

STRUCTURAL-GENERAL NOTES

DESIGN CRITERIA AND LOADS:

1. WIND DESIGN:	
WIND SPEED (MPH)	V(ADJ)=124 V(ULT)=160
RISK CATEGORY	II
EXPOSURE CATEGORY	C
ENCLOSURE CLASSIFICATION	OPEN
INTERNAL PRESSURE COEFFICIENT	CPI = +/- 0.08
TOPOGRAPHIC FACTOR	KZT = 1.0

2. DESIGN LOADS :
- a. SEATING STRUCTURE DEAD LOADS: 70 PSF
 - b. SEATING STRUCTURE LIVE LOADS: 100 PSF
3. LOADS ON THE STRUCTURE DURING CONSTRUCTION SHALL NOT EXCEED THE DESIGN LOADS AS NOTED IN DESIGN CRITERIA & LOADS BELOW OR THE CAPACITY OF PARTIALLY COMPLETED CONSTRUCTION AS DETERMINED BY THE CONTRACTOR'S SSE FOR BRACING/SHORING.

GENERAL REQUIREMENTS

- THE DESIGN AND CONSTRUCTION OF THIS PROJECT IS GOVERNED BY THE "FLORIDA BUILDING CODE (FBC)", SIXTH EDITION, HEREAFTER REFERRED TO AS THE FBC, AS ADOPTED AND MODIFIED BY THE AUTHORITY HAVING JURISDICTION (AHJ).
- WHERE OTHER STANDARDS ARE NOTED IN THE DRAWINGS, USE THE LATEST EDITION OF THE STANDARD UNLESS A SPECIFIC DATE IS INDICATED. REFERENCE TO A SPECIFIC SECTION IN A CODE DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE ENTIRE STANDARD.
- THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND ALL JOB RELATED SAFETY STANDARDS SUCH AS OSHA AND DOSH (DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH).
- ALTERNATE PRODUCTS OF SIMILAR STRENGTH, NATURE AND FORM FOR SPECIFIED ITEMS MAY BE SUBMITTED WITH ADEQUATE TECHNICAL DOCUMENTATION TO THE ARCHITECT/ENGINEER FOR REVIEW. ALTERNATE MATERIALS THAT ARE SUBMITTED WITHOUT ADEQUATE TECHNICAL DOCUMENTATION THAT SIGNIFICANTLY DEVIATE FROM THE DESIGN INTENT OF MATERIALS SPECIFIED MAY BE RETURNED WITHOUT REVIEW. ALTERNATES THAT REQUIRE SUBSTANTIAL EFFORT TO REVIEW WILL NOT BE REVIEWED UNLESS AUTHORIZED BY THE OWNER.
- ALL BUILDING SITES SHALL BE GRADED TO PROVIDE DRAINAGE UNDER ALL PORTIONS OF THE BUILDING AND AROUND THE BUILDING PERIMETER TO ALLOW DRAINAGE AWAY FROM THE STRUCTURE.
- SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, DIMENSIONS, ELEVATIONS, ETC.
- SHOP DRAWINGS SHALL BE REVIEWED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER. DRAWINGS SUBMITTED WITHOUT REVIEW WILL BE RETURNED UNCHECKED.
- CHANGES AND ADDITIONS MADE ON RE-SUBMITTALS SHALL BE CLEARLY CLOUDED AND NOTED. ARCHITECT/ENGINEER REVIEW WILL BE LIMITED TO THOSE ITEMS CAUSING THE RE-SUBMITTAL.
- DISCREPANCIES, OMISSIONS, OR INCONSISTENCIES WITH APPLICABLE CODE REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER IN WRITING BEFORE SUBMITTING A BID OR PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO EARTHWORK, FOUNDATIONS, SHORING, AND EXCAVATION. ANY UTILITY INFORMATION SHOWN ON THE DRAWINGS AND DETAILS IS APPROXIMATE AND NOT NECESSARILY COMPLETE.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE. CONFLICTS BETWEEN THE DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER IN WRITING BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SHORING, BRACING AND OTHER ELEMENTS REQUIRED TO MAINTAIN STABILITY UNTIL THE STRUCTURE IS COMPLETE. DO NOT LOAD STRUCTURES, NEW OR EXISTING, WITH WEIGHT THAT WILL ENDANGER STRUCTURE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE WORK REQUIRED IN THE CONSTRUCTION DOCUMENTS AND THE REQUIREMENTS FOR EXECUTING IT PROPERLY.

STRUCTURAL CERTIFICATION

- I CERTIFY THAT THE PLANS AND SPECIFICATIONS COMPLY WITH THE STRUCTURAL PORTION OF THE FLORIDA BUILDING CODE SIXTH EDITION.

DEMOLITION NOTES

- PLANNING AND EXECUTING OF DEMOLITION SHALL BE DONE IN ACCORDANCE WITH APPLICABLE ANSI-A10 STANDARDS.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL LOCAL CODE AND ORDINANCES.
- CONTRACTOR SHALL TAKE APPROPRIATE MEASUREMENTS IF LEAD-BASE PAINT OR ASBESTOS IS FOUND OR SUSPECTED TO BE ON THE AREAS TO DEMOLISH.
- CONTRACTOR SHALL TAKE MEASUREMENTS TO MINIMIZE THE AMOUNT OF DUST CREATED, THE POTENTIAL RELEASE OF MOLD INTO THE ATMOSPHERE, AND THE AMOUNT OF VIBRATION PRODUCED THAT MIGHT AFFECT SURROUNDING STRUCTURES OR THE OPERATION OF NEARBY EQUIPMENT.
- VERIFY LOCATION OF ALL NEW WALLS PRIOR TO REMOVING ANY EXISTING WALLS.
- ERECT AND MAINTAIN TEMPORARY BRACING, SHORING, LIGHTS, BARRICADES, SIGNS AND OTHER MEASURES AS NECESSARY TO PROTECT THE PUBLIC, THE WORKERS AND ADJOINING PROPERTY FROM DAMAGE FROM DEMOLITION WORK.
- OPEN DEPRESSIONS AND EXCAVATIONS PART OF THIS WORK SHALL BE BARRICADED AND POSTED WHEN ACCESSIBLE THROUGH ADJACENT PROPERTY OR PUBLIC ACCESS.
- PROTECT ALL EXISTING AREAS AND UTILITIES THAT ARE NOT TO BE DISTURBED.
- VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO STARTING WORK.
- IN CASE OF ANY DISCREPANCIES BETWEEN PLANS AND EXISTING FIELD CONDITIONS, NOTIFY ENGINEER.
- ALL MATERIALS TO BE REMOVED FROM SITE AND DISPOSED OF IN AN APPROVED MANNER. BURYING OF TRASH AND DEBRIS ON THE SITE IS NOT PERMITTED.
- REMOVE AND REPLACE ALL ROTTEN, DECAYED OR DAMAGED WOOD FROM EXISTING STRUCTURE.
- DURING DEMOLISHING DISCOVERY, ANY MATERIAL THAT IS DAMAGED FROM AGE, WATER, WIND ETC., INCLUDING BUT NOT LIMITED TO ALL CORRODED OR RUSTED METAL, WATER DAMAGED MATERIALS, ROOFING MATERIALS TO BE REPLACED FOR SAME IN KIND.
- ANY DAMAGE TO EXISTING FIRE RATED PARTITIONS, SHAFTS OR FIRE PROTECTION SURFACES TO BE REPAIRED TO COMPLY WITH REQUIRED FIRE PROTECTION CODES.

STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH AISC "CODE OF STANDARD PRACTICE", LATEST EDITION.
- STRUCTURAL STEEL GRADES AND MIN. STRESS SHALL BE AS FOLLOWS:

a. W SHAPE	ASTM A992	FY = 50 KSI,	FU = 65 KSI
b. M, S, C MC, L SHAPES	ASTM A36	FY = 36 KSI,	FU = 58 KSI
c. PLATES AND BARS (CARBON)	ASTM A36	FY = 36 KSI,	FU = 58 KSI
d. ANCHOR BOLTS (HIGH STRENGTH)	ASTM A325	FU = 120KSI	
e. TWIST-OFF TENSION CONTROL BOLTS	ASTM F1852		
f. ANCHOR RODS	ASTM F1554	FY = 36 KSI,	FU = 58 KSI
g. THREADED RODS	ASTM A36	FY = 36 KSI,	FU = 58 KSI
h. NUTS	ASTM A563		
i. HARDENED STEEL WASHERS	ASTM F436		
j. DIRECT-TENSION INDICATING WASHERS	ASTM F959		
- BOLTS SHALL BE HIGH STRENGTH, BEARING TYPE IN SNUG TIGHT CONDITION, UNLESS NOTED OTHERWISE. TIGHTEN BY AN AISC APPROVED METHOD.
- WHERE FULLY PRETENSIONED OR SLIP CRITICAL BOLTS ARE REQUIRED, TIGHTENING SHALL BE ACHIEVED USING EITHER TWIST-OFF TENSION CONTROL BOLTS OR DIRECT TENSION INDICATING WASHERS. PROPER SURFACE PREPARATION IS REQUIRED FOR SLIP CRITICAL BOLTS, INCLUDING OMISSION OF PRIMER OR FIRE PROOFING, AS APPROPRIATE.
- WELDING OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH A.W.S. D.1.1 WITH 70XX ELECTRODES. FILLET WELDS SHALL BE MIN. 3/16" UNLESS NOTED OTHERWISE.
- ALL STRUCTURAL STEEL EXPOSED TO EXTERIOR CONDITIONS SHALL BE HOT DIPPED GALVANIZED PER ASTM A123 AND TOUCHED UP AFTER WELDING. ALL FASTENERS AND HARDWARE SHALL BE HOT DIPPED GALVANIZED PER ASTM A153.
- SHOP PAINT ALL NON-GALVANIZED STEEL W/ A LEAD CHROMATE FREE ALKYD. SSPC PAINT 20 TYPE 1 OR 2 MIN. DRY FILM THICKNESS 3 MILS. CLEAN STEEL TO THE REQUIREMENTS OF SSPC-SP6 PRIOR TO PRIMING.
- DO NOT PAINT STEEL SURFACES IN CONTACT WITH CONCRETE OR THAT ARE TO RECEIVE FIREPROOFING.
- ALL OTHER STEEL EXPOSED TO WEATHER SHALL BE PROTECTED WITH EPOXY PRIMER MARINE TYPE, UNLESS NOTED OTHERWISE.
- GROUT UNDER THE BEARING PLATES (OR JACKETS) SHALL BE NON-METALLIC, NON-SHRINK TYPE WITH A COMPRESSIVE STRENGTH OF AT LEAST 5,000PSI IN 28 DAYS.

CHEMICAL (ADHESIVE) ANCHORS

- SHALL BE TWO PART EPOXY POLYMER INJECTION SYSTEM, SUCH AS HILTI HIT HY200, HILTI RE500 SD, POWERS PURE 100+, OR SIMPSON SET ADHESIVE SYSTEM, OR ENGINEER APPROVED SUBSTITUTION.
- EPOXY TYPES AND BRANDS VARY IN THEIR BOND STRENGTH AND SUITABILITY OF USE, DEPENDING ON TYPE OF LOADING, ANCHOR SPACING, ETC. WHEN A PARTICULAR TYPE OF EPOXY IS SPECIFIED IN THESE DRAWINGS, A UNIQUE CALCULATION HAS BEEN MADE BASED ON THE PROPERTIES OF THAT SPECIFIC TYPE OF EPOXY FOR THE SPECIFIC CONDITION SHOWN IN THE DETAIL. SUBSTITUTION OF EPOXY TYPE IS NOT ALLOWED WHERE DETAIL SPECIFIES ONLY ONE TYPE OF EPOXY, WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER OF RECORD. NOT ALL EPOXY BRANDS OR TYPES WILL BE ALLOWED AS SUBSTITUTES. ICC-ES REPORTS FOR PROPOSED ANCHOR SUBSTITUTIONS MUST BE SUBMITTED TO EOR FOR FINAL REVIEW. EOR MAY REQUIRE ENGINEERED CALCULATIONS FOR REVIEW AND APPROVAL.
- SUBSTITUTIONS OF EPOXIES IN ONE CONDITION SHALL NOT BE CONSTRUED AS APPROVAL TO MAKE SIMILAR SUBSTITUTION OF EPOXIES IN OTHER DIFFERING CONDITIONS. EACH SUBSTITUTION MUST RECEIVE PRIOR WRITTEN APPROVAL BY THE ENGINEER OF RECORD.
- INSTALL ANCHORS IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPI) IN CONJUNCTION WITH EDGE DISTANCE, SPACING, AND EMBEDMENT SPECIFIED ON DRAWINGS.
- ADHESIVE ANCHORS INSTALLED IN HORIZONTAL TO VERTICALLY OVERHEAD ORIENTATION TO SUPPORT SUSTAINED TENSION LOADS SHALL BE DONE BY A CERTIFIED ADHESIVE ANCHOR INSTALLER (AAI) AS CERTIFIED THROUGH ACI/CRSI (ACI 318-11 D.9.2.2). PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.
- THE MANUFACTURER'S REPRESENTATIVE SHALL TRAIN INSTALLERS FOR ALL PRODUCTS TO BE USED PRIOR TO COMMENCEMENT OF WORK. ONLY TRAINED INSTALLERS SHALL PERFORM POST INSTALLED ANCHOR INSTALLATION. A RECORD OF TRAINING SHALL BE KEPT ON SITE AND MADE AVAILABLE TO THE EOR AS REQUESTED.
- THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL HOLE CLEAN-OUT REQUIREMENTS ARE FULLY COMPLETED BY THE INSTALLERS PRIOR TO INJECTING EPOXY INTO HOLES IN ACCORDANCE WITH THE MANUFACTURER'S MPI.
- NO LOAD SHALL BE APPLIED TO THE EPOXY ANCHORS UNTIL THE EPOXY HAS FULLY CURED AND HAS ACHIEVED ITS SPECIFIED STRENGTH. CURE TIME SHALL BE PER MANUFACTURER'S PUBLISHED VALUES FOR SPECIFIC PRODUCT BEING USED.
- IF DETAIL SHOWS EPOXY ANCHORS IN SLOTTED HOLES, IT IS IMPERATIVE THAT ANY EXCESS EPOXY IS CLEANED UP FROM AROUND THE ANCHOR ROD, SO THAT IT DOES NOT INTERFERE WITH ADJUSTABILITY OF ANCHOR ROD IN SLOTTED HOLE.
- ADHESIVE ANCHORS IN CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC 193 FOR CRACKED, UNCRACKED AND SEISMIC CONCRETE RECOGNITION.
- ADHESIVE ANCHORS IN MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC01 OR AC106.
- EXISTING REINFORCING BARS IN CONCRETE AND/OR MASONRY CONSTRUCTION SHALL NOT BE CUT UNLESS APPROVED BY THE EOR.
- ADHESIVE ANCHORS IN CONCRETE AND/OR MASONRY CONSTRUCTION SHALL NOT BE INSTALLED UNTIL THE CONCRETE AND/OR MASONRY HAS BEEN CURED FOR AT LEAST 21-DAYS.
- PROVIDE SPECIAL INSPECTION FOR ALL MECHANICAL POST INSTALLED ANCHORS IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE BUILDING CODE AND THE CURRENT ICC-ES REPORT (IBC2012 TABLE 1705.3 NOTE B).
- ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS SHALL BE CONTINUOUSLY INSPECTED DURING INSTALLATION BY AN INSPECTOR SPECIALLY APPROVED FOR THAT PURPOSE BY THE BUILDING OFFICIAL (ACI 318-11 D.9.2.4).

MECHANICAL ANCHORS

- SHALL BE EITHER HEAVY DUTY CONCRETE SCREW ANCHOR (SUCH AS POWERS WEDGE BOLT +, SIMPSON TITEN HD, OR HILTI HUS-H) OR WEDGE TYPE EXPANSION ANCHOR (SUCH AS POWERS POWER-STUD=SD1, SIMPSON WEDGE-ALL, OR HILTI KWIK BOLT 3).
- TYPE OF ANCHOR SHALL BE AS SPECIFIED ON THE DRAWINGS, WHILE BRAND AND MODEL OF ANCHOR MAY BE SELECTED FROM THE ABOVE LISTED ANCHORS. SUBSTITUTION OF ANCHORS MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVED IN WRITING BY THE ENGINEER OF RECORD PRIOR TO USE. ICC-ES REPORTS FOR PROPOSED ANCHOR SUBSTITUTES MUST BE SUBMITTED TO EOR FOR REVIEW. EOR MAY REQUEST ENGINEERED CALCULATIONS FOR REVIEW AND APPROVAL.
- IN SOME CASES OF CRITICAL LOADING OR GEOMETRIC CONDITIONS, ONLY SPECIFIC ANCHORS WILL BE ALLOWED, AS NOTED ON THE DRAWINGS. IN THESE CASES, THE SPECIFIED BRAND AND MODEL OF ANCHOR MUST BE USED.
- INSTALL ANCHORS IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPI) IN CONJUNCTION WITH EDGE DISTANCE, SPACING, AND EMBEDMENT SPECIFIED ON DRAWINGS.
- THE MANUFACTURER'S REPRESENTATIVE SHALL TRAIN INSTALLERS FOR ALL PRODUCTS TO BE USED PRIOR TO COMMENCEMENT OF WORK. ONLY TRAINED INSTALLERS SHALL PERFORM POST INSTALLED ANCHOR INSTALLATION. A RECORD OF TRAINING SHALL BE KEPT ON SITE AND MADE AVAILABLE TO THE EOR AS REQUESTED.
- MINIMUM EMBEDMENT DEPTH OF 1/4" TAPCONS OR POWERS TAPPER + INSTALLED IN CONCRETE SHALL BE 1.25" U.N.O. AND INSTALLED INTO MASONRY SHALL BE 1.5". SELECT ANCHOR LENGTH AS REQUIRED TO ACHIEVE THE SPECIFIED MINIMUM EMBEDMENT DEPTH.
- TAPCON SCREWS, OR POWERS TAPPER +, MAY BE REPLACED W/ 0.157" SHANK DIAMETER PAF ANCHORS (HILTI X-U, POWERS CSI, OR APPROVED EQUAL) ON A 1:1 SUBSTITUTION BASIS. MINIMUM EMBEDMENT DEPTH SHALL BE 1.25" WHEN INSTALLED INTO CONCRETE OR GROUTED MASONRY. FOLLOW MANUFACTURER'S INSTALLATION RECOMMENDATIONS, MINIMUM EDGE DISTANCES, AND PLACEMENT LIMITATIONS (RELATIVE TO MORTAR JOINTS IN MASONRY).
- MECHANICAL ANCHORS IN CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC 193 FOR CRACKED, UNCRACKED AND SEISMIC CONCRETE RECOGNITION.
- MECHANICAL ANCHORS IN MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC01 OR AC106.
- POWER ACTUATED FASTENERS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC0ES AC70.
- EXISTING REINFORCING BARS IN CONCRETE AND/OR MASONRY CONSTRUCTION SHALL NOT BE CUT UNLESS APPROVED BY THE EOR.
- ANCHORS SHALL NOT BE INSTALLED IN CONCRETE AND/OR MASONRY CONSTRUCTION UNTIL THE CONCRETE AND/OR MASONRY HAS BEEN CURED FOR AT LEAST 21-DAYS.
- PROVIDE SPECIAL INSPECTION FOR ALL MECHANICAL POST INSTALLED ANCHORS IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE BUILDING CODE AND THE CURRENT ICC-ES REPORT (IBC2012 TABLE 1705.3 NOTE B).

SCOPE OF WORK:

- REMOVE UNSOUND STUCCO AND CONCRETE AT DAMAGED AREAS PER DETAILS.
- REMOVE AND REPLACE HANDRAILS, GUARDRAILS, CHAIN-LINK FENCE PER PLANS.
- REMOVE AND REPLACE DIAGONAL X-BRACING PER PLANS.
- FOLLOW THE INTERNATIONAL CONCRETE RESTORATION INSTITUTE'S RECOMMENDATIONS AND DETAILS ON THE PLANS.
- ALL FINISHES TO MATCH EXISTING.

PER ORIGINAL CONSTRUCTION NOTES:

ALL EXPOSED STRUCTURAL STEEL AND CONNECTIVE HARDWARE SHALL BE HOT-DIP GALVANIZED AND TOUCHED UP AFTER WELDING.

ABBREVIATIONS

AB	-ANCHOR BOLT	HORIZ	- HORIZONTAL
AF	- ABOVE FINISHED FLOOR	IN	- INCH/INCHES
AHJ	- AUTHORITY HAVING JURISDICTION	INT	- INTERIOR
ALT	- ALTERNATE	MAS	- MASONRY
APPROX	- APPROXIMATELY	MAX	- MAXIMUM
ARCH	- ARCHITECT	MFR	- MANUFACTURER
BOTT	- BOTTOM	MIN	- MINIMUM
BRG	- BEARING	MISC	- MISCELLANEOUS
CCCL	- COASTAL CONST. CONTROL LINE	MPH	- MILES PER HOUR
CFS	- COLD FORMED STEEL	N	- NEW
CMU	- CONCRETE MASONRY UNIT	NTS	- NOT TO SCALE
COL	- COLUMN	OC	- ON CENTER
CONC	- CONCRETE	PSF	- POUNDS PER SQUARE FOOT
CONT	- CONTINUOUS	PT	- PRESSURE TREATED
DAE	- DRILLED AND EPOXY	REV	- REVISION/REVISED
DBL	- DOUBLE	SPECS	- SPECIFICATIONS
DIA	- DIAMETER	SCHED	- SCHEDULE
DIM	- DIMENSION	SIM	- SIMILAR
DN	- DOWN	SYP	- SOUTHERN YELLOW PINE
EA	- EACH	TYP	- TYPICAL
ELEV	- ELEVATION/ELEVATOR	UNO	- UNLESS NOTED OTHERWISE
ENGR	- ENGINEER	VERT	- VERTICAL
EW	- EACH WAY	VF	- VERIFY IN FIELD
E	- EXISTING	W/	- WITH
EXP	- EXPANSION	WO	- WITHOUT
EXT	- EXTERIOR	WRB	- WEATHER RESISTANT BARRIER
FBC	- FLORIDA BUILDING CODE	WVF	- WELDED WIRE FABRIC
FF	- FINISH FLOOR	WWM	- WELDED WIRE MESH
FND	- FOUNDATION	#5	- STEEL REINFORCING BAR (REBAR) #5 (#5)
FT	- FEET/FOOT		
FTG	- FOOTING		

REVISIONS	DATE
1	18-0327
2	
3	
4	
5	
6	
7	

DESIGNED	CJW / JT
DRAWN	AER
DATE	NOV 2018
CHECKED	RV
DATE ISSUED	
SCALE	AS NOTED

1835 - 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617

MELBOURNE, FL, PH (321) 283-1510
FT. PIERCE, FL, PH (772) 468-9055

EMBV
ENGINEERING INC.
MOA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

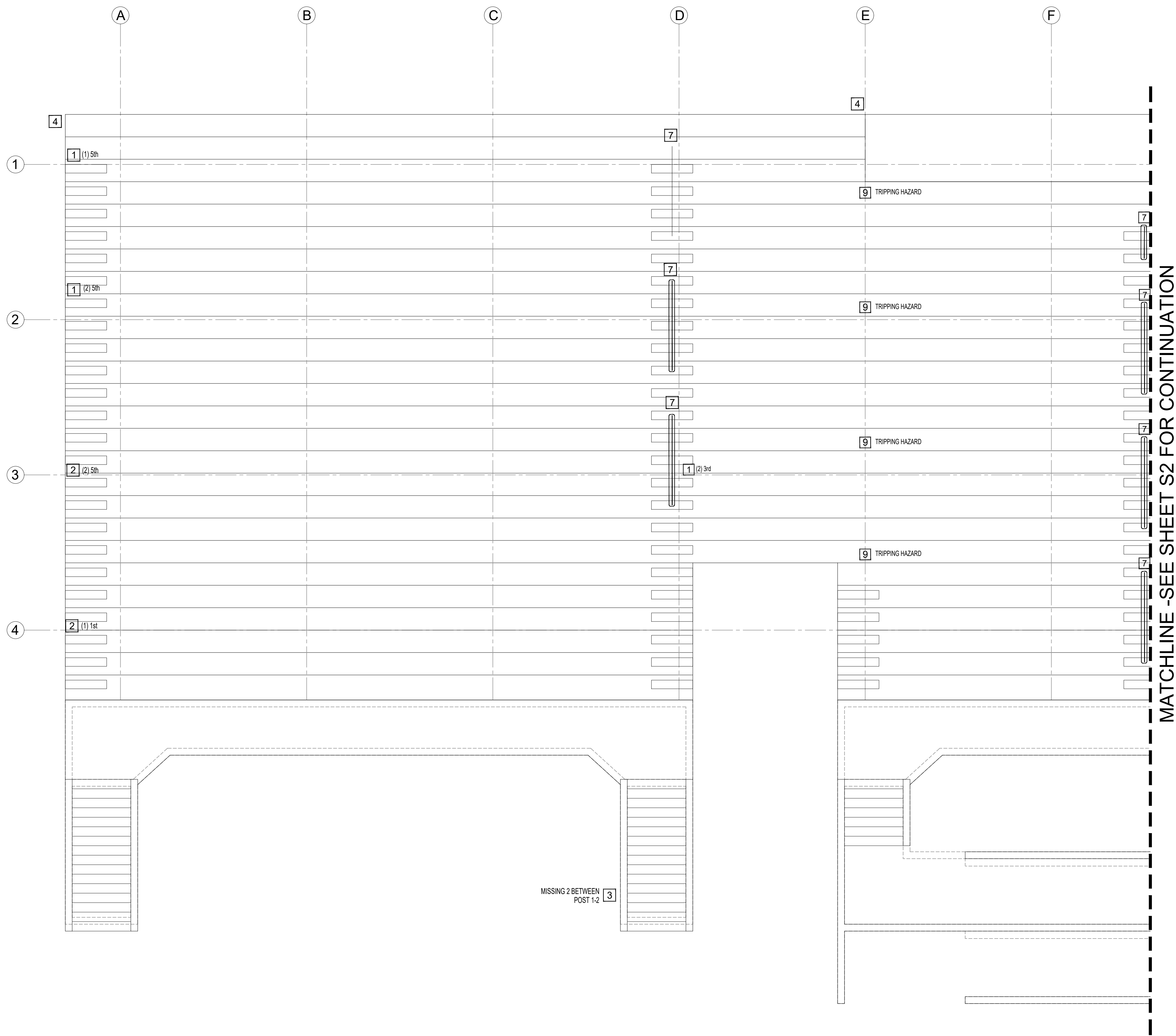
STRUCTURAL NOTES

SEBASTIAN RIVER
HIGH SCHOOL
Stadium Inspection
9001 Shark Boulevard
SEBASTIAN FLORIDA

RODOLFO VILLAMIZAR
FL P.E.#61000
DATE: 02/20/2019

SHEET
SO
1 OF 15
18-0327

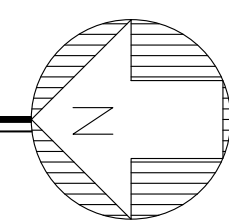
18-0327



MATCHLINE - SEE SHEET S2 FOR CONTINUATION

PLAN VIEW - HOME SIDE

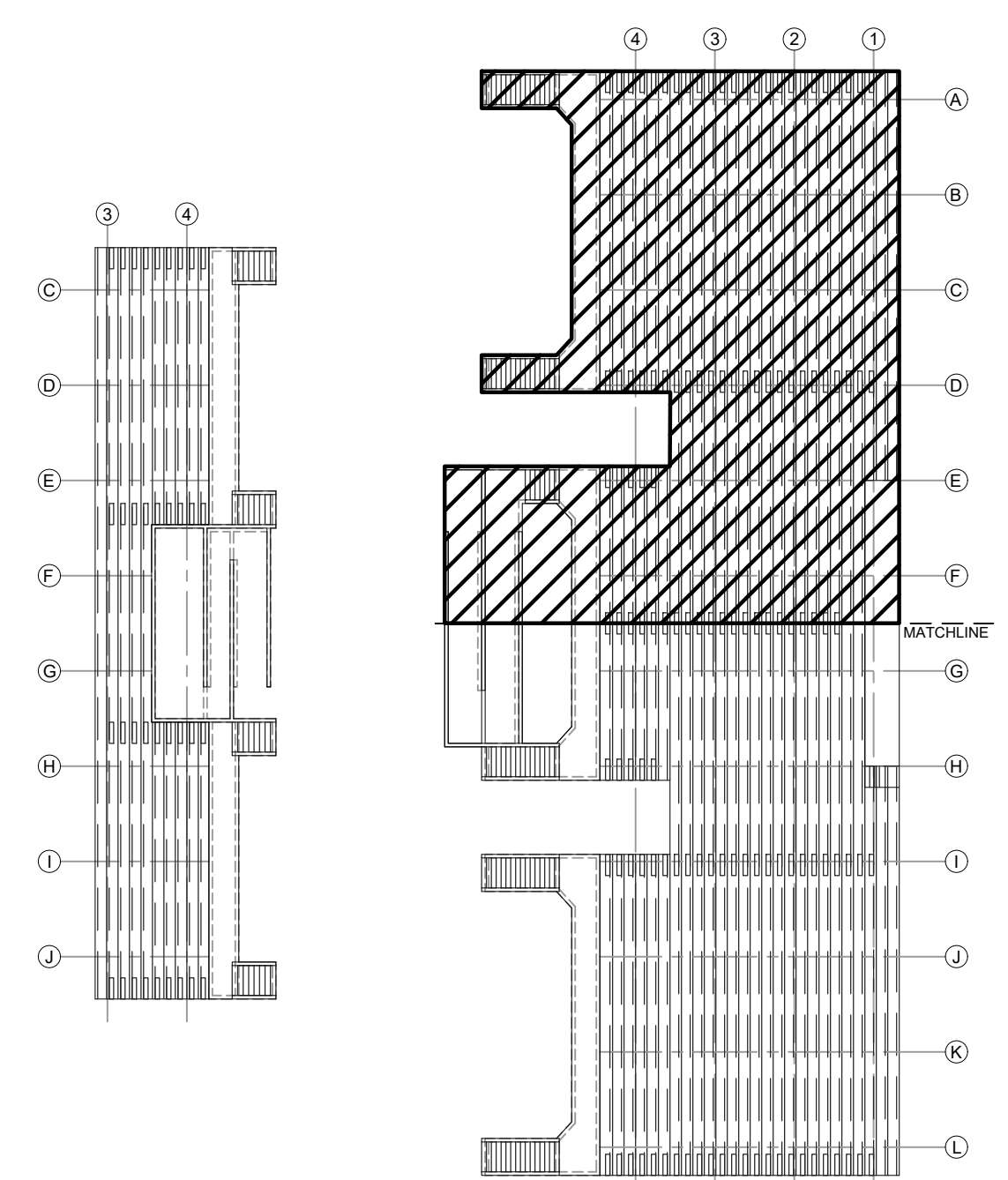
SCALE: 3/16" = 1'-0"



LIFE SAFETY REPAIRS LEGEND

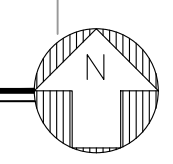
1	REPAIR BRACKET TO SEAT CONNECTION (EA)	5	EA
2	REPAIR BOTTOM TO CONCRETE CONNECTION (EA)	3	EA
3	REPLACE CHAIN LINK CLIPS (EA)	2	EA
4	FENCE CHAIN LINK EXTENSION (ADDDREPAIR) (L.F.)	4	L.F.
5	REMOVE & REPLACE FENCE (L.F.)	-	L.F.
6	REMOVE & REPLACE GUARDRAIL (L.F.)	-	L.F.
7	REMOVE & REPLACE HANDRAIL (L.F.)	55	L.F.
8	REPLACE MISSING SEAT SEAM FASTENERS (EA)	-	EA
9	REMOVE ABANDONED POST (EA)	4	EA

(#) #
 INDICATES THE LOCATIONS OF CONNECTION FROM LEFT TO RIGHT
 INDICATES THE NUMBER OF CONNECTORS MISSING



KEY MAP

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



REVISIONS 1 2 3 4 5 6 7	DATE	
	DESIGNED	18-0327
	DRAWN	CJW / JT
	CHECKED	AER
	DATE	NOV 2018
	DATE ISSUED	RV
	SCALE	AS NOTED

1835 - 20TH STREET
 VERO BEACH, FL 32960
 PH. (772) 569-0035
 FX. (772) 778-3617

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 MEDIA BOULEVARD, SUITE 200
 FT. PIERCE, FL 34949

