ORDINANCE NO. 142

ORDINANCE AN THE CITY OF OF UNIVERSITY PLACE, WASHINGTON, ADOPTING **PUBLIC** WORK STANDARDS, REPEALING ORDINANCE 62 ADOPTING A NEW INTERIM SITE DEVELOPMENT ORDINANCE, AS AMENDED AND REPEALING ORDINANCE 63 ADOPTING INTERIM STREETS, DRAINAGE AND RIGHT-OF-WAY STANDARDS, AS AMENDED.

WHEREAS, on August 28, 1995, the City Council adopted Ordinance No. 62 adopting new interim site development standards, and adopted Ordinance No. 63, adopting interim streets, drainage, and right-of-way standards.

WHEREAS, the Public Works Department has conducted a detailed review of the development standards currently in place and had redrafted existing regulations into one document entitled the City of University Place Public Works Standards to provide uniform standards for engineering and construction practices and to insure future development will reflect the quality of development expected by the community;

WHEREAS, adoption of the Public Works Standards will replace and repeal existing site development and streets, drainage and right-of-way regulations; NOW, THEREFORE,

THE CITY COUNCIL OF THE CITY OF UNIVERSITY PLACE, WASHINGTON, DO ORDAIN AS FOLLOWS:

- Section 1. <u>Public Works Standards Adopted.</u> The Public Works Standards of the City of University Place are hereby adopted, as set forth in Exhibit A to this ordinance, entitled "University Place Public Works Standards."
- Section 2. <u>Repealer.</u> Ordinance No. 62, Adopting a new Interim Site Development Ordinance, as amended, and Ordinance No. 63, Adopting Interim Streets, Drainage and Right-of-Standards, as amended, are hereby repealed.
- Section 3. <u>Publication and Effective Date</u>. A summary of this Ordinance consisting of its title shall be published in the official newspaper of the City. This Ordinance shall be effective five (5) days after its publication.

PASSED BY THE CITY COUNCIL ON MAY 12, 1997

Linda P. Bird, Mayor

ATTEST:

Susan Matthew, City Clerk

APPROVED AS TO FORM:

Timothy X. Sullivan, City Attorney

Published:

May 14, 1997 May 19, 1997

Effective Date:

CITY OF UNIVERSITY PLACE

PUBLIC WORKS STANDARDS

(Adopted by ordinance No. 142, May 12, 1997)

City Councilmembers

Linda Bird, Mayor
Debbie Klosowski, Mayor Pro Tem
Jean Brooks, Councilmember
Stan Flemming, Councilmember
Ken Grassi, Councilmember
Lorna Smith, Councilmember
Ron Williams, Councilmember

City Manager

Robert Jean

Public Works Director

Ben Yazici

Planning and Community Development Director

Joann Smith

City Attorney

Tim Sullivan

INTRODUCTION AND PURPOSE

The City of University Place Council and staff have developed and adopted the enclosed standards to provide uniform guidance for developing an attractive and safe community. Our goal is to work in partnership with our residents to foster a City which plans for the future while preserving and providing enhancements to the natural beauty of our environment.

We have attempted to achieve maximum uniformity of engineering and construction practices within the City of University Place. These are minimum standards and are intended to assist, but not to substitute for competent work by engineering and design professionals. Special conditions or environmental constraints may require a more stringent design than would normally be required under these Standards. It is not the intent of the City to unreasonably limit any innovative effort which could result in a superior project design. A proposed design which is different than these standards will be evaluated on the basis that the proposed design will produce a comparable or superior result, and in every way adequate for the user, the City, and the public.

These Standards establish criteria for review and analysis of all development including, but not limited to; grading, formal subdivision, short subdivision, large lot division, commercial building, binding site plans, planned unit developments, planned development districts, or other project when so required by the City of University Place Hearing Examiner or City Council. Except as may be provided otherwise in law, all development proposals, whether public or private, which are submitted to the City for review, must conform to these Regulations, which are to be used as the basis for review, design and construction.

These Standards are based on the premise that development should not impact adjacent and/or downstream property owners in a detrimental manner compared to the predevelopment condition. The Engineer shall show by calculations, plans, and engineering data that the proposed project meets the requirements of these Standards.

It is not the intent of these Standards to make the City of University Place a guarantor or protector of public or private property in regard to land development activities.

DEVELOPMENT GUIDELINES

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CITY OF UNIVERSITY PLACE WASHINGTON

PUBLIC WORKS STANDARDS

City of University Place 3715 Bridgeport Way W. University Place, Washington 98466

CHAPTER 1

1.000 GENERAL PUBLIC WORKS CONSIDERATIONS

1.010 Standard Specifications

Design detail, workmanship, and materials shall be in accordance with the current edition of the "Standard Specifications for Road, Bridge and Municipal Construction", the "APWA Amendments to Division One", and the "Standard Plans for Road, Bridge and Municipal Construction", all written and promulgated by the Washington State Chapter of the American Public Works Association and the Washington State Department of Transportation, except where these Standards provide otherwise.

The following specifications shall be applicable when deemed pertinent by the Director of Public Works, when specifically cited in the Standards or standards of any agency funding a project.

- A. Conditions and standards as set forth in the most current edition City of Tacoma Water System Plan.
- B. Conditions and standards as set forth in the most current edition of the Pierce County Public Works and Utilities Comprehensive Sanitary Sewer Plan.
- C. Conditions and standards as set forth in the most current edition of the University Place Comprehensive Land Use Plan.
- D. King County Surface Water Manual Design Manual.
- E. Criteria set forth in the Local Agency Guidelines as amended and approved by Washington State Department of Transportation.
- F. City and County Design Standards for the Construction of Urban and Rural Arterial and Collector Roads Promulgated by the City Engineers Association of Washington, May 24, 1989.
- G. Conditions and Standards as set forth in the WSDOT Design Manual as amended and approved by WSDOT.

- H. U.S. Department Transportation Manual on Uniform Traffic Control Devices (MUTCD), as amended and approved by Washington State Department of Transportation.
- I. WDOT Construction Manual as amended and approved by Washington State Department of Transportation.
- J. Rules and regulations of the State Board of Health regarding public water supplies, as published by the State Department of Health.
- K. Conditions and Standards as set forth in the State of Washington Department of Ecology "Criteria for Sewage Works Design", most current edition.
- L. Conditions and Standards as set forth by the State of Washington, Department of Labor and Industries.
- M. Criteria set forth in "<u>Transportation and Land Development</u>" by V. G. Stover and F. Koepke and the Institute of Transportation Engineers.
- N. Design criteria of federal agencies including Department of Housing and Urban Development and the Federal Housing Administration.
- O. Other specifications not listed above as may apply when required by the City of University Place.
- P. Highway Capacity Manual, Special Report 209, Third Edition, 1994.
- Q. I.T.E. Trip Generation Manual, 5th Edition.
- R. A.A.S.H.T.O., A Policy on Geometric Design of Highways and Streets, 1994.
- S. Uniform Building Code, current Edition.
- T. King County Road Standards, 1993 (for Drainage structures, and appurtenances only).
- U. Tacoma Electrical Code.

1.015 Shortened Designation

These City of University Place Public Works Standards shall be cited routinely in the text as the "Standards".

1.020 Applicability

These Standards shall govern all new construction and upgrading of facilities both in the right-of-way and on private property for transportation and transportation related facilities, storm drainage facilities and sewer and water improvements.

1.025 Definitions and Terms

"Average Daily Traffic" or ADT -- The average number of vehicles passing a specified point during a 24-hour period. Annual average daily traffic (AADT) denotes that daily traffic that is averaged over one calendar year.

"City Engineer" -- The City Engineer or his duly authorized representative.

"Clearing" -- The cutting, moving on site, or removal of standing or fallen timber (including stumps); the removal or moving on site of stumps; or the cutting or removal of brush, grass, ground cover, or other vegetative matter from a site in a way which exposes the Earth's surface of the site. In addition to the above, clearing is an activity which does not require reforestation per an approved Forest Practices

Application/notification issued by the Department of Natural Resources.

"Commercial Driveway" -- A driveway which is used to provide access to business and non-residential enterprises, including but not limited to sales, service, industry, churches or other quasi - public buildings.

"Developer" -- Any person, firm, partnership, association, joint venture, or corporation or any other entity responsible for a given project.

"Development" means any man-made change to improved or unimproved real estate including but not limited to buildings or the structures, placement of manufactured home/mobile home, mining, dredging, clearing, filling, grading, paving, excavation, drilling or the subdivision of property.

- "Director of Public Works" -- The City of University Place Public Works Director or his duly authorized representative.
- "Building" Any structure used or intended for supporting or sheltering any use or occupancy.
- "Driveway" -- Any area, construction, or facility between a public road and private property which provides access for vehicles from the public roadway to or from private property.
- "Dwelling" Any building or portion thereof which contains not more than two dwelling units.
- "Dwelling Unit" Any building or portion thereof which contains living facilities, including provisions for sleeping, eating, cooling, and sanitation for not more than one family.
- "Easement" -- The right to use a defined area of property for specific purpose/purposes as set forth in the easement document, on a plat or short plat, or as required for purposes as set forth herein.
- "Engineer" -- Any Washington State licensed professional engineer who represents the developer.
- "Emergency Vehicle Access" An all weather drivable surface constructed and maintained in accordance with this Chapter, that provides emergency access between a public or private street and one hundred fifty (150) feet of all portions of an exterior wall of the first story of any structure requiring EV Access as measured by an approved route around the exterior the building.
- "Grading" -- Any excavating, filling, clearing or creating of impervious surface or combination thereof.
- "Grubbing" -- The removal and disposing of all unwanted vegetative matter from underground, such as sod, stumps, roots, buried logs, or other debris.
- "Horizon Year" The year in which future conditions are to be evaluated.
- "Lot of Street Frontage" -- The distance between the two points where the lot lines intersect the boundary of public street right-of-way.

"Major Tenant Improvement" A Major Tenant Improvement shall mean a tenant improvement where within a 12 month period the cumulative value of the improvement to the interior and/or exterior of the structure exceeds 25% of the value of the structure.

"Plans" -- The plans, profiles, cross sections, elevations, details, and supplementary specifications, signed by a licensed professional engineer and approved by the Director of Public Works, which show the location, character, dimensions, and details of the work to be performed.

"Private Street" -- Privately owned and maintained vehicular access provided for any access tract, easement, or other legal means to serve no more than four dwelling units or businesses on separate parcels or unlimited dwelling units or businesses situated on a single parcel.

"Project" -- General term encompassing all phases of the work to be performed and is synonymous to the term "improvement" or "work".

"Public Street" -- Publicly owned and maintained street.

"Residential Driveway" -- A driveway which is used to provide access to a single family resident.

"Right-of-Way" -- A general term denoting public land, property, or interest therein (e.g., and easement) acquired for or devoted to a public street, public access or public use.

"Road" -- Used interchangeably with street.

"Roadway" -- Used interchangeably with road, street or streetway.

"Shared Driveway" -- A driveway which is used to provide access to a duplex on one lot or two single family residences on separate parcels which use one access.

"Street" -- Used interchangeably with road.

"Streetway" - Used interchangeably with road, street or roadway.

"Traffic Signal Warrants" -- list a criteria that establishes the need to install a traffic signal as outlined in the Manual of Uniform Traffic Control Devices, U.S. Department of Transportation, Federal Highway Administration.

"Use of Pronoun" -- As used herein, the singular shall include the plural, and the plural the singular; any masculine pronoun shall include the feminine or neuter gender and vice versa; and the term "person" includes natural person or persons, firm, copartnership, corporation or association, or combination thereof.

"Utility" -- A company providing public service including, but not limited to, gas, oil, electric power, street lighting, telephone, telegraph, water, sewer, or cable television, whether or not such company is privately owned or owned by a governmental entity.

1.030 Changes to Standards

From time to time, changes may be needed to add, delete, or modify the provisions of these Standards. These Standards may be changed and, upon approval of the Director of Public Works, shall become effective and shall be incorporated into the existing provisions.

1.040 Design Standards

- A. Detailed plans, prepared by a licensed engineer, must be submitted to the City Permit Center for plan review and approval prior to the commencement of any construction. Applicant's engineer shall be a Professional Engineer, registered as such in the State of Washington. All plans must be signed and stamped by the applicant's engineer prior to submittal for plan review. Final plans shall be approved by the Director of Public Works prior to the start of construction.
- B. Five folded copies of the plans are required to be submitted to the City for review. All drawings shall be on 22" x 34" sheet size. Original sheets shall be good quality reproducible ink on mylar. Original mylar drawings of the approved plan shall be provided and shall become the property of the City of University Place. The drawings shall also be provided to the City in digital format utilizing AutoCAD software in the version utilized by the City at the time of plan approval. Drawing files will be provided on three and on half (3 1/2) inch discs (or other media format acceptable to the City). A reproducible copy of the drawing will be returned to the applicant's engineer.
- C. Plans and profile drawings are required for all proposed transportation-related improvements, street illumination, traffic signalization, storm drainage facilities, and sewer and water

improvements. For specific minimum requirements, see the Plan Checklist on the following pages. On occasion, the scope of a project (i.e., relocating one hydrant) may not require engineered plans and can instead be handled via a Right-of-Way Permit. This option will be decided during Technical Review Committee presubmission conference.

D. Specifications shall be required and submitted with the plans if General Notes do not adequately cover the project requirements.

PLAN CHECKLIST

STANDARD ITEMS: WATER, SANITARY SEWER, STORM SEWER, STREET, LIGHTING, AND SIGNAL

| () Vicinity Map () Legend (APWA Standard Symbols) () North Arrow () Scale Bar | | | | | |
|--|--|--|--|--|--|
| () Legend (APWA Standard Symbols) () North Arrow | | | | | |
| () North Arrow | | | | | |
| | | | | | |
| | | | | | |
| () Datum-Bench Mark Elevation and Location (on all sheets where elevation | | | | | |
| referenced) | | | | | |
| O Title Block: | | | | | |
| () Title: | | | | | |
| O Design By: | | | | | |
| () Drawn By: | | | | | |
| O Date: | | | | | |
| () Checked By: | | | | | |
| () Signature Approval Block (see above example): | | | | | |
| () Sheet Number of Total Sheets: | | | | | |
| () Section, Township and Range (every plan/profile sheet) | | | | | |
| () Engineers Stamp (signed and dated) | | | | | |
| () Project Title (cover sheet) | | | | | |
| () Utility System Map (showing all proposed utilities on one drawing) | | | | | |
| () Revision Block | | | | | |
| | | | | | |

PLAN PORTION STANDARD ITEMS

Centerline and Stations 0 0 Edge of Pavement and Width Right-of-Way and Width Proposed Survey Monumentation Locations and Details Sidewalk and Width Roadway Sections Existing Utilities (above and below ground) 0 Adjacent Property Lines, Ownership, Parcel Number, and Street Address 0 Contour Lines (2 foot intervals) Identify Street Names, Rights-of-Way, Lots Identify Match Existing Sheet Numbers and Stations Easements, Width and Type () Define Survey Baseline 0 Stations for Structures

- () Flow Direction Arrows
- () Flood Plane Boundary (if applicable)

PROFILE PORTION STANDARD ITEMS

- () Profile Grades (decimal FT./FT.)
- () Existing Ground
- () Scale (horizontal and vertical)
- () Stationing
- () Vertical Elevation Increments
- () Existing Utilities (if available)

Misc.:

- () Detail Sheet
- () General Notes

SANITARY SEWER

"Documented" compliance with Pierce County Public Works and Utilities requirements.

WATER

"Documented" compliance with Tacoma Public Utilities Department requirements.

STORM SEWER

- () Drainage and Erosion Control Plan Report:
 - () Cover Sheet
 - () Table of Contents
 - () Section 1 Proposed Project Description
 - () Section 2 Existing Conditions
 - () Section 3 Infiltration Rates/Soils Report
 - () Section 4 Wells
 - () Section 5 Fuel Tanks
 - () Section 6 Sub-Basin Description
 - () Section 7 Analysis of the 100-Year Flood
 - () Section 8 Aesthetic Considerations for Facilities
 - () Section 9 Downstream Analysis
 - () Section 10 Covenants, Dedications, Easements

0 Section 11 - Homeowners - Articles of Incorporation 0 Project Engineer's Certificate 0 **Facility Summary Form** Engineer's Estimate 0 **Erosion Control Plan Report:** 0 Section 1 - Construction Sequence and Procedure 0 0 Section 2 - Trapping Sediment Section 3 - Permanent Erosion Control and Site Restoration 0 0 Section 4 - Geotechnical Analysis and Report 0 Section 5 - Inspection Sequence **Drawings and Specifications:** 0 Vicinity map 0 0 **Project Boundaries** Sub-Basin Boundaries 0 Off-Site Area Tributary to Project 0 Contours (2 foot intervals) 0 0 Major Drainage Features Flow Path 0 0 Site Map: 0 Existing Topography at Least 50 Feet Beyond Site Boundaries 0 Finished Grades Existing Structures within 1,000 Feet of Project Boundary 0 Utilities 0 Easements, Both Existing and Proposed 0 **Environmentally Sensitive Areas** 0 100-Year Flood Plain Boundary 0 0 Existing and Proposed Wells within 1,200 feet of Proposed Retention **Facility Existing and Proposed Fuel Tanks** 0 Existing and Proposed On-Site Sanitary Systems within 100 Feet of Detention/Retention Facilities 0 0 Proposed Structures Including Roads and Parking Surfaces 0 Lot Dimensions and Areas 0 Proposed Drainage Facilities and Sufficient Cross-Sections and Details to Build Plan View - Conveyance System: 0 Station and Number at each Manhole/Catch Basin 0 0 Manhole/Catch Basin Type and Size 0 Manhole/Catch Basin Rim Elevation Flow Direction with Arrow on Pipe/Channel 0 Type and Size of Pipe Length of Pipe in Lineal Feet Profile View - Conveyance System: 0 Station and Number at each Manhole/Catch Basin 0

| | () | Rim Elevation | | | | | |
|-----|--------|---|--|--|--|--|--|
| | 0 | Invert In and Out | | | | | |
| | 0 | Length of Pipe in Lineal Feet | | | | | |
| | 0 | Grades (FT/FT) | | | | | |
| | 0 | Design Velocity | | | | | |
| 0 | Work | Map: | | | | | |
| | 0 | Unit Area (Including Off-Site Contributing Areas) | | | | | |
| | 0 | Percentage Impervious | | | | | |
| | 0 | Average Slope | | | | | |
| | 0 | Estimated Ultimate Infiltration Rate | | | | | |
| | 0 | Conveyance Date, Identifier (for Reference to Model Output), Length, | | | | | |
| | | Slope, Inverts | | | | | |
| | 0 | Overland Flow Paths and Distances | | | | | |
| | 0 | Soil Types | | | | | |
| | 0 | Spot Water Surface Elevations, Discharges and Velocities for the Design | | | | | |
| | | Event | | | | | |
| 0 - | Erosio | n Control Drawing: | | | | | |
| | 0 | Soil Types | | | | | |
| | 0 | Locations of Soil Pits and Infiltration Tests | | | | | |
| | 0 | Construction Entrance Detail | | | | | |
| | 0 | Silt Fences and Traps | | | | | |
| | 0 | Mulching and Vegetation Plan | | | | | |
| | 0 | Clearing and Grubbing Limits | | | | | |
| | 0 | Existing and Finished Grade | | | | | |
| | . 0 | Details and Locations of all BMPs Recommended | | | | | |
| | 0 | Location and Details of Temporary Sediment Ponds | | | | | |
| 0 | Mainte | enance Report: | | | | | |
| | 0 | Required Type and Frequency of Long-Term Maintenance Organization | | | | | |
| | 0 | Identification of Responsible Maintenance Organization | | | | | |
| | 0 | Frequency of Sediment Removal | | | | | |
| | 0 | Cleaning of Catch Basins | | | | | |
| | 0 | Vegetation Control | | | | | |
| | 0 | Annual Cost Estimate of Maintenance | | | | | |
| 0 | Constr | uction Inspection Report | | | | | |
| 0 | Misc.: | | | | | | |
| | 0 | Detail Sheet | | | | | |
| | O | Storm General Notes | | | | | |
| | | | | | | | |

STREET

Plan View:

- () Flow Direction Arrows at Curb Returns Showing Grade
- () Spot Elevations on Curb Returns

Station PC, PT, PI and Intersections 0 Curve Information Delta, Radius, Length and Tangent 0 BCR and ECR (Begin Curb Radius, End Curb Radius) Identify All Field Design Situations **Typical Sections** 0 Pavement Marking Details with Station and Offset Sidewalks Driveway Approach Station 0 Width, Material (AC, PCC) 0 0 Driveway Type Accessibility Ramps-Detail and Type Profile View: Vertical Information VPI, BVC, EVC, AP, Low Point, High Point Show Grades in Decimal Form with (+ Or -) Slope 0 0 Super Elevated Roadways **Detail-Show Transitions** () Special Detail Showing Gutter Flowing Adequately 0Misc.: **Detail Sheet** 0 Street General Notes 0 () AASHTO Street Design Worksheet, With Soils Report, if Applicable ILLUMINATION AND SIGNALS 0 Lighting Station and Offset to Fixtures 0 0 Pole Type, Including Manufacturer and Model Number Mounting Height, Arm Length, Anchor Bolt Size and Pattern 0 **Power Source** 0 Wire Size, Type, Conduit 0 Line Loss Calculations Luminaire Type, Lamp Wattage 0 0 Location of Service Disconnects (5% Max. Voltage Drop from Source to Farthest Luminaire) J-Box Location (include station and offset) 0 Signal (Follow WSDOT Specs Unless Otherwise Required by the City) Station and Offset Signal Base, Cabinets, Ped. Lead, Loops, etc. Wiring Schedule 0 Signal Heads and Mounting Assembly 0

0

Detection Loops

- Opticom
 Control Cabinet, Size and Layout
 Power Source
 Conduit
 Wire Size and Type
 Construction Notes
 J-Box Schedule
- () Pedestrian Signal Type with Push Button() Controller Type, Configuration, and Wiring Schematic

Misc.:

() Detail Sheet

0

- () Lighting General Notes
- () Line Loss Calculations

MISCELLANEOUS

- () Easements and/or Dedication Deeds
- () Contract Documents/Specifications

Additional Items:

- () Sheet Index (on title sheet if required)
- () Field Verify Note on DWG. Expose Connection Points and Verify Fittings 48 Hours Prior to Distributing Shut-Down Notices
- () Call Before You Dig Note
- () Signing Temporary and Permanent
- () Channelization
- () Location of Cluster Mailboxes
- () Location of School Bus (and/or Pierce Transit) Bus Shelter/Pad

1.050 Plan Review, Construction Permit and Permit Processing

All permit applications shall be made to the City's Permit Center. All plans which are required to be submitted to the City for review prior to the issuance of a permit shall be submitted to the Permit Center.

Permit applications which are governed by Ordinance No. ____ shall be processed according to the procedures thereunder. For all other public works permits, processing shall proceed as follows: After submittal of a complete application to the Permit Center and payment of all necessary fees, a cursory check of the plans against the plan checklist will be made by City staff. Any necessary easements or dedications shall be submitted for review along with the plans. If the plans, easements and dedications meet the minimum checklist requirements, they will be routed to begin the plan review process.

After initial review, the applicant's engineer will be requested to submit the original drawings for approval or will be notified of additional required revisions. Additional review time will be required if revisions are necessary.

If plans require an additional submittal, additional fees will be levied as established by resolution of the City council. "Additional Submittal" shall mean any subsequent submittal of construction drawings, specifications, drainage calculations, and/or other information that requires additional plan checking pertaining to the construction of the project.

Permit will be issued and approved plans will be returned to the applicant, only after receipt of all applicable financial guarantees, easement dedications, payment of application, review, permit, and inspection fees.

Plans that have been approved more than 180 days before construction begins (i.e., pre-construction meeting scheduled and inspection fees paid) shall be subject to re-review based on the hourly rate as establish for additional submittals.

All construction permits expire 180 days after issuance if construction has not commenced. Verification of start of work is a recorded inspection. A permit may be renewed for 180 days at the discretion of the City Engineer.

1.055 Construction Control

Work performed for the construction or improvement of City roads and utilities whether by or for a private developer, by City forces, or by a City contractor, shall be done to the satisfaction of the City and in accordance with approved plans. It is emphasized that no work shall be started until such plans are approved and applicabel permits issued. Any revision to such plans shall be approved by the City before being implemented. Failure to receive the City's approval can result in removal or modification of construction at the contractors or developers expense to bring the work into conformance with approved plans.

1.060 Inspection

All work performed within the public right-of-way, easements and/or private property, as described in these Standards, whether by or for a private developer, by City forces, or by a City contractor, shall be done to the satisfaction of the City and in accordance with the WSDOT/APWA Standard Specification, any approved plans and these Standards. Unless otherwise approved, any revision to construction plans must be approved by the City before being implemented.

It is the responsibility of the developer, contractor, or their agents to notify the City in advance of the commencement of any authorized work. A pre-construction meeting and/or field review shall be required before the commencement of work. Inspection fees shall be paid on or before the pre-construction meeting. Any necessary easements or dedications are required before plan approval.

It is the responsibility of the developer, contractor or their agents to have an approved set of plans and any necessary permits on the job site whenever work is being accomplished.

The City shall have authority to enforce these Standards as well as other referenced or pertinent specifications. The City will appoint project engineers, assistants and inspectors as necessary to inspect the work and they will exercise such authority as the City Engineer may delegate.

All specific inspections, test measurements or actions required of all work and materials are set forth in their respective chapters herein. Tests shall be performed at the owners expense.

Failure to comply with the provisions of these Standards may result in stop work orders, removal of work accomplished, or other penalties as established by ordinance.

A project is considered final when a letter of acceptance is issued by the City to the party responsible for the project.

1.070 Fees

Fees, charges or financial guarantee requirements shall be as established by the City council by a resolution adopting a fee, charge, and financial guarantee requirement schedule. The City Council shall further set the dollar penalty for failure to pay said fee or charge in a timely manner by passage of such resolution. A copy of the "fees and charges" Resolution can be found in the Appendix. It is the applicant's responsibility to verify that the fees in the Appendix are current.

The initial plan check fee is due at the time of submittal of the permit application.

All additional plan check fees are due prior to issuance of the construction permit and release of approved plans.

| Inspec | ction | fees | - see | Fee | Res | olution | ı # | |
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In addition, there are various miscellaneous service and connection fees and charges. We strongly urge all applicants to request an estimate of these fees and charges from the appropriate utility providers as soon as practical.

NOTICE: PURSUANT TO RCW 36.70B.070 A PERMIT APPLICATION MUST BE ACCOMPANIED BY THE NECESSARY APPLICATION FEES TO ALLOW THE PERMIT TO BE PROCESSED FOR ISSUANCE. AN APPLICATION IS INCOMPLETE WITHIN THE MEANING OF RCW 36.70B.070 AND CITY ORDINANCE NO. ___ UNLESS IT IS ACCOMPANIED BY ALL FEES NECESSARY TO COMPLETE PROCESSING THE APPLICATION.

1.080 Permits

Before any person, firm or corporation shall commence or permit any other person, firm or corporation to commence any work to clear land, plane fill, stockpile, grade, pave, level, alter, construct, repair, remove, excavate or place any pavement, sidewalk, crosswalk, curb, driveway, gutter, drain, sewer, water, conduit, tank, vault, street banner or any other structure, utility or improvement located over, under or upon any public right-of-way or property in the City of University Place, or place any structure, building, barricade, material, earth, gravel, rock, debris or any other material or thing tending to obstruct, damage, disturb, occupy, or interfere with the free use thereof or any improvement situate therein, or cause a dangerous condition, the appropriate Permit shall be obtained from the City. A separate permit shall be obtained for each separate project.

If the City lets a contract for a public works project, the City shall waive all fees for permits required by the contractor to complete the project. Unless expressly approved by the City Council, city participation in a local improvement district shall not waive permit fees.

Much of the work covered under these Standards will require multiple authority review and approvals. Several types of permits and approvals require prior approval from the authority before a building or other permit can be issued. Any questions regarding information about permits, approvals and agreements should be directed to the appropriate departments.

The following general categories describe some of the activities requiring permits, approvals and/or agreements from the City prior to proceeding with the activity:

A. Environmental Review

For most projects, an Environmental Checklist must be completed by the applicant and submitted along with plans, specifications, and other information when approval or permits are being requested for a project. The Planning and Community Development Department conducts the Environmental Review and makes a SEPA Threshold Determination for the City.

B. Construction Permits

 Site Development Permit. A Site Development Permit is required for any project which alters property to: provide new or additional access, pave parking lots, alters drainage patterns, requires erosion control, and/or construct roadways and utility extensions.

- 2. Clearing and Grubbing Permit. A clearing and grubbing permit will be required for cutting, clearing and/or the grubbing of an area greater than 20,000 square feet in single ownership.
- Grading Permit. A grading permit is required for any grading, filling or excavation work unless exempted by Uniform Build Code Appendix Chapter 33 as adopted by City of University Place.
- 4. Right-of-Way Permit. A right-of-way permit is required for any work within the right-of-way as outlined at the beginning of this Chapter. Such work may include utilities work, telecommunications, work, lane closures, driveways, curbs, sidewalks, and haul routes. Permission to temporarily close a street or portion thereof for construction activities is obtained through the Right-of-Way Permit.

All construction permits expire 180 days after issuance if construction has not commenced. Verification of start of work is a recorded inspection. A permit may be renewed for six (6) months at the discretion of the City Engineer.

C. Approvals and other Permits

There are several other permits or approvals which may be required and referred to in these Standards: Site Plan Review; plat and short plat approvals; Building Permit and Certificate of Occupancy.

In addition, there are several other City approvals which may have to be obtained prior to the above listed permits and which may affect the Standards as contained in this document: Reclassification; Conditional Use; Planned Development District; Shoreline Substantial Development Permit.

- 1.085 The following work is exempt from the permit requirements of these Standards.
 - A. Construction or maintenance of public roads or flood control projects when done by a public agency and the project has a completed Environmental Checklist, has been approved by the

Washington State Department of Transportation (W.S.D.O.T.), City of University Place, or the City Engineer, and the work is in existing public right-of-way or easement dedicated to owned by the City of University Place.

- B. Cutting and Clearing and/or grubbing of any area under single ownership less than 20,000 square feet and except in sensitive areas, landslide and erosion hazard or wetlands.
- C. The stockpiling or broadcasting of less than 150 cubic yards of topsoil, peat, sawdust, mulch, bark, chips or solid nutrients on a lot, tract, or parcel of land, per year, except within wetlands, except in floodplains and except in sensitive areas.
- D. The installation of utilities in accordance with a valid City permit, well drilling activities, installation of sanitary drain fields, or excavation for soil logs, except within wetlands and except in sensitive areas.
- E. The excavation or filling required to accommodate only the footprint of a proposed single family residential structure in preparation for the proposed construction. The following conditions apply:
 - 1. A building permit application has been accepted by the City.
 - 2. The proposed structure is not located within 100 feet of a wetlands.
 - 3. The proposed structure is located a minimum of 50 feet from a drainage course.
 - 4. The proposed structure is not located in a floodplain.
 - 5. The proposed structure is not located in a sensitive area.
- G. Emergency sandbagging, diking, ditching, filling or similar work during or after period of extreme weather conditions when done to protect life or property.

Properties contiguous to each other and owned by the same person are considered to be one tract with regards to the exemptions discussed above.



1.090 FINANCIAL GUARANTEES

Standard forms have been developed by the City and approved by the City Attorney's Office and the City Manager or his/her designee(s). These forms must be used for all projects being reviewed and accepted by the City. The most recent version of these forms approved by the City Council must be used.

Financial guarantees shall be on a City form or on a form acceptable to the City and will not be released by the City until the required improvements are constructed in accordance with the approved plans. All improvements financially guaranteed must be constructed and/or completed within three years from the date of issuance of the Site Development Permit and if not, the financial guarantee must be paid to the City to be used for completion of the required construction.

