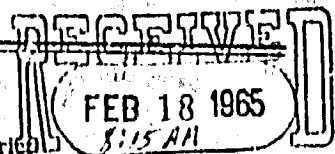


1163-3

1. Considered 5-12, 1965
2. Name of Applicant City of Oakham
3. Post Office Address _____
4. Amount of water claimed 2.0
5. Source of water supply Artesian well
6. Water to be used for municipal
- Acres to be irrigated _____
7. Water to be diverted and used in Kingstarry County about _____
miles _____ of in city limits
8. Proof of Publication Received 1965
Not Received _____
9. Application Approved _____
Subject to _____
Not Approved _____
Action deferred _____
10. Remarks;

No. 1163-3Water Division No. 3 Big Sioux River District 1
(Blanks to be filled by the Engineer for the W. R. C.)STATE WATER RESOURCES COMM.
PIERRE, SOUTH DAKOTA

APPLICATION FOR PERMIT To Appropriate Water within the State of South Dakota

(NOTE—Draw a line through items not applicable.)

1. Name of applicant City of Oldham
 Postoffice address Oldham, County Kingsbury, State South Dakota

- I. If a corporation _____
- (a) Name of same _____
- (b) Date and place of incorporation _____
- (c) Amount of capital stock _____
- (d) Amount paid in _____
- (e) Names and addresses of directors _____

(NOTE—A certified copy of articles of incorporation must accompany the application.)

II. Method of accomplishing the work and financial resources of the applicant:

- (a) Method of accomplishing work (Whether by contract, employment of others, or by direct labor)
Contract
- (b) Cash on hand, \$ _____ (c) Treasury stock, \$ _____
- (d) Bonds to be issued, \$ 60,000. (e) Other resources, \$ _____

2. Name of diversion work Municipal Well
3. Amount of water claimed 2 cubic feet per second
4. Source of water supply Deep well
5. Location of point of diversion Lot 10, Block 7, City of Oldham SE 1/4 SW 1/4, Sec 36, T. 13 N. R. 64 W.
 _____ on _____ bank Kingsbury County.
6. Annual period or periods during which water is to be used year around
7. To be used for:

I. Irrigation or domestic use: Gravity, overhead sprinkling or combination system? _____

- (a) Number of acres to be irrigated _____ acres.
- (b) Legal subdivisions to be irrigated City of Oldham

(NOTE—A list of lands to be irrigated, giving each subdivision and fraction with acreage thereof, should be written here, or may be appended as a part of this application. Same must also be shown on accompanying map.)

- (c) Statement as to domestic use (giving location, etc.) Municipal water supply

II. Stockwatering, mining, milling, power, fish culture, fire protection and public recreation:

- (a) Nature of use _____
 Name any of the above uses claimed
- (b) Amount of power to be generated _____ horse power.
 Amount claimed for engine cooling _____
- (c) Location of plant _____
- (d) Method of developing power _____
- (e) Point where water will be returned to stream _____

MAP NO 789-3

8. Estimated cost of work:

(a) Head Gates, \$..... (b) Pumping plant, \$.....
 (c) Fluming, \$..... (d) Canal-earth, \$..... Rock, \$.....
 (e) Other structures \$..... Total, \$.....

9. Description of diversion works:

I. Nature of works: (Reservoir, dam, ditch, flume, pumping plant, etc.)

Municipal Well and Turbine Pump

II. Dimensions of works.

(a) Dam: Height.....feet; length at bottom.....feet; length at top.....feet; thickness at bottom.....feet; thickness at top.....feet; slope at front water face.....; slope at back face.....material used in construction.....
 (b) Reservoir: Capacity when filled.....acre feet. Surface area at highwater mark.....acres.

DEPTH AT OUTLET- FEET	SURFACE AREA AT EACH DEPTH AT OUTLET--ACRES	FEET	ACRE- FEET CAPACITY

(c)* Head gate: Width.....feet; height.....feet; Material.....

(d) Canal: Total length.....miles.

LOCATION BELOW HEADGATE	DEPTH	BOTTOM WIDTH	WIDTH AT WATER-LINE	GRADE PER MILE
At.....Mile	feet	feet	feet	feet
At.....Mile	feet	feet	feet	feet
At.....Mile	feet	feet	feet	feet
At.....Mile	feet	feet	feet	feet
At.....Mile	feet	feet	feet	feet
At.....Mile	feet	feet	feet	feet

(Give dimensions where reductions in size are made.)

10. Time required for completion of work.....years.
 11. Time required for complete application of water to the proposed beneficial use.....years.
 12. Choice of newspaper for publication of notice of intention to appropriate.....Lake Preston TIMES

STATE OF SOUTH DAKOTA

County of Kingsbury ss.

I,....., being first duly sworn on my oath depose and say: That my relation to the above described undertaking is that of owner, that I have read the above foregoing statement, examined the map accompanying the same, and that I know of my own personal knowledge that the matters therein stated and shown are true.

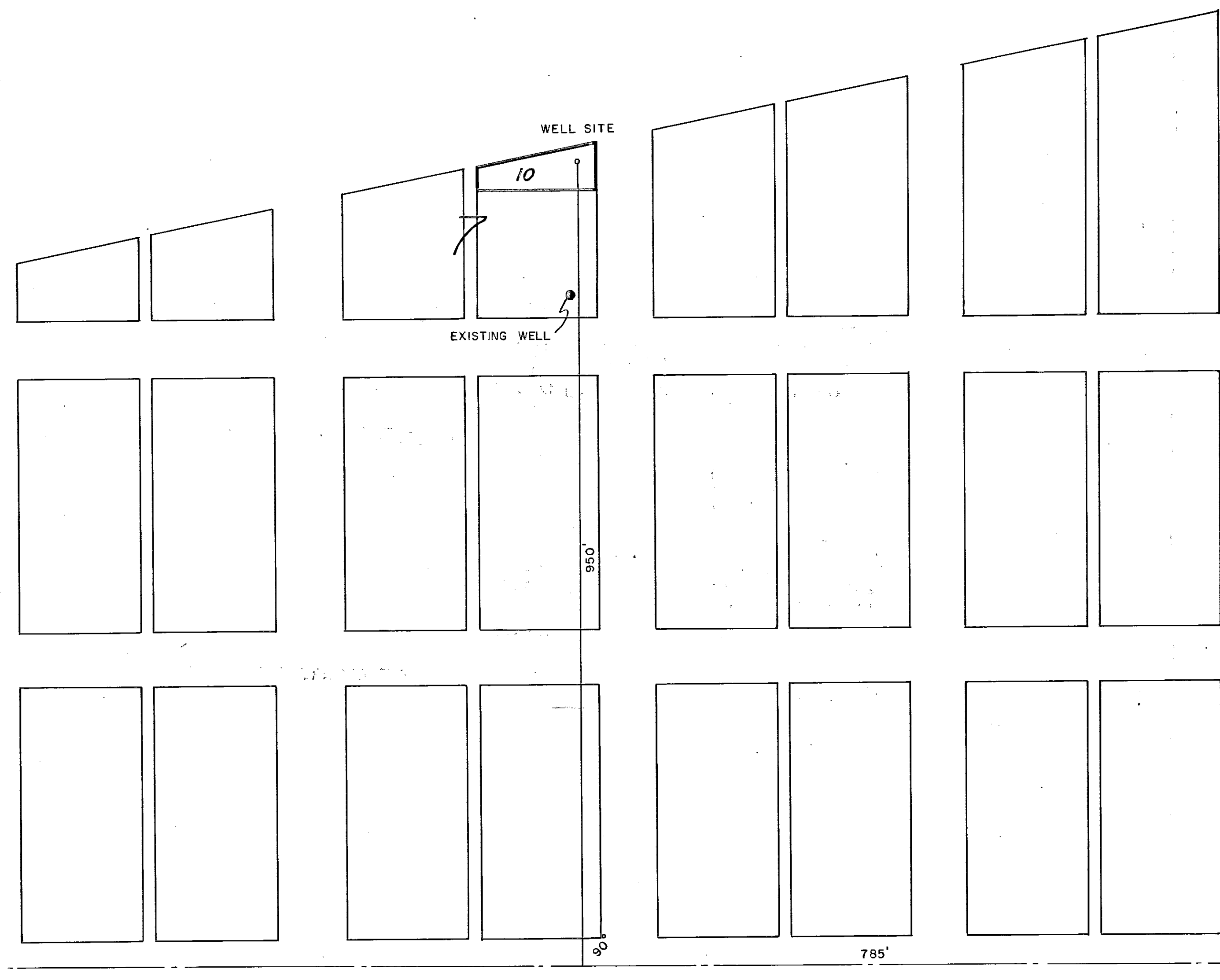
Signed Edna Jorgensen

Subscribed and sworn to before me this 17 day of February 1965

Norman Singh
 Notary Public (or other qualified officer.)

*Each diversion must have a headgate or measuring device.

SCALE: 1" = 100'



A PLAT SHOWING THE OLDHAM WELL SITE
LOCATED IN THE N.W. 1/4 of the S.W. 1/4
of Sec. 22, T 109 N, R 54 W of the 5th.
PRINCIPAL MERIDIAN

SURVEYOR'S CERTIFICATE

I, B. E. Schmucker, a Registered Engineer and Land Surveyor of Mitchell, South Dakota, do hereby certify that at the request of the City of Oldham, as owner, and under their direction, for the purposes indicated therein, I did, on or prior to February 9, 1968, survey those parcels of land described as follows: The NW 1/4 of the SW 1/4 of Sec. 22, T 109N, R 54W of the Fifth P.M.

I further certify that the within and foregoing plat is in all respects true and correct.

B. E. Schmucker
Registered Engineer and Land Surveyor

STATE OF SOUTH DAKOTA)
COUNTY OF DAVISON) SS

On this, the 9th day of February, 1968, before me, the undersigned, a Notary Public in and for said County and State, personally appeared B. E. Schmucker, well known to me to be the person who is described in and who executed the foregoing and within instrument, and duly acknowledged to me that he executed the same in his official capacity as a Registered Engineer and Land Surveyor, and for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: August 1, 1971

Hazel Dowling
Notary Public, South Dakota

SECTION CORNER

22 27
21 28

Remarks by State Water Resources Commission:

STATE OF SOUTH DAKOTA
County of HUGHES } ss.

Pierre, South Dakota, MAY 17, 1965

This is to certify that the foregoing application was received by the Commission at 8:15 o'clock
9 a.m. upon the 18TH day of FEBRUARY, 1965

State Water Resources Commission

By:

Burton Jones
for Chief Engineer, Executive Officer

Number of permit 1163-3

Date of first receipt of application FEBRUARY 18, 1965

Date of return to applicant for correction, amendments or changes required as fol' —, 19—

Date of receipt of corrected application —, 19—

Date from which applicant may claim right FEBRUARY 18, 1965

Approved MAY 12, 1965 Recorded in Book 9 Page 8

This is to certify that we have examined the foregoing application for a permit to appropriate water of the State of South Dakota, and we hereby grant the same as stated herein, subject, however, to the following limitations and conditions:

1st. The equivalent of at least one-fifth of the work above specified is to be completed on or before

NOVEMBER 12, 1965

2nd. The whole of said work is to be completed on or before MAY 12, 1966

3rd. The limit of time for proof of beneficial use of water appropriated in accordance herewith is

MAY 12, 1967

4th. The water appropriated shall be used for the purpose of MUNICIPAL USE

5th. The prior right of all persons who, by compliance with the laws of the State of South Dakota, have acquired a right to the use of water must not be injuriously affected by this appropriation.

6th. The amount of the appropriation herein granted shall not exceed 2.0 cubic feet per second; neither shall it exceed the capacity of the above described system of diversion works, nor the least amount of water that experience may hereafter indicate as necessary for ~~the production of crops in the exercise of the best husbandry; and further, said appropriation must be limited to not more than one-seventieth (1/70) of one cubic foot of water per second of time for each acre of land to which water is actually~~

USED FOR MUNICIPAL PURPOSES

and beneficially ~~applied for irrigation~~ on or before MAY 12, 1967; said water to be used during the following described annual period:

CONTINUOUSLY
Witness my hand this 17TH day of MAY, 1965.

