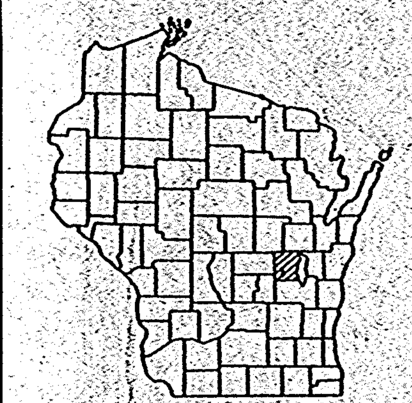
COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT		B.P.R. REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
		STATE	FEDERAL			
70.6	737.0		11.1	4 WIS.	1	33

[illegible] SHEETS

WINNEBAGO 144

- SHEE[illegible] [illegible]AL CROSS SECTIONS
- SHEE[illegible] [illegible]MATE OF QUANTITIES
- SHEET [illegible] [illegible]ISCELLANEOUS QUANTIT[illegible]
- SHEET NO. [illegible] RIGHT OF WAY PLAT
- SHEET NO. 3-8 PLAN AND PROFILE STA. [illegible]+54
- SHEET NO. 9-17 STANDARD DETAILS
- SHEET NO. 18-19 DRAINAGE STRUCTURES
- SHEET NO. 20-33 CROSS SECTIONS



STATE OF WISCONSIN
STATE HIGHWAY COMMISSION OF WISCONSIN

PLAN AND PROFILE OF PROPOSED

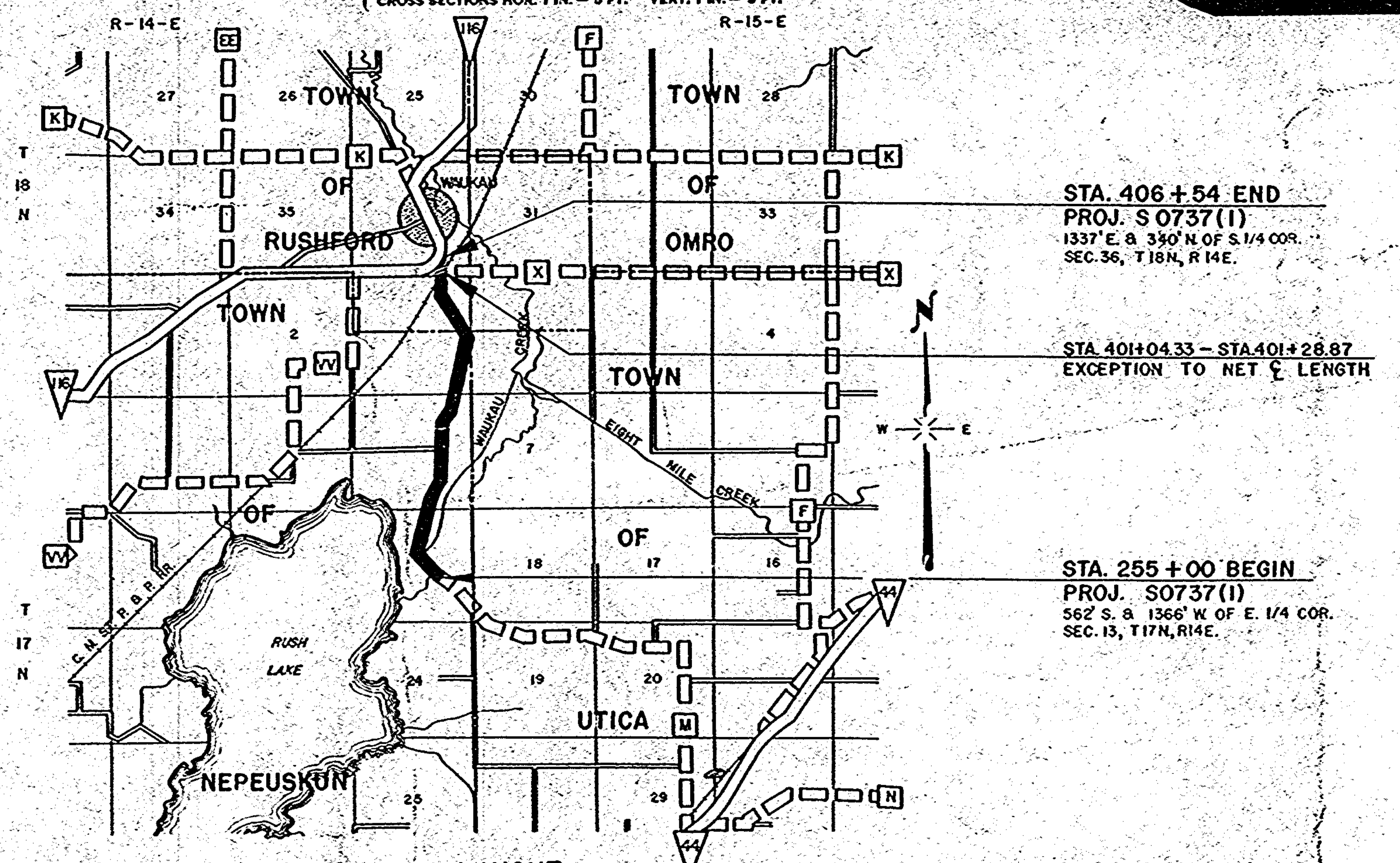
RUSH LAKE - S.T.H. 116
C.T.H. "M"
WINNEBAGO COUNTY
PROJECT S0737(1)

APPROVED FOR

Date

Title

SCALES
- PLAN 1 IN. = 100 FT.
- PROFILE HOR. 1 IN. = 100 FT. VERT. 1 IN. = 10 FT.
- CROSS SECTIONS HOR. 1 IN. = 5 FT. VERT. 1 IN. = 5 FT.



LAYOUT

SCALE ONE MILE

TOTAL NET LENGTH OF CENTERLINE = 2.865 MI.

CONVENTIONAL SIGNS

- STATE LINE
- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- NEW RIGHT OF WAY LINE
- PRESENT RIGHT OF WAY LINE
- WIRE FENCE: WOVEN / BARBED
- LOT LINE
- CORPORATE OR CITY LIMITS
- PROPERTY LINE (PC + 32.6)
- TRAVELED WAY OR P.E.
- RAILROADS
- BASE OR SURVEY LINE (30)
- CULVERTS IN PLACE
- CULVERTS REQUIRED
- DROP INLET
- POWER POLE
- TELEPHONE OR TELEGRAPH POLE
- RIGHT OF WAY MARKERS
- REFERENCE STAKE FOR HUBS ONLY
- MARSH
- HEDGE
- TREES
- GROUND ELEVATION (DATUM LINE)
- GRADE ELEVATION (DATUM LINE)

STATE HIGHWAY COMMISSION OF WISCONSIN, MADISON, WIS.

SURVEYOR R.D.N. NOTE BOOK 237, 239
DISTRICT COMPUTER L.J.L. B. O. CHECKER
DISTRICT CHECKER D.H.N. CORRECT

CORRECT:
DATE 4-19-60 L. W. [signature] DISTRICT ENGINEER

RECOMMENDED FOR APPROVAL:
DATE 4/28/60 J. S. Pilz ENGINEER OF DESIGN

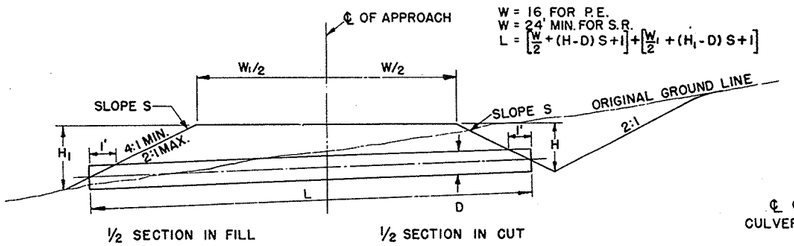
APPROVED:
DATE 4/28/60 E. L. Roettiger STATE HIGHWAY ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

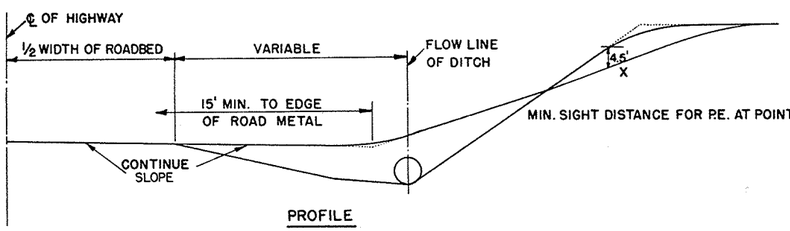
APPROVED [redacted] DATE

[redacted] DIVISION ENGINEER

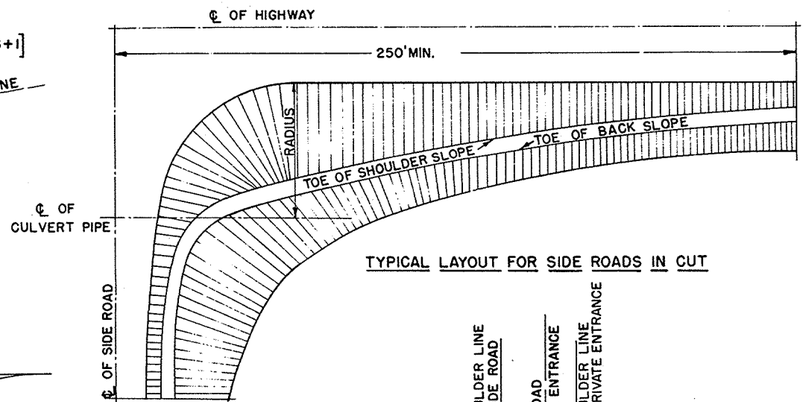
S 0737(1) 144



TYPICAL CROSS SECTION

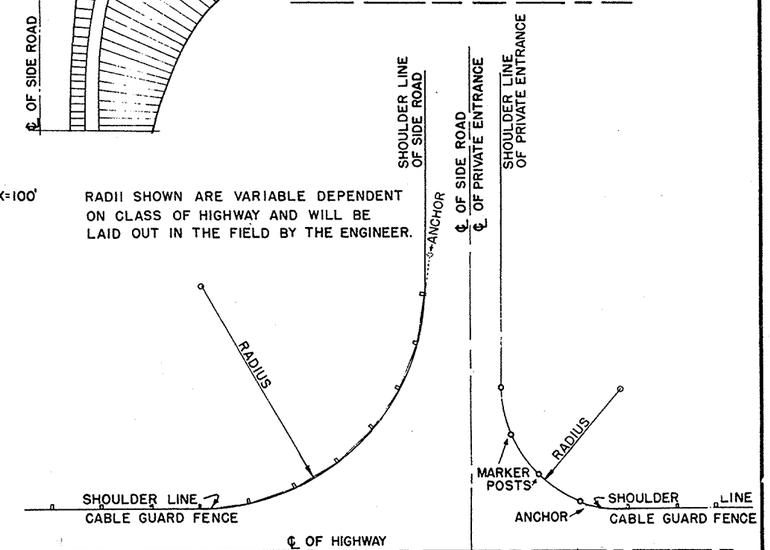


PROFILE



TYPICAL LAYOUT FOR SIDE ROADS IN CUT

RADII SHOWN ARE VARIABLE DEPENDENT ON CLASS OF HIGHWAY AND WILL BE LAID OUT IN THE FIELD BY THE ENGINEER.



TYPICAL LAYOUT FOR PRIVATE ENTRANCES AND SIDE ROADS IN HIGH FILLS

DETAILS OF PRIVATE ENTRANCE AND SIDE ROAD APPROACHES

STATE HIGHWAY COMMISSION OF WISC.

RECOMMENDED FOR APPROVAL:

Frank Crane
DESIGN ENGINEER

DATE

CONSTRUCTION ENGINEER

APPROVED:- OCT. 1, 1945

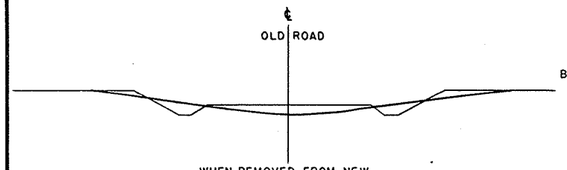
DRAWN

CHECKED

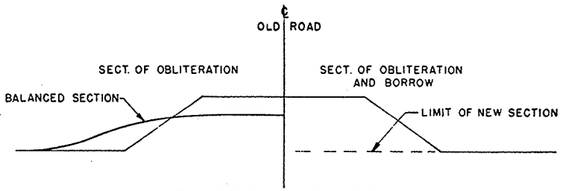
DATE

STATE HIGHWAY ENGINEER

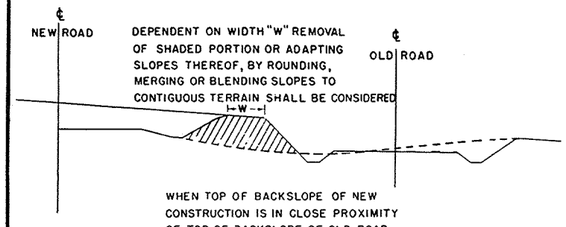
1-3.1.1



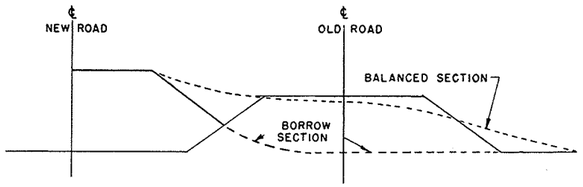
WHEN REMOVED FROM NEW CONSTRUCTION AND WITHIN SIGHT OF NEW PROJECT.



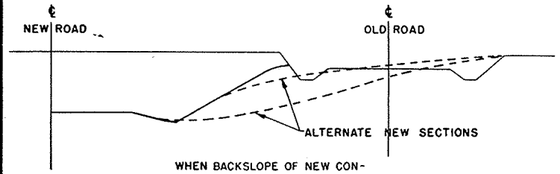
WHEN OLD ROAD IS IN EMBANKMENT AND REMOVED FROM NEW CONSTRUCTION BUT WITHIN SIGHT OF NEW PROJECT.



WHEN TOP OF BACKSLOPE OF NEW CONSTRUCTION IS IN CLOSE PROXIMITY OF TOP OF BACKSLOPE OF OLD ROAD.



WHEN BOTH NEW AND OLD ROAD ARE IN EMBANKMENT AND CONSTRUCTION IS CLOSELY ADJACENT.



WHEN BACKSLOPE OF NEW CONSTRUCTION EXTENDS INTO CONSTRUCTION LIMITS OF OLD ROAD.

CONSTRUCTION NOTES

DETAILS OF CONSTRUCTION NOT SHOWN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

OBLITERATING OLD ROAD

STATE HIGHWAY COMMISSION OF WISC.

RECOMMENDED FOR APPROVAL

Frank Crain
DESIGN ENGINEER

A R Fluh
DATE — CONSTRUCTION ENGINEER

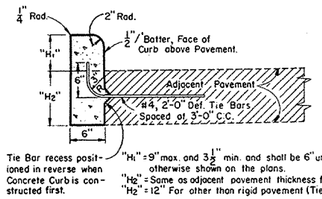
APPROVED:

DRAWN C.A.L.
CHECKED A.F.C.

OCT. 1, 1945
DATE

E. L. Ruettgen
STATE HIGHWAY ENGINEER

1-4.1.1

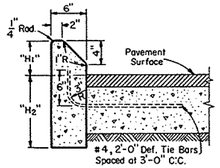


Tie Bar recess positioned in reverse when Concrete Curb is constructed first.

"H1" = 9" max. and 3½" min. and shall be 6" unless otherwise shown on the plans.
"H2" = Same as adjacent pavement thickness for rigid pavement
"H2" = 12" For other than rigid pavement (Tie Bars Omitted)

TYPE "A" (Including Tie Bars) TYPE "D" (Excluding Tie Bars)

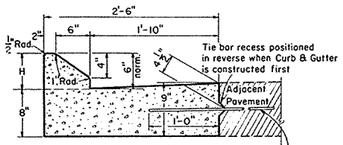
CONCRETE CURB



"H1" = 9" Max. and 4" min. and shall be 6" unless otherwise shown on plans.
"H2" = Same as adjacent pavement thickness for rigid pavement and 12" for other than rigid pavement (Tie Bars Omitted)

TYPE "G" (Including Tie Bars) TYPE "J" (Excluding Tie Bars)

CONCRETE CURB
(Mountable Type)



"H" = 9" max. and 4" min. & shall be 6" unless otherwise shown on the plans.

#4, 2'-0" Def. Tie Bars or alternate Bolt Type instal. may be used, spaced at 3'-0" C.C.

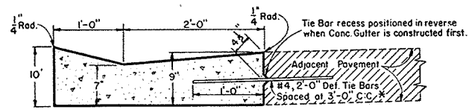
TYPE "G" (Including Tie Bars) TYPE "J" (Excluding Tie Bars)

CONCRETE CURB AND GUTTER
(Mountable Type)

GENERAL NOTES

Details of construction and materials not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications Sections 2301 & 2521, and the applicable Special Provisions.

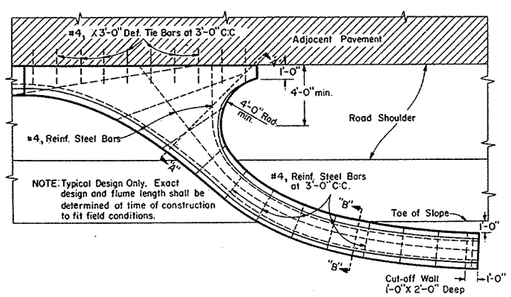
JOINTS —
Joints shall not be sealed in concrete curb, concrete gutter, concrete curb and gutter, or concrete surface drains.

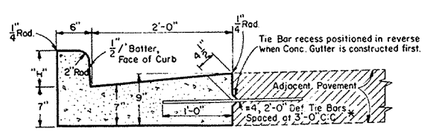


* Alternate Tie Bars or Bolt Type installations may be used as shown for Longitudinal Joints - See Std. No. 4-4.4.1

TYPE "A" (Including Tie Bars) TYPE "D" (Excluding Tie Bars)

CONCRETE GUTTER



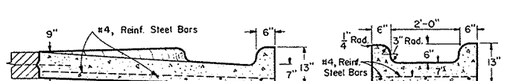


"H" = 9" Max., 3½" Min. and shall be 6" unless otherwise shown on the plans.

* Alternate Tie Bars or Bolt Type installations may be used as shown for Longitudinal Joints - See Std. Plate No. 4-4.4.1

TYPE "A" (Including Tie Bars) TYPE "D" (Excluding Tie Bars)

CONCRETE CURB AND GUTTER
(Barrier Type)



SECTION "A"-"A" SECTION "B"-"B"

CONCRETE INLET OR DISCHARGE FOR CURB AND GUTTER SURFACE DRAIN

BID ITEMS -
No. 2301-10 Concrete Surface Drains _____ Cu. Yds.
No. 2521-1 Concrete Curb (Type) _____ Lin. Ft.
No. 2521-6 Concrete Gutter (Type) _____ Lin. Ft.
No. 2521-11 Concrete Curb and Gutter (Type and Size) _____ Lin. Ft.

CONCRETE CURB, CONCRETE GUTTER CONCRETE CURB AND GUTTER AND CONCRETE SURFACE DRAINS

STATE HIGHWAY COMMISSION OF WISCONSIN

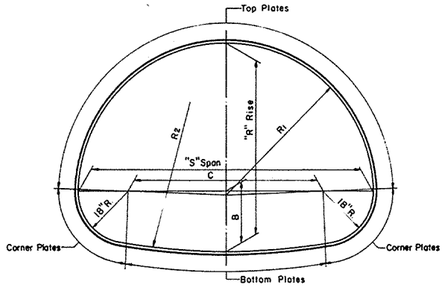
RECOMMENDED FOR APPROVAL:

DATE 5/5/59 — J. S. Pelt, ENGINEER OF DESIGN

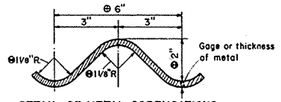
APPROVED:

DATE 5/15/59 — E. L. Rettiger, STATE HIGHWAY ENGINEER

PLATE NO. 3-1.1.6



STRUCTURAL PLATE PIPE ARCH



DETAIL OF METAL CORRUGATIONS

CORRUGATION DIMENSION TOLERANCES

⊖Tol. 1/4"

⊕Tol. ± 1/8"

⊖Min. 1 1/16"

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, Sections 2412 and 3116 and the applicable Special Provisions.

TOLERANCES

Pipe Arch size dimensions are subject to manufacturing tolerances and the ratio of rise (R) to span (S) shall not exceed a tolerance of 5% plus or minus.

Metal corrugation dimension tolerances shall not exceed pertinent dimensions shown elsewhere on this drawing.

EMBANKMENT—Minimum for ℄ Culverts

For Flexible Type Pavement, the minimum depth of embankment or cover over top of Pipe Arch (finished construction) shall be "S/10 or 1'-0" minimum.

For Rigid Type Pavement, the minimum depth of embankment over top of Pipe Arch shall be "S/14 or a minimum of 6" cushion between pipe and pavement.

EMBANKMENT—Maximum for ℄ Culverts

The maximum depth of embankment shall be 15 feet (finished construction).

Adequate cover protection for Pipe Arches shall be provided at all times during construction operations to preclude any damage to structures.

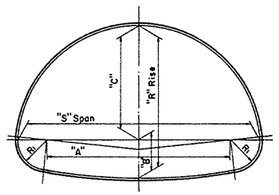
Strutting of Pipe Arches will not be required during construction unless specifically called for on the plans or the applicable Special Provisions.