Financial guarantee forms are at the end of this chapter and, when required, shall be used when making a submittal to the City:

Irrevocable Letters of Credit or other types of financial guarantees may be approved if acceptable to the City Attorney and City Manager or his/her designee.

Financial guarantees under \$5,000.00 must be by an assignment of funds.

All financial guarantees shall run continuously until released by the City and shall not be subject to expiration or cancellation without written authorization from the City.

The City may require a financial guarantee or withhold the certificate of occupancy of the structure to guarantee compliance with these Regulations.

To determine the amount of the financial guarantee, an estimate shall be submitted to the City by the engineer detailing the work to be accomplished and the cost thereof. The estimate shall be based on current construction costs. The City will review the engineer's estimate and, if acceptable, will establish the financial guarantee at 125% of the engineer's estimate to allow for inflation and administration expenses should the City have to complete the project.

A. Site Development Construction Guarantee

Prior to issuance of a permit, the Applicant will be required to submit a financial guarantee to the City to assure compliance with the provisions of these Regulations, the permit, and accepted plans.

- A financial guarantee may be submitted to the City in lieu of
 construction of the required improvements except in situations
 where the required work involves a safety or public welfare issue.
 Project approval shall not be granted until all required safety and
 public welfare issues are completed to the satisfaction of the City.
 - (a) An engineer's estimate shall be submitted to the City by the engineer detailing the quantity of work to be done in the City right-of-way. The estimate shall be based on current construction costs and shall be stamped and signed by the engineer.

An executed contract for the total project between a licensed, bonded contractor and the project Applicant may be substituted in lieu of the engineer's estimate.

- (b) The City shall review the engineer's estimate or the executed contract, and if it is in order, the City will establish the amount of the financial guarantee. The financial guarantee shall be 125% of the engineer's estimate or of the executed contract to allow for inflation and engineering administration expenses should the City have to complete the project.
- 2. The applicant will be allowed a 2-year time period from the acceptance of the financial guarantee in which to complete the work after which the financial guarantee is subject to default to The City who will complete the work and use the guarantee for reimbursement. The Applicant shall remain financially responsible for any and all costs exceeding the amount of the original financial guarantee.
- 3. Final approval of the street construction plans will not be given or a construction permit issued until a financial guarantee is submitted an the amount necessary when so required by the City.
- B. Private Storm Drainage Maintenance Financial Guarantee

Prior to issuance of a building permit or approval of a plat, the Applicant will be required to submit a financial guarantee to the City to guarantee the maintenance of the private storm drainage system within the development.

- 1. The City shall require a bond or other financial surety acceptable to the City to guarantee that the Applicant will correct any defect or subsequent problem in a dedicated improvement, including the satisfactory functioning of the project's drainage and/or drywell system caused by improper design, faulty construction, poor housing construction practices, or other reasons determined by the City. The guarantee shall not exceed 7.5% of the construction cost of the project as determined by the City. The guarantee shall remain in effect for a period of 18 months from the time that the City accepts the street and/or storm drainage system for maintenance. The Applicant shall remain financially responsible for any and all costs exceeding the amount of the original financial guarantee.
- 2. The guarantee shall be submitted to the City before the improvements are dedicated to the City or, if applicable, before the posted construction bond is released back to the Applicant at the Applicant's option.
- C. Public Road and Storm Drainage Cleaning Financial Guarantee

An assignment of funds will also be required of the Building Permit Applicant to guarantee the cleaning of the public roads and storm drainage systems adjacent to or within the development. Cleaning frequency will be determined by the City and must continue until written notification is received from the City.

The assignment of funds must be submitted to the City upon application for a building permit and prior to issuance of the permit. The guarantee will be held by the City until the structure and the front yard landscaping has been completed.

The amount of the street cleaning guarantee will be \$150.00/lot for plats and \$1,000.00 to \$5,000.00 for commercial developments, as determined by the City.

D. Procedure for Releasing Financial Guarantee for Private Storm Drainage Construction

Upon receipt of an acceptable letter of completion from the

Engineer, the City will release the applicable financial guarantee unless the City determines a drainage problem exists as a direct result of the development. If the Applicant fails to correct the drainage problem, the City may seek to foreclose on the financial guarantee to obtain the funds to correct the deficiency.

E. Procedure for Releasing Financial Guarantee for Private Storm Drainage Maintenance.

Upon approval of the final inspection of all structures, and acceptance of a form supplied by the City, and completed by the developer, stating that the storm drainage system has been cleaned of all debris, dirt, sediment, etc., the City will release the applicable financial guarantee.

1.100 Utility Locations

A. Utilities shall be located as required by Public Works and the Utility provider. Where existing utilities are in place, new utilities shall conform to these Standards as nearly as practical and yet be compatible with the existing installations. Deviations of location shall be approved by the Director of Public Works and/or the utility provider as may be applicable. Existing utilities shall be shown using the best information available. This verification may require exploration/excavation (potholing) if utilities are in conflict with proposed design.

The contractor/developer shall be responsible for utility locates in conjunction with their project until final Public Works approval is given.

B. All new utilities shall be installed in compliance with City Standards, the utility provider's Standards and under the supervision of the utility owning said facility. New and existing facilities shall comply with provisions as set forth in franchise agreements between the City and the utility.

Utilities converted from overhead to underground on existing roadways may be located within the right-of-way.

C. A right-of-way permit is required of any utility, except City owned facilities and utilities, who hold a franchise agreement with the City for any work done within the right-of-way and shall comply with all provisions as set forth in section 1.080 of these Standards.

1.110 Easements

- A. The Office of the City Attorney will process and arrange for the recording of all easements and other dedications of property to the City. All easements and dedications must be in a form acceptable to the City Attorney prior to issuance of a permit. After the documents are recorded with the Pierce County Auditor, a conformed copy will be filed in the project file and the Auditor stamped copy shall be filed with the City Clerk. Recording fees shall be collected from the applicant at the time of application.
- B. Easement widths shall be 15 feet for a single utility and 20 feet for dual utilities. Construction easements shall be 30 feet minimum in total width, including the permanent easement. When trench depths dictate or where pipe diameter or vault widths exceed four feet, a wider easement may be required by the City Engineer.
- C. Easements are required to be submitted in draft, unsigned for review and approval prior to plan approval. Signed copies are required prior to plan approval. Any change in design which places an amenity, i.e., water, sewer, sidewalk, etc., outside of the easement may necessitate stopping of construction until plans and easements can be resubmitted and approved. Plan review fee shall be based on the rate as established for an additional submittal fee. Easements will be filed by the City upon satisfactory completion of work.

1.120 Pavement Cutting

Expect as may be required by law, franchise or license, all pavement types shall not be cut for a period of 36 months after the pavement has been constructed or resurfaced. Untrenched construction techniques such as pushing, jacking, or boring shall be explored on all new or existing pavement road crossing. Information on which roads have been recently constructed or resurfaced may be obtained from the Public Works Department upon request. Except for work performed under emergency conditions, or as a result of a City construction or maintenance project, an additional permit fee may be charged for pavements cutting during the said 36 month period.

1.130 Utility Extension

- A. Anyone who wishes to extend any Public utility should contact the Engineering Department of the Utility provider for an Extension/Connection Fee Estimate and any special extension requirements.
- B. Utility mains shall be extended to and through the extremes of the property being developed for loop closures and/or future development as determined by the utility provider and the City of University Place.

1.140 Traffic Control

A. The developer/contractor shall be responsible for interim traffic control during construction on or along traveled roadways. Traffic control shall follow the guidelines of the WSDOT/APWA Standard Specifications. All barricades, signs and flagging shall conform to the requirements of the MUTCD.

Signs must be legible and visible and should be removed at the end of each work day if not applicable after construction hours.

B. When road closures and detours cannot be avoided the contractor/developer shall notify the Department of Public Works Construction Inspectors. The City may require a detour plan to be prepared, submitted and approved prior to closing any portion of a City roadway.

1.150 Call Before You Dig

All developers/contractors are responsible for timely notification of all utilities in advance of any construction in right-of-way or utility easements. The utilities One-call Underground Location Center phone number is 1-800-424-5555.

1.160 Penalties and Enforcement

A. General

 Failure to comply with any of these Regulations will be cause for withholding or withdrawing approval of the overall project plans, revocation of the site development permit, suspension of building inspections, forfeiture of the financial guarantee submitted to the City, and/or non-acceptance of the work by the City.

- 2. The City is authorized to make inspections and take such actions as required to enforce these Regulations. The City representative shall present proper credentials and make a reasonable effort to contact the property owner before entering onto private property.
- 3. A site development application will not be issued on any parcel that has a valid non-conversion Forest Practices Permit for a period of six years from the date of the Forest Practice Application approval.
- 4. The City may require the property owner to remove or replace illegal earthwork and/or restore and reclaim an illegally graded parcel. Earth material brought onto a parcel must be removed to a properly-permitted disposal site.

B. Enforcement Powers

1. The City may remove, correct, or replace any improperly constructed facility, structure, or portion thereof which was allowed through an issued site development permit, and all expenses incurred by the City shall be paid by the property owner or Applicant. If the City is required to bring an action to recover such costs, the City will recover reasonable attorney's fees and interest at twelve percent per annum to run from the date the work was completed by the City. Applicants must agree to this provision as a condition of issuance of any permit authorized by these Regulations.

C. Penalties

- 1. Violation of any of the provisions of these Regulations by an Applicant or Engineer shall be a misdemeanor. Each day or portion of a day during which a violation of these Regulations is continued, committed, or permitted shall constitute a separate offense.
- 2. Any work carried out contrary to the provisions hereof shall constitute a public nuisance and may be enjoined as provided by the statutes of the State of Washington.

1.170 Severability

If any part of these Regulations shall be found invalid, all other parts shall remain in effect.

1.180 Variations

Variations may be authorized by the City only upon submittal and approval of information, plans, and/or design data by the Engineer which indicates that the requested variation is based upon sound engineering judgment, and that requirements for safety, environmental considerations, function, appearance, and maintainability are fully met and the variation is in the best interest of the public. <u>ALL VARIATIONS MUST BE APPROVED BY THE CITY IN WRITING PRIOR TO THE START OF CONSTRUCTION</u>

1.190 Appeals

Any person or agency aggrieved by an act or decision of the City under these Regulations may appeal to the City of University Place Hearing Examiner pursuant to the provisions of the City of University Place Code, Chapter 61.20, as now enacted or hereafter amended. Administration, including staff report preparation and public hearing notification, shall be prepared by the City. The Applicant shall file the appeal with the City on the form entitled "Appeal of a Decision of an Administrative Official", available at the City of University Place Planning Department. Payment of appeal fees shall be in accordance with Ordinance 85-182S, or the most recent version thereof, with said fees payable to the City before acceptance of the appeal by the City for processing.





SITE DEVELOPMENT PERMIT APPLICATION

City of University Place

3715 Bridgeport Way West ◆ University Place, WA 98466 Phone (206) 566-5656 ◆ FAX (206) 460-2541

THIS APPLICATION MUST BE ACCOMPANIED BY FIVE (5) SETS OF PLANS (INCLUDING FIVE (5) FULLY DIMENSIONED SITE PLANS) AND TWO (2) COPIES OF STORM DRAINAGE CALCULATIONS.

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| PROJECT ADDRESS: | PARCEL #: |
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| PROJECT NAME: | SECTION ◆TOWNSHIP ◆RANGE |
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| PROPERTY OWNER NAME & ADDRESS: | OWNER PHONE #: |
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| APPLICANT NAME & ADDRESS: | APPLICANT PHONE #: |
| | |
| ENGINEER NAME & ADDRESS: | ENGINEER PHONE #: |
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| CONTROL DEDOON | CONTACT PUONE # |
| CONTACT PERSON: | CONTACT PHONE #: |
| BACKGROUND HISTORY: | IMPERVIOUS SURFACE: |
| Prior applications/permits pertaining to this site? | new |
| | total: c.y. |
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| | Total Area:sq. ft. |
| PROJECT DESCRIPTION: (be specific) | |
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| | |
| Any trees to be cleared from this site? | |
| ☐ Yes ☐ No | Septic or Sewer |
| I hereby certify that the above information is correct . I also the occupancy and the use will be in accordance with the la | certify that the construction on the above described property, ws, rules and regulations of the City of University Place. |
| Oliver the second of America and | Date |
| Signature of Applicant: | Date |

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| P | ľ | MICHT FUNH AMPOY | ORT /ORTH | 11-0001-3333-374 | | WINDER HINDER | Ç74H | MATHEREC" | 8V-1657-EXXT-UN |
| ٨ | A | | | | | STATE/COUNTY/COMPORATE UNIT | ₩ TIP | \$7ATE | 5Y-2239-COT-U |
| | ⊀ √ | LEFT-MAINT ARROW | 03/07 | IT-0444-3333-574 | | TARE /COUNTY/COPPORATE LIMIT | C EC N | \$7417 (1004°CD, 30040) | 5Y-2228-FROP-UH |
| U | • | | | | | UTILITES (EXERTING) | | | 1718 - USE STAT/ONTY/C' |
| 4. | - ♣. | | | | <u> </u> | | RCT | ATV | PALALM-EXSTLUM |
| <i>~</i> | | THOMESTHANGET ANDROW | CR3/CRSP | TF- CHAN- 3353- 574 | | CABLE TELEVISION (BUREEN) | NCO | ~ | N-8.H-001-UN |
| | | RAISED WARRENS | | | | FORCE MAIN | MACENIA | ~ | \$5-FLM-CY31-UN |
| | | LAME WARKERS TYPE | מיע גוו/ ועם | 17 - CHAM - 3333- 5 m | c | | MAGOVIA | ¢ | cs-PUM-DGT-UM |
| • | • | | , | | | - A | MACENTA | D | OL-PLM-CRST-LN |
| | • | LAME WARKERS TIPE I | GMI/GMF | W-OHN-3333-5W | | POMOR (AUDINAL) POMOR (BLURICO) | MCC MCO | ~ | PO-AUH-EXST-UH PO-BUH-EXST-UH |
| | | | | 3333 - NEC EIGT/FROM | | SANTARY STATE | weiπ. | 5 | 25-9UH-CEST-UN |
| | | | | | | STEAN | MACKHTA | \$TE | ST-PUM-COST-UN |
| SURI | FACE | FEATURES/ | /LANDS | CAPING | p | STOPH DRAHACE | Mart. | 0 | 50-2222-ET\$1-UN |
| SYMBOL | | DESCRIPTION | BFOCK | LAYER | | TOLEPHONE (ACRIAL) | NED | AT | TL+AUH-EXS!-UH |
| EXIST. | PROP. | | | | | | RED | Y | N-BUH-DOT-UH |
| | | | | | | | MYCOALS | HAY. | ##~\$EIV~CXXT~UH ##~2222~CXXT~UH |
| | 193 | MAI STOP | 985/917 | \$-8125-3333~570 | | | | | N - MINCATE UTESTY TITE |
| بسد | ميسد | | | | | VITUTES (PROPOSED) | | | 2222 - USC QUA/PUN |
| 11 | 11 | EMPHROIDIT | As /AM | 9F-0/87-3333-574 | | - HAM UME (UST TIPL SIZE, ETC.) | | CONTINUOUS | 11~2222~************ |
| | _ | MAE BOX | 97-49 / 197-40° | F-444 - 1533-5** | | | | (P-LME .04" MOE) | |
| | - | | | , | | אטייאנג (וונז זיאיה אוצג (דוב) | • | CONTRACOUS | 11-50xV-P90P-UN |
| 49 7 | 4 | REF BAP | WRK/SPRRP | 5F-4FR-3333-574 | - COLOR OFFICIOS ON THE D' WITHTY ! | (E.G. POWER, WATERLETC) | | | 11 - MOICATE ISTUTY TYPE 2322 - USE FLM/BLH/FUM |
| - Special Control of the Control of | -400 | | | | | igan di Pirong | | | AUM — MENAL UNG BIH ~ PUNCH COMPANI CUM — CHANCY UNG |
| ಹಯಾ | C=C4 | ROCKERY | ייָרער/אוע | #-ROCK-1323-514 | NOTES | | | | DIM - PASSONS CHS |
| | | | | | PRINT APPRADOCEDOC FOR WORK INFO | | | APWA MONUS | • |
| \circ | 0 | 240 | 2 3/24 | ₹-4(01-3333-574 | 2. POSENT HON OF HOW-PA-CASE STARCE 2. USE WATER YALVE AND FITTING STARRED | = ' | | | |
| _ | _ | 901 | 2 24 / Y 25 a | W-004-3333-579 | I THE AVIES AWAY WAS MIJAMS BARN | | | | |
| А | | | | | T GLICH PHOLIALE MOR DESCRICK WHICH | | CD UNIT AS T | | K HAVE IS TRO |
| 洪 | ☆ | TREE (Conflet) | #C/90 | #-4606-2733-5m | E. COMPOSITE LIPETYPES MEE DRAWN US | | | | |
| 14 | M | | | | TOWARD WITHOUT IN THE MINERE | CE MONE CONTINUOUS UNCO AS FOLLOW | twon. | 9 (E.); 00×.0≠ | POLSEE MARIE |
| \odot | 0 | TREE (Dearbours) | \$0/9D | à-4(0€-77))→2.h | UNETITÉ BLOCK | SUNCERED (BROKES) | | AFTOA | 8 25 3+G |
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| Ħ | × . | TARD DON'T | ≇ (/9/3 | 3113 - USE EXIT/PROP | EDISTRIC BURKORAL CAP PROPOSED BURKORAL CAP EDISTRIC BARROAD RA | 1.0 1.0 9.3 | | æ4π CτAH | 0.3 |
| | | | | - And Conference | COSTONO METAPONE MALL FO | 0.25 0.25 | | _ | 07 11/2 |
| | | | | | DEPTHYSTON CONTOUR DEP LAMPED ACCESS ALO. W. LA | 0.1 Q.1 | word ! | STES AVAILABLE F | USE REPLIABLE PLOTTE PURIS |
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APWA STANDARD SYMBOLS

| WAT | ER SYM | MBOLS | | | | SIGN | ALIZATION | N SYMBOLS | | ÷ |
|---|------------------|-----------------------------------|----------------------|---|---|------------------|-------------------|--------------------------------------|----------------------------|--|
| SYMBOL EXIST. | PROP. | DESCRIPTION | N (ABB⇔) | BLOCK | LAYER | SYMBOL EXIST. | PROP. | DESCRIPTION (ABBR) | BLOCK | LAYER |
| # | 3 ★ | COUPLING | ((C) | WEAP WEDUP/WEDUPP | ##-4121-7277-2JM ##-4121-7277-2JM | | | AERIAL DISCOPATECT | TAD/TAC* | 11-24-1177-244 |
| • | • | QUAND P051 | ((*) | #CP /HCPP | ##-N.II-3333-27M | - | | • | | |
| () -n | - | MEDUCES BLOCK | (#C*: {18 | ALB VALHS. BAICD VANCES | WA-FITT- 3333- SYM | | | ACRIAL TERMINAL COMPARTMENT | TATE /TATES | 4 - 8d - 7777-24A |
| B | æ | WATER METER FIRE HYDRAMTS | (201) | w(T/w(Tr | #A-MET#~3333-51W | اسا | | DELECTOR? | ייטטד/ ספד | 17 - 202 - 1333- 5 ~ |
| ۽ | • | 1-MOTATE | (FH) | MLH5/MLH5a | WA-FH-70-3333-572 | لسا | | | | |
| ~ | • | 70M.12 7-M0XXY | (m) | WFH3/JWFH 3F | WA-FMYD-3333-5 YW | | | GLYDWANDER DELECTOR | TOD /TOC+ | ±-80'~7773~2.∞ |
| ļ (| - | FLANCE/BUND FL MECHANICAL | (4.)/(#. n.) (#.0 | wn ≈d | WA-FITT-3333-5YM | 4〕 | \ominus | PEDICSTROAM DETECTION | TPG/TPGP | H-80-333-5W |
| C | C | PUSH-OH/HUB | | ₩4,/8 | WA-FITT+3533+57W | | | EMPRODICT VEHICLE MORCATOR L | | |
| l • | 1 | THEAD VALVES | (THO; | win | WA-1117+3333-5YM | *C | #C> | MOTCATOR LIGHTS | TL/m² | 4-8d-13T)-2M |
| र् <i>र</i> । | | AR RELIEF | (AR) | WARY/WARVP | #A-4ALV-3333-5YW | | | OFTICOUS SENSOR | יעטיי/ צטי | F-90 - 3333-5TW |
| ph ph | * | KUTTO RAL 1 | {8F) | MBEA V-MEA | #A-VALV-333-579 | ND. | 30. VOI | OPTICEN SENSOR W/ INDICATOR UGHTS | 1091/1051 | T-99-333-57 |
| 1√ × | N Ħ | CHECY GATE/OCHERAL | (0°) (=V) | MOKY/MOKY® | #^-VALV-3333~57W #Y-VALV-3333~57W | • | • | | | |
| ä | * | PLUG VALVE | (PV) | MANAGE CO | WY-44 777-48 | | | FLASIANG WARRING SYSTEM | ਜ਼ਵਤ,/ਜ਼ਵਨੂ | 11-20-333-5% |
| CAC | (DOMET | י /ייידי | DHON | D CANA | DOIC DOIC | ⊠ Z Œ | 35 (3) (3) | AMOTION BOY (JS) | 1.80 /1.91* 1.83 /1.62* | 7-92-333-7~ 7-92-333-57 |
| GAS/ | /POWER | OESCRIPTION | | E SYMI | BOLS | _ | | | 1937/197. | 2-52-111-24-24-24-24-24-24-24-24-24-24-24-24-24- |
| EXIST | PROP | | , | | | ċ- | • | POST W/ PUSHBUTTON | • | |
| 6 0 | о О | CYZ MEJEH | (c ₁) | CHET/CHETP CV/CV ⁴ | G2-AVTA-7777-2AM G2-MC14-7777-2AM | | | PEDESTRUM SIONAL HEAD | TERM/IES-0 | 7-50-1335-574 |
| ۵ | Ā | PAD MOUNTED TRANSFORMEP | (P TRAN) | PIRAN/PIRANT | FO-SICE-3333-EM | \circ | \circ | FOLE NOT | Tow | H-62-2777-240 |
| P | P | POWER VAULT | (₽0¥ V) | PY/PV | P0-\$108-3533-5TM | D= | 0= | R /A CHOSSING CATE | TRG/TRG" | 17-20-3333-514 |
| Ø | | TRANSMISSION TOMER | (mat zkam) | ₽ TWG | F0-\$101-E151-\$14 | ~ <u>~</u> | 4262 | 8/8 08055941 8/8 08055941 | пе/тере | T-9Q-3333-5~ |
| * | - | Lot viling | (PP. 1P) | u+ /u>- | 11-5704-2233-574 | E | DEC: | SONW CONTROLLEY | TSC/TSCP | 11-20-777-24 |
| ←- | ←- | WHUTY POLE | | UP A /IJP AP | 11-21C4-3337-24M | G ED | œ | асын гото сендь | IN CAMP OF | M-8d-3777-2·A |
| 0 | • | TELEPHONE ROSEA | (TEL #) | TEUR/TELPP | TL+S1CH-3333-STM | ←π | → . | STREET UGFT ASSIDER * | TSLA/TSLAF | #-50-133-5% |
| | | ANY I | (TEL V) | ty/rve | ቢ-5ሺ#-3333 - \$114 11 ÷ ሆሟ ፆወ/ፕኒ | _ | 1. | THATTIC SICHS | 158 /158° | n - 20(- 77)7- 2 √ |
| | VEY SY | MBOLS | | | TITLE DEST PACE | 4 | _1_ | CANTLEVORES | TSCL_/75CL* | #-90x-1117-2.4 |
| SYMBOL THEOR./ | FOUND/ | DESCRIPTION | ₹ (ABBP) | BLOCK | LAYER | 1 | 1 | SHICLE POST | T53/15/2 | F-904-1111-574 |
| EXIST & | PROP. △ | ANGLE PONT | {AF | 3AP/3AP0 | 5V-CTM; - 3233-5YW | 1 | -1- | COUBLE POST | ्रज्ञ-(क्ष | F-904-3335-5~ |
| + | + | BOHOH MARK | (R24) | 28m \290u | 5V-CTRL-3333-3YM | • | *** | | - | |
| • | • | BLOCK CORNER | (ac) (9°) | 50°C/50°C* 50°C/50°° | 2A-CHF-3773-2AR | | - | TRAFFIC BOHAL POLE | 170L/170LP | u~8ď-7777−2√ |
| 9 | • | MONTHER IN CA | | 540/540* 5401/540* | 2A-C18F-3773-2Am | | | THATTIC SONAL POLE | יטיפו/איני | 7-pq-1133-17 |
| 7 | • | Ometicant life | (01) | SOT | 2x+101x-2333-24x | a⊅; - | 0= 0~ | a) Heachil | | • |
| \bigcirc | | SECTION DATA: | | | | 0 | * | TRAINIC SICHAL SUPPORT POLE | ISPOL/ISPOLP | H-52-777-2-A |
| \mathcal{C} | _ , | ACTION COUNTRY | | 55 C1 | 2A~&C1-7777-2AM | → | → | WHI MICH JOHEN | THI/THA | M-265-3337-14# |
| | -}- | я(стом союнея | | \$26/\$509 | 24-84C1-7777-24P | \$₽ | + + | ADACT BONY HEYD AVWEIGH HOICYLOX | Thera / Transfe | F-1222 - 232 FY |
| ⊳ 0≈ | - ○- | GUARTER CORNER SIXTEEPIN CORNE | | \$00/50 <i>0</i> * \$\$10/ 5 530* | 5V-05CT-3333-F74 5V-165T-3333-F74 | Δ | \wedge | TON 300 | Pair | W-24-333-5W |
| - ∽ | - \$- | CLOSHE CONNER | * | 201/300 2211/3520 | 24-1374-7777-248 | | <u> </u> | | <u> </u> | 7777 + n⊠ 5021‱∞ |
| Ü ~<1 | <u> </u> | MEANOUR CONNER | · (NC) | STIC/STICS | TV-222A-3333-57W | ~ | / | = | =1= (D0 | • ~ |
| Δ · · · · · · · · · · · · · · · · · · · | uc nc | MIMEZZ CORNE | (wc: | 5=0/5=00 558/5580 | 5V-5C(1-3333-57V | SANIT SYMBOL | | ORM SEWER | SYMBO | LS LAYEF |
| Ø * | • | SOL BORING SPOT ELEVATION | (ss;) | \$38/35EP | 2A-20#-7773-2AP 2A-20#-7779-2AP | EXIST. PRO | | PION (ABON) | DECE. | 2 |
| \bigcirc | i | TAX LOT / PARCE | 1 MARKET | \$704 | 5V-1128-3333+57W 1134 - USE RANC/SECT/T | Tens o e | a san sem | Ex creve on, (co) | 2200/3300° | 22-1104-1717-134 |
| | ı | | | | 1778 - USE PAGE (ADTH 1333 - USE DOST/PROP OF FOUR/THEO | • | | ER MANHIOLE (\$55mm) | \$3141/\$53HIP | 25-5101-1111-574 |
| | Ţ | | | | | | - | (CB) | 20CB / 320CBF | 90- 51013333- 5TV |
| | 4 | | | שעוגם | | 0 • | | | | |
| | İ | | | | | | STORM DR/ | AN CULVERT (CULY) | 50C/50CP | 20-0'N-7777- 2.W |
| BLOOK SHA | Į | | BLOCK SDAT | | | · C • | \$ \$10% 0° | IAN MARKUE (SCIET) | EDIN / SOUTH | 50-3101-333-5W 3333 - VSC (031/PROF |
| LAYER SV-HO | NA-2777-2M | | LAYER: EV-OA | M-7773-24 | | | | | | |

Financial Guarantee - Assigment

FINANCIAL GUARANTEE - ASSIGNMENT

| In lieu of a performance bond at the direction of | for the proposed construction of , we are holding funds in the amount of in Account Number for the sole |
|--|---|
| | we are holding funds in the amount of |
| | (\$) in Account Number for the sole |
| purpose of completing the referenced construction of st | andards acceptable to the City of University Place. |
| University Place, said funds in Account Number | that these funds are to be used for the le fails to complete said construction to standards acceptable to the City of will be made available to said City of impleting the above described construction. Failure of the above noted financial eleased to the City of University Place will bond the financial institution for the enforce collection of the Assignment. |
| Signed and dated at | , Washington, this day of, 19 |
| This authorization to remain in full force and effect untiat the time the specified construction is completed to sta | l a written release is received from the City of University Place, which shall be undards acceptable to the City. |
| ACKNOWLEDGED: | DATE: |
| Principal or Agent | Financial Institution |
| Address | Officer |
| City, State, Zip | Address |
| Telephone Number | City, State, Zip Telephone Number |
| STATE OF WASHINGTON SS. COUNTY OF PIERCE | |
| On this day of, 19 Washington, duly commissioned and sworn, personally | before me the undersigned, a Notary Public in and for the State of appeared |
| | |
| to me known to be the individual described in and who sealed this said document as a free and voluntary act an | executed the foregoing instrument, and acknowledged to me that he signed and deed for the uses and purposes therein mentioned. |
| Given under my hand and official seal this day o | f, 19 |
| | Notary Public in and for the State of Washington/ Residing at |
| | |
| | ACCEPTANCE |
| City of University Place | Date |

Financial Guarantee - Bond

| | SERIAL NUMBER | | | | |
|---|--|--|--|--|--|
| • | | | | | |
| KNOW BY ALL MEN THESE PRESENTS: | | | | | |
| THAT we, | , as Principal, and | | | | |
| | , as Surety, are held and firmly | | | | |
| 011: 11 611 1: 1 66 | and benefit of the City of University Place, a Political Subdivision, | | | | |
| Dollars to the payment of which well and truly be these presents. | be made we do bind ourselves, successors and assigns, firmly by | | | | |
| | g a certain tract of land in the City if University Place in Section , WM., which development is known as | | | | |
| | , prepared by | | | | |
| | , Engineer, which development requires the | | | | |
| improvement of certain streets and/or storm drain and | nage facilities in University Place, | | | | |
| detail on the road construction plans and approve, 19 NOW, THEREFORE, the condition of construct the said road improvements and/or stordesign specifications to the satisfaction of the Circumstruction. | road improvements and/or storm drainage facilities as shown in ed by the City of University Place Public Works Department on this obligation is such that if said Principal shall well and truly m drainage facilities in accordance with the above-designated ty of University Place, on or before, and pays the costs incurred in completing the same, then this | | | | |
| obligation shall be void, otherwise to remain in f | | | | | |
| , | | | | | |
| SEALED with our seals and dates this day | y of | | | | |
| Principal | Surety | | | | |
| Signature of Principal | Name of Surety | | | | |
| Address | Address of Local Issuing Agency | | | | |
| Telephone Number | Telephone Number | | | | |
| | Surety's Signature Attach Power of Attorney Form if Required | | | | |

Memorandum of Agreement and Covenant to Run With the Land (Individual Form)

| | UP FORM NO |
|---------------------------------|--|
| THIS A | GREEMENT is made this day of, 19, by and between |
| through the Univer | and the City of University Place, by and rsity Place Public Works Department. |
| | |
| WHERE certain piece of pro | EAS,, is the owner or contract purchaser of operty located in the City of University Place, State of Washington, and described as follows: |
| | |
| | |
| plan for a project of | EAS, UNIVERSITY PLACE, by and through its Public Works Department, has approved a storm drainage on the above noted parcel of property. The approval and approved plans are on file in the office of the ublic Works Department, 3715 Bridgeport Way West, University Place, Washington. |
| NOW, T | THEREFORE, pursuant to this agreement, the parties agree to the following: |
| 1. | That the applicant has voluntarily applied for the above-stated approval which grants the applicant the right to use or develop said premises in the approved manner, and after due consideration, the City of University Place granted the approval. |
| 2. | These obligations shall run with the property and shall be binding on the applicant, heirs, successors and assigns. |
| 3. | system. The owner and/or heirs, successors, and assigns agree to maintain the private storm drainage system and to keep the system operating in its originally designed condition. The design of the private drainage system was done by the professional engineering firm of |
| | , a copy of which is on file with the City of University Place. |
| | |
| A 1: | |
| Applicant | |
| Address | |
| City, State, Zip | |
| STATE OF WAS | HINGTON |
| COUNTY OF PIE | SS. |
| On this day Washington, duly | of, 19, before me the undersigned, a Notary Public in and for the State of commissioned and sworn, personally appeared |
| | |
| | |
| | the individual described in and who executed the foregoing instrument, and acknowledged to me that he his said document as a free and voluntary act and deed for the uses and purposes therein mentioned. |
| Given under my ha | and and official seal this day of, 19 |
| | Notary Public in and for the State of Washington/ Residing at |

