PROJECT NO. F0010-F001051
WJE PROJECT NO. 2019.3776.3

PERSIGO WASTE WATER TREATMENT PLANT

FLOW EQUALIZATION BASIN - DIVIDING WALL REBUILD

Owner: City of Grand Junction
Grand Junction, Colorado

Owners Representative: Kirsten Armbruster
970.244.1421
kirstena@gjcity.org

Engineer-of-Record: Wiss, Janney, Elstner Associates, Inc. (WJE)
3609 South Wadsworth Boulevard, Suite 400
Lakewood, Colorado 80232

Engineer-of-Record Representative: Mr. Terry McGovern, PE
303.914.4300
tmcgovern@wje.com

Project Address: Persigo Wastewater Treatment Plant
2145 River Road
Grand Junction, Colorado 81505

FLOW EQUALIZATION BASIN REPAIR SCOPE

The repairs at the Flow Equalization Basin include, but are not limited to, removal and replacement of the south and north dividing wall.

North Dividing Wall:
The north dividing wall shall be completely removed and replaced (including the catwalk).

South Dividing Wall:
The south concrete dividing wall shall be repaired by complete removal and replacement. During the replacement, the new wall shall have a catwalk added to the top of the wall. Remove and dispose of all concrete wall debris from south wall collapse from Cell 2 & 3. Scope also includes removal of damaged aeration machines.

SPECIAL CONSIDERATIONS

The Flow Equalization Basin will be partially taken out of service during the repairs and cleaned by the city prior to work starting. There are weight restrictions which limit the equipment that can be used to perform the work within the basin and how close certain equipment can get to the perimeter of the tank basin. Work must be completed in full on the north dividing wall prior to proceeding with work on the south dividing wall. Limiting the time of shutdown to the FEB is critical to the Owner. Contractors shall take reasonable steps to limit shutdown time.

DRAWING SUBMITTALS

A. Calculations and plans for surcharge loading for heavier equipment, if proposed.
B. Calculations for equipment proposed for use on the slab.
C. Shutdown Plan with bid.

REQUIRED MOCKUP SUMMARY

Surface preparation and evaluation of the existing reinforcing shall be required prior to the first placement of the north wall and south wall.

GENERAL NOTES

A. Drawings and associated Specifications (referred to in general as the Construction Documents) apply only to the specific project identified in Titleblock, and shall not be used for any other purpose without specific written consent of Engineer, Engineer's sub-consultants, and Owner. Any unauthorized use of Engineer's work product shall be at user's sole risk and user shall indemnify Engineer against any liability or legal exposure related to the unauthorized use.
B. Drawings and Specifications are complementary, are to be taken as a whole, and should include sufficient information necessary for the execution and completion of the work in a manner consistent with the design intent. In the absence of explicit or reasonably inferable information on drawings or in specifications, promptly seek clarification from Engineer as a request for information.
C. Contractor is solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Work. Engineer has no such responsibilities beyond its own employees.
D. In an emergency affecting safety of persons or property, act to prevent or stop further damage, injury, or loss.
E. If a hazardous material or substance not addressed in the Construction Documents is encountered, immediately stop work in affected area and notify Owner and Engineer of the condition.
F. Temporarily relocate and restore existing equipment and appurtenances (whether or not shown on the drawings) that obstruct access to portions of the Work. Notify and coordinate with Owner prior to doing so.
G. Develop, implement, erect, and maintain safeguards to prevent damage, injury, or loss resulting from the work to (a) workers, occupants, passers-by, and other persons; (b) in-progress work, materials, and equipment under care, custody, and control of the contractor (whether on or off site); and (c) other property at the site or adjacent thereto not designated as part of the work for removal, relocation, or replacement. In the event of damage, injury, or loss, promptly notify Engineer and Owner and present proposed remedy. All damage to these elements must be repaired to the satisfaction of the Owner.
H. Promptly correct work rejected by Engineer or failing to conform to requirements of the Construction Documents. Associated costs (including additional testing or inspections, cost of uncovering and correction, and compensation for Engineer's services and expenses made necessary thereby) shall be the Contractor's responsibility.
I. Dimensions, quantities, and geometries provided for existing construction are based on original drawings and limited field documentation by Engineer. Field verify applicable information prior to submitting a bid, ordering materials, or otherwise committing resources to the Work. Provided dimensions take precedence over scaled dimensions. Dimensions of the new construction shall be adjusted as necessary to fit the existing conditions. The Engineer shall be notified in writing of any significant deviations from the dimensions or conditions shown on these drawings.
J. Drawings illustrate the completed work with elements in their final intended positions. Provide shoring, bracing, support, and sequence work as required to maintain the structural integrity of new or existing construction during the work.
K. Contractor is solely responsible for, and shall have sole control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the work. Engineer has no such responsibilities. Specific instruction that may be given in Construction Documents concerning construction means, methods, techniques, sequences, or procedures shall not relieve contractor of its responsibility for control and coordination.
L. Provide labor, materials, equipment, supervision, and coordination directly and incidentally necessary to perform the work in accordance with Construction Documents.
M. Promptly report to Engineer as a request for information known or suspected errors, inconsistencies, or omissions within or between Construction Documents, as well as known or suspected variance of the Construction Documents from existing conditions. Await direction from Engineer prior to proceeding with Work. For bidding purposes only, and unless otherwise directed by Engineer, the more stringent requirement or better quality shall take precedence as determined by Engineer.
N. Activities or duties of Engineer, or tests, inspections, or approvals required or performed by third parties shall not relieve Contractor of its obligation to perform the Work in accordance with Construction Documents.
O. Secure and pay for all permits, fees, licenses, and inspections by government agencies necessary for proper and compliant execution and completion of the work. Contractor shall be properly licensed to perform the specified Work.
P. Comply with and give notices required by laws, statutes, ordinances, codes, rules and regulations, and lawful orders of authorities having jurisdiction applicable to the Work.
Q. The Work will be performed at an occupied and operational facility. Coordinate construction activities and procedures with Owner to (a) maintain unobstructed existing means of egress from facility; (b) comply with facility's existing security procedures and requirements; and (c) provide not less than 48 hours advance notice to and gain approval from Owner prior to construction activities that will disrupt normal use of facility (including exceptional noise and/or vibrations, uncontrolled dust, obtrusive odors, or interruptions of utilities). Work not coordinated and approved in advance that disrupts the normal use of the facility may be stopped until proper coordination and approval is achieved. Contractor shall be responsible for any costs incurred as a consequence of stoppage.
R. Coordinate locations of on-site storage of materials and equipment with Owner so as to not unreasonably encumber facility or site. Do not allow construction materials, equipment, or procedures to overload or exceed the structural capacity of existing construction to remain, partially completed work, or completed work. Make inspections and/or perform analyses and tests necessary to verify that existing elements have adequate capacity to support proposed construction loads.

