

Community Development Department
 Building | Planning | Code Enforcement
 P.O. Box 9, 230 Davidson Avenue
 (360) 225-7299, www.ci.woodland.wa.us

REVISED NOTICE OF DECISION

1951 Schurman Warehouse and Office

Land Use Application Nos.:	SPR 22-004 (Site Plan Review – Type 2) SEP 22-004 (SEPA)
Applicant:	Wilson Architects PLLC C/O Rusty Muyuela 404 E. 15 th St #7 Vancouver, Washington, 98663
Property Owner:	DT Realty LLC Mark Dawkins 610 NW 16 th Cir Ridgefield, WA, 98642
Site Location:	1951 Schurman Way Woodland, WA 98674
Parcel & Size:	507870102, 3.06 Acres
Zoning Designation:	Light Industrial, I-1
Date Application Received:	October 28 th , 2021
Notice of Application & Likely DNS issued:	Revised: May 11 th , 2022 Original: April 28 th , 2022 [See: case # SEP-22-004]
Comment Period & SEPA Appeal Period Ended:	Revised: May 25 th , 2022 Original: May 12 th , 2022
Notice of Decision Issued:	Revised: June 1 st , 2022 Original: May 31 st , 2022
DRC Decision:	Approve with Conditions

I. DESCRIPTION OF PROPOSAL

Applicant proposes to develop a new 15,050 SF warehouse and office distribution center for the storage, manufacture, and sale of golf carts and golf cart parts. Proposed development located at 1951 Schurman Lane in Woodland, Washington will consist of approximately 6,875 SF of warehouse space, as well as 3,675 SF of office space.

II. REVIEW AUTHORITY & FINDINGS

Per Woodland Municipal Code (WMC) 19.08.030, site plan reviews shall be approved, approved with conditions, or denied by the Development Review Committee and decisions shall be issued by the Community Development Department.

Development Impact Fees – Fire | WMC 3.41

Finding 1: Fire Impact Fees are required for the proposed building addition. Fees are calculated based on \$.51 per sq ft of building. Fees are calculated and due at the time of building permit issuance. Fee is estimated to be $(15050 \times \$0.51) = \$7,675.50$ for the project. A condition of approval has been added which requires the fees be calculated and paid at the time of building permit issuance. (*See conditions 1 and 2*)

Conclusion: As conditioned, the proposal can comply with this requirement. (See Findings 53 and 54 for fire review requirements.)

Development Impact Fees – Transportation | WMC 3.42

Finding 2: Transportation Impact Fees (TIF) are required on new development to support future transportation improvements within the city per WMC 3.42. The TIF is calculated based on \$838 per PM peak hour trip (PMPHT) generated by the project based on the project Traffic Study or where no study is prepared, based on trip generation in accordance with Institute of Transportation Engineers (ITE) published data.

Finding 3: For this proposal, trip generation was evaluated under the use classification “#150 – Warehousing” and “#715 – Single Tenant Office” from the ITE 10th Edition manual. The warehousing classification calls for 0.19 peak hour trips per 1,000 square feet while the single tenant office classification calls for 1.74 peak hour trips per 1,000 square feet. For the “#150 -- Warehousing” use, it is calculated that 6,875 s.f. of Warehouse under ITE category 150 generates 1.31 new peak hour and for the “#715 – Single Tenant Office” use, it is calculated that 3,675 s.f. of Office under ITE category 715 generates 6.39 new peak hour trips.

Finding 4: The above assumptions of building size and use category result in a total of 7.7 new PM peak hour trips. With a Transportation Impact fee of \$838.00/ Pm Peak Hour Trip, a rough estimation of the Transportation impact fee would be \$6452.60.

Impact fees are collected at the time of building permit issuance.
(See conditions 1 and Condition 2)

Calculations are based upon gross floor area (GFA). Actual impact fees will be calculated and collected at the time of building permit issuance.

Conclusion: As conditioned, the project can comply with this requirement.

Streets and Sidewalks | WMC 12

Finding 5: Street trees along the sidewalk in the right-of-way are required.

Finding 6: The proposed landscaping plan indicates that *Fraxinus americana* 'Autumn Applause' trees shall be planted within the public Right-of-Way in order to comply with the City's Street Tree ordinance. (See condition 3)

Finding 7: *Fraxinus americana* 'Autumn Applause' is a permitted Street Tree under the 'Medium/Large' category of the list of acceptable street trees.

Finding 8: The street frontage at Schurman Way is generally, fully developed outside of the placement of required streetlights. Placement and construction of streetlights shall be in conformance with City of Woodland standards. A condition is added that all improvements in the public right-of-way shall be completed in accordance with City of Woodland standards. (See condition 4)

Conclusion: As conditioned, the proposal can comply with the development standards.

Water and Sewage | WMC 13

Finding 9A: Water mains are complete in the fronting street and extended through the site on the southern portion of the property. The applicant has proposed to construct a 6-inch fire line, 4-inch FDC line, and 2-inch domestic service line off the existing 12-inch water main. Sewer mains are complete in the fronting street. The applicant has proposed to construct a 6-inch sanitary sewer service line between the proposed building and existing sewer lateral. The layout of these utilities as shown in the current engineering plans appear to meet the requirements of the City Engineering Standards and comply with backflow and cross-connection requirements of WMC 13.28, as well as all other applicable WMC. (See conditions 5 and 6)

Finding 9B: The fire mains shall be public mains with a 15 ft wide easement to the City. The layout of these utilities as shown in the current engineering plans appear to meet the requirements of the City Engineering Standards and WMC. *(See condition 7)*

Finding 10: Water and sewer connection fees need to be paid for connection to the systems. Fees vary based on the connection size and will be assessed in accordance with the applicable rate schedule. *(See condition 2)*

Finding 11: A final utility plan is required to be submitted with the full civil review submission. Final utility plan must show proposed location, size, connection points to existing public systems and terminus points for sanitary sewer, water, and stormwater drainage as well as all public and private easements for all utilities. *(See condition 8)*

Conclusion: As conditioned, the proposal can comply with the development standards.

Erosion Control Ordinance | WMC 15.10

Finding 12: Applicants are required to install and maintain erosion control measures per the Best Management Practices as outlined in the 2012 version of the Stormwater Management Manual for Western Washington during site excavations and grading. An NPDES permit from the Department of Ecology is required where more than one acre is being disturbed. *(See condition 9)*

Finding 13A: A preliminary erosion control plan was included with the preliminary site plan submittal. A condition of approval is added to meet all erosion control requirements of WMC 15.10 and follow the Woodland Design Standards for erosion control. *(See condition 10)*

Finding 13B: Construction Entrance meets the width requirements as defined within City of Woodland Std. Details E-03 and E-05 but not the length requirement. The site will have more than one-acre exposed soil and the Construction Entrance shall be 100-foot minimum length. Please revise this sheet to show a minimum 20-foot wide by 100-foot-long Construction Entrance. *(See condition 11)*

Conclusion: As conditioned, the project can comply with this standard.

Stormwater Management | WMC 15.12

Finding 14A: The applicant's submittal includes a grading and drainage plan that acknowledges the short-term stormwater management during construction, as well as a stormwater TIR that complies with requirements found in WMC 15.12.060.

Finding 14B: The applicant's submittal included a final stormwater TIR. A condition of approval is added to submit a revised, final stormwater TIR to address the following concerns:

1. Woodland MC 15.12.080, Quantity Control, requires 2-, 10-, 25- and 100-year, 24-hour storm events. 25-year not included.
 - a. Add 25-year, 24-hour storm values to Table 1 and Table 2.
2. Bioswale 11R, model lists 2.5' width at bottom, plans show 2'.
 - a. Revise the HydroCAD model for 2-foot-wide swale bottom or revise plans to show 2.5-foot-wide swale bottom.
3. Per Appendix III-6.1 of the 1992 Puget Sound Manual, biofiltration swales with less than 2-percent slope should include underdrains.
 - a. Provide under drains for the biofiltration swales.

Final Stormwater TIR provided alongside civil engineering review shall be modified to incorporate revisions as listed above. A condition of approval is added that all proposed site modifications must be consistent with the assumptions in the previous drainage plans and all proposed site drainage improvements must comply with WMC 15.12 and the City Engineering Standards. (*See condition 12*)

Finding 14C: Per WMC 15.12.100(A)(6), a condition of approval has been added that the final stormwater TIR and all stormwater plans submitted for Civil Review must demonstrate conclusively that all stormwater will be treated and managed on site and that no stormwater shall be conveyed, dumped, or otherwise spilled over onto any adjacent properties. (*See condition 12b*)

Conclusion: As conditioned, the proposal can comply with these standards.

Permitted Uses | WMC 17.44.020

Finding 15: Processing, packaging, and distribution of goods and services, as well as light manufacturing and fabrication of raw or previously processed metals and materials are both permitted within Light Industrial (I-1) zones, per WMC 17.44.020, so long as the process or end product complies with applicable restrictions regarding noise, smoke, dust, odors, toxic gases, vibration glare and/or heat.

Conclusion: As proposed, the project can comply with this standard.

Building Setbacks | WMC 17.44.070

Finding 16: The required setbacks in light industrial zones are:

- Front yard setback: 25 ft.
- Side yard setback: 10 ft. Where I-1 abuts a residential zone, the side yard setback shall be a minimum of 25 ft.
- Rear yard setback: 10 ft. Where I-1 abuts a residential zone, the rear yard setback shall be a minimum of 25 ft.

Finding 17: Proposed development does not abut a residential zone and must comply with the typical setback requirement within light industrial zoning districts.

Finding 18: Proposed setbacks indicated are as follows:

- Front yard setback: 36 ft.
- Side Yard Setback (North): 29 ft.
- Side Yard Setback (South): 18 ft and 7.5 inches.
- Year Yard Setback: 20 ft.

Finding 19: Proposed development complies with setback requirements per WMC 17.44.070.

Conclusion: As proposed, the project can comply with this standard.

Building Height | WMC 17.44.080

Finding 20: Buildings within a light industrial zoning district shall not have more than three separate stories, and should adhere to a maximum height limit of forty-five (45) feet on lots that are smaller than one acre in size, or fifty-five (55) feet on lots greater than one acre.

Finding 21: Lot in question (parcel number 507870102) is 3.06 acres in area, and has a proposed building height of approximately 23 feet and three inches, which complies with WMC 17.44.080.

Conclusion: As proposed, the project can comply with this standard.

Off-Street parking and loading | WMC 17.44.100 & WMC Chapter 17.56

Finding 22: Per WMC 17.56.040 parking and loading facilities shall be located at the side or rear of buildings, provided that necessary parking and loading facilities may be permitted at the front only when appropriately landscaped according to the standards set out in WMC chapter 17.44.

Finding 23: On the provided preliminary site plan parking has been located to the front and side of the proposed building. Parking area is appropriately landscaped with proposed landscaping that meets the requirements within WMC Chapter 17.44.

Finding 24: Per WMC 17.56.040(B), the required number of parking spaces provided may be calculated based on one of the two following methods, whichever provides the most parking spaces:

1. Parking in relation to personnel:
 - a. One space for each two plant employees on maximum shift;
 - b. One space for each managerial personnel;
 - c. One visitor parking space for every ten managerial personnel;
 - d. No less than four per plant site.
2. Parking in relation to floor area:
 - a. One space for each one thousand two hundred fifty square feet of gross floor area used for warehousing and distribution;
 - b. One space for each seven hundred square feet of gross floor area used for manufacturing;
 - c. One space for each four hundred square feet of office floor area.

Finding 25: Applicant has not provided information to calculate the required parking in relation to personnel. A condition of approval has been added that the applicant shall provide estimated employee and management counts prior to civil engineering submission. (*See condition 13*)

Finding 26: Proposed development consists of 3,675 SF of office floor area of warehousing and distribution space. At one required parking space per every 400 SF of office space, there are 10 required parking space ($3,675/400=9.19$).

Finding 27: Proposed development consists of an additional 6,875 SF of warehousing and/or distribution floor area. At one required parking space per every 1,250 SF of warehousing or distribution space, there are an additional 6 required parking spaces ($6,875/1,250=5.5$). Combined, this calculation requires a total of 16 required parking spaces.

Finding 28: There are a total of 29 proposed parking spaces identified on the preliminary site plan, including one regular EV parking space, one EV ADA handicapped space, and one typical ADA handicapped parking space. This exceeds the required number of parking spaces based on floor area, however is not consistent with WAC 51-50-0429 and/or IBC (see finding 55 for EV spaces – One additional EV Station will be required).

Conclusion: As conditioned, the proposal can comply with these standards.

Vehicular Access | WMC 17.44.120

Finding 29: Per WMC 17.44.100, vehicular access to properties within the light industrial zoning districts shall occur via an arterial or system of arterials in order to minimize industrial use traffic traveling through residential districts.

Finding 30: Proposed development will utilize a shared driveway on the southern boundary of the property that provides access to Schurman Way, which is classified as a 'Major Industrial Collector' within Woodland's Transportation Map.

Finding 31: Schurman Way connects to Dike Access Road, a minor arterial road, approximately 1,000 feet from the Northernmost lot line of the property, providing access to the City of Woodland's system of arterials.

Conclusion: As proposed, the project can comply with this standard.

Landscape Design and Screening | WMC 17.44.133 – WMC 17.44.136

Finding 32: A landscaping plan guaranteeing the healthy growth of proposed landscaping in compliance with WMC 17.44 and signed by a certified landscaping professional is required prior to issuance of the preliminary site plan approval.

Finding 33: A landscaping plan was submitted with this preliminary site plan review application.

Finding 34: The proposed landscaping plan shall include tabulation showing the area and percentage of the following, per WMC 17.44.134:

- A. Entire site;
- B. Total landscaping areas;
- C. Areas covered by groundcover;
- D. Areas covered by nonplant materials;

- E. Areas covered by tree canopy and shrubs;
- F. Each required setback area;
- G. Total parking area;
- H. Parking landscaping; and
- I. Other landscaping areas.

Finding 35: The landscaping plan set includes calculation of the total area, total landscaping area, area covered by groundcover, area covered by non-plant material, and area covered by stormwater facility. A condition of approval has been added that final landscaping plan submitted alongside the civil review submission shall include all required calculations and tabulations per WMC 17.44.134. *(See condition 14 and 15)*

Finding 36: A combination of deciduous and evergreen trees, shrubs, and groundcovers shall be used for all planted areas, the selection of which shall be based on local climate, exposure, water availability, and drainage conditions per WMC 17.44.135 (C). All landscaped area, whether or not required, that is not planted with trees and shrubs or not covered with nonplant material, shall have groundcover plants that are designed to achieve 50% coverage of the area not covered by tree canopy and shrubs per WMC 17.44.135 (D).

Finding 37: Proposed landscaping is appropriate for the Pacific Northwest and achieves at least 50% coverage in areas not covered by tree canopy.

Finding 38: Per WMC 17.44.135 (E), trees shall have a minimum diameter or caliper measured at four feet above grade of two inches or greater at time of planting and shall be densely planted as certified by a certified landscaping professional.

Finding 39: Of the trees listed on the preliminary landscape plan, the fastigate beech, Persian parrotia, and pyramidal European hornbeam are listed at a 2" caliper. The excelsa cedar and shore pine are listed as being 6-7ft in height, however no caliper measurement is given. A condition of approval has been added that the final landscaping plan provided as a part of the civil review process shall provide caliper measurements of all proposed tree plantings. However, staff acknowledges that available stock from nurseries can vary and strictly adhering to 2-in. caliper may be challenging. The proposed plant schedule is acceptable if they remain close to size requirements. *(See conditions 16 and 17)*

Finding 40: Per WMC 17.44.135 (F), shrubs shall be planted from a five-gallon container or larger at the recommended spacing as certified by a certified landscaping professional.

Finding 41: All proposed shrubs are indicated to be 5-gallons or larger tubs. However, there is a wide variety of shrubs proposed. The proposed plant schedule and shrub sizes can comply with WMC 17.44.135 (F) based on provided preliminary landscape plan.

Finding 42: Per 17.44.135 (I), the use of drought-tolerant plant species is encouraged and shall be required when irrigation is not available. Irrigation will be provided according to note 1 on the landscaping plan.

Finding 43: Per WMC 17.44.136 (B), in the front yard landscaping area, trees, shrubs, and plant ground cover should be planted along the entire road frontage area and meet the requirements of WMC 17.46.

Finding 44: The proposed plantings in the front yard setback meet the requirements of WMC 17.44.136 (B). A row of trees and shrubs are indicated running along the front setback.

Finding 45: Per WMC 17.44.136 (F), a minimum of ten percent of the total surface area of all proposed parking areas, as measured around the perimeter of all parking spaces and maneuvering areas, shall be landscaped. The preliminary landscaping plan does not provide a calculation for parking lot area or parking lot landscaping percentage. A condition of approval has been adding that final landscaping plan provide the calculation for parking lot area and parking lot landscaping percentage. (*See condition 18*)

Finding 46: At a minimum, one tree per five parking spaces shall be planted to create a partial tree canopy over and around the parking area. All parking areas with more than twenty spaces shall include landscape islands with trees at both ends and in between to break up the parking area into rows of not more than ten contiguous parking spaces.

Finding 47: The proposed parking lot consists of 29 parking spaces and 14 trees, which exceeds the 6 trees required to meet this standard. Landscaping islands are indicated that generally comply with WMC 17.44.136 (F)(2) with trees flanking the parking islands and in between rows of parking.

Finding 48: Per 17.44.136 (G), all mechanical equipment, outdoor storage and manufacturing areas, service and delivery areas, garbage receptacles and recycling containers shall be fully screened from view from all public streets and adjacent nonindustrial zoning district(s) and/or use(s) in a manner which is architecturally integrated with the structure. Such screening shall be a minimum of six feet provided by a decorative wall (i.e., masonry or similar quality material), evergreen hedge, opaque fence complying with the standards of this section, or a similar feature that provides an opaque barrier.

Finding 49: Plans provided along with the site plan review application outline that all mechanical equipment, outdoor storage and manufacturing areas, service and delivery areas, garbage receptacles and recycling containers are fully screened from view with appropriate fencing and landscaping. (See *condition 19*)

Conclusion: As conditioned, the proposal can comply with these standards.

Lighting | WMC 17.44.140

Finding 50: The operator shall be responsible for ensuring that lighting is installed and arranged to ensure that no reflection or glare shall conflict with the readability of traffic signs or control signs. Lighting shall also not rotate, glitter, or flash per WMC 17.46.140. (See *condition 20*)

Conclusion: As conditioned, the proposal can comply with these standards.

Site Standards | WMC 17.44.160

Finding 51: All buildings and yards shall be maintained in a neat and orderly manner. Landscaping shall be maintained in a healthy, presentable state. (See *condition 21*)

Conclusion: As conditioned, the proposal can comply with these standards.

Performance Standards | WMC 17.48

Finding 52: The requirements of this section cover hazards and nuisances including sound level, vibration, air emissions, smoke, dust, odors, industrial wastes, fire hazards, heat, glare, radioactivity and radio transmitters.

The applicant will be responsible for ensuring that their operation is complying with all performance standards. (See *condition 22*)

Conclusion: As conditioned, the proposal can comply with this standard.

Fire Safety

All buildings must be constructed in accordance with WA Building and Fire Codes. Plan revisions and building plans must be submitted directly to Clark-Cowlitz Fire Rescue (CCFR) for fire review.

Finding 53: Applicant is required to receive CCFR site plan approval and comply with all comments and/or conditions. *(See condition 23)*

Finding 54: Building construction plans shall be submitted to CCFR separately, along with any fire alarm and/or fire sprinkler alterations. *(See condition 24)*

Conclusion: As conditioned, the proposal can comply with Fire Code.

Building

The City has adopted the 2018 edition of the International Building Code (IBC) through WMC Title 14. All commercial building review is conducted by Townzen & Associates.

Finding 55: The site plan shows two ADA parking spaces. These meets building code requirements.

Finding 56: Per Washington State Code 51-50-0429 Section 429, electric vehicle charging infrastructure must be provided for at least ten percent of provided parking spaces. For the proposed 29 parking spaces, this would require 3 EV spaces be available while two are listed on provided site plan. One EV charging space must be an ADA-compatible space, one of which is indicated on provided preliminary site plan. A condition has been added that one more EV space must be added to final engineering. *(See condition 25)*

Finding 57: Geotech report requirements and recommendations are required to be incorporated into the design of the project. *(See condition 26)*

Finding 58: The building will be required to comply with WSEC Section C411 (Solar Readiness). *(See condition 27)*

Finding 59: The project will be required to meet ventilation requirements of IMC SEC 502 related to charging and storing batteries. *(See condition 28)*

Finding 60: HVAC, storefront and plumbing are required to be included at plan submittal and are not deferrable items. A condition is added to meet these requirements. *See (condition 29)*

Finding 61: WMC 17.52.080 outlines the City of Woodland's requirements for any signage within industrial (I-1 or I-2) district. Per WMC 17.52.080 it is the applicant's

responsibility to apply for the separate sign permit(s) for any signage proposed. (See condition 30)

Conclusion: As conditioned, the proposal can comply with Building Code.

Engineering

All engineering is reviewed by Gibbs & Olson, the City's engineering services consultant. Notes have been provided by Ryan Walters, who serves as the City Engineer.

Finding 62A: Applicant is responsible for taking appropriate action to address concerns expressed by the associated engineering memo prepared by Ryan Walters, P.E. with Gibbs & Olson and dated 05/27/2022.

Finding 62B: Findings and conditions associated with the preliminary review have been integrated into this staff report under the following subjects;

- **WMC 3.42: Development Impact Fees**
- **WMC Title 12: Streets and Sidewalks**
- **WMC Title 13: Water and Sewage**
- **WMC 15.10: Erosion Control**
- **WMC 15.12: Stormwater Management**

Conditions have been added that the applicant must adhere to provided engineering comments, and that the applicant shall provide responses acknowledging the submitted comments. (See conditions 31 and 32)

Washington Department of Ecology Comments

Finding 63: Applicant is responsible for taking appropriate action to address concerns expressed by the memo prepared by the Washington State Department of Ecology and dated May 12th, 2022:

- Ecology was concerned with mapped wetlands that were previously present and requested further documentation be provided.
- Ecology requested that all grading and filling of land utilize only clean fill and all removed debris be disposed of at an approved site.
- Ecology requires all erosion control measures be put in place and fully functional prior to any clearing, grading, and/or construction activities.

A condition of approval has been added that the applicant must adhere to the requirements expressed by the Department of Ecology. (See condition 33)

Finding 64: Applicant provided ecology with further documentation that addressed concerns over wetlands. This included documentation of applicable Department of Ecology and U.S. Army Corps of Engineers permits permitting the clearing of wetlands on the project site, along with City permitting (FGR-17-003) to perform the work required to clear identified wetlands. This further documentation addressed ecology's concerns.

Conclusion: Applicant can comply with comments provided by the department of ecology.

Citizen Comments

Finding 65: David Simpson, a local resident, and the owner of an adjacent property, provided two comments specific to this project, the first through a phone call on approximately May 5th, 2022, and the second through an email on May 10th, 2022.

Finding 66: David Simpson, the owner and operator of Burriss Creek Mini-Storage on Robinson Road, which is adjacent to the rear of the proposed site of development, expressed two primary concerns:

- Concern over procedural errors on the part of the city, which were addressed with the revised Notice of Application and reopening of the comment period on May 11th, 2022.
- Concerns over the applicant's stormwater detention system, specifically that proposed stormwater detention pond located at the rear of the property does not have the capacity to ensure that on-site detention does not spill over to adjacent properties through an identified emergency overflow.

Finding 67: Our engineering team was provided these specific comments and has completed their review of the engineering documentation provided (See finding 61), including provided preliminary Stormwater TIR, civil plans, and preliminary site plan. Based on their review and comments, it is believed that the applicant can adequately address all engineering concerns addressed, and provide any applicable revisions required to be consistent with WMC chapter 15.12, and the 1992 Stormwater Management Manual for the Puget Sound.

Finding 68: While, as stated above, the City has determined provided stormwater plans to be acceptable and provided comments so that the applicant can provide a final TIR along with other documentation that is fully compliant with city standards, the applicant is strongly encouraged to take the opportunity to start a dialogue with Mr. Simpson and other neighbors in the interest of addressing their concerns. The city would be more than happy to help open lines of communication, if requested.

Preliminary Site Plan Approval | WMC 19.10.070

Finding 69: The applicant submitted a preliminary site plan. Per WMC 19.10.070, the applicant is required to submit for final civil plan approval and submit a final site plan application. (*See conditions 34 and 35*)

Conclusion: The preliminary site plan can be approved with conditions.

III. COMPREHENSIVE PLAN REVIEW

Land Use: Under the City of Woodland Comprehensive Plan, as established in 2016, the purpose and primary goal of our established Comprehensive Plan Land Use Map is to protect and enhance the character and long-term stability of the city through current standards for land development and subdivision utilizing proper and clear zoning policy.

Finding 70: The proposed development is located within the light industrial district as defined by the Comprehensive Plan, the purpose of which is to designate areas primarily for light manufacturing, distribution, sales and services, research, and office space.

Conclusion: Proposed development under consideration is proposed as a 15,050 SF warehouse and distribution site for golf carts with an on-site office structure, uses which are consistent with its Light Industrial (I-1) zoning within the Comprehensive Plan Land Use Map.

Transportation: Under the Comprehensive Plan's Transportation outline, the primary goal of the established transportation planning process is to facilitate the implementation and expansion of a convenient, safe, and efficient transportation system that promotes the mobility of people and goods within and through the city.

Finding 71: The proposed development offers roadway connections within the city road network, as well as facilitate the transportation of goods locally.

Conclusion: Proposed development under consideration is consistent with the goals and policies outline within the Comprehensive Plan's Transportation outline.

Economic Development: Under the Comprehensive Plan's Economic Development Outline, the primary goal of the established economic development planning process is to continue to foster economic growth within those industries that have sustained the community and to foster re-investment in the city center, with the intention of balanced economic growth.

Finding 72: The proposed development is a warehousing and distribution site with an on-site office, which is consistent with other industries within the light industrial zoning district, establishing continued economic growth within an established industry.

Finding 73: The proposed development is in line with providing a balanced economy between industrial and commercial uses, as it would promote diversification of our economic balance following recent major commercial developments while also attracting more business through customers and employees of the new development.

Conclusion: Proposed development under consideration is consistent with the goals and policies of the Comprehensive Plan's Economic Development outline.

Environment: The primary goal of the Comprehensive plan's Environmental outline is to ensure that the City of Woodland remains an effective steward of the environment, protects critical areas, and conserves land, air, water, cultural, and energy resources.

Finding 74: The proposed development has been submitted for a SEPA review, as well as generally providing required economic protection documentation as outlined in the Woodland Municipal Code.

Conclusion: Proposed development under consideration is consistent with the goals and policies of the Comprehensive Plan's Environmental outline.

IV. ENVIRONMENTAL REVIEW

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request. This Determination of Non-significance (DNS) is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

V. DECISION

Per WMC 19.08.030, the above application for the preliminary Site Plan Review has been **APPROVED WITH CONDITIONS** by the City of Woodland's Development Review Committee (DRC) based on the criteria and standards outlined in Woodland Municipal Code (WMC). See *Section VII for conditions of approval.*

VI. CONDITIONS OF APPROVAL

1. The following impact fees have been estimated based on the first phase of the preliminary application and will be due at time of building permit issuance:
 - a. Fire Impact Fees:
 - i. Commercial: \$7,675.50 (\$.51 per square foot of commercial space).
 - b. Transportation Impact Fees:
 - i. Commercial – 7.7 peak hour trips X \$838 per trip = \$6452.60.

Water and sewer assessment fees are required based on meter size in accordance with the Woodland rate schedule.

2. All impact fees are charged with building permit issuance. All provided calculations are estimated and subject to change.
3. Final landscaping plan is required to identify proposed street trees. All proposed street trees, whether *Fraxinus americana* or otherwise, must be a permitted street tree per City of Woodland standards.
4. Applicant shall construct all required streetlights, and any other required frontage improvements, along their frontage on Schurman Way in conformance with City of Woodland Engineering Standards as found:
<https://www.ci.woodland.wa.us/publicworks/page/construction-standards>.
5. Applicant shall utilize existing water and sewer stubs for connection if possible and permanently abandon any service stub that are not used.
6. Comply with water supply backflow and cross-connections requirements of WMC 13.28.
7. The fire mains shall be public mains with a 15-foot wide easement to the City.
8. A final utility plan is required with civil plan submittal. Final utility must show proposed location, size, connection points to existing public systems and terminus points for sanitary sewer, water, and stormwater drainage. Public and private easement for all utilities shall be indicated.
9. A NPDES permit from the Department of Ecology is required in cases in which more than one acre is being disturbed.
10. A final erosion control plan will be required with final engineering plans. The applicant is required to install and maintain erosion control measures per the best management practices as outlined in WMC 15.10.
11. Revise the proposed construction entrance as directed to ensure accordance with WMC.

12. A Final Stormwater Technical Information Report (TIR) is required that complies with WMC 15.12 and the 1992 Stormwater Management Manual for the Puget Sound Basin as adopted by the City of Woodland and addresses the following concerns:

- a. Add 25-year, 24-hour storm values to Table 1 and Table 2.
- b. Revise the HydroCAD model for 2-foot-wide swale bottom or revise plans to show 2.5-foot-wide swale bottom.
- c. Provide under drains for the biofiltration swales.

12b. Final Stormwater TIR submitted for Civil review shall demonstrate that all stormwater will be managed completely on site and that no stormwater will be conveyed, dumped, or otherwise spill over onto any adjacent property per WMC 15.12.100(A)(6).

13. Applicant shall provide required information regarding projected employment at prior to civil review to confirm compliance with parking lot requirements.

14. A final landscaping plan meeting all requirements within WMC 17.44.133 is required to be submitted alongside the final site plan application prior to final approval. Final landscaping plan must include tabulations showing the area and percentage of the following:

- a. Entire site;
- b. Total landscaping area(s);
- c. Areas covered by groundcover;
- d. Areas covered by nonplant materials;
- e. Areas covered by tree canopy and/or shrubs;
- f. Each required setback area;
- g. Total parking area;
- h. Parking lot landscaping; and
- i. Other landscaping areas.

Final approval will not be given until the final landscaping plan has been approved.

15. Approved landscaping plan must be implemented as approved prior to occupancy of the building.

16. The City of Woodland should be informed of any changes to the approved landscaping plan, including changes in coverage, street trees, and/or tree, shrub, or ground cover proposed.

17. Final landscaping plan provided alongside civil review must provide the diameter of all proposed trees and comply with WMC 17.44.135 (E).

18. Final landscaping plan must provide accurate calculations (in square feet and percentages) for parking lot area and parking lot landscaping.

19. All mechanical equipment, outdoor storage and manufacturing areas, service and delivery areas, garbage receptacles and recycling containers must be fully screened from view of all public streets and adjoining nonindustrial zoning district(s) and/or use(s) per the requirements of WMC 17.44.136 (G).
20. Final photometric plan is required with civil review submission. Lighting shall not rotate, glitter, and/or flash per WMC 17.46.140.
21. It is the responsibility of the property owner to ensure that all buildings and yards are maintained in a neat and orderly manner.
22. The applicant will be responsible for ensuring that their operation is complying with all performance standards of WMC 17.48 (hazards and nuisances including sound level, vibration, air emissions, smoke, dust, odors, industrial wastes, fire hazards, heat, glare, radioactivity and radio transmitters).
23. Submit site plan to CCFR for review. Include any required revisions with the civil engineering submission. All work subject to field inspection and correction as identified at the time of the on-site inspection; all work shall be compliant with the applicable standards and codes; to include the adopted edition of the International Fire Code and the City's Municipal Code.
24. Building/construction plans must be submitted to CCFR separately, along with fire alarm and/or fire sprinkler alterations. It is the responsibility of the applicant to comply with any and all conditions placed upon the development by CCFR as the City of Woodland will not approve any proposed development without CCFR approval.
25. One additional EV charging parking space must be indicated on final engineering plans and installed prior to receiving their certificate of occupancy consistent with WAC 51-50-0429, and installed alongside construction of the proposed parking area.
26. Geotech report requirements and recommendations are required to be incorporated into the design of the project.
27. Final building and engineering plans must show compliance with solar readiness requirements of Washington State Energy Code section C411.
28. Final building and engineering plans must show compliance with all ventilation requirements of the International Mechanical Code section 502 as related to the charging and/or storage of batteries.
29. HVAC, storefront, and plumbing are required submittals to be included at plan submittal and are not deferrable items.
30. All proposed signs must comply with the standards of WMC 17.52.080 governing signage in industrial districts, and will require separate sign permit(s).

31. It is the applicant's responsibility to make any relevant revisions based on provided engineering comments. Refusal to address concerns brought up within the provided engineering notes, as well as further feedback provided as a part of the Civil review process, may lead to delay of approval as well as increased financial costs. If the applicant believes any comments were made in error, these concerns should be brought up so they can be addressed.
 32. Applicant shall provide responses acknowledging and responding to (if required) the submitted engineering comments with their submission for Civil Review, and any subsequent review.
 33. It is the applicant's responsibility to make any relevant revisions and/or acquire any relevant permits based on provided comments from the Department of Ecology.
 34. Applicant is responsible for submitting a revised site plan alongside proposed final civil engineering plan(s) at Civil Review. Civil review packet should include all documents required to document the applicant's compliance with listed conditions of approval, as well as all revised engineering plans reflecting provided engineering comments. The civil review application can be found: <https://www.ci.woodland.wa.us/planning/page/civil-review-submission>.
- Following final, civil review and engineering approval, submit two (2) copies of full sized and one (1) copy of reduced size (11" x 17") of the approved civil plans (including the final site plan and landscaping plan). In addition, submit an electronic version of the approved plans including AutoCAD and .pdf formats.
35. Payment shall be made to the City for any outstanding Professional Consulting Services per Woodland Ordinance 1097.

VII. APPEAL PROCEDURE

As per WMC 19.08.020 and 19.08.030, this Notice of Decision may be appealed to the Hearing Examiner within 14 days of the date this decision is issued. The appeal with grounds for appeal in writing shall be submitted to the Community Development Department **by 5:00 p.m., June 15th, 2022.**

Staff Contact: David Lukaczer, Associate Planner
City of Woodland
P.O. Box 9
230 Davidson Ave
Woodland, WA 98661
lukaczerd@ci.woodland.wa.us

VIII. NEXT STEPS

If there is no appeal to the decision, the applicant may move forward to develop the site.

- Submit final civil plans addressing the conditions above. Include Woodland standard details for water, sewer, erosion control, etc. as required to support the civil design when you submit drawings for final civil approval.
 - a. The details can be found at www.ci.woodland.wa.us/departments/public-works/standards.php.
 - b. Submit final civil plans to: https://woodlandwa.seamlessdocs.com/f/civil_review
- Once civil plans are approved:
 - a. Upload approved plans to Clark County Fire and Rescue for electronic signature: www.clarkfr.org. Print the plans once signed.
 - b. Contact Public Works to arrange for signature: 360-225-7999. Then, bring plans signed by Clark County Fire and Rescue to Public Works for signature.
 - c. Provide a .pdf to Public Works of signed plan set.
- Submit building, grading, and sign permits online: www.ci.woodland.wa.us/documents/
 - a. Contact Janice Fisher, Permit Technician, for assistance: 360-225-7299.
 - b. Pay any outstanding professional consulting services per Woodland Municipal Code, Ordinance 1097.
- Schedule a pre-construction meeting before beginning any construction activities. Contact Public Works at 360-225-7999 to schedule.
- Install all required landscaping and irrigation prior to applying for final occupancy.
- Submit one full-sized and one copy of reduced size (11" x 17") as-built drawings. In addition, submit a CD/thumb drive containing the as-built drawings in AutoCAD and pdf formats prior to applying for final occupancy.

Date: _____

Signature: _____

David Lukaczer, Associate Planner

cc: Applicant
Parties of Record
File
Website
Mayor
City Administrator

ATTACHMENTS

A. Site Plan

Attachment A

Site Plan



WILSON
ARCHITECTS, PLLC
404 E 15TH ST. #7
VANCOUVER, WA.
98663
(360) 696-4722



SITE PLAN REVIEW 04-13-22

WAREHOUSE & OFFICE
1951 SCHURMAN WAY
WOODLAND, WA 98674

DATE	03-24-22	SCALE	AS NOTED
JOB NO.	121	DRAWN BY	RMH
REVISIONS:			
▲			
▲			
▲			
▲			
▲			
▲			
▲			

A1.1
SITE PLAN
& KEYNOTES



SITE CALCULATIONS

SITE AREA CALCULATION			
LOT AREA	133,293.60 SF	PERCENTAGE	%
BUILDING FOOTPRINT/COVERED SHED ROOF	15,050.00 SF		11.29% %
TRASH ENCLOSURE	200.00 SF		0.15% %
PEDESTRIAN WALKWAY	1,080.00 SF		0.81% %
MECH/ELECT PAD/APPRON	318.00 SF		0.24% %
PERIMETER LANDSCAPE AREA	37,284.00 SF		27.97% %
INTERIOR LANDSCAPE	4,923.00 SF		3.69% %
PAVING	74,438.60 SF		55.85% %
TOTAL AREA	133,293.60 SF		100.00% %
BUILDING AREA			
OFFICE	3,675 SF		
WAREHOUSE/WORK AREA	3,125 SF		
WAREHOUSE/EV STATION	3,750 SF		
ROOF SHED AREA	4,500 SF		
TOTAL AREA	15,050 SF		
MEZZANINE FLOOR	1,250 SF		

WOODLAND MUNICIPAL CODE

SITE AREA
APPROXIMATE AREA INFO: (3.06 ACRES)

CHAPTER 17.44 - LIGHT INDUSTRIAL DISTRICT (I-1)
MAXIMUM HT **45 FT**
I-1 USE BUILDINGS (MAXIMUM HT) **45 FT**

I-1 USE BUILDINGS (MAXIMUM HT)
MORE THAN FIFTY-FIVE FEET TO EAVE HEIGHT. **55 FT**

17.44.070 - BUILDING SETBACKS
FRONT SETBACK **10 FT**
SIDE YARD MINIMUM **25 FT**
REAR SETBACK **25 FT**

LOT COVERAGE: NO LOT COVERAGE LIMITATIONS

17.44.100 - OFF-STREET PARKING AND LOADING.

17.44.133 - LANDSCAPING PLAN REQUIREMENTS.

17.44.136 - LANDSCAPE DESIGN AND SCREENING REQUIREMENTS, PER LANDSCAPE PLAN - LI1

PARKING REQUIREMENT
CHAPTER 17.56 - OFF-STREET PARKING AND LOADING REQUIREMENTS
OFFICE: 1:200 SF GROSS
STORAGE AND WAREHOUSING:

17.56.160 - ELECTRIC VEHICLE CHARGING STATION SPACES.

VICINITY MAP



TOXIC HAZARDS

IF ASBESTOS CONTAINING EXTERIOR CAULK IS TO BE REMOVED OR OTHERWISE DISTURBED, WORK MUST BE PERFORMED BY QUALIFIED AND TRAINED PROFESSIONALS IN ACCORDANCE WITH APPLICABLE STATE AND FEDERAL REGULATIONS. SCOPE AND CONTRACT FOR ANY ASBESTOS-RELATED WORK SHALL BE SUBMITTED TO CITY OF VANCOUVER PRIOR TO THE WORK BEING PERFORMED.

STORM WATER

ONSITE STORM FACILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE OWNER. A COVENANT RUNNING WITH THE LAND IS GRANTED TO THE CITY OF VANCOUVER FOR ACCESS AND THE CITY OF VANCOUVER FOR ACCESS AND FOR ACCESS AND INSPECTION OF THE PRIVATE STORM FACILITIES.

