FED. ROAD DIST.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	1	22

INDEX

SHEET NO.	DESCRIPTION
1	INDEX AND TITLE SHEET
2	QUANTITY SUMMARY AND GENERAL NOTES
3	PLAN AND PROFILE
4	LOG OF BORINGS
5	LOG OF BORINGS
6	HYDROGRAPH
7	GENERAL PLAN AND ELEVATION
8	PIER 1 DETAILS
9	PIER 1 DETAILS
10	PIER 2 DETAILS
11	PIER 2 DETAILS
12	PIER 3 DETAILS
13	PIER 3 DETAILS
14	PIER 4 DETAILS
15	PIER 4 DETAILS
16	PIER 5 DETAILS
17	PIER 5 DETAILS
18	PIER 6 DETAILS
19	PIER 6 DETAILS
20	REINFORCING BAR DETAILS
21	PILE RECORD
22	MISCELLANEOUS DETAILS

COMMONWEALTH OF KENTUCKY
STATE OF INDIANA
STATE HIGHWAY DEPARTMENTS
SUBSTRUCTURE CONTRACT
PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY
JEFFERSON COUNTY
I-PROJECT NO. 65-9(2)136

RECOMMENDED FOR APPROVAL
HAZELET AND ERDAL
CONSULTING ENGINEERS

BY Robert H. Wood
DATE Dec. 9, 1960

STATE OF KENTUCKY ROBERT H. WOOD 1595 REGISTERED PROFESSIONAL ENGINEER

ROBERT H. WOOD REGISTERED No. 6219 INDIANA RESIDENT OF KENTUCKY PROFESSIONAL ENGINEER

APPROVED BY KENTUCKY DEPARTMENT OF HIGHWAYS

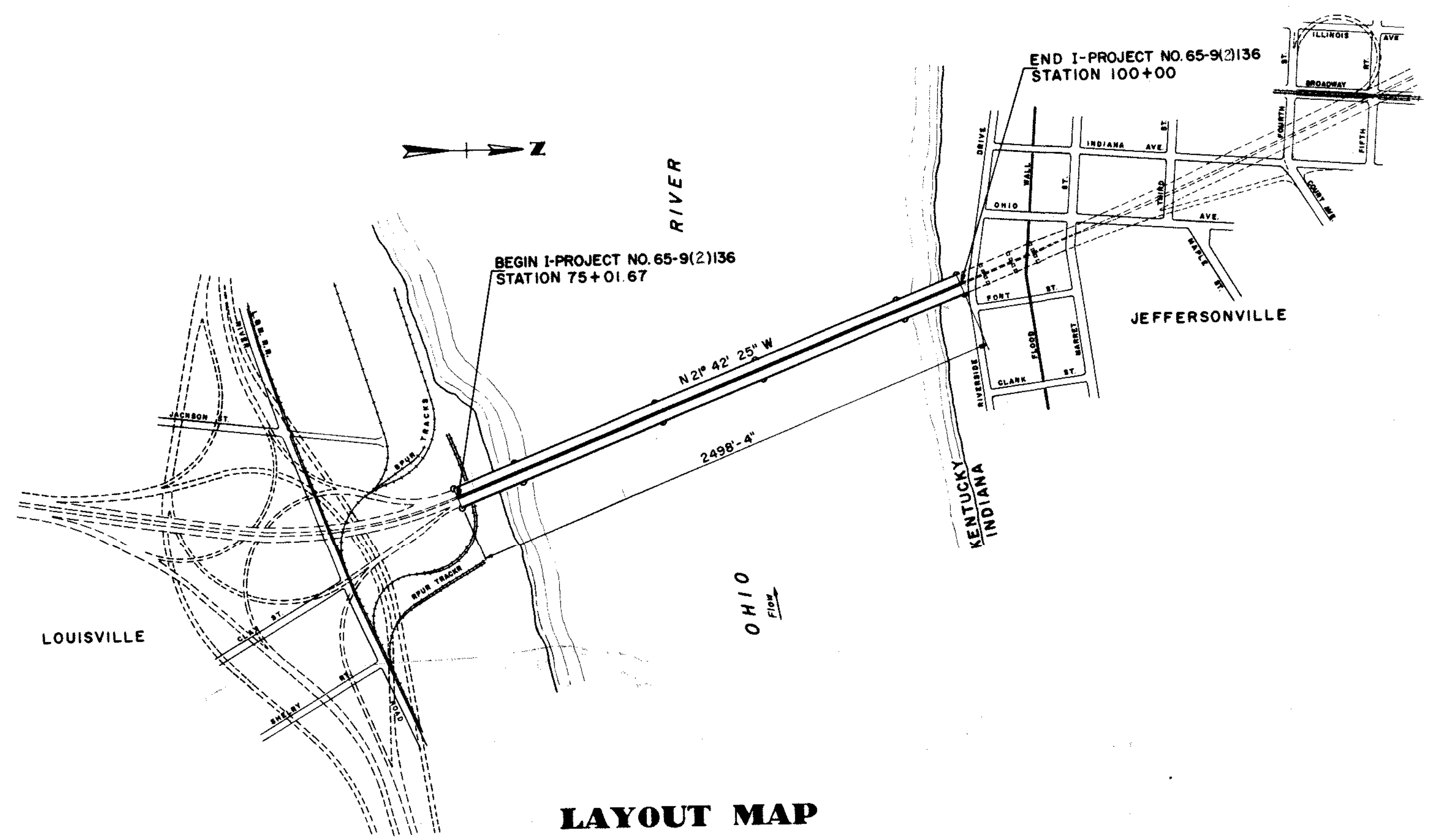
BY [signature] STATE HIGHWAY ENGINEER DATE 12-14-60

BY Henry Ward COMMISSIONER OF HIGHWAYS DATE 12-15-60

APPROVED BY STATE HIGHWAY DEPARTMENT OF INDIANA

BY Carl E. Vogelgesang CHIEF ENGINEER DATE 12-9-60

BY John Peters CHAIRMAN DATE 12-9-60



LAYOUT MAP

SCALE IN FEET

GROSS LENGTH 2498.33 LIN. FT. .473 MILES
NET LENGTH 2498.33 LIN. FT. .473 MILES

MP 56-8798-35

STATION 87+50.83 SHEET 1 OF 2

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL:

DISTRICT ENGINEER DATE

APPROVED:

DIVISION ENGINEER DATE

DRAWING NO. 1452

BRIDGES OVER 20 FT. SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	2	22

SUMMARY

ITEM	DESCRIPTION	UNIT	QUANTITY							
			Pier Nº 1	Pier Nº 2		Pier Nº 3	Pier Nº 4	Pier Nº 5	Pier Nº 6	Total
				Alternate A	Alternate B					
1	Concrete, Class "A"	Cu. Yds.	848.4	2770.4	2739.9	2560.9	1938.2	1685.0	1039.1	10842.0 A 10811.5 B
2	Foundation Seal, Class "A" Concrete	Cu. Yds.	——	1007	1041	926	755	370	——	3058 A 3093 B
3	Steel Reinforcement	Lbs.	70,810	338,610	338,240	306,630	217,630	175,990	125,000	1234670 A 1226760 B
4	Structural Steel	Lump Sum								* Lump Sum
5	Common Structure Excavation	Cu.Yds.	340	2580	2660	880	10	20	1130	4760 A 5040 B
6	Cofferdams, Piers 2, 3, 4&5	Lump Sum								Lump Sum
7	Steel H Piles (14BP89) Furnished	Lin. Ft.	3740	——	——	——	——	——	——	3740
8	Steel H Piles (14BP89) Driven	Lin. Ft.	3740	——	——	——	——	——	——	3740
9	Steel H Piles (14BP117) Furnished	Lin Ft.	——	10,760	10,290	——	——	——	——	10760 A 10290 B
10	Steel H Piles (14BP117) Driven	Lin.Ft.	——	10,760	10,290	——	——	——	——	10760 A 10290 B
11	Pier Lights	Lump Sum								Lump Sum
12	Solid Rock Structure Excavation	Cu. Yds.	——	——	——	50	125	225	320	720
13	Painting Clearance Goges	Lump Sum								Lump Sum

*Anchar Bolts and Miscellaneous - Approx. 21,000 Lbs.

FOUNDATION SEAL: Limits of Payment for this Item are outlined on the plans. Concrete required to provide a seal which is in excess of the concrete within the horizontal limits outlined on the plans shall be at the contractor's expense.

STRUCTURE EXCAVATION: Limits of Payment for this Item, when other than outlined in the Specifications, are indicated on the plans. Excavation outside the horizontal dimensions shown on the plans shall be at the contractor's expense.

PILE SPLICES: Piles exceeding 65 feet in length may be field spliced. The cost of such splices is to be included in the Unit Price bid for Furnishing Piles.

RIGHT OF ENTRY: The contractor is advised that right of entry to the property on which the land pier on the Kentucky side of the river is to be constructed will not be available at the time of the award of the contract and the issuance of the order to the contractor to begin work. Right of entry on such property is expected by April 15,1961 but is not assured or guaranteed. Not withstanding this the contractor shall begin work on the project upon issuance of the work order conducting his construction operations in such a manner that the land pier on the Kentucky side of the river is the last construction operation and that no additional amount will be due the contractor as damages or otherwise as the result of the lack of the right of entry on said property at the time of the issuance of the work order. The contractor agrees to assert no claim for damages against the Department for delay or delays in the event that right of entry is not obtained on said property by April 15,1961, or thereafter.

REVISED 1/31/61
REVISED: Steel Reinforcement Piers Nº 2&4 6/15/61
REVISED Right of Entry

DESIGNED ____ C'K'D. ____
DRAWN ____ C'K'D. ____
TRACED ____ C'K'D. ____

GENERAL NOTES

SPECIFICATIONS: Design: Standard Specifications for Highway Bridges, Seventh Edition, adopted by AASHO, 1957, as modified for this Project and revised June, 1960.
Construction: Kentucky Department of Highways (1956 Standard with Amendments), and Supplemental Specifications attached to the proposal.

DESIGN LOAD: H20-S16-44 with modificatinns of live load for the National System of Interstate Highways. An allowance of 20#/Ft.^{2} for future wearing surface has been incorporated in the design.

FOUNDATION PRESSURES: Maximum Vertical + Overturning Loads: 30 T/Ft.^{2}
Maximum Pile Loads
78 Tons - 14 BP 89
103 Tons - 14 BP 117
Increases allowed for various groups of loads in accordance with AASHO Section 1.4.1

REINFORCEMENT: Dimensions shown from face of concrete to bare are clear distances except as otherwise shown. Dimensions for bar spacing are distances center to center of bars. All reinforcement shall be intermediate or hard grade in accordance with ASTM A15-58T for billet steel or A16-59T for rail steel and in addition, all bars of the sizes 11S or 18S shall meet the requirements of ASTM A408 and shall be weldable if welded splices are employed. Notarized Mill Test Reports will be required for all 11S and 18S bars.

BEVELED EDGES: All exposed edges of concrete shall be beveled 7/8" unless otherwise shown.

CONSTRUCTION JOINTS: All construction joints shall be carefully formed. The contractor shall furnish sufficient mixer capacity to place the concrete between construction joints, as noted on the Plans, in a period not to exceed 10 hours continuous run. After one section of the concrete has been placed, the construction joint shall be thoroughly cleaned of all laitance and loose or foreign material just before concrete takes its final set (which is about six hours). The joint shall then be covered with burlap and kept completely saturated with water. Flush the joint with 1:2 Portland Cement Mortar before placing the adjoining section.

SPIRAL REINFORCEMENT: Splices for spiral reinforcement for pier columns where desired by the Contractor, shall be made with a minimum lap of one and one half turns of spiral or the splices may be butt welded following the welding requirements as outlined below. No additional payment will be made for these splices, but the cost will be considered incidental to the cost of the developed length of spirals shown on the Plans. Spiral reinforcement shall meet the requirements of Section 7.13.6 of the Standard Specifications.

ANCHOR BOLTS: Anchor bolts to be set accurately to a template and prior to pouring the surrounding concrete. Drilling or grouting anchor bolt holes subsequant to pouring the concrete shall not be permitted.

CLEARANCE GAGES: A clearance gage consisting of painted marks and numerals as shown on the Plans shall be painted on the East end, only, of Piers 3 and 4. The marks and numerals are to be accurately located. The area to be painted shall be thoroughly cleaned before painting. The marks and numerals shall be painted directly on the concrete with two coats of black paint as specified herein. The paint shall be similar and/or equal to any of the following:

a. No. 801 Coroc Synthetic Enamel, black as manufactured by the Cook Paint and Varnish Company, 1412 Knox Avenue, Kansas City, Missouri.
b. Hydroflex Swimming Pool Paint, black as manufactured by the Phelan-Faust Paint Manufacturing Company, 932 Loughborough Avenue, St. Louis, Missouri.
c. DuPont 353-801 white and 353-802 black, alkali resisting paints, as manufactured by the E. I. DuPont De Nemours and Company, 2100 Elston Avenue, Chicago, Illinois.

The work covered by this section shall be paid for at the Contract lump sum price for "Painting Clearance Gages", which payment and price shall be full compensation for all materials, transportation, all equipment and tools, all work and labor, and all incidentals necessary to complete the work.

PIER LIGHTS: Upon completion of Piers 2, 3, 4 and 5 to an elevation above the top of their respective cofferdams, each end is to be marked by a fixed 360° red light. With each successive lift, the lights shall be raised until they are in final position on completed piers as shown on the plans. These lights shall be Wallace and Tiernan 200 mm Marine Beacons, Type FA-143, showing a fixed light, aluminum lanterns complete with 360° red Fresnel lens, lampchanger, four pre-focused 0.46 ampere lamps, sun switch and 6-volt, 2500 ampere hour carbonaire battery or equal. A weather-tight wood battery box about 20"x30"x16" high to protect the battery is to be furnished and securely placed convenient to each light at each location. Upon completion of the contract, the lights will remain in place. The cost of furnishing, erecting, moving and maintaining these lights until the acceptance of the work by the Kentucky Department of Highways will be paid for as a lump sum under the Pay Item, "Pier Lights".

SOLID ROCK EXCAVATION: All provisions of Articles 2.4.1 and 2.4.3-C of the Standard Specifications shall apply except as herein modified. Footings for Piers 3, 4, 5 and 6 shall be excavated to the general elevations shown on the Plans, but no attempt shall be made to obtain a smooth level foundation. All loose rock, silt and debris shall be removed from the excavation but the bottom of same shall be left rough with natural keys to provide bond and anchorage between the rock and concrete foundation seal. To insure an absolutely clean rock surface, same shall be flushed with a water jet having a nozzle pressure of 200 lbs. per sq. in. through a one inch opening. All silt and debris shall be washed into a sump and pumped therefrom until the water is reasonably clean and free of foreign matter. If it proves impracticable to clean the sump by pumping, a diver shall be used to remove the deposited material by manual methods. After cleaning of excavation, and prior to placing of concrete foundation seal, the excavation shall be carefully inspected by a qualified diver with proper equipment including underwater lights. If possible or practicable to unwater a cofferdam to the extent necessary to permit adequate inspection by usual procedures, the services of the diver may, at the Engineer's discretion, be dispensed with. Test borings or soundings will not be required. Pressure cleaning of the excavation and services of the qualified diver and costs incidental thereto will not be paid for directly and the cost of this work shall be included in the Unit Price for "Solid Rock Excavation".

COFFERDAMS: Coffsrdams shall be required for Piers 2, 3, 4 and 5 and all provisions of Article 2.4.3-D-1 of the Standard Specifications shall apply, except as herein modified. The Contractor shall submit drawings for approval which show his proposed method of cofferdam construction. Coffsrdam construction shall not start before these submitted drawings are approved. For Piers 3, 4, and 5, steel sheeting shall be driven to refusal into the hard foundation material. For Pier 2, the sheeting shall extend a minimum of 10 feet below the bottom of the seal. Cofferdams shall be well braced, as near watertight as practicable and shall be constructed to allow a concrete foundation seal of the dimensions shown on the Plans. Cofferdams (or Caissons) which are tilted or moved laterally during construction due to any cause shall be righted, reset or enlarged so as to provide the clearance necessary for the construction of the substructure as shown on the plans, and this shall be at the sole expense of the Contractor. Cofferdams must be vented at an elevation no higher than 425.0. All sheeting shall be removed or cut off at the top of the concrete foundation seal. Cofferdams for Piers 2, 3, 4 and 5 will be paid for at the lump sum amount bid for "Cofferdams - Piers 2, 3, 4 and 5", which payment shall include and be full compensation for any required plans, for furnishing, hauling and placing all necessary materials, construction and maintenance, unwatering, temporary lighting in accordance with navigation requirements, removal of bracing and removal of or cutting off of sheeting, and for all labor, equipment, tools and incidentals necessary to complete this part of the work. Cofferdams are not required for Piers 1 and 6. If deemed necessary or desirable, the cost of such coffardams shall be considered incidental to the project as a whole and no direct payment will be made.

Caissons may be substituted for cofferdams at Piers 3, 4, and 5 at the Contractor's option. If caissons are used, payment will still be made under the contract Items for Cofferdams, Structure Excavation and Foundation Seal as set out in the Plans.

GROUT: Grout for use in grouting the reinforcing bars into the seal pours of Piers 3 and 4 shall be of the non-shrinking type. The grout shall be made from cement, sand and water with admixtures as necessary or desirable to obtain non-shrink properties. The cement sand and water shall meet the requirements of the Standard Specifications and in addition, the sand shall all pass a No. 30 sieve and 50% shall pass a No. 50 sieve and 20% shall pass a No. 100 sieve. The proportions of Cement to sand may vary from a neat grout to a 1:1 mix. A minimum amount of water shall be used to obtain a flowable grout. The grout shall have the consistency of thick cream or heavy paint. Sample mixes shall be made to determine satisfactory consistency for use and these mixes shall be made into test specimens to demonstrate the strength and shrinkage characteristics which must be approved by the Engineer prior to the use of the grout in the construction.

WELDING: The splicing of the reinforcing bars by welding as called for on the Plans shall be done by either the shielded metal arc process or the thermit process. All welding operators shall be qualified by tests as prescribed in the American Welding Society Standard Qualification Procedure. All electrodes used in welding of reinforcing bars shall be of the low hydrogen type. Extreme care must be used to prevent moisture pickup by the coatings. Special precautions shall be used when welding in cold weather to avoid undue chilling of the weld metal within the zone of welding influence, and to avoid restraining the manual functions of the welding operator. No welding will be permitted when the ambient temperature is below 20° F. Complete details of welding procedures (Procedure Specifications) shall be submitted to the Engineer in triplicate for approval. These Procedure Specifications shall include but not be limited to the following: size, make and type of electrode, polarity, amperage, voltage, joint preparation, fit-up, thickness of weldment layers, welding position, preheat, post heat, number of passes and job identification. These welding procedures shall be qualified by test on either full size or machined test specimens. The tensile strength shall be not less than 70,000 psi. Two test specimens shall be prepared and tested for qualification of the welding procedures. Thereafter, as the job progresses, two test specimens shall be prepared and tested for each 100 splices in the finished work. The bars for the test specimens shall be from the same roll as the bars used in the finished work. The strength tests of the welding shall be observed by the Engineer or his representative or he may accept test results certified by a duly approved commercial testing laboratory. The cost of qualifying the weld procedures, welder operator, the additional reinforcing bars for tests and the tests themselves, shall be paid for by the Contractor and will be considered as incidental expense to the item, "Steel Reinforcement". The splicing of the vertical column bars by lap of 40 diameters may be substituted for welding. No payment shall be made for extra weight of reinforcement in splices so substituted, but the cost shall be considered incidental to the length of vertical column bars shown on the plans.

Sheet 2 of

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA
PROJECT I-65-9 (2) 136
BRIDGE OVER OHIO RIVER ON I.R. 65
BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

HAZELET AND ERDAL, CONSULTING ENGINEERS, FILE NO. 829 | SUBSTRUCTURE | 14525

GENERAL NOTES AND SUMMARY

829

BRIDGES OVER 50' SPAN					
FHWA ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	3	22

CITY OF LOUISVILLE, KENTUCKY

BEGIN PROJECT Nº I-65-9(2) 136
STATION 75+01.67

Existing Normal Pool Line

Prop. R/W

Spur Track

Conveyors

Sand Pile

City of Louisville (Leased to Nugent Sand Co.)

Loading Pit o.f.p.

Hoppers

Storage Crib

C & O Clay St. if extended

Conveyors

Nugent Sand Co.

Warehouse

Double Spur Track

Prop. R/W

Ref. Pt. B' Sta. 75+64.04

100'

100'

75

80

℄ Bridge

85

90

N 21° 42' 25" W

95

RIVER

OHIO

Flow

CITY OF JEFFERSONVILLE, INDIANA

END PROJECT Nº I-65-9(2) 136
BEGIN PROJECT Nº I-65-1(32)
STATION 100+00

Existing Normal Pool Line

Docks

Prop. R/W

Riverside Dr. (Formerly Front St.)

100'

100'

Docks

Prop. R/W

Fort

Ohio Ave. (Formerly Water St.)

Market St. (Formerly Front St.)

B.M. 500

Fireplug

ST

Ref. Pt. 'A' Sta. 100+50.00

P.I. Sta. 100+06.00
Elev. 340.75

PLAN
Scale: 1"=100'

"X" cut on corner Loading Pit

Point "B" Sta. 75+64.04 (R.R. Spike set in Conc. Buried 1.5')

"X" cut on brace post 2' up

REFERENCES TO POINT "B"
STA. 75+64.04

Point "A" Sta. 100+50.00 (R.R. Spike)

35.86

N 21° 42' 25" W

68.46

NOTE: All Ref. Pts. are "x" cut on curb.

REFERENCES TO POINT "A"
STA. 100+50.00

BENCH MARKS

Kentucky BM-K1 Elevation 444.26 West rimbolt of fire hydrant 300'± West of Clay Street and South side of River Road.

BM-K2 Elevation 442.63 Southwest rimbolt of fire hydrant on Southeast corner of Clay Street and River Road.

Indiana BM500X Elevation 447.91 Marked cross in rivet on base of Steel Trestle on West side of Market and Mulberry Streets.

BM500 Elevation 451.50 South bolt on top of fireplug on the Northeast corner of Fort Street and Riverside Drive.

Elevation Datum: Mean Sea Level U.S.C.&G.S. 1929 General Readjustment

P.I. Sta. 87+50.00
Elev. 513.25

BEGIN PROJECT I-65-9(1) 136

+1.0%

Profile Grade

500' V.C.

-1.0%

END PROJECT I-65-9(1) 136

-3.0%

600' V.C.

