

**DESIGN CRITERIA**

APPLICABLE BUILDING CODES  
INTERNATIONAL BUILDING CODE, IBC 2018 EDITION  
WITH WASHINGTON STATE  
ASCE/SEI 7-16 MINIMUM DESIGN LOADS

LIVE LOADS (UNLESS NOTED)  
TRAFFIC LOAD.....H-20

**FOUNDATIONS**

BASED ON:  
PRESUMPTIVE LOAD-BEARING VALUES GIVEN IN IBC TABLE 1806.2 FOR TYPE 4 SOILS:

SOIL BEARING PRESSURE.....2000 PSF  
LATERAL PASSIVE BEARING PRESSURE.....150 PCF  
SOIL ACTIVE PRESSURE, YIELDING WALLS.....35 PCF  
SOIL FRICTION FACTOR, SLIDING.....0.25

CONTINUOUS INSPECTION OF FILL PLACED AND COMPACTED UNDER BUILDING SLAB AND FOOTINGS REQUIRED BY AN APPROVED, INDEPENDENT TESTING AGENCY. FILL SHALL MEET SPECIFICATIONS AND SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY. FILL SHALL BE PLACED IN MAX. 9" LIFTS. DENSITY TESTS SHALL BE TAKEN AT 5-FOOT INTERVALS AROUND THE PERIMETER OF THE PROPOSED STRUCTURE AND AT 10 EVENLY SPACED LOCATIONS UNDER THE SLAB.

**INSPECTIONS**

CONTRACTOR SHALL BE RESPONSIBLE FOR REQUESTING AND COORDINATING REQUIRED BUILDING DEPARTMENT INSPECTIONS. IN ADDITION, SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE TABLE ON THIS SHEET. THESE INSPECTIONS SHALL BE PERFORMED BY A CURRENTLY WABO CERTIFIED INSPECTOR UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER.

THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.

THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OF RECORD, THE ARCHITECT OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE GENERAL CONTRACTOR FOR CORRECTION. THEN, IF NOT BROUGHT INTO CONFORMANCE, NOTIFY ENGINEER OF RECORD AND THE BUILDING OFFICIAL.

THE SPECIAL INSPECTOR SHALL SUBMIT A SEALED FINAL REPORT BY A REGISTERED PROFESSIONAL ENGINEER STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC.

**GENERAL REQUIREMENTS**

SUBMIT ALL REQUIRED SHOP DRAWINGS AND RECEIVE THEIR SATISFACTORY REVIEW FROM THE ENGINEER, PRIOR TO FABRICATION.

VERIFY ALL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE PRIOR TO STARTING WORK AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

PROVIDE TEMPORARY ERECTION BRACING AND SHORING AS REQUIRED FOR STABILITY OF THE STRUCTURE AND ADJACENT STRUCTURES, DURING ALL PHASES OF CONSTRUCTION.

PROVIDE ADEQUATE SUPPORT TO WALLS AGAINST BACKFILL PLACEMENT AND MAINTAIN SUPPORTS UNTIL SUPPORTING STRUCTURES HAVE BEEN INSTALLED.  
SHORING AND TEMPORARY SUPPORTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

REFER TO SPECIFICATIONS FOR INFORMATION NOT CONTAINED IN THESE NOTES.

**CONCRETE**

ALL DETAILING, FABRICATION AND INSTALLATION OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES ACI 315, LATEST EDITION.

CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, LATEST EDITION.

TOLERANCES SHALL CONFORM TO ACI 117, SECTIONS 1 THROUGH 6.

DESIGN STRENGTH  
CAST-IN-PLACE CONCRETE, UNLESS OTHERWISE NOTED:  
BLDG FOUNDATIONS & SLABS.....f<sub>c</sub> = 5000 PSI AT 28 DAYS

REINFORCING  
REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A615, GRADE 60.

REINFORCING STEEL FOR WELDED APPLICATIONS SHALL BE IN ACCORDANCE WITH ASTM A706, GRADE 60.

CONCRETE COVER  
CONCRETE COVER FOR REINFORCING BARS, EXCEPT AS NOTED:  
FOOTINGS AND MATS (CAST AGAINST SOIL).....3"  
CONCRETE IN CONTACT WITH SOIL, WEATHER.....2"  
CONCRETE NOT EXPOSED TO SOIL, WEATHER.....1½"  
BEAMS AND COLUMNS (TO STIRRUPS).....1"

PROVIDE 3/4" CHAMFER AT ALL EXPOSED EDGES AND OUTSIDE CORNERS.

