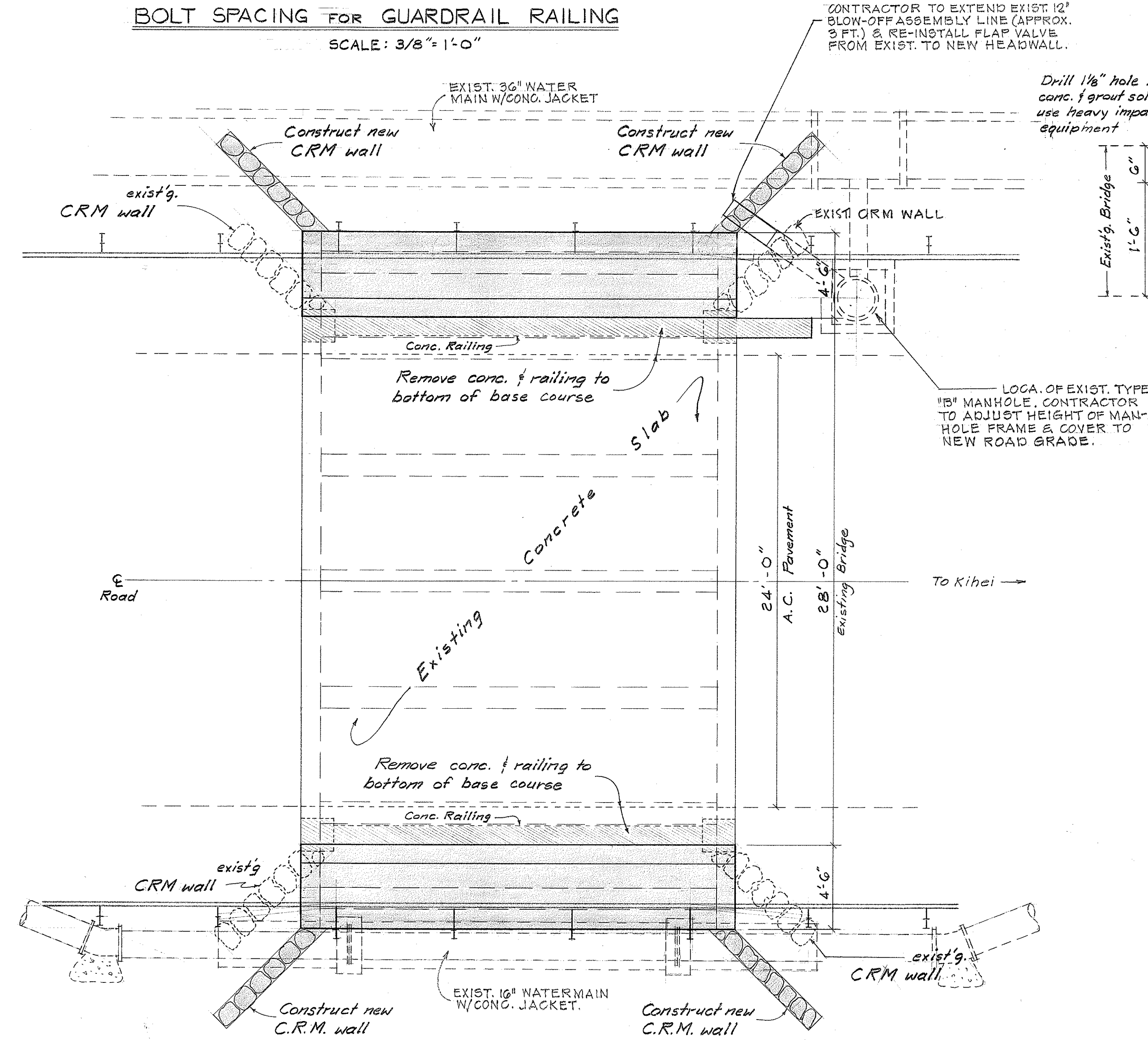


**BOLT SPACING FOR GUARDRAIL RAILING**  
SCALE: 3/8" = 1'-0"

**NOTE:**  
Salvage & install existing guard-rail & B.C.T.  
Salvaging & installing existing guardrail is incidental to guard-rail type 3.

