

CITY OF PROSSER

CONSTRUCTION STANDARDS

FOR

THE PRIVATE CONSTRUCTION

OF

PUBLIC FACILITIES

JUNE, 2000

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CHAPTER 1 - GENERAL

1. ENACTING AUTHORITY

These Development Standards are enacted by the City of Prosser to protect and preserve the public health, safety, and general welfare; and in accordance with State law.

2. PURPOSE

The purpose of these Development Standards is to provide consistent development requirements and standards for the design and construction of public improvements by private developers.

3. STATE ENVIRONMENT POLICY ACT (SEPA)

These Standards will not affect any considerations involving issues under the State Environmental Policy Act (SEPA). The City's responsible official will continue to make all necessary SEPA decisions when individual proposals are submitted.

4. CONFLICTING PROVISIONS

The standards, procedures, and requirements of these Standards are the minimum necessary to promote the health, safety, and welfare of the residents of the City of Prosser. The City may adopt more rigorous or different standards, procedures, and requirements whenever necessary. If the provisions of these Standards conflict with one another, or if a provision of these Standards conflicts with the provision of another Ordinance of the City, the most restrictive provision or the provision imposing the highest standard shall prevail.

5. SEVERANCE

If any provision of these Standards or its application to any person or circumstance is for any reason held to be invalid, the remainder of these Standards or the application of the provisions is not affected.

6. PROCESS

Design Phase

Any person, firm, or corporation which plans to construct a public works improvement shall submit an Application for Encroachment Permit on City Road Right of Way, plans, specifications, engineering calculations, diagrams, and other relevant data or information describing the proposed improvements to the City of Prosser Public Works Department for review by the Director of Public Works or his duly authorized agent. The initial submittal shall consist of the Application for Encroachment Permit on City Road Right of Way (with fee of \$25.00), and two (2) paper sets of plans and specifications.

The City shall review the initial submittal and indicate corrections or additions or request additional information and return one "red lined" set to the Developer. The Developer shall make the required corrections and resubmit one (1) paper set of revised plans and specifications to the City Public Works Department.

When it has been determined that the plans and specifications indicate compliance with City of Prosser standards, the Developer will submit the original plan tracings and specifications for approval and the City of Prosser will stamp the tracings and specifications with an approval stamp. Such approved plans and specifications shall not be changed, modified, or altered without authorization from the Public Works Director. The original tracings and specifications will not be returned to the Developer.

Construction may not begin until receipt by the Public Works Department of the plan review fee, as discussed in Section 8. The original tracings and specifications will not be returned to the Developer.

Construction Phase

All construction shall be inspected by the City of Prosser or its authorized agent. The Contractor shall give two (2) days minimum prior notice to the Public Works Director of the start of any construction activities.

Before the Contractor commences any work, he shall be required to attend a pre-construction conference with the City Public Works Department and the City's Engineer. The Contractor will submit his insurance and construction schedule at this meeting.

After cleanup by the Contractor and final inspection by the City, the City will calculate the inspection fees and submit them to the Developer. The Developer will pay the inspection fee, as discussed in Section 8, to the Public Works Department.

Before the public works improvements can be accepted by the City of Prosser, all of the items on the PROJECT CHECKLIST, found in Appendix A, which are applicable to the project will be completed and submitted to the Public Works Department. The checklist items will be reviewed by the Public Works Department before issuance of a Certificate of Occupancy or signing and recording of a final plat or short plat.

7. ENGINEERING DESIGN PLAN REQUIREMENTS

All plans, specifications, engineering calculations, diagrams, and other relevant data shall be designed and prepared by a Civil Engineer licensed by the State of Washington, in accordance with Chapter 2 - General Plan Requirements.

8. PLAN REVIEW AND INSPECTION FEE

Plan review and inspection fees are hereby established to defray the administrative expense of plan review and inspection costs incurred by the City of Prosser. The total plan review and inspection fee shall be paid by the Developer to the City of Prosser prior to issuance of a Certificate of Occupancy or signing and recording of a final plat or short plat.

The plan review and inspection fee shall be the total actual costs incurred by the City of Prosser, its agents, employees, and elected or appointed officials, for review and approval of the plans and specifications and for inspection of construction of the public improvements. The fee shall include, but not be limited to, initial plan review, subsequent meetings with the Developer, explanations to the Developer's engineering consultant, re-reviews of revised plans, construction inspection, re-inspections, final inspection prior to the expiration of the maintenance period, and modifications by the City of the original mylar tracings to show record drawing information.

The actual costs will be tabulated and sent to the Developer for payment in full.

9. RECORD DRAWINGS

The Developer shall maintain a neatly marked, full-sized print set of record drawings showing the final location and layout of all new construction of the public facilities. Prior to final acceptance by the City of Prosser, the marked prints prepared by the Developer's Engineer and clearly marked "RECORD DRAWINGS" shall be delivered to the Director of Public Works.

10. TRANSFER OF OWNERSHIP

The Developer shall complete a Transfer of Ownership of Utility System Form upon completion of the construction of the public works improvements. This form may be found in Appendix A.

11. EASEMENTS

Public utility easements shall be established for the location of new and future public improvements serving new land divisions and land developments. Easements shall also be granted across the front of new lots and existing lots to provide future utility access as required.

All easements required shall be prepared by the Developer on the proper form and format for recording at the Benton County Auditor's Office. The easement legal description shall be prepared by a land surveyor licensed in the State of Washington. The executed and notarized easement document shall be submitted to the Director of Public Works for recording.

Eight (8) foot wide utility easements shall be dedicated along the front of each lot in subdivisions and short subdivisions. Easements for new and/or future utility lines shall be a minimum of sixteen (16) feet wide, provided the width of the easements for buried utilities will be at least twice the depth of the planned excavation.

Utility easements shall be continuous and aligned from block to block within a subdivision and with easements in adjoining subdivisions to facilitate the extension and future extension of public utilities.

CHAPTER 2 - GENERAL PLAN REQUIREMENTS

All plans, specifications, engineering calculations, diagrams, and other relevant data shall be designed and prepared by a Civil Engineer licensed by the State of Washington.

GENERAL PLAN FORMAT

1. Plan sheets and profile sheets or combined plan and profile sheets and detail sheets shall be on a sheet size of 24" x 36". Tracings shall be made on mylar.
2. Each sheet shall contain the following project information:
 - a. Project title and City project number, work order number, or LID number, if appropriate.
 - b. Name, address, and phone number of the owner/developer.
 - c. Name, address, and phone number and stamp of the Civil Engineer preparing the plans.
 - d. Quarter section, Section - Township - Range
 - e. Sheet title.
 - f. Page (of page) numbering.
 - g. Revision block.
3. All plan sheets must have a NORTH arrow preferably pointing to the top of the sheet or to the left, and must indicate the drawing scale. All engineering plans must be drawn to an appropriate engineer's scale. For profiles, the vertical scale shall be 1"=2, 1"=5 or 1"=10'. The horizontal scale shall be the same for both plan and profile. Plan and profile stationing shall generally read left to right.
4. The Vertical Datum for all plan submittals must be based on the CITY OF PROSSER DATUM. The benchmark used shall be referenced on the plans. An assumed datum will not be accepted.
5. Existing features and topography within the project construction limits must be shown on the plans. This shall include existing road width and surfacing, utility poles, existing underground utilities and surface appurtenances, significant trees, landscaping, and other elements that may affect design/construction.
6. Plan sheets shall indicate all adjacent property lines, right of way lines, and easements.
7. Plan sheets shall show all horizontal survey control as required to properly locate and tie the improvements in horizontal location.
8. Vicinity map showing the project site location.

If the engineering plans include more than three (3) sheets, a cover/title sheet will be required. This sheet shall include an overall site plan with contours, a vicinity map, table of contents, and applicable project information.

SANITARY SEWER SYSTEM PLAN REQUIREMENTS

1. Show all existing and proposed sanitary sewer system features including, but not limited to, the following:
 - a. Sewer mains, gravity and force mains
 - b. Side service, proposed locations
 - c. Manholes
 - d. Clean outs
 - e. Pump Stations.
2. Indicate all easements required for the sanitary sewer main extensions and laterals.
3. Provide a profile for each sanitary sewer main extension. Clearly indicate the vertical and horizontal scale. Show the profile on the same sheet with, and aligned underneath, the plan view as practical.
4. Show the sanitary sewer system and water system on the same plan and profile for verification of minimum separation requirements. The design information for each may be on individual drawings for that system.
5. Slope, length, size, and pipe type shall be indicated for all mains and side sewers. Pipe length shall be measured from centerline of manholes.
6. Each manhole shall be uniquely numbered and shall be stationed off of a referenced centerline. Indicate rim and invert elevations in and out at all manholes. Indicate the length of each side sewer stub, the centerline stationing for each side sewer, and the size.
7. The plan and profile must show the location of all existing and proposed gas, water, irrigation, storm drain, and other utility crossings.
8. Generally show all vertical data in the profile view and all horizontal data in the plan view. It is not desirable to repeat the vertical data in the plan view unless it does not show in a profile.
9. Provide an overall site plan of development with contours, to show that all lots/parcels will be served by the proposed sewer system at design depth for all new development.

WATER SYSTEM PLAN REQUIREMENTS

1. Show all existing and proposed water system features if known, including but not limited to:
 - a. Water mains
 - b. Water valves
 - c. Water meters
 - d. Fire hydrants
 - e. Blow offs
 - f. Air and vacuum release valve assemblies
 - g. Pressure reducing valves

- h. Fire sprinkler system lines
 - l. Double check valves
 - j. Post indicator valves
 - k. Thrust blocking
2. Identify all joint connections; provide detail of all non-standard joints.
 3. Station or dimension the location of all fire hydrants, tees, crosses, services relative to centerlines or property lines.
 4. Indicate all easements required for the water main extensions and future extensions.
 5. Show the length, size, and pipe type for all main extensions, fire sprinkler system services, and domestic services where applicable.
 6. Show the water system and the sanitary sewer system on the same plan and profile view for verification of minimum separation requirements. The design information for each system may be on individual drawings for that system.
 7. A profile view shall be shown for all City water main extensions, aligned if practical with the plan view. Clearly indicate the horizontal and vertical scales.
 8. Show the minimum cover and minimum separation on each sheet.
 9. In the profile view, show all utilities crossing the proposed water main.

STORM DRAIN SYSTEM PLAN REQUIREMENTS

1. Show all existing features if known and all proposed storm drain system features including but not limited to:
 - a. Storm drain mains
 - b. Catch basins
 - c. Inlets
 - d. Drywells
 - e. Retention systems
 - f. Biofiltration swales
 - g. Culverts
 - h. Streams
 - l. Ditches
 - j. Natural drainage swales
 - k. Headwalls
 - l. Oil/water separator assembly
2. Show slope, length, size, and pipe material for all storm drain mains and lines.
3. All catch basins and inlets shall be uniquely numbered and shall be clearly labeled. Stationing and offsets shall be indicated from referenced centerline. Show all proposed storm drain features within the right of way in a profile.

4. Indicate all grate, rim, and invert elevations in the profile view.
5. Show all horizontal measurements and control in the plan view.
6. Indicate all easements required for the storm drainage system.
7. The plan shall clearly indicate the location of the storm drainage items stationed from a referenced centerline.
8. Provide storm drainage calculations as described in Chapter 8.

STREET PLAN REQUIREMENTS

1. Show all existing and proposed roadway improvements including but not limited to:
 - a. Pavement
 - b. Concrete curb and gutter
 - c. Edge of pavement
 - d. Sidewalk
 - e. Utilities (manholes, power poles, signs, valves, etc.)
 - f. Handicap ramps
 - g. Barricades
 - h. Driveways
 - i. Rockery or retaining walls
 - j. Mailboxes
 - k. Monuments
 - l. Streetlights
 - m. Compliance with ADA requirements.
2. Show all right of way lines, centerlines, and roadway widths for all rights of way.
3. Clearly differentiate between areas of existing pavement, areas of new pavement, and areas to be overlaid.
4. Provide a cross section or typical section of all rights of way indicating right of way width, centerline, pavement width, sidewalk, curb and gutter, pavement, and base thickness of existing pavement
5. Provide a profile of all new public roadways or extensions of existing roadways. Indicate all vertical curve data, percent of grade, centerline stationing, finish grade elevations, and existing ground line. The profile of the existing centerline ground should extend a minimum of 100 feet before the beginning and at the end of the proposed improvements to show the gradient blend.
6. Align the profile view with the plan view, if practical. Clearly indicate the horizontal and the vertical scale.
7. Clearly label all profiles with respective street names and plan sheet reference numbers if drawn on separate sheets.

CHAPTER 3 - STANDARD SPECIFICATIONS

FORWARD

The City of Prosser has adopted the Standard Specifications for Road, Bridge, and Municipal Construction prepared by the Washington State Department of Transportation, and the Washington State Chapter of the American Public Works Association as the standard specifications governing all design and construction of public improvements by private developers.

All references hereinafter made to the "Standard Specifications" shall refer to the latest edition of the Standard Specifications described above. Except as may be amended, modified, or supplemented hereinafter, each section of the Standard Specifications shall be considered as much a part of these requirements as if they were actually set forth herein.

The Standard Specifications, Special Provisions, and City Standard Details contained in these **City Construction Standards** shall apply in their entirety to all City of Prosser public works projects. These Standards have been prepared to form a compiled document intended to assist and inform developers, consultants, and contractors of the construction requirements to be used on public works improvements.

The Standard Specifications, Special Provisions, and City Standard Details shall periodically be revised and updated. It shall be the responsibility of each user of this information to verify that he has the latest revisions prior to submitting any work covered by these specifications and details.

Developers and contractors are encouraged to contact the City of Prosser Public Works Department to obtain a copy of these standards.

City of Prosser
Public Works Department
1109 Meade Avenue
Prosser, WA 99350

Telephone: (509) 786-7300
Fax: (509) 786-3468

CHAPTER 4 - GENERAL REQUIREMENTS FOR ALL PROJECTS

GENERAL

All work shall be done in accordance with the Plans, the Standard Specifications for Road, Bridge, and Municipal Construction prepared by the Washington State Department of Transportation, and the Washington State Chapter of the American Public Works Association, latest edition, referenced codes and organizations, and these Special Provisions.

All references hereinafter made to Standard Specifications shall refer to the Standard Specifications for Road, Bridge, and Municipal Construction prepared by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association, latest edition

NOTE: THE "APWA AMENDMENTS TO DIVISION ONE OF THE WSDOT/APWA STANDARD SPECIFICATIONS" SHALL REPLACE DIVISION ONE OF THE "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION."

1-01 DEFINITIONS AND TERMS

1-01.3 Definitions

The terms defined in Section 1-01.3 of the APWA Amendments to Division One of the Standard Specifications shall be further described by the following:

Consultant:	Means an engineer licensed in the State of Washington, employed by the Developer to prepare plans and specifications, perform construction staking, or similar services.
Contract Documents:	Means the plans and specifications prepared by the Developer or his consultant for the public works improvements contemplated.
City:	Means the City of Prosser, a municipal corporation.
Contractor:	Means the person or firm employed by the Developer to do the construction of the public works improvements.
Developer:	Means the person or firm engaging the services of and employing consultants, and/or contractors and paying for the design and construction of the public works improvements.
Drawings:	Means the plans and specifications prepared by the Developer or his consultant for the public works contemplated. The terms "Contract Documents," "Plans," "Engineer's Plans," "Engineer's Drawings," "Working Drawings," and "Project Manual" are synonymous.

- Engineer:** Means the Director of Public Works of the City of Prosser or his duly authorized agent or representative.
- Owner:** Means the City of Prosser acting through its legally established officials, boards, commissions, etc., as represented by its authorized officers, employees, or agents.
- Standard Details:** Means specific drawings adopted by the City of Prosser and revised from time to time which show frequently recurring components of work which have been standardized for use.
- Standard Specifications:** The Standard Specifications for Road, Bridge, and Municipal Construction published by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association are, by this reference, made part of these Contract documents. Except as may be amended, modified, or supplemented hereinafter, each section of the Standard Specifications shall be considered as much a part of these Contract Documents as if they were actually set forth herein. All references hereinafter made to Standard Specifications shall refer to the Standard Specifications for Road, Bridge, and Municipal Construction prepared by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association, latest edition, and any amendments thereto.
- Special Provisions:** The Special Provisions supersede any conflicting provisions of the Standard Specifications for Road, Bridge, and Municipal Construction and the appended amendments to the Standard Specifications and are made a part of this Contract.
- Should any conflicts be encountered, the following inter-relationships shall govern: The Special Provisions shall supersede the APWA Amendments, which shall supersede the WSDOT Amendments, which shall supersede the Standard Specifications.

1-03 AWARD AND EXECUTION OF CONTRACT

1-03.4 Contract Bond (APWA only)

The Contractor shall guarantee the material provided and workmanship performed under the Contract for a period of two years from and after the final acceptance thereof by the Developer and the City of Prosser.

The Developer shall be responsible for the maintenance of all public improvements for a period of twenty four (24) months following final inspection in accordance with Chapter 17.22.080 of the Prosser Municipal Code.

1-04 SCOPE OF THE WORK

1-04.4 Changes

The provisions of Section 1-04.4 of the APWA Amendments to Division One shall be modified as follows:

No changes in the work covered by the approved Contract Documents shall be made without having prior written approval of the Developer and the City.

1-04.11 Final Cleanup

The Contractor shall perform final cleanup as provided in this section to the Developer's and Owner's satisfaction. The date of completion will not be established until this is done. The material sites and all ground the Contractor occupied to do the work shall be left neat and presentable. The Contractor shall:

1. Remove all rubbish, surplus materials, discarded materials, falsework, temporary structures, equipment, and debris, and
2. Deposit in embankments, or remove from the project, all unneeded, oversized rock left from grading, surfacing, or paving.

Partial clean-up shall be done by the Contractor when he feels it is necessary or when, in the opinion of the Owner or Developer, partial clean-up should be done prior to either major clean-up or final inspection.

1-04.12 Waste Site (New Section)

The following new section shall be added to the Standard Specifications:

Where there is additional waste excavation in excess of that needed for the project and in excess of that needed for compliance with requests of the Owner, the Contractor shall secure and operate his own waste site at his own expense. The Contractor shall also be required to secure and operate his own waste site at his own expense for the disposal of all unsuitable material, asphalt, concrete, debris, waste material, and any other objectionable material which is directed to waste by the Owner.

The Contractor shall comply with the State of Washington's regulations regarding disposal of waste material as outlined in WAC 173-304, Subchapter 461.

1-05 CONTROL OF WORK

1-05.1 Authority of the Engineer

Add the following:

Unless otherwise expressly provided in the Contract Drawings, Specifications and Addenda, the means and methods of construction shall be such as the Contractor may choose; subject, however, to the Consultant and the Engineer's right to reject means and methods proposed by the Contractor which (1) will constitute or create a hazard to the work, or to persons or property; or (2) will not produce finished work in accordance with the terms of the Contract. Approval of the Contractor's means and methods of construction or his failure to exercise his right to reject such means or methods shall not relieve the Contractor of the obligation to accomplish the result intended by the Contract; nor shall the exercise of such right to reject create a cause for action for damages.

1-05.3(1) Project Record Drawings (New Section)

The following new section shall be added to the Standard Specifications:

The Contractor shall maintain a neatly marked, full-size set of record drawings showing the final location and layout of all new construction. Drawings shall be kept current weekly, with all field instruction, change orders, and construction adjustment.

Drawings shall be subject to the inspection of the Developer and the City at all times. Prior to acceptance of the work, the Contractor shall deliver to the Developer one set of neatly marked record drawings showing the information required above. The Developer shall prepare and deliver to the City of Prosser the neatly marked record drawings.

1-05.5 Construction Staking (New Section)

The following new section shall be added to the Standard Specifications:

The Consultant retained by the developer will establish the line and grade of proposed construction by offset stakes. The Consultant will establish the centerline for minor structures and establish bench marks at convenient locations for use by the Contractor.

The Contractor shall establish grades from the Consultant's stakes at suitable intervals in accordance with good practice. Where new construction adjoins existing construction, the Contractor shall make such adjustments in grade as are necessary.

1-05.10 Guarantees (APWA only)

The following new section shall be added to the APWA Supplement:

If, within two years after the date of Final Acceptance of the Work, defective and unauthorized work is discovered, the Contractor shall promptly, upon written request, return and in accordance with the instructions either correct such work, or if such work has been rejected, remove it from the Project Site and replace it with non-defective and authorized work, all without cost to the Owner or Developer. If the Contractor does not promptly comply with the written request to correct defective and unauthorized work, or if an emergency exists, the Owner/Developer reserves the right to have defective and unauthorized work corrected or rejected, removed, and replaced pursuant to the provisions of Section 1-05.8 of these Specifications.

The Contractor agrees the above two-year limitation shall not exclude nor diminish any rights under any law to obtain damages and recover costs resulting from defective and unauthorized work discovered after two years.

1-05.16 Water and Power (APWA only)

Water shall be furnished and applied in accordance with the provisions of Sections 1-05.16 of the APWA Amendments to Division One and 2-07 of the Standard Specifications modified as follows:

Water Supply: Water for use on the projects may be obtained/purchased from the City of Prosser and the Contractor shall arrange for and convey the water from the nearest convenient hydrant or other source at his own expense. The hydrants shall be used in accordance with the City of Prosser Water Department regulations.

The City reserves the right to deny the use of fire hydrants where deemed inappropriate by the City.

1-05.18 Testing (New Section)

The following new section shall be added to the Standard Specifications:

The Contractor shall be responsible for scheduling and paying for all material testing required by these Contract Documents. All testing services shall be performed by an independent, certified testing firm and/or laboratory meeting the approval of the Engineer. The Contractor shall submit information relating to the qualifications of the proposed testing firm to the Engineer for review and approval prior to the preconstruction conference. The testing frequencies listed below may be modified to assure compliance with the Specifications.

Trench Backfill

Copies of moisture-density curves for each type of material encountered and copies of all test results shall be provided to the Engineer as construction progresses.

Compaction tests shall be taken at a frequency and at depths sufficient to document that the required density has been achieved. At a minimum, one (1) compaction test shall be taken for each 100 linear feet of mainline pipeline trench and one (1) test for each street crossing. At alternating 100-foot locations along the main trench line, tests shall be taken at 1-foot, 2-foot, and 3-foot depths below finish grade.

The Engineer may request additional tests be performed at the Contractor's expense, if test results do not meet the required trench backfill densities.

All trenches shall be backfilled and compacted to at least 95 percent of maximum density as determined by ASTM D 698 (Standard Proctor).

Roadway Embankment

Copies of the moisture density curves for each type of material encountered and copies of all test results shall be provided to the Engineer as construction progresses.

Compaction tests shall be taken at a frequency sufficient to document that the required density has been achieved. At a minimum, one (1) compaction test shall be taken for every 5,000 square feet of surface area for each lift of roadway embankment.

The Engineer may request additional tests be performed at the Contractor's expense, if test results do not meet the required subgrade densities.

Roadway embankment compaction shall be as specified in SECTION 2-03.3(14).

Roadway Subgrade

Copies of the moisture density curves for each type of material encountered and copies of all test results shall be provided to the Engineer as construction progresses.

Compaction tests shall be taken at a frequency sufficient to document that the required density has been achieved. At a minimum, one (1) compaction test shall be taken for every 5,000 square feet of subgrade.

The Engineer may request additional tests be performed at the Contractor's expense, if test results do not meet the required subgrade densities. Subgrade compaction shall be as specified for Roadway Embankment.

Ballast and Crushed Surfacing

Copies of the moisture density curves for each type of material incorporated into the project and copies of all test results shall be provided to the Engineer as construction progresses.

Compaction tests shall be taken at a frequency sufficient to document that the required density has been achieved. At a minimum, one (1) compaction test shall be taken for every 5,000 square feet of surface area for each lift of ballast or crushed surfacing.

The Engineer may request additional tests be performed at the Contractor's expense, if test results do not meet the required subgrade densities.

Compaction of ballast and crushed surfacing shall be as specified in SECTION 4-04.3(5).

