

CITY OF NEWBERG  
CITY RECORDER INDEX NO. 1085

CITY OF NEWBERG  
414 E. First St.  
Newberg, Oregon

FILE COPY

(P)

**CITY OF NEWBERG  
OREGON**

**CONTRACT DOCUMENTS  
FOR THE CONSTRUCTION OF AN  
EIGHT INCH (8") DIAMETER PIPELINE  
FROM ELLIOT ROAD TO  
COUNTY ROAD NO. 59  
(GROWERS AVENUE)**

**JULY 1969**

# CITY OF NEWBERG

414 EAST FIRST STREET

TELEPHONE 538-3921

NEWBERG, OREGON 97132

Addendum No. 1  
to the  
Contract Documents for the  
Construction of an eight-inch (8")  
diameter pipeline from Elliot Road  
to County Road No. 59 (Growers Avenue)

July 25, 1969

To all planholders:

Gentlemen:

The following changes, additions, and/or deletions are made a part of the contract documents for the construction of an eight-inch (8") diameter pipeline from Elliot Road to County Road No. 59 (Growers Avenue) known as water project 1969-2, City of Newberg, Oregon, dated July 1969, as fully and completely as if the same were fully set forth therein:

## 1. SPECIAL SPECIFICATIONS

a. Page 4, C. WORKMANSHIP, Insert the following paragraph before the section "REMOVAL OF TOPSOIL":

"REMOVAL AND REPLACEMENT OF SOD. Remove and replace sod where shown. Sod shall be removed before excavating the trench. The width of the sod removed shall be 12 inches wider than the width of the trench. After the trench has been backfilled, the sod shall be replaced so the ground surface is restored to its original condition. The sod shall be kept watered during the construction as directed."

b. Page 4, C. WORKMANSHIP, Delete the section "REMOVAL OF TOPSOIL" as written and substitute the following:

"REMOVAL OF TOPSOIL. In all cases, where trenches cross lawns, landscaped areas, or other areas on which reasonable topsoil conditions exist, first remove the topsoil for a depth of 12 inches for the full width of the trench to be excavated. Stockpile this topsoil to one side of the right-of-way and do not mix with the

remaining excavated material. Replace the topsoil in the top 12 inches of the backfilled trench. Minimum finished depth of topsoil over all trenches shall be 10 inches. In lieu of stockpiling the top 12 inches of soil, approved loam topsoil from borrow pits may be substituted in the top 12 inches. Maintain the finished grade of the topsoil over the center line of the trench level with the immediate area bordering the trench until final acceptance by the Engineer. Correct all damage to adjacent topsoil caused by trenching or pipe-laying operations by regrading, removal of all rock, gravel, clay, and other foreign materials from the surface, and by the addition of topsoil when required."

c. Page 6, first paragraph, third line: Change "mis" to "mix".

d. Page 6, TRENCH EXCAVATION AND BACKFILL. Insert the following section after the third paragraph, "CLASS E BACKFILL":

"D. PAYMENT. Payment for the work specified in this section will be made at the unit prices stated in the Contractor's Proposal. Payment shall be considered full compensation for all work specified under this section."

"MEASUREMENT FOR FOUNDATION STABILIZATION. Measurement will be based upon individual trip tickets of actual truck measure furnished the Engineer for cubic yards used under this item. Trip tickets shall be presented to the Engineer for his signature on the day the material is delivered. No payment will be allowed on trip tickets not so validated by the Engineer. Payment for this item shall be considered full payment for all materials, labor, equipment, and incidentals necessary to furnish materials at trench side and for placing it in the trench and for the extra depth of trench excavation required below flow line grade to provide for a stable base for the pipe. This item is to provide for unstable base encountered in the progress of the work and shall be used only under the direction of the Engineer."

e. Page 6, 2B. SURFACE RESTORATION, A. SCOPE, second paragraph: Delete the words "sewer and" in the third line.

f. Page 7, C. WORKMANSHIP, REMOVAL OF PAVEMENT, SIDEWALK, CURBS, AND GUTTERS: Delete reference to "sidewalk, curbs, and gutters".

g. Page 9, D. PAYMENT: Delete the third paragraph, "Payment . . replaced."

h. Page 9, D. PAYMENT, fourth paragraph: Delete the remainder of the paragraph after the word "foot" in the third line.

i. Page 12, first paragraph, last line: Delete the word "Cory" and substitute the words, "Mueller (improved type)".

j. Page 12, HYDRANT EXTENSIONS, last line: Delete the period and add: "or as approved."

k. Page 24, 15E. SERVICE CONNECTION TRANSFER, B. MATERIALS: Delete the section "Plastic Pipe and Fittings" and substitute the following:

"Copper Pipe. Copper pipe shall be flexible, type K and shall conform to ASTM B 88."

l. Page 24, Corporation Stop: Delete this specification as written and substitute the following:

"The corporation stop shall have iron pipe inlet threads and a copper outlet and shall be suitable for use with a service saddle. Manufacturer shall be Mueller Company, or as approved."

m. Page 24, After the item titled, "Corporation Stop", insert the following items:

"Straight Coupling. The straight coupling shall be copper to inside iron pipe threads similar to Mueller H-15450 or approved equal."

"Reducing Bushing. The reducing bushing shall be a nylon 1-inch iron pipe to 3/4-inch iron pipe threads nylon bushing similar to Smith-Blair 303 or approved equal."

"Nipple. The 3/4-inch nipple shall be of galvanized iron."

2. PLANS, sheet 3 of 3, Service Connection Transfer - Detail L: Delete the detail as shown and substitute the attached revised detail.

All bidders shall acknowledge receipt and acceptance of this Addendum No. 1 by signing in the space provided and submitting the signed addendum with the bid. Bids submitted without this addendum will be considered informal.

Sincerely,

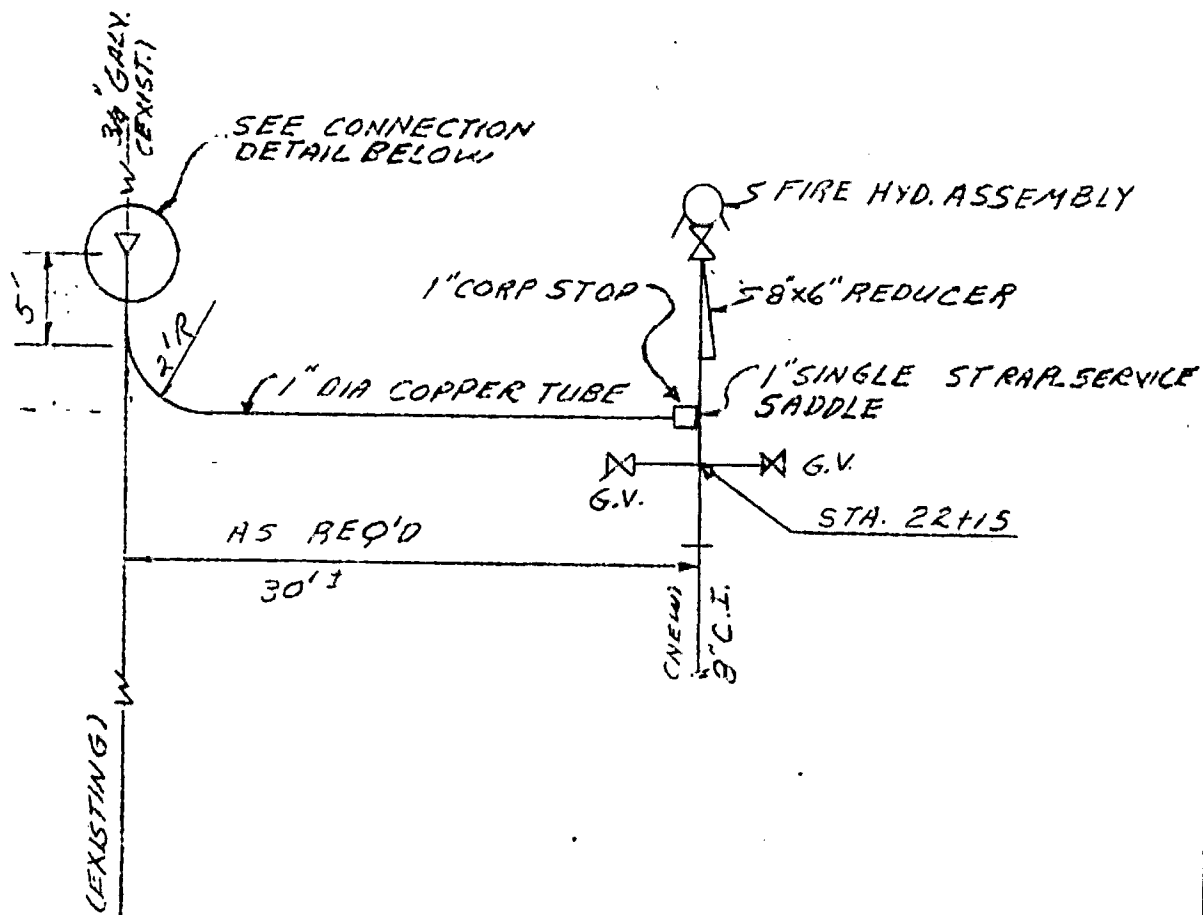
City of Newberg

Gustav H. Bliesner, P.E.  
City Engineer

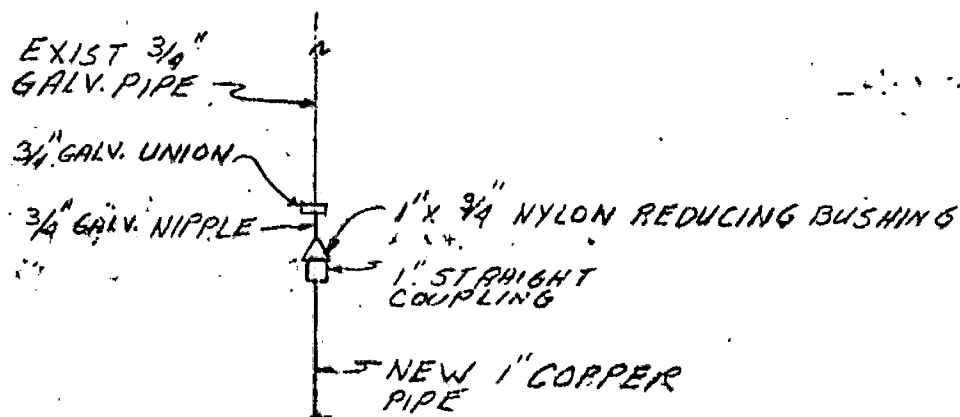
Receipt is acknowledged and  
conditions agreed to this \_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_.

-----  
Bidder

  
-----  
By



SERVICE CONNECTION TRANSFER-DETAIL "L"  
ADDENDUM No. 1 MODIFICATION



CONNECTION DETAIL

|                                       |                                                    |              |               |
|---------------------------------------|----------------------------------------------------|--------------|---------------|
| GBLIESNER<br>P.E.<br>CITY<br>ENGINEER | CITY OF NEWBERG<br>OREGON                          | Des.         | Sheet         |
|                                       |                                                    | HKG          | 3             |
|                                       | Dwg.                                               | of 3         |               |
|                                       | HKG                                                |              |               |
|                                       | WATER PIPELINE<br>ELLOIT ROAD TO<br>GROWERS AVENUE | CK.          | date: 28 July |
| BB                                    |                                                    | scale<br>NTS |               |
| DWG                                   |                                                    | W 1969-2A    |               |

CITY OF NEWBERG

OREGON

CONTRACT DOCUMENTS

for the construction of an

EIGHT INCH (8") DIAMETER WATER  
PIPELINE FROM ELLIOT ROAD TO COUNTY ROAD NO. 59 (GROWERS AVENUE)

\*\*\*\*

Consisting of:  
Form of Bid Bond  
Advertisement for Bids  
Form of Proposal  
Form of Contract  
Form of Performance Bond  
Information for Bidders  
Special Provisions  
General Conditions  
Special Specifications  
Plans

\*\*\*\*

July, 1969

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## ADVERTISEMENT FOR BIDS

Sealed proposals for the construction of an eight-inch (8") diameter water pipeline from Elliot Road to County Road No. 59 (Growers Avenue) addressed to the Mayor and City Council, City of Newberg, Oregon, will be received at the office of the City Recorder, City Hall, Newberg, Oregon 97132 until 7:30 P.M., Pacific Daylight Time, on the 4th day of August, 1969, and then will be publicly opened and read aloud at a meeting of said Council at the Council Chambers in the City Hall, Newberg, Oregon.

The work contemplated consists of constructing approximately 2,500 linear feet of eight (8) inch diameter water line including installing one fire hydrant and appurtenances, a railroad undercrossing, a service connection transfer, and two special connections.

Plans and specifications may be obtained at the City Hall at the above-mentioned address upon a deposit of Twenty Five Dollars (\$25.00) for each document. The full amount of the deposit will be refunded if said Documents are returned in good condition within ten (10) days after bid opening.

Bidders must be prequalified in compliance with Chapter 279 of Oregon Revised Statutes. Prequalification forms, completely filled out shall be mailed to the City Recorder, City Hall, Newberg, Oregon 97132 at least ten (10) days prior to the bidding date.

Each proposal must be submitted on the prescribed form and accompanied by a certified check or bid bond executed on the prescribed form payable to the City of Newberg, Oregon, in the amount not less than five percent (5%) of the amount bid.

The successful bidder will be required to furnish a bond for faithful performance of the Contract in the full amount of the Contract price.

The City reserves the right to reject any or all proposals, to postpone the award of the contract for a period not to exceed thirty (30) calendar days, and to accept that proposal which is to the best interests of the City of Newberg, Oregon.

Dated this 14th day of July, 1969.

CITY OF NEWBERG, OREGON

By \_\_\_\_\_  
~~XXXXXX Mayor XXXXX~~  
M.C: GILBERT, Finance Officer

13

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that \_\_\_\_\_

\_\_\_\_\_ hereinafter called the Principal,  
and \_\_\_\_\_, a corporation duly organized  
under the laws of the State of \_\_\_\_\_, having its principal  
place of business at \_\_\_\_\_, in the State of  
\_\_\_\_\_, and authorized to do business in the State of  
Oregon, as Surety, are held and firmly bound unto the \_\_\_\_\_  
\_\_\_\_\_ hereinafter called the Oblige in the penal sum of  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_),

for the payment of which, well and truly to be made, we bind ourselves, our  
heirs, executors, administrators, successors and assigns, jointly and sever-  
ally, firmly by these presents.

The condition of this Bond is such that, whereas, the Principal herein  
is herewith submitting his or its Bid Proposal for \_\_\_\_\_

\_\_\_\_\_ said Bid Proposal, by reference thereto, being hereby made a part hereof.

NOW, THEREFORE, if the said Bid Proposal submitted by the said Principal  
be accepted, and the Contract be awarded to said Principal, and if the said  
Principal shall execute the proposed Contract and shall furnish the Perform-  
ance Bond as required by the Bidding and Contract Documents within the time  
fixed by said Documents, then this obligation shall be void, if the Principal  
shall fail to execute the proposed Contract and furnish the Performance Bond,  
the Surety hereby agrees to pay to the Oblige the penal sum as liquidated  
damages.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
Principal

By \_\_\_\_\_

Countersigned:

\_\_\_\_\_  
Surety

\_\_\_\_\_  
Resident Agent

By \_\_\_\_\_

\_\_\_\_\_  
Attorney-in-Fact

(A certified copy of the Agent's power-of-attorney must be attached hereto.)

\*\*\*\*

Bid Bond -1-

0

PROPOSAL

Place: City of Newberg, Oregon

Date: July 14, 1969

Project No. W 1969-2

Proposal of Borland Electric, Inc. (hereinafter called "Bidder")\* a corporation, organized and existing under the laws of the State of Oregon \* ~~a partnership, or an individual doing~~ business as \_\_\_\_\_.

To the City of Newberg, Oregon, (hereinafter called "Owner").

Gentlemen:

The Bidder, in compliance with your invitation for bids for the construction of a water main extension between Elliot Road and Growers Avenue, having examined the plans and specifications and related documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby proposes to furnish all labor, materials, and supplies, and to construct the project in accordance with the contract documents, within the time set forth therein, and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the contract documents, of which this proposal is a part.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in written "Notice to Proceed" of the Owner and to fully complete the project within 45 consecutive calendar days thereafter as stipulated in the specifications. The construction in the high school classroom area shall be completed by September 2, 1969. Bidder further agrees to pay as liquidated damages, the sum of \$50.00 for each consecutive calendar day thereafter as hereinafter provided in paragraph 19 of the General Conditions.

Bidder acknowledges receipt of the following addenda:

Addenda # 1

\* Insert corporation, partnership, or individual as applicable.

The Bidder further proposes to accept as full payment for the work proposed herein the amounts computed under the provisions of the contract documents and based on the following lump sum or unit price amounts, it being expressly understood that the unit prices are independent of the exact quantities involved. The Bidder agrees that the lump sum prices and the unit prices represent a true measure of the labor and materials required to perform the work, including all allowances for overhead and profit for each type and unit of work called for in these contract documents.

The amounts shall be shown in both words and figures. In case of a discrepancy, the amount shown in words shall govern.

#### WATER SYSTEM IMPROVEMENTS

| <u>Item</u>                                              | <u>Quantity</u> | <u>Unit of Measure</u> | <u>Unit Price or Lump Sum Figures</u> | <u>Unit Price or Lump Sum in Writing</u>                     | <u>Total Amt.-Quan. x Unit Price or Lump Sum</u> |
|----------------------------------------------------------|-----------------|------------------------|---------------------------------------|--------------------------------------------------------------|--------------------------------------------------|
| 2A. <u>Trench Excavation and Backfill</u>                |                 |                        |                                       |                                                              |                                                  |
| <u>Trench Excavation and Backfill,</u><br><u>Class C</u> | 2,350           | Lin.Ft.                | \$ <u>.46</u>                         | <u>Forty Six Cents</u><br><del>One Thousand Eighty One</del> | \$ <u>1081.00</u>                                |
| <u>Class C Compacted</u>                                 | 840             | Lin. Ft.               | \$ <u>.57</u>                         | <u>Fifty Seven Cents</u>                                     | \$ <u>478.80</u>                                 |
| <u>Trench Excavation and Backfill,</u><br><u>Class D</u> | 50              | Lin.Ft.                | \$ <u>1.90</u>                        | <u>One Dollar Ninety Cents</u>                               | \$ <u>95.00</u>                                  |
| <u>Trench Excavation and Backfill,</u><br><u>Class E</u> | 60              | Lin.Ft.                | \$ <u>1.90</u>                        | <u>One Dollar Ninety Cents</u>                               | \$ <u>114.00</u>                                 |

| <u>Item</u>                               | <u>Quantity</u>                | <u>Unit of Measure</u> | <u>Unit Price or Lump Sum Figures</u> | <u>Unit Price or Lump Sum in Writing</u> | <u>Total Amt.-Quan. x Unit Price or Lump Sum</u> |
|-------------------------------------------|--------------------------------|------------------------|---------------------------------------|------------------------------------------|--------------------------------------------------|
| <u>Foundation Stabilization</u>           |                                |                        |                                       |                                          |                                                  |
|                                           | 10                             | Cu.Yds.                | \$ <u>6.60</u>                        | <u>Six Dollars Sixty Cents</u>           | \$ <u>66.00</u>                                  |
| <u>Removal and Replacement of Sod</u>     |                                |                        |                                       |                                          |                                                  |
|                                           | 850                            | Lin.Ft.                | \$ <u>.51</u>                         | <u>Fifty One Cents</u>                   | \$ <u>433.50</u>                                 |
| <u>Removal and Replacement of Topsoil</u> |                                |                        |                                       |                                          |                                                  |
|                                           | 1,850                          | Lin.Ft.                | \$ <u>.28</u>                         | <u>Twenty Eight Cents</u>                | \$ <u>518.00</u>                                 |
| 2B.                                       | <u>Surface Restoration</u>     |                        |                                       |                                          |                                                  |
|                                           | <u>Asphalt Concrete</u>        |                        |                                       |                                          |                                                  |
|                                           | 50                             | Lin.Ft.                | \$ <u>2.76</u>                        | <u>Two Dollars Seventy Six Cents</u>     | \$ <u>138.00</u>                                 |
|                                           | <u>Rock Surfacing</u>          |                        |                                       |                                          |                                                  |
|                                           | <u>Crushed 3/4-inch Minus</u>  |                        |                                       |                                          |                                                  |
|                                           | 5                              | Cu.Yds.                | \$ <u>4.88</u>                        | <u>Four Dollars Eighty Eight Cents</u>   | \$ <u>24.40</u>                                  |
| 2C.                                       | <u>Railroad Undercrossings</u> |                        |                                       |                                          |                                                  |
|                                           |                                | Lump Sum               | \$ <u>1890.00</u>                     | <u>One thousand Eight Hundred Ninety</u> | \$ <u>1890.00</u>                                |
| 15A.                                      | <u>Fire Hydrant Assemblies</u> |                        |                                       |                                          |                                                  |
|                                           | 1                              | each                   | \$ <u>460.00</u>                      | <u>Four Hundred Sixty Dollars</u>        | \$ <u>460.00</u>                                 |

| <u>Item</u>                                         | <u>Quantity</u> | <u>Unit of Measure</u> | <u>Unit Price or Lump Sum Figures</u> | <u>Unit Price or Lump Sum in Writing</u> | <u>Total Amt.-Quan. x Unit Price or Lump Sum</u> |
|-----------------------------------------------------|-----------------|------------------------|---------------------------------------|------------------------------------------|--------------------------------------------------|
| <u>15B. Cast Iron Pipe and Fittings</u>             |                 |                        |                                       |                                          |                                                  |
| <u>Cast Iron Pipe:</u>                              |                 |                        |                                       |                                          |                                                  |
| 6-inch Pipe:                                        | 3               | Lin.Ft.                | \$ <u>3.68</u>                        | <u>Three Dollars Sixty Eight Cents</u>   | \$ <u>11.04</u>                                  |
| 8-inch Pipe:                                        | 2,500           | Lin.Ft.                | \$ <u>4.00</u>                        | <u>Four Dollars</u>                      | \$ <u>10,000.00</u>                              |
| <u>Cast Iron Fittings</u>                           |                 |                        |                                       |                                          |                                                  |
|                                                     | 2,000           | Pounds                 | \$ <u>.65</u>                         | <u>Sixty Five Cents</u>                  | \$ <u>1300.00</u>                                |
| <u>Mechanical Couplings</u>                         |                 |                        |                                       |                                          |                                                  |
|                                                     | 8               | Dia.In.                | \$ <u>9.60</u>                        | <u>Nine Dollars Sixty Cents</u>          | \$ <u>76.80</u>                                  |
| <u>Imported Granular Pipe Base Material</u>         |                 |                        |                                       |                                          |                                                  |
|                                                     | 300             | Lin.Ft.                | \$ <u>.77</u>                         | <u>Seventy Seven Cents</u>               | \$ <u>231.00</u>                                 |
| <u>Imported Granular Backfill for the Pipe Zone</u> |                 |                        |                                       |                                          |                                                  |
|                                                     | 300             | Lin.Ft.                | \$ <u>.77</u>                         | <u>Seventy Seven Cents</u>               | \$ <u>231.00</u>                                 |
| <u>15C. Gate Valves and Valve Boxes</u>             |                 |                        |                                       |                                          |                                                  |
| 6-inch Gate Valves                                  | 2               | Each                   | \$ <u>105.00</u>                      | <u>One Hundred Five Dollars</u>          | \$ <u>210.00</u>                                 |
| 8-inch Gate Valves                                  | 6               | Each                   | \$ <u>165.00</u>                      | <u>One Hundred Sixty Five Dollars</u>    | \$ <u>990.00</u>                                 |

| <u>Item</u>                                | <u>Quantity</u> | <u>Unit of Measure</u> | <u>Unit Price or Lump Sum Figures</u> | <u>Unit Price or Lump Sum in Writing</u> | <u>Total Amt.-Quan. x Unit Price or Lump Sum</u> |
|--------------------------------------------|-----------------|------------------------|---------------------------------------|------------------------------------------|--------------------------------------------------|
| <u>15D. Special Connections</u>            |                 |                        |                                       |                                          |                                                  |
| Station 0 + 00                             |                 | Lump Sum               | \$ <u>535.00</u>                      | <u>Five Hundred Thirty Five Dollars</u>  | \$ <u>535.00</u>                                 |
| Station 6 + 85                             |                 | Lump Sum               | \$ <u>615.00</u>                      | <u>Six Hundred Fifteen Dollars</u>       | \$ <u>615.00</u>                                 |
| <u>15E. Service Connection Change Over</u> |                 |                        |                                       |                                          |                                                  |
|                                            |                 | Lump Sum               | \$ <u>670.00</u>                      | <u>Six Hundred Seventy Dollars</u>       | \$ <u>670.00</u>                                 |

TOTAL

\$20,168.54

The above unit prices shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

It is agreed that if the Bidder is awarded the Contract for the work herein proposed and shall fail or refuse to execute the Contract and furnish the specified Performance Bond within seven (7) calendar days after receipt of notification of acceptance of his Proposal, then, in that event, the bid security deposited herewith according to the conditions of the Advertisement for Bids and Information for Bidders shall be retained by the Owner as liquidated damages; and it is agreed that the said sum is a fair measure of the amount of damage the Owner will sustain in case the Bidder shall fail or refuse to enter into the Contract for the said work and to furnish the Performance Bond as specified in the Contract Documents. Bid security in the form of a certified check shall be subject to the same requirements as a bid bond.