1'-8"

℄ Pier 1

℄ Pier 2

℄ Pier 3

℄ Pier 4

℄ Pier 5

℄ Pier 6

Ext. High Water Elev. 460 (1937)

Normal Pool Elev. 419.05

Ground Line

Limestone

Ground Line

Limestone

500
480
460
440
420
400
380
360
340

75
80
85
90
95
100
105

Scales: Horz. 1"=100'
Vert. 1"=20'

PLAN & PROFILE

Sheet 3 of 22

DESIGNED ____ C·K·D. ____
DRAWN ____ C·K·D. ____
TRACED RLR 6-1-60 C·K·D. CLC 6-10-60

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA

PROJECT I-65-9 (2) 136

BRIDGE OVER OHIO RIVER ON I.R. 65

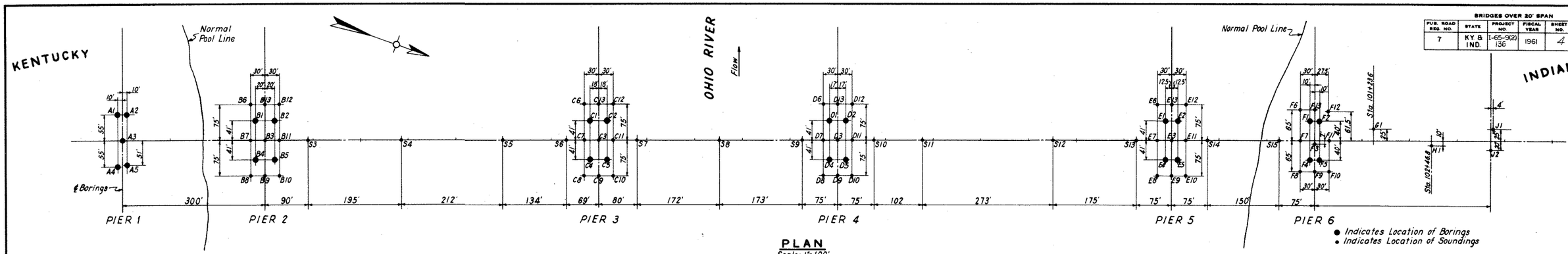
BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY
AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

HAZELET AND ERDAL
CONSULTING ENGINEERS
FILE NO. 625

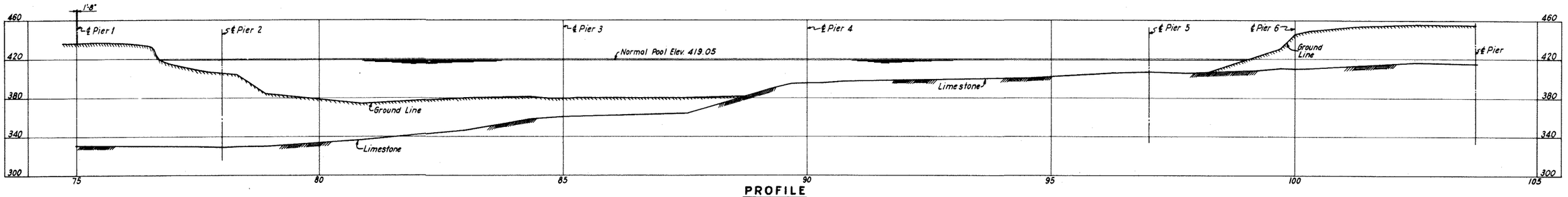
SUBSTRUCTURE

14525

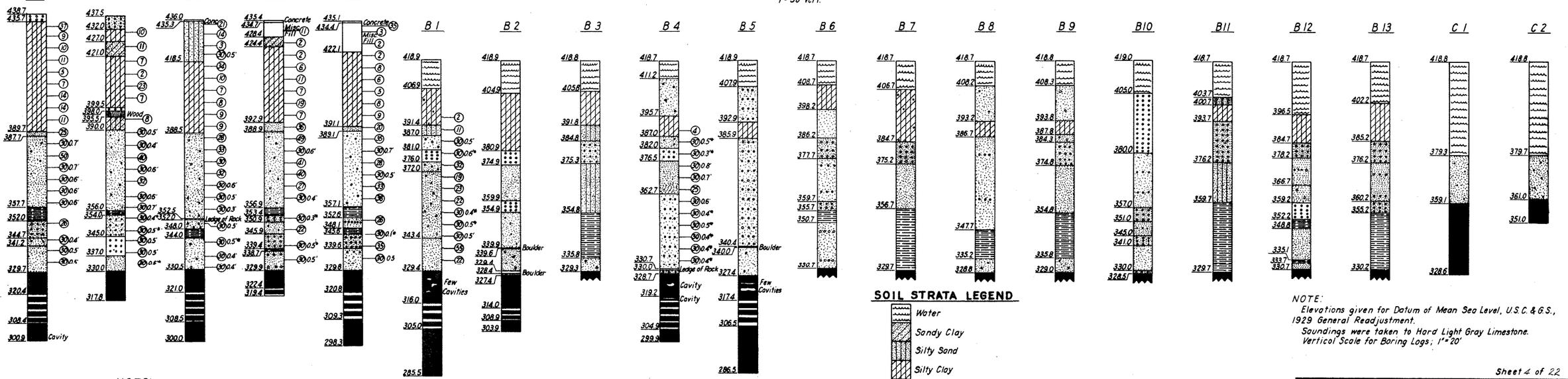
BRIDGES OVER 20' SPAN					
FUS. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	4	22



PLAN
Scale: 1"=100'



PROFILE
Scale: 1"=100' Horz.
1"= 50' Vert.



NOTE:
Number in circle indicates number of blows of 140 lb. hammer dropped 30 inches required to drive a 2 inch split-spoon sampler 1.0 feet (unless otherwise indicated), after first seating the split-spoon sampler by driving it 6 inches.
* Was not driven beyond the seating 6 inches

SOIL STRATA LEGEND

- Water
- Sandy Clay
- Silty Sand
- Silty Clay
- Sand
- Gravel
- Sand & Gravel
- Layers of Gravel & Thin Ledges of Rock
- Soft seamy limestone
- Hard seamy limestone

NOTE:
Elevations given for Datum of Mean Sea Level, U.S.C. & G.S., 1929 General Readjustment.
Soundings were taken to Hard Light Gray Limestone.
Vertical Scale for Boring Logs; 1"=20'

Sheet 4 of 22

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA

PROJECT I-65-9 (2) 136

BRIDGE OVER OHIO RIVER ON I.R. 65

BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

DESIGNED _____ C·K·D
DRAWN R.L.B. 4-7-59 C·K·D. CHW 5-25-59
TRACED _____ C·K·D

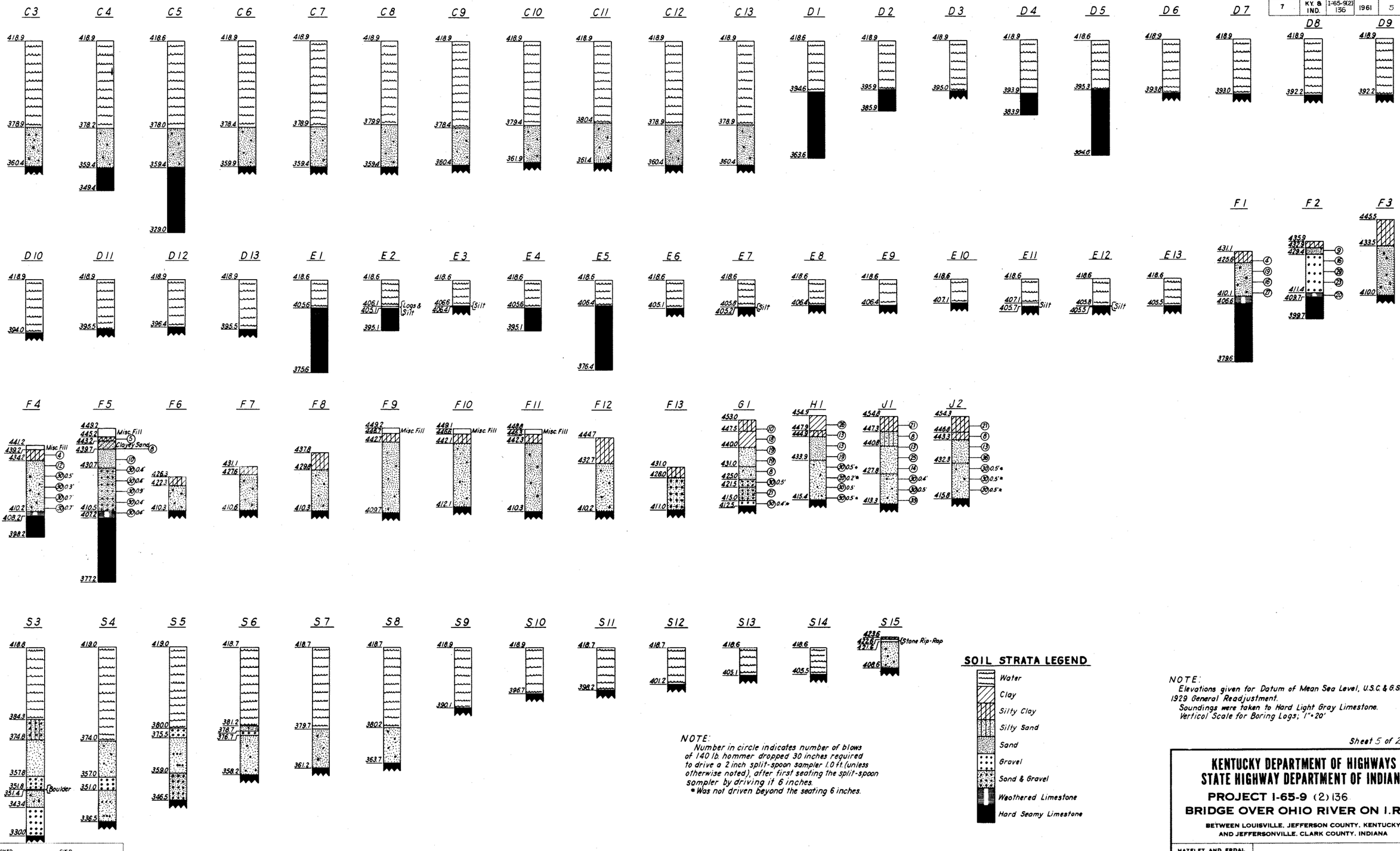
HAZELET AND ERDAL
CONSULTING ENGINEERS
FILE NO. 588

LOG OF BORINGS

SUBSTRUCTURE

14525

BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	5	22



NOTE:
Number in circle indicates number of blows of 140 lb. hammer dropped 30 inches required to drive a 2 inch split-spoon sampler 1.0 ft. (unless otherwise noted), after first seating the split-spoon sampler by driving it 6 inches.
* Was not driven beyond the seating 6 inches.

SOIL STRATA LEGEND

- Water
- Clay
- Silty Clay
- Silty Sand
- Sand
- Gravel
- Sand & Gravel
- Weathered Limestone
- Hard Seamy Limestone

NOTE:
Elevations given for Datum of Mean Sea Level, U.S.C. & G.S., 1929 General Readjustment.
Soundings were taken to Hard Light Gray Limestone.
Vertical Scale for Boring Logs; 1"=20'

DESIGNED ____ C'K'D. ____
DRAWN RLR 4-10-59 C'K'D. CHH 5-25-59
TRACED ____ C'K'D. ____

LOG OF BORINGS

Sheet 5 of 22

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA

PROJECT I-65-9 (2) 136

BRIDGE OVER OHIO RIVER ON I.R. 65

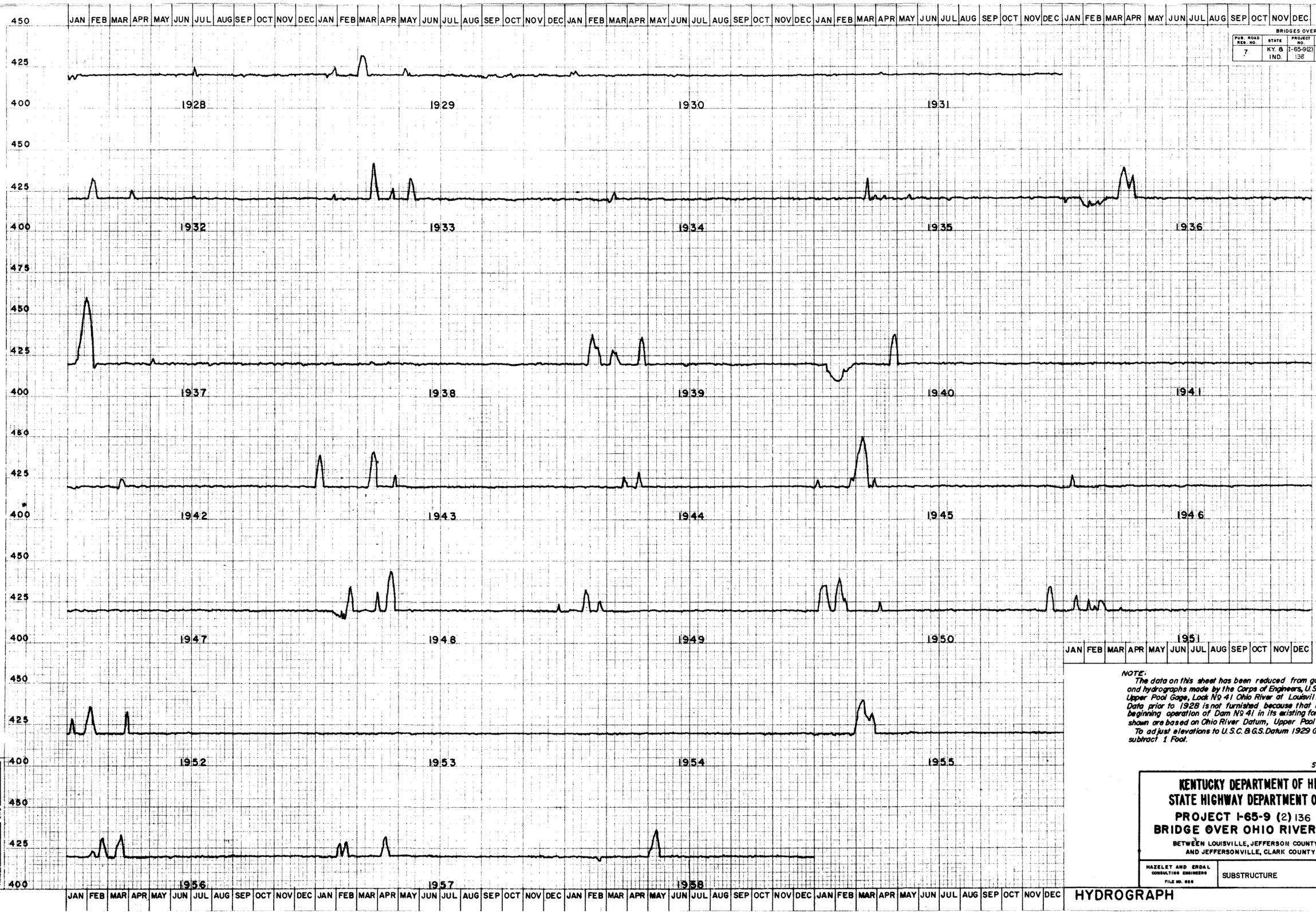
BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

HAZELET AND ERDAL
CONSULTING ENGINEERS
FILE NO. 825

SUBSTRUCTURE 14525

PUB. ROAD RES. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	6	22

BRIDGES OVER 20' SPAN



NOTE:
The data on this sheet has been reduced from gage readings and hydrographs made by the Corps of Engineers, U.S. Army of the Upper Pool Gage, Lock No 41 Ohio River at Louisville, Kentucky. Data prior to 1928 is not furnished because that is the year of beginning operation of Dam No 41 in its existing form. Elevations shown are based on Ohio River Datum, Upper Pool = 403.00 Feet
To adjust elevations to U.S.C. & G.S. Datum 1929 General Adj. subtract 1 Foot.

DESIGNED CKD
DRAWN REM CKD GW 8-1-57
TRACED CKD

Sheet 6 of 22

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA

PROJECT I-65-9 (2) 136
BRIDGE OVER OHIO RIVER ON I.R. 65

BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY
AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

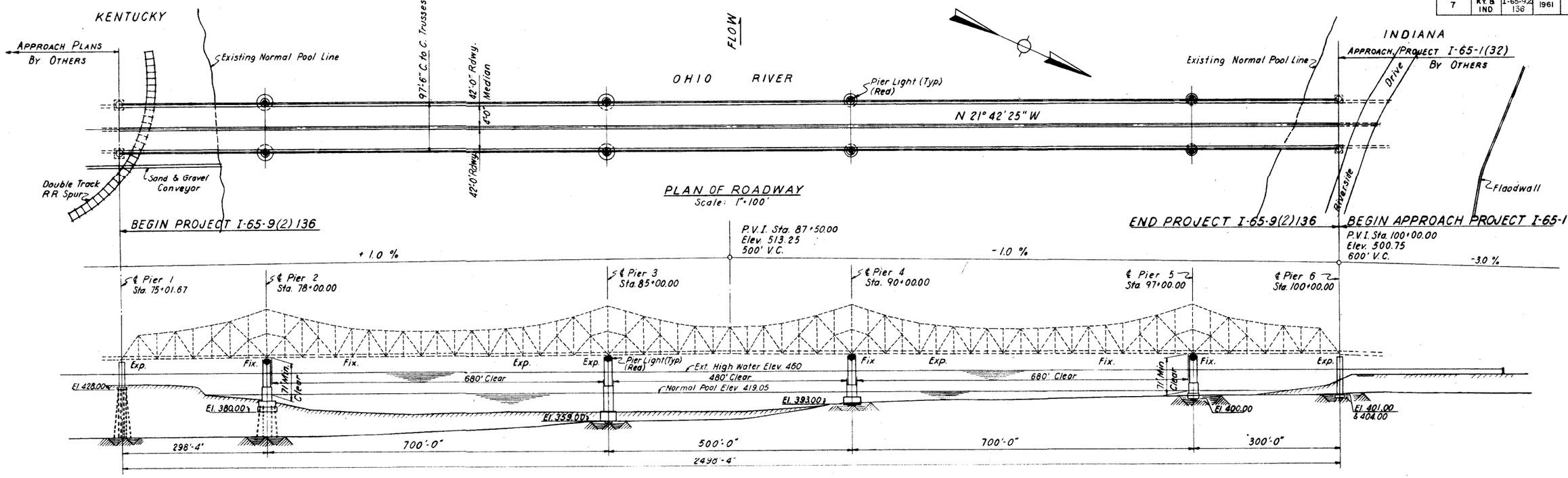
HAZELET AND ERDAL
CONSULTING ENGINEERS
FILE NO. 926

SUBSTRUCTURE

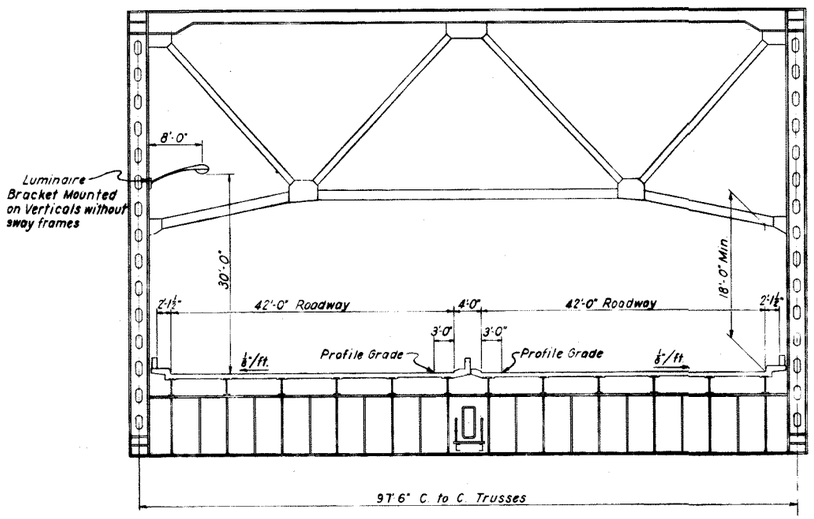
14525

HYDROGRAPH

BRIDGES OVER 20' SPAN					
PUB. ROAD RDS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND	I-65-9(2) 136	1961	7	22



ELEVATION
Scale: 1"=100'
Superstructure shown for Information Only. Not a part of this Contract



MAIN TRUSS SECTION
Scale: 3/32" = 1'-0"

DESIGNED _____ C'K'D _____
DRAWN RL 2-17-60 C'K'D CLC 6-10-60
TRACED _____ C'K'D _____

GENERAL PLAN & ELEVATION

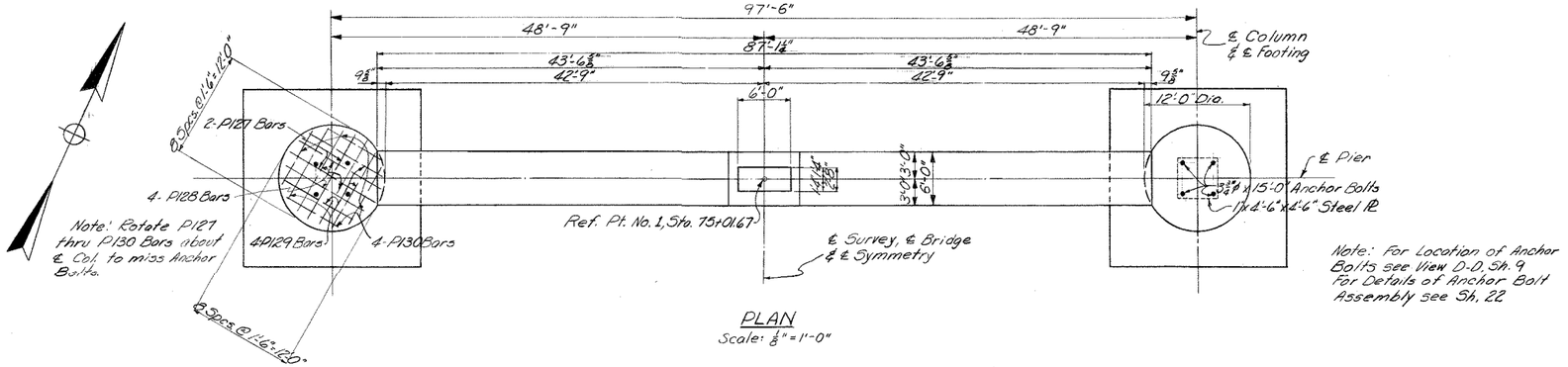
Sheet 7 of 22

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA
PROJECT I-65-9 (2) 136
BRIDGE OVER OHIO RIVER ON I.R. 65
BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

HAZELET AND ERDAL CONSULTING ENGINEERS FILE NO. 525

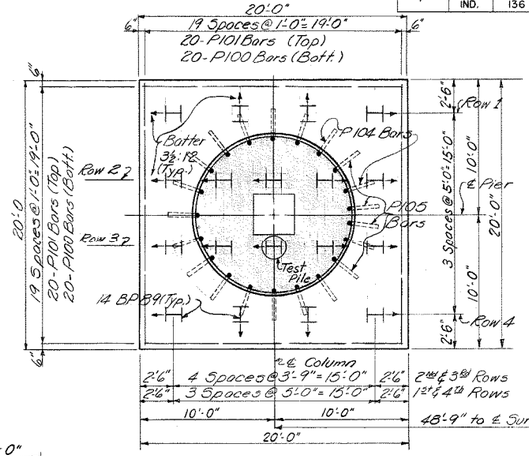
SUBSTRUCTURE 14525

BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	8	22



PLAN
Scale: 1/8" = 1'-0"

