

ORDINANCE NO. 1643

AN ORDINANCE AUTHORIZING THE CITY ADMINISTRATOR TO EXECUTE A CONTRACT WITH DEWITT CONSTRUCTION IN THE AMOUNT OF \$837,720 FOR THE WALNUT STREET SANITARY SEWER HWY99E & RR BORE PROJECT.

WHEREAS, in accordance with the Public Contract requirements in ORS 279C, the City of Canby has heretofore formally advertised and received bids for the Walnut Street Sanitary Sewer HWY99E & RR Bore Project;

WHEREAS, the notice of call for bids was duly and regularly published in the Oregon Daily Journal of Commerce on April 2, 2025;

WHEREAS, seven (7) bids were received and opened on April 24, 2025, at 2:00 pm in the City Hall Mount Hood Conference Room;

WHEREAS, the Canby City Council, acting as the City's Contract Review Board, met on Wednesday, May 7, 2025, and considered the bids and reports and recommendations of the City staff, including the staff recommendation that the low responsive bid be selected; and

WHEREAS, the Canby City Council determined that the low-responsive bid was that of DeWitt Construction.

NOW, THEREFORE, THE CITY OF CANBY, OREGON, ORDAINS AS FOLLOWS:

Section 1. The City Administrator is hereby authorized and directed to make, execute, and declare in the name of the City of Canby and on its behalf, an appropriate contract with DeWitt Construction for Construction of the Walnut Street Sanitary Sewer HWY99E & RR Bore Project in the amount of \$837,720.

Section 2. Inasmuch as it is in the best interest and the safety and welfare of the citizens of Canby, Oregon, to complete this project as soon as possible, an emergency is hereby declared to exist, and this ordinance shall therefore take effect immediately upon its enactment after final reading.

Section 3. The effective date of this Ordinance shall be June 20, 2025.

SUBMITTED to the Canby City Council and read the first time at a regular meeting therefore on Wednesday, May 7, 2025; ordered posted as required by the Canby City Charter, and scheduled for second reading before the City Council for final reading and action at a regular meeting thereof on Wednesday, May 21, 2025, commencing at the hour of 7:00 PM at the Council Meeting Chambers located at 222 NE 2nd Avenue, Canby, Oregon.


Maya Benham, CMC
City Recorder

PASSED on second and final reading by the Canby City Council at a regular meeting thereof on the 21st day of May 2025, by the following vote:

YEAS 6

NAYS 0



Brian Hodson, Mayor

ATTEST:



Maya Benham, CMC
City Recorder

CITY OF CANBY

WALNUT STREET SANITARY SEWER Hwy 99E & RR BORE

Clackamas County, Oregon

March 2025

CURRAN-MCLEOD, INC., Consulting Engineers
6655 SW Hampton Street, Suite 210
Portland, OR 97223



PAYMENT BOND

Bond No. 4485036

Contractor Name: DeWitt Construction, Inc. Address (principal place of business): 13023 NE Hwy 99, Suite 7, PMB 201 Vancouver, WA 98686	Surety Name: Markel Insurance Company Address (principal place of business): 1111 Main Street #640 Vancouver, WA 98660
Owner Name: City of Canby Mailing address (principal place of business): 222 NE 2nd Ave Canby, OR 97013	Contract Description (name and location): Walnut Street Sanitary Sewer HWY 99 E & RR Bore Contract Price: \$837,720.00 Effective Date of Contract:
Bond Bond Amount: Eight Hundred Thirty-Seven Thousand Seven Hundred Twenty and 00/100 Dollars (\$837,720.00) Date of Bond: <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: ☒ None ☐ See Paragraph 18	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal DeWitt Construction, Inc. <i>(Full formal name of Contractor)</i>	Surety Markel Insurance Company <i>(Full formal name of Surety) (corporate seal)</i>
By: <u><i>Dale Lindstrom</i></u> <i>(Signature)</i>	By: <u><i>Travis J. Robles</i></u> <i>(Signature) (Attach Power of Attorney)</i>
Name: <u>DALE LINDSTROM</u> <i>(Printed or typed)</i>	Name: <u>Travis J. Robles</u> <i>(Printed or typed)</i>
Title: <u>Risk & Safety Manager</u>	Title: <u>Attorney-in-Fact</u>
Attest: <u><i>Karen L. Anderson</i></u> <i>(Signature)</i>	Attest: <u><i>Lois F. Weathers</i></u> <i>(Signature)</i>
Name: <u>Karen L. Anderson</u> <i>(Printed or typed)</i>	Name: <u>Lois F. Weathers</u> <i>(Printed or typed)</i>
Title: <u>Accounting</u>	Title: <u>Witness</u>
Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.	



EJCDC® C-615, Payment Bond.

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1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond will arise after the following:
 - 5.1. Claimants who do not have a direct contract with the Contractor
 - 5.1.1. have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2. have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2. Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1. Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2. Pay or arrange for payment of any undisputed amounts.
 - 7.3. The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. Definitions
 - 16.1. *Claim*—A written statement by the Claimant including at a minimum:
 - 16.1.1. The name of the Claimant;
 - 16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;
 - 16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
 - 16.1.4. A brief description of the labor, materials, or equipment furnished;

- 16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- 16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
- 16.1.7. The total amount of previous payments received by the Claimant; and
- 16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
- 16.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 16.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
- 16.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 16.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
- 17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
- 18. Modifications to this Bond are as follows:

JOINT LIMITED POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That SureTec Insurance Company, a Corporation duly organized and existing under the laws of the State of Texas and having its principal office in the County of Harris, Texas and Markel Insurance Company (the "Company"), a corporation duly organized and existing under the laws of the state of Illinois, and having its principal administrative office in Glen Allen, Virginia, does by these presents make, constitute and appoint:

Aliceon A. Keltner, Annelies M. Richie, Carley Espiritu, Christopher Kinyon, Jamie L. Marques, Holli Albers, Tamara A. Ringeisen, Katharine J. Snider, Cynthia L. Jay, Amelia G. Burrill, Justin Dean Price, Alyssa J. Lopez, Lindsey Elaine Jorgensen, Lois F. Weathers, Sarah Whitaker, Julianne Morris, Julie A. Craker, Charla M. Boadle, Travis J. Robles

Their true and lawful agent(s) and attorney(s)-in-fact, each in their separate capacity if more than one is named above, to make, execute, seal and deliver for and on their own behalf, individually as a surety or jointly, as co-sureties, and as their act and deed any and all bonds and other undertaking in suretyship provided, however, that the penal sum of any one such instrument executed hereunder shall not exceed the sum of:

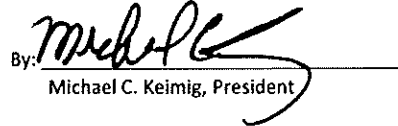
Fifty Million and 00/100 Dollars (\$50,000,000.00)

This Power of Attorney is granted and is signed and sealed under and by the authority of the following Resolutions adopted by the Board of Directors of SureTec Insurance Company and Markel Insurance Company:

"RESOLVED, That the President, any Senior Vice President, Vice President, Assistant Vice President, Secretary, Assistant Secretary, Treasurer or Assistant Treasurer and each of them hereby is authorized to execute powers of attorney, and such authority can be executed by use of facsimile signature, which may be attested or acknowledged by any officer or attorney, of the company, qualifying the attorney or attorneys named in the given power of attorney, to execute in behalf of, and acknowledge as the act and deed of the SureTec Insurance Company and Markel Insurance Company, as the case may be, all bond undertakings and contracts of suretyship, and to affix the corporate seal thereto."

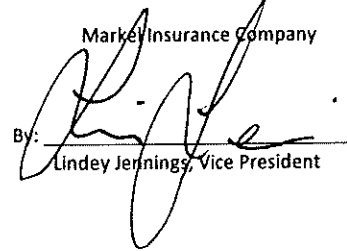
IN WITNESS WHEREOF, Markel Insurance Company and SureTec Insurance Company have caused their official seal to be hereunto affixed and these presents to be signed by their duly authorized officers on the 3rd day of December, 2024.

SureTec Insurance Company

By: 
Michael C. Keimig, President



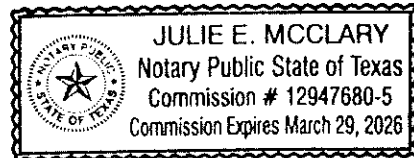
Markel Insurance Company

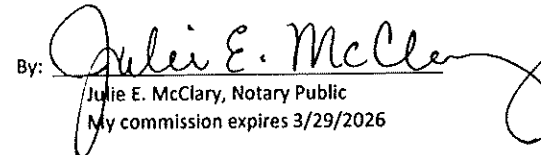
By: 
Lindsey Jennings, Vice President

State of Texas
County of Harris:

On this 3rd day of December, 2024 A. D., before me, a Notary Public of the State of Texas, in and for the County of Harris, duly commissioned and qualified, came THE ABOVE OFFICERS OF THE COMPANIES, to me personally known to be the individuals and officers described in, who executed the preceding instrument, and they acknowledged the execution of same, and being by me duly sworn, disposed and said that they are the officers of the said companies aforesaid, and that the seals affixed to the proceeding instrument are the Corporate Seals of said Companies, and the said Corporate Seals and their signatures as officers were duly affixed and subscribed to the said instrument by the authority and direction of the said companies, and that Resolutions adopted by the Board of Directors of said Companies referred to in the preceding instrument is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand, and affixed my Official Seal at the County of Harris, the day and year first above written.

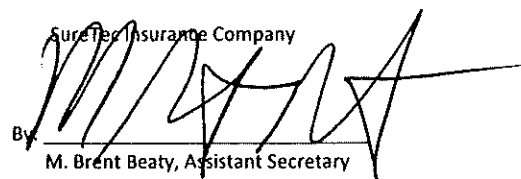


By: 
Julie E. McClary, Notary Public
My commission expires 3/29/2026

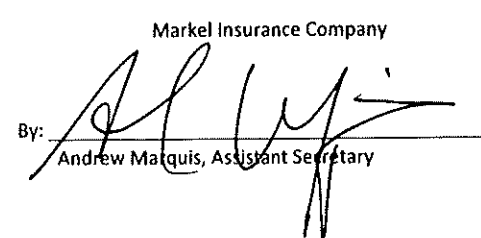
We, the undersigned Officers of SureTec Insurance Company and Markel Insurance Company do hereby certify that the original POWER OF ATTORNEY of which the foregoing is a full, true and correct copy is still in full force and effect and has not been revoked.

IN WITNESS WHEREOF, we have hereunto set our hands, and affixed the Seals of said Companies, on the _____ day of _____, _____.

SureTec Insurance Company

By: 
M. Brent Beaty, Assistant Secretary

Markel Insurance Company

By: 
Andrew Marquis, Assistant Secretary

PERFORMANCE BOND

Bond No. 4485036

Contractor Name: DeWitt Construction, Inc. Address (principal place of business): 13023 NE Hwy 99, Suite 7, PMB 201 Vancouver, WA 98686	Surety Name: Markel Insurance Company Address (principal place of business): 1111 Main Street #640 Vancouver, WA 98660
Owner Name: City of Canby Mailing address (principal place of business): 222 NE 2nd Ave Canby, OR 97013	Contract Description (name and location): Walnut Street Sanitary Sewer HWY 99 E & RR Bore Contract Price: \$837,720.00 Effective Date of Contract:
Bond Bond Amount: Eight Hundred Thirty-Seven Thousand Seven Hundred Twenty and 00/100 Dollars (\$837,720.00) Date of Bond: <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: ☒ None ☐ See Paragraph 16	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal DeWitt Construction, Inc. <i>(Full formal name of Contractor)</i>	Surety Markel Insurance Company <i>(Full formal name of Surety) (Corporate seal)</i>
By: <u><i>Dale Lindstrom</i></u> <i>(Signature)</i>	By: <u><i>Travis J. Robles</i></u> <i>(Signature) (Attach Power of Attorney)</i>
Name: <u>DALE LINDSTROM</u> <i>(Printed or typed)</i>	Name: <u>Travis J. Robles</u> <i>(Printed or typed)</i>
Title: <u>RISK & SAFETY MANAGER</u>	Title: <u>Attorney-in-Fact</u>
Attest: <u><i>Kara L. Anderson</i></u> <i>(Signature)</i>	Attest: <u><i>Lois F. Weathers</i></u> <i>(Signature)</i>
Name: <u>Kara L. Anderson</u> <i>(Printed or typed)</i>	Name: <u>Lois F. Weathers</u> <i>(Printed or typed)</i>
Title: <u>Accounting</u>	Title: <u>Witness</u>
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	



EJCDC® C-610, Performance Bond.

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1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:
 - 3.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;
 - 3.2. The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
 - 3.3. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.
4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.
5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 5.1. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;
 - 5.2. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;
 - 5.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or
 - 5.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

- 5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- 5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.
6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, or the Surety has denied liability, in whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.
7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:
- 7.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- 7.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and
- 7.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.
9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.
12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.
13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such

statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1. *Balance of the Contract Price*—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3. *Contractor Default*—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

16. Modifications to this Bond are as follows:

JOINT LIMITED POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That SureTec Insurance Company, a Corporation duly organized and existing under the laws of the State of Texas and having its principal office in the County of Harris, Texas and Markel Insurance Company (the "Company"), a corporation duly organized and existing under the laws of the state of Illinois, and having its principal administrative office in Glen Allen, Virginia, does by these presents make, constitute and appoint:

Aliceon A. Keltner, Annelies M. Richie, Carley Espiritu, Christopher Kinyon, Jamie L. Marques, Holli Albers, Tamara A. Ringeisen, Katharine J. Snider, Cynthia L. Jay, Amelia G. Burrill, Justin Dean Price, Alyssa J. Lopez, Lindsey Elaine Jorgensen, Lois F. Weathers, Sarah Whitaker, Julianne Morris, Julie A. Craker, Charla M. Boadle, Travis J. Robles

Their true and lawful agent(s) and attorney(s)-in-fact, each in their separate capacity if more than one is named above, to make, execute, seal and deliver for and on their own behalf, individually as a surety or jointly, as co-sureties, and as their act and deed any and all bonds and other undertaking in suretyship provided, however, that the penal sum of any one such instrument executed hereunder shall not exceed the sum of:

Fifty Million and 00/100 Dollars (\$50,000,000.00)

This Power of Attorney is granted and is signed and sealed under and by the authority of the following Resolutions adopted by the Board of Directors of SureTec Insurance Company and Markel Insurance Company:

"RESOLVED, That the President, any Senior Vice President, Vice President, Assistant Vice President, Secretary, Assistant Secretary, Treasurer or Assistant Treasurer and each of them hereby is authorized to execute powers of attorney, and such authority can be executed by use of facsimile signature, which may be attested or acknowledged by any officer or attorney, of the company, qualifying the attorney or attorneys named in the given power of attorney, to execute in behalf of, and acknowledge as the act and deed of the SureTec Insurance Company and Markel Insurance Company, as the case may be, all bond undertakings and contracts of suretyship, and to affix the corporate seal thereto."

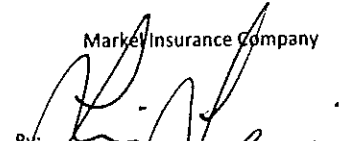
IN WITNESS WHEREOF, Markel Insurance Company and SureTec Insurance Company have caused their official seal to be hereunto affixed and these presents to be signed by their duly authorized officers on the 3rd day of December, 2024.

SureTec Insurance Company

By: 
Michael C. Keimig, President



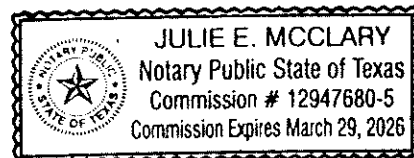
Markel Insurance Company

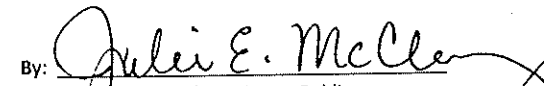
By: 
Lindsey Jennings, Vice President

State of Texas
County of Harris:

On this 3rd day of December, 2024 A. D., before me, a Notary Public of the State of Texas, in and for the County of Harris, duly commissioned and qualified, came THE ABOVE OFFICERS OF THE COMPANIES, to me personally known to be the individuals and officers described in, who executed the preceding instrument, and they acknowledged the execution of same, and being by me duly sworn, disposed and said that they are the officers of the said companies aforesaid, and that the seals affixed to the proceeding instrument are the Corporate Seals of said Companies, and the said Corporate Seals and their signatures as officers were duly affixed and subscribed to the said instrument by the authority and direction of the said companies, and that Resolutions adopted by the Board of Directors of said Companies referred to in the preceding instrument is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand, and affixed my Official Seal at the County of Harris, the day and year first above written.

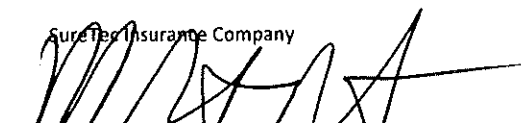


By: 
Julie E. McClary, Notary Public
My commission expires 3/29/2026

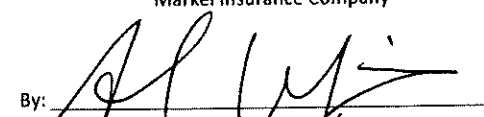
We, the undersigned Officers of SureTec Insurance Company and Markel Insurance Company do hereby certify that the original POWER OF ATTORNEY of which the foregoing is a full, true and correct copy is still in full force and effect and has not been revoked.

IN WITNESS WHEREOF, we have hereunto set our hands, and affixed the Seals of said Companies, on the _____ day of _____, _____.

SureTec Insurance Company

By: 
M. Brent Beaty, Assistant Secretary

Markel Insurance Company

By: 
Andrew Marquis, Assistant Secretary

CITY OF CANBY
WALNUT ST SANITARY SEWER
HWY 99E & RR BORE

CURRAN-McLEOD, INC.
CONSULTING ENGINEERS

Addendum No. 2

Page 1 of 1

April 17, 2025

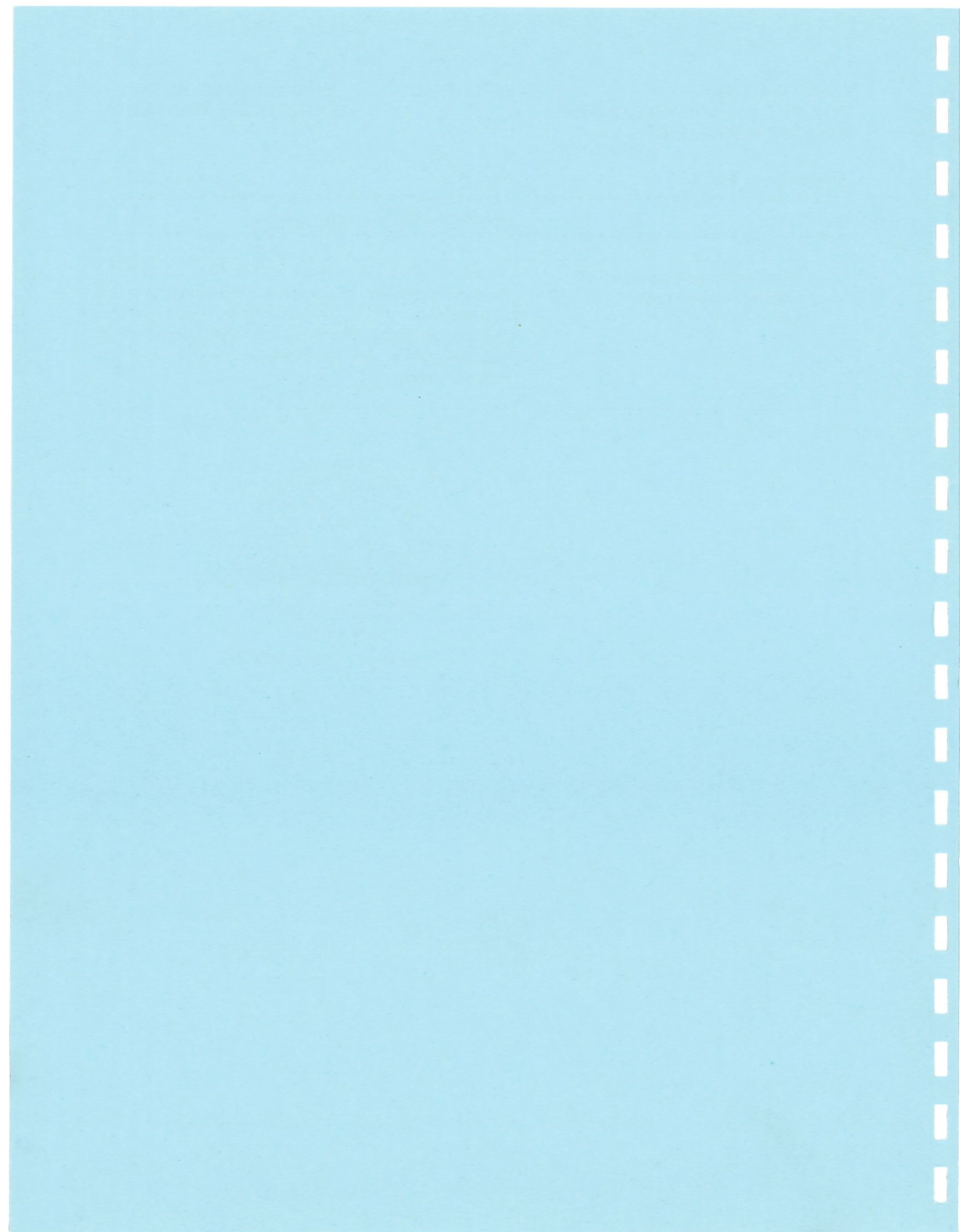
No. ITEM

CHANGE OR CLARIFICATION

1.	Specifications Division 01000, General Requirements, Item 1.01. B. C2	Clarification on the railroad permit: Note all costs for railroad inspection by Railpros Field Services or the Union Pacific will be paid directly by the "Licensee", the City of Canby. The Contractor shall coordinate all required tasks and notifications directly with the railroad agents.
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Exp 12/2026



CITY OF CANBY
WALNUT ST SANITARY SEWER
HWY 99E & RR BORE

CURRAN-McLEOD, INC.
CONSULTING ENGINEERS

Addendum No. 1

Page 1 of 1

April 16, 2025

No. ITEM

CHANGE OR CLARIFICATION

1.	PROPOSAL, Item 2, 12, and 13, page 12	The casing size shall be determined by the contractor as needed to remove rocks if required. Although the bid items refer to a 20" casing, the casing may be any size that the contractor selects. Curran-McLeod, Inc. will secure any required permit modifications if the contractor elects to use a larger casing. Note the geotechnical report (bound in the spec book) indicated the ground conditions on both Bore 2 (South side of the highway at Walnut Street) and Bore 4 (North side of the Highway at Walnut Street) was silt and sand down to 40 feet depth. The railroad bore is located 500 feet north of Walnut Street and no test bores were completed at that location.
2.	Plans, Sheet C2	Delete the note in the top left of the profile that states "GRIND EDGE OF AC 6' WIDE 2" to 0" Depth Grind." The entire shaded area is to be ground 2" and a 2" top lift of AC placed to match the existing grades.



CONTRACT DOCUMENTS, GENERAL CONDITIONS AND
TECHNICAL SPECIFICATIONS:

City of Canby

Walnut St Sanitary Sewer Hwy 99E & RR Bore

Clackamas County, Oregon



March 2025

CURRAN-McLEOD, INC. CONSULTING ENGINEERS
6655 S.W. Hampton Street, Suite 210
Portland, Oregon 97223

City of Canby
Walnut St Sanitary Sewer Hwy 99E & RR Bore

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TECHNICAL SPECIFICATIONS

DIVISION 1 – GENERAL REQUIREMENTS

01000	General Requirements
01500	Contractor Facilities and Temporary Controls
01600	Measurement and Payment
01700	Project Closeout

DIVISION 2 – SITE WORK

02010	Surface Exploration
02100	Site Preparation
02200	Earthwork
02500	Paving and Surfacing
02700	Site Piping

CONSTRUCTION DRAWINGS

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NOTICE TO CONTRACTORS

NOTICE TO CONTRACTORS

Sealed bids for a Sanitary Sewer highway and railroad crossing will be received by the City of Canby Public Works Director until 2:00 pm on Thursday, April 24, 2025, at which time bidding will be closed.

Pursuant to ORS 279C.370(2), within two (2) working hours of the Bid Closing all Bidders shall submit to the Agency a disclosure form as furnished with these bid documents identifying any first-tier subcontractors (those Entities that would be contracting directly with the prime contractor) that will be furnishing labor or materials on the Contract, if awarded, whose subcontract value would be equal to or greater than:

- ☐ Five percent of the total Contract Price, but at least \$15,000, or
- ☐ \$350,000 regardless of the percentage of the total Contract Price.

Bids and disclosure forms shall be addressed to Mr. Jerry Nelzen, Public Works Director, and delivered to the Canby City Hall, 222 NE 2nd Avenue, Canby, OR 97013. At 2:00 pm, bids will be opened and read aloud. Only bids for which a disclosure form has been submitted within two (2) working hours of the Bid Closing date and time will be considered responsive.

The scope of work consists of construction of approximately 1,000 lf of 8" sanitary sewer line including crossing the Union Pacific Railroad in a 20" epoxy coated steel casing pipe with cathodic protection, and crossing ODOT Highway 99E in a 20" uncoated steel casing pipe. The estimated cost of the work is \$900,000.

Plans and specifications are available at the offices of CURRAN-McLEOD, INC., Consulting Engineers, 6655 S.W. Hampton Street, Suite 210, Portland, Oregon, 97223, telephone: (503) 684-3478. Electronic PDF copies are available without charge for contractors and material suppliers upon registration with the Engineer. (Please email cmi@curran-mcleod.com to register and request an electronic copy). A forty-dollar (\$40.00) non-refundable fee is required with each request for a reduced sized hard copy. Specifications may be examined at the following locations:

City of Canby	22 NE 2nd Avenue	Canby, OR
City of Canby Public Works Shops	1470 NE Territorial Road	Canby, OR
Oregon Contractor Plan Center	5468 SE International Way	Clackamas, OR
Salem Contractors Exchange	2256 Judson St. S.E.	Salem, OR
Daily Journal of Commerce B OR	Electronic Only - (503) 274-0624	Portland, OR
McGraw-Hill Construction/Dodge	3461 NW Yeon Ave	Portland, OR
SW Washington Contractors Assoc.	7017 N.E. Hwy 99, #214	Vancouver, WA
Eugene Builders Exchange	2460 West 11th	Eugene, OR
Central Oregon Builders Exchange	1902 NE 4th	Bend, OR

Bidders must be pre-qualified to bid on this project. Bidders not currently pre-qualified by the Owner, Engineer or the Oregon Department of Transportation may apply for pre-qualification with the Owner or Engineer prior to the bid opening on forms available or similar to those available from the Oregon Department of Transportation.

No bid shall be received or considered unless the Bidder is registered with the Construction Contractors Board as required by ORS chapter 701.021.

To be considered, bids must be completed on the bidding forms provided, in the manner prescribed in the bidding documents and accompanied by a 5% bid security in favor of the City of Canby.

Each bidder must indicate in the space provided on the Bid Form, whether they are a Resident or Non-Resident Bidder pursuant to ORS 279A.120.

A pre-bid meeting will not be held for this project. If anyone has questions related to the scope of work please contact the project engineer.

By submission of a bid, each bidder certifies that the provisions of ORS 279C.800 to 279C.870 and the Oregon Prevailing Wage Rates are included in the bid prices. By submission of the bid, the CONTRACTOR is certifying compliance with the provisions of ORS 279C.800 through 870. Contractors need not be licensed for asbestos handling per ORD 468A.720 to complete this project.

The City of Canby reserves the right to reject any or all bids not in compliance with all prescribed public bidding procedures and requirements, may reject for good cause any and all bids upon a finding of the agency it is in the public interest to do so, and may waive all informalities. No bidder may withdraw or modify his bid prior to the lapse of thirty (30) days after bid opening.

By order of the City Council of the City of Canby

INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

ARTICLE 1 - DEFINED TERMS

- 1.1 Terms used in these Instructions to Bidders which are defined in the Standard General Conditions of the Construction Contract (No. C-700, 2018 Ed.) have the meanings assigned to them in the General Conditions. The term "Bidder" means one who submits a Bid directly to OWNER, as distinct from a sub-bidder, who submits a bid to a Bidder. The term "Successful Bidder" means the lowest, qualified, responsible, and responsive Bidder to whom OWNER (on the basis of OWNER'S evaluation as hereinafter provided) makes an award. The term "Bidding Documents" includes the Advertisement or Invitation to Bid, Instructions to Bidders, the Bid Form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

ARTICLE 2 - COPIES OF BIDDING DOCUMENTS

- 2.1 Complete sets of Bidding Documents in the number and for the sum, if any, stated in the Advertisement or Invitation to Bid may be obtained from ENGINEER.
- 2.2 Complete sets of Bidding Documents must be used in preparing Bids. Neither OWNER nor ENGINEER assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.3 OWNER and ENGINEER in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

ARTICLE 3 - QUALIFICATIONS OF BIDDERS

- 3.1 Bidders must be pre-qualified with the OWNER to bid on this project. No bids will be accepted from CONTRACTORS that are not currently pre-qualified.

ARTICLE 4 - EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- 4.1 It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Contract Documents thoroughly, (b) visit the site to become familiar with local conditions that may affect cost, progress, performance, or furnishing of the Work, (c) consider Federal, State and Local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work, (d) study and carefully correlate Bidder's observations with the Contract Documents, and (e) notify ENGINEER of all conflicts, errors, or discrepancies in the Contract Documents.
- 4.2 Information and data reflected in the Contract Documents with respect to Underground Facilities at or contiguous to the site is based upon information and data furnished to OWNER and ENGINEER by owners of such Underground Facilities or others, and OWNER does not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.

- 4.3 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders on subsurface conditions, underground facilities and other physical conditions, and possible changes in the Contract Documents due to differing conditions appear in Article 5 of the General Conditions.
- 4.4 Before submitting a Bid each Bidder will be responsible to make or obtain such explorations, tests, and data concerning physical conditions (surface, subsurface, and Underground Facilities) at or contiguous to the site, or otherwise which may affect cost, progress, performance, or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.
- 4.5 On request in advance, OWNER will provide each Bidder access to the site to conduct such explorations and tests as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes, clean up, and restore the site to its former condition upon completion of such explorations.
- 4.6 The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other land designated for use by the Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by OWNER unless otherwise provided in the Contract Documents.
- 4.7 The submission of a bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this ARTICLE 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and such means, methods, techniques, sequences, or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work to complete the project.

ARTICLE 5 - INTERPRETATIONS AND ADDENDA

- 5.1 All questions about the meaning or intent of the Contract Documents are to be directed to the ENGINEER. Interpretations or clarifications considered necessary by the ENGINEER in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by ENGINEER as having received the Bidding Documents. Questions received less than three days prior to the date for the opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 5.2 Addenda may also be issued to modify the Bidding Documents as deemed advisable by OWNER or ENGINEER.

ARTICLE 6 - BID SECURITY

- 6.1 Bid Security in the amount of five percent (5%) of the Base Bid must accompany each Bid proposal. Bid Security may be in the form of a surety bond or cashier's check, but if it is a surety bond, it must comply with the requirements of Article 5 of the General Conditions. If a surety bond is submitted as Bid Security, it shall be written on EJCDC NO. C-430, Bid Bond, or similar instrument, and the attorney-in-fact who executes the bond shall affix to the bond a current copy of his power of attorney. Surety companies executing bonds must appear on the U.S. Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.
- 6.2 The Bid security of the top three Bidder will be retained until the successful Bidder has executed the Agreement and furnished the required contract security, whereupon the Bid Securities will be returned. If the Successful Bidder fails to execute and deliver the Agreement and furnish the required contract security within ten (10) days after the Notice of Award, OWNER may annul the Notice of Award and the Bid Security of that Bidder will be forfeited. The Bid Security of other Bidders whom the OWNER believes to have a reasonable chance of receiving the award may be retained by the OWNER until the earlier of the seventh day (7th) day after the Effective Date of the Agreement or the thirty first (31st) day after the Bid opening, whereupon Bid Security furnished by such Bidders will be returned. Bid Security and Bids which are not competitive will be returned within seven (7) days after the Bid opening.

ARTICLE 7 - CONTRACT TIME

- 7.1 The number of days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the Contract Time) are set forth in the Agreement.

ARTICLE 8 - LIQUIDATED DAMAGES

- 8.1 Provisions for liquidated damages are set forth in the Agreement. Delay damages will be assessed for failure to achieve substantial completion AND/OR final completion as defined in the General Conditions. Liquidated damages shall be paid by the Contractor to the Owner, or the OWNER may withhold damages from any amounts due to the Contractor.

ARTICLE 9 - SUBSTITUTING "OR-EQUAL" ITEMS

- 9.1 The materials and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance, and quality to be met by any proposed substitution. All materials and equipment shall be as specified "or equal", without regard to the presence or lack of "or equal" verbiage in the specific specification unless noted otherwise. No 'or equal' substitution will be considered unless written request for approval has been submitted by the Bidder and has been received by the ENGINEER at least seven (7) days prior to the date for receipt of Bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute, including drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other

materials, equipment, or Work that incorporation of the substitution would require shall be included. The burden of proof of the merit of the proposed substitution is upon the Bidder. The ENGINEER'S decision of approval or disapproval of a proposed substitution shall be final. If ENGINEER approves any proposed 'or equal' substitution, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

ARTICLE 10 - SUBCONTRACTORS, SUPPLIERS AND OTHERS

- 10.1 The OWNER may require the identity of certain Subcontractors, Suppliers, and other persons and organizations (including those who are to furnish the principal items of material and equipment) to be submitted to OWNER in advance of the Notice of Award. The apparent Successful Bidder, and any other Bidder if requested shall within seven (7) days after the Bid opening submit to the OWNER a list of all such Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification of each such Subcontractor, Supplier, person or organization if requested by the OWNER.
- 10.2 If OWNER or ENGINEER after due investigation has reasonable objection to any proposed Subcontractor, Supplier, other person or organization, either may before the Notice of Award is given request the apparent Successful Bidder to submit an acceptable substitute in which case the apparent Successful Bidder shall submit an acceptable substitute, that Bidder's bid price will be increased (or decreased) by the difference in cost occasioned by such substitution and OWNER may consider such price adjustment in evaluating Bids and making the contract award. If apparent Successful Bidder declines to make any such substitution, OWNER may award the contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, and other persons and organizations. Declining to make requested substitutions will not constitute grounds for sacrificing the Bid Security of any Bidder.
- 10.3 Any Subcontractor, Supplier, other person or organization listed and to whom OWNER or ENGINEER does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER and ENGINEER, subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 7.06 of the General Conditions.
- 10.4 CONTRACTOR shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom CONTRACTOR has reasonable objection.

ARTICLE 11 - BID FORM

- 11.1 The Bid Form is included within the Contract Documents.
- 11.2 Bid Forms must be completed in ink or printer. The Bid price of each item on the form must be stated in numerals.

- 11.3 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.
- 11.4 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.
- 11.5 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown below the signature.
- 11.6 A Bid by an individual shall show the Bidder's name and official address.
- 11.7 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid form. The official address of the joint venture must be shown below the signature.
- 11.8 The bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Bid Form).
- 11.9 The CCB Registration, business address and telephone number for communications regarding the Bid, and bonding information must be shown.

ARTICLE 12 - SUBMISSION OF BIDS

- 12.1 To be responsive, bids shall be submitted at the time and place identified in the Advertisement or Invitation to Bid, be executed as detailed in these Instructions to Bidders and shall be enclosed in an opaque sealed envelope, marked with the Project Title (and, if applicable, the designated portion of the Project for which the Bid is submitted) and name and address of the Bidder and accompanied by the Bid Security and other required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it.
- 12.2 To be responsive CONTRACTOR must complete, sign and submit the following documents:
 - a. Bid Proposal
 - b. Bid Bond
 - c. First Tier Disclosure

ARTICLE 13 - MODIFICATION AND WITHDRAWAL OF BIDS

- 13.1 Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where the Bids are to be submitted at any time prior to the opening of Bids.
- 13.2 If, within twenty-four hours after Bids are opened, any Bidder files a duly signed, written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake

in the preparation of its Bid, that Bidder may withdraw its Bid and the Bid Security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the Work to be provided under the Contract Documents.

ARTICLE 14 - OPENING OF BIDS

- 14.1 Bids will be opened and read aloud publicly. An abstract of the amounts of the base Bids and major alternates (if any) may be made available to Bidders after the opening of the Bids.

ARTICLE 15 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 15.1 All bids will remain subject to acceptance for thirty (30) days after the day of the Bid opening, but OWNER may, in its sole discretion, release any Bid and return the Bid Security prior to that date.

ARTICLE 16 - AWARD OF CONTRACT

- 16.1 OWNER reserves the right to reject any and all Bids, to waive any and all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, non-responsive, unbalanced, or conditional Bids. Also, OWNER reserves the right to reject the Bid of any Bidder if OWNER determines the Bid to be non-responsive per ORS 279B.110. In the event of discrepancy between the written and numerical amounts the written prices will govern. Discrepancies in the multiplication of units of Work and unit price will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.
- 16.2 In evaluating Bids, OWNER will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 16.3 OWNER may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions.
- OWNER also may consider the operating costs, maintenance requirements, performance data, and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.
- 16.4 OWNER may conduct such investigations as OWNER deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders, proposed Subcontractors, Suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to OWNER'S satisfaction within the prescribed time.
- 16.5 If the contract is to be awarded, the award will be based upon the lowest responsive/responsible bid for the total of the Basic Bid and such alternatives that in the sole judgement of the OWNER will best serve its interests.

- 16.6 If the contract is to be awarded, OWNER will give the Successful Bidder a Notice of Award within thirty (30) days after the Bid opening.
- 16.7 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.

ARTICLE 17 - CONTRACT SECURITY

- 17.1 Prior to execution of the Contract, the Bidder shall furnish separate bonds covering the faithful performance of the Contract and the payment of all obligations arising thereunder, each in an amount equal to 100 percent of the Contract Sum. The cost of the furnishing of such bonds shall be included in the Bid. The Surety issuing such bonds shall be licensed to issue bonds in the State of Oregon. Such bonds shall comply with the provisions of Article 6 of the General Conditions.

ARTICLE 18 - SIGNING OF AGREEMENT

- 18.1 When OWNER gives a Notice of Award to the Successful Bidder, it will be accompanied by three unsigned counterparts of the Agreement with all other written Contract Documents attached. Within ten (10) days thereafter, Contractor shall sign and deliver the counterparts of the Agreement and attached documents to OWNER with the required Bonds. Within twenty-five (25) days thereafter, OWNER shall deliver one fully signed counterpart to Contractor. Each counterpart shall include a complete set of Drawings attached by reference.

ARTICLE 19 – CONFERENCES

19.1 PRE-BID CONFERENCE

If a pre-bid conference is specified in the Notice to Contractors, it shall be non-mandatory. If so scheduled, representatives of OWNER and ENGINEER will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference. ENGINEER will transmit to all prospective Bidders of record such Addenda as ENGINEER considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective. The time and date of the pre-bid meeting will be provided by the Engineer.

19.2 PRECONSTRUCTION CONFERENCE

Either before or soon after the actual award of the Contract (but in any event prior to the start of Work at the site), the Contractor or his representative, and his subcontractors, shall attend a Preconstruction Conference with representatives of the OWNER and the ENGINEER. The Conference will be held for review and acceptance of schedules referred to in paragraph 2.04 of the General Conditions, to establish procedures for handling shop drawings and other submittal and for processing applications for payment, and to acquaint the participants with the general plan of contract administration and requirements under which the construction operation is to proceed. The date, time, and place of the Conference

will be furnished to the Contractor by the OWNER. The Contractor will notify his subcontractors of the Conference and require their attendance.

ARTICLE 20 – IDENTIFICATION

- 20.1 The word “OWNER” as used herein refers to the CITY OF CANBY, as identified in the proposal, with whom the CONTRACTOR will enter into an agreement for the work. The OWNER shall be responsible for actions requested by the ENGINEER including payment in accordance with the terms of the Contract.
- 20.2 The word “ENGINEER” as used throughout these documents refers to the firm of CURRAN-McLEOD, INC. Consulting Engineers or their agents. All correspondence, notifications and requests of the OWNER by the CONTRACTOR shall be through the ENGINEER.
- 20.3 The word “CONTRACTOR” refers to the corporation, partnership or sole proprietorship which enters into a contractual obligation with the OWNER to complete the work. Subcontractors shall not be recognized.

ARTICLE 21 – FIRST -TIER SUBCONTRACTOR DISCLOSURE

- 21.1 Within two working hours after the date and time of the deadline when bids are due to a contracting agency for a public improvement contract, a bidder shall submit to the contracting agency a disclosure of the first-tier subcontractors that:
 - (A) Will be furnishing labor or will be furnishing labor and materials in connection with the public improvement contract; and
 - (B) Will have a contract value that is equal to or greater than five percent of the total project bid, or \$15,000, whichever is greater, or \$350,000 regardless of the percentage of the total project bid.
- 21.2 The disclosure of first-tier subcontractors under this subsection must include the name of each subcontractor, the category of work that each subcontractor will perform and the dollar value of each subcontract. The information shall be disclosed in the form provided in this bid document.
- 21.3 If the Bidder will not be using any Subcontractors that are subject to the above disclosure requirements, you are required to indicate “NONE” on the accompanying form.
- 21.4 THE OWNER MUST REJECT A BID IF THE BIDDER FAILS TO SUBMIT THE DISCLOSURE FORM WITH THIS INFORMATION BY THE STATED DEADLINE, EVEN IF NO SUBCONTRACTORS ARE LARGE ENOUGH TO BE DISCLOSED PER OAR 125-249-0360.

BID PROPOSAL

BID PROPOSAL

TO: Mr. Jerry Nelzen
Public Works Director
City of Canby
222 NE 2nd Avenue
Canby, OR 97013

April 24, 2025

The undersigned is a (indicate one):

☒ RESIDENT ☐ NON-RESIDENT

bidder as defined by ORS 279A.120, structured as (check one of the following and insert information requested):

- ☒ a. A Corporation organized and existing under laws of the State of Oregon; or
- ☐ b. A Partnership registered under the laws of the State of _____; or
- ☐ c. An individual doing business under an assumed name registered under the laws of the State of _____.

The undersigned bidder declares that the only persons or parties interested in this proposal are those named herein, that this proposal is in all respects fair and without fraud and that it is made without collusion with any representatives of the OWNER.

The bidder further declares that: a) he has examined the plans, specifications, and other proposed contract documents; b) he has determined the extent, character, and location of the proposed Work, the nature and type of excavation to be done, the location and condition of existing streets and roadways giving access to the site of the Work, and topography of the site of the Work; and c) he has personally inspected the site of the Work and has satisfied himself as to the conditions of the Work and understands the listing of materials as included herein is brief and is intended only to associate the said quantities with detailed requirements of the contract documents.

The bidder does hereby propose to furnish all materials, tools, equipment, and appliances, and to perform all labor and work necessary to construct and complete the project entitled:

City of Canby
Walnut St Sanitary Sewer Hwy 99E & RR Bore

and all specified work appurtenant thereto, and in connection with this project for the OWNER with the time limit specified, and in accordance with plans, specifications and change order documents prepared by the ENGINEER for the sums set forth in the following schedule of prices, it being understood that the unit prices are independent of the exact quantities involved and that they represent a true measure of the labor and materials required to perform the Work.

The successful bidder agrees that if this proposal is accepted, bidder will execute the required documents and supply the required submittal information as specified herein, within the time frames established herein.

The successful bidder agrees to be substantially complete with all work within 120 days of the Notice to Proceed and achieve final completion within 30 calendar days after issuance of the Certificate of Substantial Completion including punch list items.

In the event the successful bidder fails to achieve Substantial Completion or Final Completion of the project within the time limits specified or extended time limits as agreed upon, liquidated damages shall be paid to the OWNER or deducted from amounts due the Contractor, at the rate of Four Hundred Dollars (\$400.00) per calendar day until Substantial Completion is achieved, and/or until Final Completion is achieved. Sundays and legal holidays shall be excluded in determining the number of days in default.

BASIC BID: Walnut St Sanitary Sewer HWY 99E & RR Bore

Item No.	Description	Quantity	Unit	Unit Price	Total
Site Preparation					
1	Mobilization, Bonds & Insurance	All	LS	\$79,330.00	\$79,330.00
2	Temporary Protection & Direction of Traffic	All	LS	\$5,948.00	\$5,948.00
3	Erosion & Sediment Control	All	LS	\$4,375.00	\$4,375.00
4	Clearing & Grubbing	All	LS	\$2,540.00	\$2,540.00
5	Open Trench Rock Excavation	50	CY	\$117.00	\$5,850.00
6	20" Casing Manual Boulder Removal	30	Hrs	\$1,292.00	\$38,760.00
7	Sawcut AC & Concrete Surfaces	400	LF	\$3.50	\$1,400.00
8	Tree Removal, 12" Dia & Larger	5	EA	\$1,573.00	\$7,865.00
9	Grind Existing AC, 2" Depth	950	SY	\$8.00	\$7,600.00
Subtotal					\$153,668.00
Paving & Surfacing					
10	AC Trench Patch and Overlay, 1/2" Dense Mix ACP, PG 58-28	120	Tons	\$195.50	\$23,460.00
Subtotal					\$23,460.00
Sanitary Sewer					
11	8" PVC 3034 Sanitary Sewer Incl Open Trench Ex and Select Bfl,	734	LF	\$184.75	\$135,606.50
12	ODOT Bore: 20" Steel Casing W/ 8" 3034 PVC Sewer & 3 - 3" Sch 40 PVC Conduit, Includes Sand Slurry Casing Backfill and end plugs	117	LF	\$1,307.00	\$152,919.00

13	UPRR Bore: 20" Steel Casing W/ 8" 3034 PVC Sewer Incl Epoxy Coating, Cathodic Protection, Valve Boxes, Vent, and End Plugs	219	LF	\$1,364.50	\$298,825.50
14	6" Sewer Lateral Reconnection Including Tee, 6" PVC Elbow, 10 lf of 6" Pipe, 6" x 4" PVC Reducer if Required, 4" or 6" Flexible Coupling	4	EA	\$646.00	\$2,584.00
15	6" Sewer Lateral Extension, including Trench Ex & Select Bfl	50	LF	\$123.00	\$6,150.00
16	New Sewer Cleanout including 50 SF of Sidewalk, new cleanout, and landscape restoration if Needed	2	EA	\$1,659.00	\$3,318.00
17	New Service Lateral from MH 6, including 6" MH connection, Excavation & Select Bfl, 20 LF 6" PVC Pipe & End Plug	1	EA	\$4,957.00	\$4,957.00
18	48" Standard Manhole, all depths	6	EA	\$9,372.00	\$56,232.00
Subtotal					\$660,592.00
TOTAL BID					\$837,720.00

Accompanying herewith is Bid Security which is equal to five percent (5%) of the total amount of the Basic Bid.