BUILDING CODES AND LOADS

A. Original Building Code Under Which the Structure was Constructed: Not Specified
B. Original Construction Documents prepared by Henningson, Durham and Richardson, Inc. dated January 1980, are available for review from Owner's Representative.
C. Current Building Code and Basis for Repair Work: The 2018 International Building Code (IBC), as adopted by the Mesa County Building Inspection Department, shall serve as the Governing Building Code.
D. Concrete Building Codes:
   1. ACI 318-14 for miscellaneous structural elements.
   2. ACI 350-06 for liquid containing elements only.
D. Rebuild Live Loads:
   1. Corridors and Walkways 100psf
   2. Stairs 100psf
E. Fluid Loads (New Design):
   1. 64 PCF for Wastewater

INSPECTIONS AND OBSERVATIONS

A. Observations are performed by the Engineer, or licensed design professional.
B. Special Inspections shall be performed by a qualified Testing Agency or Special Inspector. Additional inspections may be performed by the local building authority.
C. All construction shall be subject to review (observation) by the Engineer before it is concealed from view. Coordinate expected review items with the Engineer prior to the start of construction. Provide reasonable notification to the Engineer to allow for such review as the Work proceeds, 48 hours minimum unless noted otherwise.
D. Contractor to pay for and provide access for all inspections and observations, regardless of the entity retaining such services.

MATERIAL PROPERTIES

A. Original Construction (Per Sheet 15 of Original Drawings)
   1. Concrete Compressive Strength (f'c) 4000 psi at 28 days using normal weight aggregate.
   2. No. 4 and larger reinforcing steel ASTM A615-76a Grade 60.
B. Repair Construction
   1. Minimum concrete compressive Strength (f'c) 5000 psi at 28 days using normal weight aggregate.
   2. All reinforcing steel shall be ASTM A615 Grade 60 unless specifically noted otherwise.

Special Inspection Schedule

Verification and Inspection	Frequency	Inspector	Reference Standard(s)
Concrete Construction, Including Concrete Repairs (IBC Table 1705.3)			
Inspection of Reinforcing Steel Preparation and Placement	Prior to Each Placement	Special Inspector	ACI 318: CH 20, 25.2, 25.3, 26.6.1-26.6.3
Verifying use of Approved Material	With Fresh Material Testing	Special Inspector	ACI 318 CH 19, 26.4.3, 26.4.4
Fresh Cementitious Material Testing	First truck & every 4th truck thereafter	Special Inspector	ASTM C172, ASTM C31, AND ACI 318: 26.5, 26.12
Inspection for Installation and Maintenance of Specified Curing Temperature and Techniques	At each visit for other reasons	Special Inspector	ACI 318: 26.5.3-26.5.5
Mixing, Conveying, Depositing and Curing Concrete or Repair Materials	Once Each Placement Shift	Special Inspector	ACI 318: 26.5.2, 26.5.3
Verify weldability of reinforcing bars other than ASTM A706	Prior to start of Welding	Special Inspector	AWS D1.4 AND ACI 318: 26.6.4
Inspect single-pass fillet welds, maximum 5/16"	Prior to Each Placement	Special Inspector	AWS D1.4 AND ACI 318: 26.6.4
Inspect all other welds	Prior to Each Placement	Special Inspector	AWS D1.4 AND ACI 318: 26.6.4

Notes:
1. Reference ACI 318 2014 Edition for Special Inspection Requirements.
2. All special inspections shall be performed by a qualified Testing Agency or Special Inspector Retained by the Owner.
3. All reports shall be provided DIRECTLY to the Contractor, Owner and Engineer, for information only.

SHORING

A. Reference Section 03 01 01 for additional requirements.
B. Shoring shall be designed by a Professional Engineer licensed in Colorado.
C. Design Loads (Each Location, Ultimate)
   1. Dead Load: Self Weight
   2. Construction Live Load: 20 psf minimum. Contractor shall increase based on equipment and means and methods employed.
   3. Wind Load: (ASCE 7-16, ASCE 37-14)
      a. V = 105 mph
      b. Exposure = C
D. Soil loading per WJE Geotechnical Report dated October 22, 2019.

WATER TIGHTNESS TESTING

A. After the tanks have been cured, Cell 2 shall be filled with water to the maximum design height. The cell shall remain full at this level for a period of 72 hours. At the 72 hour mark, all exposed wall surfaces shall be inspected for leakage. Leakage shall be acceptable if there are no damp spots (or areas where moisture can be transferred to a dry hand). Perform water tightness testing after new walls have been constructed.
B. If water tightness testing is not passed, water shall be allowed to sit in the tank for an additional period of time up to 14 days. The contractor shall be responsible for correcting leaks in the new work by injection or other means. Submit leak correction procedure to the Owner and Engineer for approval. An allowance for addressing leaks due to concrete cracks shall be provided with the bid. Leaks due to faulty construction joints (water stops) or poor consolidation are responsibility of the Contractor.

Quality Control Testing Summary

Item or Test	Keyed Note(s)	Frequency	Reference Specification Section(s)	Reference Standard(s)
Sealant Adhesion Testing	N/A	See Specification	07 92 00	ASTM C1521

Notes:
1. This testing shall be performed by the Testing Agency, Coating Inspector or Engineer, with assistance from the Contractor as noted in the Specification Sections.

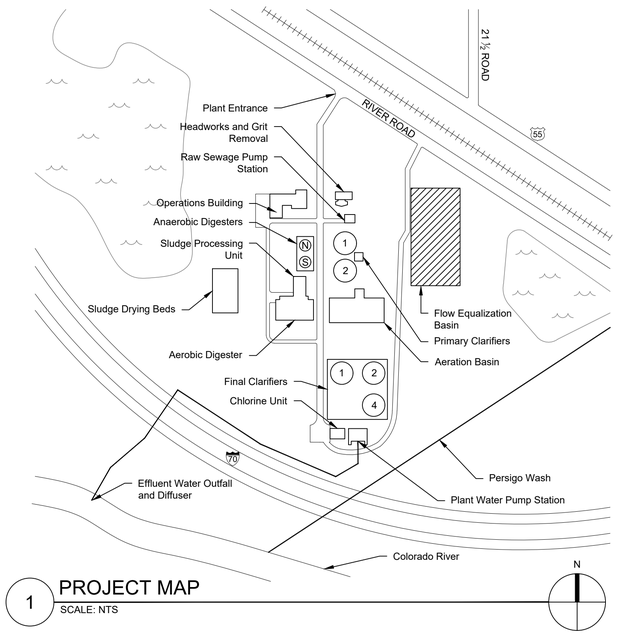
ABBREVIATIONS:

CIP	CAST-IN-PLACE
CL	CENTER LINE
CLR	CLEAR
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
EF	EACH FACE
EL	ELEVATION
EW	EACH WAY
EXT	EXTERIOR
(E)	EXISTING
FV	FIELD VERIFY
HORIZ	HORIZONTAL
JT	JOINT
MAX	MAXIMUM
MIN	MINIMUM
(N)	NEW
NTS	NOT TO SCALE
OC	ON CENTER
RE	REFERENCE
REQ'D	REQUIRED
SIM	SIMILAR
SF	SQUARE FEET
TYP	TYPICAL
VERT	VERTICAL
w/	WITH

INDEX TO DRAWINGS:

SYMBOLS LEGEND:

