

Taco Time

Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington

PROJECT DESCRIPTION
CONSTRUCTION OF NEW RESTAURANT BUILDING, EXPANSION
OF EXISTING PARKING LOT WITH ASSOCIATED CIVIL IMPROVEMENTS.

SITE ADDRESS: 1115 E MAIN
PARCEL NUMBERS: 7845100032 & 042027-1-171

ZONING: CG

ENGINEER/SURVEYOR:
AZURE GREEN CONSULTANTS
409 EAST PIONEER
PUYALLUP, WA 98072
PHONE: 253.770.3144

OWNER:
Taco Time NW
3401 Lind Ave SW
Renton, WA 98057
Phone 206.255.3633
rtonkin@tacotimew.com

APPLICANT:
Taco Time NW
3401 Lind Ave SW
Renton, WA 98057
Phone 206.255.3633
rtonkin@tacotimew.com

DATUM: NAVD88

BENCHMARK:
BM 2403 SW-5-16, EL = 30.50 NGVD29
CONVERTED TO NAVD88 +3.49 PER VERTCON
CONVERTED ELEVATION = 33.99'

TOPOGRAPHIC INFORMATION
ONSITE AND FRONTAGE TOPOGRAPHICAL DATA ARE PER FIELD SURVEY
PERFORMED BY AZURE GREEN CONSULTANTS IN APRIL 2022.

Add monument protection note. [Civil Plans, C-1]

100-YEAR FLOOD
THE SITE IS LOCATED IN A FLOODPLAIN PER FEMA FIRM PANEL
53053C0329E EFFECTIVE MARCH 7, 2017.
100-YEAR FLOOD ELEVATION = 26.7 (NGVD29) = 30.2 (NAVD88)

GENERAL NOTES

- All work in City right-of-way requires a permit from the City of Puyallup. Prior to any work commencing, the general contractor shall arrange for a preconstruction meeting at the Development Services Center to be attended by all contractors that will perform work shown on the approved engineering plans, representatives from all applicable utility companies, the project owner and appropriate city staff. Contact Engineering Services at (253-841-5568) to schedule the meeting. The contractor is responsible to have their own set of approved plans at the meeting.
- After completion of all items shown on these plans and before acceptance of the project the contractor shall obtain a "punch list" prepared by the City's inspector detailing remaining items of work to be completed. All items of work shown on these plans shall be completed to the satisfaction of the City prior to acceptance of the water system and provision of sanitary sewer service.
- All materials and workmanship shall conform to the Standard Specifications for Road, Bridge, and Municipal Construction (hereinafter referred to as the "Standard Specifications"), Washington State Department of Transportation and American Public Works Association, Washington State Chapter, latest edition, unless superseded or amended by the City of Puyallup City Standards for Public Works Engineering and Construction (hereinafter referred to as the "City Standards").
- A copy of these approved plans and applicable city developer specifications and details shall be on site during construction.
- Any revisions made to these plans must be reviewed and approved by the developer's engineer and the City prior to any implementation in the field. The City shall not be responsible for any errors and/or omissions on these plans.
- The contractor shall have all utilities verified on the ground prior to any construction. Call (811) at least two working days in advance. The owner and his/her engineer shall be contacted immediately if a conflict exists.
- Any structure and/or obstruction that requires removal or relocation relating to this project shall be done so at the developer's expense.
- Locations of existing utilities are approximate. It shall be the contractor's responsibility to determine the true elevations and locations of hidden utilities. All visible items shall be the engineer's responsibility.
- The contractor shall install, replace, or relocate all signs, as shown on the plans or as affected by construction, per City Standards.
- Power, street light, cable, and telephone lines shall be in a trench located within a 10-foot utility easement adjacent to public right-of-way. Right-of-way crossings shall have a minimum horizontal separation from other utilities (sewer, water, and storm) of 5 feet.
- All construction surveying for extensions of public facilities shall be done under the direction of a Washington State licensed land surveyor or a Washington State licensed professional civil engineer.
- During construction, all public streets adjacent to this project shall be kept clean of all material deposits resulting from on-site construction, and existing structures shall be protected as directed by the City.
- Certified record drawings are required prior to project acceptance.
- A NPDES Stormwater General Permit may be required by the Department of Ecology for this project. For information contact the Department of Ecology, Southwest Region Office at (360)407-6300.
- Any disturbance or damage to Critical Areas and associated buffers, or significant trees designated for preservation and protection shall be mitigated in accordance with a Mitigation Plan reviewed and approved by the City's Planning Division. Preparation and implementation of the Mitigation Plan shall be at the developer's expense.

EROSION & SEDIMENT INSPECTION
PRIOR TO STARTING SITE WORK, REQUEST AN
INSPECTION FOR EROSION AND SEDIMENT
INSPECTION CODE #1010, BY CALLING THE
INSPECTION REQUEST LINE AT 1-877-232-6456.

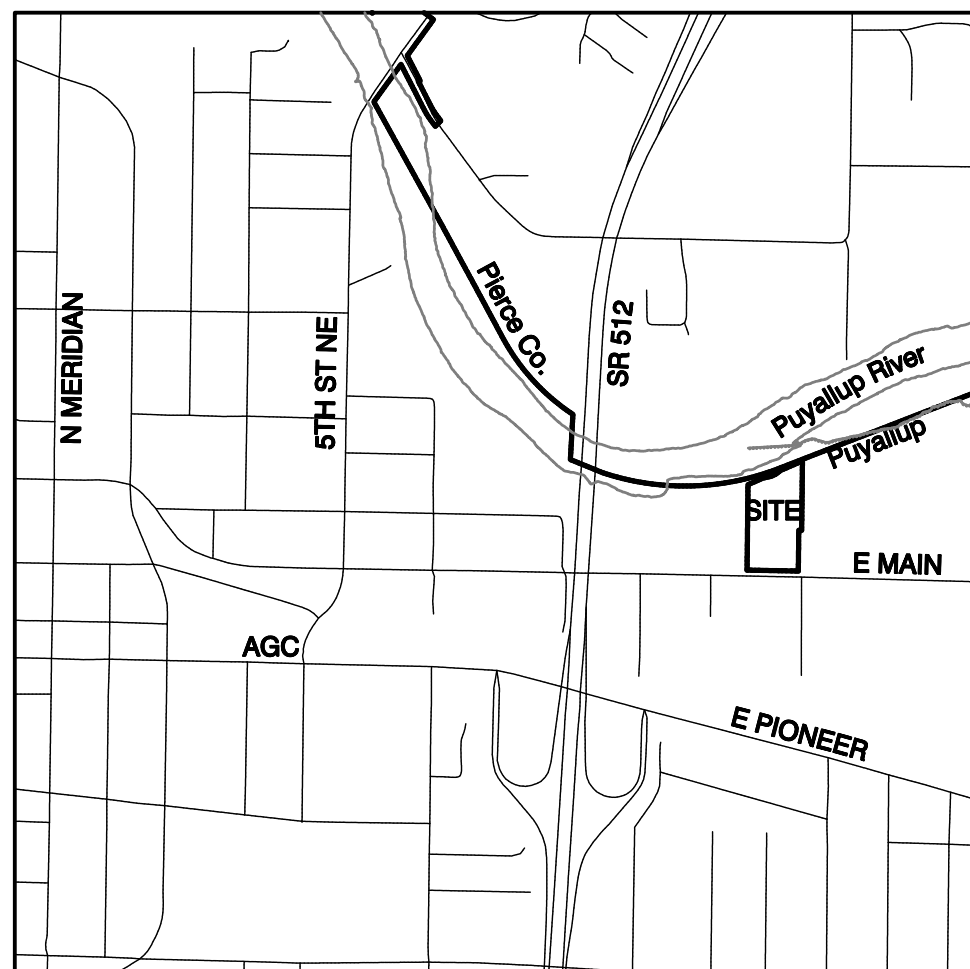
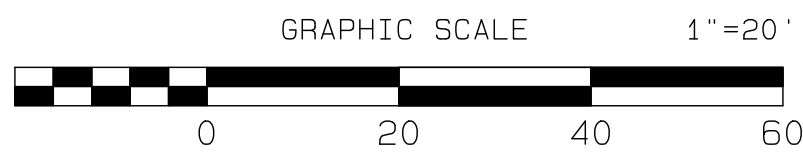
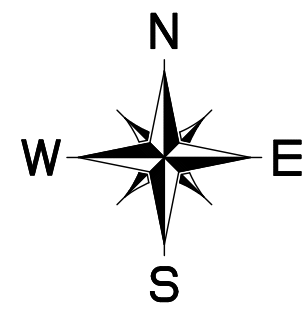
Erosion & Sediment Inspection is completed
through CityView Portal after pre-construction
meeting. This note is not required to be on the
plans. [Civil Plans, C-1]

BROKEN CURB, GUTTER, OR SIDEWALK
ANY PUBLIC CURB, GUTTER, OR SIDEWALK BROKEN
NOW OR DURING THE COURSE OF CONSTRUCTION
SHALL BE REMOVED AND REPLACED PER
CITY STANDARDS.

Add existing and proposed surface area table from
Preliminary Site Plan Submittal. Use the table format
given separately under Docs & Images. Additionally
break up new plus replaced hard surfaces and effective
new plus replaced hard surfaces into the separate
TDAs. Provide [Civil Plans, C-1]

Show fill and/or excavation quantities
in cubic yards. [Civil Plans, C-1]

Add note, "A separate building permit is
required for trash enclosure" [Civil Plans, C-1]

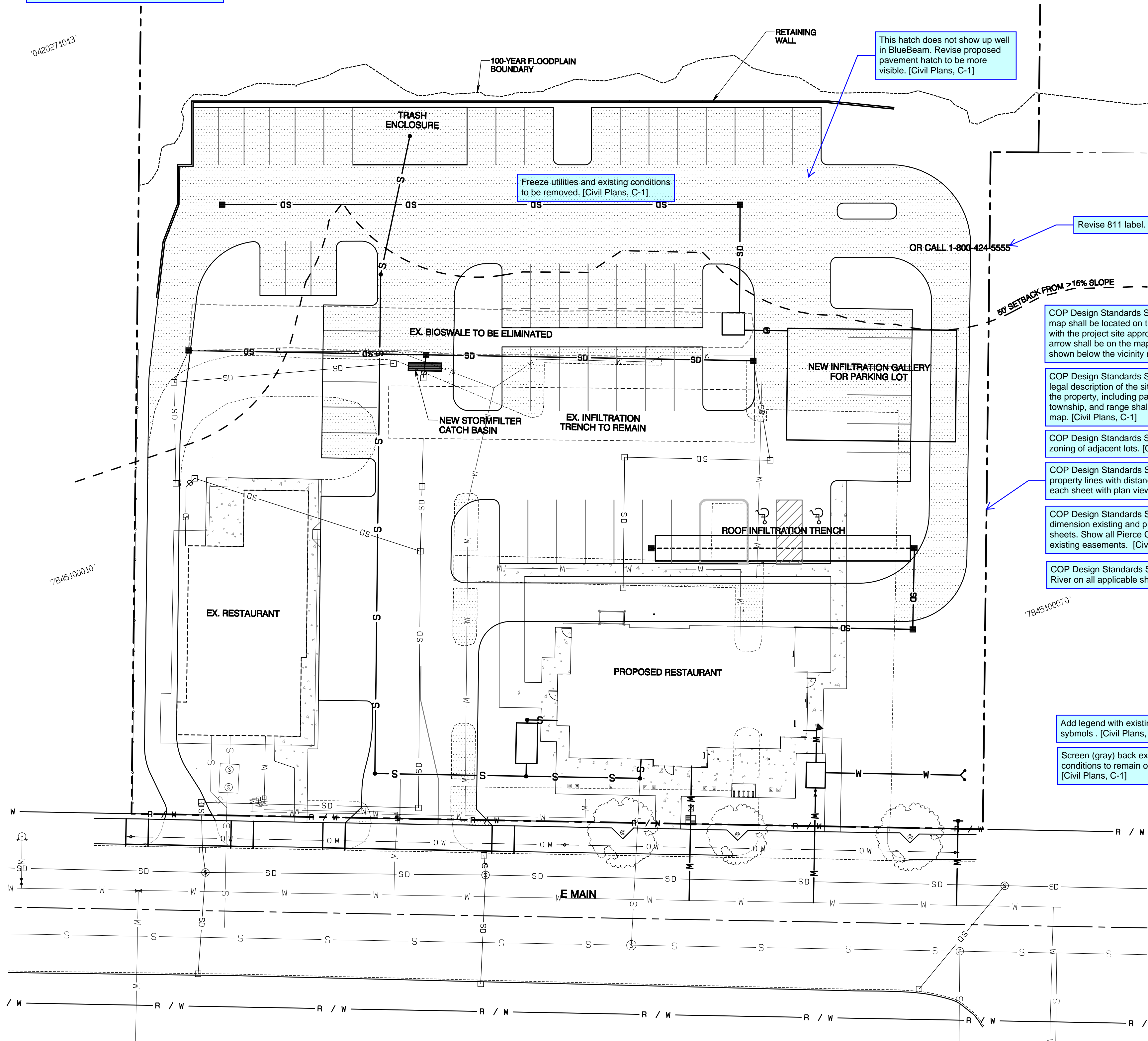


VICINITY MAP
SCALE: 1"=1000'

SHEET INDEX

- C-1 Cover Sheet
- C-2 Horizontal Control
- C-3 Existing Conditions/Demolition Plan
- C-4 TESC Plan
- C-5 TESC Notes & Details
- C-6 Paving & Storm Plan
- C-7 Cross-Sections & Profiles
- C-8 SS & Water Plan
- C-9 Details
- C-10 Storm Details
- C-11 Storm & Water Details
- C-12 Water Details
- C-13 SS Details
- C-14 StormTank Details
- C-15 StormTank Details
- C-16 StormTank Details

FULL SITE
SCALE: 1"=100'



This hatch does not show up well
in BlueBeam. Revise proposed
pavement hatch to be more
visible. [Civil Plans, C-1]

Add Grading plan with spot elevations, slope labels,
and proposed topography. [Civil Plans, C-1]

Revise 811 label. [Civil Plans, C-1]

OR CALL 1-800-424-5555

8% SETBACK FROM ≥16% SLOPE

COP Design Standards Section 2.1(10): The vicinity
map shall be located on the lower right of the first sheet
with the project site approximately centered. A north
arrow shall be on the map. The site address shall be
shown below the vicinity map. [Civil Plans, C-1]

COP Design Standards Section 2.1(11): Add a brief
legal description of the site, in enough detail to locate
the property, including parcel number, 1/4 section,
township, and range shall be located below the vicinity
map. [Civil Plans, C-1]

COP Design Standards Section 2.1(13): Add current
zoning of adjacent lots. [Civil Plans, C-1]

COP Design Standards Section 2.1(14): Label
property lines with distance and bearings on
each sheet with plan view. [Civil Plans, C-1]

COP Design Standards Section 2.1(19): Show and
dimension existing and proposed easements on all
sheets. Show all Pierce County recording numbers for
existing easements. [Civil Plans, C-1]

COP Design Standards Section 2.1(22): Label Puyallup
River on all applicable sheets. [Civil Plans, C-1]

This additional Vicinity map is not
necessary. If it is kept, frame it with
scale and north arrow. Freeze utilities,
hatches, trees, setbacks, and label
street, river, new buildings and ex
buildings. [Civil Plans, C-1]

Add legend with existing and proposed lines and
symbols. [Civil Plans, C-1]

Screen (gray) back existing
conditions to remain on all sheets.
[Civil Plans, C-1]

COP Design Standards Section 1.0(1.4):
Approval block should be 2-1/4" x 3-1/4".
[Civil Plans, C-1]

CALL BEFORE YOU DIG
IT IS THE LAW
811

APPROVED
BY: CITY OF PUYALLUP
DEVELOPMENT SERVICES
DATE:
NOTE:
THIS APPROVAL IS VOID AFTER 180
DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE
FOR ERRORS AND/OR OMISSIONS
ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE
CHANGES TO THESE PLANS AS
DETERMINED BY THE ENGINEERING
SERVICES MANAGER.

Cover Sheet



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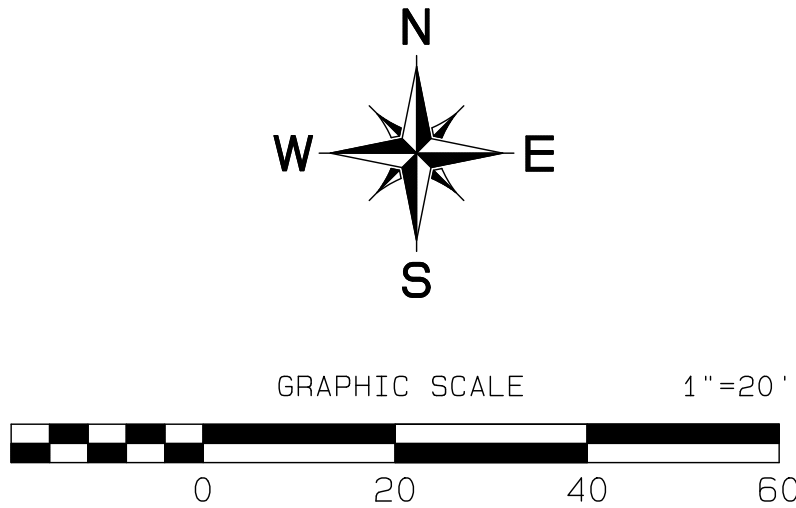
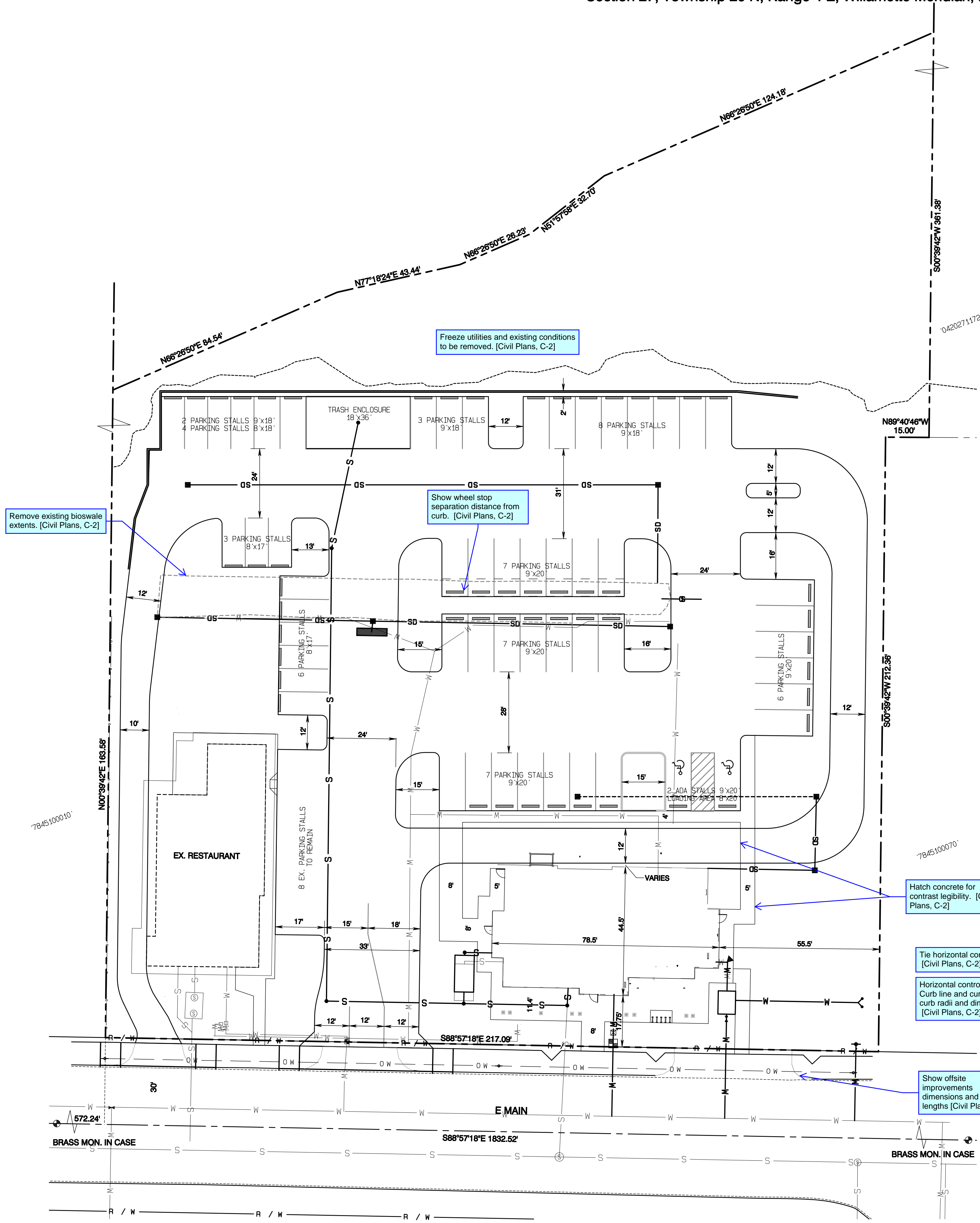
DESIGNED BY: Paul Green
DRAWN BY: Paul Trivitt
CHECKED BY: Paul Green
APPROVED BY: Paul Green



Taco Time
Taco Time NW
3401 Lind Ave SW
Renton, WA 98057
Phone 206.255.3633
Fax rtonkin@tacotimew.com

DRAWING
C-1
SHEET 1
OF 16

Taco Time
Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington



Remove existing bioswale extents. [Civil Plans, C-2]

Freeze utilities and existing conditions to be removed. [Civil Plans, C-2]

Show wheel stop separation distance from curb. [Civil Plans, C-2]

Hatch concrete for contrast legibility. [Civil Plans, C-2]

Tie horizontal control to a property corner. [Civil Plans, C-2]
Horizontal control Plan looks incomplete. Curb line and curve table showing tagged curb radii and dimensions are not shown. [Civil Plans, C-2]

Show offsite improvements dimensions and curb lengths [Civil Plans, C-2]

Add 811 note on all Planview sheets. [Civil Plans, C-2]

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NOTE:
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Horizontal Control

Taco Time

Taco Time NW
3900 Maple Valley Hwy
Renton, WA 98058
Phone 206.255.3633
Fax ronkni@tacodm.com

7/19/2023

ROBERT A. TRIVITT
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
43715

| DATE | REVISION |
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JOB NO. 23035
DATE: JULY 14, 2023
DESIGNED BY: PAUL GREEN
DRAWN BY: PAUL TRIVITT
CHECKED BY: PAUL GREEN
APPROVED BY: PAUL GREEN

AZURE GREEN
CONSULTANTS
+feasibility +planning +engineering +surveying
409 East Pioneer Suite A - Puyallup, WA 98372
phone 253.770.3144 fax 253.770.3142

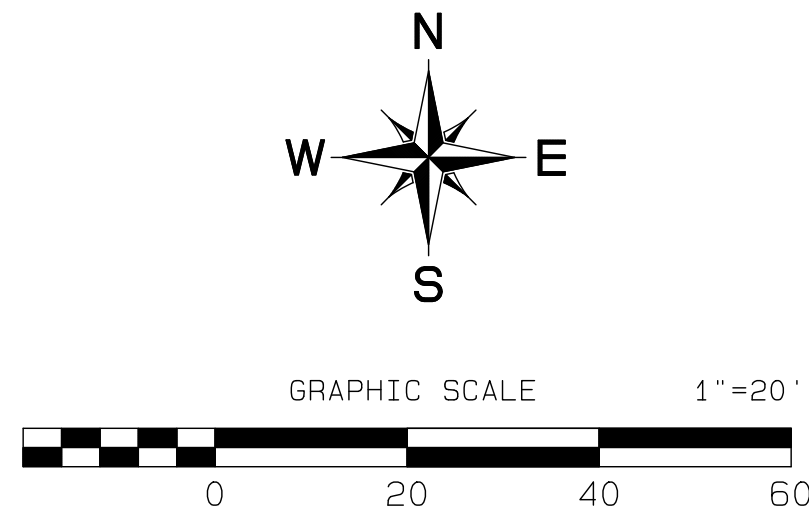
DRAWING
C-2
SHEET 2
OF 16

Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington

EX. 24" FORCE MAIN
EX. SEWER LINE
EX. STORM LINE
EX. CB
EX. WATER LINE
EX. FIRE HYDRANT
EX. GAS LINE
EX. RIGHT-OF-WAY L
EX. STREETLIGHT

EX. POWER BOXES
EX. POWER POLE WITH GUY ANCHOR
EX. PHONE LINE
EX. DITCH
PROPOSED DITCH
GRADING LIMITS
SILT FENCE
CONSTRUCTION FENCE

There are no proposed items on this sheet. update legend to show applicable lines and symbols. [Civil Plans, C-3]



- (A) REMOVE DRIVEWAY APPROACH
EXTEND REMOVAL TO FULL SIDEWALK
PANEL BOTH ENDS
- (B) REMOVE SS MANHOLE
& APPROX. 10LF 8" SS PIPE
- (C) REMOVE 62LF OF STORM PIPE
& CB AT SOUTH END.
PLUG SOUTH SIDE OF CB AT NORTH END
- (D) REMOVE 8LF OF STORM PIPE
- (E) PAVEMENT GRIND AND PATCH
PER STD 01.01.20 FOR WATER SERVICE
- (F) REMOVE AND REPLACE FULL SIDEWALK
PANEL(S) AS NEEDED FOR WATER SERVICE

=SAW CUT AND REMOVE PAVEMENT
OR SIDEWALK

Is this a wall? specify whether it is to remain or be removed. [Civil Plans, C-3]

REMOVE BLOCK WALL

BIOSWALE TO BE STRIPPED AND FILLED

REMOVE ALL EXTRUDED CURB

Pavement removal limits don't match proposed pavement limits. Sawcuts should be straight lines. [Civil Plans, C-3]

Clarify through callouts and labels every item to remain and every item to be removed. [Civil Plans, C-3]

Show Existing FFE on all sheets with contours. [Civil Plans, C-3]

add all symbols and lines in legend and add callouts in planview. [Civil Plans, C-3]

Are these trees proposed? Callout what this sawcut patch is for. [Civil Plans, C-3]

Show street curb as curb and gutter on all sheets. [Civil Plans, C-3]

Show grind an overlay on plans. [Civil Plans, C-3]

Callout what this sawcut patch is for. [Civil Plans, C-3]

E MAIN

SD

OS

W

R/W

A

B

C

D

E

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APPROVED

BY: CITY OF PUYALLUP DEVELOPMENT SERVICES

DATE:

NOTE:

THIS APPROVAL IS VOID AFTER 90 DAYS FROM APPROVAL DATE.

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEER OR SERVICES MANAGER.