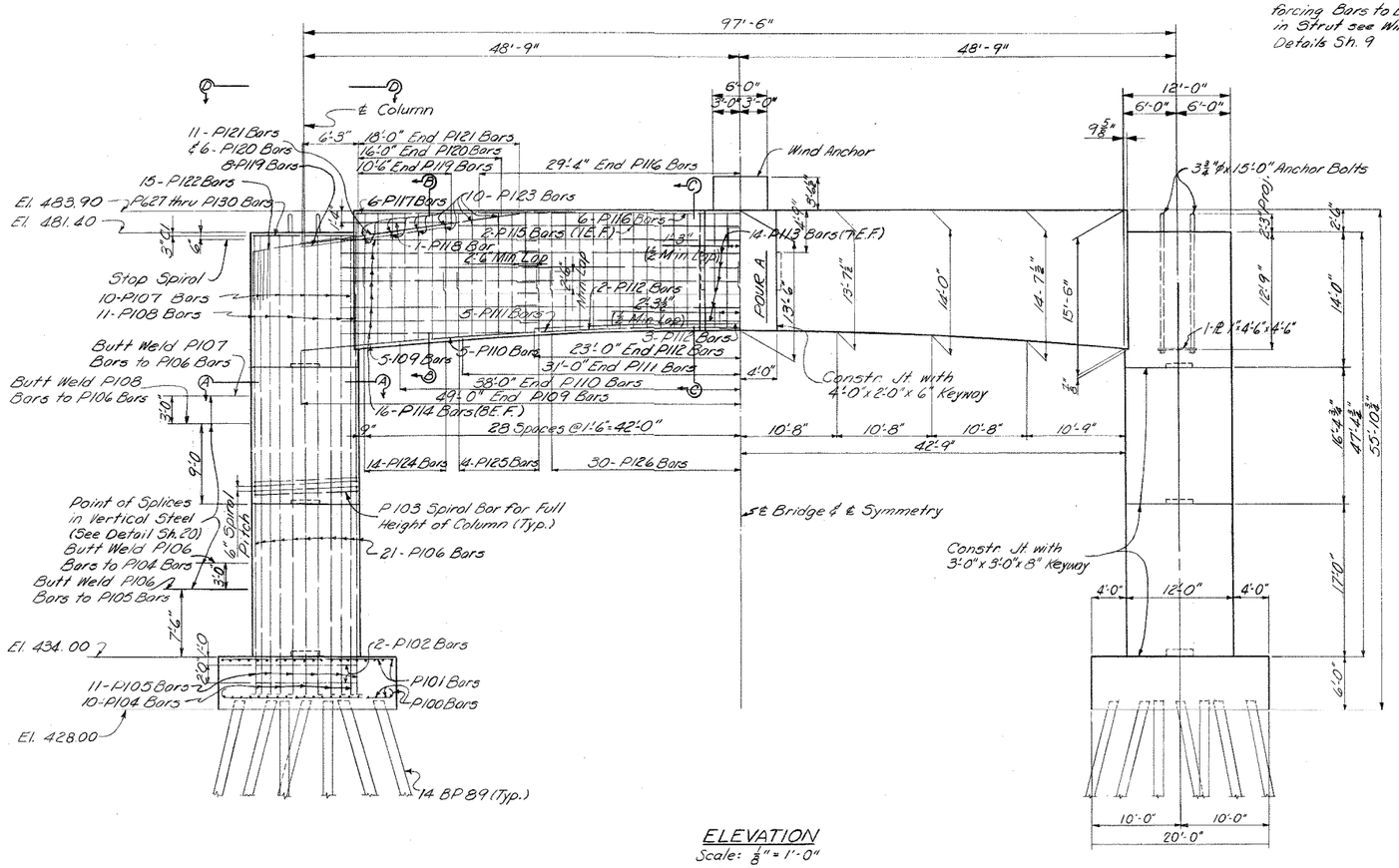
Note: For Location of Anchor Bolts see View D-D, Sh. 9
For Details of Anchor Bolt Assembly see Sh. 22



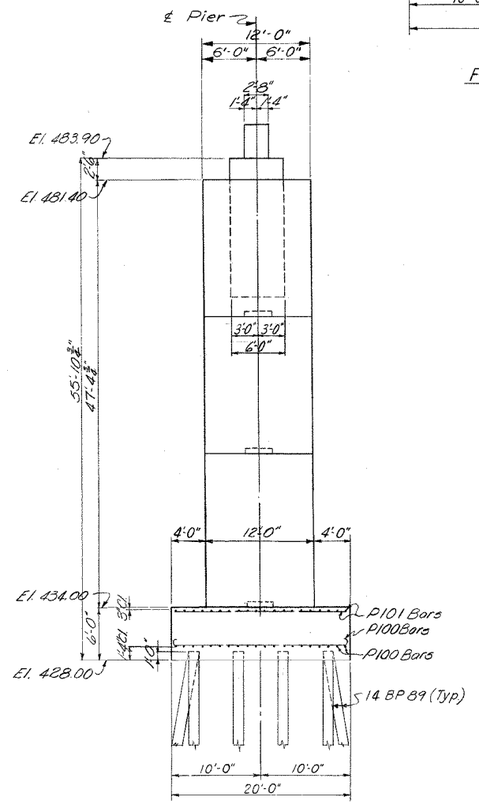
NOTE:
Piles are battered in direction indicated

FOOTING PLAN
Scale 3/16" = 1'-0"

Note: For additional Reinforcing Bars to be embedded in Strut see Wind Anchor Details Sh. 9



ELEVATION
Scale: 1/8" = 1'-0"



END VIEW
Scale: 1/8" = 1'-0"

ESTIMATE OF QUANTITIES

Concrete - Class "A" (Cu. Yds.)	848.4
Steel Reinforcement (Lbs.)	70,810
Common Structure Excavation (Cu. Yds.)	340
Steel H Piles (14 BP 89) Furnished (Lin. ft.)	3740
Steel H Piles (14 BP 89) Driven (Lin. ft.)	3740

Maximum Pile Loads:
65.0 Tons - Direct Load (Group III Loads)
92.5 Tons - Incl. Overturning (Group III Loads)

NOTES:
For Splice Detail, for welding Reinforcement, See Sh. 20.
For Reinforcing Bar Details see Sh. 20.
Work this Sheet with Sh. 9.
Pour A to be made seven days after adjacent parts of strut are poured.
"Ordinary Surface" finish is required on all vertical concrete surfaces. See Standard Specifications, Section 5.6.3(h).

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA
PROJECT I-65-9 (2) 136
BRIDGE OVER OHIO RIVER ON I.R. 65
BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

HAZELET AND ERDAL
CONSULTING ENGINEERS
FILE NO. 525

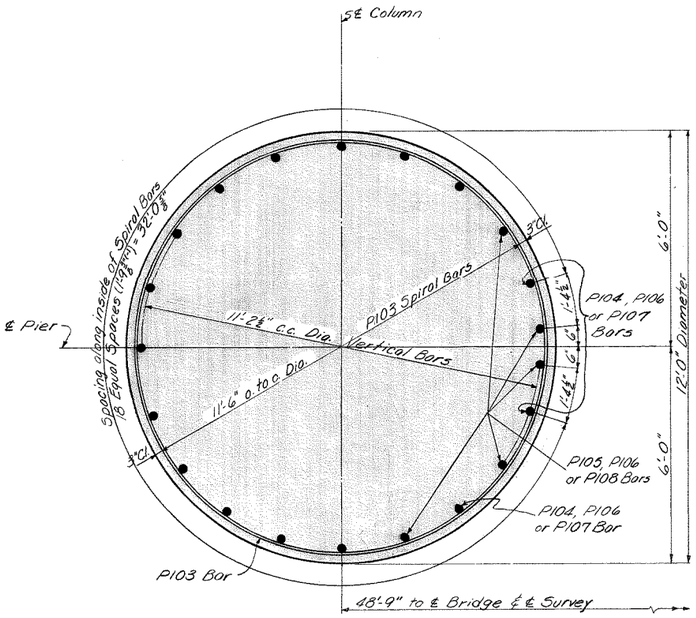
SUBSTRUCTURE

14525

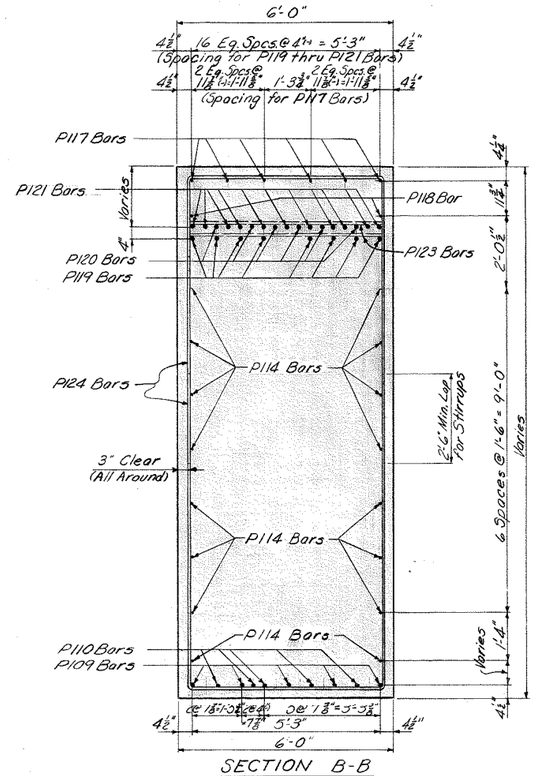
PIER Nº 1 DETAILS

DESIGNED JVE & BGM C-K'D BGM & JVE
DRAWN JLO & BGM C-K'D 2DO. 11-12-60
TRACED C-K'D

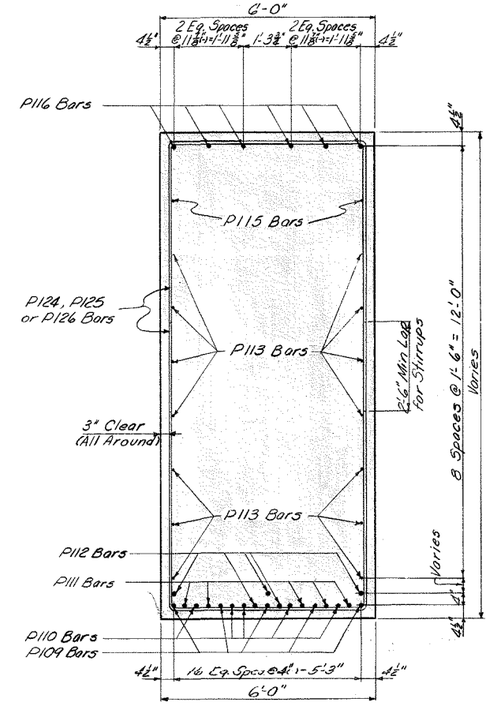
BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	9	22



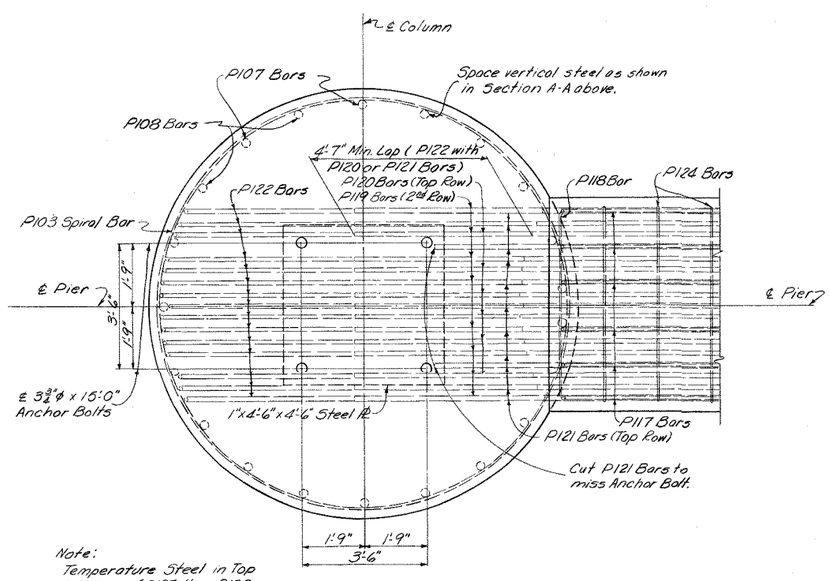
SECTION A-A



SECTION B-B

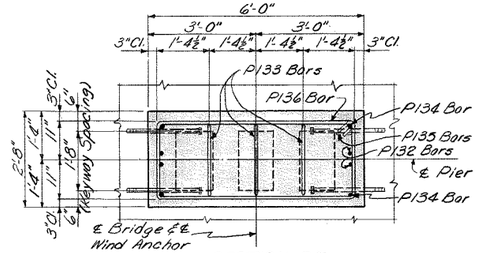


SECTION C-C

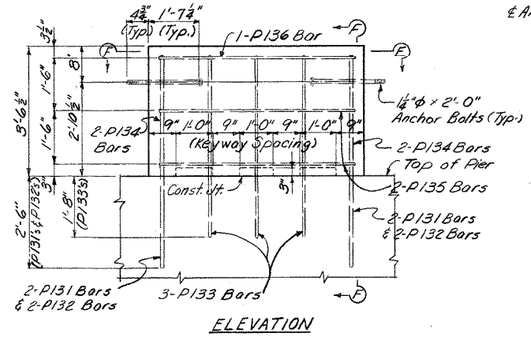


Note:
Temperature Steel in Top of Column (P127 thru P130 Bars) not shown (See Plan).

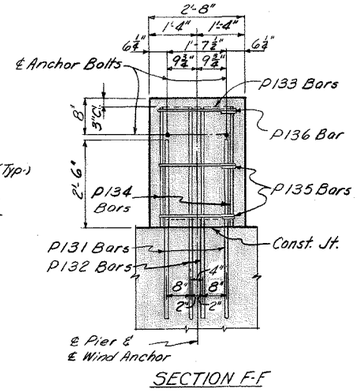
VIEW D-D



SECTION E-E



ELEVATION



SECTION F-F

WIND ANCHOR DETAILS

NOTES:
Scale (All Sections & Views): ½"=1'-0"
For Reinforcing Bar Details see Sh. 20
Work this Sheet with Sh. 8

Sheet 9 of 22

DESIGNED JUE & BGM C'K'D BGM & JUE
DRAWN BGM C'K'D RDD 11-12-60
TRACED C'K'D

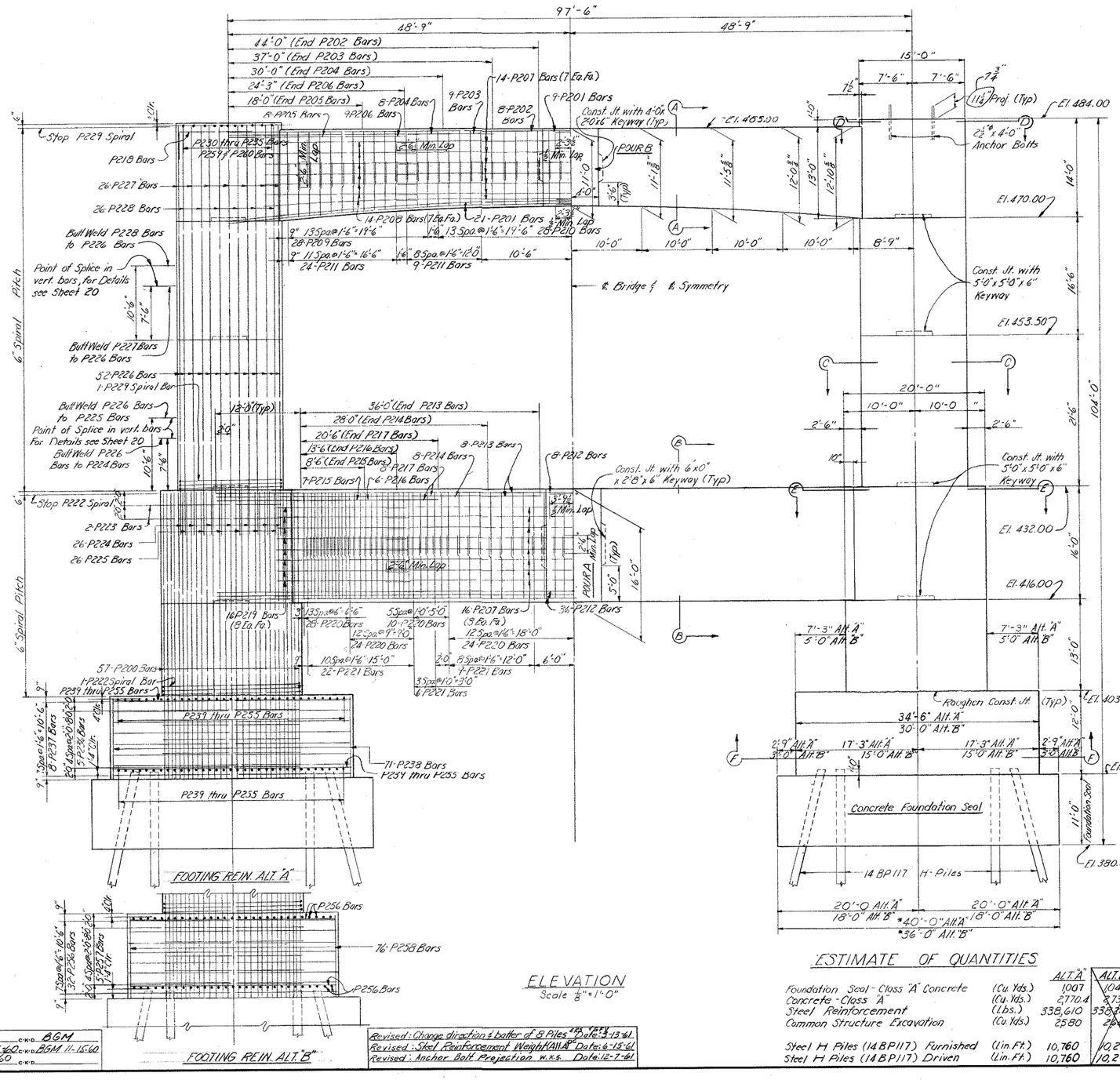
KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA
PROJECT I-65-9 (2) 136
BRIDGE OVER OHIO RIVER ON I.R. 65
BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

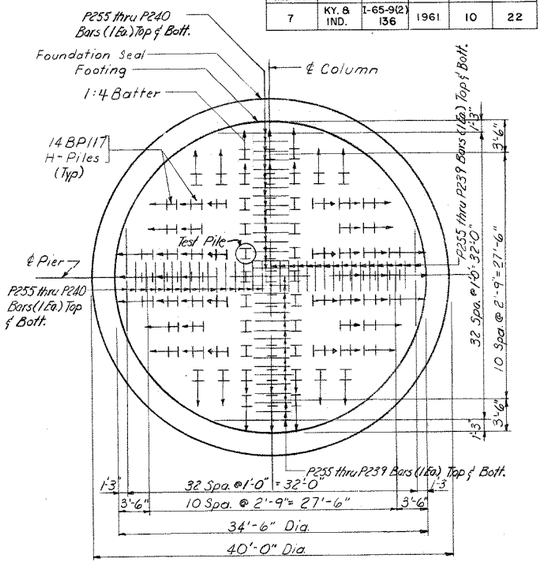
HAZELET AND ERDAL CONSULTING ENGINEERS
FILE NO. 929.

SUBSTRUCTURE 14525

PIER Nº 1 DETAILS

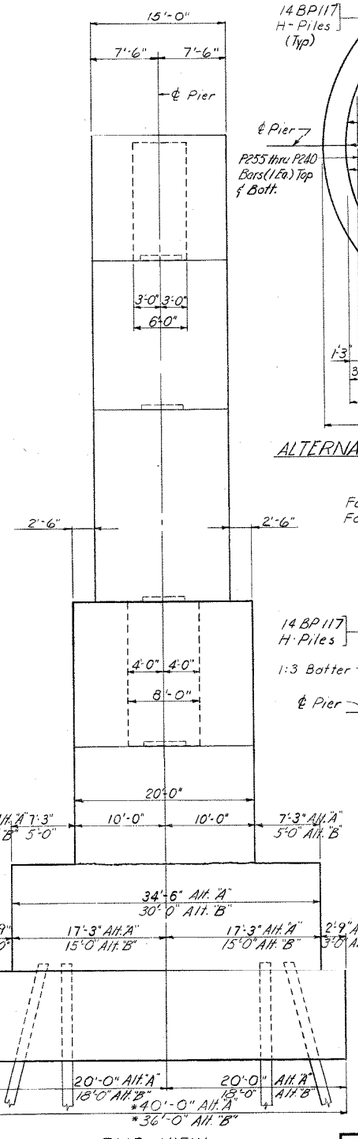
BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	10	22



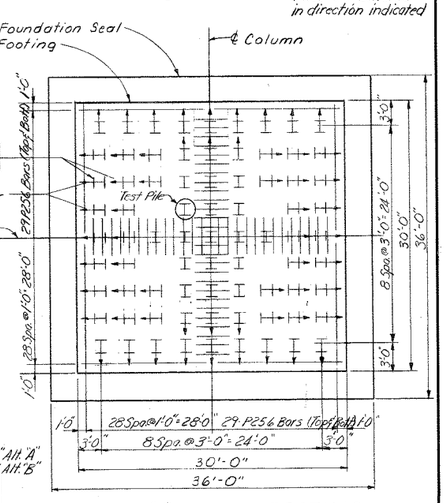


ALTERNATE "A" PLAN OF FOOTING
Scale ⅛" = 1'-0"

Note: Piles are battered in direction indicated



END VIEW
Scale ⅛" = 1'-0"



ALTERNATE "B" PLAN OF FOOTING
Scale ⅛" = 1'-0"

Maximum Pile Loads:
Round Footing - 87.5 Tons - Direct Load (Group III Loads)
124.5 Tons - Incl. Overturning (Group II Loads)
Square Footing - 90.5 Tons - Direct Load (Group III Loads)
120.5 Tons - Incl. Overturning (Group V Loads)

* Pay Limits for Structure Excavation & Foundation Seal

ESTIMATE OF QUANTITIES

		ALT "A"	ALT "B"
Foundation Seal - Class "A" Concrete	(Cu. Yds.)	1007	1041
Concrete - Class "A"	(Cu. Yds.)	2770.4	2739.9
Steel Reinforcement	(Lbs.)	338,610	338,440
Common Structure Excavation	(Cu. Yds.)	2580	2660
Steel H Piles (14 BP 117) Furnished	(Lin. Ft.)	10,760	10,290
Steel H Piles (14 BP 117) Driven	(Lin. Ft.)	10,760	10,290

NOTES:
See Sheet 20 for Reinforcement Details
See Sheet 11 for Sections A-A, B-B, C-C, D-D & E-E
for Splice Detail of welded reinforcement see Sh. 20
Pours A & B to be made seven days after adjacent parts of Struts are poured.
Ordinary Surface Finish is required on all vertical concrete surfaces, see Std Specification Sec. 5.6.3.(h)

DESIGNED JJE C'K'D. BGM
DRAWN BGO 5-25-60 C'K'D. BGM 11-15-60
TRACED DC 11-7-60 C'K'D.

