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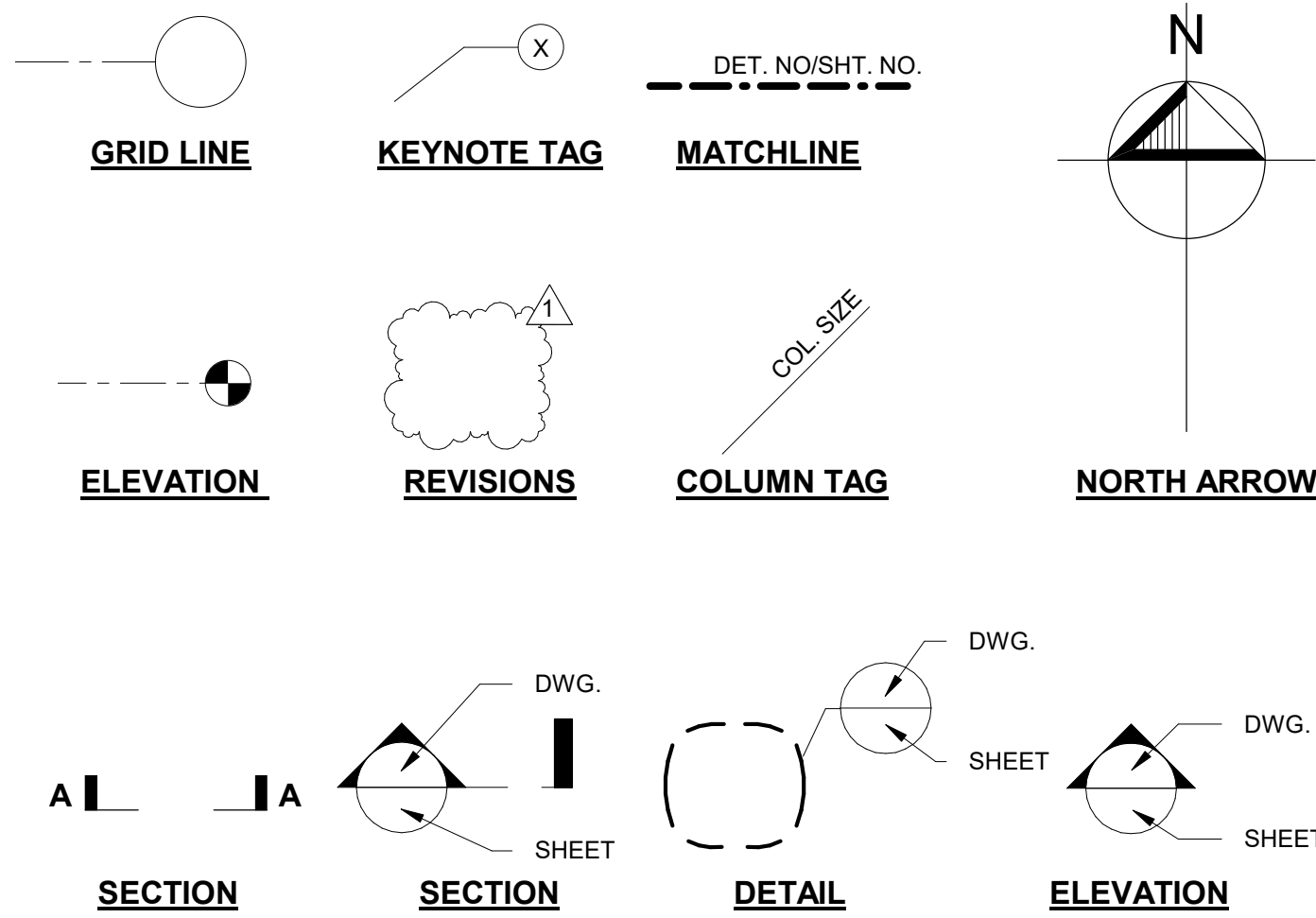
BEAVERTON SCHOOL DISTRICT - BEAVERTON HIGH SCHOOL -
BASEBALL/SOFTBALL STADIUM REPAIRS
13000 SW 2ND STREET, BEAVERTON, OR 97005

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2
S-000
GENERAL SYMBOLS
1/4" = 1'-0"

(A)	ABOVE	OPNG.	OPENING
A.B.	ANCHOR BOLT	OPP.	OPPOSITE
ADJ.	ADJACENT	PAR.	PARALLEL
(B)	BELOW	PERP.	PERPENDICULAR
BM.	BEAM	PSL	PARALLEL STRAND LUMBER
B.N.	BOUNDARY NAILING	PLYWD.	PLYWOOD
CLR.	CLEAR	REINF.	REINFORCING
COL.	COLUMN	REQ'D	REQUIRED
COLL.	COLLECTOR	REV.	REVISION
CONC.	CONCRETE	S.A.D.	SEE ARCHITECTURAL DRAWINGS
CONN.	CONNECTION	SCH.	SCHEDULE
CONT.	CONTINUOUS	SIMP.	SIMPSON
DBL	DOUBLE	SIM.	SIMILAR
DET.	DETAIL	S.O.G.	SLAB ON GRADE
(E)	EXISTING	SPEC.	SPECIFICATIONS
E/E	EACH END	SQ.	SQUARE
E/F	EACH FACE	STAG.	STAGGERED
E/S	EACH SIDE	STIFF.	STIFFENER
E/W	EACH WAY	STL.	STEEL
E.N.	EDGE NAILING	S.W.	SHEAR WALL
FDN.	FOUNDATION	T&B	TOP AND BOTTOM
FLR.	FLOOR	T&G	TONGUE AND GROOVE
F.N.	FIELD NAILING	THK.	THICK
FTG.	FOOTING	THR'D.	THREADED
H.D.G.	HOT DIPPED GALVANIZED	THRU	THROUGH
HDR.	HEADER	T.O.	TOP OF
HORIZ.	HORIZONTAL	T.O.C	TOP OF CONCRETE
L.S.	LAG SCREW	T.O.S.	TOP OF SLAB/STEEL
LVL.	LAMINATED VENEER LUMBER	TYP.	TYPICAL
MAX.	MAXIMUM	U.O.N	UNLESS OTHERWISE NOTED
MIN.	MINIMUM	VERT.	VERTICAL
MTL.	METAL	V.I.F.	VERIFY IN FIELD
(N)	NEW	W/	WITH
N.I.C.	NOT IN CONTRACT	WD.	WOOD
N.T.S	NOT TO SCALE	W.P.	WORKING POINT
N.W.	NORMAL WEIGHT		
O.C.	ON CENTER		

