STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5991-2-02	M 4203 (001)	1

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED

MAIN STREET, CITY OF ONALASKA

S.T.H. 157

LA CROSSE COUNTY

STATE PROJECT NUMBER
5991-2-02

Scales
Plan 1 in. = 20 ft.
Profile Hor. 1 in. = 20 ft. Vert. 1 in. = 2 ft.
Cross Sections Hor. 1 in. = 5' Vert. 1 in. = 2'

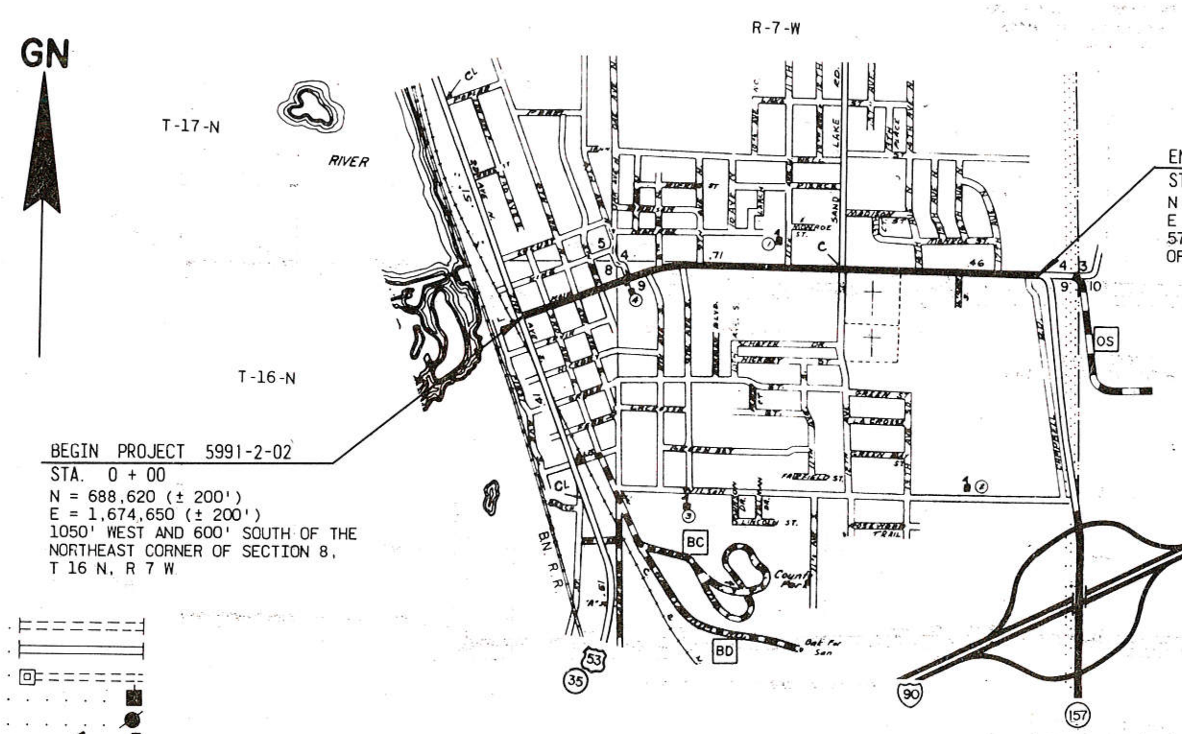
Index of Sheets

Sheet No.	1	Title	
Sheet No.	2-2.3	Typical Cross Sections	
Sheet No.	3	Estimate of Quantities	
Sheet No.	3A-3B	Miscellaneous Quantities	
Sheet No.	-	Right of Way Plat	
Sheet No.	5-5.12	Plan and Profile	STA. 0 + 00 - 59 + 00
Sheet No.	6-6.7	Standard Details	
Sheet No.	-	Structure Plans	
Sheet No.	-	Computer Earthwork Data	
Sheet No.	8-8.20	Cross Sections	

TOTAL SHEETS = 50

Design Designation

A.D.T.	1976	=	8250 - 5650
A.D.T.	1996	=	10,750 - 5020
D.H.V.		=	1290 - 602
D.		=	60
T.		=	4.2 %
V.		=	25 MPH



END PROJECT 5991-2-02
STA. 59 + 00
N = 689,070 (± 200')
E = 1,680,420 (± 200')
570' WEST OF THE SOUTHEAST CORNER OF SECTION 4, T 16 N, R 7 W

BEGIN PROJECT 5991-2-02
STA. 0 + 00
N = 688,620 (± 200')
E = 1,674,650 (± 200')
1050' WEST AND 600' SOUTH OF THE NORTHEAST CORNER OF SECTION 8, T 16 N, R 7 W

Conventional Signs

County Line
Township or Range Line
Section Line
New Right of Way Line
Present Right of Way Line
Wire Fence (type)
Corporate or City Limits
Property Line P.L.
Traveled Way or P.E.
Railroads
Base or Survey Line
Caution Symbol (combustible fluids under pressure) CAUTION

Culverts in Place
Culverts Required
Drop Inlet
Power Pole
Telephone or Telegraph Pole
Right of Way Markers
Reference Stake for Hubs Only +61.7 25.9
Marsh
Hedge
Trees
Ground Elevation Datum Line
Grade Elevation Datum Line

Layout
Scale 0 1000 FT.

Total Net Length of Centerline = 1.117 Mi.

NOTE:
COORDINATES SHOWN ARE WISCONSIN COORDINATE SYSTEM SOUTH ZONE COORDINATES AND ARE SCALED FROM U.S.G.S. TOPOGRAPHIC MAP ONALASKA, WISCONSIN, QUADRANGLE FOR IDENTIFICATION ONLY

APPROVED FOR CITY OF ONALASKA
2-26-76 Raymond C. Hengel
Date City Engineer

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Surveyor CITY OF ONALASKA District Checker R.V.R.
Designer CITY OF ONALASKA C.O. Checker RLC

Correct:
Date 3/2/76 [signature] District Engineer

Recommended for Approval:
Date 4/20/76 [signature] Chief of Facilities Development

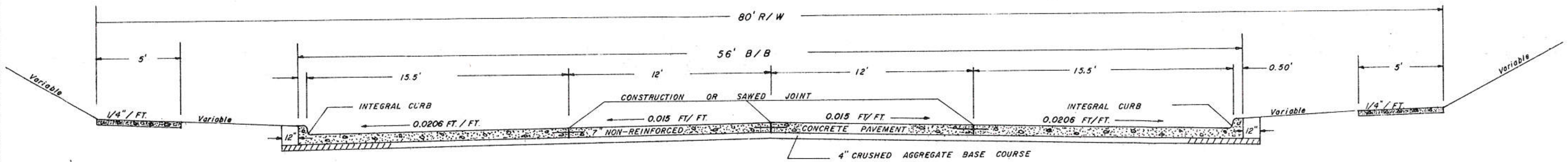
Approved:
Date 4/20/76 [signature] State Highway Engineer

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 5 WISCONSIN DIVISION

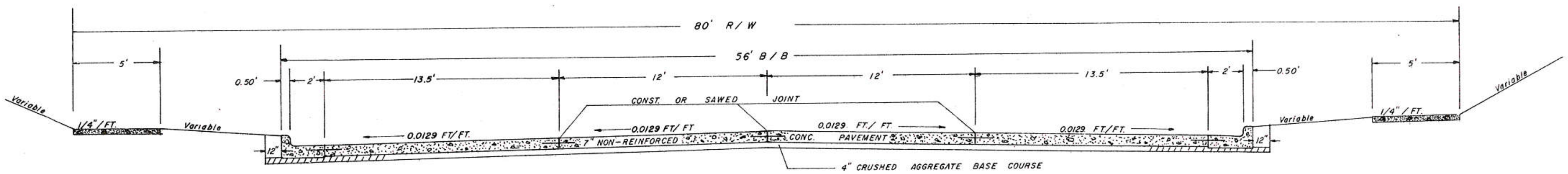
Approved:
Date ______ ______ Division Engineer

Cat. No. 2130 - D110

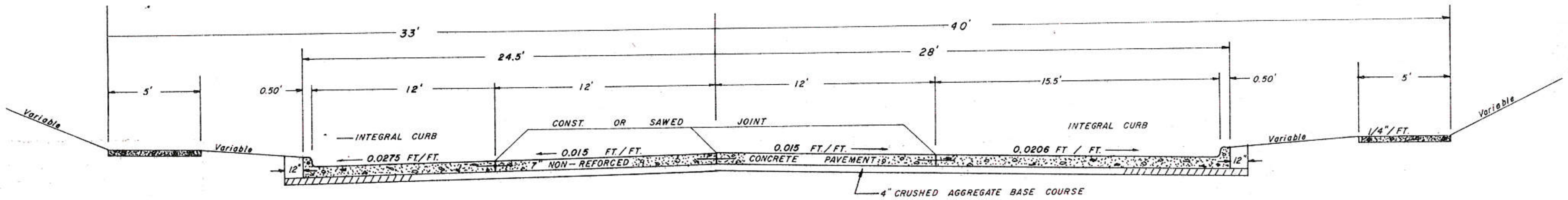
STATE PROJECT	SHEET
5991 - 2 - 02	2



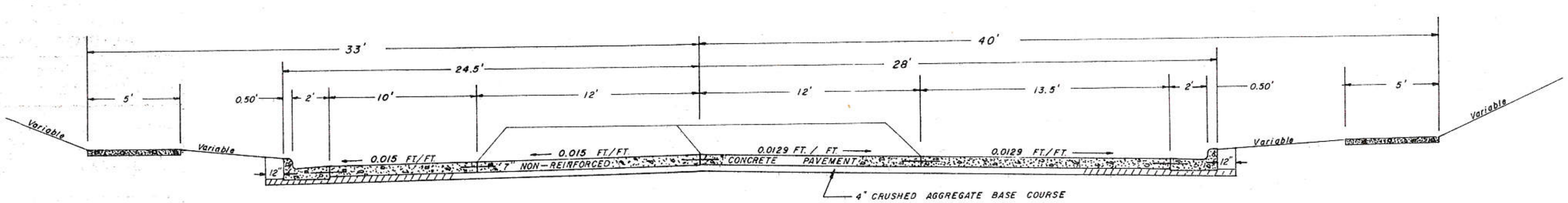
TYPICAL SECTION
WITH INTEGRAL CURB
9+29 — 12+69



TYPICAL SECTION
WITH TYPE "A" CURB 30"
INCLUDING TIE BARS
9+29 — 12+69



TYPICAL SECTION
WITH INTEGRAL CURB
12+69 — 16+65



TYPICAL SECTION
WITH TYPE "A" CURB 30"
INCLUDING TIE BARS
12+69 — 16+65

GENERAL NOTES

ALL DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE BE SEEDED AS DIRECTED BY ENGINEER B HAVE 'A MIN. OF 4" TOPSOIL.

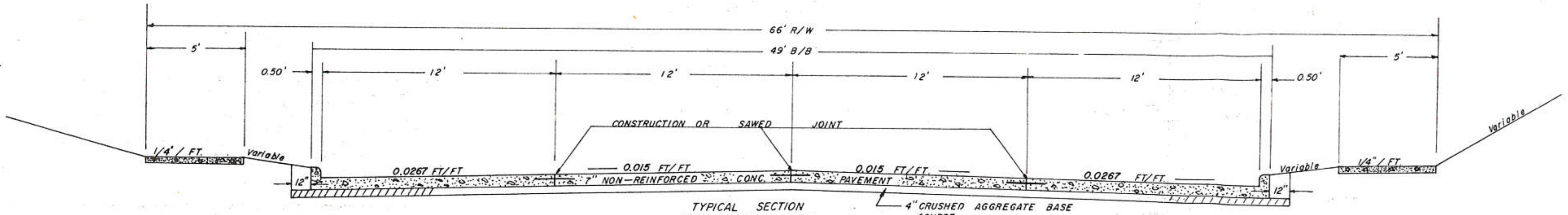
ALL BACK SLOPES WILL HAVE 4" OF TOPSOIL AND BE SODDED

ALL SIDEWALKS WILL BE 4" THICK AND 5' WIDE EXCEPT THROUGH DRIVEWAYS WERE IT WILL BE 6" THICK

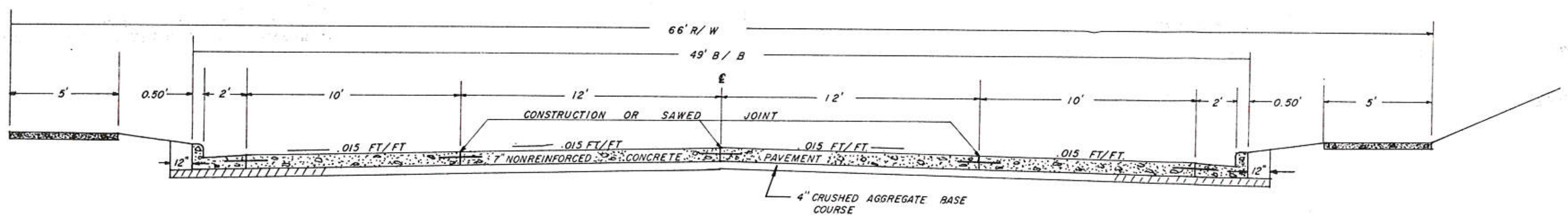
POINT REFERRED TO ON PROFILE — CENTERLINE, TOP OF CURB RIGHT AND LEFT SIDE

TIE BARS FOR CONSTRUCTION OR SAW JOINT TO BE 1/2" Ø X 24 AT 36"C-C

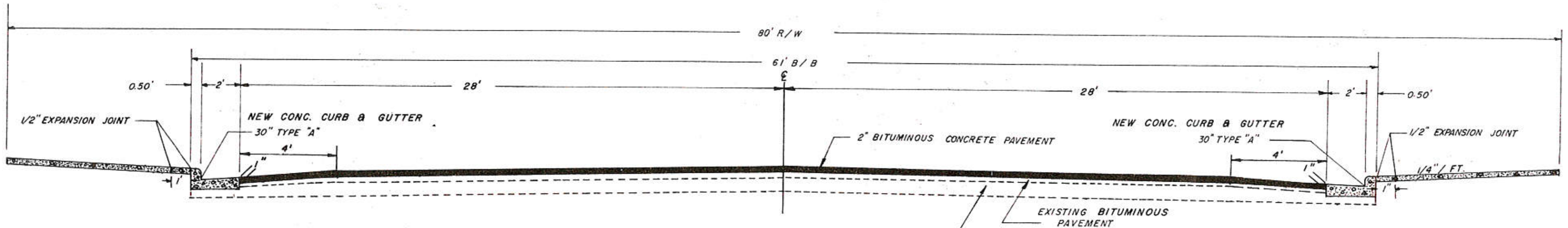
STATE PROJECT	SHEET
5991 - 2 - 02	2.1



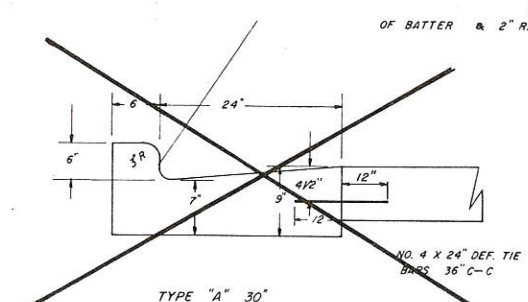
TYPICAL SECTION
WITH INTEGRAL CURB
16+98 — 59+00



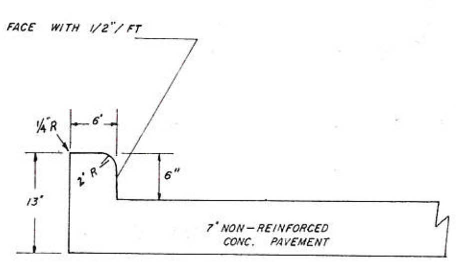
TYPICAL SECTION
WITH 30" TYPE "A" CURB
INCLUDING TIE BARS
16+98— 59+00



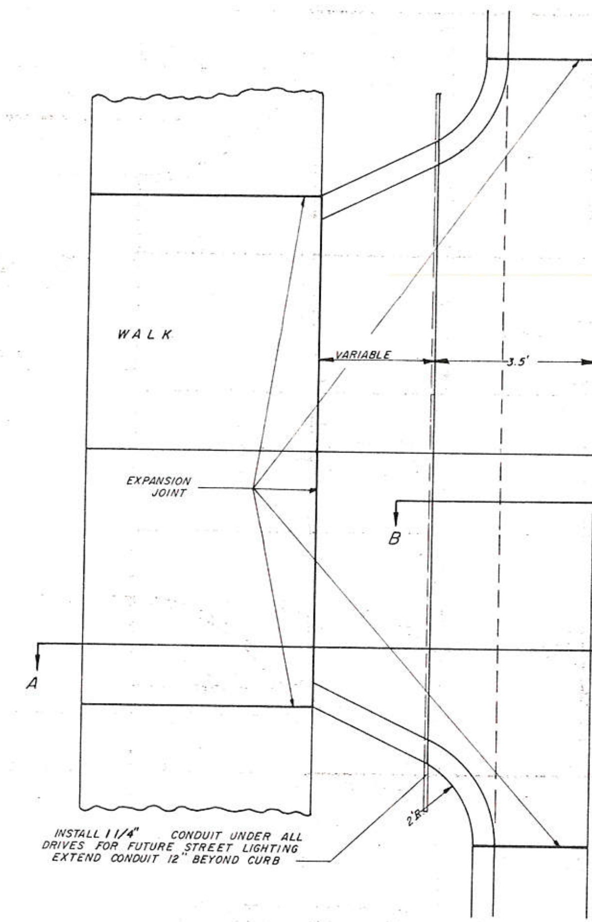
RESURFACING SECTION
2" BIT. CONCRETE
0+00 — 9+29



TYPE "A" 30"
CONC. CURB & GUTTER
INCLUDING TIE BARS

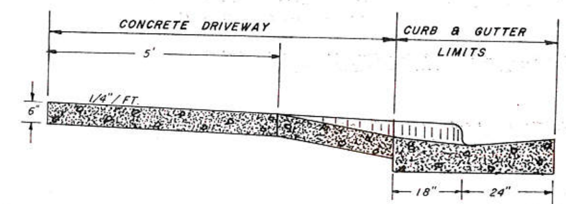


INTEGRAL CURB
(OPTIONAL)

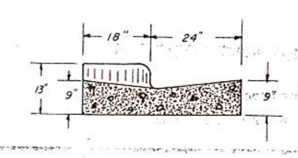


EXTEND DRIVEWAY TO PROPERTY LINE OR TO EXISTING DRIVEWAY, WHICH EVER IS NEARER & MATCH EXISTING DRIVE. INSTALL 1/2" EXPANSION JOINT BETWEEN NEW & OLD DRIVE.

TYPE	MINIMUN S.W.	MINIMUN CURB	MAXIMUN S.W.	MAXIMUN CURB
RESIDENTIAL				
SINGLE	10'	17'	12'	17'
DOUBLE	18'	25'	20'	25'
COMMERCIAL				
SINGLE	15'	22'	20'	25'
DOUBLE	20'	27'	22'	27'
PARKING LOTS	30'	37'	35'	40'



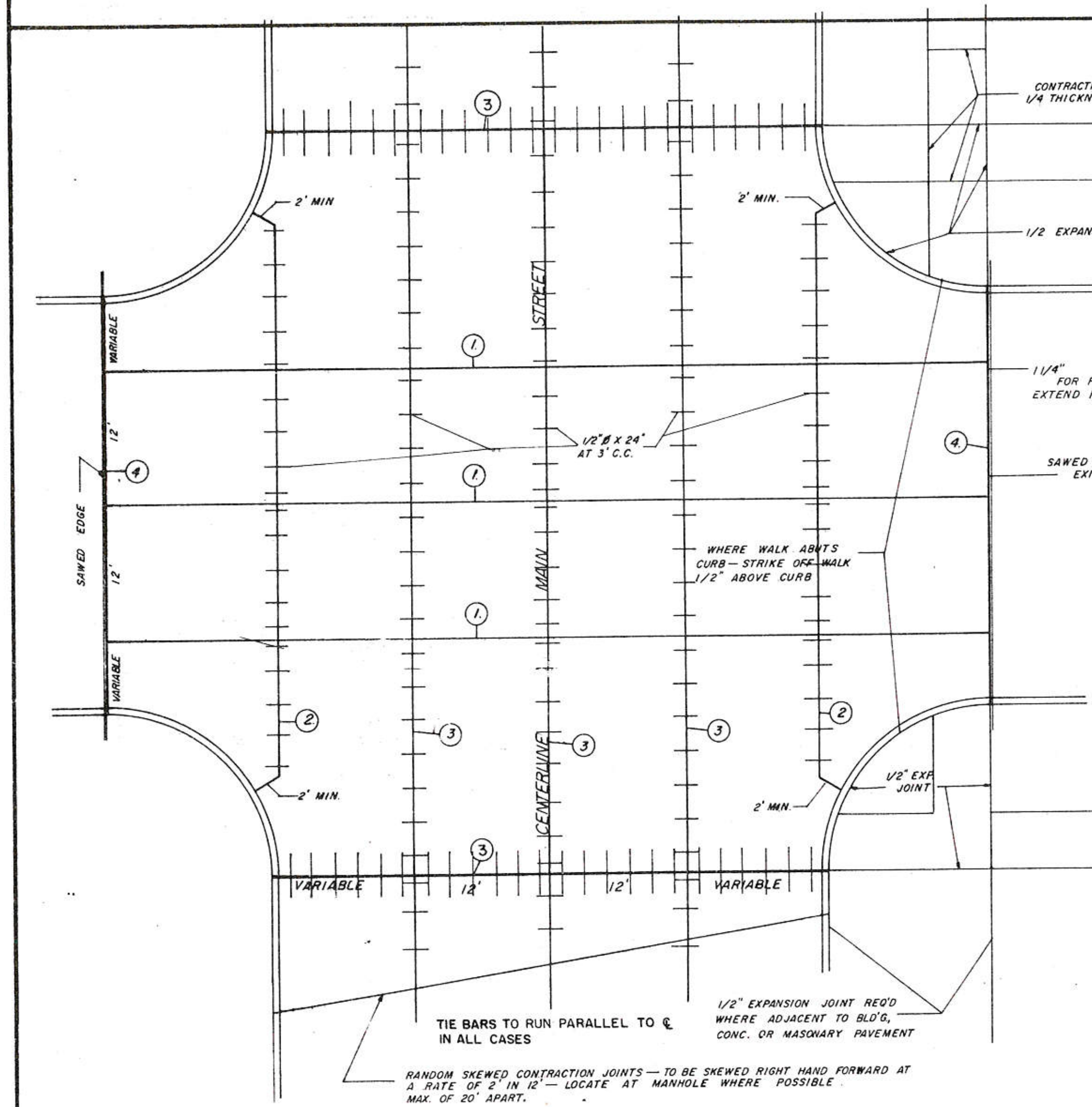
SECTION AA



SECTION BB

DRIVEWAY DETAIL

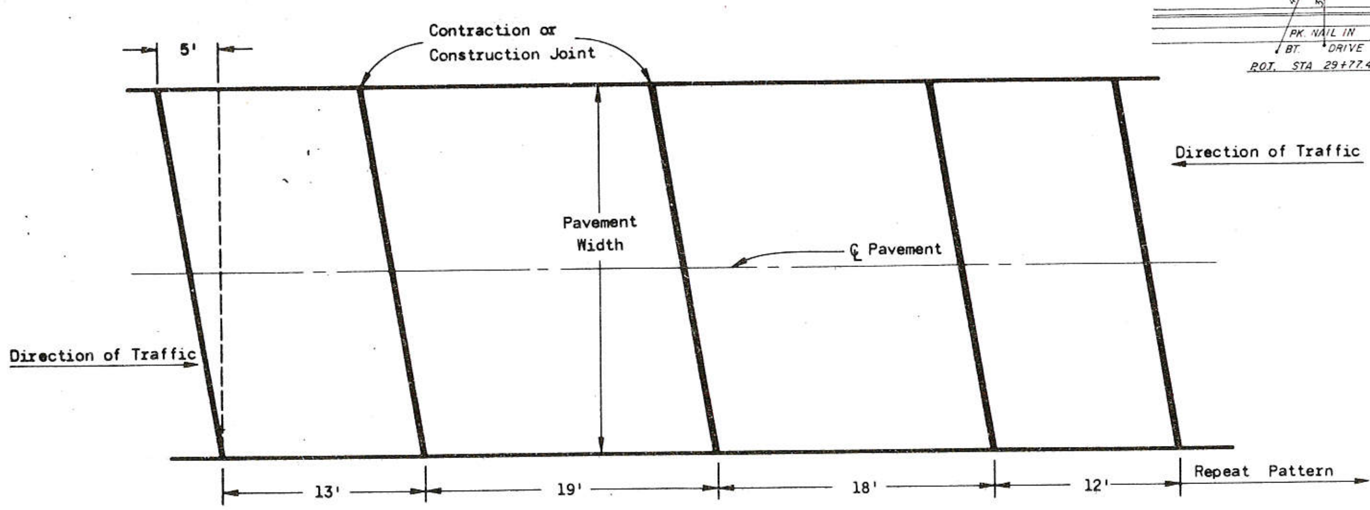
STATE PROJECT	SHEET
5991 - 2 - 02	2.2

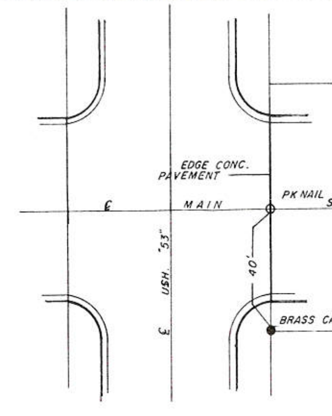


TYPICAL JOINT DETAIL FOR INTERSECTION

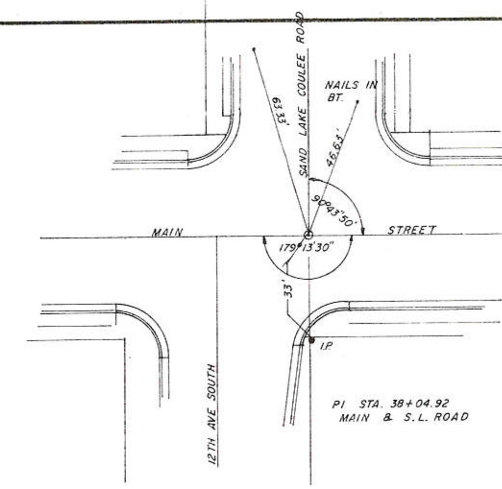
1. TRANSVERSE JOINT — CONSTRUCTION OR SAWED
2. LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
3. LONGITUDINAL JOINT WITH TIE BARS — CONSTRUCTION OR SAWED
4. BITUMINUS BUTT JOINT

SKEWED JOINT LOCATIONS

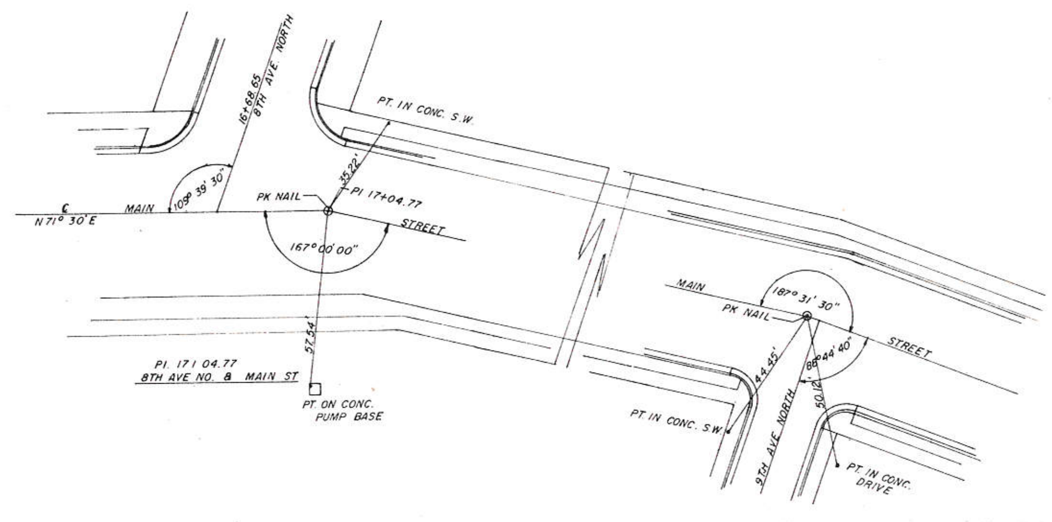




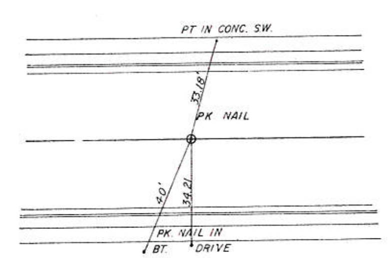
2ND("53") & MAIN ST



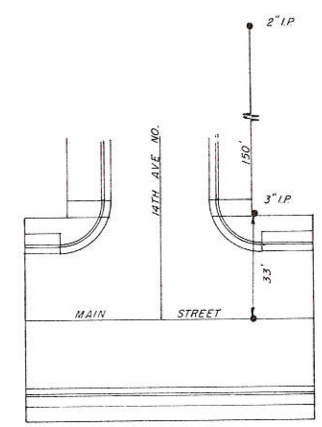
PI STA. 38+04.92 MAIN & S.L. ROAD



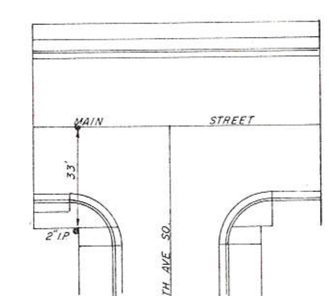
PI STA. 19+49



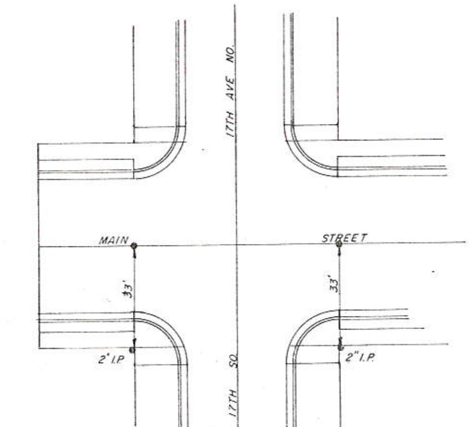
POT. STA 29+77.41



P.O.T. E/LINE 14TH AVE NORTH



P.O.T. W/LINE 16TH AVE. SOUTH



P.O.T. EAST & WEST LINE 17TH AVENUE

GENERAL NOTE

THE EXACT REMOVAL LIMITS ARE TO BE DETERMINED BY ENGINEER IN THE FIELD. REMOVAL OF CONC. DRIVEWAYS WILL BE INCLUDED IN, MEASURED AND PAID FOR UNDER THE ITEM OF SIDEWALK REMOVAL.

