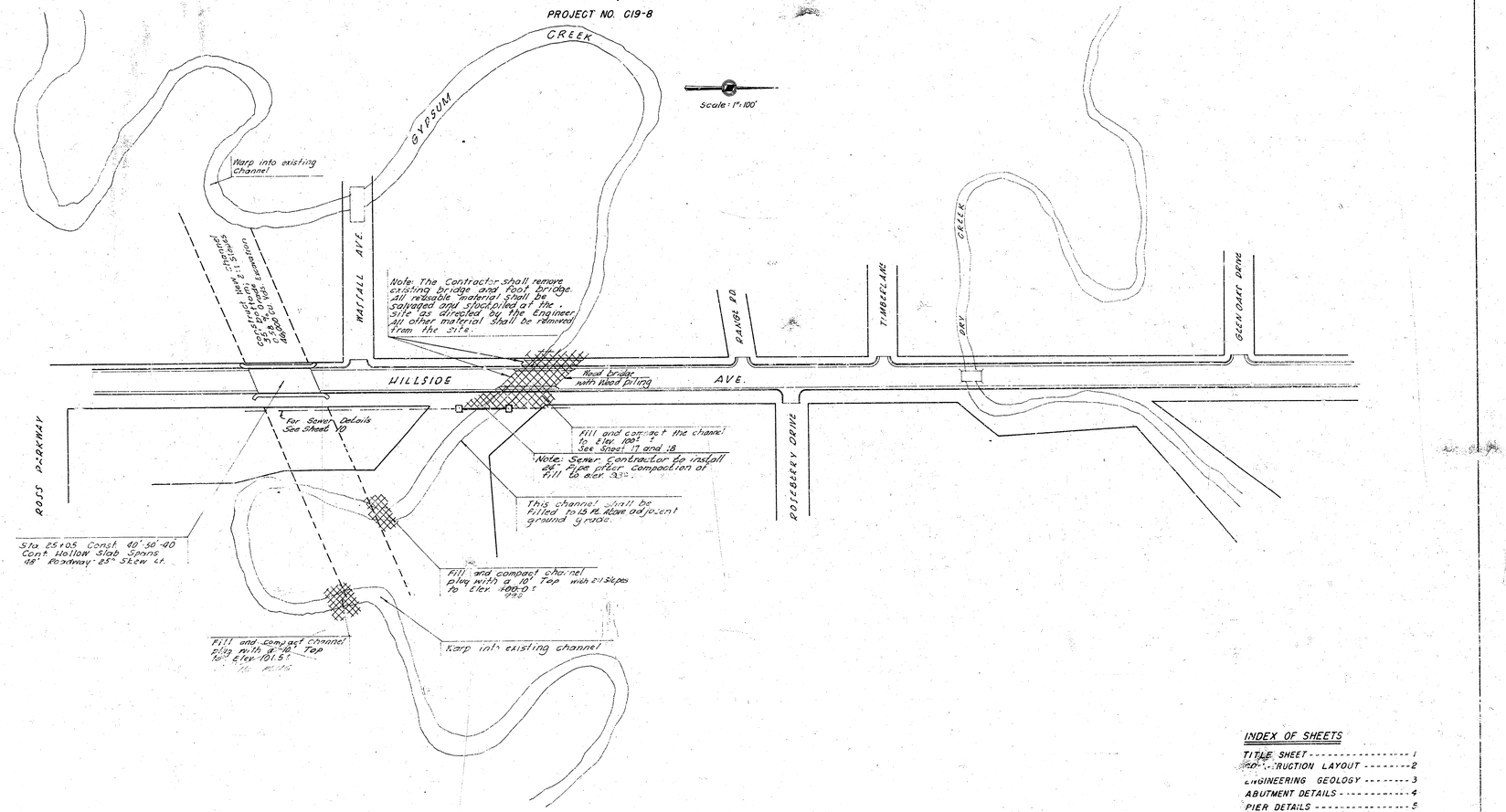
GYPSUM CREEK BRIDGE

HILLSIDE AVE.

CITY OF WICHITA, KANSAS

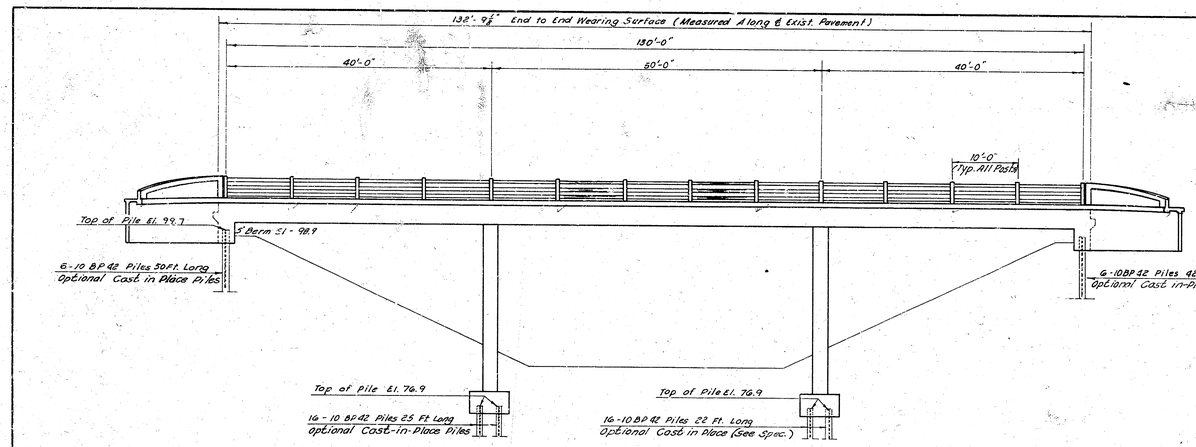
PROJECT NO. C19-8



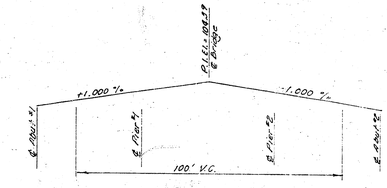
INDEX OF SHEETS

TITLE SHEET ---------- 1
CONSTRUCTION LAYOUT ---------- 2
ENGINEERING GEOLOGY ---------- 3
ABUTMENT DETAILS ---------- 4
PIER DETAILS ---------- 5
SUPERSTRUCTURE DETAILS ---------- 6&7
REINFORCEMENT DETAILS ---------- 8
BAR SUPPORTS & BRIDGE EXCAV. - 9
PLAN - NEW CHANNEL ---------- 10
CROSS SECTIONS ---------- 11-18



