CITY OF NEWBERG, OREGON

CONTRACT DOCUMENTS
AND
SPECIFICATIONS

NEWBERG COMMUNITY HOSPITIAL
PARKING LOT EXPANSION
PHASE II & III

APRIL 1987

SET NO. 22

Florence

for the vault files - (original cost of insurance)

In date of order

CONTRACT DOCUMENTS

AND

SPECIFICATIONS

NEWBERG COMMUNITY HOSPITAL
PARKING LOT EXPANSION PHASE II & III

FOR

CITY OF NEWBERG, OREGON

APRIL, 1987

Bert S. Teitzel, P.E.
Director of Public Works

NEWBERG COMMUNITY HOSPITAL
PARKING LOT EXPANSION PHASE II & III

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ADVERTISEMENT FOR BIDS
Newberg Community Hospital
Parking Lot Expansion

Sealed bids for the construction of the Newberg Community Hospital Parking Lot Expansion in the City of Newberg, Oregon addressed to the Director of Hospital Administrator, Newberg Community Hospital, 501 Villa Road, Newberg, Oregon 97132, will be received at the office of Mark Meinert, Hospital Administrator until 2:00 p.m. prevailing time on the 17th of June, 1987 at Newberg Community Hospital, Conference Room A, 501 Villa Road, Newberg, Oregon at which time and place all bids will be opened and publicly read aloud, by the undersigned or his designated representative.

The project generally consists of the improvement of the parking lot and construction of a new parking lot on the east side of the Hospital building which includes paving and striping of the parking lot, installation of curb, storm sewer system and installation of lighting fixtures.

Plans and Specifications may be obtained at the office of the Director of Public Works, City Hall 414 E. First St., Newberg, Oregon 97132 upon payment of $25.00 for each set. Payment shall be non-refundable.

Plans and Specifications may be examined at the office of the Director of Public Works, Newberg City Hall, 414 E. First St., Newberg, Oregon 97132; Builders Exchange Co-op, 1125 SE Madison Street, Portland, Oregon 97214; Construction Data, 925 NW 12th, Portland, OR 97214, and Northwest Plan Center, 901 SE Oak, Portland, Oregon 97214.

Bidders must be prequalified. Those who are not prequalified with the City must file application no later than 5:00 p.m. prevailing time on the 15th day of July, 1986. Send prequalification forms to: Director of Public Works, 414 E. First St., Newberg, Oregon 97132.

No proposal will be received or considered unless the bid contains statements by the bidder as a part of his bid, that the provisions required by ORS 279.348 through 279.363, and the Davis-Bacon Act, as may be applicable are to be complied with. Applicable state wage rates are included with the contract documents.

All bidding shall comply with Presidents Executive Order No. 11246.

All bidders shall comply with the applicable provisions of the Equal Employment Opportunity Act of 1972 and the Civil Rights Act of 1964.

Each bid must be submitted on the prescribed form in a sealed envelope, and clearly marked on the outside that it is a bid. Each bid must be accompanied by a certified check or bid bond payable to the Board of Directors, Newberg Community Hospital, Newberg, Oregon in an amount of not less than 10 percent of the total amount of the bid submitted. Failure to provide bid bond shall result in rejection of bid by the Board of Directors, Newberg Community Hospital.

The successful Bidder will be required to furnish a bond for faithful performance on the contract in the full amount of the contract price.

The Board of Directors, Newberg Community Hospital may reject any bid not in compliance with all prescribed public bidding procedures and requirements, and may reject for good cause any or all bids upon a finding of the Board of Directors, Newberg Community Hospital it is in the public interest to do so.

No bidder may withdraw his bid for a period of 30 calendar days after the date set for opening.

The Board of Directors, Newberg Community Hospital may reject any bid not in compliance with all prescribed public bidding procedures and requirements, and may reject, for good cause any or all bids upon a finding of the Board of Directors, Newberg Community Hospital it is in the public interest to do so.

Bert Teitzel, P.E.
Director of Public Works

BID

PLACE: City of Newberg, Oregon

PROJECT: Newberg Community Hospital - Parking Lot Expansion Phase II & Phase III

TO: NEWBERG COMMUNITY HOSPITAL COMMISSION
CITY OF NEWBERG, OREGON
501 VILLA RD.
NEWBERG, OREGON 97132

The undersigned, hereinafter called the Bidder, in compliance with your advertisement for bid offers to enter into a Contract with the Board of Directors, Newberg Community Hospitaln Newberg, Oregon, hereinafter referred to as the Owner, to furnish all labor, materials, equipment, supplies and machinery to construct the project in accordance with the Contract Documents, within the time set forth therein, and at the prices stated below.

The Bidder declares that he has carefully examined the plans and specifications with related documents, that he has personally inspected the site of the proposed work; that he has satisfied himself as to the quantities involved including materials and equipment, and is familiar with all of the conditions surrounding the construction of the proposed project including availability of materials and labor.

The Bidder further declares that the Bid is made according to the provisions and under the terms of the Contract Documents, which are hereby made a part of this Bid, and that the prices below are to cover all expenses incurred in performing the work required under the Contract Documents of which this Bid is a part.

The Bidder agrees that if this Bid is accepted, he will, within ten calendar days after notification of acceptance, execute the Contract with the Owner; and will at that time deliver to the Owner the Performance and Payment Bond and insurance documents required herein, and will, to the extent of his Bid, furnish all labor, equipment and materials necessary to complete the work in the manner, in the time, and according to the methods as specified in the Contract Documents and required by the Director of Public Works.

The Bidder further agrees to begin work within ten calendar days after notification of receipt of written "Notice to Proceed" of the owner and to fully complete the project, within forty-five (45) consecutive calendar days thereafter. Bidder further agrees to pay as liquidated damages, the sum of one hundred and fifty dollars ($150.00) for each consecutive calendar day thereafter until the work shall have been finished. Sundays and legal holidays shall be excluded in determining days in default.

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 schedule of 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 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 undersigned Bidder hereby agrees that the provisions of ORS 279.348 to 279.356 will be complied with, so that the undersigned Bidder and Bidder's subcontractors will pay to their employees not less than the specified minimum prevailing rate of wage as determined by the Oregon Commissioner of the Bureau of Labor and Industries and further agrees to pay such wages not less than once per week.

SCHEDULE OF PRICES PHASE II & III PAGE 1

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT OF MEASUREMENT	UNIT PRICE FIGURES	UNIT PRICE IN WRITING	TOTAL AMOUNT
1.	Clearing and Grubbing		L.S.	900.00	Nine Hundred Dollars 00/xx	900.00
2.	Mobilization		L.S.	3367.50	Thirty-Three Hundred + Sixty-Seven dollar + Fifty Cents	3367.50
3.	Excavation	1,525	C.Y.	4.00	Four dollars + 00/xx	6100.00
4.	Fill	90	C.Y.	2.00	Two dollars + 00/xx	180.00
5.	Base Rock 3/4"-0 (Compacted in place)	530	C.Y.	8.00	Eight dollars + 00/xx	4240.00
6.	Asphalt Concrete Class "C"	3,000	S.Y.	5.33	Five dollars + Thirty-three Cents	15,990.00
7.	Concrete Curb	2,165	L.F.	4.50	Four dollars + fifty Cents	9742.50
8.	Concrete Curb and Gutter Reinforced	30	L.F.	6.00	Six dollars + 00/xx	180.00
9.	Saw Cutting	400	L.F.	.55	fifty-five Cents	220.00
10.	Concrete Sidewalk 4" thick	30	S.F.	1.20	One dollar + Twenty Cents	36.00
11.	Street Light, with double fixture	1	EA.	1995.00	Nine Hundred Ninety Five 00/xx	1995.00
12.	Relocation of Existing Street Light	1	EA.	1000.00	One Thousand + 00/xx	1000.00

SCHEDULE OF PRICES PHASE II & III PAGE 2

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT OF MEASUREMENT	UNIT PRICE FIGURES	UNIT PRICE IN WRITING	TOTAL AMOUNT
13.	Commercial Driveway	125	S.F.	2.50	Two dollars + Fifty Cent	312 50
14.	Trench Excavation and Backfill Class "B" 0-8 ft.	20	L.F.	15 00	Fifteen dollars + 00/xx	300 00
15.	10" Plasctic Pipe	20	L.F.	10 00	Ten dollars + 00/xx	200 00
16.	4" PVC Pipe Sch 40	20	L.F.	10 00	Ten dollars + 00/xx	200 00
17.	18" x 10" Plastic Tee	2	EA.	300 00	Three Hundred dollars + 00/xx	600 00
18.	Tap into Existing 12" Storm Sewer	1	EA.	300 00	Three Hundred dollars + 00/xx	300 00
19.	Remove Existing Inlet; Plug Pipe	3	EA.	450 00	Four Hundred + Fifty dollars + 00/xx	1350 00
20.	Raise Existing Manhole to Grade	1	EA.	200 00	Two Hundred dollars + 00/xx	200 00
21.	Drop Inlet	3	EA.	350 00	Three Hundred + Fifty dollars + 00/xx	1050 00
22.	Lawn Restoration		L.S.	2800 00	Twenty-Eight Hundred dollars + 00/xx	2800 00
22.	Parking Lot Striping		L.S.	430 00	Four Hundred + Thirty dollars + 00/xx	430 00
23.	Final Clean-up		L.S.	200 00	Two Hundred dollars + 00/xx	200 00
	TOTAL BID				Fifty-One Thousand Eight Hundred + Ninety-Three 50/xx	51,893 50/xx

The above unit prices shall include all labor, materials, equipment, tools, overhead, profit, insurance, etc., to complete the work 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 required Performance and Payment Bond within the time herein proposed, then, in that event, the bid security deposited herewith shall be retained by the Owner as liquidated damages.

The City may reject any bid not in compliance with all prescribed public bidding procedures and requirements, and may reject for good cause any or all bids upon a finding of the City it is in the public interest to do so.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of thirty (30) calendar days after the scheduled closing time for receiving bids.

The Bidder acknowledges receipt of the following addendum.

NO._____ DATE_____ NO._____ DATE_____
NO._____ DATE_____ NO._____ DATE_____

The name of the Bidder submitting this Proposal is Flintstone Crushing & Const Co doing business at 85869 Hwy 99S, Eugene, Ore, 97405
Street City State Zip

which is the address to which all communications shall be sent.

BIDDER'S PERFORMANCE BOND STATEMENT

Flintstone Crushing & Const Co hereinafter referred to as
(Name of Contractor)
Contractor, is submitting a bid to the Board of Directors, Newberg Community Hospital pursuant to the latter's advertisement for bids dated 6-17-87 for Newberg Community Hospital Parking Lot Expansion Phase II
(Date)
& Phase III.

Contractor certifies that if awarded the Contract, Contractor has the financial ability to obtain a good and sufficient bond issued by a surety to Owner in a sum equal to the amount of the bid providing for the faithful performance of the Contract.

BID Cont.

Contractor understands and agrees if Contractor fails to provide the performance bond, the Owner will reject such bid and the bid bond or security submitted with the subject bid will be forfeited.

The Surety requested to issue the Performance Bond will be

INDIANA LUMBERMANS MUTUAL INS. Contractor hereby authorizes
(Surety Company)

INDIANA LUMBERMANS MUTUAL INS. to disclose any information to the
(Surety Company)

Owner concerning Contractor's ability to supply a performance bond in the amount of the Contract.

In witness thereto the undersigned has set his (its) hand this

10th day of June, 1987.

Signature of Bidder

PRES
Title

(If Corporation)

In witness whereof the undersigned corporation has caused this instrument to be executed and the seal affixed by its duly authorized officers this 15 day of JUNE, 1987.

FLINTSTONE CRUSHING & CONST CO
Name of Corporation

By

PRES
Title

Attest
Secretary

CONTRACT FOR CONSTRUCTION

THIS CONTRACT, made and entered into this 30TH day of JUNE, 1987, by and between the CITY OF NEWBERG, OREGON, dba NEWBERG COMMUNITY HOSPITAL, a municipal corporation, hereinafter called the "OWNER", and FLINTSTONE CRUSHING & CONST. CO., INC. of PO BOX 674, SPRINGFIELD, OREGON 97477 hereinafter called the "CONTRACTOR".

WHITENESS:

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 Newberg Community Hospital Parking Lot Expansion Phase II & III to the extent of the Bid made by the Contractor on the 17TH day of JUNE, 1987, all full compliance with Contract Documents referred to herein.

The Advertisement for Bid, the signed copy of the Bid made by the Contractor, the fully executed Performance and Payment Bond, the General Provisions, the Special Provisions, the Technical Provisions, and the Plans consisting of two (2) sheets entitled Newberg Community Hospital Parking Lot Expansion dated April 1986, are hereby referred to and by reference made a part of this Contract as fully as if the same were completely set forth herein.

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 Director of Public Works and to his satisfaction to the extent provided in the Contract Documents, or as otherwise herein provided and based on the said Bid made by the Contractor, and to make such payments in the manner 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 Bid.

The Contractor agrees to indemnify and save harmless the Owner from any and all defects appearing or developing in the materials furnished and the workmanship performed under this Contract for a period of one year or such other time as applicable law may allow after the date of acceptance of the work in the Contract by the Owner.

In the event that the Contractor shall fail to complete the work within the time limits or the extended time limit agreed upon, as more particularly set forth in the Contract Documents, liquidated damages shall be paid at the rate of One Hundred and Fifty Dollars per consecutive calendar day. Sundays and legal holidays shall be excluded in determining days in default.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed the day and year first herein above written.

BOARD OF DIRECTORS, NEWBERG COMMUNITY HOSPITAL

By Chairman

Title

CONTRACTOR

By VP

Title

Approved as to form:

City Attorney

PERFORMANCE - PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That we

FLINTSTONE CRUSHING & CONSTRUCTION CO., INC.

A CORPORATION hereinafter called
(Corporation, Partnership, or Individual)

"Principal" and INDIANA LUMBERMANS MUTUAL INS. CO of INDIANAPOLIS.

State of INDIANA, hereinafter called "Surety", are held firmly bound unto the Newberg Community Hospital, Newberg, Oregon hereinafter called "Owner" in the penal sum of FIFTY ONE THOUSAND EIGHT HUNDRED NINETY THREE AND 50/100 Dollars ($ 51,893.50) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain contract with the Owner, dated this 30th day of JUNE, 19 87, a copy of which is hereto attached and made a part hereof for the construction of Newberg Community Hospital Parking Lot Expansion Phase II and Phase III.

NOW THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms conditions, and agreements of said contract during the original term thereof, and any extension thereof which may be granted by the Owner, with or without notice to the Surety, and if he shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, and shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contracts and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools consumed or used in connection with the construction of such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PERFORMANCE - PAYMENT BOND cont.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition of the terms of the contract or the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specification.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in four (4) counterparts, each one of which shall be deemed an original, this the 1st day of JULY, 19 87.

FLINTSTONE CRUSHING & CONST. CO., INC.
Principal

(Principal) Secretary

By

(S)

PO BOX 674, SPRINGFIELD, OR 97477
(Address - Zip Code)

(SEAL)

Witness as to Principal

(Address - Zip Code)

ATTEST

INDIANA LUMBERMANS MUTUAL INSURANCE CO.
Surety

(Surety) Secretary

By
Attorney-in-fact
GARY RAND

(SEAL)

Witness as to Surety

PO BOX 22145, PORTLAND, OR 97222
(Address - Zip Code)

(Address - Zip Code)

Note: Date of Bond must not be prior to the date of Contract. If Contractor is Partnership, all partners should execute bond.

Indiana Lumbermens Mutual Insurance Company

POWER OF ATTORNEY

PRINCIPAL FLINTSTONE CRUSHING & CONSTRUCTION COMPANY, INC. EFFECTIVE DATE 7-1-87

PO BOX 674 (STREET ADDRESS) SPRINGFIELD (CITY) OR (STATE) 97477 (ZIP CODE)

CONTRACT AMOUNT $51,893.50 AMOUNT OF BOND $ 51,893.50

POWER NO. SBA 12231390

KNOW ALL MEN BY THESE PRESENTS, that the Indiana Lumbermens Mutual Insurance Company, a Corporation duly organized and existing under the laws of the State of Indiana, with its principal office in the City of Indianapolis, Indiana, does hereby make, constitute and appoint

GARY RAND State of OREGON

as its true and lawful Attorney(s)-in-Fact, with full power and authority herby conferred to sign, execute, acknowledge and deliver any and all Bonds and undertakings, recognizances, contracts of indemnity, and other writings obligatory in the nature thereof for and on its behalf as follows:

The obligation of the Company shall not exceed one million ($1,000,000.00) dollars.

And to bind the Corporation thereby as fully and to the same extent as if such Bonds and undertakings, recognizances, contract of indemnity, and other writings obligatory in the nature thereof were signed by the President, sealed and duly attested by the Secretary of the Corporation, hereby ratifying and confirming all that the said Attorney(s)-in-Fact may do in the premises. This Power of Attorney is executed and may be revoked pursuant to and by authority granted by Article IV, Section 2-A (1) and (2) of the By-Laws of the Indiana Lumbermens Mutual Insurance Company, which reads as follows:

(1) The President or any Vice President shall have the power and authority, by and with the concurrence with the Secretary of the Corporation, to appoint Attorneys-in-Fact for purposes only of executing and attesting to Bonds and undertakings, recognizances, contracts of indemnity, and other writings obligatory in the nature thereof, and at any time to remove any such Attorney-in-Fact and to revoke the power and authority given to him.

(2) Attorneys-in-Fact when so appointed shall have power and authority, subject to the terms and limitations of the Powers of Attorney issued to them, to execute and deliver on behalf of the Corporation any and all Bonds and undertakings, recognizances, contracts of indemnity, and other writings obligatory in the nature thereof, and such instrument executed by any such Attorney-in-Fact shall be as binding upon the Corporation as if signed by an Executive Officer and sealed and attested by the Secretary.

IN WITNESS WHEREOF, the Indiana Lumbermens Mutual Insurance Company has caused these presents to be signed by its Vice President, attested by its Secretary and its Corporate Seal to be hereto affixed this FIRST day of OCTOBER 1986.

ATTEST:

By L.W. Rodney
Secretary

Indiana Lumbermens Mutual Insurance Company

By
Vice President

STATE OF INDIANA
COUNTY OF MARION } SS:

On this FIRST day of OCTOBER 19 86, before me personally came the individual who executed the preceding instrument, to me known, who being by me duly sworn, acknowledged the execution of the above instrument and did depose and say; that he is the therein described and authorized officer of the Indiana Lumbermens Mutual Insurance Company; that he knows the seal of said Corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Corporation; and that he signed his name thereto by like order.

August 10, 1990
My Commission Expires

Letty M. Nieter
Notary Public

STATE OF INDIANA
COUNTY OF MARION } SS:

I, the undersigned, Secretary of the Indiana Lumbermens Mutual Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney, executed by said Indiana Lumbermens Mutual Insurance Company, which is still in force and effect.

This Certificate may be signed and sealed by facsimile under and by the authority of the following resolution of the Board of Directors of Indiana Lumbermens Mutual Insurance Company at a meeting duly called and held on the 12th day of June 1973.

"RESOLVED: That the use of printed facsimile of the Corporate Seal of the Company and of the signature of the Secretary on any certification of the correctness of a copy of an instrument executed by the President or a Vice President pursuant to Article IV, Section 2-A (1) and (2) of the By-Laws appointing and authorizing Attorney-in-Fact to sign in the name and on behalf of the Company Bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof, with like effect as if such seal and such signature had been manually affixed and made, hereby is authorized and approved."

In witness whereof, I have hereunto set my hand and affixed the seal of said Corporation, this 1st day of JULY 19 87.

(SEAL)

L.W. Rodney
Secretary

Form 253

Indiana Lumbermens Mutual Insurance Company

POWER OF ATTORNEY

PRINCIPAL FLINTSTONE CRUSHING & CONSTRUCTION COMPANY, INC. EFFECTIVE DATE 7-1-87

PO BOX 674 (STREET ADDRESS) SPRINGFIELD (CITY) OR (STATE) 97477 (ZIP CODE)

CONTRACT AMOUNT $51,893.50 AMOUNT OF BOND $ 51,893.50

POWER NO. SBA 12231390

KNOW ALL MEN BY THESE PRESENTS, that the Indiana Lumbermens Mutual Insurance Company, a Corporation duly organized and existing under the laws of the State of Indiana, with its principal office in the City of Indianapolis, Indiana, does hereby make, constitute and appoint

GARY RAND State of OREGON

as its true and lawful Attorney(s)-in-Fact, with full power and authority herby conferred to sign, execute, acknowledge and deliver any and all Bonds and undertakings, recognizances, contracts of indemnity, and other writings obligatory in the nature thereof for and on its behalf as follows:

The obligation of the Company shall not exceed one million ($1,000,000.00) dollars.

And to bind the Corporation thereby as fully and to the same extent as if such Bonds and undertakings, recognizances, contract of indemnity, and other writings obligatory in the nature thereof were signed by the President, sealed and duly attested by the Secretary of the Corporation, hereby ratifying and confirming all that the said Attorney(s)-in-Fact may do in the premises. This Power of Attorney is executed and may be revoked pursuant to and by authority granted by Article IV, Section 2-A (1) and (2) of the By-Laws of the Indiana Lumbermens Mutual Insurance Company, which reads as follows:

(1) The President or any Vice President shall have the power and authority, by and with the concurrence with the Secretary of the Corporation, to appoint Attorneys-in-Fact for purposes only of executing and attesting to Bonds and undertakings, recognizances, contracts of indemnity, and other writings obligatory in the nature thereof, and at any time to remove any such Attorney-in-Fact and to revoke the power and authority given to him.

(2) Attorneys-in-Fact when so appointed shall have power and authority, subject to the terms and limitations of the Powers of Attorney issued to them, to execute and deliver on behalf of the Corporation any and all Bonds and undertakings, recognizances, contracts of indemnity, and other writings obligatory in the nature thereof, and such instrument executed by any such Attorney-in-Fact shall be as binding upon the Corporation as if signed by an Executive Officer and sealed and attested by the Secretary.

IN WITNESS WHEREOF, the Indiana Lumbermens Mutual Insurance Company has caused these presents to be signed by its Vice President, attested by its Secretary and its Corporate Seal to be hereto affixed this FIRST day of OCTOBER 1986.

ATTEST:

By L.W. Rodney
Secretary

SEAL

Indiana Lumbermens Mutual Insurance Company

By
Vice President

STATE OF INDIANA } SS:
COUNTY OF MARION }

On this FIRST day of OCTOBER 19 86, before me personally came the individual who executed the preceding instrument, to me known, who being by me duly sworn, acknowledged the execution of the above instrument and did depose and say; that he is the therein described and authorized officer of the Indiana Lumbermens Mutual Insurance Company; that he knows the seal of said Corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Corporation; and that he signed his name thereto by like order.

August 10, 1990
My Commission Expires

NOTARY PUBLIC SEAL INDIANA

Letty M. Nieten
Notary Public

STATE OF INDIANA } SS:
COUNTY OF MARION }

I, the undersigned, Secretary of the Indiana Lumbermens Mutual Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney, executed by said Indiana Lumbermens Mutual Insurance Company, which is still in force and effect.

This Certificate may be signed and sealed by facsimile under and by the authority of the following resolution of the Board of Directors of Indiana Lumbermens Mutual Insurance Company at a meeting duly called and held on the 12th day of June 1973.

"RESOLVED: That the use of printed facsimile of the Corporate Seal of the Company and of the signature of the Secretary on any certification of the correctness of a copy of an instrument executed by the President or a Vice President pursuant to Article IV, Section 2-A (1) and (2) of the By-Laws appointing and authorizing Attorney-in-Fact to sign in the name and on behalf of the Company Bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof, with like effect as if such seal and such signature had been manually affixed and made, hereby is authorized and approved."

In witness whereof, I have hereunto set my hand and affixed the seal of said Corporation, this 1st day of JULY 19 87.

(SEAL)

SEAL

L.W. Rodney
Secretary

Form 253

IMPORTANT

Please return the attached certificate for cancellation upon termination of your interest. Thank you.

Kingrey, Price & Duyck Insurance
P. O. Box 29 • Springfield, Oregon 97477
Phone 741-0550

acord CERTIFICATE OF INSURANCE

ISSUE DATE (MM/DD/YY): 7-7-87 se

PRODUCER

Kingrey, Price and Duyck Ins.
PO Box 784
Springfield, OR 97477

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED

Martin & Wright Paving, Inc.
103 Booth Bend Rd
McMinnville, OR 97128

COMPANIES AFFORDING COVERAGE

COMPANY LETTER A: United Pacific
COMPANY LETTER B:
COMPANY LETTER C:
COMPANY LETTER D:
COMPANY LETTER E:

COVERAGES

THIS IS TO CERTIFY THAT POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS, AND CONDITIONS OF SUCH POLICIES.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	ALL LIMITS IN THOUSANDS	
A	GENERAL LIABILITY [x] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [x] OCCURRENCE [ ] OWNER'S & CONTRACTORS PROTECTIVE	UP0652649	10-12-86	10-12-87	GENERAL AGGREGATE	$ N/A
					PRODUCTS-COMP/OPS AGGREGATE	$ 500,
					PERSONAL & ADVERTISING INJURY	$ 500,
					EACH OCCURRENCE	$ 500,
					FIRE DAMAGE (ANY ONE FIRE)	$ 50,
					MEDICAL EXPENSE (ANY ONE PERSON)	$ 1,
A	AUTOMOBILE LIABILITY [x] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [x] HIRED AUTOS [x] NON-OWNED AUTOS [ ] GARAGE LIABILITY	UP0652649	10-12-86	10-12-87	CSL	$ 500,
					BODILY INJURY (PER PERSON)	$
					BODILY INJURY (PER ACCIDENT)	$
					PROPERTY DAMAGE	$
	EXCESS LIABILITY [ ] [ ] OTHER THAN UMBRELLA FORM				EACH OCCURRENCE $	AGGREGATE $
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY				STATUTORY	
					$ (EACH ACCIDENT)	
					$ (DISEASE-POLICY LIMIT)	
					$ (DISEASE-EACH EMPLOYEE)	
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/RESTRICTIONS/SPECIAL ITEMS

RE: Insured's Operations

CERTIFICATE HOLDER

Newberg Community Hospital
501 Villa Rd
Newberg, OR 97132

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Gordon C. Price

IMPORTANT

Please return the attached certificate for cancellation upon termination of your interest. Thank you.

Kingrey, Price & Duyck Insurance
P. O. Box 29 • Springfield, Oregon 97477
Phone 741-0550

CERTIFICATE OF INSURANCE

ISSUE DATE (MM/DD/YY): 7-7-87 se

PRODUCER

Kingrey, Price and Duyck Ins.
PO Box 784
Springfield, OR 97477

INSURED

Flintstone Crushing and
Construction Co., Inc.
PO Box 674
Springfield, OR 97477

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

COMPANIES AFFORDING COVERAGE

COMPANY LETTER A	United Pacific
COMPANY LETTER B	
COMPANY LETTER C	
COMPANY LETTER D	
COMPANY LETTER E	

COVERAGES

THIS IS TO CERTIFY THAT POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS, AND CONDITIONS OF SUCH POLICIES.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	ALL LIMITS IN THOUSANDS	
A	GENERAL LIABILITY [x] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [x] OCCURRENCE [x] OWNER'S & CONTRACTORS PROTECTIVE	UP0355801-01	7-1-87	7-1-88	GENERAL AGGREGATE	$ N/A
					PRODUCTS-COMP/OPS AGGREGATE	$ 1,000,
					PERSONAL & ADVERTISING INJURY	$ 1,000,
					EACH OCCURRENCE	$ 1,000,
					FIRE DAMAGE (ANY ONE FIRE)	$ 50,
					MEDICAL EXPENSE (ANY ONE PERSON)	$ 1,
A	AUTOMOBILE LIABILITY [x] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [x] HIRED AUTOS [x] NON-OWNED AUTOS [ ] GARAGE LIABILITY	UP0355801-01	7-1-87	7-1-88	CSL	$ 1,000,
					BODILY INJURY (PER PERSON)	$
					BODILY INJURY (PER ACCIDENT)	$
					PROPERTY DAMAGE	$
	EXCESS LIABILITY [ ] OTHER THAN UMBRELLA FORM				EACH OCCURRENCE $	AGGREGATE $
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY				STATUTORY	
					$ (EACH ACCIDENT)	
					$ (DISEASE-POLICY LIMIT)	
					$ (DISEASE-EACH EMPLOYEE)	
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/RESTRICTIONS/SPECIAL ITEMS

RE: Insured's Operations

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AUTHORIZED REPRESENTATIVE

Gordon C. Price Jr.

GENERAL PROVISIONS

NEWBERG COMMUNITY HOSPTIAL
PARKING LOT EXPANSION PHASE II & III

CITY OF NEWBERG, OREGON

SECTION 1.00 DEFINITIONS AND TERMS

Terms used or referred to herein are defined as follows:

1.01 BID

The offer of the bidder when submitted on the proposal form, properly signed and guaranteed.

1.02 BIDDER

Any individual, firm partnership, corporation or combination thereof acting directly or through a duly authorized representative, submitting a proposal on the work contemplated.

1.03 CHANGE ORDER

A written instruction to the Contractor, signed by the Engineer, prescribing any change in the work.

1.04 CONTRACTING AGENCY

The agency which has been contracted for the performance of the work or for whom the work is being performed.

1.05 CONTRACT

The written agreement covering performance of the work including formal contract, advertisement for bids, instructions to bidders, proposal with required affidavit, specifications, bonds, plans, and all other Contract Documents.

1.06 CONTRACTOR

The individual, partnership, corporation, or other entity entering into a contract with the Contracting Agency to perform the contemplated work. In the case of work being done under a permit issued by the Contracting Agency, the Permitee shall be construed to be the Contractor.

1.07 ENGINEER

The Engineer of the Contracting Agency, acting either directly or through his authorized representatives, and designated by the Contracting Agency to supervise the work during its execution.

1.08 HOUSE CONNECTION SEWER

Any sewer pipe line lying within an easement, public street or right of way which connects or is proposed to connect, a house sewer or any lot or part of a lot with a public sewer.

1.09 HOUSE SEWER

Any sewer pipe line which connects, or is proposed to connect, any building to a house connection sewer.

1.10 INSPECTOR

An authorized representative of the Engineer of the Contracting Agency, limited to the particular duties entrusted by the Engineer.

1.11 LABORATORY

A materials testing laboratory operated by a public agency or if approved by the Engineer, any private, commercial testing laboratory.

1.12 LINEAL FOOT

Horizontal measurement as determined by engineers' station.

1.13 MAJOR ITEM

Any items or work and/or materials having an original contract value in excess of $500.00 or which exceeds ten (10) percent of the amount of the original contract, whichever is greater.

1.14 NOTICE TO PROCEED

A written notice to the Contractor from the Contracting Agency, designating the date by which the Contractor shall begin prosecution of the work.

1.15 PERSON

Any individual, firm, association, partnership, corporation, trust, or joint venture.

1.16 PLANS

The plans, profiles, cross sections, and drawings, or reproductions thereof, approved by the Engineer, which show the details of the work to be done.

1.17 PROPOSAL GUARANTY

Certified check or bidder's surety bond executed by a bonafide surety company, accompanying the Bid as a guarantee that the bidder will enter into a contract with the Board for the performance of the work.

1.18 REFERENCE SPECIFICATIONS

Bulletins, standards, rules, methods of analysis or test, codes and specifications of other agencies, engineering societies, or industrial associations referred to in these specifications. All such references specified herein, refer to the latest edition thereof, including any amendments thereto

which are in effect and published at the time of advertising for bids or issuing the permit for the project.

1.19 ROADWAY

That portion of the right of way or easement intended for use by vehicles.

1.20 SANITARY SEWER

A sewer that carries liquid and water-carried wastes together with minor quantities of storm, surface, and groundwaters that are not admitted intentionally.

1.21 SEWER

A pipe or conduit that carries wastewater or drainage water.

1.22 SPECIAL PROVISIONS

Specific clauses setting forth conditions or requirements peculiar together with minor quantities of storm, surface, and groundwaters that are not admitted intentionally.

1.23 SEWER

A pipe or conduit that carries wastewater or drainage water.

1.24 SPECIAL PROVISIONS

Specific clauses setting forth conditions or requirements peculiar to the work which modify or supplement the standard specification.

1.25 SPECIFICATIONS

This term includes the standard specifications and specifications included herein by reference, any special or project specifications, and specifications included therein by reference, specifications on the plans referred to and specifications contained or referred to in supplemental agreements between the Contractor and the Contracting Agency.

1.26 STANDARD DRAWINGS

Drawings of structures or devices referred to on the plans or in specifications by title and/or an index number.

1.27 STATE

The State of Oregon.

1.28 STORM SEWER

A sewer that carries storm water and surface water, street wash and other wash waters, or drainage, but excludes domestic wastewater and industrial wastes. Also called storm drain.

1.29 STREET

Any road, highway, parkway, freeway, alley, walk or way.

1.30 SURETY

The bondsman, party or parties who may guarantee the fulfillment of the contract by bond.

1.31 UTILITY

Tracks, overhead or underground wires, pipe lines, conduits, ducts of structures, owned, operated, or maintained in or across a public right of way or private easement.

1.32 WORK

That which is proposed to be constructed or done under the contract.

1.33 ABBREVIATIONS AND SYMBOLS

A.A.S.H.O. (AASHO) American Association of State Highway Officials. A.G.C. (AGC) Associated General Contractors of American. A.P.W.A. (APWA) American Public Works Association. A.S.T.M. (ASTM) American Society for Testing Materials. A.W.W.A. (AWWA) American Water Works Association. O.R.S. (ORS) Oregon Revised Statutes.

SECTION 2.00 PROPOSAL REQUIREMENTS AND CONDITIONS

2.01 INTERPRETATION OF PLANS AND SPECIFICATIONS

The Engineer will interpret the meaning of any part of the plans and specifications about which any misunderstanding may arise, and his decision will be final.

Should the Contractor become aware of any error or discrepancy in or between the plans and specifications, he shall refer the matter to the Engineer for adjustment before proceeding further with the work. Should the Contractor proceed with the work without referring the matter, he does so on his own responsibility.

2.02 FIELD CONDITIONS

Logs of test holes, ground water levels, and any accompanying soil reports as furnished by the Contracting Agency are furnished for general information only. The field conditions so set forth shall not constitute a representation or warranty, expressed or implied that such conditions are actually existent. Bidders shall make their own investigations and form their own estimates of the site conditions as set forth in the soils reports or as shown by the logs of test holes and the actual conditions revealed during the progress of the work or otherwise.

2.03 CONTRACT DOCUMENTS

The Contract Documents under which it is proposed to execute this 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 Bid 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 Contracting Agency will not be responsible for any other explanation or interpretations of said Documents.

2.04 TYPE OF BID

The Bid for the work contemplated is to be submitted on the form prescribed in the Bid.

2.05 PREPARATION OF BIDS

All blank spaces in the Bid form must be filled, in ink, in both words and figures where required. No changes shall be made in the phraseology of the forms or in the items mentioned here in. Written amounts shall govern in cases of discrepancy between the amounts stated in writing and the amounts stated in figures. In the case of error in extending unit prices in the bid, the correct extension of the unit prices shall govern.

Any Bid shall be deemed informal which contains omissions, erasures, alterations or additions of any kind, or items uncalled for, or in which any of

the items 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 Bid in the blank space provided therefore. Bids made by corporations or partnerships shall contain names and addresses of the principal officers or partners. If the Bid 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.

2.06 SUBMISSION OF BIDS

All Bids must be submitted at the time and place and in the manner prescribed in the Advertisement for Bids. Bids must be made on the prescribed Bid forms and submitted with the Contract Documents.

2.07 WITHDRAWAL OF BID

Any bid may be withdrawn prior to the scheduled time for the opening of bids either by telegraph or written request, or in person. No bid may be withdrawn after the time scheduled for opening of bids unless the time specified in Section 3.01 has elapsed.

2.08 BID SECURITY

Bids 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 of not less than ten (10) percent of the total amount of the Bid 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.

The Contracting Agency reserves the right to retain the bid security of the three lowest bidders until the successful Bidder has signed and delivered the Contract, and furnished a one-hundred percent (100%) 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.

2.09 CONDITIONS OF WORK

Each Bidder must inform himself of the conditions relating to the regular 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 of 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, right-of-way, and access to the work, fire protection regulations, and similar requirements.

2.10 PREQUALIFICATION OF BIDDERS

Bidders who are in doubt as to their qualifications should refer to the requirements regarding prequalification in the Advertisement for Bids for this contract. Prequalification requests must be submitted by the time stipulated in the Advertisement for Bids.

SECTION 3.00 AWARD AND EXECUTION OF CONTRACT

3.01 AWARD OF CONTRACT

After the Bids for the contemplated work have been opened and read as provided in these specifications, the respective totals thereof will be checked and compared by the Contracting Agency; and the results thereupon will be considered public information.

Unless otherwise stated in the Special Provisions or in the Advertisement for Bids the contract will be awarded within the forty-five (45) days after the opening of Bids to the lowest bidder meeting the qualifications required by law, including but not limited to the law relating to prequalification of bidders, and the requirements stated in the advertisement for bids, and instructions to bidders, and/or the specifications, and whose bid complies with all the prescribed requirements unless all bids are rejected. The Contracting Agency reserves the right to reject any and all bids and no bid shall be considered as being binding upon the Contracting Agency until the execution of the Contract; and failure of the Awardee to properly execute the awarded contract and furnish acceptable bonds and insurance as provided herein, shall be just and sufficient cause for the annulment of the award and the forfeiture of his proposal guaranty.

3.02 EXECUTION OF CONTRACT

The contract shall be signed by the successful bidder and returned together with the contract bonds and required insurance documents within 15 calendar days after the award of the contract unless otherwise stated in the Special Provisions or in the Advertisement for Bids, and after receipt of same by the Contracting Agency the proposal guarantees will be returned to all bidders. The Contractor shall carry all insurance which may be required by Federal and State laws by local ordinances, and by these specifications.

The attention of the Contractor is called to the fact that, when the United States Government participates in all or any portion of the cost of the work, the Federal laws authorizing such participation and the rules and regulations made pursuant to such laws must be observed by the Contractor. The work shall be subject to the inspection and approval of the authorized representatives of such Federal agencies as are created for the administration of these laws.

3.03 CONTRACT BONDS

Prior to the execution of the Contract, the Contractor shall file with the Contracting Agency a Performance Bond in the amount and for the purposes noted below, duly executed by a responsible corporate surety authorized to issue such bonds in the State of Oregon, which bond must in all respects comply with ORS 279.029 and ORS 279.526 Et. Seq. inclusive, and be satisfactory and acceptable to the Contracting Agency and he shall pay all premiums and costs thereof and incidental thereto to keep such bond in full force until one year after acceptance of the work in writing by the Contracting Agency.

The bond must be signed by both the Contractor and Surety and shall be in the sum of not less than 100% of the contract price to assure the claims of

materialmen supplying materials to him, and of mechanics and laborers employed by him on the work required under these specifications.

Provided the Contractor shall faithfully and truly observe and comply with the terms, conditions, and provisions of the Contract, in all respects, and shall well and truly and fully do and perform all matters and things by him undertaken, and within the time prescribed therein or as extended as provided in the applicable Standard Specifications, and shall indemnify and save harmless the Contracting Agency, its officers, employees, and agents, against any direct or indirect damages of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the said contract by the said Contractor or his subcontractors; and shall make payment promptly, as due, to all subcontractors and to all persons supplying to the Contractor or his subcontractors: equipment, supplies, labor, or materials for the prosecution of the work, or any part thereof, provided for in said contract, and shall pay all contributions or amounts due the State Industrial Accident Fund and the State Tax Commission; and shall pay all other debts, dues and demands incurred in the performance of the said contract and shall in all respects perform said contract according to law, then this obligation is to be void, otherwise to remain in full force and effect.

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

Should any surety or sureties upon said bonds or any of them become insufficient, said Contractor shall renew said bond or bonds with good and sufficient sureties within ten (10) days after receiving notice from the Contracting Agency that the surety or sureties are insufficient.

3.04 PROTECTIVE LIABILITY INSURANCE REQUIREMENTS AND PROPERTY INSURANCE

The Contractor shall furnish to the Contracting Agency in triplicate, a policy or certificate or protective liability insurance in which the Contracting Agency shall be named insured or be named in such insurance as an additional insured with the Contractor. In compliance with this provision, the Contractor may file with the Contracting Agency a satisfactory "blanket coverage" policy or certificate of insurance. The policy shall insure the Contracting Agency, its officers, employees and agents against all claims arising out of or in connection with the work to be performed and shall remain in full force and effective until the work is accepted by the Contracting Agency. The policy shall provide the following minimum limits.

