

Exhibit List: Z0032-23-D

1. Z0032-23-D Staff report and recommendations to DRC
- 1A Z0033-23-RSCA, draft decision, not final
2. Collins Lake Resort letter
- 2A Staff response to Collins Lake resort letter
3. ODOT Comments and recommended conditions of approval.
4. County Engineering Comments and conditions
5. County Sustainability/Solid Waste comments and conditions
6. Gov. Camp Design Guideline Handbook.
7. Submitted Application\*\*

\*\*Please note, the submitted application is very large, and cannot be transmitted via email.



## **RECCOMENDATION TO THE DESIGN REVIEW COMMITTEE**

**Recommended Decision:** Approved with Conditions

**Permit Type:** Design Review

**File No.** Z0032-23-D

**Proposal:** Development of 47-room hotel with associated hotel amenities. This review is also subject to a Stream Conservation Area (SCA) development associated with Camp Creek, running in the southern sector of the property. That proposal is being reviewed under planning file # Z0033-23-R.

**Meeting Date:** March 21, 2023 (Staff report prepared March 14, 2023)

**Issued By :** Ben Blessing, Sr. Planner, [Bblessing@clackamas.us](mailto:Bblessing@clackamas.us)

**Assessor's Map & Tax Lot(s):** 38E24A 00408

**Site Address:** Vacant lot at the northern-most extent of Gov. Camp Loop

**Applicant:** Mt. Hood LLC II

**Owner of Property:** Same as applicant

**Zoning:** Mountain Recreational Resort (MRR)

**APPLICABLE APPROVAL CRITERIA:** This application is subject to Clackamas County Zoning and Development Ordinance (ZDO) Section(s) 202, 1102, 317, 1001, 1002, 1003, 1005, 1006, 1007, 1009, 1010, 1015, 1021, and 1307.

### **COMMENTS:**

Notice was sent to applicable agencies and owners of property within 300 feet. Comments received relating to the applicable approval criteria listed above are addressed in the Agency Comment and/or Findings Section.

### **PUBLIC COMMENTS**

Several comments received in conjunction with the Camp Creek SCA review under planning file Z0033-23-R. That permit will address environmental concerns. Staff rec'd one detailed comment submitted by the surrounding development known as the Collins Lake Resort Home Owner's Association. Those comments, as well as staff's direct response to those comments are available as Exhibit 2 and 2A. For a complete list of additional comments and correspondence from Z0033-23-R and Z0032-223-D, please contact planning staff noted above or [SteveHan@clackamas.us](mailto:SteveHan@clackamas.us).



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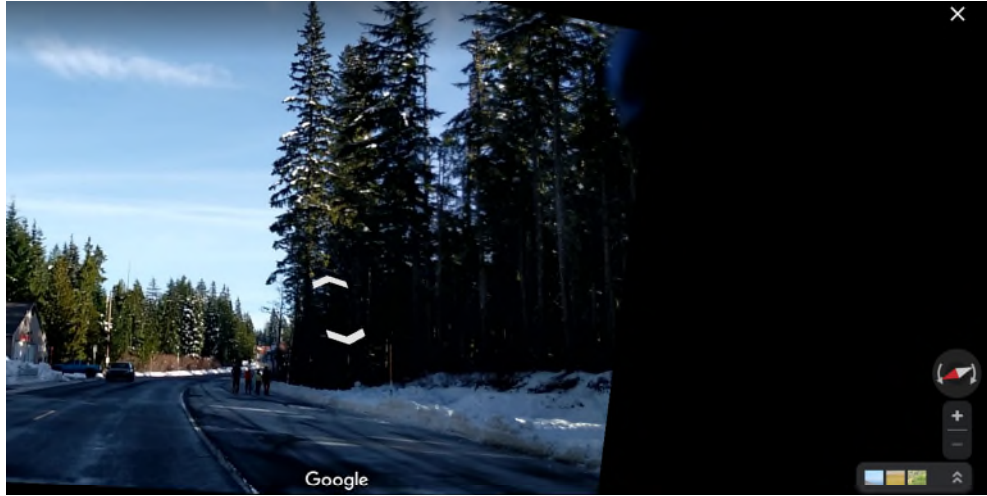
503-742-4545: ¿Traducción e interpretación? |Требуется ли вам устный или письменный перевод? 翻译或口译 ? | Cán Biên dịch hoặc Phiên dịch? | 번역 또는 통역?

# Location Map

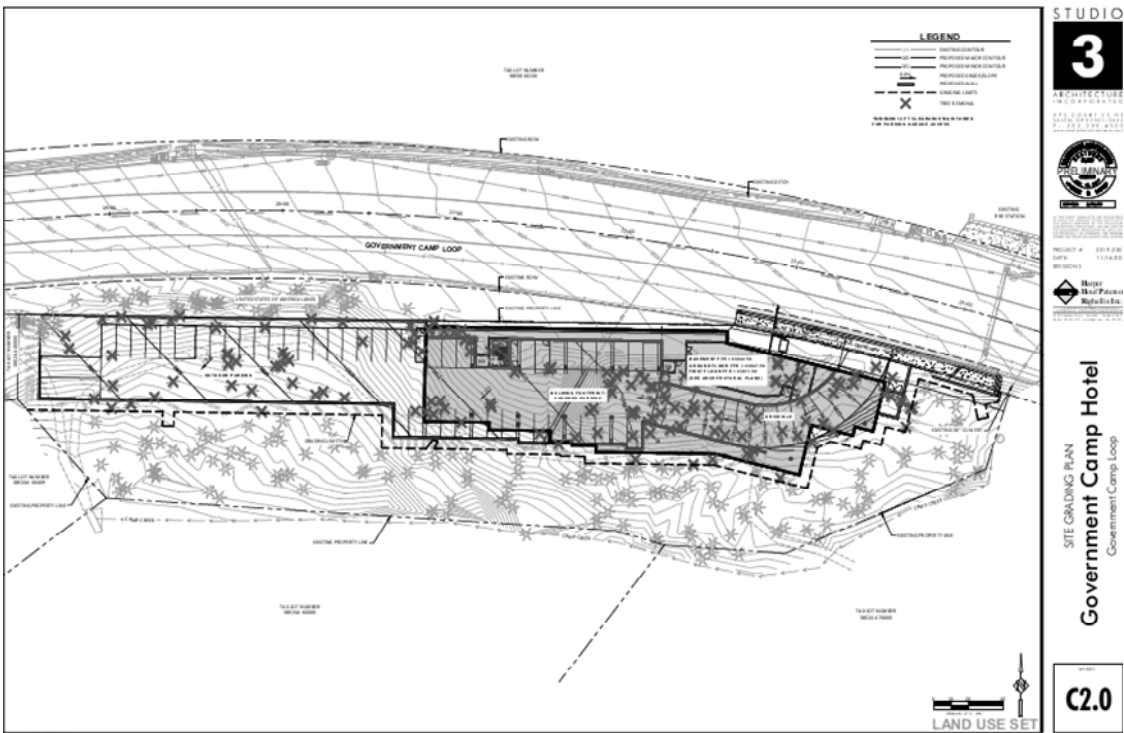


## Street View, Site Plan and Project Drawings

Street View (roughly at north extent of Mt Hood Loop):



Site Plan



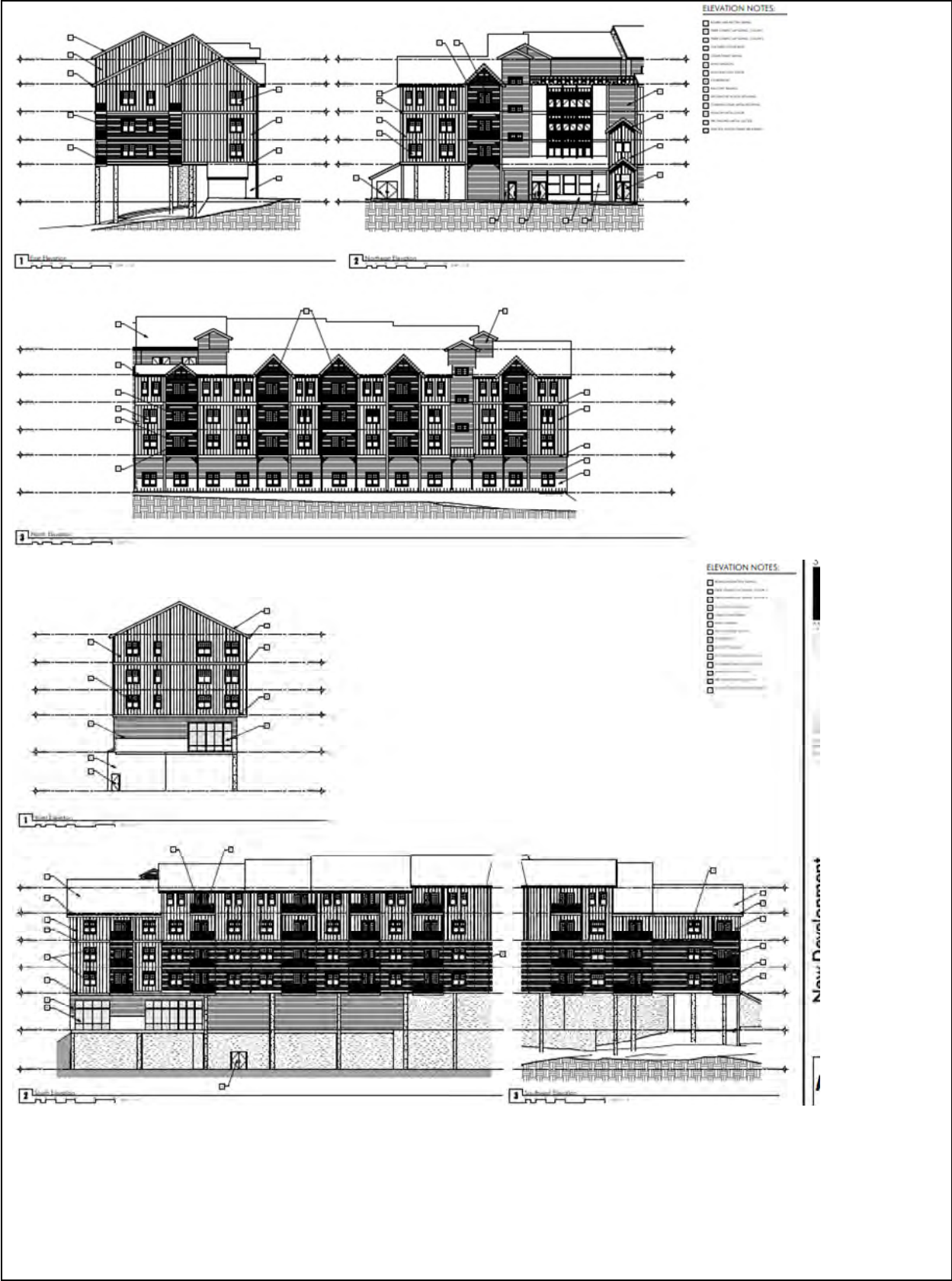
Building Renderings



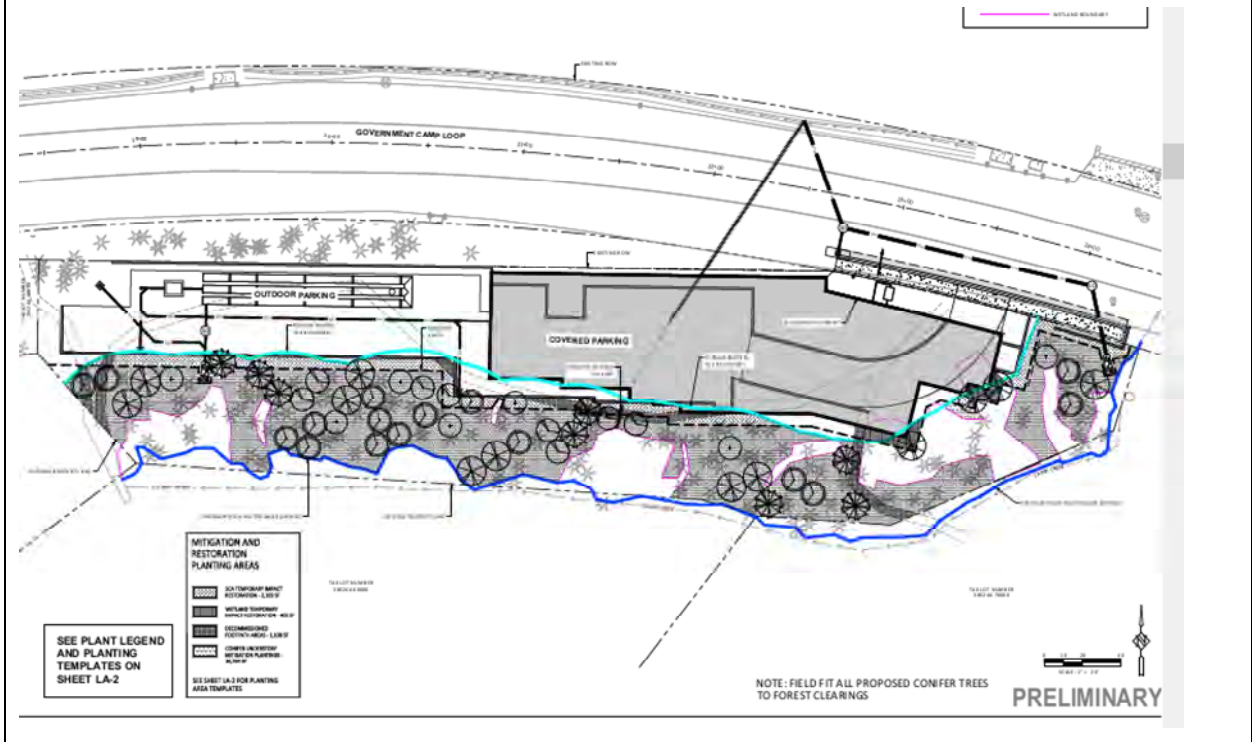


**Building Elevations**





# LANDSCAPE PLAN



## RECOMMENDED CONDITIONS OF APPROVAL

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The conditions listed are necessary to ensure that approval criteria for this land use permit are satisfied. Where a condition relates to a specific approval criterion, the code citation for that criterion follows in parentheses.

- 1) Approval of this land use permit is based on the submitted written narrative and plan(s) filed with the County on January 19, 2023. No work shall occur under this permit other than which is specified within these documents, unless otherwise required or specified in the conditions below. It shall be the responsibility of the property owner(s) to comply with this document(s) and the limitation of any approval resulting from the decision described herein.
- 2) This development, when decided by the Planning Director or designee, after Design Review Committee meeting, shall also be subject to the findings and conditions of approval of planning file #Z0033-23-R
  - A. **Advisory:** The draft decision for Z0033-23-R has been included with this staff report to the Design Review Committee-DRC (Please see Exhibit 1A). Although the decision has not been approved, the draft decision indicates that the Open Space/Stream Conservation Area development can be approved, in conjunction with this permit. Both decisions will likely be issued concurrently, after DRC meeting
- 3) **Prior to issuance of building permit**, the applicant/property owner shall provide a civil plan set and/or building permit plans associated with building permit submittal showing compliance with:
  - A. Vehicle Parking space requirements in ZDO Subsec. 1015.02(A) items 1-10.
  - B. Bicycle Parking space requirements in ZDO Subsec. 1015.03
  - C. Two (2) loading berths subject to ZDO Subsec. 1015.04
  - D. Six (6) van pool spaces
  - E. Provide a detailed drawing of the onsite walkway system/sidewalk, indicating the walkway is at least 5 feet in width, clearly marked and visible to drivers, raised in parts directly adjacent to vehicular drives (or install wheelstops), and adequately lit.
  - F. Roof eaves shall be 24 inches minimum, with roof vents placed opposite the public entrance
  - G. Metal roofing materials shall be coated to inhibit rust and corrosion.
  - H. Provide a pedestrian walkway/sidewalk planting plan (planters, trellises etc. may be used)
- 4) **Prior to issuance of building permit, the applicant/property owner shall complete provide a civil plan set and checklist showing compliance with**



Prior to issuance of building permits, the applicant shall submit detailed enclosure plans that clearly outline a waste and recycling enclosure that meets the requirements specified in [ZDO 1021](#), including, but not limited to, trash and recycling receptacle footprints (at a minimum, two 2yd containers and two roll carts) and acceptable service truck circulation. The applicant shall work with Clackamas County's Sustainability & Solid Waste staff to finalize plans that comply with design standards. Please contact Tenille Beseda: [tbeseda@clackamas.us](mailto:tbeseda@clackamas.us)

**5) Prior to issuance of certificate of occupancy, the applicant/property owner shall complete the following:**

- A. All elements of proposed site development including installation of landscape materials and irrigation.
- B. Provide a lighting plan, lighting profiles, and lighting specifications addressing ZDO Sec. 1005.04 items 1-6.
- C. Please provide a planting "maintenance plan" showing compliance with ZDO Sec. 1009.10 (A) through (O)

**6) Additional conditions of approval:**

- A. Any new/additional signs proposed shall meet with the standards of ZDO 1010, as to be determined at the time of the building permit.
- B. All mechanical equipment shall be screened from view, as shown on final plan set
- C. The proposed restaurant shall be used for hotel guests only, and not open to the general public for dining.
- D. Significant portions of the structural siding shall consist of natural and/or rustic wood siding
- E. This development is subject to landscape plans LA-1 through LA-3.
- F. Any waste collection areas or other storage areas shall be screened and disguised to resemble the exterior materials of the main building.
- G. Graded areas shall be re-vegetated with suitable plants to ensure erosion control. Netting shall be provided, where necessary, on sloped areas while ground cover is being established.
- H. At no time shall the proposed hotel be used for residential occupancy. The definition of "hotel" in ZDO Sec. 202 requires "short-stays" only.
  - i. **Advisory only:** Title 8 of the Clackamas County Code requires hotels to register for transient room tax. Stays should not exceed 30 days.
- I. This Approval of design review is valid for four years from the date of the final decision (ZDO Sec. 1102.05). This project shall be "implemented" as defined in ZDO Sec. 1102.05, prior to the date of expiration of this design review.
- J. If the design review approval is not implemented within the initial approval period established by Subsection 1102.05(A), a two-year time extension may be approved pursuant to Section 1310, *Time Extension*.

**7) Government Camp Sanitary District (GCSD) -- ZDO Sec. 1006**

A. Applicant shall comply with all GCSD standards prior to occupancy.

**8) Government Camp Water Company, Inc.(GCWC) -- ZDO Sec. 1006**

A. Applicant shall comply with all GCWC standards prior to occupancy

**9) Oregon Dept. of Transportation (ODOT) Conditions:**

A) Prior to Certificate of Occupancy, applicant shall comply with the following ODOT conditions of approval, except those noted as "Advisory":

i. Frontage Improvements:

The applicant shall construct a six-foot wide, at-grade, concrete sidewalk with gutter (no curb). The concrete sidewalk should be set back one-foot from the property line, within the right-of-way. Improvements must be consistent with ODOT and ADA standards

ii. Access to the State Highway:

A State Highway Approach Road Permit from ODOT for access to the state highway for the proposed use is required. Truck turning templates shall be provided as needed to ensure vehicles can enter and exit the approach safely. Site access to the state highway is regulated by OAR 734.51. **Advisory:** For application information go to <http://www.oregon.gov/ODOT/HWY/ACCESSMGT/Pages/Application-Forms.aspx>.

**Advisory:** It may take **2 to 3 months** to process a State Highway Approach Road Permit.

iii. Permits and Agreements to Work in State Right of Way:

An ODOT Miscellaneous Permit must be obtained for all work in the highway right of way. When the total value of improvements within the ODOT right of way is estimated to be \$100,000 or more, an agreement with ODOT is required to address the transfer of ownership of the improvement to ODOT. An Intergovernmental Agreement (IGA) is required for agreements involving local governments and a Cooperative Improvement Agreement (CIA) is required for private sector agreements. The agreement shall address the work standards that must be followed, maintenance responsibilities, and compliance with ORS 276.071, which includes State of Oregon prevailing wage requirements.

**Advisory:** If a CIA is required, it may take up to **6 months** to process

An ODOT Miscellaneous Permit is required for connection to state highway drainage facilities. Connection will only be considered if the site's drainage naturally enters ODOT right of way. The applicant must provide ODOT District with a preliminary drainage plan showing impacts to the highway right of way.

**Advisory:** A drainage study prepared by an Oregon Registered Professional Engineer is usually required by ODOT if:

1.Total peak runoff entering the highway right of way is greater than 1.77 cubic feet per second; or 2. The improvements create an increase of the impervious surface area greater than 10,758 square feet

**10)Clackamas County Engineering Conditions (ZDO 1007, 1015)**

- A. Applicant shall obtain a Development Permit from the County Engineering Section prior to the issuance of a Building Permit. The applicant shall pay the minimum Development Permit fee for commercial development. **Advisory:** At the time of this application the fee structure for commercial developments is \$2,000 minimum or 5% of site improvements. Issuance of a Development Permit is dependent upon the formal approval, by engineering staff, of a set of plans in compliance with *Clackamas County Roadway Standards* Section 140.
  - i. The permit will be for utilities, driveways, sidewalk, drainage, parking and maneuvering area, and other site improvements.
  - ii. The applicant shall have an Engineer, registered in the state of Oregon, design and stamp the construction plans for all required improvements.
- B. Prior to Development Permit issuance the applicant shall submit to Clackamas County Engineering Office:
  - i. Written approval from Hoodland Fire District for the planned access, circulation and water source supply.
  - ii. Written approval from Government Camp Water System District for adequate water supply to service the development.
  - iii. A copy of the approved Surface Water Management Plan, analyzing the difference between pre and post development discharge rates and mitigation of downstream impacts, along with the detention calculations.
  - iv. Written approval from ODOT, in the form of a permit, for access to and all work within E Government Camp Loop. Permitting of all improvements, surface water management, and the proposed stormwater conveyance system within the ODOT's right-of-way shall be required and coordinated through ODOT.
  - v. A signed Developer-Engineer Agreement for Primary inspection services per Section 180 of the Roadway Standards. The Primary Inspector will be required provide inspection reports to the County during period of active construction.
- C. Frontage improvements along E Government Camp Loop shall include:
  - i. 6-foot wide ADA compliant sidewalk-ADA accessible ramp is required where connection to existing sidewalk does not exist
  - ii. A minimum 28-foot wide concrete driveway approach per ODOT standards. The first 20-feet shall not have a running slope in excess of  $\pm 5\%$ .

- D. Applicant shall design and construct drainage facilities to serve the building, parking and maneuvering areas, and the remainder of the site in conformance with Water Environment Services requirements, and *Roadway Standards* Chapter four.
- E. The final surface water management plan shall demonstrate that the rerouted and concentrated runoff will not adversely affect the slopes and properties downstream. The proposed stormwater conveyance system shall be designed such that the upstream runoff that currently flows through the culvert is not restricted and the new conveyance system has adequate capacity to convey this flow. Furthermore, no flows shall exceed the permitted pre-development flows.
- F. Applicant shall design and construct a five-foot wide, ADA compliant walkway from the public right-of-way to the public entrance of each building per ZDO 1005.2. Where the on-site ADA walkway intersects the public sidewalk, there shall be a minimum 5x5 foot wide landing.
- G. Applicant shall install and maintain a 30-inch "STOP" sign, at the driveway exit. The bottom of the "STOP" sign shall be positioned 7 feet above the surface of the new sidewalk or pavement.
- H. All traffic control devices on private property, located where private driveways intersect the road shall be installed and maintained by the applicant, and shall meet standards set forth in the *Manual on Uniform Traffic Control Devices* and relevant Oregon supplements.
- I. Applicant shall provide and maintain adequate intersection sight distances and stopping sight distances at the driveway approach intersection with E Government Camp Loop in accordance with *Roadway Standards* section 240. Adequate intersection sight distance for drivers turning left into the site shall also be provided and maintained. In addition, no plantings at maturity, retaining walls, embankments, fences or any other objects shall be allowed to obstruct vehicular sight distance. Posted speed is 40 MPH which requires minimum 445 feet of intersection sight distance and 305 feet of stopping sight distance.
- J. Applicant shall provide adequate on site circulation for the parking and maneuvering of all vehicles anticipated to use the parking and maneuvering areas. Loading spaces shall also be afforded adequate maneuvering room. The applicant shall design and construct on-site parking and maneuvering areas as follows:
  - i. All parking and circulation areas shall be paved with structural section minimum requirements of Standard Drawing R100.
  - ii. Applicant shall provide and implement a signing and pavement-marking plan for onsite parking and circulation. This plan shall be reviewed and approved by the Engineering section and the local Fire Marshal prior to the applicant being issued a Development Permit.
  - iii. The applicant shall show the paths traced by the extremities of the anticipated large vehicles, including off-tracking, on the site plan to ensure adequate turning radii are provided for the large vehicles maneuvering on site and at driveways, including, but not limited to:

- i. A minimum of 24 feet of back up maneuvering room for all 90-degree parking spaces;
  - ii. The paths traced by the extremities of trucks and emergency vehicles shall be demonstrated.
- iv. All vehicular maneuvering shall be onsite with only forward movements towards the road. The applicant shall comply with the requirements of the ZDO Section 1021.06 regarding access to the front of solid waste and recyclable material container pad. The applicant shall comply with all the vehicle access requirements of ZDO Section 1021.06 unless modifications are approved in compliance ZDO Section 1021.08.
- v. Parking spaces shall meet minimum ZDO section 1015 and Roadway Standards, Standard Drawing P100/200 dimensional requirements. The plans shall list the number of parking spaces required and the number of parking spaces provided. The applicant shall label all compact, carpool, ADA, and loading berth spaces on the plans.

K. Primary Inspector:

- i. The applicant shall enter into a Developer/Engineer Agreement for primary inspection services per Section 180 of the Roadway Standards. This form will be provided to the applicant and shall be signed and returned to County Plans Reviewer.
- ii. Prior to final occupancy permit, the applicant shall provide a Certificate of Compliance signed by the Engineer of Record stating all materials and improvements have been installed per approved plans and manufacture's specifications.

L. Prior to the issuance of a building permit, the applicant shall submit to Clackamas County Engineering Office:

- i. Written approval from the Hoodland Fire District for the planned access, circulation, fire lanes and water source supply. The approval shall be in the form of site and utility plans stamped and signed by the Fire Marshal.
- ii. Written approval from ODOT in the form of a permit for all work within the E Government Camp Loop right-of-way.
- iii. Written approval from Government Camp Water System for adequate water supply source to serve the development. The approval shall be in the form of utility plans stamped and signed by the Water District representative.
- iv. A set of site improvement construction plans, including a signing and striping plan, for review, in conformance with *Clackamas County Roadway Standards* Section 140, to Clackamas County's Engineering Office and obtain written approval, in the form of a Development Permit.

- M. Prior to Certificate of Occupancy, the development shall meet the requirement set forth in Section 190 of the Roadway Standards for Substantial Completion including but not limited to:
- i. All underground utilities are installed and accepted including franchise utilities
  - ii. Paving or final grade has been completed and approved
  - iii. All Development Permit conditions of approval have been met
  - iv. Certificate of Compliance has been submitted
  - v. Final approval of ODOT permit
  - vi. Submit, at time of initial paving, electronic as-built plans for all improvements showing all construction changes, added and deleted items, location of utilities, etc. A professional engineer, registered in the state of Oregon, shall stamp and sign as-built plans.

## **FINDINGS**

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The findings below identify the standards and criteria that are relevant to this decision, state the facts relied upon in rendering the decision, and explain the justification for the decision.

1. **PROJECT OVERVIEW:** This subject property is roughly 1.38 acres and located at the northern extent of East Government Camp Loop, adjacent to the Collins Lake Resort condominium development. The proposal is for a 47-unit hotel or “boutique hotel” as noted by the applicant. Hotel features include a 47-unit/room hotel. Many rooms are large, and contain small kitchenettes. Hotel amenities include; a spa/sauna, game room, bike and ski storage area in the basement/lower level, a large lobby, and a restaurant for hotel guests. Camp Creek runs roughly adjacent to the southern property, flowing southwesterly. The creek itself is protected by a 50-foot Stream Conservation Area (SCA) (aka stream buffer), and the applicant has proposed the development to avoid the buffer as much as possible, but some impacts are still proposed. Thus, a SCA review is a required, and being reviewed under planning permit #Z0033-23-R. Therefore, this application for Design Review is predicated on approval of Z0033-23-R.

The applicant appears to have erroneously listed a 30-unit hotel in some parts of their narrative (page 7 and 68). It should be noted that the submitted plan set delineates 47 units, as noted elsewhere in the project.

This application is subject to Clackamas County Zoning and Development Ordinance (ZDO) Section(s) 1102, 202, 317, 1001, 1002, 1003, 1005, 1006, 1007, 1009, 1010, 1015, 1021, 1102, and 1307. The Clackamas County Planning and Zoning Staff has reviewed these Sections of the ZDO and design guidelines in conjunction with this proposal and make the following findings and conclusions:

2. **Section 1102 – Design Review**

*Subsection 1102.01 Applicability*

**Finding:** Clackamas County’s Zoning and Development Ordinance determines development types for which design review is required. ZDO Subsection 1102.01(C) states that design review is required for, “...Development, redevelopment, expansions, and improvements in the MRR District...” Thus, design review is required for the project.

*Subsection 1102.02 Submittal Requirements*

**Finding:** Clackamas County’s Zoning and Development Ordinance (ZDO) determines the submittal requirements necessary for design review. The applicant initially submitted a set of information January 19, 2023. The submittal package contained the required minimum materials determined by this subsection. County staff deemed this application complete on February 8, 2023. The standard is met.

*Subsection 1102.03 Approval Criteria*

**Finding:** Clackamas County’s Zoning and Development Ordinance determines that projects which require design review are subject to the standards of the underlying zoning district as well as to Section 1000 “Development Standards”. The analysis of the proposal, per those sections of the Clackamas County ZDO, follow in subsequent sections.

*Subsection 1102.04 Design Review Committee*

**Finding:** Staff found that the impact to surrounding properties, particularly with regard to surrounding residential properties, as well the presence of natural features and the fairly large size of the development, warrant a review by the Design Review Committee.

*Subsection 1102.05 Approval Period and Time Extensions*

**Finding:** These standards are listed above in the conditions of approval section.

3. **Section 202 – Definitions**

*“Hotel:” A building which is designed or used to offer short-term lodging for compensation, with or without meals, for six or more people. A facility that is operated for the purpose of providing care beyond that of room and board is not a “hotel”*

**Finding:** The applicant notes that the hotel will include “extended stays”. This seems evident given that many of the hotel rooms have small kitchen areas.

Comments from surrounding neighbors have concerns that the structure will be used more so as an apartment or residential dwelling. Staff finds that at no time shall this building be used for residential dwelling purposes. The County Code, which houses the ZDO in Title 12, also has business requirements in Title 8 noting that hotels can only be used for “transient occupancy” not exceeding 30 days. While parts of the County Code at large cannot be imposed through the ZDO, staff does recommend a condition of approval restricting the building to short-term/transient lodging only. An advisory condition is recommended noting Title 8 of the County Code allows a maximum stay up to 30 days. This criteria can be met.

4. **Section 317 – Mountain Recreational Residential (MRR) Zoning district**

*Subsection 317.03 Uses Permitted*

Clackamas County’s ZDO determines uses that are permitted primary, permitted accessory, conditionally permitted, or not allowed in each zoning district.

**Finding:** The proposed development is located in the MRR Zone. The applicant’s submitted materials indicate that the proposed use for this site is a “hotel” as defined in Sec. 202. This is considered a “permitted use” pursuant to table Table 317-1. There are concerns noted in Exhibit 2 that a restaurant is included in the hotel, thus constituting a separate use. However, the applicant states that the restaurant will only be available for hotel guests. In this case, the dining area is incidental to the hotel itself, and not a separate use. No outside patrons will be permitted for general dining, and that only guests will use the small dining area/restaurant. Therefore, staff finds that the restaurant need not be analyzed as a separate use. Staff also received comments from neighbors opining that this hotel is actually a “Mixed Use” building. The definition of “mixed use” per ZDO Sec. 202 is broad, and is more associated with urban scale development with clearly separate uses, and generally on different levels (e.g. retail on ground, office on second level, and residential on upper levels). Since all of the hotel amenities will be incidental to paying guests, staff does not find this development is “mixed use.” Furthermore, the definition of “hotel” includes meals being served to guests, and it is highly customary to have eating/restaurant facilities for hotel guests. A condition of approval is recommended, however, limiting restaurant use to guests of the hotel, and not open to the general public as a separate restaurant.

Lastly, Table 317-1 identifies “hotels” as being subject to footnote 7 and 8. Footnote 7 permits “Convention facilities” to be part of the hotel. Footnote 8 notes that hotels in Government camp can have up to 100 units. In this case, the proposal is complying with said footnotes.

*Subsection 317.04 Dimensional Standards*



**Finding:** The table below demonstrates how the applicant’s proposal complies with the dimensional standards of the MRR zoning district and Table 317-2. These standards are met.

	<b>Ordinance Standard</b>	<b>Demonstrated Dimension</b>	<b>Complies With Standard</b>
<b>Minimum Lot Size</b>	None/NA	1.38 acre	Complies
<b>Minimum Front Yard Setback<sup>1</sup></b>	10 feet	10 feet to building/ 20 feet to garage carport	Complies
<b>Minimum Rear Yard Setback</b>	10 feet	12 feet	Complies
<b>Minimum Side Yard Setback<sup>2</sup></b>	0 feet	0-2 feet	Complies

**4. Section 1001-- General Provisions**

**Finding:** This development meets the purpose, general standards, and applicability in this subsection. Specific standards in other Sections of the 1000s are addressed below. This standard is met.

**5. Section 1002/1003 – Protection of Natural Features/Natural Hazards**

Section 1002 addresses the protection of various natural features including hillsides, the excessive removal of trees prior to development, the protection of trees and wooded areas through development, river and stream corridors, the winter ranges of deer and elk populations, certain open spaces near Mount Hood, significant natural areas, and significant landforms and vegetation. Section 1003 addresses ‘Hazards to Safety’ such as landslide hazards, wet/hydric soils, etc.

**Finding:** Slopes of the development appear to be just below 20 percent. Nevertheless, the applicant has provided a geotechnical report with design recommendations. The applicant’s findings are sufficient and development is permitted where proposed. A separate Steep Slope Review, subject to ZDO Sec. 1002, may be required for new development on slopes greater than 20 percent. In terms of Subsection 1002.03, trees and wooded areas will be completely preserved in the southern half of the parcel. The north half of the parcel is where

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<sup>1</sup>Table 317-1 normally requires a 15 foot setback (20 to garage carport), but since development is in Government Camp, a 10-foot minimum building setback is allowed per footnote 1. The garage is underground, and goes well beyond 20 feet.

<sup>2</sup> As noted by applicant, the north property line abuts federal/US forest service land and footnote 3 provides a setback of zero.

the development will occur, and tree removal is unavoidable there. Stream areas are being reviewed pursuant to ZDO Sec. 704 and permit # Z0033-23. No Geohazard areas identified on Oregon Dept. of Geology and Mineral Industries (DOGAMI) maps. These standards are met.

**6. Section 1005 – Sustainable Site and Building Design**

Section 1005 addresses the development of sites and design of buildings so as to efficiently utilize land, create lively, safe, and walkable centers, support the use of non-auto modes of transportation, reduce impact of development of natural features, utilize opportunities arising from a site's configuration, design illumination so dark skies are maintained when possible and accommodate the needs of users of developments. It applies to institutional, commercial, and industrial development; multifamily dwellings; and developments of more than one two- or three-family dwelling.

*Subsection 1005.02 – General Site Design Standards* establishes standards for the sites of commercial, industrial, and multifamily developments and addresses standards for the placement and orientation of buildings, on-site pedestrian circulation, the placement and orientation of building entrances, and other use- and zone-specific standards.

*Subsection 1005.02(A) through (C): Finding: The applicant's proposal meets these standards as designed, as there is no cause to cluster buildings, the building is oriented with true south, and there are no requests for setback reductions. This criteria is met.*

*Subsection 1005.02(D) Finding: the applicant notes that an on-site walkway system/sidewalk is present on the site and will connect the main vehicular entrance to the driveway and to the front entrance of structure. However, staff found that plans did not show specifics for the onsite walkway system/sidewalk. A condition of approval is warranted that the applicant provided a detailed drawing of the onsite walkway system/sidewalk, indicating the walkway is at least 5 feet in width, clearly marked and visible to drivers, raised in parts directly adjacent to vehicular drives (or install wheelstops), adequately lit, etc. This plan shall be reviewed prior to building permit approval, and is recommended above as a condition of approval. Given the short run between the entrance and the building, staff finds this condition can be met.*

*Subsection 1005.02(F) through (H): The subject property is not located in the Urban Growth Boundary (UGB) so Subsection F does not apply. Subsections G and H only apply to developments on major transit routes, and Government Camp is not on a major transit route. It should be noted that the Collins Lake Resort letter (Exhibit 2) opines that these standards should apply given the site is "mixed use". As noted above, this is not a mixed use development, and again, the parcel is not located on a major transit route. These criteria are not applicable.*

*Subsection 1005.02(I) through (L): These standards do not apply to MRR zone, and therefore, are not applicable.*

*Subsection 1005.03 – Building Design provides standards for building facades, entrances roof design, exterior building materials, the screening of mechanical equipment, and other use- and zone-specific standards.*

*Subsection 1005.03(A): Findings; Architectural variety on each building face, and at public entrances are demonstrated with the hotel design. The scale, design, and architectural elements appear to be sufficient for this site. This criteria is met.*

*Subsection 1005.03(B) and (C): Findings; the public entrances will be constructed with overhangs and are clearly defined. Subsection B(2) and C are not applicable as this areas is outside of UGB and 1005.02(E) is not applicable.*

*Subsection 1005.03(D) and (E): Findings: Pitched roofs are proposed and eaves are proposed on the applicant's plan set. The applicant shall ensure final building plans show roof eaves at 24 inches minimum, with roof vents placed opposite the public entrance. This criteria can be met as conditioned. The applicant's architectural plan set shows a variety of external materials that are required in Subsection E. These standards can be met, and a condition of approval is recommended that building plans show these items are included prior to building permit approval, and prior to final occupancy.*

*Subsection 1005.03(G) and (H): Findings: The applicant notes that Subsection G is not applicable to this development. Staff has not found any reason that this section should not be applicable. However, staff has also not rec'd any concerns from agencies that the building design will limit security monitoring as designed. Thus, staff recommends that this section be considered satisfied. In terms of Subsection H, staff finds that the site is already oriented at true south, and there are overhangs on the proposal. Moreover, the high altitude and surrounding coniferous forest should provide added summer cooling. These criteria are met.*

*1005.06.*

*Subsection 1005.03(I) and (J): Findings: The applicant's submittal plan appears to meet items 1-9, Subsection I. Item 7 requires design to reflect the "unincorporated communities" appearance. Staff finds that the design is comparable to other development in Government camp. Staff notes, there will be additional standards for Government Camp, noted in subsection 1005.12, below. It also appears that the structure will be largely wood/brown in color, so this should blend with the Open Space/natural areas, as noted in item 9. For Subsection J, a condition of approval is required that all mechanical equipment shall be screened from view by the measures noted in items 1-3, subsection J. These standards can be met.*

*Subsection 1005.03(K) and (L): Findings: this criteria is not applicable in the MRR zone.*

*Subsection 1005.04 – Outdoor Lighting* provides standards to ensure that onsite lighting is compatible with the site and surrounding uses while preventing light trespass and pollution.

***Finding:*** *Although a lighting plan has not been supplied, the absence of a lighting plan should not alter the overall site layout, and the applicant can provide a lighting plan, lighting specifications, and light mast/pole profiles prior to building permit approval and building occupancy. A condition of approval is recommended that the applicant provide a lighting plan, lighting profiles, lighting specifications addressing items 1-6, prior to building permit approval and occupancy.*

*Subsection 1005.05 – requires applicants to employ one “Additional Requirement” for every 20,000 square feet of site area. **Finding:*** The applicant’s site is approximately 60,112 square feet and the applicant states that three additional requirements need to be met. The applicant has identified subsection “G”, “Q”, and “S” as viable *Additional requirements*. Staff has reviewed the applicant’s findings for these sections, and agrees these options are met through the design. This criteria is met.

***Subsection 1005.06 MODIFICATIONS: no modifications have been identified.***

*Subsection 1005.12 – Government Camp Design Standards: In the MRR Zoning District, the following three specific requirements shall be met:*

1. Exterior Building Materials: Primary and accessory structures shall use wood, stone, stone veneer, or stucco in exterior construction. Stucco and textured concrete may be used as secondary materials. Stucco must be acrylic-based and combined with heavy timber, wood, or stone cladding. A rock, rock veneer, or textured concrete base shall be provided around building exteriors visible from roadways. No exposed plywood, particle board, plain concrete, cinder block, or grooved T1-11 is permitted.

***Finding:*** the applicant’s plan set appears to accomplish these design standards. Culture stone base, and various cement boards should articulate with the wood framing. Cedar shake siding is noted as building item #5 in the architectural drawings, but only a small area of cedar shake siding is proposed. Staff will review wood siding in subsection 3, below. Otherwise, staff finds that the proposed building materials should satisfy this section, and recommends the plans be accepted as sufficient except where noted below.

2. Roofing Materials: No composition shingles are allowed. Metal roofing materials that are subject to rust or corrosion shall be coated to inhibit such rust and corrosion, and metal roofing materials with rust or corrosion shall be stabilized and coated to inhibit future rust and corrosion.

**Finding:** Standing seam metal is proposed. A condition of approval is warranted that the applicant demonstrate roofing materials are coated to inhibit rust and corrosion, prior to building permit approval and final building occupancy. This criteria can be met.

3. Design: Building design shall meet the design intent of mountain architecture as described in the Government Camp Design Guidelines Handbook (Handbook). Examples of mountain architecture include "Cascadian", "Oregon Rustic", and the "National Park Style".

**Finding:** The applicant notes that a registered architect has prepared detailed plans based on Government Camp Design Guidelines. Upon review of the Handbook, it appears much of exterior building materials and design can meet the guidelines. Staff reiterates that some level of wood siding would be ideal, in contrast with the stone base. As noted above, the applicant's architecture plans legend item #5 calls for wood shake siding, but the majority of siding proposed is *fiber cement lap siding* (called out as legend item #2 and #3). Some type of natural, rustic wood siding may be more in line with the Handbook. Staff welcomes any assistance from the Design Review Committee with regards to siding. Overall, staff recommends the plans be accepted as proposed, except staff does recommend a natural wood siding element. This is noted above in the conditions of approval. The Handbook is available as Exhibit 6, and the MRR zoning guidelines begin on Page 7.

**7. Section 1006 – Utilities, Street Lights, Water Supply, Sewage Disposal, Surface Water Management, and Erosion Control.**

Section 1006 addresses the provision of appropriate infrastructure for utilities, water supply, and sewage disposal, as well as the management of surface water and site erosion.

**Finding:** Preliminary Statement of feasibility signed by Government Camp Water Company, Inc. (GCWC) and Government Camp Sanitary District (GCSD) were submitted and are dated less than 1 year from the date of completion of this request. Staff also confirmed that County Engineering was satisfied that surface water can be treated on site. These statements confirm public drinking water, sanitary sewer, and storm/surface water standards can be met. Only County Engineering submitted comments for surface water treatment. These comments are dated March 9, 2023 (Exhibit 4). Staff concurs with Engineering's listed conditions of approval for surface water treatment, and they shall be added as

conditions herein. GCWC and GCSD did not provided specific comments. Therefore, staff recommends a condition of approval stating that the applicant shall comply with GCWC and GCSD standards prior to occupancy. **As conditioned in Section II, these standards can be met.**

## **8. Section 1007 - Roads and Connectivity**

### *1007.01 - General Provisions*

- A. The location, alignment, design, grade, width, and capacity of all roads shall be planned, coordinated, and controlled by the Department of Transportation and Development and shall conform to Section 1007, Chapters 5 and 10 of the Comprehensive Plan, and the Clackamas County Roadway Standards. Where conflicts occur between Section 1007, the Comprehensive Plan, and the Clackamas County Roadway Standards, the Comprehensive Plan shall control. The below findings are based on comments received by the Clackamas County Development Engineering Division, dated March 9, 2023 (Exhibit 4).

**Findings:** The applicant has proposed construction of a 47-unit hotel on the south side of E Government Camp Loop. The project site is approximately 1.38 acres in area.

The proposed development is subject to the provisions of Clackamas County Zoning and Development Ordinance (ZDO) Section 1007 pertaining to roads and connectivity, Section 1015 pertaining to parking and loading, and Water Environment Services requirements and Roadway Standards Chapter 4 pertaining to surface water management.

- B. Right-of-way dedications and improvements shall be required of all new developments, including partitions, subdivisions, multifamily dwellings, two- and three-family dwellings, condominiums, single-family dwellings, and commercial, industrial, and institutional uses, as deemed necessary by the Department of Transportation and Development and consistent with Section 1007, Chapters 5 and 10 of the Comprehensive Plan, and the Clackamas County Roadway Standards.

**Finding:** The applicant proposes partial road improvements along a portion of the frontage on E Government Camp Loop consisting of road widening and 6-foot wide sidewalk. The applicant proposes 31-foot paved half-width, 2-foot mountable valley curb, 6-foot sidewalk, and 1-foot shoulder. The applicant will need to ensure the proposed improvements and right-of-way meet the requirements of ODOT. All permitting and right-of-way donation shall be required and coordinated through ODOT

## 1007.02 - Public and Private Roadways

- A. All roadways shall be developed according to the classifications, guidelines, tables, figures, and maps in Chapters 5 and 10 of the Comprehensive Plan and the provisions of the Clackamas County Roadway Standards.
  1. Development along streets with specific design standards specified in Chapter 10 of the Comprehensive Plan shall improve those streets as shown in Chapter 10.

**Finding:** The applicant proposes partial road improvements along a portion of the frontage on E Government Camp Loop consisting of road widening and 6-foot wide sidewalk. The applicant proposes 31-foot paved half-width, 2-foot mountable valley curb, 6-foot sidewalk, and 1-foot shoulder. The applicant will need to ensure the proposed improvements and right-of-way meet the requirements of ODOT. All permitting and right-of-way donation shall be required and coordinated through ODOT.

Per Clackamas Roadway Standards Section 240, developments are required to be served by driveways that provide adequate intersection and stopping sight distance. Posted speed for E Government Camp Loop is 40 MPH which requires minimum 445 feet of intersection sight distance and 305 feet of stopping sight distance along this road.

In Government Camp Loop is under the jurisdiction of ODOT. Permitting of all improvements, surface water management, and the proposed stormwater conveyance system within the ODOT's right-of-way shall be required and coordinated through ODOT. **This criteria can be met.**

Staff also received comments from Oregon Department of Transportation (ODOT) dated March 2, 2023 (Exhibit 3). ODOT's comments set forth findings related to frontage improvements in line with County Engineering comments. Their comments also require the applicant to ODOT Highway Design manual. Several Conditions of approval have been recommended by ODOT. Staff recommends that conditions noted in Exhibit 3 be implemented into this decision above, in the conditions of approval. ODOT conditions shall be met prior to Certificate of Occupancy.

## 1007.03 PRIVATE ROADS AND ACCESS DRIVES

**Findings:** The applicant will be required to provide adequate on-site circulation for all vehicles anticipated to use the parking and maneuvering areas. The applicant will need to demonstrate the site design adequately addresses the turning movements for large vehicles such as garbage truck, delivery trucks, and emergency service vehicles within the site. The proposed parking and maneuvering areas appear to provide adequate access for passenger cars. The plans do not show how the larger vehicles including garbage truck and emergency service vehicles can turn around and maneuver through the site. The applicant in addressing the requirements of

the ZDO Section 1021.06 regarding access to the front of solid waste and recyclable material container pad states that the 45-foot collection dimension does extend to the shoulder of Government Camp Loop. The applicant shall comply with all the vehicle access requirements of ZDO Section 1021.06 unless modifications are approved in compliance ZDO Section 1021.08. **These standards can be met.**

*1007.04 - Pedestrian and Bicycle Facilities*

- A. General Standards: Pedestrian and bicycle facilities shall be developed according to the classifications and guidelines listed in Section 1007, Comprehensive Plan Figures 5-1 through 5-3, *Typical Roadway Cross Sections*, Chapters 5 and 10 of the Comprehensive Plan, and the Clackamas County Roadway Standards.

**Finding:** *E Government Camp Loop is under the Jurisdiction of ODOT. Conditions of approval noted above shall ensure the subject property complies with all pedestrian standards.*

**This criteria can be met.**

*1007.05 - Transit Amenities*

**Finding:** E Government Camp Loop is not located on a transit route. This criteria is not applicable.

*Subsection 1007.06 – Street Trees* addresses requirements for street trees within the Portland Metropolitan Urban Growth Boundary, in the Clackamas Regional Center Area, in the Business Park zoning district, and in Sunnyside Village.

**Finding:** The proposed development is not within the Portland Urban Growth Boundary. This standards is not applicable.

*SUBSECTION 1007.07 - Transportation Facilities Concurrency*

- B. Approval of a development shall be granted only if the capacity of transportation facilities is adequate or will be made adequate in a timely manner. The following shall be exempt from this requirement:

**Finding:** The proposed hotel is located south of the E Government Camp Loop. The applicant has proposed access onto E Government Camp Loop which is under ODOT's jurisdiction. According to county's ZDO 1007.7.B(6), developments in Government Camp that are otherwise consistent with the Comprehensive Plan and use plan designations and zoning for Government Camp, are not required to submit a Traffic Impact Study (TIS). Furthermore, ODOT has not required a TIS for this



development. The project site is within Mountain Recreational Resort (MRR) zoning district. Furthermore, comments received from Oregon Dept. of Transportation (ODOT) dated March 2, 2023, do not require a TIS or identify traffic capacity issues. (ODOT comments, Exhibit 3) **This standard is met.**

**9. Section 1009 – Landscaping**

Section 1009 seeks to ensure that sites are designed with appropriately selected, designed, installed, and maintained landscape materials and that landscaped areas are used for appropriate purposes.

*1009.01(A) through (D) – General Provisions:*

**Finding:** The applicant has submitted a detailed Landscaping Plan with Sheet LA-1 through LA-3. A detailed, highly professional landscaping and plant mitigation plan is proposed in the south sector of the site. This mitigation is required in conjunction with the aforementioned SCA permit (planning file Z0033-23-R). Thus, Plantings will be a mix of native trees (primary conifers), shrubs and grasses. To staff's knowledge, Invasive, non-native, or noxious vegetation is not proposed, and the applicant will not be storing or displaying materials in the landscaped areas.

*1009.01(E) through (H) – General Provisions:*

**Finding:** Pursuant to subsection, E, and as noted above, the applicant has a very small amount of frontage along the public road right of way, and the site entrance will occupy nearly all of that frontage. Federal property borders the north property line, and the applicant's proposal will abut the hotel at said north property line. Thus, there is no reason to require landscaping strips along the north property line. An advisory finding, it appears the narrow strip of federal land north of the subject property contains mature conifer trees per the landscaping plan. Although this treed area does not count toward the landscaping plan, it will provide some forested landscaping for the time being. Pursuant to subsection G, in-ground landscaping should be used to highlight the site entrance. As noted by the applicant, planters may be used to highlight this area. Planters, trellises, and hanging baskets are permitted in lieu of in-ground plantings. A condition of approval is recommended requiring the applicant to provide a pedestrian connection landscaping plan prior to building permit approval. In terms of subsection G and H, the applicant is proposing to enhance and plant most of the property that is not being developed. As conditions these standards can be met.

*1009.02 – Minimum Area Standards:*

**Finding:** According to the applicant's narrative and landscaping plan set, the landscaping will constitute approximately 41% of the gross site area (24,469 square feet), which easily exceeds the 25% minimum landscaped area requirement in the MRR zones, set forth in table 1009-1. As a condition of approval, this development is subject to landscape plans LA-1 through LA-3. Staff will inspect the site prior to occupancy to confirm the plantings are installed. **As conditioned, these standards are met.**

1009.03 – Surface Parking and Loading Standards:

**Findings:** Much of the parking will be underground, and the remaining parking area will be surrounded by existing or proposed native vegetation. Additional perimeter landscaping is not required. This standard is not applicable.

1009.04 – Screening and Buffering:

**Findings:** Any waste collection areas or other storage areas shall be screened and disguised to resemble the exterior materials of the main building. Staff recommends a condition of approval to ensure buffering of these areas.

1009.05 – Scenic Roads:

**Findings:** Comprehensive Plan Map 5-1 shows Mt Hood Hwy (ore hwy 26) and E Government Camp Loop road as scenic roads. Landscaping in the southern sector of the lot will be preserved to the maximum extent possible, thus creating a buffer from Ore Hwy 26. Although the building meets the front setbacks off Government Camp Loop, it cannot be sited any further south, given the constraints on site. It should also be noted that there appears to be fir trees on the strip of federal land abutting the northern property line. This shall provide some buffering, though there is no mechanism to ensure that those trees are preserved in perpetuity, especially if located on federal lands or State rights of way. These standards are met.

1009.06(C) – Landscape Strips:

**Findings:** As discussed above, frontage is too narrow to accommodate a landscape strip, and there are no other frontages requiring landscaping strips. As proposed, this criteria is met.

1009.09 – Erosion Control:

**Findings:** Graded areas shall be re-vegetated with suitable plants to ensure erosion control. Netting shall be provided, where necessary, on sloped areas while ground cover is being established. Condition of approval is recommended, and listed above. This can be met

1009.10 – Planting and Maintenance:

**Findings:** This section sets forth requirements to ensure proper plantings, planting survival, and plant maintenance. Applicant shall be required to follow the standards set forth in subsections A through O. These are recommended as conditions of approval and noted above.

**10. Section 1010 – Signs**

The provisions of Section 1010 are intended to maintain a safe and pleasing environment for the people of Clackamas County by regulating the size, height, number, location, type, structure, design, lighting, and maintenance of signs.

**Finding:** No signage is proposed in this application. Any additional future signage on the site will need to comply with the standards of Section 1010. The standards are met.

## **11. Section 1015 – Parking and Loading**

Section 1015 is designed to ensure that developments in Clackamas County provide sufficient and properly designed parking for motor vehicles and bicycles as well as appropriate off-street loading areas.

**Finding:** In terms of ZDO Subsec. 1015.02(A), the applicant states that the multiple design standards have, or will be adhered to. Staff reviewed the parking plan, and agrees that standards can be met. The applicant has noted that at least six (6) carpool/vanpool spots are planned. The minimum parking in table 1015-1 requires 47 spaces, and the applicant shows 52. At least two loading berths are required, and the applicant shows two. Between the six outdoor bicycle spaces, and the 56 bicycle spaces in the basement of the building, bicycle parking far exceeds the minimums set forth in 1015-3. Staff recommends a conditions of approval that the applicant provide planning staff a checklist that standards 1-10 of subsection 1015.02(A) are met based, on the civil plan set drawing. This criteria can be met.

ZDO Sec. 1015.02(B); Parking Minimums:

The applicant has proposed to develop the site a 47-unit hotel. Table 1015-1 requires 1 parking space per room. For a 47-room/unit hotel, the minimum is 47 spaces. Applicant is proposing 52.

Bicycle Parking: Table 1015-3 provides requirements for minimum number of bicycle parking. The applicant's narrative asserts that this development is most similar to multifamily, thus requiring .5 spaces per unit. Staff notes that this may be more similar to commercial development requiring one spot per 2500 square feet. In either case, the minimum number of bicycle parking spaces would be less than 20, and the applicant is proposing over 60. The majority of bicycle spaces will be underground, out of the elements. A condition of approval is recommended, requiring the applicant prepare a checklist in conjunction with the civil plan set, showing continued compliance with ZDO Sec. 1015.03. This standard can be met.

Loading: the applicant has indicated two loading berths are proposed, and that is the required minimum. A condition of approval is require that the civil plan set show it can comply table 1015-4 and subsection 1015.04. **As conditioned, these standards are met.**

## **12. Section 1021 – Refuse and Recycling Standards For Commercial, Industrial, and Multi-Family Developments**

**Finding:** Staff received comments from the County Sustainability and Solid Waste Division (Exhibit 5) noting the following: The applicant has proposed a roofed trash and recycling enclosure attached to the building's eastside wall with downward sloping landscape to the east of the enclosure. The enclosure is approximately 12.5' wide and 15' deep, constructed of masonry block, set back slightly from the front of the building, and

positioned to be serviced off E Government Camp Loop with limited on-site maneuverability. A condition of approval is warranted, requiring full compliance with this section.

**As conditioned, these standards can be met.**

## ADVISORY NOTES

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Advisory notes are not a part of the decision on this land use permit. The items listed below are not conditions of land use approval and are not subject to appeal. They are advisory and informational only but may represent requirements of other agencies/departments.

As such, they may be required by these other agencies/departments in order to complete your proposed development.

**\*No Comments were received from Hoodland Fire Department. Applicant is advised to coordinate development with Hoodland Fire Department Fire Marshall. (please let me know if you need their contact info).**

**For Building Permit information and Fees, contact: [bldservice@clackamas.us](mailto:bldservice@clackamas.us)**

**For System Development Charges, contact County Engineering:  
[Engineering@clackamas.us](mailto:Engineering@clackamas.us)**



**NOTICE OF DECISION ON A TYPE II LAND USE PERMIT**

**Decision:** Approved with Conditions

**Permit Type:** Stream Conservation Area Review and Open Space Review

**File No.** Z0033-23-RSCA

**Proposal:**

**Decision Date:** March 21, 2023

**Deadline for Filing Appeal:** April 3, 2023, at 4:00 pm

Unless appealed, this decision is effective on April 3, 2023 at 4:00 pm.

**Issued By:** Steve Hanschka, Sr. Planner, SteveHan@clackamas.us

**Assessor's Map & Tax Lot(s):** T3S R8E Section 24A Tax Lot 00408

**Site Address:** None

**Applicant:** Jesus Solis

**Owner of Property:** Mt. Hood LLC II

**Zoning:** Mountain Recreational Resort (MRR)

**Community Planning Organization (CPO) for Area:**

GOVERNMENT CAMP CPO  
NICK RINARD (503) 757-3888  
NICKRINARD@YAHOO.COM

Community Planning Organizations (CPOs) are part of the county's community involvement program. They are advisory to the Board of County Commissioners, Planning Commission and Planning and Zoning Division on land use matters affecting their communities. CPOs are notified of proposed land use actions and decisions on land within their boundaries and may review these applications, provide recommendations or file appeals. If this CPO currently is inactive and you are interested in becoming involved in land use planning in your area, please contact Clackamas County Community Engagement at 503-655-8751.

**OPPORTUNITY TO REVIEW THE RECORD:** The submitted application is available for review online at <https://acela.clackamas.us/citizenaccess/>. Select the Planning tab and enter the file number to search. Select Record Info and then select Attachments from the dropdown list, where you will find the submitted application. The complete application file is available for inspection at no cost by contacting the Planner listed on the first page of this decision. Copies of all documents may be purchased at the rate of

\$2.00 per page for 8 1/2" x 11" or 11" x 14" documents, \$2.50 per page for 11" x 17" documents, \$3.50 per page for 18" x 24" documents and \$0.75 per sq ft with a \$5.00 minimum for large format documents.

**APPEAL RIGHTS:** Any party disagreeing with this decision, or the conditions of approval, may appeal this decision to the Clackamas County Land Use Hearings Officer. An appeal must include a completed County Appeal Form and a \$250.00 filing fee and must be **received** by the Planning and Zoning Division by the appeal deadline identified on the first page of this decision.

Appeals may be submitted in person during office hours (8:00 am to 4:00 pm Monday through Thursday, closed Friday and holidays). Appeals may also be submitted by email or US mail.

The County Appeal Form is available at [www.clackamas.us/planning/supplemental.html](http://www.clackamas.us/planning/supplemental.html). Any party or parties appealing this decision may withdraw their appeal at any time prior to the hearing or final decision by the Hearings Officer. A party wishing to maintain individual appeal rights may file an individual appeal and pay the \$250.00 fee, even if an appeal by another party or parties has been filed.

**Please check <https://www.clackamas.us/planning> for our current hours of in-office operation. Appeals may be submitted in person during office hours. Appeals may also be submitted by email or US mail.**

A person who is mailed written notice of this decision cannot appeal this decision directly to the Land Use Board of Appeals under ORS 197.830.

**APPLICABLE APPROVAL CRITERIA:** This application is subject to Clackamas County Zoning and Development Ordinance (ZDO) Section(s) 202, 317, 704 1011 and 1307.

**PUBLIC AND AGENCY COMMENTS:**

Notice was sent to applicable agencies and owners of property within 300 feet. Comments received relating to the applicable approval criteria listed above are addressed in the Findings Section. A variety of comments were received by nearby property owners, and are part of the record.

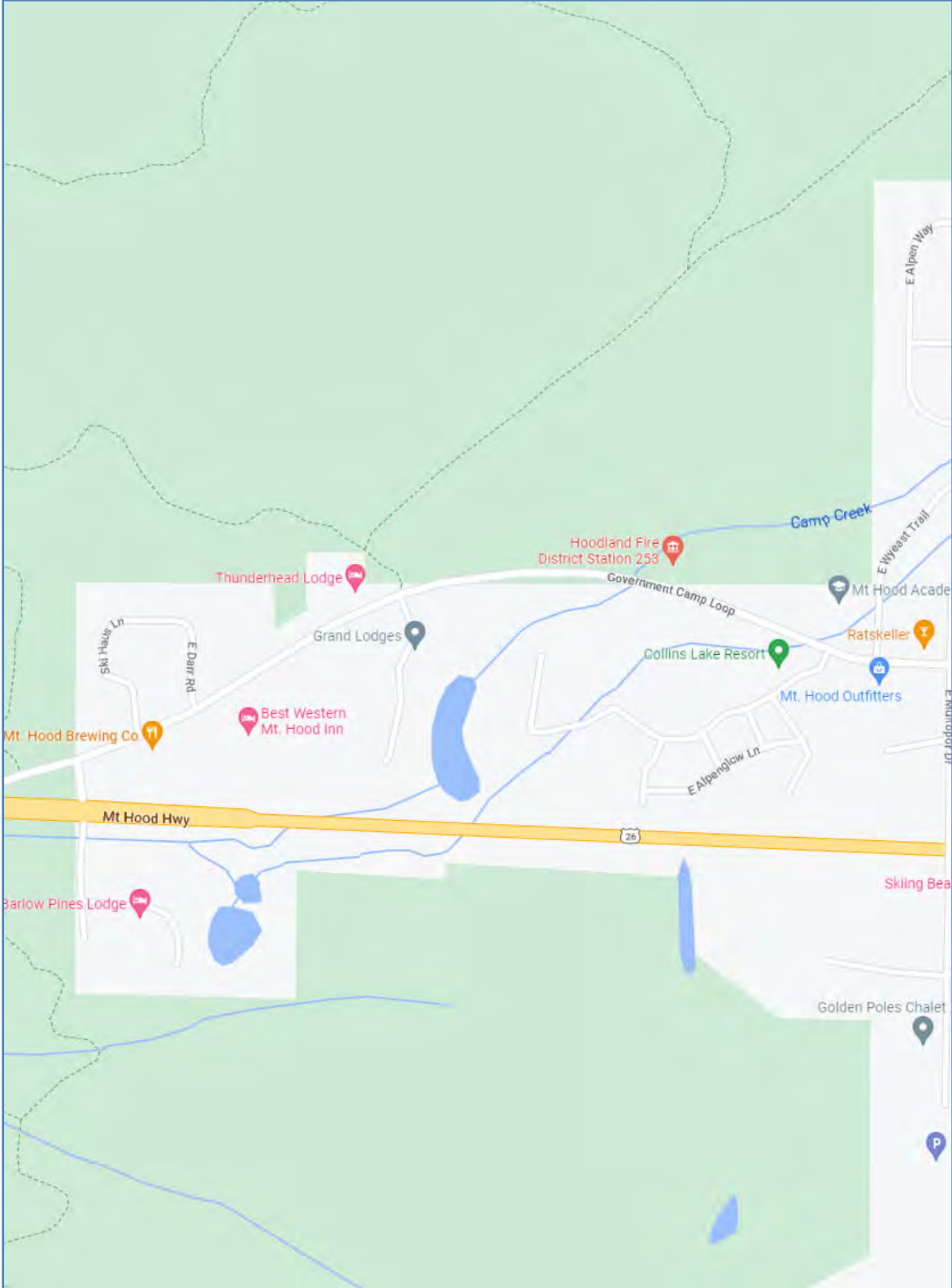
**NOTICE TO MORTGAGEE, LIENHOLDER, VENDOR OR SELLER: ORS CHAPTER 215 REQUIRES THAT IF YOU RECEIVE THIS NOTICE, IT MUST PROMPTLY BE FORWARDED TO THE PURCHASER.**

*Clackamas County is committed to providing meaningful access and will make reasonable accommodations, modifications, or provide translation, interpretation or other services upon request. Please contact us at 503-742-4545 or email [DRenhard@clackamas.us](mailto:DRenhard@clackamas.us).*

503-742-4545: ¿Traducción e interpretación? |Требуется ли вам устный или письменный перевод?翻译或口译? |

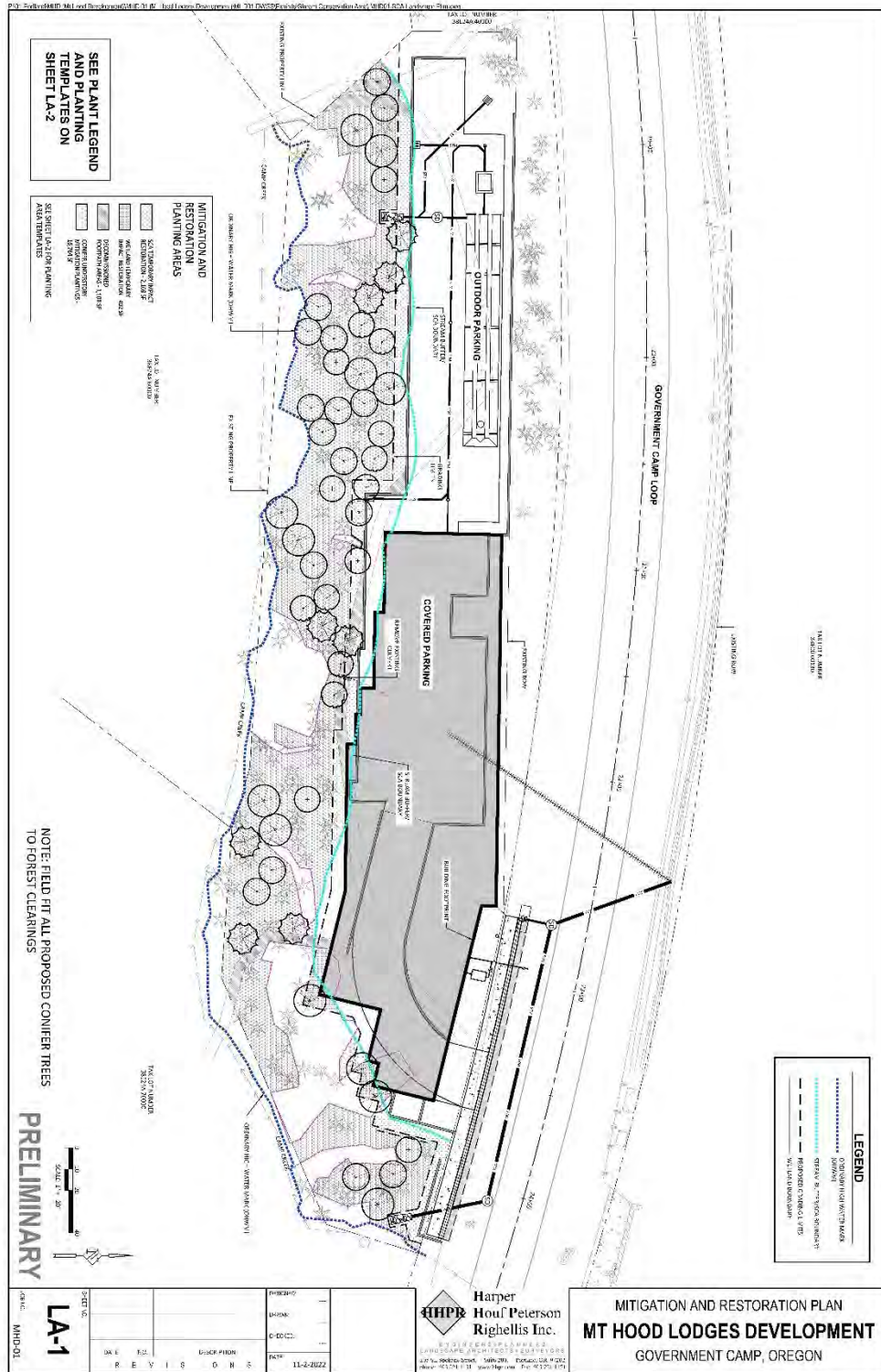
Cán Biên dịch hoặc Phiên dịch? | 번역 또는 통역?

# Location Map





# Site Plan



## PROJECT OVERVIEW

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*The roughly 1.38-acre subject property is located on the south side of E Government Camp Loop, roughly 800 feet west of its intersection with E Wy East Trail. The applicant is proposing to site a new hotel with 47 rooms that would be located in roughly the northerly half of the property. Camp Creek -- which through the adopted Water Protection Rule Classification Maps is regulated as a Stream Conservation Area (SCA) under Ordinance Section 704 as a Small Type F stream with a 50-ft. buffer from the mean high water line -- flows along the eastern and southerly property lines. The applicant has provided a site-level delineation of the mean high water line of Camp Creek. Wetlands are also present on the property, primarily in the southerly and easterly sector, that are regulated by the Oregon Department of State Lands (DSL). The applicant has provided a site-level delineation of the boundary of the wetlands, and obtained approval from DSL, under File No. WD # 2022-0607, for a wetland delineation that identifies the wetlands on the site. The applicant is also applying for a Joint Permit Application (JPA) for impacts to the wetlands that will be submitted to DSL and the U.S. Army Corps of Engineers. The property is identified on Comprehensive Plan Map 10-MH-5 / Government Camp Village Plan Resource Protection Open Space as containing Resource Protection Open Space in the form of wetlands.*

*All told, the parcel contains 0.64 acres of SCA and 0.16 acres of wetland, and the applicant is proposing to disturb 16 percent (0.10 acres) of the outer areas of the SCA and 11 percent (0.02 acres) of the outer areas of the wetlands. As mitigation for disturbance to the SCA and wetlands, the applicant is proposing to restore the SCA through the planting of approximately 500 plants, consisting of 64 native trees and 436 native shrubs, along with the planting of a native grass seed mix. In the end, 0.69 acres of SCA and wetland will be undisturbed and enhanced.*

*Ordinance Section 704 allows for disturbance of the SCA under certain criteria that address the adopted 1997 Economic, Social, Environmental and Energy (ESEE) analyses for the Sandy River Watershed. Ordinance Section 1011 allows for disturbance of the Resource Protection Open Space wetlands under an ESEE analysis for High Priority Resource Protection Open Space Wetlands. The applicant has provided an ESEE analysis that applies to both the Camp Creek SCA and the High Priority Resource Protection Open Space wetlands. The project is also being reviewed under Design Review File No. Z0032-23-D.*

## **STREAM CONSERVATION AREA (SCA) CONDITIONS OF APPROVAL**

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The conditions listed are necessary to ensure that approval criteria for this land use permit are satisfied.

### 1. **General Conditions:**

- A) Approval of this land use permit is based on the submitted written narrative and plan(s) received January 19, 2023. No work shall occur under this permit other than which is specified within these documents. It shall be the responsibility of the property owner(s) to comply with this document(s) and the limitation of approval described herein.
- B) The proposed development is also subject to the Findings and Conditions of File Nos. Z0032-23-D and Z0366-07-M.
- C) The approval of this Stream Conservation Area (SCA) permit is valid for four (4) years from the date of the final written decision. If the County's final written decision is appealed, the approval period shall commence on the date of the final appellate decision. During this four-year period, the approval shall be implemented, or the approval will become void.
  - i. "Implemented" means all major development permits shall be obtained and maintained, or if no major development permits are required to complete the development contemplated by the approved SCA permit, "implemented" means all other necessary County development permits (e.g. grading permit, building permit for an accessory structure) shall be obtained and maintained.
    - a) A "major development permit" is:
      - i. A building or manufactured dwelling placement permit for a new primary structure that was part of the SCA permit approval; or
      - ii. A permit issued by the County Engineering Division for parking lot or road improvements that were part of the SCA permit approval.
    - ii. If the approval of this PRCA permit is not implemented within the initial approval period established by Subsection 704.09(C), a two-year time extension may be approved pursuant to Section 1310.

### 2. **Standards for Buffers / Setbacks from Rivers & Streams**

- A) **Exceptions to Buffers / Setbacks:**
  - i. The proposed hotel shall be located no closer to Camp Creek than is outlined on the submitted Mitigation & Restoration Plan, Sheet LA-1, dated November 2, 2022.

3. **General Development Standards:**

- A) **Commercial or Industrial Facilities:** Pursuant to Subsection 704.06(B), the proposed hotel shall:
- i. Screen signs from view from Camp Creek by planting an opaque vegetation buffer, as outlined on the submitted Mitigation & Restoration Plan.
  - ii. Be subject to Design Review, pursuant to Section 1102, as is being reviewed under File No. Z0032-23-D

4. **Vegetation Preservation & Restoration Standards for River & Stream Buffers / Setbacks:**

- A) **Native Vegetation Preservation:** Pursuant to Subsection 704.07(A), a minimum of 75 percent of the buffer / setback area, which is 50 feet from the mean high water line of Camp Creek, shall be preserved with native vegetation.
- B) **Tree Cutting & Grading:** Pursuant to Subsection 704.07(B), tree cutting and grading shall be prohibited within the buffer / setback, except as follows:
- i. Trees that are endangering life or structures, if any, may be removed.
  - ii. Tree cutting and grading is permitted in conjunction with the development of the proposed hotel that is being permitted through Subsections 704.05(B), to the extent necessary to accommodate the proposed hotel.
  - iii. Disturbed areas that are outside the footprint of structures and other improvements shall be restored with native vegetation, as illustrated by the Mitigation & Restoration Plan.
  - iv. The required vegetation shall be planted prior to approval of final occupancy of the proposed hotel.

5. **Other Agency Standards:**

- A) The proposed development is also subject to the rules, regulations and permitting requirements of DSL and the US Army Corps of Engineers. As such, the applicant shall obtain all necessary permits from those agencies, and undertake the proposed development in a manner that is consistent with the approval guidelines of those permits.

## **SCA FINDINGS**

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The findings below identify the standards and criteria that are relevant to this decision, state the facts relied upon in rendering the decision, and explain the justification for the decision.

## 704.02 DEFINITIONS

*The criteria, requirements, standards and text of ZDO Section 704 are subject to the definitions outlined in Subsection 704.02.*

## 704.03 AREA OF APPLICATION

- C. Section 704 also applies to land that is located within 50 feet of the mean high water line of small Type F streams, identified on the WPRC Maps. The location of these streams may vary from these maps if more specific information is provided. Classified as SCAs, these small streams are designated in the Comprehensive Plan as those that generally have annual average flows of less than two cubic feet per second.

*A portion of the land upon which the development is proposed is located within 50 feet of the mean high water line of Camp Creek, which is identified on the adopted Water Protection Rule Classification Maps as a Small Type F Stream. Therefore, Section 704 applies*

- D. Notwithstanding Subsections 704.03(A) through (E), Section 704 does not apply to land that is inside the Metropolitan Service District Boundary (MSDB) or the Portland Metropolitan Urban Growth Boundary (UGB), nor does it apply to Oregon Department of Fish and Wildlife, or other state or federally approved, fish enhancement projects.

*The subject land is not located inside the MSDB or the Portland Metropolitan UGB. The proposed project is not a state or federally approved fish enhancement projects. Therefore, Section 704 applies.*

## 704.04 RIVER AND STREAM SETBACKS

The following minimum setbacks shall apply to structures exceeding 120 square feet or 10 feet in height:

- D. Structures shall be located a minimum of 50 feet from the mean high water line of a small stream.

*Under the Setback Exception of Subsection 704.05(B), as outlined below, some of the most southerly portions of the proposed development are proposed to be located less than 50 feet from the mean high water line of Camp Creek, a small stream.*

## 704.05 SETBACK EXCEPTIONS

- A. The following uses are exempt from the minimum setback standards of Subsection 704.04:

*The proposed hotel does not qualify as one of the uses that are listed under this Subsection.*

- B. In addition to the exemptions listed in Subsection 704.05(A), the minimum setback standards of Section 704 may be modified for purposes consistent with the adopted Economic, Social, Environmental, and Energy (ESEE) analyses for the applicable watershed.

*A previously noted, the applicant has submitted an ESEE analysis that addresses the impacts to the 50-ft. Camp Creek SCA under the adopted ESEE analysis for the Sandy River Watershed and for the impacts to the High Priority Open Space wetlands. The ESEE analysis for the Sandy River Watershed includes impacts to its tributaries, including streams with an average annual flow of 2 cubic feet per second that are classified as small streams with an impact area, or Stream Conservation Area (SCA) of 50 feet from the mean high water line. The adopted Water Protection Rule Classification Maps classify Camp Creek as a Small Stream, and as previously noted, there will be some impacts to the Camp Creek SCA for which mitigation will be implemented.*

*The Economic section of the ESEE states that the economic consequences of restricting development along the Sandy River tributaries could be substantial, while noting that impacts to fish habitat are dependent on the level of disturbance from development. In this case, the level of disturbance is fairly minimal and only impacts the most outer areas of the SCA, while at the same time enhancing fish habitat through the mitigation plan.*

*The Social section of the ESEE states that the social consequences of not regulating development – and in turn not applying applicable setbacks from tributaries -- to protect fish habitat can result in a deterioration of livability and quality of life. Staff again notes that while there will be some minimal impacts to the SCA, the undisturbed portion of the SCA will be enhanced through the mitigation plan, which should balance out, if not improve, any deterioration of livability and quality of life related to the health of fish habitat.*

*The Environmental section of the ESEE states again that impacts to fish habitat are dependent on the level of disturbance resulting from development. Again, there will be some impacts to the HCA, though these impacts should be offset by the mitigation plan that would improve fish habitat, thereby maintaining, if not improving, the environmental consequences of proposed development with some impacts to the SCA, offset by a robust mitigation plan.*

*The Energy section of the ESEE is essentially irrelevant because there will be no dams or hydroelectric facilities installed in Camp Creek through the proposed development,*

704.06 DEVELOPMENT STANDARDS

*The applicable standards of this Subsection are outlined above as Conditions of Approval.*

704.07 VEGETATION PRESERVATION REQUIREMENTS

*The applicable standards of this Subsection are outlined above as Conditions of Approval.*

704.08 SUBMITTAL REQUIREMENTS

*The applicant has provided the necessary submittal materials to proceed with the application.*

704.09 ADMINISTRATION OF SECTION 704

*The Standards of this Subsection that pertain to the Approval Period of this Permit and Time Extensions (not permitted for an SCA Permit) are outlined in the Conditions of Approval above.*

- B. Development and grading permits in a Stream Conservation Area (SCA) shall be reviewed through a Type II application pursuant to Section 1307.

*Portions of the proposed development are located within the outer areas of a Stream Conservation Area. Thus, this proposal is being reviewed through a Type II application pursuant to Section 1307.*



## **OPEN SPACE & PARKS CONDITIONS OF APPROVAL**

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The conditions listed are necessary to ensure that approval criteria for this land use permit are satisfied.

1. **The preserved open space in the southerly sector of the site shall be:**
  - A) Dedicated to the public;
  - B) Placed under a legally responsible group, such as a homeowner's association;
  - C) Preserved through conservation easements but maintained by individual land owners; or
  - D) Preserved through some other suitable mechanism acceptable to the County.

## **OPEN SPACE & PARKS FINDINGS**

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The findings below identify the standards and criteria that are relevant to this decision, state the facts relied upon in rendering the decision, and explain the justification for the decision.

### 1011.01 AREA OF APPLICATION

- A. Section 1011 applies to areas generally indicated as Open Space on Comprehensive Plan Map IV-6, *North Urban Area Land Use Plan Map*, or on the Mt. Hood Community Plan Map when one or more of the following open space resources is present:
  1. Willamette River Greenway;
  2. Distinctive urban forests;
  3. Hillsides of more than 20 percent slope;
  4. Areas of confirmed land movement hazard;
  5. Areas of severe erosion or unstable soil;
  6. Areas of high visual sensitivity;
  7. Significant natural areas; and
  8. Other distinctive or unique natural areas, or areas of serious natural hazard.

*The site contains hillsides of more than 20 percent. A Geotechnical Report (Exhibit J in the submitted application) has been obtained by the applicant to*



*address development on the hillsides, and the development on slopes of between 20 and 35 percent have been separately reviewed under Type I File No. Z0034-23-SSR. Therefore Section 1011 applies*

B. Section 1011 also applies to areas generally indicated as Open Space on the Mt. Hood Community Plan Map when one or more of the following open space resources is present:

1. Bodies of water, such as rivers, lakes, or lagoons;
2. Special flood hazard areas, as defined in Section 703, *Floodplain Management District*;
3. Land within 100 feet of mean low water of all major rivers and 50 feet of other perennial streams; and
4. Wetlands, including recharge areas.

*The site contains wetlands as identified on Government Camp Village Plan Resource Protection Open Space / Map 10-MH-5, and the applicant has delineated the wetlands on the site. The delineation has been approved by DSL under File No. WD # 2022-0607. Therefore Section 1011 continues to apply.*

C. Open space regulated pursuant to Subsection 1011.01(A) or (B) shall be categorized as follows:

1. High-priority open space is:
  - a. Land or water necessary to assure a continuous network of open space (e.g., stream corridor, forested hillside);
  - b. Land over 35 percent slope;
  - c. Confirmed land movement hazard areas;
  - d. Areas judged to have severe erosion potential due to soil type, geologic structure, and vegetation;
  - e. Bodies of water such as rivers, lakes, or lagoons;
  - f. Wetlands; and
  - g. Significant natural areas.

*Of the items listed above, the site contains wetlands, which are categorized as High Priority Open Space. Therefore, the site contains High Priority Open Space.*

2. Second-priority open space is:
  - a. Land greater than 20 percent slope and less than 35 percent slope;

- b. Distinctive urban forests;
- c. Land within a special flood hazard area, as defined in Section 703, or within 25-year flood limits where special flood hazard areas have not been designated;
- d. Land used as a recharge area for wetlands; and
- e. Areas of high visual sensitivity.

*Of the items listed above, the site contains land greater than 20 percent and less than 35 percent and likely contains recharge areas for wetlands, which are categorized as Second Priority Open Space. Therefore, the site contains Second Priority Open Space.*

- D. In addition, Subsection 1011.05 applies in Sunnyside Village.  
*The subject property is not located in Sunnyside Village.*

## 1011.02 DEVELOPMENT STANDARDS AND LIMITATIONS

- A. Site planning and development shall avoid disturbance of identified open space resources, except as provided in Subsections 1011.02(B) and (C). Full use should be made of density transfers pursuant to Section 1012, *Lot Size and Density*, siting of structures and roads, and other appropriate means of designing the development around the open space.

*Disturbance of open space resources is limited to Subsections 1011.02(B) and (C).*

- B. High-priority open space shall be preserved outright, except:
  - 1. Development on hillsides over 35 percent slope shall be subject to Subsection 1002.01(B).

*No development is proposed on slopes over 35 percent.*

- 2. Commercial or industrial developments affecting wetlands or significant natural areas may be allowed, subject to Subsection 1011.03 and when permitted by the U.S. Army Corps of Engineers and the Oregon Department of State Lands.

*The proposed hotel will impact 0.02 acres of wetlands. Subsection 1011.03 is addressed below. The applicant is applying for a Joint Permit Application (JPA) for impacts to the wetlands that will be submitted to DSL and the U.S. Army Corps of Engineers.*

- C. Second-priority open space shall be preserved to the maximum extent possible making full use, as necessary, of techniques which reduce the need for land coverage, and disturbance of open space features.

Various site plan and development options shall be identified and applied on a case-by-case basis pursuant to Section 1103, *Open Space Review*. Site plan and development techniques may include but are not limited to:

1. Multistory construction;
2. Elevated pole structures;
3. Understructure parking;
4. Reduction of parking requirements as provided under Subsection 1015.02(D)(2)(a) and (b);
5. Clustering of buildings;
6. Minimized driveway areas, use of shared driveways and loading areas;
7. Reduction of road widths or use of one-way roads to accommodate terrain or other features; and
8. Siting of buildings to maximize transit and pedestrian orientation.

*Some Secondary-Priority Open Space, in the form slopes and wetland recharge areas shall be impacted by the project. The applicant is proposing multistory construction, understructure parking and elevated pole structures for portions of the building. The one proposed building will be clustered in the northerly sector of the property, preserving and enhancing the majority of the SCA and wetlands. One driveway is proposed along the easterly frontage. There are no roads on the site, only a drive aisle, and the siting of the building will be oriented for pedestrian access and travel. Open Space Review is addressed below.*

- D. Satisfying the open space requirement in commercial or industrial zoning districts may count for up to 60 percent of the minimum landscaped area standard in Table 1009-1, *Minimum Landscaped Area*. Satisfying the open space requirement in residential zoning districts may count for up to 80 percent of the minimum landscaped area standard in Table 1009-1 including up to 80 percent of any outdoor recreational area required by Subsection 1009.08.