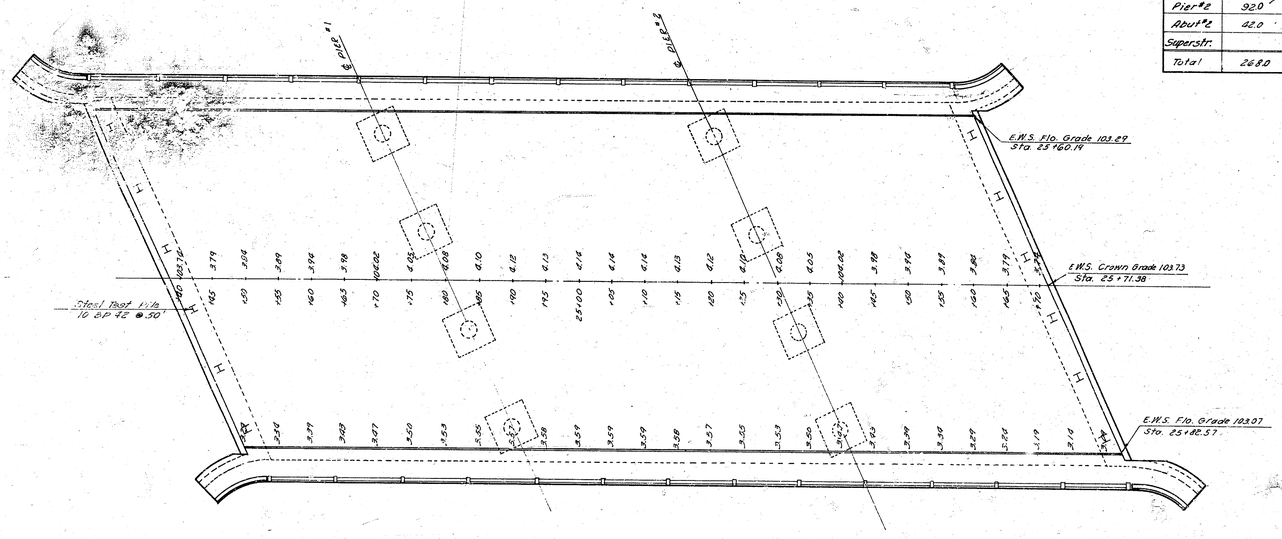


ELEVATION



GENERAL NOTES:

1. Excavation and Embankment shall be completed in the vicinity of the bridge prior to construction of piers and abutments.
2. Design loading: H-20 - S16-44 AASHO Specifications.
3. Unit Stresses: f'_c - 3000 psi f_s - 1500 psi f_b - 20000 psi.
4. Piles shall be driven to a minimum computed bearing value as follows: Abut # 1 & #2 - 37 Tons per pile.
   Pier # 1 & #2 - 33 Tons per pile.
   All piles shall be driven onto rock or penetration into shale unless in the opinion of the Engineer such penetration can not be obtained without injury to the pile.
5. Backfill compaction shall be required of all piers.
6. Clearing of Right of Way shall include removal of all trees, stumps, logs, fences, foundations, slabs, asphalt mat, rock rip rap, pipes, etc., as required. (See Sheet 101)
7. A test pile shall be driven at the location shown or as directed by the Engineer. Test pile shall remain in place as a permanent pile.
8. Excavated dirt is to be used to fill exist. channel as indicated.



SUMMARY OF BRIDGE QUANTITIES

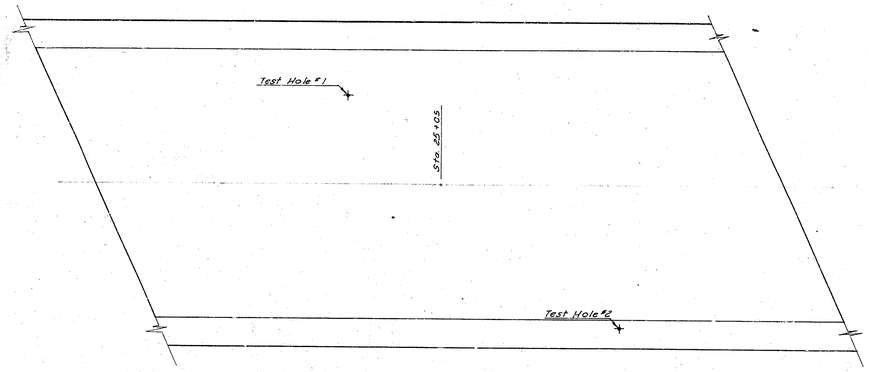
	Class III Excavation C.Y.	Concrete C.Y. Class A	Concrete C.Y. Class A-AE	Reinforcing Steel Lbs.	Bearing Piles Lin. Ft.	Metal Handrail Lin. Ft.	Steel Test Pile Lin. Ft.
Abut #1	42.0		35.5	3,462	250'		50'
Pier #1	92.0	30.2		9,973	400'		
Pier #2	92.0	30.2		9,973	352'		
Abut #2	42.0		35.5	3,462	252'		
Superstr.			450.4	124,144		260'	
Total	268.0	60.4	521.4	151,014	1254	260'	50'