Bodily Injury	$ 500,000 each person
	$ 500,000 each occurrence
Property Damage	$ 500,000 each accident

Such policy shall provide coverage at least as broad as that provided in the Standard Form approved by the National Bureau of Casualty Underwriters together with such endorsements as are required to cover the risks involved. In addition, the Contractor shall furnish evidence of a commitment by the insurance company to notify the Contracting Agency of the expiration of cancellation of the insurance policies.

The Contractor shall purchase and maintain property insurance upon the Work at the site to the full insurable value thereof. This insurance shall include the interests of Contracting Agency, Contractor, Subcontractors, and consultants in the Work, all of whom shall be listed as insureds or additional insured articles, shall insure against the perils of fire and extended coverage and shall include "all risk" insurance for physical loss and damage including theft, vandalism and malicious mischief, collapse and water damage, and such other perils as may be provided in the SPECIAL CONDITIONS, and shall include damages, losses and expenses arising out of or resulting from any insured loss or incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers, architects, attorneys and other professionals). If not covered under the "all risk" insurance or otherwise provided in the SPECIAL CONDITIONS. Contractor shall purchase and maintain similar property insurance on portions of the Work stored on and off the site or in transit.

All policies of insurance for the certificate or other evidence thereof required to be purchased and maintained by Contractor will contain a provision or endorsement that the coverage afforded will not be cancelled or materially changed or renewal refused until at least thirty days prior written notice has been given to the Contracting Agency by certified mail.

3.05 CONTRACTING AGENCY'S IMMUNITY FROM LIABILITY

The Contractor shall save, keep and hold harmless, the Contracting Agency and all officers and agents thereof from all damages, costs or expenses in law or equity that may at any time arise or be set up because of damages to property or of personal injury received by reason of or in the course of performing said work, which may be occasioned by any negligence upon the part of the Contractor or any of said Contractor's employees, or any subcontractor performing any of the work contemplated by the Contract.

The Contracting Agency shall not be liable or responsible for any accident, loss, or damage happening to the works referred to in the contract prior to the completion and acceptance thereof.

3.06 INDUSTRIAL ACCIDENT INSURANCE

The Contractor shall secure and maintain in full force and effect and bear the cost of complete Industrial Accident Insurance in accordance with the requirements of the Workmen's Compensation laws. The Contracting Agency, its officers, employees, or agents will not be responsible for any claims or suits in law or equity occasioned by this paragraph.

SECTION 4.00 SCOPE OF WORK

4.01 INTENT OF CONTRACT

The intent of the contract is to prescribe a complete work or improvement which the Contractor undertakes to do, in full compliance with the provisions and requirements of the contract. The Contractor for all or any part shall furnish all labor, materials, tools, equipment, transportation, necessary supplies and incidentals required to make each and every item complete as contemplated by the contract. Any deviation from these requirements must be stipulated in the SPECIAL PROVISIONS.

4.02 PLANS, SPECIFICATIONS AND WORK

The plans, together with specifications and other contract documents will govern the work to be done. Anything mentioned in the specifications and not shown on the plans and detailed drawings and not mentioned in the specifications, shall be of like effect as though shown or mentioned in both.

Specifications and plans referred to in any of the contract documents shall be considered as being included in the document in which such reference is made. A reference to a particular specification including officially adopted revision or amendments thereto which is in force at the time of advertising for bids.

In case of conflict, the order of precedence of the following documents in controlling the work shall be:

(1) Permits from outside the agencies required by law.
(2) Special Provisions
(3) Plans
(4) Standard Specifications

Change orders, supplemental agreements and approved revisions to plans and specifications will take precedence over contract documents listed above.

4.03 PLANS AND SHOP DRAWINGS

The plans furnished and included with the specifications will show such details as may be necessary to comprehensively indicate the work that is proposed and the results that are intended to be accomplished. Any additional working drawings, detail plans, or shop drawings that may be required in connection with the prosecution or construction of any part of such work shall be supplied by and at the expense of the Contractor as they will not be accepted by the Engineer from suppliers or others.

When shop drawings are required in the various sections of the specifications or are requested by the Engineer, they shall be prepared in accordance with modern engineering practice. Unless otherwise specified, shop drawings shall be submitted in quadruplicate to the office of the Engineer for approval or correction not less than 30 days before approved drawings will be required. One set will be returned to the Contractor marked "approved" or "approved as corrected". If changes are required, four copies of corrected shop drawings shall be delivered to the Engineer.

Shop drawings shall be of sufficient size and scale to clearly show all details.

No materials shall be furnished or work done on items requiring shop drawings prior to approval.

Approval of shop drawings shall not relieve the Contractor from responsibility for errors or omissions of any sort in the shop drawings.

The Contractor shall keep a copy of the plans and specifications at the job site and access thereto shall at all times be accorded the Engineer.

4.04 CHANGES AT THE CONTRACTOR'S REQUEST

Provision has been made in the specifications for certain specific changes in methods of construction which may be made at the Contractor's request and upon approval of the Engineer. Changes in the drawings and specifications, other than those specified herein, which do not materially affect the work, and which are not detrimental to the work or to the interests of the Contracting Agency as determined by the Engineer, may be granted to facilitate the work of the Contractor when such changes are requested in writing and submitted to the Engineer for approval. In the event such changes are granted, the changes shall be Contracting Agency reserves the right to receive an equitable adjustment in the contract price or contract time as a consideration for authorizing any such change.

4.05 ALTERATION OF QUANTITIES AND EXTRA WORK

The Contracting Agency reserves the right to make such increase or decrease in the quantity of any item or work or material to be performed or furnished under such contract, or to order the performance of such additional or extra work of a class not contemplated by the proposal as may be considered expedient or advantageous and essential to the satisfactory completion of proposed work and the full accomplishment of the intended purpose thereof, without thereby affecting the validity of the contract or contract bonds, and without giving notice to the surety of any such bond, unless the total bid price is increased more than 25%. In such cases the Contractor will be required to perform or furnish additional quantities or extra items of work or materials or to decrease the amount of work or materials to be performed or furnished under the contract or to omit portions thereof, and to furnish and provide the necessary labor and equipment to do so, when and as the Engineer may so order in writing within the limitations herein or by law provided. In the event that any such increase or decrease in the quantity of work or materials to be performed or furnished is so ordered, the amount to be paid the Contractor under his contract shall be correspondingly increased or decreased as the case may be, in proportion to the increased or decreased quantities of work or materials performed or furnished under such order.

4.06 ALTERATION OF QUANTITIES

In the event that the Contractor is directed by the Engineer to increase, decrease or omit portions of the work, and the total pay quantity for any items of work varies from the original contract quantity by 25% or less, payment will be made for the quantity of work performed at the contract unit price thereof.

If the total pay quantity for any item of work required under the contract varies from the original contract quantity by more than 25%, the compensation to the Contract will be determined as follows:

If a change is made which, together with any previous changes in quantity, increases the quantity of any major item or decreases the quantity of any item more than 25% of the original contract quantity, the payment for the work in excess of the 25% increase over the original contract amount of that item will be determined by negotiation; at the option of the Engineer, payment for such excess will be made on the basis of "Extra Work" as hereinafter provided. Credit for decreases in the quantity of any item may be determined by negotiation but in no event shall the amount of credit exceed the contract unit prices for the omitted items.

4.07 EXTRA WORK

Any new and unforeseen work will be classed as "Extra Work" when determined by the Engineer that said work is not covered by any of the contract items for which there is a bid price, or by a combination of such items.

Changes in the work involving either additional costs or credits for unforeseen additions or omissions in the work shall be made only subsequent to execution of a Change Order by the Engineer or by Supplemental Agreement issued by the Contracting Agency.

Payment of extra work on a lump sum or Unit Price basis required to be performed in accordance with the provisions of this section will be established by mutual agreement between the Contractor and the Engineer within the legal limits provide by State Laws or local ordinances. When no mutual agreement can be reached, payment will be made on a force account basis as hereinafter prescribed.

When the extra work is to be performed on a force account basis, the Contractor shall keep full and complete records of the cost of such work and shall permit the Engineer to have access thereto as may be necessary to assist in the determination of the compensation payable for such work. An itemized statement of such work shall be submitted to the Engineer for approval prior to submitting invoice for payment. The Contractor will be paid for labor, materials, and equipment rental as hereinafter prescribed.

Only materials incorporated in the work will be paid for.

To the totals computed as hereinafter prescribed for labor, materials and equipment rental will be added 15% for overhead, profit and supervision. It is understood that labor, materials, and equipment may be furnished by the Contractor or the subcontractor or by others on behalf of the Contractor. However, when extra work to be paid for on a force account basis is performed by forces other than those of the Contractor, the Contractor shall reach agreement with such other forces as to the distribution of the payment to be made by the Contracting Agency for such work and no additional payment will be made therefor.

4.07A LABOR

The cost of all labor used in performing the work under this contract shall be based on the prevailing wage scale as may be set forth in the Special Provisions for each particular craft or type of workman involved. Employer payments for payroll taxes and insurances, health and welfare, pension, vacation, and other similar purposes shall be included in this cost.

4.07B MATERIALS

The cost of materials incorporated in the work will be the cost to the purchaser, whether Contractor, Subcontractor or other forces, from the supplier thereof, except as follows:

a. If materials are procured by the purchaser by any method which is not a direct purchase from and a direct billing by the actual supplier to such purchaser, the cost of such materials shall be deemed to be the price paid to the actual supplier as determined by the Engineer. No markup except for actual costs incurred in the handling of such materials will be permitted.

b. If the materials are obtained from a supplier or source owned wholly or in part by the purchaser, payment therefor will not exceed the price paid by the purchaser, payment therefor will not exceed the price paid by the purchaser for similar materials furnished from said source on contract items or the current price of such materials delivered to the job site, whichever price is lower.

c. The Contracting Agency reserves the right to furnish such materials as it deems advisable, and the Contractor shall have no claims for costs and profit on such furnished materials.

4.07C EQUIPMENT RENTAL

The Contractor will be paid for the use of equipment on the basis of, but not exceeding the prevailing hourly rental rates established by the Oregon State Highway Department and recognized by the Associated General Contractors for the area where such equipment is required to be operated.

On any equipment for which no rental rate has been established by Oregon State Highway Department, or where the required operation of the equipment is less than four hours or in excess of one week, rental rates shall be proposed by the Contractor and agreed upon in writing by the Engineer prior to the start of force account work.

Equipment that is in operational condition and is standing by with the Engineer's approval for participation in force account work will be paid for at 50% of the agreed upon rental rate.

Rental time will not be allowed while equipment is inoperative due to breakdowns for periods in excess of 30 minutes. Rental time shall be computed in 1/2 hour increments. In computing rental time of equipment in actual operation, less than 30 minutes will be considered 1/2 hour.

The rental rates paid, as above provided, shall include the cost of fuel, oil, lubrication, supplies,small tools, necessary attachments, repairs and

maintenance of any kind, depreciation, storage, insurance, and all incidentals. Operators of rented equipment will be paid for as provided under Section 4.08.

All equipment shall, in the opinion of the Engineer be in good working condition and suitable for the purpose for which the equipment is to be used.

Unless otherwise specified, manufacturer's ratings and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

Individual pieces of equipment or tools having a replacement value of $50.00 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefore.

a. Equipment on the Work - The rental time to be paid for equipment on the work shall be the time the equipment is in operation on the extra work being performed and, in addition, shall include the time required to move the equipment to the location of the extra work and return it to the original location, except that moving time will not be paid for if the equipment is used at the site of the extra work on other than such extra work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power, except that no payment will be made if the equipment is used at the site of the extra work on other than such extra work.

b. Equipment Not on the Work - For the use of equipment moved in for the work and used exclusively for extra work paid for on a force account basis, the Contractor will be paid rental rates as agreed to, as provided in Section 4.07C above, and for the cost of transportation of the equipment to the location of the work and its return to its original location, all in accordance with the following provisions.

(1) The original location of the equipment to be hauled to the location of the work shall be agreed to by the Engineer in advance.

(2) The Contracting Agency will pay the costs of loading and unloading such equipment.

(3) The cost of transporting equipment in low bed trailers shall not exceed the hourly rates charged by established haulers or the applicable minimum established rates of the Oregon Public Utility Commission.

(4) The rental period shall begin at the time the equipment is unloaded at the site of the extra work, shall include each day that the equipment is at the site of the extra work, excluding Saturdays, Sundays and legal holidays unless the extra work is performed on such days, and shall terminate at the end of the day on which the Engineer directs the contractor to discontinue the use of such equipment. The maximum rental time to be paid per day shall not exceed 8 hours unless the equipment is in operation for a longer period of time.

(5) Should the Contractor desire the return of the equipment to a location other than its original location, the Contracting Agency will pay the cost of

transportation in accordance with the above provisions, provided such payment shall not exceed the cost of moving the equipment of the work.

(6) Payment for transportation, loading, and unloading equipment as above provided, will not be made if the equipment is used on the work in any other way than upon extra work paid for on a force account basis.

4.07D RECORDS

The Contractor shall maintain his records in such a manner as to provide a clear distinction between the direct cost of extra work paid for on the force account basis and the costs of the other operations performed in connection with the contract.

The Contractor shall furnish to the Engineer daily reports in duplicate of the extra work to be paid for on a force account basis. The reports shall itemize the materials used and shall set forth the direct cost of labor and the charges for equipment rental whether furnished by the Contractor, or subcontractor. The reports shall provide all names or identifications and classifications of workmen, the hourly rate of pay and hours worked together with the size, type, and identification number of equipment and hours of equipment operation.

Material charges shall be substantiated by vendors' invoices. Such invoices shall be submitted with the reports; or, if not available, they shall be submitted with subsequent reports. In the event said vendors' invoices are not submitted within 15 days after acceptance of the work, the Contracting Agency reserves the right to establish the cost of such materials at the lowest current price at which said materials are available in the quantities concerned delivered to the location of the work.

All reports shall be signed by the Contractor or his authorized representative.

The Engineer will compare his records with the reports furnished by the Contractor, make any necessary adjustments and then compile the costs of extra work paid for on a force account basis on forms furnished by the Contracting Agency. When these extra work reports are agreed upon and signed by both parties, they shall become the basis of payment for the work performed.

4.08 CLEANUP AND DUST CONTROL

Throughout the period of construction, the Contractor shall keep the site free and clean from all rubbish and debris and shall promptly clean up all or any portion of the site when notified to do so by the Engineer. Care shall be taken to prevent spillage on the streets over which hauling is done, and any such spillage or debris deposited on streets due to the Contractor's operations shall immediately be cleaned up. The Contractor shall promptly remove any parts form the working area of all unused materials, surplus earth, and debris. Construction areas shall be left in a clean, neat and acceptable condition at the earliest time following completion of that portion of the work.

In the event that the Contractor fails to comply with the orders of the Engineer regarding cleanup, the Engineer may require the Contractor to cease progress on

any or all parts of the work under contract until the unsatisfactory condition is corrected. The Engineer may order such cleanup work performed by others and the costs therefor deducted from payments due the Contractor. No additional compensation will be allowed as a result of such suspension.

During all phases of the construction work; the Contractor shall take precautions to abate dust nuisance by cleaning up, sweeping, sprinkling with water, or other means as necessary to accomplish results satisfactory with the Engineer.

Upon completion of the work and prior to final inspection the entire site of operations shall be cleared of equipment, unused materials and rubbish so as to present a clean and neat appearance. All costs of "Cleanup" include all charges for water, are to be absorbed in the prices bid for the various bid items.

4.09 VERMIN CONTROL

At the time of occupancy by the Contracting Agency, any structure or structures entirely constructed under the contract shall be free of rodents, insects, vermin and/or pests. Extermination work as may be necessary shall be arranged and paid for by the Contractor as part of the contract work within the contract time and shall be performed by a licensed agency and in accordance with the requirements of governing authorities. The Contractor shall be responsible for any injury to persons or property resulting from extermination operation.

4.10 SANITARY PROVISIONS

The Contractor shall provide, and maintain in a neat and sanitary condition, such accommodations for the use of the employees as may be necessary to comply with all applicable laws, ordinances and regulations.

In the event of damage to the existing sewer facilities, or interruptions of existing sewage flows, the Contractor shall promptly dispose of any free sewage by pumping or other means. Sewage shall not be permitted to flow in the trenches or be covered by backfill. Continuous sanitary sewer service in closed conduits shall be maintained at all times.

SECTION 5.00 CONTROL OF WORK

5.01 SUPERVISION AND INSPECTION

The Engineer shall decide within the provisions of the specifications all questions which may arise concerning the quality or acceptance of materials furnished and work performed, and all questions concerning the acceptable fulfillment of the contract by the Contractor.

The Engineer or his representatives shall have access to the work at all times. The Contractor shall furnish all facilities for inspection at the construction site, and at shops or yards, and shall not cover up any work requiring inspection until the same has been approved by the Engineer. If work should be covered up before being inspected, the Contractor will be required to remove such portions of the work as may be necessary to disclose the part in question.

The Contractor shall notify the Engineer 24 hours prior to commencing any work, or resuming work after shutdowns, except for normal resumption of work following Saturdays, Sundays, or Holidays.

The Contractor shall be fully responsible for providing proper supervision and sufficient labor and equipment to accomplish the work and to complete the work within the contract time.

The Contractor shall maintain a local telephone for the duration of the contract, at his own expense, where he or his authorized representative may be reached directly or by message at all times; during and outside of working hours.

5.02 COOPERATION WITH OTHERS

Ordinarily, utility owners and Contracting Agency responsible for facilities located within the right-of-way will be required to complete any installation, relocation, repair, or replacement prior to commencement of work by the Contractor. However, when this is not feasible or practicable or the need for such work was not foreseen, such utility owners or Contracting Agency shall have the right to enter upon the right-of-way and upon any structure therein for the purpose of making new installations, changes or repair, and the Contractor shall so conduct his operations as to provide the time needed for such work to be accomplished during the progress of the improvement.

Where two or more contractors are employed on related or adjacent work, each shall conduct his operations in such a manner as not to cause any unnecessary delay or hindrance to the other.

5.03 MUTUAL RESPONSIBILITY OF CONTRACTORS

The Contracting Agency may let other contracts on any portion of the site for any work not included in the contract.

The Contractor shall perform the work of the contract so that is will properly coordinate with and fit the work performed by other contractors. He also shall give the other contractors every reasonable opportunity to perform

their work, store materials, and place equipment therefor, and fit their work to the work of other contractors. He shall furnish to the other contractors all information necessary in order that they may properly connect and fit their work to his and in ample time, so that they may have reasonable opportunity to prepare their work accordingly. He shall make the work of the contract ready to receive the work of the other contractors at the time fixed therefor, and shall fit this work to that of the other contractors at the times fixed therefor.

5.04 UTILITIES

Utilities for the purposes of these specifications shall be considered as including but not limited to: pipe lines, conduits, transmission lines, and appurtenances of Public Utilities and those of private industry, businesses or individuals solely for their own use or for use of their tenants, and storm drains, sanitary sewers, irrigation facilities, street lighting, traffic signals, telephone, television, and fire alarm systems.

The Contracting Agency has by a search of known records, endeavored to locate and indicate on the drawings, all utilities which exist within the limits of work. However, the accuracy or completeness of the utilities indicated on the drawings is not guaranteed. Service connections to adjacent property may or may not be shown on the drawings. It shall be the responsibility of the Contractor to determine the exact location of all utilities and their service connections. The Contractor shall contact all utility owners and request that they locate and mark any existing utilities and their appurtenances and that service connections which may be affected by the contract work also be marked. In addition, the Contractor shall notify the Engineer as to any utility, appurtenances, and service connections located by him which have been incorrectly shown or omitted from the drawings.

Unless otherwise specified the Contractor shall remove all interfering portions of utilities which are shown on the drawings as "abandoned" or "to be abandoned in place", and which interfere with the construction of the project. All costs involved in said removals shall be included in the prices bid for the various items of work. All such abandoned utilities removed by the Contractor, shall be included in the prices bid for the various items of work. All such abandoned utilities removed by the Contractor, shall be stored on the site where directed and shall remain the property of the owner utility company or Contracting Agency as determined by the Engineer.

Where utilities are shown on the drawings as "abandoned" or "to be abandoned in place", it shall be the Contractor's responsibility to contact the utility company involved, as required in 5.11 herein, prior to excavating around such utilities to ascertain that the abandonment of the utility has been completed.

In certain cases where indicated on the drawings, the Contractor shall locate utilities in advance of his construction operations. In these cases the Contractor shall backfill the excavations and shall construct either a temporary or permanent resurfacing over the backfill. The temporary resurfacing shall be constructed when the exploratory excavations are made in an area located within the proposed project excavation.

The permanent resurfacing when specified shall be constructed when the exploratory excavations are made in an area located outside the proposed project

excavation. Said permanent resurfacing shall be of the type and thickness specified or as field conditions may otherwise require. In either case, the excavations shall be backfilled by the methods and to the relative density specified.

This work shall be performed as soon as practical after award of the contract in any event a sufficient time in advance of construction to avoid possible delays to the Contractor's work. All costs for making such exploratory excavations (including the backfilling and the resurfacing as specified herein) shall be included in the prices bid for the various items of work.

Utilities which upon exploration, are found to interfere with the permanent project work will be relocated, altered, or reconstructed by others in accordance with the provisions of Section 5.05 herein, or the Engineer may approve and order changes in location, line or grade of structures being built in order to avoid the utilities. The cost of such changes will be paid for under applicable bid items or as "Extra Work" as provided under Section 4.07.

Work required in connection with utilities because of interference with contract work will be performed and paid for as specified in the following paragraphs.

5.05 BY OTHER THAN THE CONTRACTOR

When it is stated in the detailed specifications or indicated on the drawings, that a utility is to be relocated, altered or reconstructed by other than the Contractor, the Contracting Agency will conduct all negotiations with the owners in respect to such work and the work shall be done at no cost to the Contractor.

Service connections which physically interfere with project structures or appurtenances, whether or not so stated or indicated, shall be relocated by other than the Contractor; except as otherwise specified or unless directed by the Engineer in accordance with Section 5.08.

5.06 BY THE CONTRACTOR UNDER A SPECIFIC CONTRACT ITEM

When bidding schedule contains a separate item covering the relocation, alteration, or reconstruction of a utility by the Contractor, the price bid for said item shall cover all costs involved in such work.

The drawings and detailed specifications will give the construction details for the work, and unless the time at which the work must be done is specified in the detailed specifications, the Contractor shall coordinate with the Engineer in respect to when the work is to be done.

5.07 BY THE CONTRACTOR BUT NOT UNDER A SPECIFIC CONTRACT ITEM

When the work on a utility is specified or indicated on the drawings to be done by the Contractor, but is not included as a separate contract item in the bidding schedule, the Contracting Agency will make all arrangements with the owner of the utility in respect to the construction details, however, the Contractor shall coordinate with the owner as to when the work is to be done.

Any costs for such work shall be absorbed in the unit prices to be included in the lump sum amounts bid for the various contract items.

5.08 BY THE CONTRACTOR - SERVICE CONNECTIONS (EXCEPT SANITARY SEWER)

For the purpose of these specifications, service connections shall be constructed to mean all, or any portion of, the conduit cable or duct which connects a utility main distribution line to the meter box of an individual user.

Except when shown on the drawings to be relocated by others, and except as otherwise specified herein, the alteration or permanent relocation of service connection which physically interfere with project structures, or appurtenances thereto, which are to be constructed under this contract shall, when directed by the Engineer, be arranged for by the Contractor in accordance with the requirements of the utility owner. The costs for such work will be paid for as "Extra Work" as per Section 4.07.

5.09 BY THE CONTRACTOR FOR HIS OWN CONVENIENCE

The temporary or permanent relocation of alteration of utilities including service connections, desired by the Contractor for his own convenience, shall be the Contractor's own responsibility and he shall make all arrangements regarding such work. The costs of such work shall be absorbed in the unit prices or included in the lump sum amounts bid for the various contract items.

5.10 BY THE CONTRACTOR OR BY OTHERS - UNKNOWN UTILITIES DISCLOSED DURING CONTRACT WORK

In the event that a utility is disclosed subsequent to the award of the contract, such utility not being indicated on the drawings, or in the event that an existing utility is found to be in a materially different location than shown on the drawings and thus requires additional or more costly work on the part of the Contractor for its maintenance, relocation, or support, the necessary alteration, relocation, proper support and protection shall be done and paid for as follows:

a. When said utility is found to occupy the space to be occupied by a part of the permanent works to be constructed, or when utility is, in the opinion of the Engineer, in such close proximity to the new work as to require the relocation of alteration of said utility the Contracting Agency will arrange for such relocation or alteration, or require the Contractor to do so as "Extra Work" as per section 4.07.

b. When any portion of a utility is in close proximity and more or less parallel to the structure of conduit and does not lie between the vertical planes or pay lines specified in subparagraph a., above, the Contractor shall advise the owner thereof, and in cooperation with the owner, provide and place th necessary support for proper protection to insure continuous and safe operation of the utility structure. All costs for such work shall be borne by the Contractor.

c. With the exception of service connections, when said utility lies within the excavation but does not intercept the permanent works to be constructed and the

length of said utility between the vertical planes or pay lines specified in paragraph a., above, is less than five times the perpendicular distance between pay lines, the Contractor shall maintain the utility in place. The work of maintaining the utility in place shall be considered as "Extra Work" (see Section 4.07).

5.11 RESPONSIBILITY OF THE CONTRACTOR

The Contractor shall be held responsible for all costs for the repair of any and all damage to the contract work or to any utility (whether previously known or disclosed during the work), as may be caused by his operations. Utilities not shown on the drawings to be relocated or altered by others, shall be maintained in place by the Contractor. Utilities which are relocated by others in order to avoid interference with structures and which cross the project work shall be maintained in the relocation positions by the Contractor. All costs for such work shall be absorbed or included in the prices bid for the various items of work.

The Contractor shall notify the owners of all utilities at least 2 working days in advance of excavating around any of their structures.

5.12 DELAYS CAUSED BY FAILURE TO RELOCATE UTILITIES

Where parties other than the Contractor are responsible for the relocation of utilities and a delay in the Contractor's work is caused by the failure on the part of said parties to remove or relocate such utilities in time to prevent such delay, or by any action or lack of action on the part of the Contracting Agency, it shall be understood that the Contractor shall not be entitled, as a result of such delay to his work, to damages or additional payments over and above the contract price. If delays in the Contractor's work are caused by the reasons mentioned herein, the Contractor shall be entitled to an extension of time. The length of such extension of time will be determined by the Engineer with consideration as to the effect of the delay on the project as a whole.

In order to minimize delays to the Contractor caused by the failure of other parties to relocate utilities which interfere with structures, the Contractor upon request to relocate utilities which interfere with structures, the Contractor upon request to the Engineer, maybe permitted to temporarily omit the portion of work affected by the utility. The portion thus omitted shall be constructed by the Contractor immediately following the relocation of the utility involved.

5.13 PERMANENT SURVEY MARKERS

The Contractor shall notify the Engineer not less than seven days prior to starting work in order that the Engineer may take necessary measures to insure the preservation of survey monuments, stakes, and bench marks. The Contractor shall not disturb permanent survey monuments, stakes or bench marks without the consent of the Engineer, and shall notify Engineer and bear the expense of replacing any that may be disturbed without permission. Replacement shall be done or arranged for only by the Engineer.

When a change is made in the finished elevation of the pavement of any roadway in which a permanent survey monument is located, the Contractor shall, at

his own expense, adjust the monument cover to the new grade unless otherwise specified.

5.14 LOT STAKES

Unless otherwise directed by the Engineer or shown on the plans, the Contractor shall preserve existing survey stakes that mark property lines and corners. Any stakes that become lost or disturbed by his operation shall be replaced at the Contractor's expense and by a Registered Land Surveyor.

5.15 SURVEY SERVICE

The Engineer will furnish and set construction stakes establishing lines and grades as determined necessary by the Engineer for all work indicated on the plans or required under the contract, including lines and grades for street excavation and fill, finished subgrade, finished base gravel, curbs and gutters, walks, structures and utilities, and will furnish the Contractor all the necessary information relative to the lines and grades.

Line and grade stakes will be offset from the construction area. They will show the offset distances, stationing and required cut or fill to the finished grade or flow lie as indicated on the plans or grade sheet. Upon request a copy of the grade sheet will be furnished to the Contractor. Grade stakes will be set by the Engineer to the finished grade of the subgrade and also of the base gravel, or as determined necessary by the Engineer, and the tops of these stakes marked blue or red.

The Contractor shall construct the work in accordance with the Engineer's stakes and marks, making use of them before they are disturbed, and shall be charged with full responsibility for conformity and agreement of the work with such stakes and marks.

The Contractor shall be responsible for the preservation of construction survey stakes and marks for the duration of their usefulness during construction. If any construction survey stakes are lost or disturbed, and in the opinion of the Engineer need to be replaced, such replacement shall be by the Engineer at the expense of the Contractor. The cost of replacing them shall be charged against, and all shall be deducted from, the payment of the work.

The Contractor shall give notice to the Engineer not less than two working days in advance of when he will require survey services in connection with the laying out of any portion of the work.

5.16 PRIVATE ENGINEERS

Surveying by private engineers on permit projects or any other work under the control of the Contracting Agency shall conform in all respects to the quality and practice required of the Contracting Agency's surveyor as set forth in subsection 5.15 above.

5.17 LINE AND GRADE

All work during its progress and upon its completion, shall conform to the lines, elevations, and grades shown on the plans. Distances and

measurements, except elevations and structural dimensions, are given and made on horizontal planes.

Three consecutive points set on the same slope shall be used together in order than any variation is found, it shall be reported to the Inspector; and, in the absence of such report prior to completion of grade, the Contractor shall be responsible for any error in the grade of the finished work.

5.18 PRESERVATION OF PROPERTY

The Contractor shall protect all public and private property including irrigation berms, insofar as it may be endangered by his operations, and he shall take every reasonable precaution to avoid damage to such property.

Public or private improvements of facilities within the right of way not designated for removal but visibly evident or correctly shown on the plans which are damaged or injured directly or indirectly by or on account of any act, omission, or neglect of the Contractor in the execution of the work shall be restored by the Contractor at his expense to a condition substantially equivalent to that existing before such damage or injury occurred, by repairing, rebuilding, or otherwise affecting restoration thereof, or if this is not feasible, a suitable settlement shall be made with the owner of the damaged property.

The Contractor shall give reasonable notice to occupants of buildings on property adjacent to the work to permit the occupants to remove vehicles, trailers, and other possessions as well as salvage or relocate plants, trees, fences, sprinkler systems, or other improvements in the right-of-way which are designated for removal or which might be destroyed or damaged by the Contractor's operations.

The Contractor shall be responsible for the protection of all designated trees and planted areas within the right-of-way. He shall also exercise care and conduct his operations so as to minimize damages to other planted areas.

5.19 DAMAGE TO RAILROADS

The provisions given elsewhere herein, which require the Contractor to protect property against damage, and which place upon the contractor all responsibility for damage to property, injury to persons, and loss, expense, inconvenience and delay to the owners of the property and others, shall be understood to apply in connection with railway lines or railroads the same as in connection with other kinds of property. In the protection of railway lines and railroads, however, the Contractor will be required to exercise particular care to avoid any damage which might result in train wrecks or in delays in train service. In the performance of work in close proximity to railroad tracks, he shall consult with the railroad owners or officials in regard to means and methods of conducting the work, and unless the Engineer orders otherwise, he shall use in the performance of the work means and methods which are not unsatisfactory to said owners of officials and he shall at his own expense provide such trackwalkers and flagmen as the said owners and officials may deem necessary for the adequate protection of the railroad property and train service.

The Contractor shall be solely and directly responsible to the owners and operators of such properties for any damage, injury, expense, loss, inconvenience or delay which may result from the carrying out of the work to be done under this contract, and if the Special Provisions so specify, he shall give bond or insurance in the amount therein specified to each corporation, company, partnership, or individual owning or operating any of the properties affecting, in guarantee of this responsibility. Any extension of time granted the Contractor in which to complete the contract shall no relieve him or his surety from this responsibility.

5.20 PROTECTION OF MATERIALS AND WORK

The Contractor shall provide and maintain substantial and adequate protection as necessary to protect new or existing work, and all items of equipment and furnishings, for the duration of the contract, except that by the Contracting Agency action the contractor may be relieved of certain responsibilities for maintenance and protection of completed portions of the work as provided under Section 23, hereof.

Unless relieved of responsibility as provided under Section 5.21, the Contractor and his sureties shall be fully liable for any loss or damage to the works referred to in the contract, resulting from any cause whatsoever, including but not limited to fire, theft, vandalism, malicious mischief, or injury or damage by the elements, except for any loss or damage that may be occasioned by acts of God, acts of the public enemy, acts of governmental authorities, or any act, omission, or default of the Contracting Agency prior to completions of the project and final acceptance thereof by the Contracting Agency.

5.21 RELIEF FROM MAINTENANCE AND RESPONSIBILITY

Upon the request of the Contractor and with the approval of the Contracting Agency, or upon the Contracting Agency, the Contractor will be relieved of the duty of maintaining and protecting certain portions of the work which are ready to be placed in service and which have been completed in accordance with the plans and specifications, including cleanup.

In addition, such action by the Contracting Agency will relieve the Contractor of responsibility for injury or damage to said completed portions of the improvement resulting from use by public traffic or from the action of the elements or from any other cause, excepting injury or damage resulting from the contractor's own operations or from his negligence. The Contractor will not be required to again clean up such portions of the improvement prior to field acceptance, excepting for such items of work as a result from his operations. However, nothing in this section shall be construed as relieving the Contractor from the full responsibility for making good defective work or materials found to be defective.

5.22 STORAGE OF MATERIALS IN PUBLIC STREETS, ROADS, OR HIGHWAYS

Materials shall not be stored in streets, roads, or highways for longer than four working days after being unloaded, unless a longer storage period is permitted by the Engineer. In the event that the rate of progress of construction is such that the materials stored in streets, roads, or highways are not installed in its final position within the time period stipulated

hereinabove, the Contractor shall when so directed by the engineer remove such materials to storage areas to be provided by the contractor at his own expense.

Unless otherwise permitted by the Engineer, no storage of excavated material will be permitted in public streets, roads, or highway. After the placing of the backfill in said trench, all remaining excavated material shall be removed from the site of the work.

5.23 HISTORICAL AND ARCHAEOLOGICAL REPORTS

Where historical objects of archaeological and paleontological nature, including ruins, sites, buildings, artifacts, fossils and other objects of antiquity are encountered within the areas on which the Contractor's operations are performed, the Contractor shall postpone operations in the area, shall preserve such objects for disturbance or damage and shall notify the Engineer of their existence and location.

Upon receipt of such notification, the Engineer will arrange for the disposition of the objects or for the recording of data relative thereto, and will notify the Contractor when it is proper for him to proceed with the work in the affected area. If the Contractor is directed by the Engineer to perform any work in salvaging said objects, the Contractor shall do so on the "Extra Work" basis set forth in Section 4.07.

5.24 LIGHT, POWER, AND WATER

The Contractor shall furnish temporary light, power, and water complete with connecting piping, wiring, lamps, and similar equipment necessary for the work as determined by the Engineer. The Contractor shall install, maintain, and remove his temporary lines upon completion of work. All expenses in connection with temporary services and facilities shall be paid by the Contractor, unless specified differently in the Special Provisions.

SECTION 6.00 CONTROL OF MATERIALS

6.01 MATERIALS AND WORKMANSHIP

All materials, parts and equipment furnished by the Contractor shall be new, high grade, and free from defects and imperfections unless otherwise hereinafter specified. Workmanship shall be in accord with the best standard practice. Both materials and workmanship shall be subject to the approval of the Engineer.

All materials and workmanship not conforming to the requirements of these specifications shall be considered as defective and will be rejected. Defective material whether in place or not, shall be removed immediately from the site of the work by the Contractor at his expense when so directed by the Engineer. No rejected material, the defects of which have been subsequently corrected, shall be used until approval in writing has been given by the Engineer.

In the event any defect in material or workmanship is of a minor nature and the engineer determines that it is not of such consequence as to result in a dangerous and undesirable condition, or that the removal of such work would create a dangerous or undesirable condition, the Contracting Agency shall have the right to retain such work and make such deductions in the payment therefor as they determine reasonable and in the public interest. Such determination by the contracting Agency shall be final.

6.02 TEST OF MATERIALS

Except as may otherwise be provided, all testing that may be required by the Contracting Agency to determine the quality, fitness and suitability of such materials shall be performed under the direction and upon the order of the Engineer, and at no expense to the Contractor; samples being secured and tested wherever considered necessary by the Engineer. In those cases in which the Contractor is required to provide and bear the expense of such testing the specifications or drawings will definitely so state.

The Contractor at his own expense, shall deliver the materials for testing at the time and to the place designated by the Engineer.

6.03 TRADE NAMES AND EQUALS

Whenever in the specifications any particular materials, process, and/or equipment is indicated or specified by patent, proprietary, or brand name, or by name of manufacturer, such working shall be deemed to be used for the purpose of facilitating description of the material, process, and/or equipment desired, and shall be deemed to be followed by the words "or approved equal". The lists of acceptable materials indicated in various sections of the specifications, or on drawings, for materials are not intended to be comprehensive lists, or in any order of preference. The Contractor may offer any material, process, and/or equipment which complies with the governing specification and which he considers to be equivalent to that indicated or specified.

If a substitute offered by the Contractor is not found by the Engineer to be equal to the material specified, or indicated, then the Contractor shall furnish and install the item specified or indicated by name.

The Contractor shall, before installation, submit data substantiating a request for substitution of "an equal" item. The Contractor shall, at his own expense, furnish information and/or data concerning the material and/or equipment offered by him as an equivalent to that specified or indicated by name, and if the Engineer shall so require, the Contractor, at his own expense, shall have the said material tested as to its quality, strength, physical, chemical, and/or other pertinent characteristics, including the durability, finish, efficiency, dimensions, service, suitability to perform the function intended to be served by the material and/or equipment.

The method of performing the test or tests shall be subject to the approval of the Engineer, and the results of said tests shall be reported promptly to the Engineer, who shall evaluate the results thereof and shall determine whether or not the substitute material and/or equipment so tested is deemed to be equivalent, and his findings shall be final. Installation and use of the material shall not be made until such substitute material has been approved by the Engineer.

The time specified for completion of the work under the contract shall not be affected by any circumstances whatsoever development from the provisions of this section.

SECTION 7.00 RESPONSIBILITY TO THE PUBLIC

7.01 PUBLIC CONVENIENCE

The Contractor shall so conduct his operations as to offer the least possible obstruction and inconvenience to traffic, and he shall have under construction no greater amount of work than he can prosecute properly with due regard for the rights of the public.

The Contractor shall obtain prior approval from the Engineer for the closing or partial closing of any street, alley or other public thoroughfare. He shall also give advance notice of such closure to all agencies providing emergency services, including police, fire and ambulance services.

Unless otherwise provided by the plans or project specifications or authorized by the Engineer, vehicular access to properties at established driveways and pedestrian access to building entrances shall be provided and maintained by the Contractor, except for such periods of time as may be reasonably necessary to expeditiously complete those construction operations which preclude such access.

The Contractor shall conduct his operations in a manner which will minimize interference with the normal use of property adjacent to the construction.

Occupants of property fronting on the street shall be given at least 24 hours advance notice that the entire street or half the street, as the case may be, will be closed to vehicular traffic whenever necessary for the normal prosecution of the work. Such notices shall be given by the Contractor unless otherwise directed by the Engineer, or otherwise specified in the Special Provision. Parking of cars may be prohibited on streets where construction work, such as maintaining controlled or one-way traffic over one-half of the street while construction is progressing on the other half.

In order that all unnecessary delay to the traveling public may be avoided where ordered by the Engineer, the Contractor shall provide and maintain temporary "No Parking" and/or detour signs, pilot cars and station competent flagmen whose sole duties shall consist of directing the movement of public traffic either through or around the work. Signs shall be of standard size and design as approved by the Engineer and shall comply with the requirements specified in Section 7.03 hereof. Such signs shall be removed as soon as practicable or when directed by the Engineer.

The cost of all work involved in providing for public convenience including detours, as set forth in this article shall be considered as included in the prices paid for the various contract items of work and no additional allowance will be made.

7.02 DETOURS

The Contractor shall construct and maintain temporary detours as shown on the plans or specified in the Special Provisions, or as necessary to provide adequate passage of public traffic and for protection of his work, or as determined necessary by the Contracting Agency. Routing and width of detours shall be approved by the Engineer.

Unless otherwise specified, when a detour is required the Contractor shall be governed by the following:

1. One day duration

   (a) Passable - no gravel but graded
   (b) Water and maintain smooth and dust free

2. One day to one week duration

   (a) Gravel
   (b) Water
   (c) Maintain smooth and dust free

3. More than one week - if on a major or secondary street (if on a collector street, treatment No. 2 above will suffice)

   (a) Gravel 2 in. and graded
   (b) Penetration with a minimum of .30 gal. per square yard MC70
   (c) Maintain with patching of chuck holes

4. General Conditions

   (a) If maintenance is not performed, the Contracting Agency will do the maintenance and bill the Contractor at rates specified in Section 4.07 through 4.10.

