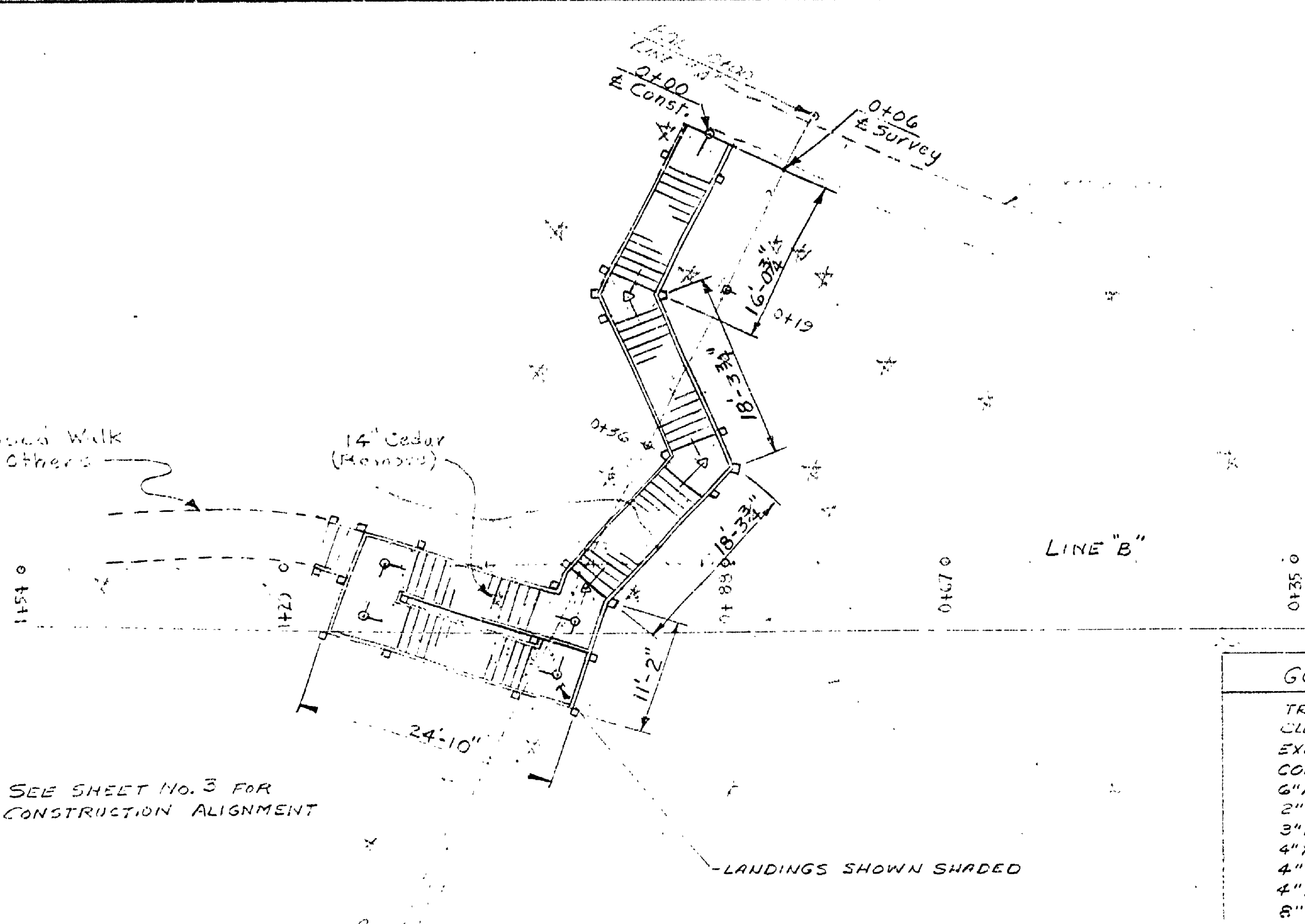


Proposed Walk
By Others

14' Cedar (14x12)