SUMMARY OF CHANNEL-CHANGE QUANTITIES

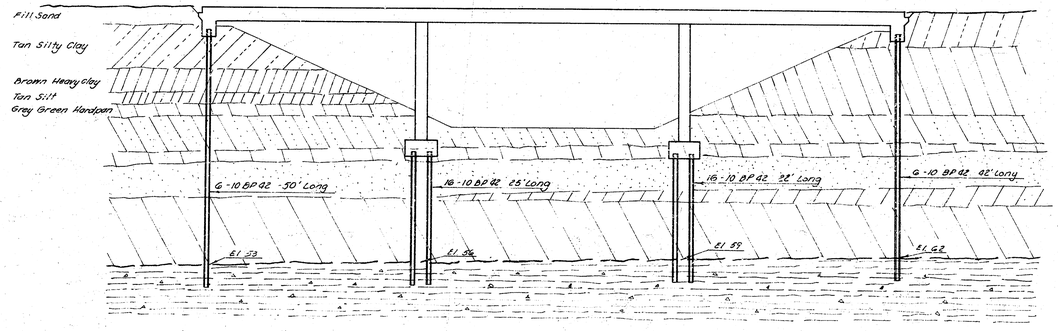
Total Bid Item	Units	Item
46,000	C.Y.	Common Excavation (62120 +10%)
3700	C.Y.	Compacted Fill (6842 +10%)
See Sheet 1	Lump Sum	Removal of Exist Structures
See Note 6	Lump Sum	Clearing of Right of Way

GYPSUM CREEK
CONSTRUCTION LAYOUT
HILLSIDE AVE.
CITY OF WICHITA, KANSAS
B. E. SMITH CITY ENGINEER
DATE: PROJECT NO. C19-8

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Page			2 of 18



Scale : 1"=10'-0"



Brown Silty Clay	100
Grey Green Heavy Clay	90
Grey Green Clay w/Sandstone	80
Blue Shaley Clay	
Fine Sand	
Green Hardpan	70
Blue Shaley Clay	60
Wellington Shale & Gypsum	50
	40

Note: The soundings shown on these plans are taken from notes obtained in the field by the Wichita Chemical and Testing Laboratories and represent the best information available to The City of Wichita. The logs of these soundings are on file at the City Engineer's office and are available for inspection by interested and qualified parties.

GYPSUM CREEK

ENGINEERING GEOLOGY

HILLSIDE AVE.

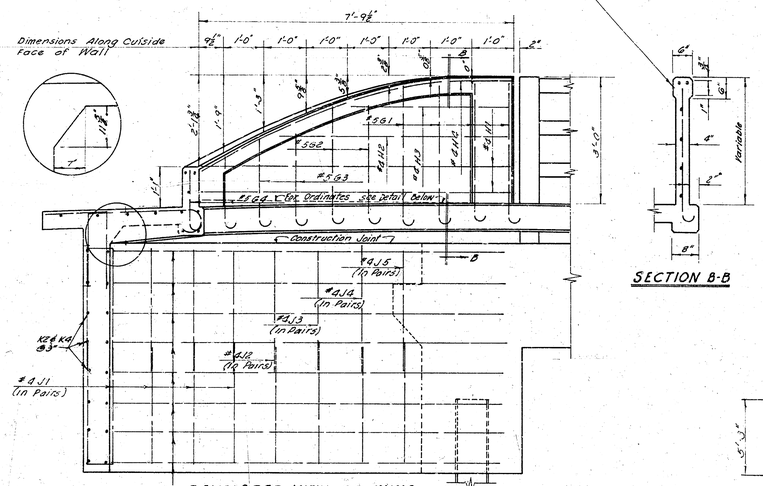
CITY OF WICHITA, KANSAS

B. E. SMITH CITY ENGINEER

DATE: PROJECT NO. C19-8

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Fagg			3 of 18

Note: Abutment handrails shall not be paid for directly but shall be subsidiary to 3/4" Item Class A(AE) Concrete