The undersigned agrees, if awarded the Contract, to execute and deliver to the OWNER within fifteen (15) days after receiving the Contract forms, an Agreement and satisfactory Construction Performance and Construction Payment Bonds each in an amount equal to one hundred percent (100%) of the Contract sum, using forms provided therefore by the OWNER. The Surety requested to issue the Construction Performance Bond will be:

Markel Insurance Co. / Propel Insurance

(Name of Surety Company)

The undersigned hereby authorizes said Surety to disclose any information to the OWNER concerning the undersigned's ability to supply a Construction Performance Bond in the amount of the Contract.

The undersigned certifies that (1) this Bid has been arrived at independently and is being submitted without collusion with, and without any agreement, understanding, or planned common course of action with, any other vendor of materials, supplies, equipment, or services described in the Advertisement for Bids designed to limit independent bidding or competition, (2) the contents of this Bid have not been communicated by the undersigned or its employees or agents to any person not an employee or agent of the undersigned or its surety on any bond furnished with the Bid and will not be communicated to such person prior to the official opening of the bids, and (3) if awarded the Contract, he will commence work within ten (10) calendar days after the date of Notice to Proceed and that he will complete the Work within the specified number of days set forth in the Agreement.

The undersigned certifies that he has received and duly considered the following Addenda to the specifications.

Addenda: No. 1 to No. 2 inclusive.

The undersigned agrees if awarded the Contract that he will comply with the provisions of the Contract Documents and will comply with the provisions of ORS 279C.800 and applicable prevailing wage rates.

Name of Firm Dewitt Construction Inc.

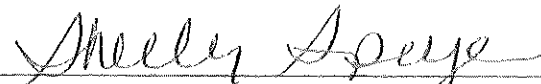
Signature 

Name Ty Dewitt

Address 10311 NE 72nd Ave Vancouver WA

Telephone No. / Email: (360) 576 8755

Construction Contractors Board No. # 63072

If Corporation,
Attest: 
Secretary of Corporation

*If bid is by a partnership, then one of the partners must sign the bid.

BID BOND

BID BOND (PENAL SUM FORM)

Bidder Name: Dewitt Construction Inc Address (principal place of business): 10311 NE 72nd Ave Vancouver WA 98686	Surety Name: Markel Insurance Company Address (principal place of business): 1111 Main Street #640 Vancouver, WA 98660
Owner Name: City of Canby Address (principal place of business): 222 NE 2nd Ave Canby OR 97013	Bid Project (name and location): Walnut Street Sanitary Sewer HWY 99 E & RR Bore Hwy 99E and Walnut St Canby OR Bid Due Date: 4/24/2025 @ 2:00 pm
Bond Penal Sum (amount): Five Percent (5%) of Bid Amount Date of Bond: April 24, 2025	
Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.	
Bidder Dewitt Construction Inc. (Full formal name of Bidder)	Surety Markel Insurance Company (Full formal name of Surety) (corporate seal)
By: <u>[Signature]</u> (Signature)	By: <u>[Signature]</u> (Signature) (Attach Power of Attorney)
Name: <u>DAVE LINDSTROM</u> (Printed or typed)	Name: <u>Travis J. Robles</u> (Printed or typed)
Title: <u>Rep of SAFETY Manager</u>	Title: <u>Attorney-in-Fact</u>
Attest: <u>[Signature]</u> (Signature)	Attest: <u>[Signature]</u> (Signature)
Name: <u>Kara C. Anderson</u> (Printed or typed)	Name: <u>Carley Espiritu</u> (Printed or typed)
Title: <u>Accountant</u>	Title: <u>Witness</u>

Note: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.



JOINT LIMITED POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That SureTec Insurance Company, a Corporation duly organized and existing under the laws of the State of Texas and having its principal office in the County of Harris, Texas and Markel Insurance Company (the "Company"), a corporation duly organized and existing under the laws of the state of Illinois, and having its principal administrative office in Glen Allen, Virginia, does by these presents make, constitute and appoint:

Aliceon A. Keltner, Annelies M. Richie, Carley Espiritu, Christopher Kinyon, Jamie L. Marques, Holli Albers, Tamara A. Ringeisen, Katharine J. Snider, Cynthia L. Jay, Amelia G. Burrill, Justin Dean Price, Alyssa J. Lopez, Lindsey Elaine Jorgensen, Lois F. Weathers, Sarah Whitaker, Julianne Morris, Julie A. Craker, Charla M. Boadle, Travis J. Robles

Their true and lawful agent(s) and attorney(s)-in-fact, each in their separate capacity if more than one is named above, to make, execute, seal and deliver for and on their own behalf, individually as a surety or jointly, as co-sureties, and as their act and deed any and all bonds and other undertaking in suretyship provided, however, that the penal sum of any one such instrument executed hereunder shall not exceed the sum of:

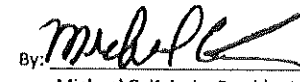
Fifty Million and 00/100 Dollars (\$50,000,000.00)

This Power of Attorney is granted and is signed and sealed under and by the authority of the following Resolutions adopted by the Board of Directors of SureTec Insurance Company and Markel Insurance Company:

"RESOLVED, That the President, any Senior Vice President, Vice President, Assistant Vice President, Secretary, Assistant Secretary, Treasurer or Assistant Treasurer and each of them hereby is authorized to execute powers of attorney, and such authority can be executed by use of facsimile signature, which may be attested or acknowledged by any officer or attorney, of the company, qualifying the attorney or attorneys named in the given power of attorney, to execute in behalf of, and acknowledge as the act and deed of the SureTec Insurance Company and Markel Insurance Company, as the case may be, all bond undertakings and contracts of suretyship, and to affix the corporate seal thereto."

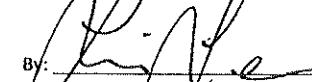
IN WITNESS WHEREOF, Markel Insurance Company and SureTec Insurance Company have caused their official seal to be hereunto affixed and these presents to be signed by their duly authorized officers on the 3rd day of December, 2024.

SureTec Insurance Company

By: 
Michael C. Keimig, President



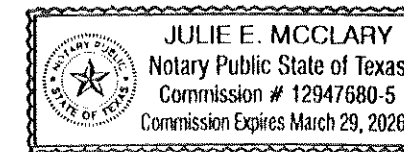
Markel Insurance Company

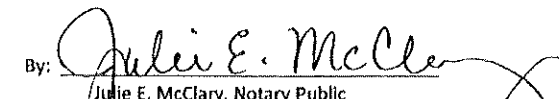
By: 
Lindsey Jennings, Vice President

State of Texas
County of Harris:

On this 3rd day of December, 2024 A. D., before me, a Notary Public of the State of Texas, in and for the County of Harris, duly commissioned and qualified, came THE ABOVE OFFICERS OF THE COMPANIES, to me personally known to be the individuals and officers described in, who executed the preceding instrument, and they acknowledged the execution of same, and being by me duly sworn, disposed and said that they are the officers of the said companies aforesaid, and that the seals affixed to the proceeding instrument are the Corporate Seals of said Companies, and the said Corporate Seals and their signatures as officers were duly affixed and subscribed to the said instrument by the authority and direction of the said companies, and that Resolutions adopted by the Board of Directors of said Companies referred to in the preceding instrument is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand, and affixed my Official Seal at the County of Harris, the day and year first above written.



By: 
Julie E. McClary, Notary Public
My commission expires 3/29/2026

We, the undersigned Officers of SureTec Insurance Company and Markel Insurance Company do hereby certify that the original POWER OF ATTORNEY of which the foregoing is a full, true and correct copy is still in full force and effect and has not been revoked.

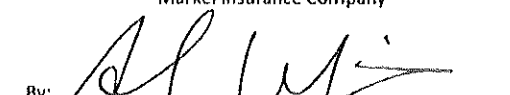
IN WITNESS WHEREOF, we have hereunto set our hands, and affixed the Seals of said Companies, on the 24th day of April, 2025.

SureTec Insurance Company

By: 
M. Brent Beaty, Assistant Secretary



Markel Insurance Company

By: 
Andrew Maquis, Assistant Secretary

Any Instrument issued in excess of the penalty stated above is totally void and without any validity. 4710014
For verification of the authority of this Power you may call (713)812-0800 on any business day between 8:30 AM and 5:00 PM CST.

FIRST-TIER DISCLOSURE STATEMENT

FIRST-TIER DISCLOSURE STATEMENT



FIRST-TIER SUBCONTRACTOR DISCLOSURE

PROJECT NAME: Walnut Street Sanitary Sewer HWY 99 E & RR Bore
BID #: _____
BID CLOSING: Date: 4/24/2025 Time: 2:00 PM

This form must be submitted at the location specified in the Invitation to Bid on the advertised bid closing date and within two working hours after the advertised bid closing time.

List below the name of each subcontractor that will be furnishing labor or will be furnishing labor and materials and that is required to be disclosed, the category of work that the subcontractor will be performing and the dollar value of the subcontract. Enter "NONE" if there are no subcontractors that need to be disclosed.
(ATTACH ADDITIONAL SHEETS IF NEEDED.)

NAME	DOLLAR VALUE	CATEGORY OF WORK
(1) AGMADILLO BORING INC	\$ 7325909.00	BORE BID ITEM #12-13
(2) ARMADILLO BORING INC	\$ 34,522.00	MANURE BOWLER RENOVATE
(3)	\$	
(4)	\$	
(5)	\$	
(6)	\$	
(7)	\$	
(8)	\$	
(9)	\$	

Failure to submit this form by the disclosure deadline will result in a non-responsive bid. A non-responsive bid will not be considered for award.

Form submitted by (bidder name): Dewitt Construction Inc

Contact name: Rob Richardson Phone no.: (360) 600-3446

ORS 279C.370 First-tier subcontractor disclosure. (1)(a) Within two working hours after the date and time of the deadline when bids are due to a contracting agency for a public improvement contract, a bidder shall submit to the contracting agency a disclosure of the first-tier subcontractors that
(A) Will be furnishing labor or will be furnishing labor and materials in connection with the public improvement contract; and
(B) Will have a contract value that is equal to or greater than five percent of the total project bid or \$15,000, whichever is greater, or \$350,000 regardless of the percentage of the total project bid.
(b) For each contract to which this subsection applies, the contracting agency shall designate a deadline for submission of bids that has a date on a Tuesday, Wednesday or Thursday and a time between 2 p.m. and 5 p.m., except that this paragraph does not apply to public contracts for maintenance or construction of highways, bridges or other transportation facilities.
(c) This subsection applies only to public improvement contracts ("projects") with a value, estimated by the contracting agency, of more than \$100,000.
(d) This subsection does not apply to public improvement contracts that have been exempted from competitive bidding requirements under ORS 279C.335 (2).
(2) The disclosure of first-tier subcontractors under subsection (1) of this section must include the name of each subcontractor, the category of work that each subcontractor will perform and the dollar value of each subcontract. The information shall be disclosed in substantially the following [above] form:
(3) A contracting agency shall accept the subcontractor disclosure. The contracting agency shall consider the bid of any contractor that does not submit a subcontractor disclosure to the contracting agency to be a non-responsive bid and may not award the contract to the contractor. A contracting agency is not required to determine the accuracy or the completeness of the subcontractor disclosure.
(4) After the bids are opened, the subcontractor disclosures must be made available for public inspection.
(5) A contractor may substitute a first-tier subcontractor under the provisions of ORS 279C.586.
(6) A subcontractor may file a complaint under ORS 279C.590 based on the disclosure requirements of subsection (1) of this section.
WH-179 (06-10-10)

CONTRACT FOR CONSTRUCTION

CONTRACT FOR CONSTRUCTION

THIS AGREEMENT is dated as of the 11 day of June in the year 2025 by and between

CITY OF CANBY
(hereinafter called OWNER) and
DEWITT CONSTRUCTION INC.
(hereinafter called CONTRACTOR)

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1 - WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents:

**City of Canby
Walnut St Sanitary Sewer Hwy 99E & RR Bore**

The scope of work consists of construction of approximately 1,000 lf of 8” sanitary sewer line including crossing the Union Pacific Railroad in a 20” epoxy coated steel casing pipe with cathodic protection and crossing ODOT Highway 99E in a 20” uncoated steel casing pipe.

ARTICLE 2 - ENGINEER

The Project has been designed by CURRAN-McLEOD, INC., Consulting Engineers, who is hereinafter called ENGINEER and who will assume all duties and responsibilities and will have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 3 - CONTRACT TIME

- 3.1 The Work will be substantially completed within 120 calendar days after the date when the Contract Time commences to run as provided in paragraph 2.03 of the General Conditions and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 30 days after the date when the issuance of the Certificate of Substantial Completion including punch list items.
- 3.2 Liquidated Damages: OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not substantially complete within the time specified in paragraph 3.1 above, plus

any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving in a legal proceeding the actual loss suffered by OWNER if the Work is not substantially complete on time.

Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER or the OWNER may withhold from amounts due the CONTRACTOR Four Hundred Dollars (\$400.00) for each day that expires after the time specified in paragraph 3.1. for Substantial Completion until the Work is substantially complete AND/OR for each day of delay beyond the deadline for Final Completion.

ARTICLE 4 - CONTRACT PRICE

- 4.1 OWNER shall pay CONTRACTOR for performance of the Work in accordance with the Contract Documents in current funds by check, an amount totaling

Eight Hundred Thirty-Seven Thousand Seven Hundred Twenty and no/100 Dollars

(\$837,720.00) based on the quantities as shown in the attached Bid Proposal.

ARTICLE 5 - PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

- 5.1 Progress Payments: OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment as recommended by ENGINEER, on or about the 25th day of each month during construction as provided below. All progress payments will be on the basis of the progress of the Work measured by the schedule of values provided for in paragraph 14.01 of the General Conditions.

- 5.1.1 Prior to Substantial Completion progress payments will be in an amount equal to:

- (a) 95 % of the Work completed; and
- (b) 95 % of materials and equipment not incorporated in the Work but delivered and suitably stored, less in each case the aggregate of payments previously made.

- 5.1.2 Upon Substantial Completion, OWNER shall pay an amount sufficient to increase total payments to CONTRACTOR to 95% of the value of the Contract Work completed, less such amounts as ENGINEER shall determine in accordance with paragraph 14.02 of the General Conditions.

- 5.2 Final Payment: Upon final completion and acceptance of the Work in accordance with paragraph 14.07 of the General Conditions, OWNER shall pay the remainder of the value of the Contract Work completed, as recommended by ENGINEER as provided in said paragraph 14.07.

ARTICLE 6 - INTEREST

All monies not paid when due hereunder shall bear interest at the maximum rate allowed by law at the place of the Project, when requested in accordance with ORS 279C.570

ARTICLE 7 - CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

- 7.1 CONTRACTOR has familiarized himself with the nature and extent of the Contract Documents, Work, locality, and with all local conditions and federal, state and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Work.
- 7.2 CONTRACTOR has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which were relied upon by ENGINEER in the preparation of the Drawings and Specifications and which have been identified in the Supplementary Conditions.
- 7.3 CONTRACTOR has made or caused to be made examinations, investigations and tests and studies of such reports and related data in addition to those referred to in paragraph 7.2 as he deems necessary for the performance of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports or similar data are or will be required by CONTRACTOR for such purposes.
- 7.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.
- 7.5 CONTRACTOR has given ENGINEER written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.

ARTICLE 8 - CONTRACT DOCUMENTS

- 8.1 This Agreement
- 8.2 Exhibits to this Agreement.

- 8.3 Performance and other Bonds
- 8.4 Notice of Award.
- 8.5 General Conditions of the Construction Contract
- 8.6 Supplementary Conditions
- 8.7 Technical Specifications as listed in the Table of Contents.
- 8.8 Specifications bearing the following general title:

**City of Canby
Walnut St Sanitary Sewer Hwy 99E & RR Bore**

- 8.9 Addenda numbers 1-2.
- 8.10 CONTRACTOR'S Bid
- 8.11 Any Modification, including Change Orders, duly delivered after execution of Agreement.

There are no Contract Documents other than those listed above in this ARTICLE 8. The Contract Documents may only be altered, amended or repealed by a Modification (as defined in Article 1 of the General Conditions).

ARTICLE 9 - MISCELLANEOUS

- 9.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.
- 9.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically by without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 9.3 OWNER and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

9.4 In the event a suit, arbitration or other legal action is required by either the OWNER or the CONTRACTOR to enforce any provisions of this Agreement, the prevailing parties shall be entitled to all reasonable costs and reasonable attorney's fees upon trial or subsequent appeal.

IN WITNESS WHEREOF, the parties hereto have signed three counterparts of this Agreement.

This Agreement will be effective on June 11, 2025.

OWNER:

CITY OF CANBY
222 NE 2ND AVENUE
CANBY, OR 97013

By: Eileen Stein

Name/Title: Eileen Stein

Name/Title: City Administrator

CONTRACTOR:

DEWITT CONSTRUCTION INC.
10311 NE 72ND AVENUE
VANCOUVER, WA 98686

By: Ty DeWitt

Name/Title: Ty DeWitt/Pres.

Attest: Dale Lindstrom
DALE LINDSTROM - Risk Safety MGR
Address for giving notices:

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CONSTRUCTION PERFORMANCE BOND

CONSTRUCTION PERFORMANCE BOND

PERFORMANCE BOND

Contractor Name: Address <i>(principal place of business)</i> :	Surety Name: Address <i>(principal place of business)</i> :
Owner Name: Mailing address <i>(principal place of business)</i> :	Contract Description <i>(name and location)</i> : Contract Price: Effective Date of Contract:
Bond Bond Amount: Date of Bond: <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: ☐ None ☐ See Paragraph 16	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
<i>(Full formal name of Contractor)</i>	<i>(Full formal name of Surety) (corporate seal)</i>
By: _____ <i>(Signature)</i>	By: _____ <i>(Signature)(Attach Power of Attorney)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
Attest: _____ <i>(Signature)</i>	Attest: _____ <i>(Signature)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:
 - 3.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;
 - 3.2. The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
 - 3.3. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.
4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.
5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 5.1. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;
 - 5.2. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;
 - 5.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or
 - 5.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

- 5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- 5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.
6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, or the Surety has denied liability, in whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.
7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:
- 7.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- 7.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and
- 7.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.
9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.
12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.
13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such

statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

14. Definitions

- 14.1. *Balance of the Contract Price*—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
 - 14.2. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.
 - 14.3. *Contractor Default*—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.
 - 14.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
 - 14.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
16. Modifications to this Bond are as follows:

CONSTRUCTION PAYMENT BOND

CONSTRUCTION PAYMENT BOND

PAYMENT BOND

Contractor Name: Address <i>(principal place of business)</i> :	Surety Name: Address <i>(principal place of business)</i> :
Owner Name: Mailing address <i>(principal place of business)</i> :	Contract Description <i>(name and location)</i> : Contract Price: Effective Date of Contract:
Bond Bond Amount: Date of Bond: <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: ☐ None ☐ See Paragraph 18	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
<i>(Full formal name of Contractor)</i>	<i>(Full formal name of Surety) (corporate seal)</i>
By: <i>(Signature)</i>	By: <i>(Signature)(Attach Power of Attorney)</i>
Name: <i>(Printed or typed)</i>	Name: <i>(Printed or typed)</i>
Title:	Title:
Attest: <i>(Signature)</i>	Attest: <i>(Signature)</i>
Name: <i>(Printed or typed)</i>	Name: <i>(Printed or typed)</i>
Title:	Title:
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond will arise after the following:
 - 5.1. Claimants who do not have a direct contract with the Contractor
 - 5.1.1. have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2. have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2. Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1. Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2. Pay or arrange for payment of any undisputed amounts.
 - 7.3. The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

16.1. *Claim*—A written statement by the Claimant including at a minimum:

- 16.1.1. The name of the Claimant;
- 16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;
- 16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
- 16.1.4. A brief description of the labor, materials, or equipment furnished;

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- 16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- 16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
- 16.1.7. The total amount of previous payments received by the Claimant; and
- 16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
- 16.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 16.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
- 16.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 16.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
- 17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
- 18. Modifications to this Bond are as follows:

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS
OF THE CONSTRUCTION CONTRACT

Prepared By



Endorsed By



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National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314-2794
(703) 684-2882
www.nspe.org

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
(202) 347-7474
www.acec.org

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400
(800) 548-2723
www.asce.org

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GUIDELINES FOR USE OF EJCDC® C-700,
STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

1.0 PURPOSE AND INTENDED USE OF THE DOCUMENT

EJCDC® C-700, Standard General Conditions of the Construction Contract (2018), is the foundation document for the EJCDC Construction Series. The General Conditions define the basic rights, responsibilities, risk allocations, and contractual relationship of the Owner and Contractor, and establish how the Contract is to be administered.

2.0 OTHER DOCUMENTS

EJCDC documents are intended to be used as a system and changes in one EJCDC document may require a corresponding change in other documents. Other EJCDC documents may also serve as a reference to provide insight or guidance for the preparation of this document.

These General Conditions have been prepared for use with either EJCDC® C-520, Agreement Between Owner and Contractor for Construction Contract (Stipulated Price), or EJCDC® C-525, Agreement Between Owner and Contractor for Construction Contract (Cost-Plus-Fee) (2018 Editions). The provisions of the General Conditions and the Agreement are interrelated, and a change in one may necessitate a change in the other.

To prepare supplementary conditions that are coordinated with the General Conditions, use EJCDC® C-800, Supplementary Conditions of the Construction Contract (2018).

The full EJCDC Construction series of documents is discussed in the EJCDC® C-001, Commentary on the 2018 EJCDC Construction Documents (2018).

3.0 ORGANIZATION OF INFORMATION

All parties involved in a construction project benefit significantly from a standardized approach in the location of subject matter throughout the documents. Experience confirms the danger of addressing the same subject matter in more than one location; doing so frequently leads to confusion and unanticipated legal consequences. Careful attention should be given to the guidance provided in EJCDC® N-122/AIA® A321, Uniform Location of Subject Matter (2012 Edition) when preparing documents. EJCDC® N-122/AIA® A321 is available at no charge from the EJCDC website, www.ejcdc.org, and from the websites of EJCDC's sponsoring organizations.

If CSI MasterFormat™ is used for organizing the Project Manual, consult CSI MasterFormat™ for the appropriate document number (e.g., under 00 11 00, Advertisements and Invitations), and accordingly number the document and its pages.

4.0 EDITING THIS DOCUMENT

Remove these Guidelines for Use. Some users may also prefer to remove the two cover pages.

Although it is permissible to revise the Standard EJCDC Text of C-700 (the content beginning at page 1 and continuing to the end), it is common practice to leave the Standard EJCDC Text of C-700 intact and unaltered, with modifications and supplementation of C-700's provisions set forth in EJCDC® C-800, Supplementary Conditions of the Construction Contract (2018). If the Standard Text itself is revised, the

user must comply with the terms of the License Agreement, Paragraph 4.0, Document-Specific Provisions, concerning the tracking or highlighting of revisions. The following is a summary of the relevant License Agreement provisions:

1. The term "Standard EJCDC Text" for C-700 refers to all text prepared by EJCDC in the main body of the document. Document covers, logos, footers, instructions, or copyright notices are not Standard EJCDC Text for this purpose.
2. During the drafting or negotiating process for C-700, it is important that the two contracting parties are both aware of any changes that have been made to the Standard EJCDC Text. Thus, if a draft or version of C-700 purports to be or appears to be an EJCDC document, the user must plainly show all changes to the Standard EJCDC Text, using "Track Changes" (redline/strikeout), highlighting, or other means of clearly indicating additions and deletions.
3. If C-700 has been revised or altered and is subsequently presented to third parties (such as potential bidders, grant agencies, lenders, or sureties) as an EJCDC document, then the changes to the Standard EJCDC Text must be shown, or the third parties must receive access to a version that shows the changes.
4. Once the document is ready to be finalized (and if applicable executed by the contracting parties), it is no longer necessary to continue to show changes to the Standard EJCDC Text. The user may produce a final version of the document in a format in which all changes are accepted, and the document at that point does not need to include any "Track Changes," redline/strikeout, highlighting, or other indication of additions and deletions to the Standard EJCDC Text.

5.0 LICENSE AGREEMENT

This document is subject to the terms and conditions of the License Agreement, 2018 EJCDC® Construction Series Documents. A copy of the License Agreement was furnished at the time of purchase of this document, and is available for review at www.ejcdc.org and the websites of EJCDC's sponsoring organizations.

STANDARD GENERAL CONDITIONS
OF THE CONSTRUCTION CONTRACT

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
5. *Bidder*—An individual or entity that submits a Bid to Owner.
6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

10. *Claim*

- a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the

Price or Contract Times; contesting an initial decision by Engineer concerning the

requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.

b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.

c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.

d. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.

13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.

14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.

15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.

16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.

17. *Cost of the Work*—See Paragraph 13.01 for definition.

18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.

19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.

20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.

21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the

recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.

23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.

24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.

a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.

b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.

c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.

25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.

28. *Notice of Award*—The written notice by Owner to a bidder of Owner's acceptance of the Bid.

29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.

30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.

31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.

32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals.
36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for Interpretation or clarification are not Submittals.
42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion of such Work.

43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
46. *Technical Data*
- a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
 - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
 - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:* The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:* The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:* The word “defective,” when modifying the word “work,” refers to work that is unsatisfactory, faulty, or deficient in that it:
1. does not conform to the Contract Documents;
 2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).
- E. *Furnish, Install, Perform, Provide*
1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

- F. *Contract Price or Contract Times:* References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.

- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

2.01 *Delivery of Performance and Payment Bonds, Evidence of Insurance*

- A. *Performance and Payment Bonds:* When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance:* When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance:* After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and
 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work

into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.
4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 *Reference Standards*

A. *Standards Specifications, Codes, Laws and Regulations*

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility

inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03

Reporting and Resolving Discrepancies

A. Reporting Discrepancies

1. **Contractor's Verification of Figures and Field Measurements:** Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. **Contractor's Review of Contract Documents:** If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04

Requirements of the Contract Documents

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.

- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the

established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.

B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.

B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
2. Abnormal weather conditions;
3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
4. Acts of war or terrorism.

D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:

1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work as of the time of the delay, disruption, or interference.

2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.

3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.

E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:

1. The circumstances that form the basis for the requested adjustment;
2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.

Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.

F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.

G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02

Use of Site and Other Areas

A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.

- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment

and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03

Subsurface and Physical Conditions

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
3. Technical Data contained in such reports and drawings.

- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

- C. *Reliance by Contractor on Technical Data:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

- D. *Limitations of Other Data and Documents:* Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 Differing Subsurface or Physical Conditions

A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
2. is of such a nature as to require a change in the Drawings or Specifications;
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

E. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in

Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
- b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
- c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:

- a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a bid or becoming bound under a negotiated contract, or otherwise;
- b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
- c. Contractor failed to give the written notice required by Paragraph 5.04.A.

3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

F. *Underground Facilities, Hazardous Environmental Conditions:* Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 Underground Facilities

A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:

1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
2. complying with applicable state and local utility damage prevention Laws and Regulations;

3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;

4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and

5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.

B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.

C. *Engineer's Review:* Engineer will:

1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;

2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;

3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and

4. advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

F. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;

b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and

c. Contractor gave the notice required in Paragraph 5.05.B.

2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.

3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 Hazardous Environmental Conditions at Site

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01-A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures

of construction to be employed by Contractor, and safety precautions and programs incident thereto;

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible treated the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.

H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 Performance, Payment, and Other Bonds

A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.

B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.

C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

Regulations, and must be issued and signed by a surety named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.

E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.

F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.

G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.

H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

Insurance—General Provisions

A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.

B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VI or better.

C. Alternative forms of insurance coverage, including but not limited to self-insurance and "Occupational Accident and Excess Employer's Indemnity Policies," are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.

D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.

F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.

G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

H. Contractor shall require:

1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and

2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.

I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.

K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

L. Owner does not represent that Insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional Insurance that Contractor deems necessary.

M. The Insurance and Insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.

N. All the policies of Insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other Insured and Engineer.

6.03

Contractor's Insurance

A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other Insurance pursuant to the specific requirements of the Supplementary Conditions.

B. *General Provisions:* The policies of Insurance required by this Paragraph 6.03 as supplemented must:

1. include at least the specific coverages required;
2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
5. include all necessary endorsements to support the stated requirements.

C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:

1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

4. not seek contribution from Insurance maintained by the additional Insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04

Builder's Risk and Other Property Insurance

A. *Builder's Risk:* Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.

B. *Property Insurance for Facilities of Owner Where Work Will Occur:* Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.

C. *Property Insurance for Substantially Complete Facilities:* Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.

D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.

E. *Insurance of Other Property; Additional Insurance:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05

Property Losses; Subrogation

A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floaters policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as Builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.

2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.

1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.

C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.

D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06

Receipt and Application of Property Insurance Proceeds

A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.

C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01

Contractor's Means and Methods of Construction

A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02

Supervision and Superintendence

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03

Labor; Working Hours

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.

B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.

C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.05 *"Or Equals"*

A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:

- in the exercise of reasonable judgment Engineer determines that the proposed item:
 - is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
- has a proven record of performance and availability of responsive service; and
- is not objectionable to Owner.

Contractor certifies that, if the proposed item is approved and incorporated into the Work:

- there will be no increase in cost to the Owner or increase in Contract Times; and
- the item will conform substantially to the detailed requirements of the item named in the Contract Documents.

B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.

C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.

E. *Treatment as a Substitution Request:* If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 *Substitutes*

A. *Contractor's Request; Governing Criteria:* Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
- a. will certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design;
 - 2) be similar in substance to the item specified; and
 - 3) be suited to the same use as the item specified.
 - b. will state:

- 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
- c. will identify:
- 1) all variations of the proposed substitute item from the item specified; and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
- d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 Concerning Subcontractors and Suppliers

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 Patent Fees and Royalties

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.09 Permits

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

7.10 Taxes

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.11 Laws and Regulations

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 Record Documents

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.13

Safety and Protection

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
1. all persons on the Site or who may be affected by the Work;
 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense [except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them].
- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner, the owners of adjacent property, the owners of Underground Facilities and other utilities [if the identity of such owners is known to Contractor]; and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed. Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).

1. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 Hazard Communication Programs

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 Emergencies

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 Submittals

- A. Shop Drawing and Sample Requirements

1. Before submitting a Shop Drawing or Sample, Contractor shall:
 - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determine and verify:
 - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
 - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
 - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.
 2. *Samples*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.
 3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Engineer's Review of Shop Drawings and Samples*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will

- document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.
5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
 6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
 7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
 8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.
- D. *Resubmittal Procedures for Shop Drawings and Samples*
1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
 2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
 3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.
- E. *Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs*
1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

- d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 Contractor's General Warranty and Guarantee

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
1. Observations by Engineer;
 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. Use or occupancy of the Work or any part thereof by Owner;
 5. Any review and approval of a Shop Drawing or Sample submittal;
 6. The issuance of a notice of acceptability by Engineer;
 7. The end of the correction period established in Paragraph 15.08;
 8. Any inspection, test, or approval by others; or

9. Any correction of defective Work by Owner.

- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- 7.19 Delegation of Professional Design Services**
- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.

E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:

1. Checking for conformance with the requirements of this Paragraph 7.19;
 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 Other Work

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05 C.3.

8.02 Coordination

A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:

1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 2. An itemization of the specific matters to be covered by such authority and responsibility; and
 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 Legal Relationships

A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

- 9.01 *Communications to Contractor*
- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.
- 9.02 *Replacement of Engineer*
- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.
- 9.03 *Furnish Data*
- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.
- 9.04 *Pay When Due*
- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

- 9.05 *Lands and Easements, Reports, Tests, and Drawings*
- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.
- 9.06 *Insurance*
- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.
- 9.07 *Change Orders*
- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.
- 9.08 *Inspections, Tests, and Approvals*
- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.
- 9.09 *Limitations on Owner's Responsibilities*
- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- 9.10 *Undisclosed Hazardous Environmental Condition*
- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.
- 9.11 *Evidence of Financial Arrangements*
- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).
- 9.12 *Safety Programs*
- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.

- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.04 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.

- E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.06 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

- D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

- E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
- Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 - Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
 - Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

- B. If Owner has issued a Work Change Directive and:

- Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
- Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

- A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.
- B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:

1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved [subject to the provisions of Paragraph 13.03];
 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum [which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2]; or
 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. **Contractor's Fee:** When applicable, the Contractor's fee for overhead and profit will be determined as follows:
1. A mutually acceptable fixed fee; or
 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
 - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
 - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
 - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 Change of Contract Times

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 Change Proposals

- A. **Purpose and Content:** Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

B. Change Proposal Procedures

1. **Submit:** Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
2. **Supporting Data:** The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.

- a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
- b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

3. **Engineer's Initial Review:** Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
4. **Engineer's Full Review and Action on the Change Proposal:** Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change

Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision:* Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion:* Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12—CLAIMS

12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
- Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 - Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 - Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 - Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.

D. *Mediation*

- At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
- If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
- Owner and Contractor shall each pay one-half of the mediator's fees and costs.

- E. *Partial Approval:* If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.

- F. *Denial of Claim:* If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

- G. *Final and Binding Results:* If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work:* The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
- To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.

5. Other costs consisting of the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are

consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.

2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.

3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.

d. Sales, consumer use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.

8. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work does not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
2. The cost of purchasing, renting, or furnishing small tools and hand tools.
3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
6. Expenses incurred in preparing and advancing Claims.
7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
 - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change

Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

- E. *Documentation and Audit:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 *Allowances*

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:* Contractor agrees that:
1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.
- C. *Owner's Contingency Allowance:* Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision

thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

- Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
- The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
- Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

- Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

- Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:

- by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
- to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
- by manufacturers of equipment furnished under the Contract Documents;
- for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
- for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- Contractor's Obligation:** It is Contractor's obligation to assure that the Work is not defective.
- Engineer's Authority:** Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- Notice of Defects:** Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- Correction, or Removal and Replacement:** Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- Preservation of Warranties:** When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

- Costs and Damages:** In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor; if any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.
- 14.06 *Owner May Stop the Work*
- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work,

or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation

establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. Review of Applications

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
- b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

- c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or

- b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

- a. to supervise, direct, or control the Work;
- b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
- c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
- d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
- e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
- d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
- e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. Payment Becomes Due

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. Reductions in Payment by Owner

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

- a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

- b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
- c. Contractor has failed to provide and maintain required bonds or insurance;
- d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
- e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
- f. The Work is defective, requiring correction or replacement;
- g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
- h. The Contract Price has been reduced by Change Orders;
- i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
- j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
- k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
- l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without

significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.
2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

15.05 Final Inspection

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 Final Payment

A. Application for Payment

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.

2. The final Application for Payment must be accompanied (except as previously delivered) by:

- a. all documentation called for in the Contract Documents;
- b. consent of the surety, if any, to final payment;
- c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

- d. a list of all duly pending Change Proposals and Claims; and
- e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.

- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.

- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 Waiver of Claims

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such adjacent areas;
2. correct such defective Work;
3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.

- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.

- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.

- D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
4. Contractor's repeated disregard of the authority of Owner or Engineer.

- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:

1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.

- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.

G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 Owner May Terminate for Convenience

A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 Contractor May Stop Work or Terminate

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The

provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.01 Methods and Procedures

A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this article:

1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.

B. *Final Resolution of Disputes:* For any dispute subject to resolution under this article, Owner or Contractor may:

1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
2. agree with the other party to submit the dispute to another dispute resolution process; or
3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.01 Giving Notice

A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:

1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.02 Computation of Times

A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 Cumulative Remedies

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 Limitation of Damages

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 No Waiver

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 Survival of Obligations

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 Controlling Law

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 Assignment of Contract

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 Successors and Assigns

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 Headings

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTARY GENERAL CONDITIONS

SUPPLEMENTARY GENERAL CONDITIONS

The following Supplementary Conditions modify, change, delete from or add to the Standard General Conditions of the Construction Contract EJCDC (C-700, 2018 Edition). Where any Article of the General Conditions is modified, or any Paragraph, Subparagraph or Clause thereof is modified or deleted by these supplements, the unaltered provisions of that Article, Paragraph, Subparagraph or Clause shall remain in effect.

1. Article 6 - BONDS AND INSURANCE

- A. Add the following to paragraph 6.01.B: All bonds shall be written through companies rated with A.M. Best rating of A or better.
- B. The limits of liability for insurance required by paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages under paragraphs 6.03.A of the General Conditions:

a.	State:	Statutory
b.	Applicable Federal (e.g., Longshoremen's)	Statutory
c.	Employer's Liability	\$500,000

2. Contractor's General Liability under paragraphs 6.03.B of the General Conditions which shall include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody, and control of the Contractor:

a.	General Aggregate	\$2,000,000
b.	Products - Completed Operations Aggregate	\$1,000,000
c.	Personal and Advertising Injury	\$1,000,000
d.	Each Occurrence (Bodily Injury and Property Damage)	\$1,000,000
e.	Property Damage liability insurance will provide Explosion, Collapse, and Underground coverages where applicable.	\$1,000,000
f.	Excess or Umbrella Liability	
	1) General Aggregate	\$1,000,000
	2) Each Occurrence	\$1,000,000
g.	Contractor shall name the Owner and Engineer as an additional insured.	

3. Automobile Liability under paragraph 6.03.D of the General Conditions:

a.	Combined Single Limit of	\$1,000,000
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C. The insurance required by this Paragraph 6.04 is not required for this project.

D. Add the following as item 6.07:

The CONTRACTOR, its subcontractors, if any, and all employers working under this Contract are subject to Oregon Workers' Compensation Law, and shall comply with ORS 656.017, which requires them to provide workers compensation coverage for all their subject workers.

2. Article 7 - CONTRACTOR'S RESPONSIBILITIES

A. Amend 7.05 "*Or Equals*" to note approval of an "Or Equal" may only be requested prior to the Bid as defined in the instruction to bidders. Following the expiration of the time to submit an "Or Equal," replacement of any specified component shall be considered under the requirements for a substitute as defined in 7.05 of the General Conditions.

B. Add the following sentence the end of item 7.17 A:

The Warranty and Guarantee period shall extend for one (1) year following FINAL acceptance by the OWNER.

3. Article 15 - PAYMENTS TO CONTRACTOR

A. Modify the first sentence of item 15.01.B.1. to read that each application for payment shall be submitted 30 days prior to the date established in the Agreement for each progress payment.

B. Delete 15.01.D and insert:

Within thirty days after receipt of each Application for Payment, the amount recommended will (subject to the provisions of the last sentence of paragraph 15.01.E) become due and when due, will be paid by OWNER to CONTRACTOR.

C. Add 15.06.A.2.f:

The Application for Final Payment shall also include CONTRACTOR'S Affidavit of Payment of Debts and Claims.

4. Add the following:

Article 19. STATE OF OREGON PUBLIC CONTRACT REQUIREMENTS

19.01 In accordance with ORS 279C.505(1) the CONTRACTOR shall:

A. Make payment promptly, as due, to all persons supplying to such CONTRACTOR labor or material for the prosecution of the Work provided for in this Agreement.

- B. Pay all contributions or amounts due the Industrial Accident Fund from such CONTRACTOR or Subcontractor incurred in the performance of this Agreement.
 - C. Not permit any lien or claim to be filed or prosecuted against the OWNER on account of any labor or material furnished.
 - D. Pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.
- 19.02 Contractor shall demonstrate that an employee drug testing program is in place (ORS 279C.505(2)).
- 19.03 In accordance with ORS 279C.510(1) the Contractor shall salvage or recycle construction and demolition debris if feasible and cost effective.
- 19.04 In accordance with ORS 279C.515(1) if the Contractor fails, neglects or refuses to pay promptly a person's claim for labor or services that the person provides to the contractor or a subcontractor in connection with the public improvement contract as the claim becomes due, the OWNER may pay the amount of the claim to the person that provides the labor or services and charge the amount of the payment against funds due or to become due the contractor by reason of the contract.
- 19.05 In accordance with ORS 279C.515(2) if the Contractor or a first-tier subcontractor fails, neglects or refuses to pay a person that provides labor or materials in connection with the public improvement contract within 30 days after receiving payment from the contracting agency or a contractor, the contractor or first-tier subcontractor owes the person the amount due plus interest charges that begin at the end of the 10-day period within which payment is due under ORS 279C.580 (4) and that end upon final payment, unless payment is subject to a good faith dispute as defined in ORS 279C.580. The rate of interest on the amount due is nine percent per annum. The amount of interest may not be waived.
- 19.06 In accordance with ORS 279C.515(3) if the Contractor or a subcontractor fails, neglects, or refuses to pay a person that provides labor or materials in connection with the public improvement contract, the person may file a complaint with the Construction Contractors Board, unless payment is subject to a good faith dispute as defined in ORS 279C.580.
- 19.07 In accordance with ORS 279C.520 a person may not be employed for more than 10 hours in any one day, or 40 hours in any one week, except in cases of necessity, emergency or when the public policy absolutely requires it, and in such cases, except in cases of contracts for personal services as defined in ORS 279C.100, the employee shall be paid at least time and a half pay:
- A. For all overtime in excess of eight hours in any one day or 40 hours in any one week when the work week is five consecutive days, Monday through Friday; or

- B. For all overtime in excess of 10 hours in any one day or 40 hours in any one week when the work week is four consecutive days, Monday through Friday; and
- C. For all work performed on Saturday and on any legal holiday specified in ORS 279C.540.

An employer must give notice in writing to employees who work on a public contract, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

- 19.08 In accordance with 279C.530 the contractor shall promptly, as due, make payment to any person, co-partnership, association or corporation furnishing medical, surgical and hospital care services or other needed care and attention, incident to sickness or injury, to the employees of the contractor, of all sums that the contractor agrees to pay for the services and all moneys and sums that the contractor collected or deducted from the wages of employees under any law, contract or agreement for the purpose of providing or paying for the services. All subject employers working under the contract must be either employers that will comply with ORS 656.017 or employers that are exempt under ORS 656.126. Contractor shall ensure that each of its subcontractors complies with these requirements.
- 19.09 In accordance with ORS 279C.545, any worker employed by the contractor shall be foreclosed from the right to collect for any overtime provided in ORS 279C.540 unless a claim for payment is filed with the Contractor within 90 days from the completion of the contract, providing the Contractor has (1) caused a circular clearly printed in boldfaced 12-point type and containing a copy of this section to be posted in a prominent place alongside the door of the timekeeper's office or in a similar place that is readily available and freely visible to workers employed on the work, and (2) maintained the circular continuously posted from the inception to the completion of the contract on which workers are or have been employed.
- 19.10 The Contractor shall comply with the requirements of ORS 279C.570 as they apply including prompt payment policy, progress payments and rate of interest.
- 19.11 The Contractor shall comply with the provisions of ORS 279C.580 as they apply with regard to Contractor's relation with subcontractors, including that the Contractor is required to include in each subcontract entered into with a first-tier subcontractor, including a material supplier, for the purpose of performing a construction contract:
 - A. A payment clause obligating the Contractor to pay the first-tier subcontractor for satisfactory performance under its subcontract within 10 days out of amounts the OWNER pays to the Contractor under the public improvement contract.
 - B. A clause that requires the Contractor to provide a first-tier subcontractor with a standard form for application for payment.

C. A clause that requires the Contractor to use the standard form and administrative procedures for payment for the entire term of the subcontract.

D. An interest penalty clause conforming with ORS 279C.580(3)(b).

19.12 The Contractor shall comply with the provisions of ORS 279C.605 as they apply with regard to notice of claims.

19.13 This public works contract is subject to the requirements of the Oregon Prevailing Wage Rates. In accordance with 279C.830 Contractor shall comply with the existing state prevailing rate of wage that must be paid to workers in each trade or occupation required for the public works employed in the performance of the contract either by the Contractor or subcontractor or other person doing or contracting to do the whole or any part of the work contemplated by the contract. Workers shall be paid not less than the specified minimum hourly rate of wage.

19.14 The OWNER will pay the required fee to the Commissioner of the Bureau of Labor and Industries as provided in ORS 279C.825 (1), under the administrative rule of the commissioner.

19.15 The Contractor and every subcontractor must have a public works bond filed with the Construction Contractors Board before starting work on the project, unless exempt under ORS 279C.836 (7) or (8). Contractor shall also include in every subcontract a provision requiring the subcontractor to have a public works bond filed with the Construction Contractors Board before starting work on the project, unless exempt under ORS 279C.836 (7) or (8).

19.16 By Submission of a bid the Contractor certifies compliance with the Oregon tax laws in accordance with ORS 305.385.

5. Add the following:

Article 20. FEDERAL, STATE AND LOCAL STATUTES

20.01 CONTRACTOR is responsible for compliance with State and Federal safety and health acts, ORS 654.001 et. seq., and 29 USC 651 et. seq., and the regulations promulgated thereunder.

20.02 The CONTRACTOR shall comply with all federal, state, and local laws, regulations, executive orders, and ordinances applicable to the work under this agreement. Without limiting the generality of the foregoing, CONTRACTOR expressly agrees to comply with (i) Title VI of the Civil Rights Act of 1964; (ii) Section V of the Rehabilitation Act of 1973; (iii) the Americans with Disabilities Act of 1990 and ORS 659A.142; (iv) all regulations and administrative rules established pursuant to the foregoing laws; (v) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations; and (vi) the environmental laws and regulations enacted by appropriate public agencies.

An employer must give notice in writing to employees who work on a public contract, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

PREVAILING WAGE RATE FORMS

PREVAILING WAGE RATES FOR PUBLIC WORKS CONSTRUCTION

This project is subject to the State of OREGON BOLI Prevailing Wage Rates, effective as of the date of the publication soliciting bids, which are in corporate by reference.

The current Prevailing Wage Rate Book is available online and can be viewed and printed in its entirety at: <http://www.oregon.gov>.

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TECHNICAL SPECIFICATIONS

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DIVISION 1 - GENERAL REQUIREMENTS

DIVISION 1 - GENERAL REQUIREMENTS

**SECTION 01000
GENERAL REQUIREMENTS**

PART 1 - GENERAL

1.01 SUMMARY OF WORK

- A. This project includes construction of approximately 1,000 lf of 8" gravity sewer to connect S Walnut Street to the existing sewer system in Teakwood Street. This includes a 20" epoxy coated steel casing with cathodic protection to cross the railroad, and a 20" uncoated steel casing to cross Highway 99E.
- B. All work must comply with the requirements of the permits from the Oregon Department of Transportation and the Union Pacific Railroad, which are attached at the end of this division.
- C. A geotechnical report was prepared for work on South Walnut Street that has some nearby ground conditions for information only.
- D. The City has applied for a 1200-C permit for disruption of over one acre. If the 1200-C permit requirements vary from the ESC requirements called for on the plans or specified, they will be incorporated by addenda if issued prior to the bid opening, or by change order if issued after the bid opening.