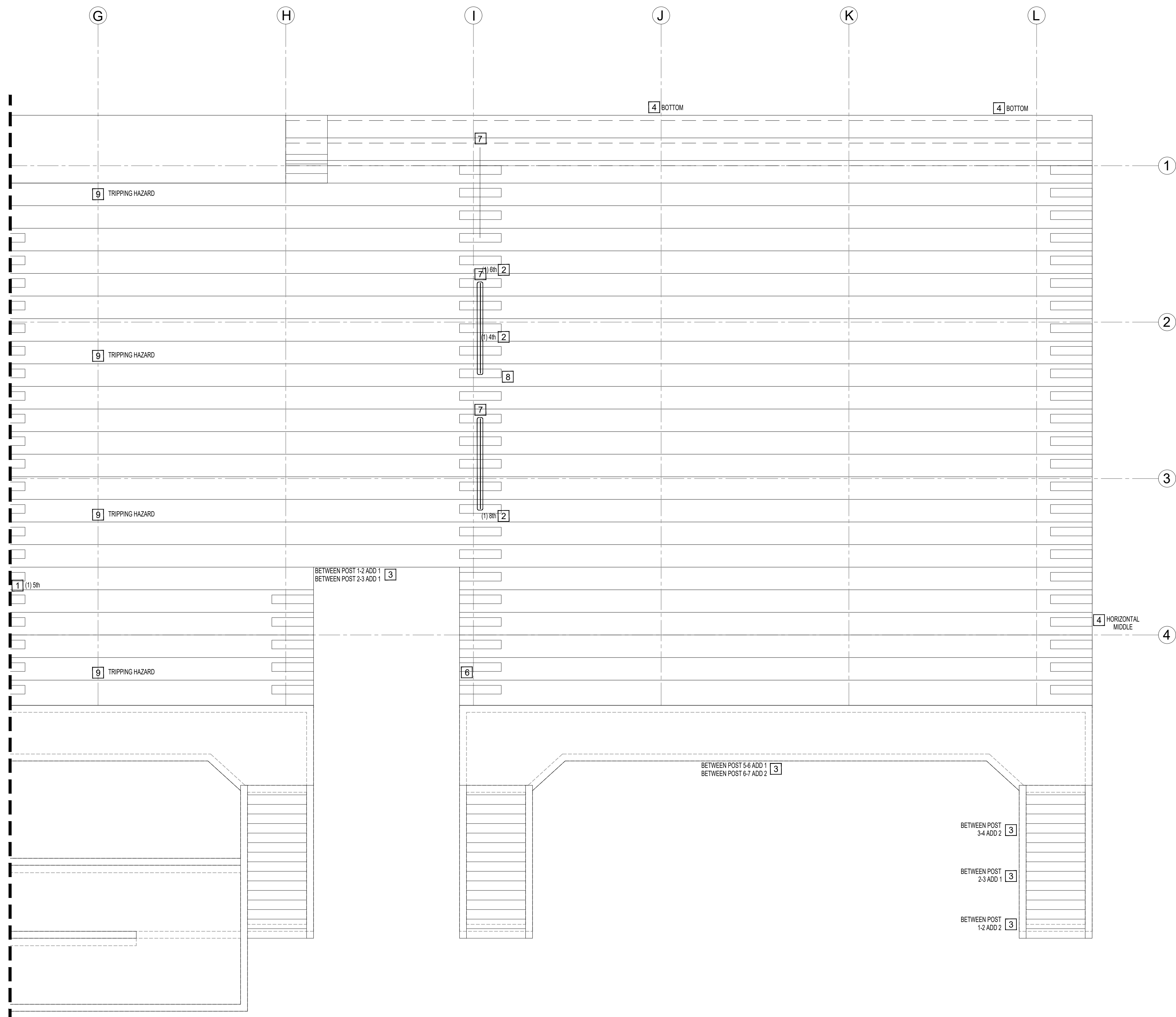
LIFE SAFETY REPAIR PLAN

SEBASTIAN RIVER HIGH SCHOOL
 Stadium Inspection
 9001 Shark Boulevard
 SEBASTIAN, FLORIDA

RODOLFO VILLAMIZAR
 FL P.E.#1000
 DATE: 02/20/2019

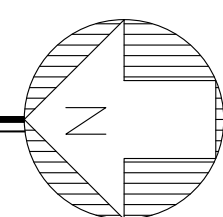
SHEET
S1
 2 OF 15
 18-0327

MATCHLINE - SEE SHEET S1 FOR CONTINUATION



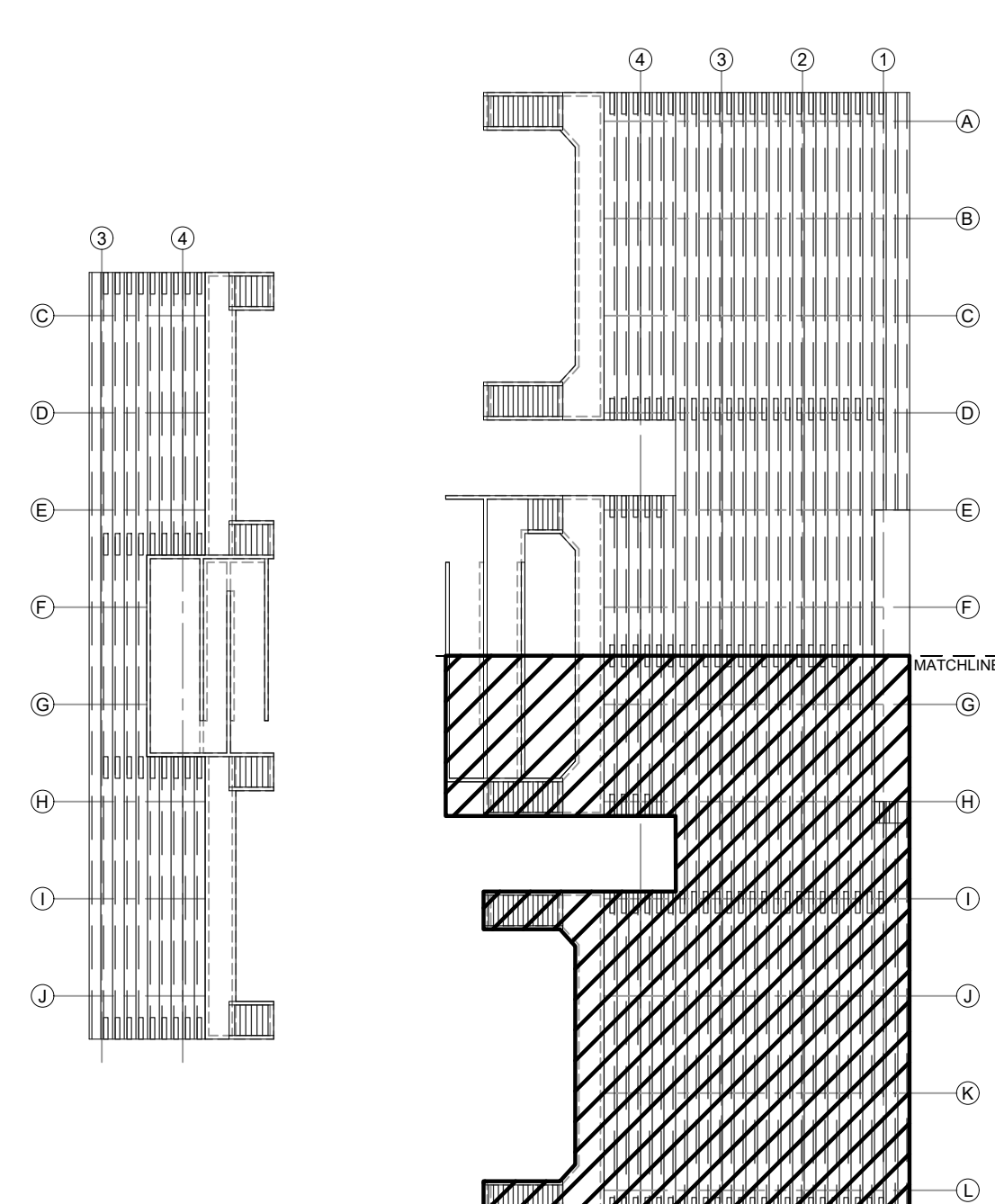
PLAN VIEW - HOME SIDE

SCALE: 3/16" = 1'-0"



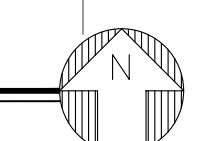
LIFE SAFETY REPAIRS LEGEND			
1	REPAIR BRACKET TO SEAT CONNECTION (EA)	1	EA
2	REPAIR BOTTOM TO CONCRETE CONNECTION (EA)	3	EA
3	REPLACE CHAIN LINK CLIPS (EA)	10	EA
4	FENCE CHAIN LINK EXTENSION (ADD/REPAIR) (L.F.)	7	L.F.
5	REMOVE & REPLACE FENCE (L.F.)	-	L.F.
6	REMOVE & REPLACE GUARDRAIL (L.F.)	10	L.F.
7	REMOVE & REPLACE HANDRAIL (L.F.)	27	L.F.
8	REPLACE MISSING SEAT SEAM FASTENERS (EA)	1	EA
9	REMOVE POST (EA)	4	EA

(#) #
 ↑ INDICATES THE LOCATIONS OF CONNECTION FROM LEFT TO RIGHT
 ↓ INDICATES THE NUMBER OF CONNECTORS MISSING



KEY MAP

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



NO.	REVISIONS	DATE
1		
2		
3		
4		
5		
6		
7		

18-0327
 DESIGNED: C/W / JT
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MELBOURNE, FL, PH (321) 763-4510
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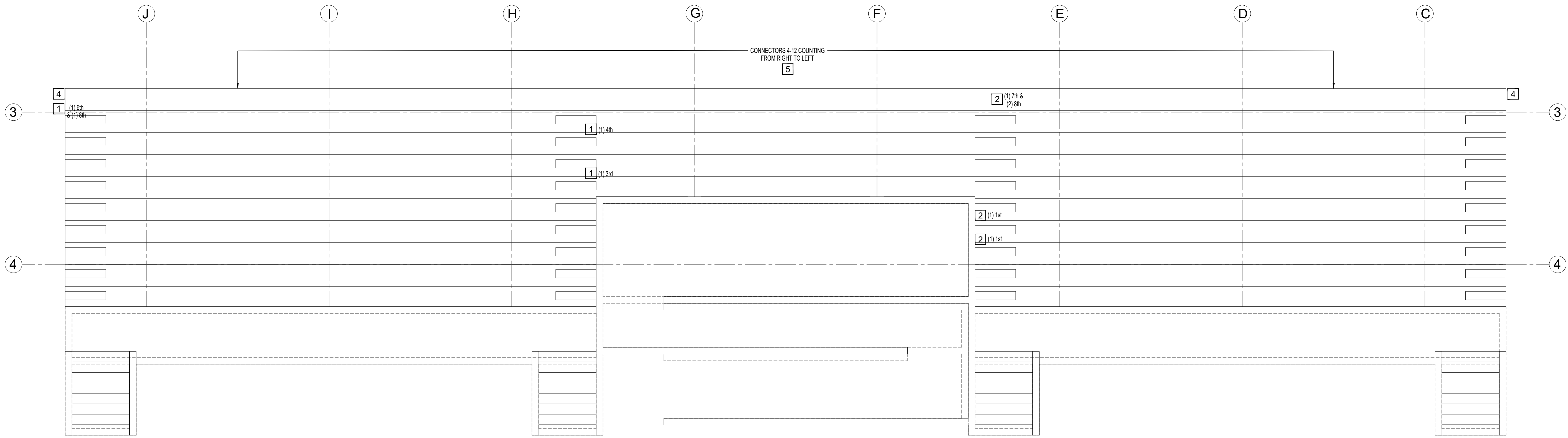
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LIFE SAFETY REPAIR PLAN

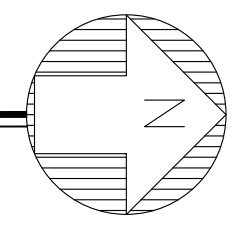
SEBASTIAN RIVER
 HIGH SCHOOL
 Stadium Inspection
 9001 Shark Boulevard
 SEBASTIAN, FLORIDA

RODOLFO VILLAMIZAR
 FL P.E.#61000
 DATE: 02/20/2019

SHEET
S2
 3 OF 15
 18-0327

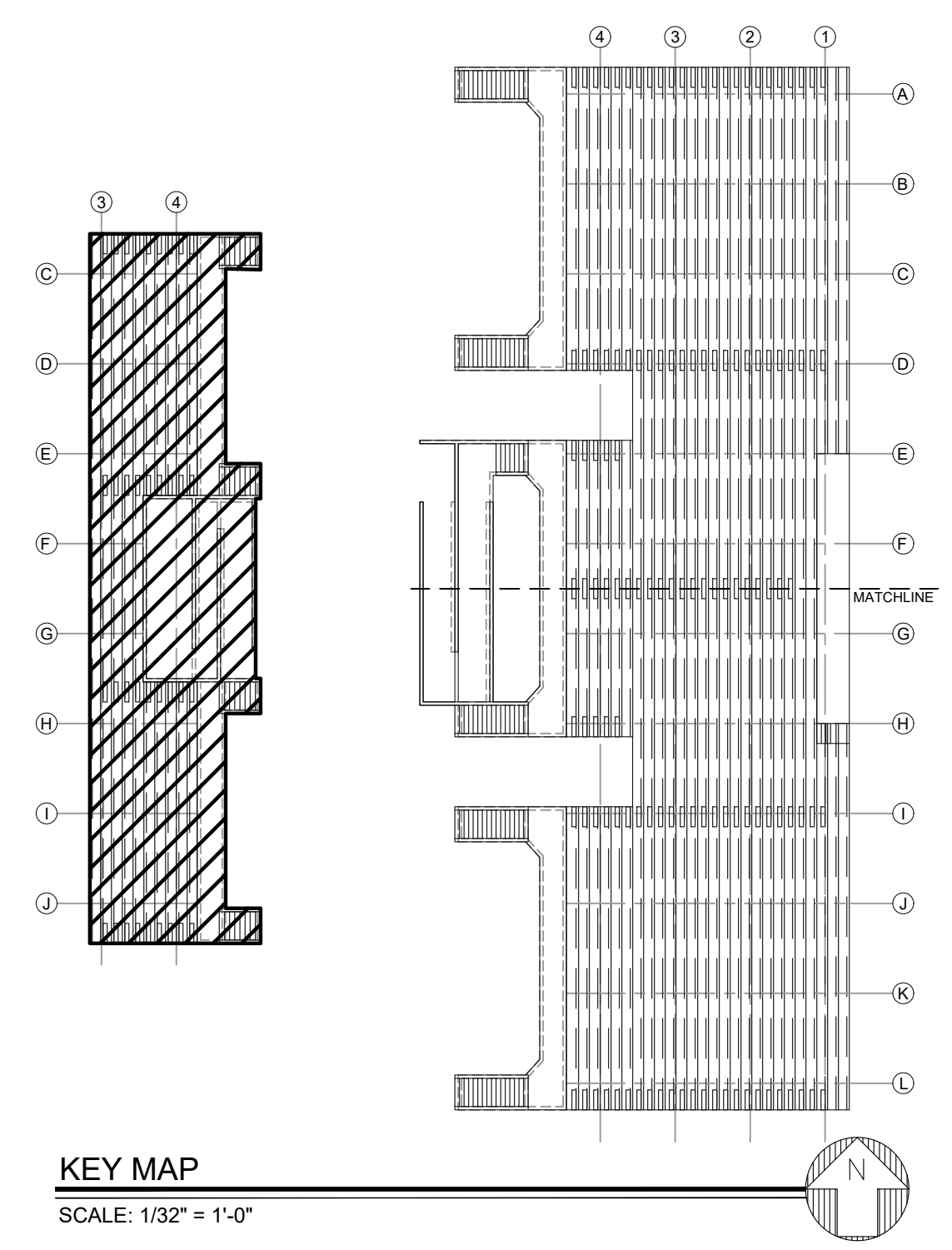


PLAN VIEW - VISITOR SIDE
SCALE: 3/16" = 1'-0"



LIFE SAFETY REPAIRS LEGEND		
1	REPAIR BRACKET TO SEAT CONNECTION (EA)	4 EA.
2	REPAIR BOTTOM TO CONCRETE CONNECTION (EA)	5 EA.
3	REPLACE CHAIN LINK CLIPS (EA)	- EA.
4	FENCE CHAIN LINK EXTENSION (ADD/REPAIR) (L.F.)	4 L.F.
5	REMOVE & REPLACE FENCE (L.F.)	109 L.F.
6	REMOVE & REPLACE GUARDRAIL (L.F.)	- L.F.
7	REMOVE & REPLACE HANDRAIL (L.F.)	- L.F.
8	REPLACE MISSING SEAT SEAM FASTENERS (EA)	- EA.
9	REMOVE POST (EA)	- EA.

(#) #
 INDICATES THE LOCATIONS OF CONNECTION FROM LEFT TO RIGHT
 INDICATES THE NUMBER OF CONNECTORS MISSING



KEY MAP
SCALE: 1/32" = 1'-0"

NO.	REVISIONS	DATE
1		
2		
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4		
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DESIGN NO.	DESIGNED	DATE	SCALE
18-0327	CJW / JT	NOV 2018	AS NOTED
	DRAWN		
	CHECKED		
	DATE ISSUED		

1835 - 20TH STREET
 VERO BEACH, FL 32960
 PH. (772) 569-0035
 FX. (772) 778-3617
 MELBOURNE, FL, PH (321) 283-1510
 FT. PIERCE, FL, PH (772) 768-9055



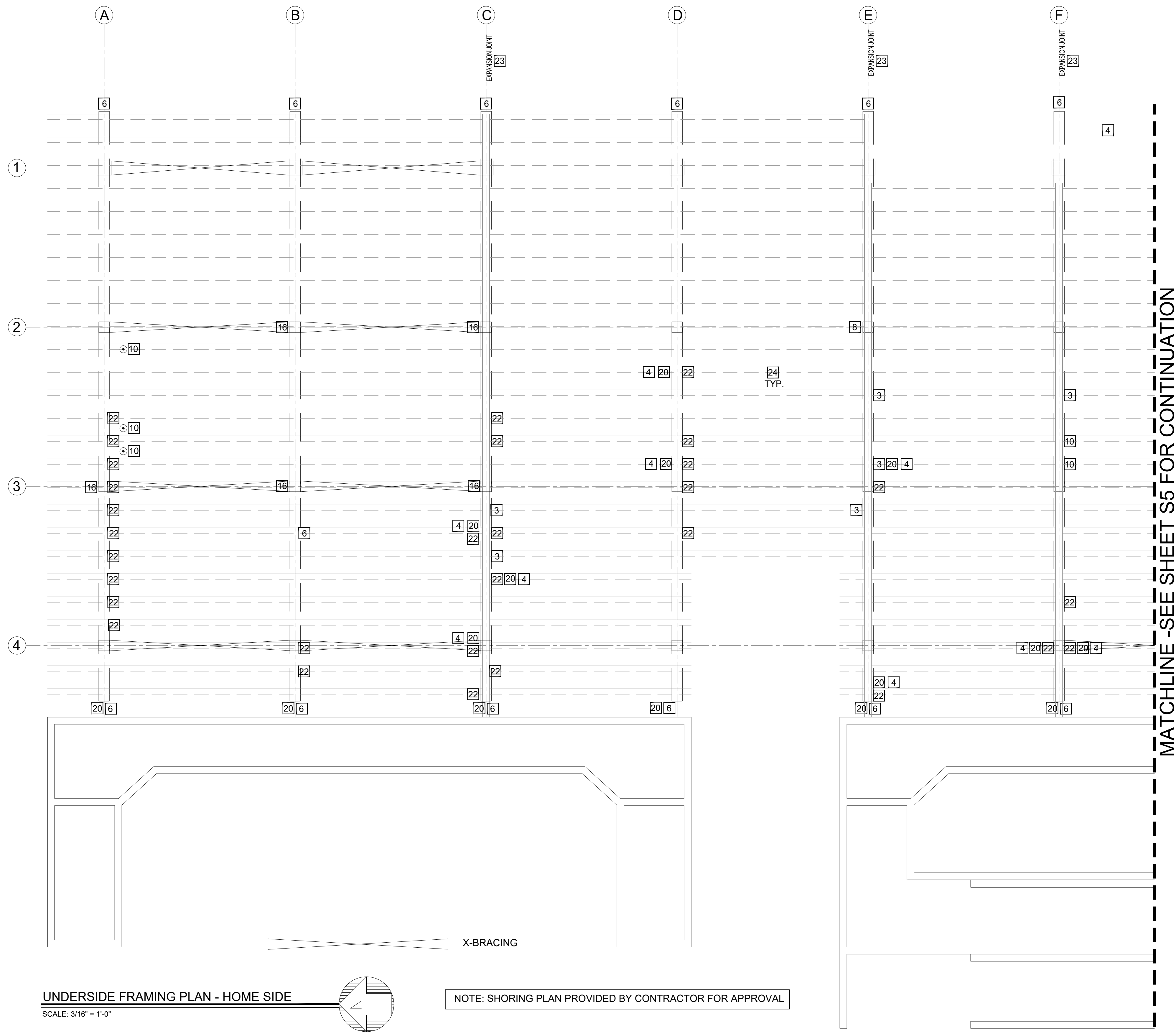
LIFE SAFETY REPAIR PLAN

SEBASTIAN RIVER HIGH SCHOOL
 Stadium Inspection
 9001 Shark Boulevard
 SEBASTIAN, FLORIDA

RODOLFO VILLAMIZAR
 FL P.E.#1000
 DATE: 02/20/2019

SHEET
S3
 4 OF 15
 18-0327

18-0327



MATCHLINE -SEE SHEET S5 FOR CONTINUATION

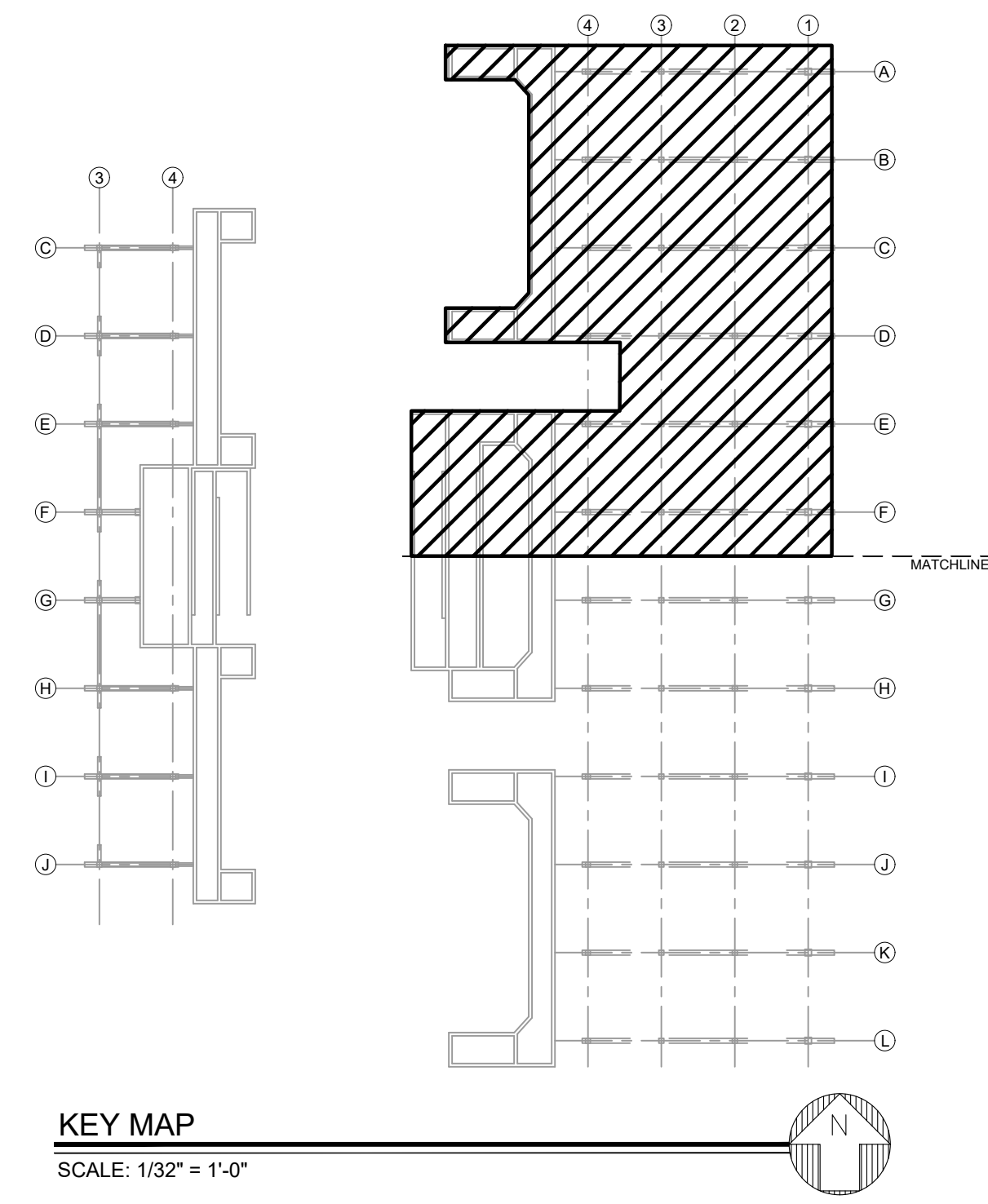
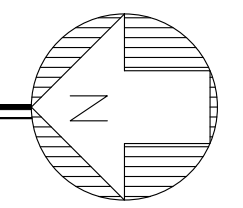
REPAIR LEGEND

1	PARTIAL DEPTH REPAIR (S.F.)	8	S.F.
2	STUCCO WALL REPAIR (S.F.)	-	S.F.
3	EDGE REPAIR (L.F.)	17	L.F.
4	OVERHEAD REPAIRS (S.F.)	16	S.F.
5	CONCRETE COLUMN REPAIR (C.F.)	-	C.F.
6	CONCRETE GIRDER REPAIR (C.F.)	9	C.F.
7	GRAVITY FEED CRACK REPAIR (L.F.)	-	L.F.
8	WALL CRACK REPAIR (L.F.)	6	L.F.
9	FINISHES TO BE REMOVED & REPLACED (S.F.)	-	S.F.
10	RUST SPOT (EA.)	18	EA.
11	POST POCKET REPAIR (EA.)	-	EA.
12	STAIR TREADS REPAIR (S.F.)	-	S.F.
13	REMOVE & REPLACE GROUT UNDER STEP (S.F.)	-	S.F.
14	REMOVE & REPLACE WALL STUCCO TRIM (S.F.)	-	S.F.
15	REMOVE & REPLACE ANCHOR BOLTS (EA.)	-	EA.
16	REMOVE & REPLACE STEEL PLATE @ COLUMN (EA.)	7	EA.
17	REMOVE & REPLACE STEEL ANGLE SEAT - WELD RUST @ JOIST (EA.)	-	EA.
18	REPLACE CABLE X-BRACING (EA.)	-	EA.
19	REMOVE BY GRINDING OUT REBAR BOLSTER TIPS (EA.)	-	EA.
20	CLEAN REBAR (EA.)	15	EA.
21	SLAB CRACK INJECTIONS (L.F.)	-	L.F.
22	JOIST BEARING REPAIR (S.F.)	36	S.F.
23	EXPANSION JOINT REPAIR	200	L.F.
24	REMOVE & REPLACE BACKER ROD/SEALANT ALONG SEATING TREADRISER	2,548	L.F.

--- CRACKS
 --- CABLE X-BRACING
 --- STEP
 --- LOOSE STEP

UNDERSIDE FRAMING PLAN - HOME SIDE
SCALE: 3/16" = 1'-0"

NOTE: SHORING PLAN PROVIDED BY CONTRACTOR FOR APPROVAL



REVISIONS

NO.	DATE	DESCRIPTION
1	18-0327	DESIGNED
2		CJW / JT
3		AER
4	NOV 2018	NOV 2018
5		RV
6		DATE ISSUED
7		SCALE

1835 - 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617

EMBV
ENGINEERING INC.
MOYA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

MELBOURNE, FL, PH (321) 763-4510
FT. PIERCE, FL, PH (772) 468-9055

DATE: 02/20/2019

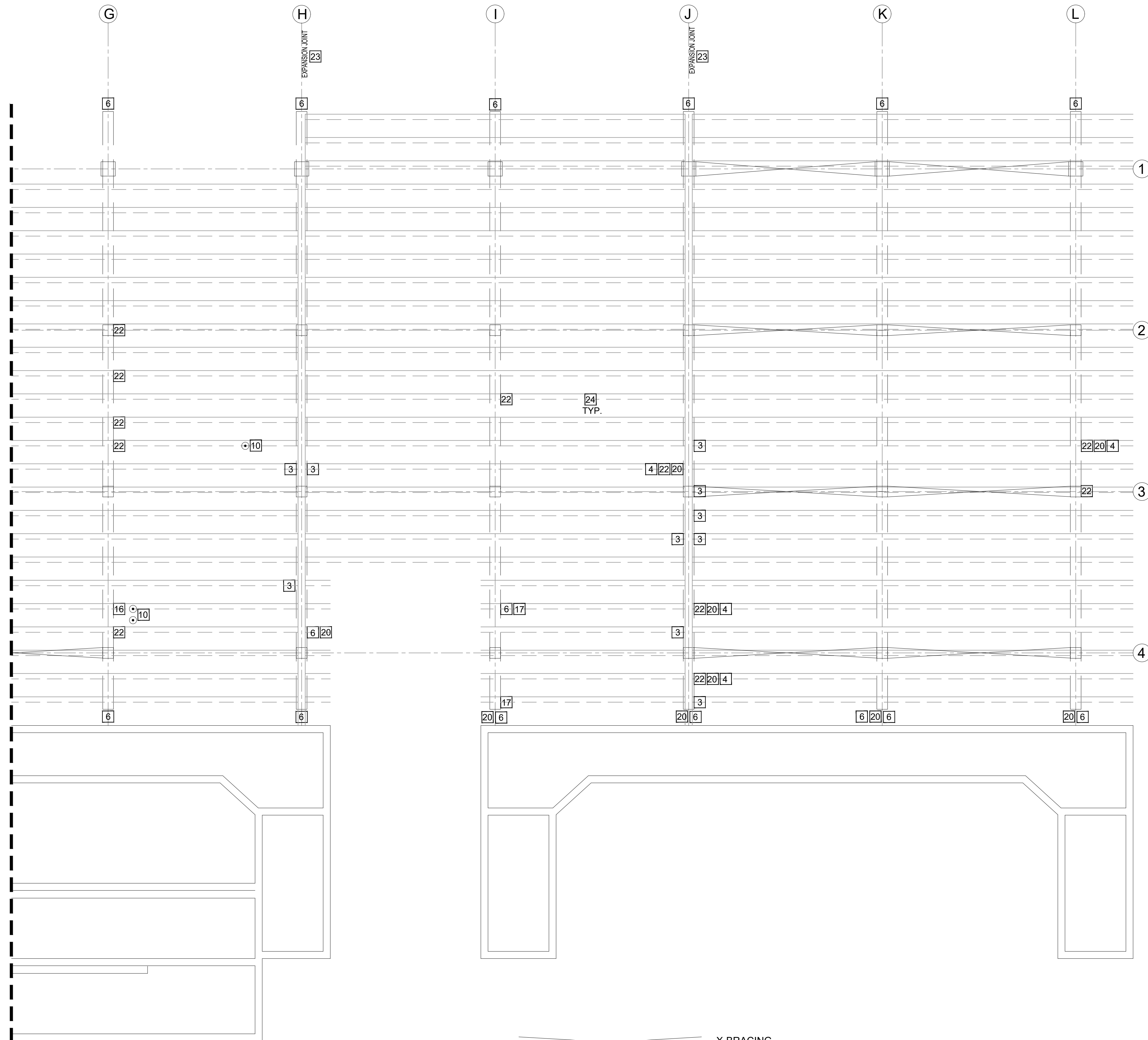
REPAIRS TO STRUCTURE
VIEW FROM UNDERSIDE

SEBASTIAN RIVER
HIGH SCHOOL
Stadium Inspection
9001 Shark Boulevard
SEBASTIAN, FLORIDA

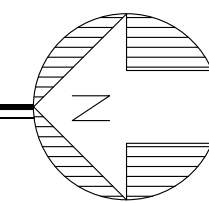
RODOLFO VILLAMIZAR
FL P.E.#61000

DATE: 02/20/2019
SHEET
S4
5 OF 15
18-0327

MATCHLINE -SEE SHEET S4 FOR CONTINUATION



UNDERSIDE FRAMING PLAN - HOME SIDE
SCALE: 3/16" = 1'-0"