TABLE OF PROPERTIES
STRUCTURAL PLATE PIPE ARCH

SPAN Nominal Size	Dimensions taken from inside crests of corrugations: Fabricators Size Min. Acceptable "S" Span — "R" Rise	R/S Ratio	Area Sq.Ft.	B In.	C In.	R1 In.	R2 In.	Table of Metal Gages — Minimum Acceptable: H-20 LOADING, Depth of Embankment in Feet 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
6 Feet	6'-1" x 4'-7"	.75	22	21.0	37.0	36.7	76.4	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
7 "	7'-0" x 5'-1"	.73	28	21.4	48.0	42.3	104.5	10	12	12	12	12	12	12	12	12	12	12	12	12	10	10
8 "	7'-11" x 5'-7"	.70	35	21.7	59.0	47.7	138.4	10	10	10	12	12	12	12	12	12	12	12	10	10	10	10
9 "	8'-10" x 6'-1"	.69	43	21.8	70.0	53.0	179.2	10	10	10	10	10	10	10	10	10	10	10	10	10	8	8
10 "	9'-9" x 6'-7"	.67	52	21.9	81.0	58.3	228.0	8	8	10	10	10	10	10	10	10	10	10	8	8	8	7
11 "	10-11" x 7'-1"	.65	61	25.1	95.0	65.8	180.8	8	8	8	10	10	10	10	10	8	8	8	7	7	5	
12 "	11'-10" x 7'-7"	.64	71	25.2	106.0	71.1	217.0	7	8	8	8	8	8	8	8	8	8	7	5	5	3	
13 "	12'-10" x 8'-4"	.65	85	24.0	118.0	77.2	315.2	5	7	8	8	8	8	8	8	7	7	5	5	3	1	
14 "	13'-11" x 8'-7"	.62	93	28.9	131.0	84.4	220.8	5	5	7	7	8	8	8	7	7	5	5	3	3	1	1
15 "	14'-10" x 9'-1"	.61	105	28.9	142.0	89.5	254.9	3	5	5	7	7	7	7	7	5	3	3	1	1	-	-
16 "	15'-10" x 9'-10"	.62	122	27.4	154.0	95.4	339.1	1	3	5	5	7	7	7	5	3	3	1	1	-	-	-
16.5 "	16'-7" x 10'-1"	.61	131	28.7	163.0	99.8	333.8	-	1	3	3	5	5	5	3	1	1	1	-	-	-	-

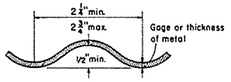
Note: For sizes of Structural Plate Pipe Arch between those shown in the table, the gage shall be interpolated (based on table data) where possible ; otherwise the gage of the next larger size shown in the table shall be used.

STRUCTURAL PLATE PIPE ARCH



CORRUGATED METAL PIPE ARCH

(Riveted)



DETAIL OF METAL CORRUGATIONS

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, Sections 2411 and 3116 and the applicable Special Provisions.

TOLERANCES

Tolerance from the dimensions detailing size and shape will be permissable providing equivalent capacity and strength are attained.

EMBANKMENT—Minimum for ℄ Culverts

For Flexible Type Pavement, the minimum depth of embankment or cover over top of Pipe Arch (finished construction) shall be "S/10 or 9" minimum.

For Rigid Type Pavement, the minimum depth of embankment over top of Pipe Arch shall be "S/14 or a minimum of 3" cushion between pipe and pavement.

EMBANKMENT—Maximum for ℄ Culverts

The maximum depth of embankment shall be 10 feet (finished construction).

Adequate cover protection for Pipe Arches shall be provided at all times during construction operations to preclude any damage to structures.

TABLE OF DIMENSIONS
CORRUGATED METAL PIPE ARCH

CORRUGATED METAL PIPE ARCH: Gage (Min. Acceptable)	"S" Span Inches	"R" Rise Inches	"A" Inches	"B" Inches	"C" Inches	R1 Inches	R/S Ratio	Area Sq.Ft.	Round Pipe of Approx. Equal Periphery: Area Sq.Ft.	Diam. Inches
16	18	11	10	4 1/2	6 1/2	3 1/2	.61	1.1	1.23	15
16	22	13	14	4 3/4	8 1/4	4	.59	1.6	1.77	18
16	25	16	17	5 1/4	10 3/4	4	.64	2.2	2.41	21
14	29	18	20	5 1/2	12 1/2	4 1/2	.62	2.8	3.14	24
14	36	22	26	6 1/4	15 3/4	5	.61	4.4	4.91	30
12	43	27	32	7	20	5 1/2	.63	6.4	7.07	36
12	50	31	38	8	23	6	.62	8.7	9.62	42
12	58	36	44	9 1/4	26 3/4	7	.62	11.4	12.57	48
12	65	40	49	10 1/2	29 1/2	8	.62	14.3	15.90	54
10	72	44	54	11 3/4	32 1/4	9	.61	17.6	19.64	60

NOTE: All Dimensions measured from inside crest of corrugations.

CORRUGATED METAL PIPE ARCH

STRUCTURAL PLATE PIPE ARCH
CORRUGATED METAL PIPE ARCH

STATE HIGHWAY COMMISSION OF WISCONSIN

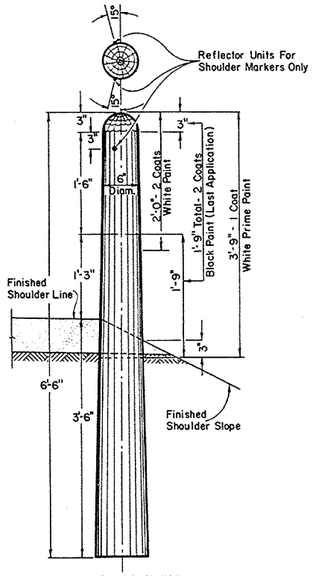
RECOMMENDED FOR APPROVAL:

5-27-57 DATE — J. L. Pelt ENGINEER OF DESIGN

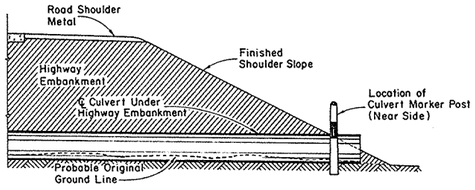
APPROVED:

5/28/57 DATE — E. C. Rustigan STATE HIGHWAY ENGINEER

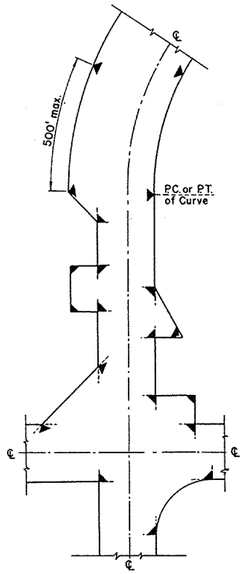
PLATE NO. 6-5.3.1



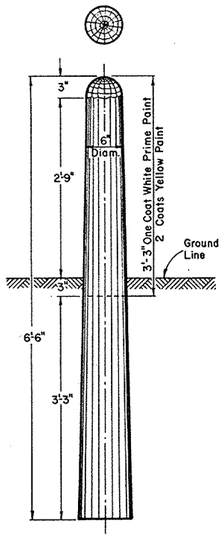
MARKER POST FOR
ROAD SHOULDERS AND CULVERTS



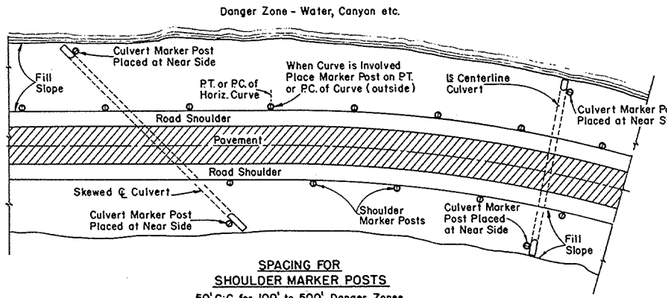
SECTION
SHOWING RELATIVE LOCATION OF
MARKER POST FOR CULVERTS



LOCATION DIAGRAM
SHOWING TYPICAL LOCATIONS OF
MARKER POSTS FOR RIGHT OF WAY



MARKER
POST
FOR
RIGHT OF WAY



SPACING FOR
SHOULDER MARKER POSTS
50' C:C for 100' to 500' Danger Zones
100 C:C for Over 500' Danger Zones

LOCATION DIAGRAM
SHOWING RELATIVE LOCATIONS OF SHOULDER MARKER POSTS
AND CULVERT MARKER POSTS

MARKER POSTS FOR ROAD SHOULDERS AND CULVERTS

MARKER POST FOR RIGHT OF WAY

GENERAL NOTES:

Details of Construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications Sections 2523, 4124 and 4125 and the applicable Special Provisions.

All posts for Road Shoulder Markers, Culvert Markers and Right of Way Markers are identical except for Painting and Reflector Units. All Posts shall be round and untreated and shall be either Northern White Cedar, Southern Yellow Pine, Norway Pine, White Pine or Jack Pine.

MARKER POSTS FOR RIGHT OF WAY

Right of Way Marker Posts shall be erected in advance of Grading Operations. Posts may be shaped and painted prior to erection. Any damaged areas occurring to paint surface during erection or other subsequent operations must be repainted prior to acceptance.

Posts shall be placed at the outer limits of the Highway Right of Way, but entirely within the Right of Way, and shall be so placed that the outer edge of the posts shall be tangent to the Right of Way line or lines extended. The exact location of all Right of Way Posts shall be staked in the field by the Engineer.

Reflector Units for Right of Way Marker Posts will not be required.

REFLECTOR UNITS

Reflector Units shall have plastic crystal lens 7/8" in diameter. Unit assembly shall be a minimum of 7/8" in length. Reflector Units shall be furnished with flared expanding metal clips for wood mounting. Units shall be mounted in tightest fit possible and securely stayed in posts. Reflector Units shall be installed in Road Shoulder Marker Posts only.

BID ITEMS

No. 2523-5 Marker Posts.....Each
No. 2523-6 Marker Posts for Right of Way.....Each

MARKER POSTS &
MARKER POSTS FOR RIGHT OF WAY

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

5/16/57
DATE

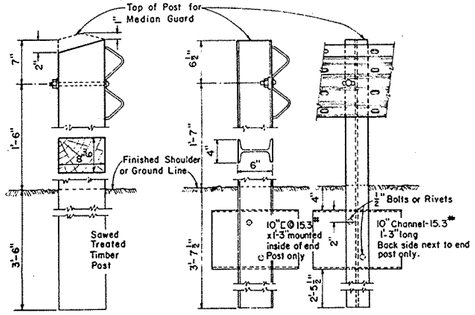
J. A. Pitt
ENGINEER OF DESIGN

APPROVED:

5/16/57
DATE

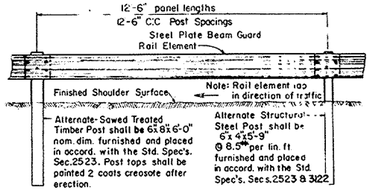
E. L. Ruettiger
STATE HIGHWAY ENGINEER

PLATE NO. 7-1.3.3.



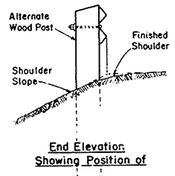
Side ELEVATION TIMBER POST | Side ELEVATION STEEL POST | Front ELEVATION STEEL POST

ALTERNATE TYPE POSTS FOR STEEL PLATE BEAM GUARD AND STEEL PLATE BEAM (MEDIAN) GUARD



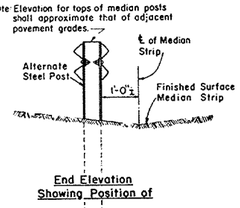
FRONT (Traffic Side) ELEVATION

STEEL PLATE BEAM GUARD OR STEEL PLATE BEAM (MEDIAN) GUARD



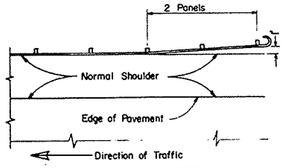
End Elevation Showing Position of

STEEL PLATE BEAM GUARD

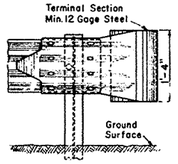


End Elevation Showing Position of

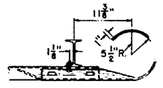
STEEL PLATE BEAM (MEDIAN) GUARD



LOCATION DIAGRAM FOR STEEL PLATE BEAM GUARD INTERMEDIATE SECTIONS

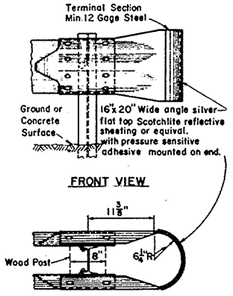


FRONT (Traffic Side) VIEW



PLAN VIEW

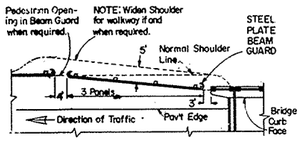
TERMINAL SECTION DETAILS FOR STEEL PLATE BEAM GUARD



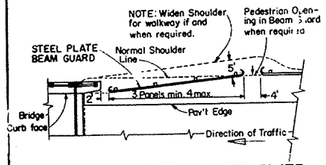
FRONT VIEW

PLAN VIEW

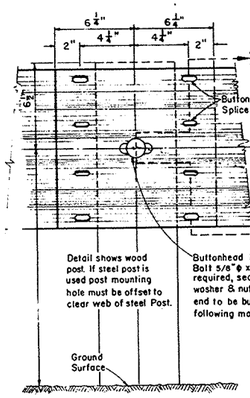
TERMINAL SECTION DETAILS FOR STEEL PLATE BEAM (MEDIAN) GUARD



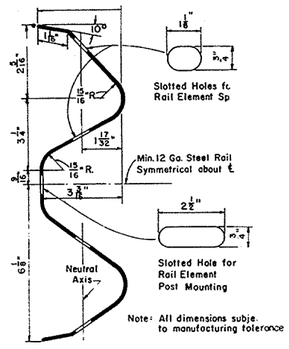
LOCATION DIAGRAM FOR STEEL PLATE BEAM GUARD AT BRIDGE EXITS



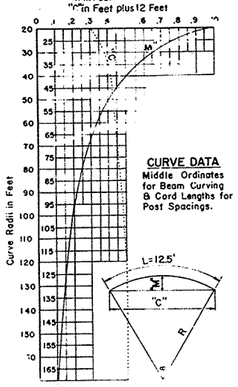
LOCATION DIAGRAM FOR STEEL PLATE BEAM GUARD AT BRIDGE APPROACHES



RAIL ELEMENT SPLICING & POST MOUNTING DETAILS



SECTION "AA" RAIL ELEMENT SECTION (Min. 12 GAGE STEEL)



CURVE DATA
Middle Ordinates for Beam Curving & Card Lengths for Post Spacings.

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

The Steel Plate Beam Guard or (Median) Guard shall consist of steel plate made of open hearth or electric furnace steel.

Plates shall be stanked to proper shape, fabricated and ready for assembly when received in the field. The plates shall be true to plan dimensions and of uniform section. Warped or deformed plates will be rejected. The edges of the plates shall be rolled or rounded so that they present no sharp edges. All connections and splices shall be formed with flat round headed bolts, or similar detail so that no appreciable projection will be presented on the road side of the guard. The rail element shall be spliced by lapping in the direction of traffic or by butt joint with splice plate. Plate ends in lap splices or plate ends and splice plate in butt splices shall make contact throughout the entire area of the splice.

TESTS

The elongation of a 2 inch specimen of the steel plate used in the rail element shall be not less than 12 percent tested in tension.

The minimum tensile strength of the rail element shall, when tested in conjuntion with splices and end connections, be 80,000 lbs. The rail element when loaded as a simple beam, freely supported at each end on 12'-0" centers shall support a concentrated load of 1,500 lbs., applied at the center point, with a maximum deflection of 2½ inches and shall support a concentrated load of 2,000 lbs. when tested in like manner with a maximum deflection of 5½ inches.

PAINTING (When not furnished galvanized)

SHOP COAT - Promptly following fabrication, the plates for steel rail element and steel posts shall be thoroughly cleaned and painted with red lead primer or, upon the Engineers approval, an alternate of rust inhibitive primer may be used. All parts, hardware and appurtenant fittings for the complete beam guard assembly shall likewise be painted.

FIELD COAT - Following erection the steel rail elements, parts, hardware appurtenant fittings and steel posts shall be painted in accord with Standard Specifications with aluminum paint as provided in Section 3125.

Any damaged areas occuring to shop coat during transportation or erection shall be cleaned and painted with red lead or an approved rust inhibitive primer prior to any field coat painting.

Where the steel plate elements make contact with the post mountings act. all such areas which are inaccessible to paint after erection shall be painted prior to erection.

All threaded portions of fittings, fasteners and cut ends of bolts shall be painted as specified immediately following erection.

CIRCULAR STEEL PLATE ELEMENT

Steel plate beam elements for beam guard or (median) guard for radii of 201 to 150 ft shall be shop-curved prior to shop coat painting. Steel plate beam elements shall be bent to true circular curvature, void of kinks. Kinks shall be cause for rejection.

Steel plate beam elements shall have a minimum bending radius of 20 feet

ALTERNATE POSTS

One type of post shall be used for Steel Plate Beam Guard and/or Steel Plate Beam (Median) Guard throughout the length of each project unless specific authorization is obtained from the Engineer to use alternate types.

GALVANIZED-ALTERNATE

Steel rail elements may be furnished galvanized. Spelter coating shall be the hot dip process in accord with AASHO designation M36. Only one type surface treatment (either painted or galvanized) may be used throughout the length of each project unless specific authorization is obtained from the Engineer to do otherwise.

MEASUREMENT & PAYMENT

The items of "Class 'B' Steel Plate Beam Guard" and "Class 'B' Steel Plate Beam (Medium) Guard shall be measured and paid for at the contract unit price per linear foot, measured in place by length in linear feet from end to end-cut to cut of steel plate terminal sections, which price shall be full compensation for furnishing and placing all materials and performing all work to completion in accord with the plans and the Standard Specifications Section 2523 and the applicable Special Provisions.

BID ITEMS

No.2523-3 Steel Plate Beam Guard..... Lin Ft

No.2523-4 Steel Plate Beam (Median) Guard..... Lin. Ft.

STEEL PLATE BEAM GUARD & STEEL PLATE BEAM (MEDIAN) GUARD

STATE HIGHWAY COMMISSION OF WISCONSIN

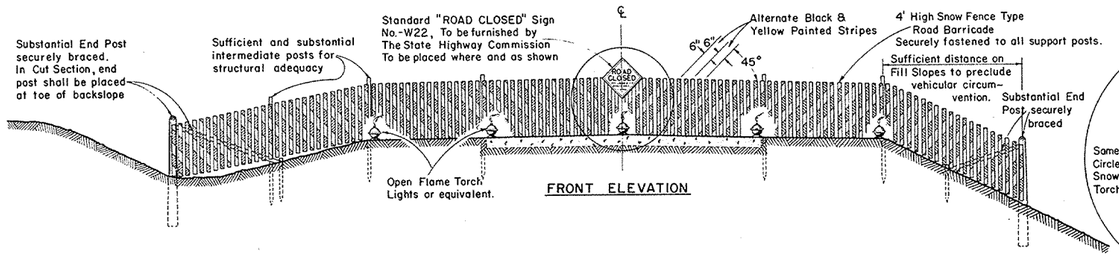
RECOMMENDED FOR APPROVAL:

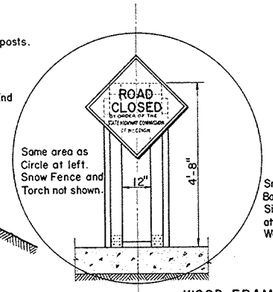
DATE 7/16/59 J.S. Piff ENGINEER OF DESIGN

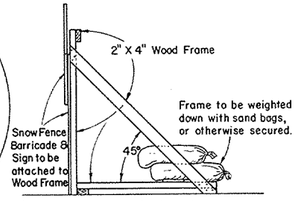
APPROVED:

DATE 7/16/59 E.C. Rostlyss STATE HIGHWAY ENGINEER

PLATE NO. 7-2.4.7







STANDARD ROAD CONSTRUCTION BARRICADE

SNOW FENCE TYPE-"A"

WOOD FRAME SUPPORT AT ℄
FOR SNOWFENCE TYPE BARRICADE
When Barricade is Erected on Rigid Type Surfacing

GENERAL NOTES

The Contractor shall construct, place and maintain barricades as shown on this drawing and as required by the Standard Specifications Section 1107 for the duration of the project. Barricades shall be painted and structurally maintained for maximum visibility at all times.

Provision shall be made in the construction of barricades to provide for ingress and egress for local access as may be required.

ALTERNATE DESIGNS

Contractors may submit to the Engineer for approval, designs for Barricades other than shown on this drawing, and upon the Engineer's approval may be used as alternates.

MEASUREMENT & PAYMENT

All Barricades, unless otherwise provided for in the Plans and/or Special Provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.

CONSTRUCTION BARRICADE

STATE HIGHWAY COMMISSION OF WISCONSIN

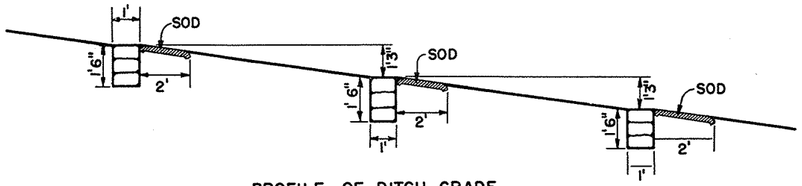
RECOMMENDED FOR APPROVAL:

6/2/55 DATE — J. L. Pelt ENGINEER OF DESIGN

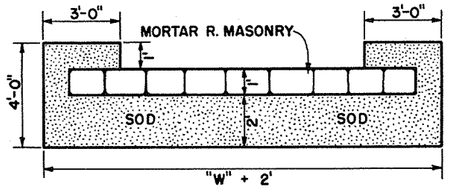
APPROVED:

6/2/55 DATE — E. C. Ruettiger STATE HIGHWAY ENGINEER

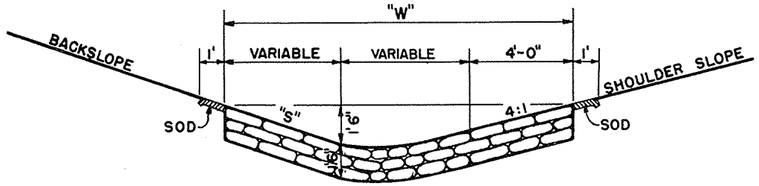
PLATE NO. 7-4.1.2



PROFILE OF DITCH GRADE



PLAN VIEW SHOWING SOD



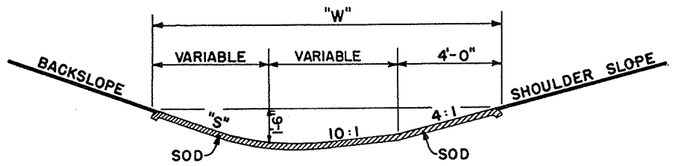
SECTION

MORTAR RUBBLE MASONRY

QUANTITIES			
"S"	"W"	SOD SQ. YD.	EACH CU. YD.
2:1	12'	4.0	0.67
3:1	13.5'	4.33	0.75
4:1	15'	4.67	0.83

PROFILE OF DITCH GRADE

NOTE: NUMBER REQUIRED WILL BE DETERMINED BY VERTICAL SPACING.



SECTION

SOD DITCH CHECKS

QUANTITIES		
"S"	"W"	EACH SQ. YD.
2:1	12'	8
3:1	13.5'	9
4:1	15'	10

CONSTRUCTION NOTES

DETAILS OF CONSTRUCTION NOT SHOWN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DITCH CHECKS
MORTAR RUBBLE MASONRY & SOD

STATE HIGHWAY COMMISSION OF WISC.