THE EXACT LOCATION AND WIDTHS OF DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

CERTAIN UNDERGROUND UTILITY STRUCTURES HAVE BEEN LOCATED ON THESE PLANS. THESE LOCATIONS SHALL NOT BE TAKEN AS CONCLUSIVE. VERIFICATION AS TO THE LOCATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND STRUCTURE WHEATHER SHOWN ON THE PLANS OR NOT, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT.

DETAIL OF CONSTRUCTION, MATERIAL AND WORKMANSHIP NOT SHOWN ON THESE DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENT OF THE STANDARD SPECIFICATION AND THE APPLICABLE SPECIAL PROVISIONS

IN THE PERFORMANCE OF WORK UNDER CLEARING & GRUBBING, NO TREES OR SRUBS ARE TO BE REMOVED UNLESS SUCH TREES HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD

THE PROJECT IS CLASSIFIED "URBAN" FOR TOPSOIL GRADATION AND SEEDING MIXTURE.

1-1/4" POLYVINYL CHLORIDE CONDUIT, TYPE I, SCHEDULE 40, SHALL BE AN ACCEPTABLE ALTERNATE FOR METAL CONDUIT 1-1/4".

UTILITIES

LA CROSSE TELEPHONE CORP
5TH & JAY STREET
LA CROSSE, WI. 54601

NORTHERN STATES POWER & GAS
122 5TH AVE. NORTH
LA CROSSE, WI. 54601

ONALASKA WATER & SEWER DEPT.
5TH & MAIN STREET
CITY HALL
ONALASKA, WI. 54650

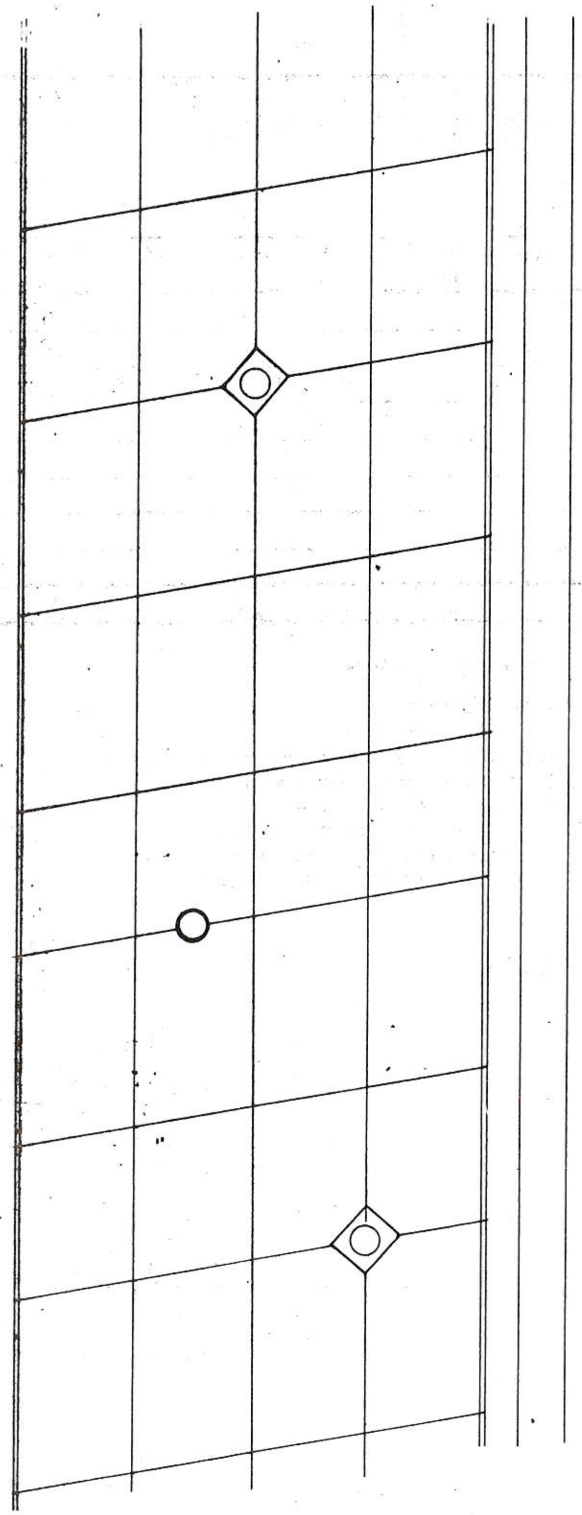
WESTGATE CABLE TV
314 MAIN ST.
ONALASKA, WI. 54650

CONSTRUCTION JOINTS

Construction joints shall be installed as necessary, except that all construction joints shall be installed and replace a contraction joint at a contraction joint location within the tolerance of ± 1'. An interruption in the sequential spacing may be permitted to achieve a spacing within the pattern at construction joints only. See Std. Detail Drawing for other details and notes.

STATE PROJECT NUMBER	SHEET NO.
5991-2-02	2.3

STEEL BIN RETAINING WALL



RANDOM SKEWED TRANSVERSE CONTRACTION JOINT TO BE SKEWED RIGHT HAND FORWARD AT A RATE OF 2'—12'. LOCATE AT MANHOLE WHERE POSSIBLE.

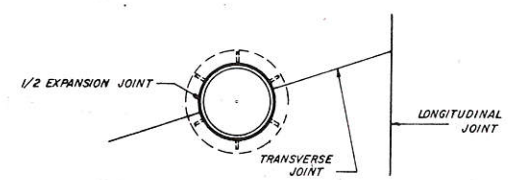
WHEN A TRANSVERSE JOINT FALLS WITHIN 5' OF OR CONTACTS A MANHOLE SHORTEN ONE OR MORE PANELS EITHER SIDE OF STRUCTURE TO PERMIT JOINT TO FALL ON ROUND STRUCTURE AND AT OR BETWEEN CORNERS OF RECTANGULAR STRUCTURES

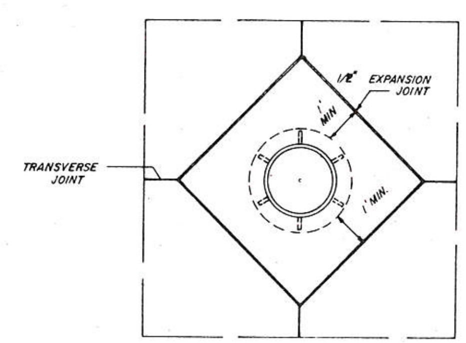
SKEWED JOINTS MUST BE CONTINEOUS THROUGH THE CURB

TRANSVERSE JOINTS TO BE A MAX. OF 20' APART AND A MIN. OF 13' APART.

JOINT TO BE MARKED BY ENGR. IN THE FIELD.

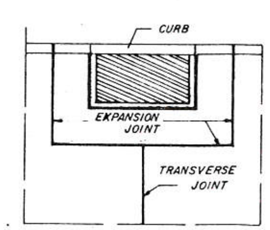
MANHOLE ON TRANSVERSE JOINT





MANHOLE BOXOUT

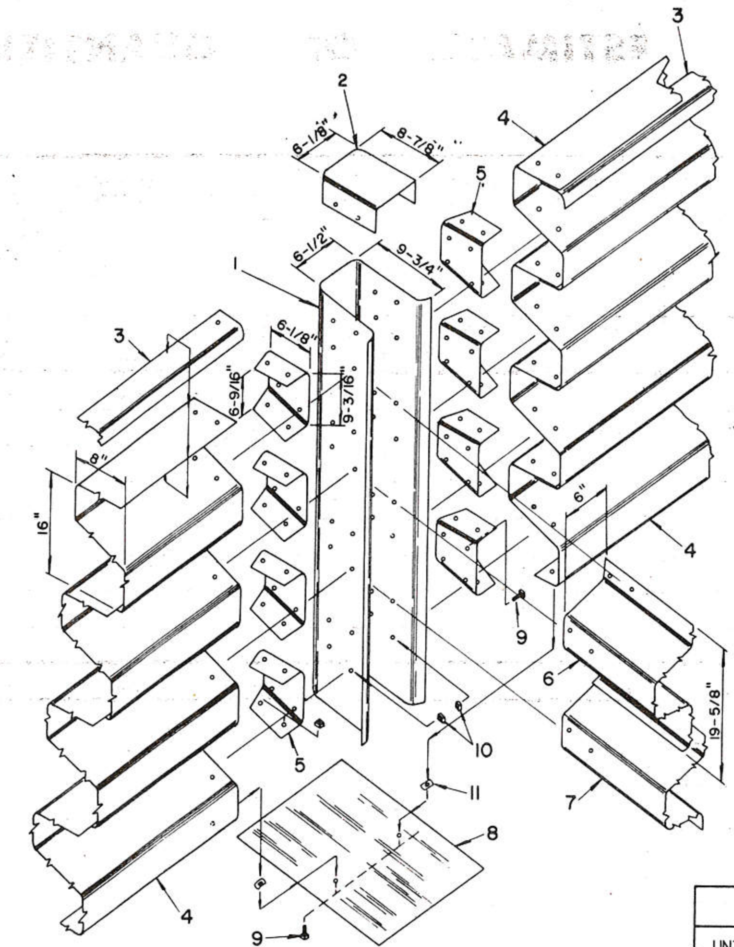
ONLY AT JUNCTION OF LONGITUDINAL & TRANSVERSE JOINTS.



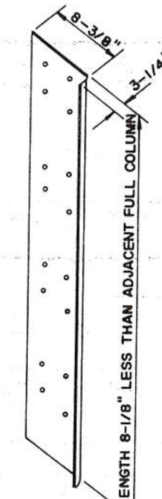
CATCH BASIN BOXOUT

ALL CATCH BASINS SHALL BE SEPERATED FROM THE PAVEMENT AND CURB BY BOXING OUT AROUND BASIN AS SHOWN ABOVE. EXPANSION JOINT MATERIAL SHALL EXTEND THROUGH CURB AND SLAB. MANHOLES SHALL BE BOXED IN LIKE MANNER EXCEPT WHEN TELESCOPING TYPE CASTING ARE USED.

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENT OF THE STANDARD SPECIFICATION AND THE APPLICABLE SPECIAL PROVISIONS.



ISOMETRIC DETAIL OF UNITS



SPLIT COLUMN

NOTE

DETAILS OF CONSTRUCTION NOT SHOWN HERE SHALL CONFORM TO THE REQUIREMENTS OF THE APPLICABLE SPECIAL PROVISIONS AND ANY ASSOCIATED SHOP DRAWINGS AND PROVISIONS FURNISHED BY THE MANUFACTURER.

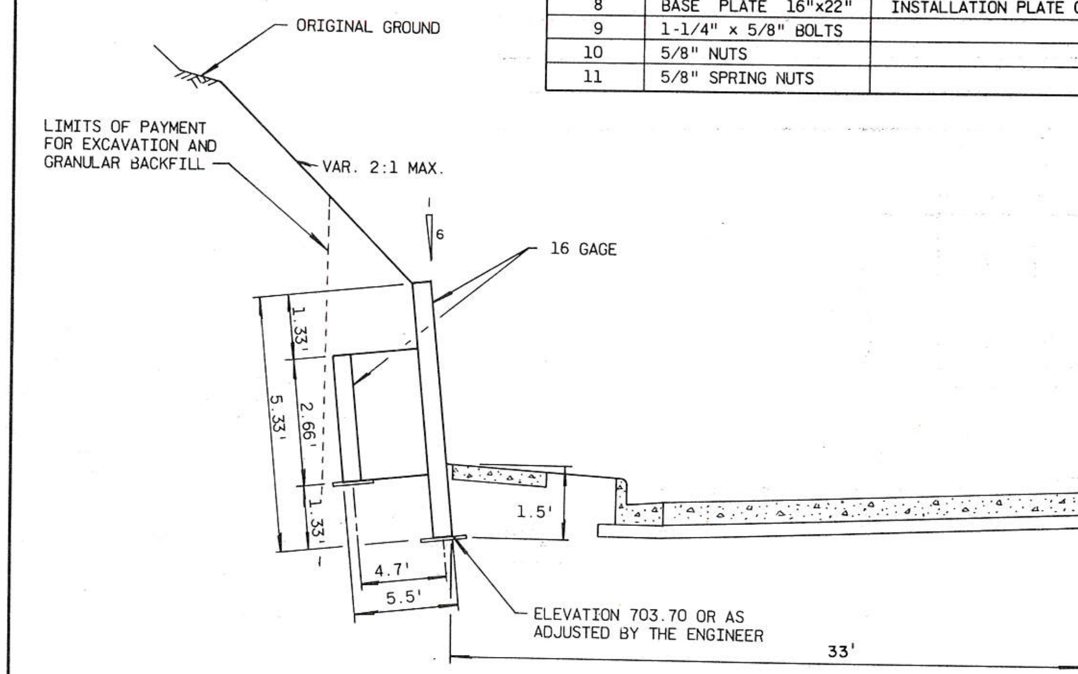
VARIATIONS IN DIMENSIONS AND DESIGN WILL BE PERMISSABLE UPON APPROVAL OF THE ENGINEER.

THIS ITEM WILL BE MEASURED IN SQUARE FEET OF FRONT FACE OF WALL MEASURED BETWEEN OUTER ENDS OF WALL.

THE ITEM OF "EXCAVATION FOR STRUCTURES, BIN WALL" SHALL BE INCLUDED TO A DEPTH OF 6" BELOW THE NEW WALL BASE.

LIST AND DESCRIPTION OF UNITS

UNIT NO	NAME OF UNIT	DESCRIPTION	GAGE
1	COLUMN	VERTICAL MEMBER CONNECTING ALL OTHER UNITS	8
2	COLUMN CAP	COVER FOR FRONT COLUMN	12
3	STRINGER STIFFENER	TOP FLANGE PROTECTOR	8
4	STRINGER	HORIZONTAL LONGITUDINAL MEMBERS IN FRONT AND REAR WALLS	SEE TABLE FOR GAGE
5	CONNECTING CHANNEL	CONNECTOR FOR ATTACHING STRINGERS TO COLUMNS	8
6	SPACER	TRANSVERSE MEMBERS THAT SEPARATE FRONT & REAR COLUMNS	16
7	BOTTOM SPACER	SPECIAL BOTTOM TRANSVERSE MEMBER	16
8	BASE PLATE 16"x22"	INSTALLATION PLATE ON WHICH THE COLUMN RESTS	1
9	1-1/4" x 5/8" BOLTS		
10	5/8" NUTS		
11	5/8" SPRING NUTS		



STEEL BIN RETAINING WALL

STA. 42 + 25 - 43 + 15

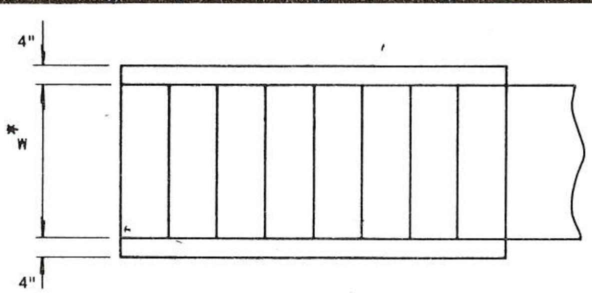
ESTIMATE OF QUANTITIES

CONTRACT NO. 1 GRADING, BASE, SURFACING

STATE PROJECT NUMBER	SHEET NO.
5991-2-02	3

STATION TO STATION	NET LENGTH OF CENTER LINE	CLEARING	GRUBBING	REMOVING CURB & GUTTER	REMOVING CONCRETE SIDEWALK	REMOVING CATCH BASINS	UNCLASSIFIED EXCAVATION	GRANULAR BACKFILL	FINISHING ROADWAY	CRUSHED AGGREGATE BASE COURSE	BITUMINOUS CONCRETE PAVEMENT	BITUMINOUS MATERIAL FOR SURFACE COURSE	CONCRETE PAVEMENT 7-INCH	CONCRETE DRIVEWAY	CONCRETE CURB & GUTTER, 30-INCH TYPE "A"	CONCRETE SIDEWALK, 4-INCH	REINFORCED CONCRETE PIPE CLASS III STORM SEWER 12-INCH	CATCH BASINS, TYPE 1	CATCH BASIN COVERS TYPE H	ADJUSTING MANHOLE COVERS	METAL CONDUIT 1-1/4 INCH	METAL CONDUIT 2-INCH	TOPSOIL	SEEDING	SODDING	CONCRETE STEPS
ITEM NO.		20102	20105	20405	20406	20415	20503	20901	21301	30403	40701	40702	40907	40931	60123	60204	60825	61101	61137	61182	61311	61313	62501	63002	63101	60215
UNIT	LIN FT.	IN. DIA.	IN. DIA.	L.F.	S.Y.	EA.	C.Y.	C.Y.	L.S.	C.Y.	TON	TON	S.Y.	S.Y.	L.F.	S.F.	L.F.	EA.	EA.	EA.	L.F.	L.F.	S.Y.	LB.	S.Y.	S.F.
0+00 - 9+20	920										899	54														
9+20 - 59+00	4980	595	637	5560	1475	12	18,338	165	1	4644	—	—	26,155	613	9652	28,215	100	16	16	58	1781	208	6265	60	2976	15
NON-PARTICIPATING		36	36	1767	1129	—	—	—	—	—	—	—	—	186	—	8480	—	—	7	—	—	—	—	—	—	
TOTAL	5900	631	673	7327	2604	12	18,338	165	1	4644	899	54	26,155	799	9652	36,695	100	16	23	58	1781	208	6265	60	2976	15

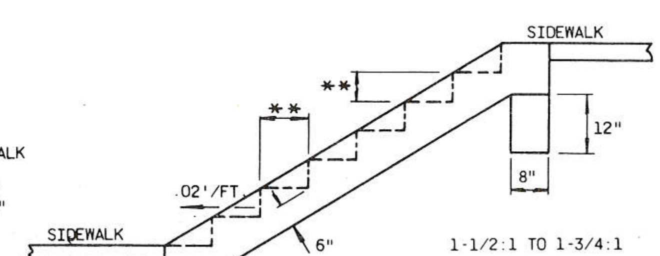
FIELD OFFICE TYPE "A"	FIELD LABORATORY	STEEL BIN TYPE RETAINING WALL	EXCAVATION FOR STRUCTURES BIN WALL	FERTILIZER	CONCRETE CURB & GUTTER 30-INCH TYPE "D"	MOBILIZATION	ON THE JOB TRAINING
64201	64210	90001	90002	62901	60133	61910	90003
L.S.	L.S.	S.F.	C.Y.	CWT.	L.F.	L.S.	HOURS
1	1	480	195	4	—	1	1000
—	—	—	—	—	1768	—	—
1	1	480	195	4	1768	1	1000



PLAN

* USE SAME WIDTH AS EXISTING SIDEWALK

** THE SUM OF ONE TREAD & ONE RISER SHOULD FALL BETWEEN 18" & 19-1/2" AND HAVE A MINIMUM 11" TREAD.



PROFILE

DETAIL OF CONCRETE STEPS

STANDARD DETAIL DRAWINGS

8A5-2	CATCH BASIN MANHOLE & INLET COVERS
8A6-2	CATCH BASINS TYPE 1 & 2
8D1-2	CONCRETE CURB, GUTTER, COMBINATION CURB & GUTTER
8D5-2	CURB RAMPS FOR HANDICAPPED PERSONS
9B2-1	METAL CONDUIT & FIBER CONDUIT
13C1-2	LONGITUDINAL JOINTS CONCRETE PAVEMENT
13C4-3	TRANSVERSE JOINTS IN NON-REINFORCED CONCRETE PAVEMENT
15C1-4	CONSTRUCTION BARRICADE & STANDARD SIGN

STANDARD ABBREVIATIONS

A.D.T.	AVERAGE DAILY TRAFFIC
AH.	AHEAD
ET. AL.	AND OTHERS
BK.	BACK
B	BARN
B.M.	BENCH MARK
BIT.	BITUMINOUS
BLVD.	BOULEVARD
BLDGS.	BUILDINGS
C.B.	CATCH BASINS
℄	CENTERLINE
Δ	CENTRAL ANGLE OR DELTA
CH. CH.	CHANNEL CHANGE
CL.	CLASS
C.M.C.P.	CORRUGATED METAL CULVERT PIPE
CONC.	CONCRETE
CONST.	CONSTRUCTION
C.P.	CULVERT PIPE
C.T.H.	COUNTY TRUNK HIGHWAY
CWT.	HUNDRED WEIGHT
C.Y.	CUBIC YARD
D	DEGREE OF CURVE
D.	DIRECTIONAL DISTRIBUTION
D.H.V.	DESIGN HOUR VOLUME
DIS.	DISCHARGE
E.	EAST
ELEV.	ELEVATION
EMB.	EMBANKMENT
EXC.	EXCAVATION
F - F	FACE TO FACE
F.E.	FIELD ENTRANCE
F.L.	FLOW LINE
FT.	FOOT (FEET)
G.	GARAGE
GAL.	GALLON
H.P.	HIGH POINT
H	HOUSE
H.T.	HOUSE TRAILER
HOR.	HORIZONTAL
IN.	INCHES
Δ or I	INTERSECTION ANGLE
I.H.	INTERSTATE HIGHWAY
I.P.	IRON PIN
L.F.	LINEAL FEET
LT.	LEFT
L.H.F.	LEFT HAND FORWARD
L	LENGTH OF CURVE
L.S.	LUMP SUM
L.H.E.	LIMITED HIGHWAY EASEMENT
M.H.	MANHOLE
MAX.	MAXIMUM
MI.	MILE
MIN.	MINIMUM
MON.	MONUMENT
MCPL.	MUNICIPAL
N	NORTH
PAV'T.	PAVEMENT
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
P.T.	POINT OF TANGENCY
P.C.C.	PORTLAND CEMENT CONCRETE
P.E.	PRIVATE ENTRANCE
P.L.	PROPERTY LINE
PP	POWER POLE
PROJ.	PROJECT
R.	RADIUS
R.R.	RAILROAD
R.C.C.P.	REINFORCED CONCRETE CULVERT PIPE
R.C.P.S.S.	REINFORCED CONCRETE PIPE, STORM SEWER
REQ'D	REQUIRED
RT.	RIGHT
R.H.F.	RIGHT HAND FORWARD
R/W	RIGHT OF WAY
RD.	ROAD
SALV.	SALVAGED
SAN.	SANITARY
S.	SOUTH
SHR.	SHRINKAGE
S.W.	SIDEWALK
STD.	STANDARD
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
S.S.	STORM SEWER
ST.	STREET
S.E.	SUPERELEVATION
SUBD.	SUBDIVISION
S.Y.	SQUARE YARD
SURF.	SURFACE
T	TRUCK PERCENTAGE
T.	TANGENT LENGTH OF CURVE
TEMP.	TEMPORARY
T.P.	TELEPHONE POLE
℄	TRANSIT LINE
UNCL.	UNCLASSIFIED
V	DESIGN SPEED
VAR.	VARIABLE
V.C.	VERTICAL CURVE
VERT.	VERTICAL
W	WEST

DETAIL SUMMARY SHEET OF MISCELLANEOUS QUANTITIES

STATE PROJECT NUMBER	SHEET NO.
5991-2-02	3A

CLEARING & GRUBBING

STATION	LOCATION	CLEARING I.D.	GRUBBING I.D.
* 5+87	LT.	36"	36"
12+62	LT.	12"	12"
13+29	LT.	16"	16"
14+33	LT.	18"	18"
16+48	LT.	42"	42"
17+43	RT.	24"	24"
17+55	LT.	12"	12"
17+81	LT.	12"	12"
17+91	RT.	18"	18"
18+18	RT.	7"	7"
18+43	RT.	12"	12"
18+90	LT.	24"	24"
19+09	LT.	24"	24"
19+37	LT.	24"	24"
22+00	LT.	36"	36"
23+39	RT.	40"	40"
23+76	RT.	30"	30"
24+15	RT.	30"	30"
24+37	RT.	40"	40"
29+10	LT.	12"	12"
45+48	LT	3"	3"
45+55	RT.	30"	30"
50+52	LT.		42"
50+90	RT.	6"	6"
51+72	LT.	30"	30"
52+00	LT.	24"	24"
53+28	LT.	3"	3"
54+34	LT.	36"	36"
54+60	LT.	12"	12"
54+79	LT.	18"	18"

UNCLASSIFIED EXCAVATION

LOCATION	CU. YD.
MAIN ST.	16484
17TH ST.	1599
CAMPBELL RD.	255

FILL

FILL	CU. YD.
MAIN ST	341

REMOVING CURB & GUTTER

STATION TO STATION	LIN. FT.
*0+00 TO 9+20	1767
9+19.87 E/L 5TH STREET TO 38+37.92 W/L SAND LAKE COULEE ROAD	5560

SIDEWALK REMOVAL

STATION — STATION	LOCATION	SQ. YDS.
* 0+00 — 1+75	LT.	194
* 0+00 — 0+75	RT.	58
* 1+75 — 2+62	LT.	262
* 1+21 — 2+62	RT.	83
* 3+28 — 5+90	LT.	157
* 3+28 — 4+69	RT.	157
* 5+36 — 5+90	RT.	60
* 6+56 — 9+20	RT.	158

SIDEWALK REMOVAL (CONT'D.)