Revised: Change direction & batter of 8 Piles Date: 5-13-61
Revised: Steel Reinforcement Weight (Alt A & B) Date: 6-15-61
Revised: Anchor Bolt Projection W.K.S. Date: 12-7-61

PIER Nº 2 DETAILS

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA

PROJECT I-65-9 (2) 136
BRIDGE OVER OHIO RIVER ON I.R. 65

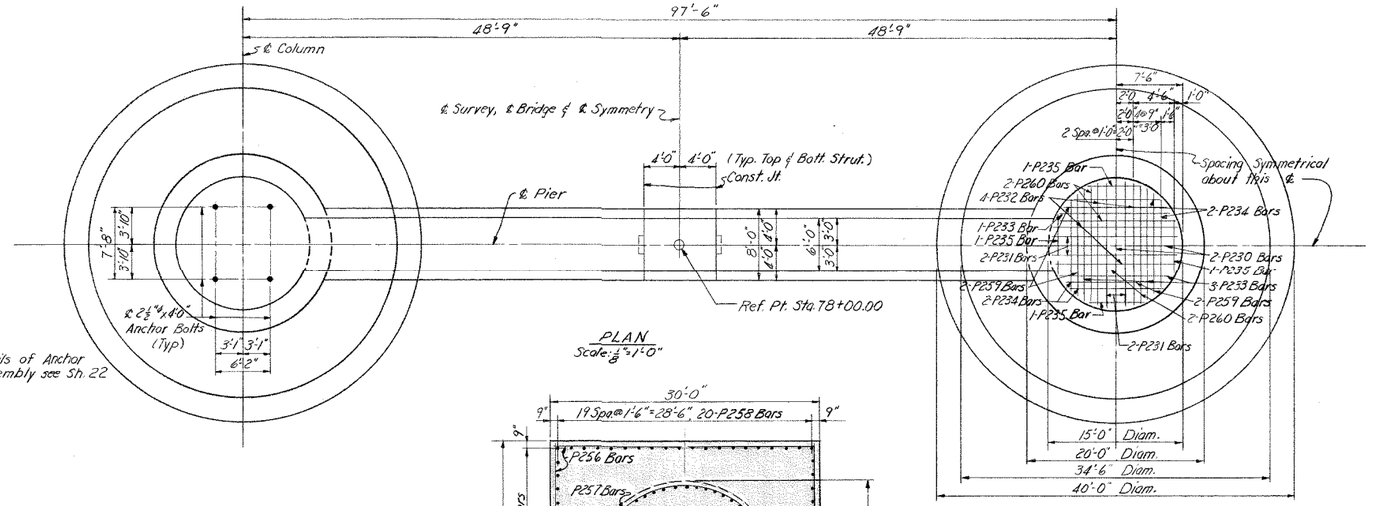
BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY
AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

HAZELET AND ERDAL CONSULTING ENGINEERS
FILE NO. 822

SUBSTRUCTURE 14525

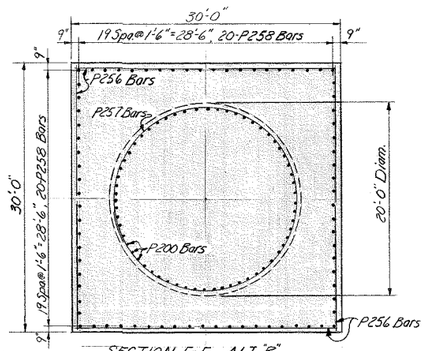
Work This Sheet with Sheet 11

BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	11	22

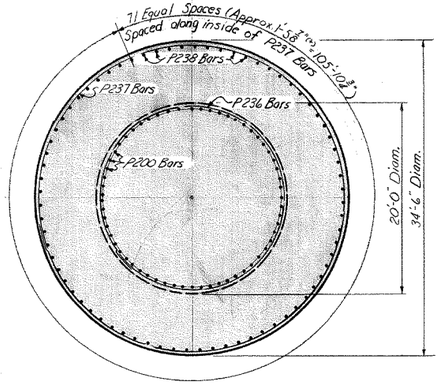


Note:
For Details of Anchor Bolt Assembly see Sh. 22

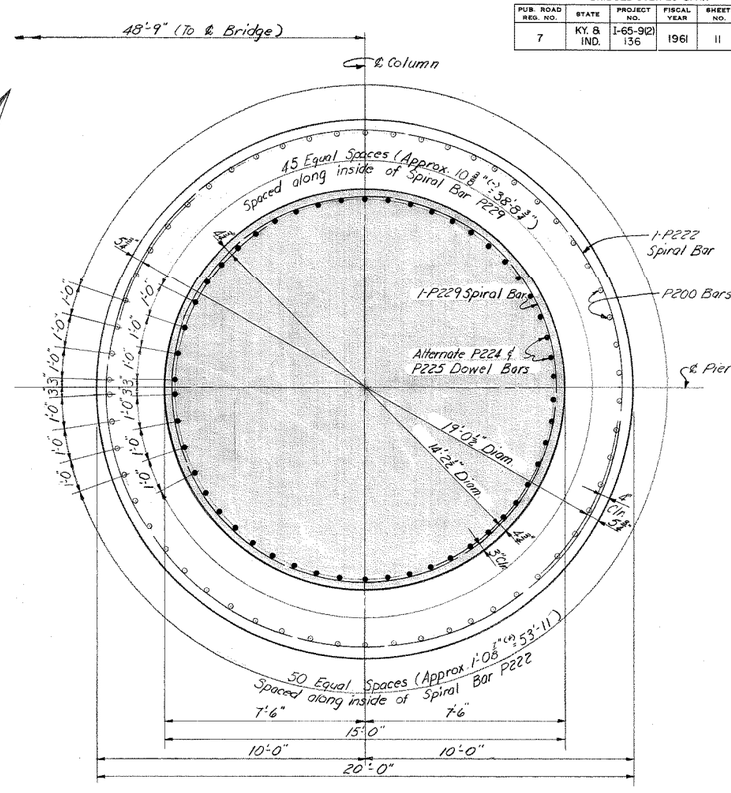
PLAN
Scale: ⅛" = 1'-0"



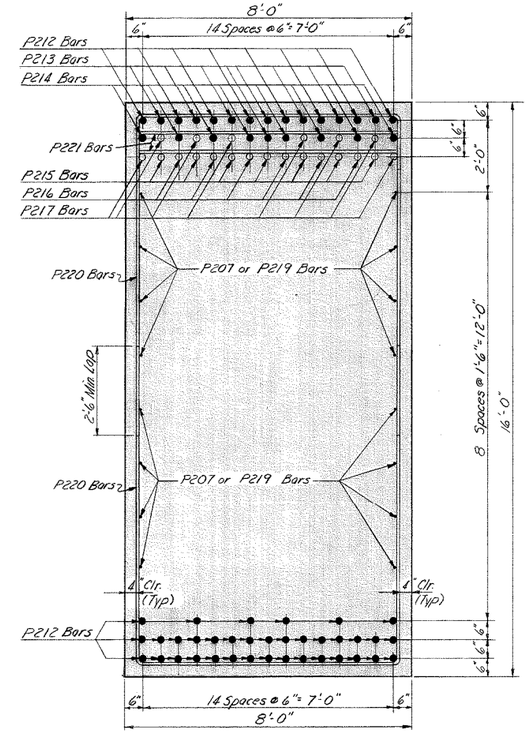
SECTION F-F ALT. B"
Scale: ⅛" = 1'-0"



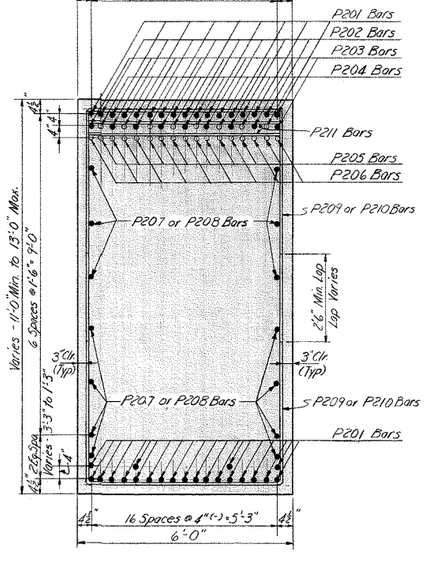
SECTION F-F ALT. A"
Scale: ⅛" = 1'-0"



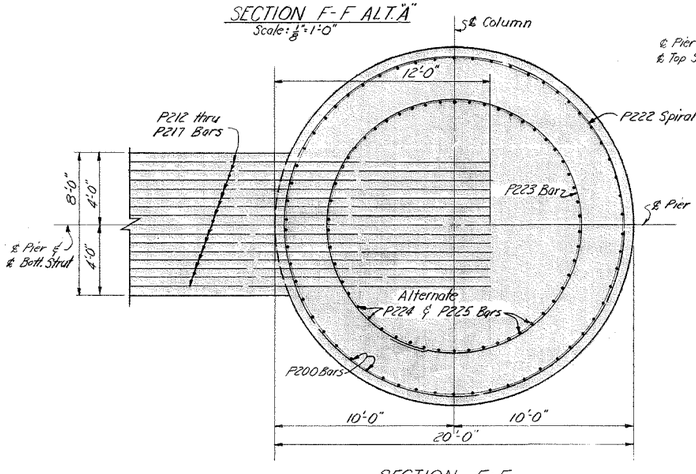
SECTION C-C
Scale: ⅜" = 1'-0"



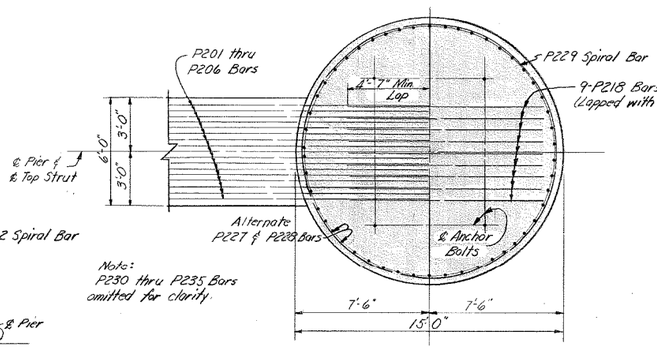
SECTION B-B
Scale: ½" = 1'-0"



SECTION A-A
Scale: ½" = 1'-0"



SECTION E-E
Scale: ½" = 1'-0"



SECTION D-D
Scale: ¼" = 1'-0"

Note:
P230 thru P235 Bars omitted for clarity.

Note:
For reinforcing details see Sheet 20

Work This Sheet with Sheet 10

Sheet 11 of 22

DESIGNED JJE C'K'D BGM	Revised: Added P259 & P260 Bars	Date: 6-15-61
DRAWN QC 11-7-60 C'K'D BGM 11-14-60	Revised	Date
TRACED C'K'D	Revised	Date

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA

PROJECT I-65-9 (2) 136
BRIDGE OVER OHIO RIVER ON I.R. 65

BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY
AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

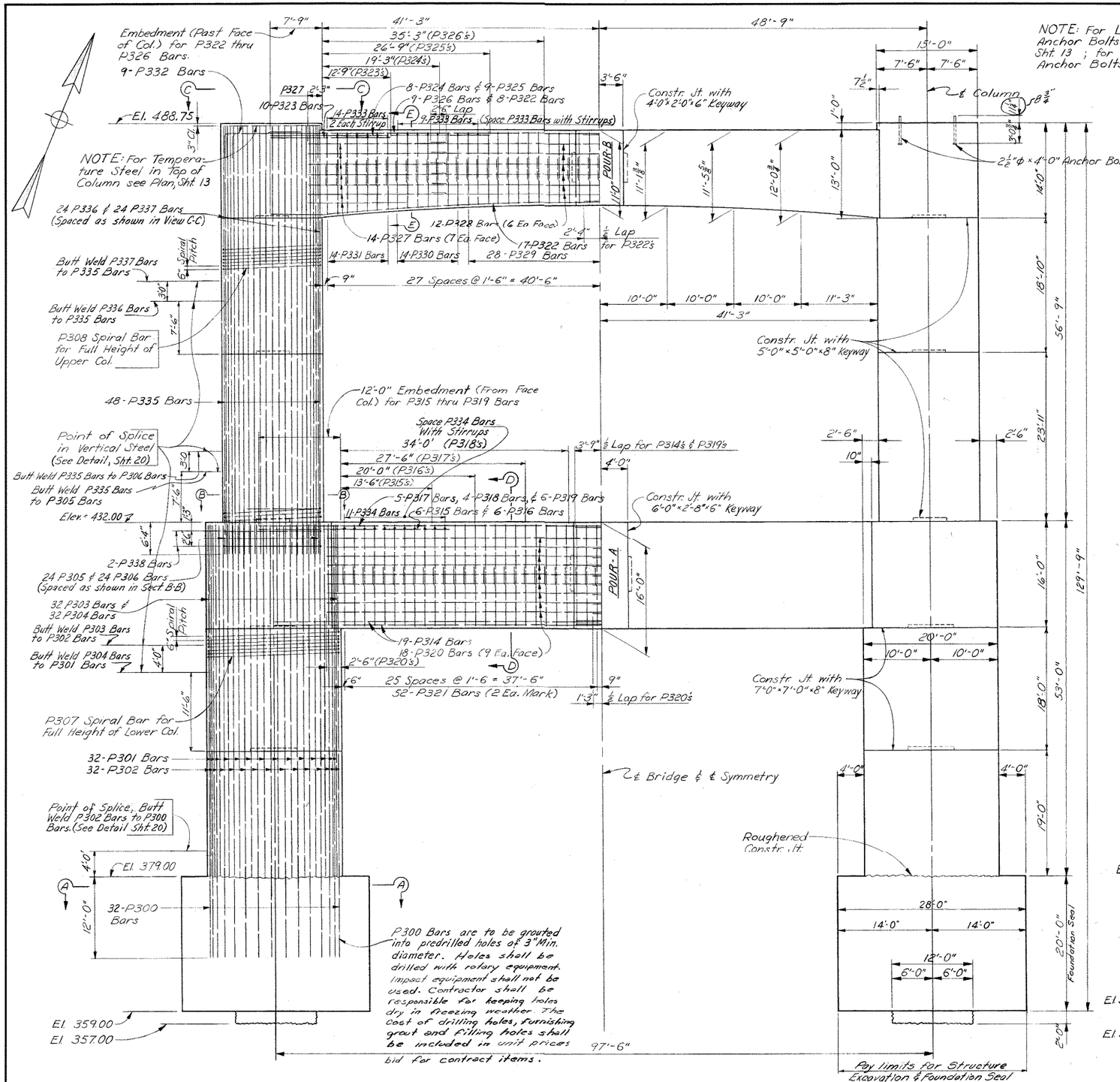
HAZELET AND ERDAL
CONSULTING ENGINEERS
FILE NO. 829.

SUBSTRUCTURE 14525

PIER № 2 DETAILS

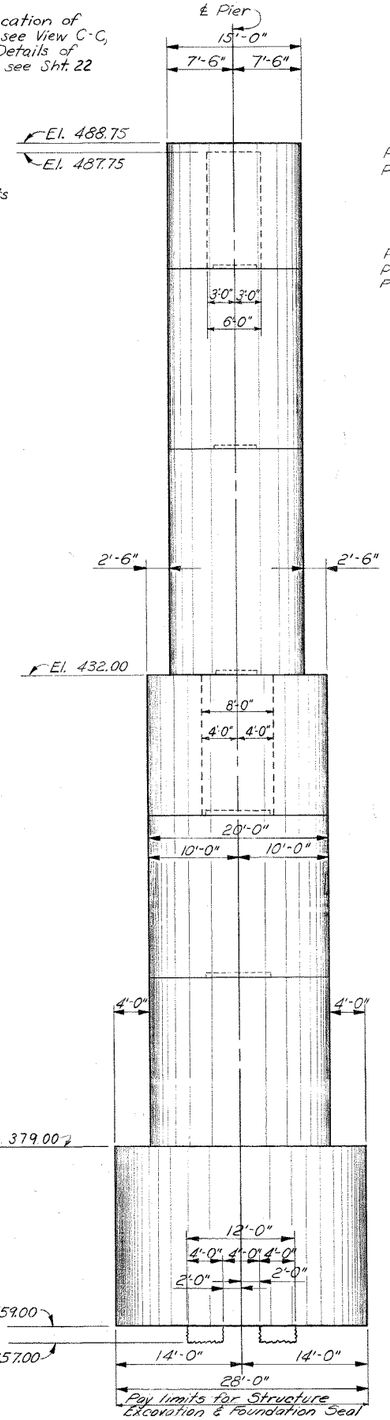
829

BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	12	22

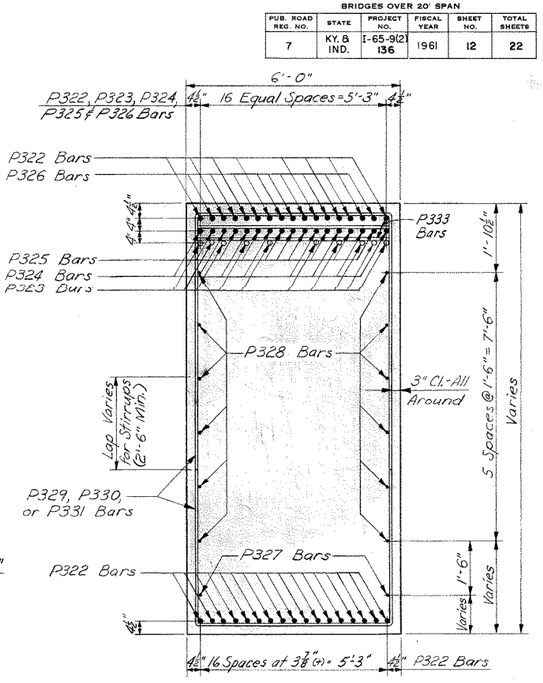


ELEVATION
Scale: 1/8"=1'-0"

NOTE: For Location of Anchor Bolts see View C-C, Sht. 13 ; for Details of Anchor Bolts see Sht. 22



END VIEW
Scale: 1/8"=1'-0"



SECTION E-E
Scale: 1/2" = 1'-0"

ESTIMATE OF QUANTITIES

Concrete - Class "A" (Cu. Yds.)	2,560.9
Steel Reinforcement (Lbs.)	306,630
Common Structure Excavation (Cu. Yds.)	880
Solid Rock Structure Excavation (Cu. Yds.)	50
Foundation Seal - Class "A" Concrete (Cu. Yds.)	926

Maximum Rock Pressures:
10.80 Tons per Sq. Ft. for Direct Load (Group III)
20.60 Tons per Sq. Ft. Including Overturning (Group IX)

NOTE:
For Reinforcing Bar Details see Sht. 20
Work this Sheet with Sht. 13
Pour A & B are to be made 7 days after adjacent parts of strut are poured.
Ordinary Surface Finish is required on all Vertical Concrete Surfaces see Standard Specifications Section 5.6.3(h).

Sheet 12 of 22

DESIGNED JWH C-K'D. PDO	Revised: Note P300 Bars WKS Date 12-29-60	
DRAWN JLO 5-19-60 C-K'D. JWH	Revised: Steel Rein. Weight V.E.G.C. & JWH Date 6-15-61	
TRACED C-K'D.	Revised: Anchor Bolt Projection W.K.S. Date 12-7-61	

PIER Nº 3 DETAILS

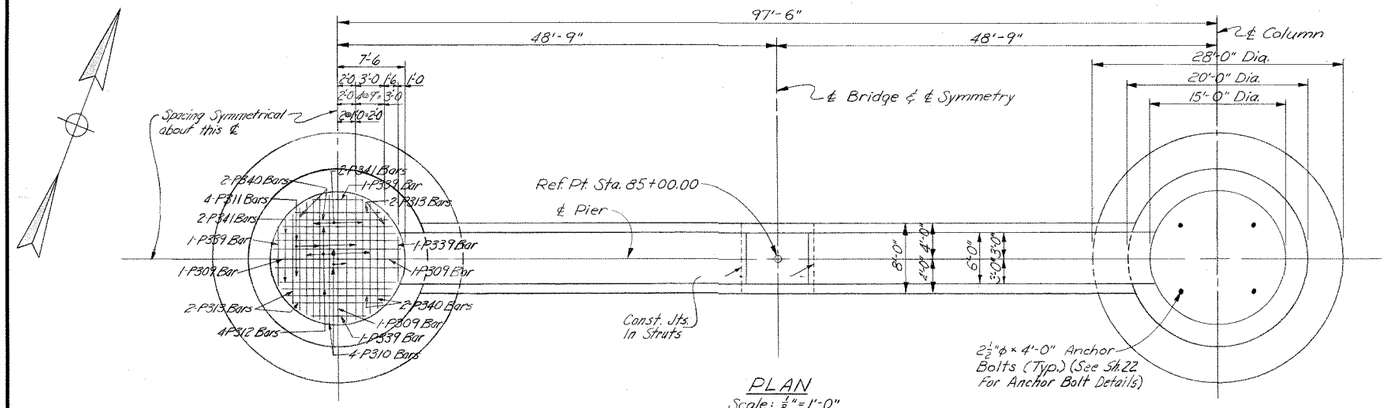
KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA
PROJECT I-65-9 (2) 136
BRIDGE OVER OHIO RIVER ON I.R. 65
BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

HAZELET AND ERDAL CONSULTING ENGINEERS
FILE NO. 825.

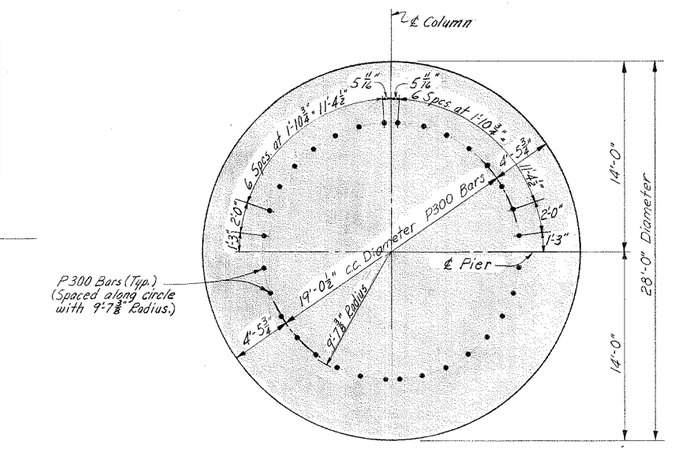
SUBSTRUCTURE 14525

829

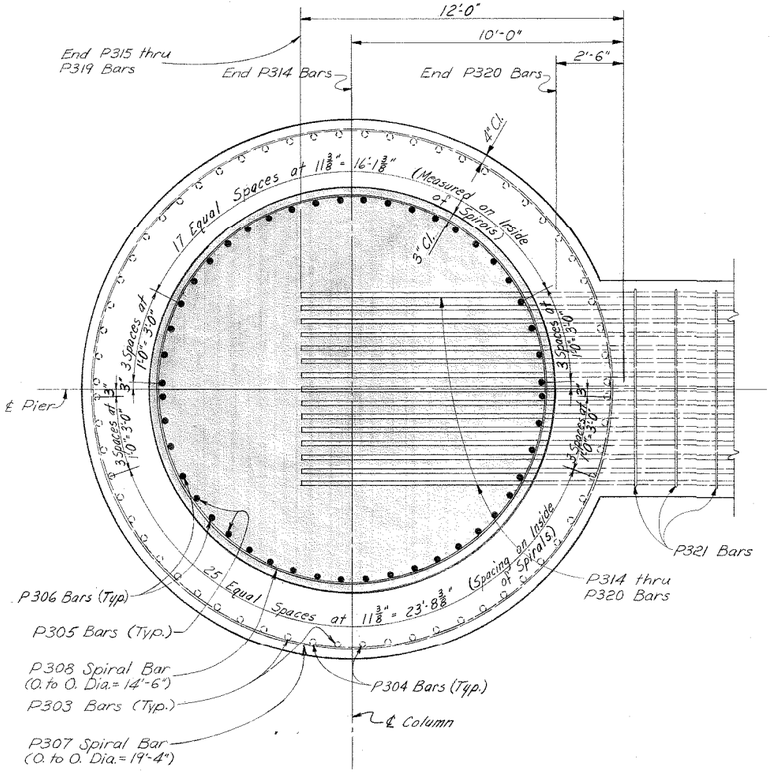
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR
7	KY. & IND.	I-65-9(2)	1961



PLAN
Scale: ⅛"=1'-0"

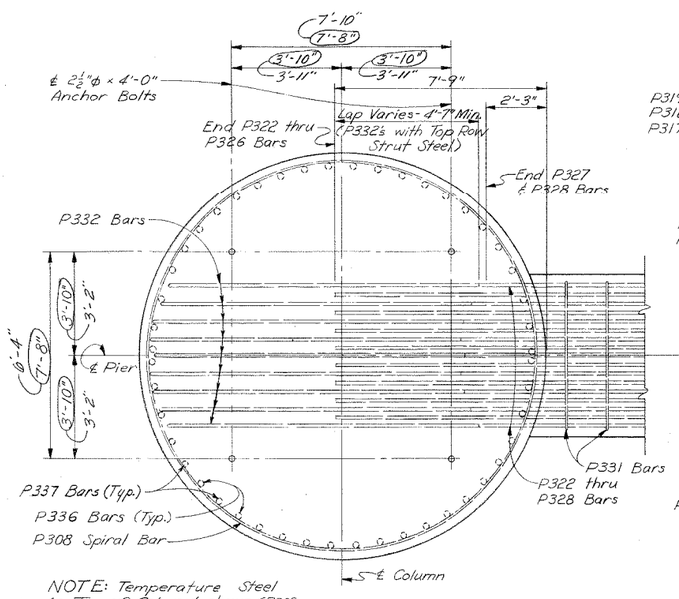


NOTE:
P300 Bars are spaced symmetrical about ℄ of Pier, concentric with Seal, as shown in Section A-A.
Insert and Grout P300 Bars into 3"ϕ(Min) Drilled Holes (See General Notes.)