RECOMMENDED FOR APPROVAL:

Frank Crane
DESIGN ENGINEER

DATE:

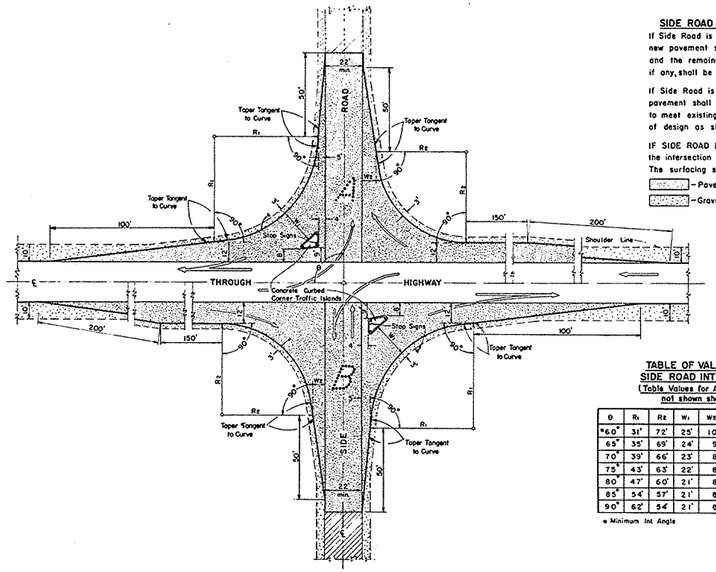
CONSTRUCTION ENGINEER

APPROVED:

DRAWN DIV. 9
CHECKED N.F.C.

E. L. Roettiger
STATE HIGHWAY ENGINEER

8-1.3.1



SIDE ROAD SURFACING NOTE

If Side Road is not presently surfaced, new pavement shall be placed as shown, and the remainder to construction limits, if any, shall be gravel or crushed stone surfaced.

If Side Road is presently paved, new pavement shall be placed only as necessary to meet existing pavement, and to limits of design as shown.

IF SIDE ROAD IS THE CONSTRUCTION PROJECT, the intersection geometrics remain as shown. The surfacing shall be same as for the project.

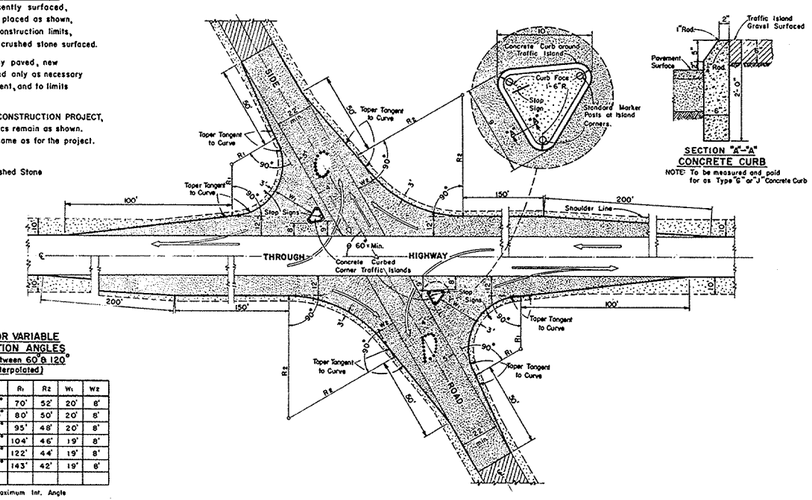
- Pavement
- Gravel or Crushed Stone

TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES°
(Table Values for Angles between 60°& 120° not shown shall be interpolated)

θ	R1	R2	W1	W2
*60°	31'	72'	25'	10'
65°	35'	69'	24'	9'
70°	39'	66'	23'	8'
75°	43'	63'	22'	8'
80°	47'	60'	21'	8'
85°	54'	57'	21'	8'
90°	62'	54'	21'	8'

θ	R1	R2	W1	W2
95°	70'	52'	20'	8'
100°	80'	50'	20'	8'
105°	95'	48'	20'	8'
110°	104'	46'	19'	8'
115°	122'	44'	19'	8'
**120°	143'	42'	19'	8'

* Minimum Int. Angle
** Maximum Int. Angle



SECTION "E"-"A" CONCRETE CURB
NOTE: To be measured and paid for as Type "E" or "J" Concrete Curb

MAJOR SIDE ROAD INTERSECTION DESIGN DETAILS

To be used only when current ADT on Through Highway is 1500 or over, and on Side Road is Over 200

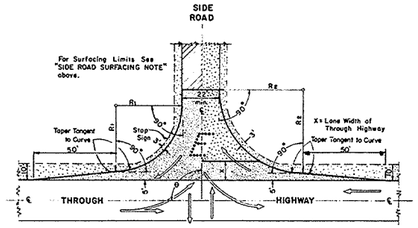


TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES°
(Table Values for Angles between 60°& 120° not shown shall be interpolated)

θ	R1	R2
* 60°	40'	50'
65°	40'	50'
70°	40'	50'
75°	40'	50'
80°	40'	50'
85°	40'	50'
90°	40'	50'

θ	R1	R2
95°	45'	49'
100°	50'	48'
105°	55'	47'
110°	60'	46'
115°	65'	45'
**120°	70'	44'

* Minimum Int. Angle
** Maximum Int. Angle

MINOR SIDE ROAD INTERSECTION DESIGN DETAILS

To be used when current ADT on Through Highway is Less than 1500 or on Side Road is Less than 200

GENERAL NOTES

Designs "A" "B" "C" "D" or "E" may be used interchangeably in combination or separately for any one complete intersection depending upon Traffic Volume, Intersection angle and Surfacing of each approach roadway.

Details on this drawing are for Minimum Design Only, and not applicable to Special Conditions, as shown elsewhere on the plans.

DESIGN & LAYOUT DETAILS FOR SIDE ROAD AT GRADE INTERSECTIONS
(RURAL IN CHARACTER)

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL
DATE 1/17/58 — ENGINEER OF DESIGN

APPROVED
DATE 1/17/58 — STATE HIGHWAY ENGINEER

PLATE NO. 9-1.13

ESTIMATE OF QUANTITIES

CONTRACT NO. 1,283

PROJECT	SHEET NUMBER	TOTAL SHEETS
S 0737.(1)	2	33

THIS PROJECT IS TO BE EXECUTED UNDER THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE HIGHWAY COMMISSION OF WISCONSIN — EDITION OF 1957
APPROVED AUGUST 9, 1957; AND SPECIAL PROVISIONS AS ATTACHED TO PROPOSALS.

CONT. NO.	STATION TO STATION	NET LENGTH OF CENTER LINE	CLEARING		GRUBBING		EXCAVATION UNCLASSIFIED	EXCAVATION BORROW	FINISHING ROADWAY	OBLITERATING OLD ROAD	GRAVEL OR CRUSHED STONE BASE COURSE		CULVERT PIPE 18"	24"	30"	36"	C.M.P.A. 29"X18"	MORTAR RUBBLE DITCH CHECKS	STEEL PLATE BEAM GUARD		MARKER POSTS	MARKER POSTS FOR R/W	REMOVING CONC. SIDEWALK	EXCAV. FOR STRUCT. BRIDGES	GRANULAR BACK FILL	CONC. MASONRY BRIDGES	BAR STEEL REINF. BRIDGES	CONC. SURF. DRAINS	UNTREATED TIMBER TEST PILING @ 30'-0"	BITUM. MAT. FOR PRIME COAT	BITUM. ROAD MIX SURFACE	AGGREG. FOR BITUM. ROAD MIX SURFACE	BITUM. MAT. FOR SURFACE COURSE	TREATED TIMBER PILING DELIVERED	TREATED TIMBER PILING DRIVEN	CONC. CURB & GUTTER TYPE "D" 30"	PILE SHOES		CALCIUM CHLORIDE SURFACE TREATMENT	TOPSOIL SALVAGED	FERTILIZER	SEEDING	
	ITEM NO.		2101-1	2101-2	2101-4	2101-5	2106-5	2109-1	2114-1	2116-1	2203-1	23	2411-1	2412-2	2412-3	2412-4	2418-3	2516-3	2523-3	2523-	2523-5	2523-4	2105-6	2107-1	2110-1	2401-1	2406-1	2301-10	2501-1	2311-1	2313-1	2313-2	2313-3	2501-4	2501-5	2521-11	2501-6	2525-1	2528-1	2528-2	2531-1	2532-1	
	UNIT	LIN. FT.	STA.	L.O.	STA.	L.O.	C.Y.	C.Y.	L.S.	STA.	TON	C.Y.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	C.Y.	LIN. FT.		EACH	EACH	S.Y.	C.Y.	C.Y.	C.Y.	L.B.	C.Y.	L.S.	GAL.	S.Y.	TON	GAL.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	TON	SQ. YD.	SQ. YD.	CWT.	SQ. YD.	
1	255+00 – 406+54	15,106.30	16	3,097	16	3,169	39,276	1,819	1	13.0			736	580	106	60	118	30	106		50		300					3		6,500	39,750		52,000			105					74	81,400	
2	255+00 – 406+54	15,106.30									27,800																				4,500											
3	266+72.42 – 266+95.58	23.16																						60	20	46.0	3,750		1				420	420		21						
T.	255+00 – 406+54	15,129.46	16	3,097	16	3,169	39,276	1,819	1	13.0	27,800		736	580	106	60	118	30	106		50		300	60	20	46.0	3,750	3	1	6,500	39,750	4,500	52,000	420	420	105	21				74	81,400	

CLEARING & GRUBBING

STATION TO STATION	CLEARING STA.	CLEARING L.O.	GRUBBING STA.	GRUBBING L.O.
255+00 – 309+00		775		775
309+00 – 311+00	2		2	
311+00 – 359+00		1692		1784
359+00 – 373+00	14		14	
373+00 – 406+54		630		610

GRAVEL OR CRUSH STONE BASE COURSE

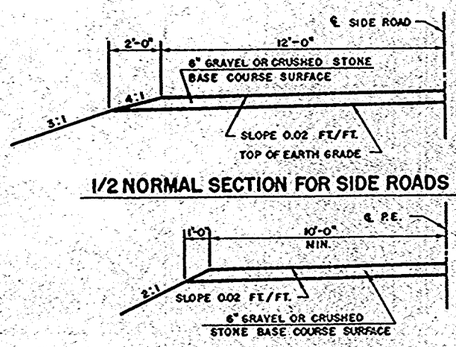
LOCATION	CUBIC YARDS
MAIN LINE	24,280
C.T.H. "X"	940
SHOULDERS	1,380
P.E.'S & SIDE ROADS	1,200

CULVERT PIPES

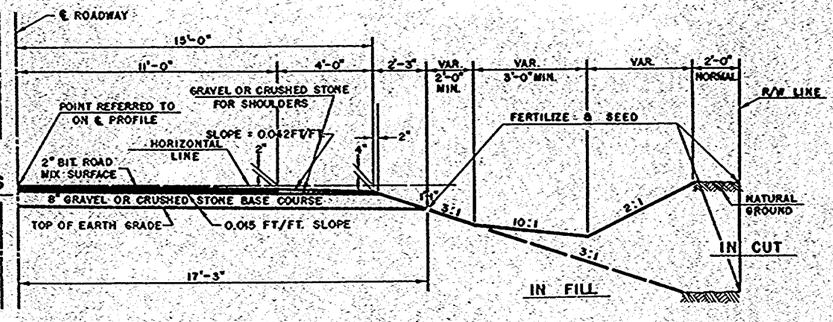
STATION	LOCATION	DIA. INCH.	LIN. FT.	TYPE
256+62	℄	24	46	C.P.
275+93	℄	24	44	C.P.
280+55	℄	24	56	C.P.
288+37	℄	30	52	C.P.
289+40 LT.	P.E.	30	42	C.P.
305+12	℄	24	50	C.P.
318+70	TWN. RD.	24	48	C.P.
325+00	℄	36	60	C.P.
345+69	℄	24	54	C.P.
368+12	℄	24	52	C.P.
374+14	℄	24	60	C.P.
386+73	℄	24	54	C.P.
394+12	℄	24	50	C.P.
398+59	℄	24	66	C.P.
401+10	℄	30	12	C.P.
402+62	℄	29"X18"	62	C.M.P.A.
10+35	C.T.H. "X"	29"X18"	56	C.M.P.A.
23 P.E.'S	LT. & RT.	18"	736	C.P.

MARKER POSTS

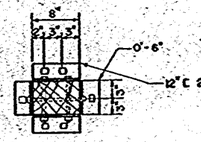
LOCATION	NO.
℄ & SD. RD. CULVERTS	30
SHOULDER DELINATION (UNDIST)	20



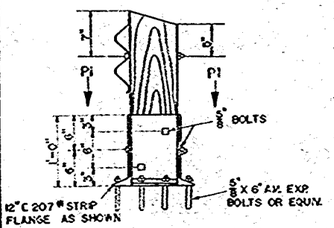
1/2 NORMAL SECTION FOR SIDE ROADS



1/2 NORMAL SECTION FOR P.E.'S.



SECTION PI



GUARD POST DETAIL

STA. 266+76.0 LT. – STA. 266+88.5 LT.
STA. 266+79.5 RT. – STA. 266+92.0 RT.

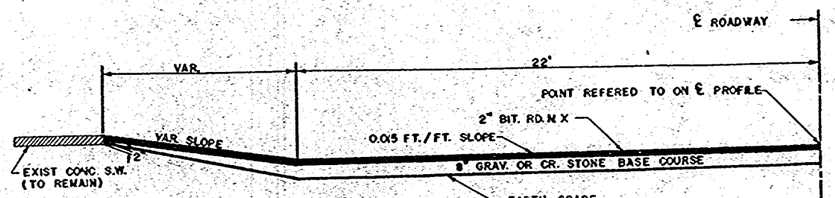
REQUIRED WHERE POST IS PLACED ON CONCRETE OR EXISTING CONCRETE BOX CULVERT OR BRIDGE.

THE COST OF CONNECTIONS SHALL BE INCLUDED IN THE BID PRICE PER LIN. FT. OF STEEL PLATE BEAM GUARD.

1/2 NORMAL FINISHED SECTION C.T.H. "M" & C.T.H. "X"

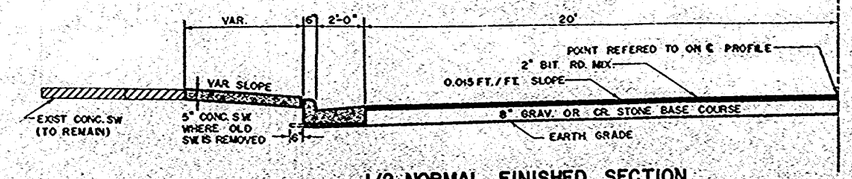
QUANTITIES FOR COMPLETE SECTION

GRAVEL OR CRUSHED STONE BASE COURSE FOR ROADWAY = 160.34 TONS/STA. (BASED ON 4,000 LBS. PER C.Y. COMP. IN PLACE.)
GRAVEL OR CRUSHED STONE BASE COURSE FOR SHOULDERS = 8.70 TONS/STA. (BASED ON 5,144 LBS. PER C.Y. COMP. IN PLACE.)



1/2 NORMAL FINISHED SECTION

STA. 404+10 – 406+00 LT.



1/2 NORMAL FINISHED SECTION

STA. 403+25 – 404+10 LT. C.T.H. "M"
STA. 9+50 – 9+78 C.T.H. "X"

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, STANDARD DRAWING AND SPECIAL PROVISIONS.

ON ALL HORIZONTAL CURVES THE NORMAL CROWN SHALL BE REMOVED AND THE EARTH GRADE, BASE COURSE AND PAVEMENT SURFACES SHALL RESULT IN A STRAIGHT LINE SLOPE ACROSS THE ENTIRE WIDTH OF ROADWAY.

STANDARD DRAWINGS

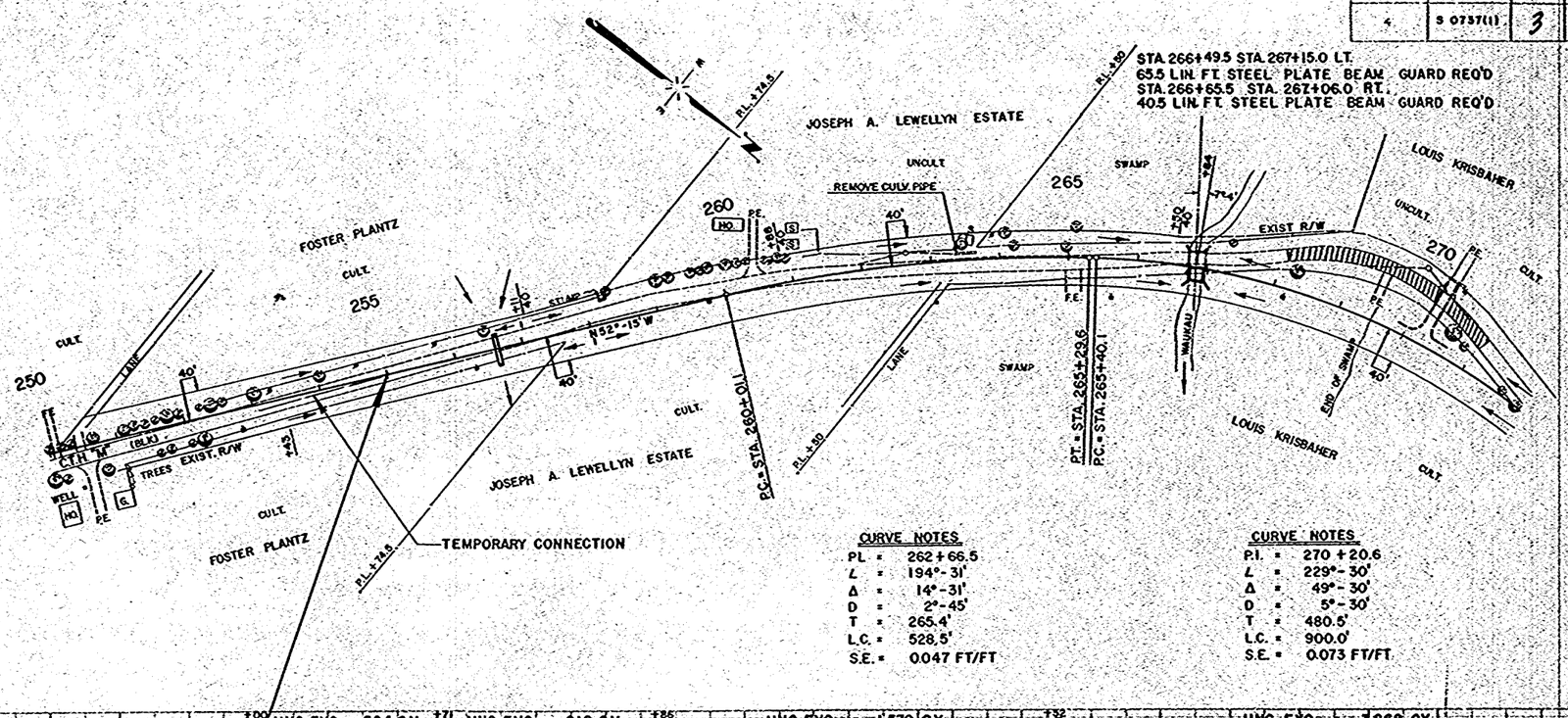
DETAILS OF P.E. & SD. RD. APPROACHES	1-3.11
OBLITERATING OLD ROAD	1-4.11
MARKER POSTS	7-1.33
CONSTRUCTION BARRICADE	7-4.12
DITCH CHECKS	8-1.31
DESIGN & LAYOUT FOR SD. RD. INTERSECT.	9-11.3
CORRUGATED METAL PIPE ARCH	6-5.31
STEEL PLATE BEAM GUARD	7-2.47
CONCRETE CURB & GUTTER	3-1.18

TYPICAL CROSS SECTION
FOR
30 FT. ROADBED – 22 FT. BIT. PAV'T.
AND
MISCELLANEOUS CONST. DETAILS
VARIABLE SCALE

R.P.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 0737(1)	3	33

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
29	250+10	PT MK CONC POR RAIL SW COR 60' RT	836.92
30	259+10	SPIKE IN 20" MAPLE 33' RT	832.88
31	264+40	" " TWIN WILLOW 75' RT	818.30
32	270+40	" " 12" ELM 250' LT	827.21



CURVE NOTES

PI.	262+66.5
L	194°-31'
Δ	14°-31'
D	2°-45'
T	265.4'
L.C.	528.5'
S.E.	0.047 FT/FT

CURVE NOTES

P.I.	270+20.6
L	229°-30'
Δ	49°-30'
D	5°-30'
T	480.5'
L.C.	900.0'
S.E.	0.073 FT/FT

NET LENGTH OF CENTERLINE

STATION TO STATION		LIN. FT.
255+00	270+00	1500'

GENERAL NOTES

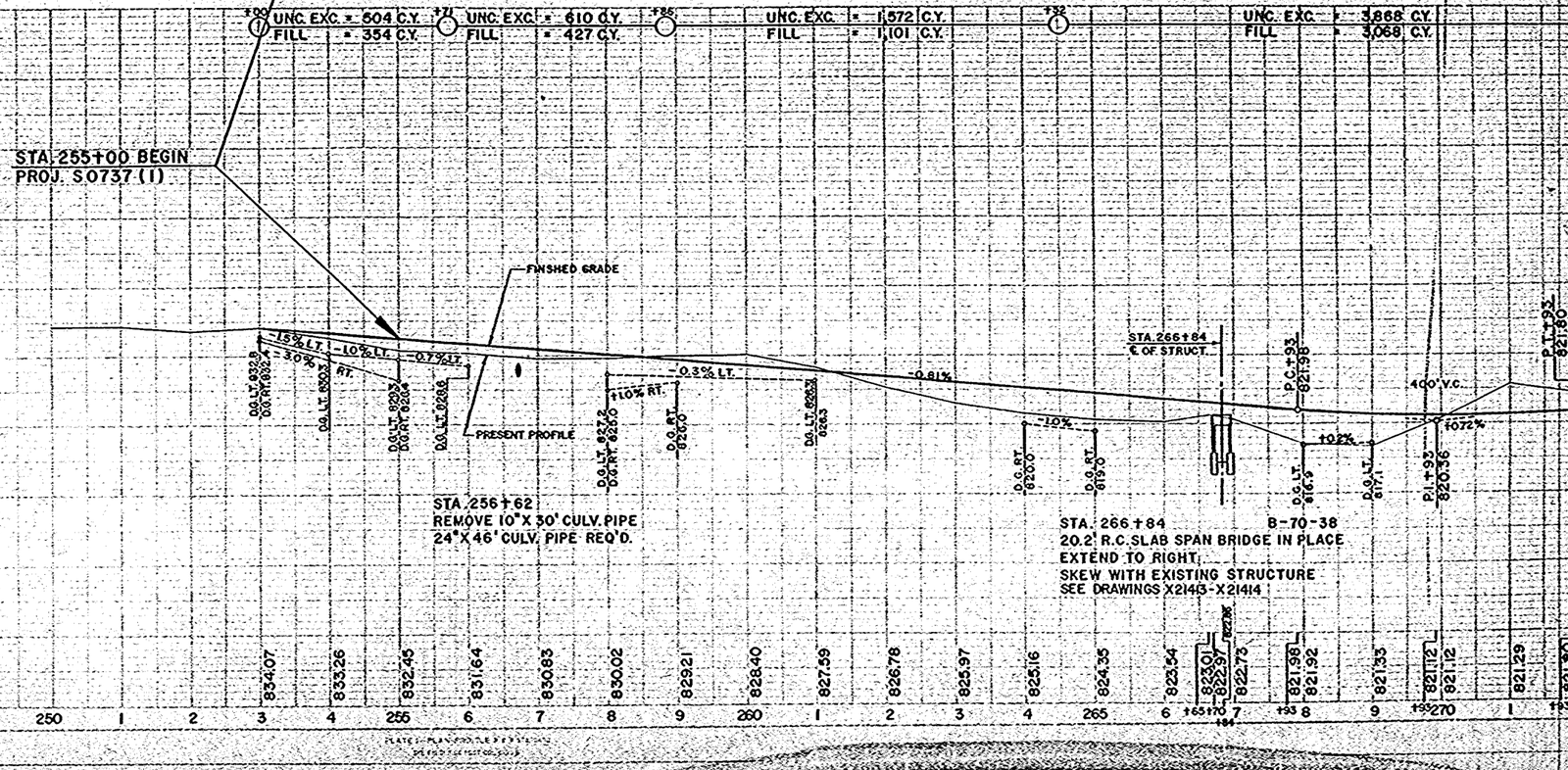
DETAILS OF CONSTRUCTION NOT SHOWN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, STANDARD DRAWINGS AND THE SPECIAL PROVISIONS ATTACHED TO PROPOSALS.