APPROVED

BY: _____
CITY OF PUYALLUP
DEVELOPMENT SERVICES

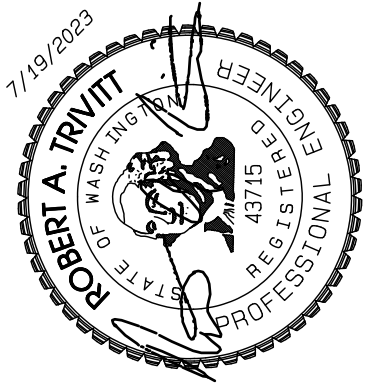
DATE: _____

NOTE:

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JOB NO: 2935
DATE: July 14, 2023
DESIGNED BY: Paul Green
DRAWN BY: Rob Trivitt
CHECKED BY: Jim Job
APPROVED BY: Paul Green



Existing Conditions & Demolition Plan

Taco Time

Taco Time NW
3300 Maple Valley Hwy
Renton, WA, 98058
Phone 206.255.3633
Fax rtonkin@tacotimenw.com

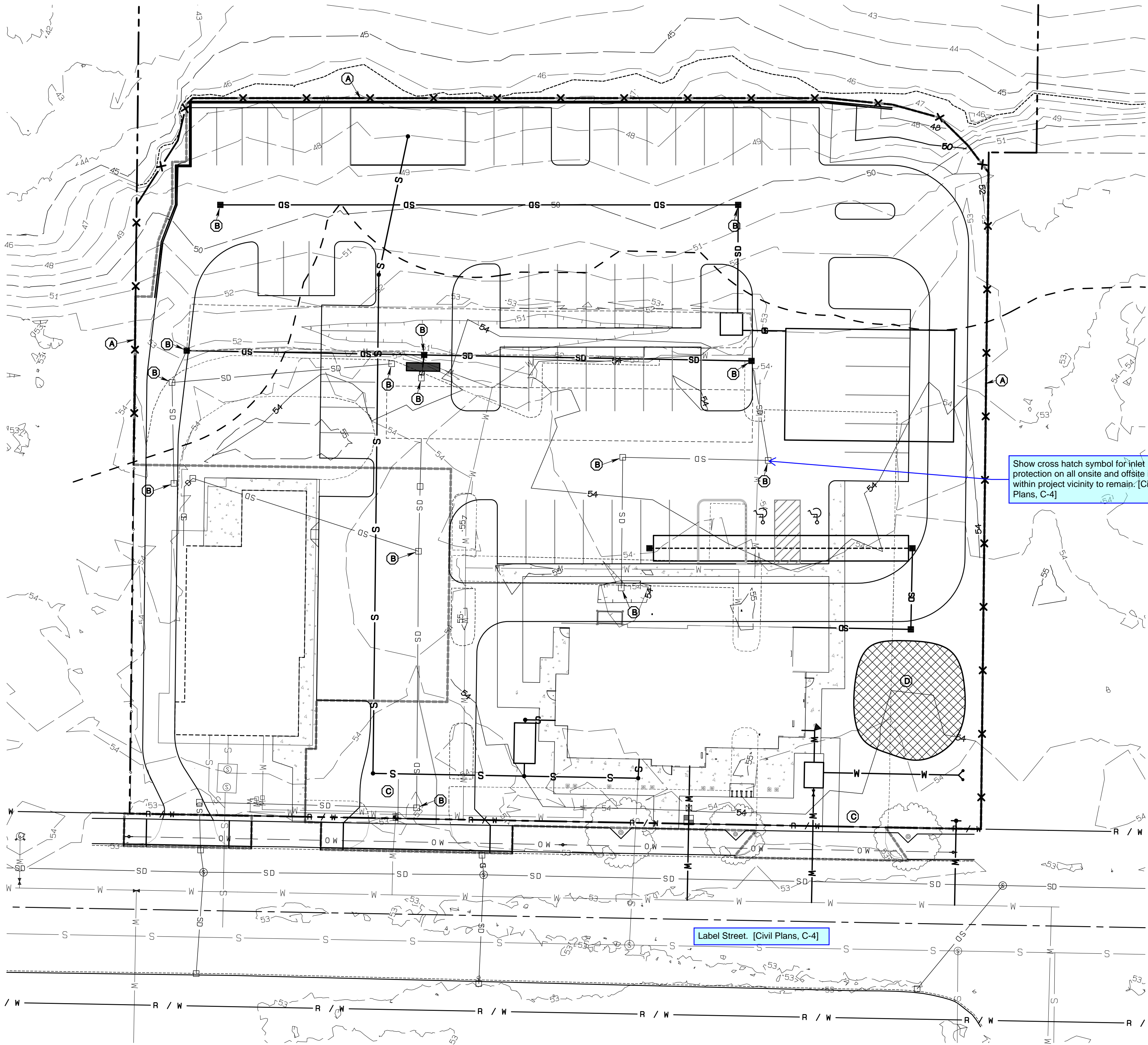
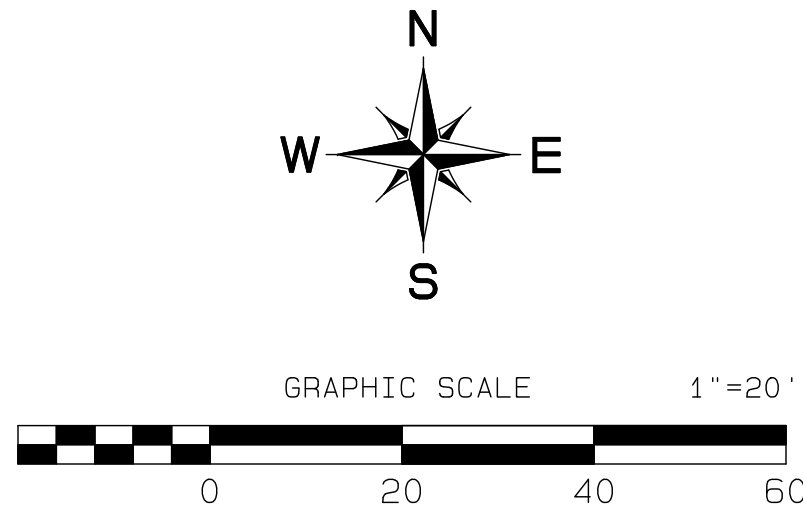
DRAWING

C-3

SHEET 3

OF 16

Taco Time
Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington



Reference which sheet details are located on in Keynotes. [Civil Plans, C-4]

ESC KEY NOTES

- (A) INSTALL SILT FENCE PER STD 02.03.02
(B) INSTALL BAG FILTER SEE DETAIL SHEET C-5
(C) EXISTING APPROACH/PAVEMENT TO FUNCTION AS CONSTRUCTION ENTRANCE. IF, DURING CONSTRUCTION THIS IS DETERMINED TO BE IN ADEQUATE, INSTALL CONSTRUCTION ENTRANCE PER STD 05.01.01.
(D) STOCKPILE AREA

An existing stabilized entrance may function as a construction entrance but must have an "approved equal" track-out device/facility installed on it. email Review engineer with track-out facility proposal for approval prior to next submittal. [Civil Plans, C-4]

Designate one entrance for construction entrance. The entrance may move or be adjusted as needed and after inspector notification and approval. [Civil Plans, C-4]

Show clearing limits [Civil Plans, C-4]

All existing trees 6 inches diameter at breast height or larger, which are proposed to be removed, or retained. The location, size and species of each tree shall be shown. [Civil Plans, C-4]

Show type of fill material and compaction requirements. [Civil Plans, C-4]

State whether or not the fill material will be placed upon native or stripped vegetation. [Civil Plans, C-4]

Clearly show the limits of fill and/or excavation work. [Civil Plans, C-4]

Add excavation note with cut/fill slope limits and when shoring is required. [Civil Plans, C-4]

Remove all proposed conditions from TESC plan except for infiltration facility limits. [Civil Plans, C-4]

Callout infiltration facility and excavation limits. Add compaction protection note. Bottom of facility should be scarified per COP soil amendment standards if compacted by heavy equipment. [Civil Plans, C-4]

Callout existing elements. [Civil Plans, C-4]

Hatch existing concrete in ROW. [Civil Plans, C-4]

Clearly show sawcut limits and of area to be disturbed during construction. [Civil Plans, C-4]

Label Street. [Civil Plans, C-4]

APPROVED

BY: CITY OF PUYALLUP
DEVELOPMENT SERVICES

DATE:

NOTE:

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FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.



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JOB NO. 23025
DATE: JULY 14, 2023
DESIGNED BY: Paul Green
DRAWN BY: Rob Trivitt
CHECKED BY: Paul Green
APPROVED BY: Paul Green

AZURE GREEN
CONSULTANTS

feasibility • planning • engineering • surveying

409 East Pioneer, Suite A • Puyallup, WA 98372
phone 253.770.3144 fax 253.770.3142

TESC Plan

Taco Time

Taco Time NW
3900 Maple Valley Hwy
Renton, WA 98058
Phone 206.235.3633
Fax ronkni@tacomnwa.com

DRAWING

C-4

SHEET 4
OF 16

Taco Time

Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington

GRADING, EROSION & SEDIMENTATION CONTROL NOTES:

- All work in City right-of-way requires a permit from the City of Puyallup. Prior to any work commencing, the general contractor shall arrange for a preconstruction meeting at the Development Services Center to be attended by all contractors that will perform work shown on the engineering plans, representatives from all applicable utility companies, the project owner and appropriate City staff. Contact Engineering Services to schedule the meeting (253) 841-5568. The contractor is responsible to have their own approved set of plans at the meeting.
- After completion of all items shown on these plans and before acceptance of the project, the contractor shall obtain a punch list prepared by the City's inspector detailing remaining items of work to be completed. All items of work shown on these plans shall be completed to the satisfaction of the City prior to acceptance of the water system and provision of sanitary sewer service.
- All materials and workmanship shall conform to the Standard Specifications for Road, Bridge, and Municipal Construction (hereinafter referred to as the Standard Specifications), Washington State Department of Transportation and American Public Works Association, Washington State Chapter, latest edition unless superseded or amended by the City of Puyallup City Standards for Public Works Engineering and Construction (hereinafter referred to as the City Standards).
- A copy of these approved plans and applicable city developer specifications and details shall be on site during construction.
- Any revisions made to these plans must be reviewed and approved by the developer's engineer and the city engineer prior to any implementation in the field. The City shall not be responsible for any errors and/or omissions on these plans.
- The contractor shall have all utilities verified on the ground prior to any construction. Call (811) at least two working days hours in advance. The owner and his/her engineer shall be contacted immediately if a conflict exists.
- All limits of clearing and areas of vegetation preservation as prescribed on the plans shall be clearly flagged in the field and observed during construction.

- All required sedimentation and erosion control facilities must be constructed and in operation prior to any land clearing and/or other construction to ensure that sediment laden water does not enter the natural drainage system. The contractor shall schedule an inspection of the erosion control facilities PRIOR to any land clearing and/or other construction. All erosion and sediment facilities shall be maintained in a satisfactory condition as determined by the City, until such time that clearing and/or construction is completed and the potential for on-site erosion has passed. The implementation, maintenance, replacement, and additions to the erosion and sedimentation systems shall be the responsibility of the permittee.
- The erosion and sedimentation control system facilities depicted on these plans are intended to be minimum requirements to meet anticipated site conditions. As construction progresses and unexpected or seasonal conditions dictate, facilities will be necessary to ensure complete siltation control on the site. During the course of construction, it shall be the obligation and responsibility of the permittee to address any new conditions that may be created by his activities and to provide additional facilities, over and above the minimum requirements, as may be needed to protect adjacent properties, sensitive areas, natural water courses, and/or storm drainage systems.
- Approval of these plans is for grading, temporary drainage, erosion and sedimentation control only. It does not constitute an approval of permanent storm drainage design, size or location of pipes, restrictors, channels, or retention facilities.
- Any disturbed area which has been stripped of vegetation and where no further work is anticipated for a period of 30 days or more, must be immediately stabilized with mulching, grass planting, or other approved erosion control treatment applicable to the time of year in question. Grass seeding alone will be acceptable only during the months of April through September inclusive. Seeding may proceed outside the specified time period whenever it is in the interest of the permittee, but must be augmented with mulching, netting, or other treatment approved by the City.
- In case erosion or sedimentation occurs to adjacent properties, all construction work within the development that will further aggravate the situation must cease, and the owner/contractor will immediately commence restoration methods. Restoration activity will continue until such time as the affected property owner is satisfied.
- No temporary or permanent stockpiling of materials or equipment shall occur within critical areas or associated buffers, or the critical root zone for vegetation proposed for retention.

PLASTIC COVERING NOTES:

- Plastic sheeting shall have a minimum thickness of 6 mils and shall meet the requirements of the STATE STANDARD SPECIFICATIONS Section 9-14.5.
- Covering shall be installed and maintained tightly in place by using sandbags or tires or ropes with a maximum 10-foot grid spacing in all directions. All seams shall be taped or weighted down full length and there shall be a least a 12 inch overlap of all seams.
- Clear plastic covering shall be installed immediately on areas seeded between November 1 and March 31 and remain until vegetation is firmly established.
- When the covering is used on un-seeded slopes, it shall be kept in place until the next seeding period.
- Plastic covering sheets shall be buried two feet at the top of slopes in order to prevent surface water flow beneath sheets.
- Proper maintenance includes regular checks for rips and dislodged ends.

CONSTRUCTION SEQUENCE

- OBTAIN REQUIRED PERMITS AND HOLD A PRECONSTRUCTION MEETING WITH THE CITY.
- ESTABLISH CLEARING AND GRADING LIMITS.
- INSTALL SILT FENCE IF REQUIRED.
- SCHEDULE AN EROSION CONTROL INSPECTION WITH THE CITY.
- IDENTIFY EROSION CONTROL MEASURES WHICH REQUIRE REGULAR MAINTENANCE. ENSURE EROSION CONTROL MEASURES IN PLACE ARE ADEQUATE. INSTALL ADDITIONAL MEASURES IF NECESSARY TO PREVENT SEDIMENT LADEN RUNOFF FROM LEAVING SITE.
- INSTALL OR INLET PROTECTION.
- CLEAR AND REMOVE ORGANIC MATERIAL, PREP SUBGRADE FOR FOUNDATION AND PARKING LOT CONSTRUCTION.
- MASS GRADE SITE AND CONSTRUCT RETAINING WALL.
- INSTALL INFILTRATION TRENCHES.
- INSTALL STORM AND SEWER & WATER SERVICES.
- INSTALL BUILDING FOUNDATION.
- INSTALL OTHER UTILITIES.
- INSTALL BASE.
- CONSTRUCT SIDEWALKS.
- INSTALL TOP COURSE.
- CONSTRUCT BUILDING.
- PAVE PARKING LOT.
- BRING UTILITIES TO FINAL GRADE.
- VEGETATE EXPOSED AREAS AND STABILIZE STOCKPILES AS SOON AS PRACTICAL AND AS NEEDED TO PREVENT EROSION.
- HYDROSEED AND/OR INSTALL PERMANENT LANDSCAPING TO PROVIDE PERMANENT EROSION CONTROL.
- REMOVE TEMPORARY EROSION CONTROL MEASURES WHEN SITE IS STABLE.

TEMPORARY ESC MEASURES REQUIRED

- Temporary Siltation Fencing.
- Vegetation and Stabilization of exposed surfaces
- Catch Basin Inlet Protection
- Additional measures may be required, see note 9 of Grading, Erosion & Sedimentation Control notes and Stormwater Pollution Prevention Plan (SWPPP) prepared for this project.

PERMANENT ESC MEASURES REQUIRED

- Seeding and/or Landscaping of non-imperious surfaces

SPECIAL NOTES:

- Contractor shall designate an erosion and sediment control leadperson, and shall comply with the stormwater pollution prevention plan prepared for the project.
- Sediment-laden runoff shall not be allowed to discharge beyond the construction limits. use dates from Section City Standards 501.5. [Civil Plans, C-5]
- From October 1 through April 30, no soils shall remain exposed and unworked for more than 2 days. From May 1 to September 30, no soils shall remain exposed and unworked for more than 7 days. This condition applies to all soils on site, whether at final grade or not.

MULCHING NOTES

- Mulch materials used shall be hay or straw and shall be applied at a rate of 75-100 pounds per 1000 square feet, or 90-120 bales per acre to a min. depth of 2 inches.
- Mulches shall be applied in all areas with exposed slopes greater than 2:1.
- Mulching shall be used immediately after seeding or in areas which cannot be seeded because of the season.
- All areas needed mulch shall be covered by November 1.

SEEDING NOTES (Erosion control seeding):

- Seed mixture shall be 40% Redtop (92% purity, 90% germination); 40% Annual Ryegrass (93% purity, 90% germination); 40% Drawing Rescue (87% purity, 80% germination); and 10% White Dutch clover (96% purity, 90% germination) and shall be applied at the rate of 120 pounds per acre.
- Seed beds planted between May 1 and October 31 will require irrigation and other maintenance as necessary to foster and protect the root structure.
- For seed beds planted between October 31 and April 30, amending of the seed bed will be necessary. (e.g., geotextiles, jute mat, clear plastic covering).
- Before seeding, install needed surface runoff control measures such as gradient terraces, interceptor dikes, swales, level spreaders and sediment basins.
- The seedbed shall be firm with a fairly fine surface, following surface roughening. Perform all operation across or at right angles to the slope.
- Fertilizers are to be used according to suppliers recommendations. Amounts used should be minimized, especially adjacent to water bodies and wetlands.
- Erosion control seeding shall not be used in areas subject to wear by construction traffic.
- Erosion control seeding may be used in all areas of 5% or less slope. In areas between 5 and 10% slope, erosion control seeding may be used for a maximum horizontal distance of 100 feet. Use mulch or netting or other treatments for steeper and longer slopes.

SOIL STOCKPILE NOTES:

- Stockpiles shall be stabilized (with plastic covering or other approved device) daily between November 1 and March 31.
- In any season, sediment leaching from stock piles must be prevented.
- Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or when conditions exist that may otherwise be detrimental to proper grading or proposed sodding or seeding.
- Previously established grades on the areas to be topsoiled shall be maintained according to the approved plan.
- Stockpiles must be located more than 50 feet from all drainage features.

Add Note: No clearing, filling, grading or other alteration occurs within any critical areas or associated buffer unless specifically authorized pursuant to Chapter 21.06 Environmentally Critical Areas Management of the Puyallup Municipal Code. [Civil Plans, C-5]

Add Note: There is a potential to encounter groundwater during deep excavations. Provide Dewatering note that complies with City Dewatering standards Section 504. [Civil Plans, C-5]

APPROVED

BY: CITY OF PUYALLUP
DEVELOPMENT SERVICES
DATE:

NOTE:

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FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

TESC Notes & Details

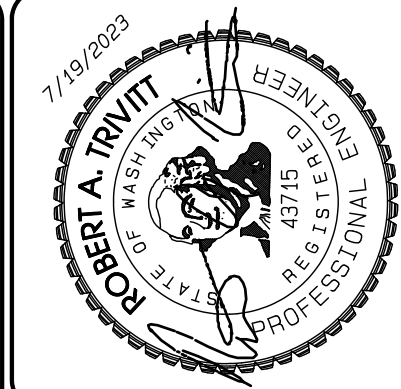
Taco Time

Taco Time NW
3900 Maple Valley Hwy
Renton, WA 98058
Phone 206.225.3633
Fax ron@taco.com

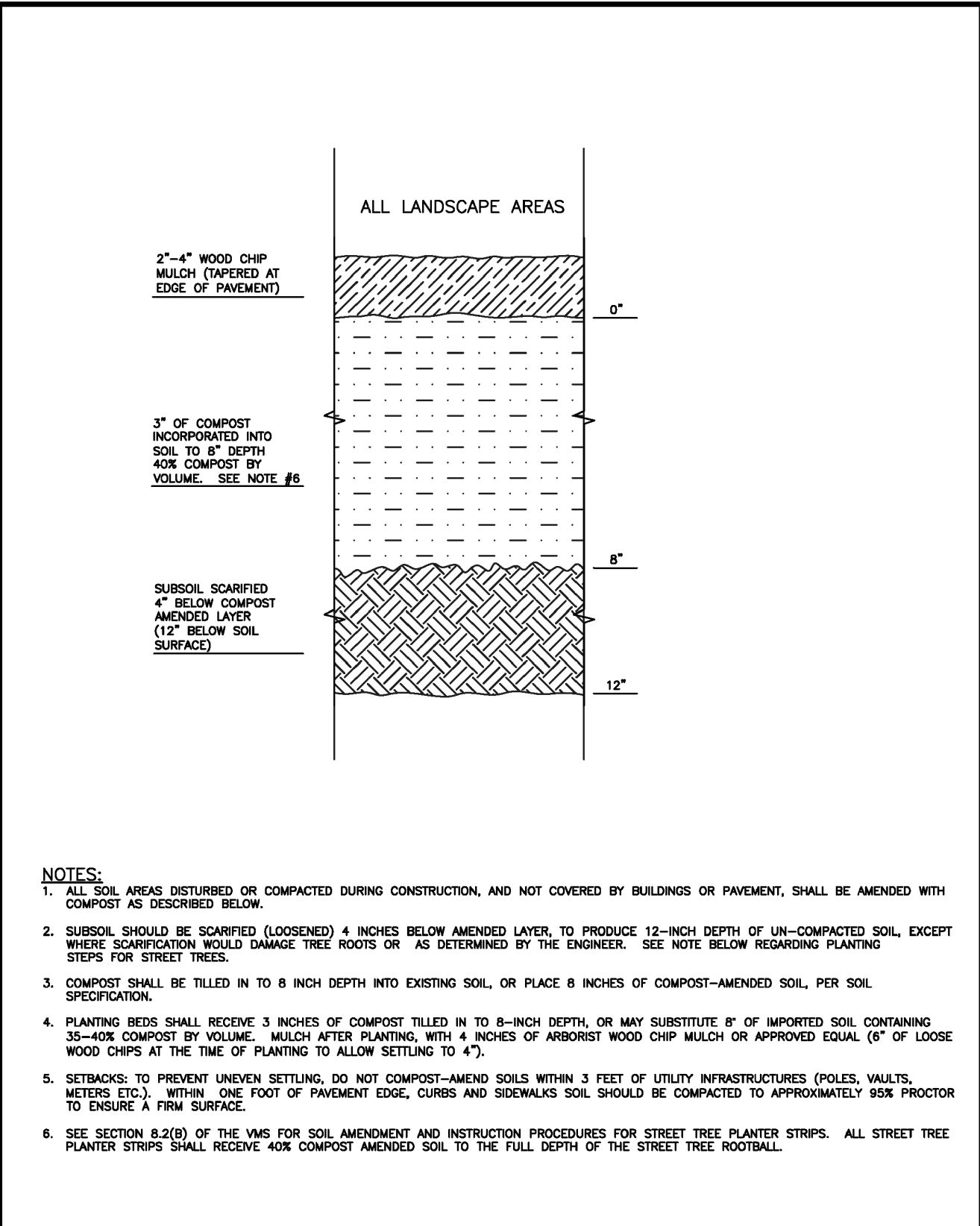
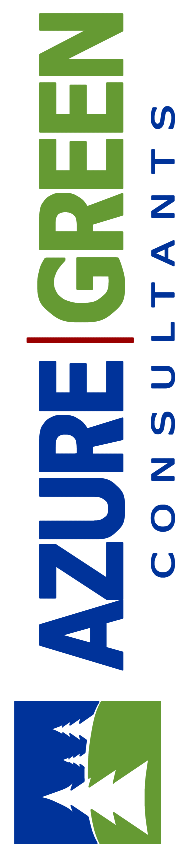
DRAWING

C-5

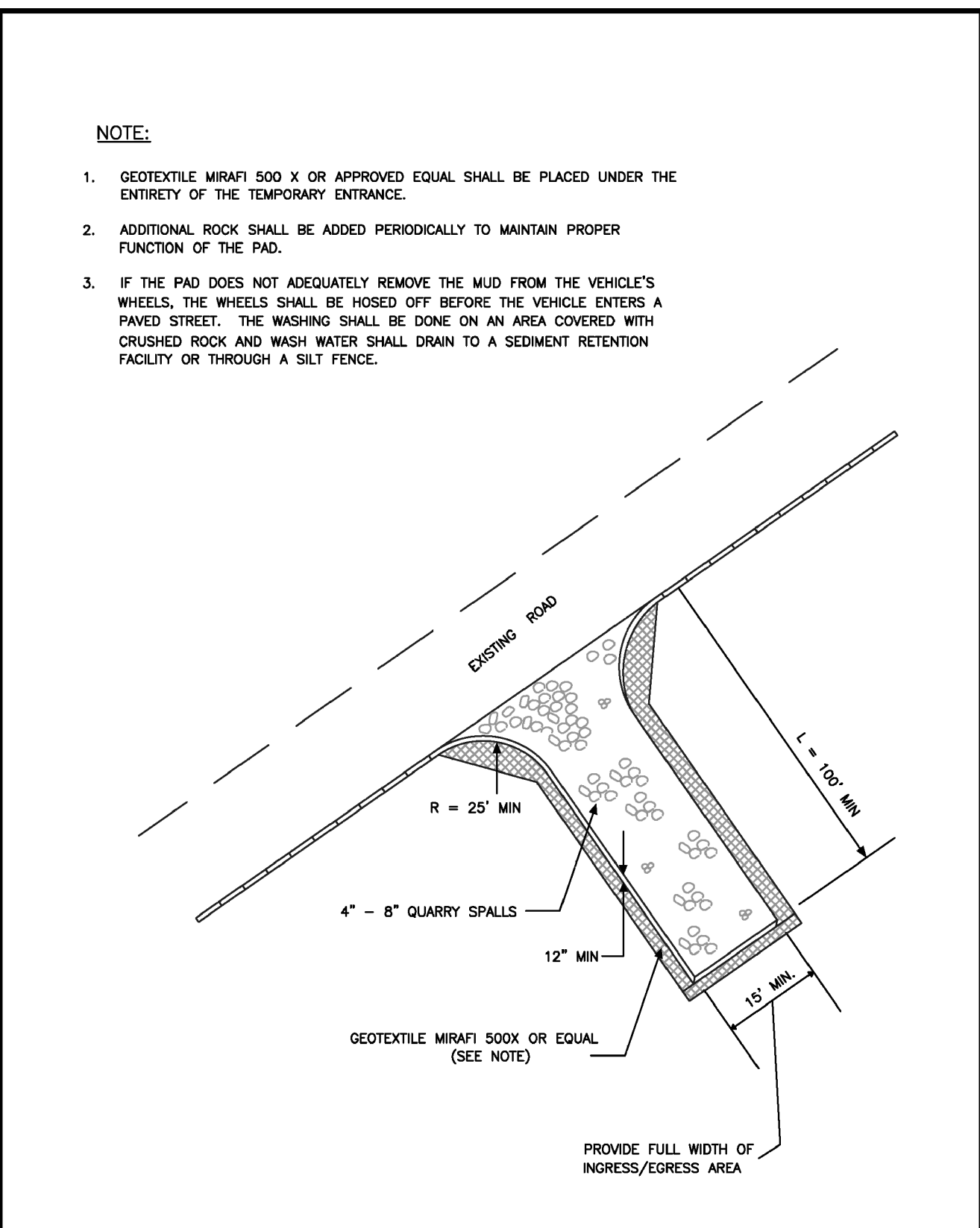
SHEET 5
OF 16



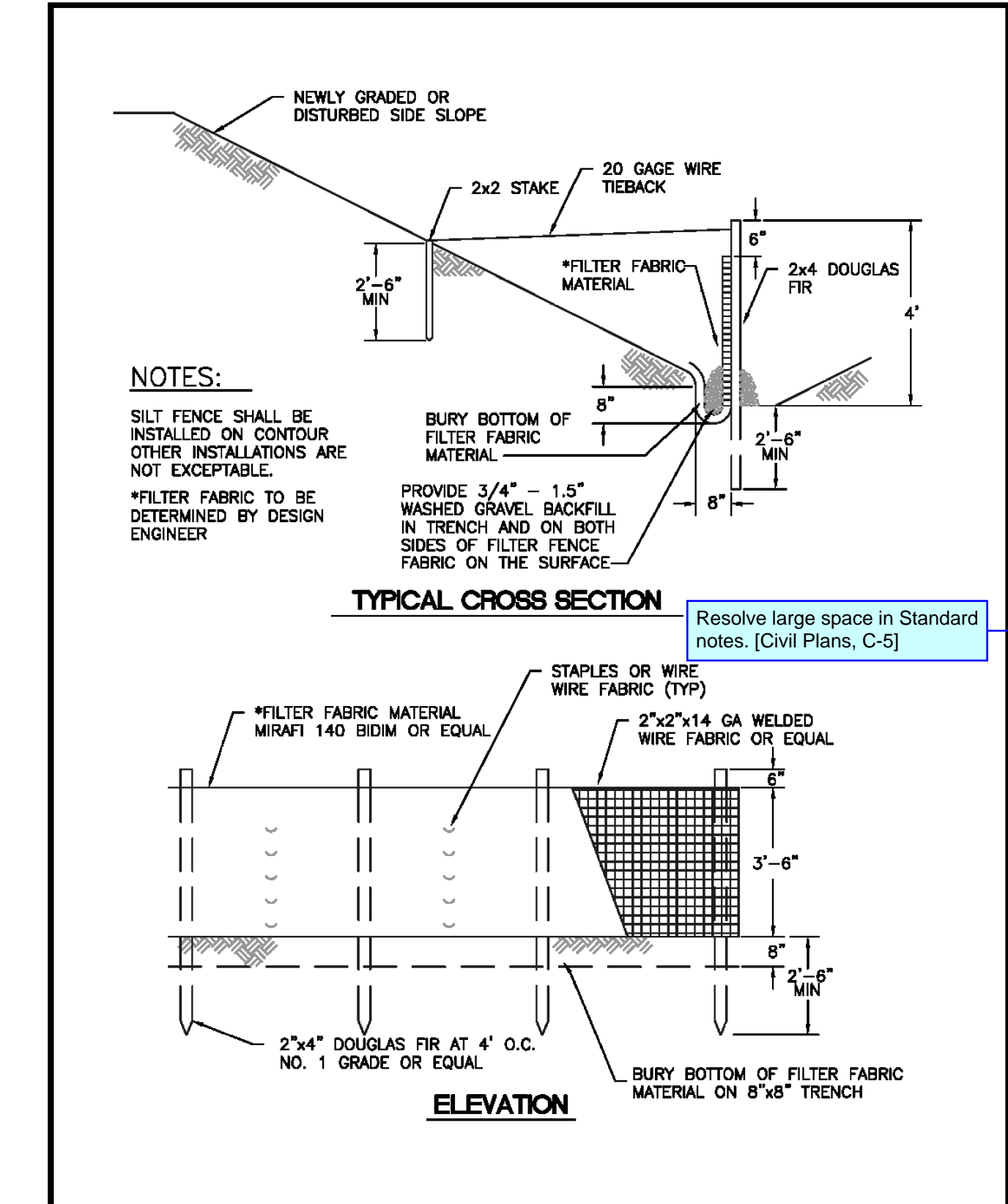
JOB NO. 23035
DATE: JULY 14, 2023
DESIGNED BY: Paul Green
DRAWN BY: Paul Trivitt
CHECKED BY: Paul Green
APPROVED BY: Paul Green



| CITY OF PUYALLUP | | SOIL AMENDMENT AND DEPTH | |
|------------------|--------------|--------------------------|------------|
| DESIGNED BY | PAUL GREEN | CHECKED BY | PAUL GREEN |
| DRAWN BY | PAUL TRIVITT | APPROVED BY | PAUL GREEN |
| DATE | 07/14/2023 | DATE | 07/14/2023 |
| SCALE | AS SHOWN | SCALE | AS SHOWN |
| CITY STANDARD | 01.02.08a | | |



| CITY OF PUYALLUP | | TEMPORARY CONSTRUCTION ENTRANCE | |
|------------------|--------------|---------------------------------|------------|
| DESIGNED BY | PAUL GREEN | CHECKED BY | PAUL GREEN |
| DRAWN BY | PAUL TRIVITT | APPROVED BY | PAUL GREEN |
| DATE | 07/14/2023 | DATE | 07/14/2023 |
| SCALE | AS SHOWN | SCALE | AS SHOWN |
| CITY STANDARD | 05.01.01 | | |



| CITY OF PUYALLUP | | SILTATION FENCE | |
|------------------|--------------|-----------------|------------|
| DESIGNED BY | PAUL GREEN | CHECKED BY | PAUL GREEN |
| DRAWN BY | PAUL TRIVITT | APPROVED BY | PAUL GREEN |
| DATE | 07/14/2023 | DATE | 07/14/2023 |
| SCALE | AS SHOWN | SCALE | AS SHOWN |
| CITY STANDARD | 02.03.02 | | |

