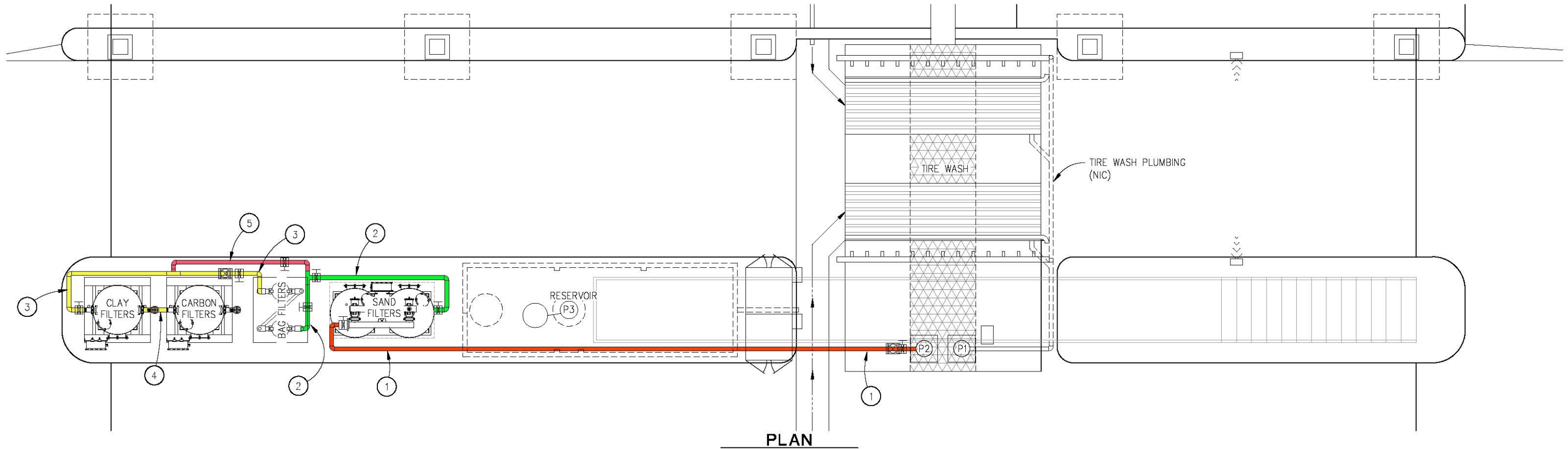


COUNTY OF EL DORADO  
 COMMUNITY DEVELOPMENT AGENCY  
 TRANSPORTATION DIVISION

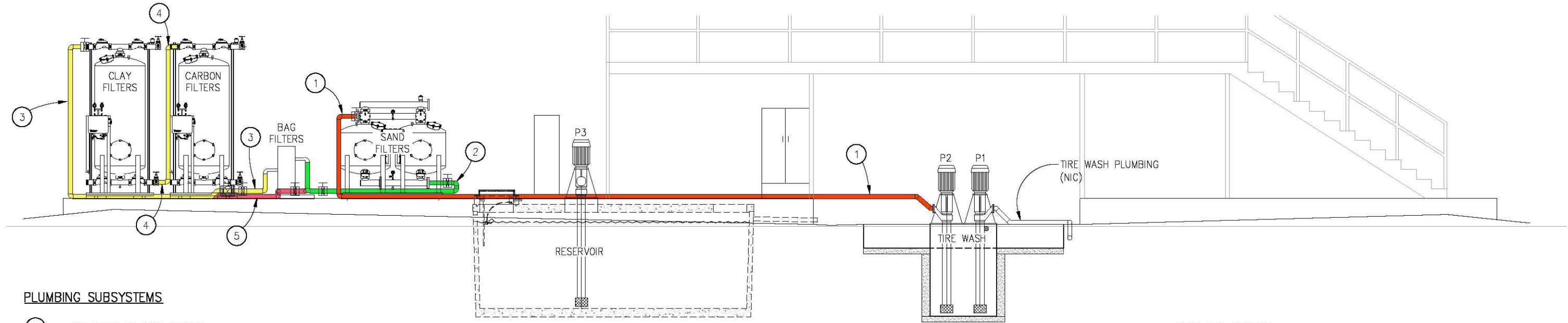
HEADINGTON WASH RACK FACILITY

SHEET  
**T-7**  
 23 OF 29  
 W.G. No. 81134

ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil\_3D\Projects\81134\_Headington\_Corp.\CADD\_Files\Sheets\T-Sheets.dwg Layout Tab: T-8 Nov 26, 2019 11:07am SMC\vey  
 FOR REDUCED PLANS



**PLAN**



**ELEVATION**

**PLUMBING SUBSYSTEMS**

- ① — TIRE WASH TO SAND FILTERS
- ② — SAND FILTERS TO BAG FILTERS
- ③ — BAG FILTERS TO CLAY FILTERS
- ④ — CLAY FILTERS TO CARBON FILTERS
- ⑤ — BAG FILTER BYPASS

**GENERAL NOTES:**

- 1. ACTUAL SYSTEM DETAILS BASED ON CONTRACTOR APPROVED SUBMITTALS

(ALTERNATIVE BID ITEM C)  
 TREATMENT PLAN-BREAKDOWN 1  
 SCALE : 1" = 3'

REVISION

NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF:  
 [Signature]  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/02/16