Memorandum of Agreement and Covenant to Run With the Land (Individual Form)

| IID | FOI | DM | NO. | |
|-----|--------------|------|------|--|
| 1/1 | $\perp \cup$ | IVI. | INO. | |

| | | |
|-----------------------------|---|--|
| THIS AG | GREEMENT is made this day o | f, 19, by and between and the City of University Place, by and |
| through the Univer | sity Place Public Works Department. | |
| WHERE certain piece of pro | AS, | , is the owner or contract purchaser of Place, State of Washington, and described as follows: |
| | | |
| plan for a project o | in the above noted parcel of property. | rough its Public Works Department, has approved a storm drainage The approval and approved plans are on file in the office of the port Way West, University Place, Washington. |
| NOW, T | HEREFORE, pursuant to this agreement | ent, the parties agree to the following: |
| . 1. | | plied for the above-stated approval which grants the applicant the s in the approved manner, and after due consideration, the City of al. |
| 2. | These obligations shall run with the and assigns. | property and shall be binding on the applicant, heirs, successors |
| 3. | system. The owner and/or heirs, suc | |
| | City of University Place. | , a copy of which is on file with the |
| | | ship has caused this instrument to be executed this |
| day of | , 19 By:_ | |
| | | |
| | By: | |
| STATE OF WASI | HINGTON | |
| | } ss. | |
| COUNTY OF PIE | • | |
| | lay before me personally appeared | to me known to be the person(s) who executed |
| and the foregoing instru | ument, and who, being duly sworn, by | me did depose and say that he/they are partner(s) in the general |
| | asduly authorized to sign the same and durtnership, for the uses and purposes m | and uly acknowledged to me that he/they executed the sane as the act entioned therein |
| • | • • | my hand and affixed my official seal the day and year first above |
| | | Notary Public in and for the State of Washington/ Residing at |
| | | |

Memorandum of Agreement and Covenant to Run With the Land (Corporate Form) UP File No._____

| THIS | AGREEMENT is made this | day of | , 19, by and | d between | e by and |
|----------------------------------|--|---|---|--|--------------------------------------|
| through the Univ | ersity Place Public Works Depa | ırtment. | and the city | of Offiversity 1 fac | c, oy and |
| WHEF certain piece of p | REAS, | Iniversity Place, St | is the ov ate of Washington, and c | wner or contract pu- lescribed as follows | rchaser of |
| | | | | | |
| plan for a project | REAS, UNIVERSITY PLACE, to on the above noted parcel of propulsic Works Department, 371: | roperty. The appro | oval and approved plans | are on file in the of | |
| NOW, | THEREFORE, pursuant to this | agreement, the pa | rties agree to the following | ng: | |
| 1 | . That the applicant has volut right to use or develop said University Place granted the | premises in the ap | | | |
| . 2 | . These obligations shall run and assigns. | with the property a | ınd shall be binding on tl | he applicant, heirs, | successors |
| 3 | . The property legally describ system. The owner and/or I system and to keep the syste drainage system was done b | heirs, successors, a em operating in its | nd assigns agree to main originally designed cond | itain the private stor | rm drainage |
| | City of University Place. | | , a c | opy of which is on | file with the |
| | ITNESS WHEREOF, said | corporation has | caused this instrumer | nt to be executed | this |
| | | A Corporation | nn . | | |
| | | | | | |
| | | Ву: | 4 | | |
| | | Ву: | | | |
| STATE OF WASHI COUNTY OF PIER | | ss. | | | 1 |
| On this | day before me personally appeared | | | and | |
| he free and voluntary | y act and deed of said corporation, for t | who executed the with | n to be the nin and foregoing instrument, a herein mentioned, and on oath | and acknowledged said | instrument to be ition authorized |
| in with | NESS THEREOF, I have hereunto set 1 | my hand and affixed m | y official seal the day and yea | ır first above written. | |
| - | | | y Public in and for the State of | f Washington/ | |
| | | | | | _ |



Maintenance Agreement and Restrictive Covenant (Partnership Form)

| UP | FORM | NO. |
|----|------|-----|
| | | |

| | , |
|---------|--|
| day of | |
| | (Grantor) and the City of University Place, a municipal corporation (Grantee.) |
| 1.0 | Recitals: |
| describ | 1.1 Grantor is the owner of certain real property in the City of University Place, Washington, ed as set forth n Exhibit "A" and referred to in this agreement as the "property." |
| • | 1.2 In connection with the Grantor's proposed development of the Property, University Place uired and Grantor has agreed to construct a stormwater collection and detention system. The se system is described and shown on a construction drawing prepared by the engineering firm of for the Grantor's property and in file with University Place. |
| Covena | 1.3 As a condition or project approval and/or as a condition of Grantor utilizing Grantee's trainage system Grantor has agreed to enter into this Maintenance Agreement and Restrictive ant ensuring that the drainage system will be constructed and maintained in accordance with the ed plans. |
| 2.0 | Construction and Maintenance: |
| | Grantor agrees to construct and maintain a drainage system as shown on that certain construction |

drawing described above. The drainage system shall be maintained and preserved until such time as Grantor, its heirs, successor or assigns and Grantee agrees that the system should be altered in some manner or eliminated.

3.0 No Removal

No part of the drainage system shall be dismantled, revised, altered or removed except as necessary for maintenance, repair or replacement.

4.0 Access

Each manhole housing and outlet orifice shall have a locking cover, designed and built to permit Grantor and Grantee access to the system at all times. Grantor hereby grants to Grantee the right to enter upon the property to inspect the system and to provide necessary maintenance as set forth below.

5.0 Failure to Maintain

If Grantor fails to adequately maintain or repair the drainage system, Grantee shall provide Grantor with oral or written notice of such failure to adequately maintain or repair the drainage system, and following receipt of such notice, Grantee shall provide Grantor with a reasonable opportunity to adequately repair said drainage system; provided that in the event of an emergency, Grantee has the right to repair said drainage system without notice to the Grantor. In the event Grantee performs any maintenance or repair on said drainage system, Grantee shall charge Grantor the reasonable cost of such work. If Grantee is required to bring action to recover such costs, the Grantee shall also recover its reasonable attorney's fees and interest at the rate of twelve (12%) percent per annum on any monies expended or the reasonable costs of such repair work.



6.0 Enforcement

This agreement may be enforced by Grantee in law or equity against the Grantor, its heirs, successors and assigns.

| 7.0 | Successors | and | Assigns |
|-----|------------|------|-----------|
| , | Ourreson a | 4114 | TRACETION |

| These obland assigns. | igations shall run with the Pro | operty and be binding on the Grantor, its heirs, successor |
|--------------------------------|---|---|
| DATED this | day of | , 19 |
| | | |
| Signature | Signature | Signature |
| Address | Address | Address |
| City, State, Zip | City, State, Zip | City, State, Zip |
| STATE OF WAS | HINGTON ss. | |
| COUNTY OF PII | , | |
| On this _ | day of | , 19, before me personally appeared and |
| | foregoing instrument, and whe general partnership known | |
| | | and that he/th acknowledged to me that he/they executed the sane as the purposes mentioned therein. |
| IN WITN year first above wr | | anto set my hand and affixed my official seal the day and |
| | | Notary Public in and for the State of Washington/ Residing at |
| | ÷ | |
| Approved as to F | orm Only: | · |
| | | |
| City of University | Place, City Attorney | |

Maintenance Agreement and Restrictive Covenant (Corporate Form)

| | UP FORM NO |
|---------|--|
| day of | |
| | (Grantor) and the City of University Place, a municipal corporation (Grantee.) |
| 1.0 | Recitals: |
| describ | 1.1 Grantor is the owner of certain real property in the City of University Place, Washington, ed as set forth n Exhibit "A" and referred to in this agreement as the "property." |
| | 1.2 In connection with the Grantor's proposed development of the Property, University Place uired and Grantor has agreed to construct a stormwater collection and detention system. The ge system is described and shown on a construction drawing prepared by the engineering firm of for the Grantor's property and in file with University Place. |
| Covena | 1.3 As a condition or project approval and/or as a condition of Grantor utilizing Grantee's drainage system Grantor has agreed to enter into this Maintenance Agreement and Restrictive ant ensuring that the drainage system will be constructed and maintained in accordance with the ed plans. |

2.0 Construction and Maintenance:

Grantor agrees to construct and maintain a drainage system as shown on that certain construction drawing described above. The drainage system shall be maintained and preserved until such time as Grantor, its heirs, successor or assigns and Grantee agrees that the system should be altered in some manner or eliminated.

3.0 No Removal

No part of the drainage system shall be dismantled, revised, altered or removed except as necessary for maintenance, repair or replacement.

4.0 Access

Each manhole housing and outlet orifice shall have a locking cover, designed and built to permit Grantor and Grantee access to the system at all times. Grantor hereby grants to Grantee the right to enter upon the property to inspect the system and to provide necessary maintenance as set forth below.

5.0 Failure to Maintain

If Grantor fails to adequately maintain or repair the drainage system, Grantee shall provide Grantor with oral or written notice of such failure to adequately maintain or repair the drainage system, and following receipt of such notice, Grantee shall provide Grantor with a reasonable opportunity to adequately repair said drainage system; provided that in the event of an emergency, Grantee has the right to repair said drainage system without notice to the Grantor. In the event Grantee performs any maintenance or repair on said drainage system, Grantee shall charge Grantor the reasonable cost of such work. If Grantee is required to bring action to recover such costs, the Grantee shall also recover its reasonable attorney's fees and interest at the rate of twelve (12%) percent per annum on any monies expended or the reasonable costs of such repair work.

| 6.0 I | info | rce | me | ent | t |
|-------|------|-----|----|-----|---|
|-------|------|-----|----|-----|---|

This agreement may be enforced by Grantee in law or equity against the Grantor, its heirs, successors and assigns.

| 7.0 | Su Su | ccessors | and | Assign | s |
|-------|---|----------|------|-----------|---|
| / • • | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | 4444 | 713312.11 | ١ |

| 7.0 Successo: | rs and Assigns | | |
|---|--|---|------------------------|
| These obland assigns. | ligations shall run with the Pro | operty and be binding on the Grantor, its heirs, | successor |
| DATED this | day of | , 19 | |
| | | | |
| Signature | Signature | Signature | · |
| Address | Address | Address | |
| City, State, Zip | City, State, Zip | City, State, Zip | |
| STATE OF WAS | } ss. | | |
| On this da | ay before me personally appea | ared | and |
| | | to me known to be the | |
| and deed of said co corporation author | orporation, for the uses and puized them to execute said inst ESS THEREOF, I have hereu | of the corporation who wledged said instrument to be the free and volumposes therein mentioned, and on oath stated trument. Into set my hand and affixed my official seal to the corporation who will be seal to the corporation will be seal to the | intary act hat said |
| | | Notary Public in and for the State of Was Residing at | shington/ |
| Approved as to F | orm Only: | Accepted By: | |
| City of University | Place, City Attorney | City of University Place Executive | _ |

Maintenance Agreement and Restrictive Covenant (Individual Form)

| | UP FORM NO |
|----------|--|
| day of _ | THIS MAINTENANCE AGREEMENT AND RESTRICTIVE COVENANT is made this, 19, by |
| | , 19, by (Grantor) and the City of University Place, a municipal corporation (Grantee.) |
| 1.0 | Recitals: |
| describe | 1.1 Grantor is the owner of certain real property in the City of University Place, Washington, ed as set forth n Exhibit "A" and referred to in this agreement as the "property." |
| | 1.2 In connection with the Grantor's proposed development of the Property, University Place used and Grantor has agreed to construct a stormwater collection and detention system. The e system is described and shown on a construction drawing prepared by the engineering firm of for the Grantor's property and in file with University Place. |
| Covena | 1.3 As a condition or project approval and/or as a condition of Grantor utilizing Grantee's rainage system Grantor has agreed to enter into this Maintenance Agreement and Restrictive nt ensuring that the drainage system will be constructed and maintained in accordance with the ed plans. |
| | |

2.0 Construction and Maintenance:

Grantor agrees to construct and maintain a drainage system as shown on that certain construction drawing described above. The drainage system shall be maintained and preserved until such time as Grantor, its heirs, successor or assigns and Grantee agrees that the system should be altered in some manner or eliminated.

3.0 No Removal

No part of the drainage system shall be dismantled, revised, altered or removed except as necessary for maintenance, repair or replacement.

4.0 Access

Each manhole housing and outlet orifice shall have a locking cover, designed and built to permit Grantor and Grantee access to the system at all times. Grantor hereby grants to Grantee the right to enter upon the property to inspect the system and to provide necessary maintenance as set forth below.

5.0 Failure to Maintain

If Grantor fails to adequately maintain or repair the drainage system, Grantee shall provide Grantor with oral or written notice of such failure to adequately maintain or repair the drainage system, and following receipt of such notice, Grantee shall provide Grantor with a reasonable opportunity to adequately repair said drainage system; provided that in the event of an emergency, Grantee has the right to repair said drainage system without notice to the Grantor. In the event Grantee performs any maintenance or repair on said drainage system, Grantee shall charge Grantor the reasonable cost of such work. If Grantee is required to bring action to recover such costs, the Grantee shall also recover its reasonable attorney's fees and interest at the rate of twelve (12%) percent per annum on any monies expended or the reasonable costs of such repair work.

6.0 Enforcement

This agreement may be enforced by Grantee in law or equity against the Grantor, its heirs, successors and assigns.

7.0 Successors and Assigns

| These obligand assigns. | gations shall run with the Prope | erty and be binding on the Grantor, its heirs, successors |
|-------------------------|--|--|
| DATED this | _ day of | , 19 |
| Signature | Signature | Signature |
| Address | Address | Address |
| City, State, Zip | City, State, Zip | City, State, Zip |
| STATE OF WASHIN | } ss. | |
| | , 19, be missioned and sworn, personally app | fore me the undersigned, a Notary Public in and for the State of peared |
| | at he signed and sealed this said doo | bed in and who executed the foregoing instrument, and cument as a free and voluntary act and deed for the uses and |
| Given under my hand a | and official seal this day of _ | Notary Public in and for the State of Washington/ Residing at |
| Approved as to For | rm Only: | Accepted By: |
| City of University | Place, City Attorney | City of University Place Executive |



CHAPTER 2

2.000 TRANSPORTATION

2A GENERAL CONSIDERATIONS

2A.010 General

The overall goal of this chapter is to encourage the uniform development of an integrated, fully accessible public transportation system that will facilitate present and future travel demand with minimal environmental impact to the community as a whole.

This chapter provides minimum development standards supplementing the applicable standards as set forth in Section 1.010.

2A.020 Standardized Format for Traffic Analyses

A. INTRODUCTION

A Traffic Impact Analysis (TIA) is a specialized study of the impacts a certain type and size of development will have on the surrounding transportation system. The traffic impact analysis is an integral part of the development impact review process. It is specifically concerned with the generation, distribution, and assignment of traffic to and from the "development". The purpose of a TIA is to determine what impact development traffic will have on the existing and proposed street network and what impact the existing and projected traffic on the street system will have on the "development". Development Defined: Site actions that trigger SEPA requirements. This may include previous development on a site with consideration to cumulative impacts for the purpose of making a SEPA threshold decision.

These guidelines have been prepared to establish the requirements for a Traffic Impact Analysis. The Public Works Department will be responsible under SEPA as well as city ordinances for determining the need for a Traffic Impact Analysis.

B. WHEN REQUIRED

To adequately assess a "development" traffic impact on the transportation system and level of traffic service (LOS) the Public Works Department may require a traffic impact analysis (TIA).

The requirement for a TIA will be based on the size of the development proposed, existing street and intersection conditions, traffic volumes, accident history, community concerns, and other pertinent factors relating to traffic impacts attributable to "developments".

If a site action requires an Environmental Checklist be prepared, a TIA may be required if any of the following conditions are met. The Public Works Department may require the preparation of a TIA if one or more of the following conditions are satisfied:

1. The "development" generates 10 or more trips in the peak hour(s) at any given intersection.

This would include site generated traffic for all turning movements for the peak hour(s) at all affected intersections. The Public Works Department may require analysis for the AM and/or PM peak hour.

- 2. The "development" lies within an area that contains an existing or proposed Local Improvement Districts (LID), local/state transportation improvement areas programmed for development reimbursements or at locations that have Latecomer Agreements.
- 3. The "development" proposed a use of the subject property which would increase the amount of site-generated traffic.
- 4. The original TIA is more than two years old or where the increase in traffic volume as measured by ADT, peak hour, or peak hour of the critical movement is more than 10%.

If the Department of Public Works has made the determination to require a TIA, the general guidelines to content and structure shall follow the format outlined in Section D. Scope of Work.

C. QUALIFICATIONS FOR PREPARING TIA DOCUMENTS

Impact Analyses (TIA) shall be conducted under the direction of a responsible individual or firm acceptable to the Public Works Department. The TIA shall be prepared by an engineer licensed to practice in the State of Washington with special training and experience in traffic engineering and who is a member of the Institute of Transportation Engineers (ITE). The developer shall

provide the Public Works Department the credentials of the individual(s) selected to perform the TIA.

D. SCOPE OF WORK

The level of detail and scope of work of a TIA may vary with the size, complexity, and location of the "development". A TIA shall be a thorough review of the immediate and long-range effects of the "development" on the transportation system.

1. "Development" Prospectus

- a. Provide a reduced copy of the "Site Plan" showing the type of development, street system, rights-of-way limits, access points, and other features of significance in the "development". The "Site Plan" shall also include pertinent "off-site" information such as locations of adjacent intersections and driveways, land-use descriptions, street right-of-way limits for the existing roadways and other features of significance. Exhibit "A" illustrates an example site plan for reference purposes.
- b. Provide a "Vicinity Map" of the project area showing the transportation system to be impacted by the development. Exhibit "B" illustrates an example vicinity map for reference purposes.
- c. Discuss specific development characteristics such as type of development proposed (single-family, multi-family, retail, industrial, etc.), internal street network, proposed access locations, parking requirements, zoning, and other pertinent factors attributable to the "development".
- d. Discuss project completion and occupancy schedule for the "development". Identify horizon years for traffic analysis purposes.

2. Existing Conditions

a. Discuss street characteristics including functional classification, number of traveled lanes, lane width, shoulder treatment, bicycle path corridors and traffic control at study intersections. A "Figure"

shall be used to illustrate existing transportation facilities.

- b. Identify safety and access problems including discussions on accident history, sight distance restrictions, traffic control, and pedestrian conflicts.
- c. Obtain all available traffic data from the City of University Place and surrounding jurisdictions if applicable. If data is unavailable, the individual or firm preparing the TIA shall collect the necessary data to supplement the discussions and analysis in the TIA.
- d. Conduct manual peak hour turning movement counts at study intersections if traffic volume data is more than 2 years old, unless otherwise required by the Public Works Department. A copy of the reduced data shall be attached to the TIA when submitted to Public Works for review.
- e. A "Figure" shall be prepared showing existing average daily traffic (ADT) and peak(s) hour traffic volumes on the adjacent streets and intersections in the study area. Complete turning movement volumes shall be illustrated as shown in Exhibit "C". This "Figure" shall represent the "base-line" traffic volumes for analysis purposes.

3. Development Traffic

This element of the TIA shall be conducted initially to identify the limits of the study area. The study area shall include all pertinent intersections and streets impacts by development traffic. The limits of the study area shall be representative of the specific conditions outlined in Section "B" of these guidelines.

The threshold requirement of development traffic exceeding 10 vehicles in the peak hour(s) on the adjacent streets and intersections shall apply.

The individual or firm preparing the TIA shall submit to the Public Works "Department" a "Figure" illustrating the proposed "trip distribution" for the development. The trip



generation shall be included in a table format on the "Figure" with the peak hour traffic volumes assigned to the study area in accordance with the trip distribution. Once approved by the Public Works Department, a formal "scoping" by the Public Works Department of the development proposal shall be conducted to clearly identify the study area and contents expected in the TIA. Exhibit "D" shows an example "Figure" for reference purposes.

The methodology and procedures used in preparing the trip generation and trip distribution elements of the TIA are as follows:

a. Trip Generation

Site-generated traffic of "developments" shall be estimated using the latest edition of the ITE TRIP GENERATION MANUAL. Variations of trip rates will require the approval of Public Works. Trip rate equations will be utilized for estimating site generated traffic. Average trip rates shall be used for all land-use categories where applicable and/or required by Public Works.

Site traffic shall be generated for PM and/or AM peak hour periods as required by Public Works. Adjustments made for "passer-by" and "mixed-use" traffic volumes shall follow the methodology outlined in the latest edition of the ITE TRIP GENERATION MANUAL. A "passer-by" traffic volume discount for commercial centers shall not exceed 25%.

For multi-use and/or "phased" projects, a trip generation table shall be prepared showing proposed land-use, trip rates, and vehicle trips for daily and peak hour periods and appropriate traffic volume discounts if applicable.

b. Trip Distribution

The trip distribution for a "development" shall be approved by Public Works and prior to the formal scoping of the TIA. The methodology shall be clearly defined and discussed in detail in the TIA.

Information on transportation modeling, regional distribution models, transportation analysis zones, and employment density areas may be available from Pierce County and/or the Public Works Department. Available information can be used to assist in the preparation of the trip distribution model. A regional trip distribution map may be required by Public Works for large scale development projects. Exhibit "E" shows an example "Figure" for reference purposes.

The TIA shall identify other transportation modes that may be applicable, such as transit use, bicycle and pedestrian facilities. Developments are encouraged to implement Transportation Demand Management practices such as "Flex Time" for employees and ridesharing programs including carpools, van pools, shuttle buses, etc.

4. Future Traffic

a. Future Traffic Conditions Not Including Site Traffic

Future traffic volumes shall be estimated using information from transportation models or applying an annual growth rate to the base-line traffic volumes. The future traffic volumes shall be representative of the horizon year for project development. Public Works will determine an appropriate growth rate, if that option is utilized.

In addition, proposed "on-line" development projects shall be taken into consideration when forecasting future traffic volumes. The increase in traffic from proposed "on-line" projects shall be compared to the increase in traffic by applying an annual growth rate.

If modeling information is unavailable, the greatest traffic increase from either the "on-line" developments or the application of an annual growth rate shall be used to forecast the future traffic volumes.

b. Future Traffic Conditions Including Site Traffic

The site-generated traffic shall be assigned to the street network in the study area based on the approved trip distribution model. The site traffic shall be combined with the forecasted traffic volume to show the total traffic conditions estimated at development completion. A "Figure" will be required showing daily and peak period turning movement volumes for each traffic study intersection. Exhibit "F" shows an example "Figure" for reference purposes. In addition, a "Figure" shall be prepared showing the base-line volumes with site-generated traffic added to the street network. This "Figure" will represent site specific traffic impacts to existing conditions.

5. Traffic Operations

The Level of Service (LOS) and capacity analysis shall be conducted for each pertinent intersection in the study area as determined by Public Works. The methodology and procedures for conducting the capacity analysis shall follow the guidelines specified in the Highway Capacity Manual-Special Report 209, 1994 Manual. The individual or firm preparing the TIA shall calculate the intersection LOS for each of the following conditions:

- a. Existing peak hour traffic volumes ("Figure" required).
- b. Existing peak hour traffic volumes including sitegenerated traffic ("Figure" required).
- c. Future traffic volumes not including site traffic ("Figure" required).
- d. Future traffic volumes including site traffic ("Figure" required).
- e. Level of Service results for each traffic volume scenario ("Table" required).

The Level of Service table shall include LOS results for A.M. and

P.M. peak periods if applicable. The table shall show LOS conditions with corresponding vehicle delays for signalized intersections and LOS conditions for the critical movements at unsignalized intersections. For signalized intersections, the LOS conditions and average vehicle delay shall be provided for each approach and the intersection as a whole.

The capacity analyses for existing signalized intersections shall include existing phasing, timing, splits and cycle lengths in the analysis as observed and measured during the peak hour traffic periods. All traffic signal system operational data will be made available by the City of University Place and adjacent jurisdictions if applicable.

If the "development" is scheduled to be completed in phases, the TIA shall conduct a LOS analysis for each separate development phase. The incremental increases in site traffic from each phase shall be included in the LOS analysis for each proceeding year of development completion. A "Figure" will be required for each horizon year of "phased" development.

If the "development" impacts a traffic signal coordination system currently in operation, Public Works may require the TIA to include operational analysis of the system. Timing plans and proposed modifications to the coordination system may be required.

The capacity analysis shall be conducted using a City approved software package. The computer worksheets, along with a 3-1/2" floppy disk of each capacity analysis, shall be submitted concurrently with the TIA document to Public Works. For unsignalized intersections, the "Highway Capacity Manual" methodology shall be used. A copy of the capacity analyses worksheets shall be submitted concurrently with the TIA document.

6. Mitigation

The TIA shall include a proposed mitigation plan. The mitigation may be either the construction of necessary transportation improvements or contributions to the City

for the "developments" fair share costs for identified future transportation improvements. Level of Service of "E" and "F" shall be used as the threshold for determining appropriate mitigating measures on roadways and intersections in the study area. Mitigating measures shall be required to the extent that the transportation facilities operate at a Level of Service "D" condition or better upon completion of the development.

The following guidelines shall be used to determine appropriate mitigating measures of traffic impacts generated by developments.

- a. On transportation facilities where the need to construct improvements, by the horizon year of the "development", the cost for the mitigation will be entirely born by the "development". However, in the event Public Works identifies more than one development under simultaneous review, cumulative impacts and distribution of mitigation costs may be considered. A latecomers agreement could be formulated by the "development" for reimbursement for mitigation costs.
- b. On transportation facilities programmed for improvements as part of a City project, the adverse traffic impacts of the "development" will be considered mitigated by providing a proportionate share contribution of the costs for the proposed improvements. The proportionate share of local costs for the improvements shall be based on the percentage of "development" traffic generated through the intersection. The percentage shall be based on the total projected peak hour traffic volumes for the horizon year of the transportation facility.

If the transportation facility currently operates less than Level of Service "D", the "development" shall be required to make interim facility improvements to maintain the existing level of service operation on the facility. The cost of the interim improvements will be deducted from the "development's" proportionate share of costs for the programmed facility improvements only if the cost

of the interim improvements is less than the ultimate proportionate share. If the interim improvements cannot be incorporated into the ultimate improvements programmed for the transportation facility, there will be no reimbursement for interim costs incurred.

- c. On transportation facilities where the existing Level of Service condition is less than LOS "D", and where no improvements are programmed to improve capacity and traffic operations, the "development" shall mitigate the intersection to an acceptable Level of Service "D" condition or wait until the improvements are implemented by the City or other developments. Improvements made by the City prior to the development of the subject project shall be reimbursed by the "development" based on a proportionate fair share costs of the facility improvements.
- d. Unsignalized intersections that currently operate less than a Level of Service "D" condition, shall be analyzed for traffic signal and intersection improvements. If three or more traffic signal warrants are satisfied, signal and intersection improvements will be required as a mitigating measure for the "development". If at least 3 traffic signal warrants are not satisfied by the " development's" horizon year, the TIA shall determine if traffic signal warrants and intersection improvements would be needed within a 5-year period after the "development's" horizon year. The "development" would be required to provide a proportionate share cost as a traffic mitigation fee towards future traffic signal and intersection improvements if warranted within the 5 year period.

However, if traffic signal warrants are not satisfied after a 5-year period from the "development's" horizon year, mitigation fees would not be required from the "development" for traffic signal improvements.

e. Signalized intersections where the projected Level of Service condition is at "D", but where one or

more of the Level of Service conditions on the approaches falls below Level of Service "D", mitigating measures may be required to improve the capacity and traffic operations at the intersection. The City reserves the right to review all adverse traffic impacts at these intersections and to determine appropriate mitigating measures.

- f. Where there are no bicycle lanes on abutting streets which have been identified in the City's Capital Improvement Plan as streets to have bicycle lanes, the applicant shall provide sufficient right-of-way to allow the construction of the planned bicycle lane.
- g. To mitigate pedestrian impacts, a concrete gutter/curb/sidewalk section shall be constructed along abutting streets. For formal plats, to provide for the safety of school children walking to the bus, concrete curbs, gutters, and sidewalks shall be provided along each side of all interior plat roads.

To mitigate pedestrian impacts, a bus stop shelter on a concrete pad shall be constructed where Pierce Transit and/or the School District has identified a need for a bus stop to serve the development and the citizens of University Place. Design standards for the bus shelter shall be provided by Pierce Transit and/or the School District.

2B STREETS

2B.010 General

Street design must provide for the maximum loading conditions anticipated. The width and grade of the pavement must conform to specific standards set forth herein for safety and uniformity.

2B.020 Design Standards

The design of streets and roads shall depend upon their type and usage. The design elements of City streets shall conform to City standards as set forth herein and current design practice as set forth in Section 1.010. Standard designs of pavement structures are shown on the street details at end of this chapter. Alternate pavement structures may be used based on the criteria as outlined in Paragraph 2B.160.

The layout of streets shall provide for the continuation of existing principal streets in adjoining subdivisions or of their proper projection when adjoining property is not subdivided. Minor streets, which serve primarily to provide access to abutting property, shall be designed to encourage through non-motorized traffic (pedestrians and bicycles). See Minimum Public Street Design Standards Table.

- A. Alignment. Alignment of major arterials and collectors shall conform as nearly as possible with that shown in the Comprehensive Plan.
- B. Grade. Street grade should conform closely to the natural contour of the land. In some cases a different grade may be required by the Director of Public Works. The minimum allowable grade shall be 0.5 percent. The maximum allowable grade shall be 15 percent, depending upon the street classification.
- C. Width. The pavement and right-of-way width depend upon the review against current standards, street classification. The table of Minimum Street Design Standards show the minimum widths allowed.
 - Street widths shall be measured from face of curb to face of curb on streets with cement concrete curb and gutter.
- D. The General Notes on the following page shall be included on any plans dealing with street design in addition to all applicable requirements in Section 1.040.
- E. Parking and fire lanes shall be provided in accordance with the requirements of Zoning and Fire Codes.
- F. Bus stops, pullout, and other bus transit amenities shall be in accordance with the requirements of Pierce Transit.

GENERAL NOTES (STREET CONSTRUCTION)

1. All workmanship and materials shall be in accordance with City of University Place standards and the most current copy of the State of Washington Standard Specifications for Road, Bridge, and Municipal Construction.

- 2. The Contractor shall be responsible for all traffic control in accordance with MUTCD. Prior to disruption of any traffic, traffic control plans shall be prepared and submitted to the City for approval. No work shall commence until all approved traffic control is in place.
- 3. All curb and gutter, street grades, sidewalk grades, and any other vertical and/or horizontal alignment shall be staked by an engineering or surveying firm capable of performing such work.
- 4. Where new asphalt joins existing, the existing asphalt shall be cut to a neat vertical edge and tacked with Asphalt Emulsion type CSS-1 in accordance with the standard specifications. The new asphalt shall be feathered back over existing to provide for a seal at the saw cut location and the joint sealed with grade AR-4000W paving asphalt.
- 5. Compaction of subgrade, rock, and asphalt shall be in accordance with the standard specifications.
- 6. Form and subgrade inspection by the City is required before pouring concrete.