State Water Resources Commission

By:

John Buizer
Chief Engineer, Executive Officer

Certificate of Construction Issued APRIL 10, 1972

Water License Issued APRIL 10, 1972

Form 2A -- Wells (Supplement to Form 2)

9. (Continued)

III. Well Specifications

(a) Hole and casing

Size of drill hole or excavation 10" Depth 1300'
 Type of casing Schedule 40 Steel
 (wood, concrete, steel, etc.)
 Size of casing 8 Thickness of casing
 Length of casing 1250 If collection gallery, length, size and depth of
 gallery

(b) Screens

Type of perforated screen Johnson or equal
 Size of perforated screen 7" 50'
 (diameter) (length)
 Thickness of gravel pack length of gravel pack

(c) Water Bearing Materials

Distance to water 230' Character of water bearing materials cemented
 sand

Thickness of water bearing material

(d) Pump and Motor

Type of pump semi open impeller submersible turbine
 (centrifugal, propeller, mixed flow, etc.)
 Name of pump size
 Kind of motor electric
 (gasoline, electric, diesel, etc.)
 Horsepower 15 Name of Motor

(e) Complete well

Capacity 150 at drawdown of 30' Estimated cost \$12,000.00

(f) Owner of land upon which well is located

City of Oldham
 Name

Oldham, South Dakota
 Address

(g) Distance to nearest existing wells

On same owner's property 230' xxx rods. On property owned by others xx rods

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 1163-3

(1) WHEREAS, On the 18th day of February A. D. 19 65
the City of Oldham

made Water Right Application No. 1163-3 for a permit to use 2.0 cubic feet per second of the waters
of ground water

County of Kingsbury State of South Dakota, for Municipal

purposes; and

(2) WHEREAS, On the 17th day of May A. D. 19 65

Permit No. 1163-3 with a date of priority of February 18, 1965

was issued to said applicant for the diversion of said water, and provided for the completion of construction of the water
supply system therein described on or before the 12th day of May A. D. 19 66 and for the
application to beneficial use of said water on or before the 12th day of May A. D. 19 67

and:

(3) WHEREAS, It is hereby certified that the applicant has complied with the provisions of the laws of the State of South Dakota
relating to completion of the construction of the water supply system and is entitled to divert .51 cubic feet
per second of water for beneficial use and,

(4) WHEREAS, It is hereby certified that the applicant has complied with the provisions of the laws of the State of South Dakota
relating to the application of water to beneficial use of the following extent,

water is used for municipal purposes by the City of Oldham

(5) NOW, THEREFORE, By the virtue of the authority vested in us by the laws of the State of South Dakota, We hereby grant and confirm to the City of Oldham

~~xxx~~
the holder _____ and owner _____ of said permit No. 1163-3 a water right, dating from February 18, 1965
to use of _____ .51 cubic feet per second of the waters
of ground water

in the County of Kingsbury and State of South Dakota, or so much thereof as may be necessary for the
purposes hereinbelow mentioned, to be diverted at from the SW Corner, Section 22, T109N, R54W,
Well #1, 785 Ft. North and 775 Ft. East, and Well #2, 665 Ft. North and
775 Ft. East

~~and no water is to be~~ conducted through the City water distribution system

for the purpose of Municipal use

Subject to any limitations listed in Water Right Permit No. 1163-3 and subject to the laws of the State of South Dakota.

WITNESS, My hand and seal of our office at Pierre, South Dakota
this 10th day of April A. D.
Nineteen Hundred and Seventy-two

WATER RESOURCES COMMISSION

By:

Chief Engineer, Executive Officer , J.V. GRIMES

1163-3

Permit No. _____

Water Diversion No. 3 BIG SIOUX RIVER Water District

CERTIFICATE OF CONSTRUCTION

This is to Certify, That the City of Oldham

_____ the holder _____ of
Permit No. 1163-3, issued upon Application No. 1163-3, bearing date of priority of February 18,
1965 authorizing the diversion of 2.0 cu. ft. per second of the waters of _____
ground water _____ County of Kingsbury, State of South Dakota at _____
from the SW Corner, Section 22, T109N, R54W, Well #1, 785 ft. North
and 775 ft. East, and Well #2, 665 Ft. North and 775 Ft. East
_____, for Municipal

_____ purposes, ha. _____ complied with the provisions of the laws of the State of South Dakota relating to proof of
completion of the works of diversion set out and described in said Permit; that said works are found in satisfactory
condition for diverting and conveying to the place of intended use .51 cu. ft. per second of water.

Date April 10, 1972

WATER RESOURCES COMMISSION

By: J.R. GRIMES, Executive Officer

PROOF OF PUBLICATION

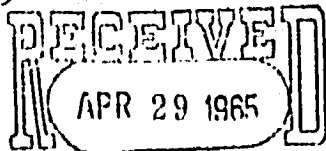
STATE OF SOUTH DAKOTA }
County of Kingsbury } ss.

JOHN SITTNER being duly sworn, deposes and says the annexed printed copy of Notice of Intention to Appropriate Water was taken from the Lake Preston Times a newspaper which during the whole time of publication of said notice herein after stated, has been and is printed and published in the City of Lake Preston County of Kingsbury and State of South Dakota; that the said notice was published in said newspaper on the following dates:

March 25, 1965
April 1, 1965
April 8, 1965
April 15, 1965

in each and every issue of the full number thereof, the first publication being made on the 25th day of March 1965 and the last publication on the 15th day of April 1965, upon which days or times of publication aforesaid the newspaper was regularly published, and that during the whole time of said publication he was owner the printer and publisher of the said newspaper.

Subscribed and sworn to before me this 15th day of April A. D. 1965



STATE WATER RESOURCES COMM.
 PIERRE, SOUTH DAKOTA

Legal Publication
APPROPRIATION OF WATER

Office of State Water Resources Commission,
 Pierre, S. Dak.
 March 18, 1965
 Notice is hereby given that the City of Oldham, S. Dak., has made an application in accordance with the provisions of the water laws of South Dakota for a permit to appropriate for beneficial use 2.00 cubic feet of water per second of time from ground water through the municipal well, the point of diversion of which is to be located in the SW 1/4 of the SW 1/4 of Section 22 Twp. 109N Range 154W. Said water to be used for the purpose of providing municipal supplies for the City of Oldham.
 This application will be taken up by the State Water Resources Commission at their office at Pierre for consideration upon the 12th day of May, 1965, at 2 P.M. All interested persons may appear and be heard.
 Appropriate action will be taken by the Water Resources Commission after suitable time has elapsed for the consideration of any or all information presented.
 State Water Resources Commission
 By: Burton F. Jones
 Water Right Specialist
 (Mar. 25-Apr. 15)

Notary Public Kingsbury County, S. D.

on or before April 15, 1965
(First Publication)

APPROPRIATION OF WATER

Office of State Water Resources Commission,

Pierre, S. Dak., March 19, 1965

Notice is hereby given that the City of Oldham

S. Dak., has made an application in accordance with the provisions of the water laws of South Dakota for a permit to appropriate for beneficial use 2.00 cubic feet of water per second of time from the ground water through the municipal well, the point of diversion of which is to be located

in the SW 1/4 of the SW 1/4 of Section 22

Twp. 109N Range 54W. Said water to be used for the purpose of providing municipal supplies for the City of Oldham.

for purposes.

This application will be taken up by the State Water Resources Commission at their office at Pierre for consideration upon the 12th day of May, 1965, at 2 P. M. All interested persons may appear and be heard.

Appropriate action will be taken by the Water Resources Commission after suitable time has elapsed for the consideration of any or all information presented.

State Water Resources Commission

By:

BURTON F. JONES
Water Right Specialist

CC: Mr. John Sittner, Publisher
Lake Preston Times
Lake Preston, S. Dak.

Permit No. 1163-3

Water Division No. 3 Big Sioux Water District

NOTICE OF COMPLETION OF WORKS

This blank must be filled out by the holder of permit and forwarded to the Executive Office at least 60 days before the time set for completion of works

(P. O.) Oldham, South Dakota

(Date) April 7, 1966

TO THE STATE WATER RESOURCES COMMISSION
OF SOUTH DAKOTA, PIERRE:

DEAR SIR: Notice is hereby given of the completion of the works for the diversion of
105 gpm _____ cubic feet per second of the waters of the state from Dakota Sand
through the _____ municipal well
for _____ domestic water supply _____ purposes

_____ In accordance with the terms and conditions of a certain permit heretofore issued by the Water Resources Commission of the State of South Dakota.

1. The name of the person or corporation holding said permit is City of Oldham

2. The postoffice address of such person or the place of business of such corporation is Oldham
County of Kingsbury State of South Dakota

3. The number of such permit is 1163-3 and the date set for the completion of such work is
June 1, 1966

4. Said water to be used for public water supply _____ purposes.

5. Said works of diversion will be fully completed on the date set for such completion, and the amount of water which said works are capable of conducting to the place of intended use, in accordance with the plans accompanying the application for such permit, is 2.0 _____ cubic feet per second.

6. The amount of land for which said water is available is _____ acres,
particularly described as follows: City of Oldham

I hereby certify that the facts set forth in the above notice are true.

SCHMUCKER, SHAFFER & PAUL

Engineer for Owner

(Signature of Owners)

Permit No. 1163-3Water Division 3 BIG SIOUX RIVER Water DistrictREPORT OF EXAMINATION OF WORKS
AND/OR APPLICATION OF WATER TO BENEFICIAL USE

TO: Water Resources Commission, State Office Building No. 2, Pierre, South Dakota 57501

I have this day made a thorough examination of the water use system constructed by City of Oldham
Oldham, S.D. holder
 of Permit No. 1163-3, bearing date of priority of February 18, 19 65
 authorizing the diversion of 2 cu. ft. per second of the waters of ground water
 for municipal purposes, in Kingsbury County.

I have to report on the condition of the same as follows:

The Water Use System consists of,

A. Works used to divert the water:
 Well No. 1, 1050' deep, cased with 8" diameter steel casing, and equipped with a 15 HP electric submersible pump.
 Well No. 2, 1030' deep, cased with 10 and 8 inch diameter steel casing, and equipped with a 15 HP electric submersible pump. In both wells the reported static water level is 140 feet with pump setting at 200 feet.

B. Works used to transport water to place of use,

Treatment plant, elevated 50,000 gallon storage tank and water distribution system.

C. Works used to apply water to beneficial use.

One hundred service connections

The system is in the following condition: Excellent

The point of diversion is located from SW Corner of Section 22, T109N, R54W. Well No. 1, 785 feet North and 775 feet East, Well No. 2, 665 feet North and 775 feet East

The works are capable of diverting and conveying to the place of use .51
 cu. ft. per second of water which is to be used for Municipal purposes

Water has been put to beneficial use to the maximum extent as follows:

The wells have been constructed and used, to the extent as indicated, for municipal purposes

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 comprising a total of XXXXXXXXXXXXXXXXXX acres of land.

Send letter to Elton Jorgensen, Mayor

Date November 16, 1971

Donald J. Jorgensen
 (Signature)
 Vice City Engineer
 Water Resources Commission

WATER WELL

OLDHAM, SOUTH DAKOTA

#1200-W

FEB 3 1965

Prepared by: Schnucker, Shaffer & Paul
Consulting Engineers
Box 357
Mitchell, South Dakota

December - 1964

#1200W

WATER WELL
OLDHAM, SOUTH DAKOTA

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Agreement

Section 200 General Drilling Procedure

**Section 300 Submersible Turbine Pump
 Semi-Open Impeller and Water Lubricated Motor**

Drawing: Casing Detail

ADVERTISEMENT FOR BIDS

Notice is hereby given that sealed bids will be received by the City Council of the City of Oldham, South Dakota, at the City Hall until _____ o'clock P.M., Central Standard Time, on _____, 1964, at which time the bids will be publicly opened and read aloud for furnishing all plant, labor, materials and equipment and performing all work for construction of a new well.

The scope of the work will include drilling an eight-inch well, approximately 1340 feet deep.

The bidder shall submit the proposal on the form prescribed and proposals will be rejected if they show any conditional or uncalled for alternate bids.

All bids shall be on the basis of cash payments for the work accomplished.

Each bid must be accompanied by a certified check, cashier's check or draft in the amount of 5% of the base bid and all add alternates and drawn on a solvent state or national bank located within the State of South Dakota, or a 20% bid bond issued by a surety authorized to do business in the State of South Dakota and made payable to the City of Oldham. Proceeds of the check or bond may be retained by the Owner as liquidated damages if the successful bidder fails to execute a contract and file an approved bond for the faithful performance thereof, within ten (10) days after acceptance of his bids and presentation of the contract for signature.

The City Council reserves the right to retain bid guarantee of the three lowest bidders for a period not to exceed 30 days after the date and time set for the opening of the bids. The City Council reserves the right to reject any and all bids or any parts thereof and further reserves the right to award the contract in the best interests of the City.

Plans and specifications, proposal forms, and contract documents, for the project may be seen and inspected at the office of the Auditor, or at the office of Schmucker, Shaffer and Paul, Engineers, Room 207 Commercial Building, Mitchell, South Dakota. Plans and specifications and proposal forms may be obtained from the Engineers' office, PO Box 357, Mitchell, South Dakota 57201, on receipt of \$5.00, said \$5.00 to cover the cost of handling.