1.02 GENERAL CONSTRUCTION

- A. The intent of the Contract Documents is to ensure the systematic implementation of construction with a minimum of inconvenience to the OWNER. The CONTRACTOR shall coordinate his work to minimize any inconvenience to the wastewater system operations.
- B. The CONTRACTOR shall have on the job, at all times, a qualified superintendent as his agent, who is capable of reading and understanding the Contract Documents and is thoroughly experienced in the type of work being performed. The Superintendent shall be responsible for the progress of construction and the CONTRACTOR'S operations.
- C. The CONTRACTOR shall be responsible for cooperation with other utilities and any other private contractors which might be employed by the OWNER on the project.
- D. The CONTRACTOR is responsible for maintenance of all streets, roads and construction sites within which Work is done until final acceptance of the Work by the OWNER. The CONTRACTOR shall pay all costs of modifying existing utility systems to meet specific construction needs, if required.

- E. The CONTRACTOR shall perform the Work in accordance with the plans, specifications and Contract terms except as modified in writing by the ENGINEER. He shall perform all work determined by the ENGINEER as necessary to properly prosecute and complete the project.
- F. The CONTRACTOR is responsible for controlling stormwater, mud, debris and the disposition of construction related materials. These substances shall be positively prevented from entering the sanitary sewer system or the adjacent natural drainageway. Clean up resulting from the improper handling of these substances will be the CONTRACTOR'S responsibility.
- G. Conflicts in the contract documents shall be resolved based on the following priority:
 - 1. Design Drawings
 - 2. Specifications
 - 3. Supplementary General Conditions
 - 4. General Conditions

1.03 CONSTRUCTION LAYOUT

All construction layout will be provided by the OWNER based on the information provided on the plans and field staking provided by the ENGINEER. For pipeline construction, alignment and grade staking will be provided as needed. If additional information is needed, the ENGINEER will provide additional control points as needed without cost to the CONTRACTOR.

1.04 WARRANTY

- A. The CONTRACTOR shall make all necessary repairs and replacements to remedy in a manner satisfactory to the ENGINEER and at no cost to the OWNER, any and all defects, breaks, or failures of the work occurring within one (1) year following the date of OWNER acceptance of the work due to faulty or inadequate materials or workmanship, and for damage or disturbances to other improvements under, within or adjacent to the work when such damage or disturbance is caused, in whole or in part, from activities of the CONTRACTOR in performing the duties and obligations under this contract. When such defects or damage occur within the time period described hereinbefore, in any part of the surface or subsurface work done under the contract, or in any adjacent surface or subsurface improvement not included in the work under the contract, the CONTRACTOR shall repair the same and the one year maintenance period required shall, with relation to such required repair, be extended one year from the date of completion of such repair in accordance with the General Conditions.

1.05 CONTRACTOR RESPONSIBILITY

- A. The CONTRACTOR shall be fully informed on all Federal and State laws and all local laws, ordinances and regulations of bodies having jurisdiction or authority or which in any way might affect the conduct of the Work.

- B. The CONTRACTOR shall indemnify and protect the OWNER and ENGINEER against any claim or liability arising from a violation of any law, ordinance or regulation by himself, any subcontractor or employee of the CONTRACTOR or subcontractor.
- C. The CONTRACTOR shall obtain and pay for all licenses and permits and shall be responsible for all fees, taxes or payments required for the lawful and due performance of the work except as noted herein. The CONTRACTOR must have or obtain a City of Canby Business License to complete this work.
- D. The CONTRACTOR shall be solely responsible for any trespass on adjacent properties or injury thereto, resulting from his operations. All private property damaged by his operations shall be fully restored to preconstruction conditions.
- E. Public safety and convenience shall be paramount in the CONTRACTOR'S operations and shall be provided for in a satisfactory manner. All laws, rules, ordinances, and regulations shall be strictly adhered to by the CONTRACTOR. The CONTRACTOR shall perform his operations so as to minimize public and commercial inconvenience.
- F. Wherever and whenever a possible public hazardous situation shall occur, the CONTRACTOR shall be responsible for whatever signing, barricades or other safety precautions are necessary to protect the public and employees on the project.
- G. No explosive shall be stored, handled or used on the project without the authorization of the ENGINEER. No unlicensed or unqualified person shall handle or use explosives, and any damage resulting from the use of explosives shall be the CONTRACTOR'S responsibility.
- H. All approved uses of explosives shall be accomplished with utmost care not to endanger life or property. The CONTRACTOR shall be responsible for notification of adjacent property owners, utility companies and others having property or facilities in proximity to the site. Sufficient advance notice shall be given to allow nearby property to be properly protected from damage.

1.06 UTILITIES COORDINATION

- A. All coordination with utilities, including but not limited to water, sewer, power, gas, railroads, cable and telephone, shall be accomplished prior to any construction. No extra costs for damages or delay will be approved as a result of the CONTRACTOR'S failure to contact utilities and to arrange the protection of the utilities' properties.
- B. Locations of underground utilities if shown on the plans are approximate only. The CONTRACTOR is responsible for determining the exact location with the assistance of the utility companies and to properly account for the possible interference of utilities property with his operations.

- C. In the event of an interruption of known utility services, the CONTRACTOR is solely responsible for repair costs and/or penalties accrued as a result of the interruptions. All planned interruptions of service shall be coordinated with the OWNER and operators, and kept to a minimum.

1.07 SPECIAL REQUIREMENTS

- A. The CONTRACTOR shall comply with the requirements of the attached ODOT pipeline construction permit including the insurance requirements specific to ODOT.
- B. The CONTRACTOR shall comply with the requirements of the attached Union Pacific Pipeline Crossing Agreement, including the special insurance and notification requirements. Per the Pipeline Crossing Agreement, the CONTRACTOR must notify the RR 10 days prior to beginning any work.
- C. The CONTRACTOR is not permitted to enter the railroad property or cross the railroad tracks. A construction fence shall be installed by the CONTRACTOR at the railroad property line adjacent to the Highway property line before beginning any construction.
- D. The CONTRACTOR shall coordinate with impacted property owners 7 days prior to any impacts, to inform them of scheduling and access limitations. The CONTRACTOR shall ensure access to all properties is available for the duration of the work.

*****END OF SECTION*****



APPLICATION AND PERMIT TO OCCUPY OR
PERFORM OPERATIONS UPON A STATE HIGHWAY

See Oregon Administrative Rule, Chapter 734, Division 55

PERMIT NUMBER

2BM49404

CLASS: KEY#

GENERAL LOCATION			PURPOSE OF APPLICATION (TO CONSTRUCT/OPERATE/MAINTAIN)		
HIGHWAY NAME AND ROUTE NUMBER OR-99E / 1E(81) / Pacific Highway East			☐ POLE LINE	TYPE	MIN. VERT. CLEARANCE
HIGHWAY NUMBER 081	COUNTY Clackamas		☐ BURIED CABLE	TYPE	
BETWEEN OR NEAR LANDMARKS City of Canby, Near Territorial Rd			☒ PIPE LINE	TYPE Sanitary sewer	
HWY. REFERENCE MAP ODOT HWY Summary	DESIGNATED FREEWAY ☐ YES ☒ NO	IN U.S. FOREST ☐ YES ☒ NO	☐ NON-COMMERCIAL SIGN AS DESCRIBED BELOW		
APPLICANT NAME AND ADDRESS City of Canby Public Works 1470 NE Territorial Road PO Box 930 Canby, OR 97013			☒ MISCELLANEOUS OPERATIONS AND/OR FACILITIES AS DESCRIBED BELOW		
			FOR ODOT USE ONLY		
			BOND REQUIRED REFERENCE AMOUNT OF BOND		
			☐ YES ☒ NO OAR 734-055-0035(2)		
			INSURANCE REQUIRED REFERENCE SPECIFIED COMP. DATE		
			☒ YES ☐ NO OAR 734-055-0035(1) 3/30/2026		

DETAIL LOCATION OF FACILITY (For more space attach additional sheets)

MILE POINT TO	MILE POINT	ENGINEERS STATION TO	ENGINEERS STATION	SIDE OF HWY OR ANGLE OF CROSSING	DISTANCE FROM CENTER OF PVT	R/W LINE	BURIED CABLE OR PIPE DEPTH/VERT.	SIZE AND KIND	SPAN LENGTH
19.66	19.66	431+56	431+99	North Side	N/A	N/A	10' +/-	20" Steel Casing	130'
19.56	19.66	426+28	431+56	West Side	36' Left	14' Right	10'-14'	8" PVC Sewer	500'
				Both					

DESCRIPTION OF DESIRED USE

The City requires a jacking pit for boring under Highway 99E within ODOT ROW. This bores will provide a new sewer connection for future development on Walnut Street. Work hours are expected to be from 7AM - 6 PM Monday through Friday. The work is to be performed 12' off of the shoulder for Highway 99E (36' from centerline of ODOT ROW), and will not adversely affect traffic flow.

SPECIAL PROVISIONS (FOR ODOT USE ONLY)

- TRAFFIC CONTROL REQUIRED ☒ YES [OAR 734-055-0025(6)] ☐ NO OPEN CUTTING OF PAVED OR SURFACED AREAS ALLOWED ☐ YES [OAR 734-055-0100(2)] ☒ NO [OAR 734-055-0100(1)]
- ♦ AT LEAST 48 HOURS BEFORE BEGINNING WORK, THE APPLICANT OR HIS CONTRACTOR SHALL NOTIFY THE DISTRICT REPRESENTATIVE Jim Bailey AT PHONE NO. D2Bup@odot.oregon.gov OR EMAIL OR FAX THIS PAGE TO THE DISTRICT OFFICE AT: D2Bup@odot.oregon.gov SPECIFY TIME AND DATE WORK IS TO OCCUR.
- ♦ A COPY OF THIS PERMIT AND ALL ATTACHMENTS SHALL BE AVAILABLE AT THE WORK AREA DURING CONSTRUCTION.
- ♦ ATTENTION: Oregon Law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952-001-0001 through OAR 952-001-0090. You may obtain copies of the rules by calling the center at (503) 232-1987.
- CALL BEFORE YOU DIG 1-800-332-2344

COMMENTS (FOR ODOT USE ONLY)

At the time of lane and/or complete roadway closure and again when the lane and/or complete roadway is opened on a state highway the Applicant or their Contractor is required to notify ODOT Traffic Management Operations Center (TMOC) 503-283-5859. If during the course of their permitted work the Applicant or their Contractor come across personal property in their work zone they need to contact their permit specialist. The personal property may not be removed by the Applicant or their Contractor. ODOT is not responsible to collect and/or dispose of sharps or biohazard material found within project limits.

IF THE PROPOSED APPLICATION WILL AFFECT THE LOCAL GOVERNMENT, THE APPLICANT SHALL ACQUIRE THE LOCAL GOVERNMENT OFFICIAL'S SIGNATURE BEFORE ACQUIRING THE DISTRICT MANAGER'S SIGNATURE.

LOCAL GOVERNMENT OFFICIAL SIGNATURE <u>X [Signature]</u>	TITLE <u>Public Works Supervisor</u>	DATE <u>2-18-25</u>
APPLICANT SIGNATURE <u>X [Signature]</u>	APPLICATION DATE <u>3-25-25</u>	TITLE <u>Project Engineer</u>
DISTRICT MANAGER OR REPRESENTATIVE <u>xCANDEAUX Zach</u>		TELEPHONE NO. <u>541-306-1158</u>
APPROVAL DATE Digitally signed by CANDEAUX Zach Date: 2025.03.31 08:25:51 -07'00'		



**GENERAL PROVISIONS
FOR POLELINE, PIPELINE, BURIED CABLE,
AND MISCELLANEOUS PERMITS**

Revised April 2022

APPLICANT: City of Canby Public Works	PERMIT NO.: 2BM49404
HIGHWAY: OR-99E (81)	MP: 19.56-19.66

These permit provisions are in addition to the requirements described in Oregon Administrative Rule, Chapter 734, Division 55 and may be supplemented by permit special provisions. In the event of a conflict, the Administrative Rule will apply then these provisions followed by any permit special provisions. Unless otherwise specified, all documents referenced are references to the current version, with any revisions or supplements, in place when the work is conducted.

All checked (☒) provisions apply.

WORKSITE

- ☒ 1. Access control fence must be maintained during permitted work and restored to its original or better condition after permitted work is complete.
- ☒ 2. The Applicant shall not use state highway right of way to display advertising signs or to display or sell merchandise of any kind.
- ☒ 3. The stopping and parking of vehicles upon state highway right of way for the maintenance of adjoining property or in furtherance of any business transaction or commercial establishment is prohibited.
- ☐ 4. All grass and small brush within the work area shall be rotary or flail mowed to ground level prior to the beginning of work to facilitate clean up.
- ☒ 5. Disturbed areas shall be reseeded with grass native to the area in an appropriate seeding time.
- ☒ 6. The spreading of mud or debris upon any state highway is prohibited and violation shall be cause for immediate cancellation of the permit. Clean up shall be at the Applicant's expense. The highway shall be cleaned of all dirt and debris at the end of each work day, or more frequently as directed by the District Manager or representative.
- ☒ 7. Applicant shall replace any landscape vegetation or fences that are damaged or destroyed. Any damage that is not fully restored within 30 days may be replaced by ODOT at the expense of the Applicant. A "plant establishment" shall be understood to be part of the planting work to assure satisfactory growth of planted materials. The plant establishment period will begin when the original planting has been completed and approved. The length of the establishment period will be one calendar year or as defined in the permit Special Provisions.
- ☐ 8. Applicant shall install and maintain the landscaped area as shown on the attached drawings. Plantings shall be limited to non-invasive, low-growing shrubs, grass or flowers that do not attain sufficient height to obstruct clear vision in any direction. ODOT may remove plantings without liability or loss, injury, or damage of any nature whatsoever if in the future it is determined to be in the public interest to do so.

TRAFFIC

- ☒ 9. The work area shall be protected in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), and the Oregon Temporary Traffic Control Handbook as supplemented or amended by ODOT.
- ☒ 10. For work requiring traffic control devices to be in place continuously for longer than three days, Applicant shall provide a site specific traffic control plan developed based on the principles of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) and ODOT Standards. The traffic control plan may be reviewed by ODOT before work begins. The ODOT review does not relieve the Applicant of responsibility for the accuracy of the traffic control plan.
- ☒ 11. For permitted utility work, the Applicant shall take measures necessary to maintain the accessibility of the state highway including sidewalks and pedestrian areas by individuals with disabilities to the ODOT

Americans with Disability Act (ADA) standard during the course of the work by following the Oregon Temporary Traffic Control Handbook, Section 1.6.

- ☒ 12. When constructing a new utility service line, Applicant shall ensure that advance notice of any temporary pedestrian route is provided in an accessible format to the public, people with disabilities, and disability organizations to the greatest extent possible. The Notice is to be sent to the organizations on the contact list of Centers for Independent Living at https://www.oregon.gov/odot/Engineering/DOCS_ADA/AOCIL-Contacts.pdf
- ☒ 13. All damaged or removed highway signs shall be replaced by the Applicant. Installation shall be according to MUTCD and ODOT standards, and shall be completed as soon as possible but no later than the end of the work shift.
- ☐ 14. No lane restrictions are permitted on the roadway during the hours of darkness, on weekends, or between 6:00 AM and 9:00 AM, or 3:00 PM and 6:00 PM (Monday through Friday) without prior approval by ODOT.
- ☒ 15. Hours of work shall be ~~Work is off roadway no work hour restrictions.~~ ODOT can change this at anytime. Permit is issued only for work in ODOT right of way. City will need to obtain all Railroad permits and approvals.

DRAINAGE

- ☐ 16. On-site storm drainage shall be controlled within the permitted property. No blind connections to existing state facilities are allowed.
- ☐ 17. Excavation shall not be done on ditch slopes. Trench excavation shall either be at ditch bottom or outside ditch area. (Minimum depth at bottom of ditch shall be 36 inches; minimum depth outside of ditch shall be 42 inches).
- ☒ 18. Only earth or rock shall be used as fill material and shall slope so as not to change or adversely affect existing drainage. Fine grade and seed the finished fill with native grasses to prevent erosion.
- ☐ 19. A storm drainage study stamped by an Oregon Registered Professional Engineer (PE) is required. The study must meet standards of the National Pollution Discharge Elimination Systems (NPDES) when any of the following conditions apply:
- whenever a four inch pipe is inadequate to serve the developed area,
 - development site is one acre or larger in size and directly or indirectly affects state facilities, or
 - as directed by the District Manager or representative.
- ☐ 20. Applicant shall provide on-site retention for storm water runoff that exceeds that of the undeveloped site.
- ☒ 21. All water discharged to an ODOT drainage system must be treated prior to discharge. All requests for connection to an ODOT storm system must meet any requirements of the National Pollutant Discharge Elimination System (NPDES). This may include local jurisdiction approval of on-site water quality treatment facilities and/or development of an operation and maintenance plan for any on-site water quality treatment facility, as determined by local jurisdiction.

EXCAVATION / CONSTRUCTION

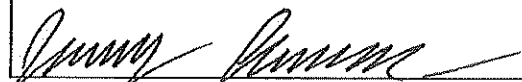
- ☒ 22. "Oregon Standard Specifications for Construction" and ODOT "Standard Drawings" where applicable and not otherwise superseded by the permit, shall be incorporated for use in the permit; <https://www.oregon.gov/odot/engineering/pages/index.aspx>. These documents apply only to the extent they provide standards and performance requirements for work to be performed under the permit. In the event of a conflict, the permit provisions will take precedent.
- ☐ 23. Trench backfill shall be according to the attached typical drawing, marked as Exhibit A.
- ☐ 24. When open cutting of the highway is allowed, all excavation in paved areas shall be backfilled and the roadway surface patched before the end of each shift.
- ☐ 25. Steel plates shall be pinned and a temporary cold patch applied to the edges. The Applicant shall be responsible for monitoring and maintenance of temporary patching and steel plating.
- ☐ 26. Compaction tests shall be required for each open cut per Oregon Standard Specifications for Construction. Compaction tests shall be conducted once for every 300 lineal feet per lift of continuous trench according to the Manual of Field Test Procedures (MFTP), published by ODOT. Percent Compaction shall be at least 95%. Results of compaction test shall be provided upon request of the District Manager or representative at Applicants' expense.

- ☐ 27. Control Density Fill (CDF) shall be used as surface backfill material in place of crushed rock in open trenches that impact the travel portions of the highway. A ¾"-0, or 1"-0 rock will be used for the aggregate. The amount of cement used shall not exceed 3.0% of the total mixture's weight. Maximum compressed strengths must not exceed 250 pounds per square inch (psi).
- ☐ 28. Surface restoration shall be a minimum of ^{Eight} ~~four~~ inches of hot asphalt-concrete (AC), compacted in two inch lifts, or to match existing pavement depth, whichever is greater. Sand-seal all edges and joints.
- ☐ 29. Any area of cut or damaged asphalt shall be restored in accordance with the attached "T-Cut Typical Section" drawing. For a period of two years following the patching of the paved surface, Applicant shall be responsible for the condition of the pavement patches, and during that two year period shall repair to District Manager or representative's satisfaction any of the patches which become settled, cracked, broken, or otherwise faulty.
- ☐ 30. An overlay to seal an open-cut area shall be completed prior to the end of the construction season, or when minimum temperature allows per the Oregon Standard Specification for Construction. The overlay shall be 1.5 inches deep and cover the affected area from edge of pavement to edge of pavement, and taper longitudinally at a fifty feet to one inch (50':1") ratio. Taper may be adjusted by the District Manager as required. For a period of two years following this patching of the paved surface, the Applicant shall be responsible for the condition of said pavement patches, and during that time shall repair to the District Manager or representative's satisfaction any of the patches which become settled, cracked, broken or otherwise faulty.
- ☒ 31. Highway crossings of utility lines shall be bored, or jacked. Bore pits shall be located behind the ditch line unless otherwise specified in the permit. Unattended pits shall either be protected by a six-foot fence, backfilled, or steel plated and pinned.
- ☒ 32. Any non-conductive, un-locatable, underground facility shall have a tracer wire or other similar conductive marking tape or device placed the full length of the installed underground facility in compliance with the Oregon Utilities Notification Center rules, OAR Chapter 952.
- ☐ 33. Trench backfill outside of ditch line may be native soil compacted at optimum moisture in twelve inch layers to not less than 95% relative maximum density.
- ☒ 34. Native material that is unsatisfactory for compaction shall be disposed of off the work site and granular backfill used.
- ☐ 35. Trench backfill in rock slope or shoulder shall be crushed 1"-0 or ¾"-0 size rock compacted at optimum moisture in eight-inch layers. Compaction tests shall be conducted according to the Manual of Field Test Procedures (MFTP), published by ODOT. Percent compaction shall be at least 95% maximum density. At the request of the District Manager or representative, results of compaction tests shall be provided to District Manager or representative at Applicant's expense.
- ☐ 36. Where excavation is on fill slope steeper than a two to one (2:1) ratio, slope protection shall be provided using four-inch size rock laid evenly to a minimum depth of twelve inches.
- ☐ 37. No more than 300 feet of trench longitudinally along the highway shall be left open at any one time and no trench shall be left in an open condition overnight.
- ☐ 38. Areas of disturbed cut and fill slopes shall be restored to a condition suitable to the District Manager or representative. Areas of erosion to be inlaid with an acceptable riprap material.
- ☒ 39. All underground utilities shall be installed with three-foot or more of horizontal clearance from existing or contract plans guardrail posts and attachments.
- ☐ 40. Any area of cut or damaged concrete shall be restored in accordance with the attached Typical Section-Pipe Section under sidewalk.
- ☒ 41. Utility markers, pedestals, and vaults shall be placed as near the highway right-of-way line as practical. In no case shall pedestals, vaults, and line markers be located within the area where highway maintenance activities regularly occur including mowing operations, or nearer the pavement edge than any official highway sign in the same general location.
- ☒ 42. No cable plowing is allowed within the lateral support of the highway asphalt (e.g. at six feet lower than the edge of the asphalt, no plowing within nine feet of the edge of the asphalt).
- ☐ 43. Review by the ODOT Bridge Engineer is required for all proposed bridge and structure attachments and for any facilities to be installed within sixteen feet of bridge foundations, supports, walls or related elements, or within the influence zone of bridge facilities.

MISCELLANEOUS

- ☒ 44. Applicant shall be responsible and liable for (1) investigating presence/absence of any legally protected or regulated environmental resource(s) in the action area; (2) determining any and all restrictions or requirements that relate to the proposed actions, and complying with such, including but not limited to those relating to hazardous material(s), water quality constraints, wetlands, archeological or historic resources(s) state and federal threatened or endangered species, etc., (3) complying with all federal, state, and local laws, and obtaining all required and necessary permits and approvals.
- ☒ 45. If the Applicant impacts a legally protected/regulated resource, Applicant shall be responsible for all costs associated with such impact, including, but not limited to all costs of mitigation and rehabilitation, and shall indemnify, and hold ODOT harmless for such impacts and be responsible and liable to ODOT for any associated costs or claims that ODOT may have.
- ☒ 46. Plans are reviewed by ODOT in general only and do not relieve the Applicant from completing roadway improvements in a manner satisfactory to ODOT. The District Manager or representative may require field changes. When revisions are made in the field, Applicant is responsible to provide "as built" drawings, within 60 days from completion of roadway improvements, and shall submit them to the District Office issuing the permit.
- ☒ 47. Applicant shall be responsible for locating and preserving all existing survey monumentation within the work area in accordance with ORS 209.150 and/or 209.155. If monumentation or its accessories are inadvertently or otherwise disturbed or destroyed, Applicant shall be responsible for all costs and coordination associated with its reestablishment by a professional licensed surveyor.
- ☒ 48. Applicant shall be responsible to restore or replace any curbs or curb ramps damaged by the permitted activity according to ODOT's ADA Standards available at <https://www.oregon.gov/ODOT/Engineering/Pages/Accessibility.aspx>. Any review or inspection of the curbs or curb ramps conducted by ODOT does not relieve the Applicant of the responsibility to comply with any other aspect of federal, state, and local laws, rules and regulations applicable to the work allowed under the permit including but not limited to the Americans with Disabilities Act of 1990.
- ☒ 49. When constructing a minor roadway improvement, Applicant shall comply with all federal, state, and local laws, regulations, executive orders and ordinances applicable to the work under this permit, including, without limitation, the provisions of ORS 276.071. If Applicant chooses to assign their permitted responsibilities to a consultant or contractor, Applicant shall inform the consultant or contractor of the requirements of ORS 276.071.
- ☒ 50. Upon completion of the permitted minor roadway improvement, Applicant shall notify ODOT and request final inspection. If all structures and appurtenances constructed under this permit are found to be in compliance with permit provisions and state standards, ODOT will accept ownership of the permitted structures and appurtenances by written notice to the Applicant.

By this signature Applicant acknowledges that the Applicant is subject to and accepts all checked (☒) provisions (4 pages).

Applicant Representative's Signature: 	Applicant Representative's Title: Project Engineer	Date: 3-26-25
--	---	------------------

CITY OF CANBY

SHEET INDEX

ALL UTILITY CROSSINGS ARE APPROXIMATE,
CONTRACTOR TO POTHOLE AND FIELD DEPTH
VERIFY PRIOR TO CONSTRUCTION AND CONSULT
WITH THE ENGINEER REGARDING ANY CONFLICTS

LEGEND

EXISTING

CONTRACTOR TO PROTECT EXISTING POWER
TELEPHONE/TELECOMMUNICATION LINES &
COORDINATE RELOCATION OF ANY LINES
THAT ARE IN CONFLICT WITH THE
CONSTRUCTION WITH APPROPRIATE AGENCY



BUT IS ONE JACK ON ORIGINAL DRAWING

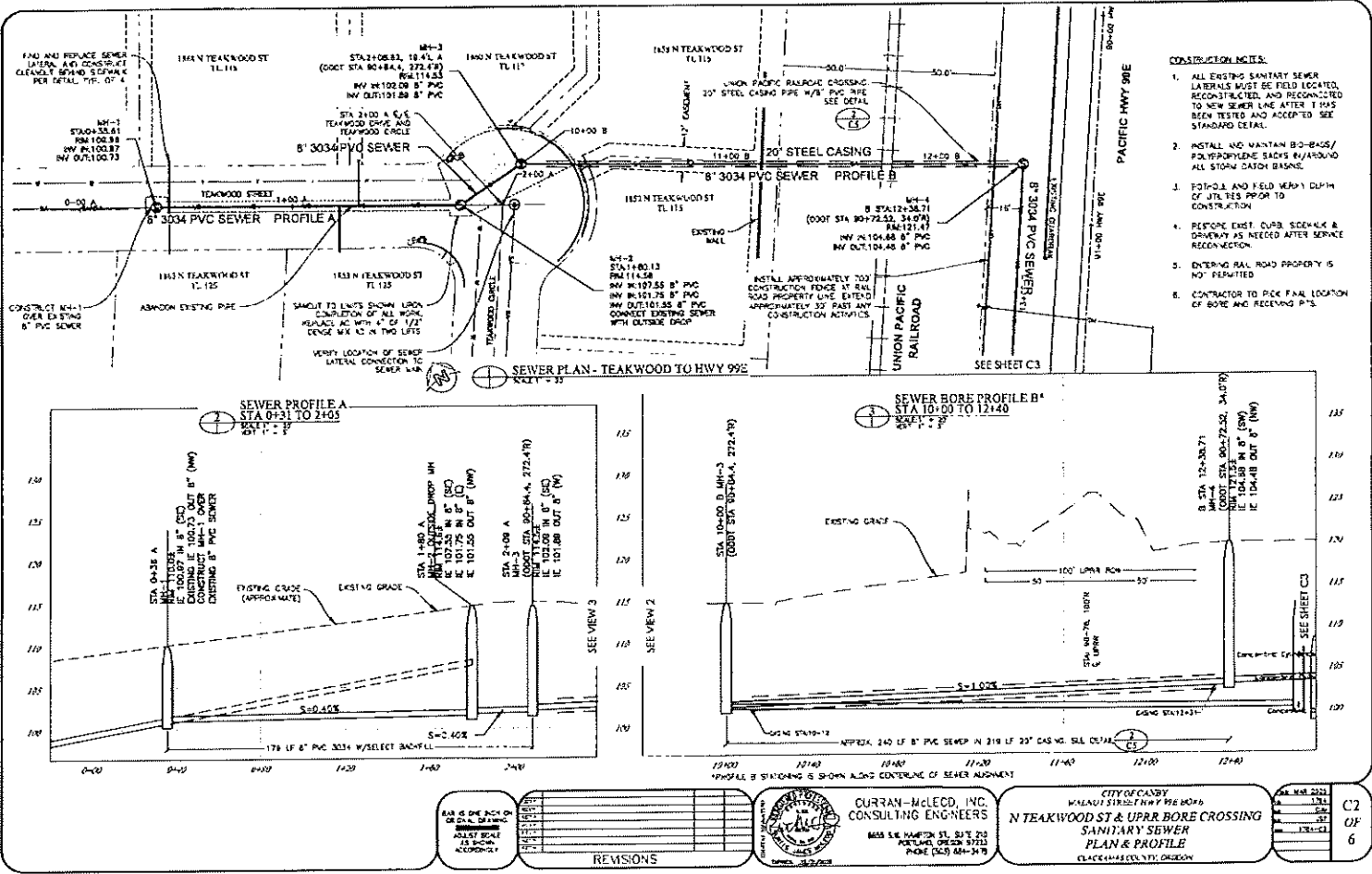
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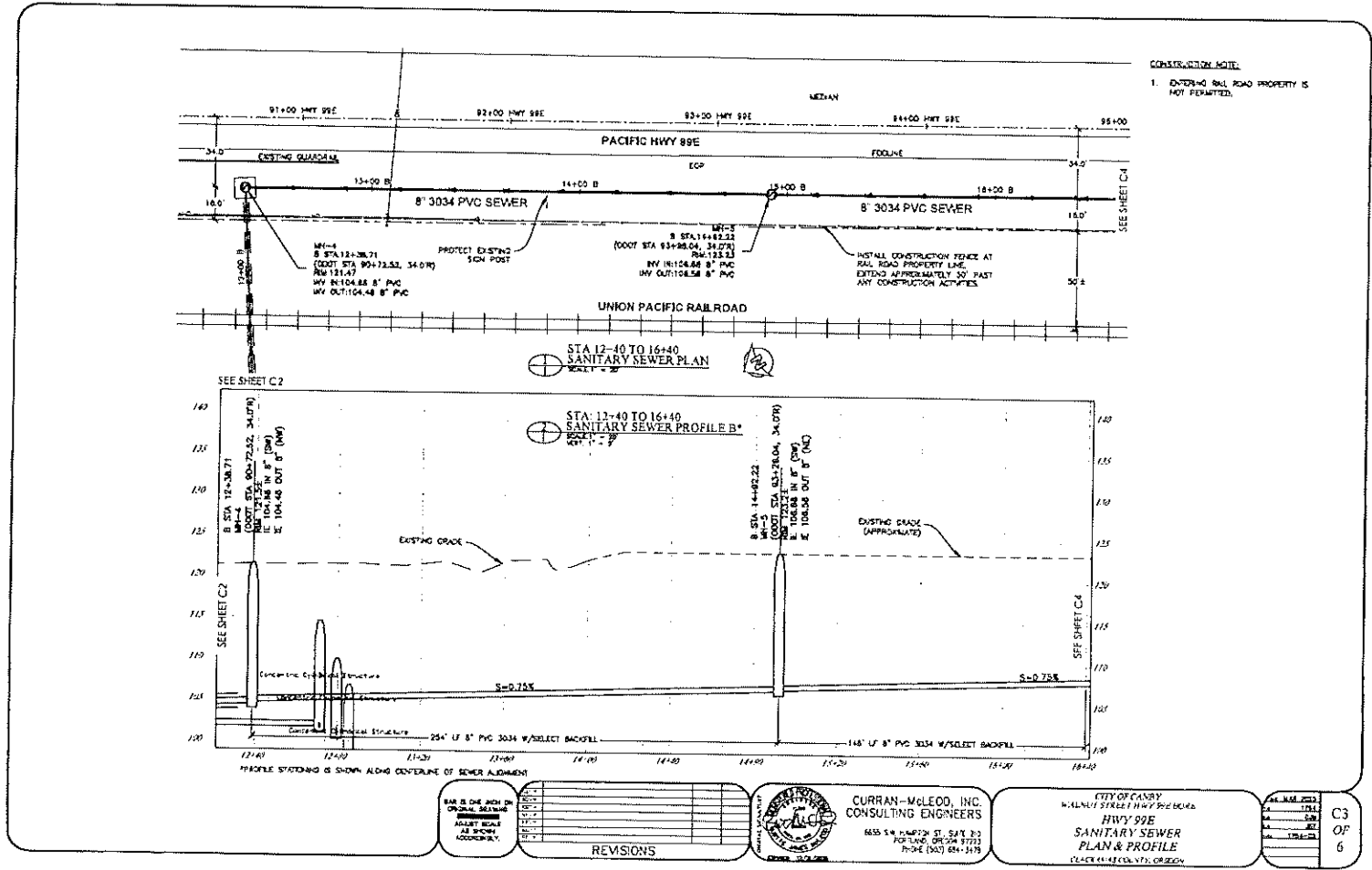
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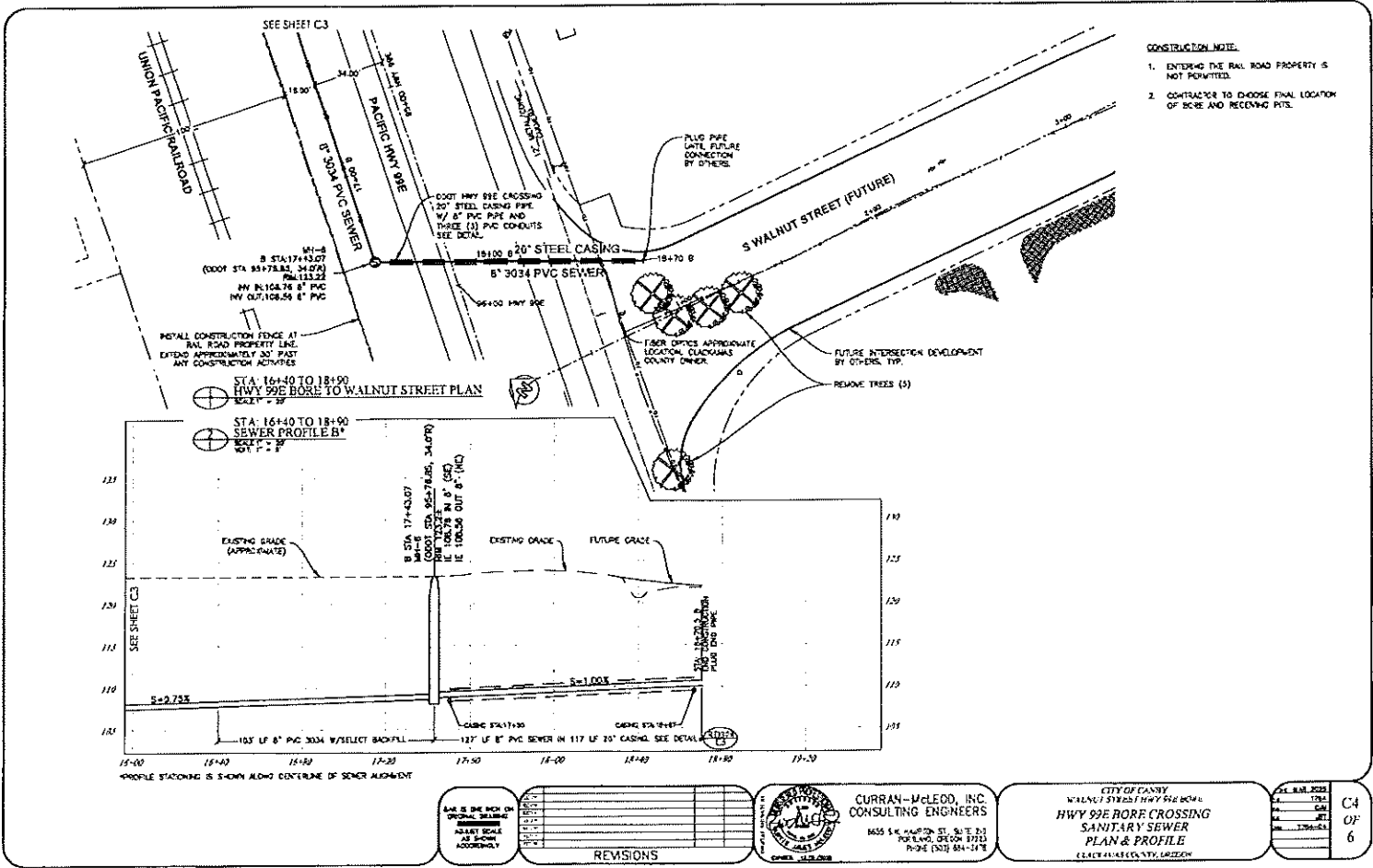
CURRAN-MCLEOD, INC.
CONSULTING ENGINEERS
1855 S.W. HAYDON ST., SUITE 210
PORTLAND, OREGON 97223
PHONE (503) 844-3478

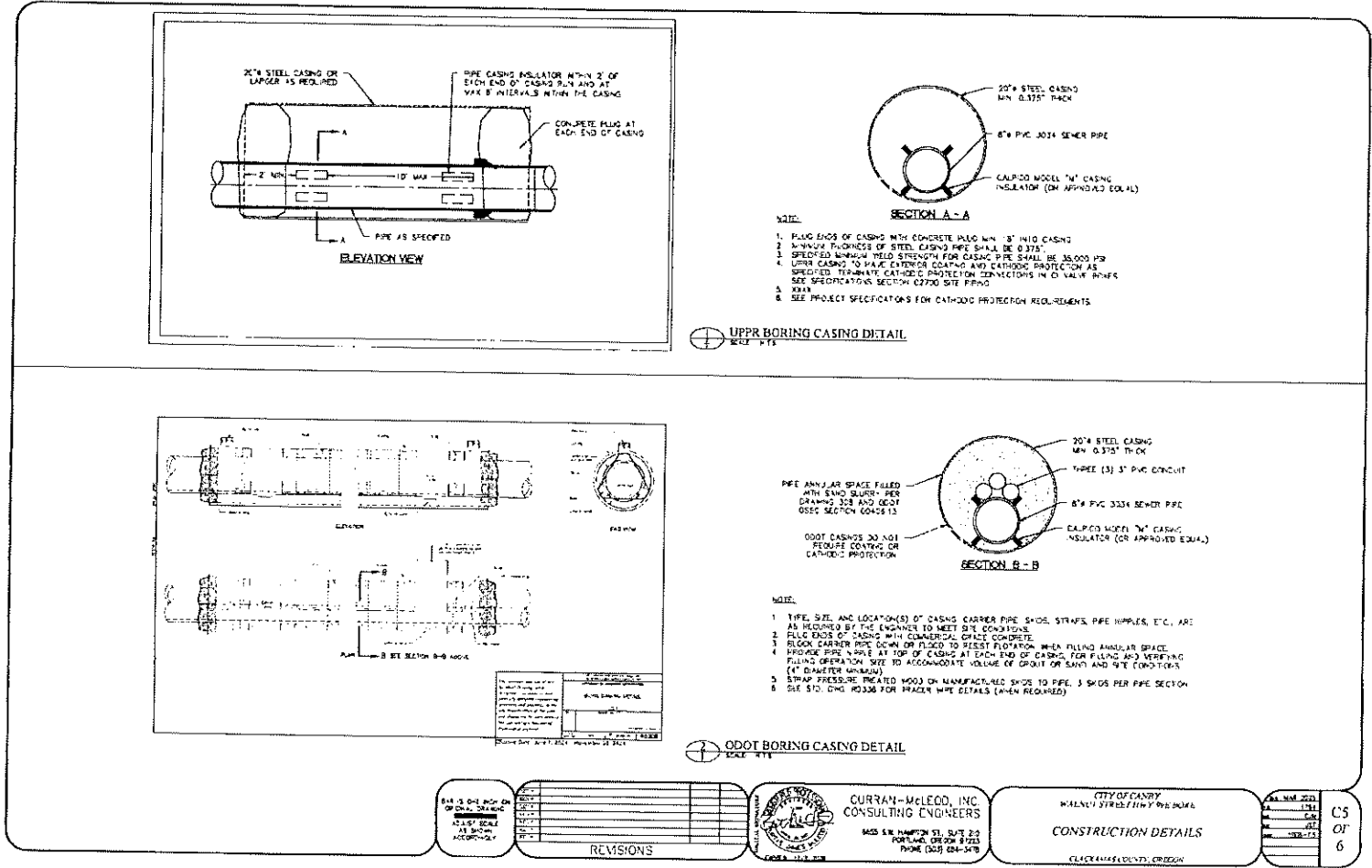
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WALNUT STREET HIGHWAY BRIDGE
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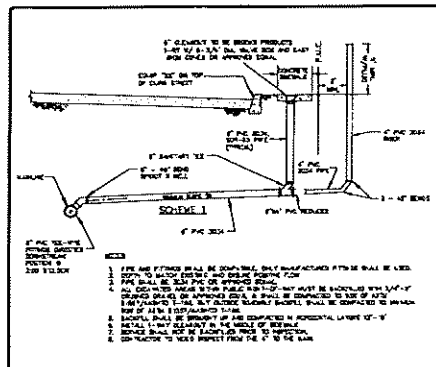




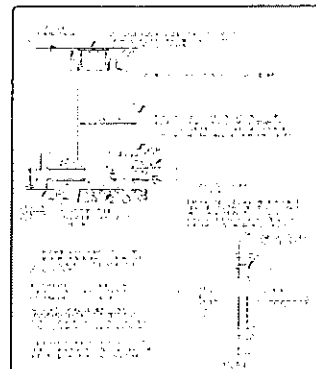




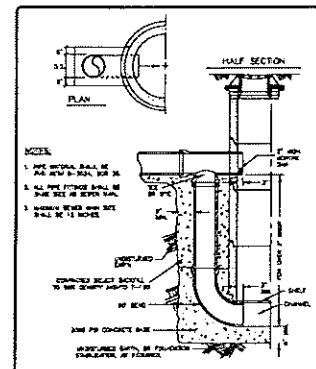
2BM49404



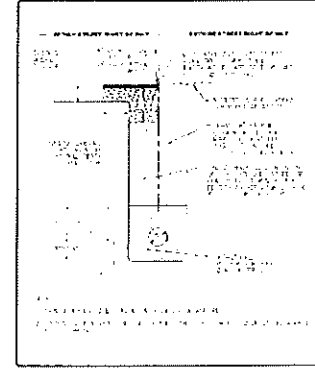
CITY OF CANBY	SANITARY SEWER LATERAL		
	1" Ø	DATE 4-10-01	DRAWN BY



CITY OF CANBY	MANHOLE # 1 STORM & SANITARY DRAIN
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CITY OF CANTY	OUTSIDE MAP W/AM-OLE CONNECTION		
	1' 2'	0' 5' 0-10-15	10-15 20



CITY OF CANNES

THIS IS ONE OF THE
ON CLOUD DATA MOUNTAINS
RESEARCH TEAM
AS SHOWN
ACCORDING TO

DATE	REVISIONS
2014	
2015	
2016	
2017	
2018	
2019	
2020	
2021	
2022	
2023	
2024	
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2026	
2027	
2028	
2029	
2030	



CURRAN-McLEOD, INC.
CONSULTING ENGINEERS
1855 S.W. HAWTHORN ST., SUITE 200
PORTLAND, OREGON 97223
PHONE (503) 824-3478

CITY OF CANBY
WALNUT STREET & HWY 95S BURE
CONSTRUCTION DETAILS
CLATSOP COUNTY, OREGON

DATE	1971	C6 OF 6
TIME	11:00	
BY	11:00	
BY	11:00	
BY	11:00	

Oregon Department of Transportation 48HR. Work Notice

District 2B Permit Work Information

Permit #: 2BM49404

Please return this form via email to address shown at right:
Or Fax to 503.653.5655

d2bup@odot.oregon.gov (District 2B Permitting)

Applicant Name: _____

Received Info From: _____

Phone: _____

Contractor: _____

Contractor Contact: _____

Contractor Phone: _____

24-Hr Emergency#: _____

Highway Name & Route #: _____ #: _____

Mile points: _____ - _____ (On Permit)

Direction of Travel: _____

Nature of work being done: _____

Is a Traffic Signal shut off required (Yes ☐ / No ☐)?

Signal shut off 72 hour Notice submitted? ☐ Yes ☐ No

Type of traffic control / restriction / lane closures: _____

Work Duration (Start/Finish Dates and Work Hours): Dates: Start: _____ Finish: _____

Hours: Start: _____ Finish: _____

Will Traffic impacts remain in place after work hours (i.e. steel plates, cones, etc.)?

No? ☐

Yes? ☐ If "yes" please explain: _____

NOTICE:
All sections must be completed.
Forms with incomplete or inaccurate
information will be returned for correction.
Strikethrough or "N/A" sections which do not apply.

ODOT DISTRICT 2B | 9200 SE Lawnfield Rd. Clackamas OR 97015 | (971) 673.6200 office | (503) 653.5655 fax

Updated 8/9/22

Pipeline Crossing 080808
Last Modified: 06/05/18
Form Approved, AVP-Law

Folder No. 03312-27
Auditor 306382

PIPELINE CROSSING AGREEMENT

Mile Post: 748.48, Brooklyn Subdivision
Location: Canby, Clackamas County, Oregon

THIS AGREEMENT ("Agreement") is made and entered into as of March 07, 2022, ("Effective Date") by and between UNION PACIFIC RAILROAD COMPANY, a Delaware corporation, ("Licensor") and CITY OF CANBY, to be addressed at 222 NE 2nd Avenue, Canby, Oregon 97013 ("Licensee").

IT IS MUTUALLY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

Article 1. LICENSOR GRANTS RIGHT.

A. In consideration of the license fee to be paid by Licensee set forth below and in further consideration of the covenants and agreements to be performed by Licensee, Licensor hereby grants to Licensee the right to construct and thereafter, during the term hereof, maintain and operate one (1) eight inch (8") plastic pipe cased in a twenty inch (20") steel pipe casing for an underground sewer pipeline crossing only, including any appurtenances required for the operation of said pipeline (collectively, "Licensee's Facilities") across Licensor's real property, trackage, or other facilities located in Canby, Clackamas County, State of Oregon ("Railroad Property"). The specific specifications and limited purpose for Licensee's Facilities on, along, across and under Railroad Property are described in and shown on the Print and Specifications dated January 07, 2022, attached hereto as Exhibit A and made a part hereof.

B. Licensee represents and warrants that Licensee's Facilities will (i) only be used for one (1) eight inch (8") plastic pipe cased in a twenty inch (20") steel pipe casing for an underground sewer pipeline crossing, and (ii) not be used to convey any other substance, any fiber optic cable, or for any other use, whether such use is currently technologically possible, or whether such use may come into existence during the life of this Agreement.