EXISTING DRAIN
EXISTING PIPE PENETRATION
MAXIMUM DESIGN FLUID LEVEL
SOIL/EARTH
GROUND WATER ELEVATION
LOAD RESTRICTION ZONE



1 PROJECT MAP
SCALE: NTS

DESCRIPTION	DATE
REVISION 1	
REVISION 2	
REVISION 3	
REVISION 4	

DRAWN BY BRS/CRS DATE 04/07/21
DESIGNED BY TMM DATE 04/07/21
CHECKED BY CJL/KT DATE 04/07/21
APPROVED BY TMM DATE 04/07/21

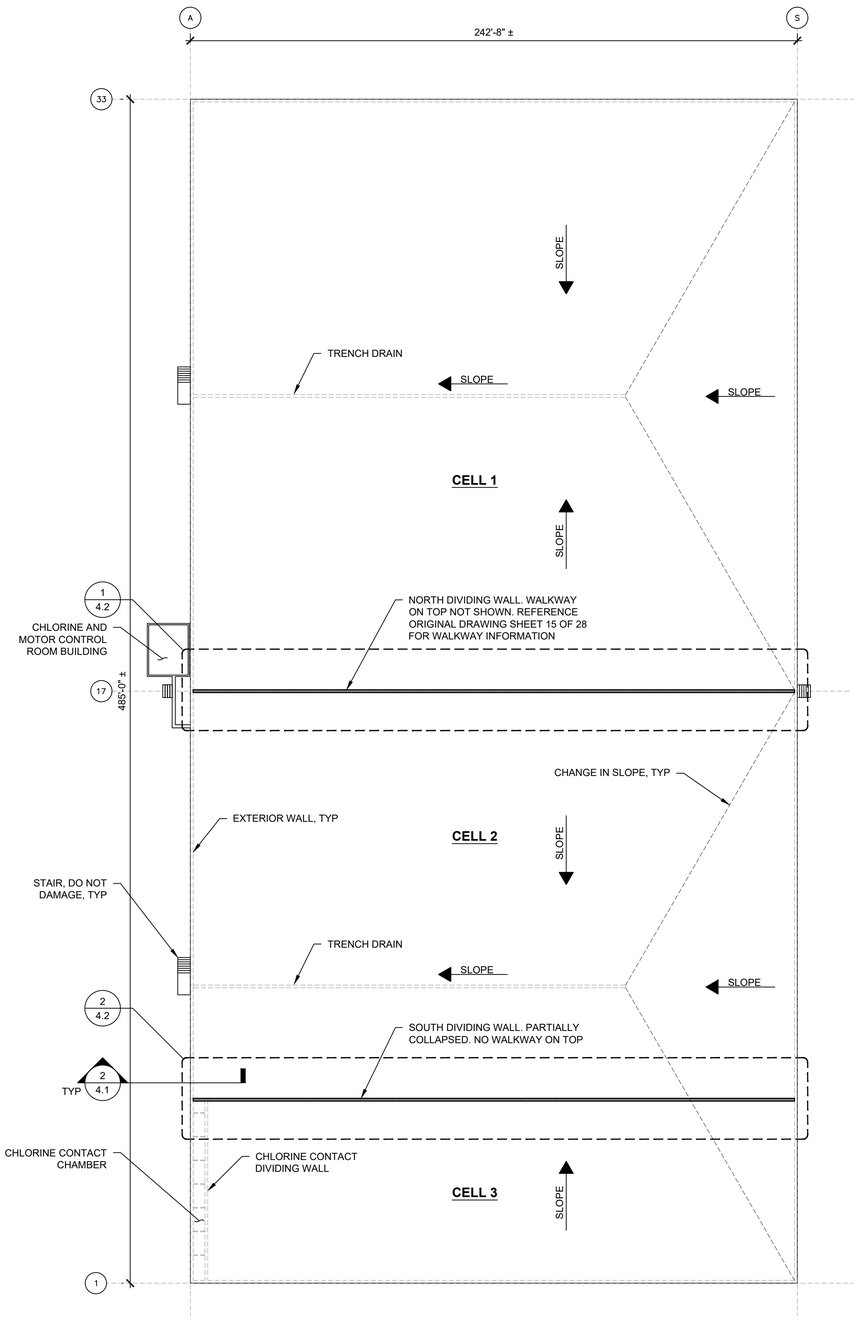
SCALES: AS NOTED
0 1/2" 1" 2"
THIS SHEET PLOTS FULL SIZE AT 22x34 (INCHES)

CITY OF Grand Junction COLORADO

WJE
Wiss, Janney, Elstner Associates, Inc.
Engineers, Architects, Materials Scientists
3609 S. Wadsworth Boulevard, Suite 400
Lakewood, Colorado 80235

FLOW EQUALIZATION BASIN
COVER SHEET

4.0

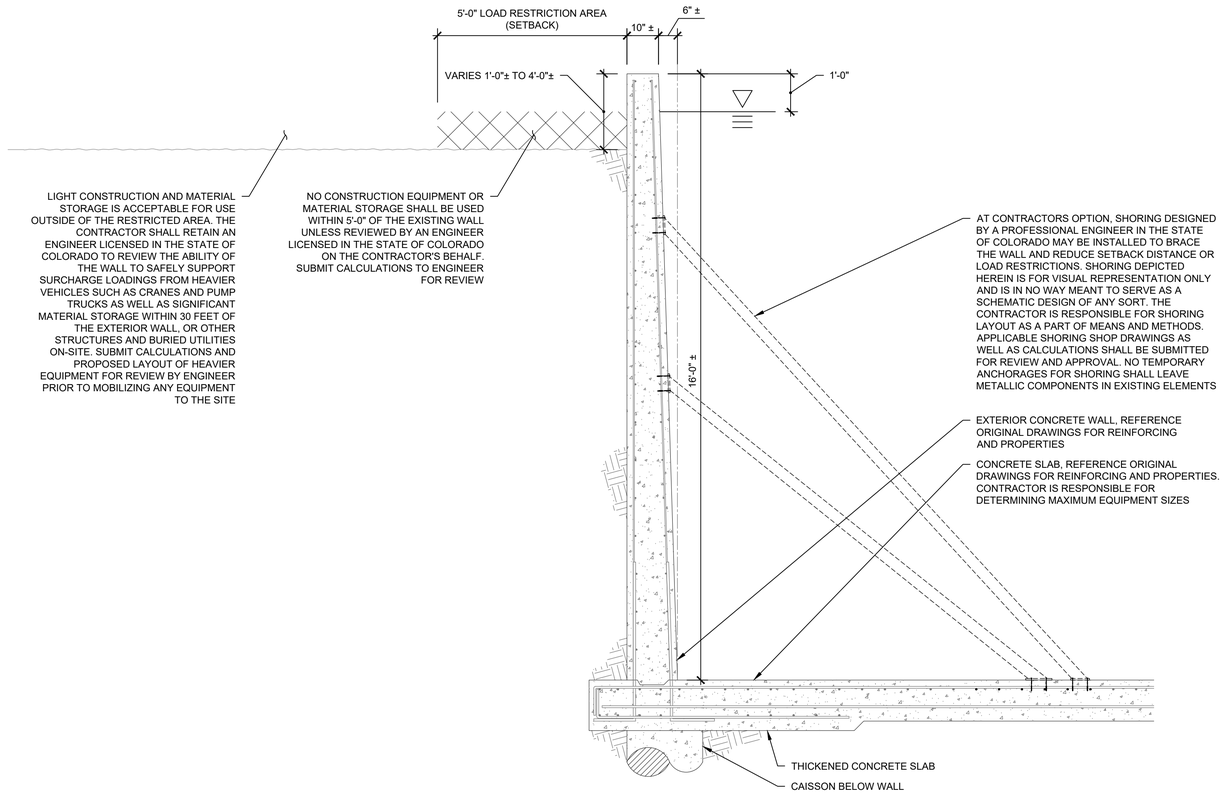


1 Flow Equalization Basin Plan

SCALE: 3/32" = 1'-0"