Asphalt Paving

Copies of the maximum Rice density test for each class of asphalt concrete pavement and copies of all test results shall be provided to the Engineer as construction progresses.

Density tests shall be taken at a frequency sufficient to document that the required density has been achieved. At a minimum, one (1) compaction test shall be taken for every 5,000 square feet of surface area for each lift of asphalt concrete pavement.

The Engineer may request additional tests be performed at the Contractor's expense, if test results do not meet the required subgrade densities.

Compaction of asphalt concrete pavement shall be as specified in SECTION 5-04.3(10)B.

Cement Concrete Curb, Gutter, and Sidewalk

A copy of the cement concrete design mix or certification from the concrete supplier that the concrete provided has been prepared to the strength requirement as specified elsewhere in these specifications.

Concrete strength cylinders shall be taken and tested for each truck load of concrete delivered to the job. All testing procedures shall be conducted in accordance with applicable Sections of Division 6-02 of the Standard Specifications.

Copies of all test results shall be provided to the Engineer as construction progresses.

1-07 LEGAL RELATION AND RESPONSIBILITIES TO THE PUBLIC

1-07.1 Laws to be Observed

Amend the second sentence of the first paragraph to read:

The Contractor shall indemnify and save harmless the State (including the Commission, the Secretary, and any agents, officers, and employees) and the Contracting Agency (including any agents, officers, employees, and representatives) against any claims that may arise because the Contractor (or any employee of the Contractor or subcontractor or material-man) violated a legal requirement.

1-07.5 Fish and Wildlife and Ecology Regulations

In addition to the requirements of Section 1-07.5 of the APWA Amendments to Division One, the Contractor shall comply with the environmental provisions of local air pollution authorities, Benton County Clean Air Authority.

A method of dust control during construction shall be submitted to, and approved by, the Benton County Clean Air Authority. A written copy of their approval shall be submitted to the Public Works Department prior to commencement of construction. The developer shall designate a project coordinator for contact during construction regarding alleged air quality violations and other complaints.

1-07.17 Utilities and Similar Facilities

Section 1-07.17 of the APWA Amendments to Division One is supplemented by the following:

Locations and dimensions shown on the plans for existing facilities are in accordance with available information obtained without uncovering, measuring, or other verification. It shall be the Contractor's responsibility to investigate the presence and location of all utilities prior to submitting a bid.

The Contractor shall call for field location, not less than two nor more than ten business days before the scheduled date for commencement of excavation which may affect underground utility facilities, unless otherwise agreed upon by the parties involved. A business day is defined as any day other than Saturday, Sunday, or a legal local, state, or federal holiday. The phone number for Prosser is 1-800-424-5555. If no one-number locator service is available, notice shall be provided individually by the Contractor to those owners known to or suspected of having underground facilities within the area of proposed excavation.

The Contractor is alerted to the existence of Chapter 19.122 RCW, a law relating to underground utilities. Any cost to the Contractor incurred as a result of this law shall be at the Contractor's expense.

No excavation shall begin until all known facilities, in the vicinity of the excavation area, have been located and marked.

1-07.18 Public Liability and Property Damage Insurance

The Contractor shall obtain and maintain in full force and effect during the duration of this Contract public liability and property damage insurance in accordance with Section 1-07.18 of the APWA Amendments to Division One and as modified herein.

Within ten (10) days following contract award or prior to start of construction, whichever comes first, the Contractor shall furnish the Owner a Certificate of Insurance as evidence of compliance with these requirements. This certificate shall name the Owner and the Engineer as "additional insureds" and shall stipulate that the policies named thereon cannot be canceled unless at least twenty (20) days written notice has been given to the Owner.

The following is an example of deletions and language which is required on the standard "ACORD Certificate of Insurance" form:

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

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

The City of Prosser, their agents, employees, and elected or appointed officials, are hereby named as additional insured with respect to the ((name of project)) Project.

CANCELLATION

~~SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 20 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS, OR REPRESENTATIVES.~~

1-07.23 Public Convenience and Safety

The provisions of the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways and amendments thereto published by the U.S. Department of Transportation, Federal Highway Administration, by this reference are made a part of these Contract Documents.

The provisions of Section 1-07.23 of the Standard Specifications are modified as follows:

All signs, barricades, traffic control devices, and labor for traffic control required by construction activities for the control of traffic shall be supplied, placed, and maintained by the Contractor. This shall apply to detours and traffic control both within and outside the limits of the project. All costs for furnishing, placing, and maintaining the referenced traffic control devices and labor for traffic control shall be considered incidental to the bid items of the Contract.

All work shall be done under a program which shall have the approval of the Consultant and the City of Prosser and create a minimum of interruption or inconvenience to pedestrian and vehicular traffic. All arrangements to care for such traffic will be the Contractor's responsibility and shall be made at his expense. All work shall be carried out with due regard for public safety. Open trenches shall be provided with proper barricades and at night they shall be distinctly indicated by adequately placed lights. At entrances to business properties and other private roads, driveways, bridges, or other such means as to provide access shall be provided by the Contractor. The Contractor shall maintain vehicular and pedestrian access to businesses at all times that businesses are open for business.

Upon failure of the Contractor to provide immediately and maintain adequate suitable barricades, lights and detour signs, when ordered to do so, the Owner shall be at liberty, without further notice to the Contractor or the Surety, to provide the same and request payment for providing proper barricades, lights, and signs, and the Owner assumes no liability connected therewith.

Any traffic restriction must have prior approval of the City of Prosser. Appropriate traffic control measures and signing are required during such temporary road closures.

It shall be the responsibility of the Contractor to secure the approval of and notify the Developer, City of Prosser, and the Police and Fire Departments at least 24 hours prior to

closing any street, in addition to correlating the proposed closures with the City of Prosser to ensure proper detouring of traffic. When the street is re-opened, it shall again be the responsibility of the Contractor to notify the above named departments and persons.

1-07.29 Safety Standards (New Section)

The following new section shall be added to the Standard Specifications:

All work shall be performed in accordance with all applicable local, state, and federal health and safety codes, standards, regulations, and/or accepted industry standards. It shall be the responsibility of the Contractor to ensure that his work force and the public are adequately protected against any hazards.

The Owner or Developer shall have the authority at all times to issue a stop work order at no penalty if, in their opinion, working conditions present an undue hazard to the public, property, or the work force. Such authority shall not, however, relieve the Contractor of responsibility for the maintenance of safe working conditions or assess any responsibility to the Owner or Developer for the identification of any or all unsafe conditions.

1-07.30 Notifying Property Owners (New Section)

The following new section shall be added to the Standard Specifications:

When construction activities will affect ingress and egress to a property along the project alignment, the Contractor shall be responsible for notifying the occupant/occupants of the property 24 hours prior to the construction activity beginning. If personal contact with the occupant is not possible, the Contractor shall leave written notification.

1-08 PROSECUTION AND PROGRESS

1-08.3 Progress Schedule

The provisions of SECTION 1-08.3 of the Standard Specifications, Division One shall be supplemented with the following:

Prior to the commencement of any work, a preconstruction conference shall be held. The Contractor or Developer shall contact the City of Prosser and set a date and time for the meeting. It shall be the responsibility of the Contractor and Engineer to notify and invite all parties having an interest in the project to the meeting.

At this conference all points of the Plans and Specifications will be open to discussion including scope, order and coordination of work, equipment lead time required, means and methods of construction, inspection and reporting procedures, etc. The Contractor should satisfy himself that all provisions and intentions of the work are fully understood.

The Contractor shall prepare and submit to the Owner and Engineer at the Preconstruction Conference a Construction Progress and Completion Schedule using a bar graph format. Items in the Schedule shall be arranged in the order and sequence in which they will be

performed. The schedule shall be drawn to a time scale, shown along the base of the diagram, using an appropriate measurement per day with weekends and holidays indicated. The Construction Progress Schedule shall be continuously updated and, if necessary, redrawn upon the first working day of each month or upon issuance of any Change Order which substantially affects the scheduling. Copies (2 prints or 1 reproducible) of newly updated Schedules shall be forwarded to the Owner and Engineer, as directed, immediately upon preparation.

1-08.3(1) Means and Methods (New Section)

The following new section shall be added to the Standard Specifications:

Unless otherwise expressly provided in the Contract Drawings, Specifications and Addenda, the means and methods of construction shall be such as the Contractor may choose; subject, however, to the Consultant's or Engineer's right to reject means and methods proposed by the Contractor which (1) will constitute or create a hazard to the work, or to persons or property; or (2) will not produce finished work in accordance with the terms of the Contract. The Consultant's or Engineer's approval of the Contractor's means and methods of construction or his failure to exercise his right to reject such means or methods shall not relieve the Contractor of the obligation to accomplish the result intended by the Contract; nor shall the exercise of such right to reject create a cause for action for damages.

1-08.3(2) Contractor Responsibility (New Section)

The following new section shall be added to the Standard Specifications:

The Contractor is responsible for constructing and completing all work included in the Contract Documents and any other work directed by the Developer in a professional manner with first-class workmanship.

The Contractor shall keep the City of Prosser, the Developer, and the Consultant informed in writing of the address to which official correspondence is to be directed, the address and phone number of the person in charge of his field personnel, and the address and telephone number of the Contractor's representative who will be responsible and available outside of normal working hours for emergency repairs and the maintenance of traffic control and safety devices.

CHAPTER 5 - WATER SYSTEM IMPROVEMENTS

GENERAL REQUIREMENTS FOR WATER MAINS

All extensions to the City of Prosser's domestic water system shall conform to the design standards of the City of Prosser and the State Department of Health as follows:

All new lots and developments shall be served by a public water supply line maintained by the City of Prosser and located adjacent to the lot or development site. The water supply line shall be capable of providing sufficient flow and pressure to satisfy the fire flow and domestic service requirements of the proposed lots and development requirements.

Water lines shall be extended by the Owner or Developer to the point where the adjoining property owner's responsibility for further extension begins. This typically requires an extension across the entire frontage of the property to the property line of the adjoining owner. In some cases, it will require dedication of an easement and a line extension across the property or extension across two or more sides of the developing property. Extensions will be consistent with and implement the City's adopted Water Comprehensive Plan.

All new public domestic water mains shall be a minimum diameter of 8-inch. Fire hydrant runs from the water main to the fire hydrant shall be a minimum of 6-inch.

Larger public water mains may be required depending upon fire flow requirements as determined by the City Fire Chief and City Building Code Department.

Water main oversizing, above that required for the particular development being submitted, may be required by the City of Prosser to be installed for future extension. The cost of the materials only for the oversizing shall be reimbursed to the Developer by the City. The Developer shall submit actual material invoices showing the actual cost of the materials furnished and the cost of the same materials of the size required for the development.

All water main shall be looped, where possible. Temporary dead-end mains over 300 feet in length will only be allowed where future water main looping via public right of way will be assured. No permanent dead-end water mains will be allowed to be part of the City of Prosser's public water system.

Permanent dead-end water mains may become private water mains owned and maintained by the Developer. All dead-end water mains shall be isolated from the public water main with a reduced pressure double check valve assembly and vault furnished and installed by the Developer to City of Prosser standards for cross-connection control.

Maximum valve spacing in public water mains will be 1,000 linear feet. Valves will be furnished and installed on all legs of new water main intersections.

All new water meters shall be a minimum of 1-inch and shall be furnished and installed by the City of Prosser. If more than 10 meters are required, they shall be furnished and installed by the Developer to City of Prosser standards.

Only one meter shall be served from each main tap.

Air and vacuum release valves shall be furnished and installed at high points in the system.

Fire hydrants shall be spaced at least every 400 feet. Additional hydrants may be required to protect structures as determined by the City Fire Chief. Additional fire hydrants required on a site may require a looped, on-site fire hydrant main. Easements will be provided for all on-site, public, looped water mains.

All irrigation services shall be installed with a State approved, double check valve assembly. Water and sewer mains shall be separated in accordance with Section C1-9.1 of the Criteria for Sewage Works Design, December 1998, by the Washington State Department of Ecology.

The design of water mains and appurtenances is subject to review and approval by the City of Prosser Director of Public Works. The Director of Public Works may, at his discretion, adjust these Standards as necessary to facilitate installation of water lines and appurtenances for the health, safety, and protection of the general public.

All double detector check valve assemblies shall conform to City of Prosser standards. Initial and annual testing will be required. Please refer to the Backflow Prevention Assembly Test Report Form in Appendix A, and City Standard Detail W-7B in Appendix B.

SPECIAL PROVISIONS FOR WATER MAINS

The following sections of the Standard Specifications have been amended or supplemented as described below.

7-09 PIPE AND FITTINGS FOR WATER MAINS

7-09.2 Materials

Section 7-09.2 of the Standard Specifications shall be revised as follows:

Pipe shall be either:

Ductile Iron, conforming to the requirements of Section 9-30.1(1) of the Standard Specifications, except that it shall be Standard Thickness Class 52. Joints shall be rubber gasket, push-on type (Tyton Joint). Fittings shall be mechanical joint or flanged, as shown on the Plans, and shall conform to Section 9-30.2(1) of the Standard Specifications.

Polyvinyl Chloride (PVC) Pipe conforming to the requirements of Section 9-30.1(5)A. Fittings shall be the same as specified for Ductile Iron pipe. PVC pipe must be provided with detectable marking tape, see Section 7-11.3(10).

7-10 TRENCH EXCAVATION, BEDDING, AND BACKFILL FOR WATER MAINS

7-10.1(1)C Bedding

Add the following:

Imported pipe bedding for rigid pipe shall be crushed gravel, placed and compacted in layers per the Standard Specifications. Use as directed by the Engineer.

Imported pipe bedding for flexible pipe shall be crushed gravel, placed and compacted per the Standard Specifications. Bedding shall be placed under all flexible pipe.

7-10.2 Materials

Delete entire Section and replace with the following:

Pipe Bedding for Ductile Iron pipe shall conform to the requirements of Section 9-03.15, Bedding Materials for Rigid Pipe. Native material may be used for bedding rigid pipe if it meets the requirements of Section 9-03.15.

Pipe Bedding for PVC pipe shall conform to the requirements of Section 9-03.12(3), Gravel Backfill for Pipe Zone Bedding.

Imported Select Backfill shall conform to the requirements of Section 9-03.9(3), Crushed Surfacing Top Course.

7-10.3(10) Backfilling Trenches

Add the following:

Street crossing trenches shall be backfilled for the full depth of the trench with imported Select Backfill. The Director of Public Works may require the use of Controlled Density Fill (CDF) for trench backfill in certain circumstances. The requirements for CDF are set forth in Section 8-30 of these Special Provisions.

7-12 VALVES FOR WATER MAINS

7-12.2 Materials

Add the following:

All valves sizes 4-inch through 8-inch shall be gate valves and shall conform to the latest revision of AWWA Resilient Seated Gate Valves Standard C509.

All gate valves shall have non-rising stems, open counterclockwise, and shall be provided with a 2-inch square operating nut. Gate valves 4-inch and larger shall have mechanical joint connections.

All valves sizes 10-inch and larger shall be butterfly valves suitable for direct burial and shall be rubber seated and conform to the latest revision of AWWA Standard C504.

Valve operators shall be worm gear type, sealed, gasketed, and lubricated for underground service. All valves shall open counterclockwise and shall be provided with a 2-inch square operating nut.

Valve Boxes shall be two piece adjustable. The top section shall be similar to Rich Model 940-B, or equal, 18-inches high. The bottom section shall be a Rich Model R-36, or equal, 36-inches high. Extension sections shall be Rich Model 044, or equal, 12-inches high.

7-14 FIRE HYDRANTS

7-14.2 Materials

Replace the entire Section with the following:

The City of Prosser accepts hydrants of the following manufacturers, providing the hydrants conform to the City's technical specifications for fire hydrants:

Mueller Centurion
M & H 929
Clow 2500

All hydrants shall have a Main Valve Opening (MVO) of 5-1/4" and one port with a 4" Stortz Quick Coupling and two (2) 2-1/2" diameter ports. Threads on all ports shall be National Standard Thread.

7-14.3(1) Setting Hydrants

Add the following:

The hydrant shall be set to the correct elevation on a concrete block base measuring 12" x 12" x 6" thick, which has been placed on undisturbed earth. Around the base of the hydrant the Contractor shall place 0.25 cubic yards of drain rock ranging in size from 3/4" to 1-1/2" to allow free drainage of the hydrant.

7-14.3(2) Hydrant Connections

Add the following:

Hydrants shall be connected to the main with 6-inch minimum diameter water main. Each hydrant lateral shall include an auxiliary gate valve and valve box.

7-14.3(2)A Hydrant Restraint

Add the following:

The Contractor shall securely shackle the hydrant to the water main as indicated on the Standard Detail.

7-15 SERVICE CONNECTIONS

Section 7-15 of the Standard Specifications is supplemented with the following:

7-15.1 General

The following regulations govern the installation of water piping between the meter and residences. You may do your own work if you choose to. Persons contracting to do water service connections must be Washington State licensed contractors and have a City business license.

Before starting work, you must request a field review by City personnel of your plans or the plans of your contractor. This review must be requested 24 hours prior to the time you want the review.

7-15.3 Construction Details

The City will inspect service installation work. The City inspector will inspect the water service pipe after the pipe has been laid in the trench, but prior to backfill. A leak test will be required to be run in the presence of the inspector. Provide 48 hours minimum notice prior to any required inspections.

Water and sewer service lines may not be laid in the same trench except as provided in Section 1008 of the Uniform Plumbing Code (UPC) and with written approval of the City of Prosser Building Inspector.

Water services shall be laid with a minimum of 40 inches of cover, or as directed by the Public Works Director.

CHAPTER 6 - SANITARY SEWER SYSTEM IMPROVEMENTS

GENERAL REQUIREMENTS FOR SANITARY SEWER MAINS

All extensions to the sewer system shall conform to the design standards of the City of Prosser and the Washington State Department of Ecology as follows:

All new lots and developments shall be served by a public sanitary sewer line adjacent to the lot or development site.

Sewer lines shall be extended by the Owner or Developer to the point where the adjoining property owner's responsibility for further extension begins. This typically requires an extension across the entire frontage of the property to the property line of the adjoining owner. In some cases, it will require dedication of an easement and a line extension across the property or extension across two or more side of the developing property. Extensions will be consistent with and implement the City's adopted Sewer Comprehensive Plan.

Sewer lines shall be located in streets to serve abutting properties. When necessary, sewer lines may be located within public easements. Lines located in streets will be offset from the street centerline and not located within a vehicle wheel path. Sewer lines located in easements shall generally be located in the center of the easement, but may, with the approval of the Director of Public Works, be offset to accommodate the installation of other utilities or to satisfy special circumstances.

The minimum size for public sewer mains is eight (8) inches in diameter. The developer's sewer system must provide capacity for the proposed development, but must also provide capacity for future extensions.

Sewer lines shall be terminated with a manhole. In special circumstances, a flush-end (clean-out) may be installed on the end of a sewer main extension, provided the end is no further than 150 feet from the last manhole and the sewer main line and grade will permit further extension.

Manholes shall be installed at intervals of no greater than 350 feet and at all vertical and horizontal angle points in the sewer main.

Each building containing sanitary sewer facilities shall be served by a separate private side sewer line. Branched side sewers serving multiple buildings and properties shall not be permitted. Side sewers serving multi-unit buildings are permitted.

Side sewers shall be installed in accordance with the Uniform Plumbing Code (UPC) and subject to review and approval by the City of Prosser Building Inspector. Water and sewer lines shall not be laid in the same trench, except as provided in Section 1008 of the UPC and with written approval of the City of Prosser Building Inspector.

Sewer lines shall be designed for gravity flow operation. Lift stations and force mains shall be limited to those locations and circumstances where they are consistent with the Comprehensive Sewer Plan and are the only viable solution to serve the proposed development and other properties in the vicinity. Lift stations and force mains shall be designed by a Professional Engineer licensed in the State of Washington.

The design of sewer mains and appurtenances is subject to review and approval by the City of Prosser Director of Public Works. The Director of Public Works may, at his discretion, adjust these Standards as necessary to facilitate installation of sewer lines and appurtenances for the health, safety, and protection of the general public.

SPECIAL PROVISIONS FOR SANITARY SEWER MAINS

The following sections of the Standard Specifications have been amended or supplemented as described below.

7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS

7-05.2 Materials

Add the following:

Manholes shall be gasketed and constructed of 48-inch diameter reinforced precast concrete manholes sections in conformance with the requirements of this Section. The base and first barrel section shall be precast monolithically with preformed channels.

Joints in the manhole sections shall be watertight and shall be a rubber ring compression joint complying with ASTM C443, a flexible, plastic gasket, or approved equal.

Manhole frames and covers shall be cast iron with a combined weight of not less than 400 pounds and have a clear opening of 24 inches. The frames and covers shall be the manufacturer's stock pattern capable of withstanding, with appropriate margin of safety, an H20 loading. Covers shall have a 1-inch hole only, unless otherwise noted, and the top shall be flat with a non-skid pattern. The contact surfaces of the frames and covers shall be machine finished to a common plane or have other adequate provision to prevent rocking.

7-05.3 Construction Requirements

Add the following

The design and construction of all manholes shall provide for a 0.10 foot vertical drop through the manhole

Manhole coupling adaptors may be precast in the manhole to accept PVC pipe, provided diameters match. No field grouting of pipe into manholes will be allowed. Pipe connections at manholes must be gasketed and must be flexible. "A-Lok" gasket system or approved equal may be used as an alternate to the manhole coupling adapter.

7-08 GENERAL PIPE INSTALLATION REQUIREMENTS

7-08.1 General

Add the following:

All construction work shall be inspected by the City of Prosser prior to backfilling. At least 48 hours notice shall be given to the City Public Works Department prior to backfilling.

The Contractor shall notify the Utility Notification Center (One Call Center) at least 48 hours prior to start of excavation so that underground utilities may be marked. Telephone number is 1-800-424-5555.

7-08.3(1)C Bedding the Pipe

Add the following:

The imported pipe bedding and select backfill to be utilized for the trench backfill shall be crushed gravel, placed and compacted in layers as designated by the Director of Public Works. Crushed gravel shall conform to Section 9-03.9(3) Crushed Surfacing Top Course.

7-08.3(2)B Pipe Laying - General

Add the following:

All sewer pipe shall be provided with 6-inch wide magnetic marking tape as detailed in Standard Detail S-1.

7-08.3(3) Backfilling

Add the following:

Street crossing trenches shall be backfilled for the full depth of the trench with imported Select Backfill. The Director of Public Works may require the use of Controlled Density Fill (CDF) for trench backfill in certain circumstances. The requirements for CDF are set forth in Section 8-30 of these Special Provisions.

Water settling and/or mechanical compaction shall be required for all trenches. The density of the compacted materials shall be at least 95% of the maximum density as determined by ASTM D 698 Test (Standard Proctor). The Contractor shall be responsible for scheduling, conducting, and paying for all testing required.

7-17 SANITARY SEWERS

7-17.2 Materials

Sanitary Sewer Pipe approved for the City of Prosser shall be:

PVC Sewer Pipe (Gravity): Polyvinyl Chloride Pipe with flexible gasketed joints shall conform with the requirements of Section 9-05.12 of the Standard Specifications (ASTM D3034, SDR 35). Pipe joint type for restrained gasket.

PVC fittings for PVC sewer pipe such as tees, wyes, elbows, plugs, caps, etc, shall be flexible gasket joint fittings acceptable for use and connection to PVC sewer pipe.

7-18 SIDE SEWERS

7-18.1 General

Add the following:

Side sewers shall be constructed with a minimum of 30 inches of cover. This provision may be waived by the Director of Public Works under special circumstances; however, under no circumstances shall the side sewer be laid with less than 18 inches of cover.

7-18.2 Materials

Add the following:

Side sewers shall be a minimum of 4-inches in diameter. Larger sizes, if required, will be approved by the Director of Public Works on a case by case basis.

CHAPTER 7 - STREET IMPROVEMENTS

GENERAL REQUIREMENTS FOR STREETS

All new street construction must conform to these design standards of the City of Prosser and Chapter 17.16 of the Prosser Municipal Code.

Figure 2.1 - Functional Classification, of the 1997 Prosser Transportation Study designates arterial and collector streets and establishes their functional classifications.