STATION — STATION	LOCATION	SQ. YDS.
9+71 — 12+83	LT.	237
9+71 — 9+96	RT.	23
11+44 — 11+50	RT.	4
12+73 — 12+79	RT.	4
13+96 — 15+13	RT.	82
13+13 — 16+60	LT.	239
15+51 — 16+58	RT.	63
17+00 — 17+12	LT.	7
17+34 — 19+37	RT.	121
17+50 — 17+60	LT.	6
17+76 — 17+86	LT.	6
18+70 — 19+64	LT.	64
19+67 — 19+80	RT.	10
21+00 — 21+13	LT.	13
21+52 — 21+67	LT.	7
21+87 — 22+08	LT.	13
22+37 — 23+52	RT.	67
26+76 — 26+86	RT.	8
27+29 — 27+42	RT.	9
30+02 — 31+46	RT.	80
30+11 — 30+26	LT.	8
30+95 — 31+11	LT.	10
31+26 — 31+38	LT	7
31+90 — 32+00	LT.	7
31+90 — 33+11	RT.	69
37+38 — 37+56	RT.	9
37+72 — 37+80	LT.	4
38+05 — 38+21	RT.	10
38+32 — 39+88	LT.	86
40+50 — 44+13	RT.	202

ADJUSTING MANHOLE COVERS

STATION	LOCATION	TYPE	QTY.
2+74	LT.	STR.	1
2+82	RT.	STR.	1
2+86	RT.	TELE.	1
2+95	℄	SAN.	1
4+59	RT.	STR.	1
4+62	RT.	TELE.	1
6+13	RT.	STR.	1
6+23	℄	SAN.	1
7+95	RT.	TELE.	1
9+44	22'R	STR	1
9+53	0	SANI.	1
11+14	13'R	TEL.	1
12+91	22'R	STR.	1
12+98	0'	SANI.	1
13+84	14'R	TEL.	1
15+23	22'R	STR.	1
15+32	0	SAN.	1
16+63	15'R	TEL.	1
16+86	22'R	STR.	1
17+05	16'L	STR.	1
17+24	0	SAN.	1
19+32	17'L	STR.	1
19+53	0	SAN.	1
19+59	10'R	TEL.	1
21+22	16'L	STR	1
21+34	0	SAN.	1
21+42	11'R	TEL.	1
23+06	16'L	STR.	1
24+35	0	SAN.	1
27+06	0	SAN.	1
27+18	33'R	WTR.	1

ADJUSTING MANHOLE COVERS (CONT'D.)

STATION	LOCATION	TYPE	QTY.
27+19	15'L	TEL.	1
31+63	12'L	SAN.	1
31+63	0	SAN.	1
31+74	40'R	WTR.	1
31+95	6'L	TEL.	1
35+10	10'L	SAN.	1
37+91	15'L	SAN.	1
38+05	0	STR.	1
38+47	11'L	TEL.	1
41+17	15'L	SAN.	1
44+29	11'L	TEL.	1
44+33	33'R	WTR.	1
44+35	16'L	SAN	1
44+56	0	STR.	1
44+86	10'R	SAN.	1
45+58	5'L	STR.	1
46+33	11'L	TEL.	1
46+55	5'L	STR.	1
46+63	15'L	SAN	1
46+63	10'R	SAN.	1
51+30	5'L	STR.	1
51+38	15'L	SAN.	1
53+92	15'L	SAN.	1
54+55	5'L	STR.	1
56+00	5'R	STR.	1
56+24	33'R	WTR.	1
56+43	13'R	WTR.	1

CRUSHED AGGREGATE BASE COURSE 6" COMPACTED

LOCATION	CU. YD.
14TH AVE. NO.	30
17TH AVENUE	112
CAMPBELL RD.	47
MAIN ST. 59+00-60+50	130

CRUSHED AGGREGATE BASE COURSE 4" COMPACTED

LOCATION	CU. YD.
MAIN ST. 9+29-59+00	4325

CONCRETE CURB & GUTTER, 30" TYPE "D"

STATION	LOCATION	L.F.
*0+00 — 2+60	LT.	260
*0+00 — 2+60	RT.	260
*2+66	NW RAD. 3RD	25
*2+66	SW " "	25
*3+23	NE " "	25
*3+23	SE " "	25
*3+30 — 5+90	LT.	260
*3+30 — 5+90	RT.	260
*5+97	NW RAD. 4TH	25
*5+97	SW " "	25
*6+49	NE " "	25
*6+49	SE " "	25
*6+56 — 9+20	LT.	264
*6+56 — 9+20	RT.	264

CONCRETE CURB & GUTTER, 30" TYPE "A"

STATION	LOCATION	L.F.
9+30	N.W. RAD. 5TH	25
9+30	S.W. " "	25
9+75	N.E. " "	25
9+75	S.E. " "	25
9+88 — 12+67	LT.	279
9+88 — 15+00	RT.	512
15+10	S.W. RAD. 8TH	25

CONCRETE CURB & GUTTER, 30" TYPE "A" (CONT'D)

STATION	LOCATION	L.F.
15+50	S.E. " "	25
12+80	N.W. " 6TH	25
13+15	N.E " "	25
13+26 — 16+43	LT.	317
16+50	N.W. RAD. 8TH	25
17+00	N.E. " "	25
17+05 — 21+00	LT.	395
15+64 — 19+23	RT.	359
19+35	S.W. RAD. 9TH	25
19+70	S.E. " "	25
21+10	N.W. " "	25
21+60	N.E.	25
19+80 — 26+77	RT.	697
21+67 — 31+27	LT.	960
26+85	S.W. RAD 10TH	25
27+30	S.E. " "	25
27+42 — 31+27	RT.	385
31+35	N.W. RAD 11TH	25
31+35	S.W. " "	25
31+85	N.E. " "	25
31+85	S.E. " "	25
31+95 — 37+42	RT.	547
32+00 — 37+68	LT.	568
37+50	S.W. RAD. 12TH	25
37+75	N.W. " "	25
38+10	S.E. " "	25
38+30	N.E. " "	25
38+21 — 44+10	RT.	589
38+45 — 46+30	LT.	785
44+15 —	S.W. RAD. 13TH	25
44+65	S.E. " "	25
46+40	N.W. " 14TH	25
46+86	N.E. " "	25
44+75 — 51+05	RT.	630
46+96 — 55+78	LT.	882
51+15	S.W. RAD. 16TH	25
51+60	S.E " "	25
51+71 — 55+78	RT.	407
55+90	N.W. RAD. 17TH	25
55+90	S.W. " "	25
56+30	N.E. " "	25
56+30	S.E. " "	25
56+44 — 59+00	LT.	256
56+44 — 57+95	RT.	151
58+05	S.W. RAD. CAMPBELL RD.	25
58+55	S.E. RAD	25
58+67 — 59+00	RT.	33

BITUMINOUS CONCRETE PAVEMENT

LOCATION		TONS
MAIN ST. 0+00 — 9+20		685.3
14TH STREET		16
17TH "		58
CAMPBELL RD.		25
MAIN ST. 59+00 — 60+50		68
DRIVE REPLACEMENT		
42+00	LT.	6
46+80	RT.	2
47+55	RT.	2.5
53+15	LT.	3
53+90	LT	3.2
17TH "N"		
1+25	RT.	8
17TH "S"		
0+80	RT.	22

CONCRETE PAVEMENT 7" NON REINFORCED

LOCATION	SQ. YD.
MAIN STREET	
5TH — 6TH	2142
6TH — 8TH NO.	2174
8TH — END	20470
INTERSECTION	
5TH	149
6TH	61
8TH S.	74
8TH N	74
9TH S	52
9TH N	74
10TH	74
11TH S	74
11TH N	92
S.L. RD.	97
12TH S	91
13TH	74
14TH	74
16TH	74
17TH	149
CAMPBELL RD.	86

CONCRETE SIDEWALK, 4"

STATION — STATION	LOCATION	SQ. FT.
* 0+00 — 1+21	LT.	1210
* 0+00 — 0+75	RT.	750
* 1+41 — 1+62	LT.	210
* 1+41 — 2+62	RT.	1210
* 1+75 — 2+62	LT.	870
* 3+28 — 4+07	LT.	790
* 3+28 — 4+49	RT.	1210
* 4+23 — 4+49	LT.	260
* 4+69 — 5+90	LT.	210
* 5+36 — 5+90	RT.	540
* 6+56 — 7+77	RT.	605
* 7+97 — 9+20	RT.	615
9+71 — 12+83	LT.	2130
9+71 — 9+96	RT.	210
11+44 — 11+50	RT.	36
12+73 — 12+79	RT.	36
13+96 — 15+13	RT.	738
13+13 — 16+60	LT.	2148
15+51 — 16+58	RT.	565
17+00 — 17+12	LT.	60
17+34 — 19+37	RT.	1085
17+50 — 17+60	LT.	50
17+76 — 17+86	LT.	50
18+70 — 19+64	LT.	576
19+67 — 19+80	RT.	91
21+00 — 21+13	LT.	120
21+52 — 21+67	LT.	60
21+87 — 22+08	LT.	120
22+37 — 23+52	RT.	600
26+76 — 26+86	RT.	70
27+29 — 27+42	RT.	84
30+02 — 31+46	RT.	720
30+11 — 30+26	LT.	75
30+95 — 31+11	LT.	90
31+26 — 31+38	LT.	66
31+90 — 32+00	LT.	60
31+90 — 33+11	RT.	620
37+38 — 37+56	RT.	85
37+72 — 37+80	LT.	40
38+05 — 38+21	RT.	90

CONCRETE SIDEWALK, 4 INCH (CONT'D.)

STATION — STATION	LOCATION	SQ. FT.
38+32 — 40+50	LT.	1090
40+50 — 44+13	RT.	1815
40+72 — 41+98	LT.	635
42+11 — 44+15	LT.	1020
44+31 — 45+09	LT.	390
45+27 — 46+00	LT.	365
46+18 — 46+43	LT.	120
44+62 — 44+83	RT.	100
44+95 — 46+05	RT.	550
46+22 — 46+74	RT.	260
46+86 — 47+47	RT.	305
46+82 — 49+12	LT.	1150
47+62 — 47+84	RT.	110
47+96 — 51+20	RT.	1650
49+30 — 49+70	LT.	200
49+90 — 51+83	LT.	965
51+93 — 53+07	LT.	570
53+25 — 53+83	LT.	290
53+93 — 55+90	LT.	1015
51+54 — 55+90	RT.	2240
56+30 — 59+00	LT.	1350
56+30 — 59+00	RT.	1350

CONCRETE DRIVEWAY 6"

LOCATION	SQ. YDS.
* 1+31 LT. & RT.	44
* 1+68 LT.	14
* 4+15 LT.	18
* 4+59 LT. & RT.	44
* 7+70 LT.	18
* 7+87 LT. & RT.	48
43+55 DRIVEWAY REPLACEMENT BEHIND SIDEWALK	5
44+20 DRIVEWAY REPLACEMENT BEHIND SIDEWALK	18
49+20 DRIVEWAY REPLACEMENT BEHIND SIDEWALK	20
49+80 DRIVEWAY REPLACEMENT BEHIND SIDEWALK	12

CONCRETE STEPS

47+67 LT. 15 S.F.

CONCRETE DRIVEWAY 6"

STATION — STATION	LOCATION	S.Y.
10+90 — 11+00	LT.	11.
11+30 — 11+42	LT.	13
13+72 — 13+89	RT.	21
14+36 — 14+48	LT.	16
15+17 — 15+29	LT.	16
17+05 — 17+15	RT.	7
17+50 — 17+60	RT.	9
17+96 — 18+06	RT.	9
19+44 — 19+64	LT.	20
19+88 — 20+18	RT.	10
21+80 — 21+96	RT.	5
22+75 — 22+85	LT.	3
23+14 — 23+24	RT.	6
23+42 — 23+52	LT.	3
24+22 — 24+32	RT.	3
24+37 — 24+47	LT.	3
24+87 — 24+97	RT.	3
25+22 — 25+32	LT.	3
25+50 — 25+60	RT.	3
25+60 — 25+70	LT.	3
27+50 — 27+60	LT.	3
27+96 — 28+07	RT.	4
28+07 — 28+17	LT.	3
28+24 — 28+38	RT.	5
28+81 — 28+96	LT.	5
29+57 — 29+67	RT.	3
31+17 — 31+27	RT.	9
32+89 — 33+07	LT.	6
33+30 — 33+44	RT.	5
33+46 — 33+79	LT.	11
34+31 — 34+51	RT.	7
35+44 — 35+68	LT.	8
35+90 — 36+20	LT.	10
36+27 — 36+41	RT.	5
36+46 — 36+76	LT.	10
39+52 — 39+85	RT.	11
40+50 — 40+72	LT.	20
41+98 — 42+10	LT.	11
42+44 — 42+69	RT.	22
43+48 — 43+64	LT.	20
44+15 — 44+31	LT.	27
44+84 — 44+96	RT.	4
45+10 — 45+27	LT.	15
46+00 — 46+17	LT.	15
46+06 — 46+22	RT.	14
46+67 — 46+79	RT.	11
47+48 — 47+62	RT.	12
47+84 — 47+94	RT.	9
49+11 — 49+29	LT.	40
49+70 — 49+92	LT.	32
51+83 — 51+93	LT.	9
53+06 — 53+24	LT.	16
53+83 — 53+93	LT.	9

* NON-PARTICIPATION

STATE PROJECT NUMBER	SHEET NO
8991 - 2 - 02	3B

DETAIL SUMMARY SHEET OF MISCELLANEOUS QUANTITIES

METAL CONDUIT 1 1/4"

LOCATION (DRIVEWAYS)	LIN. FT.
10+95	16
11+36	16
13+80	22
14+42	16
15+23	24
17+10	16
17+55	16
18+00	16
19+54	24
19+98	30
21+88	20
22+80	16
23+19	16
23+47	16
24+27	16
24+42	16
24+92	16
25+27	16
25+55	16
25+65	16
27+55	16
28+00	16
28+12	16
28+31	20
28+88	20
29+62	16
31+22	16
32+98	20
33+37	20
33+63	30
34+41	24
35+56	34
36+05	34
36+32	20
36+60	34
39+67	34
40+60	30
42+04	16
42+56	30
43+54	24
44+22	20
44+90	16
45+18	20
46+08	24
46+14	16
46+73	16
47+55	16
47+90	16
49+20	20
49+81	24
51+88	16
53+15	20
53+88	16
INTERSECTIONS	
5TH & MAIN	76
6TH " "	32
8TH "S" "	39
8TH "N" "	39
9TH "S" "	27
9TH "N" "	39
10TH "S" "	39
11TH " "	78
12TH " "	50
S.L. RD. "	52
13TH " "	39
14TH " "	39
16TH " "	39
17TH " "	78
CAMPBELL RD.	45

METAL CONDUIT 2"

LOCATION. (INTERSECTION)	LIN. FT.
SAND LAKE RD & MAIN. ST	54
12TH AVE. SO. & "	50
MAIN ST. & 12TH AVE. SO.	52
" " " S.L. RD.	52

CATCH BASIN & STORM SEWER

STATION	LOCATION	TYPE	DEPTH	COVER TYPE	REMARKS
2+70	33'RT.	–	–	H	REPLACE COVER *
2+73	35'LT.	–	–	H	" " *
3+20	33'RT.	–	–	H	" " *
6+02	35'RT.	–	–	H	" " *
6+04	35'LT.	–	–	H	" " *
6+45	30'LT.	–	–	H	" " *
6+45	30'RT	–	–	H	" " *
9+30	30'RT.	1	6'	H	REMOVE & REPLACE
9+75	"LT	1	6	H	" "
9+75	" RT.	1	6	H	" "
13+16	25'LT.	1	6	H	" "
15+10	30'RT.	1	6	H	" "
16+55	25'LT.	1	6	H	" "
19+20	20'RT.	1	6	H	" "
19+70	24'RT.	1	6	H	" "
21+12	27'LT.	1	6	H	" "
21+54	28'LT.	1	6	H	" "
23+06	22'LT.	1	6	H	" "
23+06	22'RT.	1	6	H	" "
44+20	28'RT.	1	6	H	40 L.F. OF 12" S.S.
44+65	28'RT.	1	6	H	22 L.F. OF 12" S.S.
54+54	23'LT.	1	6	H	14 L.F. OF 12" S.S.
54+54	23'RT.	1	6	H	24 L.F. OF 12" S.S.

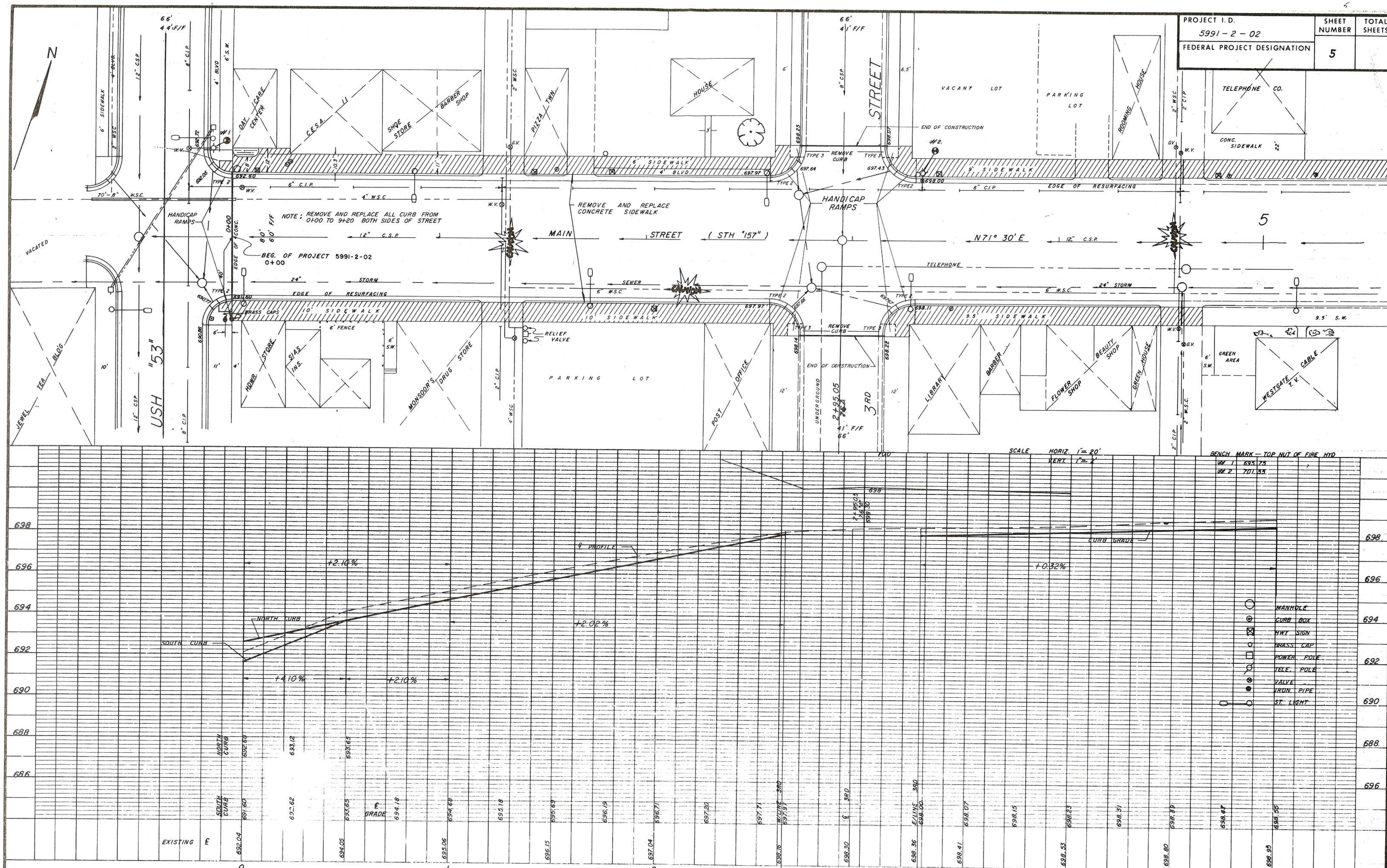
4" TOPSOIL, SEEDING & SOD

LOCATION	SOD S.Y.	TOPSOIL S.Y.	SEED. LB.
MAIN ST. BLVD.			
9+52 — 59+00 RT. & LT.		3122	57
17 TH. AVE. NORTH LT.		167	3
38+37 — 46+33 LT.	575	575	
46+93 — 55+78 LT.	810	810	
56+44 — 59+00 LT.	280	280	
45+00 — 51+08 RT.	590	590	
51+68 — 55+11 RT.	607	607	
56+44 — 59+00 RT.	114	114	

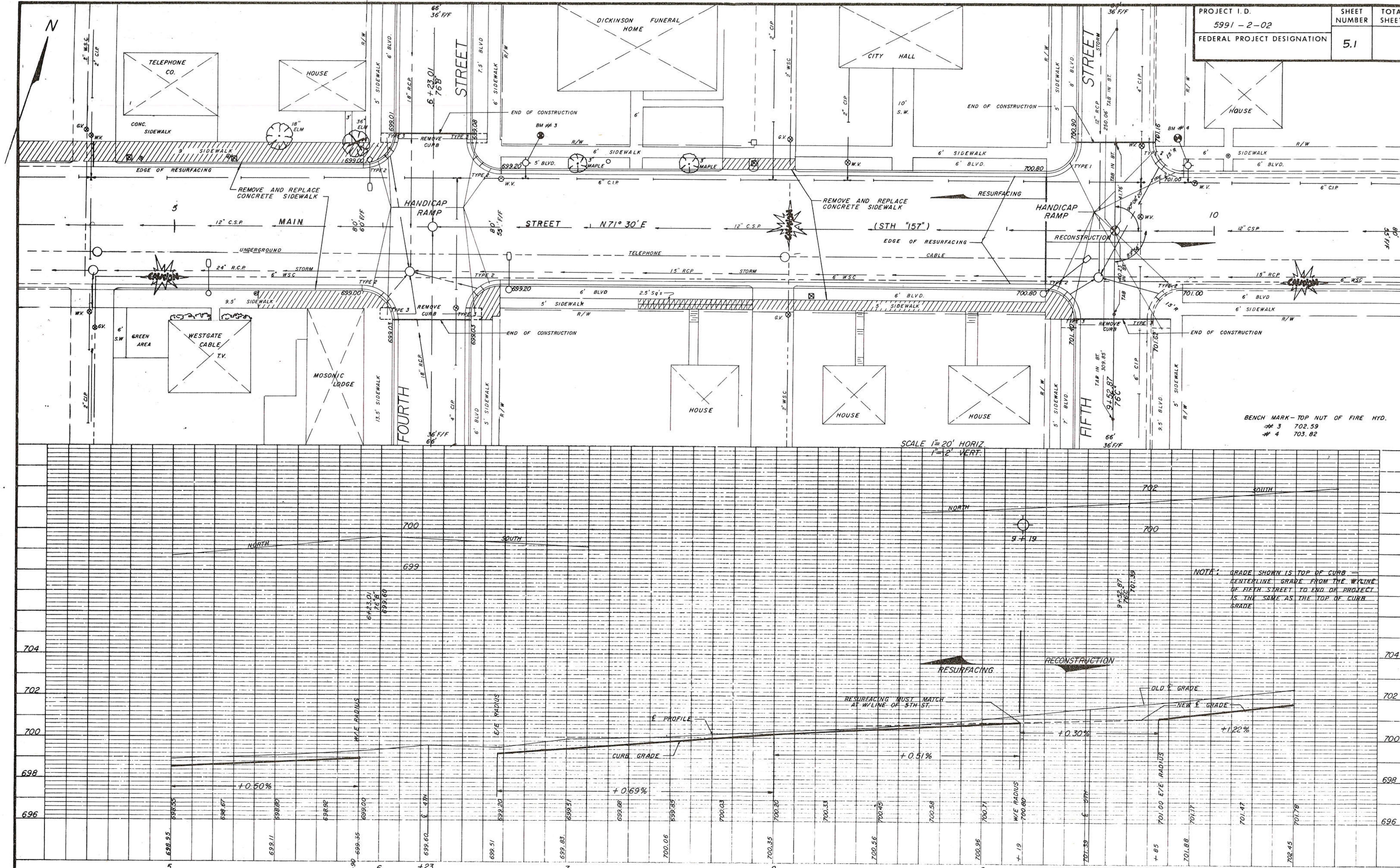
GRANULAR BACKFILL

STATION	LOCATION	C.Y.	REMARKS
42+25 – 43+15	LT.	165	BINWALL BACKFILL

* NON-PARTICIPATION



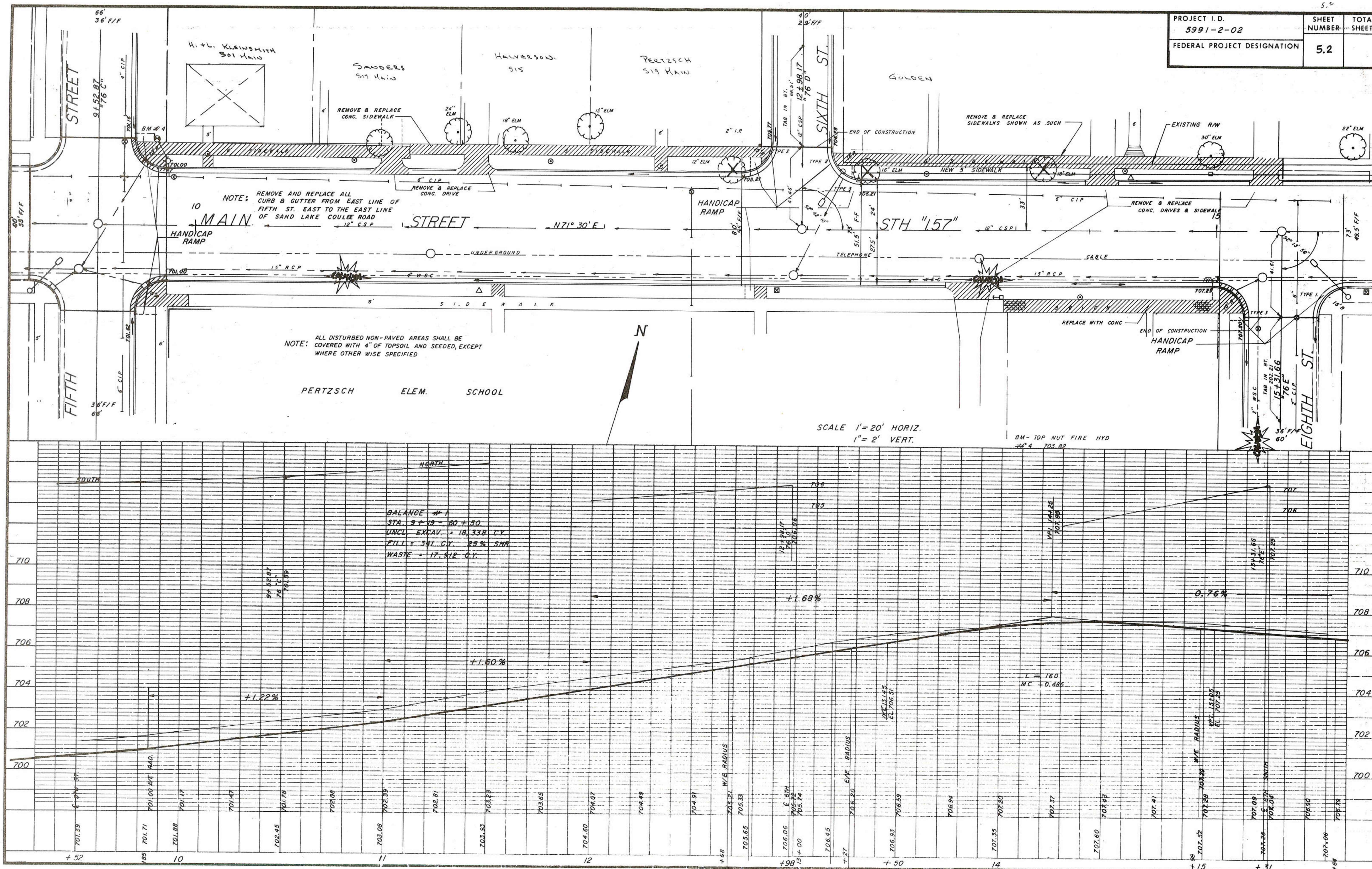
Catalog No. 2130-C140



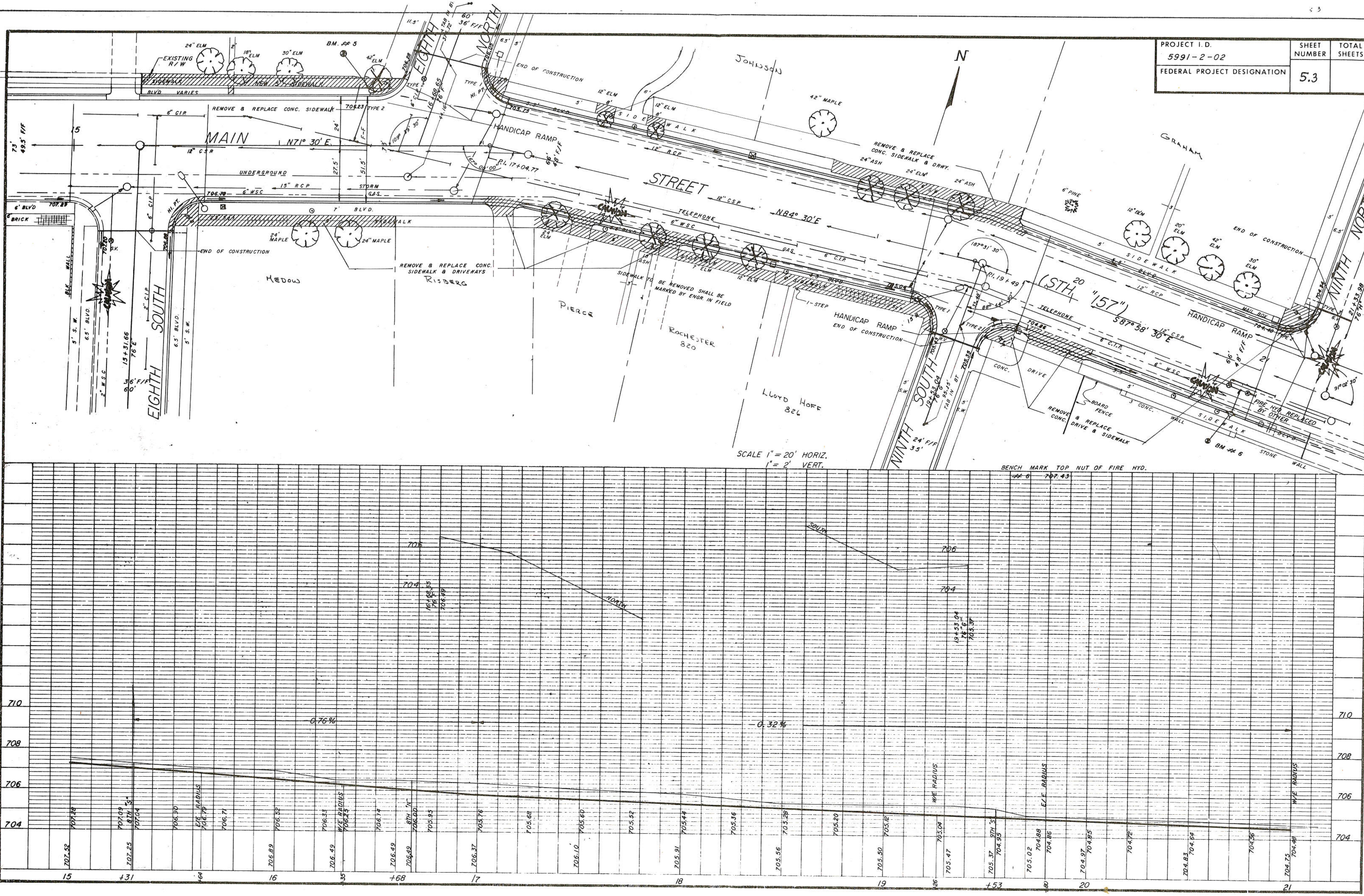
NOTE: GRADE SHOWN IS TOP OF CURB — CENTERLINE GRADE FROM THE W/LINE OF FIFTH STREET TO END OF PROJECT IS THE SAME AS THE TOP OF CURB GRADE