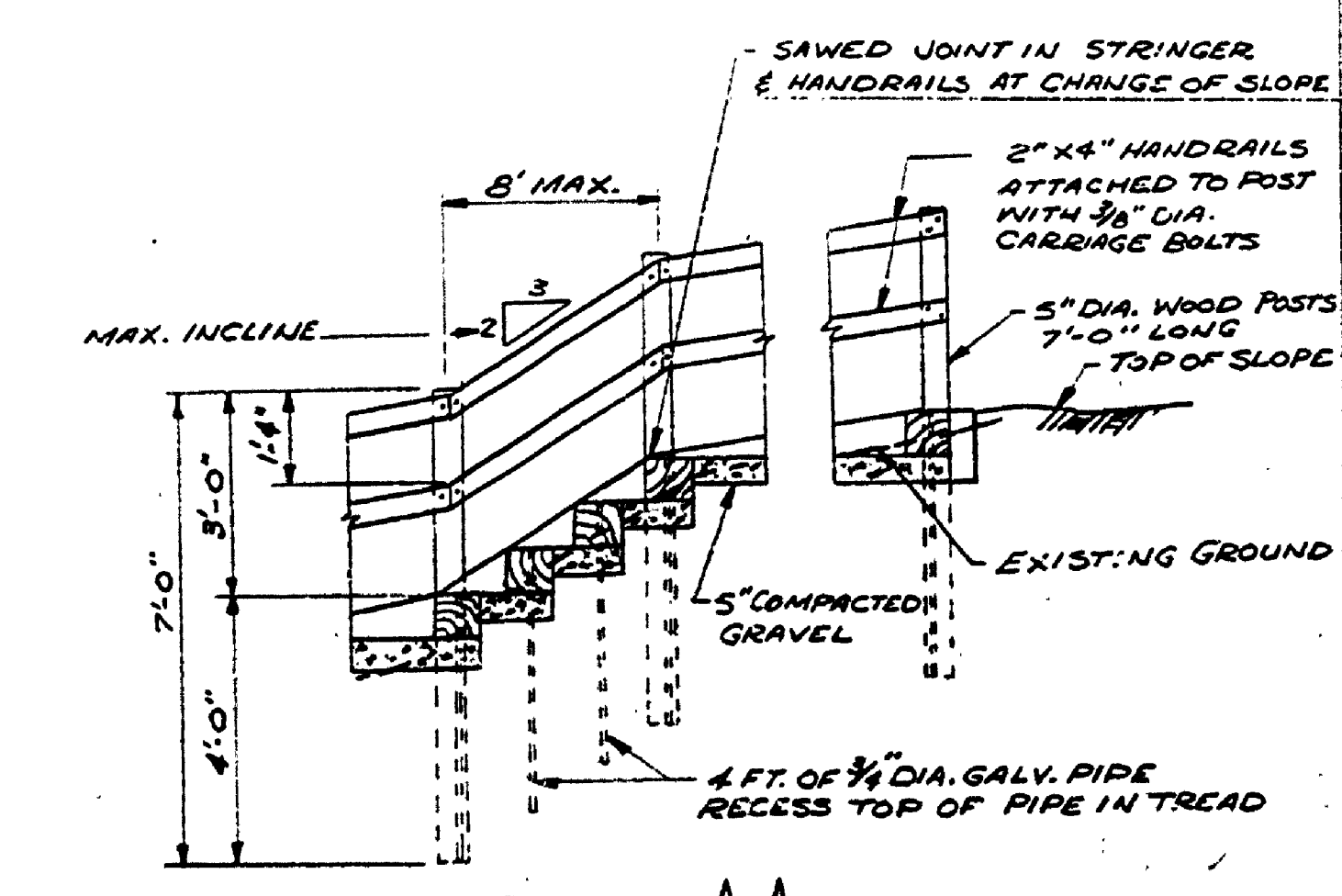
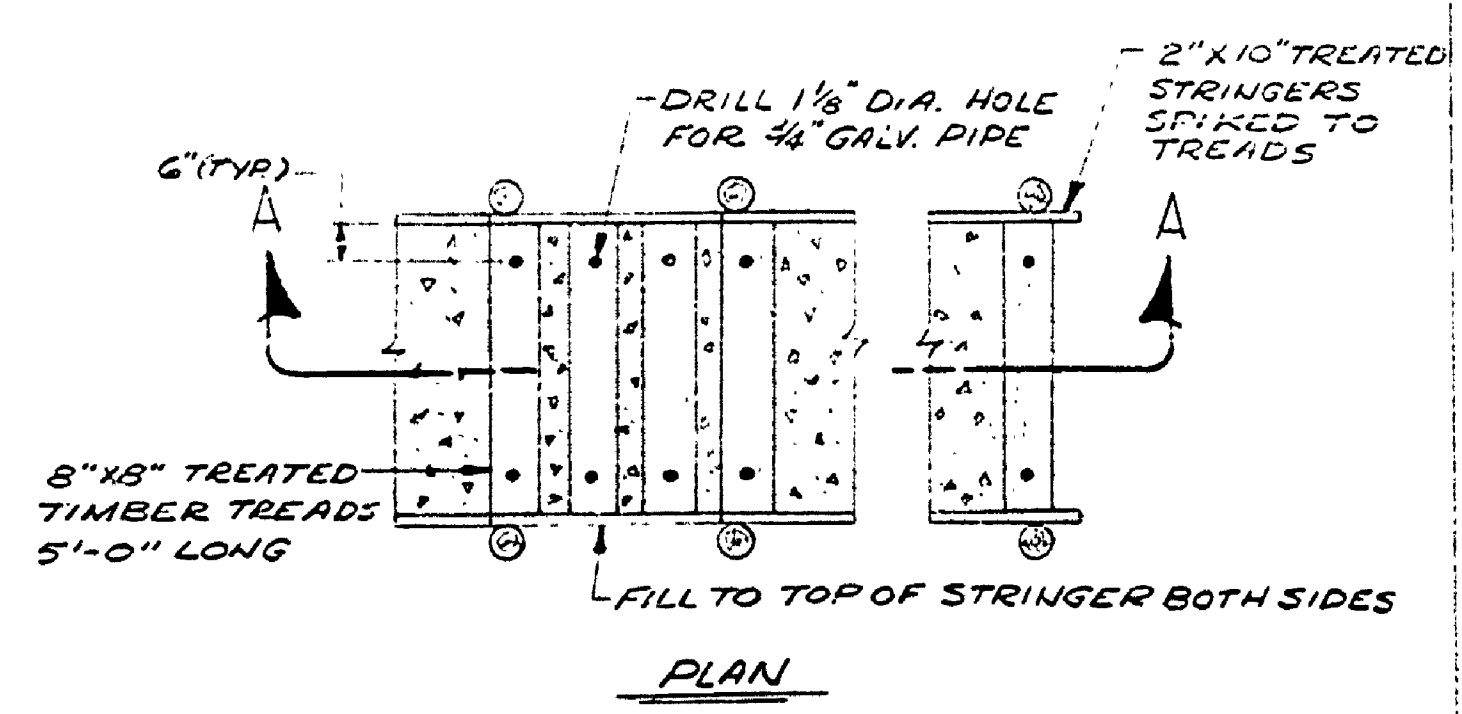
SEE SHEET NO. 3 FOR CONSTRUCTION ALIGNMENT