DOWELS AND CORNER BARS  
ALL HORIZONTAL BARS SHALL BE CONTINUOUS AROUND CORNERS AND THROUGH PILASTERS. PROVIDE DOWELS AND CORNER BARS FOR ALL COLUMN AND WALL REINFORCEMENT, AT LEAST THE SAME SIZE AND SPACING AS BARS WITH WHICH THEY ARE LAPPED. LAP SPLICES AND EMBEDMENT SHALL BE PER ACI 318, OR AS NOTED. PROVIDE TWO ADDED VERTICAL BARS AT ALL WALL INTERSECTIONS.

BAR SPLICES  
LAP REINFORCING STEEL PER SCHEDULE. SEE SHEET S0.003 DETAIL 4. THE LENGTH OF LAP SPLICE OF BARS OF DIFFERENT DIAMETER SHALL BE BASED ON THE SMALLER DIAMETER. BAR SPLICES MAY ALSO BE MADE BY WELDING IN ACCORDANCE WITH THE DETAILS FOR REINFORCING STEEL SPLICE AND WITH AWS D1.4 WELDING CODE. WHERE REINFORCING BARS CANNOT BE DEVELOPED DUE TO TO THE LIMITED EXTENT OF THE CONCRETE STRUCTURE, THE BARS SHALL EXTEND AS FAR AS POSSIBLE AND END IN STANDARD HOOKS.

HOOKS ARE ACI 318 STANDARD UNLESS NOTED.

ANCHOR BOLTS  
ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GRADE 55. (GALVANIZED UNLESS OTHERWISE NOTED).  
EMBEDDED END TO HAVE SQUARE OR HEX HEAD OR 3 DIAMETER HOOK.  
MINIMUM EMBEDMENT SHALL BE 8 BOLT DIAMETERS.

DRILLED-IN EXPANSION BOLTS  
EXPANSION BOLTS SHALL BE "KWIK BOLTS" BY HILTI CORP., OR APPROVED EQUAL. ICC CERTIFICATION IS REQUIRED. MINIMUM SPACING SHALL BE 12 BOLT DIAMETERS AND MINIMUM EDGE DISTANCE 6 BOLT DIAMETERS UNLESS NOTED OTHERWISE. MINIMUM EMBEDMENT IN STRUCTURAL CONCRETE SHALL BE 7 BOLT DIAMETERS.

ADHESIVE ANCHORING SYSTEM  
REINFORCING BARS AND RODS ANCHORED INTO EXISTING CONCRETE SHALL BE IN DRILLED HOLE WITH HILTI "HVU" CAPSULE, OR SIKA "SIKADUR" EPOXY INJECTION GEL OR APPROVED ICC CERTIFICATION IS REQUIRED. MINIMUM EMBEDMENT IN STRUCTURAL CONCRETE SHALL BE 8 BOLT DIAMETERS.

**STEEL**

MATERIAL:  
STRUCTURAL SHAPES SHALL CONFORM TO ASTM A992 (A572/50).  
PLATES, ANGLES, CHANNELS, AND S-SHAPES SHALL CONFORM TO ASTM A36.  
TUBES (HSS), SHALL CONFORM TO ASTM A500, GRADE C.  
PIPES SHALL CONFORM TO ASTM A53, GRADE B.

BOLTED CONNECTIONS:  
BOLTS SHALL CONFORM TO ASTM A325, BEARING TYPE N UNLESS NOTED OTHERWISE. TENSION LIMITED SLIP BOLTS (WHERE NOTED) SHALL BE INSTALLED WITH TENSION INDICATOR WASHERS.

ALL CONNECTIONS NOT SPECIFICALLY DETAILED SHALL CONFORM TO THE FOLLOWING:  
A. BEAM END CONNECTIONS SHALL USE 2 VERTICAL ROWS OF BOLTS.  
B. MINIMUM THICKNESS OF GUSSET PLATES, BEAM END PLATES OR CONNECTION ANGLES SHALL BE 3/8".  
C. THE MINIMUM CONNECTION SHALL CONSIST OF 2 BOLTS.

MACHINE BOLTS SHALL BE ASTM A307 AND SHALL BE PROVIDED WITH LOCK WASHERS UNDER NUTS OR SELF LOCKING NUTS.

WELDING:  
ALL WELDING SHALL CONFORM TO AWS D1.1 WELDING CODE. MINIMUM SIZE WELDS 3/16" CONTINUOUS FILLET.