   (b) When directed by the Engineer detours shall be removed and all ditches, etc. restored before the permit is closed out. If restoration is delayed more than one week after completion of work, the Contracting Agency will restore the area and bill the Contractor.

   (c) Before pavement is cut, the Engineer must approve the construction and barricading.

   (d) Provisions for public convenience and public safety shall be maintained in compliance with Section 7.01 through 7.03 hereof.

The Engineer will reserve the right to estimate the expected time the detour will be in use and will order construction accordingly.

7.03 PUBLIC SAFETY

The Contractor shall erect and maintain temporary fences, traffic control signs,bridges, railing, lights, and barriers, taking all other necessary precautions, and place proper guards for prevention of accidents. In the event any of the above items becomes misplaced, damaged, or destroyed, they shall be replaced immediately in their proper location.

All warning signs, barriers, barricades, lights and performance of flagmen shall conform to the "Oregon Manual on Uniform Traffic Control Devices for Streets and Highway" issued by the Oregon State Highway Department; local

ordinances; and existing published rules and/or traffic control manuals and regulations of the Contracting Agency.

The Contractor shall at all times keep open or backfilled excavations in a safe or protected condition. In the event of the existence of unsafe or hazardous conditions in the Contractor's work or operations, the Contractor shall immediately take such measures as are necessary to eliminate the conditions.

The cost for all work involved in providing for public safety as set forth in this article shall be considered as included in the prices paid for the various contract items of work and no additional allowance will be made.

7.04 FIRE HYDRANTS

Access shall be provided to all fire hydrants at all times. Pavements and sidewalks adjacent to fire hydrants shall be kept clean and clear of debris, materials and contractor's equipment. The Contractor shall not draw any water from a fire hydrant for use on the work other than for extinguishing fire, without first obtaining permission from the owner. Slow-closing valves will be required in connection with the use of fire hydrants. Unnecessary wasting or leakage of water shall not be permitted.

In the event a fire hydrant is damaged, or for any reason becomes inoperative, or is placed out of service due to the nature of the construction, it shall be the Contractor's responsibility to immediately notify the owner and the Engineer.

7.05 USE OF EXPLOSIVES

The use of explosives will be permitted only when authorized in writing by the Engineer unless otherwise stated in the Special Provisions. Explosives shall be handled, used, and stored in accordance with the provisions and requirements of all applicable laws, ordinances, and regulations with respect thereto.

The approval by the Engineer for the use of explosives shall not relieve the Contractor from his responsibility.

7.06 SAFETY

Construction materials, equipment, methods and workmanship shall be in accordance with applicable local ordinances and State laws. The Contractor shall comply with the lawful orders and codes issued by the Workmen's Compensation Board of the State of Oregon.

7.07 LABOR

The Contractor shall be bound by and comply with all applicable provisions of the Revised Statutes of the State of Oregon and shall keep informed of and observe and comply with, and cause all of his agents and employees to observe and comply with, all Federal, State, and local laws which in any way affect the conduct of the work in this contract.

None but competent workmen shall be employed on any work under these specifications; and any laborer, workman, mechanic, foreman, superintendent, or other person so employed who is found to be incompetent, intemperate, troublesome, disorderly or otherwise objectionable, or who fails or refuses to perform his work properly and in an acceptable manner, shall be removed from the job immediately upon notification in writing, and not again be employed on the work unless approved by the Engineer.

7.08 NONDISCRIMINATION OF LABOR

The attention of the Contractor is directed to the provisions of Chapter 659, Oregon Revised Statutes relative to unlawful employment practices and discrimination by employers against any employee or applicant for employment because of race, religion, color, or national origin. Particular reference is made to Section 659.030 ORS, which states that it is unlawful employment practice for an employer, because of the race, religion, color, or national origin of any individual, to refuse to hire or employ or to bar or discharge from employment such individual or to discriminate against such individual in compensation or in terms conditions, or privileges of employment.

In the event the contract is funded in whole or in part by federal funds, the Contractor shall comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the Secretary of Labor.

In the event of the Contractor's noncompliance with the nondiscrimination, clauses of a contract so funded, or with any such rules, regulations, or orders the contract may be cancelled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts for federally assisted construction contracts, in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and and remedies invoked as provided in Executive Order No. 11246 of September 14, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

7.09 MINIMUM WAGE, PAYMENT OF LABORERS AND MATERIALMEN

The Contractor shall comply fully with ORS 279.348 through 279.363, which provide in part that "the hourly rate of wage to be paid by any contractor or subcontractor to workmen upon all public works shall be not less than the prevailing rate of wage for an hours work in the same trade or occupation in the same trade or occupation in the locality where such labor is performed".

The provisions of this law do not apply to workmen or to persons regularly employed on a monthly or per diem salary. The "prevailing rate of wage", for the purposes hereof, shall be the rate of hourly wage and overtime paid in the locality, as hereinafter defined, to the majority of workmen in the same trade or occupation; provided, however, that there is not a majority in the same trade or occupation paid at the same rate, the average rate of hourly wage and overtime paid in the locality to workmen in the same trade or occupation shall be the prevailing rate, and provided further, than when a contractor or subcontractor is a party to a state-wide agreement in effect with any labor organization, the rate of wages as established in the agreement shall be considered to be the prevailing rate in the locality.

If the wage paid by any contractor or subcontractor to workmen is based on a period of time other than an hour, the hourly wage shall be mathematically determined by the number of hours worked in that period.

The "locality", for the purposes hereof, shall be the largest city in the county or counties in which the work under the contract is performed.

In the case any dispute arises as to what is the prevailing rate of wage for the same trade or occupation in the locality and that dispute cannot be settled by the parties involved, the dispute shall be referred to the Commissioner of the State Bureau of Labor, who will determine the prevailing rate of wage for the same trade or occupation in the locality.

The minimum hourly rate of wage, not less than the prevailing rate of wage, which may be paid to workmen in each trade or occupation required for the work under the contract employed in the performance of persons doing or contracting to do the whole or part of the work contemplated by the contract shall be as set forth in the schedule of Minimum Hourly Wage Rates as may be included in the SPECIAL PROVISIONS, and the workmen employed in the performance of the contract shall be paid not less than the applicable specified minimum hourly rate of wage as such is set forth in said schedule.

The Contractor shall: 1) Make payment promptly, as due, to all persons supplying to such contractor labor or material for the prosecution of the work provided for in such contract. 2) Pay all contributions or amounts due the Industrial Accident Fund from such contractor or subcontractor incurred in the performance of the contract. 3) Not permit any lien or claim to be filed or prosecuted against the state, county, school district, municipality, municipal corporation or subdivision thereof, on account of any labor or material furnished. 4) Pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

Before payment is made by or on behalf of the Contracting Agency of any sum or sums due under the contract, the Contractor or his surety and every subcontractor or his surety shall submit a statement in writing in a form prescribed by the State Labor Commissioner certifying under oath that the hourly rate of wage paid each classification of workmen employed by him upon the work under the Contract, and further certifying that no workmen employed by him upon work has been paid less than the prevailing rate of wage or less than the minimum hourly rate of wage specified in the manner and at the times designated by him.

In case of conflict between any of the minimum hourly wage rates set forth in the schedule above referred to and other pertinent minimum hourly wage rates, as such other rates may have been set forth in the contract provisions in accordance with the federal regulations, the higher of the conflicting wage rates shall be applicable under the contract.

There is no representation on the part of the Contracting Agency that labor can be obtained at the hourly rates as may be shown in the SPECIAL PROVISIONS. It is the responsibility of bidders to inform themselves as to local labor conditions and prospective changes or adjustments of wage rates. No increases in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed.

If the Contractor fails, neglects, or refuses to make prompt payment of any claim for labor or services furnished to the Contractor or a subcontractor by any person, or the assignee of the person, in connection with the public works contract as such claim becomes due, the proper officer or officers of the public contracting agency may pay such claim and charge the amount of the payment against funds due or to become due the Contractor by reason of the contract. (Reference: ORS 279.314).

The Contractor shall promptly, as due, make payment to any person, co-partnership, association or corporation, furnishing medical, surgical and hospital care or other needed care and attention, incident to sickness or injury, to employees of such Contractor, of all sums which the Contractor agrees to pay for such services and all moneys and sums which the Contractor collected or deducted from the wages of the Contractor's employees pursuant to any law, contract or agreement for the purpose of providing or paying for such service. (Reference: ORS 279.320)

7.10 HOURS OF WORK, SATURDAY, SUNDAY, HOLIDAY AND OVERTIME WORK

The Contractor shall comply fully with ORS 279.334 of the Oregon Revised Statutes, which reads as follows: "In all cases where labor is employed by the state, county, school district, municipality, municipal corporation, or subdivision, through a contractor, no person shall be required or permitted to labor more than eight hours in any one day, or 40 hours in any one week, except in cases of necessity, emergency, or where the public policy absolutely required it, in which event, the person or persons so employed for excessive hours shall receive at least time and a half pay for all overtime in excess of eight hours a day, or for work performed on Saturday and on ...legal holidays."

However, if it is necessary for the Contractor to perform construction work on Saturdays, Sundays, legal holidays or outside the 8 hours regular working day, the Contractor shall first notify the Engineer of his intent to do so prior to commencing such "overtime work". In any event, all work shall be subject to approval of the City Engineer. Prior to start of such work, the Contractor shall arrange with the City Engineer for the continuous or periodical inspection of the work, surveys, and tests of materials when necessary.

7.11 PERMITS AND LICENSES

Except for private contracts or unless otherwise specified elsewhere in these specifications, the Contracting Agency will obtain all other permits and licenses and pay any fees connected therewith, having to do with his construction operations.

7.12 CLEARING AND BURNING PERMITS

The Contractor shall comply fully with ORS 477.685 which reads, in part, as follows: "(1) Before clearing any right-of-way for any highway or railroad, or any power, commercial telegraph or telephone line, or for any transmission or transportation utility right-of-way on any forest land, whether upon his land or that of another, where the clearing would constitute a fire hazard, every person shall file with the forester a general description of the right-of-way to be cleared. The forester shall issue a written permit for such

clearing. The merit shall set forth the precautionary conditions and manner under which the clearing shall be done."

"(2) A person engaged in clearing any right-of-way or forest land shall not place on adjoining land or property any forest material or debris resulting from such clearing without the permission of the owner of the adjoining land."

7.13 LICENSING OF CONTRACTORS

The Contractor shall be licensed in accordance with all state and local requirements.

7.14 PATENTS, FEES OR ROYALTIES

In the event that any patented article, material or process is to be installed or used in the performance of the work as shown on the plans or particular specifications therefore, the Contractor shall pay the royalty chargeable, if any, and shall save, keep and hold the Contracting Agency if enjoined from using such patented article or material and the incidental damage caused by the loss of use and damage to the Contracting Agency's property in removing same, and the cost of replacing the article or material the use of which is enjoyed. Provided further the Bond for Faithful Performance shall be deemed to be expressly applied to this provision of the specifications.

7.15 LIABILITY FOR MONIES DUE STATE COMMISSIONS

The Contractor shall promptly pay all contributions or amounts due the State Industrial Accident Fund and the State Unemployment Compensation Trust Fund from such Contractor or his subcontractors, incurred in the performance of the contract.

The Contractor shall pay all sums of money withheld from his employees and payable to the Department of Revenue pursuant to ORS 316.162 to 316.212.

7.16 LIABILITY FOR AMOUNTS DUE HOSPITAL ASSOCIATIONS, ETC.

The Contractor shall comply fully with ORS 279.320 which reads in part as follows:

"...The Contractor shall promptly, as due, make payments to any person, co-partnership, association, or corporation, furnishing medical, surgical and hospital care or other needed care and attention, incident to sickness or injury, to the employees of such Contractor, of all sums which the Contractor agrees to pay for such services and all monies and sums which the Contractor collected or deducted from the wages of employees pursuant to any law, contract or agreement for the purpose of providing or paying of such service."

7.17 CONTRACTOR'S CONSTRUCTION EQUIPMENT

The Contractor shall furnish and maintain in good condition all equipment and facilities including stairs, ramps, runways, scaffolds, hoists, etc., as required for the proper execution and inspection of the work. All such equipment and facilities shall meet all requirements of all ordinances and laws applicable thereto.

7.18 RIGHT OF WAY

The right-of-way for the improvement will be provided by the Contracting Agency. Unless the plans or specifications show additional work area to be provided by the Contracting Agency, the Contractor shall make his own arrangements and pay all expenses for additional area required by him outside the limits of the right-of-way.

SECTION 8.00 PROSECUTION AND PROGRESS

8.01 PROGRESS OF THE WORK

The Contractor shall commence the work within 10 calendar days after receiving notice to proceed, unless otherwise stated in the SPECIAL PROVISIONS, and shall diligently prosecute the same to completion within the time limit specified.

8.02 CONTRACTOR'S CONSTRUCTION SCHEDULE

Before starting work, the Contractor shall submit for approval his proposed construction schedule to the Engineer. In the event the Contractor desires to carry on operations in more than one location simultaneously he shall submit for approval a schedule therefor, two weeks in advance of beginning such operations. In the event that the Contractor's proposed construction schedule does not meet the necessary construction program schedule as determined by the Contracting Agency, he may be required to resubmit a schedule that shall conform to an approved program of construction operations. The Contractor must obtain from the Engineer written approval of a construction schedule prior to start of work.

8.03 SUSPENSION OF WORK

The Engineer shall have the authority to suspend work wholly or in part for such periods as may be necessary because of unsuitable weather or unforeseen conditions or the failure of the Contractor to carryout lawful orders to comply with any of the provisions of the contract. The Contractor shall immediately suspend work when so ordered, and he shall resume work after such suspension only on written instruction from the engineer. Upon receipt of such instructions to resume work, he shall immediately proceed with the work.

If through the fault of the Contracting Agency, the Contractor must suspend operations and incurs expenses or sustains losses which could not have been avoided by the judicious handling of forces and equipment, and if by a diligent prosecution of the work he could not have completed amounts as may be agreed upon between the Contractor and the Contracting Agency to be a fair and reasonable compensation and a commensurate extension of contract time will be granted.

If work is suspended through no fault of the Contracting Agency, all such expenses and losses incurred by the Contractor during such suspensions of work shall be borne in full by him. In the event the Contractor fails to properly provide for public safety, traffic, and protection of the work, during periods of suspension of work, the Contracting Agency may elect to do so, and deduct the cost thereof from monies due the Contractor.

8.04 TIME OF COMPLETION

The Contractor shall complete the work called for under the contract in all part and requirements within the number of calendar days set forth in the Contract. Unless otherwise provided, all work shall be performed during the normal working days. A working day is defined as any day except Saturdays, Sundays, legal holidays, days on which the Contractor is specifically required by the Contract to suspend construction operations, and days on which the

Contractor is prevented from working by inclement weather or interference from utility relocation or alteration work.

Credit for inclement weather or interference from utility relocation or alteration work will be allowed only when the Contractor is prevented by such weather or utility work or conditions resulting immediately therefrom, from proceeding for at least five hours with at least 75% of the normal labor and equipment force engaged in the current controlling operation or operations.

Should the Contractor prepare to begin work at the regular starting time in the morning of any day on which inclement weather, or the condition of the work, prevents the work from beginning at the usual starting time and the new crew is dismissed as a result thereof, the Contractor will not be charged for a working day whether or not conditions should change thereafter during said day and the major portion of the day could be considered suitable for such construction operations.

The current controlling operation or operations is to be construed to include any feature of the work which, if delayed at the time being considered, could delay the completion of the work beyond the contract period.

Determination of each nonworking day except Saturdays, Sundays, legal holidays, and days on which the Contractor is specifically required by the contract to suspend construction operations shall be made and agreed upon during such a day by conference between the Engineer and the contractor. In the event of failure to agree, the Contractor will allow 15 days in which to file a written protest setting forth in what respects he differs from the Engineer. Otherwise the decision of the Engineer shall be deemed to have been accepted by the Contractor as correct.

8.05 LIQUIDATED DAMAGES

It is agreed by the parties of the contract that in case all of the work required under the terms of this contract is not completed within the number of calendar days as specified therefor in the contract or any lawful extension thereof as provided herein, damage will be sustained by the Contracting Agency as a result thereof, but to definitely determine and ascertain the actual amount of such damage, either before or after the occurrence thereof would be difficult and impractical. The sum stated in the SPECIAL PROVISIONS for liquidated damages for each and every calendar day that the completion of said work is delayed beyond the prescribed completion date, or lawful extension thereof, is hereby stipulated as being the nearest and most exact measure of such damage that can be fixed at this or any subsequent time; and when so assessed by the Contracting Agency, the Contractor shall become liable for and shall pay to the Contracting Agency as liquidated damages and not as a penalty said sum per day for each and every calendar day of such delay. When the amount of liquidated damages is not stated in the SPECIAL PROVISIONS it is agreed by the parties to the Contract that the amount of liquidated damages shall be One Hundred and Fifty Dollars ($150.00) per day for each and every day of such delay. The amount of such liquidated damages may be deducted by the Contracting Agency from any compensation due, or that may become due, the Contractor under his contract, and the Contractor and his sureties shall be liable for any excess.

It is further agreed that if the work is not finished and completed in all parts and requirements within the number of calendar days as specified therefor in the Contract or any lawful extension thereof as provided herein, the Contracting Agency will have the right to extend the time for completion if to do so seems best to serve its interests; and in case said Contracting Agency decides to so extend the time limit for the completion of the work, it shall have further right to charge to the Contractor, his heirs, assigns, or sureties, all or any part as it may deem proper, the actual costs of engineering, inspection, supervision, and other overhead expenses, that are directly chargeable to the contract and accrue during the period of such extension, and deduct the amount thereof from the final payment for the work; provided, however, that the cost of the final survey and preparation of the final estimate will not be included in such charges.

In the event that the Contractor is directed to perform extra or additional work, the number of calendar days specified in the contract shall be extended by an amount determined by application to the original number of calendar days of the ratio that the value of the extra or additional work bears to the original contract value.

Should the nature of the extra or additional work be such that the Contractor believes that a longer time extension should be granted than that computed by the above procedures, he may notify the Engineer in writing.

The Contracting Agency may grant such additional time extension as it feels warranted.

Should any default, act or omission of the Contracting Agency, act of the State, act of public enemy or act of God, epidemic, quarantine restriction, strike, freight embargo, fire or flood cause any delay in the completion of the work the Contractor will not be assessed for liquidated damages nor engineering or other overhead charges for the period of such delay, provided that he shall, within ten (10) days subsequent to the beginning of any such delay, file a written report as to the cause thereof with the Engineer, who will ascertain the facts relative thereto and the extent of the delay, and whose finding in connection therewith shall be final and conclusive. The Contracting Agency shall not be liable to the Contractor for any damages on account of such delay.

8.06 RESPONSIBILITY OF CONTRACTOR AND OF CONTRACTOR'S REPRESENTATIVE ON THE WORKS

The Contractor shall give his personal attention and supervision to the work until same is entirely completed. In the absence of the Contractor from the work, he shall have a representative in charge who shall be competent to superintend and direct the progress of the work and who shall be authorized to receive instructions and to act for the Contractor on all matters relating to the work. The name, address and telephone number of this representative shall be sent by letter to the Engineer immediately after the awarding of the contract.

8.07 PROVISIONS RELATIVE TO DEFAULT BY CONTRACTOR

If, at any time, the Contractor shall neglect or refuse to prosecute the work with reasonable diligence, or should refuse or neglect to perform the work according to the drawings and specifications, as interpreted by the

Engineer, the Contracting Agency will give him written notice to proceed. If the Contractor fails to comply with such notice within a period of seven (7) days, he shall be in default of the contract. The Contracting Agency will have the right, without further notice to the Contractor, and without voiding the Contract, to take possession of all materials, to complete the work, and to charge cost of so doing against the Contractor. Should the unpaid balance of the contract price exceed the expense of finishing the work, including compensation for additional managerial and administrative services, such excess shall be paid to the Contractor. If such expenses shall exceed the balance due the Contractor, the Contractor and his bondsmen agree to pay the excess to the Contracting Agency.

Notice, for the purposes of this section, may be served personally, or may be served by mail, addressed to the Contractor and his surety at their respective places of business as indicated in the contract documents.

The determination by the Engineer of the question as to whether any of the terms of the Contract of specifications have been violated, or have not been performed satisfactorily, shall be conclusive upon the Contractor, his surety, and any and all other parties who may have any interest in the Contract or any portion thereof.

The foregoing provisions of this section shall be in addition to all other rights and remedies available to the Contracting Agency under law.

8.08 TERMINATION OF CONTRACT

If Conditions encountered during the progress of the work make it impossible or impracticable to proceed with the work, the Contracting Agency may order the termination of the contract. Upon such termination, the Contracting Agency will pay the Contractor fair and reasonable compensation as agreed upon between the Contractor and the Contracting Agency. In the event that no agreement is reached between the Contractor and the Contracting Agency as to fair and reasonable compensation, the Contracting Agency will be liable to the Contractor only for the reasonable value of the work performed and any other actual costs sustained by the Contractor.

8.09 ADVERTISING

No contract or any portion thereof, may be assigned without consent of the Contracting Agency except that money due the Contractor may be assigned as specified below.

The Contractor may assign money due or to become due him under the contract and such assignment will be recognized by the Contracting Agency, if given written notice thereof, to the extent permitted by law, but any assignment of money shall be subject to all proper set-offs and withholdings in favor of the Contracting Agency and to all deductions provided for in the contract, and particularly all money withheld, whether assigned or not, shall be subject to being used by the Contracting Agency for completion of the work in the event the Contractor should be in default therein.

8.10 SUBCONTRACTS

Names of subcontractors for all or any portion of the work shall be submitted to the Engineer prior to commencement of any subcontracted work. Such submittals shall state the types of work to be subcontracted and the names of the proposed subcontractors. Subcontracting all or any portion of the work shall not be construed to relieve the Contractor of any of his responsibility under the Contract.

No subcontractors will be recognized as such, and all persons engaged in the work of construction will be considered as employees of the Contractor. The Contractor will be held responsible for their work, which shall be subject to the provisions of the contract and specifications.

8.11 CERTIFICATE OF COMPLIANCE

The Contractor shall file with the Engineer, prior to the acceptance of the work, a certificate in form substantially as follows: "I, (We) hereby certify that all work has been performed and materials supplied in accordance with the plans, specifications and contract documents for the above work, and that:

1. Not less than the prevailing rates of wages as ascertained by the Contracting Agency has been paid to laborers, workmen and mechanics employed on this work;

2. There have been no unauthorized substitutions of subcontractors; nor have any subcontractors been entered into without the names of the subcontractors having been submitted to the Engineer prior to the start of such subcontracted work;

3. No subcontract was assigned, transferred to, or performed by any subcontractor other than the original subcontractor, without prior notice having been submitted to the Engineer together with the names of all subcontractors.

4. All claims for material and labor and other service performed in connection with these specifications have been paid.

5. All monies due the State Industrial Accident Fund, the State Unemployment Compensation Trust Fund (ORS 279.510), the State Department of Revenue (ORS 316.162 to .212) a hospital associations and/or others, (ORS 279.320), have been paid."

SECTION 9.00 MEASUREMENT AND PAYMENT

9.01 METHODS OF MEASUREMENT

Materials and items of work which are to be paid for on the basis of measurement shall be measured in accordance with the methods stipulated in the particular sections herein covering materials or types of work.

When material is to be paid for on a volume basis and it would be impracticable to determine a volume by the specified method of measurement, or when requested by the Contractor and approved by the Engineer, the material will be weighed in accordance with the requirements specified for weight measurement and such weights will be converted to volume measurement for payment purposes. Factors for conversion from weight measurement for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the Engineer and shall be agreed to by the Contractor before such method of measurement of pay quantities will be adopted.

Unless otherwise provided, when mineral aggregate or roadway material is being paid for by weight, deductions from pay quantities will be made for the weight of water in excess of 3% if the material is to be treated with bitumen, and 6% if the material is to be waterbound.

9.02 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORKS

Unless otherwise specified, linear or area quantities of work such as grading, landscaping, paving, curb, gutter, walk and other work of a similar nature shall be determined from measurements of dimensions of such work and computed in horizontal planes. However, linear quantities of underground cable, piling and timber, shall be considered as being the true length measured along the longitudinal axis thereof. For pipe work see related sections.

Volumetric quantities shall be determined by the average end area method.

9.03 UNITS OF MEASUREMENT

Measurements shall be in accordance with U.S. Standard Measures. A pound shall be avoirdupois. A ton shall be 2,000 pounds. The unit of liquid measure shall be the U.S. gallon.

9.04 CERTIFIED WEIGHTS

When payment is specified to be made on the basis of weight, the weighing shall be done on certified platform scales licensed in accordance with Chapter 618 Oregon Revised Statutes. The Contractor shall furnish the Engineer with licenses issued with the information required by Chapter 618 Oregon Revised Statutes. The Contractor shall pay all costs, if any, in connection with obtaining said information. The Contracting Agency will accept the certificates as evidence of the weight delivered.

9.05 PAYMENT

Once each month, the Engineer will make an approximate measurement of the work performed to that date and an estimate of the value thereof based on the

contract prices. When the work has been satisfactorily completed, the Engineer will determine the final quantity of work performed and prepare the final estimate of the value thereof. The quantities listed in the bid schedule do not govern final payment. Payments to the Contractor shall be made only for the actual quantities of contract items performed in accordance with the plans and specifications and if upon completion of the construction these actual quantities show either an increase or decrease from the quantities given in the bid schedule, the contract unit prices will still prevail.

In unit price contracts, when an item for mobilization is included in the bid, this item shall include the cost of assembling of materials, plan, and equipment as set forth in said bid items, and as more fully described in the specifications. An evaluation for the purpose of payment for mobilization will be included in progress estimates in unit price contracts only when mobilizations is so set forth as an item in the bid. In such cases, the specifications will indicate a fixed sum or a percentage of the total bid price as a maximum that may be bid on this item.

In accordance with ORS Chapter 279, from each progress and final estimate, except on contracts for County roads and bridges, or unless otherwise required by the SPECIAL PROVISIONS applicable Federal or State Contracting Agency, and the remainder less the amount of all previous payments will be paid to the Contractor.

At the expiration of 30 days from the date of acceptance of the work by the Contracting Agency, provided that the Contractor has furnished the Contracting Agency satisfactory receipts for all labor and material bills and waivers or liens from any and all persons holding claims against the wage rates as required by Section 279.354, Oregon Revised Statutes, the amount deducted from the final estimate and retained by the Contracting Agency will be paid to the Contractor, with the exception of such amounts as are required by law to be further retained, not on any payment tendered by the Contracting Agency and acceptance thereof is refused by the Contractor.

Payments for work or materials performed or furnished under an assessment proceedings contract will be made as provided in the particular proceedings or legislative act under which such contract was awarded.

SECTION 10.00 REQUIREMENTS OF OREGON LAW FOR PUBLIC CONTRACTS

To any extent that they are not already incorporated into the Contract Documents the terms and conditions of ORS 279.310 to ORS 279.575 are an integral part of this Contract and Contract Documents, and incorporated herein at this point by reference.

SPECIAL PROVISIONS

NEWBERG COMMUNITY HOSPTIAL
PARKING LOT EXPANSION PHASE II & III

CITY OF NEWBERG, OREGON

1. TEMPORARY UTILITIES

a. Telephone

Not required at the site

b. Electrical Power

The Contractor will arrange for all electric power required for construction including power necessary for the operation of all tools and equipment.

c. Water

Water is available from hydrants. The Contractor shall secure permission from the City of Newberg before obtaining water from fire hydrants.

The Contractor shall make his own arrangements and pay all costs for obtaining and transporting the water from the hydrants to the area of usage for the construction and testing of the facilities. Upon completion of the work, the Contractor shall remove all temporary piping and facilities used during the construction.

Use only special hydrant operating wrenches to open hydrants and also make certain that the hydrant valve is open "full", since "cracking" the valve causes damage to the hydrant. If any hydrants are damaged, the Contractor will be held responsible and shall notify the City so that all damage can be repaired as quickly as possible. Maintain fire hydrants used for temporary water within the work area in a completely accessible condition available to the Fire Department at all times.

2. SCHEDULING OF WORK

It is imperative that all entrances to and exits from the hospital remain open and accessible during the hours of work, and not restricted during the remaining hours of the day.

To accomplish this the contractor shall plan the work to complete Phase II prior to commencing work on Phase III.

3. CONTRACT COMPLETION TIME

As set forth in the contract, the contractor has 45 consecutive calendar days to complete all work.

4. PRECONSTRUCTION CONFERENCE

A preconstruction conference will be held at a time and place as prescribed by the City Engineer after the Contract is awarded and before the Notice to Proceed is issued. At the preconstruction conference, the Contractor shall provide the City Engineer with an estimated schedule of

progress of the work. In addition to the Prime Contractor, all available subcontractors will be required to attend.

5. PREVAILING RATE OF WAGE AND CERTIFICATIONS OF RATE OF WAGE

As prescribed in ORS 279.352 AND 279.354 Bidder as Contractor and Bidder's subcontractors will pay to their workers not less than the specified minimum prevailing wage as set forth in the attached copy of "Prevailing Wage Rates for Public Works Contracts in Oregon" which is attached hereto and incorporated herein at this point by reference.

Once before the first payment and once before final payment is made of any sum due on account of a contract for a public work, the Contractor or his surety and every subcontractor or his surety shall file a statement with the public contracting agency in writing in form prescribed by the Commissioner of the Bureau of Labor and Industries, certifying the hourly rate of wage paid each classification of workers employed by him upon such public work, and further certifying that no worker employed by him upon such public work has been paid less than the minimum hourly rate of wage specified in the contract, which certificate and statement shall be verified by the oath of the Contractor or his surety or subcontractor or his surety that he has read such statement and certificate and knows the contents thereof and that the same is true to his knowledge. A true copy of the certification or certifications required to be filed pursuant to this section shall also be filed at the same time with the Commissioner of the Bureau of Labor and Industries. (ORS 279.354).

The existing prevailing rate of wage is that rate which is in effect at the time the specifications are first advertised for bid solicitation. If during the bidding process the prevailing wage rate changes, the Owner retains the option to amend these SPECIAL PROVISIONS to reflect such change.

PREVAILING WAGE RATES

for

Public Works Contracts in Oregon

BOLI

Mary Wendy Roberts
Commissioner
Bureau of Labor and Industries

Effective January 1, 1987

BUREAU OF LABOR AND INDUSTRIES
Mary Roberts, Commissioner

January 1, 1987

This booklet contains the Prevailing Wage Rates for the building and construction trades in the State of Oregon. These rates are effective January 1, 1987. These rates have been determined in accordance with ORS 279.348 through ORS 279.365.

Prevailing Wage Rates are the minimum wages that must be paid to all workers employed in the construction, reconstruction, major renovation or painting of any public works. Copies of these rates must be incorporated into all bid specifications when the advertisement for a public works contract is issued. A provision that Prevailing Wage Rates be paid must also be put in the contract. The rates in effect at the time the bid specifications are first advertised are those that apply for the duration of the project, with one exception; if during the bidding process the prevailing wage rate changes, the public contracting agency has the option of amending the bid specifications to reflect such change.

If you identify any errors in the rates published, please bring them to the attention of Marty Anderson, Prevailing Wage Rate Analyst, in Portland (229-6655). If you have any questions about the manner in which the prevailing wage rates are enforced, contact the Wage and Hour Division in Portland (229-5750).

Mary Wendy Roberts

MARY WENDY ROBERTS
Commissioner
Bureau of Labor and Industries

MLA:mi

PORTLAND
1400 SW 5th Avenue
Portland, Oregon 97201

SALEM
3865 Wolverine St. NE; E-1
Salem, Oregon 97310

EUGENE
165 E. 7th Street, Suite 220
Eugene, Oregon 97401

MEDFORD
700 E. Main
Medford, Oregon 97504

COOS BAY
320 Central Ave., Suite 510
Coos Bay, Oregon 97420

BEND
1230 NE Third, Suite A244
Bend, Oregon 97701

PENDLETON
700 SE Emigrant, Suite 240
Pendleton, Oregon 97801

ANNOUNCEMENT

The prevailing wage rates contained in this booklet generally reflect those rates determined for Oregon by the Secretary of Labor of the United States pursuant to the Davis-Bacon Act; certain changes have been made to better reflect prevailing practices in Oregon. Pursuant to ORS 279.348 to ORS 279.365, these rates have been adopted for use on public works contracts in Oregon.

You are invited to submit any comments, questions or concerns to:

Research Unit
Bureau of Labor and Industries
1400 S.W. 5th Avenue
Portland, Oregon 97201
(503) 229-6655

GENERAL INFORMATION

Information in this section and in the "Commonly Asked Questions" is meant to provide a convenient reference to Oregon's Prevailing Wage Rate Law. It is in no way a complete statement of the laws and rules. If you have specific questions regarding how rates are determined or how the job classes are defined, please contact the Prevailing Wage Rate Analyst at 229-6655 in Portland.

If you have questions about the enforcement of prevailing wage rates, please contact the Wage and Hour Division, at 229-5750 in Portland.

Apprentices and Trainees

Apprentices and trainees may be employed on public works. To qualify as an apprentice or trainee, the worker must be registered in a bonafide apprenticeship or training program of the U.S. Department of Labor, Bureau of Apprenticeship and Training (BAT) or with any State Apprenticeship and Training Agency recognized by BAT. The apprentice or trainee is to receive all fringe benefits and a percentage of the journeyman's wage rate; the appropriate percentage shall be determined by the apprenticeship or training committee. All other workers must receive rates as published.

Zone Pay

In certain trades, the basic hourly rate of pay progressively increases based upon the distance between the job site and a designated landmark; this is commonly referred to as zone pay. To determine the hourly wage, find the correct zone based on the number of road miles the job site is from the closest city (based either on distance from city hall or from geographical center of the city, depending on the trade) and add the amount for that zone to the basic hourly rate. Zone pay, unlike travel pay, is the basic hourly wage upon which overtime is computed.

Bid Specifications

The specifications for every public works contract must include the current prevailing wage rates in effect at the time the specifications are first advertised. A statement incorporating the existing rates by reference will not satisfy this requirement (ORS 279.352).

NOTE: If a public agency fails to include the prevailing wage rates in the contract specifications or fails to include in the contract the provision that prevailing wage rates must be paid, the liability for any unpaid prevailing wages could be exclusively that of the agency.

Fringe Benefits

Payments for fringe benefits are in addition to the basic hourly rate. Fringe benefits means the amount for:

a) medical or hospital care; pensions on retirement or death; compensation for injuries or illness resulting from an occupational activity, or insurance to provide any of the foregoing;
b) unemployment benefits, life insurance, disability and sickness insurance or accident insurance;
c) vacation and holiday pay;
d) defraying costs of apprenticeship or other similar programs; and
e) other such bona fide benefits.

NOTE: For the purpose of prevailing wage rates, fringe benefits do not include any benefits which may be required by federal, state or local law (e.g. Workers' Compensation, Unemployment Insurance, etc.).

Fringe benefits may be paid to the worker in cash or to a third party administering a fringe benefit program. When an hourly rate in excess of the required base prevailing rate is paid, the amount by which the rate is exceeded may be credited toward payment of fringe benefits.

Where the determination of fringe benefits includes a percentage, the percentage refers to the basic hourly rate as determined by the Commissioner of the Bureau of Labor and Industries.

Overtime

Workers employed on a public works job for more than eight hours in a day or 40 hours in a week must be paid overtime for each additional hour so worked (ORS 279.334). Overtime is calculated at no less than one and one-half times the basic hourly rate as determined by the Commissioner of Labor (not including fringe benefits which are paid at the straight rate for every hour worked). Work performed on Saturday, Sunday or legal holidays must also be compensated at time and one-half. In the computation of overtime, travel pay does not need to be included but zone pay differentials do. Legal holidays include the following: 1) New Year's Day on January 1; 2) Memorial Day on the last Monday in May; 3) Independence Day on July 4; 4) Labor Day on the first Monday in September; 5) Thanksgiving Day on the fourth Thursday in November; 6) Christmas Day on December 25.

NOTE: Contractors who are signatory to a collective bargaining agreement may be subject to different overtime requirements (ORS 279.334(3)).

Certification of Payroll

The law requires every contractor and subcontractor to file certain information on wages paid to each worker employed on a public works contract. This statement must completely and accurately reflect payroll records for the work week immediately preceding the submission. A contractor or subcontractor must complete and submit the certified statement contained on Form WH-38 as well as the information required on the weekly payroll side of the form. A copy of Form WH-38 and instructions for completing it are included in the back of this booklet; xeroxed copies may be used for filing.

The schedule for submitting payroll information is as follows: once within 15 days of the date the contractor or subcontractor first began work on the project and once before the final inspection of the project by the public contracting agency; in addition, for projects exceeding 90 days, submissions are to be made at 90 day intervals. Payroll information is to be filed with both the public contracting agency and the Wage and Hour Division, Bureau of Labor and Industries, 1400 S.W. Fifth Avenue, Portland, Oregon 97201. The payroll information must be kept by the contractor and or subcontractor for three years.

COMMONLY ASKED QUESTIONS

1) What are "Prevailing Wage Rates?"

A prevailing wage rate is the minimum wage, including fringe benefits to be paid workers employed on contracts for public works. Different rates are established for specific trades and specific geographical areas.

2) Who must be paid "Prevailing Wage Rates?"

All employees of a contractor or subcontractor engaged on a public works project when the total price of the project is $10,000 or more must receive at least the Prevailing Wage Rate (PWR) for time worked on the project, unless otherwise exempt.

Supervisory and office/clerical employees are not required to be paid the PWR. A person who owns and operates his/her own truck or other hauling equipment on construction projects (Owner/Operator) is not required to be paid the PWR.

3) What about contracts when Federal funds are used?

When more than $2,000 of federal funds are involved, the contract is usually subject to the provisions of the Davis-Bacon Act, not Oregon statutes. Further information may be obtained from the U.S. Department of Labor, Wage and Hour Division, Portland, Oregon (221-3057). However, in the event that federal funds are involved, but the contract is not regulated under Davis-Bacon, Oregon's Prevailing Wage Rates Statutes may apply (ORS 279.348 - 279.365).

4) I don't have a pension fund. How do I calculate fringe benefits?

Workers must receive at a minimum the sum of the basic hourly rate plus all fringe benefits for each hour worked on a public works contract. Fringe benefits may be paid either to a third party trust account or in cash directly to the worker.

5) What if the employees are not paid on an hourly basis?

All workers must receive at least the basic hourly rate of wage and fringe benefits for each hour worked on the project. If an employee is paid other than on an hourly basis, the equivalent hourly rate (for both wages and fringe benefits) must still be at least equal to the rates published.

6) How do I classify workers?

Virtually all of the job classifications/trades normally used in the construction industry are represented by the job classifications used in this PWR publication. These classification titles should be used according to common practice. Try to fit your workers into existing classifications. If you have questions about how to classify workers, contact the Prevailing Wage Rate Analyst (229-6655) or the Wage and Hour Division (229-5750).

Laborers who do basic work requiring no specific skills, training or knowledge are generally classified as Group 1 Laborers.

(Note that Landscapers are classified as Laborers and Ornamental Ironworkers are classified as Ironworkers.)

7) When are new rates determined? How long are they effective?

Prevailing wage rates are determined once each year by the Commissioner of the Bureau of Labor and Industries. The Commissioner may amend the rates at any time. The rates are usually amended at least once each year. The rates in effect at the time the bid specifications are first advertised are those that apply for the duration of the contract, with one exception. If during the bidding process the prevailing wage rate changes, the public contracting agency (not the contractor) has the option of amending the bid specifications to reflect such change.

8) How do I post Prevailing Wage Rates?

Every contractor or subcontractor employing workers on a public works project is required to post the applicable prevailing wage rates in a conspicuous and accessible place in or about the work-site.

Rates need to be posted for the duration of the job. Contractors and subcontractors who intentionally fail to post the PWR can be made ineligible to receive any public works contract for up to three years.

9) What can I do about a contractor who is not complying with Oregon's PWR law?

File a complaint with the nearest office of the Oregon Bureau of Labor and Industries or contact the Wage and Hour Division, Bureau of Labor and Industries, 1400 S.W. 5th Avenue, Portland, Oregon 97201 (229-5750). Other Bureau offices are located in Bend (388-6330), Coos Bay (269-4575), Eugene (686-7623), Medford (776-6013), Pendleton (276-7884) and Salem (373-1463).

10) What happens to contractors who do not comply with PWR statutes?

Contractors and subcontractors who pay less than the prevailing wage rates may be liable to the workers affected for the amount found due plus an equal amount as liquidated damages (ORS 279.356).