If the Bidder is awarded a construction Contract on this Proposal, the Surety who will provide the Performance Bond will be St. Paul  
Fire and Marine Insurance Co.,  
whose address is:

St. Paul Minnesota  
(street) (City) (State)

The name of the Bidder who is submitting this Proposal is Borland Electric, Inc., doing business at  
6850 N. Interstate Ave Portland Oregon  
(street) (City) (State)

which is the address to which all communications concerned with this Proposal and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Proposal, or of the partnership, or of all persons interested in this Proposal as principals are as follows:

R. L. Borland L. E. Borland  
L. D. Bolstar

(If Sole Proprietor or Partnership)

In witness hereto the undersigned has set his (its) hand this \_\_\_\_\_  
day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
Signature of Bidder

\_\_\_\_\_  
Title

(If Corporation)

In witness whereof the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this 4 day of August, 1969.

Borland Electric, Inc  
Name of Corporation

R. L. Borland  
By

Pres.  
Title

Attest: L. D. Bolstar  
V. P. Secretary

CONTRACT FOR CONSTRUCTION

This Contract, made and entered into this 6<sup>th</sup> day of AUGUST 1969, by and between the City of Newberg, Oregon, a numicipal corporation, hereinafter called the "Owner", and PORTLAND ELECTRIC, INC of PORTLAND, OREGON hereinafter called the "Contractor".

WITNESSETH:

Said Contractor, in consideration of the sum to be paid him by the said Owner and of the covenants and agreements herein contained, hereby agrees at his own proper cost and expense to do all the work and furnish all the materials, tools, labor, and all appliances, machinery, and appurtenances for the installation of: Approximately 2500 linear feet of Class 22 Cast Iron Water Pipeline; One Fire Hydrant , Appurtenances, Testing and Sterilization to the extent of the Proposal made by the Contractor on the 4<sup>th</sup> day of AUGUST, 1969, all in full compliance with the Contract Documents referred to herein.

The "Advertisement for Bids", the signed copy of the "Proposal" made by the Contractor on the 4<sup>th</sup> day of AUGUST 1969, the fully executed "Performance Bond", the "Information for Bidders", the "Special Provisions", The "General Conditions", the "Specifications", and the "Plans", which consist of three (3) sheets entitled "City of Newberg, Oregon, Water System Improvements, Water Pipeline, Elliot Road to Growers Avenue," Drawing No. W1969- 2, dated June 30, 1969, are hereby referred to and by reference made a part of this Contract as fully and completely as if the same were fully set forth herein and are mutually cooperative therewith.

In consideration of the faithful performance of the work herein embraced, as set forth in these Contract Documents, and in accordance with the direction of the Engineer and to his satisfaction to the extent provided in the Contract Documents, the Owner agrees to pay to the Contractor the amount bid as adjusted in accordance with the Proposal as determined by the Contract Documents, or as otherwise herein provided, and based on the said Proposal made by the Contractor, and to make such payments in the manner and at the times provided in the Contract Documents.

The Contractor agrees to complete the work within the time specified herein and to accept as full payment hereunder the amounts computed as determined by the Contract Documents and based on the said Proposal.

The Contractor agrees to indemnify and save harmless the Owner from any and all defects appearing or developing in the workmanship or materials performed or furnished under this Contract for a period of one (1) year after the date of the written notice from the Engineer recommending final acceptance of the entire project by the Owner.

It is agreed that the time limit for the completion of the Contract based upon the Proposal, shall be the 20<sup>th</sup> day of SEPTEMBER 1969. In the event that the Contractor shall fail to complete work within the time limit or the extended time limit agreed upon, as more particularly set forth in the Contract Documents, liquidated damages shall be computed at the rate of ONE HUNDRED DOLLARS (\$100.00) per day. Sundays and legal holidays shall be excluded in determining days in default.

IN WITNESS WHEREOF, we, the parties hereto, each herewith subscribe the same this 6<sup>th</sup> day of August, A.D., 1969.

CITY OF NEWBERG, OREGON

By

Raymond Belanger  
Mayor

By

William Miller  
Finance Officer

BORLAND ELECTRIC INC.

Contractor

By

R. L. Borland

President

(Title)

Approved as to form:

\_\_\_\_\_  
City Attorney

# INDUSTRIAL INDEMNITY COMPANY

(A STOCK COMPANY)

HOME OFFICE SAN FRANCISCO

## CERTIFICATE OF INSURANCE

### NAMED INSURED

- BORLAND ELECTRIC, INC.
- 6850 N. INTERSTATE
- PORTLAND, OREGON

### CERTIFICATE ISSUED TO

- CITY OF NEWBERG, OREGON
- 414 E. First Street
- Newberg, Oregon

### CERTIFICATE ISSUED BY

- INDUSTRIAL INDEMNITY COMPANY
- 1000 American Bank Building
- Portland, Oregon 97205

INDUSTRIAL INDEMNITY COMPANY has issued coverage effective as of the dates and for the periods and limits specified below and subject to all terms, conditions, provisions, exclusions and limitations of the described Binders or Policies whether shown by endorsement or otherwise. Any requirements or provisions in any contract or agreement between the Insured and any other person, firm or corporation will not be construed as enlarging, altering or amending the definition of insured or any other terms or conditions of this certificate or the policy designated.

| KIND OF INSURANCE                                   | POLICY NUMBER | POLICY PERIOD | LIMITS OF LIABILITY                                                                                      |
|-----------------------------------------------------|---------------|---------------|----------------------------------------------------------------------------------------------------------|
| <b>COMPENSATION</b>                                 |               | EFF           |                                                                                                          |
| WORKMEN'S COMPENSATION                              |               | EXP           | STATUTORY CALIFORNIA COMPENSATION ----<br>EMPLOYER'S LIABILITY ---- \$2,000,000 PER OCCURRENCE           |
| <b>COMPENSATION</b>                                 |               | EFF 7/1/69    |                                                                                                          |
| WORKMEN'S COMPENSATION                              | CP 646-9258   | EXP 7/1/70    | STATUTORY COMPENSATION STATE(S) OF <u>Oregon</u><br>EMPLOYER'S LIABILITY ---- \$1,000,000 PER OCCURRENCE |
| <b>LIABILITY</b>                                    |               |               |                                                                                                          |
| BODILY INJURY LIABILITY ----<br>AUTOMOBILE          |               |               | EACH PERSON EACH OCCURRENCE<br>\$ \$                                                                     |
| BODILY INJURY LIABILITY ----<br>EXCEPT AUTOMOBILE   |               | EFF           | EACH PERSON EACH OCCURRENCE<br>\$ \$                                                                     |
| PROPERTY DAMAGE LIABILITY ----<br>AUTOMOBILE        |               | EXP           | EACH OCCURRENCE<br>\$                                                                                    |
| PROPERTY DAMAGE LIABILITY ----<br>EXCEPT AUTOMOBILE |               |               | EACH OCCURRENCE AGGREGATE<br>\$ \$                                                                       |
| <b>AUTOMOBILE PHYSICAL DAMAGE</b>                   |               |               |                                                                                                          |
| COMPREHENSIVE                                       |               | EFF           | \$                                                                                                       |
| FIRE, LIGHTNING & TRANSPORTATION                    |               |               | \$                                                                                                       |
| THEFT (BROAD FORM)                                  |               | EXP           | \$                                                                                                       |
| COLLISION OR UPSET                                  |               |               | ACTUAL CASH VALUE LESS \$ DEDUCTIBLE                                                                     |
| <b>INLAND MARINE</b>                                |               | EFF           |                                                                                                          |
|                                                     |               | EXP           | \$                                                                                                       |
|                                                     |               | EFF           |                                                                                                          |
|                                                     |               | EXP           | \$                                                                                                       |

Effective \_\_\_\_\_ any loss under Physical Damage Coverage is payable as interests may appear to the Named Insured and the Lienholder named below in accordance with Loss Payable Endorsement on reverse side.

### LIENHOLDER

As respects the following described automobile(s):

| YEAR | TRADE NAME | BODY TYPE AND MODEL | SERIAL NUMBER |
|------|------------|---------------------|---------------|
|      |            |                     |               |
|      |            |                     |               |
|      |            |                     |               |

### DESCRIPTION AND LOCATION OF OPERATIONS

THIS CERTIFICATE OF INSURANCE IS ISSUED IN CONNECTION WITH THE CONSTRUCTION OF AN EIGHT INCH (8") DIAMETER PIPELINE FROM ELLIOT ROAD TO COUNTY ROAD NO. 59 (GROWERS AVENUE)

This policy shall not be canceled nor reduced in coverage until after 10 days written notice of such cancellation or reduction in coverage shall have been mailed to this certificate holder.

Certified this 7th day of AUGUST

1969.

Producer AMERICAN FEDERAL INSURANCE AGENCY, INC.

805 S. E. HAWTHORNE BLVD.  
PORTLAND, OREGON 97214

INDUSTRIAL INDEMNITY COMPANY

*[Signature]*  
AMERICAN FEDERAL INSURANCE AGENCY, INC. Authorized Representative

*[Handwritten signature]*

# LOSS PAYABLE ENDORSEMENT

51 A

Loss or damage, if any, under the Automobile Physical Damage coverage of the policy shall be payable as interest may appear to Lienholder whose name and address are shown on the reverse side of this endorsement and this insurance as to the interest of the Bailment Lessor, Conditional Vendor, Mortgagee or other secured party or Assignee of Bailment Lessor, Conditional Vendor, Mortgagee or other secured party (herein called the lienholder) shall not be invalidated by any act or neglect of the Lessee, Mortgagor, Owner of the within described automobile or other Debtor nor by any change in the title or ownership of the property; provided, however, that the conversion, embezzlement or secretion by the Lessee, Mortgagor, Purchaser or other Debtor in possession of the property insured under a bailment lease, conditional sale, mortgage or other security agreement is not covered under such policy, unless specifically insured against and premium paid therefor; and provided, also, that in case the Lessee, Mortgagor, Owner or other Debtor shall neglect to pay any premium due under such policy the Lienholder shall, on demand, pay the same.

Provided also, that the Lienholder shall notify the company of any change of ownership or increase of hazard which shall come to the knowledge of said Lienholder and, unless permitted by such policy, it shall be noted thereon and the Lienholder shall, on demand, pay the premium for such increased hazard for the term of the use thereof; otherwise such policy shall be null and void.

The company reserves the right to cancel such policy at any time as provided by its terms, but in such case the company shall notify the Lienholder when not less than ten days thereafter such cancellation shall be effective as to the interest of said Lienholder therein and the company shall have the right, on like notice, to cancel this agreement.

If the insured fails to render proof of loss within the time granted in the policy conditions, such Lienholder shall do so within sixty days thereafter, in form and manner as provided by the policy, and further, shall be subject to the provisions of the policy relating to appraisal and time of payment and of bringing suit.

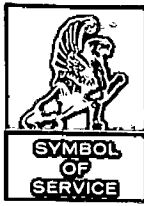
Whenever the company shall pay the Lienholder any sum for loss or damage under such policy and shall claim that, as to the Lessee, Mortgagor, Owner or other Debtor, no liability therefor existed, the company shall, to the extent of such payment, be thereupon legally subrogated to all the rights of the party to whom such payment shall be made, under all securities held as collateral to the debt, or may at its option, pay to the Lienholder the whole principal due or to grow due on the mortgage or other security agreement with interest, and shall thereupon receive a full assignment and transfer of the mortgage or other security agreement and of all such other securities; but no subrogation shall impair the right of the Lienholder to recover the full amount of its claim.

Whenever a payment of any nature becomes due under the policy, separate payment may be made to each party at interest provided the company protects the equity of all parties.

All other terms and conditions of this Policy remain unchanged.

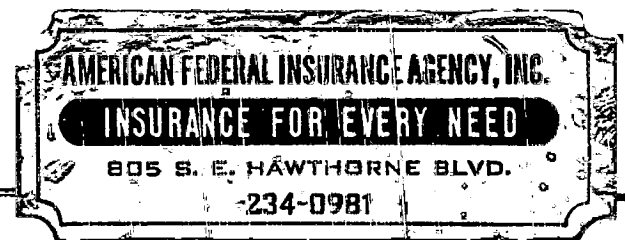
INDUSTRIAL INDEMNITY COMPANY

By \_\_\_\_\_  
AUTHORIZED REPRESENTATIVE.



UNITED PACIFIC

INSURANCE COMPANY



A MEMBER OF UNITED PACIFIC INSURANCE GROUP  
HOME OFFICE: TACOMA, WASHINGTON

**CERTIFICATE  
OF INSURANCE***In Effect on Date of This Certificate*

This is to certify that the policy described below has been issued by the UNITED PACIFIC INSURANCE COMPANY, as insurer, only to the insured named below. Any requirements or any provisions in contracts or agreements between the insured and any other person, firm or corporation shall not enlarge, alter or amend the definition of insured or any of the terms, conditions, exclusions, or limitations of the policy described below. That policy, subject to all of its limitations of liability, coverages, hazards, exclusions, provisions, conditions and other terms, is in full force and effect as of the date this certificate was issued.

Name of insured **BORLAND ELECTRIC, INC.**Address of insured **6850 N. INTERSTATE AVENUE, PORTLAND, OREGON**Policy Number **CLP 112184**Effective **1-1-69**Expires **1-1-72**

| COVERAGES                                             |                       |    |         | LIMITS OF LIABILITY |    |                                           |
|-------------------------------------------------------|-----------------------|----|---------|---------------------|----|-------------------------------------------|
| MULTIPLE LIMIT PLAN:                                  |                       |    |         |                     |    |                                           |
| Bodily Injury Liability                               | Automobile            | \$ | 100,000 | Each Person         | \$ | 300,000                                   |
|                                                       | Other than Automobile | \$ | 100,000 | Each Person         | \$ | 300,000                                   |
|                                                       |                       |    |         |                     | \$ | 300,000                                   |
|                                                       |                       |    |         |                     |    | Aggregate Products - Completed Operations |
| Property Damage Liability                             | Automobile            | \$ | 100,000 | Each Occurrence     |    |                                           |
|                                                       | Other than Automobile | \$ | 100,000 | Each Occurrence     | \$ | 100,000                                   |
|                                                       |                       |    |         |                     |    | Aggregate                                 |
| SINGLE LIMIT PLAN:                                    |                       |    |         |                     |    |                                           |
| Bodily Injury Liability and Property Damage Liability | Automobile            | \$ |         | Each Occurrence     |    |                                           |
|                                                       | Other than Automobile | \$ |         | Each Occurrence     | \$ |                                           |
|                                                       |                       |    |         |                     |    | Aggregate                                 |

In accordance with the above, the captioned policy insures the liability of the insured named above arising from (1) operations by or on behalf of the insured, or (2) premises or property used by or on behalf of the insured in connection with such operations; subject, however, to all the provisions, exclusions and limitations of the policy. This certificate is issued in connection with the construction of an eight inch (8") diameter pipeline from Elliot Road to County Road No. 59 (Growers Avenue)

The insurance covered by this certificate will not be cancelled or materially altered, except after ten (10) days' written notice has been received by the Owner. The policy provides, under the Insuring Agreements, contractual liability coverage with respect to any contract or agreement wholly in writing. Such contractual coverage is subject to all the exclusions, conditions and other provisions of the policy.

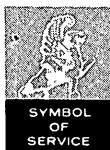
This certificate is not a policy and of itself does not afford any insurance. Nothing contained in this certificate shall be construed as extending coverage not afforded by the policy shown above or as affording insurance to any insured not named above. Except as specifically provided for in this certificate, United Pacific Insurance Company has no duty to notify the party to whom this certificate is addressed as to any changes or cancellation of the policy and shall not be responsible for any failure to do so.

Date **August 7, 1969**To **CITY OF NEWBERG, OREGON**  
**414 E. First Street**Address **Newberg, Oregon**

*C. B. Birkenmeyer*  
PRESIDENT

Countersigned by

*D. W. Manamaker*  
AUTHORIZED REPRESENTATIVE  
AMERICAN-FEDERAL INSURANCE AGENCY, INC.



This Endorsement No. **33**, forms a part of Policy No. **CLP 112184**  
at the hour designated in said policy, issued to \* **BORLAND ELECTRIC, INC.**

, and is effective \* **8-7-69**  
(MONTH-DAY-YEAR)

by the company of the UNITED PACIFIC INSURANCE GROUP designated therein.

\*These spaces need not be completed if this endorsement and the policy bear the same inception date.

**ADDITIONAL INSURED ENDORSEMENT**

(Operations Let or Sublet to Designated Contractor)

Such insurance as is afforded by this endorsement applies only with respect to:

**SCHEDULE**

1. Named Insured **CITY OF NEWBERG, ITS OFFICERS, AGENTS (INCLUDING THE ENGINEER) AND EMPLOYEES**
2. Address of Named Insured **NEWBERG, OREGON**
3. Description of Covered Operations **WORK PERFORMED FOR CITY OF NEWBERG**
4. Designated Contractor **BORLAND ELECTRIC, INC.**
5. Contractor's Address **6850 N. INTERSTATE AVENUE, PORTLAND, OREGON**

The insurance afforded is only with respect to such and so many of the following coverages as are indicated by insertion of the limit of the Company's liability opposite the coverage. The limit of the Company's liability for each such coverage shall be as stated herein, subject to the terms of this endorsement having reference thereto.

**COVERAGES****LIMITS OF LIABILITY****MULTIPLE LIMIT PLAN:**

Bodily Injury Liability

**EACH PERSON**

\$ 100,000.00

**EACH OCCURRENCE**

\$ 300,000.00

**AGGREGATE**

\$ 300,000.00

Property Damage Liability

XXXXXXXXXXXXXX

\$ 100,000.00

\$ 100,000.00

**SINGLE LIMIT PLAN:**

Bodily Injury Liability and

Property Damage Liability

XXXXXXXXXXXXXX \$

\$

| Classification of Operations       | Code No. | Premium Base Cost | Rates per \$100 of Cost |    | Estimated Premium |         |
|------------------------------------|----------|-------------------|-------------------------|----|-------------------|---------|
|                                    |          |                   | BI                      | PD | BI                | PD      |
| CONSTRUCTION OPERATIONS            | 0512     | @ AUDIT           | @ AUDIT                 |    | @ AUDIT           | @ AUDIT |
| Total Estimated Premium \$ @ AUDIT |          |                   |                         |    |                   |         |

Check here if the following provision is applicable: ☒

The person or organization designated as the Contractor has undertaken to pay the premium for this endorsement and shall be entitled to receive any return premiums which may become payable under the terms of this endorsement.

CLP-112 9-68

(See Reverse Side for other Provisions Applying to this Endorsement)

All terms and conditions of the policy to which this endorsement is attached remain unchanged except as herein specifically provided.

Countersigned by *DW Hanamaker*  
AMERICAN FEDERAL INSURANCE AGENCY, INC.

CLP-112 9-68

*C.B. Bickemeyer*  
PRESIDENT

**I. COVERAGE A – BODILY INJURY LIABILITY**  
**COVERAGE B – PROPERTY DAMAGE LIABILITY**

The company will pay on behalf of the insured all sums which the insured shall become legally obligated to pay as damages because of

Coverage A. bodily injury or

Coverage B. property damage

to which this endorsement applies, caused by an occurrence and arising out of (1) operations performed for the named insured by the contractor designated in the schedule at the location designated therein or (2) acts or omissions of the named insured in connection with his general supervision of such operations, and the company shall have the right and duty to defend any suit against the insured seeking damages on account of such bodily injury or property damage even if any of the allegations of the suit are groundless, false or fraudulent, and may make such investigation and settlement of any claim or suit as it deems expedient, but the company shall not be obligated to pay any claim or judgment or to defend any suit after the applicable limit of the company's liability has been exhausted by payment of judgments or settlements.

**Exclusions.**

This endorsement does not apply:

- (a) to liability assumed by the insured under any contract or agreement except an incidental contract; but this exclusion does not apply to a warranty that work performed by the designated contractor will be done in a workmanlike manner;
- (b) to bodily injury or property damage occurring after
  - (1) all work on the project (other than service, maintenance or repairs) to be performed by or on behalf of the named insured at the site of the covered operations has been completed or
  - (2) that portion of the designated contractor's work out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.
- (c) to bodily injury or property damage arising out of any act or omission of the named insured or any of his employees, other than general supervision of work performed for the named insured by the designated contractor;
- (d) to any obligation for which the insured or any carrier as his insurer may be held liable under any workmen's compensation, unemployment compensation or disability benefits law, or under any similar law;
- (e) to bodily injury to any employee of the insured arising out of and in the course of his employment by the insured; but this exclusion does not apply to liability assumed by the insured under an incidental contract;
- (f) to property damage to
  - (1) property owned or occupied by or rented to the insured,
  - (2) property used by the insured,
  - (3) property in the care, custody or control of the insured or as to which the insured is for any purpose exercising physical control, or
  - (4) work performed for the insured by the designated contractor;
- (g) to bodily injury or property damage due to war, whether or not declared, civil war, insurrection, rebellion or revolution or to any act or condition incident to any of the foregoing, with respect to (1) liability assumed by the insured under an incidental contract, or (2) expenses for first aid under the Supplementary Payments provision of the policy.
- (h) to property damage arising out of any substance or material released or discharged from any aircraft.
- (i) to bodily injury or property damage arising out of any professional services of an architect, engineer, or surveyor performed by or for an insured including (1) the preparation or approval of maps, plans, opinions, reports, surveys, designs or specifications and (2) supervisory, inspection or engineering services.

None of the exclusions of the policy to which this endorsement is attached apply to the insurance afforded by this endorsement except exclusions and definitions applicable to the hazards of nuclear energy and other hazards related thereto.

**II. PERSONS INSURED**

Each of the following is an insured under this endorsement to the extent set forth below:

- (a) if the named insured designated in the schedule is an individual, the person so designated;
- (b) if the named insured designated in the schedule is a partnership or joint venture, the partnership or joint venture so designated and any partner or member thereof but only with respect to his ability as such;
- (c) if the named insured designated in the schedule is other than an individual, partnership or joint venture, the organization so designated and any executive officer, director or stockholder thereof while acting within the scope of his duties as such; and
- (d) any person (other than an employee of the named insured) or organization while acting as real estate manager for the named insured.

**III. ADDITIONAL DEFINITIONS**

"Incidental contract" means any written (1) lease of premises, (2) easement agreement, except in connection with construction or demolition operations on or adjacent to a railroad, (3) undertaking to indemnify a municipality required by municipal ordinance, except in connection with work for the municipality, (4) sidetrack agreement, or (5) elevator maintenance agreement;

When used in reference to this insurance "work" includes materials, parts and equipment furnished in connection therewith.

When used as a premium basis:

"cost" means the total cost to the named insured with respect to operations performed for the named insured during the endorsement period by independent contractors of all work let or sublet in connection with each specific project, including the cost of all labor, materials and equipment furnished, used or delivered for use in the execution of such work, whether furnished by the owner, contractor or subcontractor, including all fees, allowances, bonuses or commissions made, paid or due.

**IV. ENDORSEMENT PERIOD**

This endorsement applies only to accidents or occurrences happening on and after the effective date hereof and during the policy period.

CERTIFICATE AND ENDORSEMENT OF INSURANCE  
FOR PIPE, POLE, CONDUIT, ROAD APPROACH OR MISCELLANEOUS PERMITS

Filed With  
Oregon State Highway Department  
Director of Permits  
Room 102, New East Salem Highway Building  
2960 East State Street  
Salem, Oregon 97310

The UNITED PACIFIC INSURANCE COMPANY  
(Name of Company)

of TACOMA, WASHINGTON  
(Home Address of Company)

hereby certifies that such insurance policies as are indicated hereunder have been issued and are in full force and effect on the effective date of this certificate.

Name of Insured: BORLAND ELECTRIC, INC.

Address of Insured: 6850 N. INTERSTATE AVENUE, PORTLAND, OREGON

Policy Period: From JANUARY 1st. 1969 to JANUARY 1st. 1972

| <u>Policy Number</u> | <u>Type of Coverage</u>                       | <u>*Limits of Liability</u>     |
|----------------------|-----------------------------------------------|---------------------------------|
| CLP 112184           | Bodily Injury Liability<br>(including auto)   | <u>\$100,000.00</u> Each Person |
|                      |                                               | <u>300,000.00</u> Each Accident |
|                      | Property Damage Liability<br>(including auto) | <u>100,000.00</u> Each Accident |

The limits provided herein are the minimum limits required by the Oregon State Highway Commission and shall in no way be considered as a reduction in the limits of the protection as provided in this policy for the primary named insured.

THE STATE OF OREGON, ITS STATE HIGHWAY COMMISSION AND MEMBERS THEREOF, ITS OFFICERS, AGENTS, AND EMPLOYEES ARE HEREBY INCLUDED AS NAMED INSURED IN THE HEREIN NUMBERED POLICY OR POLICIES AS TO THE OPERATIONS OF THE PRIMARY NAMED INSURED UNDER ANY PIPE, POLE, CONDUIT, ROAD APPROACH OR MISCELLANEOUS PERMIT ISSUED BY THE STATE OF OREGON, BY AND THROUGH ITS STATE HIGHWAY COMMISSION, EXCEPT AS TO CLAIMS AGAINST THE PRIMARY NAMED INSURED FOR INJURY TO THEIR PERSONS OR DAMAGE TO ANY OF ITS OR THEIR PROPERTY.

CANCELLATION OF THIS ENDORSEMENT OR OF THE POLICY TO WHICH IT IS ATTACHED MAY BE EFFECTED BY AGREEMENT OF THE PARTIES HERETO, OR BY THE COMPANY OR THE PRIMARY NAMED INSURED GIVING NOT LESS THAN THIRTY (30) DAYS' NOTICE IN WRITING AND BY CERTIFIED MAIL TO THE DIRECTOR OF PERMITS, ROOM 102, NEW EAST SALEM STATE HIGHWAY BUILDING, 2960 EAST STATE STREET, SALEM, OREGON: SAID NOTICE TO COMMENCE TO RUN FROM THE DATE NOTICE IS ACTUALLY RECEIVED AT THE SAID OFFICE.