DESIGNED: JB  
 DRAWN: SGM  
 CHECKED: JB  
 DATE: 08/31/16  
 ROAD NUMBER: -



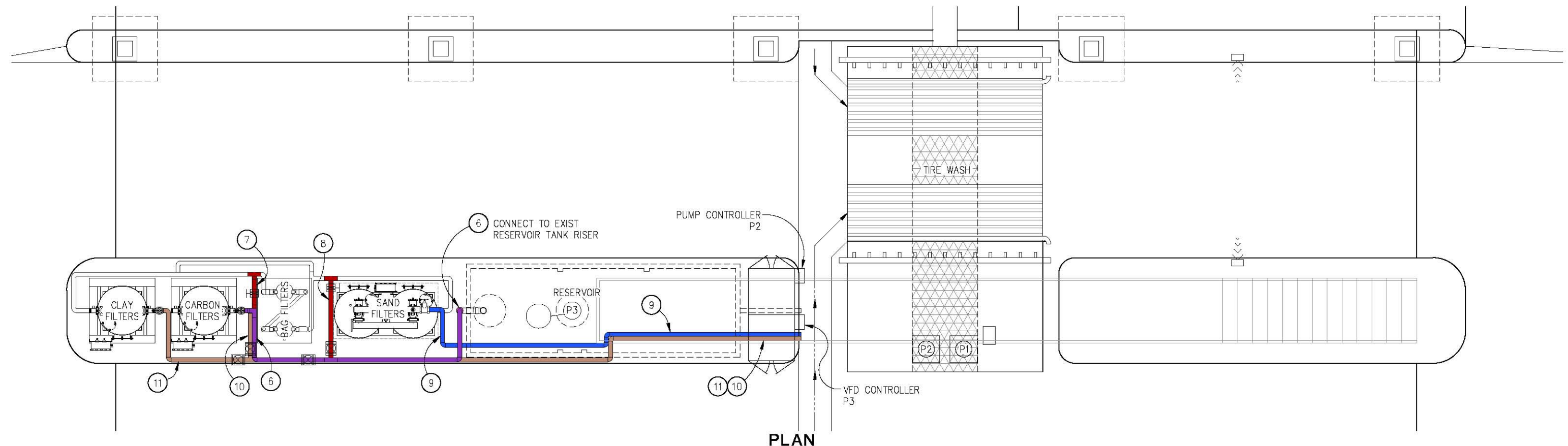
COUNTY OF EL DORADO  
 COMMUNITY DEVELOPMENT AGENCY  
 TRANSPORTATION DIVISION

HEADINGTON WASH RACK FACILITY

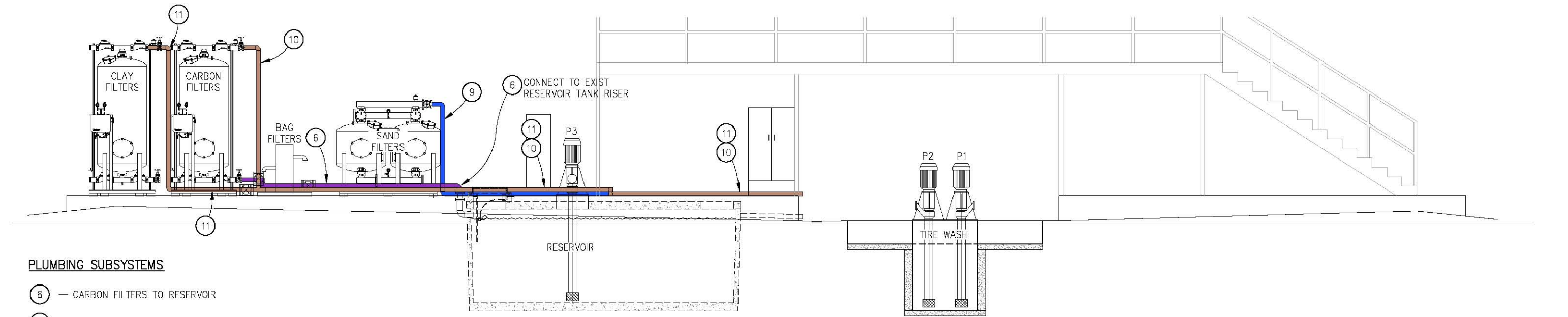
SHEET  
 T-8  
 24 OF 29  
 W.G. No. 81134



ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D Projects\81134 Headington Corp.\CADD Files\Sheets\T-Sheets.dwg Layout Tab: T-9 Nov 26, 2019 11:22am SMC\vey  
 FOR REDUCED PLANS



**PLAN**



**ELEVATION**

**PLUMBING SUBSYSTEMS**

- 6 — CARBON FILTERS TO RESERVOIR
- 7 — CLAY AND CARBON FILTER BYPASS
- 8 — SECONDARY FILTRATION BYPASS
- 9 — SAND FILTERS BACKWASH
- 10 — CARBON FILTERS BACKWASH
- 11 — CLAY FILTERS BACKWASH

**GENERAL NOTES:**

1. ACTUAL SYSTEM DETAILS BASED ON CONTRACTOR APPROVED SUBMITTALS

(ALTERNATIVE BID ITEM C)  
 TREATMENT PLAN-BREAKDOWN 2  
 SCALE : 1" = 3'

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF :  
 [Signature]  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/02/16

