CITY OF COOS BAY CITY COUNCIL
Agenda Staff Report

MEETING DATE	AGENDA ITEM NUMBER
February 18, 2014	

TO: Mayor Shoji and City Councilors

FROM: Jim Hossley, Public Works Director
Through: Rodger Craddock, City Manager RC

ISSUE: Discussion of Right-of-Way Restoration Policy

BACKGROUND:
The citizens of Coos Bay have invested substantial public and private funds in the construction and maintenance of the existing public roadway system within the City. They desire to protect and prolong these investments, and maintain a safe, clean roadway environment. Coos Bay City Councilors, the Streets Maintenance Taskforce, and members of the public have expressed concerns related to utility trench failure in City streets. Public interest in the integrity, ride-ability and appearance of all streets and new street surfaces in particular is significant. Residents don't appreciate new streets being dug up by utility trenches.

The Coos Bay Municipal Code (CBMC) requires that a permit be obtained prior to cutting into any road surface and/or excavating within the right-of-way of public streets, and the code requires proper repair to any resulting damage to the pubic street right-of-way or road surface. To ensure adequate repair to excavated City streets, the Streets Maintenance Taskforce recommended to the City Council that the City develop a policy regarding standards and specifications for repair to excavations to City streets. As a result, City staff has prepared a draft "Right-of-Way Restoration Policy". Through research of other municipalities throughout the country and from the City's own trench cut inventory, it is clear that trench cuts significantly alter and degrade pavement surfaces adjacent to the actual trench line. Staff recommends implementing this policy to reduce the negative impacts of trench cuts. This draft policy establishes the basis and process for determining the level of repair and replacement for utility cuts for **both** old and newly paved streets. The legal basis for this City Policy is established in the Coos Bay Municipal Code, Title 12, Chapter 12.25, Utility Use of Streets.

In an effort to better manage pavement degradation from the affects of utility cuts, staff recommends through this policy that the City prohibit (except in emergency and case by case basis) cutting into new pavements for three (3) years after the work is complete. This 3-year moratorium on cutting into all new pavement surfaces will include overlays, inlays, reconstruction, and new construction of at least a half street or greater.

Staff will present a more detailed discussion regarding the attached draft policy during the City Council meeting. Staff is seeking Council feedback and direction on the proposed policy. After receiving feedback and direction, Staff will make any necessary revisions. Unless the Council prefers otherwise, staff will provide the revised draft policy to utility providers and contractors for comment. Staff recommends that Council then hold a public hearing on the policy prior to adopting it by resolution.

ADVANTAGES:
The standards and specifications recommended in the draft policy provide substantial written guidance to City staff, utility owners/contractors and residents. The suggested standards and specifications in the policy are rigorous but not necessarily uncommon as they were derived from requirements from other municipalities throughout the country. Implementation of and adherence to this policy should provide long term performance of trench repairs.

The proposed policy provides for two different levels of effort related to the ROW application process. Cutting into a moratorium street requires more significant effort to obtain the permit and perform the repair work than cutting into a non-moratorium street. The idea here is to discourage cutting into new pavement, but when absolutely necessary, ensuring that the repair to the cut performs as well as, if not better than, the surrounding new pavement.

DISADVANTAGES:
The current draft of the proposed policy will result in increase requirements and effort to obtain a ROW permit for excavation. As a result there will be an increase, and in many cases a substantial increase, in the cost of repairing trench cuts. This policy will apply to not only private utilities but to property owners making connection to or repairing their existing connection to City sewer and water mains. The policy would also apply to Coos Bay – North Bend Water Board and the City of Coos Bay. The policy will result in an increase in the cost of repair and replacement projects for City drainage and sanitary sewer pipes.

BUDGET IMPLICATIONS:
The policy will likely result in at least doubling the cost of paving associated with the City's pipe repair and replacement projects. The cost of paving the width of a trench is typically 10% to 20% of the total cost of a City pipe repair or replacement project. As a result of this policy, the paving will be as much as 30 to 40% of the project cost depending upon road type. The funds for these repair and replacement projects come from wastewater fees.

As a result of the policy, staff assumes that over time the longevity of City streets will be significantly improved. Thus, in the long run, the City's limited street maintenance funds will go further as a result of the City's maintenance efforts focusing on street degradation related to wear and age without the addition of trench failure damage.

RELATED CITY GOAL:
Adoption of this policy will help the City meet the goal stating, "Infrastructure and Services: To maintain and improve the City's physical infrastructure and provide quality services for current and future citizens." This policy will help the City protect and enhance the useful life of streets and utilities.

ACTION REQUESTED:
If it pleases the City Council, provide City staff guidance on how to proceed with the attached draft policy.

ATTACHMENTS:
Draft Restoration Policy for Utility Installation in City of Coos Bay Right-of-Way

DRAFT DOCUMENT
City of Coos Bay
Public Works & Development Dept.
500 Central Ave., Coos Bay, Oregon 97420 • Phone (541) 269-8918
Fax (541) 269-8916

RESTORATION POLICY FOR UTILITY INSTALLATION IN CITY OF COOS BAY RIGHT-OF-WAY

February 18, 2014

The Citizens of Coos Bay, having invested substantial public and private funds in the construction and maintenance of the existing public roadway system within the City, desire to protect and prolong these investments, and maintain a safe, clean roadway environment. Therefore, prior to cutting into any road surface and/or excavating within the right-of-way of public streets a permit authorizing such activity is required and proper repair to any resulting damage to the pubic street right-of-way or road surface. The legal basis for this City Policy is established in the Coos Bay Municipal Code, Title 12, Chapter 12.25, Utility Use of Streets.

In an effort to better manage pavement degradation from the affects of utility cuts, the City of Coos Bay imposes a 3-year moratorium on cutting into all new pavement surfaces. This will include overlays, inlays, reconstruction, and new construction of at least a half street or greater.

Through research of other municipalities throughout the country and from the City's own trench cut inventory, it is clear that trench cuts significantly alter and degrade pavement surfaces adjacent to the actual trench line. The City of Coos Bay is implementing this policy to reduce the negative impacts of the trench cut.

Public interest in the integrity, ride-ability and appearance of new street surfaces is significant. Residents don't appreciate new streets being dug up by utility trenches. However, in the event of an emergency or a new development, it will occasionally be necessary to cut into a street that has been paved within the past three years. This policy establishes the basis and process for determining the level of repair and replacement for utility cuts for **both** old and newly paved streets.