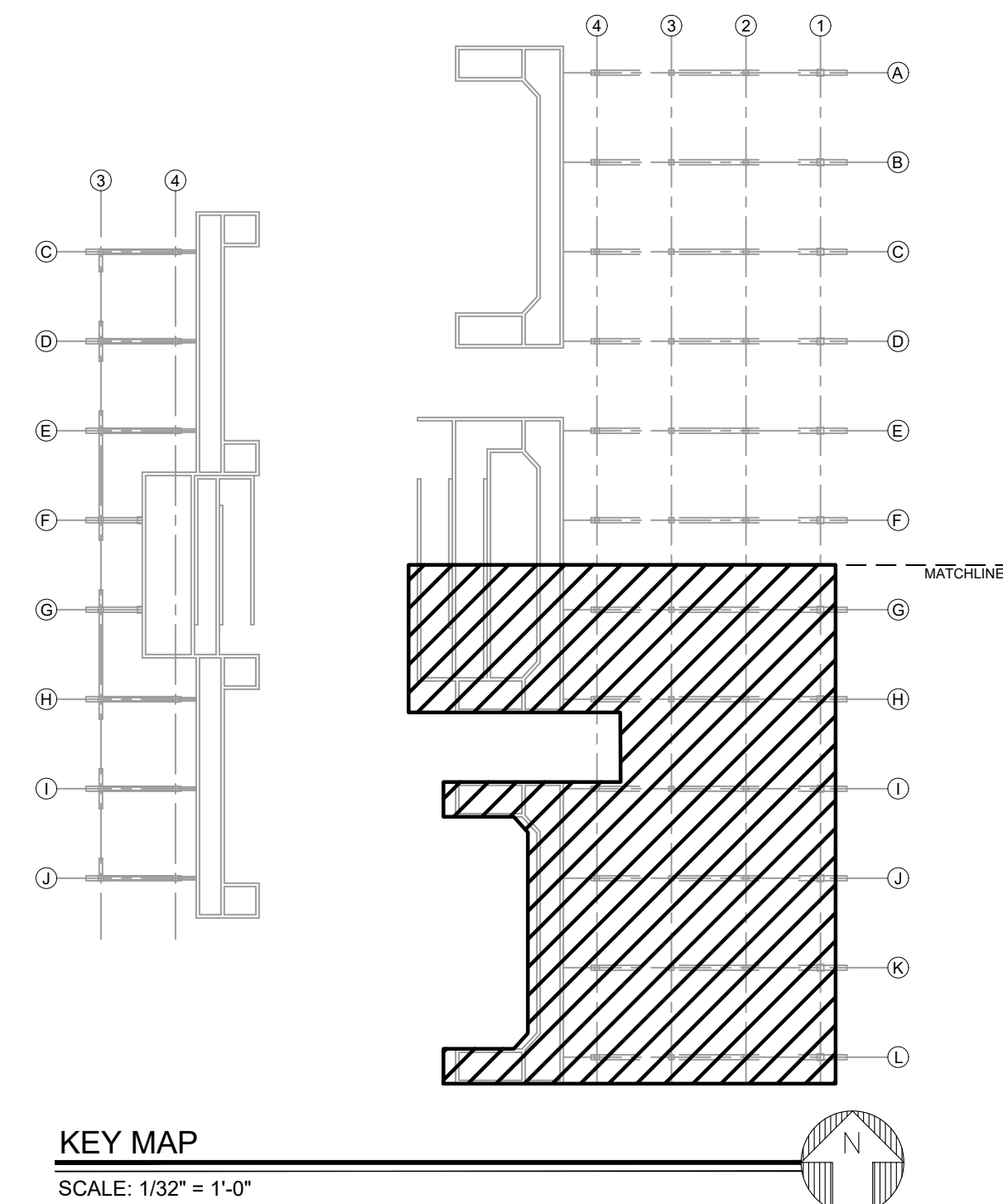


NOTE: SHORING PLAN PROVIDED BY CONTRACTOR FOR APPROVAL

X-BRACING

REPAIR LEGEND		
1	PARTIAL DEPTH REPAIR (S.F.)	3 S.F.
2	STUCCO WALL REPAIR (S.F.)	-- S.F.
3	EDGE REPAIR (L.F.)	28 L.F.
4	OVERHEAD REPAIRS (S.F.)	3 S.F.
5	CONCRETE COLUMN REPAIR (C.F.)	-- C.F.
6	CONCRETE GIRDER REPAIR (C.F.)	14 C.F.
7	GRAVITY FEED CRACK REPAIR (L.F.)	-- L.F.
8	WALL CRACK REPAIR (L.F.)	-- L.F.
9	FINISHES TO BE REMOVED & REPLACED (S.F.)	-- S.F.
10	RUST SPOT (EA.)	15 EA.
11	POST POCKET REPAIR (EA.)	-- EA.
12	STAIR TREADS REPAIR (S.F.)	-- S.F.
13	REMOVE & REPLACE GROUT UNDER STEP (S.F.)	-- S.F.
14	REMOVE & REPLACE WALL STUCCO TRIM (S.F.)	-- S.F.
15	REMOVE & REPLACE ANCHOR BOLTS (EA.)	-- EA.
16	REMOVE & REPLACE STEEL PLATE @ COLUMN (EA.)	1 EA.
17	REMOVE & REPLACE STEEL ANGLE SEAT - WELD RUST @ JOIST (EA.)	2 EA.
18	REPLACE CABLE X-BRACING (EA.)	-- EA.
19	REMOVE BY GRINDING OUT REBAR BOLSTER TIPS (EA.)	-- EA.
20	CLEAN REBAR (EA.)	10 EA.
21	SLAB CRACK INJECTIONS (L.F.)	-- L.F.
22	JOIST BEARING REPAIR (S.F.)	4 S.F.
23	EXPANSION JOINT REPAIR	138 L.F.
24	REMOVE & REPLACE BACKER ROOSEALANT ALONG SEATING TREADRISER	2,548 L.F.

~~~~~ CRACKS  
 --- CABLE X-BRACING  
 --- STEP  
 / / / / / LOOSE STEP



KEY MAP  
SCALE: 1/32" = 1'-0"

| REVISIONS | DATE |
|-----------|------|
| 1         |      |
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|             |          |
|-------------|----------|
| DESIGNER    | 18-0327  |
| DRAWN       | CJW / JT |
| CHECKED     | AER      |
| DATE        | NOV 2018 |
| DATE ISSUED | RV       |
| SCALE       | AS NOTED |

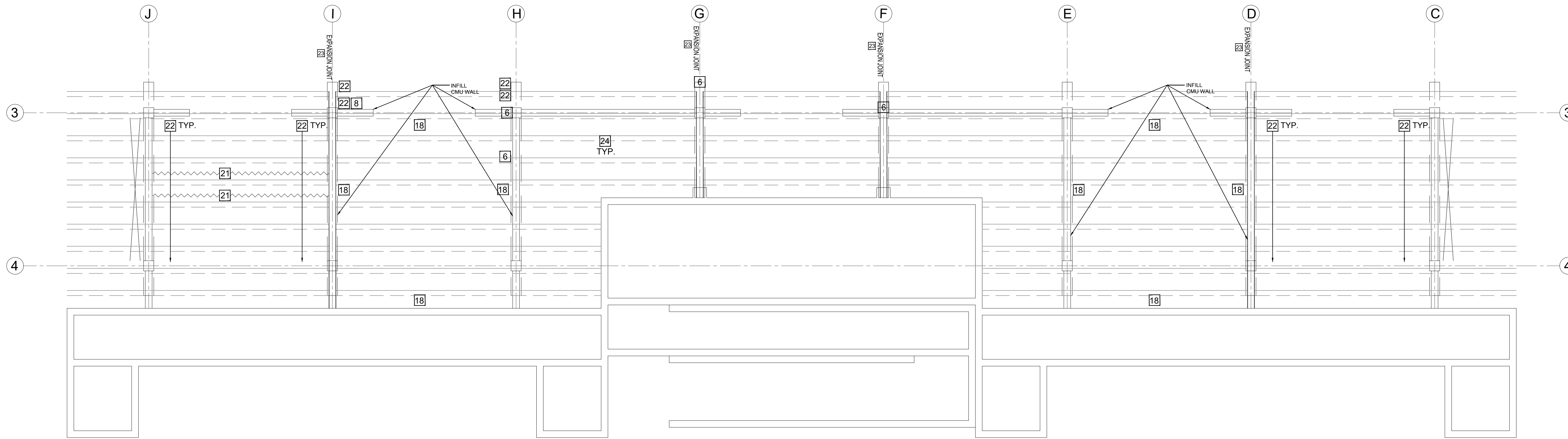
1835 - 20TH STREET  
 VERO BEACH, FL 32960  
 PH. (772) 569-0035  
 FX. (772) 778-3617  
 MELBOURNE, FL, PH (321) 783-4510  
 FT. PIERCE, FL, PH (772) 768-9055

REPAIRS TO STRUCTURE  
VIEW FROM UNDERSIDE

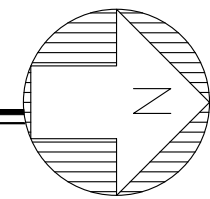
SEBASTIAN RIVER  
HIGH SCHOOL  
Stadium Inspection  
9001 Shark Boulevard  
SEBASTIAN, FLORIDA

RODOLFO VILLAMIZAR  
FL P.E.#61000  
DATE: 02/20/2019

SHEET  
**S5**  
6 OF 15  
18-0327



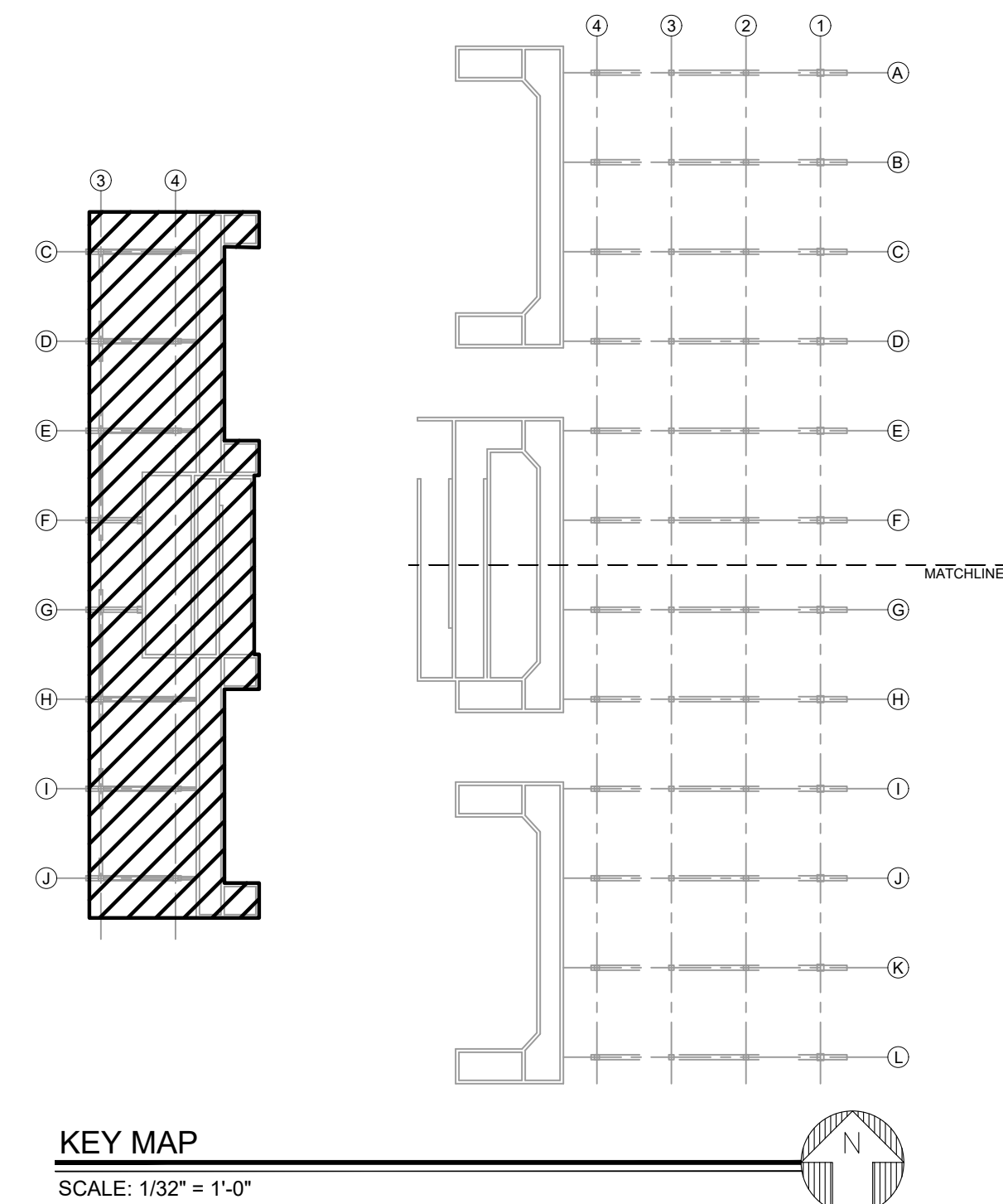
UNDERSIDE FRAMING PLAN - VISITOR SIDE  
SCALE: 3/16" = 1'-0"



NOTE: SHORING PLAN PROVIDED BY CONTRACTOR FOR APPROVAL

| REPAIR LEGEND |                                                               |           |
|---------------|---------------------------------------------------------------|-----------|
| 1             | PARTIAL DEPTH REPAIR (S.F.)                                   | 4 S.F.    |
| 2             | STUCCO WALL REPAIR (S.F.)                                     | - S.F.    |
| 3             | EDGE REPAIR (L.F.)                                            | 44 L.F.   |
| 4             | OVERHEAD REPAIRS (S.F.)                                       | - S.F.    |
| 5             | CONCRETE COLUMN REPAIR (C.F.)                                 | - C.F.    |
| 6             | CONCRETE GIRDER REPAIR (C.F.)                                 | 11 C.F.   |
| 7             | GRAVITY FEED CRACK REPAIR (L.F.)                              | - L.F.    |
| 8             | WALL CRACK REPAIR (L.F.)                                      | 8 L.F.    |
| 9             | FINISHES TO BE REMOVED & REPLACED (S.F.)                      | - S.F.    |
| 10            | RUST SPOT (EA)                                                | - EA      |
| 11            | POST POCKET REPAIR (EA)                                       | - EA      |
| 12            | STAIR TREADS REPAIR (S.F.)                                    | - S.F.    |
| 13            | REMOVE & REPLACE GROUT UNDER STEP (S.F.)                      | - S.F.    |
| 14            | REMOVE & REPLACE WALL STUCCO TRIM (S.F.)                      | - S.F.    |
| 15            | REMOVE & REPLACE ANCHOR BOLTS (EA)                            | - EA      |
| 16            | REMOVE & REPLACE STEEL PLATE @ COLUMN (EA)                    | - EA      |
| 17            | REMOVE & REPLACE STEEL ANGLE SEAT - WELD RUST @ JOIST (EA)    | - EA      |
| 18            | REPLACE CABLE X-BRACING (EA)                                  | 9 EA      |
| 19            | REMOVE BY GRINDING OUT REBAR BOLSTER TIPS (EA)                | - EA      |
| 20            | CLEAN REBAR (EA)                                              | - EA      |
| 21            | SLAB CRACK INJECTIONS (L.F.)                                  | 44 L.F.   |
| 22            | JOIST BEARING REPAIR (S.F.)                                   | 8 S.F.    |
| 23            | EXPANSION JOINT REPAIR                                        | 81 L.F.   |
| 24            | REMOVE & REPLACE BACKER ROD/SEALANT ALONG SEATING TREAD/RISER | 1284 L.F. |

~~~~~ CRACKS  
 --- CABLE X-BRACING
 ▭ STEP
 ▨ LOOSE STEP



KEY MAP
SCALE: 1/32" = 1'-0"

| REVISIONS | DATE |
|-----------|------|
| 1 | |
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1835 - 20TH STREET
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 MELBOURNE, FL, PH (321) 763-4510
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EMBV
ENGINEERING INC.
 MOYA-BOWLES VILLANAZAR & ASSOCIATES
 CONSULTING ENGINEERING CA #3728

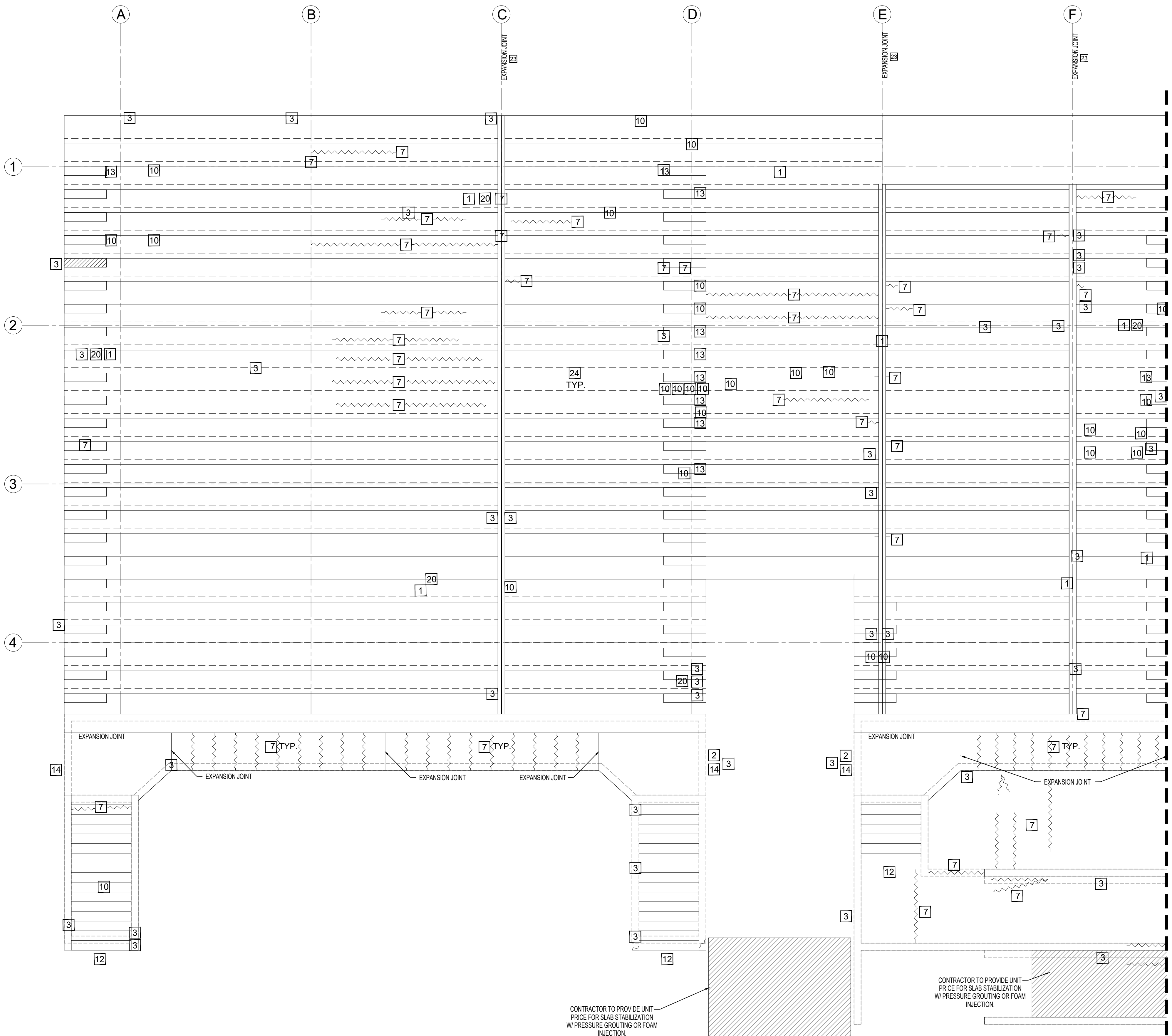
SEBASTIAN RIVER
HIGH SCHOOL
 Stadium Inspection
 9001 Shark Boulevard
 SEBASTIAN, FLORIDA

RODOLFO VILLANAZAR
 FL P.E.#61000
 DATE: 02/20/2019

SHEET
S6
 7 OF 15
 18-0327

18-0327

BID SET



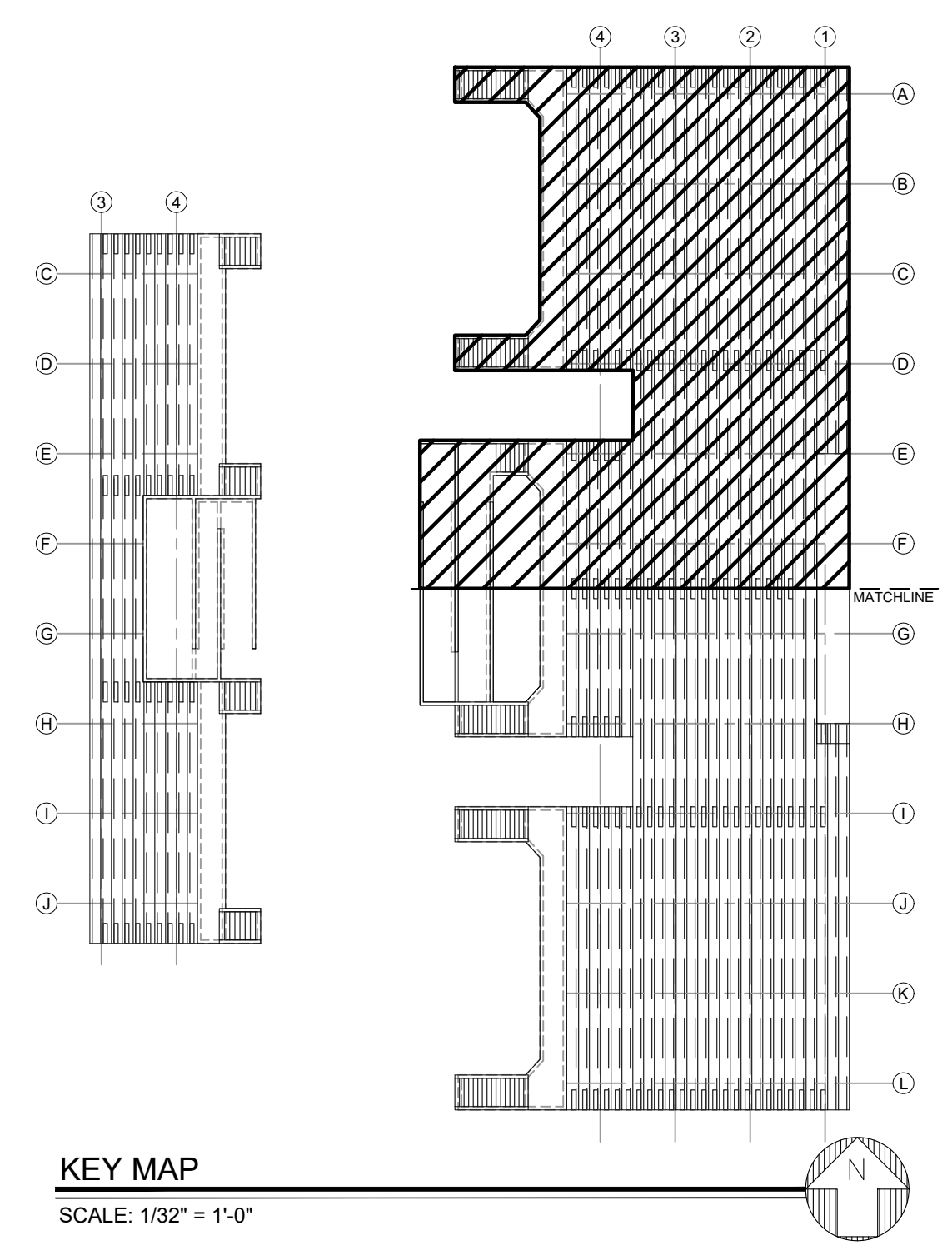
MATCHLINE - SEE SHEET S8 FOR CONTINUATION

| REPAIR LEGEND | | |
|---------------|--|------------|
| 1 | PARTIAL DEPTH REPAIR (S.F.) | 3 S.F. |
| 2 | STUCCO WALL REPAIR (S.F.) | 183 S.F. |
| 3 | EDGE REPAIR (L.F.) | 183 L.F. |
| 4 | OVERHEAD REPAIRS (S.F.) | - S.F. |
| 5 | CONCRETE COLUMN REPAIR (C.F.) | - C.F. |
| 6 | CONCRETE GIRDER REPAIR (C.F.) | - C.F. |
| 7 | GRAVITY FEED CRACK REPAIR (L.F.) | 371 L.F. |
| 8 | WALL CRACK REPAIR (L.F.) | - L.F. |
| 9 | FINISHES TO BE REMOVED & REPLACED (S.F.) | - S.F. |
| 10 | RUST SPOT (EA) | 28 EA |
| 11 | POST POCKET REPAIR (EA) | - EA |
| 12 | STAIR TREADS REPAIR (S.F.) | 20 S.F. |
| 13 | REMOVE & REPLACE GROUT UNDER STEP (S.F.) | 41 S.F. |
| 14 | REMOVE & REPLACE WALL STUCCO TRIM (S.F.) | 15 S.F. |
| 15 | REMOVE & REPLACE ANCHOR BOLTS (EA) | - EA |
| 16 | REMOVE & REPLACE STEEL PLATE @ COLUMN (EA) | - EA |
| 17 | REMOVE & REPLACE STEEL ANGLE SEAT - WELD RUST @ JOIST (EA) | - EA |
| 18 | REPLACE CABLE X-BRACING (EA) | - EA |
| 19 | REMOVE BY GRINDING OUT REBAR BOLSTER TIPS (EA) | - EA |
| 20 | CLEAN REBAR (EA) | 5 EA |
| 21 | SLAB CRACK INJECTIONS (L.F.) | - L.F. |
| 22 | JOIST BEARING REPAIR (S.F.) | - S.F. |
| 23 | EXPANSION JOINT REPAIR | 196 L.F. |
| 24 | REMOVE & REPLACE BACKER ROD/SEALANT ALONG SEATING TREADRISER | 1,018 L.F. |
| --- | CRACKS | |
| --- | CABLE X-BRACING | |
| --- | STEP | |
| --- | LOOSE STEP | 1 EA |

PLAN VIEW - HOME SIDE
SCALE: 3/16" = 1'-0"

NOTE: SHORING PLAN PROVIDED BY CONTRACTOR FOR APPROVAL

ALL EXPANSION JOINTS ARE BAD.
ALL EXPANSION JOINTS SHALL BE REPLACED.



KEY MAP
SCALE: 1/32" = 1'-0"

| REVISIONS | DATE |
|-----------|------|
| 1 | |
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| DESIGNER | DATE | SCALE |
|----------|----------|----------|
| CJW / JT | NOV 2018 | AS NOTED |
| AER | | |
| RV | | |

1835 - 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617

EMBV
ENGINEERING INC.
MOYA BOWLES VILLANAZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
MELBOURNE, FL, PH (321) 383-4510
FT. PIERCE, FL, PH (772) 368-9055

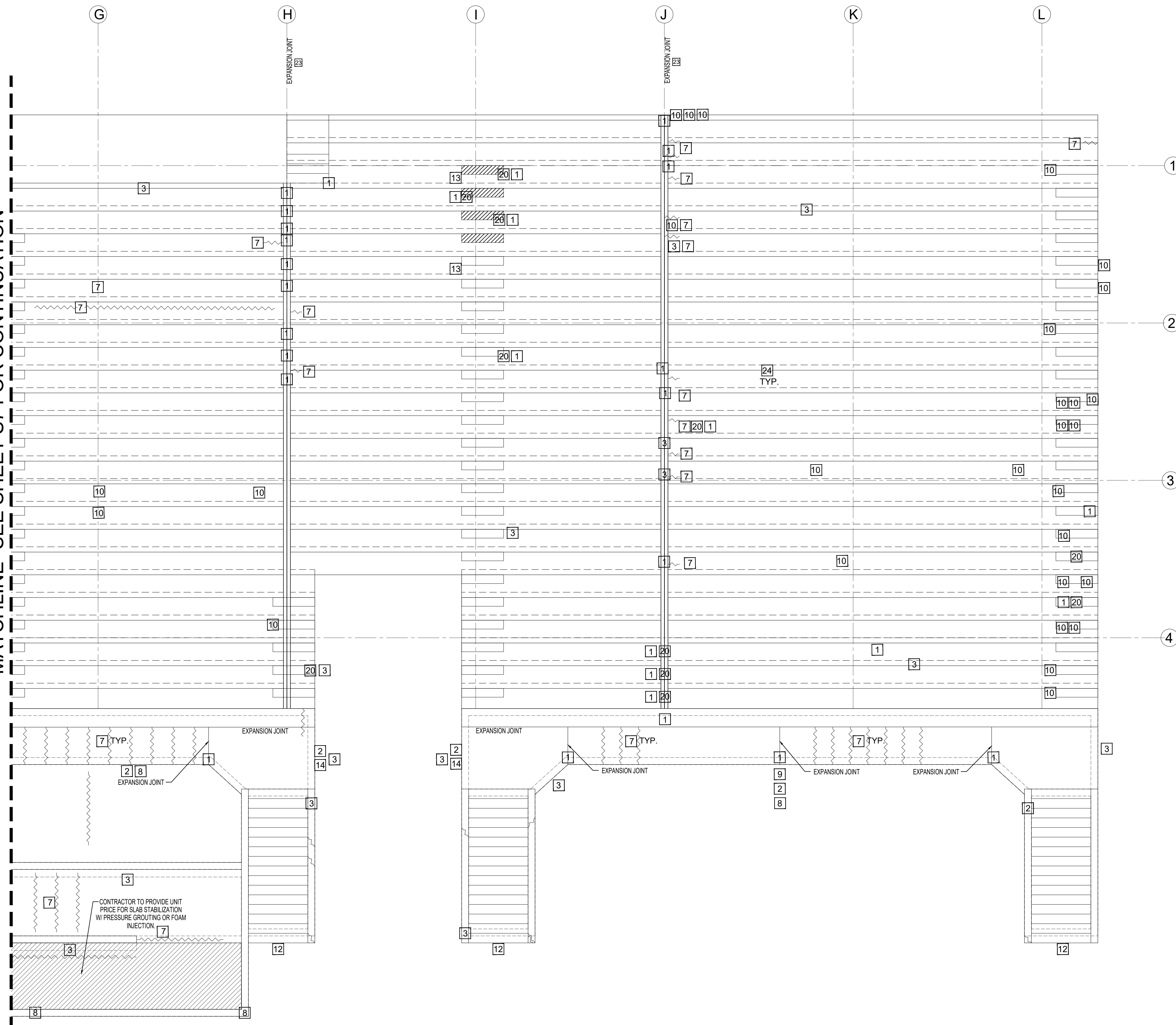
REPAIRS TO STRUCTURE
VIEW FROM UPPER LEVEL

SEBASTIAN RIVER
HIGH SCHOOL
Stadium Inspection
9001 Shark Boulevard
SEBASTIAN, FLORIDA

RODOLFO VILLANAZAR
FL P.E.#1000
DATE: 02/20/2019

SHEET
S7
8 OF 15
18-0327

MATCHLINE - SEE SHEET S7 FOR CONTINUATION

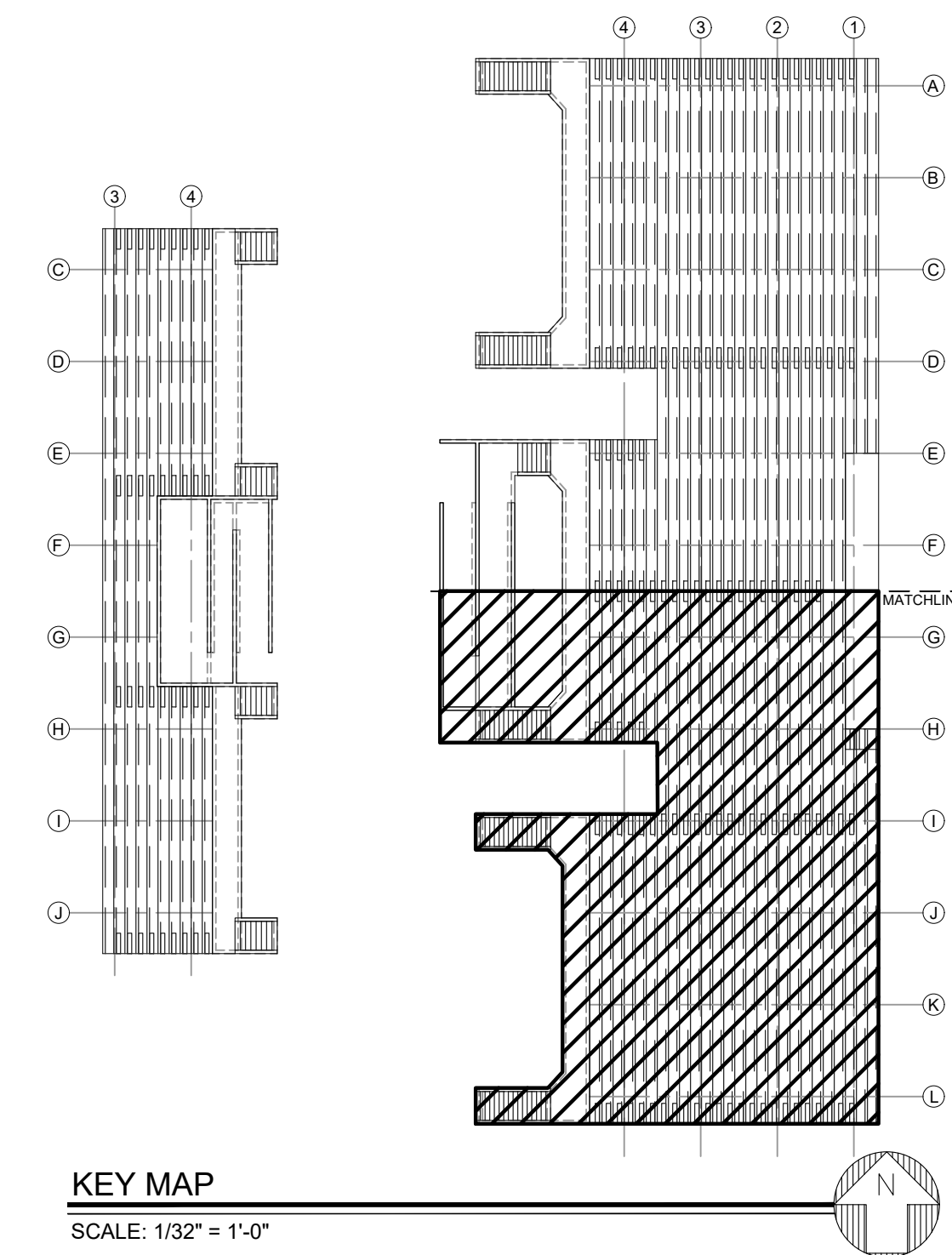


PLAN VIEW - HOME SIDE
SCALE: 3/16" = 1'-0"