Date: AUGUST 7th., 19 69

AGENCY: AMERICAN FEDERAL INSURANCE AGENCY, INC.

By: Don Macvicar  
(Authorized Representative)  
NANCY MACVICAR (SD)

\*The limits of liability of the insurer for operations authorized under pipe, pole, conduit, road approach or miscellaneous permits on the right of way of any State Highway shall be an amount not less than \$100,000 for the death or injury of any person subject to a limit of \$300,000 for all injuries or deaths resulting from any single accident, and \$100,000 for property damage resulting from any single accident.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we BORLAND ELECTRIC, INC.

as Principal, and ST. PAUL FIRE & MARINE INSURANCE CO.

a corporation duly authorized to act as a surety company in Oregon, as Surety, are jointly and severally held and bound unto \_\_\_\_\_

CITY OF NEWBERG

Obligee herein, in the sum of TWENTY THOUSAND, ONE HUNDRED SIXTY EIGHT AND

54/100 ----- Dollars (\$ 20,168.54 ), for the payment of which we jointly and severally bind ourselves, our heirs, successors, administrators and assigns, or our successors and assigns, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

WHEREAS, the Principal herein has made and entered into a certain contract with the Obligee, a copy of which is attached hereto, which contract is by this reference made a part hereof, whereby the said Principal agrees to perform certain work and to furnish certain materials and to assume obligations, all in accordance with the terms, conditions, requirements, plans, and specifications set out in said contract; and

WHEREAS, said contract is a Public Contract within the meaning of that term as defined in Oregon Revised Statutes;

NOW, THEREFORE, if the Principal herein shall faithfully and truly observe and comply with the terms, conditions, and provisions of said contract, in all respects, and shall well and truly and fully do and perform all matters and things by him undertaken to be performed under said contract, upon the terms set forth therein and within the time prescribed therein or as extended as provided therein, and shall, in all respects, perform said contract according to law, then this obligation shall be void; otherwise to remain in full force and effect.

For value received, the Surety hereby agrees that no change, extension of time, alteration or addition to the terms of the contract or the work to be performed thereunder, or the specifications accompanying the same shall in any way affect its obligations hereunder; and the Surety expressly waives notice of any such change, extension, alteration, or addition.

Nonpayment of the bond premium will not invalidate this Bond nor shall the Obligee be obligated for the payment thereof.

May '68

This Bond is given and received under the authority of ORS Chapter 279, the provisions of which hereby are incorporated into this Bond and made a part hereof.

IN WITNESS WHEREOF, the parties hereto have caused this Bond to be executed in PORTLAND, OREGON this 7th day of AUGUST 19 69.

PRINCIPAL BORLAND ELECTRIC INC.

By BL Borland (President)  
(Official Capacity)

(SEAL)

Attest: L D Bolster  
Vice President Secretary

SURETY ST. PAUL FIRE & MARINE INSURANCE CO.

(SEAL)

By Marjorie J Berg  
Marjorie J. Berg Attorney-in-fact

Countersigned:

AW Hanamaker  
AMERICAN FEDERAL INSURANCE AGENCY, INC. Resident Agent

The Attorney-in-Fact (Resident Agent), who executes this bond in behalf of the surety company, must attach a copy of his power-of-attorney as evidence of his authority.

To each executed original of this Bond there must be attached a complete set of the "Contract Documents," as the term is defined in the General Conditions, with all corrections, interlineations, signatures, etc., completely reproduced therein.

\*\*\*\*

**CERTIFIED COPY OF POWER OF ATTORNEY**

Original on File at Home Office of Company. See Certification.

**FIDELITY AND SURETY  
DEPARTMENT****ST. PAUL  
FIRE and MARINE  
Insurance Company**  
HOME OFFICE: ST. PAUL, MINNESOTA

KNOW ALL MEN BY THESE PRESENTS: That the St. Paul Fire and Marine Insurance Company, a corporation organized and existing under the laws of the State of Minnesota, and having its principal office in the City of Saint Paul, Minnesota, does hereby constitute and appoint

Marjorie J. Berg

Portland, Oregon

its true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise, and the execution of such instrument(s) in pursuance of these presents, shall be as binding upon the said St. Paul Fire and Marine Insurance Company, as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at its principal office.

This Power of Attorney is executed, and may be certified to and may be revoked, pursuant to and by authority of Article III, -Section 5(C), of the By-Laws adopted by the Board of Directors of the ST. PAUL FIRE AND MARINE INSURANCE COMPANY at a meeting called and held on the 3rd day of August, 1966, of which the following is a true transcript of said Section 5(C).

"The President or any Vice President, Assistant Vice President, Resident Vice President, Secretary or Resident Secretary, shall have power and authority

- (1) To appoint Attorneys-in-fact, and to authorize them to execute on behalf of the Company, and attach the Seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof, and
- (2) To appoint Special Attorneys-in-fact, who are hereby authorized to certify to copies of any power-of-attorney issued in pursuance of this section and/or any of the By-Laws of the Company, and
- (3) To remove, at any time, any such Attorney-in-fact or Special Attorney-in-fact and revoke the authority given him."

Further, this Power of Attorney is signed and sealed by facsimile pursuant to resolution of the Board of Directors of said Company adopted at a meeting duly called and held on the 6th day of May, 1959, of which the following is a true excerpt:

"Now therefore the signatures of such officers and the seal of the Company may be affixed to any such power of attorney or any certificate relating thereto by facsimile, and any such power of attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached."

IN TESTIMONY WHEREOF, the St. Paul Fire and Marine Insurance Company has caused this

instrument to be signed and its corporate seal to be affixed by its authorized officer, this 2nd  
day of January A. D. 19 68

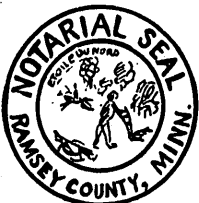
ST. PAUL FIRE AND MARINE INSURANCE COMPANY

STATE OF MINNESOTA  
County of Ramsey

} ss.

*[Signature]*  
Vice President.

On this 2nd day of January 19 68, before me came the individual who executed the preceding instrument, to me personally known, and, being by me duly sworn, said that he is the therein described and authorized officer of the St. Paul Fire and Marine Insurance Company; that the seal affixed to said instrument is the Corporate Seal of said Company; that the said Corporate Seal and his signature were duly affixed by order of the Board of Directors of said Company.



IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal, at the City of Saint Paul, Minnesota, the day and year first above written.

*C. L. Jaeger*

C. L. JAEGER

Notary Public, Ramsey County, Minn.  
My Commission Expires June 2, 1974.

**CERTIFICATION**

I, the undersigned officer of the St. Paul Fire and Marine Insurance Company, do hereby certify that I have compared the foregoing copy of the Power of Attorney and affidavit, and the copy of the Section of the By-Laws of said Company as set forth in said Power of Attorney,\* with the ORIGINALS ON FILE IN THE HOME OFFICE OF SAID COMPANY, and that the same are correct transcripts thereof, and of the whole of the said originals, and that the said Power of Attorney has not been revoked and is now in full force and effect.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 7th day of AUGUST 19 69

*[Signature]*  
Assistant Secretary.

\*Unlimited as to character and amount.

## INFORMATION FOR BIDDERS

1. General Description of the Project. A general description of the work to be done is contained in the Advertisement for Bids. The scope is indicated on the accompanying Plans and specified in applicable parts of these Contract Documents.

2. Contract Documents. The Contract Documents under which it is proposed to execute the work consist of the material bound herewith. These Contract Documents are intended to be mutually cooperative and to provide all details reasonably required for the execution of the proposed work. Any person contemplating the submission of a proposal and being in doubt as to the meaning or intent of said Contract Documents should request of the Engineer, in writing, an interpretation thereof. Any interpretation or change in said Contract Documents will be made only in writing, and a copy of such interpretation or change will be mailed or delivered to each person receiving a set of the Documents. The Owner will not be responsible for any other explanation or interpretations of said Documents.

3. Plans. Where the Plans are photographic reductions of the original tracings, the amount of reduction is indicated by a note on the Plans. Full-scale prints of reduced Plans may be obtained for the amount stated in the Special Provisions.

4. Type of Proposal.

a. Unit Price. Where the Proposal for the work is to be submitted on a unit price basis, unit price proposals will be accepted on all items of work set forth in the Proposal, except those designated to be paid for as a lump sum. The estimate of quantities of work to be done is tabulated in the Proposal and, although stated with as much accuracy as possible, is approximate only and is assumed solely for the basis of calculation upon which the award of Contract shall be made. Payment to the Contractor will be made on the measurement of the work actually performed by the Contractor as specified in the Contract Documents. The Owner reserves the right to increase or diminish the amount of any class of work as may be deemed necessary, unless otherwise specified in the Special Provisions.

b. Lump Sum. Where the Proposal for the work is to be submitted on a lump sum basis, a single lump sum price shall be submitted in the appropriate place. The total amount to be paid the Contractor shall be the amount of the lump sum Proposal as adjusted for additions or deletions resulting from changes in construction. The Bidder shall furnish, in the space provided in the Proposal, a breakdown of his lump sum bid.

c. Lump Sum with Equipment Selected By Owner. Where the Proposal for the work is to be submitted on a lump sum basis with equipment to be selected by the Owner, a lump sum price shall be submitted in the appropriate place and separate price proposals shall be submitted for listed items of equipment as produced by different manufacturers and shall include the cost of installation. The lump sum Proposal shall not include these listed items or cost of their installation. The total amount to be paid the Contractor

shall include the price bid for the listed items of equipment to be furnished as selected by the Owner, plus the amount of the lump sum Proposal, as adjusted for additions and deletions resulting from changes in construction. Bidder shall provide a breakdown of the lump sum as specified hereinbefore in b.

5. Preparation of Proposals. All blank spaces in the Proposal form must be filled in, in ink, in both words and figures where required. No changes shall be made in the phraseology of the forms. Written amounts shall govern in cases of discrepancy between the amounts stated in writing and the amounts stated in figures.

Any proposal shall be deemed informal which contains omissions, erasures, alterations, or additions of any kind, or prices uncalled for, or in which any of the prices are obviously unbalanced, or which in any manner shall fail to conform to the conditions of the published Advertisement for Bids.

The Bidder shall sign his Proposal in the blank space provided therefor. Proposals made by corporations or partnerships shall contain names and addresses of the principal officers or partners. If the Proposal is made by a corporation, it must be acknowledged by one of the principal officers thereof; if made by a partnership, by one of the partners.

6. Submission of Proposals. All proposals must be submitted at the time and place and in the manner prescribed in the Advertisement for Bids. Proposals must be made on the prescribed Proposal forms, bound herewith, and submitted intact with the Contract Documents. Each proposal must be submitted in a sealed envelope, so marked as to indicate its contents without being opened, and addressed in conformance with the instructions in the Advertisement for Bids.

7. Telegraphic Modification or Withdrawal of Proposal. Any bidder may modify his bid by telegraphic communication at any time prior to the scheduled closing time for receipt of bids, provided such telegraphic communication is received by the Owner prior to the closing time. The telegraphic communication should not reveal the bid price but should state the addition or subtraction or other modification so that the final prices or terms will not be known by the Owner until the sealed bid is opened.

Any proposal may be withdrawn prior to the scheduled time for the opening of proposals either by telegraphic or written request, or in person. No proposal may be withdrawn after the time scheduled for opening of proposals, unless the time specified in Paragraph 12 of this Information for Bidders shall have elapsed.

8. Bid Security. Proposals must be accompanied by a certified check drawn on a bank in good standing, or a Bid Bond issued by a surety company authorized to issue such bonds in the State of Oregon, in an amount not less than five percent (5%) of the total amount of the Proposal submitted. This check or Bid Bond shall be given as a guarantee that if awarded the Contract, the successful Bidder will execute the attached Contract and furnish a properly executed Performance Bond in the full amount of the Contract price within the time specified.

If the Bidder elects to furnish a Bid Bond, he shall use the Bid Bond form bound herewith, or one conforming substantially to it in form and content.

The Owner reserves the right to retain the bid security of the three (3) lowest bidders until the successful Bidder has signed and delivered the Contract and furnished a one hundred percent (100%) Performance Bond. Upon failure of the successful Bidder to sign and deliver said Contract and Performance Bond within the specified time, the next lowest bid may be accepted at the Owner's discretion, whereupon the above instructions and requirements will apply to the said second bidder.

Certified checks and cash given as bid security will be returned promptly after the canvass of bids, except that bid security of the three (3) lowest bidders will be retained and returned within seven (7) days after the Contract has been executed or other disposition made in accordance with the provisions stated herein.

9. Prequalification of Bidders for Public Work. Bidders for public work in Oregon must be prequalified in conformance with Oregon Law ORS, Chapter 279. A prequalification form is bound inside the front cover of the Documents, and must be completed by the prospective Bidder and submitted to the Owner at least ten (10) days prior to the bid opening date. The form shall be detached and filled out by the prospective Bidder and mailed to the office designated in the Advertisement for Bids. Prequalification forms should not be submitted with the bid.

10. Conditions of Work. Each bidder must inform himself of the conditions relating to the execution of the work, and it is assumed that he will inspect the site and make himself thoroughly familiar with all the Contract Documents. Failure to do so will not relieve the successful Bidder of his obligation to enter into a Contract and complete the contemplated work in strict accordance with the Contract Documents.

Each bidder must inform himself on all laws and statutes, both Federal and State, relative to the regular execution of the work, the employment of labor, protection of public health, the protection of private property, fire protection regulations, access to the work, and similar requirements.

11. Payments. Monthly payments for the work performed will be made by the Owner as specified in the General Conditions, unless otherwise modified in the Special Provisions.

12. Award of Contract. Within thirty (30) calendar days after the opening of proposals, the Owner will accept one of the proposals or will act in accordance with Paragraph 13 of this Information for Bidders. The acceptance of the Proposal will be by notice, in writing, mailed or delivered to the office designated in the Proposal.

13. Basis of Award. The award will be made by the Owner on the basis of that Proposal which in its sole and absolute judgment will best serve the interest of the Owner; where projects are paid for in part by Federal Aid, the award will be made on the basis of that Proposal submitted by the responsible Bidder submitting the lowest acceptable Proposal.

The Owner reserves the right to accept or reject any or all proposals, and to waive any informalities and irregularities in said proposals.

14. Execution of Contract. The successful Bidder shall, within seven (7) days after receiving notice of award, execute the Contract hereto attached.

15. Performance Bond. The successful Bidder shall file with the Owner at the time of execution of the Contract, a Performance Bond of the form bound herewith in the full amount of the Contract price, as security for the faithful performance of the Contract and the payment of all persons supplying labor and materials for the construction of the work, and to cover all guarantees against defective workmanship or materials, or both, for a period of one (1) year after the date of final acceptance of the work by the Owner. The surety company furnishing this bond shall have a sound financial standing and a record of service satisfactory to the Owner and shall be authorized to do business in the State of Oregon.

The Attorney-in-Fact (Resident Agent) who executes this Performance Bond in behalf of the surety company must attach a copy of his power-of-attorney as evidence of his authority. A notary shall acknowledge the power as of the date of the execution of the surety bond which it covers.

16. Failure to Execute Contract and Furnish Bond. Should the successful Bidder fail or refuse to execute the Contract and furnish the Performance Bond, then the bid security deposited by said Bidder shall be retained as liquidated damages by the Owner; and it is agreed that this said sum is a fair estimate of the amount of damages the Owner will sustain in case the Bidder fails to enter into a Contract and furnish bond as hereinbefore provided. Bid security deposited in the form of a certified check shall be subject to the same requirement as a Bid Bond.

17. Time of Completion. The time of completion of the work to be performed under this Contract is the essence of the Contract. Delays and extensions of time may be allowed in accordance with the provisions of the General Conditions. The time allowed for the completion of the work is stated in the Proposal.

\*\*\*\*

Info. -4-

## SPECIAL PROVISIONS

**GENERAL DESCRIPTION OF WORK.** The work included under this contract is to extend an eight-inch water line 2,500 feet with one fire hydrant and appurtenances.

The Contractor's attention is directed to GENERAL REQUIREMENTS, Section 1A of the Special Specifications, which contains other special directions that are pertinent to the project.

**SPECIFICATION FORMAT.** Where "command" type sentences are used throughout these Contract Documents, it shall be understood that these refer to and are directed to the Contractor.

**REVISIONS TO THE GENERAL CONDITIONS.** The General Conditions of these Contract Documents are hereby revised as follows:

Page 1, Article A-3, Lines 2 and 3. Change "CORNELL, HOWLAND, HAYES AND MERRYFIELD" to "CITY ENGINEER".

Pages 6 and 7, Article D-3.d. State Highway Department Insurance Coverages. This article is hereby deleted.

Page 7, Article D-3.c. Fire Insurance. This article is hereby deleted.

**LOCATION AND PLANS.** The site is in the senior high school area, between Elliot Road and County Road No. 59 (Growers Avenue). The owner and its authorized agents or representatives will obtain permission from the property owners for the pipeline installation, except for Yamhill County.

The plans for the construction of the pipeline consist of three sheets each entitled, "City of Newberg Water Pipeline, Elliot Road to County Road No. 59 (Growers Avenue)".

**SITE CONDITIONS.** The site for the pipeline is located in the senior high school, and future junior high school area. The work in the senior high school area should be completed by August 31, 1969, before school begins.

**PAYMENT OF NOT LESS THAN PREVAILING WAGE RATES.** The Contractor shall pay not less than the prevailing rate of wages in conformance with ORS Chapter 279, 1963. Certification of wage payments by the Contractor shall be submitted to the Owner in conformance with ORS 279.354. The Schedule of Minimum Hourly Wage Rates for Well Drillers, as determined by the Commissioner of the Bureau of Labor of the State of Oregon is appended to these Special Provisions.

There is appended hereto a sample copy of the Wage Certification Form. These forms shall be provided by the Contractor. A completed copy of the form, fully executed, shall be filed with the Owner at the time of the submission of each claim for a progress payment and also when the claim for final payment is submitted.

SUBSTITUTION OF MATERIALS. All workmanship, equipment, materials, and articles incorporated in the work covered by this Contract are to conform to the Specifications. Whenever in the Specifications any material, article, device, product, fixture, form, type of construction, or process is indicated or specified by patent or proprietary name, by name of manufacturer, or by catalog number, such Specifications shall be deemed to be used for the purpose of establishing a standard of quality and facilitating the description of the material or process desired. This procedure is not to be construed as eliminating from competition other products of equal or better quality by other manufacturers where fully suitable in design, and shall be deemed to be followed by the words "or as approved" or "or approved equal". The Contractor may, in such case, submit complete data to the Engineer for consideration of another material, type, or process, and if the Owner's approval is obtained (in writing), purchase and use the item, type or process which shall be substantially equal in every respect to that so indicated or specified. The Owner will be the sole judge of the substituted article or material. No substitute materials shall be used unless approved in writing.

POWER AND WATER. The Contractor shall provide all power and water required for the contemplated work. Use of existing facilities at the site of the existing City wells may be granted upon express approval by the Owner.

NO WAIVER OF RIGHTS. Neither the inspection by the Owner, through the Engineer or any of his employees, nor any order by the Owner for payment of money, nor any payment for, or acceptance of, the whole or any part of the work by the Owner or Engineer, nor any extension of time, nor any possession taken by the Owner or its employees, shall operate as a waiver of any provision of this Contract, or any power herein reserved to the Owner, or any right to damages herein provided; nor shall any waiver of any breach in this contract be held to be a waiver of any other or subsequent breach.

SUBSURFACE INFORMATION. The information presented on the Plans indicates the conditions which the Contractor may expect to encounter.

PERMIT TO WORK ON COUNTY RIGHT OF WAY.

The Contractor shall obtain the necessary permit and obtain all bonds and/or insurance required to work within Yamhill County rights of way. County Road No.59, "Growers' Avenue", is within Yamhill County rights of way. The Contractor shall pay the cost of all required permits, bonds, or insurance required by the County.

SPECIAL CONSTRUCTION RESPONSIBILITIES AND PROCEDURES WITHIN RAILROAD RIGHT OF WAY.

The owner will obtain all necessary permits for the railroad undercrossing. Prior to commencing work within the right of way of the Southern Pacific Company, the Contractor shall enter into an agreement with the Southern Pacific Company indemnifying the Southern Pacific Company against all claims and expenses growing out of the performance of the work to be done by the Contractor.

The Contractor shall furnish, at the option of the Southern Pacific Company, a reliable surety bond insuring indemnity to the Southern Pacific Company pursuant to the above-mentioned agreement.

The Contractor shall furnish a certified copy of a policy of public liability and property damage insurance agreeable to the Southern Pacific Company.

The Contractor shall pay the cost of all bonds, insurance and/or agreement required by the Railroad.

The Contractor shall give the Southern Pacific Company 5 days' written notice prior to commencement of any work within the right of way of the Southern Pacific Company. Upon completion of the work the contractor shall remove all falsework and other protection beneath or along the railroad tracks and leave the area in a clean condition, satisfactory to the Southern Pacific Company. The Contractor shall promptly reimburse the Southern Pacific Company for the furnishing of such watchmen, flagmen, and inspectors as the Southern Pacific Company deems necessary.

#### STAKING OUT THE WORK.

The Engineer will establish the locations of waterlines by means of offset stakes set at 50 foot intervals and will indicate the depth of cut when required. It shall be the Contractor's sole responsibility to lay out the work from the offset stakes given and to transfer elevations from cut stakes when required. If requested, the Contractor shall furnish stakes and labor to assist the Engineer in staking out the work.

The Contractor shall notify the Engineer at least 3 days in advance of the time when the grade and line will be needed. In general, the Engineer will be able to supply line and grade within a few hours. However, the Contractor will not be allowed extensions of time or damages because of delays caused by insufficient line and grade, unless the Engineer has been notified 3 days in advance.

#### SITE INFORMATION

Known utilities and structures expected to be adjacent to or encountered in the work are shown on the plans. It is expected that there may be some discrepancies and omissions in the locations and quantities of utilities and structures shown. The Engineer and Owner will make available to all prospective bidders upon request prior to receipt of proposals, any information that they may have as to subsurface conditions at the work site. This information is for the convenience of the Contractor only, and no responsibility is assumed by either the Owner or the Engineer for its accuracy or completeness.

The submission of a proposal shall be conclusive evidence that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of the contract documents.

CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTIES AND SERVICES. At points where the Contractor's operations could cause damage which might result in considerable expense, loss, and inconvenience when his operations are adjacent to or near railway, telegraph, telephone, television, power, oil, gas, water, irrigation, or to private or municipal systems, the Contractor's working operations shall be suspended until all arrangements necessary for the protection thereof have been made by the Contractor.

The Contractor shall notify all utility offices which are affected by the construction operation at least 48 hours in advance. Under no circumstances shall the Contractor expose any utility without first requesting permission and being granted to do so from the affected agency. It shall be the Contractor's responsibility, once permission has been granted, to locate, if necessary, and expose all of the existing underground utilities in advance of the trenching operation.

The Contractor shall be solely and directly responsible to the Owner and operators of such properties for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage which may result from the carrying out of the work to be done under the contract.

In the event of interruption to domestic water or to other utility services as a result of accidental breakage, or as a result of being exposed or unsupported, the Contractor shall promptly notify the proper authority. He shall cooperate with said authority in restoration of service as promptly as possible and shall bear all costs of repair. In no case shall interruption of any water or utility service be allowed to exist outside working hours unless prior approval is received.

Neither the Owner nor its officers or agents shall be responsible to the Contractor for damages as a result of the location of the underground utilities being other than that shown on the plans or for the existence of underground utilities not shown on the plans. Depths of water and gas lines, where shown on the profile drawings, are approximate and are based on information from the owners involved.

SITE RESTORATION AND CLEANUP. The Contractor shall at all times during the work keep the premises clean and orderly, and upon completion of the work shall leave the project free of rubbish or excess materials of any kind.

During the construction, the Contractor shall stockpile the excavated trench materials so as to do the least damage to adjacent lawns, grassed areas, gardens, shrubbery, or fences, regardless of whether these are on private property, City, State, or County rights of way. All excavated materials shall be removed from grassed and planted areas; and these surfaces shall be left in a condition equivalent to their original condition and free from all rocks, gravel, boulders, or other foreign material. All existing drainage ditches and culverts shall be reopened and graded and natural drainage restored.

STREET CLEANUP DURING CONSTRUCTION. All spilled dirt, gravel, or other foreign material caused by the Contractor's operations shall be cleaned from all streets and roads at the conclusion of each day's operations. Cleaning shall be by grader and front-end loader supplemented by washing with water, power brushing, and hand labor.

PROPOSAL. Proposals shall be submitted on the Proposal form attached hereto and shall be submitted intact with the Contract Documents. All blank spaces in the Proposal shall be completed, in ink, and the Contract Documents shall be submitted in a sealed envelope. The envelope shall be marked "PIPELINE BID - TO BE OPENED AT 7:30 P.M., AUGUST 4, 1969", or words to that effect.

The Owner reserves the right to waive minor irregularities or minor errors in any proposal if the intent is clear. Irregularities or errors so waived must be corrected on the Proposal prior to the execution of the Contract.

EVALUATION OF PROPOSALS. The estimated depth of the contemplated pipeline is listed in the Proposal. The depth and the other estimated quantities shown in the Proposal will be used to evaluate the bids. It is to be recognized that the actual quantities of work may vary from those shown in the Proposal, depending on the character and extent of the permeable material encountered.

EVALUATION. The Owner shall, either by or through its employees and/or its consulting Engineer, inspect work performed, evaluate tests made, and examine and evaluate logs and samples.

PROSECUTION OF WORK. It is essential that once the work is started, that it be performed without delay. The Contractor shall prosecute the work diligently and continuously. After the work is started, the Contractor shall not move his workmen or equipment off the job and shall keep a full crew working at least the normal workweek until the work is completed, except for prearranged shutdowns approved by the Owner. Rehabilitation of the existing pipeline shall be accomplished on a schedule that will permit the continuous supply of water to the City, through its supply sources or from its reservoir storage.