City of Coos Bay Street Cut Policy

I. Introduction

To ensure that City streets are functional and to provide reasonable regulation of excavations this policy is authorized by the Coos Bay Municipal Code, Title 12, Use of Rights-of-Way. It is unlawful for any person to excavate or cause an excavation within any public right of way until the public works department has issued all applicable permits for such excavation to the person. Prior to any work being performed (this can include but is not limited to excavation, cut, open trench, tunneling, boring, bore pit, key holing, pipe bursting, etc.) within a City street and/or right-of-way (ROW) an Applicant shall:

1. Submit a Right-of-Way (ROW) permit application, supporting documents, bond and fee(s) to the City.
2. Receive permit, coordinate with City and other applicable entity staff, and commence work.
3. Be responsible to coordinate all non-city utility issues and for quality of work performed by excavators and pavers to ensure all City policies, standard and details are met. All restoration is provided with a minimum 12-month warranty by applicant.

Approval of ROW permits for utility cuts will be based on the construction needs, the age of the pavement, and the type of street(s) (arterial, collector, residential/local), which shall dictate the size of excavation, amount of pavement restoration, curb work, sidewalk work, available work hours, traffic control, possible detours or public notifications, and quality control, i.e. inspections. Public Works Department has the right to deny a permit or issue a stop work order for non-compliance.

Utility providers are required to submit application, supporting documents (the ROW permit fee and bond are waived for franchised utility providers) and adhere to all of the requirements within this policy. The utility provider is required to meet City standards and this policy.

II. Cutting into a Moratorium Street

After any street has been constructed, reconstructed, or paved by City forces, under City contract, or under permit, the pavement surface shall not thereafter be cut or opened for a period of 3 years. However, the City of Coos Bay Public Works Director may grant exemptions to this prohibition.

If an exception is granted, the Public Works Department will make a concerted effort to protect the integrity of the pavement structure, and to ensure a high quality replacement patch or overlay. Depending on the particular trench cut size, location, and construction duration, conditions will be placed on the permittee to return the street to a similar integrity as prior to the

cut occurring. This may require a larger pavement restoration area on each side of the trench, a full-lane-width pavement replacement, or a full curb-to-curb replacement.

When granting exceptions to this regulation, the Public Works Director may impose conditions determined appropriate to insure the rapid and complete restoration of the street and the surface paving. Repaving may include surface grinding, base and sub-base repairs, or other related work as needed, and may include up to full-width surface paving of the roadway.

The ROW permit application, for work required to partially or fully repave a street, shall be accompanied by a street improvement plan and specification prepared by a qualified licensed engineer. The applicant is responsible for the full cost of plan review, construction inspection, material testing, bonding, and all other City expenses related to the work.

III. ROW Permits for Moratorium & Non Moratorium Streets

(1) No person shall make any excavation or tunnel under any area within public rights-of-way without first obtaining an excavation permit from the City. ROW permits, bonds, and fees are managed through Public Works Department (541-269-8918). Supporting documents may include a scope of work, traffic control plan, etc. as necessary. The ROW permit fees are due at the time of application and the bond is due prior to issuance of the permit. ROW permit fee is per current City Council fee schedule resolution. Online applications can be made at: www.coosbay.gov (on the Public Works Department page) or you may pick one up at the Public Works Department, City Hall, 500 Central Avenue, Coos Bay, OR.

(2) Applications for ROW permits shall be made on forms provided by the City. The application shall describe the purpose, location and size of the anticipated excavation, the name of the person performing the actual excavation, and the name of the person for whom the excavation is being performed. The application shall contain a provision endorsed by the person for whom the excavation is being performed or the person's agent, and that the person performing the excavation will comply with the requirements of this chapter and any conditions imposed upon the excavation.

(3) The application shall be accompanied by a cash deposit, performance bond, or other security acceptable to the city attorney, to insure proper restoration of the public right-of-way. From this security shall be deducted the expense, if any, incurred by the city in cleaning up and removing material and debris and restoring the public right-of-way. The balance, if any, shall be returned to the person posting the security after excavation is complete and the right-of-way has been restored to good order and condition as the property was in immediately prior to the time excavation was undertaken.

(4) A traffic control plan shall be submitted with each ROW permit application for all excavations affecting motorists and pedestrians. The plan shall be based on the type of street(s)

and the amount of traffic using the Manual of Uniform Traffic Control Devices (MUTCD Part 6 –Temporary Traffic Control) for guidance. Depending on the impact to traffic, businesses or residents, public notification plans (signs, advertisements, flyers, etc) may be necessary and submitted as part of the permit application. It shall be the responsibility of the applicant or the duly authorized representative to coordinate with all affected neighbors.

(5) The ROW permit application for work required to partially or fully repave a street shall be accompanied by a street improvement plan and specifications prepared by a qualified professional. For moratorium streets, said plan and specifications shall be prepared by a licensed engineer. For non-moratorium streets, the plans and specifications will also need to be prepared by a licensed engineer in most cases. The applicant is responsible for the full cost of the City's expenses for plan review. The applicant will be responsible for providing for and the cost of, construction inspection, material testing, bonding, and all other expenses related to the work.

(6) Emergency excavation necessary for the immediate preservation of life or property, for locating trouble in conduit or pipe or for making emergency repairs are acceptable; provided that any person making such emergency excavation notifies the City of the emergency as soon as they call for emergency locates, then applies for and receives a permit on the first working day after which the work is commenced. For emergency repair to the City's sanitary sewer system, the applicant shall provide photographs of the repair as well as a televised recording showing that this repair has been completed per City standards.

(7) When traffic conditions, safety or convenience of the public has necessitated ROW excavation be performed on an emergency basis, the Public Works Director is authorized to order that adequate personnel, equipment, and facilities be employed by the permittee on a 24-hour basis such that the excavation may be completed as soon as practicable. This may include, but is not limited to, flaggers, temporary traffic control signs and devices, lighting, etc. The permittee shall be responsible for the cost of providing the necessary personnel, equipment, and facilities

(8) If work is being performed within Highway 101 (including North and South Broadway and Bayshore Drive) the applicant shall coordinate with the Oregon Department of Transportation (ODOT) and comply with their requirements. The applicant shall also comply with this policy when working in City ROW and comply with City standards when working on City owned utilities in the ODOT ROW.

IV Manner of Excavation for Moratorium & Non Moratorium Streets

(1) The permittee shall perform excavation/work in such a manner so as to avoid unnecessary inconvenience or annoyance to the general public and occupants of neighboring properties. The permittee shall take appropriate measures to reduce, to the fullest practicable extent, noise, dust and unsightly debris. Between the hours of 6:00 p.m. and 7:00 a.m., the permittee shall not, except in case of emergency, use any tool, appliance or other equipment producing noise of sufficient volume to disturb the peace or repose of occupants of neighboring properties.

(2) No permittee shall make any excavation or perform any work at variance with, or in any way contrary to, the terms of the ROW permit issued therefore. All trenches must be braced/shored in a manner consistent with OSHA requirements. Excavation shall not at any point extend underneath or beyond the width of the opening at ground level.

(3) No damage or injury shall be done to pipes, cables or conduit in making excavation. Notice shall be given to all persons maintaining pipes, cables or conduit which are or may be endangered or affected by the excavation prior to the time excavation commences.

(4) No unnecessary damage or injury shall be done to any tree or shrub or the roots thereof.

