AEL
PDS
WCN
LAD
RRT

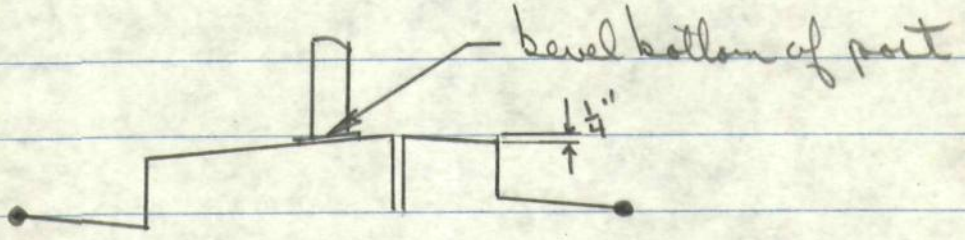
9340

7-29-63

Road Plans are too far along to switch the profile grades to gutter line as suggested by BPR.

There will not be an open joint in the Median in the Truss portion of Bridge

Median will be sloped as shown below



MHD prefers to remain with the truss cross frames rather than tapered plate girders

Dick wants the lower chords on same plane, super takeup by varying the web members & top chord - AEL agreed.

AEL
WCW
HAUNES
RKR
RRT
DS
WM
ANTA

BRIDGE 9340

8-8-63

New median detail dated 7-26-63 was given to consultant. It was decided that the longitud. joint would run the entire length of bridge, and offset 9" from ℄. This would place the joint west of the ℄ on the South portion of Br. and East of ℄ on the North portion of Br. A detail showing how the median slopes is attached.

The Sidewalk on 2nd Street will go in front of the Pier, but the consultant will make further studies on the slopes and span ratio and submit a layout to determine the best position of the toe of slope at the North Abutment. Fred Hatfield verified the existance of an outlet for any drainage needed at this toe of slope

In the discussion of Superstructure details the following decisions were made.

1) Trusses depths would be the same.
2) All posts at right angles to the 0.7% grade if possible.
3) Use a truss cross frame rather than tapered girders since the latter would necessitate a change in spacing of trusses and present rather awkward details.

4) Bent Bars in the slab will not be used
5) High Strength rivets will be used
6) MHD 3309-63 will be used where needed.

At Pier 6 the consultant was advised to use a working stress of 350 psi on 48" Caissons. No friction was to be used in computing the allowable Pile loads, because of the possibility of an eventual loss of such friction. The steel casings will be left in place and a reinforcing cage will be used in the caissons.

It was decided to leave the footings on Pier 7 at the elevations indicated on the sketches submitted by the Consultant 6-27-63

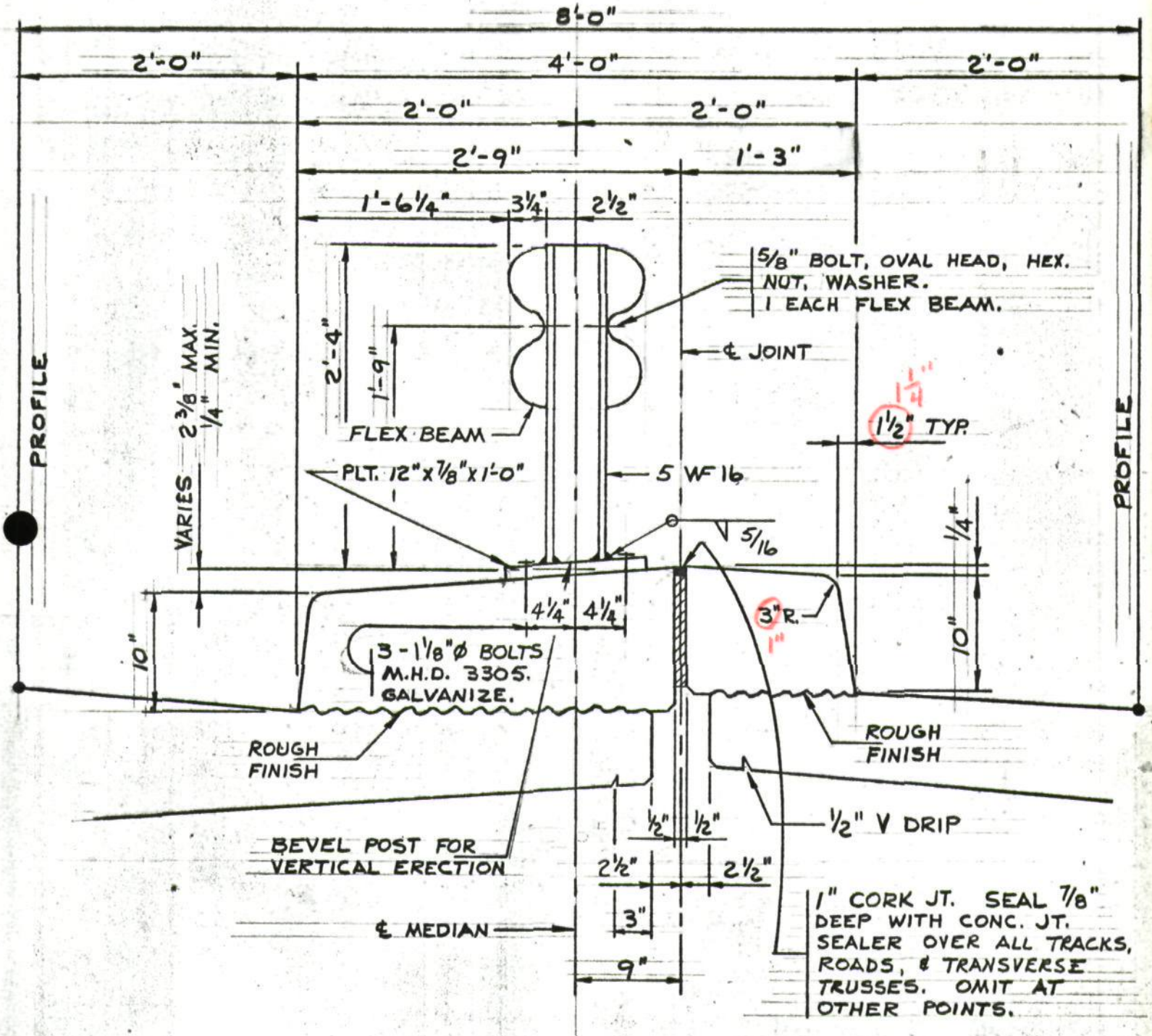
In a late conference with Fred Hultgold we were advised of