PREVAILING JOURNEYMAN WAGE RATES IN OREGON FOR  
BASIC BUILDING TRADES

As determined by the Labor Commissioner  
pursuant to ORS 279.348 to 279.356

The following minimum wage rates for Newberg, Oregon, and vicinity,  
as of 1 June 1969, shall apply:

| <u>Craft Classification</u> | Minimum Rate<br>Per Hour<br>Effective<br><u>6-1-69 to 6-1-70</u> |
|-----------------------------|------------------------------------------------------------------|
| Plumber                     | \$ 6.45                                                          |

In the event it is necessary to employ workmen in a classification not listed, the Contractor shall make application to the agency having jurisdiction for the determination of the prevailing wage rate for such workmen. If a dispute arises as to what is the prevailing wage rate for any class of workmen, and if the dispute cannot be settled by the parties involved, it may be referred to the Commissioner of Labor, State of Oregon, for final determination.

The Owner does not guarantee that labor can be procured for the wages set forth in the Prevailing Journeyman Wage Rates. The rates of wages listed are minimum only, below which the Contractor cannot pay, and they do not constitute a representation that labor can be procured for the minimum listed.

\*\*\*\*

Bureau of Labor  
Public Contracts Wage Administrator  
1400 S.W. Fifth  
State Office Building  
Portland, Oregon

July 1, 1969

Prevailing Journeyman Wage Rates in Oregon  
for Basic Building Trades

as determined by the Labor Commissioner  
pursuant to ORS 279.348 to 279.356

The following prevailing journeyman wage rates apply to the basic construction trades -- Carpenters, Piledrivers, Cement Masons, Ironworkers, Laborers, Operating Engineers, and Teamsters; applicable to all counties in the State of Oregon for the effective period indicated.

BUILDING AND CONSTRUCTION TRADES

Effective 5-1-69 to 5-1-70

CARPENTERS

\$5.58

Group I

Carpenters (journeymen), including but not limited to Acoustical & Drywall applicators  
Automatic Nailing Machine Operators (all types)  
Form strippers (in accordance with Int. Agree.)  
Manhold Builders (Concrete Form Construction.)  
Riggers, Burners, and Welders.

Group II

\$5.705

Caulkers (Boat construction)  
Floor Layers, Finishers

(The laying of all hardwood flooring, nailed & mastic set, parquet and wood-type tiles, and block floors, the sanding and finishing of floors, the preparation of old and new floors where the materials mentioned above are to be installed.)

Insulators (Fiber glass and similar irritating materials)

Working on Charred Material (Building construction only)

Working on Swinging, Hanging Non-rigid Scaffolding, Bos'n

Chairs, or suspended from a rope or cable or from a safety belt.

(Men working on scaffolding attached to form panels or forms which are hanging or swinging are entitled to premium pay so long as the forms are hanging; after such panels are firmly attached to make them rigid, premium pay is no longer applicable)

Saw Filers

Stationary Power Saw Operators

Foremen

Apprentice Rates

|                    |                        |                 |                        |
|--------------------|------------------------|-----------------|------------------------|
| 1st 6 month period | 65% of Journeyman rate | 5th 6 mo period | 85% of Journeyman rate |
| 2nd " "            | 70% "                  | 6th " "         | 90% "                  |
| 3rd " "            | 75% "                  | 7th &           |                        |
| 4th " "            | 80% "                  | 8th " "         | 95% "                  |

## Building and Construction Trades (cont'd)

Overtime - All work performed before and/or after any scheduled shift hours, and all work performed on Saturdays, Sundays and holidays shall be paid at double the straight time hourly rate.

### PILEDRIVERS

Effective 5-1-69 to 5-1-70

|                                              |        |
|----------------------------------------------|--------|
| Piledrivermen, Bridge, Dock & Wharf Builders | \$5.68 |
| Piledrivermen Riggers                        | "      |
| Burnermen and Welders                        | "      |
| Stationary Power Saw Operators               | "      |
| Boom Men                                     | "      |
| Foremen                                      | 5.78   |

Overtime -All work performed before and/or after any scheduled shift hours, and all work performed on Saturdays, Sundays and holidays shall be paid at double the straight time hourly rate.

15¢ premium allowance working with creosote material.

### CEMENT MASONS

Effective 8-1-69 to 8-1-70

|                         |        |
|-------------------------|--------|
| Journeyman Cement Mason | \$5.61 |
|-------------------------|--------|

Journeyman Mastic Worker, Composition

Worker, Guniting Man, Power Machinery Operator

Overtime - Double time for overtime shall be paid for all overtime after ten (10) hours per day Monday through Friday and double time for all Saturday Work. Time & one-half if notified seven days in advance for Saturday work; double time for Sundays & holidays.

Foremen - 25¢ above Journeyman rate

### IRON WORKERS

Effective 7-21-69 to 7-21-70

|                                    |        |
|------------------------------------|--------|
| Structural Ironworkers             | \$6.33 |
| Ornamental Ironworkers             | "      |
| Machinery Mover, Machinery Erector | "      |
| Riggers                            | "      |
| Signal Men                         | "      |
| Welders and Burners                | "      |
| Fence Erectors                     | "      |
| Sheeters                           | "      |
| Reinforcing Ironworkers            | "      |

Foreman - 3 men or less - not less than 25¢ p/hr over Journeyman rate.

4 men or more - not less than 50¢ p/hr over Journeyman rate.

Overtime - Double time.

Apprentice - 1st year 80% of Journeyman Ironworker rate

2nd year 90% of Journeyman Ironworker rate

3rd year 95% of Journeyman Ironworker rate

## HOISTING AND PORTABLE ENGINEERS

### Group I

Effective 6-1-69 to 6-1-70

Brakeman and Deck Hand (if used) \$5.36  
Crusher Feeder Operator, Power (when required)  
Oilers, all equipment  
Oilers & Cable tenders on Mucking Machines  
Pumpman, under 4"  
Grade Checker  
Conveyor Operator

### Group II

"A" Frame Truck Operator, single drum 5.48  
Blade Operator, pull type  
Fireman, Dredge, Floating Derrick, Retort & Shovel  
H.D. Mechanic Helper  
Road Roller Operator, Grading, Base & Surfacing  
NOTE: Compactors-Rollers (towed) - takes rate  
of power unit towing  
Truck Crane Oiler-Driver  
Drill Helper  
Welding Machine Operator  
Tar Pot Fireman (Power agitated)

### Group III

Air Compressor Operator, portable or stationary 5.60  
under 1000 cu. ft. capacity  
Burnerman or Drier-Fireman  
Cement Hog Operator  
Concrete Saw Operator - Self-propelled unit  
Fork Lift or Lumber Stacker Operator on construction job site  
Lumber Carrier, on construction job site  
Bucket Elevator Loader Operator-Barber Greene & Sim. types  
Pugmill Operator  
Pumpman, 4" and over  
Tamping Machine Operator, mechanical self-propelled  
Wire Mat Machine Operator or Brooming Machine Operator  
on Concrete paving  
Truck mounted Asphalt Spreaders  
Hydraulic Pipe Press (sewer & water line)  
Oiler on equipment spread

### Group IV

Hydra Hammer or similar types 5.74  
Compactor Operator, self-propelled  
Concrete Mixer Operator, single drum,  
under 5 bag capacity and Group Pump  
Locomotive Operator, under 40 tons  
Screed Operator (asphalt or rock spreader)

### Group V

Air Compressor Operator, stationary over 5.78  
1000 cu. ft. capacity  
Batch Plant Material Control Operator  
(Portland cement concrete multiple unit mixers)  
Bell Boy (Cableway, Cranes & Hoists)

# HOISTING AND PROTABLE ENGINEERS (CONT'D)

## Group V (cont't)

Effective 6-1-69 to 6-1-70

Hoist Operator, single drum  
 Chip Spreker Operator, Flaherty and similar  
 Tractor Operator, rubber tired or crawler  
     type, 50 H.P. Flywheel and under  
 Trenching Machine Operator, 7 ft. depth  
     capacity and under -- mfgs. rating  
 Elevator Operator

\$5.78

## Group VI

Asphalt Plant Operator-Engineer  
 Asphalt Paver Operator, Adnum, Yeager, Barber  
     Greene or similar types  
 Concrete Paving Finishing Machine Operator  
 Concrete Paving Spreader Operator  
 Overhead and Front End Loader Operator--  
     rubber tired type under 2½ cu. yds.  
 Rock Spreaders self-propelled--  
     Koehring, Blaw Knox and similar types

5.84

## Group VII

Blade Operator, self-propelled (50 H.P. flywheel  
     and under)  
 Boom Truck Operator, single and double drums  
     and "A" Frame Operator, double drum (includes  
     Karry Crane)  
 Cement Pump Operator, Fuller, Kenyon and similar  
 Concrete Pump Operator  
 Concrete Mixer Operator, single drum, 5 bag  
     capacity and over  
 Churn Drill and Earth Boring  
     Machine Operator  
 Elevating Grader Operator (tractor towed  
     requiring operator on grader)  
 Locomotive Operator, 40 tons and larger  
 Pumpcrete Operator  
 Road Roller Operator, finishing high type pavement  
 Towermobile Operator  
 Tractor with Scraper, 2 and 4 wheel  
     (50 H.P. flywheel and under)  
 Wheel or Crawler Type Hoe Operator, 3/8 cu. yd.  
     and under and front end attachments, Ford,  
     Ferguson, Deere and similar types  
 Railroad Ballast Regulator Operator (self-propelled)  
 Railroad Power Tamper Operator (self-propelled)  
 Railroad Track Liner Operator (self-propelled)  
 Railroad Power Tamper Jack Operator (self-propelled)

5.92

## Group VIII

General Plant Operator (Diesel-Electric when required  
     by employer)  
 Batch Plant and/or Wet Mix Operator (one and two drums)  
 Kolman and Co-Cal Loaders

6.00

## HOISTING AND PORTABLE ENGINEERS (CONT'T)

### Group IX

Effective 6-1-69 to 6-1-70

Bolt Threading Machine Operator  
Crushing Plant Operator \$6.08  
H.D. Mechanic or Welder  
Overhead and Front End Loader  
Operator--rubber tired 2½ cu. yd.  
& under 4 cu. yds.  
Surface Heater and Planer Operator  
Tractor Operator, rubber tired or crawler type  
over 50 H.P. Flywheel  
Self-Propelled Compactor Operator (with dozer blade)  
Jack Operator, elevating barges  
Stationary Drag Scraper Operator  
Trenching Machine Operator over 7 ft. capacity--  
mfrs. rating  
Percussion Drills--Quarry Master, Gardner Denver,  
Robbins, Drill Master, Job and similar types  
Bit Grinder  
Concrete Cooling Plant Operator  
Cleaning & Doping, Bending Wrapping & Boring  
Machine Operator  
Grizzly Operator

### Group X

Diamond Core, Cable and Rotary Drill 6.12  
Machine Operator, exploration and grout work

### Group XI

Mixermobile Operator  
Mucking Machine Operator 6.16  
Shovel, Dragline, Crane, Skoppe, or Backhoe  
Operator (under 1 cu. yd.)  
Truck Cranes 25-ton capacity and under--mfrs. rating

### Group XII

Blade Operator--self-propelled (over 50 H.P.) Flywheel  
Combination Batch Plant and Mixer Operator (multiple 6.20  
units or 3 mixers or more)  
Hoist Operator, two or more active drums  
Elevating Loader Operator, Athey and similar types  
Pile Driver Engineer  
Tractor Operator with Scraper (over 50 H.P.) Flywheel  
DW 20, DW 21, TS 24, 641 or similar types  
Blade Mounted Spreaders--Ulrich and similar types  
Tunnel Shield Operator

### Group XIII

Cableway Operator (up to 25 tons)  
Clamshell Dredge Operator 6.30  
Concrete Paving Road Mixer Operator (including dual drum)

## HOISTING AND PORTABLE ENGINEERS (CONT'D)

### Group XIII (cont'd)

Effective 6-1-69 to 6-1-70

Crane Operator, Locomotive, Gantry,  
Hammerhead, Overhead Bridge and  
Tower Cranes (Pecco, Linden)

\$6.30

Derrick Operator (live boom)

Elevating Grader Operator (operated by  
tractor operator, similar to Sierra,  
Euclid & Dumor)

Shovel, Dragline, Crane, Skooper, or  
Backhoe Operator (1 cu. yd. including  
3 cu. yds)

Truck Cranes--Over 25-ton capacity & including  
50-ton capacity--mfrs. rating.

Back Filling Machine Operator

### Group XIV

DD-9 Cat (Robot)

6.44

Tractor Operator with Rubber Tire or Crawler  
with Tandem Attachments

### Group XV

Rock Hound, Wagner, Letourneau and Similar New line  
Overhead and Front End Loader Operator--rubber  
tired type (4 cu. yds. and including 7)

6.62

### Group XVI

Cableway Operator (25 tons and over)

6.78

Crane Operator, Whirley (Washington, American,  
Colby or similar types)

Shovel, Dragline, Crane, Skooper, or Backhoe  
Operator (over 3 cu. yds.)

Truck Crane--over 40-ton capacity--mfrs. rating

Concrete Slip Form Paving & Finishing  
Machine Operator

Overhead & Front End Loader Operator--rubber tired  
type (over 7 yds.)

Foreman - 35¢ per hour above highest paid classification under his  
supervision.

Overtime - All operating engineers working on Building Construc-  
tion work shall receive double time (2) for all work  
in excess of eight (8) hours per day Monday through  
Friday and for all work performed on Saturdays, Sundays  
and Holidays, except that all operating engineers  
directly involved in concrete pouring shall receive  
time and one-half (1½) for all work in excess of eight  
(8) hours per day Monday through Friday and double time  
(2) for work performed on Saturdays, Sundays and Holi-  
days.

LABORERS - Heavy, Highway, Utility and Building Construction Work

Group I

Effective 6-1-69 to 6-1-70

Includes General Laborers and the following:

\$4.50

Asphalt Plant Laborers

Asphalt Spreaders

Batch Weighmen

Broomers

Brush Burners and Cutters

Car and truck Loaders

Carpenter Tender

Change-House Man or Dry Shack Man

Choker Setters

Clean up Laborers

Concrete Laborers

Crusher Feeders

Culvert, Hand Labor

Curing, Concrete

Demolition, Wrecking, and Moving Laborers

Driller Helpers

Dumpers, Road oiling crew

Dumpmen (For Grading Crew)

Elevator Feeders

Fence Builder (Including Guard Rail, Median Rail,  
Reference Post, Guide Post, Right-of-way Marker)

Fine Graders

Flagmen, Traffic

Form Strippers (Not Swinging Stages)

Landscaping or Planting Laborers

Leverman on Aggregate Spreader (Flaharty and  
similar types)

Loading Spotters

Material Yard Man (including Electrical)

Powderman Helper

Pittsburgh Chipper Operator or similar types

Railroad Track Laborers

Ribbon Setters (including Steel Forms)

Rip Rap Man (Hand Placed)

Road Pump Tender

Sewer Labor

Signalman

Skipmen

Slopers

Spraymen

Stake Chaser-Stake Setter-Grade Checker

Stockpiler

Timber Faller and Bucker (Hand Labor)

Toolroom Man (At Job Site)

Tunnel Bull Gang (Above Ground)

Weigh Man-Crusher Aggregate (When Used)

LABORERS - Heavy, Highway, Utility and Building Construction Work  
(cont'd)

Group II

Effective 6-1-69 to 6-1-70

Applicator (Including Pot Tender for Same),  
applying protective material by hand or  
nozzle on utility lines or storage tanks  
on project

\$4.65

Burners

Choker Splicer

Clary Power Spreader and similar types

Clean-Up Nozzlemen-Greencutter (Concrete  
Rock, etc.)

Concrete Power Buggyman

Demolition and Wrecking Charred Materials

Guniting Nozzleman Tender

Guniting or Sand Blasting Pot Tender

Handlers or Mixers of all insulating

Material of an irritating nature (including  
Cement and Lime)

Power Tool Operators, includes but not

Limited to:

Jackhammer;

Chipping Guns;

Paving Breakers;

Vibrators (less than 4" in diameter)

Post Hole Digger, Air, Gas or Electric;

Vibrating Screed;

Tampers

Ribbon Setter, Head

Rip Rap Man (Head, Hand Placed)

Sand Blasting (Wet)

Sewer Timberman

Timber Buckers and Fallers, Brush Cutters  
(Power Saw)

Tunnel-Muckers, Brakemen, Concrete Crew,  
Bull Gang (Underground)

Group III

Effective 6-1-69 to 6-1-70

Asphalt Rakers

Bit Grinder

\$4.80

Drill Doctor

Drill Operators, Air Tracks, Cat Drills,  
Wagon Drills, Rubber-Mounted Drills,  
and other similar types

Concrete Saw Operator

Guniting Nozzleman

High Scalers, Strippers and Drillers (Cover  
Work in Swinging Stages, Chairs or Belts  
under extreme conditions unusual to normal  
drilling, blasting, barring-down, or  
sloping and stripping)

Powdermen

Power Saw Operators (Bucking and Falling  
merchantable logs)

LABORERS - Heavy, Highway, Utility and Building Construction Work  
(cont'd)

Group III (cont'd)

Effective 6-1-69 to 6-1-70

Pumpcrete Nozzleman

Sand Blasting (Dry)

\$4.80

Sewer Pipe Layers

Track Liners, Anchor Machines, Ballast

Regulators, Multiple Tampers, Power Jacks

Tugger Operator

Tunnel--Chuck Tenders, Nippers, and Timbermen

Vibrators (4" and larger)

Water Blaster

Welder

Tunnel Miners

Tunnel Powdermen

Any Laborers working in live sewers shall receive \$5.00 per day in addition to his regular pay.

Group IV

Effective 6-1-69 to 6-1-70

Tunnel Miners

\$4.95

Tunnel Powderman

TEAMSTERS- Building & Highway & Heavy Construction Work - Cont'd

Two or four wheeled tractor with trailer  
such as turnorocker or similar type equipment  
top-loaded:

|                                     |        |
|-------------------------------------|--------|
| 9 cu. yds and under                 | \$5.48 |
| Over 9 cu. yds and inc. 20 cu. yds. | 5.58   |
| Over 20 cu.yds and inc. 30 cu. yds. | 5.68   |
| Over 30 cu.yds and inc. 40 cu. yds. | 5.78   |
| Over 40 cu.yds and inc. 50 cu. yds. | 5.88   |
| Over 50 cu.yds and inc. 60 cu. yds. | 5.98   |

\*Warehouseman (warehouse parts, tool men & parts  
chaser, checkers & receivers) 5.18

Water Wagons (rated capacity)

|                      |      |
|----------------------|------|
| Up to 1600 gallons   | 5.18 |
| 1600 to 3000 gallons | 5.28 |
| 3000 to 5000 gallons | 5.33 |
| 5000 to 7000 gallons | 5.48 |
| Over 7000 gallons    | 5.58 |

Winch truck--Takes classification of truck  
on which winch is mounted.

\*Denotes Modified Classification, 1967

Overtime: The work week shall be forty (40) hours, Monday through Friday, and the work day shall not exceed eight (8) hours per day. All time worked in excess of the foregoing shall be paid for at the rate of time and one-half ( $1\frac{1}{2}$ ). Work performed on Saturdays shall be paid for at the rate of time and one-half ( $1\frac{1}{2}$ ). Sunday and holiday work shall be paid for at the rate of double time.

[illegible]

[illegible]

## GENERAL CONDITIONS

### A. DEFINITIONS

A-1. Contract Documents. The "Contract Documents" consist of the Advertisement for Bids, the Proposal, the Contract, the Performance Bond, the Information for Bidders, the Special Provisions, the General Conditions, the Specifications, and the Plans, including all modifications thereof incorporated into the Documents before their execution. These form the Contract.

A-2. Owner, Contractor, Bidder. The "Owner," "Contractor," and "Bidder" are those named as such in the Contract Documents.

A-3. Engineer. Wherever the word "Engineer" occurs in these Contract Documents, the word shall signify the firm of Cornell, Howland, Hayes & Merryfield, which has been designated by the Owner to be the Engineer for the work.

A-4. Written Notice. The term "Written Notice" shall signify a written communication delivered in person or by certified or registered mail to the individual, or to a member of the firm, or to an officer of the corporation for whom it is intended. Certified or registered mail shall be addressed to the last business address known to him who gives the notice.

A-5. Work. The word "Work" within these Contract Documents shall include all material, labor, tools, and all appliances, machinery, transportation, and appurtenances necessary to perform and complete the Contract, and such additional items not specifically indicated or described which can be reasonably inferred as belonging to the item described or indicated and as required by good practice to provide a complete and satisfactory system or structure.

### B. CONTRACT DOCUMENTS

B-1. Intent of Contract Documents. The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intent of the Documents is to include all work (except specific items to be furnished by the Owner), necessary for completion of the Contract. Materials or work described in words which so applied have a well-known technical and trade meaning shall be held to refer to such recognized standards.

B-2. Discrepancies and Omissions. Any discrepancies or omissions found in the Contract Documents shall be reported to the Engineer immediately. The Engineer will clarify discrepancies or omissions, in writing, within a reasonable time.

In resolving inconsistencies among two (2) or more sections of the Contract Documents, precedence shall be given in the following order:

Contract  
Special Provisions  
General Conditions  
Special Specifications  
Plans  
Standard Specifications

Figure dimensions on Plans shall take precedence over scale dimensions; detailed Plans shall take precedence over general Plans.

B-3. Alterations. The Owner, without invalidating the Contract, may order extra work or make changes by altering, adding to, or deducting from the work, the Contract being adjusted accordingly. All such work shall be executed under the conditions of the original Contract, except as specifically adjusted at the time of ordering such change.

In giving instructions, the Engineer may order minor changes in the work not involving extra cost and not inconsistent with the purposes of the structure; but otherwise, except in an emergency endangering life or property, extra work or deductions from the work shall be performed only in pursuance of a written order from the Owner, signed or countersigned by the Engineer, or a written order from the Engineer stating that the Owner has authorized the deduction, extra work, or change; and no claim for additional payment shall be valid unless so ordered.

If the work is reduced by alterations, such action shall not constitute a claim for damages based on loss of anticipated profits.

B-4. Verification and Warranty. The Contractor shall determine the nature and location of the work, the general and local conditions, and all other matters which can in any way affect the work under this Contract. Failure to make an examination necessary for this determination shall not release the Contractor from the obligations of this Contract. The Contractor warrants that no verbal agreement or conversation with any officer, agent, or employee of the Owner, either before or after the execution of this Contract, has affected or modified any of the terms or obligations herein contained.

B-5. Copies to be Kept on the Work. The Contractor shall keep one (1) copy of the Contract Documents on the work, in good order, available to the Engineer and to his representatives.

B-6. Copies to be Furnished. The Engineer will furnish to the Contractor, on request and free of charge, six (6) copies of the Contract Documents and six (6) sets of full-size Plans or a sepia of the tracings. Additional copies of Contract Documents or Plans may be obtained on request by paying the actual cost of reproducing the Contract Documents or Plans.

B-7. Ownership of Drawings. All Plans, Drawings, Specifications, and copies thereof furnished by the Engineer are his property. They are not to be used on other work and, with the exception of the signed Contract set, are to be returned to him on request at the completion of the work. All models are the property of the Owner.

### C. THE ENGINEER

C-1. Authority of the Engineer. The Engineer shall be the Owner's representative during the construction period. His authority and responsibility shall be limited to the provisions set forth in these Contract Documents. The Engineer shall have the authority to reject all work and materials and to stop the work whenever such rejection and/or stoppage may be necessary to insure execution of the Contract in accordance with the intent of the Contract Documents.

C-2. Duties and Responsibilities of the Engineer. The Engineer shall make periodic visits to the site of the project to observe the progress and quality of the work and to determine, in general, if the work is proceeding in accordance with the intent of the Contract Documents. He shall not be required to make comprehensive or continuous inspections to check quality or quantity of the work, and he shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the work. Visits and observations made by the Engineer shall not relieve the Contractor of his obligation to conduct comprehensive inspections of the work and to furnish materials and perform acceptable work, and to provide adequate safety precautions, in conformance with the intent of the Contract.

The Engineer shall make decisions, in writing, on all claims of the Owner or the Contractor arising from interpretation or execution of the Contract Documents. Such decision shall be necessary before the Contractor can receive additional money under terms of the Contract. Changes in work or extra work ordered by the Engineer shall be made in compliance with Article B-3 of the General Conditions.

One or more inspectors may be assigned to observe the work and to act in matters of construction under this Contract. It is understood that such inspectors shall have the power to issue instructions and make decisions within the limitations of the authority of the Engineer. Such inspection shall not relieve the Contractor of his obligations to conduct comprehensive inspections of the work and to furnish materials and perform acceptable work, and to provide adequate safety precautions, in conformance with the intent of the Contract.

C-3. Rejected Material. Any material condemned or rejected by the Engineer or his authorized inspector because of nonconformity with the Contract Documents shall be removed at once from the vicinity of the work by the Contractor at his own expense, and the same shall not be used on the work.

C-4. Unnoticed Defects. Any defective work or material that may be discovered by the Engineer before the final acceptance of work, or before final payment has been made, or during the guarantee period, shall be removed and replaced by work and materials which shall conform to the provisions of the Contract Documents. Failure on the part of the Engineer to condemn or reject bad or inferior work or materials shall not be construed to imply acceptance of such work or materials.

C-5. Right to Retain Imperfect Work. If any part or portion of the work done or material furnished under this Contract shall prove defective and not in accordance with the Plans and Specifications, and if the imperfection in the same shall not be of sufficient magnitude or importance as to make the work dangerous or undesirable, or if the removal of such work will create conditions which are dangerous or undesirable, the Owner shall have the right and authority to retain such work but shall make such deductions in the final payment therefor as may be just and reasonable.