Contractors and subcontractors who intentionally refuse to pay the prevailing wage rate to workers employed on public works or to post the PWR on the job site may be determined to be ineligible to receive any public works contracts for a period of up to three years (ORS 279.361). Workers employed by the contractor or subcontractors have a right of action against the surety of the prime contractor for any unpaid prevailing wages.

A list is kept of all contractors, subcontractors, and other persons ineligible to receive public works contracts and subcontracts. When a contractor or subcontractor is a corporation, the individual officers and agents of the corporation can be debarred, in addition to the corporation. As a result, individuals who intentionally fail to pay or post the PWR are prevented from simply moving from one corporation to another.

11) What records must I keep? For how long?

Contractors and subcontractors are required to keep records necessary for determining if prevailing wage rates were paid. These records must include the Payroll and Certified Statement Form (WH-38) as well as the following: The name and address of each employee; the work classification(s) of each employee; the rate(s) of wages and fringe benefits paid to each employee; the rate(s) of fringe benefit payments made in lieu of those required to be provided to each employee; total daily and weekly compensation paid to each employee; daily and weekly hours worked by each employee; apprenticeship and training agreements; any payroll and other such records pertaining to the employment of employees upon a public works contract.

These need to be kept for a period of three (3) years from the completion of the public work contract. Records relating to public works contracts must be maintained separately from records relating to private projects/contracts.

12) How much do I pay apprentices?

To qualify as an apprentice, the worker must be registered in a bona fide apprenticeship program of the U.S. Department of Labor, Bureau of Apprenticeship and Training (BAT) or with any State Apprenticeship Agency recognized by BAT. The apprentice is to receive all fringe benefits and a percentage of the journeyman's wage rate; the appropriate percentage shall be determined by the apprenticeship committee. All other workers receive rates as published.

13) What forms are public agencies required to file with the Bureau of Labor and Industries?

Public agencies are required to prepare and file with the Commissioner of the Bureau of Labor and Industries a list of every public improvement that the agency intends to fund during the subsequent budget period (ORS 279.023(2)). If, after the original filing, the agency plans additional public improvements, a revised list is to be submitted (OAR 839-16-008(2)).

The "Notice of Award of Public Works Contract" is to be filed with the Wage and Hour Division within 30 days of the date when a contract is awarded which requires the payment of prevailing wage rates (i.e., is regulated under ORS 279.348 to 279.365).

Copies of the "Planned Public Improvement Summary" (Form No. WH-118), the "Capital Improvement Project Cost Comparison Estimate" (WH-119), and the "Notice of Award of Public Works Contract" (WH-81) can be found at the back of this booklet.

Copies of this booklet are available from:

Research Unit
Bureau of Labor and Industries
1400 S.W. 5th
Portland, OR 97201

The first copy is free. Additional copies are available for 75¢ each.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
ASBESTOS WORKERS	$21.27	$3.78
BOILERMAKERS	19.67	4.50
BRICKLAYERS/STONEMASONS		
AREA 1		
• WHERE THE COST OF BRICK AND BLOCK MASONRY (LABOR & MATERIAL) IS LESS THAN $200.000 (THIS RATE NOT APPLICABLE TO FIRE BRICK, REFRACTORY MATERIAL, CLEANING, POINTING, CAULKING OR RESTORATION WORK):	14.77	3.58
• ALL OTHER WORK	17.37	3.58
AREA 2	16.25	3.88

AREA 1

BAKER	HOOD RIVER	POLK	WALLOWA
CLACKAMAS	MALHEUR (A)	SHERMAN	WASCO (B)
CLATSOP	MARION	TILLAMOCK	WASHINGTON
COLUMBIA	MORROW	UMATILLA	YAMHILL
GILLIAM	MULTNOMAH	UNION	

AREA 2

BENTON	DOUGLAS	JOSEPHINE	LINN
CROOK	GRANT	KLAMATH	MALHEUR (C)
COOS	HARNEY	LAKE	WASCO (D)
CURRY	JACKSON	LANE	WHEELER
DESCHUTES	JEFFERSON	LINCOLN	

A) NORTH HALF
B) NORTH OF THE CITY OF MAUPIN
C) SOUTH HALF
D) INCLUDING THE CITY OF MAUPIN AND SOUTH THEREOF

CARPENTERS (SEE PAGE 11)		
CEMENT MASONS (SEE PAGE 11)		
DREDGING		
• LEVERMAN-HYDRAULIC	18.52	5.15
• LEVERMAN-DIPPER	19.28	5.15
• ASST. ENGINEER (INCLUDING: WATCH ENGINEER, WELDER, MECHANIC, MACHINIST)	17.93	5.15
• TENDERMAN (BOATMAN, ATTENDING DREDGE PLAN); FIREMAN	17.49	5.15
• ASSISTANT MATE (DECKHAND); OILER	17.11	5.15
DRYWALL/WETWALL		
• DRYWALL (ACCOUSTICAL AND DRYWALL APPLICATOR)	15.05	4.02
• WETWALL (LATHER)	14.20	4.87
ELECTRICIANS		
AREA 1:		
• ELECTRICIANS	15.80	2.25 + 4%
• CABLE SPLICERS	17.38	2.25 + 4%
AREA 2:		
• ELECTRICIANS	18.71	3.71 + 3%
• CABLE SPLICERS	19.65	3.71 + 3%

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
ELECTRICIANS (CONTINUED)		
AREA 3:		
• ELECTRICIANS	15.50	4.35 + 3%
AREA 4:		
WHERE THE COST OF ELECTRICAL WORK (LABOR AND MATERIAL) IS LESS THAN OR EQUAL TO $100,000:		
• ELECTRICIANS	16.00	2.42 + 3%
• CABLE SPLICER	17.60	2.42 + 3%
WHERE THE COST OF ELECTRICAL WORK (LABOR AND MATERIAL) IS MORE THAN $100,000:		
• ELECTRICIANS	18.00	2.42 + 3%
• CABLE SPLICER	19.80	2.42 + 3%
AREA 5:		
• ELECTRICIANS	19.80	3.60 + 3%
• CABLE SPLICERS	20.55	3.60 + 3%
AREA 6:		
• ELECTRICIANS	16.25	3.50 + 3%
• CABLE SPLICERS	17.88	3.50 + 3%

AREA 1	AREA 2	AREA 2(CONT)	AREA 3
MALHEUR	BAKER	UMATILLA	COOS
	GILLIAM	UNION	CURRY
	GRANT	WALLOWA	LINCOLN
	MORROW	WHEELER	DOUGLAS (A)
			LANE (A)

AREA 4	AREA 5	AREA 6
BENTON	CLACKAMAS	HARNEY
CROOK	CLATSOP	JACKSON
DESCHUTES	COLUMBIA	JOSEPHINE
JEFFERSON	HOOD RIVER	KLAMATH
LANE (B)	MULTNOMAH	LAKE
LINN	SHERMAN	DOUGLAS (B)
MARION	TILLAMOOK	
POLK	WASCO	
YAMHILL(C)	WASHINGTON	
	YAMHILL (D)	

A) THOSE PORTIONS LYING WEST OF A LINE NORTH AND SOUTH FROM THE NE CORNER OF COOS COUNTY TO THE SE CORNER OF LINCOLN COUNTY
B) THAT PORTION LYING EAST OF A LINE RUNNING NORTH AND SOUTH FROM THE NE CORNER OF COOS COUNTY TO THE SE CORNER OF LINCOLN COUNTY
C) SOUTH HALF
D) NORTH HALF

ELEVATOR CONSTRUCTORS		
AREA 1		
• MECHANIC	19.16	3.87 + A
• HELPER	13.41	3.87 + A
• PROBATIONARY HELPER	9.58	-
AREA 2		
• MECHANIC	18.50	3.58 + A
• HELPER	12.95	3.58 + A
• PROBATIONARY HELPER	9.25	-

A) PLUS 10.8% OF BASIC HOURLY RATE FOR EMPLOYEES WITH MORE THAN 5 YEARS OF SERVICE; 8.8% OF BASIC HOURLY RATE FOR 6 MONTHS TO 5 YEARS OF SERVICE.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

ELEVATOR CONSTRUCTORS (CONTINUED)

AREA 1	AREA 2
UMATILLA	ALL
WALLOWA	REMAINING
UNION	COUNTIES
BAKER	

GLAZIERS

AREA 1	17.47	2.88
AREA 2	13.76	1.72

AREA 1	AREA 2
ALL COUNTIES EXCEPT MALHEUR	MALHEUR

IRONWORKERS

• STRUCTURAL: REINFORCING: ORNAMENTAL: RIGGERS: FENCE ERECTORS: SIGNAL MEN	18.26	5.21

LABORERS (SEE PAGE 11)

LIMITED ENERGY ELECTRICIANS

MAY ONLY BE USED FOR ELECTRICAL WORK NOT EXCEEDING 100 VA:

AREA 1	9.42	2.26
AREA 2	9.87	1.52
AREA 3	9.37	1.98
AREA 4	9.61	2.12
AREA 5	10.49	2.15
AREA 6	9.47	2.26
AREA 7	9.80	1.76
AREA 8	9.33	2.16
AREA 9	9.84	1.69
AREA 10	9.73	1.58
AREA 11	10.57	1.65
AREA 12	12.68	1.68
AREA 13	10.70	2.02
AREA 14	10.46	1.83

AREA 1 CLATSOP, COLUMBIA, TILLAMOOK
AREA 2 CLACKAMAS, MULTNOMAH, WASHINGTON
AREA 3 MARION, POLK, YAMHILL
AREA 4 BENTON, LINCOLN, LINN
AREA 5 LANE
AREA 6 DOUGLAS
AREA 7 COOS, CURRY
AREA 8 JACKSON, JOSEPHINE
AREA 9 HOOD RIVER, SHERMAN, WASCO
AREA 10 CROOK, DESCHUTES, JEFFERSON
AREA 11 KLAMATH, LAKE
AREA 12 GILLIAM, GRANT, MORROW, UMATILLA, WHEELER
AREA 13 BAKER, UNION, WALLOWA
AREA 14 HARNEY, MALHEUR

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

LINE CONSTRUCTION

AREA 1
ZONE 1 (BASE RATE):

• GROUP 1	20.63	3.25+3.5%
• GROUP 2	18.65	3.25+3.5%
• GROUP 3	15.35	3.25+3.5%
• GROUP 4	16.08	2.55+3.5%
• GROUP 5	14.07	2.55+3.5%
• GROUP 6	13.23	2.55+3.5%

ZONE DIFFERENTIAL (ADD TO ZONE 1 RATE)

ZONE 2	2.40
ZONE 3	3.15
ZONE 4	3.90
ZONE 5	5.15

GROUP 3 RECEIVES ZONE 1 RATE ONLY

(NO ZONE DIFFERENTIAL)

AREA 2:

• CABLE SPLICERS	18.06	2.25+3.5%
• JOURNEYMAN LINEMAN	16.42	2.25+3.5%
• LINE EQUIP. MECH. (RIGHT-OF-WAY)	15.55	2.25+3.5%
• LINE EQUIP. OPER.	14.81	2.25+3.5%
• LINE EQUIP. SRVCMAN	14.57	2.25+3.5%
• GROUNDMAN	11.55	2.25+3.5%

AREA 1

ALL COUNTIES EXCEPT MALHEUR COUNTY

ZONE 1: 0 TO 3 MILES FROM THE GEOGRAPHICAL CENTER OF MEDFORD AND PORTLAND
ZONE 2: 0 TO 20 MILES FROM THE GEOGRAPHICAL CENTER OF ASTORIA, BAKER, BURNS, BEND, CORVALLIS, EUGENE, KLAMATH FALLS, LAKEVIEW, LONGVIEW, PENDLETON, SALEM, ROSEBURG, THE DALLES, UMATILLA (NOTE: FOR PORTLAND AND MEDFORD, ZONE 2 IS 3 TO 20 MILES)
ZONE 3: 20 TO 35 MILES RADIUS
ZONE 4: 35 TO 50 MILES RADIUS
ZONE 5: OVER 50 MILES RADIUS

GROUP 1	GROUP 2
CABLE SPLICERS	CERTIFIED LINEMAN WELDER
LEADMAN POLE SPRAYER	HEAVY LINE EQUIPMENT MAN
	LINEMAN
	POLE SPRAYER

GROUP 3	GROUP 4
TREE TRIMMER	LINE EQUIPMENT MAN

GROUP 5	GROUP 6
HEAD GROUNDMAN	GROUNDMAN
JACKHAMMER MAN	
POWDERMAN	

AREA 2

MALHEUR COUNTY

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

MARBLE SETTERS (INCLUDES GRANITE)

AREA 1	18.37	3.58

AREA 1

BAKER	HOOD RIVER	SHERMAN	WALLOWA
CLACKAMAS	MALHEUR (A)	TILLAMOOK	WASCO (B)
CLATSOP	MORROW	UNION	WASHINGTON
COLUMBIA	MULTNOMAH	UMATILLA	YAMHILL (A)
GILLIAM			

A) NORTH HALF
B) NORTH OF THE CITY OF MAUPIN

PAINTERS & DRYWALL TAPERS

AREA 1		
• PAINTER & DRYWALL TAPERS	12.25	1.78
AREA 2		
• BRUSH	13.21	3.26
• SPRAY	13.71	3.26
• BRIDGES/OVER 50'		
-BRUSH	13.96	3.26
-SPRAY	14.46	3.26
• DRYWALL TAPERS	15.48	4.55

AREA 1	AREA 2
MALHEUR COUNTY	REMAINING COUNTIES

PLASTERERS

AREA 1	15.30	4.02
AREA 2	16.18	4.01

AREA 1	AREA 1(CONT)	AREA 1(CONT)	AREA 2
BENTON	DESCHUTES	LINCOLN (B)	ALL
COOS	HARNEY	LINN (B)	REMAINING
CROOK	JEFFERSON	WASCO (B)	COUNTIES
CURRY	KLAMATH (A)	WHEELER (B)	
DOUGLAS	LANE		

A) NORTHERN ONE-THIRD B) SOUTH HALF

PLUMBERS & STEAMFITTERS/PIPEFITTERS

AREA 1 (BOTH)	18.08	4.50
AREA 2 (BOTH)	22.18	4.48
AREA 3 (BOTH)	16.95	3.55
AREA 4 (BOTH)	17.00	3.50
AREA 5 (BOTH)	17.00	3.50
AREA 6 (BOTH)	16.45	4.05
AREA 7 (BOTH)	17.05	3.45

AREA 1	AREA 2	AREA 3	AREA 3(CONT)
BAKER	GRANT (B)	BENTON (C)	POLK
HARNEY (A)	MORROW	LINCOLN (C)	TILLAMOOK(D)
MALHEUR	UMATILLA	LINN (C)	YAMHILL (D)
	WALLOWA	MARION	
	UNION		

AREA 4	AREA 4(CONT)	AREA 4(CONT)	AREA 5
CLACKAMAS	JEFFERSON	WHEELER	COOS
CLATSOP	MULTNOMAH	WASHINGTON	CURRY
COLUMBIA	SHERMAN	TILLAMOOK(C)	DOUGLAS (E)
GILLIAM	WASCO	YAMHILL (C)	LANE (F)
HOOD RIVER			

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

PLUMBERS & STEAMFITTERS/PIPEFITTERS (CONTINUED)

AREA 6	AREA 6(CONT)	AREA 7	AREA 8
BENTON(D)	JEFFERSON(D)	KLAMATH(L)	JACKSON
CROOK	KLAMATH (J)	LAKE (L)	JOSEPHINE
DESCHUTES	LAKE (J)		
DOUGLAS(G)	LANE (K)		
GRANT (H)	LINCOLN (D)		
HARNEY (I)	LINN (D)		

A) EXCEPT NORTHWEST PORTION
B) EXCEPT SOUTHWEST CORNER
C) NORTH HALF
D) SOUTH HALF
E) WEST COAST PORTION
F) CITY OF FLORENCE
G) EXCEPT COAST PORTION
H) SOUTHWEST CORNER
I) NORTHWEST PORTION
J) NORTHERN PORTION
K) EXCEPT THE CITY OF FLORENCE
L) EXCEPT NORTHERN PORTION

POWER EQUIPMENT OPERATORS (SEE PAGE 11)

ROOFERS

AREA 1:		
• ROOFERS	14.85	3.70
• HANDLING COAL TAR PITCH	16.34	3.70
AREA 2:		
• ROOFERS	14.75	1.72
• APPLICATION OR REMOVAL OF COAL TAR PRODUCTS	15.75	1.72
AREA 3:		
• ROOFER	14.15	2.70
AREA 4:		
• ROOFER	14.75	3.10
AREA 5:		
• ROOFERS	16.58	2.55

AREA 1	AREA 1(CONT)	AREA 2	AREA 2(CONT)
BAKER	MULTNOMAH	BENTON	KLAMATH
CLACKAMAS	SHERMAN	COOS	LAKE
CLATSOP	TILLAMOOK	CROOK	LANE
COLUMBIA	WASCO	CURRY	LINCOLN
JEFFERSON	WASHINGTON	DESCHUTES	LINN
GILLIAM	WHEELER	DOUGLAS	MARION
GRANT		HARNEY	POLK
HOOD RIVER		JACKSON	YAMHILL
		JOSEPHINE	

AREA 3	AREA 4	AREA 5
MALHEUR	UMATILLA	MORROW
	UNION	
	WALLOWA	

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

SHEETMETAL WORKERS

AREA 1	16.25	4.40
AREA 2	16.40	2.84
AREA 3	17.86	3.85
AREA 4	15.43	2.70
AREA 5	15.73	2.70

AREA 1

BENTON	GILLIAM	LINN	TILLAMOOK
CLACKAMAS	GRANT	MARION	WASCO
CLATSOP	HARNEY	MULTNOMAH	WASHINGTON
COLUMBIA	HOOD RIVER	POLK	WHEELER
CROOK	JEFFERSON	SHERMAN	YAMHILL
DESCHUTES	LINCOLN		

AREA 2	AREA 3	AREA 4	AREA 5
BAKER	MORROW	COOS	DOUGLAS
MALHEUR	UMATILLA	CURRY	KLAMATH
	UNION	LANE (A)	LAKE
	WALLOWA		LANE (B)
			JACKSON
			JOSEPHINE

A) WEST OF COAST RANGE B) EAST OF COAST RANGE

SOFT FLOOR LAYERS

AREA 1	15.01	2.80 + B
AREA 2	13.66	1.19

B) PLUS 4% BASIC HOURLY RATE FOR EMPLOYEES WITH LESS THAN ONE YEAR OF SERVICE. 6% FOR THOSE WITH MORE THAN ONE YEAR.

AREA 1 - ALL COUNTIES EXCEPT MALHEUR COUNTY

AREA 2 - MALHEUR COUNTY

SPRINKLER FITTERS 19.98 3.55

TENDERS TO MASON TRADES

TENDERS FOR BRICKLAYERS. TILE SETTERS. MARBLE SETTERS AND TERRAZZO WORKERS; TOPPING FOR CEMENT FINISHERS AND MORTER MIXERS.

- WHERE THE COST OF BRICK AND BLOCK MASONRY WORK (LABOR AND MATERIAL) IS LESS THAN $200.000 (THIS RATE NOT APPLICABLE TO FIRE BRICK. REFRACTORY MATERIAL. CLEANING. POINTING. CAULKING OR RESTORATION WORK):

  12.05 3.65

- ALL OTHER WORK 14.05 3.65

TENDERS TO PLASTERERS

- WHERE THE COST OF THE PLASTERING WORK (LABOR AND MATERIAL) IS LESS THAN $200.000:

  12.05 3.65

- WHERE THE COST OF THE PLASTERING WORK (LABOR AND MATERIAL) IS MORE THAN $200.000:

  13.56 3.65

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

TILE SETTERS

AREA 1

- WHERE THE COST OF TILE WORK (LABOR AND MATERIALS) IS LESS THAN $10.000:

  15.09 3.55

- WHERE THE COST OF TILE WORK (LABOR AND MATERIALS) IS MORE THAN $10.000:

  17.09 3.55

AREA 2 16.05 2.65

AREA 1	AREA 1(CONT)	AREA 2	AREA 2(CONT)
BAKER	POLK	BENTON	JOSEPHINE
CLACKAMAS	SHERMAN	COOS	KLAMATH
CLATSOP	TILLAMOOK	CROOK	LAKE
COLUMBIA	UMATILLA	CURRY	LANE
GILLIAM	UNION	DESCHUTES	LINCOLN
HOOD RIVER	WALLOWA	DOUGLAS	LINN
MALHEUR(A)	WASCO (B)	GRANT	MALHEUR (C)
MARION	WASHINGTON	HARNEY	WASCO (D)
MORROW	YAMHILL	JACKSON	WHEELER
MULTNOMAH		JEFFERSON	

A) NORTH HALF C) SOUTH HALF
B) NORTH OF MAUPIN D) MAUPIN AND SOUTH THEREOF

TILE & TERRAZZO HELPERS

AREA 1

- WHERE THE COST OF TILE WORK (LABOR AND MATERIALS) IS LESS THAN $10.000:

  11.82 2.20

- WHERE THE COST OF TILE WORK (LABOR AND MATERIALS) IS MORE THAN $10.000:

  13.32 2.20

AREA 1

BAKER	HOOD RIVER	SHERMAN	WALLOWA
CLACKAMAS	MALHEUR (A)	TILLAMOOK	WASCO (B)
CLATSOP	MORROW	UMATILLA	WASHINGTON
COLUMBIA	MULTNOMAH	UNION	YAMHILL (A)
GILLIAM			

A) NORTH HALF B) NORTH OF MAUPIN

TRUCK DRIVERS (SEE PAGE 11)

WELDERS, RIGGERS

RECEIVE RATE FOR CRAFT PERFORMING OPERATION TO WHICH WELDING AND RIGGING ARE INCIDENTAL.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

CARPENTERS, CEMENT MASONS, LABORERS, POWER EQUIPMENT OPERATORS AND TRUCK DRIVERS

UNDER THE FOLLOWING CIRCUMSTANCES AN 80% RATE MAY BE USED FOR THESE FIVE TRADES:

THE 80% RATE APPLIES TO ALL PUBLIC WORKS PROJECTS OF LESS THAN $1.0 MILLION. THE 80% RATE ALSO APPLIES TO PROJECTS UNDER $1.5 MILLION INVOLVING THE CONSTRUCTION, RECONSTRUCTION, MAJOR RENOVATION OR PAINTING OF BUILDINGS, BRIDGES OR DOCKS. (WHEN THE AMOUNT IS BETWEEN $1.0 AND $1.5 MILLION THE WORK DONE ON A BUILDING, BRIDGE OR DOCK MUST CONSTITUTE AT LEAST 20% OF THE TOTAL PROJECT PRICE TO USE 80% RATES.) IN DETERMINING THE $1.5 MILLION FIGURE, DO NOT INCLUDE THE COST OF UNDERGROUND UTILITIES (I.E., THE AMOUNT OF THE CONTRACT DEDICATED TO FACILITIES FOR ELECTRICITY, WATER, GAS, SEWERAGE INCLUDING STORM WATER, AND COMMUNICATIONS) WHICH ARE FIVE FEET OR MORE OUTSIDE OF AND AWAY FROM THE BUILDING, BRIDGE OR DOCK AND ARE SUBORDINATE AND INCIDENTAL TO THE MAJOR PURPOSE OF THE PROJECT.

NOTE: IN DETERMINING WHETHER OR NOT THE 80% RATES ARE APPLICABLE, CONSIDER THE TOTAL PROJECT COST, AND NOT THE COST OF ANY INDIVIDUAL CONTRACT (OR SCHEDULE) WITHIN THAT PROJECT.

ZONE RATES AND DESCRIPTIONS

ZONE DIFFERENTIAL FOR CARPENTERS (GROUPS 1 AND 2 ONLY), LABORERS, POWER EQUIPMENT OPERATORS AND TRUCK DRIVERS

(ADD TO ZONE 1 RATE)

ZONE 2	.65
ZONE 3	1.15
ZONE 4	1.70
ZONE 5	2.75

ZONE 1: PROJECTS WITHIN 30 MILES OF CITY HALL IN THE CITIES LISTED BELOW.
ZONE 2: MORE THAN 30 MILES BUT LESS THAN 40 MILES.
ZONE 3: MORE THAN 40 MILES BUT LESS THAN 50 MILES.
ZONE 4: MORE THAN 50 MILES BUT LESS THAN 80 MILES.
ZONE 5: MORE THAN 80 MILES.

CITIES

ALBANY	EUGENE	LONGVIEW	PORTLAND
ASTORIA	GOLDENDALE	MADRAS	PORT ORFORD
BAKER	GRANTS PASS	MEDFORD	REEDSPORT
BEND	HERMISTON	MCMINNVILLE	ROSEBURG
BROOKINGS	HOOD RIVER	NEWPORT	SALEM
BURNS	KLAMATH FALLS	OREGON CITY	THE DALLES
COOS BAY	LAGRANDE	ONTARIO	TILLAMOOK
CORVALLIS	LAKEVIEW	PENDLETON	

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

CARPENTERS (SEE PRECEDING COLUMN FOR DESCRIPTION OF WHEN 80% RATES MAY BE USED)

	80%	100%	
ZONE 1 (BASE RATE):*			
• GROUP 1	13.64	17.02	3.67
• GROUP 2	13.76	17.17	3.67
• GROUP 3	13.84	17.27	3.67
• GROUP 4	13.96	17.42	3.67
• GROUP 5	13.72	17.12	3.67
• GROUP 6	13.80	17.22	3.67

*NOTE: ZONE RATES FOR CARPENTER GROUPS 1 AND 2 ARE LISTED IN THE PRECEDING COLUMN. ZONE RATES FOR CARPENTER GROUPS 3 THROUGH 6 ARE LISTED BELOW.

ZONE DIFFERENTIAL FOR GROUPS 3 THROUGH 6 ONLY
(ADD TO ZONE 1 RATE)

ZONE 2	.85
ZONE 3	1.25
ZONE 4	1.70
ZONE 5	1.95
ZONE 6	2.80

ZONES FOR GROUPS 3, 4, 5 AND 6 CARPENTERS ARE DETERMINED BY THE DISTANCE BETWEEN THE PROJECT SITE AND EITHER 1) THE WORKER'S RESIDENCE OR 2) CITY HALL OF A REFERENCE CITY FOR THE APPROPRIATE GROUP SHOWN BELOW, WHICHEVER IS CLOSER.

ZONE 1: 0-30 MILES.
ZONE 2: 30-40 MILES.
ZONE 3: 40-50 MILES.
ZONE 4: 50-60 MILES.
ZONE 5: 60-70 MILES.
ZONE 6: OVER 70 MILES.

CITIES FOR GROUPS 3 AND 4

CORVALLIS	LONGVIEW	NORTH BEND	THE DALLES
EUGENE	MEDFORD	PORTLAND	

CITIES FOR GROUPS 5 AND 6

ASTORIA	EUGENE	NEWPORT	SALEM
BEND	KLAMATH FALLS	PORTLAND	THE DALLES
COOS BAY	MEDFORD	ROSEBURG	

GROUP 1	GROUP 2
AUTO. NAILING MACHINE CARPENTERS	FLOOR LAYERS & FINISHERS
FORM STRIPPER	STATIONARY POWER SAW OPERATORS
MANHOLE BUILDERS	
GROUP 3	**GROUP 4**
MILLWRIGHTS	CERTIFIED WELDERS
MACHINE ERECTORS	
GROUP 5	**GROUP 6**
BRIDGE, DOCK & WHARF BUILDERS	BOOM MEN
PILEDRIVERMEN	

CEMENT MASONS[1]

TRADES	BASIC HOURLY RATE 80%	BASIC HOURLY RATE 100%	FRINGE BENEFITS
ZONE 1 (BASE RATE):			
• CEMENT MASONS	12.95	16.19	4.72
• COMPOSITION WORKERS POWER MACH. OPER.	13.21	16.51	4.72

ZONE DIFFERENTIAL FOR CEMENT MASONS
(ADD TO ZONE 1 RATE)

ZONE 2	.65
ZONE 3	1.15
ZONE 4	1.70
ZONE 5	2.75

ZONE 1: PROJECTS WITHIN 30 MILES OF CITY HALL IN THE CITIES LISTED BELOW.
ZONE 2: MORE THAN 30 MILES BUT LESS THAN 400 MILES.
ZONE 3: MORE THAN 40 MILES BUT LESS THAN 50 MILES.
ZONE 4: MORE THAN 50 MILES BUT LESS THAN 80 MILES.
ZONE 5: MORE THAN 80 MILES.

CITIES

ASTORIA	EUGENE	NEWPORT	ROSEBURG
BEND	KLAMATH FALLS	PASCO	SALEM
COOS BAY	LONGVIEW	PENDLETON	THE DALLES
CORVALLIS	MEDFORD	PORTLAND	VANCOUVER

LABORERS[1]

TRADES	BASIC HOURLY RATE 80%	BASIC HOURLY RATE 100%	FRINGE BENEFITS
ZONE 1 (BASE RATE):[2]			
• GROUP 1*	10.27	12.84	4.65
• GROUP 2	10.55	13.19	4.65
• GROUP 3	10.79	13.49	4.65
• GROUP 4	10.99	13.74	4.65
• GROUP 5	8.00	8.00	4.65
*GROUP 1 LABORERS WHO MEET THE FOLLOWING DESCRIPTION ONLY:	8.76		4.65

GROUP 1 LABORERS (NOT INVOLVED IN THE POURING OF CONCRETE) ON PROJECTS OF LESS THAN $1.0 MILLION INVOLVING THE CONSTRUCTION, RECONSTRUCTION, MAJOR RENOVATION OR PAINTING OF BUILDINGS. (THE WORK DONE ON A BUILDING MUST CONSTITUTE AT LEAST 20% OF THE TOTAL PROJECT PRICE TO USE THIS RATE.) IN DETERMINING THE $1.0 MILLION FIGURE, DO NOT INCLUDE THE COST OF UNDERGROUND UTILITIES (I.E. THE AMOUNT OF THE CONTRACT DEDICATED TO FACILITIES FOR ELECTRICITY, WATER, GAS, SEWERAGE INCLUDING STORM WATER, AND COMMUNICATIONS) WHICH ARE FIVE FEET OR MORE OUTSIDE OF AND AWAY FROM THE BUILDING AND ARE SUBORDINATE AND INCIDENTAL TO THE MAJOR PURPOSE OF THE PROJECT.

LABORERS (CONTINUED)

GROUP 1

ASPHALT PLANT LABORERS	GENERAL LABORER
ASPHALT SPREADERS	GUARDRAIL, MEDIAN RAIL (C)
BATCH WEIGHMAN	LEVERMAN OR AGGREGATE SPREADER (D)
BROOMERS	MATERIAL YARD MAN (E)
BRUSH BURNERS/CUTTERS	POWDERMAN TENDER
CARPENTER TENDER	RAILROAD TRACK LABORERS
CAR & TRUCK LOADERS	RIBBON SETTERS (F)
CHANGE-HOUSE MAN	RIP RAP MAN (HAND PLACED)
CHOKE SETTER	ROAD PUMP TENDER
CHIPPER OPERATOR (A)	SEWER LABORER
CLEAN-UP LABORERS	SIGNALMAN
CONCRETE LABORERS	SKIPMAN
CULVERT (HAND LABOR)	SLOPERS
CURING, CONCRETE	SPRAYMAN
DEMOLITION, WRECKING AND MOVING	STAKE CHASER
DRILLER TENDER	STOCKPILER
DRY-SHACK MAN	TIMBER FALLER/BUCKER (HAND LABOR)
DUMPERS, ROAD OILING CREW	TOOLROOM MAN (JOB SITE)
DUMPMEN FOR GRADING CREW	TUNNEL BULL GANG (ABOVE GROUND)
ELEVATOR FEEDERS	WEIGHT-MAN-CRUSHER (G)
FINE GRADERS	
FORM STRIPPERS (B)	

A) PITTSBURG OR SIMILAR TYPES
B) NOT SWINGING STAGES
C) REFERENCE POST, GUIDE POST, OR RIGHT-OF WAY MARKER
D) FLAHERTY, LOADING SPOTTERS OR SIMILAR TYPES
E) INCLUDING ELECTRICAL
F) INCLUDING STEEL FORMS
G) AGGREGATE WHEN USED

GROUP 2

APPLICATORS (A)	GUNITE OR POT TENDER
BRUSH CUTTERS (B)	HANDLERS/MIXERS (F)
BURNERS	POST HOLE DIGGER, AIR, GAS OR ELECTRIC
CHOKER SPLICER	POWER TOOL OPERATORS (G)
CLARY POWER SPREADER(C)	SAND BLASTING (WET)
CLEAN-UP NOZZLEMAN	STAKE SETTER
GREEN CUTTER (D)	TAMPERS
CONCRETE POWER BUGGYMAN	TUNNEL MUCKERS/BRAKEMAN/ CONCRETE CREW/BULL GANG (UNDERGROUND)
CRUSHER FEEDER	
DEMOLITION/WRECKING (E)	
GRADE CHECKER	
GRANITE NOZZLEMAN TENDER	

A) INCLUDING POT TENDER FOR SAME, APPLYING PROTECTIVE MATERIAL BY HAND OR NOZZLE ON UTILITY LINES OR STORAGE TANKS ON PROJECT
B) POWER SAW
C) AND SIMILAR TYPES
D) CONCRETE, ROCK, ETC.
E) CHARRED MATERIALS
F) OF ALL MATERIALS OF AN IRRITATING NATURE INCLUDING CEMENT AND LIME
G) INCLUDES, BUT NOT LIMITED TO: DRY PACK MACHINE, JACKHAMMER, CHIPPING GUNS, PAVING BREAKERS, VIBRATORS (LESS THAN 4" DIAMETER)

1 SEE PAGE 11 FOR DESCRIPTION OF WHEN 80% RATES MAY BE USED
2 SEE PAGE 11 FOR ZONE RATES AND DESCRIPTIONS

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

LABORERS (CONTINUED)

GROUP 3

ASPHALT RAKERS
BIT GRINDER
CONCRETE SAW OPERATOR
DRILL DOCTOR
DRILL OPERATORS (A)
GUNITE NOZZLEMAN
HIGH SCALERS, STRIPPERS, DRILLERS(B)
LASER BEAM (C)
MANHOLE BUILDER
POWDERMEN
POWER SAW OPERATORS (D)
PUMPCRETE NOZZLEMAN
SAND BLASTING (DRY)
SEWER PIPE LAYERS
SEWER TIMBERMAN
TRACK LINERS (E)
TUGGER OPERATOR
TUNNEL-CHUCK TENDERS, NIPPERS, TIMBERMAN
VIBRATOR (4" AND LARGER)
WATER BLASTER
WELDER

A) AIR TRACKS, CAT DRILLS, WAGON DRILLS, RUBBER-MOUNTED DRILLS, AND OTHER SIMILAR TYPES
B) COVERS WORK IN SWINGING STAGES, CHAIRS OR BELTS, UNDER EXTREME CONDITIONS UNUSUAL TO NORMAL DRILLING, BLASTING, BARRING-DOWN, OR SLOPING AND STRIPPING
C) PIPE LAYING, APPLICABLE WHEN EMPLOYEE ASSIGNED TO MOVE, SET UP, ALIGN LASER BEAM.
D) BUCKING AND FALLING
E) ANCHOR MACHINES, BALLAST REGULATORS, MULTIPLE TAMPERS, POWER JACKS

GROUP 4

LASER BEAM, (TUNNEL) APPLICABLE WHEN EMPLOYEE ASSIGNED TO MOVE, SET-UP, ALIGN LASER BEAM
TUNNEL MINERS
TUNNEL POWDERMAN

GROUP 5

FENCE BUILDER
FLAGGER
LANDSCAPING OR PLANTING LABORER

POWER EQUIPMENT OPERATORS[1]

	80%	100%	
ZONE 1 (BASE RATE):[2]			
• GROUP 1	12.71	15.89	4.67
• GROUP 2	12.86	16.07	4.67
• GROUP 3	12.98	16.23	4.67
• GROUP 4	13.14	16.43	4.67
• GROUP 5	13.18	16.47	4.67
• GROUP 6	13.26	16.58	4.67
• GROUP 7	13.32	16.65	4.67
• GROUP 8	13.43	16.79	4.67
• GROUP 9	13.50	16.88	4.67
• GROUP 10	13.57	16.96	4.67
• GROUP 11	13.58	16.98	4.67
• GROUP 12	13.66	17.08	4.67
• GROUP 13	13.74	17.18	4.67
• GROUP 14	13.94	17.42	4.67
• GROUP 15	14.09	17.61	4.67
• GROUP 16	14.29	17.86	4.67
• GROUP 17	14.45	18.06	4.67
• GROUP 18	14.65	18.31	4.67
• GROUP 19	14.79	18.49	4.67

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

POWER EQUIPMENT OPERATORS (CONTINUED)

GROUP 1

ASSISTANT CONVEYOR OPERATOR
BRAKEMAN/SWITCHMAN
CRUSHER FEEDERMAN
DECKHAND
GUARDRAIL PUNCH OILER
PARTSMAN (TOOL ROOM)
PUMP OPERATOR (A)
OILER (B)
SCAFFOLDING OPERATOR (C)
SWITCHMAN

A) UNDER 4 INCHES
B) INCLUDING PLANT, CRANE, CRUSHER, GUARDRAIL EQUIPMENT, AND TRENCHING MACHINE
C) SELF-PROPELLED

GROUP 2

A-FRAME TRUCK OPERATOR (A)
AUGER
BLADE OPERATOR (B)
BOATMAN
CRANE FIREMAN (C)
DRILLER TENDER
FORK LIFT OR LUMBER STACKER (D)
GRADE CHECKER
GRADE OILER (E)
HEAVY DUTY REPAIRMAN TENDER
HELICOPTER RADIOMAN (GROUND)
OILER (F)
ROLLER OPERATOR (G)
TAR POT FIREMAN (H)
TEMPORARY HEATING PLANT OPERATOR
TRUCK CRANE OILER/DRIVER (I)
TUGGER OR COFFIN TYPE HOIST OPERATOR
WELDER'S TENDER

A) SINGLE DRUM
B) PULLED TYPE
C) ALL EQUIPMENT EXCEPT FLOATING
D) ON JOB SITE
E) REQUIRED TO CHECK GRADE
F) INCLUDING COMBINATION GUARDRAIL MACHINES
G) GRADING OF BASE ROCK (NOT ASPHALT)
H) INCLUDING POWER AGITATED TYPE
I) 25 TON CAPACITY AND OVER

GROUP 3

AIR FILTRATION EQUIPMENT
ASPHALT PLANT FIREMAN
BALLAST JACK TAMPER
BELL BOY, PHONES, ETC
BROOM OPERATOR (A)
BUCKET ELEVATOR LOADER (B)
CEMENT HOG
COMPRESSOR OPERATOR (C)
CONCRETE SAW AND CONCRETE CURING MACHINE (D)
CONVEYOR OPERATOR
HYDRAULIC PIPE PRESS
HYDROGRAPHIC SEEDER MACHINE (E)
HYDROSTATIC PUMP
MIXER BOX OPERATOR (F)
MOTORMAN
PUGMILL OPERATOR (ANY TYPE)
PUMP OPERATOR (G)
ROSS CARRIER OPERATOR (H)
TAMPING MACHINE (I)
TRUCK-MOUNTED ASPHALT SPREADER (WITH SCREED)
WELDING MACHINE OPERATOR
WIRE MAT OR BROOMING MACHINE

A) SELF-PROPELLED ON JOB SITE
B) BARBER GREENE AND SIMILAR TYPE
C) ANY POWER, UNDER 1250 CUBIC FEET TOTAL CAPACITY
D) RIDING TYPE
E) STRAW, PULP OR SEED
F) C.T.B. DRYBATCH, ETC.
G) ANY POWER, 4 INCHES AND OVER
H) ON JOB SITE
I) MECHANICAL SELF-PROPELLED

1 SEE PAGE 11 FOR DESCRIPTION OF WHEN 80% RATES MAY BE USED
2 SEE PAGE 11 FOR ZONE RATES AND DESCRIPTIONS

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

POWER EQUIPMENT OPERATORS (CONTINUED)

GROUP 4

COMBINATION MIXER & COMPRESSOR (A)
COMPACTOR, INCLUDING VIBRATORY
COMPRESSOR (ANY POWER (B)
CONCRETE MIXER OPERATOR (C)
FLOATING EQUIPMENT FIREMAN
FORK LIFT, OVER 5 TON
HELICOPTER HOIST OPERATOR
HYDRA HAMMER OR SIMILAR TYPES
LOCOMOTIVE, UNDER 40 TONS
LULL HI-LIFT OPERATOR (D)
PAVEMENT BREAKER
PUMP OPERATOR (E)
ROLLER OPERATOR, OILING C.T.B.
SCREED OPERATOR
SERVICE OILER (GREASER)