CUBIC YARDS OF FILL SHOWN ON PLAN SHEETS PERTAINS TO EMBANKMENT CONSTRUCTED FROM UNCLASSIFIED AND BORROW EXCAVATION AND IS COMPUTED WITH A SHRINKAGE ALLOWANCE OF 20% TO 45%.

THE EXACT LOCATION OF PRIVATE ENTRANCES AND CULVERT PIPES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

LEGEND

UNC. EXC.	UNCLASSIFIED EXCAVATION
●	POWER POLE
✓	TELEPHONE POLE
P.E.	PRIVATE ENTRANCE
F.E.	FIELD ENTRANCE
C.P.	CULVERT PIPE
D.G.	DITCH GRADE
F	FILL
	DRAINAGE FLOW
	OLD ROAD OBLITERATION
P.L.	PROPERTY LINE
C.M.P.A.	CORRUGATED METAL PIPE ARCH

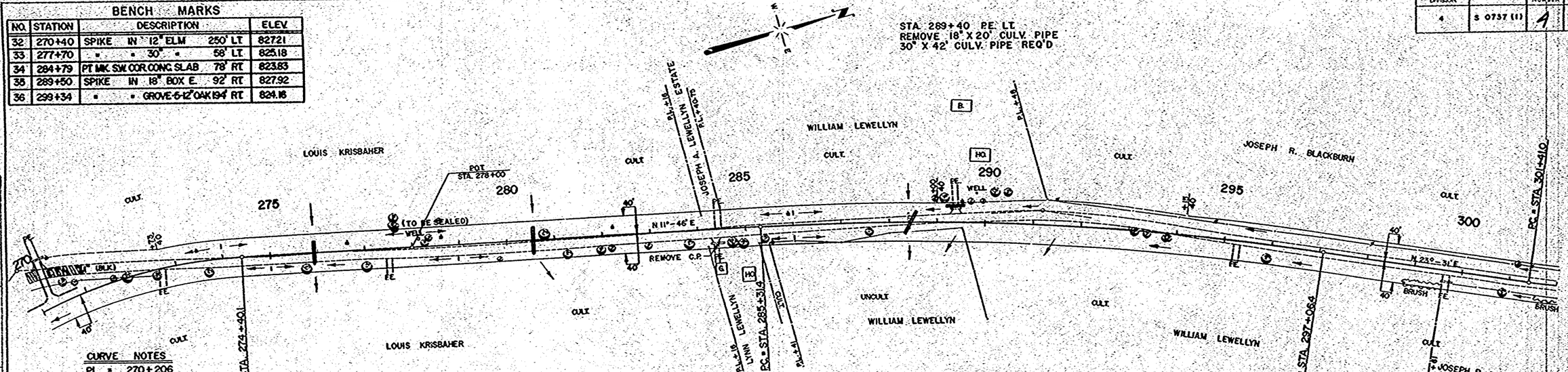


B.P.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 0737 (1)	1	33

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
32	270+40	SPIKE IN 12" ELM 250' LT	827.21
33	277+70	" " 30" " 58' LT	825.18
34	284+79	PT MK. SW. COR. CONC. SLAB 78' RT	823.83
35	289+50	SPIKE IN 18" BOX E. 92' RT	827.92
36	299+34	" " GROVE-6-12" OAK 194' RT	824.16

STA. 289+40 P.E. LT.
REMOVE 18" X 20' CULV. PIPE
30" X 42' CULV. PIPE REQ'D



CURVE NOTES

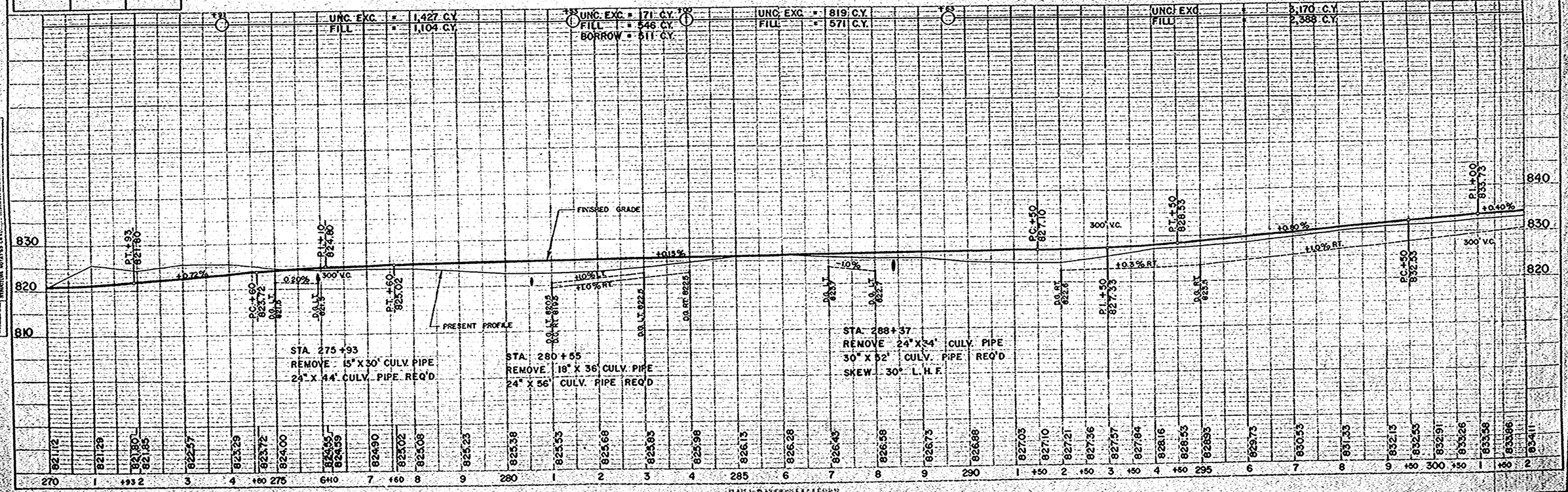
PI	= 270+206
L	= 229°-30'
Δ	= 49°-30'
D	= 5°-30'
T	= 480.5'
L.C.	= 900.0'

CURVE NOTES

PI	= 291+21.0
L	= 191°-45'
Δ	= 11°-45'
D	= 1°-00'
T	= 5896'
L.C.	= 1,1750'
S.E.	= 0.022 FT/FT

NET LENGTH OF CENTERLINE

STATION TO STATION		LIN. FT.
270+00	300+00	3000.00

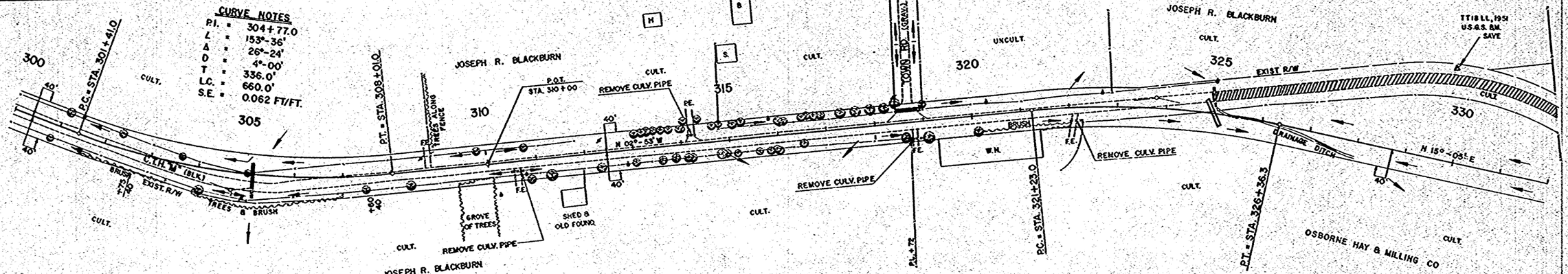


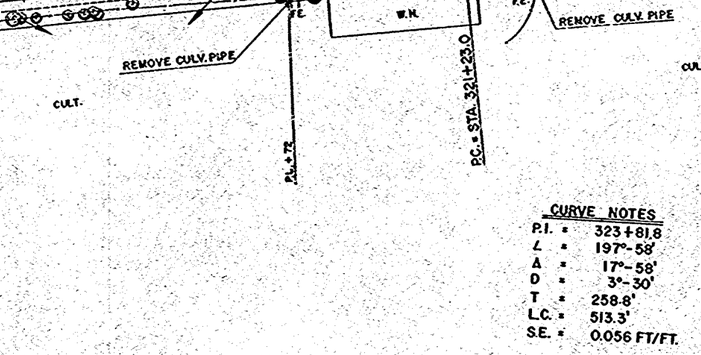
B.P.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 0737 (11)	5	33

BENCH MARKS

NO.	STATION	DESCRIPTION		ELEV
37	304+90	SPIKE IN 16" HICKORY	44' RT	833.42
38	310+45	" " 28" OAK	90' RT	833.88
39	314+45	" " 26" MAPLE	60' LT	834.33
40	320+06	" " 12" HICKORY	56' LT	828.80
41	327+78	" " CLUMP-10" ASH	90' LT	822.76

STA. 318+70 SD. RD. LT.
REMOVE 24"X45' CULV. PIPE
24"X48' CULV. PIPE REQ'D.



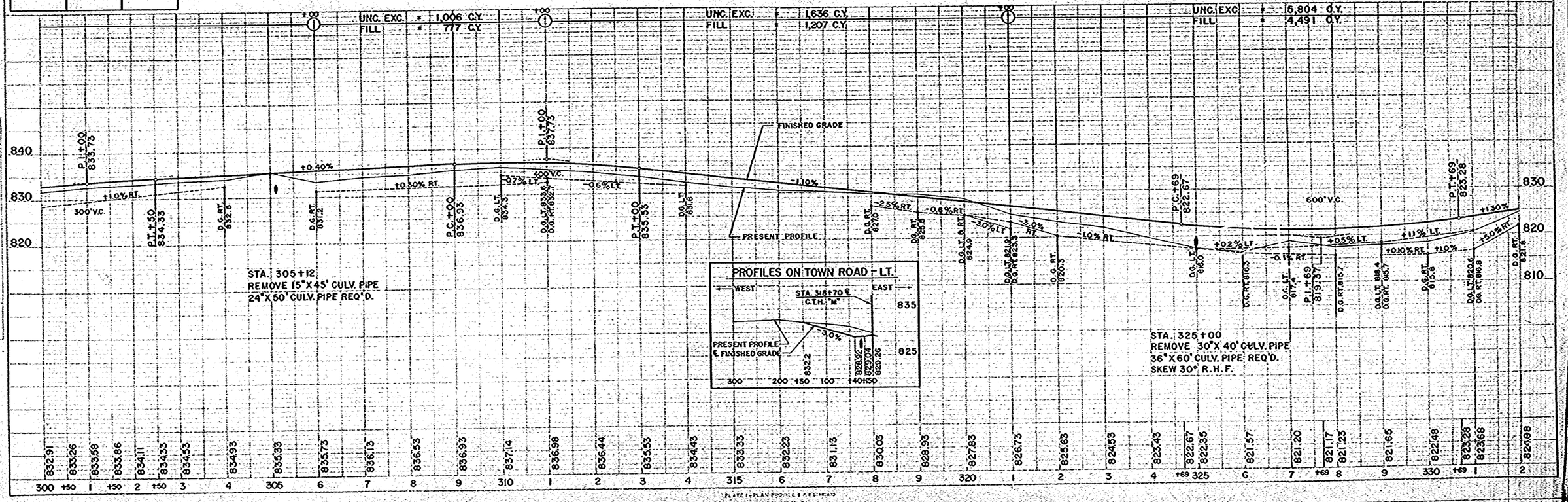


NET LENGTH OF CENTERLINE		
STATION TO STATION		LIN. FT.
300+00	330+00	3,000

UNC. EXC. = 1,006 C.Y.
FILL = 777 C.Y.

UNC. EXC. = 1,636 C.Y.
FILL = 1,207 C.Y.

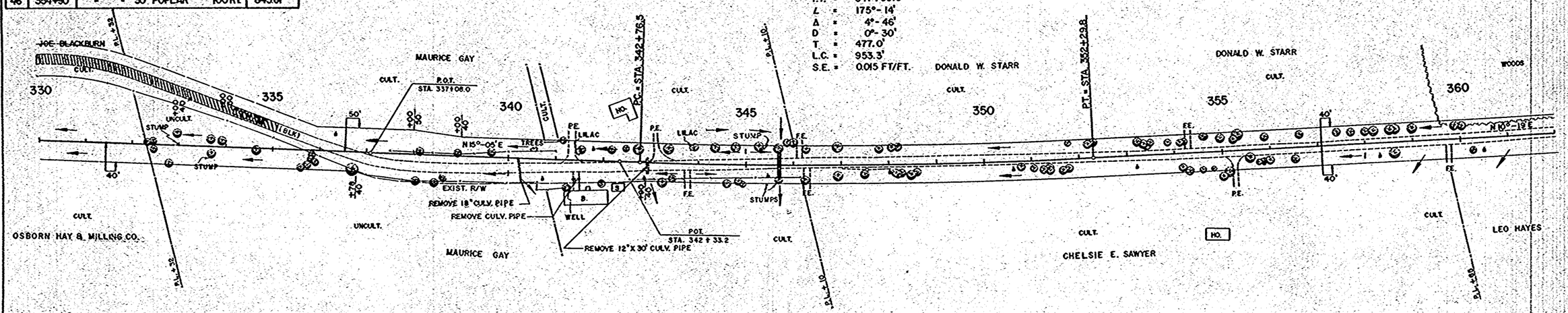
UNC. EXC. = 5,804 C.Y.
FILL = 4,491 C.Y.



B.P.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 0737 (1)	6	33

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
42	332+95	SPIKE IN 12" HICKORY 72' RT.	824.66
43	335+90	" " 16" " 66' RT.	828.23
44	341+24	" " 12" ELM 50' RT.	832.31
45	346+35	" " 20" OAK 45' RT.	835.20
46	354+90	" " 30" POPLAR 100' RT.	845.61



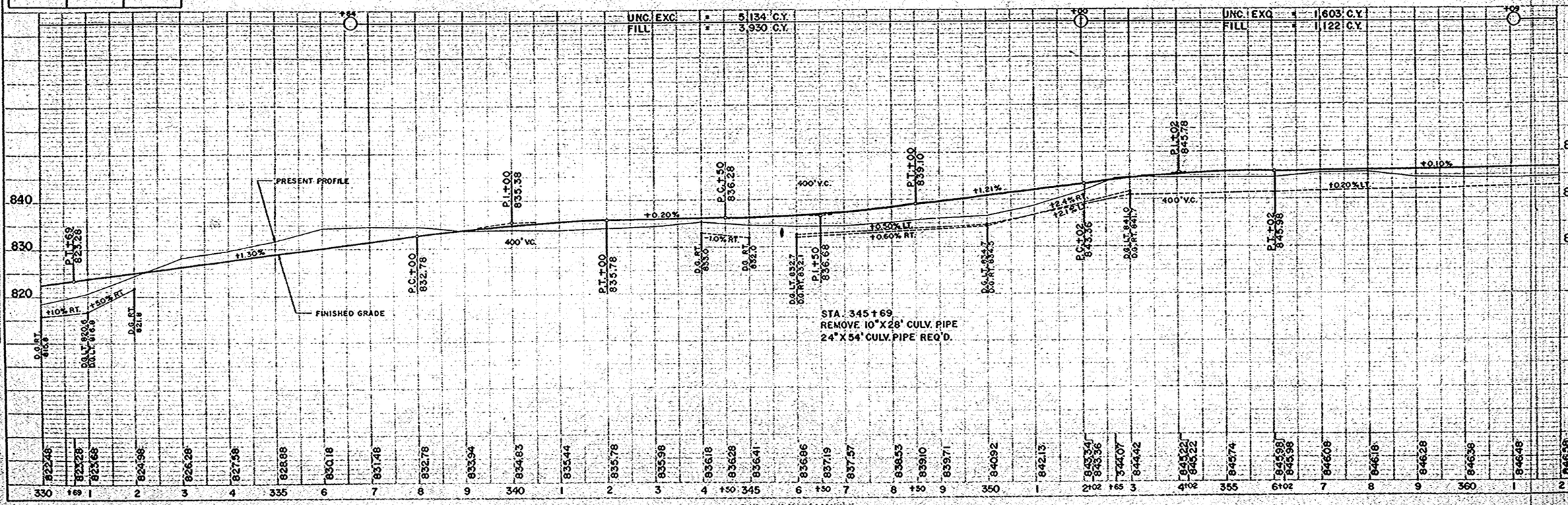
CURVE NOTES

P.I. = 347+53.5
L = 175°-14'
Δ = 4°-46'
D = 0°-30'
T. = 477.0'
L.C. = 953.3'
S.E. = 0.015 FT/FT.

NET LENGTH OF CENTERLINE		
STATION TO STATION		LIN. FT.
330+00	360+00	3,000

UNC. EXC. = 5,134 C.Y.
FILL = 3,930 C.Y.

UNC. EXC. = 1,603 C.Y.
FILL = 1,122 C.Y.



B.P.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 0737 (1)	7	33

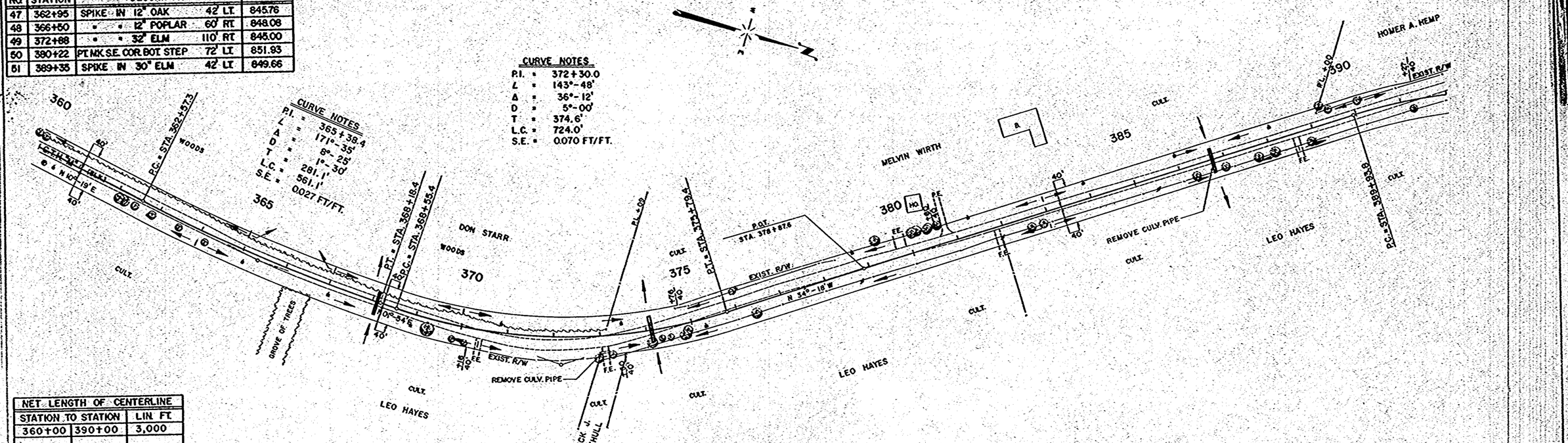
BENCH MARKS

NO.	STATION	DESCRIPTION		ELEV.
47	362+95	SPIKE IN 12" OAK	42' LT.	845.76
48	366+50	" " 12" POPLAR	60' RT.	848.08
49	372+88	" " 32" ELM	110' RT.	845.00
50	380+22	PT. NK. S.E. COR. BOT. STEP	72' LT.	851.93
51	389+35	SPIKE IN 30" ELM	42' LT.	849.66

NET LENGTH OF CENTERLINE		
STATION TO STATION		LIN. FT.
360+00	390+00	3,000

CURVE NOTES
P.I. = 365+38.4
Δ = 171°-35'
D = 8°-25'
T = 1°-30'
L.C. = 281.1'
S.E. = 561.1'
0.027 FT/FT.

CURVE NOTES
P.I. = 372+30.0
L = 143°-48'
Δ = 36°-12'
D = 5°-00'
T = 374.6'
L.C. = 724.0'
S.E. = 0.070 FT/FT.



+09 UNC. EXC. = 659 C.Y.
FILL = 495 C.Y.