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
5991 - 2 - 02		
FEDERAL PROJECT DESIGNATION	5.1	

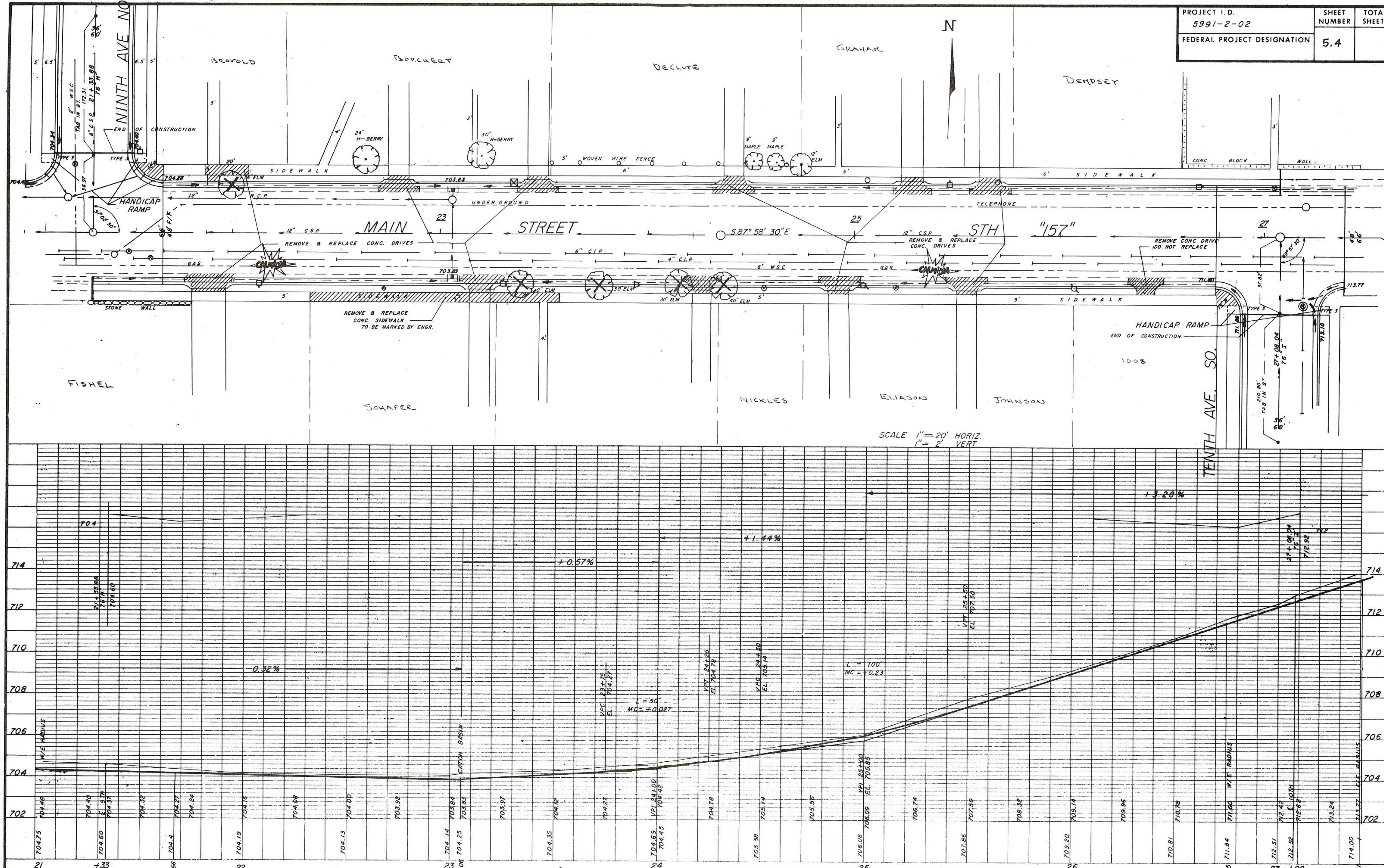
Catalog No. 2130-C140

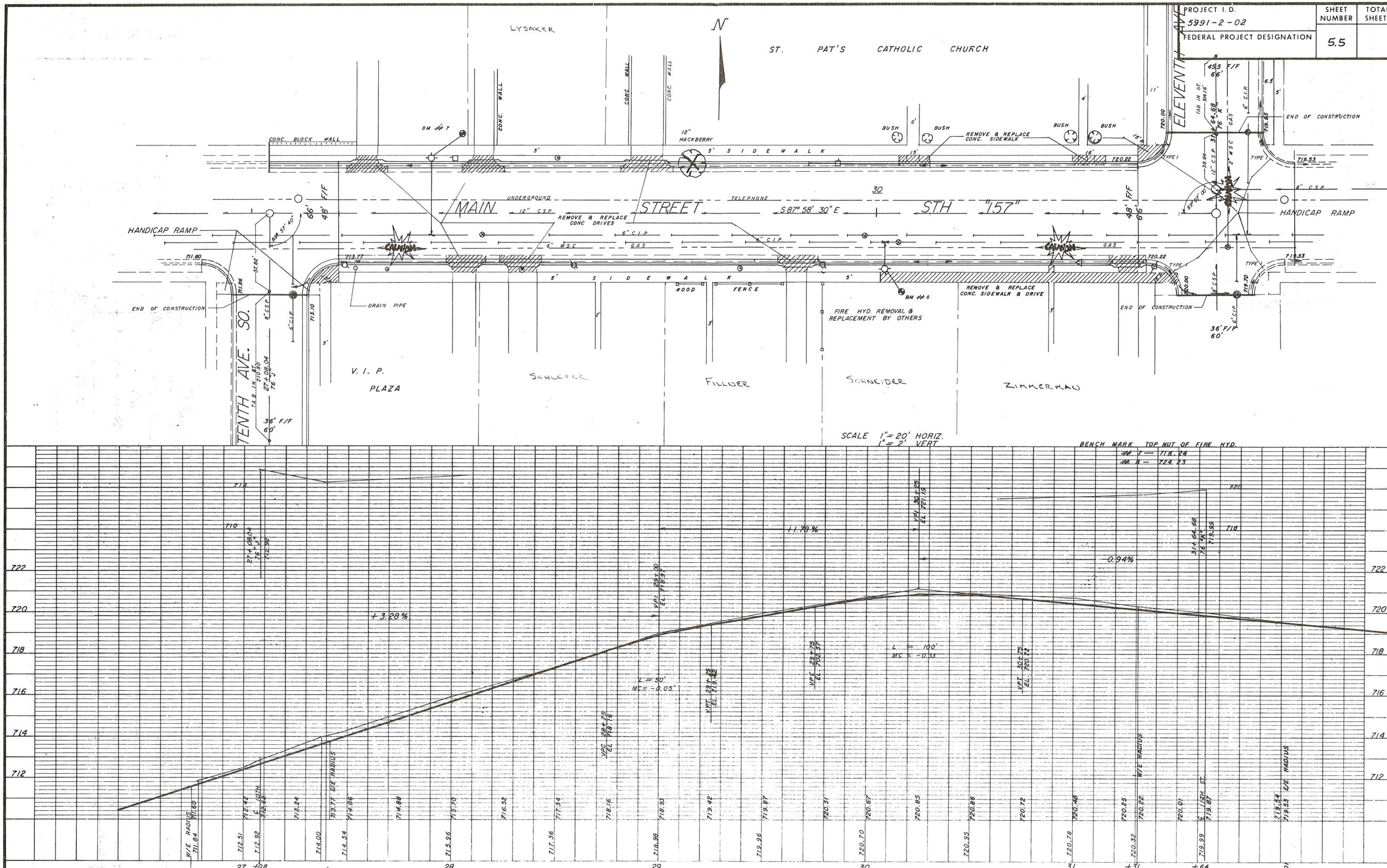

PROJECT I.D. 5991-2-02
SHEET NUMBER 5.2
TOTAL SHEETS
FEDERAL PROJECT DESIGNATION
FIFTH STREET
SIXTH ST.
EIGHTH ST.
MAIN STREET N71° 30' E
STH "157"
H.+L. KLEINSMITH 501 MAIN
SANDERS 511 MAIN
HALVERSON 515
PERTZSCH 519 MAIN
GOLDEN
PERTZSCH ELEM. SCHOOL
NOTE: REMOVE AND REPLACE ALL CURB & GUTTER FROM EAST LINE OF FIFTH ST. EAST TO THE EAST LINE OF SAND LAKE COULEE ROAD
NOTE: ALL DISTURBED NON-PAVED AREAS SHALL BE COVERED WITH 4" OF TOPSOIL AND SEEDED, EXCEPT WHERE OTHER WISE SPECIFIED
REMOVE & REPLACE CONC. SIDEWALK
REMOVE & REPLACE CONC. DRIVE
REMOVE & REPLACE SIDEWALKS SHOWN AS SUCH
REMOVE & REPLACE CONC. DRIVES & SIDEWALK
REPLACE WITH CONC
END OF CONSTRUCTION
EXISTING R/W
NEW 5' SIDEWALK
HANDICAP RAMP
UNDERGROUND
TELEPHONE
CABLE
15" RCP
4" WSC
12" CSP
6" CIP
N
SCALE 1'=20' HORIZ. 1"=2' VERT.
BM-TOP NUT FIRE HYD #4 703.82
BALANCE #1
STA. 9+19 - 60+50
UNCL. EXCAV. = 18,338 C.Y.
FILL = 341 C.Y. 25% SHR.
WASTE = 17,512 C.Y.
+1.22%
+1.60%
+1.68%
-0.76%
L = 160
M.C. -0.485
W/E RADIUS
E/E RADIUS
Catalog No. 2130-C140

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
5991-2-02		
FEDERAL PROJECT DESIGNATION	5.3	

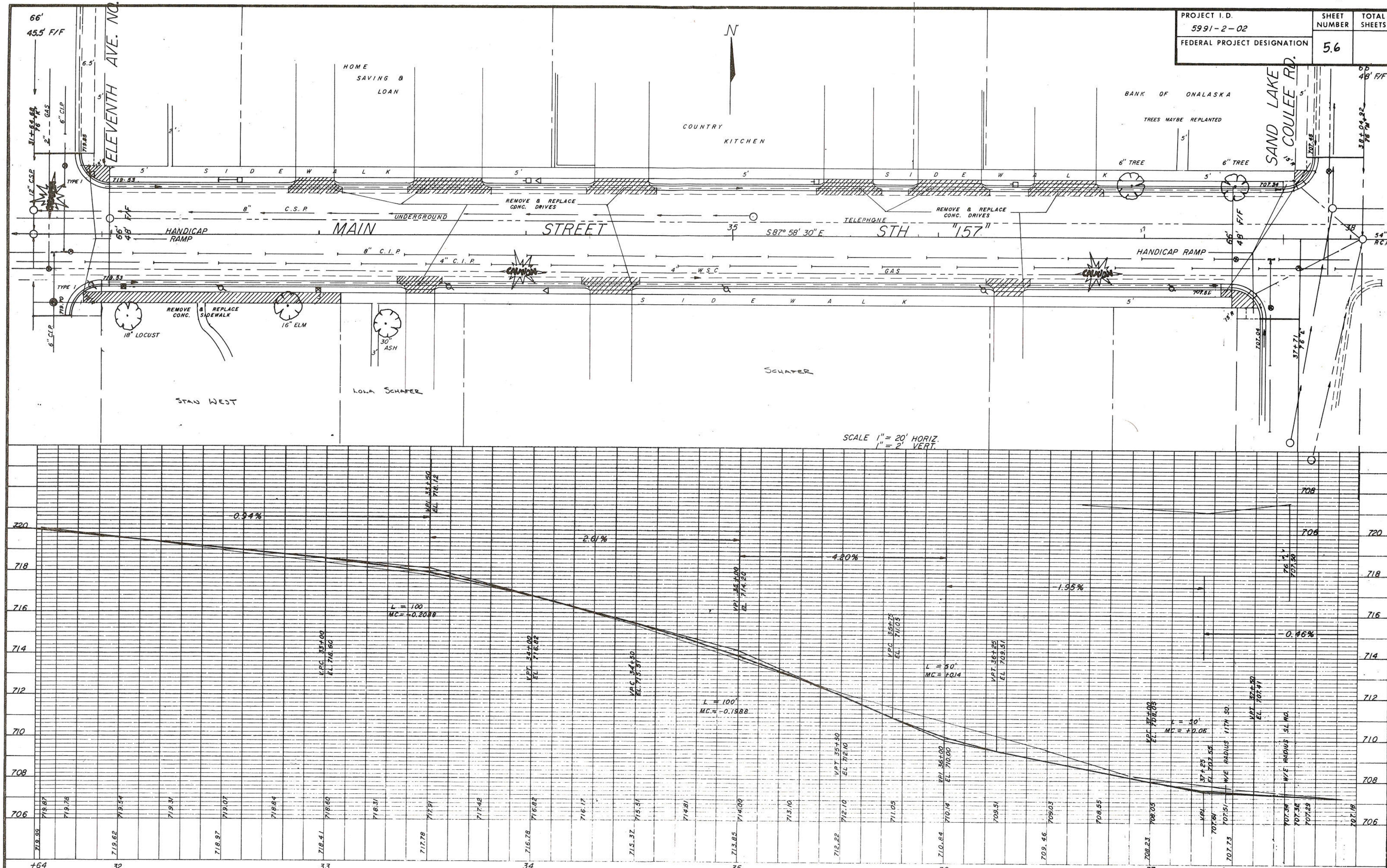


PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
5991-2-02	5.4	
FEDERAL PROJECT DESIGNATION		

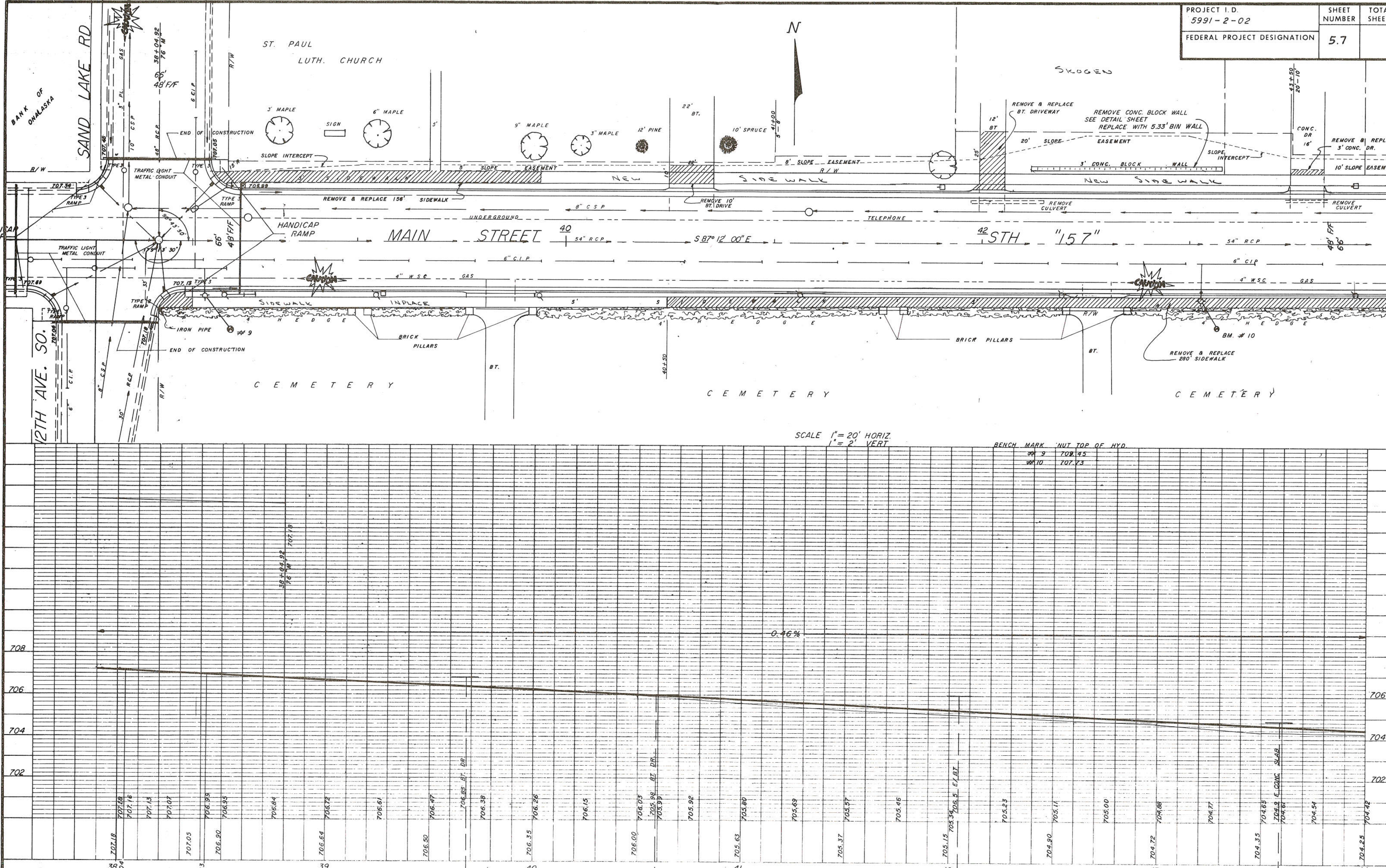



PROJECT I.D.
5991-2-02
FEDERAL PROJECT DESIGNATION
SHEET NUMBER
5.5
TOTAL SHEETS
ST. PAT'S CATHOLIC CHURCH
LYSAKER
MAIN STREET
STH "157"
S 87° 58' 30" E
ELEVENTH AVE.
TENTH AVE. SO.
HANDICAP RAMP
END OF CONSTRUCTION
5' SIDEWALK
REMOVE & REPLACE CONC. SIDEWALK
REMOVE & REPLACE CONC DRIVES
REMOVE & REPLACE CONC. SIDEWALK & DRIVE
FIRE HYD. REMOVAL & REPLACEMENT BY OTHERS
CONC. BLOCK WALL
CONC. WALL
12" HACKBERRY
BUSH
BM # 7
BM # 8
DRAIN PIPE
FENCE
UNDERGROUND
TELEPHONE
GAS
V. I. P. PLAZA
SCHLEIFER
FILLNER
SCHNEIDER
ZIMMERMAN
SCALE 1" = 20' HORIZ. 1" = 2' VERT
BENCH MARK TOP NUT OF FIRE HYD.
7 — 718.24
8 — 724.23
+ 3.28 %
+ 1.79 %
- 0.94 %
VPI 29+00 EL 718.97
VPI 30+25 EL 721.19
VPC 28+75 EL 718.16
VPT 29+25 EL 719.42
VPC 29+75 EL 702.37
VPT 30+75 EL 720.72
L = 50' MC = -0.05'
L = 100' MC = -0.33
W/E RADIUS
E/E RADIUS
C 10TH
C 11TH ST.
27 +08
28
29
30
31
+31
+64
Catalog No. 2130-C140

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
5991-2-02	5.6	
FEDERAL PROJECT DESIGNATION		

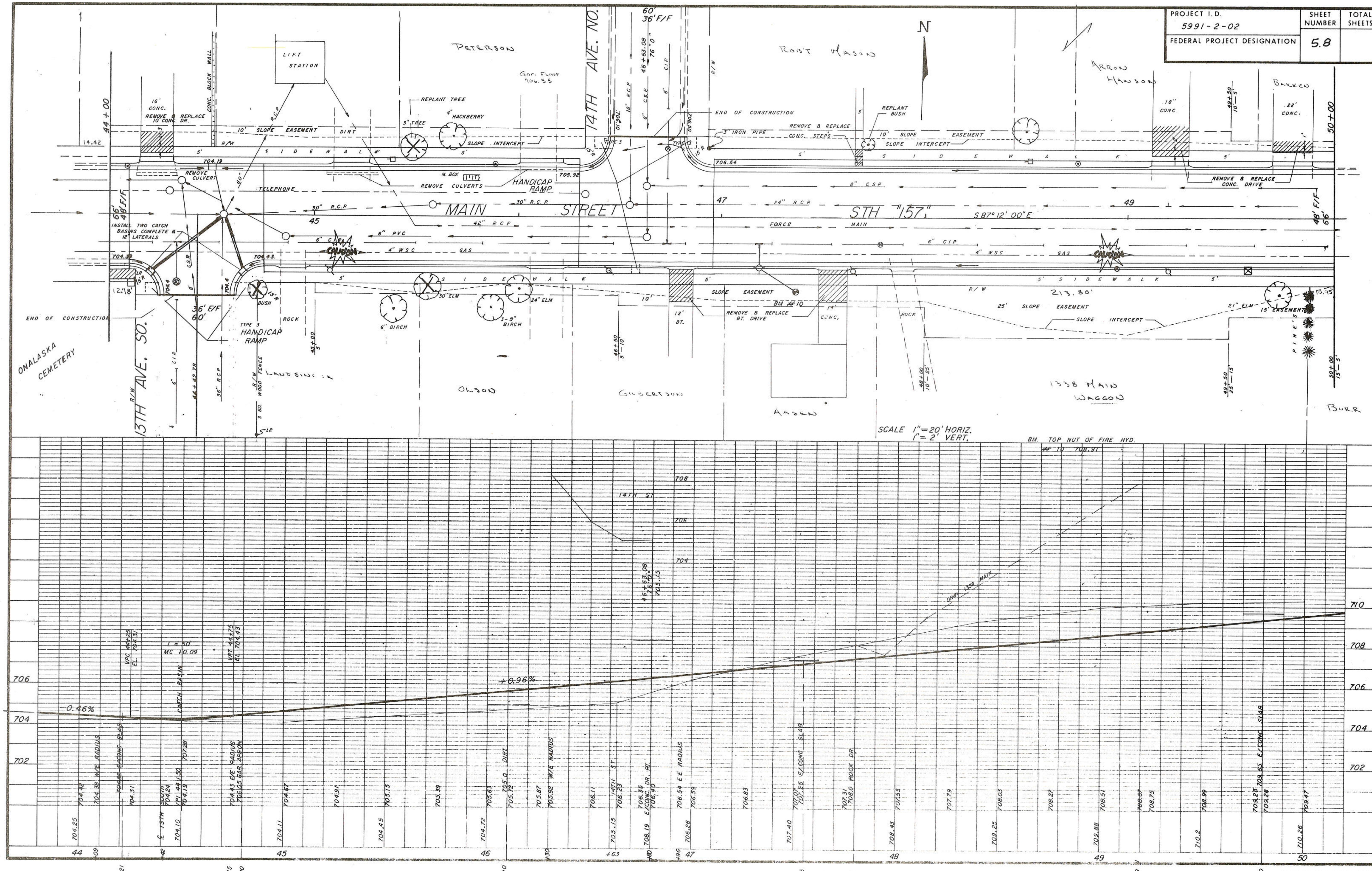


PROJECT I.D. 5991 - 2 - 02	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT DESIGNATION	5.7	

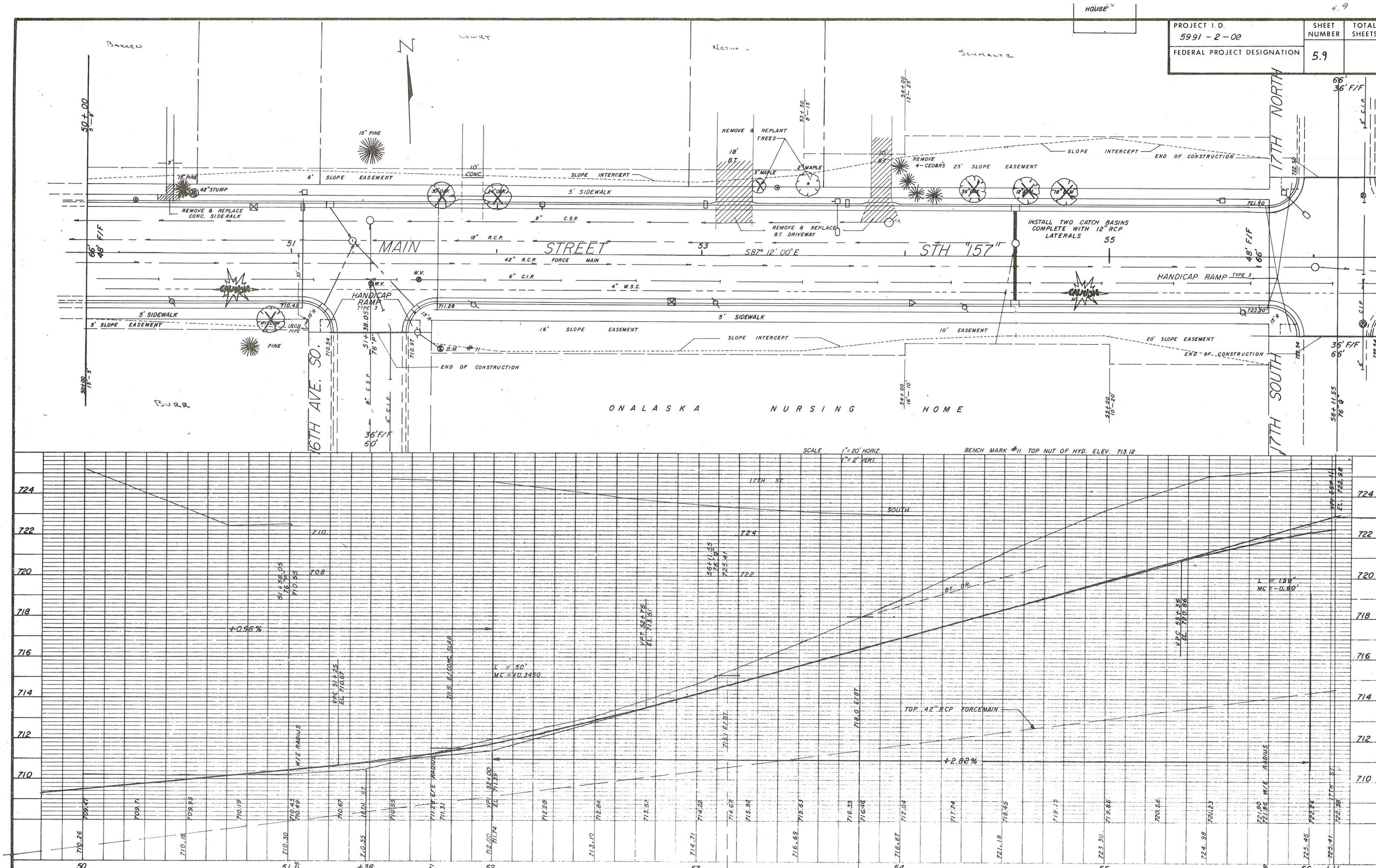


Catalog No. 2130-C140

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
5991-2-02	5.8	
FEDERAL PROJECT DESIGNATION		