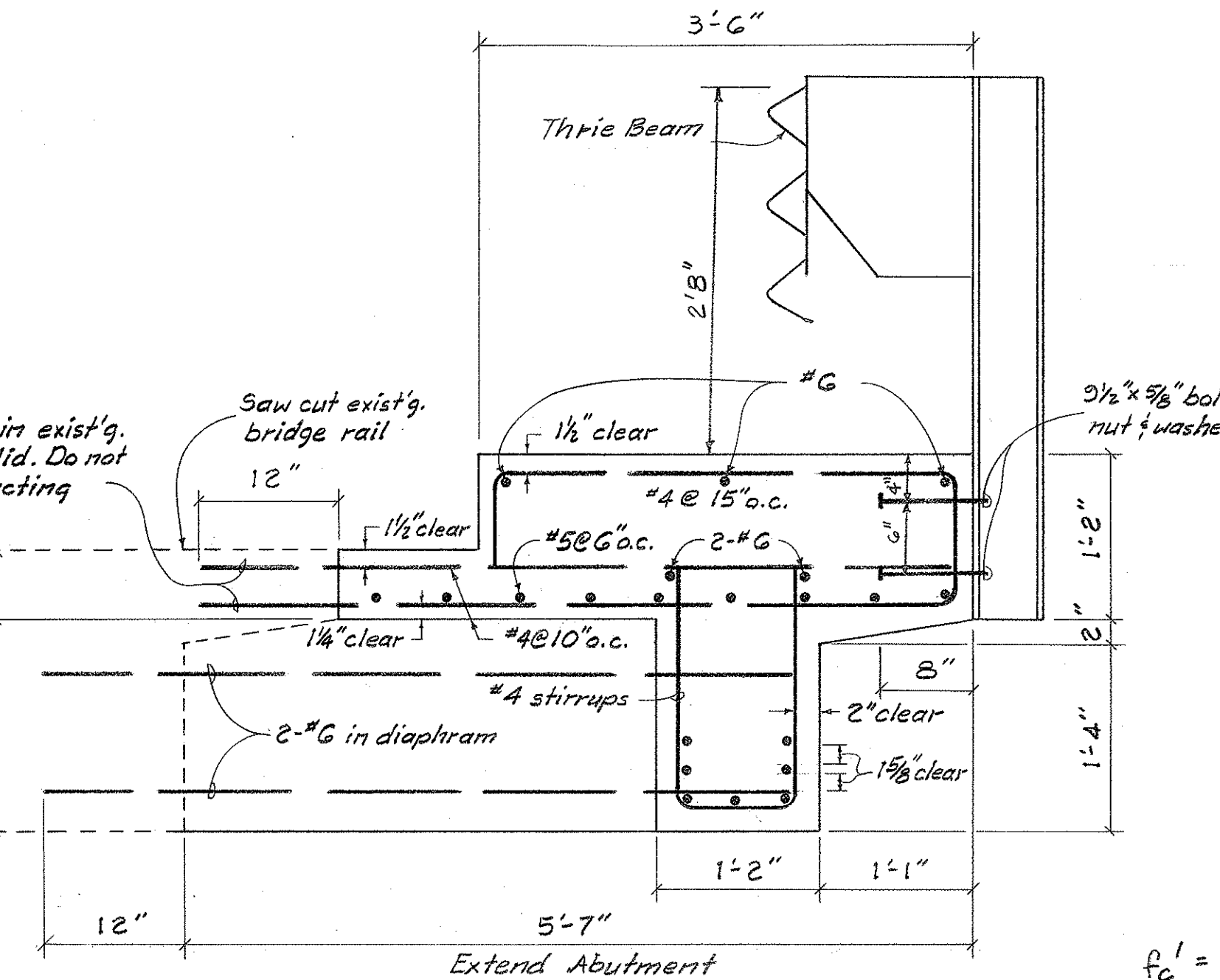


**PLAN - BRIDGE**  
SCALE: 1/4" = 1'-0"  
(KOLALO A BRIDGE)  
STA. 177+70

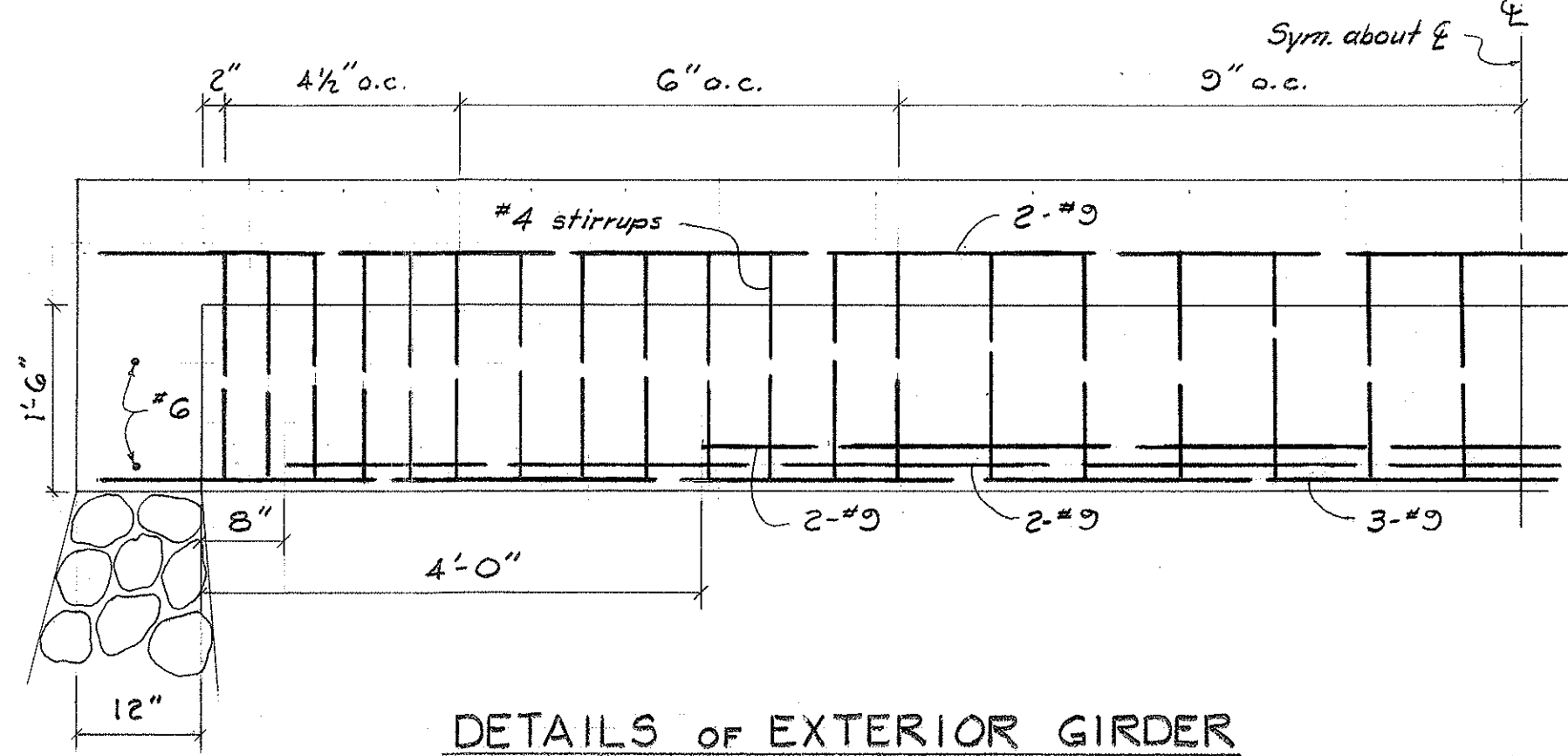
ESTIMATED BRIDGE QUANTITIES	
STRUCTURAL EXCAVATION	10 C.Y.
STRUCTURAL BACKFILL	13 C.Y.
CONCRETE CLASS A	10 C.Y.
CRM WALL	14 C.Y.
REINFORCING STEEL	1350 LB.