INADVERTENT DISCOVERY

IN THE EVENT OF AN INADVERTENT DISCOVERY OF POTENTIALLY SIGNIFICANT ARCHAEOLOGICAL MATERIALS (BONES, SHELL, STONE TOOLS, HEARTHES, ETC) AND/OR HUMAN REMAINS DURING PROJECT ACTIVITIES, ALL WORK IN THE IMMEDIATE VICINITY SHOULD STOP, THE AREA MUST BE SECURED, AND THE DISCOVERY MUST BE REPORTED TO THE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION (DAHP) (360-586-3065) AND ALL RELEVANT NATIVE AMERICAN TRIBES. IN THE EVENT HUMAN REMAINS ARE IDENTIFIED, LOCAL LAW ENFORCEMENT, THE COUNTY MEDICAL EXAMINER, STATE PHYSICAL ANTHROPOLOGIST AT DAHP (360-586-3534), THE CLARK COUNTY PLANNING OFFICE, AND THE AFFECTED TRIBES SHOULD BE CONTACTED IMMEDIATELY. COMPLIANCE WITH ALL APPLICABLE LAWS PERTAINING TO ARCHAEOLOGICAL RESOURCES (RCW 27.153, 27.144 AND WAC 25-48) AND HUMAN REMAINS (RCW 68.50) IS REQUIRED.

CONST. DATA

NOTE: THE PROPOSED ONE STORY STRUCTURE IS SLAB ON GRADE WITH WOOD STRUCTURAL WALL AND ROOF FRAMING SYSTEM. CONSTRUCTION TYPE V-B.

TYPE OF CONST. (IBC 602.1)
• OFFICE WOOD FRAME V-B SPRINKLERED B, 91

OCCUPANCY: B, 91

MAX ALLOWABLE: 1

STORIES: 25'-3"

HEIGHT: 25'-3"

FLOOR AREA
BASEMENT NO
MAIN FLOOR AREA 15,050 SF
MEZZANINE 1,250 SF

KEY NOTES

- | | |
|--------------------------------------|---|
| 1 PROPOSED WAREHOUSE AND OFFICE | 11 DETENTION POND AND BIOFILTRATION SWALE SEE CIVIL DUG |
| 2 LOADING BAY | 12 SHARED DRIVEWAY |
| 3 EV GOLF CART CHARGING STATION | 13 LANDSCAPE AREA |
| 4 WASHING AREA | 14 TRANSFORMER PAD SEE ELECT DUG |
| 5 CONCRETE PAVING | 15 MECH EQUIP PAD SEE MECH DUG |
| 6 TRASH ENCLOSURE | 16 LOADING AREA |
| 7 STANDARD PARKING | |
| 7.1 EV STANDARD PARKING | |
| 8 ADA PARKING WITH SIGN | |
| 9 5' WIDE PEDESTRIAN WALKWAY | |
| 10 BIOFILTRATION SWALE SEE CIVIL DUG | |

SITE INFO

PROPERTY OWNER:
DT REALTY LLC
610 NW 161ST CIRCLE
RIDGEFIELD, WA 98642

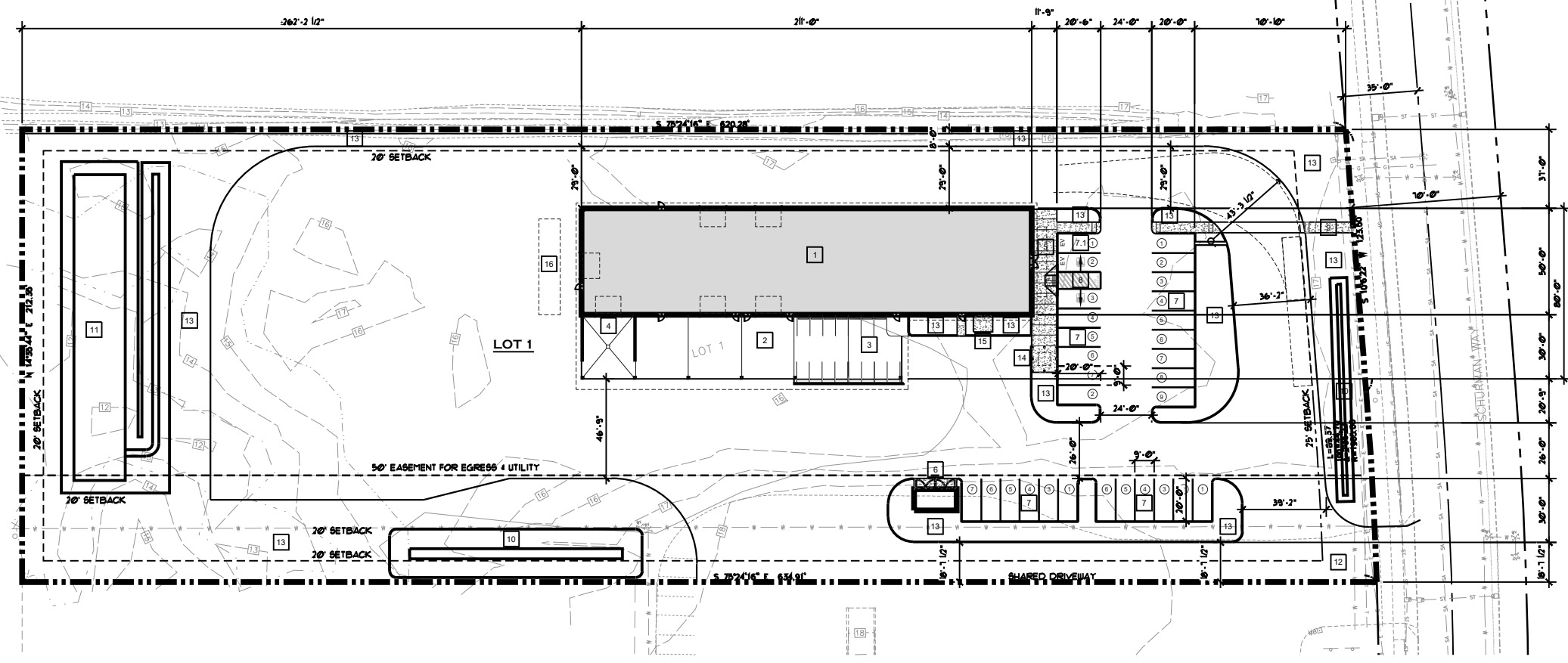
PROPERTY ADDRESS:
1951 SCHURMAN WAY
WOODLAND, WA 98674

PARCEL NUMBER: 507870102
PROPERTY ID: 3050492

JURISDICTION:
NEIGHBORHOOD: KALAMA/WOODLAND INDUSTRIAL
SECTION-TOWNSHIP-RANGE: 13-5N-1W

AREA:
ABBREVIATED PROP REF: 816 (WOODLAND OUTLOT) - WOOD - 289B 13 - 5N - 1W STRONG DLC. WD12136 LOT 1 EXC WD12136 LOT 2 FEE 3103509.
NEIGHBORHOOD ZONING: KALAMA/WOODLAND INDUSTRIAL I-1
DOR LAND USE CODE 91 - UNDEVELOPED LAND
NEIGHBORHOOD KALAMA/WOODLAND INDUSTRIAL
TAX CODE AREA 900

APPLICANT:
WILSON ARCHITECTS PLLC
ATTN: RUSTY MUYELA
P: (360) 696-4722
F: (360) 696-0392
rusty@wilsonarchitects.us



SITE PLAN
SCALE: 1/32" = 1'-0"



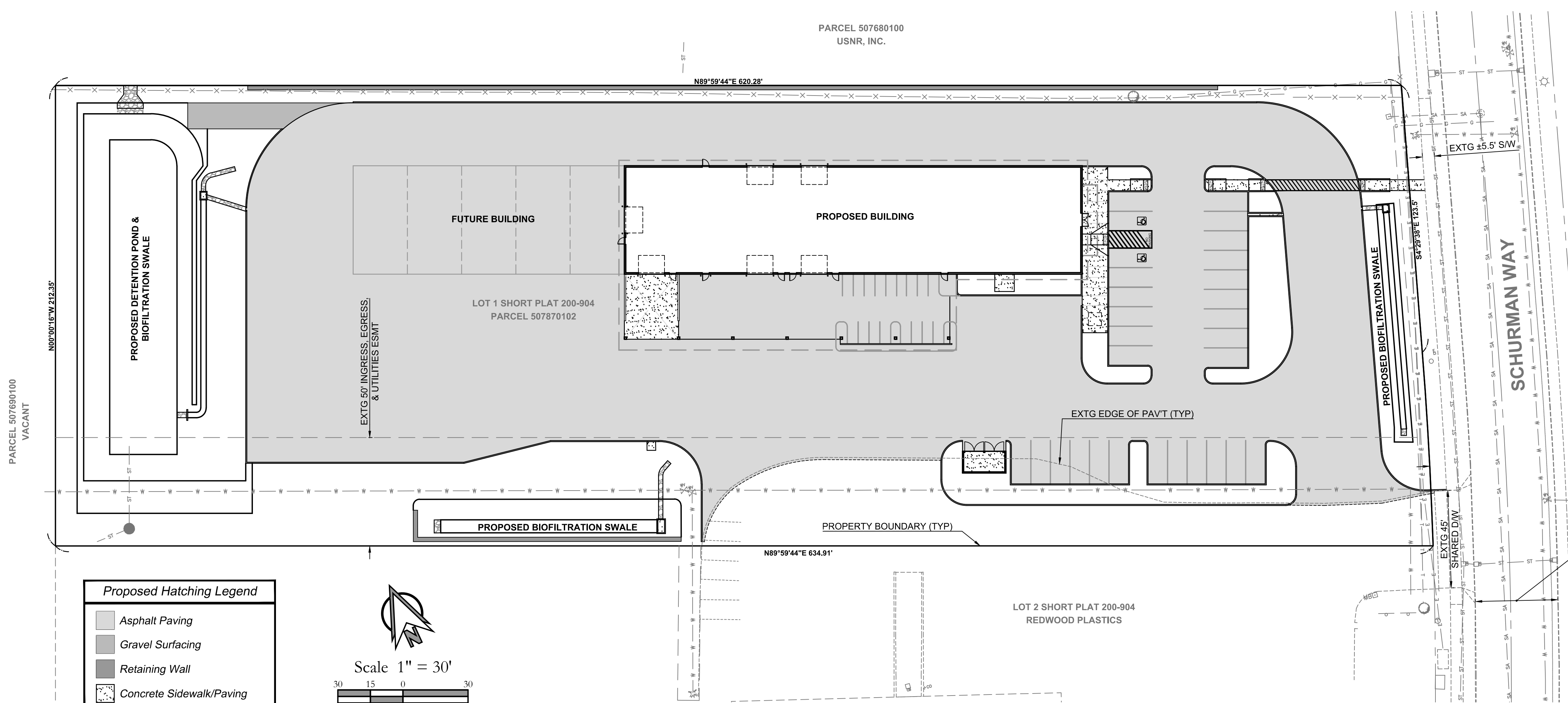
Dawkins Warehouse

Located in the NW 1/4 of Section 13 T5N, R1W, W.M.
City of Woodland, Washington

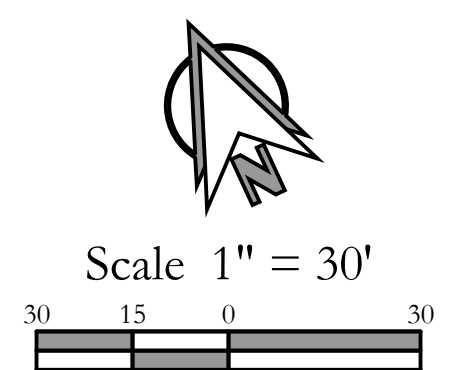


VICINITY MAP
NOT TO SCALE

Sheet Index	
01 - Cover Sheet	
02 - General Notes & Legend	
03 - Existing Conditions	
04 - Grading & Erosion Control Plan (West)	
05 - Grading & Erosion Control Plan (East)	
06 - Erosion Control Details	
07 - Drainage & Site Improvement Plan (West)	
08 - Drainage & Site Improvement Plan (East)	
09 - Sanitary Sewer & Water Plan	
10 - Miscellaneous Details	
11 - Miscellaneous Details	
12 - City of Woodland Standard Transportation & Drainage Details	
13 - City of Woodland Standard Water Details	
14 - City of Woodland Standard Water Details	
15 - City of Woodland Standard Sewer Details	



Proposed Hatching Legend	
	Asphalt Paving
	Gravel Surfacing
	Retaining Wall
	Concrete Sidewalk/Paving



GENERAL INFORMATION:

Applicant:
Wilson Architects PLLC
Attn: Ryan Wilson
404 E 15th St. #7
Vancouver, WA 98663
Phone: (360) 696-4722
Fax: (360) 696-0392
Email: Ryan@WilsonArchitects.us

Civil Engineer:
PLS Engineering,
Andrew Gunther
604 W Evergreen Blvd.
Vancouver, WA 98660
Ph. (360) 944-6519
Fax (360) 944-6539
e-mail: Andrew@PLSEngineering.com

Owner/Developer:
Pacific Golf and Turf LLC
Mark Dawkins
14625 SE Stark St.
Portland, OR 97233

Site Address/Parcel Number:
1951 Schurman Way
Woodland, WA 98674
Parcel #507870102

Project Benchmark is a 9/16" stainless steel rod with datum point, sleeve, and Cowlitz County GIS Department access cover stamped "Dike Access 1993". Access benchmark by taking Exit 22 from I-5, go easterly 0.1± mile to gravel road left, turn left and go northerly on the gravel road 0.10 miles to the station on the left. Benchmark elevation 38.205, NAVD 88.

A minimum of 2 full working days and a maximum of 10 working days prior to beginning construction, the Contractor shall call 1-800-553-4344 (Northwest Utilities Notification Center) for location mark-up of existing utilities.

All work in City right-of-way will conform to the requirements of the City of Woodland. A right-of-way permit from the City will be required prior to work in the right-of-way.

All site grading and erosion control, construction, materials and workmanship shall conform to the Engineering Standards of the City of Woodland and the latest edition of the "Standard Specifications for Road, Bridge, and Municipal Construction" as prepared by WSDOT/APWA.

Any archaeological findings shall be immediately (within 24 hours) reported to the City Planning Department and any state agency required by Washington State law. Construction in the vicinity of the findings shall be ceased immediately and the findings shall be protected from outside intrusion.

A pre-construction conference shall be held prior to the start of construction.

CITY OF WOODLAND Phone: 360-887-4609
PO Box 9 / 230 Davidson Fax: 360-887-0862
Woodland, WA 98674
www.ci.woodland.wa.us

Permit Number: _____
Signature _____ Date _____
Fire Chief or Designee

CITY OF WOODLAND Phone: (360) 225-7999
PUBLIC WORKS DEPARTMENT Fax: (360) 225-7467
PO Box 9 - 300 E Scott Ave
Woodland, WA 98674
www.ci.woodland.wa.us

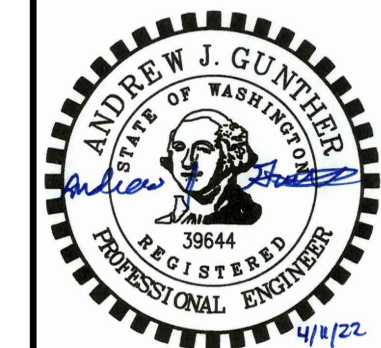
Plans Reviewed for Compliance with City Standards and Policies

Permit Number: _____
Recommended for Approval: _____ Date _____
Public Works Director

Improvement Summary		
Street Improvements	0	LF
Water Main Footage	21	LF
Sewer Main Footage	0	LF
Septic System Decommission	0	EA
Trenching with City Right-of-Way	0	LF
Total Impervious Surface	88,752	SF
Private Impervious Surface	2.04	AC
Grading	Cut 524' CY Fill 4,782' CY	

*Grading quantities provided are gross volumes between existing grade & proposed finish grade with no adjustments for stripplings, imported rock and asphalt, compaction factors, trench spoils, or other construction factors.

Revisions	
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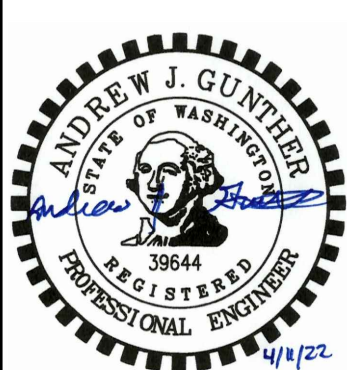
Project No. 3405
SCALE: H: 1" = 30'
V: N/A
DESIGNED BY: TJL
DRAFTED BY: TJL
REVIEWED BY: AJG

Dawkins Warehouse

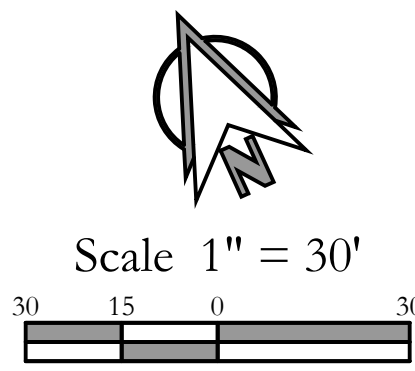
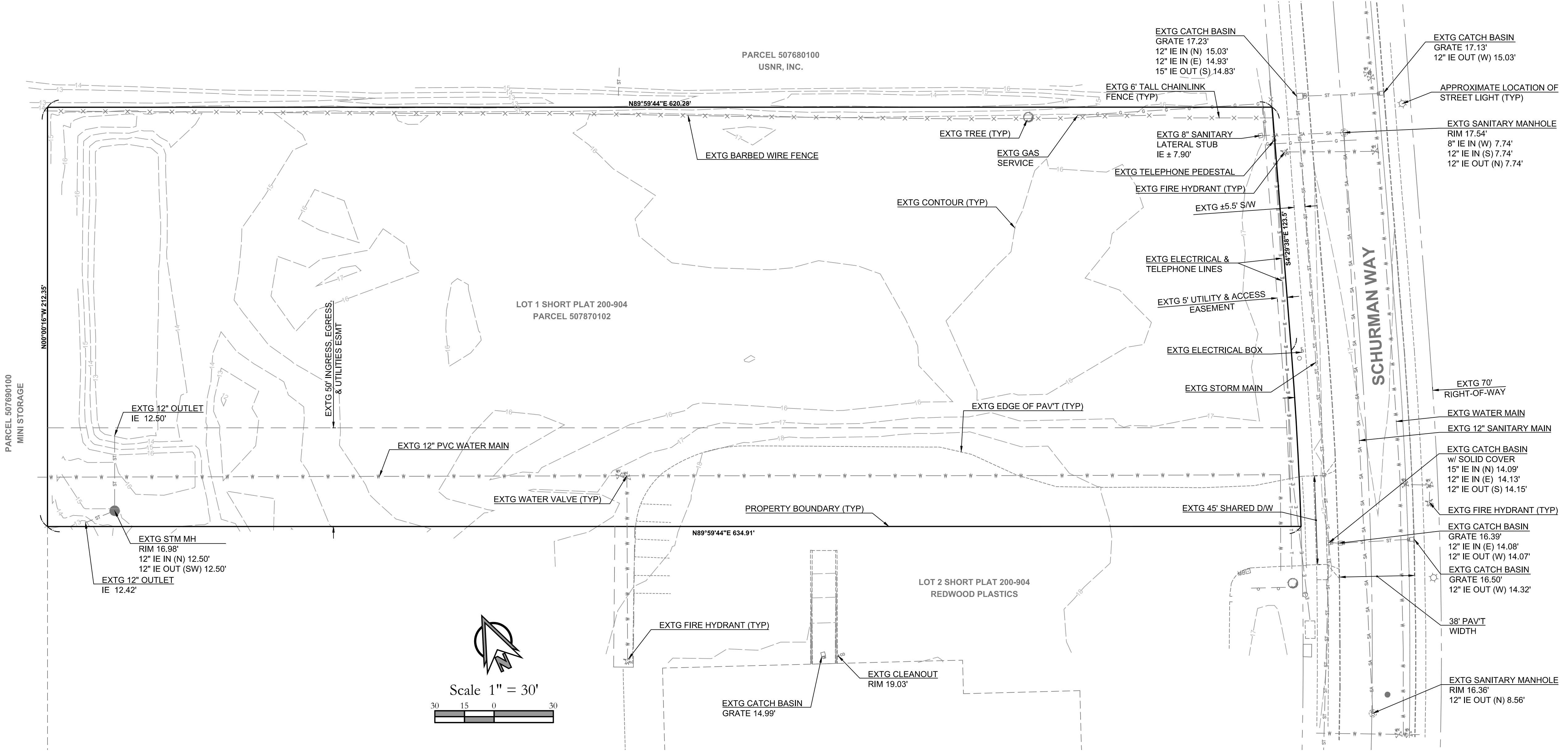
A Site Located in the City of Woodland, Washington

Existing Conditions For:

Revisions



Project No. 3405
 SCALE: H: 1" = 30'
 V: N/A
 DESIGNED BY: TJL
 DRAFTED BY: TJL
 REVIEWED BY: AJG

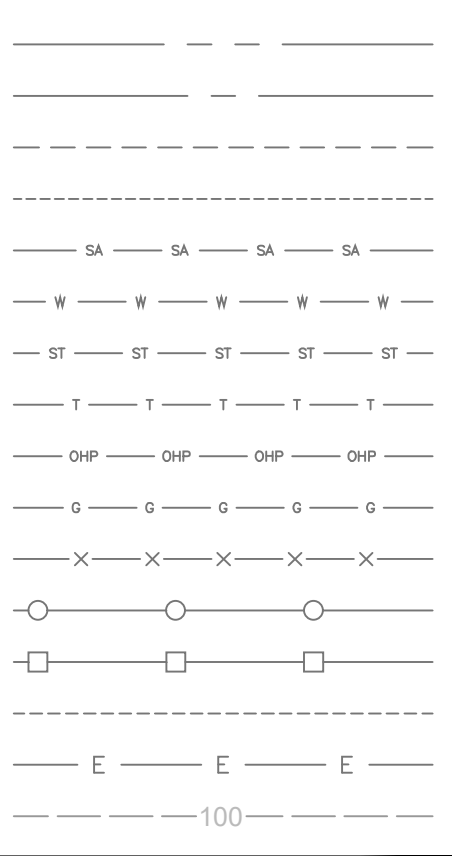


BENCHMARK:

Project Benchmark is a 9/16" stainless steel rod with datum point, sleeve, and Cowlitz County GIS Department access cover stamped "Dike Access 1993". Access benchmark by taking Exit 22 from I-5, go easterly 0.1± mile to gravel road left, turn left and go northerly on the gravel road 0.10 miles to the station on the left. Benchmark elevation 38.205, NAVD 88.

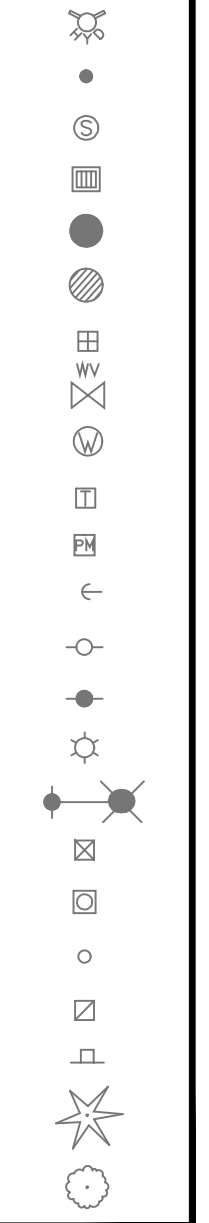
Linetype Legend

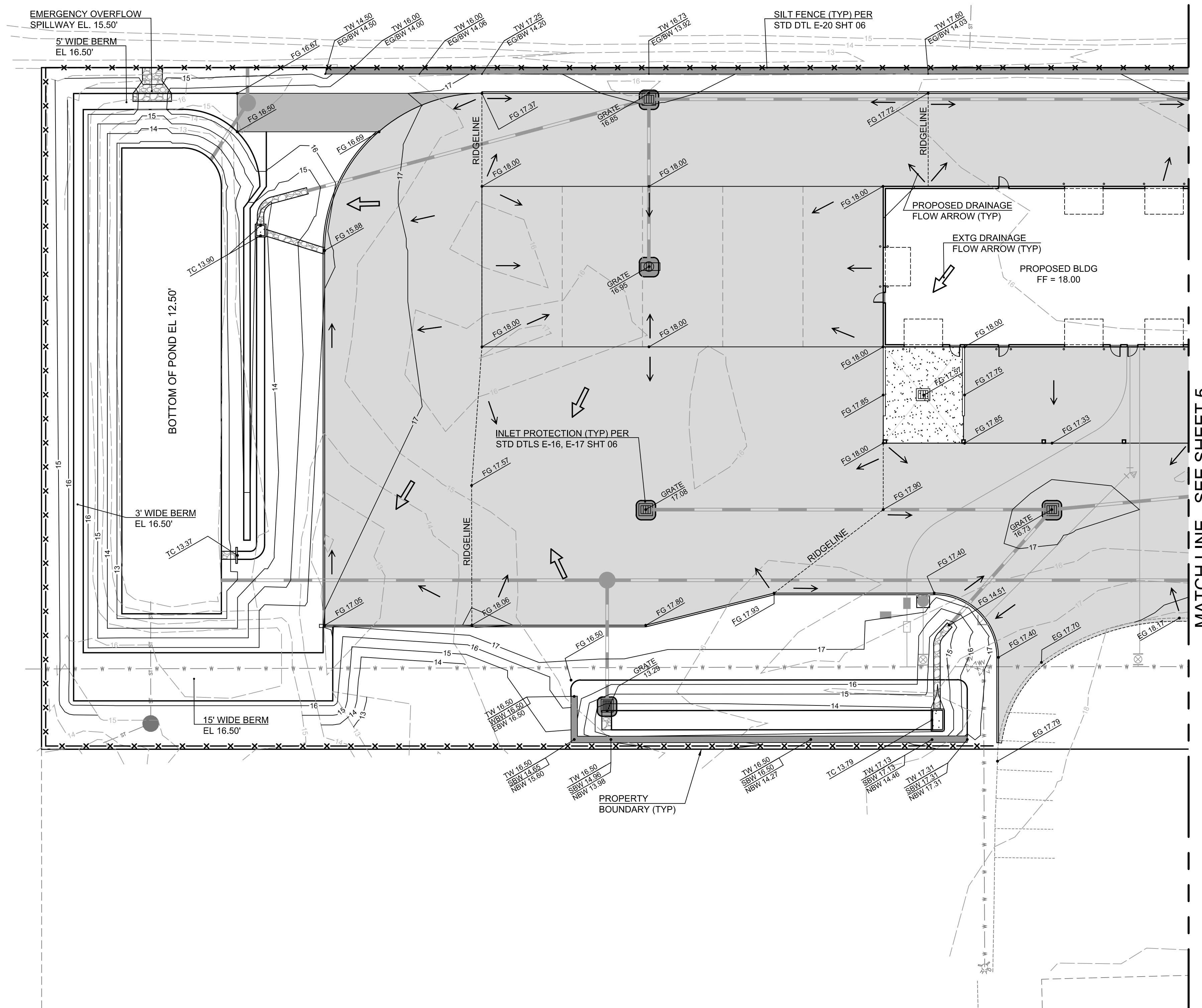
- Existing Road Right-of-Way
- Existing Road Centerline
- Existing Property Line
- Existing Pavement Edge
- Existing Sanitary Sewer
- Existing Waterline
- Existing Storm Sewer
- Existing Telephone Line
- Existing Overhead Power
- Existing Gas
- Existing Chain Link Fence
- Existing Cyclone Fence
- Existing Wood Fence
- Existing Sidewalk
- Existing Electric Line
- Existing Ground Contour



Master Symbol Legend

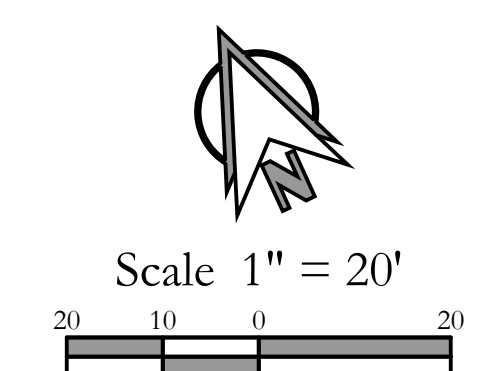
- Existing Fire Hydrant
- Existing Property Corner
- Existing Sanitary Sewer Manhole
- Existing Storm Catch Basin
- Existing Storm Manhole
- Existing Area Drain
- Existing Water Meter
- Existing Water Valve
- Existing Water Manhole
- Existing Telephone Vault
- Existing Power Meter
- Existing Guy Wire
- Existing Power Pole
- Existing Power Pole w/Underground
- Existing Street Light
- Existing Street Light & Underground Power
- Existing Telephone Riser
- Existing Gas Meter
- Existing Stand Pipe
- Existing Power Riser
- Existing Street Sign
- Existing Coniferous Tree
- Existing Deciduous Tree





GRADING SPOT ELEVATION ABBREVIATIONS
 TC = TOP OF CURB OR TOP OF CONCRETE ELEVATION
 FG = FINISH GRADE AT TOP OF PAVT OR EXTERNAL TO BLDG
 SW = FINISH GRADE FOR SIDEWALK
 EG = EXTG GRADE AT EDGE OF PAVT (FOR REFERENCE)
 GRATE = CATCH BASIN OR INLET RIM ELEVATION
 TW = FINISHED GRADE AT TOP OF WALL
 BW = FINISHED GRADE AT BOTTOM OF WALL
 NBW = FINISHED GRADE AT BOTTOM OF WALL ON NORTH SIDE
 EBW = FINISHED GRADE AT BOTTOM OF WALL ON EAST SIDE
 SBW = FINISHED GRADE AT BOTTOM OF WALL ON SOUTH SIDE
 WBW = FINISHED GRADE AT BOTTOM OF WALL ON WEST SIDE

- GRADING NOTES:**
- 1 ALL TOP OF CURB ELEVATIONS ARE 0.5' ABOVE PAVEMENT FINISH GRADE (FG) ELEVATION SHOWN UNLESS OTHERWISE INDICATED.
 - 2 SIDEWALK CROSS-SLOPES SHALL NORMALLY BE 2% TOWARD ADJACENT PAVEMENT (AWAY FROM THE BUILDING) UNLESS OTHERWISE INDICATED ON THIS PLAN BY SPOT GRADES.
 - 3 EXCEPT WHERE OTHERWISE NOTED BY FG ELEVATIONS, FINISH GRADE EXTERNAL TO THE BUILDING IS EQUAL TO BLDG FINISH FLOOR.



Proposed Hatching Legend

	Asphalt Paving
	Gravel Surfacing
	Retaining Wall
	Concrete Sidewalk/Paving

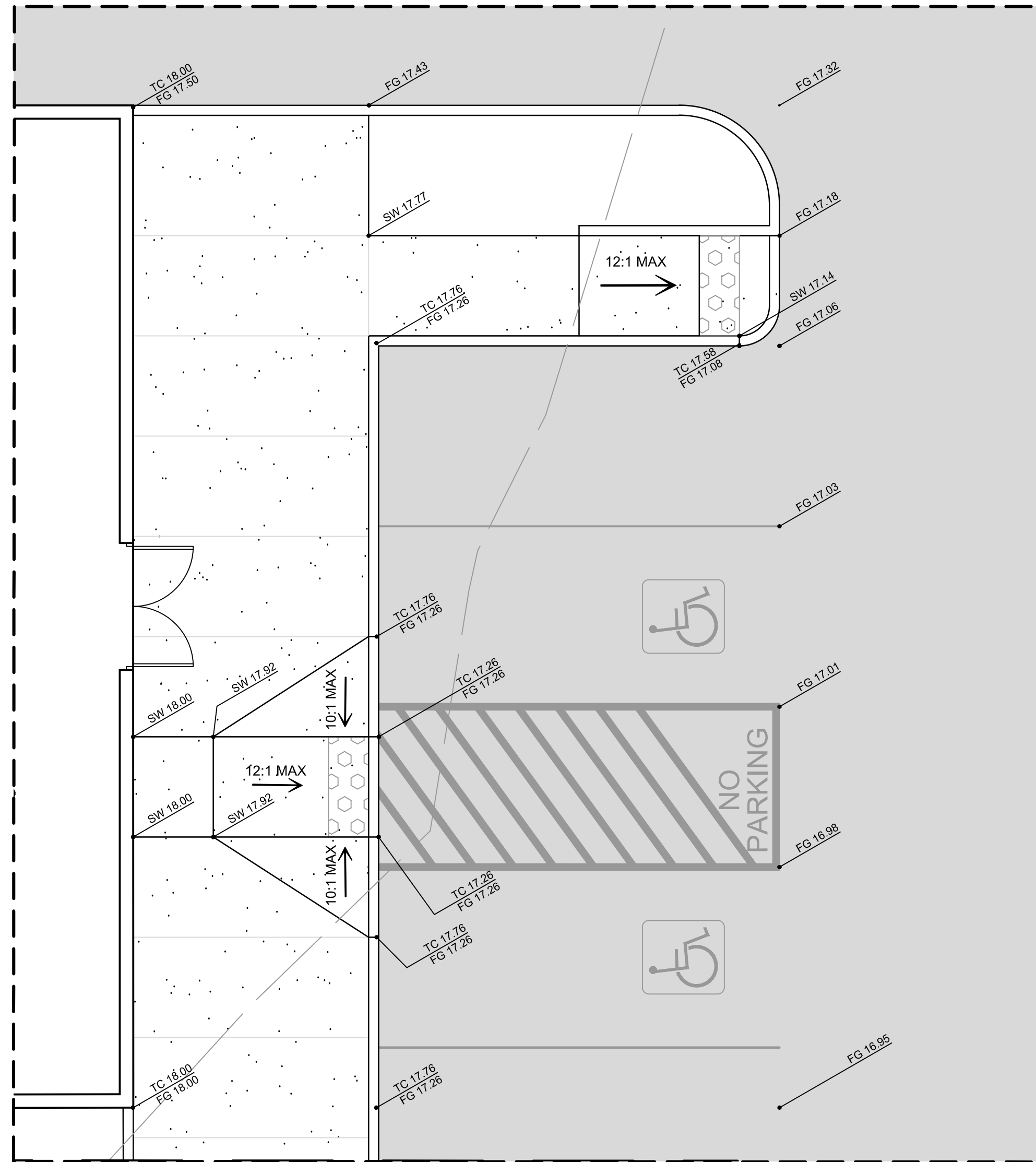
Grading & Erosion Control Plan (West) For:

Dawkins Warehouse

A Site Located in the City of Woodland, Washington

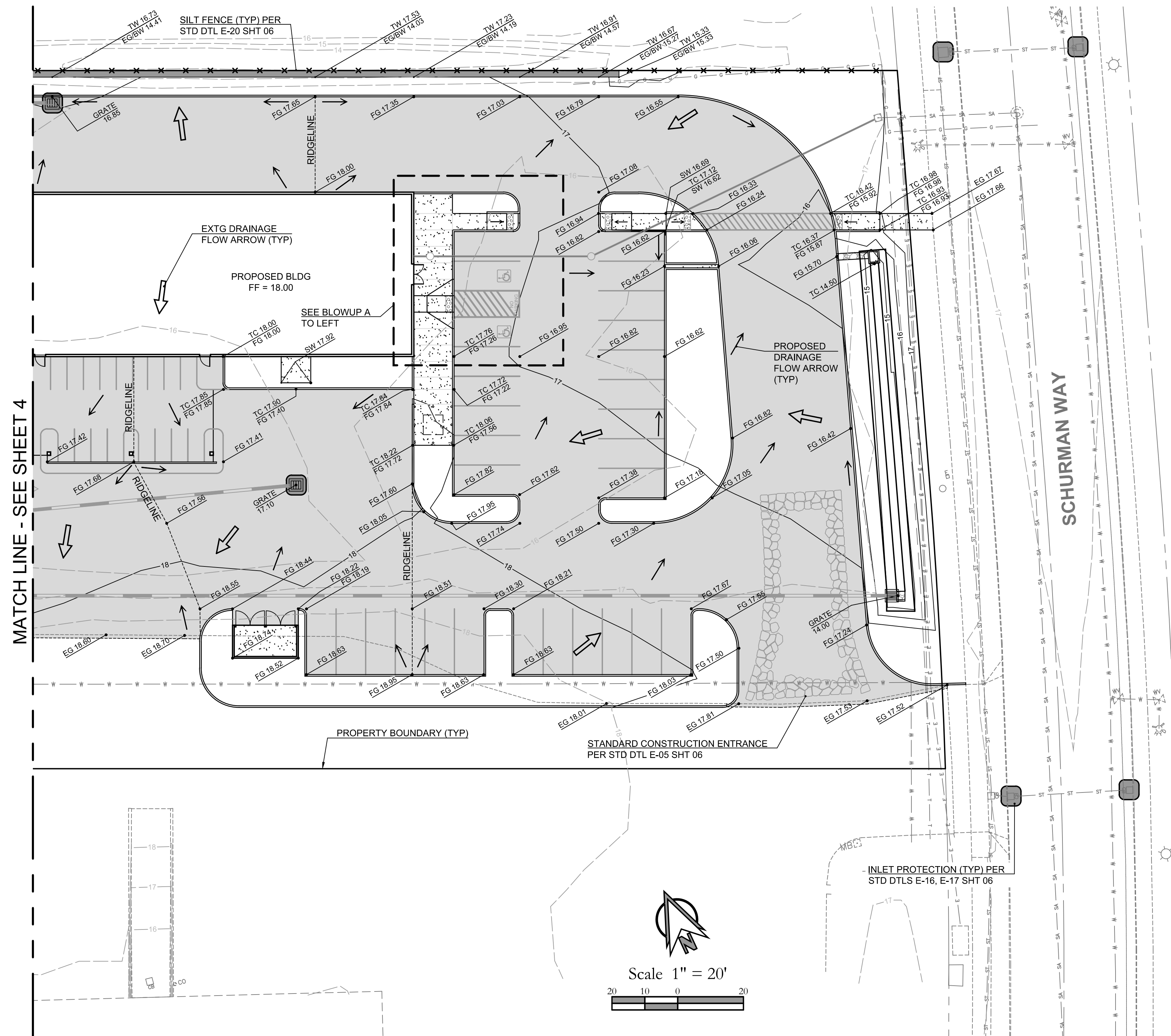
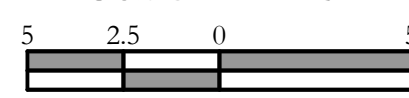
Revisions	1	2	3	4	5	6

Project No. 3405
 SCALE: H: 1" = 20'
 V: N/A
 DESIGNED BY: TJL
 DRAFTED BY: TJL
 REVIEWED BY: AJG



BLOWUP A

Scale 1" = 5'



MATCH LINE - SEE SHEET 4

Scale 1" = 20'



Proposed Hatching Legend	
	Asphalt Paving
	Gravel Surfacing
	Retaining Wall
	Concrete Sidewalk/Paving

GRADING SPOT ELEVATION ABBREVIATIONS
 TC = TOP OF CURB OR TOP OF CONCRETE ELEVATION
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GRADING NOTES:

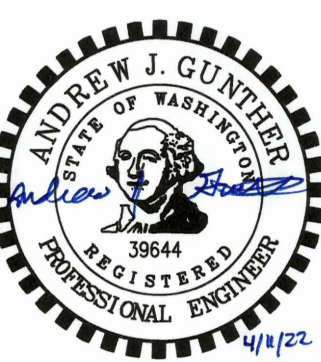
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- SIDEWALK CROSS-SLOPES SHALL NORMALLY BE 2% TOWARD ADJACENT PAVEMENT (AWAY FROM THE BUILDING) UNLESS OTHERWISE INDICATED ON THIS PLAN BY SPOT GRADES.
- EXCEPT WHERE OTHERWISE NOTED BY FG ELEVATIONS, FINISH GRADE EXTERNAL TO THE BUILDING IS EQUAL TO BLDG FINISH FLOOR.