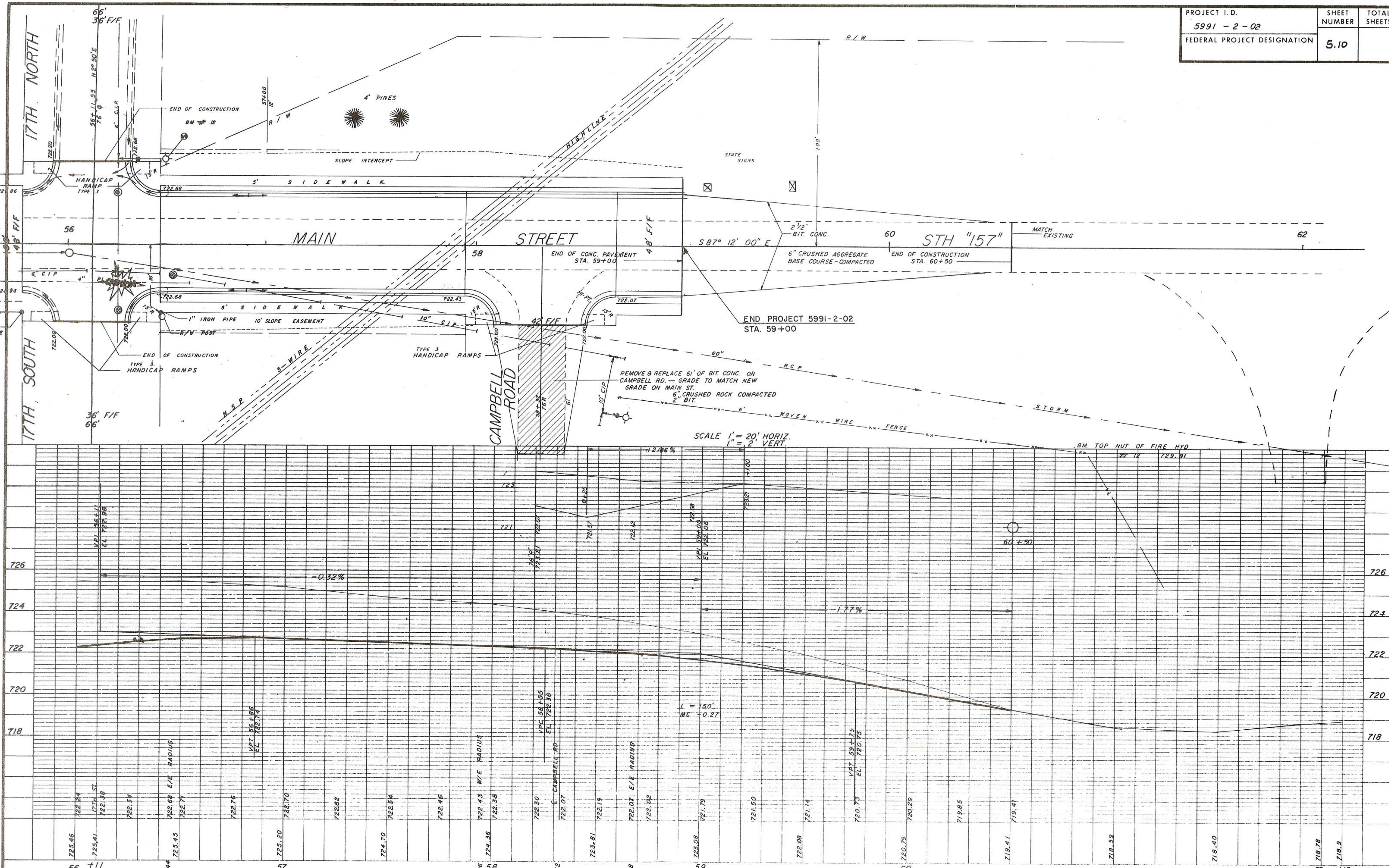


Catalog No. 2130-C140



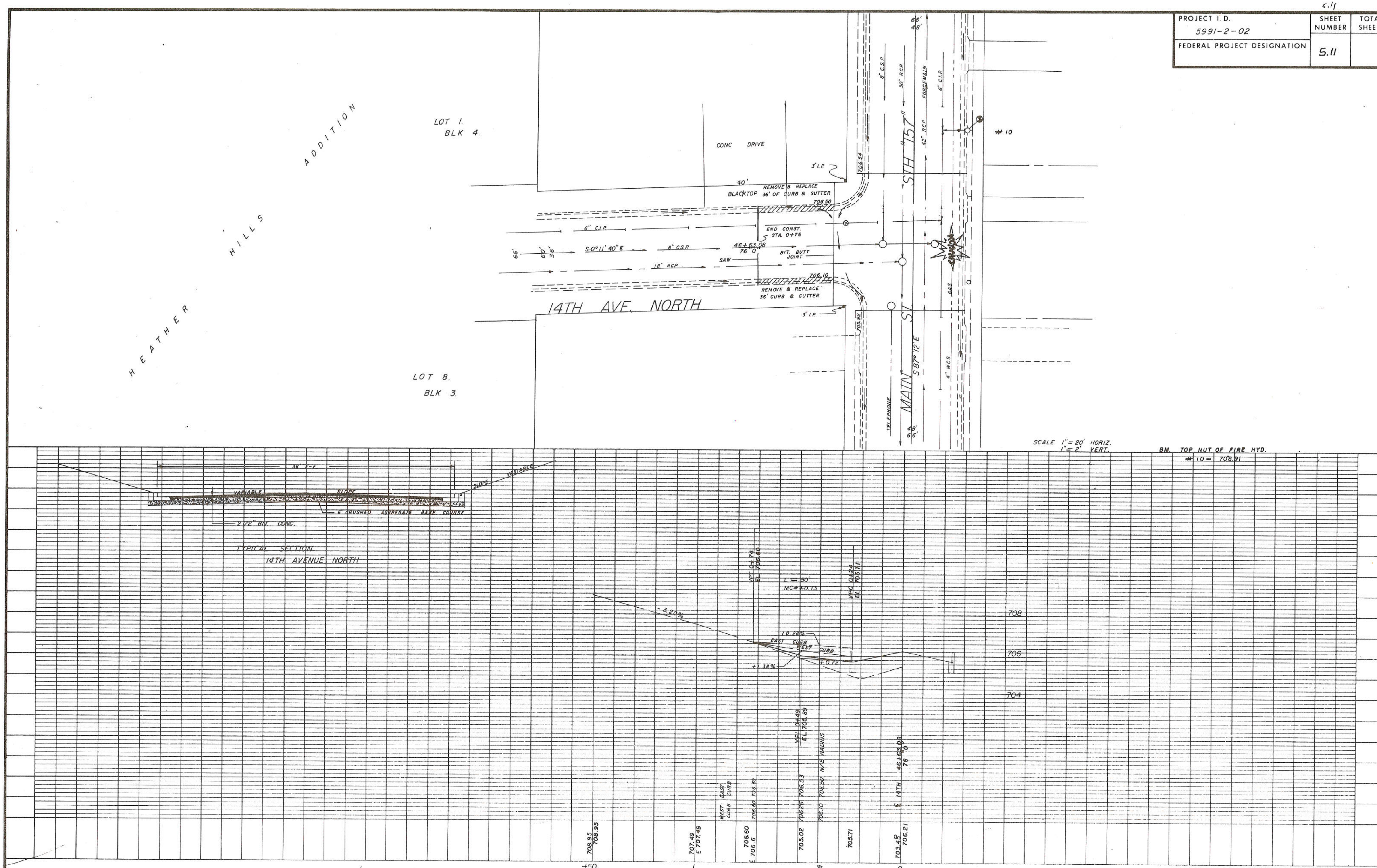
PROJECT I.D.
5991 - 2 - 02
FEDERAL PROJECT DESIGNATION
SHEET NUMBER
5.9
TOTAL SHEETS
HOUSE
BAKKEN
LOWRY
NETWA
SCHMALTZ
BURR
MAIN STREET STH "157"
S87° 12' 00" E
17TH NORTH
17TH SOUTH
16TH AVE. SO.
ONALASKA NURSING HOME
INSTALL TWO CATCH BASINS COMPLETE WITH 12" RCP LATERALS
REMOVE & REPLACE B.T. DRIVEWAY
REMOVE & REPLACE CONC. SIDEWALK
REMOVE & REPLANT TREES
REMOVE 4-CEDARS
HANDICAP RAMP TYPE 3
5' SIDEWALK
SLOPE EASEMENT
SLOPE INTERCEPT
END OF CONSTRUCTION
42" R.C.P. FORCE MAIN
12" R.C.P.
8" C.S.P.
6" C.I.P.
4" W.S.C.
15" PINE
42" STUMP
B.M. #11
SCALE 1" = 20' HORIZ. 1" = 2' VERT.
BENCH MARK #11 TOP NUT OF HYD. ELEV. 713.12
TOP 42" RCP FORCEMAIN
+0.56%
+2.82%
L = 50' MC = +0.3450
L = 150' MC = -0.60'
VPC 51+25 EL 710.67
VPI 52+00 EL 711.39
VPT 52+75 EL 713.51
VPC 55+36 EL 720.86
VPI 55+11 EL 722.98
Catalog No. 2130-C140

5.10

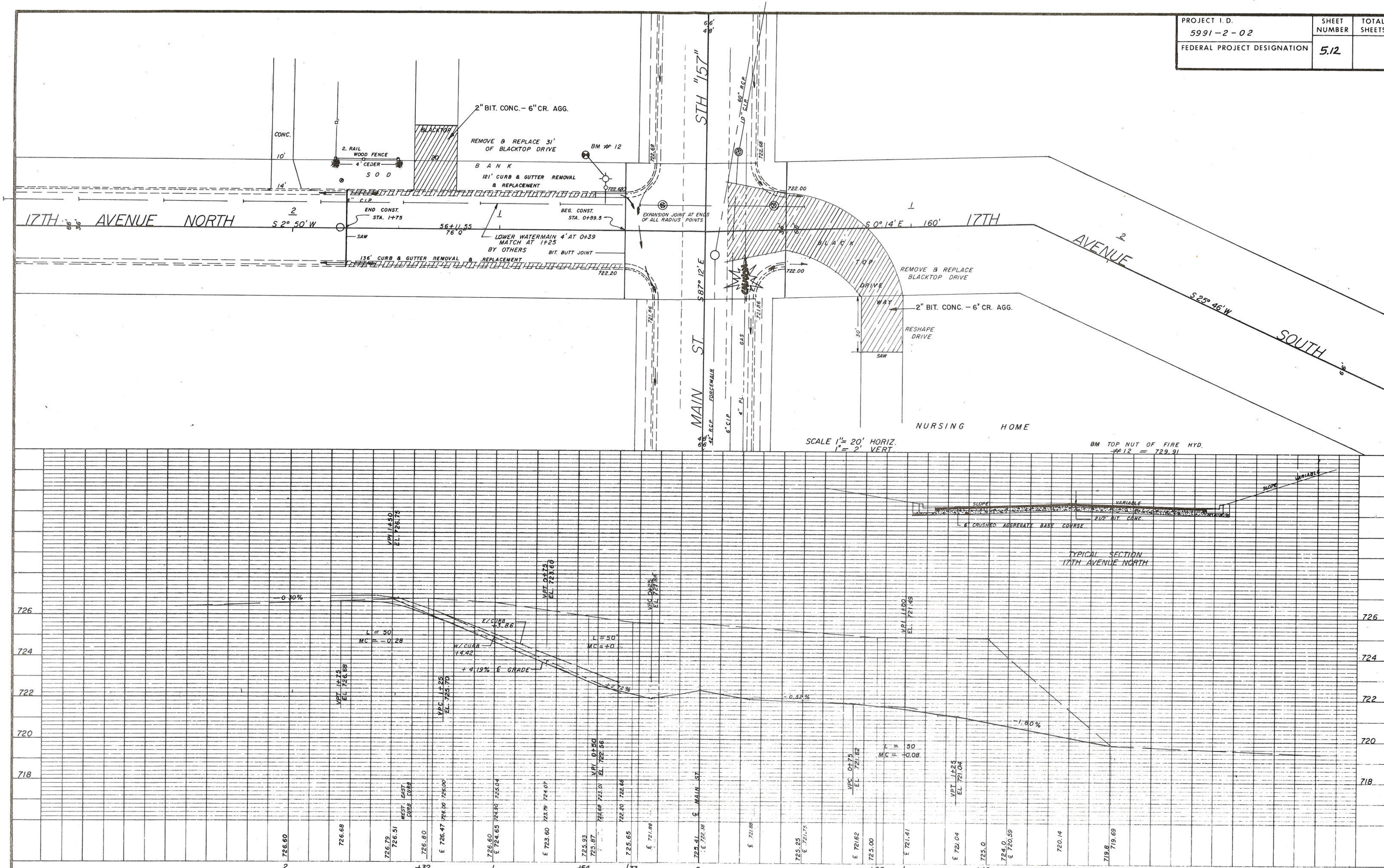


Catalog No. 2130-C140

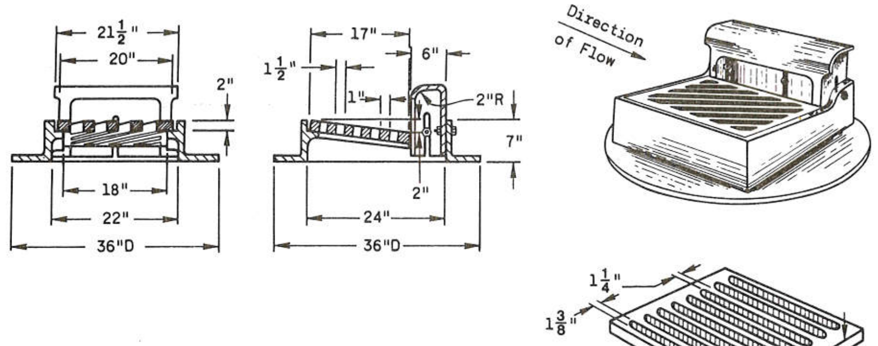
PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
5991-2-02	5.11	
FEDERAL PROJECT DESIGNATION		



Catalog No. 2130-C140

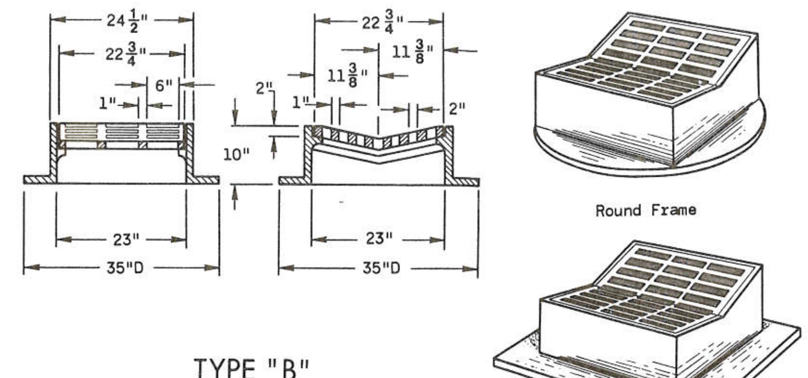


Catalog No. 2130-C140



TYPE "A"
(Approximate Weight 405 lbs.)
Frame Weight 250 lbs.
Grate Weight 85 lbs.
Box Weight 70 lbs.

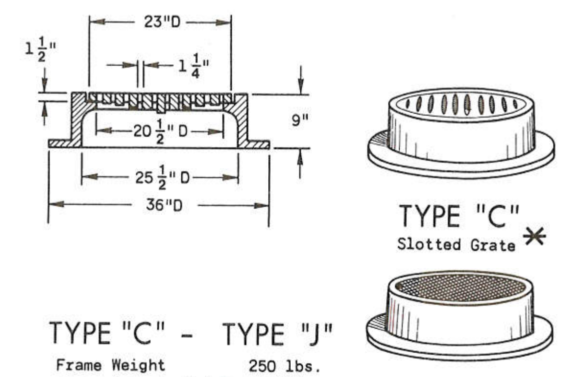
ALTERNATE TYPE GRATE *
(Longitudinal Slots)
Approximate Weight 100 lbs.



Round Frame

TYPE "B"
(Approximate Weight 395 lbs.)
Frame Weight 285 lbs.
Grate Weight 110 lbs.

Alternate Frame
(Square type)
35" Square

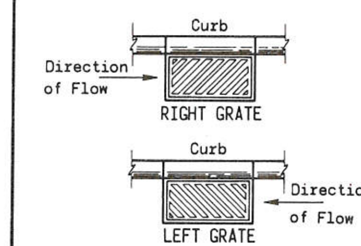


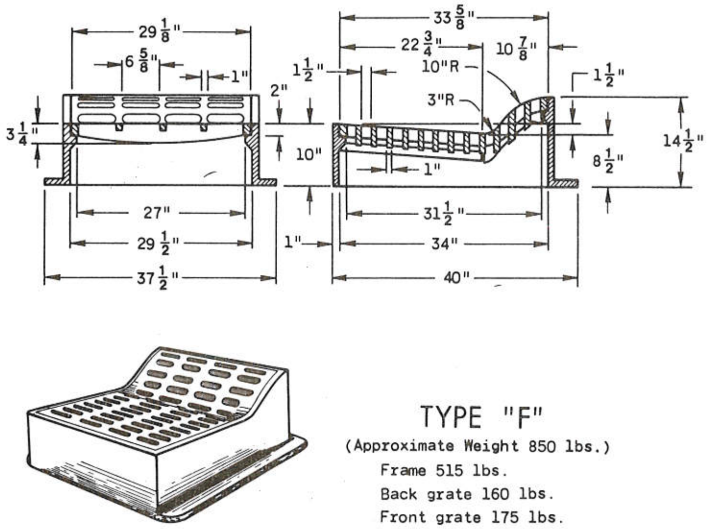
TYPE "C"
Slotted Grate *

TYPE "C" - TYPE "J"
Frame Weight 250 lbs.
Slotted Grate Weight 125 lbs.
Solid Cover Weight 150 lbs.

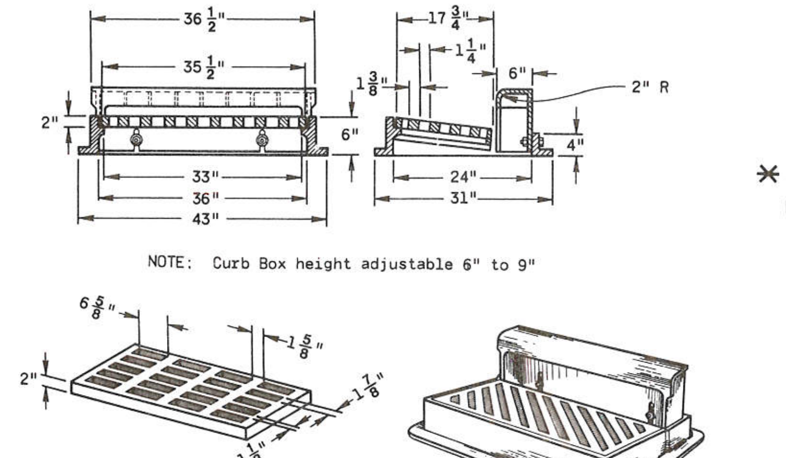
TYPE "J"
Solid Cover

Diagonal Slots shall be oriented to the direction of flow as shown hereon. Hence RIGHT and LEFT Grates shall be furnished depending on direction of flow. (See Sketch Below)





TYPE "F"
(Approximate Weight 850 lbs.)
Frame 515 lbs.
Back grate 160 lbs.
Front grate 175 lbs.

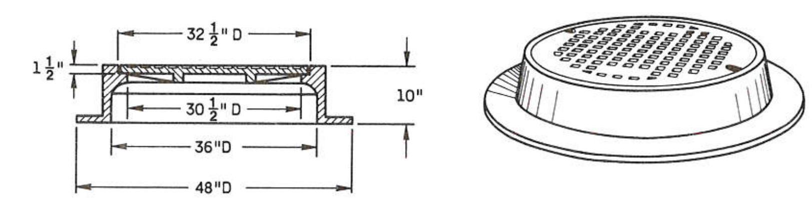


NOTE: Curb Box height adjustable 6" to 9"

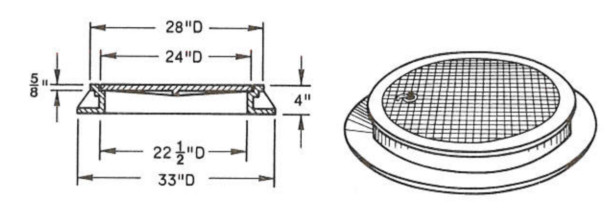
ALTERNATE TYPE GRATE
(Longitudinal Slots)
Approximate Weight 200 lbs.

TYPE "H"
(Approximate Weight 510 lbs.)
Frame Weight 220 lbs.
Grate Weight 175 lbs.
Box Weight 115 lbs.

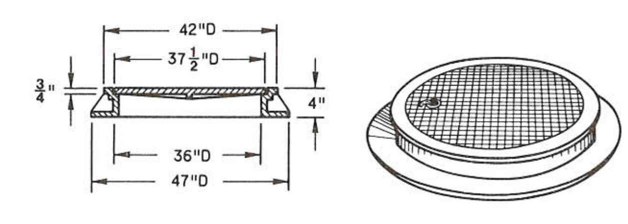
* CAUTION: DO NOT USE GRATES WITH LONGITUDINAL SLOTS WHERE BICYCLE TRAFFIC IS PERMITTED.



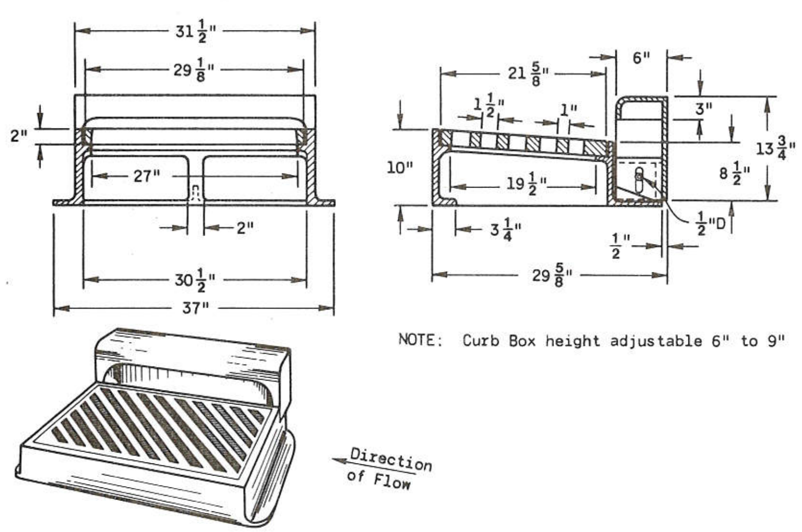
TYPE "K"
(Approximate Weight 785 lbs.)



TYPE "L"
(Approximate Weight 220 lbs.)

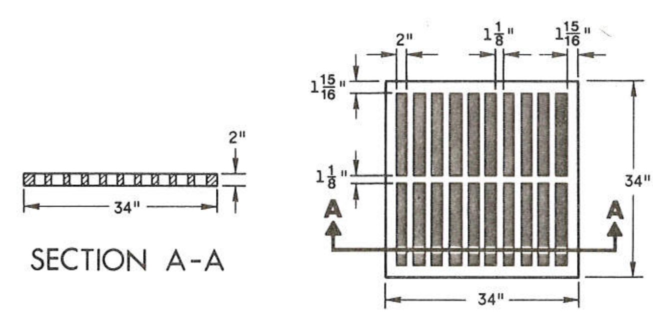


TYPE "M"
(Approximate Weight 535 lbs.)



NOTE: Curb Box height adjustable 6" to 9"

TYPE "WM"
(Approximate Weight 670 lbs.)
Frame Weight 350 lbs.
Grate Weight 185 lbs.
Box Weight 135 lbs.



SECTION A-A

TYPE "MS" *
(Approximate Grate Weight 285 lbs.)

GENERAL NOTES

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

Detail drawings for proposed alternate designs for Catch Basin, Manhole and Inlet Covers shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

All Catch Basin, Manhole and Inlet Covers which are placed in vehicular traffic areas shall be "Non-Rocking" type.

Adjustment of the cover to grade may be accomplished by the use of mortar and brick, or by Precast Concrete Grade Rings (AASHTO Designation M-199). Maximum adjustment shall be 8 inches.

Curb box height to be adjusted 4 to 9 inches, unless otherwise noted, after the form is in place.

The actual weight of covers may vary within 5 percent, plus or minus, of the approximate weight.

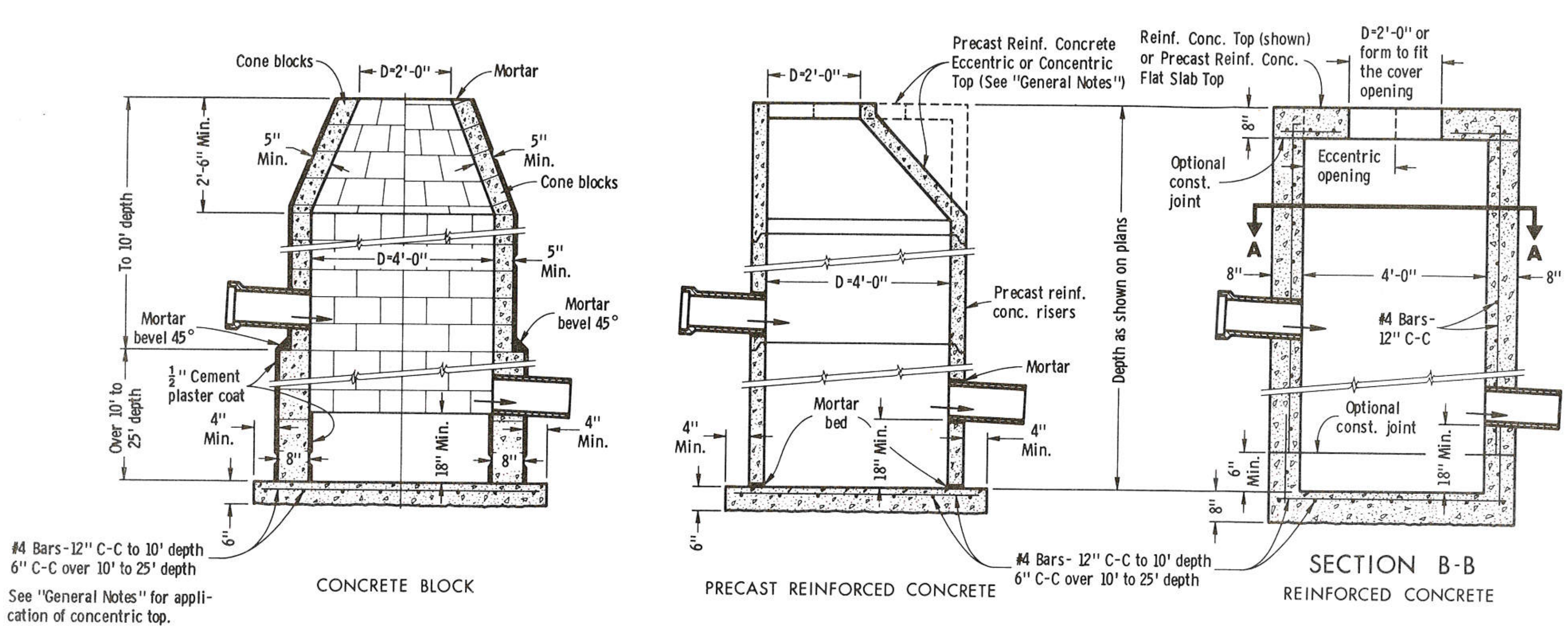
CATCH BASIN
MANHOLE AND
INLET COVERS

State of Wisconsin
Department of Transportation
Division of Highways

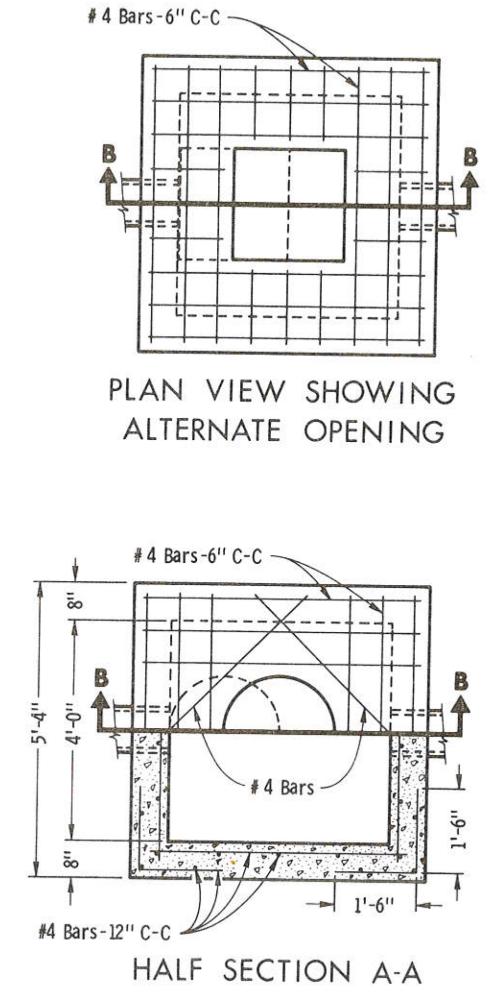
RECOMMENDED FOR APPROVAL:
12-3-75 — DATE — CHIEF of FACILITIES DEVELOPMENT
APPROVED
12-9-75 — DATE — STATE HIGHWAY ENGINEER

S.D.D. 8A5-2

S.D.D. 8A5-2



CATCH BASINS TYPE 1



GENERAL NOTES

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

Detailed drawings for proposed alternate designs for underground drainage structures shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

All drainage structures are designated on the plans as "Manholes 1 - C", "Catch Basins 1 - B", "Inlets 1 - H", etc. The first digit designates the masonry portion of the structure, and the following letter designates the type of cover to be used to comprise the complete unit.