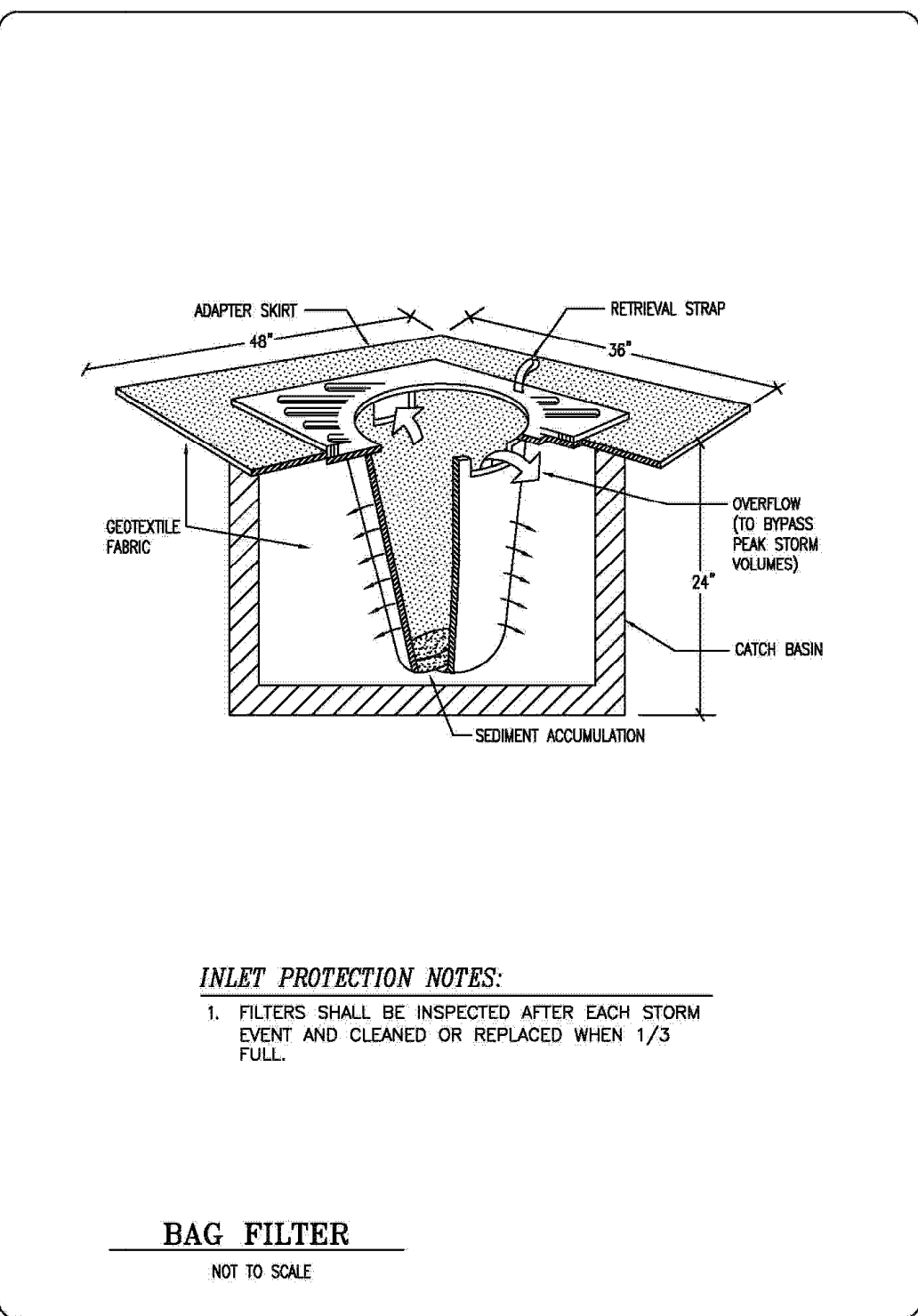
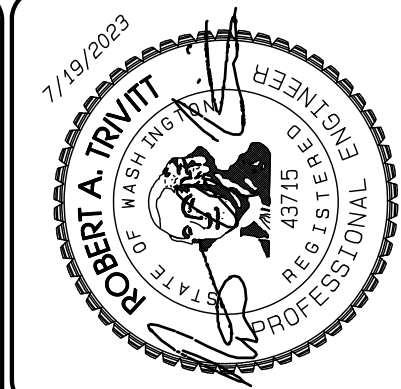
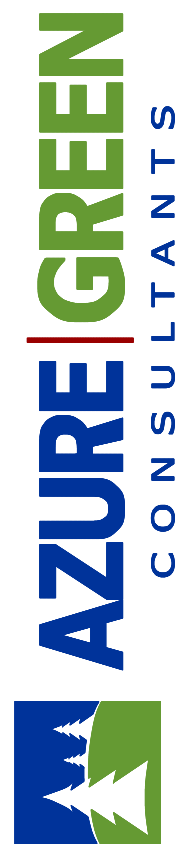


Figure 2 - 20. Catchbasin Filter

| CITY OF PUYALLUP | | TEMPORARY CONSTRUCTION ENTRANCE | |
|------------------|--------------|---------------------------------|------------|
| DESIGNED BY | PAUL GREEN | CHECKED BY | PAUL GREEN |
| DRAWN BY | PAUL TRIVITT | APPROVED BY | PAUL GREEN |
| DATE | 07/14/2023 | DATE | 07/14/2023 |
| SCALE | AS SHOWN | SCALE | AS SHOWN |
| CITY STANDARD | 05.01.01 | | |

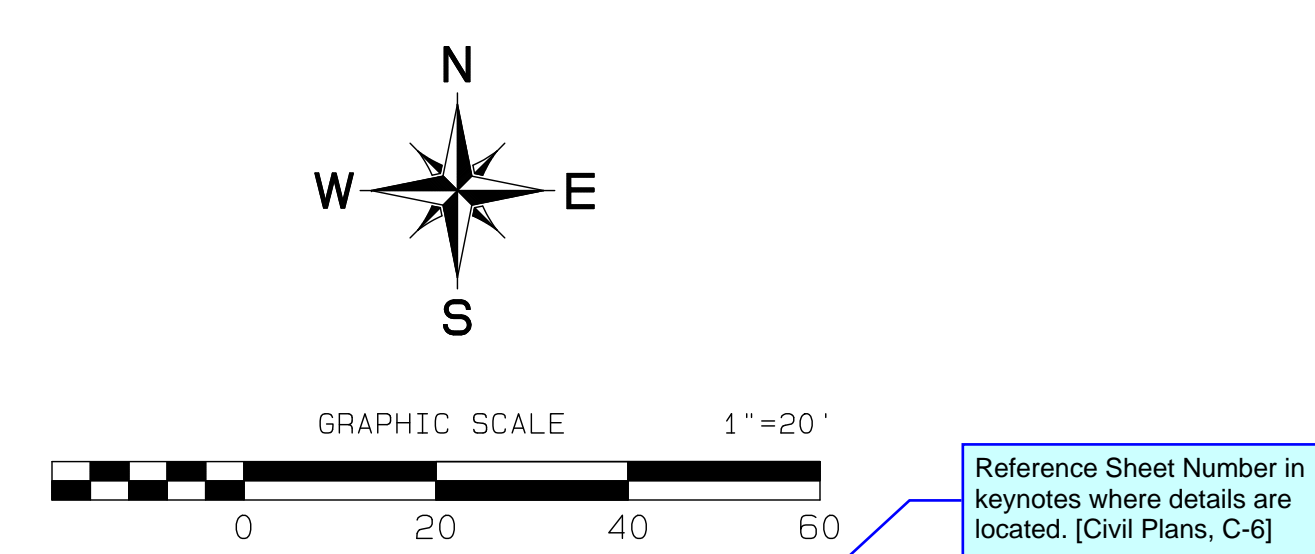
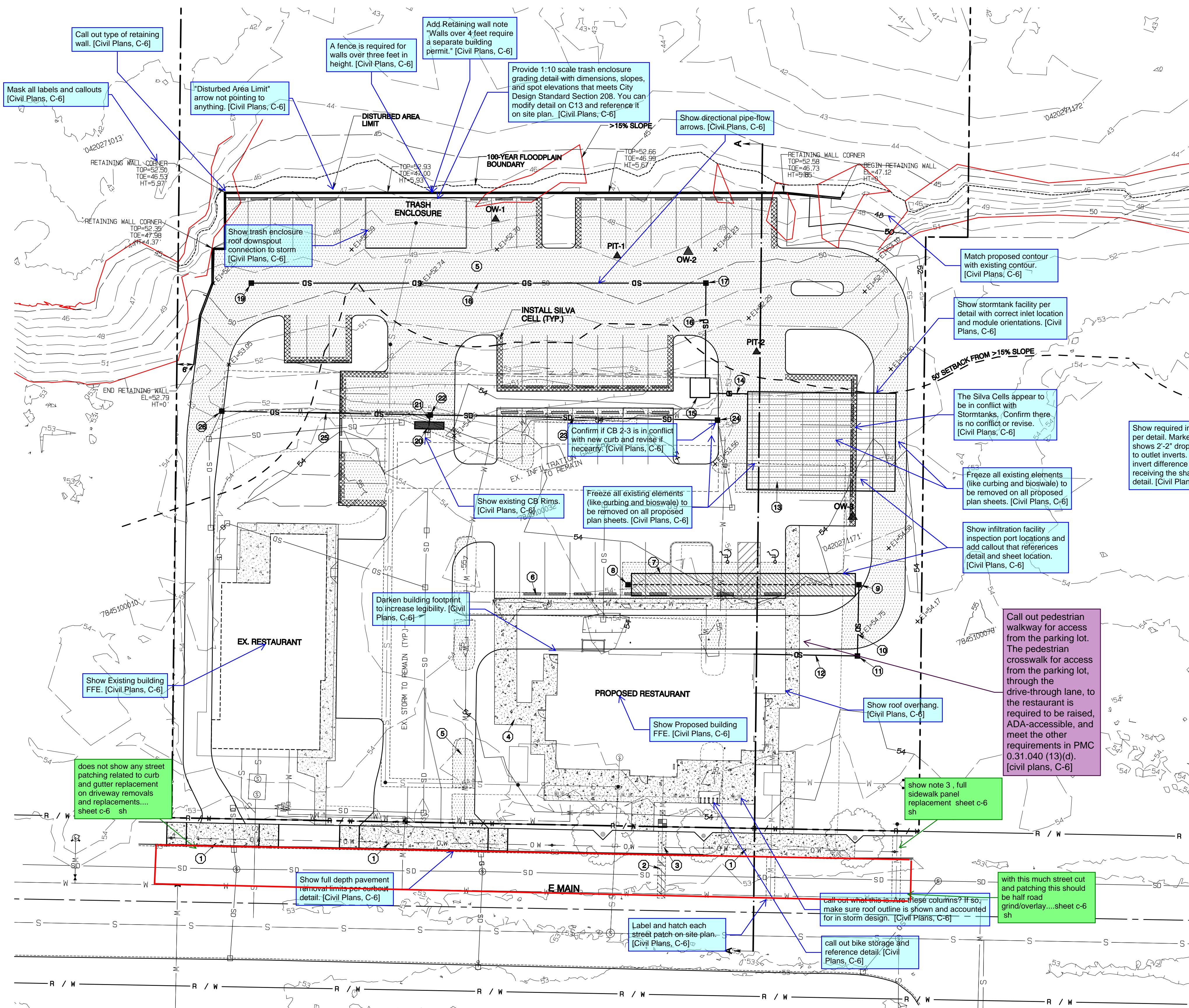


JOB NO. 23035
DATE: JULY 14, 2023
DESIGNED BY: Paul Green
DRAWN BY: Paul Trivitt
CHECKED BY: Paul Green
APPROVED BY: Paul Green



Taco Time

Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington



KEY NOTES

1. CONSTRUCT DRIVEWAY APPROACH PER STD 01.02.18
2. STREET PATCH PER STD 01.01.20
3. REPLACE SIDEWALK, MIN. 1 FULL PANEL SEE STD 01.02.01
4. ONSITE CONCRETE WALK, 4" THICK REFERENCE STD 01.02.01 FOR CONSTRUCTION REQUIREMENTS
5. NEW HMA PAVEMENT (TYP) SEE SHEET C-9 FOR SECTION
6. WHEELSTOP (TYP.) SEE SHEET C-9
7. ROOF DOWNSPOUT INFILTRATION TRENCH SEE DETAIL SHEET C-9 8" W/80'x20' 80' F 8" PER F. PVC SDR-35 BOTTOM ELEV=49.80
8. JB A TYPE 1 W/SOLID LID RIM=53.88 I.E. 8" E=50.27
9. JB B TYPE 1 W/SOLID LID RIM=54.52 I.E. 8" W,S=50.27
10. 25LF 8" PVC SDR-35 S=1.96%
11. SED CONTROL TYPE 1 SEE DETAIL SHEET C-11 RIM=54.77 I.E. 8" N,W=50.76
12. 37LF 8" PVC SDR-35 S=0.51%
13. STORMTANK INFILTRATION GALLERY SEE DETAIL SHEET C-13 36" W/51'x20' BOTTOM ELEV=48.50
14. 14LF 12" DI S=0.51%
15. FILTERRA - STPD0404 SEE DETAIL SHEET C-10 RIM=52.95 I.E. 12" E,N=49.48
16. 34LF 12" DI S=0.50%
17. W/DUAL VANED GRATE RIM=52.04 I.E. 12" S,W=49.63
18. 162LF 12" DI S=0.50%
19. CB 1-2 TYPE 1 W/DUAL VANED GRATE RIM=52.09 I.E. 12" E=50.44
20. SF02 2-1 2-CARTRIDGE STORMFILTER CB SEE DETAIL SHEET C-11 OUT EXISTING 12" AND CONNECT RIM=53.81 I.E. 12" S,N=50.29
21. 4LF 12" DI S=0.53%
22. CB 2-2 TYPE 1 W/DUAL VANED GRATE RIM=53.75 I.E. 12" S,E,W=50.31
23. 103LF 12" DI S=0.79%
24. CB 2-3 TYPE 1 W/SOLID LID OUT AND CONNECT TO EX. 8" RIM=53.02 I.E. 12" W=51.12 I.E. EX. 8" S=51.45
25. 74LF 12" DI S=1.02%
26. CB 2-4 TYPE 1 W/DUAL VANED GRATE CONNECT TO EX. 8" RIM=53.24 I.E. 12" E=51.07 I.E. EX. 8" S=51.40

Roof downspout Detail is not in plans. Provide City roof downspout infiltration detail 02.05.01 and site specific detail as mentioned in comment on sheet C10. [Civil Plans, C-6]

What is JB? Reference detail. [Civil Plans, C-6]

This says storm-tanks are 2 feet deep, the profile appears to show it at about 3.5 feet deep [Civil Plans, C-6]

Reference applicable structure details and Sheet Number where details are located. [Civil Plans, C-6]

Pipe cover at CB 1-2 is approximately 0.65 feet. Minimum cover for Ductile Iron Pipe is 1 foot. [Civil Plans, C-6]

3.52 foot drop from rim to invert exceeds the 3.3' max drop for the provided detail. Revise invert to meet detail specs. [Civil Plans, C-6]

Pipe cover at CB 2-3 is approximately 0.9 feet. Minimum cover for Ductile Iron Pipe is 1 foot. [Civil Plans, C-6]

Paving and Storm sheet is busy. Separate Paving Plan from Storm Plan. Remove topography and utility lines from paving plan and rename it as Site Plan. [Civil Plans, C-6]

Remove structures from keynotes and label structure names and numbers on plans. Use a separate structures table for rim and invert elevations. [Civil Plans, C-6]

Call out all proposed improvements and reference applicable details. [Civil Plans, C-6]

All ADA curb ramps, ADA stalls, and Driveways must have 1:10 scale details showing dimensions, spot elevations, and slope arrows. [Civil Plans, C-6]

Add Pipe materials note stating, "Ductile iron pipe shall be Class 50, conforming to AWWA C151. Minimum cover on ductile iron pipe shall be 1-foot. PVC pipe shall be per ASTM D3034, SDR 35 for pipe size 15-inch and smaller. Minimum cover on PVC pipe shall be 3-feet." [Civil Plans, C-6]

Add Stormwater Plan Notes from City Standard Section 207. [Civil Plans, C-6]

Add note for contractor to clean existing infiltration trench per maintenance Manual and Ecology standards prior to end of construction. [Civil Plans, C-6]

APPROVED
BY: CITY OF PUYALLUP DEVELOPMENT SERVICES
DATE:
NOTE:
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FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

7/19/2023
ROBERT A. TRIVITT
P.E.
PROFESSIONAL
ENGINEER
WASHINGTON
43715

DATE: 7/19/2023
DESIGNED BY: Paul Green
DRAWN BY: Paul Trivitt
CHECKED BY: Paul Trivitt
APPROVED BY: Paul Green

AZURE GREEN
CONSULTANTS
+ feasibility + planning + engineering + surveying
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phone: 253.770.3144 fax: 253.770.3142

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Fax ronkin@tacomtime.com

Paving & Storm Plan

DRAWING
C-6
SHEET 6 OF 16

Project Desc.: Taco Time
Path: F:\data\3935 - Taco Time\Taco 2023 0719.dwg
Date/Time: 7/19/2023 4:47:27PM

Taco Time

Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington

Per COP Design Standards Section 2.2, the consistency between the horizontal scale and the vertical scale shall be on a ratio of 10 to 1 (i.e., 1" = 20' horizontal; 1" = 2' vertical). [Civil Plans, C-7]

Provide Station and existing/proposed elevation labels on bottom of each profile view. [Civil Plans, C-7]

Mask and "bring to front" the order for all Profile View labels and titles to avoid grid lines intersecting text. [Civil Plans, C-7]

Label existing and proposed surface. [Civil Plans, C-7]

clarify by adding "pipe-run" in between storm and profiles. [Civil Plans, C-7]

Provide profiles of each proposed storm facility showing other facilities on in close proximity (filterra, silva cells, etc.) cover depth, inverts, storage layers, ponding limits and, high water elevations. show section labels on storm plan Plan. [Civil Plans, C-7]

Label stations for each wall corner and do the same on grading plan. [Civil Plans, C-7]

Call out max height of retaining wall. [Civil Plans, C-7]

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DEVELOPMENT SERVICES

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Cross-Sections & Storm Profiles

Taco Time

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Fax ronk@tacomtime.com

DRAWING

C-7

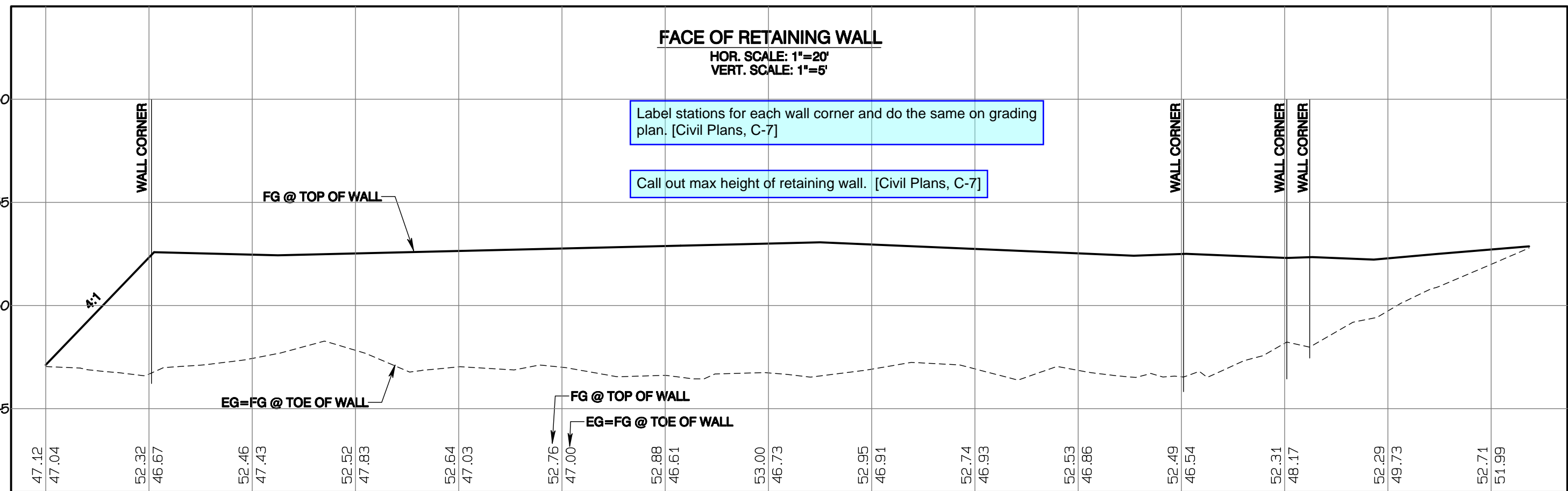
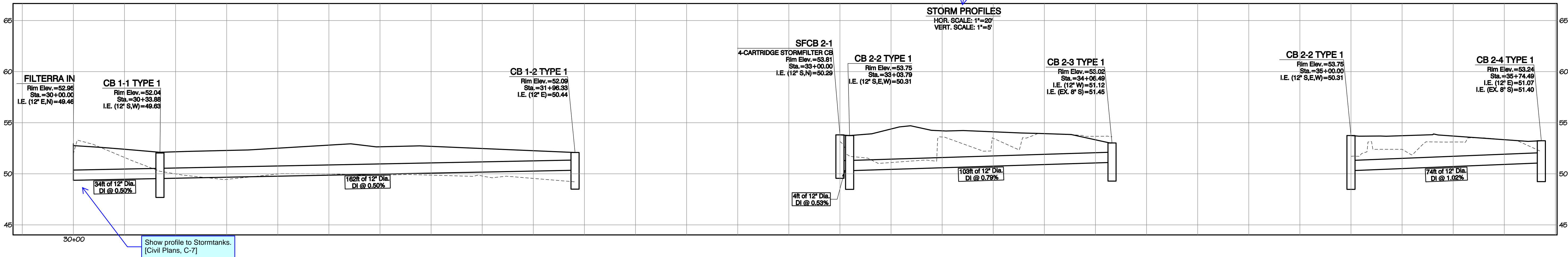
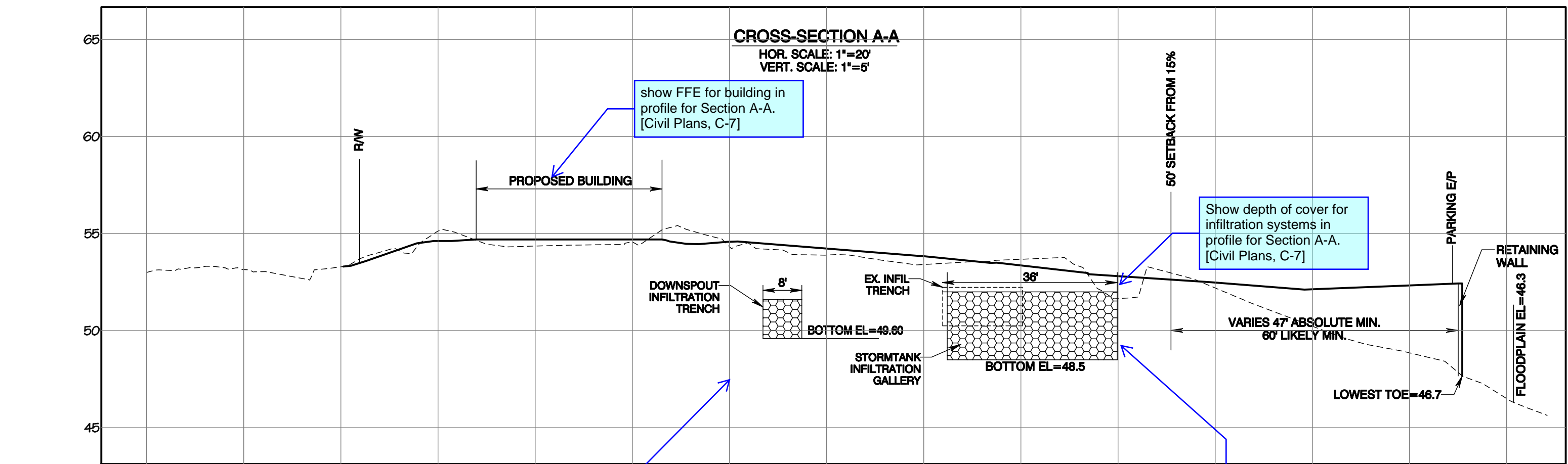
SHEET 7
OF 16

AZURE GREEN CONSULTANTS

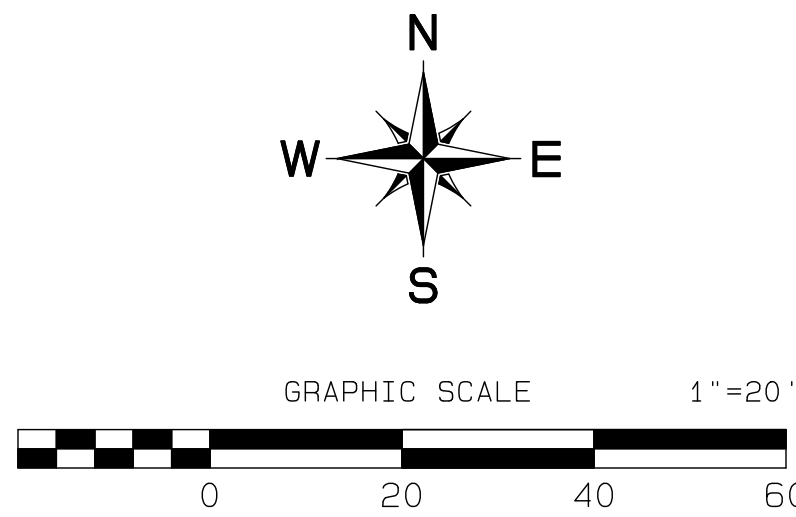
409 East Pioneer, Suite A - Puyallup, WA 98372
phone 253.770.3144 fax 253.770.3142

feasibility planning engineering surveying

JOB NO. 23035
DATE: JULY 14, 2023
DESIGNED BY: Paul Green
DRAWN BY: Rob Trivitt
CHECKED BY: Rob Trivitt
APPROVED BY: Paul Green



Taco Time
Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington



KEY NOTES

- 1 REMOVE EX. MANHOLE AND 10LF EX. 8" PIPE
- 2 CONNECT TO EX. 8"
1-4" 90° BEND
1-C.O.
2-8x6 REDUCER
RIM=54.04
I.E.=44.12
- 3 36LF 6" PVC SDR-35 S=2.0%
- 4 1-6" TEE
1-C.O.
1-8x4 REDUCER
RIM=54.03
I.E.=44.04
- 5 4LF 6" PVC SDR-35 S=72%
- 6 GREASE INTERCEPTOR
SEE DETAIL SHEET C-13
- 7 1-4" 90° BEND
1-C.O.
RIM=54.39
I.E.=47.74
- 8 8LF 6" PVC SDR-35 S=2.0%
- 9 6LF 6" PVC SDR-35 S=88%
- 10 47LF 4" PVC SDR-35 S=2.0%
- 11 1-4" 90° BEND
1-C.O.
RIM=53.87
I.E.=45.87
- 12 179LF 4" PVC SDR-35 S=2.0%
- 13 1-4" 11-1/4" BEND
1-C.O.
1-TRANSITION COUPLING
RIM=52.53
I.E.=48.00
- 14 23LF 4" DI S=2.0%
- 15 TRASH ENCLOSURE
SUMP STRUCTURE
SEE DETAIL SHEET C-13
RIM=52.73
I.E.=48.89

Reference applicable structure details and Sheet Number where details are located. [Civil Plans, C-8]

- 1 1-1/2" WATER SERVICE & METER PER 03.03.02
- 2 1-1/2" RPBA PER 03.04.02
- 3 1-1/2" WATER SERVICE TO BUILDING PER 03.03.04
- 4 4" FIRE SERVICE WITH DDCVA VAULT & PIV PER 03.10.01-1 & 2 & 03.10.03
- 5 10LF 4" DI
- 6 1-4" 90° BEND
1-THRUST BLOCK
- 7 4" DI COORDINATE WITH FIRE SYSTEM RISER DESIGN
- 8 42LF 4" DI
- 9 FDC PER 03.10.02
- 10 FIRE HYDRANT PER 03.05.01
HOLDING POOL LENGTH=26 FT

Callout grease interceptor size per detail and required calculations. [Civil Plans, C-8]

FYI: commercial min. slope is 1%. [Civil Plans, C-8] (only add if 6" will be required)

100-foot max spacing between cleanouts. [Civil Plans, C-8]

Callout gate valves in keynotes and reference detail and sheet location. [Civil Plans, C-8]

Add Sanitary Sewer Notes from City Standard Section 405. [Civil Plans, C-8]

Add Water System Notes from City Standard Section 304. [Civil Plans, C-8]

Provide Sewer line profile per Design Standards Section 2.0. [Civil Plans, C-8]

Add trench bedding and backfill note and reference detail. [Civil Plans, C-8]

Add grease interceptor sizing calculations to plans. [Civil Plans, C-8]

Add Pipe material and cover Requirements note for sewer pipes per Section 401. [Civil Plans, C-8]

Show all pipe Crossings and crossing Table with a note specifying City separation standards in section 204.4 and show City standard mitigation measures for locations where separation does not meet standards. [Civil Plans, C-8]

Civil C-8: Bring existing water service to current City standards. Install ArmorCast meter box and raise box and meter setter to correct height.

Show grease interceptor manholes. [Civil Plans, C-8]

Civil C-8: Landscape plans show irrigation point of connection at back of meter. Show this on Civil plans. Insert irrigation tee between meter setter and domestic RPBA. Add DCVA after irrigation tee. Call out size of DCVA. Add City standard detail 03.04.01 to plan set.

Specify ex pipe material. [Civil Plans, C-8]

This would be the location of the commercial side sewer connection with sampling tee. Adjust the 8x6 reducer location until after this point. Civil C-8.

Civil C-8: Set meter directly behind sidewalk.

Civil C-8: Show 2-inch GV at tap to 12-inch water.

Civil C-8: Call out 4-inch wet tap on 12-inch water main and show GV at tee.

Civil C-8: Call out 6-inch wet tap on 12-inch water main and show GV at tee.