 Twenty-four hours notice is required for form inspection.
- 7. The City will procure and install street name and regulatory signs at the contractor's/developer's expense. Signs shall be requested at the time construction begins.
- 8. Temporary erosion control/water pollution measures shall be required in accordance with The King County Surface Water Design Manual. At no time will silts and debris be allowed to drain into an existing or newly installed facility.

2B.030 Functional Classification

A. Functional Classification Elements - Streets and highways are most effectively classified by their function, according to the character of the service they are intended to provide. The primary functions of streets and highways are to provide mobility and to provide access, and the degree to which these functions are provided is considered an integral part of classifying streets. The functional classification system creates a hierarchy of classified streets.

For example, a freeway provides a high degree of mobility with limited access (available only at interchanges) that could be spaced several miles apart. Higher vehicle speeds and volumes are typical on these types of facilities and are, in fact, desirable. On the other hand, a local street within a residential neighborhood provides a high degree of access by way of numerous driveways to adjacent lots, and lower vehicle speeds and volumes are desired. Between these two extremes are the remainder of the streets, commonly called the arterial system, that must provide both mobility and access.

Streets are grouped into a number a different classifications for administrative, planning, and design purposes. For example, the classification system can be used for planning new routes, improvements to existing streets, and planning for area development in concert with the transportation network and providing minimum design standards or criteria to encourage the use of the street as intended.

The main considerations for classifying streets into functional groups are the travel desires of the public, land service needs based on existing and expected land use, and the overall continuity of the system. A classification plan which fits the various classes of streets together into a logical pattern and assigns realistic improvement standards to each class will promote the highest overall level of service for the funds that are available.

City definitions for each functional classification are presented below. A table of design elements, the standard, and application for each functional classification are in the pages that follow. Geometric design criteria follow each functional classification table. The City Transportation Plan will include transportation plans for modes other than passenger vehicles. These modal plans are intended to overlay onto the functional classification system. For example, the bicycle plan would overlay the function classification system to identify those streetways that should include bicycle facilities as a design element of the streetway.

The City functional classification system directly addresses all streets that are under the jurisdiction of the City.

City streets are divided into major (or principal) arterials, secondary arterials, collector arterials and local access streets in accordance with regional transportation needs and the functional use each serves. Function is the controlling element for classification and shall govern rights-of-way, road width, and road geometrics. The following list is provided to assist the developer in determining the classification of a particular street. New streets will be classified by the Director of Public Works.



MAJOR ARTERIALS

| STREET NAME | FROM | TO |
|------------------|--------------------|------------------|
| BRIDGEPORT WAY W | 27 ST W | 35 ST W |
| BRIDGEPORT WAY W | 67 AVE W | 300' N/O 75 ST W |
| BRIDGEPORT WAY W | CHAMBERS LN W | 6 AVE W |
| BRIDGEPORT WAY W | CIRQUE DR W | CHAMBERS LN W |
| BRIDGEPORT WAY W | 44 ST W | CIRQUE DR W |
| BRIDGEPORT WAY W | 35 ST W | 40 ST W |
| BRIDGEPORT WAY W | 40 ST W | 44 ST W |
| BRIDGEPORT WAY W | 19 ST W | 27 ST W |
| CIRQUE DR W | ORCHARD ST W | 67 AVE W |
| CIRQUE DR W | 67 AVE W | BRIDGEPORT WAY W |
| LAKEWOOD | HANNAH-PIERCE/ | 66 ST W |
| | ORCHARD | |
| ORCHARD ST W | HANNAH-PIERCE RD W | CIRQUE DR W |
| ORCHARD ST W | CIRQUE DR W | 40 ST W |
| REGENTS BLVD W. | 27 ST W | 67 AVE W |
| 27 ST W | REGENTS | BRIDGEPORT WAY W |

SECONDARY ARTERIALS

| STREET NAME | FROM | TO |
|-------------------|-------------------|-------------------|
| 27 ST W | SUNSET DR W | BRIDGEPORT WAY W |
| 27 ST W | GRANDVIEW DR W | SUNSET DR W |
| 40 ST W | ELWOOD DR W | SUNSET DR W |
| 40 ST W | ALAMEDA AVE W | FIRCREST C/L |
| 40 ST W | SUNSET DR W | BRIDGEPORT WAY W |
| 40 ST W | OLYMPIC BLVD W | ELWOOD DR W |
| 40 ST W | BRIDGEPORT WAY W | 67 AVE W |
| 64 ST W | GRANDVIEW DR W | CHAMBERS CRK RD W |
| 67 AVE W | 40 ST W | 35 ST W |
| 67 AVE W | 27 ST W | RENGENTS BLVD W |
| 67 AVE W | BRIDGEPORT WAY W | CIRQUE DR W |
| 67 AVE W | 44 ST W | 40 ST W |
| 67 AVE W | 35 ST W | 27 ST W |
| CHAMBERS CRK RD W | STEILACOOM C/L | 64 ST W |
| CHAMBERS CRK RD W | 64 ST W | CHAMBERS LN W |
| CHAMBERS CRK RD W | CHAMBERS LN W | 67 AVE W |
| CHAMBERS LN W | CHAMBERS CRK RD W | BRIDGEPORT WAY |
| CIRQUE DR W | BRIDGEPORT WAY W | SUNSET DR W |
| CIRQUE DR W | ELWOOD DR W | BECKONRIDGE DR |
| CIRQUE DR W | BECKONRIDGE DR W | GRANDVIEW DR W |
| CIRQUE DR W | SUNSET DR W | ELWOOD DR W |

| GRANDVIEW DR W | BECKONRIDGE DR W | CIRQUE DR W |
|----------------|------------------|------------------|
| GRANDVIEW DR W | 35 ST W | OLYMPIC DR W |
| GRANDVIEW DR W | OLYMPIC DR W | BECKONRIDGE DR W |
| GRANDVIEW DR W | 27 ST W | 35 ST W |
| GRANDVIEW DR W | CIRQUE DR W | 64 ST W |
| MILDRED ST W | 96 ST E | 19 ST W |
| OLYMPIC BLVD W | GRANDVIEW DR W | 40 ST W |

COLLECTOR ARTERIALS

| STREET NAME | FROM | TO |
|---|-------------------|----------------------------|
| 19 ST W | 350' W/O CRYSTAL | GRANDVIEW DR W |
| 10 000 111 | SPRGS | D/D I/ DIG DOGGA |
| 19 ST W | GRANDVIEW DR W | R/R X-ING R9202A |
| 27 ST W | VISTA PL W (City) | E DAY IS. BLVD W |
| 27 ST W | GRANDVIEW DR W | VISTA PL W (CITY) |
| 31 ST W | SOUNDVIEW DR W | VISTA PL W |
| 31 ST W | SOUNDVIEW DR W | LEMONS BEACH RD W |
| 35 ST W | SUNSET DR W | BRIDGEPORT WAY W |
| 35 ST W | BRIDGEPORT WAY W | 67 AVE W |
| 35 ST W | GRANDVIEW DR W | SUNSET DR W |
| 37 ST W | 67 AVE W | FIRCREST C/L @ 63 AVE W |
| 44 ST W | BRIDGEPORT WAY W | SUNSET DR W |
| 44 ST W | ALAMEDA AVE W | 67 AVE W |
| 44 ST W | SUNSET DR W | ELWOOD DR W |
| 44 ST W | 67 AVE W | BRIDGEPORT WAY W |
| 54 ST W | 79 ST W | 75 AVE CT |
| 79 ST W | 54 ST W | CIRQUE DR W |
| ALAMEDA EXTENSION | CHAMBERS LN W | CIRQUE DR W |
| ALAMEDA AVE W | 40 ST W | 44 ST W |
| ALAMEDA AVE W | 44 ST W | 51 ST CT W |
| BECKONRIDGE DR W | CIRQUE DR W | GRANDVIEW DR Q |
| ELWOOD DR W | 44 ST W | CIRQUE DR W |
| ELWOOD DR W | 40 ST W | 44 ST W |
| ELWOOD DR W | PARKWAY W | 27 ST W |
| GRANDVIEW DR W | 19 ST W | 27 ST W |
| LEMONS BEACH RD W | 31 ST W | TACOMA C/L |
| SUNSET DR W | 44 ST W | CIRQUE DR W |
| SUNSET DR W | 27 ST W | 35 ST W |
| SUNSET DR W | 27 ST W | 19 ST W |
| SUNSET DR W | 40 ST W | 44 ST W |
| SUNSET DR W | 35 ST W | 40 ST W |
| ~ | or watt | 10.01. 11 |

B. Function Classification Definitions

1. Major Arterials. Major arterials provide service for major traffic movements within the City. They serve major centers of activity, intra-area travel between University Place and other suburban centers', between larger communities, and between major trip generators. Major arterials serve the longest trips and carry the major portion of trips entering and leaving the overall area. Typically they are one of the highest traffic volume corridors in the City. The design year ADT is approximately 5,000 to 30,000 vehicles per day or more. They frequently carry important intra-urban and inter-city bus routes.

The spacing of major arterials usually varies from about 1 mile in highly developed business areas to 5 miles or more in rural areas. Service to abutting land should be subordinate to the provision of travel service to major traffic movements; this service should be incidental to the primary functional responsibility of the street. It is desirable to place arterials on community and neighborhood boundaries or adjacent to, but not through, major shopping centers, parks, and other homogeneous areas.

2. Secondary Arterials. Secondary arterials interconnect with and augment the major arterial system. Secondary arterials connect major arterials to collector arterials and small generators. They provide service to medium-size trip generators, such as less intensive commercial development, high schools and some junior high/grade schools, warehousing areas, active parks and ballfields, and other land uses with similar trip generation potential. They distribute travel to smaller geographic areas and communities than those identified with the major arterial system. They provide service to trips of moderate length of a somewhat lower level of travel mobility than major arterials. The design year ADT is approximately 2,500 to 15,000.

Spacing of secondary arterials is usually less than 1 mile in fully developed areas. They provide intra-community continuity and are typically a continuous street with a direct rather than a meandering alignment. They may carry local bus routes. Secondary arterials allow for more emphasis on

land access than the major arterial system. They usually do not penetrate identifiable neighborhoods.

- 3. Collector Arterials. Collector arterials distribute trips from major and secondary arterials to the ultimate destination, or may collect traffic from local streets and channel it into the major and secondary arterials systems. They carry a low proportion of traffic traveling through the entire subarea; carry a high proportion of local traffic with an origin or destination within that area. Design year ADT is approximately 2,500 to 15,000. They may be on a somewhat meandering alignment and need not be particularly long or continuous. Spacing is typically about 1/4 mile in developed areas. Collector arterials provide both land access service and traffic circulation within residential neighborhoods, commercial, and industrial areas. They may penetrate identifiable residential neighborhoods.
- 4 Local Street System. The local street system provides circulation and access for residential neighborhoods away from the arterial system. The local street system consists of local access and minor access streets.

For developments or neighborhoods of moderate size or larger, the streets serving as primary access to and from the bordering arterial system should be considered for collector arterial classification with no direct lot access and abutting residences oriented away from it. Traffic generators, such as schools or churches, within residential areas should be considered within the local circulation pattern, not only from within the subdivision, but from adjacent neighborhoods as well. There should be a limited number of access points with the arterial streets that border the subdivision.

Local streets should be designed for relatively uniform low volume of traffic upon full development, particularly for Local access and Minor access streets. The system should be designed to discourage excessive speeds and should minimize the necessity for traffic control devices. Internal streets with direct lot access should be discontinuous so as to discourage through traffic.

- Local feeder streets serve as primary access to the a. development from the adjacent street system. It distributes traffic from the Local Street Minor in residential neighborhoods and channels it to the arterial system. There are usually no bus routes, with the exception of possible school buses. It directly serves any major traffic generators within the neighborhood, such as an elementary school or a church. It usually serves one moderate size neighborhood or a combination of a few small developments, rather than interconnecting two or more larger neighborhoods. It serves little, if any, through traffic generated outside the neighborhood. Typical ADT may range from about 400 to 1,500. Abutting residences are oriented away from the feeder.
- b. Minor access provides direct access from abutting land to the Local Access Streets. There are usually no bus routes on local access streets. They are typically an internal subdivision street providing circulation within the subdivision or between subdivisions. Service to through-traffic is deliberately discouraged. Minor access streets can never be a higher classification. Typical ADT may range from about 300 to 1,000.

MINIMUM PUBLIC STREET DESIGN STANDARDS

| Design Standard | Major | Secondary | Collector | Local | Local Road |
|-------------------|------------------------|---------------------|-------------|---------------|---------------|
| | Arterial | Arterial | Arterial | Road Feeder | Minor |
| Minimum | 83' to 90' | 56' to 70' | 54' to 66' | 60' | 56' |
| Right-of-Way | | · | | | |
| Parking Lane | None | None | None | Both sides 8' | Both sides 8' |
| | | | • | wide | wide |
| Minimum/ | 0.7%-8% | 0.7%-8% | 0.7%-15% | 0.7%-15% | 0.7%-15% |
| Maximum Grade | | | | | |
| Curb and Gutter | Cement Concrete | Cement Concrete | Cement | Cement | Cement |
| | Curb & Gutter | Curb & Gutter | Concrete | Concrete Curb | Concrete |
| | Both Sides | Both Sides | Curb & | & Gutter Both | Curb & |
| | | | Gutter Both | Sides | Gutter Both |
| | | | Sides | | Sides |
| Sidewalks | Both Sides: 5' | Both Sides: 5' | Both Sides: | Both Sides: | Both Sides: |
| | wide (commercial | wide (commercial | 5' | 5' | 5' |
| | areas may require | areas may require | | | |
| | up to 10' widths | up to 10' widths at | | | |
| | at discretion of | discretion of the | | | |
| | the Public Works | Public Works | | \ | |
| | Department) | Department) | | | |
| Planter Strip | Both Sides | Both Sides | Both Sides | Both Sides | Both Sides |
| | 3' to 4.5' wide | 3' to 4.5' wide | 4.5' wide | 4.5' wide | 4.5' wide |
| Bike Lanes | Both Sides | Both Sides | Both Sides | Optional | Optional |
| Cul-De-Sac | N/A | N/A | N/A | N/A | 50' paved |
| Radius (pavement | | | | | radius |
| width) | | | | | (residential) |
| Intersection Curb | 35' | 35' | 35' | 35' | 25' |
| Radius | | | | | |
| Minimum | w/superelevation | w/superelevation* | 150' | 150' | As Approved |
| Centerline Radius | * per AASHTO | per AASHTO w/o | | | |
| for Normal | w/o | superelevation | | | |
| Crown | superelevation 600' | 600' | | | |
| Stopping Site | 325' | 325' | 200' | 200' | As Approved |
| Distance | | | | | |

^{*} Maximum superelevation = 6%

| Intersection Spacing | | | | |
|--|-------------------|--|--|--|
| Distance between Major Arterial | 1Mile +- | | | |
| Distance from Major Arterial to Secondary Arterials | 1/2 Mile +- | | | |
| Distance form Major and Secondary Arterials to Collector Arterials | ¼ mîle +- | | | |
| Spacing of intersections on arterial shall be | 300 feet or more. | | | |
| Spacing of intersections on local access roads shall be | 150 feet or more | | | |

The intent of spacing is to minimize the number of intersections on arterials and local road feeders.

2B.040 Naming

Streets and roads shall be named according to specific criteria established by City.

An address number will be assigned to all new buildings at the time the building permit is issued. It is then the owner's responsibility to see that the house numbers are placed clearly and visibly at the main entrance to the property or at the principal place of ingress.

The developer must check with the Building Official regarding the naming of streets. This should be done at the time the preliminary plat is submitted and again upon approval of the final plat. The Building Official will insure that the name assigned to a new street is consistent with policies of the City.

2B.050 Signing

The developer is responsible for providing all traffic control signs. Traffic control signing shall comply with the provisions as established by the U.S. Department of Transportation Manual on Uniform Traffic Control Devices (MUTCD).

Street designation signs, including poles and hardware, will be paid for by the developer but will be designed, furnished and installed by the City to establish uniformity unless otherwise indicated by the City. A written request must be submitted to the City Public Works Department when signing is needed and the developer will be billed upon completion. Street designation signs shall display street names, district destinations and grid numbers.

2B.060 Right-of-Way

Right-of-way is determined by the functional classification of a street. Arterials shall have a right-of-way of 54 to 90 feet depending on classification. Local access Feeder and Minor streets shall have a right-of-way of 60 and 56 feet respectively. See Minimum Street Design Standards Table for specific additional information. See "Minimum Street Design Standard Table" for radius requirements at cul-de-sac "bulb".

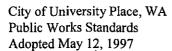
Additional roadside easements may be required to facilitate roadway maintenance.

Right-of-way requirements may be increased if additional lanes, pockets, transit lanes, bus loading zones, operational speed, bike lanes, utilities, schools or other factors are proposed and/or required by the City.

Right-of-way shall be conveyed to the City on a recorded plat or by a right-of-way dedication deed. All costs of same to be borne by the property owner/developer.

2B.070 Private Streets and Alleys

- A. Private Streets may be allowed under the following conditions:
 - Permanently established by commonly-owned tract (or easement if situation requires) providing access to serve no more than four dwelling units or businesses on separate parcels, or unlimited dwelling units or businesses situated on one parcel when approved as a Planned Development District (PDD) and sufficient to accommodate required improvements, to include provisions for future use by adjacent property owners when applicable, and
 - 2. Have a minimum 20 foot paved surface, and have a sidewalk 5 feet in width on one side of such design that prevents parking on the sidewalk
 - 3. Private street serving single family, multi-family, mobile home, or commercial uses shall be accessible at all times for emergency and public service vehicle use, and
 - 4. Will not result in landlocking of present or future parcels, conflict with any transportation or street improvement plan, or obstruct public street circulation, and



- Covenants have been approved, by the City and recorded which provide for maintenance of the private streets and associated parking areas by the owner, private road maintenance agreement, homeowners association or other legal entity.
- 6. If parking on a private street is requested, an additional eight (8) feet of pavement shall be provided on each side of the street where parking is to be allowed.
- 7. Construction and inspection standards for public road apply for private Roads unless otherwise noted within these guidelines.
- B. Alleys are considered a private roads and are governed by the following criteria:
 - 1. Allowed for primary access only when lots served have full frontage on a public street.
 - 2. Serves a maximum of 30 lots, with a maximum length of 400 feet, no cul-de-sacs and no dead ends if serving more than four (4) lots.
 - 3. When an alleyway is to be provided with utilities, the alley shall be located within a utility easement.
 - 4. Minimum Alley tract (easement if circumstances require) width of 20 feet with a pavement surface of 16 feet (including thickened edge), based on a five (5) foot structure setback from property line or edge of tract (easement). For differing structure setback requirements, alley configuration shall be designated to provide for safe turning access to properties.
 - 5. Alleyways shall be provided with a paved surface, a thickened edge on one side and cross slope in one direction.
 - 6. Alleys will be allowed only when lots have frontage on a public street.
 - 7. Alley entry shall be provided by a driveway cut.
 - 8. Construction and inspection standards for public roads apply for allies unless otherwise noted within these guidelines.

C. Acceptance as Public Streets. Acceptance of private streets as public streets will be considered only if the street(s) meet all applicable public street standards, including right-of-way widths.

MINIMUM PRIVATE STREET AND ALLEY DESIGN STANDARDS

| Design Standard | Private Street | Alley (Residential Only) |
|------------------------------|-----------------------------------|--------------------------|
| Minimum Right-of-Way (Tract) | 26'(with an additional 6' Utility | 20' |
| | Esmt. Outside tract) | |
| Service Area | 4 Dwelling Units Maximum | 30 lots Maximum |
| Minimum Pavement Width | 20' | 16' |
| Parking Lane | NONE * | NONE |
| Minimum & Maximum Grade | 0.5% - 15.0% | 0.5% - 15.0% |
| Curb | Vertical Curb | wedge curb or none if in |
| Туре | | 2% V-section |
| Sidewalk | 5' one side (within tract) | NONE |
| Cul-de-sac Radius (Pavement | 45 | NONE |
| Width) | | |
| Intersection Curb Radius | 10 | 10 |
| Design Speed (MPH) | 15 | 10 |

^{*} Pavement width and tract width shall increase eight (8) feet for each parking lane desired.

2B.075 Developments on Substandard Streets

All new developments which obtain access from substandard public or private streets shall be required to construct all necessary street improvements to bring any street up to current city standards prior to final approval. Such improvements shall be made from the point of access to the closest intersection of a public street that meets current standards. Street improvements may include but are not limited to curb and gutter; sidewalk; street storm drainage; street lighting; traffic signal modification, relocation or installation; utility relocation; and street widening all per these Standards.

2B.080 Street Frontage Improvements

- A. All developments or major tenant improvements shall install street frontage improvements at the time of construction as required by the Department of Public Works. Such improvements may include curbs; gutters; bike lanes; planter strips; medians; sidewalks; bus stops; bus shelters; bus pads; bus pullout; street storm drainage; street lighting system; traffic signal modification, relocation or installation; utility relocation; landscaping and irrigation, and street widening all per these Standards. Plans shall be prepared and signed by a licensed civil engineer registered in the State of Washington.
- B. All frontage improvements shall be made across the full frontage of property from centerline to right-of-way line.
- C. Exceptions. When the Director of Public Works deems that the above such improvements cannot be accomplished at the time of building construction, a recorded agreement on forms provided by the Department of Public Works shall be completed which provide for these improvements to be installed at a later date by the applicant or by the applicant's signing of a waiver of protest in a Local Improvement District (L.I.D.) in the description of the City.

2B.090 Cul-de-sac

Streets designed to have one end permanently closed shall be no longer than 150 feet. At the closed end, there shall be a widened "bulb" having a minimum paved traveled radius as shown in the Minimum Street Design Standards Table. Within an easement dedicated to the public, Developer shall install five foot wide concrete sidewalk(s) from the end of the cul-de-sac to the nearest public road per Option A or Option B



Drawing No. 2-6. Required easement width shall be determined by The Director of Public Works.

2B.100 Hammerhead Turnaround

Hammerheads will be allowed on streets which serve four lots or less and must be approved by the City Fire Marshal. See standard Hammerhead Detail at the end of this chapter.

2B.110 Temporary Dead Ends

Where a street is temporarily dead ended, turn around provisions must be provided where the road serves more than one lot. The turn around may be a hammerhead with a minimum distance on both sides at the centerline intersection of 60 feet to facilitate emergency vehicle turnaround.

2B.120 Medians

Raised, landscaped medians shall be provided along all major and secondary arterial roadways. Medians will include pedestrian landing/refuge areas to make it safer to cross wide streets, where appropriate. Medians shall be designed so as not to limit turning radius or sight distance at intersections. A detailed landscaping and irrigation plan prepared by a professional landscape architect registered in the State of Washington shall be submitted to the Public Works Department for review and approval. The developer is required to pay all water system connection fees and charges associated with installation of irrigation system.

2B.130 Intersections

- A. Traffic control will be as specified in the Manual on Uniform
 Traffic Control Devices (MUTCD) or as modified by the Director
 of Public Works as a result of appropriate traffic engineering
 studies.
- B. Street intersection shall be laid out so as to intersect as nearly as possible at right angles. Sharp angled intersections shall be avoided. For reasons of traffic safety, a "T" intersection (three-legged) is preferable to the crossroad (four-legged) intersection for local access streets. For safe design, the following types of intersection features should be avoided:

- 1. Intersections with more than four intersecting streets;
- 2. "Y" type intersections where streets meet at acute angles;
- 3. Intersections adjacent to bridges and other sight obstructions.
- C. Spacing between adjacent intersecting streets, whether crossing or "T" should be as follows:

| When highest classification | Minimum centerline |
|-----------------------------|--------------------|
| involved is: | offset should be: |
| | |
| Major Arterial | 350 feet |
| Secondary Arterial | 300 feet |
| Collector Arterial | 200 feet |
| Local Road Feeder | 150 feet |
| Local Road Minor | 150 feet |
| | |

When different class streets intersect, the higher standard shall apply on curb radii. Deviations to this may be allowed at the direction of the Director of Public Works.

D. On sloping approaches at an intersection, landings shall be provided with grade not to exceed one foot difference in elevation for a distance of 30 feet approaching any arterial or 20 feet approaching a collector or local access street, measured from nearest right-of-way line (extended) of intersecting street.

2B.140 Driveways

A. General

- 1. Details of driveway sections are located at the end of this chapter.
- 2. All abandoned driveway areas on the same frontage shall be removed and the curbing and sidewalk or shoulder and ditch section shall be properly restored.
- 3. All driveways shall be constructed of Portland Concrete Cement and shall be subject to the same testing and inspection requirements as curb, gutter, and sidewalk construction.

- 4. Joint-use driveways serving two adjacent parcels are permitted upon formal written agreement by both property owners and approval of the City. The agreement shall be a recorded easement for both parcels of land specifying joint usage. Joint use driveways shall be a minimum of 15' wide and paved along that portion which serves both parcels.
- 5. Grade breaks, including the tie to the roadway, shall be constructed as smooth vertical curves. The maximum change in driveway grade shall be 8 percent within any 10 feet of distance on a crest and 12 percent within any 10 feet of distance in a sag vertical curve.
- 6. Residential and commercial driveway widths are discussed in Section C "Width" Item 1 on the following page.
- 7. No commercial driveway shall be approved where backing onto the sidewalk or street will occur.
- 8. All driveway locations must be shown on the plat mylars and/or on the site development plans. Residential driveway locations for lots in formal plats are not restricted to any location unless so noted on the plat mylar.
- 9. New driveway locations created by the platting of property shall be unified whenever possible to create the fewest number of accesses onto a City street.

B. Arterial Streets

- 1. No driveway may access an arterial within 75 feet (measured along the arterial) of any other such arterial street access on either side of the street; provided, that such access may be located directly opposite another access.
- 2. No driveway access shall be allowed to an arterial street within 150 feet of the nearest right-of-way line of an intersecting street.
- 3. Within the limitations set forth above, access to arterial streets within the City shall be limited to one driveway for each tract of property separately owned. Properties contiguous to each other and owned by the same person are considered to be one tract.



- 4. Driveways giving direct access onto arterials may be denied if alternate access is available. Deviations of these standards may be permitted by the Director of Public Works.
- 5. Wherever a potential access exists to any property from both a public road and a private easement, the City may refuse access to the public road.
- 6. The Public Works Department and Pierce Transit will determine the minimum separation that will be allowed between an existing bus stop and a proposed driveway.

C. Residential Driveways

- 1. Residential driveways shall be constructed the maximum practical distance, but in no event, less than thirty-five feet or the posted speed limit in feet, whichever is greater, form a side street or intersection. The distance is measured from the road right-of-way line to the nearest edge of the driveway.
- 2. Wherever a potential access exists to any property from both a public road and a private easement, the City may refuse access to the public road.

D. Width

- 1. The maximum driveway width for two-way access drives onto an arterial or collector shall be 24 feet for residential, 30 feet for commercial uses, and 35 feet for industrial uses. Maximum driveway widths for one way access drives onto an arterial or collector shall be 20 feet for residential, 20 feet for commercial, and 25 feet for industrial uses. A road approach or wider driveway width may be approved by the Director of Public Works where a substantial percentage of oversized vehicle traffic exists, where divisional islands are desired, or where multiple exit or entrance lanes are needed.
- 2. The maximum two-way driveway width onto a local access street shall be 24 feet for residential uses and 26 feet for commercial uses.
- 3. The maximum one way driveway width shall be 15 feet for residential and 22 feet for commercial driveways. Parking lot circulation and signing needs shall be met on site. The public



right-of-way shall not be utilized as part of a one way parking lot flow.

- 4. Road approaches and/or ingress and egress tapers may be required in industrial and commercially zoned areas as directed by the Director of Public Works. Tapers shall be designed per Institute of Transportation Engineers publication "Transportation and Land Development" by V.G. Stover and F. Koepke.
- 5. Commercial drive aisles from the driveway section through the associated parking lot(s) shall be a minimum of 24 feet and shall meet all the requirements of the planning department and the fire Marshall.

2B.150 Sight Obstruction

The following sight clearance requirements take into account the proportional relationship between speed and stopping distance.

The sight distance area is a clear-view triangle formed on all intersections by extending two lines of specified length (A) and (B) as shown below from the center of the intersecting streets along the centerlines of both streets and connecting those endpoints to form the hypotenuse of the triangle. See Sight Obstruction Detail at the end of this chapter.

Sight Distance Triangle:

A. Stop or Yield Controlled Intersection

| • | | |
|-------------|-----------------|--------------|
| Speed Limit | Arterial Street | Local Street |
| 20 mph | 200 | * |
| 25 mph | 250 | * |
| 30 mph | 300 | * |
| 35 mph | 350 | * |
| 40 mph | 400 | * |

^{*}Sight distance measured from a point on the minor road 15 feet from the edge (extended) of the major road pavement and measured from a height of eye at 3.50 feet on the minor road to height of object at 4.25 feet on the major road.

Sight Distance (Ft.)

(A)

B. Uncontrolled Intersection

| Sight Dis | tance (Ft.) |
|-----------|-------------|
| (A) | (B) |

| Speed Limit | Arterial Street | Local Street |
|-------------|-----------------|--------------|
| 20 mph | 90 | 90 |
| 25 mph | 110 | 110 |
| 30 mph | 130 | 130 |
| 35 mph | 155 | 155 |
| 40 mph | 180 | 180 |

- C. The vertical clearance area within the sight distance triangle shall be free from obstructions to a motor vehicle operator's view between a height of 3 feet and 10 feet above the existing surface of the street.
- D. Exclusions. Sight obstructions that may be excluded from these requirements include: fences in conformance with this chapter, utility poles, regulatory signs, trees trimmed from the base to a height of 10 feet above the street, places where the contour of the ground is such that there can be no cross visibility at the intersection, saplings or plant species of open growth habits and not in the form of a hedge which are so planted and trimmed as to leave at all seasons a clear and unobstructed cross view, buildings constructed in conformance with the provisions of appropriate zoning regulations and preexisting buildings.

2B.160 Surfacing Requirements

All streets in the City of University Place will be paved with either Asphalt Concrete or Portland Cement Concrete, in strict compliance with these standards.

The pavement design shall meet the requirements in the latest publication of the AASHTO Guide for Design of Pavement Structures. The pavement section shall be designed and stamped by an engineer currently licensed in the State of Washington.

One soil sample per each 500 LF of centerline with 3 minimum per project representative of the roadway subgrade shall be taken by a qualified soils technician hired by the developer and delivered to a soil lab in order to determine a statistical representation of the existing soil conditions.

Soil tests shall be performed by an engineering firm specializing in soils analysis and currently licensed in the State of Washington.

The soils report, signed and stamped by a soils engineer licensed by the State of Washington, shall be based on actual soils tests and submitted with the plans. All depths indicated are a minimum compacted depth.

Construction of streets paved with Asphalt Concrete shall conform to Section 5-04 of the Standard Specifications. Pavement material will be Class "B" asphalt concrete and be constructed at least two (2) inches thick (minimum compacted thickness) over the prepared crushed surface, top course, or asphalt treated base. Mechanical spreading and finishing will be as described in Section 5-04.3(9) of the Standard Specifications. Compaction will be performed by the equipment and methods presented in Section 5-04.3(10) of the Standard Specifications, and Surface Smoothness shall satisfy the requirement of Section 5-04.3(13) of the Standard Specifications.

Portland Cement concrete streets will be constructed as specified in Section 5-05 of the <u>Standard Specifications</u>.

Permanent pavement patching will be performed as described in the pavement repair detail listed herein, and in compliance with Section 5-04 of the Standard Specifications. All fill material will be placed in lifts no thicker than six inches and mechanically compacted to 95 percent of standard density, as described in Section 2-03 of the <u>Standard Specifications</u> and to the satisfaction of the City Inspector.

2B.170 Temporary Street Patching

Temporary restoration of trenches shall be accomplished by using 2" Class B Asphalt Concrete Pavement when available or 2" medium-curing (MC-250) Liquid Asphalt (cold mix), 2" Asphalt Treated Base (ATB), or steel plates.. ATB used for temporary restoration may be dumped directly into the trench, bladed and rolled. After rolling, the trench must be filled flush with asphalt concrete pavement to provide a smooth riding surface.