(5) After excavation commences, the person performing the excavation shall proceed with diligence and promptly complete the work.

(6) The permittee shall adequately barricade the area being excavated, and shall install sufficient warning devices to protect the public.

(7) All excavators shall call (811) or (1-800-332-2344) to utilize the Oregon Utility Notification Call Center (OUNCC) for locate requests, marking, positive response, etc. prior to excavation and with proper request times (i.e. 48-hours in advance). Excavators shall exercise appropriate caution to avoid damage and ensure safety. All excavators are subject to federal regulations, State of Oregon statues, Coos Bay Municipal Code, Coos Bay Engineering Design Standards for adherence to excavation rules and penalties.

(8) Prior to commencing excavation work, appropriate traffic control shall be installed and implemented in accordance with the approved traffic control plan pursuant to the Manual of Uniform Traffic Control Devices (MUTCD Part 6 –Temporary Traffic Control) guidance. If necessary, the public notification plan will be implemented.

(9) All native material that is excavated shall be hauled offsite and disposed of accordingly.

(10) It shall be the responsibility of the applicant or the duly authorized representative to employ good housekeeping on the project site from start to finish of construction. Additionally it shall be the responsibility of the applicant or duly authorized representative to employ temporary sediment and erosion control throughout the duration of construction. .

V. Moratorium Street Trench and Surface Repair

Where excavations impact the pavement, the applicant shall provide the dimensions on an asphalt restoration/construction plan accompanying the ROW permit application. The City will ascertain the location and amount of street cut to determine an acceptable plan for restoring asphalt which will comply with detail RD 1.0, RD 1.1 and RD 1.2, and all referenced details called out within those RD details. Patches/paving shall extend the full width of an established travel lane. Pavement cuts shall be full depth and extend 2 feet (2'-0") beyond the nominal

trench edge longitudinally and transversely. There shall be no gaps ≤ four feet (4'-0") from edge of road, curb, or gutter. The paving area may require extended milling beyond either side of the trench for a minimum of 10' depending on the conditions. Milling shall be no less than 2-inch in depth. An applicant may also be asked to extend pavement in collaboration with the City or others to assist with efforts to maintain streets in good working condition.

The City requires strict adherence to standard details and permit requirements. **The permittee shall request City inspection as follows**: 1) Prior to backfill to confirm that the bottom of the trench has the proper bedding, tracer wire has been placed on pipe, confirm that the proper equipment and material is being used for backfill, and to ensure sawcut edges are clean and square. 2) Final inspection to confirm the right-of-way has been restored to original or better condition. This includes inspection of asphalt concrete checking for "boney" spots, confirming sawcut edges are sealed and sanded.

Observation and Quality Control testing will be performed and is required for compaction, densities, gravel or asphalt thickness, materials delivered, job mix formula, trucking tickets, etc. At no cost to the City, the permittee shall have observation and testing services performed by qualified and properly certified/licensed firm or individual. A Nuclear Relative Compaction test must be completed for the backfill as follows: trench depths greater than 10 feet requires one test at five feet from the surface and one test at the surface; for trench depths less than 10 feet, tests shall be performed at half the depth of the trench and one test at the surface; and test shall be performed every 300 feet. A Nuclear Relative Compaction test must be provided one each for asphalt base lift and top lift every 500 feet. All testing results, specification and quantity information shall be submitted to the City prior to release of bond. Failure to adequately meet minimal standards or test requirements shall result in re-excavation and re-work of the trench and resurfacing to the satisfaction of the City. If the applicant fails to rectify the problem, the director may cause the resurfacing to be done, and the costs therefore assessed against the permittee.

If the Public Works Director determines that final repaving of the street is not appropriate at that particular time for reasons relating to weather or other short term problems, the Public Works Director may grant a delay until proper conditions allow for repaving. The applicant shall provide a bond for the cost for final paving (+ 10%) until such time as the final paving is completed and accepted by the City.

Reference shall be made to the attached details and to applicable City of Coos Bay engineering standards and details (See SS 2.0 and SS 2.1).

- Class B backfill shall be utilized.
- Refer to detail SS2.0 & SS2.1 for suitable backfill material.
- 12-inch minimum of aggregate base course (ABC) material shall be used on City streets.
- Backfill and base materials shall be compacted in 12" maximum lifts.

- Soil shall be compacted by a mechanized tamper (i.e. jumping jack) for most excavations, however, vibratory rollers > 18" width may be used for larger excavations. Plate tamping will be allowed at the discretion of the City.
- All approved castings shall be set flush to grade and supported if applicable.
- ABC and sub-base compacted to 95% and backfill and embedment compacted to 90% of the maximum dry density as determined by the modified AASHTO Method T-99.
- 1-foot cutbacks of existing asphalt shall be made on undisturbed soil. Clean square cuts shall be applied with tack to all asphalt joints.
- ODOT/APWA spec asphalt shall be installed in lifts to match the existing pavement thickness in 2" lifts. Replace AC thickness a minimum of 4 inches (2 – 2 inch lifts) or the thickness of the removed AC, whichever is greater. Minimum asphalt density is 90% of maximum specific gravity.

VI. Non-Moratorium Street Trench and Surface Repair

Where excavations impact the pavement, the applicant shall provide the dimensions on an asphalt restoration/construction plan accompanying the ROW permit application. The restoration shall be in conformance with detail RD 1.0, RD 1.1 and RD 1.2. Where an applicant requires multiple cuts in a block or section of street, the City reserves the right to require full lane or full width restoration. At a minimum, trench cut paving shall extend beyond the wheel path to the middle of the travel lane. Pavement cuts shall be full depth and extend one foot (1-0") beyond the nominal trench edge longitudinally and transversely. There shall be no gaps ≤ four feet (4'-0") from edge of pavement, curb, or gutter. Where utility excavation occurs within a substantial road section, such as a collector or arterial street, the paving area may require extended milling beyond either side of the trench for a minimum of 10' depending on the conditions. Milling shall be no less than 2-inch in depth. An applicant may also be asked to extend pavement in collaboration with the City Streets department or others to assist with efforts to maintain streets in good working condition.

If the Public Works Director determines that final repaving of the street is not appropriate at that particular time for reasons relating to weather or other short term problems, the Public Works Director may grant a delay until proper conditions allow for repaving. The applicant shall provide a bond for the cost for final paving (+ 10%) until such time as the final paving is completed and accepted by the City.

Reference shall be made to the attached details and to applicable City of Coos Bay engineering standards and details (See SS 2.0 and SS 2.1).

- ODOT (latest version of Oregon Standard Specifications for Construction) spec aggregate base course material (Class B) shall be utilized.
- Refer to detail SS2.0 & SS2.1 for suitable backfill material.
- 12-inch minimum of aggregate base course (ABC) material shall be used on City streets.
- Backfill and base materials shall be compacted in 6" maximum lifts.