Section 17.16.030 of the PMC sets forth general street layout criteria and required rights of way for each classification of street.

The maximum length of a cul-de-sac street shall be 600 feet measured along the street centerline from the nearest street intersection to the center of the cul-de-sac.

Cement concrete barrier curb shall be installed along all new streets. Sidewalks shall be constructed on both sides of all new streets. If the Developer believes there are special circumstances whereby the construction of sidewalk on one side should be deferred, he may make written request to the City Administrator.

A street light shall be installed at each street intersection, at mid block, no more than one hundred seventy-five (175) feet apart, and at ends of cul-de-sacs. Street lights shall meet the design and placement requirements of these Standards and the City Public Works Director.

New street lighting shall be designed to provide required levels of lighting based upon street classification and location as determined by the City of Prosser. Lighting shall be either decorative conforming to City of Prosser standards or shall conform to Benton County P.U.D. standards for pole and high pressure sodium luminaires. All electrical panels will be designed to City of Prosser standards.

Private streets may be used as sole access to new lots and development and for internal circulation within manufactured home parks and residential planned developments. Private streets shall be constructed in conformance with the following standards:

Potential Density	Easement Width	Engineered Plans	Surface Width	Surface Type
0-3 DU	30 ft	No	20 ft	Asphalt
4-8 DU	40 ft	No	24 ft	Asphalt
9-16 DU	50 ft	Yes	30 ft	Asphalt

Private streets shall be constructed with curbs, sidewalks, and street lighting and shall otherwise conform to the standards for public streets. Private streets will not be maintained by the City of Prosser.

Traffic Studies

In order to provide sufficient information to assess a development's impact on the transportation system and level of service, the Director of Public Works may require a traffic study to be completed by the Developer at the Developer's expense. This decision will be based upon the size of the proposed development, existing roadway condition, traffic volumes, accident history, expressed community concern, and other factors relating to transportation.

Traffic studies shall be conducted under the direction of a traffic engineer or civil engineer licensed in the State of Washington and possessing special training and experience in traffic engineering.

The level of detail and scope of the traffic study may vary with the size, complexity, and location of the proposed development. A traffic study shall, at a minimum, be a thorough review of the immediate and long-range effects of the proposed development on the City's transportation system. Guidelines for the traffic study shall be reviewed by the Director of Public Works on a project basis.

SPECIAL PROVISIONS FOR STREETS

The following sections of the Standard Specifications have been amended or supplemented as described below.

1-10 TEMPORARY TRAFFIC CONTROL

1-10.2(2) Traffic Control Plans

Replace with the following:

The Contractor shall prepare a signing plan showing the necessary Class A construction signing and barricades required for all work within public right of way and submit the plan to the Director of Public Works no later than one week prior to beginning construction.

When Class B signing will be provided as detailed on one or more of the figures included in the Manual of Traffic Control Devices (MUTCD) or the WSDOT Standard Plans, the Contractor may reference the applicable figure at the appropriate location on the signing plan. When this procedure is used, variable distances such as the minimum length of taper must be specified by the Contractor.

The signing plan prepared by the Contractor shall provide for adequate warning within the limits of the project and on all streets, alleys, and driveways entering the project so that approaching traffic may turn onto existing undisturbed streets before reaching the project.

8-30 CONTROLLED DENSITY FILL (NEW SECTION)

The following new section shall be added to the Standard Specifications:

8-30.1 General

Controlled Density Fill (CDF) may be required for street crossings by the Public Works Director. It shall be a mixture of Portland Cement, fly ash, aggregate, water, and admixtures proportioned to provide a non-segregating, self-consolidating, free-flowing material which will result in a hardened, dense, non-settling fill.

8-30.2 Materials

Materials shall meet the requirements of the following Sections of the Standard Specifications:

Portland Cement	9-01 Type II
Fly Ash	Class F or C
Aggregates	9-03.1
Water	9-25
Admixtures	9-23.6

8-30.3 CONSTRUCTION REQUIREMENTS

8-30.3(1) Construction Materials

The CDF shall be a mixture of Portland Cement, fly ash, aggregate, water, and admixtures which has been batched and mixed in accordance with Section 6-02.3 of the Standard Specifications.

The following table provides a guideline for proportioning the Controlled Density Fill for this project. The final mix provided by the Contractor shall result in a material which is excavatable by machine with a maximum unconfined compressive strength of 300 psi.

Water	50 gals per cubic yard
Cement	50 lbs per cubic yard
Fly Ash	250 lbs per cubic yard
Aggregate	3,200 lbs per cubic yard

The above table provides a guideline for the CDF mixture. The weights shown are only an estimate of the amount to be used per cubic yard of CDF. Actual amounts may vary from those shown as approved by the Engineer or approved mix data from similar projects which provided proper strength, workability, consistency, and density.

8-30.3(7) Placing Controlled Density Fill

The floatable CDF shall be placed in the trench area where directed by the Engineer and brought up uniformly to the elevation directed. In the cases where existing concrete slabs have been undermined by excavation, the Contractor shall ensure that the CDF is flowed completely under the slab.

Mixing and placing may be started if weather conditions are favorable, when the temperature is at least 34° F and rising. At the time of placement, CDF must have a temperature of at least 40° F. Mixing and placing shall stop when the temperature is 38° F and falling. Each filling stage shall be as continuous an operation as practicable. CDF shall not be placed on frozen ground.

The trench section to be filled with CDF shall be contained at either end of trench section by bulkhead or earth fill.

CHAPTER 8 - STORM DRAINAGE

GENERAL REQUIREMENTS FOR STORM DRAINAGE IMPROVEMENTS

All extensions to the City of Prosser's storm sewer system shall conform to the following design standards of the City.

Storm runoff occurring on all new lots and developments (private property) shall be retained and disposed of on-site. No storm runoff will be allowed to enter public property or public storm drainage system.

Storm runoff for new public streets shall be designed and constructed as required to the point where the adjoining property owner's responsibility for further extension begins. This typically requires an extension across the entire frontage of the property to the property line of the adjoining owner.

All storm sewer designs for new public streets shall be based upon an engineering analysis which takes into account total drainage areas, runoff rates, pipe and inlet capacities, and any other factors pertinent to the design

All new storm drainage facilities, public or private, shall be designed by a Professional Engineer licensed in the State of Washington. Complete storm water runoff and drainage facilities sizing calculations shall be submitted to the City of Prosser for review and comment.

Storm sewer facilities and pipelines shall be designed to meet a minimum 10-year storm criteria. Small private developments may be designed to accommodate 1-inch of precipitation over the on-site impervious surfaces. Small developments are defined to be 20,000 SF or less of impervious surface area. Impervious surfaces must be clearly noted and shown on the project site plan.

Surface retention will be permitted for 50 percent of the required volume. Surface retention shall be designed to be less than 6 inches deep.

All storm water facilities shall have oil and silt separation.

Inlet spacing shall be designed in accordance with the WSDOT Hydraulics Manual, Chapter 5. Generally, inlet spacing shall not exceed 300 feet. There shall be installed a manhole or Type II catch basin at the intersection of two collector storm sewers. A collector storm sewer is a sewer servicing more than one catch basin.

SPECIAL PROVISIONS FOR STORM SEWERS

The following Sections of the Standard Specifications have been amended or supplemented as described below:

7-02 CULVERTS

7-02.4 Materials

Add the following:

Culvert pipe approved for use on this project shall be as follows:

Corrugated Aluminum Alloy Culvert Pipe meeting the requirements of SECTION 9-05.5 of the Standard Specifications.

OR

Aluminized Corrugated Steel Culvert Pipe meeting the requirements of SECTION 9-05.4 of the Standard Specifications.

7-04 STORM SEWERS

7-04.2 Materials

Add the following:

The storm drain pipe approved for use on this project shall be as follows:

36-INCH AND LARGER PIPE

Corrugated Aluminum Alloy Storm Sewer Pipe: All corrugated aluminum alloy storm sewer pipe shall comply with the requirements specified in SECTION 9-05.11 of the Standard Specifications and shall be 16 gauge with helical corrugations. A protective coating shall not be required.

15-INCH THROUGH 36-INCH PIPE

Corrugated Aluminum Alloy Storm Sewer Pipe: All corrugated aluminum alloy storm sewer pipe shall comply with the requirements specified in SECTION 9-05.11 of the Standard Specifications and shall be 16 gauge with helical corrugations. A protective coating shall not be required. All corrugated metal pipe joints shall be flexible using rubber gasket joints. Gaskets shall be made of 3/8-inch thick by 12-inch minimum width closed cell synthetic sponge rubber, per ASTM D 1056, Grade SCE-43, fabricated in the form of a cylinder with a diameter of approximately 10 percent less than the nominal pipe size. The gasket shall be centered under the band and lapped an equal distance on the ends of the adjoining pipe sections. Coupling bands shall be used and shall conform to the provisions of SECTION 9-05.11(1) of the Standard Specifications. Coupling bands shall be made by the same manufacturer as the pipe and shall be made of the same base material as the pipe which it connects.

PE Pipe: Corrugated High Density Polyethylene (CPEP) pipe, couplings, and fittings shall comply with the requirements of SECTION 9-05.20 of the Standard Specifications.

12-INCH AND SMALLER PIPE

PVC Pipe: Polyvinyl chloride (PVC) pipe shall conform with requirements specified in SECTION 9-05.12 of the Standard Specifications (ASTM D 3034, SDR 35). The pipe joint type shall be restrained gasket.

OR

PE Pipe: Corrugated High Density Polyethylene (CPEP) pipe, couplings, and fittings shall comply with all the requirements of AASHTO M-252-85I. Joints shall be water-tight.

Pipe shall be as manufactured by Hancor, Advanced Drainage Systems, Inc., or approved equal.

The perforated storm drain pipe approved for use shall be as follows:

PE Pipe: Corrugated High Density Polyethylene (CPEP) pipe, couplings, and fittings shall comply with all the requirements of SECTIONS 9-05.1(6) or 9-05.1(7) of the Standard Specifications.

DRAIN ROCK: Drain rock for use as backfill for the perforated storm drain pipe shall be coarse concrete aggregate conforming to the requirements for "Grading No. 4" as specified in SECTION 9-03.1(3)C of the Standard Specifications.

7-04.3(1) CLEANING AND TESTING

7-04.3(1)A General

No infiltration or exfiltration test will be required for the storm drain pipe.

7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS

7-05.2 Materials

Section 7-05.2 of the Standard Specifications shall be revised as follows:

Gravel Backfill for Drywells: Gravel backfill for drywells shall be as specified in Section 9-03.12(5) of the Standard Specifications.

Manhole Metal Castings: All cast iron frames and covers shall be as specified in SECTION 9-05.15(1) of the Standard Specifications. All cast iron frames and covers to be used on this project shall be of the type, weight, and size approved by the City of Prosser, and shall

be furnished by the Contractor. Covers for sanitary sewer shall be stamped "SEWER." Covers for storm drain shall be stamped "STORM."

Precast Concrete Catch Basin: Catch basins shall be constructed as shown on the detail sheet of the Plans.

Catch basins shall be constructed of thirty (30) inch I.D. Washington State standard reinforced concrete culvert pipe using cast iron grating and frames as shown on the Plans.

Catch Basin Metal Castings: All frames and grates shall be capable of withstanding, with a reasonable margin of safety, a concentrated load of 20,000 pounds and shall be as specified in SECTION 9-05.15(2) of the Standard Specifications. The grate shall be ductile iron and "bicycle safe." The contact surfaces of the frame and grate shall be machine finished to a common plane and shall be so cast as to prevent rocking. Frames and grates shall be Inland Foundry Co., Inc., No. 433 Round Base, 20" x 24" or approved equal.

7-05.3(1) Adjusting Manholes and Catch Basins to Grade

Delete and replace with the following:

Manholes and similar structures shall not be adjusted until the pavement is completed, at which time the center of each structure shall be relocated from references previously established by the Contractor.

The asphalt concrete pavement shall be cut and removed to a neat circle, the diameter of which shall be equal to the outside diameter of frame plus 2 feet. The frame shall be placed on cement concrete blocks or adjustment rings and wedged up to the desired grade. The base materials shall be removed and Class 3000 cement concrete shall be placed within the entire volume of the excavation up to, but not to exceed, 1½ inches below the finished pavement surface.

On the following day, the concrete, the edges of the asphalt concrete pavement, and the outer edge of the casting shall be painted with hot asphalt cement. Class G asphalt concrete shall then be placed and compacted with hand tampers and a patching roller.

The completed patch shall match the existing paved surface for texture, density, and uniformity of grade. The joint between the patch and the existing pavement shall then be painted with hot asphalt cement or asphalt emulsion and shall be immediately covered with dry paving sand before the asphalt cement solidifies.

7-05.3(2) Abandon Existing Manholes

Replace the entire section with the following:

Where shown on the Plans, existing sanitary sewer manholes shall be abandoned in place after the new sanitary sewer collection system is in place and all side sewers have been transferred to the new sanitary sewer pipeline. The following new section shall be added to the Standard Specifications:

At least the top 3 feet of each manhole, or the top conical section in precast concrete manholes, shall be removed, including the cast iron ring and cover and concrete pad, if any. Debris resulting from breaking of the upper portion of the manhole may be mixed with backfill subject to the approval of the Engineer. Ring and cover will become property of the Contractor and all other surplus material shall be disposed of.

The existing pipe openings shall be plugged watertight with Class 3000 concrete and the manhole bottom slabs shall be broken to promote drainage. The remaining manhole structure shall be backfilled with granular material conforming to SECTION 9-03.9(3) CRUSHED SURFACING BASE COURSE. Place backfill in uniform layers and compact to 95% maximum dry density, as determined by ASTM D 1557 (Modified Proctor).

Excavations resulting from manhole abandonment shall be backfilled with suitable, job-excavated material to top of subgrade. Compact to 95% maximum dry density as determined by ASTM D 1557 (Modified Proctor). Restore surface to the condition existing prior to excavation with native material, gravel surfacing, or asphalt concrete pavement as shown for trench repair on the plans.

APPENDIX A

TRANSFER OF OWNERSHIP OF UTILITY SYSTEM
(Individual)

_____, owner(s), do(es) hereby transfer(s), deliver(s) and
relinquish(es) to the City of Prosser, Washington, all right, title and interest in, and ownership of,
the following described utility system:

The undersigned owner(s) agree (s) and understand(s) that this transfer of ownership of
the above described Public Facilities to the City of Prosser is subject to the conditions of the 2nd
paragraph of **Section 1-05.12 Final Acceptance (APWA Only)** of the latest edition of the
Standard Specifications for Road, Bridge, and Municipal Construction, Washington State
Department of Transportation modified as follows:

"Final acceptance shall not constitute acceptance of any unauthorized or defective work or
material. The City shall not be barred from requiring the Contractor to remove, replace,
repair, or dispose of any unauthorized or defective work or material or from recovering
damages for any such work or material."

This Transfer of Ownership of Utility System, shall be effective only upon the City's final approval
and acceptance of the utility system.

STATE OF WASHINGTON
Benton County

I certify that I know of have satisfactory evidence that _____
and _____ (is/are) the person(s) who personally appeared before me and
that said person(s) acknowledged that (he/she/they) signed this instrument, and acknowledged it
to be (his/her/their) free and voluntary act and for the uses and purposes mentioned in the
instrument.

Dated: _____

Given under my hand and official seal the day and year last written.

Notary Public in and for the State of Washington
residing at _____
My Commission expires _____

TRANSFER OF OWNERSHIP OF UTILITY SYSTEM
(Corporate)

_____, owner(s), do(es) hereby transfer(s), deliver(s) and relinquish(es) to the City of Prosser, Washington, all right, title and interest in, and ownership of, the following described utility system:

The undersigned owner(s) agree (s) and understand(s) that this transfer of ownership of the above described Public Facilities to the City of Prosser is subject to the conditions of the 2nd paragraph of **Section 1-05.12 Final Acceptance (APWA Only)**, of the latest edition of the Standard Specifications for Road, Bridge, and Municipal Construction, Washington State Department of Transportation, modified as follows:

"Final acceptance shall not constitute acceptance of any unauthorized or defective work or material. The City shall not be barred from requiring the Contractor to remove, replace, repair, or dispose of any unauthorized or defective work or material or from recovering damages for any such work or material."

This Transfer of Ownership of Utility System, shall be effective only upon the City's final approval and acceptance of the above described Public Facilities.

STATE OF WASHINGTON
Benton County

I certify that I know or have satisfactory evidence that _____
Is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument, and acknowledged it as the _____ of _____ a _____
to be the free voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: _____

Given under my hand and official seal the day and year last written.

Notary Public in and for the State of Washington
residing at _____
My Commission Expires _____

CITY OF PROSSER

BACKFLOW PREVENTION ASSEMBLY TEST REPORT

RETURN TO:
 City of Prosser
 Cross-Connection Spec.
 P.O. Box 271
 Prosser, WA 99356

TAG OR I.D. No. _____ RETURN BY: _____

NAME/COMPANY: _____ ACCT. NO: _____

SERVICE ADDRESS: _____

LOCATION: _____

CROSS CONNECTION CONTROL FOR: _____ TYPE ASSEMBLY: _____

MANUFACTURER: _____ MODEL: _____ SIZE: _____ SERIAL NO.: _____

	INITIAL TEST RESULTS	TEST AFTER REPAIR OR CLEANING
RPBA	Line Pressure _____ PSI Pressure Differential _____ No. 1 Check Valve _____ PSI Relief Valve Opened _____ PSID No. 1 Check: Closed tight..... <input type="checkbox"/> Leaked..... <input type="checkbox"/> No. 2 Check: Closed tight..... <input type="checkbox"/> Leaked..... <input type="checkbox"/>	Line Pressure _____ PSI Pressure Drop Across _____ No. 1 Check Valve _____ PSI Relief Valve Opened _____ PSID No. 1 Check: Closed tight..... <input type="checkbox"/> Leaked..... <input type="checkbox"/> No. 2 Check: Closed tight..... <input type="checkbox"/> Leaked..... <input type="checkbox"/>
DCVA	Line Pressure _____ PSI No. 1 Check: Closed tight..... <input type="checkbox"/> Leaked..... <input type="checkbox"/> No. 2 Check: Closed tight..... <input type="checkbox"/> Leaked..... <input type="checkbox"/>	Line Pressure _____ PSI No. 1 Check: Closed tight..... <input type="checkbox"/> Leaked..... <input type="checkbox"/> No. 2 Check: Closed tight..... <input type="checkbox"/> Leaked..... <input type="checkbox"/>
PVB	Line Pressure _____ PSI Air Inlet: Opened _____ PSI Failed to open..... <input type="checkbox"/> Check Valve _____ PSI Leaked <input type="checkbox"/>	Line Pressure _____ PSI Air Inlet: Opened _____ PSI Failed to open..... <input type="checkbox"/> Check Valve _____ PSI Leaked <input type="checkbox"/>
AG	Minimum Separation: Yes _____ No _____	PLEASE RECORD REPAIR OR CLEANING INFORMATION IN SECTION BELOW

TEST EQUIPMENT USED: _____ REMARKS: _____

TIME: _____

CERTIFY THE ABOVE REPORT TO BE TRUE:

 SIGNATURE

 NAME OF COMPANY

 TYPED OR PRINTED NAME

(_____) _____
 PHONE NUMBER

Initial Test By: _____ WA Cert. No. _____ Date _____

Repaired By: _____ WA Cert. No. _____ Date _____

Repaired By: _____ WA Cert. No. _____ Date _____

CITY OF PROSSER
1109 MEADE AVE.
PROSSER, WASHINGTON 99350

Application No. 99 - _____
Application Received _____
Applicant Contacted date and by _____
\$75.00 Fees paid _____
Receipt # _____

APPLICATION FOR ENCROACHMENT PERMIT
ON CITY ROAD RIGHT OF WAY

APPLICANT:

NAME OF APPLICANT _____ DATE _____

PROJECT ADDRESS _____ FRANCHISE _____

The undersigned hereby applies for permission to encroach upon City road right of way, in accordance with the City of

Prosser Resolution 1745, as follows: (describe

project) _____

Planned starting date _____ Planned completion date _____ (construction). If an encroachment permit is issued, the applicant agrees to strictly comply with the provisions, conditions and specifications therein, commence construction with 60 days of issuance, and will diligently prosecute the work to completion with the time for completion specified in the permit.

PROJECT:

LEGAL DESCRIPTION/LOCATION _____

SKETCH: (or attach drawings and specifications in sufficient detail to permit review.)

Estimated cost of encroachment repair \$ _____
Traffic Planning? Blockage of street or alley? rerouting?

MAILING ADDRESS: _____ PHONE _____

SIGNED: _____

TITLE: _____

**UTILITY DAMAGE IS COSTLY.
CALL 1-800-424-5555 BEFORE YOU DIG.**

**CITY OF PROSSER
CITY RIGHT OF WAY
ENCROACHMENT PERMIT**

NO.

Subject to all terms, conditions, and provisions referred to herein, including attachments, PERMISSION IS HEREBY GRANTED TO:

NAME: _____ PHONE #: _____

FOR: _____

LOCATION: _____

Work shall be performed according to Prosser City Construction Standards, except as expressly modified herein by the Public Works Director. Traffic Controls, Safety Marking, and warning shall be in accordance with the attached accepted Traffic Control Plan and Schedule. Modifications to the plan submitted shall conform to the 1988 Edition of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD).

No work shall be done under this permit until the party or parties to whom it is granted shall have communicated with and confirmed instructions from the Public Works Director or his designee, at 786-7300.

INSPECTIONS SHALL BE CALLED FOR AS FOLLOWS:

This permit shall be void unless the work herein contemplated shall have been completed before _____ day, of _____, 20_____.

APPLICANT SIGNATURE: _____ DATE: _____

SPECIAL NOTES:

APPROVED BY: _____ DATE: _____

PERMIT FEE \$25.00 DATE PAID: _____ CASH _____ CHECK _____ INT. _____

PROJECT CHECKLIST

The following items must be completed (and submitted to the City of Prosser Public Works Department as appropriate) before a Certificate of Occupancy is issued or plat or short plat can be recorded:

- _____ Submit an Application for Encroachment Permit on City Road Right of Way (\$25.00).

- _____ Submit preliminary plans, specifications, calculations, diagrams, and other relevant data for initial review.

- _____ Submit original plan tracings and specifications for approval stamping after revisions.

- _____ Pay plan review fee.

(Construction may not begin until the plans and specifications have been approved and the preconstruction conference held).

- _____ Schedule pre-construction conference and submit insurance and construction schedule.

- _____ Submit Record Drawings.

- _____ Submit any required easements, completed and recorded.

- _____ Submit completed and signed Transfer of Ownership Form

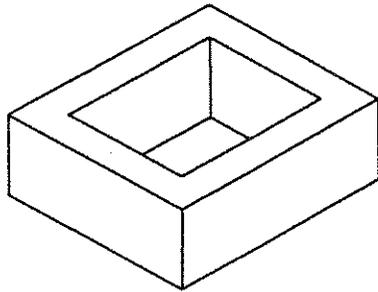
- _____ Pay construction inspection/administration fees.

(Please remember to call the Utility Location number 1 800 424 5555 prior to beginning any construction work).