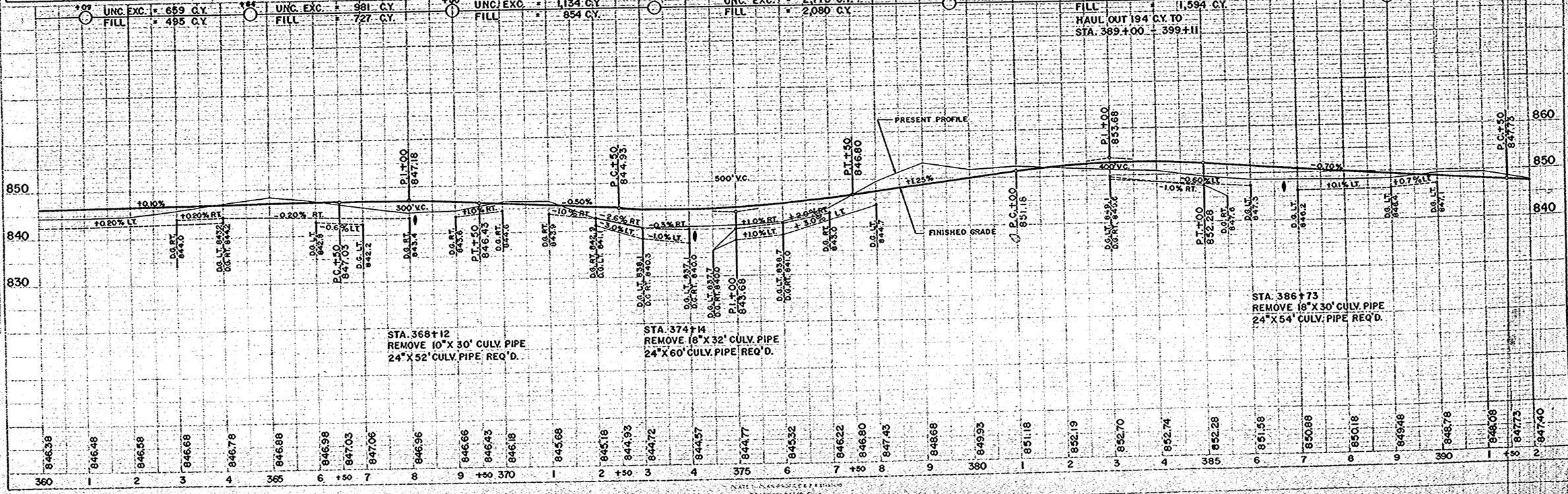
+66 UNC. EXC. = 981 C.Y.
FILL = 727 C.Y.

+00 UNC. EXC. = 1,134 C.Y.
FILL = 854 C.Y.

+33 UNC. EXC. = 2,773 C.Y.
FILL = 2,080 C.Y.

+83 UNC. EXC. = 2,306 C.Y.
FILL = 1,594 C.Y.
HAUL OUT 194 C.Y. TO STA. 389+00 - 399+11

+00

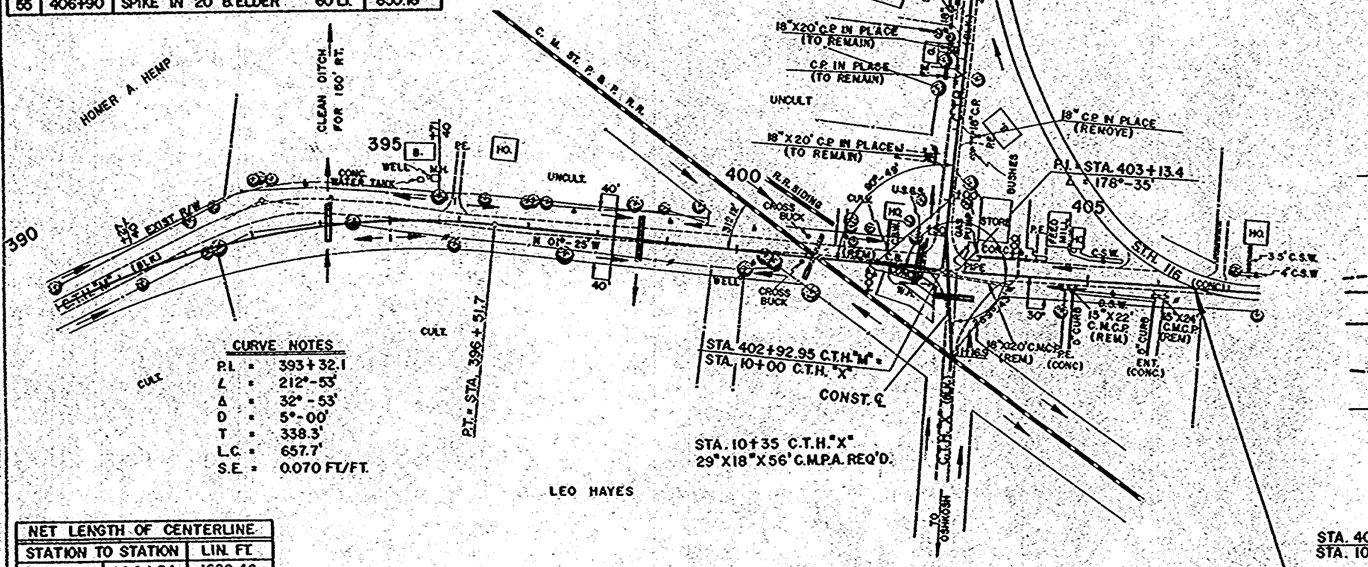


N.P.A. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	S 0737 (1)	8	33

BENCH MARKS

NO.	STATION	DESCRIPTION		ELEV.
52	393+45	SPIKE IN 14" HICKORY	75' LT	849.58
53	398+95	" " 14" ASH	63' LT	843.65
54	403+20	PT. MK. S.E. COR. CONC. SLAB	24' LT	848.28
55	406+90	SPIKE IN 20" B. ELDER	60' LT	850.18

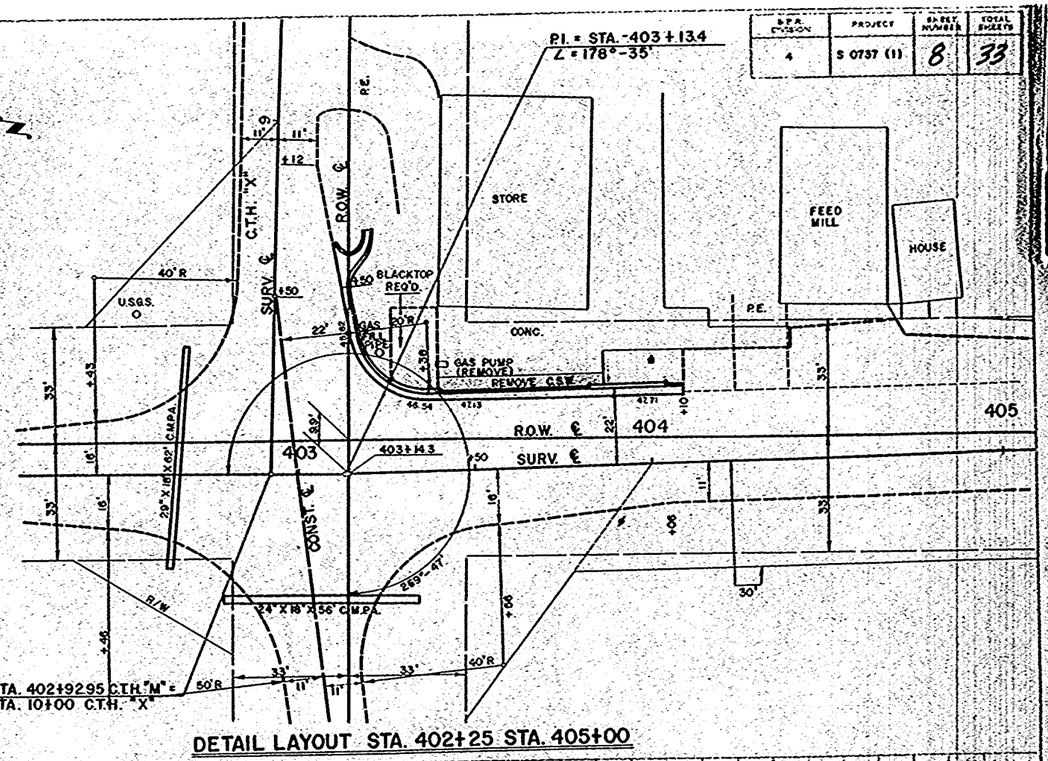
C.T.H. "M" - C.T.H. "X" INTERSECTION
INTERSECTION DESIGN "E" REQ'D.
(SEE STD. DRWG. 9-1.1.3)



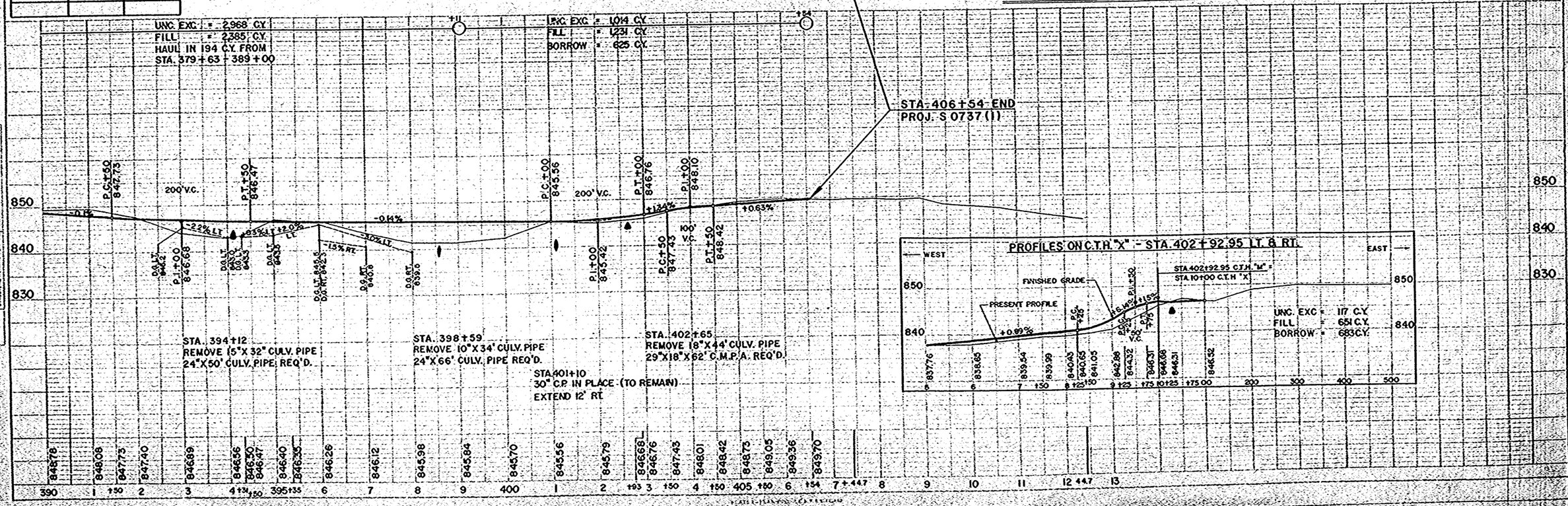
CURVE NOTES

P.I.	= 393+32.1
L	= 212°-53'
Δ	= 32°-53'
D	= 5°-00'
T	= 338.3'
L.C.	= 657.7'
S.E.	= 0.070 FT/FT.

NET LENGTH OF CENTERLINE		
STATION TO STATION		LIN. FT.
390+00	406+54	1629.46



DETAIL LAYOUT STA. 402+25 STA. 405+00

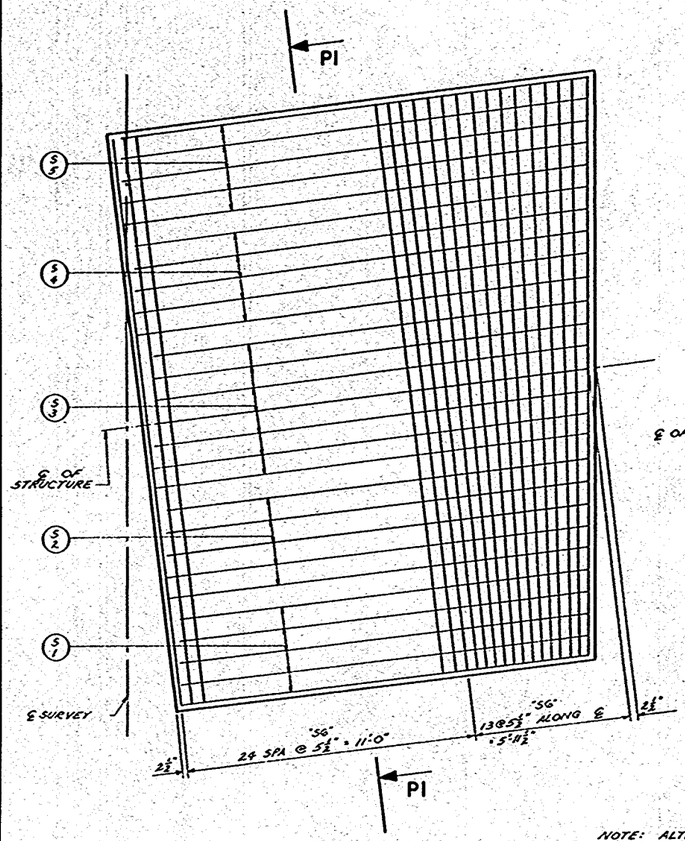


PROFILES ON C.T.H. "X" - STA. 402+92.95 LT. & RT.

BENCH MARK

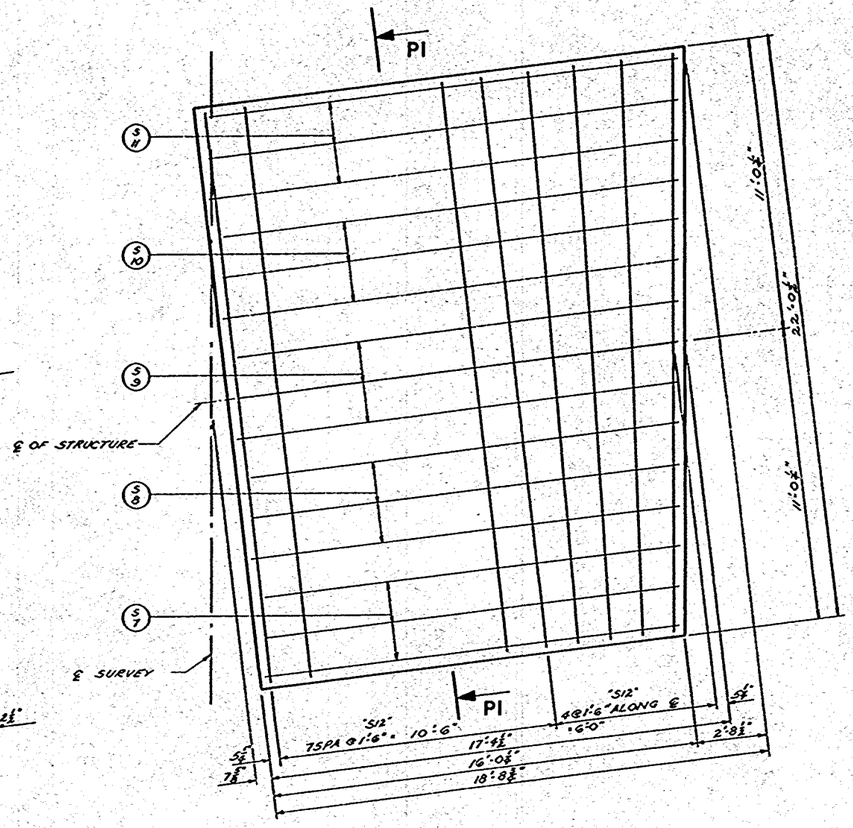
NO	STATION	DESCRIPTION	ELEV.
31	266+40	SPIKE IN TWIN WILLOW 75RT	818.30

COUNTY & HIGHWAY	ROUTE & SECTION	CLASS & AGREEMENT STATE	CLASS & AGREEMENT FEDERAL	B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
70.6	737.0		11.1	4	S6132(1)	18	33



FLOOR PLAN

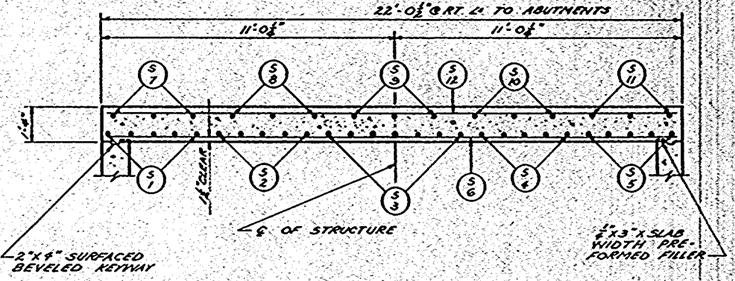
SHOWING REINFORCEMENT IN BOTTOM



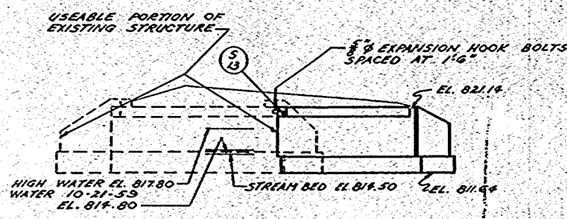
FLOOR PLAN

SHOWING REINFORCEMENT IN TOP

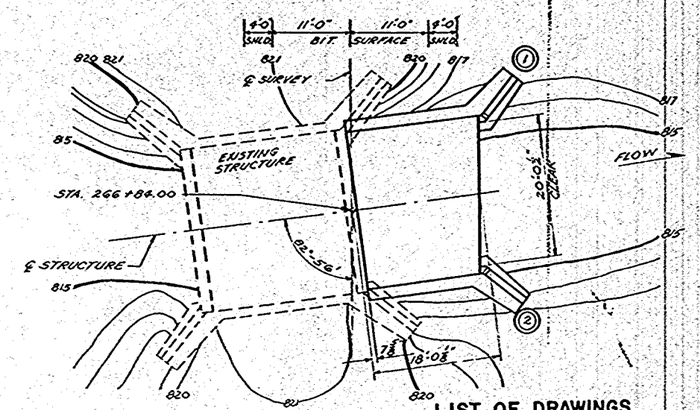
NOTE: ALTERNATE TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'10" CENTERS. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'10" CENTERS



SECTION PI



ELEVATION



LAYOUT

BILL OF BARS 3,040#

POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION			DET.
						BOTTOM	FLOOR	TRANSVERSE	
ONE POUR	S1	5	5	15'6	10	-	-	-	
	S2	5	5	16'3	10	-	-	-	
	S3	7	5	16'9	10	-	-	-	
	S4	5	5	17'6	10	-	-	-	
	S5	5	5	18'0	10	-	-	-	
	S6	39	8	21'9	5½	-	-	LONGITUDINAL	
	S7	3	4	15'6	1'6	TOP	-	TRANSVERSE	
	S8	3	4	16'3	1'6	-	-	-	
	S9	3	4	16'3	1'6	-	-	-	
	S10	3	4	17'3	1'6	-	-	-	
	S11	3	4	18'0	1'6	-	-	-	
	S12	12	4	21'9	1'6	-	-	LONG.	
	S13	1	5	21'9	SHOWN	AT THE EXPANSION HOOK BOLTS			

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
ALL CONCRETE MASONRY SHALL BE GRADE AA.
BEVEL ALL EXPOSED EDGES OF CONCRETE 1"
UNLESS OTHERWISE SPECIFIED.
THE USE OF STRUCTURAL GRADE BAR STEEL REINFORCEMENT IS PROHIBITED.
BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
THE PILING FOR THE ABUTMENTS SHALL BE TREATED TIMBER PILING ESTIMATED 20'0" LONG AND DRIVEN TO A BEARING VALUE OF 20 TONS PER PILE.
ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH GRANULAR BACKFILL AT THE BACKFACE TO THE GROUND LINE WHICH EXISTED BEFORE EXCAVATION BEGAN. PAYMENT WILL BE MADE ONLY FOR MATERIAL ACTUALLY PLACED WITHIN THE LIMITS SPECIFIED IN "EXCAVATION FOR STRUCTURES". ABUTMENT BACKFILL NOT TO BE PLACED UNTIL SUPERSTRUCTURE IS COMPLETED.
PRESERVE ALL EXISTING BAR STEEL AND INCORPORATE IT IN THE NEW STRUCTURE.