1
S-000
ABBREVIATIONS
N.T.S.

■ STRUCTURAL ENGINEER

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■ STAMP

PROGRESS PRINT
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CONSTRUCTION

■ PROJECT NAME / LOCATION

BEAVERTON HIGH
SCHOOL -
BASEBALL/SOFTBALL
STADIUM REPAIRS

■ ISSUE / REVISION

No.	DESCRIPTION	DATE
	100% CD	04/19/2021

■ SCALE AS NOTED
IF PRINT SIZE IS
24"x36"

■ DESIGN CH

■ DRAWN CC

■ DATE 04.19.2021

■ PROJECT No. 20436.10

■ DRAWING TITLE

COVER SHEET

S-000

100% CONSTRUCTION DOCUMENTS

GENERAL STRUCTURAL NOTES

SCOPE OF WORK: MASONRY REPAIRS AND GUARDRAIL/BACKSTOP REINFORCEMENT AT EXISTING BASEBALL/SOFTBALL STADIUMS.

GOVERNING CODE:
THE STRUCTURAL DESIGN OF BUILDING COMPONENTS DESCRIBED ON THESE DRAWINGS IS IN
ACCORDANCE WITH THE 2019 OREGON STRUCTURAL SPECIALTY CODE (OSSC) BASED ON THE
2018 INTERNATIONAL BUILDING CODE (IBC).

1. GENERAL

MATERIALS AND WORKMANSHIP TO CONFORM TO THE BUILDING CODE DEFINED ABOVE AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

- A. THESE NOTES APPLY TO ALL DRAWINGS AND GOVERN UNLESS OTHERWISE NOTED OR SPECIFIED. WHENEVER THERE APPEARS TO BE A CONFLICT BETWEEN THE NOTES, DRAWINGS, OR SPECIFICATIONS, CONTACT THE ENGINEER OF RECORD FOR CLARIFICATION.
- B. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND PROPOSED DIMENSIONS AT JOB SITE. NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCIES AND DO NOT PROCEED WITH AFFECTED WORK UNTIL THEY ARE RESOLVED. DO NOT SCALE DRAWINGS.
- C. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, USE SIMILAR DETAILS OF CONSTRUCTION, SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.
- D. DETAILS NOTED AS "TYPICAL" IN THEIR TITLE OR ON SHEETS TITLED "TYPICAL DETAILS" APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED. SUCH DETAILS ARE NOT NOTED AT EACH LOCATION THAT THEY OCCUR.
- E. ALL ELEMENTS INDICATED ON THE DRAWINGS SHALL BE ASSUMED "NEW" UNLESS OTHERWISE NOTED.
- F. SAFETY MEASURES: AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE INCLUDING, BUT NOT LIMITED TO:
 - a) SAFETY OF THE PERSONS AND PROPERTY,
 - b) MEANS AND METHODS OF CONSTRUCTION,
 - c) COMPLIANCE WITH APPLICABLE CAL/OSHA REQUIREMENTS AND GUIDELINES,
 - d) ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS

THE CONTRACTOR SHALL BRACE OR SHORE THE CONSTRUCTION AS REQUIRED TO PROVIDE A SAFE AND TRUE STRUCTURE. WHERE BRACING OR SHORING IS INDICATED IN THE DRAWINGS, IT IS DONE SO ONLY AS A COURTESY TO THE CONTRACTOR AND SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COORDINATE THE WORK WITH THE AFOREMENTIONED PROVISIONS. THE ARCHITECT'S OR ENGINEER'S JOB SITE REVIEW IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.

THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THE CONTRACT DOCUMENTS TO THE JURISDICTION FOR PERMITTING. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING ALL DOCUMENTATION INCLUDING SUBMITTALS, RFI'S, COP'S AND INVOICES ELECTRONICALLY VIA e-Builder FOR THE BEAVERTON SCHOOL DISTRICT.