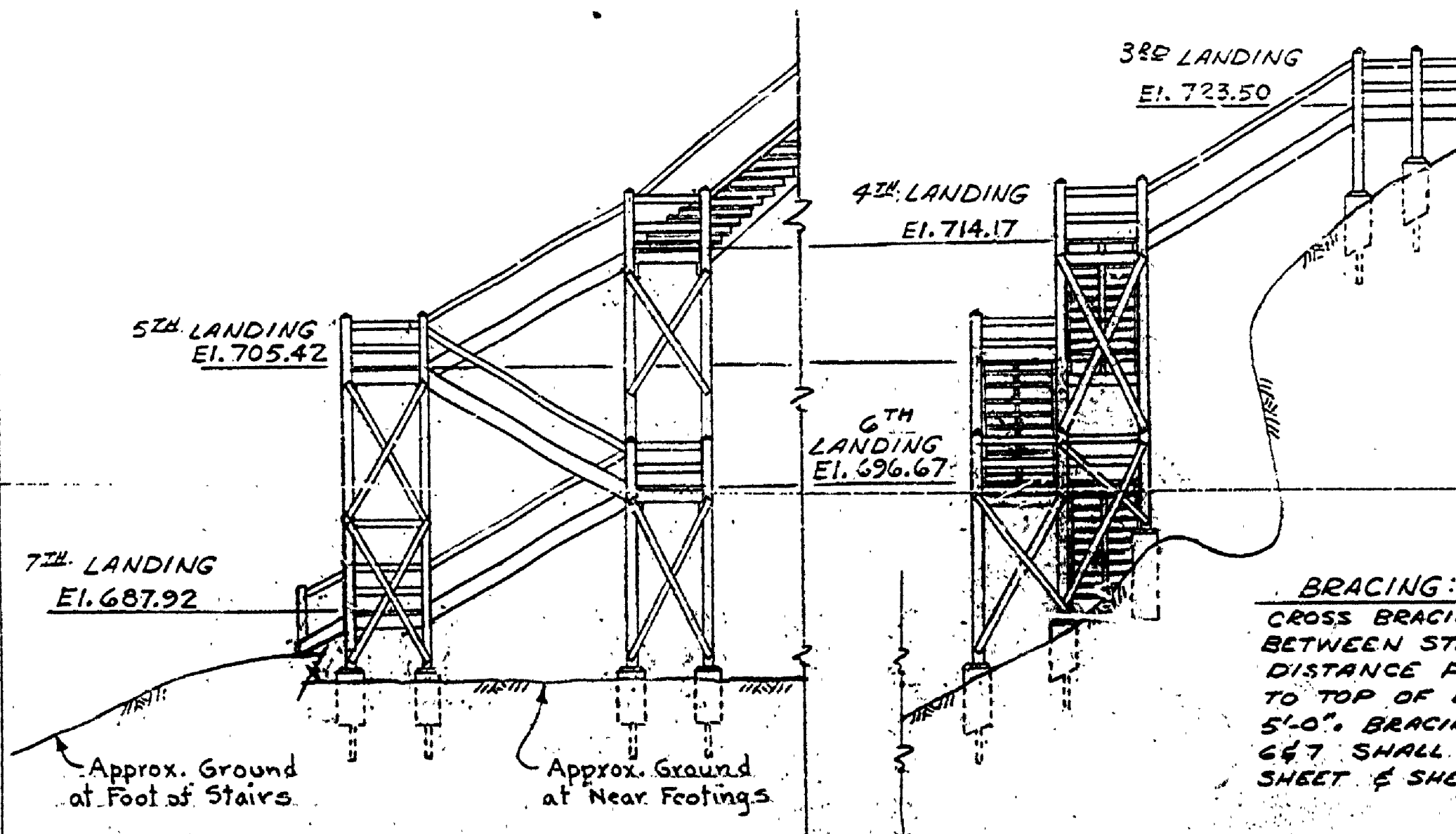
GORGE STAIRS QUANTITIES	
TREE REMOVAL (14")	1 EACH
CLEARING & GRUBBING	0.1 AC.
EXCAVATION & BACKFILL	88 CU YDS.
CONCRETE	15 CU YDS.
6"X6" MESH REINFORCEMENT	75.50 YDS.
2"X6" TIMBER	0.48 MBM
3"X6" TIMBER	1.38 MBM
4"X10" TIMBER	0.73 MBM
4"X12" TIMBER	0.64 MBM
4"X16" TIMBER	1.74 MBM
6"X8" TIMBER	320 LIN. FT.
10"X10" TIMBER	64 LIN. FT.
12"X40" STEEL GRATING TREAD	35 EA.
MISCELLANEOUS IRON	2020 LBS.