All temporary patches shall be maintained by the contractor until such time as the permanent pavement patch is in place.

If the contractor is unable to maintain a patch for whatever reason, the City will patch it at actual cost plus overhead and materials.

2B.180 Trench Backfill And Restoration

Trench restoration shall be either by a patch or patch plus overlay as required by the City.

- A. All trench and pavement cuts shall be made by spade bladed jackhammer or sawcuts. The cuts shall be a minimum of 1 foot outside the trench width.
- B. All trenching shall be backfilled with crushed surfacing materials conforming to Section 2-04 of the WSDOT/APWA Standard Specifications. The trench shall be compacted to 95 percent maximum density, as described in Section 2-.03 of the WSDOT/APWA Standard Specifications.

If the existing material is determined by the City to be suitable for backfill, the contractor may use the native material except that the top 8 inches of trench shall be 2-1/2 inch minus ballast. All trench backfill materials shall be compacted to 95% density.

Backfill compaction shall be performed in 6 inch lifts.

Replacement of the asphalt concrete or Portland Concrete Cement shall be of existing depth plus 1 inch, or 3 inches, whichever is greater. Replacement of Portland Cement concrete shall match existing thickness of adjacent concrete or 6", whichever is greater.

- C. Tack shall be applied to the existing pavement and edge of cut and shall be emulsified asphalt grade CSS-1 as specified in Section 9-02.1(6) of the WSDOT/APWA Standard Specifications. Tack coat shall be applied as specified in Section 5-04 of the WSDOT/APWA Standard Specifications.
- D. Asphalt concrete Class B shall be placed on the prepared surface by an approved paving machine and shall be in accordance with the applicable requirements of Section 5-04 of the WSDOT/APWA Standard Specifications, except that longitudinal joints between successive layers of asphalt concrete shall be displaced laterally a minimum of 12 inches unless otherwise approved by the Director of Public Works. Fine and coarse aggregate shall be in accordance with Section 9-03.8 of the WSDOT/APWA Standard Specifications. Asphalt concrete over 2 inches thick shall be placed in equal lifts not to exceed 2 inches each.

All street surfaces, walks or driveways within the street trenching areas affected by the trenching shall be feathered and shimmed to an extent that provides a smooth-riding connection and expeditious drainage flow for the newly paved surface. Shimming and feathering as required by the Director of Public Works shall be accomplished by raking out the oversized aggregates from the Class B mix as appropriate.

Surface smoothness shall be per Section 5-04.3(13) of the WSDOT/APWA Standard Specifications. The paving shall be corrected by removal and repaving of the trench only:

- E. All joints shall be sealed using paving asphalt AR4000W.
- F. When trenching within the roadway shoulder(s), the shoulder shall be restored to its original or better condition.
- G. The final patch shall be completed as soon as possible and shall be completed within 30 days after first opening the trench. This time frame may be adjusted if delays are due to inclement paving weather, or other adverse conditions that may exist. Delaying of final patch of overlay work is allowable only subject to the Director of Public Works's approval. The Director of Public Works may deem it necessary to complete the work within 30 days time frame and not allow any time extension. If this occurs, the Contractor shall perform the necessary work as directed by the Director of Public Works.

2B.190 Staking

All surveying and staking shall be performed by an engineering or surveying firm capable of performing such work. The engineer or surveyor directing such work shall be licensed as a Professional Engineer or Professional Land Surveyor by the State of Washington.

A pre-construction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to construction.

The minimum staking of streets shall be as directed by the Director of Public Works or as follows:

A. Stake centerline every 50 feet in tangent sections and 25 feet in curved sections plus grade breaks, PVCs, PVTs, high points and low points, with cut and/or fill to subgrade.

- B. Stake top of ballast and top of crushed surfacing at centerline and edge of pavement at the above-described intervals.
- C. Stake top back of curb at the above-described intervals with cut or fill to finished grade.

2B.200 Testing

Testing shall be required at the developer's or contractor's expense. The testing shall be ordered by the developer or contractor. Testing shall be performed by an engineering firm currently licensed in the State of Washington. Testing shall be done on all materials and construction as specified in the WSDOT/APWA Standard Specifications and with frequency as specified herein.

In addition, the City shall be notified before each phase of street construction commences (i.e. staking, grading, subgrade, ballast, base, top course, and surfacing).



CITY OF UNIVERSITY PLACE TESTING AND SAMPLING FREQUENCY GUIDE

| ITEM | TYPE OF TESTS | MINIMUM NO. | FREQUENCY |
|---|--|--|--|
| GRAVEL BORROW SAND DRAINAGE BLANKET CSTC CSBC BALLAST BACKFILL/SAND DRAINS | GRADING & SE GRADING GRADING, SE & FRACTURE GRADING, SE & FRACTURE GRADING, SE & DUST RATIO GRADING | 1 EACH 1 EACH 1 EACH 1 EACH 1 EACH 1 EACH | 1 - 4000 TON 1 - 4000 TON 1 - 2000 TON 1 - 2000 TON 1 - 2000 TON 1 - 2000 TON |
| GRAVEL BACKFILL FOR: FOUNDATIONS WALLS PIPE BEDDING DRAINS | GRADING, SE & DUST RATIO GRADING, SE & DUST RATIO GRADING, SE & DUST RATIO GRADING | I EACH I EACH I EACH I EACH | 1 - 1000 TON 1 - 1000 TON 1 - 1000 TON 1 - 100 TON |
| PCC STRUCTURES: (Sidewalk, curt COARSE AGGREGATE FINE AGGREGATE CONSISTENCY AIR CONTENT CYLINDERS (28 DAY) | and gutter, foundations) GRADING GRADING SLUMP AIR COMPRESSIVE STRENGTH | 1 EACH 1 EACH 1 EACH 1 EACH 2 EACH | 1 - 1000 TON 1 - 500 TON 1 - 100 CY 1 - 100 CY 1 - 100 CY |
| СЕМЕНТ: | CHEMICAL & PHYSICAL CERTIFICATION | 1 | 1 - JOB |
| ASPHALT CEMENT CONCRETE: BLEND SAND MINERAL FILLER COMPLETED MIX | SE S.G. & PI, CERTIFICATION FRACTURE, SE, GRADING ASPHALT CONTENT COMPACTION | 1 EACH 1 1 EACH 2 EACH | 1 - 1000 TON 1 - JOB 1 - 1000 TON 5 - 400 TON |
| ASPHALT TREATED BASE: COMPLETED MIX | SE, GRADING, ASPHALT CONTENT COMPACTION | 1 EACH 1 EACH | 1 - 1000 TON 5 - Control Lot* |
| ASPHALT MATERIALS | CERTIFICATION | 1 | 1 - JOB |
| RUBBERIZED ASPHALT: | CERTIFICATION | i | 1 - JOB |
| COMPACTION TESTING: EMBANKMENT CUT SECTION CSTC CSBC BALLAST TRENCH BACKFILL | COMPACTION COMPACTION COMPACTION COMPACTION COMPACTION COMPACTION | 1 EACH 1 EACH 1 EACH 1 EACH 1 EACH 1 EACH | 1 - 500 LF 1 - 500 LF |

SE = Sand Equivalency

^{*} A control lot shall be a normal day's production. For minor quantities 200 tons or less per day, a minimum of two (2) gauge readings shall be taken.

2C SIDEWALKS, CURBS AND GUTTERS

2C.010 General

All properties within commercial zones of the City, properties abutting arterial or local access streets and properties upon which there are to be public buildings, shall, in conjunction with new construction or a major tenant improvement, have curbs, gutters, and sidewalks constructed along abutting streets.

2C.020 Design Standards

Plans for the construction of sidewalks, curbs and gutters are to be submitted as part of the street plans when applicable.

The City has set forth minimum standards as outlined in this section which must be met in the design and construction of sidewalks, curbs and gutters. Because these are minimum standards, they may be modified by the Director of Public Works should the Director feel circumstances require increased or decreased widths. Ten foot wide sidewalks may be required on major and secondary arterials at the discretion of the Public Works Department.

2C.030 Sidewalks

Sidewalks shall be constructed of Commercial Concrete, minimum 4 inches thick except in driveway approaches where the minimum thickness shall be 6". When the sidewalk, curb and gutter are contiguous, the width of the sidewalk shall be measured from back of curb to back of sidewalk.

- A. Arterial Streets. Sidewalks, curbs and gutters shall be required on both sides of all arterial streets interior to the development. Sidewalks, curbs and gutters shall also be required on the development side of streets abutting the exterior of said development. Arterial streets for purposes of this subsection shall include major arterials, secondary arterials and collector arterials.
- B. Local Access Streets. Sidewalks shall be required on both sides of local access streets which are interior to the development and on the development side of local and minor access streets abutting the exterior of said development including cul-de-sacs.
- C. The design and construction of all sidewalks, curbs, and gutters shall meet the following minimum standards:

The width of sidewalks shall be as shown in the minimum street design standards and the street design drawings. The design of all sidewalks shall provide a gradual rather than an abrupt transition between sidewalks of different widths or alignments.

- D. Form and subgrade inspection by the City, are required before sidewalk is poured.
- E. Monolithic pour of curb, gutter and sidewalk will not be allowed.
- F. For driveway requirements, see chapter 2B.140.

2C.040 Curb and Gutter

Cement concrete curb and gutter shall be used for all street edges unless otherwise approved by the Director of Public Works. All curbs and gutters shall be constructed of Commercial Concrete as shown on Detail 2-14.

Extruded curb and gutter per WSDOT/APWA Standard Specifications is allowed.

Form and subgrade inspection by the City are required before curb and gutter are poured.

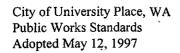
2C.050 Accessibility Ramps

All sidewalks must be constructed to provide for accessibility ramps in accordance with the standards of state law.

Accessibility ramps shall be constructed of Commercial Cement. Form and subgrade inspection by the City are required before accessibility ramps are poured.

2C.060 Bus Pads

Bus stop pads shall be installed to Pierce Transit Specifications as part of frontage improvements where bus stops currently exist or will be created where no pads currently present.



2C.070 Staking

The criteria set forth in Section 2B.190 for Engineering and Surveying qualifications and pre-construction meetings shall be adhered to in addition to the following:

The minimum staking of curb, gutter and sidewalk shall be as directed by the Director of Public Works or as follows:

Stake top of back of curb every 50 feet in tangent sections and 25 feet in curved sections plus grade breaks, PVCs, PVTs, high point and low points, with cut or fill to finished grade.

2C.080 Testing

Testing shall be required at the developer's or contractor's expense on all materials and construction as specified in the WSDOT/APWA Standard Specifications.

At a minimum, one slump test and 2 test cylinders shall be taken once per day. All other testing frequencies shall be as specified in the Testing and Sampling Table in Section 2B.200.

In addition, the City shall be notified before each phase of sidewalk, curb and gutter construction commences.

2D BIKEWAYS

2D.010 General

Bike lane construction is required on all arterial streets adjacent to any development or redevelopment where the estimated cost of improvements on such properties exceeds 25 percent of the value of the existing structures, or plat or short plat approval or when the need for such a bike lane is indicated by the Public Works Department.

2E ILLUMINATION

2E.010 General

All developments requiring a Site Development Permit review shall provide street lights in accordance with the standards for such improvements of the City and they shall be owned and operated by the City if located within Public Rights-of-Way. Street lighting located on private properties shall be under a maintenance agreement and maintained by the homeowner's association.

2E.020 Design Standards

A street lighting plan submitted by the applicant and approved by the Public Works Director shall be required for all street light installations. Type of installation shall be as set forth in WSDOT/APWA Standard Specifications and as directed by the City except where noted herein.

All public street light designs shall be prepared by an engineering firm capable of performing such work. The engineer shall be licensed by the State of Washington. All developments shall submit the lighting plan on a separate sheet. After system is completed and approved, a set of "as built" mylars shall be submitted to the City as a permanent record.

Lights shall be located in accordance with the Illumination Standards Table and details 2-2 through 2-5. In addition, intersections shall be illuminated to 1.5 times the highest foot candle requirement of the streets surrounding the intersection. Exception: In residential and intermediate classes, local and collector streets intersecting other local and collector streets do not need 1.5 times the illumination provided a luminaire is placed at the intersection.

For the purposes of this section, area classes are determined by zoning as follows:

Commercial

Community Center Mixed Use District

Industrial

Moderate Intensity Employment Center

Residential

Moderate Density Single Family High Density Residential District

As new zones are created, they will be classified by the Director of Public Works. If road widths differ from those in the Illuminations Standards table, other spacing will be determined by the Director of Public Works using the following criteria:

AVERAGE MAINTAINED HORIZONTAL ILLUMINATION (FOOT CANDLES)

| Road Class | Residential |
|----------------------|-------------|
| Local Feeder & Minor | 0.4 |
| Collector Arterial | 0.6 |
| Secondary Arterial | 0.8 |
| Major Arterial | 0.8 |

Uniformity ratio:

6:1 average: minimum for local

4:1 average: minimum for collector

3:1 average: minimum for secondary and major

arterial

Dirt Factor = 0.85, lamp lumen depreciation factor - .073 Min. Weak Point Light = 0.2fc except residential local street Average illumination at intersections 1.5 times the illumination required on the more highly illuminated street.

| 400 Watt initial lamp lumens | = | 50,000 |
|------------------------------|-----|--------|
| 200 Watt initial lamp lumens | = . | 22,000 |
| 150 Watt initial lamp lumens | = | 16,000 |
| 100 Watt initial lamp lumens | = | 9,500 |

Line loss calculations shall show that no more than five percent voltage drop occurs in any circuit. Lamp Load factor shall equal 1.2. Pole foundations shall be per detail number 2-17. Poles shall be as follows:

| 40' MH* | 30' MH | 40' MH |
|----------------|--|---|
| 6' Single Arm | 6' Single Arm | 8' Twin Arm |
| | | |
| RRTA40SA6S.01B | RRTA30SA6S7.01B | RRTA40SA8D10.02B |
| 50700-001 | 21-585 | 50701-013 |
| 3608-45806T4 | 2908-40705T4 | 3608-60106T4 |
| 21-40006CS0845 | 21-30006BS0845 | 22-400088CS1060 |
| | 6' Single Arm RRTA40SA6S.01B 50700-001 3608-45806T4 | 6' Single Arm 6' Single Arm RRTA40SA6S.01B RRTA30SA6S7.01B 50700-001 21-585 3608-45806T4 2908-40705T4 |

^{*}MH = Mounting Height

ILLUMINATION STANDARDS

| ROAD CLASS | LUMINAIRE HPS | MOUNTING HEIGHT (watt) | CURB OVERHANG (feet) | MAXIM ONE SIDE (feet) | BOTH SIDES (OPPOSITE) (feet) | (feet) |
|-----------------------|------------------|------------------------|----------------------------|--------------------------------|------------------------------|--------|
| LOCAL | 150 | 30 | 5 | 185 | | |
| COLLECTOR ARTERIAL | 150 | 30 | 5 | 185 | | |
| SECONDARY | 400 | 40 | 5 | | 240 | |
| MAJOR ARTERIAL | 400 | 40 | 5 | ~ - | 240 | |

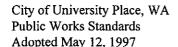
All luminaries to be flat lens, medium cut off, IES Type III distribution, General Electric Power Door or City approved equal.

All street light electrical installations including wiring conduit, and power connections shall be located underground.

The General Notes on the following page need to be included on any plans dealing with street design in addition to all applicable requirements as set forth in section 3.040.

GENERAL NOTES (Street Light Construction)

- 1. All workmanship, materials and testing shall be in accordance with the most current Washington State Department of Transportation/American Public Works Association Standard Specifications for Road, Bridge, and Municipal Construction, National Electrical Code and City of University Place Development Guidelines unless otherwise specified below. In cases of conflict the most stringent guideline shall apply. When the most stringent guideline is not clear, the Director of Public Works will make the determination. The Electrical Contractor shall be familiar with all above stated publications and guidelines as they will be strictly enforced by the City.
- 2. All safety standards and requirements shall be complied with as set forth by the State of Washington, Department of Labor and Industries.



¹⁰⁰ watt catalog number GE M2AC10S3A1GMC31

¹⁵⁰ watt catalog number GE M2AC15S3A1GMC31

²⁰⁰ watt catalog number GE M4AC20S3A1GMC31

⁴⁰⁰ watt catalog number GE M4AC40S3A1GMC31

- 3. The contractor shall be responsible for all traffic control in accordance with the Manual on Uniform Traffic Control Devices. Prior to disruption of any traffic, traffic control plans shall be prepared and submitted to the City for approval. (See WSDOT Standard Plans K2-K21.) No work shall commence until all approved traffic control is in place.
- 4. A pre-construction meeting shall be held with the City of University Place Inspectors prior to the start of construction.
- 5. All approvals and permits required by the City of University Place shall be obtained by the contractor prior to the start of construction.
- 6. It shall be the responsibility of the contractor to have a copy of an approved set of plans on the construction site at all times.
- 7. All surveying and staking shall be done by a surveying or engineering firm licensed in the State of Washington.
- 8. Temporary erosion control/water pollution measures shall be required in accordance with section 1-07.15 of the WSDOT/APWA Standard Specifications and the King County Surface Water Design Manual. At no time will silts and debris be allowed to drain into an existing or newly installed facility.
- 9. If construction is to take place in the County right-of-way, the contractor shall notify the County and obtain all the required approvals and permits.
- 10. The contractor shall be fully responsible for the location and protection of all existing utilities. The contractor shall verify all utility locations prior to construction by calling the Underground Locate Line at 1-800-422-5555 a minimum of 48 hours prior to any excavation. The contractor will also be responsible for maintaining all locate marks once the utilities have been located.
- 11. Electrical permits and inspections are required for all street lighting installations within the City of University Place. The Contractor is responsible for obtaining permits prior to construction. These permits are available from the Electrical Inspection permit counter at Tacoma Public Utilities, 3628 South 35th Street, Tacoma.12. Prior to installation of any materials the Electrical Contractor shall submit for approval by the City two copies of material catalog cuts, specifications, shop drawings and/or wiring diagrams. Any materials purchased or labor performed prior to such approval shall be at the Contractor's risk. Mounting heights, arm length, power source, luminaire type and bolt patterns shall follow Section 2E.020 of these Standards. Modifications of any portion of the lighting system will not be allowed without prior approval by the City.

- 12. A rated Service Disconnect shall be provided for every branch circuit. Light branch circuit breakers shall be 40 amp minimum. The location and installation of the disconnect shall conform to the National Electric Code (NEC) and City of University Place Standards. The Service Disconnect shall by of a type equal to a "MYERS" MEUGL-M100C-UM or "UNICORN" CPIIIB-0111A Service, 120/240 VAC, CALTRANS TYPE 3B or City approved equal, with two lighting relays, one three position test switch (Auto/Off/Manual) and one photocell. The photocell shall face north unless otherwise directed by the City. (See Drawing 2-19.)
- 13. Service Entrance Conductors shall be a minimum size of #2 copper. All lighting wire shall be stranded copper with a minimum size of #8 with insulation suitable for wet locations. Phasing Tape will not be allowed. All wire shall be installed in schedule 40 PVC conduit with a minimum diameter of 1-1/4 inches. All conduit shall be installed in the "Utility Ditch" or as otherwise directed by the City. A bushing or bell end shall be used at the end of every conduit. All splices shall be in the nearest junction box. Wire nuts will not be allowed. All splices will be made with Type C copper fittings, centered and encased in a 3-M Scotchcast epoxy kit, rated at 600 Volts, type 82-A1, 82-B1 or City approved equal. If more than one circuit passes through a Junction Box each is to have a PCV sleeve clearly identifying the circuit. (WSDOT Standard Specification 8-20.3). A 500 volt megger test will be performed by the electrical contractor on each circuit between conductor and ground prior to acceptance of the lighting system. The insulation resistance shall not be less than 6 megohms to ground 2,500 feet and over nor less than 8 megohms under 2,500 feet. A functional test will be performed by the City, in which it is demonstrated that each and every part of the system functions as specified or intended herein. (WSDOT Standard Specifications 8-20.3(11).
- 14. Each luminaire pole shall have an in-line, fused, water tight electrical disconnect located at the base of the pole. Access to these fused disconnects shall be through the hand-hole on the pole. The hand-hole shall be facing away from on-coming traffic form the adjacent street. Load side of in-line fuse to luminaire head shall be cable and pole bracket wire, 2 conductor, 19 strand copper #10 and shall be supported at the end of the luminaire arm by an approved means. (Drawing 2-17.2). Fuse, size, disconnect installation and grounding in pole shall conform to WSDOT Standards.
- 15. City approved pull boxes or junctions boxes shall be installed per WSDOT Standard Plan J-11a in all street lighting installations. Junction boxes shall be incorporated into the back edge of sidewalk or as directed by City. Where no sidewalks exists, Junction Boxes shall have a concrete pad per University Place Drawing 2-17.4. No conduit run shall be more than 200 feet between Junction Boxes. A Junction Box shall be located within 10 feet of each luminaire pole and at every road crossing. No conduit shall be installed in the roadway except at

designated road crossings. Conduit entering the Junction Box shall be perpendicular to the sides of the box and a minimum of 6 but no more than 8 inches below the lid. Boxes shall be clearly and indelibly marked as Lighting Boxes by the legend "L.T." or "LIGHTING". All J-Boxes shall be supported by a minimum 6 inch crushed gravel pad. A 3/8 inch expansion joint shall be installed between concrete sidewalk and Junction Box.

- 16. All lighting poles shall be as specified in section 2E.020 of the Development Guidelines. In existing developed areas, the City may require the use of other poles to establish uniformity within the developed area. After installation and before acceptance by the City all poles shall be free of dents and marks. Sonotube shall be removed to below ground level. Pole bases shall be grouted and all luminaire heads shall be plumb and level.
- 17. Cement concrete bases shall follow City of University Place Development Guidelines Drawing 2-17 Luminaire Foundation detail. Conduit shall extend between 3 and 6 inches above the concrete base.
- 18. Any modification to approved lighting plans shall be reviewed and approved by the City prior to installation. Any approved modifications shall be shown on a mylar as-built supplied to the City after the lighting installation is completed and before final acceptance. It shall be the responsibility of the Electrical Contractor to ensure these as-builts are provided to the City.

2E.040 Staking

The criteria set forth in Section 2B.190 for Engineering and Surveying qualifications and pre-construction meetings shall apply as well as the following:

- A. Location and elevation to the center of every pole base:
- B. Location and elevation of each service disconnect.

2E.050 Testing

All illumination systems shall be subject to an electrical inspection. Lamp, photocell and fixture shall be under warranty for a period of one year.

2F SIGNALS

2F.010 General

Signals shall be installed per the requirements. This work shall consist of furnishing and installing a complete and functional traffic control system of controllers, signals, 3M Opticom systems and appurtenances as required by the City.

2F.020 Design Standards

Signal system shall be designed in accordance with the specifications as set forth in the WSDOT Design Manual and WSDOT/APWA Standard Specifications unless otherwise authorized by the City.

All public signal designs shall be prepared by an engineering firm capable of performing such work. The engineer shall be licensed by the State of Washington.

2F.030 Induction Loops

Induction loops shall be constructed per WSDOT/APWA Standard Specification 8-20.3(14)C and the following:

- A. Loops shall not be cut into final lift of new asphalt.
- B. Loops shall be installed in crushed surfacing top course (CSTC) before paving or shall be cut in existing asphalt or leveling course to subbase before intersection is overlaid.

2F.040 Staking

The criteria set forth in Section 2B.190 for Engineering and Surveying qualifications and pre-construction meetings shall apply as well as the following:

- A. Location, with cut and fill to center of all pole bases shall be marked in the field.
- B. Location of junction box shall be marked in the field.
- C. Location of all corners of controller base shall be marked in the field.
- D. Location of service disconnect shall be marked in the field.

2F.050 Testing

All signals shall be subject to any necessary electrical inspections as well as requirements as set forth in the WSDOT Design manual and the WSDOT/APWA Standard Specifications.

A signal system shall not be approved or accepted by the City until the signal has performed correctly to the City's satisfaction for a 30 day "check-out" period as outlined below.

Controller and cabinet testing may be required by WSDOT District 3 laboratory and/or the City of University Place. All specifications and materials samples shall be submitted to the City for review and approval prior to installation.

2F.060 Check-Out Procedure

The contractor shall call for an intersection check-out after completing the controller cabinet installation along with all other signal equipment complete with wiring connections. All parts and workmanship shall be warranted for one year from date of acceptance.

New signals shall operate without any type of failure for a period of 30 days. The contractor shall have a representative available to respond to system failure within 24 hours during the 30 day "check-out" period.

Failure of any control equipment or hardware within the "check-out" period shall restart the 30 day "check-out" period.

2G ROADSIDE FEATURES

2G.010 General

Miscellaneous features included herein shall be developed and constructed to encourage the uniform development and use of roadside features wherever possible. The Director of Public Works shall have the discretion to allow or not allow the installation of new, or the occupation of existing miscellaneous features within the right-of-way as requested by the public from time to time.

2G.020 Design Standards

The design and placement of roadside features included herein shall adhere to the specific requirements as listed for each feature, and, when applicable, to the appropriate standards as set forth in section 1.010 and 1.040.

2G.030 Staking

The criteria set forth in Section 2B.190 for Engineering and Surveying qualifications and pre-construction meetings shall apply as well as the following:

2G.040 Testing

Testing shall be required at the developer's or contractor's expense on all materials and construction as specified in the WSDOT/APWA Standard Specifications and with a frequency as specified in the WSDOT Construction Manual.

2G.050 Survey Monuments

- A. All existing survey control monuments which will be disturbed or destroyed during construction shall be referenced prior to construction and replaced after construction by a Professional Land Surveyor licensed by the State of Washington. All applicable RCWs and WACs will be complied with, including but not limited to, WAC 332-120, WAC 332-130, and RCW 58.09. The monuments shall be replaced with the proper type as outlined in B or C below at the expense of the responsible builder or developer.
- B. Street type: Major Arterial; Secondary Arterial; Bus Routes and Truck Routes.
 - A pre-cast concrete monument with cast iron monument case and cover installed per City of University Place standards is required.
- C. Street type: Collector Arterial; Local Access Feeder; and Local Access Minor.

A poured-in-place concrete surface monument per City of University Place standards is required.

D. Monument Locations:

Appropriate monuments as outlined in B or C above shall be placed:

- 1. At all street intersections;
- 2. At the PC and PTs of all horizontal curves or at the PI if it lies in the traveled roadway;
- 3. At all DLC corners, section corners, quarter corners and sixteenth corners that fall within the subdivision. Where these points fall outside of the pavement or sidewalks, a poured-in-place monument per City of University Place standards shall be set so that the top of the monument is one foot below the surface of the ground.
- E. The monument case shall be installed after the final course of surfacing has been placed.
- 2G.060 Bus Stops, Shelters, and Amenities
 - A. Pierce Transit shall determine the required necessity and locations of all new bus stops, pull outs, shelter and other associated amenities required as frontage improvements for new developments for public transportation.
 - B. The University Place School District will use the following criteria in placement and design of school bus stops:
 - 1. A school bus stop shall be required for each new residential subdivision or apartment complex where school children are to be boarding or deboarding unless it is determined by the School District that a new bus stop is not required because adjacent facilities already exist for the site.
 - 2. Placement shall be determined by the School District and the City.
 - 3. Location of school bus stops shall be designed with safety as a paramount concern. Major arterials with high traffic counts should be avoided where possible and only used when bus pull outs are available and significant protection provided for children.
 - 4. School bus stops shall be designed to compliment the residential environment and provide convenient location

and access for neighborhood children including sidewalk access.

- 5. Every effort shall be made to make school bus stops and sidewalk access to school bus stops a safe and friendly pedestrian environment.
- 6. Pierce Transit and the School District should make every effort to coordinate the location of bus stops.
- C. The physical location of any bus stop shall be primarily determined by the following considerations: maximizing safety, operational efficiency, and minimizing impacts to adjacent property. Bus pullouts may be required on all arterial roads for safe bus loading and to minimize impacts on traffic flow of buses stopping. Additionally, bus pull outs may be required on local access roads if road geometrics require, such as determined by the City and the School District.
- D. All Transit and School bus stops shall be identified in some fashion. This may include pavement marking and bus stop signs. Contact Pierce Transit for details on Pierce Transit sites.
- E. Passenger shelters are required at all bus pullouts, transfer centers, and bus stops as part of frontage improvements for developments. The following requirements apply to bus shelters.
 - 1. Passenger shelters for Pierce Transit sites and School District sites shall be designed to standards of Pierce Transit, provide protection from the elements, and reasonably vandalism resistant for easy maintenance.

Specifications for bus shelters:

- a. Bus shelters shall be models 4x2S-GL246.5 or larger as manufactured by Ace Aluminum Company, phone number (209) 268-5506, or approved equal.
- b. Anchors/Footing

Anchors and footing shall be constructed in accordance with Pierce Transit Specifications.

c. Benches

Benches shall be constructed in accordance with Pierce Transit's current standard.

d. Assembly

The whole shelter structure and components shall be easily and rapidly assembled.

e. Installation Equipment

All necessary installation equipment shall be included with the delivery of shelters.

- f. No advertising will be allowed on or within any portion of any bus shelter or benches.
- 2. Pierce Transit shelters shall be maintained by Pierce Transit. School bus stop shelters shall be maintained by the subdivision's Homeowner's Association or apartment owner, which ever is appropriate.
- F. Designing quality into the walk to and wait at a bus stop facility is an important design consideration. A pedestrian friendly environment shall be designed into all bus stop locations and surrounding service area to make bus stop use easy, friendly, and safe.

The following pedestrian friendly criteria shall be applied by the Planning and Community Development Department during the review of bus stop facilities in conjunctions with developments.

- 1. Provide concrete walkways constructed to sidewalk standards linking various sections of subdivision and developments to peripheral streets with bus stops.
- 2. In designing walkways provide access through mid-blocks to decrease distances to bus facilities and flexibility to pedestrians.
- 3. Provide accessibility ramps and other facilities consistent with barrier free design standards along walkways leading to bus stops.

- 4. Developments enclosed by walls or fences shall provide openings or gates for walkways to provide direct access between developments and bus facilities.
- 5. Use street signs to mark pedestrian walkways.
- 6. Separate roads and parking areas from pedestrian pathways by grade separations, landscaping and other devices. Per these standards, a planting strip with trees shall be provided to buffer sidewalks or walkways from streets and parking areas. When possible a second row of trees should be provided between the sidewalk and adjacent property.
- 7. Provide pedestrian facilities such as lighting, signs, trash cans as warranted by anticipated use.
- 8. Street systems should be designed so as to minimize pedestrian travel to bus stops.

2G.070 Mailboxes

A. During construction, existing mailboxes shall be accessible for the delivery of mail or, if necessary, moved to a temporary location. Temporary relocation shall be coordinated with the U.S. Postal Service. The mailboxes shall be reinstalled at the original location or, if construction has made it impossible, to a location as outlined below and approved by the U.S. Postal Service.

B. Location

- 1. Bottom or base of box shall be 36" to 42" above the road surface.
- 2. Front of mailbox 18 inches behind vertical curb face or outside edge of shoulder.
- 3. Clustered mailboxes are required for developments.

 Contact the U.S. Postal Service for details. See detail 2-18.
- C. Mailboxes shall be set on posts strong enough to give firm support but not to exceed 4 x 4 inch wood or one 1 1/2 inch diameter pipe, or material and design with comparable breakaway characteristics.

2G.080 Guard Rails

For purposes of design and location, all guard rails along roadways shall conform to the criteria of the "Washington State Department of Transportation Design Manual" as may be amended or revised.

2G.090 Retaining Walls

A. Rock walls may be used for erosion protection of cut or fill embankments up to a maximum height of 8 feet in stable soil conditions which will result in no significant foundation settlement or outward thrust upon the walls. For heights over 6 feet or when soil is unstable, structural wall of acceptable design stamped by a licensed structural engineer shall be used. Rock walls over 6 feet high shall be subject to inspection by a geotechnical engineer as outlined in the following paragraph. All retaining walls over 6 feet in height shall meet yard setback requirement of the zone.