*The mitigation planting plan for impacts to wetlands and the SCA within the preserved open space area is being utilized as the majority of the plantings for the landscaping plan.*

- E. All open space requirements of Section 1011 shall be met using one or more of the following options:

*These standards are outlined above as Conditions of Approval.*

1011.03 CONFLICT RESOLUTION FOR WETLANDS AND SIGNIFICANT NATURAL AREAS

High-priority open space wetlands and significant natural areas shall not be disturbed unless approved through review as a Type II application pursuant to Section 1307, *Procedures*, for a specific commercial or industrial development plan. Approval shall not be granted unless the following social, economic, energy, and appropriate environmental considerations are addressed and satisfied:

*A previously noted, the applicant has submitted an ESEE analysis that addresses the impacts to the 50-ft. Camp Creek SCA under the adopted 1997 ESEE analysis for the Sandy River Watershed and for the impacts to the High Priority Open Space wetlands as outlined below.*

- A. Social: The proposed development would not result in the loss of a rare, irreplaceable, or irreplaceable natural feature or scientific opportunity, or the disturbance of a substantially unaltered natural feature or area in or adjacent to the proposed site, unless the benefit to the public from the proposed use clearly outweighs the public good from retaining the feature or area.

*The applicant's ESEE notes that the disturbance to the wetlands is minimal, and is, according to the applicant, necessary for siting the proposed hotel. The Staff again notes that the mostly undisturbed area containing the wetland will be improved and enhanced by the planting of roughly 500 native trees and shrubs. The applicant maintains that the mitigation plan, along with the details of the development, especially stormwater management and water quality management, will preserve and potentially improve the functions of the wetlands and the overall SCA. In a survey of the area, the applicant has not identified any rare or endangered species. It is, however, conceivable that with the mitigation, the site may become more suitable for rare or endangered species, and attract them to the site. The applicant does note that coastal cutthroat trout are present in Camp Creek. The applicant notes that the wetlands were determined to have high function regarding amphibian habitat, fish habitat and temperature regulations. This is especially true of the wetlands close to Camp Creek that will remain undisturbed. However, again with the mitigation plan, along with the details of the development, especially stormwater management and water quality management, it is conceivable that enhancement of the site would improve the habitat for coastal cutthroat trout.*

B. Economic:

1. The wetland or significant natural area must be disturbed for reasonable use of the site and, if not disturbed, the applicant would be substantially damaged.
2. The use proposed is a benefit to the community and meets a substantial public need or provides for a public good which clearly outweighs retention of the wetland or significant natural area.

*The applicant has provided figures for the costs incurred by the applicant thus far in the process of the development of the site. The applicant also cites the increase in value of the property if the hotel is developed, and notes the number of jobs in the hospitality industry that would be created. The applicant cites portions of the Comprehensive Plan that encourage the establishment of new business and employment opportunities, consistent with the quality, community livability and general needs of County residents. The applicant continues to maintain that while there will be increased economic benefit, the wetlands and overall SCA will be minimally impacted, and the area will be enhanced as natural open space through the mitigation and enhancement plan.*

C. Energy:

1. Disturbance of the open space will not require public costs, including maintenance, due to secondary impacts, or exacerbate existing conditions.

*The proposed disturbance will not incur any public costs due to secondary impacts. Nor will it exacerbate existing conditions. Instead, the disturbance of the open space will be fairly minimal, and the undisturbed area of the open space will be enhanced and improved through the mitigation plan.*

2. The development, as proposed, supports the Comprehensive Plan policies for energy efficient land use considering such things as transportation costs, efficient utilization of urban services, area self-sufficiency, and retention of natural features which create microclimates conducive to energy efficiency.

*The applicant cites several applicable policies of the Natural Resources & Energy section of the Comprehensive Plan, while noting that the impacts to the SCA and wetlands are minimal and in the outer areas away from Camp Creek. The applicant again notes that in the end the open space area will be enhanced through the mitigation plan, along with the details of the development, especially stormwater management and water quality management, and will preserve and potentially improve the functions of the wetlands and the overall SCA*

- D. Environmental: Disturbance of the wetland or significant natural area is minimized, as provided under Subsection 1011.02(C), and the review process and conditions of development pursuant to Section 1103, *Open Space Review*, and the following conditions are satisfied:
1. Wetlands:
    - a. The wetland can be altered without substantial adverse impact upon the character of the area, and function of the wetland.
    - b. The wetland does not support rare or endangered species.
    - c. Elimination, alteration, or relocation does not significantly alter water movement, including normal levels or rates of runoff into and from wetlands.
    - d. The proposed use or alteration of the wetland is approved by the U.S. Army Corps of Engineers and the Oregon Department of State Lands.

*Much of the Environmental component of the ESEE has already been covered through the explanations of the mitigation plan, along with the details of the development, especially stormwater management and water quality management that will preserve and potentially improve the functions of the wetlands and the overall SCA. Again, no rare or endangered species have been identified on the site. The applicant has provided a stormwater management plan (Exhibit L in the submitted application) that treats and detains stormwater to National Oceanic & Atmospheric Administration Fisheries Standard Local Operating Procedures for Endangered Species Stormwater Transportation & Utilities (SLOPES STU) programmatic biological onion standards. Additionally, no hydrology is being removed from the system. Again, a JPA has been submitted to DSL and the US Army Corps of Engineers for review and approval.*

2. Significant Natural Areas: A study conducted by a person or persons with expertise related to the natural features of the site identified by the County shall be required. The study shall include:

*The site is not in a Significant Natural Area as identified as identified on Comprehensive Plan Map 3-2.*

#### 1011.04 PARK AND EASEMENT DEDICATIONS

*No land is proposed to be dedicated as a park or easement.*

1011.05 SUNNYSIDE VILLAGE PARK DESIGN STANDARD

*The site is not located in Sunnyside Village*

## **OPEN SPACE REVIEW CONDITIONS OF APPROVAL**

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### **1. General Conditions:**

- A) Approval of this land use permit is based on the submitted written narrative and plan(s) received January 19, 2023. No work shall occur under this permit other than which is specified within these documents. It shall be the responsibility of the property owner(s) to comply with this document(s) and the limitation of approval described herein.
- B) This Open Space Review approval is valid for four years from the date of the final written decision. If the County's final written decision is appealed, the approval period shall commence on the date of the final appellate decision. During this four-year period, the approval shall be implemented, or the approval will become void.
  - i. "Implemented" means all major development permits shall be obtained and maintained for the approved development, or if no major development permits are required to complete the development contemplated by the open space review approval, "implemented" means all other necessary County development permits (e.g. grading permit, building permit for an accessory structure) shall be obtained and maintained. A "major development permit" is:
    - ii. A building or manufactured dwelling placement permit for a new primary structure that was part of the open space review approval; or
    - iii. A permit issued by the County Engineering Division for parking lot or road improvements required by the open space review approval.
- C) If the open space review approval is not implemented within the initial approval period established by Subsection 1103.03(A), a two-year time extension may be approved pursuant to Section 1310.

## **OPEN SPACE REVIEW FINDINGS**

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### **1103.01 APPLICABILITY**

Section 1103 applies to development that affects an open space resource described in Section 1011, and shown generally on Comprehensive Plan Map IV-6, *North Urban Area Land Use Plan Map*, as Resource Protection, Major Hazards, or Public and Community Use Open Space.

*Section 1103 applies because Subsection 1011.02(C) applies, which requires site plan and development review pursuant to Section 1103.*



## 1103.02 PROCEDURE

Open space review shall require a Type II application pursuant to Section 1307 and shall be subject to the following:

- A. The required site analysis and development plans shall be reviewed to ensure that all Comprehensive Plan policies, Ordinance, and development standards relevant to the open space resource designation are being satisfied.

*The site analysis and development plans are being reviewed for satisfaction with Comprehensive Plan policies, Ordinance sections and development standards relevant to the open space resource designations, under applications for Design Review, Steep Slope Review and Open Space & Parks.*

- B. The probable impact of the proposed development on relevant natural systems or features, in particular on resources of area-wide significance, shall be evaluated.

*Only the outer areas of the SCA and wetlands are being impacted. There will be some development on steep slopes in the northerly sector of the property.*

- C. The potential for conservation easements, public acquisition, dedication, or any other available means of securing parts of the site as a park, trail, or other open space resource shall be evaluated.

*Subsection 1011.02(E) requires the undisturbed open space areas to be preserved through Dedication to the public; 2. Placement under a legally responsible group, such as a homeowner's association; 3. Preservation through conservation easements but maintained by individual land owners; or 4. Some other suitable mechanism acceptable to the County.*

- D. Alternative development proposals that better protect the open space resources through the appropriate use of such techniques as density transfers, commonwall structures, multistory buildings, parking structures, under-structure parking, and reduced parking requirements near transit lines, shall be identified. The intent of this is to assist the applicant in using the various provisions of the Comprehensive Plan, Ordinance, and development standards to achieve the best possible balance of development and open space protection.

*As previously noted, the applicant is proposing multistory construction, understructure parking and elevated pole structures for portions of the building. The one proposed building will be clustered in the northerly sector of the property, preserving and enhancing the majority of the SCA and wetlands. One driveway is proposed along the easterly frontage. There are no roads on the site, only a drive aisle, and the siting of the building will be oriented for*

*pedestrian access and travel. In turn, nearly half of the southerly area of the site, and the most easterly area of the site will be preserved in open space.*

#### 1103.03 APPROVAL PERIOD AND TIME EXTENSION

These standards are outlined above under Conditions of Approval

#### 1103.04 SUBMITTAL REQUIREMENTS

*The applicant has provided the sufficient submittal materials.*



#### 1005.03 – General Site Design Standard

(G) New retail, office, **mixed use**, and institutional buildings located on major transit streets shall have at least one public entrance facing a major transit street, or street intersecting a major transit street.

Applicant's Findings: The application is for a hotel within the Government Camp area. These criteria are not applicable. (page 29)

**The building contains a restaurant which makes the structure a mixed-use facility per County ZDO definitions. (Section 202.) Therefore, standard is applicable.**

#### 1015 – Parking and Loading, 1015.01 – General Standards

(C) Parking and loading requirements for uses and structures not specifically listed in Tables 1015-1, Automobile Parking Space Requirements; 1015-2, Minimum Required Bicycle Parking Spaces; and 1015-3, Minimum Required Off-Street Loading Berths shall be subject to the requirements for the most similar use.

Applicant's Findings: Table 1015-1 includes minimum vehicular parking for hotels which is the exact use proposed by the applicant. In accordance with the table, the minimum off-street parking is one space per unit. In this case, the minimum off-street parking requirement is 47 spaces as the application includes a hotel with 47 guest units. As demonstrated on the plans, 52 vehicular parking spaces are provided. (page 54)

**I/we contend the building is not a hotel (see below) and it is not clear if they have included the parking required for the restaurant in their parking total.**

#### 1015.04 – Off-Street Loading Standards

(A) No area shall be considered a loading berth unless it can be shown that the area is accessible and usable for that purpose and has maneuvering area for vehicles.

Applicant's Findings: The proposed loading areas are accessible and usable for loading and have areas for maneuvering vehicles. This is demonstrated on the civil plans provided with this submittal. This criterion is met. (page 63)

**The maneuvering clearances for the loading berths are not shown on the civil plans and if they were it may not clear how the size of truck intended to use a loading berth would meet AASHTO standards.**

### **PARKING REQUIREMENTS**

**1. Application claims project to be an "extended stay hotel". This term is not defined in the ZDO definitions but the term "hotel" is.**

2. As defined by ZDO definitions: *HOTEL: A building which is designed or used to offer short-term lodging for compensation, with or without meals, for six or more people. (Section 202.)*
3. The term “extended stay” is a contradiction of the term “short-term” in the County’s definition of “hotel”.
4. Units that provide cooking and bathing facilities are considered dwelling units. This is not defined in County ZDO definitions but is often considered an accepted definition in the design profession.
5. As defined by ZDO definitions: *DWELLING UNIT: A building, or portion thereof, with one or more rooms designed for residential occupancy by one family. (Section 202.)*
6. As defined by ZDO definitions: *DWELLING, MULTIFAMILY: A building that contains five or more dwelling units. (Section 202.)*
7. From ZDO definitions, building is considered a multifamily dwelling. Parking per unit varies from 1 for studio to 1 bedroom units, to 1.25 for 2 bedroom units. (Table 1015-2.)
8. On land above 3,500 feet in elevation, covered parking shall be provided for structures containing three or more dwelling units. (Table 1015-2, footnote 2.)
9. Parking for the restaurant has not been quantified in the document. Restaurants require 15 parking stalls per 1000 sf of gross leasable space. (Table 1015-1.)

**Fire Apparatus Access Roads:**

**Code standard: Oregon Fire Code**

**Design doesn’t appear to meet D104.1, D105.1, D105.2, and D105.3.**



### 1005.03 – General Site Design Standard

(G) New retail, office, **mixed use**, and institutional buildings located on major transit streets shall have at least one public entrance facing a major transit street, or street intersecting a major transit street.

Applicant’s Findings: The application is for a hotel within the Government Camp area. These criteria are not applicable. (page 29)

**The building contains a restaurant which makes the structure a mixed-use facility per County ZDO definitions. (Section 202.) Therefore, standard is applicable.**

Staff Response: Staff does not agree the definition of "Mixed Use" is should be applied in a manner that changes the overall use from hotel to mixed use. the restaurant is an intregal part of the hotel, and is not being opened to the general public as restaurant. the term "mixed use" primarily effects lands in urban commercial zones, set forth in ZDO Sec. 510, in is generally more applicable to buildings with different uses (e.g. shops on ground floor, offices on second floor, residential on top floors).

### 1015 – Parking and Loading, 1015.01 – General Standards

(C) Parking and loading requirements for uses and structures not specifically listed in Tables 1015-1, Automobile Parking Space Requirements; 1015-2, Minimum Required Bicycle Parking Spaces; and 1015-3, Minimum Required Off-Street Loading Berths shall be subject to the requirements for the most similar use.

Applicant’s Findings: Table 1015-1 includes minimum vehicular parking for hotels which is the exact use proposed by the applicant. In accordance with the table, the minimum off-street parking is one space per unit. In this case, the minimum off-street parking requirement is 47 spaces as the application includes a hotel with 47 guest units. As demonstrated on the plans, 52 vehicular parking spaces are provided. (page 54)

**I/we contend the building is not a hotel (see below) and it is not clear if they have included the parking required for the restaurant in their parking total.**

\*The proposed building is for a hotel, which is a primary use in the MRR Zoning District. As noted in the staff report, eating areas/restaurants are integral part of the hotel, as, say, a spa or gym may be. As long as the restaurnat is only catering to hotel guests, it is incedental to the hotel.

### 1015.04 – Off-Street Loading Standards

(A) No area shall be considered a loading berth unless it can be shown that the area is accessible and usable for that purpose and has maneuvering area for vehicles.

Applicant’s Findings: The proposed loading areas are accessible and usable for loading and have areas for maneuvering vehicles. This is demonstrated on the civil plans provided with this submittal. This criterion is met. (page 63)

**The maneuvering clearances for the loading berths are not shown on the civil plans and if they were it it may not clear how the size of truck intended to use a loading berth would meet AASHTO standards.**

\*\*This comment is understood. County Engineering in their comments dated March 9, 2023, note that passenger maneuvering appears to be sufficient. Civil plan sets will clearly need to show large maneuvering areas are sufficient as a condition of approval, and the applicant has been advised to ensure those maneuvering areas are sufficient

### **PARKING REQUIREMENTS**

**1. Application claims project to be an “extended stay hotel”. This term is not defined in the ZDO definitions but the term “hotel” is.**

2. As defined by ZDO definitions: *HOTEL: A building which is designed or used to offer short-term lodging for compensation, with or without meals, for six or more people. (Section 202.)*
3. The term “extended stay” is a contradiction of the term “short-term” in the County’s definition of “hotel”.
4. Units that provide cooking and bathing facilities are considered dwelling units. This is not defined in County ZDO definitions but is often considered an accepted definition in the design profession.
5. As defined by ZDO definitions: *DWELLING UNIT: A building, or portion thereof, with one or more rooms designed for residential occupancy by one family. (Section 202.)*
6. As defined by ZDO definitions: *DWELLING, MULTIFAMILY: A building that contains five or more dwelling units. (Section 202.)*
7. From ZDO definitions, building is considered a multifamily dwelling. Parking per unit varies from 1 for studio to 1 bedroom units, to 1.25 for 2 bedroom units. (Table 1015-2.)
8. On land above 3,500 feet in elevation, covered parking shall be provided for structures containing three or more dwelling units. (Table 1015-2, footnote 2.)
9. Parking for the restaurant has not been quantified in the document. Restaurants require 15 parking stalls per 1000 sf of gross leasable space. (Table 1015-1.)

\*\*Staff response to Parking items 1-9: Agree that there is no provisions for "Extended Stay", whatever that may be. Hotels can only be "short stay" as noted in the definition of hotel in ZDO Sec. 202, and that generally means no stays in excess of 30 days. A condition should be imposed that at no time shall the hotel be used for long term stays, or for use as a dwelling. Staff does not agree that these are dwelling units. Item #4 does not cite a specific criteria, and it is not uncommon for hotels to have cooking facilities, especially as the area is centered in a resort location. Items 4-8 are not applicable. In terms of item #9, there is no cause to calculate a restaurant separately, as it has been stated that the restaurant use is only serving hotel guests.

**Fire Apparatus Access Roads:**

**Code standard: Oregon Fire Code**

**Design doesn't appear to meet D104.1, D105.1, D105.2, and D105.3.**

\*Staff response: The Oregon Fire Code is not reviewed in the ZDO for these specifications. Civil Engineering plans will need to address Hoodland Fire code/Oregon Fire Code requirements, but these codes cited are not an approval criterion of ZDO.



3/2/23:

ODOT #12539

## ODOT Response

<b>Project Name:</b> Government Camp Hotel	<b>Applicant:</b> Jesus Solis
<b>Jurisdiction:</b> Clackamas County	<b>Jurisdiction Case #:</b> Z0032-23
<b>Site Address:</b> Government Camp Loop Rd	<b>Legal Description:</b> 03S 08E 24A <b>Tax Lot(s):</b> 00408
<b>State Highway:</b> Government Camp Loop Rd	

The site of this proposed land use action is adjacent to Government Camp Loop Rd. ODOT has permitting authority for this facility and an interest in ensuring that this proposed land use is compatible with its safe and efficient operation. **Please direct the applicant to the District Contact indicated below to determine permit requirements and obtain application information.**

### COMMENTS/FINDINGS

The applicant proposes to construct a 47-unit boutique hotel with a single access to Government Camp Loop Rd. An Application for State Highway Approach and Approach Permit is required for vehicular access to Government Camp Loop Rd. To provide pedestrian facilities along Government Camp Loop Rd, ODOT recommends the applicant construct a minimum six-foot wide, at-grade, concrete sidewalk with gutter (no curb). The concrete sidewalk should be set back one-foot from the property line, within the right-of-way. This will ensure consistency with the existing Government Camp frontage improvements and with current maintenance practices in the area. An ODOT permit is required for all work in the State right of way.

All alterations within the State highway right of way are subject to the ODOT Highway Design Manual (HDM) standards. Alterations along the State highway but outside of ODOT right-of-way may also be subject to ODOT review pending its potential impact to safe operation of the highway. If proposed alterations deviate from ODOT standards, a Design Exception Request must be prepared by a licensed engineer for review by ODOT Technical Services. Preparation of a Design Exception request does not guarantee its ultimate approval. Until more detailed plans have been reviewed, ODOT cannot make a determination whether design elements will require a Design Exception.

Note: Design Exception Requests may take up to 3 months to process.

All ODOT permits and approvals must reach 100% plans before the District Contact will sign-off on a local jurisdiction building permit, or other necessary requirement prior to construction.

### ODOT RECOMMENDED LOCAL CONDITIONS OF APPROVAL

#### Frontage Improvements

- The applicant shall construct a six-foot wide, at-grade, concrete sidewalk with gutter (no curb). The concrete sidewalk should be set back one-foot from the property line, within the right-of-way. Improvements must be consistent with ODOT and ADA standards.

#### Access to the State Highway

- ☒ A State Highway Approach Road Permit from ODOT for access to the state highway for the proposed use is required. Truck turning templates shall be provided as needed to ensure vehicles can enter and exit the approach safely. Site access to the state highway is regulated by OAR 734.51. For application information go to <http://www.oregon.gov/ODOT/HWY/ACCESSMGT/Pages/Application-Forms.aspx>.

Note: It may take **2 to 3 months** to process a State Highway Approach Road Permit.

Permits and Agreements to Work in State Right of Way

- ☒ An ODOT Miscellaneous Permit must be obtained for all work in the highway right of way. When the total value of improvements within the ODOT right of way is estimated to be \$100,000 or more, an agreement with ODOT is required to address the transfer of ownership of the improvement to ODOT. An Intergovernmental Agreement (IGA) is required for agreements involving local governments and a Cooperative Improvement Agreement (CIA) is required for private sector agreements. The agreement shall address the work standards that must be followed, maintenance responsibilities, and compliance with ORS 276.071, which includes State of Oregon prevailing wage requirements.

Note: If a CIA is required, it may take up to **6 months** to process.

- ☒ An ODOT Miscellaneous Permit is required for connection to state highway drainage facilities. Connection will only be considered if the site's drainage naturally enters ODOT right of way. The applicant must provide ODOT District with a preliminary drainage plan showing impacts to the highway right of way.

A drainage study prepared by an Oregon Registered Professional Engineer is usually required by ODOT if:

1. Total peak runoff entering the highway right of way is greater than 1.77 cubic feet per second; or
2. The improvements create an increase of the impervious surface area greater than 10,758 square feet.

**Please send a copy of the Notice of Decision including conditions of approval to:**

[ODOT\\_R1\\_DevRev@odot.oregon.gov](mailto:ODOT_R1_DevRev@odot.oregon.gov)

Development Review Planner: Marah Danielson	503.731.8258, marah.b.danielson@odot.oregon.gov
District Contact: Robby Cox	d2cap@odot.oregon.gov



## Memorandum

**TO:** Ben Blessing, Planning and Zoning

**FROM:** Development Engineering, Ali Safayi, P.E.

**DATE:** March 9, 2023

**RE:** Z0032-23-D, Government Camp Hotel  
38E24A 00408; Parcel #05012068

Development Engineering staff has reviewed this application and has the following comments:

### Facts and Findings:

The applicant has proposed construction of a 47-unit hotel on the south side of E Government Camp Loop. The project site is approximately 1.38 acres in area.

The proposed development is subject to the provisions of *Clackamas County Zoning and Development Ordinance (ZDO)* Section 1007 pertaining to roads and connectivity, Section 1015 pertaining to parking and loading, and Water Environment Services requirements and Roadway Standards Chapter 4 pertaining to surface water management.

The proposed hotel is located south of the E Government Camp Loop. The applicant has proposed access onto E Government Camp Loop which is under ODOT's jurisdiction. According to county's ZDO 1007.7.B, developments in Government Camp that are otherwise consistent with the Comprehensive Plan and use plan designations and zoning for Government Camp, are not required to submit a Traffic Impact Study (TIS). Furthermore, ODOT has not required a TIS for this development. The project site is within Mountain Recreational Resort (MRR) zoning district.

1. The applicant proposes partial road improvements along a portion of the frontage on E Government Camp Loop consisting of road widening and 6-foot wide sidewalk. The applicant proposes 31-foot paved half-width, 2-foot mountable valley curb, 6-foot sidewalk, and 1-foot shoulder. The applicant will need to ensure the proposed improvements and right-of-way meet the requirements of ODOT. All permitting and right-of-way donation shall be required and coordinated through ODOT.
2. The applicant will be required to provide adequate on-site circulation for all vehicles anticipated to use the parking and maneuvering areas. The applicant will need to demonstrate the site design adequately addresses the turning movements for large vehicles such as garbage truck, delivery trucks, and emergency service

vehicles within the site. The proposed parking and maneuvering areas appear to provide adequate access for passenger cars. The plans do not show how the larger vehicles including garbage truck and emergency service vehicles can turn around and maneuver through the site. The applicant in addressing the requirements of the ZDO Section 1021.06 regarding access to the front of solid waste and recyclable material container pad states that the 45-foot collection dimension does extend to the shoulder of Government Camp Loop. The applicant shall comply with all the vehicle access requirements of ZDO Section 1021.06 unless modifications are approved in compliance ZDO Section 1021.08.

3. Vehicle parking spaces and bicycle parking spaces will be required to meet minimum ZDO section 1015 and Clackamas Roadway Standards dimensional requirements.
4. Per Clackamas Roadway Standards Section 240, developments are required to be served by driveways that provide adequate intersection and stopping sight distance. Posted speed for E Government Camp Loop is 40 MPH which requires minimum 445 feet of intersection sight distance and 305 feet of stopping sight distance along this road.
5. The Department of Transportation and Development is the surface water authority for the proposed project. Surface water management plans in conformance with Chapter 4 of the Roadway Standards will be required when a 10,000 square feet or more of new or reconstructed impervious surface is proposed outside the UGB; or when grading or any new or reconstructed impervious surface is proposed or replaced within 50 feet of a perennial stream, creek, wetland, or lake, or within 10 feet of a property line. The project proposes more than 10,000 square feet of new impervious surface.
6. Water quality standards require water quality facilities to capture and treat the first 1-inch of stormwater runoff from a 24 hour storm event. When infiltration is determined to be infeasible, flow control standards require detention system to reduce the 25 year, 24-hour, post-developed runoff rate to a 2 year, 24-hour pre-developed discharge rate, and, from the 2 year, 24-hour, post developed runoff rate, to ½ of the 2-year, 24-hour pre-developed discharge rate.
7. The applicant has submitted a preliminary Surface Water Management Plan in conjunction with the land use application. Stormwater Management report states the project disturbs 0.73 acre of land due to the site improvements including construction of a private parking lot, frontage improvements, and development of 5-story hotel. The applicant's engineer states stormwater best management practices (BMP) which include installation of conveyance, detention, and water quality treatment is presented in the stormwater management report. The engineer further indicates that the proposed design meets or exceeds Clackamas County Water Environment Services (WES) and National Marine Fisheries Service (NFMS) standards.

8. Water quality treatment will be provided via a vault with 11 StormFilter® cartridges and 4 StormFilter® catch basins. Infiltration was determined to be infeasible. An underground detention system is proposed to detain runoff from the site. The stormwater report indicates that runoff from a portion of the frontage improvements cannot be collected and conveyed to the new onsite stormwater facility. The project proposes to account for this portion of undetained runoff by sizing the onsite detention system to over-detain stormwater onsite such that the total post-developed runoff meets all detention requirements.
9. The applicant proposes to abandon an existing storm culvert under the E Government Camp Loop and reroute the runoff via a new 12-inch storm pipe under the same road. The stormwater improvements within the Government Camp Loop right-of-way include placement of pipes, a catch basin, and 2 manholes. In addition to the runoff through the culvert, surface runoff from a portion of the frontage is collected and day-lighted in an area to the northeast of the site. The final surface water management plan shall demonstrate that the rerouted and concentrated runoff will not adversely affect the slopes and properties downstream. The proposed stormwater conveyance system shall be designed such that the upstream runoff that currently flows through the culvert is not restricted and the new conveyance system has adequate capacity to convey this flow. Furthermore, no flows shall exceed the permitted pre-development flows.
10. East Government Camp Loop is under the jurisdiction of ODOT. Permitting of all improvements, surface water management, and the proposed stormwater conveyance system within the ODOT's right-of-way shall be required and coordinated through ODOT.

**Preface to recommended conditions of approval:**

The following items are project requirements from the Department of Transportation and Development's Development Engineering Division. These conditions of approval are not intended to include every engineering requirement necessary for the successful completion of this project, but are provided to illustrate to the applicant specific details regarding the required improvements that may prove helpful in determining the cost and scope of the project. These conditions are based upon the requirements detailed in the County's Comprehensive Plan (Comp Plan), the County's Zoning and Development Ordinance (ZDO) and the County's Site Development and Roadway Construction Standards (Roadway Standards). Additional requirements, beyond those stated in the conditions of approval, may be required. The applicant may discuss the requirements of the project with staff at any time.

The requirements specifically required by the Comp Plan and the ZDO cannot be modified by the Development Engineering Division. However, the requirements detailed in these conditions of approval, derived from the Roadway Standards, are based upon nationally accepted standards and engineering judgment and may be modified pursuant to Section

170 of the Roadway Standards. The applicant is required to provide sufficient justification to staff in the request. Staff shall determine if a modification is warranted.

**Development Engineering recommended conditions of approval:**

- 1) Applicant shall obtain a Development Permit from the County Engineering Section prior to the issuance of a Building Permit. The applicant shall pay the minimum Development Permit fee for commercial development. At the time of this application the fee structure for commercial developments is \$2,000 minimum or 5% of site improvements. Issuance of a Development Permit is dependent upon the formal approval, by Engineering staff, of a set of plans in compliance with *Clackamas County Roadway Standards* Section 140.
  - a. The permit will be for utilities, driveways, sidewalk, drainage, parking and maneuvering area, and other site improvements.
  - b. The applicant shall have an Engineer, registered in the state of Oregon, design and stamp the construction plans for all required improvements.
- 2) Prior to Development Permit issuance the applicant shall submit to Clackamas County Engineering Office:
  - a. Written approval from Hoodland Fire District for the planned access, circulation and water source supply.
  - b. Written approval from Government Camp Water System District for adequate water supply to service the development.
  - c. A copy of the approved Surface Water Management Plan, analyzing the difference between pre and post development discharge rates and mitigation of downstream impacts, along with the detention calculations.
  - d. Written approval from ODOT, in the form of a permit, for access to and all work within E Government Camp Loop. Permitting of all improvements, surface water management, and the proposed stormwater conveyance system within the ODOT's right-of-way shall be required and coordinated through ODOT.
  - e. A signed Developer-Engineer Agreement for Primary inspection services per Section 180 of the Roadway Standards. The Primary Inspector will be required provide inspection reports to the County during period of active construction.
- 3) Frontage improvements along E Government Camp Loop shall include:
  - a. 6-foot wide ADA compliant sidewalk-ADA accessible ramp is required where connection to existing sidewalk does not exist

- b. A minimum 28-foot wide concrete driveway approach per ODOT standards. The first 20-feet shall not have a running slope in excess of  $\pm$  5%.
- 4) Applicant shall design and construct drainage facilities to serve the building, parking and maneuvering areas, and the remainder of the site in conformance with Water Environment Services requirements, and *Roadway Standards* Chapter four.
- 5) The final surface water management plan shall demonstrate that the rerouted and concentrated runoff will not adversely affect the slopes and properties downstream. The proposed stormwater conveyance system shall be designed such that the upstream runoff that currently flows through the culvert is not restricted and the new conveyance system has adequate capacity to convey this flow. Furthermore, no flows shall exceed the permitted pre-development flows.
- 6) Applicant shall design and construct a five-foot wide, ADA compliant walkway from the public right-of-way to the public entrance of each building per ZDO 1005.2. Where the on-site ADA walkway intersects the public sidewalk, there shall be a minimum 5x5 foot wide landing.
- 7) Applicant shall install and maintain a 30-inch “STOP” sign, at the driveway exit. The bottom of the “STOP” sign shall be positioned 7 feet above the surface of the new sidewalk or pavement.
- 8) All traffic control devices on private property, located where private driveways intersect the road shall be installed and maintained by the applicant, and shall meet standards set forth in the *Manual on Uniform Traffic Control Devices* and relevant Oregon supplements.
- 9) Applicant shall provide and maintain adequate intersection sight distances and stopping sight distances at the driveway approach intersection with E Government Camp Loop in accordance with *Roadway Standards* section 240. Adequate intersection sight distance for drivers turning left into the site shall also be provided and maintained. In addition, no plantings at maturity, retaining walls, embankments, fences or any other objects shall be allowed to obstruct vehicular sight distance. Posted speed is 40 MPH which requires minimum 445 feet of intersection sight distance and 305 feet of stopping sight distance.
- 10) Applicant shall provide adequate on site circulation for the parking and maneuvering of all vehicles anticipated to use the parking and maneuvering areas. Loading spaces shall also be afforded adequate maneuvering room. The applicant shall design and construct on-site parking and maneuvering areas as follows:
  - a. All parking and circulation areas shall be paved with structural section minimum requirements of Standard Drawing R100.
  - b. Applicant shall provide and implement a signing and pavement-marking plan for onsite parking and circulation. This plan shall be reviewed and approved by the Engineering section and the local Fire Marshal prior to the applicant being issued a Development Permit.

- c. The applicant shall show the paths traced by the extremities of the anticipated large vehicles, including off-tracking, on the site plan to ensure adequate turning radii are provided for the large vehicles maneuvering on site and at driveways, including, but not limited to:
  - i. A minimum of 24 feet of back up maneuvering room for all 90-degree parking spaces;
  - ii. The paths traced by the extremities of trucks and emergency vehicles shall be demonstrated.
- d. All vehicular maneuvering shall be onsite with only forward movements towards the road. The applicant shall comply with the requirements of the ZDO Section 1021.06 regarding access to the front of solid waste and recyclable material container pad. The applicant shall comply with all the vehicle access requirements of ZDO Section 1021.06 unless modifications are approved in compliance ZDO Section 1021.08.
- e. Parking spaces shall meet minimum *ZDO* section 1015 and Roadway Standards, Standard Drawing P100/200 dimensional requirements. The plans shall list the number of parking spaces required and the number of parking spaces provided. The applicant shall label all compact, carpool, ADA, and loading berth spaces on the plans.

11) Primary Inspector:

- a. The applicant shall enter into a Developer/Engineer Agreement for primary inspection services per Section 180 of the Roadway Standards. This form will be provided to the applicant and shall be signed and returned to County Plans Reviewer.
- b. Prior to final occupancy permit, the applicant shall provide a Certificate of Compliance signed by the Engineer of Record stating all materials and improvements have been installed per approved plans and manufacture's specifications.

12) Prior to the issuance of a building permit, the applicant shall submit to Clackamas County Engineering Office:

- a. Written approval from the Hoodland Fire District for the planned access, circulation, fire lanes and water source supply. The approval shall be in the form of site and utility plans stamped and signed by the Fire Marshal.
- b. Written approval from ODOT in the form of a permit for all work within the E Government Camp Loop right-of-way.

- c. Written approval from Government Camp Water System for adequate water supply source to serve the development. The approval shall be in the form of utility plans stamped and signed by the Water District representative.
  - d. A set of site improvement construction plans, including a signing and striping plan, for review, in conformance with *Clackamas County Roadway Standards* Section 140, to Clackamas County's Engineering Office and obtain written approval, in the form of a Development Permit.
- 13) Prior to Certificate of Occupancy, the development shall meet the requirement set forth in Section 190 of the Roadway Standards for Substantial Completion including but not limited to:
- a. All underground utilities are installed and accepted including franchise utilities
  - b. Paving or final grade has been completed and approved
  - c. All Development Permit conditions of approval have been met
  - d. Certificate of Compliance has been submitted
  - e. Final approval of ODOT permit
  - f. Submit, at time of initial paving, electronic as-built plans for all improvements showing all construction changes, added and deleted items, location of utilities, etc. A professional engineer, registered in the state of Oregon, shall stamp and sign as-built plans.



**DAN JOHNSON**  
DIRECTOR

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT  
DEVELOPMENT SERVICES BUILDING  
150 BEAVERCREEK ROAD OREGON CITY, OR 97045

To: Ben Blessing  
From: Tenille Beseda  
Subj: Land Use Comment – Z0032-23 47-Unit Boutique  
Hotel Sustainability & Solid Waste Finding and Condition

Finding:

The applicant has proposed a roofed trash and recycling enclosure attached to the building's eastside wall with downward sloping landscape to the east of the enclosure. The enclosure is approximately 12.5' wide and 15' deep, constructed of masonry block, set back slightly from the front of the building, and positioned to be serviced off E Government Camp Loop with limited on-site maneuverability.

Condition:

Prior to issuance of building permits, the applicant shall submit detailed enclosure plans that clearly outline a waste and recycling enclosure that meets the requirements specified in [ZDO 1021](#), including, but not limited to, trash and recycling receptacle footprints (at a minimum, two 2yd containers and two roll carts) and acceptable service truck circulation. The applicant shall work with Clackamas County's Sustainability & Solid Waste staff to finalize plans that comply with design standards.

To discuss plans, please contact Sustainability & Solid Waste staff at [wasteinfo@clackamas.us](mailto:wasteinfo@clackamas.us), 503.557.6363 (option 7).

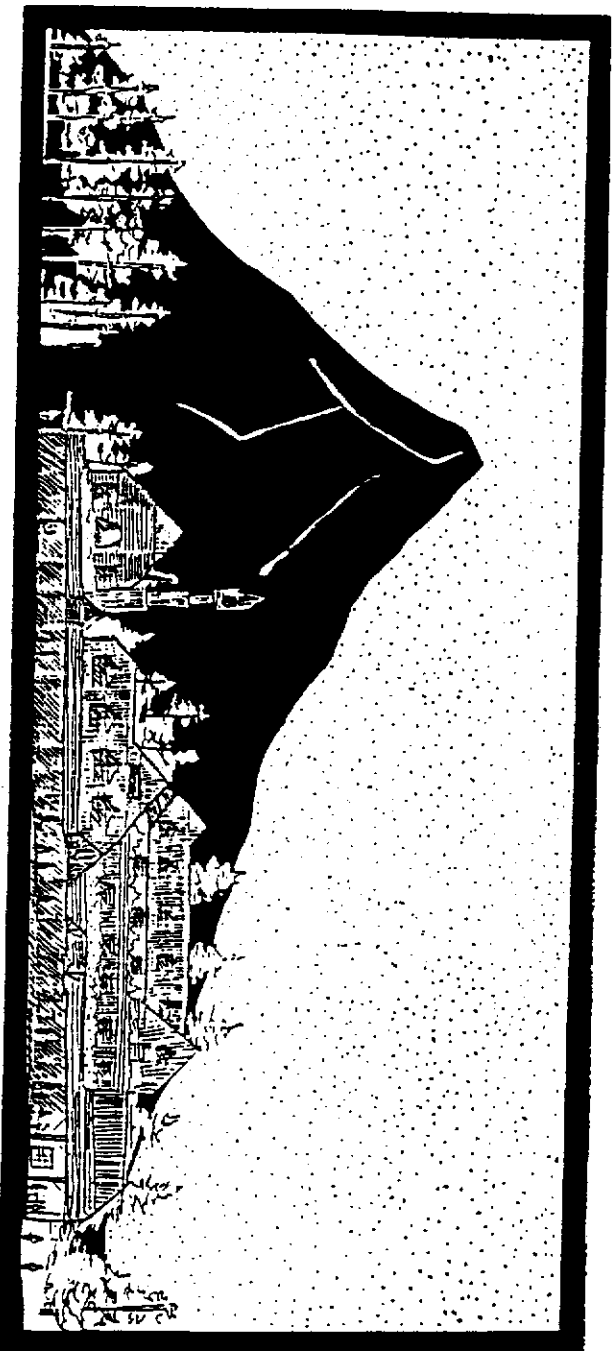
Find information about enclosure requirements at [www.clackamas.us/recycling/enclosure.html](http://www.clackamas.us/recycling/enclosure.html)

Find information about the status of your application at [accela.clackamas.us/citizenaccess/](http://accela.clackamas.us/citizenaccess/)



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*Government Camp Village Design Guidelines Handbook*



## *Acknowledgements*

The Design and Sign Standards were developed with and approved by the Government Camp Revitalization Committee:

Duane Bridge  
Dave Butt  
Lois Duvall  
Maryellen Englesby  
Maryanne Hill  
Edie Howard  
Richard Kohnstamm  
Dennis Nolder  
Ed Rogers  
Jerry Schmidt  
J.C. Swanson  
Nancy Spencer  
Charles Wessinger

*Prepared by the Clackamas County Development Agency, partially funded through a Community Development Block Grant*

Tom VanderZanden, Executive Director  
Norm Scott, Policy and Project Development Director  
Stefanie Slyman, Project Manager  
Kristen Stallman, Illustrator

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## *Introduction*

Government Camp, with its ideal location in the midst of skiing and summer recreation areas, the historic Barlow Road, and its proximity to Portland, is well-positioned to serve the many visitors to the Mt. Hood area. However, over the past 40 years since the original highway was rerouted around Government Camp, it has slowly declined from the thriving ski village it once was. The commercial area as a whole today has image problems and there is no "sense of place." Often, people pass through without stopping because they don't know that they have arrived. Reasons for this include aging buildings, lack of cohesive design, large parcels of undeveloped property in the core area, obsolete signage, and an 80 foot wide road that passes through the core commercial area.

The Government Camp Revitalization Committee, a volunteer advisory group to the Clackamas County Board of Commissioners, recognized that improving the image of Government Camp is essential to revitalization efforts. The committee agreed that a common design theme was needed to make the area more attractive and compatible with the rustic, mountain environment. A "mountain village" atmosphere with design standards for mountain architecture, pedestrian amenities, and commercial signage appropriate for the scale and design of Government Camp was identified as the theme to help create the "sense of place" it currently lacks.

The design and sign standards and recommendations in this handbook were developed to provide direction for new development, and major remodels wherever possible. The intent is to ensure that new development helps develop and strengthen the mountain village atmosphere desired by the community. These guidelines also benefit existing businesses through adjunct sign and facade improvement programs that will provide funding from the urban renewal district to businesses that refurbish their establishments.

The Government Camp Revitalization Committee worked with Clackamas County staff in 19 meetings open to the public to develop sign and design standards. They were developed from community design work coordinated by the University of Oregon and from research of similar communities. A community meeting was held in Government Camp on January 6, 1993. Public hearings were held before the Planning Commission on January 25, 1993 and before the Board of County Commissioners on February 10, 1993. The Design and Sign Standards were adopted on February 10, 1993.

Design and sign standards are one element in the overall revitalization of Government Camp. The *Government Camp Revitalization Plan*, adopted in 1989, outlines a number of projects to be undertaken over the next 15 years to revitalize Government Camp. The plan includes access and circulation improvements, development of recreational amenities, image improvements, development incentives, and Main Street (Loop Road) improvements.

### *What does this Handbook do?*

This handbook is a supplement to the Clackamas County Zoning and Development Ordinance as it pertains to Rural Tourist Commercial, Mountain Recreational Resort, and Hoodland Residential property adjacent to the Old Mt. Hood Loop Highway in Government Camp. It provides the standards for architecture as referred by sections 504.08D and 306.10E of the Zoning and Development Ordinance. This handbook also provides clarification of other design components, both required and recommended. With the exception of commercial sign standards, these standards do not apply to single-family ~~or multi-family dwellings~~. *[Zoning Ordinance does not exempt multi-family dwellings.]*

Not all development standards are covered in this handbook and in no way is it a substitute for the requirements of the Zoning and Development Ordinance.

### *Terms*

**Loop Road:** This refers to the Old Mt. Hood Loop Highway which serves as the business loop of U.S. Highway 26. It is referred to as the Loop road in this document. It is also sometimes referred to as Main Street.



**Core area:** This is the central commercial area of Government Camp on the Loop Road between Yeast Trail and Church Street and Little Trail between Olive and Church Streets. This area contains the majority of commercial businesses in Government Camp and the Barlow Road Market Plaza.

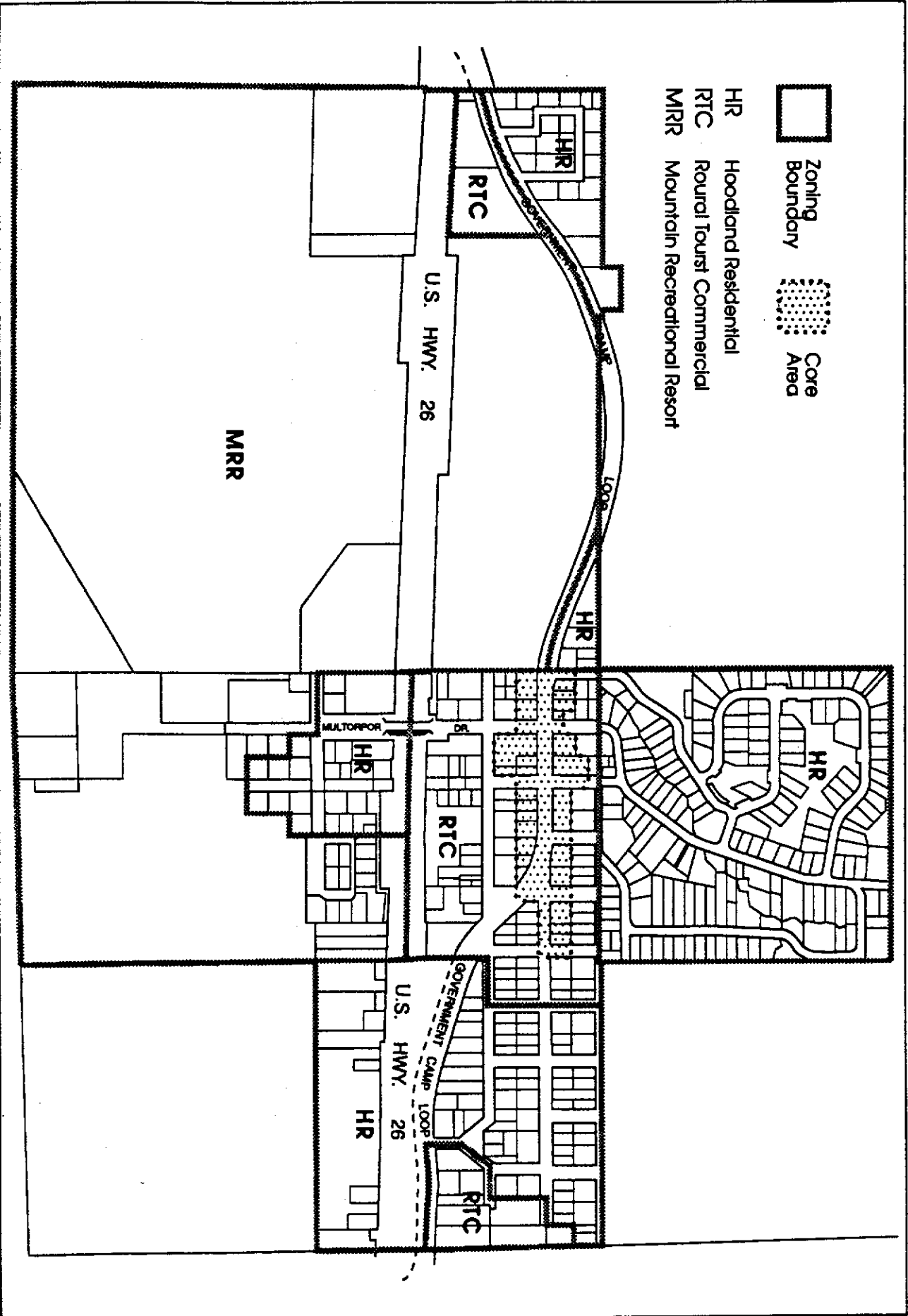
**Rural Tourist Commercial (RTC) district:** This commercial zone provides primarily for a variety of retail, office and commercial uses. A mixture of small-scale uses (commercial, retail, and office) within a single building or complex is encouraged in the RTC zone.

**Mountain Recreational Resort (MRR) district:** This classification is designed for small and large scale developments incorporating a single type or variety of resort housing which is planned and developed as a unit. It allows primarily for multi-family residential structures, hotels, motels, boarding houses, and single-family dwellings.




**Hoodland Residential (HR) district:** This allows for primarily single-family dwellings. Accessory uses include bed and breakfasts and guest houses. HR properties adjacent to the Loop Road which erect commercial signage, such as for a bed and breakfast, are subject to the Government Camp Sign Standards.

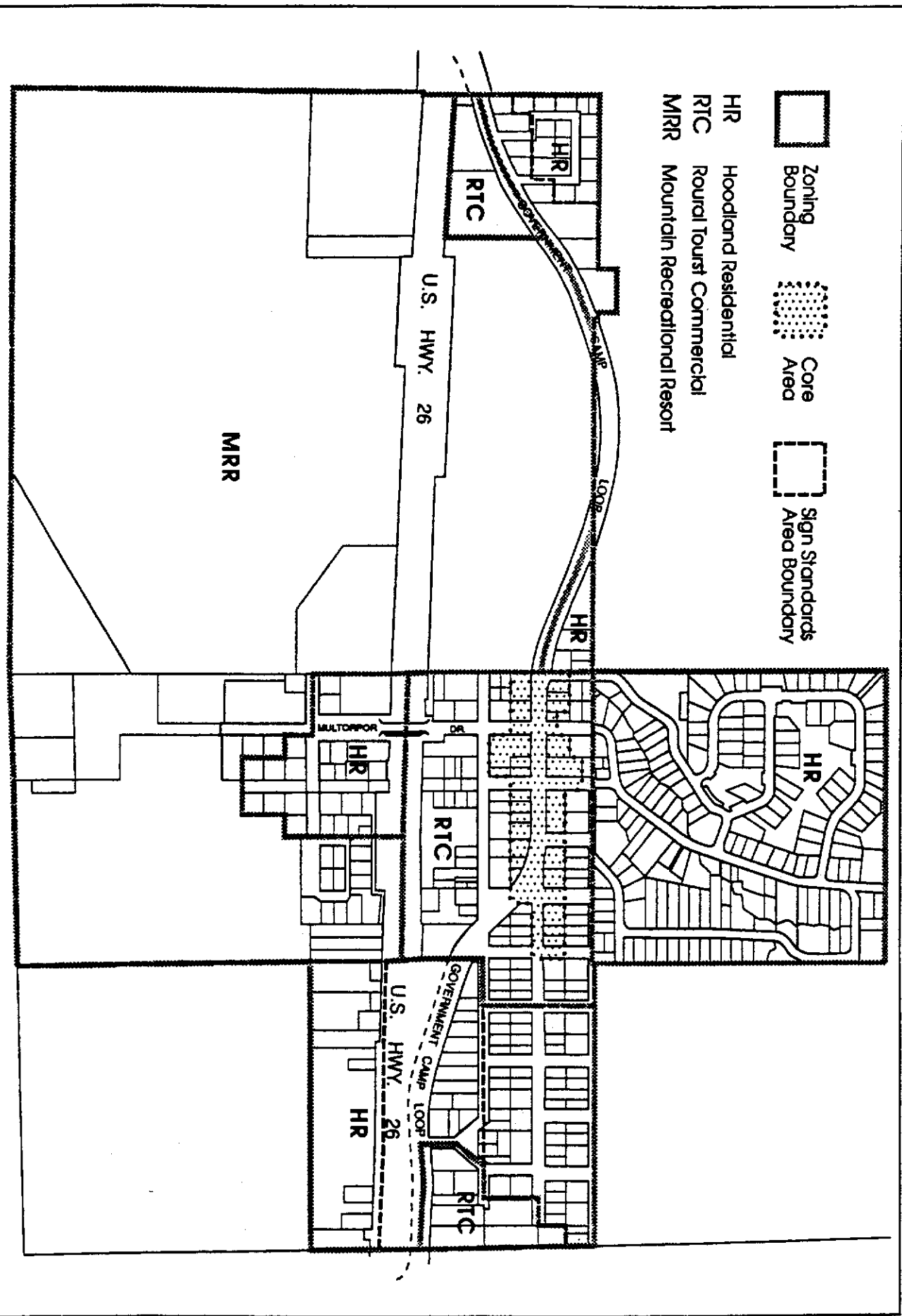
# GOVERNMENT CAMP VILLAGE DESIGN STANDARDS

-  Zoning Boundary
-  Core Area
- HR Hoodland Residential
- RTC Rural Tourist Commercial
- MRR Mountain Recreational Resort



# GOVERNMENT CAMP VILLAGE SIGN STANDARDS

-  Zoning Boundary
-  Core Area
-  Sign Standards Area Boundary
- HR    Hoodland Residential
- RTC    Rural Tourist Commercial
- MRR    Mountain Recreational Resort



## Major Design Issues in Government Camp

Several design issues were identified as detracting from Government Camp developing into a mountain style village that is attractive to visitors of all seasons. The design standards and recommendations provide specific measures to address the issues through building design, architecture, sign standards, and public amenities. Other design issues will be addressed in future projects outlined in the Government Camp Revitalization Plan.

### Issue 1: The streetscape is not conducive to a village atmosphere.

Government Camp would like to achieve a more intimate village atmosphere. A wide road through the center of the core area is a barrier to this. The width of the Loop Road is 80 feet. Paving that extends to the front of each building makes the asphalt as wide as 100 feet in places. This creates a very wide, open area that is not inviting to pedestrians. Compounding this problem is a lack of delineated walkways, public amenities, or public gathering areas.

#### Goals:

- Incorporate pedestrian oriented amenities that make the street and buildings more inviting and accessible. Covered walkways and public plazas are two of the requirements to achieve this.
- Decrease the frontyard setback to narrow the distance between building facades on the Loop Road.
- Allow for commonwall construction in the core area to provide a more continuous streetscape and network of covered walkways.
- Develop and implement temporary and permanent streetscape designs with the Oregon Department of Transportation.



***Issue II. There is a lack of "sense of place."***

Visitors to Government Camp's commercial area often drive on through without realizing that they have arrived. This is due, in part, to a lack of common design, developed properties, or pedestrian activity areas. This image problem detracts from the mountain village atmosphere visitors expect while in the Mt. Hood area.

***Goals:***

- Incorporate a mountain architecture theme to provide a visually cohesive atmosphere.
- Work with existing buildings to improve facades and provide public amenities with funding from Government Camp urban renewal funds.
- Encourage outdoor uses and activities in plaza areas in the summer.
- Encourage development to incorporate balconies, dormers, decks, and other elements which bring more about more interaction between the building and the street.
- Incorporate public improvements such as lighting, improved entries to the village, and public signage that strengthens the identity and image of Government Camp.

***Issue III. Existing commercial signage is oriented to highway traffic and does not complement the natural setting.***

Signage is a prominent feature of commercial establishments. A proliferation of signs, signs that are out of scale, and sign design that does not complement the natural setting detracts from the village atmosphere intended for Government Camp.

***Goals:***

- Develop standards for new signage with a mountain architecture design theme.
- Use sign and sign support materials that complement the rustic, mountain environment.
- Restrict the size, number, and placement of signs to fit the pedestrian scale.
- Provide financial incentives to existing businesses to remove obsolete signage and replace it with new signage.

## Overview of Mountain Architecture

7.

Mountain architecture is the style appropriate for Government Camp and is required for commercial building design in the RTC and MRR districts. The specific types most suitable are foremost Cascadian, Oregon Rustic, or National Park styles. These styles reflect a concern for the natural setting and integration of the landscape. They respond to climactic conditions through the physical expression, construction, and materials. Buildings designed in this style harmonize with the forested, mountain setting through natural materials such as unfinished wood and stone. Premier examples of these styles include Timberline Lodge, Multnomah Falls Lodge, Crater Lake Lodge, and Cloud Cap Inn on Mount Hood.

The following are characteristics of this architecture style. Specific components are covered in greater detail in the following pages and should be consulted for further clarification and illustration.

### *Physical Expression:*

- Clear structural manner and simple form; asymmetrical composition
- Expression of substantial structural strength with massive bearing walls at lower levels
- Moderately to steeply pitched roof; gable or hipped
- Tiers of shed dormers, pitched dormers near ridges
- Openings kept to a minimum and paired if possible
- Avoidance of large areas of uninterrupted glass
- Large stone chimneys

### *Materials and Finishes:*

- Wood, stone, and materials indigenous to the area
- Finishes are substantial and not highly refined
- Decorative elements include wood sculpture, metal work, and masonry

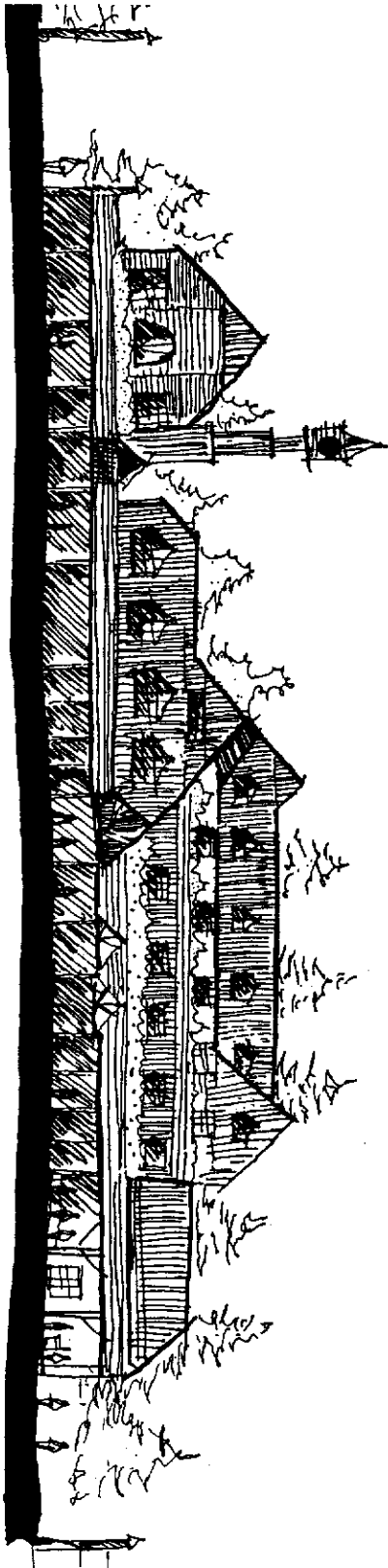
### Sources:

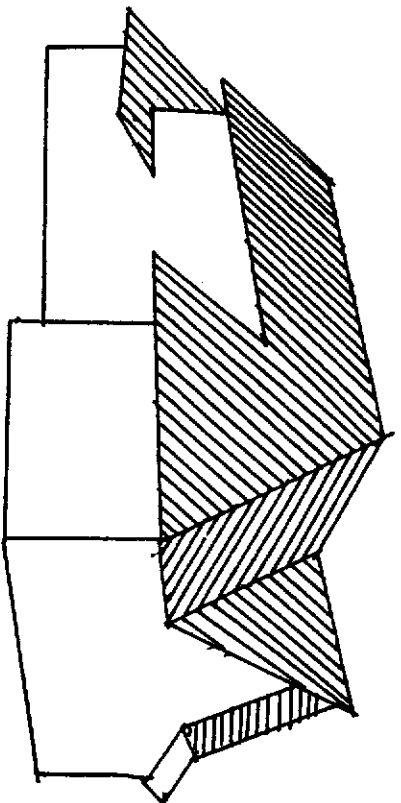
Government Camp Development Plan, Phase Four. Community Planning Workshop, University of Oregon.  
Oregon Style - Architecture from 1840 to the 1950's. Rosalind Clark for the City of Albany.

## The Roof

*The roof is an important element of mountain architecture through the sense of protection, both real and perceived, from the heavy, wet snow found in Government Camp.*

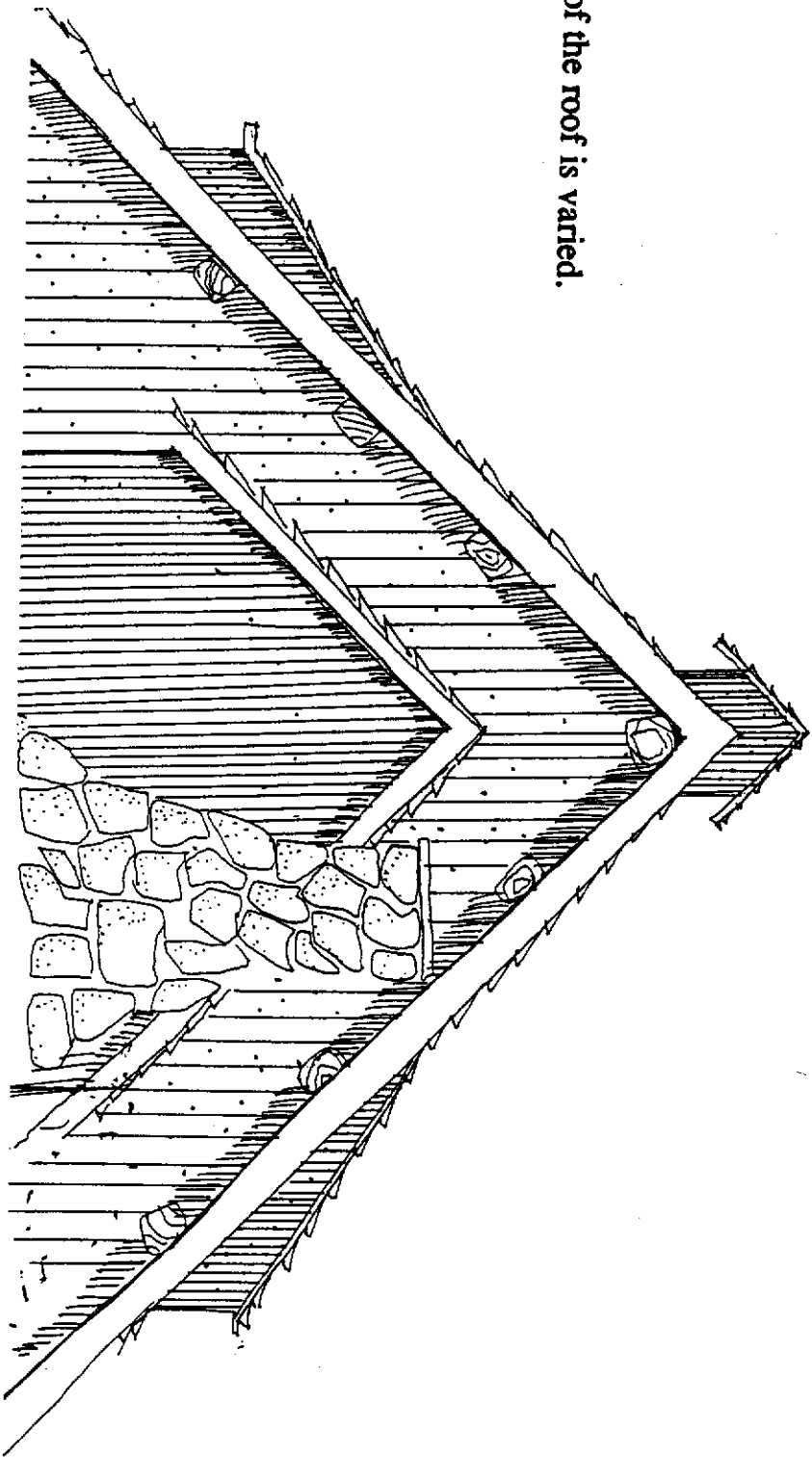
- The pitch of the roof is moderate to steep, ranging from 40-60 degrees. Flat roofs, mansard roofs, and low-pitched roofs are unacceptable for snow management and aesthetic purposes.
- The shape of the roof is varied. Tiers of shed dormers, pitched dormers near ridges, varied height, and architectural features such as chimneys, cupolas, and towers break up the roof form.
- Roofing materials not acceptable include non-architectural composition shingles, galvanized metal, or corrugated metal. Some recommended roofing materials include ribbed metal, shake, or tile.
- Eave lines and major cornice or trim lines should be located below the third story on the Loop Road frontage to bring the building face down to a pedestrian scale.
- Trim and eave lines should have a substantial appearance. Thin wood trim is not suitable.
- Roof mounted equipment should be concealed from view from the Loop Road. Satellite dishes, antennae, and mechanical equipment should be planned as part of the roof and be integrated so as not to detract from the roof.





Eave lines are located below the third story to bring building face down to a pedestrian scale.

Shape of the roof is varied.

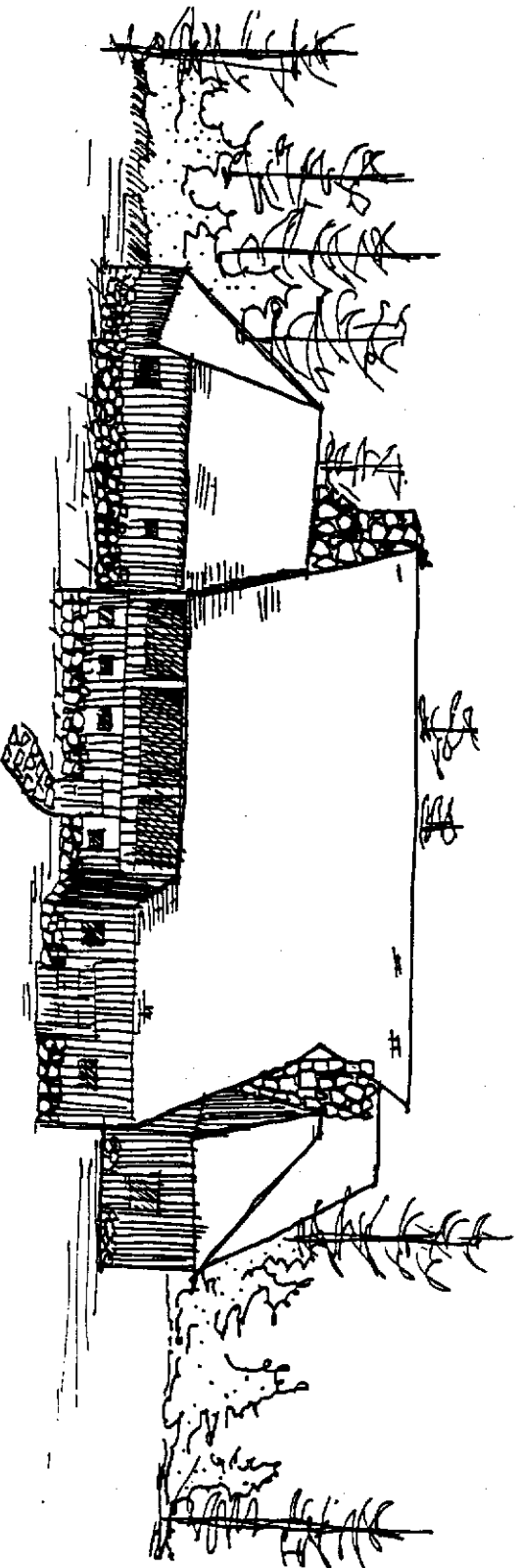


Roof line is broken up with chimneys, cupolas, and towers.

## The Base

*The base is a key architectural feature in which buildings respond to the climate and weather. Bases are necessary to protect wooden building from the wet snow that lasts approximately seven months out of the year. Mountain design achieves protection from the snow by incorporating strong, impervious bases around the lower levels of buildings.*

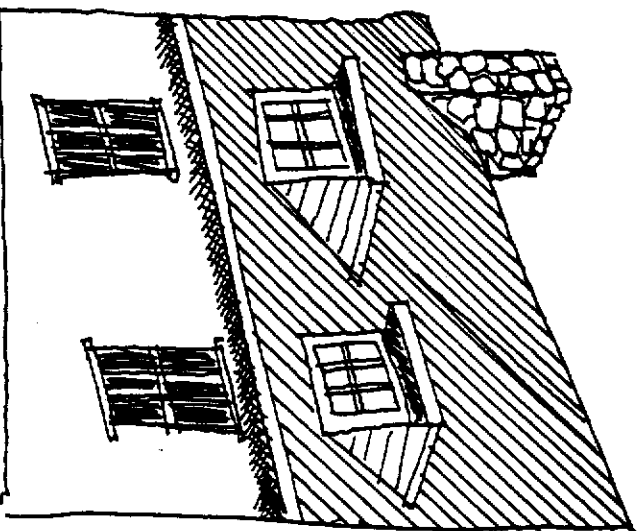
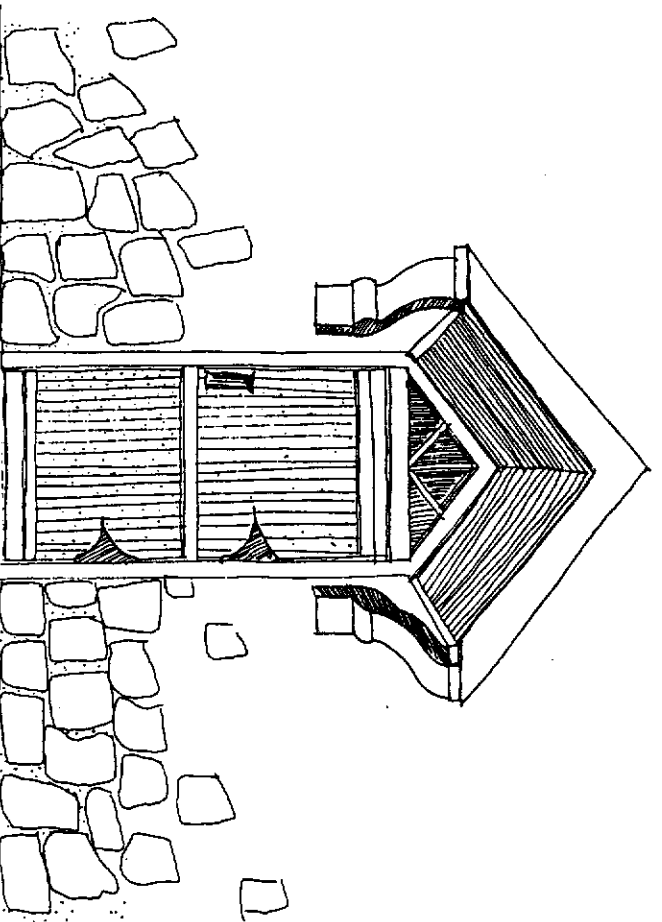
- An impervious base is required on the lower portion of buildings with street frontage. This is recommended for all other surfaces.
- Base materials include stone, stone veneer, and textured or scored concrete used in foundations or as siding.
- The height of a base may vary as determined by the design of the building. Yearly snow fall can reach 10 feet, not including drifts and stored snow. Base heights should be designed with this in mind, as well as the specific design of the building.



## *Entries and Windows*

*Cold winters require protection from the elements. Windows and doors are carefully incorporated into building design to keep cold winter air out of buildings.*

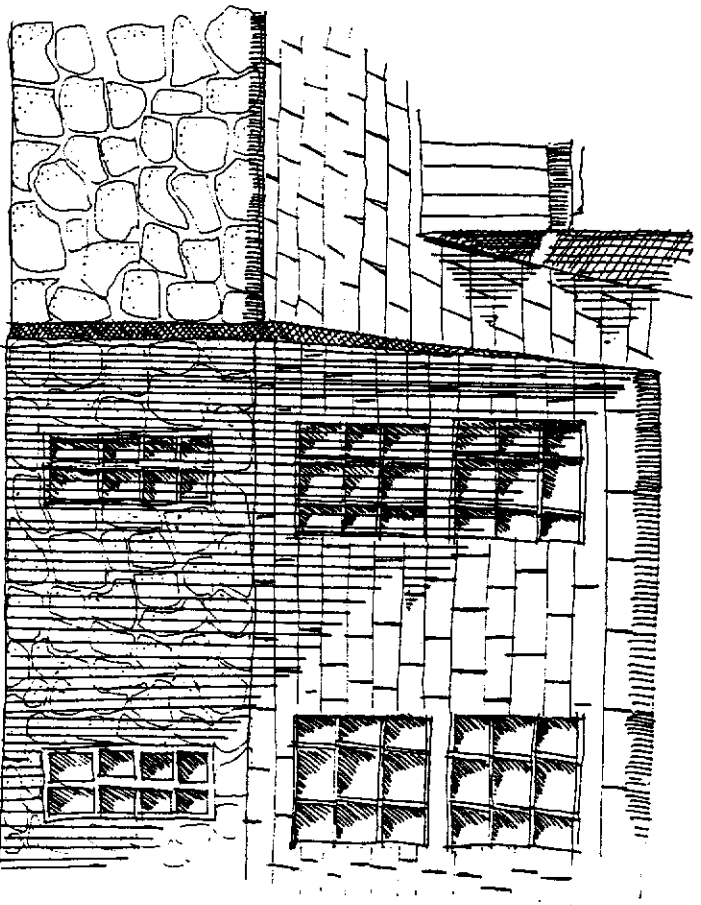
- Windows are used in combinations that avoid large uninterrupted glass areas. Numerous small windows with many panes and dormer windows are appropriate.
- Openings should be kept to a minimum and paired where possible. The location of the openings should not be symmetric or adhere to any formal pattern.
- Exterior window trim should relate to the other materials of wood and masonry.
- All entries should be sheltered from the elements using porches, covered walkways, and entry foyers.



## Materials and Finishes

*Buildings are constructed of native materials that harmonize with the natural setting. Finishes reflect the rustic environment through an unfinished, craftsman style.*

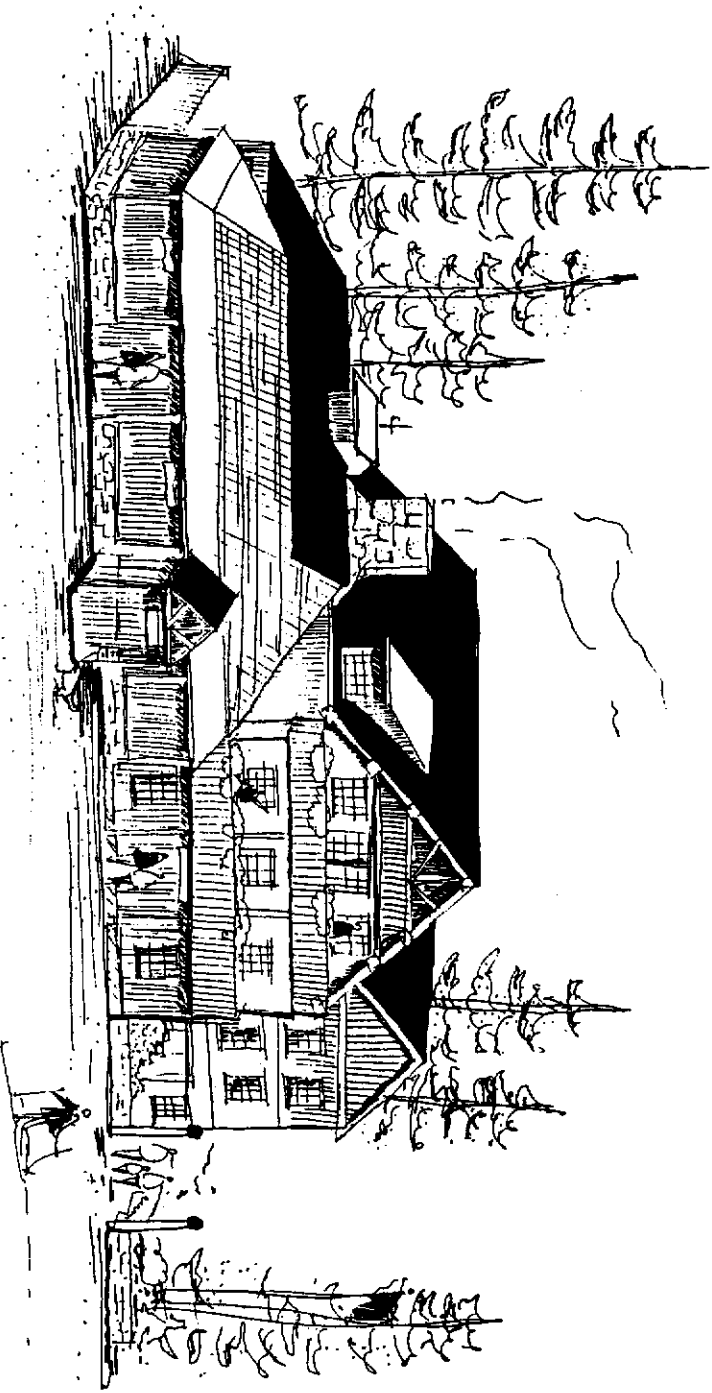
- Wood is a primary exterior building material. Unpainted or unfinished wood siding, log construction, unpeeled logs, and half-round logs applied as siding are all appropriate.
- Stone, particularly basal, stone veneer, and textured concrete are materials to be incorporated into the exterior.
- Stucco may be used as a secondary material when combined with heavy timber, wood, or stone cladding.
- Finishes should be substantial and not highly refined. Wood sculpture, metal work, masonry, mosaic, and fascia paintings are recommended decorative elements.
- No exposed plywood, particle board, plain concrete, cinder block, or grooved T1-11 is permitted.



## *Building Siting*

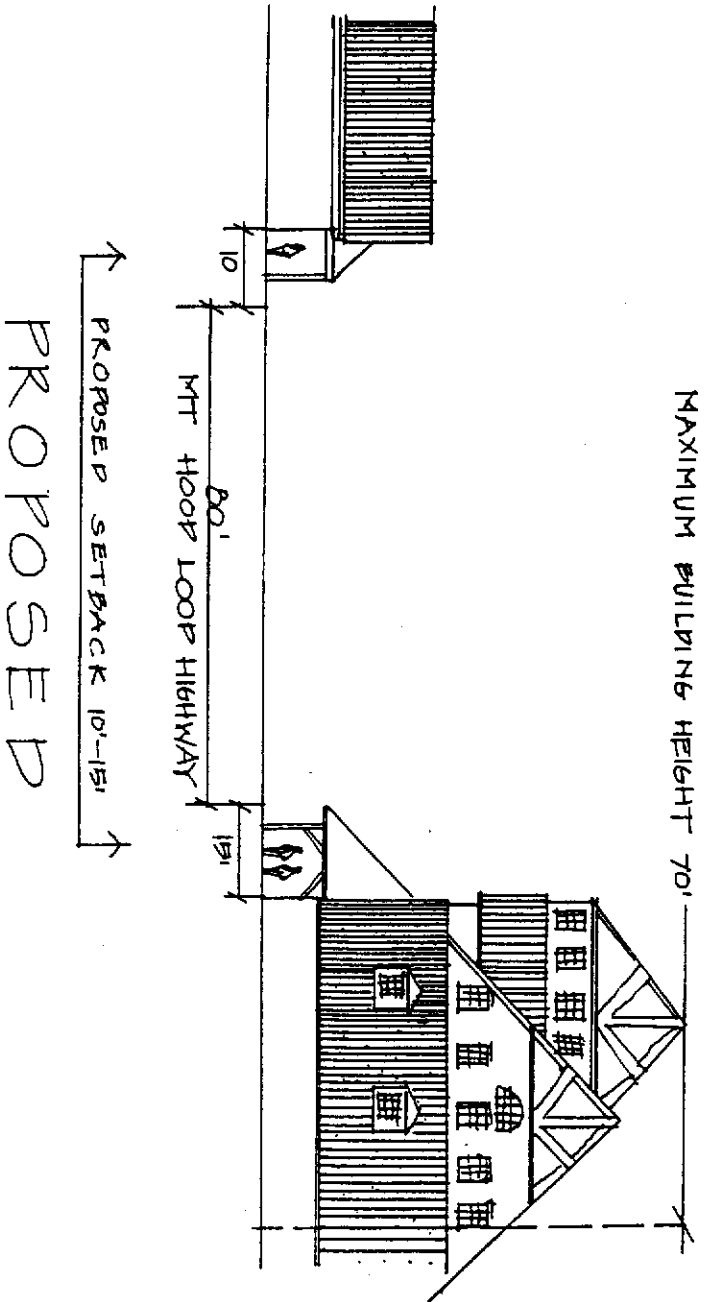
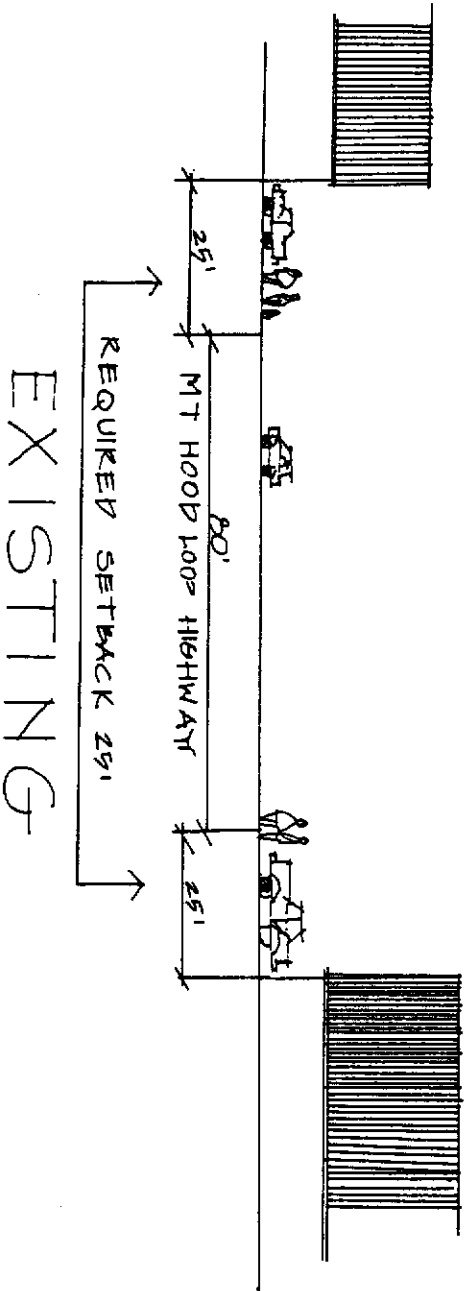
*Buildings and accessory structures should be sited to optimize the pedestrian experience by orienting access to the Loop Road and by screening activities which detract from it. Siting should help to develop a sense of enclosure in the core area.*

- Main entrances and pedestrian amenities are located on the Loop Road where there is street frontage on it.
- Front and sideyard setbacks are decreased in the Rural Tourist Commercial area to achieve a better sense of enclosure.
- Sideyard setbacks on the Loop Road may be reduced to zero to allow for common-wall construction and to provide more continuous covered walkways.
- Loading and delivery are located off of the Loop Road wherever possible.
- Special consideration should be given to screening garbage receptacles, satellite dishes, and equipment from the Loop Road.





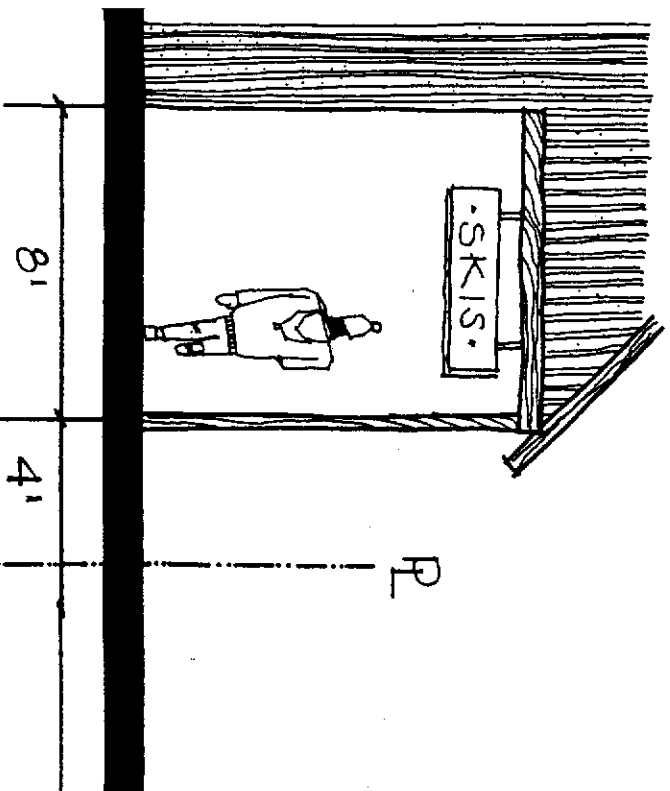
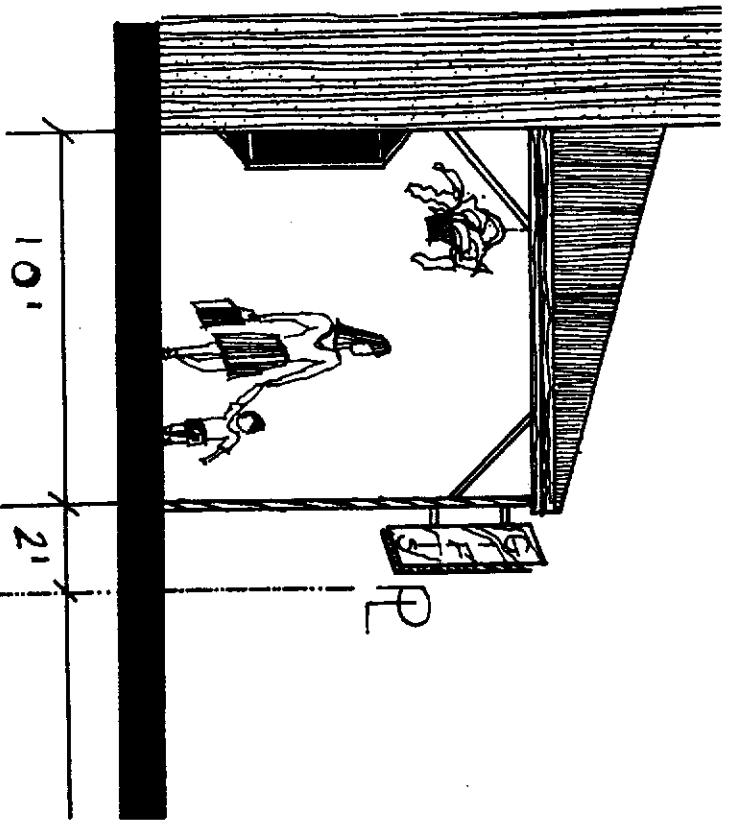
Existing and Proposed setbacks.