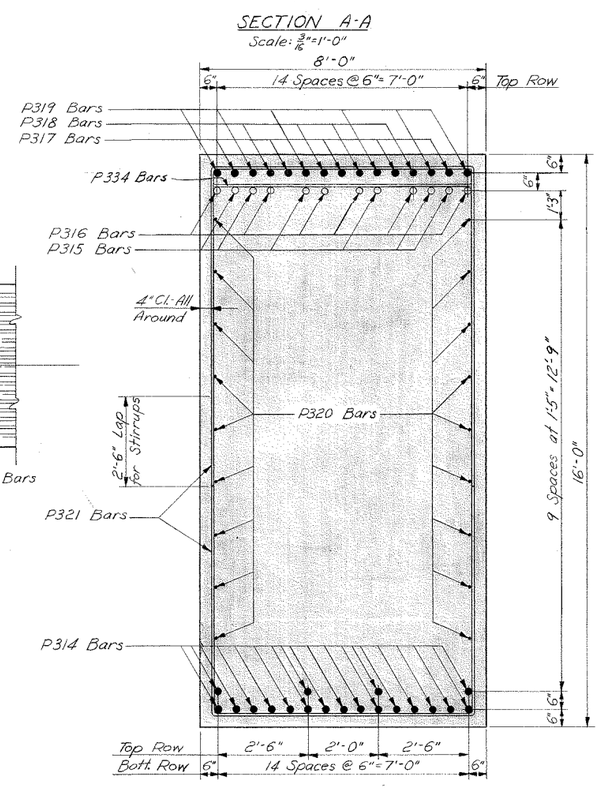
SECTION B-B
Scale: ⅜"=1'-0"

NOTE: Vertical Bars in Columns are spliced end to end and spaced as shown.



NOTE: Temperature Steel in Top of Col. not shown (P309 thru P313 Bars); see Plan.

VIEW C-C
Scale: ⅜"=1'-0"



SECTION A-A
Scale: 3/16"=1'-0"

SECTION D-D
Scale: ½"=1'-0"

For Reinforcing Bar Details see Sht. 20
Work this Sheet with Sht. 12.

DESIGNED BY JWH DATE 10-19-60 CHECKED BY JLO
DETAILED BY JLO DATE 12-6-60 CHECKED BY JWH
TRACED BY DATE CHECKED BY
REVISED Added P319, P320 & P321 Bars DATE 12-15-61
REVISED Anchor Bolt Spacing W.A.S. DATE 12-21-61
REVISED DATE

Sheet 13 of 22

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA
PROJECT I-65-9(2) 136
BRIDGE OVER OHIO RIVER ON I.R. 65
BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

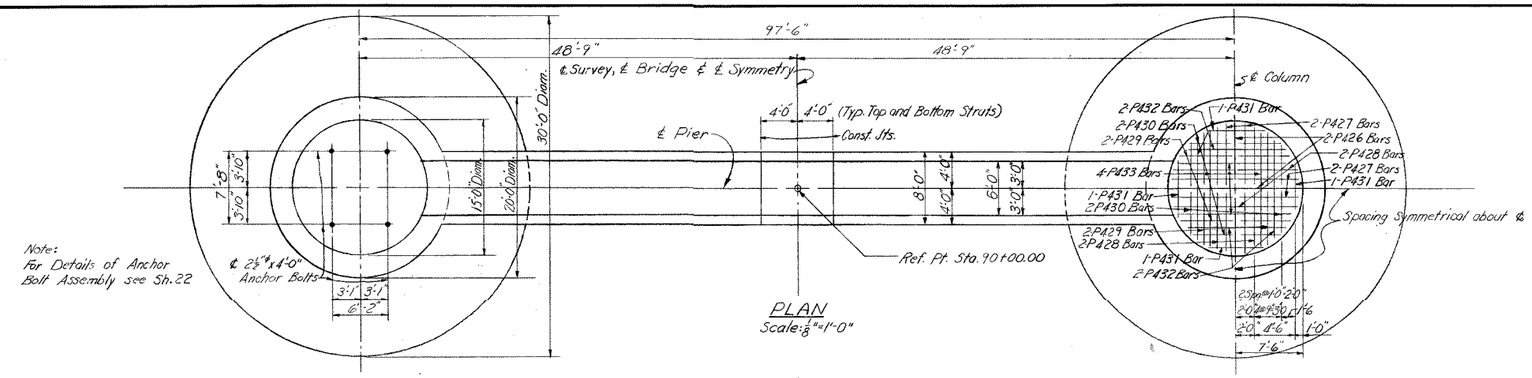
HAZELET AND ERDAL CONSULTING ENGINEERS FILE NO. 829

SUBSTRUCTURE

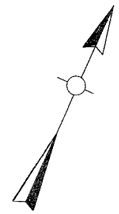
14525

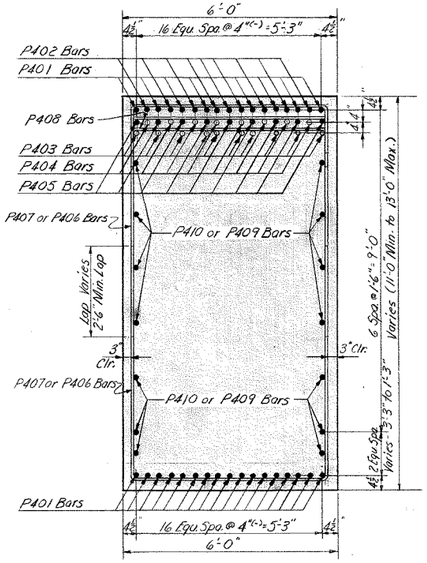
PIER Nº 3 DETAILS

BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	14	22

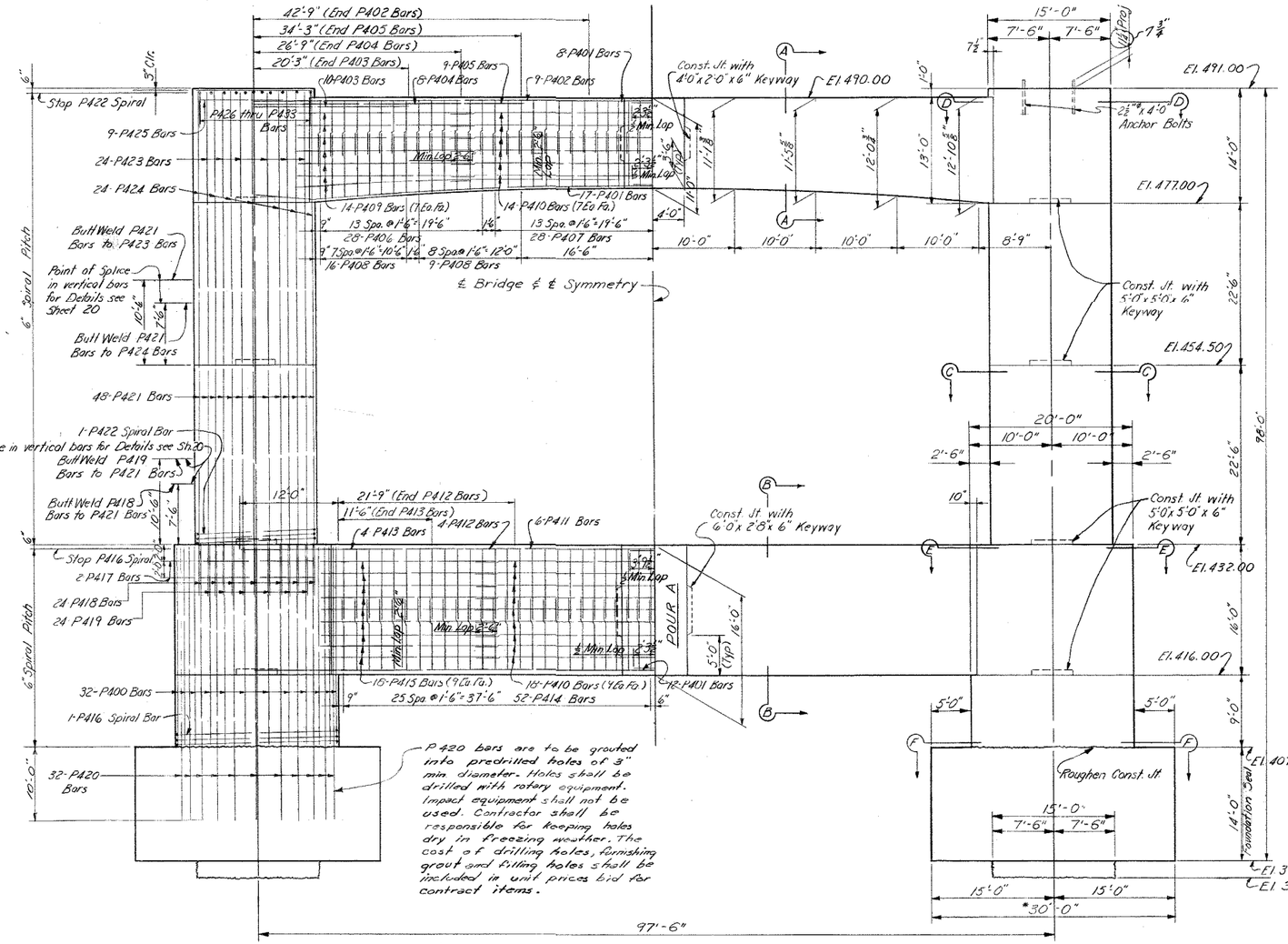


PLAN
Scale: ⅛"=1'-0"

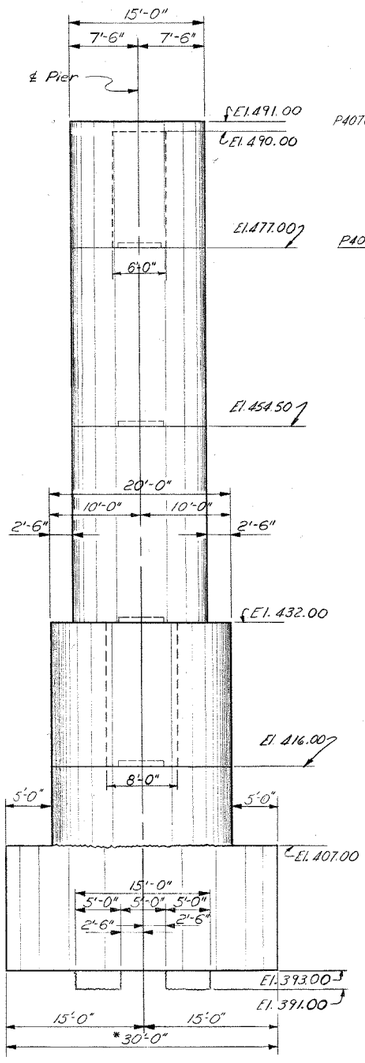




SECTION A-A
Scale: ½"=1'-0"



ELEVATION
Scale: ⅛"=1'-0"



END VIEW
Scale: ⅛"=1'-0"

*Pay Limits for Structure Excavation & Foundation Seal

ESTIMATE OF QUANTITIES

Foundation Seal Class "A" Concrete	(Cu. Yds.)	755
Concrete - Class "A"	(Cu. Yds.)	1938.2
Steel Reinforcement	(Lbs.)	217,630
Common Structure Excavation	(Cu. Yds.)	10
Solid Rock Structure Excavation	(Cu. Yds.)	125

NOTES
See Sheet 20 for Reinforcement Details
See Sheet 15 for Sections B-B, C-C, D-D & E-E
For Splice Detail of welded reinforcement see Sheet 20
Pours A and B to be made seven days after adjacent parts of Struts are poured.
Maximum Rock Pressure:
8.5 Tons per Sq. Ft. for Direct Load (Group III Loads)
15.8 Tons per Sq. Ft. Incl. Overturning (Group IX Loads)
Ordinary Surface Finish is required on all Vertical Concrete Surfaces, see Std. Specifications Sec. 5.6.3.(h)

Work this Sheet with Sheet 15

Sheet 14 of 22

DESIGNED JWH C'K'D P.D.O.	Revised: Note P420 bars NTS Date: 12-29-60
DRAWN JLO 5-31-60 C'K'D BGM 11-14-60	Revised: Added P432 & P433 bars at 6'-6" ctrs Date: 6-15-61
TRACED & DC 11-9-60 C'K'D	Revised: Anchor Bolt Projection WKS Date: 12-7-61

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA

PROJECT I-65-9 (2) 136

BRIDGE OVER OHIO RIVER ON I.R. 65

BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

HAZELET AND ERDAL CONSULTING ENGINEERS FILE NO. 829

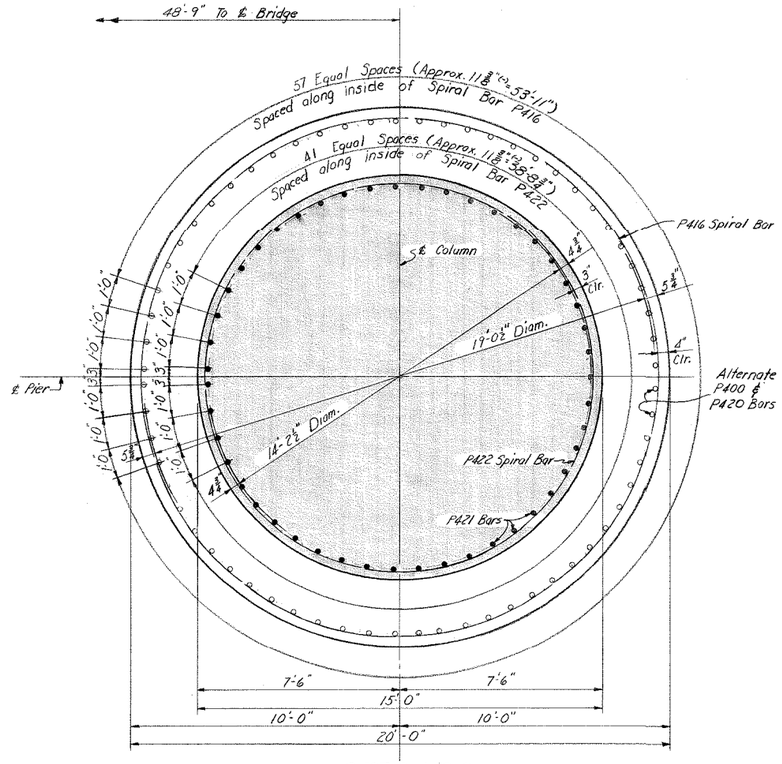
SUBSTRUCTURE

14525

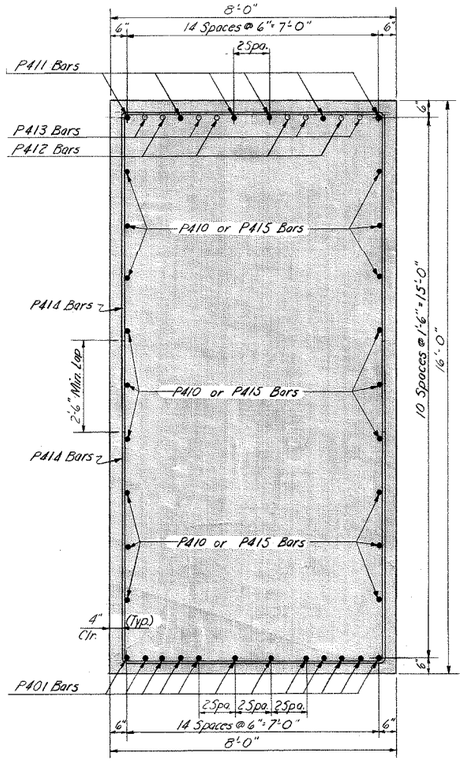
PIER Nº 4 DETAILS

829

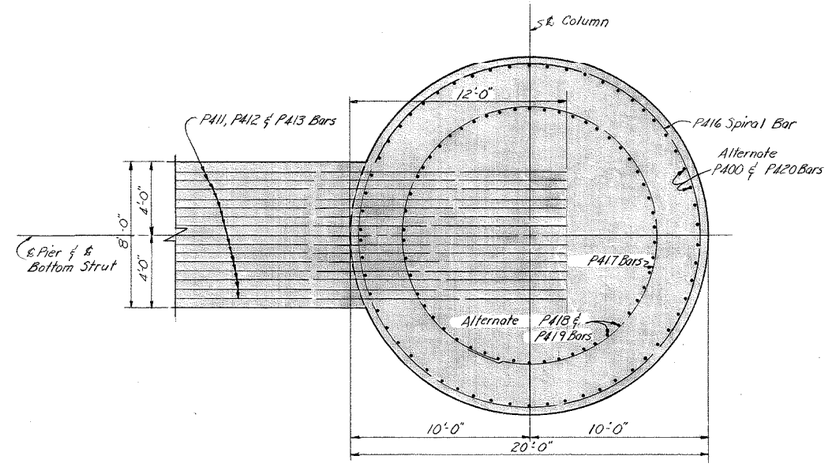
BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	15	22



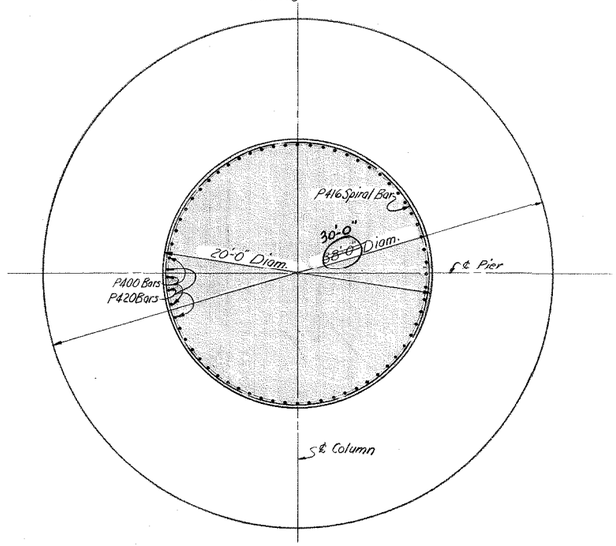
SECTION C-C
Scale: ⅜" = 1'-0"



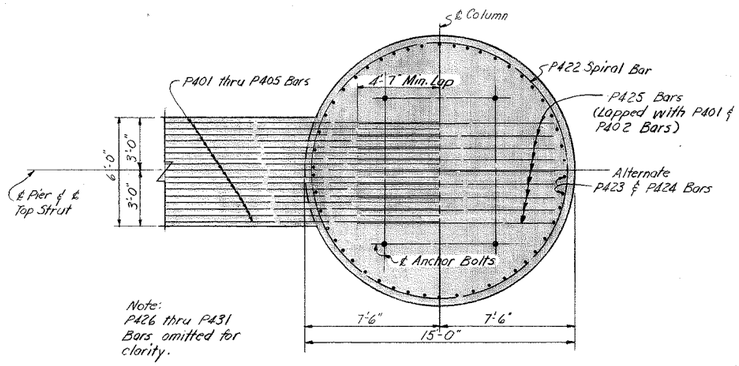
SECTION B-B
Scale: ½" = 1'-0"



SECTION E-E
Scale: ½" = 1'-0"



SECTION F-F
Scale: ⅜" = 1'-0"



Note:
P426 thru P431 Bars omitted for clarity.

SECTION D-D
Scale: ¼" = 1'-0"

Revised Sect. F-F 1-13-61 J.T.V.

DESIGNED	J.W.H.	C'K'D.	R.D.O.
DRAWN	D.C. 11-10-60	C'K'D.	J.G.M. 11-16-60
TRACED		C'K'D.	

Work this Sheet with Sheet 14

Sheet 15 of 22

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA

PROJECT I-65-9 (2) 136

BRIDGE OVER OHIO RIVER ON I.R. 65

BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY
AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

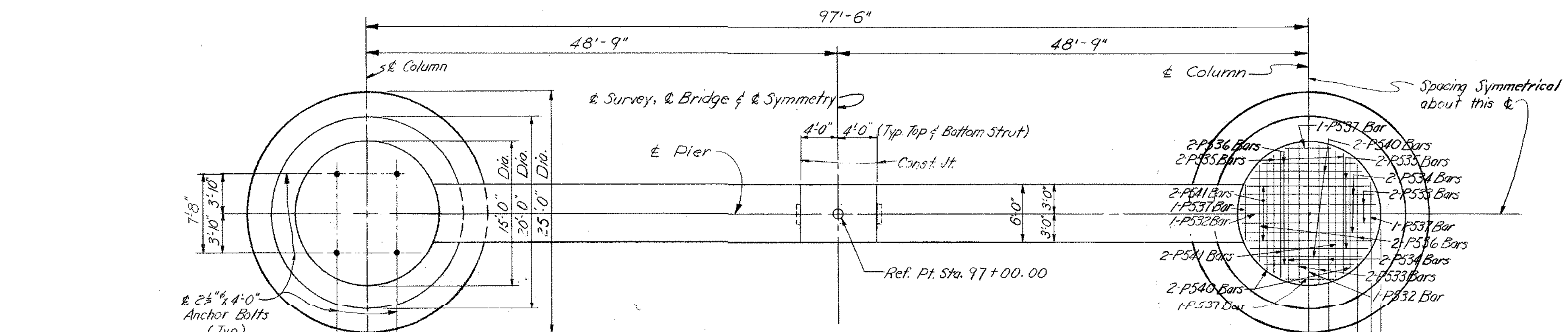
PIER Nº 4 DETAILS

HAZELET AND ERDAL
CONSULTING ENGINEERS
FILE NO. 825

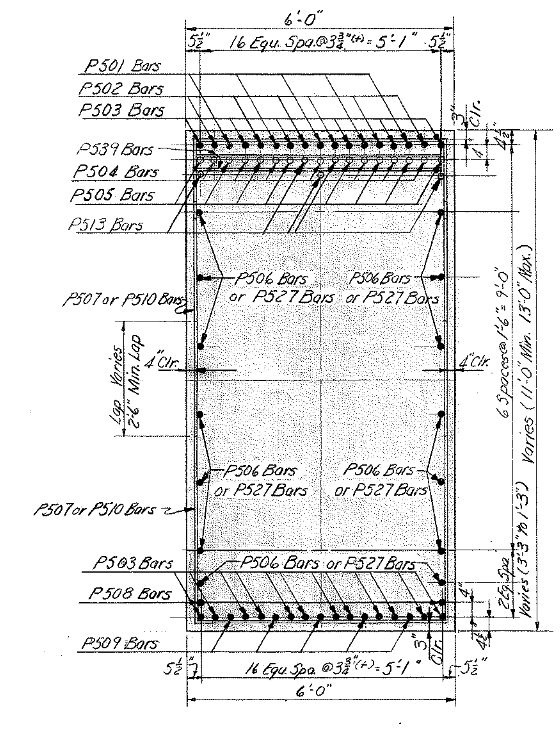
SUBSTRUCTURE

14525

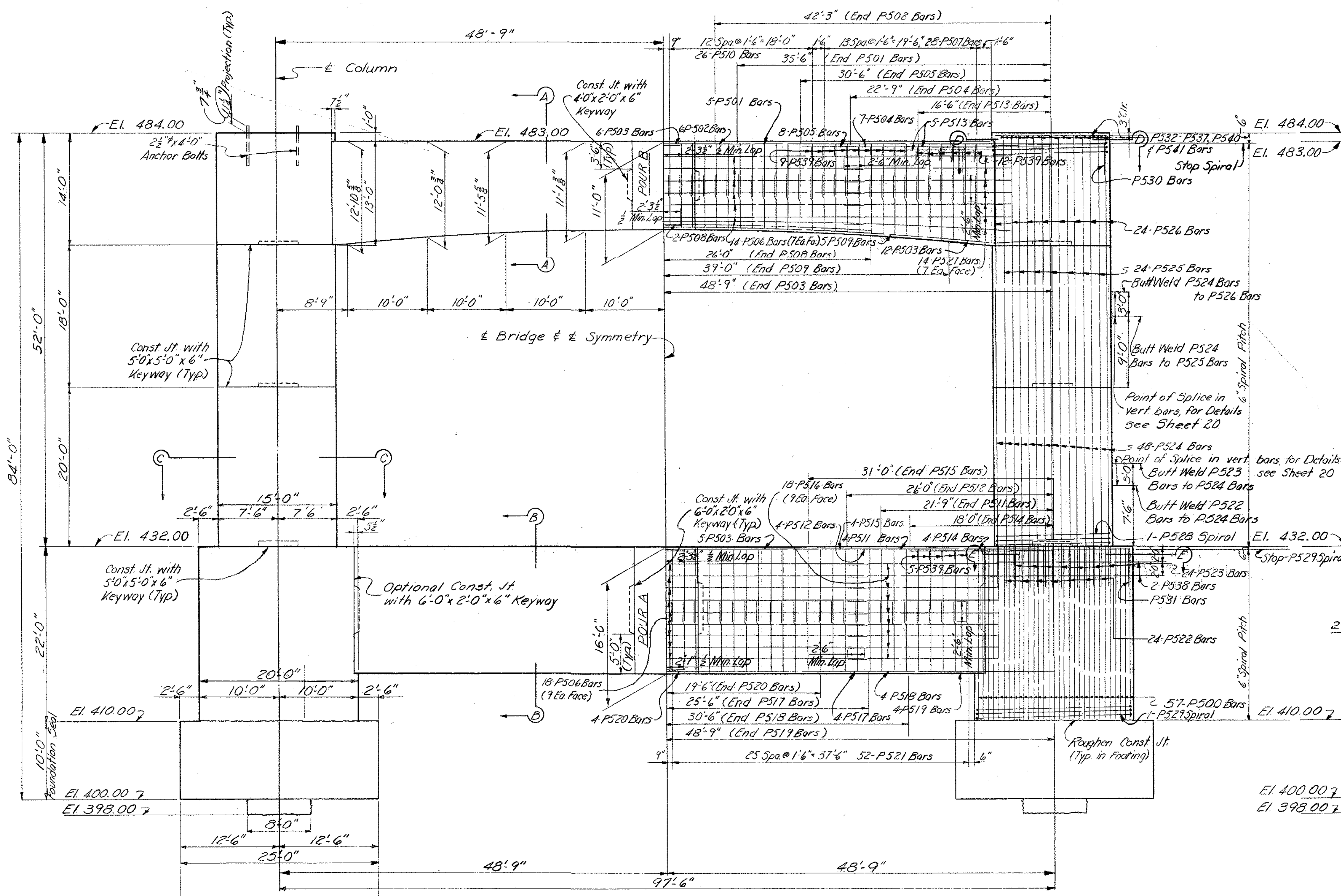
BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	16	22