Any rock wall over 30 inches high in a fill section shall require an engineered design by a geotechnical engineer. The geotechnical engineer shall continuously inspect the installation of the wall as it progresses and shall submit to the City inspection reports, including compaction test results and photographs taken during the construction, documenting the techniques used and the degree of conformance to the geotechnical engineer's design.

In the absence of such a rock wall design, walls having heights over 4 feet or walls to be constructed in conditions when soil is unstable require a structural wall having a design approved by the Public Works Department or the Building Department if outside the right-of-way. The design of structural walls shall be by a professional engineer qualified in retaining wall design. Structural walls require issuance of a Building Permit prior to construction.

Any proposed retaining wall supporting a surcharge less than 15' from the base shall be designed by a geotechnical engineer.

B. The rock material shall be as nearly rectangular as possible. No stone shall be used which does not extend through the wall. The rock material shall be hard, sound, durable and free from weathered portions, seams, cracks and other defects. The rock density shall be a minimum of 160 pounds per cubic foot.

- C. The rock wall shall be started by excavating a trench having a depth below subgrade of one half the base course or one foot (whichever is greater).
- D. Rock selection and placement shall be such that there will be minimum voids and, in the exposed face, no open voids over 6 inches across in any direction. The final course shall have a continuous appearance and shall be placed to minimize erosion of the backfill material. The larger rocks shall be placed at the base of the rockery so that the wall will be stable and have a stable appearance. The rock shall be placed in a manner such that the longitudinal axis of the rock shall be at right angles or perpendicular to the rockery face. The rocks shall have all inclining faces sloping to the back of the rockery. Each course of rocks shall be seated as tightly and evenly as possible on the course beneath. After setting each course of rock, all voids between the rocks shall be chinked on the back with quarry rock to eliminate any void sufficient to pass a 2 inch square probe.
- E. The wall backfill shall consist of quarry spalls with a maximum size of 6 inches and a minimum size of 4 inches or as specified by a licensed engineer. This material shall be placed to a 12 inch minimum thickness between the entire wall and the cut or fill material. The backfill material shall be placed in lifts to an elevation approximately 6 inches below the top of each course of rocks as they are placed, until the uppermost course is placed. Any backfill material on the bearing surface of one rock course shall be removed before setting the next course.
- F. Perforated drainage pipe and filter fabric shall be installed as per Drawing No. 2G-26. This pipe requirement may be waived by the Engineer upon a showing by the developer that no subsurface water problem exists.

2G.100 Street Trees

It is the goal of the City to aesthetically enhance public roads by the use of plantings and landscaping where practical Therefore, the street trees on the following table shall be employed when planting street trees in or along the public right-of-way.

A. Planting theme

1. Ratio: 3 street trees to 1 accent tree.

2. Species: See following table.

- B. Planting size: Trees two to three inch caliper, measured 6 inches above the base. Ground cover (i.e., ivy), 4 inch pot spaced 18 to 20 inches on center or 1 gallon pots at 20 inches on center. Low growth shrubs (i.e., juniper), 1 gallon pots at 3 feet on center. Shrubs (i.e., rhododendron) 18 to 24 inches in height at 5 feet on center 3 gallon pot at 5 feet on center.
- C. Location: Trees shall be centered in the planter strip or median. Trees shall be spaced 35 feet on center starting 15 feet from the side property line. Tree spacing may be adjusted slightly to allow a 10-foot clear zone on either side of a driveway.
- D. Maintenance: All developments required to plant street trees will also be required to maintain the trees for the life of the project, regardless of ownership.
- E. Exceptions to the planting theme may be made by the Director of Public Works and the Director of Planning and Community Development. Exceptions include but are not limited to; screening industrial areas; planting around historical sites; maintaining natural vegetation that better serves as street landscaping or beautification.

STREETS AND LANDSCAPING PLANTS

TREES:

SweetGum - Liquidamber styraciliflua Red Oak - Quercus rubra Red Maple - Acer rubrum Douglas Fir - Pseudotsuga menziesii Canada Hemlock - Tsuga canadensis Deodar Cedar - Cedrus deodara Pennsylvania Marshall Green Ash - Fraxinus

ACCENT TREES:

Norway Maple - Acer platanoides Crabapple - Malus species Carriere Thorn - Crataegus Iavallei Downy Serviceberry - Amelanebier canadensis Flowering Cherry - Prunus species Japanes Black Pine Austrian Pine Flowering Cherry Kwanzan - Prunus Thundering Flowering Plum

SHRUBS:

Photina - Photinia fraseri
Viburnum - Viburnum
Japanese Privet - Ligustrum texanum
Smooth Sumac - Rhus Glabra
Siberian Dogwood - Cornusalba sibirica

GROUNDCOVERS:

Wintercreeper - Euonymus fortunei Baltic Ivy - Hedera helix baltica Saint Johnswort - Hypericum calycinum Bearberry Cotoneaster - Cotoneaster dammeri Japanese Spruge - Pachysandra terminalis

2G 120 Temporary Signs & Banners

No temporary signs or banners shall be permitted in the right-of-way without the expressed permission in writing of the City Engineer, and any such object(s) in the right-of-way without written permission is declared illegal. Temporary signs and banners allowed in the right-of-way shall meet the requirements for temporary signs in the Zoning Code, except setback requirements. Temporary signs in the right-of-way shall be located as close to the outside edge of the right-of-way as possible.

2H. EMERGENCY VEHICLE ACCESS

2H.010 Purpose.

Emergency vehicle access shall be provided from a public or private street to a parcel(s) of land that has a structure(s) on it. This access is exempt from any normal setbacks established for public or private streets. Emergency vehicle access shall be provided and maintained in accordance with the provisions of these Standards.

A. Abbreviated Designation. Emergency vehicle access will be cited routinely in the text as the "EV Access."

B. Applicability. EV Access shall be required for every building hereafter constructed or installed when any portion of an exterior wall of the first story is located more than one hundred fifty (150) feet from the edge of the driving surface of the private or public street providing access to the parcel(s) of land on which that building is located as measured by an approved route around the exterior of the building.

C. Exemptions.

- 1. When buildings are protected with an approved automatic fire sprinkler system, the provisions of this section may be modified by the City after conferring with the local fire chief.
- 2. When an EV Access cannot be installed in conformance with these Standards due to topography, waterways, nonnegotiable grades, or other similar conditions, the City, after conferring with the local fire chief, may allow an exemption to these Standards by requiring additional fire protection as specified in Section 10.301(b) of the most current edition of the Uniform Fire Code as adopted by the City.
- 3. All common residential accessory buildings similar to Group M-1 occupancies (private garages, carports, sheds, some agricultural buildings, tanks, towers and fences over six feet tall) as defined by the most current edition of the Uniform Building Code as adopted by the City.
- 4. A one-time expansion, remodel, or alteration of existing uses or structures if the proposed change does not exceed twenty-five percent (25%) of the floor area of the existing use or structure.
- D. Environmental Considerations. When an environmental checklist is required, it shall be submitted to the City Environmental Official for the work shown on the EV Access construction plans. Before the project plans are given final approval by the City, a declaration of non-significance or a final environmental impact statement must be issued, and all appeal periods must have expired.

2H.020 Administration.

A. Submittal Procedure. A site plan shall be submitted to the City and Fire Chief in accordance with the site plan submittal standards of the proposed building permit. Site plan details shall include, but not be limited to, location and size of the EV Access, location of structures, and parcel or lot configuration.

- **B.** Fees. Fees for EV Access review are set by separate Resolution adopted by the City Council.
- C. Variances. The City Hearings Examiner shall have the authority to grant a variance from the provisions of this Chapter, when, in the opinion of the City Hearings Examiner, the conditions as set forth in Subsection 2H.020.C.1 below have been found to exist. In such cases a variance may be granted which is in harmony with the general purpose and intent of this Chapter so that the spirit of this Chapter shall be observed, public safety and welfare secured, and substantial justice done.

Prior to the public hearing on any proposed variance, the Hearing Examiner shall notify the fire district of the hearing and request comments and concerns that the fire district may have about the variance.

- 1. Required Showings for a Variance. Before any variance may be granted, it shall be shown:
 - a. That there are special circumstances applicable to the subject property such as shape, topography, location, or surroundings that do not apply generally to the other property in the same vicinity;
 - b. That such variance is necessary for the preservation and enjoyment of a substantial property right possessed by other property in the same vicinity but which because of special circumstances is denied to the property in question;
 - c. That the granting of such variance will not be materially detrimental to the public welfare or injurious to the property or improvement in such vicinity in which the subject property is located;
 - d. That such variance is based on sound engineering judgment, and that requirements for safety, function, and maintainability are fully met. The City may grant a variance to this Chapter only upon submittal of additional information, plans and/or design data by an engineer showing that the requested variance is safe, in the best interest of the public, and will not impose undo maintenance costs on City maintenance forces, if applicable.

2. City Hearings Examiner May Impose Conditions on Variances.

When granting a variance, the City Hearings Examiner shall determine that the circumstances do exist as required by Subsection 06.220.C.1 of this section, and attach specific conditions to the variance which will serve to accomplish the standards, criteria, and policies established by this Chapter.

- **D.** Appeals. Any person aggrieved by any act or decision of the Examiner under this Chapter may appeal to the Council pursuant to the provisions of City Appeals Ordinance, as now enacted or hereafter amended.
- E. Inspections. The City reserves the right to enter onto the property during construction and after completion of the EV Access to inspect it for compliance with the conditions of the permit.

The City reserves the right to periodically inspect all EV Accesses.

F. Enforcement. The Applicant must have the EV Access constructed in compliance with the conditions of the permit before the project will receive final inspection approval.

Prior to issuance of the occupancy permit on commercial structures, a letter of compliance shall be submitted to the City verifying that the EV Access has been completed to the standards in this document.

Failure to construct and/or maintain the EV Access as approved, will result in on-site inspections and potential citation under the current edition of the Uniform Fire Code.

_2H.030 EV Access Requirements.

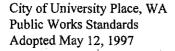
- A. Length. If an EV Access is required, it shall extend from the public or private street to within one hundred fifty (150) feet of all portions of an exterior wall of the first story of any structure requiring said EV Access as measured by an approved route around the exterior of the building.
- **B.** Width. EV Access serving not more than two dwelling units shall not be less than fifteen (15) feet. EV Access for all other projects shall not be less than 20 feet with no parking allowed. Twenty-six (26) feet with parking on one side and thirty-two (32) feet with parking on both sides.
- C. Vertical Clearance. EV Access shall have an unobstructed vertical clearance of not less than 13 feet 6 inches. The City, after conferring with the local fire chief, may allow a reduction in the vertical clearance, provided such reduction does not impair access by emergency vehicles, and approved

signs are installed and maintained indicating the established vertical clearance.

- D. Construction Guidelines. EV Access shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with a surface so as to provide all-weather driving capabilities. Individual single family EV Access surface treatment may be gravel. Multi-family and higher uses must be paved.
- E. Turning Radii. A minimum outside turning radius of forty-five (45) feet shall be provided for all EV Access.
- F. Turnarounds. A dead end EV Access in excess of one hundred fifty (150) feet in length shall be provided with a turnaround conforming to the cul-desac or hammerhead details provided at the end of this chapter.

A turnaround shall be provided within one hundred fifty (150) feet of the end of the EV Access.

- G. Bridges and Structures. All bridges and structures, including drainage structures, on an EV Access shall be capable of carrying a minimum design load of HS-20 per AASHTO "Standards Specified for Highway Bridges". The design and as-builts for all bridges shall be certified by a licensed structural engineer.
- H. Gates (If Applicable). A building permit issued by the City is required when gates are installed over private streets. In order for the City to issue the building permit, the following requirements must be met:
 - 1. Locked gates shall have rapid entry capabilities compatible with the local fire district requirements.
 - 2. Gates which serve ten (10) or more dwelling units will have an Opticom activation system or an equivalent and compatible system that is approved by the Fire Chief.
 - 3. All electrically-activated gates will have default capabilities to the unlocked position.
 - 4. The minimum clear width of a gate shall be compatible with the required width of the EV Access.
 - 5. Gates that might be obstructed by the accumulation of snow shall not be installed.



The City shall provide notice to the appropriate Fire District for a new gate.

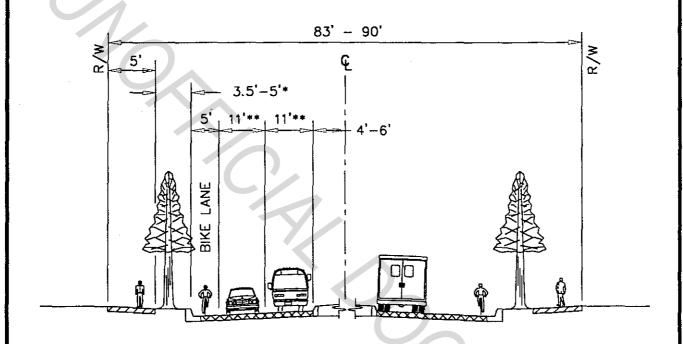
- I. Number of Access. More than one EV Access may be required for commercial developments when it is determined by the City that access by a single street may be impaired by vehicle congestion, condition of terrain, climatic conditions, or other factors that could limit access, unless mitigation acceptable to the City is provided.
- J. Grade. The maximum street grade (vertical profile grade) of an EV Access shall be fifteen (15) percent. All sections of EV Access with grades of over twelve (12) percent shall be paved with 0.17 feet, compacted depth, of asphalt concrete.
- K. Obstruction. The required width of an EV Access shall not be obstructed in any manner, including parked vehicles. Minimum required widths and clearances established under these standards shall be maintained at all times.
- L. Signs. When required by the City, approved signs or other approved notices shall be provided and maintained for EV Access to identify such streets and prohibit the obstruction thereof, or both. "No parking Fire Lane" signs shall be installed using Fire Districts Requirements.
- M. Approval of EV Access Location. Plans for all EV Access shall be approved by the Fire Chief and the City before a building permit is issued. All construction for the EV Access must be completed prior to City approval of the final building inspection



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CHAPTER 2 - TRANSPORTATION

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ROADWAY SECTION MAJOR ARTERIAL - 5 LANE DETAIL

NO SCALE

NOTES:

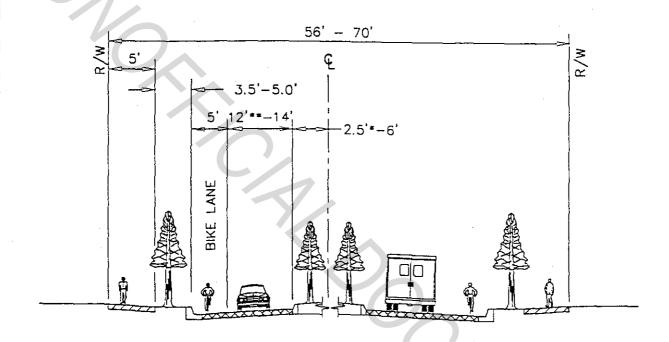
REF

- 1. NO ON-STREET PARKING PERMITTED.
- * MAY BE ELIMINATED ON EXISTING STREETS AT CITY ENGINEER'S DISCRETION.
- ** WIDTHS OF TRAVEL LANES MAY BE REDUCED IF JUSTIFIED BY AN ENGINEERING STUDY AND APPROVED BY THE CITY ENGINEER. BUT IN NO CASE SHALL TRAVEL LANES BE LESS THAN 10' IN WIDTH.

CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS

ROADWAY SECTION
MAJOR ARTERIAL — 5 LANE

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|---|------------------------------|-----|---------|----------|
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ROADWAY SECTION SECONDARY ARTERIAL - 3 LANE DETAIL

NO SCALE

NOTES:

REF

- 1. ON-STREET PARKING PERMITTED AT CITY ENGINEER'S DISCRETION.
- * NARROW MEDIAN MAYBE ALLOWED IF
 . SUPPORTED BY TRAFFIC ENGINEERING STUDY.
 MEDIAN MAY BE ELIMINATED ON EXISTING
 STREETS AT CITY ENGINEER'S DISCRETION.
- ** MAY BE REDUCED TO 10' ON EXISTING STREETS AT CITY ENGINEER'S DISCRETION.

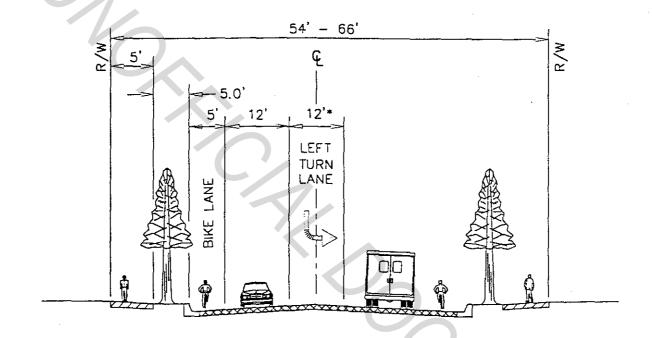
FIGURE 2

CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS

ROADWAY SECTION SECONDARY ARTERIAL 3 LANE

| APPROVED BY CITY ENGINEER | | DATE | |
|------------------------------|-----|-------------|----------|
| иwa JM | CKD | OATE 4/7/97 | FIG01-02 |

REY. NO:



ROADWAY SECTION COLLECTOR ARTERIAL DETAIL

NO SCALE

NOTES:

- 1. NO ON-STREET PARKING PERMITTED.
- * LEFT TURN LANE TO BE PROVIDED BASED ON TRAFFIC ENGINEERING STUDY.

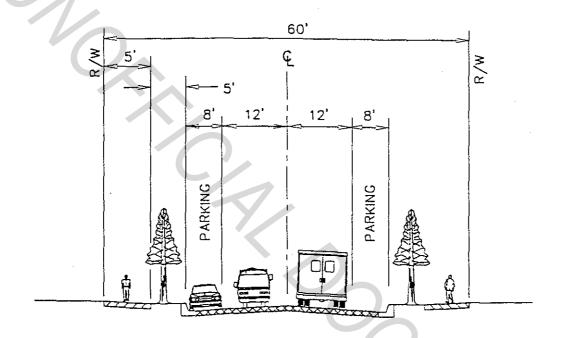
FIGURE 3

CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS

ROADWAY SECTION COLLECTOR ARTERIAL

REV. NO:

000



ROADWAY SECTION LOCAL ROAD FEEDER

DETAIL

NO SCALE

NOTES:

1. ADD 5' OF PAVEMENT WIDTH EACH SIDE AND 10' OF RIGHT-OF-WAY WIDTH WHEN BIKE LANES ARE REQUIRED.

FIGURE 4

CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS

ROADWAY SECTION LOCAL ROAD FEEDER

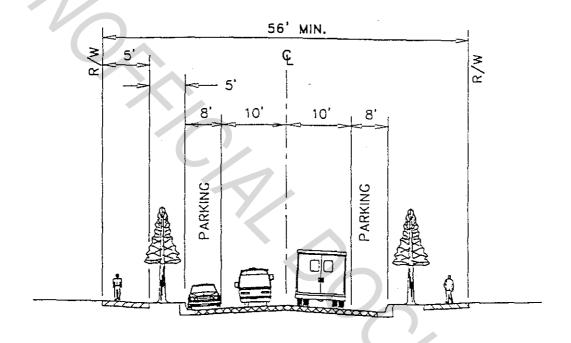
APPROVED BY CITY ENGINEER ___

DATE _

REF

MN J.J.J. CXO

A/22/97 FIG01-04



ROADWAY SECTION LOCAL ROAD MINOR DETAIL

NO SCALE

NOTES:

1. ADD 5' OF PAVEMENT WIDTH EACH SIDE AND 10' OF RIGHT-OF-WAY WIDTH WHEN BIKE LANES ARE REQUIRED.

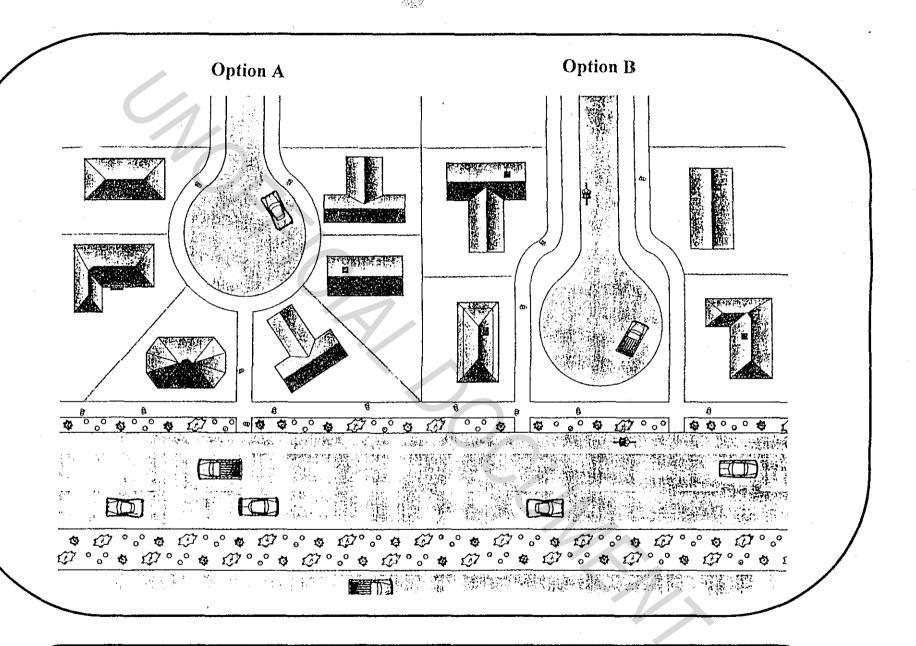
FIGURE 5

CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS

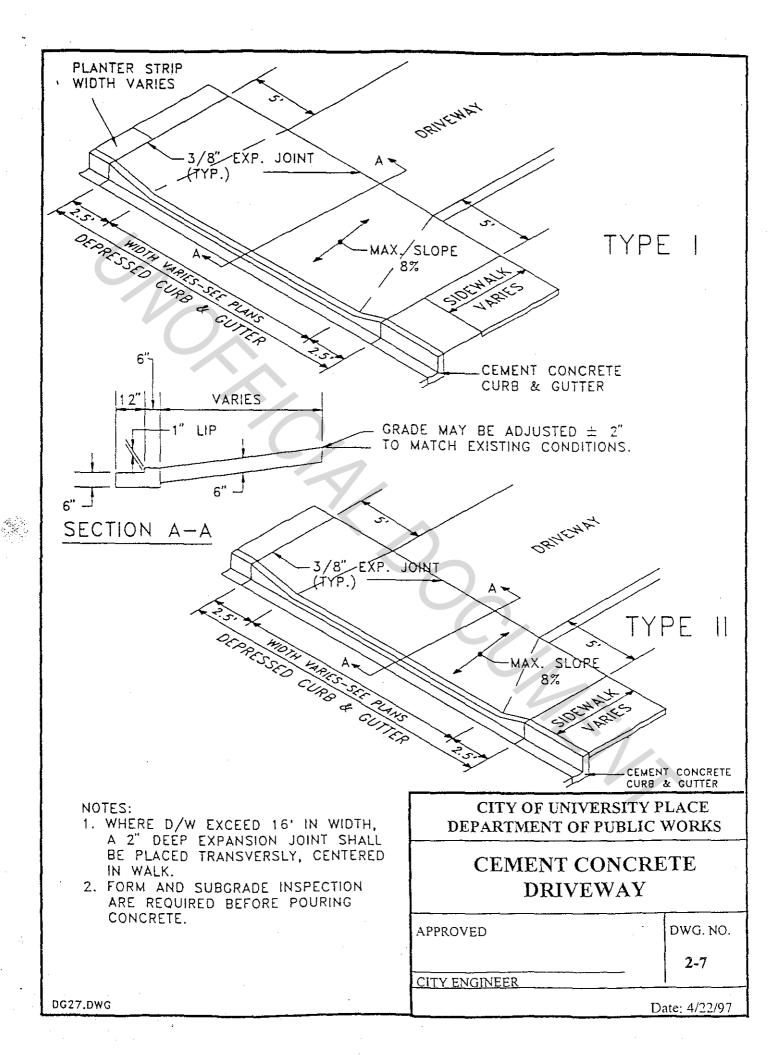
ROADWAY SECTION LOCAL ROAD MINOR

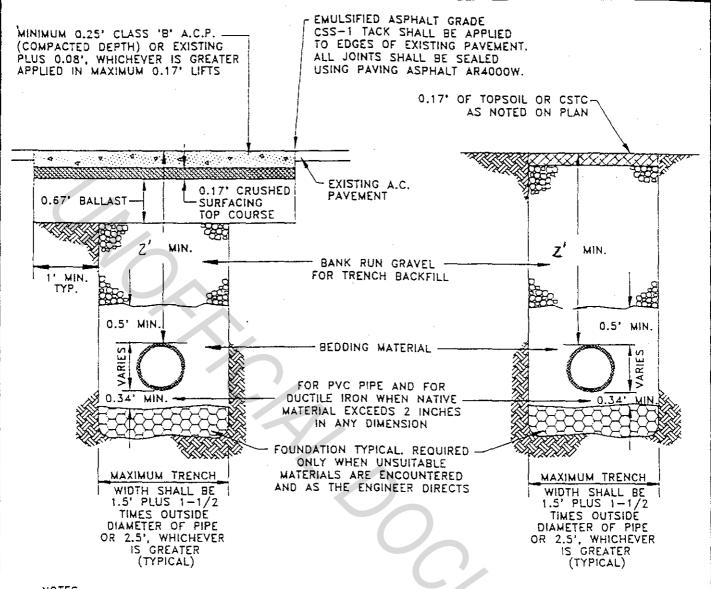
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PEDESTRIAN BIKE PATH CONNECTION BETWEEN THROUGH STREET AND CUL-DE-SAC
FIGURE 6





NOTES:

- ALL MATERIALS EXCEPT A.C.P. AND BEDDING MATERIAL SHALL BE COMPACTED IN 6-INCH MAXIMUM LIFTS TO 95% DENSITY.
- BEDDING SHALL CONFORM TO SECTION 9-03.16 OF STANDARD SPECIFICATIONS.
- COMPACTION: BEDDING SHALL BE COMPACTED TO 95% MAX. AS DETERMINED BY ASTM D1557. BACKFILL SHALL BE COMPACTED TO 85% IN UNPAYED AREA. AND 95% IN PAYED OR SHOULDER AREAS AS DETERMINED BY ASTM D1557.
- ALL MATERIALS, WORKMANSHIP, AND INSTALL— ATION SHALL BE IN CONFORMANCE WITH CITY STANDARDS.
- 5. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. A BELL JOINT SHALL BE REQUIRED AT EACH JOINT FOR PROPER SUPPORT. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.

CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS

TRENCH-PAVEMENT RESTORATION DETAIL

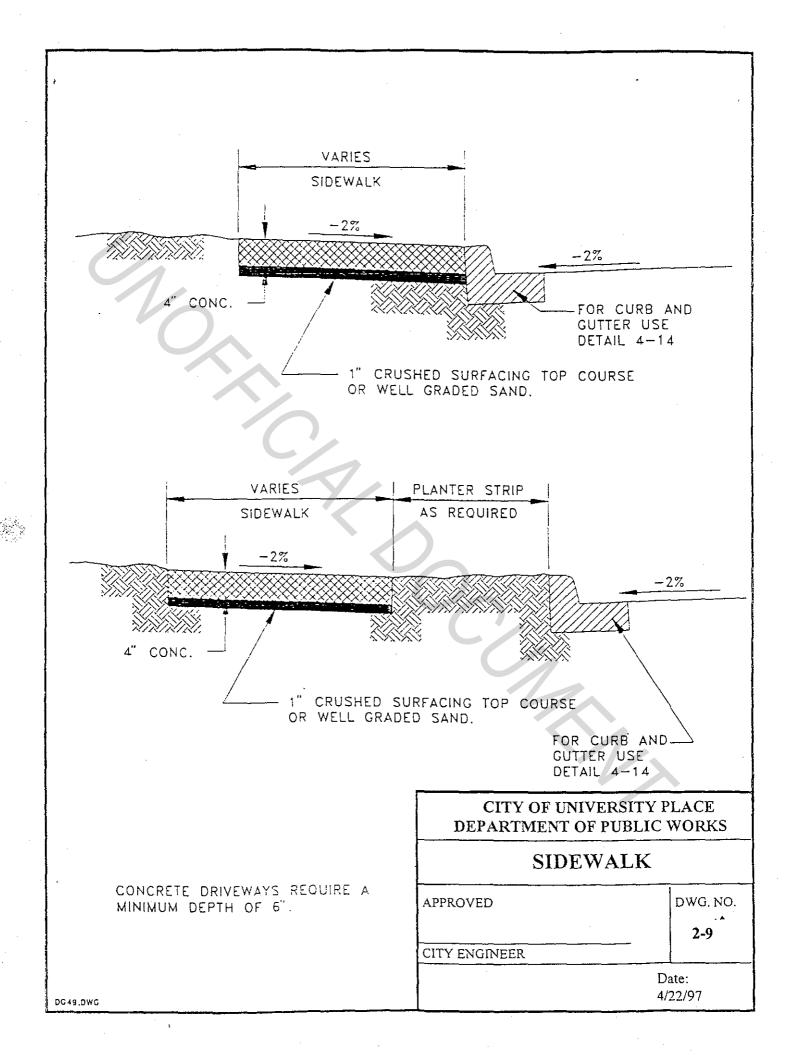
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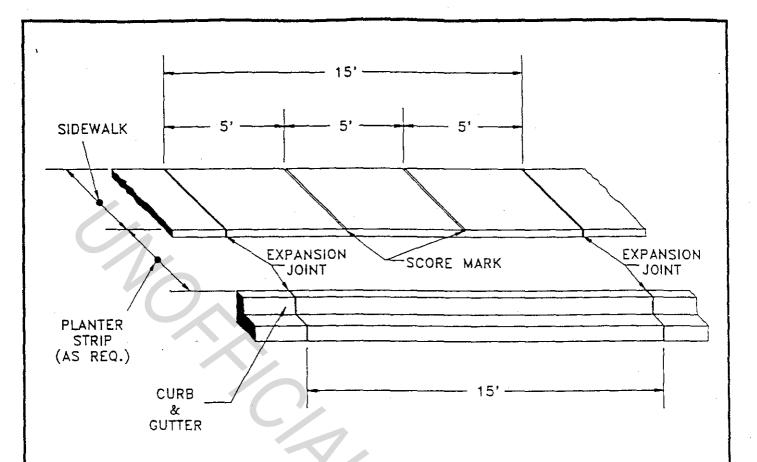
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CITY ENGINEER