C. Licensee acknowledges that if it or its contractor provides Licensor with digital imagery depicting Licensee's Facilities ("Digital Imagery"), Licensee authorizes Licensor to use the Digital Imagery in preparing Exhibit A. Licensee represents and warrants that through a license or otherwise, it has the right to use the Digital Imagery and to permit Licensor to use the Digital Imagery in said manner.

Article 2. LICENSE FEE.

Upon execution of this Agreement, the Licensee shall pay to the Licensor a one-time License Fee of Fourteen Thousand Six Hundred Dollars (\$14,600.00).

Article 3. TERM.

This Agreement shall take effect as of the Effective Date first herein written and shall continue in full force and effect until terminated as provided in the "TERMINATION; REMOVAL OF LICENSEE'S FACILITIES" Section of **Exhibit B**.

Article 4. LICENSEE'S COMPLIANCE WITH GENERAL TERMS.

Licensee represents and warrants that all work on Licensee's Facilities performed by Licensee or its contractors will strictly comply with all terms and conditions set forth herein, including the General Terms and Conditions, attached hereto as Exhibit B and made a part hereof.

Article 5. INSURANCE.

A. During the term of this Agreement, Licensee shall fully comply or cause its contractor(s) to fully comply with the insurance requirements described in **Exhibit C**, attached hereto and made a part hereof. Upon request only, Licensee shall send copies of all insurance documentation (e.g., certificates, endorsements, etc.) to Licensor at the address listed in the "NOTICES" Section of this Agreement.

B. If Licensee is subject to statute(s) limiting its insurance liability and/or limiting its ability to obtain insurance in compliance with **Exhibit C** of this Agreement, those statutes shall apply.

Article 6. DEFINITION OF LICENSEE.

For purposes of this Agreement, all references in this Agreement to Licensee will include Licensee's contractors, subcontractors, officers, agents and employees, and others acting under its or their authority (collectively, a "Contractor"). If a Contractor is hired by Licensee to perform any work on Licensee's Facilities (including initial construction and subsequent relocation, maintenance, and/or repair work), then Licensee shall provide a copy of this Agreement to its Contractor(s) and require its Contractor(s) to comply with all terms and conditions of this Agreement, including the indemnification requirements set forth in the "INDEMNITY" Section of **Exhibit B**. Licensee shall require any Contractor to release, defend, and indemnify Licensor to the same extent and under the same terms and conditions as Licensee is required to release, defend, and indemnify Licensor herein.

Article 7. ATTORNEYS' FEES, EXPENSES, AND COSTS.

If litigation or other court action or similar adjudicatory proceeding is undertaken by Licensee or Licensor to enforce its rights under this Agreement, all fees, costs, and expenses, including, without limitation, reasonable attorneys' fees and court costs, of the prevailing Party in such action, suit, or proceeding shall be reimbursed or paid by the Party against whose interest the judgment or decision is rendered. The provisions of this Article shall survive the termination of this Agreement.

Article 8. WAIVER OF BREACH.

The waiver by Licensor of the breach of any condition, covenant or agreement herein contained to be kept, observed and performed by Licensee shall in no way impair the right of Licensor to avail itself of any remedy for any subsequent breach thereof.

Article 9. ASSIGNMENT.

A. Licensee shall not assign this Agreement, in whole or in part, or any rights herein granted, without the written consent of Licensors, which must be requested in writing by Licensee. Any assignment or attempted transfer of this Agreement or any of the rights herein granted, whether voluntary, by operation of law, or otherwise, without Licensors' written consent, will be absolutely void and may result in Licensors' termination of this Agreement pursuant to the "TERMINATION; REMOVAL OF LICENSEE'S FACILITIES" Section of **Exhibit B**.

B. Upon Licensors' written consent to any assignment, this Agreement will be binding upon and inure to the benefit of the parties thereto, successors, heirs, and assigns, executors, and administrators.

Article 10. SEVERABILITY.

Any provision of this Agreement which is determined by a court of competent jurisdiction to be invalid or unenforceable shall be invalid or unenforceable only to the extent of such determination, which shall not invalidate or otherwise render ineffective any other provision of this Agreement.

Article 11. NOTICES.

Except Licensee's commencement of work notice(s) required under **Exhibit B**, all other notices required by this Agreement must be in writing, and (i) personally served upon the business address listed below ("Notice Address"), (ii) sent overnight via express delivery by a nationally recognized overnight delivery service such as Federal Express Corporation or United Parcel Service to the Notice Address, or (iii) by certified mail, return receipt requested to the Notice Address. Overnight express delivery notices will be deemed to be given upon receipt. Certified mail notices will be deemed to be given three (3) days after deposit with the United States Postal Service.

If to Licensors: Union Pacific Railroad Company
Attn: Analyst – Real Estate Utilities (Folder No. 03312-27)
1400 Douglas Street, MS 1690
Omaha, Nebraska 68179

If to Licensee: CITY OF CANBY
222 NE 2ND Avenue
Portland, Oregon 97013

Article 12. SPECIAL PROVISION – CONSTRUCTION OBSERVATION.

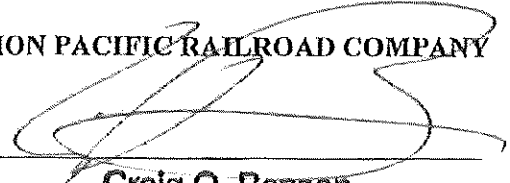
Licensors requires Licensee to provide monitoring of tracks and construction observation through Licensors approved observer named below during all construction and installation work. Licensee is to directly coordinate services with the named inspector:

Railpros Field Services
Email: RP.Utility@railpros.com
Phone (682)223-5271

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the date first herein written.

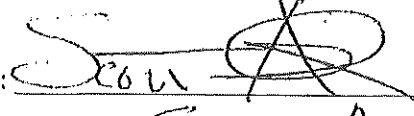
UNION PACIFIC RAILROAD COMPANY

By:


Craig O. Benson
Manager - Real Estate
Union Pacific Railroad Company

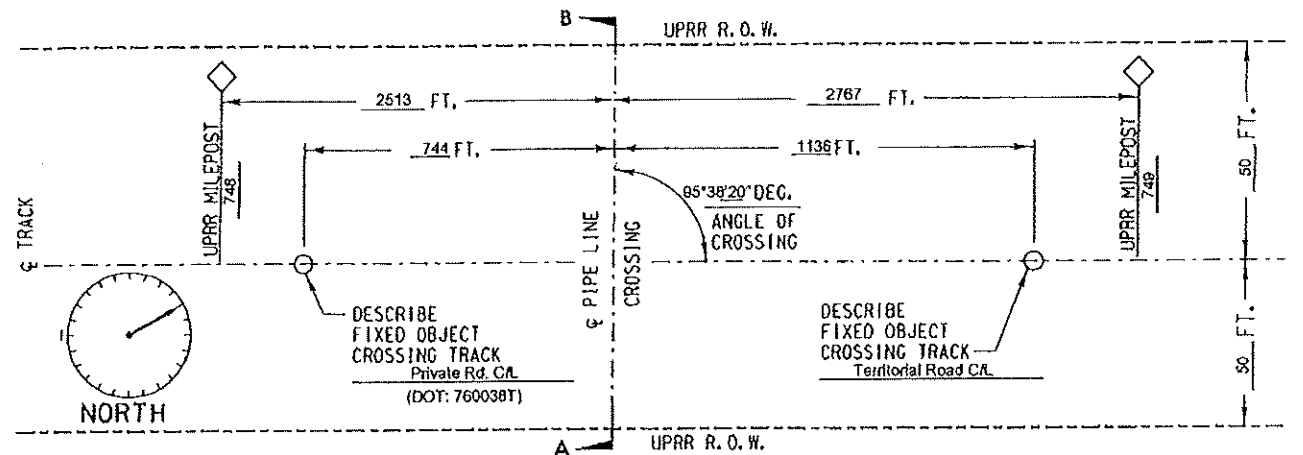
CITY OF CANBY

By:

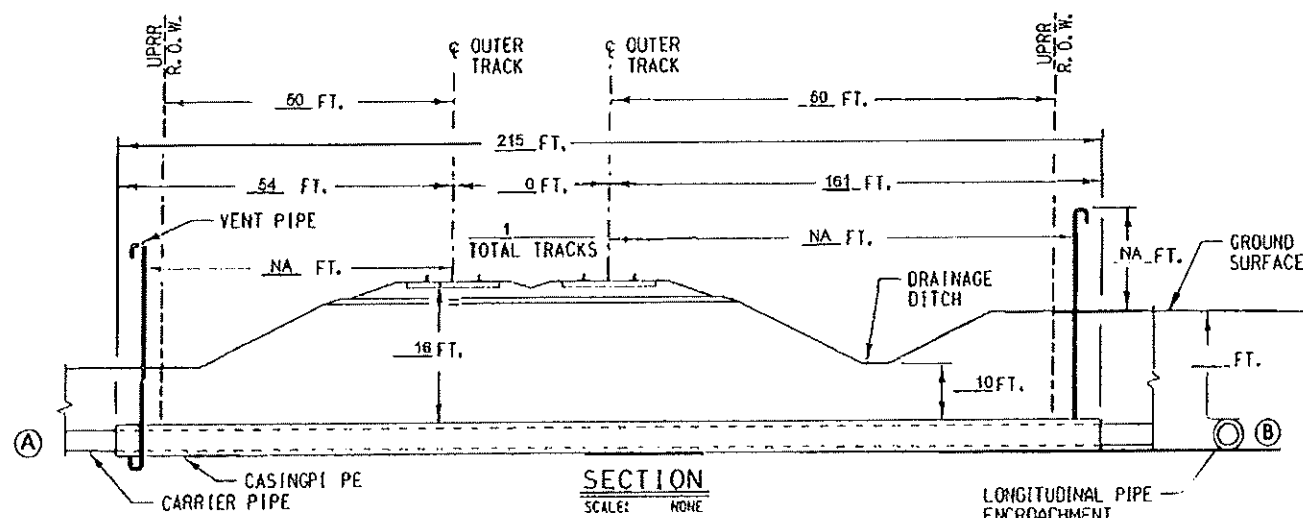
 3/22/22
Name Printed: Scott ARNTLER
Title: City Administrator

NON-FLAMMABLE LIQUID PIPELINE

☒ CROSSING
☐ ENCROACHMENT
☐ BOTH



PLAN
SCALE: NONE



NOTES:
1) ALL DIMENSIONS MEASURED PERPENDICULAR TO THE CENTERLINE OF TRACK
2) REFER TO AREMA VOLUME 1, CHAPTER 1, PART 3, SECTION 5.1

- A) METHOD OF INSTALLATION BORED AND JACKED
B) DIST. FROM CENTERLINE OF TRACK TO PIPE ENCROACHMENT
C) SIGNS PROVIDED? AT MINIMUM SIGNS WILL BE PROVIDED AS STATED ABOVE
D) CARRIER MATERIAL PLASTIC IF RCP, CLASS V? NA
COMMODITY TO BE CONVEYED SEWAGE
OPERATIONAL PRESSURE 0 PSI. MAOP 0 PSI.
WALL THICKNESS (INCH) / SCHEDULE 0.24" / SDR 35, DIAMETER 8 IN.
CATHODIC/COATING PROTECTION NO
E) CASING MATERIAL STEEL PIPE IF RCP, CLASS V? NA
TOTAL LENGTH CASING PIPE: 215 FT.
WALL THICKNESS 0.375 IN. DIAMETER 20 IN.
CATHODIC/COATING PROTECTION YES
CASING PIPE IS SEALED AT THE ENDS.
F) DISTANCE FROM CENTERLINE OF TRACK TO NEAR FACE OF
BORING AND JACKING PITS WHEN MEASURED AT RIGHT ANGLES
160 AND 60.



BUILDING AMERICA®

EXHIBIT "A"

SUBDIVISION: <u>Brooklyn Sub.</u>	
TRACK TYPE: <u>MAINLINE</u>	
M.P.: <u>748.48</u>	LAT.: <u>45.276866</u>
E.S.M.: <u>1156+03</u>	LONG.: <u>-122.669728</u>
NEAREST CITY: <u>CANBY</u>	COUNTY: <u>CLACKAMAS</u> STATE: <u>OR</u>
APPLICANT: <u>CITY OF CANBY</u>	
FILE NO.: <u>0331227</u>	DATE: <u>01/07/2022</u>

EXHIBIT B

GENERAL TERMS AND CONDITIONS

Section 1. LIMITATION AND SUBORDINATION OF RIGHTS GRANTED.

A. The foregoing grant is subject and subordinate to the prior and continuing right and obligation of Licensor to use and maintain its entire property including the right and power of Licensor to construct, maintain, repair, renew, use, operate, change, modify or relocate railroad tracks, signal, communication, fiber optics, or other wirelines, pipelines and other facilities upon, along or across any or all parts of its property, all or any of which may be freely done at any time or times by Licensor without liability to Licensee or to any other party for compensation or damages.

B. The foregoing grant is also subject to all outstanding superior rights (including those in favor of licensees and lessees of Railroad Property) and the right of Licensor to renew and extend the same, and is made without covenant of title or for quiet enjoyment. It shall be Licensee's sole obligation to obtain such additional permission, license and grants necessary on account of any such existing rights.

Section 2. ENGINEERING REQUIREMENTS; PERMITS.

A. Licensee's Facilities will be designed, constructed, operated, maintained, repaired, renewed, modified, reconstructed, removed, or abandoned in place on Railroad Property by Licensee or its contractor to Licensor's satisfaction and in strict conformity with: (i) Licensor's current engineering standards and specifications, including those for shoring and cribbing to protect Licensor's railroad operations and facilities ("UP Specifications"), except for variances approved in advance in writing by Licensor's Assistant Vice President Engineering - Design or its authorized representative ("UP Engineering Representative"); (ii) such other additional safety standards as Licensor, in its sole discretion, elects to require, including, without limitation, American Railway Engineering and Maintenance-of-Way Association ("AREMA") standards and guidelines (collectively, "UP Additional Requirements"); and (iii) all applicable laws, rules, and regulations, including any applicable Federal Railroad Administration and Federal Energy Regulatory Commission regulations and enactments (collectively, "Laws"). If there is any conflict between UP Specifications, UP Additional Requirements, and Laws, the most restrictive will apply.

B. Licensee shall keep the soil over Licensee's Facilities thoroughly compacted, and maintain the grade over and around Licensee's Facilities even with the surface of the adjacent ground.

C. If needed, Licensee shall secure, at Licensee's sole cost and expense, any and all necessary permits required to perform any work on Licensee's Facilities.

Section 3. NOTICE OF COMMENCEMENT OF WORK; EMERGENCIES.

A. Licensee and its contractors are strictly prohibited from commencing any work associated with Licensee's Facilities without Licensor's written approval that the work will be in strict compliance with the "ENGINEERING REQUIREMENTS; PERMITS" Section of this Exhibit B. Upon Licensor's approval, Licensee shall contact both of Licensor's field representatives ("Licensor's Field Representatives") at least ten (10) days before commencement of any work on Licensee's Facilities.

B. Licensee shall not commence any work until: (1) Licenser has determined whether flagging or other special protective or safety measures ("Safety Measures") are required for performance of the work pursuant to the "FLAGGING" Section of this **Exhibit B** and provided Licensee written authorization to commence work; and (2) Licensee has complied with the "PROTECTION OF FIBER OPTIC CABLE SYSTEMS" Section of this **Exhibit B**.

C. If, at any time, an emergency arises involving Licensee's Facilities, Licensee or its contractor shall immediately contact Licenser's Response Management Communications Center at (888) 877-7267.

Section 4. FLAGGING.

A. Following Licensee's notice to Licenser's Field Representatives required under the "NOTICE OF COMMENCEMENT OF WORK; EMERGENCIES" Section of this **Exhibit B**, Licenser shall inform Licensee if Safety Measures are required for performance of the work by Licensee or its contractor on Railroad Property. If Safety Measures are required, no work of any kind may be performed by Licensee or its contractor(s) until arrangements for the Safety Measures have been made and scheduled. If no Safety Measures are required, Licenser will give Licensee written authorization to commence work.

B. If any Safety Measures are performed or provided by Licenser, including but not limited to flagging, Licenser shall bill Licensee for such expenses incurred by Licenser, unless Licenser and a federal, state, or local governmental entity have agreed that Licenser is to bill such expenses to the federal, state, or local governmental entity. Additional information regarding the submission of such expenses by Licenser and payment thereof by Licensee can be found in the "LICENSEE'S PAYMENT OF EXPENSES" Section of this **Exhibit B**. If Licenser performs any Safety Measures, Licensee agrees that Licensee is not relieved of any of responsibilities or liabilities set forth in this Agreement.

C. For flagging, the rate of pay per hour for each flagger will be the prevailing hourly rate in effect for an eight-hour day for the class of flagmen used during regularly assigned hours and overtime in accordance with Labor Agreements and Schedules in effect at the time the work is performed. In addition to the cost of such labor, a composite charge for vacation, holiday, health and welfare, supplemental sickness, Railroad Retirement and unemployment compensation, supplemental pension, Employees Liability and Property Damage, and Administration will be included, computed on actual payroll. The composite charge will be the prevailing composite charge in effect at the time the work is performed. One and one-half times the current hourly rate is paid for overtime, Saturdays and Sundays, and two and one-half times current hourly rate for holidays. Wage rates are subject to change, at any time, by law or by agreement between Licenser and its employees, and may be retroactive as a result of negotiations or a ruling of an authorized governmental agency. Additional charges on labor are also subject to change. If the wage rate or additional charges are changed, Licensee (or the governmental entity, as applicable) shall pay on the basis of the new rates and charges.

D. Reimbursement to Licenser will be required covering the full eight-hour day during which any flagger is furnished, unless the flagger can be assigned to other railroad work during a portion of such day, in which event reimbursement will not be required for the portion of the day during which the flagger is engaged in other railroad work. Reimbursement will also be required for any day not actually worked by the flaggers following the flaggers' assignment to work on the project for which Licenser is required to pay the flaggers and which could not reasonably be avoided by Licenser by assignment of such flaggers to other work, even though Licensee may not be working during such time. When it becomes necessary for Licenser to bulletin and assign an employee to a flagging position in compliance with union collective bargaining agreements, Licensee must provide Licenser a minimum of

five (5) days notice prior to the cessation of the need for a flagger. If five (5) days notice of cessation is not given, Licensee will still be required to pay flagging charges for the days the flagger was scheduled, even though flagging is no longer required for that period. An additional ten (10) days notice must then be given to Licensor if flagging services are needed again after such five day cessation notice has been given to Licensor.

Section 5. SAFETY.

A. Safety of personnel, property, rail operations and the public is of paramount importance in the prosecution of any work on Railroad Property performed by Licensee or its contractor, and takes precedence over any work on Licensee's Facilities to be performed Licensee or its contractors. Licensee shall be responsible for initiating, maintaining and supervising all safety operations and programs in connection with any work on Licensee's Facilities. Licensee and its contractor shall, at a minimum comply, with Licensor's then current safety standards located at the below web address ("Licensor's Safety Standards") to ensure uniformity with the safety standards followed by Licensor's own forces. As a part of Licensee's safety responsibilities, Licensee shall notify Licensor if it determines that any of Licensor's Safety Standards are contrary to good safety practices. Licensee and its contractor shall furnish copies of Licensor's Safety Standards to each of its employees before they enter Railroad Property.

Union Pacific Current Safety Requirements

B. Licensee shall keep the job site on Railroad Property free from safety and health hazards and ensure that their employees are competent and adequately trained in all safety and health aspects of the work.

C. Licensee represents and warrants that all parts of Licensee's Facilities within and outside of the limits of Railroad Property will not interfere whatsoever with the constant, continuous, and uninterrupted use of the tracks, property, and facilities of Licensor, and nothing shall be done or suffered to be done by Licensee at any time that would in any manner impair the safety thereof.

D. Licensor's operations and work performed by Licensor's personnel may cause delays in Licensee's or its contractor's work on Licensee's Facilities. Licensee accepts this risk and agrees that Licensor shall have no liability to Licensee or any other person or entity for any such delays. Licensee must coordinate any work on Railroad Property by Licensee or any third party with Licensor's Field Representatives in strict compliance with the "NOTICE OF COMMENCEMENT OF WORK; EMERGENCIES" Section of this **Exhibit B**.

E. Licensor shall have the right, if it so elects, to provide any support it deems necessary for the safety of Licensor's operations and trackage during Licensee's or its contractor's construction, maintenance, repair, renewal, modification, relocation, reconstruction, or removal of Licensee's Facilities. In the event Licensor provides such support, Licensor shall invoice Licensee, and Licensee shall pay Licensor as set forth in the "LICENSEE'S PAYMENT OF EXPENSES" Section of this **Exhibit B**.

F. Licensee may use unmanned aircraft systems ("UAS") to inspect Licensee's Facilities only upon the prior authorization from and under the direction of Licensor's Field Representatives. Licensee represents and warrants that its use of UAS on Railroad Property will comply with Licensor's then-current Unmanned Aerial Systems Policy and all applicable laws, rules and regulations, including any applicable Federal Aviation Administration regulations and enactments pertaining to UAS.

Section 6. PROTECTION OF FIBER OPTIC CABLE SYSTEMS.

Fiber optic cable systems may be buried on Railroad Property. Protection of the fiber optic cable systems is of extreme importance since any break could disrupt service to users resulting in business interruption and loss of revenue and profits. In addition to the notifications required under the "NOTICE OF COMMENCEMENT OF WORK; EMERGENCIES" Section of this **Exhibit B**, Licensee shall visit up.com/CBUD to complete and submit the required form to determine if fiber optic cable is buried anywhere on Railroad Property to be used by Licensee. If it is, Licensee shall telephone the telecommunications company(ies) involved, and arrange for a cable locator, make arrangements for relocation or other protection of the fiber optic cable, all at Licensee's expense, and will not commence any work on Railroad Property until all such protection or relocation has been completed.

Section 7. LICENSEE'S PAYMENT OF EXPENSES.

A. Licensee shall bear the entire cost and expense of the design, construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities.

B. Licensee shall fully pay for all materials joined, affixed to and labor performed on Railroad Property in connection with the construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities, and shall not permit or suffer any mechanic's or materialman's lien of any kind or nature to be enforced against the property for any work done or materials furnished thereon at the instance or request or on behalf of Licensee. Licensee shall promptly pay or discharge all taxes, charges, and assessments levied upon, in respect to, or on account of Licensee's Facilities, to prevent the same from becoming a charge or lien upon any property of Licensor, and so that the taxes, charges, and assessments levied upon or in respect to such property shall not be increased because of the location, construction, or maintenance of Licensee's Facilities or any improvement, appliance, or fixture connected therewith placed upon such property, or on account of Licensee's interest therein. Where such tax, charge, or assessment may not be separately made or assessed to Licensee but shall be included in the assessment of the property of Licensor, then Licensee shall pay to Licensor an equitable proportion of such taxes determined by the value of Licensee's property upon property of Licensor as compared with the entire value of such property.

C. As set forth in the "FLAGGING" Section of this **Exhibit B**, Licensor shall have the right, if it so elects, to provide any Safety Measures Licensor deems necessary for the safety of Licensor's operations and trackage during Licensee's or its contractor's construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities, including, but not limited to supervision, inspection, and flagging services. In the event Licensor provides such Safety Measures, Licensor shall submit an itemized invoice to Licensee's notice recipient listed in the "NOTICES" Article of this Agreement. Licensee shall pay to Licensor the total amount listed on such invoice within thirty (30) days of Licensee's receipt of such invoice.

Section 8. MODIFICATIONS TO LICENSEE'S FACILITIES.

A. This grant is subject to Licensor's safe and efficient operation of its railroad, and continued use and improvement of Railroad Property (collectively, "Railroad's Use"). Accordingly, Licensee shall, at its sole cost and expense, modify, reconstruct, repair, renew, revise, relocate, or remove (individually, "Modification", or collectively, "Modifications") all or any portion of Licensee's Facilities as Licensor may designate or identify, in its sole discretion, in the furtherance of Railroad's Use.

B. Upon any Modification of all or any portion of Licensee's Facilities to another location on Railroad Property, Licensor and Licensee shall execute a Supplemental Agreement to this Pipeline

Agreement to document the Modification(s) to Licensee's Facilities on Railroad Property. If the Modifications result in Licensee's Facilities moving off of Railroad Property, this Agreement will terminate upon Licensee's completion of such Modification(s) and all requirements contained within the "TERMINATION; REMOVAL OF LICENSEE'S FACILITIES" Section of this **Exhibit B**. Any such Modification(s) off of Railroad Property will not release Licensee from any liability or other obligation of Licensee arising prior to and upon completion of any such Modifications to the Licensee's Facilities.

Section 9. RESTORATION OF RAILROAD PROPERTY.

In the event Licensee, in any manner moves or disturbs any property of Licensor in connection with the construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities, then, Licensee shall, as soon as possible and at Licensee's sole cost and expense, restore Licensor's property to the same condition as the same were before such property was moved or disturbed.

Section 10. INDEMNITY.

A. Definitions. As used in this Section:

1. "Licensor" includes Licensor, its affiliates, its and their officers, directors, agents and employees, and other railroad companies using Railroad Property at or near the location of Licensee's installation and their officers, directors, agents, and employees.
2. "Licensee" includes Licensee and its agents, contractors, subcontractors, sub-subcontractors, employees, officers, and directors, or any other person or entity acting on its behalf or under its control.
3. "Loss" includes claims, suits, taxes, loss, damages (including punitive damages, statutory damages, and exemplary damages), costs, charges, assessments, judgments, settlements, liens, demands, actions, causes of action, fines, penalties, interest, and expenses of any nature, including court costs, reasonable attorneys' fees and expenses, investigation costs, and appeal expenses.

B. Licensee shall release, defend, indemnify, and hold harmless Licensor from and against any and all Loss, even if groundless, fraudulent, or false, that directly or indirectly arises out of or is related to Licensee's construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, removal, presence, use, or operation of Licensee's Facilities, including, but not limited to, any actual or alleged:

1. Bodily harm or personal injury (including any emotional injury or disease) to, or the death of, any person(s), including, but not limited to, Licensee, Licensor, any telecommunications company, or the agents, contractors, subcontractors, sub-subcontractors, or employees of the foregoing;
2. Damage to or the disturbance, loss, movement, or destruction of Railroad Property, including loss of use and diminution in value, including, but not limited to, any telecommunications system(s) or fiber optic cable(s) on or near Railroad Property, any property of Licensee or Licensor, or any property in the care, custody, or control of Licensee or Licensor;

3. Removal of person(s) from Railroad Property;
4. Any delays or interference with track or Railroad's Use caused by Licensee's activity(ies) on Railroad Property, including without limitation the construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities or any part thereof, any activities, labor, materials, equipment, or machinery in conjunction therewith;
5. Right(s) or interest(s) granted pursuant to this Agreement;
6. Contents escaping from Licensee's Facilities, including without limitation any actual or alleged pollution, contamination, breach, or environmental Loss;
7. Licensee's breach of this Agreement or failure to comply with its provisions, including, but not limited to, any violation or breach by Licensee of any representations and warranties Licensee has made in this Agreement; and
8. Violation by Licensee of any law, statute, ordinance, governmental administrative order, rule, or regulation, including without limitation all applicable Federal Railroad Administration regulations.

C. THE FOREGOING OBLIGATIONS SHALL APPLY TO THE FULLEST EXTENT PERMITTED BY LAW FOR THE BENEFIT OF LICENSOR TO LOSSES CAUSED BY, ARISING FROM, RELATING TO, OR RESULTING FROM, IN WHOLE OR IN PART, THE NEGLIGENCE OF LICENSOR, AND SUCH NEGLIGENCE OF LICENSOR SHALL NOT LIMIT, DIMINISH, OR PRECLUDE LICENSEE'S OBLIGATIONS TO LICENSOR IN ANY RESPECT. NOTWITHSTANDING THE FOREGOING, SUCH OBLIGATION TO INDEMNIFY LICENSOR SHALL NOT APPLY TO THE EXTENT THE LOSS IS CAUSED BY THE SOLE, ACTIVE AND DIRECT NEGLIGENCE, GROSS NEGLIGENCE, OR WILLFUL MISCONDUCT OF LICENSOR AS DETERMINED IN A FINAL JUDGMENT BY A COURT OF COMPETENT JURISDICTION.

Section 11. TERMINATION; REMOVAL OF LICENSEE'S FACILITIES.

A. If Licensee does not use the right herein granted on Licensee's Facilities for one (1) year, or if Licensee continues in default in the performance of any provision of this Agreement for a period of thirty (30) days after written notice from Licensor to Licensee specifying such default, Licensor may, at its sole discretion, terminate this Agreement by written notice to Licensee at the address listed in the "NOTICES" Article of this Agreement. This Agreement will not terminate until Licensee complies with Paragraphs "C" and "D" of this Section found below.

B. In addition to the provisions of Paragraph "A" above, this Agreement may be terminated by written notice given by either party, without cause, upon thirty (30) days written notice to the non-terminating party at the address listed in the "NOTICES" Article of this Agreement. This Agreement will not terminate until Licensee complies with Paragraphs "C" and "D" of this Section found below.

C. Prior to the effective date of any termination described in this Section, Licensee shall submit an application to Licensor's online Utility Contracts System at [this link](#) for Licensee's removal, or if applicable, abandonment in place of Licensee's Facilities located on Railroad Property ("Removal/Abandonment Work"). Upon the UP Engineering Representative's approval of Licensee's application for the Removal/Abandonment Work, Licensor and Licensee shall execute a separate consent document that will govern Licensee's performance of the Removal/Abandonment Work from those portions of Railroad

Property not occupied by roadbed and/or trackage ("Consent Document"). Licensee shall then restore the impacted Railroad Property to the same or reasonably similar condition as it was prior to Licensee's installation of Licensee's Facilities. For purposes of this Section, Licensee's (i) performance of the Removal/Abandonment Work, and (ii) restoration work will hereinafter be collectively referred to as the "Restoration Work".

D. Following Licensee's completion of the Restoration Work, Licensee shall provide a written certification letter to Licensor at the address listed in the "NOTICES" Article of this Agreement which certifies that the Restoration Work has been completed in accordance with the Consent Document. Licensee shall report to governmental authorities, as required by law, and notify Licensor immediately if any environmental contamination is discovered during Licensee's performance of the Restoration Work. Upon discovery, the Licensee shall initiate any and all removal, remedial and restoration actions that are necessary to restore the property to its original, uncontaminated condition. Licensee shall provide written certification to Licensor at the address listed in the "NOTICES" Article of this Agreement that environmental contamination has been remediated and the property has been restored in accordance with Licensor's requirements. Upon Licensor's receipt of Licensee's restoration completion certifications, this Agreement will terminate.

E. In the event that Licensee fails to complete any of the Restoration Work, Licensor may, but is not obligated, to perform the Restoration Work. Any such work actually performed by Licensor will be at the cost and expense of Licensee. In the event that Licensor performs any of the Restoration Work, Licensee shall release Licensor from any and all Loss (defined in the "INDEMNITY" Section of this **Exhibit B**) arising out of or related to Licensor's performance of the Restoration Work.

F. Termination of this Agreement for any reason will not affect any of rights or obligations of the parties which may have accrued, or liabilities or Loss (defined in the "INDEMNITY" Section of this **Exhibit B**), accrued or otherwise, which may have arisen prior to such termination.

EXHIBIT C

INSURANCE REQUIREMENTS

In accordance with Article 5 of this Agreement, Licensee shall (1) procure and maintain at its sole cost and expense, or (2) require its Contractor(s) to procure and maintain, at their sole cost and expense, the following insurance coverage:

A. **Commercial General Liability Insurance.** Commercial general liability (CGL) with a limit of not less than \$2,000,000 each occurrence and an aggregate limit of not less than \$4,000,000. CGL insurance must be written on ISO occurrence form CG 00 01 12 04 (or a substitute form providing equivalent coverage).

The policy must also contain the following endorsement, WHICH MUST BE STATED ON THE CERTIFICATE OF INSURANCE:

- Contractual Liability Railroads ISO form CG 24 17 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Railroad Company Property" as the Designated Job Site.

B. **Business Automobile Coverage Insurance.** Business auto coverage written on ISO form CA 00 01 10 01 (or a substitute form providing equivalent liability coverage) with a limit of not less \$2,000,000 for each accident, and coverage must include liability arising out of any auto (including owned, hired, and non-owned autos).

The policy must contain the following endorsements, WHICH MUST BE STATED ON THE CERTIFICATE OF INSURANCE:

- "Coverage For Certain Operations In Connection With Railroads" ISO form CA 20 70 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Railroad Company Property" as the Designated Job Site.

C. **Workers' Compensation and Employers' Liability Insurance.** Coverage must include but not be limited to:

- Licensee's statutory liability under the workers' compensation laws of the state(s) affected by this Agreement.
- Employers' Liability (Part B) with limits of at least \$500,000 each accident, \$500,000 disease policy limit \$500,000 each employee.

If Licensee is self-insured, evidence of state approval and excess workers' compensation coverage must be provided. Coverage must include liability arising out of the U. S. Longshoremen's and Harbor Workers' Act, the Jones Act, and the Outer Continental Shelf Land Act, if applicable.

D. **Environmental Liability Insurance.** Environmental Legal Liability Insurance (ELL) applicable to bodily injury, property damage, including loss of use of damaged property or of property that has not been physically injured or destroyed, cleanup costs, and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims, or compliance with statute, all in connection with any loss arising from the insured's performance under this Agreement. Except with respect to the limits of insurance, and any rights or duties specifically assigned to the first named insured,

this insurance must apply as if each named insured were the only named insured; and separately to the additional insured against which claim is made or suit is brought. Coverage shall be maintained in an amount of at least \$2,000,000 per loss, with an annual aggregate of at least \$4,000,000.

Licensee warrants that any retroactive date applicable to ELL insurance coverage under the policy is the same as or precedes the Effective Date of this Agreement, and that continuous coverage will be maintained for a period of five (5) years beginning from the time the work under this Agreement is completed or if coverage is cancelled for any reason the policies extended discovery period, if any, will be exercised for the maximum time allowed.

E. **Railroad Protective Liability Insurance.** Licensee must maintain for the duration of work "Railroad Protective Liability" insurance written on ISO occurrence form CG 00 35 12 04 (or a substitute form providing equivalent coverage) on behalf of Licensor only as named insured, with a limit of not less than \$2,000,000 per occurrence and an aggregate of \$6,000,000. The definition of "JOB LOCATION" and "WORK" on the declaration page of the policy shall refer to this Agreement and shall describe all WORK or OPERATIONS performed under this Agreement. Notwithstanding the foregoing, Licensee does not need Railroad Protective Liability Insurance after its initial construction work is complete and all excess materials have been removed from Licensor's property; PROVIDED, however, that Licensee shall procure such coverage for any subsequent maintenance, repair, renewal, modification, reconstruction, or removal work on Licensee's Facilities.

F. **Umbrella or Excess Insurance.** If Licensee utilizes umbrella or excess policies, and these policies must "follow form" and afford no less coverage than the primary policy.

Other Requirements

G. All policy(ies) required above (except business automobile, workers' compensation and employers' liability) must include Licensor as "Additional Insured" using ISO Additional Insured Endorsement CG 20 26 (or substitute form(s) providing equivalent coverage). The coverage provided to Licensor as additional insured shall not be limited by Licensee's liability under the indemnity provisions of this Agreement. BOTH LICENSOR AND LICENSEE EXPECT THAT LICENSOR WILL BE PROVIDED WITH THE BROADEST POSSIBLE COVERAGE AVAILABLE BY OPERATION OF LAW UNDER ISO ADDITIONAL INSURED FORM CG 20 26.

H. Punitive damages exclusion, if any, must be deleted (and the deletion indicated on the certificate of insurance), unless (a) insurance coverage may not lawfully be obtained for any punitive damages that may arise under this Agreement, or (b) all punitive damages are prohibited by all states in which this Agreement will be performed.

I. Licensee waives all rights of recovery, and its insurers also waive all rights of subrogation of damages against Licensor and its agents, officers, directors and employees for damages covered by the workers' compensation and employers' liability or commercial umbrella or excess liability obtained by Licensee required in this Agreement, where permitted by law. This waiver must be stated on the certificate of insurance.

J. All insurance policies must be written by a reputable insurance company acceptable to Licensor or with a current Best's Insurance Guide Rating of A- and Class VII or better, and authorized to do business in the state(s) in which the work is to be performed.

K. The fact that insurance is obtained by Licensee will not be deemed to release or diminish the liability of Licensee, including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by Licensor from Licensee or any third party will not be limited by the amount of the required insurance coverage.



City of Canby
EROSION CONTROL APPLICATION
222 NE 2nd Avenue, Canby OR 97013, Phone: 503-266-0798
*Please submit in electronic format on a CD, flash drive or
via email: PlanningApps@canbyoregon.gov*

CITY FILE#: _____ DATE: _____

Type of Work			
☐ New Construction		☐ Demolition	
☐ Addition/Alteration/replacement		☐ Other	
☐ Commercial		☐ Residential	
Lot Size : Acres			
Job Site Information and Location			
Project Name:			
Job site address:			
Cross street/ directions to job site:			
Subdivision:		Lot #	
Property Owner			
Owner:		Address:	
Phone:	Fax:	Email:	
Applicant Responsible Party			
Name:		Address:	
Phone:	Fax:	Email:	
Excavation Contractor			
Name:		Address:	
Phone:	Fax:	Email:	
CCB License #	Expiration Date:	City License:	
Do you have an ESPC certificate ☐ Yes ☐ No			
Site Information			
Name of nearest stream, creek, or river			
Exporting Soil ☐ No ☐ Yes			
If No, how will soil be disposed?			
If Yes, address of disposal site?			
Construction Schedule			
Prior to start of excavation: Erosion control measures must be in place:			
Call to schedule an inspection 503-266-0798			
Construction completed, Soil not stabilized: Erosion control measures must remain in place.			
Ground cover established. Soil is stabilized: Erosion control measures may be removed only after permanent site ground covers are in place. Call to schedule an inspection 503-266-0798			

For additional information contact Public Works 503-266-0798,
1740 NE Territorial Road, Canby, OR 97013.

City of Canby
EROSION CONTROL, SURFACE WATER, AND SENSITIVE AREA CHECKLIST

- A. ☐ One 8 ½ x 11 or 11 ½ x 17 paper copy of plot plan drawn to scale showing: (Sample Attached)
1. ☐ Existing and proposed contour lines with elevations to show slope and/or retaining walls.
 2. ☐ Location for storage of excavating materials.
 3. ☐ Gravel construction entrance.
 4. ☐ Property lines and distances to buildings.
 5. ☐ Placement of erosion control devices (e.g. silt fences).
 6. ☐ Location and depth of drainage systems during and after construction (e.g. ditches, roof and foundation drains).
 7. ☐ An Undisturbed Corridor Buffer is required adjacent to sensitive areas. (Note: Sensitive areas include wetlands, rivers, streams, creeks, lakes and ponds.) Depending on several factors, the range is from 25 feet to 200 feet wide. City of Canby Rules and Regulations determine the required buffer width.
 8. ☐ Location and width of all storm drain and sanitary sewer easements.

ADDITIONAL REQUIREMENTS FOR NON-SINGLE FAMILY RESIDENCE

9. ☐ Site restoration plan (permanent landscaping).
 10. ☐ Water quality facilities. Consult Section 4 of Rules and Regulations.
 11. ☐ Detention facilities. Consult Section 4 of Rules and Regulations.
- B. ☐ One copy of your construction schedule (Sample Attached).
- C. ☐ One copy of your erosion control Maintenance Plan (Sample Attached).
- D. ☐ One copy of the City of Canby Grading/Erosion Control Information sheet (Attached).

Erosion Control Maintenance Plan (all construction)

Maintenance measures required (Initial Applicable Measures)

Gravel construction entrance

Maintain a minimum depth of 8 inches of gravel. Use wooden curb jump.

Temporary sedimentation fence or alternate measures

Inspect daily and clean sediment build up daily during prolonged rainfall and after each storm.

Exposed soils covered during wet weather season

Soil unworked for 14 days or more must be covered (Oct 1 – Apr 30)

Provide area for cement trucks to clean out their equipment

Cleaning and washing out cement trucks in street areas, catch basins or drainage ways are a violation and not allowed.

Provide enclosed area for building debris/solid waste management

I will construct and maintain Erosion/Sedimentation Control measures to ensure the containment of sediment on the construction site. I agree to comply with the City of Canby's Erosion Control Rules and Regulations. I further agree that I am responsible for the daily monitoring and, if necessary, adjustment of the erosion control structures to comply with these rules. I acknowledge that failure to adhere to these requirements will result in enforcement actions to bring the site into compliance.

Owner/Applicant/Responsible Party Signature

Date

EROSION CONTROL NOTES

1. Owner or designated person shall be responsible for proper installation and maintenance of all erosion and sediment control (ESC) measures, in accordance with local, State, and Federal regulations.
2. The implementation of these ESC plans and construction, maintenance, replacement, and upgrading of these ESC facilities is the responsibility of the contractor until all construction is completed and approved by the local jurisdiction, and vegetation/landscaping is established. The developer shall be responsible for maintenance after the project is approved until the lots are sold.
3. The boundaries of the clearing limits shown on this plan shall be clearly marked in the field prior to construction. During the construction period, no disturbance beyond the clearing limits shall be permitted. The markings shall be maintained by the applicant/contractor for the duration of construction.
4. The ESC facilities shown on this plan must be constructed in conjunction with all clearing and grading activities, and in such a manner as to insure that sediment and sediment laden water does not enter the drainage system, roadways, or violate applicable water standards.
5. The ESC facilities shown on this plan are minimum requirements for anticipated site conditions. During construction period, these ESC facilities shall be upgraded as needed for unexpected storm events and to ensure that sediment and sediment laden water does not leave the site.
6. The ESC facilities shall be inspected daily by the applicant/contractor and maintained as necessary to ensure their continued functioning.
7. At no time shall sediment be allowed to accumulate more than 1/3 the barrier height. All catch basins and conveyance lines shall be cleaned prior to paving. The cleaning operations shall not flush sediment laden water into the downstream system.
8. Stabilized gravel entrances shall be installed at the beginning of construction and maintained for the duration of the project. Additional measures may be required to insure that all paved areas are kept clean for the duration of the project.
9. Storm drains inlets, basins, and area drains shall be protected until pavement surfaces are completed and/or vegetation is re-established.
10. Pavement surfaces and vegetation are to be placed as rapidly as possible.
11. Seeding shall be performed no later than September 1 for each phase of construction.
12. If there are exposed soils or soils not fully established from October 1st through April 30th, the wet weather erosion prevention measures will be in effect. See the Erosion Prevention and Sediment Control Planning and Design Manual (Chapter 4) for requirements.
13. The developer shall remove ESC measures when vegetation is fully established.

Sample Plot Plan

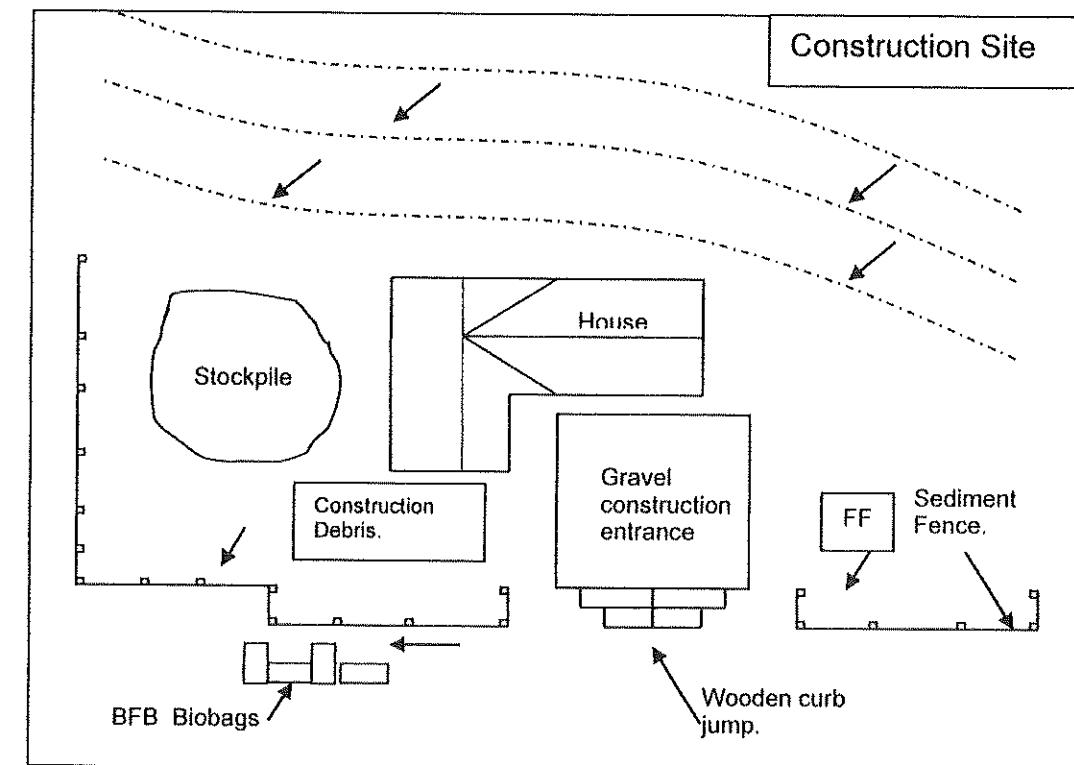
Showing Erosion/Sedimentation Control Information

Refer to the City of Canby Erosion Prevention and Sediment Control Manual for additional information:

- Gravel Construction Entrance CE Section 4.2.1
- Temporary Silt Fences FF Section 4.3.1
- Inlet Protection Section 4.3.9
- Construction Debris CD Section 6.7

Wet Weather Measures (October 1- April 30)

- Straw Mulch Covering (Exposed Soil) Section 4.4.4
- Stockpile protection (Excavated Materials) Section 4.1.8



EROSION CONTROL FEES – SEE MASTER FEE SCHEDULE

\$100 per Violation, per Day may be assessed until problem is fixed

**SECTION 01500
CONTRACTOR FACILITIES**

PART 1 - GENERAL

1.01 ELECTRICAL SERVICE

CONTRACTOR shall make arrangements and pay all costs for power during the construction and shall be responsible for the cost of installing any temporary electrical facilities if required to utilize the power.

1.02 TELEPHONE SERVICE

CONTRACTOR shall have access to telephone service at all times at the construction site.

1.03 WATER

The Contractor shall coordinate with Canby Utility to make provisions as needed to provide any water needed for the construction.

1.05 SANITARY FACILITIES

The CONTRACTOR shall provide, as a minimum, portable outside sanitary facilities.

1.06 CLEANUP

A. All cleanup and site restoration shall be accomplished concurrently with construction. The CONTRACTOR shall ensure that no construction debris, excess excavation, materials or other waste is left on the site.