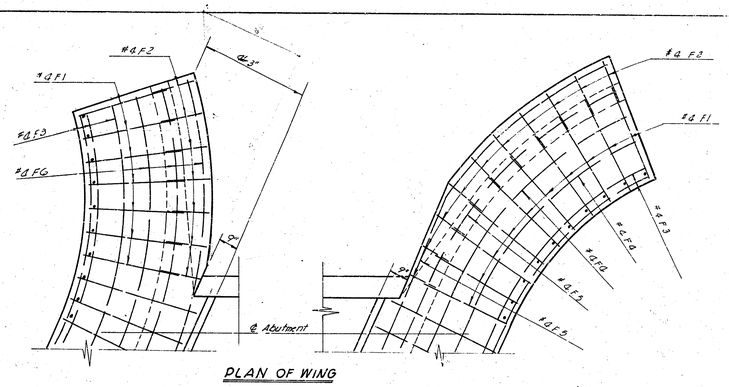


DEVELOPED VIEW OF WING

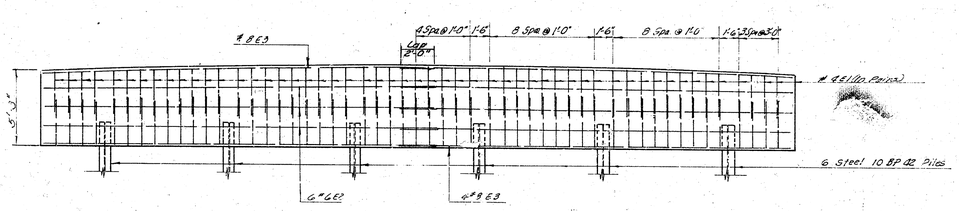
No Scale

TOP OF CURB ORDINATES

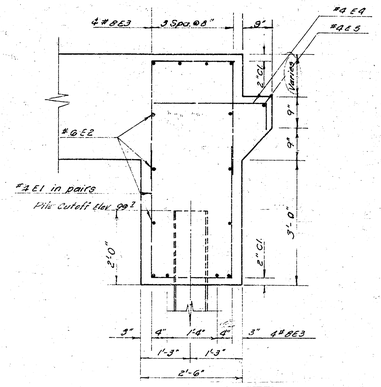
SECTION B-B



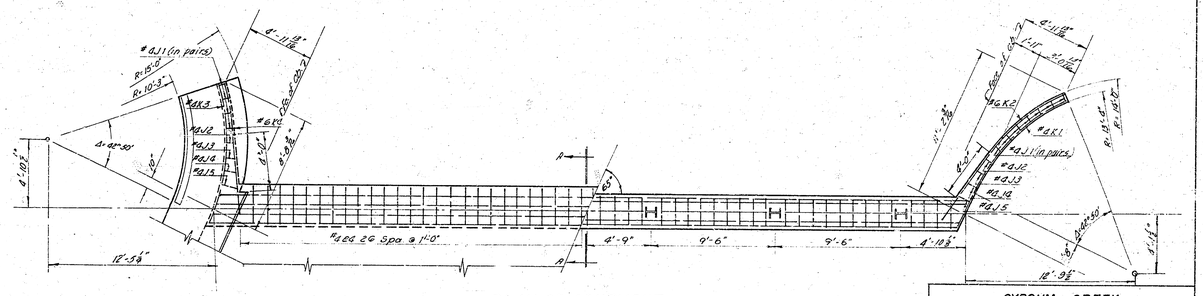
PLAN OF WING



ELEVATION OF ABUTMENT



SECTION A-A



PLAN OF ABUTMENT

GYPSUM CREEK

ABUTMENT DETAILS

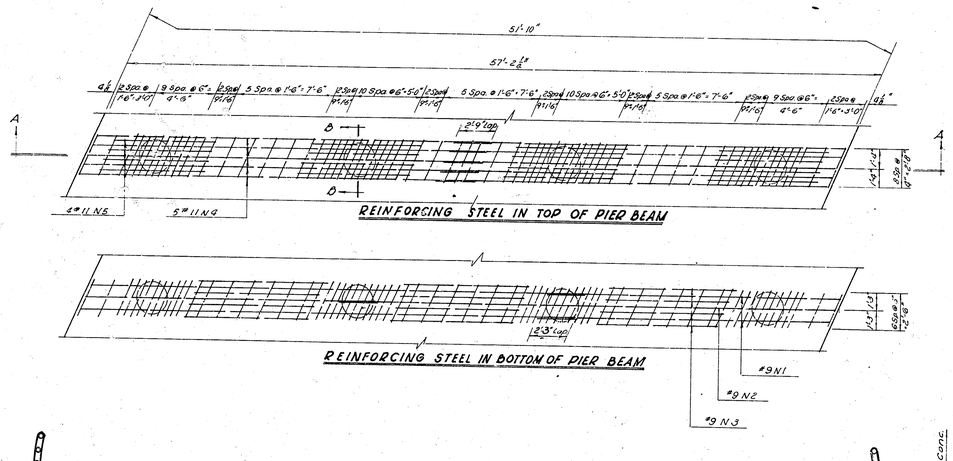
HILLSIDE AVE.

CITY OF WICHITA, KANSAS

B. E. SMITH CITY ENGINEER

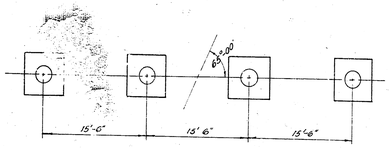
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DRAWN BY:	CHECKED BY:	FIELD BOOK:	SHEET:
Fago			4 of 18

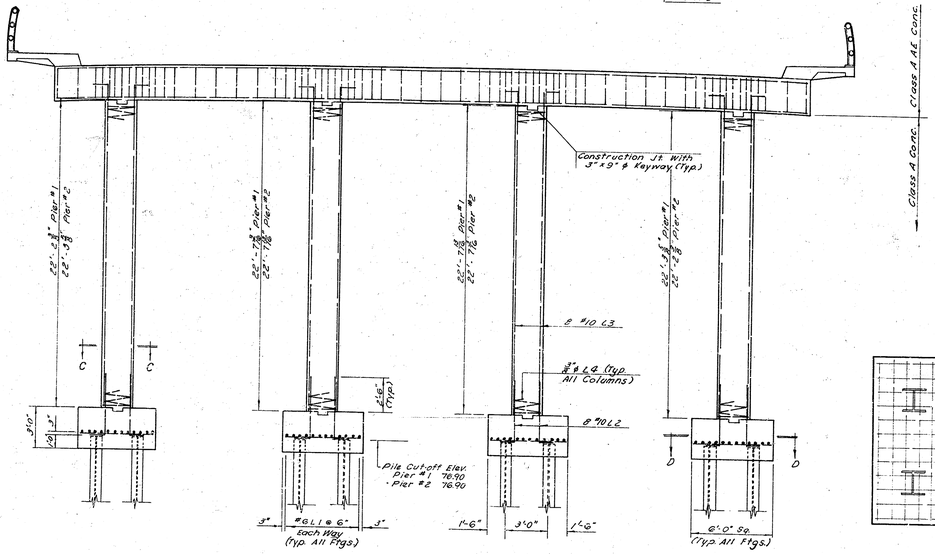


REINFORCING STEEL IN TOP OF PIER BEAM

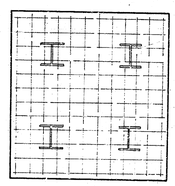
REINFORCING STEEL IN BOTTOM OF PIER BEAM