DESIGNED: JB  
 DRAWN: SGM  
 CHECKED: JB  
 DATE: 08/31/16  
 ROAD NUMBER: -

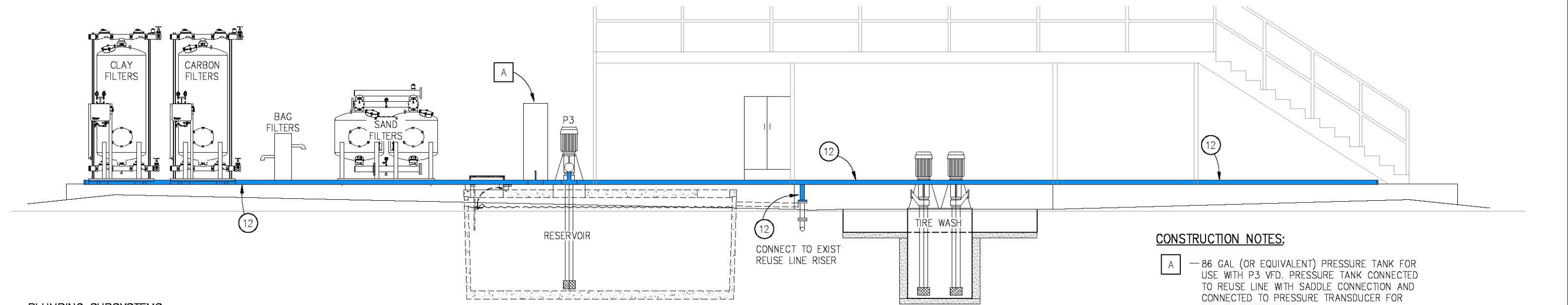
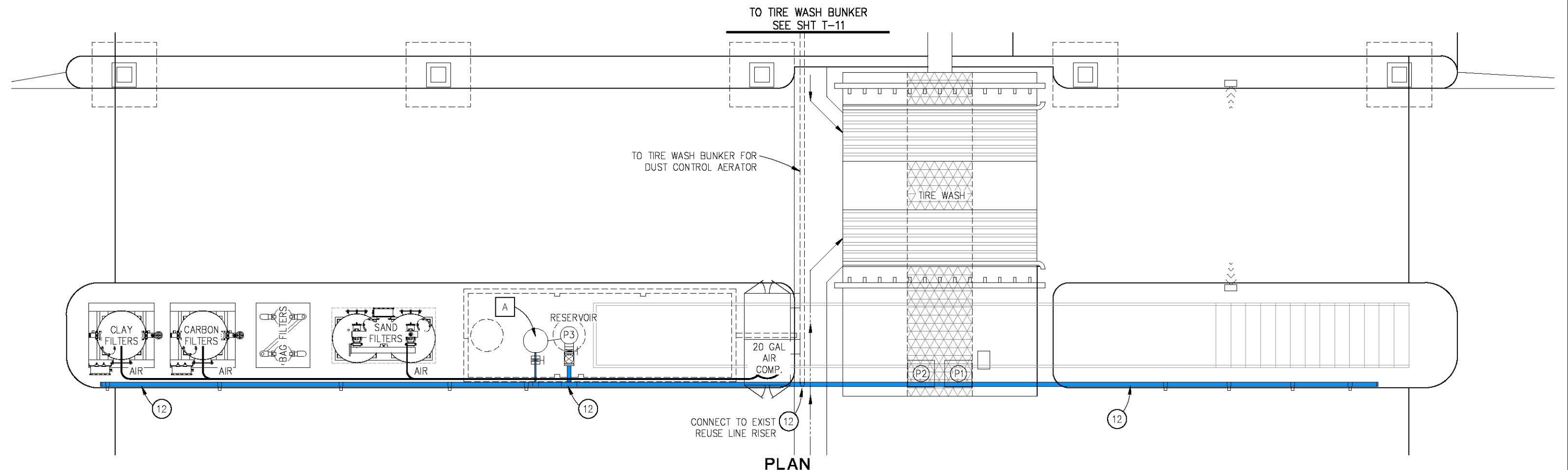


COUNTY OF EL DORADO  
 COMMUNITY DEVELOPMENT AGENCY  
 TRANSPORTATION DIVISION

HEADINGTON WASH RACK FACILITY

SHEET  
**T-9**  
 25 OF 29  
 W.G. No. 81134

ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D\Projects\81134 Headington Corp.\CADD Files\Sheets\T-Sheets.dwg Layout Tab: T-10 Nov 26, 2019 11:34am SMeley  
 FOR REDUCED PLANS



**PLUMBING SUBSYSTEMS**

12 — REUSE LINE

**CONSTRUCTION NOTES:**

A — 86 GAL (OR EQUIVALENT) PRESSURE TANK FOR USE WITH P3 VFD. PRESSURE TANK CONNECTED TO REUSE LINE WITH SADDLE CONNECTION AND CONNECTED TO PRESSURE TRANSDUCER FOR VFD ON REUSE PUMP