## Covered Walkways

*Covered walkways in the core area of Government Camp are essential to the success of creating a village atmosphere and attracting pedestrians. These provide sheltered walking areas, people gathering places, and opportunities for winter window shopping. Covered walkways also help to bring a pedestrian scale to the village by providing a lower level structure adjacent to the street.*

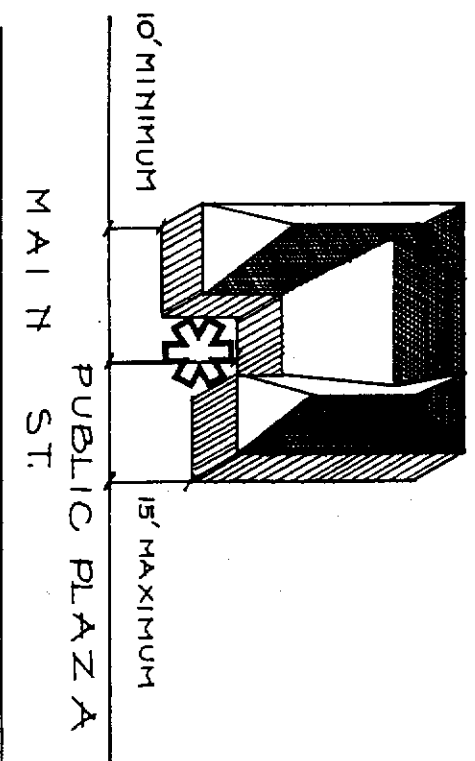
- Covered walkways are at least 8 feet wide, but do not extend beyond the property line. They cover the facade of the building on Loop Road or Little Trail frontage.
- A cantilever may serve as the covering for a walkway. Setback to the cantilever is a minimum of 4 feet.
- Walkways should be slightly raised above the roadway to provide a physical separation from the road and to allow pedestrians an elevated view of the core area.



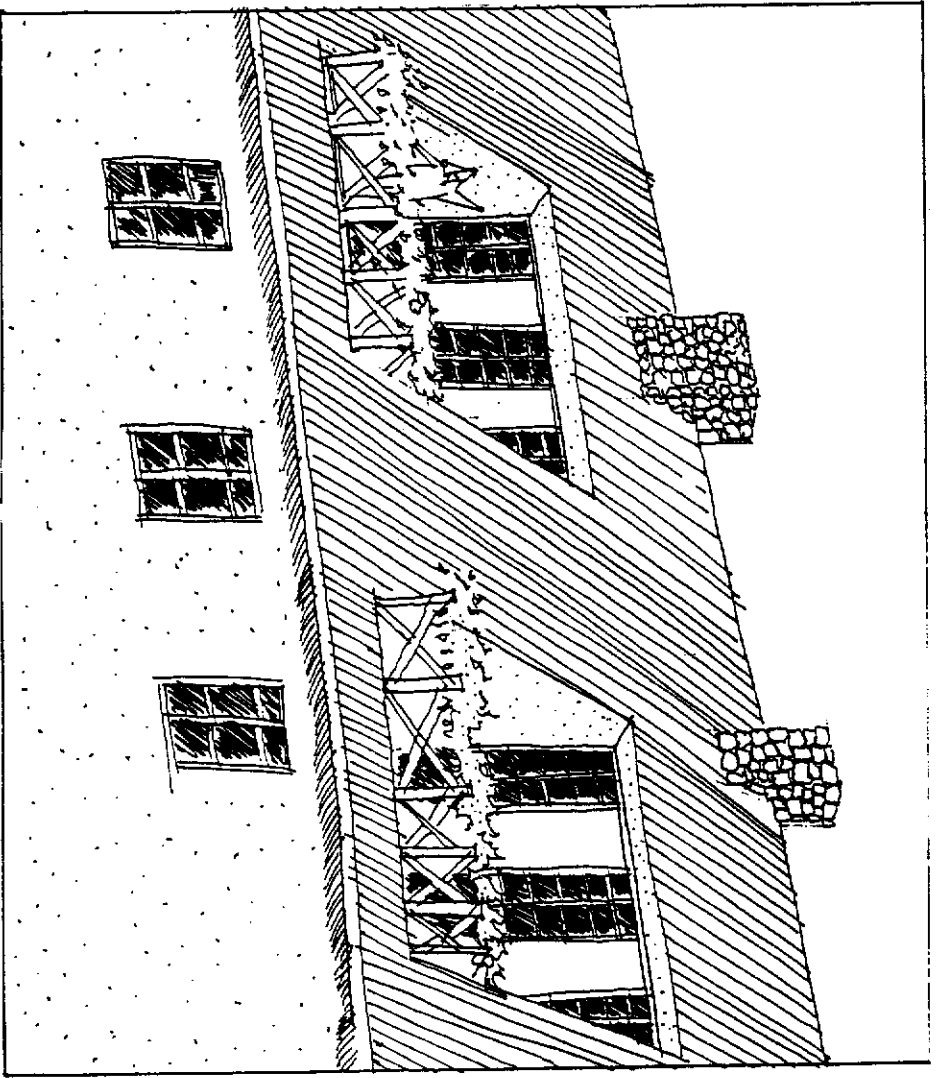
## Public Plazas

*"People places" are essential to creating a village atmosphere. By providing public plazas with pedestrian amenities businesses can create gathering areas that appeal to visitors to browse, people watch, eat, and rest. As Government Camp continues to draw many visitors who come to the area for summer skiing, outdoor recreation, and sightseeing, these spaces become more critical to the success of Government Camp as a "people place."*

- Plazas are permanent public space in the core commercial area of Government Camp. Where plazas are provided in the core area, the general 15% landscaping condition is not required.
- Plazas provide public amenities to include seating areas, landscaping, and garbage receptacles. Encouraged amenities in addition to those required include public art, bike racks, eating areas, and entertainment space.
- Where properties have frontage on the Loop Road, plaza space will be provided that is accessible and visible from the Loop Road or Little Trail. Plaza space may be located in the sideyard setback where it meets these requirements.
- Plaza surface materials include textured concrete, concrete mixed with aggregate, rock, rock veneer, pavers, bricks, or wood.
- Additional "people places" appropriate for all developments include decks, recessed balconies, and porches.



Balconies incorporated into building design.



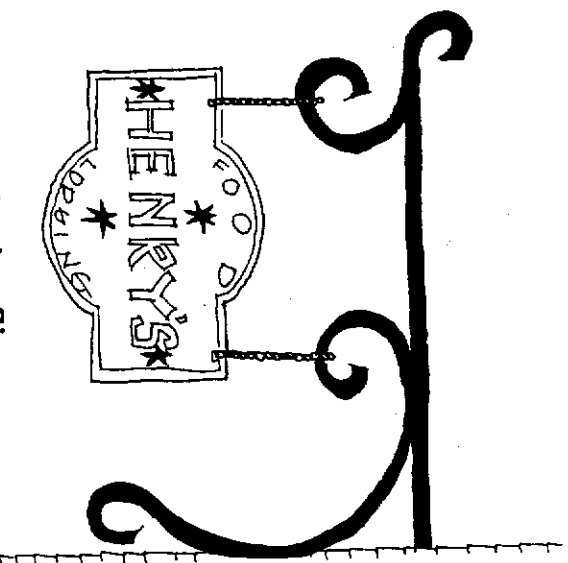
Public plaza space.



## Sign Standards

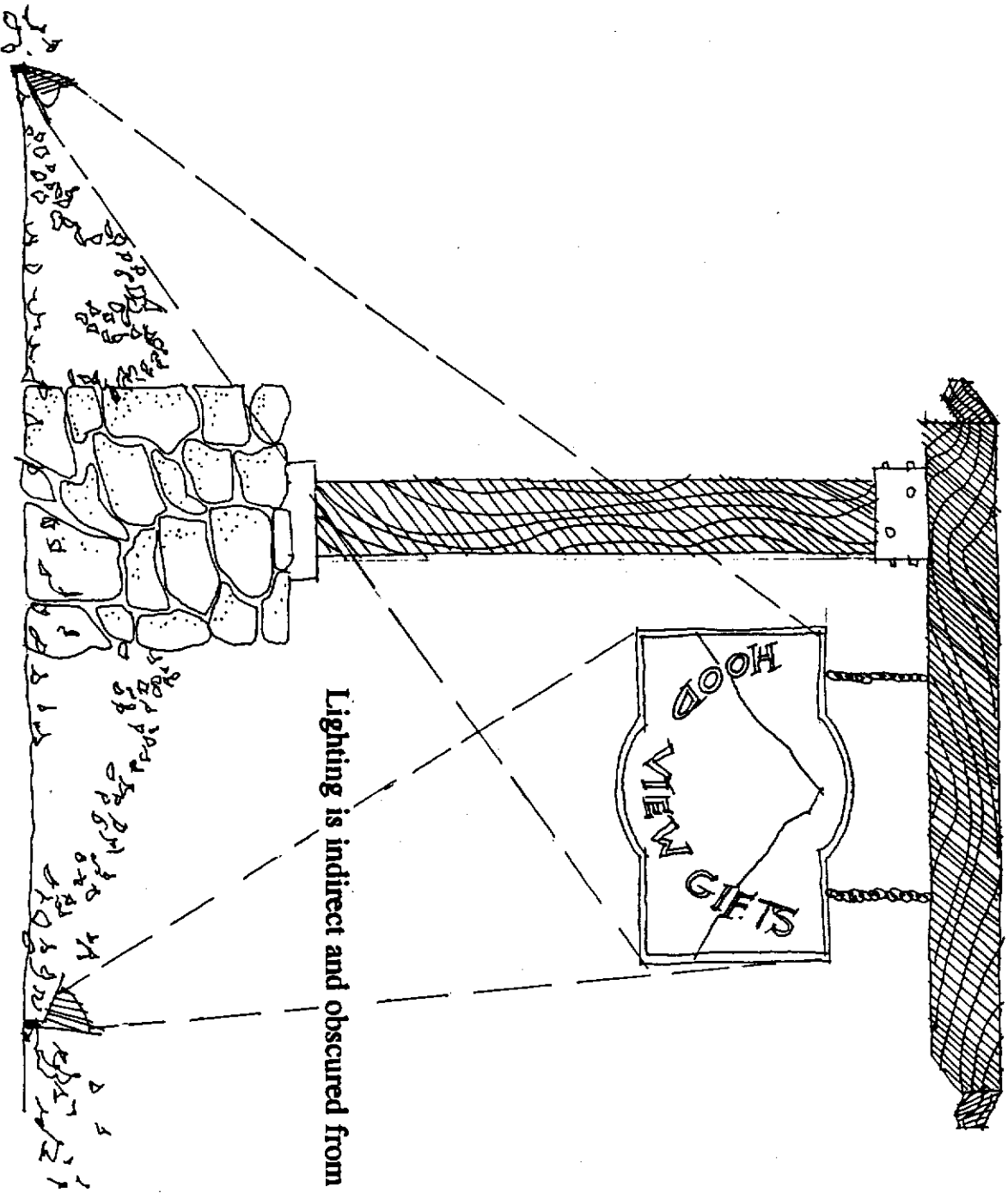
*Signs are an important component of the appearance of the Loop Road and commercial areas. Many existing businesses have signs that were designed for highway traffic speeds that no longer occur. Different signage is needed to attract lower traveling speeds and pedestrians, and fit in the natural setting.*

- Signs and support structures complement the rustic, mountain environment of Government Camp through a Cascadian design theme.
- The sign ordinance for Government Camp addresses the amount, type, size, and placement of commercial signage.
- Types of signs allowed include freestanding or ground mounted, on-building/wall signs, projecting signs, window signs, and awning/covered walkway signs.
- Sign materials include wood, stone, brick, etched or stained glass, wrought iron, or non-shiny metal.
- Lighting is indirect and obscured from the pedestrian.
- Signage for businesses with U.S. 26 frontage or visible from it attract business from the highway. They are permitted to have one larger sign for that purpose. It may be constructed of plastic and be internally lit as long as the mountain design intent is upheld.



Decorative Sign

Sign materials include wood, stone, wrought iron.



Lighting is indirect and obscured from the pedestrian.

Freestanding Sign



**Clackamas County Planning and Zoning Division  
Department of Transportation and Development**

Development Services Building  
150 Beavercreek Road | Oregon City, OR 97045

503-742-4500 | [zoninginfo@clackamas.us](mailto:zoninginfo@clackamas.us)  
[www.clackamas.us/planning](http://www.clackamas.us/planning)

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**NOTICE OF LAND USE APPLICATION IN YOUR AREA**

**Date of Mailing of this Notice:** 02/13/2023

**Notice Mailed To:** Property owners within 300 feet of the subject property  
Community Planning Organizations (CPO)  
Interested Agencies

**File Number:** Z0032-23

**Application Type:** Design Review

**Proposal:** A new 47-unit boutique hotel. Two land use applications required: 1) Design Review, Z0032-23-D, to review site design, building, access, and utility standards. 2) Stream Conservation Area (SCA)/Open Space Review, Z0033-23-RSCA, to review impacts to adjacent streams and wetlands.

**Applicable Zoning and Development Ordinance (ZDO) Criteria:** In order to be approved, this proposal must comply with ZDO Sections 202, 317, 704, 1001, 1002, 1003, 1005, 1006, 1007, 1009, 1011, 1015, 1021, 1102, 1103, 1307. The ZDO criteria for evaluating this application can be viewed at <https://www.clackamas.us/planning/zdo.html>

**Applicant:** SOLIS, JESUS

**Property Owner:** MT HOOD LLC II

**Site Address:** 0 NO SITUS  
ADDRESS, OR

**Location:** North of Collins Lake south side of Government Camp Loop

**Assessor's Map and Tax Lot:** 38E24A 00408      **Approximate Property Size:** 1.38

**Zoning:** MRR-MOUNTAIN RECREATIONAL RESORT

**Staff Contact:** Benjamin Blessing 503 742 4521      **E-mail:** [BBlessing@clackamas.us](mailto:BBlessing@clackamas.us)

**File Number:** Z0032-23

**Community Planning Organization:** The following recognized Community Planning Organization (CPO) has been notified of this application. This organization may develop a recommendation. You are welcome to contact the CPO and attend their meeting on this matter, if one is planned.

GOVERNMENT CAMP CPO  
NICK RINARD (503) 757-3888  
NICKRINARD@YAHOO.COM

If this CPO is currently inactive and you are interested in becoming involved in land use planning in your area, please contact Clackamas County Community Engagement at [503-655-8751](tel:503-655-8751). In some cases where there is an inactive CPO, a nearby active CPO may review the application. To determine if that applies to this application, call or email the staff contact.

**How to Review this Application:** A copy of the application, all documents and evidence submitted by or on behalf of the applicant, and applicable criteria are available for inspection at no cost. Copies may be purchased at the rate of \$2.00 per page for 8 1/2" x 11" or 11" x 14" documents, \$2.50 per page for 11" x 17" documents, \$3.50 per page for 18" x 24" documents and \$0.75 per sq ft with a \$5.00 minimum for large format documents. You may view or obtain these materials:

- Online at <https://accela.clackamas.us/citizenaccess/>. After selecting the Planning tab enter the file number to search. Select File Number and then select Attachments from the dropdown list, where you will find the submitted application; or
- By emailing or calling the staff contact.

**Decision Process:** Following the closing of the comment period, a written decision on this application will be made and a copy will be mailed to you. If you disagree with the decision, you may appeal to the Land Use Hearings Officer, who will conduct a public hearing. There is a \$250 appeal fee.

**How to Comment on this Application:**

To ensure your comments are considered prior to issuance of the decision, they must be received within 20 days of the date of this notice. Comments may be submitted by email to the staff contact or by regular mail to the address at the top of this notice. Please include the file number on all correspondence, and focus your comments on the approval criteria identified above or other criteria that you believe apply to the decision.

Comments:

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Your Name/Organization

---

Telephone Number

*Clackamas County is committed to providing meaningful access and will make reasonable accommodations, modifications, or provide translation, interpretation or other services upon request. Please contact us at least three (3) business days before the meeting at 503-742-4545 or [DRenhard@clackamas.us](mailto:DRenhard@clackamas.us).*

¿Traducción e interpretación? | Требуется ли вам устный или письменный перевод? | 翻译或口译? | Cần Biên dịch hoặc Phiên dịch? | 번역 또는 통역?





**Clackamas County Planning and Zoning Division  
Department of Transportation and Development**

Development Services Building  
150 Beaver Creek Road | Oregon City, OR 97045  
503-742-4500 | [zoninginfo@clackamas.us](mailto:zoninginfo@clackamas.us)  
[www.clackamas.us/planning](http://www.clackamas.us/planning)

**LAND USE APPLICATION**

**DEEMED COMPLETE**

ORIGINAL DATE SUBMITTED:

FILE NUMBER:

APPLICATION TYPE:

The Planning and Zoning Division staff deemed this application complete for the purposes of Oregon Revised Statutes (ORS) 215.427 on:

Staff Name

Title

**Comments:**

**Check one:**

The subject property is located inside an urban growth boundary. The 120-day deadline for final action on the application pursuant to ORS 215.427(1) is:

The subject property is not located inside an urban growth boundary. The 150-day deadline for final action on the application pursuant to ORS 215.427(1) is:



**Planning and Zoning**  
**Department of Transportation and Development**  
 Development Services Building  
 150 Beaver Creek Road | Oregon City, OR 97045  
 503-742-4500 | zoninginfo@clackamas.us  
 www.clackamas.us/planning

**STAFF USE ONLY**

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REC'D 01/19/23  
Z0032-23-D

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Staff Initials: \_\_\_\_\_ File Number: \_\_\_\_\_

Land use application for:

# DESIGN REVIEW

**Application Fee:**

**0.384% of construction cost, with \$1,340 minimum and \$36,835 maximum  
 (plus \$4,030 if Hydrogeologic Review is required)**

APPLICANT INFORMATION			
Applicant name:	Applicant email:	Applicant phone:	
Applicant mailing address:	City:	State:	ZIP:
Contact person name (if other than applicant):	Contact person email:	Contact person phone:	
Contact person mailing address:	City:	State:	ZIP:

PROPOSAL		
Brief description of proposal:	Estimated construction cost:	Pre-application conference file number:

SITE INFORMATION		
Site address:	Comprehensive Plan designation:	Zoning district:
Map and tax lot #:	Land area:	
Township: _____ Range: _____ Section: _____ Tax Lot: _____		
Township: _____ Range: _____ Section: _____ Tax Lot: _____		
Township: _____ Range: _____ Section: _____ Tax Lot: _____		
Adjacent properties under same ownership:		
Township: _____ Range: _____ Section: _____ Tax Lot: _____		
Township: _____ Range: _____ Section: _____ Tax Lot: _____		

Printed names of all property owners:	Signatures of all property owners: 	Date(s):  <i>12/14/2022</i>
---------------------------------------	--	-----------------------------------

<b><i>I hereby certify that the statements contained herein, along with the evidence submitted, are in all respects true and correct to the best of my knowledge.</i></b>	
Applicant signature:  	Date:  <i>12/14/2022</i>

## A. Complete a pre-application conference:

You must attend a pre-application conference with Planning and Zoning staff before filing this application. [Information about the pre-application conference](#) process and a request form are available from the Planning and Zoning website.

## B. Review applicable land use rules:

This application is subject to the provisions of [Section 1102, Design Review](#) of the [Clackamas County Zoning and Development Ordinance](#) (ZDO).

It is also subject to the ZDO's definitions, procedures, and other general provisions, as well as to the specific rules of the subject property's zoning district and applicable development standards, as outlined in the ZDO.

## C. Turn in all of the following:

- Complete application form:** Respond to all the questions and requests in this application, and make sure all owners of the subject property sign the first page of this application. Applications without the signatures of *all* property owners are incomplete.
- Application fee:** The cost of this application is **0.384% of construction cost, with a \$1,340 minimum and \$36,835 maximum**. Payment can be made by cash, by check payable to "Clackamas County", or by credit/debit card with an additional card processing fee using the [Credit Card Authorization Form](#) available from the Planning and Zoning website. Payment is due when the application is submitted. Refer to the FAQs at the end of this form and to the adopted [Fee Schedule](#) for refund policies.
- Narrative describing the proposed use and demonstrating compliance with ZDO Section 1000, Development Standards, and the standards of the applicable zoning district(s)**
- Engineering geologic study**, if required pursuant to [ZDO Section 1002, Protection of Natural Features](#), or [1003, Hazards to Safety](#)
- Preliminary statements of feasibility from service providers and a Site Evaluation or Authorization Notice from the [Septic & Onsite Wastewater Program](#)**, as applicable and if required pursuant to [ZDO Section 1006, Utilities, Street Lights, Water Supply, Sewage Disposal, Surface Water Management, and Erosion Control](#) (forms for preliminary statements of feasibility are available at the Planning and Zoning [website](#))
- Transportation impact study**, if required pursuant to [ZDO Section 1007, Roads and Connectivity](#)
- Lot size and density calculations** showing compliance with [ZDO Section 1012, Lot Size and Density](#), if applicable to the proposal
- Vicinity map:** The map must show the location of the subject property in relation to adjacent properties, roads, bikeways, pedestrian access, utility access, and manmade or natural site features that cross the boundaries of the subject property.
- Existing conditions map:** The map must be drawn to a scale of not less than one inch = 50 feet, and must show all of the following, as listed in [ZDO Subsection 1102.02\(G\)](#):
  - Contour lines at two-foot intervals for slopes of 20% or less within an urban growth boundary (UGB); contour lines at five-foot intervals for slopes exceeding 20% within a UGB; contour lines at 10-foot intervals outside a UGB; and the source of contour information;

- Slope analysis designating portions of the site according to the following slope ranges and identifying the total land area in each category: zero to 20%, greater than 20% to 35%, greater than 35% to 50%, and greater than 50%;
- Drainage;
- Potential hazards to safety, including areas identified as mass movement, flood, soil, or fire hazards pursuant to [ZDO Section 1003](#);
- Natural features, such as rivers, streams, wetlands, underground springs, wildlife habitat, earth mounds, and large rock outcroppings;
- Wooded areas, significant clumps or groves of trees, and specimen conifers, oaks, and other large deciduous trees (where the site is heavily wooded, an aerial photograph, at a scale of not more than 1 inch = 400 feet, may be submitted and only those trees that will be affected by the proposed development need be sited accurately);
- Overlay zoning districts regulated by [ZDO Section 700, Special Districts](#);
- Noise sources;
- Sun and wind exposure;
- Significant views;
- Structures, impervious surfaces, utilities, onsite wastewater treatment systems, landscaping, driveways and easements (e.g. access, utility, storm drainage), with notes as to whether these will remain or be removed, and with dimensions of driveways and easements; and
- All of the following that are on or adjacent to the subject property, including dimensions and, if applicable, names: existing roads, platted unconstructed roads, railroad rights-of-way, bikeways, curbs, sidewalks, pedestrian pathways, accessways and trails.

**Proposed site plan:** The map must be drawn to a scale of not less than one inch = 50 feet, and must show all of the following, as listed in [ZDO Subsection 1102.02\(H\)](#):

- The subject property, including contiguous property under the same ownership as the subject property, and adjacent properties;
- Property lines and dimensions for the subject property (indicate any proposed changes to these)
- Natural features to be retained;
- Location, dimensions, and names of all existing or platted roads or other public ways, easements, and railroad rights-of-way on or adjacent to the subject property;
- Location of at least one temporary benchmark and spot elevations;
- Location and dimensions of structures, impervious surfaces, and utilities, whether proposed or existing and intended to be retained (for phased developments, include future buildings);
- Approximate location and size of storm drainage facilities;
- Relation to transit; parking and loading areas, including dimensions and number of individual parking and load spaces and drive aisles; bicycle racks; walkways; and pedestrian crossings;
- Orientation of structures showing windows and doors;
- Location and type of lighting;
- Service areas for waste disposal, recycling, loading, and delivery;
- Location of mail boxes;
- Freestanding signs; and
- Pedestrian amenities.

- Grading plan:** The plan must be drawn to a scale of not less than one inch = 50 feet, and must show the location and extent of proposed grading, general contour lines, slope ratios, slope stabilization proposals, and natural resources protection consistent with ZDO Sections 1002 and 1003
- Architectural drawings:** The drawings must show all of the following, as listed in [ZDO Subsection 1102.02\(J\)](#):
  - Building elevations, including any building signs, with identifications of the dimensions, area, color, materials, and means of illumination of such signs and also identifying and showing dimensions of any electronic message center or other changeable copy sign areas;
  - Building sections;
  - Floor plans;
  - Color and type of building materials;
  - Elevation of freestanding sign(s) identifying the dimensions (including total height and height between the bottom of the sign and the ground), area, color, materials, and means of illumination, and also identifying and showing dimensions of any electronic message center or other changeable copy sign areas; and
  - Gross floor area, in square feet, of each structure; floor area ratio, if a minimum floor area ratio standard applies; and the number of dwellings.
- General landscaping plan:** The plan must be drawn to a scale of not less than one inch = 50 feet, and must show the elements required on the proposed site plan and all of the following, as listed in [ZDO Subsection 1102.02\(K\)](#):
  - Existing plants and groups and plants proposed;
  - Description of soil conditions; plans for soil treatment such as stockpiling of topsoil or addition of soil amendments; and plant selection requirements relating to soil conditions;
  - Erosion controls, including plant materials and soil stabilization, if any;
  - Irrigation systems;
  - Landscape-related structures such as fences, terraces, decks, patios, shelters, and play areas; and
  - Open space and recreational areas and facilities, if applicable.
- Transportation improvement plan:** The plan must include proposed cross-sections for roads to be constructed or improved, including widths of travel lanes, bikeways, sidewalks, curbs, pedestrian pathways, and landscape strips. Identify the proposed landscape plan for any landscape strips, including street tree types, size, and location, and identify any proposed dedication of right-of-way.
- RCO District and PMU1 site mater plan:** If the proposed development is in the Regional Center Office (RCO) District or a Planned Mixed Use 1 (PMU1) site, include any master plan required by [ZDO Subsection 1102.03\(B\)](#).
- OA District master plan:** If the proposed development is in the Office Apartment (OA) District, include any master plan required by [ZDO Subsection 1102.03\(C\)](#).
- Mobile vending unit narrative:** If the proposed development is for a mobile vending unit that exceeds the standards for both a level two and a level three mobile vending unit, include a narrative explaining how the proposal complies with the standards in [ZDO Subsection 837.05](#).

**Note:** Pursuant to [ZDO Subsection 1307.07\(C\)\(2\)](#), the Planning Director or designee may modify the preceding list of submittal requirements. Please consult the information provided in your pre-application conference.

## FAQs

### **When is a Design Review permit required?**

Approval of a Design Review permit is required by the Zoning and Development Ordinance (ZDO) for any development, redevelopment, expansions, and improvements in commercial and industrial zoning districts, except for uses approved through a zone change to Neighborhood Commercial (NC) District, and in the following residential zoning districts:

- High Density Residential (HDR)
- Medium Density Residential (MR-1)
- Medium High Density Residential (MR-2)
- Mountain Recreational Resort (MRR), except for detached single-family dwellings, manufactured homes, and their accessory uses if they are not part of a condominium development
- Planned Medium Density Residential (PMD)
- Regional Center High Density Residential (RCHDR)
- Special High Density Residential (SHD)
- Village Apartment (VA)
- Village Townhouse (VTH)

A Design Review permit is also required for specific types of residential development in other residential zoning districts, and for any other use as required by the Planning Director, the County Hearings Officer, or the Board of County Commissioners.

### **What is the permit application process?**

Design Review permits are subject to a “Type II” land use application process, as provided for in [Section 1307](#) of the ZDO. Type II decisions include notice to owners of nearby land, the Community Planning Organization (if active), service providers (sewer, water, fire, etc.), and affected government agencies. If the application is approved, the applicant must comply with any conditions of approval identified in the decision. The application review procedure may be modified, pursuant to [Subsection 1102.04\(A\) or \(B\)](#), to include Design Review Committee review and recommendation to the Planning Director prior to issuance of the Planning Director’s decision. The Planning Director’s decision can be appealed to the County Land Use Hearings Officer.

### **What is needed for the County to approve a land use permit?**

Applications for Design Review *may* be permitted after an evaluation by the County of applicable standards of the ZDO. The applicant is responsible for providing evidence that their proposal does or can meet those standards. In order to address the standards, the information requested in this application should be as thorough and complete as possible. A permit will only be approved or denied after a complete application is received and reviewed. The County approves an application only if it finds that the proposal meets the standards or can meet the standards with conditions.

### **Are all the submittal requirements listed in this application necessary?**

County Staff, acting under the authority of the Planning Director per ZDO Subsection 1307.07(C)(2), has the ability to modify the submittal requirements for Design Review such that they are appropriate to the scope and context of the project. Any modifications to the submittal requirements should be discussed with Staff and identified through the required pre-application conference. Regardless of whether the submittal requirements are modified, it remains the applicant’s obligation to demonstrate that all approval criteria are met

## FAQs continued

### **How long will it take the County to make a decision about an application?**

The County makes every effort to issue a decision on a Type II land use application within 45 days of when we deem the application to be complete. State law generally requires a final County decision on a land use permit application in an urban area within 120 days of the application being deemed complete, and within 150 days for a land use permit in a rural area, although there are some exceptions.

### **If an application is submitted and then withdrawn, will a refund be given?**

If a submitted Type II application is withdrawn before it is publicly noticed, 75% of the application fee paid, or the fee paid minus \$250, whichever is less, will be refunded. If a submitted application is withdrawn after it is publicly noticed, but before a decision is issued, 50% of the application fee paid, or the fee paid minus \$500, whichever is less, will be refunded. No refund will be given after a decision is issued.

### **Who can help answer additional questions?**

For questions about the County's land use permit requirements and this application form, contact Planning and Zoning at **503-742-4500** or [zoninginfo@clackamas.us](mailto:zoninginfo@clackamas.us). You can also find information online at the Planning and Zoning website: [www.clackamas.us/planning](http://www.clackamas.us/planning).

*Clackamas County is committed to providing meaningful access and will make reasonable accommodations, modifications, or provide translation, interpretation or other services upon request. Please contact us at 503-742-4545 or [drenhard@clackamas.us](mailto:drenhard@clackamas.us).*

**503-742-4545:** ¿Traducción e interpretación? | Требуется ли вам устный или письменный перевод?  
翻译或口译? | Cần Biên dịch hoặc Phiên dịch? | 번역 또는 통역?

Exhibit C – Preliminary Statements of Feasibility



# Design Review, Stream Conservation Area Review, Preliminary Statements of Feasibility, Steep Slope Review, and ESEE Analysis

Submittal Date: January 2023

Submitted To: Clackamas County

Project Location: 88156 East Hwy 26  
Government Camp, OR

Applicant(s): Mt. Hood, LLC  
Owner

Applicant's Planning Representative: Britany Randall of BRAND Land Use  
Britany@brandlanduse.com



# BRAND

FEASIBILITY | PLANNING | LAND USE

BRANDLANDUSE.COM

503.680.0949

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## Arial View of Subject Property and Existing Development



### Section 1: Property Background and Request

The applicant and property owner are presenting an application for design review approval for an extended stay hotel. In total, the hotel will have 47 rooms and will be equipped with amenities such as a small restaurants to serve hotel guests. As detailed on the site plans and renderings provided within this land use application, some of the parking proposed to be tucked under the building while some surface parking on the west side of the building will be exposed. The property is bordered to the north by a strip of land which appears to be under ownership of a governmental agency. The presence of this property greatly limits the applicant’s property from having frontage onto Government Camp Loop. In an earlier design of the site, the vehicular circulation would have allowed the east side of the site to be the entrance and the west side of the site for exiting. Upon discovery of the government property, the entire design of the site had to change. Through careful planning, the design team came up with the design presented within this land use application. The design strikes a balance between meeting the onsite requirements for parking and vehicular circulation as well as maintaining the integrity of the site’s natural resources.

## Section 2: Existing Conditions

The development site is approximately 1.38 acres in size and is described as Clackamas County Assessor Map and Tax Lot 038E24A / 00408.

The site is outside of any incorporate city limits and urban growth boundary. The subject property is located within Clackamas County and is generally known as Government Camp.

The Comprehensive Plan designations of surrounding properties include:

North: Across E Government Camp Loop; Designation: Government Camp Open Space Management District (GCOSM)

Designation: Hoodland Residential (HR)

Designation: MRR

Designation: Rural Tourist Commercial (RTC)

Designation: Timber District (TBR)

South: Mountain Recreational Resort (MRR)

East: MRR

West: MRR

The subject property is zoned Mountain Recreational Resort (MRR). Surrounding properties are zoned as follows:

North: Across E Government Camp Loop, Government Camp Open Space Management District (GCOSM), Hoodland Residential (HR), Mountain Recreational Resort (MRR), Rural Tourist Commercial (RTC) and Timber District (TBR).

South: Mountain Recreational Resort (MRR)

East: Mountain Recreational Resort (MRR)

West: Mountain Recreational Resort (MRR)

## Section 3: Applicable Zoning Codes

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*317.04 Dimensional and Building Design Standards*

*317.05 Development Standard*

**704 River and Stream Conservation Area**

*704.01 Purpose*

*704.03 Area of Application*

*704.04 River and Stream Setbacks*

*704.05 Setback Exceptions*

*704.06 Development Standards*

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**1001 General Provisions**

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*1002.02 Development Restriction Following Excessive Tree Removal*

*1002.03 Trees and Wooded Areas*

*1002.04 River and Stream Corridors*

*1002.05 Deer and Elk Winter Range*

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*1003.02 Standards and Criteria for Mass Movement Hazard Area Development*

*1003.03 Standards for Flood Hazard Areas*

*1003.04 Standards for Soil Hazard Areas*

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### **1005 Site and Building Design**

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### **1009 Landscaping**

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- 1009.02 Minimum Area Standards*
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- 1015.01 General Standards*
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### **1021 Solid Waste and Recyclable Material Collection**

- 1021.01 Applicability*
- 1021.03 General Standards*
- 1021.04 Enclosure and Gate Standards*
- 1021.05 Receptacle Standards*
- 1021.06 Vehicle Access*
- 1021.07 Signs*
- 1021.08 Modifications*

### **1102 Design Review**

- 1102.01 Purpose and Applicability*
- 1102.02 Submittal Requirements*
- 1102.03 Approval Criteria*
- 1102.04 Design Review Committee*
- 1102.05 Approval Period and Time Extension*

## Section 4: Findings Applicable to Administrative Procedures

### 102 – Purpose and Scope

#### 102.01 – Purpose

This Ordinance is enacted to implement the goals and policies of the Clackamas County, Oregon, Comprehensive Plan (hereinafter referred to as the Comprehensive Plan) and to provide methods of administration and enforcement of the provisions herein described, as authorized by Chapter 215 of the Oregon Revised Statutes

#### 102.02 – Conformance Required

Except as herein specified, no land, structure, or premise shall be used or transferred, and no structure or part thereof shall be located, erected, moved, reconstructed, extended, enlarged, or altered except in conformity with the regulations herein specified for the zoning district(s) in which it is located.

***Applicant's Findings:*** *The applicant is proposing land use applications; Design Review, Stream Conservation Area Review and Steep Slope Review prior to erecting or constructing on the subject property. The proposed development of a 30-unit hotel with associated site improvements such as parking, landscaping and recreational areas, as described below, conforms with regulations of the zoning district. This criterion is met.*

#### 102.03 – Violations and Enforcement

The County may enforce violations of this Ordinance as provided for in Chapter 2.07 of the Clackamas County Code.

***Applicant's Findings:*** *The applicant understands the county has the authority to enforce violations of this ordinance as provided in Chapter 2.07 of the CCC. To ensure compliance with all provisions of the code, the applicant is providing responses to each applicable criterion as listed in Section 3 of this narrative.*

#### 102.04 – Interpretation

The provisions of this Ordinance shall be held to be minimum requirements. Where this Ordinance imposes a greater restriction than is imposed by other provisions of law, rules, regulations, resolutions, easements, covenants, or other agreements between parties, the provisions of this Ordinance shall control.

***Applicant's Findings:*** *The applicant understands where conflicts may exist within this code, the more restrictive code shall apply. As demonstrated throughout this narrative and on the plans and exhibits provided, the applicant has complied with the more restrictive codes or asked for an exception where necessary.*



## Section 5: Findings Applicable to Design Review

### 103 – Zoning Districts

#### 103.01 – Zoning District Designation

For the purposes of this Ordinance, the unincorporated territory of Clackamas County, Oregon (hereinafter referred to as the County) is hereby divided into the zoning districts listed in the Table of Contents under Sections 300 through 700.

### 317– Mountain Recreational Resort (MRR) and Hoodland Residential (HR) Districts

#### 317.02 – Applicability

Section 317 applies to land in the Mountain Recreational Resort (MRR) and Hoodland Residential (HR) Districts.

***Applicant’s Findings:*** *The applicant understands the provisions of this section are applicable to the subject property as it is designated Mountain Recreational Resort (MRR) in accordance with Clackamas County zoning district maps. As demonstrated, the applicant is complying with the provisions of Section 317.*

#### 317.03 – Uses Permitted

- (A) Uses permitted in the MRR and HR Districts are listed in Table 317-1, Permitted Uses in the MRR and HR Districts. Uses not listed are prohibited, except that in the MRR District, uses similar to one or more of the listed limited uses may be authorized pursuant to Section 106, Authorizations of Similar Uses.

***Applicant’s Findings:*** *The applicant is seeking approval to develop a hotel on the subject property which is a “P” permitted primary use within the zone.*

- (B) As used in Table 317-1:

- (1) “P” means the use is a primary use.
- (2) “A” means the use is an accessory use.
- (3) “L” means the use is a limited use and shall be developed concurrently with or after a primary use is developed on the same site.
- (4) “C” means the use is a conditional use, approval of which is subject to Section 1203, Conditional Uses.
- (5) “CPUD” means the use is allowed as a conditional use in a planned unit development.
- (6) “X” means the use is prohibited.
- (7) “Type II” means the use requires review of a Type II application, pursuant to Section 1307, Procedures.
- (8) Numbers in superscript correspond to the notes that follow Table 317-1.

***Applicant's Findings:*** *The applicant is seeking approval to develop a hotel on the subject property which is a "P" permitted primary use within the zone.*

- (C) C. Permitted uses are subject to the applicable provisions of Subsection 317.04, Dimensional Standards; Subsection 317.05, Development Standard; Section 1000, Development Standards; and Section 1100, Development Review Process.

***Applicant's Findings:*** *The applicant understands the provisions of this, and other sections of the Clackamas County Development Code are applicable to the proposed development. The applicant has compiled all applicable codes within this narrative to demonstrate the proposal is approvable based on the applicable county standards.*

#### 317.04 – Dimensional and Building Design Standards

- (A) General: Dimensional and building design standards applicable in the MRR and HR Districts are listed in Table 317-2, Dimensional and Building Design Standards in the MRR and HR Districts. As used in Table 317-2, numbers in superscript correspond to the notes that follow the table.

***Applicant's Findings:*** *The application is subject to the dimensional standards of Table 317-2 for development within the MRR district. The applicant has demonstrated on the site plans included all dimensional standards are being met.*

***Minimum front setback:*** *15 feet, except 20 feet to garage and carport motor vehicle entries. However, the subject site is within Government Camp and subtext 1 states the following: In Government Camp, the minimum front setback is 10 feet, except 20 feet to garage and carport motor vehicle entries.*

*As demonstrated on the site plan, the building is setback a minimum of 10-feet along the frontage of Government Camp Loop which is the front property line. This dimensional standard is met.*

***Minimum rear setback:*** *10 feet. The following subtext is applicable: 3-If the lot line abuts a national forest, there is no minimum setback. If Note 3 and Note 4 conflict, Note 3 prevails. 4-In a planned unit development, there are no minimum rear and side setbacks except from rear and side lot lines on the perimeter of the final plat. 5-Except as established by Note 3, 4, or 6, if a rear lot line or a side lot line abuts an HR District or abuts a lot in the MRR District developed with a single-family dwelling or a manufactured home, the applicable minimum setback standard for a building is based on the height of that building, as follows: 6-The minimum rear and side setback standards applicable in the HR District apply to detached single-family dwellings and manufactured homes, as well as to structures that are accessory to such detached single-family dwellings and manufactured homes. The minimum side setback standard*

*applicable in the HR District applies to townhouses, as well as to structures that are accessory to such townhouses.*

*The rear property line is the western most line of the subject site as it is opposite the property line having frontage onto Government Camp Loop. As demonstrated, the applicant is proposing a setback of almost 12 feet. The subject site does not abut a national forest, eliminating the applicability of subtext number 3. The proposal is not a planned unit development, eliminating the applicability of subtext number 4. The rear lot line abuts property designated MRR, but the abutting property is not developed with a single-family dwelling or a manufactured home, eliminating the applicability of subtext number 5. This dimensional standard is met.*

*Minimum side setback: 10 feet. The following subtext is applicable: - If the lot line abuts a national forest, there is no minimum setback. If Note 3 and Note 4 conflict, Note 3 prevails. 4-In a planned unit development, there are no minimum rear and side setbacks except from rear and side lot lines on the perimeter of the final plat. 5-Except as established by Note 3, 4, or 6, if a rear lot line or a side lot line abuts an HR District or abuts a lot in the MRR District developed with a single-family dwelling or a manufactured home, the applicable minimum setback standard for a building is based on the height of that building, as follows: 6-The minimum rear and side setback standards applicable in the HR District apply to detached single-family dwellings and manufactured homes, as well as to structures that are accessory to such detached single-family dwellings and manufactured homes. The minimum side setback standard applicable in the HR District applies to townhouses, as well as to structures that are accessory to such townhouses.*

*The north and south property lines are the side property lines of the subject property. The property abutting to the north is federal forestry land and in accordance with subtext 3, no setback is required. As demonstrated on the site plan, the building will abut the property line with an approximate 5-foot setback. Along the southern portion of the development site, Camp Creek is present with a 50-foot riparian buffer zone which far exceeds the minimum 10-foot side setback. This dimensional standard is met.*

*Maximum lot coverage: None. This dimensional standard is met.*

*Maximum building height: 40 feet. The following subtext is applicable: 8-The maximum building height may be increased to 50 feet to accommodate understructure parking. 9-For a hotel in Government Camp, the maximum building height shall be 70 feet and may be increased to 87.5 feet to accommodate understructure parking or to preserve natural features or views.*

*The applicant is seeking approval for a hotel use within Government Camp, as demonstrated on the elevation drawings provided, the height of the proposed hotel is just over 71-feet at its tallest point. Because of the language in subtext 9, the maximum height of the proposed hotel, with understructure parking is 87.5 feet. This dimensional standard is met.*

Maximum building separation above 3,500 feet in elevation: 20 feet between buildings with contiguous snow slide areas.

*Government Camp sits at just under 4,000 feet in elevation making this section applicable. The proposed building will be the only one on site and no accessory structures are proposed. Additionally, the building will be situated more than 20 feet from structures erected on abutting properties. This dimensional standard is met.*

Maximum building floor space per commercial use: 4,000 square feet, except 8,000 square feet in Government Camp. The following subtext is applicable: 10-No maximum applies to hotels and motels; uses authorized under Oregon Statewide Planning Goals 3 and 4; and uses intended to serve the community and surrounding rural area or the travel needs of people passing through the area.

*As demonstrated in the application materials, the proposal is for a hotel. The hotel will include a restaurant to serve guests. In accordance with subtext 10, the square footage of the proposed restaurant is not limited. This dimensional standard is met.*

- (B) Modifications: Modifications to the standards in Table 317-2 are established by Sections 800, Special Use Requirements; 903, Setback Exceptions; 904, Height Exceptions; 1012, Lot Size and Density; 1107, Property Line Adjustments; and 1205, Variances.

***Applicant's Findings:*** *The applicant has met all dimensional and development standards, with the exception of a small projection into the riparian buffer zone, to which the applicant has provided a separate ESEE analysis. Because no modifications are being sought by the applicant, this criterion is not applicable.*

### 317.05 – Development Standard

Any of the following types of dwellings, if permitted in the subject zoning district, may be platted as condominiums: detached single-family dwellings, attached single family dwellings, two-family dwellings, three-family dwellings, and multifamily dwellings. In the case of single-family dwellings, condominium platting supersedes the requirement that each dwelling unit be on a separate lot of record; however, attached single-family dwellings must be attached at a wall (as they would be if a lot line separated the dwellings) rather than ceiling to floor.

***Applicant's Findings:*** *The proposal does not include these use types. This criterion is not applicable.*

### 704– River and Stream Conservation Area

#### 704.01 – Purpose

Section 704 is adopted to:

- (A) Maintain the integrity of the rivers and streams in the County by minimizing erosion, promoting bank stability, maintaining and enhancing water quality and fish and wildlife habitat, and preserving scenic quality and recreational potential;
- (B) Maintain rivers in their natural state to the maximum extent practicable, thereby recognizing their natural, scenic, historic, economic, cultural, and recreational qualities; and
- (C) Implement the River Design Plans set forth in Chapter 3 of the Comprehensive Plan.

***Applicant's Findings:*** *The applicant understands the purpose of river and stream conservation areas. The subject site has a stream present along the south side with a riparian buffer. The applicant is submitting an ESEE analysis alongside this land use application in order to gain approval for a small projection into the buffer. The applicant has demonstrated there will be little environmental impact due to the projection but would have significant economic and social impacts without the projection. The intent of the stream conservation area is still maintained even with the proposed projection which is demonstrated within the ESEE analysis provided.*

#### 704.03 – Area of Application

- (A) Section 704 applies to land that is generally within a quarter mile of the mean high-water line of the Clackamas, Sandy/Salmon, Molalla/Pudding, Roaring, Tualatin, and Zig Zag Rivers. These lands are classified as Principal River Conservation Areas and are identified on Comprehensive Plan Maps III-1a, Principal River Conservation Area Clackamas River Design Plan, III-1b, Principal River Conservation Area Sandy-Salmon River Design Plan, III-1c, Principal River Conservation Area Molalla River Design Plan, III-1d, Principal River Conservation Area Tualatin River Design Plan, and III-2, Scenic & Distinctive Resource Areas. The location of these rivers may vary from these maps, if more specific information is provided.
- (B) Section 704 also applies to land that is located within 100 feet of the mean high-water line of large Type F streams, except principal rivers identified in Subsection 704.03(A), identified on Water Protection Rule Classification (WPRC) Maps compiled pursuant to OAR 629-635-000 and adopted as part of the Comprehensive Plan. The location of these streams may vary from these maps if more specific information is provided. Classified as Stream Conservation Areas (SCAs), these large streams are designated in the Comprehensive Plan as those that generally have annual average flows of 10 cubic feet per second or greater.
- (C) Section 704 also applies to land that is located within 70 feet of the mean high-water line of medium Type F streams, identified on the WPRC Maps. The location of these streams may vary from these maps if more specific information is provided. Classified as SCAs, these medium streams are designated in the Comprehensive Plan as those that generally have annual average flows of greater than two cubic feet per second and less than 10 cubic feet per second.

- (D) Section 704 also applies to land that is located within 50 feet of the mean high-water line of small Type F streams, identified on the WPRC Maps. The location of these streams may vary from these maps if more specific information is provided. Classified as SCAs, these small streams are designated in the Comprehensive Plan as those that generally have annual average flows of less than two cubic feet per second.
- (E) The provisions of Section 704 are in addition to those requirements of the State Scenic Waterways Act, Omnibus Oregon Wild and Scenic Rivers Act of 1988, and the Federal Wild and Scenic Rivers Act of 1968. In those areas so designated, the requirements of the County shall be administered subject to the application requirements of Subsection 704.08 and prevail when they are more restrictive than state and federal standards.
- (F) Notwithstanding Subsections 704.03(A) through (E), Section 704 does not apply to land that is inside the Metropolitan Service District Boundary or the Portland Metropolitan Urban Growth Boundary, nor does it apply to Oregon Department of Fish and Wildlife, or other state or federally approved, fish enhancement projects.

***Applicant's Findings:*** *Camp Creek runs through the southern portion of the subject property making the river and stream conservation area criteria applicable.*

#### 704.04 – River and Stream Setbacks

The following minimum setbacks shall apply to structures exceeding 120 square feet or 10 feet in height:

- (A) Structures shall be located a minimum of 100 feet from the mean high-water line of a principal river. This minimum setback may be increased up to 150 feet from the mean high-water line to lessen the impact of development. In determining the minimum setback, the following shall be considered:
  - (1) The size and design of any proposed structures;
  - (2) The width of the river;
  - (3) The topography of the land between the site and the river;
  - (4) The type and stability of the soils;
  - (5) The type and density of existing vegetation between the site and the river;
  - (6) Established recreation areas or areas of public access; and
  - (7) Visual impact of any structures.

***Applicant's Findings:*** *The development site will be subject to the regulations of a small stream in accordance with this section. This criterion is not applicable.*

- (B) Structures shall be located a minimum of 100 feet from the mean high-water line of a large stream.

***Applicant's Findings:*** *The development site will be subject to the regulations of a small stream in accordance with this section. This criterion is not applicable.*

- (C) Structures shall be located a minimum of 70 feet from the mean high-water line of a medium stream.

**Applicant's Findings:** *The development site will be subject to the regulations of a small stream in accordance with this section. This criterion is not applicable.*

- (D) Structures shall be located a minimum of 50 feet from the mean high-water line of a small stream.

**Applicant's Findings:** *The applicant is proposing a small area of projection where the structure encroaches into the 50-foot riparian buffer. To allow the encroachment, the applicant has provided a separate ESEE Analysis for county staff to review. With the exception of the small encroachment area, the remainder of the structure maintains a minimum 50-foot setback from the mean high-water line of Camp Creek.*

#### 704.05 – Setback Exceptions

- (A) The following uses are exempt from the minimum setback standards of Subsection 704.04:

- (1) Residential lots of record where lot depth precludes compliance with the setback standards of Subsection 704.04, provided that:
  - (a) Structures shall be sited the maximum distance from the mean high-water line which meets the setback and other standards of the underlying zoning district; and
  - (b) The footprint of structures shall not exceed 25 percent of the lot area;

**Applicant's Findings:** *The subject property is not a residential lot of record; this criterion is not applicable.*

- (2) Repairs, additions, alterations to, or replacement of structures, roadways, driveways, or other development, which is located closer to a river or stream than permitted by the setback requirements of Subsection 704.04, provided that such development does not encroach into the setback any more than the existing structures, roadways, driveways, or other development;

**Applicant's Findings:** *The proposal does not include repairs, additions, alterations to, or replacement of structures, roadways, driveways, or other development, which is located closer to a river or stream than permitted by the setback requirements of Subsection 704.04. This criterion is not applicable.*

- (3) Water dependent uses such as private boat docks, marinas, or boat ramps, provided that structures shall be muted earth tones and any structure shall be the minimum size necessary to accommodate the use;

***Applicant's Findings:*** *The proposal does not include water dependent uses. This criterion is not applicable.*

- (4) Uses such as roads, bridges, culverts, pipes, and power lines that are necessary for crossing streams, provided they do not create barriers to fish movement and that adverse impacts are mitigated;

***Applicant's Findings:*** *The applicant is not seeking to construct roads, bridges, culverts, pipes, and power lines that are necessary for crossing streams. This criterion is not applicable.*

- (5) Water impoundments, diversions, detention and retention facilities, and hydroelectric facilities; and

***Applicant's Findings:*** *The project does not include water impoundments, diversions, detention and retention facilities, and hydroelectric facilities. This criterion is not applicable.*

- (6) Structural, nonstructural, and composite bank stabilization, provided that structural bank stabilization shall only be approved if:
  - (a) Structural bank stabilization is required to protect existing structures;

***Applicant's Findings:*** *There are no existing structures on site. This criterion is not applicable.*

- (b) Nonstructural bank stabilization will be insufficient to adequately protect existing structures; and

***Applicant's Findings:*** *There are no existing structures on site. This criterion is not applicable.*

- (c) The structural bank stabilization will utilize composite bank stabilization.

***Applicant's Findings:*** *Composite bank stabilization is not appropriate for this application and is therefore not being proposed. This criterion is not applicable.*

- (B) In addition to the exemptions listed in Subsection 704.05(A), the minimum setback standards of Section 704 may be modified for purposes consistent with the adopted Economic, Social, Environmental, and Energy analyses for the applicable watershed.

***Applicant's Findings:*** *The applicant is seeking approval of their ESEE analysis in accordance with this section in order to slightly project into the riparian buffer for Camp Creek. The ESEE analysis is provided within the exhibits of this narrative.*

#### 704.06 – Development Standards

- (A) The maximum height of a dwelling or a structure accessory to a dwelling shall be 35 feet, if the dwelling or accessory structure can be seen from a principal river.



***Applicant's Findings:*** *The applicant is not proposing a dwelling. This criterion is not applicable.*

- (B) Commercial or industrial facilities, such as structures, parking areas, and storage areas shall comply with Subsection 704.04, and signs shall be screened from view of the Principal River or Stream Conservation Area by an opaque vegetation buffer. These facilities shall be subject to design review, pursuant to Section 1102.

***Applicant's Findings:*** *Any signs necessary for the safety of the parking area will meet these criteria and can be reviewed in detail at the time of building permit.*

- (C) Subdivisions and partitions shall be designed, where possible, to allow compliance with Section 704.

***Applicant's Findings:*** *The application does not include a division or reconfiguration of land. This criterion is not applicable.*

#### 704.07 – Vegetation Preservation Requirements

- (A) A minimum of 75 percent of the setback area (distance) shall be preserved with native vegetation.

***Applicant's Findings:*** *As demonstrated on the replanting and landscape plans, setbacks and natural areas are planned to retain the existing and native vegetation to the greatest extent meeting this requirement. Additional plantings will be conducive with the existing plant life and will be placed in a manner which enhances the natural features. This criterion will be met.*

- (B) Tree cutting and grading shall be prohibited within the buffer or filter strip, with the following exceptions:
  - (1) Trees that endanger life or structures may be removed.
  - (2) Tree cutting and grading may be permitted in conjunction with those uses listed in Subsections 704.05 and 704.06, to the extent necessary to accommodate those uses. Disturbed areas that are outside the footprint of structures and other improvements shall be restored with native vegetation.
  - (3) Vegetation removal may occur when approved by the Oregon Department of Fish and Wildlife, upon written notification that such removal is required as part of a river or stream enhancement project.

***Applicant's Findings:*** *Grading and tree removal within the riparian buffer will only take place with approval of the applicant's ESEE analysis to allow such an encroachment. The applicant anticipates needing other agency review and approval prior to encroachment into the buffer and development for the site as a whole due to the presence of wetlands. These criteria will be met.*

- (C) Commercial forest activities and harvesting practices outside an urban growth boundary shall be subject to the Oregon Forest Practices Act. Commercial forest harvesting activities inside an urban growth boundary shall be reviewed pursuant to the Forest Policies of the Comprehensive Plan.

***Applicant's Findings:*** *The applicant is not seeking to conduct a commercial harvest of trees. This criterion is not applicable.*

#### 704.08 – Submittal Requirements

In addition to the submittal requirements identified in Subsection 1307.07(C), an application filed pursuant to Subsection 704.09 shall include:

- (A) A site plan showing existing vegetation and development, and locations of proposed development or tree-cutting activity;

***Applicant's Findings:*** *A site plan including all required elements is provided within the exhibits of this narrative. This criterion is met.*

- (B) Elevations of any proposed structures;

***Applicant's Findings:*** *Elevation drawings and renderings are provided within the exhibits of this narrative. This criterion is met.*

- (C) Exterior materials list for any proposed structures, including type and colors of siding and roofing;

***Applicant's Findings:*** *Details regarding material sourcing and proposed colors are provided on the architectural plans. This criterion is met.*

- (D) Cross-section of any area within the vegetative buffer or filter strip where grading, filling, or excavating will occur; and

***Applicant's Findings:*** *Cross sections are included with the plans and documents within the exhibits portion of this narrative. This criterion is met.*

- (E) A stream buffer restoration plan showing the location, number, and species of native trees and vegetation to be planted.

***Applicant's Findings:*** *A complete restoration plan is included with this application submittal for review and approval by county staff and other permitting agencies. This criterion is met.*

#### 704.09 – Administration of Section 704

- (A) Development and tree-cutting activities controlled by Section 704 in a Principal River Conservation Area (PRCA) shall be reviewed to ensure consistency with Section 704. Proposed developments on lands within 150 feet of the mean high-water line shall be

reviewed through a Type II application pursuant to Section 1307. For lands beyond 150 feet of the mean high-water line, notice shall be sent to the U.S. Forest Service and Bureau of Land Management.

***Applicant's Findings:*** *Tree removal is proposed and necessary for the development of the subject property. The applicant has included a site plan demonstrating tree removal and grading limits. The removal proposed is the minimum removal needed to reasonably develop the site with the proposed hotel.*

(B) Development and grading permits in a Stream Conservation Area (SCA) shall be reviewed through a Type II application pursuant to Section 1307.

***Applicant's Findings:*** *The applicant is seeking design review approval for a property which may be subject to a Stream Conservation Area Permit as well. To ensure all requirements are met, the applicant is including findings to all applicable criteria within this narrative.*

(C) Approval of a PRCA or SCA permit is valid for four years from the date of the final written decision. If the County's final written decision is appealed, the approval period shall commence on the date of the final appellate decision. During this four-year period, the approval shall be implemented, or the approval will become void.

(1) "Implemented" means all major development permits shall be obtained and maintained, or if no major development permits are required to complete the development contemplated by the approved PRCA or SCA permit, "implemented" means all other necessary County development permits (e.g. grading permit, building permit for an accessory structure) shall be obtained and maintained.

(a) A "major development permit" is:

- (i) A building or manufactured dwelling placement permit for a new primary structure that was part of the PRCA or SCA permit approval; or
- (ii) A permit issued by the County Engineering Division for parking lot or road improvements that were part of the PRCA or SCA permit approval.

***Applicant's Findings:*** *The applicant understands the terms of approval and issuance of a SCA permit.*

(D) D. If the approval of a PRCA permit is not implemented within the initial approval period established by Subsection 704.09(C), a two-year time extension may be approved pursuant to Section 1310.

***Applicant's Findings:*** *The applicant understands the provisions surrounding a time extension of approval.*

## 1001– General Provisions

### 1001.02 – Applicability

- (A) Except where a different applicability standard is set forth elsewhere in Section 1000, Section 1000 applies to partitions; subdivisions; replats; institutional, commercial, and industrial developments; manufactured dwelling parks; condominiums; multifamily dwellings; two- and three-family dwellings; and attached single-family dwellings where three or more dwelling units are attached to one another. Notwithstanding this provision, level one through three mobile vending units are not subject to Section 1000, except as set forth in Section 837, Mobile Vending Units. In addition, Section 1009, Landscaping, does not apply to partitions, subdivisions, and replats.

***Applicant’s Findings:*** *The applicant is seeking approval of a design review application for a new hotel within Government Camp. In accordance with this applicability standard, these criteria apply as the new hotel will be classified as a commercial development.*

- (B) Except where a different applicability standard is set forth elsewhere in Section 1000, the following portions of Section 1000 apply to manufactured dwellings, detached single-family dwellings, and attached single-family dwellings where two dwelling units are attached to one another:

- (1) Subsection 1002.01, Hillside;
- (2) Subsection 1002.04, River and Stream Corridors;
- (3) Subsection 1002.05, Deer and Elk Winter Range;
- (4) Subsection 1002.06, Mount Hood Resource Protection Open Space;
- (5) Subsection 1002.07, Significant Natural Areas;
- (6) Section 1003, Hazards to Safety;
- (7) Section 1004, Historic Protection;
- (8) Section 1006, Utilities, Street Lights, Water Supply, Sewage Disposal, Surface Water Management, and Erosion Control;
- (9) Subsection 1007.04, Pedestrian and Bicycle Facilities; and
- (10) Subsection 1007.08, Fee in Lieu of Construction.

***Applicant’s Findings:*** *The applicant is seeking approval of a hotel. This criterion relates to residential uses and is not applicable.*

- (C) Subsection 1001.03 applies to all development

***Applicant’s Findings:*** *The applicant understands subsection 1001.03 – General Standards applied to all development.*

### 1001.03 – General Standards

- (A) Redevelopment of a manufactured dwelling park with a different use is subject to Subsection 825.02.
- (B) A building consisting of only a basement shall not be used as a dwelling.
- (C) A manufactured dwelling shall not be attached to another dwelling.
- (D) A manufactured dwelling shall not be allowed as an accessory structure, except as permitted by Section 1204, Temporary Permits, or by Section 839, Accessory Dwelling Units

***Applicant's Findings:*** *The applicant is seeking to develop a vacant property with a hotel. The proposal does not include any of the scenarios listed in the criteria above. These sections are not applicable to this proposal.*

## 1002– Protection of Natural Features

### 1002.01 – Hillsides

- (A) Development on slopes greater than or equal to 20 percent and less than or equal to 35 percent—except that for residential development in the RR, MRR, and HR Districts, the upper limit is 25 percent—shall require review of a Type I application pursuant to Section 1307, Procedures, and shall be subject to the following standards:
  - (1) No partition or subdivision shall create any new lot or parcel which cannot be developed under the provisions of Subsection 1002.01.

***Applicant's Findings:*** *The proposal does not include a land division or reconfiguration. This criterion is not applicable.*

- (2) Grading, stripping of vegetation, and lot coverage by structures and impervious surfaces shall be limited to no more than 30 percent of slopes 20 percent or greater. Variances to this standard may be granted pursuant to Section 1205, Variances. A variance shall not be granted unless the proposed development satisfies the following conditions:
  - (a) The proposed lot coverage shall not exceed the maximum lot coverage standard of the zoning district;
  - (b) The additional lot coverage, grading, or stripping shall not:
    - (i) Decrease the stability of the slope;
    - (ii) Appreciably increase erosion, sedimentation, or drainage flow from the property; or
    - (iii) Adversely impact high-priority open space as defined in Section 1011, Open Space and Parks.
  - (c) Measures shall be employed to minimize grading or filling to accomplish the development.
  - (d) Disturbed areas shall be compacted if necessary and re-vegetated as soon as practical and before the annual wet season.

***Applicant's Findings:*** *The applicant is not seeking a variance to the steep slope lot coverage standard. Therefore, these criteria are not applicable.*

- (3) Buildings shall be clustered to reduce alteration of terrain and provide for preservation of natural features.

***Applicant's Findings:*** *The applicant is seeking approval of just one building to maximize both the development potential of the site and preservation of the natural features. This criterion is met by the proposal.*

- (4) Creation of building sites through mass pad grading and successive padding or terracing of building sites shall be avoided.

***Applicant's Findings:*** *The applicant is not proposing to terrace the building site. This criterion is met.*

- (5) Roads shall be of minimum width, with grades consistent with County specifications. One-way streets may be allowed.

***Applicant's Findings:*** *No new roads are proposed with this application. This criterion is not applicable.*

- (6) Re-vegetation of all graded areas shall be the responsibility of the developer and shall occur as soon as feasible following the final grading. Maintenance of the slopes shall be the responsibility of the developer until the property ownership is transferred.

***Applicant's Findings:*** *The applicant understands their responsibility in maintaining the sloped areas of the development site. Re-vegetation and restorative plantings are planned and proposed. The applicant has included an exhibit demonstrating the proposed restoration. This criterion is met.*

- (B) Development on slopes greater than 35 percent—and residential development on slopes greater than 25 percent in the RR, MRR, and HR Districts—shall require review of a Type II application pursuant to Section 1307 and shall be subject to the following standards:

***Applicant's Findings:*** *This criterion is not applicable as the applicant is proposing a hotel or commercial development.*

- (C) Approval of a permit under Subsection 1002.01(A) or (B) is valid for four years from the date of the final written decision. If the County's final written decision is appealed, the approval period shall commence on the date of the final appellate decision. During this four-year period, the approval shall be implemented, or the approval will become void.

(1) “Implemented” means all major development permits shall be obtained and maintained for the approved development, or if no major development permits are required to complete the development contemplated by the approved permit, “implemented” means all other necessary County development permits (e.g. grading permit, building permit for an accessory structure) shall be obtained and maintained. A “major development permit” is:

- (a) A building or manufactured dwelling placement permit for a new primary structure that was part of the approved development; or
- (b) A permit issued by the County Engineering Division for parking lot or road improvements required by the approved development.

***Applicant’s Findings:*** *The applicant understands the provisions related to approval and implementation.*

(D) If the approval of a permit under Subsection 1002.01(B) is not implemented within the initial approval period established by Subsection 1002.01(C), a two-year time extension may be approved pursuant to Section 1310, Time Extension.

***Applicant’s Findings:*** *The applicant understands the provisions related to a time extension of the approval should implementation not take place prior to the expiration date.*

#### 1002.03 – Trees and Wooded Areas

(A) Existing wooded areas, significant clumps or groves of trees and vegetation, consisting of conifers, oaks and large deciduous trees, shall be incorporated in the development plan wherever feasible. The preservation of these natural features shall be balanced with the needs of the development, but shall not preclude development of the subject property, or require a reduction in the number of lots or dwelling units that would otherwise be permitted. Site planning and design techniques which address incorporation of trees and wooded areas in the development plan include, but are not limited to, the following:

- (1) Sitting of roadways and utility easements to avoid substantial disturbance of significant clumps or groves of trees;
- (2) Preservation of existing trees within rights-of-way and easements when such trees are suitably located, healthy, and when approved grading allows;
- (3) Use of flexible road standards as provided in Subsection 1007.02(B)(3), including one-way roads or split-level roads, to preserve significant trees and avoid unnecessary disturbance of terrain;
- (4) Retention of specimen trees or clumps of trees in parking area islands or future landscape areas of the site as provided for in Section 1009, Landscaping.

- (5) Use of wooded areas of the site for recreation, or other low intensity uses, or structures, not requiring extensive clearing of large trees, grading, or filling activity which substantially alters the stability or character of the wooded area;
- (6) Retention of trees which are necessary to ensure the stability of clumps or groves of trees considering the type of trees, soil and terrain conditions, exposure to prevailing winds, and other site-specific considerations;
- (7) Use of trees and wooded areas to buffer, screen, or provide transitions between different or conflicting uses on and off the site;
- (8) Use of flexible-lot-size and planned unit development designs to minimize disturbance of wooded areas;
- (9) Siting of uses and structures to utilize the natural microclimates created by wooded areas and trees to reduce extremes in temperature, provide wind protection, filter pollutants, and replenish oxygen and moisture to the air; and
- (10) Use of other development techniques described in Subsection 1011.02(C).

***Applicant's Findings:*** *Development of this subject property is challenging. From the steep terrain to the natural features, there are competing interests on this site. Because of these challenges, the applicant has worked diligently with their design team to develop a plan which strikes a balance between development and preservation. By tucking almost all of the parking under the building and increasing the height of the structure, the applicant is minimizing the sprawl of their building and increasing the preservation of natural areas. The removal proposed is the very minimum necessary to efficiently develop the site with the proposed hotel use. These criteria are met.*

- (B) Trees and wooded areas to be retained shall be protected during site preparation and construction according to County design and specifications by:
  - (1) Avoiding disturbance of the roots by grading and filling activity;
  - (2) Providing for water and air filtration to the roots of trees which will be covered with impermeable surfaces;
  - (3) Pruning or topping of trees which will be in parking areas or near buildings, as necessary, to maintain proper balance between top growth and roots, reduce windfall potential, and provide adequate vision clearances for safe vehicular circulation; and
  - (4) Requiring, if necessary, the advisory expertise of a qualified consulting arborist or horticulturist both during and after site preparation, and a special maintenance/management program to provide protection of specified wooded areas or specimen trees, as recommended by the arborist or horticulturist.



**Applicant's Findings:** All trees to be preserved on site will be protected during construction. The applicant is aware of root protection zones and will follow all regulations related to excavation of the site ordered by this code. These criteria will be met.

#### 1002.04 – River and Stream Corridors

The following standards shall apply to land that is outside both the Metropolitan Service District Boundary and the Portland Metropolitan Urban Growth Boundary.

(A) Developments shall be planned, designed, constructed, and maintained so that:

- (1) River and stream corridors are preserved to the maximum extent feasible and water quality is protected through adequate drainage and erosion control practices; and
- (2) Buffers or filter strips of natural vegetation are retained along all river and stream banks.

**Applicant's Findings:** The applicant included environmental scientists on their development team to ensure preservation of the riparian corridor was done to the greatest extent feasible. The applicant is requesting a minor encroachment into the buffer with mitigative efforts in the form of restoration and replanting. Natural vegetation will be maintained along the Camp Creek bank within the applicant's property lines. This criterion will be met.

(B) Except in the case of a river or stream subject to Section 704, River and Stream Conservation Area, or 705, Willamette River Greenway, the minimum structure setback from a river or perennial streambed shall be equal to the distance necessary to maintain or improve upon existing water quality. This distance shall be determined by a site investigation but will not exceed 150 feet. Investigation shall consider:

- (1) Soil types;
- (2) Types and amount of vegetative cover;
- (3) Bank stability;
- (4) Slope of the land abutting the river or stream;
- (5) Hazards of flooding;
- (6) River or stream character; and 7. Any special Comprehensive Plan designation or management program.

**Applicant's Findings:** The setback required to Camp Creek is 50 feet as confirmed by county staff in the two pre-application conferences previously held for this application. With the exception of a very small area, the applicant is maintaining the riparian buffer abutting the creek. The proposed encroachment will not undermine the integrity of the slope. The applicant has provided civil drawings which demonstrate this. This criterion is met.

(C) For water impoundments, diversions, and hydropower facilities, reasonable mitigation of adverse impacts to fisheries, wildlife, water quality, and flow shall be required commensurate with the intensity of the proposed use and resulting generating capacity.

***Applicant's Findings:*** *There are no water impoundments, diversions, or hydropower facilities proposed on this site. This criterion is not applicable.*

#### 1002.05 – Deer and Elk Winter Range

Development in deer and elk winter range below 3,000 feet in elevation, as identified on Comprehensive Plan Map III-2, Scenic and Distinctive Resource Areas, shall be designed to minimize adverse wildlife impacts.

***Applicant's Findings:*** *In accordance with the Comprehensive Plan Map III-2, Scenic and Distinctive Resource Areas, the subject property is outside the deer and elk winter range. This criterion is not applicable.*

#### 1002.06 – Mount Hood Resource Protection Open Space

Development in areas shown as Resource Protection Open Space on Comprehensive Plan Maps X-MH-1 through X-MH-3, Resource Protection Open Space, proposed in or within 100 feet of natural wetlands shall be designed to:

***Applicant's Findings:*** *The development site is not within any Mount Hood Resource Protection Open Spaces. These criteria are not applicable.*

#### 1002.07 – Significant Natural Areas

Five significant natural areas are identified as unique/natural features on Comprehensive Plan Map III-2, Scenic & Distinctive Resource Areas. These areas are more specifically referred to as Williams Lake Bog, the land at Marmot, Multorpor Bog, Delphridge, and Wilhoit Springs. In these significant natural areas, the following shall be restricted to the extent necessary to protect the unique or fragile character or features that are the basis for the unique/natural feature designation: building and road construction, filling and excavation, paving, and tree removal. Restrictions may be modified pursuant to Subsection 1011.03.

***Applicant's Findings:*** *The Comprehensive Plan Map III-2 identifies a significant natural area south of Highway 26, near the subject property but not on the subject property as it falls north of Highway 26. This criterion is not applicable.*

#### 1002.08 – Significant Landforms and Vegetation

Institutional, commercial, and industrial development; multifamily dwellings; and developments of more than one two- or three-family dwelling shall cluster and modulate building masses to minimize disturbance of existing significant landforms and vegetation.

Pursuant to the review procedure required by Section 1102, Design Review, minimum front setbacks may be reduced or waived to minimize disturbance of natural landforms or vegetation. If a setback reduction is granted, a program for protection of those landforms and vegetation during construction, and for long-term maintenance, shall be provided.

***Applicant's Findings:*** *The applicant is not seeking a reduction to setbacks. This criterion is not applicable.*

## 1005 – Site and Building Design

### 1005.01 – Purpose

Section 1005 is adopted to ensure sites are developed and buildings designed to:

- (A) Efficiently utilize the land used in development, particularly urban land in centers, corridors, station communities and employment areas;
- (B) Create lively, safe, attractive and walkable centers, corridors, station communities, employment areas and neighborhoods;
- (C) Support the use of non-auto modes of transportation, especially pedestrian trips to and between developments;
- (D) Support community interaction by creating lively, safe and attractive public use spaces within developments and on the street;
- (E) Reduce impacts of development on natural features and vegetation;
- (F) Utilize opportunities arising from a site's configuration or natural features;
- (G) Encourage use of green building technologies and green site development practices, energy conservation and use of renewable energy resources;
- (H) Design illumination so that dark skies are maintained to the extent possible, balanced with the lighting needs of safe and functional developments; and
- (I) Accommodate the needs of the users to be located in developments.

***Applicant's Findings:*** *The applicant understands the purpose of the site and building design standards.*

### 1005.02 – Applicability

Section 1005 applies to institutional, commercial, and industrial development; multifamily dwellings; and developments of more than one two- or three-family dwelling. Subsections 1005.04 (F) and 1005.12 also apply to attached single-family dwellings. Subsection 1005.12 also applies to developments of a single two- or three family dwelling.

***Applicant's Findings:*** *The applicant is proposing a hotel within Government Camp which is a commercial development, triggering the applicability of this section.*

### 1005.03 – General Site Design Standards

The following site design standards apply:

- (A) Where feasible, cluster buildings within single and adjacent developments for efficient sharing of walkways, on-site vehicular circulation, connections to adjoining sites, parking, loading, transit-related facilities, plazas, recreation areas, and similar amenities.

***Applicant's Findings:*** *The applicant is proposing just one building on site with most of the parking tucked underneath. Connections to abutting development sites are impractical and the site has limited frontage onto Government Camp loop. The applicant meets this standard to the greatest extent practical.*

- (B) Where feasible, design the site so that so that the longest building elevations can be oriented within 20 degrees of true south in order to maximize the south-facing dimensions.

***Applicant's Findings:*** *As demonstrated, the longest elevation of the building is oriented within 20 degrees of true south, in accordance with this provision. This criterion is met.*

- (C) Minimum setbacks may be reduced by up to 50 percent as needed to allow improved solar access when solar panels or other active or passive solar use is incorporated into the building plan.

***Applicant's Findings:*** *The applicant is not seeking a reduction to any setbacks for the proposed development. This criterion is not applicable.*

- (D) A continuous, interconnected on-site walkway system meeting the following standards shall be provided.
  - (1) Walkways shall directly connect each building public entrance accessible to the public to the nearest sidewalk or pedestrian pathway, and to all adjacent streets, including streets that dead-end at the development or to which the development is not oriented.

***Applicant's Findings:*** *The subject property abuts Government Camp Loop. A pedestrian connection is proposed from the building's main entrance to the street alongside the newly proposed driveway. This is demonstrated on the plans provided. As applicable, this criterion is met.*

- (2) Walkways shall connect each building to outdoor activity areas including parking lots, transit stops, children's play areas and plazas.

***Applicant's Findings:*** *There is just one building proposed on the development site. No outdoor recreation or activity areas are proposed as the development site is not large enough to include such an area without further disturbing natural features. This criterion is not applicable.*

- (3) Walkways shall be illuminated. Separate lighting shall not be required if existing lighting adequately illuminates the walkway.

***Applicant's Findings:*** Site lighting design will be reviewed in more detail at the time of building permit. All walkways will be illuminated in a manner which will enhance the safety of such areas at night but will not shine or cast glare onto abutting properties or Government Camp Loop. This criterion will be met.

- (4) Walkways shall be constructed with a well-drained, hard-surfaced material or porous pavement and shall be at least five feet in unobstructed width.

***Applicant's Findings:*** All walkways will be paved with a minimum width of five feet as required by this section and shown on the site plan included with this application submittal.

- (5) Standards for walkways through vehicular areas:

- (a) Walkways crossing driveways, parking areas and loading areas shall be constructed to be clearly identifiable to motorists through the use of different paving material, raised elevation, warning signs or other similar methods.
- (b) Where walkways are adjacent to driveways, they shall be separated by a raised curb, bollards, landscaping or other physical barrier.
- (c) Inside the Portland Metropolitan Urban Growth Boundary (UGB), if the distance between the building public entrance and street is 75 feet or greater and located adjacent to a driveway or in a parking lot, the walkway shall be raised, with curbs, a minimum four-foot-wide landscape strip and shade trees planted a maximum of 30 feet on center.
- (d) The exclusive use of a painted crossing zone to make walkways identifiable to motorists may be used only for portions of walkways which are shorter than 30 feet and located across driveways, parking lots, or loading areas.
- (e) Walkways bordering parking spaces shall be at least seven feet wide or a minimum of five feet wide when concrete bumpers, bollards, curbing, landscaping, or other similar improvements are provided which prevent parked vehicles or opening doors from obstructing the walkway.

***Applicant's Findings:*** Raised walkways or wheel stops will be provided for the protection of pedestrians utilizing walkways abutting the parking area. The walkways will be a minimum of 5 feet in width and will be provided in conjunction with other protection measures. As applicable, these criteria are met by the proposal.

(6) The interconnected onsite walkway system shall connect to walkways in adjacent developments, or stub to the adjacent property line if the adjacent land is vacant or is developed without walkways.

(a) Walkway stubs shall be located in consideration of topography and eventual redevelopment of the adjacent property.

(b) Notwithstanding the remainder of Subsection 1005.03(D)(6), walkway linkages to adjacent development shall not be required within industrial developments, to industrial developments, or to vacant industrially zoned land.

***Applicant's Findings:*** *The subject site abuts properties which are either fully developed or are across riparian buffers. Connecting pedestrian walkways to abutting properties is impractical in this case as the topography and natural features will not allow it. This criterion is not applicable.*

(E) Inside the UGB, except for industrial developments, a minimum of 50 percent of the street frontage of the development site shall have buildings located at the minimum front yard depth line.

***Applicant's Findings:*** *The subject property falls outside the UGB. These criteria are not applicable.*

(F) Inside the UGB, parking lots larger than three acres in size shall be built with major on-site vehicular circulation ways that include raised walkways with curbs, a minimum four-foot-wide landscape strip and shade trees planted a maximum of 30 feet on center.

***Applicant's Findings:*** *The subject property falls outside the UGB. This criterion is not applicable.*

(G) New retail, office, mixed use, and institutional buildings located on major transit streets shall have at least one public entrance facing a major transit street, or street intersecting a major transit street.

***Applicant's Findings:*** *The application is for a hotel within the Government Camp area. These criteria are not applicable.*

(H) New retail, office, mixed use, multifamily, and institutional buildings located at a major transit stop shall be set back a maximum of 20 feet from at least one of the following: the major transit stop, the major transit street or an intersecting street, or a pedestrian plaza at the major transit stop or a street intersection.

***Applicant's Findings:*** *The application is for a hotel within the Government Camp area. These criteria are not applicable.*

(I) In the PMU District, there shall be no vehicular parking or circulation within the front yard setback.

***Applicant's Findings:*** *The application is for a hotel within the Government Camp area. This criterion is not applicable.*

- (J) In the OC District the design and siting of structures shall control public access points into office buildings, utilizing a central lobby design, entrance courtyard, internal pedestrian walkway or mall, or similar designs that protect business/professional uses from the disturbances of direct public access.

***Applicant's Findings:*** *The application is for a hotel within the Government Camp area. This criterion is not applicable.*

- (K) Where a minimum floor area ratio (FAR) is required by the standards of the applicable zoning district, it shall be calculated as follows:

***Applicant's Findings:*** *The MRR district does not identify a minimum floor area ratio. These criteria are not applicable.*

- (L) The following standards apply in the HDR, RCHDR, and SHD Districts:
  - (1) The minimum distance on a north-south axis between any building and a site area line north of said building shall be the horizontal distance calculated by drawing a 60-degree angle line from the top of the structure to the natural ground elevation north of the structure. For purposes of this provision, the "top of the structure" shall be that part of projection of the structure which first intersects a 60-degree angle line projecting toward the ground north of the building. (See Figure 1005-0.) This provision shall be modified as follows:

***Applicant's Findings:*** *The development site falls within the MRR district. These criteria are not applicable.*

#### 1005.04 – Building Design

- (A) The following standards apply to building facades visible from a public or private street or accessway and to all building façades where the primary entrance is located.
  - (1) Building facades shall be developed with architectural relief, variety and visual interest and shall avoid the effect of a single, long or massive wall with no relation to human size. Examples of elements that subdivide the wall: change in plane, texture, masonry pattern or color, or windows.

***Applicant's Findings:*** *Included with this application submittal are architectural elevations and renderings which depict to great detail the proposed building design. As demonstrated on the plans and renderings, differing materials will clad the building providing highlights and breaking up mass. Balconies are proposed which are recessed from the face of the structure and architectural features which humanize the scale of the building. Differentiated roof lines with peaks and eaves break up the roof span. A belly band breaks up the first floor from the upper*

*floors bringing the building back down to human scale. And finally, the architect has incorporated as many windows as possible to flood the hotel with natural light and take advantage of the expansive views. This criterion is met by the proposal.*

- (2) Building facades shall have particular architectural emphasis at entrances and along sidewalks and walkways.

***Applicant's Findings:*** *The drawings and renderings demonstrate the articulation of the entrance to the hotel and the walkway. A shed style roof is planned alongside a pop-out with a peaked awning over the main entrance doors. The architect has masterfully designed the entrance and it stands out from the remainder of the building. This criterion is met.*

- (3) Provide visual interest through use of articulation, placement and design of windows and entrances, building trim, detailing, ornamentation, planters or modulating building masses.

***Applicant's Findings:*** *The applicant's architect has carefully curated the design of the proposed hotel. Front facades are articulated to break up building mass, windows and doors are placed in a manner which provide symmetry and repetition while also breaking up the façade of the building, extended eaves and detailed trim work enhance the ornateness and elegance of the design. In a special touch, planter boxes are proposed along the buildings front street facing façade enhancing visual interest and softening the building through use of organic material. This criterion is met.*

- (4) Utilize human scale, and proportion and rhythm in the design and placement of architectural features.

***Applicant's Findings:*** *The human scale of the building starts at the entrance. The applicant's architect brought a roof structure down to the pedestrian level which provides for an architecturally defined and cozy entrance to the hotel. Lighting and plantings will further enhance the entrance and soften the building. Additionally, the ground floor is differentiated from the upper floors because it is clad in stone and capped with a belly band at the first floor. The balconies are little private recessed coves along the north elevation of the building and are trimmed out ornately adding interest and charm. As shown on the renderings provided, the details of the building are thoughtfully designed to minimize bulk and mass, and all together creates rhythm in the design. This criterion is met.*

- (5) Use architectural features which are consistent with the proposed use of the building, level and exposure to public view, exposure to natural elements, and ease of maintenance.

***Applicant's Findings:*** *Maintenance and exposure to the elements were considered when the architect sourced exterior materials for the proposed building. Additionally, the building design*



*compliments the aesthetic of the other developments within Government Camp. This criterion is met.*

- (6) When uses between ground-level spaces and upper stories differ, provide differentiation through use of bays or balconies for upper stories, and awnings, canopies, trim and other similar treatments for lower levels.

***Applicant's Findings:*** *The building is not mixed use however, the main level is differentiated from the floors above with the use of materials, trim, balconies, roofs, and articulation.*

(B) Requirements for building entries:

- (1) Public entries shall be clearly defined, highly visible and sheltered with an overhang or other architectural feature, with a depth of at least four feet.

***Applicant's Findings:*** *As demonstrated on the elevation drawings and the rendering provided, the main entrance to the hotel is clearly defined through a differentiated roof at a pedestrian scale as well as materials and colors. The main entrance to the hotel is clearly distinguished from the rest of the building and is highly visible. This criterion is met.*

- (2) Commercial, mixed-use and institutional buildings sited to comply with 1005.03(E) shall have public entries that face streets and are open to the public during all business hours.

***Applicant's Findings:*** *The subject site is outside the UGB and not subject to the provisions of 1005.03(E). This criterion is not applicable.*

(C) The street-facing façade of commercial, mixed-use and institutional buildings sited to comply with 1005.03(E) shall meet the following requirements:

***Applicant's Findings:*** *The subject site is outside the UGB and not subject to the provisions of 1005.03(E). These criteria are not applicable.*

(D) Requirements for roof design:

- (1) For buildings with pitched roofs:
  - (a) Eaves shall overhang at least 24 inches.

***Applicant's Findings:*** *As demonstrated on the plans provided, roof eaves where the roof is proposed to be pitched will overhand a minimum of 24 inches in conformation with this section. This criterion will be met.*

- (b) Roof vents shall be placed on the roof plane opposite the primary street.

***Applicant's Findings:*** *Roof vents will be placed on the portions of the building opposite Government Camp Loop in accordance with this section. This criterion will be met.*

- (2) For buildings other than industrial buildings, with flat roofs or without visible roof surfaces, a cornice or other architectural treatment shall be used to provide visual interest at the top of the building.

***Applicant's Findings:*** *A flat roof is not proposed. Therefore, this criterion is not applicable.*

(E) Requirements for exterior building materials:

- (1) Use architectural style, concepts, colors, materials and other features that are compatible with the neighborhood's intended visual identity.
- (2) Building materials shall be durable and consistent with the proposed use of the building, level and exposure to public view, exposure to natural elements, and ease of maintenance.
- (3) Walls shall be surfaced with brick, tile, masonry, stucco, stone or synthetic equivalent, pre-cast masonry, gypsum reinforced fiber concrete, wood lap siding, architecturally treated concrete, glass, wood, metal, or a combination of these materials.
- (4) The surfaces of metal exterior building materials that are subject to rust or corrosion shall be coated to inhibit such rust and corrosion, and the surfaces of metal exterior building materials with rust or corrosion shall be stabilized and coated to inhibit future rust and corrosion.

***Applicant's Findings:*** *The exterior building materials were sourced by the applicant's architect. The materials proposed are consistent with the applicant and architect's vision for the proposed hotel development and also comply with the provisions of this section. The materials proposed are clearly called out within the architectural drawings provided with this application materials. These criteria are met.*

(F) Additional building design requirements for multifamily dwellings, two- and three-family dwellings, and attached single-family dwellings:

***Applicant's Findings:*** *The proposal is for a hotel, not a multifamily dwelling. These criteria are not applicable.*

(G) Requirements to increase safety and surveillance:

***Applicant's Findings:*** *The proposal will not require increases to safety and surveillance and the proposed use is a hotel. This criterion is not applicable.*

(H) Solar access requirements:

***Applicant's Findings:*** *Solar power is not proposed; therefore this criterion is not applicable.*

(I) Requirements for compatibility with the intent of the design type or with the surrounding area. For purposes of Subsection 1005.04(I), design types are Centers, Station Communities or Corridor Streets as identified on Comprehensive Plan Map IV-8, Urban Growth Concept; X-CRC-

1, Clackamas Regional Center Area Design Plan, Regional Center, Corridors and Station Community; X-SC-1, Sunnyside Corridor Community Plan, Community Plan Area and Corridor Design Type Location; or X-MC-1, McLoughlin Corridor Design Plan, Design Plan Area. The intent of these design types is stated in Chapter 4 or 10 of the Comprehensive Plan.