Published by the authority of

Norman Bergheim, City Auditor
Oldham, South Dakota

PROPOSAL

To: City of Oldham
Oldham
South Dakota

For: Municipal Well

Pursuant to the foregoing "Notice to Bidders", the undersigned has thoroughly examined the plans, specifications, and the site, and understands the amount of work to be done, and here proposes to do all the work and furnish all labor, equipment and materials necessary to fully complete all the work as provided in the plans and specifications and subject to the inspection and approval of the "Engineer", binds himself on acceptance of this proposal by the Owner, to execute a contract and furnish performance bonds acceptable to the Owner for performing and completing said work within the time stated for the following sum to-wit:

Item	Description	Quantities	Unit Price	Total Price
1.	Drilling 6" diameter pilot hole, logging sampling, etc.; complete	1342 L.F.	\$	\$
2.	Drilling 10" diameter (minimum) bore hole, including all labor, equipment and materials to install casing and screen; complete	1100 L.F.	\$	
3.	Grouting casing, including all labor, materials and equipment; complete	1100 L.F.	\$	
4.	Casing, 8" complete in place, Schedule 40	1100 L.F.	\$	
5.	Screen, complete in place, 7"	10 L.F.	\$	
6.	Testing, 24 hr. pumping test over and above pumping required for development - 24 hrs.	L.S.	\$	
7.	Furnishing and installing Pitless Discharge Unit to fit 8" casing, size 4"	L.S.	\$	
8.	Furnish and install submersible pump, complete with power cable	L.S.	\$	
9.	Extra work cost plus %			
TOTAL PRICE				\$

Total Price _____ Dollars

City of Oldham
Municipal Well

ALTERNATE PROPOSAL

<u>Item</u>	<u>Description</u>	<u>Quantities</u>	<u>Unit Price</u>	<u>Total Price</u>
1.	Drilling 6" diameter pilot hole, logging sampling, etc.; complete	1342 L.F.	\$ _____	\$ _____
2.	Drilling 8" diameter (minimum) bore hole, including all labor, equipment and materials to install casing and screen; complete	1100 L.F.	\$ _____	\$ _____
3.	Grouting casing, including all labor, materials and equipment; complete	1100 L.F.	\$ _____	\$ _____
4.	Casing, 6" complete in place, Schedule 40	1100 L.F.	\$ _____	\$ _____
5.	Screen, complete in place, 5"	50 L.F.	\$ _____	\$ _____
6.	Testing, 24 hr. pumping test over and above pumping required for development - 24 hrs. L. S.	L. S.	\$ _____	\$ _____
7.	Furnishing and Installing Pitless Discharge Unit to fit 6" casing, size 4"	L. S.	\$ _____	\$ _____
8.	Furnish and install submersible pump, complete with power cable	L.S.	\$ _____	\$ _____
9.	Extra work cost plus _____ %			\$ _____
TOTAL PRICE (Alternate)				\$ _____

Total Price (Alternate) _____

Dollars

If regulations, weather and other factors influencing the progress of the work do not materially change from the presently anticipated, we estimate that if awarded the contract we shall complete same in _____ calendar days from date of contract.

This Contractor shall state the total Base Bid for furnishing all material and labor for complete well, filling in all unit prices in proposal forms Bid Document.

Accompanying this proposal is a bid security required to be furnished by the Contract Documents, the same being subject to forfeiture in event of default by the undersigned.

In submitting this Bid it is understood that the right is reserved by the Owner to reject any or all bids, and it is agreed that this bid may not be withdrawn during the period of thirty (30) days provided in the Contract Documents.

The total base bid shall be basis for establishing the amount of the Performance Bond on this Contract. Total base bid is subject to additions or reductions according to the actual construction quantities and measurements of the finished construction as determined by the Engineer upon completion of construction.

All bids shall be sealed and filed with the Owner by the time specified in the "Advertisement for Bids".

FIRM NAME _____
BY _____
TITLE _____

ACKNOWLEDGMENT OF RETURN OF BID SECURITY

Being an unsuccessful bidder, the undersigned acknowledges the return of his bid security, a _____, No. _____, in the amount of \$ _____.

Bidder _____
By _____
Title _____

Date _____

SPECIAL CONDITIONS

1. Location. The well is proposed to be located in Lot 10, Block 7 of the City of Oldham.
2. Site. The City of Oldham owns one-half a city block at the drilling site. The contractor may use this site for the storage of equipment and material and for pits. Upon completion of the project the contractor shall fill and level the site to the Owner's satisfaction. Any damage to the adjoining property shall be the Contractor's liability.
3. Invoice for Materials. The contractor shall furnish to the Engineer a copy of invoices for all material installed in the well, including casing, cement and piling. Such invoices shall fully describe the material listed as to weight, type, classification, etc.
4. Contractor's Qualifications. The contractor may be required to provide satisfactory proof of his financial and technical ability to construct a well of this type. He shall have previous experience in constructing wells of this depth, diameter. He may be required to submit proof that he has adequate equipment and experienced personnel to perform all work required.
5. Drilling Information. The existing well was drilled beginning November, 1951, and was completed in May, 1952, by Lloyd M. Hinker, a well driller of Woonsocket, South Dakota. The well was drilled to a depth of 1,342 feet and was cased with 503 feet of 8-inch wrought iron pipe, and 635 feet of 6-inch steel pipe. Static water level in the well is 265 feet below the surface. In lieu of a well screen the casing was slotted at a depth of 1,010 to 1,020 feet below the surface. 4-inch pipe was placed in the hole some 1,037 feet down to 1,250 feet below the surface. A cement plug was placed some 1,020 feet below the surface to 1,037 feet below the surface. At a depth of 1,342 feet the driller reached quartzite.

The driller indicated there was additional water at a depth of about 1,100 feet, but that the material was very unconsolidated and was abandoned for this reason. The driller's log is given below:

Depth	Description
5 - 410	Drift oversize, gravel and clay
410 - 510	Blue clay
510 - 590	Gray shale
590 - 620	Chalk stone
620 - 660	Shale
660 - 690	Sand and hard shells
690 - 1012	Shale and shells
1012 - 1030	Sand rock (water bearing) source
1030 - 1054	Shale, sticky
1054 - 1110	Sand rock; very loose, plenty of water, but very sandy.

6. Log of Well and Related Records. The driller shall keep accurate records including its location, depth, date of commencement and completion, character of rocks drilled and fluids encountered, and each driller shall file with the Water Resources Commission before the drilling of any well a notice of intent to drill such well. The above records shall be available to the Commission or its representatives at all times. Such records shall be kept confidential by the Commission or its representatives when so requested by the Owner or driller.

When so requested by the Commission or its representatives or the State Geologist, access to all wells shall be given by the Owner or driller for the purpose of making electric, or radio-activity logs, caliper, leakage and other surveys that pertain to the condition of the well. Such records shall be placed on permanent file in the office of the State Geologist and in the office of the Commission.

The contractor shall keep an accurate record of the location of the top and bottom of each stratum penetrated and shall save and deliver to the Engineer a sample of material taken from each ten feet of drilling and at every change in formation, except for the first 200 feet the samples may be taken each 30 feet. Each sample shall be enclosed in a suitable container plainly labeled with the depth at which taken and the date taken. The containers shall be furnished by the Contractor.

Written reports shall be delivered to the Engineer showing the well log including description and top and bottom depth of each formation and the progress of each day's work together with samples taken as described above. He shall keep an accurate "Drilling Time" log showing the drilling time for each 10 feet of drilling for all drilling below 200-foot depth.

Failure on the part of the contractor to obtain, preserve and deliver such samples or records to the Engineer shall be considered an actual damage to the Owner and shall authorize the Owner to retain from monies due or to become due the contract sum of \$10.00 as liquidated damages for each sample that the contractor fails to provide.

7. Equipment. The contractor shall provide all tools, derricks, engines, pumps and other machinery and equipment of whatever description that are necessary to complete all work specified or implied herein. The Machinery, tools and equipment shall be in good condition and adequate to perform all work required in accordance with these specifications.
8. Record of Casing Installed. The contractor shall keep an accurate record as assembled of the order, number, size and lengths of the individual pieces of pipe installed in the well.
9. Measurement and Payment. Pilot hole 6" in diameter will be paid for by the foot, complete, including sampling, and electric or gamma logging. Drilling 10" minimum diameter bore-hole shall be paid for by the foot, including all labor, equipment and materials as necessary to install the casing and screen.

Grouting shall be paid for by the foot. This figure shall include all labor and materials and equipment required to provide the grout complete in place from the top of the water bearing formation to the surface of the ground.

Casing shall be paid for by the foot, including all labor, materials and equipment to set the casing complete in place. Screen or perforated casing shall be paid for by the foot complete in place, including all labor, equipment and materials.

Testing shall be paid for on a lump sum basis - 24-hour test flow using pumping equipment after development of the well. Any additional pumping time in excess of 24 hours will be paid for at the rate of \$10.00 per hour.

The driller shall provide and install on top of the 4" column a four-inch tee, a four-inch check valve and a four-inch plug valve. The well house is not under this contract. The pedestal is under this contract. The above listed valves and piping shall be measured and paid for as one lump sum unit, complete in place.

10. Well Screen. Based on samples taken from the water producing formation a decision by the Engineer, owner and driller as to the type and length of screen shall be made.

The screen shall be constructed of stainless steel or Everdur metal. The screen may be of the perforated tube type, shutter type or continuous wound, depending on the samples taken and the type of formation encountered. If a continuous wound type of screen is selected, it shall be designed for the formation in which it is placed. Samples of sand formation shall be submitted to the screen company for analysis.

In any event, the screen selected shall be designed to screen out 90% of the particles encountered in the formation and shall provide sufficient opening so that the velocity of the water passing through the screen openings shall not exceed 0.1 feet per second. All openings shall be free from jagged edges and irregularities.

It is anticipated that the screen length will not exceed 50 feet; however, the final determination will depend on the water bearing formation, estimated well production and type of screen.

The screen shall be 7-inch O.D. and fit inside the proposed well casing. The screen shall be sealed to the casing by use of a lead packer or other approved seal. The screen shall be of adequate strength to resist the external forces that will be applied after it is installed and to minimize damage during installation.

The contractor shall provide drawings and technical data on the screen to the Engineer for approval.

The screen shall be provided with fittings as necessary for closing the bottom and a bail for removing said screen.

11. Testing. A temporary screen if required shall be installed for initial flow tests to determine well capacity and final screen design.

If required the contractor shall furnish and install a test pump and drive of 200 gpm capacity complete with piping and valves as necessary for control.

The contractor shall provide all necessary equipment to make flow tests and determine capacity, including a draw down gauge and piping.

Test discharge piping shall terminate at least 25 feet from the well.

12. Driller's License. Every well driller, before doing any well drilling, and before taking any such work, shall first secure and thereafter maintain a license, which license and current renewal shall always be plainly displayed at a conspicuous place on the premises where the work is being conducted. The fee for such license shall be twenty-five dollars and a like sum must be paid to and the license and renewals issued by the Commission. The Commission shall deposit all funds collected by it with the State Treasurer. Such license may be revoked by the Commission upon refusal of the driller to complete properly any well in accordance with good practices of well construction.

13. Special Drilling Instructions. Pay Item 1 is to cover the cost of drilling a six-inch pilot hole to quartzite for the purpose of sampling and logging the water bearing formation. Information obtained from the pilot hole will be used to determine construction of the finished well. Pay Item 2 is to cover all drilling the project. The screen will be placed at the most advantageous point in the formation. location will be determined by information obtained during the drilling operation. The minimum O.D. diameter on the screen shall be seven inches.

It is anticipated that the State will plan to log this hole; therefore, the driller may plan his operation accordingly.

In line with latest requirements for grouting a deep well, said grouting will be accomplished by forcing the grout down through the well casing and up into the angular space between the exterior of the casing and the bore hole. Grouting by use of a pipe along the exterior of the casing will not be allowed.

14. Representatives of the State Department of Health, the Farm Home Administration or other parties authorized to inspect the project will have access to the drilling site, boring logs, samples, and other normal data involved on this type of project.

15. The following shall supersede General Conditions Item 2, para. 2.3, 2.6

Chapter 465 of the 1963 Session Laws of South Dakota shall be complied with.
65.0701-4 - Bids: Certified checks or bid bonds required; opening and accepting.
Where the advertisement for bids is for the constructing of a public improvement, each bid must contain a certified check, cashier's check or draft, for five percent of the amount of the bid, such check to be certified or issued by either a state or national bank domiciled within this state and payable to the public corporation or to an officer of such public corporation letting such contract and inviting bids thereon, or in lieu thereof a bid bond for twenty percent of the amount of the bid, such bond to be issued by a surety authorized to do business in this state, payable to said public corporation or officer, as a guaranty that such bidder will enter into a contract with said public corporation, its board or officers thereof, in accordance with the terms of such letting and bid in case such bidder be awarded the contract.

No bidder shall be required, either in the advertisement for bids or otherwise, to leave his certified check or other guaranty, or bid bond, posted for a longer period than thirty days if his bid is not accepted. The certified check or other guaranty, or bid bond, of the successful bidder shall be returned to him forthwith upon the execution of the contract and surety hereafter provided for.

The certified checks or bid bonds of all unsuccessful bidders shall be, by the public corporation, immediately returned to the respective makers thereof and not more than thirty days shall elapse between the opening of the bids and either the acceptance of the bid of the lowest responsible bidder or the rejection of all of the bids presented.

The sealed bids shall not be opened until the time and place specified in the advertisement therefor, but must be publicly opened and read at said time and place. Any bid may be withdrawn by letter or by telegraphic communication or in person, but no bid made shall be changed or altered by any telegraphic communication or by telephone. Unless all bids presented are rejected, the lowest responsible bid, in all cases, must be accepted. In case of the low bidder is not responsible or the bid is not made in accordance with the requirements of this act or the low bid is withdrawn, the bid of the next lowest responsible bidder may be accepted.

Any funds forfeited by a bidder or surety shall accrue to the funds provided for construction of the public improvement.

16. The following shall be in addition to General Conditions, Item 3, Para. 3.1.

The party to whom the contract is awarded will be required forthwith to execute the contract on the forms which are acceptable to the Farmers Home Administration, all within ten calendar days from the date when the written notice of the award of the contract is mailed to the bidder at the address given by him; in case of his failure to do so, the Owner may at his option, consider that the bidder has abandoned the contract, in which case the certified check or bidder's bond accompanying the proposal shall become the property of the Owner.