C-6. Lines and Grades. Lines and grades shall be established as provided in the Special Provisions. The Contractor shall make every effort to notify the Engineer at least three (3) days in advance of the time when the line and grade will be needed. The Contractor will not be allowed extensions of time because of delays caused by insufficient line and grade. All stakes, marks, and other information shall be carefully preserved by the Contractor; and in cases of their careless or unnecessary destruction or removal by him or his employees, such stakes, marks, and other information shall be replaced by the Engineer at the Contractor's expense. The Contractor shall be responsible for the transfer to the structure of the lines and grades as set by the Engineer.

C-7. Shop Drawings. The Contractor shall submit, in quadruplicate, to the Engineer for his review, such shop drawings and/or catalog cuts for fabricated items and manufactured items (including mechanical and electrical equipment) required for the construction. Drawings shall be submitted in sufficient time to allow the Engineer not less than ten (10) regular working days for examining the drawings.

These drawings shall be accurate, distinct, and complete, and shall contain all required information, including satisfactory identification of items, units, and assemblies in relation to the Contract drawings and Specifications.

Unless otherwise approved by the Engineer, shop drawings shall be submitted only by the Contractor, who shall indicate by a signed stamp on the drawings, or other approved means, that he (the Contractor) has checked the shop drawings, and that the work shown is in accordance with Contract requirements and has been checked for dimensions and relationship with work of all other trades involved. The practice of submitting incomplete or unchecked shop drawings for the Engineer to correct or finish will not be acceptable; and shop drawings which, in the opinion of the Engineer, clearly indicate that they have not been checked by the Contractor will be considered as not complying with the intent of the Contract Documents and will be returned to the Contractor for resubmission in the proper form.

When the shop drawings have been reviewed by the Engineer, two (2) sets of submittals will be returned to the Contractor appropriately stamped. If major changes or corrections are necessary, the drawing may be rejected and one (1) set will be returned to the Contractor with such changes or corrections indicated, and the Contractor shall correct and resubmit the drawings, in quadruplicate, unless otherwise directed by the Engineer. No changes shall be made by the Contractor to resubmitted shop drawings other than those changes indicated by the Engineer.

The review of such drawings and catalog cuts by the Engineer shall not relieve the Contractor from responsibility for correctness of dimensions, fabrication details and space requirements, or for deviations from the Contract drawings or Specifications, unless the Contractor has called attention to such deviations in writing by a letter accompanying the drawings and the Engineer approves the change or deviations in writing at the time of submission; nor shall review by the Engineer relieve the Contractor from the responsibility for errors in the shop drawings. When the Contractor does call such deviations to the attention of the Engineer, the Contractor shall state in his letter whether or not such deviations involve any deduction or extra cost adjustment.

C-8. Detail Drawings and Instructions. The Engineer will furnish, with reasonable promptness, additional instructions by means of drawings or otherwise, if, in the Engineer's opinion, such are required for the proper execution of the work. All such drawings and instructions will be consistent with the Contract Documents, true developments thereof, and reasonably inferable therefrom.

#### D. THE CONTRACTOR AND HIS EMPLOYEES

D-1. Subcontracting. The Contractor shall, as soon as practicable after the execution of the Contract, notify the Engineer, in writing, of the names of the subcontractors proposed for the principal parts of the work and for such others as the Engineer may direct, and shall not employ any that the Engineer may within a reasonable time object to as lacking the capability to properly perform work of the type and scope specified.

The Contractor agrees that he is as fully responsible to the Owner for the acts and omissions of his subcontractors and of persons either directly or indirectly employed by them as he is for the acts and omissions of persons directly employed by him.

Nothing contained in the Contract Documents shall create any contractual relation between any subcontractor and the Owner.

D-2. Performance Bond. The Contractor shall furnish a surety bond of the form included herewith, in an amount at least equal to the total amount of the Proposal, as security for the faithful performance of the Contract and the payment of all persons supplying labor and materials for the construction of the work, and to cover all guarantees against defective workmanship or materials, or both, for a period of one (1) year after the date of final acceptance of the work by the Owner. Said bond shall be issued by a surety company authorized to issue such bonds in the State of Oregon and must, in all respects, be satisfactory and acceptable to the Owner.

D-3. Insurance. The Contractor shall provide the insurance coverage designated hereinafter and pay all costs.

a. Contractor's and Subcontractor's Insurance. The Contractor shall not commence work under this Contract until he has obtained all the insurance required hereunder and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work on

his subcontract until all similar insurance required of the subcontractor has been so obtained and approved. Approval of the insurance by the Owner shall not relieve or decrease the liability of the Contractor hereunder.

b. Compensation and Employer's Liability Insurance. The Contractor shall take out and maintain during the life of this Contract the statutory Workmen's Compensation and Employer's Liability Insurance for all of his employees to be engaged in work on the project under this Contract and, in case any such work is sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation and Employer's Liability Insurance for all of the latter's employees to be engaged in such work.

c. Bodily Injury Liability and Property Damage Liability Insurance. The Contractor shall take out and maintain during the life of this Contract such Bodily Injury Liability and Property Damage Liability Insurance and Automobile Bodily Injury Liability and Property Damage Liability Insurance as shall protect him, the Owner, the Engineer, and any subcontractor performing work covered by this Contract from claims for damages for personal injury, including accidental death, as well as from claims for property damage, which may arise from operations under this Contract, whether such operations be by himself or by any subcontractor or by anyone directly or indirectly employed by either of them, and the amounts of such insurance shall be not less than:

- (1) Bodily Injury Liability Insurance in an amount not less than One Hundred Thousand Dollars (\$100,000.00) for injuries, including wrongful death to any one person, and subject to the same limit for each person in an amount not less than Three Hundred Thousand Dollars (\$300,000.00) for each occurrence.
- (2) Property Damage Insurance in an amount not less than One Hundred Thousand Dollars (\$100,000.00) for damages for each occurrence.

d. State Highway Department Insurance Coverage. When the construction is to be accomplished within the right-of-way of the Oregon State Highway Department or on lands over which they have direct or indirect control, the Contractor's Liability Insurance Policy shall contain the following endorsement:

"The State of Oregon, the State Highway Commission and members thereof, its officers, agents, and employees are hereby included as named insureds in the herein numbered policy, except as to claims against the primary named insured for injury to their persons or damage to any of its or their property.

"Cancellation of this endorsement or of the policy to which it is attached may be effected by agreement of the parties hereto, or by the company or the primary named insured giving not less than thirty (30) days' notice in writing and by certified mail to the Director of Permits, Room 121, State Highway Building, Salem, Oregon; said notice to commence to run from the date notice is actually received at said office.

"The limits of liability of the company for the operations of the insured in construction operations on the right-of-way of State Highways shall be as follows:

Bodily Injury Liability ---- Each Person ----- \$100,000  
Each Accident ---- \$300,000  
Property Damage Liability -- Each Occurrence -- \$100,000

"Limits provided herein are the minimum limits required by the Oregon State Highway Commission and shall in no way be considered a reduction in limits as originally provided in this policy."

e. Fire Insurance. Fire insurance coverage shall be provided as set forth in the Special Provisions.

f. Certificates of Insurance. Before commencing work under this Contract, Contractor shall furnish the Owner with certificates of insurance specified herein showing the type, amount, class of operations covered, effective dates, and date of expiration of policies, and containing substantially the following statement:

"The insurance covered by this certificate will not be cancelled or materially altered, except after ten (10) days' written notice has been received by the Owner."

D-4. Permits and Licenses. The Contractor shall keep himself fully informed of all local ordinances, State and Federal laws in any manner affecting the work herein specified. He shall at all times comply with said ordinances, laws, and regulations, and protect and indemnify the Owner and its officers and agents against any claim or liability arising from or based on the violation of any such laws, ordinances, or regulations. All permits, licenses, and inspection fees necessary for prosecution and completion of the work shall be secured and paid for by the Contractor, unless otherwise specified.

D-5. Superintendence. The Contractor shall keep on the work, during its progress, competent supervisory personnel. The Contractor shall give efficient supervision to the work, using his best skill and attention. The Contractor shall be solely responsible for all construction means, methods, techniques, and procedures, and for providing adequate safety precautions and coordinating all portions of the work under the Contract.

D-6. Reception of Engineer's Directions. The superintendent, or other duly authorized representative of the Contractor, shall represent the Contractor and all directions given to him by the Engineer shall be binding. Such directions of major importance will be confirmed in writing. Any direction will be so confirmed in each case on written request from the Contractor.

D-7. Sanitation. Sanitary conveniences shall be erected and maintained by the Contractor at all times while men are employed on the work; and the use of such sanitary conveniences shall be strictly enforced. The location of such conveniences shall be approved by the Engineer.

D-8. Employees. The Contractor shall employ only competent, skillful men to do the work; and whenever any person shall appear to be incompetent or to act in a disorderly or improper manner, such person shall be removed from the work.

D-9. Requirements of Oregon Law for Public Contracts. When the Contract Documents concern public works of the State or any County, municipality, or political subdivision created by its laws, the applicable statutes of the State of Oregon shall apply. For this reason Sections 279.310 through 279.356 of the Oregon Revised Statutes, as amended or superseded, including the latest additions and revisions, are incorporated by reference as parts of these Contract Documents.

These sections define the requirements of Oregon law for public contracts:

a. Concerning payment of laborers and materialmen, contributions to Industrial Accident Fund, preventions of liens, payment of withholding taxes.

b. Concerning the maximum hours of labor, payment of not less than the prevailing rate of wages, payment of medical care and attention to employees, certification of wages by contractors and subcontractors, liability to workmen for violation of minimum wage rate requirements.

c. Concerning payment of claims by public officers, termination of Contract because of a national emergency, conditions concerning the forfeiture of Contract.

It is understood and agreed that all parties to this Contract shall determine the contents of these applicable statutes and comply with their provisions throughout the performance of the Contract.

D-10. Safety Precautions. The Contractor shall take all necessary precautions for the safety of employees on the work and shall comply with all applicable provisions of Federal, State, and municipal safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the premises where the work is being performed. The Contractor shall, without further order, provide and maintain at all times during the progress or temporary suspension of the work, suitable barricades, fences, signs, signal lights, and flagmen as are necessary or required to insure the safety of the public and those engaged in the work. The operations of the Contractor, for the protection of persons, and the guarding against hazards from machinery and equipment, shall meet the requirements of the applicable State laws and the current safety regulations as set forth in the Oregon Safety Codes adopted and published by the Workmen's Compensation Board, Salem, Oregon.

D-11. Protection of Property.

a. Protection of Work and Property. The Contractor shall at all times safely guard the Owner's property from injury or loss in connection with this Contract. He shall at all times safely guard and protect his own work, and that of adjacent property (as provided by law and the Contract Documents) from damage. All passageways, guard fences, lights, and other facilities required for protection by State or municipal laws and regulations and local conditions, must be provided and maintained.

b. Responsibility of Contractor to Act in Emergency. In case of an emergency which threatens loss or injury of property, and/or safety of life,

the Contractor shall act, without previous instructions from the Owner or Engineer, as the situation may warrant. He shall notify the Engineer thereof immediately thereafter. Any compensation claimed by the Contractor, together with substantiating documents in regard to expense, shall be submitted to the Owner through the Engineer and the amount of compensation shall be determined by agreement or arbitration.

D-12. Materials and Appliances. Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary for the execution and completion of the work.

Unless otherwise specified, all materials shall be new, and both workmanship and materials shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

D-13. Access for Inspection. The Contractor shall furnish, without extra charge, the necessary test pieces and samples, including facilities and labor for obtaining the same, as requested by the Engineer. When required, the Contractor shall furnish certificates of tests of materials and equipment made at the point of manufacture by a recognized testing laboratory.

The Engineer and his representatives shall at all times have access to the work wherever it is in preparation or progress, and the Contractor shall provide facilities for such access and for inspection, including maintenance of temporary and permanent access.

If the Specifications, the Engineer's instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, the Contractor shall give timely notice of its readiness for inspection. Inspections to be conducted by the Engineer will be promptly made, and where practicable, at the source of supply. If any work should be covered up without approval or consent of the Engineer, it shall, if required by the Engineer, be uncovered for examination at the Contractor's expense.

Re-examination of questioned work may be ordered by the Engineer; and, if so ordered, the work shall be uncovered by the Contractor. If such work be found in accordance with the Contract Documents, the Owner will pay the cost of re-examination and replacement. If such work be found not in accordance with the Contract Documents, the Contractor shall correct the defective work at no additional cost to the Owner.

D-14. Royalties and Patents. The Contractor shall pay all royalty and license fees, unless otherwise specified. He shall defend all suits or claims for infringement of any patent rights and shall save the Owner and the Engineer harmless from loss on account thereof.

D-15. Indemnity. The Contractor shall indemnify, save harmless, and defend the Owner and the Engineer from and against all costs, expenses, and losses and all claims, demands, payments, suits, actions, recoveries, and judgments of every nature and description made, brought, or recovered against the Owner by reason of any act or omission of the Contractor, his agents or employees, in the execution of the work or in guarding the same.

D-16. Taxes and Charges. The Contractor shall withhold and pay any and all withholding taxes, whether State or Federal; and pay all Social Security charges and also all State Unemployment Compensation charges; and pay or cause to be withheld, as the case may be, any and all taxes, charges, or fees or sums whatsoever, which are now or may hereafter be required to be paid or withheld under any laws.

D-17. Unforeseen Difficulties. The Contractor shall protect his work and materials from damage due to the nature of the work, the elements, carelessness of other contractors, or from any cause whatever until the completion and acceptance of the work. All loss or damages arising out of the nature of the work to be done under these Contract Documents, or from any unseen obstruction or defects which may be encountered in the prosecution of the work, or from the action of the elements shall be sustained by the Contractor.

D-18. Contractor's Right to Stop Work or Terminate Contract. If the work should be stopped under an order of any court or other public authority for a period of three (3) months, through no act or fault of the Contractor or of anyone employed by him; or if the Engineer should fail to issue any estimate for payment within fifteen (15) days after it is due; or if the Owner should fail to pay the Contractor within thirty (30) days after the time specified in Article F-1 of these General Conditions any sum certified by the Engineer, then the Contractor may, upon fifteen (15) days' written notice to the Owner and the Engineer, stop work or terminate this Contract and recover from the Owner payment for all work executed and any loss sustained upon any plant or material and reasonable profit, unless said default has been remedied within said time.

D-19. Correction of Defective Work After Final Acceptance. All work, including the design of mechanical and electrical components of equipment and/or design of packaged control systems which are furnished as a component of equipment, shall be guaranteed for a period of one (1) year against defects in materials and workmanship. The Contractor hereby agrees to make, at his own expense, all repairs or replacements necessitated by defects in materials or workmanship supplied by him that become evident within one (1) year after the date of final acceptance of the work. The Contractor also agrees to hold the Owner harmless from claims of any kind arising from damage due to said defects. The Contractor shall make all repairs and replacements promptly upon receipt of written orders for same from the Owner. If the Contractor fails to make the repairs and replacements promptly, the Owner may do the work, and the Contractor and his Surety shall be liable for the cost thereof. Any additional requirements for the project relative to correction of defective work after final acceptance are set forth in the Special Provisions.

#### E. PROGRESS OF THE WORK

E-1. Beginning of the Work. Before work shall be started and materials ordered, the Contractor shall meet and consult with the Engineer relative to materials, equipment, and all arrangements for prosecuting the work.

E-2. Schedules and Progress Reports. Prior to starting the construction, the Contractor shall furnish the Engineer for his approval, if requested, a schedule or schedules of expected progress of the work under the Contract

showing approximately the dates on which each part or division of the work is expected to be started and finished. The progress schedules shall be submitted regularly and shall cover a time period satisfactory to the Engineer. The Contractor shall also forward to the Engineer, if requested, as soon as practicable after the first day of each month, a summary report of the progress of the various parts of the work under the Contract in the shops and in the field, stating the existing status, rate of progress, estimated time of completion, and cause of delay, if any.

E-3. Prosecution of the Work. It is expressly understood and agreed that the time of beginning, rate of progress, and time of completion of the work are of the essence of this Contract. The work shall be prosecuted at such time, and in or on such part or parts of the project as may be required, to complete the project as contemplated in the Contract Documents and the approved construction schedule.

If the Contractor desires to carry on work at night or outside the regular hours, he shall give timely notice to the Engineer to allow satisfactory arrangements to be made for inspecting the work in progress.

E-4. Assignment. Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other; nor shall the Contractor assign any monies due or to become due to him hereunder without the previous written consent of the Owner.

E-5. Owner's Right to Do Work. If the Contractor should, in the opinion of the Engineer, neglect to prosecute the work properly or should neglect or refuse at his own cost to take up and replace work as shall have been rejected by the Engineer, then the Owner shall notify the surety company of the condition, and after ten (10) days' written notice to the Contractor and the surety company, or without notice if an emergency or danger to the work or public exists, and without prejudice to any other right which the Owner may have under the Contract, take over that portion of the work which has been improperly executed and make good the deficiencies and deduct the cost thereof from the payments then or thereafter due the Contractor.

E-6. Owner's Right to Transfer Employment. If the Contractor should be adjudged a bankrupt; or if he should make a general assignment for the benefit of his creditors; or if a receiver should be appointed on account of his insolvency; or if he should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials; or if he should fail to make prompt payment to subcontractors or for material or labor; or persistently disregard laws, ordinances, or the instructions of the Engineer; or otherwise be guilty of a substantial violation of any provision of the Contract or any laws or ordinance; then the Owner, if sufficient cause exists to justify such action, may without prejudice to any other right or remedy, and after giving the Contractor and Surety seven (7) days' written notice, transfer the employment for said work from the Contractor to the Surety. Upon receipt of such notice, such Surety shall enter upon the premises and take possession of all materials, tools, and appliances thereon for the purpose of completing the work included under this Contract and employ, by

contract or otherwise, any person or persons to finish the work and provide the materials therefor without termination of the continuing full force and effect of this Contract. In case of such transfer of employment to such Surety, the Surety shall be paid in its own name on estimates according to the terms hereof without any right of the Contractor to make any claim for the same or any part thereof. In lieu of the foregoing, if the Owner so elects, he may terminate the employment of the Contractor and take possession of the premises and of all materials, tools, and appliances thereon and finish the work by whatever method he may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the work is finished. If the expense of completing the Contract, including compensation for additional managerial and administrative services, shall exceed such unpaid balance, the Contractor shall pay the difference to the Owner.

E-7. Delays and Extension of Time. If the Contractor be delayed at any time in the progress of the work by any act or neglect of the Owner or the Engineer, or of any employee of either; or by any separate contractor employed by the Owner; or by changes ordered in the work; or by strikes, lockouts, fire, unusual delay in transportation, unavoidable casualties, or any causes beyond the Contractor's control which justifies the delay, then the date for completion of the work shall be extended. Within a reasonable period after the Contractor submits to the Engineer a written request for an extension of time, the Engineer will present his written opinion to the Owner as to whether an extension of time is justified; and, if so, the number of days extension due the Contractor. The Owner will make the final decision on all requests for extension of time.

No such extension shall be made for delay occurring more than seven (7) days before claim therefor is made in writing to the Engineer. In the case of a continuing cause of delay, only one claim is necessary.

E-8. Liquidated Damages. Should the Contractor fail to complete the work, or any part thereof, in the time agreed upon in the Contract or within such extra time as may have been allowed for delays by extensions granted as provided in the Contract, the Contractor shall reimburse the Owner for the additional expense and damage for each calendar day, Sundays and holidays excluded, that the Contract remains uncompleted after the Contract completion date. It is agreed that the amount of such additional expense and damage incurred by reason of failure to complete the work is the per diem rate stipulated in the Contract. The said amounts are hereby agreed upon as liquidated damages for the loss to the Owner on account of expense due to the employment of engineers, inspectors, and other employees after the expiration of the time of completion, and on account of the value of the operation of the works dependent thereon. It is expressly understood and agreed that this amount is not to be considered in the nature of a penalty, but as liquidated damages which have accrued against the Contractor; and the Owner is authorized to deduct the amount of such damages from any monies due the Contractor for work performed or material furnished under this Contract; and the Contractor and his Sureties shall be liable for any excess.

E-9. Other Contracts. The Owner reserves the right to let other contracts in connection with this work. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their

materials and the execution of their work and shall properly connect and coordinate his work with theirs.

If any part of the Contractor's work depends, for proper execution or results, upon the work of any other contractor, the Contractor shall inspect and promptly report to the Engineer any defects in such work that render it unsuitable for such proper execution and results. His failure to so inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other contractor's work after execution of his work.

E-10. Use of Premises. The Contractor shall confine his equipment, the storage of materials, and the operation of his workmen to limits shown on the Plans or indicated by law, ordinances, permits, or directions of the Engineer, and shall not unreasonably encumber the premises with his materials. The Contractor shall provide, at his own expense, the necessary rights-of-way and access to the work which may be required outside the limits of the Owner's property.

The Contractor shall not load or permit any part of the structure to be loaded with a weight that will endanger its safety.

E-11. Use of Completed Portions. The Owner shall have the right to take possession of and use any completed or partially completed portions of the work, notwithstanding the time for completing the entire work or such portions may not have expired, but such taking possession and use shall not be deemed an acceptance of any work not completed in accordance with the Contract Documents. If such prior use increases the cost of the work, or delays the completion of the work, the Contractor shall be entitled to extra compensation or an extension of time, or both. The Contractor's attention is directed to Articles E-7 and F-2.

E-12. Cutting and Patching. The Contractor shall do all cutting, fitting, or patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by work of other contractors shown upon or reasonably implied by the Plans. Any defective work or material, performed or furnished by the Contractor, that may be discovered by the Engineer before the final acceptance of the work or before final payment has been made shall be removed and replaced or patched, in a manner as approved by the Engineer, at the expense of the Contractor.

E-13. Cleaning Up. The Contractor shall, at all times, at his own expense, keep property on which work is in progress and the adjacent property free from accumulations of waste material or rubbish caused by employees or by the work. Upon completion of the construction, the Contractor shall, at his own expense, remove all temporary structures, rubbish, and waste materials resulting from his operations.

#### F. PAYMENT

F-1. Partial Payment. On or about the last two (2) days of each calendar month, the Engineer will make an estimate of the value of the work satisfactorily completed, including acceptable material delivered. The amount of said

estimate, after deducting ten percent (10%) and all previous payments, shall be due and payable to the Contractor not more than ten (10) days after the last day of said month, except where the Owner is a municipality whose laws require the approval of each payment by a council or similar body; in which case, the amount of said estimate shall become due and payable ten (10) days after the first meeting in the following month scheduled for approval of such payments.

To receive partial payment for materials delivered, but not incorporated in the work, it shall be necessary for the Contractor to submit to the Engineer at least seven (7) days prior to the end of said month a list of such materials, with costs supported by invoices of suppliers. Proper storage and protection shall be provided by the Contractor. Final payment shall be made only for materials actually incorporated in the work and, upon acceptance of the work, all materials remaining for which advance payments had been made shall revert to the Contractor, unless otherwise agreed, and partial payments made for these items shall be deducted from the final payment for the work.

Monthly partial payments shall be conditional upon prosecution of the work in accordance with the provisions of the Contract and, on contracts for any public work in the State of Oregon except Federal projects, upon filing with the Owner by the Contractor the Wage Certification Form required by ORS Chapter 279, 1963, as amended.

Nothing contained in this article shall be construed to affect the right, hereby reserved, to reject the whole or any part of the aforesaid work should such work be later found not to comply with the provisions of the Contract Documents. All estimated quantities of work for which progress payments have been made are subject to review and correction on the final estimate. Payment by the Owner and acceptance by the Contractor of progress payments based on periodic estimates of quantities of work performed shall not, in any way, constitute acceptance of the estimated quantities used as the basis for computing the amounts of the progress payments.

F-2. Extra Work. Any work necessary or required to carry out the intent of these Contract Documents by changes clearly not indicated in the Contract Documents or which cannot reasonably be implied from the intent and meaning of the Contract Documents shall be considered as extra work. Payment for any ordered extra work or changes shall be determined by:

a. Unit prices used in the Contract Documents or agreed upon for the extra work or changes; or

b. Lump sum agreement, in writing, between the Contractor and the Owner.

c. Force Account Work. If the method of payment cannot be agreed upon prior to the beginning of the work, and the Owner or the Engineer directs that the work be done on a force account basis, then the Contractor shall furnish labor, equipment, and materials at costs and rates in effect at the time the work is accomplished plus percentage allowances as designated hereinafter:

| <u>Items of Cost on Which<br/>Payments Will Be Allowed</u>                                                                       | <u>Percentage<br/>Allowance**</u> |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| (1) Payroll, for jobsite personnel*                                                                                              | 15%                               |
| (2) Delivered costs of materials and supplies actually used on the designated work.                                              | 10%                               |
| (3) Rental on each piece of equipment, not owned by the Contractor, having a value in excess of \$100 actually used on the work. | 15%                               |
| Rental on each piece of equipment, owned by the Contractor, having a value in excess of \$100 actually used on the work.         | 15%                               |
| (Rental rates shall not exceed those of the State Highway Department for comparable equipment.)                                  |                                   |
| (4) Subcontractors' bills (if any).                                                                                              | 10%                               |

For equipment rented on a day or hour basis, rental will be allowed for only those days or hours during which the equipment is in actual use. The rentals allowed for equipment will in all cases be understood to cover all fuel, supplies, repairs, and renewals, and no further allowances will be made for those items unless specific agreement to that effect is made.

If the latter method of payment is used, a breakdown of the Contractor's costs involved in any approved extra work shall be submitted to the Engineer within thirty (30) days after said extra work has been performed.