**Applicant's Findings:** *The applicant understands the requirements for compatibility with the intent of overarching plans and design standards. Every effort has been made to meet these requirements. This criterion is met.*

(J) Requirements for screening mechanical equipment:

- (1) Rooftop mechanical equipment, except for solar energy systems, shall be screened from view by the use of parapet walls or a sight-obscuring enclosure around the equipment. The screen shall be constructed of one of the primary materials used on the primary facades and shall be an integral part of the building's architectural design.
- (2) Ground mounted mechanical equipment shall be located away from the intersection of two public streets to the extent practicable, and shall be screened by ornamental fences, screening enclosures, or landscaping that blocks at least 80% of the view.
- (3) Wall mounted mechanical equipment shall not be placed on the front of a building or on a façade that faces a street. Wall mounted mechanical equipment that extends six inches or more from the outer building wall shall be screened from view from the streets; from residential, public, and institutional properties; and from public areas of the site or adjacent sites through one of the screening techniques used in 1005.04(J)(1) or (2).

**Applicant's Findings:** *All exterior mechanical equipment will be screened or made not visible to the public utilizing methods outlined in this section. These criteria will be met.*

(K) Requirements for specialized structures in industrial zoning districts:

**Applicant's Findings:** *The applicant is seeking approval of a hotel within the MRR district. This criterion is not applicable*

(L) Facades in the OA District: In the OA District, facades are subject to the following standards:

**Applicant's Findings:** *The applicant is seeking approval of a hotel within the MRR district. This criterion is not applicable.*

#### 1005.05 – Outdoor Lighting

(A) Outdoor lighting devices:

- (1) Shall be architecturally integrated with the character of the associated structures, site design and landscape.
- (2) Shall not direct light skyward.
- (3) Shall direct downward and shield light; or direct light specifically toward walls, landscape elements or other similar features, so that light is directed within the boundaries of the subject property;
- (4) Shall be suitable for the use they serve, e.g. bollard lights along walkways, pole mounted lights for parking lots;
- (5) Shall be compatible with the scale and intensity of uses they are serving. Height of pole mounted fixtures shall not exceed 25 feet or the height of the tallest structure onsite, whichever is less; and
- (6) At entrances shall be glare-free. Entrance lighting may not exceed a height of 12 feet and must be directed downward.

***Applicant's Findings:*** *The exterior lighting design is being prepared by the applicant's architect. The lighting will be placed in a manner to enhance the architectural features of the proposed building, enhance landscaped areas, and increase safety. The lighting will also take into consideration these criteria such as: not directing light toward the sky, casting light or glare onto abutting developments or streets, as well as not exceeding height limitations outlined here. The applicant will provide a full lighting plan and details at the time of building application. These criteria will be met.*

(B) The following are exempt from Subsection 1005.05(A):

- (1) Temporary lights used for holiday decorations;

***Applicant's Findings:*** *The applicant understands holiday lights would be a temporary application and are exempt from the provisions of subsection 1005.05(A).*

- (2) Streetlights regulated in Section 1006, Utilities, Street Lights, Water Supply, Sewage Disposal, Surface Water Management, and Erosion Control; and

***Applicant's Findings:*** *The applicant understands streetlights are regulated under a different section of the code.*

- (3) Lighting associated with outdoor recreation uses such as ball fields or tennis courts.

***Applicant's Findings:*** *The development doesn't include recreational sites outdoors. This criterion is not applicable.*

#### 1005.06 – Additional Requirements

Development shall comply with a minimum of one of the following techniques per 20,000 square feet of site area. Regardless of site size, a minimum of one and a maximum of five techniques are required. Partial site area numbers shall be rounded.

***Applicant's Findings:*** *The development site is approximately 1.38 acres or 60,112 square feet which requires implementation of at least three of the following techniques. As demonstrated, the applicant is implementing techniques (G), (Q), and (S). This criterion is met.*

- (A) Install a solar energy system in the development.
- (B) Use passive solar heating or cooling techniques to reduce energy consumption.  
Examples of techniques:
  - (1) Modulate building masses to maximize solar access.
  - (2) For developments with more than one structure, locate taller structures to minimize negative impacts on solar access for the development site and adjacent sites.
  - (3) Locate buildings to maximize windbreaks.
  - (4) Locate structures and landscaping to avoid winter shading on the south side and optimize summer shading on the west and southwest sides of buildings.
  - (5) Utilize deciduous trees to provide summer shade and allow winter sun.
  - (6) Utilize deciduous vines on fences, trellises, and arbors to provide summer shade.
  - (7) Locate and form berms to protect buildings and exterior use spaces against winter winds or utilize dense evergreens or conifers to screen winter wind and protect against hostile winter elements.
  - (8) Provide skylights or clearstory windows to provide natural lighting, and/or solar heating of interior spaces.
- (C) Use highly reflective (high albedo) materials on roof surfaces.
- (D) Place major outdoor use areas such as plazas, playgrounds, gardens, etc. on the south side of buildings.
- (E) Construct a minimum of 75 percent of walkway area of porous pavement.
- (F) Construct a minimum of 75 percent of all parking spaces with porous pavement.
- (G) Provide additional landscaping area at least 10 percent above the requirements for the site pursuant to Table 1009-1. For example, if the minimum area requirement is 20 percent, then 22 percent shall be provided. Credit shall be given for green roofs or other areas of vegetation that exceed the minimum area requirements.

***Applicant's Findings:*** *In accordance with Table 1009-1, the minimum percentage of the site that is to be landscaped is 25 percent. The site is approximately 60,112 square feet in size which requires 15,028 square feet of landscape minimum. To meet this technique, the applicant must provide 30 percent or 18,033 square feet of landscaping. As demonstrated on the plans provided, the applicant is proposing 24,469 square feet of landscaping which exceeds the minimum requirement.*

- (H) Include additional swales in development landscaping, pursuant to Section 1009. Credit shall be given for additional swale(s) that exceed the requirements of Subsection 1009.04(A)(2) by at least 10 percent of area. For example, if 1009.04(A)(2) requires 200 square feet of swale area, then an additional 20 square feet of swale area would be required.
- (I) Collect rainwater from roofs and/or other impervious surfaces and use it for irrigation.
- (J) Apply other techniques for onsite storm water treatment identified by the surface water management regulatory authority.
- (K) Lay out sites and locate buildings and on-site vehicular circulation to create functional open areas such as plazas, courtyards, outdoor recreation areas, miniparks, and accessways that are open to the general public.
- (L) Enhance sidewalks and/or walkways by providing additional width, using higher quality materials; shielding from vehicular traffic with enhanced planting strips, street trees and on-street parking, and/or providing pedestrian amenities that are compatible with the design of the development as well as the neighborhood as a whole.
- (M) Coordinate development between adjacent uses to provide for a more attractive and livelier streetscape, enhance connections, minimize conflicts and provide common-use areas.
- (N) Enhance the pedestrian connection between the development and neighborhood shopping areas, nearby transit, trails, bikeways or parks. Examples include additional width or pedestrian amenities.
- (O) Provide functional and accessible rooftop gardens.
- (P) For multifamily dwelling units that face the street, raise first floor units a minimum of two feet above street level.
- (Q) Provide structured or under-structure parking to meet all or part of the parking needs.

***Applicant's Findings:*** *The applicant is utilizing under-structure parking to meet a portion of the parking needs. The under-structure parking is shown on the civil and architectural plans and shown in concept on the renderings provided.*

- (R) Provide no more than the minimum number of surface parking spaces set out in Table 1015-2, all of which shall be no greater than the minimum dimensions allowed in Subsection 1015.04(B)(2).
- (S) Lay out sites or orient structures, to maximize significant vistas.

***Applicant's Findings:*** *The site has a significant vista from the north site of the site pointed downward to the south of the site. South of the site the county has identified a significant natural feature. The creek runs through the property along the south. The applicant's architect has oriented the building so the longest elevation will face south.*

- (T) Locate and design structures to protect scenic views or vistas from adjacent properties and public thoroughfares. Setbacks, building height, and bulk should be considered.
- (U) Utilize rail service opportunities abutting the site.
- (V) Inside the UGB, a minimum of 75 percent of the street frontage of each lot shall have buildings located at the minimum front yard depth line. If the minimum front yard depth standard is zero, up to 20 feet of additional front yard depth may be provided where plazas, outdoor seating, or other pedestrian amenities are located.
- (W) Outside the UGB, or for industrial developments, a minimum of 25 percent of the street frontage of each lot shall have buildings located at the minimum front yard depth line. Up to 20 feet of additional front yard depth may be provided where plazas, outdoor seating, or other pedestrian amenities are located.
- (X) Locate buildings at the minimum side yard setback or within 10 feet of the side setback line, whichever is greater.

#### 1005.07 – Modifications

Modification of any standard identified in Subsections 1005.03 and 1005.04 may be approved as part of design review if the proposed modification will result in a development that achieves the purposes stated in Subsection 1005.01 as well or better than the requirement listed.

***Applicant's Findings:*** *Modifications to standards are not being sought. This criterion is not applicable.*

#### 1005.13 – Government Camp Standards

Subsection 1005.13 applies in Government Camp. Where these standards conflict with other provisions in Section 1000, Subsection 1005.13 shall take precedence.

- (A) MRR District: In the MRR District, the following standards shall apply to commercial developments.
  - (1) Exterior Building Materials: Primary and accessory structures shall use wood, stone, stone veneer, or stucco in exterior construction. Stucco and textured concrete may be used as secondary materials. Stucco must be acrylic-based and combined with heavy timber, wood, or stone cladding. A rock, rock veneer, or textured concrete base shall be provided around building exteriors visible from roadways. No exposed plywood, particle board, plain concrete, cinder block, or grooved T1-11 is permitted.

***Applicant's Findings:*** *The applicant's architect has sourced finish materials which comply with the provisions of this section. As demonstrated by the elevation notes provided on architectural sheet A2.01. This criterion is met.*

- (2) Roofing Materials: No composition shingles are allowed. Metal roofing materials that are subject to rust or corrosion shall be coated to inhibit such rust and corrosion, and metal roofing materials with rust or corrosion shall be stabilized and coated to inhibit future rust and corrosion.

***Applicant's Findings:*** *The applicant's architect is proposing standing seam metal roofing as detailed in note 11 on the architectural plans. The proposed metal roofing is not subject to rust or corrosion. This criterion is met.*

- (3) Design: Building design shall meet the design intent of mountain architecture as described in the Government Camp Design Guidelines Handbook. Examples of mountain architecture include "Cascadian", "Oregon Rustic", and the "National Park Style".

***Applicant's Findings:*** *As demonstrated by the elevation drawings indicating materials sourced for the project and the renderings provided, the applicant's architect is proposing a design which meets the intent of mountain architecture as it is described in the Government Camp Design Guidelines Handbook. This criterion is met.*

- (B) RTC District: In the RTC District, the following standards shall apply to all new developments and, where reasonable, to remodels.

***Applicant's Findings:*** *The development site is within the MRR district. These criteria are not applicable.*

#### 1006.02 – Street Lights

Streetlights are required for all development inside the Portland Metropolitan Urban Growth Boundary. The following standards apply:

- (A) Street lighting shall be installed pursuant to the requirements of Clackamas County Service District No. 5 and the electric company serving the development. A streetlight shall be installed where a new road intersects a county road right-of-way and, in the case of subdivisions, at every intersection within the subdivision.

***Applicant's Findings:*** *No new streets are proposed. However, the applicant is proposing a new driveway access to Government Camp Loop. If the development requires the installation of a streetlight, that can be a condition of approval of this land use application.*

#### 1006.03 – Water Supply

- (A) All development which has a need for, or will be provided with, public or community water service shall install water service facilities and grant necessary easements pursuant to the requirements of the district or company serving the development.



***Applicant's Findings:*** *The utility infrastructure is designed to county and provider standards. The applicant will grant easements as the county or provider deem necessary for such utility lines, if required. This criterion will be met.*

(B) Approval of a development that requires public or community water service shall be granted only if the applicant provides a preliminary statement of feasibility from the water system service provider.

- (1) The statement shall verify that water service, including fire flows, is available in levels appropriate for the development and that adequate water system capacity is available in source, supply, treatment, transmission, storage and distribution. Alternatively, the statement shall verify that such levels and capacity can be made available through improvements completed by the developer or the system owner.
- (2) If the statement indicates that water service is adequate with the exception of fire flows, the applicant shall provide a statement from the fire district serving the subject property that states that an alternate method of fire protection, such as an on-site water source or a sprinkler system, is acceptable.
- (3) The statement shall be dated no more than one year prior to the date a complete land use application is filed and need not reserve water system capacity for the development.

***Applicant's Findings:*** *The applicant's engineer has obtained a preliminary statement of feasibility from the water system service provider. The preliminary statement meets the standards listed above and is included with this application submittal. This criterion is met.*

(C) Prior to final approval of any partition or subdivision, the applicant shall provide evidence that any wells in the tract subject to temporary or permanent abandonment under Oregon Revised Statutes (ORS) 537.665 have been properly abandoned.

***Applicant's Findings:*** *This application doesn't include a division of land. This criterion is not applicable.*

(D) The following standards apply inside the Portland Metropolitan Urban Growth Boundary, Government Camp, Rhododendron, Wemme/Welches, Wildwood/Timberline, and Zigzag Village:

- (1) Land divisions or other development requiring water service shall not be approved, except as provided in Subsection 1006.03(D)(4), unless they can be served by a public water system in compliance with drinking water standards as determined by the Oregon Health Authority.

***Applicant's Findings:*** *The applicant's civil engineer has prepared utility plans and provided statements of feasibility demonstrating the development can be served by the public water*

system within Government Camp. The plans are included with this submittal for review and approval by the public works department. This criterion is met.

- (2) New development requiring water service within the boundaries of a water service system, created pursuant to ORS Chapters 264, 450, or 451, shall receive service from this system.

**Applicant's Findings:** *The applicant's civil engineer has prepared utility plans and provided statements of feasibility demonstrating the development can be served by the public water system within Government Camp. The plans are included with this submittal for review and approval by the public works department. This criterion is met.*

- (3) New public water systems shall not be created unless formed pursuant to ORS Chapters 264, 450, or 451.

**Applicant's Findings:** *The applicant is not seeking to create a new public water system. This criterion is met.*

- (4) A lot of record not located within the approved boundaries of a public water system may be served by an alternative water source.

**Applicant's Findings:** *The applicant's civil engineer has prepared utility plans and provided statements of feasibility demonstrating the development can be served by the public water system within Government Camp. The plans are included with this submittal for review and approval by the public works department. This criterion is not applicable.*

- (E) The following standards apply outside the Portland Metropolitan Urban Growth Boundary, Government Camp, Rhododendron, Wemme/Welches, Wildwood/Timberline, and Zigzag Village:

**Applicant's Findings:** *The subject property is inside Government Camp. These criteria are not applicable.*

#### 1006.04 – Sanitary Sewer Service

- (A) All development that has a need for sanitary sewers shall install the facilities pursuant to the requirements of the district or company serving the development.

**Applicant's Findings:** *The applicant's engineer has preliminarily designed utility services which meet the design requirements of the provider. Those details are provided on the civil plans included with this application submittal. This criterion is met.*

- (B) Approval of a development that requires sanitary sewer service shall be granted only if the applicant provides a preliminary statement of feasibility from the sanitary sewage treatment service provider and the collection system service provider.

- (1) The statement shall verify that sanitary sewer capacity in the wastewater treatment system and the sanitary sewage collection system is available to serve the development or can be made available through improvements completed by the developer or the system owner.
- (2) The service provider may require preliminary sanitary sewer system plans and calculations for the proposed development prior to signing a preliminary statement of feasibility.
- (3) The statement shall be dated no more than one year prior to the date a complete land use application is filed and need not reserve sanitary sewer system capacity for the development.

***Applicant's Findings:*** *The applicant's engineer has obtained a preliminary statement of feasibility from the sewer system service provider. The preliminary statement meets the standards listed above and is included with this application submittal. This criterion is met.*

- (C) Hotels and motels are permitted in unincorporated communities only if served by a community sewer system as defined by Oregon Administrative Rules 660-022- 0010(2).

***Applicant's Findings:*** *The hotel proposed falls within Government Camp and has access to the community sewer system. This criterion is met.*

#### 1006.06 – Surface Water Management and Erosion Control

The following surface water management and erosion control standards apply:

- (A) Positive drainage and adequate conveyance of surface water shall be provided from roofs, footings, foundations, and other impervious or near-impervious surfaces to an appropriate discharge point.

***Applicant's Findings:*** *The applicant's engineer has prepared and provided a preliminary drainage report indicating how surface water post development will be managed. The stormwater system will be designed in accordance with county requirements as demonstrated on the preliminary report and drawings provided with this application submittal. This criterion is met.*

- (B) The requirements of the surface water management regulatory authority apply. If the County is the surface water management regulatory authority, the surface water management requirements of the Clackamas County Roadway Standards apply.

***Applicant's Findings:*** *The applicant's civil engineer has designed and provided a preliminary stormwater management report. The report is included with this application submittal as are the preliminary utility plans. This criterion is met.*

- (C) Approval of a development shall be granted only if the applicant provides a preliminary statement of feasibility from the surface water management regulatory authority. The statement shall verify that adequate surface water management, treatment and conveyance is available to serve the development or can be made available through improvements completed by the developer or the system owner.
- (1) The surface water management regulatory authority may require a preliminary surface water management plan and report, natural resource assessment, and buffer analysis prior to signing the preliminary statement of feasibility.
  - (2) The statement shall be dated no more than one year prior to the date a complete land use application is filed and need not reserve surface water treatment and conveyance system capacity for the development.

***Applicant's Findings:*** *The applicant's engineer has obtained a preliminary statement of feasibility from the surface water management regulatory authority. The preliminary statement meets the standards listed above and is included with this application submittal. This criterion is met.*

- (D) Development shall be planned, designed, constructed, and maintained to:
- (1) Protect and preserve existing natural drainage channels to the maximum practicable extent;
  - (2) Protect development from flood hazards;
  - (3) Provide a system by which water within the development will be controlled without causing damage or harm to the natural environment, or to property or persons within the drainage basin;
  - (4) Ensure that waters drained from the development are substantially free of pollutants, including sedimentary materials, through such construction and drainage techniques as sedimentation ponds, reseeding, and phasing of grading; and
  - (5) Ensure that waters are drained from the development in such a manner that will not cause erosion to any greater extent than would occur in the absence of development.

***Applicant's Findings:*** *The proposed development has been thoughtfully designed in a manner to maintain and preserve the natural drainage channels on site. The drainage plan will protect the development from any flood hazards. A full report and preliminary design has been provided by the applicant's civil engineer meeting these criteria and balancing the needs of post development stormwater management and protecting the natural resources present. These criteria are met.*

- (E) Where culverts cannot provide sufficient capacity without significant environmental degradation, the County may require the watercourse to be bridged or spanned.

***Applicant's Findings:*** *The applicant does not anticipate this application will require the county to condition a watercourse to be bridged or spanned. This criterion is not applicable.*

- (F) If a development, or any part thereof, is traversed by any watercourse, channel, stream, creek, gulch, or other natural drainage channel, adequate easements for surface water management purposes shall be provided to the surface water management regulatory authority.

***Applicant's Findings:*** *The site is incumbered by Camp Creek along the south. If easements are required to be provided to the surface water management regulatory authority in conjunction with this project, the county can make this a condition of approval. If applicable, this criterion will be met.*

- (G) Channel obstructions are not allowed, except as approved for the creation of detention, retention, or hydropower facilities approved under this Ordinance. Fences with swing gates may be utilized.

***Applicant's Findings:*** *Channel obstructions are not proposed in conjunction with this application. This criterion is not applicable.*

- (H) The natural drainage pattern shall not be substantially altered at the periphery of the subject property. Greatly accelerated release of stored water is prohibited. Flow shall not be diverted to lands that have not previously encountered overland flow from the same upland source unless adjacent downstream owners agree.

***Applicant's Findings:*** *With the exception of the immediate area sited for the new building, the applicant is proposing to leave the site in its current natural state and not proposing to alter the natural drainage pattern of the property which is to Camp Creek along the southern portion of the development site. This criterion will be met.*

- (I) A surface water management and erosion control plan is required for significant residential, commercial, industrial, and institutional development. The plan shall include:
  - (1) The methods to be used to minimize the amount of runoff siltation and pollution created from the development both during and after construction; and
  - (2) Other elements required by the surface water management authority.

***Applicant's Findings:*** *The applicant has provided preliminary plans and a stormwater management report in accordance with this section. It is anticipated the application includes all required information demonstrating how all applicable criteria and design standards are being met by the proposed development.*

## 1006.07 – Preliminary Statements of Feasibility Exceptions

(A) A land use application shall be deemed complete and may be approved without the submittal of one or more of the preliminary statements of feasibility required by Subsections 1006.03, 1006.04, and 1006.06 if the applicant demonstrates that a good faith attempt has been made to obtain the statement(s). At a minimum, a demonstration of a good faith attempt shall require the applicant to submit the following:

- (1) A statement signed by the applicant indicating that the service provider or surface water management authority has not responded to a request for a preliminary statement of feasibility or has refused to issue one. When the refusal to issue a preliminary statement of feasibility is based upon a finding that adequate service cannot be provided, such refusal shall not qualify for an exception under this subsection; and
- (2) A copy of a letter delivered to the service provider or surface water management authority clearly requesting a preliminary statement of feasibility. The letter shall be dated no less than 30 days prior to the submittal of the land use application.

***Applicant's Findings:*** *The applicant requested statements of feasibility from all required service providers ahead of submitting this land use application to the county. The obtained statements are included within the exhibits portion of this submittal.*

(B) In the absence of evidence in the record to the contrary, it shall be presumed that the failure of a service provider or surface water management authority to respond to a request for a preliminary statement of feasibility constitutes a finding of adequacy of service. This presumption shall be for the purposes of land use application approval only and does not guarantee that service can be provided.

***Applicant's Findings:*** *The applicant understands the county will presume a nonresponsive service provider to mean services are available and allow the case to proceed through land use approval.*

## 1009 – Landscaping

### 1009.01 – General Provisions

(A) Landscaping materials shall be selected and sited to produce a hardy and low maintenance landscaped area with an emphasis on fast-growing plants. Selection shall include consideration of soil type and depth, spacing, exposure to sun and wind, slope and contours of the subject property, building walls and overhangs, and compatibility with existing vegetation to be preserved. Notwithstanding the requirement for hardiness, annuals are permitted as provided in Subsection 1009.01(B).

***Applicant's Findings:*** Native plantings are selected in an effort to enhance the natural area and provide mitigation for the riparian buffer encroachment. The selection of and placement of plants was done in conjunction with the applicant's environmental scientists to ensure compatibility with the riparian area. This criterion is met.

(B) A variety of plants, intermixed throughout landscaped areas, shall be provided, as follows:

- (1) Evergreen and deciduous;
- (2) Trees, shrubs, and groundcover;
- (3) Plants of varying textures;
- (4) Plants of varying widths and heights at maturity; and 5. Plants with seasonal color interest (e.g., foliage, flowering perennials, annuals).

***Applicant's Findings:*** As demonstrated by the landscape plan provided, the majority of plantings will take place along the south side of the property. The building is pressed to the north in an effort to minimize the encroachment into the riparian buffer. The plants proposed include a variety of native plants which will thrive within the riparian buffer with wetlands nearby. This criterion is met.

(C) The planting of invasive non-native or noxious vegetation shall be prohibited, and existing invasive non-native or noxious vegetation shall be removed.

***Applicant's Findings:*** The applicant is not proposing any non-native or invasive plant materials. This criterion is met.

(D) Landscaped areas shall not be used for other purposes, such as storage or display of Landscaping of the unimproved area between a lot line and the improved portion of an adjacent road right-of-way shall be required when there are no immediate plans to develop or otherwise disturb the unimproved area, and one or more of the following apply:

- (1) The subject property is located inside the Portland Metropolitan Urban Growth Boundary;
- (2) Landscaping is necessary to present an appearance consistent with the proposed development as viewed from the road;
- (3) Landscaping is necessary to reduce dust, noise, erosion, or fire hazard; or
- (4) The road is designated as a scenic road on Comprehensive Plan Map 5-1, Scenic Roads.

***Applicant's Findings:*** No storage or display will take place within the landscaped areas. The applicant is proposing a driveway and pedestrian connection along their frontage of Government Camp loop which is very narrow due to the federal forest property abutting to the north. This criterion is met by the proposal.

(E) Landscaping shall be used to highlight public entrances to buildings. If—due to the depth of a front setback, a required walkway, or both—there is insufficient area to permit a typical, in-ground landscaping bed between a public entrance and a front lot line, this requirement may be met with trellises, hanging baskets, or planters, any of which shall include plants.

**Applicant's Findings:** *Planters may be utilized to highlight the entrance to the building. Permanent inground plantings are not proposed. This criterion is met.*

(F) Where feasible, landscaping shall be required adjacent to walkways and other areas intended for pedestrian use.

**Applicant's Findings:** *The applicant is providing landscaping to the greatest extent practical including along all walkways intended for pedestrian use. This criterion is met.*

(G) Existing significant plants, terrain, and other natural features shall be incorporated into the landscaping design and development if such features are required to be retained by other provisions of this Ordinance or if otherwise feasible.

**Applicant's Findings:** *With the exception of the area of the site where the building will be placed, the applicant is maintaining all of the existing natural features and plantings on site. This criterion is met.*

#### 1009.02 – Minimum Area Standards

(A) Table 1009-1, Minimum Landscaped Area, establishes the minimum percentage of the area of the subject property that shall be landscaped.

**Applicant's Findings:** *In accordance with Table 1009-1, the minimum percentage of the site that is to be landscaped is 25 percent. The site is approximately 60,112 square feet in size which requires 15,028 square feet of landscape minimum. As demonstrated on the plans provided, the applicant is proposing 24,469 square feet of landscaping which exceeds the minimum requirement.*

- (1) The minimum landscaped area shall be calculated after subtracting any public dedications from the area of the subject property.
- (2) Landscaping in adjacent rights-of-way shall not count toward compliance with the minimum landscaped area.
- (3) Requirements for surface parking and loading area landscaping, screening and buffering, scenic roads landscaping, landscaping strips, and recreational areas and facilities set forth in Section 1009 apply regardless of whether compliance with those requirements results in landscaping a greater percentage of the subject property than is required by Table 1009-1.



- (4) A minimum of 75 percent of the minimum landscaped area required by Table 1009-1—excluding any area occupied by pedestrian amenities, active recreational areas, or edible gardens—shall be landscaped with native or drought-tolerant plants.
- (5) Outdoor recreational areas required by Subsection 1009.08(A), as well as outdoor recreational areas in the MRR District, shall count toward the minimum landscaped area required by Table 1009-1, except that impervious surface area exceeding 25 percent of the outdoor recreational area shall be excluded.
- (6) Edible gardens may comprise a maximum of 10 percent of the minimum landscaped area required by Table 1009-1.
- (7) Green roofs may comprise a maximum of 25 percent of the minimum landscaped area required by Table 1009-1.
- (8) Turf lawn may comprise a maximum of 10 percent of the minimum landscaped area required by Table 1009-1. However, this limitation shall not apply to active recreational areas, provided that no other areas of the subject property are planted in turf lawn, and it shall not apply to cemeteries.
- (9) Pedestrian amenities may comprise a maximum of one-third of the minimum landscaped area required by Table 1009-1. However, no more than 15 percent of the minimum landscaped area required by Table 1009-1 and developed with pedestrian amenities shall have an impervious surface.
- (10) Area occupied by walls, fences, or trellises constructed to comply with Subsections 1009.03 and 1009.04 shall count toward the minimum landscaped area required by Table 1009-1.

***Applicant's Findings:*** *In accordance with Table 1009-1, the minimum percentage of the site that is to be landscaped is 25 percent. The site is approximately 60,071 square feet in size which requires 15,017 square feet of landscape minimum. As demonstrated on the plans provided, the applicant is proposing 24,469 square feet of landscaping which exceeds the minimum requirement. The landscaped areas were calculated in consideration of these criteria.*

- (11) In the PMD, MR-1, MR-2, and HDR Districts, the following may comprise a maximum of 20 percent of the minimum landscaped area required by Table 1009-1: interior courtyards, atriums, solar greenhouses, solariums, roof gardens, indoor recreational areas, and other comparable amenities.

***Applicant's Findings:*** *The subject property is within the MRR district. This criterion is not applicable.*

- (12) In the RCHDR and SHD Districts, the minimum landscaped area required by Table 1009-1 shall be met with shared outdoor surface areas, including the following: landscaping, courtyards, pedestrian plazas, areas dedicated for parks,

onsite walkways and bikeways, recreational areas and facilities, yards, decks, terraces, patios, and roof gardens. In addition, indoor recreational facilities identified in Subsection 1009.08(B), and over and above the minimum standard set forth in Subsection 1009.08(B), may be counted toward the minimum landscaped area required by Table 1009-1. Also, private outdoor areas may be counted toward meeting the minimum landscaped area required by Table 1009-1, as follows:

***Applicant's Findings:*** *The subject property is within the MRR district. This criterion is not applicable.*

(B) Exceptions: Notwithstanding Table 1009-1:

***Applicant's Findings:*** *No exceptions are needed or sought regarding the landscape standards. This criterion is not applicable.*

#### 1009.03 – Surface Parking and Loading Area Landscaping

Surface parking and loading areas shall be landscaped as follows:

***Applicant's Findings:*** *The proposal does not include surface parking areas. The parking will be provided within a structure with some of the parking tucked under the building and some of the parking exposed. These criteria are not applicable.*

#### 1009.04 – Screening and Buffering

(A) Screening shall be used to eliminate or reduce the visual impacts of the following:

- (1) Service areas and facilities, such as loading areas and receptacles for solid waste or recyclable materials;
- (2) Storage areas;
- (3) Ground-mounted rainwater collection facilities with a storage capacity of more than 100 gallons;
- (4) Parking lots within or adjacent to an Urban Low Density Residential, VR-5/7, VR-4/5, RA-1, RA-2, RR, RRRF-5, FF-10, FU-10, or HR District; and
- (5) Any other area or use, as required by this Ordinance.

***Applicant's Findings:*** *There is no case where any portion of the proposed development is required to be screened. The solid waste and recycle area will be within an enclosure disguised in materials matching the hotel and receptacles will be hidden from view. This criterion is not applicable.*

(B) Screening shall be accomplished by the use of sight-obscuring evergreen plantings, vegetated earth berms, masonry walls, sight-obscuring fences, proper siting of disruptive elements, building placement, or other design techniques.

**Applicant's Findings:** *There is no case where any portion of the proposed development is required to be screened. The solid waste and recycle area will be within and enclosure disguised in materials matching the hotel and receptacles will be hidden from view. This criterion is not applicable.*

- (C) Screening shall be required to substantially block any view of material or equipment from any point located on a street or accessway adjacent to the subject property. Screening from walkways is required only for receptacles for solid waste or recyclable materials. A sight-obscuring fence at least six feet in height and up to a maximum of 10 feet in height shall be required around the material or equipment.

**Applicant's Findings:** *There is no case where any portion of the proposed development is required to be screened. The solid waste and recycle area will be within and enclosure disguised in materials matching the hotel and receptacles will be hidden from view. This criterion is not applicable.*

- (D) Buffering shall be used to mitigate adverse visual impacts, dust, noise, or pollution, and to provide for compatibility between dissimilar adjoining uses. Special consideration shall be given to buffering between residential uses and commercial or industrial uses, and in visually sensitive areas.

**Applicant's Findings:** *The applicant is proposing a hotel within the MRR district abutting other hospitality and tourism uses. Buffering is not required; therefore this criterion is not applicable.*

- (E) Buffering shall be accomplished by one of the following:

**Applicant's Findings:** *The applicant is proposing a hotel within the MRR district abutting other hospitality and tourism uses. Buffering is not required; therefore this criterion is not applicable.*

- (F) Required walkways shall be accommodated, even if such accommodation necessitates a gap in required screening or buffering.

**Applicant's Findings:** *The applicant is proposing a hotel within the MRR district abutting other hospitality and tourism uses. Buffering is not required; therefore this criterion is not applicable.*

#### 1009.05 – Scenic Roads

In the RA-1, RA-2, RRF-5, FF-10, FU-10, MRR, and HR Districts, buildings in developments adjacent to roads designated as scenic roads on Comprehensive Plan Map 5-1, Scenic Roads, shall be set back a sufficient distance from the right-of-way to permit a landscaped or natural buffer zone.

**Applicant's Findings:** *In accordance with the map, Government Camp Loop is a scenic byway. The applicant is meeting the 10-foot setback requirement along their small frontage abutting*

*the street. Where available, the applicant is proposing landscaping flanking the driveway. This criterion will be met to the greatest extent feasible.*

#### 1009.06 – Landscaping Strips

- (A) In the BP and LI Districts, a landscaping strip a minimum of 15 feet wide shall be provided abutting front lot lines.

***Applicant’s Findings:*** *The property falls within the MRR district. This criterion is not applicable.*

- (B) In the GI District, a landscaping strip a minimum of 10 feet wide shall be provided abutting front lot lines.

***Applicant’s Findings:*** *The property falls within the MRR district. This criterion is not applicable.*

- (C) In all other zoning districts, except SCMU, a landscaping strip a minimum of five feet wide shall be provided abutting front lot lines. (See Subsection 1005.10(L) for additional SCMU landscaping requirements.)

- (1) This requirement will be waived or reduced in the NC, PMU, and VCS Districts, which are districts that have no minimum front setback standard, to the extent necessary to accommodate a building with a front setback of less than five feet.
- (2) If—due to the depth of a front setback and the need to accommodate a required walkway, required pedestrian amenities, or both—there is insufficient area to permit a five-foot-wide landscaping strip, the landscaping strip may be reduced in width or the landscaping requirement may be met with a linear arrangement of trellises, hanging baskets, or planters, any of which shall include plants.

***Applicant’s Findings:*** *The applicant’s frontage is too narrow to provide a landscaped buffer strip and accommodate the driveway to serve the new hotel. Therefore, a buffer strip is not proposed abutting the front lot line. This criterion is met.*

#### 1009.08 – Recreational Areas and Facilities

- (A) An outdoor recreational area shall be provided in developments of two-family, three-family, or multifamily dwellings in the MR-1, MR-2, and HDR Districts, and in developments of three-family or multifamily dwellings, including mixed use developments that include these uses, in the SCMU District, as follows:

***Applicant’s Findings:*** *The applicant is not proposing any of these uses within any of these districts. Therefore, these criteria are not applicable.*

#### 1009.09 – Erosion Control

- (A) Graded areas shall be re-vegetated with suitable plants to ensure erosion control.

- (B) Netting shall be provided, where necessary, on sloped areas while ground cover is being established.

***Applicant's Findings:*** Grading and erosion control has been considered by the applicant's civil engineer. Replacement of plantings post excavation will be completed to the greatest extent practical. If netting is needed to stabilize the ground while ground cover is being reestablished, this will be provided. This criterion will be met.

#### 1009.10 – Planting and Maintenance

- (A) Impervious weed barriers (e.g., plastic sheeting) are prohibited.

***Applicant's Findings:*** Plastic weed barriers are not proposed. This criterion is met.

- (B) Plants shall not cause a hazard. Plants over walkways, sidewalks, pedestrian pathways, and seating areas shall be pruned to maintain a minimum of eight feet below the lowest hanging branches. Plants over streets, bikeways, accessways, and other vehicular use areas shall be pruned to maintain a minimum of 15 feet below the lowest hanging branches.
- (C) Plants shall be of a type that, at maturity, typically does not interfere with above or below-ground utilities or paved surfaces.
- (D) Plants shall be installed to current nursery industry standards.
- (E) Plants shall be properly guyed and staked to current nursery industry standards as necessary. Stakes and guys shall not interfere with vehicular or pedestrian traffic, shall be loosened as needed to prevent girdling of trunks, and shall be removed as soon as sufficient trunk strength develops, typically one year after planting.
- (F) Landscaping materials shall be guaranteed for a period of one year from the date of installation. The developer shall either submit a signed maintenance contract for the one-year period or provide a performance surety pursuant to Section 1311, Completion of Improvements, Sureties, and Maintenance, covering the landscape maintenance costs for the one-year period.
- (G) Plants shall be suited to the conditions under which they will be growing. As an example, plants to be grown in exposed, windy areas that will not be irrigated shall be sufficiently hard to thrive under these conditions. Plants shall have vigorous root systems, and be sound, healthy, and free from defects and diseases.
- (H) When planted, deciduous trees shall be fully branched, have a minimum caliper of two inches, and have a minimum height of eight feet. I. When planted, evergreen trees shall be fully branched, have a minimum height of eight feet, and have only one leader.
- (I) Shrubs shall be supplied in minimum one-gallon containers or eight-inch burlap balls with a minimum spread of 12 inches.
- (J) Ground cover shall be planted a maximum of 30 inches on center with a maximum of 30 inches between rows. Rows of plants shall be staggered. Ground cover shall be supplied

in minimum four-inch containers, except that the minimum shall be reduced to two and one-quarter inches or equivalent if the ground cover is planted a minimum of 18 inches on center.

- (K) Plants shall be spaced so that ground coverage three years after planting is expected to be 90 percent, except where pedestrian amenities, rainwater collection systems, or outdoor recreational areas count as landscaping pursuant to Subsection 1009.02. Areas under tree drip lines count as ground coverage.

***Applicant's Findings:*** *The applicant plans to have the landscaping installed and maintained professionally. Each of these criteria will be met at the time of landscape installation and will be met on an ongoing basis through maintenance of the landscaped areas.*

- (L) Irrigation of plants shall be required, except in wooded areas, wetlands, and in river and stream buffers. The irrigation system shall be automatic, except that hose bibs and manually operated methods of irrigation may be permitted in small, landscaped areas close to buildings. Automatic irrigation systems are subject to the following standards:

***Applicant's Findings:*** *The applicant's landscaped area falls within the Camp Creek riparian buffer and includes wetlands. No irrigation will be installed for this reason. This criterion is not applicable.*

- (M) Appropriate methods of plant care and landscaping maintenance shall be provided by the property owner. Pruning shall be done to current nursery industry standards.

***Applicant's Findings:*** *Maintenance including pruning will be done professionally to industry standards and in accordance with this code. This criterion is met.*

- (N) Plants shall be protected from damage due to heavy foot traffic or vehicular traffic by protective tree grates, pavers, or other suitable methods.

***Applicant's Findings:*** *Plantings on this site will likely not see foot or vehicular traffic as it is along a steep slope within the riparian buffer of Camp Creek. This criterion is met.*

## 1015 – Parking and Loading

### 1015.01 – General Standards

- (A) Inside the Portland Metropolitan Urban Growth Boundary (UGB), parking, loading, and maneuvering areas shall be hard surfaced, unless a permeable surface is required for surface water management pursuant to the regulations of the surface water management authority or in order to comply with Subsection 1006.06.

***Applicant's Findings:*** *The subject property is outside the UGB. This criterion is not applicable.*

- (B) Outside the UGB, areas used for parking, loading, and maneuvering of vehicles shall be surfaced with screened gravel or better and shall provide for suitable drainage.

**Applicant's Findings:** *As demonstrated on the civil plans provided, the parking, loading, and vehicle maneuvering areas will be paved with hard surface material. Included with this application submittal is a draining and grading plan prepared by the applicant's engineer. This criterion is met.*

- (C) Parking and loading requirements for uses and structures not specifically listed in Tables 1015-1, Automobile Parking Space Requirements; 1015-2, Minimum Required Bicycle Parking Spaces; and 1015-3, Minimum Required Off-Street Loading Berths shall be subject to the requirements for the most similar use.

**Applicant's Findings:** *Table 1015-1 includes minimum vehicular parking for hotels which is the exact use proposed by the applicant. In accordance with the table, the minimum off-street parking is one space per unit. In this case, the minimum off-street parking requirement is 47 spaces as the application includes a hotel with 47 guest units. As demonstrated on the plans, 52 vehicular parking spaces are provided.*

*Table 1015-3 includes minimum required bicycle parking spaces. The most similar use for bicycle parking would be multifamily dwellings. In accordance with the table, the minimum bicycle parking is 0.5 bicycle parking spaces per unit. There is a reduction of 20 percent for developments outside the UGB. In this case, the minimum bicycle parking requirement is 19 spaces. As demonstrated on the plans, 6 bicycle parking spaces are provided outside at the entrance of the hotel and 56 additional bicycle parking spaces are provided in an enclosed bicycle storage area for a total of 62 bicycle parking spaces.*

*Table 1015-4 includes minimum required loading berths for hotels which is the exact use proposed by the applicant. In accordance with the table, the minimum off-street loading is two berths because the proposed hotel has approximately 50,705 square feet of floor area. As demonstrated on the plans, two loading areas are provided.*

*These criteria are met by the proposal.*

- (D) Motor vehicle parking, bicycle parking, and loading areas shall be separated from one another.

**Applicant's Findings:** *Separation is provided between the vehicle and bicycle parking and the loading spaces. These areas are clearly defined on the plans included with this application. This criterion is met.*

- (E) Required parking spaces and loading berths shall not be:
  - (1) Rented, leased, or assigned to any other person or organization, except as provided for under Subsection 1015.02(D)(3)(a) for shared parking or Subsection 1015.04(C) for shared loading berths.

- (2) Used for storing or accumulating goods or storing a commercial or recreational vehicle, camper, or boat, rendering the space(s) useless for parking or loading operations.
- (3) Occupied by the conducting of any business activity, except for permitted temporary uses (e.g., farmers' markets).

***Applicant's Findings:*** *The applicant understands the required parking stalls and loading berths must be maintained in accordance with this section and not leased or rented or used for storage. These criteria will be met.*

#### 1015.02 – Motor Vehicle Parking Area Standards

(A) Off-street parking areas shall be designed to meet the following requirements:

- (1) Off-street motor vehicle parking areas shall be provided in defined areas of the subject property. No area shall be considered a parking space unless it can be shown that the area is accessible and usable for that purpose and has required maneuvering area for vehicles. Required backing and maneuvering areas shall be located entirely onsite.

***Applicant's Findings:*** *The proposed parking area is accessible and usable for parking. There is adequate clearance and vehicular maneuvering including a turnaround area provided on site. This criterion is met.*

- (2) Automobile parking spaces shall be a minimum of 8.5 feet wide and 16 feet long, except that parallel spaces shall be a minimum of 8.5 feet wide and 22 feet long.

***Applicant's Findings:*** *The applicant is proposing all 90-degree parking stalls meeting the dimensional standards of 8.5 feet wide and 16 feet long. This criterion is met.*

- (3) A minimum of 25 percent of required parking spaces shall be no larger than 8.5 feet wide and 16 feet long.

***Applicant's Findings:*** *Every parking stall provided meets just the minimum dimensional standards listed in subsection (2). This criterion is met.*

- (4) Parking areas shall comply with minimum dimensions for curb length, stall depth, and aisle width established by the Clackamas County Roadway Standards; these dimensions are based on the orientation (e.g., 45-degree, 90-degree), length, and width of the spaces.

***Applicant's Findings:*** *The applicant's proposed parking areas meet the minimum dimensional standards for 90-degree parking in accordance with the Clackamas County Roadway Standards. The applicant is demonstrating compliance on the site plan provided within this submittal. This criterion is met.*



- (5) Double-loaded, ninety-degree angle parking bays shall be utilized where possible.

***Applicant's Findings:*** *To the maximum extent practical, the applicant is providing double loaded 90-degree parking bays. There are site constraints, the applicant was unable to provide double loaded bays for the portion of the parking area that is uncovered. This criterion is met.*

- (6) A minimum of one parking space or five percent of the required spaces, whichever is greater, shall be marked and signed for use as carpool/vanpool spaces. These spaces shall be the closest employee automobile parking spaces to the building entrances normally used by employees but shall not take priority over any spaces required for individuals with disabilities.

***Applicant's Findings:*** *In accordance with this section, two parking stalls must be marked and signed for use as carpool/vanpool parking spaces. The applicant will demonstrate compliance with this requirement at the time of building permit. This criterion will be met.*

- (7) In parking lots greater than one-acre, major onsite circulation drive aisles and lanes crossing to adjacent developments shall not have parking spaces accessing directly onto them.

***Applicant's Findings:*** *The proposed parking area is not greater than one-acre. This criterion is not applicable.*

- (8) Where feasible, shared driveway entrances, shared parking and maneuvering areas, and interior driveways between adjacent parking lots shall be required.

***Applicant's Findings:*** *Due to the limited frontage onto Government Camp Loop and the natural features on the subject property, shared driveway entrances are not feasible for this development. This criterion is not applicable.*

- (9) Except for parallel spaces, parking spaces heading into landscaped areas or along the perimeter of a parking lot shall be provided with a sturdy tire stop at least four inches high and located two feet within the space to prevent any portion of a car within the lot from extending over the property line.

***Applicant's Findings:*** *Perimeter and interior landscaping is not required as the parking area is not classified as surface parking at grade. Parking will be provided by a structure. This criterion is not applicable.*

- (10) For parking spaces heading into a landscaped area, the area in front of the tire stop that is included in the parking space dimension may be landscaped instead of paved or graveled according to the following standards:

- (a) Landscaping shall be ground cover plants only;

- (b) The area in front of the tire stop that is included in the parking space dimension shall be in addition to the required minimum dimension for a landscape planter; and
- (c) The landscaped area in front of the tire stop may count toward overall site landscaping requirements established in Table 1009-1, Minimum Landscaped Area. However, it may not count toward perimeter landscaping requirements established in Section 1009.03(B)(1).

***Applicant's Findings:*** *Perimeter and interior landscaping is not required as the parking area is not classified as surface parking at grade. Parking will be provided by a structure. This criterion is not applicable.*

- (B) Parking Minimums: The minimum number of parking spaces listed in Table 1015-1, Automobile Parking Space Requirements, applies unless modified in Subsection 1015.02(D).

***Applicant's Findings:*** *The minimum parking required is one vehicle space per unit. As demonstrated, 47 guest units are proposed and a minimum of 47 vehicular parking spaces are required. This criterion is met.*

- (1) In case of expansion of a building or use that, prior to the expansion, does not meet the minimum parking space requirements in Table 1015-1, the following provisions shall apply:
  - (a) The minimum number of additional parking spaces required shall be based only on the floor area or capacity added and not the area or capacity existing prior to the expansion.
  - (b) If the enlargement covers any of the pre-expansion parking spaces, lost parking spaces shall be replaced, in addition to any required additional spaces.

***Applicant's Findings:*** *The proposal does not include the expansion of an existing building or development. These criteria are not applicable.*

- (2) In the event more than one use occupies a single structure or parcel, the total minimum requirement for parking shall be the sum of the minimum requirements of the several uses computed separately.

***Applicant's Findings:*** *The proposed structure will be occupied just by the hotel and accessories which support that use. This criterion is not applicable.*

- (C) Parking Maximums:

- (1) Within the UGB, the parking maximums listed in Table 1015-1, Urban Zone A, apply when an area has 20-minute peak hour transit service within one quarter mile walking distance for bus transit or one-half mile walking distance for light rail transit.

***Applicant's Findings:*** *The project site is not within the UGB. This criterion is not applicable.*

- (2) Within the UGB, areas not meeting the requirements of Subsection 1015.02(C)(1), are subject to the parking maximums listed in Table 1015-1, Urban Zone B.

***Applicant's Findings:*** *The project site is not within the UGB. This criterion is not applicable.*

- (3) In case of expansion of a building or use with more parking spaces than the maximum allowed by Table 1015-1:
  - (a) Existing parking spaces may be retained, replaced, or eliminated, provided that after the expansion, the total number of remaining spaces complies with the minimum parking space requirement of Table 1015-1 for the entire development; and
  - (b) Additional parking spaces are allowed only if required to comply with the minimum parking space requirement of Table 1015-1 for the entire development after the expansion.

***Applicant's Findings:*** *The applicant's proposal does not exceed the maximum parking allowed nor does it include an expansion of an existing development. This criterion is not applicable.*

(D) Exceptions to Parking Requirements:

***Applicant's Findings:*** *The applicant is not seeking any exceptions to the parking requirements. These criteria are not applicable.*

#### 1015.03 – Bicycle Parking Standards

(A) Bicycle parking areas shall meet the following on-site locational requirements:

- (1) Bicycle parking racks shall be located in proximity to an entrance but shall not conflict with pedestrian needs.

***Applicant's Findings:*** *Six bicycle parking spaces are provided near the entrance of the hotel. The rack is located in an area that allows bicycles to be parked there without interfering with or obstructing the pedestrian path. This criterion is met.*

- (2) At least 75 percent of the bicycle parking spaces shall be located within 50 feet of a public entrance to the building.

***Applicant's Findings:*** *The bicycle storage room is located within 50 feet of a public entrance to the parking level of the building. The location of the bicycle parking area is demonstrated on the architectural plans provided with this application submittal. This criterion is met.*

- (3) Bicycle parking may be provided within a building, if the location is easily accessible for bicycles.

***Applicant's Findings:*** *The bicycle storage room is located within 50 feet of a public entrance to the parking level of the building. The location of the bicycle parking area is demonstrated on the architectural plans provided with this application submittal. Anyone needing to access the bicycle storage area will be able to do so with ease. This criterion is met.*

- (4) Bicycle parking for multiple uses, or a facility with multiple structures, may be clustered in one or several locations within 50 feet of each building's entrance.

***Applicant's Findings:*** *the bicycle parking provided is intended to serve only the hotel use on site. This criterion is not applicable.*

- (5) If the bicycle parking is not easily visible from the street or main building entrance, then a sign must be posted near the building entrance indicating the location of the parking facilities.

***Applicant's Findings:*** *Six bicycle parking stalls will be located at the entrance of the hotel. The additional secure bicycle storage will be provided in a room adjacent to the vehicular parking area. If county staff determine signage is needed, the applicant will install signage. If applicable, this criterion will be met.*

(B) Bicycle parking shall be designed to meet the following requirements:

- (1) When more than seven bicycle parking spaces are required, a minimum of 50 percent of the spaces shall be covered. All of the required bicycle spaces for schools, park-and-ride lots, congregate housing facilities, and multifamily dwellings shall be covered.

***Applicant's Findings:*** *All of the provided bicycle parking is proposed to be covered. This criterion is met.*

- (2) Cover for bicycle parking may be provided by building or roof overhangs, awnings, bicycle lockers, bicycle storage within buildings, or freestanding shelters.

***Applicant's Findings:*** *The outdoor bicycle parking will be covered by a roof. The remaining bicycle parking will be located within the building in a secure room designed for bicycle and ski storage. This criterion is met.*

- (3) When more than 15 covered bicycle parking spaces are required, 50 percent of the required covered spaces shall be enclosed and offer a high level of security, e.g., bicycle lockers or a locked cage or room with locking facilities inside, to provide safe long-term parking.

***Applicant's Findings:*** *All of the required bicycle parking will be enclosed within the building in a secure room designed for bicycle and ski storage. This criterion is met.*

- (4) Required bicycle parking spaces shall be illuminated.

***Applicant's Findings:*** *Both the outdoor and indoor bicycle parking areas are proposed to be illuminated. Lighting plans will be provided in detail at the time of building permit. This criterion is met.*

- (5) Required bicycle parking areas shall be clearly marked and reserved for bicycle parking only.

***Applicant's Findings:*** *The bicycle parking areas will be clearly marked and reserved for bicycle parking only in accordance with this section. This criterion will be met.*

- (6) Bicycle parking space dimensions and standards:

- (a) Bicycle parking spaces must be at least six feet long and two feet wide, and in covered situations the overhead clearance must be at least seven feet.

***Applicant's Findings:*** *The interior bicycle parking will be provided by wall mounted racks. The six bicycle parking stalls located at the entrance of the hotel will be staple type racks meeting the dimensional standards outlined in this criterion. This criterion is met.*

- (b) An aisle a minimum of five feet wide must be provided for bicycle maneuvering.

***Applicant's Findings:*** *Adequate bicycle maneuvering is indicated on the plans included in this application submittal for both the outdoor and indoor bicycle parking areas. This criterion is met.*

- (c) Bicycle racks must hold bicycles securely by the frame and be securely anchored.

***Applicant's Findings:*** *Racks provided for bicycle storage and parking will hold bicycle securely and will either be anchored to the ground (exterior parking) or the wall (interior secured parking). This criterion is met.*

- (d) Hanging bicycle racks and/or enclosed, stackable bike lockers may be substituted for surface racks if comparable dimensions, maneuvering, and clearance are provided to the user.

**Applicant's Findings:** *The interior bicycle parking will be provided by wall mounted racks. The six bicycle parking stalls located at the entrance of the hotel will be staple type racks meeting the dimensional standards outlined in this criterion. This criterion is met.*

- (e) Bicycle racks must accommodate both:
  - (i) Locking the frame and one wheel to the rack with a high-security U-shaped shackle lock; and
  - (ii) Locking the frame and both wheels without removal of wheels to the rack with a chain or cable not longer than six feet.

**Applicant's Findings:** *Users of the racks will have the ability to lock the frame of their bicycle and one wheel to the rack with a u-shaped shackle lock and they will be able to lock the frame and both wheels with a chain or cable. This criterion will be met.*

- (7) The minimum number of bicycle parking spaces listed in Table 1015-2, Minimum Required Bicycle Parking Spaces, are required. If a listed use is located with the Portland Metropolitan Urban Growth Boundary (UGB), it shall have a minimum of two bicycle parking spaces or the number required by Table 1015-2, whichever is greater.

**Applicant's Findings:** *In accordance with the table, .5 parking spaces are required per unit. The minimum bicycle parking required, because the development is outside of the UGB, is 19 parking stalls. As demonstrated, the applicant is proposing to provide 62 bicycle parking spaces. This criterion is met.*

- (8) New multifamily residential, commercial, and institutional developments within the UGB shall designate short-term bicycle parking (less than four hours) and long-term bicycle parking (four or more hours) spaces as needed for the development.

**Applicant's Findings:** *The subject site falls outside of the UGB. This criterion is not applicable.*

#### 1015.04 – Off-Street Loading Standards

- (A) No area shall be considered a loading berth unless it can be shown that the area is accessible and usable for that purpose and has maneuvering area for vehicles.

**Applicant's Findings:** *The proposed loading areas are accessible and usable for loading and have areas for maneuvering vehicles. This is demonstrated on the civil plans provided with this submittal. This criterion is met.*

- (B) In cases of expansion of a building or use, that prior to the expansion, does not meet the minimum loading berth requirements in Table 1015-3, Minimum Required Off-Street Loading Berths, the following provisions shall apply:

**Applicant's Findings:** *This application is for a new development on a vacant property. This criterion is not applicable.*

- (C) In the event several uses occupy a single structure or parcel of land and share the same loading berths, the total requirement for off-street loading shall be reduced by up to 25 percent of the sum of the requirements of the several uses computed separately.

**Applicant's Findings:** *The hotel and accessory uses supporting the hotel use is the only use that will occupy the proposed new structure. This criterion is not applicable.*

- (D) The minimum off-street loading berths listed in Table 1015-3 are required.

**Applicant's Findings:** *In accordance with the table, because the proposed hotel has approximately 50,705 square feet of floor area, two loading berths are required. As demonstrated on the site plan, two loading berths are proposed at the westerly most point of the vehicle parking area. This criterion is met.*

## 1021 – Solid Waste and Recyclable Material Collection

### 1021.01 – Applicability

Section 1021 applies to:

- (A) Multifamily dwellings of five dwelling units or more; and  
(B) Institutional, commercial, and industrial developments.

**Applicant's Findings:** *The proposal is for a new hotel, or a commercial development, triggering the applicability of this section. The applicant will provide details regarding the trash enclosure at the time of building permit.*

### 1021.03 – General Standards

- (A) Pads: Compactors, containers, and drop boxes shall be located on a level Portland Cement concrete pad, a minimum four inches thick, at ground level or other location compatible with the local collection service franchisee's equipment at the time of construction. The pad shall be designed to discharge surface water runoff to avoid ponding.

***Applicant's Findings:*** As demonstrated on the civil plans provided, the trash enclosure pad will be level poured concrete meeting the minimum thickness requirement at grade. The drainage plan demonstrates surface water discharge designed by the applicant's civil engineer. This criterion is met.

(B) Recycling and Solid Waste Service Areas:

- (1) Recycling receptacles shall be designed and located to serve the collection requirements for the specific type of material.

***Applicant's Findings:*** Recycling receptacles are proposed to be located to serve the collection requirements for the specific type of material, in accordance with this criterion.

- (2) Recycling service areas shall be located in close proximity to the solid waste container areas and be accessible to the local collection service franchisee's equipment.

***Applicant's Findings:*** The recycling service areas will be located within the enclosure. This criterion is met.

- (3) Recycling receptacles or shelters located outside a structure shall have lids and be covered by a roof constructed of water- and insect-resistive material.

***Applicant's Findings:*** No recycling receptacles will be located outside the trash enclosure structure. This criterion is not applicable.

- (4) The location of recycling service areas and method of storage shall be approved by the local fire marshal.

***Applicant's Findings:*** The applicant understands the proposed location of recycling and proposed method of storage will be reviewed and approved by the fire marshal. This criterion is met.

- (5) Recycling and solid waste service areas shall be at ground level and be accessible to the local collection service franchisee.

***Applicant's Findings:*** The recycling and solid waste area is proposed at ground level at the entrance of the site which will be accessible to the local collection service franchisee. This criterion is met.

- (6) Recycling and solid waste service areas shall be used only for storing solid waste and recyclable materials.

***Applicant's Findings:*** In accordance with this section, solid waste service areas will only be used for storing solid waste and recyclable materials. This criterion will be met.



- (7) Recycling and solid waste service areas and equipment shall be maintained in a clean and safe condition pursuant to Chapter 10.03, Solid Waste and Wastes Management, of the Clackamas County Code.

***Applicant's Findings:*** *The applicant understands their responsibility to maintain the solid waste and recycling service area in clean and safe conditions pursuant to Chapter 10.03. This criterion will be met.*

(C) Special Wastes or Recyclable Materials:

- (1) Hazardous wastes defined in Oregon Revised Statutes 466.005 shall be located, prepared, stored, maintained, collected, transported, and disposed of in a manner acceptable to the Oregon Department of Environmental Quality.
- (2) Containers used to store cooking oils, grease, or animal renderings for recycling or disposal shall not be located in the principal recyclable materials or solid waste storage areas. These materials shall be stored in a separate storage area designed for such a purpose.

***Applicant's Findings:*** *Specialized wastes or recyclable materials will be stored in conformance with this section. The hotel includes an accessory restaurant which may require containers for cooking oils or grease. The applicant understands these materials will be stored in a separate storage area specifically designated for that purpose. This criterion, as applicable, will be met.*

#### 1021.04 – Enclosure and Gate Standards

- (A) Gate Access: Gates shall be designed to permit sufficient service access for the local collection service franchisee's equipment and personnel.

***Applicant's Findings:*** *The civil site plan indicates the gates of the proposed trash enclosure are design sufficiently to permit access for the local collection service franchisee's equipment and personnel. Additional details related to the trash enclosure will be provided at the time of building permit submittal. This criterion is met.*

- (B) Gate Swing: The gate swing shall be free of obstructions and have restrainers in the open and closed positions.

***Applicant's Findings:*** *The enclosure is proposed to be recessed slightly behind the front elevation of the hotel which allows the gates to swing outward free of obstructions. Restrainers will be provided for both the open and closed positions. This criterion will be met.*

- (C) Bumper Curb: Enclosures constructed of wood or chain link fencing material shall contain a two- to four-inch-high bumper curb at ground level located 12 inches inside the perimeter walls of the enclosure or fencing to prevent damage from container impacts.

**Applicant's Findings:** *The trash enclosure is proposed to be constructed of masonry block. This criterion is not applicable.*

- (D) Bumper Rail: Enclosures constructed of concrete, brick, and masonry block or similar materials shall contain a bumper curb described in Subsection 1021.04(C) or a bumper rail to prevent damage from container impacts. The rail shall be secured by anchor bolts recessed in the rail within the perimeter walls of the enclosure at a height compatible with the receptacle.

**Applicant's Findings:** *Bumper rails will be provided in accordance with this section as the proposed enclosure will be constructed with masonry block. The bumper rail will be installed in a manner to prevent damage to the structure from the container impacts. This criterion will be met.*

- (E) Obstructions and Accumulations: All areas around the receptacles shall be kept free of obstructions and accumulations of waste matter, grease, oil, water, and standing water.

**Applicant's Findings:** *The applicant understands their responsibility to ensure all areas around the receptacles are kept free of obstructions and accumulations of waste matter, grease, oil, water, and standing water. This criterion will be met.*

#### 1021.05 – Receptacle Standards

- (A) Containers: Enclosures shall be designed consistent with the following standards:

- (1) Length and width of the service container.
- (2) A minimum of two feet, including a pad area, shall be provided around the sides and rear of each container.
- (3) A minimum three feet, including a pad area, shall be provided in front of each container for maneuverability in depositing solid waste or recyclable materials. In cases where the containers face each other, a minimum four feet shall be provided.
- (4) Containers two cubic yards or less in size shall be provided with a minimum of nine feet of unobstructed overhead or vertical clearance for servicing.
- (5) Containers greater than two cubic yards in size shall be provided with a minimum 20 feet of unobstructed overhead or vertical clearance for servicing.

**Applicant's Findings:** *Each dimensional standard of the trash enclosure will be met. This will be demonstrated in detail at the time of building permit application. These criteria will be met.*

- (B) Drop Boxes and Compactors:

**Applicant's Findings:** *Drop boxes and compactors will not be utilized. These criteria are not applicable.*

#### 1021.06 – Vehicle Access

- (A) Vehicular access to the front of a container pad, shelter, or enclosure shall be a minimum of 45 feet long and a minimum of 12 feet wide.

**Applicant's Findings:** *As demonstrated on the site plan, the dimensional vehicular access standards are met. However, the 45-foot collection dimension does extend to the shoulder of Government Camp Loop. This is necessary to minimize the intrusion into the stream conservation area of Camp Creek and other sensitive areas on the subject site. This criterion is met.*

- (B) Vehicular access to service a drop box or compactor shall include the pad length required in Subsection 1021.06(A) plus a minimum of 65 feet in front of the loading hook placement position.

**Applicant's Findings:** *Drop boxes and compactors are not proposed. This criterion is not applicable.*

- (C) Vehicular access to a pad or enclosure shall be hard-surfaced consistent with the off-street parking provisions of Section 1015, Parking and Loading.

**Applicant's Findings:** *The vehicular access to the trash enclosure will be hard surfaced consistent with the remaining portions of the proposed off-street parking areas on the proposed site. This criterion is met.*

- (D) In the absence of an on-site through street or driveway, a cul-de-sac with a minimum 50-foot turning radius shall be provided for vehicle maneuvering at the end of a private dead-end street or driveway. A standard emergency services hammerhead turnaround, consistent with the County's standards for road improvements, may be granted in lieu of the cul-de-sac if the local fire district approves the design.

**Applicant's Findings:** *The location of the trash enclosure prevents the collection franchisee from having to fully enter the site and eliminates the requirement of a turnaround area, as demonstrated on the site plan included with this application submittal. This criterion is not applicable.*

- (E) The grade for access to the pad or enclosure shall not exceed three percent. Exceptions may be granted when compatible with the equipment manufacturer's specifications and consistent with Subsection 1021.08.

**Applicant's Findings:** *The civil plans provided indicate the grade of the access to the trash enclosure and vehicle approach pad will not exceed 3 percent in accordance with this provision. This criterion is met.*

#### 1021.07 – Signs

"No parking" signs shall be placed in a prominent location on the enclosure or shelter and painted on the pavement in front of the enclosure or shelter to provide unobstructed and safe access for servicing receptacles. Signs clearly identifying recycling containers and type of recyclable material shall be posted on each container.

***Applicant's Findings:*** "No parking" signs will be placed in front of the trash enclosure to provide unobstructed and safe access for servicing receptacles. The applicant would prefer to not paint the pavement with a no parking sign if county staff are amenable to this as the trash enclosure is located near the entrance of the hotel and has been designed to be as discrete as possible. Should staff find the concrete painting is required, the applicant will comply with the finding. Additionally, recycling containers will be clearly marked and identified. Educational posters indicating recyclable material will also be posted on each container. As applicable, this criterion will be met.

## 1102 – Design Review

### 1102.01 – Purpose and Applicability

Section 1102 is adopted to provide standards, criteria, and procedures under which design review may be approved. Design review is required for:

- (A) Development, redevelopment, expansions, and improvements in commercial and industrial zoning districts, except for uses approved through a zone change to NC District;
- (B) Development, redevelopment, expansions, and improvements in the following residential zoning districts: HDR, MR-1, MR-2, PMD, RCHDR, SHD, VA, and VTH;
- (C) Development, redevelopment, expansions, and improvements in the MRR District, except for the following if they are not part of a condominium development:
  - (1) Detached single-family dwellings;
  - (2) Manufactured homes; and
  - (3) Uses accessory to detached single-family dwellings and manufactured homes;
- (D) The following uses in the Urban Low Density Residential Districts: attached single-family dwellings, two-family dwellings, three-family dwellings, condominiums, and institutional uses;
- (E) The following uses in the VR-4/5 and VR-5/7 Districts: attached single-family dwellings, two-family dwellings, three-family dwellings, and institutional uses;
- (F) The following uses in the HR District: attached single-family dwellings, condominiums, and institutional uses; and
- (G) Other uses as required by the Planning Director, the Hearings Officer, or the Board of County Commissioners.

***Applicant's Findings:*** The applicant is proposing the development of a new hotel with 47 guest suites within the MRR district which triggers the applicability of this chapter.

## 1102.02 – Submittal Requirements

In addition to the submittal requirements identified in Subsection 1307.07(C), an application for design review shall include:

(A) A narrative describing the proposed use;

***Applicant's Findings:*** *The applicant has provided a written narrative addressing the Clackamas County Zoning and Development Ordinance (ZDO). This criterion is met.*

(B) An engineering geologic study, if required pursuant to Section 1002, Protection of Natural Features, or 1003, Hazards to Safety;

***Applicant's Findings:*** *The applicant has provided the required studies and information pursuant to this section. This criterion is met.*

(C) Preliminary statements of feasibility, if required pursuant to Section 1006, Utilities, Street Lights, Water Supply, Sewage Disposal, Surface Water Management, and Erosion Control;

***Applicant's Findings:*** *Preliminary statements of feasibility are included within the exhibits. This criterion is met.*

(D) A transportation impact study, if required pursuant to Section 1007, Roads and Connectivity;

***Applicant's Findings:*** *The subject property abuts Government Camp Loop, which is under the jurisdiction of Oregon Department of Transportation. In accordance with information gathered from ODOT during the pre-application conferences held for this project, no TIA is required. This criterion is not applicable.*

(E) Calculations demonstrating compliance with Section 1012, Lot Size and Density, if applicable;

***Applicant's Findings:*** *The subject property is approximately 1.38- acres which is greater than the one-acre minimum lot size. The proposal does not include any division of land; therefore calculations of lot size is not applicable. The proposal is for a 30-unit hotel, not residential development, therefore calculations of density is not applicable.*

(F) A vicinity map showing the location of the subject property in relation to adjacent properties, roads, bikeways, pedestrian access, utility access, and manmade or natural site features that cross the boundaries of the subject property;

***Applicant's Findings:*** *A vicinity map, site plan, and elevations of the subject property and development have been provided with the application. These exhibits show roadways, bikeways,*

*pedestrian access, and existing and proposed utilities and natural features of the site. This criterion is met.*

(G) An existing conditions map, drawn to a scale of not less than one inch equals 50 feet, showing:

- (1) Contour lines at two-foot intervals for slopes of 20 percent or less within an urban growth boundary; contour lines at five-foot intervals for slopes exceeding 20 percent within an urban growth boundary; contour lines at 10-foot intervals outside an urban growth boundary; source of contour information.
- (2) Slope analysis designating portions of the site according to the following slope ranges and identifying the total land area in each category: zero to 20 percent, greater than 20 percent to 35 percent, greater than 35 percent to 50 percent, and greater than 50 percent;
- (3) Drainage;
- (4) Potential hazards to safety, including areas identified as mass movement, flood, soil, or fire hazards pursuant to Section 1003;
- (5) Natural features, such as rivers, streams, wetlands, underground springs, wildlife habitat, earth mounds, and large rock outcroppings;
- (6) Wooded areas, significant clumps or groves of trees, and specimen conifers, oaks, and other large deciduous trees. Where the site is heavily wooded, an aerial photograph, at a scale of not more than 1-inch equals 400 feet, may be submitted and only those trees that will be affected by the proposed development need be sited accurately;
- (7) Overlay zoning districts regulated by Section 700, Special Districts;
- (8) Noise sources;
- (9) Sun and wind exposure;
- (10) Significant views;
- (11) Structures, impervious surfaces, utilities, onsite wastewater treatment systems, landscaping, driveways and easements (e.g., access, utility, storm drainage). Note whether these will remain or be removed and provide dimensions of driveways and easements; and
- (12) All of the following that are on or adjacent to the subject property, including dimensions and, if applicable, names: existing roads, platted unconstructed roads, railroad rights-of-way, bikeways, curbs, sidewalks, pedestrian pathways, accessways, and trails.

***Applicant's Findings:*** *An existing conditions plan including all of the relevant items listed above has been included with this application submittal. This criterion is met.*

(H) A proposed site plan, drawn to a scale of not less than one inch equals 50 feet, showing:

- (1) The subject property, including contiguous property under the same ownership as the subject property, and adjacent properties;
- (2) Property lines and dimensions for the subject property. Indicate any proposed changes to these;
- (3) Natural features to be retained;
- (4) Location, dimensions, and names of all existing or platted roads or other public ways, easements, and railroad rights-of-way on or adjacent to the subject property;
- (5) The location of at least one temporary benchmark and spot elevations;
- (6) Location and dimensions of structures, impervious surfaces, and utilities, whether proposed or existing and intended to be retained. For phased developments, include future buildings;
- (7) Approximate location and size of storm drainage facilities;
- (8) Relation to transit; parking and loading areas, including dimensions and number of individual parking and loading spaces and drive aisles; bicycle racks; walkways; and pedestrian crossings;
- (9) Orientation of structures showing windows and doors;
- (10) Location and type of lighting;
- (11) Service areas for waste disposal, recycling, loading, and delivery;
- (12) Location of mailboxes;
- (13) Freestanding signs; and pedestrian amenities;

***Applicant's Findings:*** *A site plan including all the relevant items listed above has been included with this application submittal. This criterion is met.*

- (I) A grading plan, drawn to a scale of not less than one inch equals 50 feet, showing location and extent of proposed grading, general contour lines, slope ratios, slope stabilization proposals, and natural resources protection consistent with Sections 1002 and 1003;

***Applicant's Findings:*** *A grading plan prepared by the applicant's civil engineer is included with this application submittal and is consistent with Sections 1002 and 1003. This criterion is met.*

- (J) Architectural drawings, including:
  - (1) Building elevations, including any building signs. Identify the dimensions, area, color, materials, and means of illumination of such signs. Identify and show dimensions of any electronic message center or other changeable copy sign areas;
  - (2) Building sections;
  - (3) Floor plans;
  - (4) Color and type of building materials; and

- (5) Elevation of freestanding sign(s). Identify the dimensions—including total height and height between bottom of sign and ground, area, color, materials, and means of illumination. Identify and show dimensions of any electronic message center or other changeable copy sign areas; and
- (6) Gross floor area, in square feet, of each structure; floor area ratio if a minimum floor area ratio standard applies; and number of dwelling units;

***Applicant's Findings:*** *The applicant's architect had developed and provided several drawings detailing the required items listed above. This criterion is met.*

- (K) A general landscaping plan, drawn to a scale of not less than one inch equals 50 feet, showing the elements required on the proposed site plan and:
  - (1) Existing plants and groups of plants proposed;
  - (2) Description of soil conditions; plans for soil treatment such as stockpiling of topsoil or addition of soil amendments; and plant selection requirements relating to soil conditions;
  - (3) Erosion controls, including plant materials and soil stabilization, if any;
  - (4) Irrigation system;
  - (5) Landscape-related structures such as fences, terraces, decks, patios, shelters and play areas; and
  - (6) Open space and recreational areas and facilities, if applicable.

***Applicant's Findings:*** *A general landscape plan is included with this application submittal as is a replanting, mitigation, and restoration plan. The plans provided include all of the relevant required information listed above. This criterion is met.*

- (L) A transportation improvement plan that includes proposed cross-sections for roads to be constructed or improved, including widths of travel lanes, bikeways, sidewalks, curbs, pedestrian pathways, and landscape strips. Identify proposed landscape plan for landscape strips, including street tree type, size and location. Identify proposed dedication of right-of-way.

***Applicant's Findings:*** *Roadways are not proposed. Frontage improvements to Government Camp Loop will be included with this application pursuant to ODOT requirements. This criterion is not applicable.*

### 1102.03 – Approval Criteria

Design review requires review as a Type II application pursuant to Section 1307, Procedures, and shall be subject to the following standards and criteria:

- (A) The proposed development shall be subject to Section 1000, Development Standards, and the standards of the applicable zoning district.



***Applicant's Findings:*** *The applicable standards of ZDO Section 1000 are addressed above. This criterion is met*

- (B) As part of design review in the RCO District and for the PMU1 site, a master plan shall be required if the proposed development does not meet the minimum floor area ratio for the entire site (where phased compliance is permitted by Table 510- 2, Dimensional Standards in the Urban Commercial and Mixed-Use Zoning Districts) or if compliance with Table 510-3: Site-Specific Requirements for the PMU District, is not being achieved for the entire PMU1 site. The master plan shall demonstrate that it is feasible to achieve full compliance with a future phase of development that is not reliant upon adding additional stories to existing or proposed structures or demolishing structures built after the RCO or PMU District was applied to the subject property.

***Applicant's Findings:*** *The subject property is not zoned RCO nor PMU1. This criterion is not applicable.*

- (C) As part of design review of development of any portion of the OA District, a master plan shall be required for the subject property and all contiguous lots with a Comprehensive Plan land use designation of Office Apartment. The master plan shall include a plan for consolidation of motor vehicle accesses for the entire Office Apartment site that complies with the access targets of Comprehensive Plan Map X-SC-5, Sunnyside Corridor Community Plan Sunnyside Road Access Management Targets.

***Applicant's Findings:*** *The subject property does not contain OA District. This criterion is not applicable.*

#### 1102.04 – Design Review Committee

A Design Review Committee shall be established pursuant to Subsection 1307.03 and shall have the responsibilities assigned to it by Subsection 1102.04.

- (A) The Planning Director may review and render a decision on a Type II application for design review or forward the application to the Design Review Committee for review and recommendation prior to rendering a decision. In deciding whether to forward an application to the Design Review Committee, the Planning Director shall consider:
- (1) The size of the project, including mass of buildings, site area, landscaping, and parking requirements;
  - (2) The presence of natural features, such as wetlands, steep slopes, treed areas, and riparian corridors;
  - (3) Visual significance; and
  - (4) Impact on neighboring properties, particularly where a project is adjacent to a residential area.

***Applicant's Findings:*** *The applicant understands the considerations of the Design Review Committee and the Planning Director.*

- (B) An application shall be forwarded to the Design Review Committee for review and recommendation if requested by the applicant or required by the Hearings Officer or the Board of County Commissioners.

***Applicant's Findings:*** *The applicant has taken visual significance, impacts to surrounding properties, natural features of the property, and the scale of the development into consideration to ensure a compatible and appealing development. Applicable standards are being met and an appealing development is proposed. The applicant requests the planning director review the applications. However, the size of the proposal and unavoidable impacts may warrant a review before the design review committee. The applicant is not requesting review by the hearings officer or board of county commissioners.*

- (C) The Planning Director may consult with individual members of the Design Review Committee at any point during the evaluation of a design review application or in determining compliance with conditions of design review approval.

***Applicant's Findings:*** *The applicant understands the planning director may consult with members of the design review committee at any point during the review of the application to determine compliance with conditions of design review approval.*

#### 1102.05 – Approval Period and Time Extension

- (A) Approval of design review is valid for four years from the date of the final decision. If the County's final decision is appealed, the approval period shall commence on the date of the final appellate decision. During this four-year period, the approval shall be implemented, or the approval will become void.

***Applicant's Findings:*** *The applicant will commence work with the 4-year period or apply for applicable time extension.*

- (1) Implemented means all major development permits shall be obtained and maintained for the approved development, or if no major development permits are required to complete the development contemplated by the design review approval, implemented means all other necessary County development permits (e.g., grading permit, building permit for an accessory structure) shall be obtained and maintained. A major development permit is:
  - (a) A building permit for a new primary structure that was part of the design review approval; or
  - (b) A permit issued by the County for parking lot or road improvements required by the design review approval.

***Applicant's Findings:*** *The applicant will commence work by obtaining applicable permits with the 4-year period or apply for applicable time extension.*

(B) If the design review approval is not implemented within the initial approval period established by Subsection 1102.05(A), a two-year time extension may be approved pursuant to Section 1310, Time Extension.

***Applicant's Findings:*** *The applicant will commence work with the 4-year period or apply for applicable time extension.*

(C) If the design review approval is implemented, a master plan approved as part of the design review approval remains applicable to future development of the subject property unless a modification to the master plan, or a new master plan, is approved or the requirement for master planning no longer applies to the subject property.

***Applicant's Findings:*** *The proposal does not require a master plan; therefore this criterion is not applicable.*

## Section 6: Conclusion

Based on the facts and findings presented by the applicant within this detailed written narrative, the applicant believes they have satisfied the burden of proof and demonstrated how the proposal not only satisfies all applicable criteria but would also be a benefit to the community by providing a needed improvement to the subject site in Government Camp.

## Section 7: Exhibits

Exhibit A –Clackamas County Tax Map

Exhibit B – Clackamas County Application Forms

Exhibit C – Preliminary Statements of Feasibility

Exhibit D – Existing Conditions Plan

Exhibit E – Proposed Site Plan

Exhibit F – Civil Plans

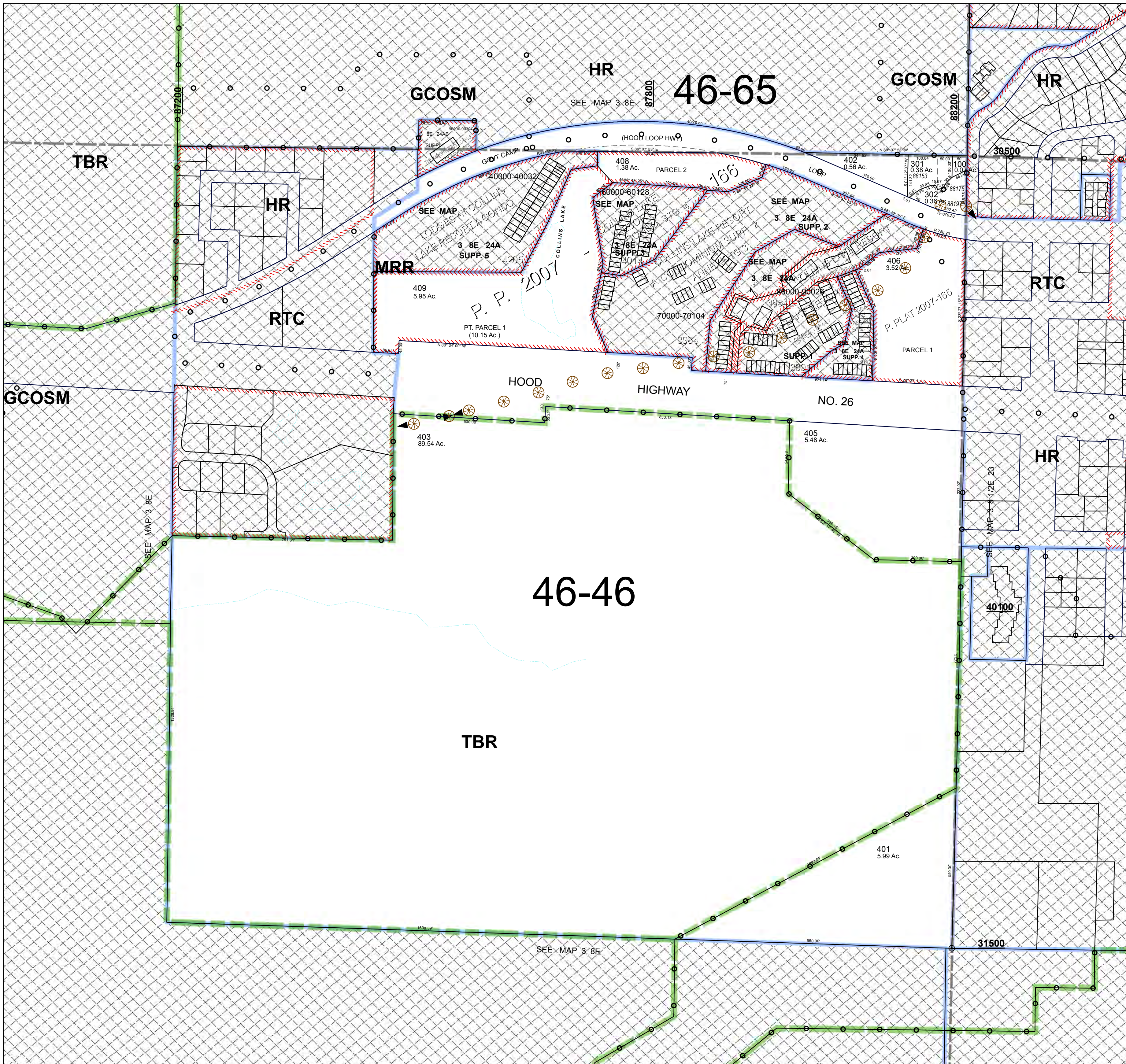
Exhibit G – Architectural Plans and Renderings

Exhibit H – General Landscaping Plan

Exhibit I - Deed

Exhibit A –Clackamas County Tax Map

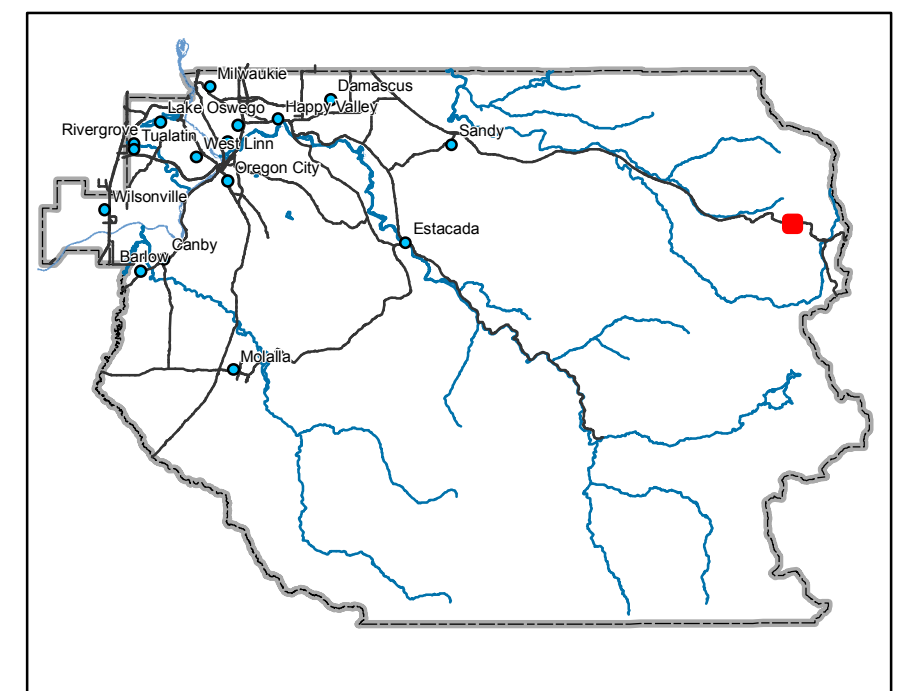




Cancelled Taxlots

- 500
- 600
- 700
- 800
- 900
- 1000
- 1100
- 1200
- 1300
- 1400
- 1500
- 1600
- 1700
- 1800
- 1900
- 2000
- 200
- 2100
- 2200
- 2300
- 2301
- 2302
- 2303
- 2304
- 2600
- 2601
- 2400
- 2500
- 300
- 404
- 400
- 407
- 30000-30448
- 30S14-30S20

- Parcel Boundary
- Private Road ROW
- Historical Boundary
- Railroad Centerline
- TaxCodeLines
- Map Index
- Water Lines
- Land Use Zoning
- Plats
- Water
- Corner
- Section Corner
- 1/16th Line
- Govt Lot Line
- DLC Line
- Meander Line
- PLSS Section Line
- Historic Corridor 40'
- Historic Corridor 20'



THIS MAP IS FOR ASSESSMENT PURPOSES ONLY



Exhibit B – Clackamas County Application Forms



**Planning and Zoning**  
**Department of Transportation and Development**  
 Development Services Building  
 150 Beaver Creek Road | Oregon City, OR 97045  
 503-742-4500 | zoninginfo@clackamas.us  
 www.clackamas.us/planning

## PRELIMINARY STATEMENT OF FEASIBILITY

TO BE COMPLETED BY APPLICANT		
Applicant name: <b>Jesus Solis</b>	Applicant email: <b>jesus.solis@yoshida.com</b>	Applicant phone: <b>503-730-1275</b>
Project engineer: <b>Jimmy Houf</b>	Project engineer email: <b>jimmyh@hhpr.com</b>	Project engineer phone: <b>503-221-1131</b>
Site address: <b>No Site Address</b>		
Map and tax lot #:  <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>Township: <u>3S</u> Range: <u>8E</u> Section: <u>24</u> Tax Lot: <u>00408</u></span> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>Township: _____ Range: _____ Section: _____ Tax Lot: _____</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>Township: _____ Range: _____ Section: _____ Tax Lot: _____</span> </div>		

TO BE COMPLETED BY SERVICE PROVIDER / SURFACE WATER MANAGEMENT AUTHORITY	
Name of service provider / surface water management authority: <b>Government Camp Water Company Inc.</b>	Name and title of authorized representative: <b>Andrew Tagliafico, Operator</b>
Representative email: <b>tagliafico9@centurytel.net</b>	Representative phone: <b>503-706-6221</b>
Check all that apply:	
<p><b>Water Service</b></p> <p><input checked="" type="checkbox"/> Water service, including fire flows, is available in levels appropriate for the development and adequate water system capacity is available in source, supply, treatment, transmission, storage, and distribution, or such levels and capacity can be made available through improvements completed by the developer or the system owner.</p> <p><input type="checkbox"/> Water service is adequate with the exception of fire flows. The applicant shall provide a statement from the fire district serving the subject property that states that an alternate method of fire protection, such as an on-site water source or sprinkler system, is acceptable.</p> <p><input type="checkbox"/> Adequate water service cannot be provided.</p> <p><b>Sanitary Sewer Service</b></p> <p><input type="checkbox"/> Sanitary sewer capacity in the wastewater treatment system and the sanitary sewage collection system is available to serve the development or can be made available through improvements completed by the developer or the system owner.</p> <p><input type="checkbox"/> Adequate sanitary sewer service cannot be provided.</p> <p><b>Surface Water Management, Treatment, and Conveyance</b></p> <p><input type="checkbox"/> Adequate surface water management, treatment, and conveyance is available to serve the development or can be made available through improvements completed by the developer or the system owner.</p> <p><input type="checkbox"/> Adequate surface water management, treatment, and conveyance cannot be provided.</p>	
Is this statement issued subject to any conditions of approval?	
<input type="checkbox"/> YES, and those conditions are attached. <input checked="" type="checkbox"/> NO	
Signature of authorized representative: 	Date of signature: <b>12/20/2022</b>

## Britany Randall

---

**From:** Jimmy Houf <JimmyH@hhpr.com>  
**Sent:** Wednesday, January 4, 2023 7:32 AM  
**To:** jgish@clackamas.us  
**Subject:** RE: Government Camp-Preliminary Statement of Feasibility  
**Attachments:** Preliminary Statement of Feasibility.pdf; C1.0 EXISTING CONDITIONS PLANS.pdf

Hi Jonny,

Following up on this. Would you be able to sign the attached Preliminary Statement of Feasibility for Surface Water Management? See below for more information.