Callout water connection and reference connection detail. [Civil Plans, C-8]

Callout all water pipe sizes and materials and lengths. provide thrust blocks with referenced details where applicable. [Civil Plans, C-8]

callout all utility crossings and add crossing table for utilities in ROW. Add Utilities crossing details 03.01.03-1 & 2. [Civil Plans, C-8]

Civil C-8: FDC shall be 10-foot minimum and 15-foot maximum from fire hydrant.

Civil C-8: Set center of hydrant 1-foot 6-inch behind sidewalk edge.

APPROVED
BY: CITY OF PUYALLUP DEVELOPMENT SERVICES
DATE:
NOTE:
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SS & Water Plan

Taco Time

Taco Time NW
3900 Maple Valley Hwy
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Fax ron@tacotime.com

DRAWING
C-8
SHEET 8
OF 16

AZURE GREEN
CONSULTANTS
+feasibility +planning +engineering +surveying
409 East Pioneer Suite A - Puyallup, WA 98372
phone 253.770.3144 fax 253.770.3142

DATE: JULY 14, 2023
DESIGNED BY: Paul Green
DRAWN BY: Rob Trivitt
CHECKED BY: Paul Green
APPROVED BY: Paul Green



Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington



- ① PLANTING SOIL, PER PROJECT SPECIFICATIONS,
PLACED IN LIFTS AND WALK-IN COMPACTED TO 75-85% PROCTOR
 - ② COMPACTED BACKFILL, PER PROJECT SPECIFICATIONS
 - ③ GEOTEXTILE FABRIC TO EDGE OF EXCAVATION
 - ④ RIBBON CURB AT TREE OPENING (TO BE USED WITH PAVERS OR ASPHALT)
 - ⑤ THICKENED EDGE AT TREE OPENING (TO BE USED WITH CONCRETE)
 - ⑥ PAVEMENT AND AGGREGATE BASE PER PROJECT *
- *MINIMUM PAVEMENT PROFILE OPTIONS TO MEET H-20 LOADING

| PAVEMENT | + AGGREGATE BASE COURSE |
|-------------------|-------------------------|
| 4" CONCRETE | 4" AGGREGATE |
| 3" PAVER | 12" AGGREGATE |
| 4" ASPHALT | 12" AGGREGATE |
| 2.5" PAVER | 9" CONCRETE |

- ⑦ DEEPROOT ROOT BARRIER, 12" OR 18", DEPTH DETERMINED BY THICKNESS OF PAVEMENT SECTION, INSTALL DIRECTLY ADJACENT TO CONCRETE EDGE RESTRAINT
 - ⑧ PLANTING SOIL BELOW ROOT BALL, COMPACTED WELL TO PREVENT SETTLING
 - ⑨ ROOT BALL
 - ⑩ TREE OPENING TREATMENT, PER PROJECT SPECIFICATIONS
 - ~~⑪ DEEPROOT WATER AND AIR VENT, ROOTBALL WHEN REQUIRED~~
 - ~~⑫ DEEPROOT WATER AND AIR VENT WHEN REQUIRED~~
 - ⑬ UNDERDRAIN SYSTEM, WHEN REQUIRED (LOCATION AND DETAILS BY OTHERS)
- NOTES
1. EXCAVATION SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE HEALTH AND SAFETY REGULATIONS
 2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION
 3. PROVIDE SUPPLEMENTAL IRRIGATION
 4. DO NOT SCALE DRAWINGS

SILVA CELL SYSTEM 1X

NOT TO SCALE
INCHES



1. TRENCHING SHALL MEET THE REQUIREMENTS OF SECTION 7-08.3(1)A AND 2-06.3(1) OF THE WSDOT SPECIFICATIONS.
2. BEDDING MATERIAL SHALL CONFORM TO 9-03.12(3) GRAVEL BACKFILL FOR PIPE ZONE BEDDING.
3. GRAVEL BACKFILL SHALL CONFORM TO 9-03.12(1)A GRAVEL BACKFILL FOR FOUNDATIONS, CLASS A.

APPROVED

BY: _____
CITY OF PUYALLUP
DEVELOPMENT SERVICES

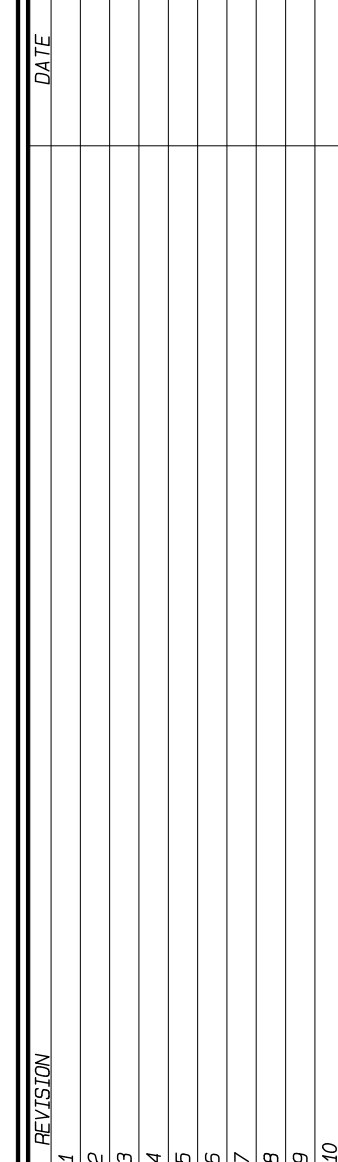
DATE: _____

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JOB NO: 2935
DATE: JULY 14, 2023
DESIGNED BY: Paul Green
DRAWN BY: Rob Trivitt
CHECKED BY: Jim Job
APPROVED BY: Paul Green



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Fax rtonkin@tacotimenw.com

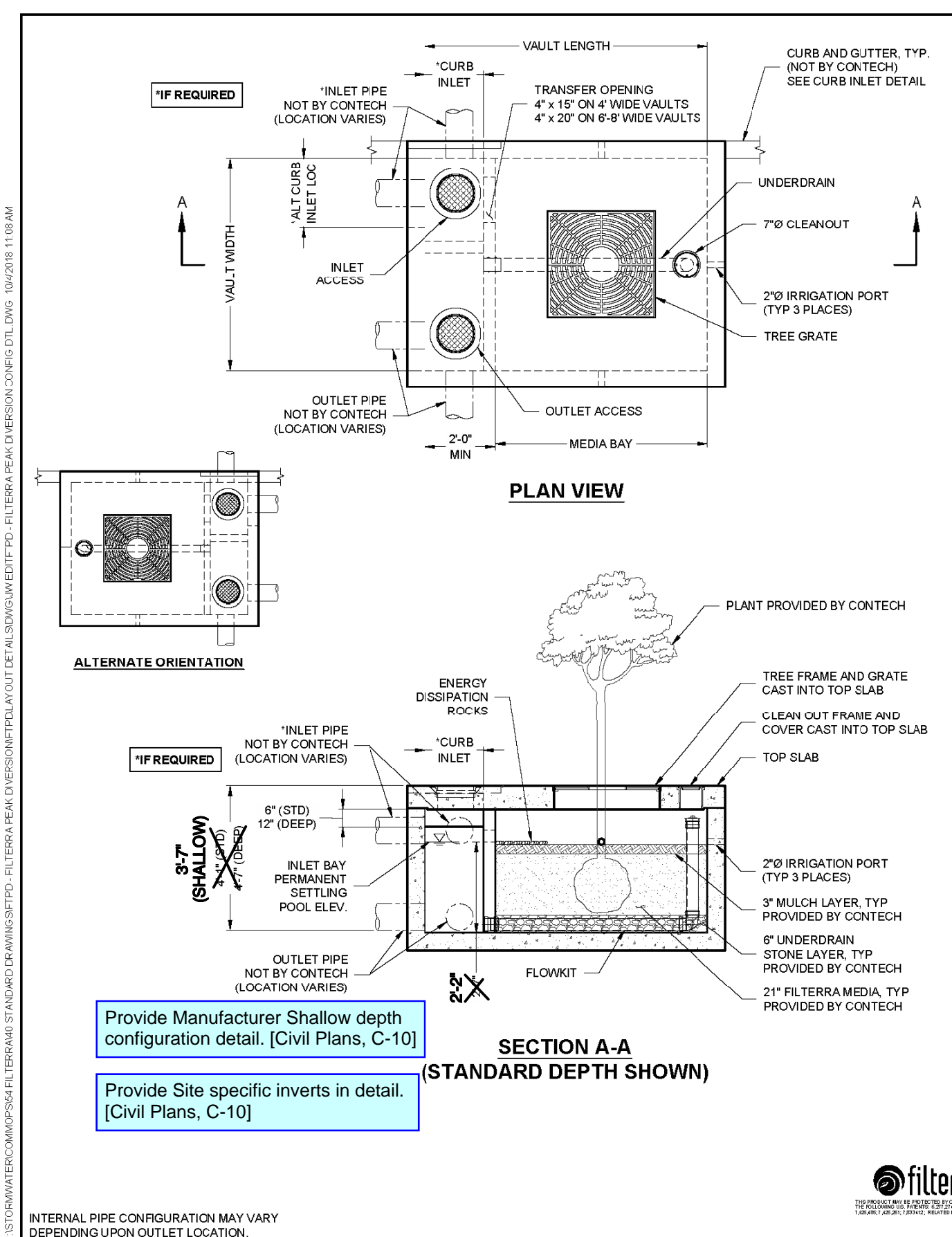
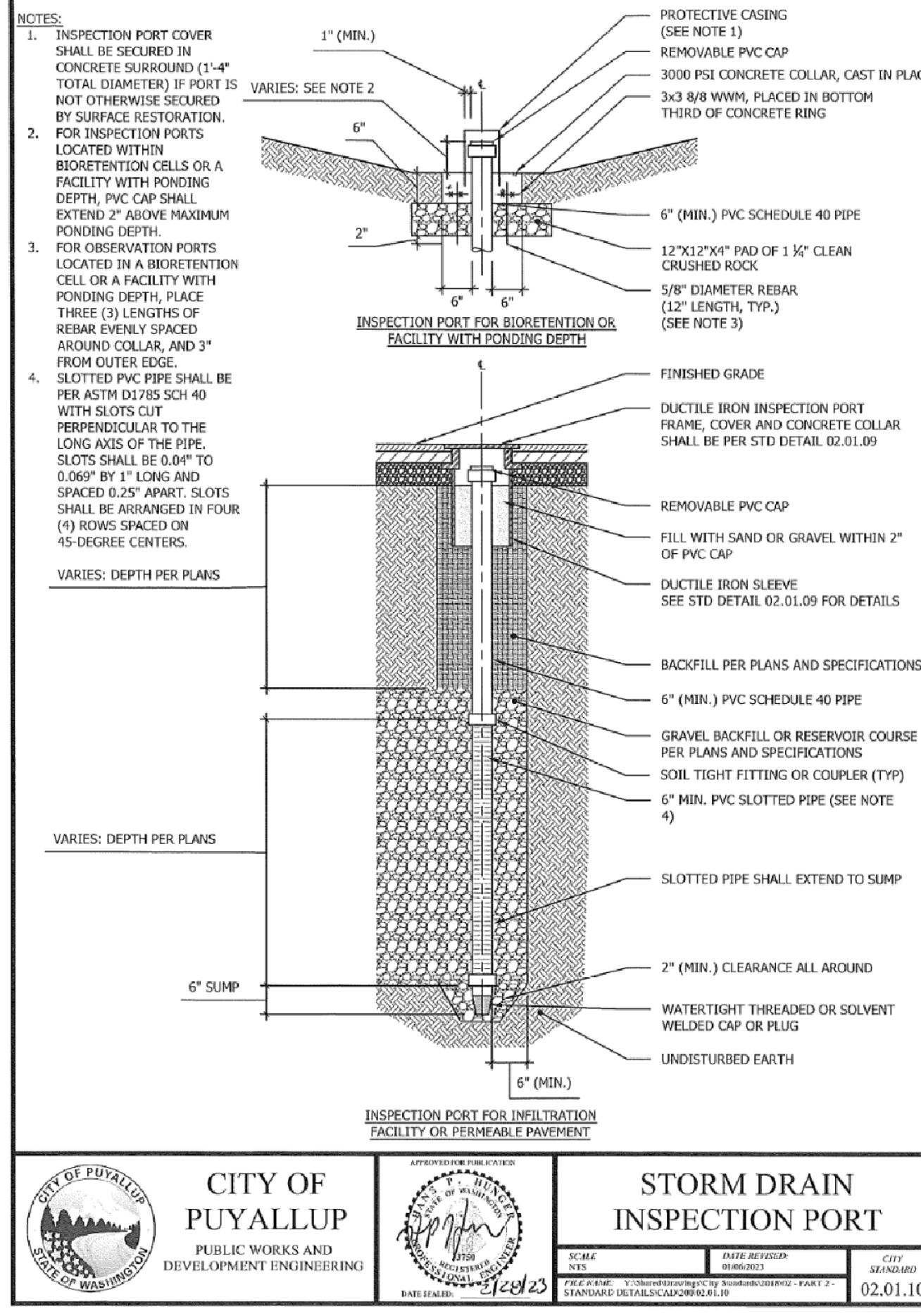
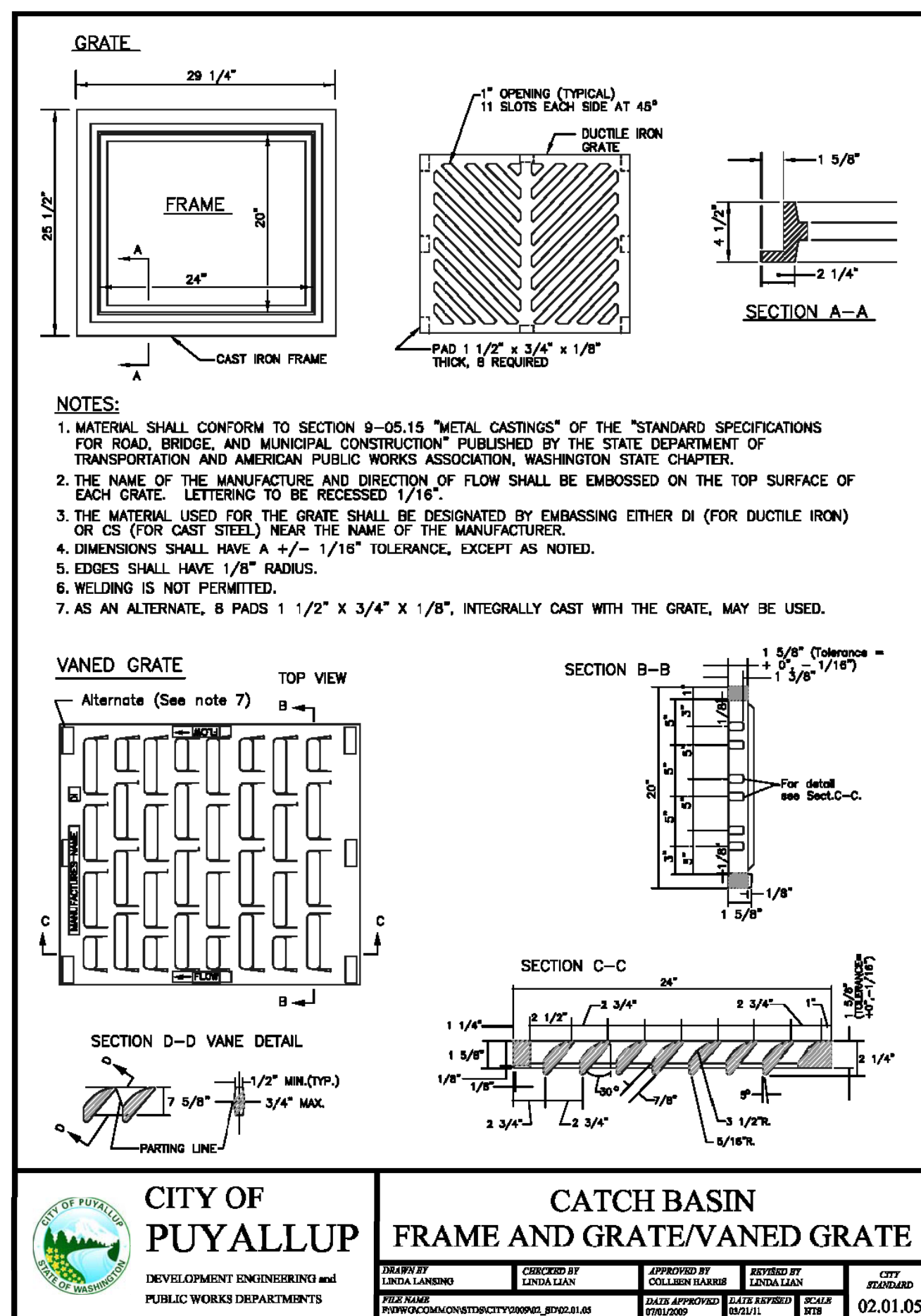
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C-9

SHEET 9
OF 16

Details

Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington



FTPD STANDARD HEIGHT CONFIGURATION

| DESIGNATION (OPTIONS -P, -T, -PT) | AVAILABILITY | MEDIA BAY SIZE | VAULT SIZE (W x L) | WEIR LENGTH/H/ MAX CURB OPENING | *MAX BYPASS FLOW (CFS) | INLET/ OUTLET ACCESS DIA | TREE GRATE QTY & SIZE |
|---|--------------|-------------------|--------------------------|--|---------------------------------|-----------------------------------|--------------------------------|
| FTPD0040 | NIA CA | 4' x 4 | 4' x 6 | 1'-0" | 1.4 | 12"12" | (13' x 3) |
| FTPD0045 | CA ONLY | 4' x 4.5 | 4' x 6.5 | 1'-0" | 1.8 | 12"12" | (13' x 3) |
| FTPD0049 | NIA MID-ATL | 4' x 6 | 4' x 8 | 1'-0" | 1.4 | 12"12" | (13' x 3) |
| FTPD005058 | MID-ATL ONLY | 4.5' x 5.83 | 4.5' x 7.83 | 1'-0" | 1.4 | 12"12" | (13' x 3) |
| FTPD0094 | ALL | 6' x 4 | 6' x 6 | 1'-0" | 1.4 | 12"12" | (13' x 3) |
| FTPD0096 | ALL | 6' x 6 | 6' x 8 | 1'-0" | 1.4 | 12"12" | (13' x 3) |
| FTPD0099 | ALL | 6' x 9 | 6' x 10 | 1'-0" | 1.4 | 12"12" | (13' x 4) |
| FTPD0810 | ALL | 6' x 10 | 6' x 12 | 1'-0" | 1.4 | 12"12" | (14' x 4) |
| FTPD0710 | ALL | 7' x 10 | 7' x 13 | 2'-0" | 2.1 | 24"24" | (14' x 4) |
| FTPD0816 | ALL | 8' x 10.5 | 8' x 14 | 3'-0" | 2.5 | 24"24" | (14' x 4) |
| FTPD08125 | ALL | 8' x 12.5 | 8' x 16 | 3'-0" | 2.5 | 24"24" | (24' x 4) |

NIA = NOT AVAILABLE

FTPD-D DEEP OPTION CONFIGURATION

| DESIGNATION (OPTIONS -P, -T, -PT) | AVAILABILITY | MEDIA BAY SIZE | VAULT SIZE (W x L) | WEIR LENGTH/ MAX CURB OPENING | *MAX BYPASS FLOW (CFS) | INLET/ OUTLET ACCESS DIA | TREE GRATE QTY & SIZE |
|---|--------------|-------------------|--------------------------|--|---------------------------------|-----------------------------------|--------------------------------|
| FTPD0044-D | NIA CA | 4' x 4 | 4' x 6 | 1'-0" | 4.6 | 12"12" | (13' x 3) |
| FTPD0045-D | CA ONLY | 4' x 4.5 | 4' x 6.5 | 1'-0" | 4.8 | 12"12" | (13' x 3) |
| FTPD0049-D | NIA MID-ATL | 4' x 6 | 4' x 8 | 1'-0" | 4.6 | 12"12" | (13' x 3) |
| FTPD005058-D | MID-ATL ONLY | 4.5' x 5.83 | 4.5' x 7.83 | 1'-0" | 4.8 | 12"12" | (13' x 3) |
| FTPD0094-D | ALL | 6' x 4 | 6' x 6 | 1'-0" | 4.8 | 12"12" | (13' x 3) |
| FTPD0096-D | ALL | 6' x 6 | 6' x 8 | 1'-0" | 4.6 | 12"12" | (13' x 3) |
| FTPD0099-D | ALL | 6' x 9 | 6' x 10 | 1'-0" | 4.6 | 12"12" | (13' x 3) |
| FTPD0810-D | ALL | 6' x 10 | 6' x 12 | 1'-0" | 4.6 | 12"12" | (14' x 4) |
| FTPD0710-D | ALL | 7' x 10 | 7' x 13 | 2'-0" | 6.8 | 24"24" | (14' x 4) |
| FTPD0816-D | ALL | 8' x 10.5 | 8' x 14 | 3'-0" | 8.2 | 24"24" | (14' x 4) |
| FTPD08125-D | ALL | 8' x 12.5 | 8' x 16 | 3'-0" | 8.2 | 24"24" | (24' x 4) |

NIA = NOT AVAILABLE

*MAX BYPASS FLOW IS INTERNAL WEIR FLOW. SITE SPECIFIC ANALYSIS IS REQUIRED TO DETERMINE CURB INLET FLOW CAPACITY

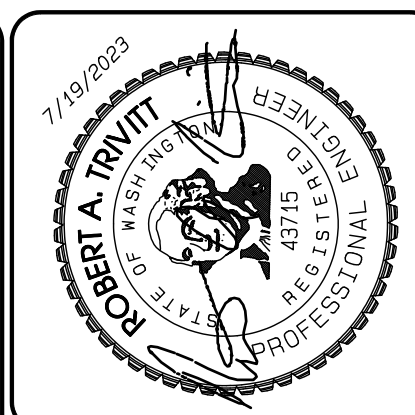
X-out curb inlet detail if not used.
[Civil Plans, C-10]

CURB INLET DETAIL

FILTERRA PEAK DIVERSION (FTPD)
CONFIGURATION DETAIL


CONTECH
ENGINEERED SOLUTIONS LLC
www.contechES.com

9025 Centra Pointe Dr., Suite 400, West Chester, OH 45380



| REVISION | DATE |
|----------|------|
| 1 | |
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| 9 | |
| 10 | |

JOB NO: 2935
DATE: July 14, 2023
DESIGNED BY: Paul Green
DRAWN BY: Rob Trivitt
CHECKED BY: Jim Job
APPROVED BY: Paul Green

 **AZURE | GREEN**
CONSULTANTS
+feasibility +planning +engineering +surveying
109 East Pioneer, Suite A • Puyallup, WA 98372 phone: 253.770.3144 fax: 253.770.3142

DRAWING

C-10

SHEET 10
OF 16

Storm Details

Taco Time

Taco Time NW
3300 Maple Valley Hwy
Renton WA 98059
Phone 206.255.3633
Fax 206.255.3633
E-mail tacotime@tacotime.com

Project Desc.: Taco Time
 Path: F:\Jobs\2935 = Taco Time\In\Taco 2023 0719.pro
 Plot Date/Time: 7/19/2023/4:51:20PM

Taco Time

Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington

STORMFILTER CATCHBASIN DESIGN NOTES

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. 2 CARTRIDGE CATCHBASIN HAS A MAXIMUM OF TWO CARTRIDGES. SYSTEM IS SHOWN WITH A 27" CARTRIDGE, AND IS ALSO AVAILABLE WITH AN 18" CARTRIDGE. STORMFILTER CATCHBASIN CONFIGURATIONS ARE AVAILABLE WITH A DRY INLET BAY FOR VECTOR CONTROL.

| CARTRIDGE SELECTION | 27" | 18" | 18" DEEP |
|--------------------------------|-----------|-----------|-----------|
| CARTRIDGE HEIGHT | 27" | 18" | 18" |
| MINIMUM HYDRAULIC DROPP (H) | 2.5" | 1.5" | 1.5" |
| SPECIFIC FLOW RATE (gpm/ft²) | 2 gpm/ft² | 1 gpm/ft² | 1 gpm/ft² |
| CARTRIDGE FLOW RATE (gpm) | 22.5 | 11.25 | 15 |
| PEAK HYDRAULIC CAPACITY | 1.0 | 1.0 | 1.0 |
| INLET PERMANENT POOL LEVEL (A) | 1'-0" | 1'-0" | 2'-0" |
| OVERALL STRUCTURE HEIGHT (B) | 4'-0" | 3'-0" | 4'-0" |

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED STORMFILTER CATCHBASIN STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contech-es.com
- STORMFILTER CATCHBASIN WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- INLET SHOULD NOT BE LOWER THAN OUTLET. INLET (IF APPLICABLE) AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR.
- STORMFILTER CATCHBASIN EQUIPPED WITH 4 INCH (APPROXIMATE) LONG STUBS FOR INLET (IF APPLICABLE) AND OUTLET PIPING. STANDARD OUTLET STUB IS 8 INCHES IN DIAMETER. MAXIMUM OUTLET STUB IS 16 INCHES IN DIAMETER. CONNECTION TO COLLECTION PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR.
- STEEL STRUCTURE TO BE MANUFACTURED OF 14 INCH STEEL PLATE. CASTINGS SHALL MEET AASHTO M208 LOAD RATING. TO MEET M208 LOAD RATING ON STRUCTURE, A CONCRETE COLLAR IS REQUIRED. WHEN REQUIRED, CONCRETE COLLAR WITH QUANTITY (Q) REINFORCING BARS TO BE PROVIDED BY CONTRACTOR.
- FILTER CARTRIDGES SHALL BE MEDIA FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF-CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 37 SECONDS.
- SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).