**GENERAL NOTES:**

1. ACTUAL SYSTEM DETAILS BASED ON CONTRACTOR APPROVED SUBMITTALS

(ALTERNATIVE BID ITEM C)  
 TREATMENT PLAN-BREAKDOWN 3  
 SCALE : 1" = 3'

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF:  
 [Signature]  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/02/16

DESIGNED: JB  
 DRAWN: SGM  
 CHECKED: JB  
 DATE: 08/31/16  
 ROAD NUMBER: -

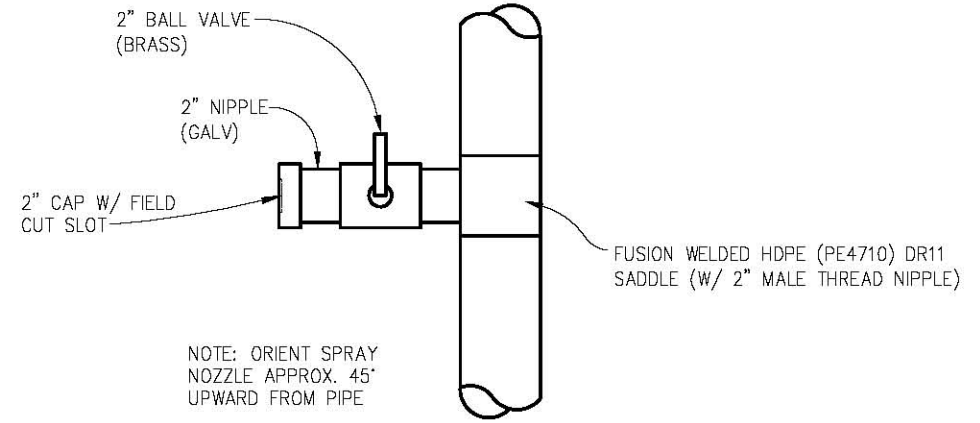


COUNTY OF EL DORADO  
 COMMUNITY DEVELOPMENT AGENCY  
 TRANSPORTATION DIVISION

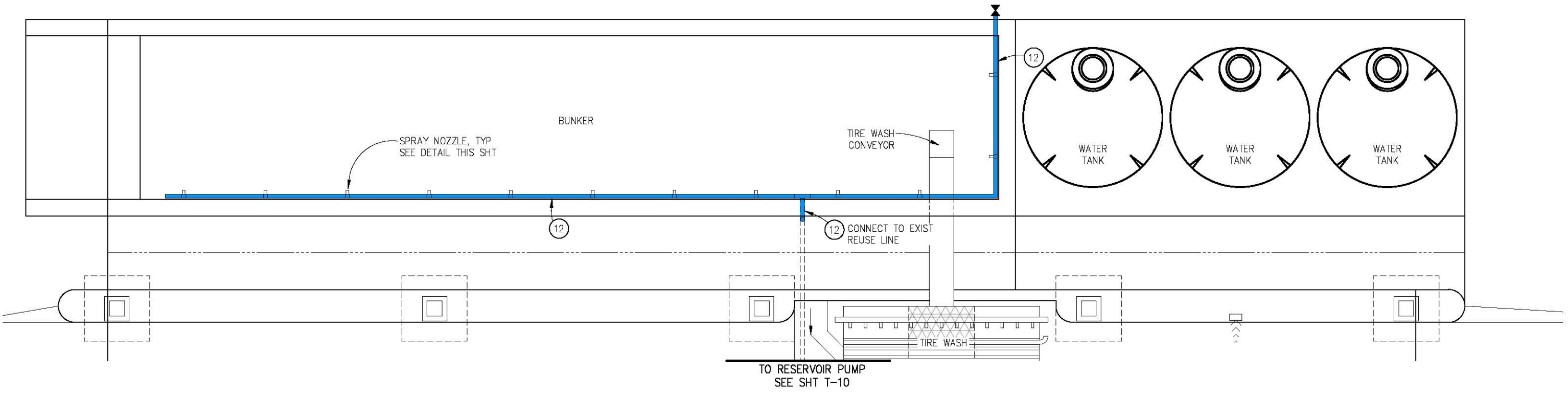
HEADINGTON WASH RACK FACILITY

SHEET  
 T-10  
 26 OF 29  
 W.G. No. 81134

ORIGINAL SCALE IS IN INCHES  
Drawing name: C:\Civil 3D Projects\81134 Headington Corp.\Yard\CADD Files\Sheets\T-Sheets.dwg Layout Tab: T-11 Nov 26, 2019 11:37am Skovley