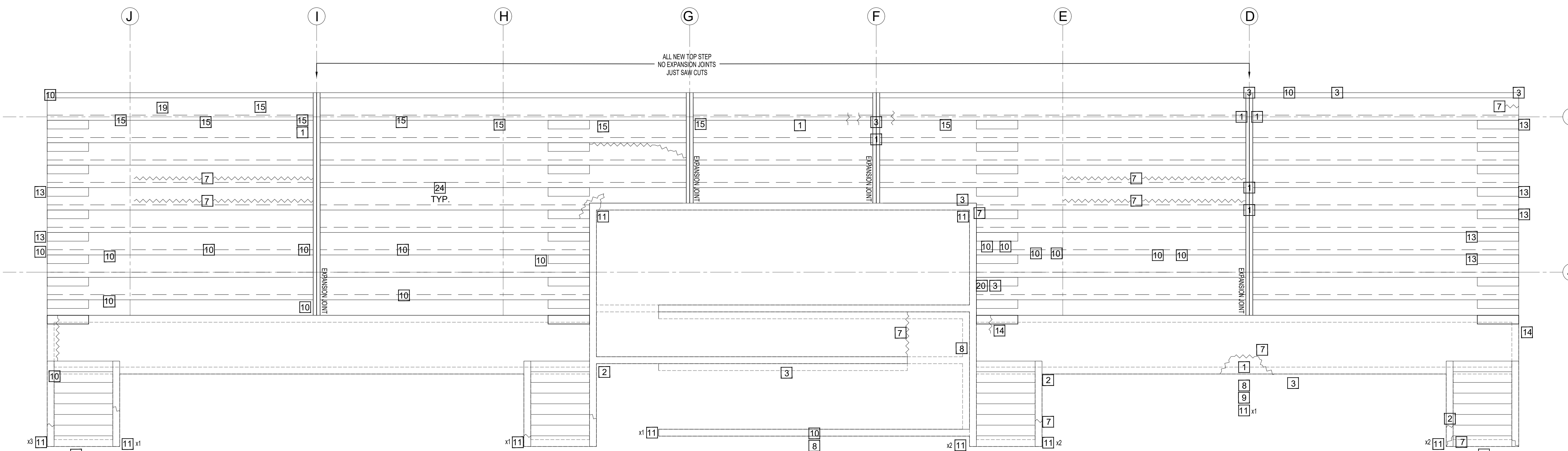
NOTE: SHORING PLAN PROVIDED BY CONTRACTOR FOR APPROVAL

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ALL EXPANSION JOINTS
SHALL BE REPLACED.

| REPAIR LEGEND | | |
|---------------|---|------------|
| 1 | PARTIAL DEPTH REPAIR (S.F.) | 11 S.F. |
| 2 | STUCCO WALL REPAIR (S.F.) | 121 S.F. |
| 3 | EDGE REPAIR (L.F.) | 100 L.F. |
| 4 | OVERHEAD REPAIRS (S.F.) | - S.F. |
| 5 | CONCRETE COLUMN REPAIR (C.F.) | - C.F. |
| 6 | CONCRETE GIRDER REPAIR (C.F.) | - C.F. |
| 7 | GRAVITY FEED CRACK REPAIR (L.F.) | 206 L.F. |
| 8 | WALL CRACK REPAIR (L.F.) | 21 L.F. |
| 9 | FINISHES TO BE REMOVED & REPLACED (S.F.) | - S.F. |
| 10 | RUST SPOT (EA.) | 29 EA. |
| 11 | POST POCKET REPAIR (EA.) | - EA. |
| 12 | STAIR TREADS REPAIR (S.F.) | 20 S.F. |
| 13 | REMOVE & REPLACE GROUT UNDER STEP (S.F.) | 9 S.F. |
| 14 | REMOVE & REPLACE WALL STUCCO TRIM (S.F.) | 20 S.F. |
| 15 | REMOVE & REPLACE ANCHOR BOLTS (EA.) | - EA. |
| 16 | REMOVE & REPLACE STEEL PLATE @ COLUMN (EA.) | - EA. |
| 17 | REMOVE & REPLACE STEEL ANGLE SEAT - WELD RUST @ JOIST (EA.) | - EA. |
| 18 | REPLACE CABLE X-BRACING (EA.) | - EA. |
| 19 | REMOVE BY GRINDING OUT REBAR BOLSTER TIPS (EA.) | - EA. |
| 20 | CLEAN REBAR (EA.) | 12 EA. |
| 21 | SLAB CRACK INJECTIONS (L.F.) | - L.F. |
| 22 | JOIST BEARING REPAIR (S.F.) | - S.F. |
| 23 | EXPANSION JOINT REPAIR | 128 L.F. |
| 24 | REMOVE & REPLACE BACKER ROD SEALANT ALONG SEATING TREAD/RISER | 1,018 L.F. |
| --- | CRACKS | |
| --- | CABLE X-BRACING | |
| --- | STEP | |
| --- | LOOSE STEP | 4 EA. |



| | | | | |
|---|---|--|---|----------|
| 1835 - 20TH STREET
VERO BEACH, FL 32960
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MELBOURNE, FL, PH (321) 783-4510
FT. PIERCE, FL, PH (772) 768-9055
EMBV
ENGINEERING, INC.
MEDIA BOYLES WILLAMAZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728 | DESIGNED | CJW / JT | DATE | 18-0327 |
| | DRAWN | AER | DATE | NOV 2018 |
| | CHECKED | RV | DATE ISSUED | |
| | SCALE | AS NOTED | | |
| | REVISIONS | | | |
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| SEBASTIAN RIVER
HIGH SCHOOL
Stadium Inspection
9001 Shark Boulevard
SEBASTIAN, FLORIDA | RODOLFO VILLAMAZAR
FL P.E.#61000
DATE: 02/20/2019 | SHEET
S8
9 OF 15
18-0327 | REPAIRS TO STRUCTURE
VIEW FROM UPPER LEVEL | |

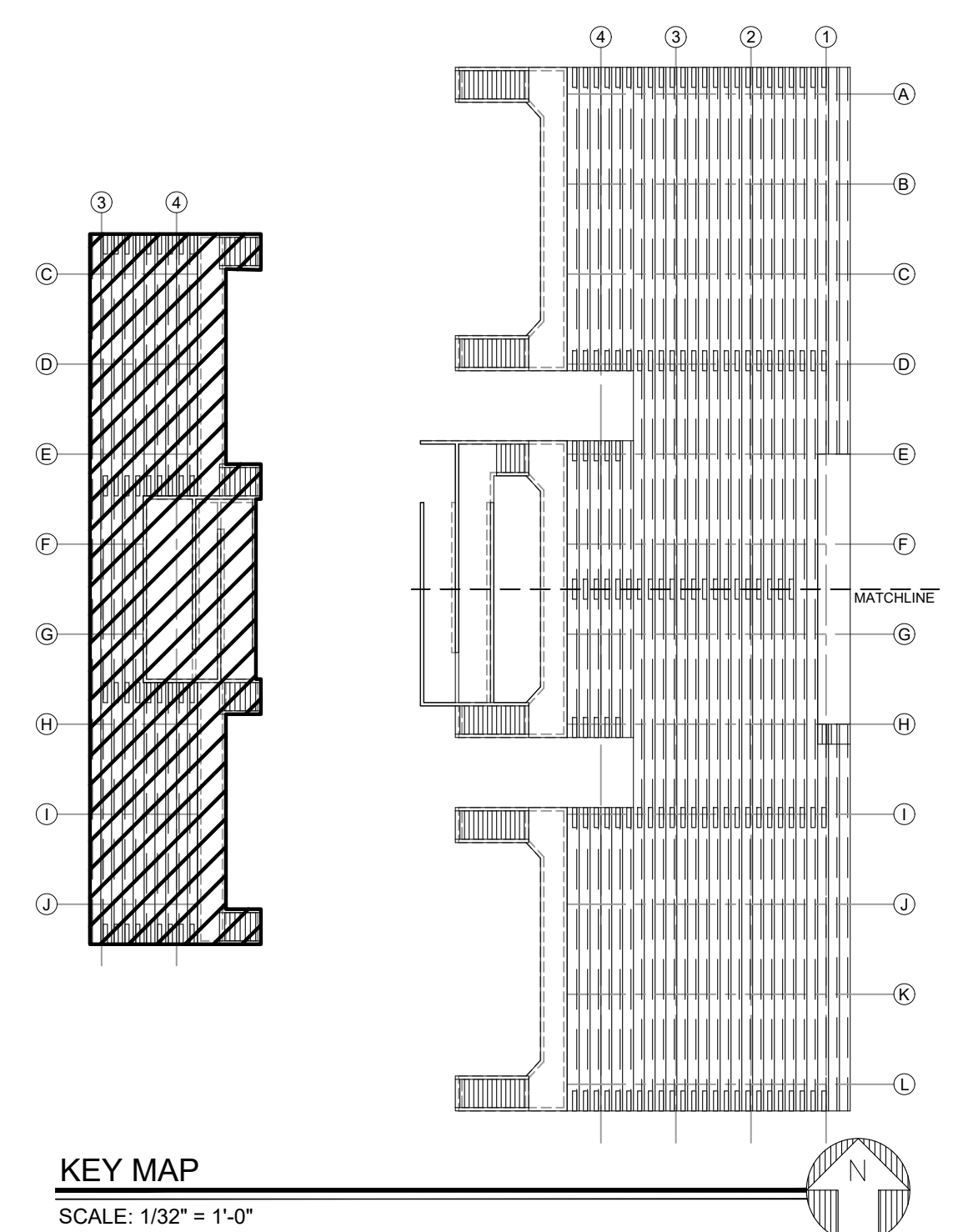


PLAN VIEW - VISITOR SIDE
SCALE: 3/16" = 1'-0"

NOTE: SHORING PLAN PROVIDED BY CONTRACTOR FOR APPROVAL

ALL EXPANSION JOINTS ARE BAD.
ALL EXPANSION JOINTS SHALL BE REPLACED.

| REPAIR LEGEND | | |
|---------------|--|------------|
| 1 | PARTIAL DEPTH REPAIR (S.F.) | 3 S.F. |
| 2 | STUCCO WALL REPAIR (S.F.) | 81 S.F. |
| 3 | EDGE REPAIR (L.F.) | 30 L.F. |
| 4 | OVERHEAD REPAIRS (S.F.) | - S.F. |
| 5 | CONCRETE COLUMN REPAIR (C.F.) | - C.F. |
| 6 | CONCRETE GIRDER REPAIR (C.F.) | - C.F. |
| 7 | GRAVITY FEED CRACK REPAIR (L.F.) | 140 L.F. |
| 8 | WALL CRACK REPAIR (L.F.) | 51 L.F. |
| 9 | FINISHES TO BE REMOVED & REPLACED (S.F.) | - S.F. |
| 10 | RUST SPOT (EA) | 20 EA |
| 11 | POST POCKET REPAIR (EA) | 15 EA |
| 12 | STAIR TREADS REPAIR (S.F.) | 14 S.F. |
| 13 | REMOVE & REPLACE GROUT UNDER STEP (S.F.) | 29 S.F. |
| 14 | REMOVE & REPLACE WALL STUCCO TRIM (S.F.) | 11 S.F. |
| 15 | REMOVE & REPLACE ANCHOR BOLTS (EA) | 10 EA |
| 16 | REMOVE & REPLACE STEEL PLATE @ COLUMN (EA) | - EA |
| 17 | REMOVE & REPLACE STEEL ANGLE SEAT - WELD RUST @ JOIST (EA) | - EA |
| 18 | REPLACE CABLE X-BRACING (EA) | - EA |
| 19 | REMOVE BY GRINDING OUT REBAR BOLSTER TIPS (EA) | 1 EA |
| 20 | CLEAN REBAR (EA) | - EA |
| 21 | SLAB CRACK INJECTIONS (L.F.) | - L.F. |
| 22 | JOIST BEARING REPAIR (S.F.) | - S.F. |
| 23 | EXPANSION JOINT REPAIR | - L.F. |
| 24 | REMOVE & REPLACE BACKER ROD/SEALANT ALONG SEATING TREADRISER | 1,234 L.F. |
| ~ | CRACKS | |
| - | CABLE X-BRACING | |
| — | STEP | |
| ▨ | LOOSE STEP | |



| REV | NO | DESCRIPTION | DATE |
|-----|----|-------------|------|
| 1 | | | |
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1835 - 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
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EMBV
ENGINEERING, INC.
MIGUEL BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

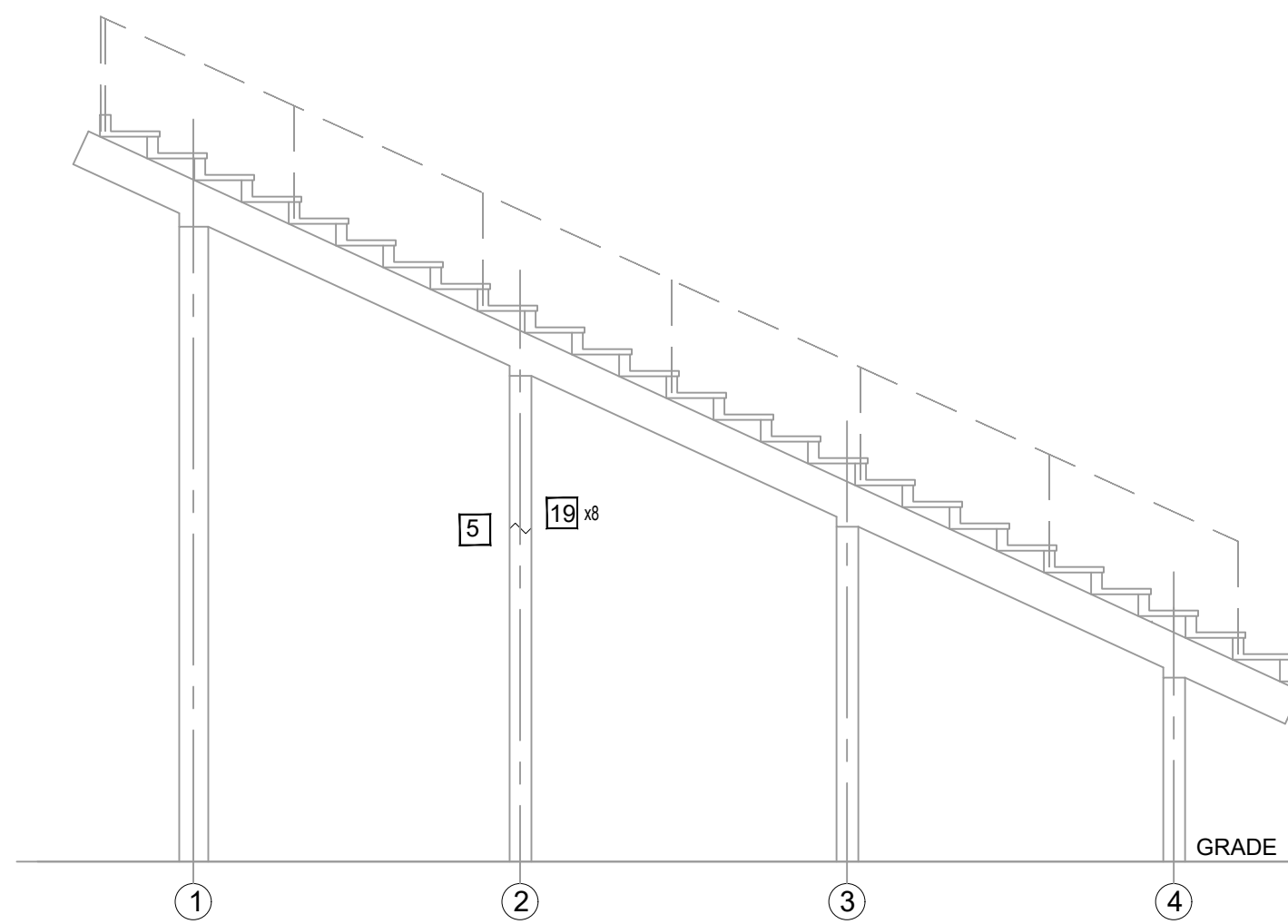
MELBOURNE, FL, PH (321) 763-4510
FT. PIERCE, FL, PH (772) 468-9055

REPAIRS TO STRUCTURE
VIEW FROM UPPER LEVEL

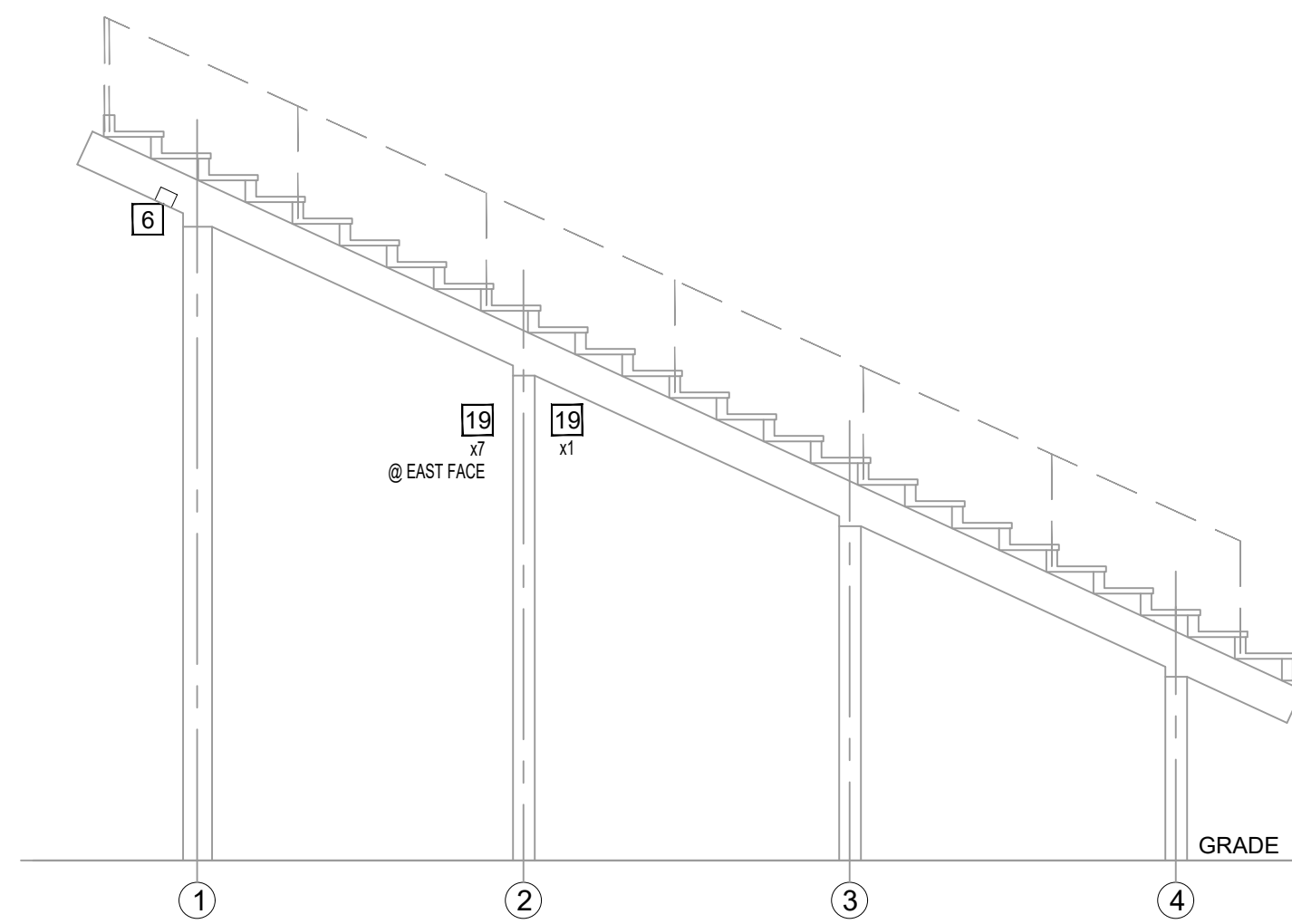
SEBASTIAN RIVER
HIGH SCHOOL
Stadium Inspection
9001 Shark Boulevard
SEBASTIAN, FLORIDA

RODOLFO VILLAMIZAR
FL P.E.#61000
DATE: 02/20/2019

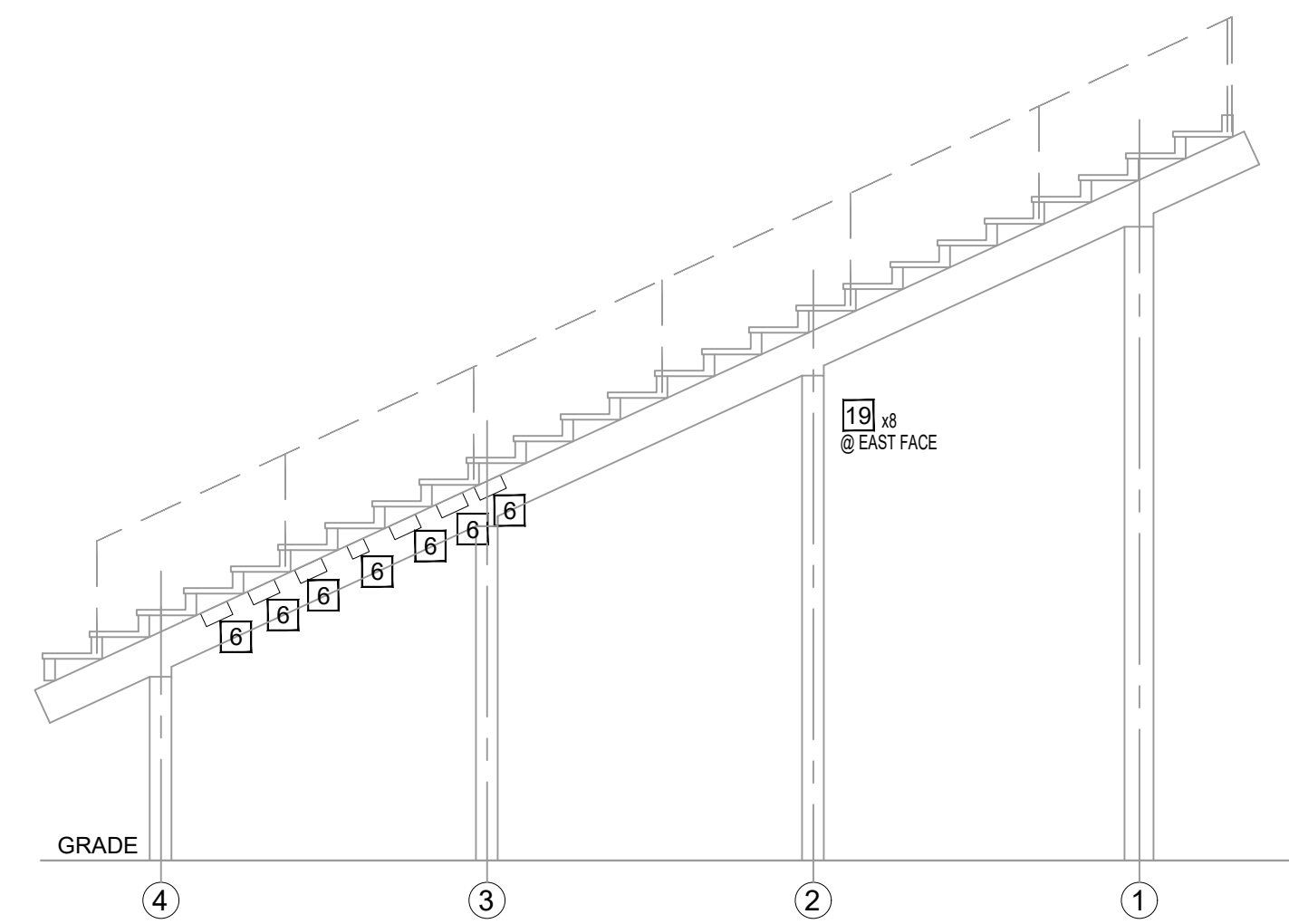
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10 OF 15
18-0327



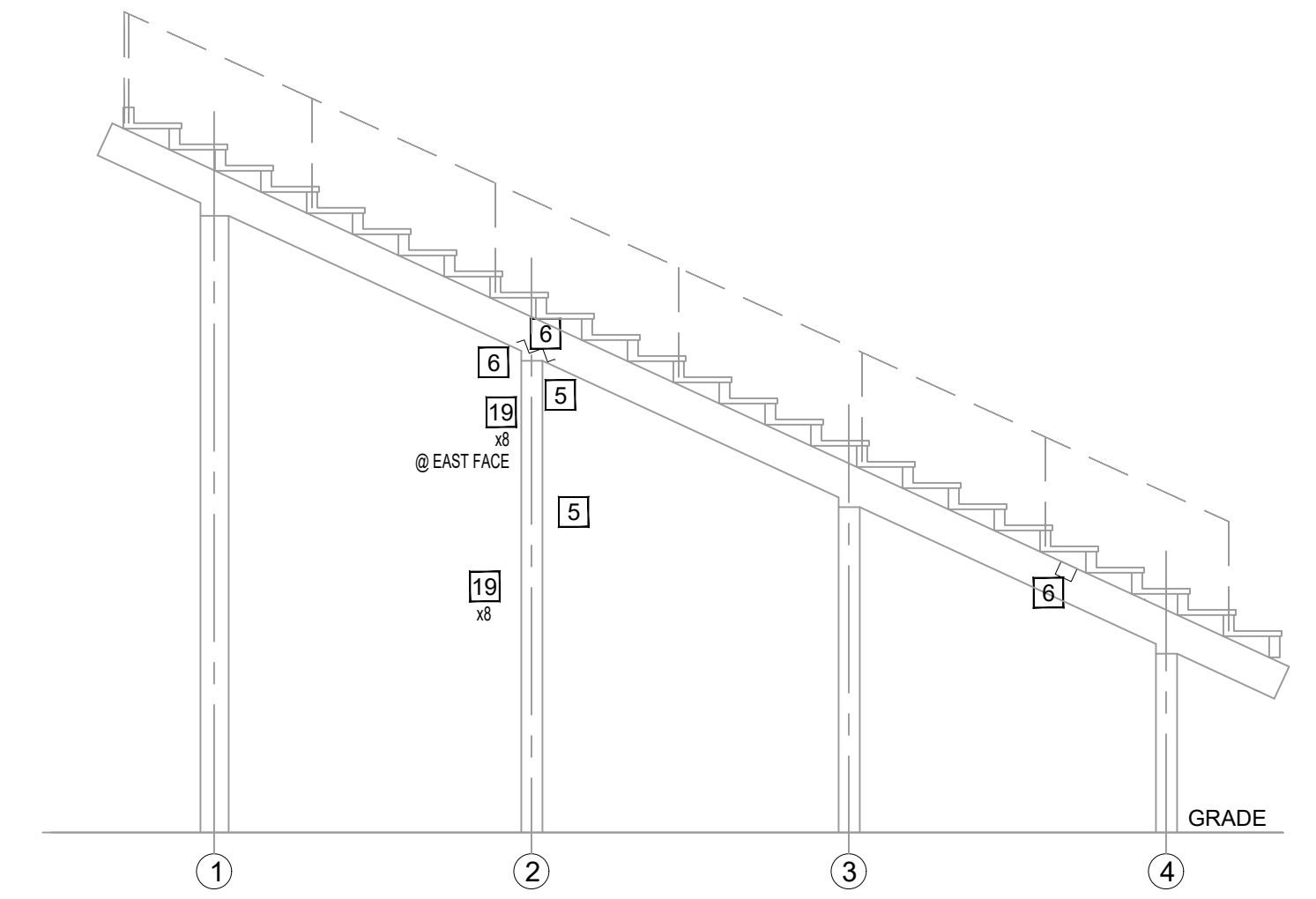
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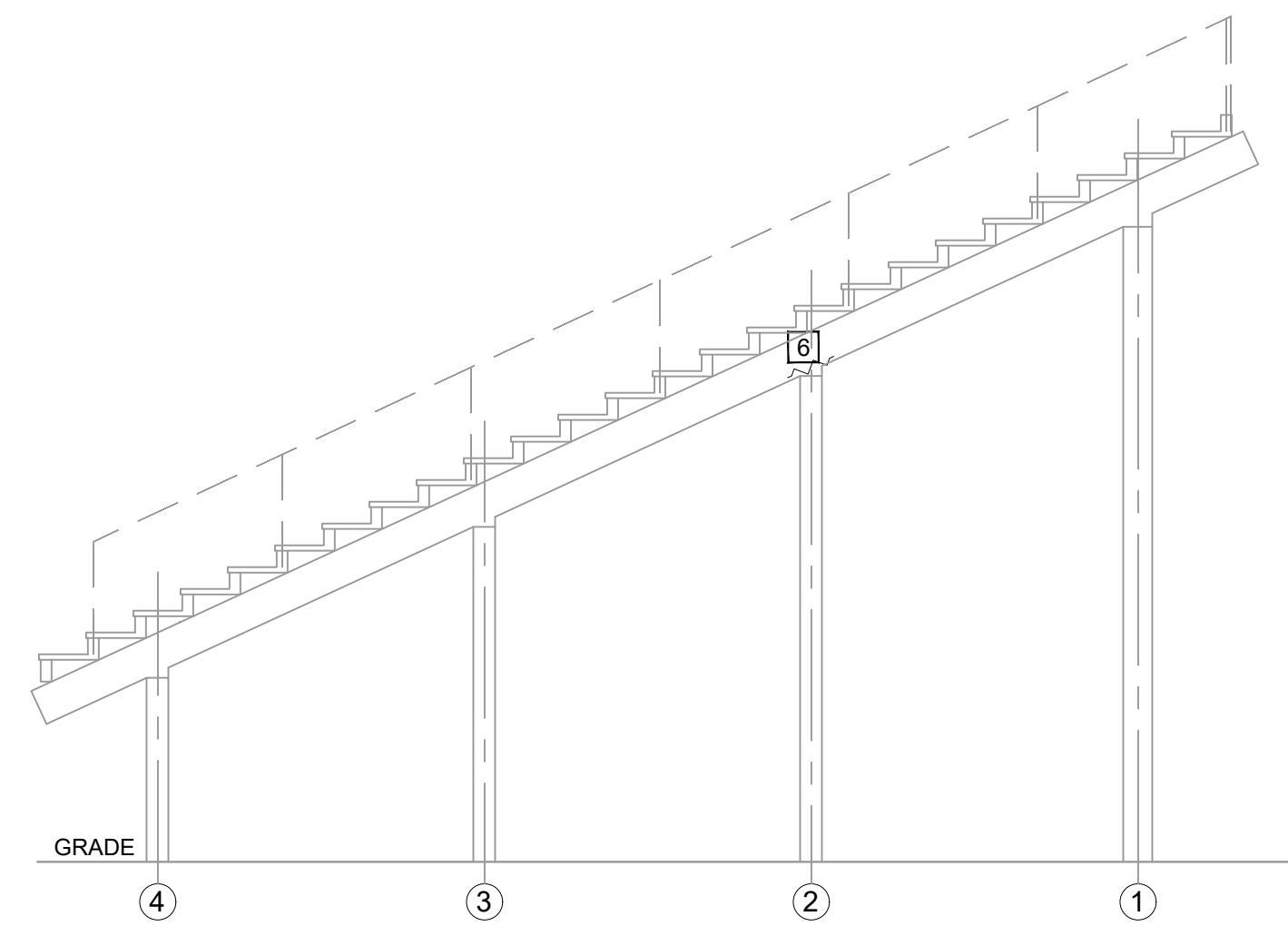
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SCALE: 1/8" = 1'-0"