INSTALLATION NOTES

- ANY SUBGRADE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CATCHBASIN (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

2-CARTRIDGE DEEP CATCHBASIN STORMFILTER DATA

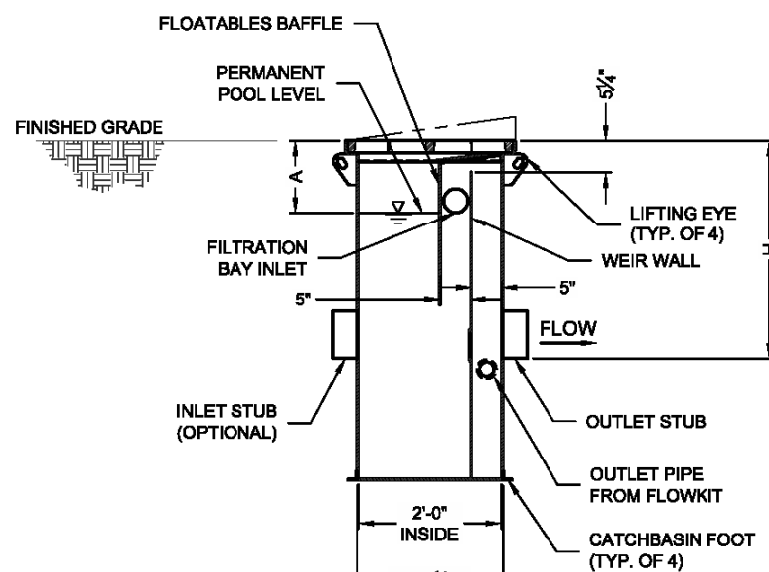
| | |
|--|--------|
| STRUCTURE ID | XXX |
| WATER QUALITY FLOW RATE (cfs) | XXX |
| PEAK FLOW RATE (cfs) | XXX |
| RETURN PERIOD OF PEAK FLOW (yrs) | XXX |
| CARTRIDGE FLOW RATE (gpm) | XX |
| MEDIA TYPE (GSS, PERLITE, ZPG, GAC, PHS) | XXXXXX |
| MIN ELEVATION | XXXXXX |

| | | |
|-------------|---------|----------|
| PIPE DATA: | I.E. | DIAMETER |
| INLET STUB | XXX'XX" | XX" |
| OUTLET STUB | XXX'XX" | XX" |

| | |
|----------------|--------|
| CONFIGURATIONS | OUTLET |
| | INLET |
| | INLET |
| | INLET |

| | |
|-------------|--------|
| SLOPED LID | YES/NO |
| SOLID COVER | YES/NO |

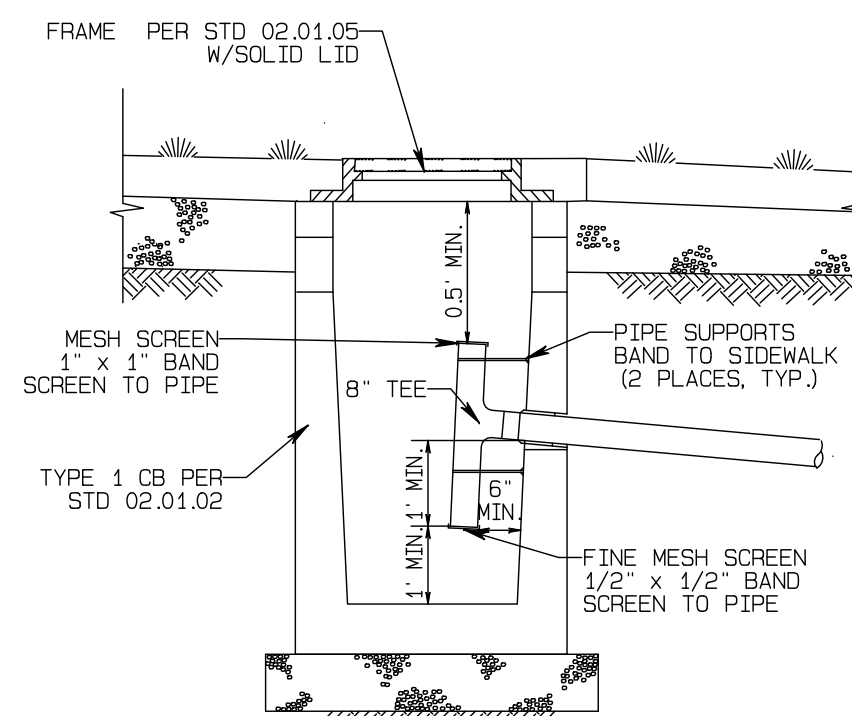
NOTES/SPECIAL REQUIREMENTS:



SECTION B-B

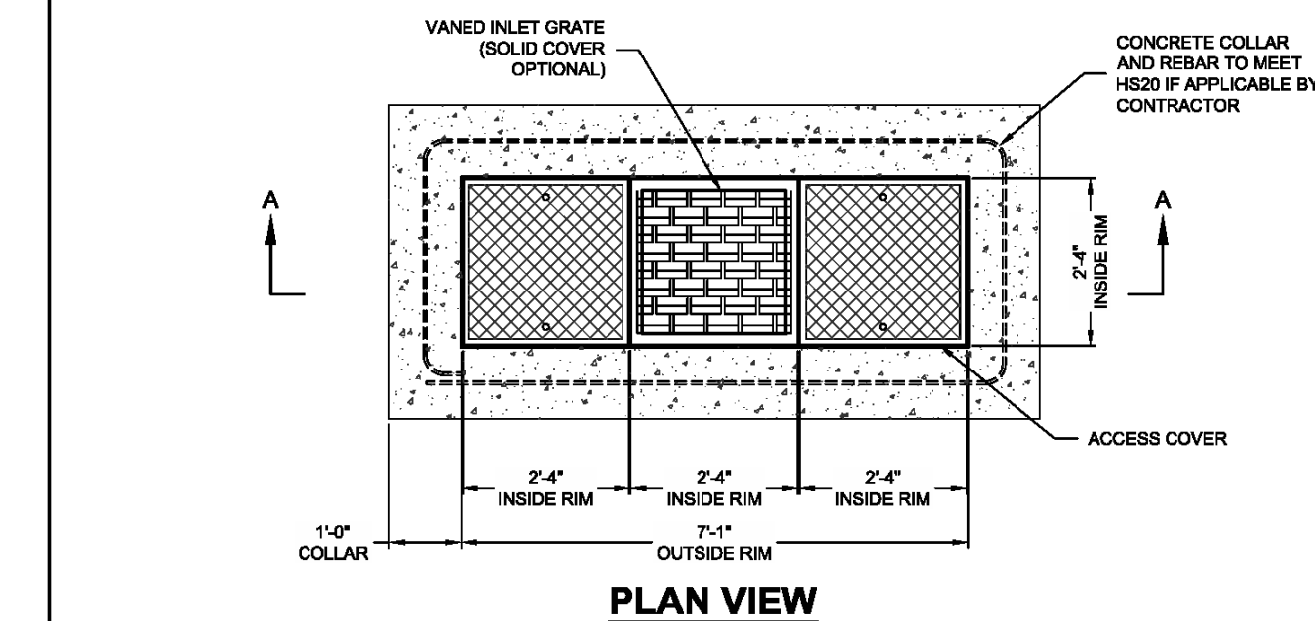
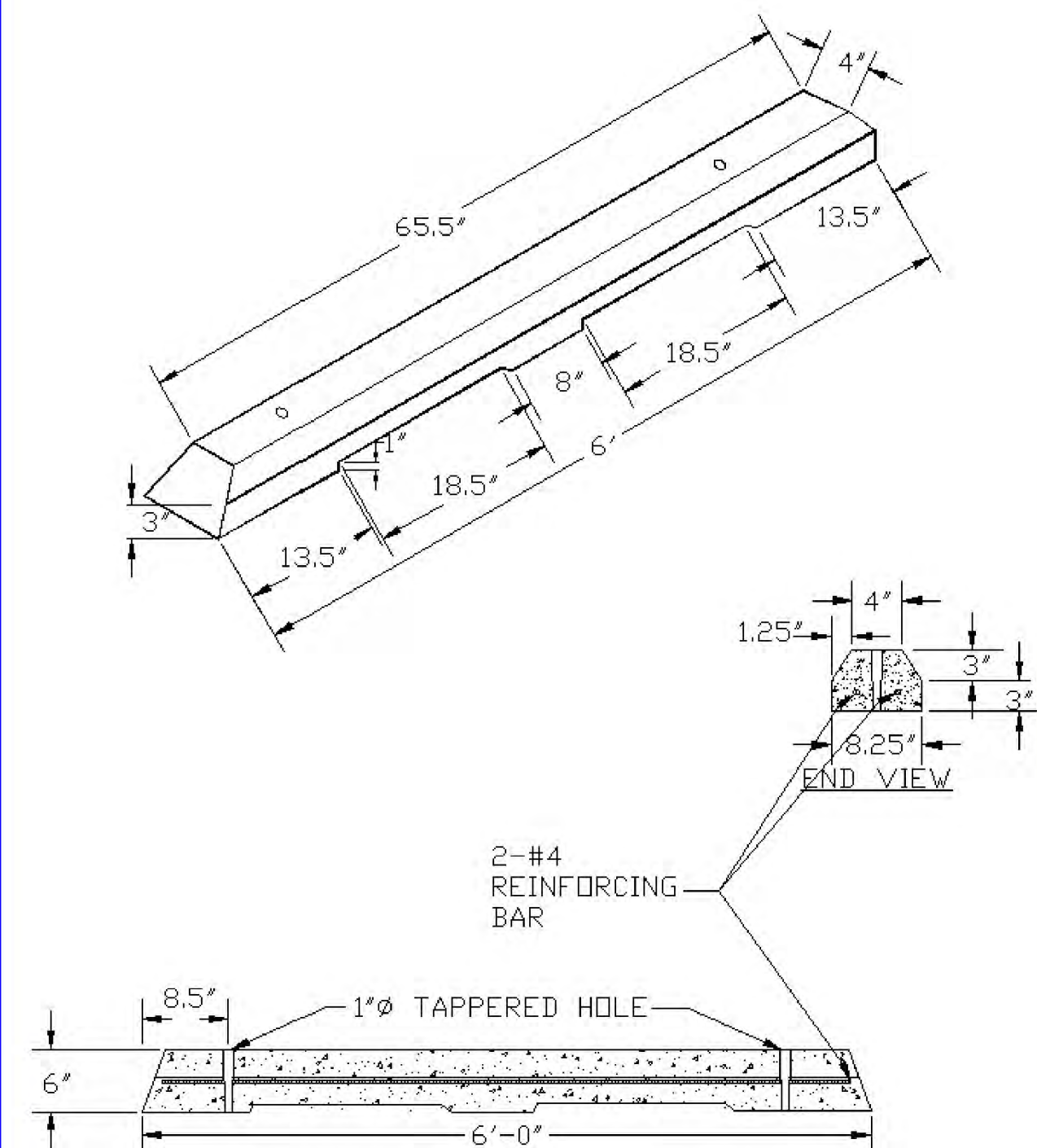


2 CARTRIDGE CATCHBASIN STORMFILTER STANDARD DETAIL

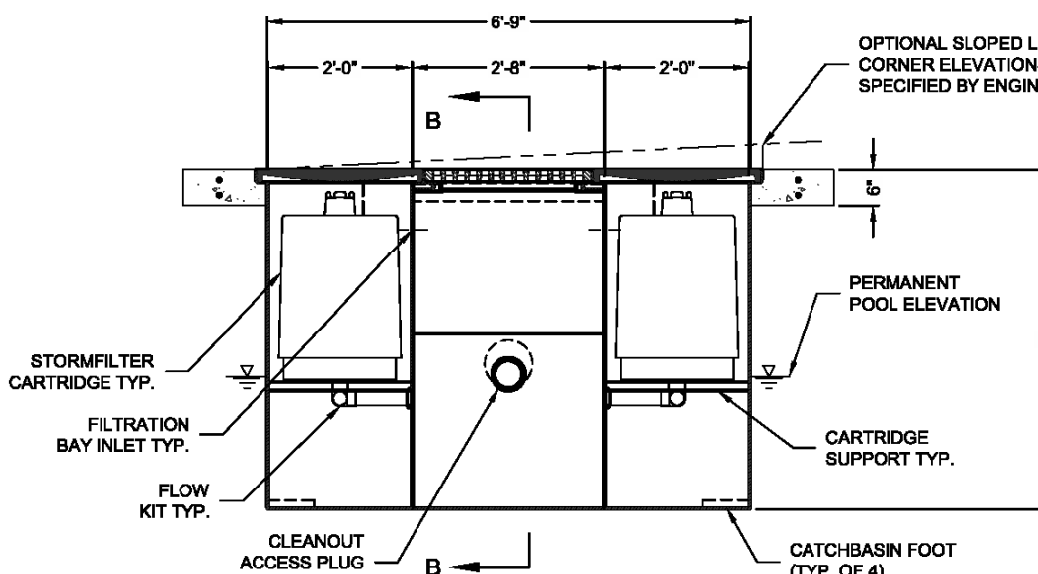


SEDIMENT CONTROL STRUCTURE DETAIL

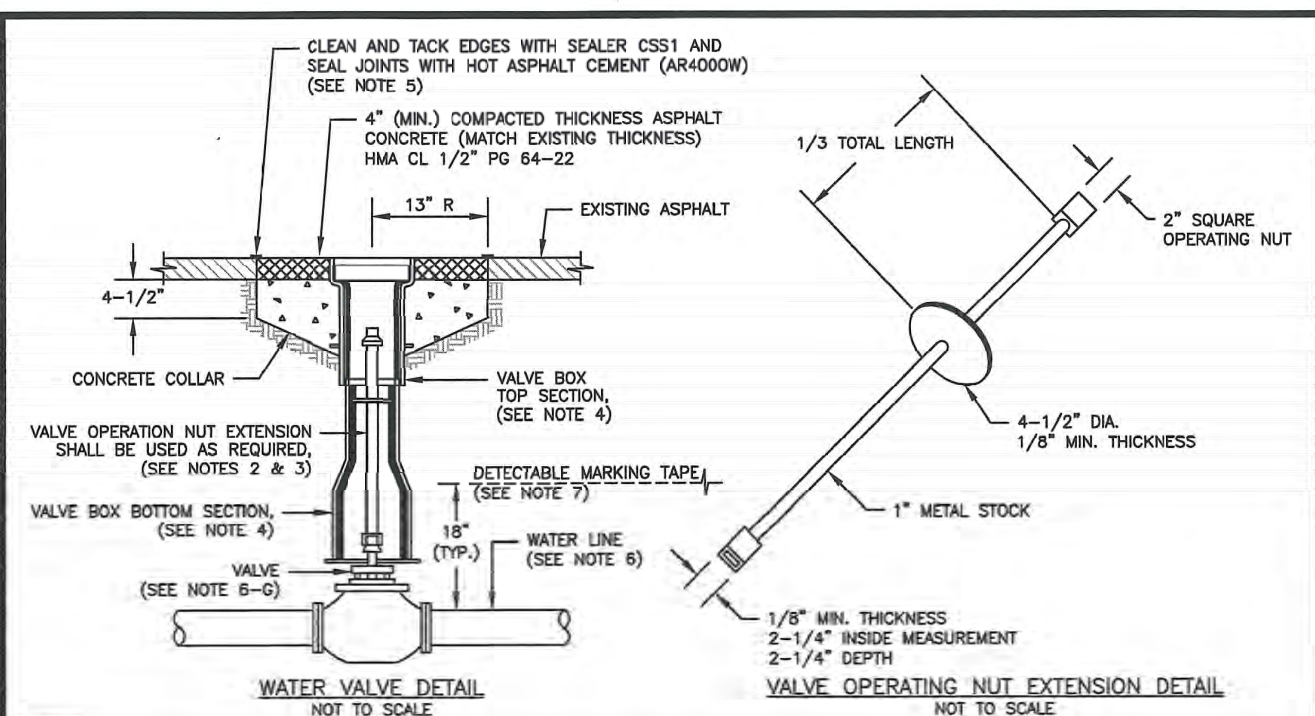
PARKING LOT WHEEL STOPS



PLAN VIEW



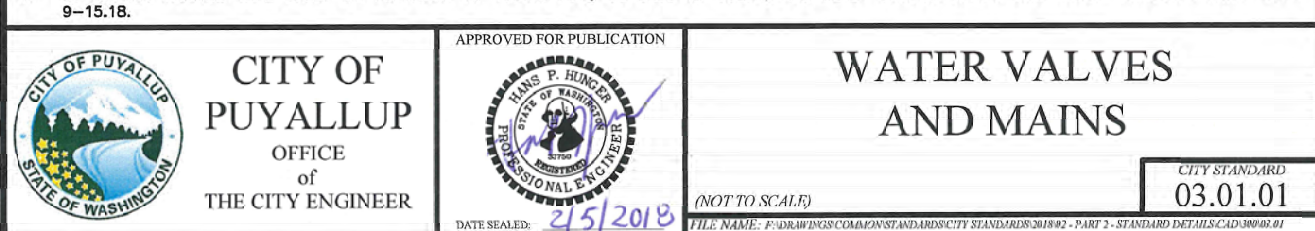
SECTION A-A



- NOTES:
- WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" FROM FINISHED GRADE IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
 - VALVE OPERATING NUT EXTENSIONS ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN FIVE (5) FEET BELOW FINISHED GRADE. EXTENSIONS ARE TO BE A MINIMUM OF TWO (2) FEET LONG, ONLY ONE EXTENSION TO BE USED PER VALVE. TOP OF EXTENSION SHALL BE 2 FEET 6 INCHES TO 3 FEET BELOW FINISHED GRADE.
 - ALL VALVE OPERATING NUT EXTENSIONS ARE TO BE MADE OF STEEL, SIZED AS NOTED, AND PAINTED WITH TWO COATS OF METAL PAINT.
 - VALVE BOXES SHALL BE TWO-PIECE, ADJUSTABLE, CAST IRON WITH EXTENSION PIECES (IF NECESSARY), AS MANUFACTURED BY THE VANHORN #40 SEATTLE OR APPROVED EQUAL. THE WORD "WATER" SHALL BE CAST IN RELIEF ON THE VALVE BOX COVER. VALVE BOX TOPS INSTALLED IN ARTERIAL ROADWAYS SHALL BE MANUFACTURED BY EAST JORDAN (EJ) IRONWORKS MODEL 8555 WITH VALVE BOX COVER MODEL 8550 OR APPROVED EQUAL.
 - NEAT LINE CUTS SHALL BE SEALED WITH A HOT FLYING GRADE ASPHALT AND FACE OF CUT TACKED.
 - WATER MAINS SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH DIVISION 7 OF THE WSDOT STANDARD SPECIFICATIONS SUPPLEMENTED WITH THE FOLLOWING:

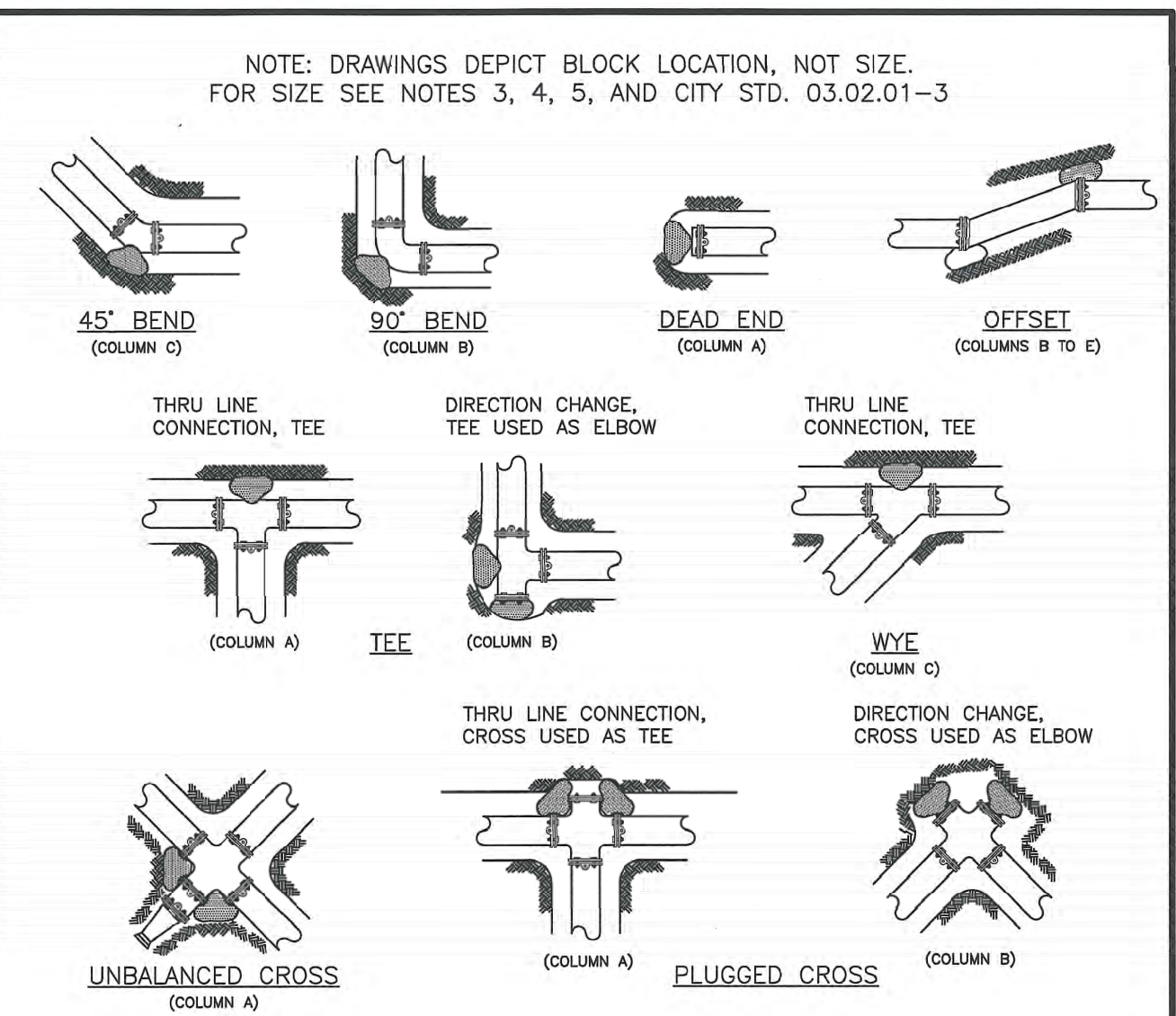
- DUCTILE IRON PIPE SHALL CONFORM TO ASTM A 151, THICKNESS CLASS 52, AND THE EXTERIOR SHALL BE COATED WITH COAL TAR VARNISH. PIPE AND FITTINGS SHALL BE WORKMANLIKE AND SHALL CONFORM TO ASTM C 104. THE THICKNESS OF THE LINING SHALL BE NOT LESS THAN 1/16" THICK FOR 3" TO 12" PIPE, 3/32" THICK FOR 14" TO 24" PIPE, AND 1/8" THICK FOR 30" TO 54" PIPE. THE CEMENT LINING SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 150.
- JOINTS SHALL BE TYP. FLANGES OR JOINTS, OR APPROVED EQUAL, OR MECHANICAL JOINT TYPE PER ASTM C 111 EXCEPT WHERE FLANGED JOINTS ARE REQUIRED TO CONNECT TO VALVES OR OTHER EQUIPMENT.
- BOLTS AND NUTS FOR BURIED FLANGES LOCATED OUTDOORS, ABOVE GROUND, OR IN OPEN VAULTS IN STRUCTURES SHALL BE TYPE 316 STAINLESS STEEL CONFORMING TO ASTM A 193, GRADE B7, AND ASTM A 194, GRADE B7. BOLTS AND NUTS LARGER THAN ONE AND ONE-QUARTER (1-1/4) INCHES SHALL BE STEEL, ASTM A 307, GRADE B, WITH CHAMFAN PLATING, ASTM A 165, TYPE NS.
- BOLTS USED IN FLANGE INSTALLATION SETS SHALL CONFORM TO ASTM B 183, GRADE B7. NUTS SHALL COMPLY WITH ASTM A 194, GRADE 2H.
- PROVIDE A WASHER FOR EACH NUT, WHERE NEEDED. WASHERS SHALL BE OF THE SAME MATERIAL AS THE NUTS.
- ALL FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 110 AND ASTM C 111.
- RESILIENT SEATED WEDGE GATE VALVES SHALL BE USED FOR TEN (10) INCH MAINS AND SMALLER. BUTTERFLY VALVES SHALL BE USED FOR MAINS GREATER THAN TEN (10) INCHES.

- RESILIENT SEATED WEDGE GATE VALVE: GATE VALVES SHALL CONFORM TO THE LATEST ANNA SPECIFICATIONS FOR COLD WATER, DOUBLE-DISK GATE VALVES, 300 PSI WORKING PRESSURE. THEY SHALL BE IRON-BODED, BRONZE MOUNTED, NON-RISING STEM WITH TWO (2) INCH SQUARE NUT COUNTER-CLOCKWISE OPENING, MECHANICAL JOINT AND / OR FLANGED ENDS (6" VALVES ON FIRE RESISTANT LINES WHICH SHALL BE MECHANICAL JOINTS BY FLANGED). VALVE STEMS SHALL BE PROVIDED WITH O-RING SEALS AND SHALL BE AS MANUFACTURED BY THE MUELLER COMPANY OR APPROVED EQUAL.
- BUTTERFLY VALVES: BUTTERFLY VALVES CONFORMING WITH ANNA C 504, CLASS 150 AND SHALL HAVE STANDARD ANNA TWO (2) INCH SQUARE NUT.
- DETECTABLE MARKING TAPE SHALL BE INSTALLED 18" ABOVE PIPE, BE BLUE IN COLOR, AND READ "CAUTION WATER LINE BELOW" MEETING WSDOT SPEC. 9-15.18.



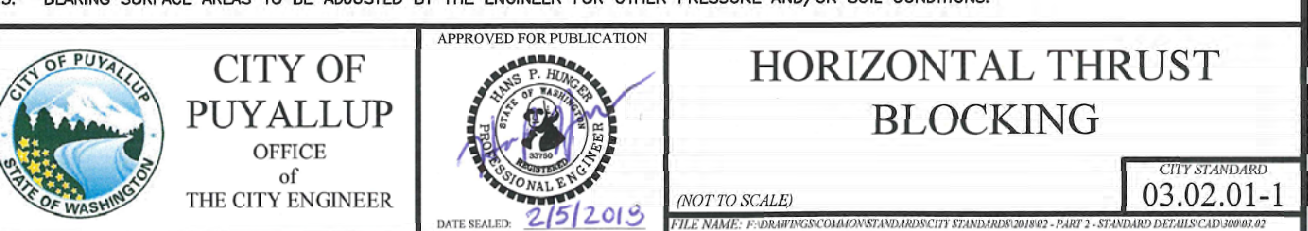
WATER VALVES AND MAINS

CITY STANDARD 03.02.01-1



NOTES:

- THE FOLLOWING PRECAUTIONS MUST BE OBSERVED WHEN CONSTRUCTING THRUST BLOCKS:
 - BLOCKS MUST BE POURED OR PLACED AGAINST UNDISTURBED SOIL.
 - THE PIPE FITTING(S) AND BOLTS MUST BE ACCESSIBLE. WRAP IN PLASTIC BEFORE POURING CONCRETE BLOCKING.
 - CONCRETE SHOULD BE CURED FOR AT LEAST 5 DAYS AND SHOULD HAVE A MINIMUM COMPRESSION STRENGTH OF 3,000 PSI AT 28 DAYS.
 - RESTRAINED JOINTS SHALL BE INSTALLED, IN ADDITION TO CONCRETE THRUST BLOCKING.
 - BLOCKS MUST BE POSITIONED TO COUNTERACT THE DIRECTION OF THE RESULTANT THRUST FORCE.
- ALL PIPE SHALL BE PROPERLY BEDDED, SEE CITY OF PUYALLUP STANDARD BEDDING DETAIL NO. 06.01.01.
- CONTRACTOR TO PROVIDE BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE.
- DIVIDE THRUST BY SAFE BEARING LOAD TO DETERMINE REQUIRED AREA (IN SQUARE FEET) OF CONCRETE TO DISTRIBUTE LOAD.
- BEARING SURFACE AREAS TO BE ADJUSTED BY THE ENGINEER FOR OTHER PRESSURE AND/OR SOIL CONDITIONS.



HORIZONTAL THRUST BLOCKING

CITY STANDARD 03.02.01-1

TABLE 2: THRUST AT FITTINGS AT 200 PSI

| SIZE | TEST PRESSURE (PSI) | THRUST FITTINGS AT 200 PSI | | | | |
|------|---------------------|----------------------------|----------|----------|------------|-------------|
| | | A | B | C | D | E |
| | | TEE AND DEAD ENDS | 90° BEND | 45° BEND | 22.5° BEND | 11.25° BEND |
| 4" | 200 | 3,140 | 4,440 | 2,405 | 1,225 | 615 |
| 6" | 200 | 7,070 | 9,995 | 5,410 | 2,760 | 1,385 |
| 8" | 200 | 12,565 | 17,770 | 9,620 | 4,905 | 2,465 |
| 10" | 200 | 19,635 | 27,770 | 15,030 | 7,660 | 3,850 |
| 12" | 200 | 28,275 | 39,885 | 21,640 | 11,030 | 5,545 |
| 14" | 200 | 38,485 | 54,425 | 29,455 | 15,015 | 7,545 |
| 16" | 200 | 50,285 | 71,085 | 38,470 | 19,615 | 9,855 |

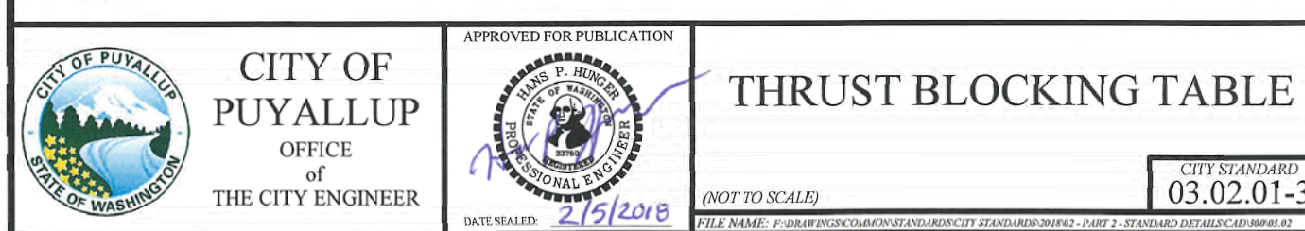
TABLE 3: BEARING VALUE OF SOIL

| SOIL TYPE | SAFE BEARING LOAD LBS/SF |
|------------------------------------|--------------------------|
| MUCK, PEAT, ETC. | 0 |
| SOFT CLAY/ALLUVIAL SOIL | 1,000 |
| SAND | 2,000 |
| SAND AND GRAVEL | 3,000 |
| SAND AND GRAVEL CEMENTED WITH CLAY | 4,000 |
| HARD SHALE | 10,000 |

SEE CITY STANDARDS 03.02.01-1 AND 03.02.01-2 FOR ADDITIONAL INFORMATION.

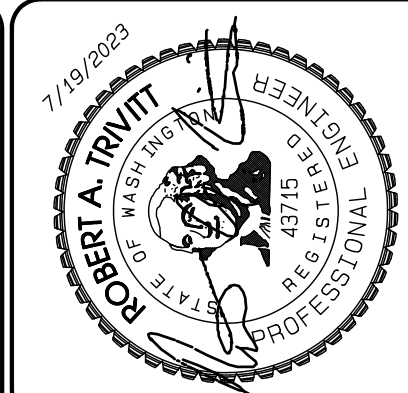
NOTES:

- TO DETERMINE THRUST AT PRESSURES OTHER THAN PSI SHOWN, MULTIPLY THE THRUST OBTAINED IN TABLE 2 BY THE RATIO OF THE PRESSURE TO 200 PSI.
EXAMPLE:
THE THRUST ON A 12 INCH, 90° BEND AT 300 PSI.
 $30,885 \times \frac{300}{200} = 50,078 \text{ LBS}$
- TO DETERMINE THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET (SF):
SEE TABLE 3, BEARING VALUE OF SOIL.
EXAMPLE:
FOR SAND AND GRAVEL BEARING VALUE FROM TABLE 3 IS 3,000 LBS/SF
 $50,078 \text{ LBS} \div 3,000 \text{ LBS/SF} = 20 \text{ SF OF AREA}$
- CONTRACTOR TO PROVIDE BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE
- AREAS SHALL BE ADJUSTED FOR OTHER PRESSURE CONDITIONS.
- NO WATER MAIN SHALL DEAD END AGAINST A MAIN LINE VALVE. DEAD END WATER MAINS SHALL BE BLOCKED AGAINST A RESTRAINED MECHANICAL JOINT (M.J.) PLUG OR CAP.