**SPRAY NOZZLE  
DETAIL**  
NTS



**PLAN**

**PLUMBING SUBSYSTEM**

12 — REUSE LINE

**GENERAL NOTES:**

1. ACTUAL SYSTEM DETAILS BASED ON CONTRACTOR APPROVED SUBMITTALS

(ALTERNATIVE BID ITEM C)  
**TREATMENT PLAN-TIRE WASH BUNKER**  
SCALE : 1" = 3'

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF:  
*[Signature]*  
REGISTERED CIVIL ENGINEER  
DATE: 09/02/16

DESIGNED: JB SGM  
DRAWN: SGM  
CHECKED: JB  
DATE: 08/31/16  
ROAD NUMBER: -








**COUNTY OF EL DORADO  
COMMUNITY DEVELOPMENT AGENCY  
TRANSPORTATION DIVISION**

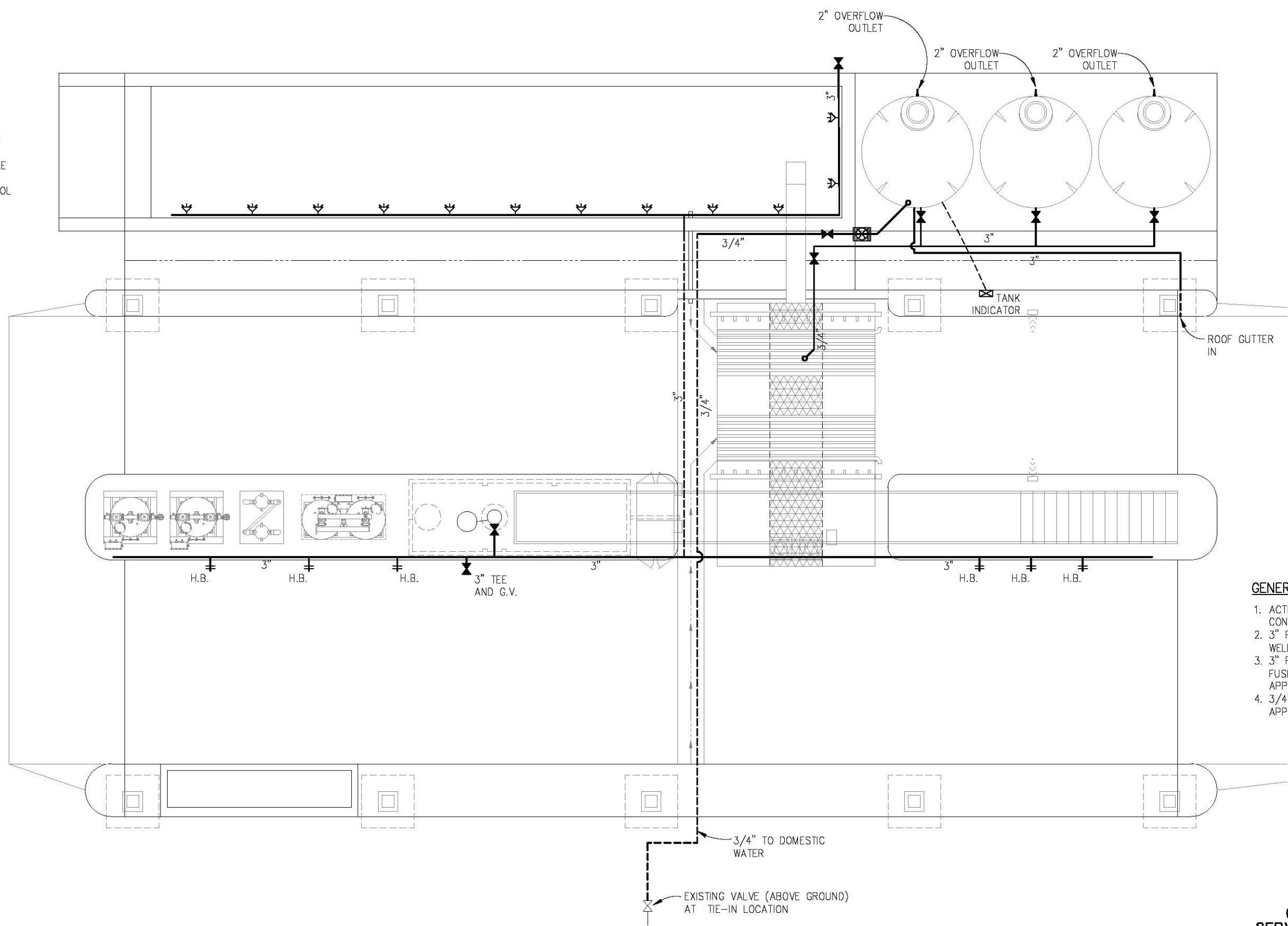
**HEADINGTON WASH RACK FACILITY**

SHEET  
**T-11**  
27 OF 29  
W.G. No. **81134**

ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D Projects\81134 Headington Corp. Yard\CADD Files\Sheets\T-Sheets.dwg Layout Tab: T-12 Nov 26, 2019 - 11:40am SMC/ky  
 FOR REDUCED PLANS

**LEGEND:**

-  — HOSE BIB
-  — GATE VALVE
-  — CHECK VALVE
-  — SPRAY NOZZLE
-  — FLOAT CONTROL