- Soil shall be compacted by a mechanized tamper (i.e. jumping jack) for most excavations, however, vibratory rollers > 18" width may be used for larger excavations. Plate tamping will be allowed at the discretion of the City.
- All approved castings shall be set flush to grade and supported if applicable.
- ABC and sub-base compacted to 95% and backfill and embedment compacted to 90% of the maximum dry density.
- 1-foot cutbacks of existing asphalt shall be made on undisturbed soil. Clean square cuts shall be applied with tack to all asphalt joints.
- ODOT (latest version of Oregon Standard Specifications for Construction) spec Hot Mixed Asphalt Concrete (HMAC) shall be installed in lifts to match the existing pavement thickness in 2" lifts. Replacement HMAC minimum thickness is 4 inches (2 – 2 inch lifts) or the thickness of the removed asphalt, whichever is greater. Minimum asphalt density is 92% of maximum specific gravity.

The City requires strict adherence to standard details and permit requirements. **The permittee shall request City inspection as follows**: 1) Prior to backfill to confirm that the bottom of the trench has the proper bedding, tracer wire has been placed on pipe, confirm that the proper equipment and material is being used for backfill, and to ensure sawcut edges are clean and square. 2) Final inspection to confirm the right-of-way has been restored to original or better condition. This includes inspection of asphalt concrete checking for "boney" spots, confirming sawcut edges are sealed and sanded.

Observation and Quality Control testing will be performed and is required for compaction, densities, gravel or asphalt thickness, materials delivered, job mix formula, trucking tickets, etc. At no cost to the City, the permittee shall have observation and testing services performed by qualified and properly certified/licensed firm or individual. A Nuclear Relative Compaction test must be completed for the backfill as follows: trench depths greater than 10 feet requires one test at five feet from the surface and one test at the surface; for trench depths less than 10 feet, tests shall be performed at half the depth of the trench and one test at the surface; and test shall be performed every 300 feet. A Nuclear Relative Compaction test must be provided one each for asphalt base lift and top lift every 500 feet. All testing results, specification and quantity information shall be submitted to the City prior to release of bond. Failure to adequately meet minimal standards or test requirements shall result in re-excavation and re-work of the trench and resurfacing to the satisfaction of the City. If the applicant fails to rectify the problem, the director may cause the resurfacing to be done, and the costs therefore assessed against the permittee.

VII. Final Asphalt and Striping Restoration

Upon completion of the utility work the permittee shall restore pavement (per IV or V above) and striping to the agreed dimensions and methods in the permit. Any alternate material shall first be approved by Public Works Department prior to placement. Under no circumstances shall the permittee attempt to skin patch on top of existing asphalt. Removed traffic markings or striping shall be restored within 1 days using what was in place originally, thermo-plastic or paint materials.

VIII. Gravel Streets

When trenches are excavated in streets or alleys that have only a gravel surface, the permittee shall replace such surfacing on a satisfactory compacted backfill with gravel conforming to City specification aggregate base course. Gravel replacement shall be one (1) inch greater in depth to that which originally existed, but not less than four (4) inches. The surface shall conform to the original street grade. Where the completed surface settles, additional gravel base shall be placed and compacted by the applicant within fourteen (14) days after being notified by the City, to restore the roadbed surface to finished grade. Some streets may have been treated with a special surface treatment to control dust and/or bind the aggregates together. In these cases, the permittee is responsible for installing the gravel surface in the same manner as what was existing prior to the excavation work. Such surface treatments shall be of the same chemical composition as what existed prior to the excavation work. The City shall note on the permit the surface treatment that will be required.

IX. Driveway, Curbing & Sidewalk Restoration

Where excavations impact a driveway, curbing, sidewalk or signs, the contractor shall reference all applicable City of Coos Bay Technical Standards and Details to restore these facilities. Directional drilling methods may be used to cross under a driveway, curb or sidewalk; however, there will be no tunneling or jetting for this purpose. Concrete shall be removed to neatly sawed edges to full depth for sidewalks and curb and gutter and shall be saw-cut in straight lines either parallel to the curb or perpendicular to the alignment of the sidewalk or curb. Any removal shall be done to the nearest joint. Replaced sections may require doweling connections if required by the Public Works Department. Concrete provided for restoration shall be from a drum mix. The permittee shall request the City inspect the forms prior to placement of concrete to confirm that the restoration follows City guidelines and standards.

X. Temporary Repair

Where construction activities require a trench to be backfilled or covered for any reason, including restoring traffic, resuming construction, or awaiting asphalt restoration, the contractor shall safely maintain the trench and all traffic control until the following temporary pavement repairs are made on a suitable base in a safe manner: Less than 24-hours – 6" compacted ABC gravel; 30 days >1 day (i.e. next week) – 2" hot mix or cold patch asphalt; > 30 days – 2" minimum hot mix asphalt. Steel plates may be used under certain circumstances up to 30 days with prior approval from the City. Cold patch materials shall be considered acceptable for temporary repair for a period up to 30 days. Depending on the type of street and weather conditions the City reserves the right to determine the type of temporary asphalt repairs required at that time. Note – bond will not be released until hot mix is satisfactorily in place.

XI. Concrete Street Restoration

Restoration requirements for concrete streets shall be determined on a case by case basis in consultation with Public Works staff. Concrete pavement, driveways, streets, and alleys shall be removed to neatly sawed edges (using a concrete saw) cut to full depth. For a utility-cut, the repair section needs to be kept at least 2 feet away from an existing joint or pavement edge. If the repair would fall within 2 feet of a joint or edge, extend the repair to joint or edge. The width of the concrete cut shall extend 12 inches (1 foot) beyond each side of the excavation. This is to allow a shoulder of at least 12 inches of subgrade on each side of the trench to minimize undermining of the existing concrete and to help support the concrete patch. If dowels, keyways, or tie bars are in the existing slab, these should be left in place where possible. At a minimum, replacement concrete to be installed upon completion of the trench shall be per ODOT concrete specifications. Any alternate material shall be first approved by the Public Works Department prior to placement. New concrete shall be applied to the same thickness as existing conditions or a minimum of 6-inches. All concrete joints shall require an approved tie bar and dowel retrofit. Dowels are not needed in transverse joints except on arterials supporting heavy truck traffic and/or as determined by Public Works staff on a case-by-case basis. Depth of concrete replacement shall match the existing thickness, or a minimum of 6-inches. Care shall be made not to undermine the existing panels. All joints shall be sealed with material approved by the City. Asphalt over concrete road cuts shall be discussed with Public Works staff before beginning work (except in the case of an emergency situation). The asphalt portion of the cut shall be constructed according to the appropriate pavement cut policy (Sections V or VI).

XII. Worksite Safety and Access

Any Permit holder conducting repairs, excavation or utility work shall take reasonable actions and precautions to ensure that such work does not endanger people or property, nor interfere with the free and proper use of public streets, alleys, sidewalks, bridges, etc. nor hinder with the operation of any other utilities, etc.