No payment will be made for extra work billed and submitted to the Engineer after the thirty (30) day period has expired. No extra work shall be performed by the Contractor, except in an emergency endangering life or property, unless in pursuance of a written order, as provided in Article B-3 of these General Conditions.

F-3. Release of Liens or Claims. The Contractor shall submit, by a means acceptable to the Owner, evidence that provisions have been made to satisfy all liens or claims growing out of lawful demands for materials, labor, and incidentals in connection with the work before the final payment or any part of the retained percentage shall become due. Such means may include, but are not limited to, one or more of the following:

\* Including documented actual wages and fringe benefits, labor insurance, taxes, and any other labor burdens.

\*\*Includes all other overhead and profit.

- a. Receipts in full for all items out of which a lien or claim could arise.
- b. Complete release of all liens and claims.
- c. Affidavit by Contractor that receipts or releases account for all labor, materials, or incidentals used in the work.
- d. A bond to indemnify Owner against any lien or claim.

If any lien or claim remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such a lien or claim, including all costs and a reasonable attorney's fee.

F-4. Final Payment. Upon completion of the work, the Contractor shall notify the Engineer, in writing, that he has completed his part of the Contract and shall request final payment. If the work has been completed to the intent of the Contract Documents, the Engineer shall recommend acceptance of the completed work and submit a final estimate of the amount due the Contractor under this Contract. Upon approval of this final estimate by the Owner and compliance with provisions in Article F-3 of these General Conditions, and other provisions as may be applicable, the Owner shall pay to the Contractor all monies due him under the provisions of these Contract Documents.

On contracts for public works, final payment of the retained percentage will not be made until the Contractor has also furnished the Wage Certification required by ORS Chapter 279, 1963, as amended.

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## SPECIAL SPECIFICATIONS

Foreword: The Contractor shall furnish all labor, materials, and equipment necessary or required to complete the work, in all respects, as shown on the Plans or as hereinafter specified, or both. The numbering system employed in these Special Specifications is used throughout the Contract Documents. Each section is divided, where applicable, into A, Scope; B, Materials; C, Workmanship; and D, Payment. This method is employed to facilitate the work of the Contractor in preparing his Proposal, and in following the Special Specifications during the construction.

When references to the following capitalized abbreviations are made, they refer to Specifications, Standards, or Methods of the respective national association. Abbreviations listed herein but not mentioned in the Special Specifications shall be disregarded.

|        |                                                                                           |
|--------|-------------------------------------------------------------------------------------------|
| AASHO  | American Association of State Highway Officials                                           |
| ACI    | American Concrete Institute                                                               |
| AFBMA  | Anti-Friction Bearing Manufacturers Association                                           |
| AGA    | American Gas Association                                                                  |
| AGMA   | American Gear Manufacturer's Association                                                  |
| AISC   | American Institute of Steel Construction                                                  |
| AISI   | American Iron and Steel Institute                                                         |
| AMCA   | Air Moving and Conditioning Association                                                   |
| ASCE   | American Society of Civil Engineers                                                       |
| ASHRAE | American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.           |
| ASME   | American Society of Mechanical Engineers                                                  |
| ASTM   | American Society for Testing and Materials                                                |
| AWWA   | American Water Works Association                                                          |
| AWS    | American Welding Society                                                                  |
| AWPA   | American Wood Preservers' Association                                                     |
| CBMA   | Certified Ballast Manufacturers Association                                               |
| DFPA   | Division for Product Approval of the American Plywood Association                         |
| Fed.   |                                                                                           |
| Spec.  | Federal Specifications                                                                    |
| IEEE   | Institute of Electrical and Electronics Engineers, Inc.                                   |
| IPCEA  | Insulated Power Cable Engineers Association                                               |
| JIC    | Joint Industry Conferences of Hydraulic Manufacturers                                     |
| NEC    | National Electrical Code                                                                  |
| NEMA   | National Electrical Manufacturers Association                                             |
| NESC   | National Electric Safety Code                                                             |
| NLMA   | National Lumber Manufacturers Association                                                 |
| OECI   | Overhead Electrical Crane Institute                                                       |
| RLM    | RLM Standards Institute, Inc.                                                             |
| SSPC   | Steel Structures Painting Council                                                         |
| TEMA   | Tubular Exchanger Manufacturer's Association                                              |
| UBC    | Uniform Building Code                                                                     |
| UL     | Underwriters' Laboratories, Inc.                                                          |
| USASI  | United States of America Standards Institute<br>(formerly American Standards Association) |
| WCLIB  | West Coast Lumber Inspection Bureau                                                       |

The numbers and letters following the abbreviations denote the Association's serial designation for the Specification or Standard to which reference is made. Unless a particular issue is designated, all references to the above Specifications, Standards, or Methods shall, in each instance, be understood to refer to the issue in effect (including all amendments) on the date of the Advertisement for Bids or the Invitation for Bids.

Standard Specifications, when referred to herein, except the above, are found at the end of the Special Specifications.

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## 2A. TRENCH EXCAVATION AND BACKFILL

A. SCOPE. This section covers the work necessary for the trench excavation and backfill, complete, except for pipe base and pipe zone backfill which are included under the specification for pipe.

TYPE OF BACKFILL. Trench excavation and backfill will be divided the following classifications for the purpose of payment:

CLASS C BACKFILL. Class C backfill will, generally, be limited to locations where the trench crosses unsurfaced areas.

CLASS D BACKFILL. Class D backfill will, generally, be limited to traveled roadways and crossings where pavement replacement will be made shortly after backfilling and subsequent trench settlement must be held to a minimum.

CLASS E BACKFILL. Class E backfill will, generally, be used on streets and roadways on which gravel surfacing is to be replaced. It will also be used on streets and roadways where asphalt concrete replacement is required when, in the Engineer's opinion, it is in the best interests of the Owner.

GENERAL. For bidding purposes, the class of backfill to be used is indicated. The right is reserved to modify the use, location, and quantities of the various types of backfill during construction as the Engineer considers to be to the best interest of the Owner. No claims for extra payment will be allowed for any deviation from the original, unless specifically outlined in other portions of these Specifications. During construction, the Engineer will designate the type of backfill to be used in each location throughout the project.

EXCAVATION AND BACKFILL FOR SPECIAL CROSSINGS, FIRE HYDRANTS, AND SIMILAR APPURTENANCES, will be included for payment under the applicable section.

## B. MATERIALS.

TRENCH EXCAVATION. Trench excavation is unclassified. Complete all excavation regardless of the type of materials encountered. The Contractor shall make his own estimate of the kind and extent of the various materials which will be encountered in the excavation.

### TRENCH BACKFILL.

CLASS D TRENCH BACKFILL. Gravel for Class D trench backfill shall be clean, bank or pit-run gravel or crushed rock, having reasonably even gradation from coarse to fine. The maximum size shall be 4 inches.

FOUNDATION STABILIZATION. 2 - $\frac{1}{2}$ -inch minus crushed rock, with reasonably even gradation from coarse to fine and free from excessive dirt or other foreign material.

SURFACING ROCK FOR CLASS E TRENCH BACKFILL. Crushed gravel or rock meeting applicable State Highway Department Specifications for base course materials. Submit samples to the Engineer for approval, if requested.

~~TEAMSTERS - Building & Highway & Heavy Construction Work - Cont'd~~

Two or four wheeled tractor with trailer  
such as turnrocker or similar type equipment  
top-loaded:

|                                     |        |
|-------------------------------------|--------|
| 9 cu. yds and under                 | \$5.48 |
| Over 9 cu. yds and inc. 20 cu. yds. | 5.58   |
| Over 20 cu.yds and inc. 30 cu. yds. | 5.68   |
| Over 30 cu.yds and inc. 40 cu. yds. | 5.78   |
| Over 40 cu.yds and inc. 50 cu. yds. | 5.88   |
| Over 50 cu.yds and inc. 60 cu. yds. | 5.98   |

\*Warehouseman (warehouse parts, tool men & parts  
chaser, checkers & receivers) 5.18

Water Wagons (rated capacity)

|                      |      |
|----------------------|------|
| Up to 1600 gallons   | 5.18 |
| 1600 to 3000 gallons | 5.28 |
| 3000 to 5000 gallons | 5.33 |
| 5000 to 7000 gallons | 5.48 |
| Over 7000 gallons    | 5.58 |

Winch truck--Takes classification of truck  
on which winch is mounted.

\*Denotes Modified Classification, 1967

Overtime: The work week shall be forty (40) hours, Monday through  
Friday, and the work day shall not exceed eight (8) hours  
per day. All time worked in excess of the foregoing shall  
be paid for at the rate of time and one-half ( $1\frac{1}{2}$ ).  
Work performed on Saturdays shall be paid for at the rate  
of time and one-half ( $1\frac{1}{2}$ ). Sunday and holiday work shall  
be paid for at the rate of double time.

WATER. Water may be obtained from fire hydrants at no cost; however, time and rate of withdrawals shall be controlled by the Owner.

MANUALLY GUIDED VIBRATORY COMPACTOR. Self-propelled machine that compacts granular material by a combination of weight, vibration, and impact, similar to the Jackson Manually Guided Vibratory Compactor, as manufactured by Jackson Vibrators, Inc., of Ludington, Michigan. Operate the compactor at a speed not exceeding 60 linear feet per minute or at the speed recommended by the manufacturer if slower. A pass of the machine shall consist of one trip over each lift of backfill material with a 2 inch overlap on previously compacted area.

#### C. WORKMANSHIP

REMOVAL OF TOPSOIL. In all cases, where trenches cross lawns, landscaped areas, or other areas on which reasonable topsoil conditions exist, first remove the topsoil for a depth of 12 inches for the full width of the trench to be excavated. Stockpile this topsoil to one side of the right-of-way and do not mix with the remaining excavated material. Replace the topsoil in the top 12 inches of the backfilled trench. Minimum finished depth of topsoil over all trenches shall be 10 inches. In lieu of stockpiling the top 12 inches of soil, approved loam topsoil from borrow pits may be substituted in the top 12 inches. Maintain the finished grade of the topsoil over the center line of the trench level with the immediate area bordering the trench until final acceptance by the Engineer. Correct all damage to adjacent topsoil caused by trenching or pipe-laying operations by regrading, removal of all rock, gravel, clay, and other foreign materials from the surface, and by the addition of topsoil when required. Removal and replacement of sod where shown, and sod shall be removed before excavating the trench. The sod shall be removed in strips 12 inches wider than the width of the trench. After the trench has been backfilled, the sod shall be replaced so the ground surface is restored to its original condition.

PAVEMENT REMOVAL. Cut bituminous pavements, regardless of the thickness, prior to excavation of the trenches with an approved pavement saw, hydrohammer, or other approved breaker. Width of the pavement cut shall be at least equal to the required width of the trench at ground surface.

Pavement removed shall be taken from the site and not used for trench backfill.

#### TRENCH WIDTH.

SINGLE-PIPE TRENCHES. Minimum width of unsheeted trenches in which pipe is to be laid shall be 18 inches greater than the inside diameter of the pipe, except by permission of the Engineer. Sheet piling requirements shall be independent of trench widths.

GRADE. Carry the bottom of the trench to the lines and grades shown or as established by the Engineer with proper allowance for pipe thickness and for gravel base or special bedding when required. Correct any part of the trench excavated below the grade at no additional cost to the Owner, with gravel of the type specified for pipe base under pipe by placing the gravel over the full width of trench in thoroughly compacted layers not exceeding 6 inches to the established grade.

**SHORING, SHEETING, AND BRACING OF TRENCHES.** Whenever necessary to prevent caving during excavation in sand, gravel, sandy soil, or other unstable material, or to protect adjacent structures or property, adequately sheet and brace the trench. Where sheeting and bracing are used, increase trench widths accordingly. Keep trench sheeting in place until the pipe has been placed, backfilled at the pipe zone, tested for defects, and repaired, if necessary. All sheeting, shoring, and bracing of trenches shall conform to the requirements of the public agency having jurisdiction.

**LOCATION OF EXCAVATED MATERIALS.** During trench excavation, locate the excavated material within the construction easement or right-of-way so that the excavated material will not obstruct any private or public traveled roadways or streets. Pile and maintain material from trenches so that the toe of the slope of the material excavated is at least 2 feet from the edge of the trench. It shall be the Contractor's responsibility, however, to determine the safe loading of all trenches with excavated material.

**REMOVAL OF WATER.** Provide and maintain ample means and devices with which to promptly remove and dispose of all water entering the trench excavation during the time the trench is being prepared for the pipe laying, during the laying of the pipe, and until backfill at the pipe zone has been completed.

Dispose of the water in an approved manner without damage to adjacent property.

**FOUNDATION STABILIZATION.** When, in the opinion of the Engineer, the existing material in the bottom of the trench is unsuitable for supporting the pipe, excavate below the flow line of the pipe, as directed by the Engineer, and backfill the trench to subgrade of pipe base.

**PIPE BASE AND BACKFILL IN PIPE ZONE.** Base and pipe zone backfill are included in specification for pipe.

**TRENCH BACKFILL ABOVE PIPE ZONE.** Push all earth, gravel, or other material used in backfilling first onto the slope of the backfill previously placed and allow to roll down into the trench. Do not push the backfill material into the trench in such a way as to permit free fall of the material into the open trench until at least 2 feet of cover is provided over the pipe. Under no circumstances allow sharp, heavy pieces of material to drop directly onto the pipe or the tamped material around the pipe. Do not use backfill material of consolidated masses 1/5 of a cubic yard and greater.

**CLASS C BACKFILL.** After the completion of the backfilling of the pipe zone, the excavated trench material may be pushed back into the trench by mechanical means. The requirements for topsoil shall apply in all trenches not in improved roads or streets.

Where compacted Class C backfill is required, the native material shall be placed in and compacted in accordance with Class E backfill. The finished surface shall be such that the sod can be replaced as specified.

**CLASS D BACKFILL.** Backfill the entire trench above the pipe zone with Class D backfill material. Compact the entire trench depth in 6-inch lifts with vibratory compactors, pneumatic or gasoline powered tampers or hydraulic hammers. Determine the type of equipment and method to use and amount of compaction required to prevent subsequent settlement.

Maintain the surface of Class D backfilled trench level with existing paving with a temporary cold patch consisting of a 2 to 3 inch layer of asphalt cold mix until replaced with permanent paving as specified under SURFACE RESTORATION.

Any subsequent settlement of the finished surfacing during the warranty period shall be promptly repaired by the Contractor at no cost to the Owner.

CLASS E. BACKFILL. Backfill the trench above the pipe zone with excavated material to a depth of 8 inches below the ground surface. Place a minimum of 8 inches of 3/4-inch crushed gravel or rock as specified over the entire trench surface and compact by at least 5 passes with the wheels of a loaded 10-yard dump truck or other approved equipment. The final backfilled surface shall be at the same level as the original surface.

## 2B. SURFACE RESTORATION

A. SCOPE. This section covers the work necessary for all required removal and replacement of pavement and rock surfacing.

This section also covers the work necessary to replace, when directed, all pavement and other street features damaged either directly or indirectly by the operations incidental to the construction of the sewer and water system, including service connections.

## B. MATERIALS.

ROCK FOR SURFACE REPLACEMENT AND BASE. Rock shall be crushed gravel or rock meeting the following quality standards:

|                                |                   |     |
|--------------------------------|-------------------|-----|
| Abrasion (AASHTO T 96)         | maximum wear      | 35% |
| Liquid Limit (AASHTO T 89)     | not greater than  | 30% |
| Plasticity Index (AASHTO T 91) | not greater than  | 6%  |
| Sand Equivalent (AASHTO T 176) | not less than     | 35% |
| Fractured Face                 | min. of particles | 50% |

The aggregate shall consist of uniform quality, clean, tough, durable fragments of rock or gravel, free from flat, elongated, soft or disintegrated pieces, and other objectionable matter occurring either free or as a coating on the stone.

The sizes of the aggregates to be furnished shall be as indicated below and shall be furnished mixed to the proportions shown therein:

### GRADATION

| <u>Sieve Size</u>   | <u>Base Course</u><br><u>1-1/2" Minus</u> | <u>Designated Size</u><br><u>Leveling Course</u><br><u>3/4" Minus</u> |
|---------------------|-------------------------------------------|-----------------------------------------------------------------------|
| 2" to 1-1/2" size   | 0-5%                                      |                                                                       |
| 1-1/2" to 3/4" size | 20-40%                                    |                                                                       |
| Passing 1/2" sieve  | 35-50%                                    |                                                                       |
| Passing 200 sieve   | 0-5%                                      |                                                                       |
| 1" to 3/4" size     |                                           | 0-10%                                                                 |
| 3/4" to 3/8" size   |                                           | 20-40%                                                                |
| Passing 1/4" sieve  |                                           | 40-60%                                                                |
| Passing 200 sieve   |                                           | 0-5%                                                                  |

Submit proof in the form of test results from an approved commercial testing laboratory or other evidence satisfactory to the Engineer to show that the materials meet the quality and gradation requirements.

ASPHALT CONCRETE. Hot-plant mix with maximum 3/4-inch aggregate, conforming to Section 320 of the Standard Specifications for Highway Construction of the Oregon State Highway Department. On 2 course pavements, maximum size aggregate shall be 1/2-inch in top course.

Asphalt cement shall be 85-100 penetration paving asphalt conforming to AASHO M 20.

ASPHALT PRIME. Liquid asphalt for use as a prime coat under asphalt concrete shall be RC-70 or MC-70 liquid asphalt conforming to AASHO M 81 or M 82.

### C. WORKMANSHIP.

CONSTRUCTION PROCEDURE. The Engineer reserves the right to vary the classes of backfill and the type of resurfacing as best serves the interest of the Owner. Trench backfill shall be as specified in Section TRENCH EXCAVATION AND BACKFILL.

Replace all pavement damaged under this Contract with asphalt concrete regardless of original type.

In addition to the requirements set forth herein, the work shall conform to the applicable workmanship requirements of the State Highway Department.

REMOVAL OF PAVEMENT, SIDEWALK, CURBS, AND GUTTERS. Removal of all pavement, sidewalks, curbs, and gutters shall conform to Section TRENCH EXCAVATION AND BACKFILL and payment for removal shall be included in that section.

STREET MAINTENANCE. Maintain all trenches as specified under Section TRENCH EXCAVATION AND BACKFILL.

### ASPHALT CONCRETE PAVEMENT REPLACEMENT.

SUBGRADE. Bring the trench to a smooth, even grade at the correct distance below the top of the existing pavement surface so as to provide adequate space for the 2-inch leveling course. Trim existing pavement to a straight line to remove any pavement which has been damaged or which is broken and unsound to provide a smooth, sound edge for joining the new pavement. Where the surface of Class D backfilled trench has been maintained with a temporary cold patch, the cold patch shall be removed.

LEVELING COURSE. Place, without segregating, enough leveling course material to obtain a thickness of 2 inches after compaction. Compact to the required depth of finished pavement and for proper matching with the adjacent existing pavement. Place the leveling course for the full width of the trench where pavement was disturbed, including bituminous surfaced shoulders. Compact the leveling course with power roller capable of providing compression of 350 pounds per linear inch, or other approved equipment.

**PRIME COAT.** After the leveling course has been compacted, apply asphalt prime coat, specified above, at 0.25 to 0.40 gallons per square yard to the surface of the leveling course and to the edges of the existing pavement. Also, tack coat cast iron manhole covers and cleanout covers below grade.

**ASPHALT CONCRETE.** After the prime coat has set, but before it loses its adhering properties, place the hot-plant mix asphalt concrete on the prepared subgrade over the trench to a depth of not less than 2 inches or the depth of the adjacent pavement, whichever is greater, but not for more than 4 inches. If the thickness is greater than 2-½ inches, place the surfacing in 2 lifts. Spread and level the asphalt concrete with hand tools or by use of a mechanical spreader, depending upon the area to be paved. Bring the asphalt concrete to the proper grade and compact by rolling or the use of hand tampers where rolling is impossible.

Roll with power rollers capable of providing compression of 350 pounds per linear inch. Begin the rolling at the edges of the patch overlapping the existing surface at least ½ the width of the roller and progress toward the center of the resurfaced area. Overlap each preceding track by at least ½ the width of the roller and make sufficient passes over the entire area to produce the desired result, as determined by the Engineer.

The finished surface of the new paving shall be flush with the existing surface and shall conform to the grade and crown of the adjacent pavement. Repair all settlement of pavement over Class D backfilled trenches within the warranty period at no additional cost to the Owner.

**SURFACE SMOOTHNESS.** The surface smoothness of the replaced pavement shall be such that when a straightedge is laid across the patched area between the edges of the old surfacing and the surface of the new pavement, the new pavement shall not deviate from the straightedge more than ¼ inch.

**WEATHER CONDITIONS.** Resurfacing will be permitted only during dry weather and while the trench conditions are satisfactory for pavement replacement. Exceptions will be permitted only in special cases and only with prior written approval of the Engineer.

**PROTECTION OF STRUCTURES.** Provide whatever protective coverings may be necessary to protect the exposed portions of bridges, culverts, curbs, gutters, posts, guard fences, road signs, and any other structures from splashing oil and asphalt from the paving operations. Remove any oil, asphalt, dirt, or any other undesirable matter that may come upon these structures by reason of the paving operations.

Where water valve boxes, manholes, catch basins, or other underground utility appurtenances are within the area to be surfaced, the resurfacing shall be level with the top of the existing finished elevation of these facilities. If it is evident that these facilities are not in accordance with the proposed finished surface, notify the Engineer to have the property authority contacted in order to have the facility altered before proceeding with the resurfacing around the obstruction. Consider any delays experienced from such obstructions as incidental to the paving operation; no additional payment will be made.

EXCESS MATERIALS AND CONTRACTOR'S RESPONSIBILITY. Dispose of excess materials, as approved by the Engineer.

D. PAYMENT. Payment for the work under this section shall be based on the appropriate unit prices stated in the Contractor's Proposal. Payment shall be considered full compensation for furnished all labor, materials, and equipment to complete the work as specified under this section.

ROCK SURFACING. Payment for replacement of rock surfacing will be based on the unit price per cubic yard for 3/4-inch and 1-1/2 inch rock as stated in the Contractor's Proposal. The quantity of rock replaced shall be the actual number of cubic yards used as directed by the Engineer, and shall be based on truck measure and trip tickets signed by the Engineer on the date of use. No payment will be allowed on trip tickets not so validated by the Engineer. The unit price for the rock shall include payment for excavating to provide space for the rock if necessary and disposal of all excess excavated material.

Payment for resurfacing will be based on the unit price per square yard as stated in the Contractor's Proposal for the actual area replaced.

The unit prices shall include payment for excavation required to provide space for the surfacing, preparation of the trench, disposal of all excess excavated materials, and all other work required to complete the resurfacing. The 2-inch crushed rock leveling course will also be considered as included in the bid price per linear foot and in the bid price per square yard for pavement replacement as stated in the Contractor's Proposal.

## 2C. RAILROAD UNDERCROSSING

A. SCOPE. This section covers the work necessary to construct the pipeline under the railroad, complete, within the limits shown, by the boring and jacking method.

All necessary permits for the undercrossings will be obtained by the Owner.

The operation across the Southern Pacific Railroad Company's right of way must conform to the requirements of the Railroad Company as outlined in a pipeline crossing agreement made between the Railroad Company and the Owner. The Contractor shall conform with all requirements of the pipeline crossing agreement. Before work is commenced, the Contractor shall obtain and deliver to the Railroad Company a public liability and property damage insurance policy in the amount required in the pipeline crossing agreement. The insurance company writing the policy shall be authorized to do business in the State of Oregon and shall be satisfactory to the Railroad Company. The insurance policy or policies shall be delivered to and remain in the possession of the Railroad Company. If any special agreement is required between the Contractor and the Railroad Company, it shall be completed and signed before the Contractor enters upon or commences work on the Railroad property.

Prior to starting construction, all required labor, materials, and equipment shall be on the site. Notify all permittees at least 48 hours in advance of working within their rights of way. The term "Permitter" as used herein shall be understood to mean the party, agency, or governmental authority issuing the permit or permits for the construction within the said right of way.

The location and tentative limits for each undercrossing have been indicated on the plans. The length of undercrossing may be increased or decreased when final approval is obtained.

#### B. MATERIALS.

EXCAVATION. Shall be unclassified and shall include whatever materials are encountered to the depths as shown or as directed by the Engineer. The Contractor shall make his own estimate of the kind and extent of the various materials which will be encountered in the excavation.

TRENCH EXCAVATION AND BACKFILL. Shall conform to applicable portions of Section TRENCH EXCAVATION AND BACKFILL, except as modified in this Section.

CASING. Casing shall be the size required, as shown on the Plans, and shall conform to ASTM A 36 smooth steel pipe with  $\frac{1}{4}$ -inch minimum wall thickness for the railroad undercrossing.

CARRIER PIPE.

WATER MAIN PIPE. Conform to Section CAST IRON PIPE AND FITTINGS.

SEALS AND SUPPORTS. California redwood lumber, construction heart grade, as specified in the Standard Specifications for Grades of California Redwood Lumber, published by the Redwood Inspection Service, San Francisco, California.

STAINLESS STEEL BANDS.  $\frac{1}{2}$ -inch wide by 0.002 inch thick 304 stainless steel bands.

#### C. WORKMANSHIP.

GENERAL. Prior to the start of the work, submit satisfactory evidence to the Engineer that all insurance coverage requirements called for by the permittee have been complied with. All proposed construction methods and materials for the undercrossing shall be approved by the Engineer and permittee prior to the crossing operation, and no construction shall be started until written approval to proceed from the permittee has been submitted to the Engineer.

TRENCH EXCAVATION AND BACKFILL. Backfill the entire trench above the pipe zone with the excavated material. Compact the entire trench depth in suitable lifts with vibratory compactors, pneumatic or gasoline powered tampers or hydraulic hammers. Determine the type of equipment and method to use and amount of compaction required to prevent subsequent settlement.