B. Prior to final acceptance the CONTRACTOR shall thoroughly clean all areas of the project.

1.07 NOISE CONTROL

A. CONTRACTOR shall comply with all local controls and noise level rules, regulations and ordinances which apply to any work performed pursuant to the contract. All work in Teakwood Circle shall be completed between the hours of 7:00 AM and 6:00 PM.

B. Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without a muffler.

1.08 SITE PROTECTION

- A. CONTRACTOR shall positively prevent breakage of hydraulic fluids, oils, and fuel from equipment. Spills shall be contained, and oil leaks shall be repaired. Protective pads shall be provided as needed to avoid soil contamination.
- B. CONTRACTOR shall be responsible for removing and disposing of soils or materials contaminated by his equipment or activities.

****END OF SECTION****

**SECTION 01600
MEASUREMENT AND PAYMENT**

PART 1 - GENERAL

1.01 GENERAL

The bid items contained in the Bid Proposal are intended to cover all work for a complete and functional system. All work items not defined in a bid item are considered incidental. Except where identified as a specific bid item, payment for removal, replacement and adjustment of incidental items will be considered incidental to the Contract. The CONTRACTOR is expected to protect, remove, temporarily or permanently relocate and replace such items as signs, mailboxes, fences, etc. No extra payment will be made for attending to such incidental items.

- 1.02 MEASUREMENT AND PAYMENT.** The contract price and payment thereof shall constitute full compensation for all work required for completion of the project in accordance with the plans and specifications. Many of the bid items listed are arbitrary identified and the CONTRACTOR may divide the work anyway desired as long as all work is included. All work will be awarded to one contractor only. Measurement and payment will be in accordance with the Bid Proposal as follows:

BASIC BID:

1. Mobilization, Bonds & Insurance

1. Payment. Payment includes the costs associated with mobilization to perform the work and includes bonding and insurance, equipment move-in, Contractor's office and utility hookup if applicable, and miscellaneous start-up costs. This payment item also includes all labor, equipment and material for work which is listed in the specifications and shown on the Contract Drawings and not specifically listed with other items of the Bid Schedule.

2. Measurement. This item will be paid per lump sum and may be invoiced upon initiation of the work after equipment has been mobilized

2. Temporary Protection and Direction of Traffic

1. Payment. Payment includes all labor, equipment, and material necessary for all costs not covered by other specific pay items in the bid proposal for furnishing, maintaining and removing traffic control devices and temporary signs required by the contract and as ordered by the Engineer. Payment includes providing and implementing a traffic control plan.

2. Measurement. Payment shall be made per lump sum at the bid unit price.

3. Erosion & Sediment Control

1. Payment. Payment includes all the necessary labor, material and equipment needed to prevent sedimentation and other pollutants from reaching the public storm and surface water systems. The work shall include installing, repairing, maintaining, and removing temporary erosion and sediment control devices for the duration of the project, such as bio bags, sediment traps, sediment basins, matting, mulching, slope drains, or other nonstructural erosion control devices.

2. Measurement. Payment shall be made per lump sum at the bid unit price.

4. Clearing & Grubbing

1. Payment. Payment includes all labor, equipment, and materials necessary to remove existing vegetation as required to access the work site. Payment shall include costs for the disposal of all waste materials at an approved disposal location in conformance with local, state, and federal regulations.

2. Measurement. Payment shall be made for all work as a Lump Sum.

5. Open Trench Rock Excavation

1. Payment. Payment includes all labor, equipment, and materials necessary to remove any open trench excavated materials that fit the definition of rock in the specifications.

2. Measurement. Payment shall be made per cubic yard of rock excavated.

6. 20" Casing Manual Boulder Removal

1. Payment. Payment includes all labor, equipment, and materials necessary to manually remove any boulders that obstruct the boring operation.

2. Measurement. Payment shall be made at the bid unit price per hour that the crew member is inside the 20" casing pipe retrieving boulders, measured to the nearest quarter hour.

7. Sawcut AC and Concrete

1. Payment. Payment includes all labor, equipment, and materials necessary to mark and sawcut concrete and asphalt concrete pavement. No reimbursement will be made for sawcuts not approved by the Engineer, or for recutting required to repair damaged cut edges.

2. Measurement. Payment shall be made per lineal feet of sawcut at the bid unit price regardless of the depth.

8. Tree Removal, 12" and Larger

1. Payment. Payment includes all labor, materials, and equipment necessary to fall trees that have larger than 12" diameter trunk as shown on the plans, to remove the stump and remove the debris.
2. Measurement. Payment shall be made per each at the bid unit price.

9. Grind Existing AC, 2" Depth

1. Payment. Payment includes all labor, materials, and equipment necessary to grind the existing AC to the limits shown on the plans.
2. Measurement. Payment shall be made per square yard for the area outside of the excavated trench lines at the bid unit price.

10. ACP Trench Patch and Overlay

1. Payment. Payment includes furnishing, placing, and compacting the asphalt concrete to match existing grade and placing tack coat along all edges of pavement at sawcut lines, curb lines, and structures. Trench repair shall include 2" of ACP followed by a 2" overlay of the grind area.
2. Measurement. Payment shall be made per the ton at the bid unit price.

11. 8" PVC 3034 Sanitary Sewer

1. Payment. Payment includes all labor, equipment, and material to excavate the trench and disposal of all excess materials, (including abandoned pipe), pipe bedding and pipe zone material, select backfill, compaction and testing as required.
2. Measurement. Payment shall be made per the lineal foot at the bid unit price for all pipe depths.

12. ODOT Bore: 20" Steel Casing w/8" 3034 PVC Sewer & 3 – 3" PVC Conduit

1. Payment. Payment includes all labor, equipment, and material to provide and install the 20" casing pipe, 8" PVC sanitary sewer and three 3" PVC electrical conduits with temp end caps, including access pit excavation and restoration, casing pipe annular space backfill, and end plugs.
2. Measurement. Payment shall be made per the lineal foot of the casing assembly at the bid unit price.

13. UPRR Bore: 20" Steel Casing w/8" 3034 PVC Sewer

1. Payment. Payment includes all labor, equipment, and material to provide and install the 20" casing pipe and 8" PVC sanitary sewer including access pit excavation and restoration, casing pipe epoxy coating, cathodic protection system, and end plugs.
2. Measurement. Payment shall be made per the lineal foot of the casing assembly at the bid unit price.

14. 6" Sewer Lateral Reconnection

1. Payment. Payment includes all labor, materials, and equipment necessary to reconnect existing service laterals to the new main, including excavation and select backfill, disposal of excess materials, 6" mainline tee, 10 feet of 6" lateral pipe, 6" PVC elbow and 6" x 4" reducer (if needed) and 4" or 6" flexible coupling to existing.
2. Measurement. Payment shall be made per each completed service lateral reconnection.

15. 6" Sewer Lateral Extension

1. Payment. Payment includes all labor, materials, and equipment necessary to excavate, dispose excess materials, install 6" PVC service lateral pipe and select backfill if the City determines the lateral needs to be replaced.
2. Measurement. Payment shall be made per lineal foot at the bid unit prices.

16. New Service Cleanout

1. Payment. Payment includes all labor, materials, and equipment necessary to install a new cleanout if the City determines it is needed, including removing and replacing sidewalk and restoring the site. Note the additional service lateral pipe is paid per the lineal foot under item 15 and the reducer/coupling to connect to existing is paid under item 14.
2. Measurement. Payment shall be made per each at the bid unit prices.

17. New Service Lateral from MH 6

1. Payment. Payment includes all labor, materials, and equipment necessary to excavate, dispose excess materials, install 20 feet of 6" PVC service lateral pipe with select backfill and end cap. The cleanout will be installed by others.
2. Measurement. Payment shall be made per lineal foot at the bid unit prices.

18. 48" Diameter Manhole

1. Payment. Payment includes all labor, material, and equipment necessary to excavate, dispose of excess material, furnish, and install the manhole structure, connect inlet and outlet pipes, place and compact granular backfill, and test for quality control. Payment shall include watertight pipe connection, cast iron frames, and covers installed complete.

2. Measurement. Payment shall be made for each manhole completed in place regardless of depth.

**** END OF SECTION ****

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**SECTION 01700
PROJECT CLOSEOUT**

PART 1 - GENERAL

1.01 AS-BUILT DRAWINGS

Prior to final acceptance the CONTRACTOR shall provide a complete set of red-lined as-constructed drawings showing all deviations from the plans.

1.02 FINAL SUBMITTALS

Prior to final acceptance and the initiation of the warranty period, the CONTRACTOR shall provide:

- A. Copies of all final inspection reports required by local and state building officials and permits.
- B. A written certificate that all work has been fully completed in accordance with the plans and specifications and requesting final inspection.
- C. All affidavits required by the contract documents, including:
 - 1. Affidavit of Payment of Debts and Claims
 - 2. Consent of Surety to Final Payment
 - 3. Affidavit of Release of Liens
- D. Final red lined record drawings.

**** END OF SECTION ****

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PHOTOGRAPHY

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DIVISION 2 - SITEWORK

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**SECTION 02010
SUBSURFACE EXPLORATION**

PART 1 - GENERAL

1.01 SOILS REPORT

A geotechnical report was prepared by GeoPacific in June of 2023 for the Walnut Street intersection and is attached at the end of this Section 02010. The test pits in the report are located at the proposed new intersection on the south side of Highway 99E. The Highway 99E bore crosses at this location. The railroad bore is approximately 500 feet east of the highway crossing.

Note test bores B-1, B-2, and B-4 encountered apparent rock at elevation of 24', 40.75' and 41.5' respectively. (There was no B-3)

The attached geotechnical report and borings log, or any part thereof, should not be considered part of the Contract Documents but are for information only.

****END OF SECTION****

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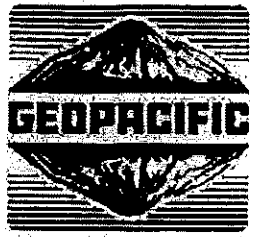
Real-World Geotechnical Solutions
Investigation • Design • Construction Support

Geotechnical Engineering Report

Walnut Street Extension

S Walnut Street from SE 1st Avenue to S Highway 99E
Clackamas County Taxlots 31E34A 1600, 400, 500, 600
Canby, Oregon

GeoPacific Engineering, Inc. Project No. 23-6251
June 8, 2023



Real-World Geotechnical Solutions
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Real-World Geotechnical Solutions
Investigation • Design • Construction Support

June 8, 2023
Project No. 23-6251

Curt McLeod P.E.
CURRAN-McLEOD, INC.
6655 S.W. Hampton Street, Suite 210
Portland, Oregon 97223
Via email: cjm@curran-mcleod.com

**SUBJECT: GEOTECHNICAL ENGINEERING REPORT
WALNUT STREET EXTENSION
S WALNUT STREET FROM SE 1ST AVENUE TO S HIGHWAY 99E
CLACKAMAS COUNTY TAXLOTS 31E34A 1600, 400, 500, 600
CANBY, OREGON**

PROJECT INFORMATION

This report presents the results of a geotechnical engineering study conducted by GeoPacific Engineering, Inc. (GeoPacific) for the above-referenced project. The purpose of our investigation was to evaluate subsurface conditions at the site, and to provide geotechnical recommendations for site development. This geotechnical study was performed in accordance with GeoPacific Proposal No. P-8341, dated February 6, 2023, and your subsequent authorization of our proposal and *General Conditions for Geotechnical Services*.

Site Location:	Clackamas County Taxlots 31E34A 1600, 400, 500, 600 Canby, Oregon (Figures 1 through 3)
-----------------------	---

Civil Engineer:	Curran-McLeod, Inc. 6655 S.W. Hampton Street, Suite 210 Portland, Oregon 97223 Phone: (503) 684-3478
------------------------	---

Jurisdictional Agency:	City of Canby, Oregon
-------------------------------	-----------------------

Prepared By:	GeoPacific Engineering, Inc 14835 SW 72 nd Avenue Portland, Oregon 97224 Tel (503) 598-8445
---------------------	---

SITE AND PROJECT DESCRIPTION

The project consists of extending South Walnut Street from Southeast 1st Avenue to South Highway 99E in the City of Canby, Oregon. The roadway extension will be approximately 2,700 feet in length and is to be located primarily along gently sloping topography. Fills are expected to be on the order of 12 feet or less and cuts are expected to be on the order of 8 feet or less. The site is currently unimproved, and vegetation varies widely, from grass, brush, and small to large trees. Part of the alignment passes through an old tree farm with trees as close as 6 feet apart.

Signal poles are proposed at the future intersection of South Walnut Street and South Highway 99E. It is our understanding that subsurface disposal of stormwater by infiltration is desired to be incorporated into plans for stormwater management.

REGIONAL GEOLOGIC SETTING

Regionally, the subject site lies within the Willamette Valley/Puget Sound lowland, a broad structural depression situated between the Coast Range on the west and the Cascade Range on the east. A series of discontinuous faults subdivide the Willamette Valley into a mosaic of fault-bounded, structural blocks (Yeats et al., 1996). Uplifted structural blocks form bedrock highlands, while down-warped structural blocks form sedimentary basins.

The subject site is underlain by Quaternary age (last 1.6 million years) Catastrophic Flood Deposits associated with repeated glacial outburst flooding of the Columbia River (Schlicker and Finlayson, 1979). In the vicinity of the subject site, these soils consist of coarse grained catastrophic flood deposits consisting of sand, sandy gravel, cobbles, and boulders up to several feet in diameter (Schlicker and Finlayson, 1979). These coarse-grained deposits settled quickly as the force of the current slowed; followed by the deposition of finer grained material such as sand, silt and clay in various interbedded lenses and layers.

The Catastrophic Flood Deposits are underlain by the Columbia River Basalt Formation (Beeson et al., 1989). The Miocene aged (about 14.5 to 16.5 million years ago) Columbia River Basalts are a thick sequence of lava flows which form the crystalline basement of the Tualatin Valley. The basalts are composed of dense, finely crystalline rock that is commonly fractured along blocky and columnar vertical joints. Individual basalt flow units typically range from 25 to 125 feet thick and interflow zones are typically vesicular, scoriaceous, brecciated, and sometimes include sedimentary rocks.

REGIONAL SEISMIC SETTING

At least two major fault zones capable of generating damaging earthquakes are thought to exist in the vicinity of the subject site. These include the Portland Hills Fault Zone and the Cascadia Subduction Zone.

Portland Hills Fault Zone

The Portland Hills Fault Zone is a series of NW-trending faults that include the central Portland Hills Fault, the western Oatfield Fault, and the eastern East Bank Fault. These faults occur in a

northwest-trending zone that varies in width between 3.5 and 5.0 miles. The combined three faults vertically displace the Columbia River Basalt by 1,130 feet and appear to control thickness changes in late Pleistocene (approx. 780,000 years) sediment (Madin, 1990). The Portland Hills Fault occurs along the Willamette River at the base of the Portland Hills and is approximately 9.0 miles northeast of the site. The Oatfield Fault occurs along the western side of the Portland Hills and is about 6.8 miles northeast of the site. The East Bank Fault occurs along the eastern margin of the Willamette River and is located approximately 16.6 miles north of the site. The accuracy of the fault mapping is stated to be within 500 meters (Wong, et al., 2000). No historical seismicity is correlated with the mapped portion of the Portland Hills Fault Zone, but in 1991 a M3.5 earthquake occurred on a NW-trending shear plane located 1.3 miles east of the fault (Yelin, 1992). Although there is no definitive evidence of recent activity, the Portland Hills Fault Zone is assumed to be potentially active (Geomatrix Consultants, 1995).

According to the USGS Earthquake Hazards Program, the fault was originally mapped as a down-to-the-northeast normal fault, but has also been mapped as part of a regional-scale zone of right-lateral, oblique slip faults, and as a steep escarpment caused by asymmetrical folding above a south-west dipping, blind thrust fault. The Portland Hills fault offsets Miocene Columbia River Basalts, and Miocene to Pliocene sedimentary rocks of the Troutdale Formation. No fault scarps on surficial Quaternary deposits have been described along the fault trace, and the fault is mapped as buried by the Pleistocene aged Missoula flood deposits.

Cascadia Subduction Zone

The Cascadia Subduction Zone is a 680-mile-long zone of active tectonic convergence where oceanic crust of the Juan de Fuca Plate is subducting beneath the North American continent at a rate of 4 cm per year (Goldfinger et al., 1996). A growing body of geologic evidence suggests that prehistoric subduction zone earthquakes have occurred (Atwater, 1992; Carver, 1992; Peterson et al., 1993; Geomatrix Consultants, 1995). This evidence includes: (1) buried tidal marshes recording episodic, sudden subsidence along the coast of northern California, Oregon, and Washington, (2) burial of subsided tidal marshes by tsunami wave deposits, (3) paleoliquefaction features, and (4) geodetic uplift patterns on the Oregon coast. Radiocarbon dates on buried tidal marshes indicate a recurrence interval for major subduction zone earthquakes of 250 to 650 years with the last event occurring 300 years ago (Atwater, 1992; Carver, 1992; Peterson et al., 1993; Geomatrix Consultants, 1995). The inferred seismogenic portion of the plate interface lies approximately along the Oregon Coast at depths of between 20 and 40 kilometers below the surface.

FIELD EXPLORATION AND SUBSURFACE CONDITIONS

Our site-specific explorations for this report were conducted on February 27, March 1, March 31, and April 5, 2023. A total of six exploratory borings (designated B-1, B-2, and B-4 through B-6) were drilled with a truck- or trailer-mounted drill rig to depths of 24 to 41.5 feet at the approximate locations presented on Figures 2 and 3. Thirteen exploratory test pits (designated TP-1 through TP-13) were excavated with a medium sized trackhoe to depths of 12 to 16 feet (Figures 2 and 3). It should be noted that exploration locations were located in the field by pacing or taping distances from apparent property corners and other site features shown on the plans provided. As such, the locations of the explorations should be considered approximate.

Boreholes B-1, B-2, and B-4 were drilled using a truck-mounted drill rig and a combination of hollow stem auger and mud rotary methods operated by Western States Soil Conservation, Inc. Boreholes B-5 and B-6 were drilled using a trailer-mounted drill rig and solid-stem auger methods operated by Dan Fischer Excavating. At each boring location, SPT (Standard Penetration Test) sampling was performed in general accordance with ASTM D1586 using a 2-inch outside diameter split-spoon sampler and a 140-pound hammer equipped with a pneumatic hammer or manual hammer. During the test, a sample is obtained by driving the sampler 18 inches into the soil with the hammer free-falling 30 inches. The number of blows for each 6 inches of penetration is recorded. The Standard Penetration Resistance ("N-value") of the soil is calculated as the number of blows required for the final 12 inches of penetration. If 50 or more blows are recorded within a single 6-inch interval, the test is terminated, and the blow count is recorded as 50 blows for the number of inches driven. This resistance, or N-value, provides a measure of the relative density of granular soils and the relative consistency of cohesive soils. At the completion of the borings, the holes were backfilled with bentonite.

A GeoPacific engineering staff member continuously monitored the field exploration program and logged the explorations. Soils observed in the explorations were classified in general accordance with the Unified Soil Classification System (USCS).

Soil Descriptions

Results of the field exploration program indicate the site is underlain by topsoil horizon, undocumented fill, the Catastrophic Flood Deposits, and the Columbia River Basalt formation. The observed soil and groundwater conditions are summarized below.

Topsoil Horizon: The ground surface in test pits TP-1 through TP-7, TP-9 through TP-11, and borings B-1, B-2, and B-5 through B-6 was directly underlain by a moderately organic topsoil horizon. The topsoil horizon was composed of brown silt (OL-ML) and generally extended to a depth of 8 to 12 inches below the ground surface. In test pits TP-1, the topsoil horizon extended to a depth of approximately 3 inches bgs.

Undocumented Fill: At the ground surface in boring test pits TP-8, TP-12, and TP-13 and below the topsoil horizon in test pit TP-1, we encountered undocumented fill. The undocumented fill in test pit TP-1 consisted of brown SILT (ML) which was stiff and had a disturbed texture. The undocumented fill in test pit TP-1 extended to a depth of approximately 2 feet bgs. In test pit TP-8, the undocumented fill consisted of 4" crushed rock with silt and extended to a depth of approximately 1 foot bgs. Some organic material was present in the upper 3 inches. The undocumented fill in test pit TP-12 consisted of SILT with Gravel (ML). The SILT with Gravel (ML) was generally brown, had a disturbed texture, and extended to a depth of approximately 2 feet bgs. In test pits TP-13, the undocumented fill material was made up of a 6-inch layer of ¾"-0" crushed rock underlain by SILT (ML) with some fine gravel, extending to approximately 2 feet bgs.

Catastrophic Flood Deposits: Underlying the topsoil horizon in test pits TP-2 through TP-7, TP-9 through TP-11, and borings B-1 through B-2 and B-4 through B-6 and underlying the undocumented fill in test pits TP-1, TP-8, TP-12, and TP-13 were Catastrophic Flood Deposits. The upper portion of the Catastrophic Flood Deposit soils generally consisted of SILT (ML) with varying

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amounts of sand. With depth, the SILT (ML) graded to interbedded layers of Sandy SILT (ML), Silty SAND (SM), Poorly Graded SAND with Silt (SP). The brown silt and sandy silt ranged from very soft to stiff in consistency. The silty sand to poorly graded sand ranged from loose to very dense. Standard penetration (SPT) field tests of soil strength indicated SPT N-values of N=2 to N=64 within these soil layers. Soils belonging to the Catastrophic Flood Deposit formation extended to a depth of 22.5 to 40.75 feet in borings B-1, B-2, B-5, and B-6 and beyond the maximum depth of exploration in test pits TP-1 through TP-13 and boring B-4 (12 to 41.5 feet).

Columbia River Basalt: In soil borings B-1, B-2, B-5, and B-6, the Catastrophic Flood Deposits were underlain by apparent bedrock belonging to the Columbia River Basalt formation. Standard penetration (SPT) field tests of soil strength generally indicate SPT N-values of N=82/10" to N=50/1". Where the Columbia River Basalt formation was encountered, each boring was terminated due to practical refusal.

Groundwater and Soil Moisture

On February 27, March 1, March 31, and April 5, 2023, soils encountered in test pits and borings were moist to wet. Groundwater seepage was encountered in boring B-6 at a depth of 30.5 feet. Static groundwater was not encountered in our other explorations. Regional geologic mapping indicates that static groundwater is present at approximately 40 feet below the ground surface (Snyder, 2008). An existing drainage and pond are located in the vicinity of the site to the northeast. The existing pond appears to be approximately 20 to 30 feet lower than the subject site. Experience has shown that temporary perched storm-related groundwater conditions often occur within the surface soils over fine-grained native deposits such as those beneath the site, particularly during the wet season. It is anticipated that groundwater conditions will vary depending on the season, local subsurface conditions, changes in site utilization, and other factors.

Soil Infiltration Testing

We performed soil infiltration testing at the site using the falling head testing method. We conducted infiltration testing within soil boring B-1, B-2, B-5, and B-6 and within test pits TP-8 and TP-11 at various depths. The native soils encountered at the depths of infiltration testing are classified as Silty Sand (SM), Sandy SILT (ML), or apparent bedrock. The soil types and locations are summarized in Table 1.

The soils were presoaked prior to infiltration testing. During testing, we measured the water level to the nearest 0.01 foot (1/8 inch) from a fixed point and the change in water level was recorded at regular intervals until three successive measurements showing a consistent infiltration rate were achieved. The infiltration rate has been reported without applying a factor of safety. Care should be taken when estimating infiltration capacity at the site. Table 1 summarizes the results of our infiltration testing.

Table 1: Results of Soil Infiltration Testing

Exploration ID	Depth (ft)	USCS Soil Classification	Infiltration Rate (in/hr)
B-1	15	Silty SAND (SM)	14.40
B-1	20	Silty SAND (SM)	4.32
B-1	24	Apparent Bedrock	1.44
B-2	20	Silty SAND (SM)	1.44
B-5	12	Sandy SILT (ML)	0.72
B-5	20	Sandy SILT (ML)	0.72
B-6	6	Silty SAND (SM)	0.72
B-6	15	Silty SAND (SM)	3.60
TP-8	12	Silty SAND (SM)	2.16
TP-11	12	Silty SAND (SM)	0.00

It should be noted that the infiltration rate in soil boring B-1 decreased with depth.

Shrink-Swell Potential

Low plasticity, fine-grained and coarse-grained soils were encountered near the ground surface within subsurface explorations conducted at the site. Based upon the results of our observations, laboratory testing, and our local experience with the soil layers in the vicinity of the subject site, the shrink-swell potential of the soil types is considered to be low. Special design measures are not considered necessary to minimize the risk of uncontrolled damage of foundations as a result of potential soil expansion at this site.

CONCLUSIONS AND RECOMMENDATIONS

Results of this study indicate that the proposed development is geotechnically feasible, provided that the recommendations of this report are incorporated into the design and construction phases of the project. In our opinion, the most significant geotechnical issue for the proposed construction is site preparation due to the presence of undocumented fill material and the depth of stripping in the forested areas. Our investigation indicates that 1 to 2 feet of undocumented fill exists in some areas of the site. Other areas or thicker areas of fill may be present outside our exploration locations. In the locations of our explorations, the estimated depth of stripping is approximately 8 to 12 inches. However, a greater stripping depth should be anticipated where trees are present in the forested areas of the site. The following sections provide recommendations for site development and construction in accordance with the current applicable codes and local standards of practice.

Site Preparation Recommendations

Areas of proposed streets and areas to receive fill should be cleared of vegetation and any organic and inorganic debris. Areas of undocumented fill, existing drain tiles and buried structures such as septic tanks, should be demolished and any cavities structurally backfilled. Undocumented fill was encountered in test pits TP-1, TP-8, TP-12, and TP-13 to depth of up to 2 feet. Other areas or thicker areas of fill may be present outside our exploration locations. Inorganic debris should be removed from the site.

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Organic-rich topsoil should then be stripped from native soil areas of the site. The estimated depth range necessary for removal of topsoil in cut and fill areas is approximately 8 to 12 inches. A greater stripping depth should be anticipated where trees are present in the forested areas of the site. The final depth of soil removal will be determined on the basis of a site inspection after the stripping/excavation has been performed. Stripped topsoil should preferably be removed from the site due to the high density of the proposed development. Any remaining topsoil should be stockpiled only in designated areas and stripping operations should be observed and documented by the geotechnical engineer or his representative.

Once topsoil stripping and removal of organic and inorganic debris are approved in a particular area, exposed subgrade soils should be evaluated by the geotechnical engineer. For large areas, this evaluation is normally performed by proof-rolling the exposed subgrade with a fully loaded scraper or dump truck. For smaller areas where access is restricted, the subgrade should be evaluated by probing the soil with a steel probe. Soft/loose soils identified during subgrade preparation should be compacted to a firm and unyielding condition, over-excavated and replaced with engineered fill (as described below) or stabilized with rock prior to placement of engineered fill. The depth of overexcavation, if required, should be evaluated by the geotechnical engineer at the time of construction.

Excavating Conditions and Utility Trench Backfill

Subsurface explorations indicate that for much of the site utility trenches can be excavated using conventional heavy equipment such as dozers and trackhoes. However, practical refusal on apparent bedrock belonging to the Columbia River Basalt formation was encountered in some of our soil borings at depth between 22.5 and 40.75 feet. Difficult excavating conditions should be expected below 20 feet.

All temporary cuts in excess of 4 feet in height should be sloped in accordance with U.S. Occupational Safety and Health Administration (OSHA) regulations (29 CFR Part 1926) or be shored. The existing, near surface, native Silty SAND (SM) and Poorly Graded SAND with Silt (SP) soils classify as Type C Soils and shallow, temporary excavation side slope inclinations as steep as 1.5H:1V may be assumed for planning purposes. The existing, near surface, native SILT (ML) soils classify as Type B Soils and shallow, temporary excavation side slope inclinations as steep as 1H:1V may be assumed for planning purposes. These cut slope inclinations are applicable to excavations above the water table only. Maintenance of safe working conditions, including temporary excavation stability, is the responsibility of the contractor. Actual slope inclinations at the time of construction should be determined based on safety requirements and actual soil and groundwater conditions.

Saturated soils and groundwater may be encountered in utility trenches, particularly during the wet season. We anticipate that dewatering systems consisting of ditches, sumps and pumps would be adequate for control of perched groundwater. Regardless of the dewatering system used, it should be installed and operated such that in-place soils are prevented from being removed along with the groundwater.

Vibrations created by traffic and construction equipment may cause some caving and raveling of excavation walls. In such an event, lateral support for the excavation walls should be provided by

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the contractor to prevent loss of ground support and possible distress to existing or previously constructed structural improvements.

PVC pipe should be installed in accordance with the procedures specified in ASTM D2321. We recommend that trench backfill be compacted to at least 95% of the maximum dry density obtained by Modified Proctor ASTM D1557 or equivalent. Initial backfill lift thickness for a ¾"-0 crushed aggregate base may need to be as great as 4 feet to reduce the risk of flattening underlying flexible pipe. Subsequent lift thickness should not exceed 1 foot. If imported granular fill material is used, then the lifts for large vibrating plate-compaction equipment (e.g. hoe compactor attachments) may be up to 2 feet, provided that proper compaction is being achieved and each lift is tested. Use of large vibrating compaction equipment should be carefully monitored near existing structures and improvements due to the potential for vibration-induced damage.

Adequate density testing should be performed during construction to verify that the recommended relative compaction is achieved. Typically, one density test is taken for every 4 vertical feet of backfill on each 200-lineal-foot section of trench.

Engineered Fill

In general, we anticipate that soils from planned cuts, and utility trench excavations will be suitable for use as engineered fill provided they are adequately moisture conditioned prior to compacting. Soils with greater than 5 percent organics should not be used as engineered fill. Imported fill material should be reviewed by GeoPacific prior to being imported to the site. Oversize material greater than 6 inches in size should not be used within 3 feet of foundation footings, and material greater than 12 inches in diameter should not be used in engineered fill.

Engineered fill should be compacted in horizontal lifts not exceeding 8 inches using standard compaction equipment. We recommend that engineered fill be compacted to at least 95 percent of the maximum dry density determined by ASTM D698 (Standard Proctor). On-site soils may be wet or dry of optimum; therefore, we anticipate that moisture conditioning of native soil will be necessary for compaction operations.

Proper test frequency and earthwork documentation usually requires daily observation and testing during stripping, rough grading, and placement of engineered fill. Field density testing should generally conform to ASTM D2922 and D3017, or D1556. Engineered fill should be periodically observed and tested by the project geotechnical engineer or his representative. Typically, one density test is performed for at least every 2 vertical feet of fill placed or every 500 cubic yards, whichever requires more testing. Because testing is performed on an on-call basis, we recommend that the earthwork contractor be held contractually responsible for test scheduling and frequency.

Wet Weather Earthwork

Soils underlying the site are likely to be moisture sensitive and may be difficult to handle or traverse with construction equipment during periods of wet weather. Earthwork is typically most economical when performed under dry weather conditions. Earthwork performed during the wet-weather season will probably require expensive measures such as cement treatment or imported

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granular material to compact fill to the recommended engineering specifications. If earthwork is to be performed or fill is to be placed in wet weather or under wet conditions when soil moisture content is difficult to control, the following recommendations should be incorporated into the contract specifications.

- Earthwork should be performed in small areas to minimize exposure to wet weather. Excavation or the removal of unsuitable soils should be followed promptly by the placement and compaction of clean engineered fill. The size and type of construction equipment used may have to be limited to prevent soil disturbance. Under some circumstances, it may be necessary to excavate soils with a backhoe to minimize subgrade disturbance caused by equipment traffic.
- The ground surface within the construction area should be graded to promote run-off of surface water and to prevent the ponding of water.
- Material used as engineered fill should consist of clean, granular soil containing less than 5 percent fines. The fines should be non-plastic. Alternatively, cement treatment of on-site soils may be performed to facilitate wet weather placement.
- The ground surface within the construction area should be sealed by a smooth drum vibratory roller, or equivalent, and under no circumstances should be left uncompacted and exposed to moisture. Soils which become too wet for compaction should be removed and replaced with clean granular materials.
- Excavation and placement of fill should be observed by the geotechnical engineer to verify that all unsuitable materials are removed and suitable compaction and site drainage is achieved.
- Geotextile silt fences, straw wattles, and fiber rolls should be strategically located to control erosion.

If cement or lime treatment is used to facilitate wet weather construction, GeoPacific should be contacted to provide additional recommendations and field monitoring.

Erosion Control Considerations

During our field exploration program, we did not observe soil types that would be considered highly susceptible to erosion except in areas of moderately to steeply sloping topography. In our opinion, the primary concern regarding erosion potential will occur during construction, in areas that have been stripped of vegetation, especially in moderately sloping areas. Erosion at the site during construction can be minimized by implementing the project erosion control plan, which should include judicious use of straw wattles and silt fences. If used, these erosion control devices should be in place and remain in place throughout site preparation and construction.

Erosion and sedimentation of exposed soils can also be minimized by quickly re-vegetating exposed areas of soil, and by staging construction such that large areas of the project site are not denuded and exposed at the same time. Areas of exposed soil requiring immediate and/or temporary protection against exposure should be covered with either mulch or erosion control

netting/blankets. Areas of exposed soil requiring permanent stabilization should be seeded with an approved grass seed mixture, or hydroseeded with an approved seed-mulch-fertilizer mixture.

Pavement Design

We understand that project development will include extending S Walnut Road from SE 1st Avenue to S Highway 99E. For design purposes, we used a resilient modulus of 6,000 based for competent native soil and engineered fill. As discussed in the *Site Preparation Recommendations* section of this report, the layer of undocumented fill soil encountered in some of our explorations was generally not considered suitable for the support of roadways or structures in its existing condition. In areas of roadways or where engineered fill material is proposed, the layer of undocumented fill will need to be removed or ripped/tilled, moisture-conditioned, and recompact prior to the placement of engineered fill material or base rock.

Based upon projected traffic count data provided by Curran-McLeod, Inc. and our understanding of the anticipated traffic which includes light-duty passenger vehicles, medium sized trucks, delivery and pickup vehicles, and occasional emergency vehicles weighing up to 75,000 lbs and point loads up to 12,500 lbs, we estimate an anticipated 18-kip ESAL count of approximately 1,830,190 over 20 years. Pavement design calculations are attached to this report. Table 2 presents our flexible pavement design input parameters. Table 3 and 4 present our recommended minimum dry-weather pavement section for the proposed pavement sections, supporting 20 years of vehicle traffic per Clackamas County standards.

Table 2: Flexible Pavement Section Design Input Parameters for S Walnut Road

Input Parameter	Design Value
18-kip ESAL Initial Performance Period (20 Years)	1,830,190
Initial Serviceability	4.2
Terminal Serviceability	2.5
Reliability Level	90 Percent
Overall Standard Deviation	0.5
Roadbed Soil Resilient Modulus (PSI)	6,000
Required Structural Number	4.25

Table 3. Recommended Minimum Dry-Weather Pavement Section – Option 1

Material Layer	Thickness (in.)	Compaction Standard
Asphaltic Concrete (AC)	5	91%/ 92% of Rice Density AASHTO T-209
Crushed Aggregate Base ¾"-0 (leveling course)	2	95% of Modified Proctor AASHTO T-180
Crushed Aggregate Base 1½"-0	20	95% of Modified Proctor AASHTO T-180
Subgrade	12	90% of Modified Proctor AASHTO T-180 or Approved Native

Table 4. Recommended Minimum Dry-Weather Pavement Section – Option 2

Material Layer	Thickness (in.)	Compaction Standard
Asphaltic Concrete (AC)	6	91%/ 92% of Rice Density AASHTO T-209
Crushed Aggregate Base ¾"-0 (leveling course)	2	95% of Modified Proctor AASHTO T-180
Crushed Aggregate Base 1½"-0	16	95% of Modified Proctor AASHTO T-180
Subgrade	12	90% of Modified Proctor AASHTO T-180 or Approved Native

Any pockets of organic debris or loose fill encountered during subgrade preparation should be removed and replaced with engineered fill (see *Site Preparation* Section). In order to verify subgrade strength, we recommend proof-rolling directly on subgrade with a loaded dump truck during dry weather and on top of base course in wet weather. Soft areas that pump, rut, or weave should be stabilized prior to paving. If pavement areas are to be constructed during wet weather, the subgrade and construction plan should be reviewed by the project geotechnical engineer at the time of construction so that condition specific recommendations can be provided. The moisture sensitive subgrade soils make the site a difficult wet weather construction project.

During placement of pavement section materials, density testing should be performed to verify compliance with project specifications. Generally, one subgrade, one base course, and one asphalt compaction test is performed for every 100 to 200 linear feet of paving.

Signal Pole Foundation Design

We understand that three new single-mast signal poles are proposed to support the traffic change for the project. The proposed signal poles will be located at the intersection of S Walnut Road and S Highway 99E. The approximate location of the proposed signal poles are indicated in Figure 2. We understand that the signal poles will be Type SM4 or SM5L and will be supported on 42-inch diameter drilled shaft foundations, designed in accordance with ODOT design standards and local standard of practice in the field of geotechnical engineering.

The ODOT 2023 Geotechnical Design Manual (Section 17.8.1.1) states that standard foundation embedment depths can be used for signal poles in cohesionless soils when the soil conditions meet the following requirements: the unit weight of the soil is at least 100 pcf, the friction angle of the soil is at least 26 degrees, and the modulus of subgrade reaction is at least 25 pci. Soil borings B-2 and B-4 are located in the vicinity of the proposed signal poles at the planned intersection between S Walnut Street and S Highway 99E. Based on our observations within soil borings B-2 and B-4, the soils within the vicinity of the proposed signal poles meet the listed requirements. Therefore, it is our opinion that the minimum embedment depths can be utilized for the proposed signal poles at the intersection of S Walnut Street and S Highway 99E. The standard embedment depths for foundations in cohesionless soils where groundwater is at least 9 feet below the tip of the foundation are listed in Table 5.

Table 5 – Minimum Lateral Embedment Depths for Standard Signal Pole Foundations (ODOT 2023 Geotechnical Design Manual Table 17.4)										
Signal Pole Type	SM1	SM2	SM3	SM4	SM5	SM1L	SM2L	SM3L	SM4L	SM5L
Minimum Embedment Depth (ft)	12	14	15	16	17	14	15	16	17	18

Construction Recommendations for Signal Pole Foundations

We recommend that a geotechnical engineer monitor pile drilling, and installation operations to verify that construction is performed in accordance with our recommendations, and ODOT standards for signal pole installation and confirm that subsurface conditions are consistent with this report. Construction of the signal pole should be conducted in general accordance with ODOT section 00963 for signal support shafts.

Subsurface conditions at the location of the proposed signal pole location may vary from what was observed in our subsurface explorations (soil borings B-2 and B-4). Although cobbles and boulders were not encountered within soil borings B-2 or B-4, Catastrophic Flood Deposits are known to occasionally contain occasional cobble- to boulder-sized rock. Therefore, the drilled shaft excavation may potentially be impacted by the presence of cobbles, boulders, or obstructions from previous development. The contractor should be prepared to deal with such obstructions where encountered, and we suggest the contract documents include provisions clearly defining payment provisions where obstructions are encountered.

Caving soils may also be encountered during drilling, especially in the sand layers. It may be necessary to use casing in order to maintain the integrity of the hole during drilling. The casing should be considered temporary and, if utilized, should be removed during concrete placement. Permanent casing is not recommended for this project.

Stormwater Management

We understand that plans for project development may include stormwater management facilities, and that it may be desired to incorporate subsurface disposal of stormwater. The native Silty SAND

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(SM) and Sandy SILT (ML) observed between the depths of approximately 1 and 40.75 feet below the ground surface exhibited infiltration rates ranging from 0.00 to 14.40 inches per hour, as summarized in Table 1. The results of our infiltration testing indicate that the native sandy SILT (ML) to silty SAND (SM) soils at the site exhibit variable infiltration rates with very low infiltration rates in some locations. It should be noted that the infiltration rates in soil boring B-1 decreased with depth

Stormwater management systems should be constructed as specified by the designer and/or in accordance with the applicable stormwater design codes. Stormwater exceeding storage capacities will need to be directed to a suitable surface discharge location, away from structures. Stormwater management systems may need to include overflow outlets, surface water control measures and/or be connected to the street stormdrain system, if available. In no case should stormwater be allowed to flow uncontrolled over the ground surface. Evaluating environmental implications of stormwater disposal at this site are beyond the scope of this study.

UNCERTAINTIES AND LIMITATIONS

We have prepared this report for the owner and his/her consultants for use in design of this project only. The conclusions and interpretations presented in this report should not be construed as a warranty of the subsurface conditions. Experience has shown that soil and groundwater conditions can vary significantly over small distances. Inconsistent conditions can occur between explorations that may not be detected by a geotechnical study. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, GeoPacific should be notified for review of the recommendations of this report, and revision of such if necessary.

Sufficient geotechnical monitoring, testing, and consultation should be provided during construction to confirm that the conditions encountered are consistent with those indicated by subsurface explorations. The checklist attached to this report outlines recommended geotechnical observations and testing for the project. Recommendations for design changes will be provided should conditions revealed during construction differ from those anticipated, and to verify that the geotechnical aspects of construction comply with the contract plans and specifications.

Within the limitations of scope, schedule and budget, GeoPacific executed these services in accordance with generally accepted professional principles and practices in the fields of geotechnical engineering and engineering geology at the time the report was prepared. No warranty, express or implied, is made. The scope of our work did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous or toxic substances in the soil, surface water, or groundwater at this site.

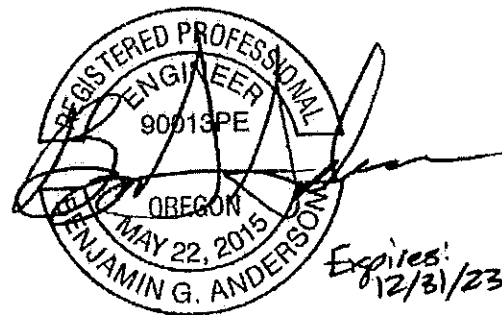
We appreciate this opportunity to be of service.

Sincerely,

GEOPACIFIC ENGINEERING, INC.



Alexandria B. Campbell, E.I.
Engineering Staff



Benjamin G. Anderson, P.E.
Associate Engineer

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CHECKLIST OF RECOMMENDED GEOTECHNICAL TESTING AND OBSERVATION

Item No.	Procedure	Timing	By Whom	Done
1	Preconstruction meeting	Prior to beginning site work	Contractor, Developer, Civil and Geotechnical Engineers	
2	Fill removal from site or sorting and stockpiling	Prior to mass stripping	Soil Technician/ Geotechnical Engineer	
3	Stripping, aeration, and root-picking operations	During stripping	Soil Technician	
4	Compaction testing of engineered fill (95% of Standard Proctor)	During filling, tested every 2 vertical feet	Soil Technician	
5	Compaction testing of trench backfill (95% of Modified Proctor)	During backfilling, tested every 4 vertical feet for every 200 lineal feet	Soil Technician	
6	Street Subgrade Inspection	Prior to placing base course	Soil Technician	
7	Base course compaction (95% of Modified Proctor)	Prior to paving, tested every 200 lineal feet	Soil Technician	
8	Final Geotechnical Engineer's Report	Completion of project	Geotechnical Engineer	



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FIGURES

14835 SW 72nd Avenue
Portland, Oregon 97224
Tel: (503) 598-8445 Fax: (503) 941-9281

Approximate Location of Site

Approximate Location of Site

Canby

North

Base map obtained from Oregon HazVu street map
Date: 06/07/23
Drawn by: ABC

0 2,000

Approximate Scale: 1" = 2,000'

Project: Walnut Street Extension
Canby, Oregon

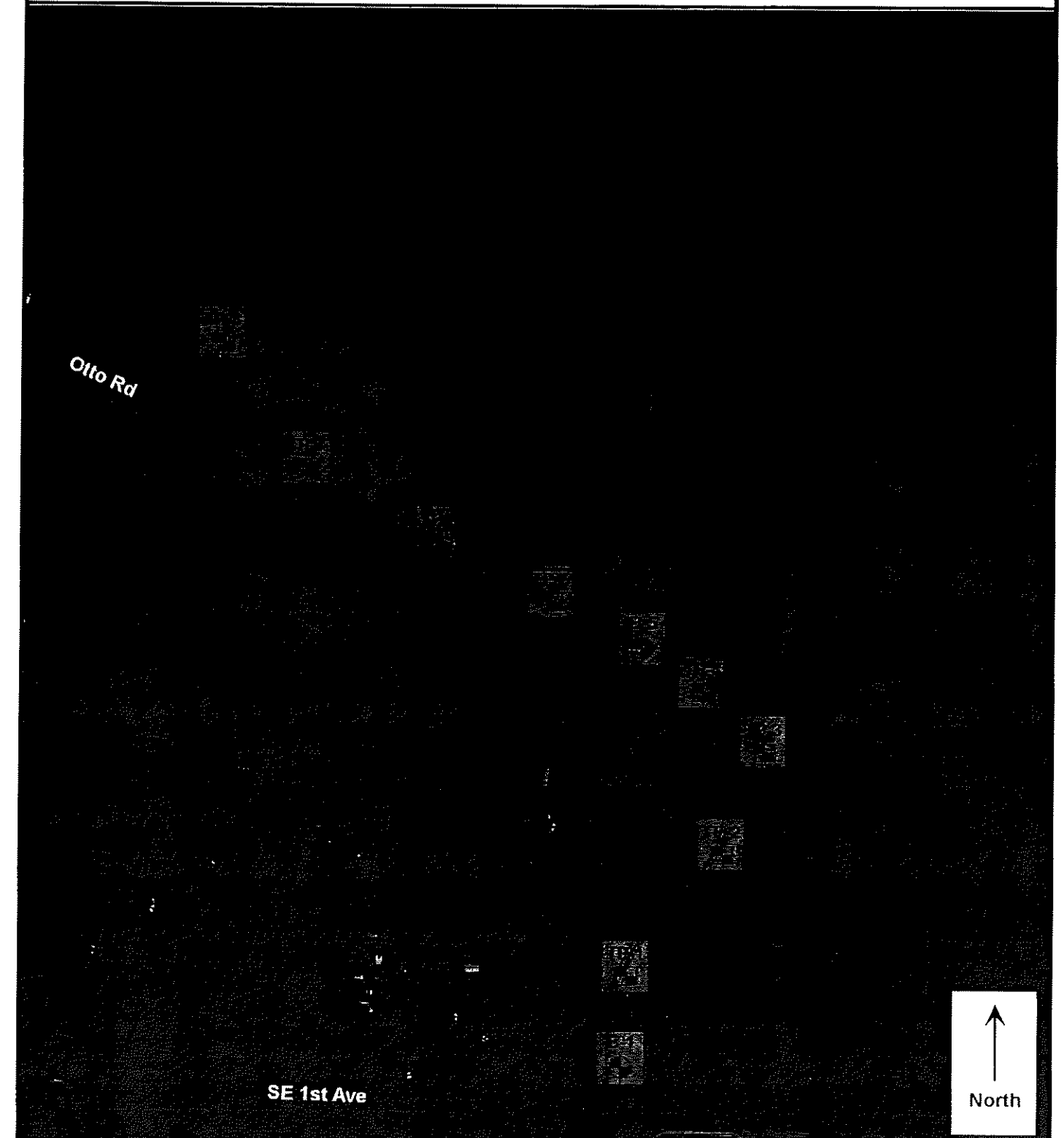
Project No. 23-6251

FIGURE 1

GEO PACIFIC

14835 SW 72nd Avenue
Portland, Oregon 97224
Tel: (503) 598-8445 Fax: (503) 941-9281

**SITE AERIAL AND EXPLORATION
LOCATIONS - SOUTH**



Legend

TP-1 Test Pit Designation and
Approximate Location

B-1 Boring Designation and
Approximate Location

0 200'
APPROXIMATE SCALE 1"=200'

Date: 06/07/23
Drawn by: ABC

Project: Walnut Street Extension
Canby, Oregon

Project No. 23-6251

FIGURE 2

GEO PACIFIC

14835 SW 72nd Avenue
Portland, Oregon 97224
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**SITE AERIAL AND EXPLORATION
LOCATIONS - NORTH**



Legend

TP-1 Test Pit Designation and
Approximate Location

B-1 Boring Designation and
Approximate Location

0 200'

APPROXIMATE SCALE 1"=200'

Date: 06/05/23
Drawn by: ABC

Project: Walnut Street Extension
Canby, Oregon

Project No. 23-6251

FIGURE 3



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EXPLORATION LOGS

Project: Walnut Street Extension
Canby, Oregon

Project No. 23-6251

Boring No. **B-1**

Depth (ft)	Sample Type	N-Value	% Passing #200 Sieve	Moisture Content (%)	Water Bearing Zone	Material Description
						Poorly Graded GRAVEL (GP), gray, loose, moist (Gravel Surfacing)
5		7				SILT (ML), brown, medium stiff, moist (Catastrophic Flood Deposits)
		8				Grades to with sand
10		7				Silty SAND (SM), brown, fine-grained, loose, moist (Catastrophic Flood Deposits)
		9				
15		11	35.9	14.3		Grades to medium dense Infiltration test conducted at 15 feet bgs. Infiltration rate measured as 14.4 inches per hour
20		13	38.0	18.3		Infiltration test conducted at 20 feet bgs. Infiltration rate measured as 4.32 inches per hour Infiltration test conducted at 24 feet bgs. Infiltration rate measured as 1.44 inches per hour
		50/1"				
25						Boring terminated at 24 feet due to refusal on apparent bedrock No groundwater seepage encountered.
30						
35						
40						

LEGEND

100 to 1,000 g
Bag Sample

Split-Spoon

Shelby Tube Sample

Static Water Table at Drilling

Static Water Table

Water Bearing Zone

Date Drilled: 03/01/23

Logged By: ABC

Surface Elevation: 173 Feet

GEO PACIFIC14835 SW 72nd Avenue
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Tel: (503) 598-8445 Fax: (503) 941-9281**BORING LOG**Project: Walnut Street Extension
Canby, Oregon

Project No. 23-6251

Boring No. **B-2**

Depth (ft)	Sample Type	N-Value	% Passing #200 Sieve	Moisture Content (%)	Water Bearing Zone	Material Description
5		2				SILT (ML), brown, very soft, moist (Catastrophic Flood Deposits)
		4				Grades to soft and with some sand
		12				
10		6				Silty SAND (SM), brown, medium dense, moist (Catastrophic Flood Deposits)
						Poorly Graded SAND with Silt (SP), brown, fine-grained, loose, moist (Catastrophic Flood Deposits)
15		19				Grades to medium dense
20		9	40.0	20.3		Silty SAND (SM), brown, loose, moist (Catastrophic Flood Deposits) Infiltration test conducted at 20 feet bgs. Infiltration rate measured as 1.44 inches per hour
25		24				Poorly Graded SAND with Silt (SP), brown, fine-grained, medium dense, moist (Catastrophic Flood Deposits)
30		15				Grades to with more silt Grades to with less silt
35		13				
40		82/10"				Boring terminated at 40.75 feet due to refusal on apparent bedrock No groundwater seepage encountered.