Precast Reinforced Bases shall be placed on a bed of material at least 6 inches in depth, which meets the requirements of Granular Backfill. This bedding shall be compacted and provide uniform support for the entire area of the base.

Precast Reinforced Concrete Cone Tops (Eccentric or Concentric) or Precast Reinforced Concrete Flat Slab Tops may be used on concrete block structures. The Cone Tops shall be installed on a bed of mortar.

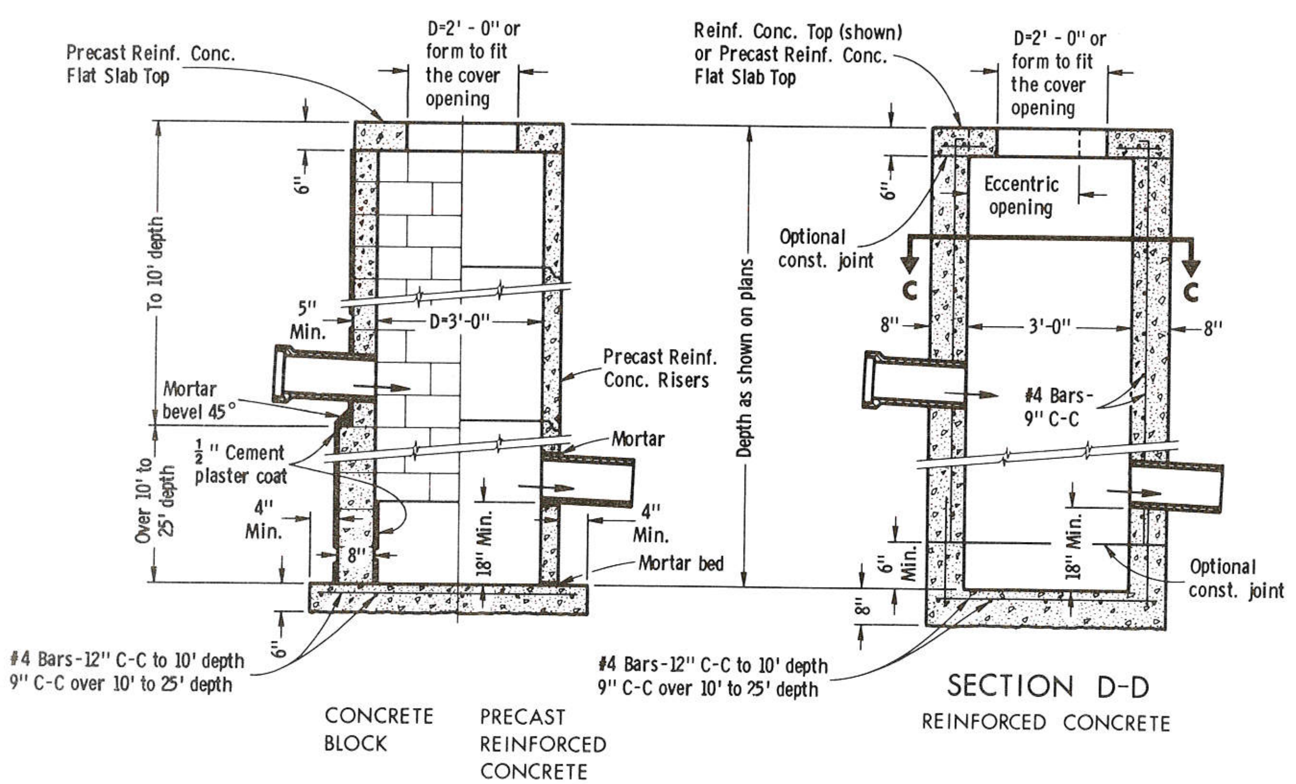
Eccentric Cone Tops may be used on all structures, and Concentric Cone Tops shall be used only on structures 5 feet or less in depth, unless otherwise directed by the Engineer.

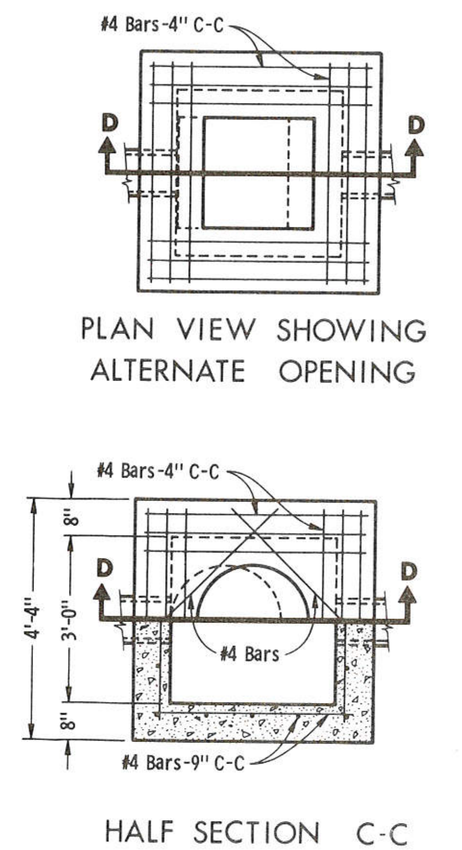
Steps meeting the following requirements shall be installed in all structures over 5 feet in depth: 16 inch C-C maximum spacing; project a minimum clear distance of 4 inches from the wall at the point of embedment; minimum length of 10 inches; minimum wall embedment of 3 inches; and be capable of supporting a concentrated load of 300 lbs. Ferrous metal steps not painted or treated to resist corrosion shall have a minimum cross sectional dimension of 1 inch.

Solid Aluminum steps shall have a minimum cross sectional dimension of 0.75 inch. Aluminum surfaces to be embedded in concrete shall be given one coat of suitable quality paint, such as zinc chromate primer conforming to federal specification TT-P-645 or equivalent. Steps of approved Polypropylene plastic coated reinforcement bar will be acceptable.

All bar steel reinforcement shall be embedded 2 inches clear unless otherwise shown or noted.

Precast Reinforced Concrete Risers may be placed with tongue up or down.

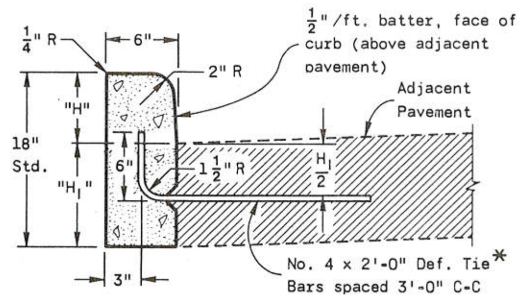




CATCH BASINS TYPE 2

CATCH BASINS TYPE 1 & 2
State of Wisconsin *Department of Transportation* *Division of Highways*
RECOMMENDED FOR APPROVAL: 12-3-75 DATE — CHIEF of FACILITIES DEVELOPMENT
APPROVED 12-9-75 DATE — STATE HIGHWAY ENGINEER

S.D.D. 8A6-2

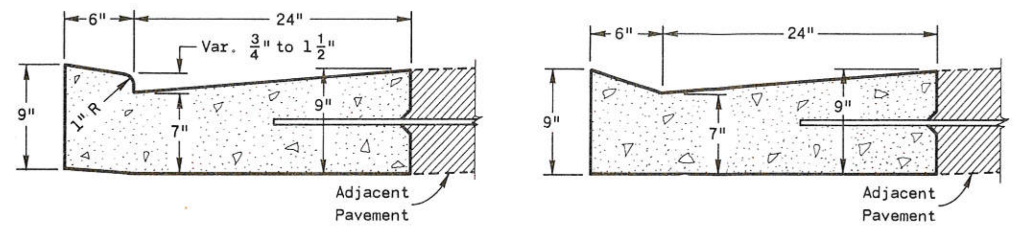


"H" = 9" Max. and $3\frac{1}{2}$" Min. and shall be 6" unless otherwise shown on the plans.

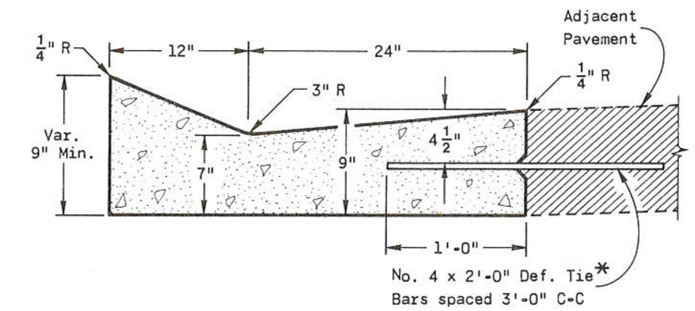
"H_1" = Same as adjacent pavement thickness for rigid pavement and 12" for non-rigid pavement (Tie Bars omitted)

TYPE "A" (INCLUDING TIE BARS) — TYPE "D" (EXCLUDING TIE BARS)

CONCRETE CURB

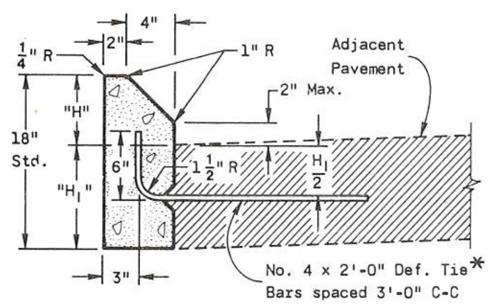


ALTERNATE ENTRANCES
CONCRETE CURB & GUTTER 30"



TYPE "A" (INCLUDING TIE BARS) — TYPE "D" (EXCLUDING TIE BARS)

CONCRETE GUTTER 36"

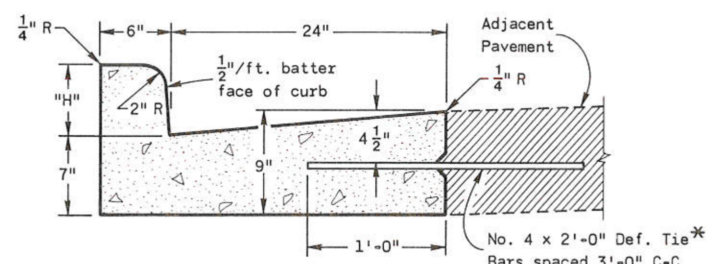


"H" = 6" Max. and 4" Min. and shall be 6" unless otherwise shown on the plans.

"H_1" = Same as adjacent pavement thickness for rigid pavement and 12" for non-rigid pavement (Tie Bars omitted)

TYPE "G" (INCLUDING TIE BARS) — TYPE "J" (EXCLUDING TIE BARS)

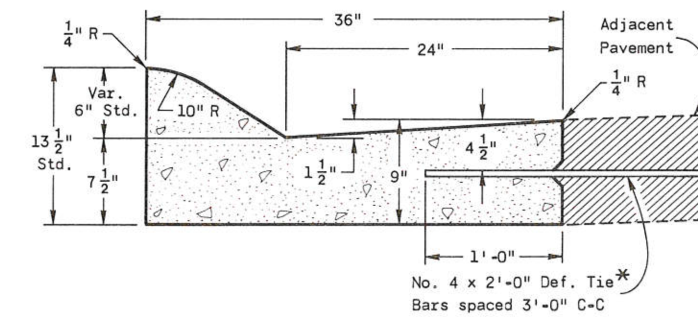
CONCRETE CURB
(MOUNTABLE)



"H" = 9" Max. $3\frac{1}{2}$" Min. and shall be 6" unless otherwise shown on the plans.

TYPE "A" (INCLUDING TIE BARS) — TYPE "D" (EXCLUDING TIE BARS)

CONCRETE CURB & GUTTER 30"



TYPE "A" (INCLUDING TIE BARS) — TYPE "D" (EXCLUDING TIE BARS)

CONCRETE CURB & GUTTER 36"
(MOUNTABLE)

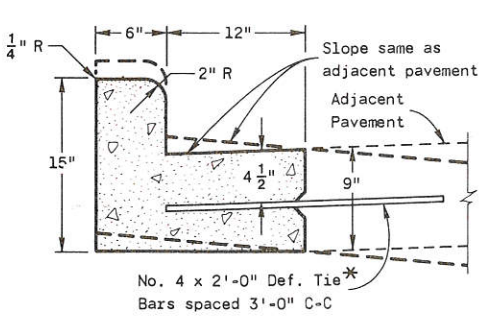
GENERAL NOTES

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

Detailed drawings for proposed alternate designs for Curb, Gutter and Combination Curb and Gutter shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

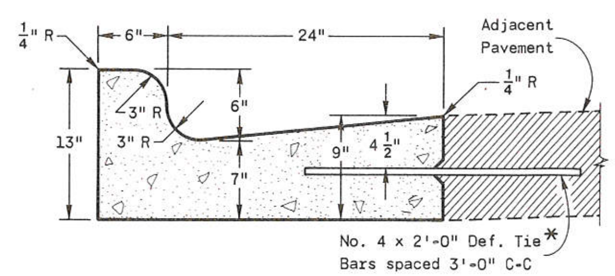
Joints shall not be sealed in Concrete Curb, or Concrete Curb & Gutter.

* Where Curb and Gutter are poured adjacent to existing pavement, the Hook Bolt may be used as for "Longitudinal Joints - Concrete Pavement".



TYPE "A" (INCLUDING TIE BARS) — TYPE "D" (EXCLUDING TIE BARS)

CONCRETE CURB & GUTTER 18"
Reverse slope Curb & Gutter shown thus – – –



TYPE "K" (INCLUDING TIE BARS) — TYPE "L" (EXCLUDING TIE BARS)

CONCRETE CURB & GUTTER 30"

CONCRETE CURB, GUTTER, COMBINATION CURB & GUTTER

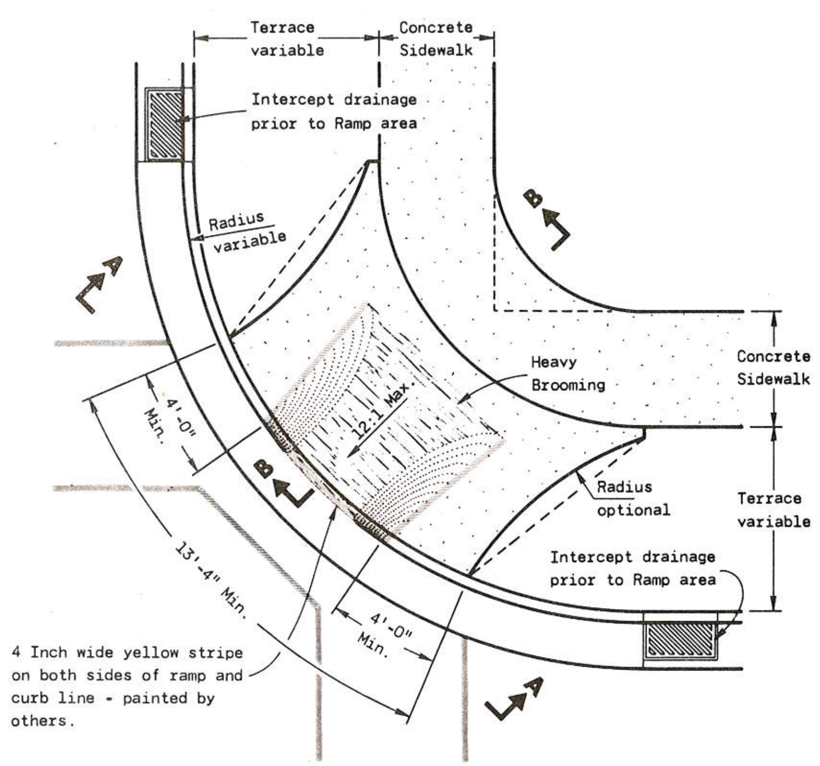
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL: 9-12-73 DATE — [signature] CHIEF of FACILITIES DEVELOPMENT

APPROVED 9-19-73 DATE — [signature] STATE HIGHWAY ENGINEER

S.D.D. 8D1-2

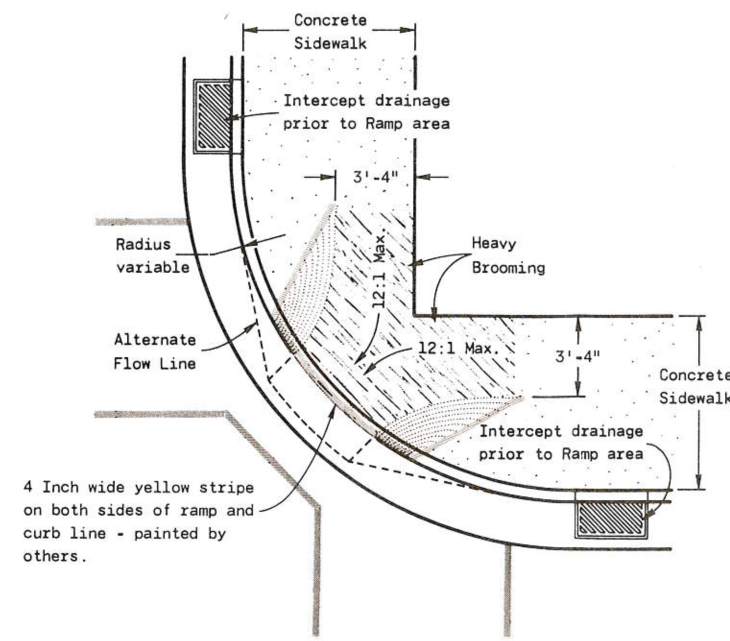
S.D.D. 8D1-2



PLAN VIEW

TYPE 1 RAMP

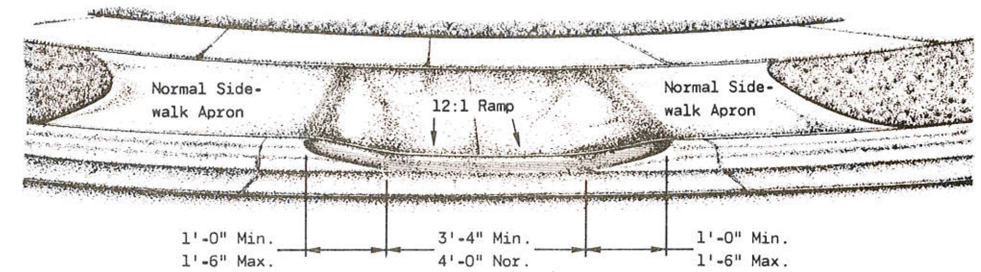
(CENTER OF CORNER RADIUS)



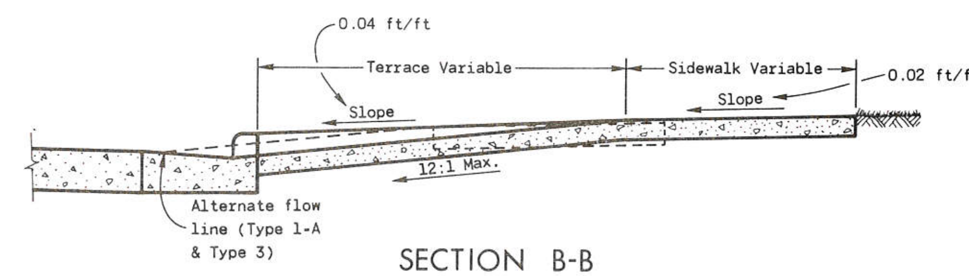
PLAN VIEW

TYPE 1-A RAMP

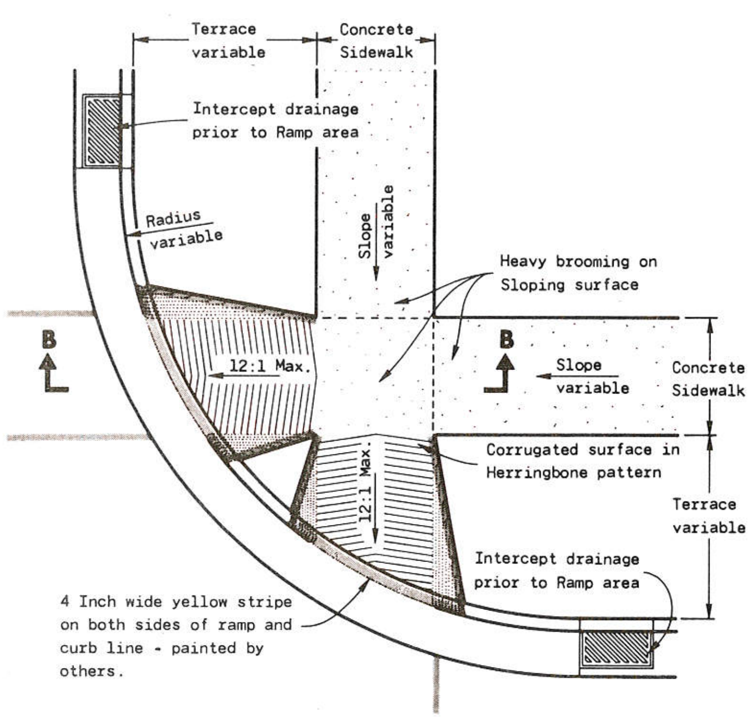
(NO TERRACE)



VIEW A-A



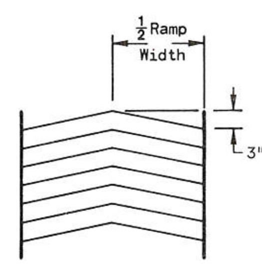
SECTION B-B



PLAN VIEW

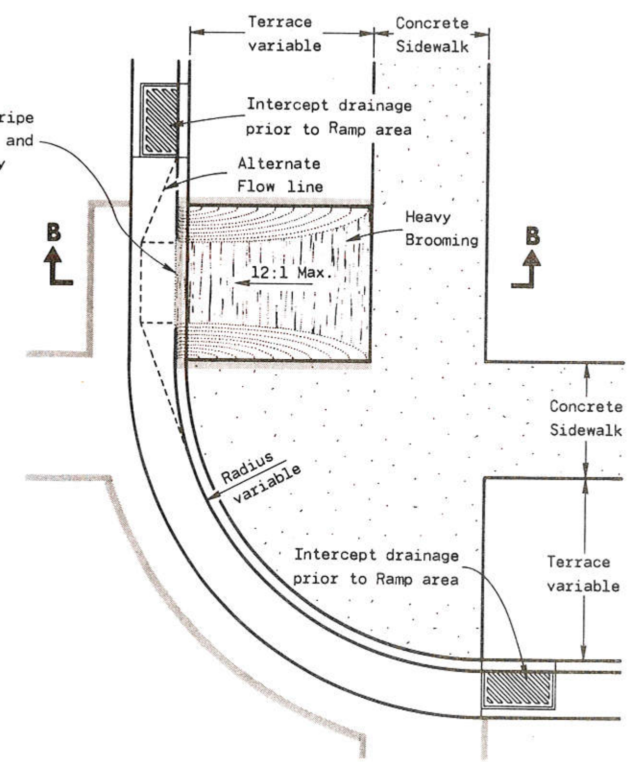
TYPE 2 RAMP

(ON LINE WITH SIDEWALK)



DETAIL OF HERRINGBONE PATTERN

DETAIL OF SURFACE CORRUGATION



PLAN VIEW

TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

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

Ramps shall be built at 12:1 or flatter. When necessary, the Sidewalk elevation may be lowered to meet the high point on the Ramp.

Type 1 or Type 1-A Ramps shall have a normal Sidewalk apron and Curb on both sides of Ramp. Entire Curb radius shall not be made into Ramp.

Curb Ramps shall be measured and paid for as Concrete Sidewalk and Concrete Curb and Gutter.

Section 66.616, Wisconsin Statutes requires Curb Ramping for handicapped persons. This law also states that "the Ramp shall be either bordered on both sides and the Curb line with a four inch wide yellow stripe, or the surface treatment on the Ramp shall have integral coloration".

The paint stripe alternate is shown to alert users of this drawing of the requirement for delineation of the Ramp. The paint stripes will be applied by state or municipal signing crews unless otherwise indicated by Special Provision.