Dawkins Warehouse

A Site Located in the City of Woodland, Washington

Grading & Erosion Control Plan (East) For:

Revisions	
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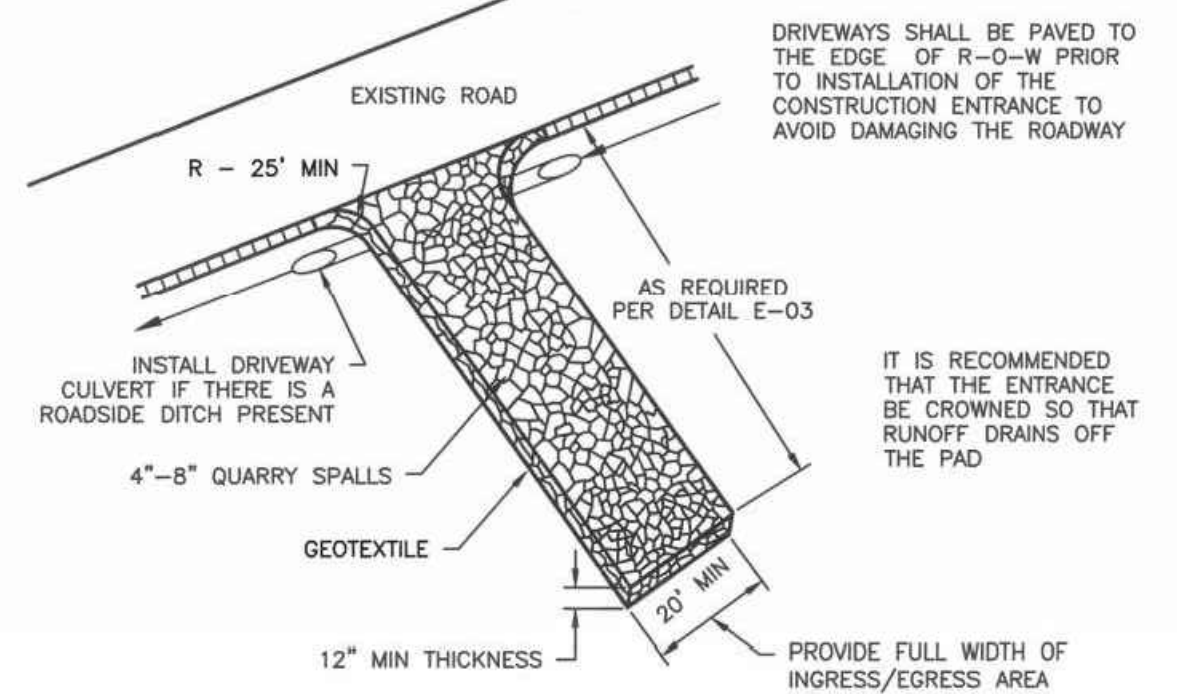


Project No.	3405
SCALE:	H: 1" = 20' V: N/A
DESIGNED BY:	TJL
DRAFTED BY:	TJL
REVIEWED BY:	AJG

GENERAL EROSION PREVENTION & SEDIMENT CONTROL NOTES

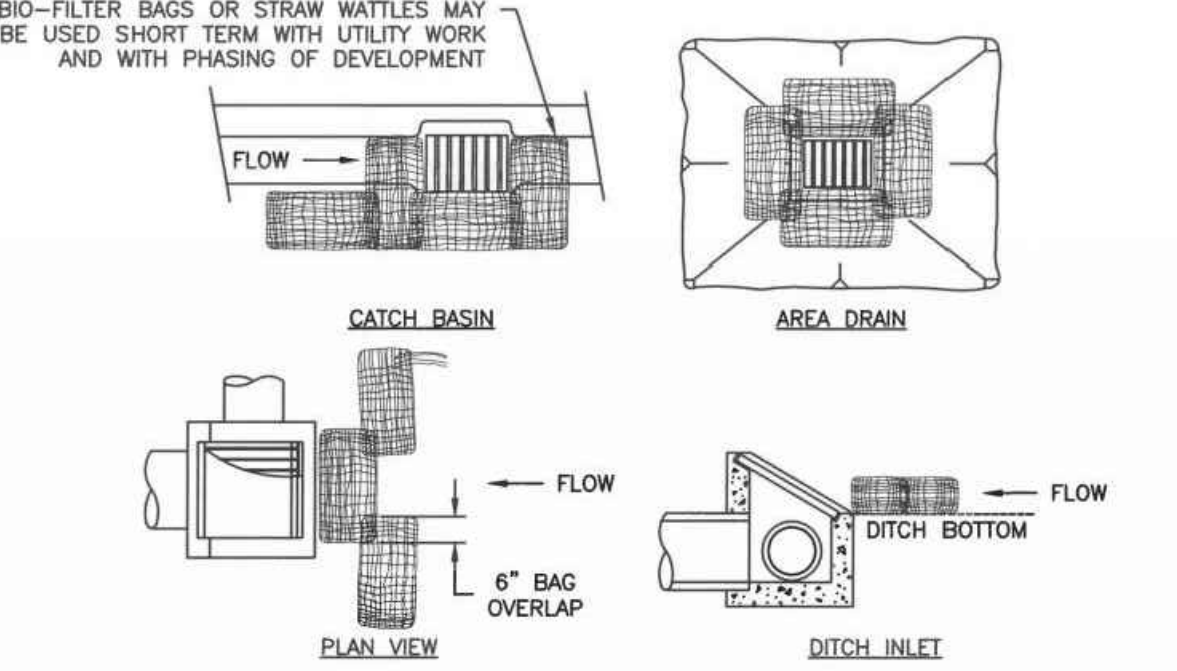
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND IN WORKING CONDITION PRIOR TO ANY LAND DISTURBING ACTIVITY CAUSED BY CLEARING OR GRADING. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE APPROVED BY THE CITY EROSION CONTROL SPECIALIST PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR SHALL CALL FOR AN ON-SITE INSPECTION WHEN EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE AND PRIOR TO COMMENCEMENT OF WORK.
 - THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE SITED, DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS IN THE CITY OF WOODLAND'S LATEST STANDARD DETAILS AND THE WASHINGTON STATE DEPARTMENT OF ECOLOGY STORMWATER MANUAL FOR WESTERN WASHINGTON, WHERE THE CITY OF WOODLAND GENERAL REQUIREMENTS SHALL TAKE PRECEDENCE.
 - THE DEVELOPER IS RESPONSIBLE FOR MAINTAINING EROSION PREVENTION AND SEDIMENT CONTROL MEASURES DURING AND AFTER INSTALLATION OF ALL UTILITY WORK ASSOCIATED WITH UTILITY TRENCHES.
 - PRIOR TO ANY SITE EXCAVATION, ALL STORM DRAINAGE INLETS SHALL BE PROTECTED DOWN SLOPE FROM ANY DISTURBED OR CONSTRUCTION AREAS PER THE STANDARD DETAILS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAINAGE SYSTEM PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREAS. CLEAN THE FILTER FABRIC AS NECESSARY TO MAINTAIN DRAINAGE. REMOVE FILTER AND CLEAN CATCH BASINS FOLLOWING COMPLETION OF SITING WORK.
 - THE CONTRACTOR SHALL NOT ALLOW SEDIMENT OR DEBRIS TO ENTER NEW OR EXISTING PIPES, CATCH BASINS OR INFILTRATION SYSTEMS.
 - NEWLY CONSTRUCTED OR MODIFIED INLETS AND CATCH BASINS ARE TO BE PROTECTED IMMEDIATELY UPON INSTALLATION.
 - TEMPORARY SEEDING AND MULCHING OF FILL SLOPES AND DIVERSION DIKES SHALL BE COMPLETED WITHIN ONE WEEK AFTER ROUGH GRADING.
 - ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY THE APPROPRIATE BEST MANAGEMENT PRACTICES (BMPs). DURING THE PERIOD FROM OCTOBER 1 TO APRIL 30 NO SOIL SHALL BE EXPOSED FOR MORE THAN TWO (2) DAYS. FROM MAY 1 TO SEPTEMBER 30 NO SOIL SHALL BE EXPOSED FOR MORE THAN SEVEN (7) DAYS.
 - MATERIAL STOCKPILES ARE TO BE PROTECTED BY THE FOLLOWING MEANS:
TEMPORARY: COVER PILES WITH TARPS OR PLASTIC SHEETING WEIGHTED WITH CONCRETE BLOCKS, LUMBER OR TIRES.
PERMANENT: COVER PILES WITH TARPS OR PLASTIC, OR RESEED PERIMETER AREAS AROUND PILES ARE TO BE SURROUNDED WITH EROSION CONTROL FILTER FABRIC FENCES UNTIL SOIL SURFACE IS STABILIZED WITH RESEEDING.
 - THE CONTRACTOR SHALL MAINTAIN ON SITE A WRITTEN DAILY LOG OF EROSION CONTROL BMP MAINTENANCE.
 - IF THE CITY INSPECTOR OR ENGINEER(S) HAS EVIDENCE OF POOR CONSTRUCTION PRACTICES OR IMPROPER EROSION PREVENTION BMPs, CITATIONS AND/OR A STOP WORK ORDER SHALL BE ISSUED UNTIL PROPER MEASURES HAVE BEEN TAKEN AND APPROVED BY THE CITY OF WOODLAND. IF THE BMPs APPLIED TO A SITE ARE INSUFFICIENT TO PREVENT SEDIMENT FROM REACHING WATER BODIES, ADJACENT PROPERTIES, OR PUBLIC RIGHT-OF-WAY, THEN THE PUBLIC WORKS DIRECTOR SHALL REQUIRE ADDITIONAL BMPs.
- PROTECTION OF ADJACENT PROPERTIES, ROADS AND STREETS**
- PROVIDE A 12-INCH DEEP PAD OF CRUSHED ROCK FOR A DISTANCE OF 100 FEET INTO THE SITE FOR ALL ACCESS POINTS UTILIZED BY CONSTRUCTION EQUIPMENT AND TRUCKS. WIDTH OF THE PAD SHALL BE A MINIMUM OF 20 FEET. ALL TRUCKS LEAVING THE SITE SHALL EDGEBACK ACROSS THE PAD. ACCUMULATED SOIL SHALL BE PERIODICALLY REMOVED, OR ADDITIONAL ROCK SHALL BE PLACED UPON THE PAD SURFACE. ROCK SHALL BE CLEAN 4 INCH TO 8 INCH QUARRY SPALLS. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
 - PAVEMENT SWEEPING AND SHOVELING IS REQUIRED. WASHING THE PAVEMENT INTO THE STORM SYSTEM IS NOT PERMITTED.
 - AT SITES WITH LESS THAN 1 ACRE OF EXPOSED SOIL, PAD LENGTH MAY BE REDUCED TO 50 FEET. SINGLE FAMILY LOT ENTRANCES MAY HAVE THE PAD LENGTH REDUCED TO 20 FEET. IF CONSTRUCTION OCCURS SIMULTANEOUSLY ON ADJACENT LOTS WITH THE SAME OWNER DURING CONSTRUCTION, ONE LOT ENTRANCE MAY BE USED FOR THE ADJACENT LOTS.
 - INSTALL SEDIMENT FENCE IN ACCORDANCE WITH THIS DETAIL SHEET PRIOR TO BUILDING CONSTRUCTION AND/OR EXCAVATION TO PREVENT SILT INTRUSION UPON ADJACENT LOTS. IF CONSTRUCTION OCCURS SIMULTANEOUSLY ON ADJACENT LOTS AND THE LOTS HAVE THE SAME OWNER DURING CONSTRUCTION, THE SILT FENCE ALONG THE COMMON LOT LINE MAY BE ELIMINATED.
 - CONSTRUCTION ROADS AND PARKING AREAS SHALL BE STABILIZED WHEREVER THEY ARE CONSTRUCTED, WHETHER PERMANENT OR TEMPORARY, FOR THE USE OF CONSTRUCTION TRAFFIC.
- MAINTENANCE OF SEDIMENT CONTROL BMPs**
- MAINTAIN AND REMOVE ALL SEDIMENT CONTROLS AS SPECIFIED IN THE STANDARD DETAILS. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT FROM THE CATCH BASINS, DRYWELLS, UTILITY TRENCHES AND STORM PIPES PRIOR TO ACCEPTANCE BY THE CITY.
 - SEDIMENT CONTROL BMPs SHALL BE INSPECTED WEEKLY AND AFTER ANY STORM EVENT PRODUCING RUNOFF. THE INSPECTION FREQUENCY FOR STABILIZED, INACTIVE SITES SHALL BE ONCE EVERY TWO WEEKS OR MORE FREQUENTLY AS DETERMINED BY THE LOCAL PERMITTING AUTHORITY BASED ON THE LEVEL OF SOIL STABILITY AND POTENTIAL FOR ADVERSE ENVIRONMENTAL IMPACTS.
 - ALL TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER SITE STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BMPs ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED AREAS RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED.
- DUST CONTROL**
- IN AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST ONE OR MORE OF THE FOLLOWING PREVENTATIVE MEASURES SHALL BE TAKEN FOR DUST CONTROL:
A. MINIMIZE THE PERIOD OF SOIL EXPOSURE THROUGH THE USE OF TEMPORARY GROUND COVER AND OTHER TEMPORARY STABILIZATION PRACTICES.
B. SPRINKLE THE SITE WITH WATER UNTIL THE SURFACE IS WET.
C. SPRAY EXPOSED SOIL AREAS WITH A DUST PALLIATIVE. NOTE: USE OF PETROLEUM PRODUCTS OR POTENTIALLY HAZARDOUS MATERIALS ARE PROHIBITED.
- TEMPORARY SEEDING**
- EXPOSED SURFACES THAT WILL NOT BE BROUGHT TO FINAL GRADE OR GIVEN A PERMANENT COVER TREATMENT WITHIN 30 DAYS OF THE EXPOSURE SHALL HAVE SEED MIX AND MULCH PLACED TO STABILIZE THE SOIL AND REDUCE EROSION SEDIMENTATION. SEEDING AREAS SHALL BE CHECKED REGULARLY TO ASSURE A GOOD STAND OF GRASS IS BEING MAINTAINED. AREAS THAT FAIL TO ESTABLISH VEGETATION COVER ADEQUATE TO PREVENT EROSION WILL BE RESEED AS SOON AS SUCH AREAS ARE IDENTIFIED.
 - APPLY AN APPROVED TEMPORARY SEEDING MIXTURE TO THE PREPARED SEED BED AT A RATE OF 120 LBS/ACRE. NOTE: "HYDROSEEDING" APPLICATIONS WITH APPROVED SEED-MULCH-FERTILIZER MIXTURES MAY ALSO BE USED.

EROSION PREVENTION AND SEDIMENT CONTROL						E-03
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
PUBLIC WORKS DIRECTOR		DATE				

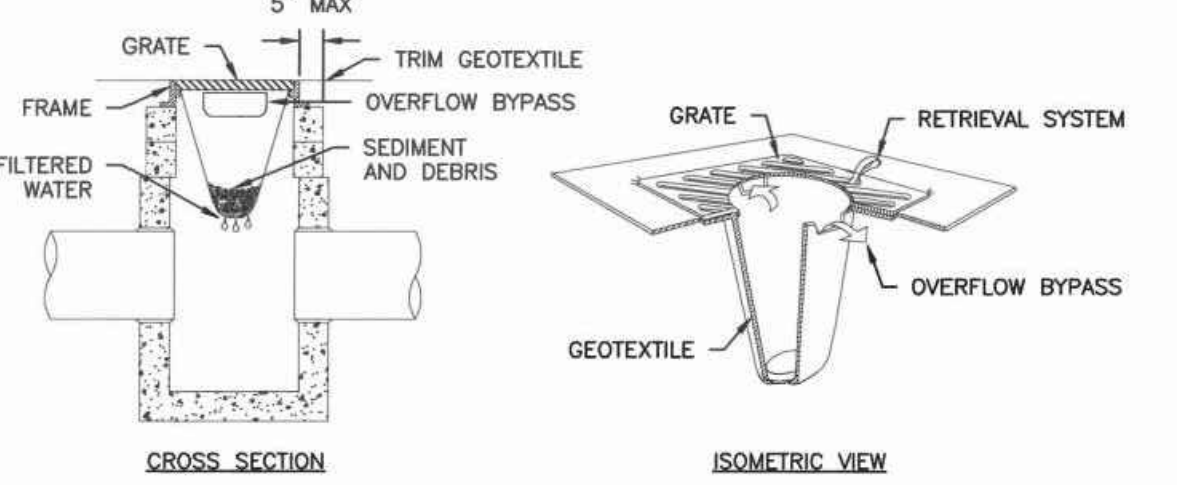


- NOTES:
- IF THE ENTRANCE SITS ON A SLOPE, PLACE A FILTER FABRIC FENCE DOWN GRADIENT.
 - TOP DRESS THE PAD WITH CLEAN 3" MINUS ROCK WHEN THE CONSTRUCTION ENTRANCE BECOMES CLOGGED WITH SEDIMENTS.
 - ANY SEDIMENT CARRIED FROM THE SITE ONTO THE STREET SHALL BE CLEANED UP IMMEDIATELY.
 - IF EQUIPMENT TRAVELS EXTENSIVELY ON UNSTABILIZED ROADS ON THE SITE, A TIRE AND VEHICLE UNDERCARRIAGE WASH NEAR THE ENTRANCE WILL BE NEEDED. PERFORM WASHING ON CRUSHED ROCK. WASH WATER WILL REQUIRE TREATMENT IN A SEDIMENT POND OR TRAP.

STABILIZED CONSTRUCTION ENTRANCE						E-05
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
PUBLIC WORKS DIRECTOR		DATE				

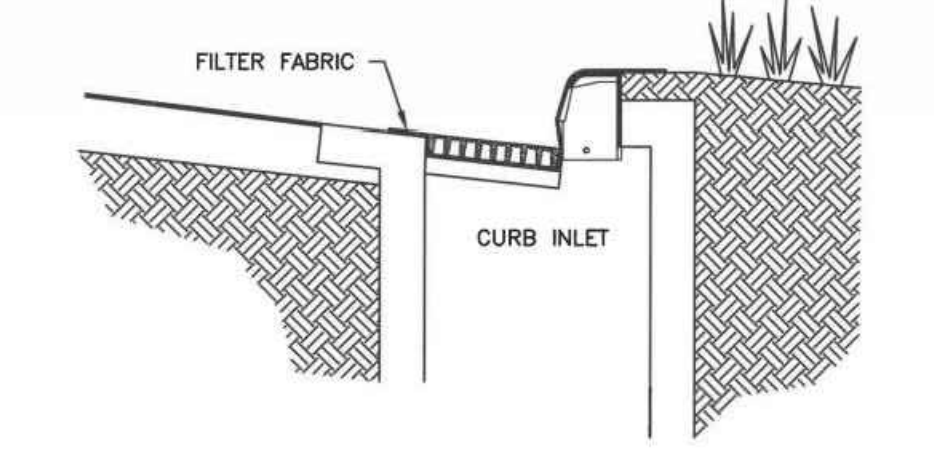
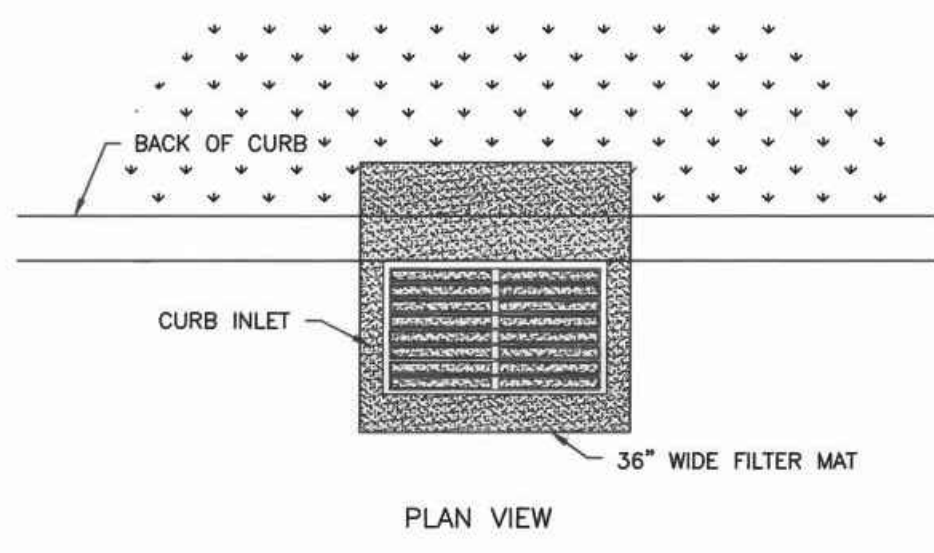


- NOTES:
- ADDITIONAL MEASURES MUST BE CONSIDERED DEPENDING ON SOIL TYPE.
 - BIO-FILTER BAGS SHOULD BE STAKED WHERE APPLICABLE USING (2) 1" x 2" WOODEN STAKES OR APPROVED EQUAL PER BAG.
 - STRAW WATTLES MUST BE STABILIZED BY ATTACHING WIRE CLIPS TO THE CATCH BASIN PER MANUFACTURER SPECIFICATIONS.
 - INLET PROTECTION MUST BE REGULARLY INSPECTED BY THE EROSION CONTROL INDIVIDUAL TO INSURE PROPER PLACEMENT/FUNCTION AND MAINTENANCE.



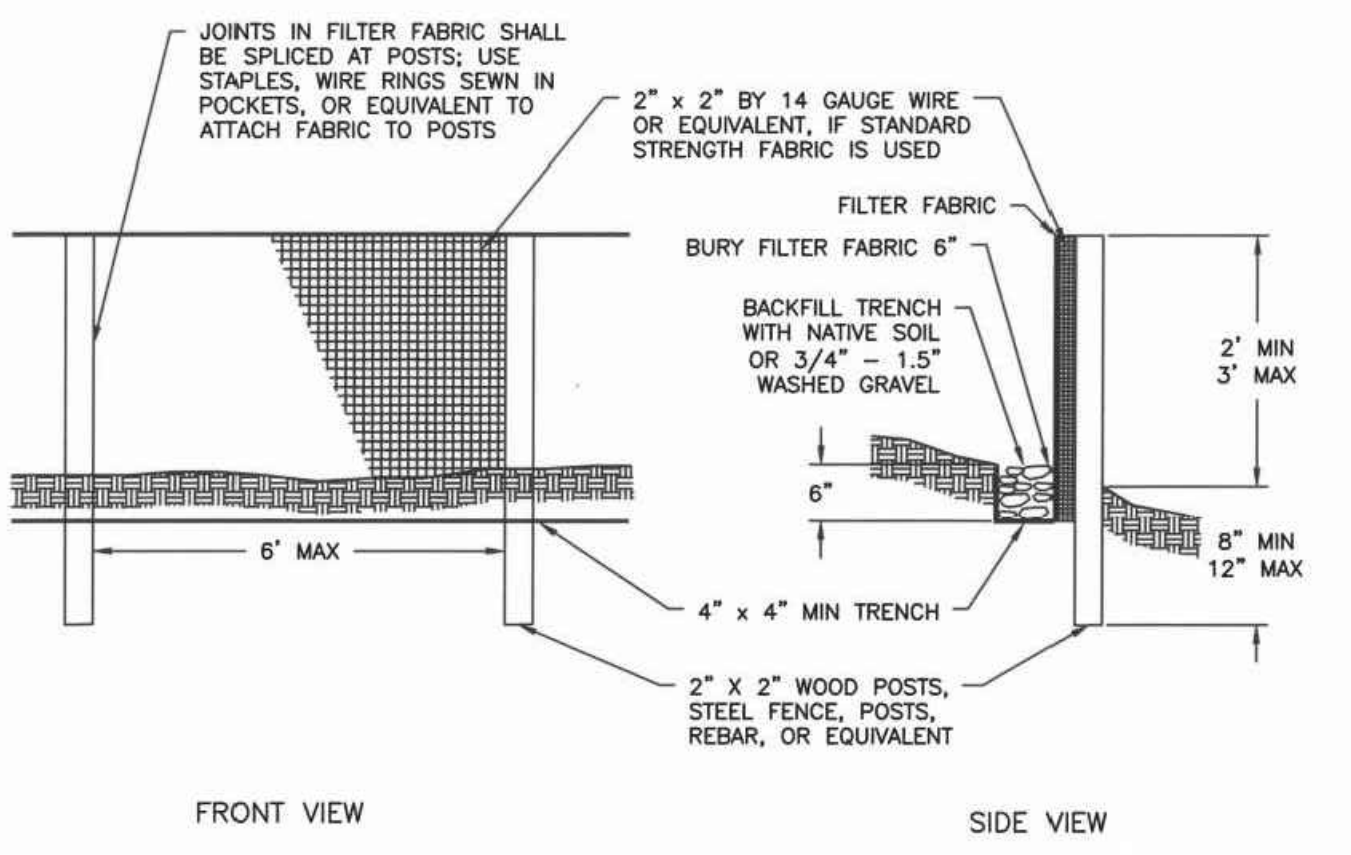
- NOTES:
- SIZE THE BELOW GRATE INLET DEVICE (BGID) FOR THE STORM WATER STRUCTURE IT WILL SERVICE.
 - THE REMOVAL SYSTEM MUST ALLOW REMOVAL OF THE BGID WITHOUT SPILLING THE COLLECTED MATERIAL.
 - THE BGID SHALL HAVE A BUILT-IN HIGH-FLOW RELIEF SYSTEM (OVERFLOW BYPASS).
 - THE CONTRACTOR SHALL INSPECT THE BAG AFTER EACH STORM EVENT AND AT REGULAR INTERVALS.
 - THE FILTER BAG SHALL BE CLEANED OR REPLACED WHEN THE BAG BECOMES HALF FULL.

INLET PROTECTION (1 OF 2)						E-16
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
PUBLIC WORKS DIRECTOR		DATE				



- NOTES:
- USE FILTER MAT SEDIMENT BARRIER WHEN CURB INLET IS LOCATED IN GENTLY SLOPING STREET, WITH MINIMAL NEED, WHERE WATER CAN FILTER AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
 - BARRIER SHALL ALLOW FOR OVERFLOW FROM SEVERE STORM EVENT.
 - INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

INLET PROTECTION (2 OF 2)						E-17
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
PUBLIC WORKS DIRECTOR		DATE				



- NOTES:
- FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.
 - POST SPACING MAY BE INCREASED TO 8' IF WIRE BACKING IS USED.

- MAINTENANCE STANDARDS:
- SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
 - IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT POND.
 - IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
 - SEDIMENT DEPOSITS SHALL EITHER BE REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-THIRD THE HEIGHT OF THE SILT FENCE, OR A SECOND SILT FENCE SHALL BE INSTALLED.
 - IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

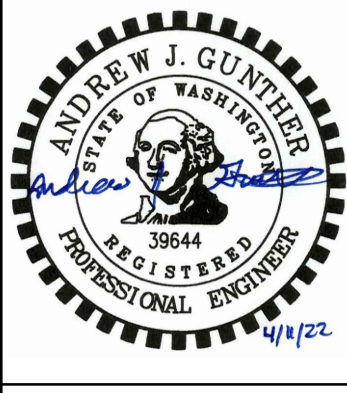
SILT FENCE						E-20
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
PUBLIC WORKS DIRECTOR		DATE				

Erosion Control Details For:

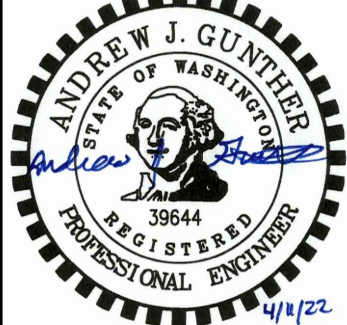
Dawkins Warehouse

A Site Located in the City of Woodland, Washington

Revisions	1	2	3	4	5	6



Project No. 3405
SCALE: H: N/A
V: N/A
DESIGNED BY: TJL
DRAFTED BY: TJL
REVIEWED BY: AJG



Project No.	3405
SCALE:	H: 1" = 20' V: 1" = 20'
DESIGNED BY:	TJL
DRAFTED BY:	TJL
REVIEWED BY:	AJG

STORM CONSTRUCTION NOTES:

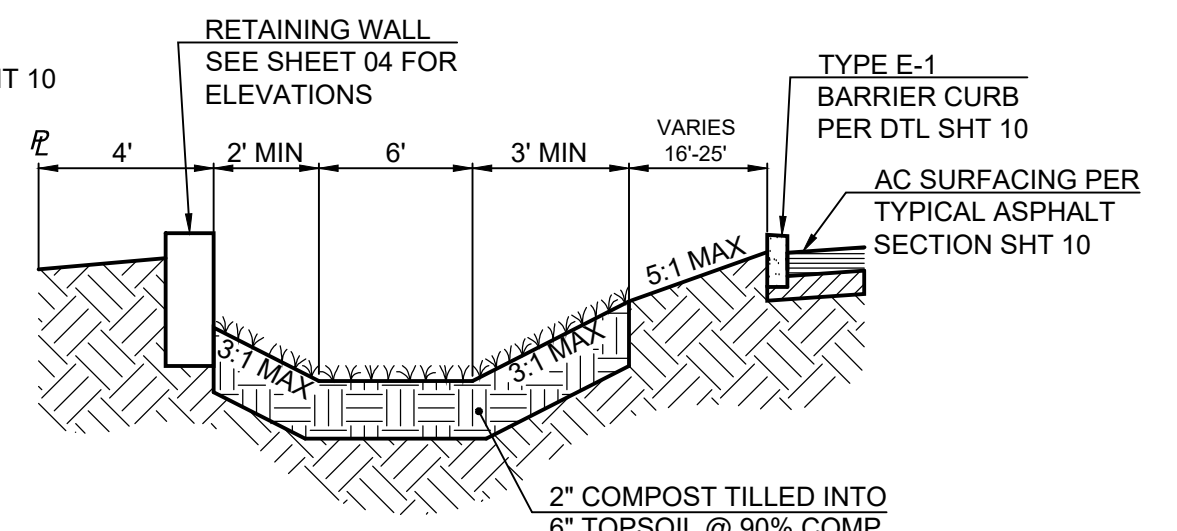
ALL ON-SITE STORMWATER FACILITIES ARE TO BE PRIVATELY OWNED AND MAINTAINED.
 *DETENTION POND & BIOFILTRATION SWALE FACILITY DIMENSIONS ARE MEASURED AT THE BOTTOM OF FACILITY.

- | | |
|--|---|
| <p>1 6" BASE WIDTH EMERGENCY OVERFLOW SPILLWAY PER DTL SHT 10
BOTTOM EL. 15.50'</p> <p>2 *PROPOSED 31'x145' DETENTION POND
BOTTOM EL. 12.50'
SEE TYPICAL SECTIONS (17) & (27) & PLANTING/SEEDING INFO THIS SHT</p> <p>3 EXTG STORM MH TO BE REMOVED</p> <p>4 INSTALL STORM CONTROL MH-1 PER DTL SHT 10
RIM 17.00'
EXTG 12" IE IN (SW) 12.50'
EXTG 12" IE OUT (N) 12.50'</p> <p>5 *WEST BIOFILTRATION SWALE
2.5' BASE x 105' LONG, S=0.0050
START EL. 13.90', END EL. 13.37'
SEE SECTION (17) FOR TYPICAL SECTION & PLANTING/SEEDING INFO THIS SHT</p> <p>6 INSTALL CONCRETE FLOW SPREADER PER DTL SHT 10</p> <p>7 INSTALL BIOSWALE SEDIMENT TRAP PER DTL SHT 10
SEE SHT 04 FOR ELEVATIONS</p> <p>8 INSTALL 2' WIDE x 19' LONG x 1' DEEP QUARRY SPALLS PAD</p> <p>9 INSTALL 2' WIDE x 21' LONG x 1' DEEP QUARRY SPALLS PAD</p> <p>10 INSTALL 48" STORM MH-2 PER CITY OF WOODLAND STD DTLS D-10 & D-14 SHT 12
RIM 17.49'
8" IE IN (S) 12.89'
12" IE IN (E) 12.80'
12" IE OUT (SW) 12.80'</p> <p>11 INSTALL DITCH INLET 1 PER DTL SHT 10
RIM 13.29'
8" IE OUT (N) 13.29'</p> <p>12 *SOUTH BIOFILTRATION SWALE
6' BASE x 100' LONG, S=0.0050
START EL. 13.79', END EL. 13.29'
SEE SOUTH BIOFILTRATION SWALE TYPICAL SECTION & PLANTING/SEEDING INFO THIS SHT</p> <p>13 12" DI OUTLET
IE 14.14'</p> | <p>14 INSTALL STORM CB-1 PER DTL SHT 10
RIM 16.85'
6" IE IN (S) 14.41'
12" IE IN (E) 14.41'
12" IE OUT (W) 14.41'</p> <p>15 INSTALL STORM AD-1 PER DTL SHT 10
RIM 16.95'
6" IE OUT (N) 14.94'</p> <p>16 INSTALL STORM CB-3 PER DTL SHT 10
RIM 17.08'
8" IE OUT (E) 15.38'</p> <p>17 INSTALL STORM CB-4 PER DTL SHT 10
RIM 16.73'
8" IE IN (E,W) 14.75'
8" IE OUT (SW) 14.75'</p> <p>18 8" DI OUTLET
IE 14.51'</p> <p>19 INSTALL 2' WIDE x 36' LONG x 1' DEEP QUARRY SPALLS PAD</p> <p>20 CONTRACTOR TO VERIFY EXTG WATER LINE EL. PRIOR TO CONSTRUCTION & NOTIFY THE ENGINEER OF ANY POTENTIAL UTILITY CONFLICT</p> <p>21 STORM DS-1
6" IE 16.17'</p> <p>22 STORM DS-4
6" IE 13.91'</p> <p>23 STORM DS-5
6" IE 15.04'</p> <p>24 INSTALL 3' WIDE RIPRAP PAD AROUND OUTLET. SEE TYPICAL OUTLET PROTECTION DTL SHT 10</p> <p>25 INSTALL LOW POINT DRAIN GRATE
RIM 17.57'
CONNECT DRAIN TO BUILDING SANITARY SEWER PIPING. SEE PLUMBING DRAWINGS.</p> <p>26 INSTALL 6' WIDE x 3' LONG x 1' DEEP QUARRY SPALLS PAD</p> |
|--|---|

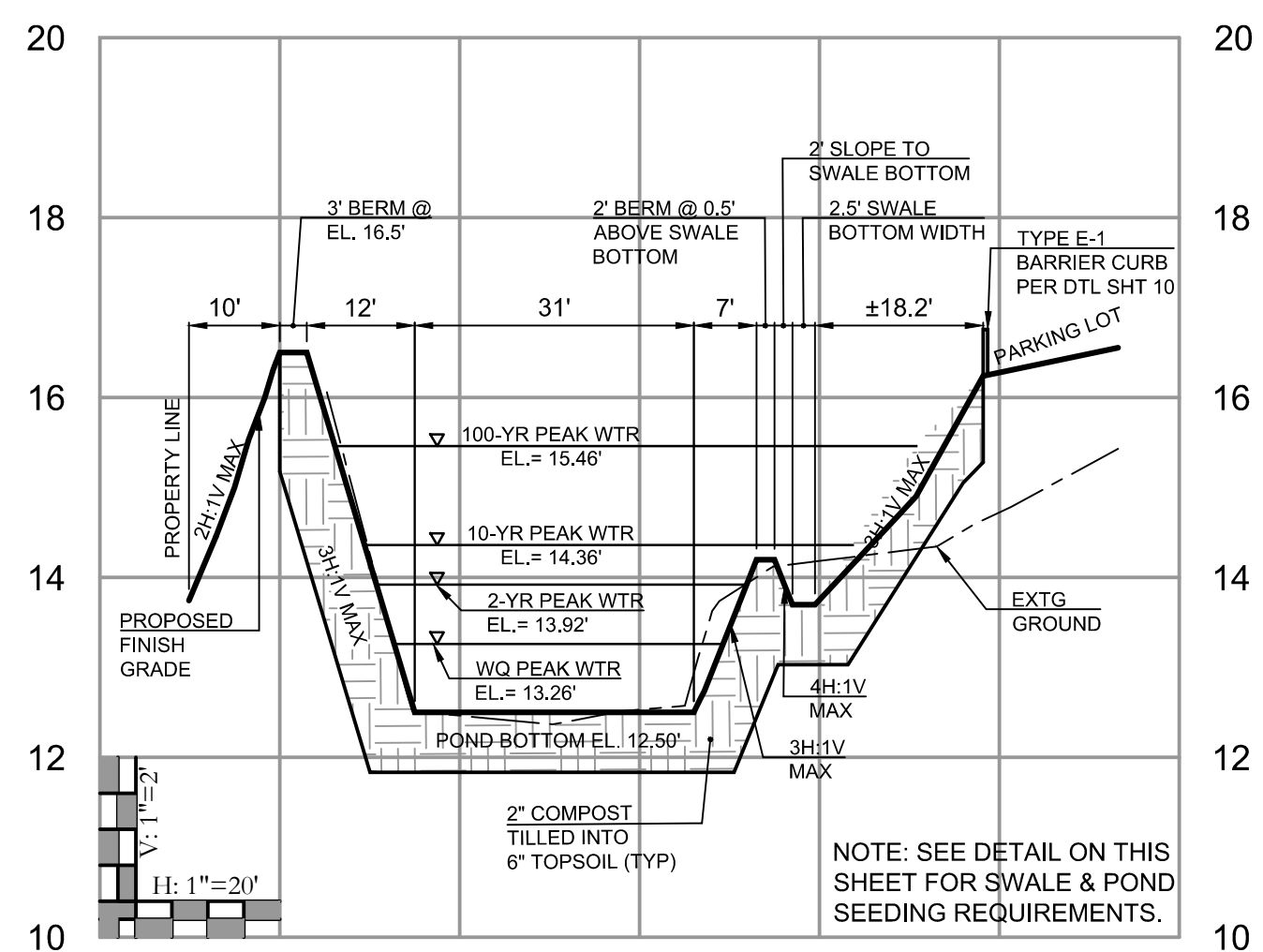
MATCH LINE - SEE SHEET 8

GENERAL CONSTRUCTION NOTES:

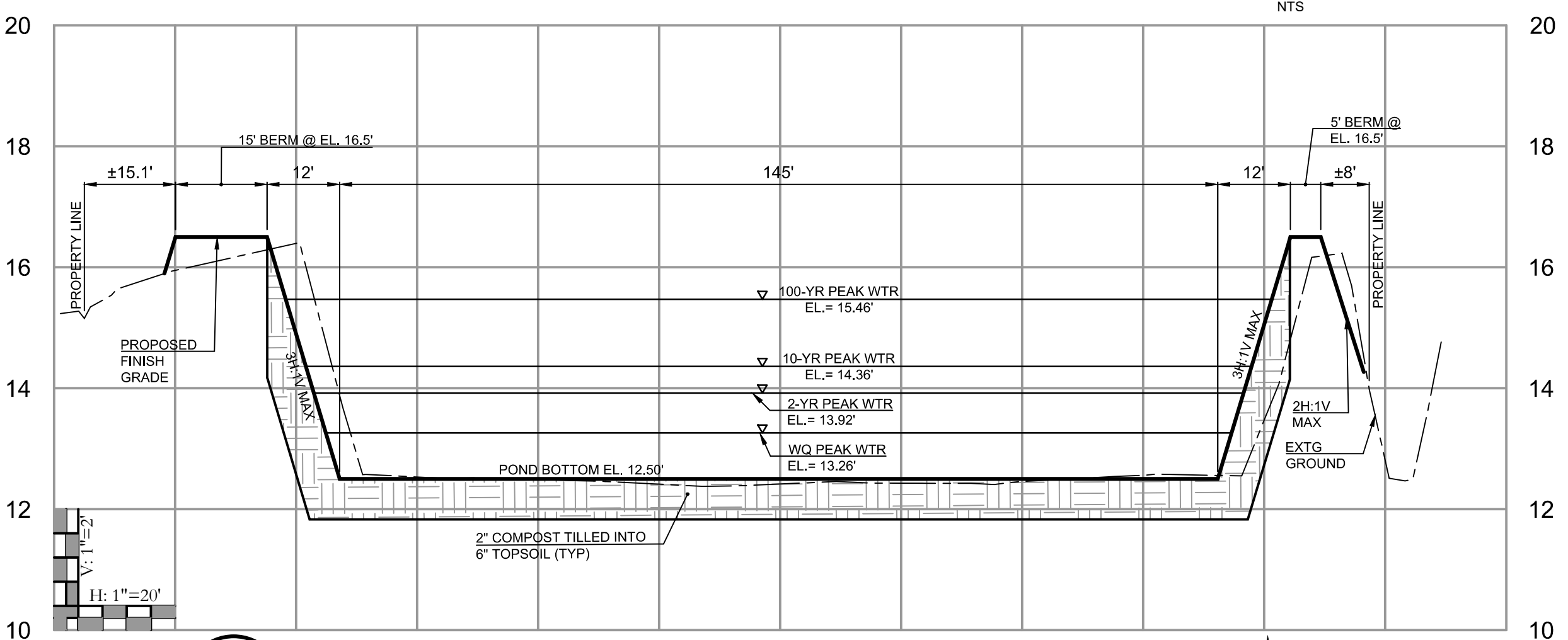
- 1 INSTALL TYPE E-1 BARRIER CURB PER DTL SHT 10
- 2 INSTALL NEW ASPHALT PAVEMENT PER TYPICAL SECTION SHT 10
- 3 INSTALL GRAVEL CONTROL MH ACCESS PER TYPICAL SECTION SHT 10
- 4 INSTALL CURB CUT PER DTL SHT 10
- 5 RETAINING WALL DESIGN BY OTHERS
SEE SHTS 04 & 05 FOR DETAILED GRADING
- 6 SAWCUT A MINIMUM OF 1" INTO EXTG PAVEMENT TO PROVIDE CLEAN PAVEMENT EDGE



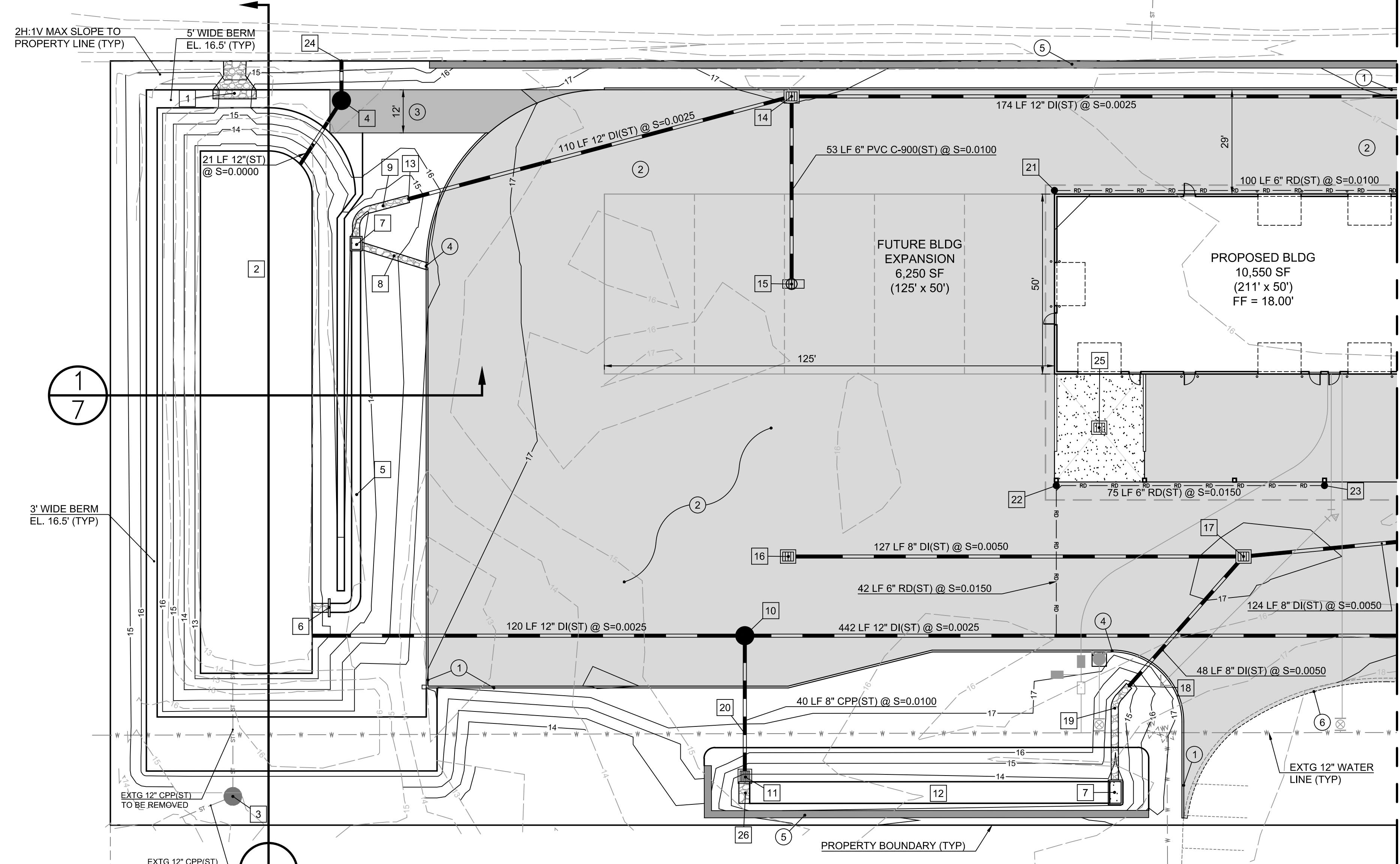
**South Biofiltration Swale
Typical Section**
NTS



1 TYPICAL EAST-WEST POND + WEST SWALE SECTION
7



2 TYPICAL NORTH-SOUTH POND SECTION
7



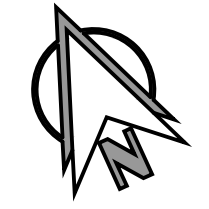
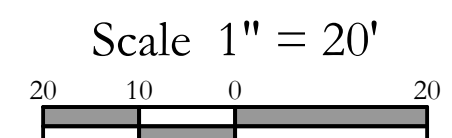
	Asphalt Paving
	Gravel Surfacing
	Retaining Wall
	Concrete Sidewalk/Paving

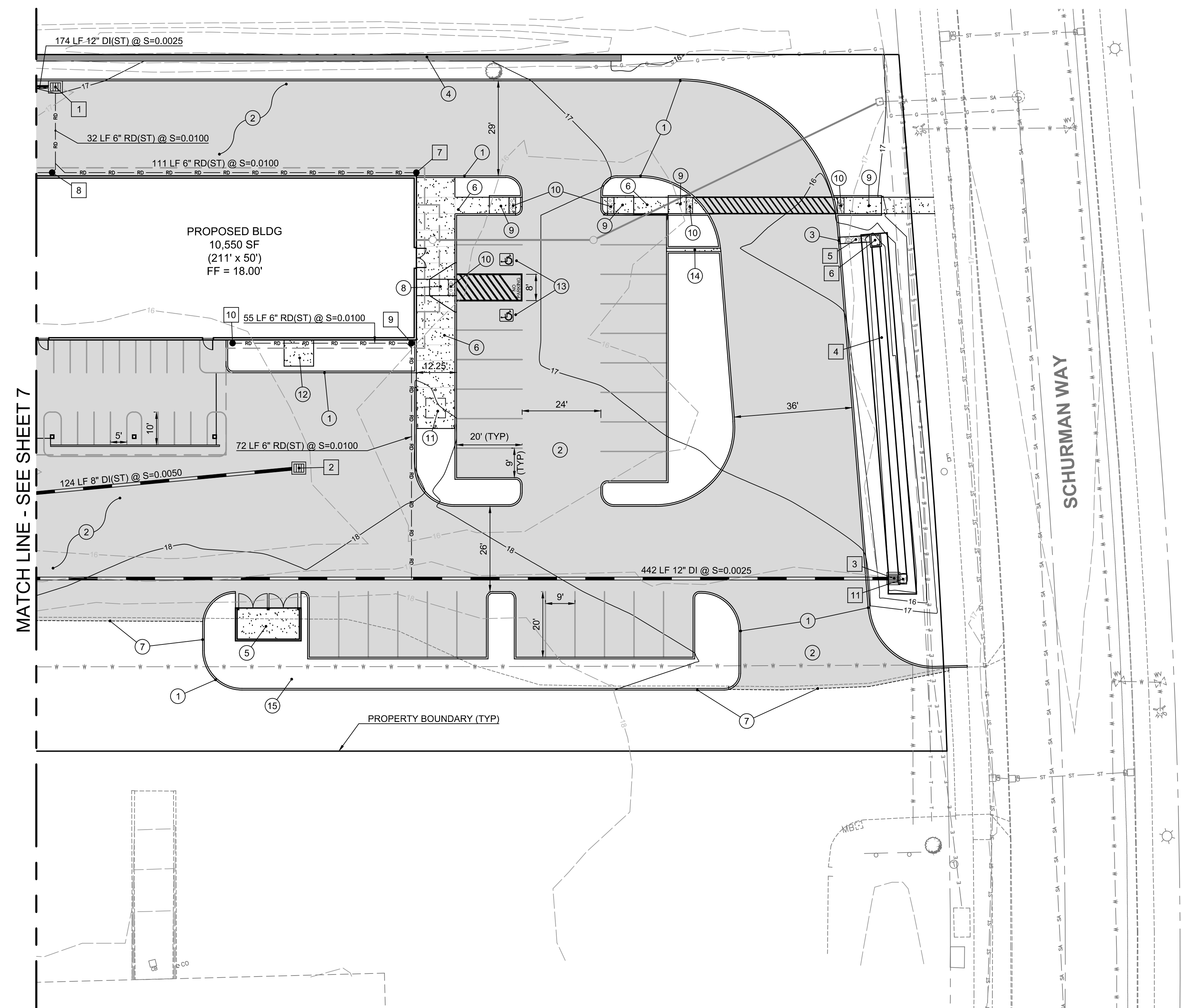
STORMWATER FACILITY SEED MIX:
 SUNMARK NATIVE SWALE MIX:
 (OR APPROVED EQUAL)
 50% BLUE WILDRYE
 15% NATIVE RED FESCUE
 10% MEADOW BARLEY
 10% NORTHWESTERN MANNAGRASS
 10% AMERICAN SLOUGHGRASS
 5% TUFTED HAIRGRASS
 APPLICATION RATE 1 LB/1,000 SQ FT

NOTES:

1. IF FACILITY IS INSTALLED DURING A PERIOD OF WET WEATHER, IT CAN BE ESTABLISHED BY SODDING. SINCE SOD IS NOT AVAILABLE IN RECOMMENDED GRASSES IT SHOULD BE OVER SOWN WITH A RECOMMENDED MIX AT THE BEGINNING OF THE GROWING SEASON. IT IS RECOMMENDED TO INSTALL A SOD THAT IS A MIX OF CREEPING FESCUE AND HARD & SHEEP FESCUES.
2. SOD SHALL BE LAID PERPENDICULAR TO SLOPE FROM BOTTOM TO TOP, WITH JOINTS STAGGERED.
3. SWALE SHALL HAVE A VIABLE STAND OF GRASS APPROVED BY THE CITY INSPECTOR PRIOR TO PAVING.

STORMWATER FACILITY PLANTING/SEEDING

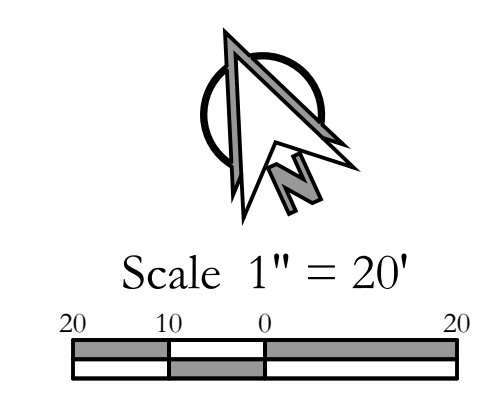
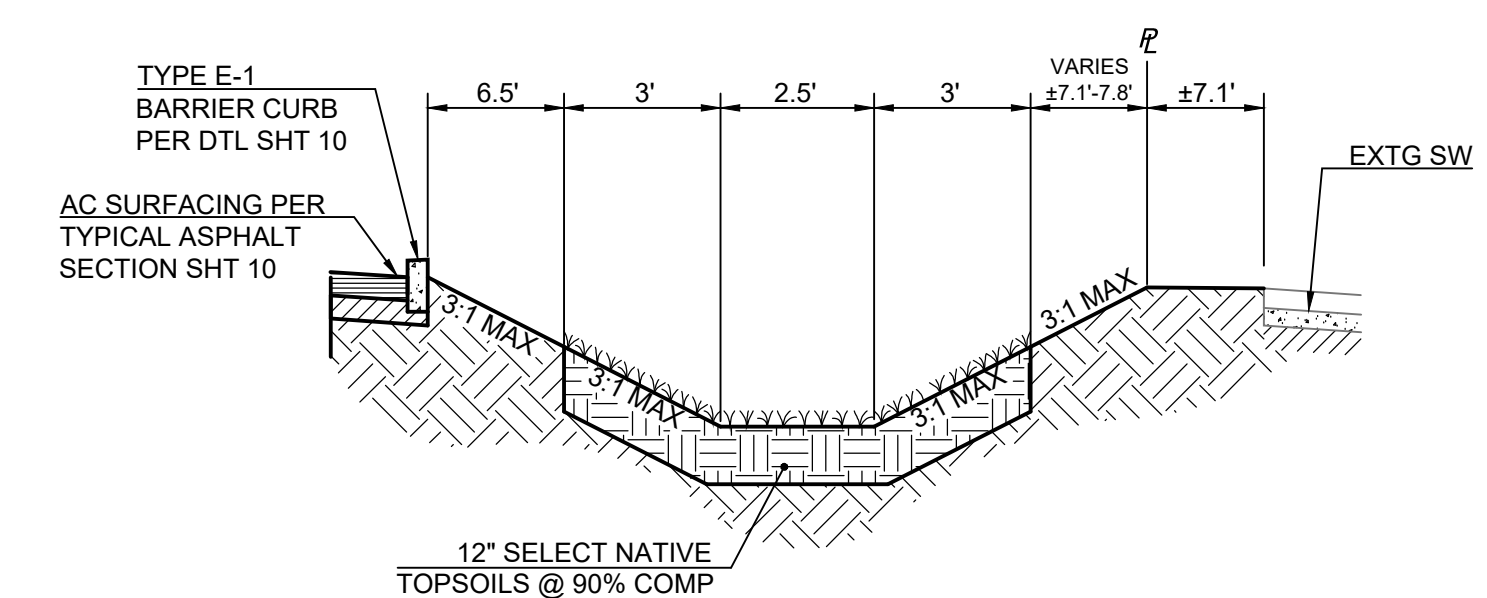




STORM CONSTRUCTION NOTES:
 ALL ON-SITE STORMWATER FACILITIES ARE TO BE PRIVATELY OWNED AND MAINTAINED.
 *BIOFILTRATION SWALE DIMENSIONS ARE MEASURED AT THE BOTTOM OF FACILITY.

- 1 INSTALL STORM CB-2 PER DTL SHT 10
RIM 16.85'
6" IE IN (S) 14.85'
12" IE OUT (W) 14.85'
- 2 INSTALL STORM CB-5 PER DTL SHT 10
RIM 17.10'
8" IE OUT (W) 15.37'
- 3 INSTALL DITCH INLET 2
PER DTL SHT 10
RIM 14.00'
12" IE OUT (W) 13.91'
- 4 EAST BIOFILTRATION SWALE
2.5' BASE x 100' LONG, S=0.0050
START EL. 14.50', END EL. 14.00'
SEE EAST BIOFILTRATION SWALE
TYPICAL SECTION THIS SHT &
PLANTING/SEEDING INFO SHT 07
- 5 INSTALL 2' WIDE x 9' LONG x 1' DEEP
QUARRY SPALLS PAD
- 6 BIOSWALE SEDIMENT TRAP
PER DTL SHT 10
- 7 STORM DS-2
6" IE 16.25'
- 8 STORM DS-3
6" IE 15.17'
- 9 STORM DS-6
6" IE 14.60'
- 10 STORM DS-7
6" IE 15.15'
- 11 INSTALL 2.5' WIDE x 3' LONG x 1' DEEP
QUARRY SPALLS PAD

- GENERAL CONSTRUCTION NOTES:**
- 1 INSTALL TYPE E-1 BARRIER CURB PER DTL SHT 10
 - 2 INSTALL NEW ASPHALT PAVEMENT
PER TYPICAL SECTION SHT 10
 - 3 INSTALL CURB CUT PER DTL SHT 10
 - 4 RETAINING WALL DESIGN BY OTHERS
SEE SHTS 04 & 05 FOR DETAILED GRADING
 - 5 TRASH ENCLOSURE DESIGN BY OTHERS
 - 6 TYPICAL ON-SITE SIDEWALK PER DTL SHT 11
 - 7 SAWCUT A MINIMUM OF 1" INTO EXTG PAVEMENT
REMOVE EXTG PAVEMENT UNDER PROPOSED CURB
 - 8 INSTALL SIDEWALK RAMP TYPE 1 PER DTL 11
DETAILED GRADING ON SHT 05
 - 9 INSTALL SIDEWALK RAMP TYPE 2 PER DTL 11
DETAILED GRADING ON SHT 05
 - 10 TRUNCATED DOMES/DETECTABLE WARNING PATTERN
PER CITY OF WOODLAND STD DTL T-21 SHT 12
 - 11 TRANSFORMER PAD
SEE ELECTRICAL DRAWINGS
 - 12 MECHANICAL EQUIPMENT PAD
SEE MECHANICAL DRAWINGS
 - 13 INSTALL ADA PARKING & HANDICAP SIGNS PER DTL SHT 11
PAVEMENT CROSS SECTION PER DTL SHT 10
 - 14 CURB SCUPPER PER DTL SHT 11
 - 15 REMOVE EXTG PAVEMENT NORTH AND EAST OF NEW CURB LINE



Proposed Hatching Legend

	Asphalt Paving
	Gravel Surfacing
	Retaining Wall
	Concrete Sidewalk/Paving

MATCH LINE - SEE SHEET 7

ENGINEERING
 PLS
 604 W. Evergreen Blvd., Vancouver, WA 98660
 PH (360) 944-6519
 Fax (360) 944-6539

Dawkins Warehouse
 A Site Located in the City of Woodland, Washington

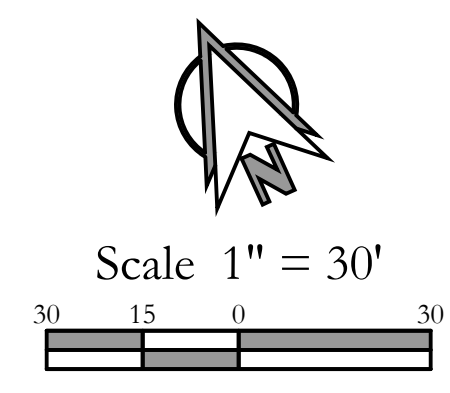
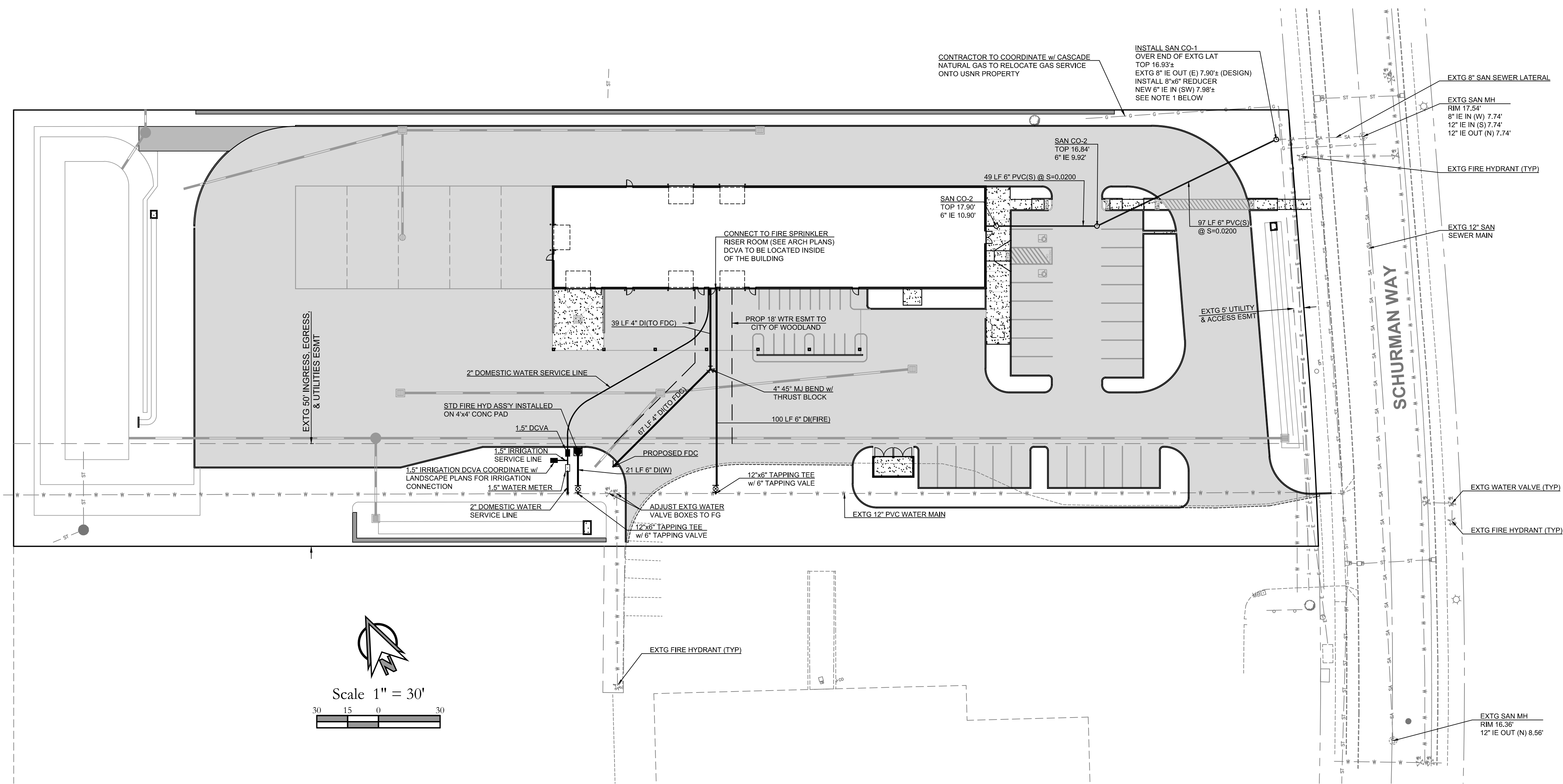
Drainage & Site Improvement Plan (East) For:

Revisions	1	2	3	4	5	6

Project No. 3405
 SCALE: H: N/A
 V: 1" = 20'
 DESIGNED BY: TJL
 DRAFTED BY: TJL
 REVIEWED BY: AJG

08

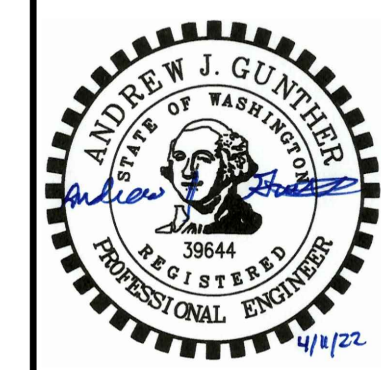
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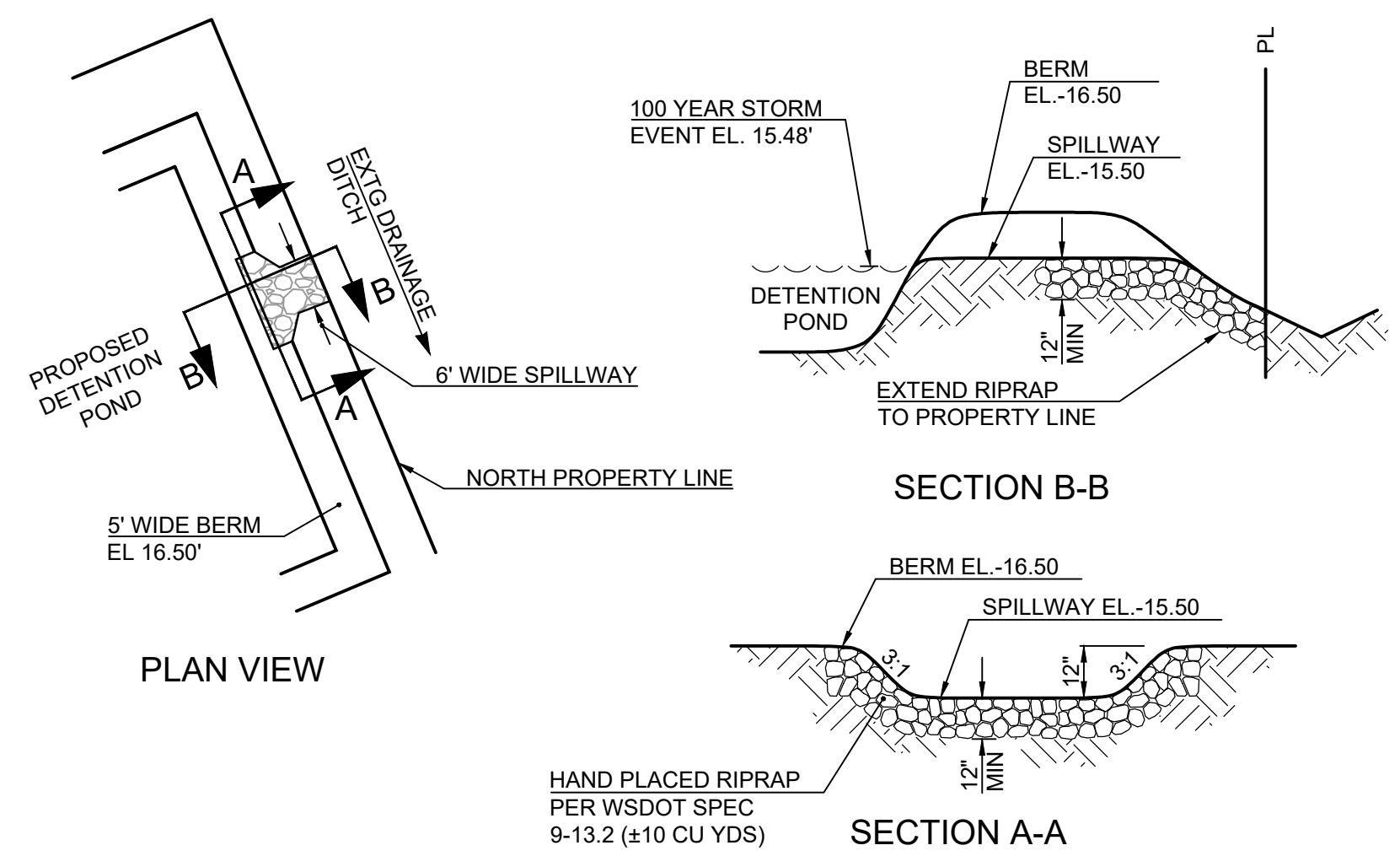
NOTES:

1. DESIGN ELEVATION LISTED FOR THE END OF THE EXISTING 8" SAN SEWER LATERAL IS BASED ON THE AS-BUILT INVERT ELEVATION AT THE EXISTING SANITARY MANHOLE AND AN ASSUMED LATERAL SLOPE OF 0.0040 AS INDICATED ON THE ORIGINAL CONSTRUCTION DRAWINGS WHICH RESULTED IN THE LATERAL INSTALLATION. THE CONTRACTOR SHALL EXPOSE AND MEASURE THE INVERT ELEVATION OF THE END OF THE SEWER LATERAL PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCY BETWEEN DESIGN AND ACTUAL INVERT ELEVATIONS SO THAT ANY REQUIRED DESIGN MODIFICATIONS CAN BE MADE PRIOR TO CONSTRUCTION.
2. ALL CITY OF WOODLAND STANDARD WATER DETAILS CAN BE FOUND ON SHTS 13 & 14.
3. ALL CITY OF WOODLAND STANDARD SANITARY SEWER DETAILS CAN BE FOUND ON SHT 15.

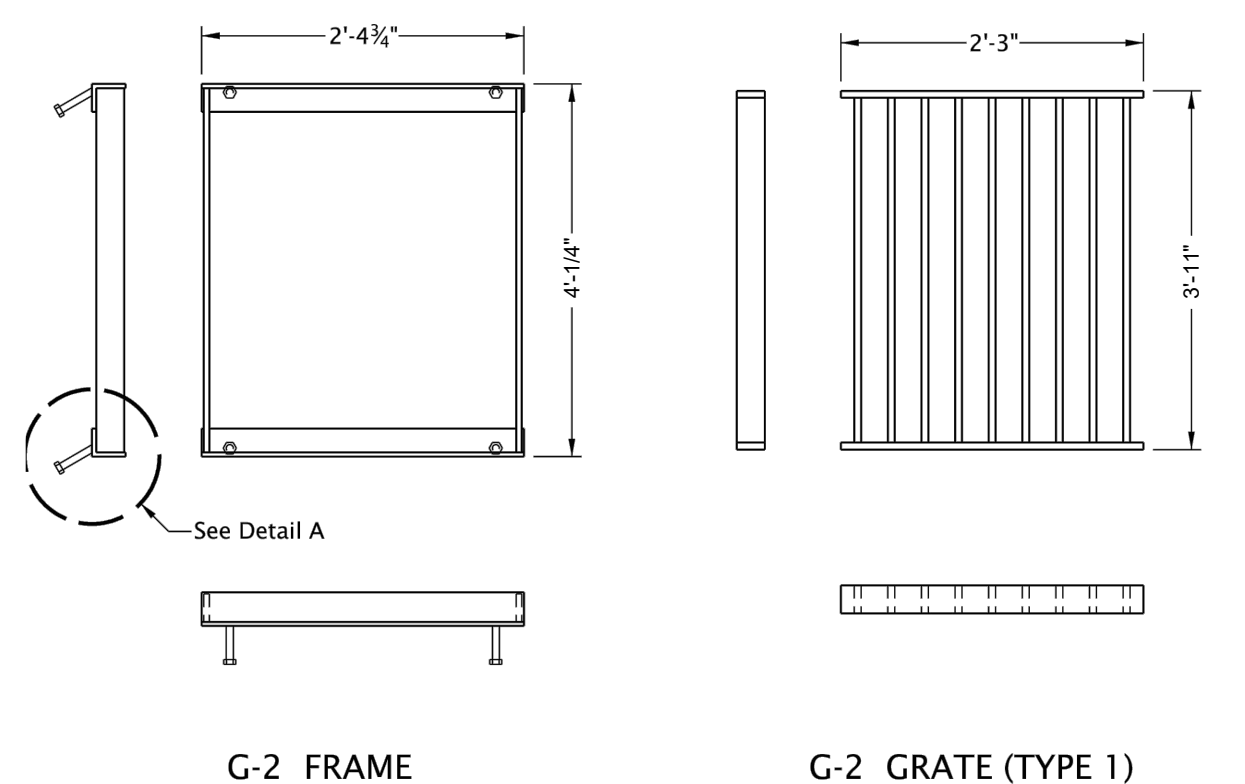
Revisions	



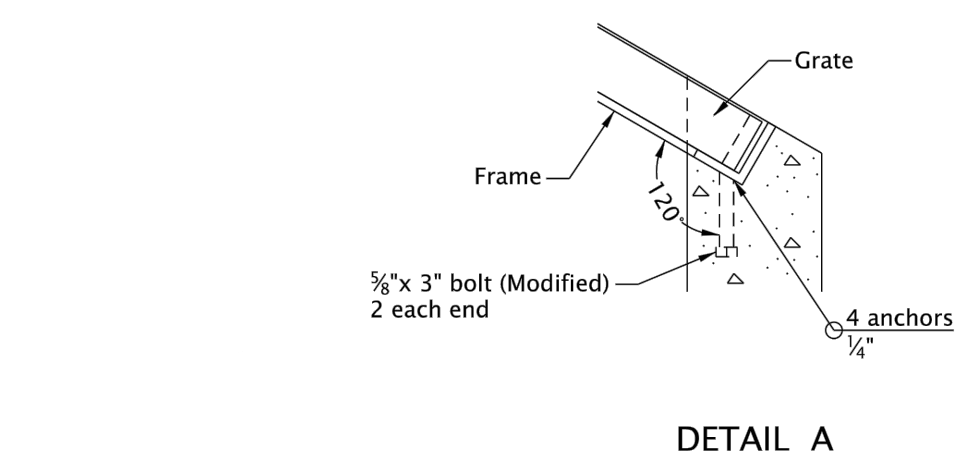
Project No. 3405
 SCALE: H: 1" = 30'
 V: N/A
 DESIGNED BY: TJL
 DRAFTED BY: TJL
 REVIEWED BY: AJG



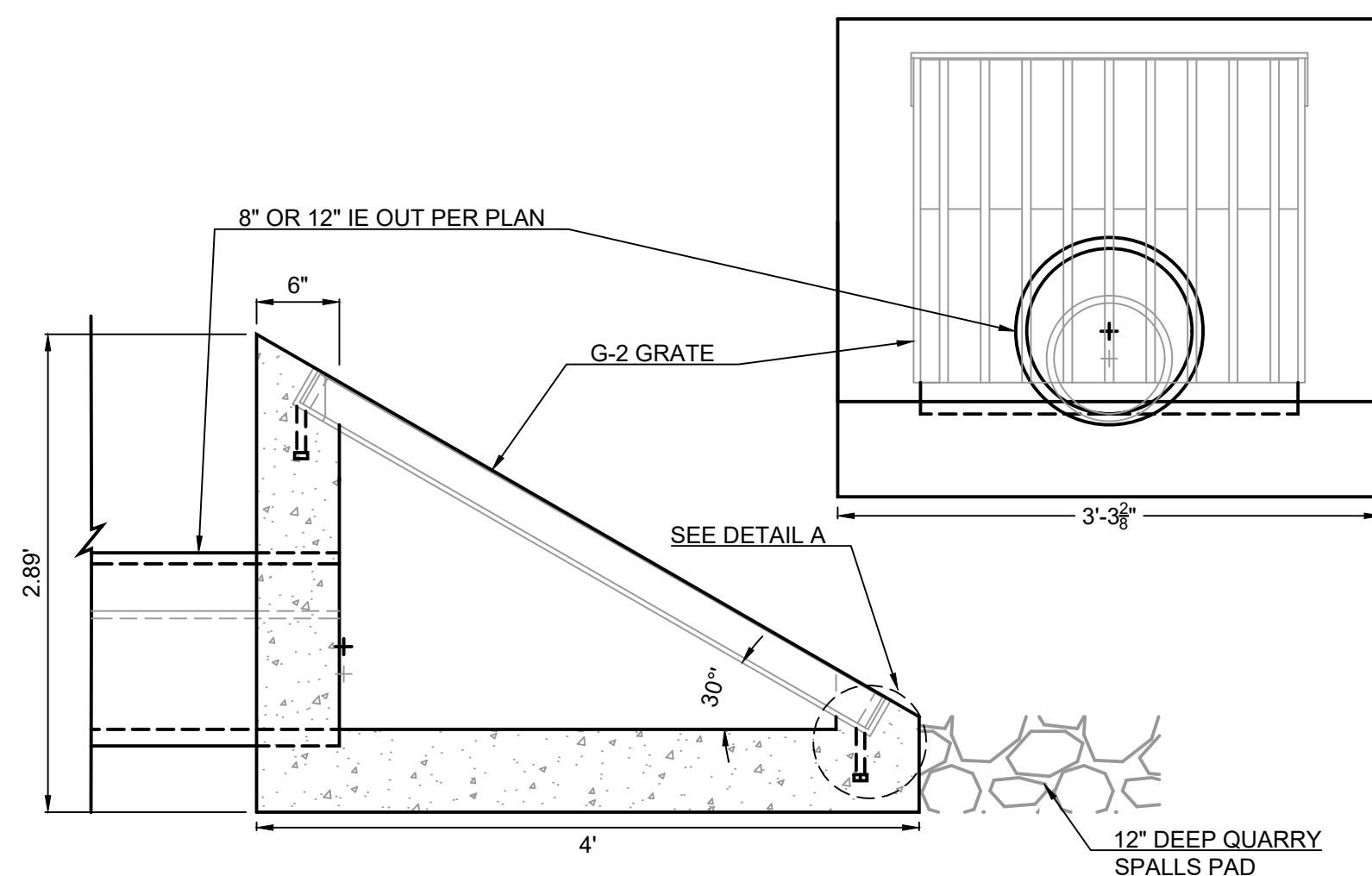
Emergency Overflow Spillway
NTS



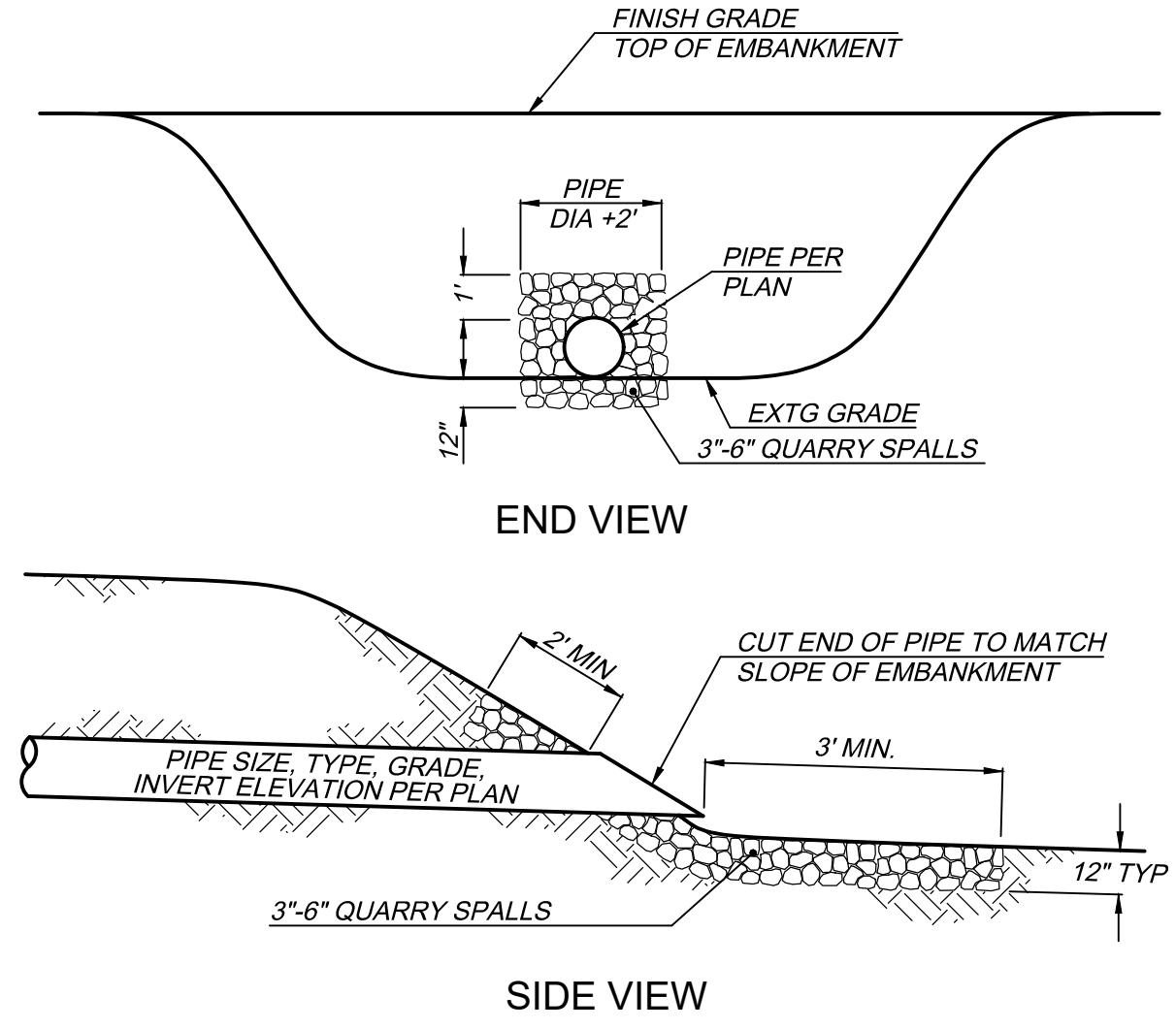
G-2 FRAME G-2 GRATE (TYPE 1)