LEGEND



Bag Sample



Split-Spoon



Shelby Tube Sample

Static Water Table
at Drilling

Static Water Table



Water Bearing Zone

Date Drilled: 03/01/23

Logged By: ABC

Surface Elevation: 126 Feet

GEO PACIFIC14835 SW 72nd Avenue
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Tel: (503) 598-8445 Fax: (503) 941-9281**BORING LOG**Project: Walnut Street Extension
Canby, Oregon

Project No. 23-6251

Boring No. **B-5**

Depth (ft)	Sample Type	N-Value	% Passing #200 Sieve	Moisture Content (%)	Water Bearing Zone	Material Description
5		8				SILT (ML), brown, medium stiff, moist (Catastrophic Flood Deposits)
		8				
		7				Poorly Graded SAND with Silt (SP), brown, fine-grained, loose, damp (Catastrophic Flood Deposits)
10		12	72.9	14.0		Grades to with more silt Grades to with less silt
15		10				Sandy SILT (ML), brown, stiff, moist (Catastrophic Flood Deposits)
20		26	61.1	21.0		Infiltration test conducted at 12 feet bgs. Infiltration rate measured as 0.72 inches per hour
		100/3"				Grades to stiff Infiltration test conducted at 20 feet bgs. Infiltration rate measured as 0.72 inches per hour
25						Boring terminated at 22.5 feet due to refusal on apparent bedrock No groundwater seepage encountered.
30						
35						
40						

LEGEND

Bag Sample



Split-Spoon



Shelby Tube Sample

Static Water Table
at Drilling

Static Water Table



Water Bearing Zone

Date Drilled: 04/05/23

Logged By: ABC

Surface Elevation: 166 Feet

GEO PACIFIC

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Tel: (503) 598-8445 Fax: (503) 941-9281

TEST PIT LOG

Project: Walnut Street Extension
Canby, Oregon

Project No. 23-6251

Test Pit No. **TP-1**

Depth (ft)	Pocket Penetrometer (tons/ft ²)	Torvane Shear (tons/ft ²)	Sample Type	% Passing No. 200 Sieve	Moisture Content (%)	Water Bearing Zone	Material Description
1	3.0						Organic SILT (OL-ML), brown, moist, organic horizon approximately 3 inches (Topsoil)
2	1.0						SILT (ML), brown, disturbed texture, stiff, moist (Undocumented Fill)
3	2.0						SILT (ML), brown with faint orange mottling, medium stiff, moist (Catastrophic Flood Deposits)
4	2.5						Grades to stiff with some fine sand
5							
6							
7							
8							Silty SAND (SM), light brown, medium dense, damp to moist (Catastrophic Flood Deposits)
9							
10							
11							
12							
13							
14							
15							
16							Test pit terminated at 16 feet bgs. No groundwater seepage observed. Excavator: Case Extendahoe with rock teeth.
17							

LEGEND



Bag Sample



Bucket Sample



Shelby Tube Sample



Seepage



Water Bearing Zone



Water Level at Abandonment

Date Excavated: 02/27/2023

Logged By: ABC

Surface Elevation: 171 Feet

GЕOPACIFIC		14835 SW 72nd Avenue Portland, Oregon 97224 Tel: (503) 598-8445 Fax: (503) 941-9281		TEST PIT LOG			
Project: Walnut Street Extension Canby, Oregon			Project No. 23-6251		Test Pit No. TP-2		
Depth (ft)	Pocket Penetrometer (tons/ft²)	Torvane Shear (tons/ft²)	Sample Type	% Passing No. 200 Sieve	Moisture Content (%)	Water Bearing Zone	Material Description
1	0.5						Organic SILT (OL-ML), brown, moist, organic horizon approximately 12 inches (Topsoil)
2	1.0						SILT (ML), brown with faint orange mottling, medium stiff, moist (Catastrophic Flood Deposits)
3	1.5						
4	3.0						Grades to stiff with some fine sand
5							
6							Silty SAND (SM), light brown, medium dense, damp to moist (Catastrophic Flood Deposits)
7							
8							
9							
10							
11							Grades to dry
12							Test pit terminated at 12 feet bgs. No groundwater seepage observed. Excavator: Case Extendahoe with rock teeth.
13							
14							
15							
16							
17							
LEGEND 100 to 1,000 g Bag Sample 5 Gal. Bucket Bucket Sample  Shelby Tube Sample  Seepage  Water Bearing Zone  Water Level at Abandonment							Date Excavated: 02/27/2023 Logged By: ABC Surface Elevation: 169 Feet

GEO PACIFIC14835 SW 72nd Avenue
Portland, Oregon 97224
Tel: (503) 598-8445 Fax: (503) 941-9281**TEST PIT LOG**Project: Walnut Street Extension
Canby, Oregon

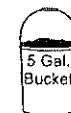
Project No. 23-6251

Test Pit No. **TP-3**

Depth (ft)	Pocket Penetrometer (tons/ft ²)	Torvane Shear (tons/ft ²)	Sample Type	% Passing No. 200 Sieve	Moisture Content (%)	Water Bearing Zone	Material Description
1	1.5						Organic SILT (OL-ML), brown, moist, organic horizon approximately 12 inches (Topsoil)
2	1.5						SILT (ML), brown with faint orange mottling, medium stiff, moist (Catastrophic Flood Deposits)
3	2.5						Grades to stiff
4	2.5						Grades to with some fine sand
5							
6							
7							Silty SAND (SM), light brown, medium dense, damp to dry (Catastrophic Flood Deposits)
8							
9							
10							Grades to dry
11							
12							Test pit terminated at 12 feet bgs. No groundwater seepage observed. Excavator: Case Extendahoe with rock teeth.
13							
14							
15							
16							
17							

LEGEND

Bag Sample



Bucket Sample



Shelby Tube Sample



Seepage



Water Bearing Zone



Water Level at Abandonment

Date Excavated: 02/27/2023

Logged By: ABC

Surface Elevation: 167 Feet

GEO PACIFIC14835 SW 72nd Avenue
Portland, Oregon 97224
Tel: (503) 598-8445 Fax: (503) 941-9281**TEST PIT LOG**Project: Walnut Street Extension
Canby, Oregon

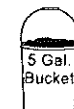
Project No. 23-6251

Test Pit No. **TP-5**

Depth (ft)	Pocket Penetrometer (tons/ft ²)	Torvane Shear (tons/ft ²)	Sample Type	% Passing No. 200 Sieve	Moisture Content (%)	Water Bearing Zone	Material Description
1	0.5						Organic SILT (OL-ML), brown, moist, organic horizon approximately 10 inches (Topsoil)
2	1.0						SILT (ML), brown with faint orange mottling, medium stiff, moist (Catastrophic Flood Deposits)
3	1.0						
4	2.0						
5							
6							Grades to stiff with some fine sand
7							
8							
9							
10							Silty SAND (SM), light brown, medium dense, damp (Catastrophic Flood Deposits)
11							
12							Test pit terminated at 12 feet bgs. No groundwater seepage observed. Excavator: Case Extendahoe with rock teeth.
13							
14							
15							
16							
17							

LEGEND

Bag Sample



Bucket Sample



Shelby Tube Sample



Seepage



Water Bearing Zone



Water Level at Abandonment

Date Excavated: 02/27/2023

Logged By: ABC

Surface Elevation: 144 Feet

GEO PACIFIC		14835 SW 72nd Avenue Portland, Oregon 97224 Tel: (503) 598-8445 Fax: (503) 941-9281		TEST PIT LOG			
Project: Walnut Street Extension Canby, Oregon			Project No. 23-6251		Test Pit No. TP-6		
Depth (ft)	Pocket Penetrometer (tons/ft²)	Torvane Shear (tons/ft²)	Sample Type	% Passing No. 200 Sieve	Moisture Content (%)	Water Bearing Zone	Material Description
1	1.0						Organic SILT (OL-ML), brown, moist, organic horizon approximately 8 inches (Topsoil)
2	1.5						SILT (ML), brown with faint orange mottling, medium stiff, moist (Catastrophic Flood Deposits)
3	2.5						
4	1.5						
5							
6							Grades to stiff with some fine sand
7							
8							
9							
10							Silty SAND (SM), light brown, medium dense, damp (Catastrophic Flood Deposits)
11							
12							Test pit terminated at 12 feet bgs. No groundwater seepage observed. Excavator: Case Extendahoe with rock teeth.
13							
14							
15							
16							
17							
LEGEND  100 to 1,000 g  5 Gal. Bucket  Shelby Tube Sample  Seepage  Water Bearing Zone  Water Level at Abandonment							Date Excavated: 02/27/2023 Logged By: ABC Surface Elevation: 145 Feet

GEOPACIFIC

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Tel: (503) 598-8445 Fax: (503) 941-9281

TEST PIT LOG

Project: Walnut Street Extension
Canby, Oregon

Project No. 23-6251

Test Pit No. **TP-7**

Depth (ft)	Pocket Penetrometer (tons/ft ²)	Torvane Shear (tons/ft ²)	Sample Type	% Passing No. 200 Sieve	Moisture Content (%)	Water Bearing Zone	Material Description
1	1.0						Organic SILT (OL-ML), brown, moist, organic horizon approximately 12 inches (Topsoil)
2	1.5						SILT (ML), brown with faint orange mottling, medium stiff, moist (Catastrophic Flood Deposits)
3	1.5						
4	2.0						
5							
6							Grades to stiff with some fine sand
7							
8							Silty SAND (SM), light brown, medium dense, damp (Catastrophic Flood Deposits)
9							
10							
11							
12							
13							
14							
15							Test pit terminated at 15 feet bgs. No groundwater seepage observed. Excavator: Case Extendahoe with rock teeth.
16							
17							

LEGEND



Bag Sample



Bucket Sample



Shelby Tube Sample



Seepage



Water Bearing Zone



Water Level at Abandonment

Date Excavated: 02/27/2023

Logged By: ABC

Surface Elevation: 134 Feet

GEO PACIFIC

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TEST PIT LOG

Project: Walnut Street Extension
Canby, Oregon

Project No. 23-6251

Test Pit No. **TP-8**

Depth (ft)	Pocket Penetrometer (tons/ft ²)	Torvane Shear (tons/ft ²)	Sample Type	% Passing No. 200 Sieve	Moisture Content (%)	Water Bearing Zone	Material Description
1	4.5						4" Crushed Rock with Silt (GP), gray, with organics to 3", moist (Undocumented Fill)
2	2.0						SILT (ML), brown with faint orange mottling, medium stiff, moist (Catastrophic Flood Deposits)
3	2.5						Grades to stiff
4							
5							Grades to with some fine sand
6							
7							Silly SAND (SM), light brown, medium dense, damp (Catastrophic Flood Deposits)
8							
9							
10							
11							
12				32.7	17.0		Grades to dry Infiltration test conducted at 12 feet bgs. Infiltration rate measures as 2.16 inches per hour
13							
14							
15							
16							Test pit terminated at 16 feet bgs. No groundwater seepage observed. Excavator: Case Extendahoe with rock teeth.
17							

LEGEND



Bag Sample



Bucket Sample



Shelby Tube Sample



Seepage



Water Bearing Zone



Water Level at Abandonment

Date Excavated: 02/27/2023

Logged By: ABC

Surface Elevation: 132 Feet

GEO PACIFIC14835 SW 72nd Avenue
Portland, Oregon 97224
Tel: (503) 598-8445 Fax: (503) 941-9281**TEST PIT LOG**Project: Walnut Street Extension
Canby, Oregon

Project No. 23-6251

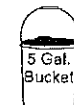
Test Pit No. **TP-9**

Depth (ft)	Pocket Penetrometer (tons/ft ²)	Torvane Shear (tons/ft ²)	Sample Type	% Passing No. 200 Sieve	Moisture Content (%)	Water Bearing Zone	Material Description
1	1.5						Organic SILT (OL-ML), brown, moist, organic horizon approximately 12 inches (Topsoil)
2	1.0						SILT (ML), brown with faint orange mottling, medium stiff, moist (Catastrophic Flood Deposits) Some roots encountered to 18 inches
3	1.5						
4	2.0						
5							
6							Grades to stiff with some fine sand
7							
8							Silty SAND (SM), light brown, medium dense, damp (Catastrophic Flood Deposits)
9							
10							
11							
12							
13							Test pit terminated at 13 feet bgs. No groundwater seepage observed. Excavator: Case Extendahoe with rock teeth.
14							
15							
16							
17							

LEGEND



Bag Sample



Bucket Sample



Shelby Tube Sample



Seepage



Water Bearing Zone



Water Level at Abandonment

Date Excavated: 02/27/2023

Logged By: ABC

Surface Elevation: 131 Feet

GEOPACIFIC

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TEST PIT LOG

Project: Walnut Street Extension
Canby, Oregon

Project No. 23-6251

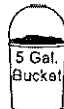
Test Pit No. **TP-11**

Depth (ft)	Pocket Penetrometer (tons/ft ²)	Torvane Shear (tons/ft ²)	Sample Type	% Passing No. 200 Sieve	Moisture Content (%)	Water Bearing Zone	Material Description
1	1.25						Organic SILT (OL-ML), brown, moist, organic horizon approximately 12 inches (Topsoil)
2	1.5						SILT (ML), brown with faint orange mottling, medium stiff, moist (Catastrophic Flood Deposits)
3	1.5						
4	3.0						Grades to stiff with some fine sand
5							
6							
7							
8							Silty SAND (SM), light brown, medium dense, damp (Catastrophic Flood Deposits)
9							
10							
11							
12				48.7	23.8		Infiltration test conducted at 12 feet bgs. Infiltration rate measured as 5.76 inches per hour
13							
14							
15							
16							Test pit terminated at 16 feet bgs. No groundwater seepage observed. Excavator: Case Extendahoe with rock teeth.
17							

LEGEND



Bag Sample



Bucket Sample



Shelby Tube Sample



Seepage



Water Bearing Zone



Water Level at Abandonment

Date Excavated: 02/27/2023

Logged By: ABC

Surface Elevation: 128 Feet

GEO PACIFIC		14835 SW 72nd Avenue Portland, Oregon 97224 Tel: (503) 598-8445 Fax: (503) 941-9281		TEST PIT LOG			
Project: Walnut Street Extension Canby, Oregon			Project No. 23-6251		Test Pit No. TP-12		
Depth (ft)	Pocket Penetrometer (tons/ft²)	Torvane Shear (tons/ft²)	Sample Type	% Passing No. 200 Sieve	Moisture Content (%)	Water Bearing Zone	Material Description
1	2.5						SILT with Gravel (OL-ML), brown, disturbed texture, moist, (Uncocumented Fill)
2	2.5						SILT (ML), brown with faint orange mottling, medium stiff, moist (Catastrophic Flood Deposits)
3	1.5						
4	1.0						
5							Grades to stiff with some fine sand
6							
7							
8							Silty SAND (SM), light brown, medium dense, damp (Catastrophic Flood Deposits)
9							
10							
11							
12							Test pit terminated at 12 feet bgs. No groundwater seepage observed. Excavator: Case Extendahoe with rock teeth.
13							
14							
15							
16							
17							
LEGEND  100 to 1,000 g Bag Sample  5 Gal. Bucket Bucket Sample  Shear Tube Sample  Seepage  Water Bearing Zone  Water Level at Abandonment							Date Excavated: 02/27/2023 Logged By: ABC Surface Elevation: 126 Feet

TEST PIT LOG

Project: Walnut Street Extension
Canby, Oregon

Project No. 23-6251

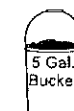
Test Pit No. **TP-13**

Depth (ft)	Pocket Penetrometer (tons/ft²)	Torvane Shear (tons/ft²)	Sample Type	% Passing No. 200 Sieve	Moisture Content (%)	Water Bearing Zone	Material Description
1							6" Poorly Graded GRAVEL (GP), gray, 3/4-0" crushed rock, damp, (Uncocumented Fill)
2							SILT (ML), brown, with some fine gravel, medium stiff, moist (Undocumented Fill)
3							SILT (ML), brown with faint orange mottling, medium stiff, moist (Catastrophic Flood Deposits)
4							
5							Grades to stiff with some fine sand
6							
7							
8							Silty SAND (SM), light brown, medium dense, moist to damp (Catastrophic Flood Deposits)
9							
10							
11							
12							Test pit terminated at 12 feet bgs. No groundwater seepage observed. Excavator: Case Extendahoe with rock teeth.
13							
14							
15							
16							
17							

LEGEND



Bag Sample



Bucket Sample



Shelby Tube Sample



Seepage



Water Bearing Zone



Water Level at Abandonment

Date Excavated: 02/27/2023

Logged By: ABC

Surface Elevation: 127 Feet



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LABORATORY TEST RESULTS

Project Name: Walnut
 Date Sampled: Feb-Apr '23
 Sampled By: ABC

Project #: 23-6251
 Date Tested: 4.10.2023
 Tested By: TMM

Moisture Content

Sample ID:	S23-056
Exploration & Depth:	B1 15ft
Tare #:	59
Tare (g):	156.9
Tare + Wet (g):	411.3
Tare + Dry (g):	379.5
Moisture (%):	14.3

#200 Wet Sieve

Sample ID:	S23-056
Exploration & Depth:	B1 15ft
Tare #:	59
Tare (g):	156.9
Tare + Prewash (g):	379.5
Tare + Washed (g):	299.6
Passing #200 (%):	35.9

Moisture Content

Sample ID:	S23-057
Exploration & Depth:	B1 20ft
Tare #:	53
Tare (g):	155.8
Tare + Wet (g):	468.6
Tare + Dry (g):	420.2
Moisture (%):	18.3

#200 Wet Sieve

Sample ID:	S23-057
Exploration & Depth:	B1 20ft
Tare #:	53
Tare (g):	155.8
Tare + Prewash (g):	420.2
Tare + Washed (g):	319.6
Passing #200 (%):	38.0

Moisture Content

Sample ID:	S23-058
Exploration & Depth:	B2 20ft
Tare #:	52
Tare (g):	158.4
Tare + Wet (g):	458.9
Tare + Dry (g):	408.2
Moisture (%):	20.3

#200 Wet Sieve

Sample ID:	S23-058
Exploration & Depth:	B2 20ft
Tare #:	52
Tare (g):	158.4
Tare + Prewash (g):	408.2
Tare + Washed (g):	308.2
Passing #200 (%):	40.0

Moisture Content

Sample ID:	S23-059
Exploration & Depth:	B5 10ft
Tare #:	56
Tare (g):	154.5
Tare + Wet (g):	365.4
Tare + Dry (g):	339.5
Moisture (%):	14.0

#200 Wet Sieve

Sample ID:	S23-059
Exploration & Depth:	B5 10ft
Tare #:	56
Tare (g):	154.5
Tare + Prewash (g):	339.5
Tare + Washed (g):	204.6
Passing #200 (%):	72.9

Project Name: Walnut

Project #: 23-6251

Date Sampled: Feb-Apr '23

Date Tested: 4.10.2023

Sampled By: ABC

Tested By: TMM

Moisture Content

Sample ID:	S23-060
Exploration & Depth:	B5 20ft
Tare #:	55
Tare (g):	155.6
Tare + Wet (g):	417.4
Tare + Dry (g):	372.0
Moisture (%):	21.0

#200 Wet Sieve

Sample ID:	S23-060
Exploration & Depth:	B5 20ft
Tare #:	55
Tare (g):	155.6
Tare + Prewash (g):	372.0
Tare + Washed (g):	239.7
Passing #200 (%):	61.1

Moisture Content

Sample ID:	S23-061
Exploration & Depth:	B6 5ft
Tare #:	11
Tare (g):	265.0
Tare + Wet (g):	645.8
Tare + Dry (g):	566.2
Moisture (%):	26.4

#200 Wet Sieve

Sample ID:	S23-061
Exploration & Depth:	B6 5ft
Tare #:	11
Tare (g):	265.0
Tare + Prewash (g):	566.2
Tare + Washed (g):	486.3
Passing #200 (%):	26.5

Moisture Content

Sample ID:	S23-062
Exploration & Depth:	B6 15ft
Tare #:	10
Tare (g):	265.5
Tare + Wet (g):	552.7
Tare + Dry (g):	508.2
Moisture (%):	18.3

#200 Wet Sieve

Sample ID:	S23-062
Exploration & Depth:	B6 15ft
Tare #:	10
Tare (g):	265.5
Tare + Prewash (g):	508.2
Tare + Washed (g):	408.6
Passing #200 (%):	41.0

Moisture Content

Sample ID:	S23-063
Exploration & Depth:	B3 5ft
Tare #:	9
Tare (g):	266.3
Tare + Wet (g):	746.8
Tare + Dry (g):	628.3
Moisture (%):	32.7

#200 Wet Sieve

Sample ID:	S23-063
Exploration & Depth:	B3 5ft
Tare #:	9
Tare (g):	266.3
Tare + Prewash (g):	628.3
Tare + Washed (g):	514.7
Passing #200 (%):	31.4

Project Name: Walnut
Date Sampled: Feb-Apr '23
Sampled By: ABC

Project #: 23-6251
Date Tested: 4.10.2023
Tested By: TMM

Moisture Content	
Sample ID:	S23-064
Exploration & Depth:	B3 10ft
Tare #:	57
Tare (g):	157.8
Tare + Wet (g):	426.9
Tare + Dry (g):	317.2
Moisture (%):	68.8

#200 Wet Sieve	
Sample ID:	S23-064
Exploration & Depth:	B3 10ft
Tare #:	57
Tare (g):	157.8
Tare + Prewash (g):	317.2
Tare + Washed (g):	245.8
Passing #200 (%):	44.8

Moisture Content	
Sample ID:	S23-065
Exploration & Depth:	B3 20ft
Tare #:	53
Tare (g):	155.8
Tare + Wet (g):	403.3
Tare + Dry (g):	355.8
Moisture (%):	23.8

#200 Wet Sieve	
Sample ID:	S23-065
Exploration & Depth:	B3 20ft
Tare #:	53
Tare (g):	155.8
Tare + Prewash (g):	355.8
Tare + Washed (g):	333.4
Passing #200 (%):	11.2

Moisture Content	
Sample ID:	S23-066
Exploration & Depth:	B4 2.5ft
Tare #:	56
Tare (g):	154.3
Tare + Wet (g):	497.8
Tare + Dry (g):	413.8
Moisture (%):	32.4

#200 Wet Sieve	
Sample ID:	S23-066
Exploration & Depth:	B4 2.5ft
Tare #:	56
Tare (g):	154.3
Tare + Prewash (g):	413.8
Tare + Washed (g):	370.9
Passing #200 (%):	16.5

Moisture Content	
Sample ID:	S23-067
Exploration & Depth:	B4 7.5ft
Tare #:	59
Tare (g):	157.1
Tare + Wet (g):	421.4
Tare + Dry (g):	364.2
Moisture (%):	27.6

#200 Wet Sieve	
Sample ID:	S23-067
Exploration & Depth:	B4 7.5ft
Tare #:	59
Tare (g):	157.1
Tare + Prewash (g):	364.2
Tare + Washed (g):	236.6
Passing #200 (%):	61.6

Project Name: Walnut
Date Sampled: Feb-Apr '23
Sampled By: ABC

Project #: 23-6251
Date Tested: 4.10.2023
Tested By: TMM

Moisture Content

Sample ID:	S23-068
Exploration & Depth:	B4 20ft
Tare #:	11
Tare (g):	264.7
Tare + Wet (g):	574.8
Tare + Dry (g):	514.4
Moisture (%):	24.2

#200 Wet Sieve

Sample ID:	S23-068
Exploration & Depth:	B4 20ft
Tare #:	11
Tare (g):	264.7
Tare + Prewash (g):	514.4
Tare + Washed (g):	465.9
Passing #200 (%):	19.4

Moisture Content

Sample ID:	S23-069
Exploration & Depth:	TP8 12ft
Tare #:	10
Tare (g):	265.6
Tare + Wet (g):	701.8
Tare + Dry (g):	638.5
Moisture (%):	17.0

#200 Wet Sieve

Sample ID:	S2-069
Exploration & Depth:	TP8 12ft
Tare #:	10
Tare (g):	265.6
Tare + Prewash (g):	638.5
Tare + Washed (g):	516.4
Passing #200 (%):	32.7

Moisture Content

Sample ID:	S23-070
Exploration & Depth:	TP11 12ft
Tare #:	9
Tare (g):	266.1
Tare + Wet (g):	718.4
Tare + Dry (g):	631.3
Moisture (%):	23.8

#200 Wet Sieve

Sample ID:	S23-070
Exploration & Depth:	TP11 12ft
Tare #:	9
Tare (g):	266.1
Tare + Prewash (g):	631.3
Tare + Washed (g):	453.6
Passing #200 (%):	48.7

Project Name: Walnut
Date Sampled: 4.2023
Sampled By: ABC

Project #: 23-6251
Date Tested: 4.10.2023
Tested By: TMM

Moisture Content	
Sample ID:	S23-071
Exploration & Depth:	B3 30ft
Tare #:	52
Tare (g):	158.5
Tare + Wet (g):	401.5
Tare + Dry (g):	360.0
Moisture (%):	20.6

Moisture Content	
Sample ID:	S23-072
Exploration & Depth:	B3 40ft
Tare #:	55
Tare (g):	155.7
Tare + Wet (g):	436.6
Tare + Dry (g):	367.9
Moisture (%):	32.4

Moisture Content	
Sample ID:	S23-073
Exploration & Depth:	B4 30ft
Tare #:	15
Tare (g):	272.4
Tare + Wet (g):	602.6
Tare + Dry (g):	545.6
Moisture (%):	20.9

Moisture Content	
Sample ID:	S23-074
Exploration & Depth:	B4 40ft
Tare #:	13
Tare (g):	264.4
Tare + Wet (g):	543.5
Tare + Dry (g):	480.7
Moisture (%):	29.0



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PAVEMENT DESIGN CALCULATIONS

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DARWin(tm) - Pavement Design

A Proprietary AASHTOWARE(tm)
Computer Software Product

Flexible Structural Design Module

Project Description
23-6251 - Walnut Street Extension Canby

Flexible Structural Design Module Data
18-kip ESALs Over Initial Performance Period: 1,830,190
Initial Serviceability: 4.2
Terminal Serviceability: 2.5
Reliability Level (%): 90
Overall Standard Deviation: .5
Roadbed Soil Resilient Modulus (PSI): 6,000
Stage Construction: 1

Calculated Structural Number: 4.25

Specified Layer Design

Layer: 1
Material Description: Asphaltic Concrete
Structural Coefficient (Ai): .42
Drainage Coefficient (Mi): 1
Layer Thickness (Di) (in): 5.00
Calculated Layer SN: 2.10

Layer: 2
Material Description: 3/4-0 Crushed Aggregate Level
Structural Coefficient (Ai): .1
Drainage Coefficient (Mi): 1
Layer Thickness (Di) (in): 2.00
Calculated Layer SN: .20

Layer: 3
Material Description: 1.5-0 Crushed Aggregate Base
Structural Coefficient (Ai): .1
Drainage Coefficient (Mi): 1
Layer Thickness (Di) (in): 20.00
Calculated Layer SN: 2.00

Total Thickness (in): 27.00
Total Calculated SN: 4.30

Simple ESAL Calculation

Initial Performance Period (years): 20
Initial Two-Way Daily Traffic (ADT): 7,400
% Heavy Trucks (of ADT) FHWA Class 5 or Greater: 2.8
Number of Lanes In Design Direction: 1
Percent of All Trucks In Design Lane (%): 100
Percent Trucks In Design Direction (%): 50
Average Initial Truck Factor (ESALs/truck): 1.8
Annual Truck Factor Growth Rate (%): 0
Annual Truck Volume Growth Rate (%): 3
Growth: Compound

Total Calculated Cumulative Esals: 1,830,190

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DARWin(tm) - Pavement Design

A Proprietary AASHTOWARE(tm)
Computer Software Product

Flexible Structural Design Module

Project Description
23-6251 - Walnut Street Extension Canby

Flexible Structural Design Module Data

18-kip ESALs Over Initial Performance Period: 1,830,190
Initial Serviceability: 4.2
Terminal Serviceability: 2.5
Reliability Level (%): 90
Overall Standard Deviation: .5
Roadbed Soil Resilient Modulus (PSI): 6,000
Stage Construction: 1

Calculated Structural Number: 4.25

Specified Layer Design

Layer: 1
Material Description: Asphaltic Concrete
Structural Coefficient (Ai): .42
Drainage Coefficient (Mi): 1
Layer Thickness (Di) (in): 6.00
Calculated Layer SN: 2.52

Layer: 2
Material Description: 3/4-0 Crushed Aggregate Level
Structural Coefficient (Ai): .1
Drainage Coefficient (Mi): 1
Layer Thickness (Di) (in): 2.00
Calculated Layer SN: .20

Layer: 3
Material Description: 1.5-0 Crushed Aggregate Base
Structural Coefficient (Ai): .1
Drainage Coefficient (Mi): 1
Layer Thickness (Di) (in): 16.00
Calculated Layer SN: 1.60

Total Thickness (in): 24.00
Total Calculated SN: 4.32

Simple ESAL Calculation

Initial Performance Period (years): 20
Initial Two-Way Daily Traffic (ADT): 7,400
% Heavy Trucks (of ADT) FHWA Class 5 or Greater: 2.8
Number of Lanes In Design Direction: 1
Percent of All Trucks In Design Lane (%): 100
Percent Trucks In Design Direction (%): 50
Average Initial Truck Factor (ESALs/truck): 1.8
Annual Truck Factor Growth Rate (%): 0
Annual Truck Volume Growth Rate (%): 3
Growth: Compound

Total Calculated Cumulative Esals: 1,830,190



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SITE RESEARCH

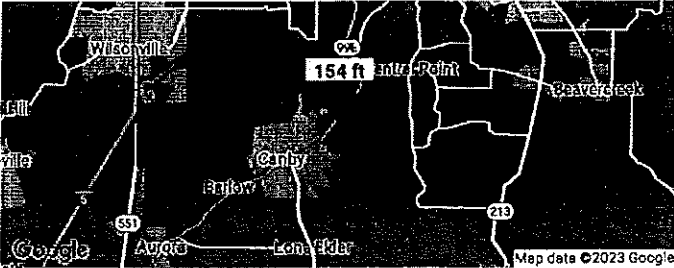
⚠ This is a beta release of the new ATC Hazards by Location website. Please [contact us](#) with feedback.

🔊 The ATC Hazards by Location website will not be updated to support ASCE 7-22. [Find out why.](#)

ATC Hazards by Location

Search Information

Address:	45.27277602365554, -122.66673027445599
Coordinates:	45.271658, -122.6664065
Elevation:	154 ft
Timestamp:	2023-04-13T21:10:13.795Z
Hazard Type:	Seismic
Reference Document:	ASCE7-16
Risk Category:	II
Site Class:	D



Basic Parameters

Name	Value	Description
S_S	0.79	MCE_R ground motion (period=0.2s)
S_1	0.365	MCE_R ground motion (period=1.0s)
S_{MS}	0.935	Site-modified spectral acceleration value
S_{M1}	* null	Site-modified spectral acceleration value
S_{DS}	0.623	Numeric seismic design value at 0.2s SA
S_{D1}	* null	Numeric seismic design value at 1.0s SA

* See Section 11.4.8

▼Additional Information

Name	Value	Description
SDC	* null	Seismic design category
F_a	1.184	Site amplification factor at 0.2s
F_v	* null	Site amplification factor at 1.0s
CR_S	0.886	Coefficient of risk (0.2s)
CR_1	0.861	Coefficient of risk (1.0s)
PGA	0.358	MCE_G peak ground acceleration
F_{PGA}	1.242	Site amplification factor at PGA
PGA_M	0.445	Site modified peak ground acceleration
T_L	16	Long-period transition period (s)
S_{sRT}	0.79	Probabilistic risk-targeted ground motion (0.2s)
S_{sUH}	0.891	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
S_{sD}	1.5	Factored deterministic acceleration value (0.2s)
S_{1RT}	0.365	Probabilistic risk-targeted ground motion (1.0s)
S_{1UH}	0.424	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
S_{1D}	0.6	Factored deterministic acceleration value (1.0s)
PGA_d	0.5	Factored deterministic acceleration value (PGA)

* See Section 11.4.8

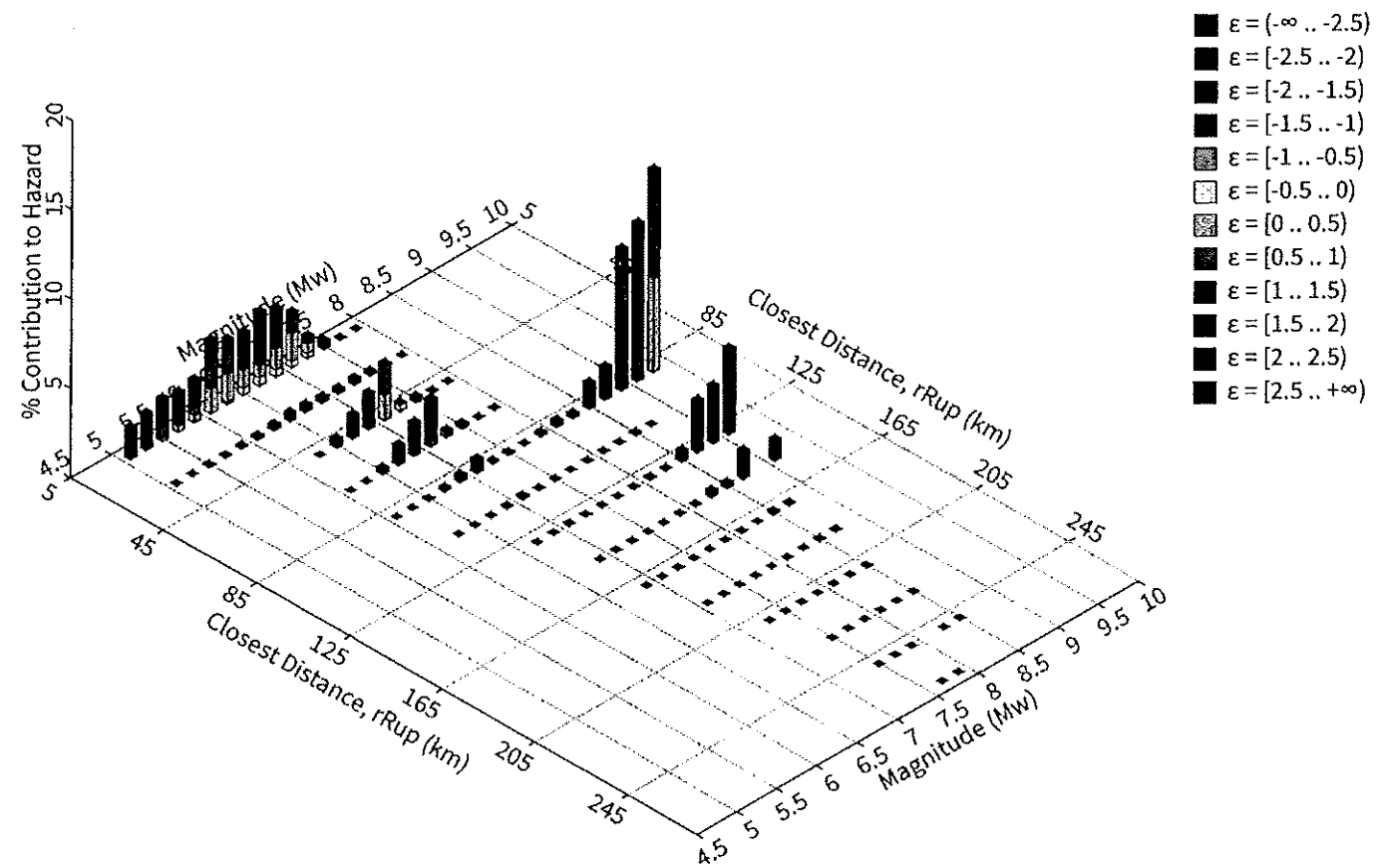
The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

Please note that the ATC Hazards by Location website will not be updated to support ASCE 7-22. [Find out why.](#)

Disclaimer

Hazard loads are provided by the U.S. Geological Survey [Seismic Design Web Services](#).

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Summary statistics for, Deaggregation: Total

Deaggregation targets	Recovered targets
Return period: 2475 yrs Exceedance rate: 0.0004040404 yr ⁻¹ PGA ground motion: 0.38376614 g	Return period: 2491.4169 yrs Exceedance rate: 0.00040137803 yr ⁻¹
Totals	Mean (over all sources)
Binned: 100 % Residual: 0 % Trace: 0.44 %	m: 7.68 r: 62.49 km ε₀: 1.01 σ
Mode (largest m-r bin)	Mode (largest m-r-ε ₀ bin)
m: 9.34 r: 83.31 km ε₀: 0.62 σ Contribution: 11.3 %	m: 9.01 r: 83.27 km ε₀: 0.7 σ Contribution: 7.98 %
Discretization	Epsilon keys
r: min = 0.0, max = 1000.0, Δ = 20.0 km m: min = 4.4, max = 9.4, Δ = 0.2 ε: min = -3.0, max = 3.0, Δ = 0.5 σ	ε0: [-∞ .. -2.5) ε1: [-2.5 .. -2.0) ε2: [-2.0 .. -1.5) ε3: [-1.5 .. -1.0) ε4: [-1.0 .. -0.5) ε5: [-0.5 .. 0.0) ε6: [0.0 .. 0.5) ε7: [0.5 .. 1.0) ε8: [1.0 .. 1.5) ε9: [1.5 .. 2.0) ε10: [2.0 .. 2.5) ε11: [2.5 .. +∞]

Deaggregation Contributors

Source Set	Source	Type	r	m	ϵ_0	lon	lat	az	%
sub0_ch_bot.in		Interface							26.72
	Cascadia Megathrust - whole CSZ Characteristic		83.31	9.11	0.74	123.599°W	45.501°N	289.58	26.72
sub0_ch_mid.in		Interface							10.22
	Cascadia Megathrust - whole CSZ Characteristic		134.16	8.93	1.49	124.330°W	45.489°N	281.10	10.22
coastalOR_deep.in		Slab							10.18
WUSmap_2014_fixSm.ch.in (opt)		Grid							4.79
	PointSourceFinite: -122.667, 45.304		6.12	5.86	0.55	122.667°W	45.304°N	0.00	1.20
noPuget_2014_fixSm.ch.in (opt)		Grid							4.79
	PointSourceFinite: -122.667, 45.304		6.12	5.86	0.55	122.667°W	45.304°N	0.00	1.20
WUSmap_2014_fixSm.gr.in (opt)		Grid							4.54
	PointSourceFinite: -122.667, 45.304		6.12	5.86	0.55	122.667°W	45.304°N	0.00	1.20
noPuget_2014_fixSm.gr.in (opt)		Grid							4.54
	PointSourceFinite: -122.667, 45.304		6.12	5.86	0.55	122.667°W	45.304°N	0.00	1.20
Geologic Model Partial Rupture		Fault							3.44
	Portland Hills		15.18	6.79	0.86	122.566°W	45.386°N	32.05	2.36
Geologic Model Full Rupture		Fault							3.13
	Portland Hills		13.00	7.01	0.45	122.566°W	45.386°N	32.05	2.29
coastalOR_deep.in		Slab							2.85
sub0_ch_top.in		Interface							2.35
	Cascadia Megathrust - whole CSZ Characteristic		148.81	8.83	1.74	124.549°W	45.485°N	279.77	2.35
Geologic Model Small Mag		Fault							1.90
	Bolton		9.65	6.17	0.49	122.616°W	45.365°N	21.09	1.83
sub2_ch_bot.in		Interface							1.82
	Cascadia Megathrust - Goldfinger Case C Characteristic		91.73	8.74	1.07	123.702°W	45.000°N	249.89	1.82
WUSmap_2014_fixSm_M8.in (opt)		Grid							1.33
noPuget_2014_fixSm_M8.in (opt)		Grid							1.33
sub1_ch_bot.in		Interface							1.17
	Cascadia Megathrust - Goldfinger Case B Characteristic		82.71	8.86	0.87	123.599°W	45.501°N	289.58	1.17
coastalOR_deep.in		Slab							1.13

Source Set ↴	Source	Type	r	m	ϵ_0	lon	lat	az	%
	noPuget_2014_adSm.ch.in (opt)	Grid							1.01
	WUSmap_2014_adSm.ch.in (opt)	Grid							1.01

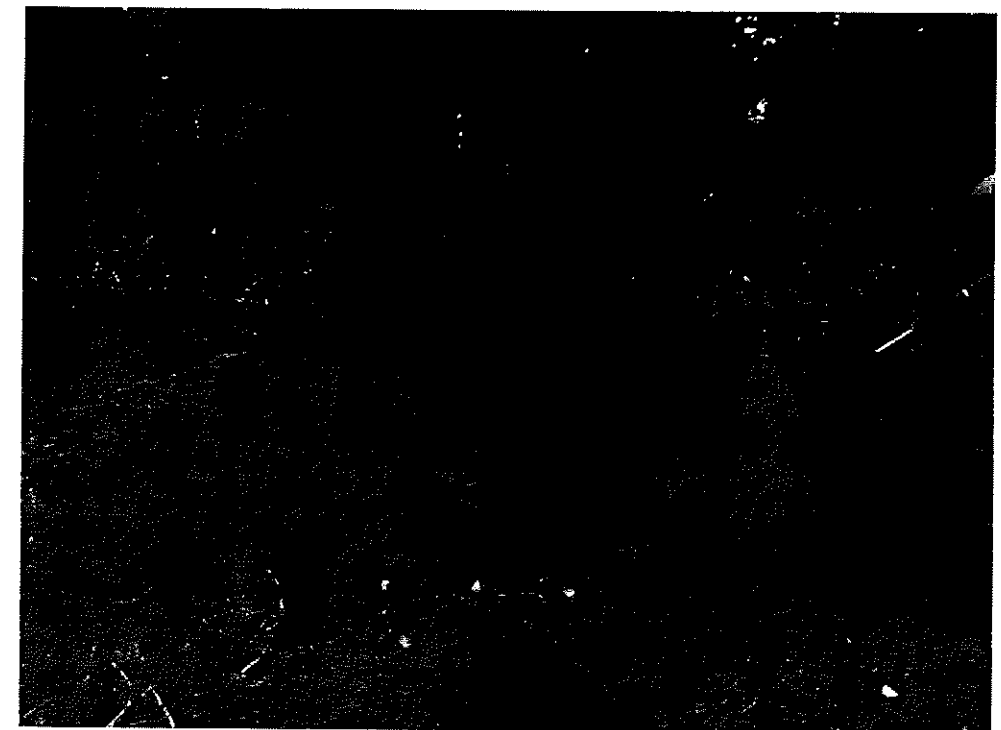


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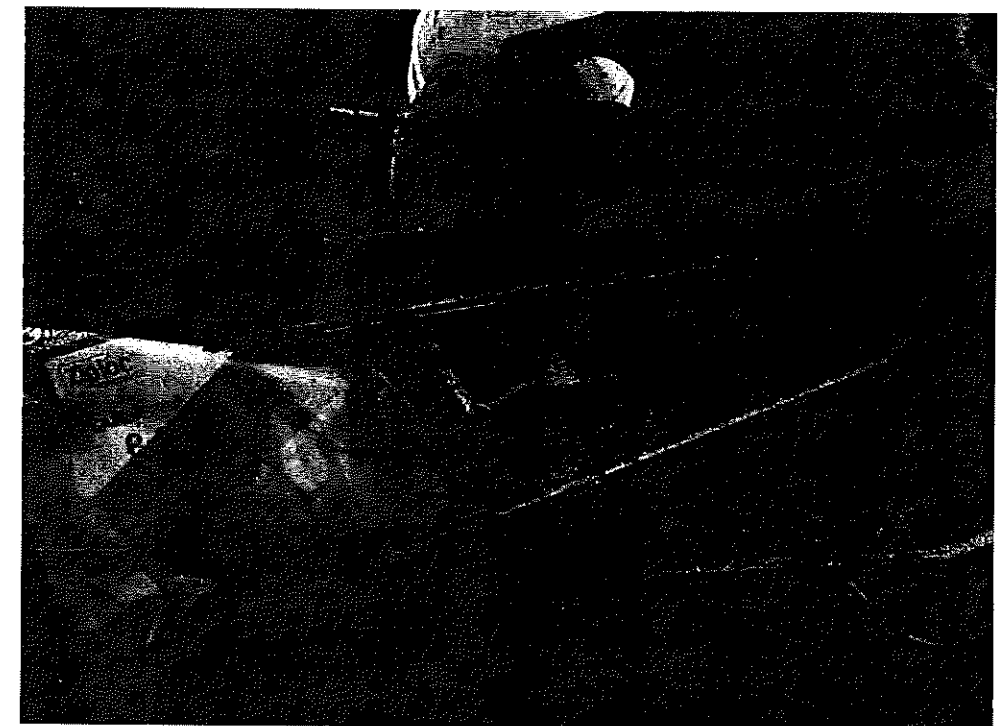
PHOTOGRAPHIC LOG



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Test Pit Spoils, TP-1



SPT Sample, B-3 40

SECTION 02200 EARTHWORK

PART 1 – GENERAL

1.01 DESCRIPTION

This section includes all labor, materials, equipment and methods to be used to perform all excavation, embankment, trenching, shoring, backfilling and compaction required in construction as shown on the Drawings in conformance with ODOT/APWA Standard Specifications for Construction.