Drill 1 1/2" hole in exist'g. conc. & grout solid. Do not use heavy impacting equipment

LOC. OF EXIST. TYPE "B" MANHOLE. CONTRACTOR TO ADJUST HEIGHT OF MANHOLE FRAME & COVER TO NEW ROAD GRADE.



**DETAILS OF BRIDGE EXTENSION**  
SCALE: 1" = 1'-0"



**DETAILS OF EXTERIOR GIRDER**  
SCALE: 3/4" = 1'-0"

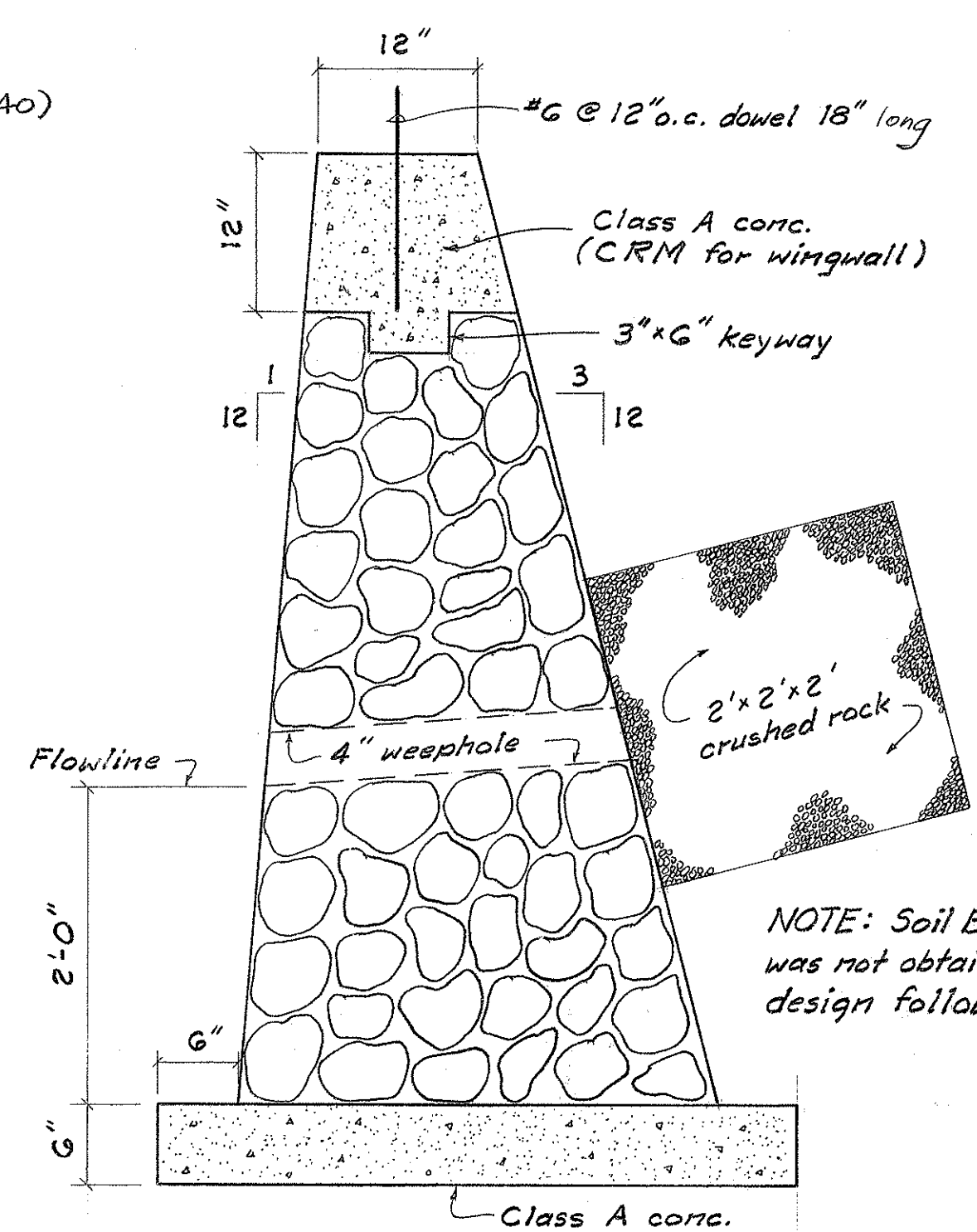
$f'_c = 3000 \text{ psi}$   
 $f_y = 40,000 \text{ psi}$   
(ASTM A615 GRADE 40)