17. For the purpose of clarification, it is understood that the work to be done is being financed in whole or in part by means of a loan made or incurred by the United States of America acting through the Farmers Home Administration of the Department of Agriculture. The Farmers Home Administration will, therefore, require approval by its Representative of all partial or final paid estimates and of all change orders and extra work orders. It is further understood that loan funds will not be used for work not covered by compliance with the terms of this Contract, or any approved change order.

18. The word "Representative" means the State Director of the Farmers Home Administration or his designee.

GENERAL CONDITIONS

ITEM 1

DEFINITION OF TERMS

1.1 Definitions. Wherever in these Specifications or in the Contract or both, the following terms or pronouns in place of them are used, the intent and meaning shall be interpreted as follows:

1.2 Owner. The party of the first part in the Contract for this work.

1.3. Engineer.

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CONSULTING ENGINEERS
Box 357
Mitchell, South Dakota

1.4 Inspector. The authorized representative of the Engineer, assigned to supervise and inspect any or all parts of the work and the materials to be used therein.

1.5 Bidder. An individual, firm, or corporation submitting a proposal.

1.6 Contractor. The individual, firm, or corporation, party of the second part, with which the Contract is made by the Owner.

1.7 Superintendent. The authorized representative of the Contractor.

1.8 Surety. The corporate body which is bound with the Contractor for the faithful performance of the work governed by the Contract.

1.9 Proposal. The offer of the Bidder, made out on the prescribed form, giving prices for performing the work described in the Plans and Specifications.

1.10 Proposal Guarantee. The security designated in the proposal and furnished by the bidder as a guarantee that the Bidder will enter into a Contract if awarded the work.

1.11 Plans. The plans, profiles, general details, layouts and supplemental drawings or reproductions thereof, approved by the Engineer, which show the location, character, dimensions and the details of the work, and which are a part of the Contract.

1.12 Specifications. The directions, provisions, and requirements contained herein or supplemented by such "Special Provisions" and "Supplemental Agreements" as may be issued or made pertaining to the method and manner of performing the work or to quantities and qualities of the materials to be furnished under the Contract. Where the phrases "ordered by the Engineer" or "To the satisfaction of the Engineer" occur, it is to be understood that the

General Conditions

directions, orders, or instructions to which they relate are within the limitations of the proposal and the specifications. "Special Provisions" and "Supplemental Agreements" will cover alterations in the plans and specifications which are necessary to the proper completion of the work and will take precedence over the original specifications wherever in conflict therewith.

- 1.13 Contract. The agreement between the Owner and the Contractor, covering the furnishing of materials and performance of the work. The Contract will include Notice to Bidders, Proposal, Plans, Specifications, Contract Bond and Supplemental Agreements.
- 1.14 Contract Bond. The security furnished by the Contractor and the Surety as a guarantee on the part of the Contractor to execute the work in accordance with the terms of the Contract.
- 1.15 Right-of-Way. The land provided by the Owner or Contractor upon which to construct the improvements.
- 1.16 The Work. The completed work contemplated and covered by the Contract.
- 1.17 Working Day. A working day is defined as a calendar day, not including Sundays or legal holidays, in which weather or other conditions not under the control of the Contractor will permit the performance of the principal units of work under way for a continuous period of not less than seven (7) hours between 7:00 a.m. and 6:00 p.m.
- 1.18 Or Equal Clause
 - a. Where specific material or equipment is named in the specifications, it is understood that other makes of equal size, quality and performance will be acceptable, if approved as equal by the Engineer in writing prior to the letting. Requests for such approval must be made to the Engineer at least ten (10) days prior to the opening of bids. The approval of material or equipment as equal to that specified will be made in writing in the form of an addendum issued by the Engineer to all plan holders of record. The base bid and any alternate should be based on materials only as specified or approved.
 - b. Should the bidder desire to use material or equipment in lieu of those specified or approved, he must so state on the proposal form, giving the proper deductions or additions as provided for in subparagraph (c) below. The award of the contract will not be based on the deductions or additions so given. After the contracts have been awarded, the Owner and the Engineer will make the decision regarding the use of materials listed in the proposals.
 - c. Where bids are called for the purchase of material, furnishings and equipment of a particular make or kind named in the specifications, the bidders may bid on other makes or kinds of a similar nature, but they must name the make and give the name of the manufacturer and a catalog

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description and the price of the item on which the bids are based. If the above information is not given, but only price listed, it will be assumed that bidders are bidding on the make and kind named in the specifications and they will be required to furnish that make, and kind, at the price listed, at the penalty of forfeiture of their bid deposit.

ITEM 2

INSTRUCTIONS TO BIDDERS

- 2.1 Contents of Proposal Forms. Bidders will be furnished with proposal forms which will state the description of the proposed work to be performed, a schedule of items for which unit prices are asked, and a schedule of items for which lump sum bids are asked.
- 2.2 Statement of Bidder's Qualifications. Each Bidder must furnish a statement of the Bidder's financial resources, his construction experience, and his organization available for work contemplated if such statement is requested in the Notice to Bidders. The statement shall be filed with the proposal in a separate sealed envelope, marked "Financial and Experience Statement."

Only the envelopes of the low bidders to whom the award of a Contract is being considered, will be opened and reviewed by the Owner.

No statement will be read aloud at the bid opening. Upon award of the Contract or Contracts, the statements of all Bidders, except those to whom a Contract is awarded, may withdraw their statements. The Owner shall have the right to take such steps as he deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose, as the Owner may request. The right is reserved to reject any bid where an investigation of the evidence or information submitted by such Bidder does not satisfy the Owner that the Bidder is qualified to carry out properly the terms of the Contract.

In determining the lowest responsible Bidder, the following elements shall be considered: Whether the Bidder involved (a) maintains a permanent place of business; (b) has adequate plant equipment to do the work properly and expeditiously; (c) has a suitable financial status to meet obligations incident to the work; (d) has appropriate technical experience, and (e) has a satisfactory past performance record.

The Bidder, to be eligible for the award of the Contract, must be able to show his financial ability to carry on the work until such time as he receives the first payment on the Contract and to finance the work between payments.

- 2.3 Examination of Plans, Specifications and Site of Work. Before filing a bid, a Bidder shall carefully examine the Proposal, Plans, Specifications and Form of Contract to be entered into for the work contemplated. He shall examine the site of the work and satisfy himself as to the conditions which will be encountered relating to the character, quality, and quantity of the work to be

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performed and materials to be furnished. He shall satisfy himself as to all subsurface obstacles to be encountered. The filing of a bid by the Bidder shall be presumptive evidence that he has complied with these requirements.

- 2.4 Preparation of Proposal. The Bidder shall submit the Proposal on the form prescribed. The blank spaces in the Proposal shall be filled in for each item for which a quantity is given, as may be required by the Proposal for a completed work, and the Bidder shall state the prices (written in ink), for which he proposes to do each item of the work. The Proposal shall be signed in ink by the person or persons authorized to make the bid. If the Proposal is made by an individual, the post office address shall be given. If made by a firm or partnership, the name and post office address of each member of the firm or partnership shall be given. If made by a corporation, its post office address and title of person signing the proposal shall be given.
- 2.5 Rejection of Proposals Containing Alterations, Erasures or Irregularities. Proposals may be rejected if they show any alteration of words or figures, additions not called for, conditional or uncalled for alternate bids, incomplete bids, erasures, or irregularities of any kind.
- 2.6 Proposal Guaranty. The proposal shall be accompanied by a Proposal Guaranty of the character and in the amount indicated in the Notice to Bidders.
- 2.7 Delivery of Proposals. Each Proposal shall be placed, together with the Proposal Guaranty, in a sealed envelope so marked as to indicate its contents. When submitted by mail, this envelope shall be placed in another envelope which shall also be sealed and addressed as indicated in the Notice to Bidders. Proposals will be received on or before the hour and date set for the opening thereof and must be in the hands of the official indicated by that time.
- 2.8 Withdrawal of Proposals. A Bidder may withdraw his proposal provided his request in writing to do so is in the hands of the official indicated in the Notice to Bidders by the time set for opening of Proposals.
- 2.9 Public Opening of Proposals. Proposals will be opened and read publicly at the time and place indicated in the Notice to Bidders. Bidders or their authorized agents are invited to be present.
- 2.10 Disqualification of Bidders. More than one Proposal from an individual, firm or partnership, a corporation, or an association under the same or different names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one Proposal for the work contemplated will cause the rejection of all Proposals in which such bidder is interested. Any or all Proposals will be rejected if there is reason for believing that collusion exists between the bidders and all participants in such collusion will not be considered in future Proposals for the same work. Proposals in which the prices are obviously unbalanced may be rejected. Contract will be awarded only to a responsible Bidder.

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ITEM 3

AWARD AND EXECUTION OF CONTRACT

- 3.1 Award of Contract. The award of the Contract, if it be awarded, will be made in the best interest of the Owner. The award will be within thirty (30) days after the opening of the Proposal, but in no case will award be made until the responsibility of the Bidder to whom it is proposed to award the Contract, has been investigated.
- 3.2 Return of Proposal Guaranties. Certified checks of the three lowest bidders will be retained until after the contract has been awarded and the bond made. Certified checks of all except the three lowest bidders will be returned within twenty-four (24) hours after the opening of the bids. Bid bonds will be handled per the State Code covering same.
- 3.3 Execution of Contract and Bond. Within ten (10) days after written notification of award of contract, the Contractor shall execute and file with the Owner a Contract and Bond with an acceptable surety company as surety in the amount of at least 50% or more of the contract price as security for the faithful performance of this contract, and a surety bond in the amount of at least fifty percentum (50%) or more of the contract price as security for the payment of all persons performing labor or furnishing materials or equipment in connection with this contract. Said bond shall also cover the guarantee.
- 3.4 Failure to Execute Contract. Should the successful bidder refuse or neglect to execute and file the Contract and Bond within the ten (10) days after written notification of the award of the Contract, the Proposal Guaranty filed with the bid shall become the property of the Owner, not as a penalty, but as liquidated damages.
- 3.5 Beginning of Work. The Contractor shall not begin work until authorized to do so in writing by the Engineer.

ITEM 4

SCOPE OF WORK

- 4.1 Intent of Plans and Specifications. It is the intent of the plans and specifications to describe a completed work to be performed under the Contract. Unless otherwise provided, it is also the intent that the Contractor shall furnish all materials, supplies, tools, equipment, labor, and incidentals necessary for the proper prosecution and completion of the work.
- 4.2 Changes and Alterations. The Engineer shall have the right to make such changes and alterations in the plans or in the quantities of the work as may be considered necessary or desirable, and such changes and alterations shall not be considered as a waiver of any condition of the Contract,

General Conditions

nor shall invalidate any of the provisions thereof. The Contractor shall perform the work as increased or decreased, and no allowances will be made for anticipated profits. When such changes and alterations increase or decrease, the quantity of work to be done, or materials to be furnished under any item in excess of twenty-five (25) per cent, then either party to the contract upon demand shall be entitled to a revised consideration on that portion of the work above or below twenty-five (25) per cent of the quantity stated in the proposal, such revised consideration to be determined by special agreement.

- 4.3 Extra Work. Additional work made necessary by changes and alteration of plans or for other reasons, for which no prices are provided in the contract, shall be defined as "Extra Work" and shall be performed by the Contractor in accordance with these specifications and as directed, provided, however, that before any extra work is begun, a "Supplemental Agreement" shall be executed, defining the nature and contract price of such extra work.
- 4.4 Obstructions. Where, during the progress of the work, there are any pipes, structures, track, highway, or public utility that will be affected by his operations, the Contractor shall give written notice to the fact at least twenty-four (24) hours before starting his operations to the party owning such pipes, structures, track highway or public utility affected. He will not hinder or interfere with the property owner's operations to protect, support, or remove such affected property. In case such removal, protection, or support is done by the Contractor, and damages ensue, caused by his neglect, carelessness or unskilled operations in so doing, the damages thus accrued, shall be a liability of the Contractor, and the Owner shall have the right to deduct the amount thereof from any sums due the Contractor or to become due him, to protect the Owner against such damage.
- 4.5 Final Cleaning-Up. Upon completion of the work and before acceptance and final payment is made, the Contractor shall clean, remove rubbish and temporary structures from the right-of-way, restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work; and leave the site of the work in a neat and presentable condition throughout. Materials cleared from the right-of-way and deposited on property adjacent thereto, will not be considered as a satisfactory method of disposal, unless approved by the Engineer. No payment will be made for this work, its cost being included in the bid.
- 4.6 Guarantee. The Contractor shall guarantee his portion of the project against any defect in materials or workmanship for a period of one year from the date of approval. In case any such defect shall appear and is reported in writing to the Contractor during the guarantee period, the Contractor shall make any necessary repairs without charge to the Owner.