Date: 4/22/97

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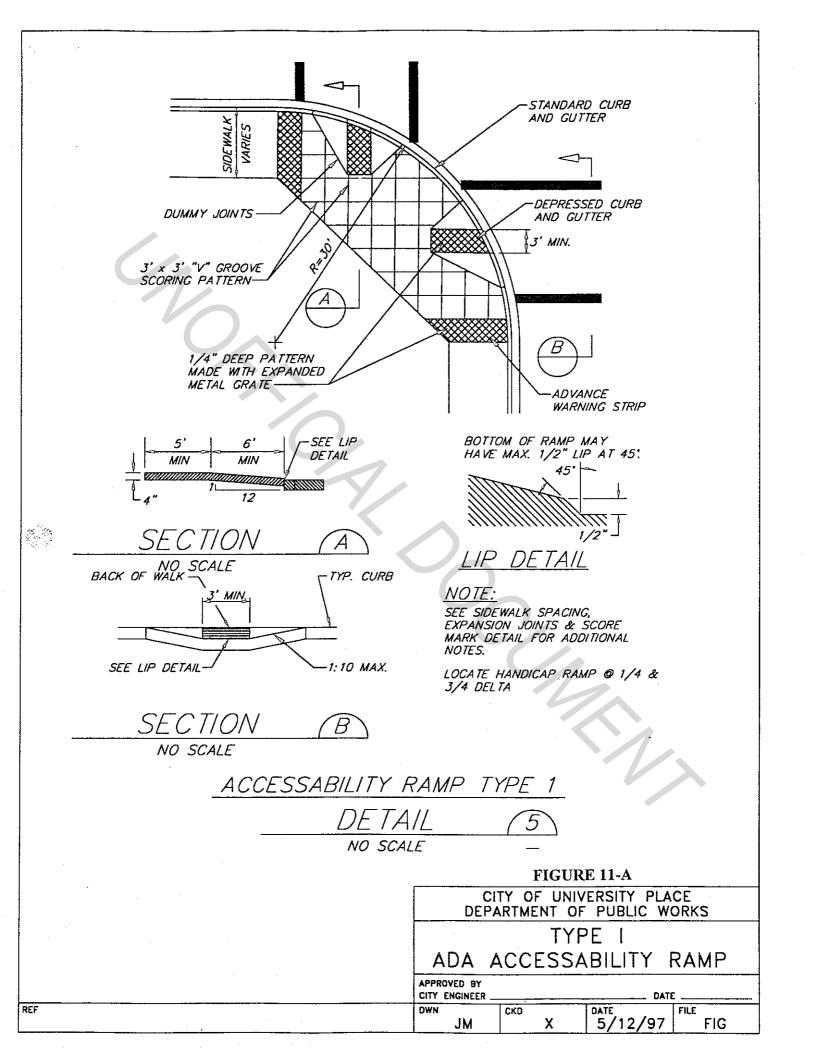


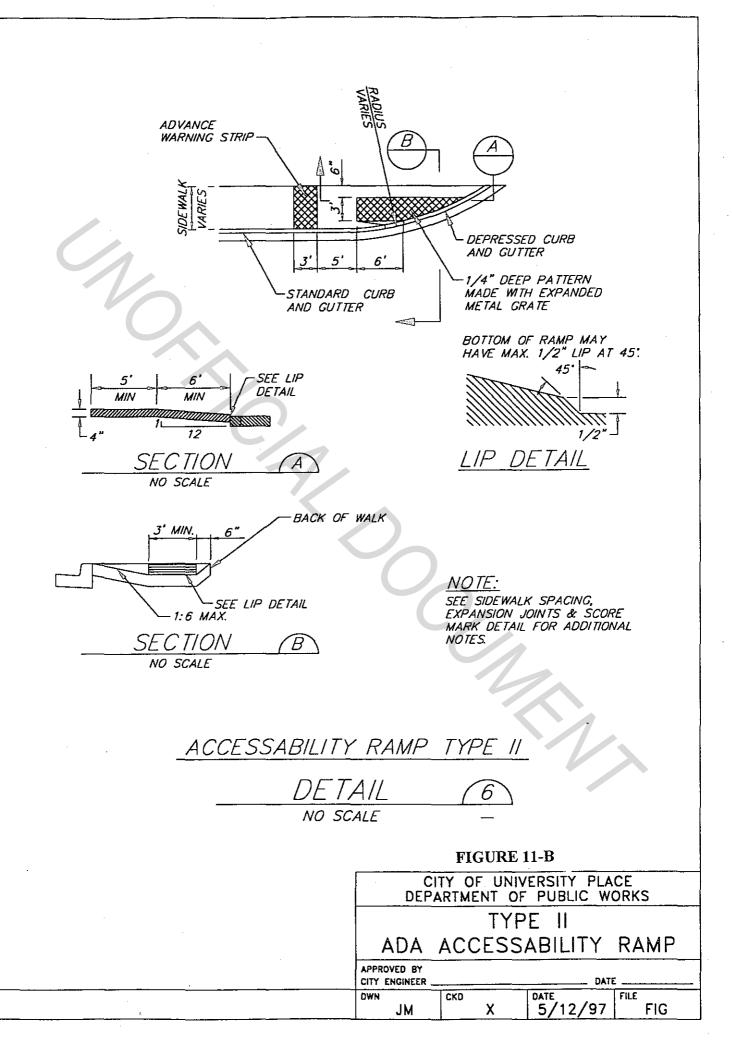
GENERAL NOTES:

- 1. EXPANSION JOINT MATERIAL TO BE 3/8" THICK PREMOLDED JOINT FILLER FULL THICKNESS OF CONCRETE.
- 2. FORM AND SUBGRADE INSPECTION REQUIRED BEFORE POURING CONCRETE.
- 3. SCORE MARKS SHALL BE $\pm 1/8"$ WIDE BY $\pm 1/4"$ DEEP. FOR SIDEWALKS OVER 8' IN WIDTH, A LONGITUDINAL SCORE MARK SHALL BE MADE ALONG CENTER OF WALK.
- 4. EXPANSION JOINTS SHALL BE INSTALLED IN CURB AND GUTTER AND IN SIDEWALK AT PC AND PT AT ALL CURB RETURNS. EXPANSION JOINTS SHALL BE PLACED IN SIDEWALK AT SAME LOCATIONS AS THOSE IN CURB AND GUTTER WHEN SIDEWALK IS ADJACENT TO CURB AND GUTTER, UNLESS OTHERWISE DIRECTED BY ENGINEER.

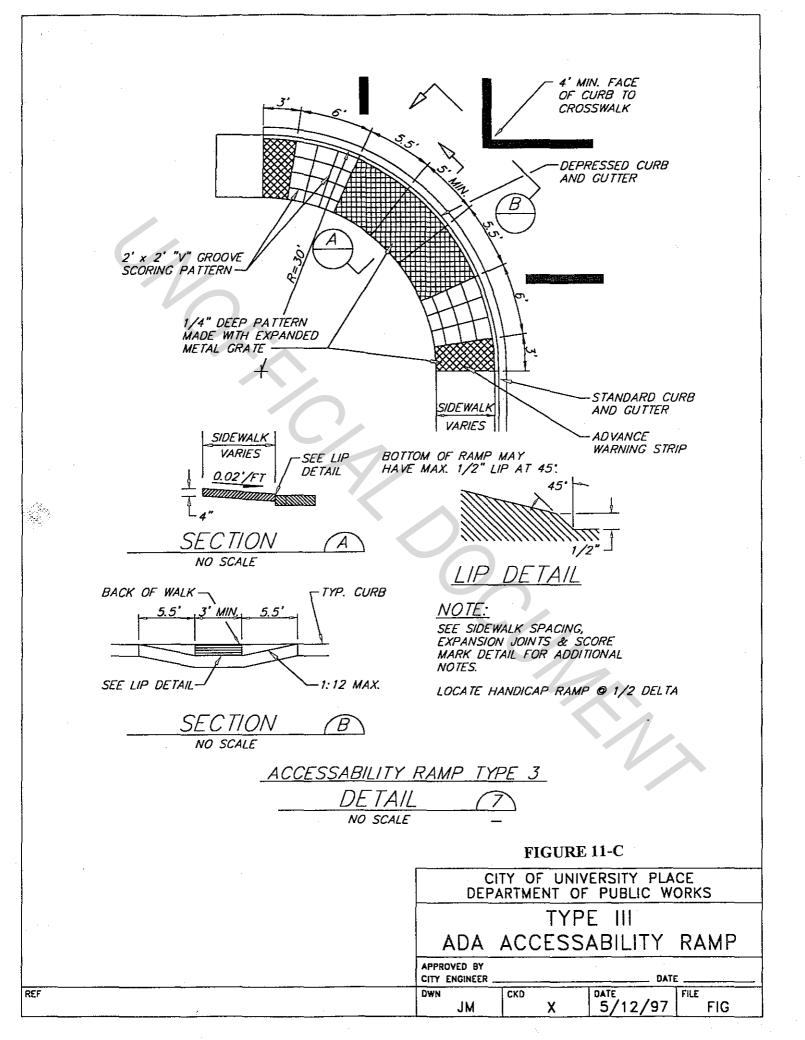
| CITY OF UNIVE DEPARTMENT OF | |
|--|--------------|
| SIDEWALK SPACING EXPANSION JOINTS & SCORE MARKS | |
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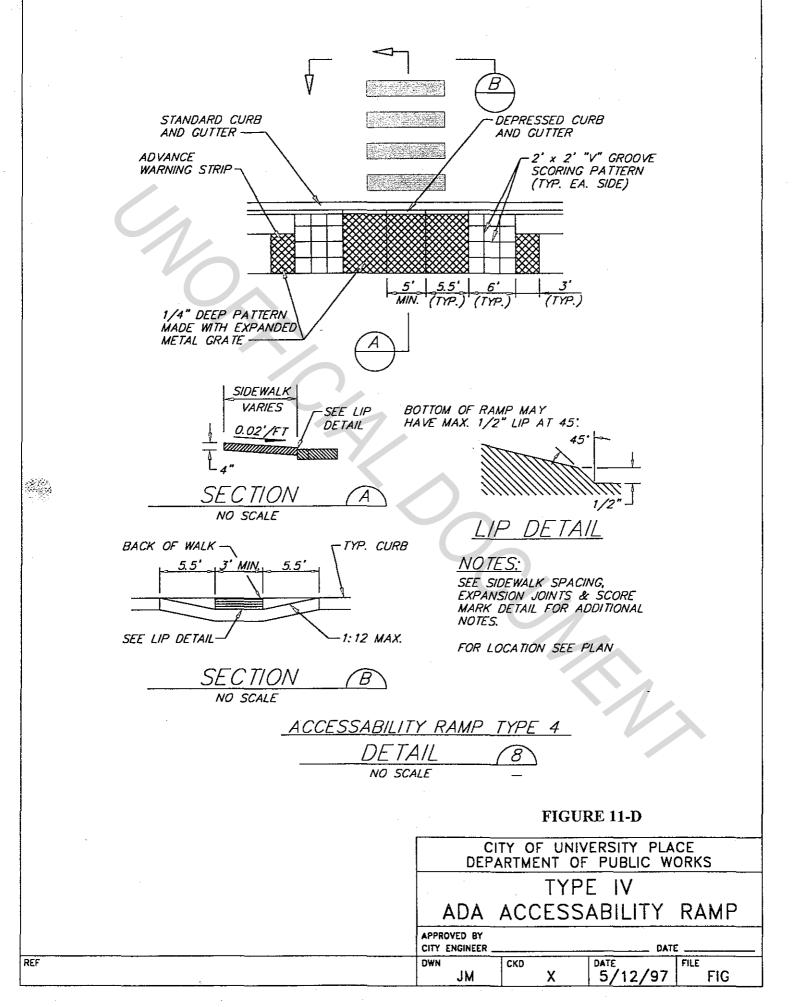
DG410.DWG

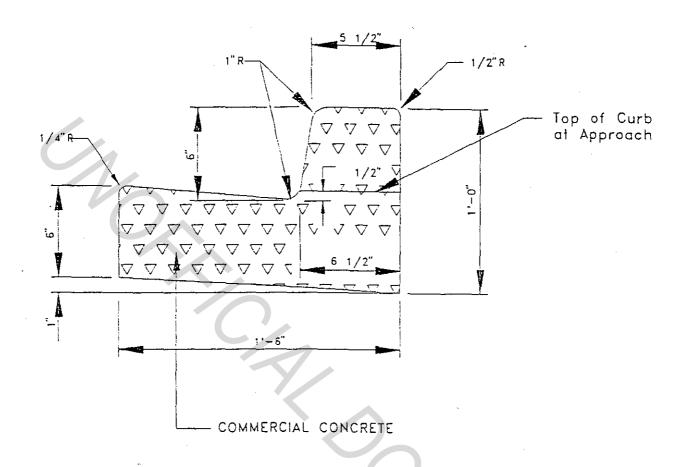




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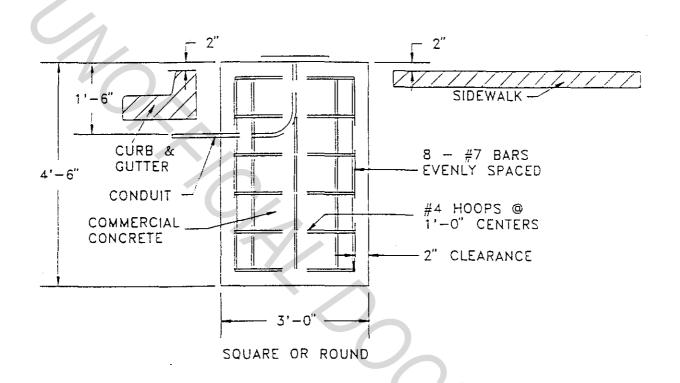


GENERAL NOTES:

- 1. EXPANSION JOINT MATERIAL TO BE 3/8" THICK PREMOLDED JOINT FILLER FULL THICKNESS OF CONCRETE SPACING.
- 2. FORM AND SUBGRADE INSPECTION REQUIRED BEFORE POURING CONCRETE.

| CITY OF UNIV DEPARTMENT OF | ERSITY PLACE PUBLIC WORKS |
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GENERAL NOTES:

- 1. THE FOUNDATION IS DESIGNED FOR 2000 PSF AVERAGE SOIL LATERAL BEARING PRESSURE.
- 2. BOLT PATTERN PER MANUFACTURES SPECIFICATIONS.
- 3. FOR DETAILS NOT SHOWN USE MANUFACTURES SPECIFICATIONS AND DETAILS.

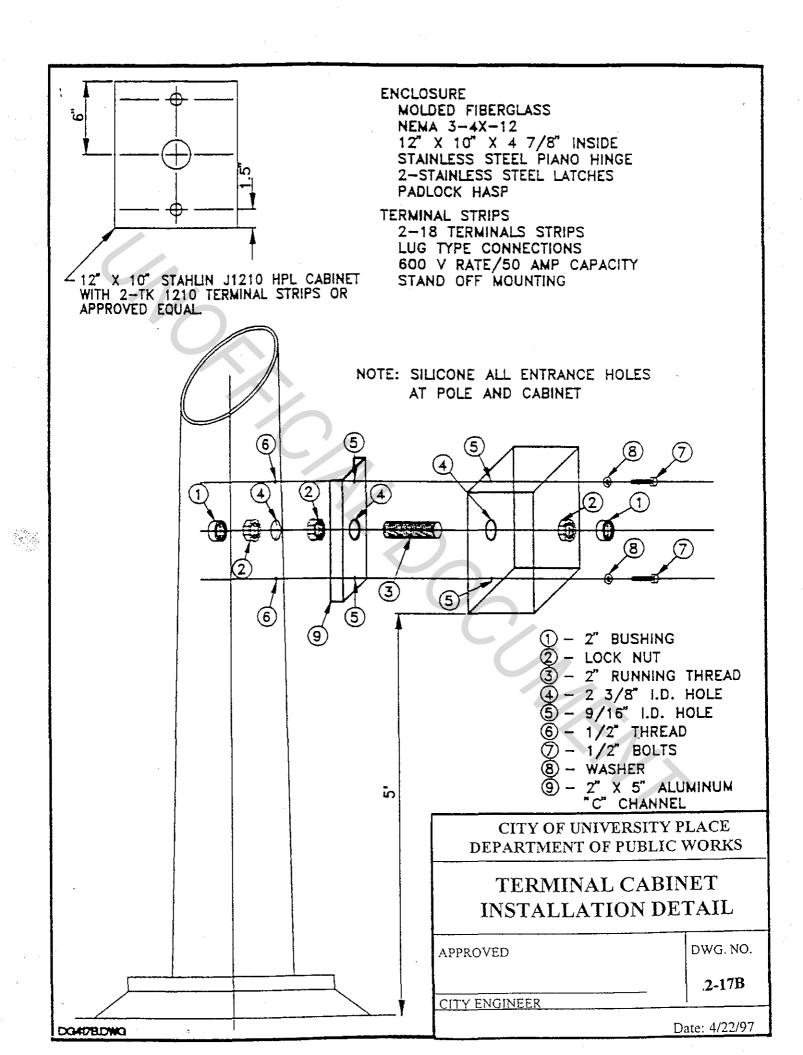
CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS

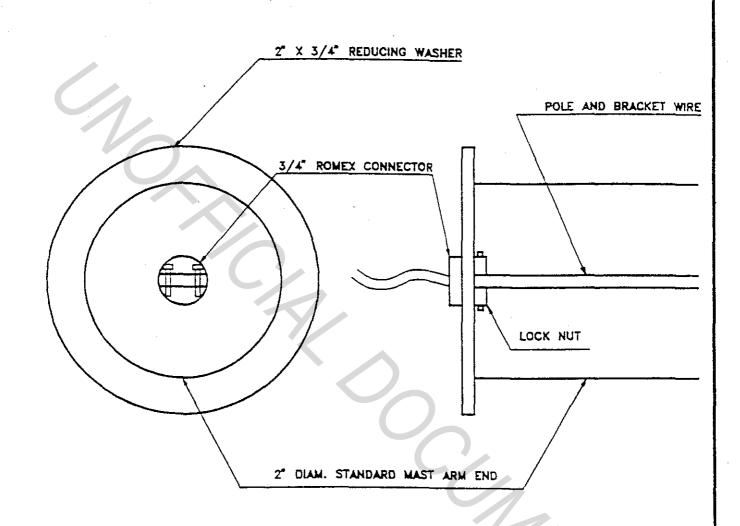
LUMINAIRE FOUNDATION

APPROVED DWG. NO.

CITY ENGINEER Date: 4/22/97

DG417.DWG

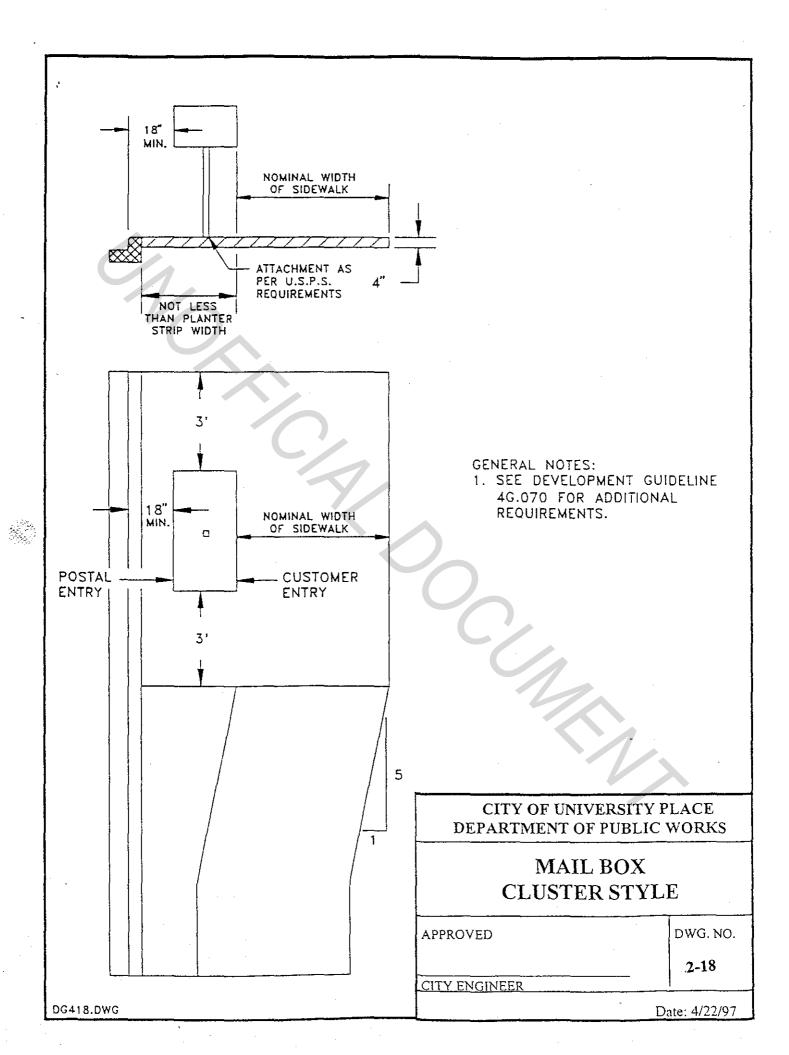


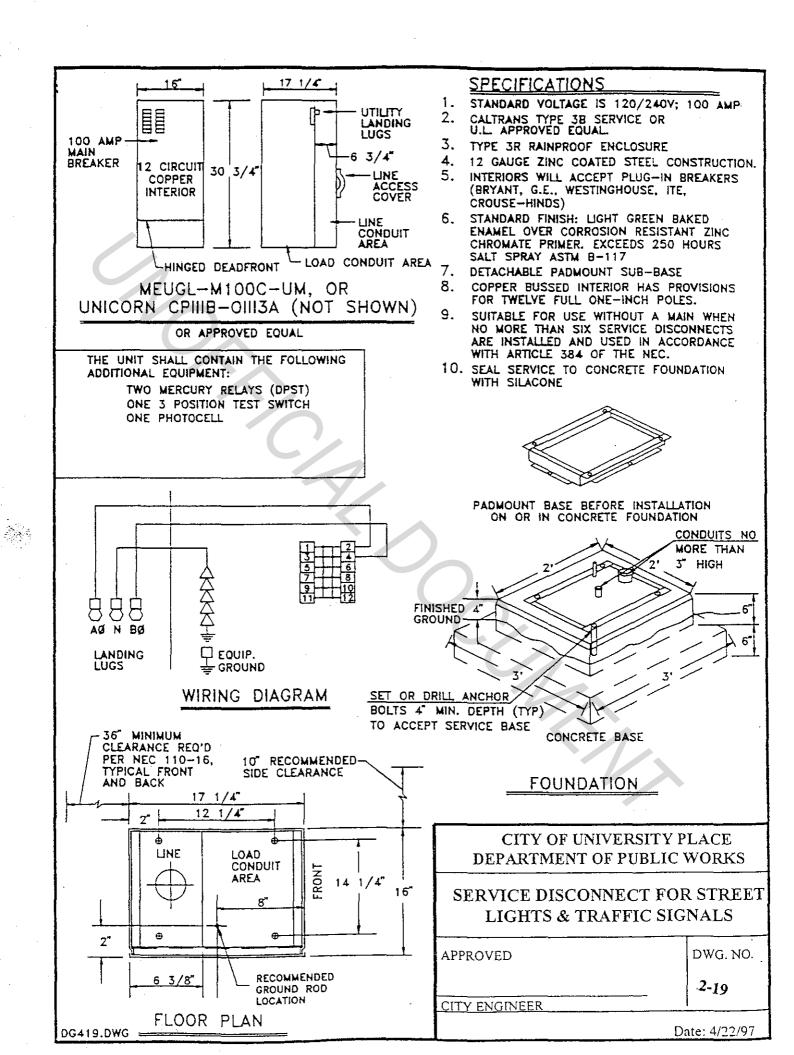


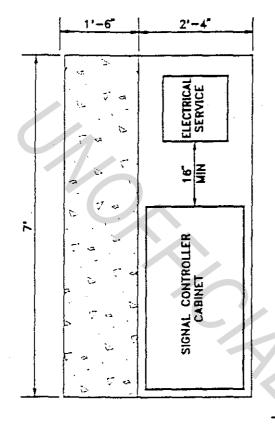
N.T.S.

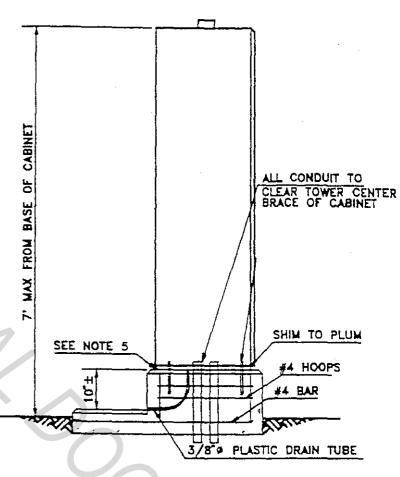
| CITY OF UNIVERSITY I DEPARTMENT OF PUBLIC | |
|--|--------------|
| POLE & BRACKET WIRE SUPPORT ARM END | |
| APPROVED | DWG. NO. |
| CITY ENGINEER 42-17.2 | |
| D | ate: 4/22/97 |

DG417-2.DWG









NOTES:

- 1. PAD AND PEDESTAL MOUNTS SHALL BE CLASS B CONCRETE UNLESS NOTED OTHERWISE ON PLANS
- 2. WHERE PAD OF PEDESTAL MOUNTS ARE LOCATED IN A SIDEWALK, CONSTRUCT MOUNT TOP FLUSH WITH SIDEWALK GRADE, OMITTING CHAMFER WHERE TOP AND SIDEWALK ABUT.
- 3. PAD MOUNT DESIGN IS TYPICAL: CONTRACTOR SHALL UTILIZE CABINET ON BASE WITH RESPECT TO CONDUIT PLACEMENT. CONTRATOR SHALL SUBMIT FOR APPROVAL A PROPOSED DESIGN WITH PLAN, ELEVATION AND ANY RELEVANT SECTION VIEW.
- 4. CABINET SHALL BE ATTACHED WITH
 AASHTO M 164 CHEMICALLY BONDED ANCHOR
 TO EXISTING PAD MOUNTS. ANCHOR
 INSTALLATIONS SHALL BE PER MANUFACTURER'S
 RECOMMENDATIONS IN DRY CONDITIONS.
- RECOMMENDATIONS IN DRY CONDITIONS.

 5. PLACE A SILICONE SEAL BETWEEN THE CABINET FOUNDATION AND THE CABINET FOR THE PAD MOUNT DESIGN.
- 6. CABINET AND SERVICE TO BE CENTERED ON BASE.

DRAWING IS TYPICAL SEE NOTE #3
THE PURPOSE IS TO FIT THE
CONTROLLER AND SERVICE ON ONE
PAD WITH 16" SPACE BETWEEN.

SEE DRAWING NO 4-19 FOR ELECTRICAL SERVICE DESCONNECT SPECIFICATIONS.

CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS

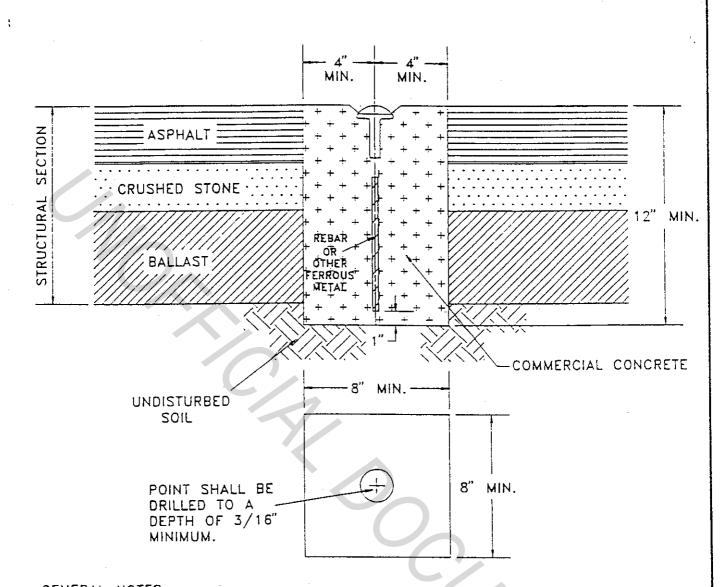
SIGNAL CABINET ELEC. SERVICE FOUNDATION

APPROVED DWG. NO.

CITY ENGINEER 2-19B

Date: 4/22/97

DOXDWG



GENERAL NOTES:

- 1. THIS MOUNUMENT TO BE USED PRIMARILY ON BITUMINOUS OR ASPHALT CONCRETE PAVEMENT FOR USE PRIMARILY IN SUBDIVISIONS AND MINOR ARTERIALS.
- 2. CONCRETE BASE DIMENSIONS SHOWN ARE MINIMUM. CONCRETE BASE NEED NOT BE FORMED.
- 3. CAP SHALL BE BRASS, ALUMINUM OR OTHER NON-FERROUS METAL, MINIMUM 21/2" DIAMETER.
- 4. CONCRETE TO BE PLACED ON A FIRM AND UNYIELDING FOUNDATION.
- 5. MONUMENT POSITION SHALL BE SET BY A PROFESSIONAL LAND SURVEYOR LICENSED BY THE STATE OF WASHINGTON WHOSE CERTIFICATE NUMBER SHALL BE STAMPED ON CAP.
- 6. SUFFICIENT FERROUS METAL SHALL BE PLACED IN CONCRETE TO ALLOW DETECTION BY A METAL DETECTOR.

CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS

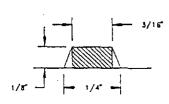
CAST IN PLACE MONUMENT

APPROVED DWG. NO.
2-20

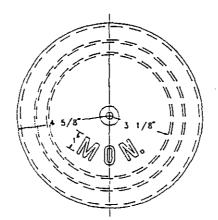
CITY ENGINEER

Date: 4/22/97

DG420.DWG



SECTION OF LETTER

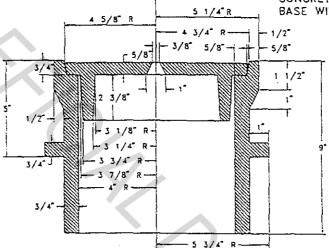


PLAN OF COVER

NOTES:

THE CASTINGS SHALL BE GRAY-IRON CASTINGS, ASTM DESIGNATION A 48, CLASS 40. THE COVER AND SEAT SHALL BE MACHINED SO AS TO HAVE PERFECT CONTACT AROUND THE ENTIRE CIRCUMFERENCE AND FULL WIDTH OF BEARING SURFACE.

WHEN THE MONUMENT CASE AND COVER ARE PLACED IN CEMENT CONCRETE PAVEMENT THE CONCRETE BASE WILL BE NECESSARY.

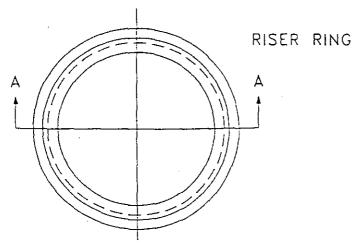


APPROXIMATE WEIGHTS:
CASE 60 LBS.
COVER 19 LBS.
TOTAL 79 LBS.

SECTION

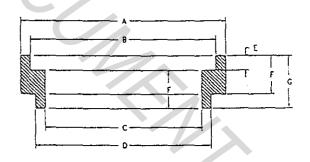
PLAN

SECTION A-A



DG421.DWG

| | S ! | ZE | |
|-----|------------|---------|---------|
| DIM | 1-1/2" | 2" | 3" |
| A | 10-1/2" | 10-1/2" | 10-1/2" |
| B | 9-1/2" | 9-1/2" | 9-1/2" |
| С | 8" | 8" | 8" |
| D | 9" | 9" | 9" |
| £ | 3/4" | 3/4" | 3/4" |
| F | 1-1/2" | 2" | 3" |
| G | 2-1/4" | 2-3/4" | 3-3/4" |



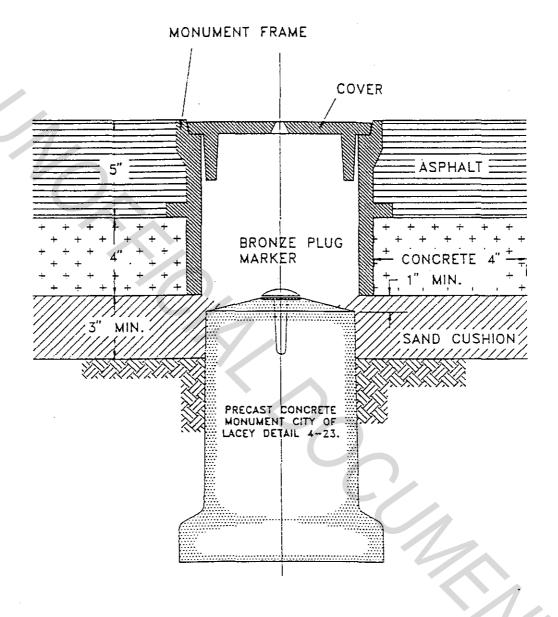
CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS

MONUMENT CASE AND COVER WITH RISER

APPROVED DWG. NO.