**CONSTRUCTION NOTES:**

1. THE CONTRACTOR SHALL OBTAIN A PERMIT TO WORK ON COUNTY HIGHWAY FROM THE LAND USE AND CODES DIVISION FOUR (4) WEEKS PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK.
2. VERIFY AND CHECK ALL DIMENSIONS AND DETAILS OF THE DRAWINGS PRIOR TO THE START OF CONSTRUCTION, ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
3. ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AT ALL TIMES BY THE CONTRACTOR DURING CONSTRUCTION AND ANY DAMAGE TO THEM SHALL BE REPAIRED AND PAID FOR BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL RESTORE TO THEIR ORIGINAL CONDITION, ALL IMPROVEMENTS DAMAGED AS A RESULT OF THE CONSTRUCTION, INCLUDING PAVEMENTS, CURB, SIGNS, LANDSCAPING, STRUCTURES, UTILITIES, FENCES, ETC. UNLESS PROVIDED FOR SPECIALLY IN THE PROPOSAL DEMOLITION AND RESTORATION OF EXISTING ITEMS SHALL BE INCIDENTAL TO THE VARIOUS ITEMS OF THE BID.
5. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, BARRICADES, AND OTHER PROTECTIVE DEVICES IN ACCORDANCE WITH THE LATEST "FHWA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," AND SUBSEQUENT AMENDMENTS.
6. THE DIRECTOR OF PUBLIC WORKS HAS THE RIGHT TO STOP CONSTRUCTION SHOULD ANY WORK BE FOUND CONTRARY TO THE APPROVED CONSTRUCTION PLANS OR BE DETRIMENTAL TO THE PUBLIC INTEREST.
7. THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS. THE COSTS INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE COUNTY, STATE DEPARTMENT OF HEALTH SHALL BE PAID BY THE CONTRACTOR.
8. ALLOWABLE NOISE LEVELS FROM CONSTRUCTION ACTIVITIES SHALL BE IN CONFORMANCE WITH THE STATE DEPARTMENT OF HEALTH STANDARDS. CONSTRUCTIONS ACTIVITIES WILL BE LIMITED TO 7:00 A.M. TO 3:30 P.M. DAILY. ANY CHANGE IN CONSTRUCTION HOURS SHALL BE UPON APPROVAL BY THE DIRECTOR OF PUBLIC WORKS.

**PUBLIC HEALTH, SAFETY AND CONVENIENCE:**

1. THE CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH AND SAFETY AND ENVIRONMENTAL QUALITY.
2. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AND ITS SURROUNDING AREAS FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION STANDARDS OF THE STATE DEPARTMENT OF HEALTH. THE COUNTY OF MAUI SHALL REQUIRE SUPPLEMENTARY MEASURES AS NECESSARY.
3. THE CONTRACTOR SHALL NOT PERFORM ANY OPERATIONS INVOLVING TRAFFIC LANE CLOSURES DURING THE FOLLOWING PEAK HOURS OF TRAFFIC:  
6:00 A.M. to 8:30 A.M.  
3:00 P.M. to 5:30 P.M.  
EXCEPTIONS TO THE ABOVE PEAK HOURS SHALL BE WITH THE APPROVAL OF THE ENGINEER.



**TYPICAL ABUTMENT & WINGWALL**  
SCALE: 1" = 1'-0"

NOTE: Soil Bearing Pressure was not obtained - original design followed.

DESIGN REF: AASHTO Bridge Specifications

COUNTY OF MAUI  
DEPARTMENT OF PUBLIC WORKS  
WAILUKU, MAUI, HAWAII

**BRIDGE DETAIL**  
(KOLALO A BRIDGE)  
MOKULELE HIGHWAY  
SHOULDER WORK  
JOB No. 89-41

Checked By: Fred K. Araki

DATE: NOV. 12, 1987 REV. DATE: JUL. 14, 1989