A) GUNNITE WORK
B) OVER 1,250 CU. FT. TOTAL CAPACITY
C) SINGLE DRUM, UNDER FIVE BAG CAPACITY
D) OR SIMILAR TYPE
E) MORE THAN 5 (ANY SIZE)

GROUP 5

CHIP SPREADING MACHINE OPERATOR
CONCRETE BATCH PLANT QUALITY CONTROL OPERATOR
ELEVATOR OPERATOR
EXTRUSION MACHINE
HOIST, SINGLE DRUM
LIME SPREADING (A)
POWER JUMBO, SETTING SLIP FORMS, ETC. IN TUNNELS.
PULVA MIXER OR SIMILAR TYPES
SLIP FORM PUMPS, POWER DRIVEN HYDRAULIC LIFTING DEVICE FOR CONCRETE FORMS
SWEEPER, WAYNE TYPE (B)
TRACTOR (C)
TRENCHING MACHINE (D)
WAGNER PACTOR (E)

A) ON JOB SITE
B) SELF-PROPELLED ON JOB SITE
C) RUBBER-TIRED 50 H.P. FLYWHEEL AND UNDER
D) MAXIMUM DIGGING CAPACITY 3 FT. DEPTH
E) OR SIMILAR TYPE WITHOUT BLADE

GROUP 6

ASPHALT BURNER AND RECONDITIONER
CAST-IN PLACE PIPE LAYING MACHINE
CONCRETE FINISHING MACHINE
CONCRETE JOINT MACHINE
CONCRETE PAVING MACHINE
CONCRETE PLANER
CONCRETE SPREADER
CURB MACHINE (B)
LOADERS (C)
MAGINNIS INTERNAL FULL SLAB VIBRATOR
PAVEMENT GRINDER AND/OR GROOVING MACHINE (D)
ROCK SPREADERS (E)

A) CLARY, JOHNSON, BIDWELL, BURGESS, BRIDGES DECK OR SIMILAR TYPE
B) MECHANICAL BERM, CURB AND/OR GUTTER
C) RUBBER-TIRED TYPE, 2 1/2 CU. YDS. AND UNDER
D) RIDING TYPE
E) SELF-PROPELLED

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

POWER EQUIPMENT OPERATORS (CONTINUED)

GROUP 7

A-FRAME TRUCK (A)
BALLAST REGULATOR
BALLAST TAMPER (B)
BELTCRETE
BOOM TRUCK
CHURN DRILL/EARTH BORING MACHINE
CONCRETE MIXER (C)
CONCRETE PUMP
ELEVATING GRADER (D)
FULLER-KENYON AND SIMILAR
GROUTING MACHINE
HYDRAULIC BACKHOE (E)
LOCOMOTIVE, 40 TONS & OVER
POT RAMMER
PUMPCRETE OPERATOR (ANY TYPE)
ROLLER (ANY ASPHALT MIX)
SHUTTLE CAR
TIE SPACER
TOWER MOBILE OPERATOR
TRACK LINER

A) DOUBLE DRUM
B) MULTIPLE PURPOSE
C) SINGLE DRUM, FIVE BAG CAPACITY AND OVER
D) TRACTOR TOWED REQUIRING OPERATOR OR GRADER
E) WHEEL TYPE 3/8 CU. YDS. AND UNDER WITH OR WITHOUT FRONT END ATTACHMENT 2 1/2 CU. YDS. AND UNDER (FORD, JOHN DERRE, CASE TYPE)

GROUP 8

ASPHALT PAVER OPERATOR
BATCH PLANT AND/OR WET-MIX (A)
BELT LOADER (B)
DIESEL-ELECTRIC ENGINEER (C)
GENERATOR OPERATOR

A) ONE AND TWO DRUM
B) KOLMAN AND KO CAL TYPES
C) PLANT, CRUSHER, GENERATOR, FLOATING

GROUP 9

ASPHALT PLANT OPERATOR
BOLT-THREADING MACHINE
BOOM-TYPE LIFTING DEVICE (A)
BORING MACHINE
BULLDOZER
CHERRY PICKER (A)(B)
CHICAGO BOOM (C)
COMPACTOR WITH BLADE
CONCRETE COOLING MACHINE
CRUSHER PLANT OPERATOR
DRILL CAT OPERATOR
DRILL DOCTOR
DRILL DOCTOR (BIT GRINDER)
GRIZZLY CRUSHER
GUARDRAIL PUNCH AND AUGER (D)
H.D. MECHANIC AND WELDER
HAMMER OPERATOR
HYDRAULIC BACKHOE (E)
LIFT SLAB MACHINE
LOADER (F)
MACHINE TOOL OPERATOR
PIPE CLEANING, DOPING, BENDING AND WRAPPING MACHINES
SIDE-BOOM CAT
STATIONARY DRAG SCRAPER
SURFACE HEATER AND PLANER
TRACTOR (G)
TRACTOR (H)
TRENCH MACHINE (I)

A) 5 TON CAPACITY OR LESS
B) OR SIMILAR TYPE CRANE-HOIST
C) AND SIMILAR TYPES
D) ALL TYPES
E) TRACK TYPE 3/8 CU. YDS.
F) FRONT END AND OVERHEAD, 2 1/2 CU. YDS. AND UNDER 4 CU. YDS.
G) WITH BOOM ATTACHMENTS
H) RUBBER-TIRED OVER 50 H.P. FLYWHEEL
I) MAXIMUM DIGGING CAPACITY OVER 3 FT. DEPTH

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

POWER EQUIPMENT OPERATORS (CONTINUED)

GROUP 10

BARGE OPERATOR, SELF-LOADING
BULLDOZER (A)
CABLE PLOW (ANY TYPE)
COMBINATION H.D. MECHANIC-WELDER (B)
COMPACTOR, MULTI-ENGINE
DOZERS AND PUSHERS (C)
DRILLER (D)
JACK OPERATOR/ELEVATING BARGES

A) TWIN ENGINE (TC 12 AND SIMILAR)
B) WITH DISPATCHER AND/OR REQUIRED TO DO BOTH
C) RUBBER-TIRED (MICHIGAN, CAT, HOUGH TYPE)
D) PERCUSSION, DIAMOND, CORE, CABLE, ROTARY AND SIMILAR TYPE

GROUP 11

CLAMSHELL, HOE, ETC. (A)
COMBINATION GUARDRAIL MACHINES (B)
CONCRETE BREAKER
CRANE OPERATOR (C)
DRAGLINE
GRADE-ALLS (A)
MIXER MOBILE
MUCKING MACHINE (TUNNEL)
SHOVEL

A) UNDER 1 CU. YD.
B) I.E., PUNCH, AUGER, ETC.
C) 25 TONS AND UNDER

GROUP 12

BATCH PLANT AND/OR WET MIX (A)
BLADE MOUNTED SPREADERS (B)
BLADE OPERATOR
ELEVATING LOADER (C)
HOIST, TWO OR MORE DRUMS
PADDLE WHEEL, AUGER TYPE
PILEDRIVER (NOT CRANE TYPE)
REINFORCED TANK BANDING MACHINE (K-17 OR SIMILAR)
RUBBER-TIRED SCRAPER (D)
SHIELD OPERATOR
SINGLE SCRAPER (E)

A) 3 UNITS OR MORE
B) ULRICH AND SIMILAR TYPES
C) ATHEY AND SIMILAR
D) SINGLE AND TWIN ENGINE
E) WITH PUSH-PULL ATTACHMENTS, SELF LOADER

GROUP 13

BACK FILLING MACHINE
BLADE (A)
BLADE, MULTI-ENGINE
BLADE OPERATOR, FINISH
BRIDGE CRANE OPERATOR (B)
CABLEWAY OPERATOR (C)
CONCRETE PAVING ROAD MIXER
CRANE (D)
DERRICK, UNDER 100 TONS
ELEVATING GRADER (E)
FLOATING CLAMSHELL, ETC. (F)
FLOATING CRANE (G)
GRADE-ALL, 1 CU. YD. AND OVER
HOIST (H)
PILEDRIVER OPERATOR
SHOVEL, ETC (I)

A) EXTERNALLY CONTROLLED BY ELECTRONIC, MECHANICAL HYDRAULIC MANES
B) LOCOMOTIVE CRANE, GANTRY AND OVERHEAD
C) 25 TON AND OVER
D) OVER 25 TON AND INCLUDING 40 TONS
E) OPERATED BY TRACTOR OPERATOR, SIERRA, ECULID, OR SIMILAR
F) UNDER 3 CU. YDS.
G) DERRICK BARGE, LESS THAN 30 TON
H) STIFF LEG, GUY DERRICK, OR SIMILAR, 50 TONS AND OVER
I) 1 CU. YD. AND LESS THAN 3 CU. YDS.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS

POWER EQUIPMENT OPERATORS (CONTINUED)

GROUP 14

RUBBER-TIRED SCRAPER (A)
TOWER CRANE OPERATOR

A) WITH TANDEM SCRAPERS, SELF-LOADING, PADDLE WHEEL, AUGER TYPE, FINISH AND/OR 2 OR MORE UNITS

GROUP 15

LOADER, 4 CU. YDS., BUT LESS THAN 6 CU. YDS.
ROCK HOUND OPERATOR

GROUP 16

AUTOGRADER OR "TRIMMER"
AUTOMATIC CONCRETE SLIP FORM PAVER
CABLEWAY (A)
CONCRETE CANAL LINE
CRANE (B)
FLOATING CLAMSHELL, ETC., 3 CU. YDS. AND OVER
FLOATING CRANE (DERRICK BARGE) (C)
LOADER (D)
RUBBER-TIRED SCRAPER (E)
SHOVEL (F)
TANDEM BULLDOZER (G)
WHEEL EXCAVATOR (H)
WHIRLEY, 80 TON AND UNDER

A) 25 TONS AND OVER
B) OVER 40 TON AND INCLUDING 100 TON
C) 30 TON BUT LESS THAN 80 TON
D) 6 CU. YDS., BUT LESS THAN 12 CU. YDS.
E) WITH TANDEM SCRAPERS, MULTI-ENGINE
F) 3 CU. YDS., BUT LESS THAN 5 CU. YDS.
G) QUAD-NINE AND SIMILAR
H) UNDER 750 CU. YDS. PER HOUR

GROUP 17

CANAL TRIMMER
CRANE (A)
FLOATING CRANE (B)
LOADER (C)
SHOVEL, ETC. (D)
WHIRLEY (E)

A) OVER 100 TON AND INCLUDING 200 TON
B) DERRICK BARGE, 80 TON, BUT LESS THAN 150 TON
C) 12 CU. YDS. AND OVER
D) 5 CU. YDS. AND OVER
E) OVER 80 TON AND INCLUDING 150 TON

GROUP 18

BAND WAGONS (A)
CRANE (B)
FLOATING CRANE (C)
WHEEL EXCAVATOR (D)
WHIRLEY (E)

A) IN CONJUNCTION WITH WHEEL EXCAVATOR
B) OVER 200 TON
C) 150 TON BUT LESS THAN 250 TON
D) OVER 200 TON
E) 150 TON AND OVER

GROUP 19

FLOATING CRANE (A)
HELICOPTER (B)
REMOTE CONTROLLED EARTH MOVING EQUIPMENT UNDER WATER EQUIPMENT (C)

A) 250 TON AND OVER
B) WHEN USED IN ERECTING WORK
C) REMOTE OR OTHERWISE

TRUCK DRIVERS[1]

TRADES	BASIC HOURLY RATE 80%	BASIC HOURLY RATE 100%	FRINGE BENEFITS
ZONE 1 (BASE RATE):[2]			
• GROUP 1	12.19	15.23	4.70
• GROUP 2	12.23	15.28	4.70
• GROUP 3	12.27	15.33	4.70
• GROUP 4	12.31	15.38	4.70
• GROUP 5	12.35	15.43	4.70
• GROUP 6	12.43	15.53	4.70
• GROUP 7	12.51	15.63	4.70
• GROUP 8	12.59	15.73	4.70
• GROUP 9	12.67	15.83	4.70
• GROUP 10	12.81	16.00	4.70
• GROUP 11	12.89	16.10	4.70
• GROUP 12	12.97	16.20	4.70
• GROUP 13	13.05	16.30	4.70
• GROUP 14	13.13	16.40	4.70

WORK	GROUP
A-FRAME OR HYDRA-LIFT TRUCK W/LOAD BEARING SURFACE	2
BATTERY REBUILDER	1
BUS OR MAN-HAUL DRIVER	1
CONCRETE BUGGIES (POWER OPERATED)	1
DRIVERS AND HELPERS HANDLING SACKED CEMENT--ADD 15¢ PER HOUR	
DUMP TRUCKS, SIDE, END AND BOTTOM DUMPS, INCLUDING SEMI-TRUCKS AND TRAINS OR COMBINATIONS THEREOF:	
6 CU. YDS. AND UNDER	1
OVER 6 CU. YDS. AND INC. 10 CU. YDS.	3
OVER 10 CU. YDS. AND INC. 20 CU. YDS.	6
OVER 20 CU. YDS. AND INC. 30 CU. YDS.	7
OVER 30 CU. YDS. AND INC. 40 CU. YDS.	8
OVER 40 CU. YDS. AND INC. 50 CU. YDS.	9
OVER 50 CU. YDS. AND INC. 60 CU. YDS.	10
OVER 60 CU. YDS. AND INC. 70 CU. YDS.	11
OVER 70 CU. YDS. AND INC. 80 CU. YDS.	12
OVER 80 CU. YDS. AND INC. 90 CU. YDS.	13
OVER 90 CU. YDS. AND INC. 100 CU. YDS.	14
DUMPSTERS OR SIMILAR EQUIPMENT--ALL SIZES	5
FLAHERTY SPREADER DRIVER OR LEVERMAN	4
LIFT JITNEYS, FORK LIFTS--ALL SIZES--USED IN LOADING, UNLOADING & TRANSPORTING MATERIAL ON JOB SITE	1
LOADER AND/OR LEVERMAN ON CONCRETE DRY BATCH PLANT, MANUALLY OPERATED	1
LOW BED EQUIPMENT, FLAT BED SEMI-TRUCK AND TRAILER OR DOUBLES TRANSPORTING EQUIPMENT OR WET OR DRY MATERIALS	4
LUBRICATION MAN, FUEL TRUCK DRIVER, DRIVER, TIREMAN, WASH RACK, STEAM CLEANER OR COMBINATION	2

TRUCK DRIVERS (CONTINUED)

WORK	GROUP
LUMBER CARRIER, DRIVER-STRADDLE CARRIER--USED IN LOADING, UNLOADING AND TRANSPORTATION OF MATERIAL ON JOB SITE	4
OIL DISTRIBUTOR DRIVER OR LEVERMAN	4
PILOT CAR	1
SLURRY TRUCK DRIVER OR LEVERMAN	3
SOLO FLAT BED AND MISC. BODY TRUCKS--0-10 TONS	1
TRANSIT MIX AND WET OR DRY MIX TRUCKS:	
5 CU. YDS. AND UNDER	1
OVER 5 CU. YDS. AND INC. 7 CU. YDS	5
OVER 7 CU. YDS. AND INC. 9 CU. YDS	6
OVER 9 CU. YDS. AND INC. 11 CU. YDS.	7
OVER 11 CU. YDS. AND INC. 13 CU. YDS	8
OVER 13 CU. YDS. AND INC. 15 CU. YDS	9
TEAM DRIVERS	2
TIREMAN, FULL-TIME BASIS	3
TRUCK HELPER	1
TRUCK MECHANIC--WELDER--BODY REPAIRMAN	6
TRUCK MECHANIC HELPER	1
WATER WAGONS (RATED CAPACITY) UP TO:	
1600 GALLONS	1
1600 TO 3000 GALLONS	3
3000 TO 5000 GALLONS	4
5000 TO 7000 GALLONS	6
7000 TO 10,000 GALLONS	7
10,000 TO 15,000 GALLONS	8
WINCH TRUCK--TAKES CLASSIFICATION OF TRUCK ON WHICH WINCH IS MOUNTED	

[1] SEE PAGE 11 FOR DESCRIPTION OF WHEN 80% RATES MAY BE USED.
[2] SEE PAGE 11 FOR ZONE RATES AND DESCRIPTIONS.

Bureau of Labor and Industries
Wage and Hour Division

PAYROLL

(For Contractor or Subcontractor's Use; See Instruction, Form WH-38A (3/84))

Payroll and Certified Statement Form - For Use in Complying with ORS 279.354

NAME OF CONTRACTOR ☐ OR SUBCONTRACTOR ☐ | ADDRESS

Phone: ( ) -

FOR WEEK ENDING | CONTRACTING AGENCY

Phone ( ) -

PROJECT AND LOCATION | PROJECT OR CONTRACT NO. | DATE CONTRACT SPECIFICATIONS FIRST ADVERTISED FOR BID

(1) NAME, ADDRESS, AND SOCIAL SECURITY NUMBER OF EMPLOYEE	(2) # OF W/H EXEMPTIONS	(3) WORK CLASSIFICATION (include group number if applicable)	OT. OR ST.	(4) DAY AND DATE — HOURS WORKED EACH DAY	(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS: FICA	FEDERAL WITHHOLDING TAX	STATE WITHHOLDING TAX	OTHER	TOTAL DEDUCTIONS	(9) NET WAGE PAID FOR WEEK
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CERTIFIED STATEMENT

I, _____ (Name or signatory party), _____ (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by _____ (Contractor, subcontractor or surety) on the _____ (Building or work); that during the payroll commencing on the _____ day of _____, 19_____, and ending the _____ day of _____, 19_____, all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said _____ (Contractor, subcontractor or surety) from the full weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as specified in ORS 652.610, and described below:

_____

_____

_____

_____

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for workers contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each worker conform with work performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

FORM WH-38 (3/84)

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS OR PROGRAMS
In addition to the basic hourly wage rates paid to each worker listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH
Each worker listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXEMPTIONS

EXCEPTION (CRAFT)	EXPLANATION
REMARKS	

I have read this certified statement, know the contents thereof and it is true to my knowledge.

NAME AND TITLE	SIGNATURE

☐ Contractor ☐ Subcontractor ☐ Surety

File this form with the contracting agency and send a true copy to the Bureau of Labor and Industries, 1400 SW Fifth Ave., Portland, OR 97201

BUREAU OF LABOR AND INDUSTRIES - WAGE AND HOUR DIVISION

INSTRUCTIONS FOR COMPLETING PAYROLL AND CERTIFIED STATEMENT FORM, WH-38 (Rev 3/84)

General: This form meets needs resulting from the 1983 amendments to the Prevailing Wage Rate Law. Under this amended law, the contractor is required to pay not less than fringe benefits as predetermined by the Bureau of Labor and Industries, in addition to payment of not less than the predetermined rates. The contractor's obligation to pay fringe benefits may be met either by payment of the fringes to the various plans, funds, or programs or by making these payments to the employees as cash in lieu of fringes.

This form provides for the contractor's showing of the payroll and all monies paid to the employees, whether as basic rates or as cash in lieu of fringes and provides for the contractor's representation in the certified statement that he/she is paying to others fringes required by the contract and not paid as cash in lieu of fringes. Detailed instructions concerning the preparation of the form follow:

Fill in all boxes at top of form. Be sure to enter the date the contract was first advertised for bid by the contracting agency. This date should appear on the bid documents.

Column 1 - Name, Address, and Social Security number of Employee: The employee's full name must be shown on each payroll submitted. The employee's address must also be shown on the first payroll submitted. The address need not be shown on subsequent payrolls unless the address changes. Although not required, space is available in the name and address section so that Social Security numbers may be listed.

Column 2 - Withholding Exemptions: This column is merely inserted for the employer's convenience and is not a requirement.

Column 3 - Work Classifications: List classification descriptive of work actually performed by employees. Include group number when appropriate. Consult classifications and minimum wage schedule set forth in contract specifications. If additional classifications are deemed necessary, see Contracting Officer or Agency representative. Employee may be shown as having worked in more than one classification provided accurate breakdown of hours so worked is maintained and shown on submitted payroll by use of separate line entries.

Column 4 - Hours Worked: Enter as overtime hours all hours worked in excess of 8 hours per day, all hours worked on Saturday and Sunday and hours worked on legal holidays as defined in ORS 279.334.

Column 5 - Total: Self-explanatory.

Column 6 - Rate of Pay, including Fringe Benefits: In straight time box, list actual hourly rate paid the employee for straignt time worked plus any cash in lieu of fringes paid the employee. When recording the straight time hourly rate, any cash paid in lieu of fringes may be shown separately from the basic rate, thus $12.50/2.35. This is of assistance in correctly computing overtime. See "Fringe Benefits" below. Payment of not less than time and one half the basic or regular rate paid is required for overtime under ORS 279.334. In addition to paying not less than the predetermined rate for the classificaion in which the employee works, the contractor shall pay to approved plans, funds, or programs or shall pay as cash in lieu of fringes amounts predetermined as fringe benefits in the wage decision made part of the contract. See "FRINGE BENEFITS" below.

FRINGE BENEFITS -- Contractors who pay all required fringe benefits: A contractor who pays fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Commissioner of the Bureau of Labor and Industries shall continue to show on the payroll the basic cash hourly rate and overtime rate paid to employees. Such a contractor shall check paragraph 4(a) of the Certified Statement to indicate that he/she is also paying to approved plans, funds, or programs not less than the amount predetermined as fringe benefits for each craft. Any exceptions shall be noted in Section 4(c).

Contractors who pay no fringe benefits: A contractor who pays no fringe benefits shall pay to the employee, and insert in the straight time hourly rate column of the payroll, an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the applicable wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringes, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on basic or regular rate, plus the required cash in lieu of fringes at the straight time rate. In addition, the contractor shall check paragraph 4(b) of the Certified Statement to indicate that he/she is paying fringe benefits in cash directly to employees. Any exceptions shall be noted in Section 4(c).

Use of Section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination required is obliged to pay the deficiency directly to the employees as cash in lieu of fringes. Any exceptions to Section 4(a) or 4(b), whichever the contractor may check, shall be entered in Section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid the employee as cash in lieu of fringes and the hourly amount paid to plans, funds, or programs as fringes. The contractor shall pay, and shall show that he/she is paying to each such employee for all hours (unless otherwise provided by applicable determination) worked on the project an amount not less than the predetermined rate plus cash in lieu of fringes as shown in Section 4(c). The rate paid and amount of cash paid in lieu of fringe benefits per hour should be entered in column 6 on the payroll. See paragraph on "Contractors who pay no fringe benefits" for computation of overtime rate.

Column 7 - Gross Amount Earned: Enter gross amount earned on this project. If part of the employees' wage was earned on projects other than the project described on this payroll, enter in column 7 first the amount earned on the project and then the gross amount earned on all projects, thus $63.00/120.00.

Column 8 - Deductions: Four columns are provided for showing deductions made. If more than four deductions should be involved, use first 3 columns; show the balance of deductions under "Other" column; show actual total under "Total Deductions" column; and in the attachment to the payroll describe the deductions contained in the "Other" column. All deductions must be in accordance with the provisions of ORS 652.610. If the employee worked on other jobs in addition to this project, show actual deductions from gross wage, but indicate that deductions are based on gross wages.

Column 9 - Net Wages Paid for Week: Self-explanatory.

Certified Statement Required by ORS 279.354: While this form need not be notarized, the Certified Statement is subject to the penalties provided by ORS 279.990. Accordingly, the party signing this required statement should have knowledge of the facts represented as true.

Space has been provided between items (1) and (2) of the Statement for describing any deductions made. If all deductions made are adequately described in the "Deductions" column above, state "See Deductions column in this payroll." See paragraph entitled "FRINGE BENEFITS" above for instructions concerning filling out paragraph 4 of the Statement.

BUREAU OF LABOR AND INDUSTRIES

Mary Roberts, Commissioner

Amendment to the Prevailing Wage Rates for Public Works in Oregon

The January 1, 1987 Prevailing Wage Rate publication is amended effective April 1, 1987 as follows:

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
Asbestos Workers	15.00	3.78
Electricians - Area 3	16.00	4.35 + 3%

If you have any questions regarding these changes, call the Prevailing Wage Rate Analyst in Portland at 229-6655.

Mary Wendy Roberts
Commissioner

PORTLAND
1400 SW 5th Avenue
Portland, Oregon 97201

SALEM
3865 Wolverine St. NE; E-1
Salem, Oregon 97310

EUGENE
165 E. 7th Street, Suite 220
Eugene, Oregon 97401

MEDFORD
700 E. Main
Medford, Oregon 97504

COOS BAY
320 Central Ave., Suite 510
Coos Bay, Oregon 97420

BEND
1230 NE Third, Suite A244
Bend, Oregon 97701

PENDLETON
700 SE Emigrant, Suite 240
Pendleton, Oregon 97801

BUREAU OF LABOR AND INDUSTRIES
RESEARCH UNIT, ROOM 309
1400 S.W. FIFTH AVENUE
PORTLAND, OREGON 97201

ADDRESS CORRECTION REQUESTED

BULK RATE
U.S. POSTAGE
PAID
Portland, Oregon
Permit No. 458

TECHNICAL PROVISIONS

NEWBERG COMMUNITY HOSPITIAL
PARKING LOT EXPANSION PHASE II & III

CITY OF NEWBERG, OREGON

SECTION 1.00 PURPOSE

1.01 GENERAL

The design standards set forth below are intended to result in streets which will:

A. Be of adequate size to carry the expected traffic flow within its design life.

B. Have a sufficient grade to carry water off of the traveled roadway and into its drainage basin.

C. Be strong enough to resist all external loads which may be imposed.

D. Be economical and safe to build and maintain.

E. Provide for the continuous or appropriate projection of existing principal streets in surrounding areas.

F. Conform to the city's ordinances related to streets, sidewalks, and curbs.

1.02 APPROVAL OF ALTERNATE MATERIALS OR METHODS

Any alternate material or method not explicitly approved herein will be considered for approval on the basis of the objectives set forth in SECTION 1.00 - PURPOSE.

1.03 SPECIAL PROBLEMS

The design of the following are considered special problems and are not covered in detail in these standards:

1. Roadways to be built upon unstable ground.
2. Bridges and structures.
3. Retention ponds.
4. Traffic signals.

SECTION 2.00 MINIMUM DESIGN CONSIDERATIONS

2.01 GENERAL

To provide for a uniform system of street designation and to provide for compatibility of street design and function, the City has established uniform design standards for public streets, sidewalks, and curbs in the City.

2.02 DESIGN STANDARDS - MAJOR STREET ARTERIAL

A. Function. To expedite the movement of traffic to and from major trip generators and between communities; to collect and distribute traffic from freeways or expressways to minor arterial streets, collector streets, or directly to traffic generators.

B. Standards.

1. Right-of-way: seventy to ninety feet; additional setback can be provided to a maximum of sixty feet from centerline.

2. Pavement width: sixty-six to seventy-six feet.

3. Number of moving lanes: four or more.

4. Speed limits: thirty-five to forty-five miles per hour.

5. Access control: minimum of three hundred feet sight distance.

a. Residential uses: No direct access.

b. Commercial uses:

(1) Curb cuts fifty feet to curb return (minimum) and no access if an alternate exists.

(2) A maximum of one forty-five feet wide curb cut per one hundred fifty feet of street frontage of fraction thereof (shared driveways are encouraged).

(3) Left-hand turning at intersections only, or one left-turn lane per four hundred feet if controlled.

c. Industrial uses:

(1) Curb cuts one hundred feet to curb return (minimum), no access if an alternative exists.

(2) A maximum of forty-five feet wide curb cut per two hundred feet of street frontage or fraction thereof.

(3) Left-hand turning at intersections only, or one left-turn lane per four hundred feet if controlled.

6. Parking.

a. Allowed on one side in some areas.

b. No parking allowed within twenty feet of a curb return.

7. Intersection design.

a. Exclusive left and right turn lanes.

b. Signalization at intersections with principal and minor arterials, and with collectors as warranted.

c. Exclusive turn lanes are optional.

d. Signalization at intersections with collectors as warranted.

c. Bus turnouts.

d. Designated crosswalks at controlled locations.

8. Street lighting.

a. Mounting height: thirty-five to forty feet.

b. Brightness: twenty-two thousand lumens sodium vapor (two hundred watts).

9. Bicycle lanes

a. Four feet to six feet wide and on both sides of the street.

10. Sidewalks

a. Conform to City's Standard Drawing for the type of sidewalk chosen.

11. Slope

a. Maximum six percent slope.

12. Curves

a. Minimum centerline radii at 45 mph of five hundred-fifty feet. Minimum centerline radii to be determined using AASHTO formulas for speeds other than 45 mph.

2.03 DESIGN STANDARDS - MINOR ARTERIAL

A. Function. To collect and distribute traffic from major arterials to collector, or directly to traffic destinations; to facilitate traffic movement between neighborhoods.

B. Standards.

1. Right-of-way. Sixty to eighty feet.

2. Pavement width. Forty-four to sixty-six feet.

3. Number of moving lanes. Two to four.

4. Speed limit. Twenty-five to forty miles per hour.

5. Access control. Minimum sight distance of two hundred seventy-five feet.

a. Residential uses.

(1) Curb cuts two hundred feet (minimum to curb return, and no access if less distance is required).

(2) Left-hand turns allowed only at intersections.

b. Commercial uses.

(1) Curb cuts fifty feet (minimum to curb return).

(2) A maximum of one forty-five foot wide curb cut per one hundred fifty feet of street frontage or fraction thereof (shared driveways are encouraged).

(3) Left-hand turns only at intersections, if possible, or one left-hand turn per two hundred feet. Option of continuous left-turn land.

6. Parking.

a. Allowed on one side in some areas.

b. No parking allowed within twenty feet of a curb return.

7. Intersection design.

a. Exclusive turn lanes are optional.

b. Signalization at intersections with principal and minor arterials, and with other streets as warranted.

c. Flared intersections are options.

d. Bus turnouts.

e. Designated crosswalks at controlled locations.

f. No parking within one hundred feet of an intersection.

g. Ninety degree intersection angles (minimum seventy-five degrees).

h. Street alignments at intersections shall be continuous.

i. One hundred fifty-foot minimum distance between intersections.

8. Street lighting.

a. Mounting height: thirty feet to thirty-five feet.

b. Brightness: twenty-two thousand lumens sodium vapor (two hundred fifty watts).

9. Bicycle lanes.

a. Areas to be provided on each side of the street for combined emergency parking and bicycle use.

10. Sidewalks.

a. Conform to the City's standard drawings for the type of sidewalk selected.

11. Slope.

a. Maximum six percent slope.

12. Curves.

a. Minimum centerline radii of 40 mph at three hundred fifty feet.

2.04 DESIGN STANDARDS - COLLECTOR STREET

A. Function. To collect and distribute traffic from major and minor arterials to neighborhood collectors and local streets, or directly to traffic destinations.

B. Standards.

1. Right-of-way. Sixty feet.

2. Pavement width. Forty to forty-four feet; the standard is forty feet.

3. Number of moving lanes. Two to four.

4. Speed limit. Twenty-five to thirty miles per hour.

5. Access control.

a. Residential uses:

(1) Curb cuts forty-five feet to curb return (minimum), and no access if an alternative exists.

(2) No restrictions regarding left-hand turns.

b. Commercial uses:

(1) Curb cuts fifty feet to curb return (minimum).

(2) A maximum on one forty-five foot wide curb cut per one hundred fifty feet of street frontage of fraction thereof (shared driveways are encouraged).

(3) No restrictions regarding left-hand turns.

c. Industrial uses:

(1) Curb cuts one hundred feet to curb return (minimum).

(2) A maximum of one curb cut per one hundred fifty feet of street frontage or fraction thereof (shared driveways are encouraged).

(3) No restriction regarding left-hand turns.

6. Parking

a. Can be restricted on one side of the street, or both sides, or during peak hours.

b. No parking within twenty feet of a curb return.

7. Intersection design.

a. Signed as warranted at intersections with principal arterials, minor arterials and collectors.

b. Ninety degree intersection angles (minimum seventy-five degrees).

c. One hundred fifty feet minimum between intersection.

8. Street lighting.

a. Mounting height: twenty-five feet to thirty feet.

b. Brightness: nine thousand five hundred lumens sodium or (one hundred watts).

9. Truck restrictions.

a. Trucks over 10,000 GVW allowed on truck route only unless destination is to a residential, commercial, or industrial establishment.

10. Bicycle lanes.

a. Where parking is not allowed areas are to be provided on each side of the street for combined emergency parking and bicycle use.

11. Sidewalks.

a. Conform to the City's Standard Drawings for the type of sidewalk selected.

12. Slope

a. Maximum eight percent slope.

13. Curves

a. Minimum centerline radii at 30 mph is one hundred-seventy feet.

2.05 DESIGN STANDARDS - LOCAL STREETS

A. Function To provide direct access to abutting property and connect to collector streets.

B. Standards

1. Right-of-way. Sixty feet, the standard is fifty feet.

2. Pavement width. The standard is thirty-four feet.

3. Number of moving lanes. Two.

4. Speed limit. Twenty-five miles per hour.

5. Parking.

a. Parking allowed on both sides of the street.

b. No parking shall be allowed within twenty feet of the curb return.

6. Intersection design.

a. Ninety degree intersection angle (minimum seventy-five degrees).

b. One hundred fifty feet minimum between intersections.

c. Signed as warranted.

d. Street alignments at intersections shall be continuous.

7. Street lighting.

a. Mounting height: twenty-five feet.

b. Brightness: five thousand eight hundred lumens sodium vapor (seventy watts) or seven thousand lumens mercury vapor (one hundred seventy-five watts).

8. Truck restrictions.

a. No trucks shall be allowed except local delivery or service vehicles.

9. Bicycle lanes.

a. None.

10. Sidewalks.

a. Conform to the City's Standard Drawings for the type of sidewalk selected.

11. Slope.

a. Twelve percent maximum, unless otherwise approved by the city engineer.

12. Curves.

a. Minimum centerline radii of one hundred feet.

2.06 DESIGN STANDARDS - CUL-DE-SAC

A. Function. To provide direct access to abutting property.

B. Standards.

1. Traffic volume. Less than one hundred fifty trips per day.

2. Number of housing units served. Eighteen units.

3. Right-of-way. Sixty feet.

4. Pavement width. The standard is thirty-four feet.

5. Cul-de-sac radius. Cul-de-sac is fifty feet, pavement radius is forty-two feet.

6. Number of moving lanes. Two.

7. Speed limit. Twenty five miles per hour.

8. Parking.

a. Parking allowed on both sides of the street.

b. No parking shall be allowed within thirty feet of the curb return.

9. Intersections.

a. Ninety degree intersection angle (minimum seventy-five degrees).

b. One hundred feet minimum between intersections.

c. Signed as warranted.

d. Street alignments at intersections shall be continuous.

10. Street lighting.

a. Mounting height: twenty-five feet.

b. Brightness: five thousand eight hundred lumens sodium vapor (seventy watts)

11. Truck restrictions.

a. No trucks shall be allowed except local delivery or service vehicles.

b. No public transit buses allowed.

12. Bicycle lanes.

a. None.

13. Sidewalks.

a. Conform to the City's Standard Drawings for the type of sidewalk selected.

C. Generally. A cul-de-sac turnaround shall be provided at the end of a permanent dead-end street in accordance with the city's construction standards and specifications. For greater convenience to traffic and more effective police and fire protection, permanent dead-end streets shall, in general, be limited in length to six times the minimum lot width, serving no more than eighteen dwelling units, and not exceeding four hundred feet in length.

2.07 SIDEWALKS

Design standard for sidewalks shall conform to Standard Drawings No.'s ST-6, ST-7, ST-8, ST-9, ST-10, ST-11, ST-12.

2.08 CURBS

Design standards for curbs shall conform to Standard Drawings No. ST-4.

2.09 STORM SEWER

Design flows shall be determined by consideration of the following factors:

A. Drainage basin area to be served.
B. Land use within the area to be served.
C. Infiltration allowance.

Design calculations for storm sewers shall conform to the procedures outlined in the Oregon State Highway Division's Hydraulic's Manual and Standard Drawing No.'s STS-1 through STS-7.

SECTION 3.00 CLEARING AND GRUBBING

3.01 GENERAL

A. Clearing. Clearing shall consist of the felling or cutting of trees, snags, high stumps, brush and branches; the clearing away of down timber, vines, and vegetation and their disposal or the preservation of marketable timber when such preservation is specifically called for by the plans or special provisions.

B. Grubbing. Grubbing shall consist of the elimination of wooden and vegetative matter occurring at or below ground surface including but not limited to stumps, trunks, roots, canes, stems, debris remaining from clearing work, and sticks having a diameter of one inch or more.

3.02 LIMITS

A. Description. The areas on which clearing and/or grubbing is to be performed shall be as indicated on the plans or, if not so indicated, shall be as follows:

1. Those areas within the permanent improved width plus areas beyond the improved width which are to be occupied by pavements, curbs, walks, surfacings, slopes, or other structures to be built as part of the contract.

2. Along ditches, channels, proposed storm drains and appurtenances to the extent necessary to accomplish their construction.

3. Other areas, such as borrow areas, storage areas, materials sources and others when directed or as may be reasonably inferable from the plans.

B. Protection of Property. The Contractor will be required to limit his clearing and grubbing operations to the minimum necessary to accomplish the work and to protect, throughout the term of the contract, items which are to be preserved including lawns, shrubs, trees and similar objects, whether shown on the plans or not.

C. Confer with the Engineer. Before beginning any clearing, grubbing or removal work the Contractor shall confer with the Engineer as to the extent of the clearing areas, items which are to be preserved, disposal methods to be used and similar matters. The Engineer will stake or otherwise clearly delineate any clearing areas or items to be preserved, disposal methods to be used and similar matters.

3.03 CONSTRUCTION DETAILS

A. Description. Within the limits described, all vegetable growth such as trees, shrubs, brush, logs, upturned stumps and roots of down trees, and other similar items shall be removed and disposed of. All

trees shall be felled within the area to be cleared. Where the tree limb structure interferes with utility wires, or where the trees to be felled are in close proximity to utility wires, the tree shall be taken down in sections to eliminate the possibility of damage to the utility. Under all fills of more than five (5) feet, the tops of all stumps shall be cut off so that no portion of the stump shall remain within three feet of embankment subgrade or slope surface.

B. Prior Approval. The trimming of trees which interfere with the work or the Contractor's operations shall not be done by the Contractor without prior approval. When such approval is granted the trimming shall be done by competent professional personnel specializing in such work and in a manner satisfactory to the Engineer.

C. Refuse Removal. The refuse resulting from the clearing and/or grubbing operation shall be hauled to a waste site secured by the contractor and shall be burned or buried in such a manner as to meet all requirements of State, County, and municipal regulations regarding health, safety, and public welfare. All Federal and State laws relating to fire permits and local regulations regarding burning such materials shall be observed. In all cases, the authority to burn shall not relieve the Contractor in any way from damages which may result from his operations. In no case shall any material be left on the project, shoved onto abutting private properties, or be buried on the project unless a letter of consent is received by the Engineer from said property owner. Clearing operations shall be carried well in advance of the construction operations so as to permit a well planned schedule of work.

3.04 PROTECTION OF EXISTING IMPROVEMENTS

A. Notify Affected Agency. When it is necessary to remove stumps and where there are surface or subsurface improvements, the Contractor shall be responsible for determining which of the agencies, public or private, have underground or service utilities in the vicinity of the stump to be removed; and further, he shall notify each agency and request its assistance in locating its services. The Contractor will not be responsible for the cost of locating services.

B. Root and Stump Removal. Where telephone cable and/or ducts, water mains, gas mains, steam mains, and sewer trunks exist and are likely to be damaged, special care shall be taken, and roots of stump shall be cut off in such manner that the existing utility installations will not be damaged in any way.

C. Surface Improvements. Repair of damage to surface improvements shall be the responsibility of the Contractor, excepting however, he will not be required to assume responsibility for walks, curbs, and curb and gutters which, previous to his operations are considered by the Engineer to be beyond repair.

D. Private Property Owners. If the Contractor removes stumps for private property owners along the project, he shall be responsible for all damage resulting therefrom.

SECTION 4.00 EXCAVATION AND BACKFILL

4.01 GENERAL

A. General excavation. General excavation shall consist of all grading, leveling, ditching, backfilling, embankment construction and other earth moving work required for the construction of the project except trench excavation and backfill, and such other earthwork as may be specifically included and provided for as incidental to other items of construction under the contract.

B. Fill construction. Fill construction shall consist of constructing embankments, including the preparation of the areas upon which they are to be placed; the construction of dikes; the placing and compacting of approved material within areas to be backfilled; and the placing and compacting of material in holes, pits, and other depressions.

4.02 MATERIAL

A. Unsuitable Material. Material shall be considered unsuitable for fill, backfill, subgrade, shoulders and other uses if it contains organic matter, soft spongy earth, or other matter of such nature that compaction to the specified density is not obtainable.