CURB RAMPS FOR HANDICAPPED PERSONS

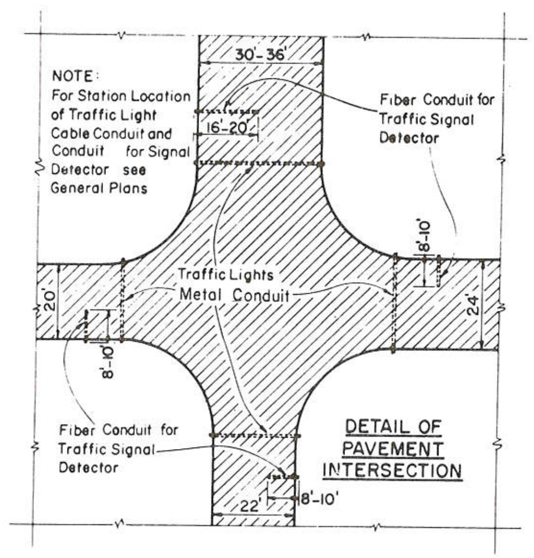
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
12-16-75 DATE — CHIEF of FACILITIES DEVELOPMENT

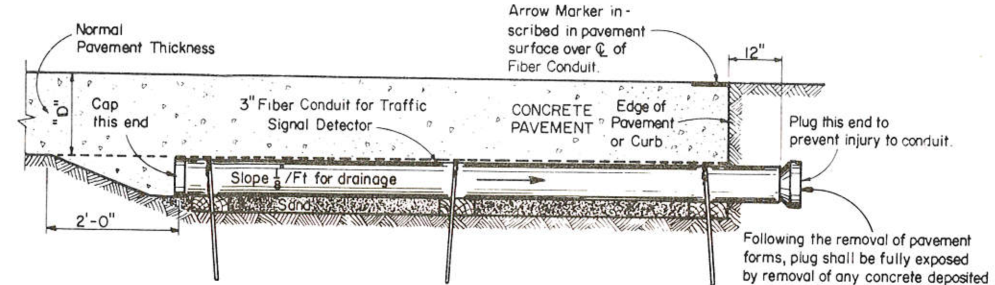
APPROVED
12-18-75 DATE — STATE HIGHWAY ENGINEER

S.D.D. 8D5-2

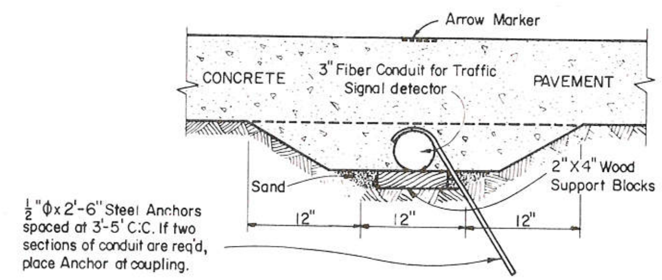
4



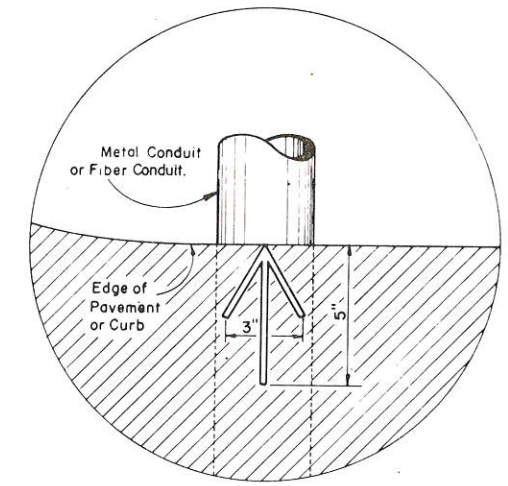
PLAN VIEW
SHOWING RELATIVE POSITION OF
TRAFFIC LIGHT CONDUITS AND
TRAFFIC SIGNAL DETECTOR CONDUITS
AT UNDIVIDED HIGHWAY INTERSECTIONS



TRAFFIC SIGNAL DETECTOR FOR
UNDIVIDED HIGHWAYS

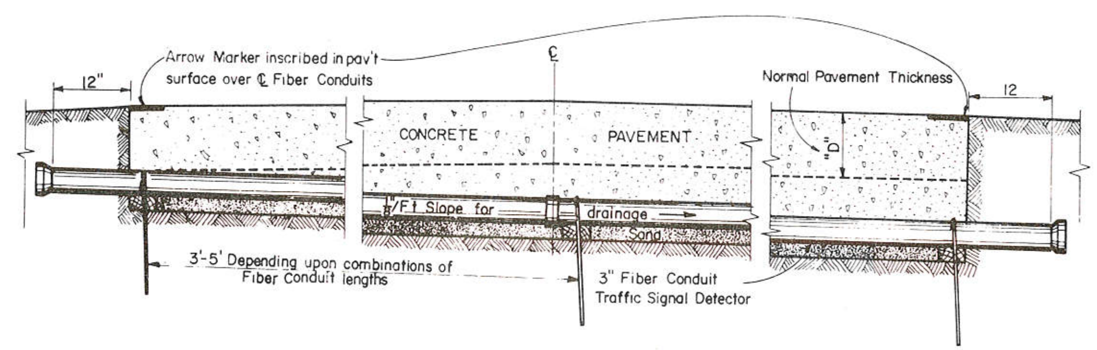


SIDE & END ELEVATIONS
SHOWING PLACEMENT DETAILS
FOR TRAFFIC SIGNAL DETECTOR CONDUIT



Arrow Marker to be inscribed in fresh concrete and/or bituminous surfacing 1/4" to 3/8" deep at each location where pipe conduit or fiber cond. are placed under rigid surfacing.

PLAN VIEW - ARROW MARKER



TRAFFIC SIGNAL DETECTOR FOR
DIVIDED HIGHWAYS

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.

MATERIALS

Metal Conduit shall be furnished and placed as shown hereon and in accord with the Standard Specifications.

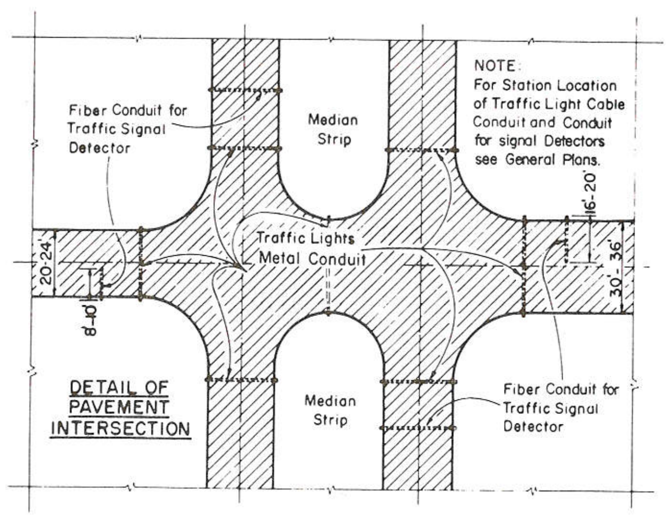
Fiber Conduit shall be furnished and placed as shown hereon and in accord with the Standard Specifications.

MEASUREMENT & PAYMENT

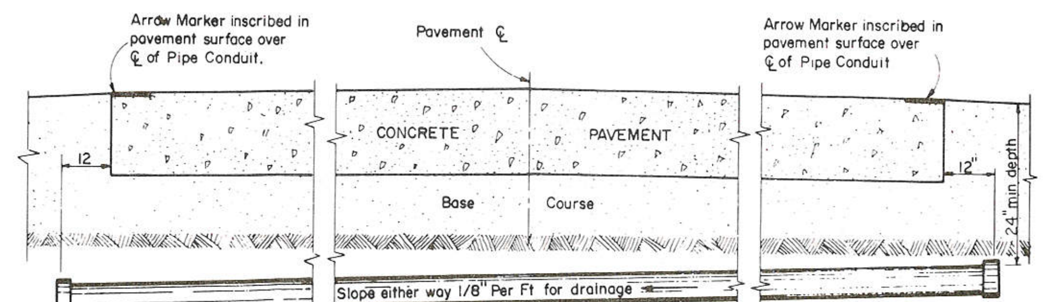
The item of Fiber Conduit shall be measured and paid for by the linear foot complete in place and in accord with Standard Specifications

CONDUIT SIZE

Unless shown or required otherwise on the plans, Metal Conduit shall be 2" I.D.



PLAN VIEW
SHOWING RELATIVE POSITION OF
TRAFFIC LIGHT CONDUITS AND
TRAFFIC SIGNAL DETECTOR CONDUITS
AT DIVIDED HIGHWAY INTERSECTIONS



ELEVATION ON CENTERLINE
SHOWING PLACEMENT DETAILS
FOR TRAFFIC SIGNAL CONDUIT

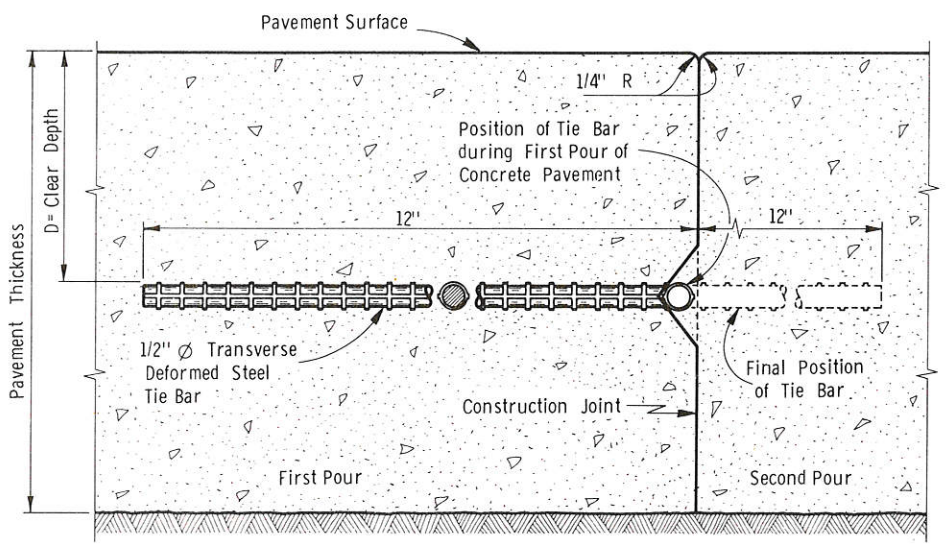
METAL CONDUIT & FIBER CONDUIT

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:
4-3-63 DATE — J. S. Pelt, ENGINEER OF DESIGN

APPROVED:
4/5/63 DATE — E. L. Roettiger, STATE HIGHWAY ENGINEER

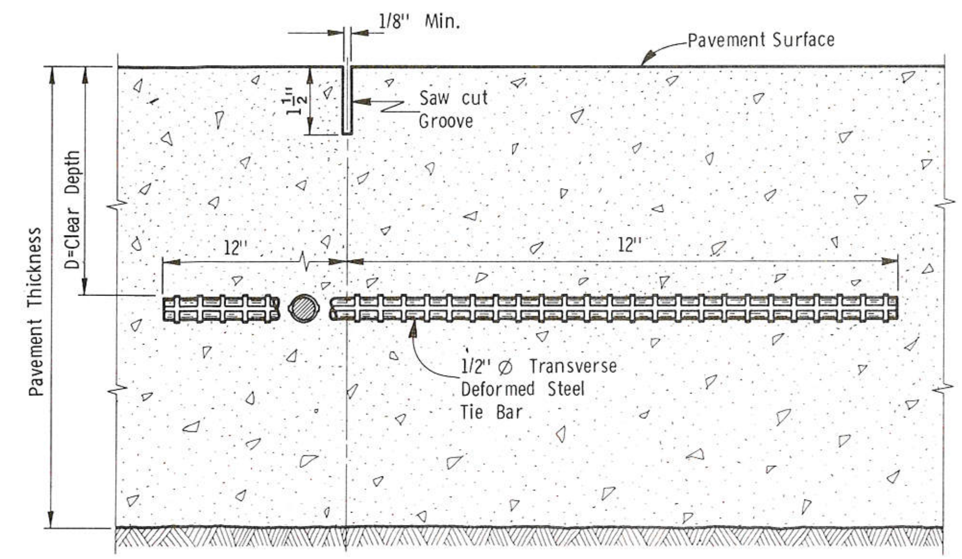
S. D. D. 9B2-1



SECTION

CONSTRUCTION JOINT

(TIE BAR)

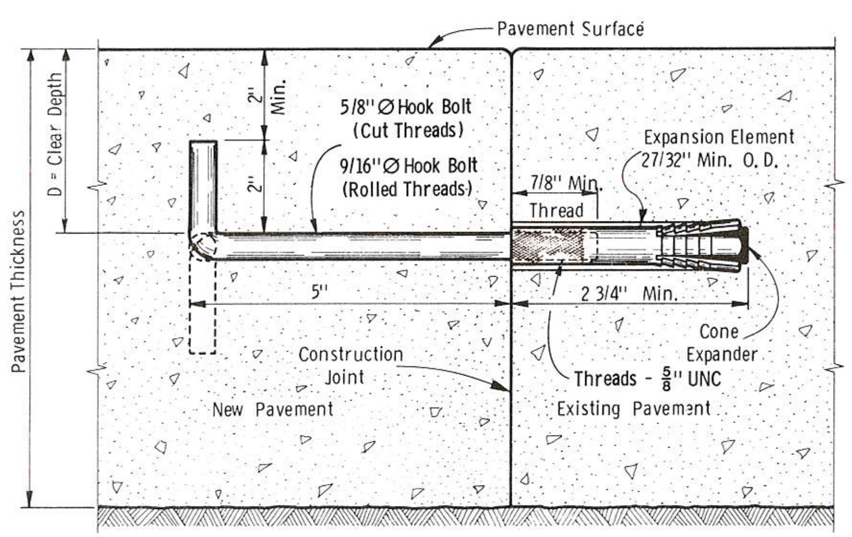


SECTION

SAWED JOINT

(TIE BAR)

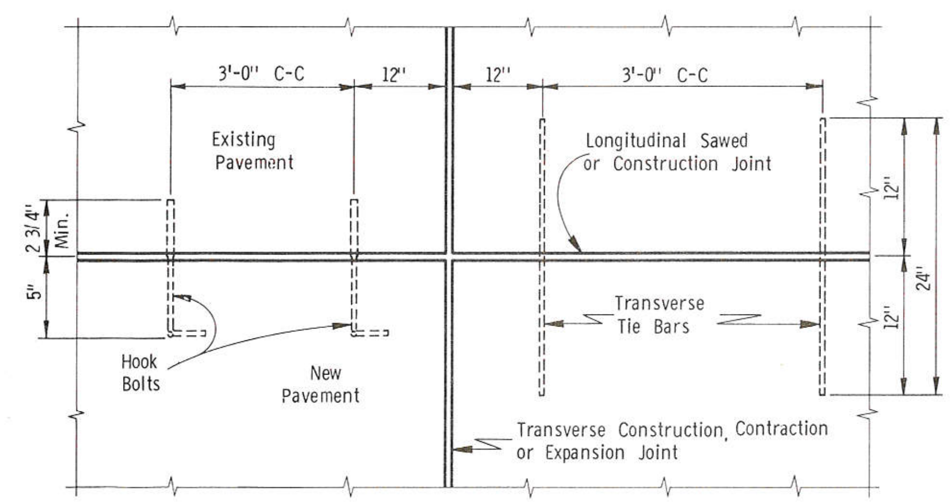
Pavement Thickness	"D" Tie Bar	"D" Hook Bolt
8"	2 - 4 3/4"	4 - 4 3/4"
9"	2 - 5 1/2"	4 - 5 1/2"
10"	2 - 5 3/4"	4 - 5 3/4"



SECTION

CONSTRUCTION JOINT

(HOOK BOLT)



PLAN VIEW

Showing Location Details for Hook Bolts and Tie Bars

GENERAL NOTES

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

Hook Bolts shall be used only when specified in the contract plans.

The Hook Bolts shall conform to ASTM specification A 307, except that the requirements of paragraph 1 (c) shall not apply.

The Expansion Anchor shall be an internally threaded anchor which consists of an externally slit Expansion Element and a single Cone Expander. The Expansion Element shall contain a minimum of three grips. The Expansion Element shall be threaded in such a manner as to prevent the machine bolt from coming in contact with the Cone Expander at any time.

The Expansion Anchor shall be set in existing pavement according to manufacturer's instructions. The holes shall be of the recommended diameter and depth and shall be drilled by methods recommended by the manufacturer of the particular anchor. The drilled holes shall be left rough, not reamed, and free from any drill dust.

Alternate designs of construction joint installations may be used upon written approval of the Engineer.

Longitudinal Joints shall not be sealed.

Tie Bars shall be placed at the required location by devices or methods approved by the Engineer.

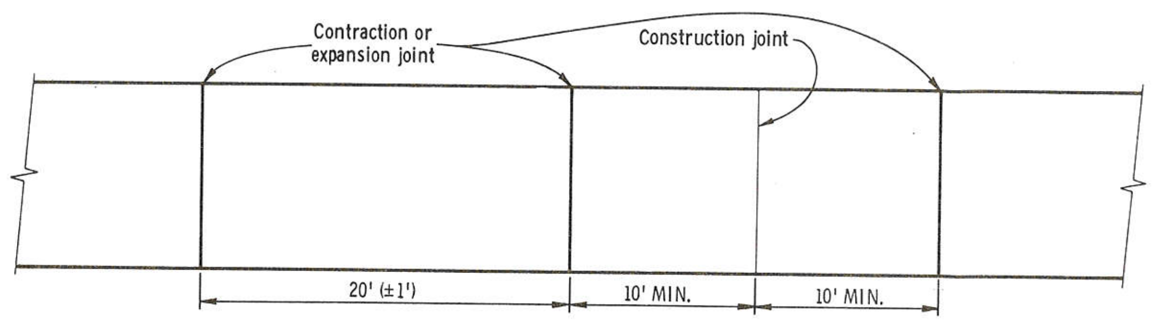
LONGITUDINAL JOINTS
CONCRETE PAVEMENT

State of Wisconsin
Department of Transportation
Division of Highways

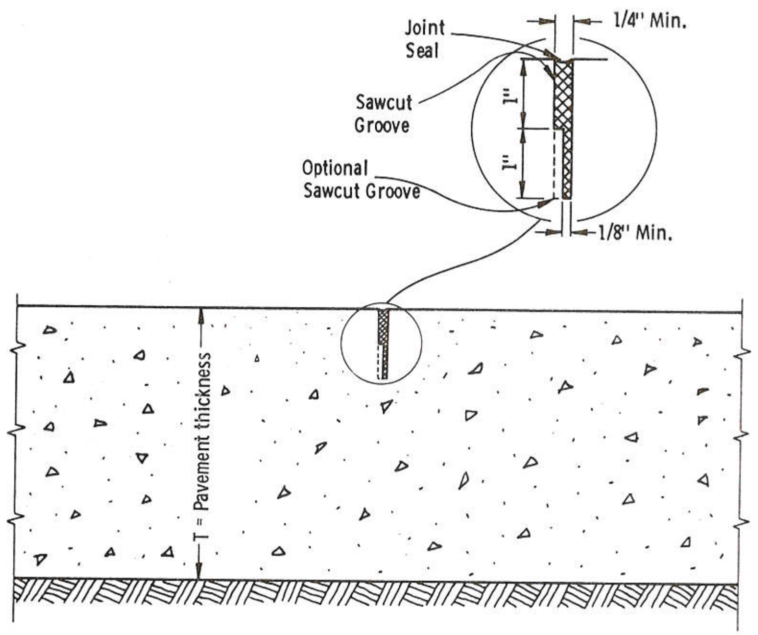
RECOMMENDED FOR APPROVAL:
5/23/72 — DATE — I. C. Herried — CHIEF DESIGN ENGINEER

APPROVED
5/24/72 — DATE — S. E. Hicks — STATE HIGHWAY ENGINEER

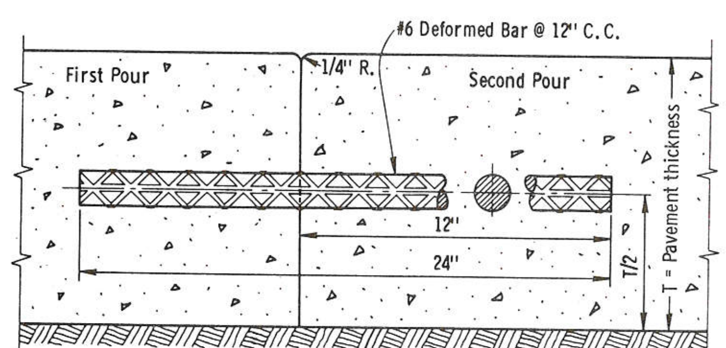
S.D.D. 13C1-2



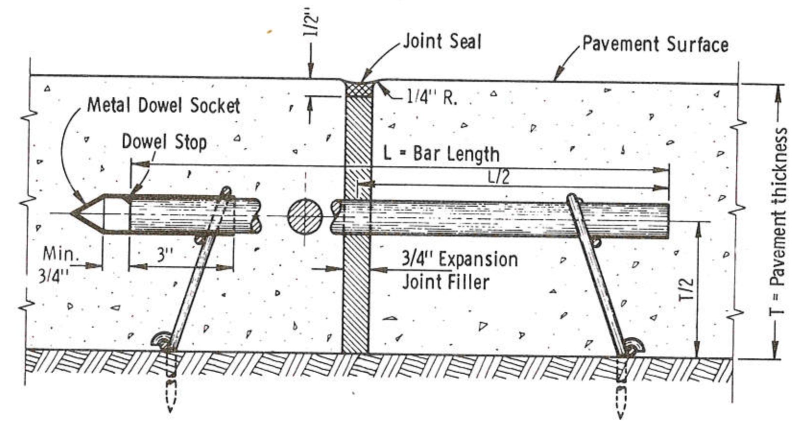
SCHEMATIC SHOWING JOINT LOCATIONS



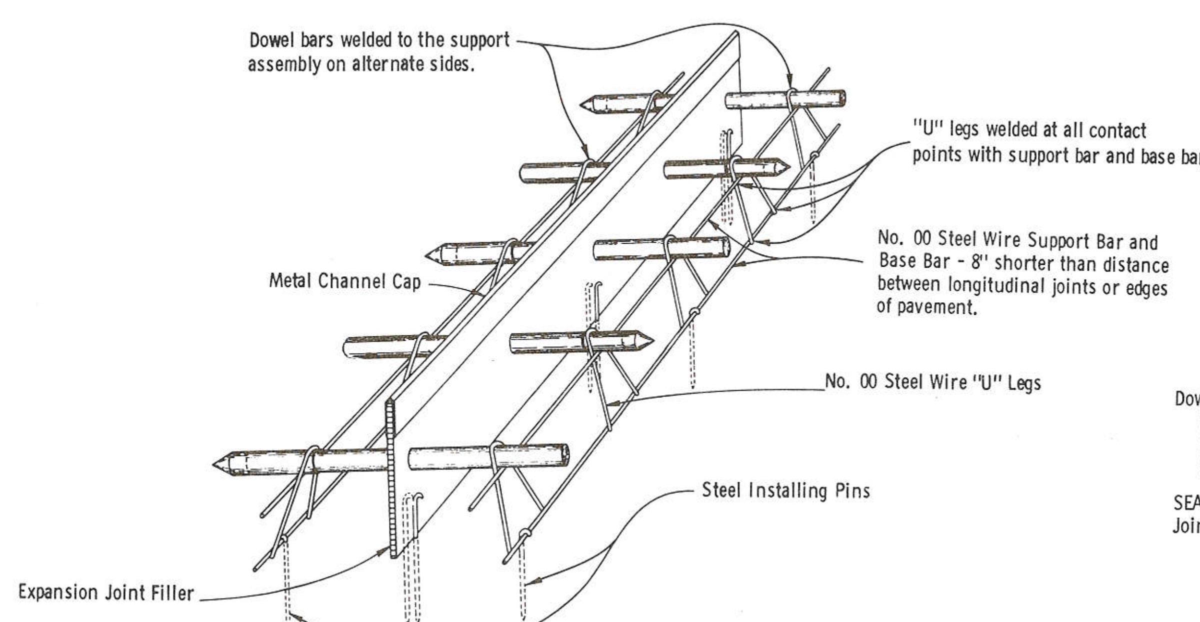
CONTRACTION JOINT



CONSTRUCTION JOINT



EXPANSION JOINT



INSTALLING DEVICE FOR LOAD TRANSFER DOWELS
AND EXPANSION JOINT ASSEMBLY

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.

Steel installing pins of sufficient number, length and rigidity shall be used to prevent movement of the joint assembly during construction operations.

ALTERNATE DESIGNS
Alternate designs for load transfer dowels at expansion joints and appurtenances other than shown here may be used upon written approval of the Engineer.

CONTRACTION JOINTS
Contraction joints shall be installed at 20' (± 1') spacing from adjacent contraction or expansion joints, except that lesser spacings shall be used:

1. At locations or spacing indicated on the plans.
2. As extensions of transverse joints or cracks in abutting pavement lanes.
3. At locations designated by the Engineer where there are manholes or other fixtures in the pavement.

CONSTRUCTION JOINTS
Construction joints shall be installed a minimum of 10' from the nearest joint.

Deformed bars shall be spaced at 12" C-C and 6" from the edge of pavement.

Deformed bars may be inserted after the concrete has been poured.

EXPANSION JOINTS
Expansion joints are required only at structure approaches and/or where shown on the plans. Locations may be shifted to avoid stationary fixtures in the pavement.

Expansion joint filler shall be secured with sufficient number of steel pins to prevent horizontal movement during the placing of concrete.

DOWEL BARS
Dowel bars shall be spaced at 12" C-C and 6" from the edge of pavement.

Dowel bars shall have at least one end sawed and be free of all burrs and protruding edges.

Dowel bars having one end sawed and one end sheared shall be oriented so that the sheared end is welded to the support assembly and the sawed end remains free.

Metal dowel socket (CAP), $1\frac{1}{16}$" or $1\frac{5}{16}$" Dia., 24 gauge, closed on one end shall be placed alternately on the free end of each dowel bar for proper pavement expansion.

Dowel bars shall be installed in accordance with the plans and the section of the Standard Specifications entitled "TRANSVERSE JOINTS IN CONCRETE PAVEMENT" except as hereinafter provided.

Dowel bars shall be coated by one of the following processes:

1. Type I - Adhesive thermoplastic resin system coating in accordance with Federal Specification L - C530 B except the coating thickness shall be 17 mils nominal (± 3 mils) and the adhesive thickness shall be 4 mils nominal (+ 4 mils, - 1 mil). or
2. Type II - Thermosetting epoxy system in accordance with Federal Specification L - C530B except the total minimum thickness shall be 10 mils. The bars shall be coated with SAE # 140 oil or similar lubricant after installing in the support assembly.

The ends of the dowel bars need not be coated.

Coating of the welds where the dowel bars are attached to the support assembly is not required.

Selection of Type I or Type II coating is optional; however, one type shall be used throughout the project.

Dowel Bar Dimensions:
For 7" P. C. Pavement = 1" ⌀ x 18"
For 8" P. C. Pavement = 1" ⌀ x 18"
for 9" P. C. Pavement = $1\frac{1}{4}$" ⌀ x 18"

SEALING JOINTS
Joints shall be sealed as shown.

TRANSVERSE JOINTS
IN NON-REINFORCED
CONCRETE PAVEMENT

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
6-12-73 — DATE
[signature] CHIEF of FACILITIES DEVELOPMENT

APPROVED
6-19-73 — DATE
[signature] STATE HIGHWAY ENGINEER

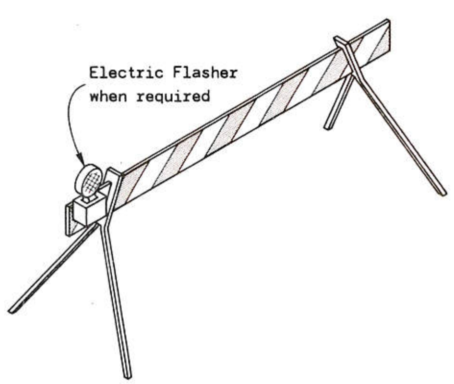
S.D.D. 13 C 4-3

S.D.D. 13 C 4-3

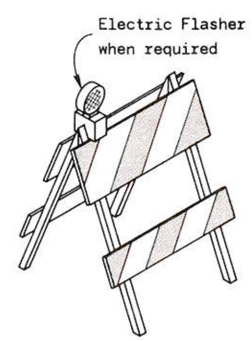
TABLE OF BARRICADE CHARACTERISTICS

BARRICADE TYPE	I	II	III
Height	3'(91.4 cm) Min.		5'(152.4 cm) Min.
* Rail Width	8"(20.3 cm) Min. to 12"(30.5 cm) Max.		
Rail Length	2'(61.0 cm) Min. to Variable Maximum		
** Stripe Width	6" (15.2 cm) at 45° Angle		
Stripe Colors	Reflectorized Orange & White		

* Nominal dimensions when barricade is constructed of lumber.
** May be 4"(10.2 cm) for rail lengths less than 3'(91.4 cm).



TYPICAL TYPE I BARRICADE



TYPICAL TYPE II BARRICADE

W20-3
48"(121.9 cm) x 48"(121.9 cm)
Black Lettering on Reflective Orange Background
Letter Series "D"
Letter height 7" (17.8 cm)

R11-2
48"(121.9 cm) x 30"(76.2 cm)
Black Lettering on Reflective White Background
Letter Series "D"
Letter height 8" (20.3 cm)

STANDARD SIGNS-TYPE II

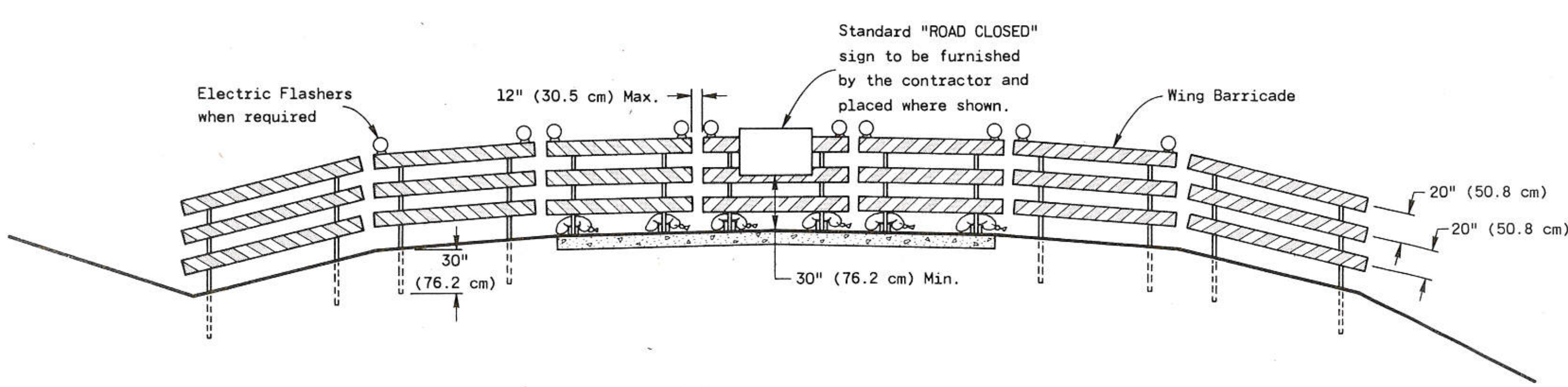
GENERAL NOTES

The contractor shall furnish, erect and maintain Barricades and Signs. Details regarding location, spacing, dimensions, fabrication, material, sign lettering, lighting devices and color of Barricades and Signs shall conform to this drawing, the Wisconsin Manual on Uniform Traffic Control Devices, the Standard Specifications, Special Provisions and/or plans.