2. SUBMITTALS

- A. SUBMIT ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) COPY OF REQUIRED SUBMITTALS TO OWNER'S REPRESENTATIVE FOR REVIEW VIA e-Builder PLATFORM FOR BEAVERTON SCHOOL DISTRICT. THE ENGINEER SHALL HAVE 10 WORKING DAYS FROM DATE OF RECEIPT TO COMPLETE AND RETURN THE SUBMITTAL REVIEW.
- B. SUBSTITUTION REQUESTS SHALL DEMONSTRATE THE REQUESTED SUBSTITUTION'S ABILITY TO MEET OR EXCEED THE REQUIREMENTS OF THE ORIGINALLY SPECIFIED ITEM. THE REQUEST SHALL ALSO INCLUDE A ROUGH COST SAVINGS ESTIMATE TO THE OWNER, REFERENCES TO DETAILS WHERE SUBSTITUTION IS PROPOSED TO BE APPLIED, AND ALL SUPPORTING DOCUMENTATION REQUIRED FOR THE ITEM BY THIS SECTION OF THE NOTES.
- C. SHOP DRAWINGS, MILL CERTIFICATES, AND/OR OTHER RELEVANT CERTIFICATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BEFORE FABRICATION. FOR THE FOLLOWING ITEMS:
NOTE: SUBMITTING COPIES OF THE STRUCTURAL DRAWINGS IS UNACCEPTABLE AND WILL BE REJECTED FOR COMPLETE REVISION.
- 1) STRUCTURAL AND MISCELLANEOUS STEEL
 - a. MILL CERTIFICATIONS FOR ALL STEEL AND ALL FASTENERS.
 - b. SHOP DRAWINGS INCLUDING AT A MINIMUM ASTM MATERIAL DESIGNATIONS, MEMBER SIZES, SIZES AND TYPES OF WELDS, SIZES AND TYPES OF BOLTS, AND DIMENSIONS.
 - c. WELD PROCEDURE SPECIFICATIONS FOR EACH TYPE OF WELD TO BE USED AND PRODUCT DATA FOR WELDING FILLER METAL.
 - d. MANUFACTURER'S PRODUCT DATA FOR PRIMER AND FINISH PAINT, INCLUDING COLOR CHARTS.
 - 2) CAST-IN-PLACE CONCRETE AND SHOTCRETE
 - a. MIX DESIGNS FOR EACH TYPE OF CONCRETE ON THE PROJECT INCLUDING RESULTS OF SLUMP, COMPRESSION, AND SHRINKAGE TESTS AND OTHER PROJECT SPECIFIC CRITERIA
 - b. PRODUCT DATA FOR NON-SHRINK GROUT
 - c. PROPOSED ROUGHENING METHODS AND TECHNIQUES TO PREPARE EXISTING SURFACES TO RECEIVE NEW CONCRETE, IN ACCORDANCE WITH AMPLITUDE NOTED IN THE CONCRETE SECTION OF THESE NOTES.
 - 3) UNIT MASONRY
 - a. MASONRY UNIT MANUFACTURERS MATERIAL CERTIFICATION
 - b. GROUT MIX DESIGN INCLUDING SLUMP AND COMPRESSION TESTS
 - c. PROPOSED CONSTRUCTION JOINT LOCATIONS
 - 4) MECHANICAL ANCHORS AND EPOXY ANCHORS
 - a. PRODUCT DATA FOR EACH TYPE OF SYSTEM INCLUDING ANCHOR TESTING IN ACCORDANCE WITH ACI 308.2 FOR MECHANICAL ANCHORS AND ACI 308.4 FOR EPOXY ANCHORS.
 - 5) FLASHING CAP
 - a. SHOW LAYOUTS OF SHEET METAL FLASHING AND TRIM, INCLUDING PLANS AND ELEVATIONS.
 - b. IDENTIFY MATERIAL, THICKNESS, WEIGHT, AND FINISH FOR EACH ITEM AND LOCATION IN PROJECT AND DETAILS FOR FORMING SHEET METAL FLASHINGS INCLUDING PROFILES, SHAPES, SEAMS AND DIMENSIONS.
 - 6) UNIT PRICING
 - a. METAL FLASHING CAP - \$/L.F.
 - b. STANCHION REINFORCEMENT PER DETAIL 2/S-501 - \$/UNIT
 - c. KICKER BRACE PER DETAIL 3/S-501 - \$/UNIT
 - d. FENCE REPLACEMENT - \$/L.F.
 - e. MASONRY WALL REPAIR - \$/S.F.

3. SPECIAL INSPECTION REQUIREMENTS AND TESTING

- A. PROVIDE SPECIAL INSPECTIONS AND TESTING FOR ALL ITEMS AS REQUIRED BY THE GOVERNING JURISDICTION.
- B. THE OWNER SHALL BE RESPONSIBLE FOR RETAINING AN INDEPENDENT, QUALIFIED INSPECTOR AND/OR TESTING LAB TO PERFORM ALL REQUIRED TESTING AND SPECIAL INSPECTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING THE SPECIAL INSPECTIONS.
- C. IF INITIAL TESTS OR INSPECTIONS MADE BY THE OWNER'S TESTING AGENCY REVEAL THAT ANY PORTION OF THE WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, ADDITIONAL TESTS, INSPECTIONS, AND NECESSARY REPAIRS WILL BE MADE AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OWNER OF NON-CONFORMING WORK. THIS NOTIFICATION SHALL SPECIFICALLY ADDRESS THE NON-CONFORMING WORK AND SHALL BE SEPARATE FROM THE SPECIAL INSPECTION REPORTS.
- D. SPECIAL INSPECTION REPORTS SHALL BE SENT TO THE ENGINEER AT THE TIME OF COMPLETION FOR REVIEW OF CONFORMANCE WITH THE REQUIREMENTS OF THE STRUCTURAL DRAWINGS.
- E. THE CONTRACTOR SHALL NOTIFY THE TESTING LAB A MINIMUM OF 48 HOURS PRIOR TO TIME OF INSPECTION.
- F. THE FOLLOWING SPECIFIC ITEMS SHALL BE INSPECTED AND/OR TESTED BY THE TESTING LAB:
- 1) CONCRETE:
 - a. SAMPLE AND TEST CONCRETE AS FOLLOWS:
 1. FABRICATE SPECIMENS FOR STRENGTH TESTS PER ACI 318.
 2. PERFORM SLUMP AND AIR CONTENT TESTS.
 3. DETERMINE TEMPERATURE OF THE CONCRETE.
 - b. CONCRETE PLACEMENT (CONTINUOUS INSPECTION).
 - c. CURING TEMPERATURE AND TECHNIQUES AND DURATION.
 - d. REVIEW MIX DESIGN FOR EACH CLASS OF CONCRETE.
 - e. REVIEW THE TICKET OF EACH BATCH OF CONCRETE DELIVERED.
 - 2) NON-SHRINK GROUT
 - a. PLACEMENT
 - b. CAST AND TEST SPECIMENS FOR COMPRESSION STRENGTH
 - 3) ALL STRUCTURAL WELDING INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
 - a. CONTINUOUS INSPECTION FOR ALL BUTT WELDS, COMPLETE AND PARTIAL PENETRATION WELDS, GROOVE WELDS AND PLUG WELDS, INCLUDING WELDING OF REINFORCEMENT.
 - b. PERIODIC VISUAL INSPECTION OF THE FOLLOWING ITEMS:
 1. SINGLE-PASS FILLET WELDS NOT EXCEEDING 5/16".
 2. WELDING OF STAIRS AND RAILING SYSTEMS.
 - 4) MASONRY (CMU)
 - a. STRENGTH
 - b. REINFORCEMENT PLACEMENT
 - c. BLOW-OUT HOLES
 - d. MORTAR & GROUT
 1. STRENGTH
 2. APPLICATION
 - 5) POST INSTALLED ANCHORS. WHERE ANCHORS ARE LOADED IN SUSTAINED TENSION, INSPECTION SHALL BE CONTINUOUS. REFER TO THE DRAWINGS FOR LOCATIONS.
 - a. BRICK MASONRY
 1. EPOXY THREADED RODS SHALL BE TESTED PER TESTING SCHEDULE IN TYPICAL DETAILS.
 - b. CONCRETE
 1. EPOXY REBAR AND THREADED RODS
 2. MECHANICAL ANCHORS