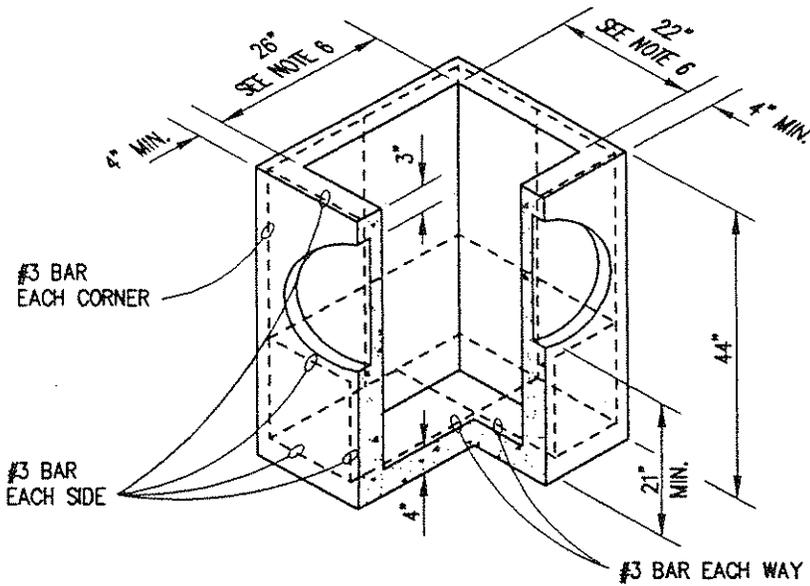
APPENDIX B

NOTES:

1. AS AN ACCEPTABLE ALTERNATE TO REBAR, WIRE MESH HAVING A MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WIRE MESH SHALL NOT BE PLACED IN KNOCKOUTS.
2. THE KNOCKOUT DIAMETER SHALL NOT BE GREATER THAN 26". KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2-1/2" MAXIMUM.
3. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT SHALL BE 5'.
4. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO ADJUSTMENT SECTION.
5. THE PRECAST BASE SECTION MAY HAVE A ROUNDED FLOOR AND THE WALLS MAY BE SLOPED AT A RATE OF 1:24 OR STEEPER.
6. OPENING SHALL BE MEASURED AT THE TOP OF THE PRECAST BASE UNIT.



RECTANGULAR ADJUSTMENT SECTION

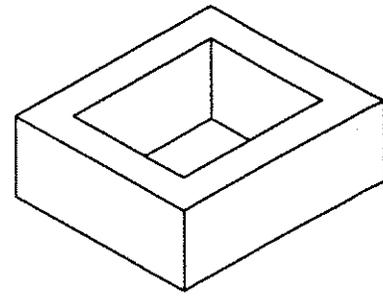


PRECAST BASE SECTION

**CATCH BASIN TYPE 1
WSDOT STANDARD PLAN B-1**

NOTE:
ONLY THE LATEST DETAIL, AS APPROVED BY
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

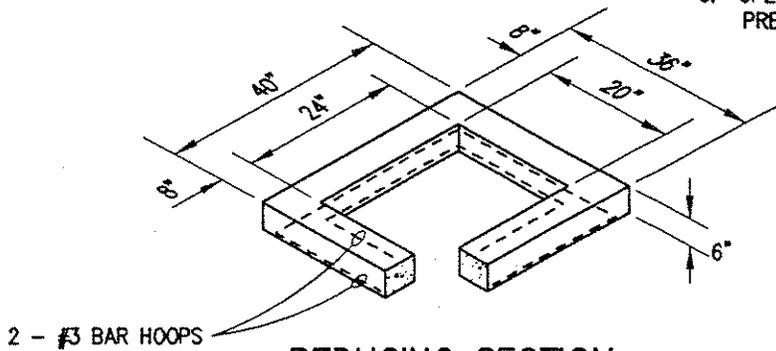
ORIG.	3-1-99		
Revision	Date	Description	Appr



RECTANGULAR
ADJUSTMENT SECTION

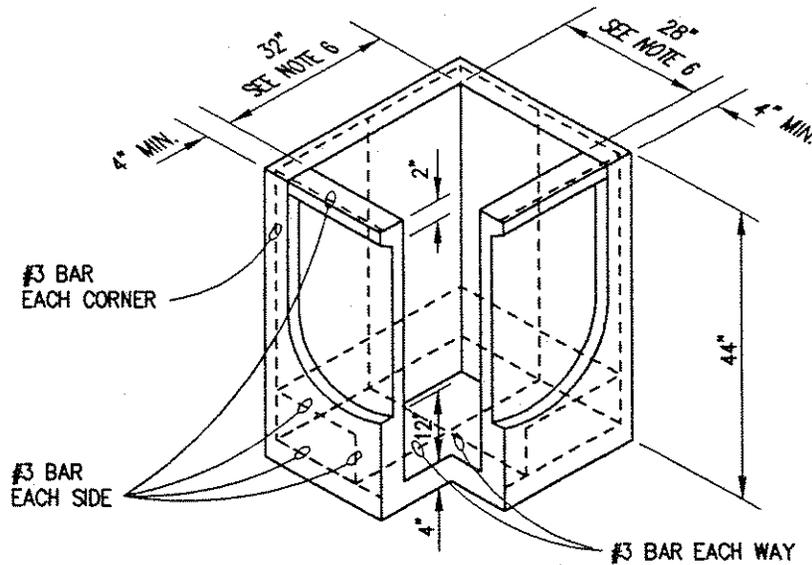
NOTES:

1. AS AN ACCEPTABLE ALTERNATE TO REBAR, WIRE MESH HAVING A MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WIRE MESH SHALL NOT BE PLACED IN KNOCKOUTS.
2. THE KNOCKOUT DIAMETER SHALL NOT BE GREATER THAN 26". KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2-1/2" MAXIMUM.
3. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT SHALL BE 5'.
4. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO ADJUSTMENT SECTION.
5. THE PRECAST BASE SECTION MAY HAVE A ROUNDED FLOOR AND THE WALLS MAY BE SLOPED AT A RATE OF 1:24 OR STEEPER.
6. OPENING SHALL BE MEASURED AT THE TOP OF THE PRECAST BASE UNIT.



2 - #3 BAR HOOPS

REDUCING SECTION

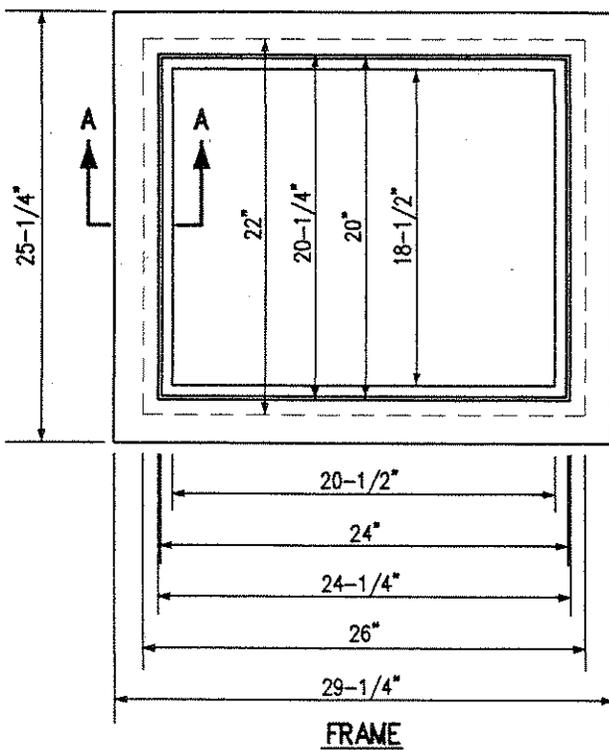


PRECAST BASE SECTION

**CATCH BASIN TYPE 1L
WSDOT STANDARD PLAN B-1a**

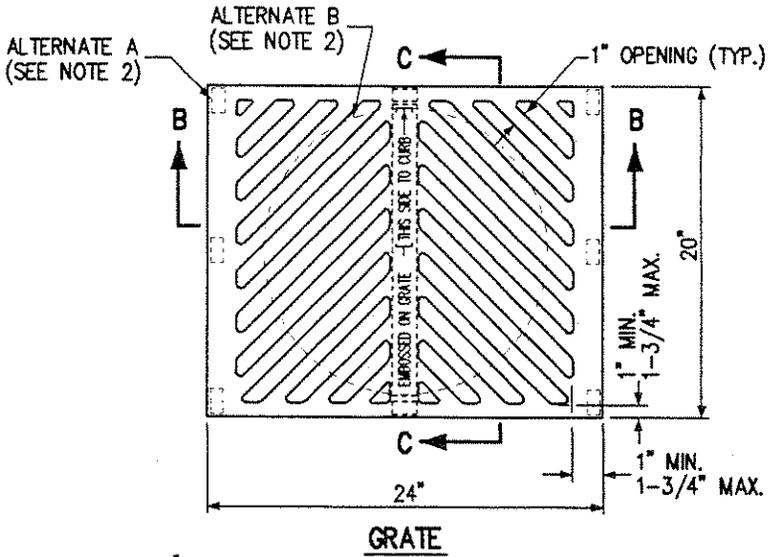
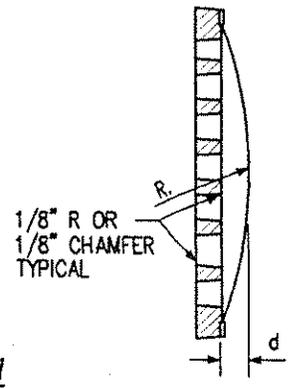
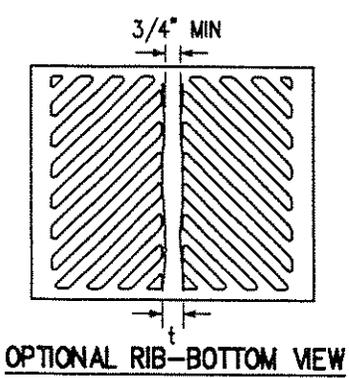
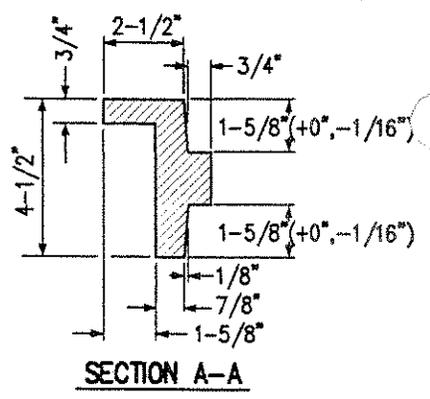
NOTE:
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ROUND
 ELLIPTICAL
 TANGENT BETWEEN 2 RADII

OPTIONAL DESIGN FOR GRATE OPENING ENDS

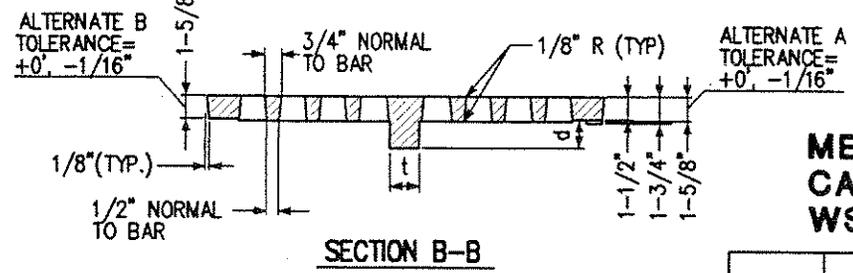


DIMENSIONS	t	R	d
STANDARD GRATE	1-3/4"	26"	1-5/8"
GRATE WITH OPTIONAL RIB	1-1/2"	21"	2-3/4"

WEIGHT	
FRAME	158 LBS ± 5%
GRATE	118 LBS ± 5%

NOTES:

- 3" TO 5" DRAFT PERMITTED AS NEEDED.
- SEATING OF GRATE SHALL BE ACCOMPLISHED BY ONE OF THE FOLLOWING: ALTERNATE A SHALL BE EIGHT PADS 1-1/2" x 3/4" x 1/8" TO 1/4" INTEGRALLY CAST WITH THE GRATE. ALTERNATE B SHALL BE A MACHINED SURFACE OUTSIDE A 17" CIRCLE, BOTTOM ONLY. (SEE SECTION B-B).
- TOLERANCE ON ALL DIMENSIONS SHALL BE ±1/16" UNLESS OTHERWISE NOTED.

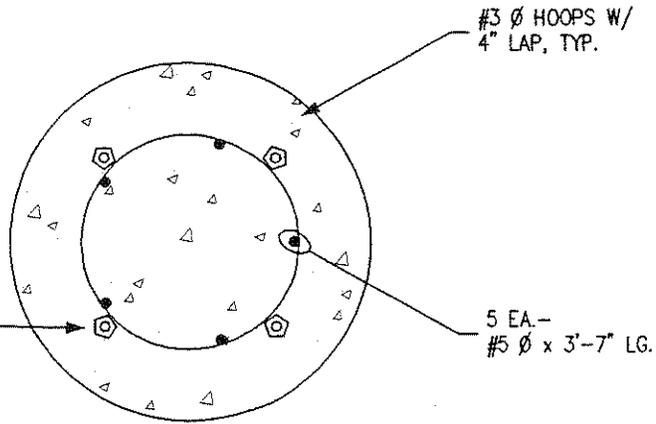


METAL FRAME AND GRATE FOR CATCH BASIN AND INLET WSDOT STANDARD PLAN B-2a

NOTE: ONLY THE LATEST DETAIL, AS APPROVED BY THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

Revision	Date	Description	Appr
ORIG.	3-1-99		

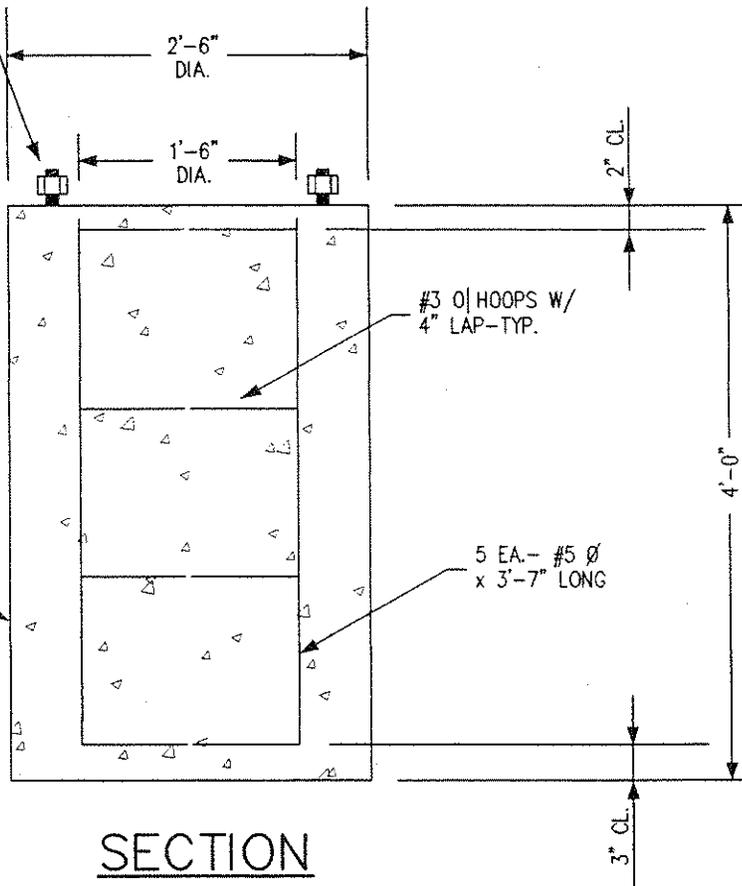
ANCHOR BOLTS AND
TEMPLATE(S) TO BE
SUPPLIED BY LIGHT
FIXTURE MFR.



PLAN

SCALE: 3/4"=1'-0"

CAST IN PLACE
CONC. BASE

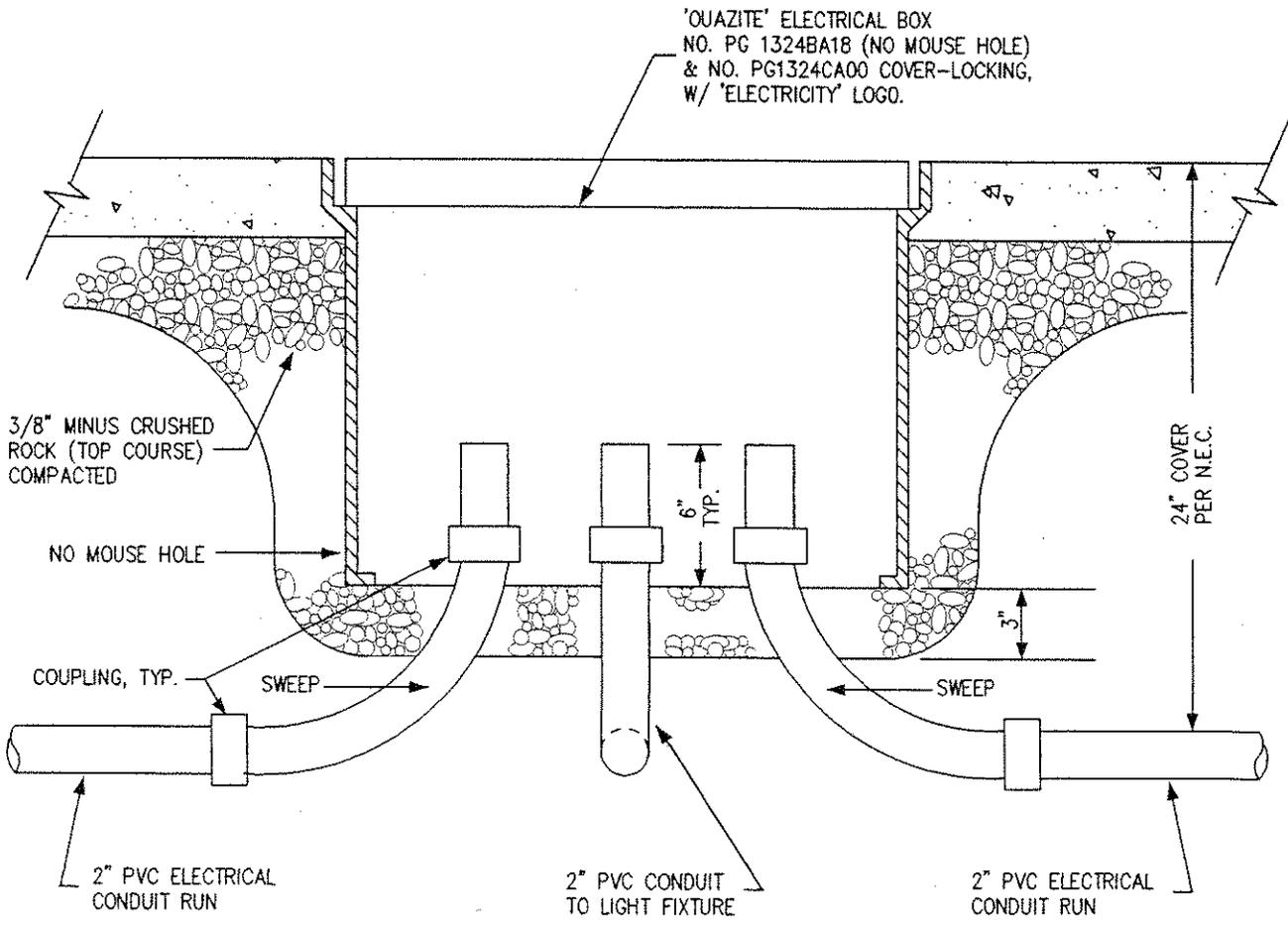


SECTION

SCALE: 3/4"=1'-0"

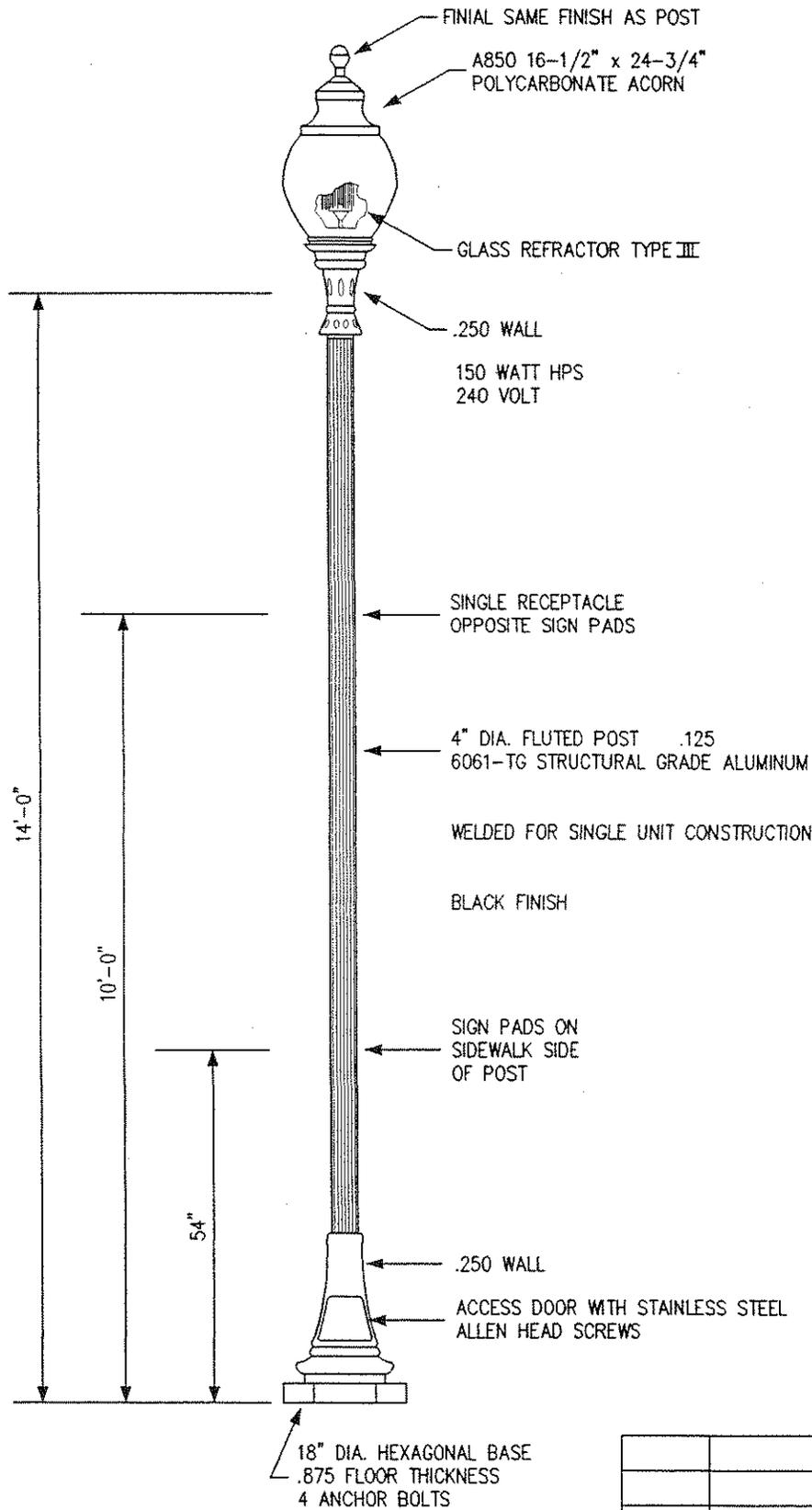
TYPICAL LIGHT BASE DETAIL

ORIG.	5-3-99		
Revision	Date	Description	Appr

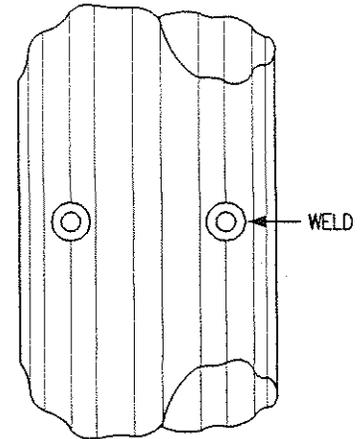
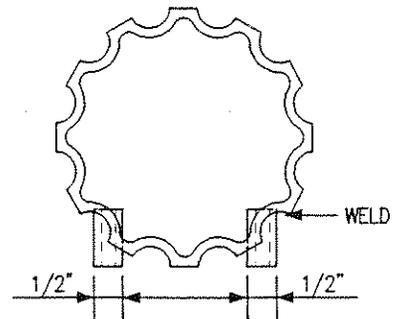


TYPICAL SECTION
 SCALE: 1-1/2"=1'-0"

ORIG.	5-3-99		
Revision	Date	Description	Appr

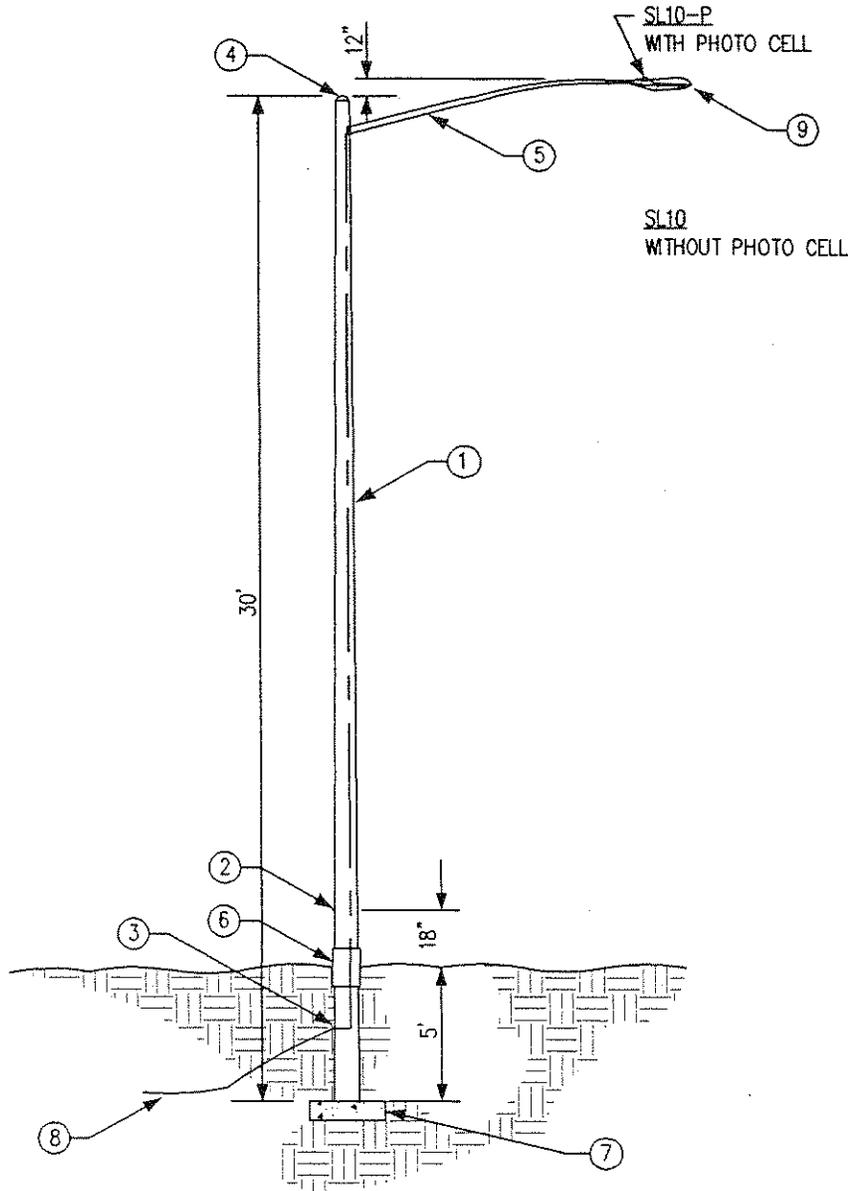


TOP VIEW



FRONT VIEW

ORIG.	5-3-99		
Revision	Date	Description	Appr



NOTE:
 BACKFILL AROUND POLE WITH NATIVE SOIL WELL
 COMPACTED. GROUND SLEEVE TO BE HALF IN AND
 HALF OUT OF GROUND.