Type III Barricades and Signs shall be erected at the termini of projects and at other road or street locations where it is necessary to control or eliminate public access to the con - struction area.

Type I and II Barricades shall be used on projects when traffic is to be maintained through the construction area.

The actual field location of barricade installations and advance signs shall be as directed by the Engineer.



TYPICAL INSTALLATION SHOWING TYPE III BARRICADE

CONSTRUCTION BARRICADES

CONSTRUCTION BARRICADES
& STANDARD SIGNS

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
6-6-75
DATE
CHIEF of FACILITIES DEVELOPMENT

APPROVED
6-6-75
DATE
STATE HIGHWAY ENGINEER

S.D.D. 15C1-4

S.D.D. 15C1-4

SCALE 1" = 5' HORIZ
1" = 2' VERT.

PROJECT DESIGNATION	SHEET NUMBER
5991-2-02	8

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL

SHEET TOTAL

SURVEY | PLOTTED | NOTE BOOK | TEMPLATE | NO. | AREAS | AREAS CHECKED

BRUNING 40-230 20813

PLATE 3 CROSS SECTION - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

PROJECT DESIGNATION	SHEET NUMBER
5991-2-02	8.1

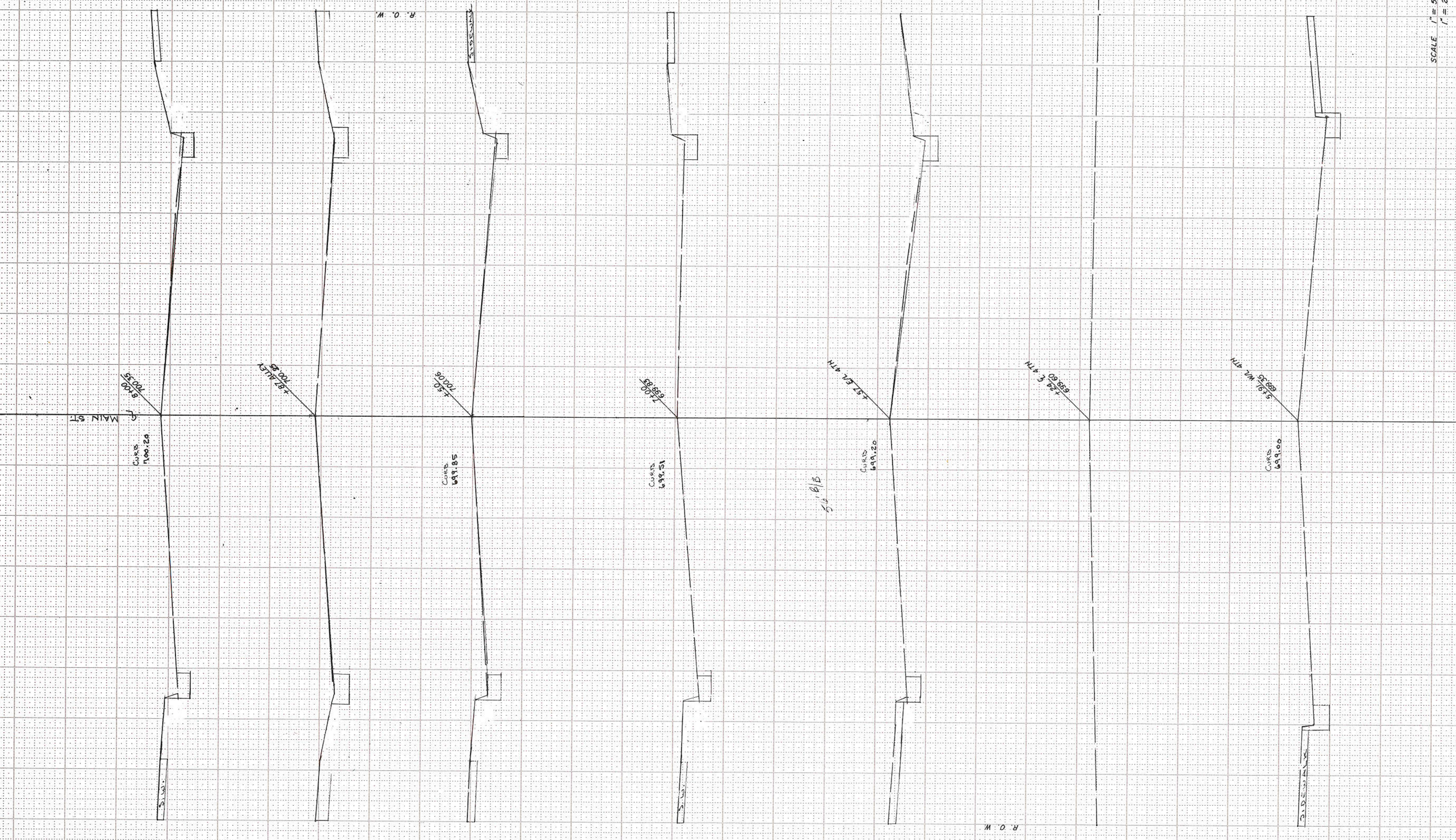
SCALE 1" = 5' HORIZ. 1" = 2' VERT.

STATION	DISTANCE	YARDAGE EXCAVATION					FILL

SHEET TOTAL

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

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



SCALE 1" = 5' HORIZ.
1" = 2' VERT.

PROJECT DESIGNATION	SHEET NUMBER
5991-2-02	8.2

STATION	DISTANCE	YARDAGE: EXCAVATION	YARDAGE: FILL
SHEET TOTAL			

SURVEY NOTE BOOK NO. ___ PLOTTED ___ TEMPLATE ___ AREAS ___ AREAS CHECKED ___

SURVEY NOTE BOOK NO. ___ PLOTTED ___ TEMPLATE ___ AREAS ___ AREAS CHECKED ___

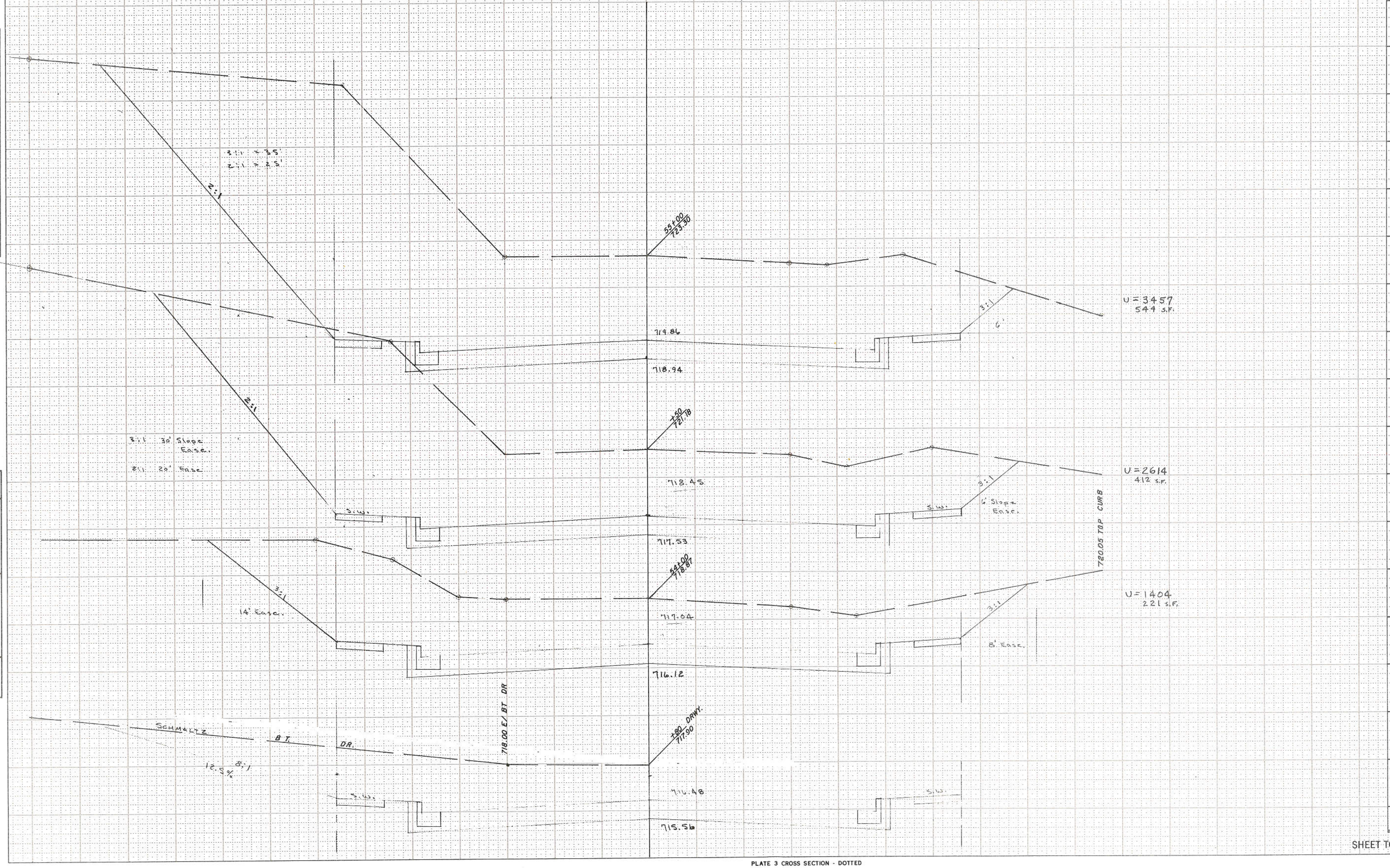
BRUNING 40-230 20813

PLATE 3 CROSS SECTION - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

PROJECT DESIGNATION	SHEET NUMBER
5991 – 2 – 02	8.15

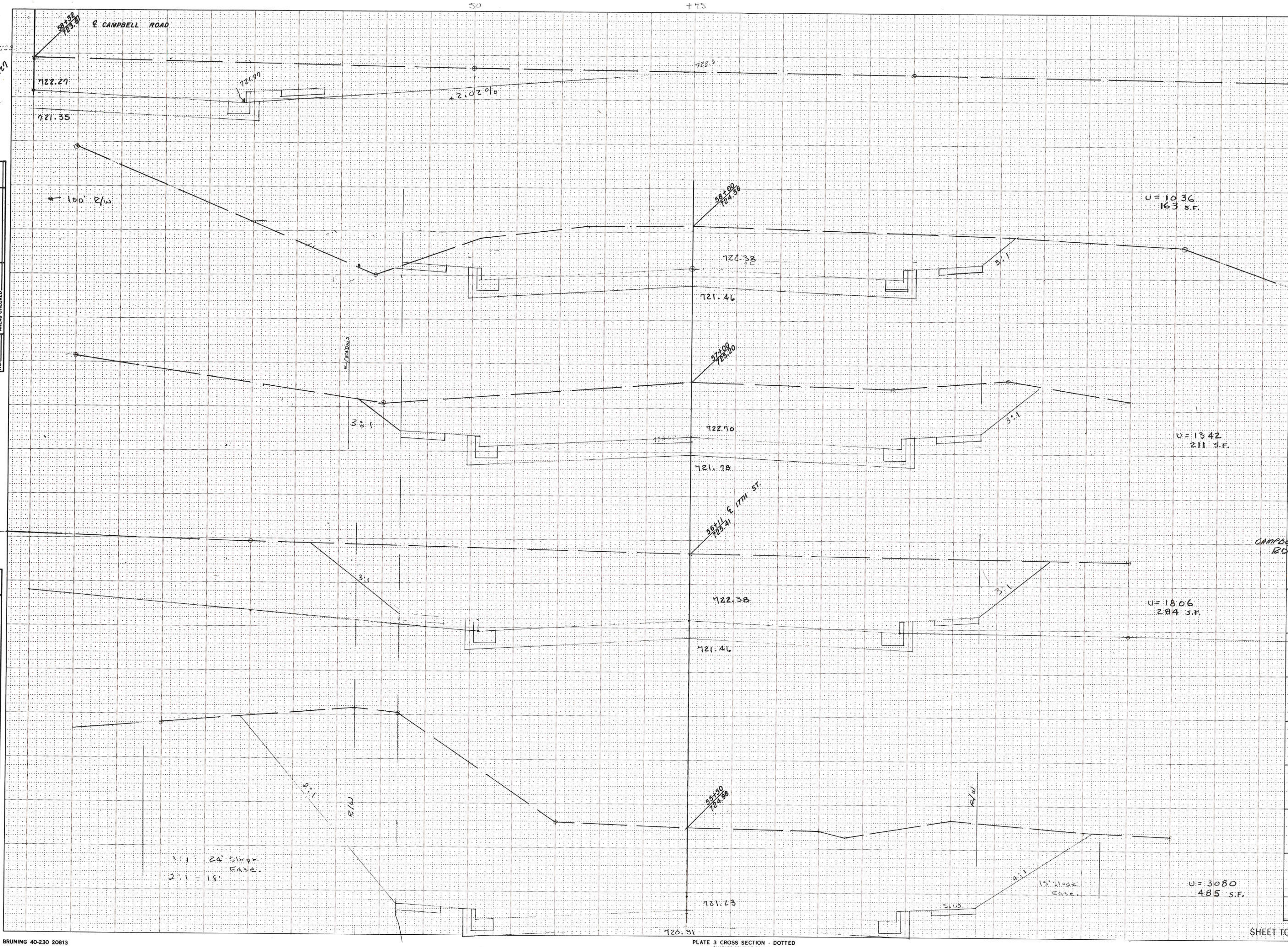
FINAL SURVEY — NOTE BOOK / NO. — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK / NO. — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — BY — DATE



STATION	DISTANCE	YARDAGE – EXCAVATION – UNCL.	EXCAVATION	EXCAVATION	EXCAVATION	FILL
53+50						
	50	320				
54+00						
	50	586				
54+50						
	50	885				
55+00						
SHEET TOTAL		1791 C.Y.				

PLATE 3 CROSS SECTION - DOTTED



PROJECT DESIGNATION	SHEET NUMBER
5991 - 2 - 02	8.16

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	FILL
55+00			
	50	953	
55+50			
	61	869	
56+11			
	89	816	
57+00			
	100	693	
58+00			
	100	491	
59+00			
CAMPBELL RD.		255	
SHEET TOTAL		4077 C.Y.	

U = 1036
163 S.F.

U = 1342
211 S.F.

U = 1806
284 S.F.

U = 3080
485 S.F.

BRUNING 40-230 20813

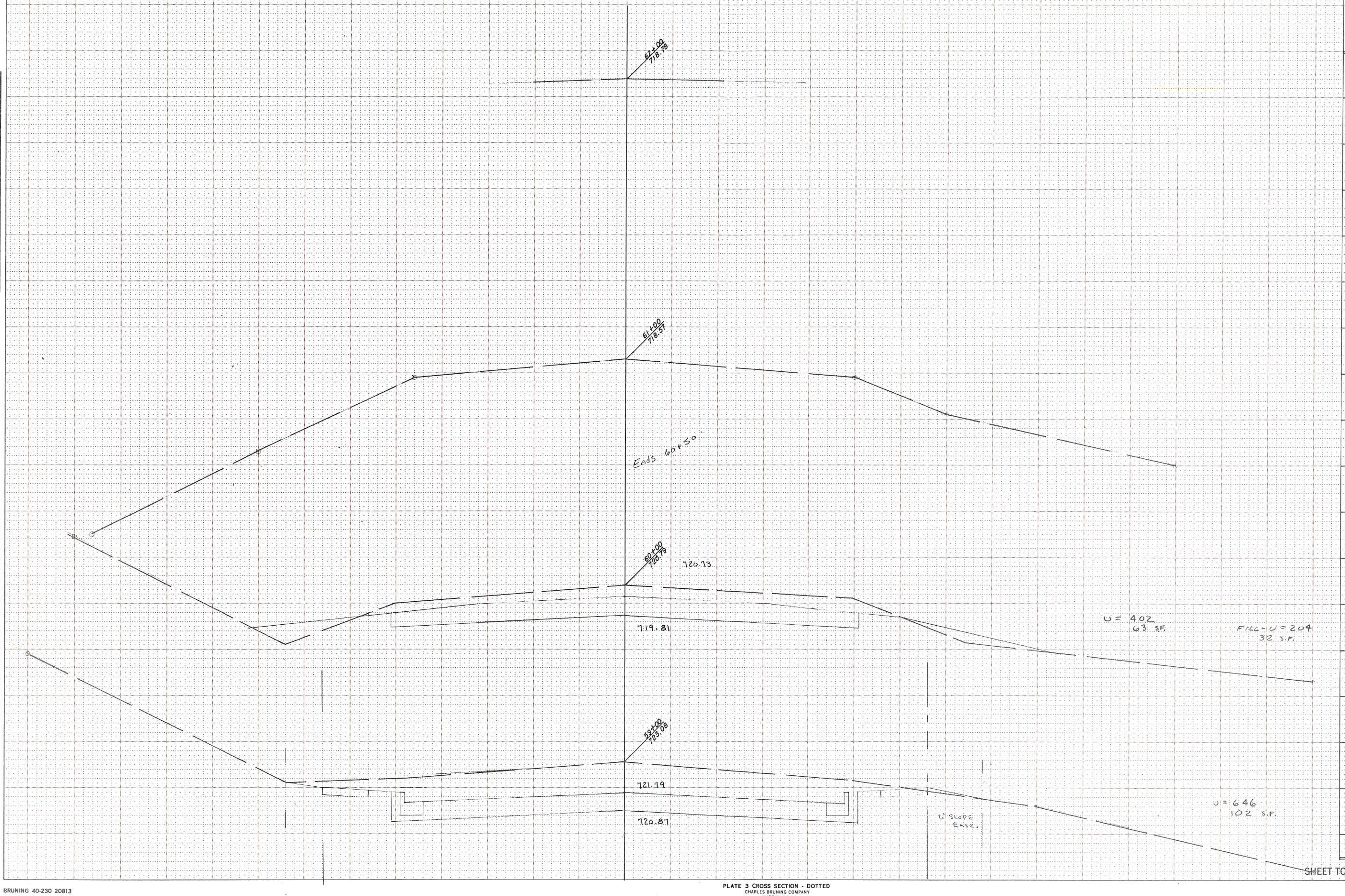
PLATE 3 CROSS SECTION - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

SURVEY	PLOTTED
NOTE BOOK	TEMPLATE
NO.	AREAS
	AREAS CHECKED

NOTE BOOK	TEMPLATE
NO.	AREAS
	AREAS CHECKED

PROJECT DESIGNATION	SHEET NUMBER
5991-2-02	8.17

STATION	DISTANCE	YARDAGE: EXCAVATION: UNCL.				FILL
59+00						
	100	306				59
60+00						
	50	58				30
60+50						
SHEET TOTAL		364 C.Y.				89 C.Y.



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

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

PROJECT DESIGNATION	SHEET NUMBER
5991 - 2 - 02	8.18

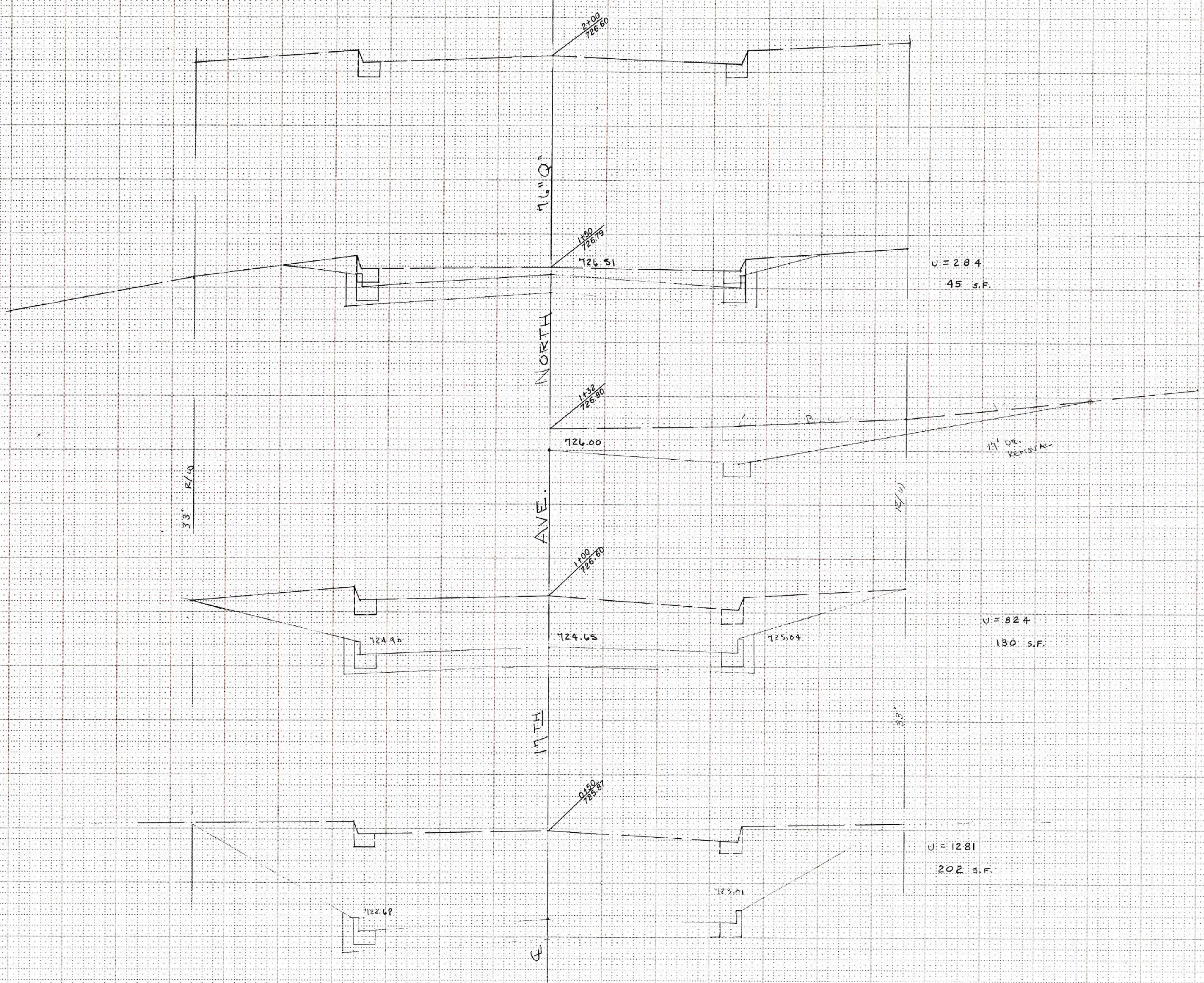
STATION	DISTANCE	YARDAGE: EXCAVATION	FILL
SHEET TOTAL			

SURVEY NOTE BOOK NO.___ PLOTTED ___ TEMPLATE ___ AREAS ___ AREAS CHECKED ___

SURVEY NOTE BOOK NO.___ PLOTTED ___ TEMPLATE ___ AREAS ___ AREAS CHECKED ___

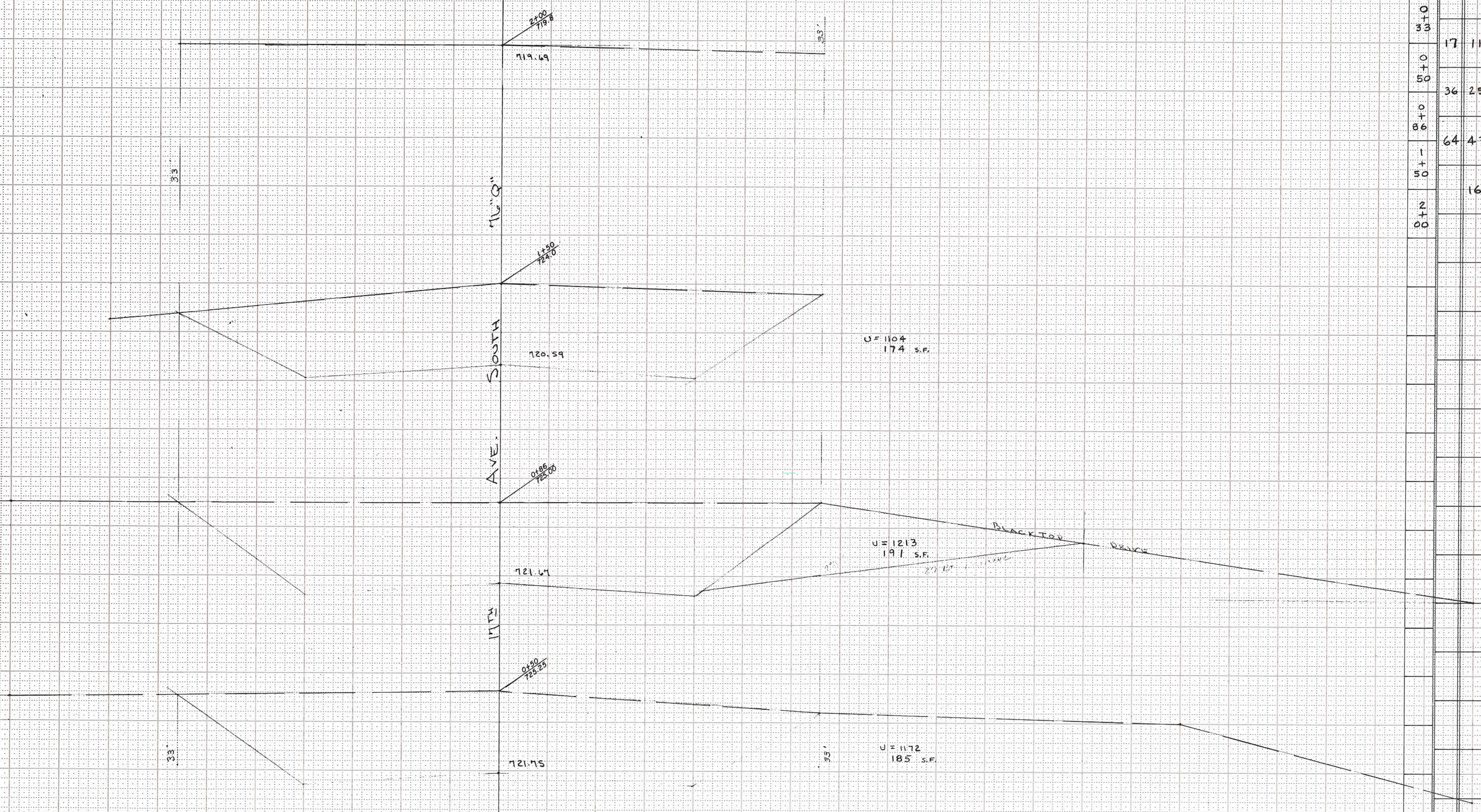
PROJECT DESIGNATION	SHEET NUMBER
5991 — 2-02	8.19

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.				FILL
0+33						
	17	127				
0+50						
	50	307				
1+00						
	50	162				
1+50						
	50	42				
2+00						
SHEET TOTAL		638 C.Y.				



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

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



PROJECT DESIGNATION	SHEET NUMBER
5991-2-02	8.20

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.				FILL
0+33						
	17	116				
0+50						
	36	251				
0+86						
	64	433				
1+50						
		161				
2+00						
SHEET TOTAL		961 C.Y.				

BRUNING 40-230 20813

PLATE 3 CROSS SECTION - DOTTED
CHARLES BRUNING COMPANY
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PLAN230