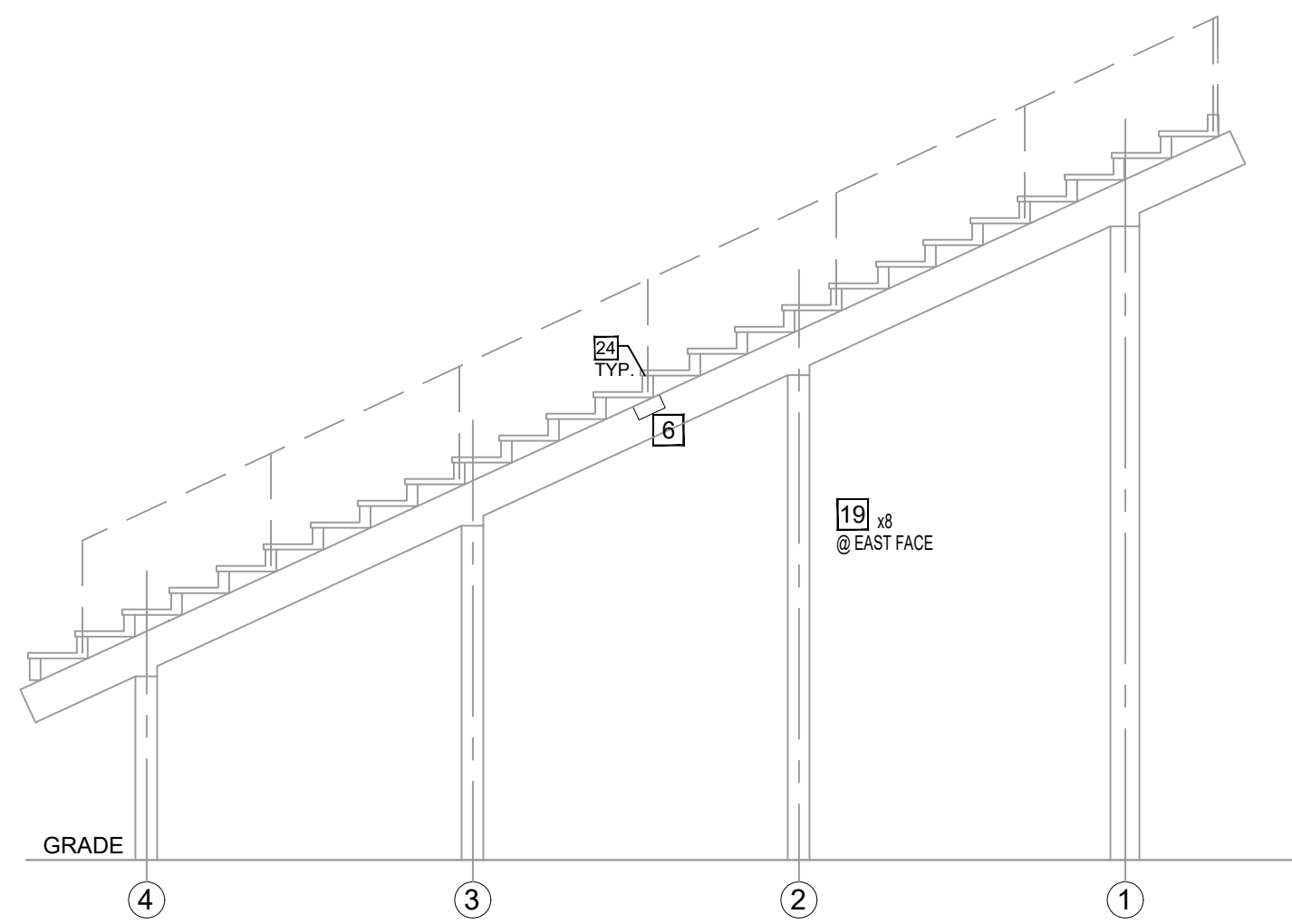
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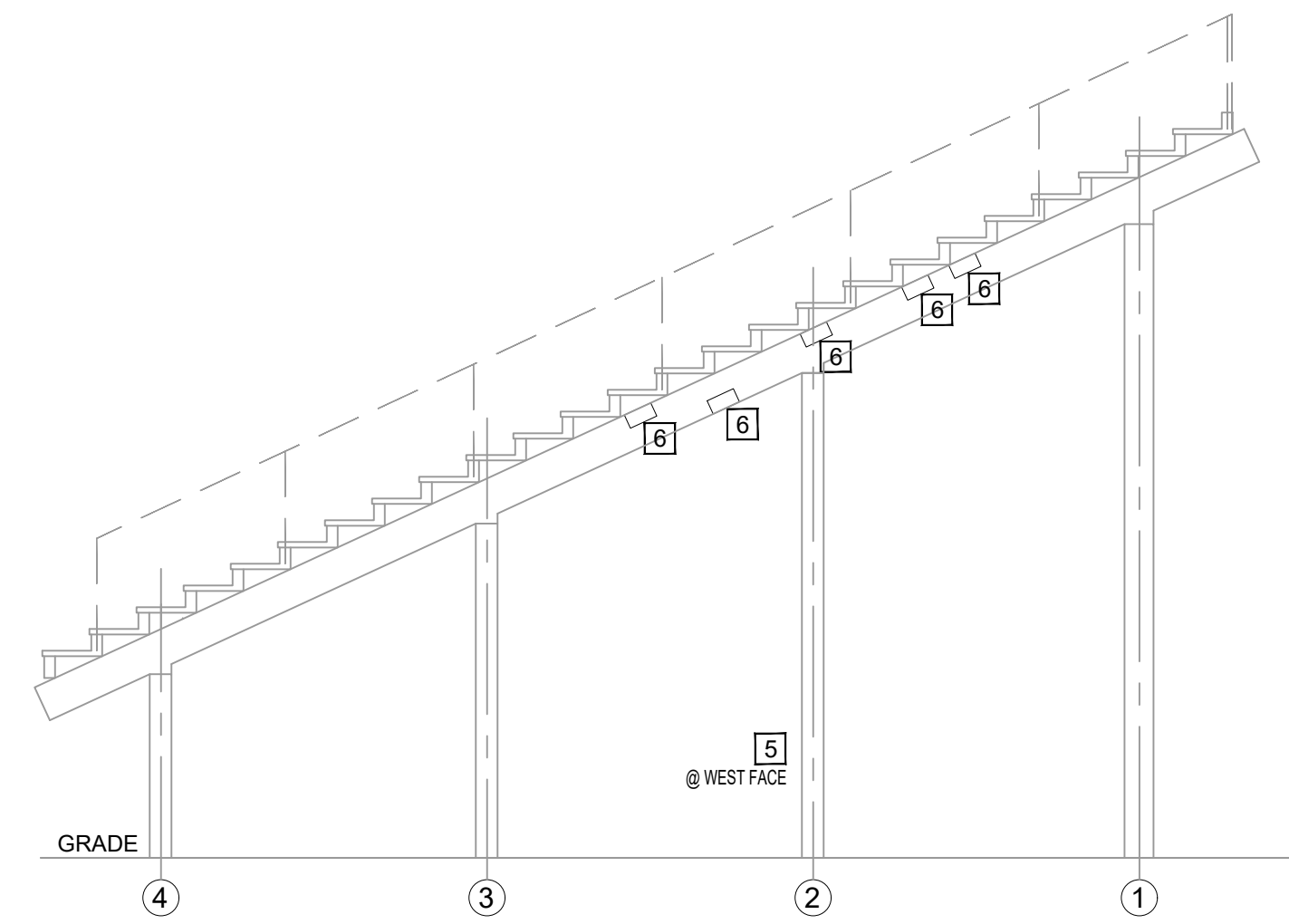
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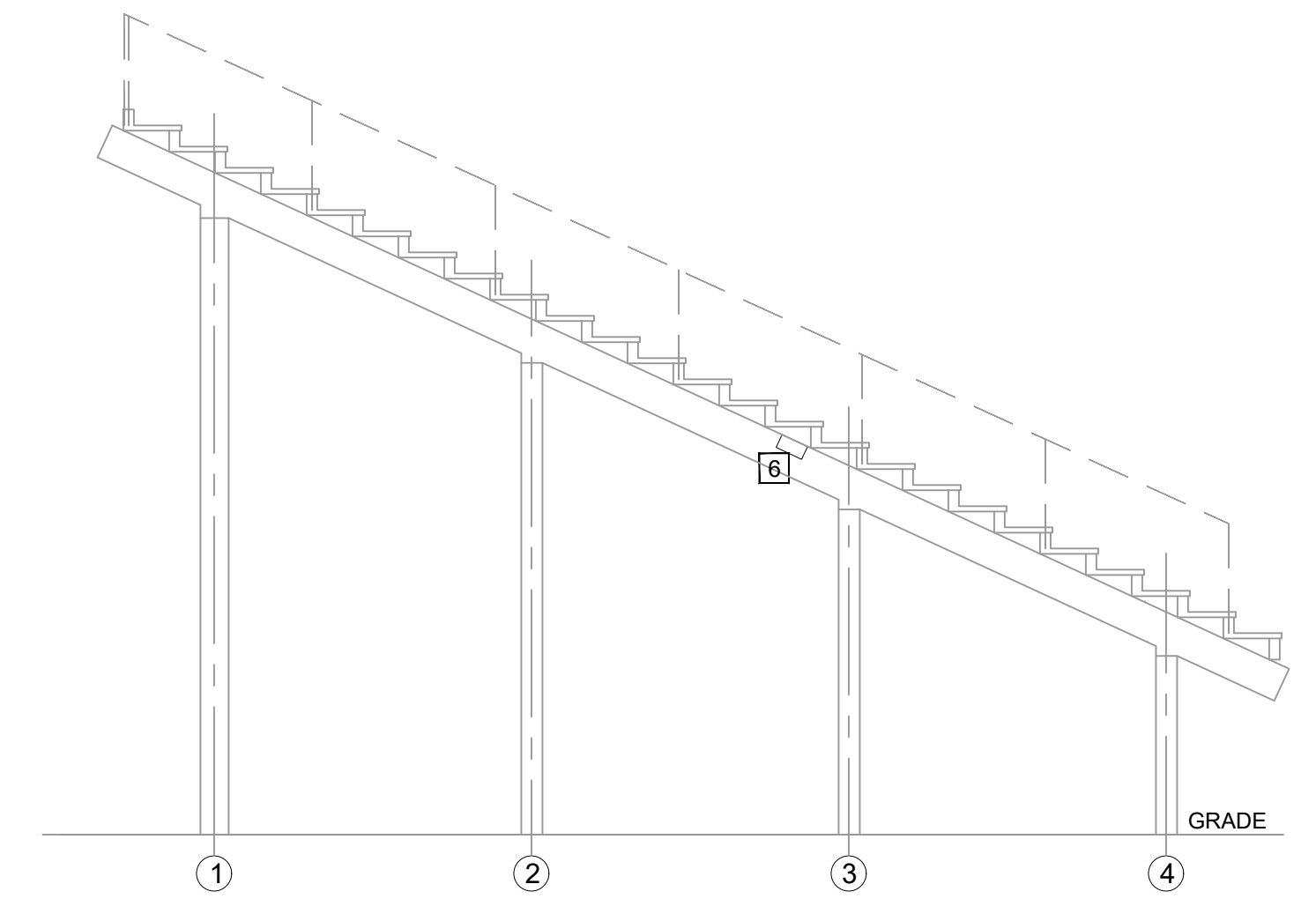
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GRID LINE F SOUTH SIDE
SCALE: 1/8" = 1'-0"

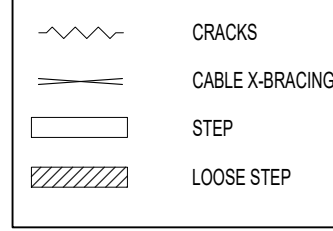


GRID LINE G SOUTH SIDE
SCALE: 1/8" = 1'-0"



GRID LINE H NORTH SIDE
SCALE: 1/8" = 1'-0"

| REPAIR LEGEND | | |
|---------------|---|---------|
| 1 | PARTIAL DEPTH REPAIR (S.F.) | - S.F. |
| 2 | STUCCO WALL REPAIR (S.F.) | - S.F. |
| 3 | EDGE REPAIR (L.F.) | - L.F. |
| 4 | OVERHEAD REPAIRS (S.F.) | - S.F. |
| 5 | CONCRETE COLUMN REPAIR (C.F.) | 3 C.F. |
| 6 | CONCRETE GIRDER REPAIR (C.F.) | 75 C.F. |
| 7 | GRAVITY FEED CRACK REPAIR (L.F.) | - L.F. |
| 8 | WALL CRACK REPAIR (L.F.) | - L.F. |
| 9 | FINISHES TO BE REMOVED & REPLACED (S.F.) | - S.F. |
| 10 | RUST SPOT (EA) | - EA. |
| 11 | POST POCKET REPAIR (EA) | - EA. |
| 12 | STAIR TREADS REPAIR (S.F.) | - S.F. |
| 13 | REMOVE & REPLACE GROUT UNDER STEP (S.F.) | - S.F. |
| 14 | REMOVE & REPLACE WALL STUCCO TRIM (S.F.) | - S.F. |
| 15 | REMOVE & REPLACE ANCHOR BOLTS (EA) | - EA. |
| 16 | REMOVE & REPLACE STEEL PLATE @ COLUMN (EA) | - EA. |
| 17 | REMOVE & REPLACE STEEL ANGLE SEAT - WELD RUST @ JOIST (EA) | - EA. |
| 18 | REPLACE CABLE X-BRACING (EA) | - EA. |
| 19 | REMOVE & REPLACE REBAR BOLSTER TIPS (EA) | 49 EA. |
| 20 | CLEAN REBAR (EA) | - EA. |
| 21 | SLAB CRACK INJECTIONS (L.F.) | - L.F. |
| 22 | JOIST BEARING REPAIR (S.F.) | - S.F. |
| 23 | EXPANSION JOINT REPAIR | - L.F. |
| 24 | REMOVE & REPLACE BACKER ROD/SEALANT ALONG SEATING TREAD/RISER | - L.F. |



| NO. | REVISIONS | DATE |
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| DRAWN | CJW / JT | |
| CHECKED | AER | |
| DATE | NOV 2018 | |
| SCALE | RV | |
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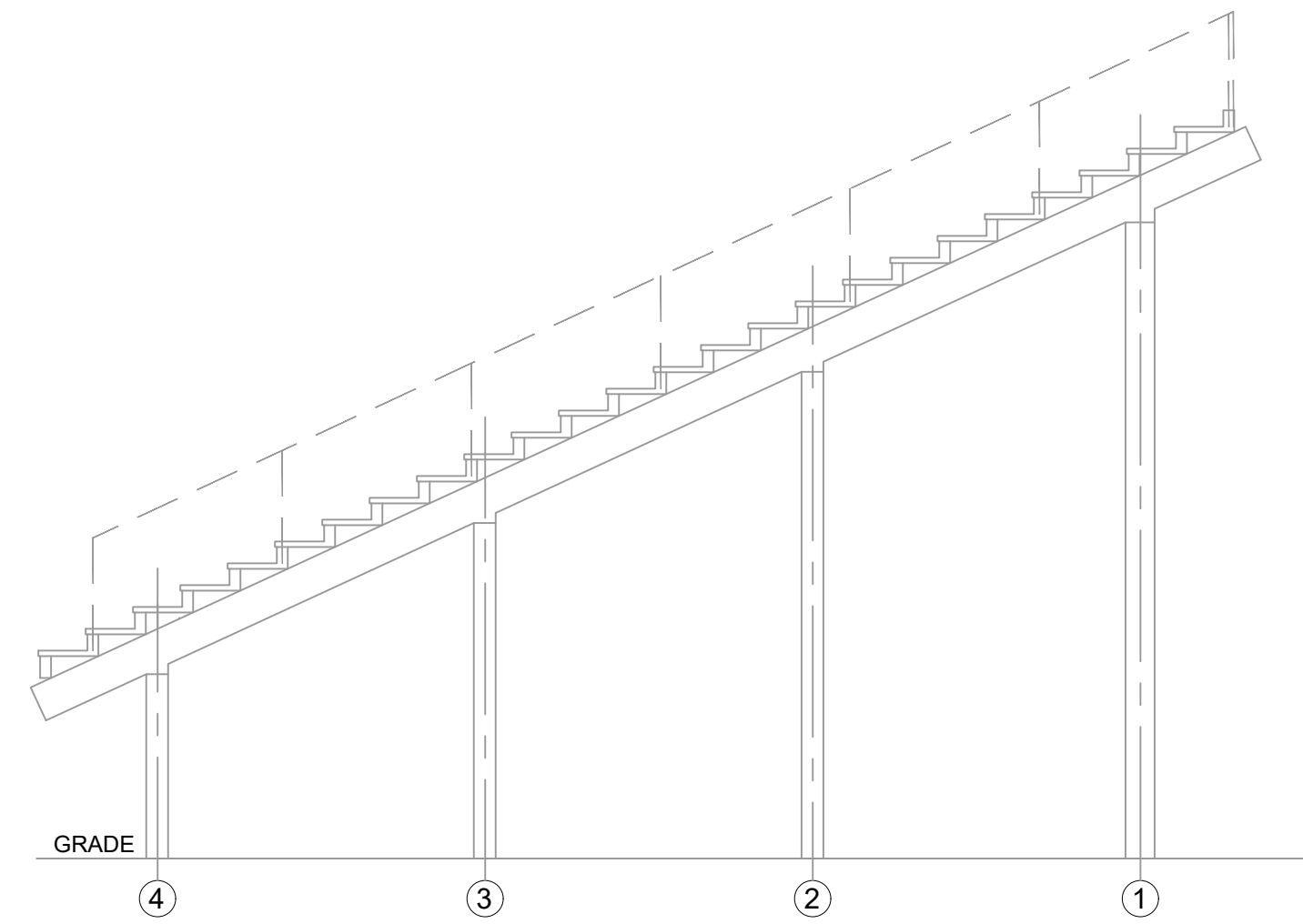
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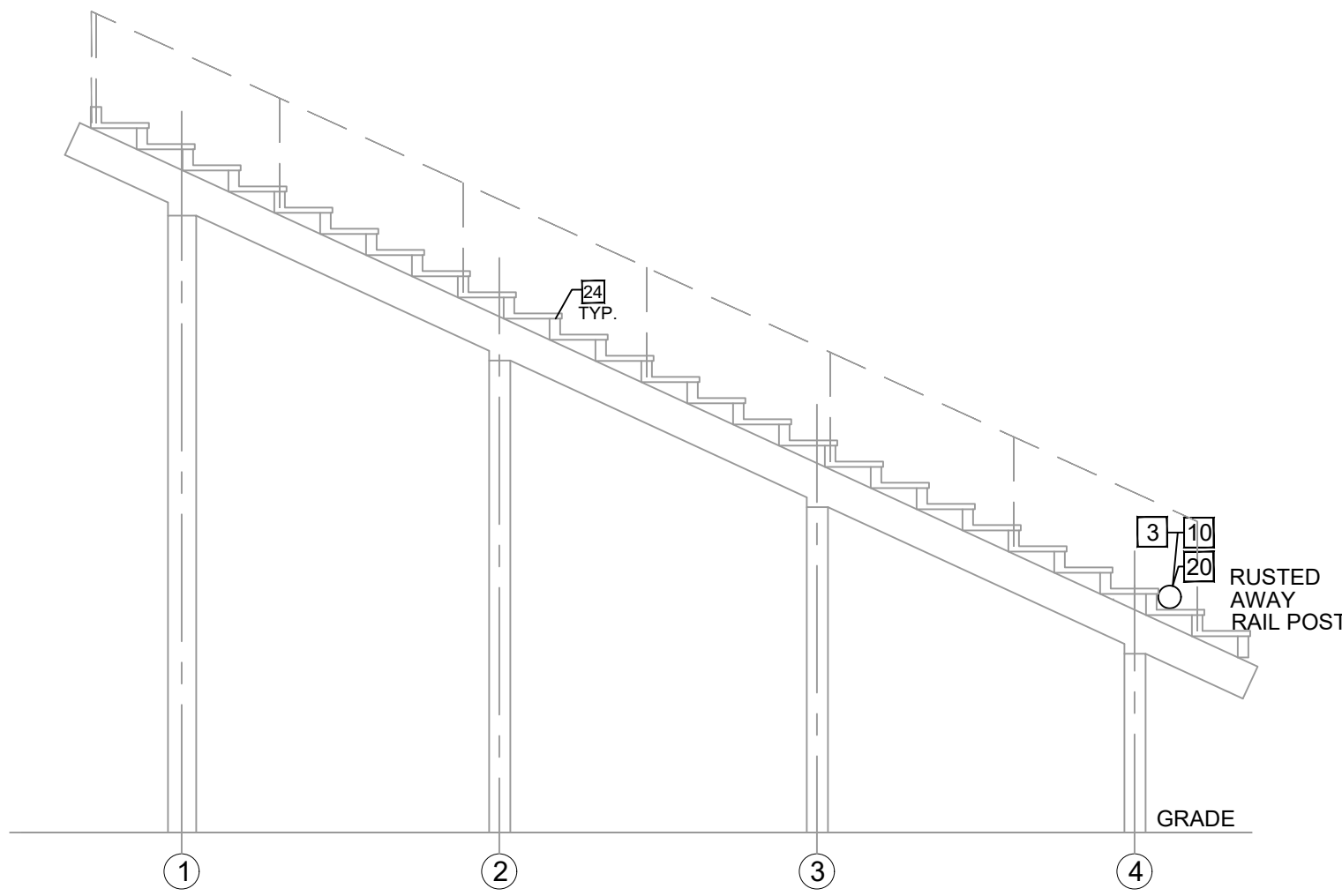
HOME SIDE
SECTIONS
SEBASTIAN RIVER
HIGH SCHOOL
Stadium Inspection
9001 Shark Boulevard
SEBASTIAN FLORIDA

RODOLFO VILLANAZAR
FL P.E.#1000
DATE: 02/20/2019

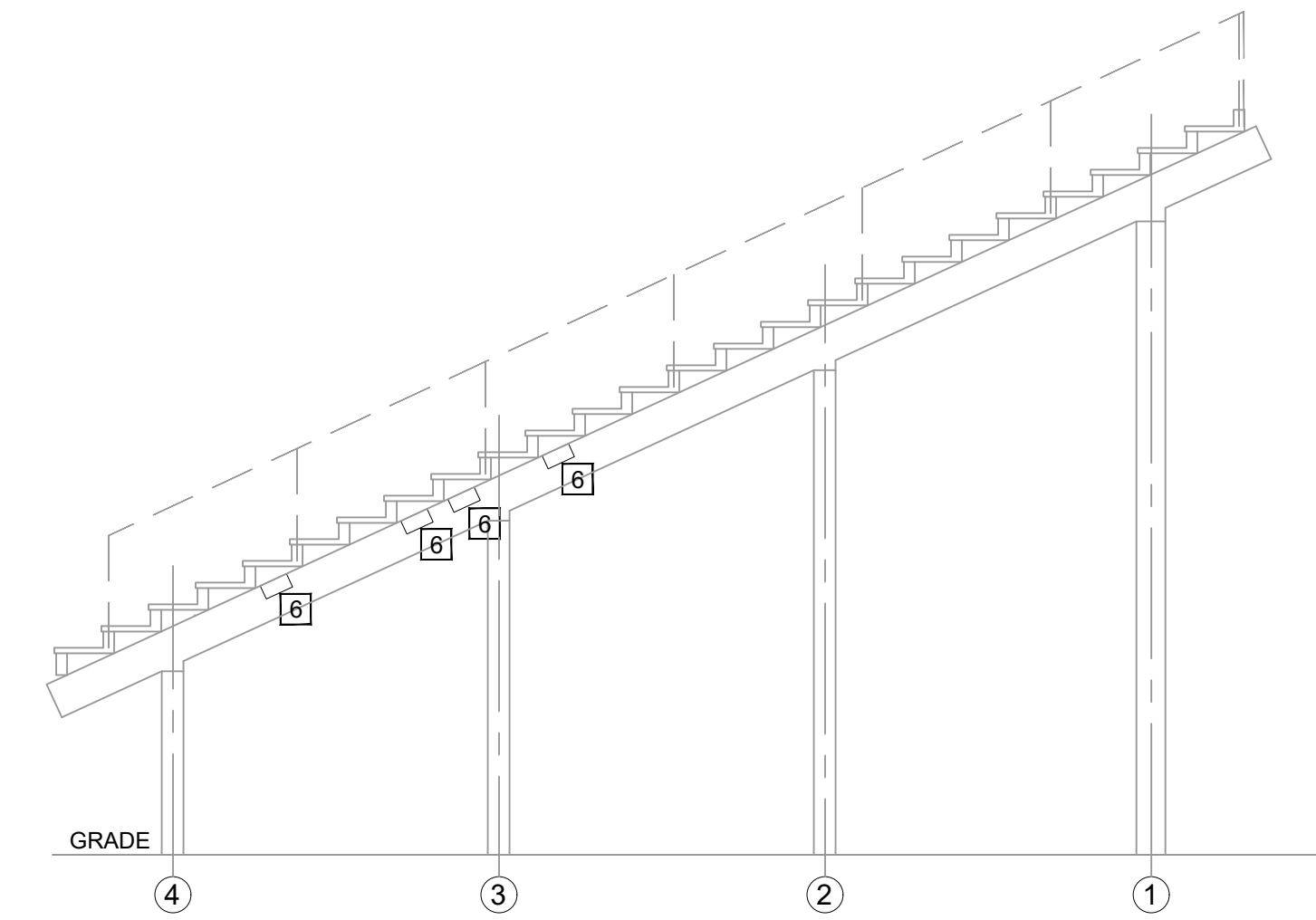
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11 OF 15
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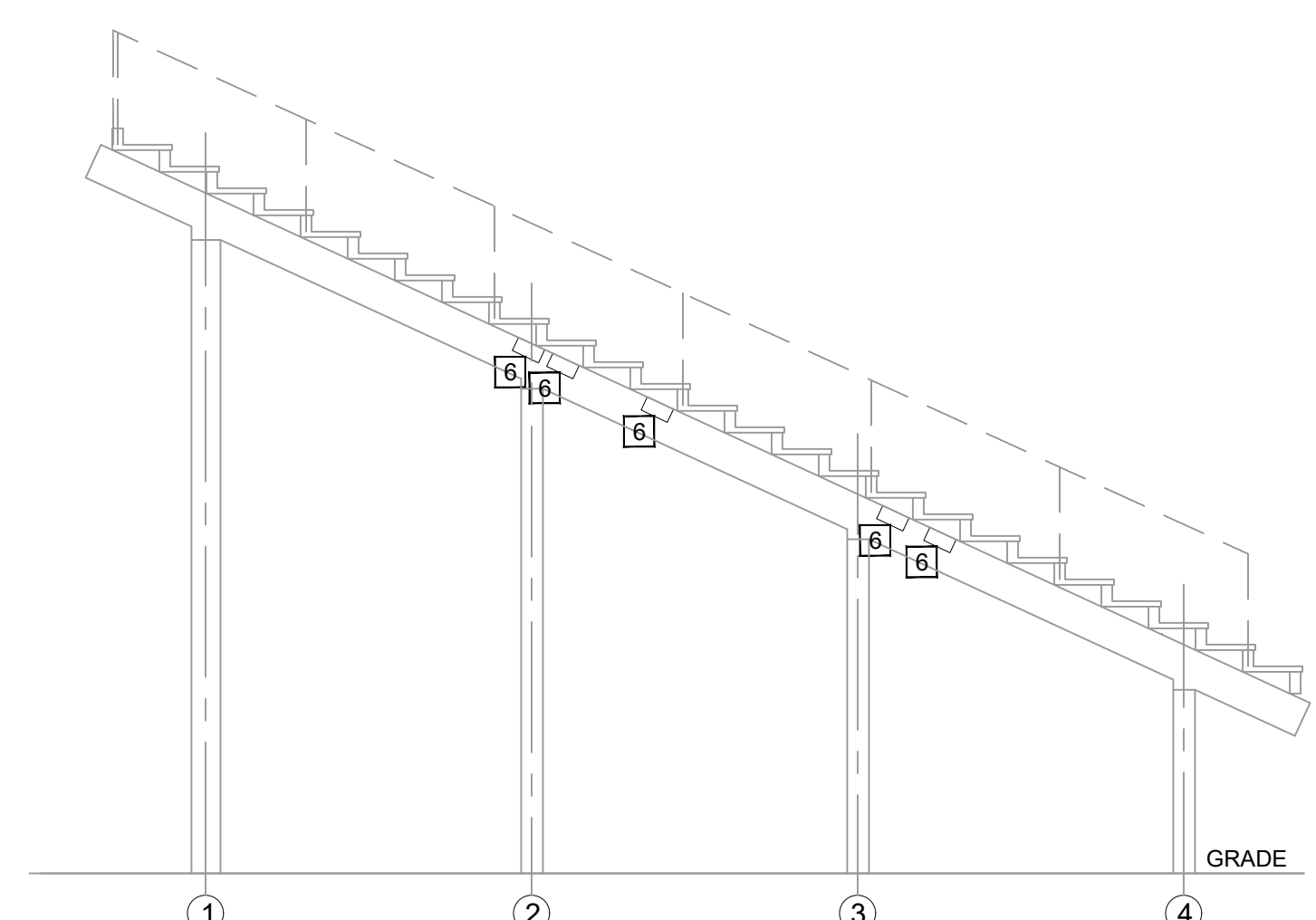
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SCALE: 1/8" = 1'-0"



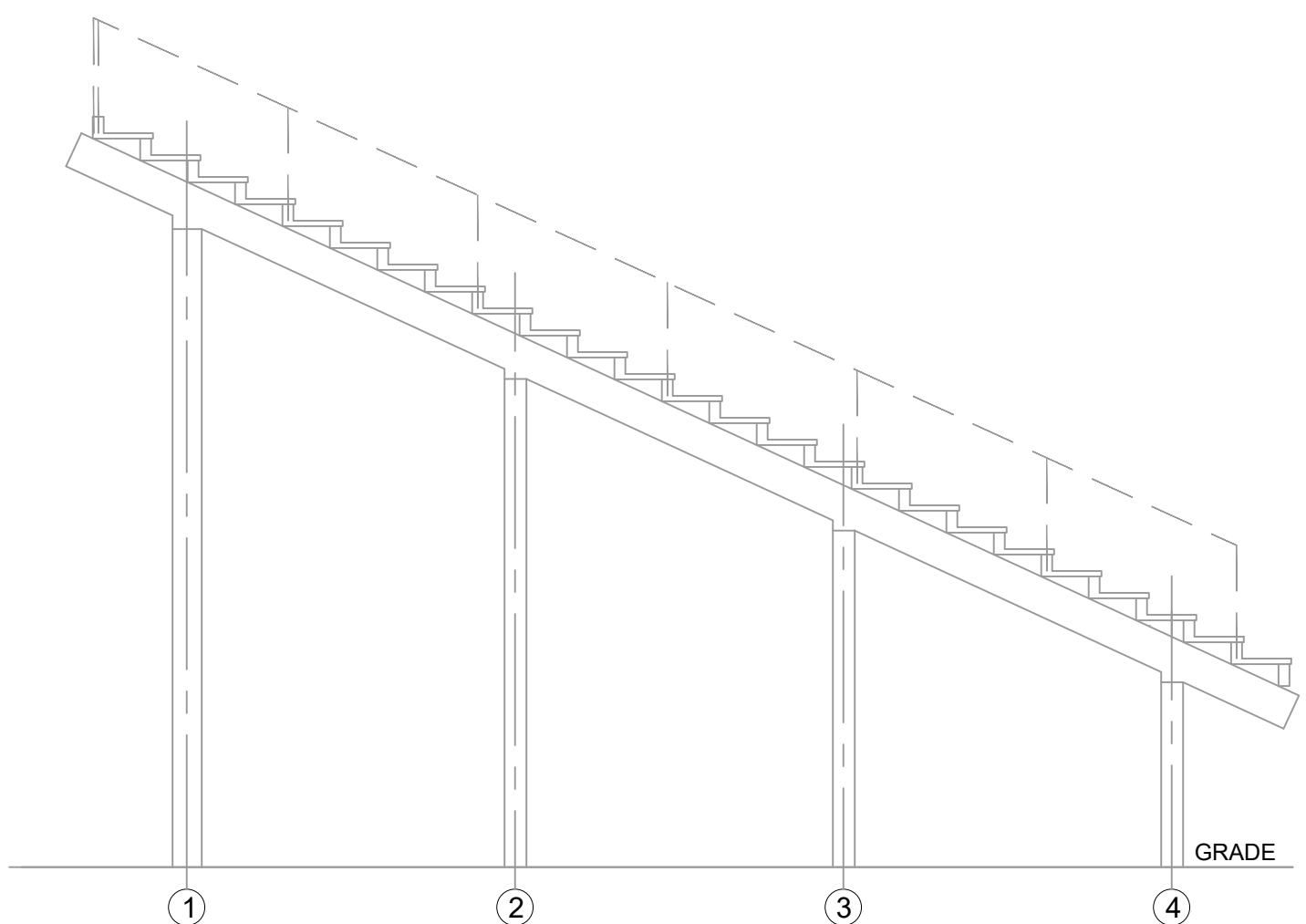
GRID LINE I NORTH SIDE
SCALE: 1/8" = 1'-0"