XIII. Warranty

All excavations and street repairs shall be guaranteed against failure for a period of 18 months after completion of asphalt restoration. The warranty period shall start the first of the month following completion. Example: a repair completed on the 20th of June shall be warranted from July 1st until December 31st the following year. A failure is defined as settlement greater than 1/8 -inch in depth as determined by the ODOT straight edge method, pulled joints, cracking of the patch, unraveling; etc. Upon discovery of failures from inspections, the City may contact the permittee of such failures to make repairs as needed.

XIII Exceptions

1. Valve and manhole repairs shall be exempt from the patching requirements of this policy. Valve and manhole patching requirements shall be per the City's engineering standards. All warranty and construction requirements shall be met. No longitudinal construction joints shall be allowed in the wheel path.

2. Potholing to find utilities shall be allowed. To be exempt from this policy, cuts shall be a maximum of two-feet square (2'-0") with no longitudinal joints in the wheel path and shall be backfilled with controlled density or other approved fill from six inches above the utility to six inches below bottom of asphalt. Round vs. square cuts are preferred.

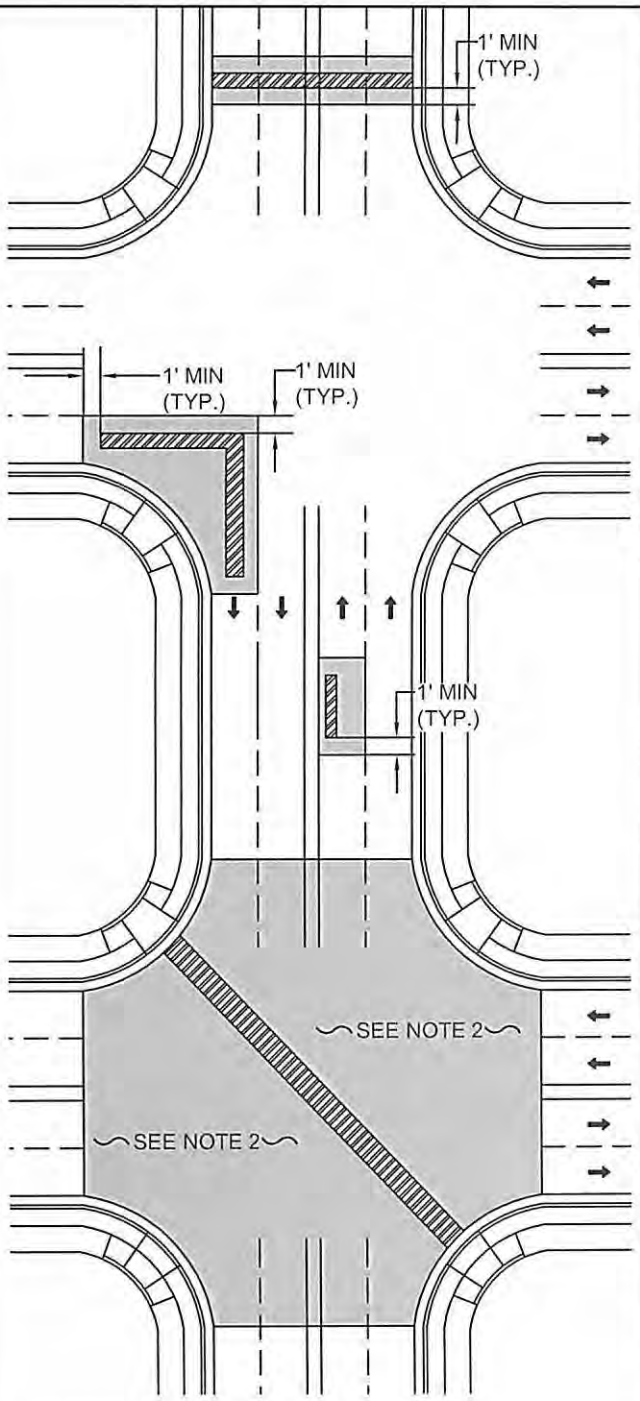
XIV Warranty Requirements

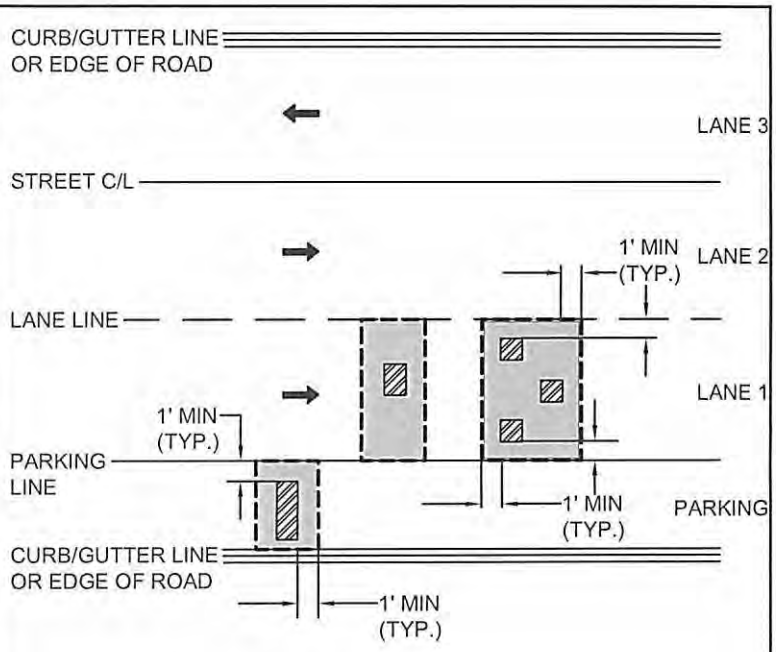
1. Pavement cuts on moratorium roadways will have a warranty period of three years. The patch in the roadway shall be repaired as necessary until the warranty has passed.
2. All other roadways shall require a minimum 12 month warranty period. All warranties shall become void if rehabilitation work is performed to the road within the patching limits.
3. For road cuts performed by a Utility using its internal capability, that Utility or assignee will be responsible for repairs required during the warranty period.
4. All curb, sidewalks and structures that are affected by the excavation shall be included in this policy and have a warranty for five years.
5. All warranty work requires permittee meet specification and testing requirements required in V and VI, as applicable.
6. The following defects identified by City staff shall be covered by warranty:

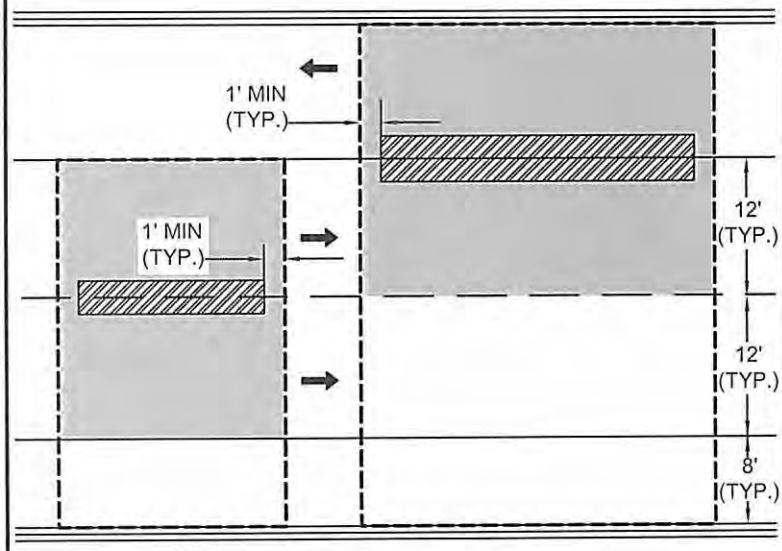
a. Sunken pavement patches greater than or equal to one-eighth inch as determined by the ODOT straight edge method.
b. Failure to meet the City's visual rating standard for patching and joints.
c. Poor workmanship.
d. Inadequate compaction per standards in this policy.
e. Sunken or damaged curb and sidewalks in excavation work area.
f. Sunken or damaged catch basins in excavation work area.

7. Notice of Warranty Repairs:

    a. If emergency warranty repairs are needed due to safety concerns, the permittee shall have twenty-four hours in which to make such repairs from time of verbal notice by the City.
    b. For non-emergency repairs on arterial roads the permittee shall have forty-eight hours to make such temporary repairs.
    c. Residential streets, the permittee shall have up to seven days to make such temporary repairs.







LEGEND

UTILITY/STREET CUT

CITY STANDARD RESTORATION REQUIREMENTS

NOTE:

1. FOR DETAILED NOTES REFER TO DETAIL RD 1.1
2. SITE RESTORATION TO BE CONDITIONED BY PUBLIC WORKS.

LEGEND

WHEN PAVEMENT IS LESS THAN 3-YRS OLD, FULL-DEPTH PAVEMENT PATCH IS REQUIRED TO THESE LIMITS. NO JOINTS OR REDUCTION IN AREA ARE ALLOWED.

TRENCH LIMITS AT THE SURFACE OF PAVEMENT.

WHEN PAVEMENT IS GREATER THAN 3-YRS OLD, FULL-DEPTH PAVEMENT PATCH IS REQUIRED TO THESE LIMITS. NO JOINTS OR REDUCTION IN AREA ARE ALLOWED.

NOTE:

1. FOR DETAILED NOTES REFER TO DETAIL RD 1.1

City of Coos Bay
ENGINEERING DEPARTMENT
500 Central Avenue
Coos Bay, Oregon 97420
541-269-8918

DRAWN BY: JESSICA SPANN

REVISIONS

REVISED BY:	DATE:

COLLECTOR & ARTERIAL AC REPLACEMENT DETAIL

DRAWING NO. RD 1.0

DATE JAN. 2014

NOTE:

1. THE EXISTING AC SHALL BE SAWCUT THROUGH ENTIRE AC SECTION PRIOR TO EXCAVATION.

2. IF TRENCH EXCEEDS LANE CENTERLINE; SAWCUT FROM CURB TO CURB AND 12" OUTSIDE THE TRENCH ZONE.

3. WORK RESULTING IN IRREGULAR TRENCH WIDTHS OR INCIDENTAL DAMAGE TO THE ROADWAY SURFACE WILL REQUIRE ANOTHER SAWCUT AND SUBSEQUENT REMOVAL OF AC. THE SAWCUT LINE SHALL BE APPROVED BY CITY OF COOS BAY PRIOR TO PERMANENT AC REPAIR.

4. IF ANY TRAFFIC MARKINGS ARE REMOVED THEY MUST BE REPLACED WITH EXISTING MATERIAL THERMOPLASTIC AND/OR TRAFFIC MARKING PAINT PROFILEDXXMETHYL METHACRYLATE (MMA) OR EQUAL TO.

5. PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED FOR INSPECTIONS, SEE PERMIT.

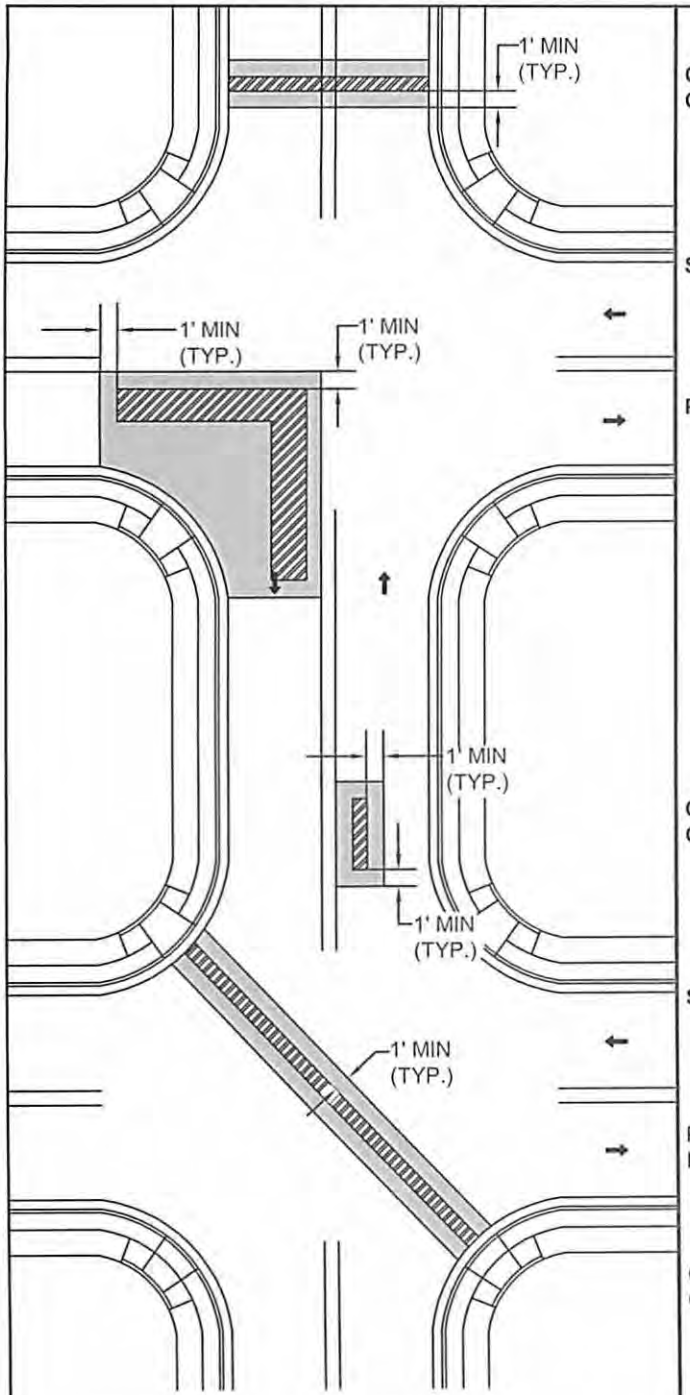
6. REFER TO STANDARD UTILITY TRENCH DETAIL AND STREET CUT - UTILITY STANDARD UTILITY TRENCH DETAIL FOR FURTHER DETAILS.