Thanks,  
Jimmy

### Jimmy Houf, PE

Civil Engineer | Associate Principal

#### HARPER HOUF PETERSON RIGHELLIS INC.

205 SE Spokane Street | Suite 200 | Portland, OR | 97202

p: 503.221.1131 | d: 503.548.0756 | [jimmyh@hhpr.com](mailto:jimmyh@hhpr.com) | [hhpr.com](http://hhpr.com)



CIVIL ENGINEERS :: STRUCTURAL ENGINEERS :: PLANNERS :: LANDSCAPE ARCHITECTS :: SURVEYORS

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**From:** Kent, Ken <KenKen@clackamas.us>  
**Sent:** Monday, December 19, 2022 11:19 AM  
**To:** Gish, Jonny <JGish@clackamas.us>  
**Cc:** Jimmy Houf <JimmyH@hhpr.com>  
**Subject:** FW: Government Camp-Preliminary Statement of Feasibility

[Email from external source]

Hi Jonny,

I'm forwarding this request for a statement of feasibility to you, since you handled the pre-application for this project.

Thanks,

Ken

**Kenneth Kent**  
Senior Planner

Clackamas County – Transportation & Development

**Development Engineering**

[kenken@clackamas.us](mailto:kenken@clackamas.us)

503-742-4673

Development Services Building | 150 Beaver Creek Road | Oregon City, OR | 97045

*My office hours are Monday through Thursday from 7 am to 6 pm.*



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**From:** Jimmy Houf <[JimmyH@hhpr.com](mailto:JimmyH@hhpr.com)>  
**Sent:** Monday, December 19, 2022 9:02 AM  
**To:** Kent, Ken <[KenKen@clackamas.us](mailto:KenKen@clackamas.us)>  
**Subject:** FW: Government Camp-Preliminary Statement of Feasibility

**Warning: External email. Be cautious opening attachments and links.**

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Hi Ken,

I'm coordinating signatures for a Preliminary Statement of Feasibility of utilities for a new hotel off of Government Camp Loop. This project site is outside of WES jurisdiction. We held a pre-application meeting on 4/20/2022 and Jonny Gish represented DTD. The project will be meeting Clackamas County and Slopes V stormwater requirements and will outfall into the existing Camp Creek.

Can you please complete page 2 of the attached Preliminary Statement of Feasibility for Surface Water Management, Treatment, and Conveyance?

The project will be submitting our Land Use application after the new years. This form is required as part of our Land Use Application.

Please let me know if you have any questions.

Thanks,  
Jimmy

**Jimmy Houf, PE**  
Civil Engineer | Associate Principal

**HARPER HOUF PETERSON RIGHELLIS INC.**  
205 SE Spokane Street | Suite 200 | Portland, OR | 97202  
p: 503.221.1131 | d: 503.548.0756 | [jimmyh@hhpr.com](mailto:jimmyh@hhpr.com) | [hhpr.com](http://hhpr.com)



CIVIL ENGINEERS :: STRUCTURAL ENGINEERS :: PLANNERS :: LANDSCAPE ARCHITECTS :: SURVEYORS



**Planning and Zoning**  
**Department of Transportation and Development**  
 Development Services Building  
 150 Beavercreek Road | Oregon City, OR 97045  
 503-742-4500 | zoninginfo@clackamas.us  
 www.clackamas.us/planning

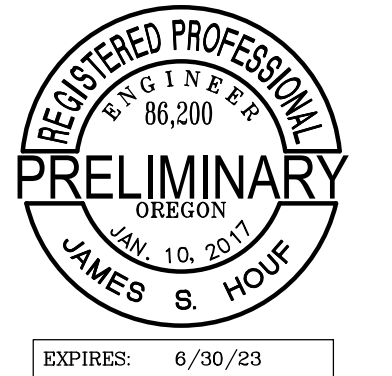
## PRELIMINARY STATEMENT OF FEASIBILITY

TO BE COMPLETED BY APPLICANT		
Applicant name: <b>Jesus Solis</b>	Applicant email: <b>jesus.solis@yoshida.com</b>	Applicant phone: <b>503-730-1275</b>
Project engineer: <b>Jimmy Houf</b>	Project engineer email: <b>jimmyh@hhpr.com</b>	Project engineer phone: <b>503-221-1131</b>
Site address: <b>No Site Address</b>		
Map and tax lot #:  <div style="display: flex; justify-content: space-between;"> <span>Township: <u>3S</u> Range: <u>8E</u> Section: <u>24</u> Tax Lot: <u>00408</u></span> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>Township: _____ Range: _____ Section: _____ Tax Lot: _____</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>Township: _____ Range: _____ Section: _____ Tax Lot: _____</span> </div>		

TO BE COMPLETED BY SERVICE PROVIDER / SURFACE WATER MANAGEMENT AUTHORITY	
Name of service provider / surface water management authority: <b>Government Camp Sanitary District</b>	Name and title of authorized representative: <b>Andrew Tagliafico, Board Chairman</b>
Representative email: <b>tagliafico9@centurytel.net</b>	Representative phone: <b>503-706-6221</b>
Check all that apply:  <div style="margin-left: 20px;"> <b>Water Service</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Water service, <i>including fire flows</i>, is available in levels appropriate for the development and adequate water system capacity is available in source, supply, treatment, transmission, storage, and distribution, or such levels and capacity can be made available through improvements completed by the developer or the system owner.</li> <li><input type="checkbox"/> Water service is adequate <i>with the exception of fire flows</i>. The applicant shall provide a statement from the fire district serving the subject property that states that an alternate method of fire protection, such as an on-site water source or sprinkler system, is acceptable.</li> <li><input type="checkbox"/> Adequate water service <i>cannot</i> be provided.</li> </ul> </div> <div style="margin-left: 20px; margin-top: 10px;"> <b>Sanitary Sewer Service</b> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Sanitary sewer capacity in the wastewater treatment system and the sanitary sewage collection system is available to serve the development or can be made available through improvements completed by the developer or the system owner.</li> <li><input type="checkbox"/> Adequate sanitary sewer service <i>cannot</i> be provided.</li> </ul> </div> <div style="margin-left: 20px; margin-top: 10px;"> <b>Surface Water Management, Treatment, and Conveyance</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Adequate surface water management, treatment, and conveyance is available to serve the development or can be made available through improvements completed by the developer or the system owner.</li> <li><input type="checkbox"/> Adequate surface water management, treatment, and conveyance <i>cannot</i> be provided.</li> </ul> </div>	
Is this statement issued subject to any conditions of approval?  <div style="margin-left: 100px;"> <input type="checkbox"/> YES, and those conditions are attached.               <input checked="" type="checkbox"/> NO           </div>	
Signature of authorized representative: 	Date of signature: <b>12/20/2022</b>

Exhibit D – Existing Conditions Plan





IN THE EVENT CONFLICTS ARE DISCOVERED BETWEEN THE ORIGINAL SIGNED AND SEALED DOCUMENTS PREPARED BY THE ARCHITECTS AND/OR THEIR CONSULTANTS, AND ANY COPY OF THE DOCUMENTS TRANSMITTED BY MAIL, FAX, ELECTRONICALLY OR OTHERWISE, THE ORIGINAL SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

PROJECT # 2019-220 DATE: 11/16/2022 REVISIONS



EXISTING CONDITIONS PLANS  
**Government Camp Hotel**  
Government Camp Loop

SHEET:  
**C1.0**

TOPOGRAPHIC LEGEND:

- |       |   |     |                                 |   |                              |
|-------|---|-----|---------------------------------|---|------------------------------|
| STM   | STORM SEWER LINE  | W   | WATER MANHOLE                   | ⊕ | FIRE DEPT. CONNECTION        |
| SAN   | SANITARY SEWER LINE   | ⊗   | WATER VALVE                     | ⊗ | FIRE HYDRANT                 |
| W     | WATER LINE  | PWR | POWER VAULT                     | + | SINGLE POST SIGN             |
| OW    | OVERHEAD WIRE   | E   | ELECTRIC BOX                    | ⊕ | BOLLARD                      |
| x x x | FENCE LINE, TYPE AS NOTED   | PT  | POWER TRANSFORMER               | ⊕ | CABLE TELEVISION RISER       |
| FO    | FIBER OPTIC LINE  | T   | TELEPHONE LINE                  | ⊕ | TELEPHONE BOX                |
| T     | TELEPHONE LINE  | →   | FLOWLINE                        |   |                              |
| E     | ELECTRIC LINE   | →   | BUILDING LINE                   |   |                              |
| →     | UTILITY LINE IS BELIEVED TO CONTINUE, CONNECTION NOT LOCATED OR UNKNOWN |     |                                 |   |                              |
| →     | MAJOR CONTOUR - 5' INTERVALS  | SS  | SANITARY SEWER MANHOLE CLEANOUT | ? | UNKNOWN UTILITY/JUNCTION BOX |
| →     | MINOR CONTOUR - 1' INTERVALS  | ??  | UNKNOWN UTILITY VAULT           |   |                              |

NOTE: SYMBOLS SHOWN HEREON ARE FOR GRAPHICAL REPRESENTATION PURPOSES AND DO NOT NECESSARILY SHOW SHAPE, SIZE, ROTATION, CONDITION, TYPE, ETC. OF THE ACTUAL PHYSICAL IMPROVEMENTS THAT THEY REPRESENT. CONDITION, TYPE, ROTATION, ETC. MAY VARY AMONGST ITEMS SHOWN BY THE SAME SYMBOL.

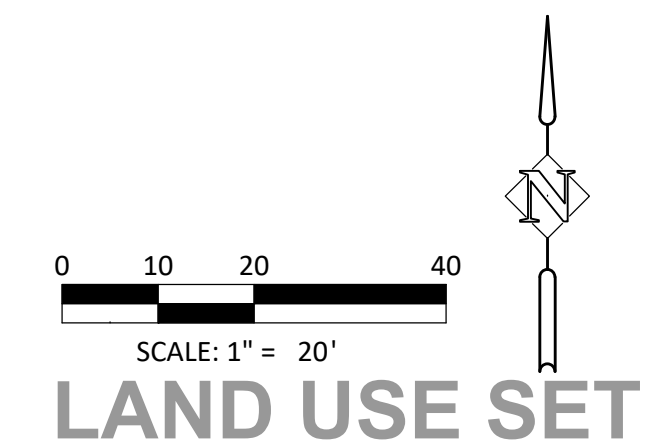
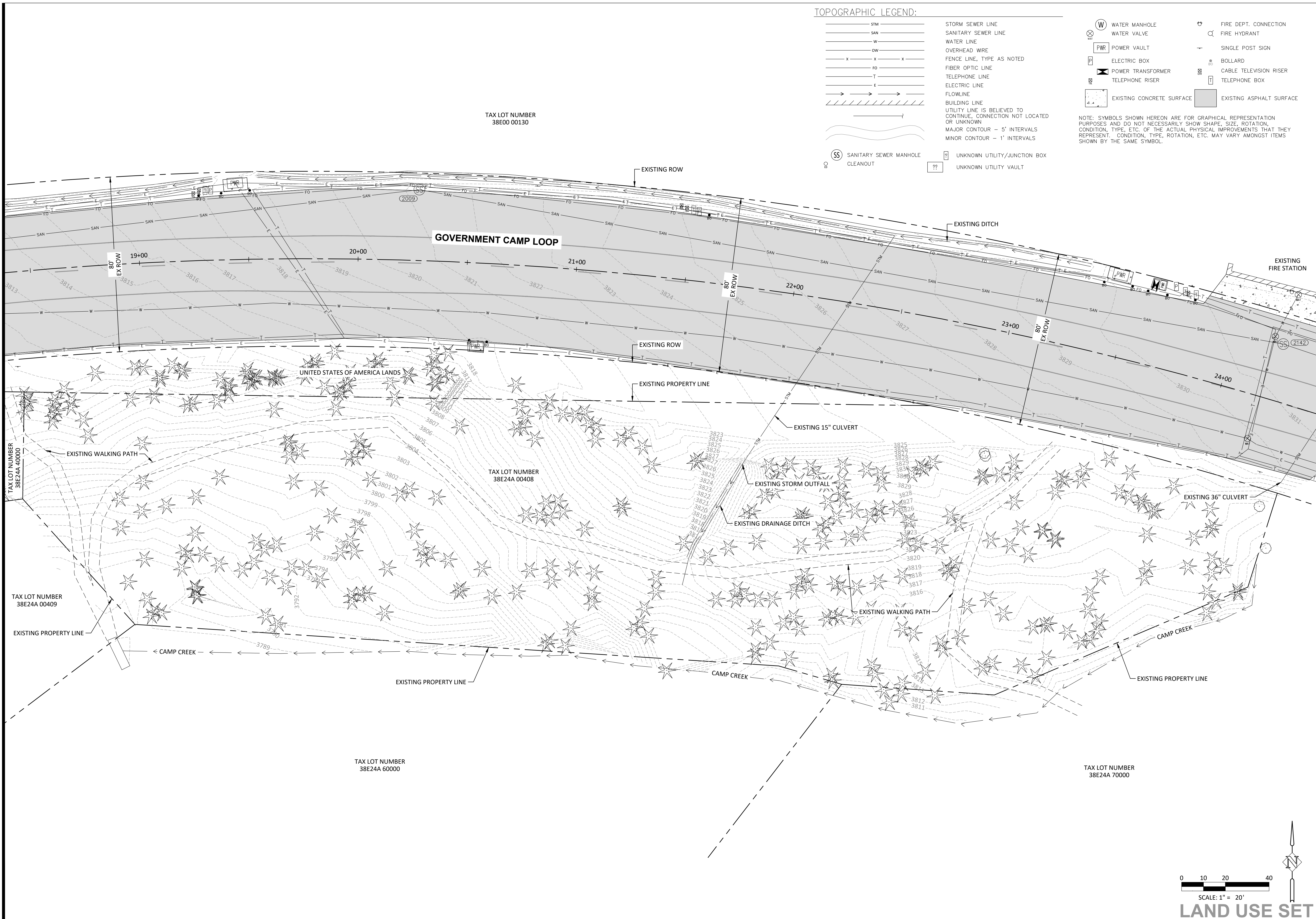


Exhibit E – Proposed Site Plan



IN THE EVENT CONFLICTS ARE DISCOVERED BETWEEN THE ORIGINAL SIGNED AND SEALED DOCUMENTS PREPARED BY THE ARCHITECTS AND/OR THEIR CONSULTANTS, AND ANY COPY OF THE DOCUMENTS TRANSMITTED BY MAIL, FAX, ELECTRONICALLY OR OTHERWISE, THE ORIGINAL SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

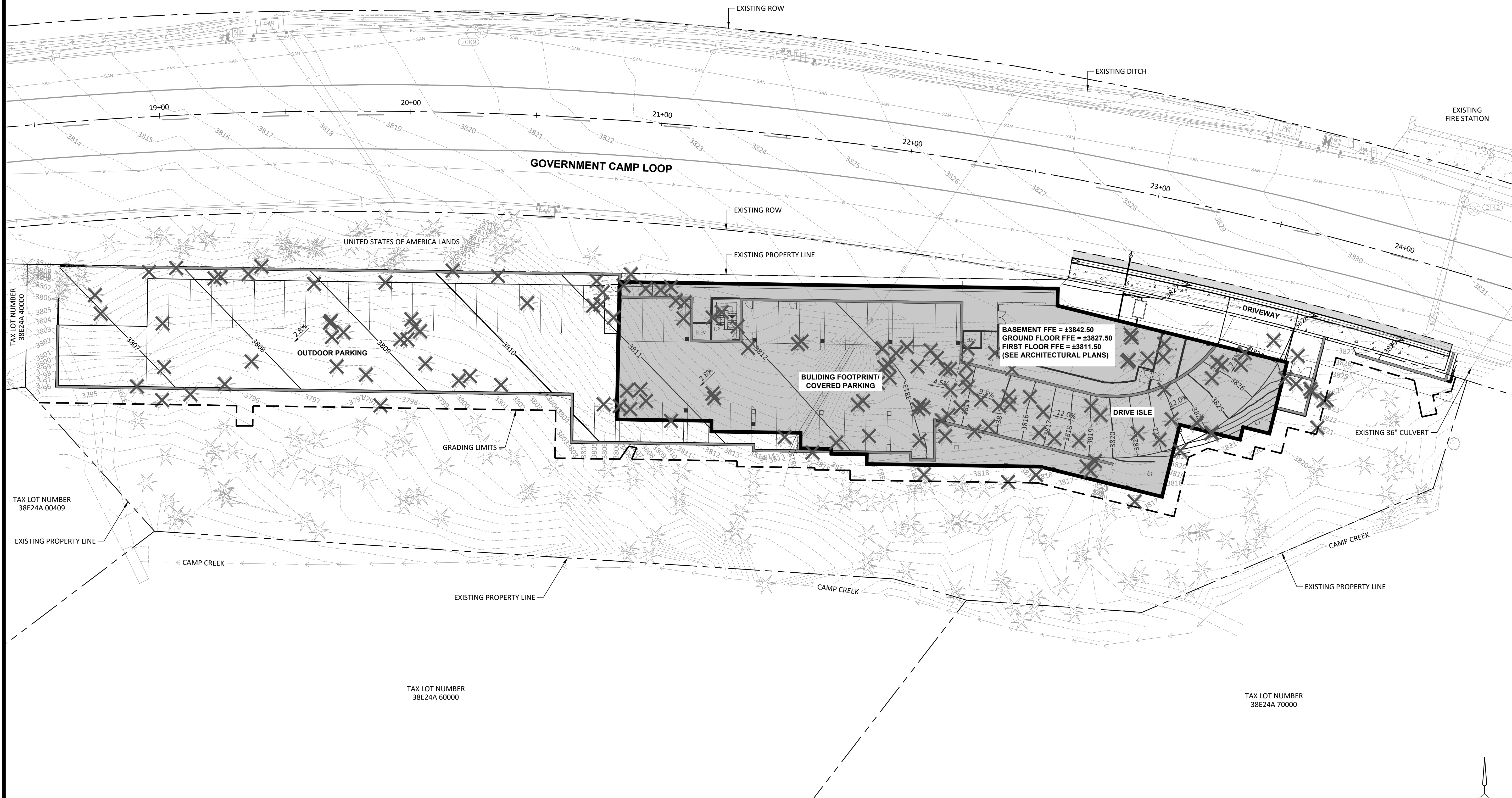
PROJECT # 2019-220  
DATE: 11/16/2022  
REVISIONS



LEGEND

- - - 100 - - - EXISTING CONTOUR
- - - 105 - - - PROPOSED MAJOR CONTOUR
- - - 101 - - - PROPOSED MINOR CONTOUR
- - - X.X% - - - PROPOSED GRADE/SLOPE
- ▬ PROPOSED WALL
- - - GRADING LIMITS
- X TREE REMOVAL

\*MINIMUM 14 FT CLEARANCE MAINTAINED FOR PARKING GARAGE ACCESS



TAX LOT NUMBER 38E24A 4000D

TAX LOT NUMBER 38E24A 00409

TAX LOT NUMBER 38E24A 60000

TAX LOT NUMBER 38E24A 70000



SCALE: 1" = 20'

LAND USE SET

SITE GRADING PLAN

# Government Camp Hotel

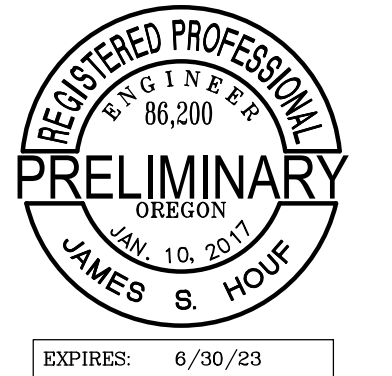
Government Camp Loop

SHEET:

# C2.0

Exhibit F – Civil Plans





IN THE EVENT CONFLICTS ARE DISCOVERED BETWEEN THE ORIGINAL SIGNED AND SEALED DOCUMENTS PREPARED BY THE ARCHITECTS AND/OR THEIR CONSULTANTS, AND ANY COPY OF THE DOCUMENTS TRANSMITTED BY MAIL, FAX, ELECTRONICALLY OR OTHERWISE, THE ORIGINAL SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

PROJECT # 2019-220 DATE: 11/16/2022 REVISIONS



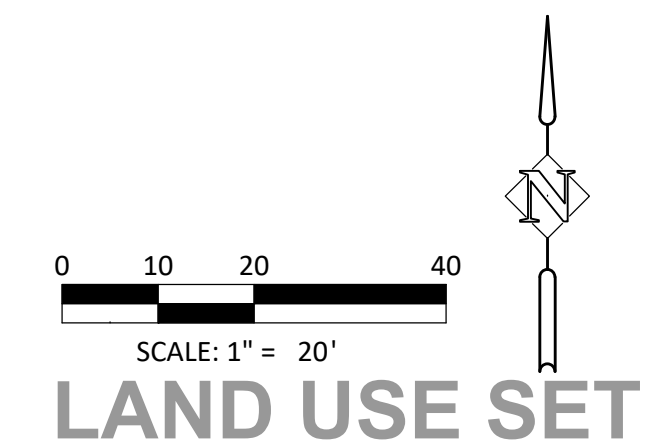
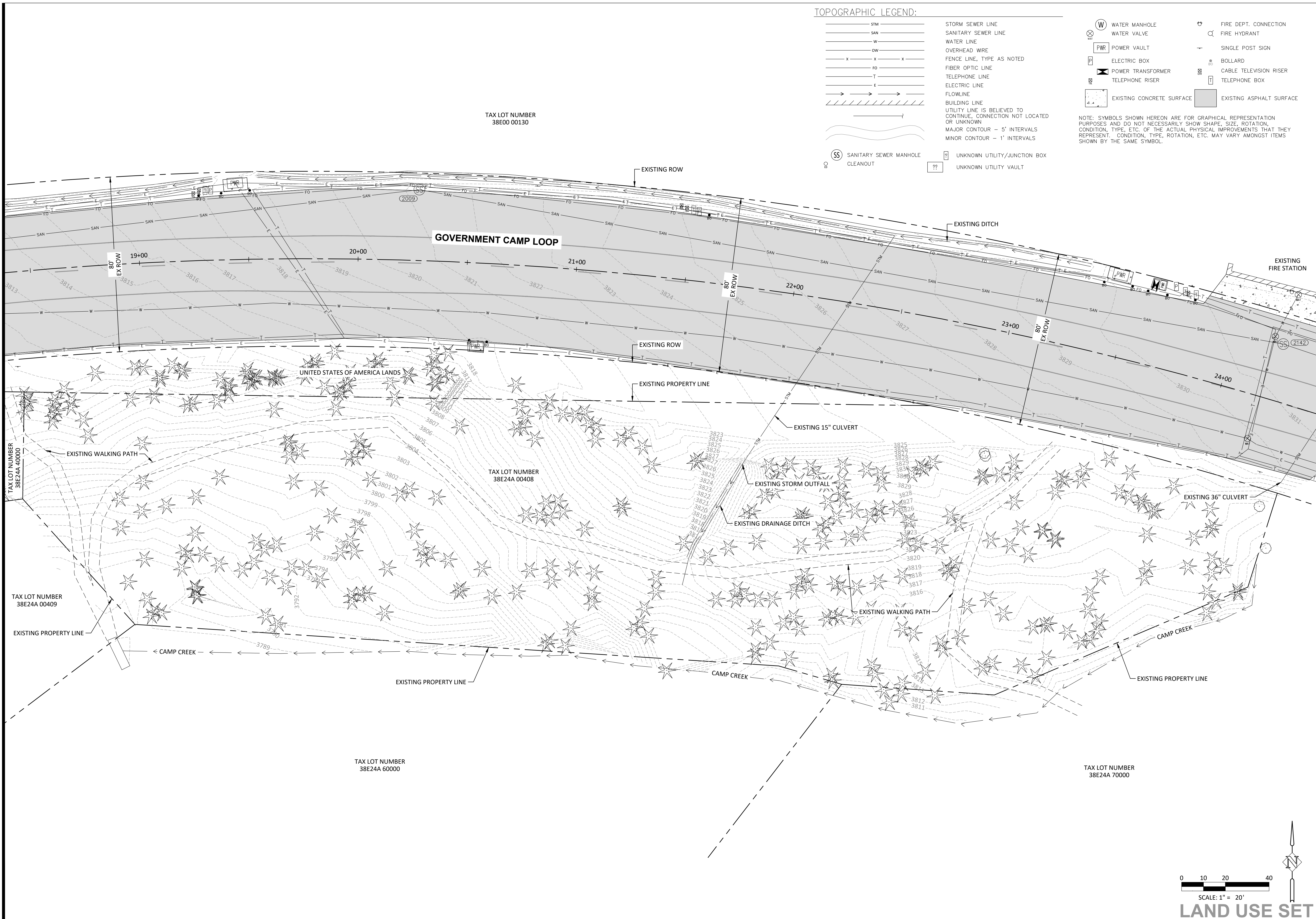
EXISTING CONDITIONS PLANS  
**Government Camp Hotel**  
Government Camp Loop

SHEET:  
**C1.0**

TOPOGRAPHIC LEGEND:

- STM STORM SEWER LINE
- SAN SANITARY SEWER LINE
- W WATER LINE
- OW OVERHEAD WIRE
- FO FENCE LINE, TYPE AS NOTED
- FO FIBER OPTIC LINE
- T TELEPHONE LINE
- E ELECTRIC LINE
- FL FLOWLINE
- B BUILDING LINE
- UL UTILITY LINE IS BELIEVED TO CONTINUE, CONNECTION NOT LOCATED OR UNKNOWN
- MC MAJOR CONTOUR - 5' INTERVALS
- MIN MINOR CONTOUR - 1' INTERVALS
- W WATER MANHOLE
- WV WATER VALVE
- PWR POWER VAULT
- EB ELECTRIC BOX
- PT POWER TRANSFORMER
- TR TELEPHONE RISER
- SCS EXISTING CONCRETE SURFACE
- AS EXISTING ASPHALT SURFACE
- FC FIRE DEPT. CONNECTION
- CH FIRE HYDRANT
- SP SINGLE POST SIGN
- BOLLARD
- CR CABLE TELEVISION RISER
- TEB TELEPHONE BOX
- SS SANITARY SEWER MANHOLE CLEANOUT
- UJ UNKNOWN UTILITY/JUNCTION BOX
- UV UNKNOWN UTILITY VAULT

NOTE: SYMBOLS SHOWN HEREON ARE FOR GRAPHICAL REPRESENTATION PURPOSES AND DO NOT NECESSARILY SHOW SHAPE, SIZE, ROTATION, CONDITION, TYPE, ETC. OF THE ACTUAL PHYSICAL IMPROVEMENTS THAT THEY REPRESENT. CONDITION, TYPE, ROTATION, ETC. MAY VARY AMONGST ITEMS SHOWN BY THE SAME SYMBOL.







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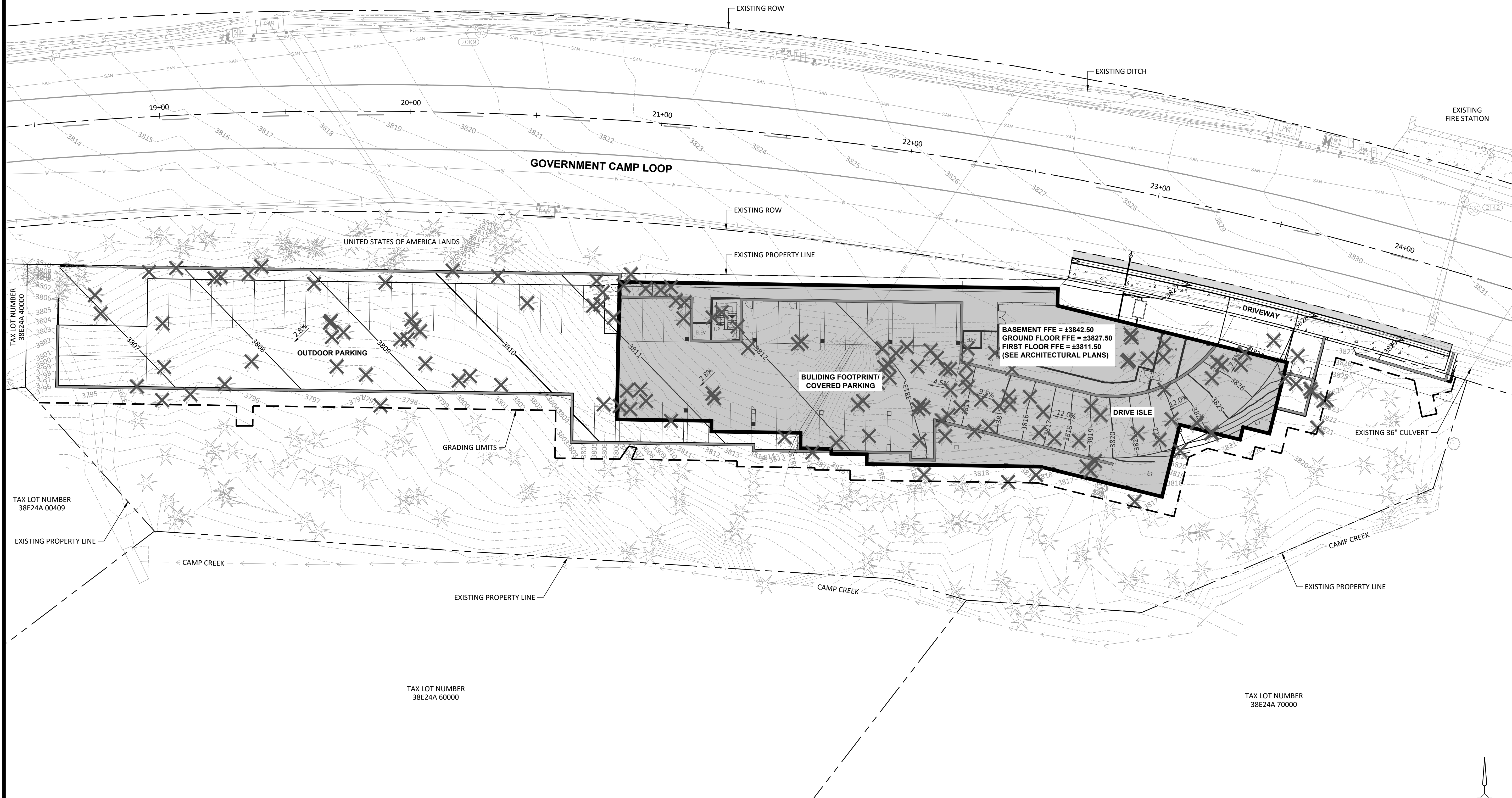
PROJECT # 2019-220  
DATE: 11/16/2022  
REVISIONS



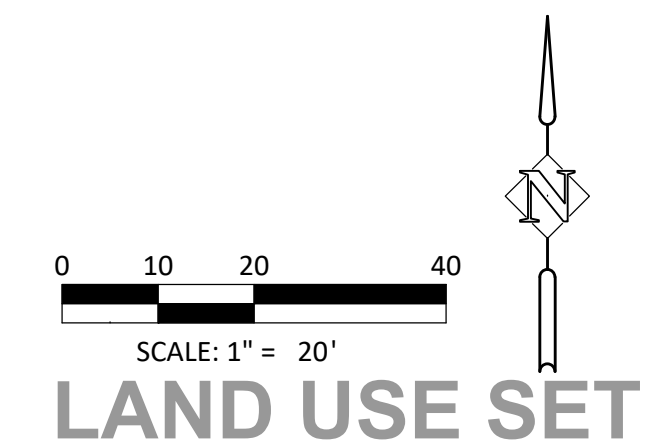
LEGEND

- 100--- EXISTING CONTOUR
- 105--- PROPOSED MAJOR CONTOUR
- 101--- PROPOSED MINOR CONTOUR
- X.X% PROPOSED GRADE/SLOPE
- █ PROPOSED WALL
- - - GRADING LIMITS
- X TREE REMOVAL

\*MINIMUM 14 FT CLEARANCE MAINTAINED FOR PARKING GARAGE ACCESS



SITE GRADING PLAN  
**Government Camp Hotel**  
Government Camp Loop



SHEET:  
**C2.0**



IN THE EVENT CONFLICTS ARE DISCOVERED BETWEEN THE ORIGINAL SIGNED AND SEALED DOCUMENTS PREPARED BY THE ARCHITECTS AND/OR THEIR CONSULTANTS, AND ANY COPY OF THE DOCUMENTS TRANSMITTED BY MAIL, FAX, ELECTRONICALLY OR OTHERWISE, THE ORIGINAL SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

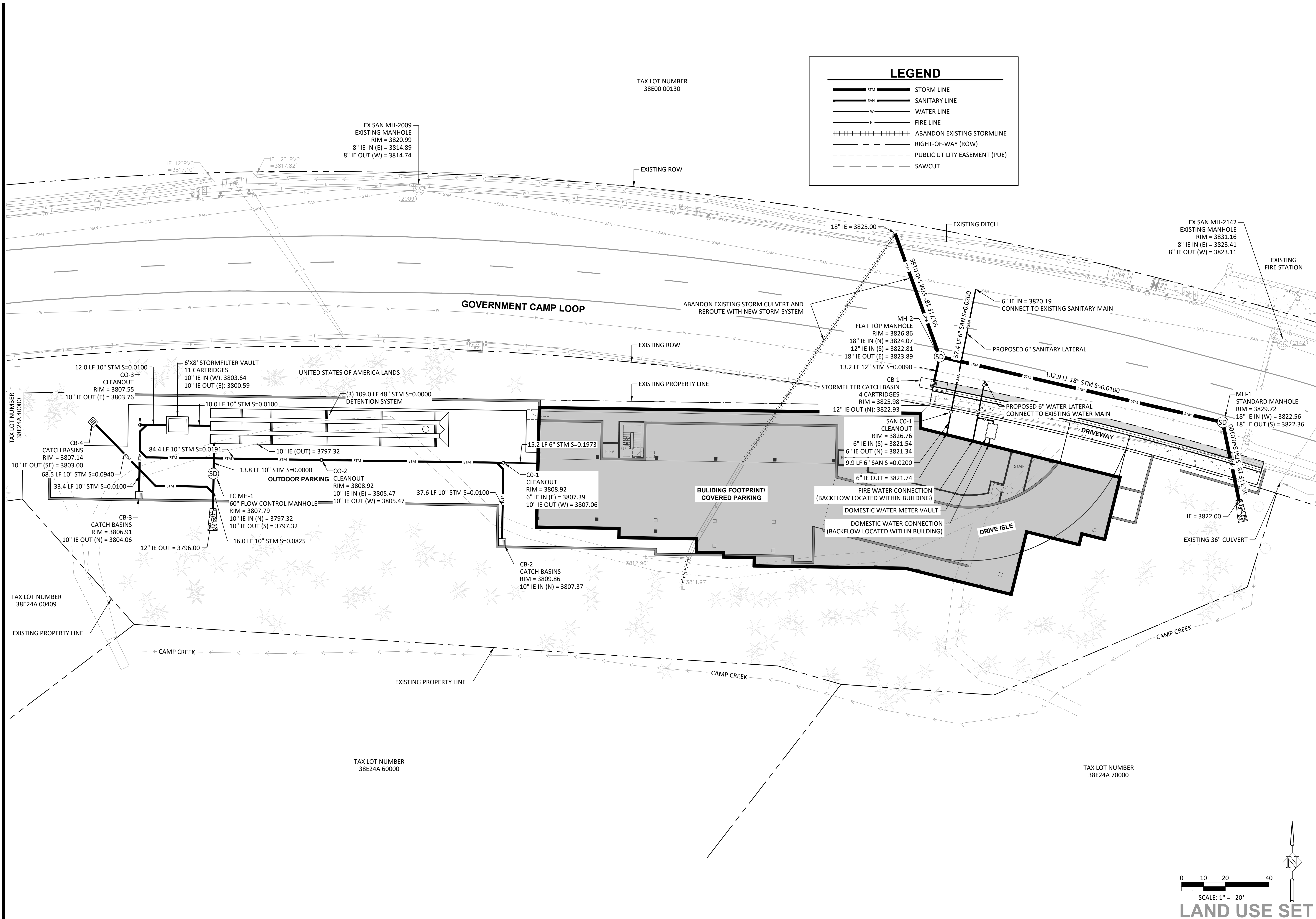
PROJECT # 2019-220  
DATE: 11/16/2022  
REVISIONS



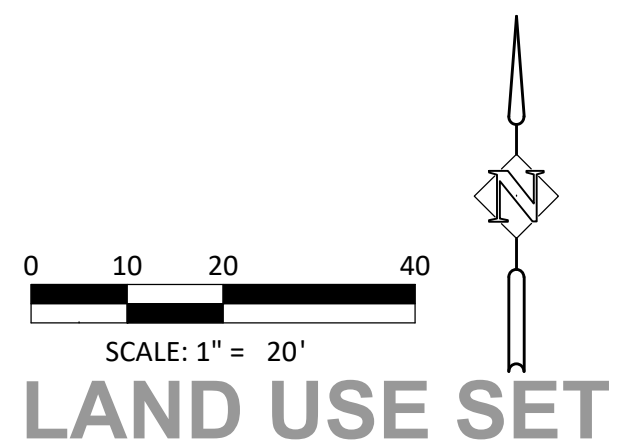
SITE UTILITY PLAN  
**Government Camp Hotel**  
Government Camp Loop

### LEGEND

- STM STORM LINE
- SAN SANITARY LINE
- W WATER LINE
- F FIRE LINE
- ABANDON EXISTING STORMLINE
- RIGHT-OF-WAY (ROW)
- PUBLIC UTILITY EASEMENT (PUE)
- SAWCUT



TAX LOT NUMBER 38E24A 40000  
TAX LOT NUMBER 38E24A 00409  
TAX LOT NUMBER 38E24A 60000  
TAX LOT NUMBER 38E24A 70000



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IN THE EVENT CONFLICTS ARE DISCOVERED BETWEEN THE ORIGINAL SIGNED AND SEALED DOCUMENTS PREPARED BY THE ARCHITECTS AND/OR THEIR CONSULTANTS, AND ANY COPY OF THE DOCUMENTS TRANSMITTED BY MAIL, FAX, ELECTRONICALLY OR OTHERWISE, THE ORIGINAL SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

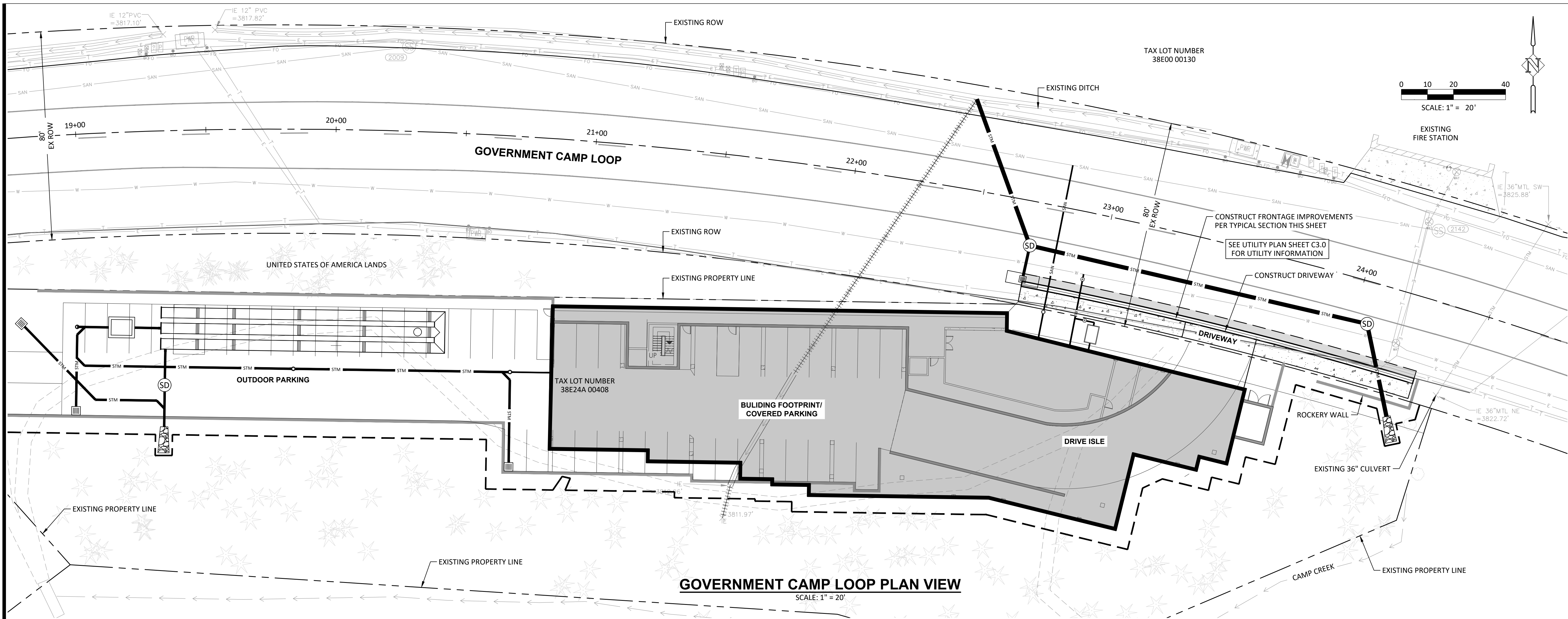
PROJECT # 2019-220 DATE: 11/16/2022 REVISIONS



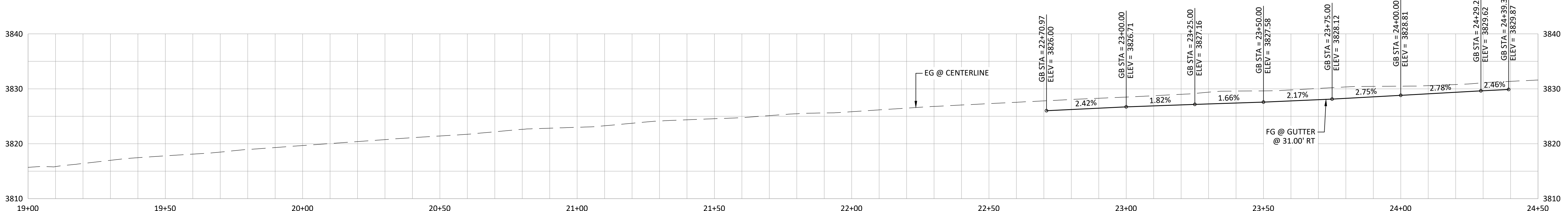
PUBLIC IMPROVEMENTS Government Camp Loop Government Camp Loop

SHEET: C4.0

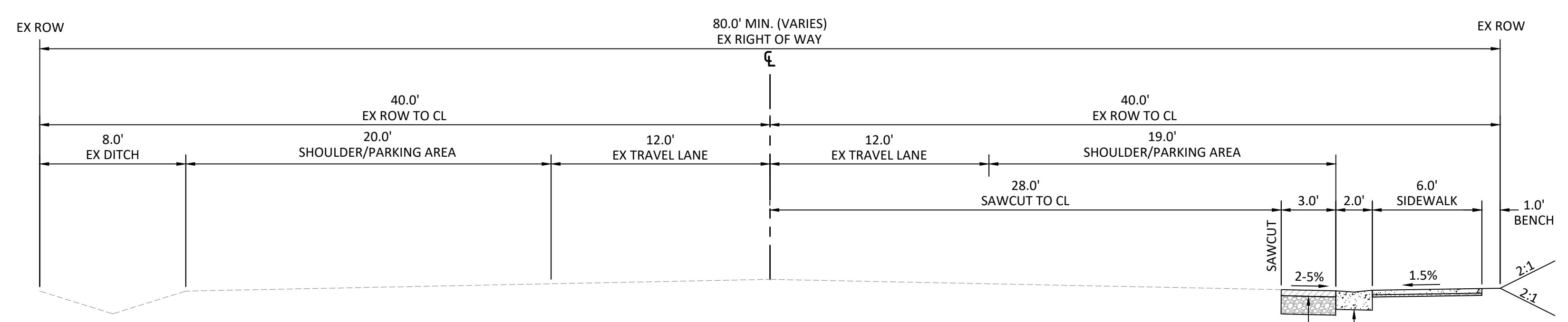
LAND USE SET



GOVERNMENT CAMP LOOP PLAN VIEW SCALE: 1" = 20'



GOVERNMENT CAMP LOOP PROFILE VIEW HORIZ. SCALE: 1" = 20' VERT. SCALE: 1" = 10'



GOVERNMENT CAMP LOOP TYPICAL SECTION SCALE: 1" = 5'



EXPIRES: 6/30/23

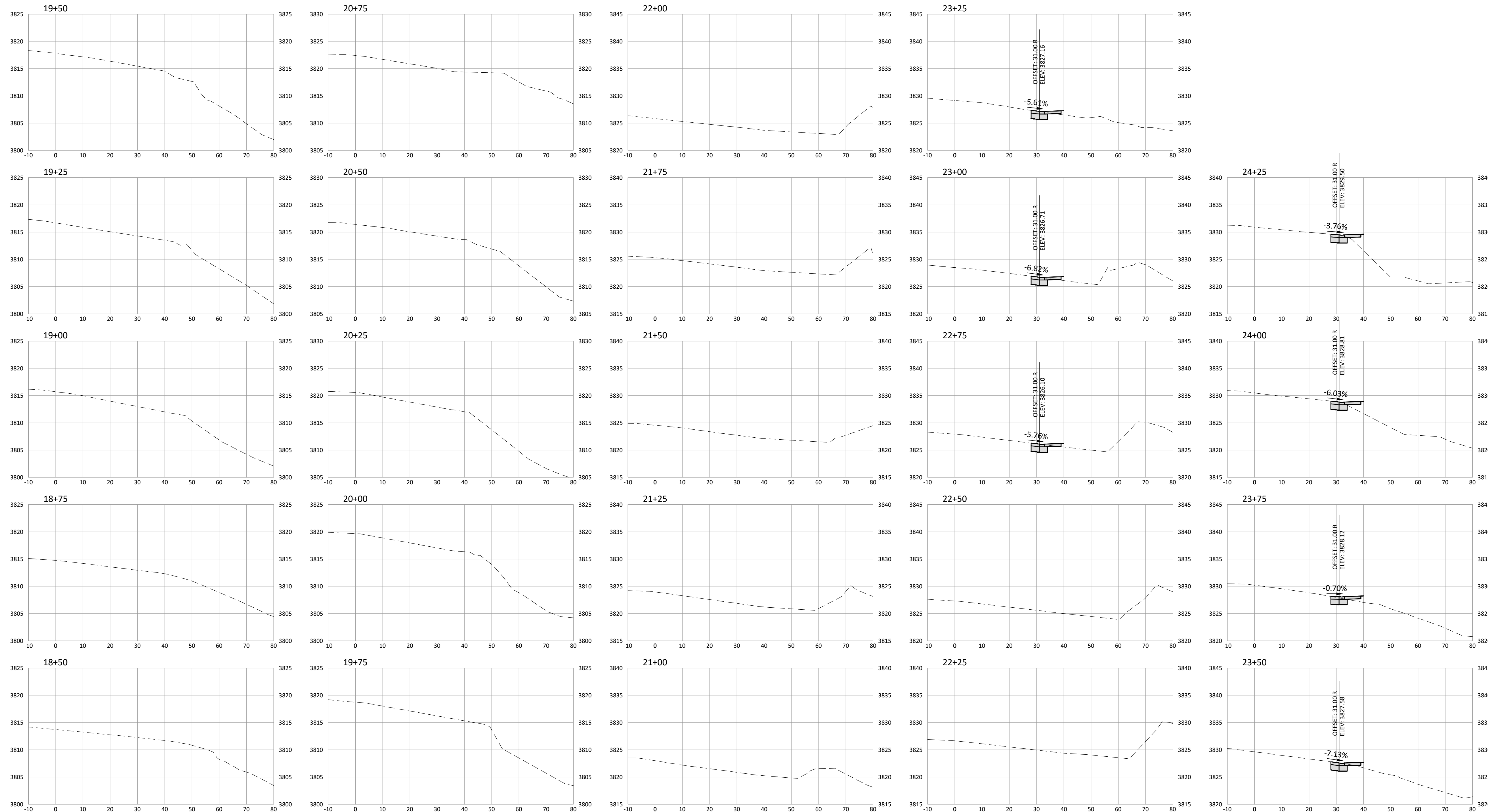
IN THE EVENT CONFLICTS ARE DISCOVERED BETWEEN THE ORIGINAL SIGNED AND SEALED DOCUMENTS PREPARED BY THE ARCHITECTS AND/OR THEIR CONSULTANTS, AND ANY COPY OF THE DOCUMENTS TRANSMITTED BY MAIL, FAX, ELECTRONICALLY OR OTHERWISE, THE ORIGINAL SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

PROJECT # 2019-220  
DATE: 11/16/2022  
REVISIONS



ENGINEERS+PLANNERS  
LANDSCAPE ARCHITECTS+SURVEYORS  
245 SE Spokane Street - Suite 200 - Portland, OR 97202  
phone: 503.221.1131 www.hhp.com fax: 503.221.1171

CROSS SECTIONS  
**Government Camp Hotel**  
Government Camp Loop



**GOVERNMENT CAMP LOOP CROSS SECTIONS**

HORIZ. SCALE: 1" = 20'  
VERT. SCALE: 1" = 10'

SHEET:

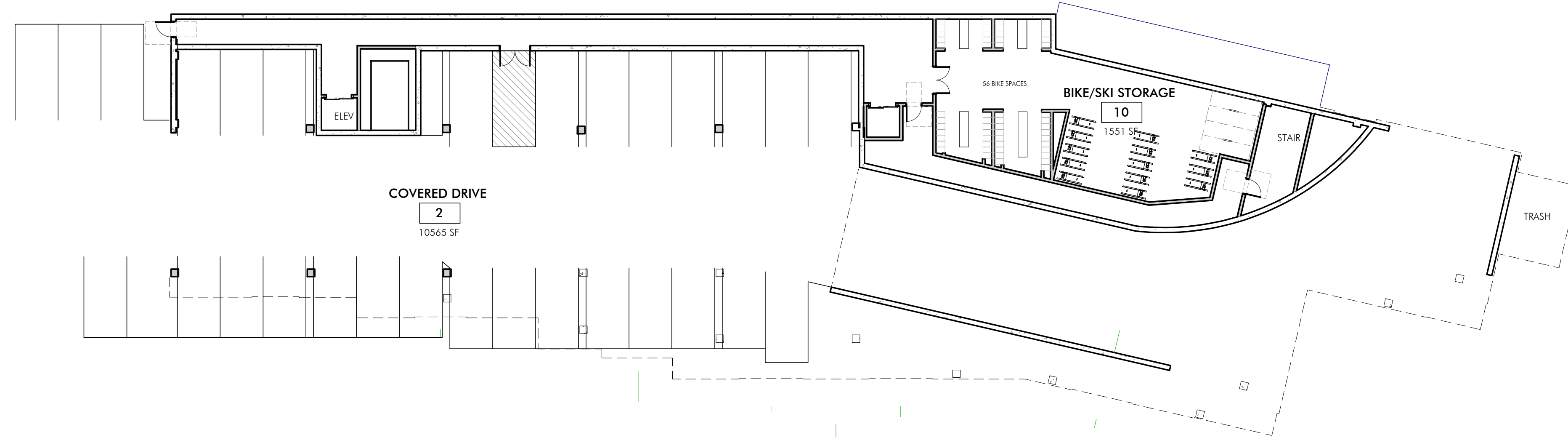
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LAND USE SET

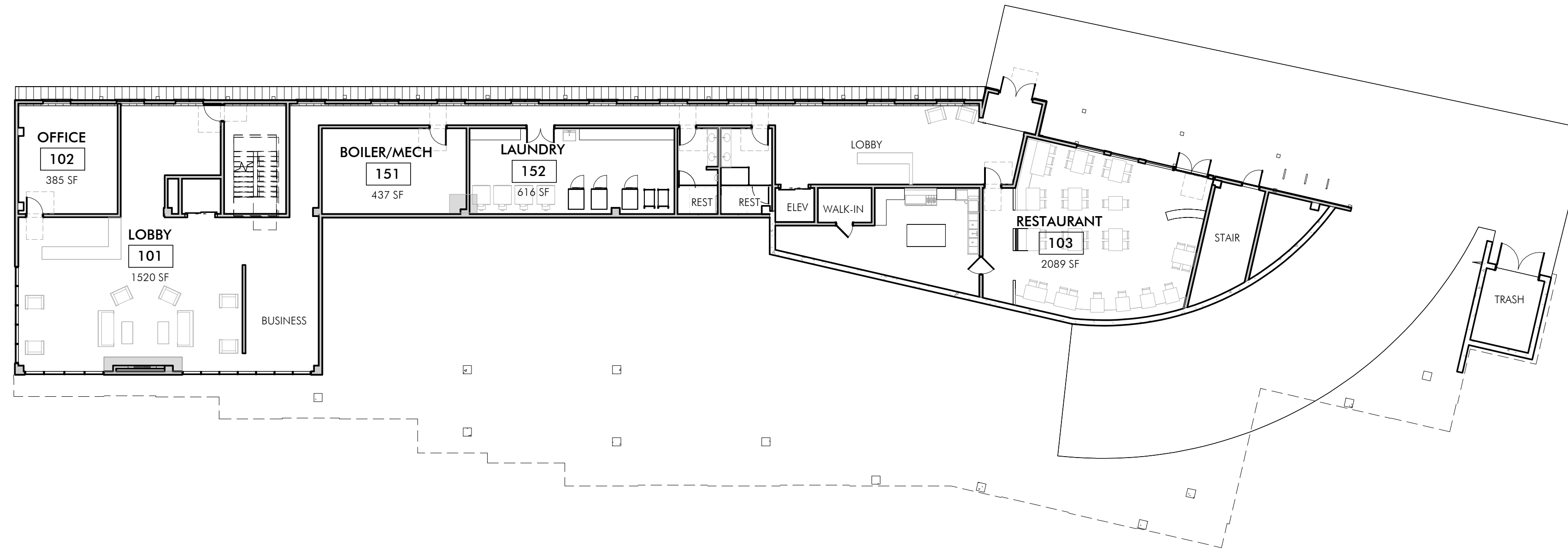
Exhibit G – Architectural Plans and Renderings



47 TOTAL UNITS:  
2/2 - 17 UNITS - 36%  
2/1 - 9 UNITS - 19%  
1/1 - 12 UNITS - 26%  
0/1 - 9 UNITS - 19%



1 BASEMENT  
0' 4' 8' 16' 24' 48' 1/16" = 1'-0"



2 LEVEL 01  
0' 4' 8' 16' 24' 48' 1/16" = 1'-0"

IN THE EVENT CONFLICTS ARE DISCOVERED BETWEEN THE ORIGINAL SIGNED AND SEALED DOCUMENTS PREPARED BY THE ARCHITECTS AND/OR THEIR CONSULTANTS, AND ANY COPY OF THE DOCUMENTS TRANSMITTED BY MAIL, FAX, ELECTRONICALLY OR OTHERWISE, THE ORIGINAL SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

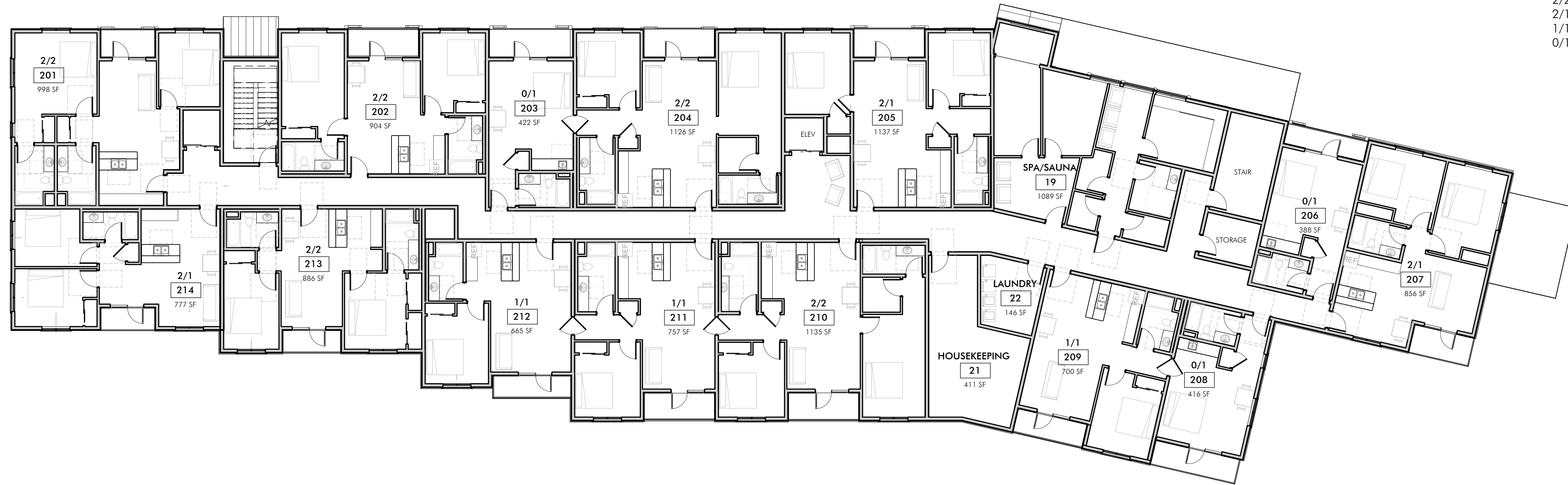
PROJECT # 2019-220  
DATE: 11/9/2022  
REVISIONS

# New Development Government Camp

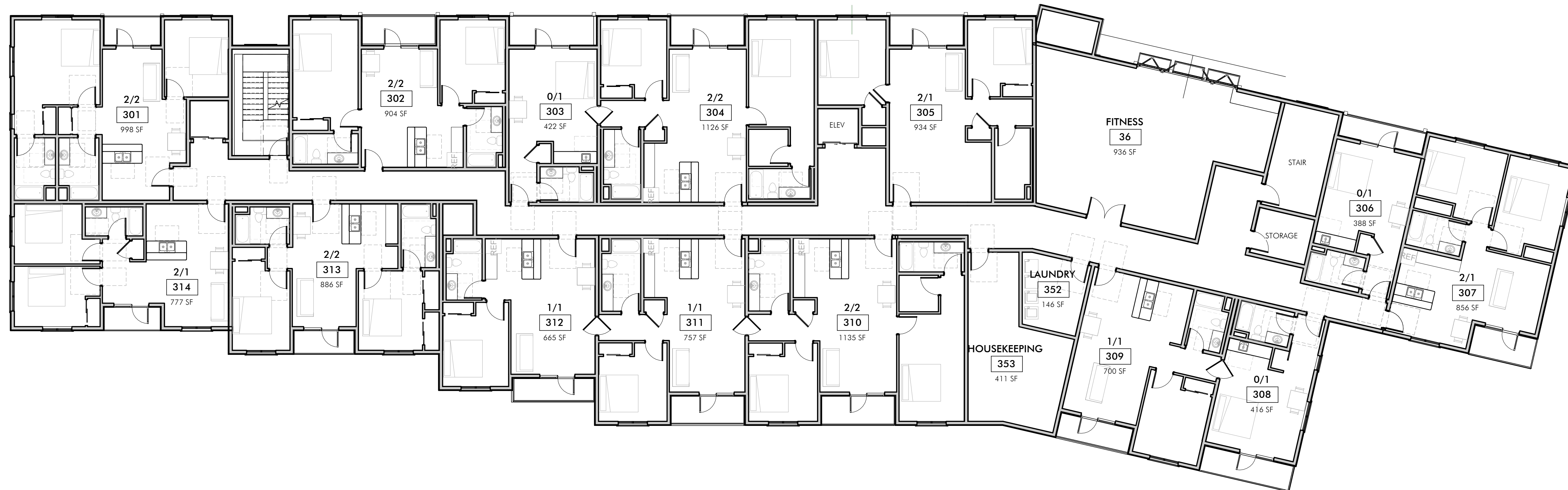
Government Camp Loop

SHEET:  
**A1.21**

47 TOTAL UNITS:  
2/2 - 17 UNITS - 36%  
2/1 - 9 UNITS - 19%  
1/1 - 12 UNITS - 26%  
0/1 - 9 UNITS - 19%



1 LEVEL 02  
0' 4' 8' 16' 24' 48' 3/32" = 1'-0"



3 LEVEL 03  
0' 4' 8' 16' 24' 48' 3/32" = 1'-0"

IN THE EVENT CONFLICTS ARE DISCOVERED  
BETWEEN THE ORIGINAL SIGNED AND SEALED  
DOCUMENTS PREPARED BY THE ARCHITECTS  
AND/OR THEIR CONSULTANTS, AND ANY COPY OF  
THE DOCUMENTS TRANSMITTED BY MAIL, FAX,  
ELECTRONICALLY OR OTHERWISE, THE ORIGINAL  
SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

PROJECT # 2019-220  
DATE: 11/9/2022  
REVISIONS

# New Development Government Camp

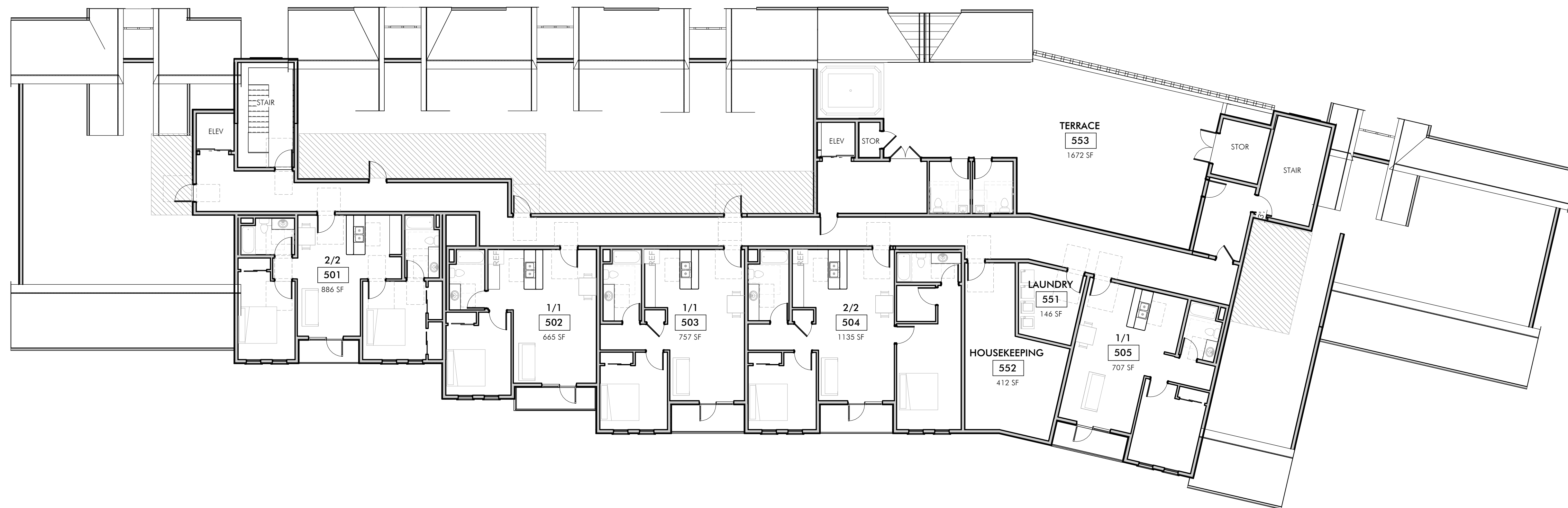
Government Camp Loop



47 TOTAL UNITS:  
2/2 - 17 UNITS - 36%  
2/1 - 9 UNITS - 19%  
1/1 - 12 UNITS - 26%  
0/1 - 9 UNITS - 19%



1 LEVEL 04  
0' 4' 8' 16' 24' 48' 3/32" = 1'-0"



3 LEVEL 05  
0' 4' 8' 16' 24' 48' 3/32" = 1'-0"

IN THE EVENT CONFLICTS ARE DISCOVERED BETWEEN THE ORIGINAL SIGNED AND SEALED DOCUMENTS PREPARED BY THE ARCHITECTS AND/OR THEIR CONSULTANTS, AND ANY COPY OF THE DOCUMENTS TRANSMITTED BY MAIL, FAX, ELECTRONICALLY OR OTHERWISE, THE ORIGINAL SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

PROJECT # 2019-220  
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REVISIONS

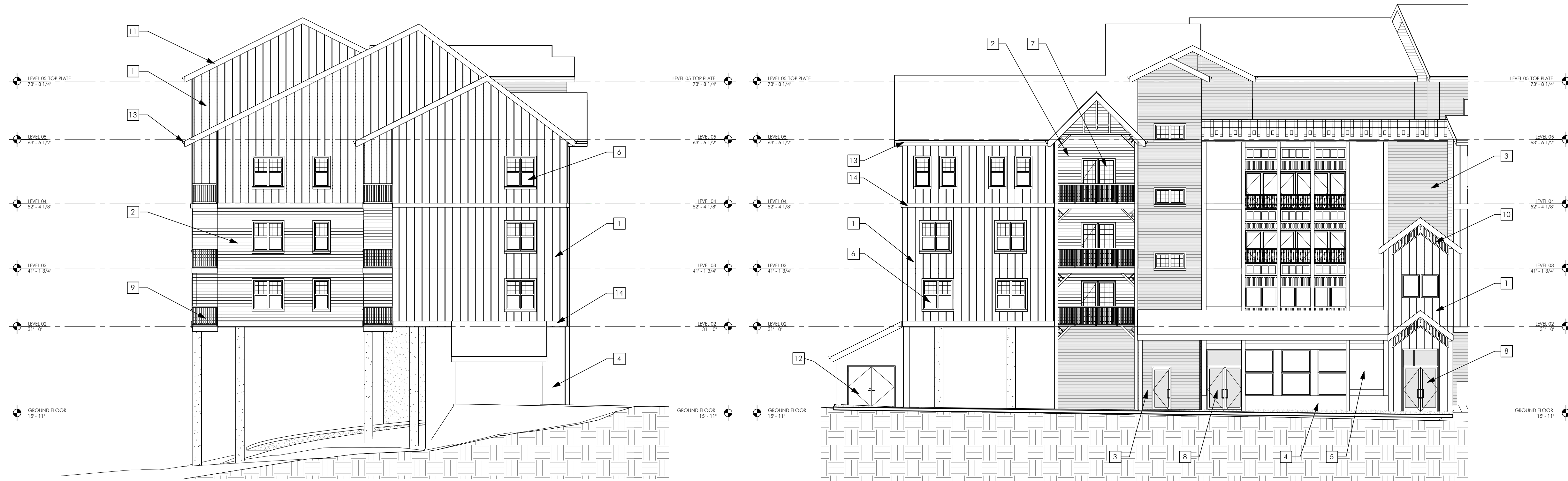
# New Development Government Camp

Government Camp Loop



ELEVATION NOTES:

- 1 BOARD AND BATTEN SIDING
- 2 FIBER CEMENT LAP SIDING. COLOR 1.
- 3 FIBER CEMENT LAP SIDING. COLOR 2.
- 4 CULTURED STONE BASE.
- 5 CEDAR SHAKE SIDING.
- 6 VINYL WINDOW.
- 7 VINYL BALCONY DOOR.
- 8 STOREFRONT.
- 9 BALCONY RAILING.
- 10 DECORATIVE WOOD DETAILING.
- 11 STANDING SEAM METAL ROOFING.
- 12 HOLLOW METAL DOOR.
- 13 PRE-FINISHED METAL GUTTER.
- 14 PAINTED, WOOD FRAME BELLYBAND.



**1** East Elevation  
0' 4' 8' 12' 16' 24' 32' 3/32" = 1'-0"

**2** Northeast Elevation  
0' 4' 8' 12' 16' 24' 32' 3/32" = 1'-0"



**3** North Elevation  
0' 4' 8' 12' 16' 24' 32' 3/32" = 1'-0"

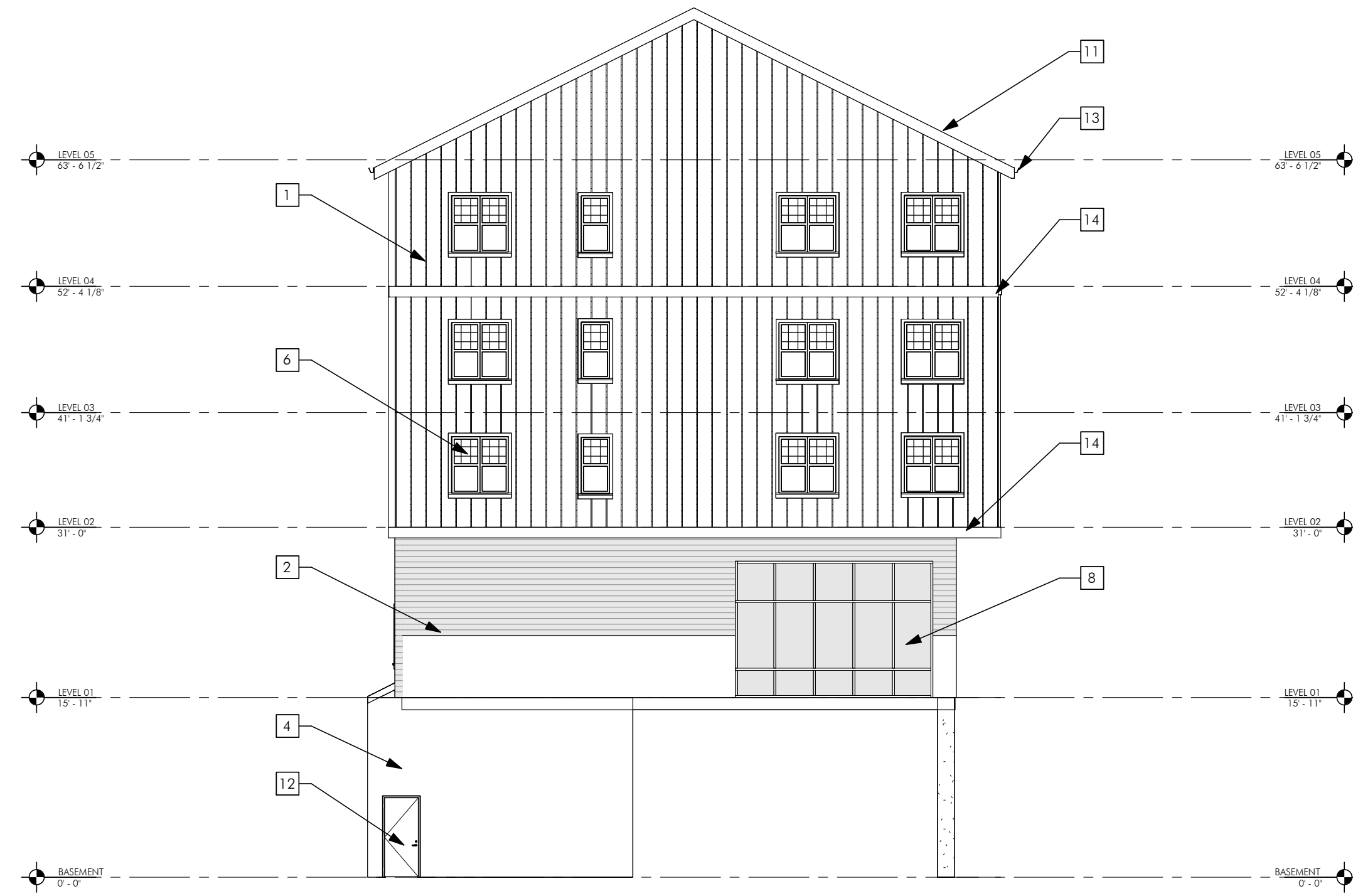
**New Development**  
**Government Camp**  
Government Camp Loop

IN THE EVENT CONFLICTS ARE DISCOVERED BETWEEN THE ORIGINAL SIGNED AND SEALED DOCUMENTS PREPARED BY THE ARCHITECTS AND/OR THEIR CONSULTANTS, AND ANY COPY OF THE DOCUMENTS TRANSMITTED BY MAIL, FAX, ELECTRONICALLY OR OTHERWISE, THE ORIGINAL SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

PROJECT # 2019-220  
DATE: 11/9/2022  
REVISIONS

ELEVATION NOTES:

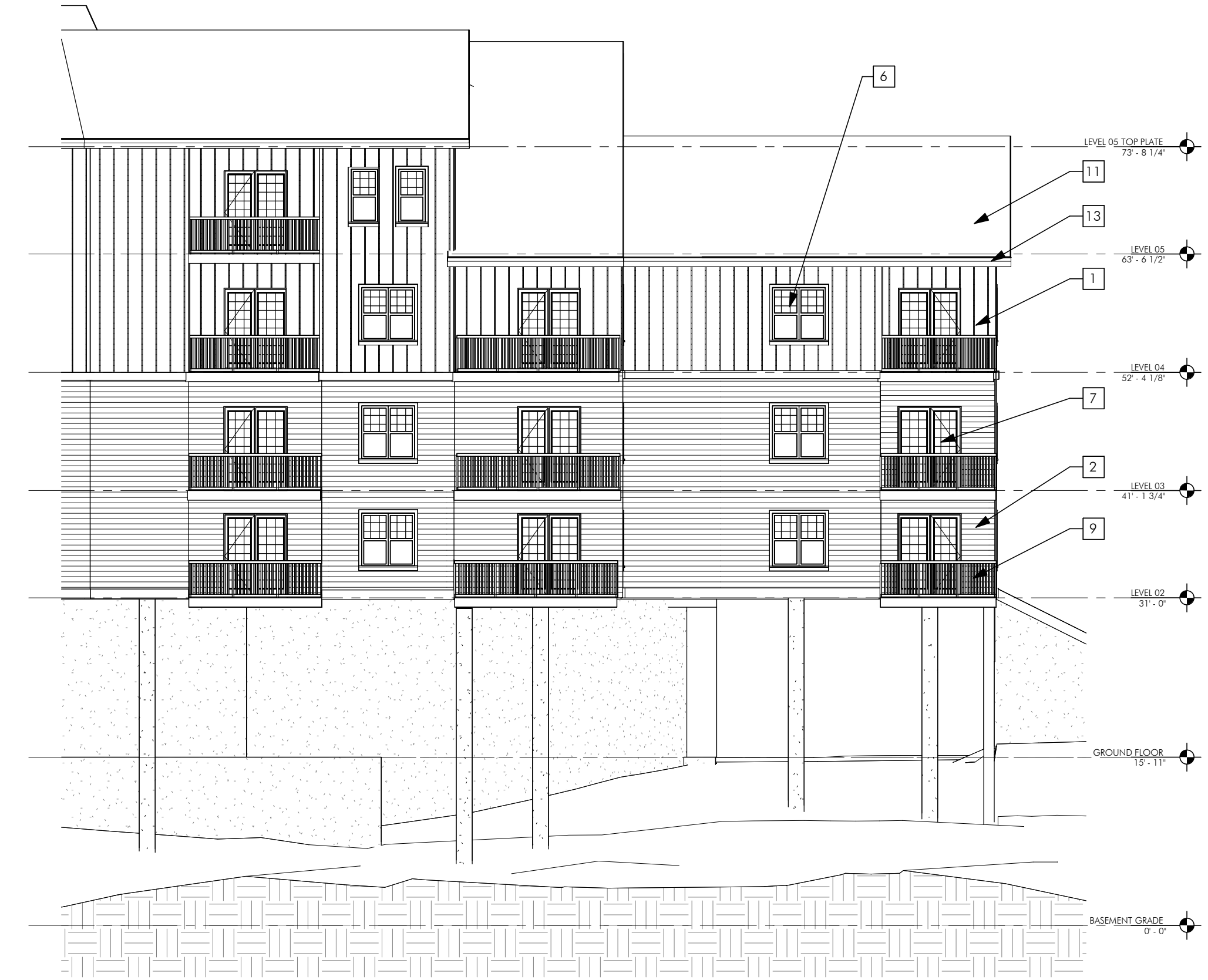
- 1 BOARD AND BATTEN SIDING
- 2 FIBER CEMENT LAP SIDING. COLOR 1.
- 3 FIBER CEMENT LAP SIDING. COLOR 2.
- 4 CULTURED STONE BASE.
- 5 CEDAR SHAKE SIDING.
- 6 VINYL WINDOW.
- 7 VINYL BALCONY DOOR.
- 8 STOREFRONT.
- 9 BALCONY RAILING.
- 10 DECORATIVE WOOD DETAILING.
- 11 STANDING SEAM METAL ROOFING.
- 12 HOLLOW METAL DOOR.
- 13 PRE-FINISHED METAL GUTTER.
- 14 PAINTED, WOOD FRAME BELLYBAND.