ITEM 5

CONTROL OF THE WORK

5.1 Authority of Engineer. The work shall be done under the supervision of the Engineer, to his satisfaction, and in accordance with the Contract, Plans, and Specifications. The Engineer will decide all questions which may arise as to the quality or ability of materials furnished, and work performed; the manner of the performance and the rate of progress of the work; the interpretation of the Plans and Specifications; and the acceptable fulfillment of the Contract on the part of the Contractor. His decisions shall be final, and he shall have executive authority to enforce and make effective such decisions and orders that the Contractor fails to carry out promptly.

5.2 Engineer as Referee. The Engineer will act as referee in all questions arising under the terms of the Contract between the parties thereto, and his decisions shall be final and binding.

5.3 Plans. Plans will show the lines, grades, details and general features. Where supplementary working drawings are necessary, they shall be furnished by the Contractor and approved by the Engineer. Authorized alterations will be endorsed on approved plans, or shown on supplemental sheets. The approval by the Engineer of the Contractor's working drawings will not relieve the Contractor of any responsibility of the Contract.

The Contractor shall furnish the Engineer with such blue print copies of the working drawings as may be required for approval and for the purposes of supervision; and upon completion of the work, the tracings of such drawings, if required, shall be delivered to the Engineer. The contract price shall include the cost of furnishing all working drawings.

The Contractor shall be furnished with three (3) copies of all Plans, Profiles, and Specifications without expense to him, and he shall keep one copy of same constantly accessible on the work. Additional plans and specifications may be purchased at reproduction cost.

5.4 Conformity with Plans. Finished work in all cases shall conform with lines, grades and dimensions shown on the plans. Such deviations from the Plans, approved drawings, and Specifications as may be required will, in all cases, be determined by the Engineer and authorized in writing.

5.5 Coordination of Plans and Specifications. These specifications, the accompanying plans and supplemental agreements are essential parts of the Contract, and any requirement occurring in one is as binding as though occurring in all. They are intended to be cooperative and to describe for a complete work. In cases of disagreement, figured dimensions shall govern over scaled dimensions. Any discrepancy between Plans and Specifications noted by the Contractor shall be called to the attention of the Engineer for interpretation.

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- 5.6 Contractor's Duty. The Contractor shall give personal attention to the faithful prosecution and completion of this work and shall be present either in person or by duly authorized representative on the site of the work continually during its progress. He shall maintain an office on or adjacent to the site of the work.
- 5.7 Contractor's Agent. The Contractor during his absence from the work shall keep a competent superintendent or foreman upon the work, fully authorized to act for him in his absence, and to receive such orders as may be given for the proper continuance of the work. Notice to do any work, to alter work, to cease work which the Contractor is obligated to do, or concerning any imperfections in work or any material furnished, when given to any foreman or agent of the Contractor in charge of any operation of the work in the absence of the Contractor, shall be considered as notice to the Contractor, provided any notice given under this paragraph shall be in writing.
- 5.8 Construction Stakes. The Engineer will set construction stakes, establish lines and grades and will furnish the Contractor with all necessary information relative to same. The Contractor shall notify the Engineer of his intention to start any portion of the work and shall furnish the stakes and the helpers required for laying out the work.
- The Contractor will be held responsible for the preservation of all stakes and benchmarks, and if, in the opinion of the Engineer, any of the stakes or benchmarks have been carelessly or willfully destroyed or disturbed by the Contractor, the cost of replacing them will be charged against him and deducted from the payment for the work.
- 5.9 Authority and Duties of Inspectors. Inspectors will be authorized to inspect all work done and all materials furnished. Such inspection may extend to all or any part of the work. An inspector will be stationed on the work to report to the Engineer as to the progress of the work and the manner in which it is being performed; also, to report to the Engineer whenever it appears that the materials furnished and the work performed by the Contractor fail to fulfill the requirements of the Specifications and the Contract, and to call the attention of the Contractor to any such infringements. Such inspection will not relieve the Contractor from any obligation to perform the work in accordance with the requirements of the Specifications. In case of any dispute arising between the Contractor and Inspector as to materials furnished or the manner of performing the work, the Inspector will have authority to reject materials or suspend work until the question at issue can be referred to and decided by the Engineer. The Inspector will not, however, be authorized to revoke, alter, enlarge, or release any requirements of these specifications, nor to approve or accept any portions of work, nor to issue instructions contrary to the plans and specifications. He will in no case act as foreman or perform other duties for the Contractor, nor interfere with the management of the work of the Contractor.

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- 5.10 Inspection. The Contractor shall furnish the Engineer with every reasonable facility for ascertaining whether or not the work as performed is in accordance with the requirements and intent of the Specifications and of the Contract. If the Engineer so requests, the Contractor shall, at any time before acceptance of the work, remove or uncover such portions of the finished work as may be directed. After examination the Contractor shall restore said portion of the work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering or removing and replacing and recovering or making good of the parts removed shall be paid for as "Extra Work." But should the work so exposed or examined prove unacceptable, the uncovering or removing and the replacing and recovering or making good of the parts shall be at the Contractor's expense. No work shall be done nor materials used without suitable supervision or inspection.
- 5.11 Removal of Defective and Unauthorized Work. All work which has been rejected shall be remedied or removed and replaced in an acceptable manner by the Contractor at his own expense. Work done beyond the lines and grades given, or as shown on the plans, except as herein provided, or any extra work done without written authority will be considered as unauthorized, and done at the expense of the Contractor, and will not be paid for. Work so done may be ordered removed at the Contractor's expense. Upon failure on the part of the Contractor to comply with any order of the Engineer made under the provisions of this paragraph, the Engineer will have authority to have defective work remedied or removed and replaced and unauthorized work removed, and the cost thereof may be deducted from any money due or to become due the Contractor.
- 5.12 Final Inspection. Whenever the work provided for in and contemplated under the contract has been satisfactorily completed and the final cleaning-up performed, the Engineer will make a "Final Inspection". Such inspection will be made within ten days after such completion. After such final inspection, if the work is found to be satisfactory, the Contractor will be notified of the acceptance of same. No time change will be made against the Contractor between said date of notification of the Engineer in charge and the date of final inspection of the work.

ITEM 6

CONTROL OF MATERIALS

- 6.1 Quality of Materials. Only materials conforming to the requirements of these specifications and approved by the Engineer shall be used in the work. The materials proposed to be used may be inspected or tested at any time during the preparation or use. No material, which, after approval, has in any way become unfit for use, shall be used in the work.
- 6.2 Storage of Materials. Materials shall be stored so as to insure the preservation of their quality and fitness for the work.
- 6.3 Samples and Tests. Sampling and testing of all materials proposed to be used shall be made in accordance with the methods prescribed by the

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A.S.T.M. or other standard methods. The Contractor shall provide such facilities as may be required for the verification of the scales, measures and other devices used.

- 6.4 Defective Material. All materials not conforming to the requirements of these specifications will be rejected and shall be removed immediately from the site of the work unless permitted to remain by the Engineer. Rejected materials, the defects of which have been subsequently corrected, shall have the status of new material. Upon failure of the part of the Contractor to comply with any order of the Engineer made under the provisions of this item, the Engineer will have authority to remove and replace defective materials and to deduct the cost of removal and replacement from any money due or to become due the Contractor.

ITEM 7

LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

- 7.1 Laws to be Observed. The Contractor shall make himself familiar with, and at all times shall observe and comply with all Federal, State and local laws, ordinances and regulations which in any manner affect the conduct of the work and shall indemnify and save harmless the Owner and its representatives against any claim arising from the violation of any such law, ordinance or regulation, whether by himself or by his employees.
- 7.2 Permits and Licenses. The Contractor shall procure all permits and licenses, pay all charges and fees and give all notices necessary and incident to the due and lawful prosecution of the work.
- 7.3 Patented Devices, Materials, and Processes. If the Contractor is required or desires to use any design, device, material or process covered by letters patent or copyrighted, he shall provide for such use by suitable legal agreement with the patentee or owner. The Contractor and the Surety shall indemnify and save harmless the Owner from any and all claims from infringements by reason of the use of any patented design, device, material or process, or any trademark or copyright used in connection with the work agreed to be performed under the Contract; and shall indemnify the Owner against any cost, expense, or damages which it may be obligated to pay by reason of such infringement at any time during the prosecution or after completion of the work.
- 7.4 Sanitary Provisions. The Contractor shall at his entire expense provide and maintain in a neat, sanitary condition such accommodations for the use of his employees, as may be necessary to comply with the requirements and regulations of the State Department of Health, or other authorities having jurisdiction.
- 7.5 Protection of the Public. The Contractor shall at all times conduct the work in such manner as to insure the least possible obstruction to public traffic and protect the safety of the public. Public safety and convenience and provisions therefor made necessary by the work shall be the direct responsibility of the Contractor and shall be performed at his entire expense.

General Conditions

Materials placed upon the site shall be located so as to cause as little obstruction to the public as possible. The Contractor shall provide, erect and maintain all necessary barricades, suitable and sufficient red lights, danger signals, signs, and take all necessary precautions for the protection of the work and safety of the public.

Insurance. All contractors are required to carry Workmen's Compensation Insurance in accordance with the South Dakota State Law; Public Liability in the amount of \$10,000.00 and \$300,000.00; Property Damage Insurance in the amount of \$50,000.00. Contractors shall file certificates of such insurance with the Owner.

The Contractor shall carry Builders Risk Insurance in the amount of one hundred per-cent of the insurable value. Certificates of insurance shall be filed with the Owner.

- 7.6 Use of Explosives. When the use of explosives is necessary for the prosecution of the work, the Contractor shall use the utmost care not to endanger life or property. All explosives shall be stored in a secure manner and all storage spaces shall be marked clearly "DANGEROUS-EXPLOSIVES". The method of storing and handling explosives and highly inflammable materials shall conform with the Federal and State Laws and regulations.
- 7.7 Protection of Adjoining Property. The Contractor shall take proper measure to protect the adjacent or adjoining property which might be injured by any process of construction; and, in case of any injury or damage, he shall restore at his own expense the damaged property to a condition similar or equal to that existing before such injury or damage was done, or he shall make good such injury or damage in an acceptable manner.
- 7.8 Responsibility for Damage Claims. The Contractor shall save harmless the Owner from all suits, actions, or claims brought on account of any injuries or damages sustained by any person or property in consequence of any neglect in safe-guarding the work by the Contractor; or on account of any claims or amount recovered for any infringement of patent, trademark, or copyright, except as herein elsewhere specifically provided; or from any claims or amounts arising or recovered under the "Workmen's Compensation Law" or any other laws. He shall be responsible for all damage or injury to property of any kind occurring during the prosecution of the work resulting from any act, omission, neglect, or misconduct on his part in the manner or method executing the work, or due to his failure to execute the work properly, or due to defective work or material. He shall not be released from such responsibility until all claims have been settled and suitable evidence to that effect furnished the Owner.
- 7.9 Contractor's Responsibility for Work. Until the acceptance of the work by the Engineer as evidenced in writing, it shall be under the charge and care of the Contractor. The Contractor shall rebuild and make good, at his own expense, all injuries and damages to the work occurring before its completion and acceptance. In case of suspension of work for any cause, the Contractor shall be responsible for the preservation of all material.

General Conditions

- 7.10 Personal Liability of Public Officials. In carrying out the provisions of the Contract, or in exercising any power of authority granted thereunder, there shall be no liability upon the Engineer or his authorized assistants, either personally or otherwise, as they are agents and representatives of the Owner.
- 7.11 Right of Entry. Representatives of the Public Health Service and the State will have access to the work whenever it is in preparation or progress. The Contractor will provide facilities for such access and inspection.

ITEM 8

PROSECUTION AND PROGRESS

- 8.1 Subletting or Assigning of Contract. The Contractor will not be permitted to assign, sell, transfer or otherwise dispose of the Contract or any portion thereof, or his rights, title or interests therein, without the approval of the Owner. The Contractor will not be permitted to sublet any portion of the Contract without the approval of the Engineer. No sub-contractor will, in any case, relieve the Contractor of his responsibility under the Contract and Bond.
- 8.2 Prosecution of Work. Prior to beginning construction operations, the Contractor shall submit to the Engineer a chart or brief outlining the manner of prosecution of the work that he intends to follow, in order to complete the Contract within the allotted time. The Contractor shall begin the work to be performed under the Contract within thirty (30) days after the date of authorization to begin work and shall continuously prosecute same with such diligence as will enable him to complete the work within the time specified. He shall notify the Engineer at least twenty-four (24) hours before beginning work on any section. The beginning sequence and prosecution of the work shall be governed by the orders of the Engineer, and the Contractor shall conduct his operations so as to impose a minimum interference to the public.
- 8.3 Workmen and Equipment. All workmen employed by the Contractor shall have such skill and experience as will enable them to perform properly the duties assigned them. Any person employed by the Contractor or sub-contractor who, in the opinion of the Engineer, does not perform his work in a proper and skillful manner, or who is disrespectful, intemperate, disorderly or otherwise objectionable, shall at the written request of the Engineer be forthwith discharged, and shall not be employed again on any portion of the work without the written consent of the Engineer. The Contractor shall furnish such suitable machinery, equipment and construction forces as may be necessary, in the opinion of the Engineer, for the proper prosecution of the work; and failure to do so may cause the Engineer to withhold all estimates which have or may become due, or the Engineer may suspend the work until his requests are complied with.