THRUST BLOCKING TABLE

CITY STANDARD 03.02.01-3



| DATE | REVISION |
|-----------|----------|
| 7/19/2023 | 1 |
| | 2 |
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JOB NO. 23035
DATE: JULY 14, 2023
DESIGNED BY: Paul Green
DRAWN BY: Paul Trivitt
CHECKED BY: Paul Trivitt
APPROVED BY: Paul Green



Storm & Water Details

Taco Time

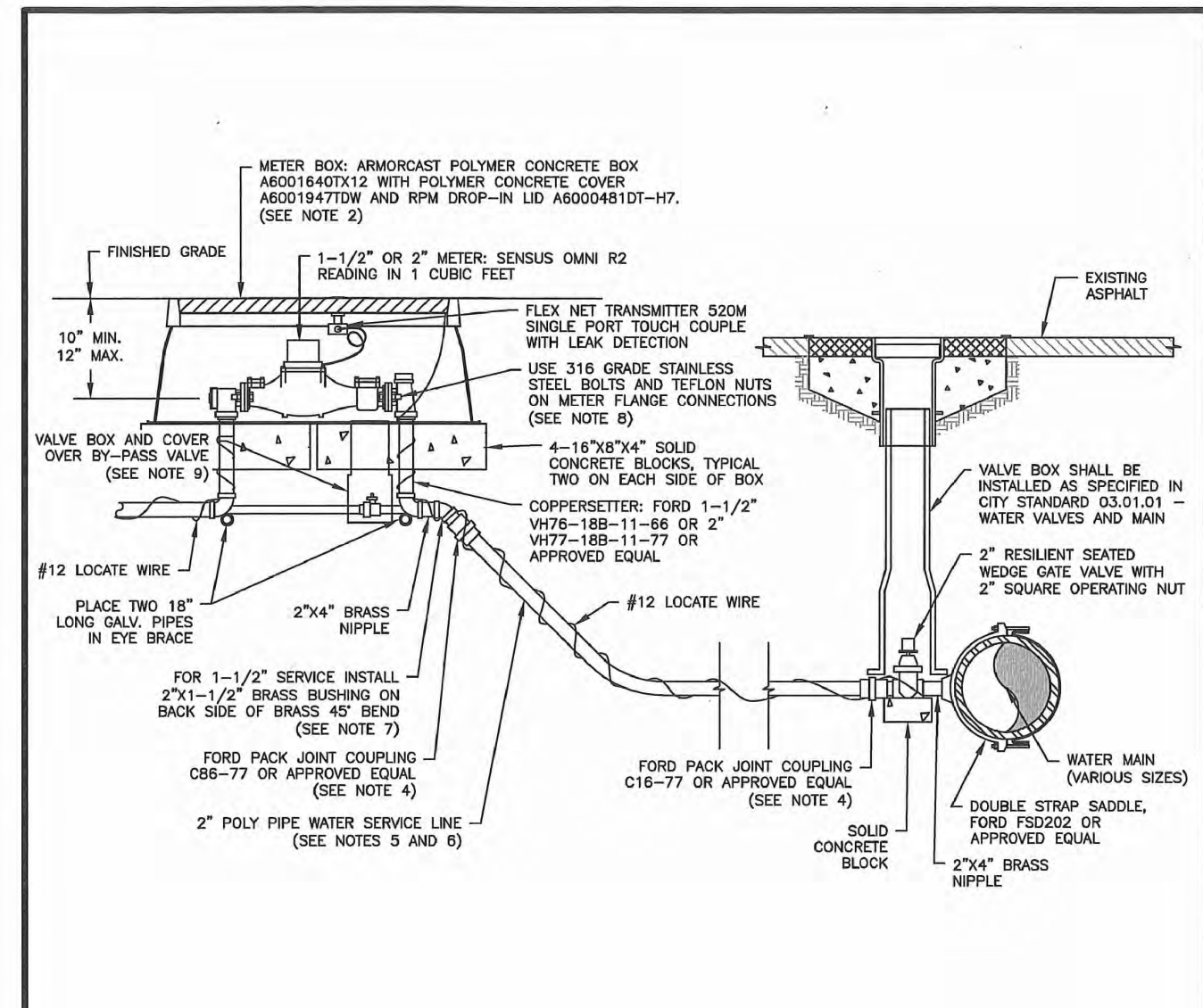
Taco Time NW
3900 Maple Valley Hwy
Renton, WA 98058
Phone 206.255.3633
Fax ron@tacoconcrete.com

DRAWING

C-11
SHEET 11
OF 16

Taco Time

Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington



- NOTES:**
1. ALL MATERIALS AND FITTINGS SHALL BE AS SPECIFIED OR AN APPROVED EQUAL.
 2. NORMALLY THE WATER METER BOX SHOULD BE LOCATED IN THE PLANTING STRIP. IF SIDEWALK IS AGAINST THE CURB, PLACE METER BOX DIRECTLY BEHIND THE SIDEWALK. THE WATER METER BOX SHALL NOT BE LOCATED IN HARD SURFACES. WHEN UNAVOIDABLE, EXCEPTIONS CAN BE MADE AT END OF CUL-DE-SACS OR PAI HANDLED LOTS.
 3. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
 4. ALL POLY PIPE COUPLINGS SHALL USE PIPE INSERT STIFFENERS.
 5. THE WATER SERVICE LINE SHALL BE BEDDED IN WASHED SAND WITH 36" OF COVER BELOW FINISHED GRADE WITHIN THE RIGHT-OF-WAY. THE WATER SERVICE LINE SHALL BE ONE CONTINUOUS PIECE WITH NO SPICES.
 6. ALL POLY PIPE SHALL BE HIGH DENSITY POLY (HDPE) PIPE (ASTM D-2239-SDR 7, BLUE IN COLOR, 200 PSI MINIMUM).
 7. FOR A 1-1/2" WATER SERVICE, ALL MATERIAL SHALL BE 2" FROM THE WATER MAIN TO THE COPPERSETER. REDUCE FROM 2" TO 1-1/2" IMMEDIATELY BEFORE COPPERSETER.
 8. THE STAINLESS STEEL METER FLANGE BOLTS SHALL BE 5/8" DIAMETER FOR THE 1-1/2" METER, AND 3/4" DIAMETER FOR THE 2" METER.
 9. PROVIDE A 6" CIRCULAR VALVE BOX WITH COVER (APPLIED ENGINEERING PRODUCT MODEL 708 WITH GREEN LID OR AN APPROVED EQUAL) OVER 8" PASS VALVE.

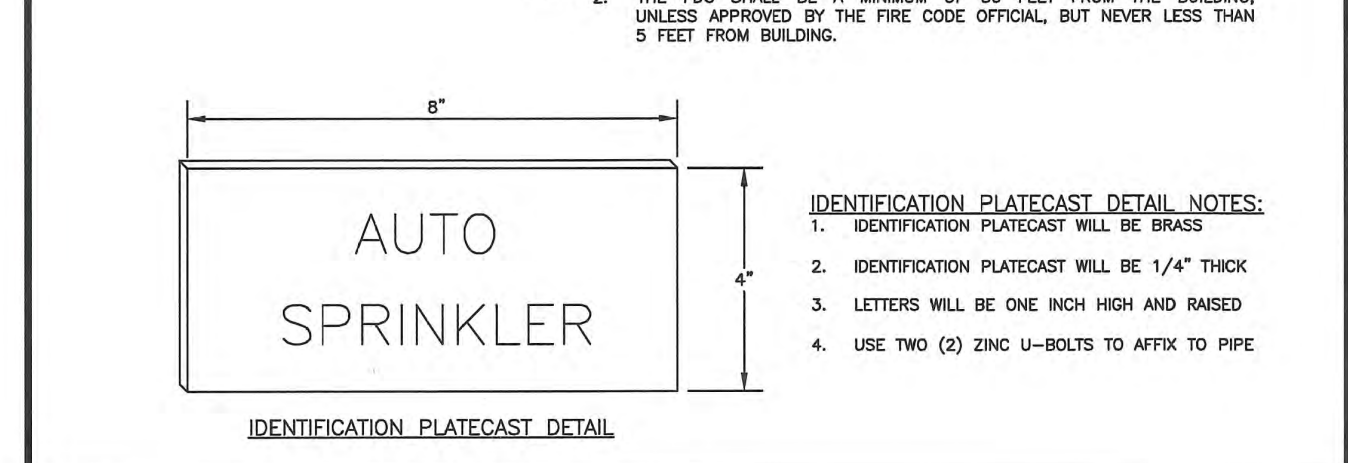
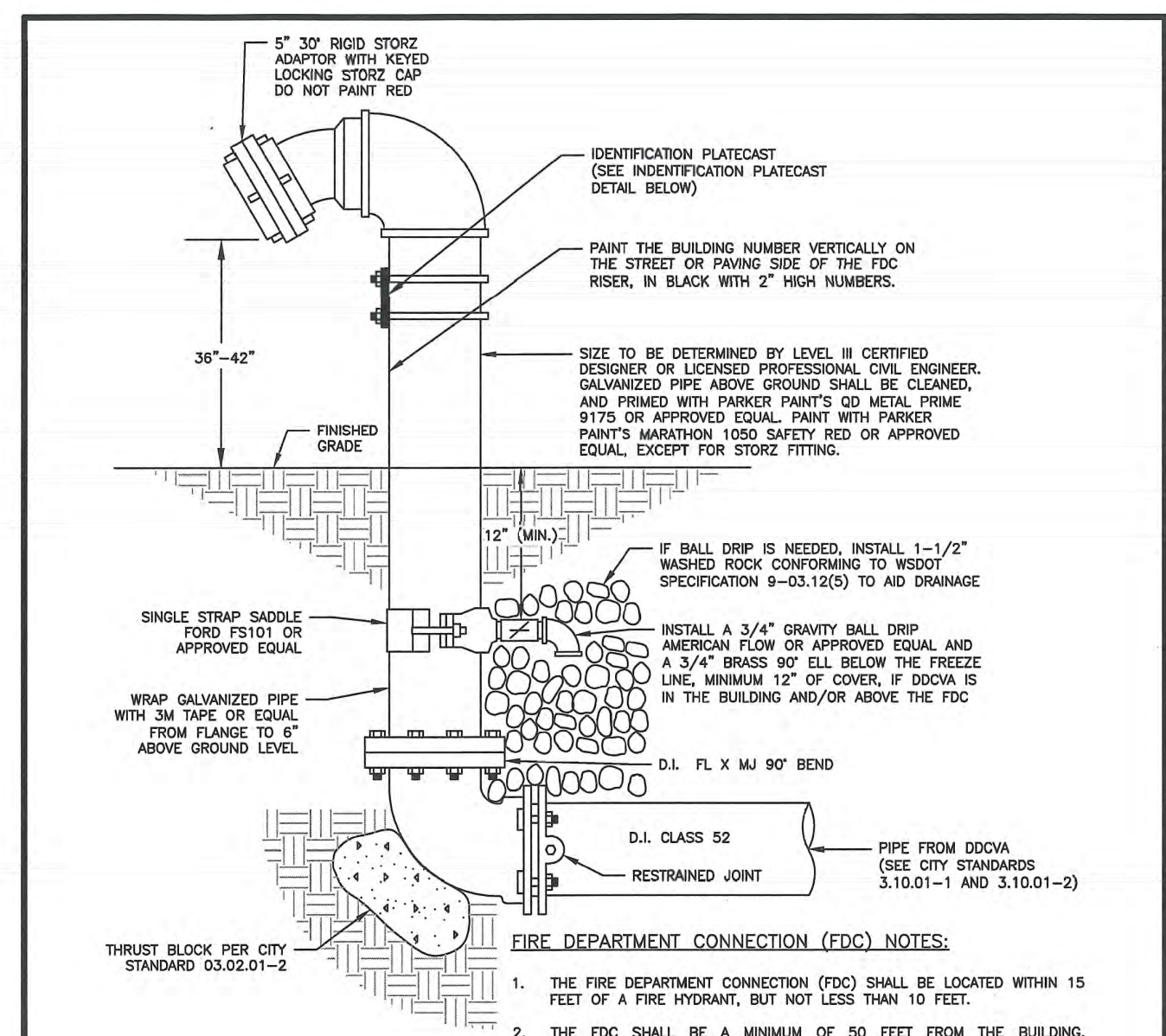
CITY OF PUYALLUP
OFFICE
OF
THE CITY ENGINEER

APPROVED FOR PUBLICATION
DATE: 7/15/2023
FILE NAME: P:\2023\24.54\24.54.02DW\24.54.02DW.DWG

1-1/2" AND 2" WATER SERVICE CONNECTION

(NOT TO SCALE)

CITY STANDARD: 03.03.02



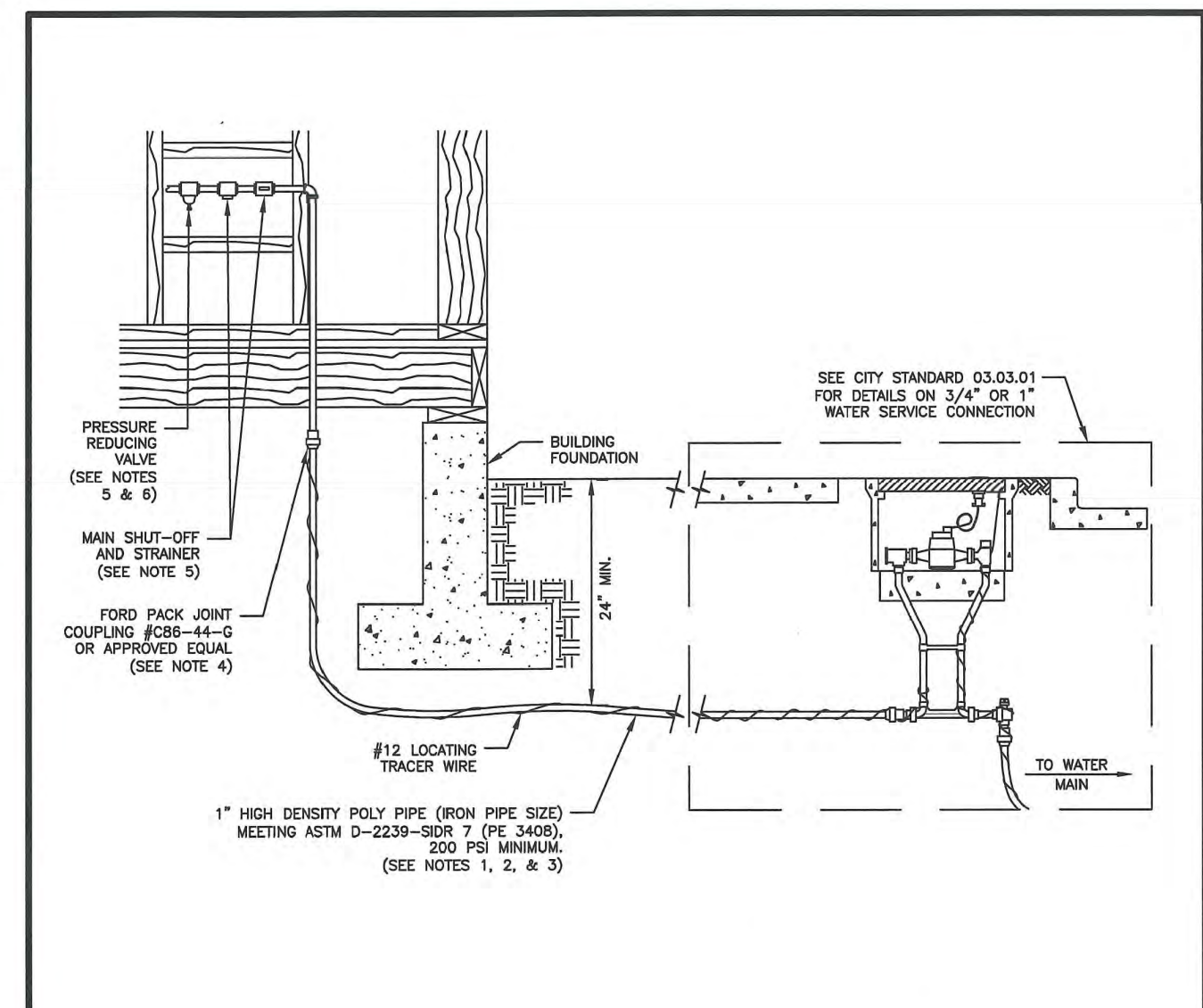
CITY OF PUYALLUP
OFFICE
OF
THE CITY ENGINEER

APPROVED FOR PUBLICATION
DATE: 7/15/2023
FILE NAME: P:\2023\24.54\24.54.02DW\24.54.02DW.DWG

FIRE DEPARTMENT CONNECTION (FDC)

(NOT TO SCALE)

CITY STANDARD: 03.10.02



- NOTES:**
1. SERVICE LINE MAY BE 200 PSI POLY PIPE IN UNCONTAMINATED SOILS. IN SOILS THAT MAY CONTAIN HYDROCARBONS USE 1" K" COPPER PIPE.
 2. PIPE TO BE BEDDED WITH MATERIAL FREE OF ROCKS.
 3. POLY PIPE SHOULD BE PLACED IN A SNAKELIKE FASHION (NOT STRAIGHT WITHOUT SLACK). THIS WILL ACCOMMODATE GROUND MOVEMENT AND KEEP PRESSURE OFF THE FITTINGS.
 4. PLASTIC WATER SERVICE PIPING MAY TERMINATE WITHIN A BUILDING, PROVIDED THE CONNECTION TO THE POTABLE WATER DISTRIBUTION SYSTEM SHALL BE ACCESSIBLE. SEE THE CURRENT UNIFORM PLUMBING CODE FOR MORE INFORMATION.
 5. THE MAIN SHUT-OFF VALVE, PRESSURE REDUCING VALVE, AND STRAINER SHALL BE LOCATED INSIDE THE BUILDING IN AN ACCESSIBLE LOCATION. THEY SHOULD BE LOCATED BEFORE ANY BRANCH CONNECTIONS, AND PROTECTED FROM FREEZING. THE MAIN SHUT-OFF VALVE SHALL BE BRASS.
 6. ALL PROPERTIES WITH WATER SERVICE CONNECTIONS LOCATED SOUTH OF 15TH AVE SE AND SOUTH OF 15TH AVE SW SHALL HAVE AN APPROVED PRIVATELY OWNED AND PRIVATELY MAINTAINED PRESSURE REDUCING VALVE (PRV) LOCATED ON THEIR WATER SERVICE LINE.
 7. ALL PROPERTIES WITH IRRIGATION BRANCH CONNECTIONS LOCATED SOUTH OF 15TH AVE SE AND SOUTH OF 15TH AVE SW SHOULD HAVE AN APPROVED PRIVATELY OWNED AND PRIVATELY MAINTAINED PRESSURE REDUCING VALVE (PRV) LOCATED ON THEIR IRRIGATION BRANCH LINE.
 8. ALL INSTALLATIONS WITHIN TWO (2) FEET OF THE BUILDING SHALL COMPLY WITH THE CURRENT UNIFORM PLUMBING CODE.

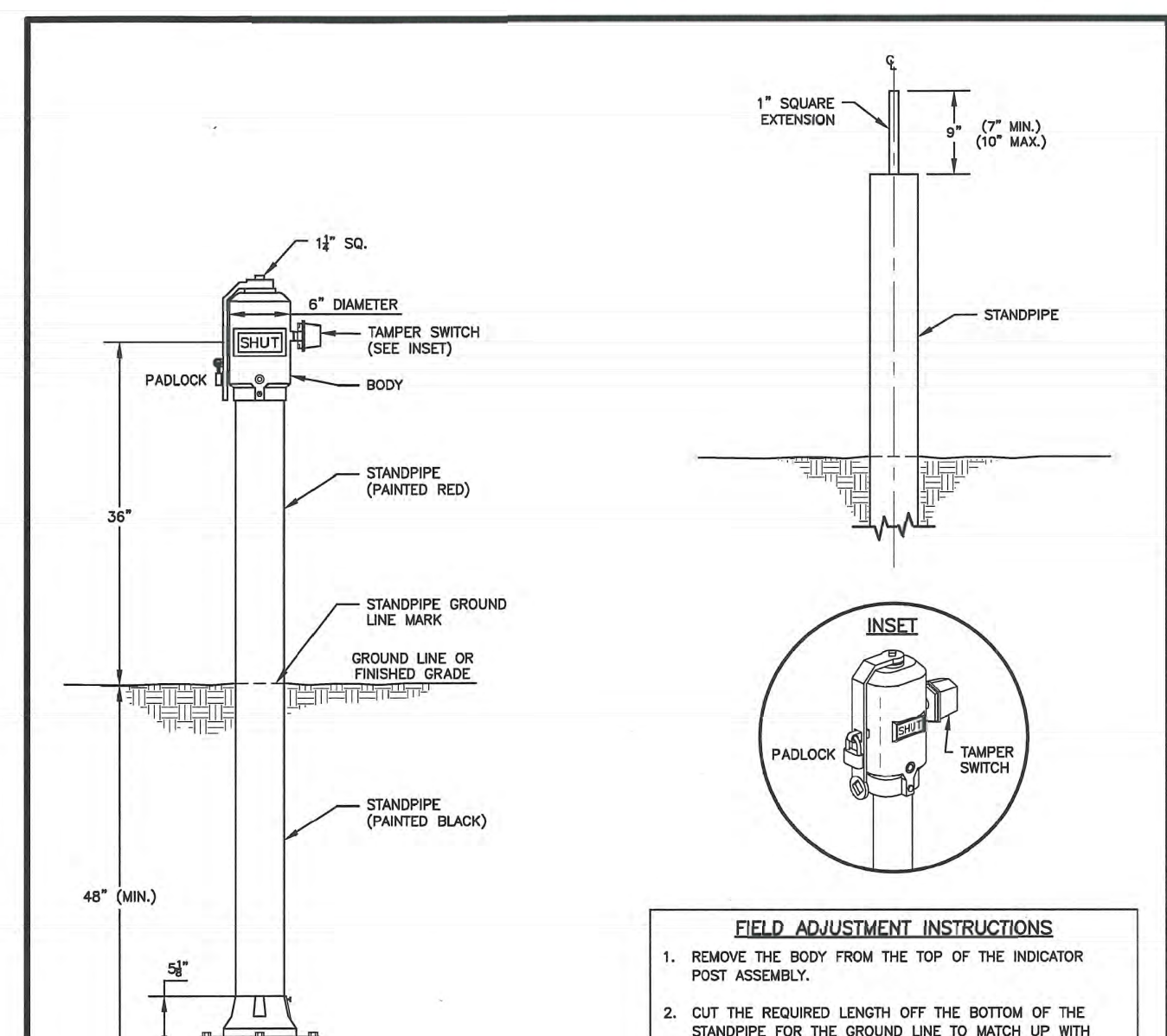
CITY OF PUYALLUP
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OF
THE CITY ENGINEER

APPROVED FOR PUBLICATION
DATE: 7/15/2023
FILE NAME: P:\2023\24.54\24.54.02DW\24.54.02DW.DWG

PRIVATE WATER SERVICE LINES

(NOT TO SCALE)

CITY STANDARD: 03.04.04



- FIELD ADJUSTMENT INSTRUCTIONS**
1. REMOVE THE BODY FROM THE TOP OF THE INDICATOR POST ASSEMBLY.
 2. CUT THE REQUIRED LENGTH OFF THE BOTTOM OF THE STANDPIPE FOR THE GROUND LINE TO MATCH UP WITH STANDPIPE GROUND LINE MARK.
 3. CUT THE 1" SO. EXTENSION AT A DISTANCE OF 9" ABOVE THE TOP OF THE STANDPIPE.
 4. SET THE "OPEN" AND "SHUT" TARGETS FOR THE APPROPRIATE VALVE SIZE.
 5. RE-ATTACH THE BODY TO THE TOP OF THE INDICATOR POST ASSEMBLY.
 6. ALL POST INDICATOR VALVES SHALL BE INSTALLED WITH AN ELECTRONIC UL LISTED TAMPER SWITCH.
 7. THERE SHALL BE 36" OF UNOBSTRUCTED CLEARANCE AROUND THE PERIMETER OF ALL POST INDICATOR VALVES.
 8. POST INDICATOR VALVE SHALL BE LOCATED AT A MINIMUM 5'-0" FROM BUILDING.

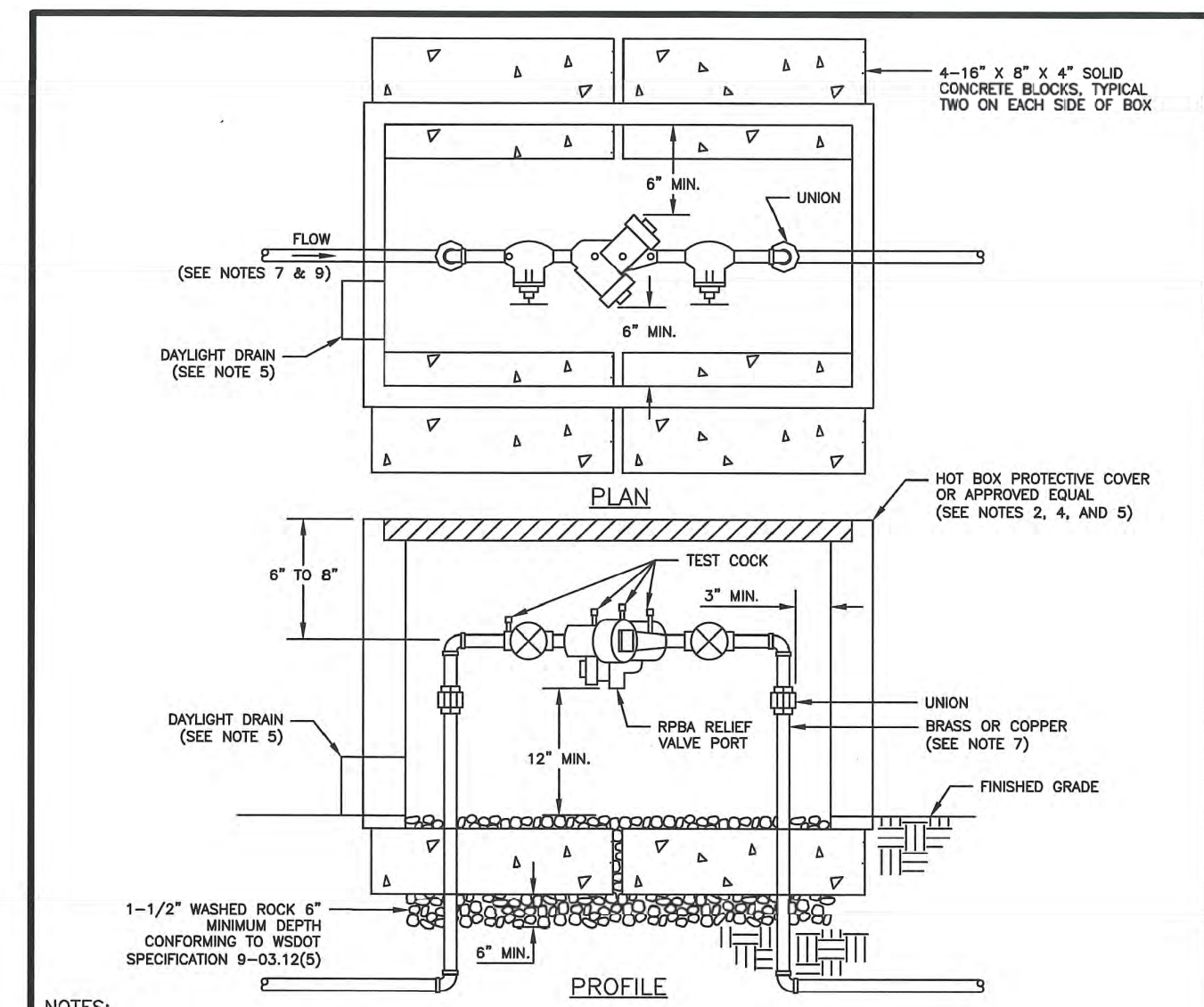
CITY OF PUYALLUP
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POST INDICATOR VALVE

(NOT TO SCALE)

CITY STANDARD: 03.10.03



- NOTES:**
1. BACKFLOW ASSEMBLY MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH'S LIST OF BACKFLOW PREVENTION ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE, LATEST EDITION.
 2. THE RPBA SHALL BE INSTALLED WITH ADEQUATE SPACE TO FACILITATE MAINTENANCE AND TESTING. IT SHALL BE TESTED AFTER INSTALLATION, BY A WASHINGTON STATE CERTIFIED BACK-FLOW ASSEMBLY TESTER, TO INSURE ITS SATISFACTORY OPERATION BEFORE OCCUPANCY, AND ANNUALLY THEREAFTER. SEND TEST RESULTS TO: CITY OF PUYALLUP, WATER QUALITY OPERATIONS, 1100 39TH AVE SE, PUYALLUP, WA 98374.
 3. THE RPBA MUST BE PURCHASED AS A UNIT. NO MODIFICATIONS TO THE ASSEMBLY ARE ALLOWED.
 4. THE RPBA SHALL NOT BE INSTALLED IN A PIT BELOW GROUND LEVEL.
 5. THE PROTECTIVE COVERING FOR THE RPBA, WHICH PROTECTS THE ASSEMBLY FROM FREEZING, MUST INCLUDE A DAYLIGHT DRAIN. THE DRAIN MUST BE INSTALLED ABOVE GROUND OR ABOVE THE MAXIMUM FLOOR LEVEL, WHICHEVER IS HIGHER. THE DRAIN MUST BE A MINIMUM OF TWICE THE SIZE OF THE RPBA, TO BE ABLE TO HANDLE THE VOLUME OF WATER THAT POTENTIALLY COULD BE DISCHARGED FROM THE RELIEF VALVE PORT.
 6. THE RPBA SHALL BE SIZED EQUAL OR COMPARABLE TO THE METER SIZE.
 7. USE ONLY BRASS OR COPPER BETWEEN THE METER AND THE BOTTOM VERTICAL 90 DEGREE BEND ON THE CUSTOMER'S SIDE OF THE RPBA.
 8. DIELECTRIC UNIONS MUST BE USED TO SEPARATE DISSIMILAR MATERIALS.
 9. THE RPBA SHOULD BE LOCATED IMMEDIATELY DOWN STREAM OF THE METER, AND SHOULD NOT BE INSTALLED INSIDE A BUILDING.
 10. AN RPBA INSTALLED MORE THAN FIVE (5) FEET ABOVE FLOOR LEVEL, MUST HAVE A PLATFORM UNDER IT FOR THE TESTER OR MAINTENANCE PERSON TO STAND ON. THE PLATFORM MUST BE OSHA APPROVED AND MEET ALL APPLICABLE SAFETY STANDARDS AND CODES.