**1** West Elevation  
0' 4' 8' 12' 16' 24' 32' 3/32" = 1'-0"



**2** South Elevation  
0' 4' 8' 12' 16' 24' 32' 3/32" = 1'-0"



**3** Southwest Elevation  
0' 4' 8' 12' 16' 24' 32' 3/32" = 1'-0"

**New Development**  
**Government Camp**  
Government Camp Loop



























Exhibit H – General Landscaping Plan

P:\01-Portland\MHD (Mt Hood Development)\MHD-01 (Mt Hood Lodges Development)\MHD01-DWG\SS\Exhibits\Stream Conservation Area\MHD01-SCA-Landscape Plan.dwg  
 TAX LOT NUMBER 38E24A 40000

**LEGEND**

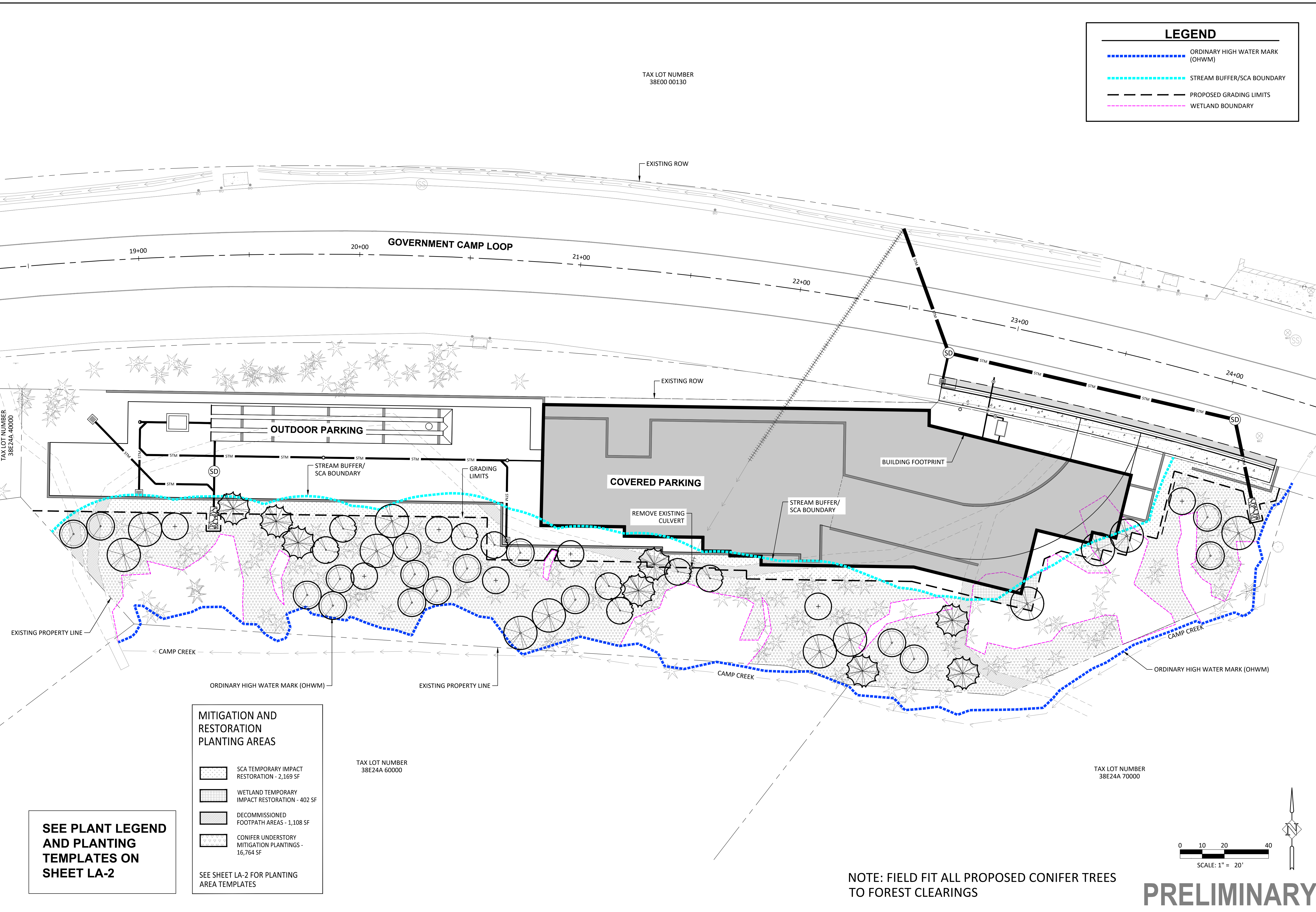
-  ORDINARY HIGH WATER MARK (OHWM)
-  STREAM BUFFER/SCA BOUNDARY
-  PROPOSED GRADING LIMITS
-  WETLAND BOUNDARY

**MITIGATION AND RESTORATION PLAN**  
**MT HOOD LODGES DEVELOPMENT**  
 GOVERNMENT CAMP, OREGON





**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS & PLANNERS  
 LANDSCAPE ARCHITECTS & SURVEYORS  
 206 SE Spokane Street, Suite 200, Portland, OR 97202  
 phone: 503.221.1131 www.hhpr.com fax: 503.221.1171

DESIGNED:	DATE:	11-2-2022
DRAWN:	CHECKED:	
R E V I S I O N S		
DATE	NO.	DESCRIPTION

SHEET NO. **LA-1**  
 JOB NO. MHD-01



**MITIGATION AND RESTORATION PLANTING AREAS**

-  SCA TEMPORARY IMPACT RESTORATION - 2,169 SF
-  WETLAND TEMPORARY IMPACT RESTORATION - 402 SF
-  DECOMMISSIONED FOOTPATH AREAS - 1,108 SF
-  CONIFER UNDERSTORY MITIGATION PLANTINGS - 16,764 SF

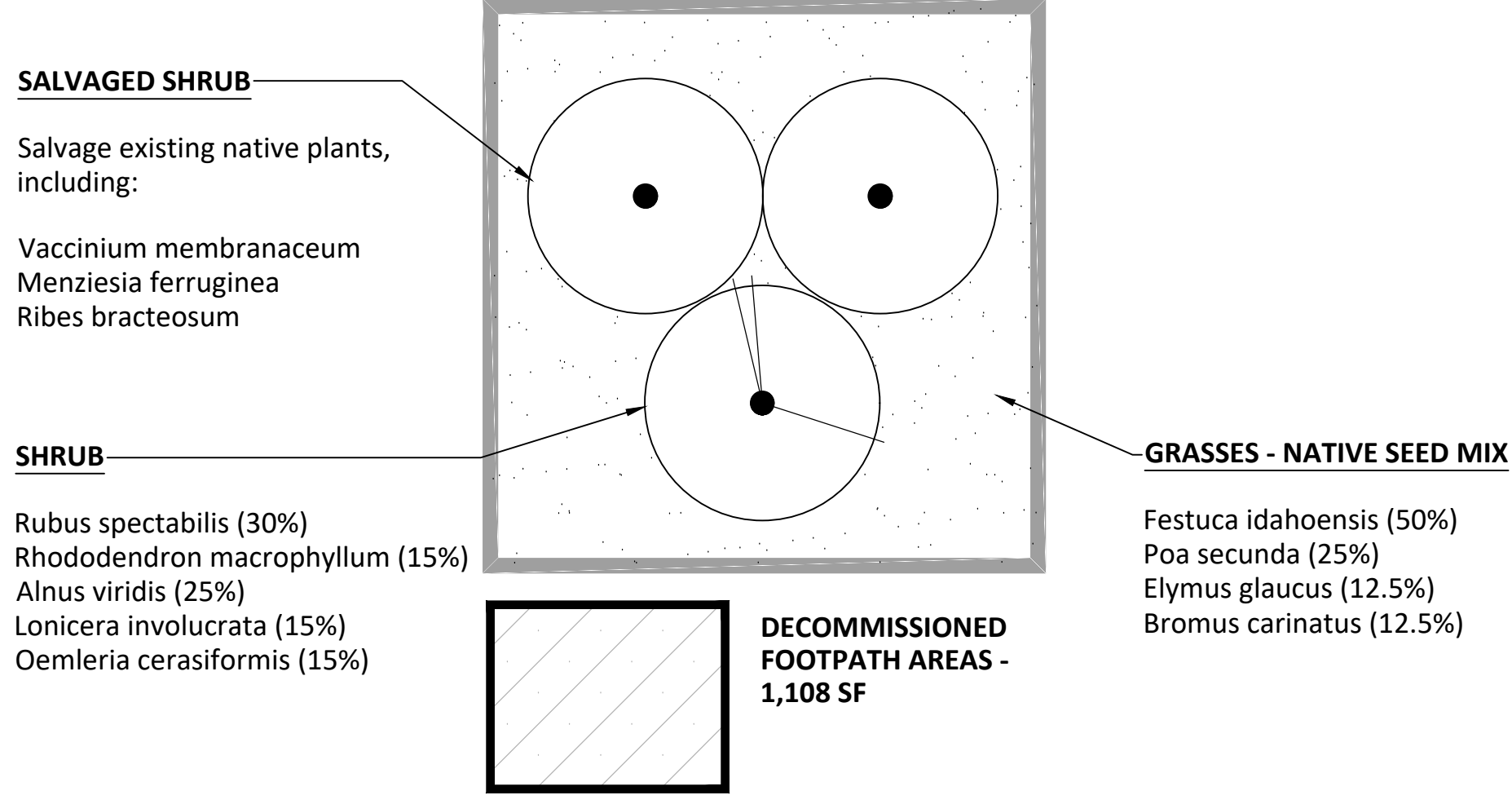
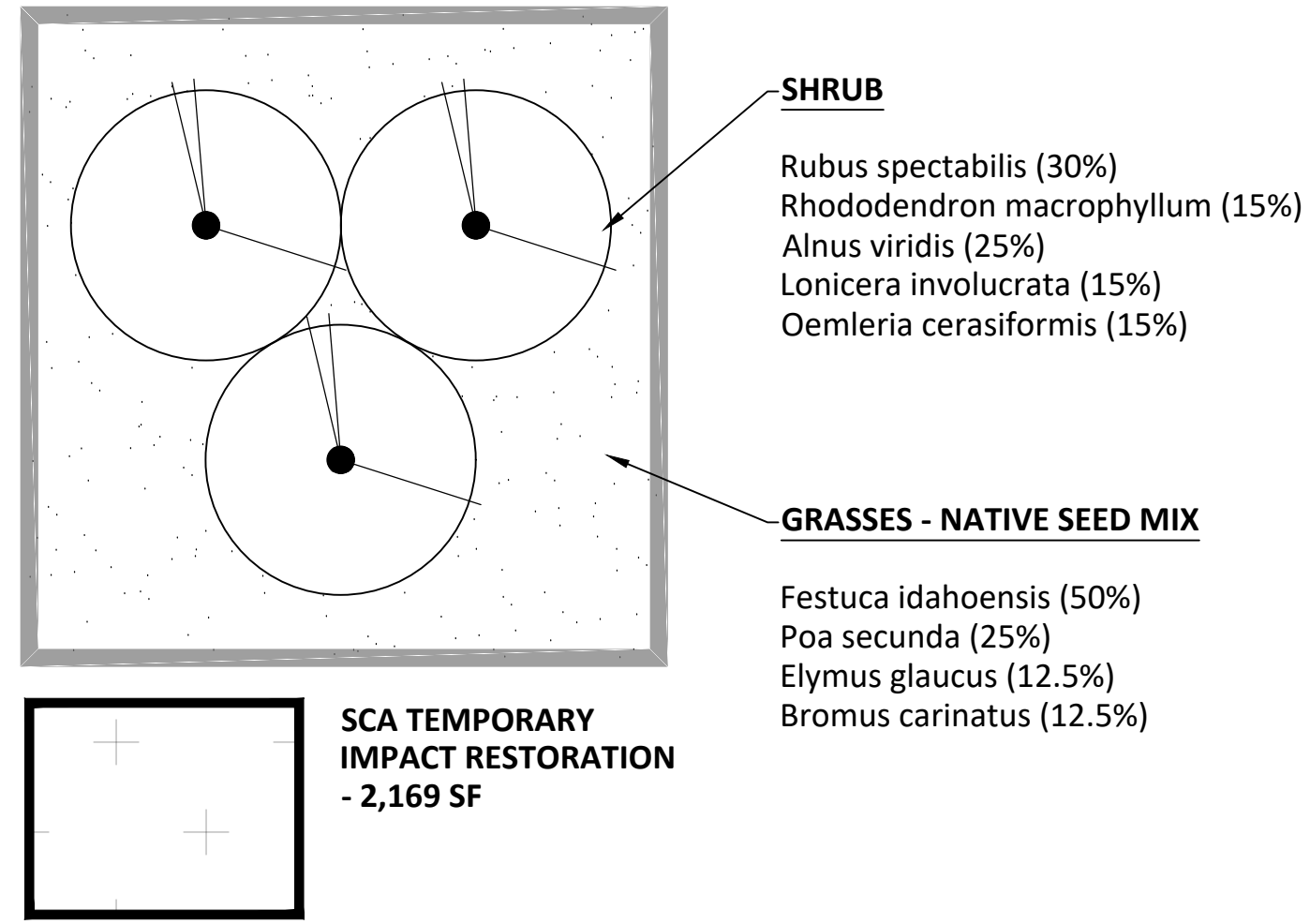
SEE SHEET LA-2 FOR PLANTING AREA TEMPLATES

**SEE PLANT LEGEND AND PLANTING TEMPLATES ON SHEET LA-2**

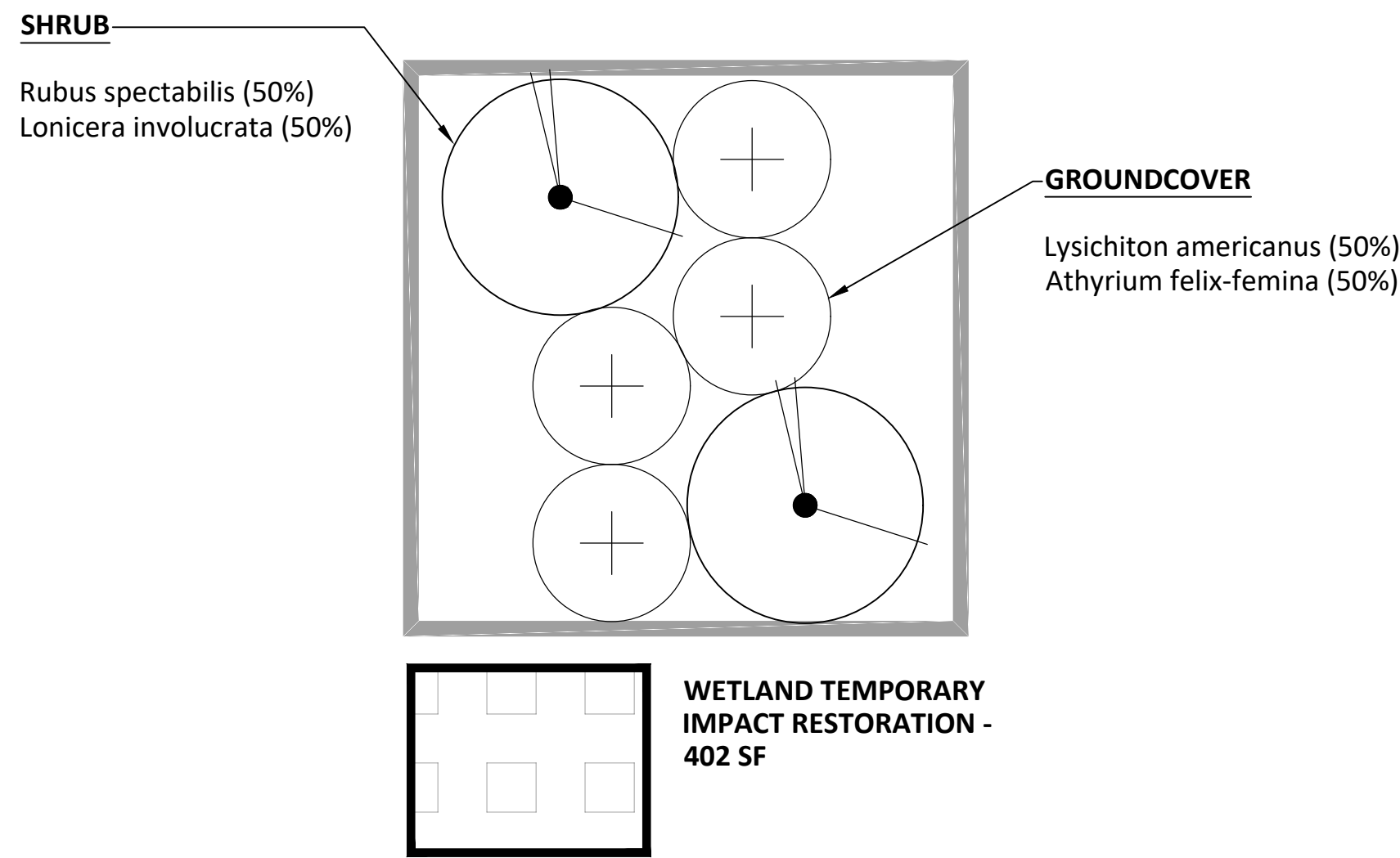
NOTE: FIELD FIT ALL PROPOSED CONIFER TREES TO FOREST CLEARINGS

**PRELIMINARY**

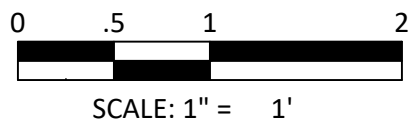




TOTAL SHRUB QUANTITIES PER AREA	
SCA TEMPORARY IMPACT RESTORATION	PROPOSED SHRUBS = 130 NATIVE SEED MIX = 723 SF
WETLAND TEMPORARY IMPACT RESTORATION	PROPOSED SHRUBS = 16 PROPOSED GROUNDCOVER = 48
DECOMMISSIONED FOOTPATH AREAS	PROPOSED SHRUBS = 22 SALVAGED SHRUBS = 44 NATIVE SEED MIX = 370 SF



PLANTING AREA TEMPLATES, 50 SF TYPICAL



**PLANT SCHEDULE:**

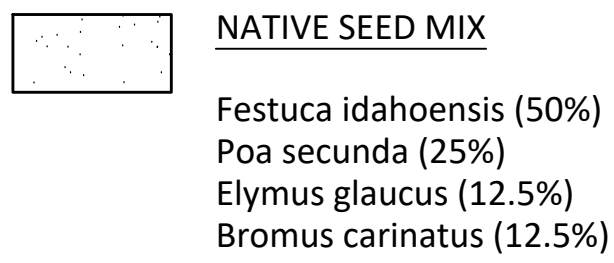
SCA PERMANENT IMPACT RESTORATION

TREES	SCA TEMPORARY IMPACT RESTORATION + DECOMMISSIONED FOOTPATH AREAS
5 Abies grandis - Grand Fir 18" HGT. PLUG	3 Abies grandis - Grand Fir 18" HGT. PLUG
10 Thuja plicata - Western Red Cedar 18" HGT. PLUG	1 Thuja plicata - Western Red Cedar 18" HGT. PLUG
7 Chamaecyparis nootkatensis - Alaska Cedar 18" HGT. PLUG	1 Chamaecyparis nootkatensis - Alaska Cedar 18" HGT. PLUG
17 Tsuga heterophylla - Western Hemlock 18" HGT. PLUG	1 Tsuga heterophylla - Western Hemlock 18" HGT. PLUG
14 Picea sitchensis - Sitka Spruce 18" HGT. PLUG	5 Picea sitchensis - Sitka Spruce 18" HGT. PLUG

SCA TEMPORARY IMPACT RESTORATION + DECOMMISSIONED FOOTPATH AREAS

TREES	SHRUBS
3 Abies grandis - Grand Fir 18" HGT. PLUG	46 Rubus spectabilis - Salmonberry 1 GAL CONT., FULL PLANTS, SPACING AS SHOWN
1 Thuja plicata - Western Red Cedar 18" HGT. PLUG	23 Rhododendron macrophyllum - Pacific Rhododendron 1 GAL CONT., FULL PLANTS, SPACING AS SHOWN
1 Chamaecyparis nootkatensis - Alaska Cedar 18" HGT. PLUG	38 Alnus viridis - Sitka Alder 1 GAL CONT., FULL PLANTS, SPACING AS SHOWN
1 Tsuga heterophylla - Western Hemlock 18" HGT. PLUG	23 Lonicera involucrata - Black Twinberry 1 GAL CONT., FULL PLANTS, SPACING AS SHOWN
5 Picea sitchensis - Sitka Spruce 18" HGT. PLUG	22 Oemleria cerasiformis - Indian Plum 1 GAL CONT., FULL PLANTS, SPACING AS SHOWN

**NOTE: SALVAGE EXISTING NATIVE SHRUBS FROM CONSTRUCTION AREA (ROUGHLY 44 SHRUBS)**



WETLAND TEMPORARY IMPACT RESTORATION

SHRUBS	GROUNDCOVERS
3 Thuja plicata - Western Red Cedar 18" HGT. PLUG	24 Lysichiton americanus - Western Skunk Cabbage 1 GAL CONT., FULL PLANTS, SPACING AS SHOWN
8 Rubus spectabilis - Salmonberry 1 GAL CONT., FULL PLANTS, SPACING AS SHOWN	
8 Lonicera involucrata - Black Twinberry 1 GAL CONT., FULL PLANTS, SPACING AS SHOWN	

DESIGNED:	DATE: 11-2-2022							
DRAWN:								
CHECKED:								
DATE:								
R	E	V	I	S	I	O	N	S
DATE	NO.	DESCRIPTION						

**PRELIMINARY**



Exhibit I – Deed

FILED  
MAY 18 2022  
OREGON SECRETARY OF STATE



## Corporation/Limited Liability Company - Information Change

In accordance with Oregon Revised Statute 192.410-192.490, the information on this application is public record. We must release this information to all parties upon request and it will be posted on our website.

**Documents are processed within 5-7 business days. If the filing is rejected, you will receive an email.**

**Registry Number**  
262886-96

**Entity type**  
Domestic

**Business Type**  
Limited Liability Company

**Name of Limited Liability Company**  
Mt. Hood, LLC II

## Information Update

**Business Activity**  
No

---

**Principal Place of Business Address**  
No

---

**Registered Agent or their address**  
Yes

**The Registered Agent has been changed to:**  
HL Oregon, LLC

**Registered Agent's publicly available Oregon street address**  
1125 NW Couch St Ste 550, Portland, Oregon 97209

**The new Registered Agent has consented to this appointment.**



Yes

**The street address of the new registered office and the business address of the registered agent are identical. The entity has been notified in writing of this change.**

Yes

---

**Mailing Address where we send notices**

Yes

**Address where we can send mail notices:**

1125 NW Couch St Ste 550, Portland, Oregon 97209

---

**Members or Managers**

No

EXECUTION: I declare as an authorized signer, under penalty of perjury, that this document does not fraudulently conceal, obscure, alter, or otherwise misrepresent the identity of any person including officers, directors, employees, members, managers or agents. This filing has been examined by me and is, to the best of my knowledge and belief, true, correct and complete. Making false statements in this document is against the law and may be penalized by fines, imprisonment, or both.

**Signature**

**Name**

Authorized Agent Sonja Kindley



**Contact name (to resolve questions with this filing)**

Sonja Kindley

**Phone of person to contact to resolve questions with this filing.**

(503) 303-3101

# AMENDED ANNUAL REPORT



Corporation Division  
[www.filinginoregon.com](http://www.filinginoregon.com)

**E-FILED**  
Jul 21, 2022  
**OREGON SECRETARY OF STATE**

---

**REGISTRY NUMBER**

79425295

**REGISTRATION DATE**

08/18/2011

**BUSINESS NAME**

YOSHIDA MANAGEMENT, LLC

**BUSINESS**

HOLD OWNERSHIP INTEREST

**MAILING ADDRESS**

1125 NW COUCH ST  
STE 550  
PORTLAND OR 97209 USA

**TYPE**

DOMESTIC LIMITED LIABILITY COMPANY

**PRIMARY PLACE OF BUSINESS**

8440 NE ALDERWOOD RD STE A  
PORTLAND OR 97220 USA

**JURISDICTION**

OREGON

**REGISTERED AGENT**

133989897 - HL OREGON, LLC

1125 NW COUCH ST  
STE 550  
PORTLAND OR 97209 USA

If the Registered Agent has changed, the new agent has consented to the appointment.

**MANAGER**

JUNKI YOSHIDA

8440 NE ALDERWOOD RD STE A  
PORTLAND OR 97220 USA

**MANAGER**

JESUS SOLIS

8440 NE ALDERWOOD RD STE A  
PORTLAND OR 97220 USA



I declare, under penalty of perjury, that this document does not fraudulently conceal, fraudulently obscure, fraudulently alter or otherwise misrepresent the identity of the person or any officers, managers, members or agents of the limited liability company on behalf of which the person signs. This filing has been examined by me and is, to the best of my knowledge and belief, true, correct, and complete. Making false statements in this document is against the law and may be penalized by fines, imprisonment, or both.

By typing my name in the electronic signature field, I am agreeing to conduct business electronically with the State of Oregon. I understand that transactions and/or signatures in records may not be denied legal effect solely because they are conducted, executed, or prepared in electronic form and that if a law requires a record or signature to be in writing, an electronic record or signature satisfies that requirement.

**ELECTRONIC SIGNATURE**

**NAME**

LUNA PRADO

**TITLE**

AUTHORIZED AGENT

**DATE**

07-21-2022

# AMENDED ANNUAL REPORT



Corporation Division  
[www.filinginoregon.com](http://www.filinginoregon.com)

**E-FILED**  
May 26, 2022  
OREGON SECRETARY OF STATE

---

**REGISTRY NUMBER**

133989897

**REGISTRATION DATE**

07/05/2017

**BUSINESS NAME**

HL OREGON, LLC

**BUSINESS**

REGISTERED AGENT SERVICES

**MAILING ADDRESS**

1125 NW COUCH ST STE 550  
PORTLAND OR 97209 USA

**TYPE**

DOMESTIC LIMITED LIABILITY COMPANY

**PRIMARY PLACE OF BUSINESS**

1125 NW COUCH ST STE 550  
PORTLAND OR 97209 USA

**JURISDICTION**

OREGON

**REGISTERED AGENT**

MATTHEW D LARSON

1125 NW COUCH ST STE 550  
PORTLAND OR 97209 USA

If the Registered Agent has changed, the new agent has consented to the appointment.

**MEMBER**

78431096 - HATHAWAY LARSON KOBACK CONNORS HETH LLP

1125 NW COUCH ST STE 550  
PORTLAND OR 97209 USA



I declare, under penalty of perjury, that this document does not fraudulently conceal, fraudulently obscure, fraudulently alter or otherwise misrepresent the identity of the person or any officers, managers, members or agents of the limited liability company on behalf of which the person signs. This filing has been examined by me and is, to the best of my knowledge and belief, true, correct, and complete. Making false statements in this document is against the law and may be penalized by fines, imprisonment, or both.

By typing my name in the electronic signature field, I am agreeing to conduct business electronically with the State of Oregon. I understand that transactions and/or signatures in records may not be denied legal effect solely because they are conducted, executed, or prepared in electronic form and that if a law requires a record or signature to be in writing, an electronic record or signature satisfies that requirement.

**ELECTRONIC SIGNATURE**

**NAME**

LUNA PRADO

**TITLE**

AUTHORIZED AGENT

**DATE**

05-26-2022

**Clackamas County Parcel Information****Parcel Information**

Parcel #: **05012068**  
 Tax Lot: **38E24A 00408**  
 Site Address:  
     OR 97028  
 Owner: Mt Hood LLC II  
 Owner2:  
 Owner Address: PO Box 69  
     Government Camp OR 97028  
 Twn/Range/Section: 03S / 08E / 24  
 Parcel Size: 1.38 Acres (60,113 SqFt)  
 Plat/Subdivision: Partition Plat 2007-166 Parcel 2  
     Lot: 408  
     Block:  
 Map Page/Grid:  
 Census Tract/Block: 024304 / 2020  
 Waterfront:  
 Building Use:

**Tax Information**

Levy Code Area: 046-065  
 Levy Rate: 14.8694  
 Tax Year: 2022  
 Annual Tax: \$1,999.55  
 Exempt Description:

**Legal**

Partition Plat 2007-166 PARCEL 2|Y|184,046

**Assessment Information**

Market Value Land:	\$419,719.00
Market Value Impr:	\$0.00
Market Value Total:	\$419,719.00
Assessed Value:	\$134,474.00

**Land**

Cnty Land Use: 701 - Multi-Family improved  
 Zoning: Clackamas Co.-MRR - Mountain Recreational  
     Resort District  
 Watershed: Zigzag River  
 Primary School: WELCHES ELEMENTARY SCHOOL  
 High School: SANDY HIGH SCHOOL

Land Use Std: RAPT - Multi Family Res (5+ Units)  
 Neighborhood: Government Camp  
 School District: 46 - Oregon Trail  
 Middle School: WELCHES MIDDLE SCHOOL

**Improvement**

Year Built:	Stories:	Fin. SqFt:
Bedrooms:	Bathrooms:	Garage:
Exterior Wall Type:	Basement Fin. SqFt:	Fireplace:
Heat:	Roof Type-Cover:	

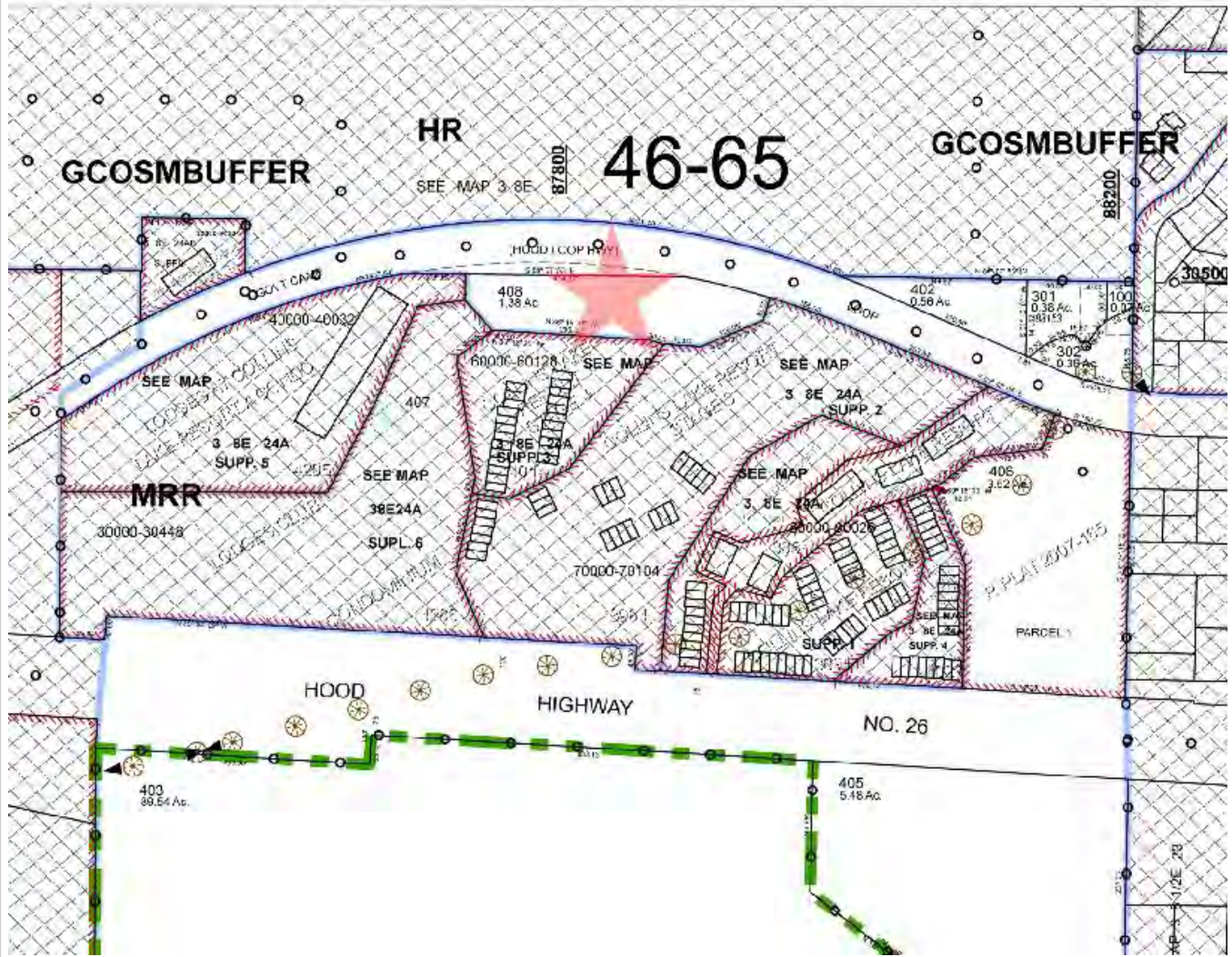
**Transfer Information**

Rec. Date: 06/19/2012	Sale Price:	Doc Num: 2012-038483	Doc Type: Deed
Owner: Mt Hood LLC II		Grantor: MT HOOD LLC	
Orig. Loan Amt:		Title Co: LAWYERS TITLE	
Finance Type:	Loan Type:	Lender:	

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.



Assessor Map



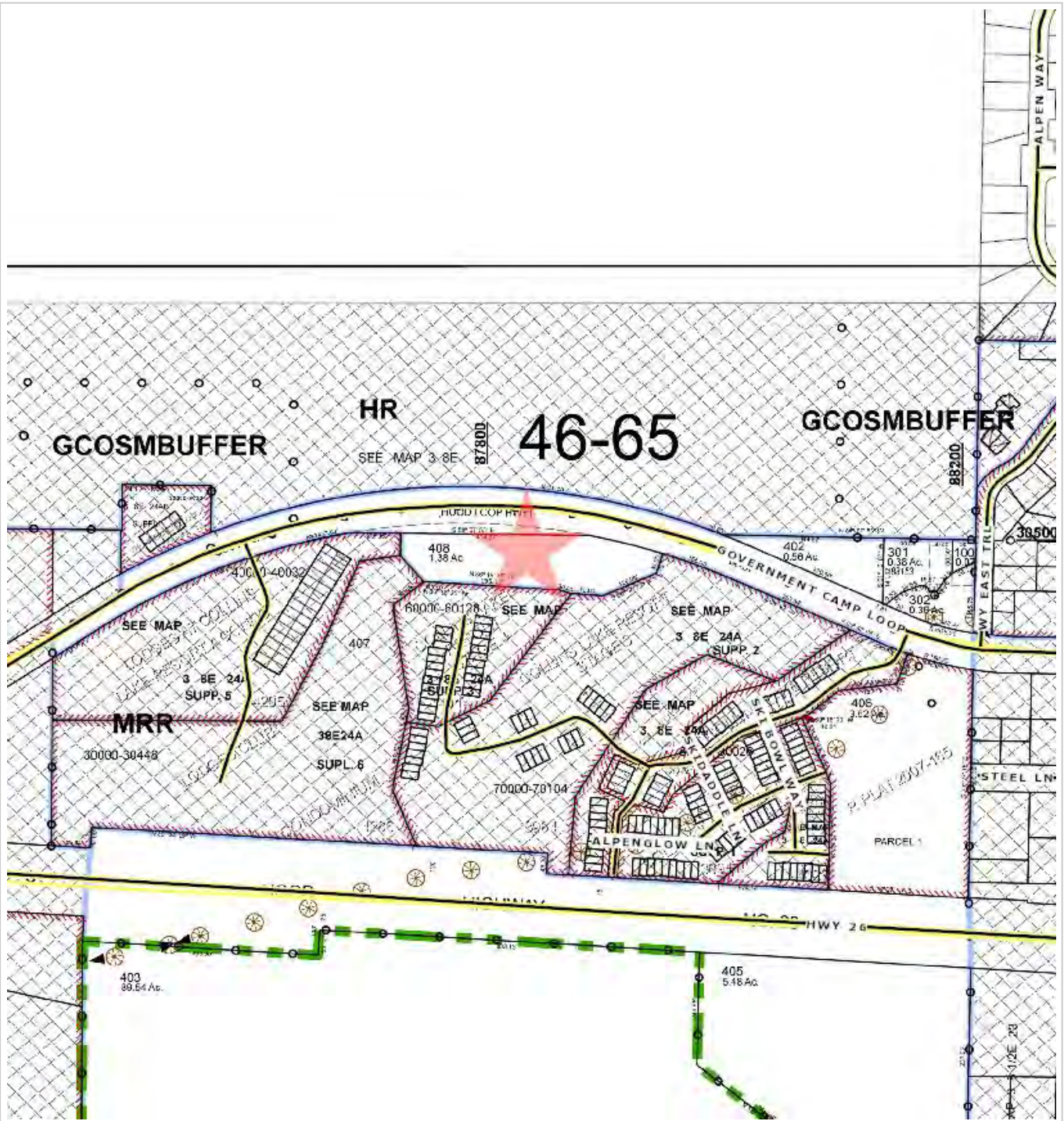
Parcel ID: 05012068

Site Address:

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.



Assessor Street Map



Parcel ID: 05012068

Site Address:

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.



Aerial Map

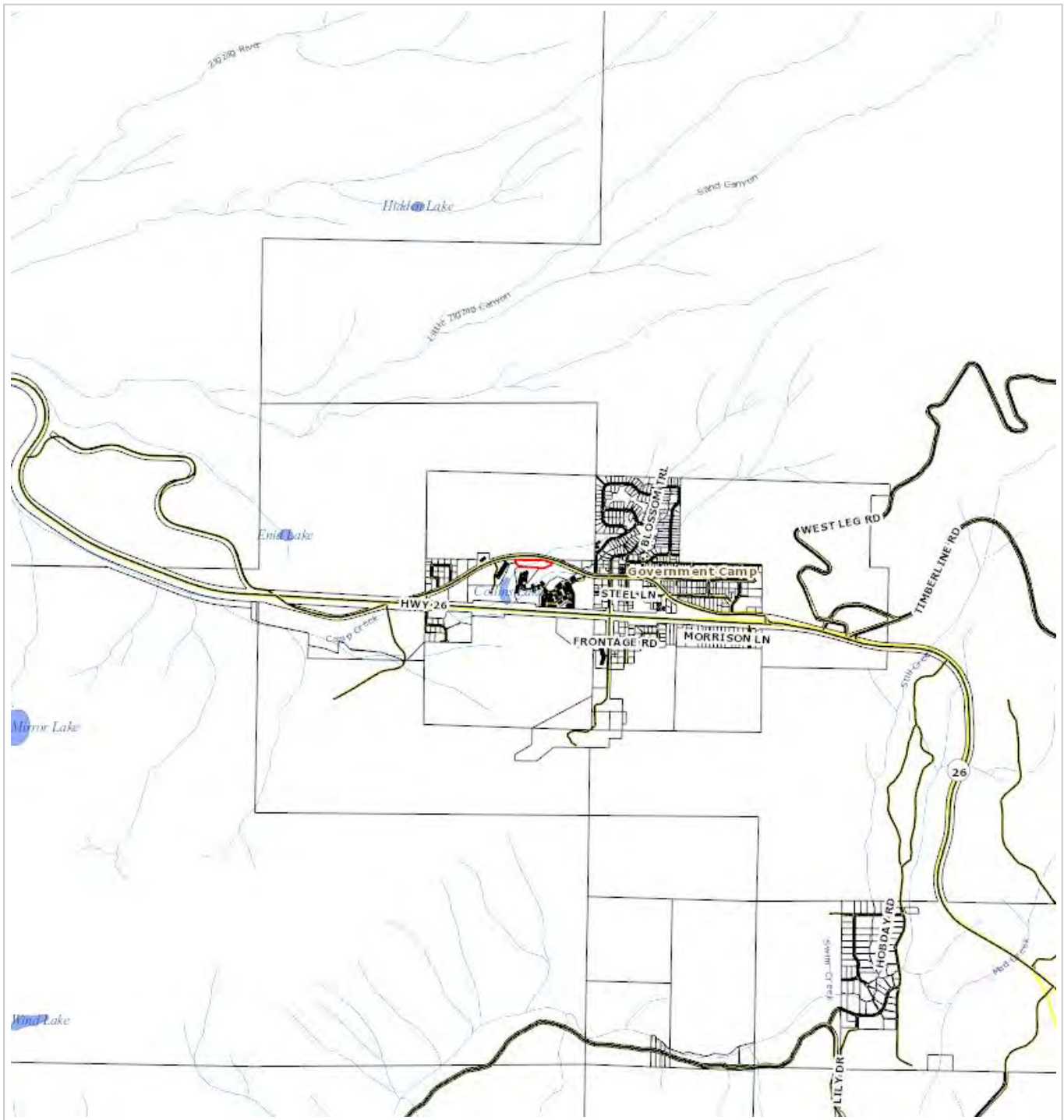


Parcel ID: 05012068

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.



Flood Map - 100 Year



Parcel ID: 05012068

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.

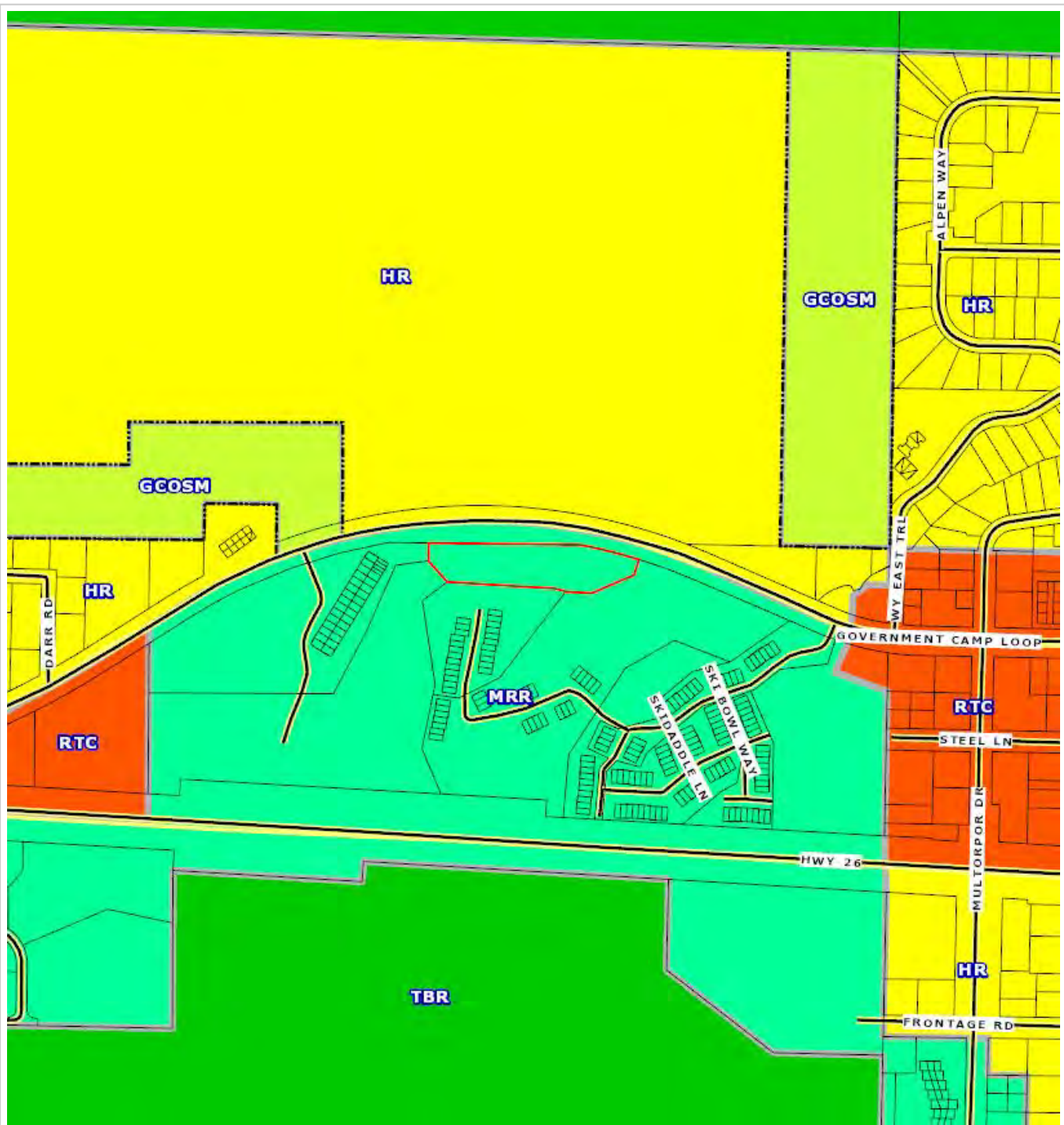
Soil Map



Parcel ID: 05012068

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.

Zoning Map



Parcel ID: 05012068

Sentry Dynamics, Inc. and its customers make no representations, warranties or conditions, express or implied, as to the accuracy or completeness of information contained in this report.



Recorded by TICOR TITLE 3626048619AMS-50

**RECORDING COVER SHEET  
ORS 205.234**

This cover sheet has been prepared by the person presenting the attached instrument for recording. Any error in this cover sheet DOES NOT affect the transaction(s) contained in the instrument itself.

Clackamas County Official Records **2012-038483**  
Sherry Hall, County Clerk  
06/19/2012 09:33:22 AM  
D-D Cnt=1 Str=25 LESLIEFLY  
\$35.00 \$16.00 \$10.00 \$16.00 \$77.00

**1. AFTER RECORDING RETURN TO -**  
Required by ORS 205.180(4) & 205.238:

**Mt. Hood LLC, II  
PO Box 69  
Government Camp, OR 97028**

**2. TITLE(S) OF THE TRANSACTION(S) -** Required by ORS 205.234(1)(a)

Note: "Transaction" means any action required or permitted by law to be recorded, including, but not limited to, any transfer, encumbrance or release affecting title to or an interest in real property. Enter descriptive title for the instrument:

**Bargain and Sale Deed**

**3. DIRECT PARTY / GRANTOR and Address -** Required by ORS 234(1)(b)

**Mt. Hood, LLC**

**4. INDIRECT PARTY / GRANTEE and Address -** Required by ORS 234(1)(b)

**Mt. Hood, LLC II  
PO Box 69  
Government Camp, OR 97028**

**5. For an instrument conveying or contracting to convey fee title, the information required by ORS 93.260:**

**UNTIL A CHANGE IS REQUESTED,  
ALL TAX STATEMENTS SHALL BE  
SENT TO THE FOLLOWING  
ADDRESS:**

**PO Box 69  
Government Camp, OR 97028**

**6. TRUE AND ACTUAL**

**CONSIDERATION -** Required by ORS 93.030 for an instrument conveying or contracting to convey fee title or any memorandum of such instrument:

**\$N/A**

**7. TAX ACCOUNT NUMBER OF THE PROPERTY, IF THE INSTRUMENT CREATES A LIEN OR OTHER INTEREST THAT COULD BE SUBJECT TO TAX FORECLOSURE -**

Required by ORS 312.125(4)(b)(B):

**8. If this instrument is being Re-Recorded, complete the following statement in accordance with ORS 205.244: "RERECORDED AT THE REQUEST OF TICOR TITLE TO CORRECT SIGNATURE BLOCK FOR GRANTOR.**

Clackamas County Official Records  
Sherry Hall, County Clerk

2008-006203



\$36.00

01182722200800062030020025

01/28/2008 04:08:42 PM

D-D Cnt=1 Stn=1 LESLIE  
\$10.00 \$16.00 \$10.00

After Recording Please  
Return To:  
Mt. Hood LLC, II  
PO Box 69  
Government Camp, OR 97028

Send Tax Statement To:  
Same as above

### BARGAIN AND SALE DEED

KNOW ALL MEN BY THESE PRESENTS Mt. Hood, LLC, an Oregon limited liability company, hereinafter called grantor, for the consideration hereinafter stated, does hereby grant, bargain, sell and convey unto Mt. Hood, LLC II, an Oregon limited liability company, hereinafter called grantee, and unto grantee's heirs, successors and assigns all of that certain real property with the tenements, hereditaments and appurtenances thereunto belonging or appertaining, situated in the County of Clackamas and State of Oregon, described as follows, to-wit:

Parcels 1 & 2, PARTITION PLAT 2007-166, in the County of Clackamas, State of Oregon.

To Have and to Hold the same unto the said grantee and grantee's heirs, successors and assigns forever.

The true and actual consideration paid for this transfer, stated in terms of dollars is \$ 0.

However the actual consideration consists of or includes other property or value given or promised which is the whole consideration.

In construing this deed and where the context so requires, the singular includes the plural and all grammatical changes shall be implied to make the provisions hereof apply equally to corporations and to individuals.

LAWYERS 08-AD 92103

RECORDED BY LAWYERS TITLE INS CORP AS AN ACCOMMODATION  
ONLY NO LIABILITY IS ACCEPTED FOR THE CONDITION OF TITLE OR  
FOR THE VALIDITY, SUFFICIENCY, OR EFFECT OF THIS DOCUMENT.

In Witness Whereof, the grantor has executed this 20 day of Jan., 2008; if a corporate grantor, it has caused its name to be signed and its seal affixed by an officer or other person duly authorized to do so by order of its board of directors.

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER SECTIONS 2, 3 AND 5 TO 22 OF CHAPTER 424, OREGON LAWS 2007. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930 AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER SECTIONS 2, 3 AND 5 TO 22 OF CHAPTER 424, OREGON LAWS 2007.

Mt. Hood, LLC II

X Kirk D. Hanna  
Kirk D. Hanna, Member

STATE OF OREGON )ss.  
County of Multnomah

The foregoing instrument was acknowledged before me on this 28 day of January, 2008 by Kirk D. Hanna, as Member, of Mt. Hood, LLC II on behalf of the company.

Mary Hurst  
Notary for Oregon

My commission expires: June 15, 2010



Mary Hurst  
Commission No. 407285

(2)

STATE OF OREGON }  
COUNTY OF CLACKAMAS } ss.

I, SHERRY HALL, County Clerk of the State of Oregon for the County of Clackamas, do hereby certify that the foregoing copy of

Deed Record  
2008-6203 2 pgs

has been by me compared with the original, and that it is a correct transcript therefrom, and the whole of such original, as the name appears on file and of record in my office and in my care and custody.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal

this 18<sup>th</sup> day of  
June, 2012.

SHERRY HALL, Clerk

By: [Signature]  
Deputy



Clackamas County Official Records  
Sherry Hall, County Clerk

2008-006203



\$36.00

01182722200800062030020025

01/28/2008 04:08:42 PM

D-D Cnt=1 Stn=1 LESLIE  
\$10.00 \$16.00 \$10.00

After Recording Please  
Return To:  
Mt. Hood LLC, II  
PO Box 69  
Government Camp, OR 97028

Send Tax Statement To:  
Same as above

### BARGAIN AND SALE DEED

KNOW ALL MEN BY THESE PRESENTS Mt. Hood, LLC, an Oregon limited liability company, hereinafter called grantor, for the consideration hereinafter stated, does hereby grant, bargain, sell and convey unto Mt. Hood, LLC II, an Oregon limited liability company, hereinafter called grantee, and unto grantee's heirs, successors and assigns all of that certain real property with the tenements, hereditaments and appurtenances thereunto belonging or appertaining, situated in the County of Clackamas and State of Oregon, described as follows, to-wit:

Parcels 1 & 2, PARTITION PLAT 2007-166, in the County of Clackamas, State of Oregon.

To Have and to Hold the same unto the said grantee and grantee's heirs, successors and assigns forever.

The true and actual consideration paid for this transfer, stated in terms of dollars is \$ 0.

However the actual consideration consists of or includes other property or value given or promised which is the whole consideration.

In construing this deed and where the context so requires, the singular includes the plural and all grammatical changes shall be implied to make the provisions hereof apply equally to corporations and to individuals.

LAWYERS 08-AD 92/03

RECORDED BY LAWYERS TITLE INS CORP AS AN ACCOMMODATION  
ONLY NO LIABILITY IS ACCEPTED FOR THE CONDITION OF TITLE OR  
FOR THE VALIDITY, SUFFICIENCY, OR EFFECT OF THIS DOCUMENT.



In Witness Whereof, the grantor has executed this instrument this 20 day of Jan, 2008; if a corporate grantor, it has caused its name to be signed and its seal affixed by an officer or other person duly authorized to do so by order of its board of directors.

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER SECTIONS 2, 3 AND 5 TO 22 OF CHAPTER 424, OREGON LAWS 2007. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930 AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER SECTIONS 2, 3 AND 5 TO 22 OF CHAPTER 424, OREGON LAWS 2007.

Mt. Hood, LLC ~~XX~~

X Kirk D. Hanna  
Kirk D. Hanna, Member

STATE OF OREGON )ss.  
County of Multnomah

The foregoing instrument was acknowledged before me on this 20 day of January, 2008 by Kirk D. Hanna, as Member, of Mt. Hood, LLC ~~XX~~ on behalf of the company.

Mary Hurst  
Notary for Oregon  
My commission expires: June 15, 2010



Mary Hurst  
Commission No. 407285

(2)

STATE OF OREGON }  
COUNTY OF CLACKAMAS } ss.

I, SHERRY HALL, County Clerk of the State of Oregon for the County of Clackamas, do hereby certify that the foregoing copy of

Deed Record  
2008-6203 2 pgs

has been by me compared with the original, and that it is a correct transcript therefrom, and the whole of such original, as the name appears on file and of record in my office and in my care and custody.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal

this 1st day of  
June, 2012.

SHERRY HALL, Clerk

By: [Signature]  
Deputy





Property Account Summary  
12/14/2022

<b>Account Number</b>	05012068	<b>Property Address</b>	NO SITUS , ADDRESS, OR
-----------------------	----------	-------------------------	------------------------

<b>General Information</b>	
----------------------------	--

Alternate Property #	38E24A 00408
Property Description	Partition Plat 2007-166 PARCEL 2
Property Category	Land &/or Buildings
Status	Active, Locally Assessed
Tax Code Area	046-065
Remarks	

<b>Tax Rate</b>	
-----------------	--

Description	Rate
Total Rate	14.8694

<b>Property Characteristics</b>	
---------------------------------	--

Neighborhood	70070: Apts 1.7M > County Wide
Land Class Category	701: Multi-Family Improved
Acreage	1.38
Change property ratio	7XX

<b>Related Properties</b>	
---------------------------	--

No Related Properties Found
-----------------------------

<b>Parties</b>			
----------------	--	--	--

Role	Percent	Name	Address
------	---------	------	---------

Taxpayer	100	MT HOOD LLC II	PO BOX 69, GOVERNMENT CAMP, OR 97028
Owner	100	MT HOOD LLC II	PO BOX 69, GOVERNMENT CAMP, OR 97028

### Property Values

Value Type	Tax Year 2022	Tax Year 2021	Tax Year 2020	Tax Year 2019	Tax Year 2018
AVR Total	\$134,474	\$130,558	\$126,756	\$123,065	\$119,481
Exempt					
TVR Total	\$134,474	\$130,558	\$126,756	\$123,065	\$119,481
Real Mkt Land	\$419,719	\$340,968	\$334,044	\$318,467	\$284,717
Real Mkt Bldg					
Real Mkt Total	\$419,719	\$340,968	\$334,044	\$318,467	\$284,717
M5 Mkt Land	\$419,719	\$340,968	\$334,044	\$318,467	\$284,717
M5 Mkt Bldg					
M5 SAV					
SAVL (MAV Use Portion)					
MAV (Market Portion)	\$134,474	\$130,558	\$126,756	\$123,065	\$119,481
Mkt Exception					
AV Exception					

### Active Exemptions

No Exemptions Found

### Events

Effective Date	Entry Date-Time	Type	Remarks
05/30/2013	05/30/2013 14:11:00	Annexation Completed For Property	CREATE GOVERNMENT CAMP RD DIST, ORD 2012-111-annexed by ROAD 19 GOVERNMENT CAMP for 2013-Revise District Membership by DEENAMEH
05/11/2009	05/11/2009 12:23:00	Annexation Completed For	Terminate Govt Camp UR Plan, 2009 pt 3 for 2009-Revise TCA Membership by JENMAYO

		Property	
01/10/2008	01/10/2008 09:15:00	Seg/Merge Initiated	SM080291 EFFECTIVE 2008-09: -0.13 AC TO 38E24A 00400 BY P PLAT 2007-166; BEFORE 01/01/2008 by LAURIEB
01/10/2008	01/10/2008 09:15:00	Seg/Merge Completed	Parent in Seg/Merge SM080291, Effective: 01/02/2007 by LAURIEB
07/26/2005	07/26/2005 10:41:00	Created by Seg/Merge	SM050905 EFFECTIVE 2005-06: PARENT 38E24A 00400 BY 2005-050847; AFTER 01/01/2005, Effective: 01/02/2004 by LAURIEB
06/03/2005	07/29/2005 12:06:00	Taxpayer Changed	Property Transfer Filing No.: 122734 06/03/2005 by LAURIEB
06/03/2005	07/29/2005 12:06:00	Recording Processed	Property Transfer Filing No.: 122734, Warranty Deed, Recording No.: 2005-050846 06/03/2005 by LAURIEB
06/03/2005	07/26/2005 10:47:00	Recording Processed	Property Transfer Filing No.: 122327, Warranty Deed, Recording No.: 2005-050847 06/03/2005 by LAURIEB

### Tax Balance

No Charges are currently due. If you believe this is incorrect, please contact the Assessor's Office.

[Installments Payable/Paid for Tax Year\(Enter 4-digit Year, then Click-Here\):](#) 2022

### Receipts

Date	Receipt No.	Amount Applied to Parcel	Total Amount Due	Receipt Total	Change
11/22/2022 00:00:00	<a href="#">5347633</a>	\$1,999.55	\$1,999.55	\$1,939.56	\$0.00
11/08/2021 00:00:00	<a href="#">5042836</a>	\$1,929.18	\$1,929.18	\$1,871.30	\$0.00
11/19/2020 00:00:00	<a href="#">4957962</a>	\$1,877.49	\$1,877.49	\$1,821.17	\$0.00
11/26/2019 00:00:00	<a href="#">4783282</a>	\$1,864.91	\$1,864.91	\$1,808.96	\$0.00
11/19/2018 00:00:00	<a href="#">4563837</a>	\$1,783.16	\$1,783.16	\$1,729.67	\$0.00
02/21/2018 00:00:00	<a href="#">4413436</a>	\$3,208.63	\$3,208.63	\$3,208.63	\$0.00
03/30/2017 00:00:00	<a href="#">4225241</a>	\$2,432.28	\$3,715.80	\$2,432.28	\$0.00

### Sales History

Sale Date	Entry Date	Recording Date	Recording Number	Sale Amount	Excise Number	Deed Type	Grantee(Buyer)	Other Parcels
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05/24/2005	07/26/2005	06/03/2005	2005-050847	\$0.00	122327		HANNA KIRK D	No
05/24/2005	07/29/2005	06/03/2005	2005-050846	\$0.00	122734		MT HOOD LLC II	No

**Property Details**

Living Area Sq Ft	Manf Struct Size	Year Built	Improvement Grade	Stories	Bedrooms	Full Baths	Half Baths



Installments Paid/Payable

<b>Parcel Number</b>	05012068	<b>Property Address</b>	NO SITUS , ADDRESS, OR			
Tax Year 2022 As Of Date: 12/14/2022						
<b>Tax Year</b>	<b>Category</b>	<b>TCA/District</b>	<b>Charged</b>	<b>Minimum</b>	<b>Balance Due</b>	<b>Due Date</b>
2022	Property Tax Principal	046-065	\$1,999.55	\$0.00	\$0.00	11/15/2022
TOTAL Due as of 12/14/2022			\$1,999.55	\$0.00	\$0.00	

SCANNED

OPERATING AGREEMENT  
OF  
MT. HOOD, LLC II  
(an Oregon Limited Liability Company)

Dated and Effective

as of

January 1, 2012

AMENDED AND RESTATED  
OPERATING AGREEMENT  
OF

MT. HOOD, LLC II

(an Oregon Limited Liability Company)

THIS AMENDED AND RESTATED OPERATING AGREEMENT, dated effective January 1, 2012 is made by Yoshida Holdings, LLC, as the sole member of the limited liability company (the "Member"), and Mt. Hood, LLC II (the "Company").

1. Articles of Organization.

Articles of Organization of the Company were filed with the Oregon Secretary of State on January 13, 2005.

2. Name.

The name of the limited liability company is Mt. Hood, LLC II.

3. Purpose.

The purpose of the Company is to develop and own real estate, and to exercise all other powers necessary or reasonably connected or incidental to such purpose and other business that may be legally exercised by the Company.

4. Duration.

The Company shall exist perpetually, unless dissolved as provided herein.

5. Principal Place of Business.

The principal business address of the Company shall initially be 8440 N.E. Alderwood Rd., Suite A, Portland, OR 97220. The Member may relocate the principal place of business or establish additional offices from time to time.

6. Registered Office and Registered Agent.

The Company's initial registered office shall be at 1300 SW Fifth Ave., Suite 2300, Portland, Oregon 97201, and the name of its initial registered agent at such address shall be DWT Oregon Corp.

7. Member.

The name and address of the sole Member is as follows:

<u>Name</u>	<u>Address</u>
Yoshida Holdings, LLC	8440 N.E. Alderwood Rd., Suite A Portland, OR 97220

## 8. Management.

**8.1 Number and Qualifications of Managers.** The Company shall be managed by a manager (the "Manager"). The Manager may, but need not be, a member of the Company, and may be natural persons and/or entities. The Manager of the Company shall be Yoshida Management, LLC, until its successor is elected and qualified. Notwithstanding the foregoing, the Member has all the rights and powers specifically set forth in this Agreement and, to the extent not inconsistent with this Agreement, in the Act.

**8.2 Election of Manager.** The Manager shall be appointed and elected solely by the Member, and shall serve for a term ending upon death or resignation of the Manager, or upon removal and election of a successor Manager by the Member.

**8.3 Authority.** The Manager shall be an agent of the Company with authority to bind the Company in the ordinary course of its business, and shall have, to the exclusion of the members, all of the rights and powers which may be possessed by managers under the Act. Notwithstanding the foregoing, the Manager shall not have the authority to bind the Company as to the following matters without first obtaining the approval of the Member:

- (a) Sale, lease, exchange, mortgage, pledge, or other transfer or disposition of all or substantially all the assets of the Company other than in the ordinary course of business;
- (b) Merger or consolidation of the Company with another entity;
- (c) Material amendment to or restatement of this Agreement;
- (d) A substantial and fundamental change in the nature of the business of the Company;
- (e) The incurrence of an item of indebtedness in excess of \$ 1,000,000;
- (f) Issuance of Ownership Interests in the Company; or
- (g) Effecting any liquidation or dissolution of the Company.

**8.4 Other Activities.** The Manager may have other business interests and may engage in other activities in addition to those relating to the Company.

**8.5 Resignation.** The Manager may resign at any time by delivering written notice to the Member. The resignation is effective when the notice is effective under the Act, unless the notice specifies a later effective date. Once delivered, a notice of resignation is irrevocable, unless revocation is permitted by the Member.

**8.6 Removal of Manager by Member.** The Member may remove the Manager with or without cause, at any time, upon written notice to the Manager.

**8.7 Compensation.** The compensation of the Manager, if any, shall be fixed from time to time by the Member. The Manager shall also be entitled to reimbursement for all reasonable expenses incurred in the performance of its duties as a Manager.

**8.8 Other Agents.** The Manager may authorize any agent to enter into any lawful contract or to otherwise act on behalf of the Company. Such authority may be general or be confined to specific instances.

**9. Financial Matters.**

**9.1 Capital Contribution.**

The Member has made capital contributions to the Company.

**9.2 Additional Capital Contributions.**

The Member is permitted, but is not required, to make additional capital contributions.

**9.3 Distributions.**

The Manager may, with the approval of the Member, cause the Company to make distributions to the Member from time to time as permitted by the Act.

**9.4 Federal Income Tax Reporting.**

At all times when there is only one Member, all items of income, gain, loss, deduction and credit of the Company shall be reported on the Member's federal income tax return. The Member is authorized to make all elections available under applicable law with respect to all items of income, gain, loss, deduction, credit and other tax matters.

**9.5 Distributions to Pay Tax Liabilities.**

Within ninety (90) days after the end of each fiscal year, the Manager shall cause the Company shall make a distribution to the Member in an amount equal to at least (a) the Company's net taxable income during the fiscal year multiplied by (b) the lesser of (i) forty-one percent (41%) or (ii) the sum of the maximum federal and state individual income tax rates of any member in effect for the fiscal year (taking into account the deductibility of state taxes for federal income tax purposes), less (c) the amount of any distributions made by the Company during the fiscal year (other than distributions made during the fiscal year that were required to be made under the provisions of this Section 9.5 with respect to a prior fiscal year). For purposes of this Section 9.5, the Company's net taxable income shall be the net excess of items of recognized income and gain over the items of recognized loss and deduction reported on the Company's federal income tax return for the taxable year with respect to which the distribution is being made. The Company's obligation to make such distribution is subject to the restrictions governing distributions under the Act.



**10. Accounting and Records.**

At the expense of the Company, the Manager shall maintain records and accounts of all operations and expenditures of the Company. At a minimum the Manager shall cause the Company to keep at its principal place of business the following records:

- (a) A current list and past list, setting forth the full name and last known mailing address of each member;
- (b) A copy of the Articles of Organization and all amendments thereto;
- (c) Copies of this Agreement and all amendments hereto, and a copy of any prior limited liability company agreements no longer in effect;
- (d) Copies of the Company's federal, state, and local tax returns and reports, if any, for the three (3) most recent years; and
- (e) Copies of the Company's financial statements for the three (3) most recent years.

**11. Dissolution and Liquidation.**

**11.1 Events of Dissolution.** The Company shall dissolve upon the earliest of:

- (a) A written statement signed by the Member;
- (b) The dissolution or similar event in which all or substantially all of the assets of the Member are liquidated and/or distributed;
- (c) The bankruptcy of the Member, or an assignment for the benefit of the Member's creditors; or
- (d) A change-in-control of the Member after which the shareholders of the Member prior to the event will hold less than the majority of the voting capital stock in the Member.

**11.2 Liquidation Upon Dissolution and Winding Up.** Upon the dissolution of the Company, the Manager shall wind up the affairs of the Company. A full account of the assets and liabilities of the Company shall be taken. The assets shall be promptly liquidated and the proceeds thereof applied as determined by the Manager, subject to the requirements of the Act. Upon discharging all debts and liabilities, all remaining assets shall be distributed to the Member or the Member's representative.

**12. Limitation of Liability; Indemnification.**

**12.1 Limitation of Liability.** Neither the Manager nor the Member shall have liability to the Company or, in the event of the Manager, to the Member, for monetary damages for conduct as the Manager or the Member, except for acts or omissions that involve a breach of this Agreement, intentional misconduct, a knowing violation of law, a distribution made in violation

of ORS 63.229, or for any transaction from which such individual or entity has personally received a benefit in money, property or services to which such individual or entity was not legally entitled. If the Act is hereafter amended to authorize Company action further limiting the personal liability of members, then the liability of the Manager or the Member, as the case may be, shall be eliminated or limited to the full extent permitted by the Act, as so amended. No repeal or modification of the Act or this Section 12.1 shall adversely affect any right or protection of the Manager or the Member existing at the time of such repeal or modification for or with respect to an act or omission of the Manager or the Member occurring prior to such repeal or modification.

**12.2 Indemnification.** The Company shall indemnify the Member and/or the Manager from and against any judgments, settlements, penalties, fines or expenses incurred in a proceeding to which the Manager or the Member is a party because he, she, or it was the Manager or the Member; provided, that neither the Manager nor the Member shall be indemnified from or on account of their respective acts or omissions finally adjudicated to be a breach of this Agreement, intentional misconduct or a knowing violation of law by the respective Manager or the Member, conduct of the Manager or the Member, respectively, adjudged to be in violation of ORS 63.155 and 63.160, or any transaction with respect to which it was finally adjudged that the Manager or the Member, respectively, received a benefit in money, property or services to which the Manager or the Member, respectively, was not legally entitled. The right to indemnification conferred in this Section 12.2 shall be a contract right and shall include the right to be paid by the Company the expenses incurred in defending any such proceeding in advance of its final disposition; provided, that the payment of such expenses in advance of the final disposition of a proceeding shall be made only upon delivery to the Company of an undertaking, by or on behalf of the Manager or the Member, to repay all amounts so advanced if it shall ultimately be determined that the Member is not entitled to be indemnified under this Section 12.2 or otherwise. The right to indemnification and payment of expenses incurred in defending a proceeding in advance of its final disposition conferred in this Section 12.2 shall not be exclusive of any other right the Manager or the Member may have or hereafter acquire under any statute, this Agreement or otherwise. No repeal or modification of the Act or this Section 12.2 shall adversely affect any right of the Manager or the Member to indemnification existing at the time of such repeal or modification for or with respect to indemnification related to an act or omission of the Manager or the Member, respectively, occurring prior to such repeal or modification.

### **13. Miscellaneous.**

**13.1 Assignment.** The Member may assign in whole or in part the Member's membership in the Company.

**13.2 Governing Law.** This Agreement shall be construed and enforced in accordance with the internal laws of the State of Oregon, including without limitation, the Act.

**13.3 Amendments.** This Agreement may not be amended except in writing by the Member.

**13.4 Construction.** Whenever the singular number is used in this Agreement and when required by the context, the same shall include the plural and vice versa, and the masculine gender shall include the feminine and neuter genders and vice versa.

**13.5 Headings.** The headings in this Agreement are inserted for convenience only and shall not affect the interpretation of this Agreement.

**13.6 Waivers.** The failure of any person to seek redress for violation of or to insist upon the strict performance of any covenant or condition of this Agreement shall not prevent a subsequent act, which would have originally constituted a violation, from having the effect of an original violation.

**13.7 Severability.** If any provision of this Agreement or the application thereof to any person or circumstance shall be invalid, illegal or unenforceable to any extent, the remainder of this Agreement and the application thereof shall not be affected and shall be enforceable to the fullest extent permitted by law.

**13.8 Heirs, Successors and Assigns.** Each and all of the covenants, terms, provisions and agreements herein contained shall be binding upon and inure to the benefit of the parties hereto and, to the extent permitted by this Agreement, their respective heirs, legal representatives, successors and assigns.

**13.9 No Third-Party Beneficiaries.** None of the provisions of this Agreement shall be for the benefit of or enforceable by any creditors of the Company or any other person other than the Member.

Executed as of the date first written above by the undersigned.

MANAGER

Yoshida Management, LLC

By:   
Garry Schnell, its Manager

MEMBER

Yoshida Holdings, LLC

By:   
Garry Schnell, Manager of Yoshida Management, LLC., it's Manager

Exhibit J – Geotechnical Report

**The geotechnical report is protected. Please see separate attachment to review.**

Exhibit K – ESEE Analysis

# Clackamas County ESEE Analysis Government Camp Hotel

## Report Contributors:

Ivy Watson – Senior Natural Resources Scientist – HHPR

Jake Ashford – Natural Resources Scientist – HHPR

Britany Randall – Principal Planner – BRAND Land Use

Prepared January 2023



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### Arial View of Subject Property and Existing Development



## Section 1: Property Background and Request

The applicant is presenting an ESEE analysis to encroach into the Stream Conservation Area (SCA) associated with Camp Creek and wetlands located on the development site for the construction of an extended stay hotel. The subject property presents several challenges for development such as a steep topography, scattered wetlands, and an SCA that covers a large

portion of the site. The property is bordered to the north by a sliver of land owned by the Department of Forestry which has greatly impacted the access points to the newly proposed development. The site plan being presented for consideration was curated through the collaboration of several industry experts including natural resource scientists, architects, civil engineers, structural engineers, general contractors, construction managers, and land use planners. The development team is presenting a final design that is believed to be the most economical and includes minimal disturbance to the SCA and wetlands on site.

Camp Creek is identified as a small, Type F stream on the Water Protection Rule Classification Maps, that flows along the eastern and southern property boundaries. The creek is a tributary of the Zigzag River, which is a tributary to the Sandy River and the site is within the Sandy River Watershed. Per Subsections 704.03(D) and 704.04(D), Camp Creek has a 50-foot buffer designated as SCA.

The proposed development is on a parcel surrounded by roadway infrastructure, restaurants, retail buildings, lodgings, a fire station, and a cultural center. The potential for the SCA and wetlands to serve as habitat for wildlife is diminished by these surrounding land uses relative to the undeveloped forest land to the north, south, and west, beyond Government Camp Loop and Mount Hood Highway. The vegetation community within the tax lot is a relatively young, though mature, coniferous forest (trees typically ranging from 5 to 30 inches diameter breast height), with a few larger trees located along the banks of the creek. During geotechnical investigations and site visits, erosional material and buried logs were discovered in the upper soil layers, likely a result of side cast material and cleared trees during construction of Government Camp Loop. Additionally, many trees have fallen on site, likely partially a result of unstable soil surface due to past disturbance.

The subject parcel contains 0.64 acres of SCA and 0.16 acres of wetland. A site level delineation of the Ordinary High-Water Mark (OHWM) of Camp Creek and boundary of wetlands was conducted by HHPR natural resources scientists prior to this analysis to ensure the accuracy of the SCA and impact areas. There are impacts to a small portion of the outer extent of the SCA of Camp Creek and portions of mapped wetlands as part of the proposed conflicting use development. The proposed development would impact 16 percent of the SCA (0.10 acres) and 11 percent of wetlands (0.02 acres), leaving 0.69 acres of habitat undisturbed. There is 0.01 acres of overlap between the wetland and SCA impacts. Additionally, all temporary impacts will be restored with replanting and approximately 500 plants will be planted throughout the SCA for mitigation purposes.

## Section 2: Existing Conditions

The development site is approximately 1.38 acres in size and is described as Clackamas County Assessor Map and Tax Lots 38E24A 00408.

The development site is approximately 1.38 acres in size and is described as Clackamas County Assessor Map and Tax Lot 038E24A / 00408, a Vicinity Map is included as Exhibit A.

The site is outside of any incorporate city limits and Urban Growth Boundary. The subject property is located within Clackamas County and is generally known as Government Camp.

The Comprehensive Plan designations of surrounding properties include:

North: Across E Government Camp Loop; Designation: Government Camp Open Space Management District (GCOSM)

Designation: Hoodland Residential (HR)

Designation: MRR

Designation: Rural Tourist Commercial (RTC)

Designation: Timber District (TBR)

South: Mountain Recreational Resort (MRR)

East: MRR

West: MRR

The subject property is zoned Mountain Recreational Resort (MRR). Surrounding properties are zoned as follows:

North: Across E Government Camp Loop, Government Camp Open Space Management District (GCOSM), Hoodland Residential (HR), Mountain Recreational Resort (MRR), Rural Tourist Commercial (RTC) and Timber District (TBR).

South: Mountain Recreational Resort (MRR)

East: Mountain Recreational Resort (MRR)

West: Mountain Recreational Resort (MRR)

### Section 3: Applicable Zoning Codes

Clackamas County ZDO – 1011.03 Conflict Resolution for Wetlands and Significant Areas

*Sections A, B, C, and D*

### Section 4: Findings Applicable to ESEE Analysis

Clackamas County ZDO – 1011.03 – Conflict Resolution for Wetlands and Significant Areas

High-priority open space wetlands and significant natural areas shall not be disturbed unless approved through review as a Type II application pursuant to Section 1307, Procedures, for a specific commercial or industrial development plan. Approval shall not be granted unless the

following social, economic, energy, and appropriate environmental considerations are addressed and satisfied:

- A. Social: The proposed development would not result in the loss of a rare, irretrievable, or irreplaceable natural feature or scientific opportunity, or the disturbance of a substantially unaltered natural feature or area in or adjacent to the proposed site, unless the benefit to the public from the proposed use clearly outweighs the public good from retaining the feature or area.

***Applicant's Findings:***

*The disturbance to the SCA is the least impact possible while still allowing reasonable development of the subject property. In fact, if the proposed use was for multiple family, rather than an extended stay hotel, the proposed impact to the SCA would be significantly less than the 25 percent threshold allowed for multiple family developments. The development team believes that the minimization measures included in the site design combined with the mitigation plan included with this ESEE submittal, will ensure no loss of rare, irretrievable, or irreplaceable natural feature or scientific opportunity, or the disturbance of a substantially unaltered natural feature or area in or adjacent to the proposed site.*

*During the course of designing the hotel, experts made several visits to the site. They observed the site at different times of the year, studied and surveyed the land and overall became very familiar with the natural features of the site. Though the site is densely forested, it is a relatively young, previously disturbed forest, as documented by the geotechnical and wetland investigations, and does not constitute a rare, irretrievable or irreplaceable natural feature, or substantially unaltered natural feature. The proposal minimizes encroachment into wetland and the SCA and avoids degradation of SCA functions.*

*The applicant and development team agree that the goal is to maintain as much of the naturally occurring features as possible and the presented plan does just that while still providing an option for reasonable development of the property. Mitigation is also being proposed to the greatest extent practicable. The site is covered in heavy vegetation, which the mitigation plan takes into consideration. The mitigation plan was designed to not overcrowd or choke existing and newly proposed plant materials.*

*Because the proposal does not remove any Significant Natural Area and impacts a very small portion of the SCA for Camp Creek, it is the position of the development team and the applicant that the proposed use of the site will be a benefit to the community by providing more opportunities for employment in hospitality and for tourism considering the development site's close proximity to Government Camp Village.*

### **Wetland and SCA Impacts Minimization Efforts**

*Impacts to wetlands and SCA have been minimized through careful project design, building location, and strategic construction planning. The building site was located as far from the SCA as possible within the parcel. Additionally, much of the parking for the facility and the driveway access were moved below the building and some parking was redistributed away from the SCA. Additional parking spots were removed to the extent feasible. The project design utilizes walls whenever possible to minimize impacts associated with graded slopes adjacent to structures. Finally, the southeast corner of the building will be cantilevered to minimize impacts to the wetlands and the SCA. Although tree removal will still be required within the footprint, the soil, hydrology, and understory vegetation will remain intact.*

### **Mitigation**

*The project will mitigate for loss of habitat. All temporary impact areas will be replanted with native vegetation similar to the vegetation present on site. The remaining stream buffer function will be enhanced with understory tree plantings targeting existing forest canopy gaps created by numerous windthrows. Portions of the SCA will be restored by decommissioning and replanting remaining portions of an existing walking path that will be cut off by the development. Approximately 64 trees and 436 shrubs and grasses will be planted for mitigation. Native grass seed mix will also be used to cover disturbed areas to prevent erosion and non-native recruitment post construction.*

### **Rare and Endangered Species Habitat**

*United States Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) lists northern spotted owl (*Strix occidentalis caurina*), monarch butterfly (*Danacus plexippus*), and whitebark pine (*Pinus albicaulis*) as species that have potential to occur within the vicinity, which includes wetlands and the SCA for Camp Creek. Due to the developed nature of the surrounding land and the proximity to moderately trafficked roadways, the parcel is not suitable for northern spotted owl nesting or foraging. Monarch butterflies require secure patches of milkweed (*Asclepias* spp.) and safe travel corridors for migration, and generally forage at lower elevations. No milkweed was observed within the parcel. No whitebark pine trees were observed within the parcel either.*

*StreamNet Mapper shows coastal cutthroat trout are present within the reach of Camp Creek adjacent to the project. Coastal cutthroat trout are a species of concern to the USFWS, but are not federally threatened or endangered. No listed fish are present within this reach of Camp Creek. The project will not impact fish habitat because stormwater from the site will be treated and detained to National Oceanic and Atmospheric Administration (NOAA) Fisheries Standard Local Operating Procedures for Endangered Species Stormwater Transportation and Utilities*

*(SLOPES STU) programmatic biological opinion standards and no hydrology is being removed from the system.*

### **Wetland and SCA Functions**

*The development is located along the roadway to minimize fragmentation of the remaining forested area. Much of the development footprint overlaps a large berm of material that was placed on the site during the construction of Government Camp Loop. Vegetation removal will occur at the outer fringes of the SCA and wetlands, away from Camp Creek. No vegetation removal or disturbance will occur on the stream banks and no work will occur within the creek. Large wood and log jams, which are abundant on the site, will not be removed from Camp Creek or its banks.*

*During site visits, the wetlands were determined to have high function regarding amphibian habitat, potential fish habitat adjacent to the stream, and temperature regulation. Temperature regulation, filtration, cover from predators, refugia from high flows, and large wood recruitment functions provided by streamside vegetation and large wood will not be diminished by this development. A large portion of the wetlands, including all of the wetland areas closest to Camp Creek will be preserved. Refugia and forage habitat for amphibians will remain mostly undisturbed and areas between wetlands will remain undisturbed and will not include human-made passage barriers. No wetlands adjacent to Camp Creek will be disturbed and any potentially flooded wetland fish habitat will remain intact. The thermal regulation function of the wetlands will be minimally disturbed. A small portion of the wetlands will be impacted and only two wetland trees will be removed. Most of the shrub layer will be retained and shading will likely remain relatively consistent with existing conditions. In addition, the project will decommission and replant the existing footpath where it crosses the SCA, as well as plant understory conifer to fill in windthrow gaps. This mitigation effort will increase cover within the SCA and provide a long-term resilience for riparian functions as saplings mature and replace fallen trees in the canopy.*

*No impacts to salmon spawning and rearing habitat are anticipated. The project construction will implement Best Management Practices (BMPs) and stormwater from the development will be treated to SLOPES STU standards before it is released into upland upslope of wetlands and Camp Creek. The closest passage barrier to the project site is Yocum Falls (1.75 miles downstream) which blocks Chinook salmon and steelhead migration. Coho salmon presence is also mapped 0.8 miles downstream of Yocum Falls. Resident coastal cutthroat trout are present in Camp Creek above Yocum Falls, but no adverse effects to fish habitat, including salmonids, are anticipated. The project will preserve a wide swath of undisturbed riparian vegetation (typically 25 - 55 feet wide) between the development and Camp Creek. The wetland areas where impacts are proposed are significantly upslope of the stream and are not potential fish habitats, even during high water events.*



*SCA and wetland impacts are minimal (0.12 acres) and one spring-fed ditch is being relocated 230 feet to the east. Water from this ditch will disperse into uplands and filter through vegetation and soil into the onsite wetlands and Camp Creek, similar to the existing condition, while retaining its hydrologic connection.*

*Impacts proposed under this conflicting use will not diminish water storage or infiltration functions on the site because the stormwater from the development will be collected, treated, and dispersed back into the vegetated area through a SLOPES STU compliant stormwater facility.*

**B. Economic:**

1. The wetland or significant natural area must be disturbed for reasonable use of the site and, if not disturbed, the applicant would be substantially damaged.
2. The use proposed is a benefit to the community and meets a substantial public need or provides for a public good which clearly outweighs retention of the wetland or significant natural area.

***Applicant's Findings:***

***Criteria 1.*** *The applicant has engaged an A & E team and development consultants with many decades of experience working on this type of project, and on challenging sites throughout the Northwest. This team has spent over 30 months exploring and testing multiple design concepts in order to satisfy Clackamas County Development ordinances, minimize impacts to wetlands and SCA, and produce an extended stay lodge that is economically viable and sustainable.*

*As demonstrated by several studies and exhibits which accompany this written statement, the site has a number of encumbrances and conditions which present significant development and construction challenges. Along the entire southerly portion of the site is a substantial SCA which comprises 46% of the gross land area. There are wetlands present, extreme topography and several feet of fill in the upper soils horizons which are laden with organic materials and forest debris, most likely a result of excavation spoils from construction of Government Camp Road. Over the decades, a medium density forest has grown on the site with typical vegetation and understory. The site is bound to the north by a sliver of land owned by the U.S. Department of Forestry which greatly limits public right of way access on the majority of northerly frontage. This has forced a single point access on the easterly portion of the site. Because the wetlands are mapped in disperse locations across the allowable building site, it is impossible to develop the property without some impacts. However the wetlands impact is only 12.5 % of the total mapped wetlands (.02 Acre of .16 Acre).*

*These site challenges have been balanced with the development requirements of the county which results in the project presented. It should be noted that if the proposed use of the site*

were to be multiple family (allowable by zoning code), the impact to the SCA would be allowed without additional analysis as it falls within the 25 percent threshold for that use type.

If not allowed to develop the site as proposed, the applicant will suffer significant sunk costs as well as opportunity costs, loss of future revenues and value creation. Over \$459,000 has already been invested in planning, design, engineering and analyzing of multiple development concepts. The proposed development is demonstrably the highest and best use for the property. Market analysis has demonstrated a significant demand for additional lodging rooms in the Government Camp area. The land valuation based on the proposed development concept is estimated at \$3,470,000 as raw land. This is substantiated by the few recent sales which have taken place in the Government Camp area. When fully developed, the land value will be significantly higher, and the hotel is projected to create a net operating income over \$2 million annually. The capitalized value of the hotel, based on market cap rates will be well in excess of \$25 million, which will likely create county tax revenue in the area of \$300,000 per year. The minimal impacts to wetlands and SCA far outweigh the loss of sunk costs and value creation noted above if the property is not developed as proposed.

**Criteria 2.** In accordance with the economics portion of the Clackamas County Comprehensive Plan, some of the target industries the county wants to see more of are hotels/motels/conference uses. This use is identified as one which would support the economic growth of Clackamas County. The proposal supports the three goals of the economics portion of the Clackamas County Comprehensive Plan which are as follows:

1. Establish a broad-based, stable, and growing economy to provide employment opportunities to meet the needs of the County's residents.
2. Retain and support the expansion of existing industries and businesses.
3. Attract new industrial and commercial development that is consistent with environmental quality, community livability, and the needs of County residents.

The development of the hotel will bring several varied employment opportunities within the hospitality industry including management staff, maintenance staff, kitchen and wait staff, housekeeping staff, front desk staff, supplied and accounting staff, etc. In Government Camp, one of the largest industries which provides the most employment opportunities is the tourism and hospitality industry. The proposed development and use of the site is supportive of and will contribute to this industry by bringing more employment opportunities and more opportunities for patrons to visit and enjoy the area contributing to the local economy. Though the development is seeking a minor deviation from the applicable standards to make minor impacts to the edge of the SCA on the site, the proposed development has proven to be consistent with environmental quality standards, community livability, and the needs of Clackamas County residents. Because the proposal does not remove any significant natural area and impacts a very small portion of wetlands and the SCA for Camp Creek, it is the position of the development

*team and the applicant that the proposed use of the site will be a benefit to the community by providing more opportunities for tourism and recreation considering the development site's close proximity to Government Camp Village, Ski Bowl and Timberline Lodge.*

C. Energy:

1. Disturbance of the open space will not require public costs, including maintenance, due to secondary impacts, or exacerbate existing conditions.
2. The development, as proposed, supports the Comprehensive Plan policies for energy efficient land use considering such things as transportation costs, efficient utilization of urban services, area self-sufficiency, and retention of natural features which create microclimates conducive to energy efficiency.

***Applicant's Findings:*** *Upon review of the natural resources and energy component of the Clackamas County's Comprehensive Plan, it is believed the following policies are the most pertinent to the proposed development of the subject property.*

*3.A.1 Maintain rivers and streams in their natural state to the maximum practicable extent through sound water and land management practices. Consideration shall be given to natural, scenic, historic, economic, cultural, and recreational qualities of the rivers and adjacent lands.*

*3.A.2 Apply erosion and sediment reduction practices in all river basins to assist in maintaining water quality. Existing riparian vegetation along streams and riverbanks should be retained to provide fisheries and wildlife habitat, minimize erosion and scouring, retard water velocities, and suppress water temperatures.*

*3.A.3 For areas that are outside both the Metropolitan Service District Boundary and the Portland Metropolitan Urban Growth Boundary, require preservation of a buffer or filter strip of natural vegetation along all river and stream banks as shown on the adopted Water Protection Rules Classification (WPRC) Maps. The depth of the buffer or filter strip will be dependent on the proposed use or development, width of river or stream, steepness of terrain, type of soil, existing vegetation, and other contributing factors, but will not exceed 150 feet. River and stream corridor crossings shall be permitted provided they do not interfere with fish movement. Commercial forest activities and harvesting practices shall provide for vegetation buffers and the intended shading, soil stabilizing, and water filtering effects as required by the Oregon Forest Practices Act and administered by the State Department of Forestry. Tree cutting activities associated with river or stream enhancement projects approved by the Oregon Department of Fish and Wildlife are exempt from this policy.*

*3.A.9 Decisions regarding developments in Principal River Conservation Areas, Stream Conservation Areas, and Habitat Conservation Areas shall be consistent with the applicable Economic, Social, Environmental and Energy (ESEE) analyses for the watershed.*

*As demonstrated both through this written assessment of the impacts proposed and through the exhibits provided, each applicable comprehensive plan policy is still being met by the proposal. Mitigation including replating to the greatest extent possible is proposed and it is reiterated that the impact is to a very minor portion of wetland and the SCA, and not to the embankment of Camp Creek.*

D. Environmental: Disturbance of the wetland or significant natural area is minimized, as provided under Subsection 1011.02(C), and the review process and conditions of development pursuant to Section 1103, Open Space Review, and the following conditions are satisfied:

1. 1. Wetlands:

- a. The wetland can be altered without substantial adverse impact upon the character of the area, and function of the wetland.
- b. The wetland does not support rare or endangered species.
- c. Elimination, alteration, or relocation does not significantly alter water movement, including normal levels or rates of runoff into and from wetlands.
- d. The proposed use or alteration of the wetland is approved by the U.S. Army Corps of Engineers and the Oregon Department of State Lands.

***Applicant's Findings:***

***1011.03.D.1(a) The wetland can be altered without substantial adverse impact upon the character of the area, and function of the wetlands.***

*The wetland can be altered without substantial adverse impact upon the character of the area and function of the wetland. The parcel is a small patch of forest within a developed area of Government Camp. The development will match surrounding land use and preserve a large part of the forested area, consistent with the character of the area. The wetlands function as amphibian habitat, thermal regulators, and the portions that flood function as fish habitat. These functions will be undiminished. The majority of wetlands on the site are within the SCA and will be protected. Proposed wetland impacts are minimal (0.02 acres) at the outer fringe of the wetlands, away from Camp Creek.*

***1011.03.D.1(b) The wetland does not support rare or endangered species.***

*No rare or endangered species or habitats were identified during site visits. The level of disturbance at the site and in the immediate vicinity make it unsuitable for northern spotted owl. No Endangered Species Act (ESA)-listed salmonids access this section of Camp Creek due to a downstream fish passage barrier (Yocum Falls). Whitebark pine, a listed species occurring in the Mount Hood area, is not present based on the field investigation.*

**1011.03.D.1(c) Elimination, alteration, or relocation does not significantly alter water movement, including normal levels, or rates of runoff into and from wetlands.**

*A spring-fed ditch is being relocated 230 feet to the east and will outfall in upland, adjacent to wetlands, in the eastern portion of the parcel, approximately 5 feet from Camp Creek's OHWM. The relocated outfall will remain within the local complex of swales and wetlands within the parcel. The water from the ditch will maintain its hydrologic connection with the wetlands in this area and will partially infiltrate and flow into groundwater and Camp Creek, similar to its existing condition. Additionally, the stormwater collected from the building footprint will be collected, treated, and discharged via dispersion mechanisms.*

**1011.03.D.1(d) The proposed use or alteration of the wetland is approved by the US Army Corps of Engineers and Department of State Lands.**

*A wetland delineation of the parcel is currently under review by Department of State Lands (DSL). A Joint Permit Application (JPA) is being prepared and will be submitted to United States Army Corps of Engineers (USACE) and DSL. The county stated that a concurrent review with DSL and USACE would be acceptable during a meeting on August 23, 2022. The project will be pursuing a Nationwide Permit 39: Commercial and Institutional Developments through USACE and an Individual Permit through DSL. The project will not be constructed without approval from USACE and DSL.*

[Clackamas County ZDO – 704.05 – River and Stream Conservation Area \(SCA\) Setback Exemptions](#)

B. In addition to the exemptions listed in Subsection 704.05(A), the minimum setback standards of Section 704 may be modified for purposes consistent with the adopted Economic, Social, Environmental, and Energy [ESEE] analyses for the applicable watershed.