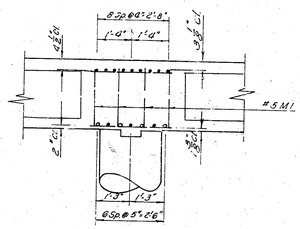
PIER FOOTING LOCATION



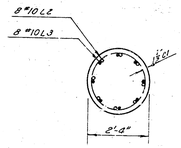
SECTION A-A
PIER ELEVATION



SECTION D-D



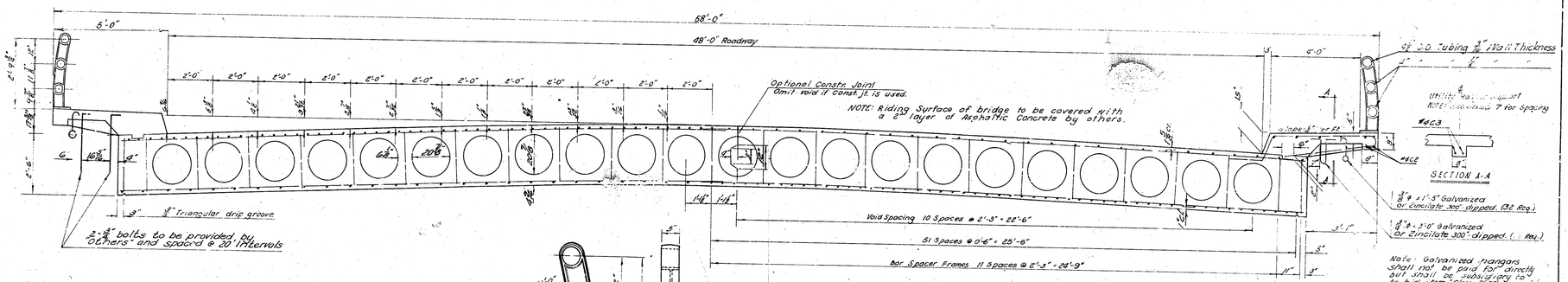
SECTION B-B



SECTION C-C

GYPSUM CREEK
PIER DETAILS
HILLSIDE AVE.
CITY OF WICHITA, KANSAS
B E. SMITH CITY ENGINEER
DATE: PROJECT NO C19-8

DRAWN BY:	CHECKED BY:	FIELD BOOK:	SHEET
Fago			5 of 18



HALF SECTION NEAR PIER

HALF SECTION NEAR MID-SPAN

HANDRAIL DETAILS

DEAD LOAD CAMBER DIAGRAM

E = 4,000,000 P.S.I.

CONCRETE PLACING SEQUENCE

To be used when long span steel beams are used for Falsework.

TRANSVERSE SLAB CONST. JT.

SUGGESTED METHOD OF FORMING VOID WEEPHOLES

Note: One ¾" round weephole shall be provided at the low point for each void. Weepholes may be formed as shown or by other approved methods. Weepholes shall be placed in a straight line parallel to the ℄ of piers and abutments.

PILE SPLICE DETAILS

NOTE: Steel piles shall preferably be furnished full length but may be spliced as shown. Splices shall not be paid for directly but shall be included in the unit price bid for Steel Piles.

NOTE: Optional Piling - see Specifications.

GENERAL NOTES:

Concrete: Class A Concrete shall be used in columns and footings. Class A (A.E.) Concrete shall be used in the superstructure. Bevel all exposed edges with a ¾" Triangular molding unless otherwise noted.

Construction Joints: Construction Joints are optional with the Bridge Contractor but if used shall be made only at the locations shown or as approved by the Engineer.

Camber: Camber shall be provided as shown in the camber diagram.

Voids: Tubes shall be sonotube tubes or other approved material. Forms for the voids shall be held securely in place in a manner that will insure final location of the voids as shown on the plans. Materials used to form the voids in the slab shall not be paid for directly but shall be subsidiary to Class A (AE) concrete.

Reinforcing Steel: All dimensions relative to reinforcing steel are to centerline of bar unless otherwise noted.

Falsework: Falsework for the entire unit shall be left in place until concrete has attained its design strength.

Handrail: Unit price of the metal handrail shall include installation of handrail anchor bolts and complete fabrication and erection of posts and railing as shown. All handrail anchor bolts shall be galvanized. All other parts of the rail shall be aluminum: Tubing, (Alloy 6061-T6) mill finish) Cast Post - 3 (Alloy 356-T6) Sandblast finish, manufactured by Michael Flynn Manufacturing Company or approved equal. All aluminum shall have a protective coating applied to meeting as shown in the specifications. Aluminum surfaces in contact with concrete shall be painted with a heavy coat of bituminous paint (Inertol Brand or equal).

General Requirements: It is the intention of these plans and specifications that construction of the bridge shall be in accordance with applicable standard specifications and requirements of the Kansas Highway Commission, and that materials shall conform to those specifications, unless otherwise expressly indicated.

GYPSUM CREEK

SUPERSTRUCTURE DETAILS

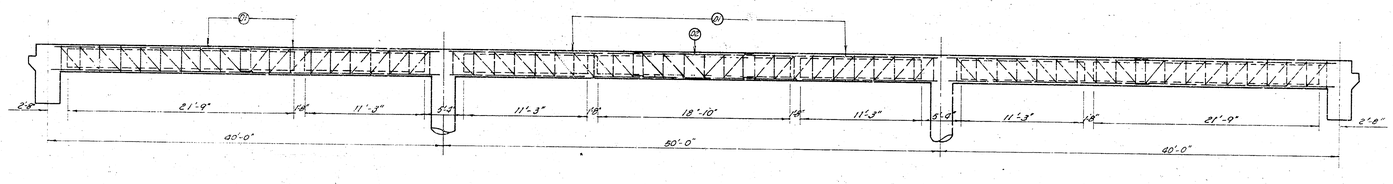
HILLSIDE AVE.