ITEM	QTY.	DESCRIPTION
1	1	STEEL POLE
2	1	HAND HOLE WITH COVER AND SS BOLTS
3	1	WIRING OPENING
4	1	POLE CAP COVER
5	1	6' MASTARM BOLTED TO POLE
6	1	GROUND SLEEVE MINIMUM 7 ga.
7	1	CONCRETE BLOCK
8	1	CONDUCTOR, ST. LIGHT, #6 DUPLEX OR AS REQ'D
9	1	HIGH PRESSURE SODIUM LUMINAIRE

PUBLIC UTILITY DISTRICT NO. 1 OF
 BENTON COUNTY, WASHINGTON

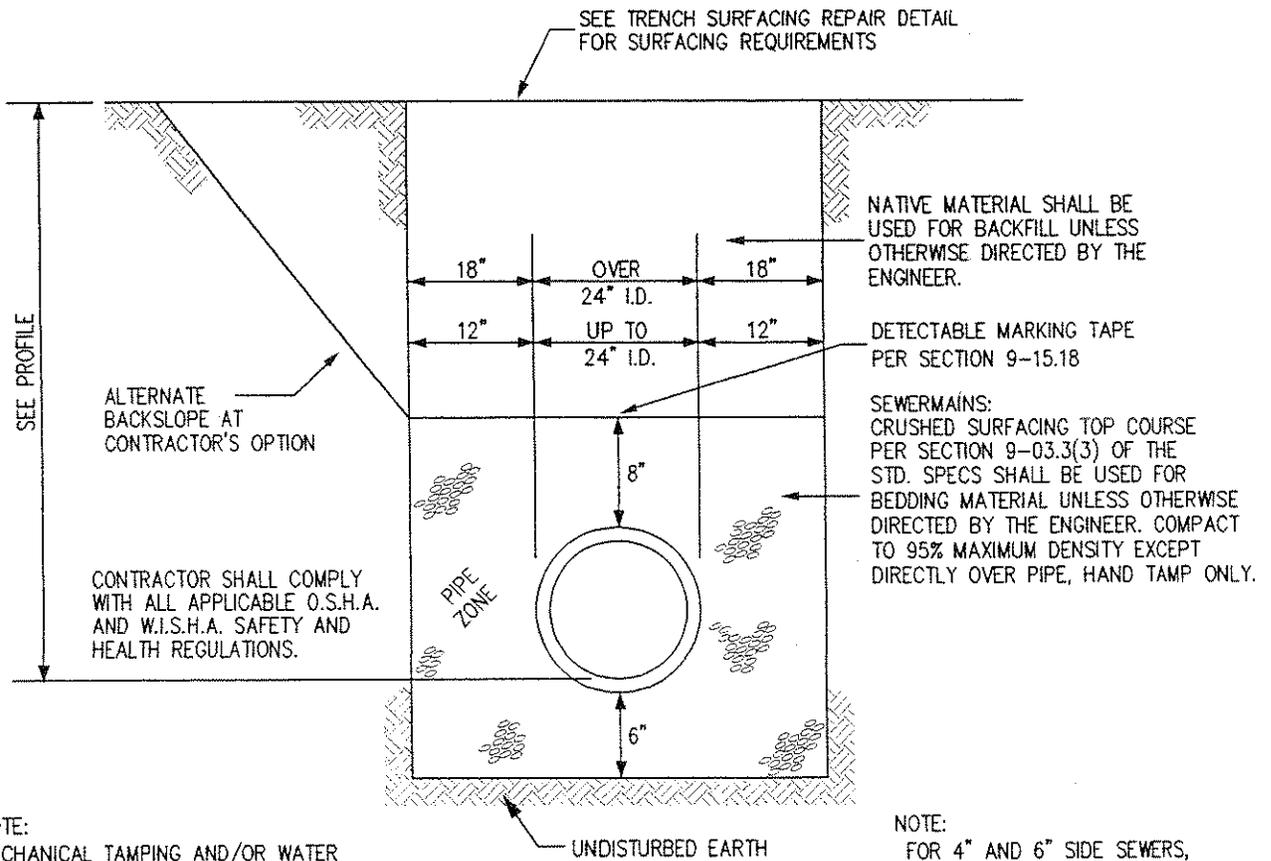
HIGH PRESSURE SODIUM - STREET LIGHT
 ON EMBEDDED 30' STEEL POLE

ORIG.	5-3-99		
Revision	Date	Description	Appr

CITY OF PROSSER-STANDARD DETAIL

STANDARD LIGHT FIXTURE

1-4

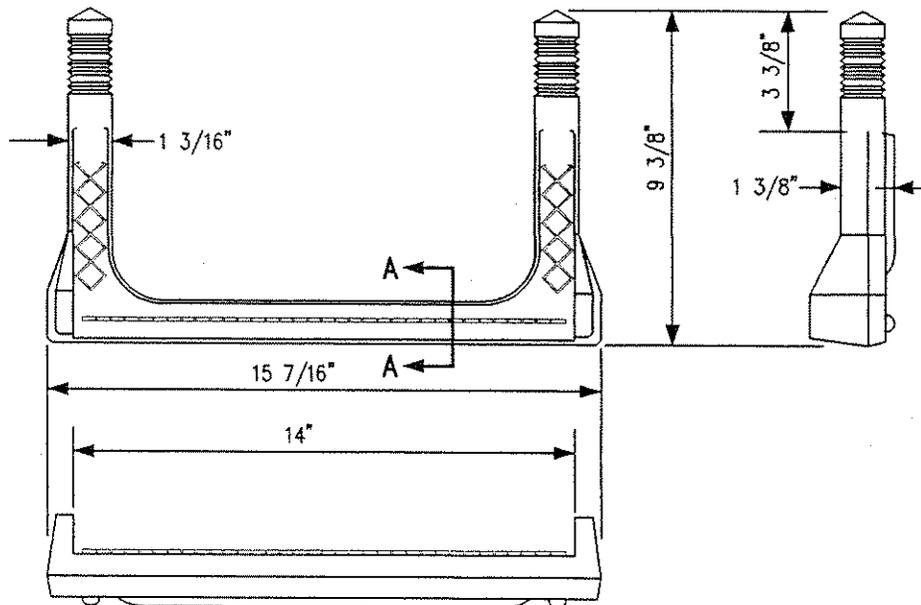


NOTE:
MECHANICAL TAMPING AND/OR WATER
SETTLING MAY BE USED UNLESS
OTHERWISE SPECIFIED OR DIRECTED.

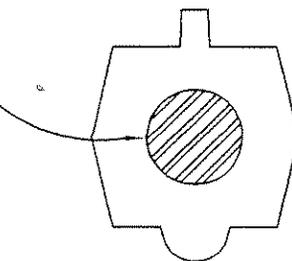
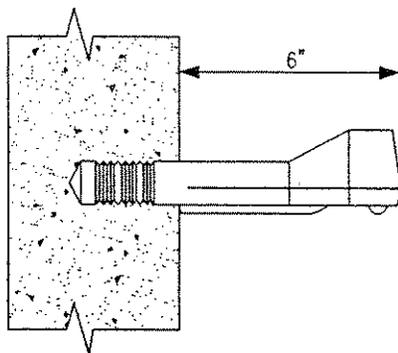
NOTE:
FOR 4" AND 6" SIDE SEWERS,
INSTALL IMPORTED PIPE BEDDING
A MINIMUM OF 3" THICK ON ALL
SIDES OF PIPE.

NOTE:
ONLY THE LATEST DETAIL, AS APPROVED BY
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

ORIG.	3-1-99		
Revision	Date	Description	Appr



COPOLYMER POLYPROPYLENE
 PLASTIC COATED 1/2" GRADE
 60 STEEL REINFORCEMENT



SECTION A-A

NOTE:

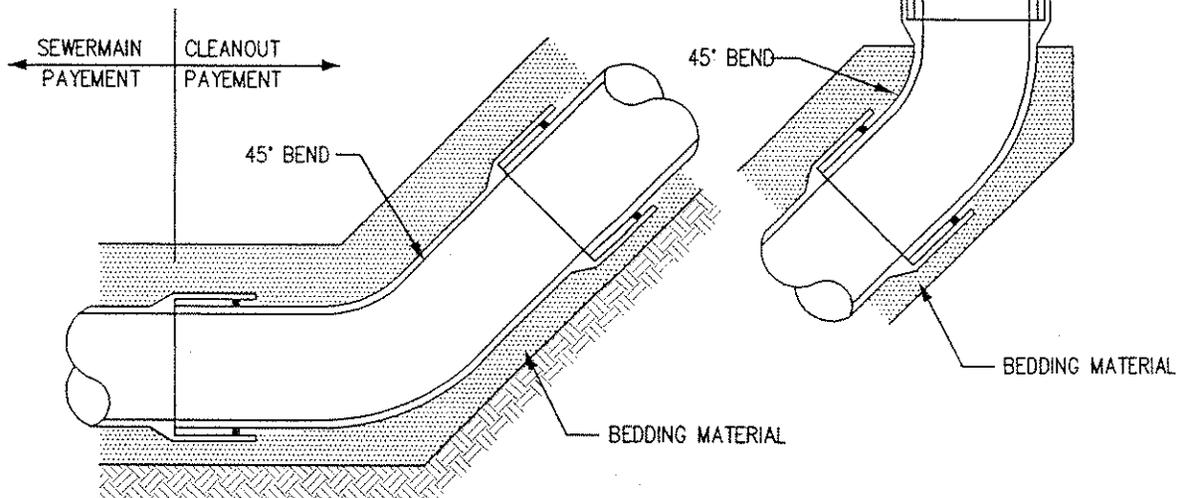
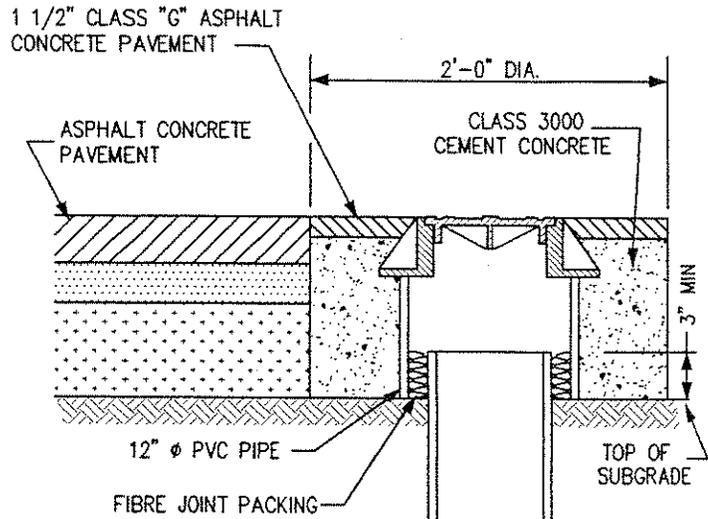
MANHOLE STEPS SHALL BE COPOLYMER
 POLYPROPYLENE PLASTIC COATED 1/2"
 GRADE 60 STEEL REINFORCEMENT, MODEL
 PS2-PF, AS MANUFACTURED BY M.A.
 INDUSTRIES INC., OR APPROVED EQUAL

NOTE:
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 THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

ORIG.	3-1-99		
Revision	Date	Description	Appr

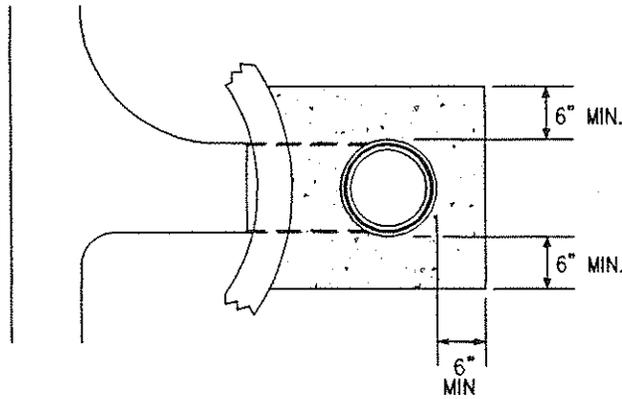
NOTES:

1. CAST IRON FRAME & COVER SHALL BE INLAND FOUNDRY COMPANY INC., UNIT 247 OR APPROVED EQUAL.
2. IN UNPAVED AREAS, SET FRAME & COVER FLUSH WITH FINISHED GRADE. EXTEND 12" THICK, 2' DIAMETER, CEMENT CONCRETE RING FLUSH WITH FRAME AND SLOPE OUTWARD AT 1/4"/FT.
3. CLEANOUT PIPE SHALL BE 8" DIA. PVC SEWER PIPE IN ACCORDANCE W/ THE STANDARD SPECS.

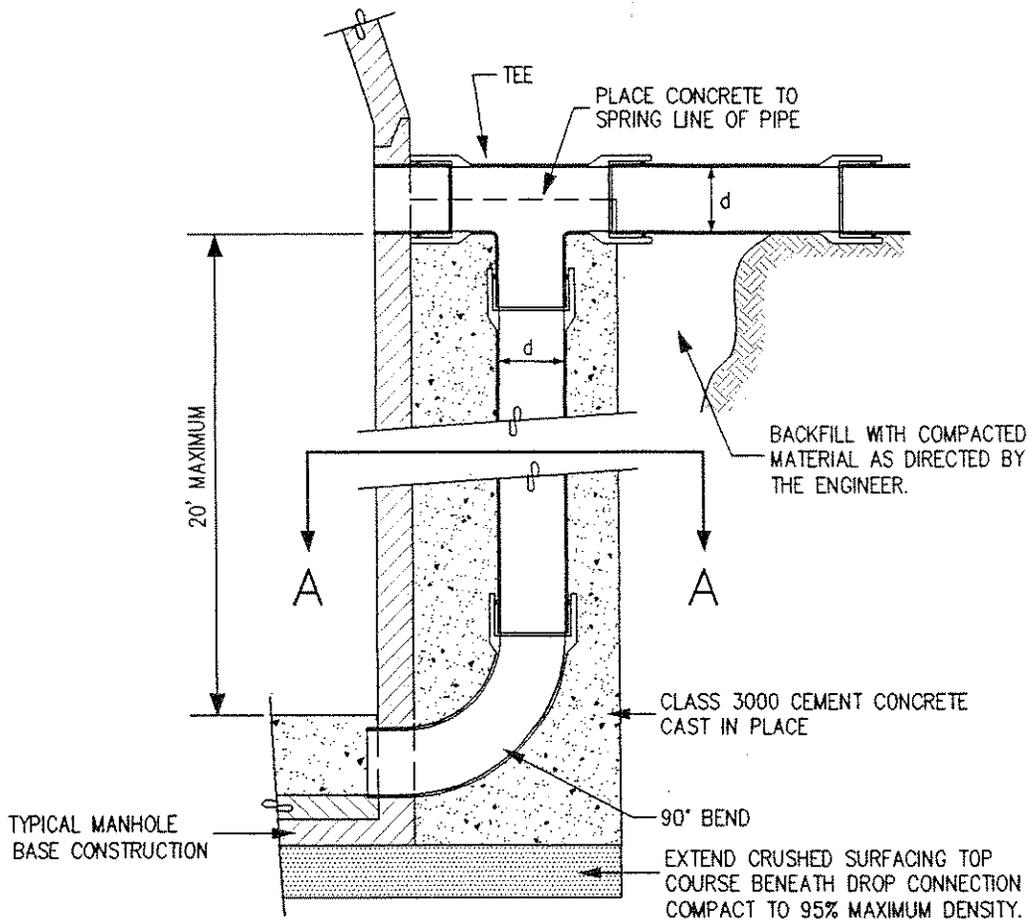


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ORIG.	3-1-99		
Revision	Date	Description	Appr



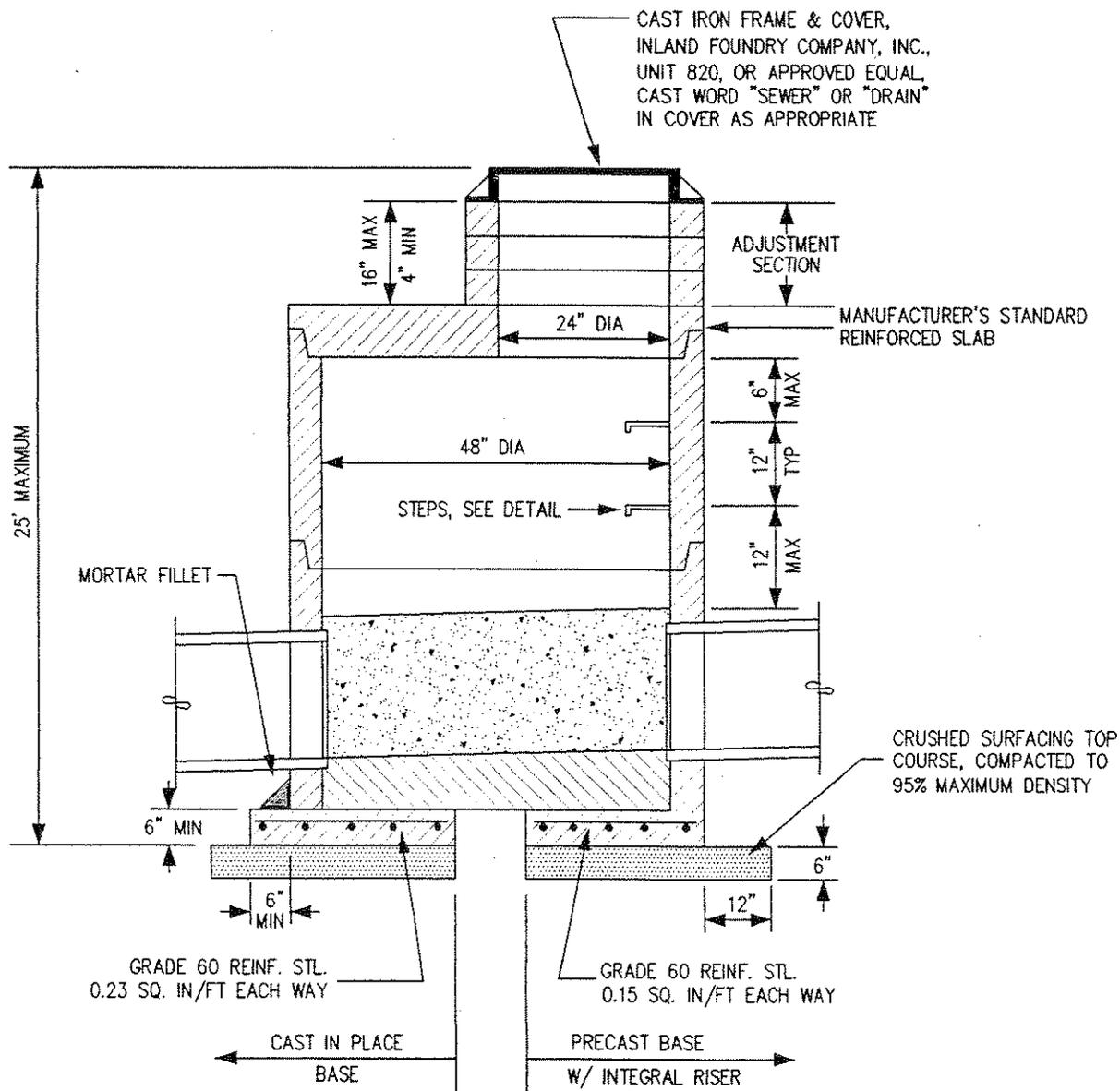
SECTION A-A



PROFILE VIEW

NOTE:
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THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

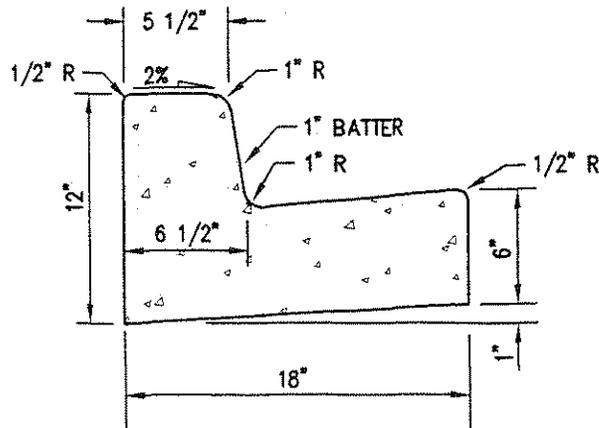
ORIG.	3-1-99		
Revision	Date	Description	Appr



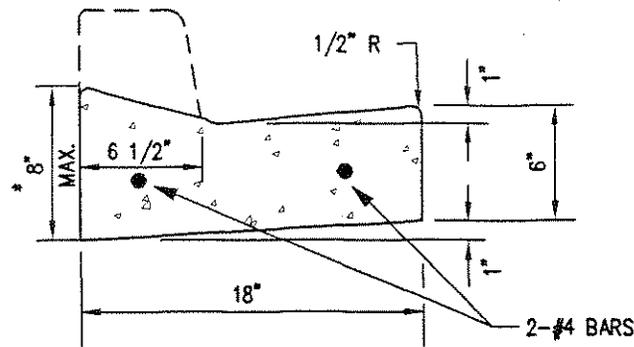
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Revision	Date	Description	Appr.