4. STRUCTURAL OBSERVATIONS

- A. STRUCTURAL OBSERVATIONS WILL BE UNDERTAKEN BY PERSONNEL UNDER THE SUPERVISION OF THE ENGINEER OF RECORD. STRUCTURAL OBSERVATIONS ARE SEPARATE FROM THE SPECIAL INSPECTION REQUIREMENTS OUTLINED ABOVE.
- B. THE PURPOSE OF STRUCTURAL OBSERVATIONS IS TO REVIEW THE OVERALL PROGRESS OF CONSTRUCTION AND ASCERTAIN ITS GENERAL COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS, THESE GENERAL NOTES, AND OTHER SPECIFICATIONS, WHERE APPLICABLE. OBSERVATIONS WILL BE NOTED IN REGULAR SITE REPORTS ISSUED TO THE OWNER.
- C. UNLESS OTHERWISE AGREED UPON, THE ENGINEER OF RECORD SHALL BE ENGAGED TO PROVIDE, AT MINIMUM, A LEVEL OF CONSTRUCTION INVOLVEMENT NEEDED TO OBSERVE THE FOLLOWING AT SIGNIFICANT MILESTONES DURING THE CONSTRUCTION PROCESS:
 - 1) INSTALLATION OF GUARDRAIL AND BACKSTOP POST REINFORCEMENT.

ADDITIONAL ENGINEER INVOLVEMENT MAY BE DESIRED. ANY AGREEMENT TO THAT EFFECT SHALL BE MADE PRIOR TO THE START OF CONSTRUCTION.
- D. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 3 DAYS PRIOR TO TIME OF OBSERVATION AND PROVIDE ACCESS FOR THE OBSERVATIONS.
- E. AN OWNER'S REPRESENTATIVE MAY BE DESIGNATED, BY THE OWNER'S SPECIFIC AUTHORIZATION PRIOR TO THE START OF CONSTRUCTION, WHO WILL HAVE THE AUTHORITY TO REQUEST ADDITIONAL ENGINEER INVOLVEMENT OUTSIDE OF THE NORMAL DUTIES ASSOCIATED WITH STRUCTURAL OBSERVATION.

5. DESIGN BASIS

- A. CONSTRUCT IN CONFORMANCE WITH THE BUILDING CODE NOTED ABOVE.
- B. DESIGN LIVE LOADS:
- GUARDRAIL 50 LB/FT OR 200 LB
- C. WIND:

- | | |
|------------------------------------|----------|
| 1) RISK CATEGORY: | II |
| 2) BASIC WIND SPEED: | 96 MPH |
| 3) WIND DIRECTIONALITY FACTOR, Kd: | 0.85 |
| 4) EXPOSURE CATEGORY TYPE: | C |
| 5) TOPOGRAPHIC FACTOR, Kzt: | 1.0 |
| 6) ENCLOSURE CLASSIFICATION: | ENCLOSED |

6. NON-SHRINK GROUT

- A. NON-SHRINK GROUT SHALL ACHIEVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS (F'c) OF 7,000 PSI.
- B. NON-SHRINK GROUT SHALL COMPLY WITH ONE OF THE FOLLOWING.
- 1) DRY PACK NON-SHRINK GROUT SHALL BE EUCLID CHEMICAL COMPANY'S "EUCO-NS", L&M CRYSTEX, MASTER BUILDERS' "MASTERFLOW 713", SIMPSON'S "FX-228", OR FIVE STAR GROUT.
 - 2) WHERE HIGH FLUIDITY OR INCREASED PLACING TIME IS REQUIRED, USE EUCLID CHEMICAL COMPANY'S "EUCO HI-FLOW GROUT" OR MASTER BUILDERS' "MASTERFLOW 928".
- C. COMPLY WITH MANUFACTURER'S INSTALLATION RECOMMENDATIONS AND REQUIREMENTS.

7. PATCHING OF CONCRETE

- A. ALL INSERT HOLES, SHE-BOLTS, ETC., AND OTHER IMPERFECTIONS ON THE SURFACES OF THE CONCRETE SHALL BE FILLED WITH GROUT, BRUSHED AND SACKED TO A UNIFORM FINISH. ALL HOLES THROUGH TO THE OUTSIDE OF THE BUILDING MUST BE MADE WATERTIGHT.
- B. MATERIALS AND METHODS USED FOR PATCHING OF CONCRETE IN THE EVENT OF SPALLING, HONEYCOMBING, LARGE CRACKS, ETC., SHALL BE BY MASTER BUILDERS, SIKKA, OR EQUIVALENT. FINAL FINISHED APPEARANCE SUBJECT TO APPROVAL. SUBSTITUTES WILL BE CONSIDERED UPON SUBMITTAL OF MANUFACTURER'S TESTING REPORT.