PLAN NOTES:

1. REFERENCE ORIGINAL DRAWING SHEETS 2,8,12,13,14,15,16,17,18,19 AND 20 OF 28 FOR ADDITIONAL INFORMATION.
2. SLOPES AND ELEVATIONS TO MATCH ORIGINAL AS SHOWN ON ORIGINAL DRAWING SHEETS 17,18 AND 19 OF 28.



2 Perimeter Wall Section and Setback Requirements

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

DETAIL NOTES:

1. REFERENCE ORIGINAL DRAWING SHEETS 12, 13 AND 15 OF 28 FOR ADDITIONAL INFORMATION.
2. SLAB CONSISTS OF 12" THICK TWO-WAY CONVENTIONALLY REINFORCED CONCRETE.
3. REFERENCE WJE GEOTECHNICAL INVESTIGATION REPORT DATED OCTOBER 22, 2019 FOR ADDITIONAL INFORMATION.

DESCRIPTION	DATE
REVISION 1	
REVISION 2	
REVISION 3	
REVISION 4	

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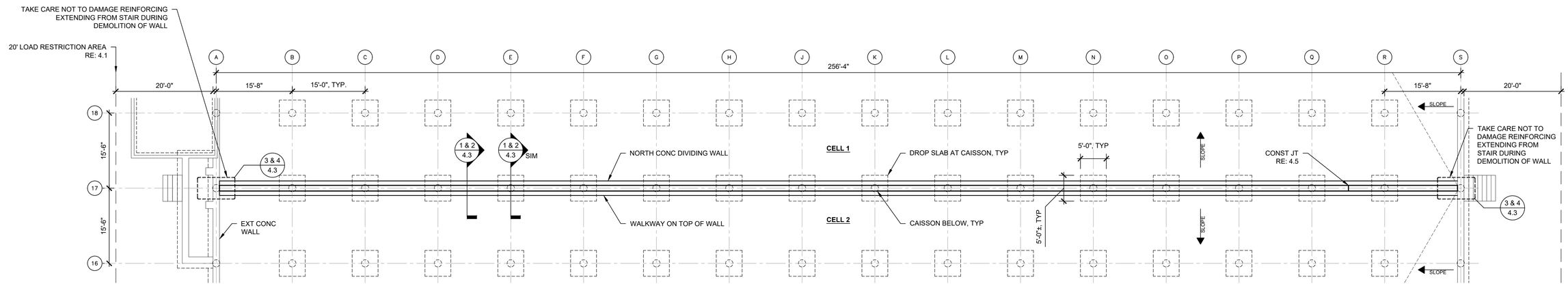
FLOW EQUALIZATION BASIN PLAN AND PERIMETER WALL

4.1

PROJECT NO. F0010-F001051
WJE PROJECT NO. 2019.3776.3



1 North Dividing Wall Foundation Plan
SCALE: 3/32" = 1'-0"

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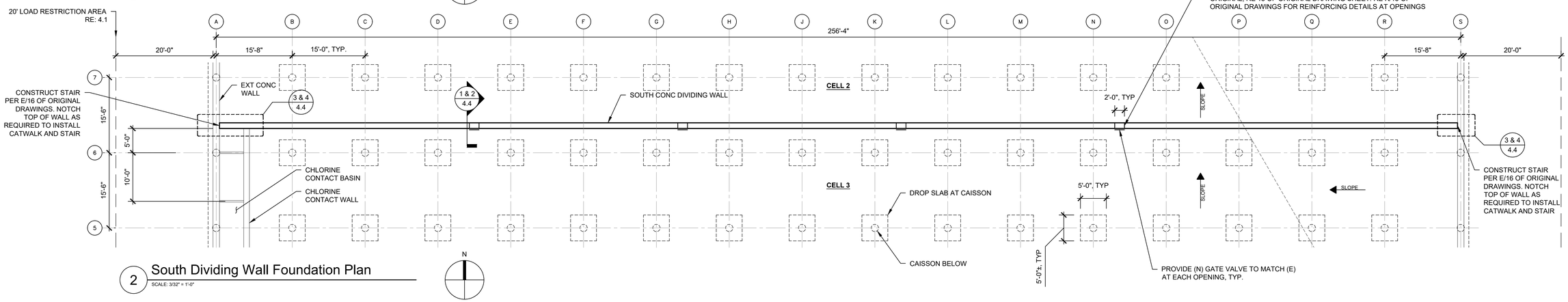

2 South Dividing Wall Foundation Plan
SCALE: 3/32" = 1'-0"

N

SHEET NOTES:
1. REFERENCE ORIGINAL DRAWING SHEETS 12,13,17,18 and 19 of 28 OF 28 FOR ADDITIONAL INFORMATION.
2. SLAB CONSISTS OF 12" TWO-WAY REINFORCED CONCRETE.
3. SLOPES AND ELEVATIONS TO MATCH ORIGINAL AS SHOWN ON ORIGINAL DRAWING SHEETS 17,18 AND 19 OF 28.

DESCRIPTION	DATE
REVISION 1	
REVISION 2	
REVISION 3	
REVISION 4 XXX	201X

DRAWN BY	BRS/CRS	DATE	04/07/21
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APPROVED BY	TMM	DATE	04/07/21