* INCLUDES ANGLES, PLATES, BARS, RODS, BOLTS, NUTS, WASHERS AND SPIKES.

- LINE "A" BORINGS**
- STA. 0+00
0.0' TO 0.4' TOP SOIL
0.4' TO 2.0' SANDY CLAY LOAM
2.3' TO 3.0' HARD PAN
3.0' TO 4.0' PINKY SAND WITH PEBBLES
- STA. 0+19
0.0' TO 0.4' TOP SOIL
0.4' TO 1.5' SANDY CLAY LOAM
1.5' TO 2.5' HARD PAN
2.5' TO 3.0' FINE GRAY SAND
3.0' ROCKS AND WATER
- STA. 0+36
0.0' TO 0.3' TOP SOIL
0.3' TO 2.5' SANDY CLAY LOAM WITH PEBBLES
2.5' TO 2.5' MEDIUM BROWN SAND
3.5' ROCKS & WATER
- STA. 0+90
0.0' TO 3.0' LIGHT BROWN SAND WET
3.0' SOLID ROCK
- LINE "B" BORINGS**
- STA. 0+67
0.0' TO 0.5' FINE GRAY SAND
0.5' TO 3.0' MEDIUM BROWN SAND PEBBLES
3.0' TO 4.5' LIGHT BROWN SAND
4.5' SOLID ROCK
- STA. 0+35
0.0' TO 1.5' DECAYED LOG
1.5' TO 2.5' FINE GRAY SAND
2.5' TO 4.0' MED. BROWN SAND
4.0' SOLID ROCK
- STA. 0+88
0.0' TO 1.0' TOP SOIL
1.0' TO 3.0' MEDIUM BROWN SAND
3.0' SOLID ROCK
- STA. 1+29
6.0' SOLID ROCK
- STA. 1+54
0.0' TO 2.5' LIGHT GRAY SAND
2.5' TO 4.5' MEDIUM BROWN SAND
4.5' TO 6.0' HARD GRAY & BROWN SAND WET



SITE PLAN
SCALE: 1"=10'



BRACING:
CROSS BRACING SHALL BE INSTALLED BETWEEN STAIR POSTS WHEN THE DISTANCE FROM TOP OF FOOTING TO TOP OF LANDING OR TREAD EXCEEDS 5'-0". BRACING FOR LANDING NO. 3, 4, 5 & 7 SHALL BE AS INDICATED ON THIS SHEET & SHEET NO. 4.

GENERAL NOTES

HOLES FOR BOLTS SHALL BE 1/16" LARGER THAN DIAMETER OF BOLTS, 1/16" SMALLER THAN DIAMETER FOR LAG SCREWS.

TREATED TIMBERS:
ALL LUMBER SHALL BE PRESURE TREATED WITH A PRESERVATIVE WHICH CONFORMS TO THE PROJECT SPECIFICATIONS AND SHALL NOT PRODUCE OBJECTIONABLE RESIDUE ON THE RAILINGS. ALL STRINGERS SHALL BE FABRICATED BEFORE TREATMENT.