General Conditions

- 8.4 Temporary Suspension of Work. The Engineer will have authority to suspend the work wholly or in part for such period as he may consider necessary, and the "Time Charge" will be suspended during such period. Notice of such suspension, with the reasons therefor, shall be given the Contractor in writing. The Contractor shall not suspend work without the written authority of the Engineer.
- 8.5 Computation of Contract Time for Completion. The Contractor shall complete the work within the number of working days stated in the contract. For the purpose of computation, working days will be considered thirty (30) days after the date of the authorization by the Engineer to begin work.
- 8.6 Failure to Complete Work on Time. The Contractor shall stipulate in his proposal the number of calendar days to complete the project after award of said contract. Seventy-Five Dollars (\$75.00) per day shall be deducted from the money due the Contractor for each day a resident engineer is required on the job for the purpose of restaking, inspection, or conferences. These days shall be counted only after the completion date as stipulated by the Contractor has elapsed. It will be the responsibility of the Engineer to determine the days of inspection of restaking necessary. Conferences may be called at the discretion of the Owner or the Contractor. The number of days of inspection or resident engineer time beyond the scheduled completion date, will be held to the minimum required for completion of construction in strict accordance with plans and specifications.

It is hereby understood and mutually agreed by and between the Contractor and the Owner, that the date of beginning rate of progress, and the time for completion of the work, to be done hereunder are ESSENTIAL CONDITIONS of this contract; and it is further mutually understood and agreed that the work embraced in this contract shall be commenced on a date to be specified in the work order.

The Contractor agrees that said work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the Owner, that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

IF THE SAID CONTRACTOR SHALL NEGLECT, FAIL OR REFUSE TO COMPLETE THE WORK WITHIN THE TIME HEREIN SPECIFIED, then the Contractor does hereby agree, as a part consideration for the awarding of this contract, to pay to the Owner the amount specified in the contract, not as a penalty, but as liquidated damages for such breach of contract as hereinafter set forth.

The said amount is fixed and agreed upon by and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event

General Conditions

sustain, and said amount is agreed to be the amount of damages which the Owner would sustain and said amounts shall be retained from time to time by the Owner from current periodical estimates.

It is further agreed that time is of the essence of each and every portion of this contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the contract an additional time is allowed for the completion of the work; the new time limit fixed by such extension shall be of the essence of this contract. Provided, that the Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due:

- a. To any preference, priority or allocation order duly issued by the Government;
- b. To unforeseeable cause beyond the control and without the fault or negligence of the Contractor, including, but not restricted to acts of God, or of the public enemy, acts of the Owner, acts of another contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather; and
- c. To any delays of subcontractors or suppliers occasioned by any of the causes specified in sub-sections (a) and (b) of this article.

Provided, further, that the Contractor shall, within seven (7) days from the beginning of such delay, notify the Owner, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify the Contractor within a reasonable time of its decision in the matter.

- 8.7 Abandonment of Work or Default of Contract. If the Contractor fails to begin work within the time specified, or fails to perform the work with sufficient workmen and equipment; or has insufficient materials to insure the completion of the work within the contract time, or shall perform the work unsuitably; or shall neglect or refuse to remove materials or perform anew such work as may have been rejected as being defective or unsuitable; or shall discontinue the prosecution of the work without authority; or shall become insolvent or be declared bankrupt; or shall commit any act of bankruptcy or insolvency; or shall make an unauthorized assignment for the benefit of any creditor; or from any other cause whatsoever, shall not carry on the work in an acceptable manner, the Engineer may give notice in writing to the Contractor of such delay, neglect, or default, specifying the same. In case the Contractor should abandon and fail or refuse to resume work within ten days after written notification from the Owner or the Engineer, or if the Contractor fails to comply with the orders of the Engineer, when such orders are consistent with this Contract, or with this agreement, or with the specifications hereto attached, then, and in that case, the Surety on the bond shall be notified in writing and directed to complete the work, and a copy of said notice shall be delivered to the Contractor.

General Conditions

After receiving said notice of abandonment, the Contractor shall not remove from the work any machinery, equipment, tools, materials, or supplies then on the job, but the same, together with any materials and equipment under contract for the work, may be held for use on the work by the Owner, or the Surety on the construction bond, or another contract, in completion of the work; and the Contractor shall not receive any rental or credit therefor, it being understood that the use of such equipment and materials will ultimately reduce the cost to complete the work and be reflected in the final settlement.

In case the Surety should fail to commence compliance with the notice for completion hereinbefore provided for, within ten days after service of such notice, then the Owner may provide for the completion of the work in either of the following elective manners:

a. The Owner may thereupon employ such force of men and use such machinery, equipment, tools, materials, and supplies as said Owner may deem necessary to complete the work and charge the expense of such labor, machinery, equipment, tools, materials and supplies to said Contractor, and the expense so charged shall be deducted and paid by the Owner out of such moneys as may be due or that may thereafter at any time become due to the Contractor under and by virtue of this agreement. In case such expense is less than the sum which would have been payable under this Contract, if the same had been completed by the Contractor, then said Contractor shall receive the difference. In case such expense is greater than the sum which would have been payable under the Contract, if the same had been completed by said Contractor, then the Contractor and/or his Surety shall pay the amount of such excess to the Owner.

b. The Owner, under sealed bids, after five days' notice, published one or more times in a newspaper having a general circulation in the county of the location of the work, may let the contract for the completion of the work, under substantially the same terms and conditions which are provided for in this Contract. In case of any increase in cost to the Owner under the new contract, as compared to what would have been the cost under this contract, such increase shall be charged to the Contractor, and the Surety shall be and remain bound therefor. However, should the cost to complete any such new contract prove to be less than what would have been the cost to complete under this Contract, the Contractor and/or his Surety shall be credited therewith.

When the work shall have been substantially completed, the Contractor and his Surety shall be so notified and Certification of Completion and Acceptance, as provided in Item 9.6 herein, shall be issued. A complete itemized statement of the contract accounts, certified to by the Engineer as being correct, shall then be prepared and delivered to the Contractor and his Surety, whereon the Contractor and/or his Surety or the Owner, as the case may be, shall pay the balance due as reflected by said statement, within fifteen (15) days after the date of such Certificate of completion.

General Conditions

In the event the statement of accounts shows that the cost to complete the work is less than that which would have been the cost to the Owner had the work been completed by the Contractor under the terms of this contract; or when the Contractor and/or his Surety shall pay the balance shown to be due by them to the Owner, then all machinery, equipment, tools, and materials or supplies left on the site of the work shall be turned over to the Contractor and/or his Surety. Should the cost to complete the work exceed the contract price, and the Contractor and/or his Surety fail to pay the amount due the Owner within the time designated hereinabove, and there remains any machinery, equipment, tools, materials or supplies on the site of the work, notice thereof, together with an itemized list of such equipment and materials shall be mailed to the Contractor and his Surety at the respective addresses designated in this contract; provided, however, that actual written notice given in any manner will satisfy this condition. After mailing, or other giving of such notice, such property shall be held at the risk of the Contractor and his Surety, subject only to the duty of the Owner to exercise ordinary care to protect such property. After fifteen (15) days from the date of said notice, the Owner may sell such machinery, equipment, tools, materials, or supplies and apply the net sum derived from such sale to the credit of the Contractor and his Surety. Such sale may be made at either public or private sale with or without notice as the Owner may elect. The Owner shall release any machinery, equipment, tools, materials or supplies which remain on the work and belong to persons other than the Contractor or his Surety, to their proper owners.

8.8 Abandonment by Owner. In case the Owner shall fail to comply with the terms of this contract and should fail or refuse to comply with said terms within ten (10) days after written notification by the Contractor, then the Contractor may suspend or wholly abandon the work and may remove therefrom all machinery, tools and equipment and all materials on the ground that have not been included in payments to the Contractor and have not been brought in to the work. And thereupon the Engineer shall make an estimate of the total amount earned by the Contractor, which estimate shall include the value of all the work actually completed by said Contractor at the prices stated in the attached proposal, the value of all partially completed work at a fair and equitable price, and the amount of all extra work performed at the prices agreed upon or provided for by the terms of this Contract, and a reasonable sum to cover the cost of any provisions made by the Contractor to carry the whole work to completion and which cannot be utilized. The Engineer shall then make a final statement of the balance due the Contractor by deducting from the above estimate all previous payments by the Owner and all other sums that may be retained by the Owner under the terms of this Agreement and shall certify same to the Owner who shall pay to the Contractor on or before thirty (30) days after the date of the notification by the Contractor the balance shown by said final statement as due the Contractor under the terms of this agreement.

General Conditions

- 8.9 Time of Filing Claims. It is further agreed by both parties hereto that all questions of dispute or adjustment presented by the Contractor shall be in writing and filed with the Engineer within a reasonable time after the Engineer has given any directions, orders, or instructions to which the Contractor desires to take exception. The Engineer shall reply to such written exceptions by the Contractor and render his final decision in writing. In case the Contractor should appeal the Engineer's decision, any demand for arbitration shall be filed with the Engineer and the Owner in writing within ten (10) days after the date of the Engineer's final decision. It is further agreed that final acceptance of the work by the Owner and the acceptance by the Contractor of the final payment shall be a bar to any claims by either party.

ITEM 9

MEASUREMENT AND PAYMENT

- 9.1 Measurement of Quantities. All work completed under the contract will be measured by the Engineer according to the United States Standard Measures unless otherwise specified. In measurement of pipe for water, sewer and gas lines, no deductions will be made for fittings or accessories. All measurements of volume will be neat dimensions and shall not exceed those shown on plans or ordered in writing by the Engineer. All measurements by weight shall be actual weights.
- 9.2 Scope of Payment. The Contractor shall accept the compensation as provided in the Contract, in full payment for furnishing all materials, supplies, labor, tools and equipment necessary to complete the work under the Contract; for any loss or damage which may arise from the nature of the work, from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the work, until the final acceptance by the Engineer, except where such damage is clearly shown to be due to inadequate design and not to improper prosecution of the work; for all risks of every description connected with the prosecution of the work; for all expenses incurred in consequence of the suspension or discontinuance of the work herein specified; for any infringement of patent, trademark or copyright; and for completing the work according to the Plans and Specifications. The payment of any current for partial estimate shall in no way affect the obligation of the Contractor at his own cost to repair or renew any defective parts of the construction or to replace any defective materials used in the construction or to replace any defective materials used in the construction and to be responsible for all damage due to such defects, if such defects or damages are discovered on or before the final inspection and acceptance of the work.
- 9.3 Payment and Compensation for Altered Quantities. When alterations in plans or quantities of work not requiring supplemental agreements, as hereinbefore provided for, are ordered and performed, the Contractor shall accept payment in full at the contract unit prices for actual quantities of work performed and materials furnished, and no allowance will be made for anticipated profits.

General Conditions

- 9.4 Payment for Extra Work. Extra work ordered, performed and accepted will be paid for according to the terms of the "Supplemental Agreements" which will be made at the time the work is ordered.
- 9.5 Partial Payments. The Engineer each month will make an approximate estimate in writing of the materials in place and the amount of work performed and the value thereof at the Contract unit prices. From the total amount so ascertained will be deducted ten (10) percent to be retained until after the completion of the entire work to the satisfaction of the Engineer, and the remaining ninety (90) percent of the amount so ascertained will be paid within ten (10) days by the Owner to the Contractor less such amounts as may be required by law to be retained. In addition to the above and upon presentation of certified copies of invoices and freight bills, an estimate shall be made for payment of seventy-five (75) per cent of the value of acceptable reinforcing steel, structural steel, stone, gravel, sand pipe and accessories or any other non-perishable materials delivered on the work or in acceptable storage places and which have not been used in the work prior to such estimate.
- No estimate other than a final estimate will be made where the value of the work performed since the past preceding estimate is less than \$1,000.00.
- 9.6 Final Completion and Acceptance. Within ten (10) days after the Contractor has given the Engineer written notice that the work has been completed or substantially completed, the Engineer and the Owner shall inspect the work and within said time if the work be found to be completed or substantially completed in accordance with the Plans and Specifications, the Engineer shall issue to the Owner and the Contractor his Certificate of Completion, and thereupon it shall be the duty of the Owner within said ten (10) days to issue a Certificate of Acceptance of the work to the Contractor.
- 9.7 Final Payment. Upon the issuance of the Certificate of Completion, the Engineer shall proceed to make final measurements and prepare final statement of the value of all work performed and materials furnished under the terms of the agreement and shall certify same to the Owner, who shall pay to the Contractor on or before the fifteenth (15th) day after the date of the Certificate of Completion, the balance due the Contractor under the terms of this agreement, provided he has fully performed his contractual obligations under the terms of this Contract; and said payment shall become due in any event upon said performance by the Contractor.
- 9.8 Delayed Payments. Should the Owner fail to make payment to the Contractor of the sum named in any partial or final statement, when payment is due, then the Owner shall pay the Contractor, in addition to the sum shown as due by such statement, interest thereon, at the rate of six (6) per cent per annum from date due, as provided in Item 9.5 and Item 9.7, until fully paid, which shall fully liquidate any injury to the Contractor growing out of such delay in payment but the right is expressly reserved to the Contractor, in the event payments are not promptly made, as provided in Item 9.5, to at any time thereafter treat the Contract as abandoned by the Owner, and recover compensation, as provided in Item 8.8 of this contract.