SCALES:
AS NOTED
0 1/2" 1" 2"
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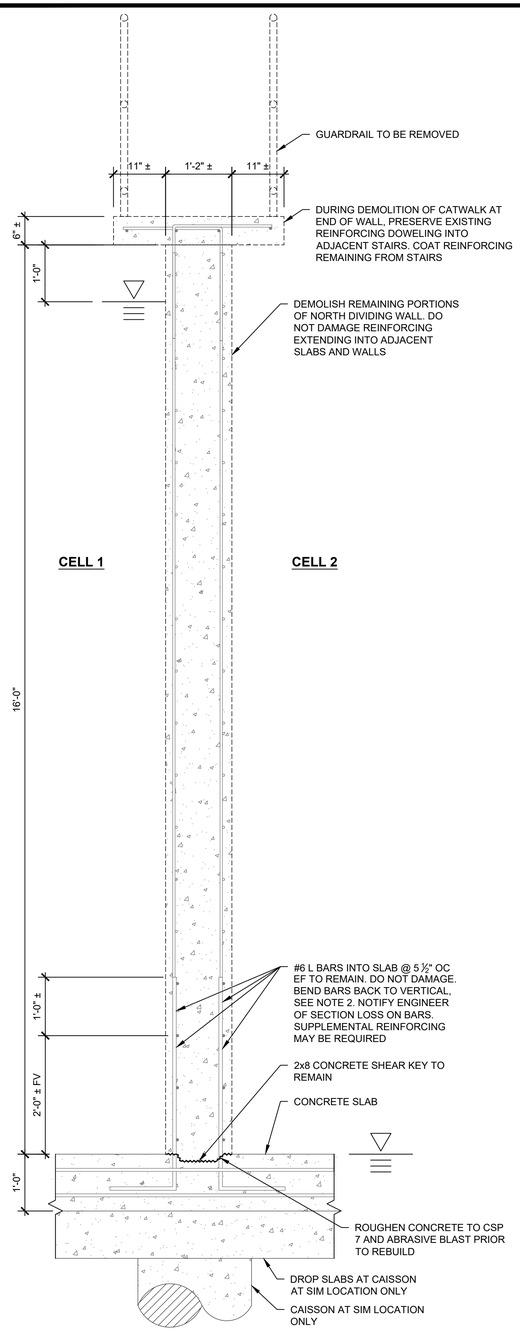
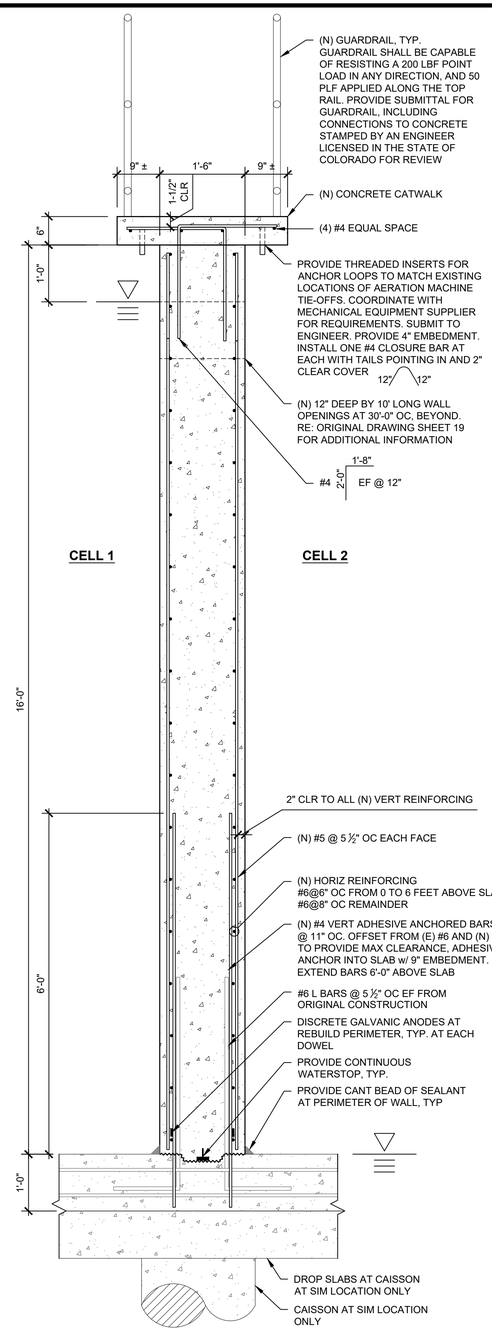
FLOW EQUALIZATION BASIN DIVIDING WALL PLANS

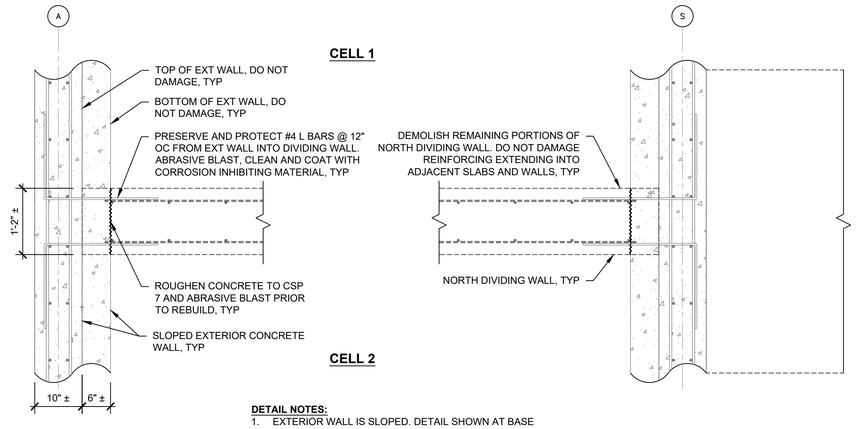


1 North Dividing Wall - Demolition
SCALE: 3/4" = 1'-0"



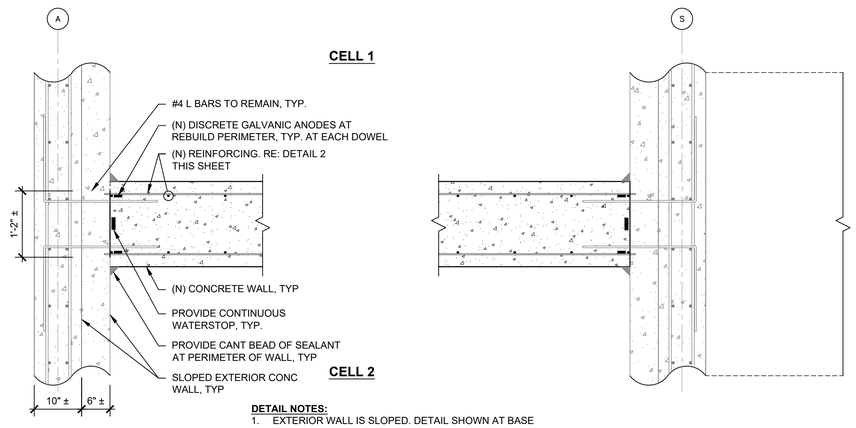
2 North Dividing Wall - Rebuild
SCALE: 3/4" = 1'-0"

SHEET NOTES:
1. REFERENCE ORIGINAL DRAWING SHEETS 12,13 AND 15 OF 28 FOR ADDITIONAL INFORMATION.
2. SOME REINFORCING SHOWN OFFSET FOR CLARITY. VERTICAL AND HORIZONTAL REINFORCING BARS SHALL BE IN THE SAME PLANE UNLESS OTHERWISE NOTED.
3. CONSTRUCTION JOINTS SHALL ALIGN WITH THE CENTER OF THE EXISTING WALL OPENINGS.



DETAIL NOTES:
1. EXTERIOR WALL IS SLOPED. DETAIL SHOWN AT BASE OF EXTERIOR ALL, UPPER PORTIONS SIMILAR.

3 North Dividing Wall to Perimeter Wall Connections - Demolition
SCALE: 3/4" = 1'-0"



DETAIL NOTES:
1. EXTERIOR WALL IS SLOPED. DETAIL SHOWN AT BASE OF EXTERIOR ALL, UPPER PORTIONS SIMILAR.