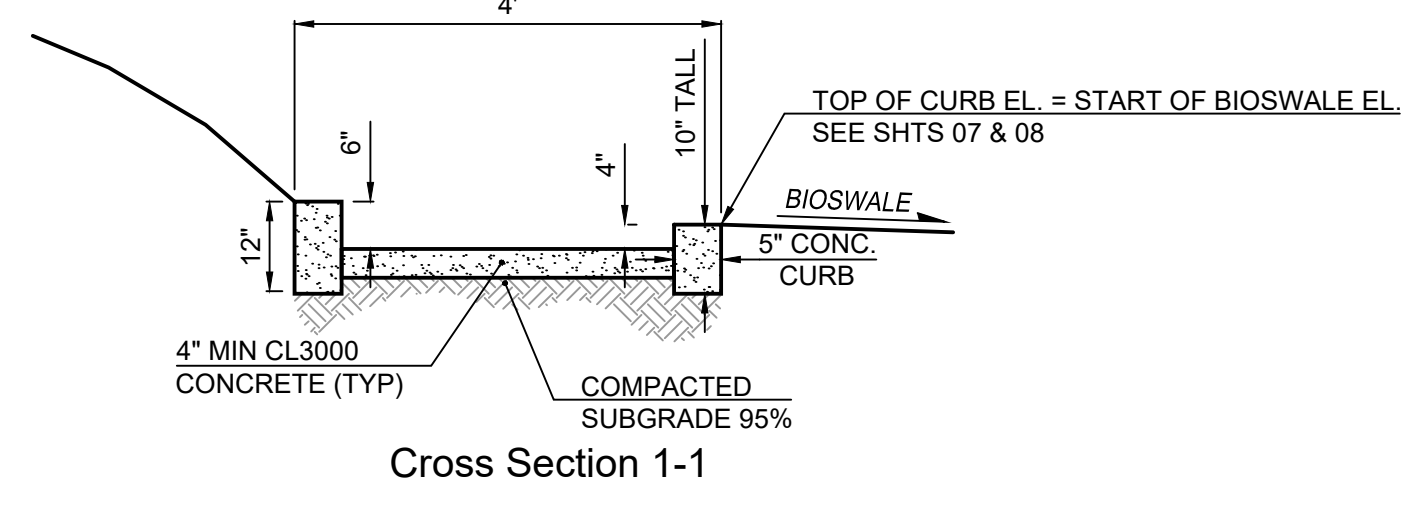
DETAIL A



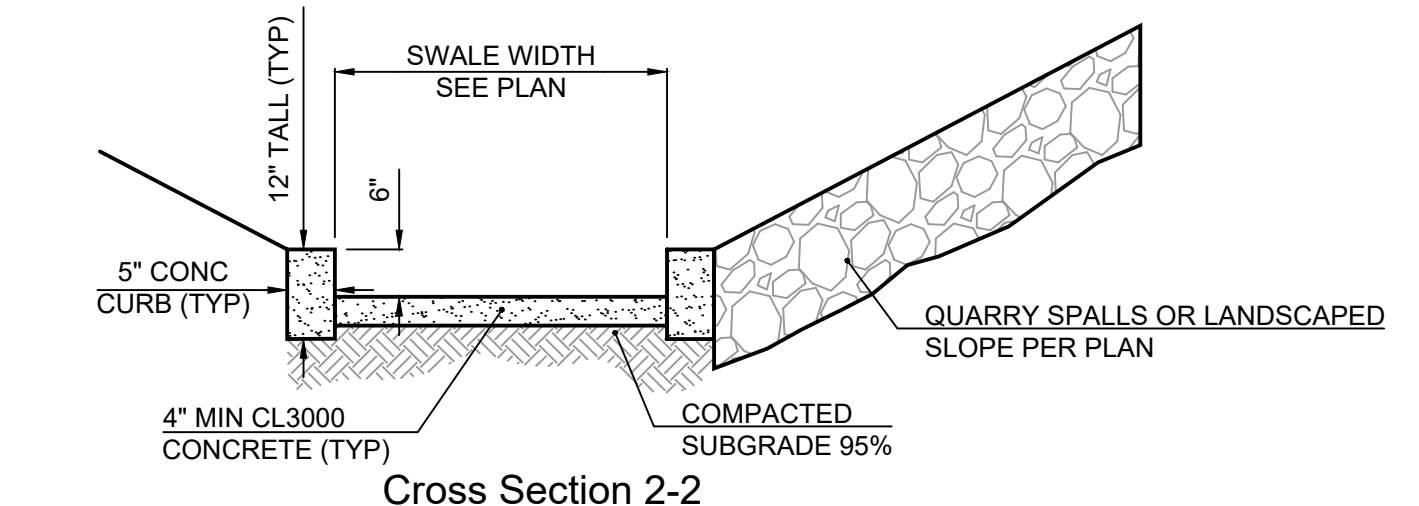
Ditch Inlet Detail
NTS



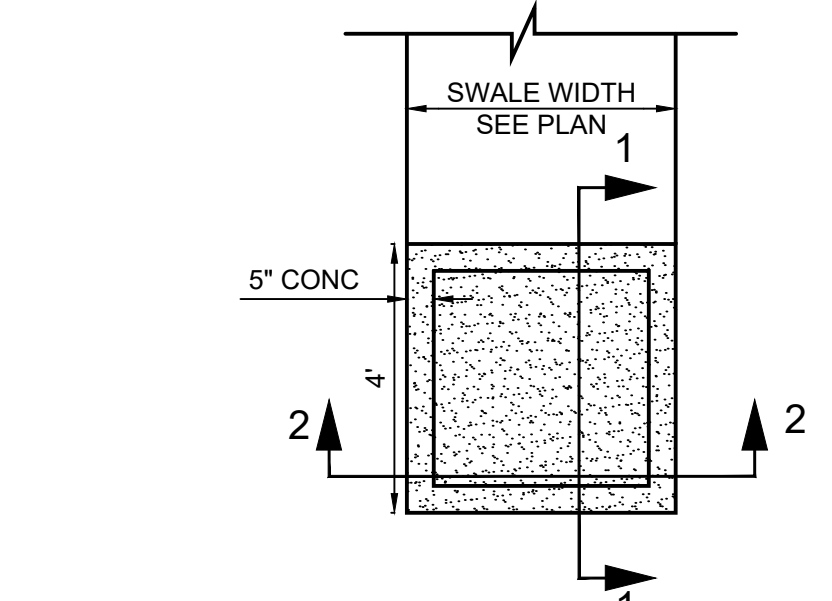
Typical Outlet Protection Detail
NTS



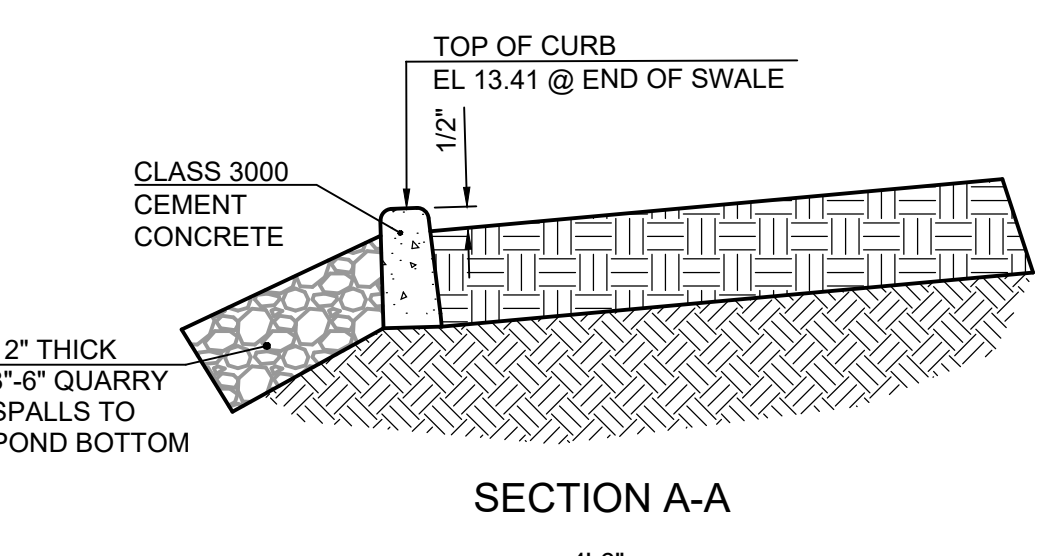
Cross Section 1-1



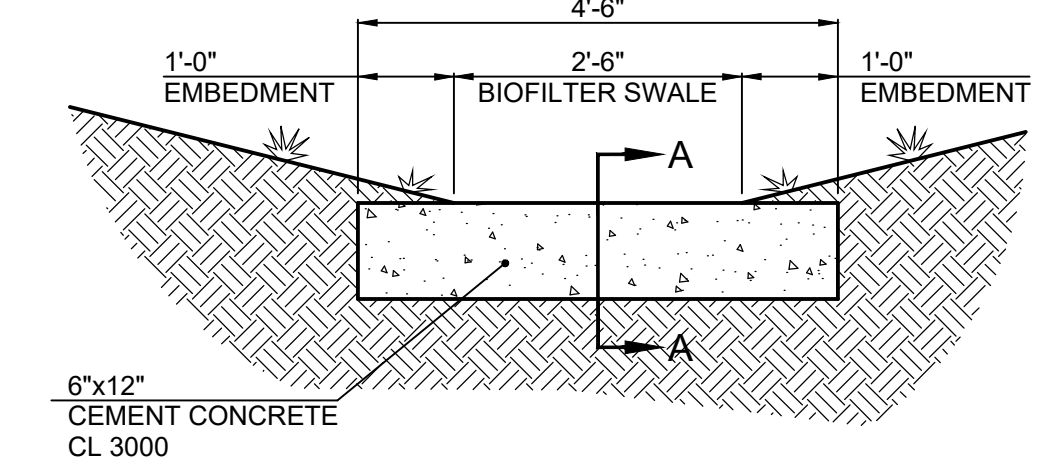
Cross Section 2-2



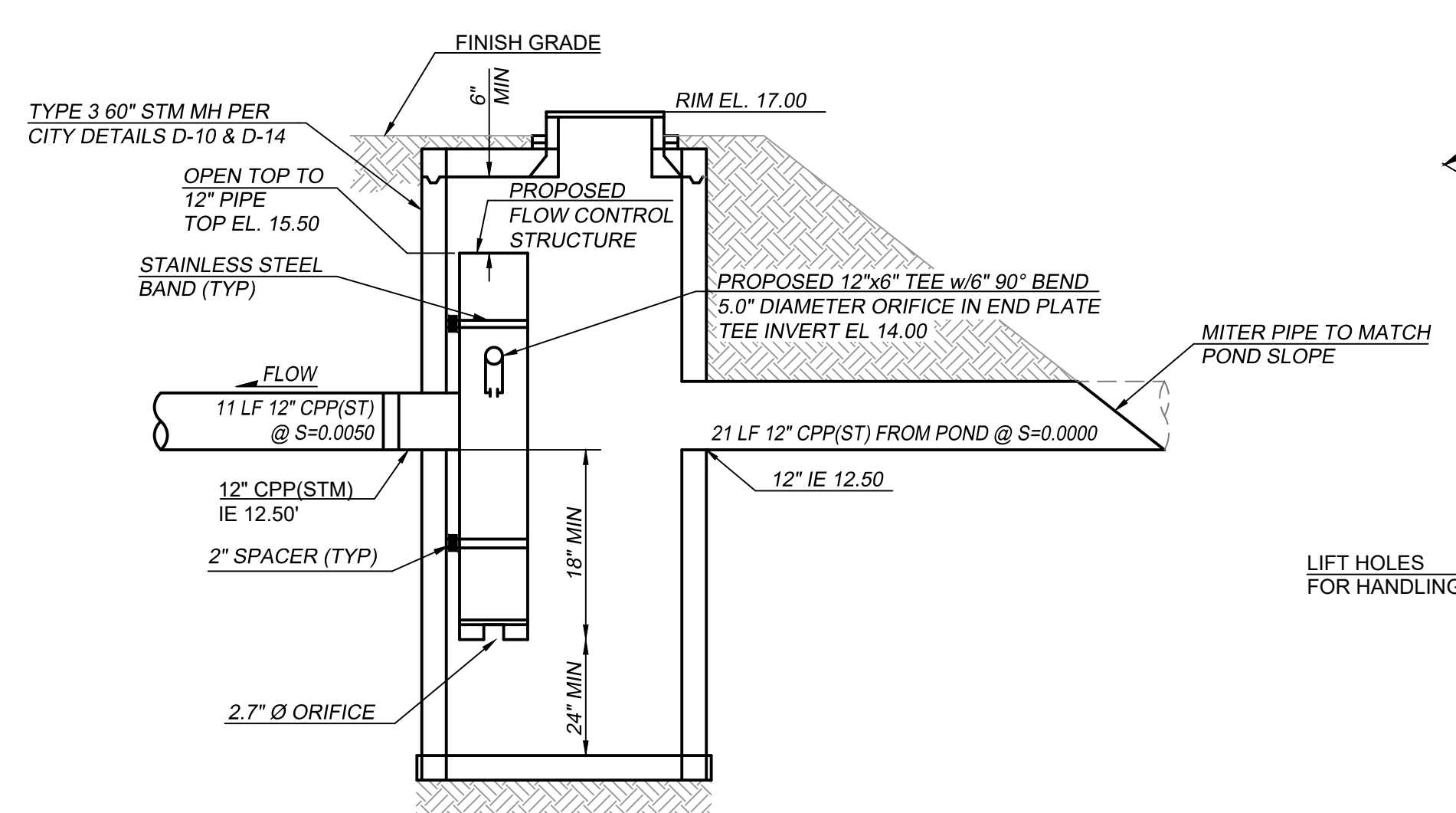
Bioswale Sediment Trap
NTS



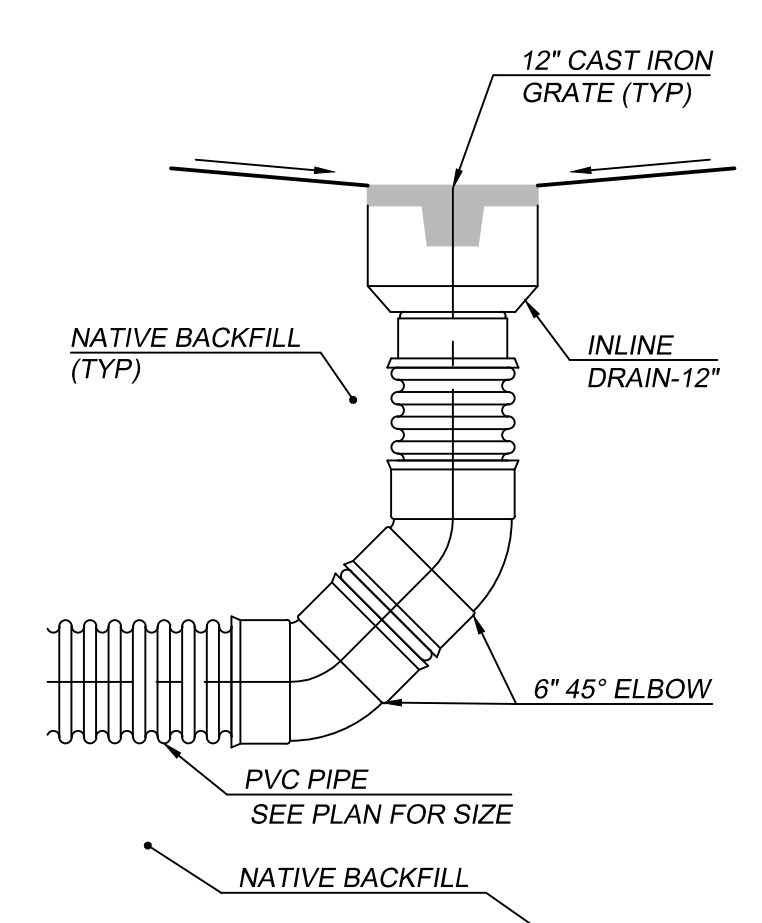
SECTION A-A



Concrete Flow Spreader Detail
NTS

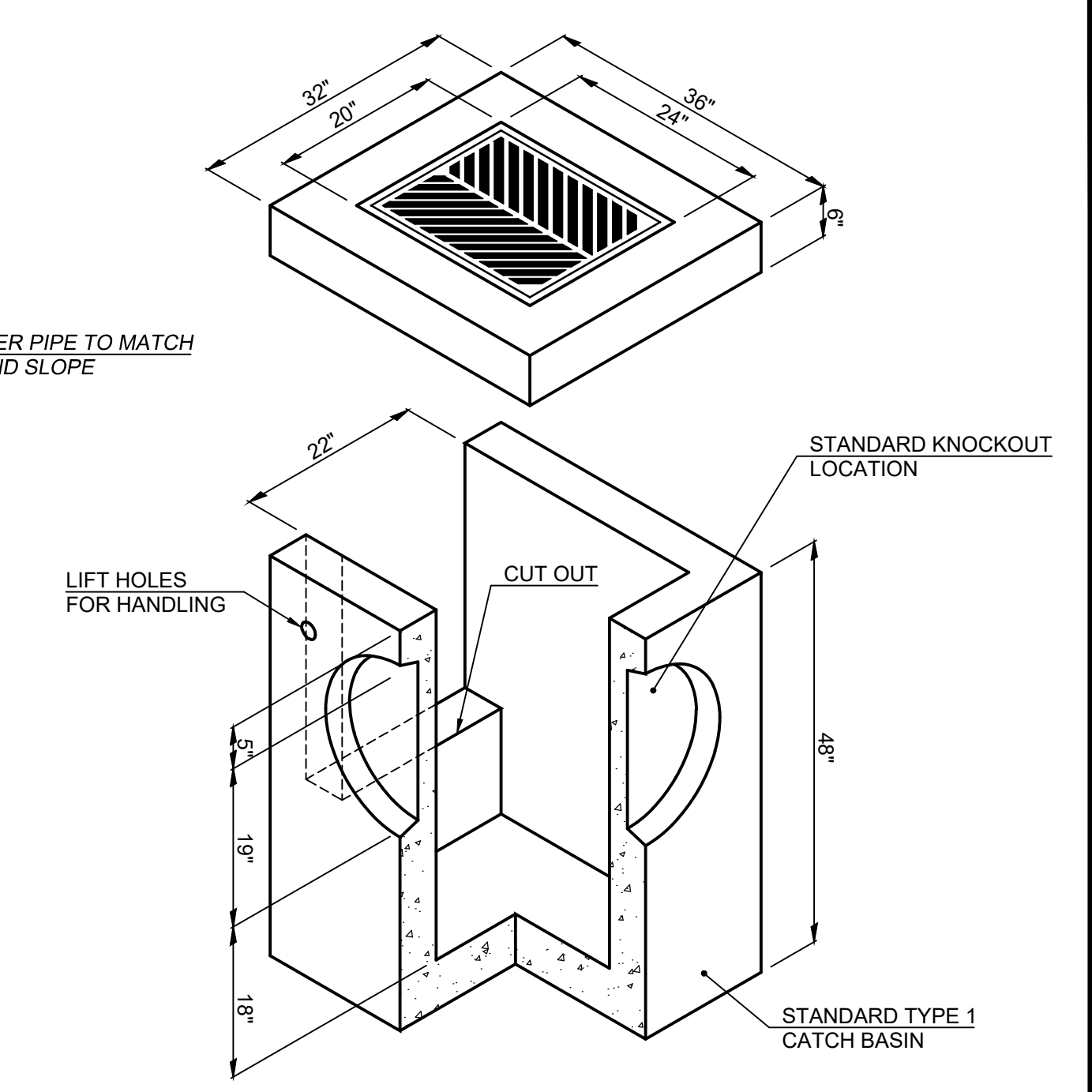


Storm Control Manhole
NTS

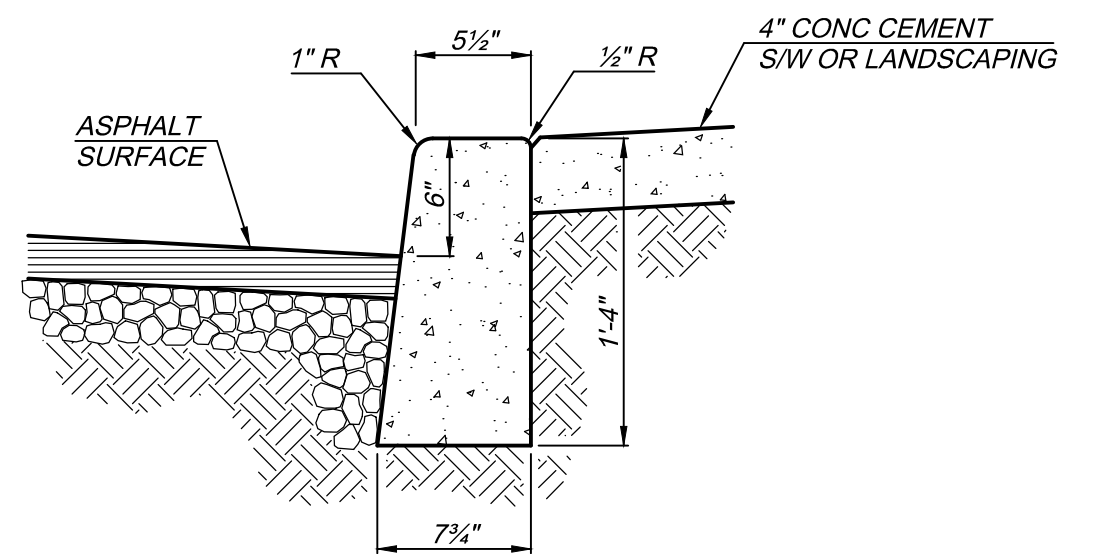


Private Area Drain
NTS

Notes:
For detailed construction specifications see ADS surface drainage products manual.

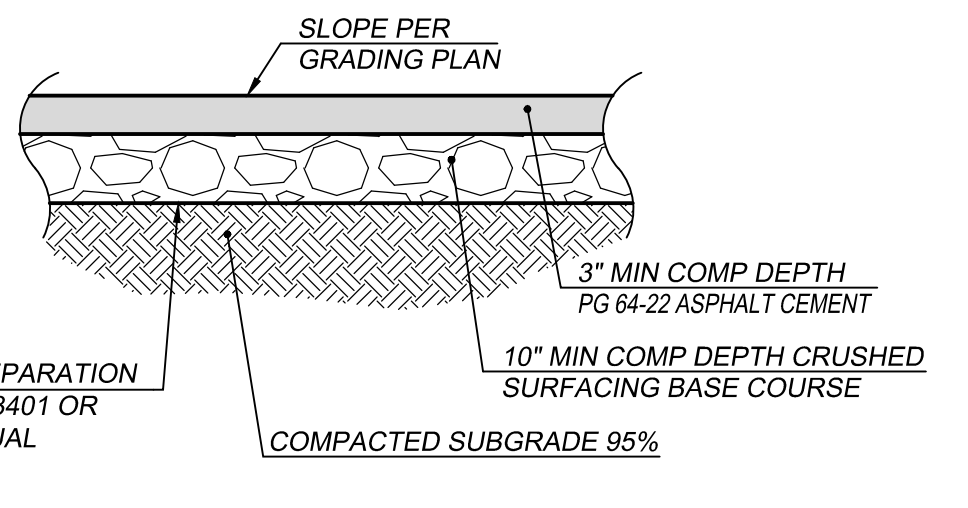
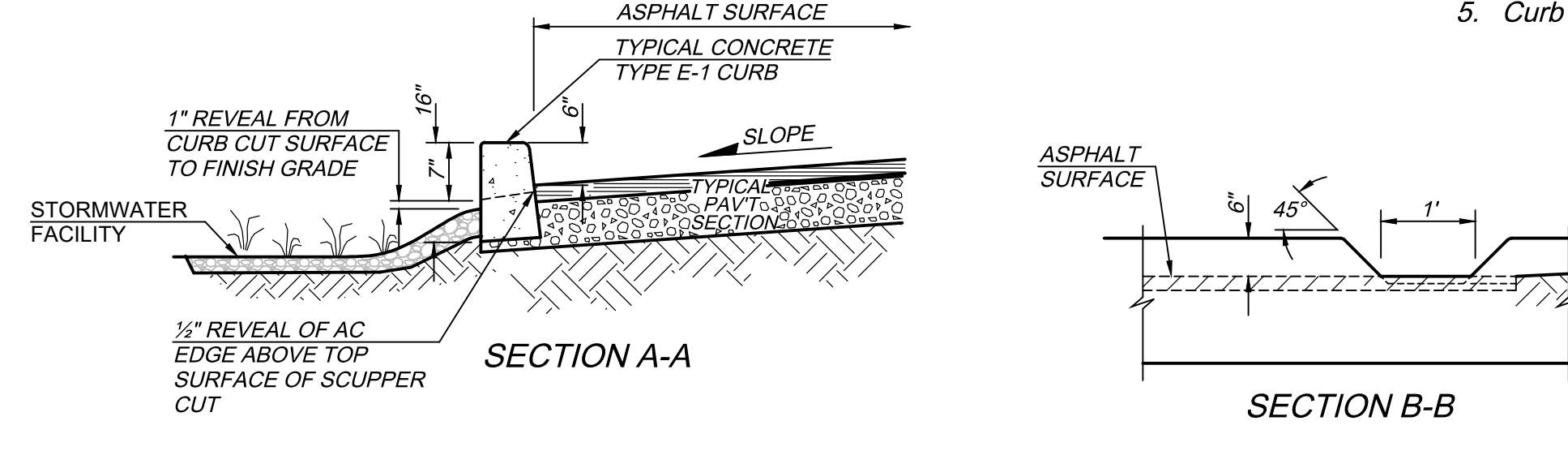


Catch Basin Detail
NTS

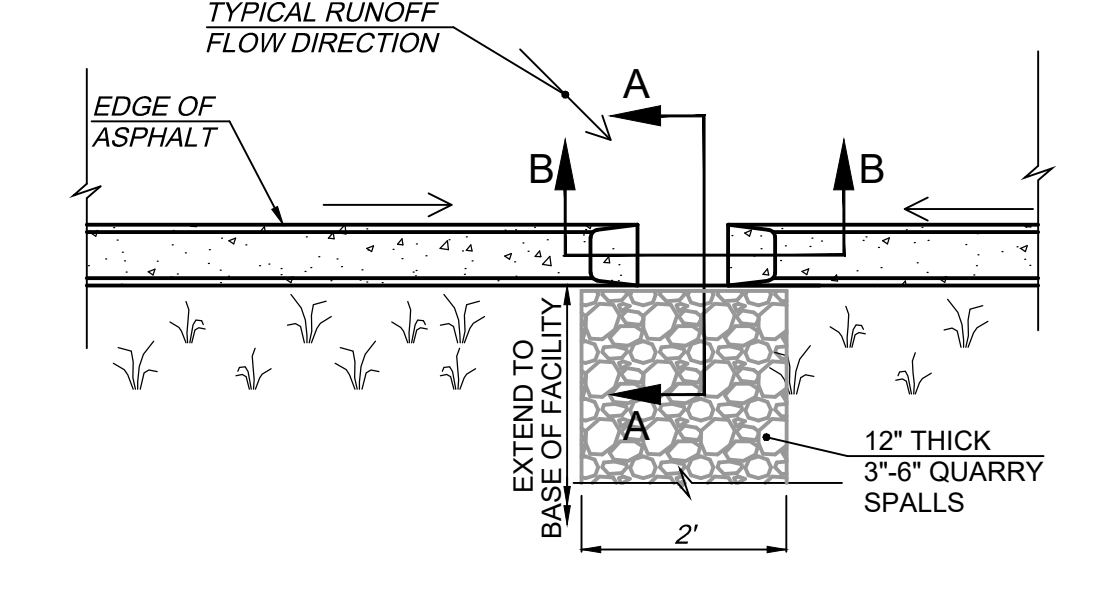


Type E-1 Barrier Curb
NTS

- Notes:
- Concrete shall be class 3000.
 - Curbs adjacent to pavement or sidewalk to have expansion and/or contraction joints to match existing patterns.
 - 3/8\" expansion joints shall be placed at 45\" maximum spacing, on both sides of catch basins, at tops of driveways, and all changes in direction. 1 1/2\" cut joints to be placed at 15\" maximum spacing.
 - Compact subgrade and aggregated to 95% of max. dry density.
 - Curb to be brush finished.



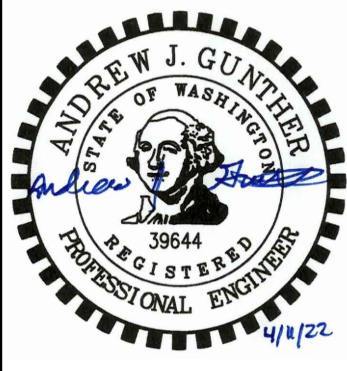
Typical Asphalt Section
NTS



Curb Cut
NTS

Gravel Control MH Access Typical Section
NTS

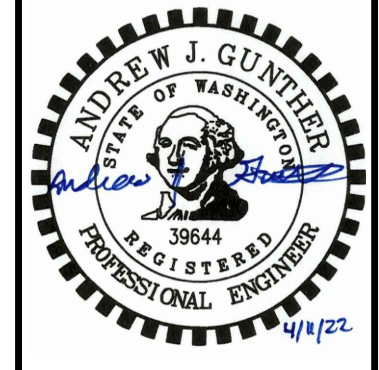
Revisions	1	2	3	4	5	6



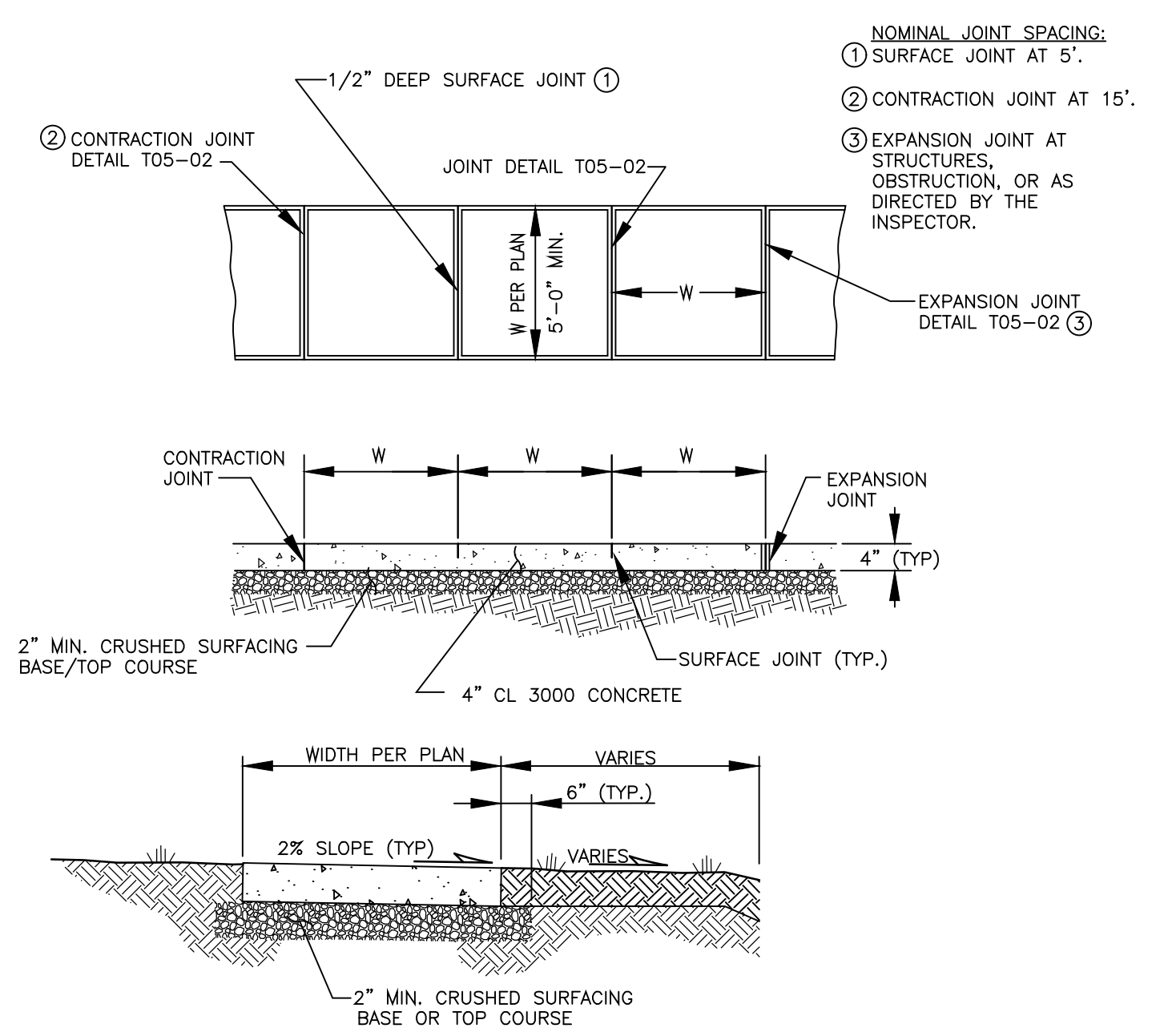
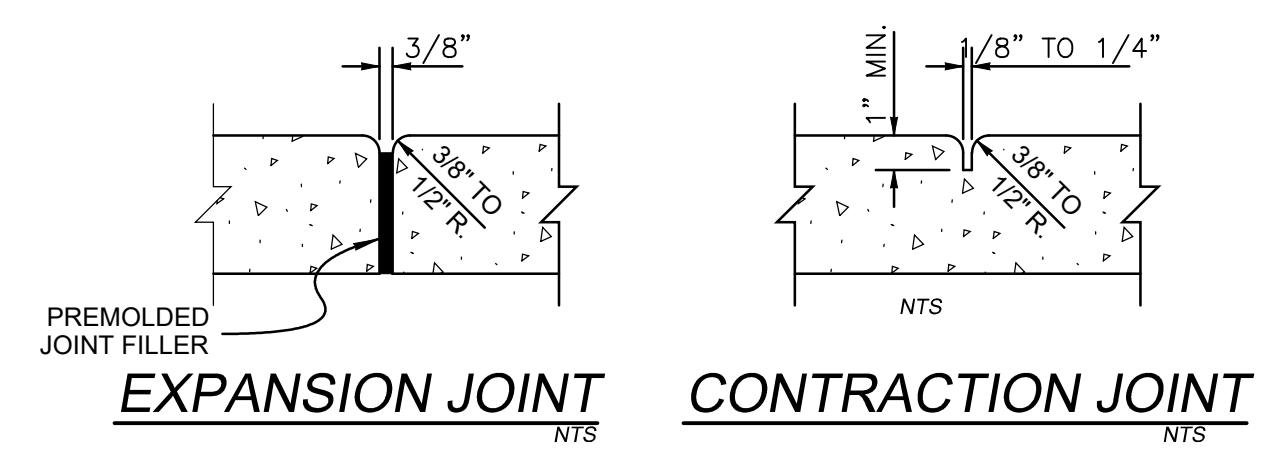
Project No. 3405
SCALE: H: N/A
V: N/A
DESIGNED BY: TJL
DRAFTED BY: TJL
REVIEWED BY: AJG

Miscellaneous Details For:

Revisions	1	2	3	4	5	6

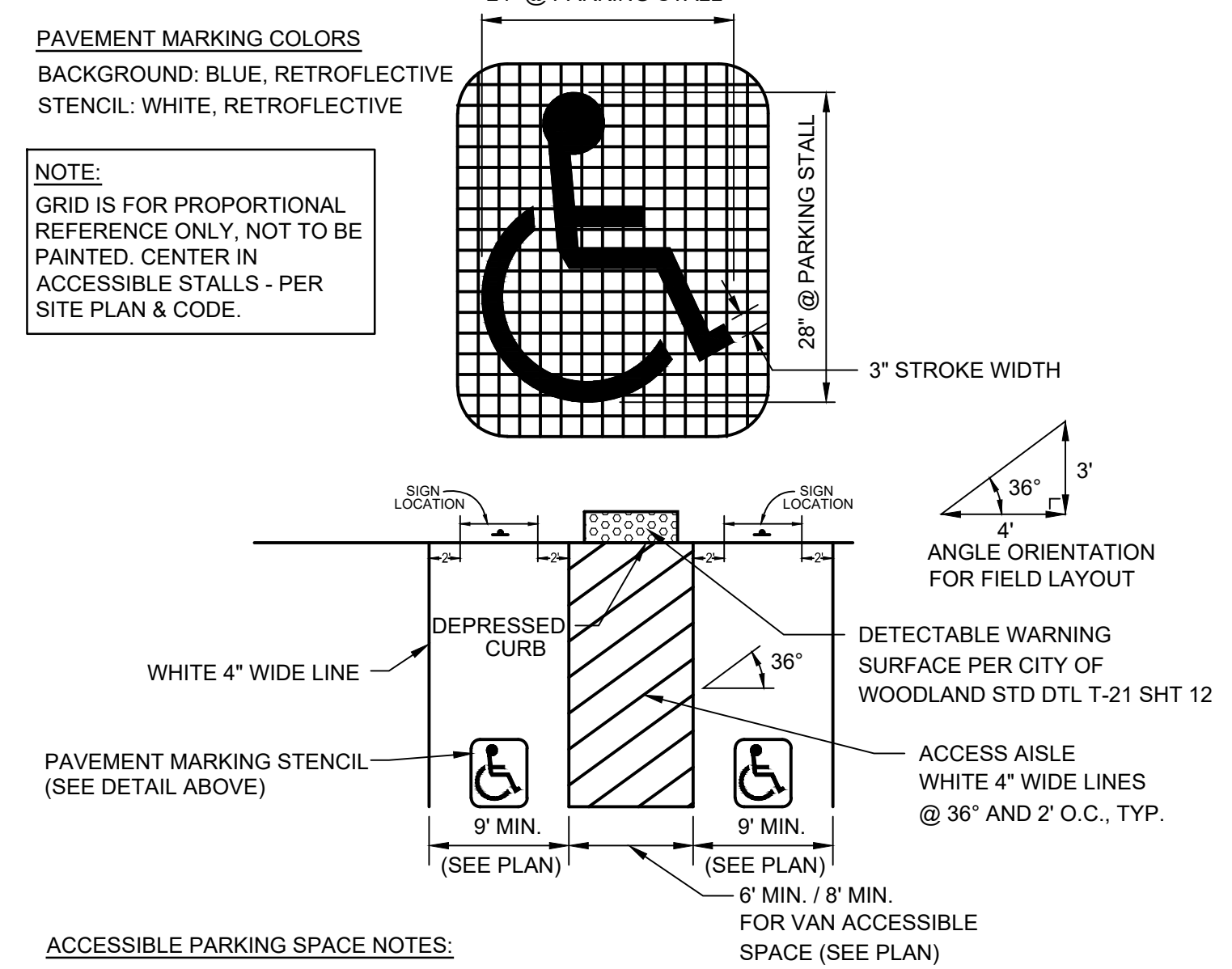


Project No. 3405	SCALE: H: N/A V: N/A
DESIGNED BY: TJL	DRAFTED BY: TJL
REVIEWED BY: AJG	

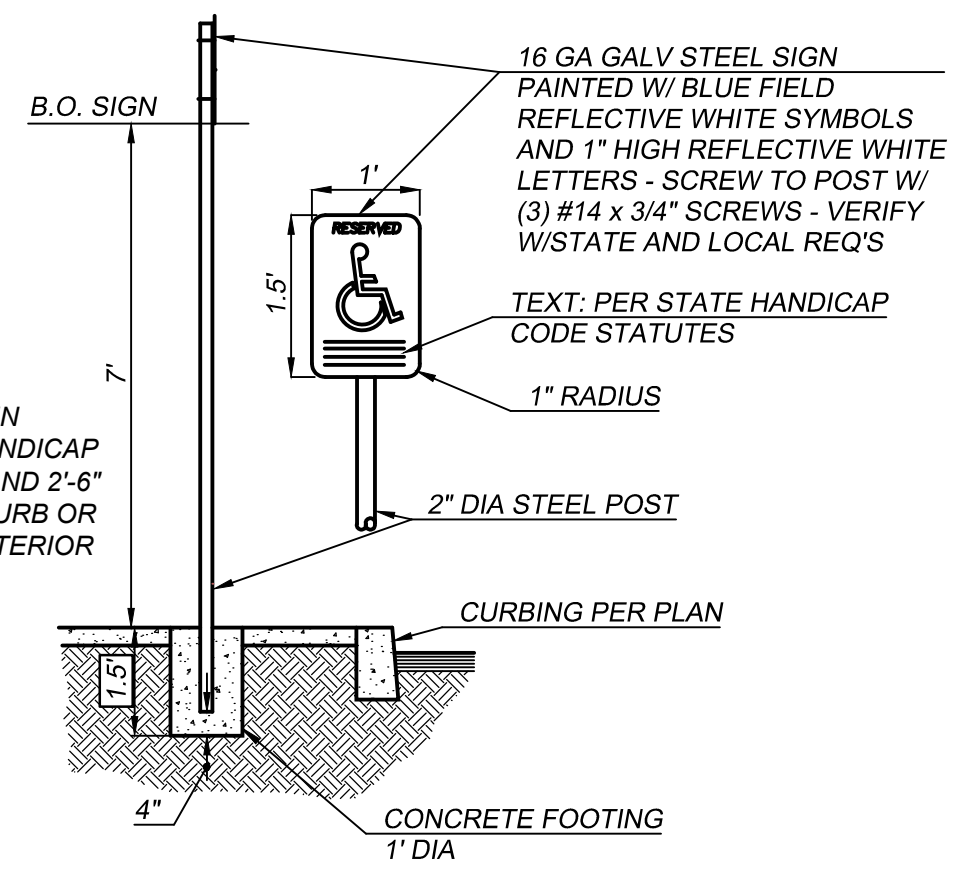


- NOTES:**
- CONCRETE SHALL BE 3000 PSI MIN. (CL 3000), 3 1/2" SLUMP (MAX.).
 - COMPACT SUBGRADE AND AGGREGATE TO 95% OF MAXIMUM DRY DENSITY (3" MIN.).
 - FINISH SHALL BE MEDIUM BROOM PERPENDICULAR TO PEDESTRIAN TRAFFIC UNLESS OTHERWISE DIRECTED.
 - 2" SMOOTH FINISH BORDER AROUND EACH SIDEWALK PANEL OR MATCH EXISTING BORDER.
 - SEE BELOW FOR CONTRACTION, AND EXPANSION JOINT DETAILS.
 - ALL SIDEWALK REMOVAL AND REPLACEMENT SHALL BE JOINT TO JOINT.
 - EXPANSION MATERIAL REQUIRED AROUND ALL STRUCTURES AND AT BUILDINGS.