1.02 GEOTECH REPORT

A geotech report was prepared for the Walnut Street extension on the south side of Highway 99E, which is bound at the end of division 02010 for informational purposes only.

PART 2 - PRODUCTS

2.01 BEDDING AND PIPE ZONE MATERIAL

The pipe bedding and pipe zone material shall be crushed rock with a maximum size of 1-1/2", uniformly graded from coarse to fine. The materials shall predominate in the fine sizes and shall present no isolated points which would cause fracture or damage to the pipe. All materials shall be in conformance with ODOT/APWA Standard Specifications for Construction and shall be subject to the ENGINEER'S approval.

2.02 NATIVE BACKFILL

Native backfill shall be native material which is free of organic materials, non-plastic, reasonably evenly graded and capable of being compacted with 100% of the material passing a 1" screen.

2.03 SELECT BACKFILL

All select backfill shall be crushed rock with a maximum size of 1-1/2", uniformly graded from coarse to fine, complying with the requirements of the ODOT/APWA Standard Specifications for Construction. All materials shall be subject to the ENGINEER'S approval.

2.04 All materials shall be subject to the ENGINEER'S approval.

PART 3 - EXECUTION

3.01 GENERAL

- A. The CONTRACTOR shall perform all excavation of every description and of whatever materials encountered to the depth indicated on the Drawings or as specified below.
- B. The CONTRACTOR shall make proper allowance for the pipe thickness, pipe bedding and, if required, foundation stabilization.

3.02 PREPARATION

- A. As specified in Section 02100, Site Preparation, clearing and grubbing shall be completed, and existing pavement shall be removed prior to excavating soils as applicable.
- B. Erosion Control
 - 1. The CONTRACTOR is responsible for developing and maintaining an erosion control plan to prevent the transport of soil off-site via wind or rain for the duration of the project. The erosion control measures shall remain in place until all vegetation is established.
 - 2. Best Management Practices shall be utilized to control runoff at the site and to protect existing and proposed storm drain facilities. These methods include but are not limited to: hay bales, bio bags, silt fences, berms, stockpile covers, gravel construction entrances, etc. Erosion control measures shall be in conformance with local, state, and federal regulations.
 - 1. Temporary erosion control measures shall be provided until the placement of permanent features and/or the establishment of grass. The temporary erosion control measures shall include ground cover or other acceptable means of all disturbed areas caused by the CONTRACTOR'S activities. Temporary erosion control measures shall be in conformance with local, state, and federal regulations.

3.03 COMMON EXCAVATION

- A. Excavations shall be classified as either common or rock excavation.
- B. Common excavation is defined as the removal of all material which is not classified as rock excavation.
- C. The limits of excavation shall be kept to a minimum.
- D. The CONTRACTOR shall take necessary precautions to prevent damage to adjacent structures or utilities.

- E. Sheet piling and shoring may be necessary or may be required by regulatory authorities in accordance with safety laws.
- F. CONTRACTOR shall also make provisions to prevent soil or water intrusion into the pipelines prior to completion of installation.

3.04 ROCK EXCAVATION

- A. Rock excavation in open trenches is defined as a method of excavation, and includes removal of boulders or solid ledge rock that, in the opinion of the ENGINEER, cannot be removed by excavating equipment available to the CONTRACTOR in common use for this purpose, and requires for its removal drilling and blasting, or breaking up with a power operated hand tool. No soft or disintegrated rock, or hard pan or cemented gravel that can be removed with a hand pick or power operated excavator or shovel; no loose, shaken, or previously blasted rock or broken stone in rock fill or elsewhere; and no rock exterior to the minimum limits of measurement allowed which may fall into the excavation will be defined as rock excavation.
- B. Rock Excavation inside the casing pipes shall include the manual removal of any rock that is impeding the progress of the work and is removed manually by the CONTRACTOR entering the casing pipe.

3.05 PIPE TRENCHES

- A. It is the intent of these specifications that the excavation and/or trench width at the surface of the ground be kept to a minimum necessary to install the pipe in a safe manner. In all cases, excavations or trenches must be of sufficient width to allow for shoring, if required, and permit proper joining of the pipe and backfilling of material along the sides of the pipe. The CONTRACTOR shall exercise special care when construction is adjacent to existing structures to avoid damage.
- B. The CONTRACTOR shall excavate the trench to the lines and grades shown or as established by the ENGINEER, with proper allowance for the pipe thickness, pipe bedding and foundation stabilization as required. The subgrade upon which the bedding is to be placed shall be firm, undisturbed and true to grade. If the trench is over-excavated, the CONTRACTOR shall restore it to grade with pipe bedding material and compact material as specified for bedding, all at no expense to the OWNER.

3.06 DEWATERING

- A. Removal and disposal of storm water from the excavation shall be the responsibility of the CONTRACTOR as approved by the ENGINEER. Such approval shall not imply any liability of the ENGINEER or OWNER for damage or extra costs incurred by the CONTRACTOR in handling or disposing of storm or runoff surface water.

B. Groundwater

1. Contractor shall perform dewatering as needed to complete the construction. Costs for dewatering activities shall be considered incidental to the contract.
2. Water generated from dewatering activities shall be properly disposed of in accordance with the requirements of the Contract Documents, herein, and local, state, and federal regulations.

3.07 HANDLING EXCAVATED MATERIAL

Excavated material not required for backfilling or embankment shall be promptly removed and disposed of by the CONTRACTOR in accordance with governing regulations.

3.08 PIPE BEDDING AND ZONE MATERIAL

- A. Pipe bedding consists of leveling the bottom of the trench or the top of the foundation material and placing bedding material to the horizontal centerline of the pipe. Bedding material shall be as specified hereinbefore and as shown on the plan and placed in at least two lifts. Place the first lift to provide the minimum depth of bedding material as shown in the Contract Drawings before the pipe is installed. The CONTRACTOR shall spread the bedding smoothly to proper grade so that the pipe is uniformly supported along the barrel and excavate bell holes at each joint to permit proper assembly and inspection of the entire joint. Bedding under the pipe shall provide a firm, unyielding support along the entire pipe length. Particular attention must be given to the area from the flow line to the horizontal centerline of the pipe to ensure that firm support is obtained to prevent any lateral movement of the pipe during the final backfilling of the pipe zone. Pipe bedding shall be placed the full width of the trench and shall be a minimum of 6 inches in compacted depth below the pipe.
- B. The CONTRACTOR shall place the specified pipe zone material carefully around the pipe. The CONTRACTOR shall prevent the pipe from movement either horizontally or vertically during placement and compaction of pipe zone material. The pipe zone material shall be a minimum of 12 inches in compacted depth above the pipe.

3.9 BACKFILLING

- A. The CONTRACTOR shall take reasonable precautions to prevent any native backfill material from becoming saturated beyond the critical moisture limits.
- B. Take all necessary precautions to protect the structure or pipe from any damage, movement or shifting. Take special care when compacting materials adjacent to existing structures to avoid damage.
- C. Trench backfill shall be native or select material as called out on the plans.

D. All excavations and trenches shall be backfilled in maximum 12" lifts to the densities described below.

1. Native backfill material shall be compacted to a minimum 90% of maximum density as determined by AASHTO T-180.
2. Select backfill material shall be compacted to a minimum 95% of maximum density as determined by AASHTO T-180.

3.10 TESTING

A. The OWNER will employ an independent testing company to determine moisture content and in-place density of soils by any one or combination of the following test methods:

Moisture-density curve	AASHTO T-180 (ASTM D-1557)
------------------------	----------------------------

In-place density by nuclear methods	AASHTO T-238 (ASTM D-2922)
--	----------------------------

Moisture content by nuclear methods	AASHTO T-239 (ASTM D-3017)
--	----------------------------

B. The frequency of testing will be at the discretion of the ENGINEER to ensure compliance with the contract requirements.

C. The CONTRACTOR shall cooperate with testing efforts by leveling small test areas designated by the ENGINEER and shall backfill test areas, all at the CONTRACTOR's sole expense.

D. Any work showing noncompliance with test standards shall be repaired or replaced at CONTRACTOR'S expense and retested until in compliance with specified standards. The OWNER will pay for all passing tests. The CONTRACTOR shall be responsible for the cost of all failing tests.

****END OF SECTION****

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SECTION 02700 SITE PIPING

PART 1 - GENERAL

1.01 DESCRIPTION

This section includes purchase, storage, installation, and testing of all underground piping.

1.02 QUALITY ASSURANCE

Work within this section shall conform to the latest edition of the ODOT Oregon Standard Specifications for Construction.

PART 2 - PRODUCTS

2.01 PIPE MATERIALS

- A. Polyvinyl Chloride (PVC) Pipe for gravity sanitary sewers 4"-15" shall be ASTM C3034, SDR 35. Gaskets shall conform to the requirements of ASTM F-477 and ASTM 3212.
- B. Casing Pipe for the Highway 99E boring shall be 20" OD steel pipe with 0.375" wall thickness and minimum yield strength of 35,000 psi. Pipe shall be supported and the annular space filled with sand slurry per ODOT Standard Drawing RD 308 and ODOT OSSC Section 00406.13.
- C. Casing Pipe for the Union Pacific Railroad boring shall be 20" OD steel pipe with 0.375" wall thickness and minimum yield strength of 35,000 psi. Casing pipe shall have a fusion bonded epoxy coating and cathodic protection system as specified herein.
- D. Fusion bonded epoxy coating and cathodic protection system for the railroad bore pipe shall comply with the requirements in the "Casing – Cathodic Protection Appendix" bound at the end of this division. Casing joints shall have a fast cure epoxy coating minimum 50 mil DFT as specified. Magnesium Anodes shall include a 48 pound anode at each end of the casing pipe as specified.

2.02 PIPE FITTINGS

- A. All PVC gravity sewer piping shall have fittings of material comparable to the mainlines.
- B. Flexible couplings for adjoining different pipe material or size of the sanitary sewer system shall be Fernco, or equal.

2.03 PRECAST CONCRETE STRUCTURES

- A. Unless otherwise noted on the Drawings precast structures shall be designed for an H-20-wheel load.
- B. Manholes shall conform to the requirements of ASTM C497/C497M. Manhole risers, cones and flat tops shall be precast. Minimum wall thickness shall be as shown in the drawings. Cones shall have the same wall thickness and reinforcement as 48-inch riser sections. Precast manhole bases and precast flat tops shall be used as required.
- C. Manhole frames and covers shall be cast iron conforming to the requirements of ASTM 105, Class 30B. Frames shall be Olympic Foundry, Inc. Model MH26 Suburban style (6-inch high) with two-hole lids for sanitary sewers and 16-hole lids for storm drains, or equal, unless noted to be Standard style (10-inch high) on the Drawings.
- D. Mortar shall conform to the requirements of ASTM C387 or be proportioned one part Portland Cement to two parts clean, well-graded sand which will pass a 1/8" screen.
- E. Non-shrink grout shall be Sika 212, Euco-S, Five-Star, or approved equal, non-metallic cementitious commercial grout exhibiting zero shrinkage per ASTM C827 and CRD-C-621. Non-shrink grouts shall be placed or packed only with the use of an approved commercial concrete bonding agent applied to all cured concrete surfaces being grouted.
- F. Manholes in off-street locations shall have tamperproof covers.
- G. Cathodic protection system shall be installed and tested in accordance with the requirements contained in the attached "Casing – Cathodic Protection Appendix"

PART 3 - EXECUTION

3.01 INSTALLATION

- A. All material shall be installed in accordance with these specifications unless otherwise noted.
- B. All material shall be handled with care to avoid damage. Whether moved by hand, skid, or hoists, material shall not be dropped, bumped, or allowed to impact. The CONTRACTOR shall provide safe storage for material until it has been incorporated into the completed project. The interior of all pipes, couplings, rings, fittings, and other accessories shall be kept free from dirt and other foreign matter at all times.

- C. All pipelines shall be laid to and maintained at lines and grades required by the plans.
- D. Pipes and fittings shall be installed in accordance with the manufacturer's recommendations unless otherwise specified.
- E. All pipe connections to the manholes shall be water-tight using non-shrink grout with water stop gasket or precast manhole gasket.
- F. All manholes in paved areas shall be set flush with the road surface. Manholes outside of paved areas shall be set 6" above grade with tamperproof lids.
- G. All mortar joints between precast sections shall be thoroughly wetted, then filled with mortar.
- H. Sewer services shall be made to the new pipe by various methods to ensure a leak free connection. If existing services do not have a cleanout, a 6-inch cleanout shall be installed with appropriate transition fittings (coupling or reducer, etc.) to connect to the existing service lateral on the customer side.

3.02 TESTING

A. Low Pressure Air Tests

1. All gravity sanitary sewer piping shall be cleaned and tested by application of low-pressure air in accordance with 2024 ODOT *Oregon Standard Specifications for Construction*.

2. Air shall be slowly supplied to the plugged pipe installation until internal air pressure reaches 4.0 pounds per square inch greater than the average back pressure of groundwater that may submerge the pipe. At least two minutes shall be allowed for temperature stabilization before proceeding. Acceptance criteria shall be as published in the 2024 ODOT *Oregon Standard Specifications for Construction*.

3. The time is based on an average of 400 lineal foot test segments. This specification shall be considered satisfied if the time required for pressure to decrease from 3.5 to 2.5 pounds per square inch (greater than the average back pressure of any groundwater that may submerge the pipe) is not less than that listed below:

Allowable Air Test Limits

6"	-	2 minutes, 38 seconds
8"	-	3 minutes, 47seconds
10"	-	4 minutes, 43 seconds
12"	-	5 minutes, 40 seconds
15"	-	7 minutes, 05 seconds
18"	-	8 minutes, 30 seconds

4. The CONTRACTOR shall make necessary repairs and retest any section not complying with the above requirements until satisfactory results are obtained. The CONTRACTOR shall pay for all testing costs.

B. TV Inspection

All gravity sanitary sewers shall be TV inspected by the CONTRACTOR after the CONTRACTOR has cleaned and tested all pipelines. To be acceptable, the pipelines shall have no visible defects, horizontal misalignment greater than ½", nor vertical misalignment resulting in bellies in the line. The CONTRACTOR shall pay for all testing costs.

C. Deflection Test for PVC and HDPE Pipe

Gravity sewers and storm drains shall be deflection-tested subsequent to completion of the trench backfill and compaction, and prior to placing the top lift of the paved surfacing, in accordance with the current 2024 ODOT *Oregon Standard Specifications for Construction*. The test shall be conducted by pulling an approved solid pointed mandrel through the completed pipeline. The diameter of the mandrel shall be 95 percent of the pipe diameter unless otherwise specified by the ENGINEER.

Testing shall be conducted from manhole to manhole and shall be done after the line has been completely flushed out with water. The CONTRACTOR will be required, at the CONTRACTOR'S expense, to locate and repair any section failing to pass the test and to retest section. The CONTRACTOR shall pay for all testing costs.

D. Manhole Vacuum/Hydrostatic Testing

All manholes shall be vacuum tested or hydrostatic tested in accordance with the acceptance standards of the current 2024 ODOT *Oregon Standard Specifications for Construction*.

A vacuum of 10-inches of mercury shall be drawn, the valve on the vacuum line of the test head closed, and the vacuum pump shut off. With the valves closed, the manhole shall pass if the time for the vacuum reading to drop from 10-inches of mercury to 9-inches meets the following criteria: all 48" diameter manholes up to 8 feet in depth shall be tested for the duration of 20 seconds, for every additional 2 feet in depth the testing time shall be increased by 5 second increments.

The CONTRACTOR shall pay for all testing costs including all manholes failing to pass the test and to retest.

E. The railroad bore casing pipe shall be tested in accordance with the "Casing – Cathodic Protection Appendix" attached at the end of this section.

3.03 SPECIAL CONDITIONS

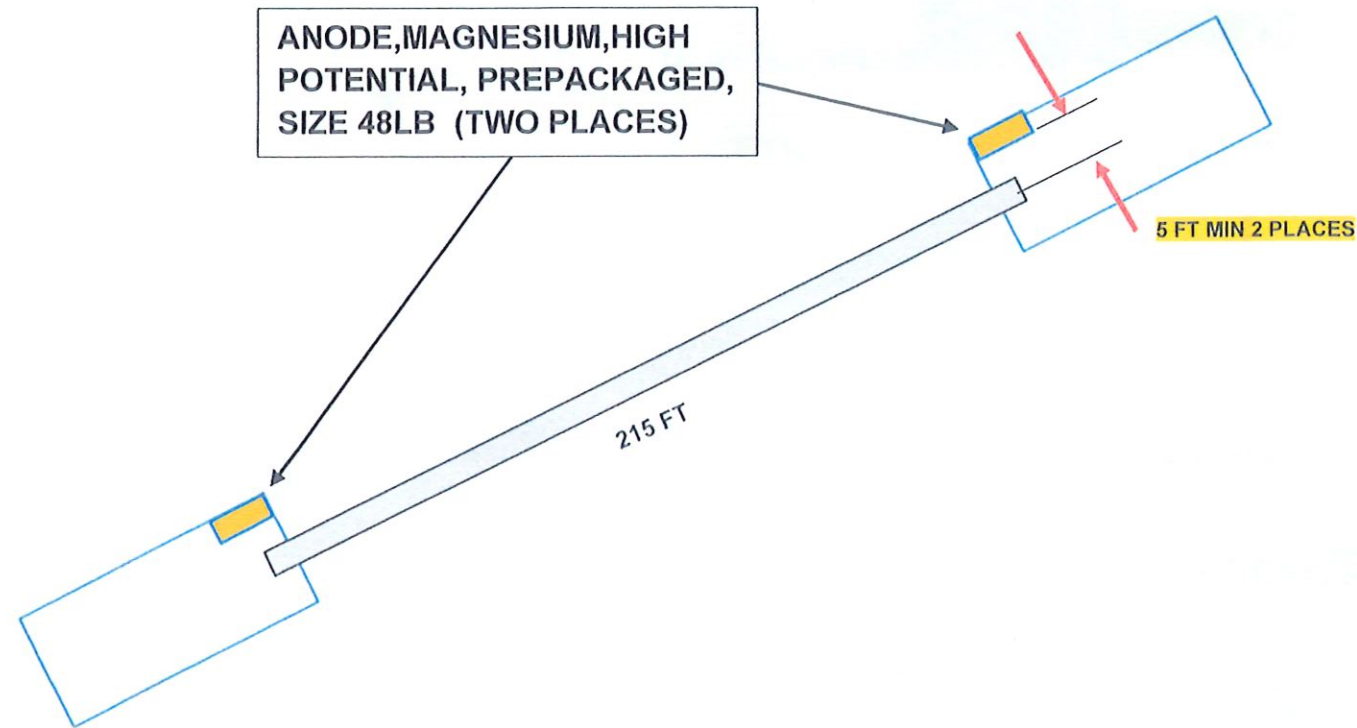
A. Piping Conflicts

CONTRACTOR shall pothole existing utilities as needed to confirm clearances for the new pipeline construction.

**** END OF SECTION ****

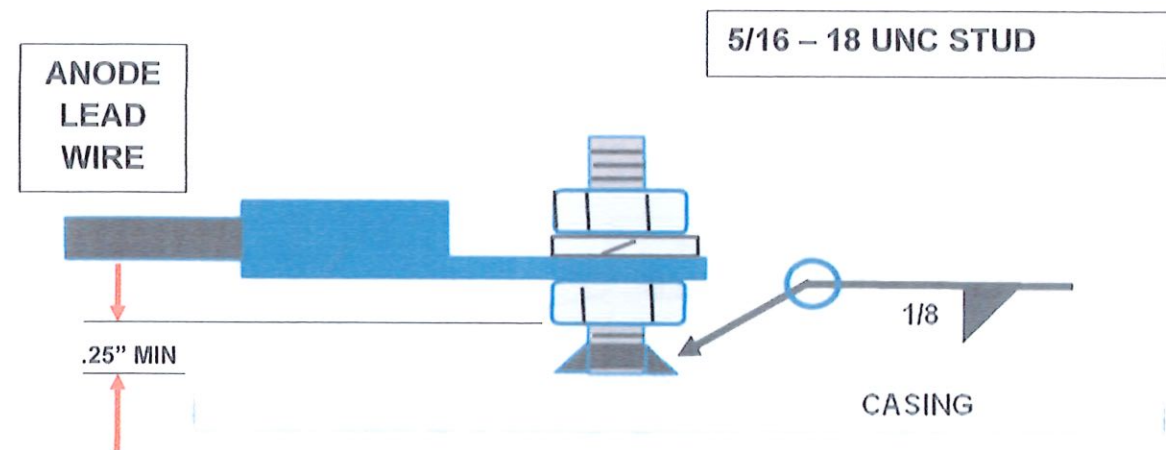
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CASING - CATHODIC PROTECTION APPENDIX



ANODE INSTALLATION PROCEDURE

- EXCAVATE 1 FT X 1 FT X 3.25 FT TRENCH FOR ANODE IN NATIVE SOIL
- REMOVE EXTERNAL PLASTIC WRAP AND LAY ANODE IN TRENCH
- POUR 10 GALLONS OF WATER IN TRENCH TO ACTIVATE ANODE
- EXTEND ANODE LEAD WIRE TO CASING LOCATION (LEAVE 15FT EXCESS WIRE MIN)
- BACKFILL ANODE WITH NATIVE ROCK FREE SOIL
- WELD 5/16" DIA X 2" LONG THREADED ROD TO CASING AT 12:00 POSITION (SEE TERMINAL STUD DETAIL)
- ATTACH "BLUE" (#6 AWG) COMPRESSION RING TERMINAL WITH 3/8" DIAMETER HOLE TO ANODE LEAD WIRE USING COMPRESSION TOOL.
- INSTALL 5/16" NUT ON STUD TO A POINT .25" ABOVE CASING SURFACE.
- PLACE RING TERMINAL ON STUD WITH 5/16" LOCK WASHER
- INSTALL SECOND 5/16" NUT ON STUD AND TIGHTEN
- USE GRINDER TO CUT OFF EXCESS STUD LENGTH
- CLEAN CASING PIPE SURFACE AT STUD AND INSTALL "HANDY CAP IP" WELD CAP



LCBX6-38-L

PANDUIT



Images are for reference only
See Product Specifications

[Share](#)

Mouser #: 644-LCBX6-38-L

Mfr. #: LCBX6-38-L

Mfr.: Panduit

Customer #:

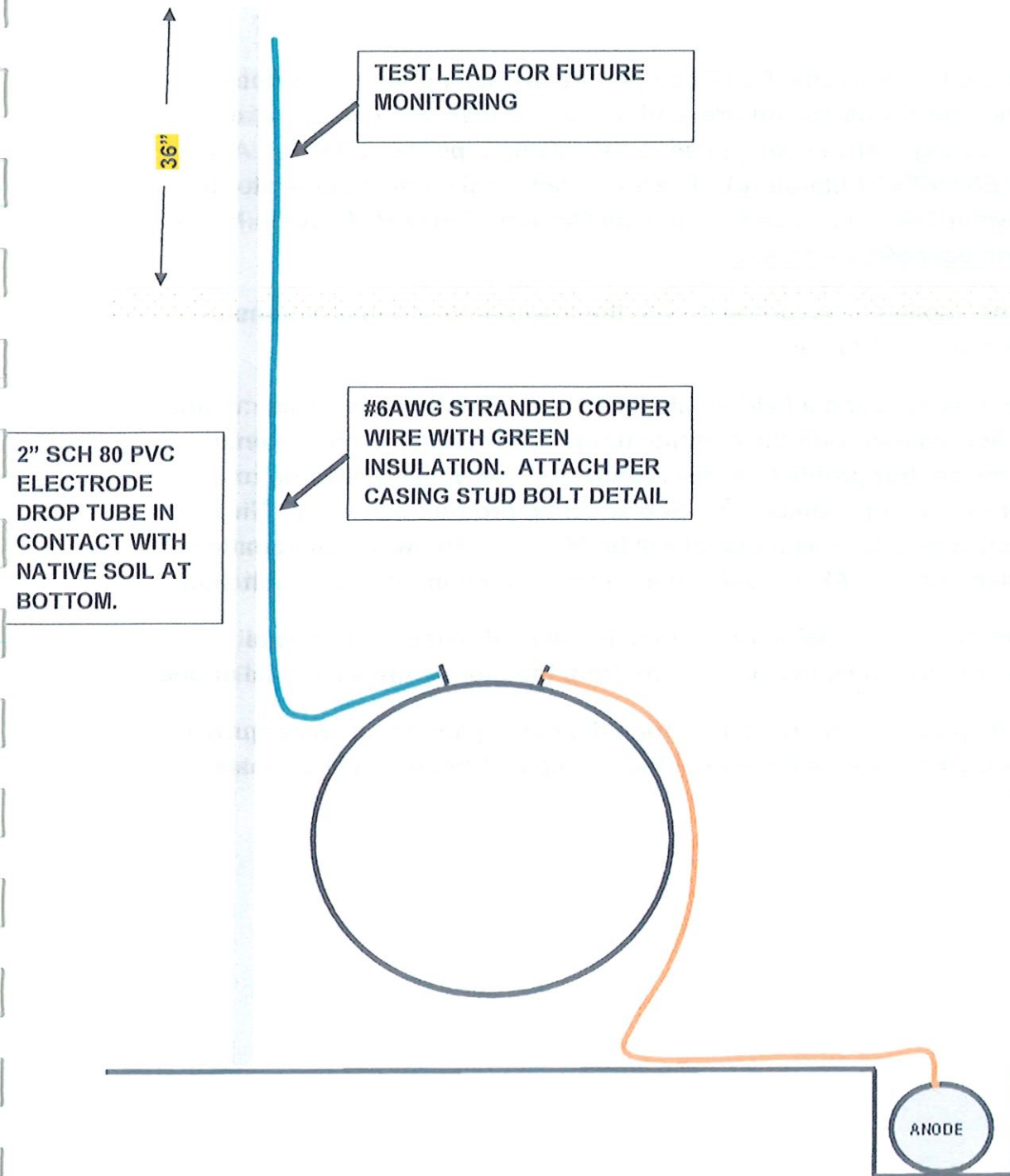
Description: Terminals Copp Comp Lug 1H #6 Awg

Datasheet: [LCBX6-38-L Datasheet \(PDF\)](#)

ECAD Model: [Request Free CAD Models](#)

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CASING EAST END TEST LEAD DETAIL



CASING COATING INFORMATION

In accordance with the Union Pacific Rail Road permit, the casing must be protected from corrosion. The primary corrosion prevention method involves the use of an abrasion resistant coating that will be applied to the casing pipe (see attached Akzo Nobel Resicoat R4-ES HKF47R literature). The approved local coating applicator for this material, is Powder Tech Inc. based in Tualatin Oregon. Contact Mr. Josh Payne 503-612-6800 or josh.payne@powdertech.net.

This material is to be applied in accordance with the manufacturers instructions to a nominal dry film thickness of 25 mils.

Weld joints shall be coated using a field applied, fast cure, 2 part epoxy. This material shall be applied in accordance with the manufacturers instructions. This material requires a 2.5 to 5 mil anchor profile (i.e. will require the use of sand blasting or a bristle blaster prior to coating application). See attached product literature. The minimum dry film thickness for this material will be 50 mils. The weld joint coating material shall overlap onto the Akzo Noble coating by a minimum of 2" on each side.

The secondary approach to corrosion prevention involves the use of sacrificial galvanic anodes to transfer the corrosive effects from the pipe to the sacrificial anodes.

Upon completing the pipeline installation through the casing and receiving approval from the City of Canby Engineer, each end of the casing end points shall be sealed using mortar grout.

Product Data Sheet



AkzoNobel

Tomorrow's Answers Today

Functional Powder Coatings

Resicoat® R4-ES

for Electrostatic Spray Application on Preheated Surfaces

Code: HKF47R

Product Description	Resicoat® R4-ES HKF47R is a spray applied Fusion Bonded Epoxy Coating designed for corrosion protection of earth-laid valves and fittings, hydrants, pumps and pipe drains. Resicoat® R4-ES HKF47R is suitable as a general purpose industrial coating on steel exposed to highly corrosive environments. It can be used on a variety of metal substrates. For detailed information please contact your AkzoNobel representative. Resicoat® R4-ES HKF47R meets the requirements of AWWA C-213, AWWA C-550 and NSF Std. 61. The coating is resistant against waste water and various chemicals.
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	Typical value	Method
Powder Properties		
Binder system	Epoxy resin	
Density	1.46 – 1.56 g/cm³	
Gel time at 200° C	110 – 130 sec.	
Storage stability	4 months from delivery date at ≤ 73° F (23° C)	
MSDS	PC 508	

Application Data		
Surface preparation	Near-White Blast acc. SSPC SP 10 with 1.5 – 2 mil profile in the metal	
Preheating temperature	428 – 464° F (220 – 240° C) object temp.	
Post cure conditions	428° F (220° C), 10 min. 464° F (240° C), 7 min.	
Particle size distribution	< 32 µm = 25 – 45 % < 160 µm = 99 – 100 %	

Coating Process	1. Pre-cleaning	The surface must be free of oil, grease, salt, paint and other impurities.
	2. Blast cleaning	Surface preparation varies by substrate. Generally iron surfaces are to be grit blasted. The graphite from the cast iron must be removed from the blasting material. Moulding sand, rust and sharp edges are to be removed.
	3. Pre-heating	This form of heating produces a uniform, defined temperature in the component. Any oxidation should be avoided.
	4. Coating application	The coating is applied manually or automatically, in the shortest possible time – ideally within the gel time of the powder.
	5. Curing time	Achieved by the heat contained in the object, if the heating capacity of the work piece is sufficient.

Product Data Sheet



Functional Powder Coatings

Resicoat® R4-ES

for Electrostatic Spray Application on Preheated Surfaces

Code: HKF47R

		Typical value	Method
Material Properties	Colour	green	
	Recommended film thickness	300 – 400 µm	
	Abrasion resistance	0.04 g loss	ASTM D 4060 CS17 1000 g weight / 5000 cycles
	Cathodic disbondment resistance		ASTM D 149 4 d, 3 V, 3 % NaCl, 160° F (71° C) 30 d, 5 V, 5 % NaCl, sand crock, 230° F (110° F)
		3 mm average 9 mm average	CSA Z245 20-06 28 d, 1.5 V, 3 % NaCl, 73° F (23° C) 28 d, 1.5 V, 3 % NaCl, 149° F (65° C)
	Cathodic disbondment resistance		DIN 67530
		5 mm average 6 mm average	
	Gloss at 60° angle	40 – 70 units -164° F (240° C) application temp.	
	Hot water resistance		CSA Z245 20-06 28 d, 167° F (75° C) 120 d, 160° F (71° C)
		rating 2 good adhesion, no blistering	
	Impact resistance	18 Joule	Gardener, 5/8 in. diameter tup, 0.125 in. panel
	Flexibility		300 – 400 µm film thickness 10 mm steel thickness, unpainted 10 mm steel thickness, unpainted 10 mm steel thickness, unpainted 6 mm steel thickness, unpainted 6 mm steel thickness, unpainted
		Bend 2.5°, 73° F (23° C) Bend 5.0°, 73° F (23° C) Bend 6.0°, 73° F (23° C) Bend 2.2°, -22° F (-30° C) Bend 3.0°, -22° F (-30° F)	
	Breakdown voltage	> 40 kV/mm	DIN 30671
	Adhesion	> 3046 psi (21 MPa) glue failure	
	Flow	smooth	

Date of issue: 2009, June 26th
 Authorized by: GK
 Revision No.: 2

Resicoat® R4-ES (HKF47R)

2009, June 26th

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Product Data Sheet



Resistance against chemical substances of Resicoat® R4 at room temperature

Acetic acid	10 %	2 years	no change
Ammonia	10 %	2 years	no change
Ammonia	36 %	1.5 years	no change
Benzol		1 month	no change
Bore oil		1 year	no change
Butanol		6 months	no change
Carbon tetra chloride		1 year	
Caustic soda solution	10 %	1 year	
Caustic soda solution	50 %	1 year	
Chlorine cleanser and disinfectant		1.5 years	no change
Citric acid		2 years	no change
Deicer Safeway KF HOT		1 year	no change
Deicer Safeway SF (solid)		1 year	no change
Deicer Safewing MP II 1951		1 year	no change
Dichromatic potassium	10 %	1 year	no change
Diesel		2 years	no change
Engine oil SAE 20		1 year	no change
Ethanol		1 year	no change
Ethyleneglycole		1 year	no change
Formaldehyde	37 %	6 months	no change
Formic acid	5 %	2 years	no change
Formic acid	10 %	1.5 years	no change
Glycerol		1 year	no change
Glysanin		1 year	no change
Hydrochloric acid	concentrated	1 week	no change
Hydrochloric acid	10 %	2 years	no change
Hydrochloric acid	25 %	1.5 years	no change
Hydrofluoric acid	1 %	1 day	no change
Hydrogen peroxide	3 %	1 year	no change
Lactic acid	10 %	1 week	no change

Product Data Sheet



Methanol		1 week	no change
Nitric acid	10 %	1.5 years	no change
Nitric acid	25 %	1 year	no change
Oxalic acid	5 %	6 months	no change
Palm oil	at 90° C	7 days	no change
Petrol		2 years	no change
Petroleum		1 year	no change
Phosphoric acid	10 %	2 years	no change
Phosphoric acid	50 %	2 years	no change
Potassium hydroxide	10 %	1 year	no change
Potassium hydroxide	25 %	1 year	no change
Potassium hydroxide	50 %	1 year	no change
Propanol		1 year	no change
Sea water		2 years	no change
Sodium acetate	10 %	1 year	no change
Sodium carbonate	20 %	1 year	no change
Sodium chloride	2 %	1 year	no change
Sodium chloride	20 %	1 year	no change
Sodium formate	10 %	1 year	no change
Suds	1 %	1 year	no change
Sulphuric acid	2 %	2 years	no change
Sulphuric acid	20 %	2 years	no change
Sulphuric acid	50 %	2 years	no change
Tartaric acid	5 %	1 year	no change
Toluol		1 year	no change
Turpentine oil		1 year	no change
Urea	10 %	1 year	no change
Urine		1 year	no change
Xylol		1 year	no change

Resicoat® R4-ES (HKF47R)

2009, June 26th

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Disclaimer: This Product Data Sheet is based on the present state of our knowledge and on current laws. The data referring to Powder Properties, Application Data and Physical Tests is based on lab based samples. Factors such as quality or condition of the substrate may have an effect on the use and application of the product. It remains the responsibility of the user to test thoroughly if the product is applicable for the intended use. The use of the product beyond our recommendation releases us from our responsibility, unless we have recommended the specific use in writing. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. We are not liable for any application technological advice. The Product Data Sheet shall be updated from time to time. Please ensure you have the latest version before using the product. All products and Product Data Sheets are subject to our standard terms and conditions of sale (GCS). You can receive the latest copy of GCS via internet or our post address. Brand names mentioned in this Product Data Sheet are trademarks of or are licensed to the AkzoNobel group.

Akzo Nobel Coatings Inc
20 Culvert Street
Nashville TN 37210, USA
T +1 800626 7891
F +1 615 564 4181
E resicoat@akzonobel.com
www.akzonobel.com/resicoat

WELD JOINT COATING MATERIAL

PRODUCT DATA SHEET

PROTAL 7200™

Fast Cure, High Build Pipeline Coating

Description

Protal 7200 is a VOC free, 100% solids, 2 part epoxy coating specially formulated to compliment FBE coated pipe. It is a high build liquid coating that is brush or spray applied in one coat in the field or shop. It cures very fast to allow quick handling and backfill times.

Uses

On-site protection of girth welds, tie-ins, welds for boring applications, repairs to FBE, push-rack applications, station piping, fittings and fabrication. Also used for main line pipe coating, sacrificial coating for directional drill (ARO) and road bore pipe, and rehabilitation of existing pipelines.

Features

- Fast touch dry and set times
- High temperature resistance up to 203°F (95°C)
- High build (up to 70 mils / 1778 microns in one coat)
- Excellent adhesion (compliments FBE coated pipe)
- High abrasion resistance for drilling applications
- Can be used as an abrasion resistant coating (ARO)
- Safe and environmentally friendly
- Does not shield cathodic protection
- Can be applied with brush, roller or spray
- Available in a variety of packaging options
- Meets AWWA C-210-92 Standard
- Outstanding self-leveling characteristics
- CSA Z245.30 compliant

Application

Brush: Prepare surfaces by grit blasting to a clean near-white finish, SSPC-SP 10 / NACE No. 2. Appropriate angular grit shall be used to achieve a 2.5 to 5 mil (63 to 127 microns) anchor profile. Initially stir the base and hardener. Add the hardener to base and mix at a slow speed until a constant color is achieved making sure all sides of container are scraped. Apply mixed material onto surface and brush, trowel or roll to required mil thickness. A wet-film thickness gauge shall be used to measure mil thickness. If surface temperature falls below 50°F (10°C), surface should be preheated to achieve faster cure. Preheat may be achieved with a propane torch or induction coil. Resin and hardener component shall be kept warm, at a minimum of 60°F (15°C), to mix more easily.

Spray: Prepare surfaces by grit blasting to a clean near-white finish, SSPC-SP 10 / NACE No. 2. Appropriate angular grit shall be used to achieve a 2.5 to 5 mil (63 to 127 microns) anchor profile. The equipment shall be a XP70 Plural Component Sprayer or similar designed to mix and atomize 100% solids epoxies. Please refer to the Protal 7200 Plural Spray Application Specification for equipment details. Part A should be heated to 140°F - 160°F (60°C - 71°C) and Part B heated to 100°F - 110°F (38°C - 43°C). Hose bundle shall be set at 140°F - 150°F (60°C - 65°C). A wet on wet spray technique should be used to achieve a minimum thickness of 20 mils (508 microns). The coating thickness should be measured using a wet-film thickness gauge. The equipment settings are only guidelines and may vary based on equipment.

For complete application instructions please refer to the Protal 7200 Application Specifications.



Protal 7200™

TECHNICAL DATA

PROPERTIES	VALUE
Solids Content	100%
Mixed Material - (Mixed) @ 77°F (25°C)	
Specific Gravity	1.63
Viscosity	170,000 cps
Color	Green
Mixing Ratio (A/B) by Volume	3 Parts Base: 1 Part Hardener
Cure Times	
Pot Life @ 77°F (25°C)	14 - 17 Minutes
Pot Life @ 97°F (36°C)	7 - 8 Minutes
Handling Time @ 77°F (25°C) Shore D 70 min.	2.5 - 3 Hours
Handling Time @ 117°F (47°C) Shore D 70 min.	1 Hour
Handling Time @ 157°F (69°C) Shore D 70 min.	20 Minutes
Recoat Window	
@ 57°F (14°C)	5 Hours
@ 77°F (25°C)	2 Hours
@ 97°F (36°C)	1 Hour
Theoretical Coverage	14 ft ² (1.3 m ²)/30 ml/150g
Thickness - Weld Joints / FBE Repairs	
Minimum/Maximum	20/70 mils (508/1778 microns)
Recommended	25 - 30 mils (635 - 762 microns)
Thickness - Bore Pipe	
Minimum/Maximum	40/70 mils (1016/1778 microns)
Recommended	45 - 60 mils (1143 - 1524 microns)
Holiday Detection	Refer to NACE SP0188
Cathodic Disbondment Test (ASTM G95)	
28 Days @ 77°F (25°C)	3 mm
28 Days @ 150°F (65°C)	4 mm
28 Days @ 185°F (85°C)	6 mm
28 Days @ 203°F (95°C)	6 mm
Hardness (ASTM D-2240-02)	Shore D 80+
Impact Resistance (ASTM G14-04) @ 32°F (0°C)	70.6 in-lbs.
Tabor Abrasion (ASTM 4080-07)	
-1000 cycles, CS-17 wheels, 1000 g load	1.270 cycles per mil (93 mg)
-5000 cycles, CS-17 wheels, 1000 g load	1.612 cycles per mil (338 mg)
Gouge Resistance (Partech Test - 40 kg load)	15.4 mils (391 microns)
Dielectric Strength (ASTM D-149)	450 V/mil (17,716 V/mm)
Adhesion to Steel (ASTM D-4541-02)	3,956 psi (27.3 MPa)
Adhesion to FBE (ASTM D-4541-02)	2,579 psi (17.8 MPa)
Service Temperature	-40°F to 203°F (-40°C to 95°C)
Application Temperature	-30°F to 212°F (-34°C to 100°C)

Note: If temperature falls below 50°F (10°C), surface must be preheated and maintained throughout the cure process.

STORAGE: Minimum 24 months when stored in original containers @ 40°F (4°C) to 105°F (41°C). On job site where temperatures are below 50°F (10°C) product should be kept warm to mix properly (65°F to 85°F optimal).

CLEANING: Clean equipment with Xylene, MEK, Acetone or equivalent solvent cleaner.

HEALTH AND SAFETY: Wear protective clothing and ensure adequate ventilation. Avoid contact with skin and eyes. See material safety data sheet for further information.

PACKAGING: 1, 1.5 and 2 liter kits and 75 liter & 800 liter kits standard. Dual cartridge repair tubes (50 ml, 400 ml & 1000 ml) and dispensing guns available for small repair areas.

Denso

DENSO NORTH AMERICA

HOUSTON:

9700 Edge Road,
Houston, Texas
U.S.A. 77055
Tel: 281-821-3365
Fax: 281-821-0314

TORONTO:

90 Denso Crescent
Unit 12, Toronto
Ontario, Canada M1X 1A9
Tel: 416-291-1435
Fax: 416-291-0838

www.denso-na.com

A Member of Winn & Coates International

The information provided in this document is intended to provide a general overview of the product and its use. It is not intended to be a substitute for the manufacturer's instructions. The user should always refer to the manufacturer's instructions for the correct use of the product. The information provided in this document is subject to change without notice. The manufacturer assumes no responsibility for any errors or omissions in this document.

MAGNESIUM ANODES



HP High Potential Mag Anode



The sacrificial anode of choice is the high potential magnesium anode case of 'primary magnesium'. State of the art production techniques yield a higher open circuit voltage (driving) potential than conventional H-1 alloy anodes. These anodes produce potentials of 1.75 Volts with a "certified" minimum current efficiency of 50%, allowing protection levels to be achieved using fewer anodes. As a result you have a higher current output anode making it ideal for use in higher resistivity soils, while also performing very well in lower resistance environments. High Potential Anodes are cast to meet ASTM B843, Alloy M1C.

Product Chemistry and Testing

The anodes meet or exceed the chemistry industry standard for high potential anodes. The chemistry is per ASTM B843 Industry Standard for high potential anodes-Alloy M1C.

Casting parameters are continuously checked to control production variables. Anodes are individually weighed to ensure they meet weight requirements. They are physically inspected for excessive shrink cavities, core security, and general physical appearance to ensure highest quality.

Each production run is tested as per ASTM specification G97 Standard Test Method for Laboratory Evaluation of Magnesium Sacrificial Anode Test Specimens for Underground Applications. This tests the anodes for voltage potential and current efficiency performance. Often times the importance of current efficiency is overlooked when evaluating magnesium anodes. Current efficiency is the percent of metal consumed in producing useful cathodic protection to the total metal consumed. Because anodes must be installed in a corrosive environment to produce useful amount of current, the environment also promotes self-corrosion of the anode material. Electrical currents produced by self-corrosion cannot be used to advantage; the higher the percent of current efficiency, the better the anode, which also translates into longer life. A quality high potential magnesium anode should have a minimum current efficiency of 50%.

MESA Manufacturing Process

Each bare cast anode is closely examined for shrinkage voids, core centering and length, and weight conformity. Any inconsistency results in rejection. A coiled lead wire of #12 TW insulated solid copper is silver soldered (45% silver) to the galvanized steel core. Standard wire length is 10 feet long. The 45% silver in the solder is critical to ensuring a 'stronger than the wire itself' connection. The core cavity is filled with electrical sealing compound to assure a fully insulated and protected connection. Bare anodes are centered in cotton bags, then surrounded with a backfill mixture consisting of 75% hydrated gypsum, 20% bentonite, and 5% sodium sulfate. This backfill lowers the anode to earth resistance, draws moisture to the anode for best performance, and creates a uniform environment for the anode to

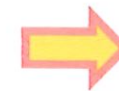
consume itself evenly. The packaged anodes are then inserted into multi wall paper sacks, palletized, and film wrapped for shipping.