8. STRUCTURAL STEEL

- A. STRUCTURAL STEEL SHALL CONFORM TO FOLLOWING ASTM DESIGNATIONS, UNLESS OTHERWISE NOTED:
- 1) PLATES AND BARS: ASTM A572 GRADE 50.
 - 2) ANGLES (L): ASTM A36 (Fy = 36 KSI).
 - 3) RECTANGULAR AND ROUND HSS (HSS): ASTM A1085 (Fy = 50 KSI).
 - 4) PIPE (P): ASTM A53 GRADE B (Fy = 35 KSI)
- B. STRUCTURAL FASTENERS INCLUDING BOLTS, THREADED RODS, AND ANCHOR RODS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS, UNLESS OTHERWISE NOTED.
- 1) ERECTION, GROUTED, AND TIMBER CONNECTION BOLTS: ASTM A307 WITH WELDABILITY SUPPLEMENT S1 GRADE A.
 - 2) HIGH STRENGTH BOLTS: ASTM F3125 A325; WHERE TWIST-OFF TYPE BOLTS ARE SPECIFIED, PROVIDE ASTM F3125 F1552.
 - 3) THREADED RODS: ASTM A36.
 - 4) HIGH STRENGTH THREADED RODS: ASTM A193 GRADE B7.
- C. ALL BOLTS FOR EXTERIOR USE SHALL BE ZINC-COATED BY THE BOLT MANUFACTURER BY EITHER THE HOT-DIP PROCESS IN ACCORDANCE WITH ASTM A153, CLASS C OR THE MECHANICAL DEPOSIT PROCESS IN ACCORDANCE WITH ASTM B695, CLASS 50.
- D. ALL STRUCTURAL STEEL MEMBERS EXPOSED TO WEATHER OR CALLED OUT AS HOT DIP GALVANIZED (HDG) ON PLAN OR STRUCTURAL STEEL MEMBERS LOCATED IN EXTERIOR ENVIRONMENTS SHALL BE HDG IN ACCORDANCE WITH ASTM A 123. ANY MEMBER THAT HAS HAD ITS HDG COATING DAMAGED OR REMOVED DURING TRANSPORT OR ERECTION SHALL HAVE ITS COATING REPAIRED USING ZRC GALVILITE REPAIR COMPOUND OR EQUAL. REPAIR GALVANIZING AFTER WELDING IN ACCORDANCE WITH ASTM A780.
- F. PAINT STEEL (EXCEPT GALVANIZED STEEL AND PORTIONS TO BE ENCASED IN CONCRETE) WITH ONE COAT OF PRIMER STANDARD TNEPEC P10-99 OR EQUIVALENT SUBJECT TO ENGINEER'S APPROVAL. ALTERNATES WILL BE CONSIDERED UPON REQUEST AND SUBMISSION OF THE MANUFACTURER'S SPECIFICATIONS.
- G. ALL CONCRETE ENCASED STEEL SHALL BE CLEAN OF GREASE, PAINT AND OTHER CONTAMINANTS.
- H. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST AISC 'SPECIFICATIONS' FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
- I. WELDING SHALL CONFORM TO THE LATEST EDITION OF THE ANSI/AWS D1.1 STRUCTURAL WELDING CODE. USE E70XX ELECTRODES. WELDING OF METAL DECK AND OTHER SHEET METAL SHALL CONFORM TO THE LATEST EDITION OF AWS D1.3, USE E70XX ELECTRODES. ALL WELD SIZES SPECIFIED ON THE DRAWINGS ARE EFFECTIVE WELD SIZES (E), WELDS SHOWN ON SHOP DRAWINGS (S) SHALL BE INCREASED AS REQUIRED TO ACHIEVE WHAT IS SPECIFIED.
- K. LOCATE AND INSTALL ALL ANCHOR BOLTS, EPOXY ANCHORS, AND MECHANICAL ANCHORS BEFORE FABRICATING STEEL CONNECTION ELEMENTS.

9. CONCRETE UNIT MASONRY

- A. THE COMPRESSIVE STRENGTH OF THE MASONRY ASSEMBLY, F'm SHALL BE 2,500 PSI.
- B. CONCRETE BLOCK MASONRY UNITS SHALL CONFORM TO ASTM C90-16a AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,750 PSI.
- C. ALL MASONRY UNITS SHALL BE CHANNEL BLOCKS, UNLESS OTHERWISE NOTED.
- D. GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS.
- E. MORTAR SHALL CONFORM TO ASTM C270-14a, TYPE M. MORTAR SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS.
- F. GROUT SHALL CONFORM TO ASTM C476.

■ STRUCTURAL ENGINEER



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- STAMP

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[illegible]

■ SCALE AS NOTED
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■ DESIGN	CH
■ DRAWN	CC
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■ DRAWING TITLE	

GENERAL NOTES

S-001

100% CONSTRUCTION DOCUMENT:

10. MECHANICAL ANCHORS

- A. EXPANSION ANCHORS INTO CONCRETE SHALL BE
 - 1) HILTI KB-TZ (ICC ESR-1917)
- B. SCREW ANCHORS INTO CONCRETE/MASONRY SHALL BE:
 - 1) HILTI KWIK HUS-EZ (ICC ESR-3056)
- C. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. DO NOT CUT EXISTING REINFORCEMENT. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED ABOVE, THE ENGINEER WILL DETERMINE A NEW LOCATION.
- D. LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH MECHANICAL ANCHORS.