Any subsequent settlement of the finished surfacing during the warranty period shall be promptly repaired by the Contractor at no cost to the Owner.

BORING AND CASING. The casing shall be set to the proper line and grade and jacked into place. The interior shall be bored as the jacking proceeds. Care shall be taken to maintain the proper line and grade as established by the Engineer. If joints are required in the casing, they shall be welded continuously to provide a rigid, watertight encasement.

Where timber cradles are shown, provide strapped timber cradle continuously under barrel of pipe, join pipe, and slide into casing. Pipe barrel shall bear continuously on cradles.

Pipe installation shall conform to applicable portions of Section CAST IRON PIPE AND FITTINGS, including hydrostatic testing and allowable deviation in line and grade.

The excavation and backfill outside of the limits of the item, as required to permit the jacking of the casing, shall be considered as incidental work and included as part of the tunneling operation.

PLACING TIMBER SEALS AT ENDS OF CASING. After the carrier pipe has been tested and approved, place treated 4 inch timbers at the ends of the casing so as to prevent foreign material from entering the casing after it is backfilled. Shape timbers to fit around pipe.

Dispose of excess excavated material as approved by the Engineer.

D. PAYMENT. Payment for the crossings will be based upon the lump sum price stated in the Contractor's Proposal for each crossing. Payment on the lump sum basis shall constitute full compensation to the Contractor for all labor and materials and all equipment required to complete the installation, within the limits shown including connections to the adjoining pipelines. No additional payment for trench excavation and backfill, for furnishing and placing carrier pipe, or for any other items will be made within the limits of the crossings as shown on the Plans. Payment by the Contractor for any services provided by the permitter shall also be included in this item.

Should the limits of any crossing be increased or decreased for any reason during construction, the lump sum payment for the crossing shall be adjusted accordingly on the basis of the cost per linear foot obtained by dividing the lump sum bid by the bid length.

#### 15A. FIRE HYDRANT ASSEMBLIES

A. SCOPE. This section covers the work necessary for furnishing and installing the fire hydrants, complete.

#### B. MATERIALS.

HYDRANTS. Nominal 5- $\frac{1}{4}$  inch main valve opening with 6-inch bottom connection. The main valve shall be either compression or Cory type. Equip with two 2 $\frac{1}{2}$  inch hose nozzles and one 4 $\frac{1}{2}$  inch pumper nozzle. Operating nut shall be 1 $\frac{1}{2}$  inch National Standard pentagon nut. The main valve shall be equipped with O-ring seals and shall open when turned to the left or counterclockwise. Hydrants shall conform to AWWA C502, and this Specification.

The depth of bury shall be nominal  $3\frac{1}{2}$  feet. Nozzle threads shall be American National Standard. The inlet connection shall be flanged. Hydrants shall be white above the ground line. Nozzle caps and top of hydrant shall be black. Hydrants shall be Cory or as approved.

HYDRANT EXTENSIONS. Extensions shall be equipped with brass stem coupling and all accessories necessary for installation. Extensions shall be Mueller A-24075.

BASE BLOCK. Solid precast concrete pier block having nominal dimensions of 12" x 8" x 16".

GRAVEL FOR DRAINAGE.  $\frac{3}{4}$  inch crushed rock or graded river gravel free of organic matter, sand, loam, clay, and other small particles that will tend to restrict water flow through the gravel.

CONCRETE FOR BLOCKING. A mix not leaner than 1 part cement,  $2\frac{1}{2}$  parts sand, 5 parts coarse aggregate, and just enough water to make a workable mix. Twenty eight day compressive strength shall be a minimum of 2,500 psi. Engineer shall approve quality of materials prior to their use.

GATE VALVE AND VALVE BOXES. As specified in Section 15C, GATE VALVES AND VALVE BOXES.

CAST IRON PIPE. Cast iron pipe shall be as specified in Section 15B CAST IRON PIPE AND CAST IRON FITTINGS.

C. WORKMANSHIP. Construction and installation shall conform to provisions of Sections 11 and 12 of AWWA C600, except where otherwise specified.

HYDRANT EXTENSIONS. Extensions shall be installed only when directed by the Engineer.

LOCATION AND POSITION. Locate as shown or directed by the Engineer. Improperly located hydrants shall be disconnected and relocated at the Contractor's expense.

Set all hydrants plumb with the pumper nozzle facing as directed by the Engineer. Set hydrants so that safety flange is a minimum of 2 inches above finished ground level to clear bolts and nuts, and as directed.

EXCAVATION. Do not carry below subbase grade. Refill overexcavated areas with gravel, and hand tamp to provide firm foundation.

BASE BLOCK. Place on firm, level subbase to assure uniform support.

HYDRANTS. Place carefully to prevent the base blocking from breaking. When cast iron pipe is used, joining procedures shall conform to Section 9 of AWWA C600 except that cement joints shall not be used.

After hydrant is in place and connected to the pipeline, place temporary blocks to maintain the hydrant in a plumb position during subsequent work.

GRAVEL FOR DRAINAGE. Place around base block and hydrant bottom after hydrant has been blocked in place. Top of gravel shall be not less than 6 inches above hydrant drain opening. Do not connect drainage system to sewer.

CONCRETE THRUST BLOCKING. Place after hydrant is blocked in its final position and hydrant is joined to pipe. Concrete thrust block shall have a minimum of 4 square feet of bearing area against undisturbed earth.

BACKFILL. Backfill around hydrants shall be Class C, compacted to 85 percent of maximum density, AASHTO T 99, Method D. Replace sod and grass in planted areas.

D. PAYMENT. Payment will be made for the fire hydrant assembly furnished and installed at the unit price stated in the Contractor's Proposal. Payment for fire hydrant assembly shall constitute full compensation for all work specified under this section.

#### 15B. CAST IRON PIPE AND CAST IRON FITTINGS

A. SCOPE. This section covers the work necessary for furnishing and installing the cast iron pipe and cast iron fittings, complete.

Reference is made to the latest editions of standards, tests, methods, and specifications of research and technical organizations as follows:

| <u>Item</u>                 | <u>Standard Specification, Test, or Method Designation</u>          |
|-----------------------------|---------------------------------------------------------------------|
| Cast Iron Pipe and Fittings | Federal Specification WW-P-421<br>USAS A21.4, A21.6, A21.10, A21.11 |

Reference to ASTM, AWWA, USAS, or Federal Specifications shall be understood to mean the latest standard or specification, unless otherwise stated.

#### B. MATERIALS.

PIPE JOINTS. Pipe joints shall be push-on joint ends, except where specifically shown or detailed otherwise.

MECHANICAL JOINT FITTINGS. Mechanical joint cast iron fittings shall conform to AWWA C110 and shall be of a class at least equal to that of the adjacent pipe. No mortar lining is required on fittings.

PUSH-ON JOINT CAST IRON PIPE. Push-on joint cast iron pipe shall be cement-mortar lined and conform to USAS A21.6 and USAS A21.11, and shall be U. S. Tyton joint pipe, as manufactured by United States Pipe and Foundry Company and Pacific States Cast Iron Pipe Company, or as approved. The type and thickness class or classes shall be as shown. The rubber-ring gaskets shall conform to USAS A21.11, be suitable for the specified pipe sizes and pressures, and shall be furnished with the pipe. A nontoxic vegetable soap lubricant shall be supplied in sufficient quantities for installing the pipe furnished.

MECHANICAL COUPLINGS. Mechanical couplings shall be designed expressly for domestic water service and shall be capable of withstanding 150 psi internal pressure without leakage or overstressing. Diameter of the coupling shall be compatible with the outside diameter of the pipe

on which the coupling is installed. Mechanical couplings shall consist of a middle ring, 2 rubber gaskets, 2 follower rings, and the required number of bolts for a satisfactory installation. Cast style mechanical couplings shall be used in the pipeline or to connect the pipeline to existing cast iron pipelines. Furnish all joint accessories with mechanical couplings. Couplings shall be Smith-Blair 431 or as approved.

IMPORTED GRANULAR MATERIAL FOR PIPE BASE AND PIPE ZONE. Use clean pea gravel or crushed rock with a maximum size of 3/4 inch, uniformly graded from coarse to fine. Clean beach, pit-run, or reject crusher-run sand may be substituted for gravel in trenches with no groundwater in the pipe zone. Submit samples to the Engineer for approval.

SELECTED TRENCH SIDE MATERIAL FOR PIPE ZONE. Selected trench side material used for backfill in the pipe zone shall contain no rock, frozen soil, or other piece of material larger than 1½ inches.

### C. WORKMANSHIP.

#### PREPARATION OF TRENCH.

GRADE. Grade the bottom of the trench by hand to the line and grade to which the pipe is to be laid, with proper allowance for pipe thickness and for gravel cushion when specified or indicated. Before laying each section of the pipe, check the grade with a straightedge and correct any irregularities found. The trench bottom shall form a continuous and uniform bearing and support for the pipe on solid and undisturbed ground at every point between bell holes, except that the grade may be disturbed for the removal of lifting tackle.

NONIMPORTED BASE. If, in the Engineer's opinion, the trench excavation has material suitable for pipe bedding, grade the bottom of the trench by hand with a uniform bedding of selected trench side material not to exceed a maximum of 2 inches in thickness, placed, leveled, and loosely compacted to grade in advance of the pipe laying. If the trench is over-excavated, rebuild the overexcavated section of the trench with imported pipe base at no additional cost to the Owner.

IMPORTED GRANULAR BASE. Provide imported granular base under all pipe where, in the opinion of the Engineer, material satisfactory for fine grading and bedding the pipe is not available at the trench. Imported base will be used principally where groundwater conditions make the use of a lesser base impractical. Place granular base for pipe in the trench to a minimum depth of 4 inches. Trenches to be provided with a granular base for pipe will be designated by the Engineer during construction. Grade the top of the base to the bottom of the pipe ahead of pipe laying for the full width of the trench. Base shall provide a firm, unyielding support along entire pipe length.

BELL (JOINT) HOLES. At the location of each joint, dig bell (joint) holes of ample dimensions in the bottom of the trench and at the sides where necessary to permit the joint to be made properly and to permit easy visual inspection of the entire joint.

REMOVAL OF WATER. Provide and maintain ample means and devices at all times to remove and dispose of all water entering the trench excavation during the process of pipe laying.

#### LAYING.

DISTRIBUTING PIPE. Distribute material on the job from the cars or storage yard no faster than can be used to good advantage. In general, distribute no more than one week's supply of material in advance of the laying.

HANDLING MATERIAL. Provide and use proper implements, tools, and facilities satisfactory to the Engineer for the safe and convenient prosecution of the work. Lower all pipe, fittings, and appurtenances into the trench, piece by piece, by means of a derrick, ropes, or other suitable tools or equipment, in such a manner as to prevent damage to the pipeline materials and protective linings. Do not drop or dump pipeline materials into the trench.

CLEANING PIPE AND FITTINGS. Remove all lumps, blisters, and excess coal-tar coating from the bell-and-spigot ends of each pipe. Wire brush the outside of the spigot and inside of the bell and wipe clean, dry, and free from oil and grease before the pipe is laid.

Wipe ends of mechanical joint pipe and fittings and of rubber gasket joint pipe and fittings clean of all dirt, grease, and foreign matter.

PIPE ADJACENT TO VALVES, FITTINGS, AND BENDS. Provide one full length of pipe adjacent to valves, fittings, and bends on water main, unless otherwise directed. Random short length may be used elsewhere at Contractor's discretion.

PLACING OF PIPE IN THE TRENCH. Do not allow foreign material to enter the pipe while it is being placed in the line. If the pipe laying crew cannot put the pipe into the trench and in place without getting earth into the pipe, the Engineer may require that a heavy, tightly woven canvas bag of suitable size be placed over each end before lowering the pipe into the trench and left there until the connection is to be made to the adjacent pipe. During laying operations, prevent debris, tools, clothing, or other materials from entering the pipe.

PUSH-ON JOINT PIPE. After the first length of push-on joint pipe is installed in the trench, secure pipe in place with approved backfill material tamped under and along sides to prevent movement. Keep ends clear of backfill. After each section is joined, place backfill as specified to prevent movement.

NUMBER OF PIPES LAID BEFORE JOINTING. Connect pipe as hereinafter specified as soon as they are placed in the trench.

PREVENTING TRENCH WATER FROM ENTERING PIPE. At times when pipe laying is not in progress, close the open ends of pipe by a watertight plug or other means approved by the Engineer, and allow no trench water to enter the pipe. These provisions shall apply during the noon hour as well as overnight. If water is in the trench, keep seal in place until trench is pumped dry.

## CUTTING PIPE.

GENERAL. Cut pipe for inserting valves, fittings, or closure pieces in a neat and workmanlike manner without damaging the pipe or lining and so as to leave a smooth end at right angles to the axis of the pipe.

CAST IRON PIPE. Cut pipe with milling-type cutter, rolling pipe cutter, or with sledge and cold cutter. Do not flame cut.

DRESSING CUT ENDS. Dress cut ends of push-on joint pipe by beveling, as recommended by the manufacturer. Remove sharp edges or projections which may damage the rubber gasket.

BELL END TO FACE DIRECTION OF LAYING. Unless otherwise directed, lay pipe with bell end facing in the direction of the laying.

For lines on an appreciable slope, face bells upgrade (at the discretion of the Engineer).

PERMISSIBLE DEFLECTION AT JOINTS. Wherever it is necessary to deflect pipe from a straight line, either in the vertical or horizontal plane, to avoid obstructions or plub stems, or where long radius curves are permitted, the amount of deflection allowed shall not exceed that approved by the Engineer. Maximum permitted deflection shall be 5° or 18 inch per 18 feet of pipe length.

ALIGNMENT. For pipelines intended to be straight, do not deviate from the straight line at any joint in excess of one inch.

UNSUITABLE CONDITIONS FOR LAYING PIPE. Do not lay pipe in water or when, in the opinion of the Engineer, trench conditions are unsuitable.

JOINTING PUSH-ON JOINT PIPE. Lay and joint pipe with push-on type joints in strict accordance with the manufacturer's recommendations as approved by the Engineer. Provide all special tools and devices, such as special jacks, chokers, and similar items required for the installation. Lubricant for the pipe gaskets shall be furnished by the pipe manufacturer, and no substitutes will be permitted under any circumstances.

INSTALLATION OF MECHANICAL COUPLINGS. Install in strict accordance with the coupling manufacturer's printed instructions. Use torque wrench for correct tightening of bolts.

CONNECTION TO EXISTING PIPELINES. Connect to existing pipelines at locations shown or as directed by the Engineer. Do not cut any existing pipeline until permission is obtained from the Engineer. Cut existing pipelines to be retained in service as specified herein for similar pipeline materials. Clean cut end to provide clean, smooth seating surface for gaskets. Connect with materials shown or as directed in manner specified herein for each respective material. Connection to existing service pipelines will be included under Section SERVICE CONNECTION TRANSFERS. No separate payment will be made for connecting to existing pipelines.

## ANCHORAGE.

**LIMITING PIPE DIAMETER AND DEGREE OF BEND.** Securely anchor the pipe by suitable thrust blocking on thrust ties, all tees, plugs, caps, and bends as shown, and at other locations where unbalanced forces exist, as directed by the Engineer.

**THRUST BLOCKING.** Provide reaction or thrust blocking as shown. The concrete mix shall not be leaner than one cement,  $2\frac{1}{2}$  sand, 5 stone, and shall have a compressive strength of not less than 2,000 pounds per square inch. Place blocking between the undisturbed ground and the fitting to be anchored. The quantity of concrete and the area of bearing on the pipe shall be as shown or as directed by the Engineer. Place the blocking so that the pipe and fitting joints will be accessible to repairs, unless otherwise shown.

**DEFINITION OF PIPE ZONE.** The pipe zone shall include the full width of the trench from the bottom of the pipe to a point 6 inches above the top of the pipe barrel.

**SELECTED TRENCH SIDE MATERIAL AT PIPE ZONE.** After the pipe is in place and ready for backfilling, place **SELECTED TRENCH SIDE MATERIAL FOR PIPE ZONE** at approximately the same rate on each side of the pipe such that the elevation of the backfill on each side of the pipe is approximately equal at all times. Backfill to the horizontal center line of the pipe and compact the backfill with mechanical or pneumatic tampers to at least 85 percent of maximum density. AASHTO T99 - Method D. Particular attention shall be given to the backfilling and tamping procedures to assure that no unfilled or uncompacted areas occur beneath the pipe.

The remainder of the backfill in the pipe zone shall be placed without compacting by layers. After backfilling to the top of the pipe zone, compact the native material with at least 3 passes of a power-driven compactor, as approved by the Engineer.

**IMPORTED GRANULAR BACKFILL AT PIPE ZONE.** When, in the opinion of the Engineer, insufficient or unsuitable material exists at trench side for selected pipe zone material, import and place imported granular backfill as hereinbefore specified. The imported granular material shall be placed and compacted in the same manner specified for **SELECTED TRENCH SIDE MATERIAL**. Extra payment for placing imported granular material backfill in the pipe zone will be made only when the Engineer has directed that the material be provided and placed.

Imported granular pipe zone material shall be used for the full depth of the pipe zone. This material shall be placed, in a manner approved by the Engineer, simultaneously on both sides of pipe. Place the material in one lift up to the horizontal center line of the pipe. This lift shall be "walked in" and supplemented by slicing with a shovel to assure that all voids around the pipe have been completely filled. The balance of the material up to the top of the pipe zone need not be compacted.

**HYDROSTATIC TESTS.** Make pressure and leakage tests on all newly laid pipe. Furnish all necessary equipment and material, make all taps in the pipe as required, and conduct the tests. The Engineer will monitor the tests.

Furnish the following equipment and materials for the tests:

- 2 Approved graduated containers
- 2 Pressure gauges
- 1 Hydraulic force pump as approved by the Engineer.  
Suitable hose and suction pipe as required.

Conduct the tests after the trench has been completely backfilled. The Contractor may, if field conditions, as determined by the Engineer, permit, partially backfill the trench and leave the joints open for inspection and conduct a preliminary test. The actual pressure test shall not, however, be conducted until all backfilling has been completed. Where any section of pipe is provided with concrete reaction blocking, do not make the pressure test until at least 5 days have elapsed after the concrete thrust blocking is installed. If high-early cement is used for the concrete thrust blocking, the time may be cut to 2 days.

Conduct the pressure test in the following manner, unless otherwise approved by the Engineer: After the trench has been backfilled or partially backfilled as hereinbefore specified, fill the pipe with water. The test pressure shall be 150 pounds per square inch.

DURATION. The duration of each pressure test shall be 30 minutes, unless otherwise directed by the Engineer.

EXPELLING AIR. Before applying the specified test pressure, expel all air from the pipe.

PROCEDURE. Fill the pipe with water and apply the specified test pressure by pumping, if necessary.

Then valve off the pump and hold the pressure in the line for the test period. At the end of the test period, operate the pump until the test pressure is again attained. The pump suction shall be in a barrel or similar device, or metered so that the amount of water required to restore the test pressure may be measured accurately.

LEAKAGE. Leakage shall be defined as the quantity of water necessary to restore the specified test pressure at the end of the test period. No pipe installation will be accepted if the leakage is greater than the number of gallons per hour as determined by the following formula:

$$L = \frac{NDP^{\frac{1}{2}}}{5,500}$$

in which

L = allowable leakage in gallons per hour

N = number of joints in the length of pipe tested

D = nominal diameter of pipe in inches

P = average test pressure during the leakage test in pounds per square inch.

CORRECTION OF LEAKAGE. Should any test of pipe laid disclose leakage greater than that allowed, locate and repair the defective joints or pipe until the leakage of a subsequent test is within the specified allowance.

**STERILIZATION.** Pipelines intended to carry potable water shall be sterilized before placing in service. Sterilizing procedures shall conform to AWWA C601 as hereinafter modified or expanded.

**FLUSHING.** Before sterilizing, flush all foreign matter from the pipeline. Provide hoses, temporary pipes, ditches, etc. as required to dispose of flushing water without damage to adjacent properties. Flushing velocities shall be at least 2.5 fps. For large diameter pipe where it is impractical or impossible to flush the pipe at 2.5 fps velocity, clean the pipeline in place from the inside by brushing and sweeping, then flush the line at a lower velocity.

**STERILIZING MIXTURE.** Shall be a chlorine-water solution having a free chlorine residual of 40-50 ppm. The sterilizing mixture shall be prepared by injecting a calcium or sodium hypochlorite and water mixture into the pipeline at a measured rate while fresh water is allowed to flow through the pipeline at a measured rate so that the combined mixture of fresh water and chlorine solution or gas is of the specified strength.

If the calcium hypochlorite procedure is used, first mix the dry powder with water to make a thick paste, then thin to approximately a one percent solution (10,000 ppm chlorine). If the sodium hypochlorite procedure is used, dilute the liquid with water to obtain a one percent solution. The following proportions of hypochlorite to water will be required:

| <u>Product</u>                          | <u>Quantity</u> | <u>Water</u> |
|-----------------------------------------|-----------------|--------------|
| Calcium Hypochlorite (1)<br>(65-70% Cl) | 1 lb.           | 7.5 gal.     |
| Sodium Hypochlorite (2)<br>(5.25% Cl)   | 1 gal.          | 4.25 gal.    |

(1) Comparable to commercial products known as HTH, Perchloron, and Pittchlor.

(2) Known as liquid laundry bleach, Chlorox, Purex, etc.

**POINT OF APPLICATION.** Inject the chlorine mixture into the pipeline to be treated at the beginning of the line through a corporation stop or suitable tap in the top of the pipeline. Water from the existing system or other approved source shall be controlled so as to flow slowly into the newly laid pipeline during the application of chlorine. The rate of chlorine mixture flow shall be in such proportion to the rate of water entering the pipe that the combined mixture shall contain 40-50 ppm of free available chlorine. Valves shall be manipulated so that the strong chlorine solution in the line being treated will not flow back into the line supplying the water. Use check valves if necessary.

**RETENTION PERIOD.** Treated water shall be retained in the pipeline long enough to destroy all nonspore-forming bacteria. With proper flushing and the specified solution strength, 24 hours is adequate. At the end of the 24 hour period, the sterilizing mixture shall have a strength of at least 10 ppm of chlorine.

Operate all valves, hydrants, and other appurtenances during sterilization

to assure that the sterilizing mixture is dispersed into all parts of the line, including deadends, new services, and similar areas that otherwise may not receive the treated water.

Do not place concentrated quantities of commercial sterilizers in the line before it is filled with water.

After chlorination, flush the water from the line until the water through the line is equal chemically and bacteriologically to the permanent source of supply.

**DISPOSAL OF STERILIZING WATER.** Dispose of sterilizing water in an approved manner. Do not allow sterilizing water to flow into a waterway without adequate dilution or other satisfactory method of reducing chlorine concentrations to a safe level.

**D. PAYMENT.** Payment for the work under this section will be based upon the appropriate unit prices stated in the Contractor's Proposal. Payment shall be considered full compensation for all work specified under this section.

No payment will be made for pipe and fittings installed as a temporary measure, such as temporary plugs on branch line pipe or fittings which are later removed when the branch line is constructed as a part of the same Contract.

**PIPE.** Payment for cast iron pipe will be made at the unit price per linear foot stated in the Contractor's Proposal for each of the various sizes therein stated.

Measurement for payment of each size of pipe will be based upon the field measured center line length of pipe furnished and installed. Center line length of fittings between ends of pipe will not be measured for payment as pipe.

The Engineer will withhold full payment on any section of pipe deemed unsatisfactory due to excessive leakage or any other causes until such defects have been corrected in accordance with these Contract Documents and are acceptable to the Engineer.

**CAST IRON FITTINGS.** Payment for cast iron fittings will be made at the unit price per pound stated in the Contractor's Proposal.

Measurement for payment of fitting will be based upon the weight of each fitting furnished and installed. Whenever possible, the weight of cast iron fittings shall be the theoretical weight of the size and type of fitting as listed in AWWA C110. The weight of all other cast iron fittings shall be as listed by the fabricator or supplier of the particular fitting. If the weight of a particular fitting is unavailable from the above sources, the Contractor shall have the fitting weighed. Weigh tickets shall be presented to the Engineer for verification and his records. Standard joint accessories and cut sections of pipe will not be measured for payment as fittings.

MECHANICAL COUPLINGS. Payment for cast iron mechanical couplings will be made at the unit price per diameter-inch stated in the Contractor's Proposal for each coupling furnished and installed as a permanent part of the system.

Measurement for payment of mechanical couplings will be based upon the nominal diameter, in inches. Measurement for payment of any transition or reducing mechanical couplings, if used, will be based on the nominal diameter, in inches, of the larger of the 2 openings.

IMPORTED GRANULAR PIPE BASE MATERIAL. Payment for imported granular material for pipe base will be made at the unit price per linear foot stated in the Proposal. Since payment for preparing the pipe base is already included with the pipe, payment for imported granular pipe base under this item shall be considered full payment for all materials, labor, equipment, and incidentals necessary to furnish and place the material at trench side and for all extra costs in handling or placing in the pipe base zone.

The measurement for payment will be the horizontal distance along the center line of the pipe and fittings in place, regardless of trench width.

Imported granular material will be paid for only when authorized by the Engineer.

IMPORTED GRANULAR PIPE ZONE MATERIAL. Payment for imported granular material for the pipe zone will be made at the unit price per linear foot stated in the Proposal. Since payment for placing and compacting the pipe zone backfill is already included in PIPE, payment for imported granular backfill at the pipe zone under this item shall be considered full payment for all materials, labor, equipment, and incidentals necessary to furnish and place the material at trench side and for all extra costs in handling or placing in the pipe zone.

The measurement for payment will be the horizontal distance along the center line of the pipe and fittings in place, regardless of trench width.

Imported granular material will be paid for only when authorized by the Engineer.