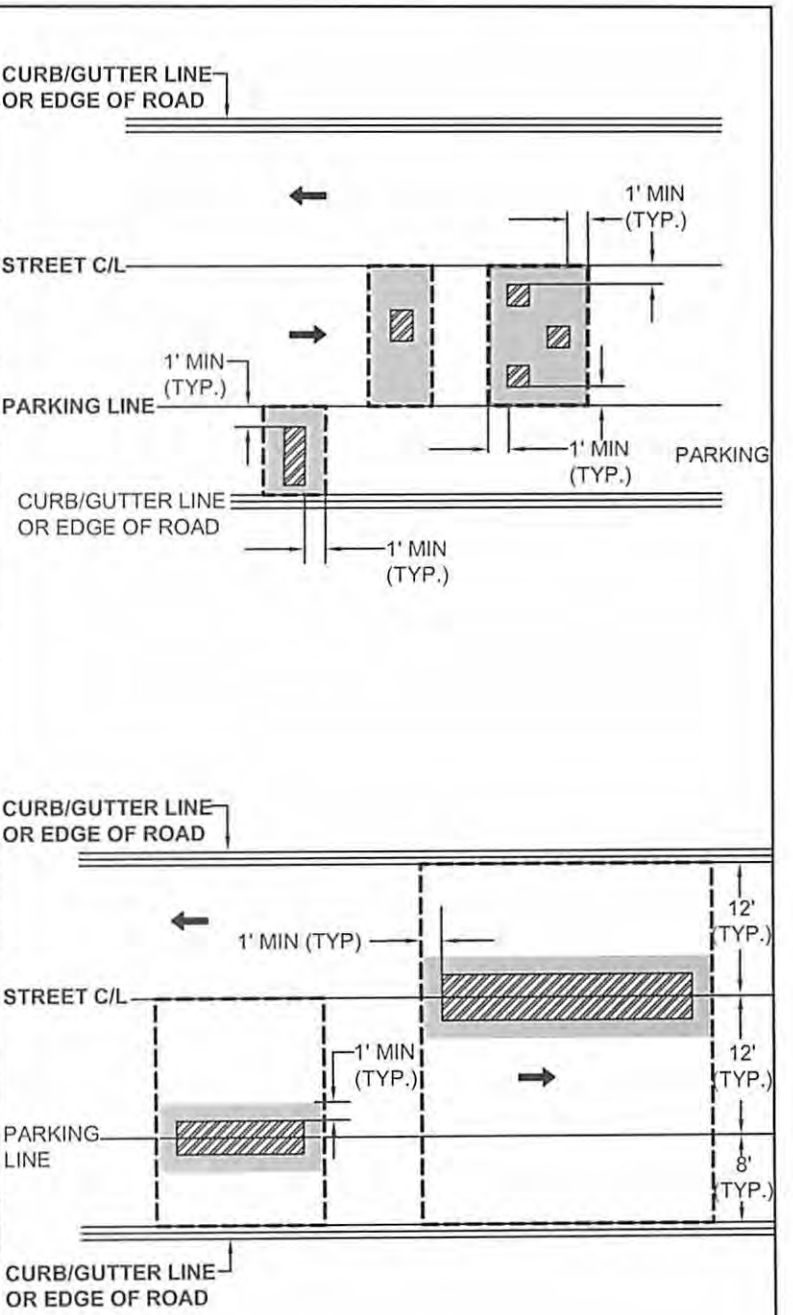
7. FULL DEPTH REPLACEMENT IS REQUIRED TO CURB/GUTTER LINE OR EDGE OF ROAD WHEN REMAINING DISTANCE BETWEEN EDGE OF PAVEMENT OR CURB IS LESS THAN 4-FT.

8. PAVEMENT REPLACEMENT IS REQUIRED TO THE NEXT ADJACENT CURB, PARKING, OR LANE LINE WHENEVER A TRENCH OR DISTURBANCE OR ASPHALT OR SUPPORT MATERIAL EXTENDS BEYOND SUCH LINE.

9. REFER TO DETAIL SS 2.0, SS2.1 AND SS2.2 FOR FURTHER SPECIFICATIONS.

	City of Coos Bay ENGINEERING DEPARTMENT 500 Central Avenue Coos Bay, Oregon 97420 541-269-8918	DRAWN BY: JESSICA SPANN		**AC REPLACEMENT NOTES**	DRAWING NO. RD 1.1
		REVISIONS			
		REVISED BY:	DATE:		DATE JAN. 2014





LEGEND

UTILITY/STREET CUT

CITY STANDARD RESTORATION REQUIREMENTS

NOTE:

1. FOR DETAILED NOTES REFER TO DETAIL RD 1.1

LEGEND

WHEN PAVEMENT IS LESS THAN 3-YRS OLD, FULL-DEPTH PAVEMENT PATCH IS REQUIRED TO THESE LIMITS. NO JOINTS OR REDUCTION IN AREA ARE ALLOWED.

TRENCH LIMITS AT THE SURFACE OF PAVEMENT.

WHEN PAVEMENT IS GREATER THAN 3-YRS OLD, FULL-DEPTH PAVEMENT PATCH IS REQUIRED TO THESE LIMITS. NO JOINTS OR REDUCTION IN AREA ARE ALLOWED.

NOTE:

1. FOR DETAILED NOTES REFER TO DETAIL RD 1.1

City of Coos Bay
ENGINEERING DEPARTMENT
500 Central Avenue
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DRAWN BY: JESSICA SPANN