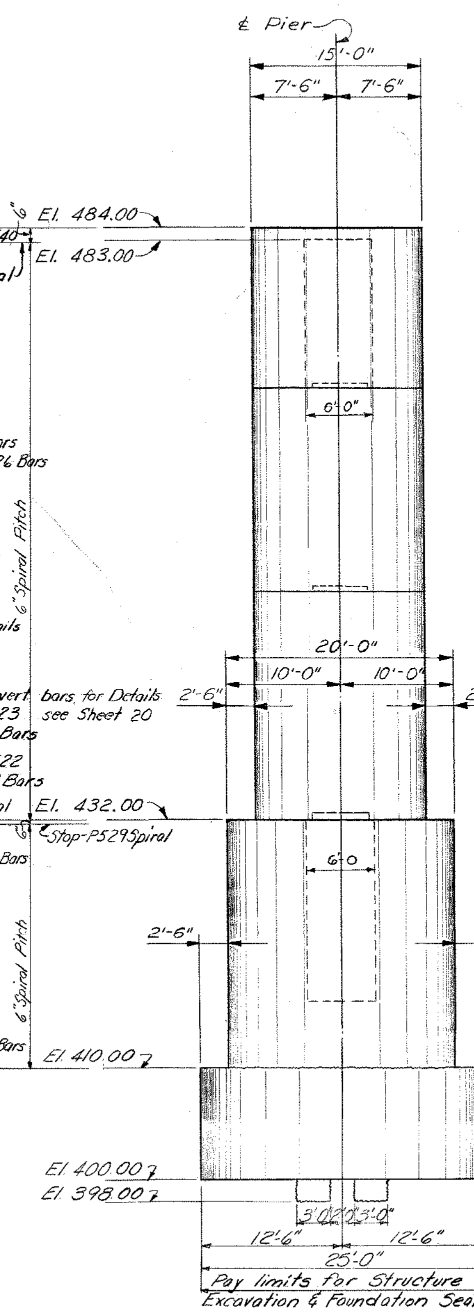
PLAN
Scale: ⅛" = 1'-0"



SECTION A-A
Scale: ½" = 1'-0"



ELEVATION
Scale: ⅛" = 1'-0"



END VIEW
Scale: ⅛" = 1'-0"

ESTIMATE OF QUANTITIES

Foundation Seal - Class "A" Concrete (Cu. Yds.)	370
Concrete - Class "A" (Cu. Yds.)	1685.0
Steel Reinforcement (Lbs.)	175,990
Common Structure Excavation (Cu. Yds.)	20
Solid Rock Structure Excavation (Cu. Yds.)	225

NOTES

Ordinary Surface Finish is required on all vertical concrete surfaces, See Standard Specifications section 5.6.3(h)
See Sheet 20 for Reinforcement Details
See Sheet 17 for Sections B-B, C-C, D-D & E-E
For Splice Detail of welded reinforcement see Sheet 20
Pours A & B to be made seven days after adjacent parts of Struts are poured.
Maximum Rock Pressures:
12.0 Tons per Sq. Ft. for Direct Load (Group III Loads)
19.6 Tons per Sq. Ft. Incl. Overturning (Group II Loads)

Work this Sheet with Sh. 17 Sheet 16 of 22

Revised: Added P540 & P541 bars, Steel Rein. Wt. DC Date: 6-15-61
Revised: Anchor Bolt Projection W.K.S. Date 12-7-61
Revised Date

DESIGNED BGM C'K'D JLO
DRAWN JLO & DC 11/1/60 C'K'D BGM 11-14-60
TRACED C'K'D

PIER No 5 DETAILS

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA

PROJECT I-65-9 (2) 136
BRIDGE OVER OHIO RIVER ON I.R. 65

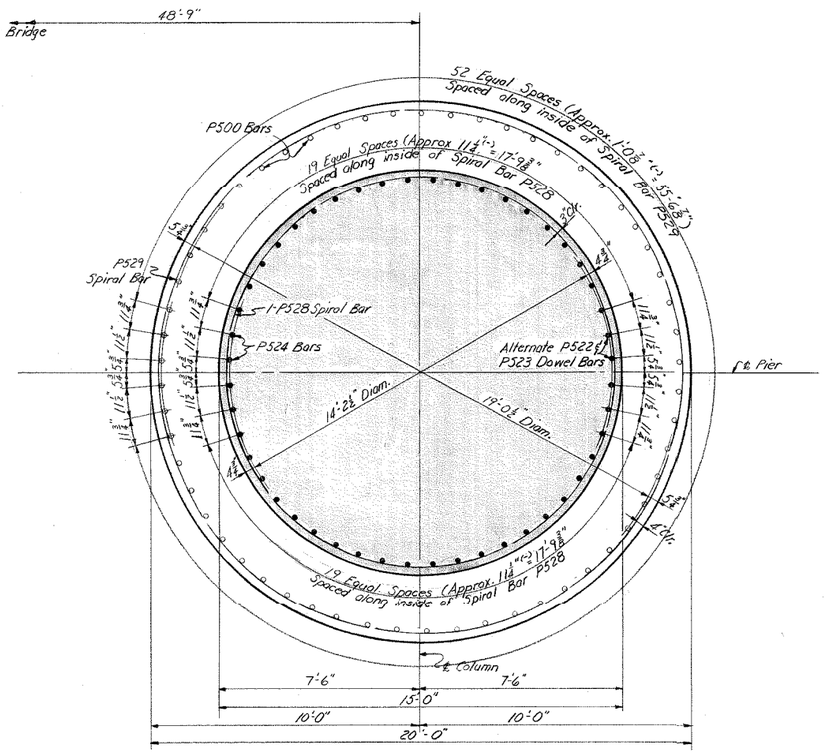
BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY
AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

HAZELET AND ERDAL
CONSULTING ENGINEERS
FILE NO. 829.

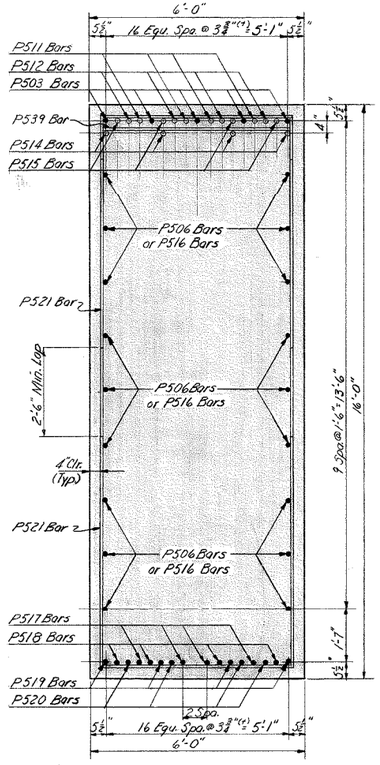
SUBSTRUCTURE

14525

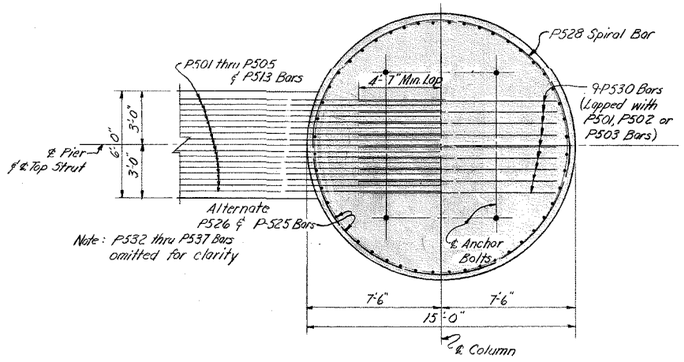
BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	17	22



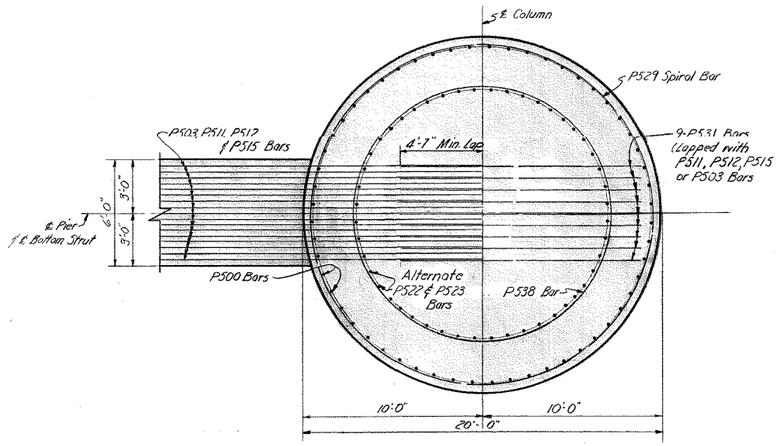
SECTION C-C
Scale: ⅜"=1'-0"



SECTION B-B
Scale: ½"=1'-0"



SECTION D-D
Scale: ½"=1'-0"



SECTION E-E
Scale: ½"=1'-0"

DESIGNED BGM C'K'D JLO	Revised:	Date:
DRAWN DC 10-11-60 C'K'D BGM 11-14-60	Revised	Date
TRACED C'K'D	Revised	Date

Work this Sheet with Sheet № 16 ℄ 20

Sheet 17 of 22

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA

PROJECT I-65-9 (2) 136

BRIDGE OVER OHIO RIVER ON I.R. 65

BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY
AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

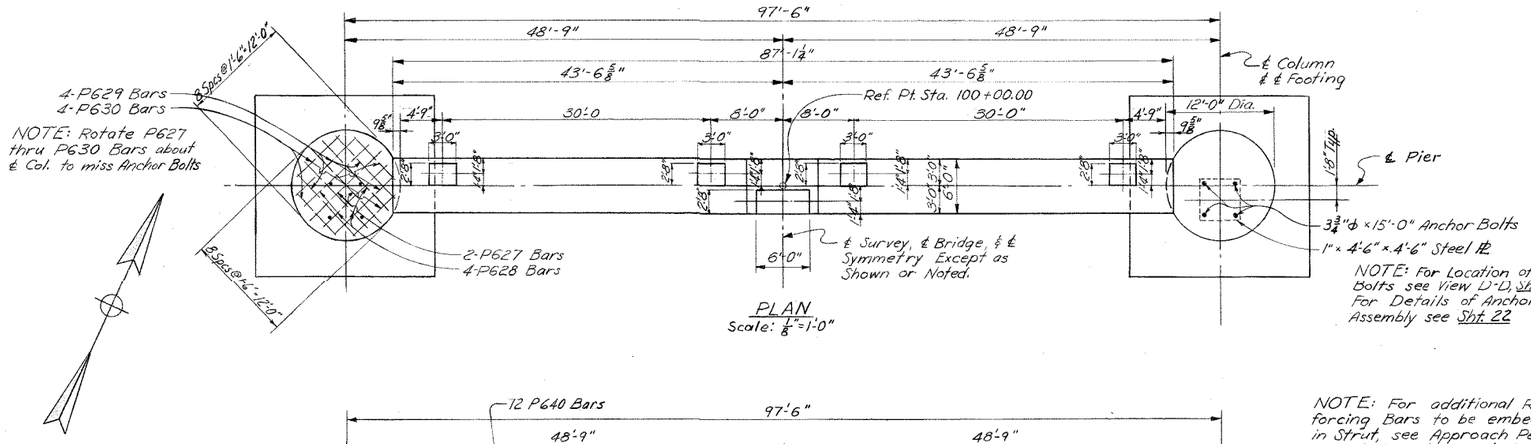
HAZELET AND ERDAL
CONSULTING ENGINEERS
FILE NO. 825

SUBSTRUCTURE

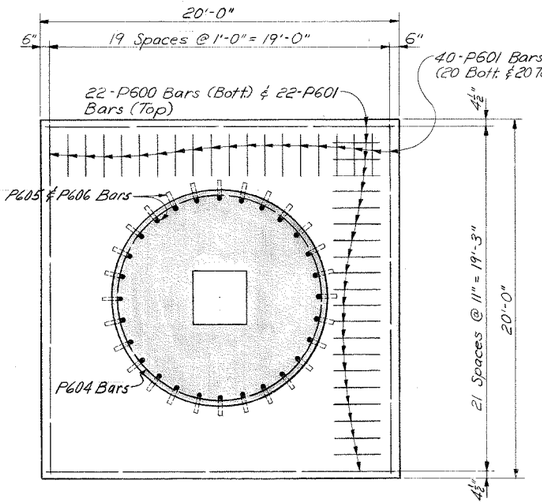
14525

PIER № 5 DETAILS

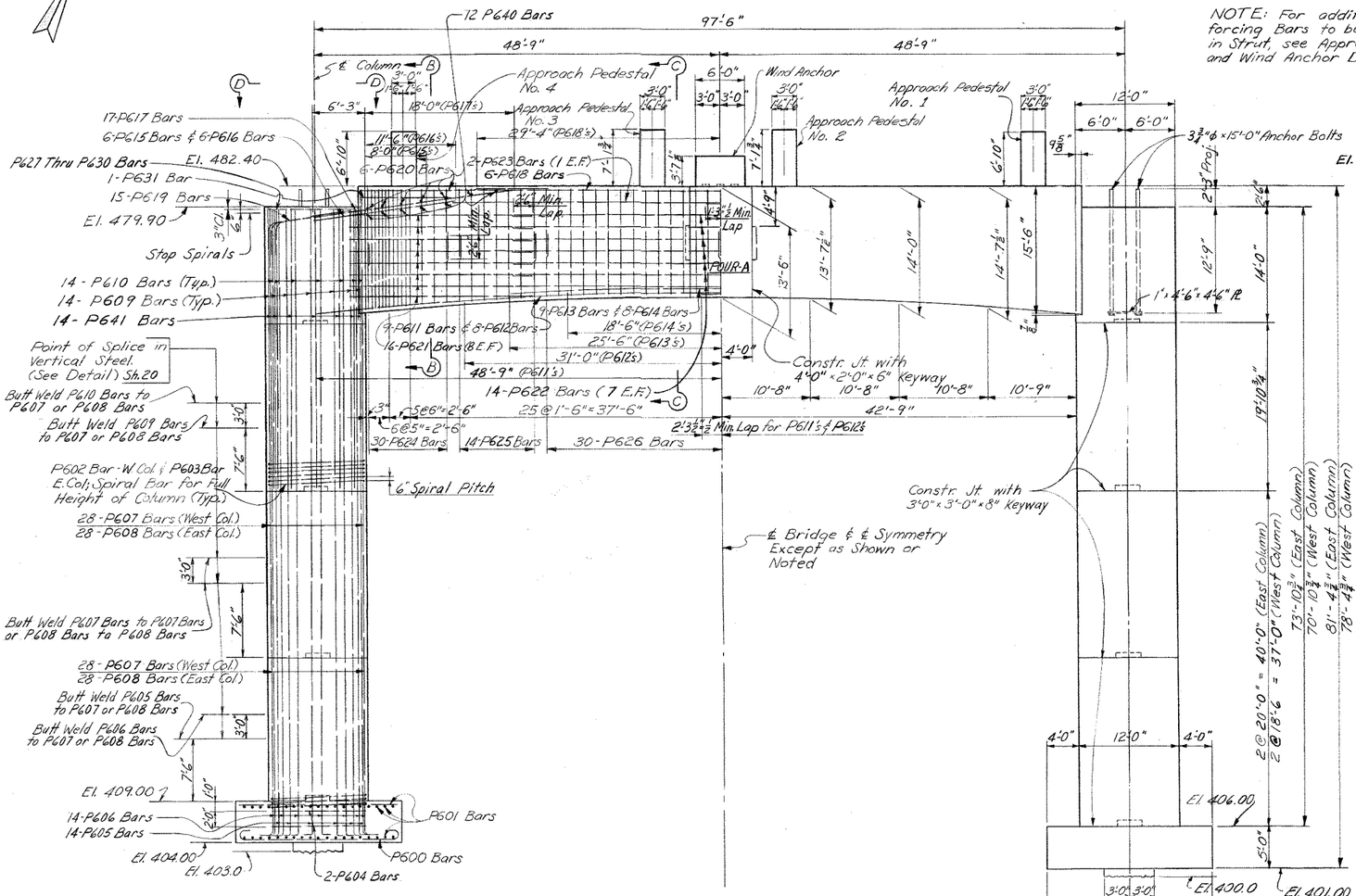
BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	18	22



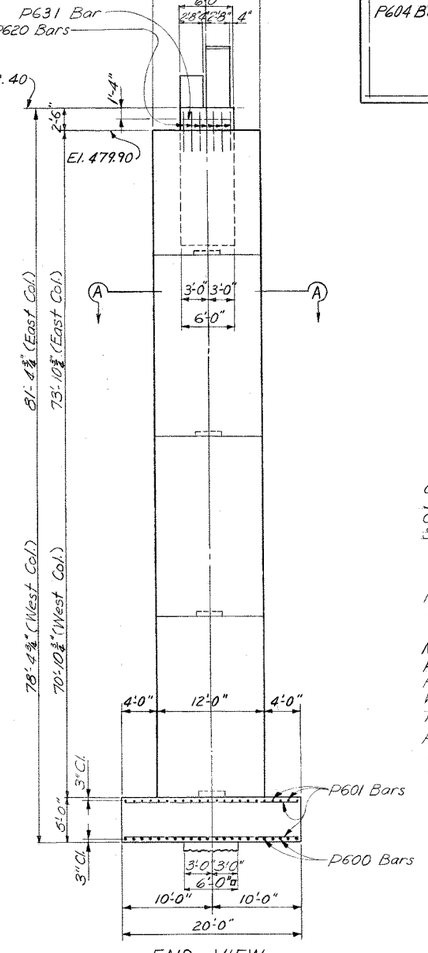
PLAN
Scale: ⅛"=1'-0"



FOOTING PLAN
Scale: ¼"=1'-0"



ELEVATION
Scale: ⅛"=1'-0"



END VIEW
Scale: ⅛"=1'-0"

ESTIMATE OF QUANTITIES

Concrete - Class "A" (Cu. Yds.)	1039.1
Steel Reinforcement (Lbs.)	125,000
Common Structure Excavation (Cu. Yds.)	1130
Solid Rock Structure Excavation (Cu. Yds.)	320

Maximum Rock Pressure:
4.48 Tons per Sq. Ft. for Direct Load (Groups III & VII Loads)
6.22 Tons per Sq. Ft. Incl. Overturning (Group V Loads)

NOTES:
For Splice Detail, for welding Reinforcement, See Sh. 20.
For Reinforcing Bar Details see Sh. 20
Work this Sheet with Sh. 19
Pour A to be made seven days after adjacent parts of strut are poured.
Ordinary surface finish is required on all vertical concrete surfaces. See Standard Specifications. Section 5.6.3(h).