#### 15C. GATE VALVES AND VALVE BOXES

A. SCOPE. This work covered under this section consists of furnishing all labor, tools, and materials necessary for the installation of gate valves and valve boxes, complete.

#### B. MATERIALS.

VALVES. Valves shall be iron body, bronze mounted, double disc, parallel seat, NRS valves with O-ring seals, and shall open when the stem

is rotated counterclockwise. Unless otherwise shown, valves shall have 2 inch square wrench nut. Valve ends and valve sizes shall be as shown. Valves shall conform to AWWA C500.

All valves shall be mechanical joint end or flanged by mechanical joint and as shown.

Joining materials for mechanical joints shall conform to AWWA C111. Joining materials for flanged joints shall consist of 1/8-inch thick, full-face, rubber gaskets conforming to Section 7 of AWWA C207. Bolts and nuts shall conform to Section 8 of AWWA C207.

VALVE BOXES. Valve boxes shall be Buffalo 2 piece sliding type, cast iron with 5 $\frac{1}{4}$  inch shaft, and shall be Mueller Company H-10364 of appropriate length for the installation, or as approved. The work WATER shall be cast into the top of the lid. Extension pieces, if required, shall be the manufacturer's standard type for use with the valve box.

#### C. WORKMANSHIP.

VALVES. Before installation, the valves shall be thoroughly cleaned of all foreign material, and shall be inspected for proper operation, both opening and closing, and to verify that the valves seat properly. Valves shall be installed so that the stems are vertical, unless otherwise directed by the Engineer. Jointing shall conform to AWWA C600.

Faces of flanges shall be cleaned thoroughly before flanged joint is assembled. After cleaning the gasket shall be inserted and the nuts tightened uniformly around the flange. If flanges leak under test, the nuts shall be loosened, the gasket reset or replaced, the nuts retightened, and the valve and/or pipeline retested.

VALVE BOXES. Center the valve boxes and set plumb over the wrench nuts of the valves. Set valve boxes so that they do not transmit shock or stress to the valves. Set the valve box covers flush with the surface of the ground or such other level as may be ordered by the Engineer. Cut extensions to the proper length so that the valve box does not ride on the extension when set at grade.

Place backfill around the valve boxes and thoroughly compact to a density equal to that of the undisturbed ground and in such a manner that will not damage or displace the valve box from proper alignment or grade. Misaligned valve boxes shall be excavated, plumbed, and backfilled at the Contractor's expense.

D. PAYMENT. Payment will be made for each gate valve and valve box furnished and installed, regardless of the type of ends on the valves, at the unit price stated in the Contractor's Proposal. Payment for the gate valves and valve boxes shall constitute full compensation for all work specified under this section.

## 15D. SPECIAL CONNECTIONS

A. SCOPE. This section covers all work, materials, equipment, tools and labor necessary for the installation of special connections, complete, between the limits shown at the following locations:

LOCATION. The location of the special connections are as follows:

Station 0+00

Station 6+85

## B. MATERIALS.

CAST IRON PIPE AND CAST IRON FITTINGS. Pipe and fittings for the special connections shall be as specified in Section 15B, CAST IRON PIPE AND CAST IRON FITTINGS.

EXCAVATION AND BACKFILL. Excavation and backfill shall be as specified under Section 2A, TRENCH EXCAVATION AND BACKFILL.

PAVEMENT REPLACEMENT. Shall be as specified under Section 2B, SURFACE RESTORATION.

PIPE ZONE MATERIAL AND PIPE BASE. Pipe zone material and pipe base shall be as specified under Section 15B, CAST IRON PIPE AND CAST IRON FITTINGS.

GATE VALVES, AND VALVE BOXES. Gate valves, and valve boxes shall be as specified under Section 15C, GATE VALVES AND VALVE BOXES.

MECHANICAL COUPLING. Mechanical coupling shall be as specified under Section 15B, CAST IRON PIPE AND CAST IRON FITTINGS.

FLANGED COUPLING ADAPTORS. Flanged coupling adaptors shall be Smith-Blair 912 or as approved.

TAPPING SLEEVE. The tapping sleeve for special connections shall be mechanical joint type, Mueller No. H-615 or as approved. Have one extra set of gaskets (oversize) on hand for each sleeve to be sure that the sleeves will fit the OD of the existing pipe.

TAPPING VALVE. The tapping valve for special connection D shall be mechanical joint outlet with "O" ring seals, Mueller No.H-667, or as approved. Valves shall open counterclockwise. Furnish joining accessories recommended by manufacturer.

THRUST BLOCKING. Concrete for thrust blocking shall be as specified in Section 15B, CAST IRON PIPE AND CAST IRON FITTINGS.

## C. WORKMANSHIP.

INSTALLING PIPE AND FITTINGS. Installation of pipe, fittings, couplings and related items shall conform to the applicable provisions of Section 15B, CAST IRON PIPE AND CAST IRON FITTINGS.

**DAMAGED COATING.** Damaged coating of existing steel pipe shall be repaired by coating with CA-50.

**SPECIAL CONNECTION AT STATION 6+85.** Special connection at Station 6+85 shall be installed before September 2, 1969.

**SPECIAL CONNECTION AT STATION 0+00.** Special Connection at Station 0+00 shall be installed by the use of a wet tap.

**TESTING AND STERILIZATION.** Special connections shall be tested and sterilized in conjunction with those operations on the transmission pipeline.

**TEMPORARY BLOCKING.** Any temporary blocking necessary for the successful hydrostatic testing of the newly laid pipe and fittings shall be installed by the Contractor at no additional cost to the Owner.

**D. PAYMENT.** Payment for the special connections shall be based upon the lump sum prices as set forth in the Contractor's Proposal for each special connection. Each lump sum price shall constitute full compensation for furnishing all materials and performing all work as specified, between the limits shown for the respective special connection.

The lump sum payment for special connection B includes, but is not limited to, payment for furnishing and installing the 44.5 feet of 16-inch pipe and fittings, the butterfly valve and valve box, trench excavation and backfill, pipe zone material, and pavement replacement.

#### 15E. SERVICE CONNECTION TRANSFER

**A. SCOPE.** This section covers the work necessary to transfer an existing 3/4-inch diameter water service to the new 8-inch diameter pipeline, complete.

#### B. MATERIALS

**Trench Excavation and Backfill.** Trench excavation and backfill shall be as specified under Section 2A, TRENCH EXCAVATION AND BACKFILL.

**Plastic Pipe and Fittings.** Plastic pipe and fittings shall be made of polyethylene plastic and be National Sanitation Foundation approved for potable water use. The pipe and fittings shall be rated for a minimum of 16 pounds per square inch working pressure and shall conform to ASTM Specifications D-2239-64T and D-1248-68. All fittings shall be secured with stainless steel clamps.

**Service Saddle.** The service saddle shall be a Smith-Blair 311 Single-strap saddle for use with iron pipe threads, or approved equal.

**Union.** The 3/4-inch union shall be of galvanized iron.

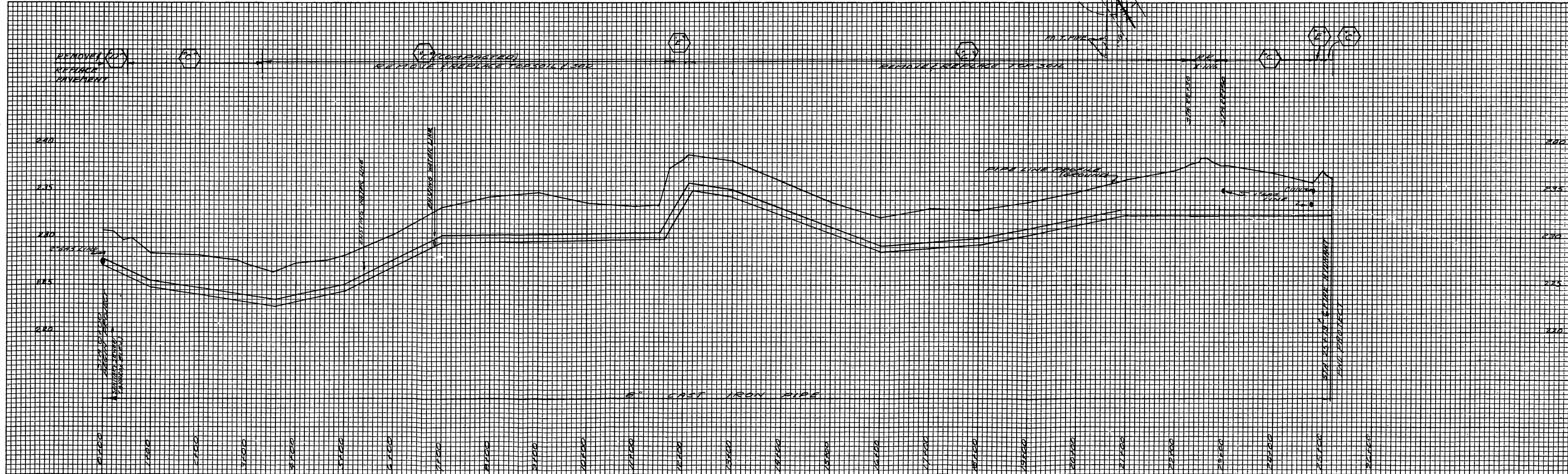
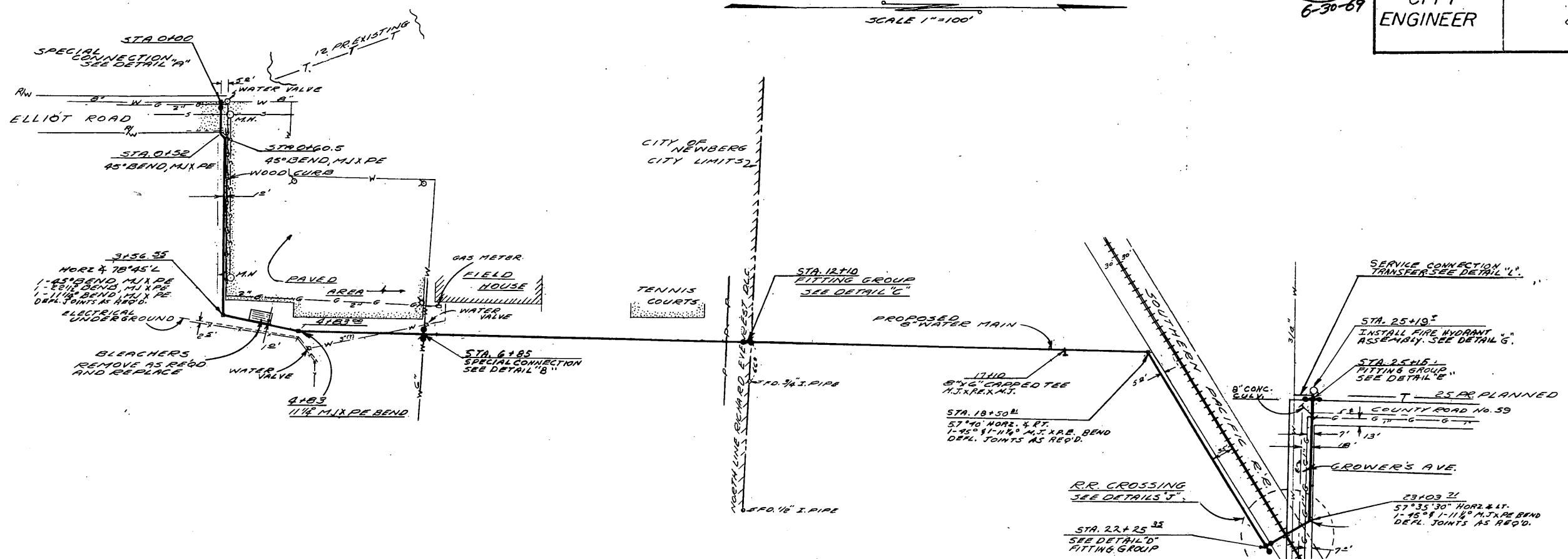
**Corporation Stop.** The corporation stop shall have iron pipe outlet threads and be similar to Mueller H-10045 or H-10046, or approved equal.

C. WORKMANSHIP. Install the transfer material except making the connection to the existing pipe before testing and sterilization of the new pipeline. Provide necessary temporary end fittings and pipe restraints and test and sterilize the transfer material along with the testing and sterilization of the run pipe. After testing the sterilization, remove the existing pipe as required and complete the connection. Prior to backfilling, test the connection under full pipeline pressure obtained when the new pipeline is connected to the existing City distribution system.

D. PAYMENT. Payment for the work under this section shall be at the lump sum price stated in the Contractor's Proposal. Payment shall be considered full compensation for furnishing all labor, materials, tools and doing all necessary work required to complete the service connection transfer.



|                                              |                                    |  |         |                  |
|----------------------------------------------|------------------------------------|--|---------|------------------|
| GB<br>G-BLIESNER<br>P.E.<br>CITY<br>ENGINEER | CITY OF NEWBERG<br>WATER PIPELINE  |  | des: GB | sheet 1          |
|                                              | ELLIOT ROAD<br>TO<br>GROWERS' AVE. |  | dr: IEN | of 3             |
|                                              |                                    |  | ck: HEG | date: 28 JUNE 60 |
|                                              |                                    |  |         | scale: 1"=100'   |
|                                              |                                    |  |         | dwg. no. W1969-2 |

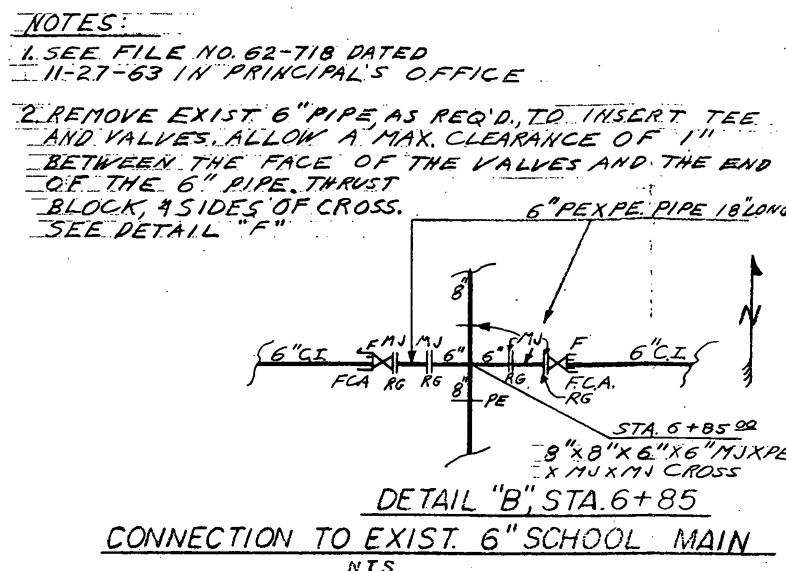
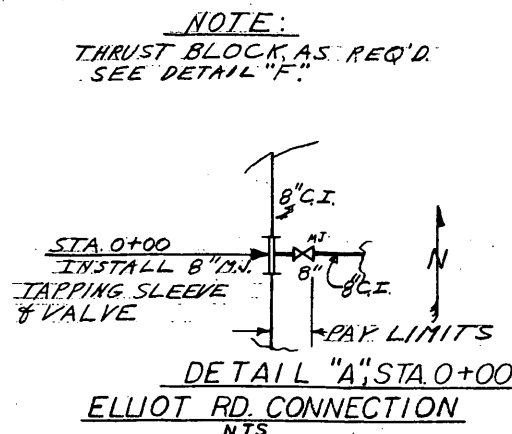
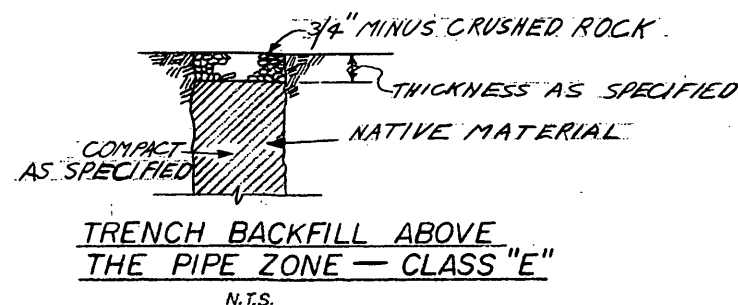




G-B  
G-BLIESNER  
P.E.  
CITY  
ENGINEER

CITY OF NEWBERG  
WATER PIPELINE  
ELLIOT ROAD  
TO  
GROWERS' AVE.

des: GE 2  
sheet: 3  
date: 25 JUNE 69  
scale: NONE  
dwg. no. W1969-2



### LEGEND—SYMBOLS

#### GENERAL

- PIPELINE, T.C.
- EXIST. UTILITY
- P/L- P/L; PROPERTY LINE
- R/W; RIGHTS OF WAY LINES, ETC.
- \*-FENCE EXIST
- 8" -W- WATER LINE & VALVE EXIST
- 12" -S- SANITARY SEWER & MANHOLE, EXIST.
- 12" -SS- STORM SEWER BCB, EXIST.
- 6" -G- GAS LINE, EXIST.
- T-26PR. TELEPHONE, EXIST. UNDERGROUND
- E-240V. ELECTRIC, EXIST. UNDERGROUND
- IR- IRRIGATION PIPE EXIST.
- DITCH
- 8" -CULVERT, EXIST. SHOWING FLOW DIRECTION
- CENTERLINE, (ALSO NOTED @)
- ||||| BOUNDARY LINES (city limits, parks, etc)
- ||||| SECTION LINES, D.L.C. LINES, ETC.
- ⋈ FIRE HYDRANT, EX
- VALVE IN NEW LINE
- ▲ FIRE HYDRANT ON NEW LINE

#### PIPING

- CI — CAST IRON
- CONC. — CONCRETE
- CULV. — CULVERT
- F — FLANGE
- FCA — FLANGE COUPLING ADAPTER
- FH — FIRE HYDRANT
- GV — GATE VALVE
- MC — MECHANICAL COUPLING
- MH — MANHOLE
- MJ — MECHANICAL JOINT
- PE — PLAIN END
- RG — RETAINER GLAND
- WS — WELDED STEEL

#### SURFACING

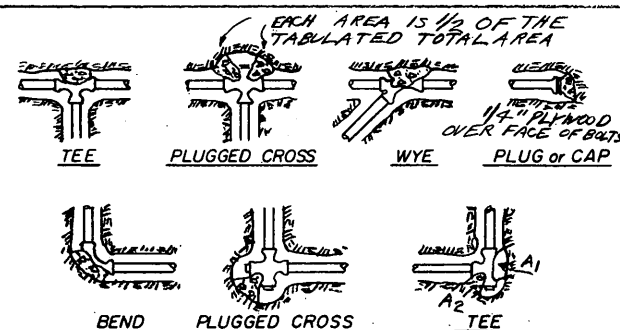
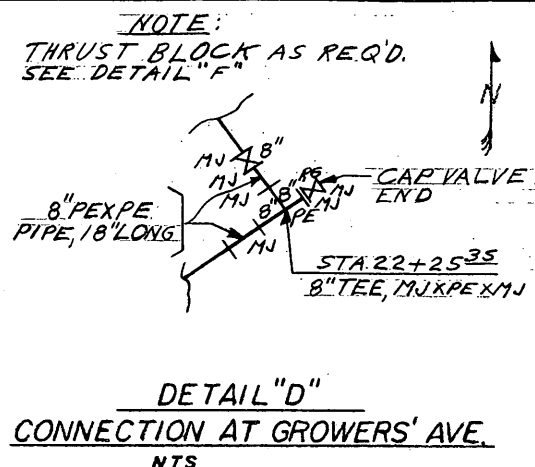
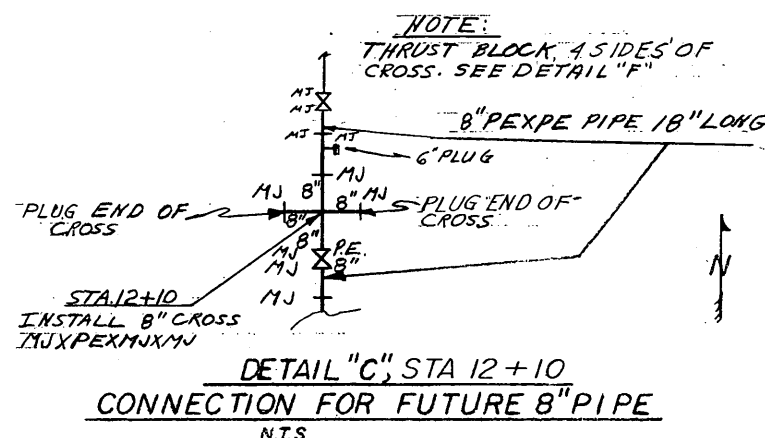
- A.C. — ASPHALTIC CONC.
- PVMT — PAVEMENT

- SWDK — SIDEWALK

#### MISCELLANEOUS

- CB — CATCH BASIN

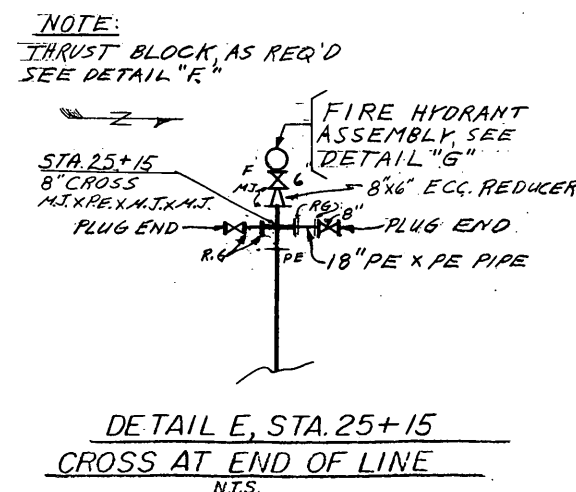
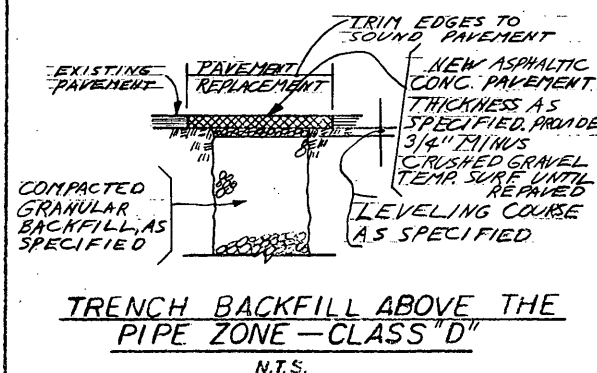
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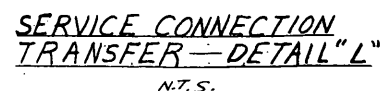
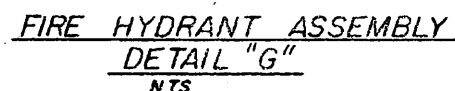
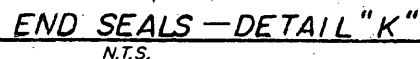
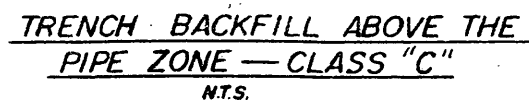


- NOTES:  
1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH  
2. KEEP CONCRETE CLEAR OF JOINT AND ACCESSORIES

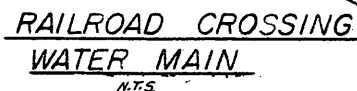
| BEARING AREA OF THRUST BLOCKS IN SQ. FT. |        |           |           |           |              |              |
|------------------------------------------|--------|-----------|-----------|-----------|--------------|--------------|
| FITTING                                  | TEE    | 90° BEND  | TEE       | 45° BEND  | 22 1/2° BEND | 11 1/4° BEND |
| SIZE                                     | WYE    | PLUG-PLUG | PLUG-PLUG | PLUG-PLUG | PLUG-PLUG    | PLUG-PLUG    |
| OR CAP                                   | OR CAP | OR CAP    | OR CAP    | OR CAP    | OR CAP       | OR CAP       |
| 8                                        | 7.6    | 10.6      | 15.2      | 4.8       | 5.8          | 3.4          |
|                                          |        |           |           |           |              | 2.0          |

NOTE:  
ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 P.S.I., AND AN ALLOWABLE SOIL BEARING STRESS OF 1,000 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESSURE/150) X (2000/SOIL BEARING STRESS) X (TABLE VALUE).  
DETAIL "F"  
THRUST BLOCKING DETAIL N.T.S.



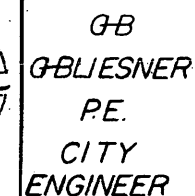


NOTE:  
CUT EXISTING PIPE &  
TAPP NEW PIPE AS  
REQ'D.  
CORP. STOP SHALL BE  
INSTALLED AT AN ANGLE  
OF 45° WITH THE HORIZ.



DETAIL "J"

2" THICKNESS X 20" SQ. REDWOOD  
SEALS EACH END OF CASING  
SEE DETAIL "K".



CITY OF NEWBERG  
WATER PIPELINE  
ELLIOT ROAD  
TO  
GROWERS' AVE.

|          |            |
|----------|------------|
| des:     | sheet      |
| GB       | 3          |
| dr:      | of         |
| B        | 3          |
| ck:      | date:      |
| HRG      | 30 JUNE '6 |
|          | scale:     |
|          | NONE       |
| dwg. no. |            |
| W 1969   |            |

## GENERAL

-  POWER LINE, AERIAL  
 BACKFILL  
 CLASSIFICATION

MISCELLANEOUS

- EX.—EXISTING  
NTS.—NOT TO SCALE

## JOINTS

- MJ - MECH JOINT  
F FLANGED

## FITTINGS

- 
 -8x8x6 MJ x MJ  
 xFLANGED TEE

## VALVES

- VALVES
- MJ F  
8
- 8" MECH JOINT x  
FLANGED GATE  
VALVE