ALL STEEL SHALL RECEIVE SSPC SP6 COMMERCIAL BLAST CLEANING AND BE SHOP PRIMED AFTER FABRICATION UNLESS NOTED OTHERWISE.

**SPECIAL INSPECTION SCHEDULE**

ITEM	CI	PI	REMARKS/REFERENCES
<b>GENERAL:</b>			
PREFABRICATED ITEMS		X	
SITE PREPARATION, FILL PLACEMENT, SOIL COMPACTION	NA		BY GEOTECHNICAL ENGINEER OR AN APPROVED TESTING AGENCY
<b>CONCRETE:</b>			
REINFORCING MATERIALS & PLACEMENT		X	IBC TABLE 1705.3, ACI 318-2014
WELDING - REINFORCING		X	ASTM AS NOTED, ACI 318 CHAPTER 20.25 & 26.6
ANCHOR RODS, EMBEDDED BOLTS & INSERTS	X		AWS D1.4
POST-INSTALLED ANCHORS			PRIOR TO AND DURING CONCRETE PLACEMENT
ADHESIVE ANCHORS	X		ACI 318 26.7
MECHANICAL ANCHORS		X	ACI 318 17.8.2.4
USE OF REQUIRED MIX DESIGN		X	ACI 318 26.4
CONCRETE SLUMP, AIR CONTENT, TEMPERATURE & TEST SPECIMENS	X		WHILE MAKING SPECIMENS FOR STRENGTH TESTS, ACI 318 5.6
CONCRETE PLACEMENT	X		ACI 318 5.9, 5.10
CONCRETE CURING		X	ACI 318 5.11, 5.13
<b>STEEL:</b>			
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS:			
A. IDENTIFICATION TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS		X	SECTION A3.4; AISC LRFD, SECTION A3.3
2. INSPECTION OF HIGH-STRENGTH BOLTING:			
A. BEARING-TYPE CONNECTIONS.		X	AISC LRFD SECTION M2.5
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL:			
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.		X	ASTM A 6 OR ASTM A 568
4. INSPECTION OF WELDING:			
1. COMPLETE AND PARTIAL PENETRATION GROOVE WELDS.		X	AWS D1.1
2. SINGLE-PASS FILLET WELDS ≤ 5/16"		X	AWS D1.1
5. INSPECTION OF STEEL FRAME JOINTS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS.		X	

**INSPECTION SCHEDULE NOTES**

- ITEMS MARKED WITH AN "X" REQUIRE INSPECTION BY A SPECIAL INSPECTOR APPROVED BY THE BUILDING OFFICIAL.
- ITEMS MARKED "NA" ARE NOT APPLICABLE TO THIS PROJECT.
- CI = CONTINUOUS INSPECTION DURING PROGRESS OF WORK BY SPECIAL INSPECTOR.
- PI = PERIODIC INSPECTION BY SPECIAL INSPECTOR AS REQUIRED TO CONFIRM CONFORMANCE OF WORK.
- TESTING AND INSPECTION REPORTS SHALL BE SUBMITTED TO THE ENGINEER, BUILDING OFFICIAL AND CONTRACTOR.

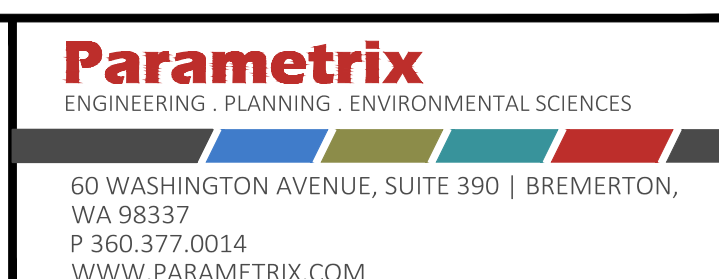
**FINAL SUBMITTAL**

LAYOUT: S1  
 PATH: U:\PSO\Projects\Clients\1578-KitsapCo\214-1578-161 OnCall Road Design\995vcs\CADD\DWG\Task 01  
 PLOTTED BY: peterden DATE: Monday, July 24, 2023 2:34:49 PM