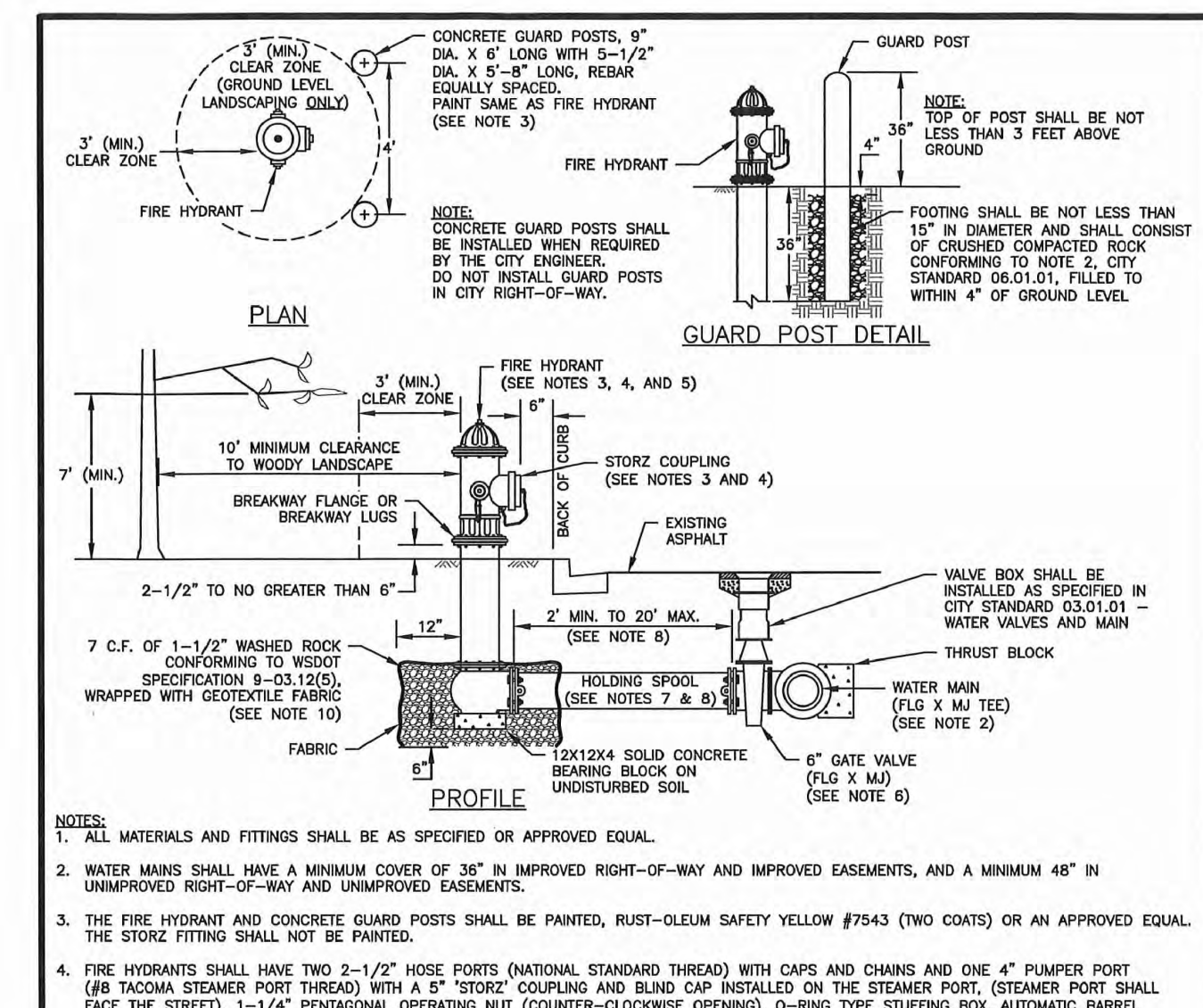
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OFFICE
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THE CITY ENGINEER

APPROVED FOR PUBLICATION
DATE: 7/15/2023
FILE NAME: P:\2023\24.54\24.54.02DW\24.54.02DW.DWG

2" AND SMALLER REDUCED PRESSURE BACKFLOW ASSEMBLY INSTALLATION

(NOT TO SCALE)

CITY STANDARD: 03.04.02



- NOTES:**
1. ALL MATERIALS AND FITTINGS SHALL BE AS SPECIFIED OR APPROVED EQUAL.
 2. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
 3. THE FIRE HYDRANT AND CONCRETE GUARD POSTS SHALL BE PAINTED, RUST-OLEUM SAFETY YELLOW #7543 (TWO COATS) OR AN APPROVED EQUAL. THE STORZ FITTING SHALL NOT BE PAINTED.
 4. FIRE HYDRANTS SHALL HAVE TWO 2-1/2" HOSE PORTS (NATIONAL STANDARD THREAD) WITH CAPS AND CHAINS AND ONE 4" PLUMBER PORT (8B TACOMA STEAMER PORT THREAD) WITH A 6" STORZ COUPLING AND BLIND CAP INSTALLED ON THE STEAMER PORT. (STEAMER PORT SHALL FACE THE STREET). 1-1/4" PENTAGONAL OPERATING NUT (COUNTER-CLOCKWISE OPENING), 3/4" HOSE TYPE STUFFING BOX, AUTOMATIC BARREL DRAIN, AND 5-1/4" MAIN VALVE OPENING. HYDRANTS SHALL BE DESIGNED IN A MANNER THAT WILL PREVENT BARREL BREAKAGE WHEN STRUCK BY A VEHICLE. HYDRANTS SHALL CONFORM TO THE LATEST AWWA SPECIFICATIONS NO. C 900-73 FOR FIRE HYDRANTS FOR ORDNARY WATER SERVICE. FIRE HYDRANTS SHALL INCLUDE THE ENTIRE ASSEMBLY COMPLETE, INCLUDING HYDRANT, GATE VALVE AND BOX, CONNECTING PIPING, FITTINGS, AND ACCESSORIES.
 5. FIRE HYDRANTS SHALL BE AWC, CLOW MEDIALION, M & H 1295, MUELLER CENTURION, OR WATERLOO.
 6. GATE VALVES SHALL CONFORM TO THE LATEST AWWA SPECIFICATIONS FOR COLD WATER, RESILIENT SEATED WEDGE GATE VALVES, 200 PSI WORKING PRESSURE. THEY SHALL BE IRON-BODIED BRONZE-MOUNTED, NON-RISING STEM, COUNTER-CLOCKWISE OPENING, MECHANICAL JOINT BY FLANGED. VALVE STEMS SHALL BE PROVIDED WITH O-RING SEALS AND SHALL BE AS MANUFACTURED BY THE MUELLER COMPANY OR APPROVED EQUAL.
 7. THE HOLDING SPOOL SHALL BE A MECHANICAL-JOINT (M.J.) HOLDING SPOOL, WITH THE USE OF MEGA-LUG CONNECTORS OR APPROVED EQUAL, WITH CLASS 52 DUCTILE IRON PIPE.
 8. IF DISTANCE BETWEEN WATER MAIN AND FIRE HYDRANT IS GREATER THAN 17 FEET, RESTRAINED JOINTS ARE REQUIRED ON ANY ADDITIONAL JOINTS. THE MAXIMUM 8-INCH HYDRANT RUN ALLOWED IS 20 FEET. ANY PROPOSED HYDRANT RUN EXCEEDING 20' IN LENGTH SHALL BE SIZED USING AN ENGINEERED HYDRAULIC FIRE FLOW MODEL. ANY HYDRANT RUN EXCEEDING 50 FEET IN LENGTH SHALL BE NO LESS THAN 8-INCHES IN DIAMETER.
 9. FIRE HYDRANTS SHALL BE LOCATED A MINIMUM OF 50 FEET FROM A BUILDING OR STRUCTURE.
 10. THE CONTRACTOR SHALL PLACE A 6 OZ. GEOTEXTILE FABRIC AROUND THE WASHED ROCK AREA, ENDS TO OVERLAP.
 11. A FLUORESCENT ORANGE BAG MUST COVER AND BE SECURED TO THE FIRE HYDRANT UNTIL APPROVED FOR USE BY CITY ENGINEER.
 12. A MINIMUM THREE FOOT (3') RADIUS UNOBSTRUCTED CLEAR ZONE (WORK AREA) SHALL BE PROVIDED AROUND ALL FIRE HYDRANTS. ADDITIONALLY, NO WOODY LANDSCAPE SHALL BE PLANTED WITHIN TEN FEET (10') OF ANY FIRE HYDRANT. OVERHANGING BRANCHES OF TREES ADJACENT TO HYDRANTS SHALL HAVE A MAINTAINED VERTICAL CLEARANCE OF SEVEN (7') FEET ABOVE FINISHED GRADE OF THE FIRE HYDRANT.

CITY OF PUYALLUP
OFFICE
OF
THE CITY ENGINEER

APPROVED FOR PUBLICATION
DATE: 7/15/2023
FILE NAME: P:\2023\24.54\24.54.02DW\24.54.02DW.DWG

FIRE HYDRANT ASSEMBLY

(NOT TO SCALE)

CITY STANDARD: 03.05.01

7/19/2023
ROBERT A. TRIVITT
REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON
NO. 43715

Water Details

Taco Time

3900 Maple Valley Hwy
Renton, WA 98058
Phone 206.256.3683
Fax ronk@tacotime.com

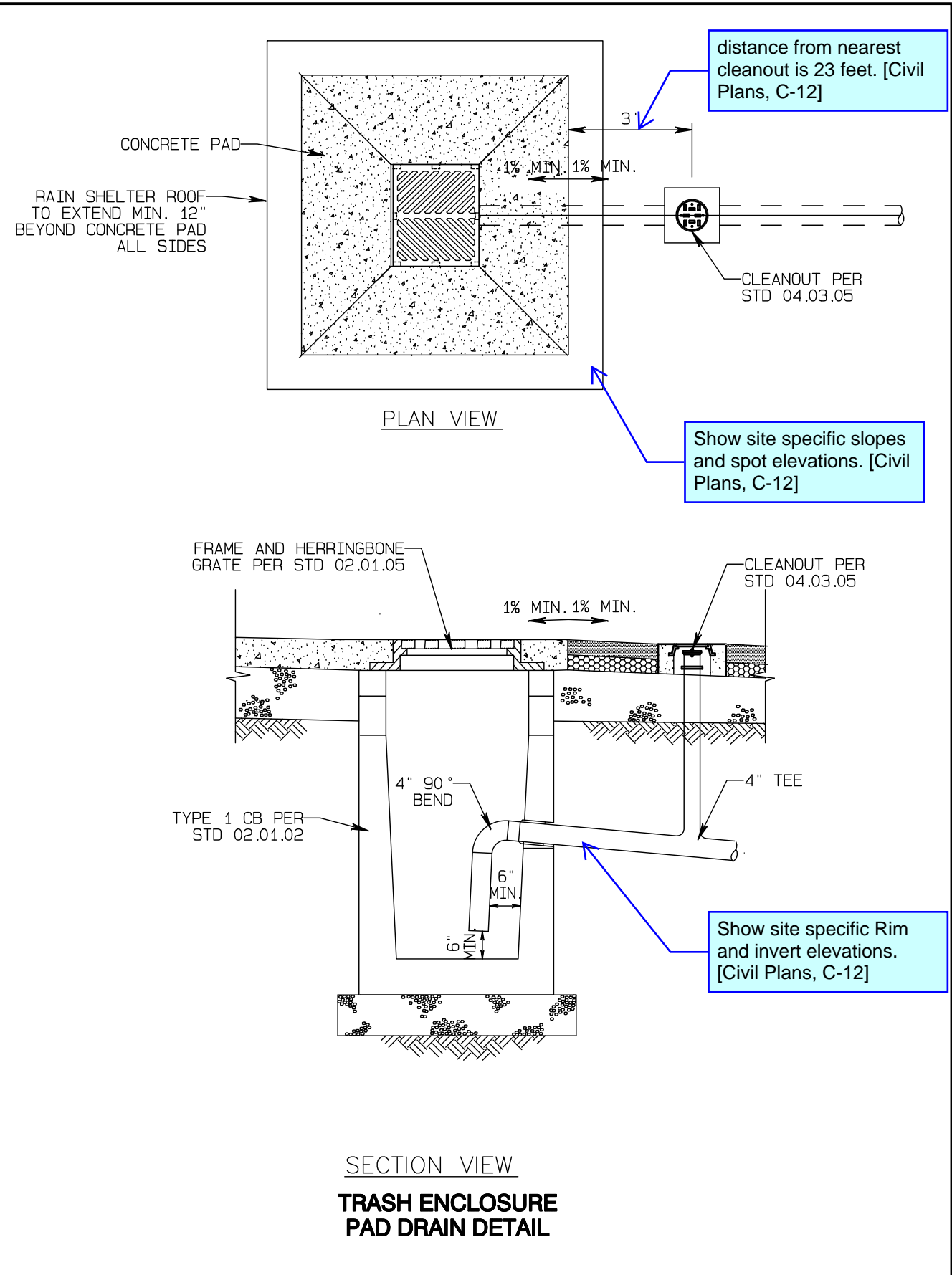
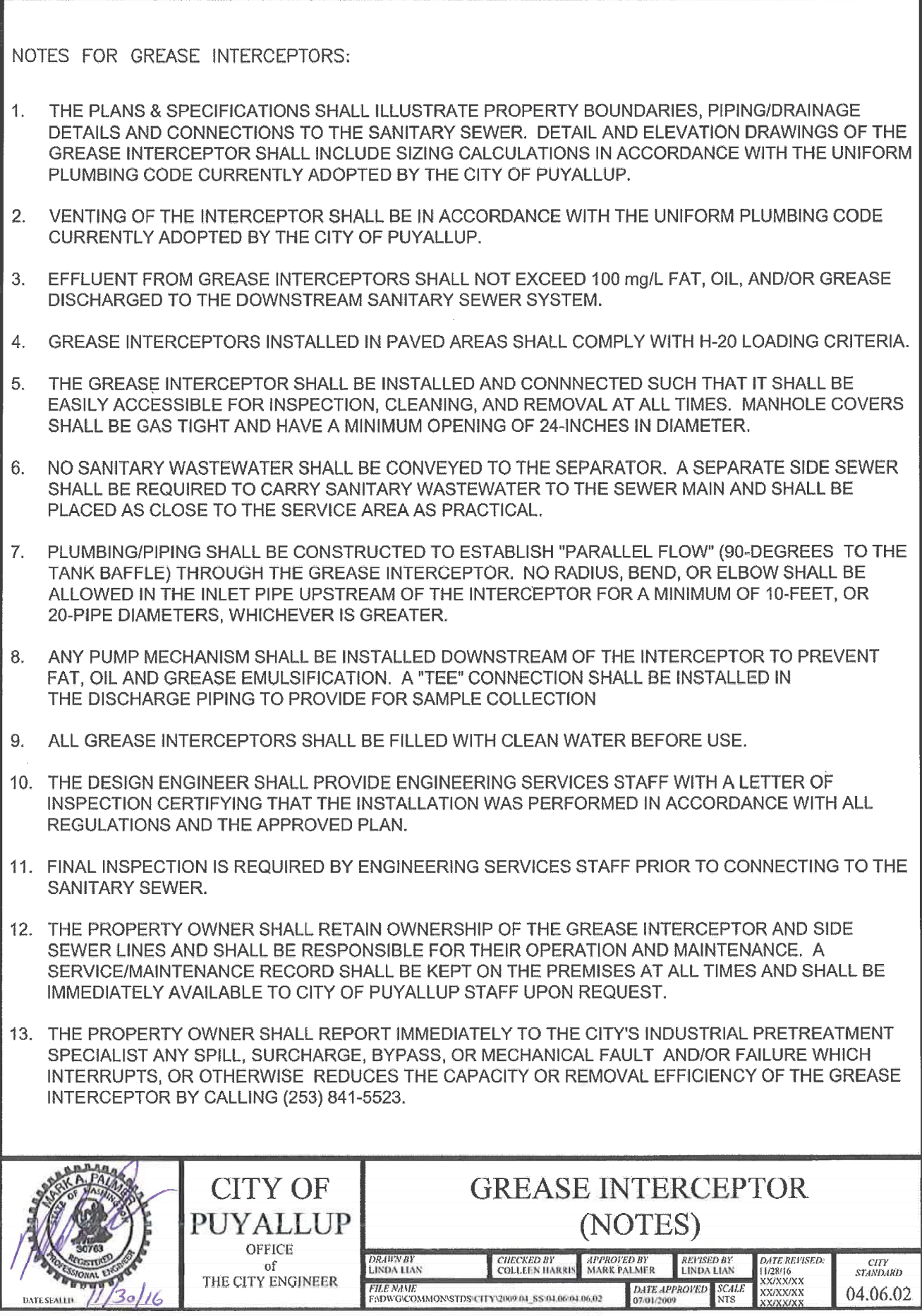
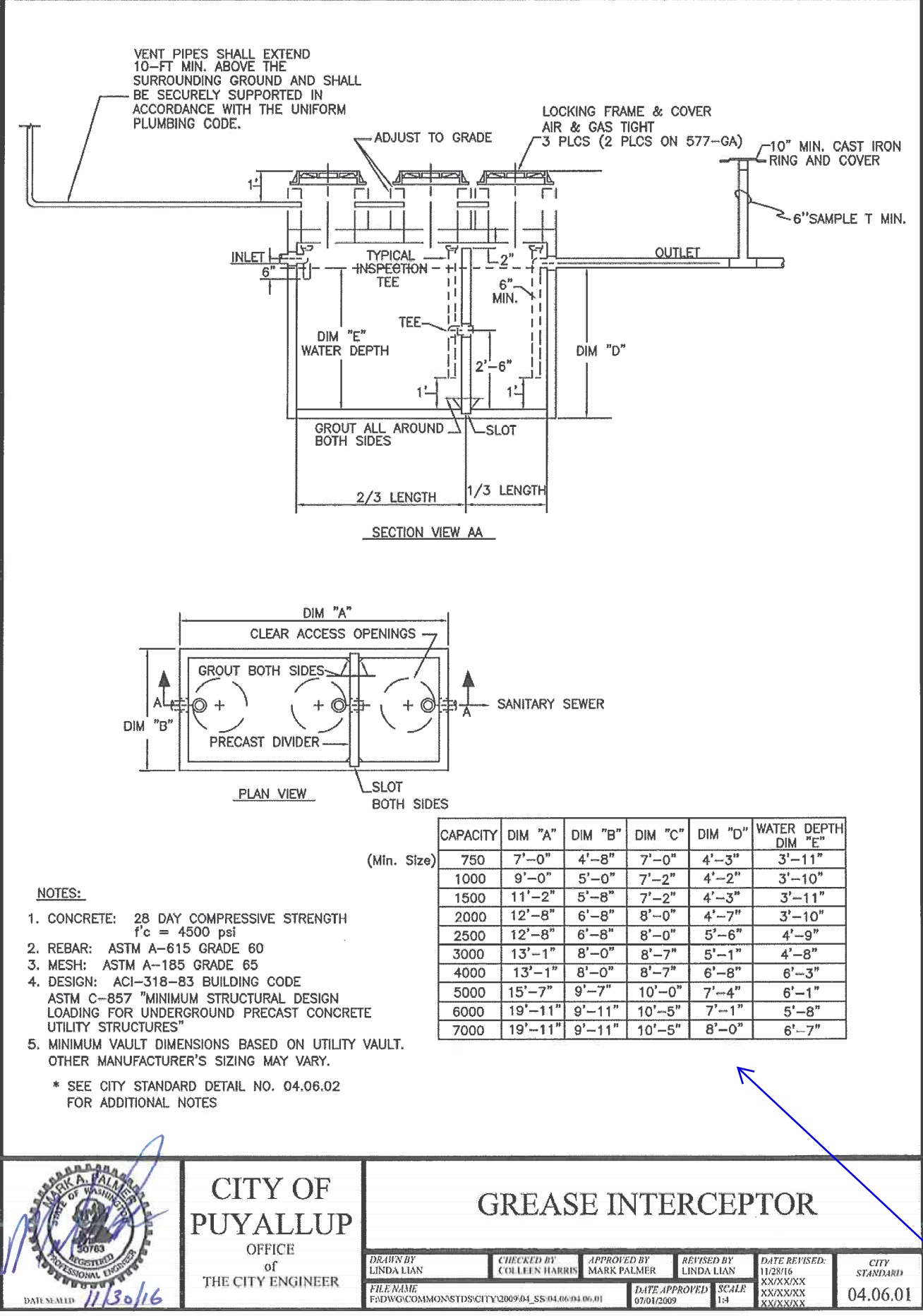
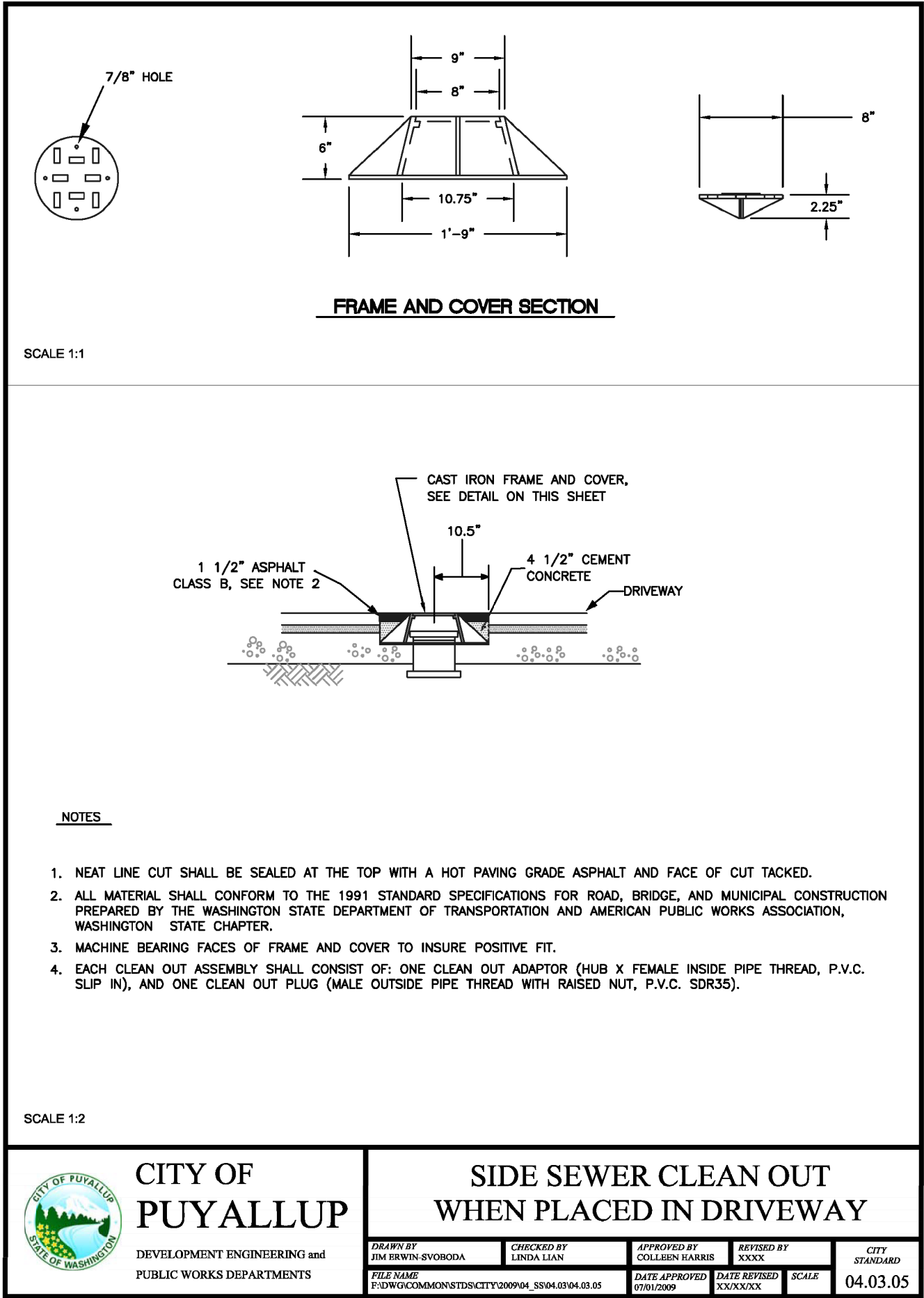
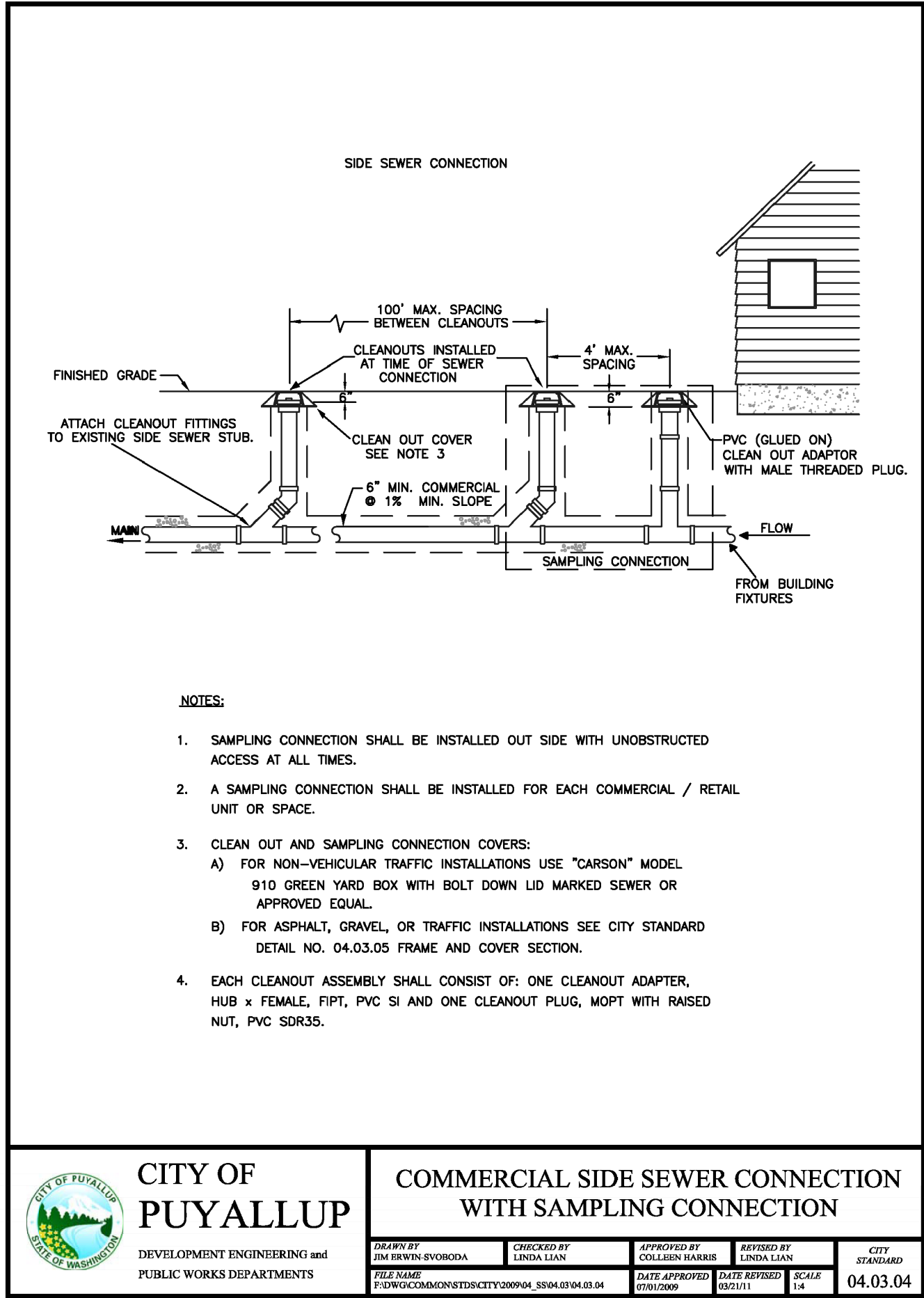
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C-12

SHEET 12 OF 16

Taco Time

Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington



place bold box around correct size per the required sizing calculations. [Civil Plans, C-12]

APPROVED

BY: **CITY OF PUYALLUP**
DEVELOPMENT SERVICES

DATE: _____

NOTE:

THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

SS Details

Taco Time

Taco Time NW
3900 Maple Valley Hwy
Renton, WA 98058
Phone 206.255.3633
Fax ronkin@tacomn.com

DRAWING

C-13

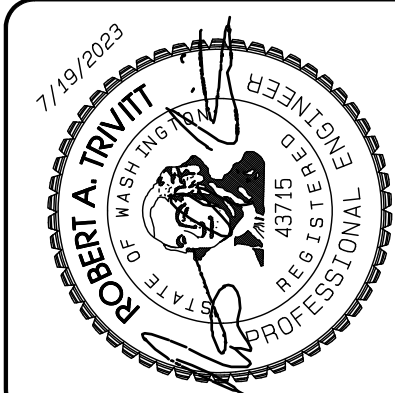
SHEET 13
OF 16

AZURE GREEN
CONSULTANTS

409 East Pioneer, Suite A - Puyallup, WA 98372
phone 253.770.3144 fax 253.770.3142

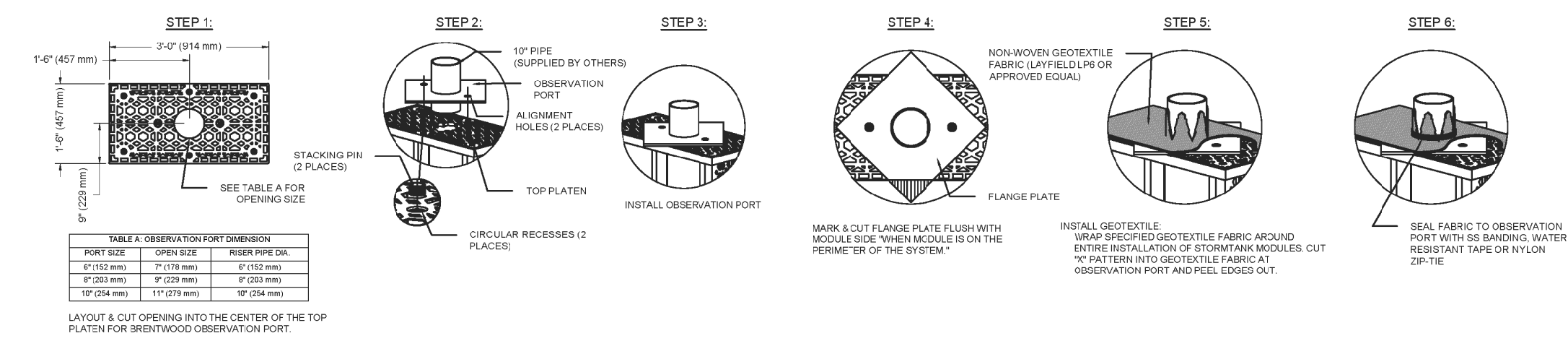
DESIGNED BY: Paul Green
DRAWN BY: Paul Green
CHECKED BY: Linda Lun
APPROVED BY: Mark Palmer

DATE: _____
REVISION: _____

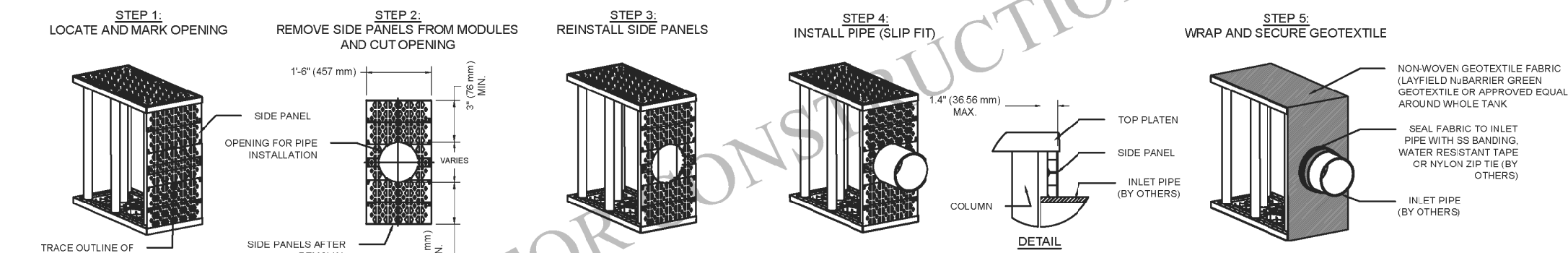


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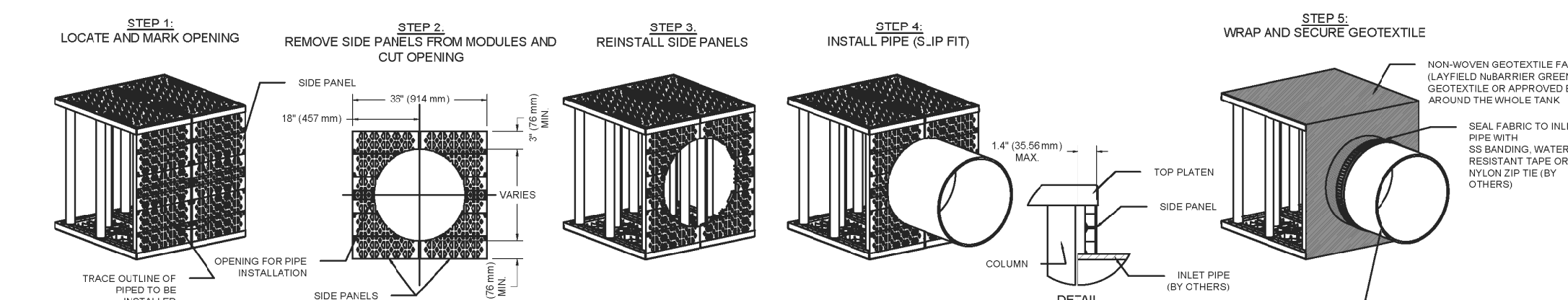
Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington



1 TYP. OBSERVATION PORT
S-04 INSTALLATION DETAIL



2 SMALL DIAMETER (14\"/>S-04 PIPE CONNECTION DETAIL



3 LARGE DIAMETER (15\"/>S-04 PIPE CONNECTION DETAIL

- General Conditions**
- Review installation procedures and coordinate the installation with other construction activities, such as grading, excavation, utilities, construction access, erosion control, etc.
 - Engineered Contract Drawings supersede all provided documentation, as the information furnished in this document is based on a typical installation.
 - Coordinate the installation with manufacturer's representative/distributor to be on-site to review start up procedures and installation instructions.
 - Components shall be unloaded, handled and stored in an area protected from traffic and in a manner to prevent damage.
 - Assembled modules may be walked on, but vehicular traffic is prohibited until backfilled per Manufacturer's requirements. Protect the installation against damage with highly visible construction tape, fencing, or other means until construction is complete.