* AS DIRECTED BY ENGINEER. MAY VARY
 DEPENDING UPON GRADE OF SIDEWALK AND
 DRIVEWAY BEYOND CURB.



FULL HEIGHT — TYPE A



DEPRESSED — TYPE D

NOTE:
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 THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

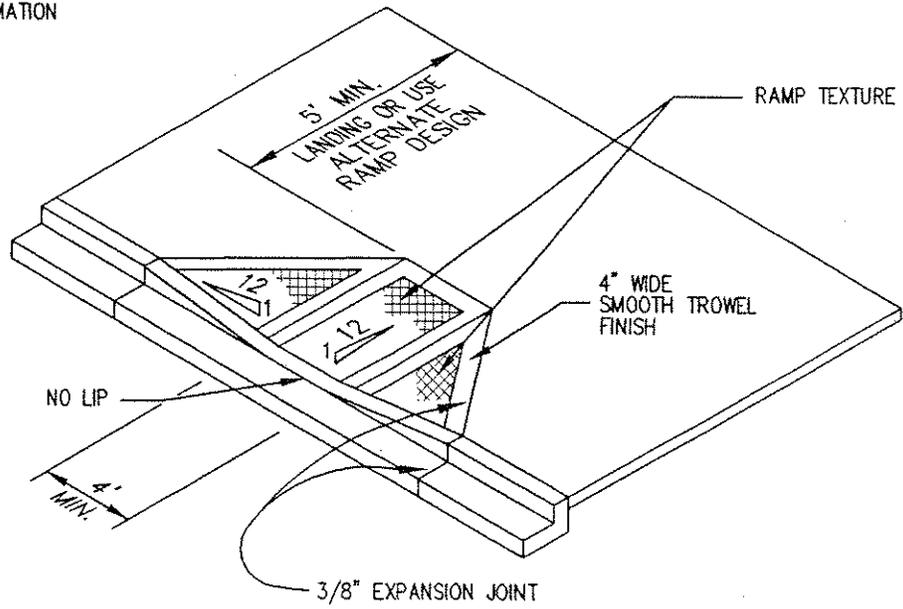
ORIG.	3-1-99		
Revision	Date	Description	Appr

CITY OF PROSSER—STANDARD DETAIL

CONCRETE CURB & GUTTER

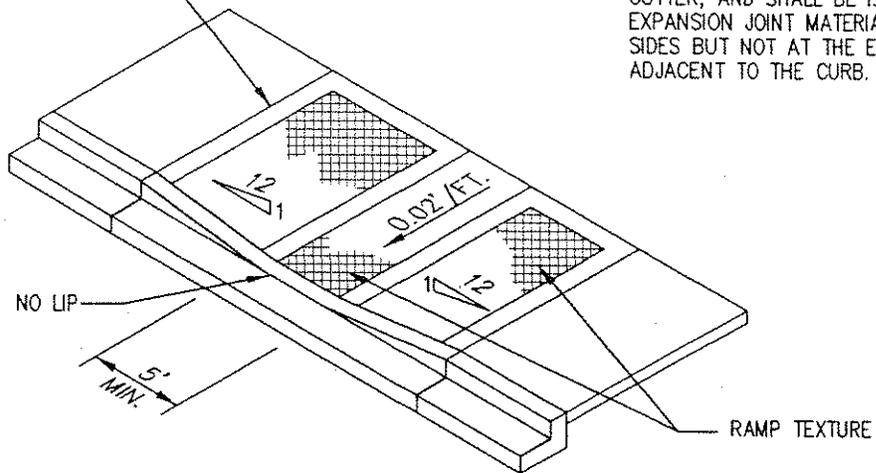
ST-1

SEE WSDOT STANDARD PLAN F-3
FOR ADDITIONAL INFORMATION



STANDARD

3/8" EXPANSION JOINT
TYPICAL EACH SIDE



ALTERNATE

NOTES:

CURB RAMPS WILL NOT BE POURED INTEGRAL WITH SIDEWALK OR CURB & GUTTER, AND SHALL BE ISOLATED BY EXPANSION JOINT MATERIAL ON ALL SIDES BUT NOT AT THE END OF RAMP ADJACENT TO THE CURB.

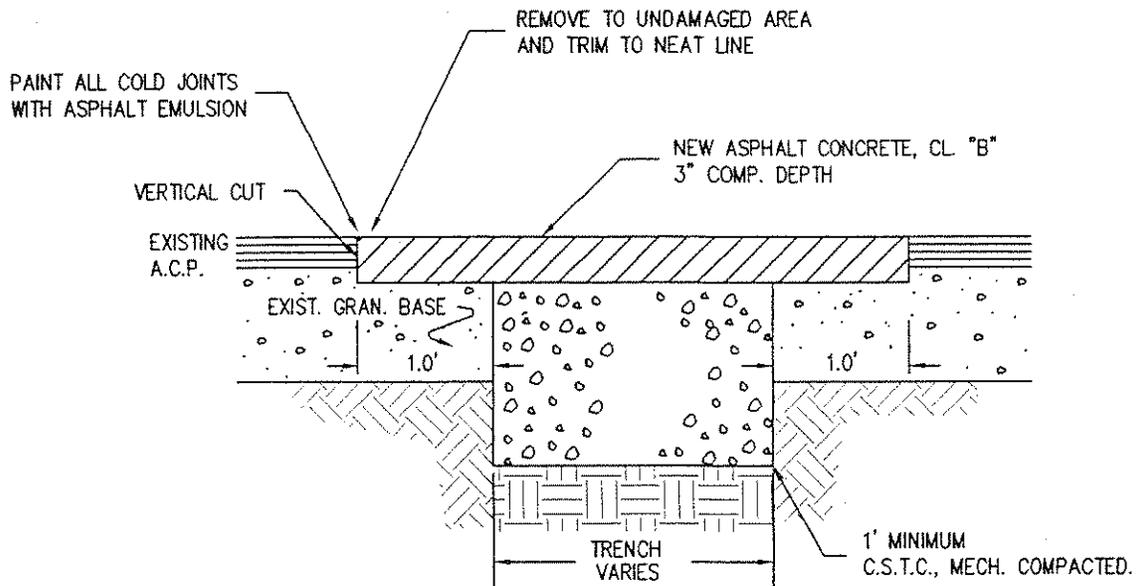
NOTE:
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ORIG.	3-1-99		
Revision	Date	Description	Appr

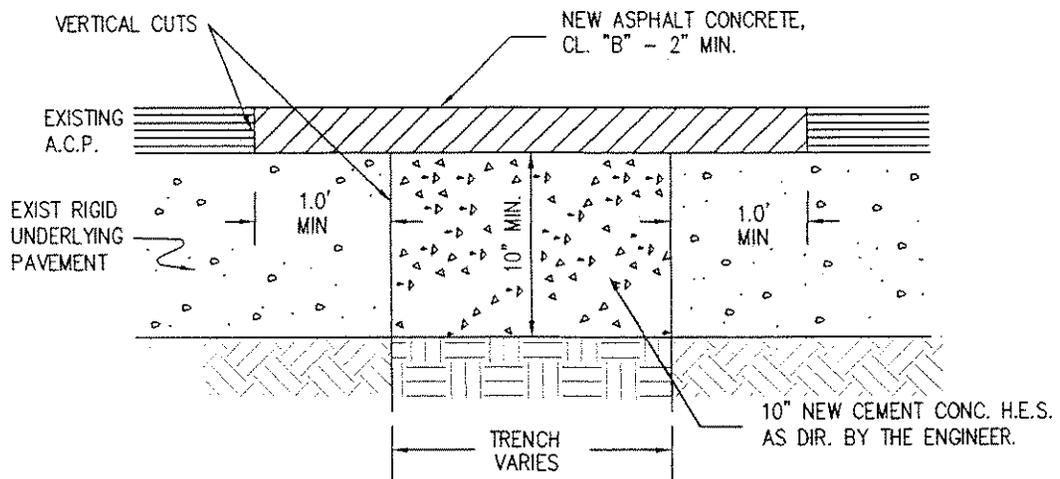
CITY OF PROSSER-STANDARD DETAIL

CURB RAMP

ST-2



FLEXIBLE PAVEMENT



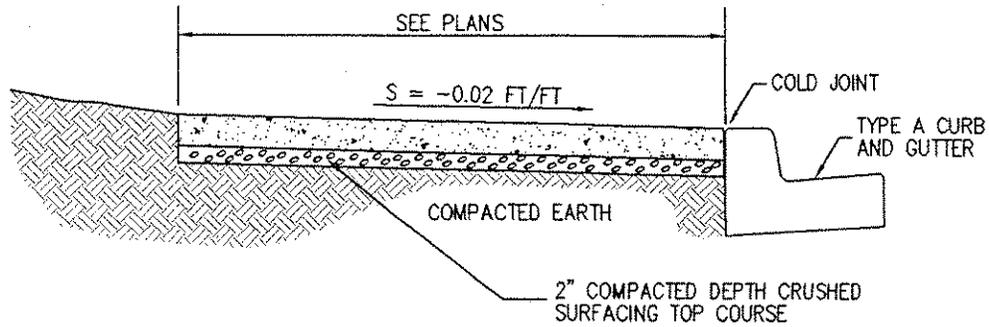
A.C.P. SURFACED RIGID PAVEMENT

NOTE:
FOR STREET CROSSING EXCAVATIONS,
BACKFILL SHALL BE ENTIRELY
CRUSHED SURFACING TOP COURSE.

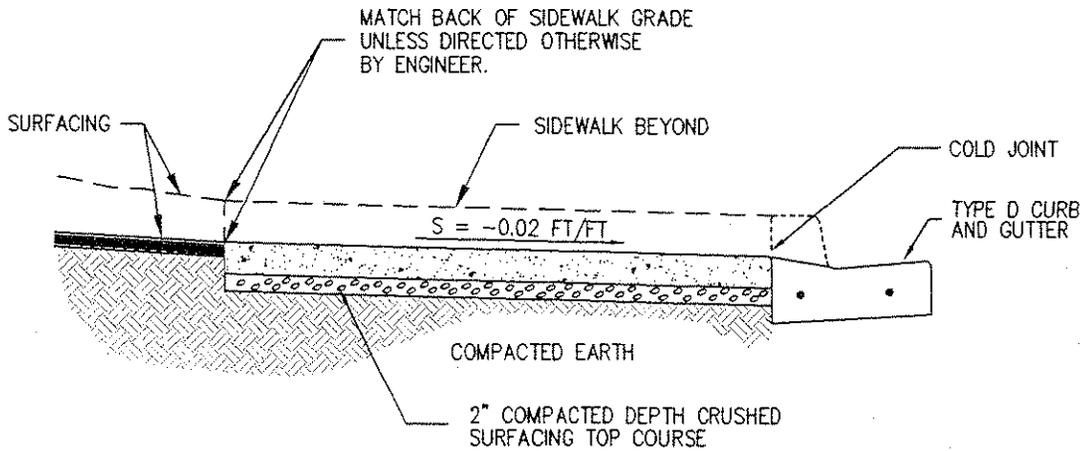
CONCRETE CLASS 3000 STANDARD SPECIFICATIONS
COMPACTION STANDARD SPECIFICATIONS
SECTION 7-17.3(3) - 95% MAXIMUM DENSITY
SECTION 7-10.3(11) - 95% MAXIMUM DENSITY
SECTION 2-03.3(14)D

NOTE:
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THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

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Revision	Date	Description	Appr



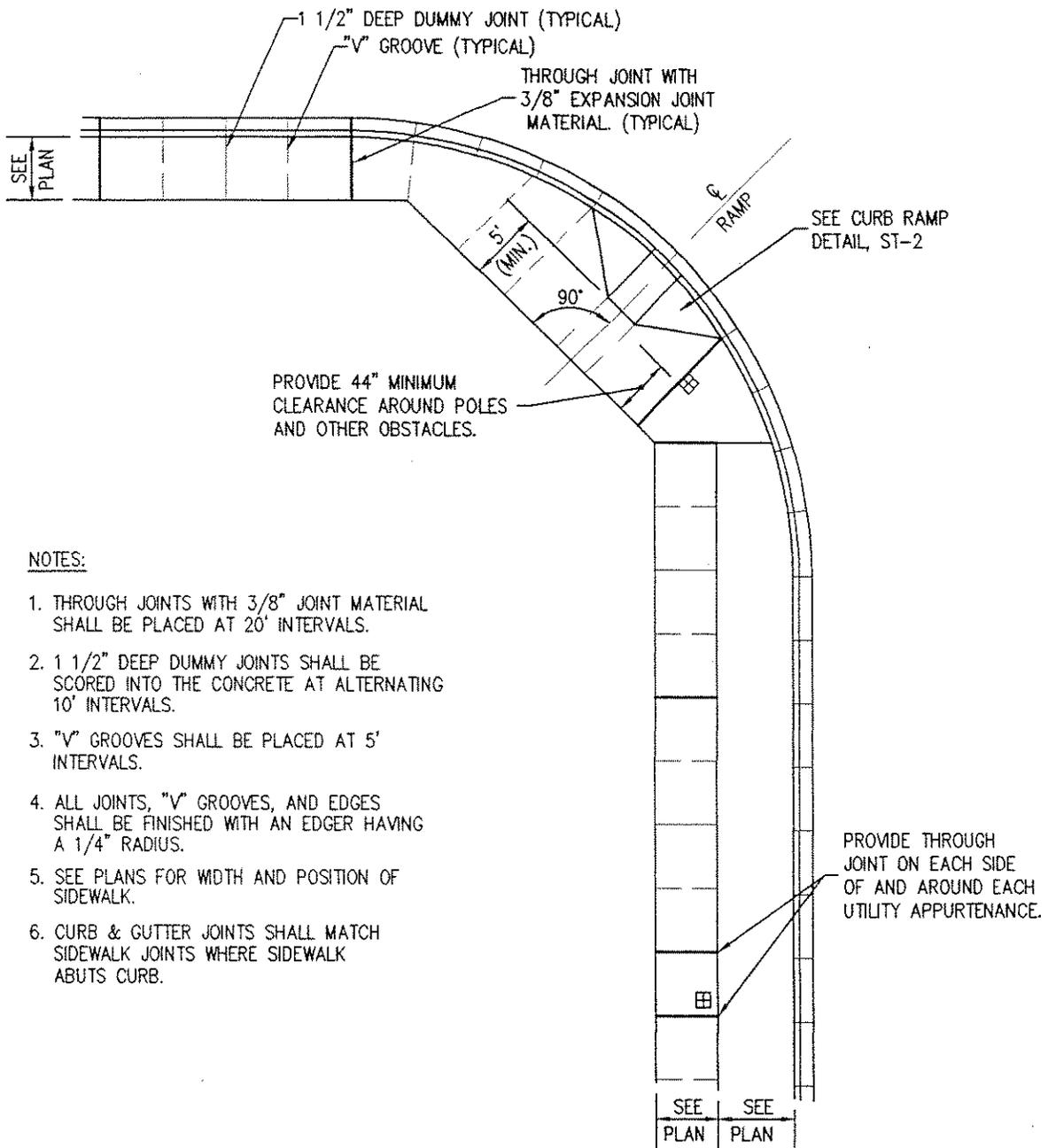
4" THICK SIDEWALK SECTION



6" THICK SIDEWALK SECTION AT DRIVEWAYS

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 THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

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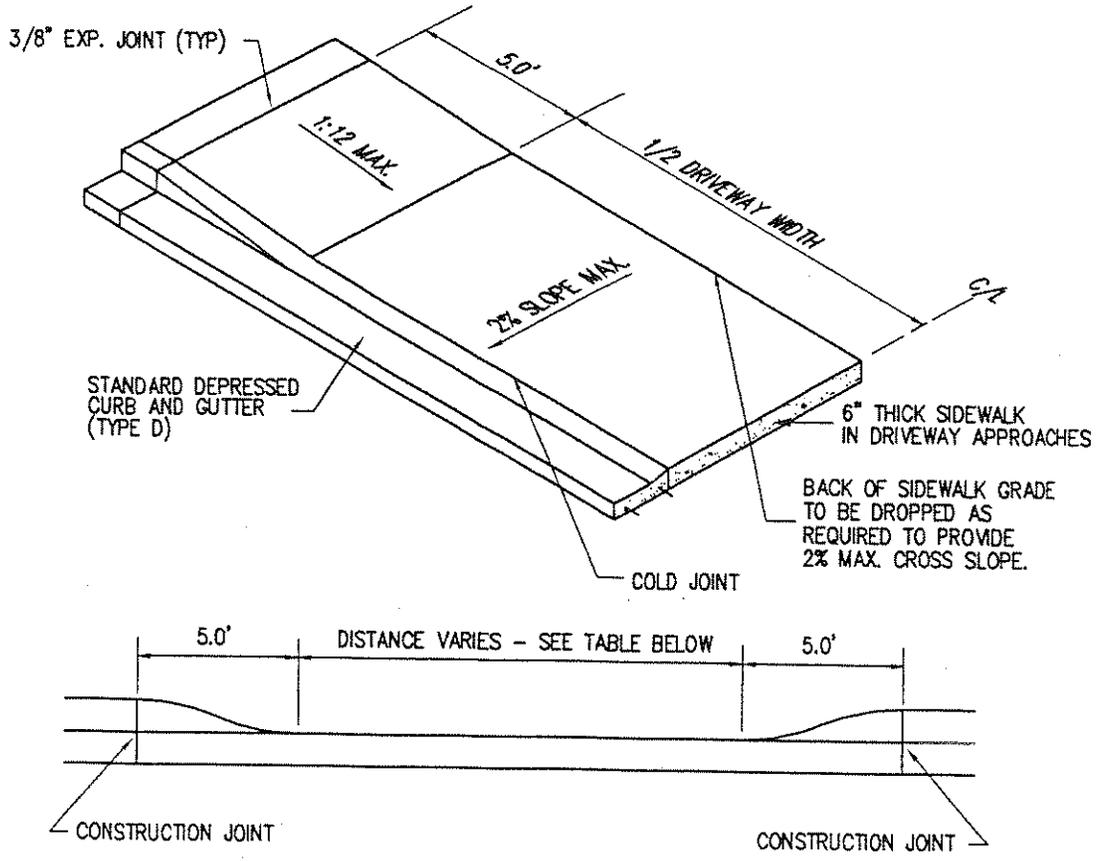


NOTES:

1. THROUGH JOINTS WITH 3/8" JOINT MATERIAL SHALL BE PLACED AT 20' INTERVALS.
2. 1 1/2" DEEP DUMMY JOINTS SHALL BE SCORED INTO THE CONCRETE AT ALTERNATING 10' INTERVALS.
3. "V" GROOVES SHALL BE PLACED AT 5' INTERVALS.
4. ALL JOINTS, "V" GROOVES, AND EDGES SHALL BE FINISHED WITH AN EDGER HAVING A 1/4" RADIUS.
5. SEE PLANS FOR WIDTH AND POSITION OF SIDEWALK.
6. CURB & GUTTER JOINTS SHALL MATCH SIDEWALK JOINTS WHERE SIDEWALK ABUTS CURB.

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ORIG.	3-1-99		
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REFER TO PROSSER MUNICIPAL CODE CHAPTER 12.06

RESIDENTIAL DRIVEWAYS

SINGLE	10' - 12' MAX.
DOUBLE	20' MAX.

COMMERCIAL DRIVEWAYS

SINGLE	30'	MAX. (25 MPH OR LESS)
	35' *	MAX. (25 TO 45 MPH)
	40' *	MAX. (45 MPH OR MORE)

* SUBJECT TO APPROVAL OF CITY ENGINEER

A SAFETY ISLAND OF NOT LESS THAN SIX FEET OF FULL HEIGHT CURB SHALL IN ALL CASES BE PROVIDED BETWEEN DRIVEWAY APPROACHES AND A SAFETY ISLAND OF NOT LESS THAN TWENTY FEET OF FULL HEIGHT CURB SHALL IN ALL CASES BE PROVIDED BETWEEN DRIVEWAY APPROACHES SERVING ANY ONE PROPERTY FRONTAGE.

PROPERTY FRONTAGE INCLUDES APPROACH AREAS DIRECTLY IN FRONT OF PROPERTY OWNED OR UNDER THE CONTROL OF THE APPLICANT AND SUCH AREA AS MAY BE OPPOSITE ADJOINING PROPERTY WHICH IS USED FOR APPROACH PURPOSES BY RIGHT OF EASEMENT OR AGREEMENT WITH THE ADJOINING PROPERTY OWNER.

NO DRIVEWAY APPROACH SHALL PROJECT BEYOND THE EXTENSION OF THE SIDE PROPERTY LINE TO THE CURB, UNLESS THE OWNER OF THE ADJACENT PROPERTY IS A CO-SIGNER OF THE APPLICATION.

COMMERCIAL APPROACHES WITH RADIUS CURB RETURNS SHALL BE REVIEWED AND APPROVED BY THE CITY ADMINISTRATOR ON A CASE BY CASE BASIS.

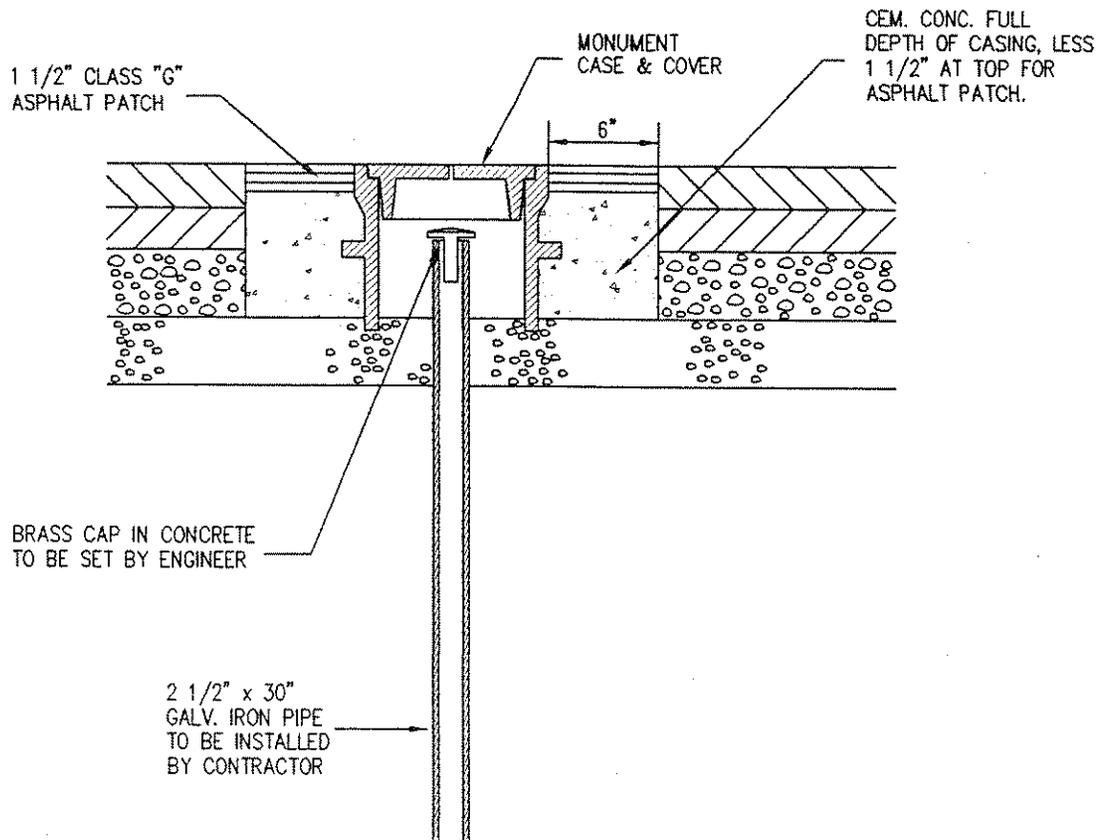
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ORIG.	3-1-99		
Revision	Date	Description	Appr

CITY OF PROSSER—STANDARD DETAIL

DRIVEWAY APPROACHES

ST-6



NOTES:

1. TOP OF MONUMENT SHALL BE 3" BELOW FINISH GRADE
2. MONUMENT, MONUMENT CASE AND COVER TO BE PLACED AFTER FINAL LIFT OF ASPHALT.