Form No. 2222 3M 7-61 14 80757

Minnesota Highway Department

Bridge No. 9340
Made by R.R.T.
Checked by
Sheet No. 1 of 1
Date 8-9-63
DRN. 8-9-63 T.J.H.

PROPOSED MEDIAN BR. 9340



5 WF 16 POSTS & 12" PLATES STR. STEEL M.H.D. 3306. GALVANIZE

8-12-63

GAS Co
WCN
RKR
PRT.

Gas Co wants to place a fill between Pier 3 & 5. The top at elev 814.00 then a 2:1 Slope with toe at elev 773.00. The toe would be very close to Pier 5. Only pier effected is Pier 4. WCN. said it would be OK. if the material was suitable and be in place at time of count. A definite agreement will be made at a later date. (Some fill has already been placed)

9340

9-11-63

AEL would like an estimate of skin friction

Skin Friction

In a cohesionless material

$$P_f = \pi D L p \tan \phi$$

ϕ = angle of internal friction

p_v = ave vert load on soil around the embedded length

$= \frac{1}{2} wL + p_o$ wL

p_o = weight of overburden

Use $L = 8'$ $\theta = 30°$

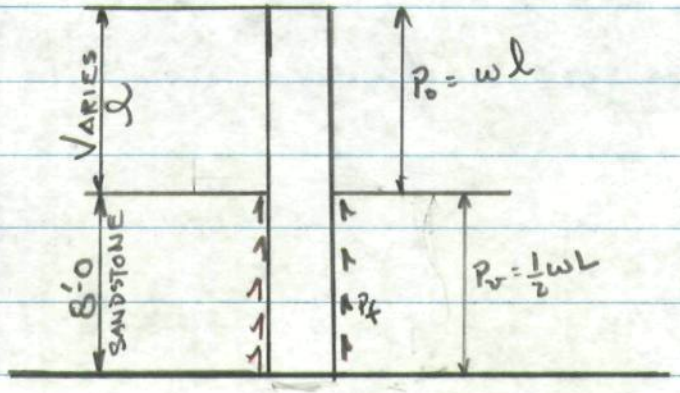
$w = 100^{\#}/ft^3$

$p_v = \frac{1}{2} 100 \times 8 = 400$ psf

$P_f = \pi \times 4.0 \times 8.0 \times .4 \times \tan 30° = 23.1$ KIPS

$A = \frac{\pi \times 4B^2}{4} = 1810$ in^2

$f_s = \frac{23100}{1810} = 12.8$ psi



GIBSON
KANTA
JOHNSON
SWENSEN
REDIN
TOMCZAK
DILLS

9340

9-26-63

Objection to box at top chord as shown on latest submittal about superelevating the truss

Question about T-1 steel - Where will it be used? - Dills does not like using this. length is too limited, to be discussed with LaBonte

Will A441 be modified? - No (Dills) for yield of 50000 for thickness > 3/4".

Some sort of cover or gasket over top plate to close it up - Individual covers over each perforation would be best. Should be investigated for an economical solution.

A.A.S.H.O. says laterals should be full depth of chord preferably - connection to both flanges - put a longer taper on it.

Is there a necessity for box section on vertical posts - Is lateral too close to connection? What type of section is it?

P.D.S.
R.R.T.
D.S.

10-1-63

9340

In a telephone conversation with Manner. It was agreed that navigation facilities would be handled as per Wash. Ave.

Manner said T-I members would be spliced - felt it was less critical in time than girder members. He also said the members would get too large for handling without using T-I steel.

Hasn't completely size his verticals but it would be necessary to have a box at certain locations

Will work out a solution to the box in the top chord and will lengthen the taper in the laterals.

9340

12-3-63

Superstructure Details Conference

A.E. Labonte
W.C. Nitardy
A. Ranta
C. Johnson
R.D. Swanson
AE Mannes
R. Tomczak
R.K. Radin
L.A. Dills

Seal all boxed compression members - except at gusset connections where access is req'd for riveting - Then plates are to be welded in to seal the ends. No paint inside (approval pending)

Use High Strength 1" Rivets
" Structural 7/8 "

Sub Punch & Ream in the field.

Use Curved Risers at the End of Bridge

Use Stainless steel 316 Grade instead of Bronze in the Bearing plates.

Approved the Rack bolted on

Method of providing the supp in cross frames was approved.

End Floor Beam Procedure OK

Mr. C. Sorenson from city approved 2nd st. & S.W. detail, MH.D. will make title sh. and add track elev's and angles to tracks & roads to survey sh.

3-30-64

Pier 4-5

Pier 5 will be let with 6-7-4

Check for all similar changes that were made on 1st check

Road Design Section will get a present section and work out a finished section for bridge.

(Fred Hartfield)