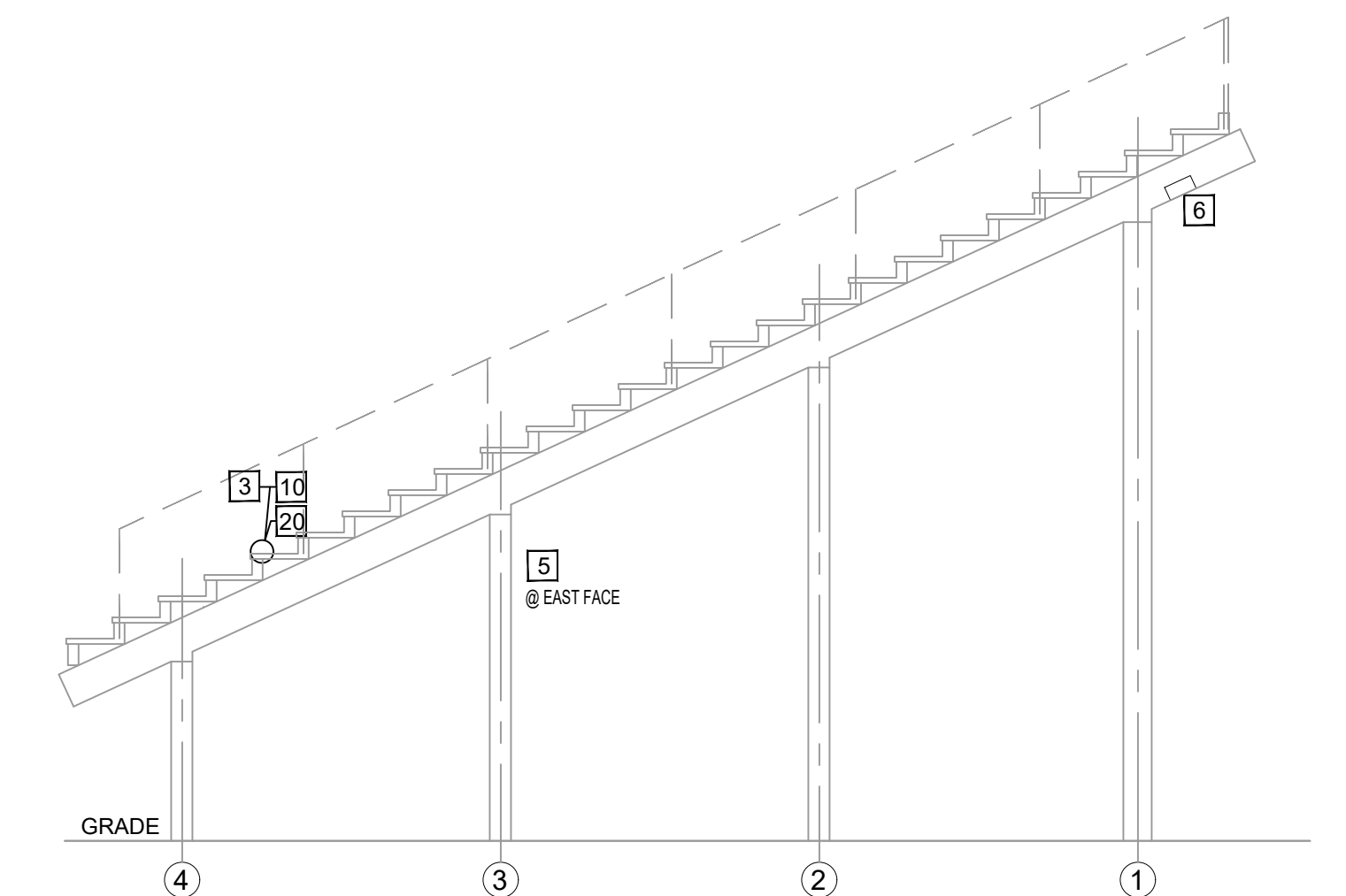
GRID LINE I SOUTH SIDE
SCALE: 1/8" = 1'-0"



GRID LINE J NORTH SIDE
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GRID LINE L SOUTH SIDE
SCALE: 1/8" = 1'-0"

| REPAIR LEGEND | |
|---------------|--|
| 1 | PARTIAL DEPTH REPAIR (S.F.) - S.F. |
| 2 | STUCCO WALL REPAIR (S.F.) - S.F. |
| 3 | EDGE REPAIR (L.F.) - L.F. |
| 4 | OVERHEAD REPAIRS (S.F.) - S.F. |
| 5 | CONCRETE COLUMN REPAIR (C.F.) 2 C.F. |
| 6 | CONCRETE GIRDER REPAIR (C.F.) 62 C.F. |
| 7 | GRAVITY FEED CRACK REPAIR (L.F.) - L.F. |
| 8 | WALL CRACK REPAIR (L.F.) - L.F. |
| 9 | FINISHES TO BE REMOVED & REPLACED (S.F.) - S.F. |
| 10 | RUST SPOT (EA) 3 EA |
| 11 | POST POCKET REPAIR (EA) - EA |
| 12 | STAIR TREADS REPAIR (S.F.) - S.F. |
| 13 | REMOVE & REPLACE GROUT UNDER STEP (S.F.) - S.F. |
| 14 | REMOVE & REPLACE WALL STUCCO TRIM (S.F.) - S.F. |
| 15 | REMOVE & REPLACE ANCHOR BOLTS (EA) - EA |
| 16 | REMOVE & REPLACE STEEL PLATE @ COLUMN (EA) - EA |
| 17 | REMOVE & REPLACE STEEL ANGLE SEAT WELD RUST @ JOIST (EA) - EA |
| 18 | REPLACE CABLE X-BRACING (EA) - EA |
| 19 | REMOVE & REPLACE REBAR BOLSTER TIPS (EA) - EA |
| 20 | CLEAN REBAR (EA) 3 EA |
| 21 | SLAB CRACK INJECTIONS (L.F.) - L.F. |
| 22 | JOIST BEARING REPAIR (S.F.) - S.F. |
| 23 | EXPANSION JOINT REPAIR - L.F. |
| 24 | REMOVE & REPLACE BACKER ROD/SEALANT ALONG SEATING TREAD/RISER - L.F. |
| ~ ~ ~ | CRACKS |
| — — — | CABLE X-BRACING |
| ▭ | STEP |
| ▨ | LOOSE STEP |

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SEBASTIAN FLORIDA

RODOLFO VILLAMIZAR
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SHEET
S11
12 OF 15
18-0327

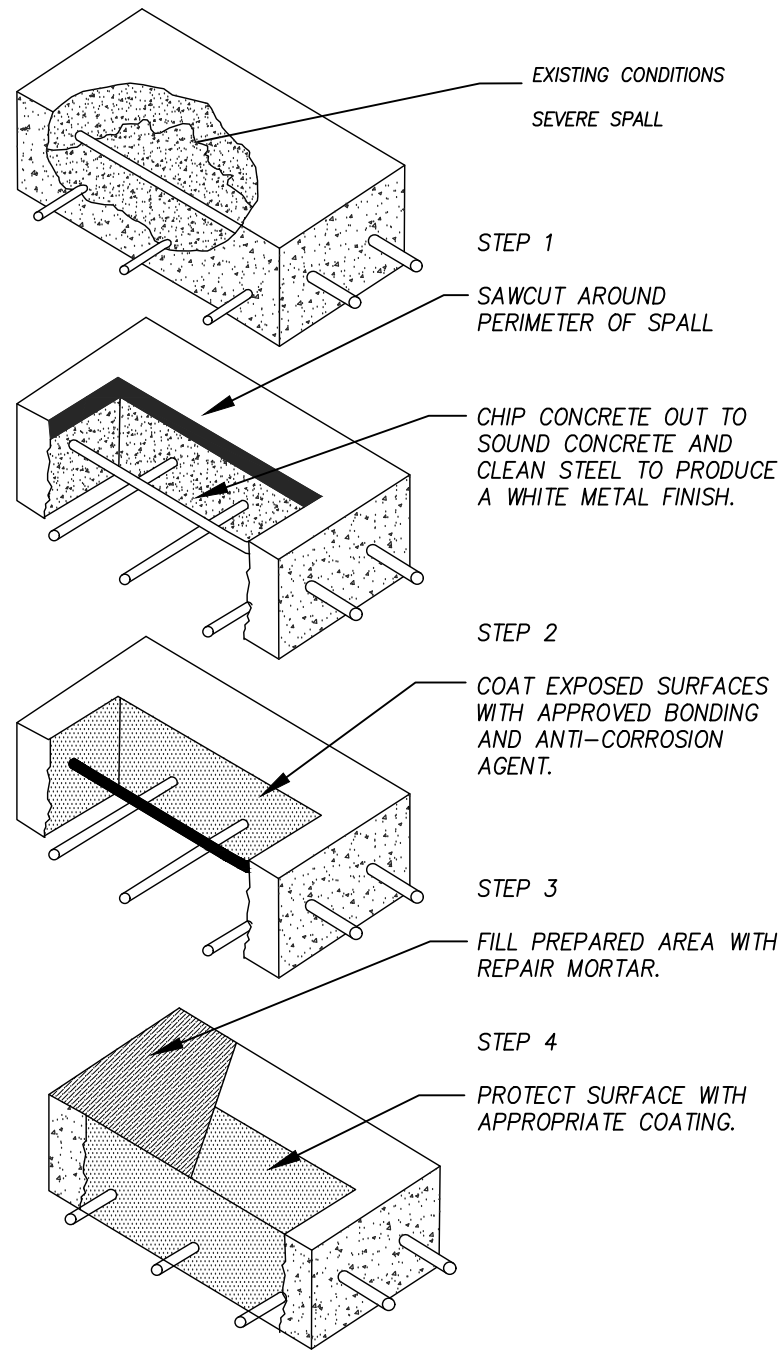
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BID SET

SLAB FULL DEPTH REPAIR

REPAIR PROCEDURE:

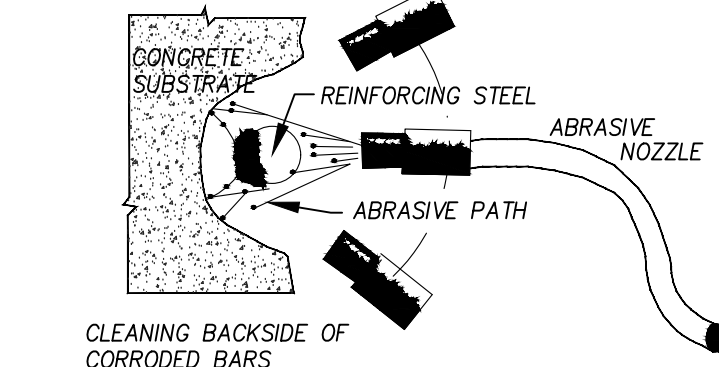
- REMOVE ALL DAMAGED OR UNSOUND CONCRETE FOLLOWING THE CONDITIONING OF CONCRETE GUIDELINES.
- SAWCUT THE PERIMETER OF THE REPAIR AREA FORMING A SHOULDER PERPENDICULAR TO THE SUBSTRATE.
- CHIP OUT THE FULL DEPTH. REMOVAL SHALL CONTINUE ALONG THE LENGTH OF THE REINFORCING STEEL UNTIL AT LEAST 6" OF THE UNCORRODED REBAR IS OBSERVED.
- THE VERTICAL AND HORIZONTAL SURFACES SHALL BE ROUGHENED WITH 1/4" AMPLITUDE.
- SANDBLAST OR HYDROBLAST THE EXPOSED CONCRETE AND REBAR TO REMOVE DUST, LAITANCE AND OTHER BOND INHIBITING MATERIALS. AVOID DAMAGING OR CUTTING EXISTING REINFORCEMENT.
- INSERT NEW BARS OF EQUAL DIAMETER NEXT TO THOSE THAT HAVE DETERIORATED BY MORE THAN 15%. ALL NEW STEEL SHALL BE ASTM A-615 GRADE 60. LAP SPICES SHALL BE IN ACCORDANCE WITH ACI 318.
- COAT ALL NEW AND EXISTING REBAR WITH TWO 10 MILS OF EPOXY, POLYMER CEMENT SLURRY OR A ZINC-RICH COATING FOR CORROSION PROTECTION. INSTALLATION SHALL BE DONE FOLLOWING THE MANUFACTURER SPECIFICATIONS.
- THE BONDING AGENT, IF REQUIRED, SHALL BE INSTALLED AS DESCRIBED IN THE MANUFACTURER SPECIFICATIONS.
- FILL EXCAVATION WITH APPROPRIATE REPAIR MORTAR, CONSOLIDATE, FINISH AND CURE. REPAIR MORTAR OR READY MIX CONCRETE SHALL BE PLACED AS DESCRIBED IN THE MANUFACTURER SPECIFICATIONS. REPAIR MIX SHALL HAVE A COMPRESSIVE RESISTANCE OF 5,000 PSI AT 28 DAYS AND A WATER CEMENT RATIO OF 0.45 OR LESS.
- FINISH SURFACE TO TEXTURE AND SMOOTHNESS REQUIRED FOR THE SPECIFIC APPLICATION.
- UPON COMPLETION OF FINISHING OPERATIONS, ALLOW MATERIAL TO CURE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE THE ARCHITECTURAL FINISH AS REQUIRED BY THE OWNER.



CLEANING AND REPAIR OF REINFORCING STEEL

CLEANING OF REINFORCING STEEL

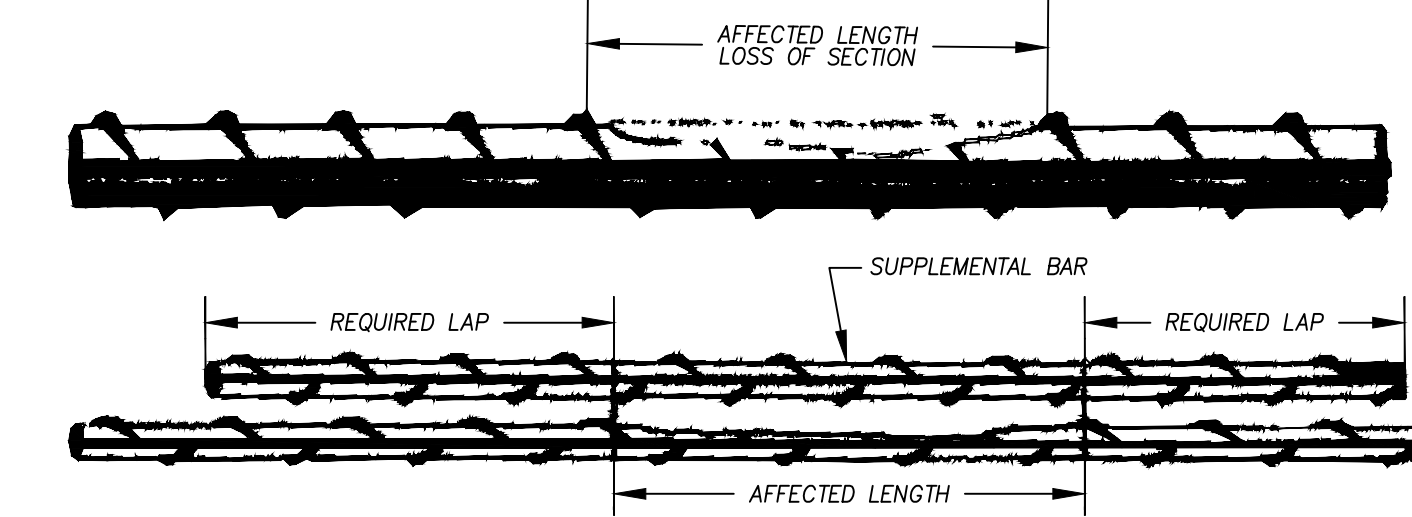
ALL HEAVY CORROSION AND SCALE SHOULD BE REMOVED FROM THE BAR AS NECESSARY TO PROMOTE MAXIMUM BOND OF REPLACEMENT MATERIAL. OIL FREE ABRASIVE BLAST IS THE PREFERRED METHOD. A TIGHTLY BONDED LIGHT RUST BUILD-UP ON THE SURFACE IS USUALLY NOT DETRIMENTAL TO BOND, UNLESS A PROTECTIVE COATING IS BEING APPLIED TO THE BAR SURFACE, IN WHICH CASE THE COATING MANUFACTURER'S RECOMMENDATIONS FOR SURFACE PREPARATION SHOULD BE FOLLOWED.



REPAIR OF REINFORCING STEEL DUE TO LOSS OF SECTION

IF REINFORCING STEEL HAS LOST SIGNIFICANT CROSS SECTION, A STRUCTURAL ENGINEER SHOULD BE CONSULTED. IF REPAIRS ARE REQUIRED TO THE REINFORCING STEEL, ONE OF THE FOLLOWING REPAIR METHODS SHOULD BE USED:

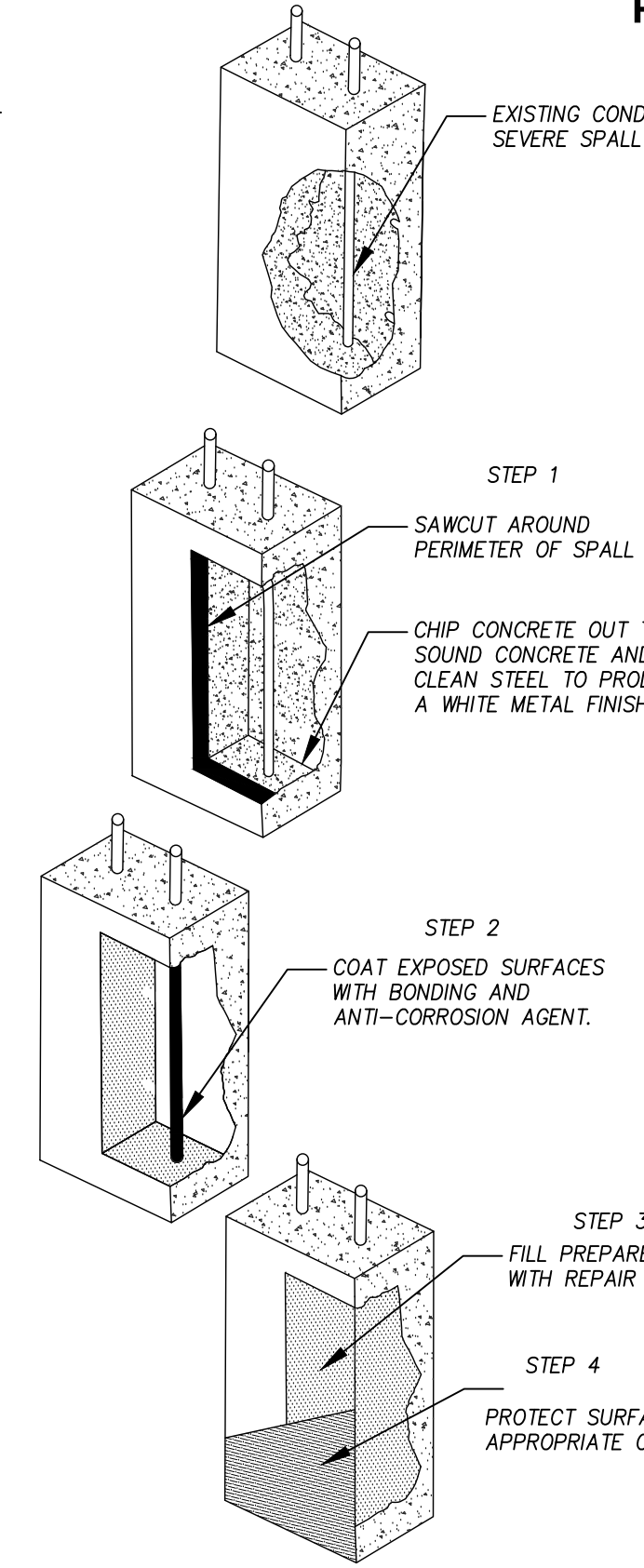
- COMPLETE BAR REPLACEMENT, OR
- ADDITION OF SUPPLEMENTAL BAR OVER AFFECTED SECTION.



COLUMN & BEAM DELAMINATIONS REPAIR

REPAIR PROCEDURE:

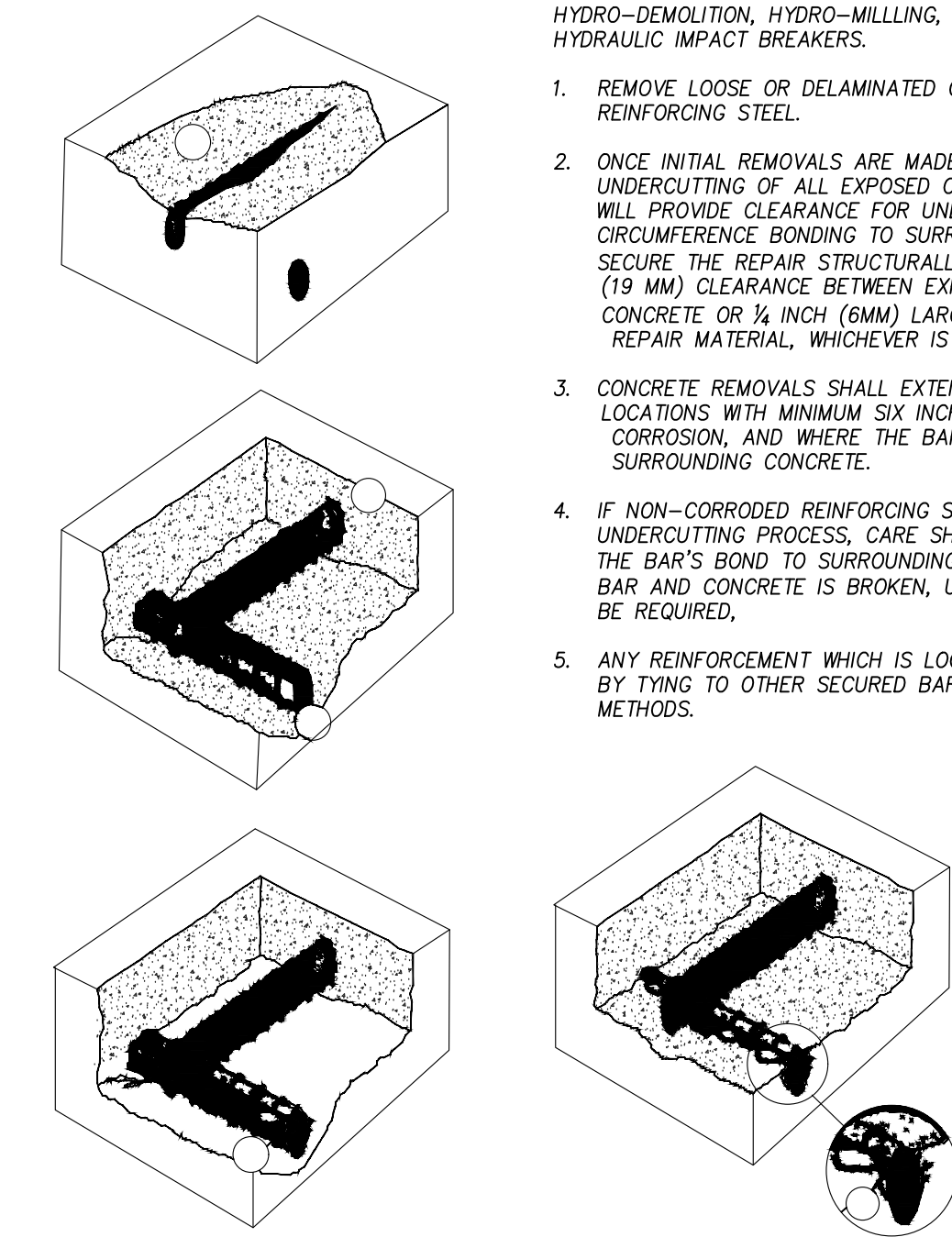
- SHORE STRUCTURE TO RELIEVE LOAD FROM COLUMN AS MUCH AS POSSIBLE.
- REMOVE ALL DAMAGED OR UNSOUND CONCRETE FOLLOWING THE CONDITIONING OF CONCRETE GUIDELINES.
- SAWCUT THE PERIMETER OF THE REPAIR AREA FORMING A SHOULDER PERPENDICULAR TO THE SUBSTRATE.
- THE VERTICAL AND HORIZONTAL SURFACES SHALL BE ROUGHENED WITH 1/4" AMPLITUDE.
- SANDBLAST OR HYDROBLAST THE EXPOSED CONCRETE AND REBAR TO REMOVE DUST, LAITANCE AND OTHER BOND INHIBITING MATERIALS. AVOID DAMAGING OR CUTTING EXISTING REINFORCEMENT.
- INSERT NEW BARS OF EQUAL DIAMETER NEXT TO THOSE THAT HAVE DETERIORATED BY MORE THAN 15%. ALL NEW STEEL SHALL BE ASTM A-615 GRADE 60. LAP SPICES SHALL BE IN ACCORDANCE WITH ACI 318.
- COAT ALL NEW AND EXISTING REBAR WITH TWO 10 MILS OF EPOXY, POLYMER CEMENT SLURRY OR A ZINC-RICH COATING FOR CORROSION PROTECTION. INSTALLATION SHALL BE DONE FOLLOWING THE MANUFACTURER SPECIFICATIONS.
- THE BONDING AGENT SHALL BE INSTALLED AS DESCRIBED IN THE MANUFACTURER SPECIFICATIONS TO S30 CONCRETE SURFACE.
- FILL THE EXCAVATION WITH REPAIR MORTAR OR READY MIX CONCRETE PLACED AS DESCRIBED IN THE MANUFACTURER SPECIFICATIONS.
- REPAIR MIX SHALL HAVE A COMPRESSIVE RESISTANCE OF 5,000 PSI AT 28 DAYS AND A WATER CEMENT RATIO OF 0.45 OR LESS OR HAVE NON-SHRINKABLE PROPERTIES.
- FINISH SURFACE TO TEXTURE AND SMOOTHNESS REQUIRED FOR THE SPECIFIC APPLICATION.
- PROVIDE THE ARCHITECTURAL FINISH AS REQUIRED BY THE OWNER.
- FOR MATERIAL SELECTION, PHYSICAL PROPERTIES, MIXING, APPLICATION AND CURING INFORMATION REFER TO APPROPRIATE TECHNICAL SPECIFICATIONS FROM MANUFACTURER.



EXPOSING AND UNDERCUTTING OF REINFORCING STEEL

THESE DETAILS ARE APPLICABLE TO HORIZONTAL, VERTICAL AND OVERHEAD LOCATIONS. THEY ARE ALSO APPLICABLE TO REMOVAL BY HYDRO-DEMOLITION, HYDRO-MILLING, AND ELECTRIC, PNEUMATIC OR HYDRAULIC IMPACT BREAKERS.

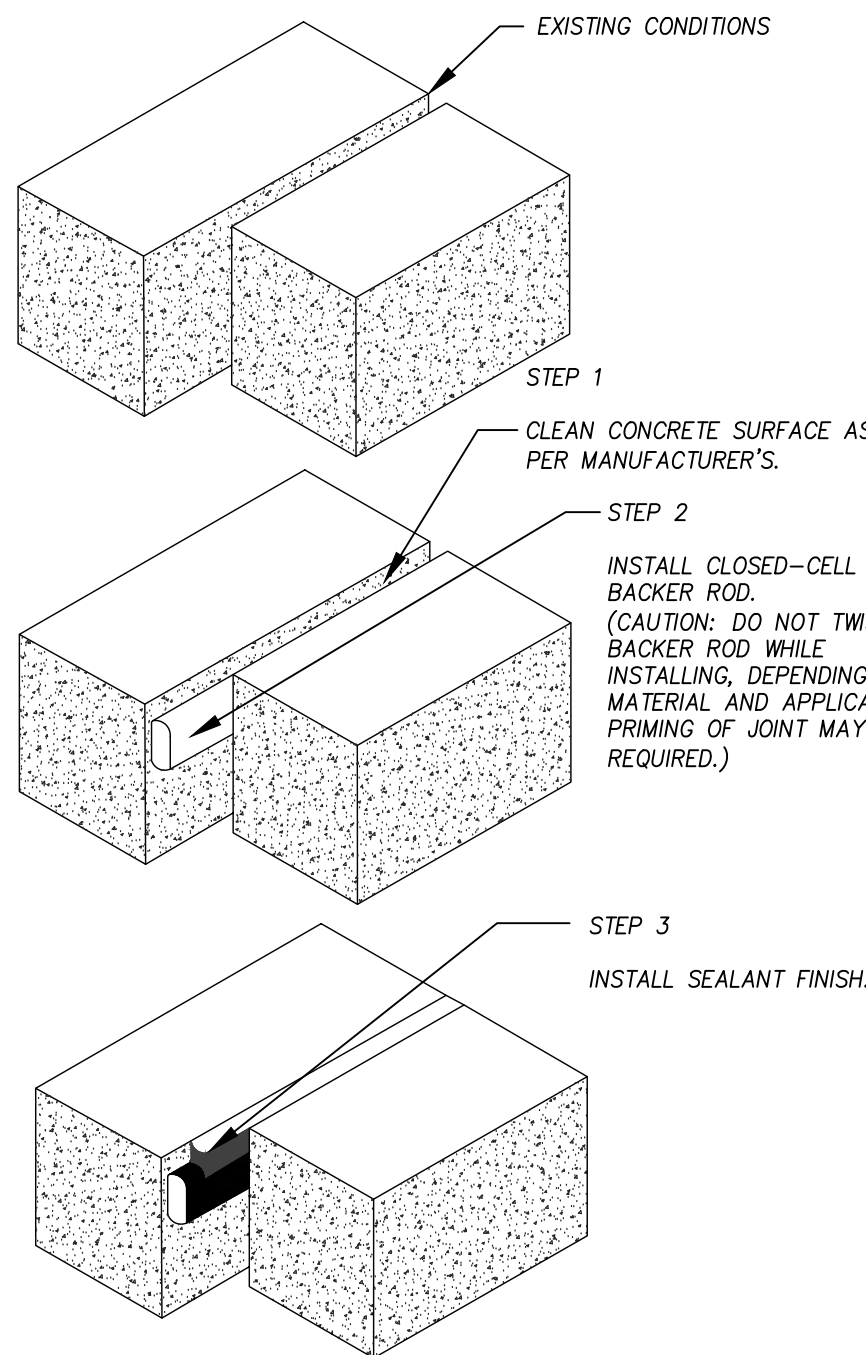
- REMOVE LOOSE OR DELAMINATED CONCRETE ABOVE CORRODED REINFORCING STEEL.
- ONCE INITIAL REMOVALS ARE MADE, PROCEED WITH THE UNDERCUTTING OF ALL EXPOSED CORRODED BARS. UNDERCUTTING WILL PROVIDE CLEARANCE FOR UNDER BAR CLEANING AND FULL BAR CIRCUMFERENCE BONDING TO SURROUNDING CONCRETE. AND WILL SECURE THE REPAIR STRUCTURALLY. PROVIDE MINIMUM 3/4 INCH (19 MM) CLEARANCE BETWEEN EXPOSED REBARS AND SURROUNDING CONCRETE. OR 1/4 INCH (6MM) LARGER THAN LARGEST AGGREGATE IN REPAIR MATERIAL, WHICHEVER IS GREATER.
- CONCRETE REMOVALS SHALL EXTEND ALONG THE BARS TO LOCATIONS WITH MINIMUM SIX INCHES FREE OF BOND INHIBITING CORROSION, AND WHERE THE BAR IS WELL BONDED TO SURROUNDING CONCRETE.
- IF NON-CORRODED REINFORCING STEEL IS EXPOSED DURING THE UNDERCUTTING PROCESS, CARE SHALL BE TAKEN NOT TO DAMAGE THE BAR'S BOND TO SURROUNDING CONCRETE. IF BOND BETWEEN BAR AND CONCRETE IS BROKEN, UNDERCUTTING OF THE BAR SHALL BE REQUIRED.
- ANY REINFORCEMENT WHICH IS LOOSE SHALL BE SECURED IN PLACE BY TYING TO OTHER SECURED BARS OR BY OTHER APPROVED METHODS.