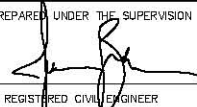


- GENERAL NOTES:**
1. ACTUAL DETAILS BASED ON CONTRACTOR APPROVED SUBMITTALS
  2. 3" PIPE — HDPE (PE4710) DR17 FUSION WELDED PIPE OR APPROVED EQUAL
  3. 3" FITTINGS — HDPE (PE4710) DR11 FUSION WELDED, FLANGED, OR APPROVED EQUAL
  4. 3/4" — HDPE (PE4710) DR 11 OR APPROVED EQUAL

**(ALTERNATIVE BID ITEM C)  
 SERVICE AND REUSE DIAGRAM  
 SCALE : 1" = 4'**

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF:  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/02/16

DESIGNED: JB  
 DRAWN: SGM  
 CHECKED: JB  
 DATE: 08/31/16  
 ROAD NUMBER: -



**COUNTY OF EL DORADO  
 COMMUNITY DEVELOPMENT AGENCY  
 TRANSPORTATION DIVISION**

**HEADINGTON WASH RACK FACILITY**

SHEET  
**T-12**  
 28 OF 29  
 W.G. No. **81134**

ORIGINAL SCALE IS IN INCHES  
 Drawing name: C:\Civil 3D Projects\81134 Headington Corp. Yard\CADD Files\Sheets\T-Sheets.dwg Layout Tab: T-13 Nov 26, 2019 - 11:42am SMeley  
 FOR REDUCED PLANS  
 2  
 1  
 0