Material that is unsuitable for the intended use, shall be excavated and removed from the site or otherwise disposed of as directed by the Engineer.

Debris and loose material shall be removed. When completed the average plane of the slopes shall conform to the slopes indicated on the plans and no point on the completed slopes shall vary from the designated plane surface by more than the tolerance determined the the Engineer to be appropriate to the material being sloped.

B. Surplus Material. No surplus excavated material shall be disposed of within the right-of-way. The Contractor shall make all arrangements for disposal of the material at off-site locations and shall upon request, file with the Engineer the written consent of the owner of the property upon which he intends to dispose of such material.

If the quantity of surplus material is shown or specified, it is approximate only. The Contractor shall satisfy himself that there is sufficient material available for the completion of the project before disposing of any indicated surplus material. Any shortage of material caused by premature disposal of surplus material by the Contractor shall be replaced by him, and no compensation will be allowed the Contractor for such replacement. The provisions of this paragraph apply to all uses of excavated materials which may be encountered on the project including backfilling of subgrade over-excavation, embankment construction, backfill at structures, behind curbs and walks and incidentals.

C. Select Material. Select material shall be considered as material which is available within the right-of-way and limits of the project which can be compacted to the densities specified.

When practicable, select material shall be hauled directly from excavation to its final position in the roadway prism and compacted in place.

Select material shall remain in place until it can be placed in final position as provided above, except that if ordered in writing by the Engineer, select material may be excavated and stockpiled at locations designated by him and later placed in final position in the roadway prism.

4.03 WORKMANSHIP

A. Slides and Slipouts. Material outside the planned roadway or ditch slopes which is unstable and constitutes potential slides, in the opinion of the Engineer, material which has come into the roadway, channel or ditch, and material which has slipped out of new or old embankments shall be excavated and removed. The material shall be excavated to designated lines or sloped either by benching or in such manner as directed by the Engineer. Such material shall be used in the construction of the embankments or disposed of as directed by the Engineer.

The above provisions shall not be so construed as to relieve the Contractor of his obligation to maintain all slopes true and smooth.

B. Slopes. Excavation and embankment slopes shall be finished in conformance with the lines and grades shown on the plans.

C. Finishing and Cleanup. All roadbeds, planting areas, ditches, embankments and other areas on which earth work is performed shall be trimmed reasonably close to established lines, grades, and cross sections and shall be finished in a thoroughly workmanlike manner. They shall be kept free, throughout the work, of debris and foreign matter of all kinds and prior to final acceptance the entire right-of-way shall be cleaned up and finished as directed.

D. Placing. When fill is to be made and compacted on hillsides or where new fill is to be compacted against existing fill or where embankment is built one-half width at a time, the slopes of original hillsides and old or new fills shall be benched as shown or directed by the Engineer as the fill is placed. A new bench shall be started wherever the vertical cut of the next lower bench intersects the existing ground. Material thus cut out shall be recompacted along with the embankment material at the Contractor's expense.

Clods or hard lumps of earth of six (6) inches in greatest dimension shall be broken up before compacting the material in embankment, except as provided in the following paragraph.

When the fill material includes large rocky material, or hard lumps, such as hardpan or cemented gravel which cannot be broken

readily, such material shall be well distributed throughout the fill. Sufficient earth or other fine material shall be placed around the larger material as it is deposited so as to fill the interstices and produce a dense, compact fill. However, material greater than six (6) inches in size shall not be placed within two (2) feet of the finished grade of the fill.

E. Compacting. Fill shall be constructed in compacted layers of uniform thickness and each layer shall be compacted in accordance with the requirements herein specified.

The construction of dikes, the placing and compacting of approved material within the right-of-way where unsuitable material has been removed, and the filling of holes, pits and other depressions within the right-of-way, shall conform to all of the requirements herein specified for compacting fills.

The loose thickness of each layer of fill material shall not be greater than that which can be compacted to the specified density with available equipment, except as provided in the following paragraph for rocky material.

When fill material contains by volume over 25% of rock larger than six (6) inches in any dimension the fill below a plane three feet below finished grade may be constructed in layers of a loose thickness before compaction not exceeding the maximum size of rock in the material but not exceeding three feet in thickness. The interstices around the rock in each layer shall be filled with earth or other fine material and compacted.

Broken Portland cement concrete pavement obtained from the project excavations will be permitted in the fill with the following limitations:

1. The maximum dimension of any piece used shall be twelve (12) inches.

2. Pieces larger than four (4) inches shall not be placed within twelve (12) inches of any structure.

3. Pieces larger than two and one-half (2-1/2) inches shall not be placed within twelve (12) inches of the subgrade for paving.

4. All such materials shall be uniformly distributed throughout the fill.

At the time of compaction, the moisture content of fill material shall be such that the specified relative density will be obtained and the fill will be firm and unyielding. Fill material which contains excessive moisture shall not be compacted until the material is dry enough to obtain the required compaction.

All materials which are susceptible to testing for density by the methods set forth below shall be compacted in place by whatever

equipment and method necessary to provide the specified density, and at a moisture content within plus 2 to minus 4 percentage points of optimum.

The density of compacted materials in place shall be determined in compliance with AASTHO T 191 or such other method of test as the Engineer may approve.

The relative maximum density and optimum moisture of the material which is compacted in place will be determined in compliance with AASTHO T 180 or such other method of test as the Engineer may approve.

In embankments, fills, and backfills the compacted materials within three (3) feet of established subgrade elevation shall have a density in place of not less than 95 percent of relative maximum density. Below said three (3) foot limit the in place density shall be not less than 90 percent of relative maximum.

In roadbed cuts and foundations for structures the compacted materials to a depth of one foot below subgrade or foundation elevation shall have a density in place of not less than 95% of relative maximum.

Materials which are not susceptible to testing as described above shall be compacted in place by whatever means is practicable or specified and at a moisture content as required to provide a dense, firm material in place which will show no appreciable deflection or reaction under the compacting equipment involved.

F. Watering. Watering as may be required for preparation of subgrades, embankments, backfills, sub-bases, bases, foundations and the prevention or alleviation of dust shall be performed as necessary or as directed. The Contractor shall make all arrangements necessary for the procurement of water and its application.

G. Borrow Excavation.

1. Description. Borrow material is defined as material obtained from areas lying outside of, separated from planned roadbed excavation or other required excavation within the project limits. Borrow shall be provided by the contractor only when called for by the plans or special provisions, or when specifically directed by the Engineer.

2. Sources. Specific sources of borrow material and any special conditions under which the materials are to be taken therefrom will be set forth in the Detailed Construction Specifications.

3. Placing. Borrow shall be placed and compacted as specified in Section 4.03 of these Standard Specifications.

H. Subgrade Preparation.

1. Description. This section shall govern the preparation of natural or excavated areas prior to the placement of subbase or base

material, pavement, curbs and gutters, driveways, sidewalks or other structures.

2. Relative Compaction. Shall be as specified in Section 4.03-E of these specifications. The density of materials in place shall be determined in compliance with AASHTO T 191 or such other method of test as the Engineer may approve.

The relative maximum density and optimum moisture of the material in place shall be determined in compliance with AASHTO T 180 or such other method of test as the Engineer may approve.

In roadbed cuts and foundations for structures the compacted materials to a depth of one foot below subgrade or foundation elevation shall have a density in place of not less than 95% of relative maximum.

3. Subgrade tolerance. Subgrade upon which pavement, sidewalk, curb and gutter, driveways, or other structures are to be directly placed shall not vary more than .04 foot from the specified grade and cross section. Subgrade upon which subbase or base material is to be placed shall not vary more than .04 foot from the specified grade and cross section at any point. Variations within the above specified tolerances shall be compensating so that the average grade and cross section specified are met.

4. Grading of areas not to be paved. When specified, areas within and adjacent to the project which are intended for lawns, planting areas, flower beds and similar uses shall be finished with four (4) inches of topsoil and graded smooth as directed. Topsoil, for such finishing shall be fertile, loamy natural surface soil consisting of sands, silts, clays and organic matter and shall be free of toxic substances, weeds, roots, refuse, sticks, large rocks or lumps. Topsoil available from required excavation shall be used to the greatest extent possible in this work and the provisions of Section 4.00, prohibiting the premature disposal of suitable materials shall apply to topsoil materials.

SECTION 5.00 AGGREGATE

5.01 GENERAL

The aggregates discussed in this section cover their use in the subbase, base, flexible pavement, and portland cement concrete.

5.02 MATERIALS

A. Aggregate for sub-base.

1. Definition. Aggregates for sub-base shall be crushed gravel or rock, including sand and shall be reasonably well graded from coarse to fine. The aggregate fraction passing a 1/4" sieve shall constitute not less than 10% not more than 50% of the whole, by weight, and not more than 8% of the total aggregate shall pass a No. 200 sieve. Within the above limits the aggregate shall be so graded that the materials will be dense and firm when watered and compacted.

2. Tests. In addition to the above gradation requirements the aggregate shall be clean, sound and durable, and will be subject to testing for physical properties as follows:

Property	Test	Requirement
Abrasion Resistance	AASHTO T 96	Wear = 45% maximum
Sand Equivalent	AASHTO T 176	S.E. = 25 minimum
Sieve Analysis	AASHTO T 27	See gradation table III-1

3. Placing. The work shall consist of the furnishing and placing of one or more courses of aggregate and water as subbase on a prepared surface in accordance with these Specifications and as shown on the plans or established by the Engineer.

B. Aggregate for base.

1. Definition. Aggregates for base shall be crushed rock.

2. Tests. Aggregates shall conform to tests set forth on page 617 of Standard Specifications for Oregon State Highway Construction, last revised in 1984, sections 703.07 (b) Durability, and (d) Liquid limit and plasticity, and also passing Liquid Limit and Plasticity Index Values and Grading Requirements for Base Aggregates on page 618, same source.

Property	Test	Requirement
Abrasion Resistance	AASHTO T 96	Wear = 35% maximum
Plastic Fines	AASHTO T 176	S.E. = 30 minimum
Sieve Analysis	AASHTO I 27	See Table III-1

Table III-1

(Base and Subbase Aggregate Gradation)

Sieve Size	Designated Size				
	2 1/2"-0	2"-0	1 1/2"-0	1"-0	3/4" -0
Retained* On:					
3"	0				
2 1/2"	0-5	0			
2"		0-5	0		
1 1/2"			0-5	0	
1"				0-10	0
3/4"					0-10
Passing* - Retained*					
2 1/2" - 1 1/4"	20-40				
2" - 1"		20-40			
1 1/2" - 3/4"			20-40		
1" - 1/2"				20-40	
3/4" - 3/8"					20-40
1/4" - 0	30-45	30-45	35-50	40-55	40-60
1/4" - No. 10	40-60	40-60	40-60	40-60	40-60

* Percentage by Weight

3. Placing. The work shall consist of the furnishing, and placing of one or more courses of aggregate and water as base on a prepared surface in accordance with these Specifications and as shown on the plans or established by the Engineer.

C. Aggregate for flexible pavements.

1. General. Aggregates for asphaltic concrete pavements shall meet the requirements of this Section, subject to such modifications of the specified gradation as may be necessary to produce the mix proportions specified in Section 6.00 of these Specifications.

2. Tests. In addition to the above, aggregates for flexible pavements will be subject to testing for the following properties:

Property	Test	Requirement
Sieve Analysis	AASHTO T 27	See Table III-2
Cohesion	AASHTO T 165	70% retained strength
Abrasion Resistance	AASHTO T 96	Wear = 30% maximum

3. Coarse Aggregate. The portion of the aggregate retained on the 1/4 inch sieve will be known as Coarse Aggregate. Coarse Aggregate shall be crushed rock or crushed gravel free from flat, elongated, soft or disintegrated pieces and other extraneous matter or coatings. The Coarse Aggregate, when separated on consecutive sieves, shall contain in each fraction not less than 60% (by weight) of fragments which have at least one mechanically fractured face.

Table III-2

(Coarse Aggregate Requirements)

Sieve Size	Designated Sizes 3/4"-1/4"	1/2"-1/4"	3/8"-1/4"
1"	100	100	100
3/4"	90-100	100	100
1/2"	60-75	85-100	100
3/8"			85-100
1/4"	0-15	0-15	0-15

4. Fine Aggregate. That portion of the aggregate passing the 1/4 inch sieve shall be known as Fine Aggregate and shall consist of crushed rock, crushed gravel, sand or other mineral matter and shall be free of clay, loam, vegetation or other extraneous matter or coatings. The grading of the fine aggregate (designated size 1/4"-0) for all classes of asphalt concrete shall conform to the following requirements:

Percentage passing 3/8-inch sieve	100
Percentage passing 1/4-inch sieve	85-100

Of the fraction passing the 1/4-inch sieve, the following percentages thereof shall pass the No. 10 sieve:

Class of Asphalt Concrete	Percentage Passing
Class "B"	42.5 - 57.5
Class "C"	42.5 - 57.5
Class "D"	48.0 - 66.0
Class "E"	18.0 - 33.0

5. Mineral Filler. Mineral filler shall conform to AASHTO M 17. Collector dust may be used as Mineral filler, in whole or in part, provided the dust or filler/dust mixture conforms to the requirements of AASHTO M 17.

D. Aggregate for Portland Cement Concrete (PCC).

1. Coarse aggregate. Coarse aggregate for PCC shall consist of crushed stone, gravel, or other approved inert materials or combinations thereof having hard strong, durable pieces free of adherent coatings.

Table III-3
(PCC Coarse Aggregate Gradation)

Sieve Sieve Passing	Separated Sizes 2" - 1"	1-1/2"-3/4"	1" - No. 4	3/4" - No. 4
2 1/2"	100			
2"	90-100	100		
1 1/2"	35-70	90-100	100	
1"	0-15	30-65	90-100	100
3/4"	-	0-15	50-80	90-100
3/8"	-	-	15-40	20-50
No. 4	-	-	0-10	0-10

2. Fine Aggregate. Fine aggregate for PCC shall consist of sand or other approved inert materials or a combination thereof having hard, strong, durable particles. Stone screenings shall not be used in fine aggregate without written permission and, if allowed, shall be produced from the crushing of rock having a percentage of wear not exceeding 30 (AASHO T 96), and otherwise meet the requirements of this section.

3. Tests. Aggregate for PCC may be subject to testing for the following physical properties:

Property	Test	Requirement
Sampling	AASHTO T 2	
Material passing No. 200 sieve	AASHTO T 11	4% weight maximum
Organic Impurities	AASHTO T 21	AASHTO M-6-65
Sieve Analysis	AASHTO T 27	See grading requirement See Tables III-3,4
Abrasion	AASHTO T 96	Wear = 30% maximum
Soundness	AASHTO T 104	10% loss maximum
Friable Particles	AASHTO T 112	1% (by weight) maximum
Light Weight Pieces	AASHTO T 113	1% (by weight) maximum
Plastic Fines	AASHTO T 176	75 minimum

Table III-4
(PCC Fine Aggregate Gradation)

Sieve Size	% Retained (by weight)
3/8"	0
No. 4	0-10
No. 16	25-55
No. 30	45-75
No. 50	70-95
No. 100	95-100

5.03 WORKMANSHIP BASE COURSE

A. Preparation of Foundation. All surfaces and materials on which subbase or base is to be constructed shall be firm and shall be prepared as specified in Section 4.00 of these Standard Specifications.

B. Spreading Materials. Base materials may be spread by any method that will result in an even distribution of the material upon the roadway without perceptible separation in gradation. The method of spreading and the field operation shall be satisfactory to the Engineer at all times. Should there occur during any stage of the surfacing or stockpiling a separation of the coarser from the finer materials causing serious lack of uniformity in the grading the Contractor shall immediately make changes in the method of handling such as will prevent separation.

C. Width and thickness of layers. If the required compacted depth of any subbase or base course exceeds 6 inches it shall be constructed in two or more layers of approximately equal thickness. The maximum compacted thickness of any one layer shall not exceed 6 inches.

Each layer shall be placed in spreads as wide as practicable and to the full width of the course before a succeeding layer is placed.

D. Compaction. At the time compacting begins the materials shall be at optimum moisture content, plus or minus 2%. Compaction of each layer shall continue until a density of 95% or Relative Maximum Density has been obtained. Water shall be added to the materials, as necessary during the compaction, to maintain the proper moisture content and upon completion of each layer the contractor shall maintain the materials in specified condition until it is covered by the following layer or course.

E. Hauling. Hauling shall be distributed over the roadway in such a manner as to be most effective in the compacting of the surfacing. Hauling over any of the surfacing in process of construction will not be permitted when, in the opinion of the Engineer, the effect will be detrimental. The Contractor shall not haul loads in excess of the legal load or speed limit.

F. Correction of Surface Defects. Should irregularities develop in any surface during or after rolling, they shall be remedied by

loosening the surface and correcting the defects after which the entire area, including the surrounding surface, shall be re-rolled until thoroughly compacted. The finished surface shall be true to the proper grade and crown before proceeding with the surfacing.

G. Unfavorable weather. When, in the opinion of the Engineer, the weather is such that satisfactory results cannot be secured, the Contractor shall suspend operations until the weather is favorable. No materials shall be placed in the snow or on a soft, muddy or frozen subgrade.

H. Surface tolerance. The surface of any subbase course shall be finished true to line, grade and cross section within a tolerance of plus or minus 0.04 feet. The surface of any base or aggregate top course shall be finished true to line, grade and cross section within a tolerance of plus or minus 0.04 feet. Within the above tolerance errors shall be compensating so that the average grade and cross section are maintained throughout.

SECTION 6.00 ASHPALT CONCRETE

6.01 GENERAL

This specification applies to the construction of one or more courses of asphalt concrete pavement on a prepared base in close conformity to the lines, grades, thicknesses and cross sections shown on the plans or established by the Engineer.

Asphalt concrete shall consist of a hot mixture of asphalt cement; well graded high quality; mineral filler and additives as required; plant mixed to a uniformly coated mass, hot laid on a prepared foundation, and compacted to near ultimate density.

6.02 MATERIALS

A. Class. This specification provides for several classes of asphalt concrete, wherein the classes differ one from another in sizes of aggregates and in proportions of aggregate and asphalt cement. Which of the classes is to be used shall be as shown on the plans or as directed by the Engineer, and shall conform to the requirements of these specifications.

B. Proportions. The exact proportions of the several constituents to be used in the production of the mixture shall, within the limits specified in Table III-5, be fixed by the Contractor. The proportions so established shall be known as the "mix" of "mix formula" and shall be changed only with the approval of the Engineer.

Table III-5
(Asphalt Concrete Mix Proportions)

Table III-5

Sieve Size Passing	Class "B"	Class "C"	Class "D"	Class "E"
	Percentages of Total Aggregate (by weight)			
1"	100	-	-	-
3/4"	95-100	100	-	-
1/2"	-	95-100	-	100
3/8"	-	-	100	90-100
1/4"	52-72	65-85	85-100	51-71
No. 10	21-41	30-45	48-66	10-20
No. 40	8-24	8-26	20-35	-
No. 200	3-7*	3-7*	4-8*	2-6*
Asphalt Cement	4-8	4-8	4-8	4-9

* Percentage of total mix (by weight)

C. Tolerances. After the mix formula is established as prescribed above, the several constituents of the mixture furnished the Contract shall conform to the mix formula within the tolerances specified in Table III-6, but always within the pertinent limits Table III-5.

Table III-6

(Asphalt Concrete Mix Tolerances)

Constituents Aggregate	Tolerance*
Passing 1/4" Sieve or larger	5.0
Passing No. 10 Sieve	4.0
Passing No. 40 Sieve	3.0
Passing No. 200 Sieve	0.3

*Plus or Minus Percentage

Each day the Engineer shall be permitted to take as many samples as he considers necessary for checking the uniformity of the mixture. When unsatisfactory results or other conditions make it necessary to desirable, the Engineer may require a new mix formula.

D. Feathering. Asphalt concrete for use in feathering at curb or gutter lines, at intersections, at connections with existing pavement, in spot patching, and under similar conditions, shall be a fine mix of asphalt concrete such as Class "D" mix.

E. Aggregate. Aggregate shall conform to the pertinent parts of Section 5.00 of these Specifications.

F. Asphalt Cement. Asphalt Cement shall be "Aged Residue" (AR) grades; AR-1000, AR-2000, AR-4000, AR-8000, and AR-16000; and shall conform to those specifications shown in Table III-7. The Contractor may elect which of the grades to use with the understanding that the Engineer may order the use of a different grade when he determines that such use is necessary to produce the specified finished pavement.

Table III-7

(Asphalt Cements Viscosity - Graded at 140° F (60C) on RTFC Residue)

SPECIFICATION DESIGNATION	AASHTO Test	Viscosity Grade AR-1000	AR-2000	AR-4000	AR-8000	AR-16000
Tests on Residue from Protected-Calif. Method 346E*						
Absolute Viscosity at 140° F, poise	T-202	750-1,250	1,500-2,500	3,000-5,000	6,000-10,000	12,000-20,000
Kenematic Viscosity at 275°F, cs, min	T-201	140	200	275	400	550
Penetration at 77°F, 100g/5 sec, min.	T-49	65	40	45	50	52
Percent of original penetration at 77° F, min.	***		40	45	50	52
Ductility at 77° F, cm, min.	T-51	100**	100**	75	75	75
TEST ON ORIGINAL ASPHALT						
Flash point, Pensky-Martens, deg. F, min.	T-73	400	425	440	450	460
Solubility in Trichlorethylene percent, min.	T-44	99	99	99	99	99

*TFO may be used but RTFC shall be the referee method.

**If the ductility at 77 deg. is less than 100 cm., the material will be acceptable if its ductility at 60 deg. is more than 100 cm.

***Original penetration as well as penetration after RTFC loss will be determined by AASHTO Test Method T-49.

G. Temperature. The temperature to which the aggregates and asphalt cement are to be heated and at which the asphalt concrete mixture is to be deposited and spread shall be as follows:

Degrees Fahrenheit to which aggregates are to be heated before mixing. . . . . .250 to 325

Degrees Fahrenheit to which asphalt cement is to be heated upon entry into the mixer . . . . . .250 to 325

Degrees Fahrenheit at which asphalt concrete mixture is to be deposited on the road. . . . . .250 to 300

6.03 WORKMANSHIP

A. Weather Limitations. Asphalt concrete shall be placed where the surface temperature is 40° F. and rising, or above 50° F. when the temperature is falling. Placing of asphalt concrete during a rain normally will not be permitted, except that asphalt concrete in transit at the time of a sudden rain shower may be laid provided it is of proper laying temperature and it is placed on a base free from pools of water. When weather conditions are such as to necessitate such protection, each load of asphalt concrete shall be covered with a tarpaulin while in transit to prevent unnecessary loss of heat or to protect the mixture from the weather.

B. Paving Plant and Equipment. All plant and equipment used by the Contractor in the preparation and mixing of asphalt concrete shall be so designed, coordinated and operated as to produce uniform mixtures within the job-mix requirements set forth in these Specifications.

C. Equipment for Hauling and Placing.

Trucks - Vehicles used for the transportation of asphalt concrete shall have tight metal bottoms and shall be free from dust, screenings, petroleum oils, volatiles or other mineral spirits which may affect the mix being hauled.

Pavers - Asphalt concrete pavers shall be self-contained, power-propelled units, capable of spreading the mix to the required tolerances. In areas where it is impractical to spread and finish by use of such pavers, the contractor may use other spreading equipment or hand methods approved by the Engineer.

Rollers - Rollers and compactors shall be modern, self propelled, in good condition, and capable of reversing without backlash. The term "rollers", as used herein refers generally to 2-axle or 3-axle tandem, 3-wheel, and pneumatic tire rollers. Compactors may include vibratory types of rollers or compactors or other compacting equipment approved by the Engineer.

D. Preparation of Area to be Paved.

The area to be paved shall be true to line and grade, and have a dry and properly prepared surface prior to the start of paving operations. It shall be free from all loose screenings and other loose or foreign material.

All asphalt concrete or portland cement concrete surfaces on or against which asphalt concrete is to be placed shall be primed by the application of the prime or tack coat shall precede the paving operation only so far in advance as is appropriate to insure tackiness.

The surfaces of curbs, gutters, vertical faces of existing pavements and all structures in actual contact with asphalt mixes shall be painted with a thin, complete coating of emulsified asphalt mixes to provide a closely bonded, water-tight joint.

E. Control of Line and Grade.

The asphalt concrete mixture shall be laid to the width, lines, grades, thicknesses and cross sections as shown on the Plans or as directed by the Engineer.

The Engineer will establish controls for the work and will set references for line and grade at reasonable intervals along work.

The Contractor shall furnish, place and maintain such materials, devices and equipment as may be required to provide specified independent line and grade control references and other controls which may be required for proper execution of the work.

F. Hauling, Spreading and Finishing.

The asphalt concrete mixture shall be transported from the mixing plant to the point of use in trucks conforming to the requirements set forth in Sec. 6.03 C. No loads shall be sent out so late in the day as to prevent the spreading and compacting of the mixture during daylight, unless artificial light satisfactory to the Engineer is provided.

The mixture shall be laid in strips of such width as to hold to a practical minimum the number of longitudinal joints required.

The longitudinal joints in any layer or course of pavement shall offset those in layers or courses above or below by not less than 6 inches.

Special care shall be taken at longitudinal joints to provide bond and requires density.

When the capacity of the paver to spread properly and finish the asphalt concrete mixture exceeds the rate of delivery of mixture thereto, the paver shall be operated at a reduced and uniform speed which will result in as continuous spreading and finishing as is practicable.

The plan of the work, order of paving and other details of performance shall meet with the approval of the Engineer.

Care shall be taken at all times to prevent segregation in the mixture as evidenced by areas of fine and coarse materials, and any portions where such segregation occurs shall be corrected at the Contractor's expense with fresh mixture either spread and worked into the surface of by complete removal and replacement of segregated mixture, as directed by the Engineer.

G. Compacting.

After the spreading, striking-off and finishing has been performed and while the mixture is still hot, the course or layer of asphalt concrete shall be compacted thoroughly and uniformly with compacting equipment conforming to the requirements of Section 6.03.

On all projects, the Contractor shall provide as many rollers or compactors as may be necessary to obtain specified density of the asphalt concrete. At least one roller shall be of the tandem type.

Initial rolling for at least one complete coverage shall be done in as close proximity to the paver as possible without undue displacement, cracking or shoving of the mixture. Rolling shall be with a drive roll or drive wheels operated nearer the paver.

The final rolling of a base course or of the lower layers of pavements may be with the pneumatic tire roller provided the course or layer is thus compacted to specified density and the surface is thus brought to specified surface smoothness (see Section 6.03 J); otherwise the final rolling of the base surface course or top layer of the pavement shall be with a tandem roller.

The final rolling of the wearing surface course or top layer of the pavement shall be with a tandem roller.

Rolling shall begin at the sides and progress gradually to the center of the roadway, except that on superelevated curves rolling shall progress from the lower to the upper edge parallel with the center line of the road until the entire surface has been completely rolled. Alternate trips of a roller shall terminate in stops at least 3 feet distant longitudinally from adjacent preceding stops.

The motion of the roller at all times shall be slow enough to avoid displacement of the hot mixture. Any rolling practice which causes displacement of the mix or other defect shall be corrected at once.

The rolling and compacting of the asphalt concrete shall compress the asphalt concrete mixture to a density of not less than 92 percent of the density obtained on a core or cut sample of the field compacted asphalt concrete by means of the Oregon State Highway Department's Standard laboratory procedure for the compacting of asphalt concrete.

Failure to obtain specified density shall constitute cause for rejection of the pavement involved and replacement at the Contractor's expense with pavement conforming fully with all specified requirements.

Any mixture that becomes loose or broken, mixed with dirt, or is any way defective shall be removed and replaced at the Contractor's expense with fresh hot mixture, which shall be compacted to conform with the surrounding area.

H. Transverse Joints.

Placing of a course or strip of asphalt concrete shall be as nearly continuous as practicable. Transverse joints shall be carefully constructed and thoroughly compacted to provide a smooth riding surface.

When the end of a course or strip of asphalt concrete is to be temporarily subjected to traffic, the end shall be on a bevel of approximately 20:1 (horizontal to vertical), being later cut back to a vertical edge to provide a fresh surface against which subsequently placed asphalt concrete is to abut.

I. Thickness and Number of Layers.

Asphalt concrete shall be placed in the number of courses and to the total compacted thickness per course called for by the typical cross sections given on the plans.

In case the course of pavement involves the placing of a layer of variable thickness, as for leveling existing irregular surfacings, the course may include or consist of a layer of asphalt concrete of variable compacted thickness, the thickness of which layer shall not exceed the following:

Type of Mix	Maximum Compacted Thickness of Layers
"A"	4 inches
"B"	3 inches
"C" and "E"	2 inches
"D"	1 inch

The top surface of each layer of asphalt concrete shall be spread at grade and cross section closely paralleling the specified top surface of the finished pavement.

J. Surface Smoothness. The surface of each course or each layer of asphalt concrete, when finished, shall be of uniform texture, smooth, true to slope and grade and free from defects of all kinds. The smoothness shall be such that when tested with a 10-foot straightedge placed on the surface with its centerline parallel to the centerline of the roadway and with a crown or cross section template conforming to the crown or cross section shown on the plan placed on the surface perpendicular to the center line of the roadway, the deviations of the surface from the edge of the straightedge and template will nowhere exceed the following: 0.015-foot on wearing surfaces or top courses of pavement, and 0.02-foot on other courses or layers or pavement.

K. Provision for Traffic.

Provisions shall be made for the control and protection of traffic when paving operations are being performed. Wherever an exposed edge of asphalt concrete, either old or new, lies along the outer or shoulder edge of a traffic lane and creates a drop-off exceeding 3 inches, warning and protective measures shall be provided by the Contractor, which measures shall mark the edges at intervals sufficiently close to delineate the alignment of the exposed edge and shall be clearly visible to the traveling public by day and by night.

No traffic shall come in contact with asphalt concrete until it has cooled and set sufficiently to prevent marking, and edges shall be protected from being broken down by traffic to the extent practicable.

SECTION 7.00 PORTLAND CEMENT CURBS AND SIDEWALKS

7.01 GENERAL

This item shall include the work necessary for the installation of concrete curbs, sidewalks, and driveways, but not limited to furnishing, forming, placing and curing concrete, placing construction joints, furnishing and placing premolded filler, placing grout for bonding new concrete to old, and all other miscellaneous items not specified or provided for elsewhere, necessary to construct the concrete curbs and sidewalks to the grades shown on the plans. Concrete curbs and walks shall be constructed so that they do not deviate more than one-fourth (1/4) inch laterally or vertically more than one-eighth (1/8) inch from the required line or grade. They shall conform with Standard Drawings No's. ST-5 through ST-9. Concrete driveways shall conform to Standard Drawings ST-13 and ST-14.

At the Contractor's option, with the approval of the Engineer, PCC pavement may be constructed within stationary side forms or by the use of slip form paving equipment.

7.02 MATERIALS

The cement, fine and coarse aggregates, water, reinforcing steel, joint fillers and other materials used shall conform to the following requirements:

A. Cement.

1. General Requirements. The Contractor shall furnish one or another of the following types as he may elect:

Type	Specification
I	AASHTO M 85
II	AASHTO M 85
III	AASHTO M 85
IA	AASHTO M 134
IIA	AASHTO M 134
IIIA	AASHTO M 134

*When low alkali cement or moderate sulfate resistance is required such additional requirements will be stated in the Special Provisions.

The approval of the Engineer will be required for any change in type, brand or source of supply of the cement which the Contractor may wish to make. Material certifications will be accepted in lieu of samples and tests as set forth in the General Conditions.

B. Storage on the Site.

Cement shall at all times be adequately protected from rain and dampness. Any cement which in the opinion of the Engineer contains lumps that will not be pulverized in the mixer will be rejected.

If the cement has lost strength during the period of storage, as shown by tests of the Engineer, sufficient additional cement shall be added to the mix at the Contractor's expense to overcome such loss, or the cement may be rejected. The amount of cement to be added to the mix shall be determined by the Engineer and shall be final and binding upon the Contractor.

Concrete aggregates shall be manufactured from ledge rock, or sand and gravel in accordance with the provisions of Section 5.02D, of these Specifications.

Water for use in mixing or curing concrete shall be subject to the approval of the Engineer. It shall not be salty or brackish and shall be reasonably clear and free from oil, acid, injurious alkali or vegetable matter. Testing shall be in accordance with AASHTO T-26. Water known to be potable may be used without testing.

C. Reinforcing Steel.

1. Deformed steel bars. Deformed steel bars for concrete reinforcement shall conform to the requirements of ASTM a 615, Grade 40. If the plans call for high strength bar reinforcement, such bars shall be Grade 60.

Bars shall be free from loose mill scale, dirt, grease or other defects affecting the strength or bond with the concrete.

2. Welded Wire Fabric. Welded wire fabric for concrete reinforcement shall conform to ASTM A 185. (AASHTO M 55).

3. Cold Drawn Wire shall conform to the requirements of ASTM A 82, (AASHO M 32).

D. Air Entraining Admixtures. Each brand of air-entraining admixture intended for use shall be subject to testing and approval by the Engineer. Testing when required will be in conformance with AASHTO T 157 and AASHTO T 137, or such portions of these specifications as may be deemed pertinent by the Engineer. The cost of any additional cement which may be required because of the use of the approved admixture shall be borne by the Contractor.

E. Curing Materials. Curing materials shall conform to the following requirements:

Curing materials shall conform to the following requirements:

Cotton Mats	AASHTO M 73
Burlap Cloth	AASHTO M 182
Waterproof Paper	AASHTO M 139
Liquid Membrane	AASHTO M 148
Polyethylene Sheeting	AASHTO M 171

F. Proportioning.

Before beginning any concrete work the Contractor shall, at the Engineer's request, have the concrete mix designed and submit the mix design for approval. The mix design shall be tested by a laboratory approved by the Engineer by preparing trial batches from each of which 4 standard test cylinders shall be cast, cured and tested as specified for the job concrete. Certified copies of all laboratory reports, stating whether or not the items reported meet specifications, shall be sent directly to the Engineer from the testing laboratory. The mix shall be designed to meet the following requirements:

Property	Requirement	Test
Compressive Strength at 28 days	3,000 psi min.	AASHTO T 23 and AASHTO T 22
Water/Cement Ratio	0.53 lb./lb. max	
Entrained Air	3 to 6% by vol.	AASHTO T 152
Maximum Size of Coarse Aggregate:		
Plain PCC	2 1/2", 2" or 1 1/2"	
Reinforced PCC	1 1/2"	
Cement Factor	564 lbs. per c.y.	AASHTO T 121 or AASHTO T 178
Slump	3 inches max.	AASHTO T 119

The proportion of water used shall be held to the minimum practicable consistency with the production of a workable, dense, uniform concrete.

Changes in proportions may be ordered by the Engineer at any time whenever he determines such change is necessary to the proper completion of the work.

Air entrainment may be accomplished through the use of air-entraining cement, admixtures, or both.

If it becomes impossible to obtain concrete of the desired plasticity and workability with the proportions originally designated, the Engineer shall change aggregate weights as required, maintaining the cement content originally designated. No change in the sources or character of the materials shall be made without the approval of the Engineer.

G. Forms.

1. Wood Forms. Form material shall be free from warp, with smooth and straight upper edges, and if used for face of curb shall be surfaced on the side against which concrete is to be placed.

Form material shall be thoroughly clean at the time it is used; and shall be given a coating of light oil, or other suitable material immediately prior to the placing of the concrete.

2. Steel Forms. The type of steel forms shall be subject to the approval of the Engineer. The forms shall extend the full height of the curb section and they shall be free of warps, bends, twists or other defects which would impair the appearance or utility of the completed work. When set in place, the forms shall possess adequate strength and rigidity to remain true to the established line and grade within the limits and tolerances of Section 7.03A of these Specifications.

7.03 WORKMANSHIP

A. Curbs.

1. Erecting Forms. Forms, wood or steel, shall be staked securely in place, true to line and grade. Sufficient support shall be given to the form to prevent movement in any direction, resulting from the weight of the concrete or the concrete placement. Forms shall not be set until the subgrade has been compacted and graded to within one (1) inch of the established grade. When set, the top of the form shall not depart from grade more than one-eighth (1/8) inch. The alignment shall not vary more than one-eighth (1/8) inch in ten (10) feet. Immediately prior to placing the concrete, forms shall be carefully inspected for proper grading, alignment and rigid construction. Adjustments and repairs as needed shall be completed before placing concrete.

2. Placing Concrete. The subgrade shall be properly compacted and brought to specified grade before placing concrete. The subgrade shall be dampened to a depth of at least three (3) inches immediately prior to the placement of the concrete. Concrete shall be spaded and tamped thoroughly into the forms to provide a dense, compacted concrete free of rock pockets. The exposed surfaces shall be floated, finished and brushed longitudinally. The rate of concrete placement shall not exceed the rate at which the various placing and finishing operations can be performed in accordance with these General Construction Specifications.

If concrete is to be placed by the extruded method, the Contractor shall demonstrate to the satisfaction of the Engineer that the machine is capable of placing a dense, uniformly compacted concrete to exact section, line and grade.

3. Stripping forms and finishing. If wood forms are used,

the curb face form shall be stripped within twenty-four (24) hours unless directed otherwise by the Engineer. Inspect curb face and correct all irregularities to the satisfaction of the Engineer. Back forms and front forms for gutter section may be stripped at a later time, as the Engineer may direct. If the forms are steel, curb face form shall be stripped within a few hours in order to complete the finishing procedure while the concrete is still workable.

Forms shall not be removed until the concrete is set sufficiently to retain its true shape. After troweling, the surface of the curb or curb and gutter shall be brushed. Water shall not be sprinkled on the concrete when finishing the curb.

4. Curing. White pigmented or transparent curing compounds shall be applied to all exposed surfaces immediately after finishing. Transparent curing compound shall contain a color dye of sufficient strength to render the film distinctly visible on the concrete for a minimum period of four (4) hours after application.

If, at any time during the curing period any of the forms are removed, a coat of curing compound shall be applied in sufficient quantity to obscure the natural color of the concrete. Additional coats shall be applied if the Engineer determines that the coverage is not adequate. The curing agent shall be applied as soon as possible and shall be maintained for a period of five (5) days.

5. Curb Drains. Curb drains shall be placed to vent all existing drains. Additional curb drains shall be placed as directed by the Engineer.

Curb drains shall be three (3) inches in diameter and shall consist of metal, plastic or other suitable tubular material approved by the Engineer.

6. Finished Work. The work shall be performed in a manner which results in a curb or curb and gutter constructed to specified line and grade, uniform in appearance and structurally sound. Curbs found with unsightly bulges, ridges, low spots in the gutter or other defects shall be removed and replaced at the Contractor's expense, if the Engineer considers them to be irreparable.

7. Joints.

a. Expansion Joints. Expansion joints shall not be used in curbs.

b. Contractions Joints. Contraction joints shall be made such that the contraction groove measures 3/16" x 1 1/2". The contraction joint shall be made in the top, face, and back of the curb, and shall extend through the concrete gutter.

Contraction joints shall be formed while the concrete is sufficiently green to flow into and close the contraction groove so that only the finish of the edging tool will be visible.

B. Sidewalks and Driveways.

1. Excavation and Subgrade. Excavation for sidewalks will be considered "General Excavation", as set forth in Section 2.00.

Where directed by the Engineer, unsuitable material in the subgrade shall be removed to a specific depth and then backfilled with select materials required as specified in Section 4.00.

2. Forms and Fine Grading. Forms for the sidewalks or driveways shall be free of warps, bends, and breaks and of sufficient strength with bracing to hold true line and grade as intended and prevent springing out of shape when the concrete is placed and compactedagainst the form surface. All mortar, dirt, or other foreign material shall be removed from the forms before depositing material against them, and shall be given a coating of light oil, or other suitable material immediately prior to the placing of the concrete. All forms for surfaces which will later be exposed shall have a smooth surface. The depth of the forms shall be equal to the specified depth of PCC. Lumber with rounded edges or corners, or split edges or ends shall not be used. A template shall then be set out upon the forms for fine grading the subgrade so it will conform to the section required. Low areas in the subgrade shall be backfilled with select materials or suitable native material, as directed by the Engineer. The backfill shall then be compacted to the satisfaction of the Engineer. High areas in the subgrade shall be cut down to meet the grade requirements. The subgrade shall be thoroughly dampened prior to the placement of the concrete. Water for wetting the subgrade shall be considered as incidental to the construction and no payment will be made therefor.

3. Placing and Finishing. The concrete shall be spread uniformly between the forms and thoroughly compacted with an approved type of strikeboard. Through joints and dummy joints shall be located and constructed in accordance with applicable standard drawings. In the construction of through joints, the premolded joint filler shall be adequately supported until the concrete is placed on both sides of the joint.