EXPANSION JOINT 1/2" TO 1" WIDE

NOTES:

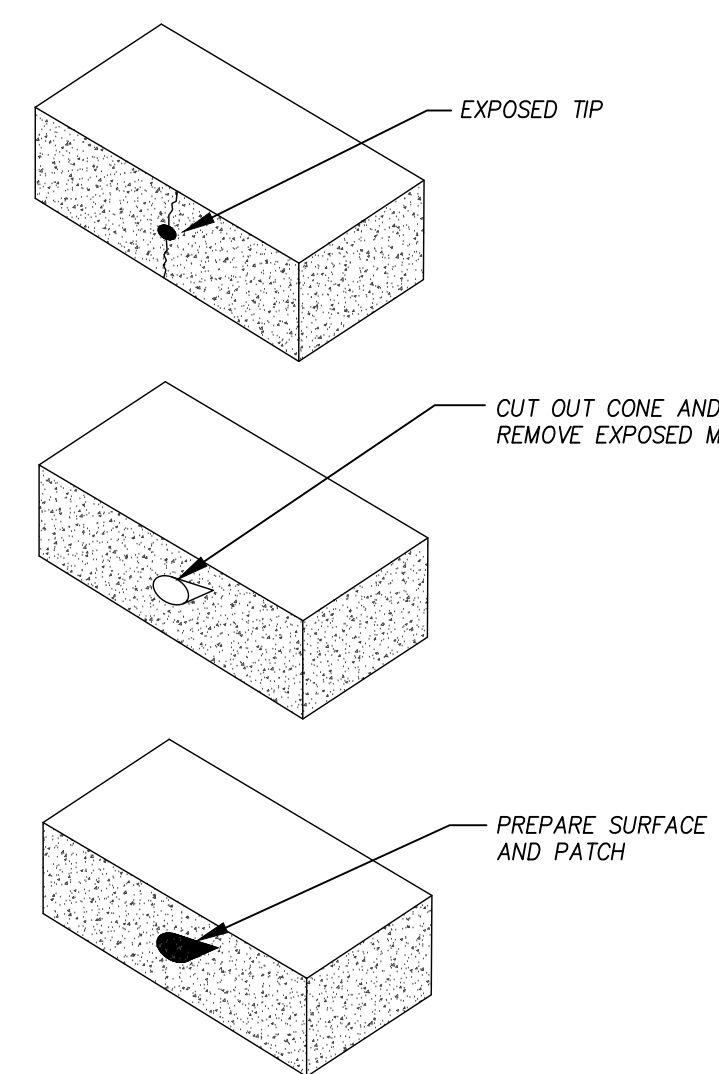
- CONCRETE MUST BE CURED PRIOR TO APPLICATION, TYPICALLY 28 DAYS. SEALANT JOINT MOVEMENT CAPABILITIES VARY BY PRODUCT AND MANUFACTURER'S.
- CLEAN CONCRETE SURFACES REMOVING ALL DUST, DIRT, LAITANCE AND BOND INHIBITING MATERIALS SO AS TO ACHIEVE PROPER ADHESION OF THE JOINT SEALANT MATERIAL. INSTALL CLOSED-CELL BACKER ROD TO THE APPROPRIATE DEPTH. BACKER ROD SHOULD BE 25% LARGER IN DIAMETER THAN JOINT OPENING.
- INSTALL JOINT SEALANT MATERIAL AS PER MANUFACTURER'S RECOMMENDATION. DRY TOOL SEALANT TO AS TO INSURE PROPER ADHESION TO THE JOINT SIDE WALLS. DO NOT USE SOAPS OR SOLVENTS WHEN TOOLING THE SEALANT.
- ALLOW SEALANT TO CURE BEFORE APPLYING DECK COATING.



EXPOSED TIP REPAIR

REPAIR PROCEDURE:

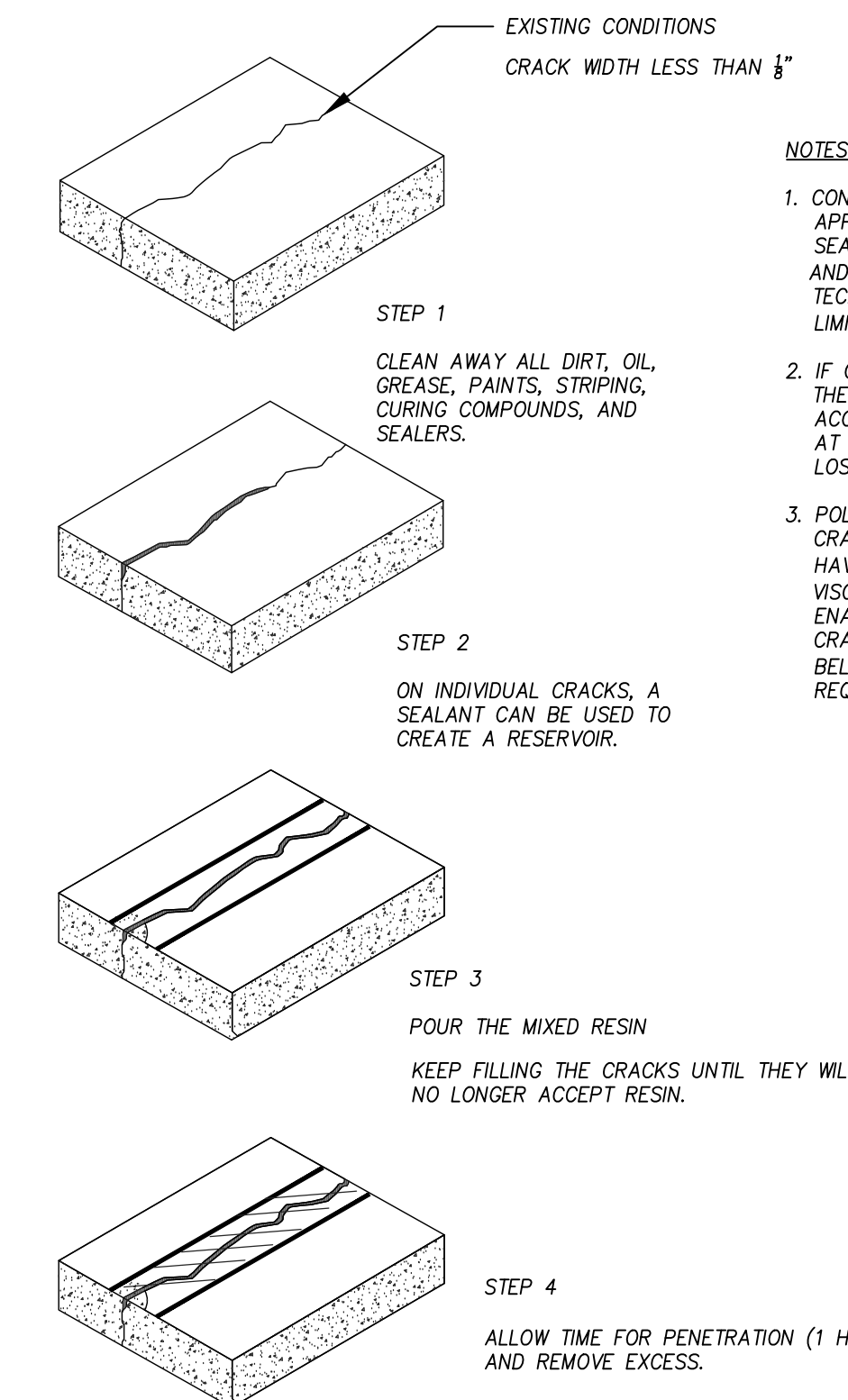
- REMOVE ALL DAMAGED OR UNSOUND CONCRETE FOLLOWING THE CONDITIONING OF CONCRETE GUIDELINES.
- CHIP THE PERIMETER OF THE EXPOSED TIP FORMING A CONE PERPENDICULAR TO THE SURFACE.
- CUT OUT THE EXPOSED METAL. REMOVAL SHALL CONTINUE ALONG THE LENGTH OF THE REINFORCING STEEL UNTIL AT LEAST 2" OF COVERAGE WILL BE OBTAINED.
- THE SURFACES OF THE CONE SHALL BE ROUGHENED WITH 1/4" AMPLITUDE.
- HYDROBLAST THE EXPOSED CONCRETE AND REBAR TO REMOVE DUST, LAITANCE AND OTHER BOND INHIBITING MATERIALS. AVOID DAMAGING OR CUTTING EXISTING REINFORCEMENT.
- COAT ALL NEW AND EXISTING REBAR WITH TWO 10 MILS OF EPOXY, POLYMER CEMENT SLURRY OR A ZINC-RICH COATING FOR CORROSION PROTECTION. INSTALLATION SHALL BE DONE FOLLOWING THE MANUFACTURER SPECIFICATIONS.
- THE BONDING AGENT, IF REQUIRED, SHALL BE INSTALLED AS DESCRIBED IN THE MANUFACTURER SPECIFICATIONS.
- REPAIR MORTAR OR GROUT SHALL BE PLACED AS DESCRIBED IN THE MANUFACTURER SPECIFICATIONS.
- REPAIR MIX SHALL HAVE A COMPRESSIVE RESISTANCE OF 5,000 PSI AT 28 DAYS AND A WATER CEMENT RATIO OF 0.45 OR LESS OR BE NON-SHRINKABLE.
- FINISH SURFACE TO TEXTURE AND SMOOTHNESS REQUIRED FOR THE SPECIFIC APPLICATION.
- UPON COMPLETION OF FINISHING OPERATIONS, ALLOW MATERIAL TO CURE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



CRACKS: GRAVITY FEED

NOTES:

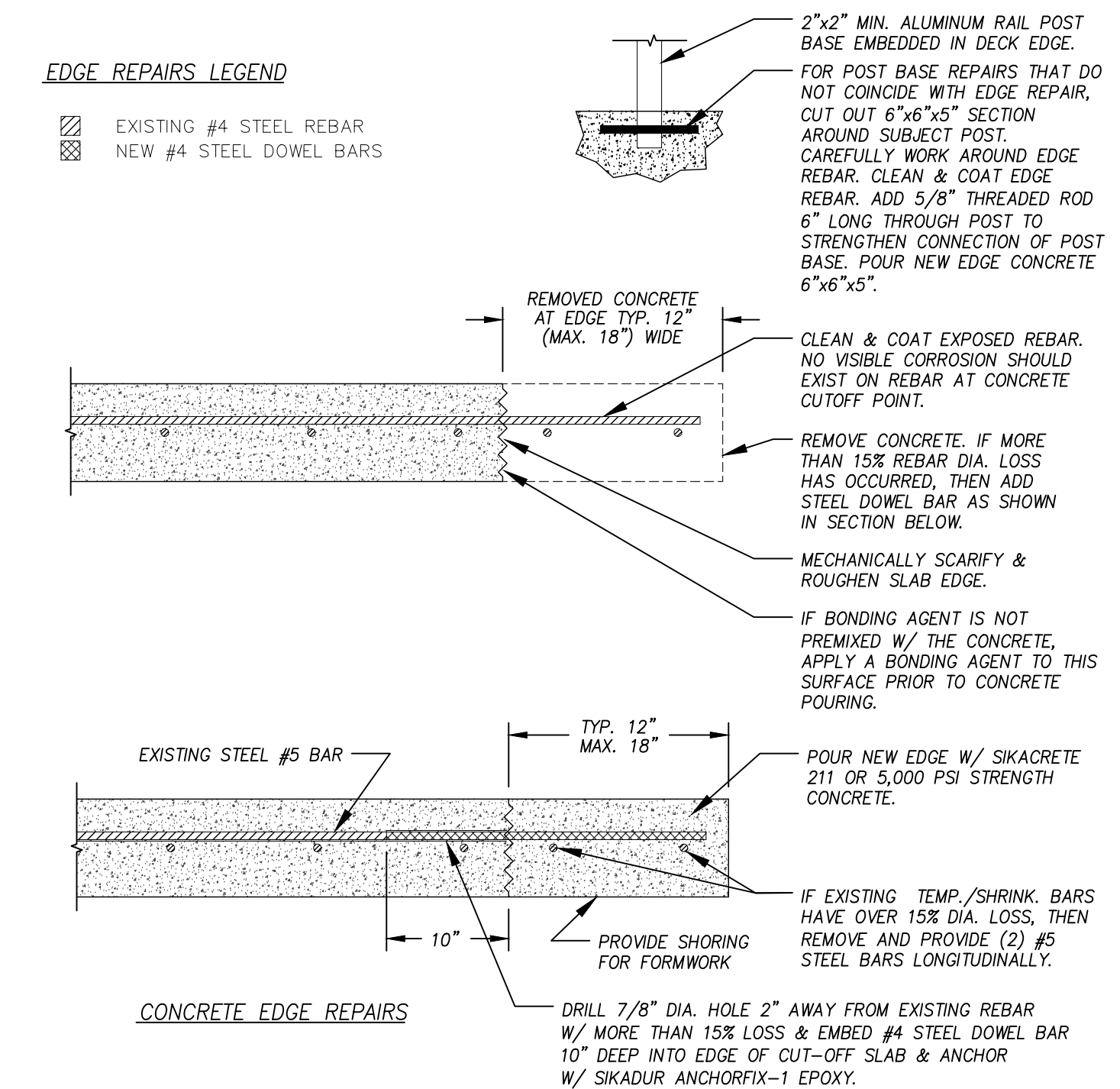
- CONCRETE MUST BE CURED PRIOR TO APPLICATION, TYPICALLY 28 DAYS. JOINT SEALANT CAPABILITIES VARY BY PRODUCT AND MANUFACTURER. (SEE MANUFACTURER'S TECHNICAL BULLETIN FOR APPLICATION AND LIMITATIONS.)
- IF CRACKS RUN ALL THE WAY THROUGH AND THE UNDERSIDE OF THE DECK OR SLAB IS ACCESSIBLE, SEAL THE UNDERSIDE OF CRACKS AT LEAST TEMPORARILY TO PREVENT RESIN LOSS.
- POLYMER MATERIALS USED FOR GRAVITY FEED CRACK REPAIRS ARE EPOXIES FORMULATED TO HAVE A VERY THIN CONSISTENCY (LOW VISCOSITY) AND LOW SURFACE TENSION TO ENABLE THEM TO EASILY PENETRATE FINE CRACKS BY GRAVITY ALONE. VISCOSITIES BELOW 100 CENTIPOISE (CPS) ARE A MINIMUM REQUIREMENT.



EDGE REPAIRS

EDGE REPAIRS LEGEND

- EXISTING #4 STEEL REBAR
- NEW #4 STEEL DOWEL BARS



CONCRETE EDGE REPAIRS

- FINAL FINISH OF SLABS SHALL BE SMOOTH SPONGED SANDY FINISH OR AS SPECIFIED ON-SITE PER OWNER'S REQUIREMENTS.
- FOR ANY TENSION BAR, MAXIMUM CONCRETE COVER SHALL BE 2" & MINIMUM COVER 1.5" TEMPERATURE/SHRINKAGE STEEL TO BE PLACED DIRECTLY UNDER TENSION STEEL.
- ALL PRODUCT SUBSTITUTIONS MUST FIRST BE APPROVED BY THE ENGINEER.
- ENGINEER SHALL BE IMMEDIATELY NOTIFIED CONCERNING ANY ENCOUNTERED DISCREPANCIES BETWEEN ACTUAL CONDITIONS & THIS DESIGN.

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ENGINEERING INC.
CONSULTING ENGINEERING CA #3728

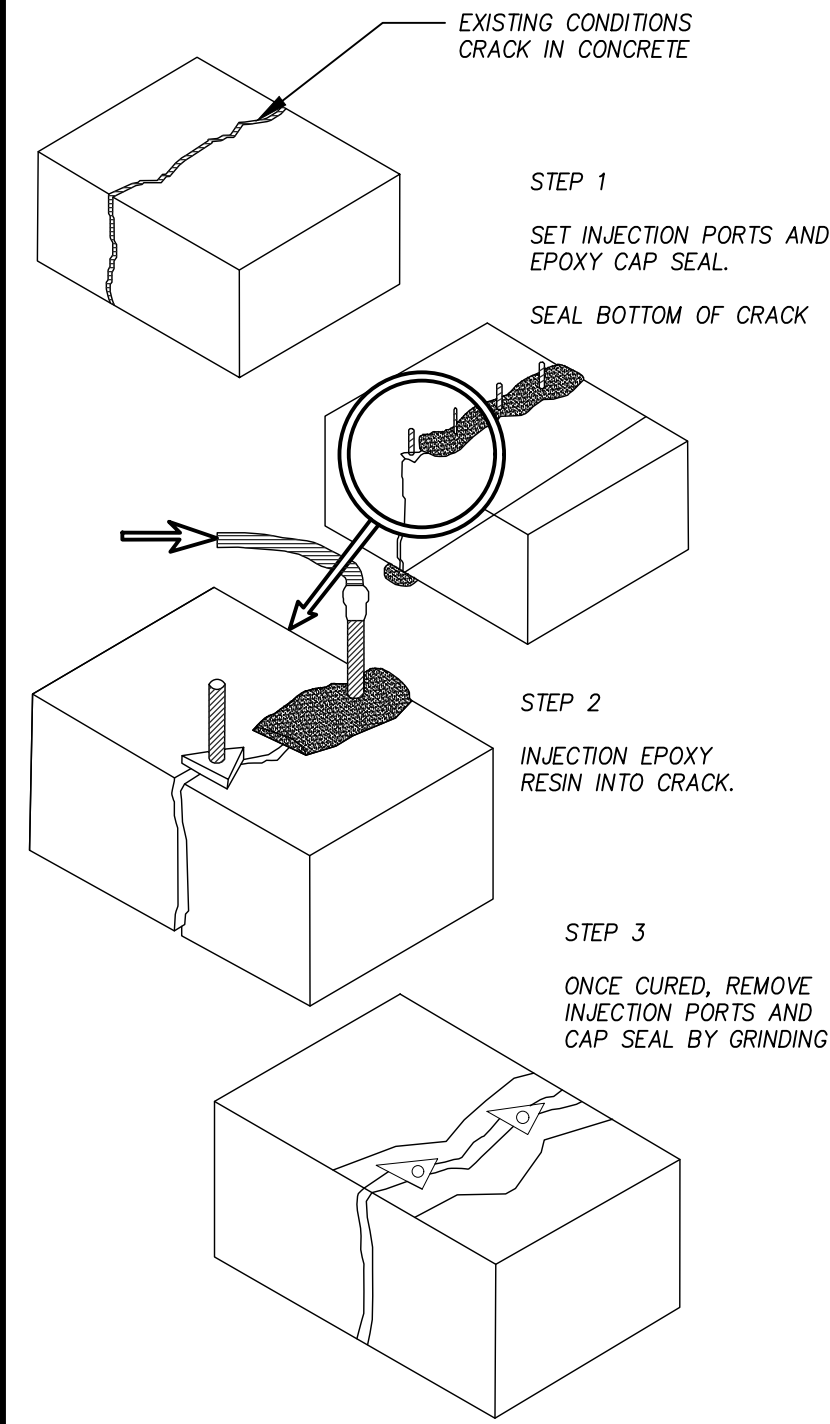
CONCRETE REPAIR DETAILS

SEBASTIAN RIVER HIGH SCHOOL
Stadium Inspection
9001 Shark Boulevard
SEBASTIAN, FLORIDA

RODOLFO VILLAMIZAR
FL P.E.#61000
DATE: 02/20/2019

SHEET
S12
13 OF 15
18-0327

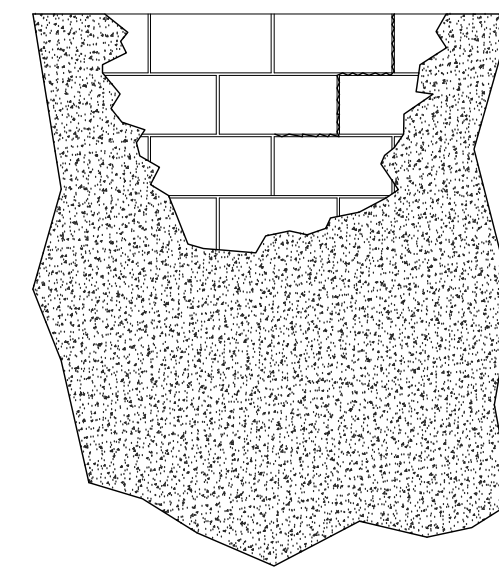
**CRACKS REPAIR: EPOXY INJECTION
STRUCTURAL/WEARING SLAB**



NOTES:

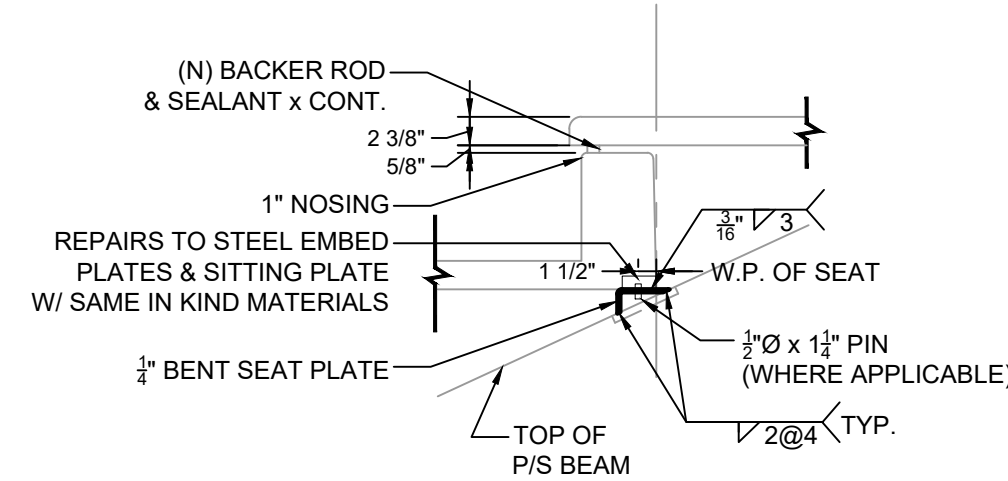
1. CONCRETE MUST BE CURED PRIOR TO APPLICATION, TYPICALLY 28 DAYS. EPOXY CAPABILITIES VARY BY PRODUCT AND MANUFACTURER. (SEE MANUFACTURER'S TECHNICAL BULLETIN FOR APPLICATION AND LIMITATIONS.)
2. MECHANICALLY CLEAN SURFACE TO REMOVE ALL DUST, DIRT, LAITANCE AND BOND INHIBITING MATERIAL SO AS TO ACHIEVE PROPER ADHESION OF THE INJECTION PORTS EPOXY CAP SEAL.
3. WHERE CONCRETE SURFACES ADJACENT TO CRACK ARE DETERIORATED, GROOVE THE CRACK UNTIL SOUND CONCRETE IS REACHED.
4. INJECT MIXED EPOXY RESIN INTO THE CRACK. INJECTION EQUIPMENT MUST HAVE SUFFICIENT PRESSURE TO FORCE RESIN INTO THE CRACK FOR FULL DISPLACEMENT.
5. FOR CRACK WIDTHS OF 0.010 IN. OR SMALLER USE LOW VISCOSITY EPOXY (500 CPS OR LESS).
6. ALLOW THE EPOXY TO CURE TO SUFFICIENT HARDNESS BEFORE REMOVING INJECTION PORTS AND CAP SEAL FROM THE SURFACE.
7. UPON COMPLETION PREPARE THE CONCRETE BY GRINDING.

WALL REPAIR

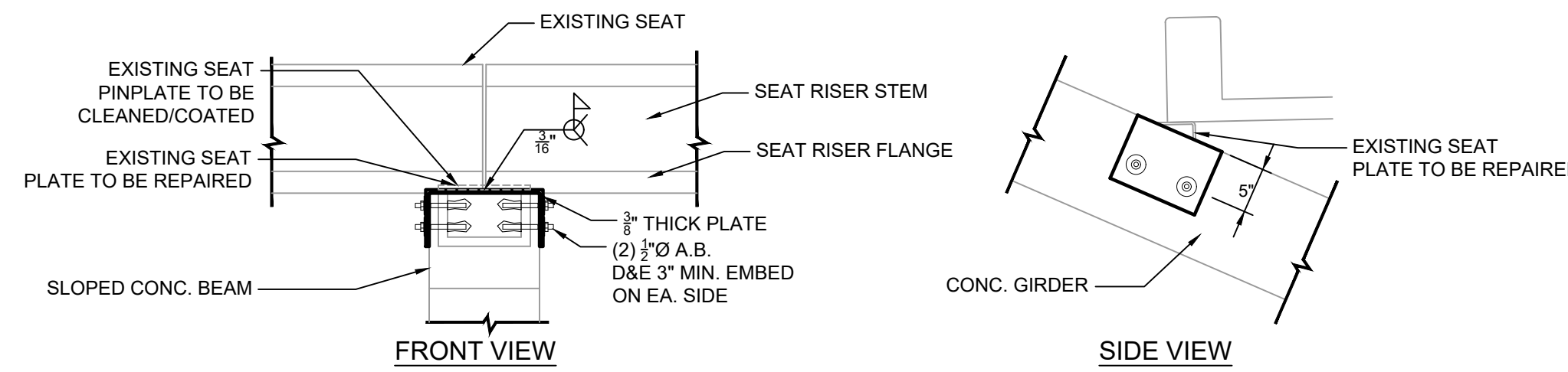


NOTES FOR GENERAL REPAIR:

1. CHIP AND REMOVE CRACKED MORTAR OR LOOSE WALL CONCRETE.
2. THOROUGHLY CLEAN MASONRY SUBSTRATE AND REMAINING STUCCO SURFACES (EXPOSED EDGES INCLUDED) WITH CONCRETE/MASONRY CLEANER OR TRISODIUM PHOSPHATE/WATER SOLUTION.
3. REPAIR CRACKED AND/OR SPALLED MASONRY SUBSTRATE INCLUDING CONCRETE BLOCK UNITS, MORTAR JOINTS, AND GROUT FILLED CELLS IN ACCORDANCE WITH REPAIR DETAILS AND SPECIFICATIONS PROVIDED HEREIN.
4. REPAIR CRACKS WITH "UGL DRYLOK MASONRY CRACK FILLER", "ELASTIPOXY" OR SIMILAR EPOXY JOINT & CRACK FILLER MATERIAL, FOLLOWING THE MANUFACTURER'S RECOMMENDATIONS. FOR LARGER CRACKS TO PREVENT THE EPOXY FROM RUNNING OUT OF THE CRACK, INSERT FOAM BACKER ROD OF SUITABLE DIAMETER OR FILL IN WITH CAULK.
5. FILL HOLLOW CORE HOLES WITH EXPANDABLE FOAM FILLER MATERIAL TO PROVIDE A BACKING SUBSTRATE.
6. COAT ALL SIDES OF GAP/HOLE WITH BONDING AGENT.
7. PATCH REPAIR AREAS WITH NEW REPAIR MORTAR SYSTEM OR EXTERIOR STUCCO SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
8. MATCH EXISTING FINISH TEXTURE AND COLOR AS CLOSE AS POSSIBLE.
9. FINISH/PAINT/COAT REPAIRED AREA IN ACCORDANCE WITH THE GENERAL NOTES.



SEAT RISER SETTING DETAIL - OPTION 1
SCALE: 3/4" = 1'-0"



SEAT RISER SETTING DETAIL - OPTION 2
SCALE: 3/4" = 1'-0"

18-0327

| REVISIONS | DATE |
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| DESIGN | 18-0327 |
| DRAWN | CJW / JT |
| CHECKED | AER |
| DATE | NOV 2018 |
| SCALE | RV |
| DATE ISSUED | |
| SCALE | AS NOTED |

1835 - 20TH STREET
VERO BEACH, FL 32960
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ENGINEERING, INC.
MIGUEL BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

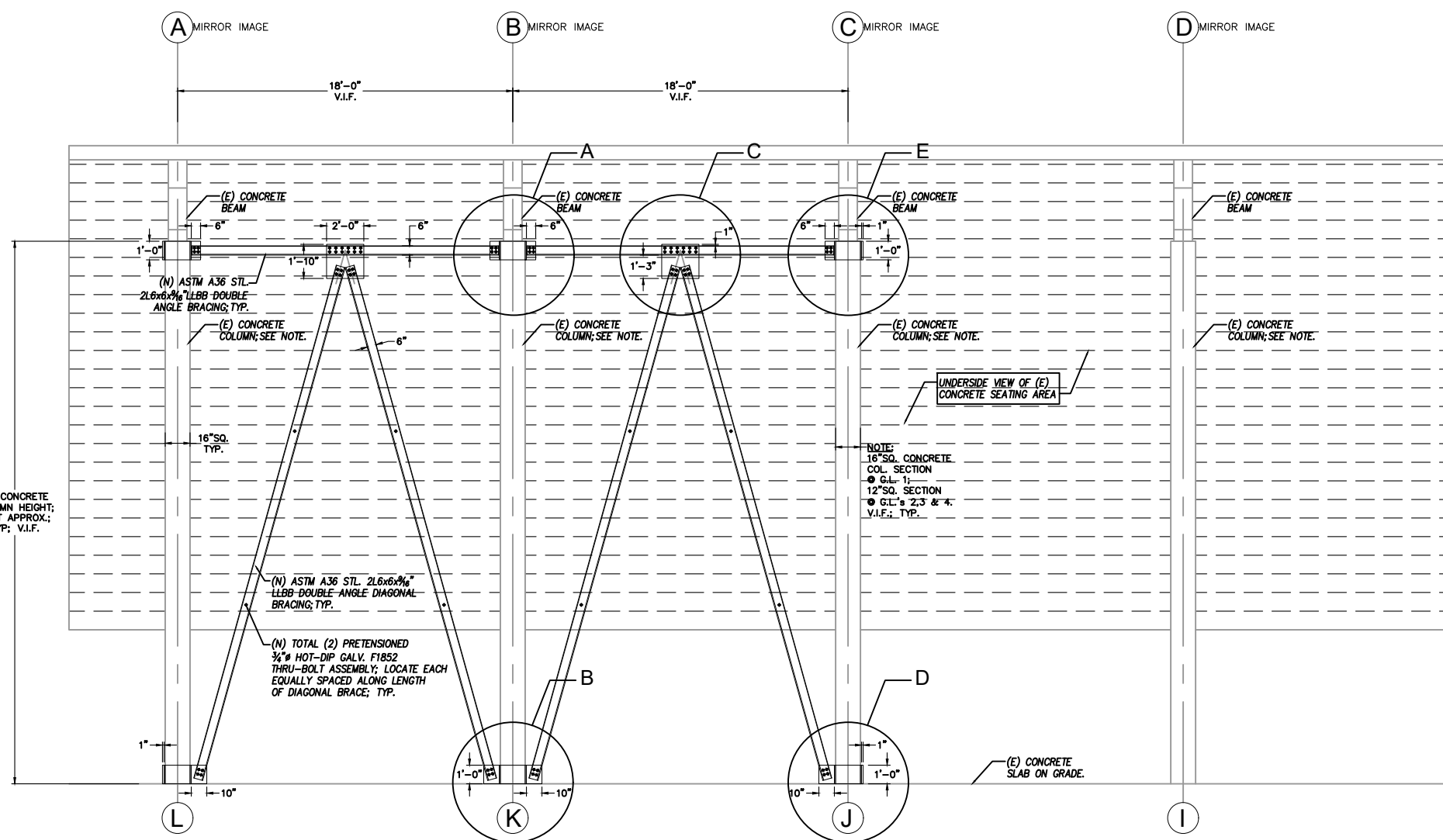
**CONCRETE
REPAIR DETAILS**

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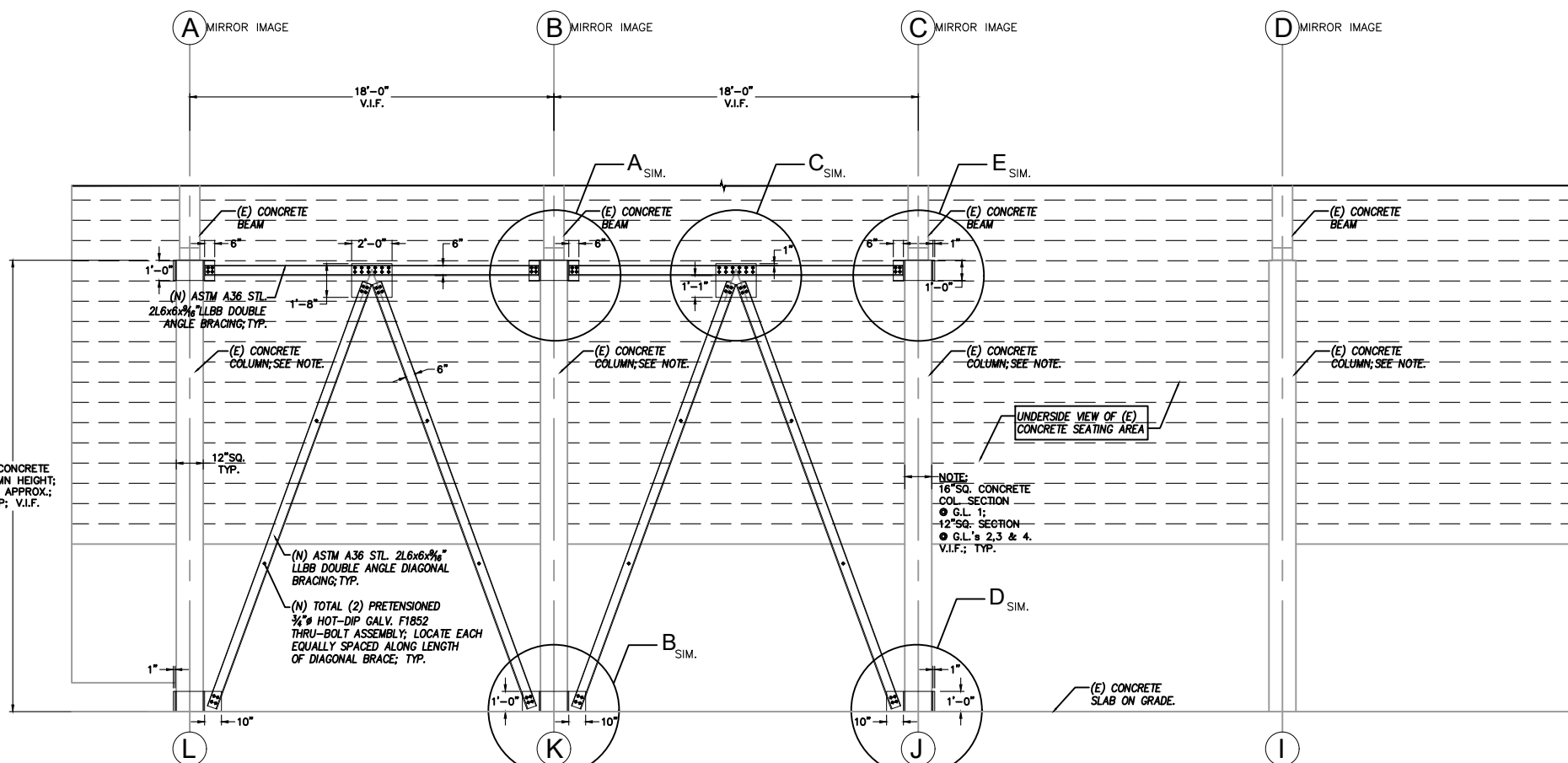
BID SET



GRID LINE 1 - HOME SIDE

(N) DIAGONAL BRACING FRAMING OPTION 2.