1. I, the undersigned, hereby certify that

Dollars (\$ _____), for the payment of

which sum said and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, assigns, administrators, executors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for _____

Now, THEREFORE, if the Obligor shall accept the bid of the Principal and the Principal shall enter into a contract with the Obligor in accordance with the terms of such bid, and all such bond or bonds as may be provided in the bidding or contract documents with interest and costs to be paid by the Principal performance of such contract and for the prompt payment of debts and liabilities incurred in the prosecution thereof, or in the event of the default of the Principal in any such contract and give such bond or bonds, if the Principal shall pay to the Obligor the amount not to exceed the penalty bond because the amount provided for such bond or bonds is less than the amount for which the Obligor may be paid and covered with a valid bond to perform the work covered by said bid, then this shall nevertheless be well and lawful, notwithstanding its form and effect.

Signed and sealed this _____ day of _____ A.D., 19 _____

_____) _____ (Seal)
_____) (Principal)
_____) _____
_____) (Title)

_____) _____ (Seal)
_____) (Surety)
_____) _____
_____) (Title)

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That _____,
(here insert the name and address or legal title of the Contractor)

as Principal, hereinafter called Contractor, and _____

(here insert the legal title of Surety)

as Surety, hereinafter called Surety, are held and firmly bound unto _____

(here insert the name and address or legal title of the Owner)

as Oblige, hereinafter called Owner, in the amount of _____

_____ Dollars (\$ _____),
for the payment whereof Contractor and Surety bind themselves, their heirs, executors,
administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____
entered into a contract with Owner for _____

in accordance with drawings and specifications prepared by _____

Schmucker, Shaffar and Paul
which contract is by reference made a part hereof, and is hereinafter referred to as the
Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor
shall promptly and faithfully perform said contract, then this obligation shall be null and
void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the Owner.
Whenever Contractor shall be, and declared by Owner to be in default under the Contract,
the Owner having performed Owner's obligations thereunder, the Surety may promptly
remedy the default, or shall promptly:

- (2) Obtain a bid or bids for submission to Owner for completing the Contract in accordance with its terms and conditions, or

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the contract falls due.

Signed and sealed this _____ day of _____ A.D. 19 _____

(Principal) (Seal)

(Title)

(Surety) (Seal)

(Title)

LABOR AND MATERIAL PAYMENT BOND

Note: This bond is issued simultaneously with another bond in favor of the owner conditioned for the full and faithful performance of the contract.

KNOW ALL MEN BY THESE PRESENTS:

That _____
(here insert the name and address or legal title of the Contractor)

as Principal, hereinafter called Principal, and _____

_____ (here insert the legal title of Surety)

as Surety, hereinafter called Surety, are held and firmly bound unto _____

_____ (here insert the name and address or legal title of the Owner)

as Obligor, hereinafter called Owner, for the use and benefit of claimants as hereinbelow defined, in the amount of _____

(here insert a sum equal to or least one-half of the Dollars (\$ _____).

contract price)

for payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal lies by written agreement dated _____
entered into a contract with Owner for _____

_____ In accordance with drawings and specifications prepared by Schmucker, Shaffer and Paul, Consulting Engineers, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and materials used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is defined as one having a direct contract with the Principal or with a subcontractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.

2. The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor

was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any costs or expenses of any such suit.

3. No suit or action shall be commenced hereunder by any claimant.

(a) Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to any two of the following: The Principal, the Owner, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer.

(b) After the expiration of one (1) year following the date on which Principal ceased work on said contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

(c) Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.

4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

Signed and sealed this _____ day of _____ A.D., 19 _____

IN THE PRESENCE OF:

_____	{ _____ (Principal) _____ (Seal)
_____	{ _____ (Title) _____
_____	{ _____ (Surety) _____ (Seal)
_____	{ _____ (Title) _____

o o o

APPLICATION FOR PAYMENT

ENGINEER'S JOB NO. _____ CONTRACTOR'S APPLICATION NO. _____

TO _____ PERIOD FROM _____ TO _____
(Owner)

APPLICATION IS MADE FOR PAYMENT, AS SHOWN BELOW, IN CONNECTION WITH THE
 _____ WORK FOR YOUR _____
 _____ PROJECT

[illegible]

This is to certify that the work as listed above has been completed in accordance with the Contract Documents. That all lawful charges for labor, materials, etc., covered by previous certificates for payment have been paid and that a payment is now due in the amount of _____ DOLLARS (\$ _____) from which retainage of _____ % as set out in the Contract Documents shall be deducted.

DATE 19

CONTRACTOR

Per

CERTIFICATE FOR PAYMENT

ISSUE DATE _____

CERTIFICATE NO. _____

TO _____ OWNER

THIS IS TO CERTIFY that in accordance with your contract dated _____

19_____, Contractor for _____

is entitled to the _____ payment which is for the period _____, 19____,

through _____, 19____, in the amount of : _____

_____ Dollars (\$ _____). The present status of the account for the

above contract is as follows:

ORIGINAL CONTRACT SUM \$ _____

	Additions	Deductions
Change Order approved in previous months by Owner - Total	\$ _____	\$ _____

Change Order No. _____	_____	_____
Change Order No. _____	_____	_____
Change Order No. _____	_____	_____
Totals	\$ _____	\$ _____

Total Additions	\$ _____
Sub Total	\$ _____
Total Deductions	\$ _____

This is to certify that all bills are paid for which previous certificates for payment were issued

TOTAL OF CONTRACT TO DATE

Contractor _____	Work to finish (this date)	\$ _____
------------------	----------------------------	----------

By _____	Due Contractor to date	\$ _____
----------	------------------------	----------

Date _____ 19____	Less Retainage %	\$ _____
-------------------	------------------	----------

Total to be drawn to date	\$ _____
---------------------------	----------

THIS CERTIFICATE	\$ _____
------------------	----------

CERTIFICATE APPROVAL

OWNER _____

BY _____

Date _____

FARMERS HOME ADMINISTRATION

By _____

SCHMUCKER, SHAFFER & PAUL

Engineer

Date _____ 19____

By _____

This certificate is based on the estimated amount of work complete in the period covered and any retainage shown is deducted therefrom. This certificate is not negotiable, it is payable only to the payee named herein and its issuance, payment and acceptance are without prejudice, to any rights of the Owner or Contractor under their contract.

State _____

CONTRACT CHANGE ORDER

County _____

Order No. _____

Contract For _____

Dated _____

Owner _____

To _____

(Contractor)

You are hereby requested to comply with the following changes from the contract plans and specifications:

Description of Changes	Decrease in	Increase in
	Contract Price	Contract Price
	\$ _____	\$ _____

TOTALS

\$ _____

\$ _____

NET CHANGE IN CONTRACT PRICE

\$ _____

\$ _____

Justifications:

The sum of \$ _____ is hereby _____ the total contract price. (added to) (deducted from)

The time provided for completion is _____ by _____ working days. (added to) (decreased) (not changed)

This document will become a supplement to the contract and all provisions of the contract will apply hereto.

Requested _____

(Owner)

(date)

Accepted _____

(Contractor)

(date)

Approved _____

Schmucker, Shaffer & Paul

(date)

Approved _____

(FHA Engineer)

(date)

United States Department of Agriculture
Farmers Home Administration

EQUAL OPPORTUNITY CLAUSE

During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited, to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment notices to be provided by the Government setting forth the provisions of this nondiscrimination clause.
2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.
3. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Government, advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The contractor will comply with all provisions of Executive Order No. 10925 of March 6, 1961, as amended by Executive Order 11114 of June 22, 1963, and of the rules, regulations, and relevant orders of the President's Committee on Equal Employment Opportunity created thereby.
5. The contractor will furnish all information and reports required by such Executive Orders and by the rules, regulations, and orders of the said committee, or pursuant thereto, and will permit access to his books, records and accounts by the Government and the Committee for purposes and investigation to ascertain compliance with such rules, regulations and orders.
6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further contracts in accordance with procedures authorized in said Executive Orders and such other sanctions may be imposed and remedies invoked as provided in the said Executive Order or by rule, regulation, or order of the President's Committee on Equal Employment Opportunity, or as otherwise provided by law.

7. The contractor will include the provisions of paragraphs 1. through 7. in every subcontract or purchase order unless exempted by rules, regulations, or orders of the President's Committee on Equal Employment Opportunity issued pursuant to such Executive Orders so that such provisions will be binding upon each such subcontractor or vendor. The contractor will take such action as the Government may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event the contractor become involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Government, the contractor may request the United States to enter into such litigation to protect the interest of the United States.

The provisions of this equal opportunity clause are not applicable to any contract not exceeding \$10,000.

Date

Contractor

AGREEMENT

THIS AGREEMENT, made as of the _____ day of _____, 1965,
by and between City of Oldham, South Dakota, hereinafter called the OWNER, and

_____, hereinafter called the CONTRACTOR,

WITNESSETH, That whereas the Owner intends to Construct a Municipal Wall hereinafter called the PROJECT, in accordance with the Specifications and other Contract Documents prepared by Schmuckor, Shaffer and Paul, Consulting Engineers.

NOW, THEREFORE, The OWNER and CONTRACTOR for the considerations hereinafter set forth, agree as follows:

ARTICLE 1. SCOPE OF WORK: The Contractor agrees to furnish all the necessary labor, materials, equipment, tools and services necessary to perform and complete in a workmanlike manner all work required for the construction of the Project, in strict compliance with the Contract Documents herein mentioned which are hereby made a part of the Contract, including the following Addenda:

No. _____ Dated _____

No. _____ Dated _____

ARTICLE 2. ALTERNATES: The following Alternates have been accepted and become a part of the Contract Work:

ARTICLE 3. TIME OF COMPLETION: The work to be performed under this Contract shall be commenced within _____ calendar days after the Contractor has been notified of the approval of the Contract, and shall be completed within _____ calendar days of the commencement of the Contract Time as defined in the Special Conditions of the Contract.

ARTICLE 4. THE CONTRACT SUM: The Owner agrees to pay, and the Contractor agrees to accept, in full payment for the performance of this Contract, subject to additions and deductions provided therein, the Contract amount of:

\$ _____

ARTICLE 5. PROGRESS PAYMENTS: The Owner makes progress payments as follows: On or about the tenth day of each month, 85 percent of the value, based on the Contract Prices,

labor, materials, incorporated in the work; materials furnished by the Contractor suitably stored at the site thereof up to the first day of the month, as estimated by the Engineer, less the aggregate of the previous payments; and upon substantial completion of the entire work, a sum sufficient to increase the total payments to 85 percent of the Contract Price.

ARTICLE 6. CHANGE ORDERS - EXTRA WORK: All extra work and changes, alterations, and modifications in the Contract Work and extensions of time will be ordered and/or approved by the Owner on the standard change order form attached and must be approved by the Engineer or his representative, and the Engineer for the Farmers Home Administration. Such Change Orders and extra work must be approved before changes are made.

ARTICLE 7. WAIVERS: Waiver of any provisions or specifications or any part of this contract cannot be made without prior recommendation of the Architect and written approval of the Owner and the Engineer for the Farmers Home Administration. Approval of waivers will be made on the standard change order form.

ARTICLE 8. ACCEPTANCE: Final inspection and acceptance of the work shall be made by the OWNER, The Engineer in collaboration with the Engineer for the Farmers Home Administration. Such inspection shall be made as soon as practical after the contractor has notified the owner in writing that the work is ready for inspection.

ARTICLE 9. FINAL ESTIMATE AND PAYMENT: Upon the completion and acceptance of the work the Engineer shall issue a certificate that the whole work provided for in this Contract has been completed and accepted by him under the conditions and terms thereof, and shall make the final estimate of work. The final estimate of work must be checked and approved by the Engineer for the Farmers Home Administration. Whereupon the entire balance found to be due the contractor shall be paid to the contractor by the Owner in accordance with existing state laws. Before the approval of the final estimate, the contractors shall submit evidence satisfactory to the Owner and the Farmers Home Administration all payrolls, material bills, and outstanding indebtedness in connection with this contract have been paid.

The making and acceptance of the final payment shall constitute a waiver of all claims by the Owner, other than those arising from unsettled liens, from faulty work appearing after final payment, or from requirements of the specifications, and of all claims by the contractor except those previously made and still unsettled.

If, after the work has been substantially completed, full completion thereof is materially delayed through no fault of the Contractor, and the Engineer so certified, the Owner shall upon certificate of the Engineer and without terminating the Contract, make payments of the balance due for that portion of the work fully completed and accepted. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

ARTICLE 10. SUBCONTRACTORS: The contractor agrees that the subcontractors listed

in the Proposal will not be changed except at the request or with the approval of the Engineer. The contractor is responsible to the Owner for the care and confusion of his subcontractors, and of their direct and indirect employees, to the same extent as he is responsible for the acts and omissions of his employees. The Contract Documents shall not be construed as creating any contractual relation between the Owner and any subcontractor. The Contractor shall bind every subcontractor by the terms of the Contract Documents.