11. EPOXY GROUTING OF DOWELS, REBAR AND ANCHOR BOLTS

- A. INSTALLATION OF POST-INSTALLED DOWELS, REBAR AND ANCHOR BOLTS (EPOXY ANCHORS) SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII), WHERE THERE IS A CONFLICT BETWEEN THESE NOTES AND THE MPII, SEE MPII FOR CLARIFICATION.
- B. EPOXY ANCHORS SHALL MEET THE REQUIREMENTS OF ACI 308.4R AND THE FOLLOWING INSTALLATION REQUIREMENTS, UNLESS OTHERWISE NOTED.
 - 1) MINIMUM AGE OF CONCRETE: 21 DAYS
 - 2) CONCRETE TEMPERATURE RANGE, 50-80 DEGREES FAHRENHEIT
 - 3) MOISTURE CONDITION OF CONCRETE: DRY
- C. EPOXY GROUTING WILL BE USED IN ALL LOCATIONS WHERE EITHER ALL-THREAD ROD OR REBAR ARE BEING EMBEDDED INTO EXISTING CONCRETE, CMU, OR BRICK.
- D. IN CONCRETE, HOLES SHALL BE DRILLED WITH ROTARY HAMMER UNLESS NOTED OTHERWISE.
- E. IN BRICK, HOLES SHALL BE DRILLED WITH NON-IMPACT TOOLS, NO ROTARY HAMMERS.
- F. EPOXY GROUT FOR DOWNWARD HOLES SHALL BE EITHER NON-SAG OR LIQUID TYPE, NORMAL SET. HORIZONTAL OR OVERHEAD HOLES SHALL BE NON-SAG TYPE. FOR OVERHEAD APPLICATIONS A PISTON PLUG SHALL BE USED.
- G. UNLESS OTHERWISE NOTED, EPOXY TYPES SHALL BE AS FOLLOWS:

FOR ANCHOR BOLTS IN CONCRETE, EPOXY SHALL BE

HILTI HIT-HY 200 (ICC-ES ESR-3574)

FOR CONCRETE MASONRY UNITS (CMU), EPOXY SHALL BE:

HILTI HIT-HY 270 (ICC-ES ESR-4143)

ALTERNATES WILL BE CONSIDERED UPON REQUEST AND SUBMISSION OF PRODUCT EVALUATION REPORT IN ACCORDANCE WITH ACI 355.4.

- 1) WHEN INSTALLING ANCHORS, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS OR POST TENSIONING TENDONS. IN POST TENSION ELEMENTS THE CONTRACTOR SHALL SCAN PRIOR TO LOCATE THE EXISTING TENDONS PRIOR TO INSTALLING THE ANCHOR.
- 2) IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED, THE ENGINEER WILL DETERMINE A NEW LOCATION.
- 3) LOCATE EXISTING REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH ANCHORS.

12. METAL FLASHING

- A. FABRICATE FLASHING TO COMPLY WITH RECOMMENDATIONS IN SMACNA'S "ARCHITECTURAL SHEET METAL MANUAL" THAT APPLY TO DESIGN, DIMENSIONS, METAL, AND OTHER CHARACTERISTICS. SHOP FABRICATE ITEMS WHERE PRACTICAL. OBTAIN FIELD MEASUREMENTS FOR ACCURATE FIT BEFORE SHOP FABRICATION. FABRICATE FLASHINGS TO PROVIDE POSITIVE DRAINAGE. PROVIDE SHEET METAL FLASHINGS THAT ALLOW WATER INFILTRATION TO ONLY MATERIAL PENETRATIONS. LAP ALL FLASHINGS A MINIMUM OF 6". SET IN A MINIMUM TWO BEADS OF SEALANT. SHEET METAL FINISHES TO COMPLY WITH NAAMM'S "METAL FINISHES MANUAL FOR ARCHITECTURAL AND METAL PRODUCTS".

SPECIAL INSPECTIONS

MASONRY AND CONCRETE:

- 1) VERIFICATION OF SLUMP FLOW (CONTINUOUS)
- 2) VERIFICATION OF f_m AND f_c (CONTINUOUS).
- 3) PROPORTIONS OF SITE PREPARED MORTAR/GROUT (PERIODIC).
- 4) CONSTRUCTION OF MORTAR JOINTS AND PATCHES (PERIODIC).
- 5) LOCATION, SIZE, LENGTH AND TYPE OF POST-INSTALLED ANCHORS (PERIODIC).

STEEL:

- 1) FABRICATOR AND ERECTOR DOCUMENTS PER AISC 360 N3 (OBSERVE).
- 2) MATERIAL VERIFICATION (OBSERVE).
- 3) MEMBER LOCATIONS AND DETAILS COMPLY WITH CONSTRUCTION DOCUMENTS (OBSERVE).
- 4) PERFORM WELD INSPECTION PER AISC TABLES N5.4-1 THROUGH N5.4-3.

CLOSEOUT

SUBMITTALS

- A. PROJECT RECORD DOCUMENTS: SUBMIT ELECTRONIC DOCUMENTS TO ARCHITECT VIA eBuilder WITH CLAIM FOR FINAL APPLICATION OF PAYMENT.
- B. CLOSE OUT SUBMITTAL LOG:
 - a. MANUAL TO INCLUDE A LOG LISTING THE CLOSEOUT DELIVERABLES IN ORDER OF SPECIFICATION NUMBER. LOG TO INCLUDE A COLUMN FOR EACH OF THE FOLLOWING: SPECIFICATION NUMBER, SPEC TITLE, CONTRACTOR RESPONSIBLE, PRODUCT DATA, OPERATION & MAINTENANCE DATA, SHOP DRAWINGS, WARRANTY, AND RECORD DOCUMENTS.
- C. OPERATION AND MAINTENANCE DATA:
 - a. FOR EQUIPMENT, OR COMPONENT PARTS OF EQUIPMENT PUT INTO SERVICE DURING CONSTRUCTION AND OPERATED BY OWNER, SUBMIT COMPLETED DOCUMENTS WITHIN TEN DAYS AFTER ACCEPTANCE.
 - b. SUBMIT ONE COPY OF COMPLETED DOCUMENTS 15 DAYS PRIOR TO FINAL INSPECTION. THIS COPY WILL BE REVIEWED AND RETURNED AFTER FINAL INSPECTION, WITH STRUCTURAL ENGINEER-OF-RECORD COMMENTS. REVISED CONTENT OF ALL DOCUMENT SETS AS REQUIRED PRIOR TO FINAL SUBMISSION.
 - c. SUBMIT ONE ELECTRONIC SET VIA eBuilder OF REVISED FINAL DOCUMENTS IN FINAL FORM WITHIN 10 DAYS OF FINAL INSPECTION.
- D. WARRANTIES AND BONDS:
 - a. FOR EQUIPMENT OR COMPONENT PARTS OF EQUIPMENT PUT INTO SERVICE DURING CONSTRUCTION WITH OWNER'S PERMISSION, SUBMIT DOCUMENTS WITHIN 10 DAYS AFTER ACCEPTANCE.
 - b. MAKE OTHER SUBMITTALS WITHIN 10 DAYS AFTER DATE OF SUBSTANTIAL COMPLETION, PRIOR TO FINAL APPLICATION FOR PAYMENT.
 - c. FOR ITEMS OF WORK FOR WHICH ACCEPTANCE IS DELAYED BEYOND DATE OF SUBSTANTIAL COMPLETION, SUBMIT WITHIN 10 DAYS AFTER ACCEPTANCE, LISTING THE DATE OF ACCEPTANCE AS THE BEGINNING OF THE WARRANTY PERIOD.
- E. STAMPED AUTHORITY HAVING JURISDICTION (AHJ) PERMIT DRAWINGS: SUBMIT ELECTRONIC DOCUMENTS TO ARCHITECT AND OWNER VIA eBuilder.