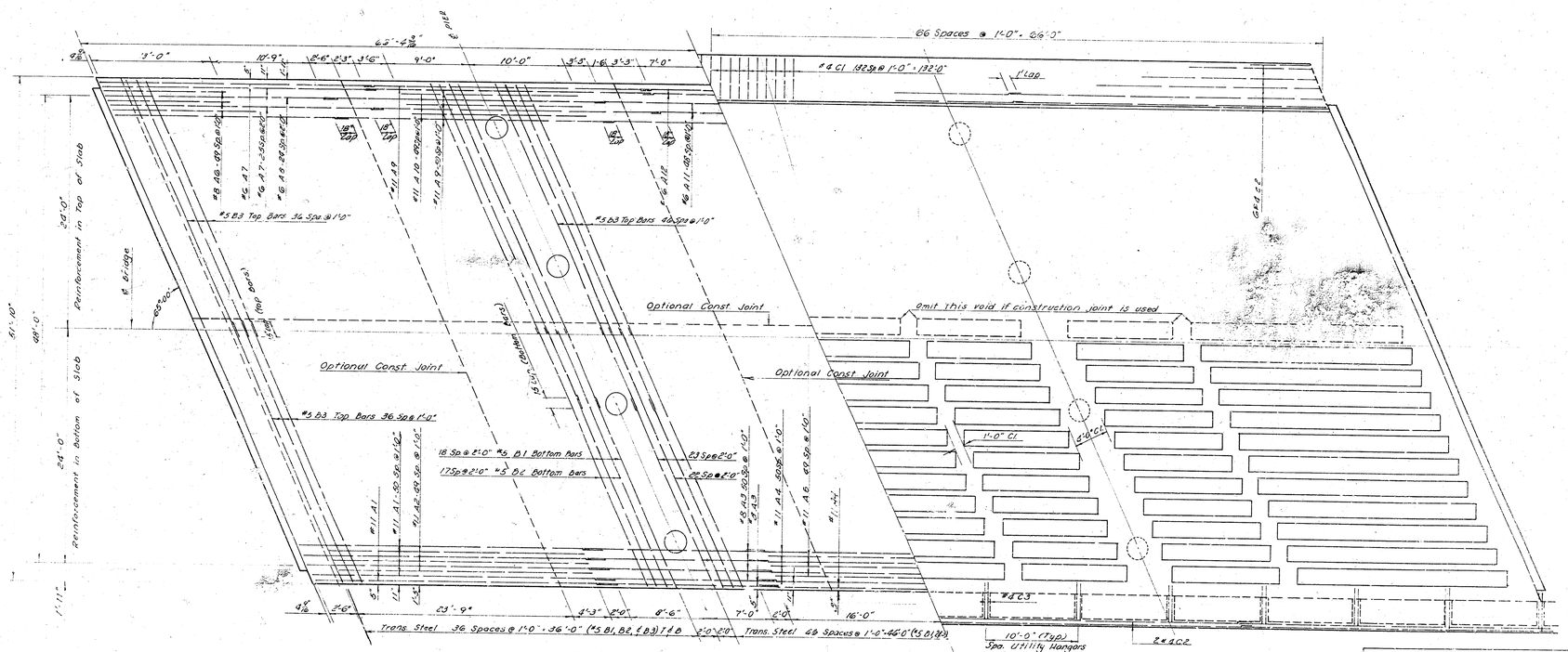
CITY OF WICHITA, KANSAS

B. E. SMITH CITY ENGINEER

DATE: PROJECT NO. C19-8

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Fago			6 of 18





GYPSUM CREEK

SUPERSTRUCTURE DETAILS

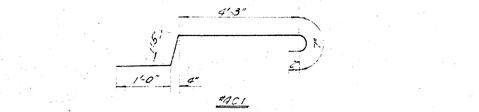
HILLSIDE AVE

CITY OF WICHITA, KANSAS

B E SMITH CITY ENGINEER

DATE: PROJECT NO. C19-8

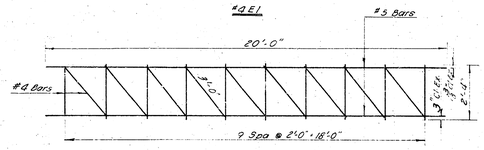
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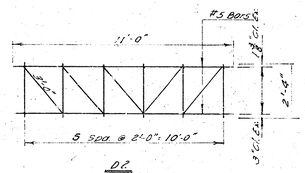


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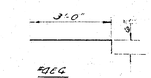


D Bars to be Welded

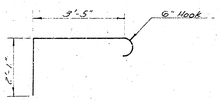
D1



D2



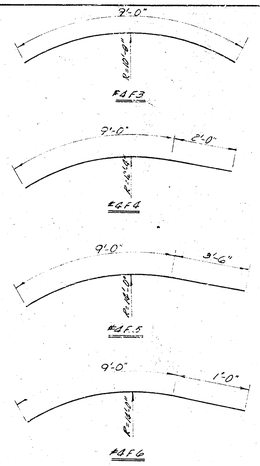
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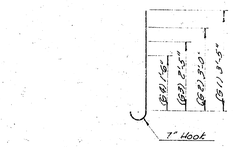


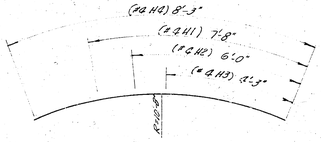
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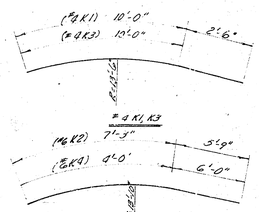


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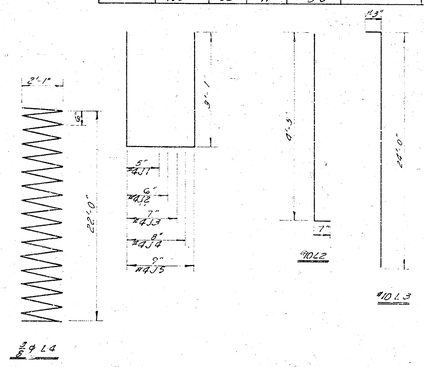