REVISIONS	DATE	BY	DESIGNED
			J. LINKE
			D. PETERSON
			S. WAGNER
			K. HUFNAGEL

**ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY**

FILE NAME: PS1578161-S1  
 JOB No.: 553-1578-161  
 DATE: JULY 2023



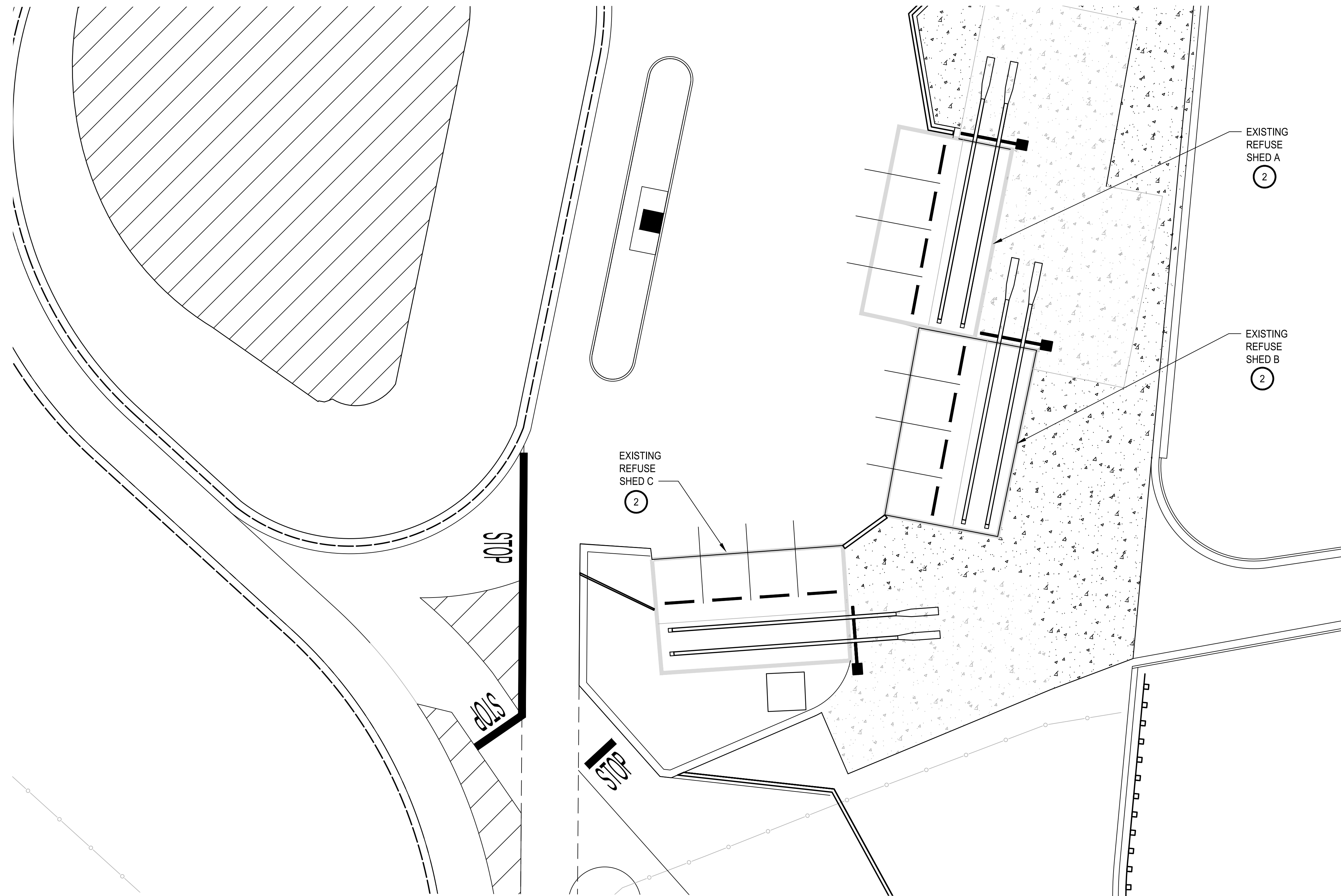
PROJECT NAME  
**SILVERDALE RECYCLING AND GARBAGE FACILITY RAIL REPAIR**  
KITSAP COUNTY, WASHINGTON

**STRUCTURAL NOTES**

DRAWING NO.  
1 OF 3  
**S1**



LAYOUT: S2 PATH: U:\PSO\Projects\Clients\1578--KitsapCo\214--1578--161 OnCell Road Design\995ves\CADD\DWG\Task 01 PLOTTED BY: peterden DATE: Monday, July 24, 2023 2:37:27 PM



- NOTES:**
1. CONTRACTOR SHALL VERIFY DIMENSIONS, ELEVATIONS, AND LOCATIONS PRIOR TO CONSTRUCTION.
  2. RAIL REPLACEMENT INFORMATION AND DETAILS ON SHEET S3.