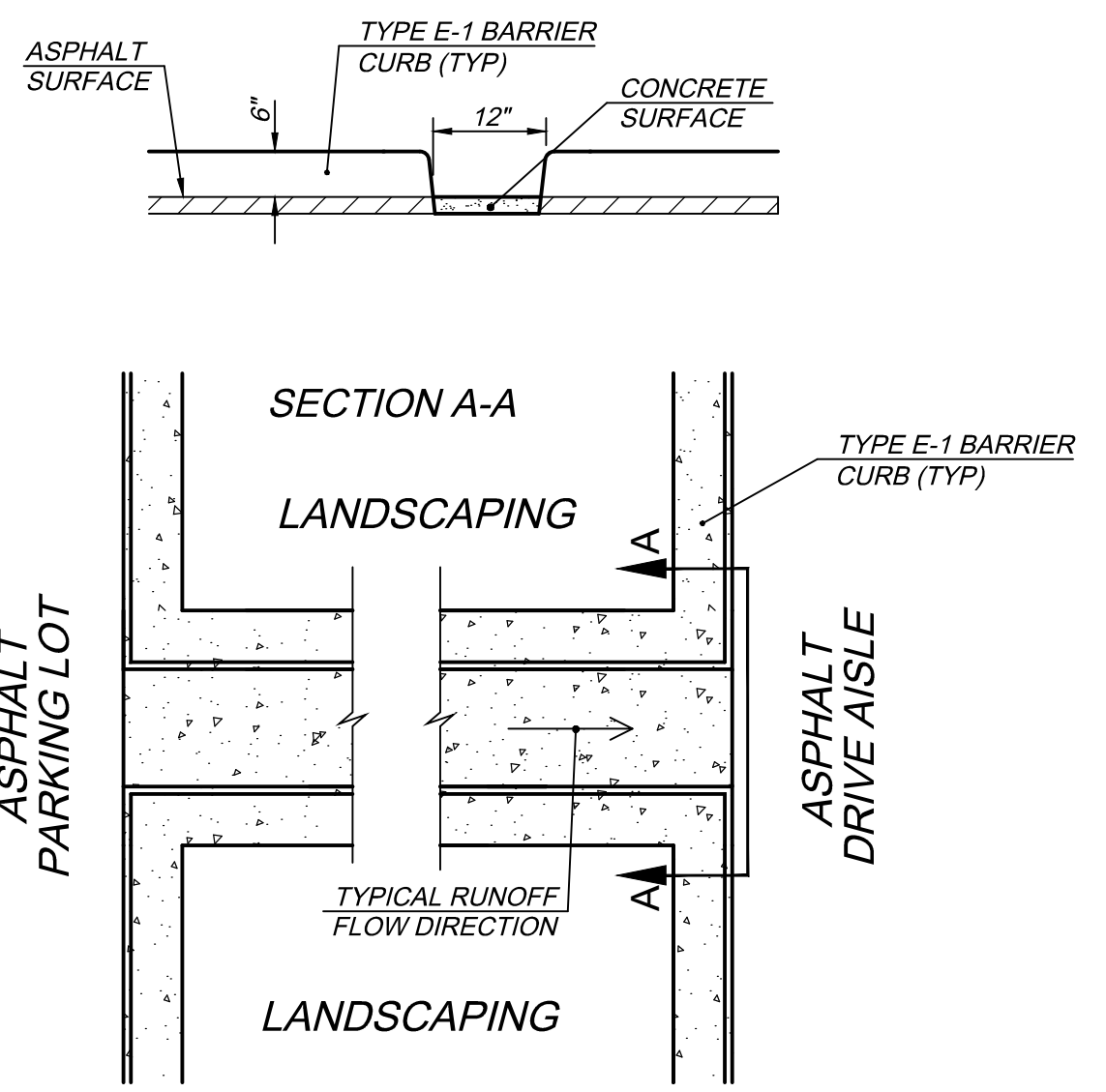
TYPICAL ON-SITE SIDEWALK DETAIL NTS



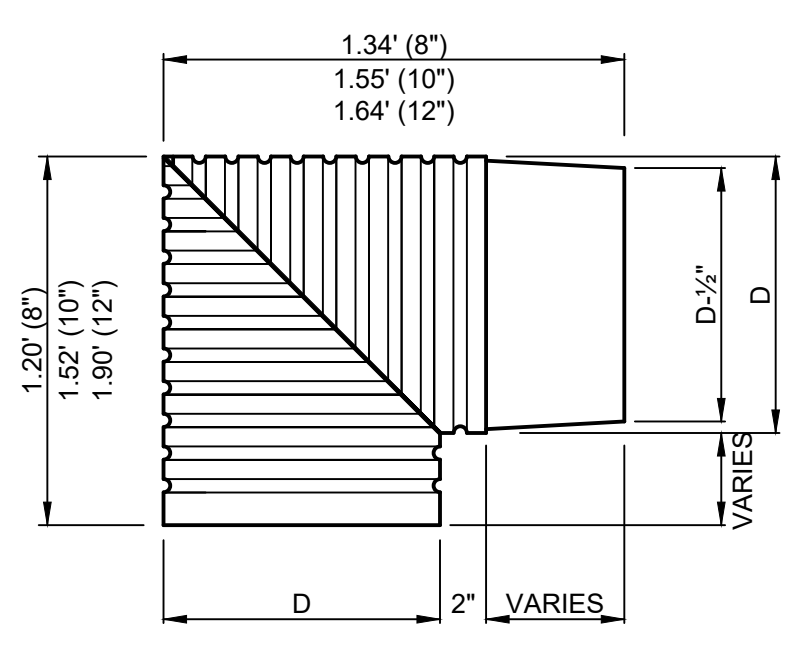
Accessible Parking Space Details NTS



Handicap Sign NTS

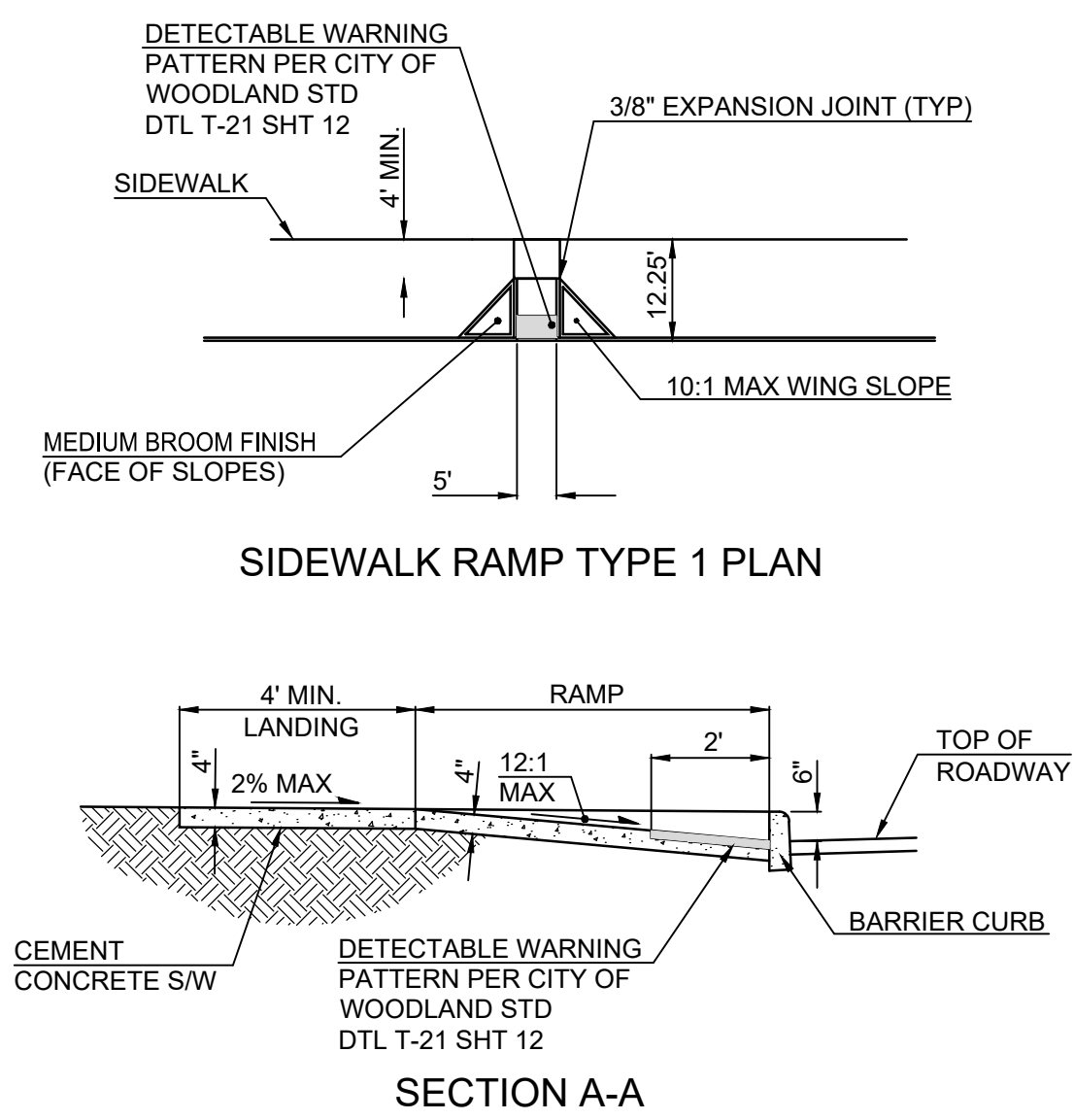


Curb Scupper NTS



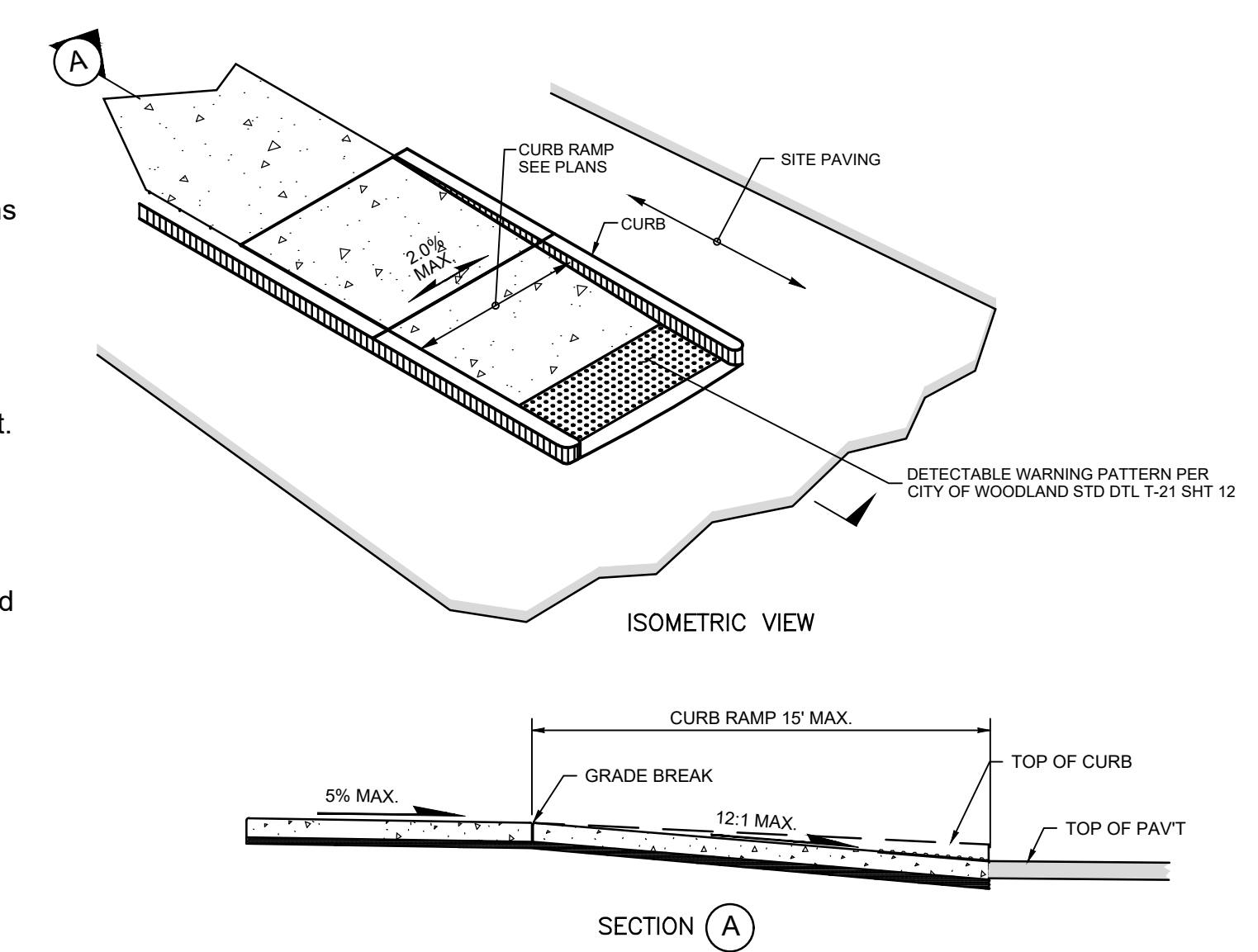
- Notes:**
- Trap to be made of N-12 ads pipe (or equal).
 - All joints to be seamed and soldered.
 - Dimension "D" is nominal diameter of outlet pipe
 - Alternate trap may be authorized by inspector.

Trap Detail NTS



SIDEWALK RAMP TYPE 1 NTS

- Sidewalk Ramp Notes:**
- Do not place drainage structures, junction boxes or other obstructions in front of ramp access areas.
 - Detectable warning patterns to be created per City of Woodland standard detail T-21 on sheet 12.
 - Changes in level up to 1/4" may be vertical and without edge treatment. Changes in level between 1/4" and 1/2" shall be beveled with a slope no greater than 1:2.
 - Detectable warning surfaces shall extend 24 inches minimum in the direction of travel and the full width of the curb ramp, landing or blended transition.
 - The detectable warning surface shall be located so that the edge nearest the face of curb is 6 inches minimum and 8 inches maximum from the face of curb.
 - Concrete 3,000 psi minimum.

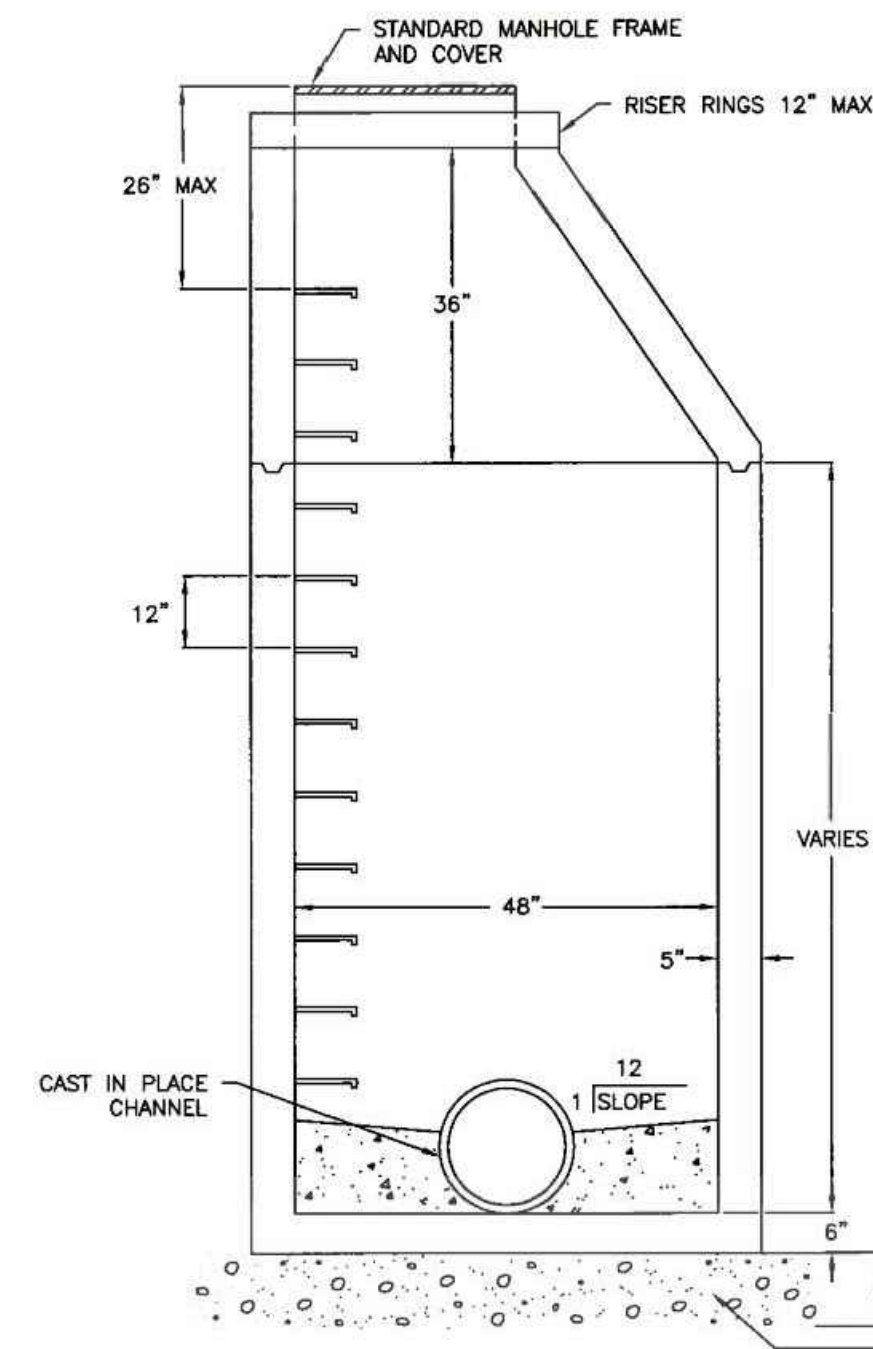


SIDEWALK RAMP TYPE 2 NTS

GENERAL NOTES FOR STORM SEWERS

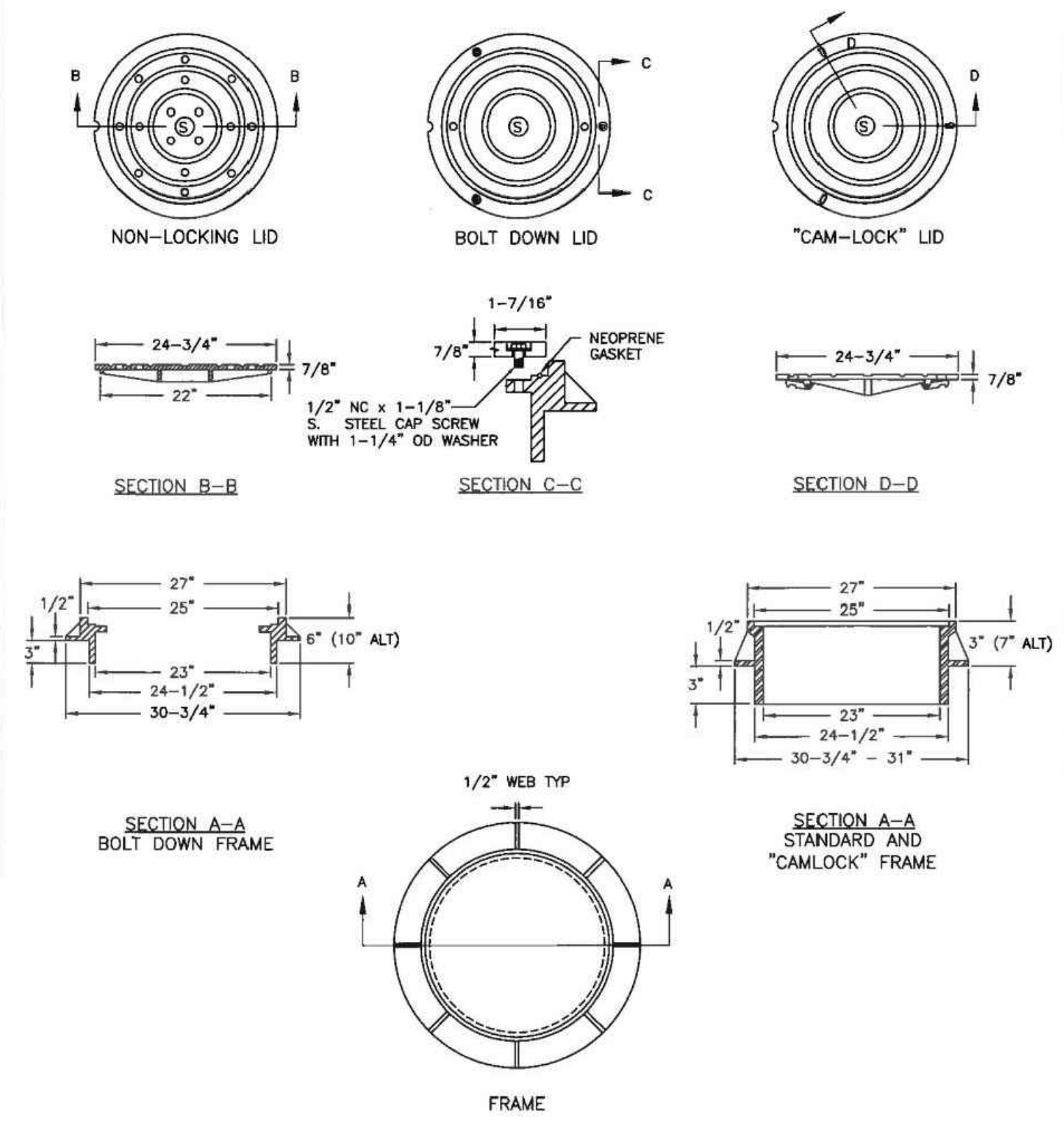
- ALL MATERIALS AND INSTALLATION OF STORM SEWERS AND DRAINAGE SYSTEMS SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS IN THE CITY OF WOODLAND'S LATEST VERSION OF STANDARD DETAILS AND THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, WHERE THE CITY OF WOODLAND REQUIREMENTS SHALL TAKE PRECEDENCE. WHEREVER THE STANDARD SPECIFICATIONS REFER TO THE OWNER AS EITHER THE "STATE" OR "SECRETARY" OR WHEN REFERENCE IS MADE TO THE DEPARTMENT OF TRANSPORTATION IT SHALL BE UNDERSTOOD THAT THE STANDARD SPECIFICATIONS SHOULD READ THE "CITY".
- ALL STORM SEWER AND DRAINAGE SYSTEM CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF WOODLAND'S PUBLIC WORKS DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS OFFICE (360) 225-7999 AT LEAST 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION. THE CITY MAY REQUIRE THAT A PRECONSTRUCTION CONFERENCE BE HELD.
- THE CONTRACTOR IS REQUIRED TO NOTIFY ALL UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR MAY CONTACT THE NORTHWEST UTILITY NOTIFICATION CENTER AT 1-800-424-5555 IN LIEU OF CONTACTING INDIVIDUAL UTILITIES.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND/OR CONTRACTOR TO PROCURE AND COMPLY WITH THE PROVISIONS OF ALL APPLICABLE PERMITS, EASEMENTS, LICENSES AND CERTIFICATES IN CONJUNCTION WITH THE CONSTRUCTION OF STORM SEWERS AND DRAINAGE SYSTEMS. COMPLIANCE SHALL BE AT ALL LEVELS: FEDERAL, STATE, AND CITY, RELATING TO THE PERFORMANCE OF THIS WORK. THE CONTRACTOR SHALL OBTAIN A STREET CUT PERMIT FOR WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- THE CONTRACTOR SHALL OBTAIN AND SUBMIT AN APPROVED TRAFFIC CONTROL PLAN PRIOR TO BEGINNING CONSTRUCTION. THE PLAN SHALL BE APPROVED BY THE PUBLIC WORKS DIRECTOR.
- ALL EROSION CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND EROSION CONTROL DETAILS, PRIOR TO START OF ANY CONSTRUCTION OR LAND DISTURBING ACTIVITY.
- THE CONTRACTOR SHALL OBTAIN ALL OFFSITE CONSTRUCTION EASEMENTS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THAT ALL OFFSITE UTILITIES EASEMENTS HAVE BEEN OBTAINED BY THE OWNER PRIOR TO THE COMMENCEMENT OF ANY OFFSITE CONSTRUCTION.
- THE CONTRACTOR IS TO VERIFY AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER. ITEMS TO VERIFY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
-INVERT AND TOP ELEVATIONS OF EXISTING STORM SEWERS
-CENTERLINE AND TOP OF CURB ELEVATIONS
- WATER QUALITY DEVICES WILL BE INSTALLED AND FUNCTIONING PRIOR TO COMMENCING WITH INSTALLATION OF PAVEMENT FOR ALL AREAS DRAINING INTO THE WATER QUALITY SYSTEM. VEGETATION IN BIO-FILTRATION SWALE AND POND SYSTEMS SHALL BE ESTABLISHED AND MECHANICAL DEVICES AND FILTER MEDIA SHALL BE INSTALLED. SWALES AND FILTER STRIPS WILL BE SEEDED WITH AN APPROVED SEED MIX. PER THE WESTERN WASHINGTON MANUAL, TURF IS ALLOWED FOR VEGETATED FILTERS PROVIDED THE TURF AREA IS OVERSEEDDED WITH THE EQUIVALENT GRASS SEED MIX.
- ALL CATCH BASINS SHALL BE STENCILED: "PROTECT STREAMS" OR "PROTECT GROUNDWATER."
- ROOF DOWNSPOUT RUNOFF MUST BE RETAINED ON EACH SPECIFIC SITE. DOWNSPOUTS SHALL NOT DRAIN TO THE STREET OR ANY ADJACENT PROPERTIES UNLESS SPECIFIC APPROVAL HAS BEEN OBTAINED.
- THE CONTRACTOR WILL PROVIDE A TELEVISION REPORT, TAPE, AND TABULAR AS-BUILT OF ALL PUBLIC STORM MAINS AND LATERALS PRIOR TO PAVING. THIS INFORMATION WILL BE SUBMITTED TO THE CITY INSPECTOR FOR REVIEW. APPROVAL AND ACCEPTANCE OF THE TV INSPECTION WILL BE BASED UPON MANUFACTURING AND INSTALLATION DEFECTS, AS WELL AS DEBRIS IN THE LINES. FINAL ACCEPTANCE AND CONSTRUCTION OF STORM SEWERS ARE SUBJECT TO INSPECTION AND TESTING IN ACCORDANCE WITH SECTIONS 1-05.11, 1-05.12, AND 7-04.3 OF THE STANDARD SPECIFICATIONS.

GENERAL NOTES FOR STORM SEWERS					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
<i>Burt Stepp</i>		12/16/13			D-01
PUBLIC WORKS DIRECTOR	DATE				

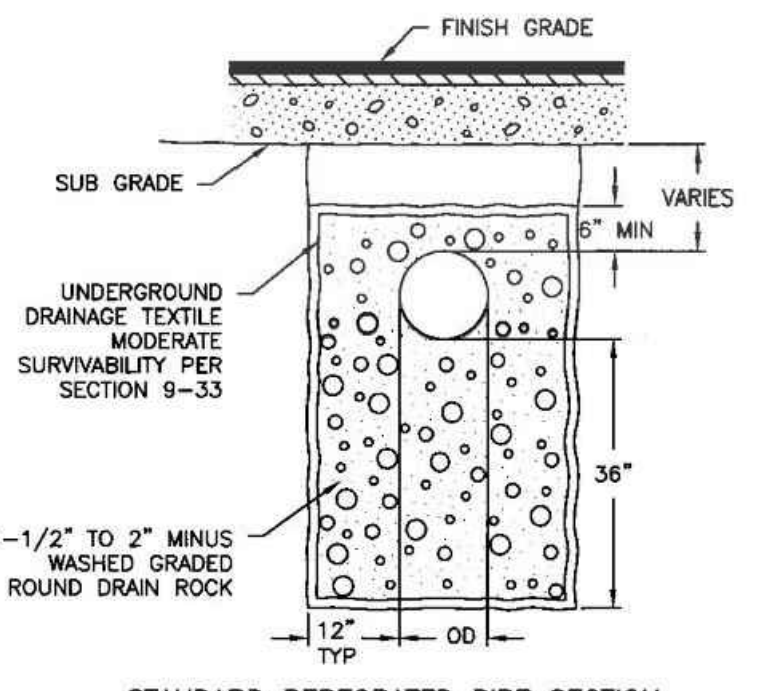


- NOTES:
- ALL PRECAST SECTIONS SHALL CONFORM TO REQUIREMENTS OF A.S.T.M. C478.
 - BASE CONCRETE SHALL BE 3000 P.S.I., 2"-4" SLUMP. FLOW LINES AND INSIDE SURFACES SHALL BE TROWELED SMOOTH AND UNIFORM AT TIME OF POUR.
 - JOINTS SHALL BE CONSTRUCTED SO AS TO BE WATER-TIGHT. KENT-SEAL NO. 2 OR APPROVED EQUAL SHALL BE USED ON TONGUE AND GROOVE SECTIONS. PREMOLDED "O" RING MAY BE SUBSTITUTED ON BELL AND SPIGOT SECTIONS. ALL JOINTS SHALL BE GROUTED WITH PORTLAND CEMENT GROUT AND STRUCK EVEN WITH THE WALL.
 - MANHOLES UNDER 6 FEET IN DEPTH FROM FIN TO SHELF SHALL HAVE A TOP SLAB IN LIEU OF CONE.
 - ALLOWABLE DISTANCE BETWEEN PIPE KNOCKOUTS IS 8 INCHES.