4 North Dividing Wall to Perimeter Wall Connections - Rebuild
SCALE: 3/4" = 1'-0"

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REVISION 1	
REVISION 2	
REVISION 3	
REVISION 4	

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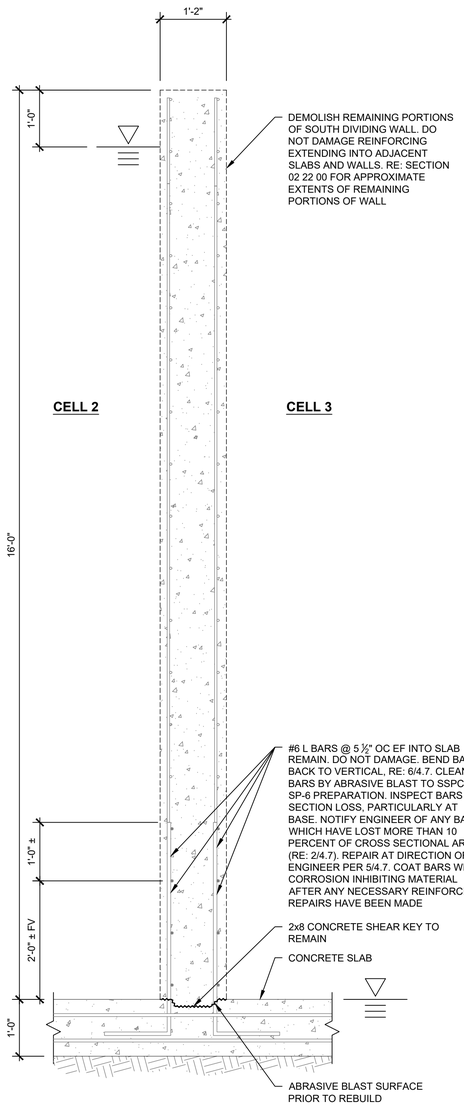
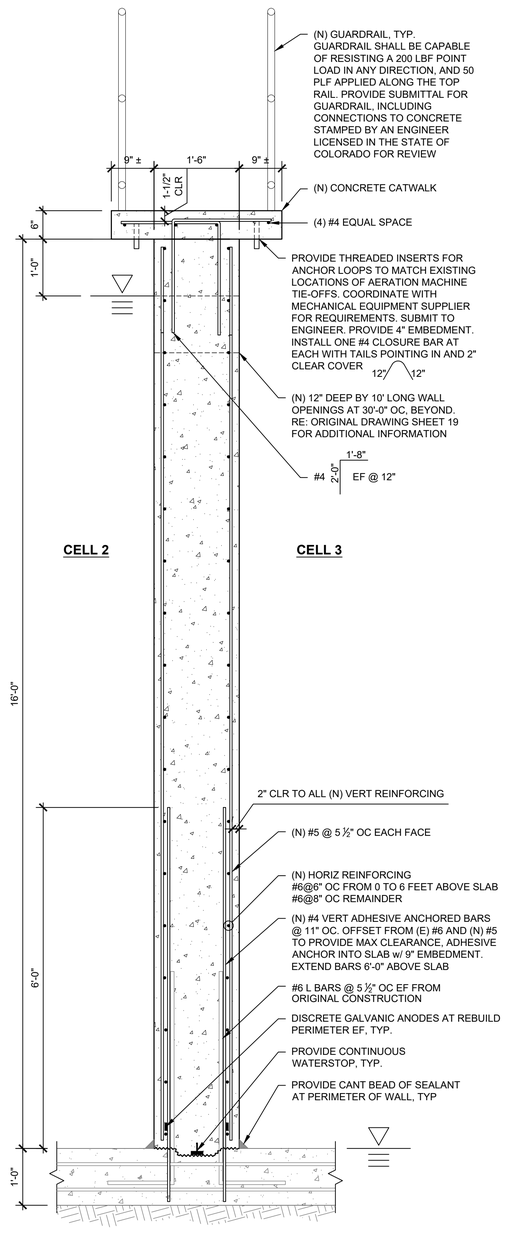
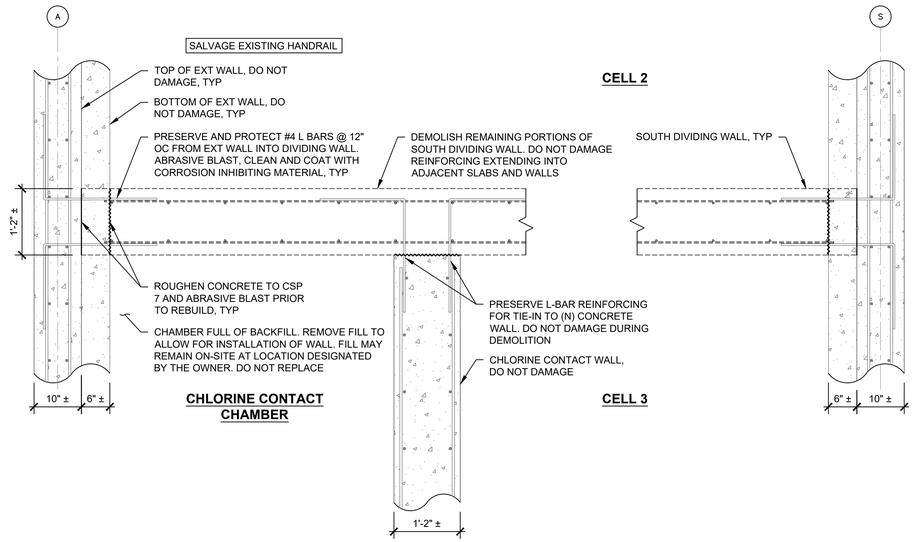
FLOW EQUALIZATION BASIN
NORTH DIVIDING WALL REBUILD DETAILS



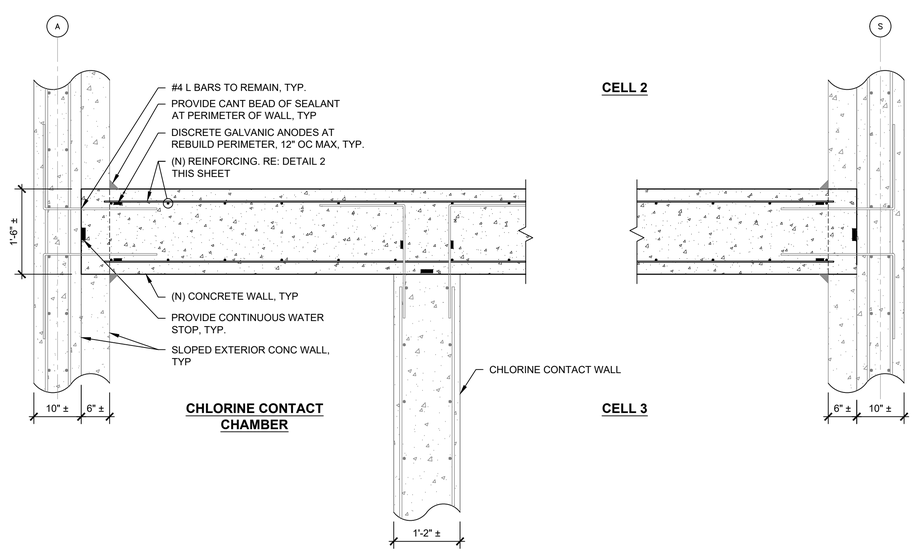
1 South Dividing Wall - Demolition
SCALE: 3/4" = 1'-0"