CITY ENGINEER 2-21

Date: 4/22/97



NOTE:

- 1. FOR USE PRIMARILY ON ARTERIAL STREETS, STREETS WITH BUS TRAFFIC AND TRUCK ROUTES.
- 2. MONUMENT POSITION SHALL BE SET BY A PROFESSIONAL LAND SURVEYOR LICENSED BY THE STATE OF WASHINGTON WHOSE CERTIFICATE NUMBER SHALL BE STAMPED ON CAP.

CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS

MONUMENT CASE INSTALLATION

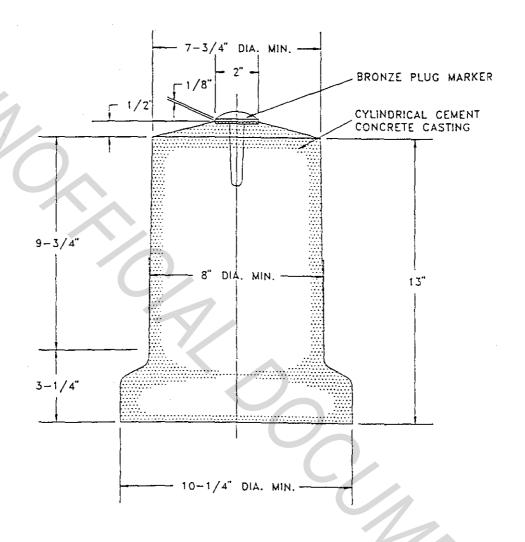
APPROVED DWG. NO.

2-22

CITY ENGINEER

Date: 4/22/97

DG422.DWG



GENERAL NOTES:

MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE CASTING AT 28 DAYS — 3000#. MAXIMUM AGGRETE SIZE TO BE 1".

CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS

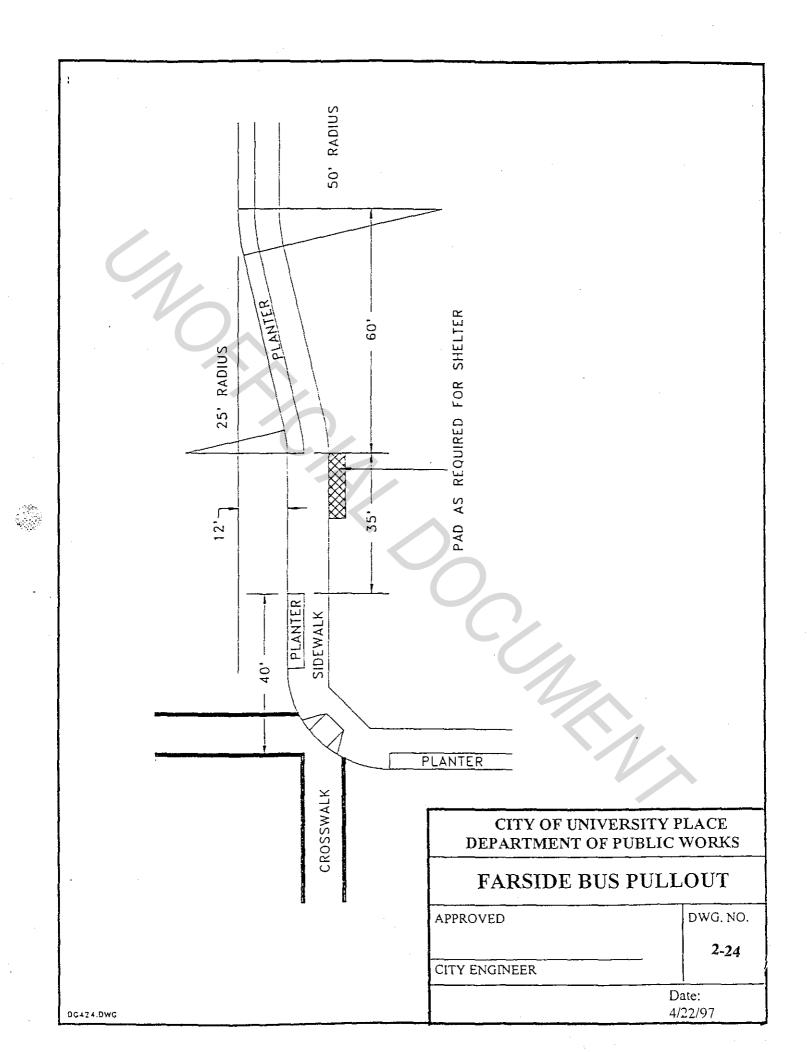
PRECAST CONCRETE MONUMENT

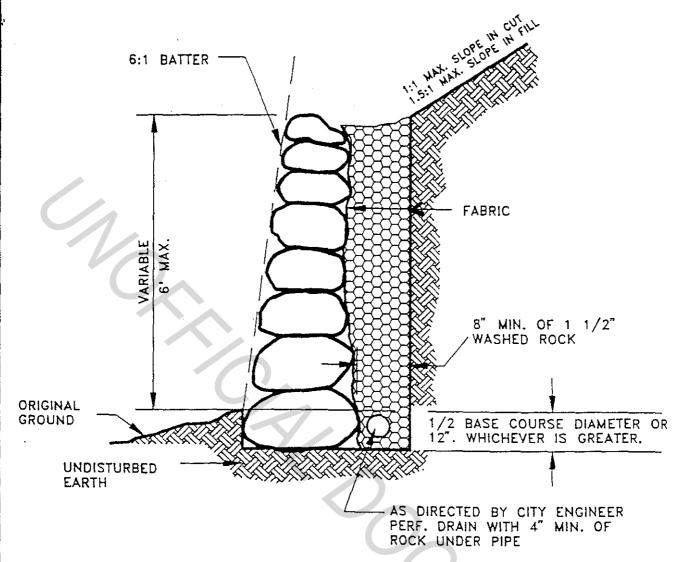
APPROVED DWQ; ÑO.

2-23

CITY ENGINEER Date: 4/22/97

DG423,DWG





GENERAL NOTES:

 Rockeries higher than 5' shall be constructed of rocks of graduated sizes from 5-man to 2-man from bottom to top. Rockeries of 5' or lower shall be constructed of 3-man to 2-man from bottom to top. Rock size catagories shall include:

Two-man rocks (300 to 600 pounds), 13 Inches in least dimension:

Three-man rocks (800 to 1200 pounds), 16 inches in least dimension;

Four-man rocks (1500 to 2200 pounds), 18 Inches in least dimension:

Five-man rocks (2400 to 3400 pounds), 24 inches in least dimension.

- 2. The rockery shall be installed with a smooth face.
- The long dimension of the rocks shall extend into the earth to provide maximum stability.
- 4. The rock shall be placed so as to lack into two rocks in the lower tier.
- Call for Inspection prior to base course being placed (for verification of rockery height, foundation material and rock size).
- Design varying from those indicated shall carry the seal of a civil engineer experienced in soil mechanics.

CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS

ROCK RETAINING WALL

APPROVED DWG. NO.

2-26

CITY ENGINEER

Date: 4/22/97

DG426.DWG

PAVEMENT MARKING DETAILS

171

CHANNELIZING STRIPE

TYPE 1 WHITE OR YELLOW

TYPE 2d OR 20

14' 1 4' 1 4' 1 20'

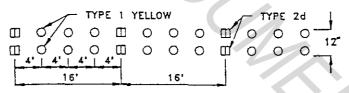
32'

LANE STRIPE

TWO-WAY LEFT TURN

TYPE 1 YELLOW TYPE 2d | 16' | 16' | 16' | 16'

DOUBLE YELLOW CENTER



LANE MARKERS

- O TYPE 1 LANE MARKERS. WHITE OR YELLOW
- TYPE 20 REFLECTIVE LANE MARKER, WHITE AND RED
- TYPE 2d REFLECTIVE LANE MARKER, YELLOW AND YELLOW
- TYPE 20 REFLECTIVE LANE MARKER, WHITE-ONE SIDE ONLY

CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS

STRIPING DETAIL

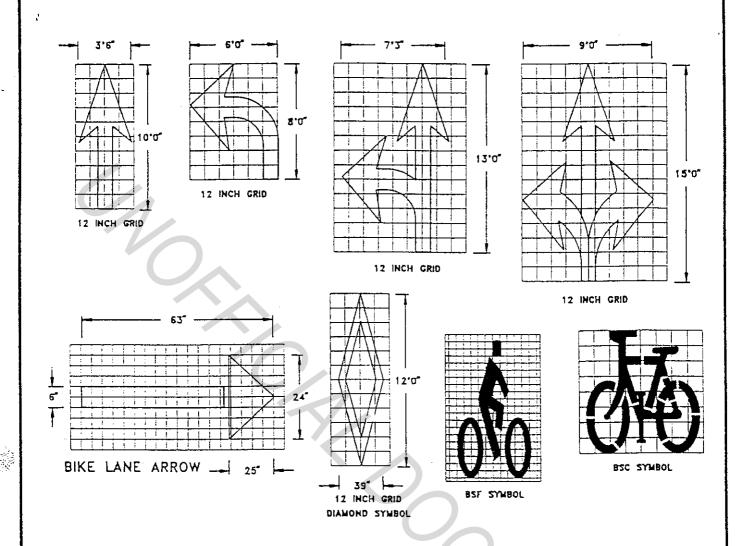
APPROVED DWG. NO.

2-27

CITY ENGINEER Date:

4/22/97

DG427.DWG



COMPLETE WORD STENCILS

48 8 48 48

45

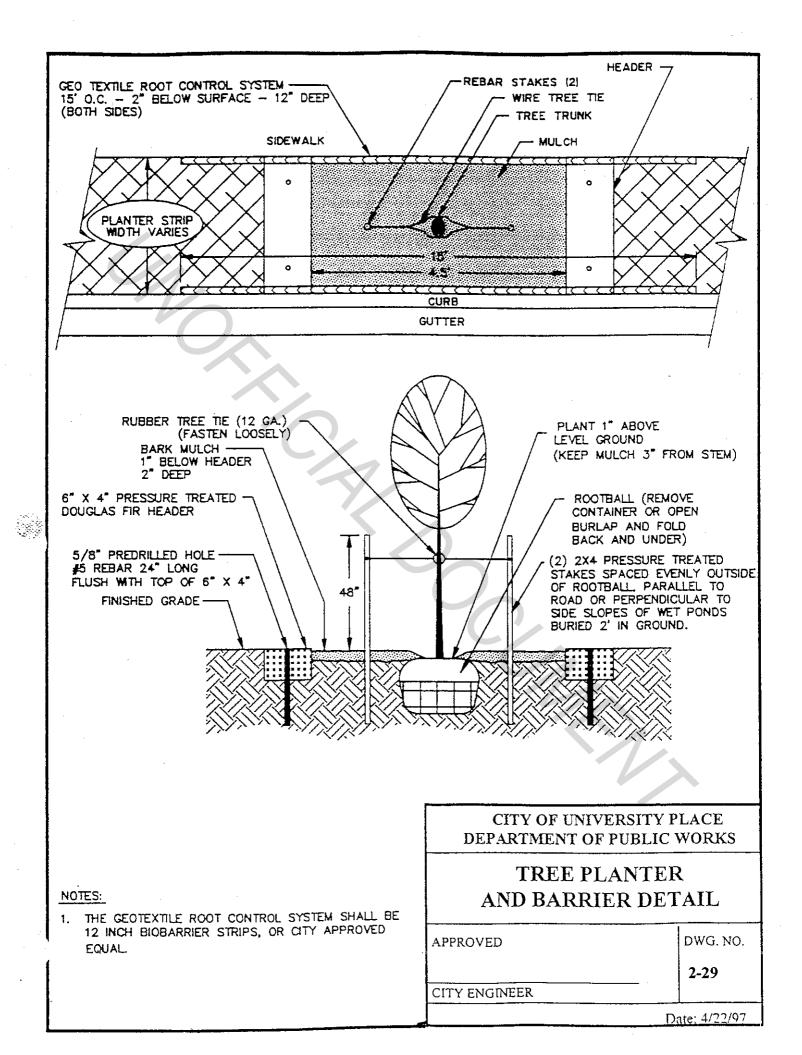
48.

GENERAL NOTES:

- ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC OR METHACRYLIC RESIN.
- 2. ALL MARKINGS SHALL MEET FEDERAL METRIC STANDARDS.

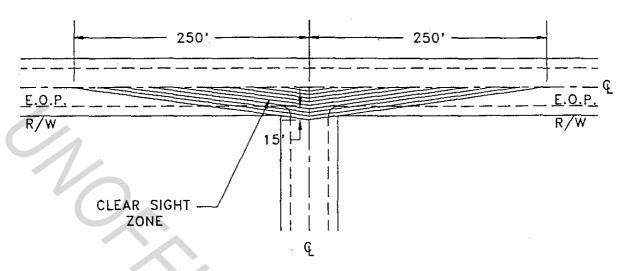
| CITY OF UNIVERSITY PLACE DEPARTMENT OF PUBLIC WORKS | |
|--|------|
| PAVEMENT MARKI | NGS |
| APPROVED DWG. NO. | |
| | 2-28 |
| CITY ENGINEER | |
| Date: | |
| 4/22/97 | |

DG428.DWG



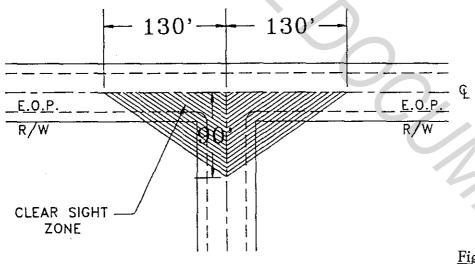
STOP OR YIELD CONTROLLED INTERSECTIONS

EXAMPLE: MAJOR STREET SPEED LIMIT = 25 M.P.H.



UNCONTROLLED INTERSECTIONS

EXAMPLE: MAJOR STREET SPEED LIMIT = 30 M.P.H. MINOR STREET SPEED LIMIT = 20 M.P.H.



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Figure 2-30

CITY OF UNIVERSITY PLACE
DEPARTMENT OF PUBLIC WORKS

SIGHT OBSTRUCTION

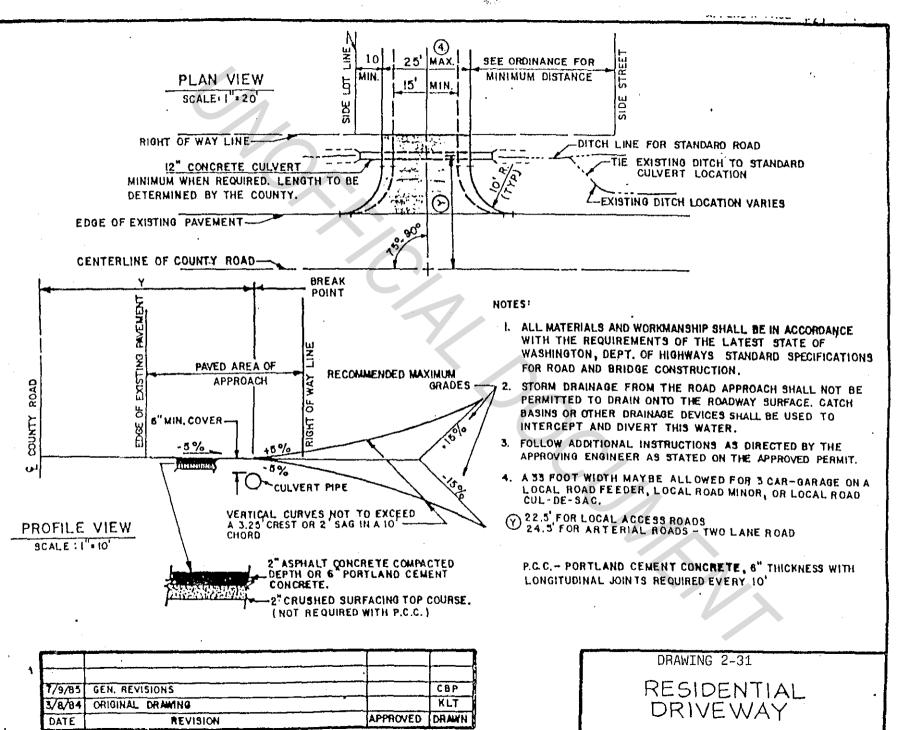
APPROVED

Dwg. No.
2-30

CITY ENGINEER

Date:
4/22/97

DG41.DWG



SECTION 3

3.000 STORM DRAINAGE

3.010 General

The standards established by this chapter are intended to represent the minimum standards for the design and construction of storm drainage facilities.

The King County Surface Water Design Manual and the King County Road Standards is considered a part of this chapter and the Public Works Standards. The King County Surface Water Design Manual sets forth the minimum drainage and erosion control requirements as supplemented herein. The King County Road Standards will supplement these standard only for drainage structures and appurtenances. All standards and guidelines addressed in this document shall supersede that expressed in the above referenced documents.

3.020 Design Standards

The design of storm drainage and/or retention/detention system shall depend on their type and local site conditions. The design elements of storm drainage systems shall conform to City standards as set forth herein and follow current design practice as set forth in Section 1.010 and 1.040. The following design consideration shall apply:

A. No retention/detention facility shall be located in an area that is used to satisfy an open space requirement unless it enhances a recreational amenity.

Use of designated open space areas for stormwater detention/retention and for infiltration shall satisfy all conditions of the City of University Place for usability and landscape conformity.

Because the primary purpose of consolidated open space is to provide usable area for recreation activities, buffer zones, and green belt areas, the open space must be designed for this intent. Any use of this area for stormwater detention/retention must clearly be subordinate to and not detract from open space uses. Because active recreation required primarily flat topography, the usable open space will be predominantly flat. In no event shall slopes exceed 4:1 where drainage facilities are present and a

minimum of 50 percent of the linear slope length shall not exceed 7:1. Design of the combined facility, as well as ease of access into and out of the facility, will be considered by the City in review of the design of such facilities.

Open space also serves an aesthetic function by providing areas of green space that are attractive and an amenity to the project site. Storm drainage facilities which serve as open space must provide the impression that the open space area available for park uses.

The City shall make the sole determination whether the proposed stormwater facilities are compatible with open space and satisfy the intent of the City for open space amenities.

- B. The use of commercial parking lots for detention of stormwater will be reviewed by the Director of Public Works and approved or denied based on the design. The detention area shall be situated away from areas of pedestrian movement unless means for rapid closing of the areas is incorporated in the design, the maximum depth of water in parking lot storage shall be limited to 12 inches.
- C. Maximum catch basin spacing shall be 300 feet on arterials and collectors and 500 feet on all other street classifications. No surface water shall cross any roadway.

The General Notes on the following page shall be included on any plans dealing with storm systems.

3.025 Maintenance of Storm Drainage Systems

As a condition of storm drainage system plan approval the applicant shall maintain the drainage system as shown on the drainage plans. The drainage system shall be maintained and preserved until such time as the applicant, or owner and the City agree that the system should be altered in some manner or eliminated. The applicant shall be required to record a maintenance agreement to maintain the storm drainage system.

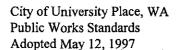
GENERAL NOTES (STORM DRAIN CONSTRUCTION)

1. All workmanship and materials shall be in accordance with City of University Place standards and the most current edition of the State of Washington Standard Specifications for Road, Bridge and Municipal Construction (WSDOT/APWA) and King County Road Standards (for drainage structure and appurtenances)

- 2. Temporary erosion/water pollution measures shall be required in accordance with the King County Surface Water Design Manual.
- 3. Comply with all permits and other requirements by the City or other governing authority or agency.
- 4. A pre-construction meeting shall be held with the City of University Place Public Works Department prior to the start of construction.
- 3. All storm mains and retention/detention areas shall be staked for grade and alignment by an engineering or surveying firm capable of performing such work.
- 6. Storm drain pipe shall meet the following requirements:
 - A. Plain concrete pipe conforming to the requirements of AASHTO M 86, Class 2.
 - B. Reinforced concrete pipe conforming to the requirements of AASHTO M 170.
 - C. PVC pipe shall conform to ASTM D 3034 SDR 35 or ASTM F 789 with joints and gaskets conforming to ASTM D 3212 and ASTM F 477.
 - D. Ductile iron pipe conforming to the requirements of AWWA C 151, thickness class as shown on the plans.
 - E. Polyethylene smooth wall pipe per Advanced Drainage Systems (ADS) N-12 constructed per WSDOT/APWA Standard Specifications 7-04.
- 7. Special structures, oil/water separators and outlet controls, shall be installed per plans and manufacturer's recommendations.
- 8. Provide traffic control plan(s) as required in accordance with MUTCD.
- 9. Call underground locate line, 1-800-424-5555 minimum 48 hours prior to any excavations.
- 10. Where connections require "field verifications", connection points will be exposed by contractor and fittings verified 48 hours prior to distributing shutdown notices.
- 11. On-site erosion control measures shall be the responsibility of the Developer. Any problems occurring before final acceptance of the storm system by the Engineer shall be corrected by the applicant.

- 12. In case erosion or sedimentation occurs to off-site property, all construction work within the development that will further aggravate the situation must cease and the Owner/Contractor will immediately commence restoration methods.

 Restoration activity will continue until such time as the erosion and sedimentation no longer occurs off-site.
- 13. All erosion and sedimentation control devices shown on this drawing shall be installed prior to or at the first stage of site preparation.
- 14. Should the temporary erosion and sedimentation control measures as shown on this drawing not prove adequate to control erosion and sedimentation, the applicant/contractor shall install additional facilities as necessary to protect adjacent properties, sensitive areas, natural water courses and/or storm drainage systems.
- 15. In any area which has been stripped of vegetation and where no further work is anticipated for a period of 30 days or more, all disturbed areas must be immediately stabilized with mulching, grass planting or other approved erosion control treatment applicable to the time of year in question. Grass seeding alone will be acceptable only during the months of April through September inclusive. Seeding may proceed, however, whenever it is in the interest of the applicant/contractor, but must be augmented with mulching, netting or other treatment.
- 16. The Engineer/Owner/Contractor will be responsible for field locating the clearing limits and establishing those boundaries with bright colored flagging. The Contractor shall clear to the limits as established on this Plan and flagging in the field.
- 17. Tie impervious surfaces (roofs, streets, drives, etc.) to the completed drainage system as soon as possible.
- 18. The necessary facilities shall be maintained on site to prevent debris, dust, and mud from impacting public facilities and other property owners.
- 19. All work associated with stabilizing the disturbed areas shall be in accordance with Section 8-01 of the 1994 Standard Specification for Road, Bridge, and Municipal Construction, or the latest version thereof unless approved otherwise by the City.
- 20. All erosion control measures shall remain in place and be properly maintained until the disturbed areas have been stabilized.



21. The City shall be responsible for the inspection and acceptance of all clearing and grading work and erosion and sedimentation control facilities. The applicant shall notify the City forty-eight hours in advance of each required inspection.

Inspection No. 1 Installation of erosion control facilities/prior to

clearing.

Inspection No. 2 Completion of clearing.

Inspection No. 3 Upon completion of excavation, filling, and

earthwork.

Inspection No. 4 Completion of Project.

Inspection No. 5 Work in City right-of-way.

3.027 Conveyance

Pipe: Storm drain pipe within a public right-of-way or easement shall be sized to carry the maximum anticipated runoff from the possible contributing area.

The minimum main size shall be 12 inches in diameter. Laterals lines may be 6 inches in diameter. Nothing shall preclude the City from requiring the installation of a larger sized main if the City determines a larger size is needed to serve adjacent areas or for future service.

All pipe for storm mains shall comply with one of the following types:

Polyvinyl Chloride: PVC pipe per chapter 7B.040.

Plain Concrete: Plain concrete pipe per WSDOT/APWA Standard Specifications as set forth in Section 7-04.

Reinforced Concrete: Reinforced concrete pipe per WSDOT/APWA Standard Specifications as set forth in Section 7-04.

Ductile Iron: Ductile iron pipe per chapter 6.030.

Polyethylene: PE smooth wall pipe per Advanced Drainage Systems (ADS) N-12 constructed per WSDOT/APWA Standard Specifications 7-04.

Channels: The City encourages the use of open vegetated channels to convey stormwater runoff when possible. Any open channels proposed to be located within public right-of-way shall require special approval from the Director of Public Works.

3.030 Staking

All surveying and staking shall be performed by an engineering or surveying firm capable of performing such work. The engineer or surveyor directing such work shall be licensed as a Professional Engineer or Professional Land Surveyor by the State of Washington.

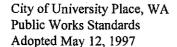
A pre-construction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to construction.

The minimum staking of storm sewer systems shall be as directed by the City Engineer or as follows:

- A. Stake centerline alignment every 50 feet with cut or fill to invert of pipe.
- B. Stake location of all catch basins, manholes and other fixtures for grade and alignment with cut or fill to grate or lid and invert of all pipes.
- C. Grade stake or slope stake (as appropriate) at intervals, sufficient to control location, size and depth of retention/detention facilities.

3.040 Trench Excavation

- A. Clearing and grubbing where required shall be performed within the easement or public right-of-way as permitted by the City and/or governing agencies. Debris resulting from the clearing and grubbing shall be disposed of by the owner or contractor in accordance with the terms of all applicable permits.
- B. Trenches shall be excavated to the line and depth designated by the City to provide a City approved minimum of cover over the pipe. See Details as applicable. Except for unusual circumstances where approved by the City, the trench sides shall be excavated vertically and the trench width shall be excavated only to such widths as are necessary for adequate working space as allowed by the governing agency and in compliance with all safety requirements of the prevailing agencies. See Detail. The trench shall be kept free from water until joining is complete. Surface water shall be diverted so as not to enter the trench. The owner shall maintain sufficient pumping equipment on the job to insure that these provisions are carried out.



- C. The contractor shall perform all excavation of every description and whatever substance encountered and boulders, rocks, roots and other obstructions shall be entirely removed or cut out to the width of the trench and to a depth 6 inches below sewer line grade. Where materials are removed from below pipe grade, the trench shall be backfilled to grade with material satisfactory to the City and thoroughly compacted.
- D. Trenching and shoring operations shall not proceed more than 100 feet in advance of pipe laying without approval of the City, and shall be in conformance with Washington Industrial Safety and Health Administration (WISHA) and Office of Safety and Health Administration (OSHA) Safety Standard.
- E. The bedding course shall be constructed to grade with hand tools in such a manner that the pipe will have bearing along the entire length of the barrel. The bell holes shall be excavated with hand tools to sufficient size to make up the joint.
- F. Gravel backfill for pipe bedding shall be installed in conformance with Section 2-09 of the Standard Specifications (WSDOT). See Detail.

Bedding for Rigid Pipe (Ductile Iron Pipe):

Gravel backfill for rigid pipe bedding shall consist of crushed, processed, or naturally occurring granular material. It shall be essentially free from various types of wood waste or other extraneous or objectionable materials. It shall have such characteristics of size and shape that it will compact readily and shall meet the following specifications for grading and quality:

| Sieve Size | Percent P | assing* |
|--------------------------------|-----------|---------|
| 3/4" Square | 100 | |
| 3/8" Square | 95-100 | |
| U.S. No. 8 | 0-10 | |
| U.S. No. 200 | 0-3 | |
| Sand Equivalent | 35 | MIN. |
| *All percentages are by weight | | |

Bedding for Flexible Pipe (P.V.C. pipe):

Gravel backfill for flexible pipe (P.V.C. pipe) bedding shall consist of crushed, processed, or naturally occurring granular material. It shall be essentially free from various types of wood waste or other extraneous or

objectionable materials. It shall have such characteristics of size and shape that it will compact readily and shall meet the following specifications for grading and quality:

| Sieve Size | Percent Passing* |
|-----------------|------------------|
| 3/4" Square | 100 |
| 3/8" Square | 95-100 |
| U.S. No. 8 | 0-10 |
| U.S. No. 200 | 0-3 |
| Sand Equivalent | 35 MIN. |

^{*}All percentages are by weight.

Native Material shall not be used for bedding, unless approved by the Engineer.

3.050 Backfilling

Backfilling and surface restoration shall closely follow installation of pipe so that not more than 100 feet is left exposed during construction hours without approval of the City. Selected backfill material shall be placed and compacted around and under the sewer pipe by hand tools. Special precautions shall be provided to protect the pipe to a point 12 inches above the crown of the pipe. The remaining backfill shall be compacted to 95 percent of the maximum density in traveled areas and road "prisms", 90 percent outside driveway, roadways, road prism, shoulders, parking or other traveled areas. Where governmental agencies other than the City have jurisdiction over roadways, the backfill and compaction shall be done to the satisfaction of the agency having jurisdiction. Typically, all utility trenches located in roadway sections, roadway "prisms", or beneath traffic bearing areas shall be backfilled with 5/8-inch minus crushed rock. Due to localized conditions, the City may allow/permit the backfill of the trench section with suitable excavated material, as determined by the City, or if suitable native material is not available from trenching operations, the City may order the placing and compaction of gravel base conforming with Section 9-03.10 of the Standard Specifications (WSDOT) for backfilling the trench. All excess material shall be loaded and hauled to waste.

3.060 Street Patching and Restoration

See Chapter 2B.170 and 2B.180 for requirements regarding street patching and trench restoration.



CHAPTER 4

4.000 EARTHWORK

4.010 Excavation Standards

- A. Cut Slopes: Slopes shall be no steeper than is safe for the intended use and shall not be steeper than 2 horizontal to 1 vertical, or as recommended by a soils engineer.
- B. Set Back From Property Lines:

| Cut Depth |
|--------------|
| Under 5 Feet |
| 5 - 20 Feet |
| Over 20 Feet |

Set Back Distance
2 Feet
Height/2
10 Feet

4.020 Fill Standards

General: Fills which are intended for building sites shall be constructed in conformance with the requirements of the latest edition of the U.B.C., as adopted by the City of University Place, and an assignment of allowable soil-bearing pressures will be under the jurisdiction of the City Building Official in accordance with the U.B.C.

Fill Location: Slopes shall be no steeper than is safe for the intended use and shall not be steeper than 2 horizontal to 1 vertical, or as recommended by a soils engineer. Fill sites must be approved by the engineer as suitable locations for the proposed fill.

Preparation of Ground: The ground surface for fills over five feet in height shall be prepared by removing vegetation, noncomplying fill, topsoil, and other unsuitable materials; scarifying to provide a bond with the new fill; and, where existing slopes are steeper than 5 horizontal to 1 vertical, by benching into competent material as determined by the engineer. The bench under the toe of a fill on a slope steeper than 5 horizontal to 1 vertical shall be at least 10 feet wide, or as recommended by a soils engineer.

Fill Material: Except as permitted by the City, no material other than earth material shall be buried or placed in fills. Placement of other than earth-material is regulated by state statutes or federal laws, and additional permits may be required.

Slope Stability: Fills shall be constructed using earth materials, compaction methods, and construction techniques so that stable fills are created.

Setback from Property Lines: The toe or catch point of fill slopes shall be set back from the site boundary line in accordance with the following table unless a retaining wall is designed by the engineer and constructed for the project:

| Fill Depth | Set Back Distance |
|--------------|-------------------|
| Under 5 Feet | 2 Feet |
| 5 - 40 Feet | Height of Fill/2" |
| Over 40 Feet | 20 Feet |

C. Soil Engineering-Geology Report

When on-site conditions or the proposed work involve slide-prone or unstable soils, the Applicant shall be required to retain a soils engineer to prepare a report that includes data regarding the nature, slide potential, soil bearing capacity, and slope stability of existing soils; conclusions and recommendations for grading procedures and design criteria for corrective measures when necessary; and opinions and recommendations covering adequacy of sites to be developed. The report shall be stamped and signed by the engineer. Recommendations in the report shall be incorporated in the proposed plans or specifications.

Side slopes shall be stabilized by grass sod, hydroseeding, by other planting, or surfacing materials, or by the use of other material types acceptable to the City.

Side slopes may also have to be flattened to accommodate utility placement. Placement of utilities outside of their standard location as per other adopted standards due to steep side slopes shall not be permitted. Side slopes higher than 15 feet shall be terraced. Terrace widths shall be a minimum of five (5) feet.