PUMP TABLE					
DESCRIPTION	PUMP TYPE	PERFORMANCE REQUIREMENTS MAX GPM + TDH	QUANTITY	AUTOMATION	NOTES
TIRE WASH SYSTEM	30 HP VERTICAL PUMP	SUPPLIED BY TIRE WASH SUPPLIER	1	OPTI-EYE	OPTI-EYE TO START TIRE WASH CYCLE
TREATMENT SYSTEM	5 HP TURBINE PUMP (5 STAGE)	70 GPM AT 60 PSI	1	FLOAT CYCLE COUNTER CONTROLLED AUTO & WITH MANUAL ON/OFF	CYCLE COUNTER TO TURN ON PUMP EVERY 6 TIRE WASH CYCLES, FLOAT CONTROL BASED IN RESERVOIR TANK
REUSE SYSTEM	7.5 HP TURBINE PUMP (6 STAGE)	70 GPM AT 75 PSI	1	VFD	DROP IN PRESSURE OF REUSE LINE TO START VFD WITH PRESSURE TANK

VALVES/PLUMBING TABLE											
SUB-SYSTEM	PIPE TYPE	LENGTH (LF)	FITTINGS (EA)			CHECK VALVES	BUTTERFLY VALVES	GATE VALVES	FLANGES (EA)	HOSE BIBS	SPRAY HEADS
			TEE	90° ELBOW	45° ELBOW						
TIRE WASH TO SAND FILTERS	3" HDPE	42	-	3	2	1	1	-	4	-	-
SAND FILTERS TO BAG FILTERS	3" HDPE	18	2	5	-	-	2	-	6	-	-
BAG FILTERS TO CLAY FILTERS	3" HDPE	26	2	4	2	1	2	-	5	-	-
CLAY FILTERS TO CARBON FILTERS	3" HDPE	10	-	2	-	-	-	-	2	-	-
BAG FILTERS BYPASS	3" HDPE	10	-	2	-	-	1	-	2	-	-
CARBON FILTERS TO RESERVOIR	3" HDPE	19	1	5	-	1	-	-	4	-	-
CLAY & CARBON FILTER BYPASS	3" HDPE	2	-	-	-	-	1	-	2	-	-
SECONDARY FILTRATION BYPASS	3" HDPE	4	-	-	-	1	1	-	4	-	-
SAND FILTERS BACKWASH	3" HDPE	31	-	5	-	-	-	-	2	-	-
CARBON FILTERS BACKWASH	3" HDPE	44	1	4	-	1	-	-	4	-	-
CLAY FILTERS BACKWASH	3" HDPE	13	-	3	-	1	-	-	3	-	-
REUSE LINE	3" HDPE	171	4	2	-	1	1	1	3	6	12
<b>TOTAL</b>		<b>391</b>	<b>10</b>	<b>35</b>	<b>4</b>	<b>7</b>	<b>9</b>	<b>1</b>	<b>41</b>	<b>6</b>	<b>12</b>

**GENERAL NOTES:**

1. ACTUAL QUANTITIES & DETAILS BASED ON CONTRACTOR APPROVED SUBMITTALS
2. ALL VALVES MUST BE FLANGED AND CONSIST OF METAL (DUCTILE, OR APPROVED EQUAL) WITH PROTECTIVE COATING
3. QC WELD LOGS MUST BE MAINTAINED FOR ALL FUSION WELDS TO ENSURE PROPER HEATING & COOLING TEMPERATURES AND TIMES, AND ENSURE CONFORMANCE TO HDPE (PE4710) FUSION WELDING STANDARDS & BEST PRACTICES
4. HDPE SPACERS MAY BE REQUIRED FOR VALVE CONNECTIONS TO ENSURE PROPER OPERATION. CONTRACTOR SUBMITTALS MUST ACCOUNT FOR PROPER SYSTEM OPERATION AND PRODUCT COORDINATION

**(ALTERNATIVE BID ITEM C)  
TREATMENT TABLES  
SCALE: NONE**

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF:  
  
 REGISTERED CIVIL ENGINEER  
 DATE: 09/02/16

DESIGNED: JB	DRAWN: SGM
CHECKED: JB	DATE: 08/31/16
ROAD NUMBER: -	



**COUNTY OF EL DORADO  
COMMUNITY DEVELOPMENT AGENCY  
TRANSPORTATION DIVISION**

**HEADINGTON WASH RACK FACILITY**

SHEET	T-13
29 OF 29	
W.G. No.	81134