** DRIVE ℄ LOCATION OF N. ABUTMENT

ESTIMATED QUANTITIES

BID - ITEMS	UNIT	SUPER	N. ABUT.	S. ABUT.	TOTAL
EXCAVATION FOR STRUCTURES	C.Y.	——	35	25	60
GRANULAR BACKFILL	C.Y.	——	10	10	20
CONCRETE MASONRY	C.Y.	18.9	19.3	12.8	46.0
BAR STEEL REINFORCEMENT	LB.	3,040	370	340	3,750
UNTREATED TIMBER TEST PILING (20'-0") **	L.S.	——	——	——	1
TREATED TIMBER PILING DEL.	L.F.	——	220	200	420
TREATED TIMBER PILING. DR.	L.F.	——	220	200	420
PILE SHOES	EA.	——	11	10	21
NON BID - ITEMS					
FILLER	SIZE				2"x8"
MEMBRANE WATERPROOFING	S.F.	——	10.5	10.5	21
⅝" ø EXPANSION HOOK BOLTS	REQD	15	——	——	15

LIST OF DRAWINGS

1. SUPERSTRUCTURE & LAYOUT — X21413
2. ABUTMENTS — X21414

REVISED

STATE HIGHWAY COMMISSION OF WISCONSIN

SUPERSTRUCTURE & LAYOUT

CO. WINNEBAGO CITY HEPEUSKUN STA. 266+84.00

SECTION 13 TOWN 17N RANGE 16E

DTS ON SPEC. AASHO '57 LOADING H-15 COST 1957 SEC

DATE 3-14-60 DESIGN B.A. DRAWN R CKD. ML

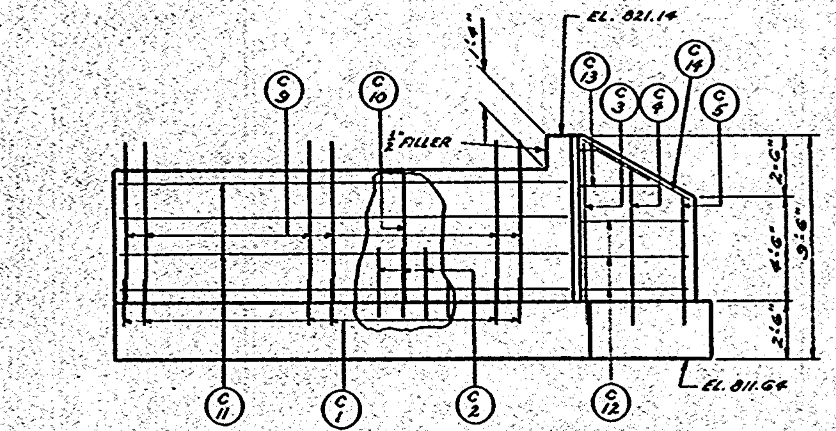
SUBMITTED J.B. Schultz ENGINEER OF BRIDGES

APPROVED E.L. Bottiger STATE HIGHWAY ENGINEER

STRUCTURE B - 70 - 38 SHEET 1 OF 2

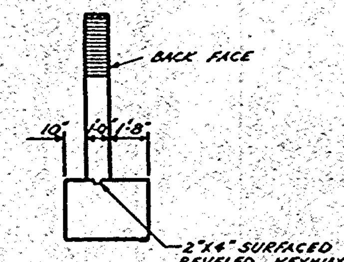
X 21413

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	5073(1)	19	33

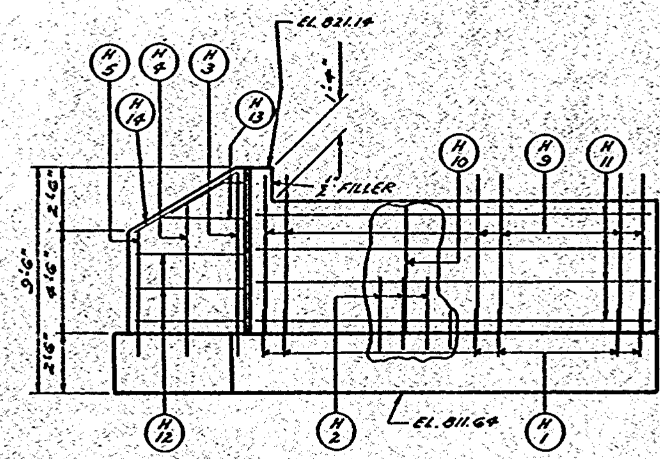


ELEVATION

N. ABUT.

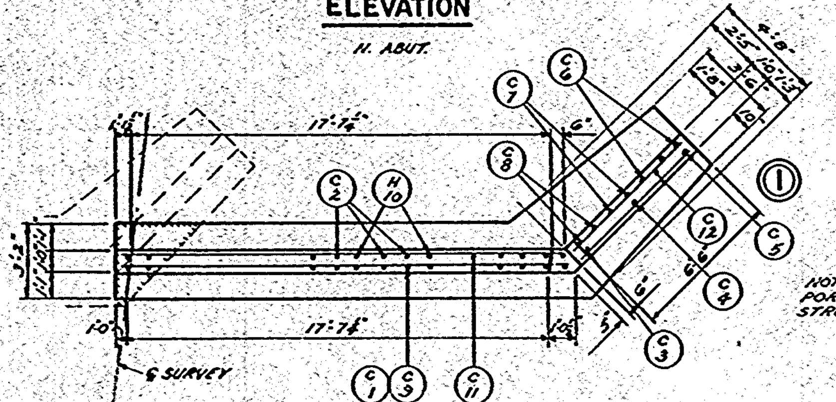


END VIEW

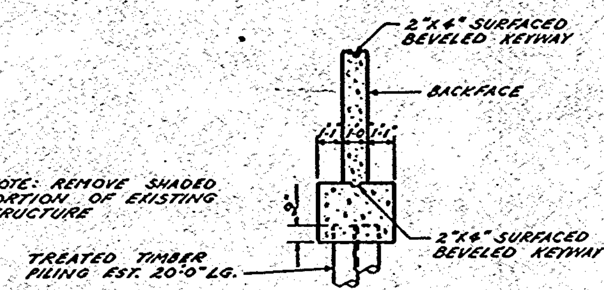


ELEVATION

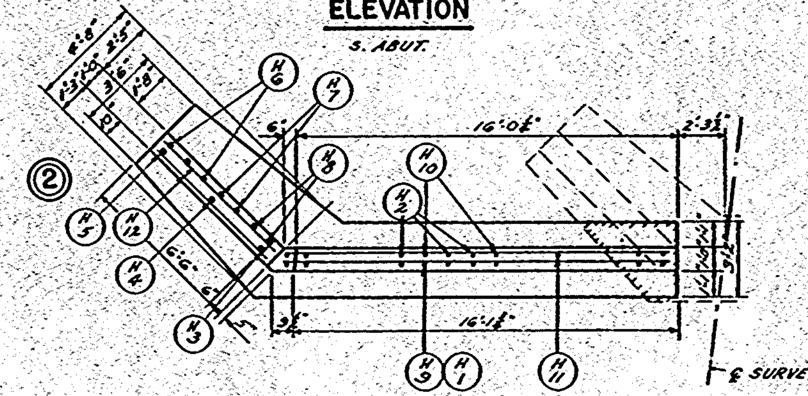
S. ABUT.



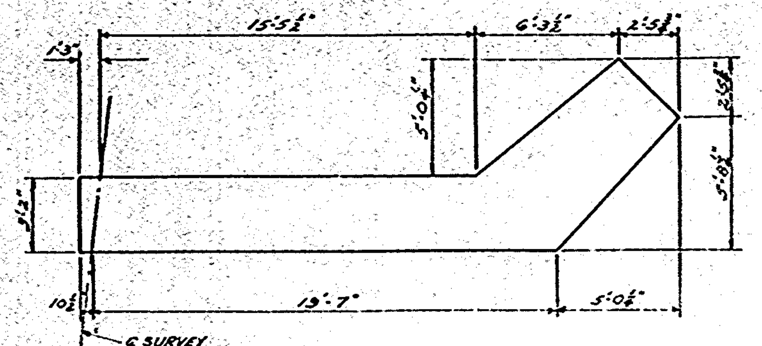
PLAN



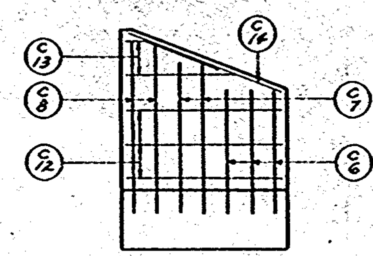
SECTION THRU BODY WALL



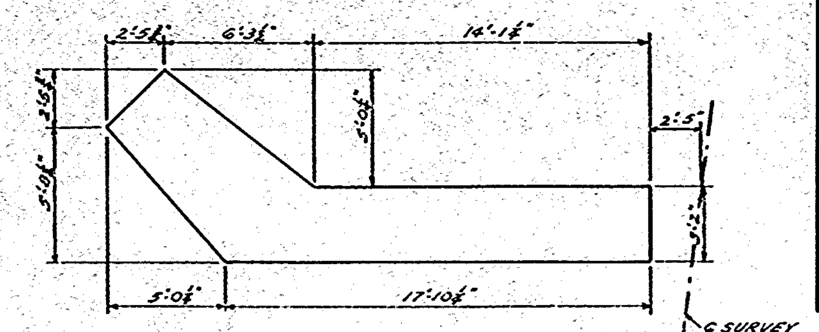
PLAN



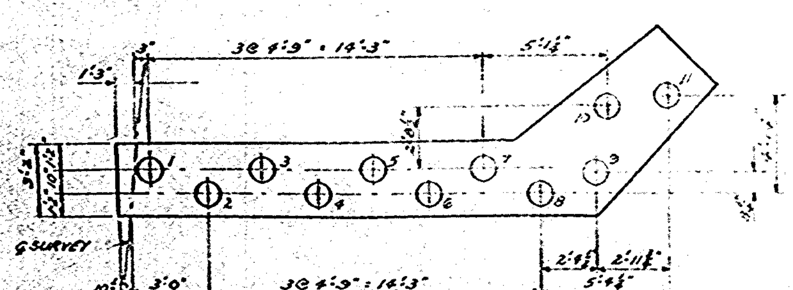
FOOTING PLAN



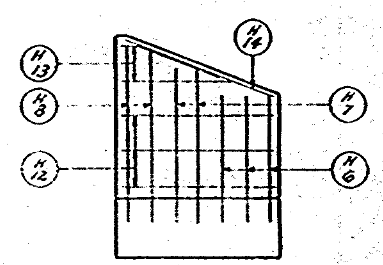
WING 1



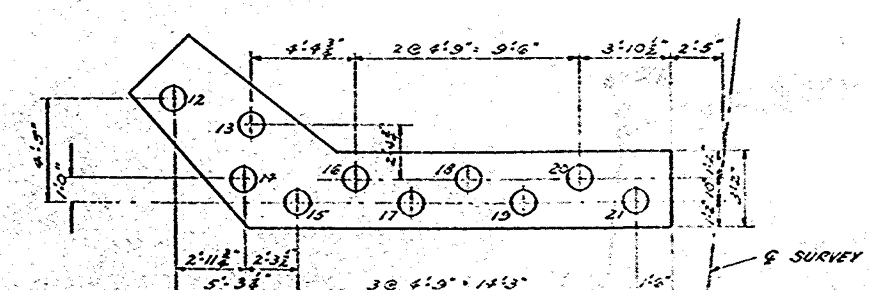
FOOTING PLAN



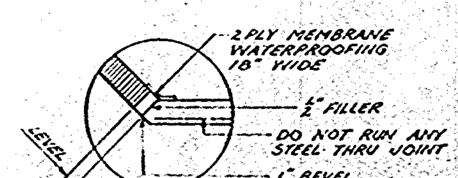
PILE PLAN



WING 2



PILE PLAN



TYPICAL CORNER DETAIL

BILL OF BARS

(NORTH ABUTMENT) 370#

POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
FOOTING	C1	19	4	2-0	1-0	FOOTING & BODY WALL F.F.	
	C2	19	4	3-0	1-0	" " " " B.F.	
	C3	1	4	7-9	SHOWN	WING FRONT FACE	
	C4	1	4	6-9	"	" " "	
	C5	1	4	5-6	"	" " "	
	C6	3	4	5-6	1-0	" BACK "	
	C7	2	4	6-9	1-0	" " "	
	C8	2	4	7-6	1-0	" " "	
BODY & WING WALLS	C9	19	4	6-9	1-0	BODY WALL FRONT FACE	
	C10	7	4	5-6	3-0	" " BACK "	
	C11	8	4	19-0	1-6	" " B.F. & F.F.	
	C12	6	4	6-6	1-6	WING "	
	C13	4	4	5-0	1-6	" "	
	C14	2	4	7-3	SHOWN	" TOP	

(SOUTH ABUTMENT) 340#

POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
FOOTING	H1	17	4	2-0	1-0	FOOTING & BODY WALL F.F.	
	H2	17	4	3-0	1-0	" " " B.F.	
	H3	1	4	7-9	SHOWN	WING FRONT FACE	
	H4	1	4	6-9	"	" " "	
	H5	1	4	5-6	"	" " "	
	H6	3	4	5-6	1-0	" BACK "	
	H7	2	4	6-9	1-0	" "	
	H8	2	4	7-6	1-0	" "	
BODY & WING WALLS	H9	17	4	6-9	1-0	BODY WALL FRONT FACE	
	H10	7	4	5-6	3-0	" " BACK "	
	H11	8	4	16-3	1-6	" " B.F. & F.F.	
	H12	6	4	6-6	1-6	WING "	
	H13	4	4	5-0	1-6	" "	
	H14	2	4	7-3	SHOWN	" TOP	

ESTIMATED CONC. MASONRY

UNIT	NORTH ABUT.	SOUTH ABUT.
FOOTINGS	8.5	7.7
BODY & WINGS	5.8	5.1
TOTAL	14.3	12.8

STATE HIGHWAY COMMISSION OF WISCONSIN

ABUTMENTS

DESIGN SPEC. A.A.S.H.O. '57 | LOADING H-15 | CONST. SPEC. 1957

DATE 3-14-60 | DESIGN B.A. | DRAWN LP | CKD. WH

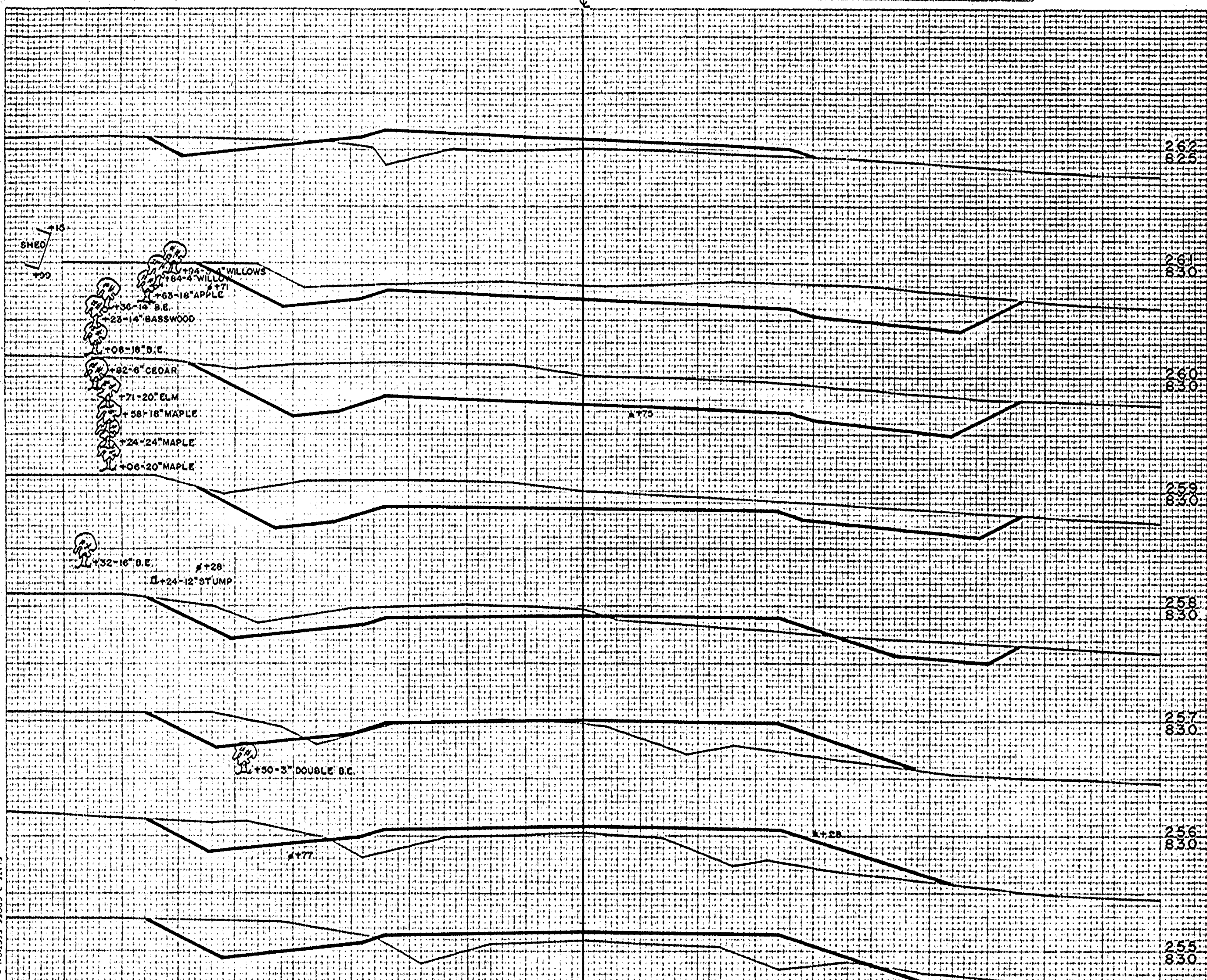
STRUCTURE B-70-38 | SHEET 2 OF 2

X21414

B.P.R. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4	S 0737 (1)	20	33

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED	R. O. N.	10-59
NO. 238	PLOTTED	[illegible]	11-59
	TEMPLATE	[illegible]	11-60
	AREAS	[illegible]	
	AREAS CHECKED	W. J. K.	

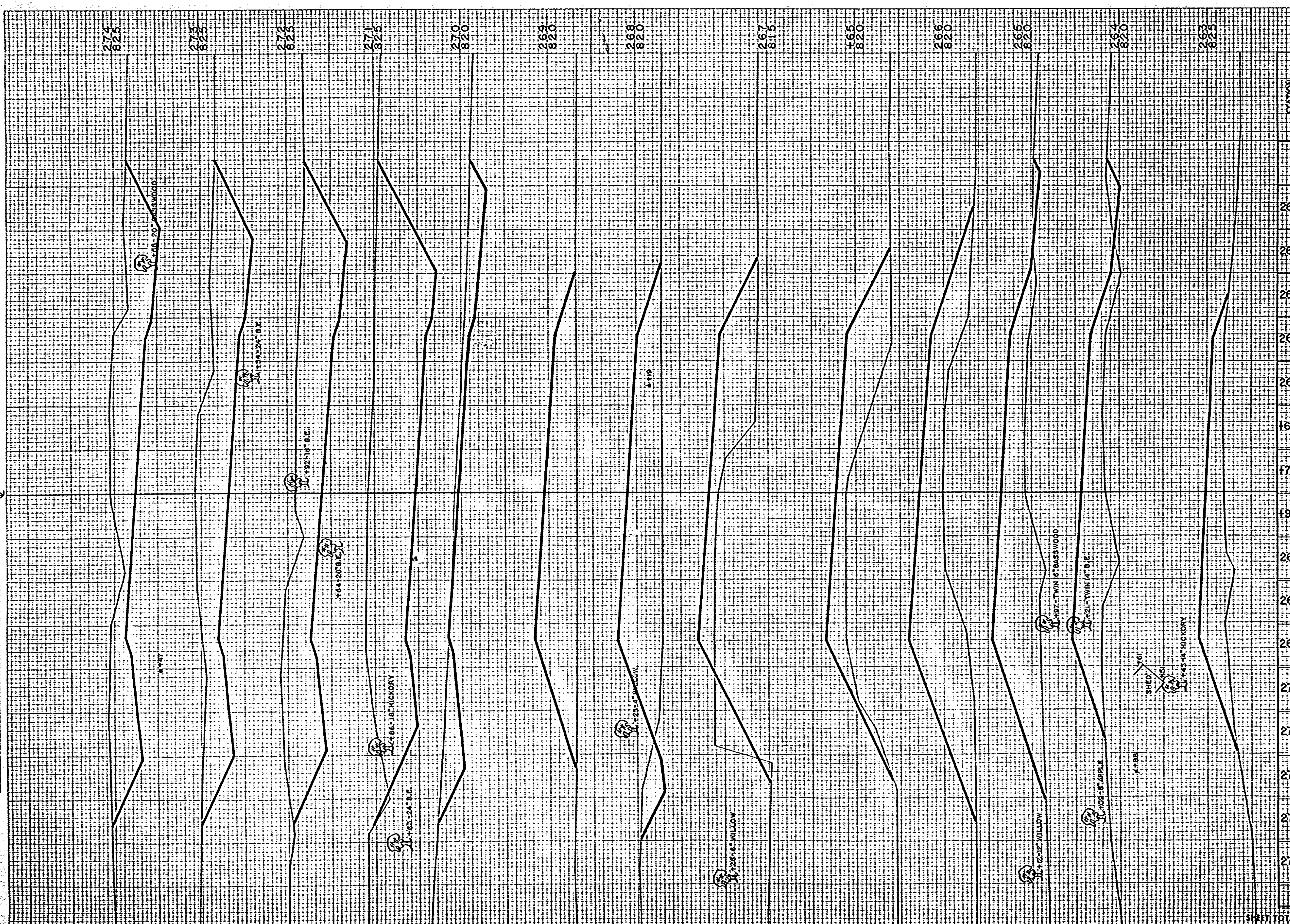
FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		



SCALE 1" = 5'

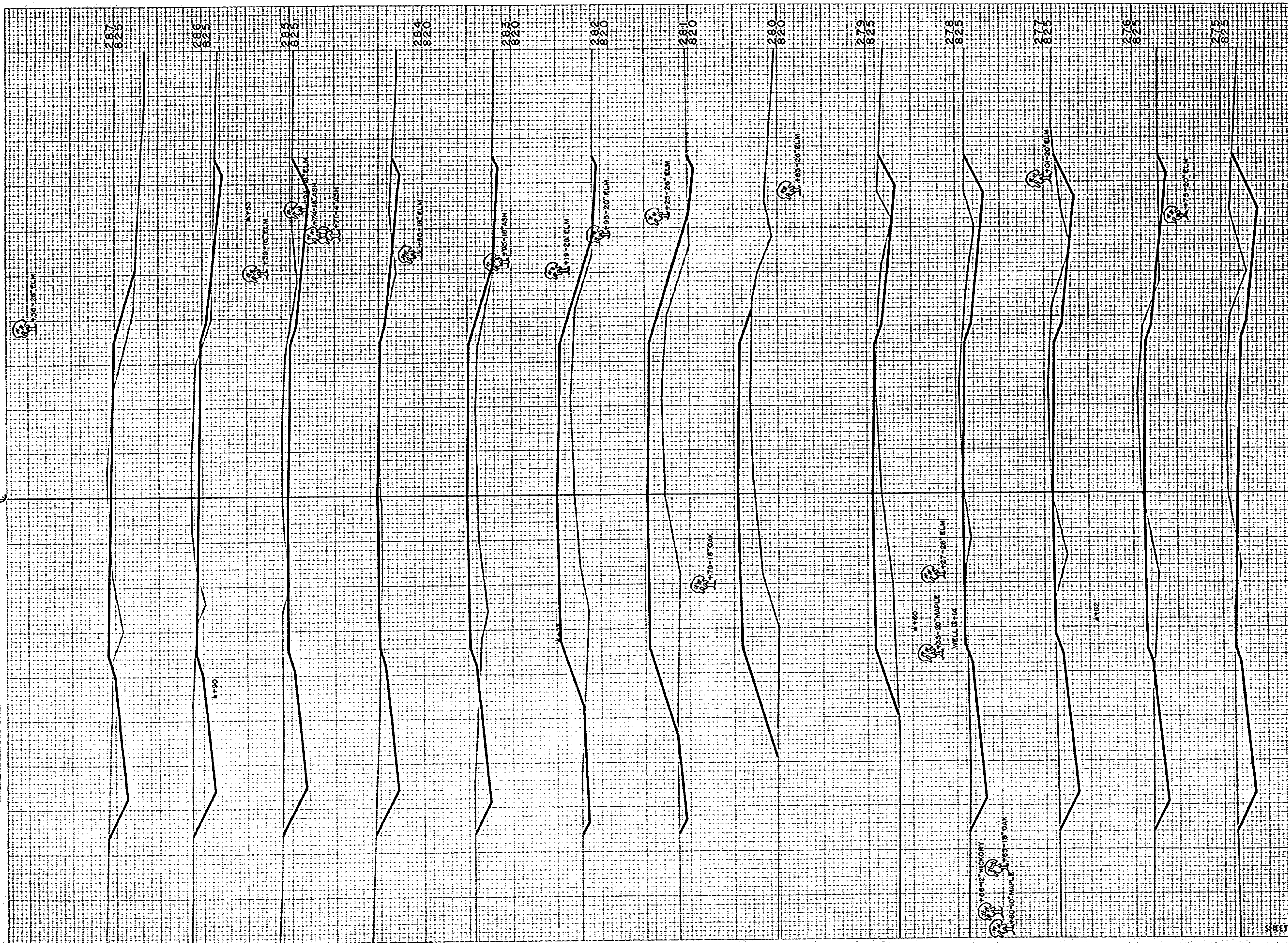
STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	FILL
253			
		157	46
254			
		250	144
255			
		137	231
256			
		91	224
257			
		169	115
258			
		363	24
259			
		613	0
260			
		604	0
261			
		254	85
262			
SHEET TOTAL		2638	869