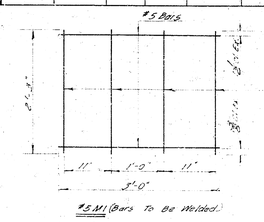






LOCATION	MARK	No.	SIZE	LENGTH	SHAPE	WEIGHT	LOCATION	MARK	No.	SIZE	LENGTH	SHAPE	WEIGHT
Abutments	F1	34	#4	6'-0"		136	Superstr.	A1	104	#11	32'-6"	——	18,303
"	F2	34	#4	3'-6"		78	"	A2	100	#11	32'-0"	——	13,376
"	F3	18	#4	9'-0"	——	108	"	A3	106	#8	19'-6"	——	5,310
"	F4	4	#4	11'-0"	——	29	"	A4	53	#11	36'-0"	——	10,137
"	F5	1	#4	12'-6"	——	33	"	A5	50	#11	32'-0"	——	3,501
"	F6	6	#4	10'-0"	——	40	"	A6	100	#8	13'-0"	——	3,471
							"	A7	56	#6	30'-0	——	2,523
							"	A8	50	#6	25'-3"	——	1,896
"	G1	16	#5	4'-0"		67	"	A9	196	#11	30'-6"	——	17,177
"	G2	8	#5	3'-7"		30	"	A10	140	#11	19'-0"	——	10,095
"	G3	8	#5	3'-0"		25	"	A11	49	#6	21'-9"	——	1,601
"	G4	8	#5	2'-1"		17	"	A12	3	#6	17'-0"	——	102
"	H1	8	#4	7'-8"		61	"	B1	121	#5	21'-0"	——	2650
"	H2	8	#4	6'-0"		10	"	B2	121	#5	17'-0"	——	2,570
"	H3	8	#4	4'-3"		11	"	B3	262	#5	29'-0"	——	1320
"	H4	8	#4	8'-3"		44	"						
							"	C1	266	#4	7'-5"		1313
"	J1	44	#4	6'-7"		133	"	C2	64	#4	34'-0"	——	1,454
"	J2	8	#4	5'-8"		30	"	C3	64	#4	4'-0"	——	171
"	J3	8	#4	6'-9"		36							
"	J4	8	#4	6'-10"		37							
"	J5	8	#4	6'-11"		37	"	D1	300	#5	20'-0"	See Detail	6258
							"		1350	#4	5'-0"		2,705
							"		1300	#4	2'-6"		2,338
"	K1	16	#4	12'-6"	——	134							
"	K2	16	#6	13'-0"	——	312							
"	K3	16	#4	10'-0"	——	107	"	D2	50	#5	11'-2"	See Detail	574
"	K4	16	#6	10'-0"	——	240	"		125	#4	3'-0"		351
							"		150	#4	2'-6"		234
Piers	L1	192	#6	5'-6"	——	1,584							
"	L2	68	#10	5'-0"	——	1,377	Abutments	E1	212	#4	8'-8"		1227
"	L3	64	#10	25'-3"		6954	"	E2	24	#6	29'-4"	——	1057
"	L4	8	⅜ϕ	(Spiral)	See Detail	982	"	E3	32	#8	29'-4"	——	3520
"		24	⅜ϕ	22'-0"	Col. Spiral Spa:	397	"	E4	108	#4	3'-6"	——	253
"	M1	280	#5	3'-0"	See Detail	876	"	E5	9	#4	27'-9"	——	74
"		560	#5	2'-3"		1319							
"	N1	6	#9	21'-9"	——	444							
"	N2	8	#9	37'-3"	——	780							
"	N3	24	#9	9'-6"	——	775							
"	N4	20	#11	29'-9"	——	3,161							
"	N5	32	#11	8'0"	——	1,360							





#5 M1 (Bars to be Welded)

GYPSUM CREEK

REINFORCEMENT DETAILS

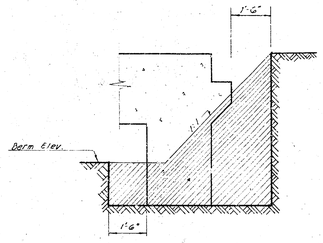
HILLSIDE AVE.

CITY OF WICHITA, KANSAS

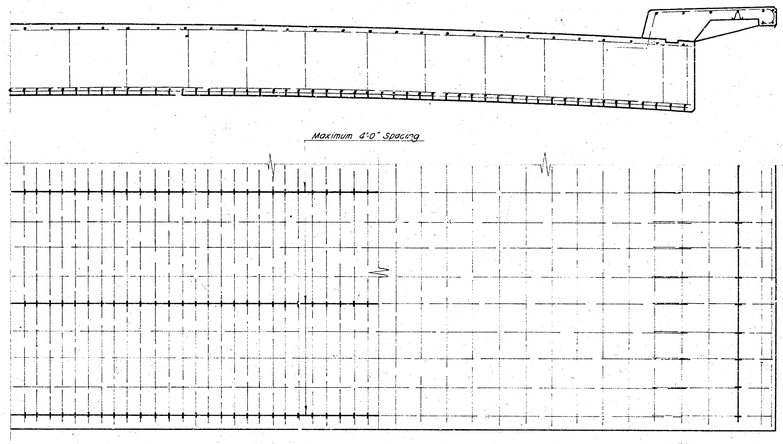
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FCPO			8 of 18



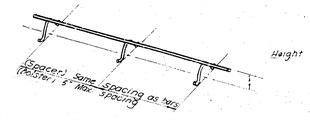
SECTION A-A



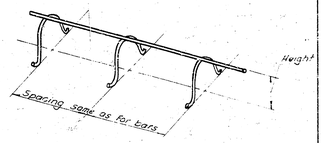
LOWER STEEL SUPPORT

UPPER STEEL SUPPORT-HUBGUARD

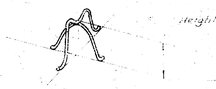
TYPICAL SUPERSTRUCTURE DETAILS



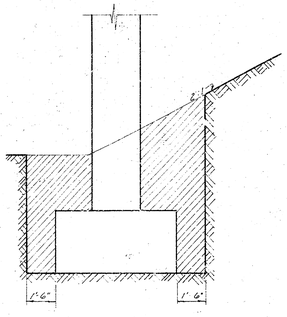
LOW SLAB BAR BOLSTER



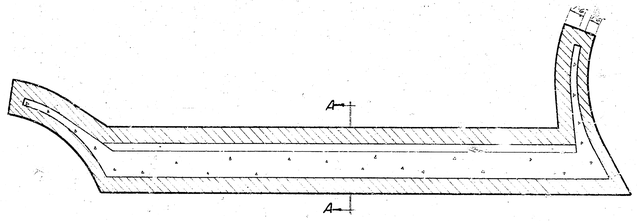
CONTINUOUS HIGH CHAIR



INDIVIDUAL HIGH CHAIR



SIDE VIEW- PIER EXCAVATION



PLAN-ABUTMENT EXCAVATION

GYPSUM CREEK

BAR SUPPORTS & BRIDGE EXCAV.