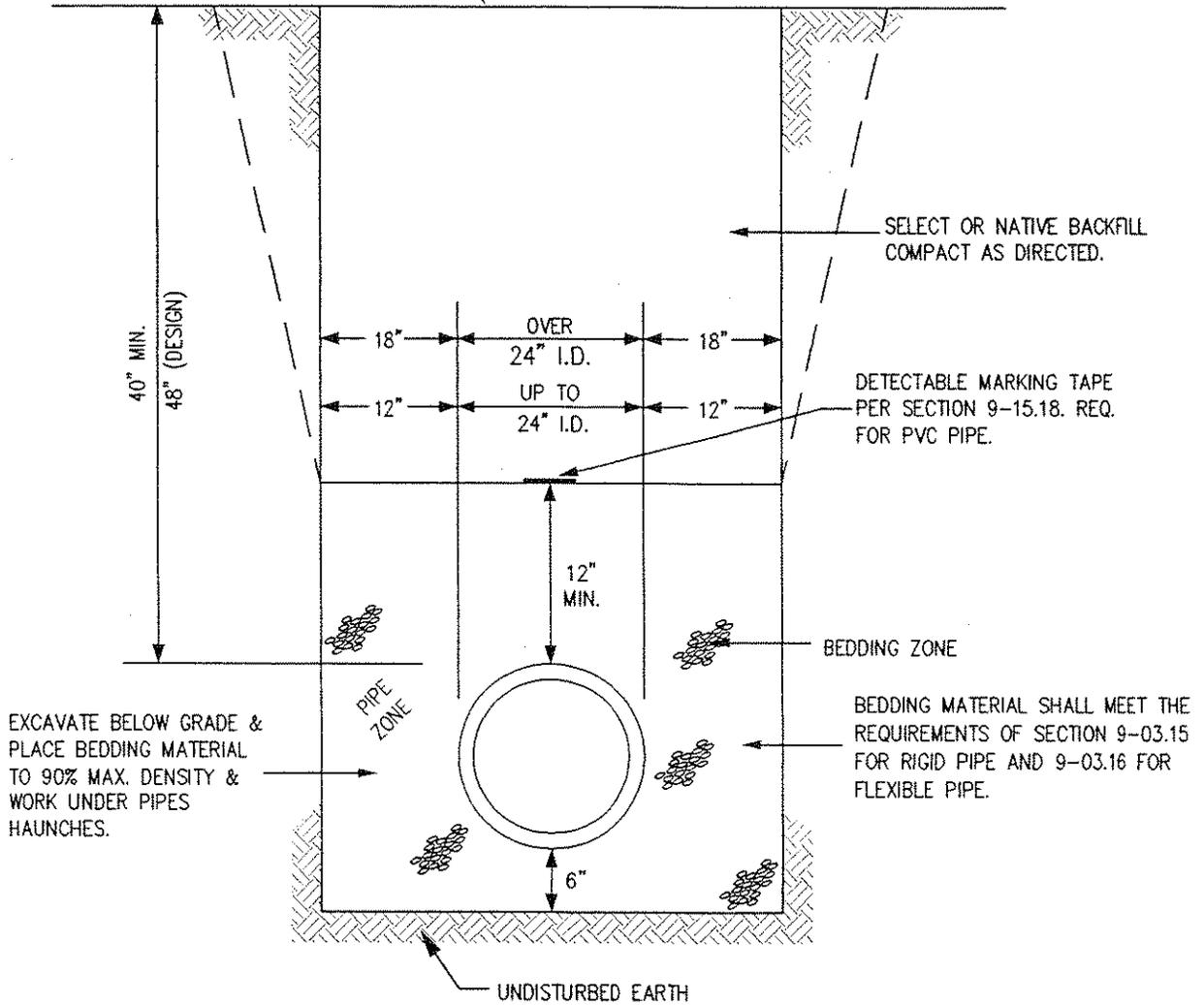
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ORIG.	3-1-99		
Revision	Date	Description	Appr

CITY OF PROSSER—STANDARD DETAIL	MONUMENT	ST-9
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SEE TRENCH SURFACING REPAIR DETAIL FOR SURFACING REQUIREMENTS

NOTE: ACTUAL SLOPE OF TRENCH SIDES TO BE DETERMINED BY CONTRACTOR TO FIT THE METHOD OF CONSTRUCTION AND ALL SAFETY REQUIREMENTS.



EXCAVATE BELOW GRADE & PLACE BEDDING MATERIAL TO 90% MAX. DENSITY & WORK UNDER PIPES HAUNCHES.

BEDDING MATERIAL SHALL MEET THE REQUIREMENTS OF SECTION 9-03.15 FOR RIGID PIPE AND 9-03.16 FOR FLEXIBLE PIPE.

NOTE: ONLY THE LATEST DETAIL, AS APPROVED BY THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

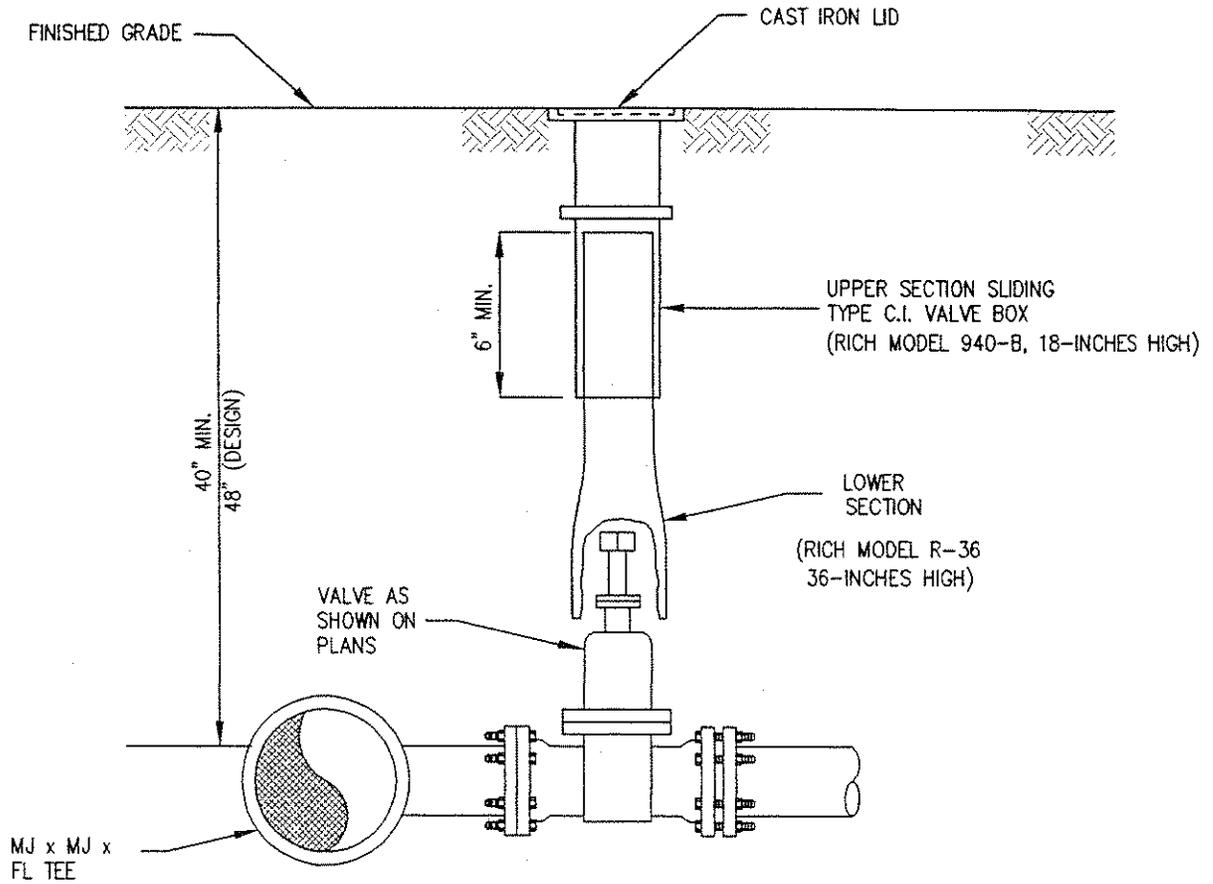
ORIG.	3-1-99		
Revision	Date	Description	Appr

CITY OF PROSSER—STANDARD DETAIL

WATERMAIN TRENCH

W-1

NOTE: ADJUST EARS ON VALVE BOX TO ALIGN WITH PIPE.

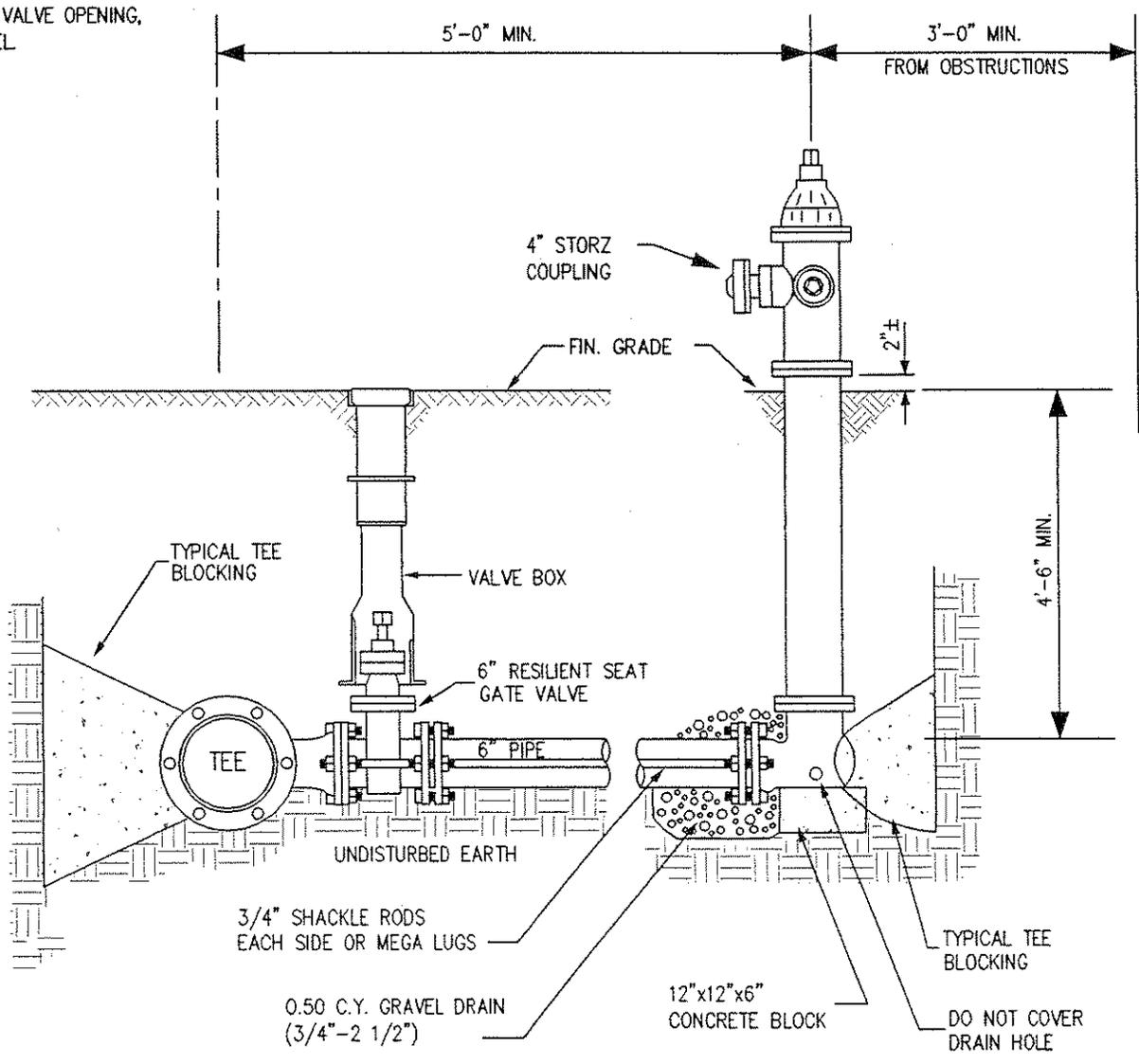


NOTE: PROVIDE EXTENSION PIECE WHERE REQUIRED FOR VALVE BOX. (RICH MODEL 044, 12-INCHES HIGH)

NOTE: ONLY THE LATEST DETAIL, AS APPROVED BY THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

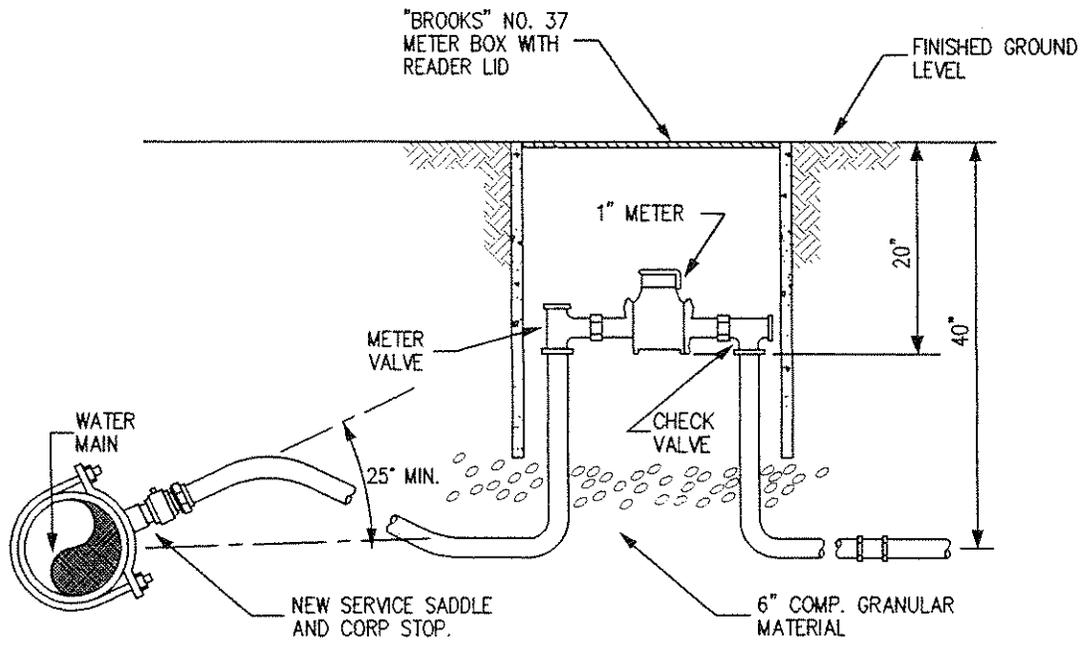
ORIG.	3-1-99		
Revision	Date	Description	Appr

NOTE: HYDRANT TO BE MUELLER
 "CENTURION" OR M&H RELIANT
 #929 OR APPROVED EQUAL.
 5-1/4" SIZE VALVE OPENING,
 7" I.D. BARREL

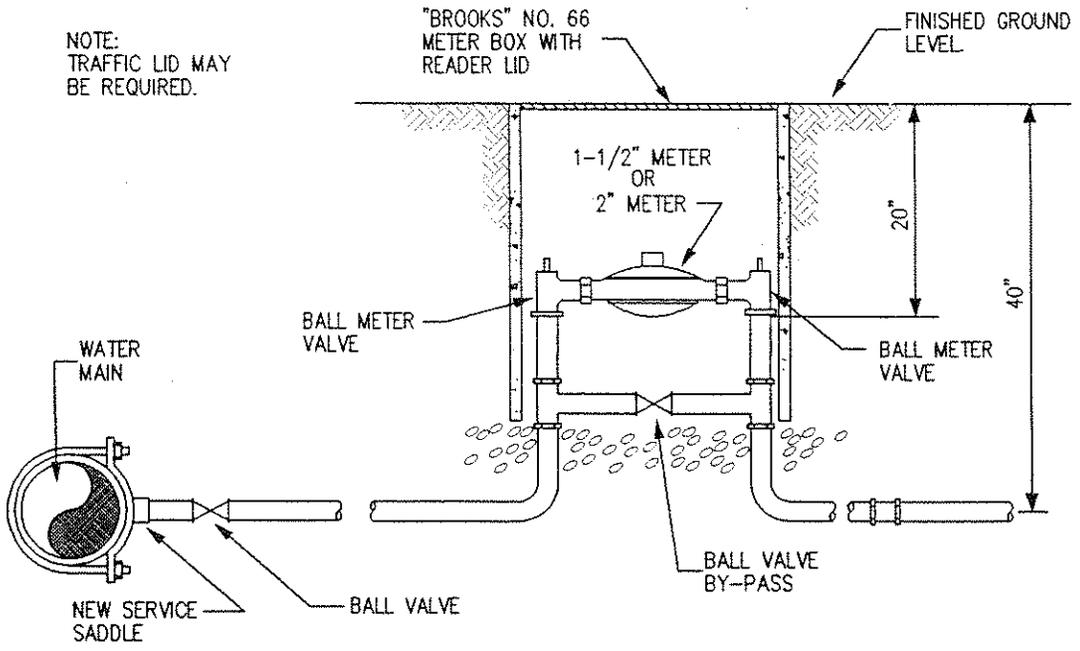


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ORIG.	3-1-99		
Revision	Date	Description	Appr



1" METER



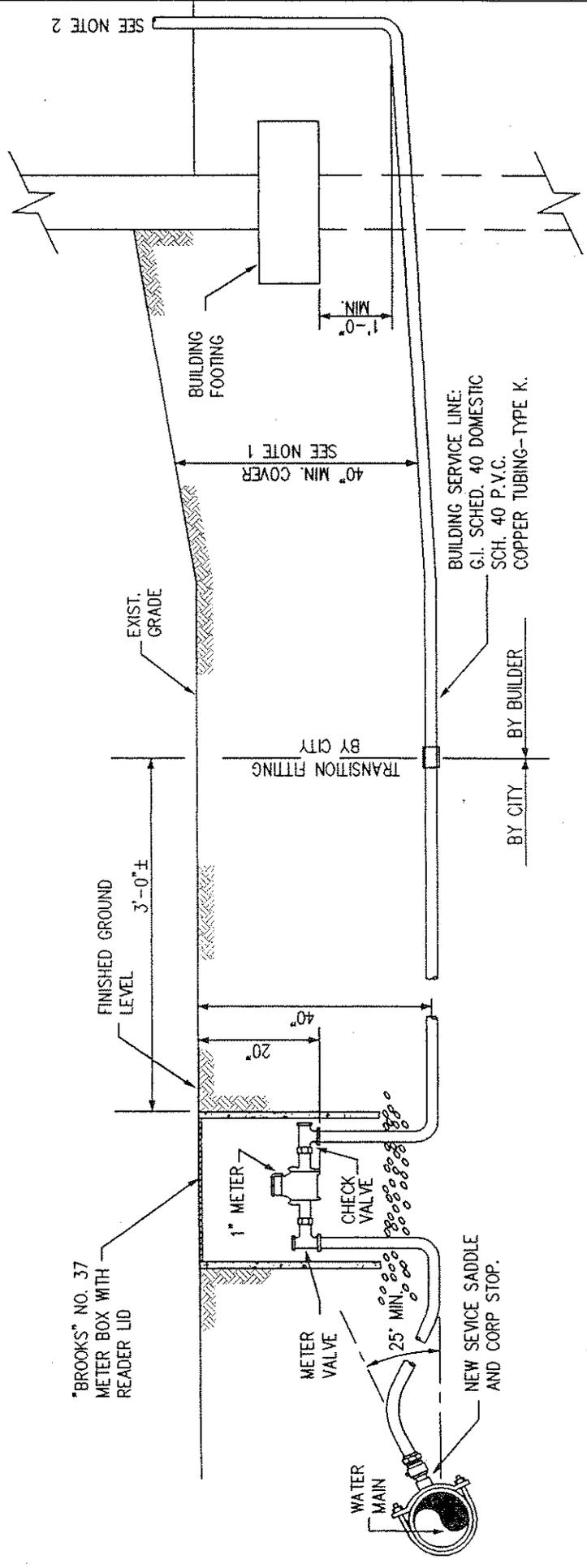
1-1/2" OR 2" METER

NOTE:
TRAFFIC LID MAY
BE REQUIRED.

FORD METER SETTERS:
1-1/2" - VVB66-12 x LENGTH
2" - WB77-12 x LENGTH

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ORIG.	3-1-99		



SEE NOTE 2

SEE NOTE 1
40" MIN. COVER

1'-0" MIN.

NOTE 1: MINIMUM COVER BEFORE AND AFTER FINAL GRADING MUST BE 40 INCHES.

NOTE 2: A FULL WAY VALVE SHALL BE PROVIDED WITH BUILDING READY ACCESSIBLE AND AS APPROVED BY PLUMBING INSPECTOR.