2 South Dividing Wall - Rebuild
SCALE: 3/4" = 1'-0"



3 South Dividing Wall to Perimeter Wall Connections - Demolition
SCALE: 3/4" = 1'-0"



4 South Dividing Wall to Perimeter Wall Connections - Rebuild
SCALE: 3/4" = 1'-0"

SHEET NOTES:
1. REFERENCE ORIGINAL DRAWING SHEETS 12,13 AND 15 OF 28 FOR ADDITIONAL INFORMATION.
2. SOME REINFORCING SHOWN OFFSET FOR CLARITY. VERTICAL AND HORIZONTAL REINFORCING BARS SHALL BE IN THE SAME PLANE UNLESS OTHERWISE NOTED.

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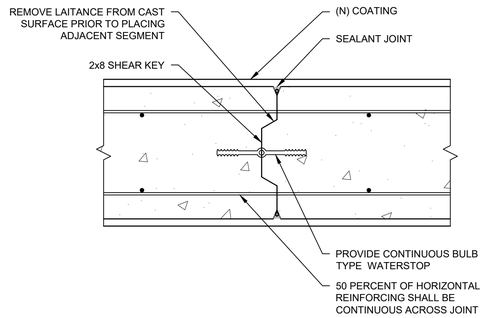
FLOW EQUALIZATION BASIN
SOUTH DIVIDING WALL REBUILD DETAILS

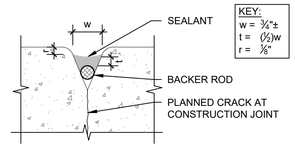


DETAIL NOTES:
1. MAXIMUM CONSTRUCTION JOINT SPACING SHALL BE 30'-0".
2. ALLOW CONCRETE TO CURE A MINIMUM OF 14 DAYS PRIOR TO PLACING ADJACENT SECTIONS.

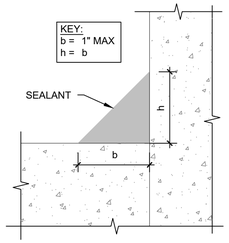
1 Typical Vertical Construction Joint
SCALE: 1-1/2" = 1'-0"

TYPICAL SEALANT NOTES:
THESE NOTES SHALL APPLY TO ALL SEALANT JOINT WORK UNLESS NOTED OTHERWISE ON A SPECIFIC DETAIL. THESE NOTES SERVE TO SUPPLEMENT THE SPECIFICATIONS. REFERENCE SPECIFICATION SECTION 07 92 00 FOR ADDITIONAL INFORMATION.

1. ABBREVIATIONS: w = JOINT WIDTH, h = SEALANT HEIGHT, t = SEALANT THICKNESS, r = RECESS OF JOINT, AND b = BOND LINE.
2. REMOVE ALL GROUT, SEALANT, BACKER ROD, BOND BREAKER TAPE, ETC. IN JOINT OR CRACK.
3. SLIGHTLY GRIND THE CONCRETE SURFACES WITHIN THE JOINT WITH A GRINDING WHEEL HAVING A PROFILE APPROXIMATELY THE SAME AS THE JOINT.
4. PROVIDE PROPER JOINT DEPTH PER DETAILS.
5. AFTER GRINDING, CLEAN DEBRIS FROM THE JOINT USING A STIFF BRUSH AND OIL-FREE COMPRESSED AIR. VACUUM THE JOINT AND SURFACES WITHIN 6 INCHES OF JOINT.
6. INSTALL PRIMER ON ALL SURFACES. POROUS SURFACES SHALL BE PRIMED REGARDLESS OF MANUFACTURER RECOMMENDATIONS TO EXCLUDE PRIMER.
7. INSTALL BACKER ROD OR BOND BREAKER TAPE WHERE INDICATED AND SEALANT PER MANUFACTURER'S WRITTEN RECOMMENDATIONS AND THESE DOCUMENTS.
8. CONFIRM REQUIREMENTS OF SEALANT MANUFACTURER PRIOR TO SUBMITTING BID. NOTIFY ENGINEER OF DISCREPANCIES BETWEEN THESE DOCUMENTS AND MANUFACTURERS TYPICAL DETAILS, WRITTEN RECOMMENDATIONS, OR INSTRUCTIONS. ENGINEER SHALL DETERMINE WHICH APPLY.



DETAIL NOTES:
1. INSTALL SEALANT FLUSH WITH SURFACE WHERE COATING IS TO BE INSTALLED OVER JOINT.



2 Typical Joint Sealant Details and Notes
SCALE: 6" = 1'-0"

10% SECTION LOSS

BAR NO.	DIAMETER in.	AREA in.²	BAR DIAMETER WITH 10% SECTION LOSS in.	
			CIRCUMFERENTIAL LOSS	ONE - SIDED LOSS
3	0.375	0.110	0.356	0.315
4	0.500	0.196	0.474	0.420
5	0.625	0.307	0.593	0.525
6	0.750	0.442	0.712	0.625
7	0.875	0.601	0.830	0.735
8	1.000	0.785	0.949	0.835

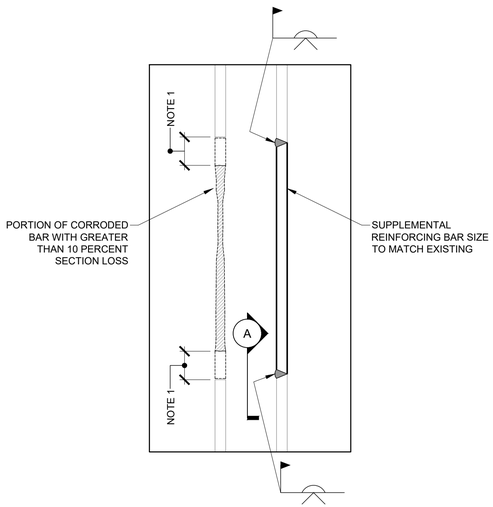
CIRCUMFERENTIAL LOSS **ONE - SIDED LOSS**

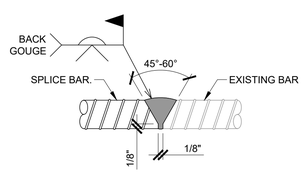
3 Section Loss Chart
SCALE: NOT TO SCALE

BAR NO.	MIN LAP LENGTH in.
3	12
4	18
5	24
6	32

DETAIL NOTES:
1. CLASS B SPLICES. (QUALIFIED)
2. UNCOATED BARS.
3. ALL CONSIDERED "TOP" BARS w/ > 12" OF CONCRETE BELOW.
4. MINIMUM CLEAR COVER OF 2".