Sheet 18 of 22

DESIGNED BGM C'K'D JLO
DRAWN OAE & JLO C'K'D BGM 11-12-60
TRACED C'K'D

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA

PROJECT I-65-9 (2) 136
BRIDGE OVER OHIO RIVER ON I.R. 65
BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

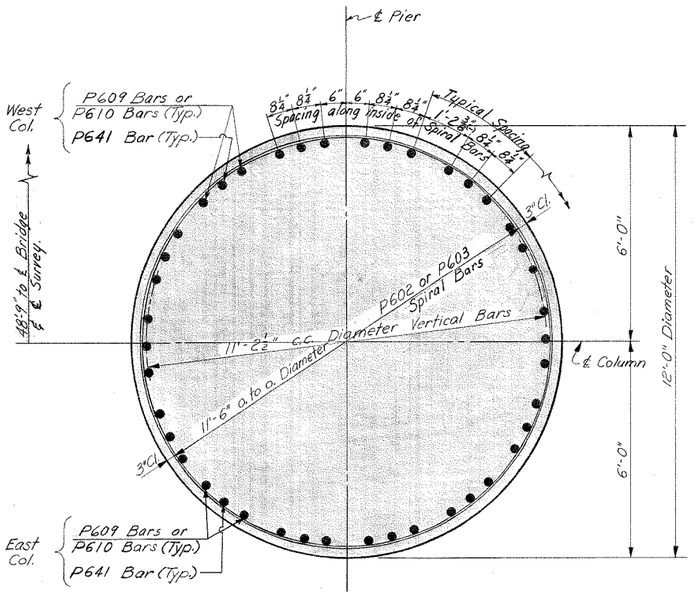
HAZELET AND ERDAL CONSULTING ENGINEERS
FILE NO. 825

SUBSTRUCTURE

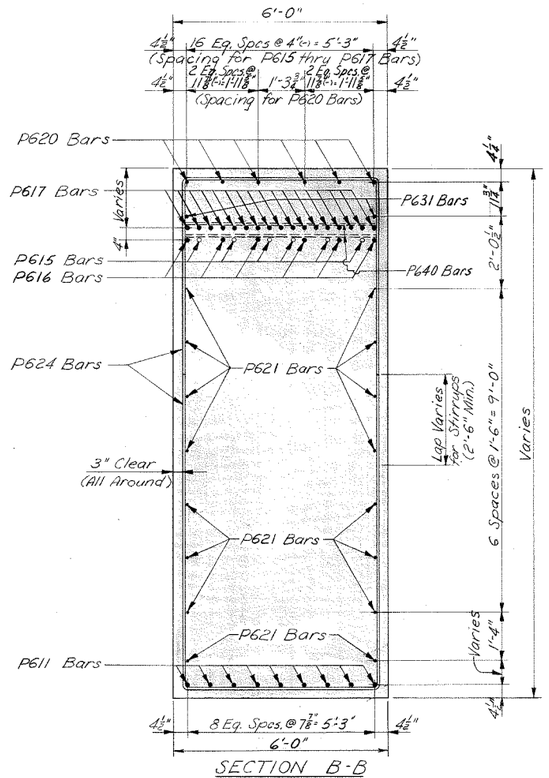
14525

PIER Nº 6 DETAILS

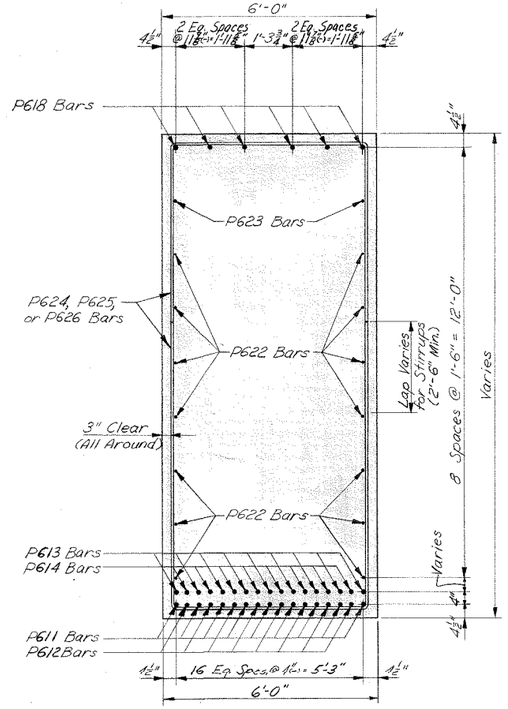
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-3(2) 136	1961	19	22



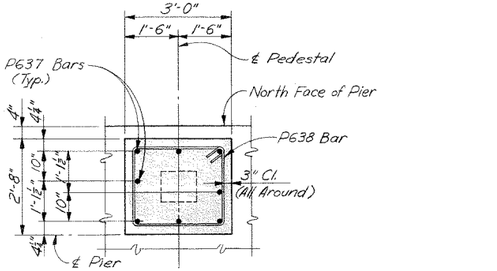
SECTION A-A



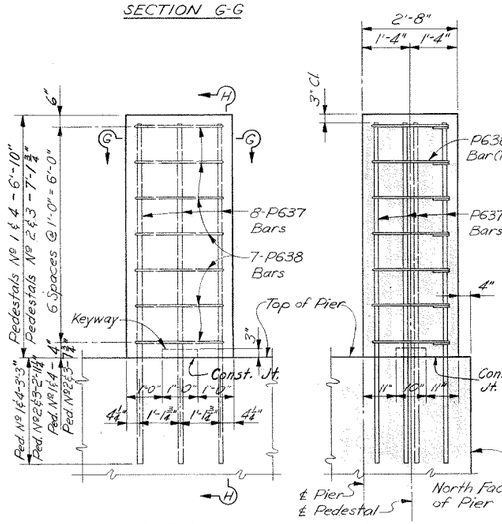
SECTION B-B



SECTION C-C

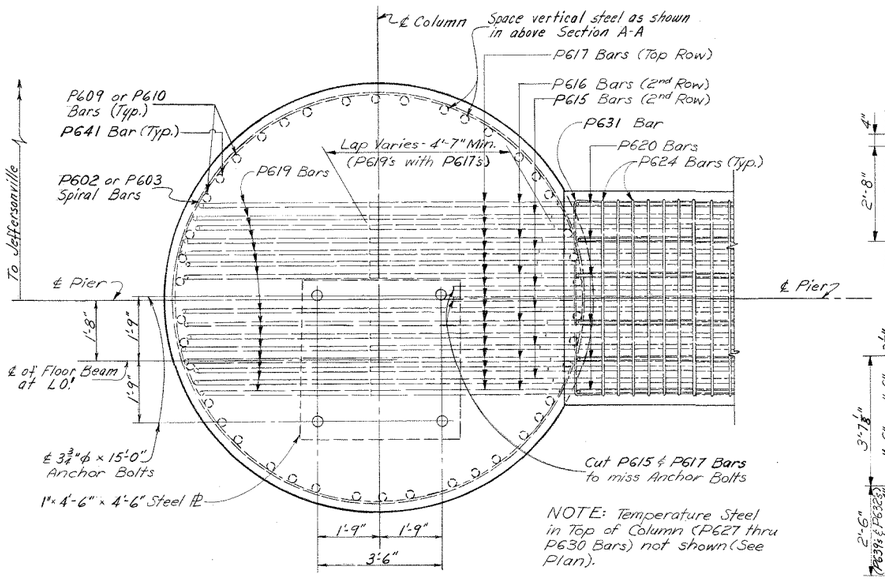


SECTION G-G

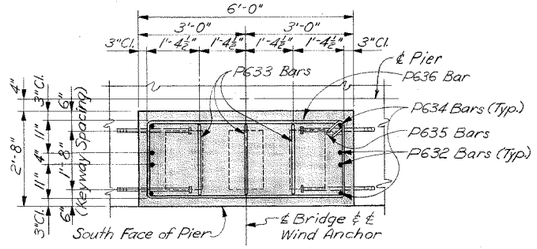


ELEVATION SECTION H-H

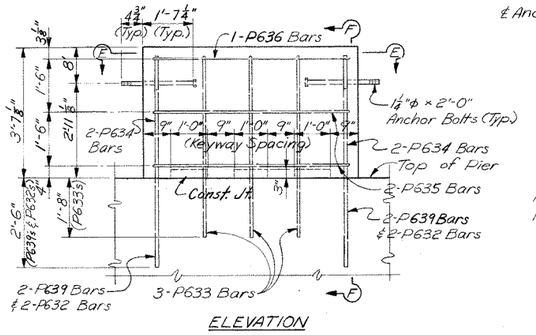
APPROACH PEDESTAL DETAILS



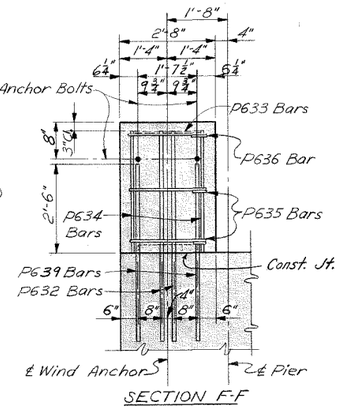
VIEW D-D



SECTION E-E



ELEVATION



SECTION F-F

WIND ANCHOR DETAILS

Scale (All Sections & Views): ½"=1'-0"
For Reinforcing Bar Details see Sht. 20
Work this Sheet with Sht. 18

Sheet 19 of 22

DESIGNED BY BSH DATE
DETAILED BY JLO 10-13-60 CHECKED BY JLO DATE 11-12-60
TRACED BY CHECKED BY BSH DATE
REVISED DATE
REVISED DATE
REVISED DATE

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA

PROJECT I-65-9 (2) 136

BRIDGE OVER OHIO RIVER ON I.R.65

BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

HAZELET AND ERDAL
CONSULTING ENGINEERS
FILE NO. 829

SUBSTRUCTURE

14525

PIER Nº 6 DETAILS

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	20	22

BILL OF REINFORCEMENT - PIER 1

Mark	Type	Size	No. of Bars	Length Ft.	Length In.	Dim. "a" Ft.	Dim. "a" In.	Dim. "b" Ft.	Dim. "b" In.	Location
P100	7	#8	80	21	8	19	6	1	6	Footing
P101	Str.	#6	80	19	6					Footing
P102	8	#6	4	38	6	11	6½			Footing
P103	2	#5*	2	3381	0	11	6			Column
P104	4	#18s	20	17	0	2	4	15	0	Column-Footing
P105	4	#18s	22	14	0	2	4	12	0	Column-Footing
P106	Str.	#18s	42	18	6					Column
P107	Str.	#18s	20	18	0					Column
P108	Str.	#18s	22	21	0					Column
P109	Str.	#11	10	51	4					Strut
P110	Str.	#11	10	40	4					Strut
P111	Str.	#11	10	33	4					Strut
P112	Str.	#11	5	46	0					Strut
P113	Str.	#6	14	50	0					Strut
P114	Str.	#6	32	22	8					Strut
P115	Str.	#6	4	33	0					Strut
P116	Str.	#11	2	39	8					Strut
P117	4	#8	12	27	0	2	0	25	2	Strut
P118	1	#6	2	27	0	5	2½	11	0	Strut
P119	Str.	#11	16	16	11					Strut
P120	Str.	#11	12	22	5					Strut
P121	Str.	#11	22	24	6					Strut
P122	3	#11	30	16	4					Top of Column
P123	1	#6	20	7	3	5	6	1	0	Strut
P124	1	#6	28	22	9	5	6	8	9	Strut
P125	1	#6	28	21	11	5	6	8	4	Strut
P126	1	#6	58	21	3	5	6	8	0	Strut
P127	1	#6	4	12	1	11	4		6	Column
P128	1	#6	8	11	8	10	11		6	Column
P129	1	#6	8	10	5	9	8		6	Column
P130	1	#6	8	7	8	6	11		6	Column
P131	Str.	#9	4	5	0					Wind Anchor
P132	Str.	#9	4	5	9					Wind Anchor
P133	1	#6	3	11	8	2	1	4	11	Wind Anchor
P134	Str.	#8	4	3	3					Wind Anchor
P135	6	#4	2	16	6					Wind Anchor
P136	5	#4	1	16	1	5	6	2	2	Wind Anchor

BILL OF REINFORCEMENT (CON'T) PIER 2

Mark	Type	Size	No. of Bars	Length Ft.	Length In.	Dim. "a" Ft.	Dim. "a" In.	Dim. "b" Ft.	Dim. "b" In.	Location
P250	Str.	#8	16	25	3					Footing (A1-A'1)
P251	Str.	#8	16	23	4					Footing (A1-A'1)
P252	Str.	#8	16	21	1					Footing (A1-A'1)
P253	Str.	#8	16	18	4					Footing (A1-A'1)
P254	Str.	#8	16	14	11					Footing (A1-A'1)
P255	Str.	#8	16	3	11					Footing (A1-A'1)

BILL OF REINFORCEMENT - PIER 2

Mark	Type	Size	No. of Bars	Length Ft.	Length In.	Dim. "a" Ft.	Dim. "a" In.	Dim. "b" Ft.	Dim. "b" In.	Location
P200	Str.	#18s	114	40	8					Lower Column
P201	Str.	#11	60	51	1					Top Strut
P202	Str.	#11	16	44	0					Top Strut
P203	Str.	#11	18	37	0					Top Strut
P204	Str.	#11	16	30	0					Top Strut
P205	Str.	#11	16	18	0					Top Strut
P206	Str.	#11	18	24	3					Top Strut
P207	Str.	#6	6	30	50	0				Top & Bott. Strut
P208	Str.	#6	28	21	0					Top Strut
P209	1	#6	58	20	3	5	6	7	6	Top Strut
P210	1	#6	54	18	8	5	6	6	8½	Top Strut
P211	1	#6	66	7	3	5	6	1	0	Top Strut
P212	Str.	#18s	88	54	7					Bottom Strut
P213	Str.	#18s	16	48	0					Bottom Strut
P214	Str.	#18s	16	40	0					Bottom Strut
P215	Str.	#18s	14	20	6					Bottom Strut
P216	Str.	#18s	12	22	6					Bottom Strut
P217	Str.	#18s	16	32	6					Bottom Strut
P218	4	#11	18	15	1	3	7	11	9	Top of Column
P219	Str.	#6	32	18	4					Bottom Strut
P220	1	#6	170	24	11	7	4	8	11	Bottom Strut
P221	1	#6	74	9	1	7	4	1	0	Bottom Strut
P222	2	#5*	2	3452	10	19	4			Lower Column
P223	8	#6	4	48	0	14	6½			Lower Column
P224	Str.	#18s	52	13	10					Lower Column
P225	Str.	#18s	52	16	10					Lower Column
P226	Str.	#18s	104	21	6					Upper Column
P227	Str.	#18s	52	22	7					Upper Column
P228	Str.	#18s	52	19	7					Upper Column
P229	2	#5*	2	4675	6	14	6			Upper Column
P230	1	#9	4	18	7	14	4	2	4	Top of Column
P231	1	#9	8	18	5	14	2	2	4	Top of Column
P232	1	#9	8	17	11	13	8	2	4	Top of Column
P233	1	#9	8	16	9	12	6	2	4	Top of Column
P234	1	#9	8	14	6	10	3	2	4	Top of Column
P235	1	#9	8	10	4	6	1	2	4	Top of Column
P236	8	#6	10	63	2	19	4½			Footing (A1-A'1)
P237	8	#6	16	108	8	33	10			Footing (A1-A'1)
P238	Str.	#8	142	11	8					Footing (A1-A'1)
P239	Str.	#8	8	33	6					Footing (A1-A'1)
P240	Str.	#8	16	33	5					Footing (A1-A'1)
P241	Str.	#8	16	33	3					Footing (A1-A'1)
P242	Str.	#8	16	33	0					Footing (A1-A'1)
P243	Str.	#8	16	32	6					Footing (A1-A'1)
P244	Str.	#8	16	32	0					Footing (A1-A'1)
P245	Str.	#8	16	31	3					Footing (A1-A'1)
P246	Str.	#8	16	30	5					Footing (A1-A'1)
P247	Str.	#8	16	29	5					Footing (A1-A'1)
P248	Str.	#8	16	28	3					Footing (A1-A'1)
P249	Str.	#8	16	26	11					Footing (A1-A'1)

BILL OF REINFORCEMENT - PIER 3

Mark	Type	Size	No. of Bars	Length Ft.	Length In.	Dim. "a" Ft.	Dim. "a" In.	Dim. "b" Ft.	Dim. "b" In.	Location
P300	Str.	#18s	64	16	0					Lower Column
P301	Str.	#18s	64	30	6					Lower Column
P302	Str.	#18s	64	30	6					Lower Column
P303	Str.	#18s	64	18	3					Lower Column
P304	Str.	#18s	64	22	3					Lower Column
P305	Str.	#18s	48	13	10					Lower Column
P306	Str.	#18s	48	16	10					Lower Column
P307	2	#5*	2	6420	6	19	4			Lower Column
P308	2	#5*	2	5106	6	14	6			Upper Column
P309	1	#9	4	18	7	14	4	2	4	Upper Column
P310	1	#9	8	18	5	14	2	2	4	Upper Column
P311	1	#9	8	17	11	13	8	2	4	Upper Column
P312	1	#9	8	16	9	12	6	2	4	Upper Column
P313	1	#9	8	14	6	10	3	2	4	Upper Column
P314	Str.	#18s	38	52	6					Bottom Strut
P315	Str.	#18s	12	25	6					Bottom Strut
P316	Str.	#18s	16	32	0					bottom Strut
P317	Str.	#18s	10	35	6					Bottom Strut
P318	Str.	#18s	8	46	0					Bottom Strut
P319	Str.	#18s	12	54	6					Bottom Strut
P320	Str.	#6	36	42	6					Bottom Strut
P321	1	#6	104	24	11	7	1	8	11	Bottom Strut
P322	Str.	#11	50	51	4					Top Strut
P323	Str.	#11	20	20	6					Top Strut
P324	Str.	#11	16	27	0					Top Strut
P325	Str.	#11	18	34	6					Top Strut
P326	Str.	#11	18	43	0					Top Strut
P327	Str.	#6	28	21	0					Top Strut
P328	Str.	#6	12	50	0					Top Strut
P329	1	#6	54	18	9	5	6	6	9	Top Strut
P330	1	#6	28	13	7	5	6	7	2	Top Strut
P331	1	#6	18	20	3	5	6	7	6	Top Strut
P332	4	#11	18	14	11	3	7	11	7	Top Column
P333	1	#6	46	7	3	5	6	1	0	Top Strut
P334	1	#6	22	3	1	7	4	1	0	Bottom Strut
P335	Str.	#18s	36	24	0					Top Column
P336	Str.	#18s	48	25	0					Top Column
P337	Str.	#18s	48	22	0					Top Column
P338	8	#6	4	48	0	14	6			Column Ties
P339	1	#9	8	10	4	6	1	2	4	Column Top
P340	1	#9	8	13	10	11	7	2	4	Column Top
P341	1	#9	8	17	6	13	3	2	4	Column Top

BILL OF REINFORCEMENT (CON'T) PIER 2

Mark	Type	Size	No. of Bars	Length Ft.	Length In.	Dim. "a" Ft.	Dim. "a" In.	Dim. "b" Ft.	Dim. "b" In.	Location
P256	Str.	#8	236	29	4					Footing (A1-A'1)
P257	8	#6	10	63	2	19	4½			Footing (A1-A'1)
P258	Str.	#8	152	11	9					Footing (A1-A'1)
P259	1	#9	8	15	10	11	7	2	4	Top Column
P260	1	#9	8	17	6	13	3	2	4	Top Column

BILL OF REINFORCEMENT - PIER 4

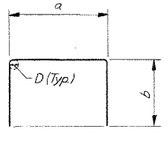
Mark	Type	Size	No. of Bars	Length Ft.	Length In.	Dim. "a" Ft.	Dim. "a" In.	Dim. "b" Ft.	Dim. "b" In.	Location
P400	Str.	#18s	64	24	8					Lower Columns
P401	Str.	#11	74	51	1					Top & Bott Struts
P402	Str.	#11	18	42	9					Top Strut
P403	Str.	#11	20	20	3					Top Strut
P404	Str.	#11	16	26	9					Top Strut
P405	Str.	#11	18	34	3					Top Strut
P406	1	#6	56	20	3	5	6	7	6	Top Strut
P407	1	#6	54	18	8	5	6	6	8½	Top Strut
P408	1	#6	50	7	3	5	6	1	0	Top Strut
P409	Str.	#6	28	21	0					Top Strut
P410	Str.	#6	32	50	0					Top & Bott. Strut
P411	Str.	#18s	12	54	7					Bottom Strut
P412	Str.	#18s	8	33	9					Bottom Strut
P413	Str.	#18s	8	23	6					Bottom Strut
P414	1	#6	104	24	11	7	4	8	11	Bottom Strut
P415	Str.	#6	36	18	4					Bottom Strut
P416	2	#5*	2	2968	3	19	4			Lower Columns
P417	8	#6	4	48	0	14	6½			Lower Columns
P418	Str.	#18s	48	13	10					Lower Columns
P419	Str.	#18s	48	16	10					Lower Columns
P420	Str.	#18s	64	34	8					Lower Columns
P421	Str.	#18s	96	22	6					Upper Columns
P422	2	#5*	2	5310	10	14	6			Upper Columns
P423	Str.	#18s	48	25	7					Upper Columns
P424	Str.	#18s	48	28	7					Upper Columns
P425	4	#11	18	15	1	3	7	11	9	Top of Columns
P426	1	#9	4	18	7	14	4	2	4	Top of Columns
P427	1	#9	8	18	5	14	2	2	4	Top of Columns
P428	1	#9	8	17	11	13	8	2	4	Top of Columns
P429	1	#9	8	16	9	12	6	2	4	Top of Columns
P430	1	#9	8	14	6	10	3	2	4	Top of Columns
P431	1	#9	8	10	4	6	1	2	4	Top of Columns
P432	1	#9	8	15	10	11	7	2	4	Top of Columns
P433	1	#9	8	17	6	13	3	2	4	Top of Columns

BILL OF REINFORCEMENT - PIER 5

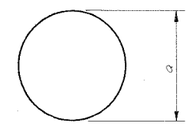
Mark	Type	Size	No. of Bars	Length Ft.	Length In.	Dim. "a" Ft.	Dim. "a" In.	Dim. "b" Ft.	Dim. "b" In.	Location
P500	Str.	#18s	114	21	8					Lower Columns
P501	Str.	#11	10	35	6					Top Strut
P502	Str.	#11	12	42	3					Top Strut
P503	Str.	#11	46	51	1					Top & Bott. Strut
P504	Str.	#11	14	22	9					Top Strut
P505	Str.	#11	16	30	6					Top Strut
P506	Str.	#6	32	50	0					Top & Bott. Strut
P507	1	#6	56	20	1	5	4	7	6	Top Strut
P508	Str.	#11	2	52	0					Top Strut
P509	Str.	#11	10	41	4					Top Strut
P510	1	#6	52	18	6	5	4	6	8½	Top Strut
P511	Str.	#11	8	21	9					Bottom Strut
P512	Str.	#11	8	26	0					Bottom Strut
P513	Str.	#11	10	16	6					Top Strut
P514	Str.	#11	8	18	0					Bottom Strut
P515	Str.	#11	8	31	0					Bottom Strut
P516	Str.	#6	36	18	4					Bottom Strut
P517	Str.	#10	4	51	0					Bottom Strut
P518	Str.	#10	8	32	7					Bottom Strut
P519	Str.	#10	8	30	10					Bottom Strut
P520	Str.	#10	4	33	0					Bottom Strut
P521	1	#6	104	22	11	5	4	8	11	Bottom Strut
P522	Str.	#18s	48	13	10					Lower Columns
P523	Str.	#18s	48	16	10					Lower Columns
P524	Str.	#18s	96	21	6					Upper Columns
P525	Str.	#18s	48	22	7					Upper Columns
P526	Str.	#18s	48	19	7					Upper Columns
P527	Str.	#6	28	21	0					Top Strut
P528	2	#5*	2	4675	6	14	6			Upper Columns
P529	2	#5*	2	2604	9	19	4			Lower Columns
P530	4	#11	18	14	4	3	0	11	7	Top of Columns
P531	4	#11	18	17	9	3	0	14	1	Lower Columns
P532	1	#9	4	18	7	14	4	2	4	Top of Columns
P533	1	#9	8	18	5	14	2	2	4	Top of Columns
P534	1	#9	8	17	11	13	8	2	4	Top of Columns
P535	1	#9	8	16	9	12	6	2	4	Top of Columns
P536	1	#9	8	14	6	10	3	2	4	Top of Columns
P537	1	#9	8	10	4	6	1	2	4	Top of Columns
P538	8	#6	4	48	0	14	6½			Lower Columns
P539	1	#6	52	7	1	5	4	1	0	Top & Bott Strut
P540	1	#9	8	15	10	11	7	2	4	Top of Columns
P541	1	#9	8	17	6	13	3	2	4	Top of Columns

BILL OF REINFORCEMENT - PIER 6

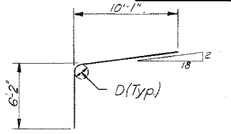
Mark	Type	Size	No. of Bars	Length Ft.	Length In.	Dim. "a" Ft.	Dim. "a" In.	Dim. "b" Ft.	Dim. "b" In.	Location
P600	7	#10	44	22	2	19	6	1	10	Footing
P601	Str.	#6	124	19	6					Footing
P602	2	#5*	1	5071	6	11	6			Columns
P603	2	#5*	1	5287	3	11	6			Columns
P604	8	#6	4	38	6	11	6½			Footing
P605	4	#18s	28	14	0	2	3	12	1	Columns
P606	4	#18s	28	17	0	2	3	15	1	Columns
P607	Str.	#18s	56	18	6					Columns
P608	Str.	#18s	56	20	0					Columns
P609	Str.	#18s	28	26	0					Columns
P610	Str.	#18s	28	23	0					Columns
P611	Str.	#11	18	51	1					Strut
P612	Str.	#11	16	33	4					Strut
P613	Str.	#11	9	51	0					Strut
P614	Str.	#11	8	37	0					Strut
P615	Str.	#11	12	14	5					Strut
P616	Str.	#11	12	17	11					Strut
P617	Str.	#11	34	24	6					Strut
P618	Str.	#11	6	58	8					Strut
P619	3	#11	30	16	4					Columns-Struts
P620	4	#8	12	25	11	2	0	24	1	Strut
P621	Str.	#6	32	22	8					Strut
P622	Str.	#6	14	50	0					Strut
P623	Str.	#6	4	33	0					Strut
P624	1	#6	60	22	9	5	6	8	9	Strut
P625	1	#6	28	21	11	5	6	8	4	Strut
P626	1	#6	58	21	3	5	6	8	0	Strut
P627	1	#6	4	12	1	11	4		6	Top of Column
P628	1	#6	8	11	8	10	11		6	Top of Column
P629	1	#6	8	10	5	9	8		6	Top of Column
P630	1	#6	8	7	8	6	11		6	Top of Column
P631	1	#6	2	27	1	5	4	11	0	Strut
P632	Str.	#9	4	5	10					Wind Anchor
P633	1	#6	3	11	10	2	1	5	0	Wind Anchor
P634	Str.	#8	4	3	4					Wind Anchor
P635	6	#4	2	16	6					Wind Anchor
P636	5	#4	1	16	1	5	6	2	2	Wind Anchor
P637	Str.	#11	32	9	10					Approach Ped.
P638	5	#4	28	10	1	2	6	2	2	Approach Ped.
P639	Str.	#9	4	5	0					Wind Anchor
P640	1	#6	24	7	3	5	6	1	0	Strut
P641	Str.	#18s	28	33	6					Columns



TYPE 1

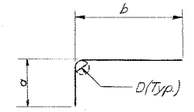


TYPE 2
(Spiral Bar - Pitch = 6" - See Table A for No of Turns.)