**PLAN**  
SCALE: 1/16" = 1'-0"



**FINAL SUBMITTAL**

REVISIONS	DATE	BY	DESIGNED
			J. LINKE
			D. PETERSON
			S. WAGNER
			K. HUFNAGEL

**ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY**

FILE NAME: PS1578161-S2  
JOB No.: 533-1578-161  
DATE: JULY 2023



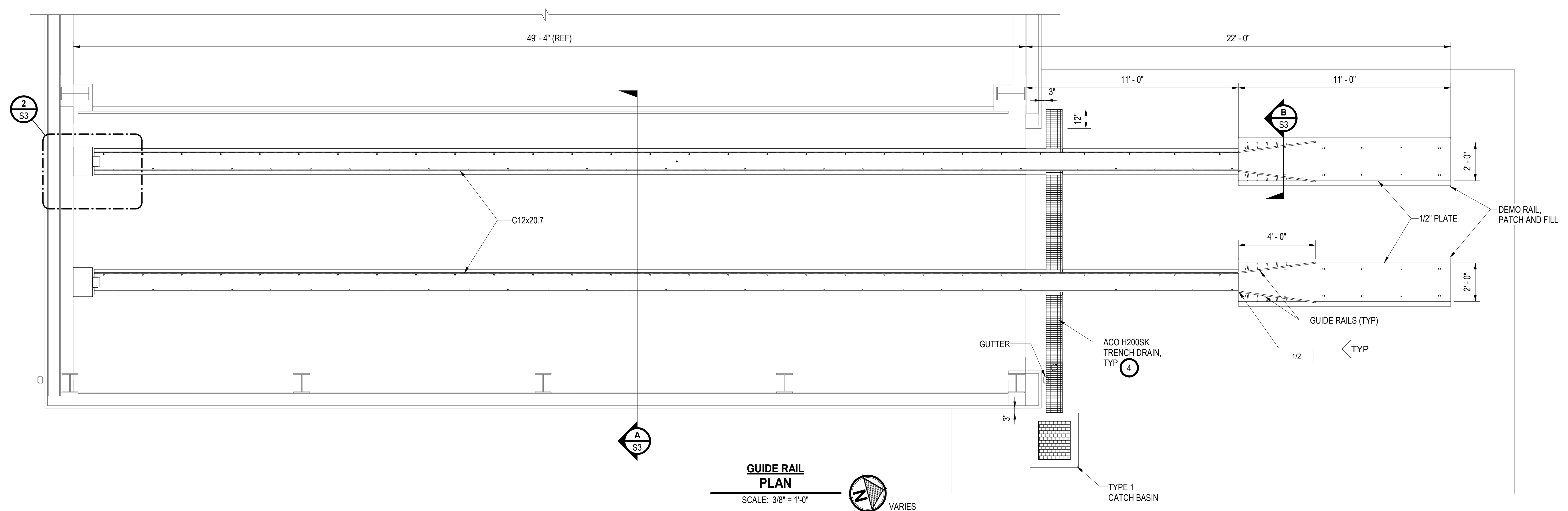
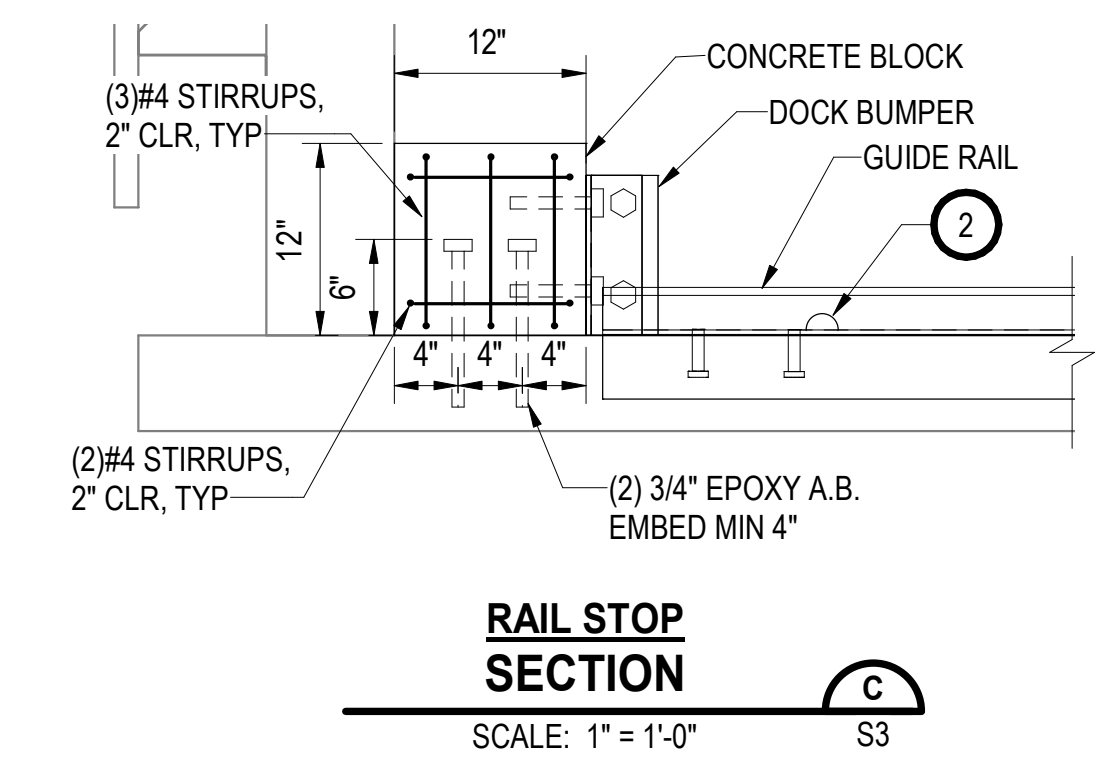
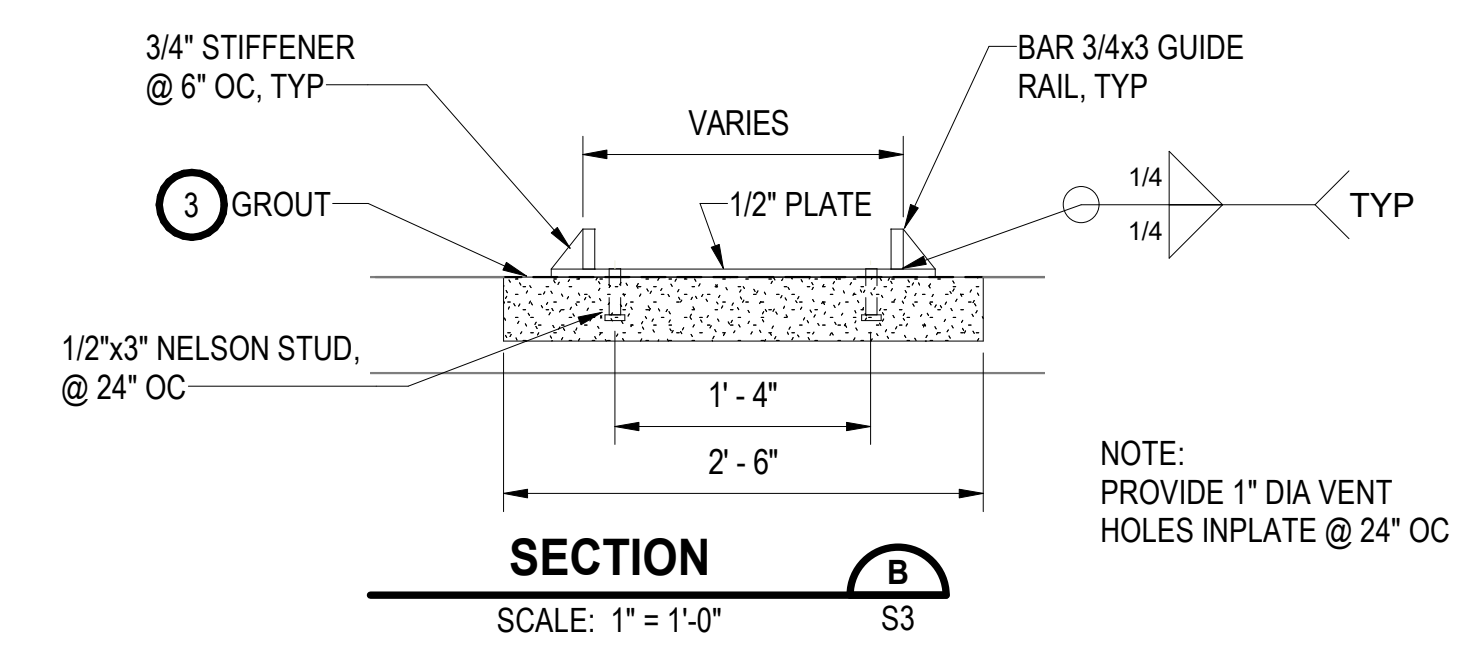