4 Reinforcing Tension Lap Splice Schedule
SCALE: NOT TO SCALE

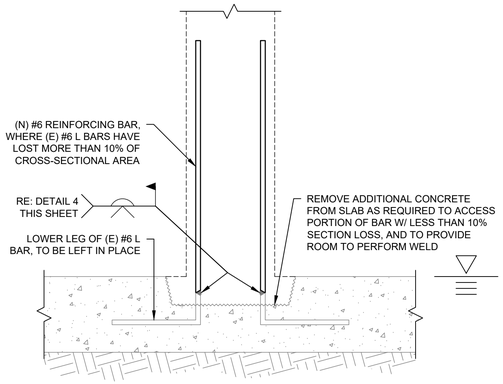




SECTION A - SINGLE V - GROOVE WELD SPLICE

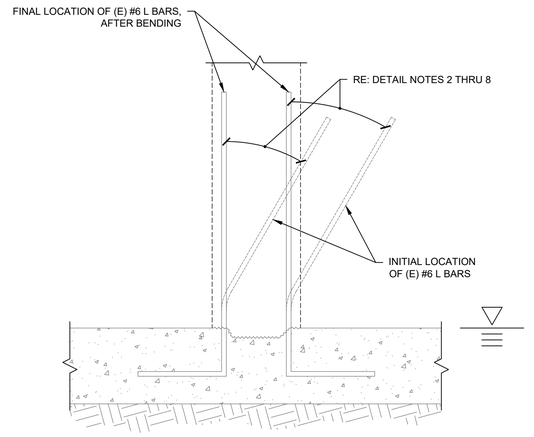
DETAIL NOTE:
1. CUT BAR 3 INCHES MINIMUM BEYOND SECTION LOSS AND REMOVE.

5 Supplemental Reinforcing Installation
SCALE: NOT TO SCALE



DETAIL NOTES:
1. NEW REINFORCING STEEL IN WALL AND EXISTING REINFORCING STEEL IN SLAB OMITTED FOR CLARITY. REFERENCE 2/4.4 AND 2/4.5 FOR INFORMATION ON LAYOUT OF REINFORCING STEEL.
2. REFERENCE DETAIL 4 THIS SHEET FOR ADDITIONAL REQUIREMENTS FOR BUTT WELD REINFORCING SPLICES.

6 Base of Wall Reinforcing Inspection and Repair Detail
SCALE: 1" = 1'-0"



DETAIL NOTES:
1. NEW REINFORCING STEEL IN WALL AND EXISTING REINFORCING STEEL IN SLAB OMITTED FOR CLARITY. REFERENCE 2/4.4 AND 2/4.5 FOR INFORMATION ON LAYOUT OF REINFORCING STEEL.
2. PREHEAT BARS PRIOR TO BENDING. APPLY HEAT BY METHODS THAT DO NOT HARM REINFORCING BAR MATERIAL OR CAUSE DAMAGE TO CONCRETE.
3. PREHEAT LENGTH OF REINFORCING BAR EQUAL TO AT LEAST FIVE BAR DIAMETERS IN EACH DIRECTION FROM CENTER OF BEND, BUT DO NOT EXTEND PREHEATING BELOW CONCRETE SURFACE.
4. DO NOT ALLOW TEMPERATURE OF REINFORCING BAR AT CONCRETE INTERFACE TO EXCEED 500°F.
5. PREHEAT TEMPERATURE OF REINFORCING BAR SHALL BE BETWEEN 1100°F AND 1200°F.
6. MAINTAIN PREHEAT TEMPERATURE UNTIL BENDING IS COMPLETE.
7. UNLESS OTHERWISE PERMITTED, MEASURE PREHEAT TEMPERATURE WITH MEASUREMENT CRAYONS OR CONTACT PYROMETER.
8. DO NOT ARTIFICIALLY COOL HEATED REINFORCING BARS UNTIL BAR TEMPERATURE IS LESS THAN 600°F.

7 Base of Wall Reinforcing Bending
SCALE: 1" = 1'-0"

TYPICAL CONCRETE REMOVAL PROCEDURE AT PERIMETER OF DEMOLITION:

1. CONCRETE REMOVAL PROCEDURE:
   - 1.A. REMOVE UNSOUND CONCRETE AND, AS NECESSARY, SOUND CONCRETE USING EITHER 15-LB CHIPPING HAMMER (DETAIL WORK ADJACENT TO AND BENEATH REINFORCING STEEL AND POSTS) OR 30-LB CHIPPING HAMMER (REMOVAL OF CONCRETE AT REPAIR AREAS).
   - 1.B. CLEARANCE AROUND REINFORCING BARS TO REMAIN OF AT LEAST 3/4 INCHES.
   - 1.C. TAKE CARE NOT TO EXCESSIVELY VIBRATE THE EXPOSED REINFORCING WITH THE CHIPPING HAMMER, IN ORDER TO AVOID FRACTURING ANY OF THE CONCRETE THAT IS BONDED TO THE REINFORCEMENT OUTSIDE THE PERIMETER OF THE REMOVAL.
   - 1.D. PROVIDE CONCRETE SURFACE PROFILE AS SPECIFIED OR INDICATED ON THE DRAWINGS. SURFACE PROFILES SHALL BE AS DEFINED ICRI 310.2R, AND JUDGED BASED ON COMPARISON TO PROFILE CHIPS SUPPLIED BY ICRI. UNLESS NOTED OTHERWISE, CSP 7, MIN SHALL BE PROVIDED.
   - 1.E. LIMIT CHIPPING HAMMER SIZE AND IMPACT ANGLE TO MINIMIZE DAMAGE TO SOUND CONCRETE TO REMAIN. IMPACT ANGLE SHALL BE NO MORE THAN 60° TO SURFACE.
2. REMOVE MICROFRACTURED OR BRUISED CONCRETE BY ABRASIVE BLASTING THE EXPOSED CONCRETE SURFACES AT THE PERIMETER OF THE REMOVAL. BE SURE TO ABRASIVE BLAST THE VERTICAL SAWCUT EDGES AROUND THE PERIMETER.

TYPICAL EXPOSED REINFORCING TO REMAIN PREPARATION:

1. PER SSPC SP6, COMMERCIAL BLAST CLEAN THE EXPOSED REINFORCING STEEL BY ABRASIVE BLASTING TO REMOVE ALL RUST SCALE. EXERCISE CARE TO PREPARE ALL SIDES OF REINFORCING BARS.
2. COAT ALL AREAS OF EXPOSED EXISTING REINFORCING STEEL TO REMAIN WITH TWO COATS OF CORROSION INHIBITING COATING OR EPOXY.

DESCRIPTION	DATE
REVISION 1	
REVISION 2	
REVISION 3	
REVISION 4	

DRAWN BY BRS/CRS DATE 04/07/21
DESIGNED BY TMM DATE 04/07/21
CHECKED BY CJL/KT DATE 04/07/21
APPROVED BY TMM DATE 04/07/21

SCALES: AS NOTED
0 1/2" 1" 2"
THIS SHEET PLOTS FULL SIZE AT 22x34 (INCHES)

CITY OF Grand Junction COLORADO

WJE
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FLOW EQUALIZATION BASIN
TYPICAL CONCRETE DETAILS