ARTICLE 11. CONTRACT DOCUMENTS: The Contract comprises the Contract Documents listed below. In the event that any provision of one Contract Document conflicts with the provision of another Contract Document, the provision in that Contract Document first listed below shall govern, except as otherwise specifically stated:

- a. Agreement (This instrument).
- b. Addenda to Contract Documents.
- c. Remaining Legal and Procedural Documents
 1. Proposal
 2. Advertisement
- d. Special Conditions
- e. Detailed Specification Requirements.
- f. Bonds
 1. Performance Bond
 2. Labor and Material Payment Bond
 3. Proposal Guaranty
- g. General Conditions of the Contract
- h. Drawings.
- i. Equal Opportunity Clause, Form FHA 400-1

ARTICLE 12. AUTHORITY AND RESPONSIBILITY OF THE ENGINEER: All work shall be done under the general supervision* of the Engineer. The Engineer shall decide any and all questions which may arise as to the quality and acceptability of materials furnished, work performed, rate of progress of work, interpretation of Drawings and Specifications and all questions as to the acceptable fulfillment of the Contract on the part of the Contractor.

ARTICLE 13. SUCCESSORS AND ASSIGNS: This Agreement and all of the covenants hereof shall inure to the benefit of and be binding upon the Owner and the Contractor respectively and his partners, successors, assigns and legal representatives. Neither the Owner nor the Contractor shall have the right to assign, transfer or sublet his interests or obligations hereunder without written consent of the other party.

ARTICLE 14. SPECIAL PROVISIONS: The Owner and the Contractor mutually agree that this Agreement shall be subject to the following Special Provisions, which shall supersede other conflicting provisions of this Agreement:

1. This Contract is invalid unless approved by the Administrator of the Farmers Home Administration or his delegate. Unless otherwise determined by the Administrator or the State Director, the person who will counter-sign

*Supervision to be defined as: Overseeing as pertaining to quality of materials and conformance to plans and specifications.

checks of the Owner payable under this Contract will approve this Contract as the authorized delegate of the Administrator and the State Director.

2. As lender or insurer of funds to defray the cost of this contract, and without liability for any payments thereunder, the Farmers Home Administration hereby concurs in the award of this contract to _____.

Approved:

U. S. Department of Agriculture
Farmers Home Administration

By _____

Title Engineer

ARTICLE 15. IN WITNESS WHEREOF, the parties have made and executed this Agreement, the day and year first above written.

ARTICLE 16. IN WITNESS WHEREOF, the parties have made and executed this Agreement, the day and year first above written.

Owner _____

Contractor _____

By _____

By _____

Title _____

Title _____

Business Address _____

Business Address _____

oOo

SECTION 200

GENERAL DRILLING PROCEDURE

1. Pipe. All pipe to be placed permanently in the well shall be new. The pipe lengths shall be straight, the ends of the pipe shall not be bent and the threads and couplings shall be undamaged.
2. Joints. All joints shall be watertight. Couplings shall be screwed to refusal; no loose, cracked, or poorly threaded joints shall be permitted.
3. Pipe Weight.

8" Black Steel Pipe	Schedule 40	28.55 lbs./ft.
6" Black Steel Pipe	Schedule 40	19.18 lbs./ft.
4. Drilling. All drilling under this contract shall be paid for by the foot. The bid price for drilling shall include all labor, material, set-up time, tools and equipment to properly bore the well in accordance with the attached contract, specification, and drawings. All boring or drilling shall be true and vertical with a maximum allowable deviation of 2 degrees.
5. Casing. Casing material shall be black iron pipe. The weight of the casing shall be as given under item 3, "Pipe Weights".
6. Plumbness and Alignment. All holes shall be constructed and all casing set round, plumb and true to line as defined herein. To demonstrate the compliance of his work with this requirement the contractor shall furnish all labor, tools and equipment and shall make the tests described herein in the manner prescribed by, and to the satisfaction of, the Engineer. Tests for plumbness and alignment shall be made after the complete construction of the well and prior to its acceptance. Additional tests may be made by the Contractor at any time. No specific payment shall be made by the Owner for these tests.

Plumbness and alignment shall be tested by lowering into the well to a depth of 400 feet a section of pipe 40 feet long, or a dummy of the same length. The outer diameter of the plumb shall not be more than 1/2" smaller than the diameter of the casing. If a dummy is used, it shall consist of three (3) rings on a rigid spindle 40 feet long. The rings shall be truly cylindrical, 12 inches wide, and spaced one each end and one in the center of the spindle.

Should the dummy fail to move freely throughout the length of the casing or hole, to a depth of 400 feet, or should the well casing be more than two (2) degrees out of plumb, the plumbness and alignment shall be corrected by the contractor at his expense.

7. Setting the Casing. The casing shall be centered in the bore hole by approved centralizers attached to the 8" casing no farther apart than 100 feet. The annular space between the casing and the bore hole shall be at least 3/4 of an inch.
8. Grouting. The casing shall be pressure grouted from the surface to the top of the water producing formation.

The cement grout shall be placed in the annular space between the outside of the casing and the sides of the hole. The grouting is to be completed and allowed to set for 72 hours before drilling is continued. With quick-setting cement this period may be reduced to 48 hours. The grouting shall be completed before any drilling is started into the producing artesian aquifer.

The grouting shall be done by pumping the grout through the inside of the casing and forcing it up around the outside of the casing. In no case shall the grout be placed by allowing it to fall by gravity around the outside of the casing. The initial grout pumped into the bore hole shall be wasted in order to provide that the grout left in place is reasonably clean. The Engineer shall be notified prior to grouting.

Grout shall be proportioned of cement and the minimum quantity of water required to give a mixture of such consistency that it can be forced through the grout pipes. The cement shall be Portland Cement and each cubic foot of cement shall be mixed with a maximum of 5-1/2 gallons water. With approval of the Engineer, the contractor may use up to three per cent (3%) roughage or lubricating material such as "Jellflake", "Cellulose Flakes" or "Aqua Jell". The mixture, method of mixing, consistency of grout and method of grouting shall be approved by the Engineer.

The minimum average thickness of the cement grout in place shall be 3/4 of an inch.

SECTION 001

SUBMERSIBLE TURBINE PUMP SEMI-OPEN IMPELLER AND WATER LUBRICATED MOTOR

1. Submersible Pitless Discharge Head:

The contractor shall furnish and install at the lump sum figure bid one submersible pitless discharge head for the well. The unit will fit on 8" diameter, or 6" diameter well casing. The discharge pipe diameter shall be 4 inches, said discharge to be a flanged fitting drilled for a standard 4 inch flange.

2. The unit shall extend 24 inches above natural ground to allow for a final gravel fill by others. The depth of cover from center line of discharge to the ground surface shall be 5'-6".

3. The unit shall be as manufactured by the Water Development Manufacturing and Supply Company, Box 1376, Des Moines, Iowa, or approved equal.

4. General Requirements:

These specifications are intended to cover the furnishing of a complete submersible motor-driven vertical turbine pump for Municipal Well at Okham, South Dakota, installation will be made by bidder.

5. Operating Conditions:

The following are the operating conditions for the pumping unit:

Size of well (inside diameter)	8 inches
Depth of well	1054 feet
Static water level below top of well	265 feet
Pumping level below top of well	315 feet estimated
Pumping head above top of well	20 feet
Total pumping head	335 feet
Capacity of pump	150 GPM

Final pumping head and setting to be determined upon completion of test pumping by well contractor. Base bid on above conditions.

6. Bowl Assembly:

The impellers shall be of the semi-open type and shall be bronze. They shall be accurately fitted, smoothly finished and suitably balanced to give smooth efficient operation. The bowls shall be constructed of close-grained cast iron having a minimum tensile strength of 35,000 psi, shall be free from blow holes, sand holes, and all other faults, and shall be accurately machined and fitted to close dimensions. The pump shaft shall be of Type 416 steel. Bearings shall be a combination of bronze and rubber, and shall be easily renewable. The bowl assembly shall be equipped with a suitable steel strainer at the suction intake.

7. Column Pipe Assembly:

The column pipe shall be double flange end pipe with the standard type steel couplings and shall be welded on the inside and outside by 1/2 inch.

8. Submersible Motor:

The motor shall be of the vertical, oil-washable squirrel cage, 2 pole induction type designed for continuous duty under motor operation on 115 volt, 60 cycle, 240 volt churning current. The motor shall be designed with normal starting torque and low starting current for across-the-line starting. The motor shall have a 1:75 service factor. The motor shall not be loaded in excess of 110% of its nameplate rating within the normal operating range of the pump. Motor and pump shall be manufactured by the same manufacturer in order to assure properly integrated design, and have single responsibility for the whole unit under warranty. The manufacturer shall state whether or not special baffling is required to direct the flow around and past the motor for adequate cooling of the motor. Such baffling shall be designed so that it will be a part of the pump and motor assembly. The motor shall be enclosed in a water housing. Means shall be provided for circulating the water within the motor for adequate heat distribution and heat transfer. A suitable seal shall be provided to limit interchange of well water with the water in the motor. A protective sand collar shall be provided to prevent accumulation of abrasives around the seal when the unit is stopped.

Any difference in pressure between the well water and water in the motor shall be equalized through the action of a neoprene diaphragm at the bottom of the motor. The use of a check valve for the equalizing of pressures will not be permitted. The motor shall be designed in accordance with the latest standards of the A.S.A. and N.E.M.A. for the class of insulation used. The motor shall be provided with a pivot-sleeve type thrust bearing of ample size to carry the hydraulic thrust of the pump under all operating conditions. An adequate upthrust bearing arrangement shall be provided.

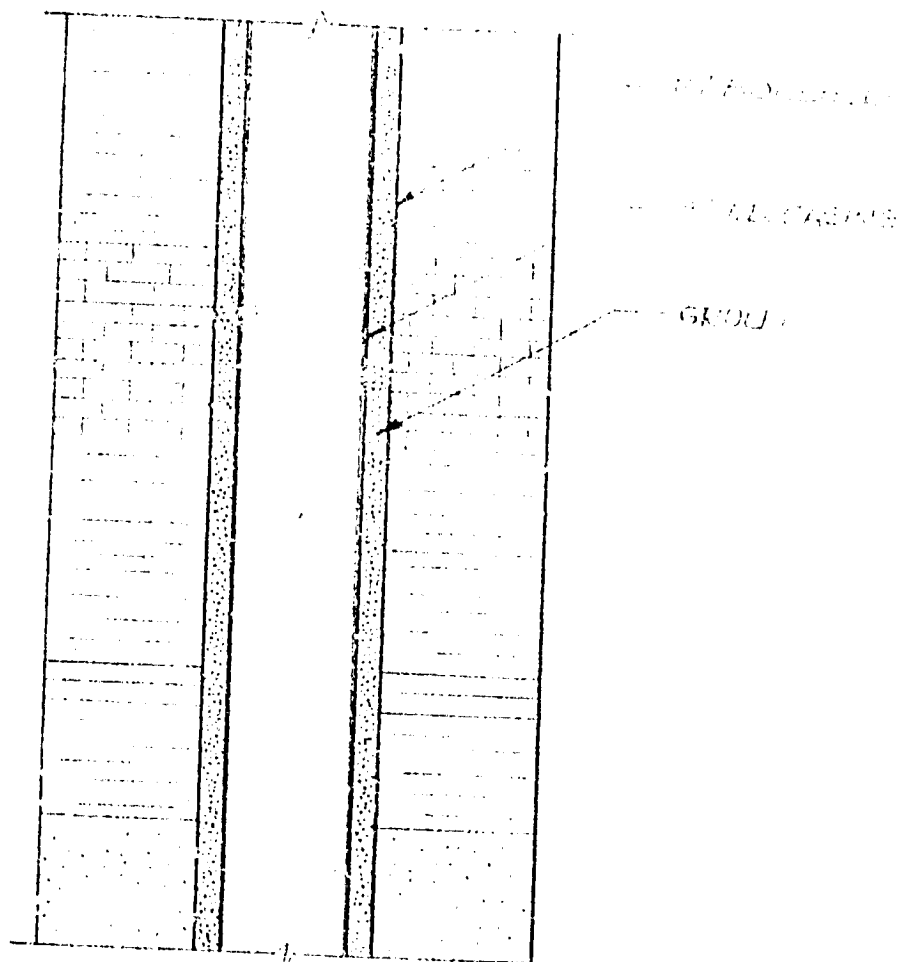
All parts of the motor in contact with the well water shall be stainless steel and/or bronze.

9. Power Cable:

The power cable to the motor shall be impervious to moisture in addition to having high abrasion resistance. The cable shall be protected with a steel guard where it passes by the bowl assembly to prevent damage from contact with the well casing. A cast iron or welded steel weatherproof terminal box shall be furnished and installed on top of the bowl plate. The cable terminal box at the terminal box shall be provided with terminal lugs. The cable size shall be such that the voltage drop does not exceed 3% between the starter and the motor. Stainless steel cable clamps shall be provided to secure the cable along the column pipe at intervals of not more than 20 feet.

10. Base:

The supporting base plate shall be of ample size to carry the complete weight of the suspended parts plus the hydraulic load with a good margin of safety. The base plate shall be provided with eye-bolts of suitable size to support the suspended equipment safely during installation and servicing operations. Two 1/2" taper openings shall be provided to permit the installation of an air line and to allow the well to "breathe" properly during starting and stopping of the pump.



TYPICAL WELL SECTION

SCALE: $1\frac{1}{2}" = 1'-0"$

SCHMUCKER, SHAFFER & PAUL — MITCHELL, SOUTH DAKOTA