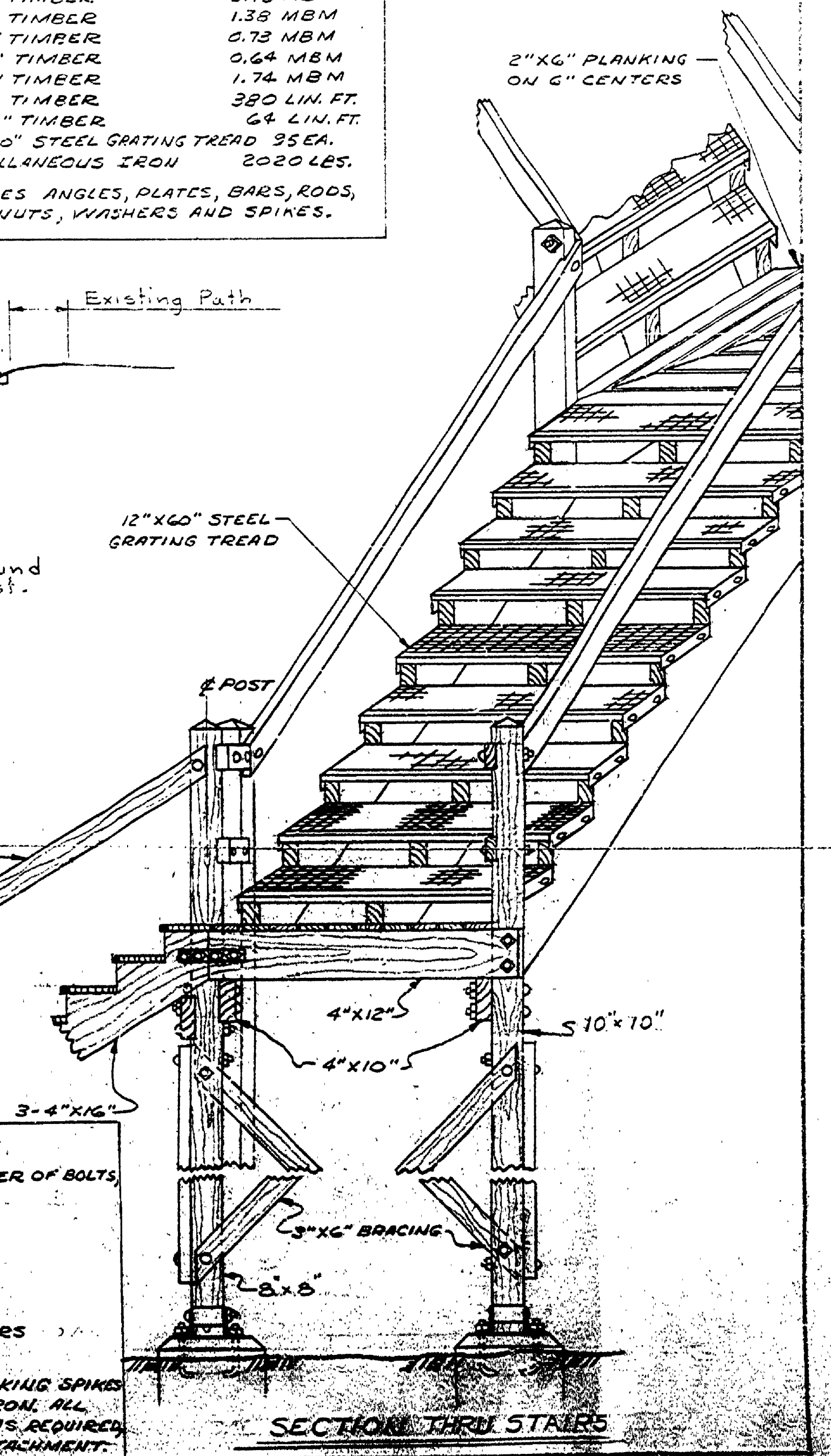
MISCELLANEOUS IRON:
ALL HARDWARE INCLUDING FRAMING BOLTS, NUTS, AND PLANKING SPIKES TO BE GALVANIZED. WASHERS MAY BE CAST OR MALLEABLE IRON. ALL CONNECTION BOLTS TO BE 3/4" DIAMETER WITH NUTS & WASHERS AS REQUIRED EXCEPT 3/8" DIAMETER BOLTS, NUTS & WASHERS FOR STAIR TREAD ATTACHMENT.

DESIGN LOADING:
100 LBS. PER SQ. FT. FOR LIVE LOAD
10 LBS. PER SQ. FT. FOR DEAD LOAD

DESIGN STRESSES:
POSTS - 1200 # F, POSTS AND TIMBERS CLASS
BEAMS - 1600 # F, BEAMS AND STRINGERS CLASS
STRINGERS - 1200 # F, JOIST AND PLANK CLASS
PLANK - 1200 # F, JOIST AND PLANK CLASS
RAILING - 1600 # F, JOIST AND PLANK CLASS

NOTE:
LENGTH AND SPACING OF LANDINGS TO BE DETERMINED BY ENGINEER IN FIELD TO FIT EXISTING CONTOURS.

DETAILS OF PROPOSED WALK
(BY OTHERS)
SCALE 3/8"=1'-0"



SECTION THROUGH STAIRS

DESIGNED BY EVANS/LEAK	DRAWN BY	NO. DATE BY	REVISIONS	NO. DATE BY	REVISIONS	MICHIGAN DEPARTMENT OF NATURAL RESOURCES	GENERAL PLAN OF GORGE STAIRS	TAHQUAMENON FALL STATE PARK	PROJECT NO. 84712	SHEET NO. 2 OF 4
DATE	CHECKED BY	DATE	DATE	DATE	DATE					