4. Curing and Protection. The curing materials and procedures outlined in Section 7.02, shall prevail except that white pigmented curing compound shall not be used on sidewalks. The curing agent shall be applied immediately after brushing and shall be maintained for a period of five (5) days.

Before commencing the placing of any concrete sidewalk, the Contractor shall have on the job-site sufficient protective paper to cover the pour of an entire day, in event of rain or other unsuitable weather.

The sidewalk shall be protected against damage or defacement of any kind until it has been accepted by the owner. Sidewalk which is not acceptable to the Engineer because of damage or defacement, shall be removed and replaced at the expense of the Contractor.

Additional requirements for curing in hot or cold weather shall be as directed by the Engineer.

5. Joints.

a. Expansion Joints. Expansion joints shall not be used in sidewalks or driveways.

b. Contraction Joints. Contraction joints shall be made with a metal flat bar that measures 3/16" x 1-1/2". Joint shall be formed transversely and at right angles to the sidewalk alignment a maximum of 16 foot intervals along the length of the sidewalk.

After the concrete has been placed and a uniform texture obtained by troweling and by floating with wooden floats, the metal flat bar shall be inserted into the surface of the sidewalk and pressed down to its full 1-1/2" depth, thus separating the aggregate and causing a weakened plane joint to exist.

Contraction joints shall be formed while the concrete is sufficiently green to flow into and close the metal flat bar groove so that only the finish of the edging tool will be visible.

6. Protection of Pedestrians During Construction. When the area or a position thereof occupied by a public sidewalk is to be excavated, a temporary walkway not less than four (4) feet in width shall be provided over or around the excavated areas. Should the temporary walkway be placed in the street, it shall have a three (3) foot high barricade or 2" x 4" handrail on the street side and shall be lighted with either blinkers or amber electric light bulbs spaced at not more than twenty-five (25) foot intervals.

7. Roof Drains. Three inch roof drains shall be furnished and installed as shown on the plans or standard drawings or as directed by the Engineer. Roof drain materials shall meet the requirements of Section 7.03A6 of these Specifications.

SECTION 8.00 STORM SEWERS AND CULVERTS

8.01 GENERAL

Pipe used in storm drains shall be concrete. Pipe used in underdrains and culverts shall be concrete, corrugated metal as shown on the Plans or as determined by the Engineer.

8.02 MATERIALS AND TESTING

A. Pipe.

1. Non-reinforced concrete pipe and fittings shall conform to AASHTO M 86 (ASTM C 14), "Extra Strength". End design may be bell and spigot or tongue and groove as the Contractor may elect except that when rubber gasket joints are used the end design shall be modified in accordance with AASHTO M 198.

2. Reinforced concrete pipe shall conform to AASHTO M 170 (ASTM C 76) and shall be of the class noted on the plans or in the special provisions. Reinforced concrete pipe ends shall be of the bell and spigot type, modified bell and spigot type or tongue and groove type, as the Contractor may elect.

When bar reinforcement is used it shall conform to ASTM A 615, Grade 40. Special sections such as elbows, wyes, tees, crosses, bends, etc., shall be furnished as required. In the absence of a design shown on the plans, the special sections shall be of the design recommended by the manufacturer. In general, special sections shall be in conformance with the requirements specified for the pipe.

Both pipe and special sections will be accepted on the basis set forth in AASHTO M 170, Sec. 3 (a), Item 1.

3. Corrugated steel pipe, pipe arches and special sections shall conform to AASHTO M 36, Types I and II. Pipe shall be full circle pipe unless otherwise specified. Special sections intended for use with corrugated steel pipe shall, in general conform to the requirements of AASTHO M 36 and be welded and any damaged spelter coating repaired in an approved manner.

4. Corrugated Aluminum Alloy Pipe, pipe arches and special sections shall conform to AASHTO M 196 or AASHTO M 211.

5. Perforated Concrete Pipe, and fittings for subsurface drainage shall conform to AASHTO M 175, standard strength.

6. Corrugated Aluminum Alloy Pipe for underdrains shall conform to AASHTO M 197 for the size and type shown or specified.

7. Corrugated Steel Pipe for subsurface drainage shall conform to AASHTO M 36, Type III.

8. Other types of pipe, than those specified above may be considered for substitution as an "approved equal" in the manner set forth in the General Contract Conditions.

B. Joint Materials.

1. Flexible Gasket Joints. When specified, rubber gasketed joints for use with concrete pipe (AASHTO M 86) or reinforced concrete pipe (AASHTO M 170) shall conform to the requirements of AASHTO M 198.

Gasket material shall be stored in a cool, clean place, protected from sunlight and contaminants until ready for installation on the pipe. Pipes with gaskets affixed shall be installed within 28 days, unless adequately protected against sunlight and contaminants.

All surfaces of the joint upon or against which the gasket may bear shall be smooth, free from spalls, cracks of fractures and imperfections which would adversely affect the performance of the joint.

The joints of the pipe shall be of such design that they will withstand the forces caused by the compression of the gasket, when joined, without cracking or fracturing.

Gaskets used with corrugated metal pipe shall be made of three-eighths (3/8) inch thick by six (6) inch minimum width closed cell synthetic sponge rubber, per ASTM D 1056 grade SB43L, fabricated in the form of a cylinder with a diameter of approximately ten (10) percent less than equal distance on the ends of the adjoining pipe sections.

Where gaskets are specified, the exterior rivet heads for the last twelve (12) inches of longitudinal seam at both ends of each pipe section shall be kept from projecting past the outside of the pipe. This may be accomplished by the use of countersunk rivets or by welding the last twelve (12) inches of seam. Gaskets are necessarily used with the "U-Bolt" bands, and may be specified with the "Angle-Lug" or "Rod and Lug" Bands.

2. Mortar Joints. Mortar shall be cement mortar mixed in the proportion of one part portland concrete cement to one one-half (1-1/2) parts plaster sand mixed with the least amount of clean water necessary to provide a workable mortar.

All joints for plain or reinforced concrete pipe, not otherwise specified, shall be mortar joints except underdrains which will normally be left clean and open.

C. Special Sections. Special sections and fittings such as elbows, tees, wyes, bends, reducers, increasers, etc., are defined as fittings manufactured under the same conditions and controls as the pipe with which they are intended to be used.

8.03 WORKMANSHIP

A. Trench Excavation and Backfill.

This section covers the work necessary for the trench excavation and backfill. Trench excavation and backfill will be divided into the following classifications for the purpose of payment:

Class A Backfill. Generally will be limited to areas where trenches are located in unsurfaced areas and on street and road shoulders where prevention of subsequent trench settlement is not considered critical.

Class B Backfill. Generally will be limited to traveled roadways and crossings where surfacing replacement will be made shortly after backfilling and subsequent trench settlement must be held to a minimum.

Concrete Encasement. Limited to areas as designated by the Engineer.

Trench Bedding. Bedding to be in conformance with Standard Drawing No. S-1.

Trench Backfill. Backfill to be in conformance with Standard Drawing S-2.

B. Construction Details.

1. Pavement, Curb, and Sidewalk Removal. Cut all concrete pavements, regardless of the thickness, and all concrete curbs and sidewalks, prior to excavation of the trenches with an approved pavement saw, hydrohammer, or other approved breaker. Width of the pavement cut shall be in accordance with Standard Trench Detail. Pavement removed shall be taken from the site and not used for trench backfill.

2. Trench Width. In all cases, confine trench widths to dedicated rights-of-way for public thoroughfares or within areas for which construction easements have been obtained, unless special arrangements have been made with the affected property owners. Width of trench to be in accordance with Standard Trench Detail, Drawings S-1 and S-2.

3. Grade. Carry the bottom of the trench to the lines and grades shown or as established by the Engineer with proper allowances 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 3/4 inch minus crushed rock.

4. 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.

5. 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 eighteen (18) inches 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.

6. 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 the backfill at the pipe zone has been completed.

Dispose of the water in an approved manner without damage to adjacent property. Drainage of trench water through pipeline under construction is prohibited.

7. 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. Under no circumstances allow sharp, heavy pieces of material to drop directly onto the pipe or the tamped material around the pipe. Do not backfill material of consolidated masses 1/2 of a cubic foot and greater.

8. Pipe cover. Minimum cover over the pipe shall be 3 feet, except where otherwise specified or directed by the Engineer.

9. Maintenance of Trench Backfill. Maintain the backfilled trench surfacing to the satisfaction of the Engineer. This maintenance shall include, but not to be limited to, the addition of surfacing rock to keep the surface of the trenches reasonably smooth and free from excessive ruts and potholes and suitable for normal traffic flow.

10. Excess Excavated Material. Dispose of all excess excavated materials. Make arrangements for the disposal and bear all costs incidental to such disposal.

11. Drainage Culverts. Replace in kind, drainage culverts which are removed. Replace all culvert pipe to the lines and grades established by the Engineer. Do not replace culverts until the proposed pipeline is installed and the proper backfilling of the trench has been completed to the subgrade of the culvert.

C. Pipe Laying.

1. Description. This section covers the pipe laying of storm drains and culverts. The work shall include the furnishing of all materials and construction of joints and connections to pipes, manholes, inlets, catch basins and similar structures as necessary for a complete installation.

2. Construction Details.

a. Survey line and grade control hubs, unless otherwise noted on the plans, will be provided by the Developer's engineer in a manner consistent with accepted practices.

The Contractor shall constantly check line and grade and in the event they do not meet specified limits described hereinafter, the work shall be immediately stopped, the Engineer notified, and the cause remedied before proceeding with the work.

b. Earthwork. Trenching, backfilling, disposal of surplus materials and other earthwork shall be done in accordance with the requirements of these specifications.

c. Installation in Paved Areas. Cut all concrete pavement, regardless of the thickness, and all concrete curbs and sidewalks, prior to excavation of the trenches with an approved pavement saw, hydrohammer, or other approved breaker. Width of the pavement cut shall be in accordance with the Standard Drawing ST-15.

Unless otherwise approved by the Engineer the kind of pavement to be constructed in the replacement work shall correspond with the kind removed from the area. The respective kind of concrete (Class B asphalt concrete or portland cement concrete, 3,000 psi) shall be placed, shaped, compacted and finished to established grade and cross section by practicable means and in general accord with other sections of the specifications, which will result in a dense, uniform textured pavement. The abutting edges of old pavement shall be trimmed of all loose fragments and shall be painted with asphalt or thoroughly moistened with water, as appropriate, to provide good bond between the old and new pavement.

On traveled-way areas asphalt concrete shall be placed to a compacted thickness not less than three (3) inches, and portland cement concrete shall be placed to a thickness not less than six (6) inches; and in either event, the respective thicknesses of new pavement shall equal that of the removed pavement if such thickness exceeds the above minimum.

To replace driveways, curbs, gutters, walks, dikes, walls and other like structures, the replacement shall consist

of similar and matching construction of adjoining undisturbed structures, which construction shall be at least equal in all respects to that of the structures or parts of structures removed in the work. Unless otherwise noted, City of Newberg Standards will be considered minimum requirements for such replacement.

In the interest of the comfort and safety of the traveling public it is imperative that pavement replacement work be completed immediately upon completion of backfilling operations at each location. In the event pavement replacement work cannot be performed immediately and the Engineer determines it expedient to permit traffic to traverse the area where pavement has been removed, the Contractor shall thicken the course of foundation material to bring it up to finished grade, and shall maintain it at that elevation until such time as the pavement replacement is commenced.

Maintenance shall consist of applying a suitable bituminous surface binder on the material, and of the restoring of said surface to proper grade and cross section daily, if required.

At the time of placing the pavement, excess foundation material shall be removed and shall be disposed of in a matter satisfactory to the Engineer. Paving of any area shall be completed on the day it is started, and shall be placed in service at the earliest practicable time.

d. Pipe Laying. Laying of pipe shall be accomplished to line and grade in the trench only after it has been dewatered and the foundation and/or bedding has been prepared in accordance with Section 8.03 B. Mud, silt, gravel and other foreign material shall be kept out of the pipe and off the joint surfaces.

All pipe laid shall be retained in position by mechanical means or otherwise, as approved by the Engineer, so as to maintain alignment and joint closure until sufficient backfill has been completed to adequately hold the pipe in place.

The pipe, unless otherwise approved by the Engineer, shall be laid up grade from a designated starting point. The pipe shall be installed with the bell end forward or upgrade, unless approved otherwise. When pipe laying is not in progress the forward end of the pipe shall be kept tightly closed with an approved temporary plug.

Where pipe lines are to be laid on specified curves of sufficiently short radius to deflect the pipe joints in

an amount greater than recommended by the manufacturer, the pipe ends shall be canted at the factory in an amount necessary to meet the manufacturer's recommendations.

e. Dewatering. Dewatering, sufficient to maintain the ground water level at or below the surface of trench bottom or base of the bedding course, shall be accomplished prior to pipe laying and jointing, if not prior to excavation and placing of the bedding as called for in other sections of these Specifications. The dewatering operation, however accomplished, shall be carried out so that it does not destroy or weaken the strength of the soil under or alongside the trench. The normal water table shall be restored to its natural level in such a manner as to not disturb the pipe and its foundation.

f. Bedding. The pipe bedding shall be placed so that the entire length of the pipe will have full bearing. No blocking of any kind shall be used to adjust the pipe to grade except when used with embedment concrete. Bell holes shall be dug as required to assure uniform support along the pipe barrel.

g. Plugs and Connections. Plugs for pipe branches, stubs or other open ends which are not to be immediately connected shall be made of an approved material and shall be secured in place with a joint comparable to the main line joint, or stoppers may be an integrally cast breakout design.

h. Pipe Joint.

(1) Hand Mortared Joints. When mortared joints are specified, they shall be made with cement mortar mixed in the the proportions of one (1) part cement to one and one-half (1-1/2) parts commercial plaster sand, mixed with the least amount of clean water necessary to provide a workable mix. Before jointing, the interior of the bell shall be wiped clean, dampened, and the lower one-third (1/3) shall be well covered with cement mortar before the insertion of the spigot end of the adjoining pipe. Special care shall be taken to avoid shoving mortar ahead of the spigot end of the pipe when inserting it into the bell.

The spigot end shall be firmly seated against the shoulder of the bell. After the two adjoining pipe sections have been centered and the inverts aligned, the annular space shall be partially filled with mortar to hold the two pipe sections in place. Then beginning at the bottom, the mortar shall be thoroughly pressed into the annular space and a neat forty-five (45) degree fillet built up on the outside.

Pipe twenty-four (24) inches and over in diameter, and all pipe laid on curves shall have the joints pointed on the inside. In all cases, after joining is completed the inside of the pipe shall be wiped clean and shall have a smooth surface free from protrusions of any kind. All joints shall be protected from water and the drying effects of wind and sun. Wet burlap sacks or other approved means of protection shall be provided if required by the Engineer.

The work of joining shall follow at such a distance behind pipe laying as may be necessary to insure the joints mortared will not be disturbed by pipe laying operations. There shall be no walking or backfilling upon the pipe until the joints have set hard.

(2) Gasket Type Joints. Flexible gasketed joints shall be made in strict accordance with the instructions furnished by the pipe manufacturer, and shall be in accordance with other provisions described below except in any case where they may be inconsistent with the manufacturer's instructions.

Pipe handling after the gasket has been affixed shall be carefully controlled to avoid disturbing the gasket and knocking it out of position, or loading it with dirt or other foreign material. Any gaskets so disturbed shall be removed and replaced, cleaned and relubricated if required before the joining is attempted.

Care shall be taken to properly align the pipe before joints are entirely forced home. During insertion of the tongue or spigot, the pipe shall be partially supported by hand, sling, or crane to minimize unequal lateral pressure on the gasket and to maintain concentricity until the gasket is properly positioned. Since most flexible gasketed joints tend to creep apart when the end pipe is deflected and straightened, such movement shall be held to a minimum once the joint is home.

Sufficient pressure shall be applied in making the joint to assure that it is home, as described in the installation instructions provided by the pipe manufacturer. Sufficient restraint shall be applied to the line to assure that joints once home are held so, until fill material under and alongside the pipe has been sufficiently compacted. At the end of the work day, the last pipe laid shall be blocked in an effective way to prevent creep during "down time".

Pipe required to be laid on curved alignment shall be joined in straight alignment and then be deflected joint by joint. Special care shall be taken in blocking the pipe just previously laid, by tamped fill or otherwise to resist the misaligning forces generated during compression of the joints being made. Pipe may only be laid on curve alignment with the approval of the City Engineer.

SECTION 9.00 MANHOLES FOR STORM SEWERS

9.01 GENERAL

A. Standard manholes. Manholes may be constructed of precast units or monolithic concrete, all in accordance to Standard Drawings No. S-3 through S-7.

B. Precast concrete manholes. Precast manholes shall conform to AASHTO M 199 (ASTM C478). The diameter shall be 48".

9.02 MATERIALS

A. Concrete. Concrete for cast in place manholes, manhole bases, drop assemblies, encasement, plugs and similar uses shall be 3,000 psi, concrete, 1-1/2 inch maximum size coarse aggregate and entrained air of 3 to 5%.

B. Reinforcement. Steel reinforcement for manhole construction shall conform to the requirements of ASTM A615 grade 40, deformed bars for the type of reinforcement shown or specified.

C. Joints. Joining precast manhole sections or masonry manhole units shall be either one part portland cement to not less than one part nor more than two parts plaster sand, mixed with the least amount of clean water necessary to provide a workable mortar, or Kent Seal or approved equal followed by grouting inside of joint with mortar described above.

D. Manhole Frames. Manhole frames and covers shall be of the size and shape detailed in the Standard Drawing No. S-7.

E. Precast Manhole Components.

1. Base section. Base section for manhole construction shall be poured in place concrete and be not less than six (6) inches in thickness.

Openings to receive pipe shall be circular, tapered in toward the inside of the section and shall be held to the minimum size to accommodate the pipe to be inserted and to effectively seal the joints. Openings for pipe up to 42" diameter may be provided in 72" base sections. Where pipe of larger diameters is to be accommodated a monolithic base structure shall be provided.

2. Precast Manhole Sections. Standard precast manhole sections shall conform to (AASHO M 199) ASTM C478 and consist of circular sections in standard nominal diameters. No more than two lift holes shall be cast into each section. Holes shall be so located as to not damage reinforcing, or expose it to corrosion. At the manufacturer's option, steel loops may be provided for handling in lieu of lift holes.

3. Precast Cones. Standard precast cones, shall conform to ASTM C478 (AASTHO M 199) and be eccentric cones unless otherwise specified.

4. Flat Slab Covers. Flat slab covers when required, shall be as shown on the plans.

F. Workmanship and Finish of Precast Sections. Cones and sections shall be substantially free from fractures, large or deep cracks and surface roughness. Slabs shall be sound and free from gravel pockets. All manhole elements shall be capable of producing a watertight structure when properly assembled and jointed.

G. Monolithic Concrete Manholes. Monolithic concrete manholes shall conform to detailed plans and shall conform to the dimensional requirements specified. Walls and base shall be 6" minimum thickness.

H. Steps for manholes. Steps for manholes and rungs for manhole ladders shall be fabricated from structural steel having a minimum yield strength of 28,000 psi and galvanized steel having a minimum yield strength of 28,000 psi and galvanized in conformance to AASHTO M 111 (ASTM A 123).

9.03 WORKMANSHIP

A. Foundation Preparation.

1. Dewatering. Dewatering of the site shall conform to the requirements for dewatering in Section 8.03C ¶e.

2. Sub-base Preparation. Adequate foundation for all manhole structures shall be obtained by removal and replacement of unsuitable material with well graded granular material. Where water is encountered at the site, all cast-in-place bases or monolithic structures shall be placed on a one-piece waterproof membrane, so placed as to prevent any movement of water into the fresh concrete.

B. Bedding. Base sections shall be placed on a well graded granular bedding course conforming to the requirements for pipe bedding but not less than six (6) inches in thickness and extending either to the limits of the excavation or to a minimum of twelve (12) inches outside the outside limits of the base section. In the latter case, the balance of the excavated area shall be filled with select material well tamped to the level of the top of the bedding to positively prevent any lateral movement of the bedding when the weight of the manhole is placed upon it. The bedding course shall be firmly tamped and made smooth and level to assure uniform contact and support of the precast elements.

C. Precast Manholes.

1. Concrete Base. The concrete bases for manholes shall be poured in place. The concrete base shall not be placed in water and if the trench foundation is not stable the Contractor shall over excavate as directed. The over-excavation shall be brought to grade with approved suitable material.

2. Manhole Invert. The invert of the manhole shall conform to details shown on the Plans. Care shall be taken so as to construct the invert of the manhole to provide smooth flow-through characteristics. No sharp edges or rough sections which will tend to obstruct the flow will be permitted. In general, the invert shall be constructed to a section identical with that of the pipe. Where size of pipe is changed at the manhole, the invert shall be constructed in the form of a smooth transition without abrupt breaks or uneveness of the invert surfaces. Where a full section of concrete pipe is laid through the manhole, the top shall be broken out to or below the spring line of the pipe, and the exposed edge of the pipe completely covered with mortar. During construction of the invert section, and for a period of not less than 24 hours following placing of concrete or mortar in the invert sections, the Contractor shall temporarily divert existing flows from new concrete or mortar surfaces to prevent damage to the fresh concrete or mortar within the manhole until initial set has been achieved.

3. Manhole Walls. Manhole walls shall be constructed plumb and true in accordance with the details shown on the Plans. Where walls are constructed using precast concrete sections, joints shall be mortared tight, to provide a water-tight joint which will prevent infiltration of ground water into the manholes.

4. Pipe Connections. All unreinforced pipes entering or leaving the manhole shall be placed on firmly compacted bedding, particularly within the area of the manhole excavation. Special care shall be taken to see that the openings through which pipes enter the structure are completely and firmly rammed full of mortar to ensure watertightness.

D. Backfill. Backfill around the manhole and extending at least one pipe length into each trench shall be hand placed and tamped up to an elevation of six (6) inches above the crown of all entering pipes. Work shall conform to the applicable provisions of these Specifications.

SECTION 10.00 CATCH INLETS

10.01 GENERAL

Standard inlets shall be cast-in-place concrete, all in accordance with the Standard Drawings No. STS-1 and STS-2.

10.02 MATERIALS

Materials for catch basins and inlets shall conform the Standard Drawings STS-1 and STS-2.

10.03 WORKMANSHIP

A. Foundation preparation.

1. Dewatering. Dewatering of the site shall conform to the requirement for dewatering in Section 8.03C ¶E.

2. Sub-base Preparation. Adequate foundation for all inlet structures shall be obtained by removal and replacement of unsuitable material with well graded granular material. Where water is encountered at the site, all structures shall be placed on a one-piece waterproof membrane, so placed as to prevent any movement of water into the fresh concrete.

B. Bedding. Inlets shall be placed on a well graded granular bedding course conforming to the requirements for pipe bedding but not less than six (6) inches in thickness and extending either to the limits of the excavation or to a minimum of twelve (12) inches outside the outside limits of the excavation or to a minimum of twelve (12) inches outside the outside limits of the inlet. In the latter case, the balance of the excavated area shall be filled with select material well tamped to the level of the top of the bedding to positively prevent any lateral movement of the bedding when the weight of the inlet is placed upon it. The bedding course shall be firmly tamped and made smooth and level to assure uniform contact and support of the precast elements.

C. Subgrade Drainage Openings. Crushed rock shall be compacted around the openings in the catch basin inlets to provide uninterrupted drainage from the adjacent roadway subgrade into the catch basin. Where directed by the Engineer, subgrade drainage openings may be omitted or, if existing in precast elements, may be grouted full in lieu of placing filter material.

D. Forming, Pouring and Curing. Forms shall be tight and well braced. Chamber corners of forms. Prior to placing the concrete, remove all water and debris from the forms. Moisten forms just prior to placing the concrete. Handle concrete to prevent segregation or loss of ingredients. Immediately after placing, densify concrete with an approved vibrator. Limit vibration to the time necessary to produce satisfactory consolidation without causing segregation. Screed the top surface of exposed surfaces and trowel to a smooth finish free from marks or irregularities. Finish exposed edges with a steel edging tool.

Cure concrete for a period of seven days with an approved curing compound, when required by the Engineer. Apply the curing compound immediately after removal of forms or finishing. Protect concrete from damage during the seven day curing period. Remove forms and patch any defects in the concrete with mortar mixed in the same proportions as the original concrete mix.

E. Welded Frames and Grates. All connections shall be welded. Welding shall conform to the requirements of the American Welding Society. Metal frames and grates for inlets may be fabricated from merchant quality steel conforming to AASHTO M 227, Grade 70 unless otherwise indicated on the plans or from structural steel conforming to the requirements of ASTM A 36, or they may be of cast steel conforming to the requirements of AASHTO M 103, Grade 65-35. Frames and grates shall be tested one within the other and there shall be no more than 1/16 inch rock. Test jigs shall be furnished by the manufacturer. Frames and grates shall be constructed to the size shown in STS-2, STS-4, and STS-6 of the Standard Drawings.

SECTION 11.00 ILLUMINATION

11.01 GENERAL

This section covers the work necessary to install street lights as shown or specified on the plans.

11.02 MATERIALS

A. Street Light Base. Minimum 14"x14"x60" pre-cast footing for lamp base shall be located as shown or specified on plans with top of base a minimum of 3" above curb grade. Excavation for pre-cast footing shall be a minimum of 25% larger in diameter than the diagonal of the pre-cast footing.

B. Street Light. Pole shall be 10 gauge tapered aluminum pole with luminaire no less than 25' above the paved surface of the street or parking lot. Luminaire arms shall project 5' out from the pole. Luminaires shall be 150W High Pressure Sodium fixtures. All wiring to street light shall be underground; Contractor to determine the most effective system to run power to street light. Wiring conduits from power pole to street light shall be of those materials and procedures recommended by the National Electric Code (NEC) and/or local power utility company.

C. Cable and Wiring. Wiring shall conform to all applicable portions of the National Electrical Code and manufacturer's recommendations.

11.03 WORKMANSHIP

A. Street Light Base. Shall be set in excavation for said fixture and thoroughly tamped in by mechanical means to cause the base to be unyielding in settlement or position when pole is mounted on base.

B. Street Light. Poles shall be erected on foundations and in conformance to recommendations of the pole manufacturer. Poles shall be erected with sufficient rate as to assume a substantially vertical position after all attachments and appurtenances are in place.

C. Cable and Wiring. Shall conform to all applicable portions of the National Electrical Code and manufacturer's recommendations.

11.04 MEASUREMENT AND PAYMENT

Illumination, street light fixture, and installation of same will be paid by the number of units installed.

SECTION 12.00 SEEDED LAWN

12.01 GENERAL

This work shall consist of the preparing, fertilizing, seeding, and establishment of seed grown lawns. The areas to be planted shall be as designated by the Engineer.

Seeded lawn construction shall be performed only at times when local weather and other conditions are favorable to soil preparation and to germination and growth of grass seed.

12.02 MATERIALS

Seed	Grass seed blend, approved by Engineer
Fertilizers	22-16-8
Soil Conditioners	Spent mushroom growing compost
Soil Amendments	Dolomite Lime

12.03 WORKMANSHIP

A. Preparation of Areas. Seeding areas shall be in a loose, friable, condition for a minimum depth of 6 inches and suitable for fine grading. Seeding areas shall be made substantially free of vegetative matter, stones, clods, roots, sticks, debris and other matter detrimental or toxic to the germination and growth of grass seed.

Seeding areas shall be at the established grades and shall be finished to provide good drainage and left approximately one inch below the grades of adjacent walks, driveways and pavements.

Soil amendments and fertilizers shall be spread evenly over the seedbed at the rates specified in the special provisions, and then thoroughly incorporated into the upper 6 inches of soil. The surface shall then be graded to a fine-textures, smooth and firm condition.

B. Seeding. Seed, as a mixture, shall be sown uniformly on the prepared areas at the rates set forth in the special provisions, using such methods as the Contractor may elect. Seed shall then be worked into the soil to a depth not exceeding 1/4 inch.

Upon completion of the seeding, the ground surface shall be made free of ruts, footprints or other irregularities and uniformly covered with a light application of clean peat moss.

Areas that settle and collect water shall be brought to grade and reseeded as originally specified.

C. Fertilizing. Fertilizer shall be Inorganic 22-16-8 and shall be applied uniformly in three separate applications as follows:

1. Once during seed bed construction prior to seeding.

2. Twice, at equal intervals, during the "establishment period".

D. Establishment of Seeded Lawn.

1. General. The lawn construction work includes establishing all seeded lawn to a uniform, thick and healthy week free growth of grass at the end of the "establishment period". "Weed free" refers primarily to perennial weeds and allows a tolerance of approximately one weed per 100 square feet of lawn. The establishment of the lawn shall be performed as a part of the contract and in conformance to the provisions set forth in this subsection.

2. Establishment Period. The seeded lawn establishment period shall begin on the day following the Engineer's approval of all grass sowing and terminate as follows:

a) If the original lawn construction is completed and approved during the spring planting season the establishment period shall end after the elapse of 75 calendar days.

b) If the lawn construction is completed and approved during the fall planting season the establishment period shall end when any necessary reseeding is completed near the beginning of the following spring planting season.

c) Lawn Establishment Work. The establishment of seeded lawn shall consist of the following:

1) Protection. Planted areas shall be protected from trespass and other hazards of damage. Protective fences and signs shall be used at the discretion and expense of the Contractor. Any protective methods used shall be approved by the Engineer

E. Fertilizing and watering. Water shall be applied according to good horticultural practice under the prevailing conditions, as required to promote a healthy stand of grass.

F. Weeding. Lawns shall be kept reasonably "weed-free" throughout the establishment period. Methods used shall be in accordance with accepted lawn care practices.

G. Restoration. Damaged, settled or unproductive areas shall be restored to specified condition by the Contractor at his expense.

H. Inspection. At the end of the establishment period, all lawn areas will be inspected by the Engineer. The grass shall have a uniform green color and texture, and shall be free of weeds as set forth under subsection 683.34(a). The judgement of the Engineer as to conformance to these requirements will be final.

12.04 MEASUREMENT AND PAYMENT

A. Measurement. Payment for the seeded lawn construction, as specified, will be made either (1) by the square yard, wherein each area will be measured to the nearest foot and computed to the nearest square yard.

B. Payment. When the special provisions or bid schedule indicate that payment is on a square yard basis, payment will be made at the contract unit price per square yard for the item "Seeded Lawn."

Section 13.00 SURFACE RESTORATIONS

13.01 GENERAL

This section covers the work necessary for all required replacement of pavement, complete.

13.02 MATERIALS

A. Rock for Surface Replacement. Rock shall be 3/4"-0" crushed rock.

B. Asphalt Concrete. Hot-plant mix with maximum 3/4-inch aggregate, conforming to Section 403 of the Standard Specifications for Highway Construction of the Oregon State Highway Department, 1984 edition, for the class of asphalt specified.

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

C. Asphalt Prime and Tack. Liquid asphalt for use as prime or tack coat under asphalt concrete shall be RC-70 to MC-70 liquid asphalt.

D. P.C. Concrete. Concrete for curbs, sidewalks, pavement, and miscellaneous construction shall conform to ASTM C95, Alternate 2, and shall have a design mix proportioned for 3,000 pounds per square inch compressive strength at 28 days. Concrete mix shall contain no less than 5-1/2 sacks of cement per cubic yard.

13.03 WORKMANSHIP

A. 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 3.00 TRENCH EXCAVATION AND BACKFILL.

B. Progress of Construction. Complete surface restoration not more than 5 calendar days after compaction of the backfilling of the trench.

C. Removal of Pavement. Removal of all pavement shall conform to SECTION 3.00 TRENCH EXCAVATION AND BACKFILL.

D. Street Maintenance. Maintain all trenches as specified under SECTION 3.00 TRENCH EXCAVATION AND BACKFILL.

E. Asphalt Concrete Pavement Replacement.

1. Subgrade. Bring the trench to a smooth, even grade not less than 3 inches below the top of the existing pavement surface. 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.

Compact the subgrade to 95 percent relative density. Accomplish supplementary compaction where required with approved mechanical vibrating or power tampers.

2. Prime Coats. After the subgrade has been compacted apply as an asphalt prime coat, specified above, at 0.25 to 0.40 gallons per square yard to the surface of the subgrade and to the edges of the existing pavement.

3. Asphalt Concrete. After the prime coat has set, but before it loses its adhering qualities, place the asphalt concrete on the prepared subgrade over the trench to a depth of not less than 3 inches or the depth of the adjacent pavement whichever is the greater unless otherwise directed. If the thickness is greater than 3-1/2 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 use 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 1/2 the width of the roller and progress toward the center of the resurfaced area. Overlap each preceding track by at least 1/2 the width of the roller and made sufficient passes over the entire area to produce the desired result, as determined by the Engineer.

4. Surface Smoothness. The surface smoothness of the replaced pavement shall be such that when a straightedge is laid across the patched area between the edge of the old surfacing and the surface of the new pavement, the new pavement shall not deviate from the straightedge more than 1/4 inch. Any settlement within one year maintenance period will be restored to proper grade.

5. Weather Conditions. Resurfacing will be permitted only during dry weather and while trench conditions are satisfactory for pavement replacement. Exceptions will be permitted only in special cases and only with approval of the Engineer.

6. 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 other structures from splashing oil and asphalt from the paving operations. Remove any oil, asphalt, dirt, or any other undesirable matter than 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 proper authority contacted in order to have the facility altered before proceeding with the resurfacing around the obstruction.

7. Excessive Materials and Contractor's Responsibility. Dispose of excess materials. Repair all settlement of pavement over Class B backfilled trenches within the warranty period at no additional cost to the Owner.

F. Rock Surfacing. As indicated hereinbefore, replacement of existing rock surfaced areas will be accomplished by backfill and compaction of the entire trench with 3/4"-0 crushed rock. All existing graveled service areas will be backfilled with 3/4"-0" crushed rock. Existing rock surfacing shall be restored to its original condition with 3/4"-0", the areas covered and depth of application shall be as directed by the Engineer. Spread the material by "tailgating" and supplement by hand labor where necessary. Level and grade the rock to conform to existing grades and surfaces.

G. Sidewalks, Curbs and Driveways. Replace sidewalks, curbs, and driveways to the section, width, depth, line and grade as required by the Engineer. On private property or in other areas not under the jurisdiction of a public agency the replacement work shall match the existing walk, curb, driveway, etc. in quantity, quality, and finished appearance. Replace sidewalks to the same section width, depth, and to the same line and grade as that removed or damaged. Prior to replacing the sections, properly backfill and compact the trench to prevent subsequent settlement. Use a minimum 2-inch thick compacted leveling course of clean 3/4"-0" rock or gravel under all sidewalks. Place concrete continuously to avoid separation of ingredients. Finish all discontinuous edges with suitable edging tool. Replace concrete sidewalks between scored joints, and make replacement in a manner which will avoid a patched appearance. Finish sidewalks similar to the existing and abutting areas.

Tunneling under sidewalks is optional. However, should any subsequent cracking, subsidence, or any other indication of failure occur within the warranty period, the damaged section shall promptly be replaced by the Contractor.

H. Saw Cutting. All trench excavation in hard surfaced areas (asphalt or cement) shall be saw cut common width for the length of the trench prior to paving. It shall be the contractor's responsibility to protect freshly sawn hard surfaced areas against damage until paving material has been placed.

I. Areas not in Paved or Gravel Street Areas. After trench is compacted, backdrag the area over trench with native material at least 6 inches deep so that a uniform surface results free of ruts, depressions, and mounds.

13.04 MEASUREMENT AND PAYMENT

Measurement and payment for surface restoration of roadway and driveways shall be by the square yard and shall include A.C. paving, subgrade grading and base rock. Payment shall be full compensation for

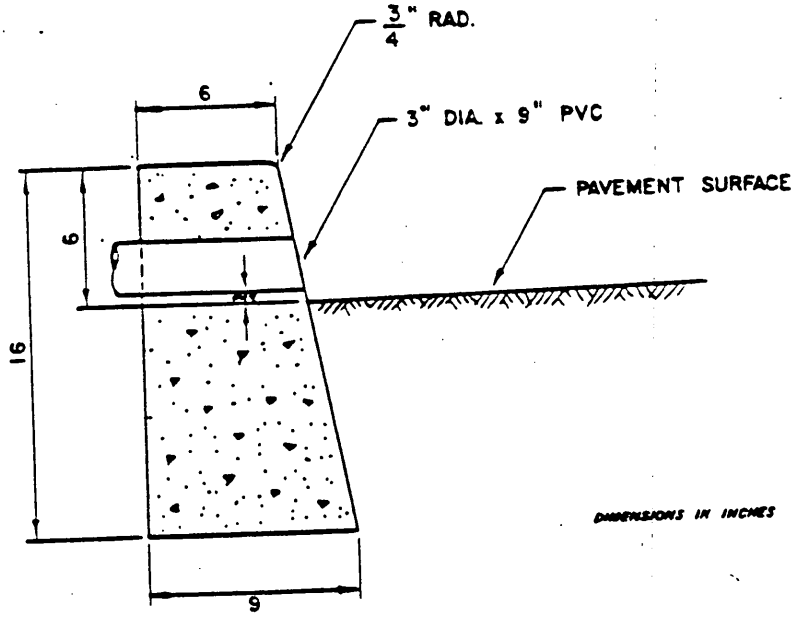
all labor, equipment, and materials necessary to complete the work as set forth in the Plans and Specifications.

All other surface restoration not identified in trench paving shall be considered incidental to the project.

STANDARD DRAWINGS

NEWBERG COMMUNITY HOSPTIAL
PARKING LOT EXPANSION PHASE II & III

CITY OF NEWBERG, OREGON

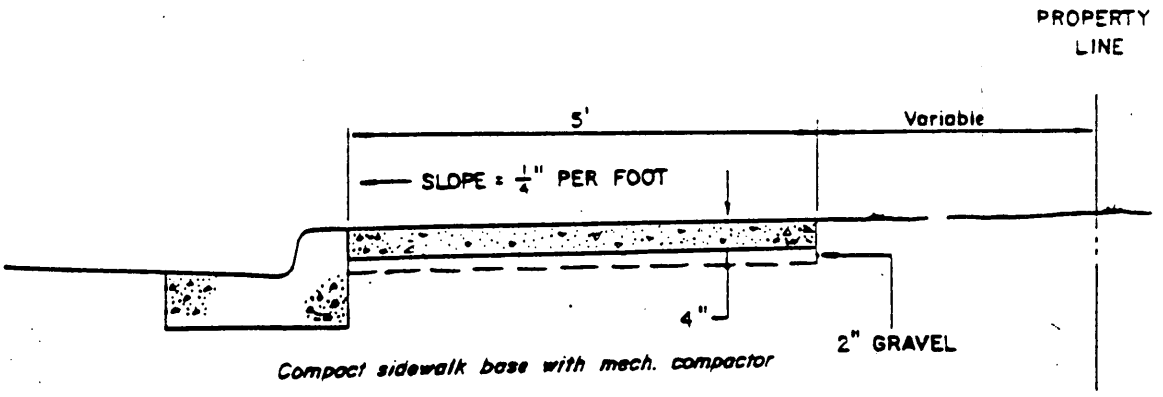


NOTES

1. Concrete shall have strength of 3000 P.S.I. at 28 days.
2. Transverse contraction joints – make $\frac{3}{16}$" x $1\frac{1}{2}$" deep cut, spaced at 15'.
   Provide contraction joints at curb return points, catch basins, and driveways.
3. This type curb shall be used only in special locations where it is compatable with the existing facility.
   Curb and Gutter, Std. Drawing ST-4, shall be used for all new construction.
4. Apply curing compound (petroleum base) to fresh concrete to retain moisture.