MANHOLE					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
<i>Burt Stepp</i>		12/16/13			D-10
PUBLIC WORKS DIRECTOR	DATE				

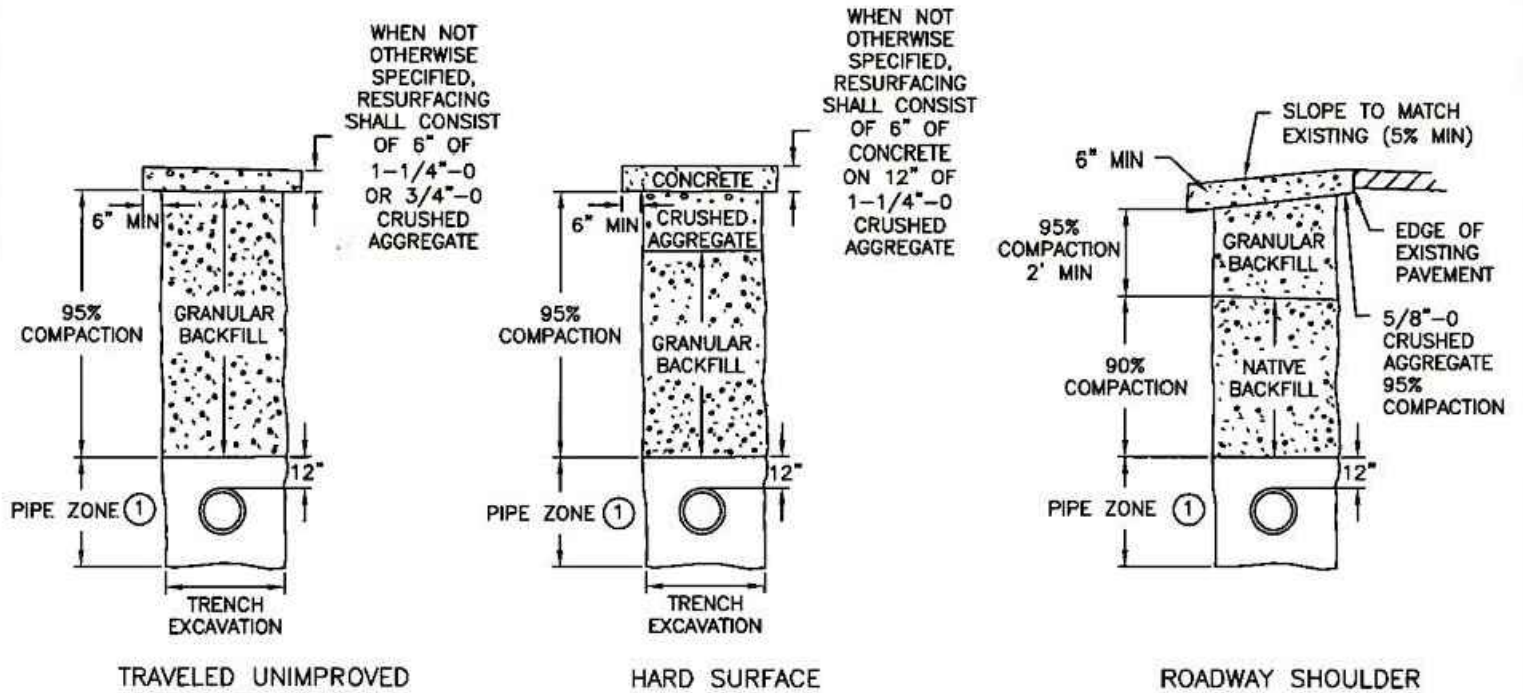


MANHOLE COVER AND FRAME					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
<i>Burt Stepp</i>		12/16/13			D-14
PUBLIC WORKS DIRECTOR	DATE				



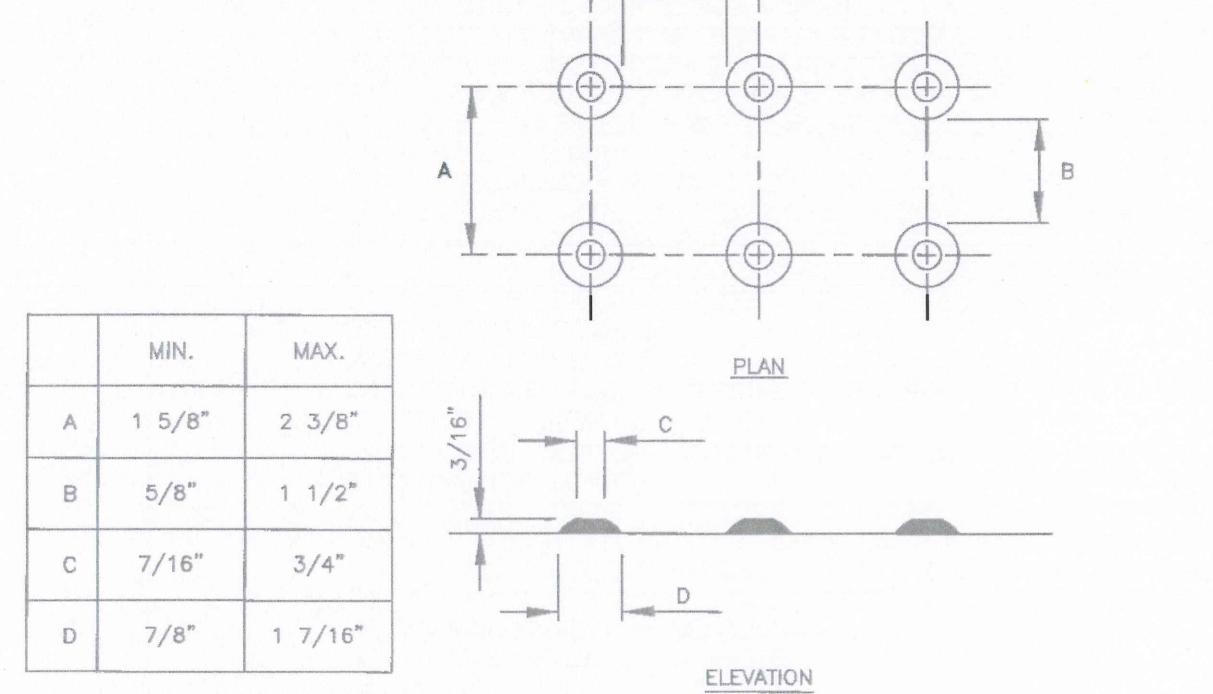
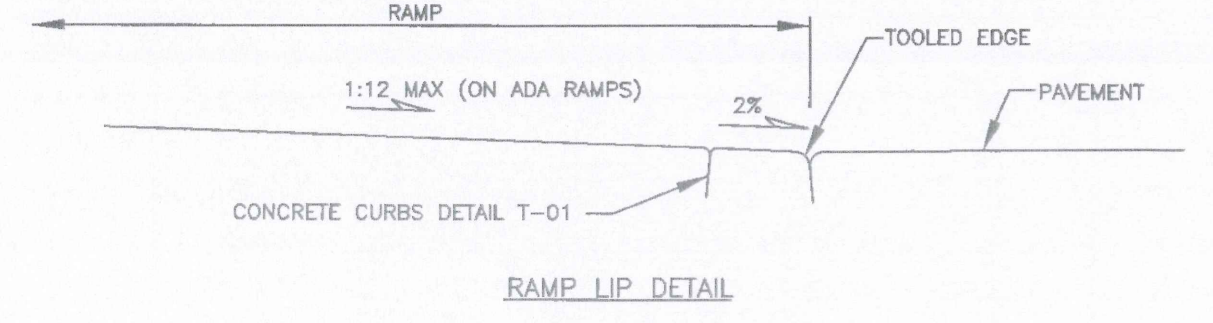
- NOTES:
- PROVIDE UNIFORM SUPPORT UNDER BARREL. HAND TAMP UNDER HAUNCHES.
 - BEDDING MATERIALS SHALL CONFORM TO SECTION 9-03.12(3) OF THE STANDARD SPECIFICATIONS.
 - FOR ROCK AND OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVER EXCAVATED A MINIMUM OF 6 INCHES AND REFILLED WITH GRANULAR MATERIAL AS DIRECTED BY THE ENGINEER.
 - BEDDING AND BACKFILL MATERIALS IN THE PIPE ZONE SHALL BE COMPACTED TO 95%.
 - NATIVE MATERIAL MAY BE USED IN LIEU OF IMPORTED MATERIAL FOR BEDDING SPECIFIED, PROVIDED THAT THE NATIVE CONFORMS TO SECTION 9-03.12(3) OF THE STANDARD SPECIFICATIONS, AND IS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A SAMPLE OF THE MATERIAL TO THE ENGINEER AT LEAST 72 HOURS PRIOR TO USE. THE ENGINEER MAY APPROVE, REJECT OR REQUIRE LAB TESTING OF THE MATERIAL.
 - TRENCH WIDTH SHALL NOT EXCEED 1-1/2 TIMES THE ID OF THE PIPE PLUS 18 INCHES AT THE TOP OF THE PIPE ZONE.
 - ALL JOINTS SHALL BE AIR-TIGHT FOR NON-PERFORATED PIPE. THE ENGINEER MAY REQUIRE TESTING OF ANY OR ALL JOINTS AND CONNECTIONS.

PIPE BEDDING					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
<i>Burt Stepp</i>		12/16/13			D-15
PUBLIC WORKS DIRECTOR	DATE				



- NOTES:
- FOR PIPE ZONE BEDDING, BACKFILL AND COMPACTION REQUIREMENTS, SEE STANDARD DETAIL D-15.
 - COMPACTION PERCENTAGES REFER TO RELATIVE DRY DENSITY AS DETERMINED BY STANDARD PROCTOR (ASTM D 998).
 - CONTRACTOR MAY USE UP TO 2-1/2" OF 5/8"-0 OR 3/4"-0 CRUSHED AGGREGATE IN LIEU OF 1-1/4"-0 BASE ROCK UNDER SURFACING FOR LEVELING COURSE.
 - ALL EXISTING PAVED SURFACES SHALL BE SAW CUT A MINIMUM OF 6" OUTSIDE OF EDGE OF TRENCH TO PROVIDE A NEAT STRAIGHT EDGE.
 - THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE CLEANED AND A TACK COAT SHALL BE APPLIED PER STD. SECTION 5-04.3(5). ALL JOINTS SHALL BE SEALED WITH AR-4000 AND SANDED.
 - ALL BACKFILL SHALL BE MECHANICALLY COMPACTED IN LIFTS WHICH DO NOT EXCEED RATED CAPABILITY OF EQUIPMENT USED, BUT IN NO CASE EXCEED 12" LOOSE.
 - GRANULAR BACKFILL SHALL MEET REQUIREMENTS OF SECTION 9-30.7(3) UNLESS OTHERWISE SPECIFIED.

TRENCH BACKFILL					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
<i>Burt Stepp</i>		12/16/13			D-16
PUBLIC WORKS DIRECTOR	DATE				

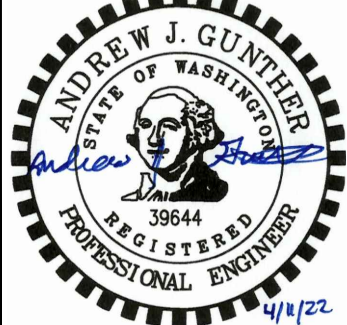


- NOTES:
- DETECTABLE WARNINGS SHALL BE MANUFACTURED USING THE MATERIALS SPECIFIED ON THE PLAN SHEETS WITH THE DOME DIMENSIONS AND SPACING SHOWN AND INSTALLED PER THE MANUFACTURER'S RECOMMENDED PROCEDURES.
 - DETECTABLE WARNINGS SHALL BE SET IN NEW CONCRETE WITH NO AIR TRAPPED UNDERNEATH. GLUED ON OR NAILED DOWN PRODUCTS ARE NOT ACCEPTABLE FOR NEW CONSTRUCTION.
 - SAFETY YELLOW TRUNCATED DOMES ARE REQUIRED UNLESS OTHERWISE APPROVED BY THE PUBLIC WORKS DIRECTOR.

RAMP LIP AND DETECTABLE WARNING PATTERN					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
<i>Burt Stepp</i>		5/8/13			T-21
PUBLIC WORKS DIRECTOR	DATE				

City of Woodland Standard Transportation & Drainage Details For:
Dawkins Warehouse
A Site Located in the City of Woodland, Washington

Revisions	1	2	3	4	5	6

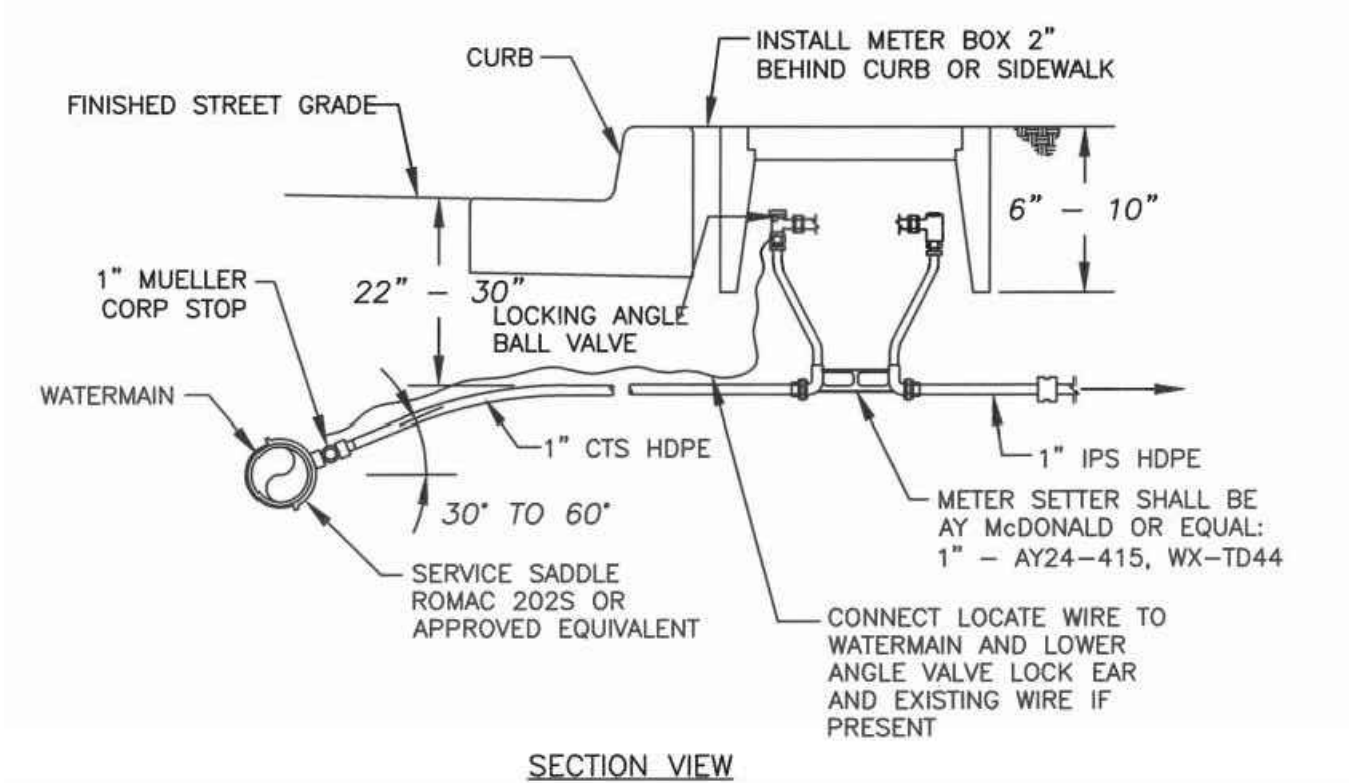
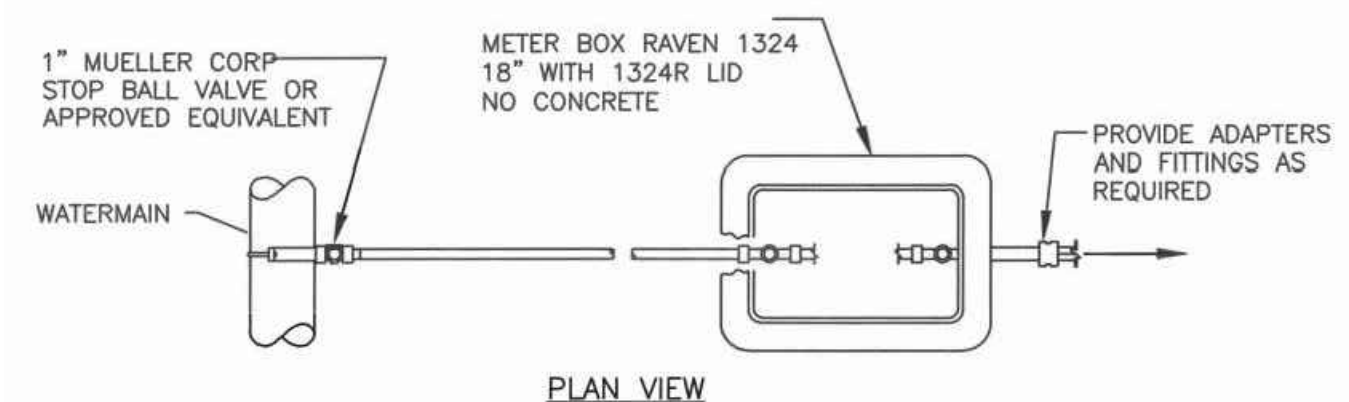


Project No. 3405
SCALE: H: N/A V: N/A
DESIGNED BY: TJL
DRAFTED BY: TJL
REVIEWED BY: AJG

GENERAL NOTES FOR WATER MAIN INSTALLATION

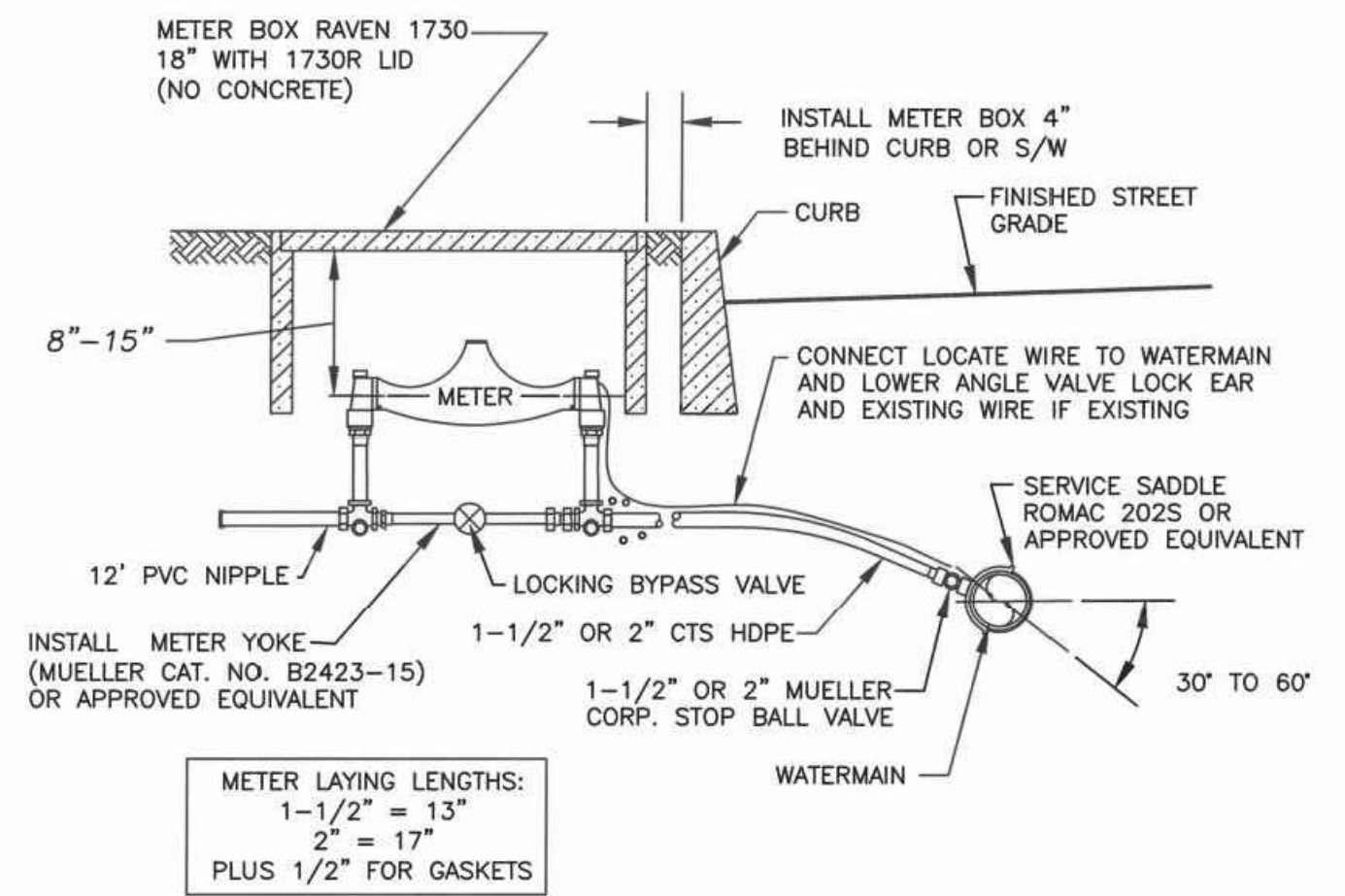
1. ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH THE WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION HEREIN IDENTIFIED AS THE "STANDARD SPECIFICATIONS", AND AWWA SPECIFICATIONS, EXCEPT AS MODIFIED BELOW OR BY CITY OF WOODLAND STANDARD DETAILS.
2. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH CITY OF WOODLAND AT LEAST 48-HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE CONSTRUCTION SCHEDULES AND TRAFFIC CONTROL PLANS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. PROPOSED "EQUIVALENTS" MUST BE SUBMITTED TO THE CITY OF WOODLAND FOR APPROVAL.
3. THE CONTRACTOR SHALL NOTIFY THE CITY PUBLIC WORKS DEPARTMENT AT (360) 225-7999, 48-HOURS PRIOR TO LIVE TAPS OR OTHER CONNECTIONS TO EXISTING WATERMANS. WHERE CONNECTIONS REQUIRE SHUT-DOWN OF SERVICE, CONNECTION POINTS WILL BE EXPOSED FOR "FIELD VERIFICATION" BY CONTRACTOR AND CONNECTION DETAILS SHALL BE VERIFIED 48 HOURS PRIOR TO DISTRIBUTING SHUT-DOWN NOTICES.
4. CALL UNDERGROUND LOCATE AT 811 A MINIMUM OF 48-HOURS PRIOR TO ANY EXCAVATIONS.
5. UNLESS OTHERWISE ESTABLISHED IN WRITING BY THE CITY, ALL WATER MAINS SHALL BE STAKED FOR GRADES AND ALIGNMENT BY AN ENGINEERING OR SURVEYING FIRM CAPABLE OF PERFORMING SUCH WORK.
6. EXISTING VALVES AND ANY VALVES INSTALLED DIRECTLY TO AND CONNECTED TO A PORTION OF ACTIVE WATER SYSTEM ARE TO BE OPERATED BY CITY OF WOODLAND REPRESENTATIVES ONLY.
7. WATER MAINS SHALL BE PVC IN ACCORDANCE WITH AWWA C900, MINIMUM DR18 OR DUCTILE IRON PRESSURE CLASS 52 OR AS NOTED ON DRAWING. ALL MATERIAL IN SUBSTANTIAL CONTACT WITH DRINKING WATER MUST CONFORM TO ANSI/NSF STANDARD 61 AND BE LEAD FREE.
8. ALL LINES SHALL BE CHLORINATED AND TESTED IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS PRIOR TO USE.
9. HARD COPY AND ELECTRONIC "AS-BUILT" DRAWINGS SHALL BE SUBMITTED TO CITY OF WOODLAND UPON COMPLETION OF THE WORK.
10. ALL WATERMANS, FIRE HYDRANTS, BLOW OFF ASSEMBLIES, VACUUM BREAKERS, AND WATER SERVICES MUST HAVE LOCATE WIRE INSTALLED.
11. ALL MECHANICAL JOINT FITTINGS SHALL BE RESTRAINED USING MJ FOLLOWER GLANDS, MEGALUG, OR EQUAL.

GENERAL NOTES FOR WATER MAIN INSTALL					W-01
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
	1-13-22				
PUBLIC WORKS DIRECTOR	DATE				



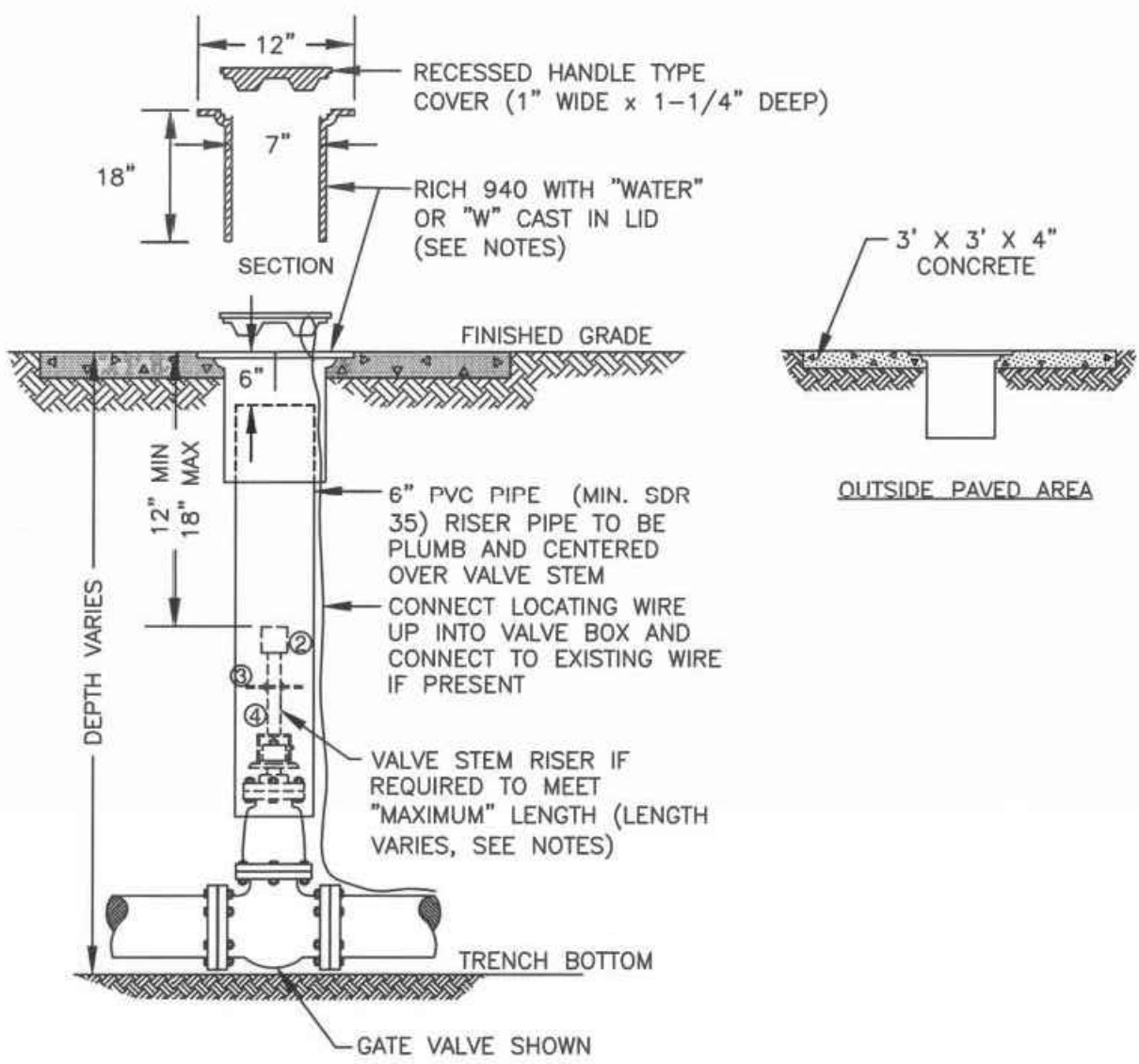
- NOTES:
1. SERVICE LINES ON NEW WATERMANS SHALL BE PRESSURE TESTED UP TO THE LOCKING ANGLE BALL VALVE AS PART OF THE WATERMAIN TESTING.
 2. METER BOXES SHALL HAVE A 4" WOOD STAKE WITH BLUE PAINT BEHIND THE BOX.
 3. ALL DOMESTIC AND IRRIGATION METERS SHALL BE SUPPLIED, OWNED, AND INSTALLED BY THE CITY OF WOODLAND.

3/4" AND 1" WATER SERVICE					W-02
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
	1/21/22				
PUBLIC WORKS DIRECTOR	DATE				



- NOTES:
1. ALL DOMESTIC AND IRRIGATION METERS SHALL BE SUPPLIED, OWNED, AND INSTALLED BY THE CITY OF WOODLAND.
 2. PRIOR TO CITY INSTALLATION OF METERS, ALL SERVICE APPLICATIONS MUST BE COMPLETED AND APPROVED. SERVICE FEES PAID IN FULL AND AS-BUILTS SUBMITTED AND APPROVED.
 3. CONTRACTOR SHALL CONTACT THE CITY OF WOODLAND PUBLIC WORKS OFFICE (360) 225-7999 48-HOURS PRIOR TO INSTALLING ANY WATER SERVICE CONNECTIONS.
 4. METERS WILL NOT BE SET BY THE CITY PRIOR TO DISINFECTION OF THE MAIN AND SERVICE, AND PRIOR TO A SUCCESSFUL BACTERIOLOGICAL TEST.
 5. SERVICE LINES ON NEW WATERMANS SHALL BE PRESSURE TESTED UP TO THE LOCKING ANGLE BALL VALVE AS PART OF THE WATERMAIN TESTING.
 6. DURING THE PRESSURE TEST, THE MAIN SHALL BE OPEN FOR INSPECTION OF ALL CORPORATION STOPS.
 7. USE 1-7/8" BIT FOR ALL 2" SADDLE TAPS AND 1-3/8" BIT FOR 1-1/2" SADDLE TAPS.
 8. METER BOXES ARE NOT ALLOWED IN HARD SURFACED AREAS WITHOUT PRIOR WRITTEN APPROVAL. METER BOXES IN HARD SURFACE AREAS SHALL BE SLIGHTLY HIGHER (1/8" MAX) THAN SURROUNDING GRADE AND BOTH THE BOX AND LID MUST BE TRAFFIC RATED.
 9. 1 1/2" METER CAN BE INSTALLED IN A 2" SETTING WITH ADAPTORS.

1-1/2" AND 2" WATER SERVICE					W-03
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
	1/21/22				
PUBLIC WORKS DIRECTOR	DATE				



- NOTES:
1. VALVE STEM EXTENSION TO INCLUDE THE FOLLOWING WELDS TO BE 1/4" FILLET WELD ALL AROUND.
 2. VALVE OPERATING NUT OR 1-7/8" X 1-7/8" X 2" HIGH GRADE STEEL.
 3. 3/16" THICK X 5-1/2" DIA STEEL GUIDE PLATE SHAFT.
 4. 2" X 2" X 3/16" SQUARE STRUCTURAL STEEL TUBING TO FIT OPERATING NUT.
 5. FOR NEW VALVES IN EXISTING STREET, RESTORE PAVEMENT PER CITY OF WOODLAND STANDARDS.

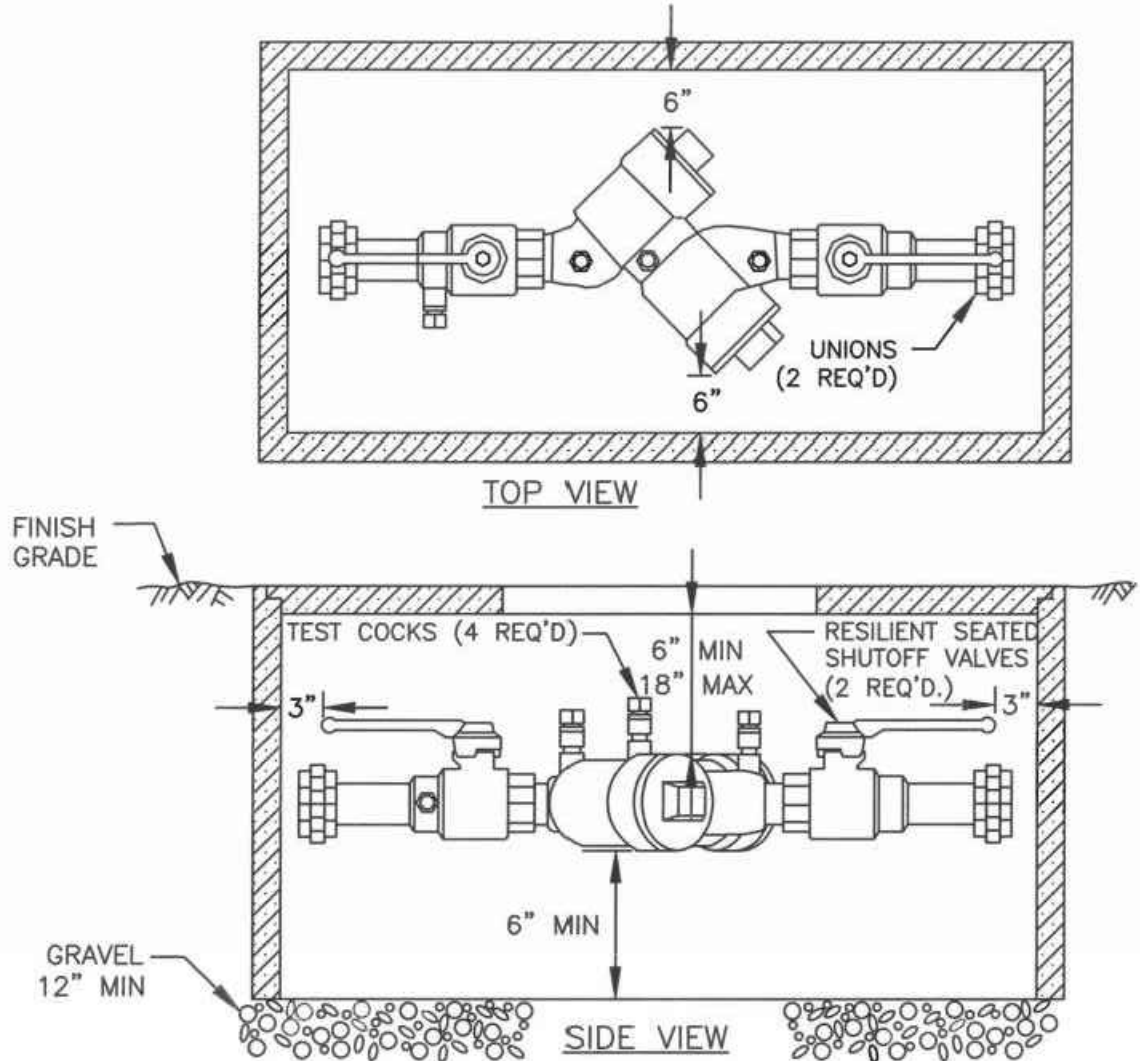
STANDARD VALVE BOX AND COVER					W-06
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
	1/21/22				
PUBLIC WORKS DIRECTOR	DATE				

GENERAL NOTES FOR BACKFLOW PROTECTION

1. ALL REDUCED PRESSURE AND BACKFLOW DEVICES SHALL BE WASHINGTON STATE APPROVED, PER WAC 248-290.
2. FIRE SPRINKLER AND IRRIGATION SYSTEMS SHALL BE PROTECTED WITH STATE APPROVED BACKFLOW PROTECTION AS PRESCRIBED IN WAC 248-290. IRRIGATION SYSTEMS ARE PROTECTED COMMENSURATE WITH THE DEGREE OF HAZARD AS DEFINED BELOW:
 - HIGH HEALTH HAZARD - IS ASSESSED TO ANY IRRIGATION SYSTEM THAT CONTAINS PUMPS OR INFECTORS FOR THE ADDITION OF CHEMICALS. THIS RISK ASSESSMENT IS ALSO BASED ON THE ADDITIONAL HAZARD POSED BY BACTERIAL CONTAMINANTS FOUND ON LAWNS, AND ON THE POSSIBILITY OF CHANGES BEING MADE TO THE IRRIGATION SYSTEM BY THE CUSTOMER. AN APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY, OR AN APPROVED AIR GAP SEPARATION, SHALL BE REQUIRED IN ALL CASES WHERE MEANS ARE PROVIDED FOR CHEMICALS OR HERBICIDES TO BE INJECTED INTO THE IRRIGATION SYSTEM, OR WHERE AN AUXILIARY SUPPLY IS ALSO PROVIDED FOR IRRIGATION WATER.
 - LOW HEALTH HAZARD - IS ASSESSED TO ALL IRRIGATION SYSTEMS NOT OTHERWISE ASSESSED AS A HIGH HEALTH HAZARD. THIS RISK ASSESSMENT IS BASED ON THE HAZARD POSED BY BACTERIAL AND CHEMICAL CONTAMINANTS FOUND ON LAWNS, AND ON THE POSSIBILITY OF CHANGES BEING MADE TO THE IRRIGATION SYSTEM BY THE CUSTOMER. AN APPROVED DOUBLE CHECK VALVE ASSEMBLY IS REQUIRED.
3. ALL COMMERCIAL, INDUSTRIAL AND MULTI-FAMILY FACILITIES SHALL BE PROTECTED WITH WASHINGTON STATE APPROVED BACKFLOW PROTECTION.
4. IF CHEMICALS ARE ADDED TO THE FIRE PROTECTION SYSTEM, A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER IS REQUIRED.
5. IF CHEMICALS ARE ADDED TO THE FIRE PROTECTION SYSTEM, A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER IS REQUIRED.
6. IF CHEMICALS ARE ADDED TO THE FIRE PROTECTION SYSTEM, A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER IS REQUIRED.
7. IF A WELL IS NOW EXISTING ON-SITE OR IS DRILLED IN THE FUTURE, A REDUCED PRESSURE BACKFLOW ASSEMBLY WILL BE REQUIRED AT EACH METER.
8. WHERE A VAULT IS REQUIRED, A GALV. STEEL WALL MOUNTED CHAMBER LADDER W/EXTENSIONS IS REQUIRED AND SHALL BE CENTERED UNDER THE ACCESS DOOR.
9. DOUBLE CHECK ASSEMBLIES SHALL BE INSTALLED IN EITHER AN APPROVED VAULT OR INSIDE THE BUILDING IN A MAINTAINABLE LOCATION.
10. REDUCED PRESSURE ASSEMBLIES SHALL BE INSTALLED EITHER OUTSIDE ABOVE GROUND OR INSIDE THE BUILDING.
11. ALL BACKFLOW DEVICES SHALL BE PROTECTED FROM FREEZING.
12. BACKFLOW PREVENTION ASSEMBLY VAULTS (I.E.: FIRE AND SERVICE PROTECTION) MUST BE INSTALLED AT THE CUSTOMER'S SIDE OF THE EASEMENT OR PROPERTY LINE. ALTERNATE LOCATIONS MUST BE REQUESTED IN WRITING AND APPROVED BY CITY OF WOODLAND PUBLIC WORKS PRIOR TO INSTALLATION.
13. NO PART OF THE BACKFLOW PREVENTION ASSEMBLY SHALL BE SUBMERGED IN WATER OR INSTALLED IN A LOCATION SUBJECT TO FLOODING. IF A BACKFLOW PREVENTION ASSEMBLY IS INSTALLED IN A VAULT OR BASEMENT, ADEQUATE DRAINAGE OR DETERIORATION SHALL BE PROVIDED. ALL FIRE PROTECTION SERVICES SHALL HAVE AN IRON BODY GATE VALVE AT THE PUBLIC MAIN AND SHALL BE PRIVATE AFTER THAT VALVE.
14. ALL DOMESTIC SERVICES WITH BACKFLOW PROTECTION SHALL BE PRIVATE AFTER THE DOMESTIC WATER METER.
15. ALL BACKFLOW PREVENTION DEVICES SHALL BE TESTED AFTER INSTALLATION PRIOR TO ACCEPTANCE AND ANNUALLY THEREAFTER BY A CERTIFIED BACKFLOW ASSEMBLY TESTER. A PARTIAL LIST OF WASHINGTON STATE APPROVED TESTERS IS AVAILABLE UPON REQUEST. TEST RESULTS SHALL BE SENT TO THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT.

MAIL TEST RESULTS TO: CITY OF WOODLAND PUBLIC WORKS P.O. BOX 9 WOODLAND, WA 98674
 EMAIL TEST RESULTS TO: PWCLERK@CITYOFWOODLAND.WA.US
 FAX TEST RESULTS TO: 360-225-7336

GENERAL NOTES FOR BACKFLOW PROTECTION					W-07
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
	1/21/22				
PUBLIC WORKS DIRECTOR	DATE				



- NOTES:
1. DOUBLE CHECK VALVE ASSEMBLY (DCVA) SHALL BE APPROVED BY THE STATE OF WASHINGTON. APPROVED DCVA TO BE INSTALLED IN THE ORIENTATION (VERTICAL OR HORIZONTAL) FOR WHICH THEY ARE APPROVED.
 2. DCVA MAY BE INSTALLED ABOVE OR BELOW GROUND PROVIDED ALL CLEARANCES ARE MET.
 3. DESIGN FOR BACK SIPHONAGE AND BACK PRESSURE.
 4. ALL INSTALLATIONS SHALL HAVE TWO UNIONS.
 5. TEST COCKS TO EITHER FACE OUTWARDS OR UPWARDS FROM ASSEMBLY.
 6. THE WATER LINE SHALL BE DISINFECTED, FLUSHED AND PRESSURE TESTED PRIOR TO INSTALLATION OF THE BACKFLOW ASSEMBLY.
 7. DCVA SHALL BE ACCESSIBLE AND PROTECTED FROM FREEZING AND FLOODING.
 8. A PLUMBING PERMIT IS REQUIRED. CONTACT THE WOODLAND BUILDING DEPARTMENT AT (360) 225-7299.
 9. DCVA SHALL BE TESTED AFTER INSTALLATION, THEN ANNUALLY BY A WASHINGTON STATE CERTIFIED BACKFLOW TESTER. DCVA SHALL BE RETESTED IF MOVED OR REPAIRED. RESULTS SHALL BE SUBMITTED TO THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT.

DOUBLE CHECK VALVE ASSEMBLY 2" & SMALLER					W-08A
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
	1/21/22				
PUBLIC WORKS DIRECTOR	DATE				

City of Woodland Standard Water Details For: **Dawkins Warehouse**
 A Site Located in the City of Woodland, Washington
 Engineering - Surveying - Planning - 604 W. Evergreen Blvd., Vancouver, WA 98660 | PH (360) 944-6519 | FX (360) 944-6539

Revisions	DATE	BY	DESCRIPTION
1			
2			
3			
4			
5			
6			

Project No. 3405
 SCALE: H: N/A
 V: N/A
 DESIGNED BY: TJL
 DRAFTED BY: TJL
 REVIEWED BY: AJG

WATER PIPE TRENCH BEDDING & BACKFILL

NOTE:

- CLEAN NATIVE MATERIAL MAY BE USED AS PIPE BEDDING AND TRENCH BACKFILL AS APPROVED BY CITY OF WOODLAND PUBLIC WORKS.