PROJECT RECORD DOCUMENTS

- A. MAINTAIN THE FOLLOWING RECORD DOCUMENTS ON e-Builder; RECORD ACTUAL REVISIONS TO THE WORK:
 - a. DRAWINGS.
 - b. SPECIFICATIONS.
 - c. ADDENDA.
 - d. CHANGE ORDERS AND OTHER MODIFICATIONS TO THE CONTRACT.
 - e. REVIEWED SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
 - f. MANUFACTURER'S INSTRUCTION FOR ASSEMBLY, INSTALLATION, AND ADJUSTING.
- B. ENSURE ENTRIES ARE COMPLETE AND ACCURATE, ENABLING FUTURE REFERENCE BY OWNER.
- C. STORE RECORD DOCUMENTS SEPARATE FROM DOCUMENTS USED FOR CONSTRUCTION.
- D. RECORD INFORMATION CONCURRENT WITH CONSTRUCTION PROGRESS.
- E. SPECIFICATIONS: LEGIBLY MARK AND RECORD AT EACH PRODUCT SECTION DESCRIPTION OF ACTUAL PRODUCTS INSTALLED, INCLUDING THE FOLLOWING:
 - a. CHANGES MADE BY ADDENDA AND MODIFICATIONS.
- F. RECORD DRAWINGS AND SHOP DRAWINGS: LEGIBLY MARK EACH ITEM TO RECORD ACTUAL CONSTRUCTION INCLUDING:
 - a. FIELD CHANGES OF DIMENSION AND DETAIL
 - b. DETAILS NOT ON ORIGINAL CONTRACT DRAWINGS.
- G. SUBMITTAL OF RECORD DOCUMENTS AND REVIEW PROCESS WILL BE THROUGH e-Builder.
- H. PROVIDE:
 - a. AS-BUILTS IN PDF AND HARD COPY.
 - b. ORIGINAL AHJ STAMPED PERMIT DRAWINGS IN BOTH PDF AND HARD COPY.
 - c. WARRANTIES IN PDF.
 - d. O&M'S IN PDF.
 - e. SHOP DRAWINGS IN PDF.
 - f. CONTACT LIST IN PDF.

BSD SECURITY REQUIREMENTS

BACKGROUND CHECK: ALL CONTRACTORS AND SUBCONTRACTORS SHALL ADHERE TO ALL BACKGROUND CHECK AND SECURITY REQUIREMENTS OF THE BEAVERTON SCHOOL DISTRICT.

■ STRUCTURAL ENGINEER



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STAMP

PROGRESS PRINT
NOT FOR
CONSTRUCTION

PROJECT NAME / LOCATION

BEAVERTON HIGH SCHOOL - BASEBALL/SOFTBALL STADIUM REPAIRS

■ ISSUE / REVISION

No.	DESCRIPTION	DATE
	100% CD	04/19/2021

■ SCALE AS NOTED
IF PRINT SIZE IS
24"x36"