CURB

ENGINEERING DEPT.	CITY of NEWBERG	STANDARD DRAWING NO. ST-5	REVISIONS

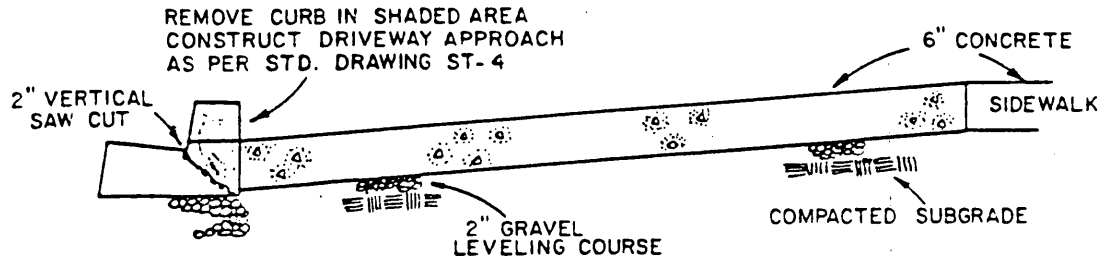


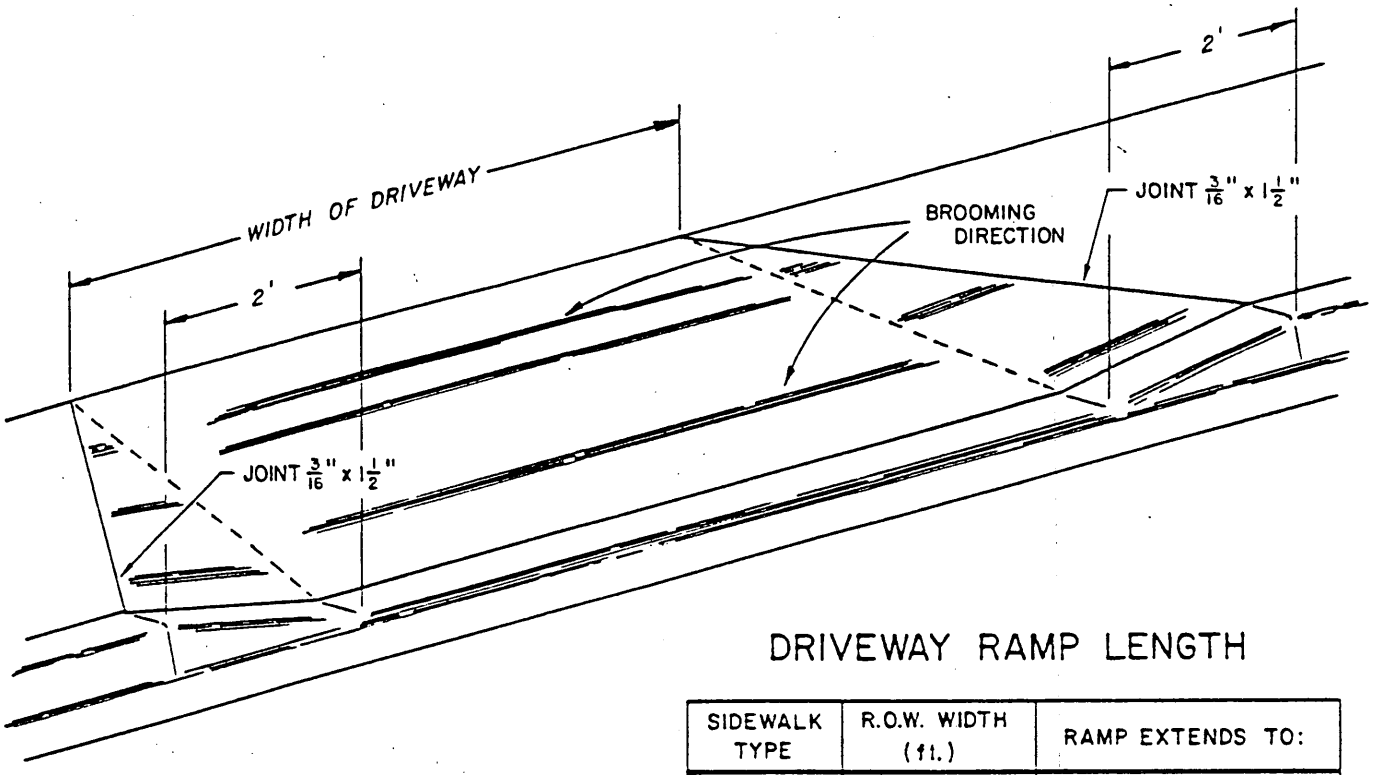
NOTES

1. Frontage from property line to curb shall slope to the street at indicated slope.
2. Work aggregate down into mix prior to finishing concrete.
3. Finishing details —
   Edge concrete with a 3" edging trowel.
   Score concrete at 5' intervals.
   Install 3/16" x 1 1/2" contraction joints 15' apart (every 3 "squares").
   Expansion joints shall not be used.
   Apply a light broom finish transverse to sidewalk.
4. Concrete shall obtain strength of 3000 P.S.I. at 28 days.
5. Apply curing compound (petroleum base) to fresh concrete to retain moisture.
6. Tolerances —
   Surface shall not vary more than 1/4" from a 10' straightedge.
   Alignment shall be within 1/2" of true line.

SIDEWALK-TYPE 'B'

ENGINEERING DEPT.	CITY of NEWBERG	STANDARD DRAWING NO. ST-9	REVISIONS





DRIVEWAY RAMP LENGTH

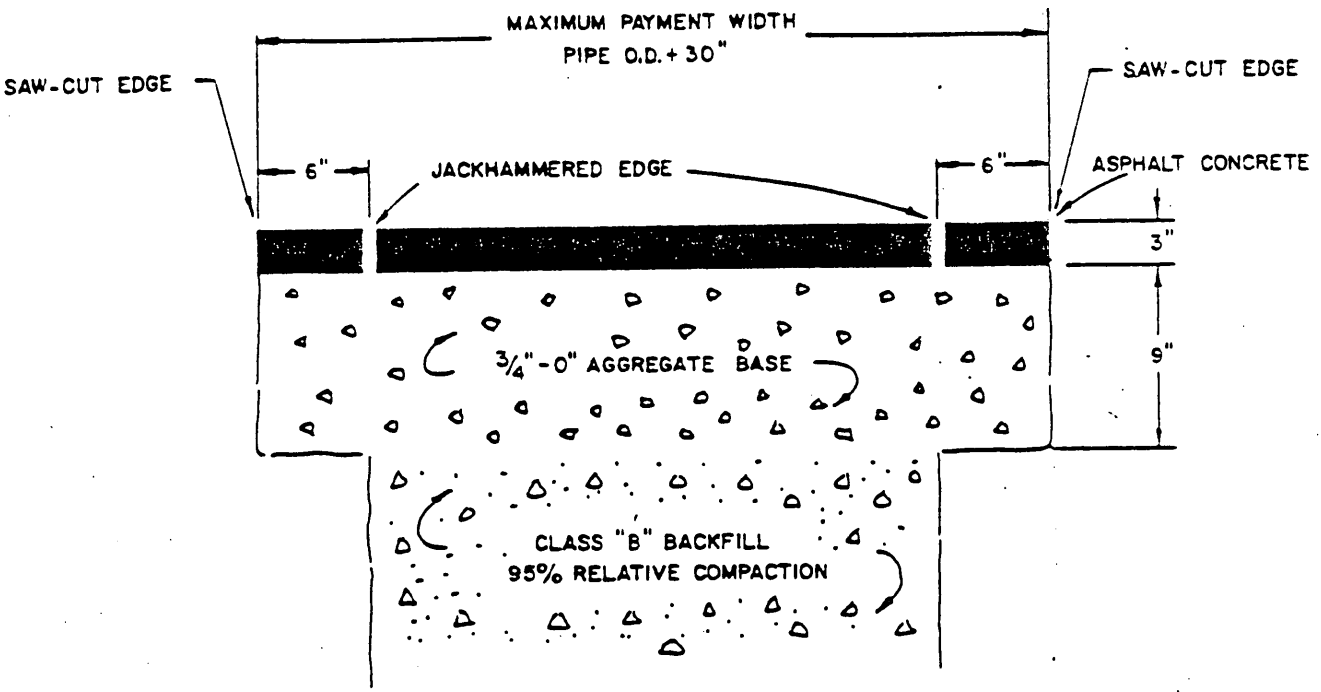
SIDEWALK TYPE	R.O.W. WIDTH (ft.)	RAMP EXTENDS TO:
A	50	Back of Sidewalk
A	60	Front of Sidewalk
B	50	Back of Sidewalk
B	60	Back of Sidewalk

NOTES

1. *Concrete shall have strength of 3000 P.S.I. at 28 days.*
2. *Limits of driveway approach shall be saw-cut.*
3. *Finish with broom. Edge all joints.*
4. *Curb and approach shall be poured monolithic.*
5. *If width is greater than 15 ft, install $\frac{3}{16}$" x $1\frac{1}{2}$" contraction joint down the center of the driveway.*
6. *Expansion joints shall not be used.*
7. *Work aggregate down into mix prior to finishing concrete.*
8. *Apply curing compound (petroleum base) to fresh concrete to retain moisture.*

DRIVEWAY APRON and CURB CUT

ENGINEERING DEPT.	*CITY of NEWBERG*	STANDARD DRAWING NO. ST-13	REVISIONS



NOTES

1. *Sawcut asphalt to neat straight lines.*
2. *Asphalt — Class 'C' mix placed in 2 lifts.*
3. *Oil and sand all joints.*
4. *Actual payment width to be determined at site prior to paving.*

TRENCH PAVING

ENGINEERING DEPT.	CITY of NEWBERG	STANDARD DRAWING NO. ST-15	REVISIONS

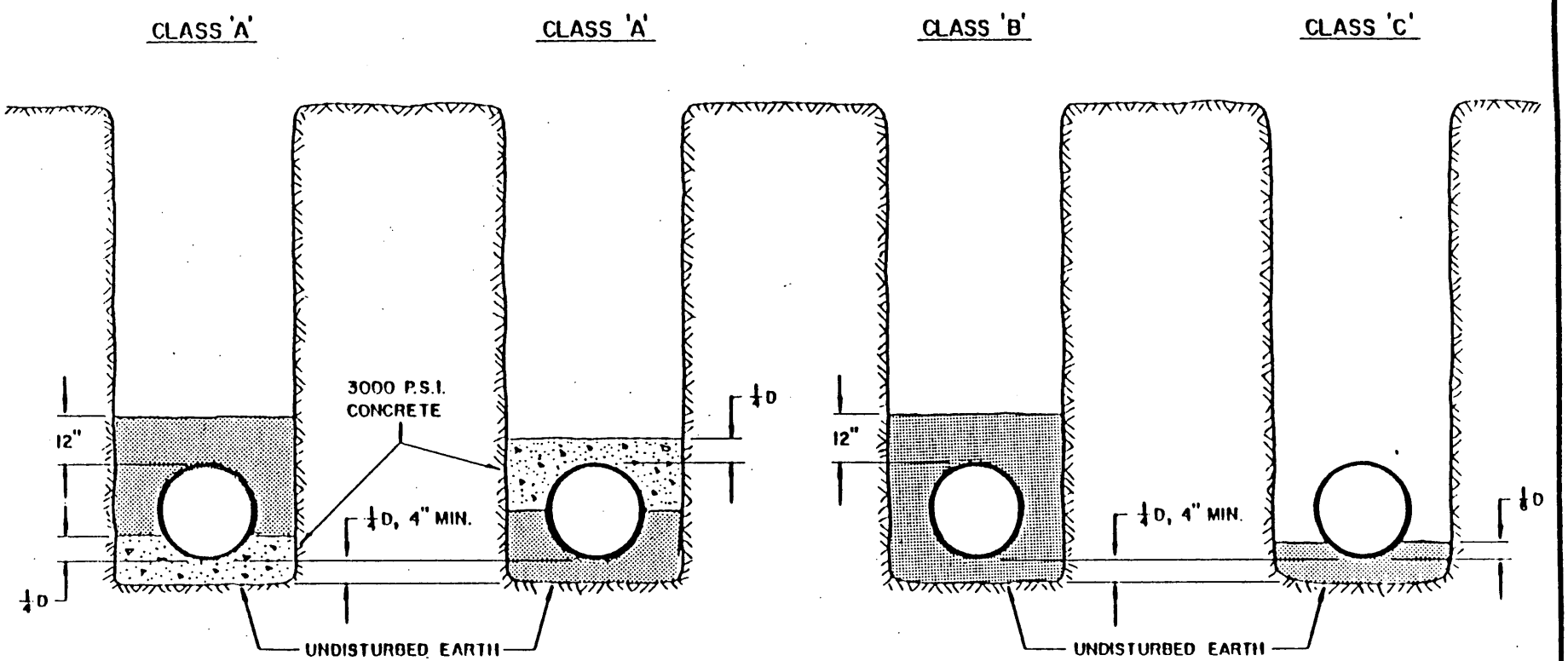
ENGINEERING DEPT.

CITY of NEWBERG

STANDARD DRAWING NO. S-1

REVISIONS

PIPE BEDDING



MAXIMUM TRENCH WIDTH

PIPE SIZE (in)	WIDTH (in)	PIPE SIZE (in)	WIDTH (in)
4	18	15	42
6	24	18	42
8	30	21	48
10	30	24	60
12	36	27 and larger	See City Eng.

CRUSHED ROCK ¾"-0

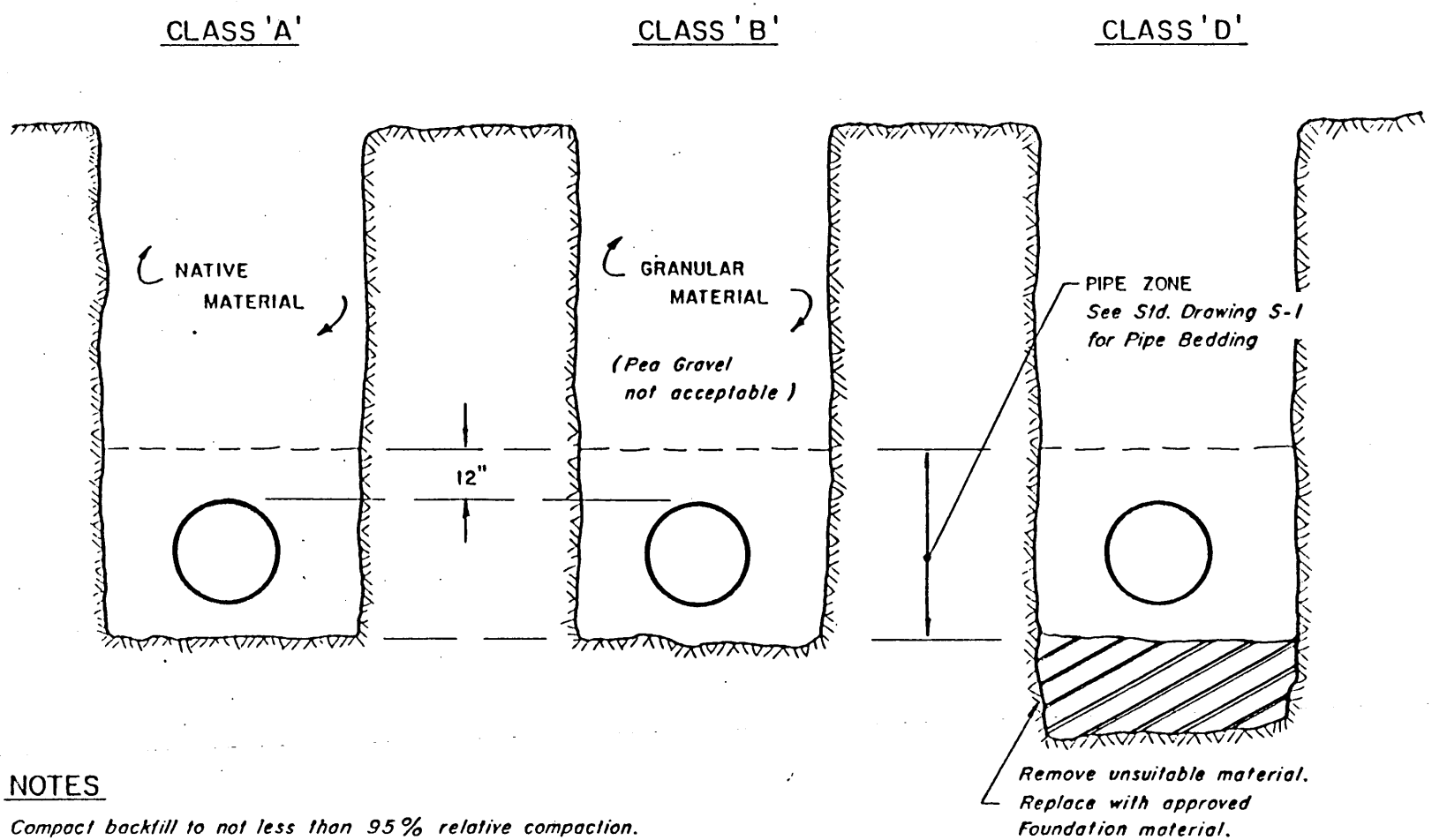
ENGINEERING DEPT.

CITY of NEWBERG

STANDARD DRAWING NO. S-2

REVISIONS

TRENCH BACKFILL

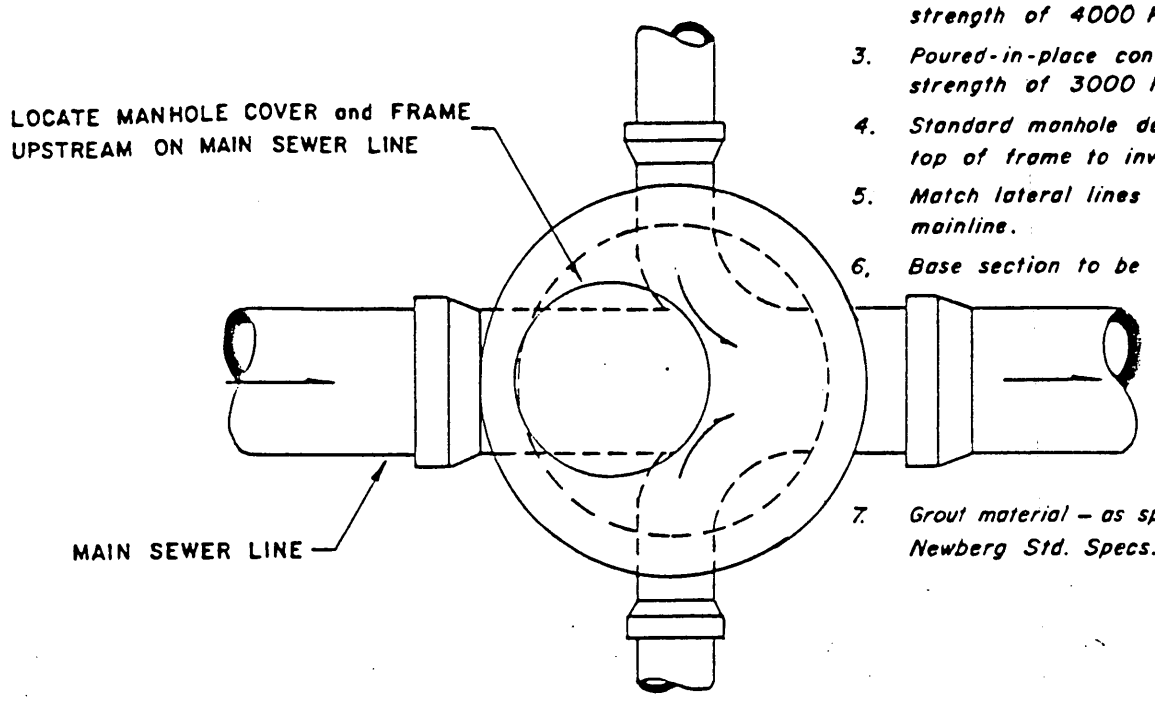


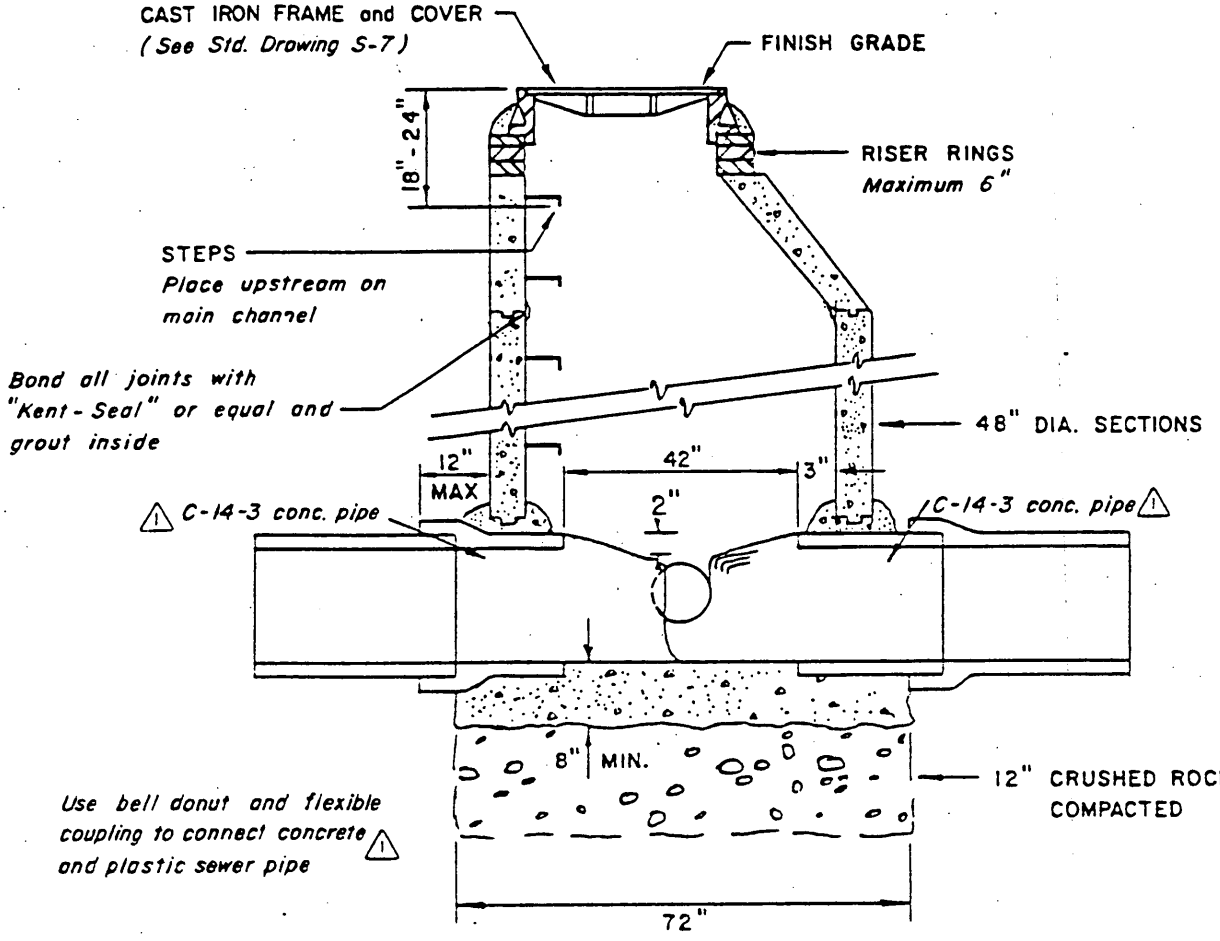
NOTES

1. Compact backfill to not less than 95% relative compaction.
2. Initial compaction of backfill over P.V.C. pipe, to 3 feet over top of pipe, shall be 85% relative compaction. ⚠

NOTES

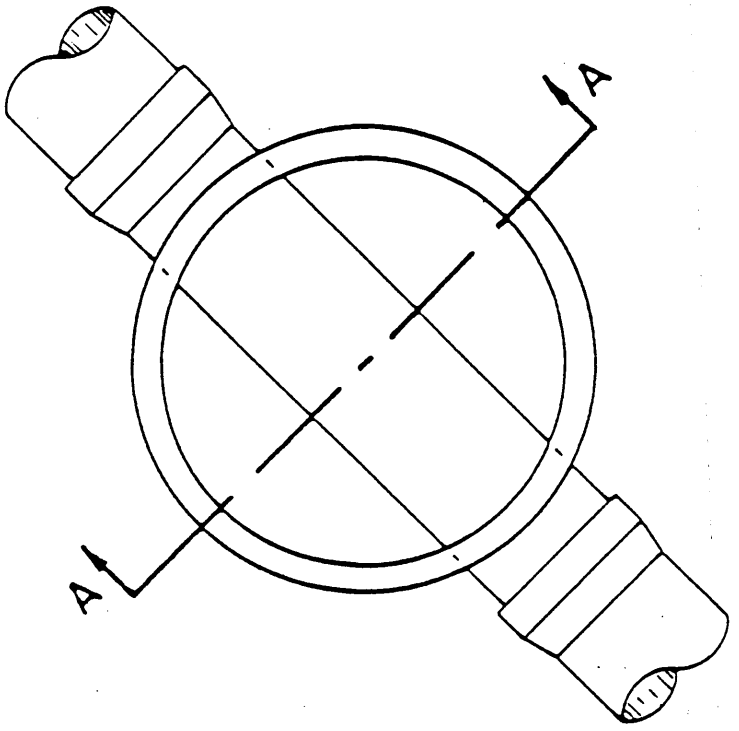
1. *This type manhole shall be used for 24" pipe or less.*
2. *All precast concrete shall have strength of 4000 P.S.I.*
3. *Poured-in-place concrete shall have strength of 3000 P.S.I.*
4. *Standard manhole depth = 8' from top of frame to invert.*
5. *Match lateral lines with top of mainline.*
6. *Base section to be poured-in-place.*
7. *Grout material – as specified in City of Newberg Std. Specs.*

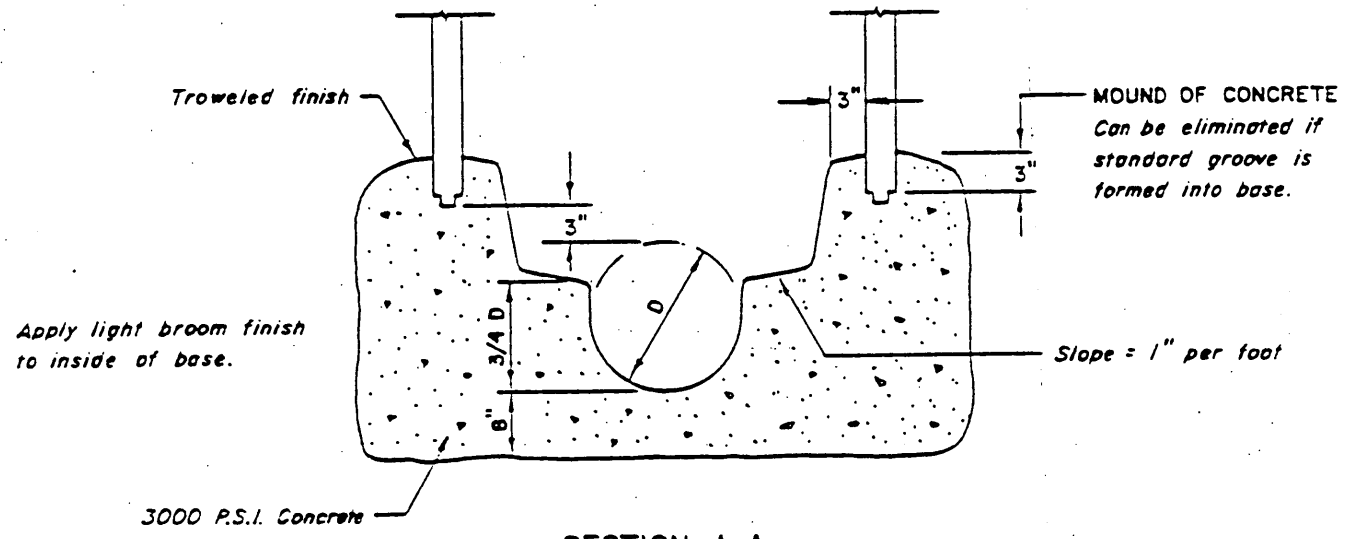




MANHOLE

ENGINEERING DEPT.	CITY of NEWBERG	STANDARD DRAWING NO. S-3	REVISIONS

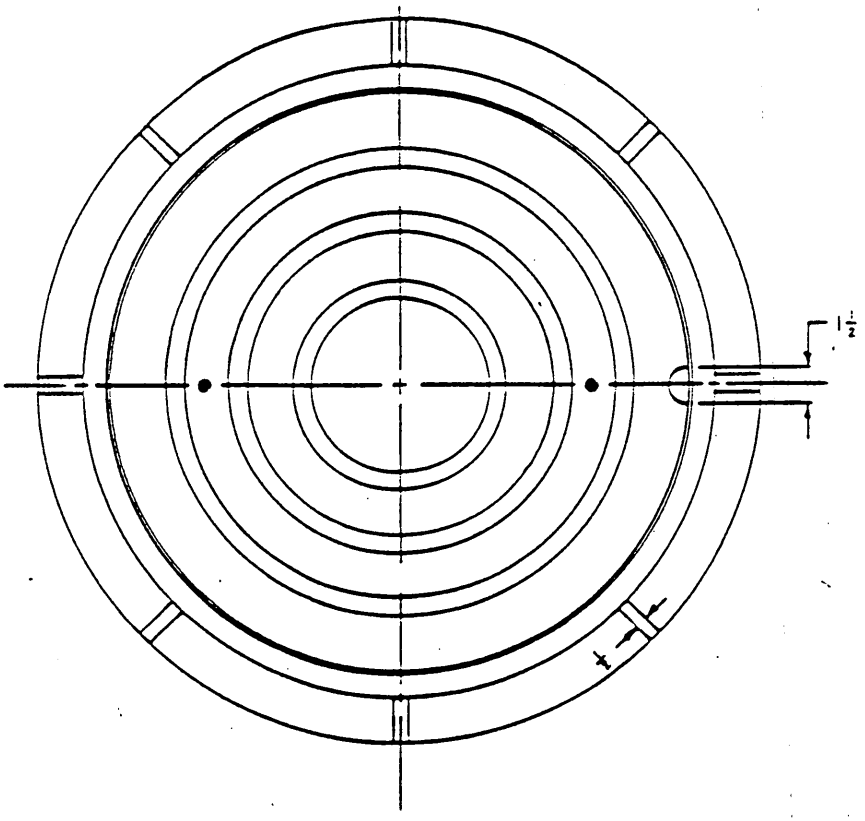


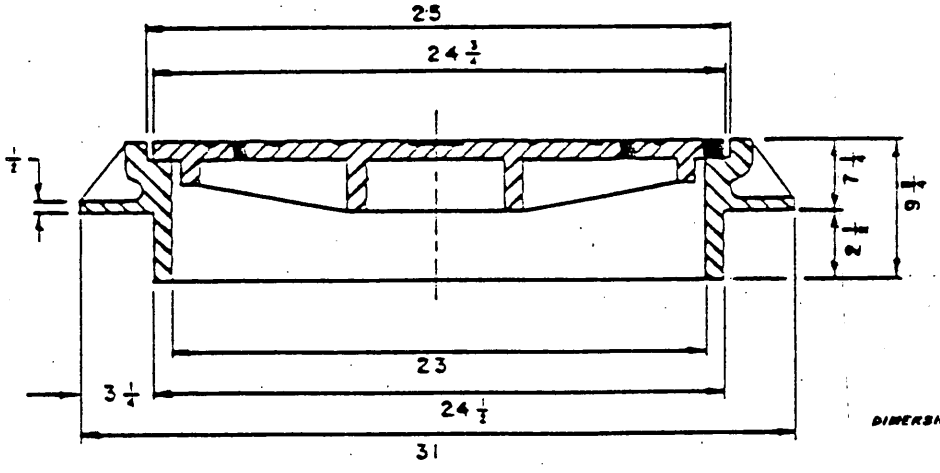


SECTION A-A

MANHOLE BASE

ENGINEERING DEPT.	CITY of NEWBERG	STANDARD DRAWING NO. S-6	REVISIONS





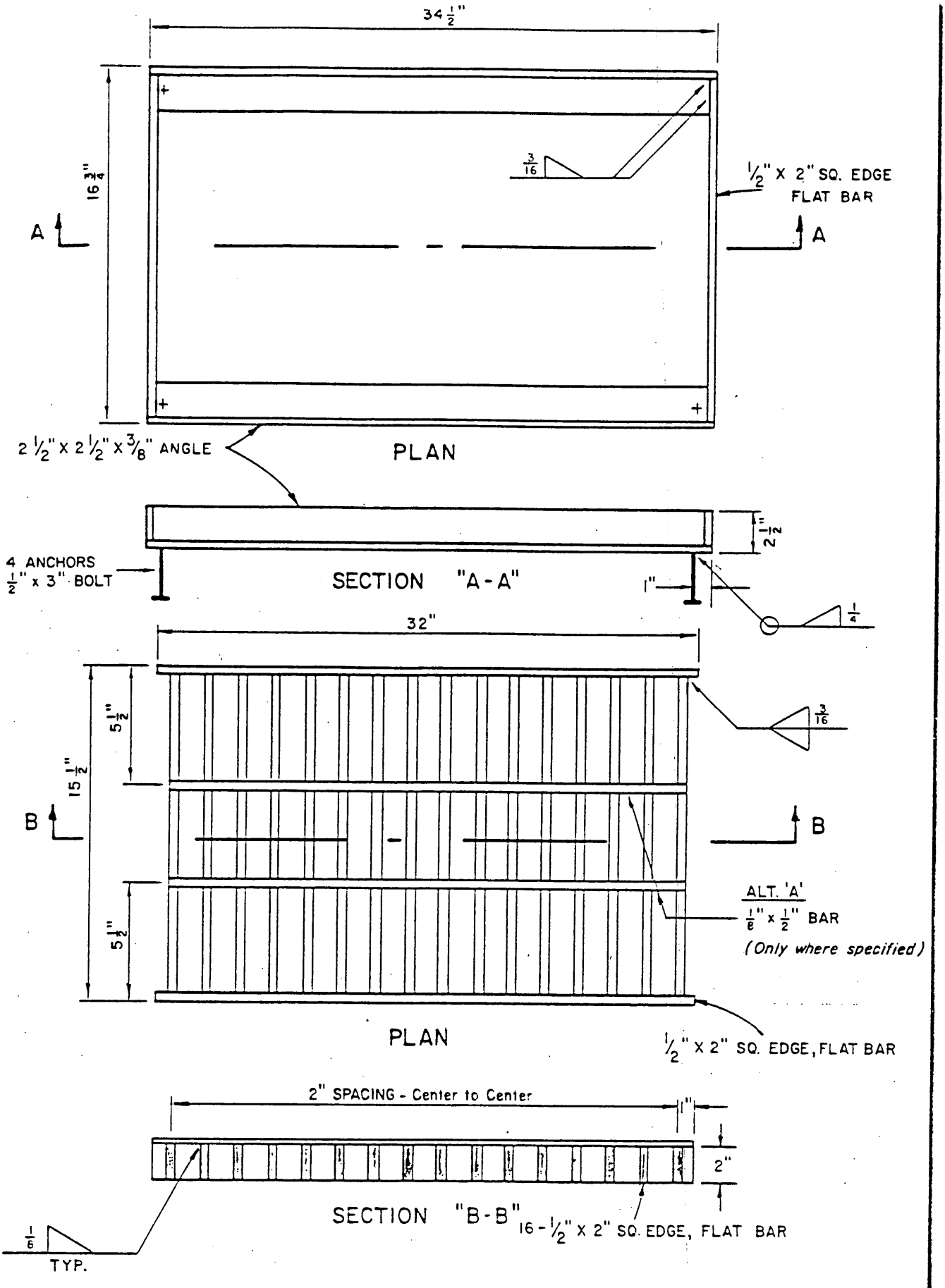
DIMENSIONS IN INCHES

NOTES

1. Standard frames shall be used unless exception is approved by City Engineer.
2. 2-hole cover for sanitary sewer.
   16-hole cover for storm sewer.

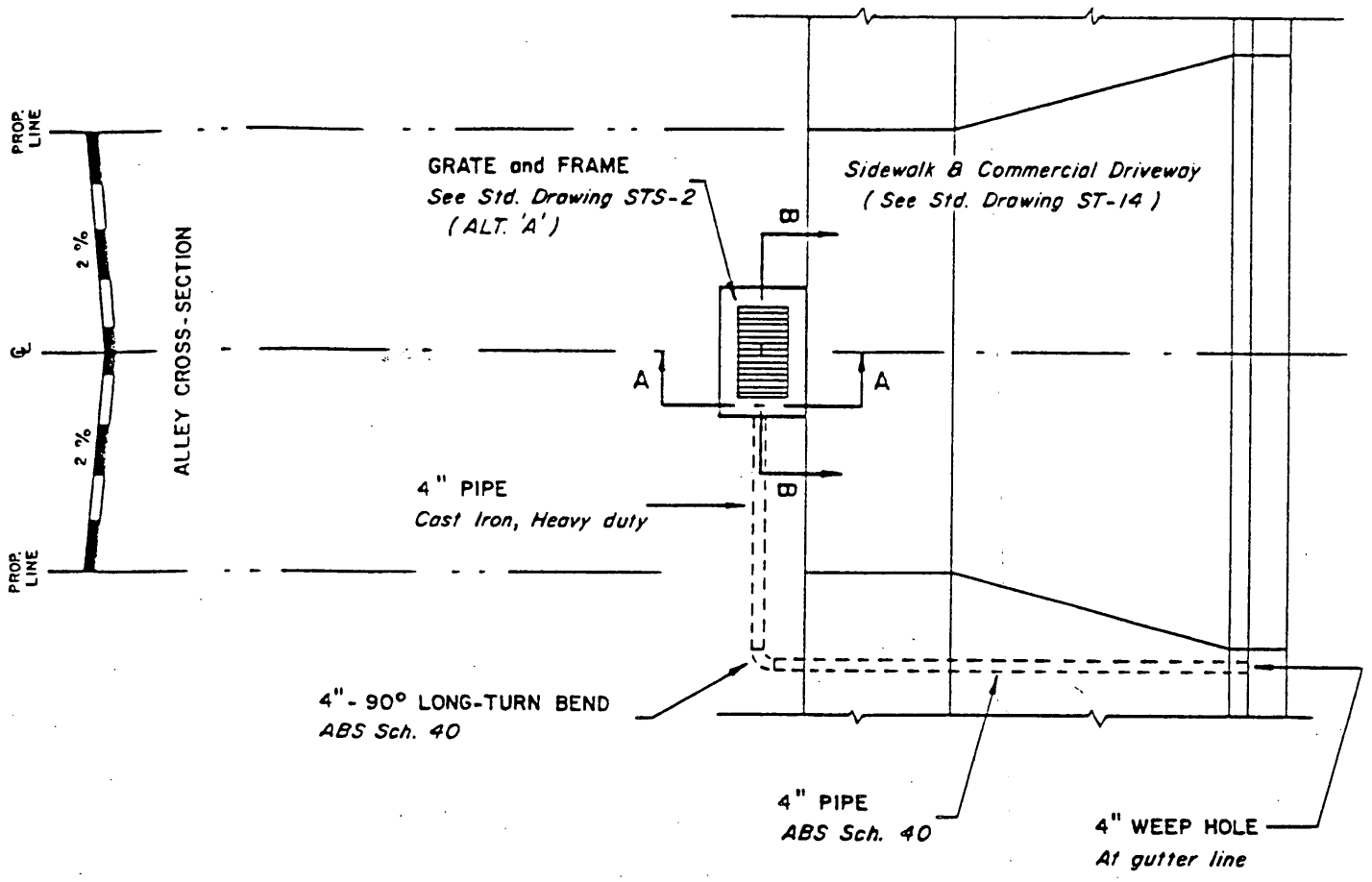
MANHOLE FRAME & COVER

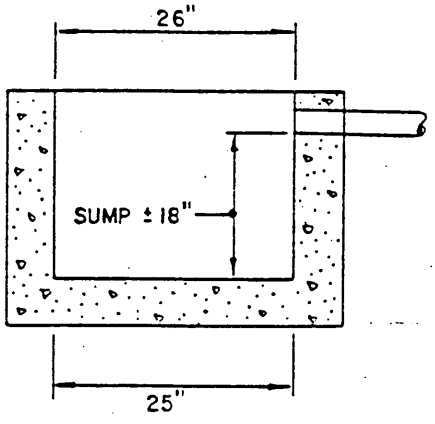
ENGINEERING DEPT.	CITY of NEWBERG	STANDARD DRAWING NO. S-7	REVISIONS



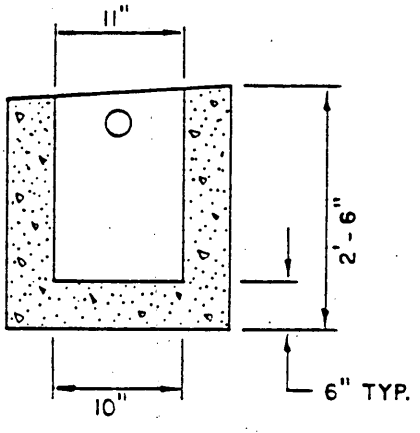
DROP INLET FRAME and GRATE

ENGINEERING DEPT.	CITY of NEWBERG	STANDARD DRAWING NO. STS-2	REVISIONS





SECTION B-B



SECTION A-A

NOTES

1. *Use only for locations with no storm sewer in adjacent street.*
2. *Minimum pipe slope 1 % = 1/8" per foot.*
3. *Catch basin to be cast-in-place.*
4. *Concrete strength = 3000 P.S.I. after 28 days.*

VALLEY GUTTER CATCH BASIN

ENGINEERING DEPT.	*CITY of NEWBERG*	STANDARD DRAWING NO. STS-8	REVISIONS