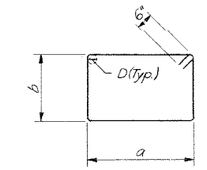


TYPE 3

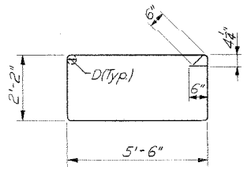
TABLE A	
Mark	Nº Turns
P103	188
P222	57
P229	103
P307	106
P308	1125
P416	49
P422	117
P528	103
P529	43
P602	141
P603	147



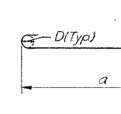
TYPE 4



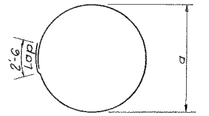
TYPE 5



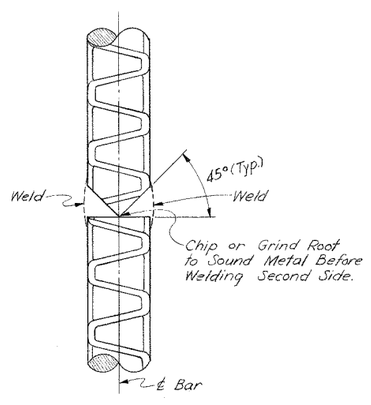
TYPE 6



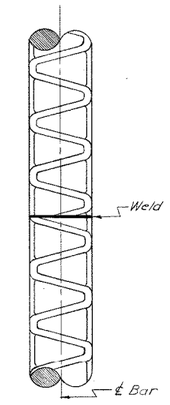
TYPE 7



TYPE 8



SHIELDED ARC WELD



THERMIT WELD

SPLICE DETAIL FOR 18s BARS

See General Note Sheet 2 For Alternate Lap Splice.

NOTES:
* All Spiral Bars shall be ⅜" diameter.

All dimensions given O. to O. of bars unless otherwise noted.
d = bar diameter
D = 6 d for bars #2 to #7
D = 8 d for bars #8 to #18s

REINFORCING BAR DETAILS

Sheet 20 of 22

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA

PROJECT I-65-9(2) 136
BRIDGE OVER OHIO RIVER ON I.R. 65

BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY AND JEFFERSONVILLE, CLARK COUNTY INDIANA

HAZELET AND ERDAL
CONSULTING ENGINEERS
FILE NO. 829

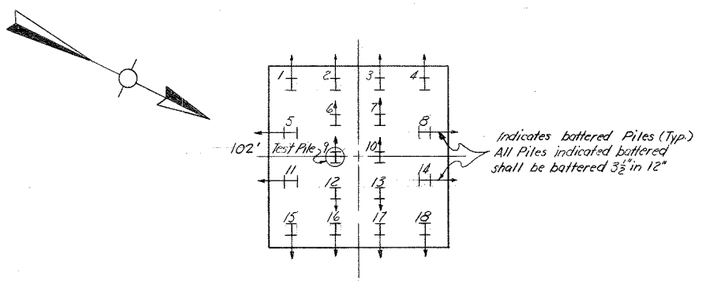
SUBSTRUCTURE 14525

DESIGNED BY JEO 10-28-60 CHECKED BY
DETAILED BY DC CHECKED BY
TRACED BY GENTHNER CHECKED BY
REVISED Top of Col. Reinforcing Bars 2-24-61 DATE 1-15-61
REVISED DATE
REVISED DATE

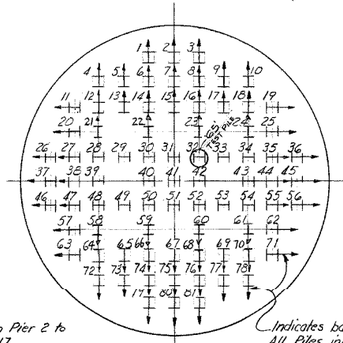
829

PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY & IND	I-65-9(2) 136	1961	21	22

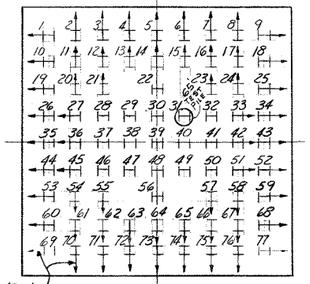
BRIDGES OVER 20' SPAN

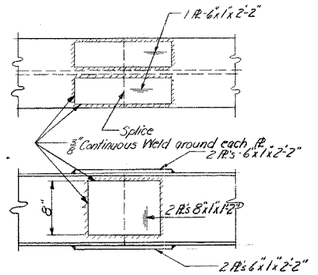


Note: All Piles in Pier 1 to be 14 BP 89

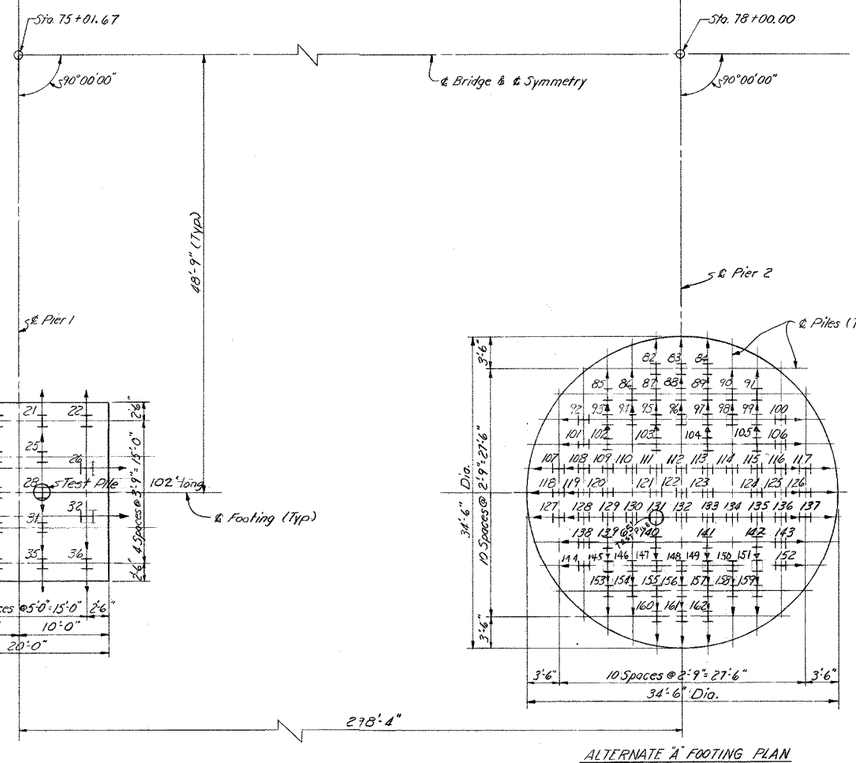


Note: All Piles in Pier 2 to be 14 BP 117
Ⓗ Indicates Test Piles





PILE SPLICE DETAIL
(Not to Scale)



ALTERNATE "A" FOOTING PLAN FOR PIER 2

ALTERNATE "B" FOOTING PLAN FOR PIER 2

PILING PLAN
Scale: ⅛"=1'-0"

Pile Nº	Cutoff Elevation	Tip of Pile Elevation as Driven	Length of Pile in Place	Calculated Bearing ~ Capacity tons
1	429.00	328.36	104.83	130
2		329.91	103.22	
3		328.28	104.92	
4		328.06	105.15	
5		328.02	105.19	
6		328.44	104.75	
7		329.41	104.78	
8		327.11	106.14	
9		327.86	105.98	
10		327.66	105.35	
11		328.45	104.74	
12		328.40	104.79	
13		328.19	105.01	
14		328.35	104.81	
15		329.07	104.09	
16		328.41	104.75	
17		328.29	104.91	
18		327.66	105.56	
19		328.67	104.57	
20		329.07	104.09	
21		328.68	104.58	
22		328.89	104.28	
23		328.42	104.77	
24		330.35	102.76	
25		329.20	103.96	
26		327.97	105.24	
27		329.17	103.99	
28		330.05	103.07	
29		329.48	103.67	
30		329.64	103.50	
31		329.84	103.29	
32		327.67	105.55	
33		329.98	103.29	
34		329.64	103.50	
35		329.64	103.50	
36	429.00	329.17	103.99	130

Pile Nº	Cutoff Elevation	Tip of Pile Elevation as Driven	Length of Pile in Place	Calculated Bearing ~ Capacity tons
1	392.00	327.74	66.24	130
2		327.69	66.29	
3		327.45	66.54	
4		327.46	66.53	
5		327.77	66.21	
6		327.88	66.10	
7		328.32	65.64	
8		327.73	66.25	
9		327.62	66.36	
10		327.47	66.52	
11		327.59	66.41	
12		327.48	66.51	
13		327.64	66.34	
14		327.58	66.41	
15		327.77	66.27	
16		327.93	66.05	
17		327.94	66.03	
18		328.52	65.44	
19		327.73	66.23	
20		327.73	66.25	
21		327.49	66.50	
22		327.74	66.24	
23		327.66	66.32	
24		327.53	66.45	
25		327.68	66.30	
26		327.76	66.22	
27		327.49	66.50	
28		327.44	64.56	
29		327.55	64.45	
30		327.67	64.33	
31		327.61	64.39	
32		327.76	64.24	
33		327.79	64.21	
34		327.91	64.09	
35		327.10	66.90	
36		328.14	65.83	
37		327.73	66.25	
38		327.29	66.70	
39		327.34	64.66	
40		327.68	64.32	
41		327.74	64.26	
42		327.56	64.44	
43		325.16	66.00	
44		328.06	65.91	
45		328.12	65.85	
46		327.95	66.02	
47		327.56	66.43	
48		327.47	64.53	
49		327.61	64.39	
50		327.45	64.55	
51		327.68	64.32	
52		327.51	64.49	
53		327.38	64.62	
54		326.33	65.67	
55		327.89	66.09	
56		328.41	65.55	
57		327.49	66.50	
58		327.63	66.35	
59		327.01	66.99	
60		327.92	66.06	
61		325.98	68.00	
62		327.83	66.15	
63		326.99	67.01	
64		327.56	66.43	
65		326.96	67.05	
66		326.69	67.32	
67		327.06	66.94	
68		325.90	68.00	
69		326.18	67.85	
70		326.29	67.74	
71		327.37	66.62	
72		326.97	67.03	
73		325.80	68.00	
74		325.71	68.00	
75		327.14	66.86	
76		326.30	67.73	
77		325.76	68.00	
78		325.98	68.00	
79		326.09	67.94	
80		326.35	67.67	
81		326.23	67.80	
82	392.00	327.46	66.53	130

Pile Nº	Cutoff Elevation	Tip of Pile Elevation as Driven	Length of Pile in Place	Calculated Bearing ~ Capacity tons
83	392.00	327.43	66.56	130
84		327.81	66.17	
85		327.61	66.38	
86		327.70	66.28	
87		327.42	66.57	
88		327.54	66.45	
89		327.35	66.64	
90		327.36	66.63	
91		327.27	66.73	
92		327.68	66.30	
93		327.57	66.42	
94		327.43	66.56	
95		327.52	66.47	
96		327.43	66.56	
97		327.65	66.33	
98		327.12	66.88	
99		327.10	66.90	
100		327.68	66.30	
101		327.29	66.71	
102		327.10	66.90	
103		327.22	66.78	
104		327.30	66.69	
105		326.78	67.22	
106		327.48	66.51	
107		327.27	66.73	
108		327.27	66.73	
109		325.73	66.00	
110		325.57	66.00	
111		325.52	66.00	
112		325.47	66.00	
113		325.31	66.00	
114		325.49	66.00	
115		325.39	66.00	
116		326.82	67.19	
117		327.71	66.26	
118		327.36	66.63	
119		326.76	67.25	
120		325.70	66.00	
121		325.58	66.00	
122		325.41	66.06	
123		325.35	66.00	
124		325.07	66.00	
125		327.52	67.47	
126		327.62	66.36	
127		327.40	66.59	
128		327.29	66.71	
129		325.48	66.00	
130		325.56	66.00	
131		325.47	66.00	
132		328.9±	66.00	
133		328.9±	66.00	
134		325.03	66.00	
135		323.95	66.00	
136		327.28	66.72	
137		328.02	65.95	
138		327.10	66.90	
139		327.56	66.43	
140		327.31	66.68	
141		327.00	67.00	
142		327.39	66.60	
143		327.62	66.37	
144		327.00	67.00	
145		328.31	65.65	
146		327.27	66.72	
147		327.35	66.64	
148		327.21	66.79	
149		327.35	66.64	
150		327.76	66.22	
151		327.72	66.26	
152		327.81	66.17	
153		327.46	66.53	
154		327.42	66.57	
155		327.46	66.53	
156		327.24	66.76	
157		328.27	65.69	
158		328.23	65.74	
159		327.76	66.22	
160		327.43	66.56	
161		327.63	66.35	
162	392.00	327.68	66.30	130

Field data, pile record added to this drawing 9-12-62 (J.M.E.)

Revised: Pile cut off Elev.
and Change Direction and batter of
Piles Nos 21, 22, 23, 24, -58, 59, 60, 61
102, 103, 104, 105 - 139, 140, 141, 142
E.R.S. 3/13/61 ✓ G.F.V.

DESIGNED _____ C'K'D. _____
DRAWN JC 10-4-60 C'K'D. JWH 11-15-60
TRACED _____ C'K'D. _____

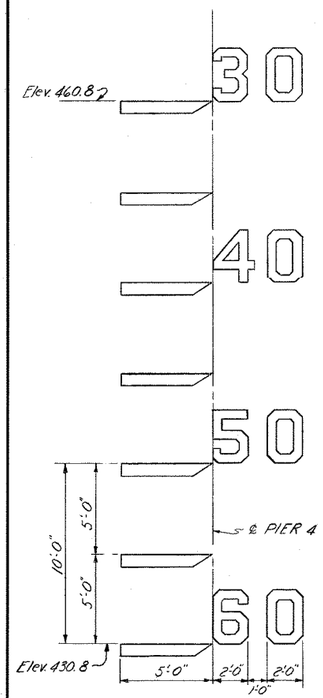
PILE RECORD

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA
PROJECT I-65-9 (2) 136
BRIDGE OVER OHIO RIVER ON I.R. 65
BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY
AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

HAZELET AND ERDAL
CONSULTING ENGINEERS
FILE NO. 829.

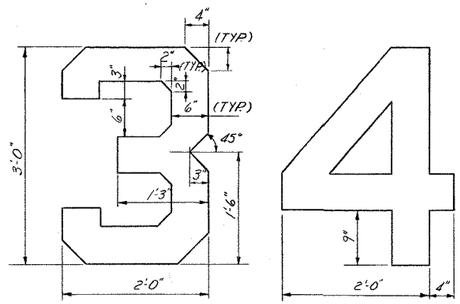
SUBSTRUCTURE 14525

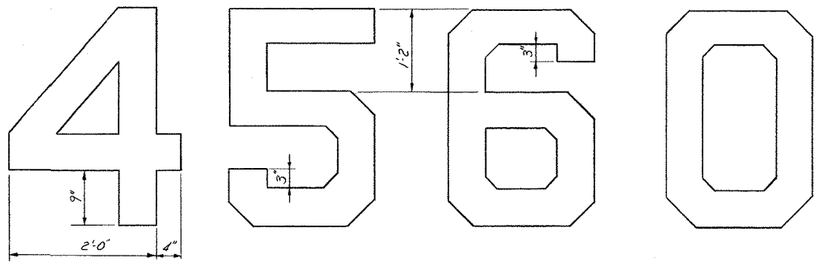
BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY. & IND.	I-65-9(2) 136	1961	22	22



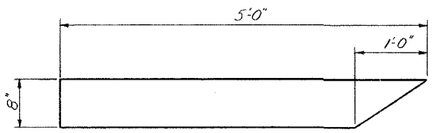
GAGE DETAILS

East end elevation of Pier 4 as shown
East end elevation of Pier 3 opposite hand

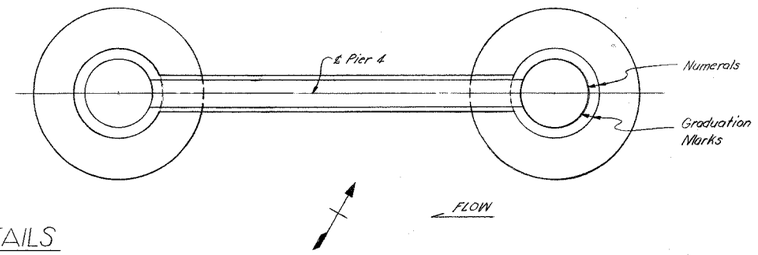




NUMERAL DETAILS

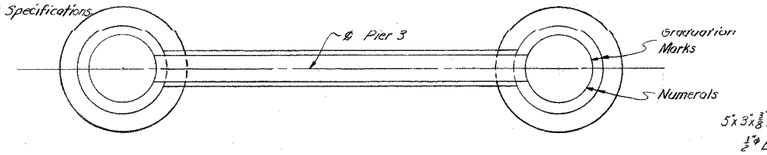


GRADUATION MARKS

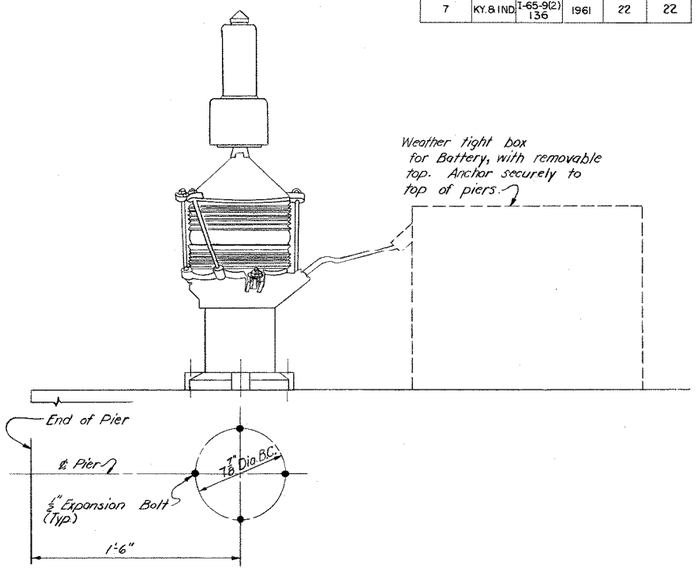


VERTICAL CLEARANCE GAGE DETAILS

Clearance Gages are required at East end only of Piers 3 and 4. Numerals and Graduation Marks shall be painted directly on the Concrete with 2 coats of Paint. See General Note Sheet 1 for Paint Specifications.



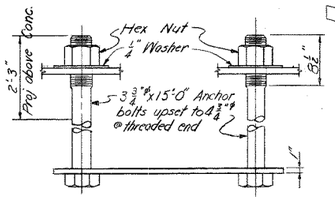
LOCATION PLAN

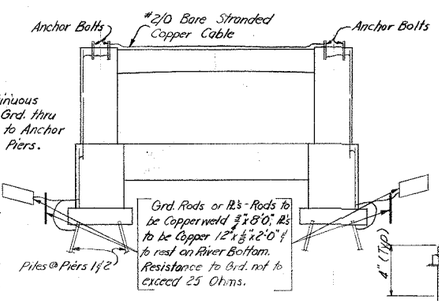


ANCHOR BOLT PLAN

PIER LIGHT

Pier Lights are required at each end of Piers 2, 3, 4 & 5
For description of lights see Sheet 2.

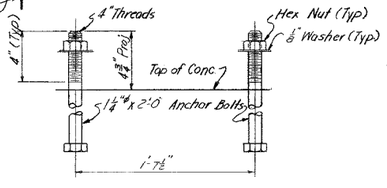




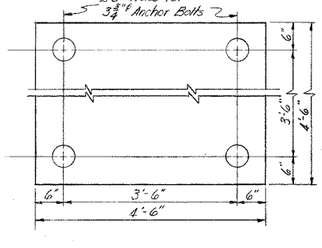
Note:
Make a continuous circuit from Grd. thru vertical steel to Anchor Bolts on all Piers.

PIER ELEVATION SHOWING METHOD OF GROUNDING BRIDGE STEEL
(No Scale)

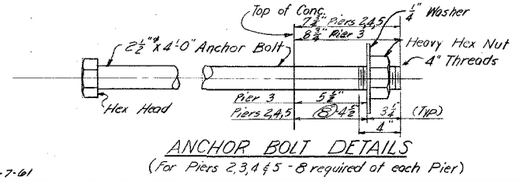
Note:
No direct payment shall be made for Grounding. It shall be incidental to the construction of the Project as a whole.



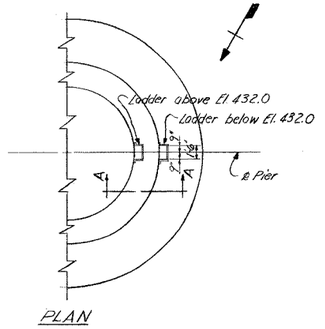
ANCHOR BOLT DETAILS
For Wind Anchor Bearing Plates at Piers 1 & 6. 4 required at each Pier.



ANCHOR ASSEMBLY
(for Piers 1 and 6 only)
(2 required at each Pier)



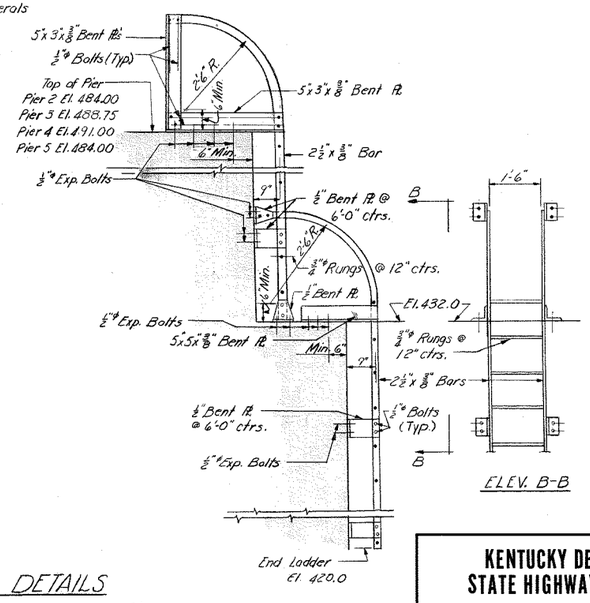
ANCHOR BOLT DETAILS
(For Piers 2,3,4 & 5 - 8 required at each Pier)



PLAN
(Typ. for Piers 2, 3, 4 & 5)

LADDER DETAILS

Ladders are required at West end only of Piers 2, 3, 4 and 5. Steel for ladders shall be ASTM A7-55 Field Painting of ladders shall consist of 1 coat of Red Lead Paint and 2 coats of Titanium White Field Paint. For Pier Details not shown see sheets 10 thru 17 Payment for ladders will be made under item Struct. Steel.



SECTION A-A

ELEV. B-B

KENTUCKY DEPARTMENT OF HIGHWAYS
STATE HIGHWAY DEPARTMENT OF INDIANA
PROJECT I-65-9 (2) 136
BRIDGE OVER OHIO RIVER ON I.R. 65
BETWEEN LOUISVILLE, JEFFERSON COUNTY, KENTUCKY AND JEFFERSONVILLE, CLARK COUNTY, INDIANA

HAZELET AND ERDAL CONSULTING ENGINEERS
FILE NO. 529.

SUBSTRUCTURE 14525

DESIGNED ____ C'K'D. ____
DRAWN DC 10-14-60 C'K'D. JWH 11-15-60
TRACED ____ C'K'D. ____

Revised: Anchor Bolt Details W.K.S. 12-7-61

MISCELLANEOUS DETAILS