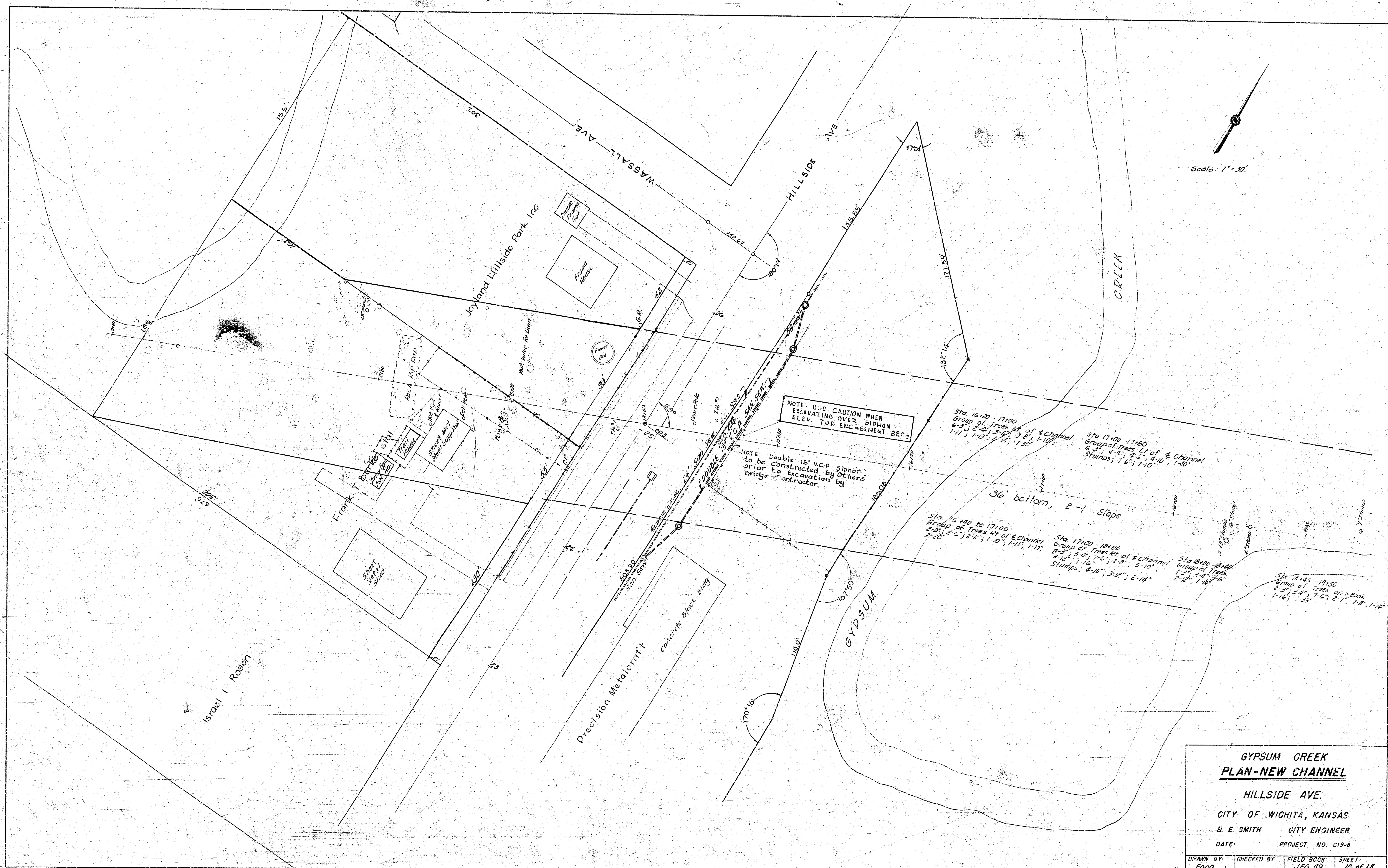
HILLSIDE AVE.

CITY OF WICHITA, KANSAS

B. E. SMITH CITY ENGINEER

DATE: PROJECT NO. C19-8

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FQC			9 of 18


WASSALL AVE
HILLSIDE AVE.
Joyland Hillside Park Inc.
Double Frame Gar.
Frame House
Flower Bed
Wat. Valve for Lawn
Rock Rip Rap
Frank T. Burke etal
Army type Mat. Ho.
Trail. House
Sheet Met. Steel Supp. Roof
Sheet Metal Shed
Israel I. Rosen
Precision Metalcraft
Concrete Block Bldg
Remove Exist. 24" San. Sew. EL. 89±
DOUBLE 15" V.C.P. SAN. SEW.
NOTE: USE CAUTION WHEN EXCAVATING OVER SIPHON ELEV. TOP ENCASEMENT 822±
NOTE: Double 15" V.C.P. Siphon to be constructed by Others prior to Excavation by Bridge Contractor.
Sta. 16+20 - 17+00 Group of Trees Lt. of ℄ Channel 6-3"; 2-6"; 3-6"; 3-8"; 1-10"; 1-11"; 1-13"; 2-14"; 1-30"
Sta 17+00 - 17+60 Group of Trees Lt of ℄ Channel 6-3"; 4-4"; 4-6"; 4-10"; 1-40" Stumps; 1-6"; 1-10"
36' bottom, 2-1 Slope
Sta. 16+40 to 17+00 Group of Trees Rt. of ℄ Channel 2-3"; 2-6"; 2-8"; 1-10"; 1-11"; 1-17; 2-20"
Sta. 17+00 - 18+00 Group of Trees Rt. of ℄ Channel 8-3"; 5-4"; 7-6"; 2-8"; 5-10" 3-12"; 1-16" Stumps; 4-10"; 3-12"; 2-14"
Sta 18+00 - 18+40 Group of Trees 1-3"; 3-4"; 3-6" 2-12"; 1-14"
Sta. 18+45 - 19+50 Group of Trees on S. Bank 2-3"; 3-4"; 7-6"; 2-7"; 7-8"; 1-14" 1-16"; 1-33"
GYPSUM
CREEK
Scale: 1" = 30'
145.55'
171.59'
47°04'
132°14'
180°19'
167°50'
170°16'
186.08'
110.0'
155'
302
GYPSUM CREEK
PLAN-NEW CHANNEL
HILLSIDE AVE.
CITY OF WICHITA, KANSAS
B. E. SMITH CITY ENGINEER
DATE:
PROJECT NO. C19-8
DRAWN BY: Fogo
CHECKED BY:
FIELD BOOK: JFG 49
SHEET: 10 of 18