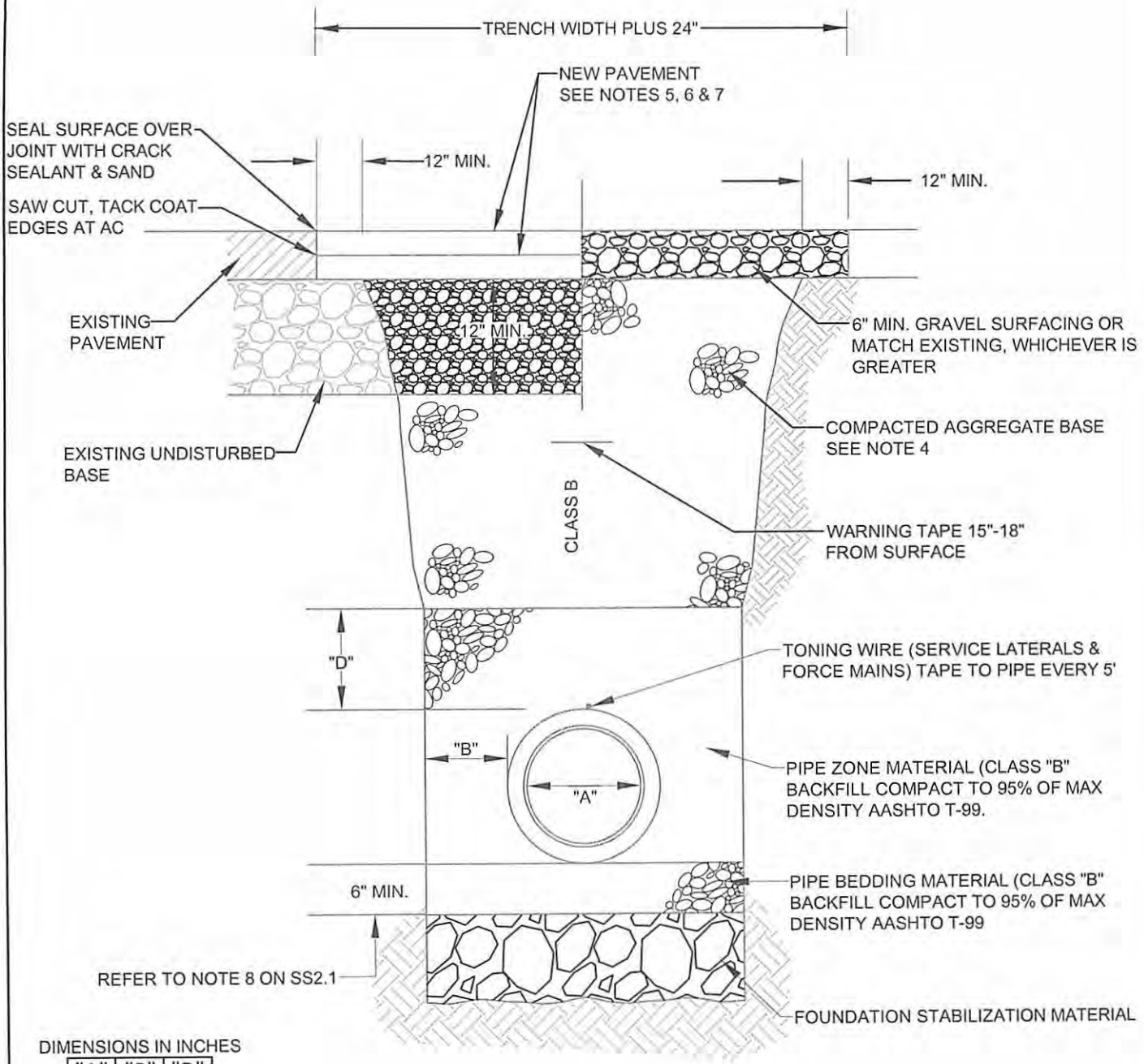
REVISIONS

REVISED BY:	DATE:

LOCAL & NEIGHBORHOOD AC REPLACEMENT DETAIL

DRAWING NO. RD 1.2

DATE JAN. 2014



DIMENSIONS IN INCHES

"A"	"B"	"D"
4	10	12
6	10	12
8	10	12
10	10	12
12	12	12
15	12	12
18	16	12
21	16	12
24	18	12
30	18	12
36	24	14

NOTES:

1. FOR ALL DETAILED NOTES REFER TO DETAIL SS 2.1

City of Coos Bay
ENGINEERING DEPARTMENT
500 Central Avenue
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541-269-8918

DRAWN BY: JESSICA SPANN

REVISIONS

REVISED BY:	DATE:

STANDARD UTILITY TRENCH DETAIL FOR AREAS IN ROW

DRAWING NO. SS 2.0

DATE JAN. 2014

NOTES:

1. TRENCH EXCAVATION SHALL BE CONDUCTED IN A SAFE MANNER WITH ALL NECESSARY BRACING AND SHORING PROVIDED TO BE IN COMPLIANCE WITH OSHA.

2. ALL EXISTING AC OR PCC PAVEMENT SHALL BE SAWCUT IMMEDIATELY PRIOR TO REPAVING.

3. FOUNDATION STABILIZATION SHALL BE PROVIDED WHEN MATERIAL AT BOTTOM OF TRENCH IS UNSUITABLE, IN THE OPINION OF THE CITY, TO PROVIDE A STABLE TRENCH BASE.

4. PLACE COMPACTED AGGREGATE BASE TO A MINIMUM THICKNESS OF 12 INCHES OR THE THICKNESS OF REMOVED AGGREGATE BASE, WHICH EVER IS GREATER. COMPACTED AS DIRECTED

5. IF EXISTING TRENCH CONSISTED OF CONCRETE PAVEMENT THEN CONCRETE PAVEMENT SHALL BE REPLACED WITH CONCRETE TO A MINIMUM THICKNESS OF 6 INCHES OR TO THE THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER.

6. IF EXISTING TRENCH CONSISTED OF AC PLACE AC MIX TO A MINIMUM THICKNESS OF 4 INCHES (2-2 INCH LIFTS) OR THE THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER. COMPACT AS DIRECTED. AC PAVEMENT SHALL BE PLACED IN AT LEAST TWO 2 INCH LIFTS.

7. IN SITUATIONS WHERE EXISTING PCC PAVEMENT IS OVERLAYED WITH AC PAVEMENT. PLACE PCC PAVEMENT IN ACCORDANCE WITH NOTE 3 AND WITH AC PAVEMENT PLACED IN ACCORDANCE WITH NOTE 4.

8. BACKFILL IN PIPE ZONE SHALL BE PLACED IN MAXIMUM 6" LIFTS AND COMPACTED AS SPECIFIED.

9. TONING WIRE REQUIRED AT SERVICE LATERALS, FORCEMAINS, AND GRAVITY LINE. WIRE SHALL BE 18 GA. MINIMUM SOLID COPPER WIRE WITH GREEN 30 MIL THICH HDPE INSULATION RATED FOR DIRECT BURY. USE APPROVED WATERPROOF SPLICE AT ALL CONNECTIONS.

10. SANITARY AND STORM SEWER LINES MUST HAVE WARNING TAPE AND IT SHALL BE 6-INCHES WIDE, 4 MIL THICK, APWA GREEN, READING "CAUTION SEWER LINE BURIED BELOW".

	City of Coos Bay ENGINEERING DEPARTMENT 500 Central Avenue Coos Bay, Oregon 97420 541-269-8918	DRAWN BY: JESSICA SPANN		STANDARD UTILITY TRENCH DETAIL FOR AREAS IN ROW	DRAWING NO. SS 2.1
		REVISIONS			
		REVISED BY:	DATE:		DATE JAN. 2014