Chemical Composition

Element	Content %
Aluminum	0.01% Max
Manganese	0.50 - 1.3%
Silicon	0.05% Max
Copper	0.02% Max
Nickel	0.001% Max
Iron	0.03% Max
Others Each	0.05% Max
Magnesium	Remainder

Sizes Available

Anode Type	Bare Weight	Packaged Weight	Shipping Package	Bare			Packaged	
				W	H	L	D	OL
1R8	1	5	6 per box	1-3/4"	1 3/4"	8"	3-1/4"	9"
3D3	3	8	5 per box	3-1/2"	3-3/4"	5"	6"	10"
5D3	5	17	5 per box	3-1/2"	3-3/4"	8-1/2"	6"	12"
9D2	9	35	2 per box	2-3/4"	3"	27"	5-1/2"	32"
9D3	9	27	2 per bag	3-1/2"	3-3/4"	14"	6"	17"
17D2	17	60	1 per bag	2-3/4"	2-3/4"	50-1/4"	6	55"
17D3	17	45	1 per bag	3-1/2"	4"	25-3/4"	6-1/2"	29"
20D2	20	70	1 per bag	2-3/4"	3-3/4"	59-3/4"	5"	66"
32D3	32	91	1 per bag	3-1/2"	3-3/4"	45-1/4"	6-1/2"	53"
32D5	32	70	1 per bag	5-1/2"	5"	20-1/2"	8"	28"
40D3	40	96	1 per bag	3-1/2"	3-3/4"	59-3/4"	6-1/2"	66"
48D5	48	100	1 per bag	5-1/2"	5-3/4"	31"	8"	38"
60S4	60	125	1 per bag	4"	4"	60"	7"	64"



CATHODIC PROTECTION SYSTEM TESTING

The epoxy coated casing pipe shall be handled with care and staged on wood blocks. Under no conditions shall the pipe be laid on gravel surfaces without a protective barrier.

All mechanical coating damage to the casing shall be repaired using the Protal 7200 field applied material.

Upon completion of the tunnel and insertion of the casing pipe, the owners engineer must take baseline potential measurements on the casing pipe at each end. When completed, the anodes may be attached to the casing and the weld caps can be installed on the threaded stud connection points.

The casing will again be tested prior to backfilling the bore pits at each end.

Corrosion Control Material Providers:

- 1. Mesa Products 360-707-8121
- 2. Far West Corrosion 310-532-9524
- 3. Corrpro Aegion Corp. 510-363-7420

Plan Drawing 1

Plan Drawing 2

Plan Drawing 3

Plan Drawing 4

Plan Drawing 5

Plan Drawing 6

Plan Drawing 7

Plan Drawing 8

Plan Drawing 9

Plan Drawing 10

Plan Drawing 11

Plan Drawing 12

Plan Drawing 13

Plan Drawing 14

Plan Drawing 15

Plan Drawing 16

Plan Drawing 17

Plan Drawing 18

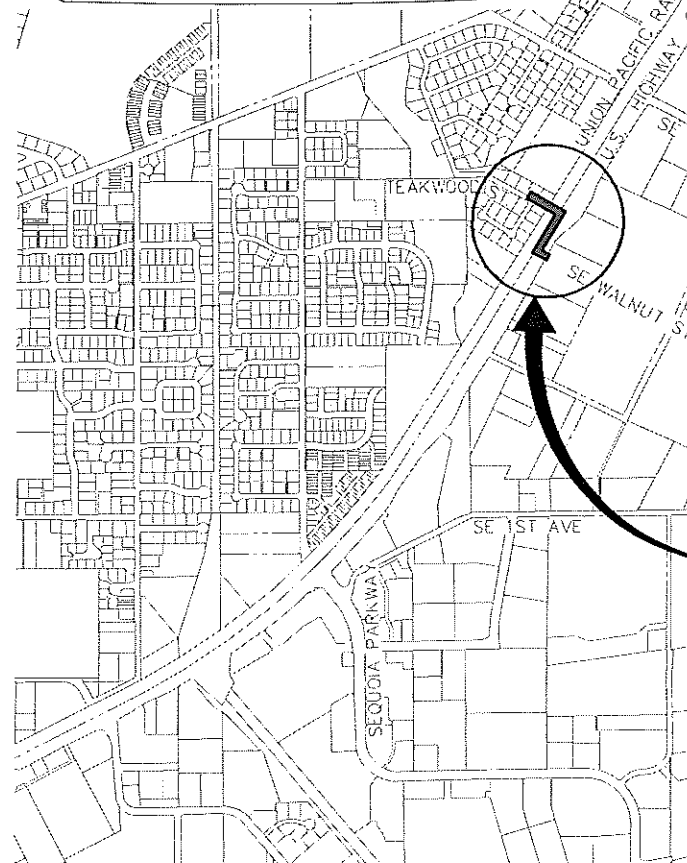
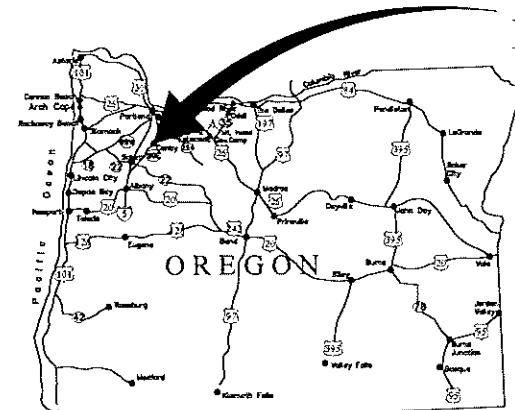
Plan Drawing 19

PLAN DRAWINGS

PLAN DRAWINGS

WALNUT SPRR BORE

PROJECT LOCATION



CITY OF CANBY
VICINITY MAP
NTS

- | | | |
|--------------------------------|---|-------------------------|
| - EXISTING CENTERLINE | ○ | - DECIDUOUS TREE |
| - EXISTING RIGHT-OF-WAY LINE | □ | - SIGNAL BOX |
| - FENCE LINE | ◇ | - STREET LIGHT |
| - STORM DRAINAGE LINE | □ | - ELECTRIC JUNCTION BOX |
| - SANITARY SEWER LINE | □ | - TRANSFORMER |
| - UNDERGROUND WATER LINE | □ | - ELECTRICAL RISER |
| - UNDERGROUND ELECTRICAL LINE | □ | - UTILITY POLE |
| - UNDERGROUND FIBER OPTIC LINE | □ | - GUY WIRE |
| - UNDERGROUND CABLE TV LINE | □ | - FIRE HYDRANT |
| - NATURAL GAS LINE | □ | - WATER VALVE |
| - OVERHEAD WIRE | □ | - WATER METER |
| - BUILDING FACE | □ | - SIGN POST |
| - TREE/VEGETATION LINE | □ | |
| - EXISTING ASPHALT SURFACE | □ | |
| - EXISTING CONCRETE SURFACE | □ | |
| - EXISTING GRAVEL SURFACE | □ | |
| - SANITARY SEWER MANHOLE | ○ | |
| - SANITARY SEWER CLEANOUT | ○ | |
| - STORM DRAIN MANHOLE | ○ | |
| - CATCH BASIN | ○ | |

PROPOSED

- | | |
|-------|---------------------|
| — | - NEW SEWER PIPE |
| - - - | - STEEL CASING PIPE |
| Ⓢ | - NEW SEWER MANHOLE |

CONTRACTOR TO PROTECT EXISTING POWER,
TELEPHONE/TELECOMMUNICATION LINES &
COORDINATE RELOCATION OF ANY LINES
THAT ARE IN CONFLICT WITH THE
CONSTRUCTION WITH APPROPRIATE AGENCY

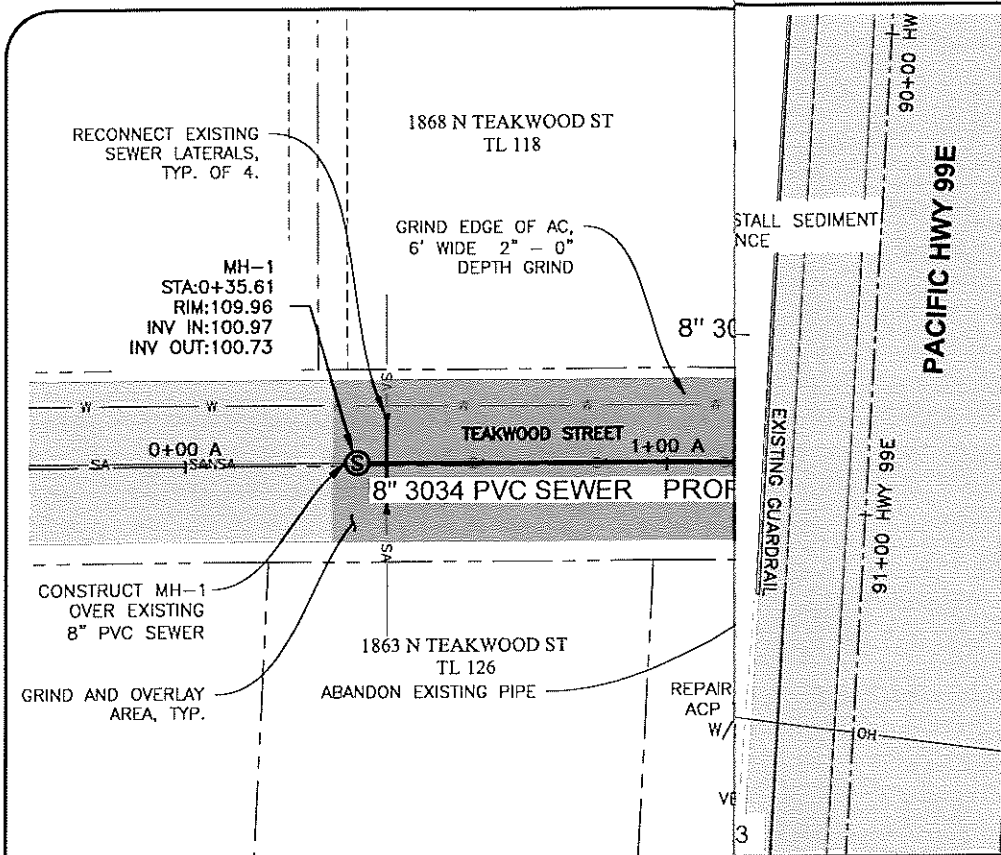
CITY OF CANBY
WALNUT STREET HWY 99E BORE

COVER SHEET

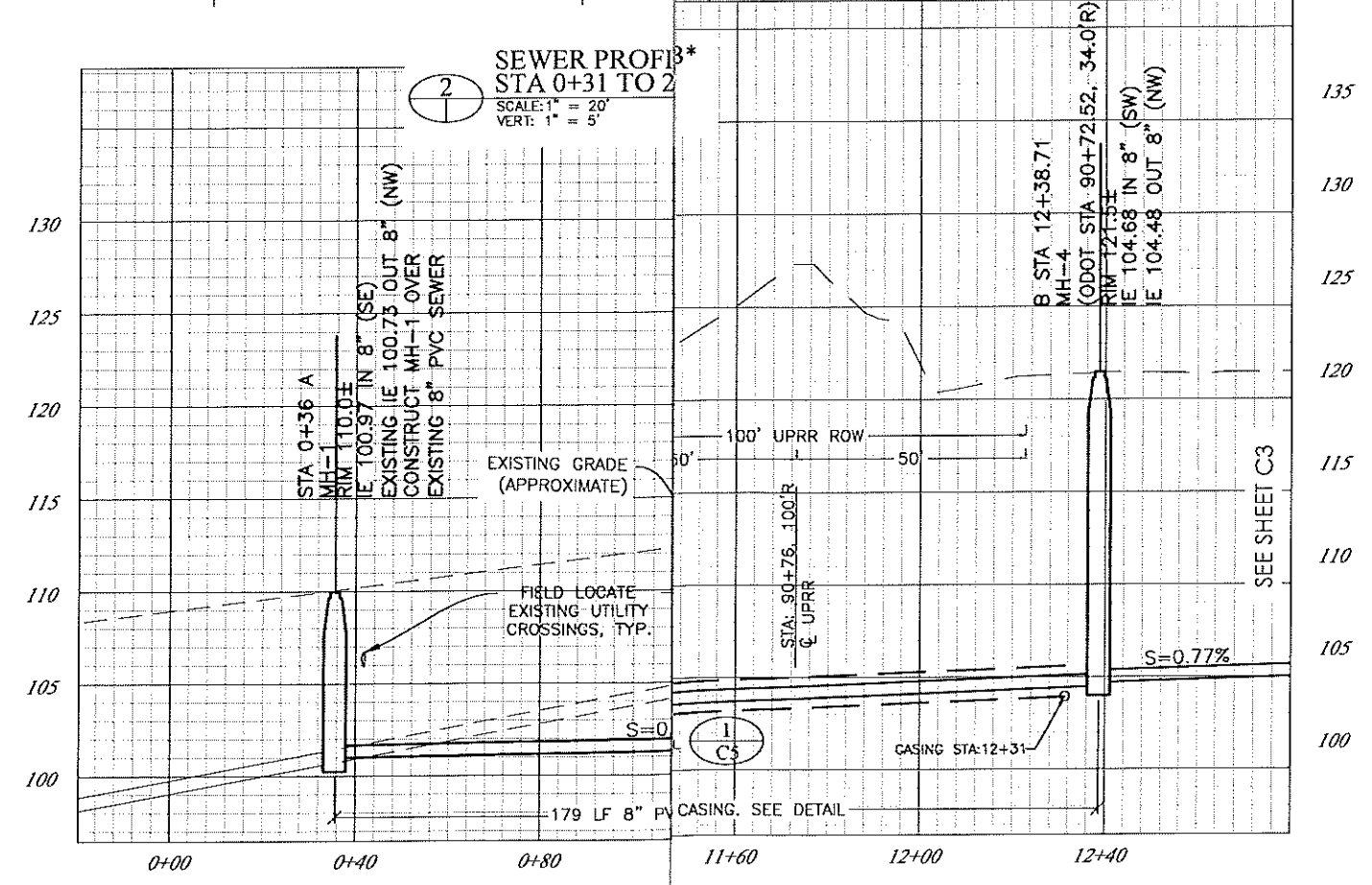
CLACKAMAS COUNTY, OREGON

DATE	APR 2025
BY	1784
CHKD	JST
APPD	JST
FILE	1806-C1

C1
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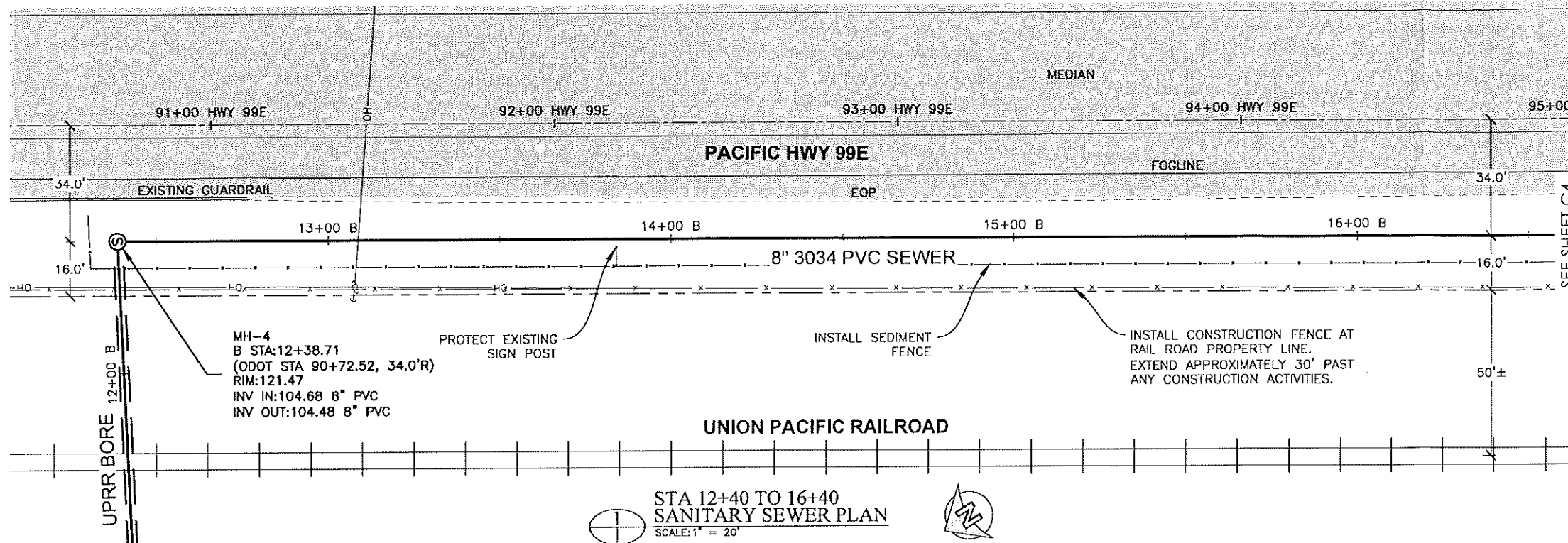
- CONSTRUCTION NOTES:**
1. ALL EXISTING SANITARY SEWER LATERALS MUST BE FIELD LOCATED, RECONSTRUCTED, AND RECONNECTED TO NEW SEWER LINE AFTER IT HAS BEEN TESTED AND ACCEPTED. SEE STANDARD DETAIL.
 2. INSTALL AND MAINTAIN BIO-BAGS/ POLYPROPYLENE SACKS IN/AROUND ALL STORM CATCH BASINS.
 3. POT HOLE AND FIELD VERIFY DEPTH OF UTILITIES PRIOR TO CONSTRUCTION.
 4. RESTORE EXIST. CURB, SIDEWALK & DRIVEWAY AS NEEDED AFTER SERVICE RECONNECTION.
 5. ENTERING RAILROAD PROPERTY IS NOT PERMITTED.
 6. CONTRACTOR TO PICK FINAL LOCATION OF BORE AND RECEIVING PITS.
 7. GRIND AC TO LIMITS SHOWN AND PLACE 2" ACP OVERLAY.



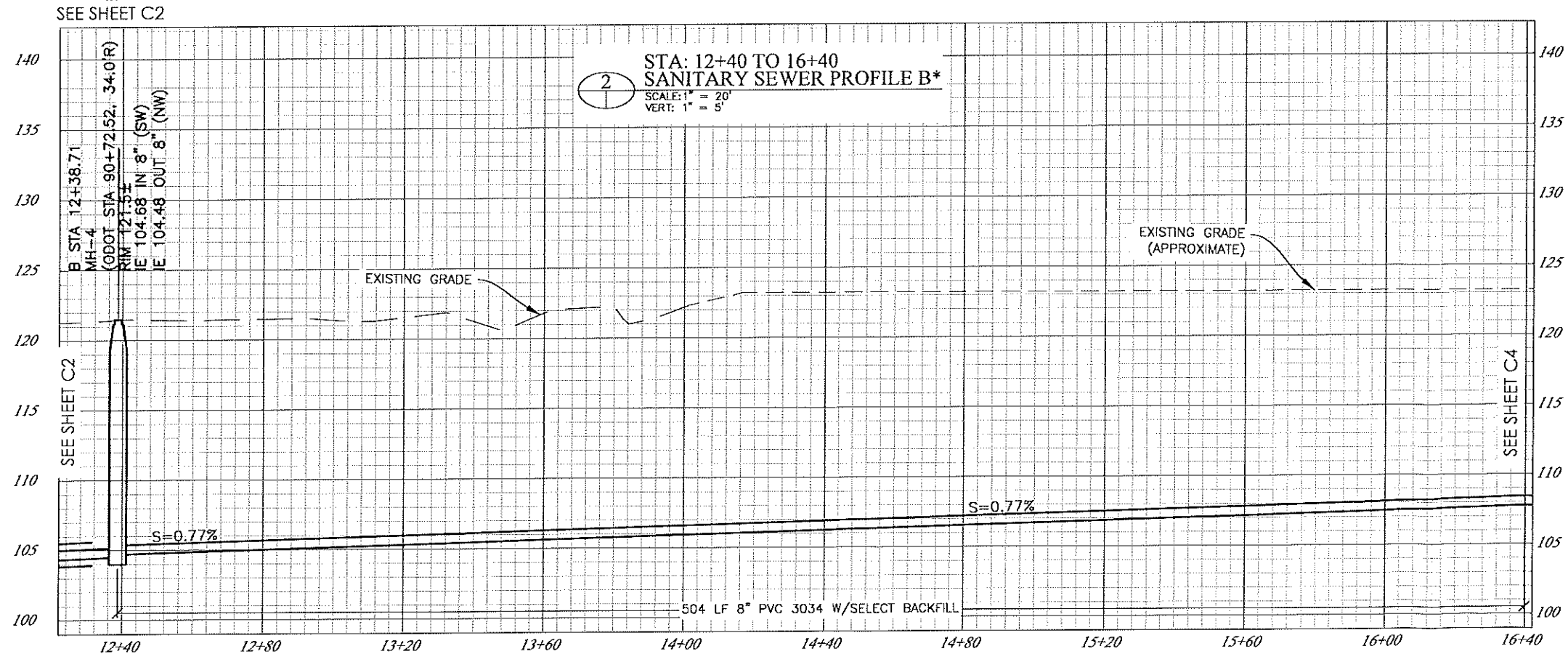
CITY OF CANBY
WALNUT STREET HWY 99E BORE
N TEAKWOOD ST & UPRR BORE
SANITARY SEWER
PLAN & PROFILE
CLACKAMAS COUNTY, OREGON

DATE	APR 2025
BY	1784
CHECKED	JST
DESIGNED	JST
PROJECT	1784-C2

C2
OF
6

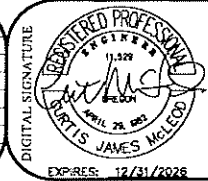


CONSTRUCTION NOTE:
1. ENTERING RAIL ROAD PROPERTY IS NOT PERMITTED.



*PROFILE STATIONING IS SHOWN ALONG CENTERLINE OF SEWER ALIGNMENT

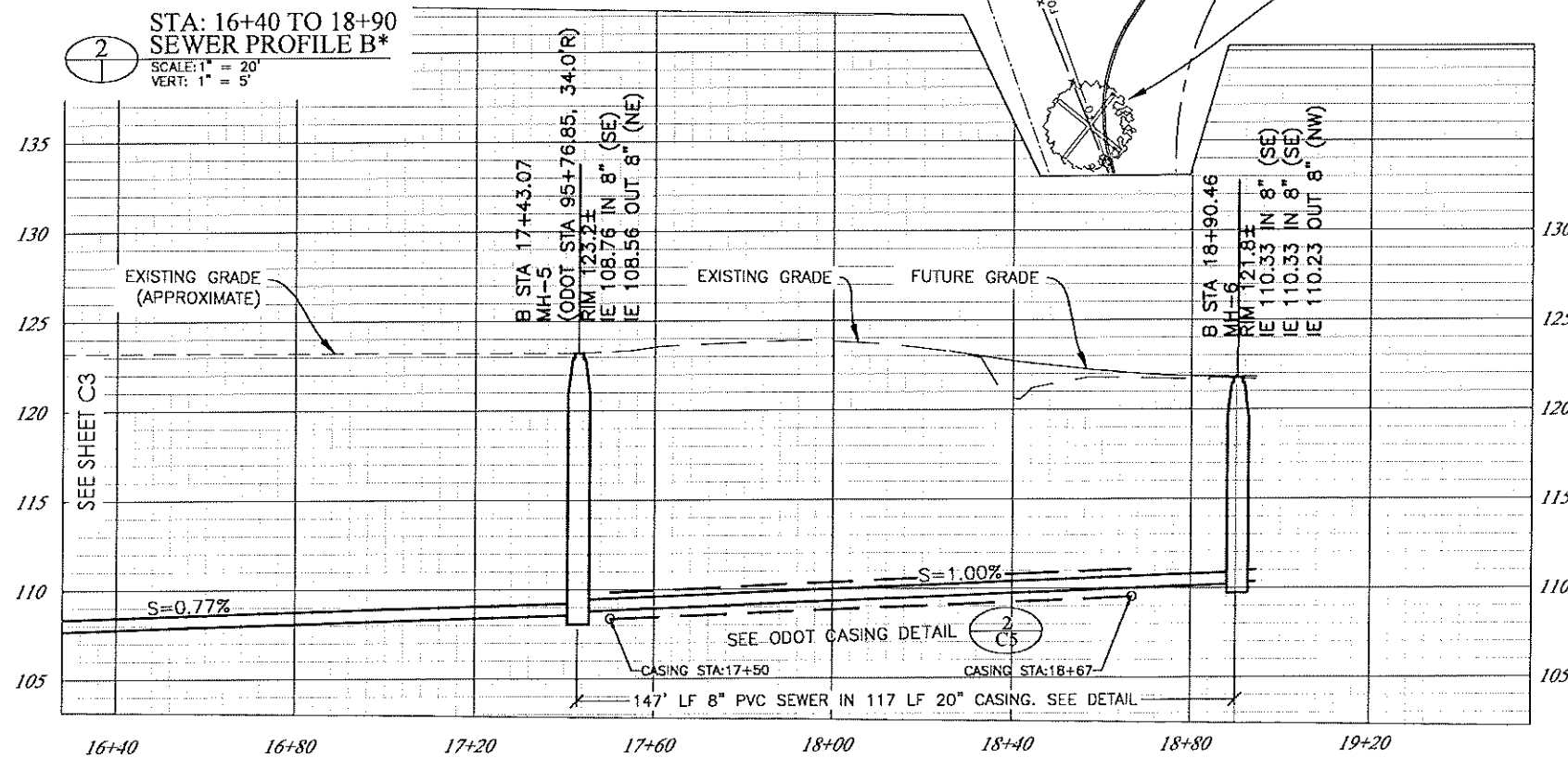
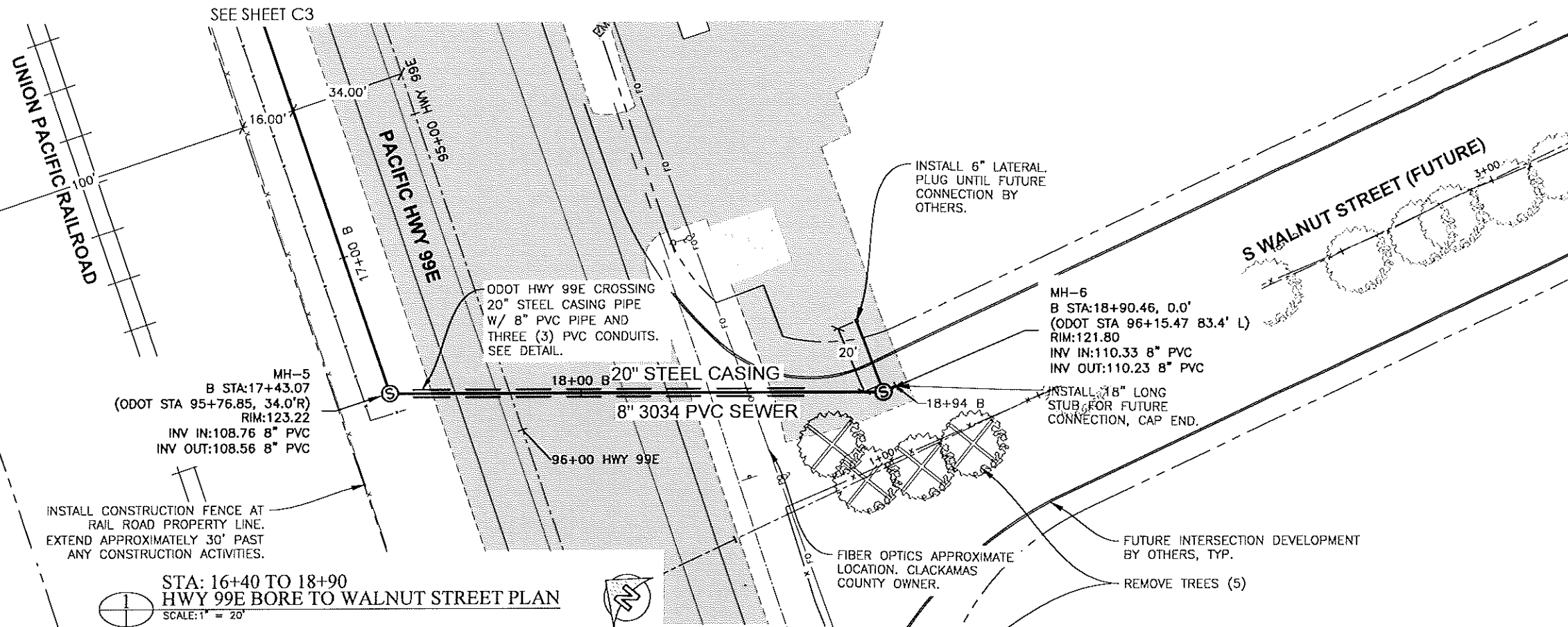
BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALE AS SHOWN ACCORDINGLY.	REVISIONS
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CURRAN-McLEOD, INC.
CONSULTING ENGINEERS
6655 S.W. HAMPTON ST., SUITE 210
PORTLAND, OREGON 97223
PHONE (503) 684-3478

CITY OF CANBY
WALNUT STREET HWY 99E BORE
HWY 99E
SANITARY SEWER
PLAN & PROFILE
CLACKAMAS COUNTY, OREGON

DATE	APR 2025
BY	1784
CHK	JST
APP	JST
DATE	1784-C3



*PROFILE STATIONING IS SHOWN ALONG CENTERLINE OF SEWER ALIGNMENT

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ADJUST SCALE AS SHOWN ACCORDINGLY.

REV.	DATE	DESCRIPTION
REV. 1	11/20/2024	ISSUED FOR PERMIT
REV. 2	11/20/2024	ISSUED FOR PERMIT
REV. 3	11/20/2024	ISSUED FOR PERMIT
REV. 4	11/20/2024	ISSUED FOR PERMIT
REV. 5	11/20/2024	ISSUED FOR PERMIT

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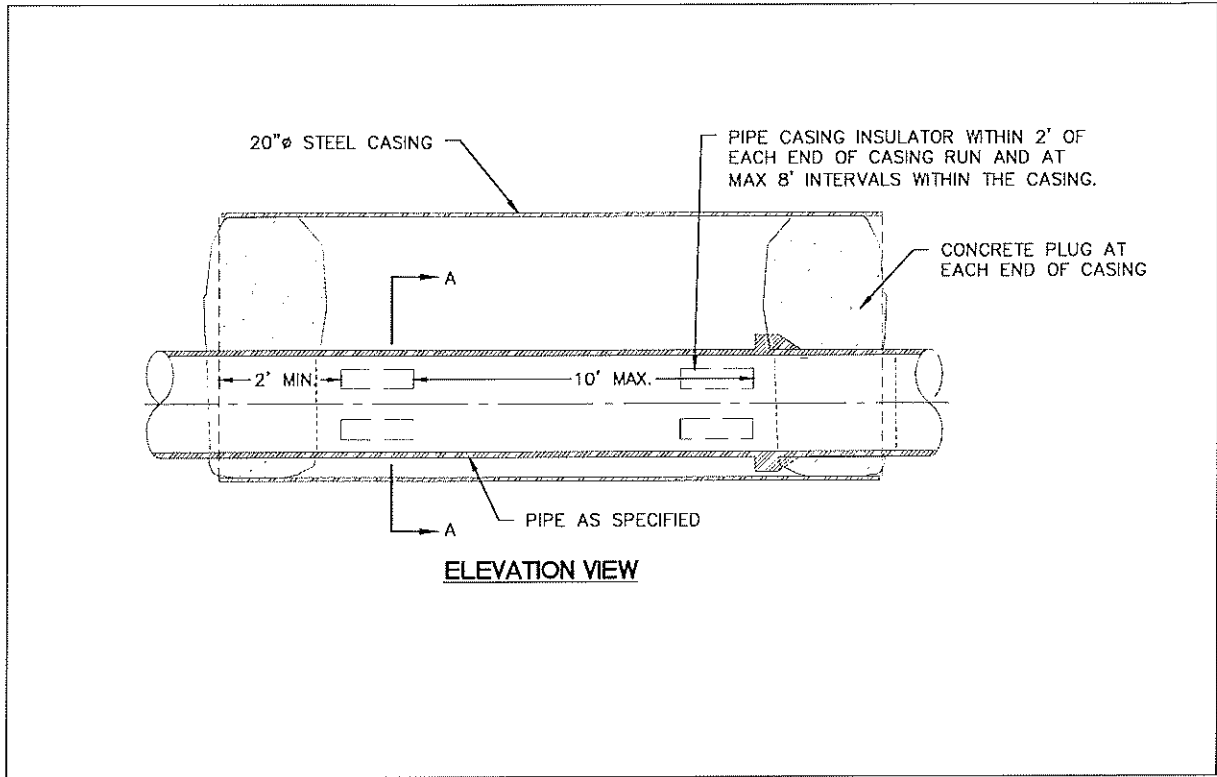
6655 S.W. HAMPTON ST., SUITE 210
PORTLAND, OREGON 97223
PHONE (503) 684-3478

CITY OF CANBY
WALNUT STREET HWY 99E BORE
HWY 99E BORE
SANITARY SEWER
PLAN & PROFILE
CLACKAMAS COUNTY, OREGON

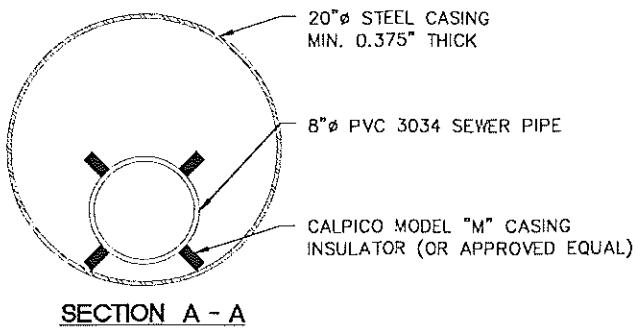
DATE: APR 2025
BY: 1784
CHECKED: CJM
DESIGNED: JST
PROJECT: 1784-C4

CONSTRUCTION NOTE:

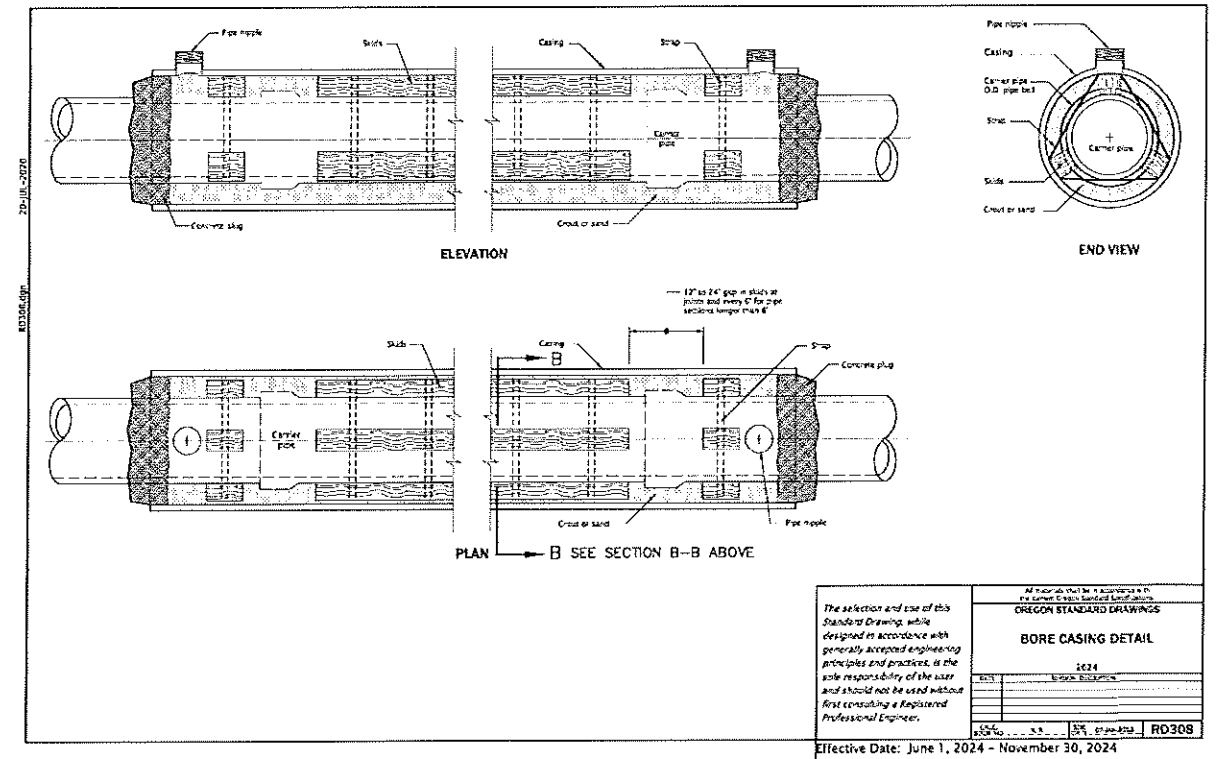
1. ENTERING THE RAILROAD PROPERTY IS NOT PERMITTED.
2. CONTRACTOR TO CHOOSE FINAL LOCATION OF BORE AND RECEIVING PITS.



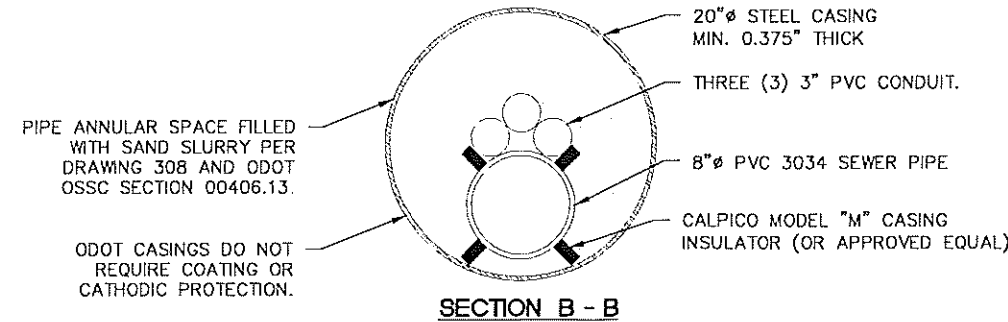
UPRR BORING CASING DETAIL
SCALE: N.T.S.



- NOTE:**
1. PLUG ENDS OF CASING WITH CONCRETE PLUG MIN. 18" INTO CASING.
 2. MINIMUM THICKNESS OF STEEL CASING PIPE SHALL BE 0.375".
 3. SPECIFIED MINIMUM YIELD STRENGTH FOR CASING PIPE SHALL BE 35,000 PSI
 4. UPRR CASING TO HAVE EPOXY COATING, CATHODIC PROTECTION, AND VENTS AS SPECIFIED. TERMINATE CATHODIC PROTECTION CONNECTOINS IN CI VALVE BOXES. SEE SPECIFICATIONS SECTION 02700 SITE PIPING.



ODOT BORING CASING DETAIL
SCALE: N.T.S.



- NOTE:**
1. TYPE, SIZE, AND LOCATION(S) OF CASING, CARRIER PIPE, SKIDS, STRAPS, PIPE NIPPLES, ETC., ARE AS REQUIRED BY THE ENGINEER TO MEET SITE CONDITIONS.
 2. PLUG ENDS OF CASING WITH COMMERCIAL GRADE CONCRETE.
 3. BLOCK CARRIER PIPE DOWN OR FLOOD TO RESIST FLOTATION WHEN FILLING ANNULAR SPACE.
 4. PROVIDE PIPE NIPPLE AT TOP OF CASING AT EACH END OF CASING, FOR FILLING AND VERIFYING FILLING OPERATION. SIZE TO ACCOMMODATE VOLUME OF GROUT OR SAND AND SITE CONDITIONS (4" DIAMETER MINIMUM).
 5. STRAP PRESSURE TREATED WOOD OR MANUFACTURED SKIDS TO PIPE, 3 SKIDS PER PIPE SECTION.

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PHONE (503) 684-3478

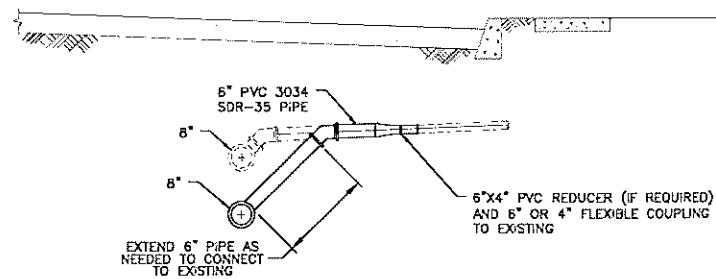
EXPIRES: 12/31/2026

CITY OF CANBY
WALNUT STREET HWY 99E BORE

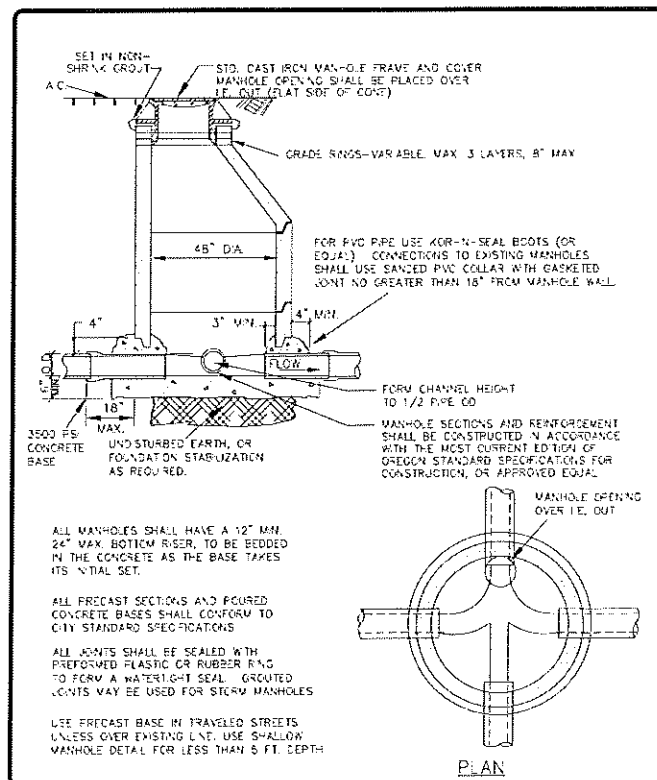
CONSTRUCTION DETAILS

CLACKAMAS COUNTY, OREGON

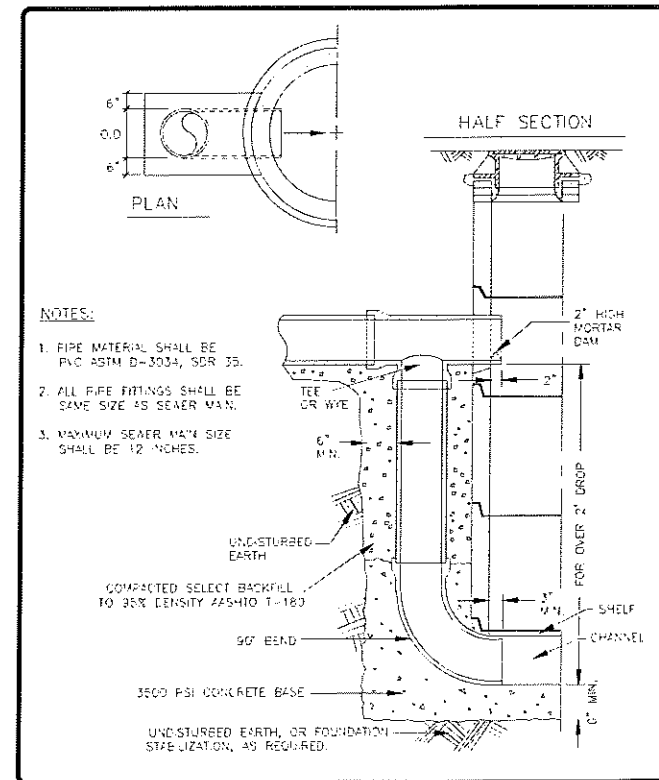
DATE	APR 2025
BY	1784
CHK	CJM
APP	JST
CL	1806-C5



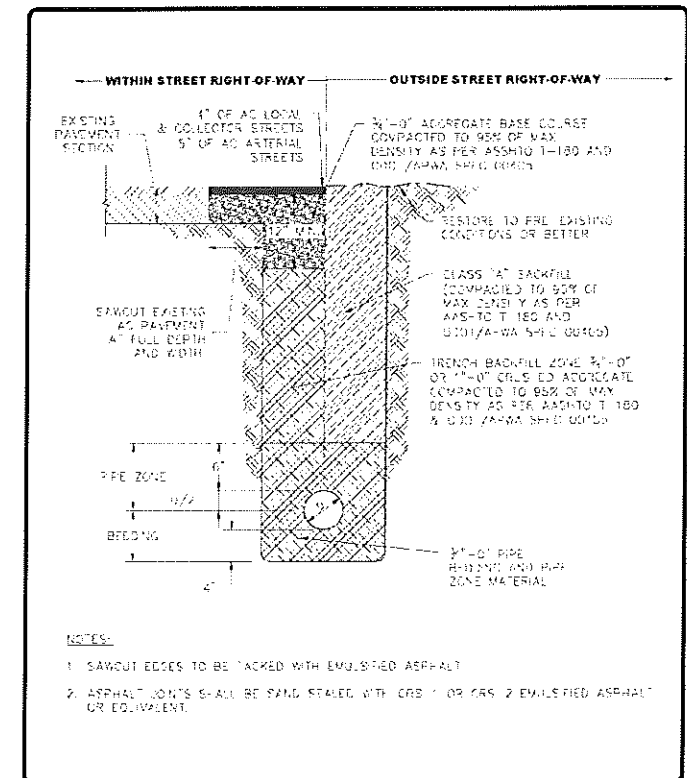
SERVICE LINE RECONNECTION DETAIL (TYP. OF 4)
SCALE: N.T.S.



CITY OF CANBY
MANHOLE - STORM & SANITARY SEWER
BY: JT DATE: 12-04-13 DWGNO: 300



CITY OF CANBY
OUTSIDE DROP MANHOLE CONNECTION
BY: JT DATE: 12-04-13 DWGNO: 311

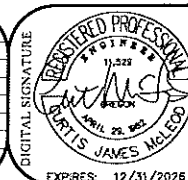


CITY OF CANBY
TRENCH DETAIL
BY: JT DATE: 12-04-13 DWGNO: 312

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REV#	DESCRIPTION	DATE
REV#		
REV#		
REV#		
REV#		
REV#		

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6055 S.W. HAMPTON ST., SUITE 210
PORTLAND, OREGON 97223
PHONE (503) 684-3478

CITY OF CANBY
WALNUT STREET HWY 99E BORE
CONSTRUCTION DETAILS
CLACKAMAS COUNTY, OREGON

DATE	APR 2025
BY	1784
CHK	CJM
APP	JST
DATE	1806-C5

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