B.P.R. District Office	Project	Sheet Number	Total Sheets
WIS. 4	S0737(1)	21	33



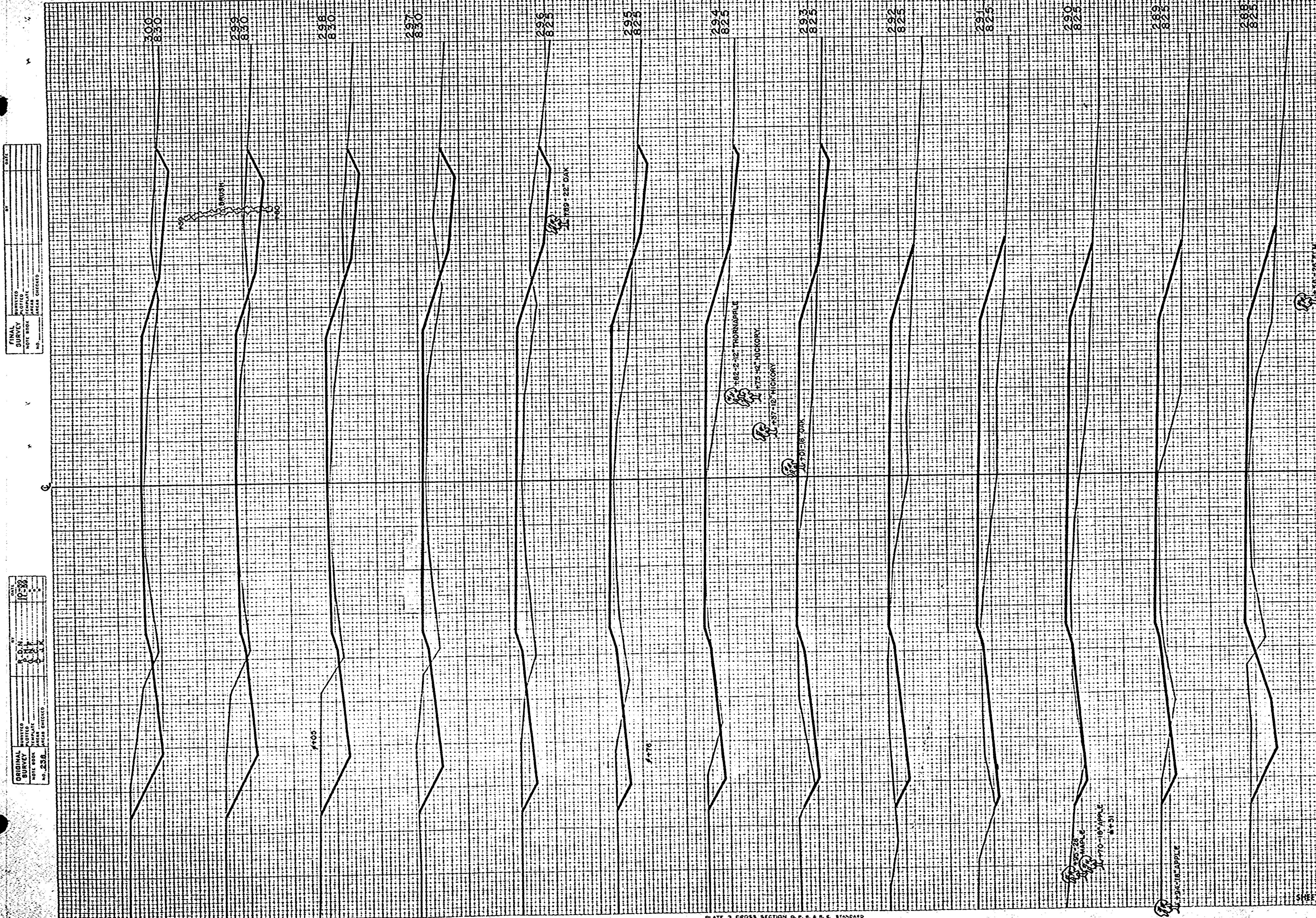
Station	Distance	Yardage – Excavation – Uncl.	Fill
262			
		22	272
263			
		15	435
264			
		22	589
265			
		7	748
266			
		0	428
+65			
		0	41
+73			
		STRUCTURE	
+96			
		2	18
267			
		69	559
268			
		30	663
269			
		131	326
270			
		783	2
271			
		1,148	0
272			
		935	0
273			
		826	0
274			
SHEET TOTAL		3990	4081

B.P.R. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4	S 07370)	22	33



STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	FILL
274			
		561	2
275			
		243	39
276			
		176	54
277			
		198	30
278			
		117	102
279			
		26	276
280			
		15	400
281			
		32	378
282			
		54	256
283			
		102	113
284			
		213	22
285			
		252	11
286			
		154	52
287			
SHEET TOTAL		2,143	1,735

B.P.R. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4	S07370)	23	33



STATION	DISTANCE	YARDAGE EXCAVATION UNCL.			FILL
287					
		111			133
288					
		74			209
289					
		24			228
290					
		39			243
291					
		76			246
292					
		91			183
293					
		67			132
294					
		65			152
295					
		106			187
296					
		163			(6)
297					
		196			118
298					
		213			87
299					
		211			83
300					
SHEET TOTAL		1436			2162

PLATE 3 CROSS SECTION O. P. R. & R. C. STANDARD
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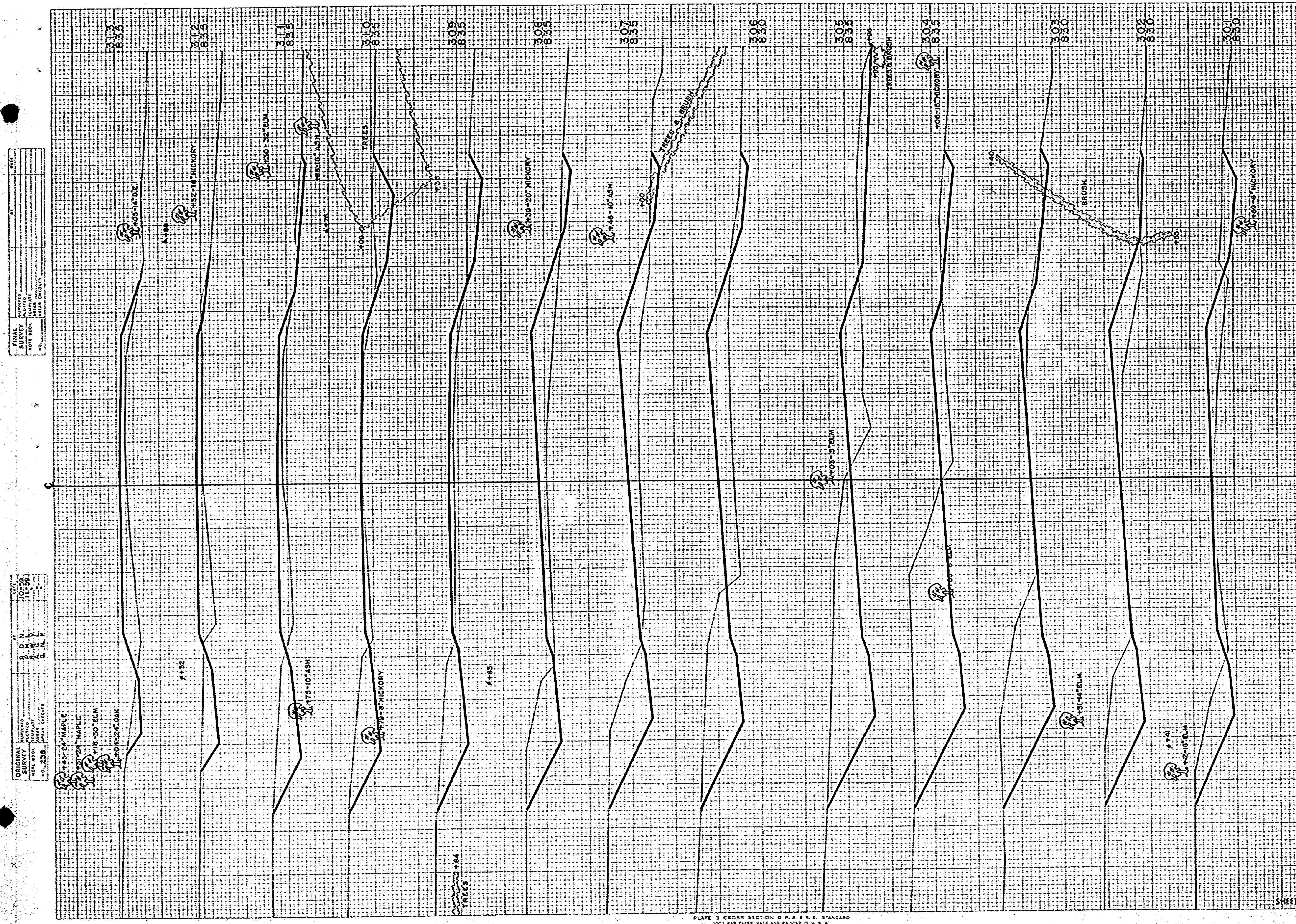
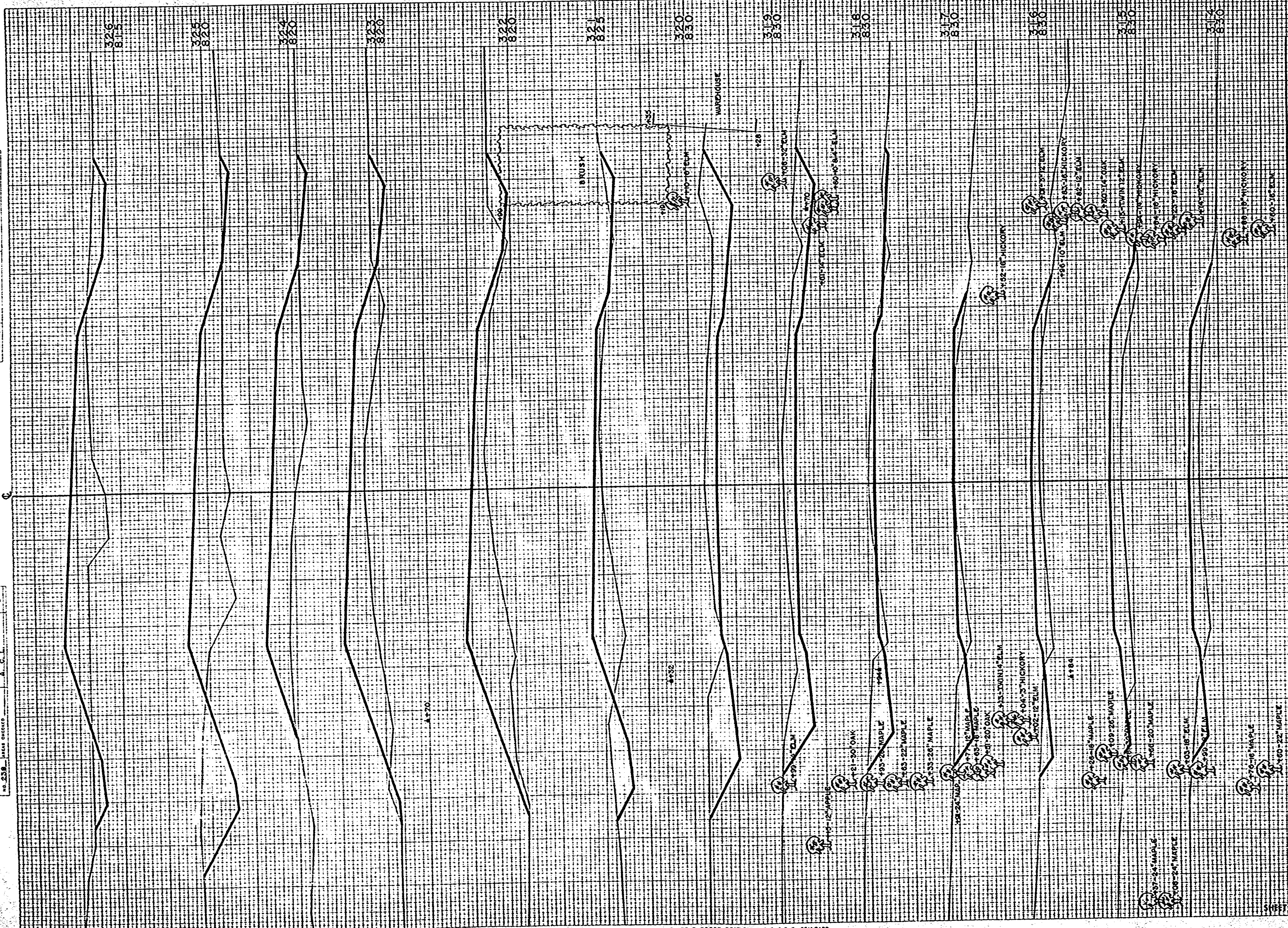
EUGENE DIETZGEN CO.

B.P.R. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4	S 0737(1)	24	33



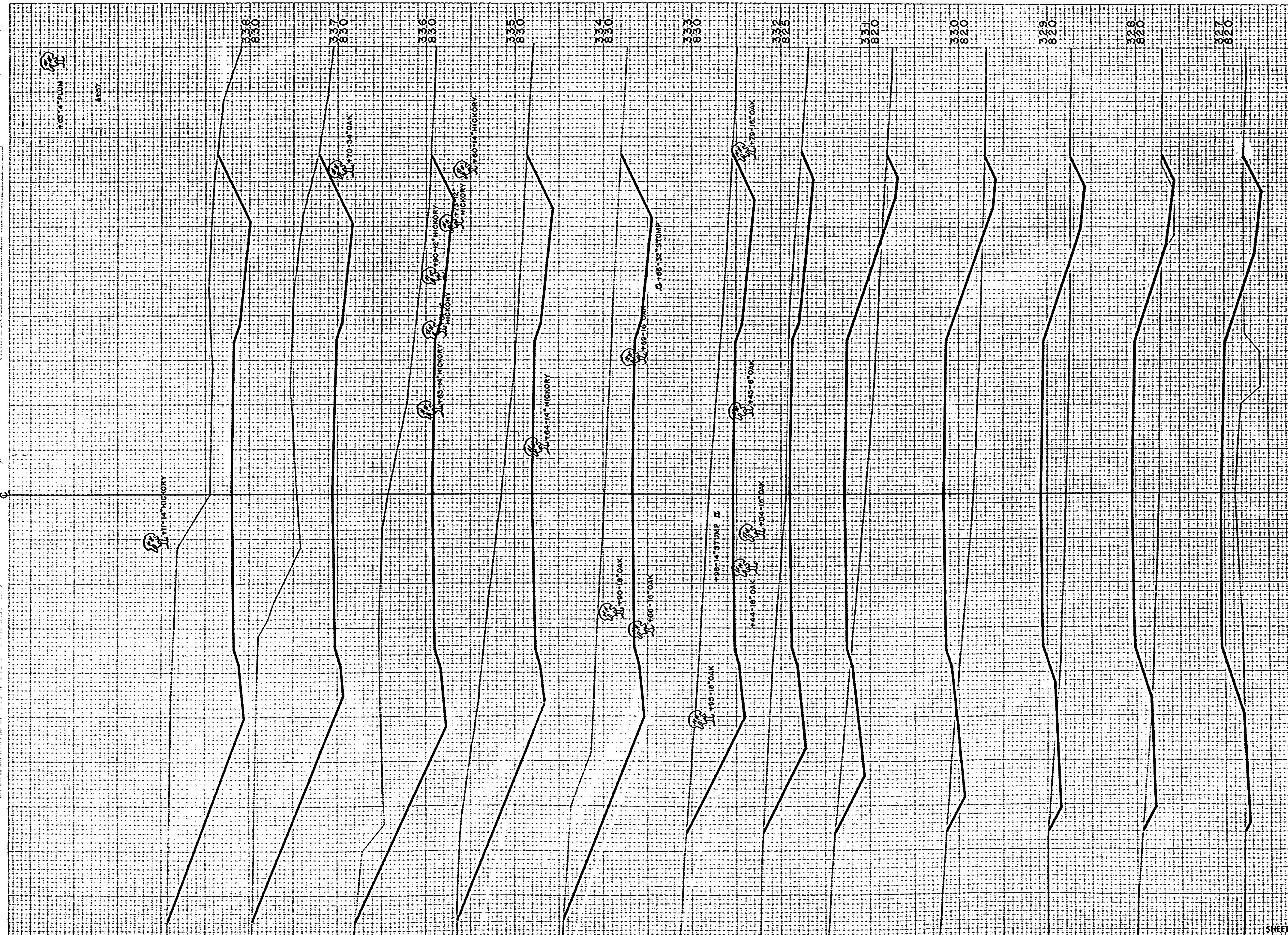
STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	[illegible]
300			
		180	113
301			
		181	130
302			
		283	78
303			
		459	61
304			
		481	130
305			
		350	200
306			
		243	244
307			
		180	231
308			
		181	152
309			
		215	68
310			
		187	82
311			
		132	130
312			
		93	167
313			
SHEET TOTAL		3165	1786

B.P.R. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4	S 0737(1)	25	33



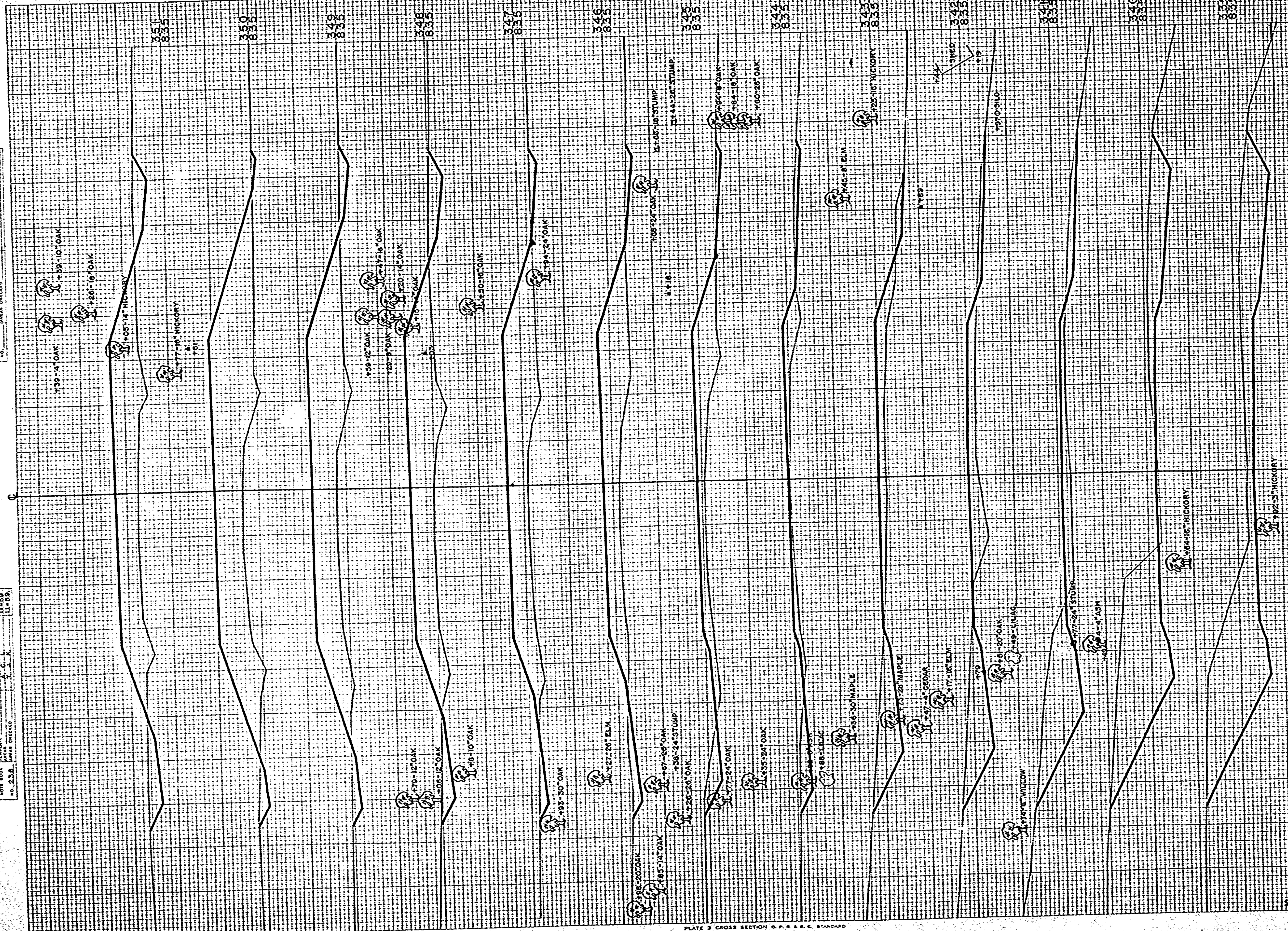
STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	FILL
313			
		74	96
314			
		54	226
315			
		44	204
316			
		78	111
317			
		144	43
318			
		311	13
319			
		437	0
320			
		269	117
321			
		67	359
322			
		50	476
323			
		39	457
324			
		63	491
325			
		54	463
326			
SHEET TOTAL		1684	3156

B.P.R. District Office	Project	Sheet Number	Total Sheets
WIS. 4	S 0737(1)	26	33



Station	Distance	Yardage Excavation Uncl.	Fill
326			
		41	372
327			
		61	396
328			
		59	430
329			
		76	456
330			
		104	419
331			
		280	172
332			
		615	0
333			
		941	0
334			
		1150	0
335			
		1252	0
336			
		1480	0
337			
		1530	0
338			
SHEET TOTAL		7591	2245