**Applicant's Findings:** *As demonstrated in the proceeding ESEE Analysis pertaining to Open Space review criteria, the proposed project is consistent with the adopted ESEE analysis for the Sandy River Watershed. The project has minimized proposed encroachment into the SCA in order to minimize conflict with the setback standards of Section 704. In addition, the development, combined with the proposed revegetation and mitigation, will avoid a net loss of SCA function by protecting and enhancing the riparian buffer and wetlands closest to the creek, implementing BMPs to protect undisturbed areas during construction, managing onsite stormwater consistent with the SLOPES STU programmatic biological opinion from NOAA Fisheries, and returning stormwater to the onsite system to avoid impacts to wetland and stream hydrology. Functions of the SCA, including those that support resident fish habitat and downstream listed-fish habitat, will be preserved. On the other hand, the economic and social benefits of developing this parcel in the heart of Government Camp are substantial, as outlined in the proceeding sections.*

## Section 5: Conclusion

Based on the facts and findings presented by the applicant within this detailed written narrative, the applicant believes they have satisfied the burden of proof and demonstrated how the proposal not only satisfies all applicable criteria but would also be a benefit to the community by providing a needed improvement to the subject site in Government Camp.

## Section 6: Exhibits

Exhibit A – SCA Impact Site Plan

Exhibit B – Mitigation and Restoration Plan



Exhibit A – SCA Impact Site Plan



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TAX LOT NUMBER 38E24A 40000

TAX LOT NUMBER 38E00 00130

TAX LOT NUMBER 38E24A 00409

TAX LOT NUMBER 38E24A 60000

TAX LOT NUMBER 38E24A 70000

STREAM CONSERVATION AREA (SCA)		
DISTURBANCE	AREA OF DISTURBANCE (SQ. FT.)	% OF SCA DISTURBANCE WITHIN PROJECT LIMIT
STRUCTURES/WALLS (PERMANENT)	1,610	5.8%
SITE GRADING (TEMPORARY)	2,860	10.2%
TOTAL IMPACT	4,470	16.0%

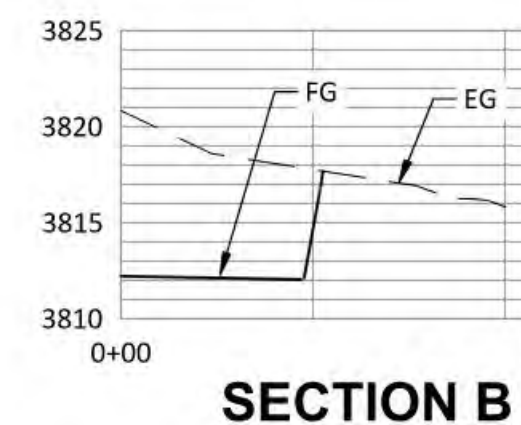
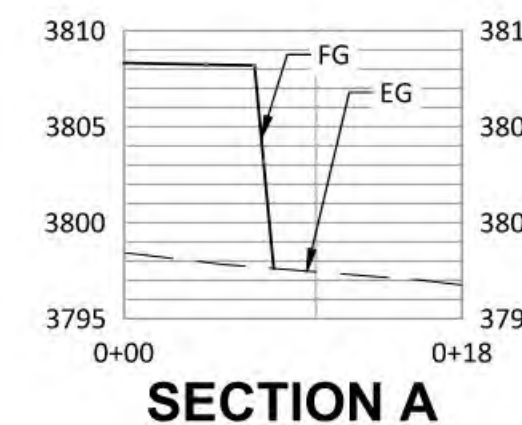
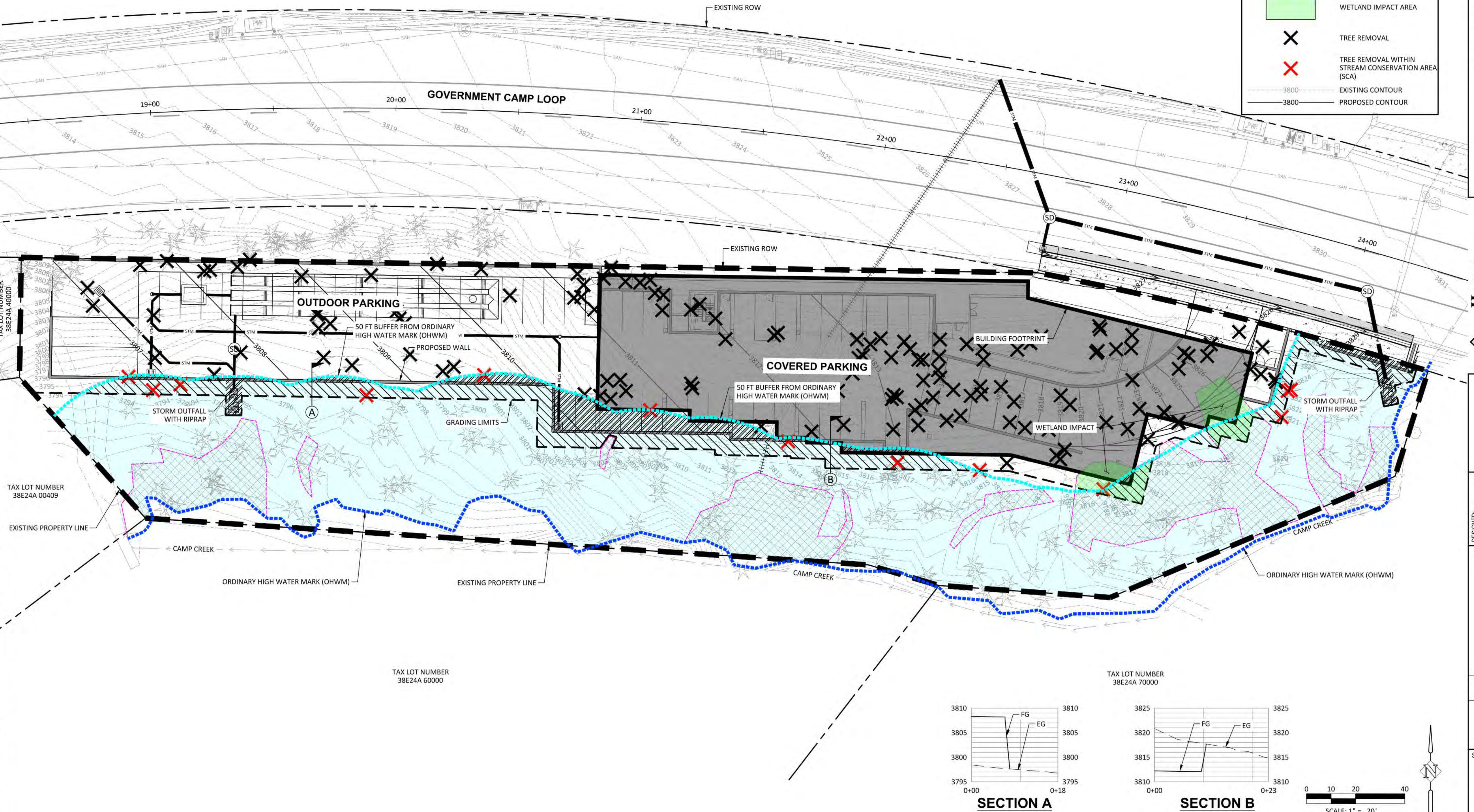
\*TOTAL SITE AREA = 60,0170 SF  
\*TOTAL SCA WITHIN SITE = 27,990 SF

**LEGEND**

- ORDINARY HIGH WATER MARK (OHWM)
- 50 FT OHWM BUFFER
- PROPOSED GRADING LIMITS
- STREAM CONSERVATION AREA (SCA) 50 FT BUFFER TO OHWM
- WETLAND BOUNDARY
- WETLAND
- WETLAND IMPACT AREA
- TREE REMOVAL
- TREE REMOVAL WITHIN STREAM CONSERVATION AREA (SCA)
- EXISTING CONTOUR
- PROPOSED CONTOUR

SCA - SITE PLAN  
MT HOOD LODGES DEVELOPMENT  
GOVERNMENT CAMP, OREGON

Harper Houf Peterson Righellis Inc.  
ENGINEERS • PLANNERS  
LANDSCAPE ARCHITECTS • SURVEYORS  
205 SE Spokane Street, Suite 200, Portland, OR 97202  
phone: 503.221.1131 www.hhpri.com fax: 503.221.1171



SCALE: 1" = 20'



DESIGNED: \_\_\_\_\_ DATE: 12-2-22

DRAWN: \_\_\_\_\_

CHECKED: \_\_\_\_\_

DATE: \_\_\_\_\_

NO.	DESCRIPTION

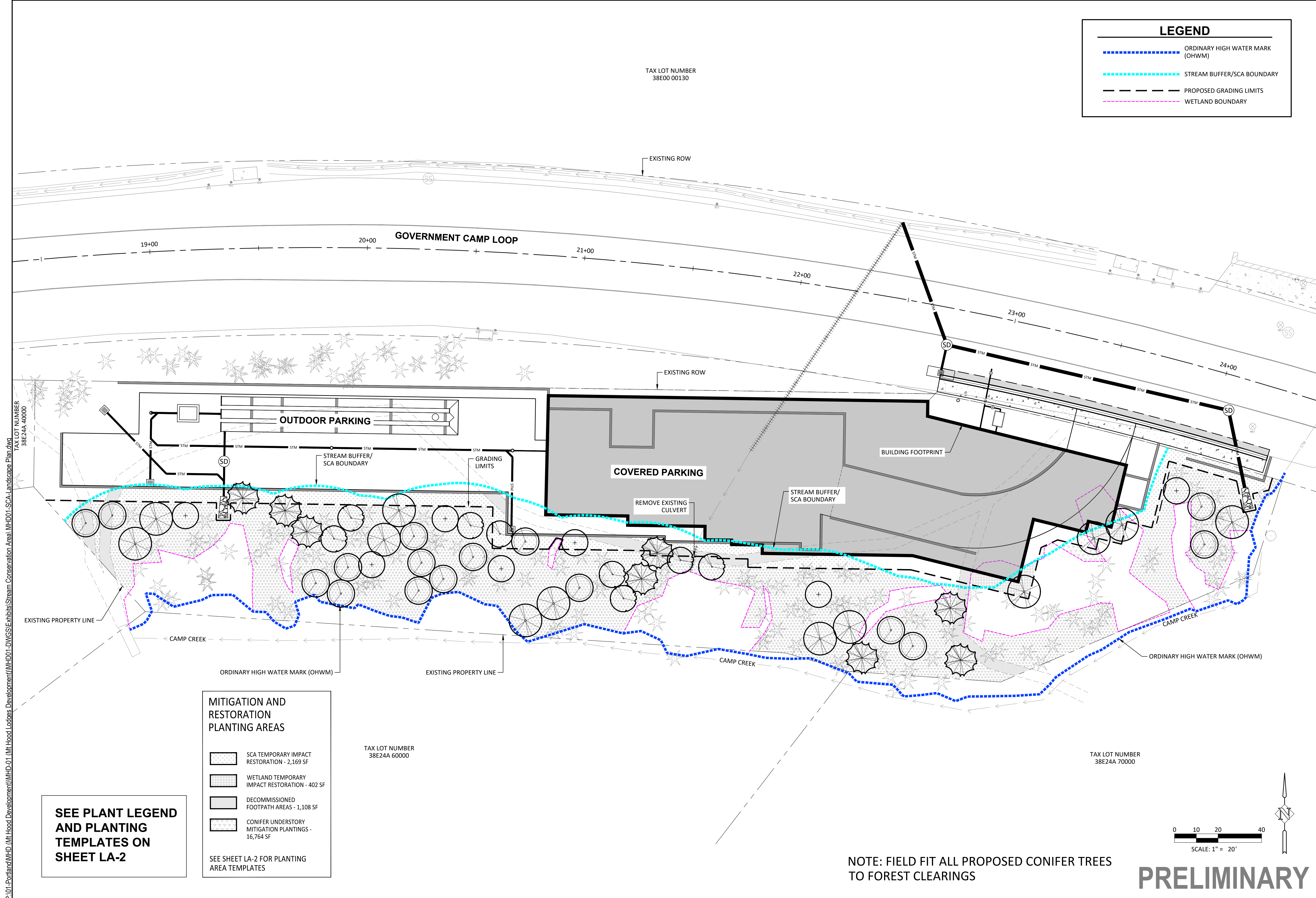
REVISIONS

SHEET NO. **EX-1**

JOB NO. MHD-01



## Exhibit B – Mitigation and Restoration Plan



**LEGEND**

- ORDINARY HIGH WATER MARK (OHWM)
- STREAM BUFFER/SCA BOUNDARY
- PROPOSED GRADING LIMITS
- WETLAND BOUNDARY

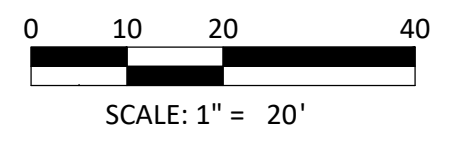
**MITIGATION AND RESTORATION PLANTING AREAS**

- SCA TEMPORARY IMPACT RESTORATION - 2,169 SF
- WETLAND TEMPORARY IMPACT RESTORATION - 402 SF
- DECOMMISSIONED FOOTPATH AREAS - 1,108 SF
- CONIFER UNDERSTOREY MITIGATION PLANTINGS - 16,764 SF

SEE SHEET LA-2 FOR PLANTING AREA TEMPLATES

**SEE PLANT LEGEND AND PLANTING TEMPLATES ON SHEET LA-2**

NOTE: FIELD FIT ALL PROPOSED CONIFER TREES TO FOREST CLEARINGS



**MITIGATION AND RESTORATION PLAN**  
**MT HOOD LODGES DEVELOPMENT**  
 GOVERNMENT CAMP, OREGON

**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS \* PLANNERS  
 LANDSCAPE ARCHITECTS \* SURVEYORS  
 206 SE Spokane Street, Suite 200, Portland, OR 97202  
 phone: 503.221.1131 www.hhpr.com fax: 503.221.1171

DESIGNED:	DATE:	11-2-2022
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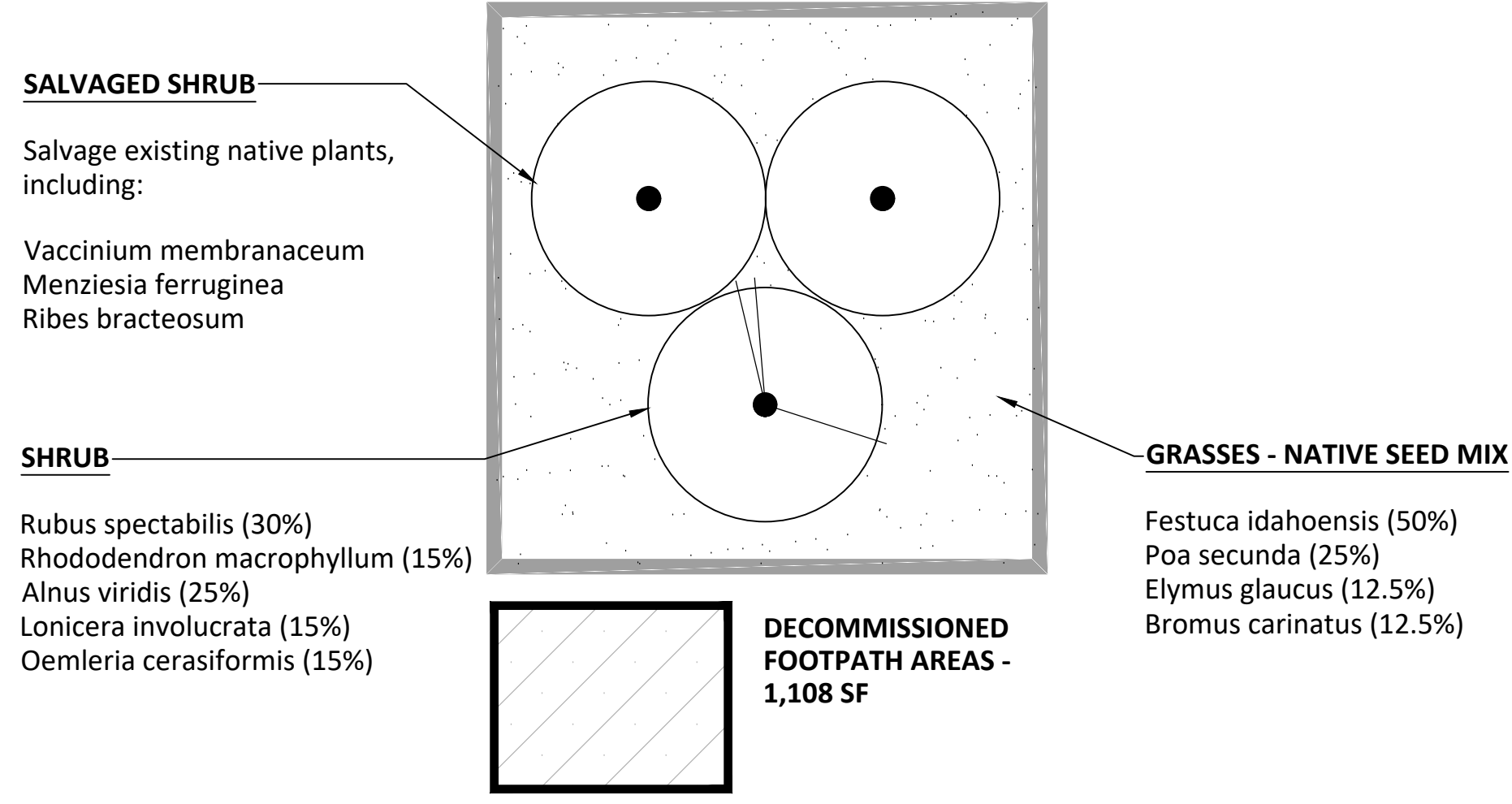
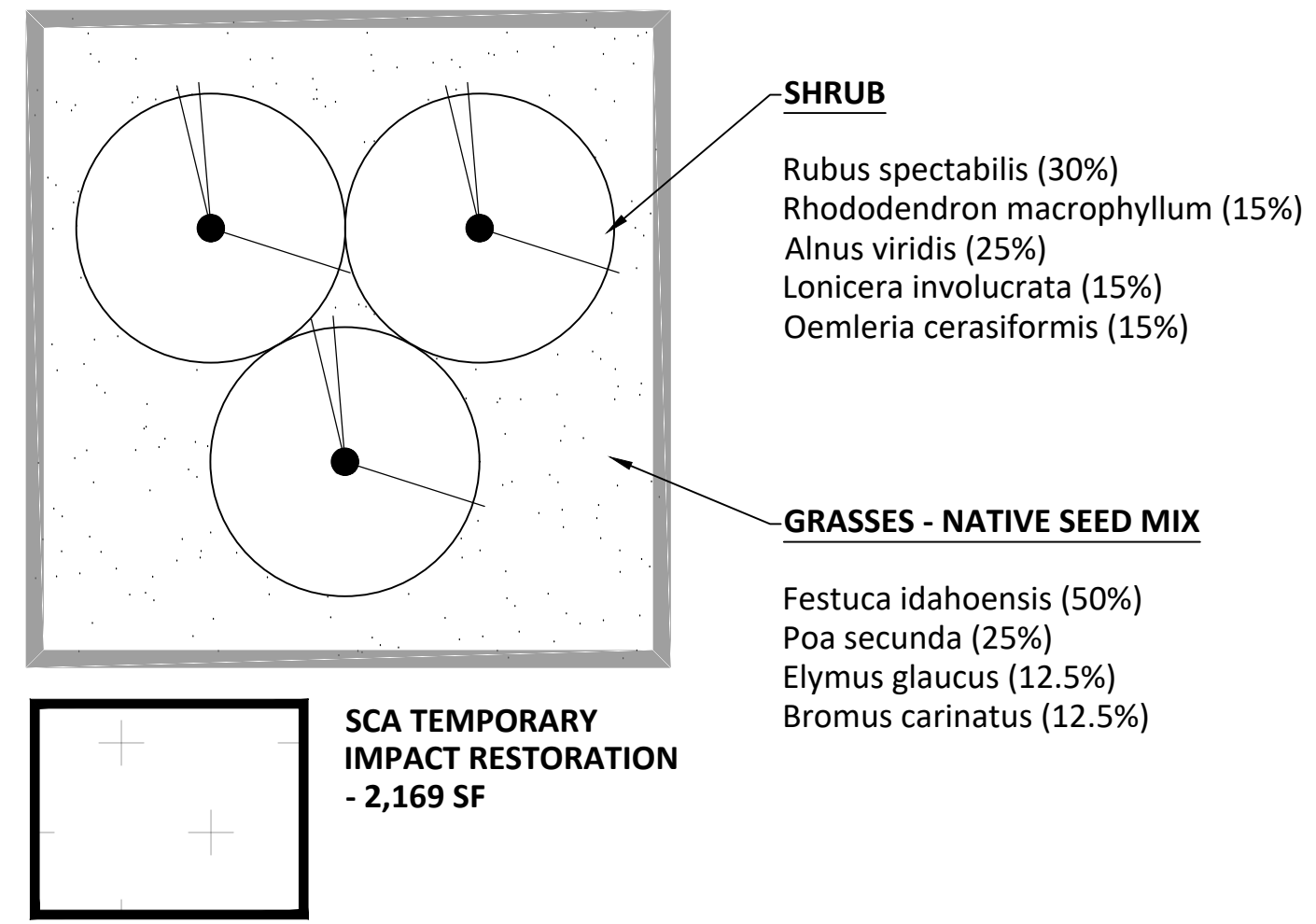
SHEET NO. **LA-1**

JOB NO. MHD-01

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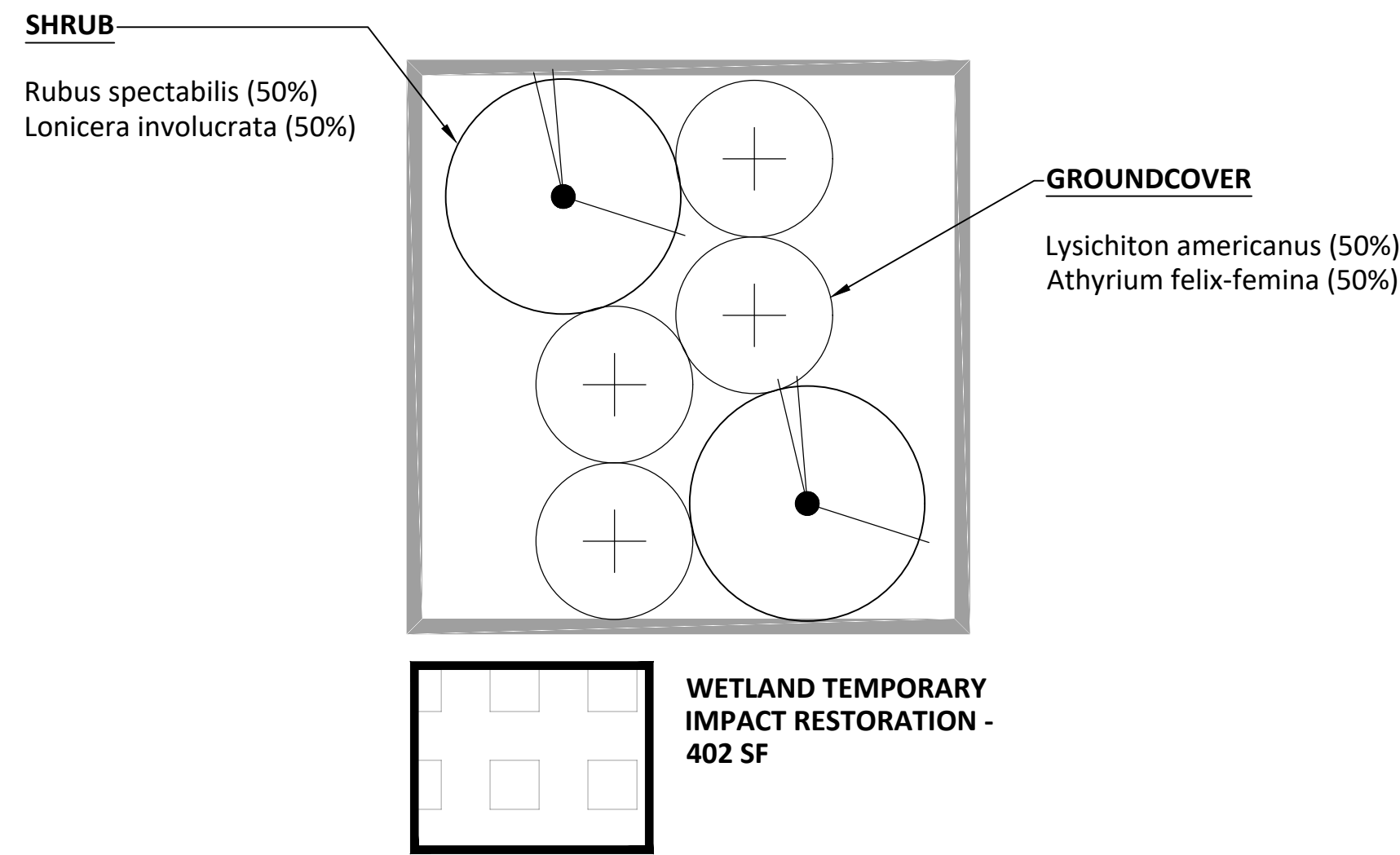
**PRELIMINARY**



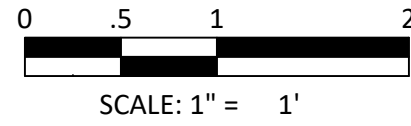


**TOTAL SHRUB QUANTITIES PER AREA**

SCA TEMPORARY IMPACT RESTORATION	PROPOSED SHRUBS = 130 NATIVE SEED MIX = 723 SF
WETLAND TEMPORARY IMPACT RESTORATION	PROPOSED SHRUBS = 16 PROPOSED GROUNDCOVER = 48
DECOMMISSIONED FOOTPATH AREAS	PROPOSED SHRUBS = 22 SALVAGED SHRUBS = 44 NATIVE SEED MIX = 370 SF



PLANTING AREA TEMPLATES, 50 SF TYPICAL



**PLANT SCHEDULE:**

SCA PERMANENT IMPACT RESTORATION

TREES

	5	Abies grandis - Grand Fir
	18" HGT.	PLUG
	10	Thuja plicata - Western Red Cedar
	18" HGT.	PLUG
	7	Chamaecyparis nootkatensis - Alaska Cedar
	18" HGT.	PLUG
	17	Tsuga heterophylla - Western Hemlock
	18" HGT.	PLUG
	14	Picea sitchensis - Sitka Spruce
	18" HGT.	PLUG

SCA TEMPORARY IMPACT RESTORATION + DECOMMISSIONED FOOTPATH AREAS

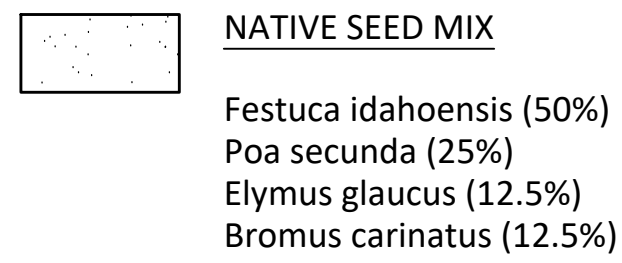
TREES

	3	Abies grandis - Grand Fir
	18" HGT.	PLUG
	1	Thuja plicata - Western Red Cedar
	18" HGT.	PLUG
	1	Chamaecyparis nootkatensis - Alaska Cedar
	18" HGT.	PLUG
	1	Tsuga heterophylla - Western Hemlock
	18" HGT.	PLUG
	5	Picea sitchensis - Sitka Spruce
	18" HGT.	PLUG

SHRUBS

**NOTE: SALVAGE EXISTING NATIVE SHRUBS FROM CONSTRUCTION AREA (ROUGHLY 44 SHRUBS)**

46	Rubus spectabilis - Salmonberry
1 GAL CONT.	FULL PLANTS, SPACING AS SHOWN
23	Rhododendron macrophyllum - Pacific Rhododendron
1 GAL CONT.	FULL PLANTS, SPACING AS SHOWN
38	Alnus viridis - Sitka Alder
1 GAL CONT.	FULL PLANTS, SPACING AS SHOWN
23	Lonicera involucrata - Black Twinberry
1 GAL CONT.	FULL PLANTS, SPACING AS SHOWN
22	Oemleria cerasiformis - Indian Plum
1 GAL CONT.	FULL PLANTS, SPACING AS SHOWN



WETLAND TEMPORARY IMPACT RESTORATION

TREES

3	Thuja plicata - Western Red Cedar
18" HGT.	PLUG

SHRUBS

8	Rubus spectabilis - Salmonberry
1 GAL CONT.	FULL PLANTS, SPACING AS SHOWN
8	Lonicera involucrata - Black Twinberry
1 GAL CONT.	FULL PLANTS, SPACING AS SHOWN

GROUNDCOVERS

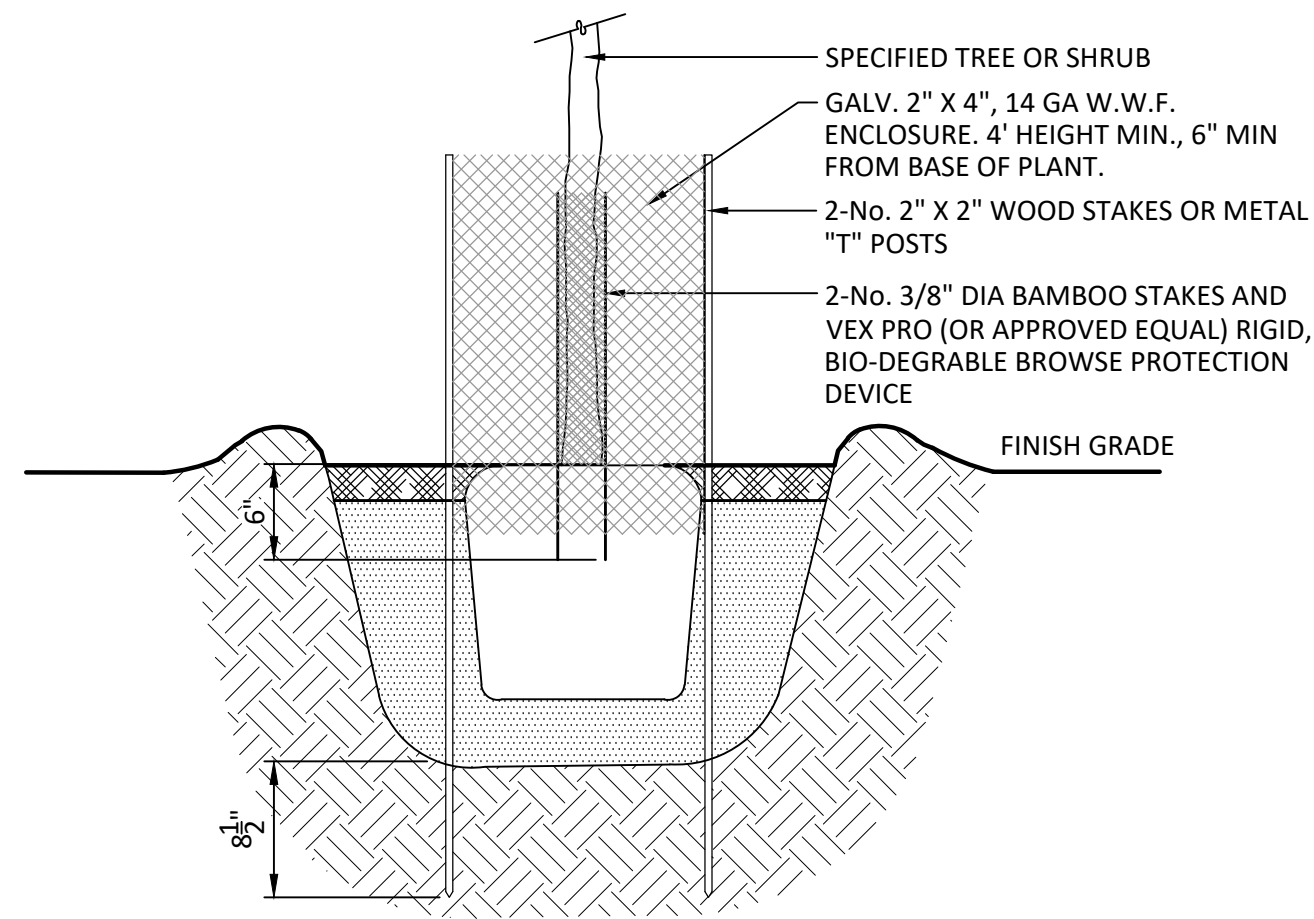
24	Lysichiton americanus - Western Skunk Cabbage
1 GAL CONT.	FULL PLANTS, SPACING AS SHOWN

DESIGNED:	DATE:
DRAWN:	11-2-2022
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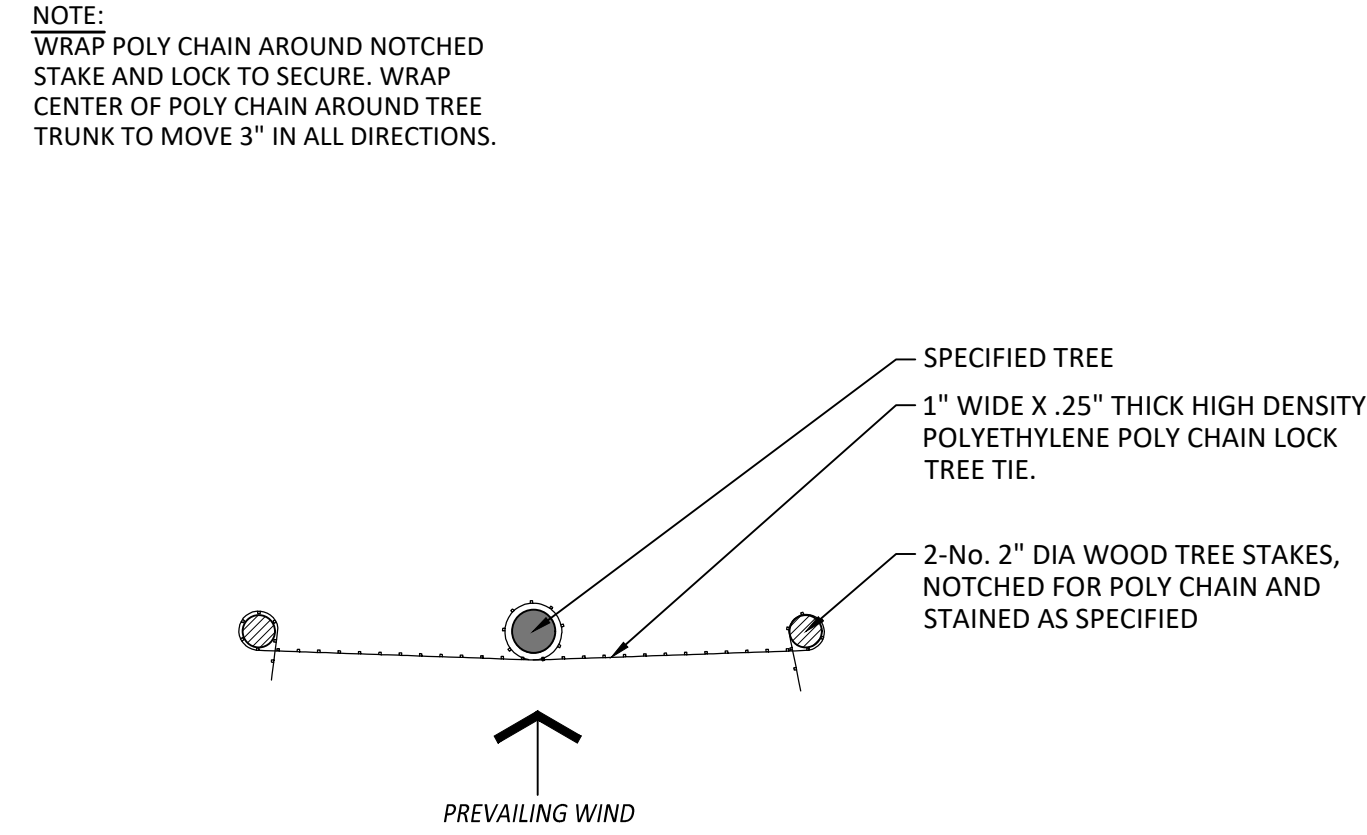
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**PRELIMINARY**

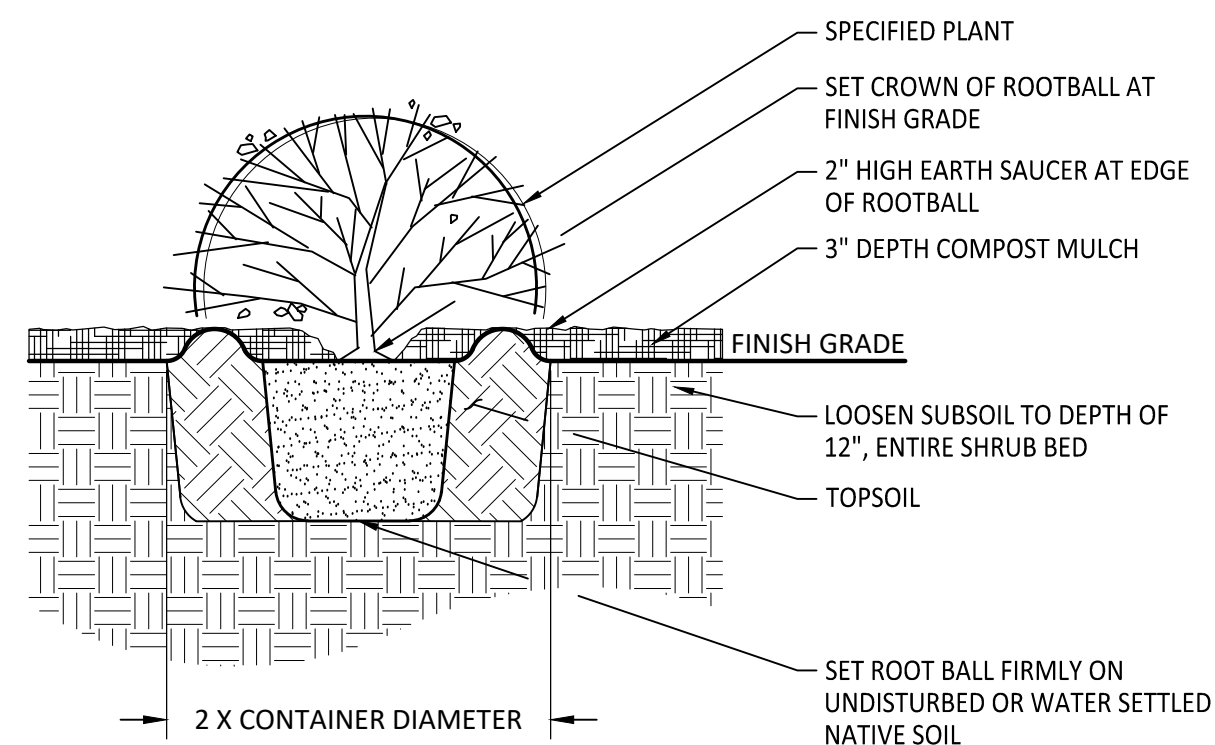


**1 BROWSE PROTECTION**  
Section  
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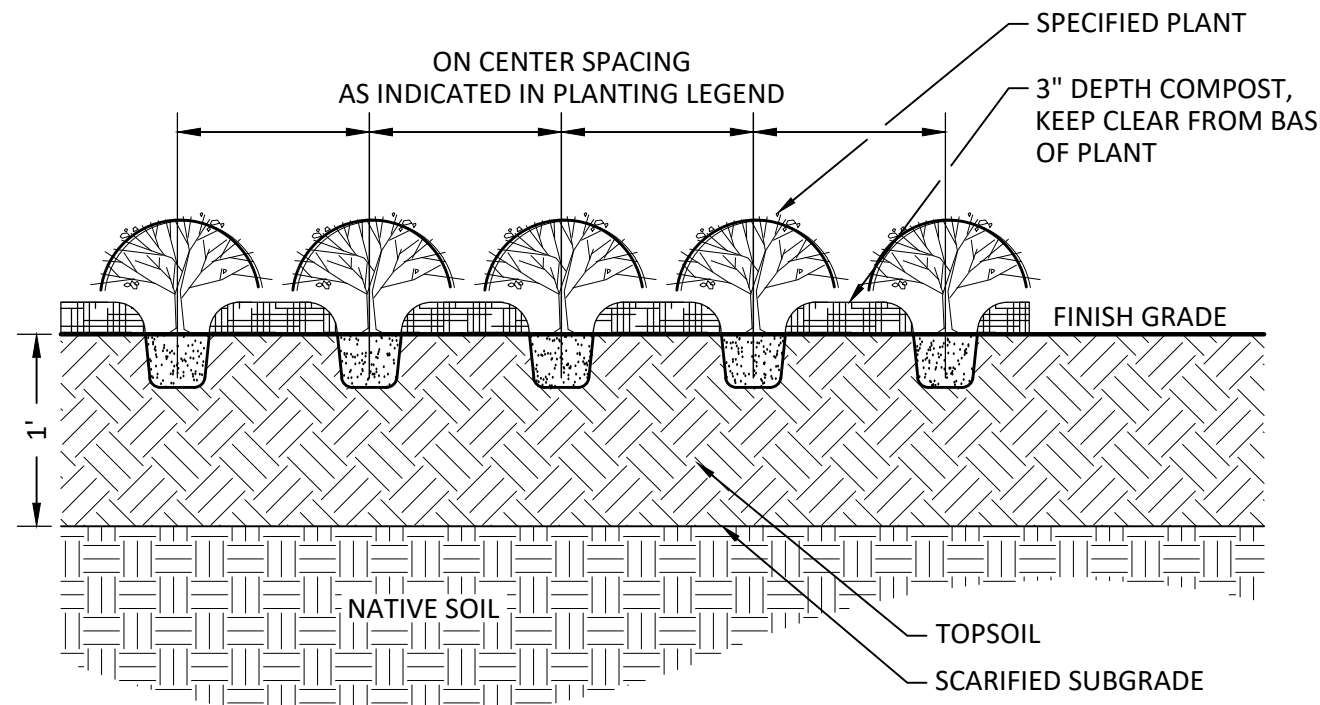


**2 TREE STAKING**  
Plan  
NOT TO SCALE

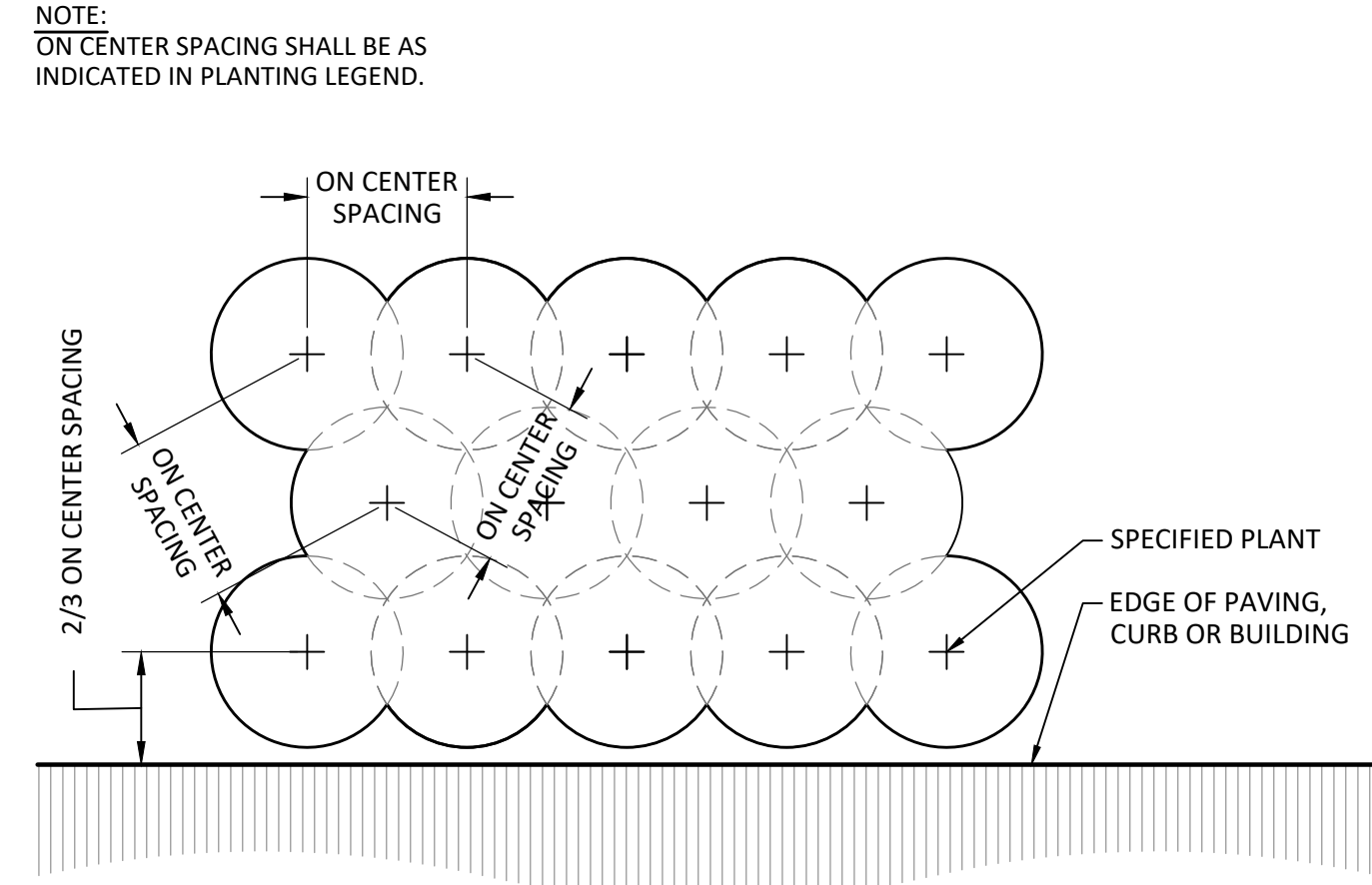
NOTE:  
PROVIDE 36" DIAMETER MULCH OR COMPOST RING, AS SPECIFIED.



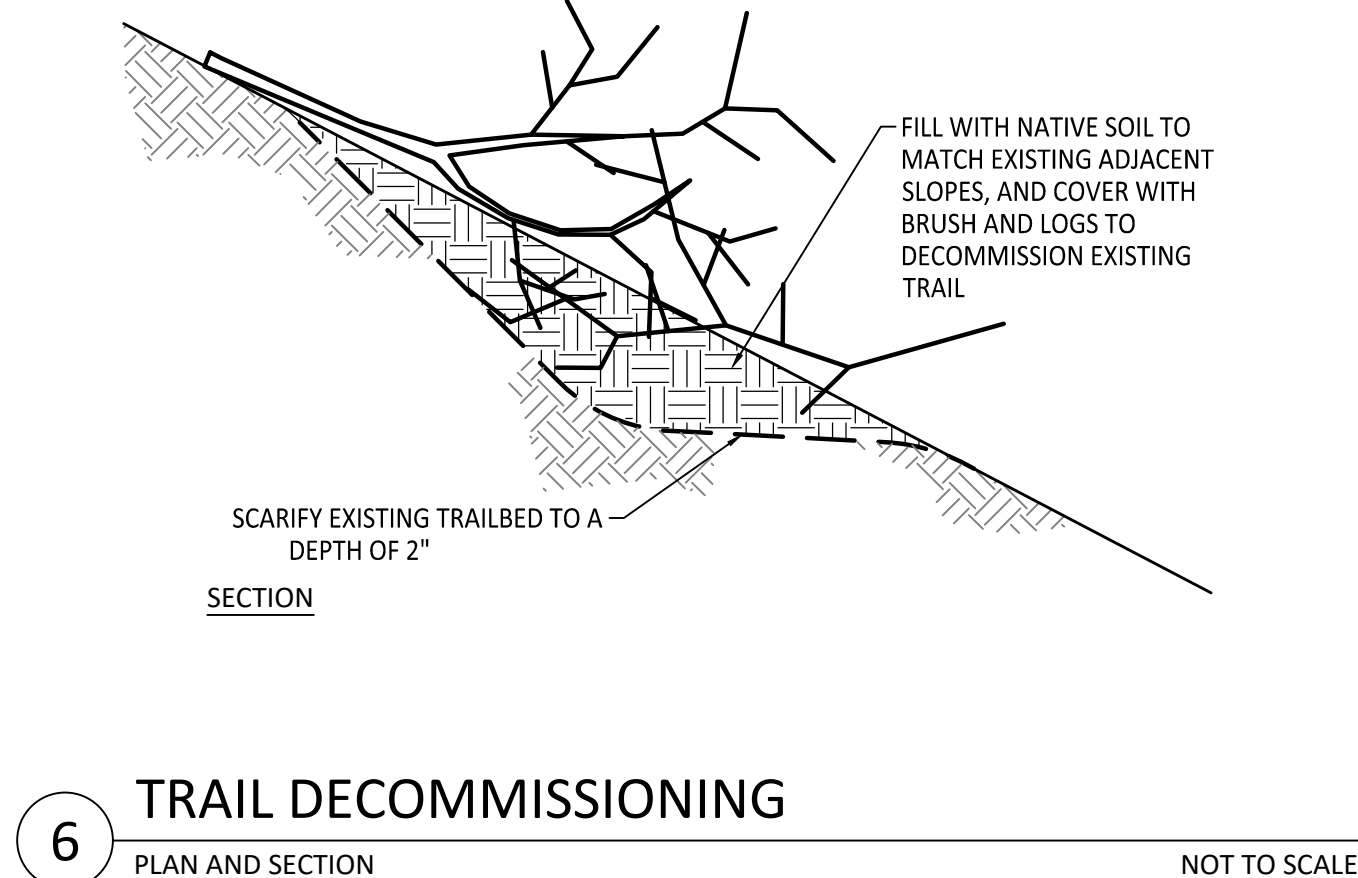
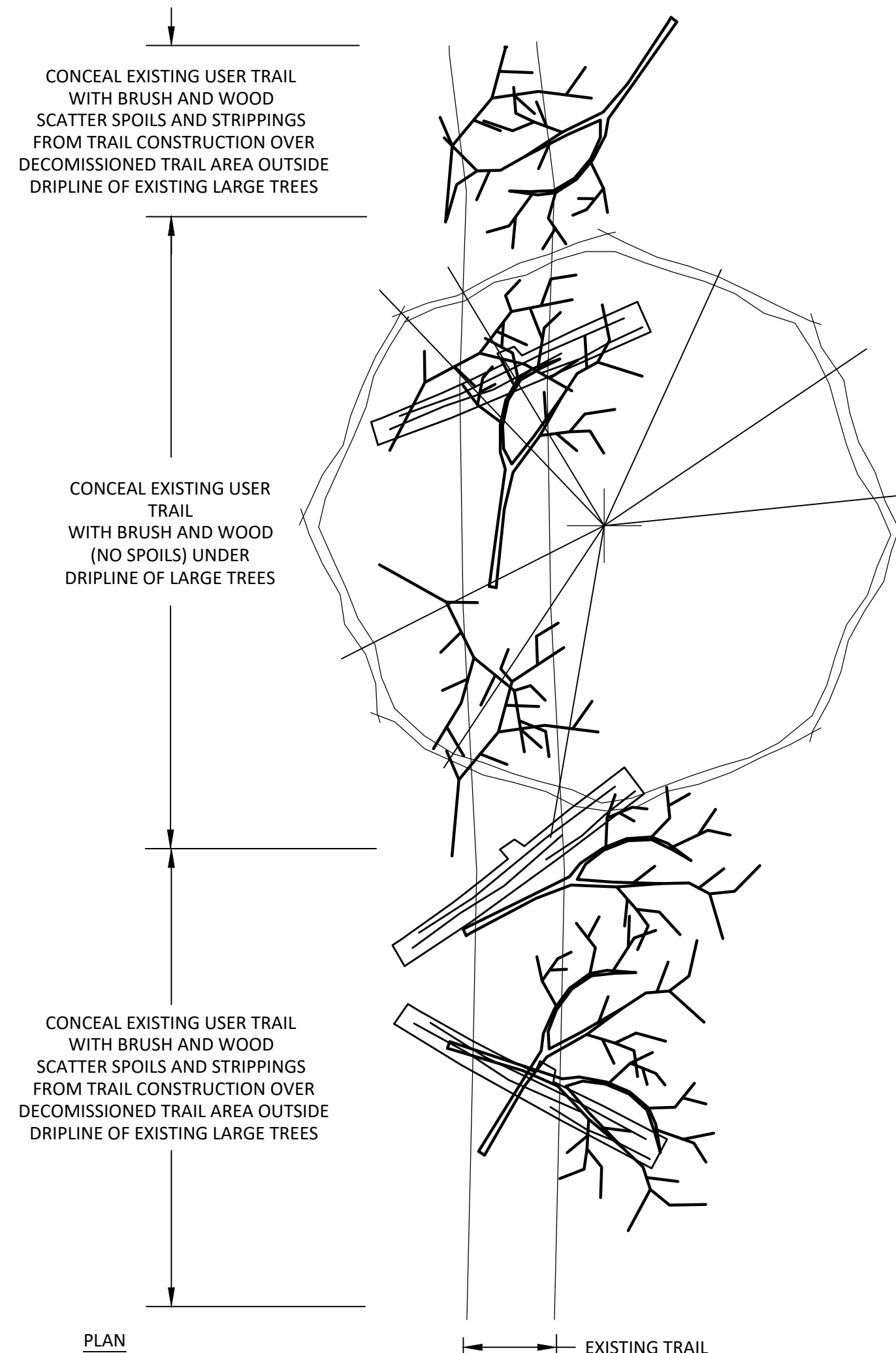
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Section  
NOT TO SCALE



**4 GROUNDCOVER PLANTING**  
Section  
NOT TO SCALE



**5 TRIANGULAR SPACING**  
Plan  
NOT TO SCALE



**6 TRAIL DECOMMISSIONING**  
PLAN AND SECTION  
NOT TO SCALE

MITIGATION AND RESTORATION PLAN  
**MT HOOD LODGES DEVELOPMENT**  
 GOVERNMENT CAMP, OREGON

**Harper Houf Peterson**  
**Righellis Inc.**  
 ENGINEERS & PLANNERS  
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 DRAWN: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 SHEET NO. **LA-3**  
 JOB NO. MHD-01

PRELIMINARY



Exhibit L – Stormwater Report

Harper  
Houf Peterson  
Righellis Inc.

# Government Camp Hotel

MHD-01

## Preliminary Stormwater Management Report

November 2022

Prepared For:

Clackamas County Development  
150 Beaver Creek Road  
Suite #430  
Oregon City, OR 97045

Prepared By:

Harper Houf Peterson Righellis Inc.  
205 SE Spokane Street, Suite 200  
Portland, OR 97202  
P: 503-221-1131 F: 503-221-1171

Sheila Sayer, PE



EXPIRES: 6/30/2024

The logo for Harper Houf Peterson Righellis Inc. (HHPR), consisting of the letters "HHPR" in a bold, teal, sans-serif font, enclosed within a white diamond shape.

ENGINEERS ♦ PLANNERS  
LANDSCAPE ARCHITECTS ♦ SURVEYORS

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**Downstream Analysis.....5**

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- Pre-Developed Basin Delineation Map
- Post-Developed Basin Delineation Map
- SWM Plan
- Offsite Drainage Map

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- Runoff Curve Numbers
- Basin Characteristics

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- SBUH Hydrographs
- WQ Facility Sizing Calculations

**Appendix D – Conveyance Calculations**

- Proposed Storm Drain Conveyance Calculations
- Washington Department of Ecology General Use Designation
- WQ and Detention Details

**Appendix E – Geotechnical Investigation**

- NV5 Engineering geotechnical report dated June 2022 (pertinent pages only)

**Appendix F – Operations and Maintenance**

- Contech O&M

**Appendix G – Forms**

- SLOPES V: Stormwater, Transportation and Utilities – Stormwater Information Form

## PROJECT OVERVIEW

The proposed hotel is located north of Collins Lake Resort condominium, West of East Multorpor Rd, and East of East Collins Lake Rd along Government Camp Loop in Government Camp Oregon. The proposed project site encompasses ±1.38 acres (Tax Lot 38E24A 00408, Clackamas County Assessor’s Map 38E24A). Site improvements include the construction of a private parking lot, frontage improvements along E Government Camp Loop and development of a new five-story hotel. The project will disturb a total of 0.73 acres.

The purpose of this stormwater management report is to present stormwater best management practices (BMP) for conveyance, detention, infiltration, and water quality treatment to be installed as part of the development. This study demonstrates that the proposed design meets or exceeds Clackamas County Water Environment Services (WES) standards, NFMS Standard Local Operating Procedures of Endangered Species (SLOPES V) STU Programmatic Biological Opinion (March 14, 2014), and Department of Environmental Quality’s (DEQ) 401 Water Quality Certification.

The project will relocate an existing outfall and construct a new outfall to a tributary of Camp Creek that borders the south property line. The proposed design will meet current National Marine Fisheries Service (NMFS) stormwater design criteria to comply with Section 7(a)(2) of the Endangered species act (ESA). The creek tributary is minor; however, Oregon Department of Wildlife has identified this stream as having fish passage potential. Erosion control measures will be in place during and after construction to prevent pollution and disturbance to Camp Creek tributary from the project site.

Table 1 below summarizes the design criteria for this project and Table 2 on the following page denotes the governing precipitation rates used in the design.

**Table 1.** WES & NMFS Stormwater Management Requirements

Design Requirement	WES & NMFS Governing Criteria
Water Quality	First 1-inch of stormwater runoff from 24-hour storm event per WES <b>67% of 2-year; 24-hour storm (3.02"/24 hr)</b> per NMFS
Detention	Match the post-developed 2-year storm event to ½ of the pre-developed 2-year discharge rate. Match pre-developed discharge rates between 5-year storm event to 25-year flow event per WES criteria Match pre-developed discharge rates between 42% of the 2-year event to the 10-year flow event per NMFS/SLOPES V criteria
Conveyance	10-Year Rational Method Storm Pipe (<10 acres) 25-Year 24-hour Storm Pipe, Open Channels (>10 acres) 100-Year 24-hour Storm Culverts (> 640 acres)
Infiltration	No on-site infiltration per Geotechnical investigation

Note: **Bold** cells in Table 1 denote the governing design criteria.

**Table 2.** Precipitation Frequency Estimates

NMFS		WES		Return Period in Hydraflow Model for governing design storm
Event	Precip (in/hr)	Event	Precip (in/hr)	
WQ:	<b>3.02</b>	WQ:	1.0	WQ 1-yr (NMFS)
<b>42% of 2-yr:</b>	<b>1.89</b>	6 mo.:	N/A	3-yr (NMFS)
<b>2-yr:</b>	<b>4.5</b>	<b>2-yr:</b>	<b>4.5</b>	2-yr (WES/NMFS)
<b>5-yr:</b>	<b>5.5</b>	<b>5-yr:</b>	<b>5.5</b>	5-yr (WES/NMFS)
<b>10-yr:</b>	<b>6.0</b>	<b>10-yr:</b>	<b>6.0</b>	10-yr (WES/NMFS)
<b>25-yr:</b>	<b>6.5</b>	<b>25-yr:</b>	<b>6.5</b>	25-yr (WES/NMFS)
<b>100-yr:</b>	<b>7.5</b>	<b>100-yr:</b>	<b>7.5</b>	100-yr (WES/NMFS)

Note: **Bold** cells in Table 2 denote the governing storm event rainfall frequencies and intensities. All rainfall precipitation estimates from the NOAA Atlas 2, Volume 10 isopleth maps shown in Appendix B.

## BASIN CHARACTERISTICS

### Pre-Developed Site Conditions

The existing site consists of undeveloped forest land with interconnected walking trails, where steep on-site grades varying from ±10 to ±35 percent. The site has a high point of ±3830 feet at the northeast corner of the property, and a low point of ±3789 feet in the southwest corner of the property. The existing runoff is routed south to a small tributary along the southern property line, before flowing west for approximately 2000 feet to the confluence of Camp Creek. See Figure 2 for the Pre-Developed Basin Delineation Map.

The existing property currently receives a small amount of runoff from the existing bordering development to the north via Government Camp Loop. An existing 12” culvert outfalls to a conveyance ditch along the north end of the property before sheet flowing south to the Camp Creek tributary. This small ditch will be filled; therefore, the post-developed conditions will intercept this runoff and provide a new outfall to Camp Creek tributary. All stormwater discharging directly into the Camp Creek tributary will maintain natural drainage patterns, ensure water quality treatment for contributing impervious area and limit all project disturbance to be above the ordinary high water (OHW) of the Creek tributary. See Figure 3 for the Post-Developed Basin Delineation Map.

NV5 Engineering geotechnical report dated June 2022 found approximately 3 to 12 feet of undocumented fill across the entire site. The undocumented soil is expected to have low strength and high compressibility. Beneath the fill, existing soil generally consists of sand and gravel deposits. Groundwater was measured at approximately 10 feet deep; however, the geotechnical report notes that perched water could be present at shallower depths. Since the site is located on a slope that is covered with snow for much of the year, additional design consideration has been given to account for surface water runoff from snow melt and shallow groundwater during the wet season.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms. This project falls outside the Natural Resource



Conservation Service (NRCS) Soil Survey boundary; however, the geotechnical report specifies that onsite soils are not suitable for infiltration. The undocumented fill is already saturated with surficial snow melt, and underlying native soils will not infiltrate due to shallow groundwater levels. Based on available soil characteristics, hydrologic soil group D was selected for this design. Due to poor site conditions, infiltration is not feasible.

Representative runoff Curve Numbers (CN) were obtained from the NRCS Urban Hydrology for Small Watersheds (Technical Release 55) and are attached as part of Appendix B. The assumed curve numbers for this report are shown in **Table 3** below.

**Table 3.** Assumed Curve Numbers

Condition	Curve Number
Impervious Areas	98
Pervious Landscape Areas, Good Condition, Soil Group D	80
Existing Woods, Good Condition, Soil Group D	77

### Post-Developed Site Conditions

The project area is to be modified with retaining walls to accommodate the construction of a five-story hotel, lot grading, and an underground detention facility. Post-developed stormwater runoff generally maintains existing drainage patterns and is routed to a new stormwater facility at the west of the site, discharging into Camp Creek tributary via a new 12" storm pipe. In addition to on-site improvements, the project will provide sidewalk and curb to E Government Camp Loop along the frontage limits. The frontage improvements will add 1,810 square feet of new and modified impervious area. See Figure 3 for the Post-Developed Basin Delineation Map.

As discussed above, an existing culvert under Government Camp Loop will be impacted by the proposed onsite design. Stormwater runoff from the frontage improvements, contributing impervious area and offsite runoff will be collected and conveyed to the new outfall at the northeast corner of the site to Camp Creek tributary. The pre-developed and post-developed impervious and pervious areas of the project are outlined in **Table 4** below.

**Table 4.** Impervious & Pervious Basin Areas

Basin	Pre-Development		Post-Development	
	Area (ac)	CN	Area (ac)	CN
Onsite Impervious, Pavement & Sidewalks	0.00	98	0.228	98
Impervious, Roof	0.00	98	0.395	98
Pervious, Landscape	0.690	77	0.067	80
Impervious Frontage Area	0.042	77	0.042	98
<b>Total Area</b>	<b>0.732</b>		<b>0.732</b>	

## STORMWATER MANAGEMENT

### Water Quality

WES water quality approach requires the treatment of the first 1-inch of stormwater runoff from a 24-hour storm event. NMFS requires all water quality treatment facilities to fully treat the volume of runoff equal to 67% of the cumulative rainfall from the 2-year 24-hour storm event. NMFS water quality criteria is more restrictive and governs the design since the storm event yields larger water quality flows and volumes than the WES requirements.

Due to existing site conditions, onsite water quality will be achieved through a proprietary treatment vault before being detained in underground detention pipe. The proposed design will treat all contributing surfaces with a proprietary structure approved for General Use Level Designation (GULD) by the Washington Department of Ecology (WDOE) per City of Portland BES Approval Memo dated 2019. Current DEQ data does not list Camp Creek as having impaired waters requiring additional TMDL water quality improvements.

All onsite area will treat 0.62 acres of impervious area using (11) - 27" tall cartridges within a water quality vault. Frontage improvements along Government Camp Loop will treat all proposed and contributing impervious area, totaling 0.23 acres, with a (4) 27" cartridge catch basin. The proposed cartridge media is phosphosorb, which is effective at targeting all pollutants of concern related to road and site development. This includes phosphorous, metals, sediment, nutrients, pesticides, polycyclic aromatic hydrocarbons (PAHs), oil, grease and other petroleum per the Department of Environmental Quality (DEQ). City of Portland approves a treatment flow rate of 18.79 gpm (0.042 cfs) per 27" tall phosphosorb cartridge. Refer to Appendix C for calculations and details.

**Table 5. Water Quality Summary**

Water Quality Basin	Design Flow Rate (cfs)	Proprietary Treatment Structure	Required Cartridges	Cartridge Flow Rate (gpm)	Provided Treatment Flow Rate (cfs)
Onsite	0.456	8' x 6' Stormfilter Vault	11	18.79	0.460
Frontage	0.159	Stormfilter Catch Basin	4	18.79	0.167

**Infiltration**

NV5 Engineering completed infiltration testing in June 2022 and the findings indicated that the site is not suitable for infiltration; therefore, meeting the WES infiltration requirement is expected to be infeasible. Refer to geotechnical site findings in Appendix E.

**Detention**

All runoff from the onsite development will be detained by the underground detention located in the northwest corner of the project site. Runoff from a portion of the frontage improvements cannot be collected and conveyed to the new onsite stormwater facility. This runoff will be collected and treated via a water quality catch basin. To account for this portion of undetained runoff, the onsite underground detention is sized to overdetain stormwater onsite such that the total post-developed runoff meets all detention requirements listed in Table 1 of this report.

The 5,657 cf underground detention system was initially analyzed and sized using the Santa Barbara Urban Hydrograph (SBUH) Method. The system was then checked using the WES BMP Sizing Tool, which sizes the facility so that post-development peak flow durations match the pre-development peak flow durations (ranging from 42% of the 2-year, to the 10-year flows as determined by the continuous model simulation). Results of the detention pipe analysis using the BMP tool can be referenced in Appendix C.

The 48" diameter perforated CMP detention pipes with stone encasement will be wrapped in liner and use a flow control manhole structure to manage flows. The flow control structure includes a standpipe that houses a 0.6" orifice and 2.3" orifice designed to control the 42% of the 2-year through 25-year flows. The stormwater

standpipe spillway will allow stormwater for larger storm events to bypass the orifices during large storm events. The system is designed to accommodate the 100-year storm event. The detention system will reduce runoff such that the post-development 2-year, 24-hour discharges to ½ the pre-development 2-year, 24-hour runoff rate. Additionally, the post-developed discharge rates are less than or equal to the pre-developed discharges rates for the 42% of the 2-year through 25-year storm events. See Appendix C for facility details and hydrographs. Table 6 below shows compliance with total stormwater runoff rates for entire project.

**Table 6.** Pre-Development & Post-Development Runoff Rates

Design Storm Events	Pre-Development Flow (cfs)	Post-Development Flow Allowable Targets (cfs)	Detained Release Rate (cfs)	Difference
42% of 2-yr, 24-hr	0.032	0.032	0.032	0.000
2-yr, 24-hr	0.380	0.190	0.184	-0.006
5-yr, 24-hr	0.546	0.546	0.240	-0.306
10-yr, 24-hr	0.631	0.631	0.397	-0.234
25-yr, 24-hr	0.719	0.719	0.582	-0.137

Note: Allowable flow targets only include onsite and frontage improvement limits.

**Conveyance**

The pipe conveyance system was sized and/or analyzed using the 25-year, 24-hour SBUH method. The 10” storm lateral, main and outfall pipes were analyzed assuming the total 25-year, 24-hour un-detained post-development flow. Table 7 below shows that the storm lines are adequately sized to convey the developments runoff and contributing offsite flows. See Appendix C for 25-year, 24-hour hydrographs Appendix D for pipe conveyance capacity calculations.

**Table 7.** Pipe Conveyance Capacity Table

Pipe	Pipe Size	Total 25-yr Flow (cfs)	Min. Pipe Slope (%)	Pipe Capacity (cfs)
Onsite Outfall	10”	2.07	1.00%	2.19
Frontage Outfall	12”	0.35	1.00%	3.56

**Downstream Analysis**

Per the CCSD#1 stormwater standards, downstream analysis “shall demonstrate adequate conveyance capacity to the distance where the project site contributes less than 15% of the upstream drainage area OR 1500 feet downstream of the project, whichever is greater” (Section 5.4.4.4, CCSD#1). The downstream system will directly discharge into a tributary of Camp Creek and continue to Collins Lake approximately 500 feet downstream of the discharge outfall. Collins Lake ultimately contributes to Camp Creek approximately 2000 feet downstream of the project site. The existing creek has sufficient capacity to handle the additional runoff from this project. HHPR does not anticipate any adverse effects as a result of the proposed design.

**Engineering Conclusion**

The proposed stormwater management plan will achieve stormwater management to WES Standards, Clackamas County and NMFS SLOPES V standards.

# APPENDIX A - MAPS







# VICINITY MAP

SCALE: 1" = 500'

SHEET NO.		DESIGNED:	HHPR
<b>FIG. 1</b>		DRAWN:	HHPR
		CHECKED:	HHPR
		DATE:	MARCH 2022
	JOB NO.		
MHD-01	R E V I S I O N S		




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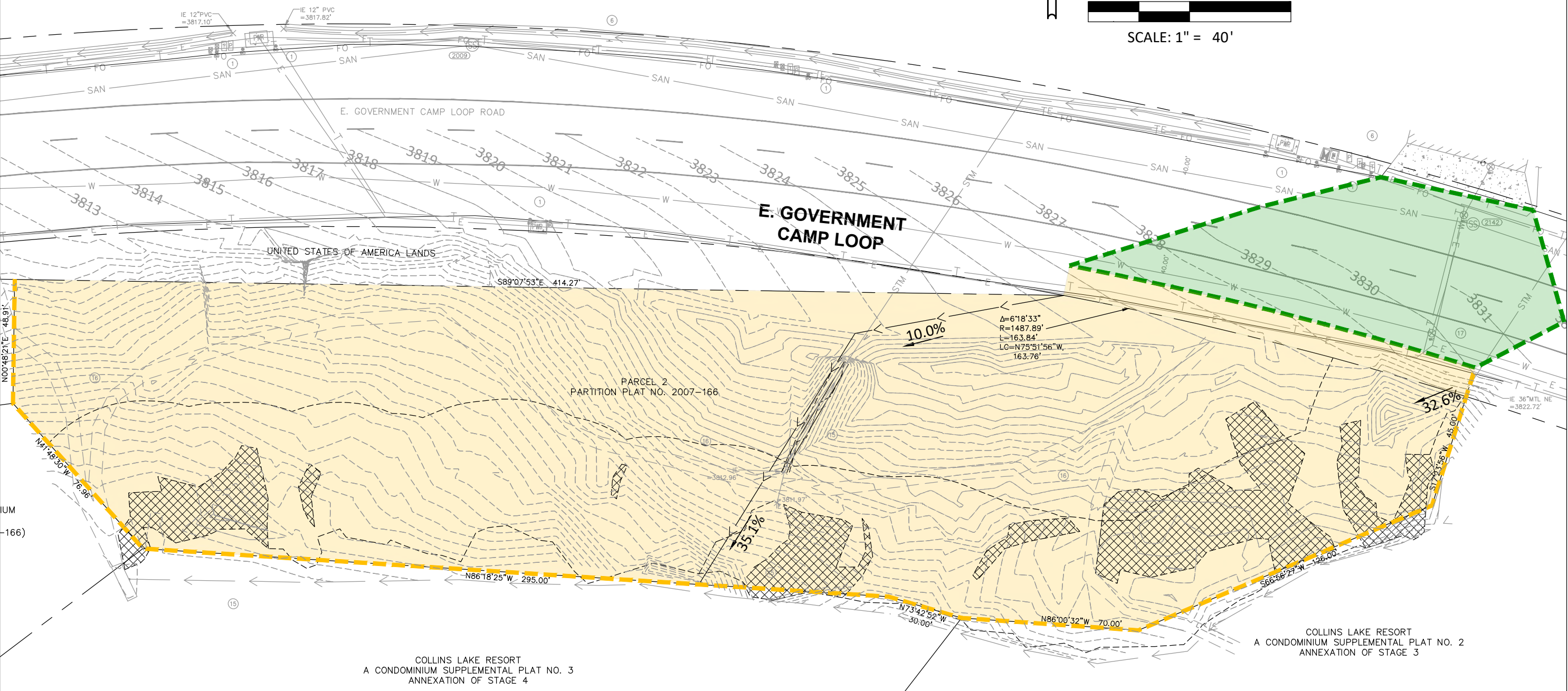
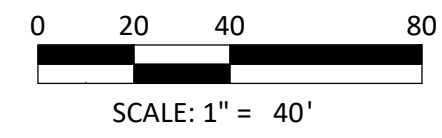
VICINITY MAP  
**MT HOOD HOTEL DEVELOPMENT**  
 GOVERNMENT CAMP, OREGON



P:\01-Portland\MHD (Mt Hood Development)\MHD-01 (Mt Hood Lodges Development)\MHD01-DWGS\Exhibits\Stormwater\Pre-Developed Basin Delineation.dwg

**LEGEND:**

-  - EXISTING OFFSITE IMPERVIOUS AREA (0.184 AC)
-  - EXISTING PERVIOUS AREA (1.42 AC)



COLLINS LAKE RESORT  
A CONDOMINIUM SUPPLEMENTAL PLAT NO. 3  
ANNEXATION OF STAGE 4

COLLINS LAKE RESORT  
A CONDOMINIUM SUPPLEMENTAL PLAT NO. 2  
ANNEXATION OF STAGE 3

DATE	NO.	DESCRIPTION
R E V I S I O N S		

DESIGNED:	HHPR
DRAWN:	HHPR
CHECKED:	HHPR
DATE:	MARCH 2022

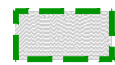


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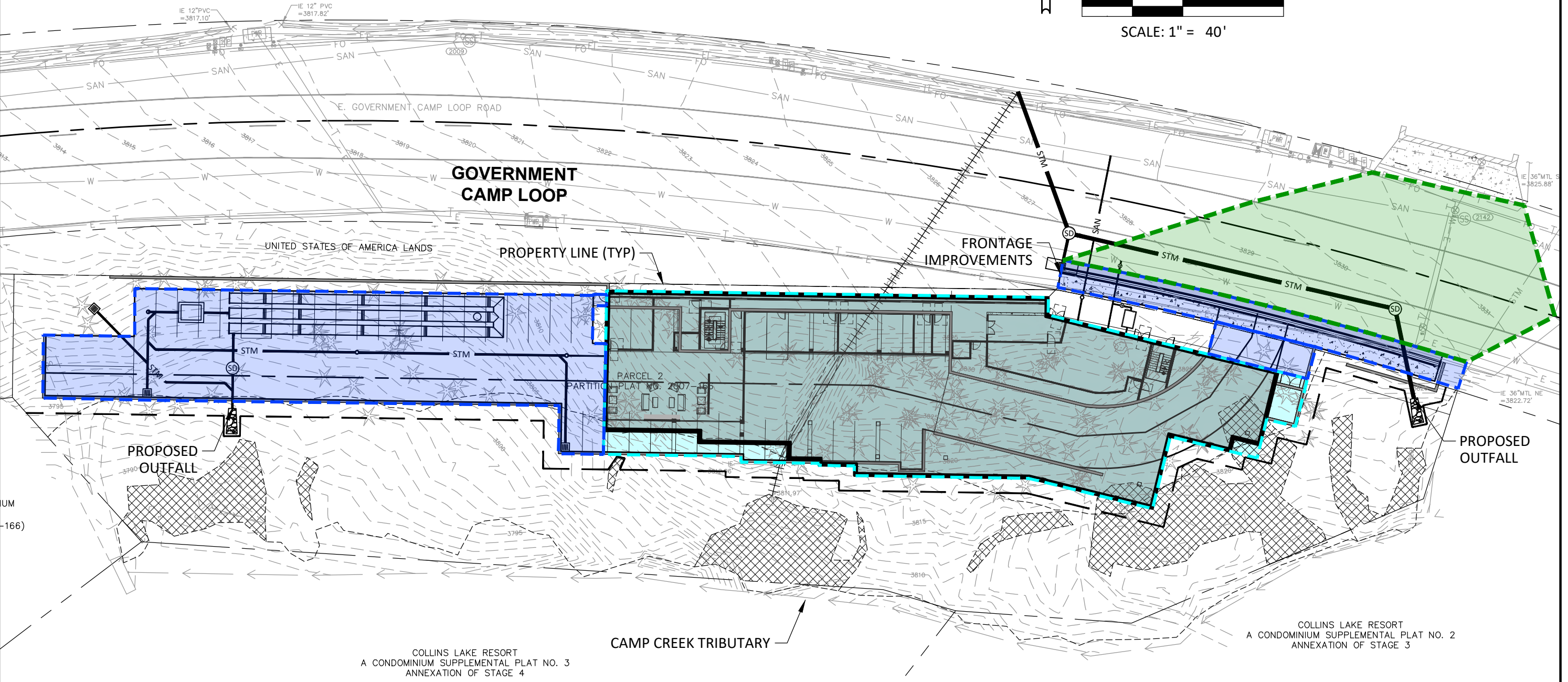
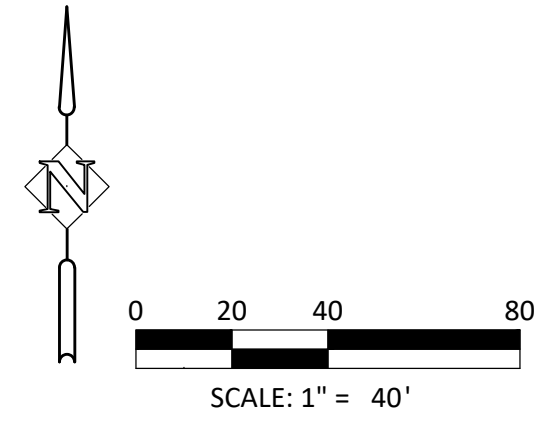
PRE-DEVELOPED BASIN DELINEATION MAP  
MT HOOD HOTEL DEVELOPMENT  
GOVERNMENT CAMP, OREGON

SHEET NO.  
**FIG. 2**  
JOB NO.  
MHD-01

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**LEGEND:**

-  - CONTRIBUTING EXISTING IMPERVIOUS AREA (0.184 AC)
-  - PROPOSED IMPERVIOUS AREA (0.270 AC)
-  - PROPOSED IMPERVIOUS HOTEL AREA (0.395 AC)



COLLINS LAKE RESORT  
A CONDOMINIUM SUPPLEMENTAL PLAT NO. 3  
ANNEXATION OF STAGE 4

COLLINS LAKE RESORT  
A CONDOMINIUM SUPPLEMENTAL PLAT NO. 2  
ANNEXATION OF STAGE 3

DATE	NO.	DESCRIPTION
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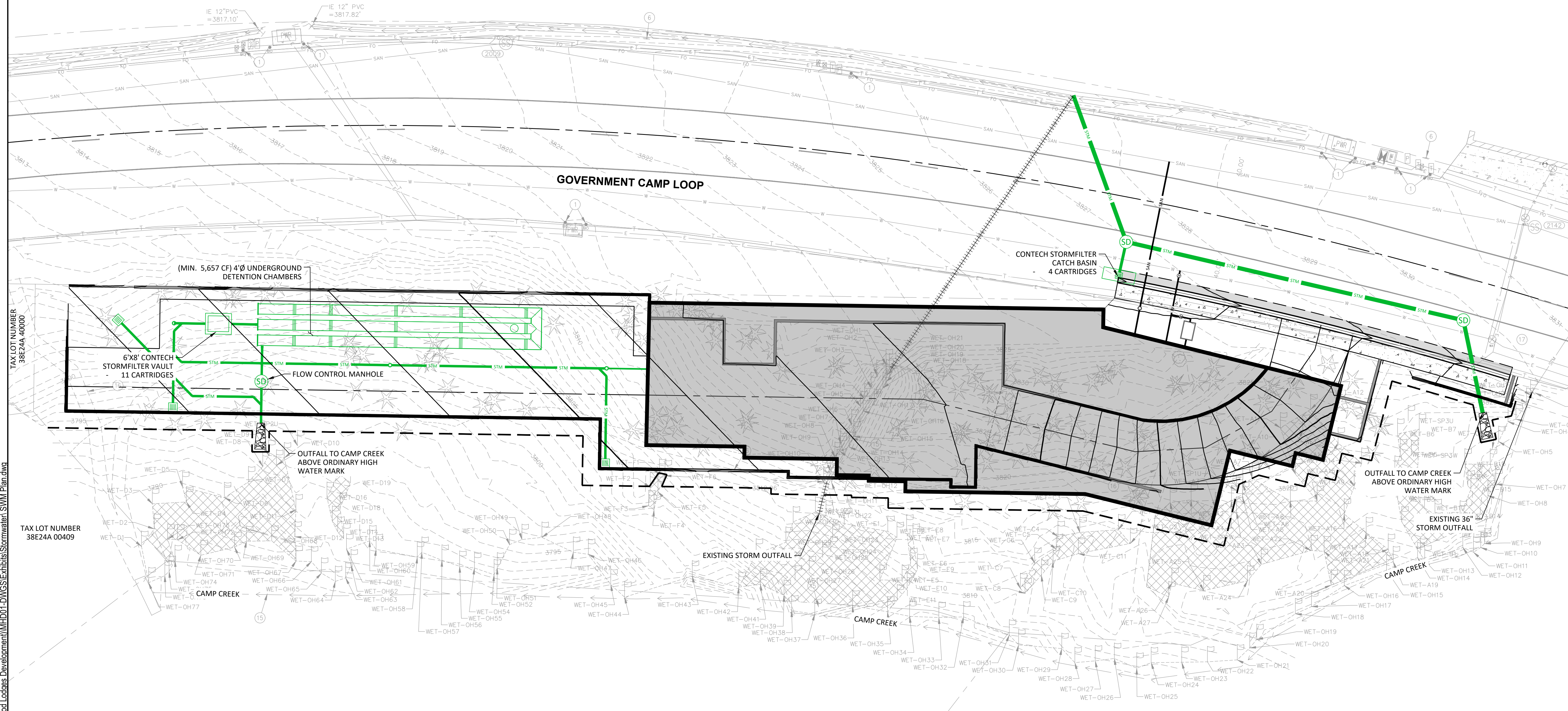
POST-DEVELOPED BASIN DELINEATION MAP  
MT HOOD HOTEL DEVELOPMENT  
GOVERNMENT CAMP, OREGON

SHEET NO.	<b>FIG. 3</b>
JOB NO.	



TAX LOT NUMBER  
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SWM PLAN  
**MT HOOD LODGES DEVELOPMENT**  
GOVERNMENT CAMP, OREGON



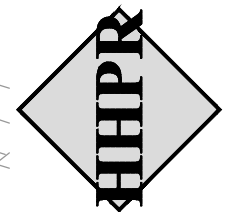
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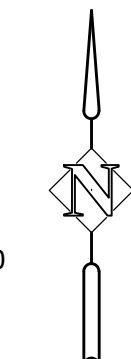
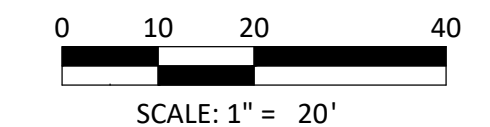
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**FIG. 4**  
JOB NO.  
MHD-01



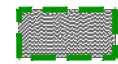
**PRELIMINARY**

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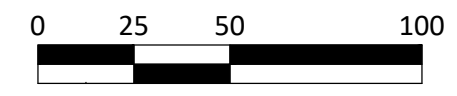
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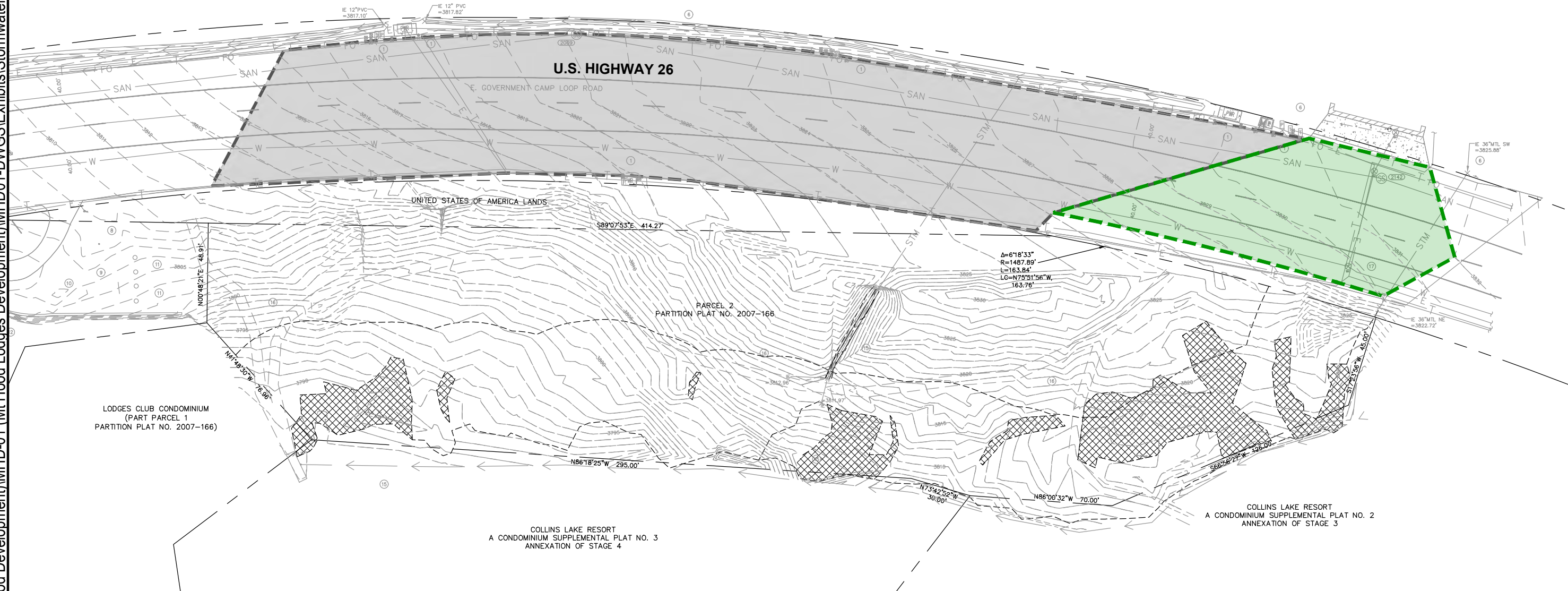
OFFSITE 1: IMPERVIOUS AREA = 0.184 AC (100%)



OFFSITE 2: IMPERVIOUS AREA = 0.709 AC (100%)



SCALE: 1" = 50'



DATE	NO.	DESCRIPTION
R E V I S I O N S		

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DATE:	MARCH 2022

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OFFSITE DRAINAGE MAP  
 MT HOOD HOTEL DEVELOPMENT  
 GOVERNMENT CAMP, OREGON

SHEET NO.	<b>FIG. 5</b>
JOB NO.	