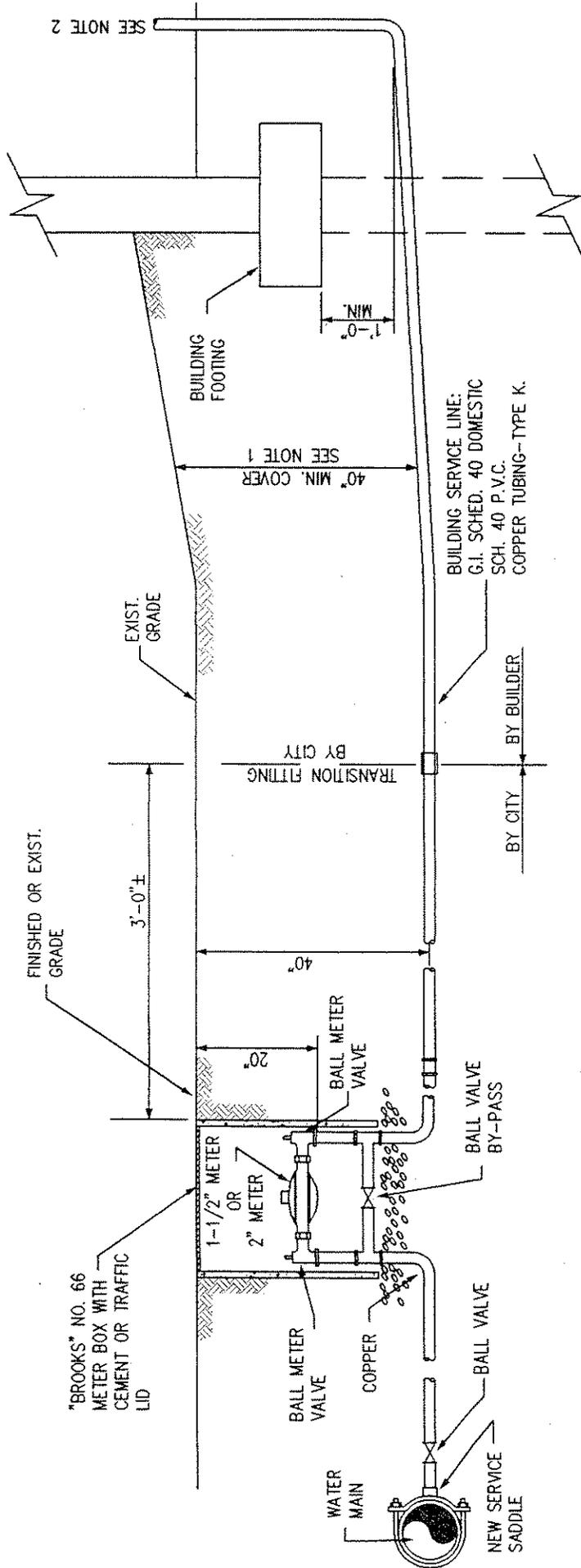
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ORIG.	3-1-99	Date	Appr.
Revision		Description	

CITY OF PROSSER—STANDARD DETAIL

BUILDING SERVICE LINE

W-5A



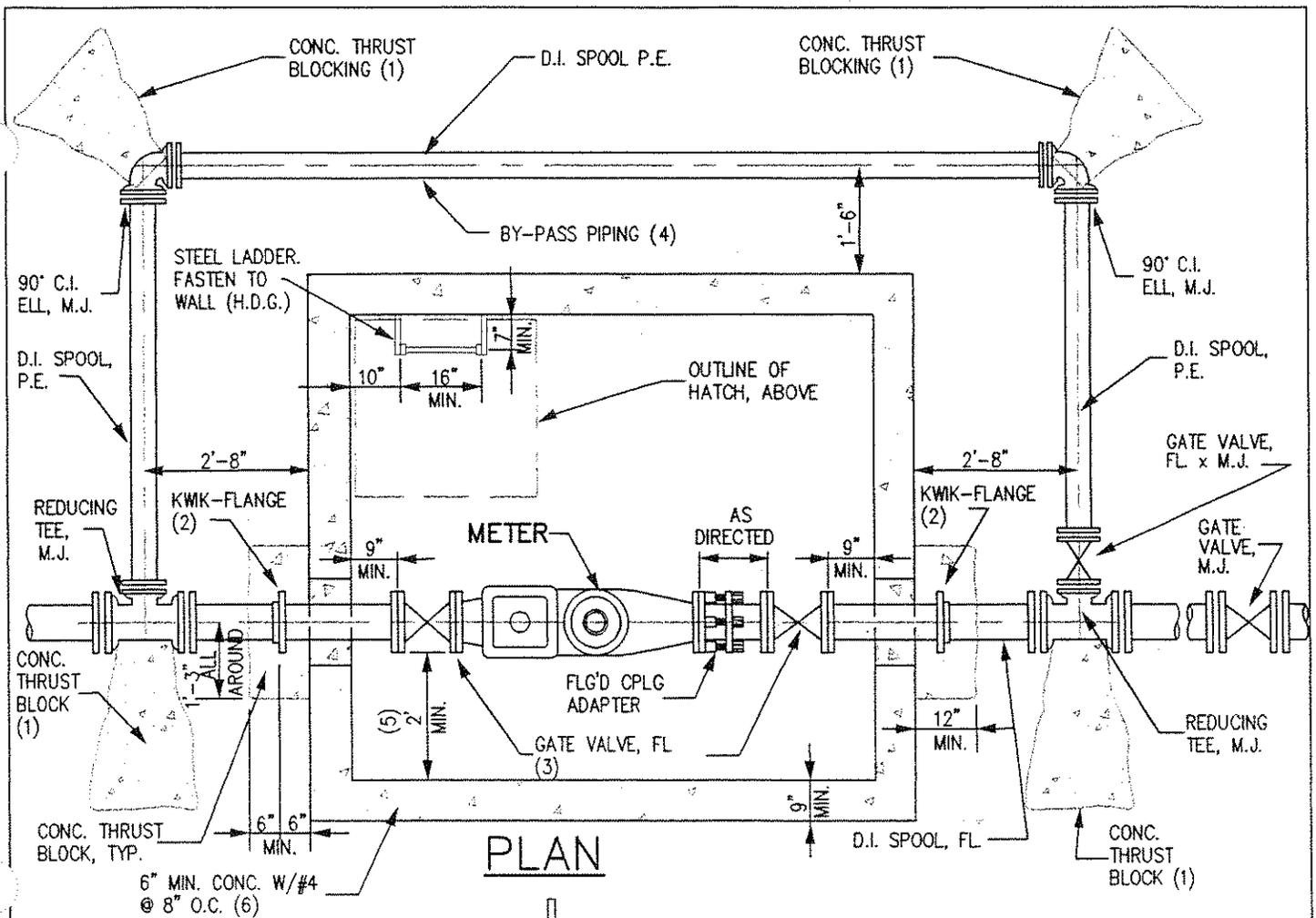
FORD METER SETTER:
 1-1/2" - VVB66-12 x LENGTH
 2" - VVB77-12 x LENGTH

NOTE 1: MINIMUM COVER BEFORE AND AFTER FINAL GRADING MUST BE 40 INCHES.

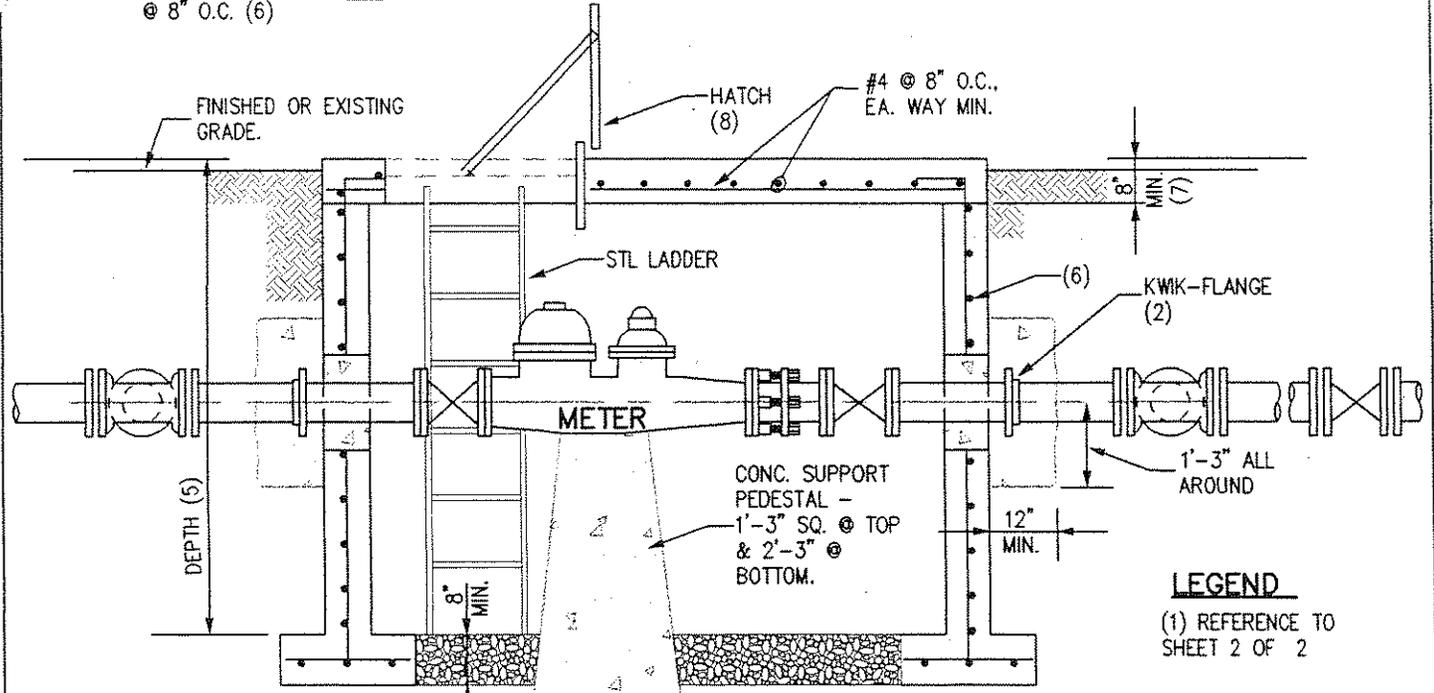
NOTE 2: A FULL WAY VALVE SHALL BE PROVIDED WITH BUILDING READY ACCESSIBLE AND AS APPROVED BY PLUMBING INSPECTOR.

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Revision	Date	Description	Appr
ORIG.	3-1-99		



PLAN



SECTION

LEGEND
(1) REFERENCE TO SHEET 2 OF 2

NOTE:
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Revision	Date	Description	Appr
ORIG.	3-1-99		

1. PROVIDE EITHER SHACKLE RODS OR MEG-A-LUG THRUST BLOCKS. SHACKLE RODS SHALL BE 3/4" DIAMETER AND SHALL BE PROTECTED WITH BITUMASTIC PAINT OR APPROVED EQUAL.

CONCRETE THRUST BLOCKS SHALL BE AS APPROVED BY THE WATER SUPERINTENDENT.

2. WHERE THE WATERMAIN ENTERS THE VAULT, CAST MAIN INTO WALL OR ADD KWIK-FLANGE AND THRUST BLOCK, AS INDICATED SO THAT METER MAY BE REMOVED WITH LINE PRESSURIZED.
3. GATE VALVE SHALL BE AWWA FLANGED WITH HAND WHEEL.
4. BY-PASS SIZE SHALL BE NO LESS THAN STIPULATED BELOW:

METER SIZE	MINIMUM BY-PASS SIZE
2"	1"
3"	1"
4"	2"
6"	4"

5. VAULT SIZE SHALL BE SUFFICIENT TO PROVIDE NO LESS THAN 12" CLEARANCE AROUND ALL FITTINGS AND METER. DEPTH SHALL BE DETERMINED BY THE WATER SUPERINTENDENT, BASED UPON THE DEPT OF THE MAIN, SIZE OF THE METER, AND SIZE OF THE HATCH.
6. VAULT WALLS SHALL BE 6" MINIMUM THICKNESS CAST-IN-PLACE CONCRETE (3,000 PSI, 28-DAY STRENGTH) REINFORCED WITH NOT LESS THAN #4 BARS AT 8-INCH ON CENTER EACH WAY, CONTINUOUS AT CORNERS. OR "UTILITY VAULT COMPANY" PRECAST VAULT, MODEL NOS. AS FOLLOWS:

 MODEL NO. 687-LA @ 6" METER COMP.
 MODEL NO. 676-WA @ 4" METER COMP.
 MODEL NO. 456-LA @ 3" & 4" METER TURBINE (OR APPROVED EQUAL)
7. VAULT DECK SHALL BE NOT LESS THAN 8" THICK AND SHALL BE DESIGNED TO MEET ALL NECESSARY LOADINGS.
8. HATCH SHALL BE BILCO ALUMINUM TYPE J OR JD OR APPROVED EQUAL FOR SIDEWALK DUTY. IF HATCH IS IN STREET OR TRAFFIC AREAS, HATCH MUST MEET H-20 LOADINGS. HATCH AND ROOF DECK FOR STREET LOADING MUST HAVE WATER SUPERINTENDENT'S APPROVAL. SIZE SHALL BE DETERMINED BY THE WATER SUPERINTENDENT BASED UPON DEPTH OF THE VAULT AND THE SIZE OF THE METER.

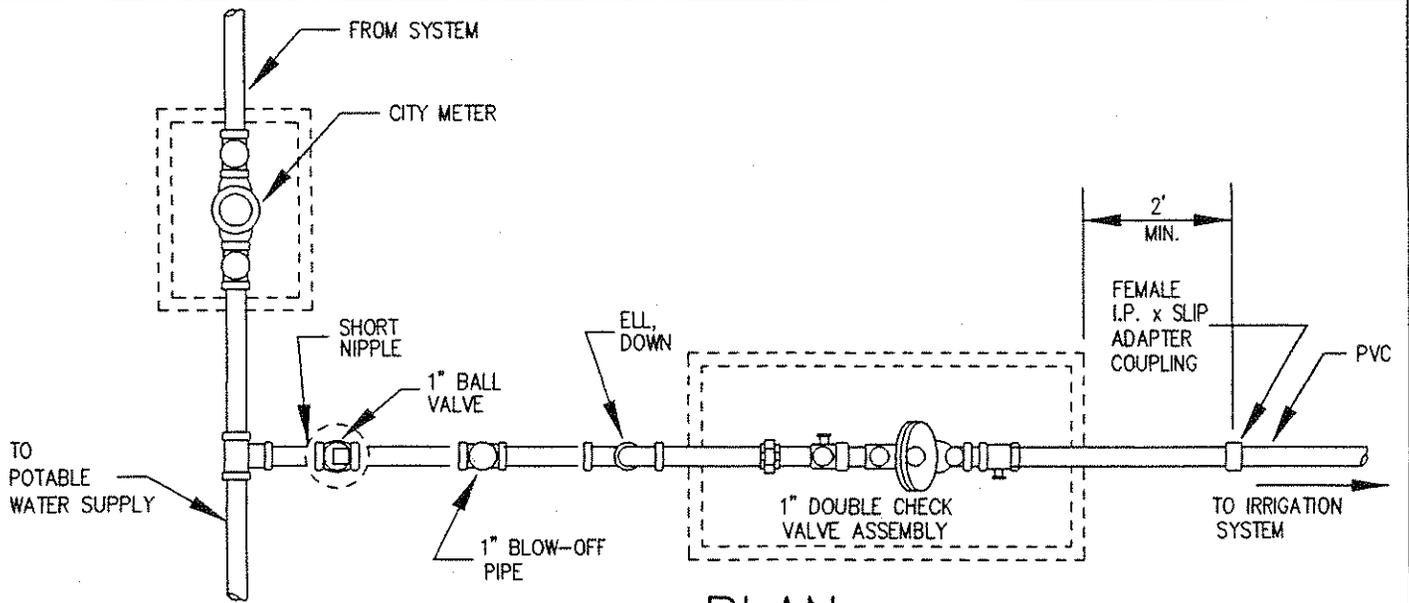
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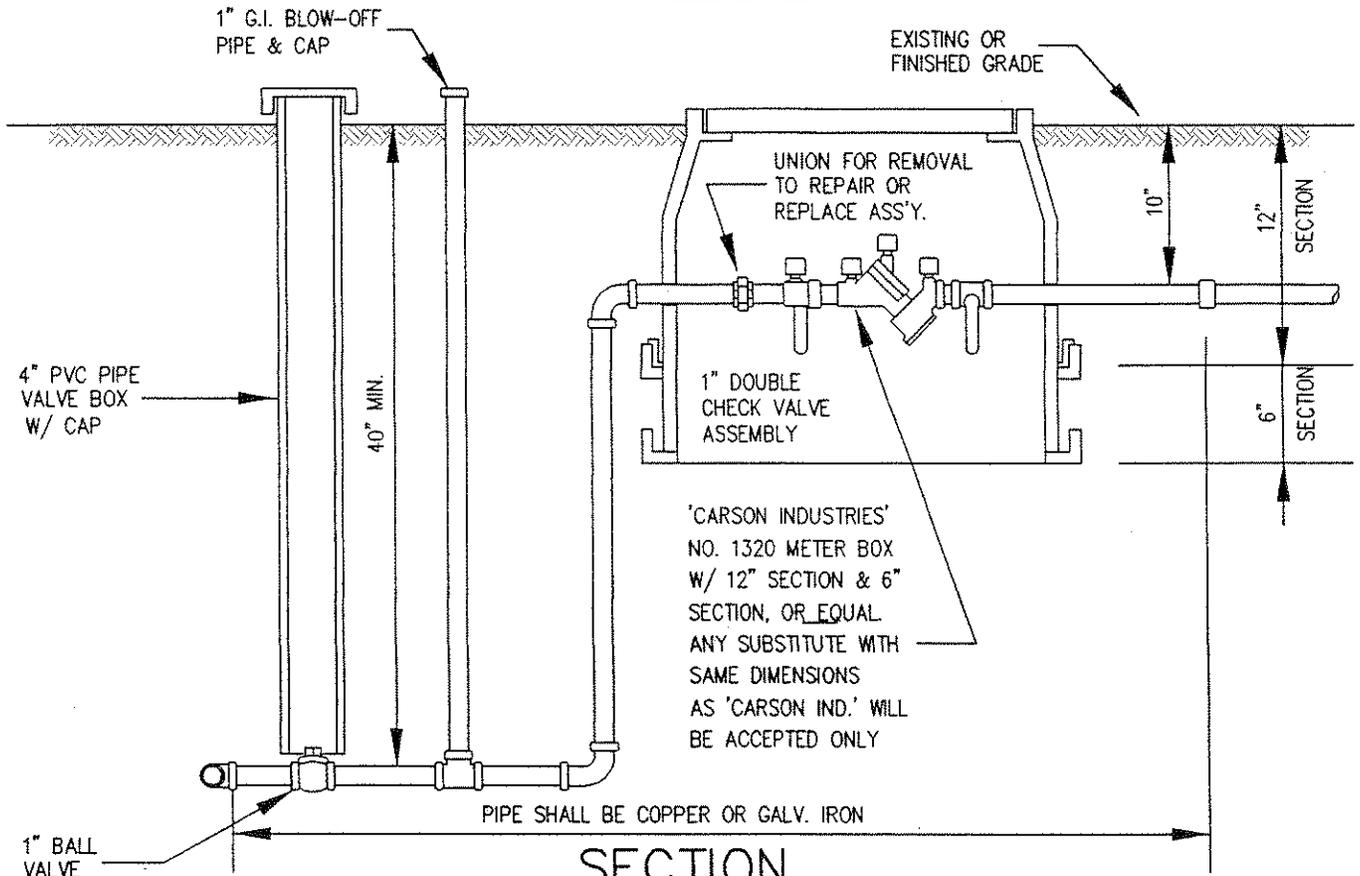
CITY OF PROSSER-STANDARD DETAIL

3",4",& 6" METER INSTALLATION

W-6B
2/2



PLAN



SECTION

* - SEE ATTACHED FOR APPROVAL OF DOUBLE CHECK VALVE ASS'Y AND TESTING AND MAINTENANCE OF ASSEMBLY.
 DOUBLE CHECK VALVES LARGER THAN 1" WILL SUBMIT DESIGN AND APPROVAL WILL BE MADE BY CITY WATER SUPERINTENDENT.

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APPROVAL OF ASSEMBLIES

THE TERM "APPROVED ASSEMBLY" SHALL MEAN ANY BACKFLOW PREVENTION ASSEMBLY WHICH HAS SATISFACTORILY COMPLETED LABORATORY AND FIELD TESTS BY AN INDEPENDENT LABORATORY RECOGNIZED BY THE STATE OF WASHINGTON DEPARTMENT OF HEALTH. BACKFLOW DEVICE SHALL BE OF THE CORRECT TYPE AS REQUIRED BY THE CITY OF PROSSER WATER SUPERINTENDENT AND BE SELECTED FROM THE STATE OF WASHINGTON APPROVED LIST.

TESTING AND MAINTENANCE OF ASSEMBLIES

EACH BACKFLOW PREVENTION ASSEMBLY SHALL BE TESTED TO INSURE THAT IT FUNCTIONS PROPERLY:

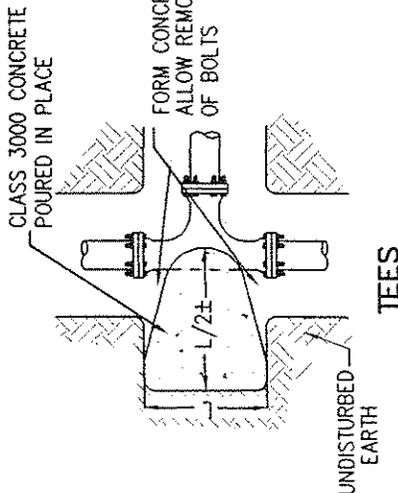
- UPON INSTALLATION
- AFTER REPAIRS
- AFTER BEING RELOCATED, MOVED, OR REINSTALLED
- ANNUALLY

THE ASSEMBLY OWNER SHALL BE NOTIFIED PRIOR TO THE DATE FOR ANNUAL TESTING. IT IS THEN THE ASSEMBLY OWNER'S RESPONSIBILITY TO ACQUIRE THE SERVICES OF A CERTIFIED TESTER TO TEST THE ASSEMBLY. IF THE TEST INDICATES THE ASSEMBLY MUST BE REPAIRED, A RECORD OF THE REPAIR WORK AND A REPORT OF A SATISFACTORY FINAL TEST MUST BE SENT TO THE CITY OF PROSSER (SEE "BACKFLOW ASSEMBLY TEST REPORT FORM").

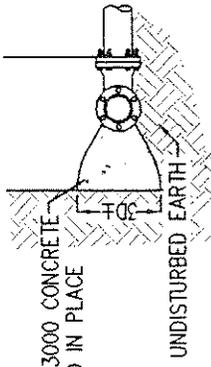
THE ANNUA TESTING OF BACKFLOW PREVENTION ASSEMBLIES MUST BE DONE PRIOR TO ANY REPAIR WORK OR FLUSHING OF THE RELIEF VALVE. TO PROPERLY ESTABLISH ITS OPERATING STATUS. FAILURE TO TEST AND MAINTAIN BACKFLOW PREVENTION ASSEMBLIES IS GROUNDS FOR THE CITY TO DISCONTINUE WATER SERVICE.

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TEES



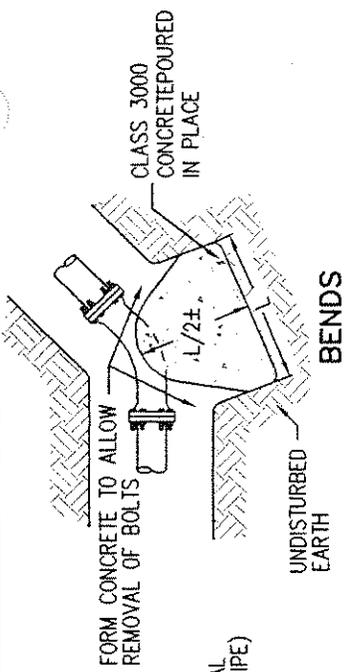
PLUGS AND CAPS

NOTES:

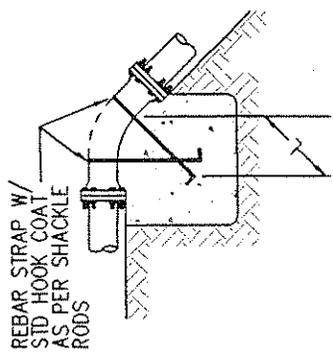
1. D IS APPROXIMATE PIPE DIAMETER. THE ABOVE END AREAS ARE BASED ON AN ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF AND 250 PSI TEST PRESSURE.
2. DIMENSIONS LISTED DENOTE MINIMUM STANDARDS FOR SOIL AND TEST PRESSURES SHOWN. SHOULD TEST PRESSURE AND/OR SOIL CONDITIONS VARY, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR SPECIAL THRUST BLOCK DESIGN.
3. ALL FITTINGS AND/OR PIPE MAKING DIRECT CONTACT WITH CONCRETE SHALL BE WRAPPED WITH 4 MIL POLYETHYLENE SHEETING PRIOR TO PLACEMENT OF CONCRETE.

SIDE VIEW

THIS VIEW TYPICAL OF ALL BLOCKING



BENDS



VERTICAL OVERBEND

PIPE SIZE (D)	MINIMUM END AREAS				
	TEES & PLUGS	90° BENDS	45° BENDS	11 1/4" AND 22 1/2" BENDS	VERTICAL OVERBENDS
6"	5.1 SQ FT	7.2 SQ FT	3.9 SQ FT	2.0 SQ FT	20 CU FT
8"	8.8 SQ FT	12.4 SQ FT	6.7 SQ FT	3.4 SQ FT	34 CU FT
10"	14.3 SQ FT	20.2 SQ FT	11.0 SQ FT	5.6 SQ FT	56 CU FT
12"	20.4 SQ FT	28.9 SQ FT	15.7 SQ FT	7.9 SQ FT	79 CU FT
14"	27.7 SQ FT	39.2 SQ FT	21.2 SQ FT	10.7 SQ FT	107 CU FT
16"	35.8 SQ FT	51.2 SQ FT	27.5 SQ FT	13.9 SQ FT	139 CU FT

PIPE SIZE (D)	VERTICAL OVERBEND			
	22 1/2" BEND	45° BEND	REBAR SIZE	L
6"	20 CU FT	39 CU FT	#5	2.0 FT
8"	34 CU FT	67 CU FT	#5	2.0 FT
10"	56 CU FT	110 CU FT	#5	2.0 FT
12"	79 CU FT	157 CU FT	#6	2.5 FT
14"	107 CU FT	212 CU FT	#7	3.0 FT
16"	139 CU FT	275 CU FT	#9	4.0 FT

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