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W-13

FIRE HYDRANT

NOTES:

- IN GENERAL, FIRE HYDRANT LOCATIONS SHALL BE AS SHOWN ON THE PLANS AND SHALL CONFORM TO THIS DETAIL. FIRE HYDRANTS SHALL NOT BE SET UNTIL LOCATION AND DEPTH ARE APPROVED BY THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT.
- FIRE HYDRANT INSTALLATION SHALL BE APPROVED BY THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT PRIOR TO BACKFILLING.
- HYDRANT TO BE WATEROUS WB67 CLASS 250.
- HYDRANT TO BE 5-1/4" COMMERCIAL W/ (2) 2-1/2" NST, (1) 4-1/2" NST THREADED PORT(S) WITH (1) 5" TWO LUG QUARTER TURN STORZ OR APPROVED EQUAL PUMPER PORT CONNECTION.
- THE FIRE HYDRANT SHALL BE INSTALLED SO THAT IT IS PLUMB IN ALL DIRECTIONS.
- FOUR (4) GUARD POSTS TO BE INSTALLED IN UNPROTECTED AREAS (4' RADIUS).
- FIRE HYDRANTS SHALL BE FACTORY PAINTED OR QUALITY FIELD PAINTED WITH RODDA SILICONE ALKYL ENAMEL HEAVY DUTY GLOSS SAFETY YELLOW 7-32616-1 TO NEW CONDITION.
- HYDRANT STANDARD BURY IS 4' UNLESS OTHERWISE NOTED ON THE PLANS, OR WHEN BREAKAWAY JOINT IS INSTALLED 7" ABOVE FINISHED GRADE.
- ALL JOINTS SHALL BE RESTRAINED UTILIZING MECHANICAL RESTRAIN SYSTEMS. CONCRETE THRUST BLOCKS SHALL NOT BE ALLOWED.
- STORZ ADAPTORS ARE REQUIRED.
- INSTALL LOCATING WIRE AND CONNECT TO EXISTING WIRE IF PRESENT.

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W-14

STANDARD THRUST BLOCK

SOIL BEARING = 2000 LB/S.F.					
PIPE SIZE	HORIZ. BENDS	MIN. BEARING AREA S.F.	MIN. VOL. OF BLOCKING C.F.	MIN. LENGTH OF BLOCKING	
4"	TEE	2.3	0.8	0.86	
	90°	3.2	1.4	1.08	
	45°	1.7	0.5	0.73	
6"	TEE	4.7	2.4	1.24	
	90°	6.6	4.0	1.53	
	45°	3.6	1.6	1.05	
8"	TEE	8.0	5.4	1.63	
	90°	11.4	8.0	2.00	
	45°	6.2	3.6	1.37	
10"	TEE	12.1	9.9	2.00	
	90°	17.1	16.7	2.46	
	45°	9.3	6.6	1.69	
12"	TEE	17.1	16.7	2.37	
	90°	24.2	26.0	2.93	
	45°	13.1	11.2	2.01	
14"	TEE	23.8	27.3	2.73	
	90°	33.6	46.0	3.37	
	45°	18.2	18.3	2.29	
16"	TEE	29.9	38.5	3.06	
	90°	42.2	64.7	3.79	
	45°	17.7	9.4	1.60	
18"	TEE	52.3	89.1	4.03	
	90°	74.0	149.8	5.00	
	45°	40.0	39.7	3.55	
24"	TEE	20.4	21.7	2.11	
	90°	10.3	7.7	1.18	
	45°				

NOTES:

- ALL BLOCKING SHALL BE POURED AGAINST FIRM UNDISTURBED SOIL.
- ALL CONCRETE BLOCKING SHALL BE POURED IN PLACE WITHOUT DIRECT CONTACT TO PIPE, FITTINGS OR FLANGES. 15 LB. ASPHALT-IMPREGNATED FELT OR EQUIVALENT AS APPROVED BY THE INSPECTOR, SHALL BE PLACED BETWEEN THE CONCRETE AND PIPE, FITTINGS OR FLANGES.
- LAYOUT TO BE APPROVED BY THE INSPECTOR PRIOR TO AND AFTER CONCRETE POUR.
- CONCRETE FOR ALL BLOCKING SHALL HAVE A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 2,300 P.S.I.
- THIS CHART IS NOT APPLICABLE TO VERTICAL BENDS. LOCATION SPECIFIC DESIGN IS REQUIRED FOR SUCH INSTALLATIONS.
- WHERE THE TRENCH SOIL HAS A BEARING PRESSURE LESS THAN 2000 POUNDS PER SQUARE FOOT, LOCATION SPECIFIC DESIGN IS REQUIRED.

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W-17

THRUST BLOCKING

NOTES:

- CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
- ASPHALT IMPREGNATED FELT BARRIER SHALL BE PLACED BETWEEN ALL THRUST BLOCKS AND PIPE AND/OR FITTINGS.
- ANCHOR REBAR SHALL BE 5/8" MINIMUM DIAMETER.
- CONCRETE DEAD-MAN THRUST BLOCKING MAY BE REQUIRED BY THE CITY, OR ALLOWED AT THE DISCRETION OF THE PUBLIC WORKS DIRECTOR.
- ALL STANDARD BLOCKING AND THRUST CRITERIA. SEE STANDARD FOR THRUST LOADS (W-19).

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W-18

THRUST LOADS

THRUST AT FITTINGS IN POUNDS AT 200 POUNDS PER SQUARE INCH OF WATER PRESSURE

PIPE DIAMETER	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND	DEAD END OR TEE
4"	3,600	2,000	1,000	500	2,600
6"	8,000	4,400	2,300	1,200	5,700
8"	14,300	7,700	4,000	2,000	10,100
10"	22,300	12,100	6,200	3,100	15,800
12"	32,000	17,400	8,900	4,500	22,700
14"	43,600	23,600	12,100	6,100	30,800
16"	57,000	30,800	15,700	7,900	40,300

NOTES:

- BLOCKING SHALL BE COMMERCIAL CONCRETE POURED IN PLACE AGAINST UNDISTURBED EARTH. FITTING SHALL BE ISOLATED FROM CONCRETE THRUST BLOCK WITH ASPHALT IMPREGNATED FELT OR SIMILAR MATERIAL.
- TO DETERMINE THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET (S.F.): EXAMPLE : 12" - 90° BEND IN SAND AND GRAVEL 32,000 LBS 3000 LB/S.F. = 10.7 S.F. OF AREA
- AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZE, PRESSURES AND SOIL CONDITIONS.
- BLOCKING SHALL BE ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.

SAFE SOIL BEARING LOADS

FOR HORIZONTAL THRUSTS WHEN THE DEPTH OF COVER OVER THE PIPE EXCEEDS 2 FEET

SOIL	POUNDS PER SQUARE FOOT
MUCK, PEAT	0
SOFT CLAY	1,000
SAND	2,000
SAND & GRAVEL	3,000
SAND & GRAVEL CEMENTED WITH CLAY	4,000
HARD SHALE	10,000

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED
PUBLIC WORKS DIRECTOR		11/21/22		

W-19

Standard Abbreviations

AB ANCHOR BOLT	H HIGH, HORIZONTAL	S SOUTH
AC ASPHALTIC CONCRETE, ACOUSTIC	HB HOSE BIB	SCH SCHEDULE
ADJ ADJUSTABLE	HDPPE HIGH DENSITY POLYETHYLENE	SEC SECOND
AL ALUMINUM	HOA HAND-OFF-AUTO	SHT SHEET
ALT ALTERNATE	HP HORSEPOWER	SIM SIMILAR
AMB AMBIENT	HT HEIGHT	SOLN SOLUTION
APPROX APPROXIMATELY	HZ HERTZ (CYCLES PER SECOND)	SPEC SPECIFICATION
ASSY ASSEMBLY	ID INSIDE DIAMETER	SQ SQUARE
AUTO AUTOMATIC	IPS IRON PIPE SIZE	SS SANITARY SEWER, SOLID
AUX AUXILIARY	JB JUNCTION BOX	SST STAINLESS STEEL
BF BLIND FLANGE	JT JOINT	STA STATION
BLDG BUILDING	LB POUND(S)	STD STANDARD, STUD
BY BALL VALVE	LVR LOUVER	STL STEEL
CB CATCH BASIN	LW LOCATE WIRE	STRUCT STRUCTURAL
CDF CONTROL DENSITY FILL	MAG MAGNETIC	T TRAP, TOP, TANGENT
CEM CEMENT	MAINT MAINTENANCE	TB TERMINAL BOX, TOP & BOTTOM
CFM CUBIC FEET PER MINUTE	MAT'L MATERIAL	T/B TOP OF BANK
CJ CONSTRUCTION JT	MAX MAXIMUM	TC TOP OF CURB/CONCRETE
CL CENTERLINE	MCC MOTOR CONTROL CENTER	TDH TOTAL DYNAMIC HEAD
CLR CLEAR	MIN MINIMUM, MINUTE	TESCP TEMPORARY EROSION AND SEDIMENTATION CONTROL PLAN
CO CLEANOUT	MJ MECHANICAL JOINT	THRD THREAD(ED)
COMB COMBINATION	N NEUTRAL, NORTH	TOW TOP OF WALL
CONC CONCRETE, CONCRETING	NC NORMALLY CLOSED	TRANS TRANSITION
CPLG COUPLING	NE NORTH EAST	TS TOP OF SLAB/SLOPE
CSTC CRUSHED SURFACING TOP COURSE	NEG NEGATIVE	TYP TYPICAL
CTR CENTER	NO NORMALLY OPEN, NUMBER	UG UNDERGROUND
CTS COPPER TUBE SIZE	NPSH NET POSITIVE SUCTION HEAD	UH UNIT HEATER
CSCB CRUSHED SURFACING BASE COURSE	NRS NORRSING STEM	U/P UTILITY POLE
D DRAIN, DECONT	OD OUTSIDE DIAMETER	VAC VACUUM, VOLTS ALTERNATING CURRENT
DI DUCTILE IRON	OH OVER HEAD	VAR VARIES, VARIABLE
DIA, Ø DIAMETER	OPNG OPENING	VC VERTICAL CURVE
DWG(S) DWG(S)	PE PLAIN END, POLYETHYLENE	VERT VERTICAL
E EAST	PEN PENETRATION	VTR VENT THROUGH ROOF
EA EXHAUST AIR, EACH	PH PHASE	W WEST, WATER
ECC ECCENTRIC	PL PROPERTY LINE	W/ WITH
ELEV ELEVATION (ELEV)	PLCS PLACES	W/O WITHOUT
ELECT ELECTRIC	PLY PLYWOOD	WSDOT WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
E.O.P. EDGE OF PAVEMENT	PP POWER POLE	WSEL WATER SURFACE ELEVATION
EQUIP EQUIPMENT	PRES PRESSURE	WT WATERTIGHT, WEIGHT
EQUIV EQUIVALENT	PRV PRESSURE REDUCING (RELIEF) VALVE	WWF WELDED WIRE FABRIC
EX EXISTING	PS PRESSURE SWITCH, PRESSURE	XFMR POWER TRANSFORMER
EXH EXHAUST	PSI POUNDS PER SQUARE INCH	XP EXPLOSION PROOF
EXP EXPANSION, EXPOSED	PVC POLYVINYL CHLORIDE	# NUMBER, POUNDS
EXT EXTERIOR	PVMT PAVEMENT	& AND
FF FINISH FLOOR	R RADIUS, RISER	AT AT
FIP FEMALE IRON PIPE	R/C REINFORCED CONCRETE	Ø DIAMETER, PHASE
FLEX FLEXIBLE	RD ROOF DRAIN, ROAD	
FLG FLANGE	RED REDUCED(R)	
FLR FLOOR	REINP REINFORCED	
GALV GALVANIZED	REQ'D REQUIRED	
GPD GALLONS PER DAY	RPM REVOLUTIONS PER MINUTE	
GPM GALLONS PER MINUTE	R/W RIGHT OF WAY	
GV GATE VALVE		

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED
PUBLIC WORKS DIRECTOR		11/21/22		

W-23

GENERAL NOTES
FOR SANITARY SEWER

ALL MATERIALS AND INSTALLATION OF SANITARY SEWERS SHALL BE IN CONFORMANCE WITH THE MOST CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, HERINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS", PREPARED BY THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, EXCEPT AS NOTED HEREIN OR ON THE STANDARD PLANS. WHEREVER THE STANDARD SPECIFICATIONS REFER TO THE OWNER AS EITHER THE "STATE" OR "SECRETARY" OR WHEN REFERENCE IS MADE TO THE DEPARTMENT OF TRANSPORTATION IT SHALL BE UNDERSTOOD THAT THE STANDARD SPECIFICATIONS SHOULD READ THE "CITY".

ALL SANITARY SEWER CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE CITY AT (360) 225-7999 AT LEAST 48-HOURS PRIOR TO THE START OF CONSTRUCTION. A PRE-CONSTRUCTION CONFERENCE MAY BE REQUIRED.

THE CONTRACTOR IS REQUIRED TO NOTIFY ALL UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR MUST CONTACT THE UNDERGROUND UTILITY NOTIFICATION CENTER "CALL BEFORE YOU DIG" AT (800) 424-5555 OR "811".

FINAL ACCEPTANCE OF SANITARY SEWERS ARE SUBJECT TO SECTIONS 1-05.11, 1-05.12, 7-17.3(2)E, 7-17.3(2)F, 7-17.3(2)G AND 7-17.3(2)H OF THE STANDARD SPECIFICATIONS. TELEVISION INSPECTION SHALL INCLUDE VIDEO OF ALL MANHOLES IN ADDITION TO THE PIPE. THE CONTRACTOR SHALL WARRANTY ALL WORK DONE UNDER CITY CONTRACT FOR A PERIOD OF TWO (2) YEARS AS PER OF THE CITY OF WOODLAND GENERAL PROVISIONS FOR MUNICIPAL CONSTRUCTION.

LOCAL VARIATIONS IN SLOPE (I.E. "BELLIES") MUST BE NO MORE THAN 1/2" MAXIMUM. VARIATIONS IN EXCESS OF THESE TOLERANCES MUST BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE CITY.

ALL PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING:

- A. POLYVINYL CHLORIDE (PVC) SEWER PIPE 15" DIAMETER OR LESS SHALL CONFORM TO ASTM D3034, SDR 35. IT SHALL HAVE A MINIMUM PIPE STIFFNESS OF 48 PSI. PVC PIPE 18" DIAMETER SHALL CONFORM TO ASTM F 679. ALL PVC PIPE SHALL HAVE AN INTEGRAL BELL GASKETED JOINT WITH ELASTOMERIC GASKET AND SHALL BE FURNISHED IN 12-1/2 FOOT LAYING LENGTHS.
- B. DUCTILE IRON (DI) PIPE SHALL CONFORM TO ANSI A21.51 OR AWWA C151, WITH PUSH-ON JOINTS, CLASS 52, UNLESS OTHERWISE NOTED.

INSTALLATION OF PIPE AND MANHOLES SHALL CONFORM TO THE FOLLOWING:

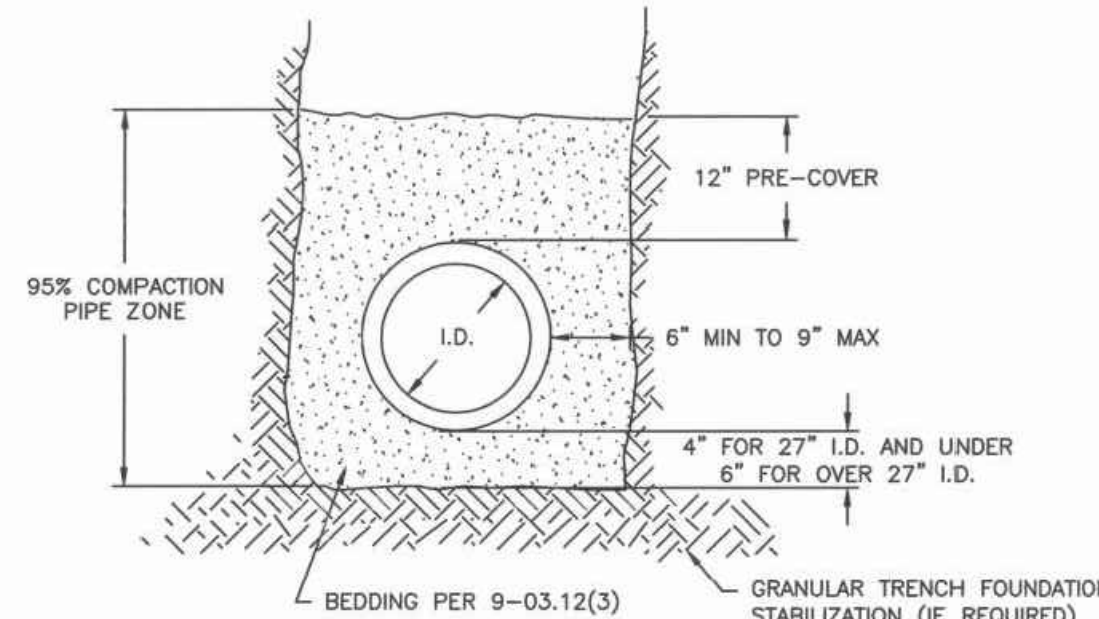
- A. PIPE SHALL BE INSTALLED IN CONFORMANCE WITH PIPE DETAIL S-02 AND TRENCHING DETAIL S-03.
- B. MANHOLES SHALL CONFORM WITH STANDARD DETAILS S-07 THROUGH S-14.

MANHOLES, CLEANOUTS, SERVICE LATERAL CONNECTIONS, TRENCH EXCAVATION, PIPE BEDDING AND STREET RESTORATION, AND APPURTENANCES SHALL CONFORM TO THE CITY OF WOODLAND STANDARD PLANS, THE WSDOT STANDARD DETAILS CONTAINED AND THE STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.

THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF ALL PERMITS ISSUED OR EASEMENTS GRANTED TO THE CITY IN CONJUNCTION WITH THE CONSTRUCTION OF SANITARY SEWERS. THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT FOR WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

THE CONTRACTOR SHALL SUBMIT AN APPROVED TRAFFIC CONTROL PLAN. APPROVAL SHALL BE OBTAINED PRIOR TO BEGINNING CONSTRUCTION.

GENERAL NOTES FOR SANITARY SEWER						S-01
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
		2/14/22				
WOODLAND PUBLIC WORKS	PUBLIC WORKS DIRECTOR	DATE				



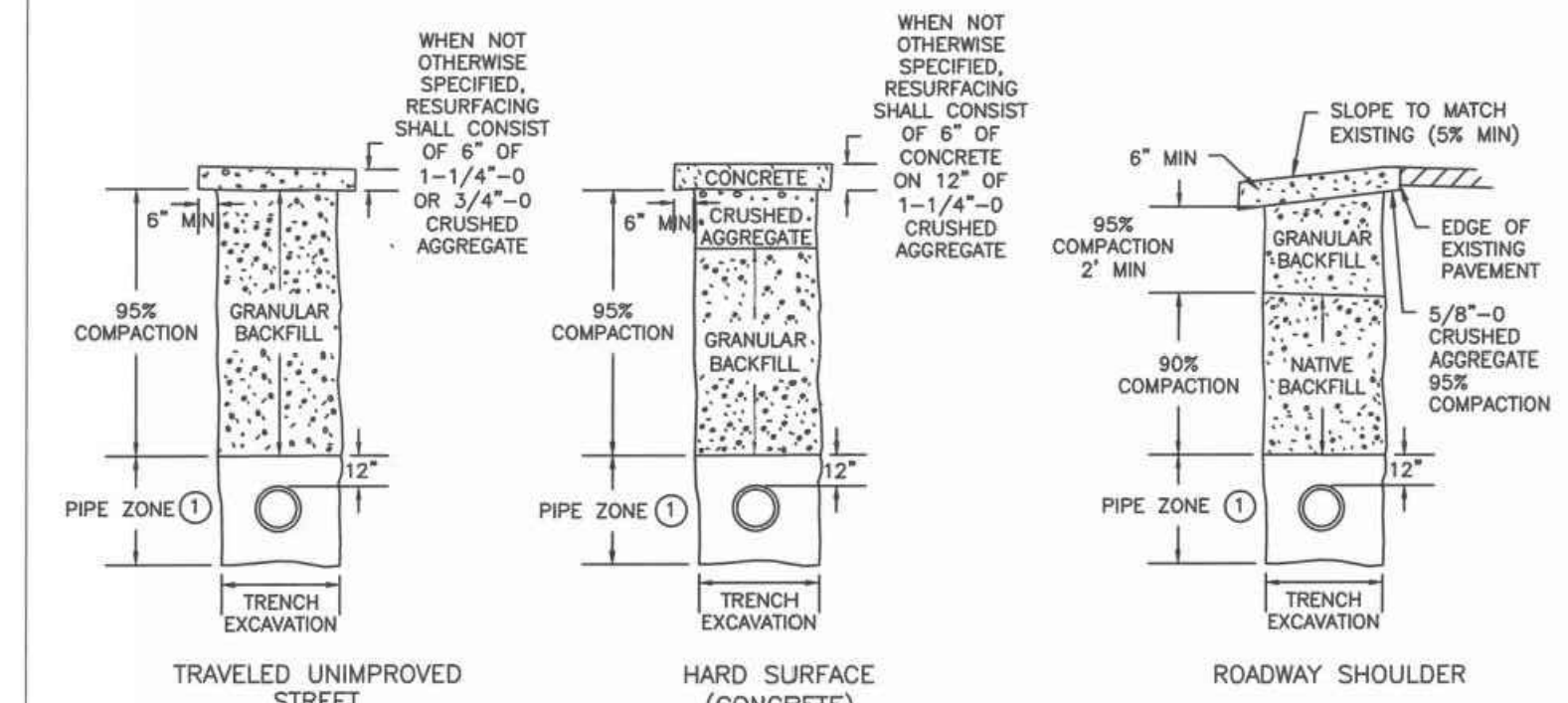
NOTES:

- WHERE DIRECTED BY THE ENGINEER GRANULAR TRENCH FOUNDATION STABILIZATION SHALL BE PLACED PRIOR TO PLACEMENT OF THE BEDDING. SIZE AND DEPTH ARE DEPENDENT ON SOIL CONDITIONS.
- BEDDING AND BACKFILL MATERIALS IN THE PIPE ZONE SHALL BE COMPACTED AS SPECIFIED PRIOR TO BACKFILLING THE REMAINDER OF THE TRENCH.
- FOR ROCK AND OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVER-EXCAVATED A MINIMUM OF 6" AND REFILLED WITH GRANULAR MATERIALS AS DIRECTED BY THE ENGINEER.
- BACKFILL AND COMPACTON ABOVE THE PIPE ZONE SHALL BE AS SHOWN IN TRENCHING DETAIL S-03.
- PVC PIPE INSTALLATION SHALL CONFORM TO UNIBELL PLASTIC PIPE ASSOCIATION STANDARD SPEC. UNI-B-5 (LATEST EDITION) EXCEPT AS NOTED.
- FINAL INSTALLATION TO BE TESTED PER SECTION 7-17.3 OF THE STANDARD SPECIFICATIONS.
- ALTERNATIVE PRE-COVER MATERIALS ARE ALLOWABLE FROM PIPE CENTERLINE TO ONE FOOT ABOVE THE TOP OF PIPE, ALTERNATE PRE-COVER MATERIALS MUST BE PRE-APPROVED BY THE INSPECTOR AND MAY BE SAND, CRUSHER SCREENINGS, GRAVEL, OR OTHER CLEAN GRANULAR MATERIAL CONTAINING NO ROCK LARGER THAN 1-1/4" IN LENGTH.

APPROVAL FOR ALTERNATE MATERIALS WILL BE GRANTED UPON CONFIRMATION BY TEST OF ITS COMPLIANCE WITH THESE REQUIREMENTS. SUBMIT 50 LB SAMPLE FOR TESTING TO THE CITY INSPECTOR AND OBTAIN MATERIAL PRIOR TO STARTING PIPE INSTALLATION WORK. THE TEST REQUIRES A MINIMUM OF FIVE BUSINESS DAYS TO COMPLETE.

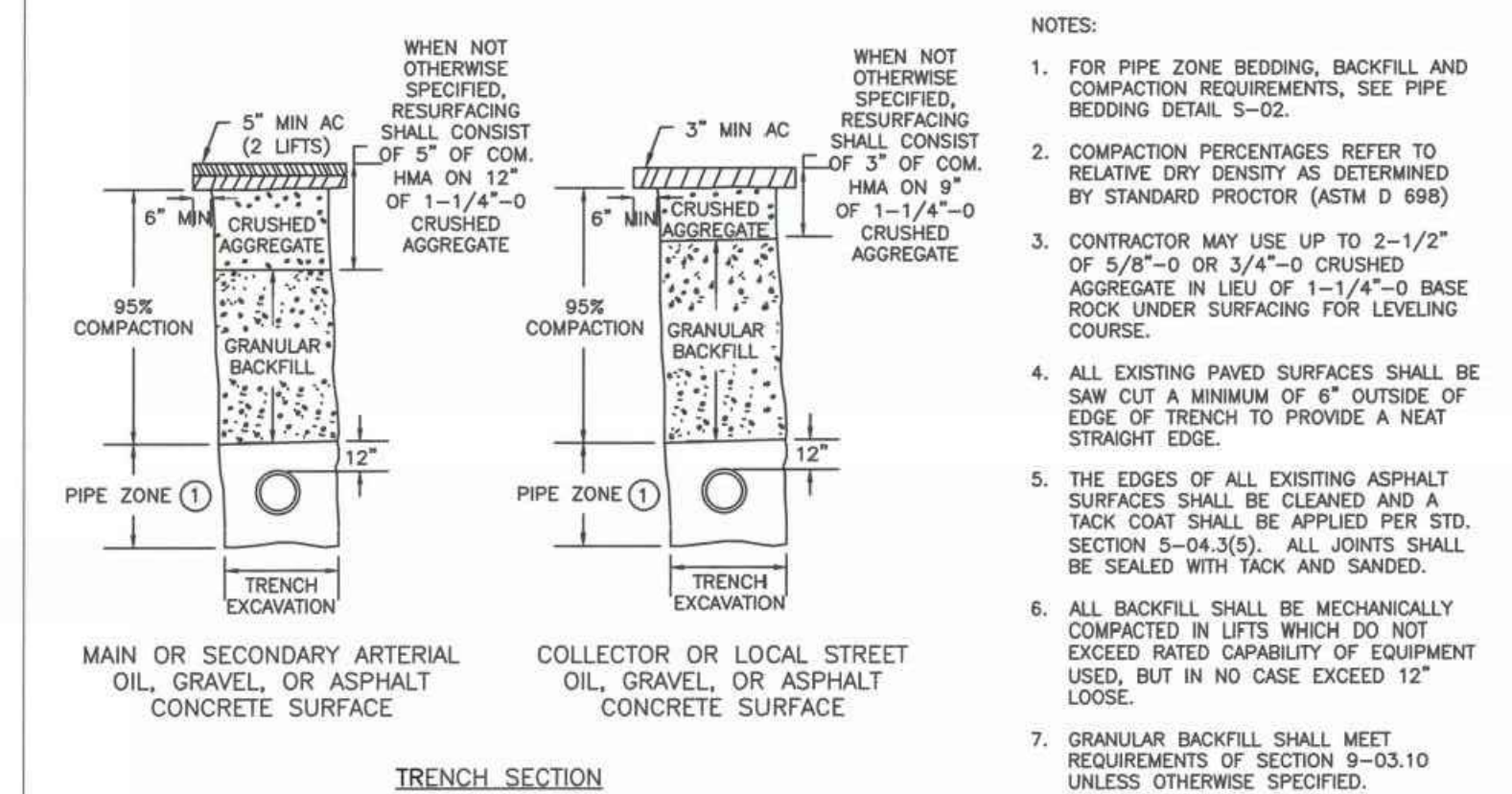
- TRENCH WIDTH SHALL NOT EXCEED ONE AND ONE-HALF THE INSIDE DIAMETER OF THE PIPE PLUS 18" AT THE TOP OF THE PIPE ZONE. ANY SUBSIDENCE OF SURROUNDING PAVEMENT DUE TO TRENCHING SHALL BE EXCAVATED BEYOND ORIGINAL PAVEMENT AND REPAIRED TO SATISFACTION OF THE CITY OF WOODLAND.
- NATIVE MATERIAL MAY BE USED, OUTSIDE OF THE ROAD PRISM FOR DUCTILE IRON IN LIEU OF IMPORTED MATERIAL FOR BEDDING SPECIFIED, PROVIDED THAT THE NATIVE MATERIAL CONFORMS TO SECTION 9-03.15 OF THE STANDARD SPECIFICATIONS, AND AS APPROVED BY THE CITY OF WOODLAND. THE CONTRACTOR SHALL SUBMIT A SAMPLE OF THE NATIVE MATERIAL TO THE CITY OF WOODLAND AT LEAST 72-HOURS PRIOR TO USE. THE CITY MAY APPROVE, REJECT, OR REQUIRE LABORATORY TESTING OF THE MATERIAL.

PIPE BEDDING						S-02
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
		2/14/22				
WOODLAND PUBLIC WORKS	PUBLIC WORKS DIRECTOR	DATE				

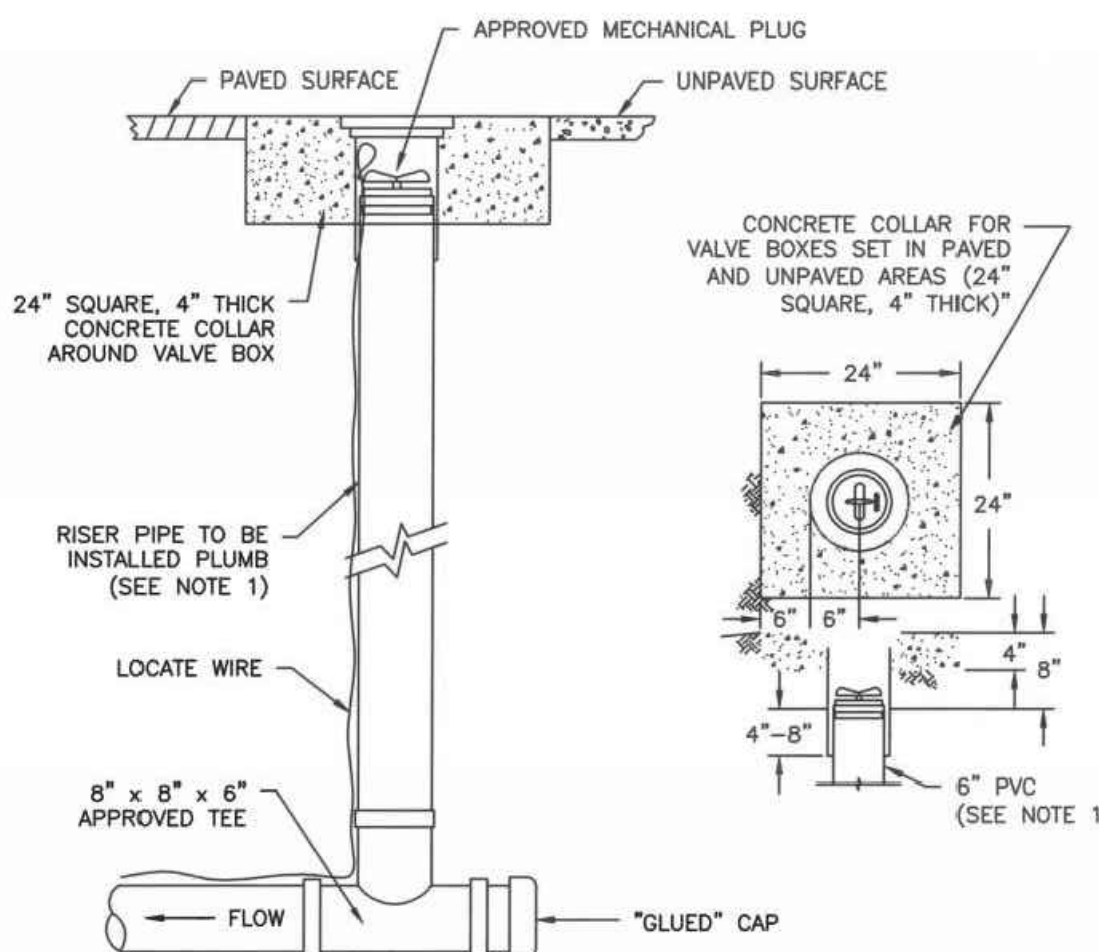


NOTES:

- FOR PIPE ZONE BEDDING, BACKFILL AND COMPACTON REQUIREMENTS, SEE PIPE BEDDING DETAIL S-02.
- COMPACTON PERCENTAGES REFER TO RELATIVE DRY DENSITY AS DETERMINED BY STANDARD PROCTOR (ASTM D 698)
- CONTRACTOR MAY USE UP TO 2-1/2" OF 5/8"-0 OR 3/4"-0 CRUSHED AGGREGATE IN LIEU OF 1-1/4"-0 BASE ROCK UNDER SURFACING FOR LEVELING COURSE.
- ALL EXISTING PAVED SURFACES SHALL BE SAW CUT A MINIMUM OF 6" OUTSIDE OF EDGE OF TRENCH TO PROVIDE A NEAT STRAIGHT EDGE.
- THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE CLEANED AND A TACK COAT SHALL BE APPLIED PER STD. SECTION 5-04.3(D). ALL JOINTS SHALL BE SEALED WITH TACK AND SANDED.
- ALL BACKFILL SHALL BE MECHANICALLY COMPACTED IN LIFTS WHICH DO NOT EXCEED WATED CAPABILITY OF EQUIPMENT USED, BUT IN NO CASE EXCEED 12" LOOSE.
- GRANULAR BACKFILL SHALL MEET REQUIREMENTS OF SECTION 9-03.10 UNLESS OTHERWISE SPECIFIED.



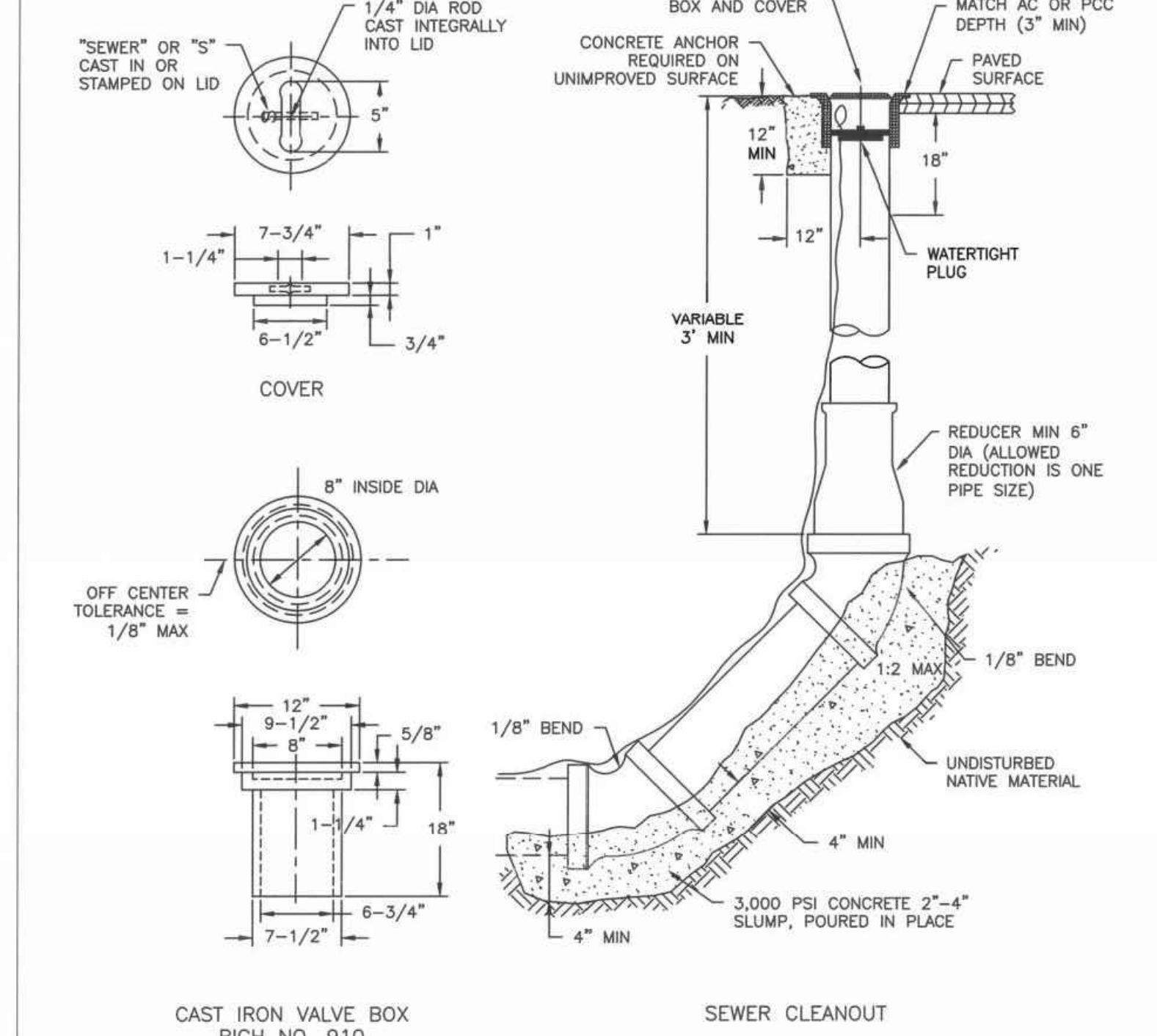
TRENCH: RESTORE, BACKFILL, BEDDING, SURFACING						S-03
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
		2/14/22				
WOODLAND PUBLIC WORKS	PUBLIC WORKS DIRECTOR	DATE				



NOTES:

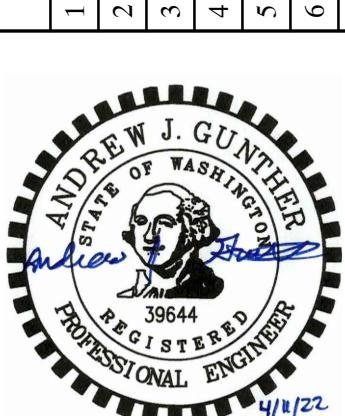
- RISER PIPE SHALL BE 6" ASTM D 3034 SDR 35 PVC PIPE.
- VALVE BOX SHALL BE "RICH 910" CAST IRON, SEE SEWER CLEANOUT DETAIL S-16 OR APPROVED EQUAL.
- THERE SHALL BE 1/2" CLEARANCE UNDER THE PIN CAST INTO THE LID.
- CONCRETE COLLAR SHALL BE A MINIMUM STRENGTH OF 3,000 PSI.
- PIPE BEDDING SHALL CONFORM TO PIPE BEDDING DETAIL S-02.
- INSTALL AT EVERY SANITARY SEWER MAIN TERMINATION OUTSIDE THE RIGHT-OF-WAY.

SANITARY STUB MARKER						S-15
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
		2/14/22				
WOODLAND PUBLIC WORKS	PUBLIC WORKS DIRECTOR	DATE				



SEWER CLEANOUT						S-16
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
		2/14/22				
WOODLAND PUBLIC WORKS	PUBLIC WORKS DIRECTOR	DATE				

Revisions	1	2	3	4	5	6



Project No.	3405
SCALE:	H: N/A V: N/A
DESIGNED BY:	TJL
DRAFTED BY:	TJL
REVIEWED BY:	AJG