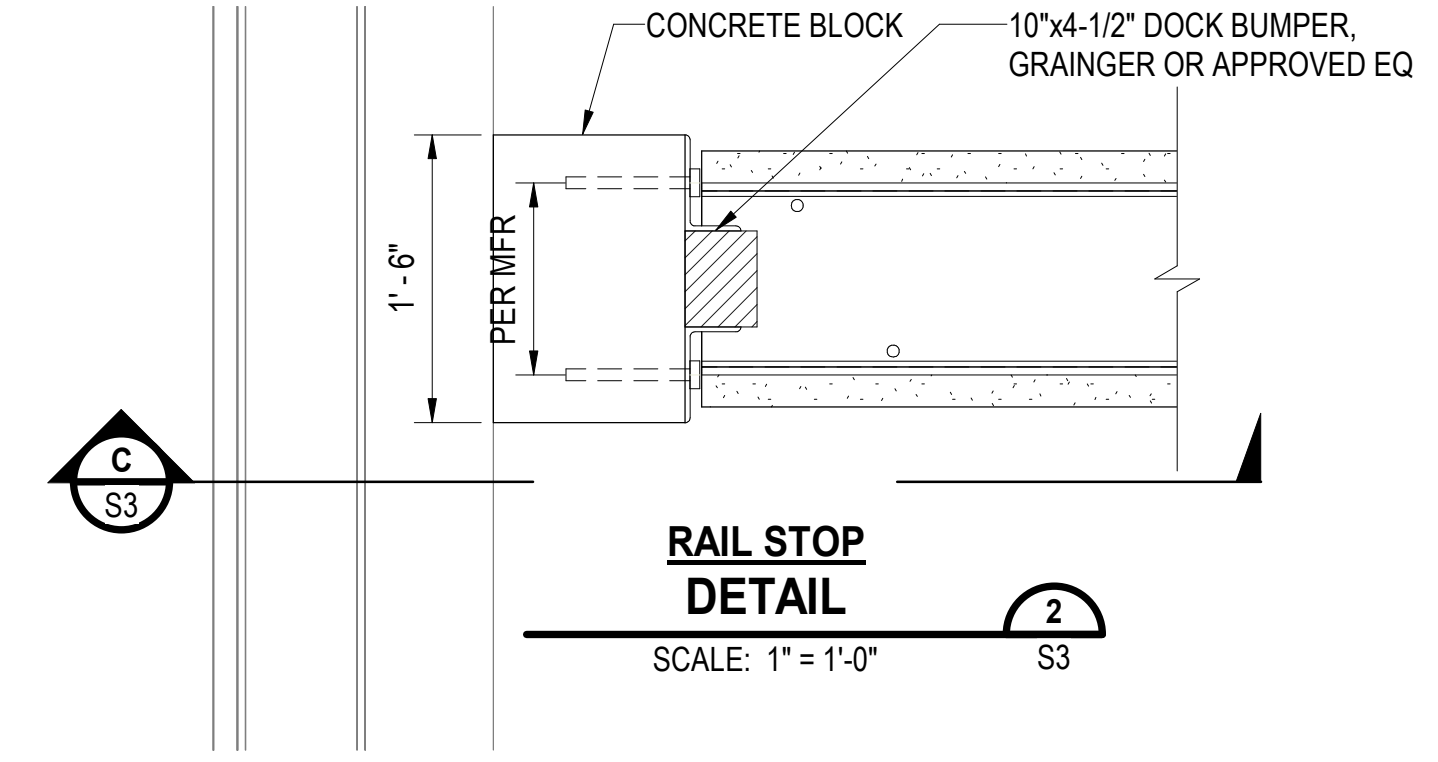
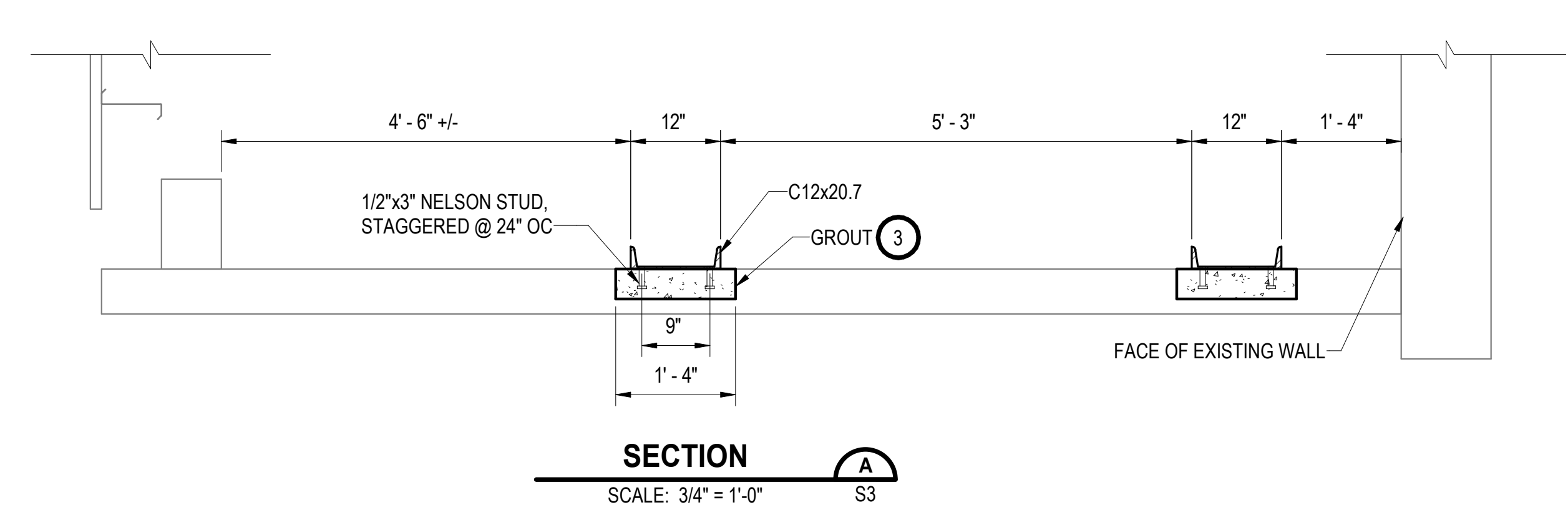
PROJECT NAME  
**SILVERDALE RECYCLING AND GARBAGE FACILITY RAIL REPAIR**  
KITSAP COUNTY, WASHINGTON