DESIGN	CH
DRAWN	CC
DATE	04.19.2021
PROJECT No.	20436.10

DRAWING TITLE

GENERAL NOTES AND SPECIAL INSPECTIONS

S-002

100% CONSTRUCTION DOCUMENTS

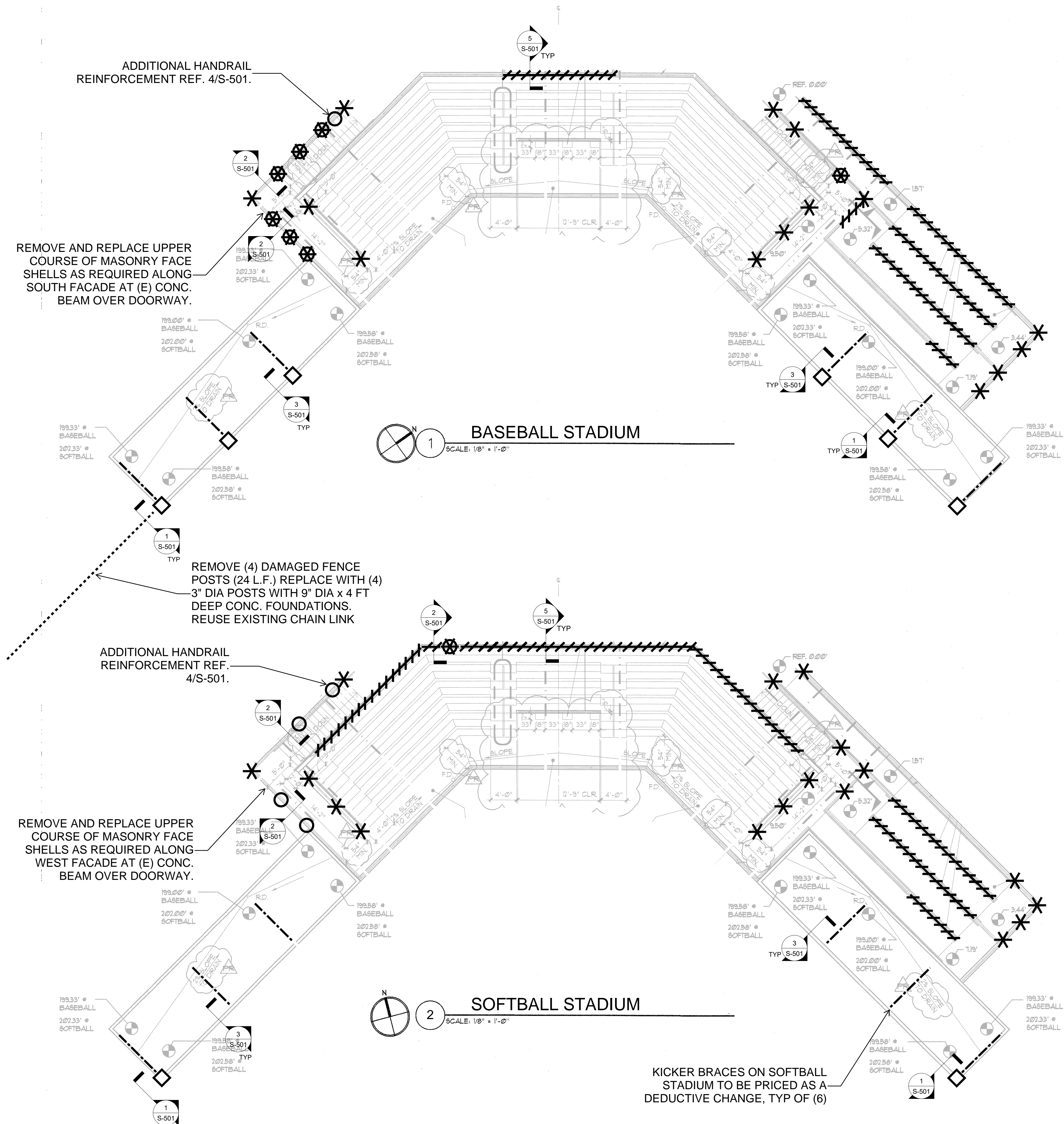
PROGRESS PRINT
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CONSTRUCTION

BEAVERTON HIGH SCHOOL - BASEBALL/SOFTBALL STADIUM REPAIRS







[illegible]

STADIUM FRAMING PLAN

S-201



LEGEND:

-  INDICATES LOCAL MASONRY REPAIR AT EXISTING HANDRAIL STANCHION. REMOVE AND REPLACE DAMAGED FACE SHELLS. REMOVE UNSOUND GROUT AND MORTAR AND REPLACE WITH HIGH-STRENGTH NON-SHRINK GROUT. REPLACE SHEET METAL FLASHING AS OCCURS - SEE NOTE 4 AND 5/S-501.
-  INDICATES REPAIR OF EXISTING MASONRY CAPSTONE AND MORTAR JOINT BETWEEN CAPSTONE AND WALL BELOW. REPLACE SHEET METAL FLASHING AS OCCURS - SEE NOTE 4 AND 5/S-501.
-  INDICATES STRUCTURAL REINFORCEMENT OF EXISTING HANDRAIL STANCHION. REFERENCE DETAIL 2/S-501. REPLACE SHEET METAL FLASHING AS OCCURS - SEE NOTE 4 AND 5/S-501.
-  INDICATES **BOTH** LOCAL MASONRY REPAIR **AND** STRUCTURAL REINFORCEMENT OF EXISTING STANCHION. REPLACE SHEET METAL FLASHING AS OCCURS - SEE NOTE 4 AND 5/S-501.
-  INDICATES LOCAL REPAIR AND REINFORCEMENT OF EXISTING REINFORCED CONCRETE BEAM AROUND EXISTING BACKSTOP POST. REF. DETAIL 1/S-501.
-  INDICATES NEW KICKER BRACE AT EXISTING BACKSTOP POST. REF. DETAIL 3/S-501.

NOTES:

- 1) CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS PRIOR TO FABRICATION AND ERECTION. NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE DRAWINGS.
- 2) CONTRACTOR TO SHORE ALL EXISTING FRAMING AS REQUIRED FOR DEMOLITION AND REPAIR WORK.
- 3) ALL EXPOSED MASONRY AND CONCRETE SHALL BE INSPECTED FOR CRACKS AND DAMAGE BY THE CONTRACTOR AND FINDINGS REPORTED TO THE ENGINEER OF RECORD.
- 4) EXISTING COMPOSITE AND METAL FLASHING CAPS TO BE REMOVED AND EXISTING MASONRY CAPSTONES TO BE INSPECTED FOR DAMAGE AT ALL TOP OF WALL SURFACES. REPLACE FLASHING CAPS WITH NEW SHEET METAL FLASHING CAPS WITH DRIP EDGE. PROVIDE SHEET METAL COLLAR FLASHING AT EACH VERT. HANDRAIL STANCHION USING METAL FLASHING AND COMPATIBLE HIGH-QUALITY SILICONE SEALANT RATED FOR OUTDOOR USE. SEE DETAIL 5/S-501 FOR FLASHING DETAIL AT ALL VERTICAL PENETRATIONS. FLASHING REPAIR IS IN ADDITION TO CAPSTONE MASONRY REPAIR NOTED ON PLAN AT SPECIFIC LOCATIONS.
- 5) ALL STEEL AND FASTENERS TO BE HOT-DIP GALVANIZED OR PAINTED WITH ZINC-RICH PAINT.