Ensure all construction occurs in accordance with Federal, Provincial and Local Laws, Ordinances, Regulations and Safety Requirements

- Extra care and caution should be taken when temperatures are at or below 40° F (4.4° C).

NOT FOR CONSTRUCTION

These drawings shall not be used for construction until they have been reviewed for all design aspects (structural, geotechnical, stormwater) and approved by the Engineer of Record for the Project.

It is the Buyer's responsibility to ensure that the design into which the Product will be used has been approved by the Engineer of Record (not Layfield) with a review that may include, but not be limited to, Inlet and outlet configurations including inverts and pipe connections, storage volume, system footprint, Stormtank elevations including cover soil requirements, and proximity to structures and slopes.

Site design / engineering elements may include but not be limited to the following:

- Review elevations and if necessary adjust grading to ensure the chamber cover requirements are met.
- Evaluating site-specific information on soil conditions and/or bearing capacity.
- Assessing the bearing resistance (allowable bearing capacity) of the sub-grade soils and the depth of foundation stone with consideration for the range of expected soil moisture conditions

1.0 StormTank® Assembly

StormTank® Modules:

StormTank® modules are delivered to the site as palletized components requiring simple assembly. No special equipment, tools or bonding agents are required, only a rubber mallet. A single worker can typically assemble a module in two minutes.

ASSEMBLY INSTRUCTIONS:

- Place a platen on a firm level surface and insert the eight (8) columns into the platen receiver cups. Firmly tap each column with a rubber mallet to ensure the column is seated.
- Place a second platen on a firm level surface. Flip the previously assembled components upside down onto the second platen, aligning the columns into the platen receiver cups.
- Once aligned, seat the top assembly by alternating taps, with a rubber mallet at each structural column until all columns are

firmly seated.

SIDE PANEL

- If side panels are required, firmly tap the top platen upward to raise the top platen. Insert the side panel into the bottom platen.
- Align the top of the side panel with the top platen and firmly seat the top platen utilizing a rubber mallet.

GENERAL NOTES:

- Remove packaging material and check for any damage. Report any damaged components to a StormTank® Distributor or Brentwood personnel.
- StormTank® components are backed by a one year warranty, when installed per manufacturer's recommendations.

2.0 Basin Excavation

- Stake out and excavate to elevations per approved plans/Excavation Requirements:
 - Sub-grade excavation must be a minimum of 6" (152 mm) below designed StormTank® Module invert.
 - The excavation should extend a minimum of 12" (305 mm) beyond the StormTank® dimensions in each length and width (an additional 24" [610 mm] in total length and total width) to allow for adequate placement of side backfill material.
- Remove objectionable material encountered within the excavation, including protruding material from the walls.
- Furnish, install, monitor and maintain excavation support (e.g., shoring, bracing, trench boxes, etc.) as required by Federal, Provincial and Local Laws, Ordinances, Regulations and Safety Requirements.

3.0 Sub-Grade Requirements

- Sub-grade shall be unfrozen, level (plus or minus 1%), and free of lumps or debris with no standing water, mud or muck. Do not use materials nor mix with materials that are frozen and/or coated with ice or frost.
- Unstable, unsuitable and/or compromised areas should be brought to the Engineer's attention and mitigating efforts determined prior to compacting the sub-grade.
- Sub-grade must be compacted to 95% Standard Proctor Density or as approved by the Engineer of Record. If code requirements restrict subgrade compaction, it is the requirement of the geotechnical Engineer to verify that the bearing capacity and settlement criteria for support of the system are met.

* The Engineer of Record shall reference Brentwood StormTank Module Installation document Appendix A for minimum soil bearing capacity required based on Load Rating and top cover depth. Minimum soil bearing capacity is required so that settlements are less than 1" through the entire sub-grade and do not exceed long-term 1/2" differential settlement between any two adjacent units within the system. Sub-grade must be designed to ensure soil bearing capacity is maintained throughout all soil saturation levels.

4.0 Leveling Bed Installation

- Install geotextile fabric and/or liner material, as specified.
 - Geotextile fabric shall be placed per manufacturer's recommendations.

- Additional material to be utilized for wrapping above the system must be protected from damage until use.
- After the geotextile is secured, place a minimum 6" (152 mm) Leveling Bed.
 - Material should be a 3/4" (19 mm) angular stone meeting Appendix B – Acceptable Fill Material.
 - Material should be raked free of voids, lumps, debris, sharp objects and plate vibrated to a level with a maximum 1% slope.
- Correct any unsatisfactory conditions.

5.0 StormTank® Module Placement

1. Install geotextile fabric and/or liner material, as specified.
 - Geotextile fabric shall be placed per manufacturer's recommendations.
 - Additional material to be utilized for wrapping above the system must be protected from damage until use.
2. Mark the footprint of the modules for placement.
 - Ensure module perimeter outline is square or similar prior to Module placement.
 - Care should be taken to note any connections, ports or other irregular units to be placed.
3. Install the individual modules by hand, as detailed below.
 - The modules should be installed as shown in the StormTank® submittal drawings with the short side of perimeter modules facing outward, except as otherwise required.
 - Make sure the top/bottom platens are in alignment in all directions to within a maximum 1/4" (6.4 mm).
 - For double stack configurations:
 - Install the bottom module first. **DO NOT INTERMIX VARIOUS MODULE HEIGHTS ACROSS LAYERS.** Backfilling prior to proceeding to second layer is optional.
 - Insert stacking pins (2 per module) into the top platen of the bottom module.
 - Place the upper module directly on top of the bottom module in the same direction, making sure to engage the pins.
4. Install the modules to completion, taking care to avoid damage to the geotextile and/or liner material.
5. Locate any ports or other penetration of the StormTank®.
 - Install ports/penetrations in accordance with the approved submittals, contract documents and manufacturer's recommendations.
6. Upon completion of module installation, wrap the modules in geotextile fabric and/or liner.
 - Geotextile fabric shall be wrapped and secured per manufacturer's recommendations.
 - Seal any ports/penetrations per Manufacturer's requirements.

Notes:

- If damage occurs to the geotextile fabric or impermeable liner, repair the material in accordance with the geotextile/liner Manufacturer's recommendations.



SINGLE STACK MODULE SYSTEM

| | |
|-----------------------------|-------------------------|
| Total Storage Volume | 4116.94 ft ³ |
| Module Storage Volume | 3237.34 ft ³ |
| Stone Storage Volume* | 879.60 ft ³ |
| System Footprint | 1855.00 ft ² |
| Estimated Geotextile Fabric | 991.11 yd ² |
| Estimated Stone Volume | 115.80 yd ³ |
| Excavation Required | 309.17 yd ³ |
| Excavation Depth | 4.50 ft |
| Stone Type | 3/4" Clear Stone |
| Stone Void Space | 40% |
| Module Type | 25 Series ST-24 |

820 E. Main Avenue
Puyallup, WA

| REV | Record of Changes | Date | By |
|-----|---------------------|-------------|----|
| Δ | Preliminary Drawing | 11/JUL/2023 | AK |
| Δ | Tank Re-design | 14/JUL/2023 | AK |
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Project Number: OP2023-6808

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| Page Name | TYP. Pipe Penetration Details |
| Drawn by: AK | Checked By: JF |
| Scale: NTS | Date: 14/JUL/2023 |

THIS LAYOUT DRAWING WAS PREPARED TO SUPPORT THE ENGINEER OF RECORD FOR THE PROPOSED SYSTEM. IT IS THE RESPONSIBILITY OF THE ENGINEER OF RECORD TO REVIEW THE INFORMATION AND ENSURE THAT THE LAYOUT AND DESIGN IS IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS AND THAT THE STORMTANK SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH BRENTWOOD'S REQUIREMENTS. LAYFIELD DOES NOT REVIEW OR APPROVE PLANS, SIZING OR DESIGNS.

Sheet:

04 OF 07

ANSI B Size Page (Horizontal)



SINGLE STACK MODULE SYSTEM

| | |
|-----------------------------|-------------------------|
| Total Storage Volume | 4116.94 ft ³ |
| Module Storage Volume | 3237.34 ft ³ |
| Stone Storage Volume* | 879.60 ft ³ |
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| Estimated Geotextile Fabric | 991.11 yd ² |
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| Excavation Required | 309.17 yd ³ |
| Excavation Depth | 4.50 ft |
| Stone Type | 3/4" Clear Stone |
| Stone Void Space | 40% |
| Module Type | 25 Series ST-24 |

820 E. Main Avenue
Puyallup, WA

| REV | Record of Changes | Date | By |
|-----|---------------------|-------------|----|
| Δ | Preliminary Drawing | 11/JUL/2023 | AK |
| Δ | Tank Re-design | 14/JUL/2023 | AK |
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Project Number: OP2023-6808

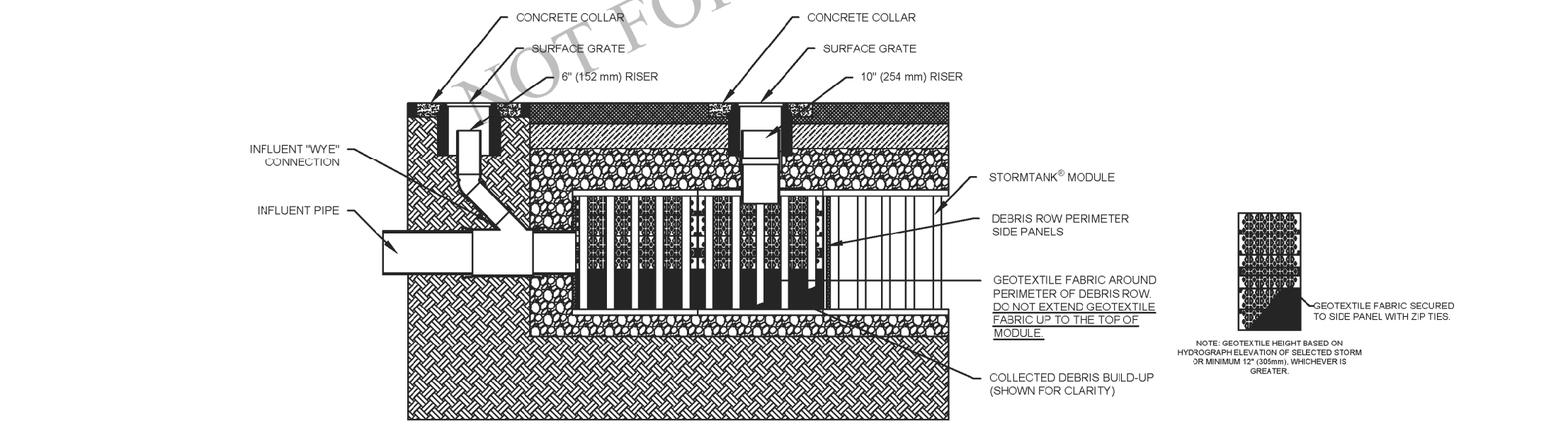
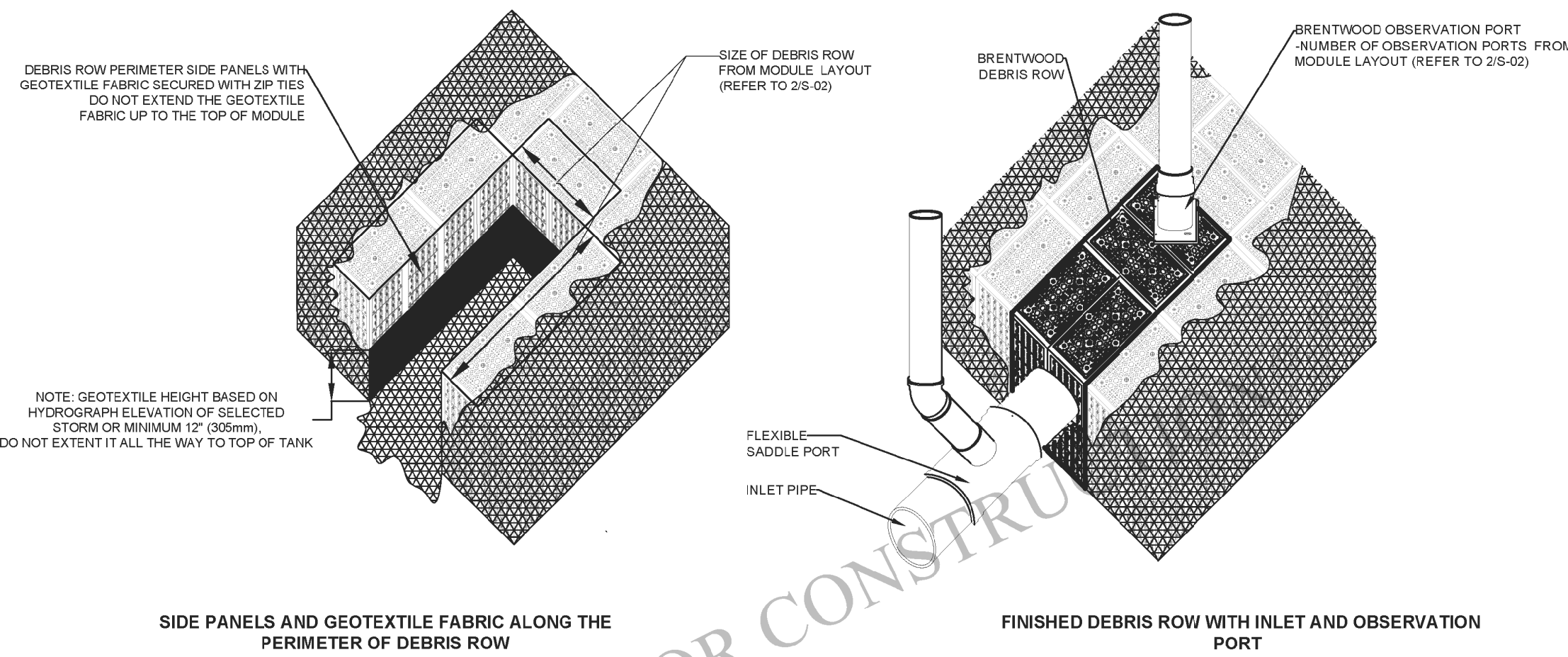
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| Page Name | Supplementary Notes |
| Drawn by: AK | Checked By: JF |
| Scale: NTS | Date: 14/JUL/2023 |

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Sheet:

06 OF 07

ANSI B Size Page (Horizontal)



1 TYP. DEBRIS ROW DETAIL
S-05 SINGLE STACK SYSTEM



SINGLE STACK MODULE SYSTEM

| | |
|-----------------------------|-------------------------|
| Total Storage Volume | 4116.94 ft ³ |
| Module Storage Volume | 3237.34 ft ³ |
| Stone Storage Volume* | 879.60 ft ³ |
| System Footprint | 1855.00 ft ² |
| Estimated Geotextile Fabric | 991.11 yd ² |
| Estimated Stone Volume | 115.80 yd ³ |
| Excavation Required | 309.17 yd ³ |
| Excavation Depth | 4.50 ft |
| Stone Type | 3/4" Clear Stone |
| Stone Void Space | 40% |
| Module Type | 25 Series ST-24 |

820 E. Main Avenue
Puyallup, WA

| REV | Record of Changes | Date | By |
|-----|---------------------|-------------|----|
| Δ | Preliminary Drawing | 11/JUL/2023 | AK |
| Δ | Tank Re-design | 14/JUL/2023 | AK |
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Project Number: OP2023-6808

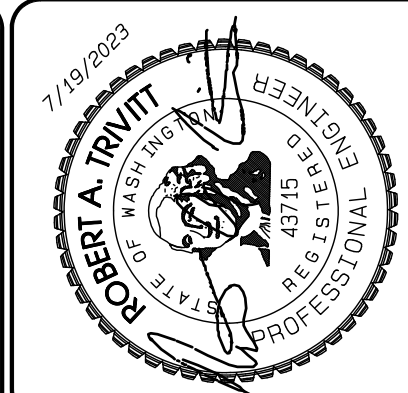
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| Drawn by: AK | Checked By: JF |
| Scale: NTS | Date: 14/JUL/2023 |

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05 OF 07

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|-------------------------|--------------------|
| DESIGNED BY: Paul Green | DATE: JUL 14, 2023 |
| DRAWN BY: Paul Travitt | DATE: JUL 14, 2023 |
| CHECKED BY: Paul Green | DATE: JUL 14, 2023 |
| APPROVED BY: Paul Green | DATE: JUL 14, 2023 |

AZURE GREEN CONSULTANTS

409 East Pioneer Suite A - Puyallup, WA 98372
 Phone: 253.770.3144 Fax: 253.770.3142

feasibility • planning • engineering • surveying

Taco Time

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 3900 Maple Valley Hwy
 Renton, WA 98058
 Phone 206.255.3683
 Fax ronkin@tacomtimenw.com

DRAWING

C-15

SHEET 15
 OF 16

APPROVED

BY: CITY OF PUYALLUP
 DEVELOPMENT SERVICES

DATE: _____

NOTE:

THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

Taco Time

Section 27, Township 20 N, Range 4 E, Willamette Meridian, Pierce County, Washington

6.0 Side Backfill

1. Inspect all geotextile, ensuring that no voids or damage exists, which will allow sediment into the StormTank® system.
2. Adjust the stone/soil interface geotextile along the side of the native soil to ensure the geotextile is taught to the native soil.
3. Once the geotextile is secured, begin to place the Side Backfill.
 - a. Material should be a 3/4" (19 mm) angular stone meeting Appendix B – Acceptable Fill Material.
 - b. Backfill sides "evenly" around the perimeter without exceeding single 12" (305 mm) lifts.
 - c. Place material utilizing an excavator, dozer or conveyor boom.
 - d. Utilize a plate vibrator to settle the stone and provide a uniform distribution.

Notes:

- Do not apply vehicular load to the modules during placement of side backfill. All material placement should occur with equipment located on the native soil surrounding the system.
- If damage occurs to the geotextile fabric or impermeable liner, repair the material in accordance with the geotextile/liner Manufacturer's recommendations

7.0 Top Backfill (Stone)

1. Begin to place the Top Backfill.
 - a. Material should be a 3/4" (19 mm) angular stone meeting Appendix B – Acceptable Fill Material.
 - b. Place material utilizing an excavator, dozer or conveyor boom (Tech Bulletin Stormtank Module 25 Series Construction Equipment) and use a walk-behind plate vibrator to settle the stone and provide an even distribution.
- DO NOT DRIVE ON THE MODULES WITHOUT A MINIMUM 12" (305 mm) COVER
2. Upon completion of Top Backfilling, wrap the system in geotextile fabric and/or liner per manufacturer's recommendations.
 3. Install metallic tape around the perimeter of the system to mark the area for future utility detection.

Notes:

- If damage occurs to the geotextile fabric or impermeable liner, repair the material in accordance with the geotextile/liner Manufacturer's recommendations.

8.0 Suitable Compactable Fill

Following Top Backfill placement and geotextile fabric wrapping, complete the installation as noted below.

Vegetated Area

1. Place fill onto the geotextile.

- a. Maximum 12" (305 mm) lifts, compacted with a vibratory plate or walk behind roller to a minimum of 90% Standard Proctor Density.
 - b. The minimum top cover/backfill to finished grade must not be less than that shown on Detail 5 Typical System Cross Section, and the maximum depth from final grade to the bottom of the lowest module should not exceed that shown on Detail 5.
2. Finish to the surface and complete with vegetative cover.

Impervious Area

1. Place fill onto the geotextile.
 - a. Maximum 12" (305 mm) lifts, compacted with a vibratory plate or walk behind roller to a minimum of 90% Standard Proctor Density.
 - b. The minimum top cover/backfill to finished grade must not be less than that shown on Detail 5 Typical System Cross Section, and the maximum depth from final grade to the bottom of the lowest module should not exceed that shown on Detail 5.
2. Finish to the surface and complete with asphalt, concrete, etc.

Notes:

- A vibratory roller may only be utilized after a minimum 24" (610 mm) of compacted material has been installed or for the installation of the asphalt wearing course.

- If damage occurs to the geotextile fabric, repair the material in accordance with the geotextile Manufacturer's recommendations.

- For most recent installation guidelines visit: <http://www.brentwoodindustries.com/resources/>

9.0 Inspection and Maintenance

If the following inspections and maintenance procedures are not followed as specified below then the end-user is responsible for the performance of the modules. These Maintenance procedure must be performed after a heavy rainfall, flooding or any incident that will vary the flow of water drastically.

Inspection

1. Inspect all observation ports, inflow and outflow connection and the discharge area
2. Identify and log any sediment and debris accumulation, system backup, or discharge rate changes.
3. If there is a sufficient need for a cleanout, contact a local cleaning company for assistance.

Cleaning:

1. If a pretreatment device is installed, follow manufacturer recommendations.
2. Using vacuum pump truck, evacuate debris from the inflow and outflow ports.
3. Flush the system with clean water, forcing debris from the system.
4. Repeat steps 2 and 3 until no debris is evident



TECH BULLETIN

Revision 2

02/09/21

StormTank® Module 25 Series Construction Equipment

Background

To provide clarity on construction equipment that can travel over a StormTank Module system during construction, the below table has been created. This table is not all inclusive and evaluation by the contractor on a case-by-case equipment may be necessary before proceeding.

| Cover Depth over Module | Wheel Load (Vehicles and Equipment) | | Maximum Tracked Equipment | | Roller Loads | |
|-------------------------|-------------------------------------|---------------------|---------------------------|-------------------------------------|----------------------------------|--|
| | Maximum (Vehicle) | Maximum (Equipment) | Track Width | Maximum Weight (including material) | Maximum Drum Weight | |
| 6 in. | Not Permitted | Not Permitted | N/A | LGP Equipment (<5 psi) Only | Not Permitted | |
| 12 in. | 6,500 lbs. | 8,000 lbs. | N/A | LGP Equipment (<5 psi) Only | < 10 psi | |
| 18 in. | 11,000 lbs. | 14,500 lbs. | 12 in. | 20,000 lbs. | 20,000 lbs. | |
| | | | 18 in. | 30,000 lbs. | 20,000 lbs. (Static Only) | |
| | | | 24 in. | 40,000 lbs. | | |
| 24 in. | 15,000 lbs. | 20,000 lbs. | 12 in. | 40,000 lbs. | | |
| | | | 18 in. | 50,000 lbs. | 40,000 lbs. (Including Dynamics) | |
| | | | 24 in. | 60,000 lbs. | | |
| | | | 36 in. | 80,000 lbs. | | |

1. Vehicle has a tire contact area of 30"x30"
2. Equipment has a tire contact area of 30"x20" (dual wheel trucks like dump trucks)
3. Cover depths based on angular material, utilization of other materials impacts load rating
4. Dumping directly over the system is prohibited, including asphalt into a power unit
5. Consideration must be given for rutting into cover material when utilizing table
6. Excavation equipment cannot operate (excavate) from over the system
7. Material is prohibited from being stockpiled over a system
8. For specialty equipment (material handlers, cranes, units with outriggers, etc.) contact a StormTank Rep. before utilization over the system

Page 1 of 1



1901 Raymond Ave. S.W.
Renton, WA 98057
Ph: (425)-254-1075
seattle@layfieldgroup.com

SINGLE STACK MODULE SYSTEM

| | |
|-----------------------------|-------------------------|
| Total Storage Volume | 4116.94 ft ³ |
| Module Storage Volume | 3237.34 ft ³ |
| Stone Storage Volume* | 879.60 ft ³ |
| System Footprint | 1855.00 ft ² |
| Estimated Geotextile Fabric | 991.11 yd ² |
| Estimated Stone Volume | 115.80 yd ³ |
| Excavation Required | 309.17 yd ³ |
| Excavation Depth | 4.50 ft |
| Stone Type | ¾" Clear Stone |
| Stone Void Space | 40% |
| Module Type | 25 Series ST-24 |

820 E. Main Avenue

Puyallup, WA

| REV | Record of Changes | Date | By |
|-----|---------------------|------------|----|
| 1 | Preliminary Drawing | 11JULY2023 | AK |
| 2 | Tank Re-design | 14JULY2023 | AK |
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Project Number: CP2023-6808

Page Name: Supplementary Notes

Drawn by: AK

Checked By: JF

Scale: NTS

Date: 14JULY2023

THIS LAYOUT DRAWING WAS PREPARED TO SUPPORT THE ENGINEER OF RECORD FOR THE PROPOSED SYSTEM. IT IS THE RESPONSIBILITY OF THE ENGINEER OF RECORD TO REVIEW THE INFORMATION AND ENSURE THAT THE LAYOUT AND DESIGN IS IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS AND THAT THE STORMTANK SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH BRENTWOOD'S REQUIREMENTS. LAYFIELD DOES NOT REVIEW OR APPROVE PLANS, SIZING OR DESIGNS.

Sheet:

07 OF 07

ANSI B Size Page (Horizontal)

APPROVED

BY: _____ CITY OF PUYALLUP
DEVELOPMENT SERVICES

DATE: _____

NOTE:

THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

StormTank Details

Taco Time

Taco Time NW
3900 Maple Valley Hwy
Renton, WA, 98058
Phone 206.255.3683
Fax ronkni@tacomnwa.com

DRAWING

C-16

SHEET 16
OF 16

AZURE | GREEN
CONSULTANTS

*feasibility *planning *engineering *surveying

409 East Pioneer, Suite A - Puyallup, WA 98372
phone 253.770.3144 fax 253.770.3142

JOB NO.: 23035
DATE: JULY 14, 2023
DESIGNED BY: Paul Green
DRAWN BY: Paul Trivitt
CHECKED BY: Paul Green
APPROVED BY: Paul Green

| DATE | REVISION |
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