**SITE PLAN**

DRAWING NO.  
2 OF 3  
**S2**

**NOTES:**

1. CONTRACTOR SHALL VERIFY DIMENSIONS, ELEVATIONS AND LOCATIONS PRIOR TO CONSTRUCTION.
2. 1" DIA WEEP HOLES @ 48" OC IN CHANNEL FLANGE BOTH SIDES FLUSH WITH WEB OF CHANNEL.
3. SAWCUT AND CHIP OUT EXISTING CONCRETE UNDER EXISTING RAILS, 4" DEEP. ROUGHEN AND CLEAN. FILL WITH HIGH STRENGTH GROUT PER SPEC.
4. RUN TRENCH DRAIN UNDER RAILS. PROVIDE IRON SLOTTED TRENCH GRATING, BREAK GRATING AT RAILS. NELSON STUDS TO BE 3" CLR FROM TRENCH DRAIN.
5. PROVIDE WSDOT TYPE 1 CATCH BASIN PER STANDARD PLAN B 5.20-03 AS WELL AS A RECTANGULAR FRAME PER STANDARD PLAN B-30.10-03 AND A SOLID METAL COVER PER STANDARD PLAN B-30.20-04. CATCH BASIN TO BE MINIMUM 3" CLEAR OF EXISTING COLUMN FOOTINGS.
6. PROPOSED WORK AT EXISTING SHED C (NEW SHED D) SHALL ONLY OCCUR OUTSIDE OF THE SHED WITH THE TRENCH DRAIN AND NEW RAILS BEYOND. NEW CHANNELS TO MATCH FLUSH WITH EXISTING RAILS.



REVISIONS	DATE	BY	DESIGNED
			J. LINKE
			D. PETERSON
			S. WAGNER
			K. HUFNAGEL

ONE INCH AT FULL SCALE.  
IF NOT, SCALE ACCORDINGLY

FILE NAME: 2141578161.rvt  
JOB No: 214-1578-161  
DATE: JULY 2023



PROJECT NAME  
**SILVERDALE RECYCLING AND GARBAGE FACILITY RAIL REPAIR**  
KITSAP COUNTY, WASHINGTON

**REFUSE SHED PLAN, ELEVATION AND DETAIL**

DRAWING NO.  
3 OF 3  
**S3**

FINAL SUBMITTAL