B.P.R. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4	S0737(1)	27	33



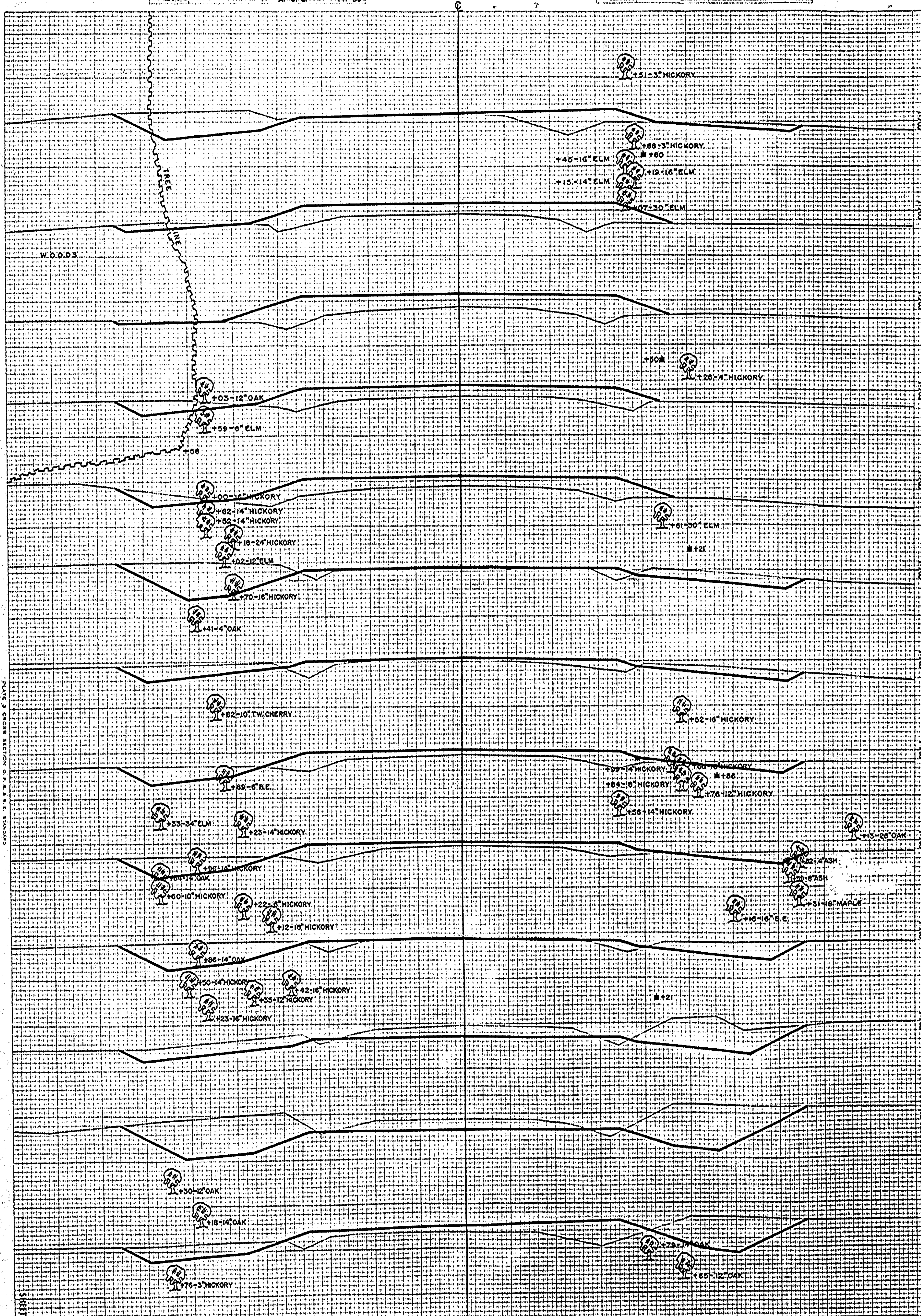
STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	FILL
338			
		1043	0
339			
		639	6
340			
		396	50
341			
		182	106
342			
		(4)	120
343			
		113	106
344			
		76	159
345			
		48	304
346			
		43	430
341			
		67	485
348			
		70	546
349			
		41	681
350			
		54	615
351			
SHEET TOTAL		2913	3608

PLATE 3 CROSS SECTION O.P.R. & R.C. STANDARD

B.P.R. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4	S 0737(1)	28	33

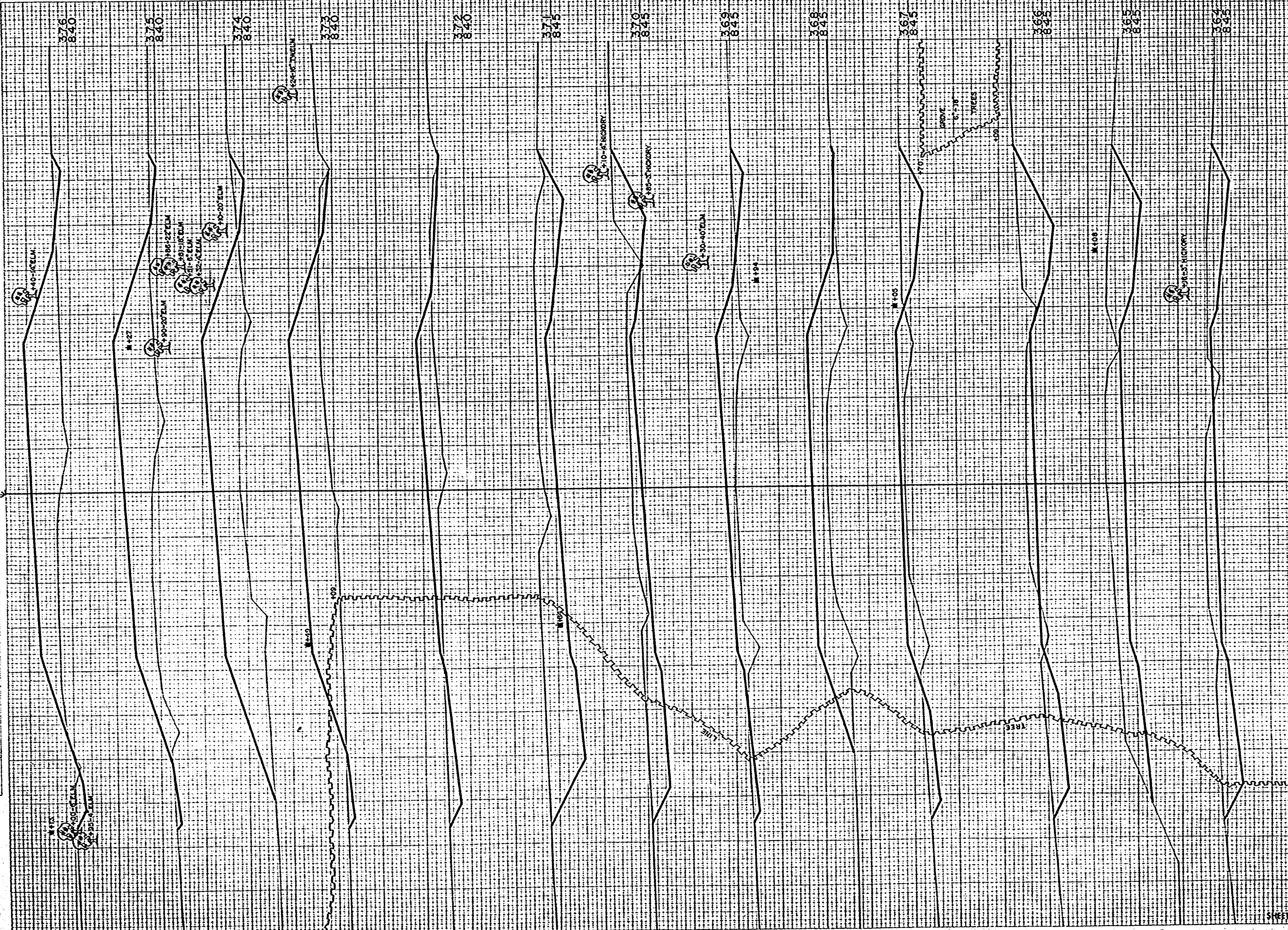
ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED	R. D. N.	10-59
NO. 238	PLOTTED		11-59
	TEMPLATE		11-59
	AREAS		11-59
	AREAS CHECKED	A. C. L.	11-59

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		



STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	FILL
351			
		161	322
352			
		259	59
+65			
		167	2
353			
		330	32
354			
		193	93
355			
		115	135
356			
		117	104
357			
		198	44
358			
		162	128
359			
		43	226
360			
		28	272
361			
		15	291
362			
		94	176
363			
SHEET TOTAL		1872	1894

B.P.R. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4	S0737(1)	29	33



STATION	DISTANCE	YARDAGE EXCAVATION UNCL.			FILL
363					
		263			52
364					
		450			4
365					
		454			6
366					
		261			76
367					
		78			296
368					
		26			348
369					
		224			122
370					
		513			0
371					
		344			104
372					
		44			406
373					
		28			665
374					
		24			665
375					
		26			570
376					
SHEET TOTAL		2735			3314

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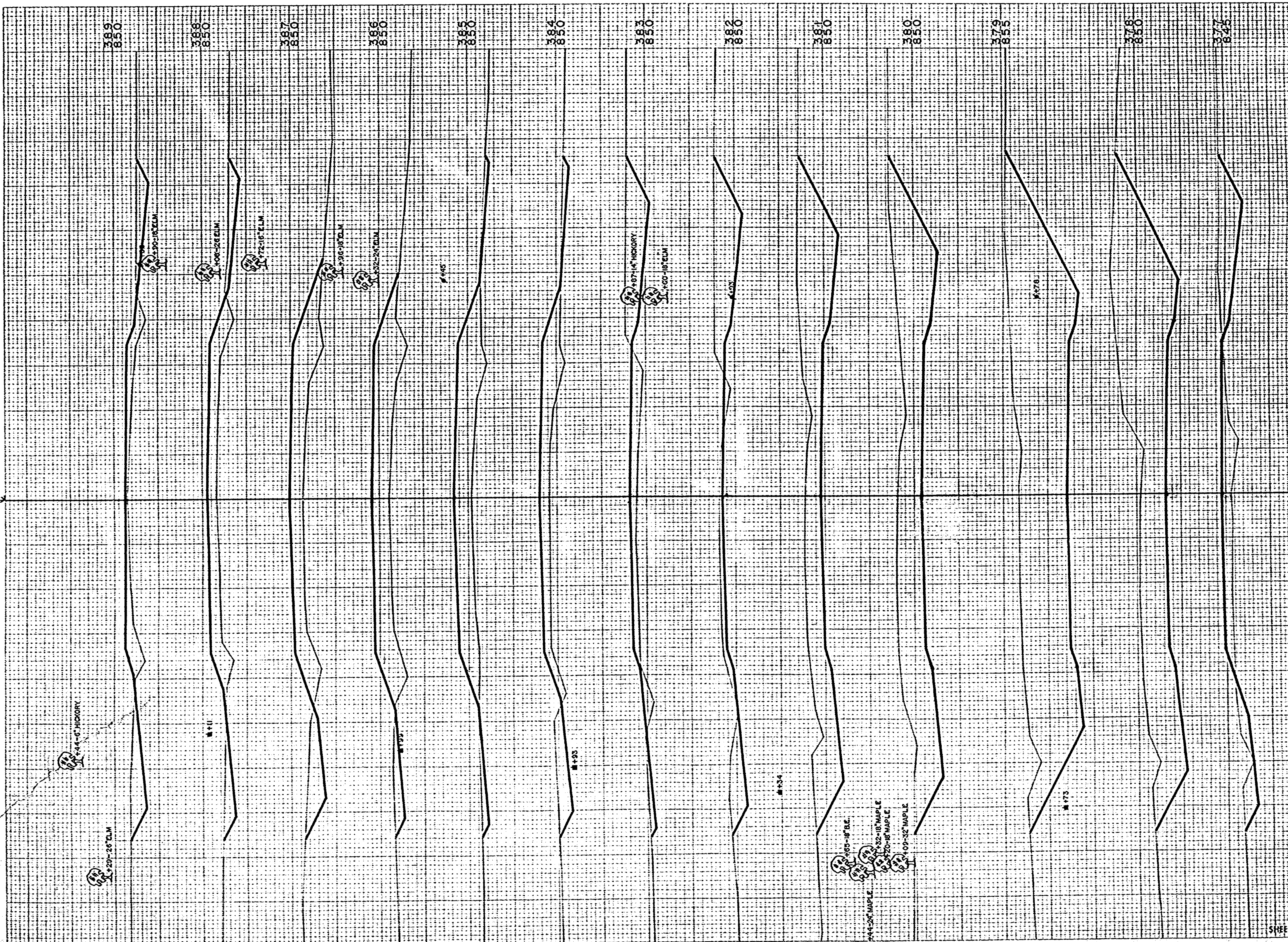
B.P.R. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4	S 0737 (1)	30	33

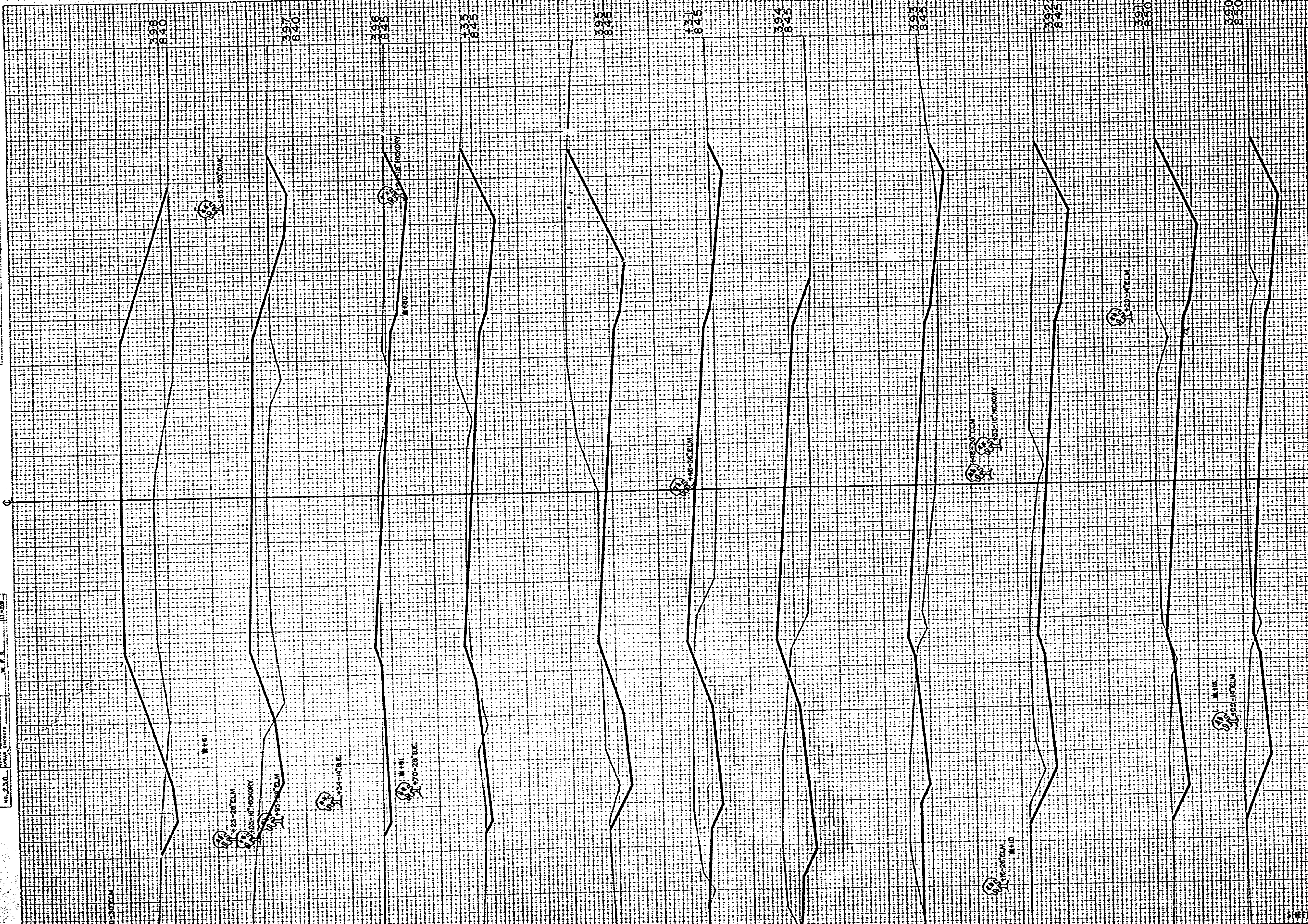


STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	FILL
376			
		109	335
377			
		633	67
378			
		1257	0
379			
		1124	0
380			
		739	0
381			
		480	4
382			
		226	63
383			
		120	161
384			
		59	274
385			
		39	359
386			
		56	337
387			
		74	246
388			
		94	150
389			
SHEET TOTAL		5010	1996

FINAL SURVEY — NOTE BOOK NO.

ORIGINAL SURVEY — NOTE BOOK NO. 238

B.P.R. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4	S0737 (1)	31	33



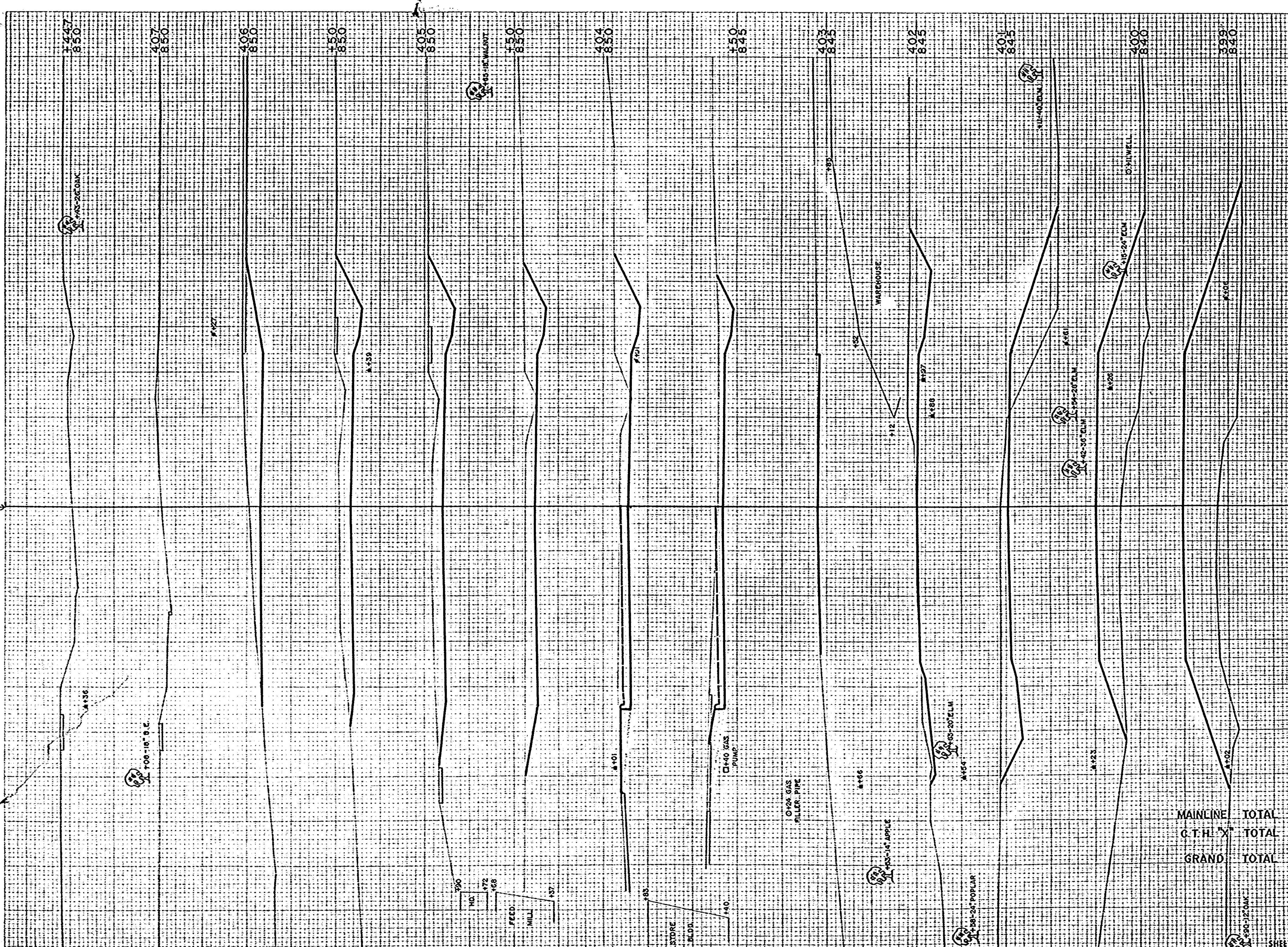
STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	FILL
389			
		281	57
390			
		504	6
391			
		554	2
392			
		333	135
393			
		215	335
394			
		85	102
+31			
		337	89
395			
		191	4
+35			
		185	15
396			
		172	163
397			
		93	580
398			
SHEET TOTAL		2950	1488

FINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / SPECS / AHEAD CHECKED — NOTE BOOK NO.

ORIGINAL SURVEY — NOTE BOOK NO. 238

	BY	DATE
SURVEYED	R.D.N.	
PLOTTED	P.H.L.	
TEMPLATE	G.N.H.	
SPECS	R.J.H.	
AHEAD CHECKED	W.F.S.	

B.P.R. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4	S 0737 (1)	32	33



STATION	DISTANCE	YARDAGE EXCAVATION UNCL.			FILL
398					
		18			889
399					
		0			765
400					
		89			389
401					
		174			85
402					
		89			0
403					
		39			0
+50					
		93			0
404					
		106			0
+50					
		107			0
405					
		128			0
+50					
		126			0
406					
		63			0
407					
+447					

YARDAGE SUMMARY

	UNCL.	FILL
MAINLINE TOTAL	39,159	30,452
C.T.H. "X" TOTAL	117	651
GRAND TOTAL	39,276	31,103
SHEET TOTAL	1032	2128

C.T.H "X"

B.P.R. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 4	S 0737 (1)	33	33

SCALE 1"=5'

STATION	DISTANCE	UNCL	VARIOUS EXCAVATION	FILL
5				
	33			9
6				
	44			24
7				
	9			28
+50				
	7			54
8				
	11			106
+50				
	11			72
9				
	2			74
+50				
0				93
+83				
SHEET TOTAL		17		69
C.T.H "X" TOTAL		117		

+50 .840 | 9 .840 | +50 .840 | 8 .840 | +50 .840 | 7 .840 | 6 .840

ORIGINAL SURVEY
SURVEYED
COMPUTED
TEMPLATE
NOTE BOOK
NO.
AREAS CHECKED

FINAL SURVEY
SURVEYED
COMPUTED
PLOTTED
NOTE BOOK
NO.
AREAS CHECKED

BY
DATE

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