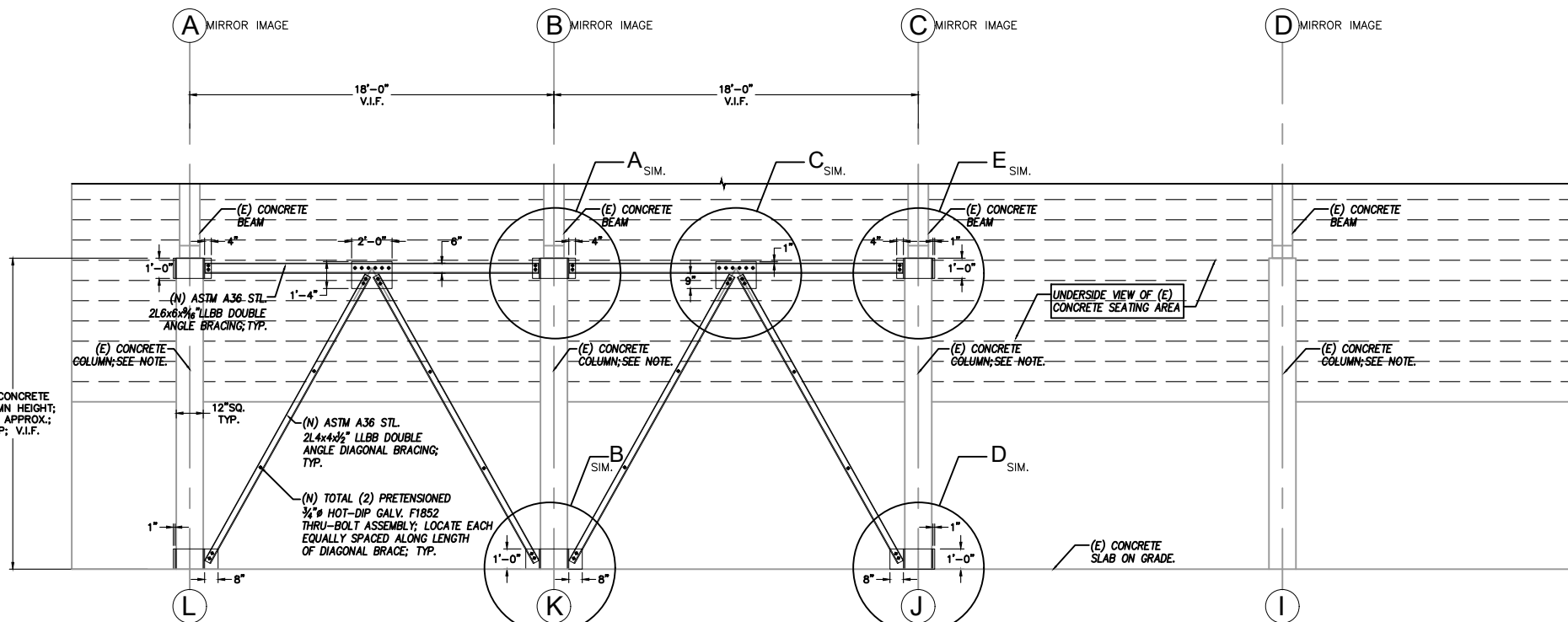
SCALE: 1/8" = 1'-0"



GRID LINE 2 - HOME SIDE

(N) DIAGONAL BRACING FRAMING OPTION 2.

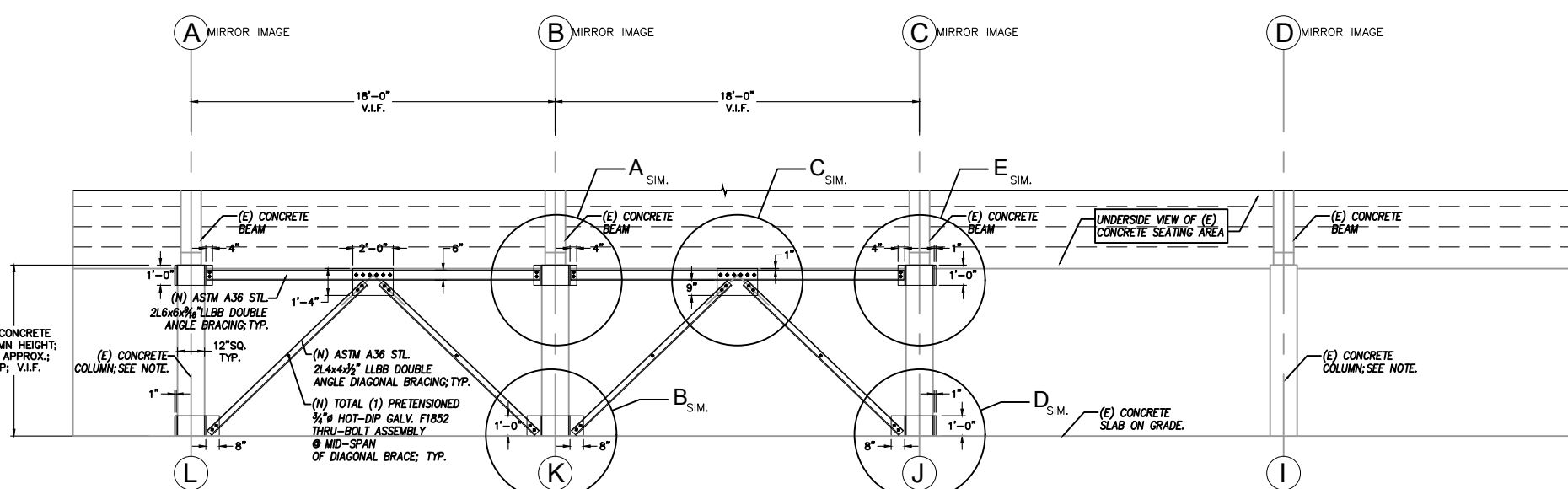
SCALE: 1/8" = 1'-0"



GRID LINE 3 - HOME SIDE

(N) DIAGONAL BRACING FRAMING OPTION 2.

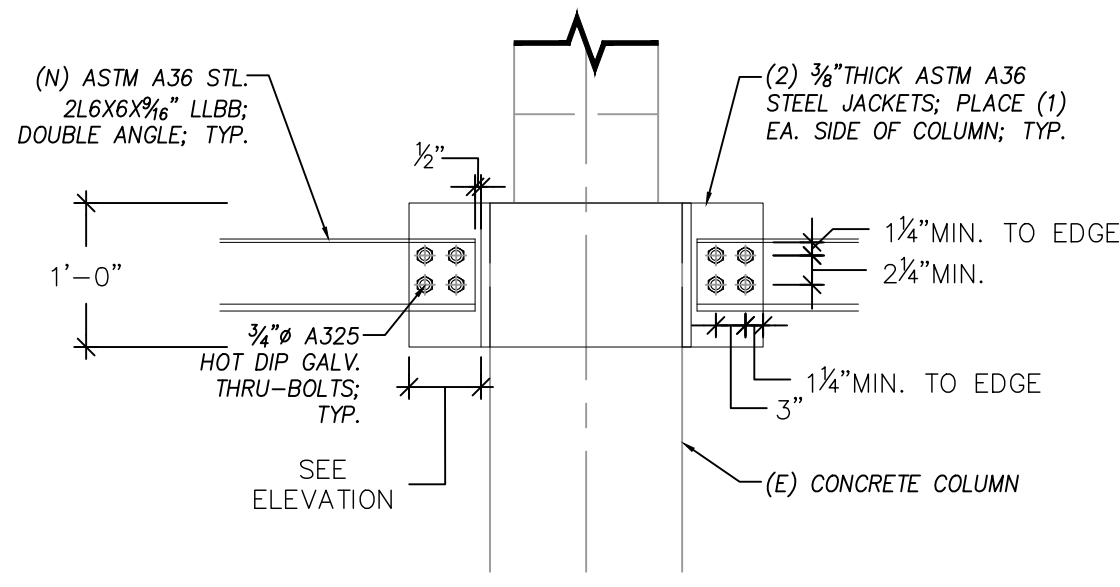
SCALE: 1/8" = 1'-0"



GRID LINE 4 - HOME SIDE

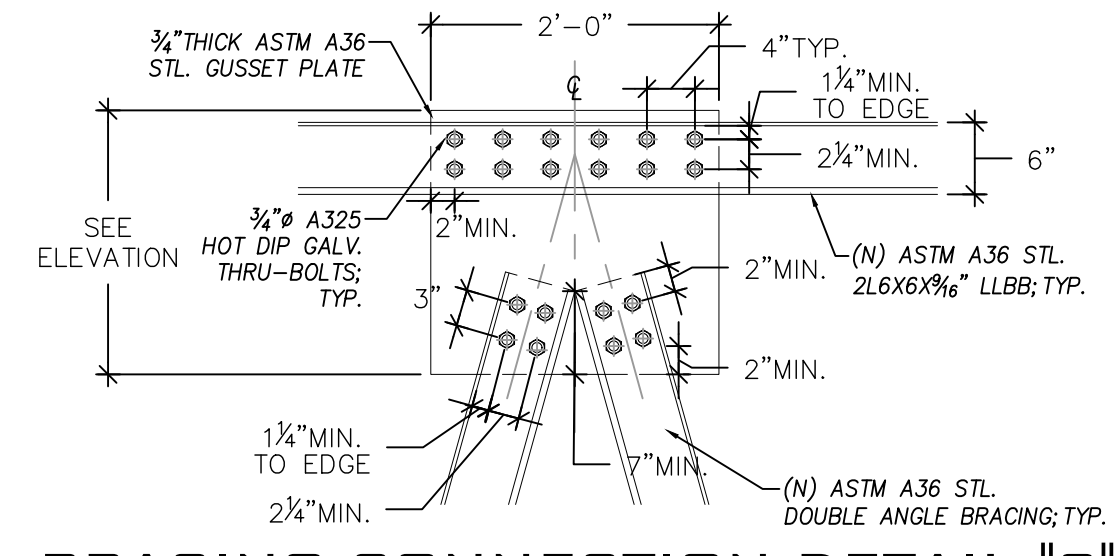
(N) DIAGONAL BRACING FRAMING OPTION 2.

SCALE: 1/8" = 1'-0"



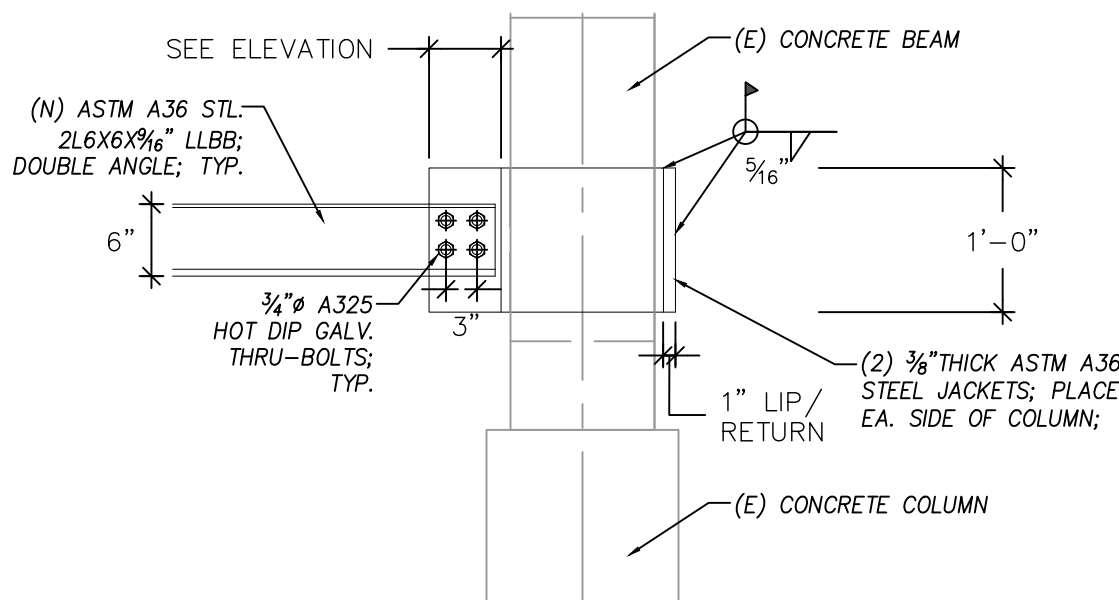
BRACING CONNECTION DETAIL "A"

SCALE: 3/4" = 1'-0"



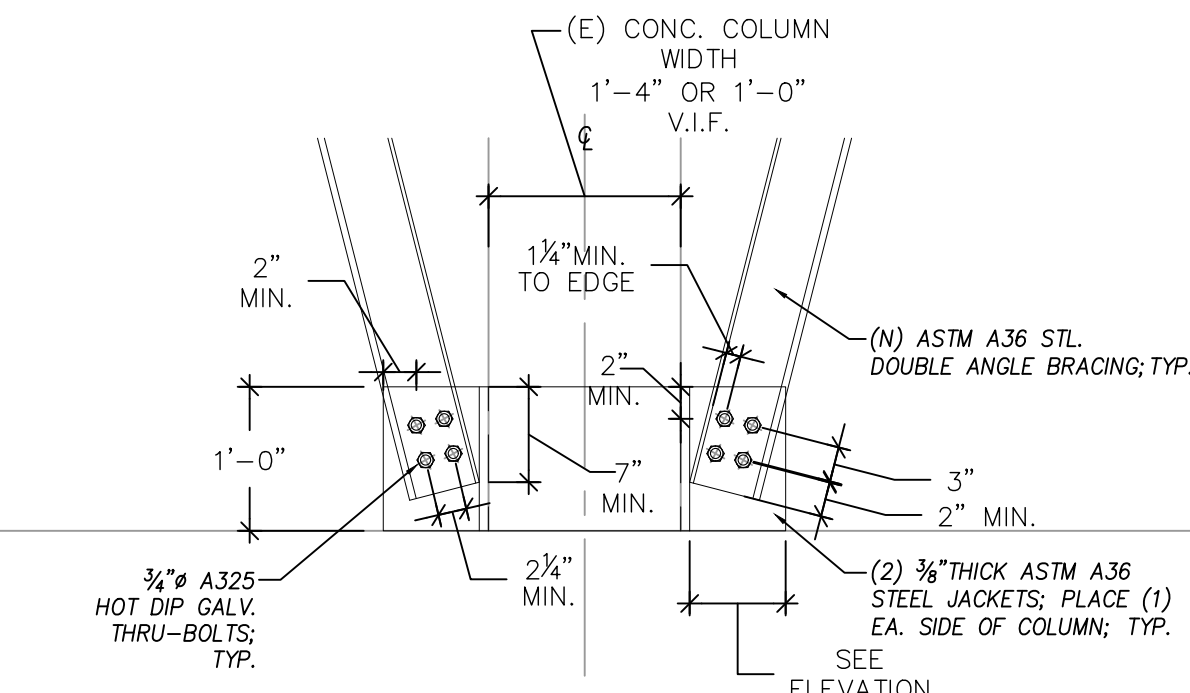
BRACING CONNECTION DETAIL "C"

SCALE: 3/4" = 1'-0"



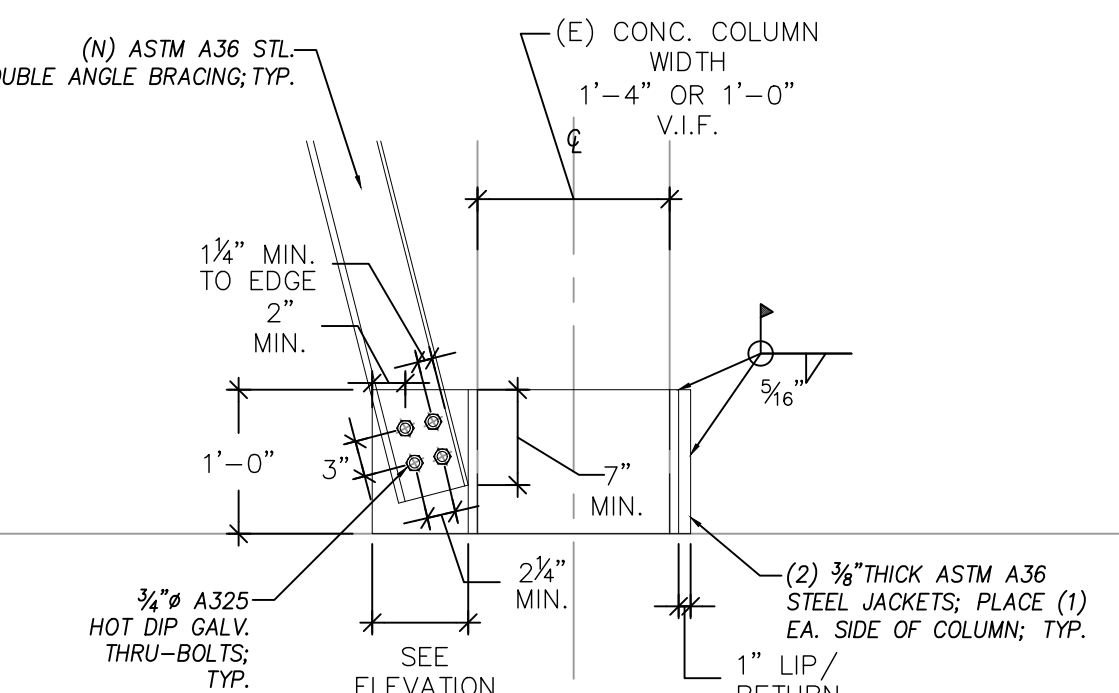
BRACING CONNECTION DETAIL "E"

SCALE: 3/4" = 1'-0"



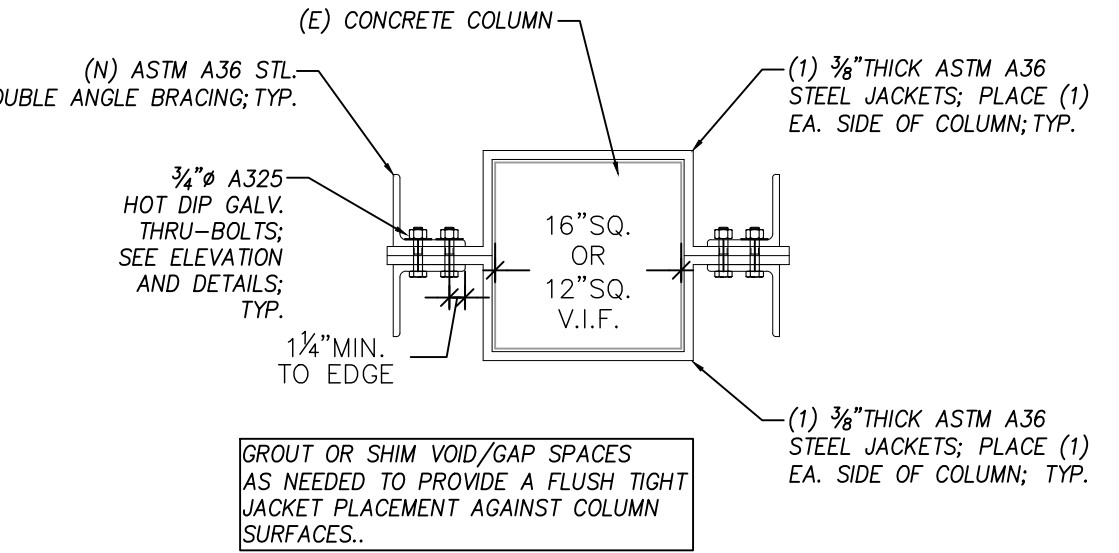
BRACING CONNECTION DETAIL "B"

SCALE: 3/4" = 1'-0"



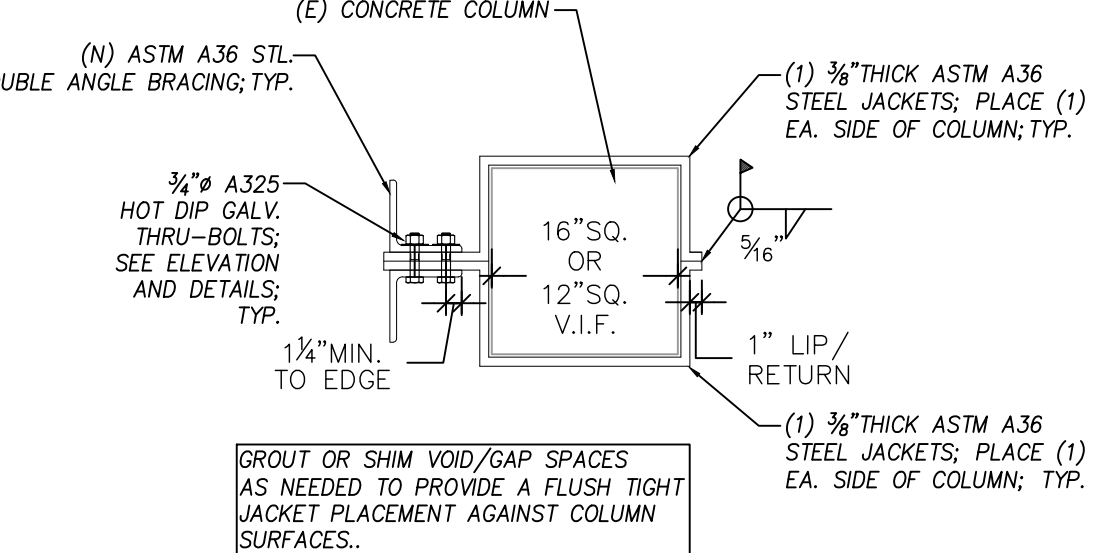
BRACING CONNECTION DETAIL "D"

SCALE: 3/4" = 1'-0"



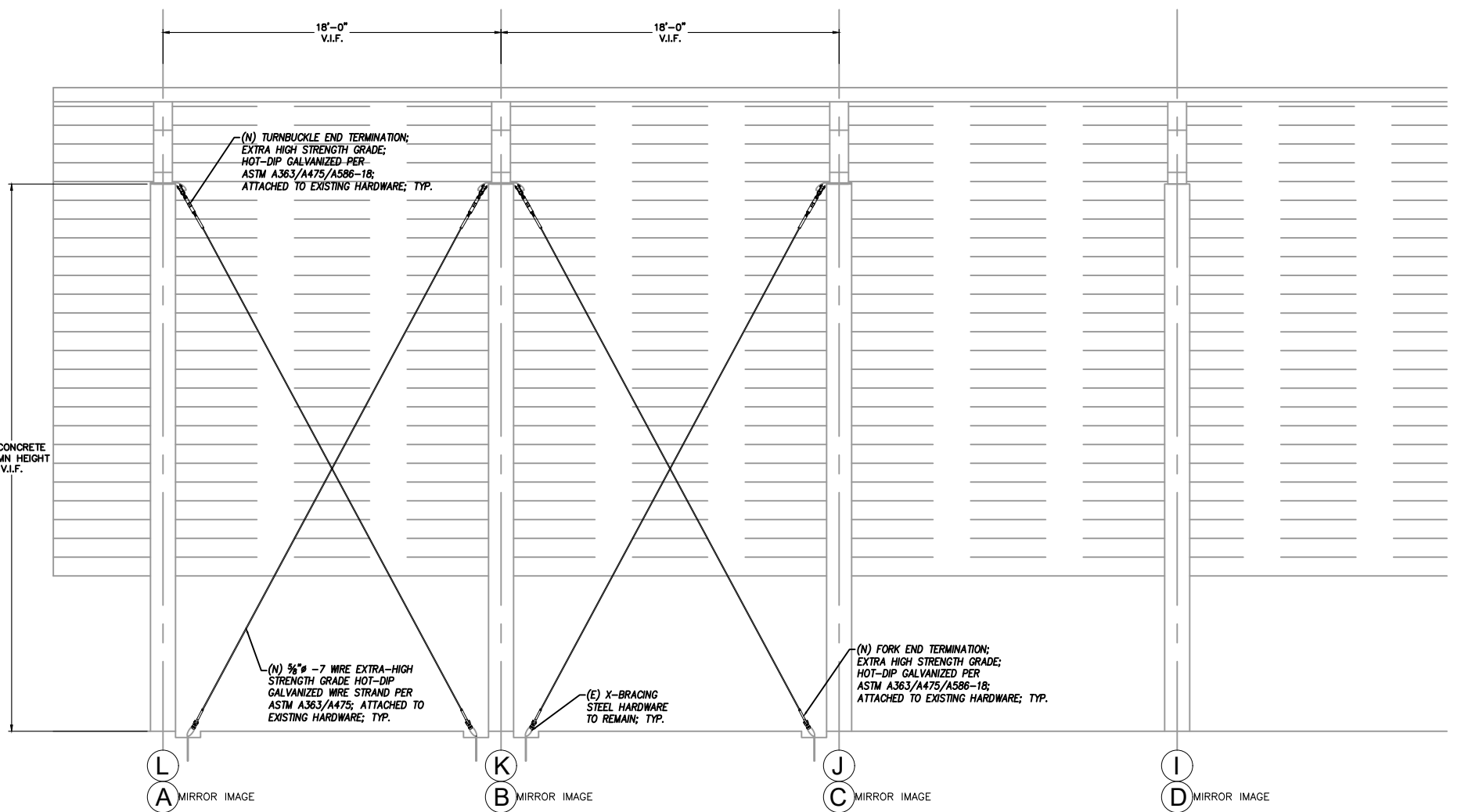
STEEL JACKET DETAIL - BOLTED

SCALE: 3/4" = 1'-0"



STEEL JACKET DETAIL - WELDED

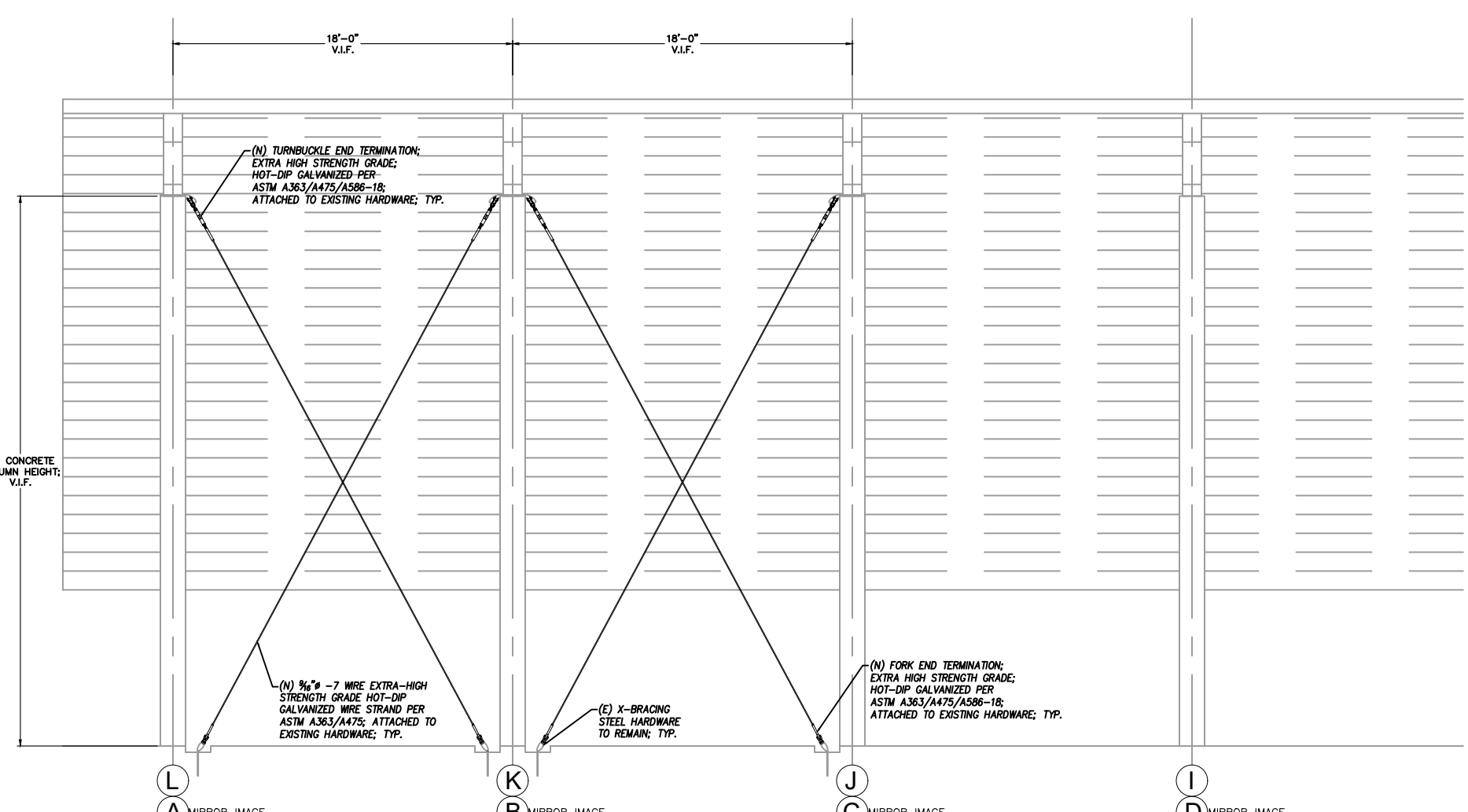
SCALE: 3/4" = 1'-0"



GRID LINES 1 & 2 - HOME SIDE

(N) DIAGONAL BRACING FRAMING OPTION 1.

SCALE: 1/8" = 1'-0"



GRID LINES 3 & 4 - HOME SIDE

(N) DIAGONAL BRACING FRAMING OPTION 1.

SCALE: 1/8" = 1'-0"

ALL EXPOSED STRUCTURAL STEEL AND CONNECTIVE HARDWARE SHALL BE HOT-DIP GALVANIZED AND TOUCHED UP AFTER WELDING.

NOTE:
CONTRACTOR TO PRICE EACH OF THE TWO (2) SHOWN NEW DIAGONAL BRACING FRAMING OPTIONS.

| DATE | REVISIONS |
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| DESIGNED | DRAWN | CHECKED | DATE ISSUED | SCALE |
|----------|-------|---------|-------------|----------|
| CJM / JT | AER | RV | NOV 2018 | AS NOTED |

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EMBV
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MEDIA BOWLES VILLANAZAR & ASSOCIATES
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HOME SIDE
LATERAL BRACING
SECTIONS & DETAILS

SEBASTIAN RIVER
HIGH SCHOOL
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9001 Shark Boulevard
SEBASTIAN FLORIDA

RODOLFO VILLANAZAR
FL P.E.#61000

DATE: 02/20/2019

SHEET

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BID SET