# APPENDIX B – SOILS AND BASIN DATA





# Mt. Hood Hotel Development

## Basin Characteristics

Prepared by Harper Houf Peterson Righellis Inc.

Job No. MHD-01

October 2022

### NRCS Curve Numbers (CN) used:

Ground Cover		Condition
Impervious (Paved, D Soil)	98	Existing & Proposed
Open Space (Good Conditions, D Soils)	80	Proposed Landscape Areas
Woods (Good Conditions, D Soils)	77	Existing

### Pre-Developed Basins

BASIN	TOTAL AREA (SF)	TOTAL AREA (AC)	IMPERVIOUS AREA (SF)	IMPERVIOUS AREA (AC)	PERVIOUS AREA (SF)	PERVIOUS AREA (AC)	t <sub>c</sub> (min)	Composite Hydrologic Curve Number (CN)	Q <sub>42yr</sub> (cfs)	Q <sub>2yr</sub> (cfs)	Q <sub>5yr</sub> (cfs)	Q <sub>10yr</sub> (cfs)	Q <sub>25yr</sub> (cfs)
			CN = 75		CN = 77								
EX BASIN A (ONSITE)	30051	0.690	0	0.000	30051	0.690	6.5	77	0.030	0.359	0.515	0.596	0.679
EX BASIN B (FRONTAGE)	1810	0.042	0	0.000	1810	0.042	5.0	77	0.002	0.021	0.031	0.035	0.04
<b>TOTAL</b>	<b>31861</b>	<b>0.731</b>	<b>0</b>	<b>0.000</b>	<b>31861</b>	<b>0.731</b>	<b>5.0</b>	<b>77</b>	<b>0.032</b>	<b>0.380</b>	<b>0.546</b>	<b>0.631</b>	<b>0.719</b>

17188

### Post-Developed Basins

BASIN	TOTAL AREA (SF)	TOTAL AREA (AC)	NEW/MODIFIED IMPERVIOUS AREA (SF)	TOTAL IMPERVIOUS AREA (AC)	PERVIOUS AREA (SF)	PERVIOUS AREA (AC)	t <sub>c</sub> (min)	Composite Hydrologic Curve Number (CN)	Q <sub>42yr</sub> (cfs)	Q <sub>2yr</sub> (cfs)	Q <sub>5yr</sub> (cfs)	Q <sub>10yr</sub> (cfs)	Q <sub>25yr</sub> (cfs)
			CN = 98		CN = 80								
BASIN A (ONSITE)	30051	0.690	27140	0.623	2911	0.067	5.0	96	0.014	0.139	0.185	0.337	0.517
BASIN B (FRONTAGE)	1810	0.042	1810	0.042	0	0.000	5.0	98	0.018	0.045	0.055	0.060	0.065
<b>TOTAL</b>	<b>31861</b>	<b>0.731</b>	<b>28950</b>	<b>0.665</b>	<b>2911</b>	<b>0.067</b>			<b>0.032</b>	<b>0.184</b>	<b>0.240</b>	<b>0.397</b>	<b>0.582</b>

### Offsite Basins

BASIN	TOTAL AREA (SF)	TOTAL AREA (AC)	IMPERVIOUS AREA (SF)	IMPERVIOUS AREA (AC)	PERVIOUS AREA (SF)	PERVIOUS AREA (AC)	t <sub>c</sub> (min)	Composite Hydrologic Curve	Q <sub>10yr</sub> (cfs)	Q <sub>25yr</sub> (cfs)
			CN = 75		CN = 77					
EX OFFSITE 1 (CIA)	8025	0.184	8025	0.184	0	0.000	5.0	98	0.262	0.284
EX OFFSITE 2 (Conveyance)	30905	0.709	30905	0.709	0	0.000	5.00	98	0.961	1.042

**Table 2-2a** Runoff curve numbers for urban areas <sup>1/</sup>

Cover description	Average percent impervious area <sup>2/</sup>	Curve numbers for hydrologic soil group			
		A	B	C	D
<b>Fully developed urban areas (vegetation established)</b>					
Open space (lawns, parks, golf courses, cemeteries, etc.) <sup>3/</sup> :					
Poor condition (grass cover < 50%) .....		68	79	86	89
Fair condition (grass cover 50% to 75%) .....		49	69	79	84
Good condition (grass cover > 75%) .....		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way) .....		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way) .....		98	98	98	98
Paved; open ditches (including right-of-way) .....		83	89	92	93
Gravel (including right-of-way) .....		76	85	89	91
Dirt (including right-of-way) .....		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) <sup>4/</sup> .....		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders) .....		96	96	96	96
Urban districts:					
Commercial and business .....	85	89	92	94	95
Industrial .....	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses) .....	65	77	85	90	92
1/4 acre .....	38	61	75	83	87
1/3 acre .....	30	57	72	81	86
1/2 acre .....	25	54	70	80	85
1 acre .....	20	51	68	79	84
2 acres .....	12	46	65	77	82
<b>Developing urban areas</b>					
Newly graded areas					
(pervious areas only, no vegetation) <sup>5/</sup> .....		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

<sup>1</sup> Average runoff condition, and  $I_a = 0.2S$ .<sup>2</sup> The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.<sup>3</sup> CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.<sup>4</sup> Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.<sup>5</sup> Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

**Table 2-2c** Runoff curve numbers for other agricultural lands <sup>1/</sup>

Cover description	Hydrologic condition	Curve numbers for hydrologic soil group			
		A	B	C	D
Pasture, grassland, or range—continuous forage for grazing. <sup>2/</sup>	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Meadow—continuous grass, protected from grazing and generally mowed for hay.	—	30	58	71	78
Brush—brush-weed-grass mixture with brush the major element. <sup>3/</sup>	Poor	48	67	77	83
	Fair	35	56	70	77
	Good	30 <sup>4/</sup>	48	65	73
Woods—grass combination (orchard or tree farm). <sup>5/</sup>	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Woods. <sup>6/</sup>	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	30 <sup>4/</sup>	55	70	77 Existing Conditions
Farmsteads—buildings, lanes, driveways, and surrounding lots.	—	59	74	82	86

<sup>1</sup> Average runoff condition, and  $I_a = 0.2S$ .

<sup>2</sup> **Poor:** <50% ground cover or heavily grazed with no mulch.

**Fair:** 50 to 75% ground cover and not heavily grazed.

**Good:** > 75% ground cover and lightly or only occasionally grazed.

<sup>3</sup> **Poor:** <50% ground cover.

**Fair:** 50 to 75% ground cover.

**Good:** >75% ground cover.

<sup>4</sup> Actual curve number is less than 30; use CN = 30 for runoff computations.

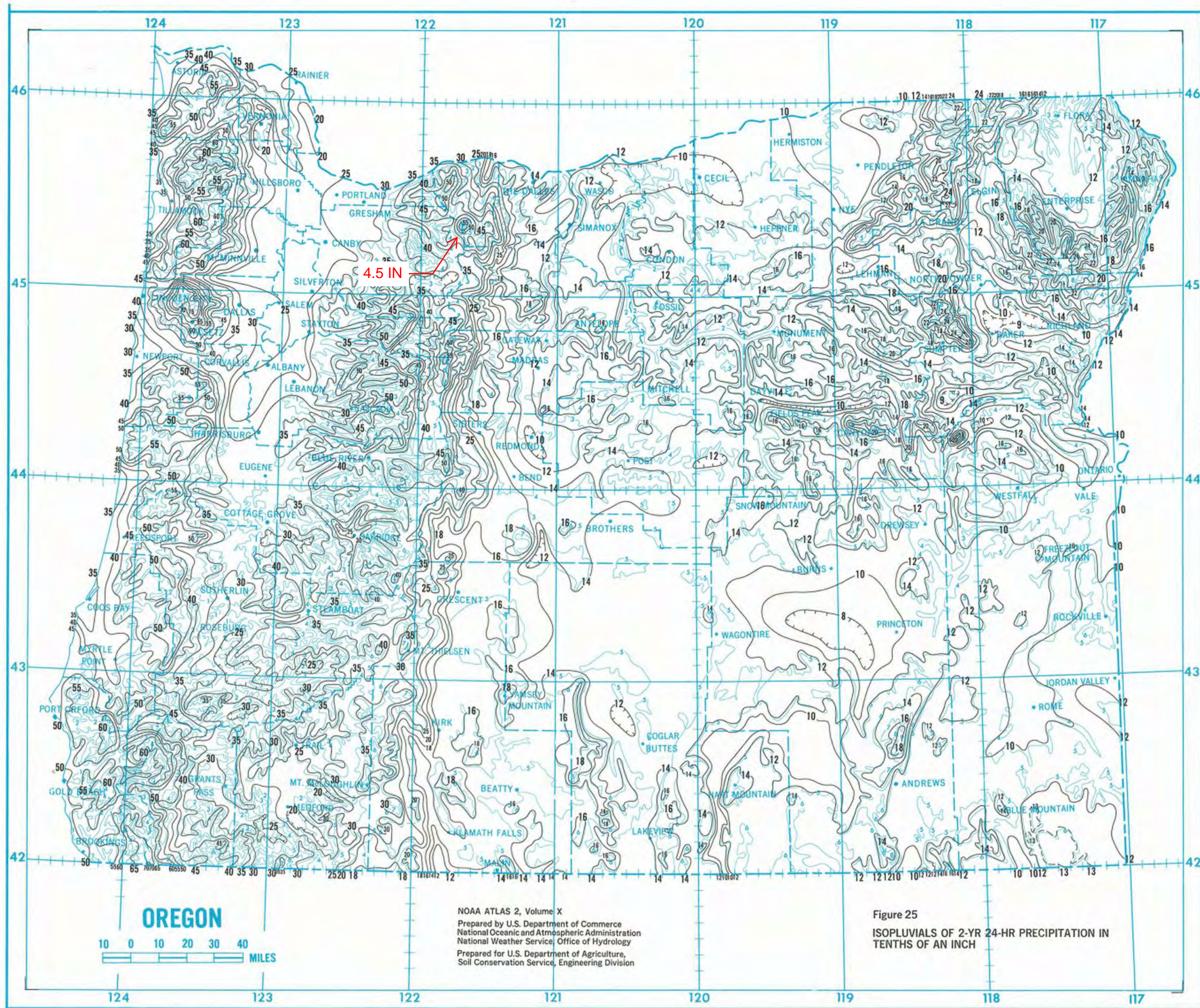
<sup>5</sup> CN's shown were computed for areas with 50% woods and 50% grass (pasture) cover. Other combinations of conditions may be computed from the CN's for woods and pasture.

<sup>6</sup> **Poor:** Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.

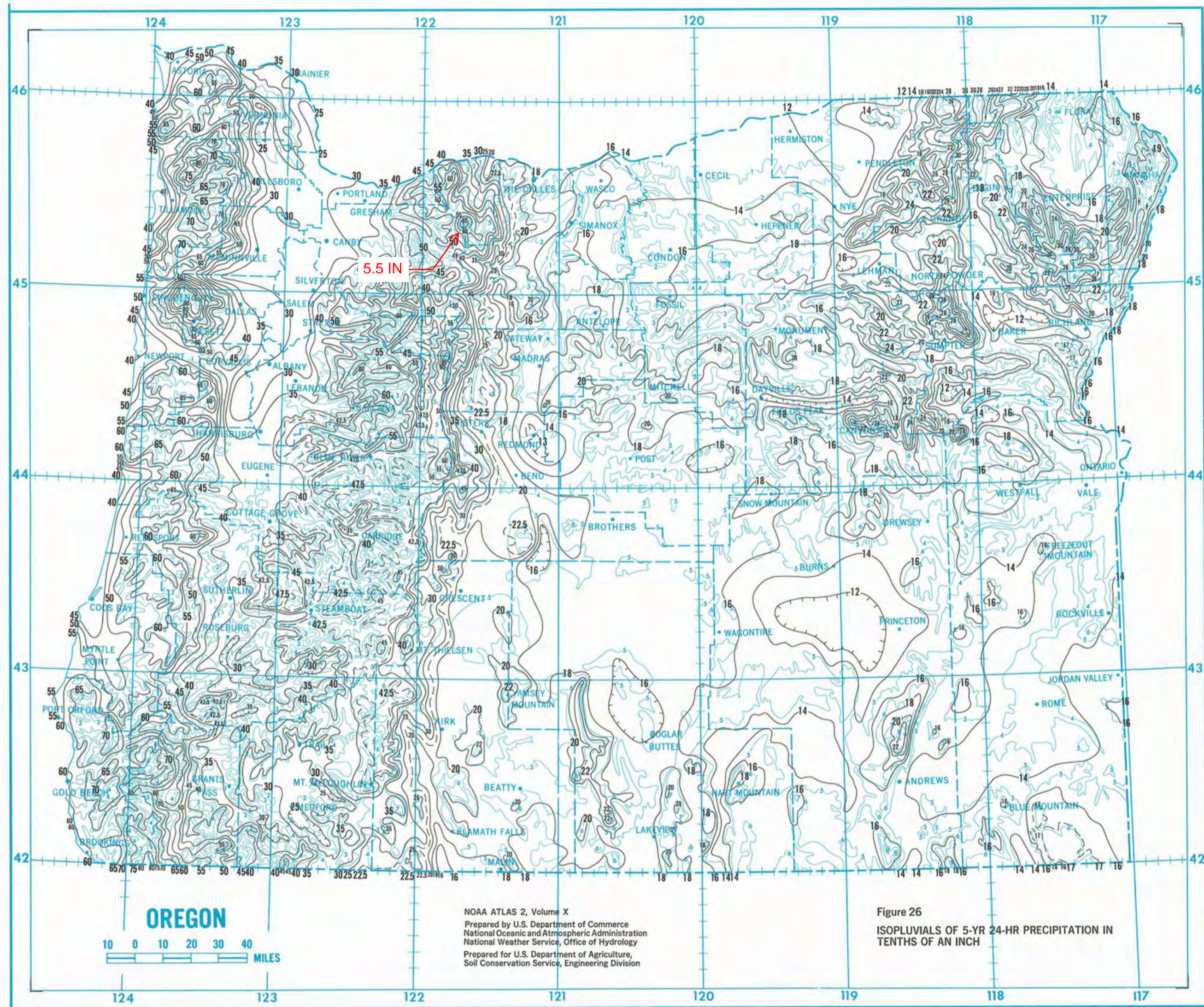
**Fair:** Woods are grazed but not burned, and some forest litter covers the soil.

**Good:** Woods are protected from grazing, and litter and brush adequately cover the soil.

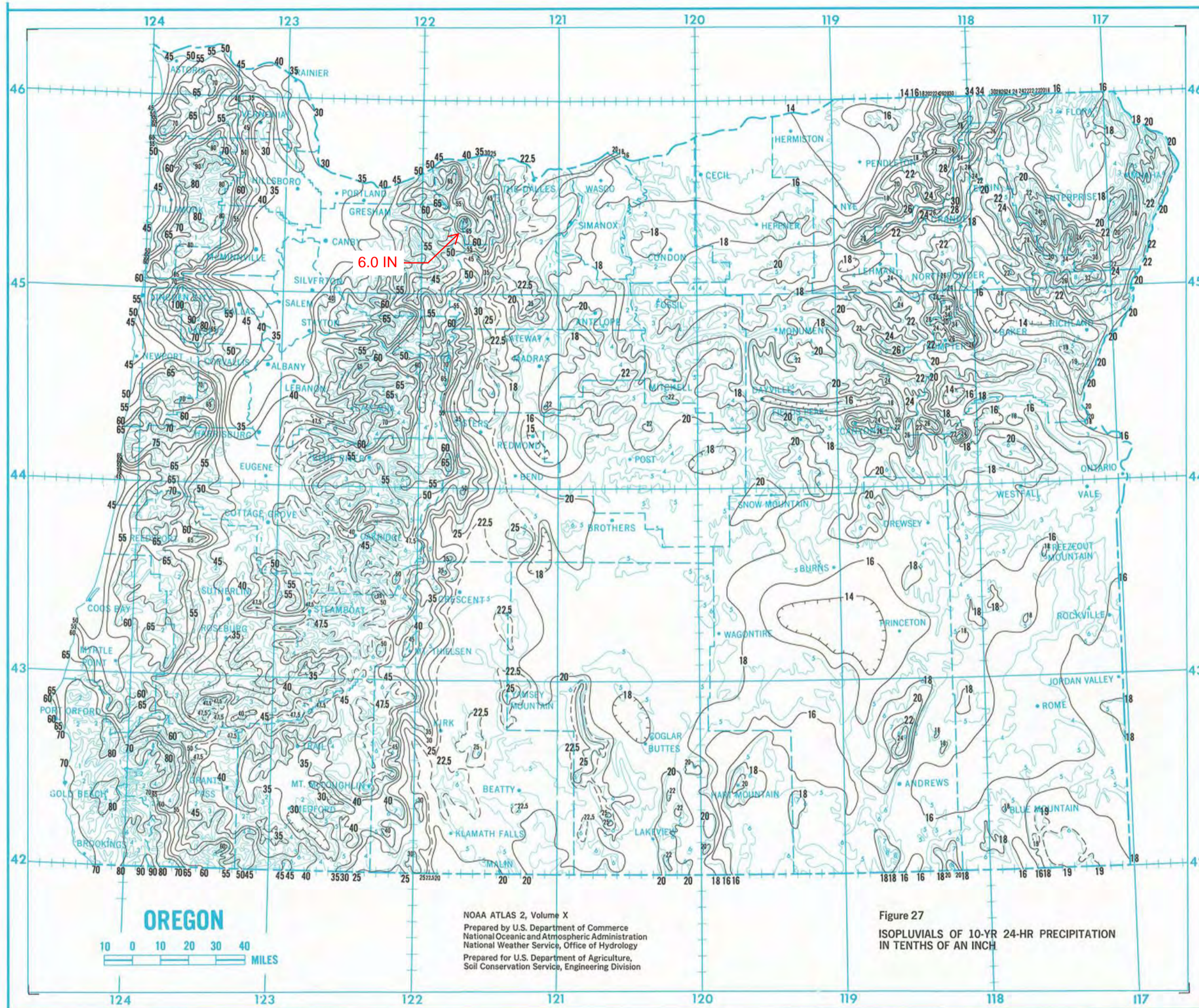




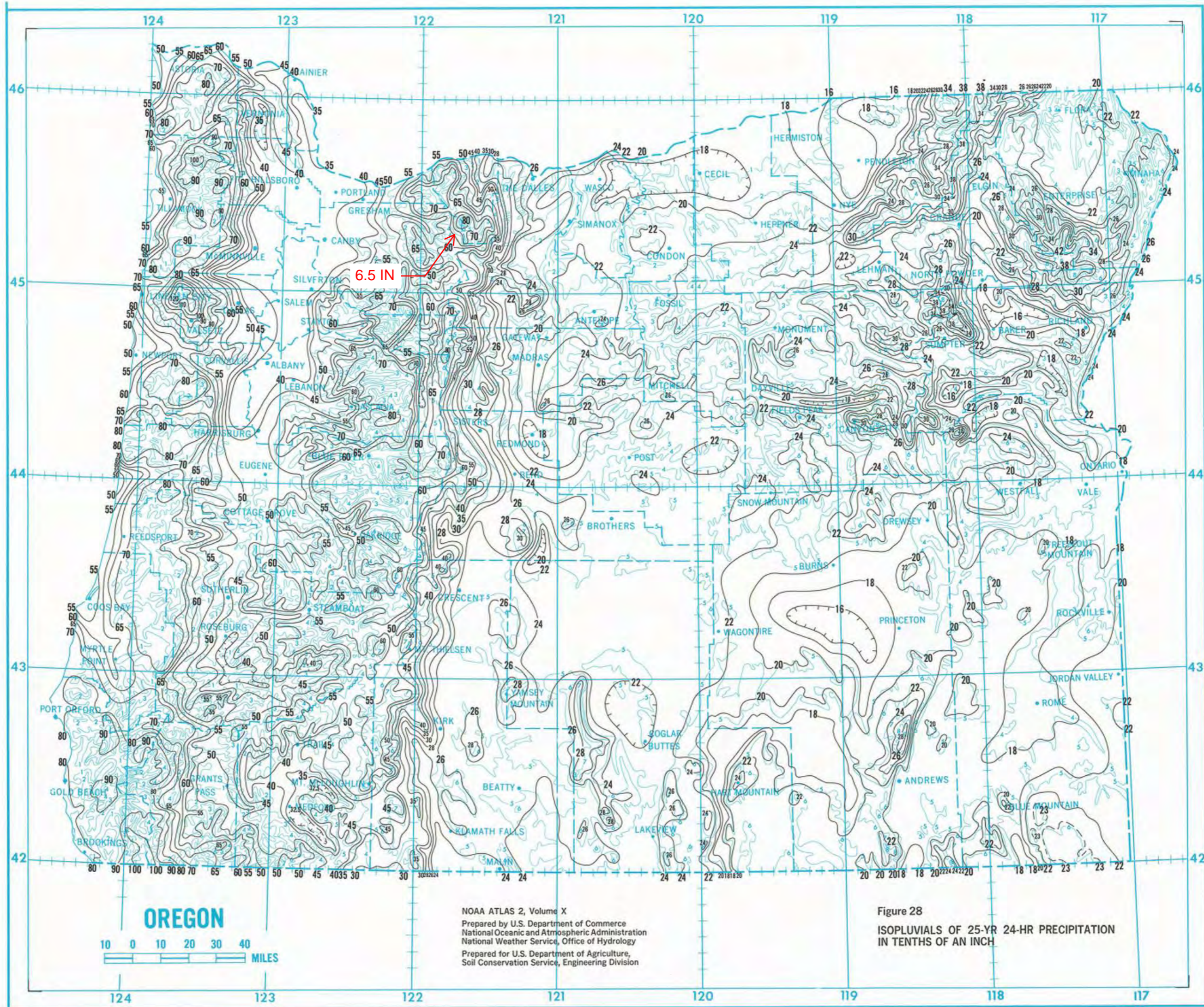








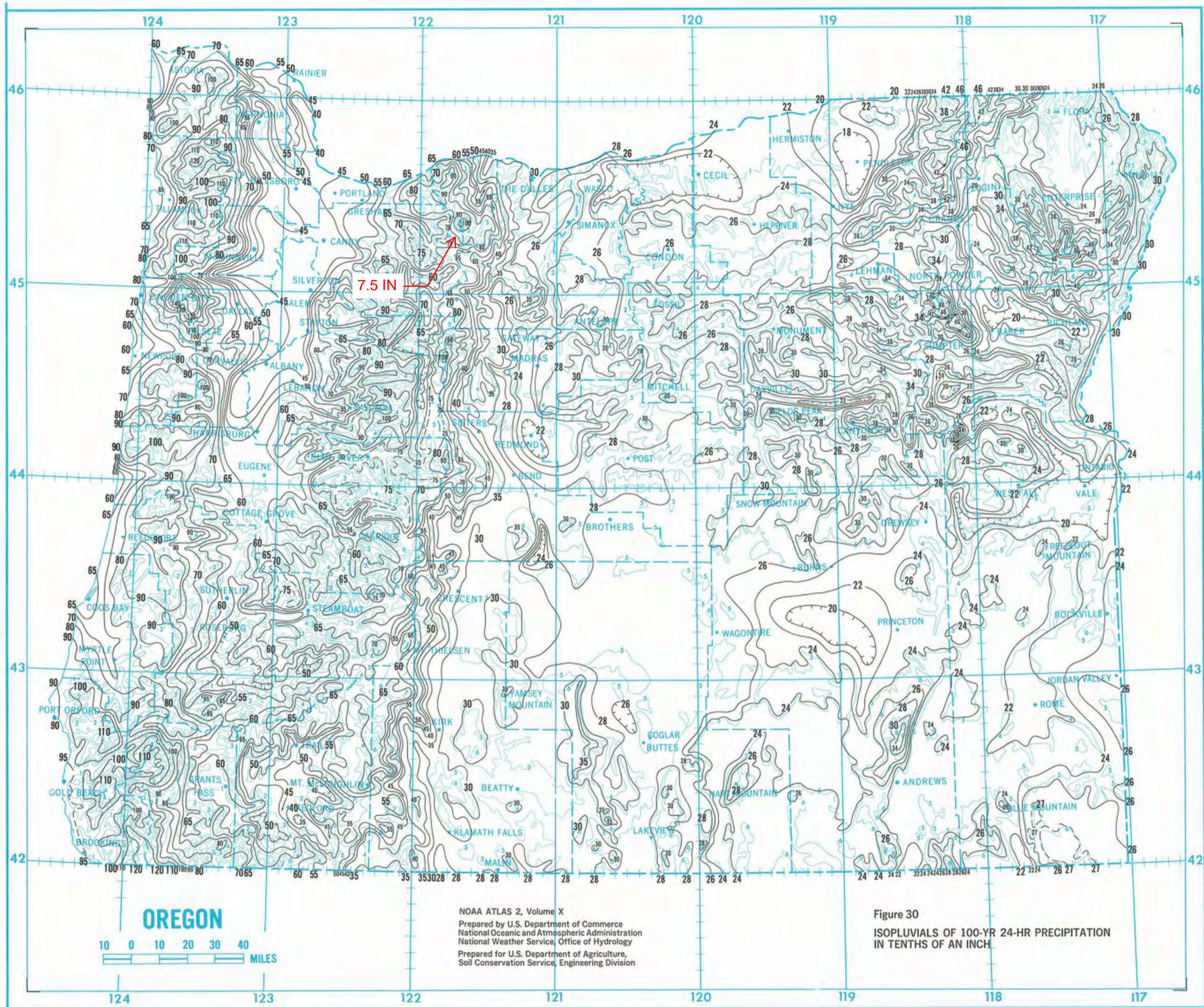




NOAA ATLAS 2, Volume X  
 Prepared by U.S. Department of Commerce  
 National Oceanic and Atmospheric Administration  
 National Weather Service, Office of Hydrology  
 Prepared for U.S. Department of Agriculture,  
 Soil Conservation Service, Engineering Division

Figure 28  
 ISOPLUVIALS OF 25-YR 24-HR PRECIPITATION  
 IN TENTHS OF AN INCH







# APPENDIX C – WATER QUALITY AND FLOW CONTROL



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SBUH Runoff	0.151	2	480	2,792	-----	-----	-----	Pre-Developed Basin A - Pervious
2	SBUH Runoff	0.009	2	480	165	-----	-----	-----	Pre-Developed Basin B - Pervious
3	Combine	0.160	2	480	2,958	1, 2	-----	-----	Pre-Developed Basin - Combined
5	SBUH Runoff	0.018	2	480	308	-----	-----	-----	Post-Developed Basin A - Pervious
6	SBUH Runoff	0.438	2	474	6,305	-----	-----	-----	Post-Developed Basin A - Impervious
7	SBUH Runoff	0.030	2	474	425	-----	-----	-----	Post-Developed Basin B
9	Combine	0.456	2	474	6,613	5, 6,	-----	-----	Post-Developed Basin A - Combine
10	Reservoir	0.070	2	816	6,023	9	102.45	3,544	UG Detention
12	SBUH Runoff	0.129	2	474	1,862	-----	-----	-----	Existing Offsite 1
13	SBUH Runoff	0.475	2	474	6,842	-----	-----	-----	Existing Offsite Conveyance
15	Combine	0.159	2	474	2,287	7, 12,	-----	-----	Frontage WQ Flow
					<b>NMFS WQ STORM 3.02" IN/HR</b>				
MHD01 - Model_SSS.gpw					Return Period: 1 Year			Friday, 10 / 21 / 2022	



# Hydrograph Report

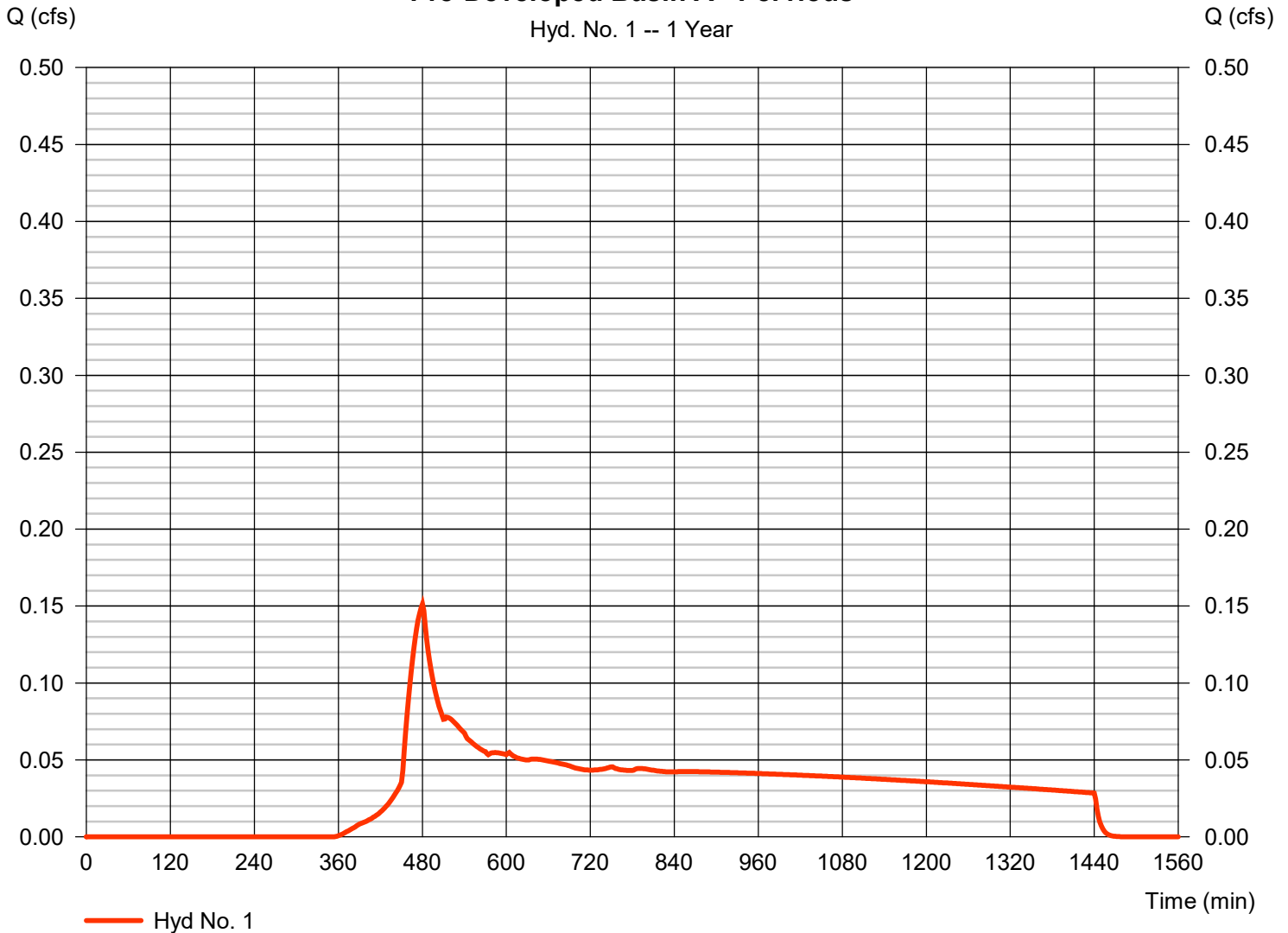
## Hyd. No. 1

Pre-Developed Basin A - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.151 cfs
Storm frequency	= 1 yrs	Time to peak	= 480 min
Time interval	= 2 min	Hyd. volume	= 2,792 cuft
Drainage area	= 0.709 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 3.02 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

Pre-Developed Basin A - Pervious

Hyd. No. 1 -- 1 Year



# Hydrograph Report

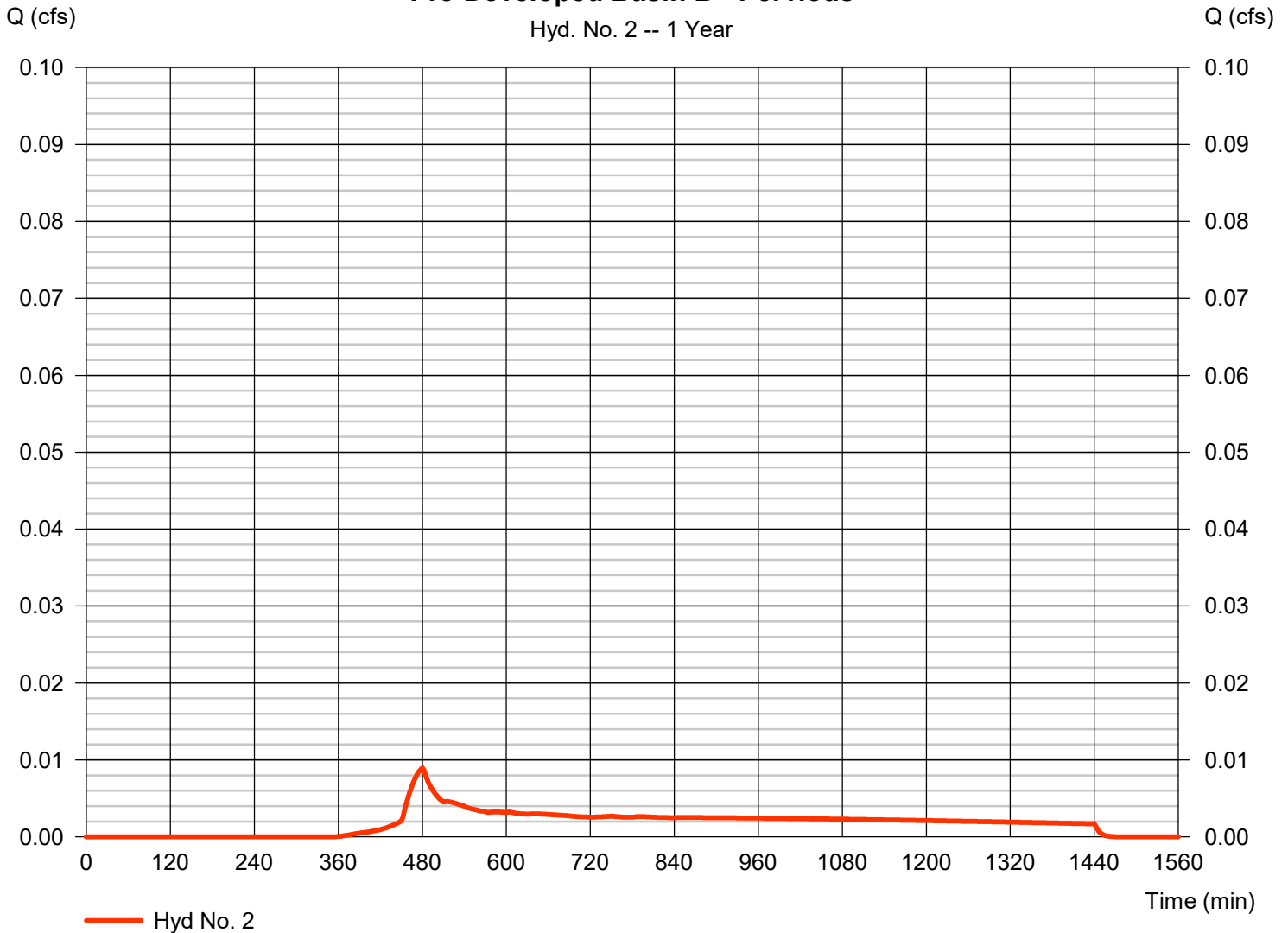
## Hyd. No. 2

Pre-Developed Basin B - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.009 cfs
Storm frequency	= 1 yrs	Time to peak	= 480 min
Time interval	= 2 min	Hyd. volume	= 165 cuft
Drainage area	= 0.042 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 3.02 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

Pre-Developed Basin B - Pervious

Hyd. No. 2 -- 1 Year



# Hydrograph Report

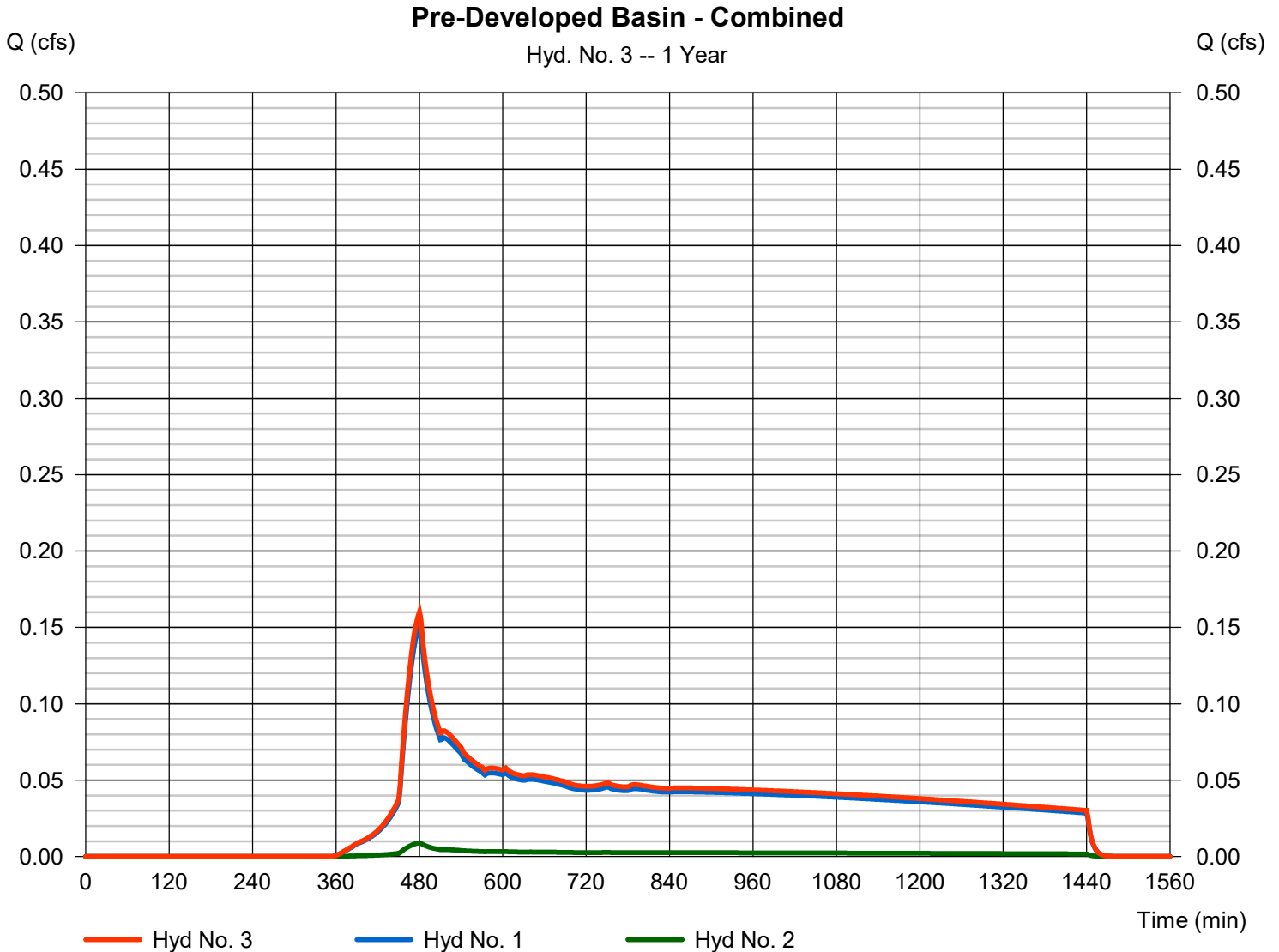
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## Hyd. No. 3

Pre-Developed Basin - Combined

Hydrograph type	= Combine	Peak discharge	= 0.160 cfs
Storm frequency	= 1 yrs	Time to peak	= 480 min
Time interval	= 2 min	Hyd. volume	= 2,958 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.751 ac



# Hydrograph Report

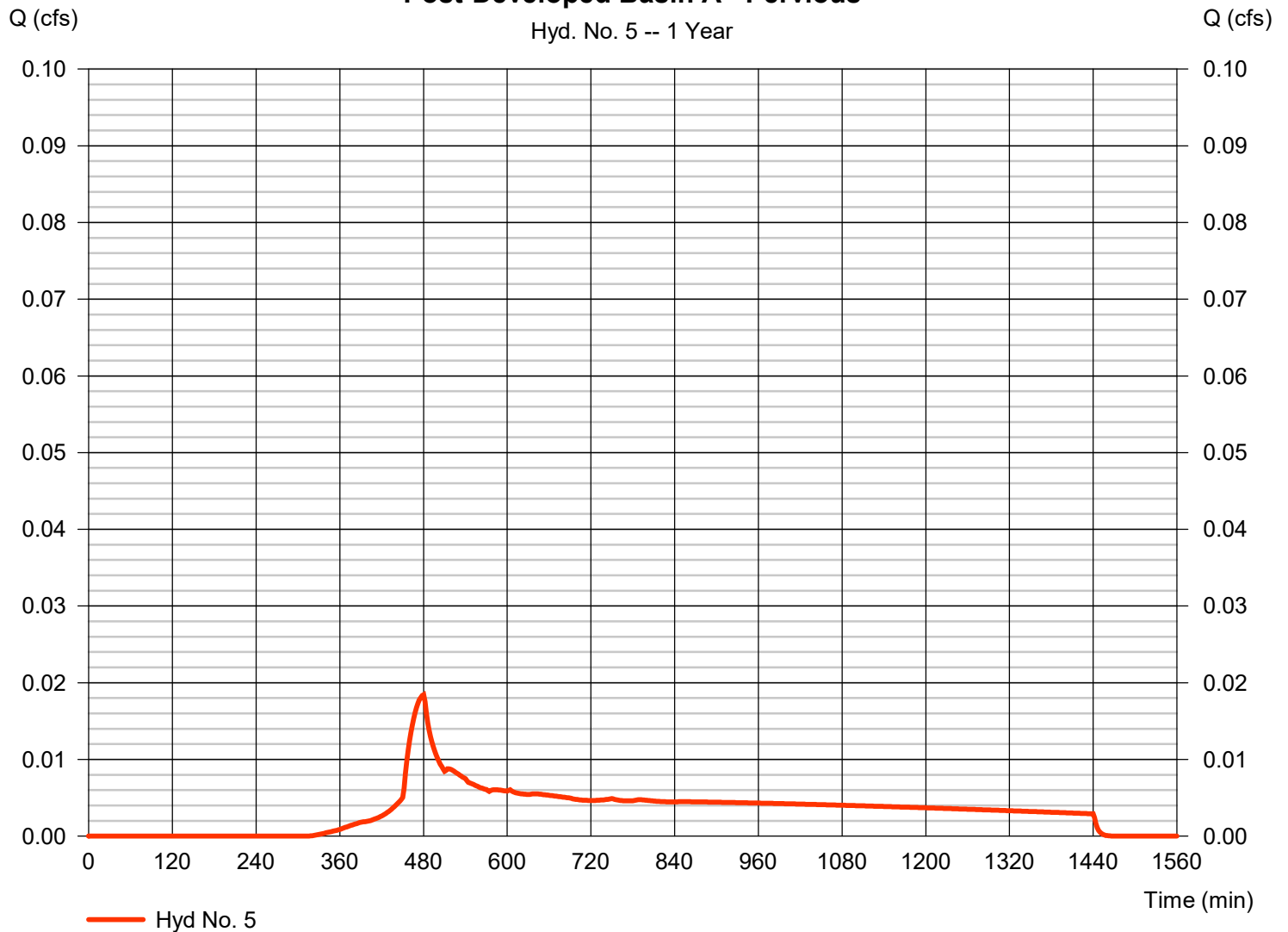
## Hyd. No. 5

Post-Developed Basin A - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.018 cfs
Storm frequency	= 1 yrs	Time to peak	= 480 min
Time interval	= 2 min	Hyd. volume	= 308 cuft
Drainage area	= 0.067 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.02 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

Post-Developed Basin A - Pervious

Hyd. No. 5 -- 1 Year





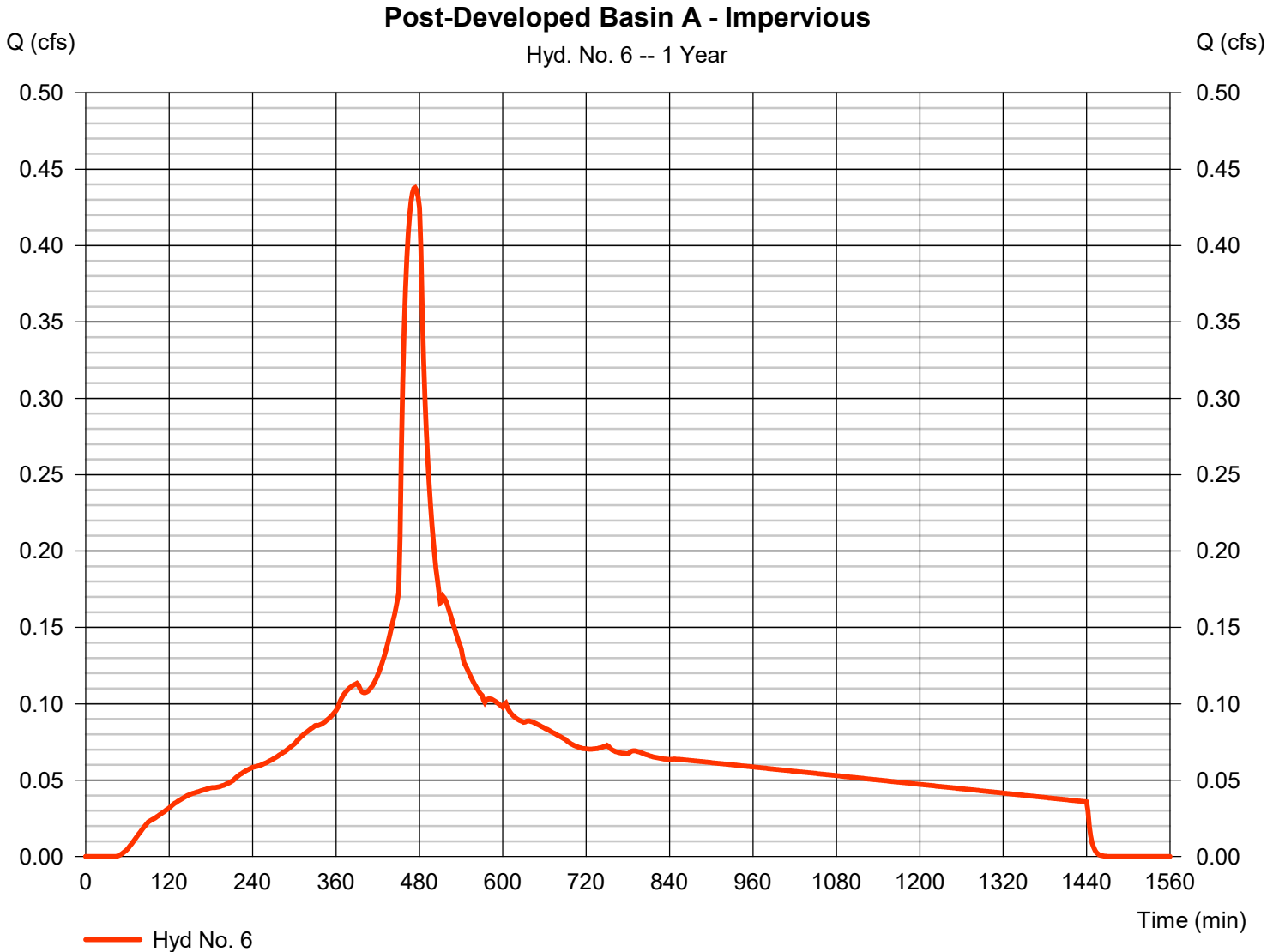
# Hydrograph Report

## Hyd. No. 6

### Post-Developed Basin A - Impervious

Hydrograph type	=	SBUH Runoff	Peak discharge	=	0.438 cfs
Storm frequency	=	1 yrs	Time to peak	=	474 min
Time interval	=	2 min	Hyd. volume	=	6,305 cuft
Drainage area	=	0.623 ac	Curve number	=	98*
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	5.00 min
Total precip.	=	3.02 in	Distribution	=	Type IA
Storm duration	=	24 hrs	Shape factor	=	n/a

\* Composite (Area/CN) =  $[(0.750 \times 98) + (0.840 \times 74)] / 0.623$

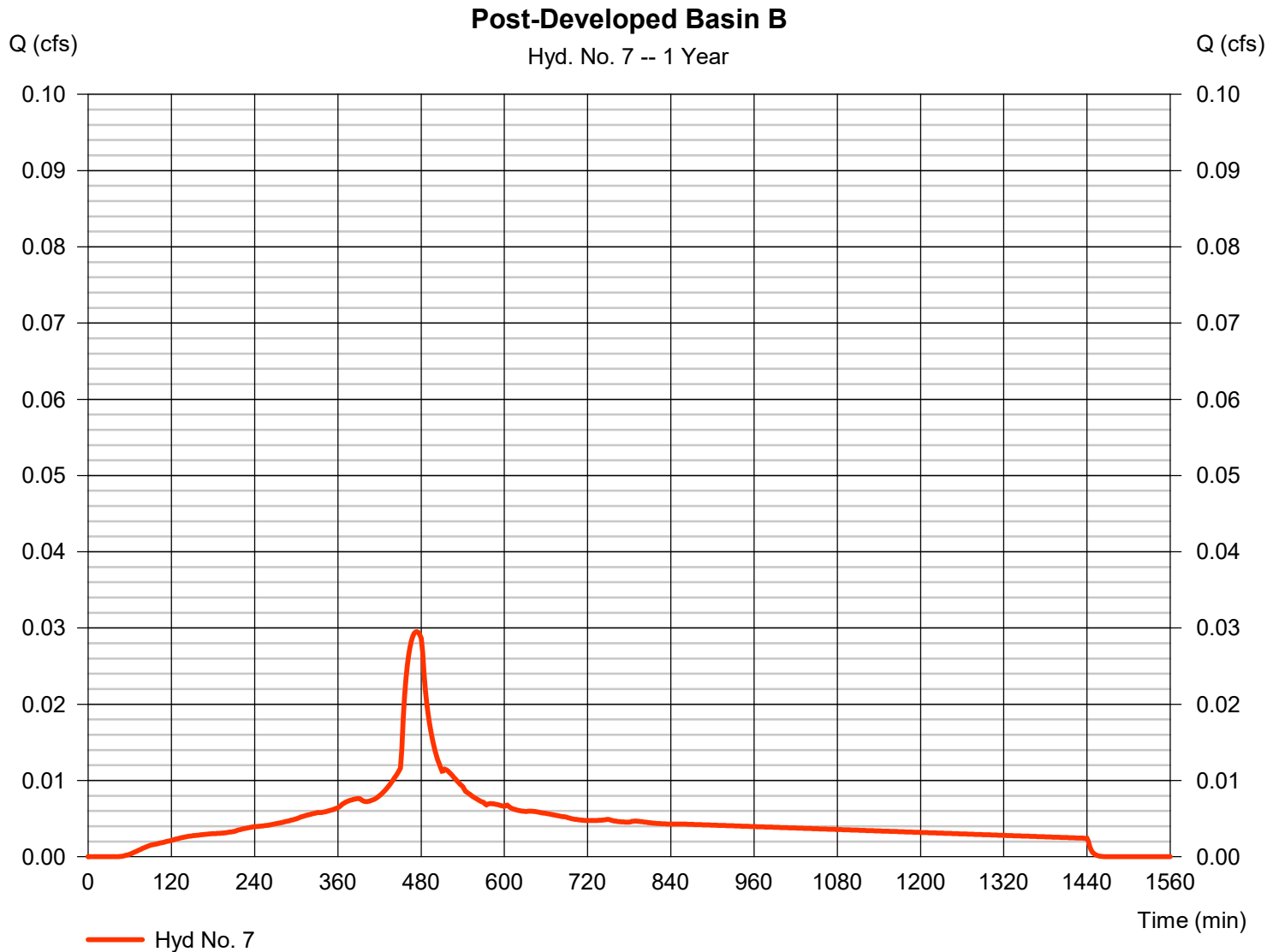


# Hydrograph Report

## Hyd. No. 7

### Post-Developed Basin B

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.030 cfs
Storm frequency	= 1 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 425 cuft
Drainage area	= 0.042 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.02 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



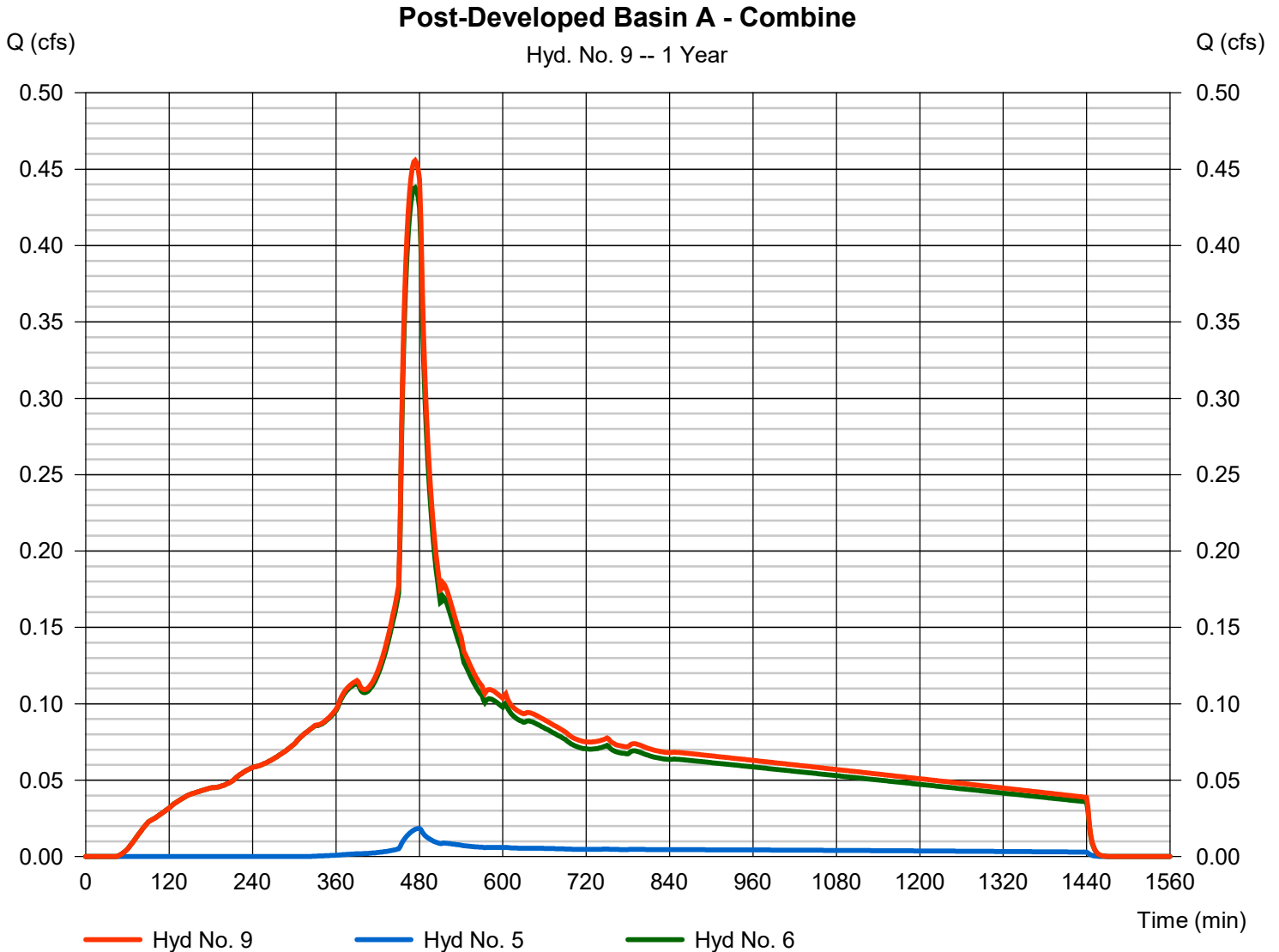
# Hydrograph Report

## Hyd. No. 9

Post-Developed Basin A - Combine

Hydrograph type = Combine  
Storm frequency = 1 yrs  
Time interval = 2 min  
Inflow hyds. = 5, 6

Peak discharge = 0.456 cfs  
Time to peak = 474 min  
Hyd. volume = 6,613 cuft  
Contrib. drain. area = 0.690 ac



# Hydrograph Report

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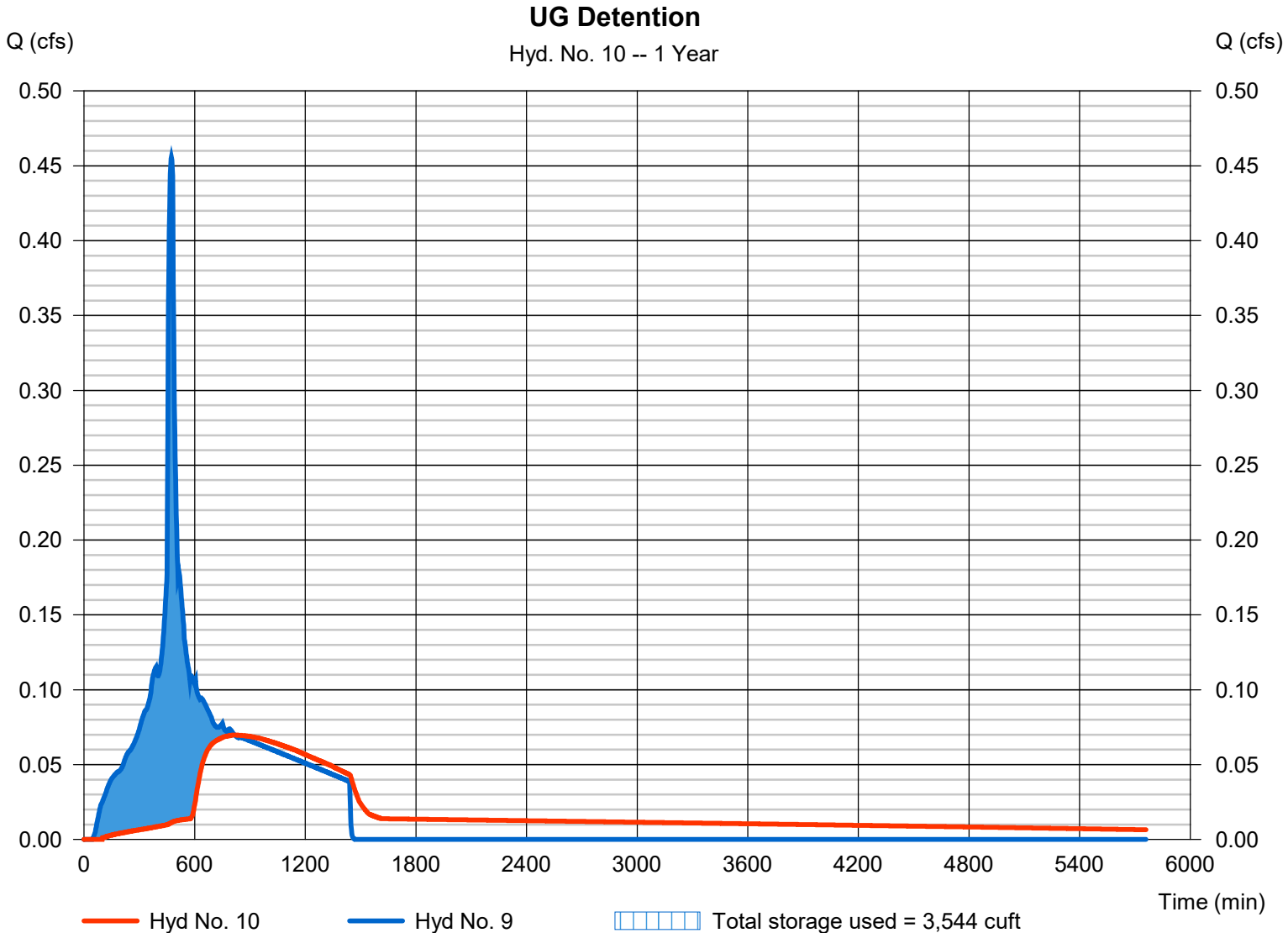
Friday, 10 / 21 / 2022

## Hyd. No. 10

### UG Detention

Hydrograph type	= Reservoir	Peak discharge	= 0.070 cfs
Storm frequency	= 1 yrs	Time to peak	= 816 min
Time interval	= 2 min	Hyd. volume	= 6,023 cuft
Inflow hyd. No.	= 9 - Post-Developed Basin A -	Max. Elevation	= 102.45 ft
Reservoir name	= UG Chamber	Max. Storage	= 3,544 cuft

Storage Indication method used.





## Pond No. 1 - UG Chamber

### Pond Data

**UG Chambers** -Invert elev. = 100.00 ft, Rise x Span = 4.00 x 4.00 ft, Barrel Len = 110.00 ft, No. Barrels = 3, Slope = 0.00%, Headers = No  
**Encasement** -Invert elev. = 100.00 ft, Width = 6.00 ft, Height = 4.00 ft, Voids = 40.00%

### Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	100.00	n/a	0	0
0.40	100.40	n/a	447	447
0.80	100.80	n/a	542	988
1.20	101.20	n/a	591	1,579
1.60	101.60	n/a	618	2,197
2.00	102.00	n/a	632	2,829
2.40	102.40	n/a	632	3,461
2.80	102.80	n/a	618	4,079
3.20	103.20	n/a	590	4,669
3.60	103.60	n/a	542	5,211
4.00	104.00	n/a	446	5,657

### Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	0.60	2.30	0.00
Span (in)	= 12.00	0.60	2.30	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 100.00	100.00	102.20	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

### Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 3.14	0.00	0.00	0.00
Crest El. (ft)	= 103.80	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= Yes	No	No	No
Exfil.(in/hr)	= 0.000 (by Contour)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

### Stage / Storage / Discharge Table

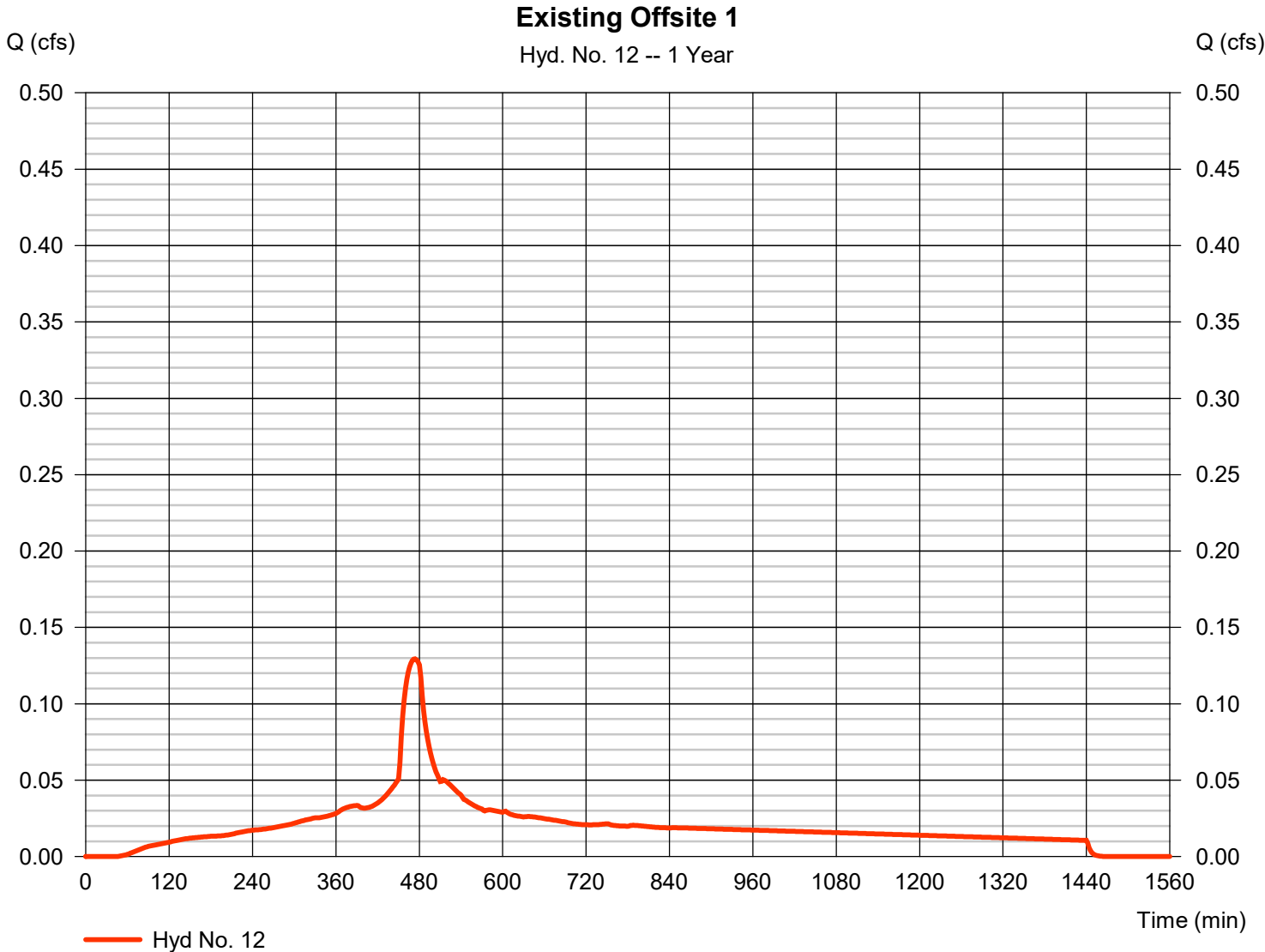
Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	100.00	0.00	0.00	0.00	---	0.00	---	---	---	---	---	0.000
0.40	447	100.40	0.01 ic	0.01 ic	0.00	---	0.00	---	---	---	---	---	0.006
0.80	988	100.80	0.01 ic	0.01 ic	0.00	---	0.00	---	---	---	---	---	0.008
1.20	1,579	101.20	0.01 ic	0.01 ic	0.00	---	0.00	---	---	---	---	---	0.010
1.60	2,197	101.60	0.01 ic	0.01 ic	0.00	---	0.00	---	---	---	---	---	0.012
2.00	2,829	102.00	0.01 ic	0.01 ic	0.00	---	0.00	---	---	---	---	---	0.013
2.40	3,461	102.40	0.01 ic	0.01 ic	0.04 ic	---	0.00	---	---	---	---	---	0.059
2.80	4,079	102.80	0.02 ic	0.02 ic	0.10 ic	---	0.00	---	---	---	---	---	0.114
3.20	4,669	103.20	0.02 ic	0.02 ic	0.13 ic	---	0.00	---	---	---	---	---	0.149
3.60	5,211	103.60	0.02 ic	0.02 ic	0.16 ic	---	0.00	---	---	---	---	---	0.176
4.00	5,657	104.00	0.96 ic	0.02 ic	0.18 ic	---	0.94	---	---	---	---	---	1.134

# Hydrograph Report

## Hyd. No. 12

### Existing Offsite 1

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.129 cfs
Storm frequency	= 1 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 1,862 cuft
Drainage area	= 0.184 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.02 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



# Hydrograph Report

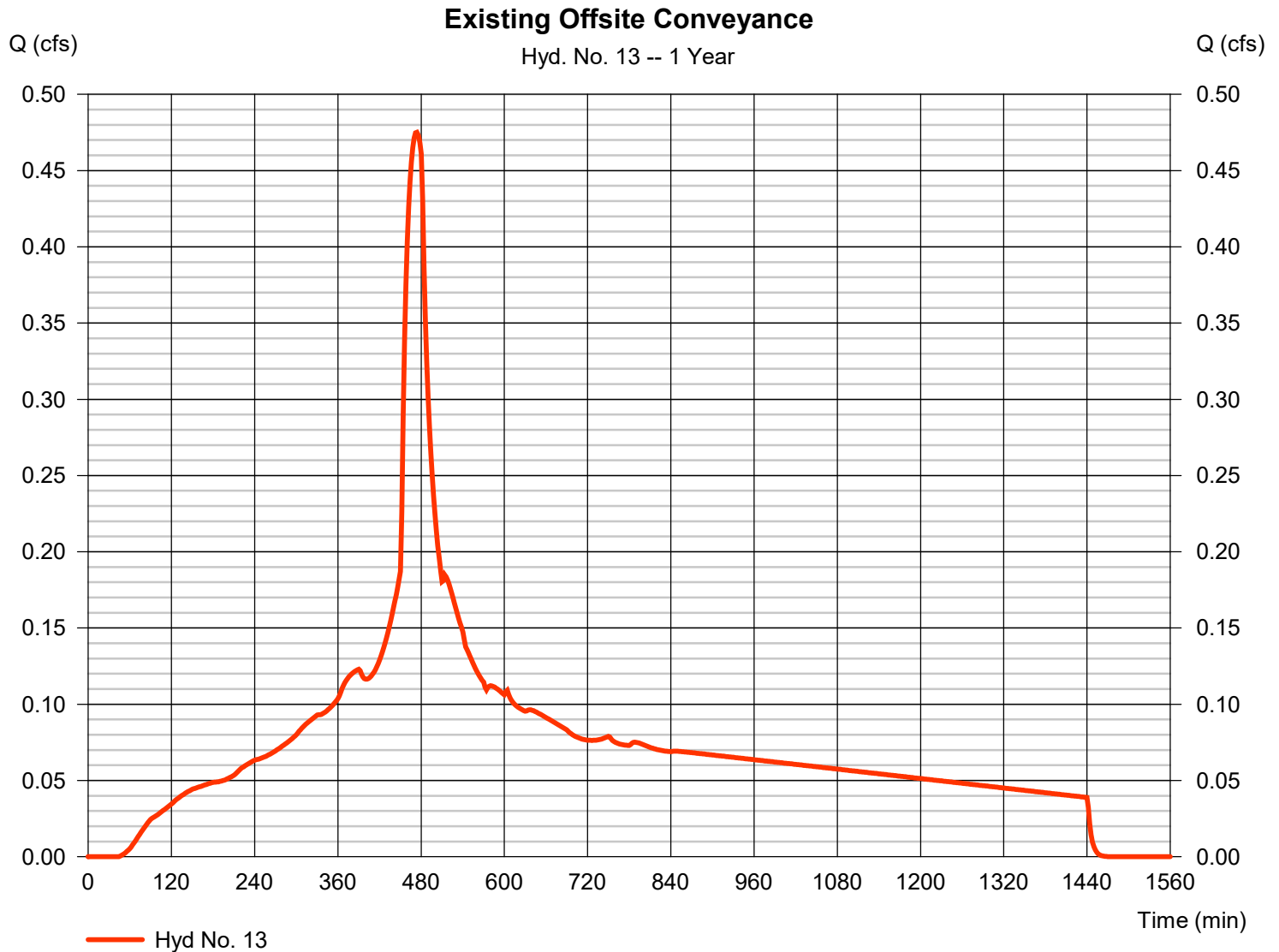
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## Hyd. No. 13

### Existing Offsite Conveyance

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.475 cfs
Storm frequency	= 1 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 6,842 cuft
Drainage area	= 0.676 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.02 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

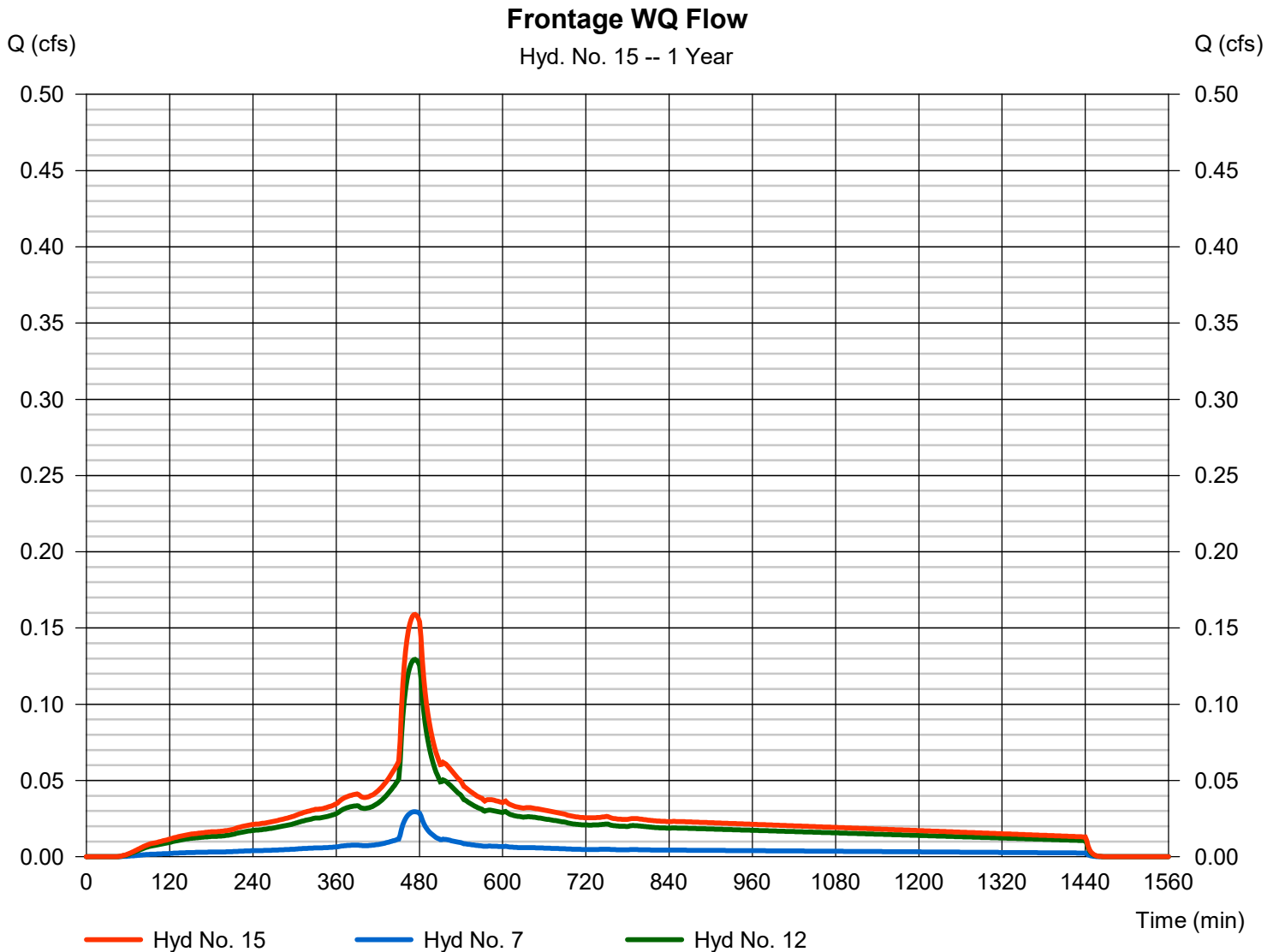
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## Hyd. No. 15

### Frontage WQ Flow

Hydrograph type = Combine  
Storm frequency = 1 yrs  
Time interval = 2 min  
Inflow hyds. = 7, 12

Peak discharge = 0.159 cfs  
Time to peak = 474 min  
Hyd. volume = 2,287 cuft  
Contrib. drain. area = 0.226 ac





# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SBUH Runoff	0.359	2	480	5,689	----	----	----	Pre-Developed Basin A - Pervious
2	SBUH Runoff	0.021	2	480	337	----	----	----	Pre-Developed Basin B - Pervious
3	Combine	0.380	2	480	6,026	1, 2	----	----	Pre-Developed Basin - Combined
5	SBUH Runoff	0.040	2	478	599	----	----	----	Post-Developed Basin A - Pervious
6	SBUH Runoff	0.661	2	474	9,643	----	----	----	Post-Developed Basin A - Impervious
7	SBUH Runoff	0.045	2	474	650	----	----	----	Post-Developed Basin B
9	Combine	0.700	2	474	10,242	5, 6,	----	----	Post-Developed Basin A - Combine
10	Reservoir	0.139	2	654	9,629	9	103.07	4,477	UG Detention
12	SBUH Runoff	0.195	2	474	2,848	----	----	----	Existing Offsite 1
13	SBUH Runoff	0.717	2	474	10,463	----	----	----	Existing Offsite Conveyance
15	Combine	0.240	2	474	3,498	7, 12,	----	----	Frontage WQ Flow
MHD01 - Model_SSS.gpw					Return Period: 2 Year			Friday, 10 / 21 / 2022	

# Hydrograph Report

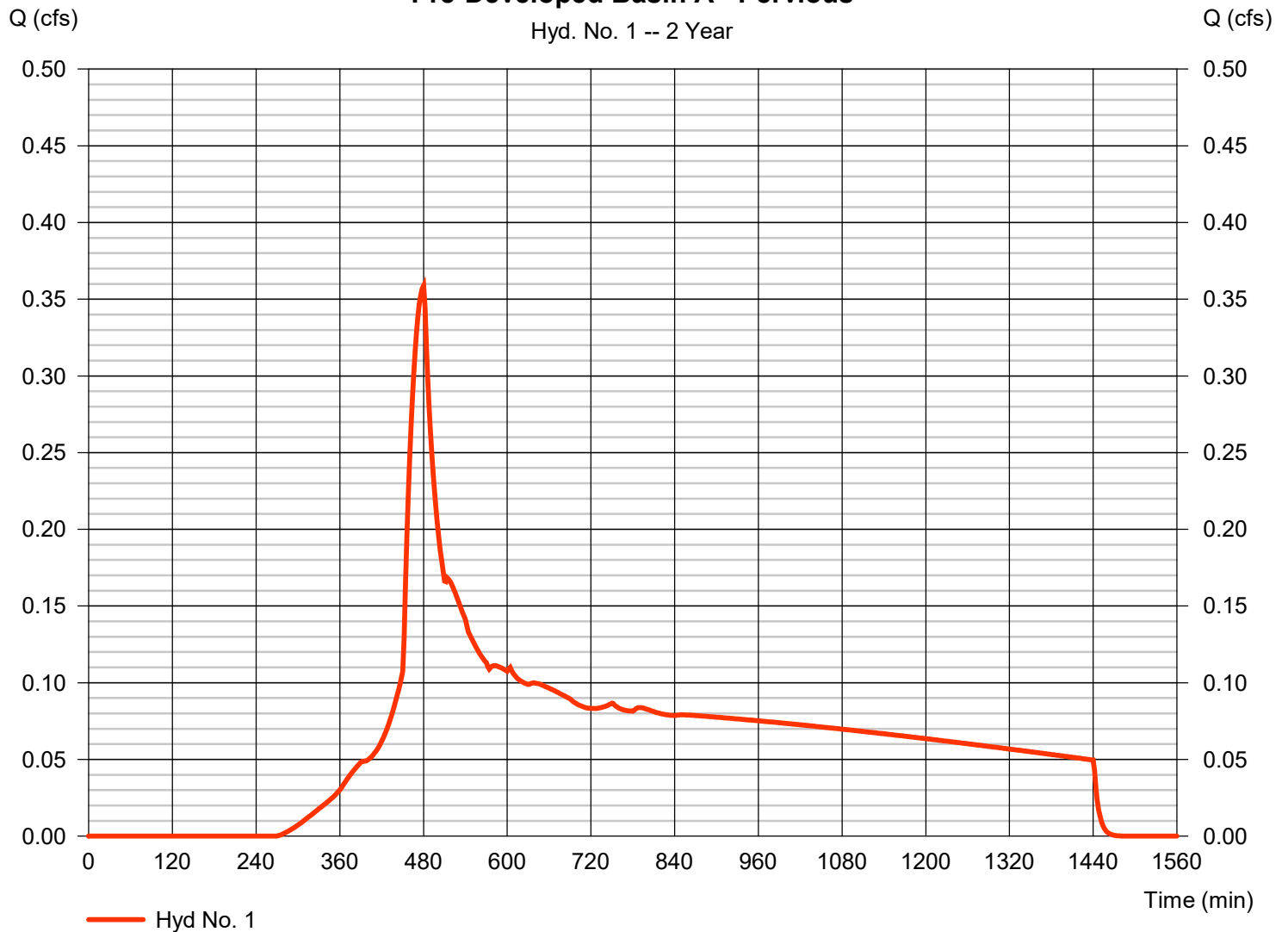
## Hyd. No. 1

Pre-Developed Basin A - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.359 cfs
Storm frequency	= 2 yrs	Time to peak	= 480 min
Time interval	= 2 min	Hyd. volume	= 5,689 cuft
Drainage area	= 0.709 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 4.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

**Pre-Developed Basin A - Pervious**

Hyd. No. 1 -- 2 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

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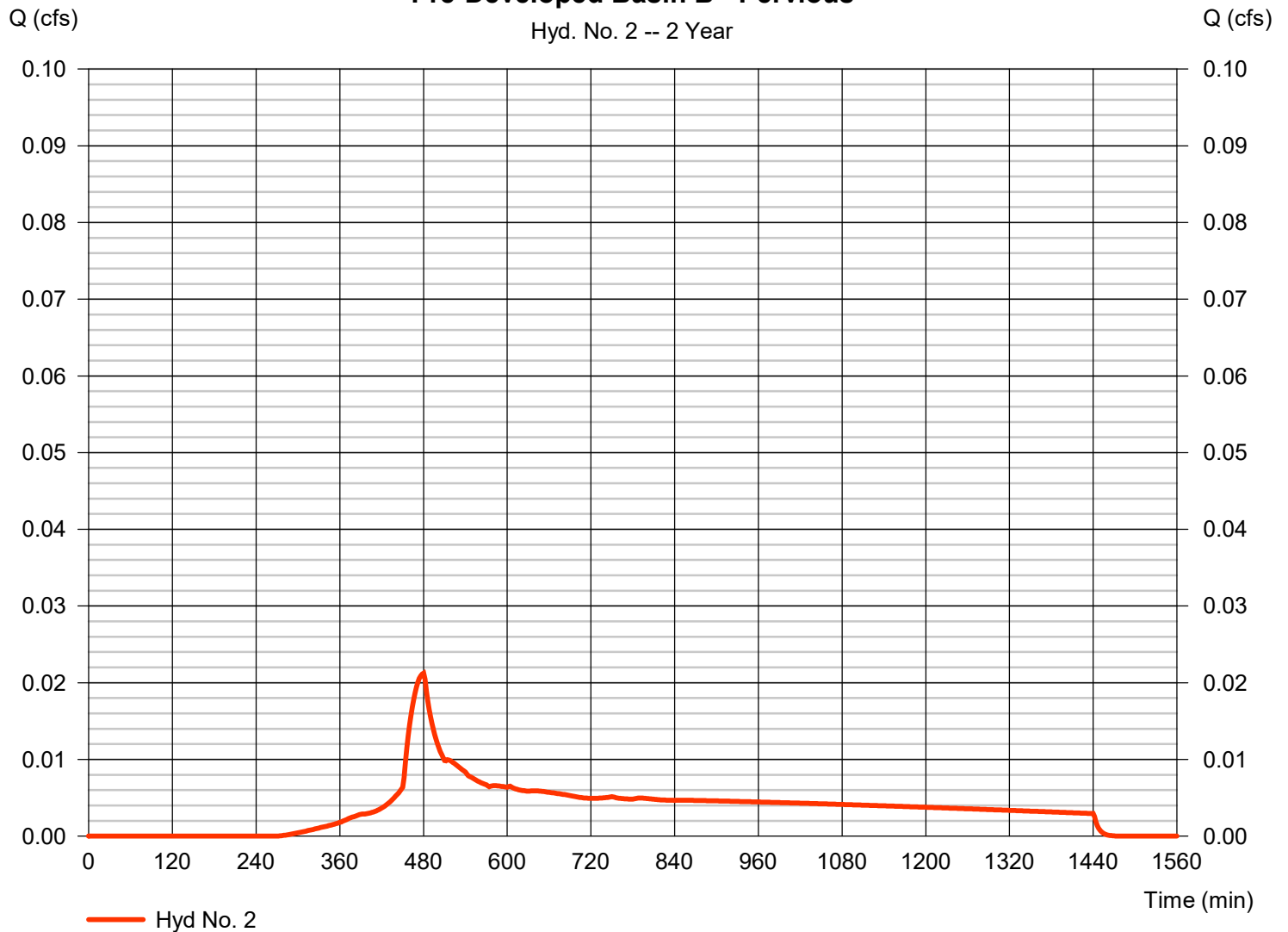
## Hyd. No. 2

Pre-Developed Basin B - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.021 cfs
Storm frequency	= 2 yrs	Time to peak	= 480 min
Time interval	= 2 min	Hyd. volume	= 337 cuft
Drainage area	= 0.042 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 4.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

### Pre-Developed Basin B - Pervious

Hyd. No. 2 -- 2 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

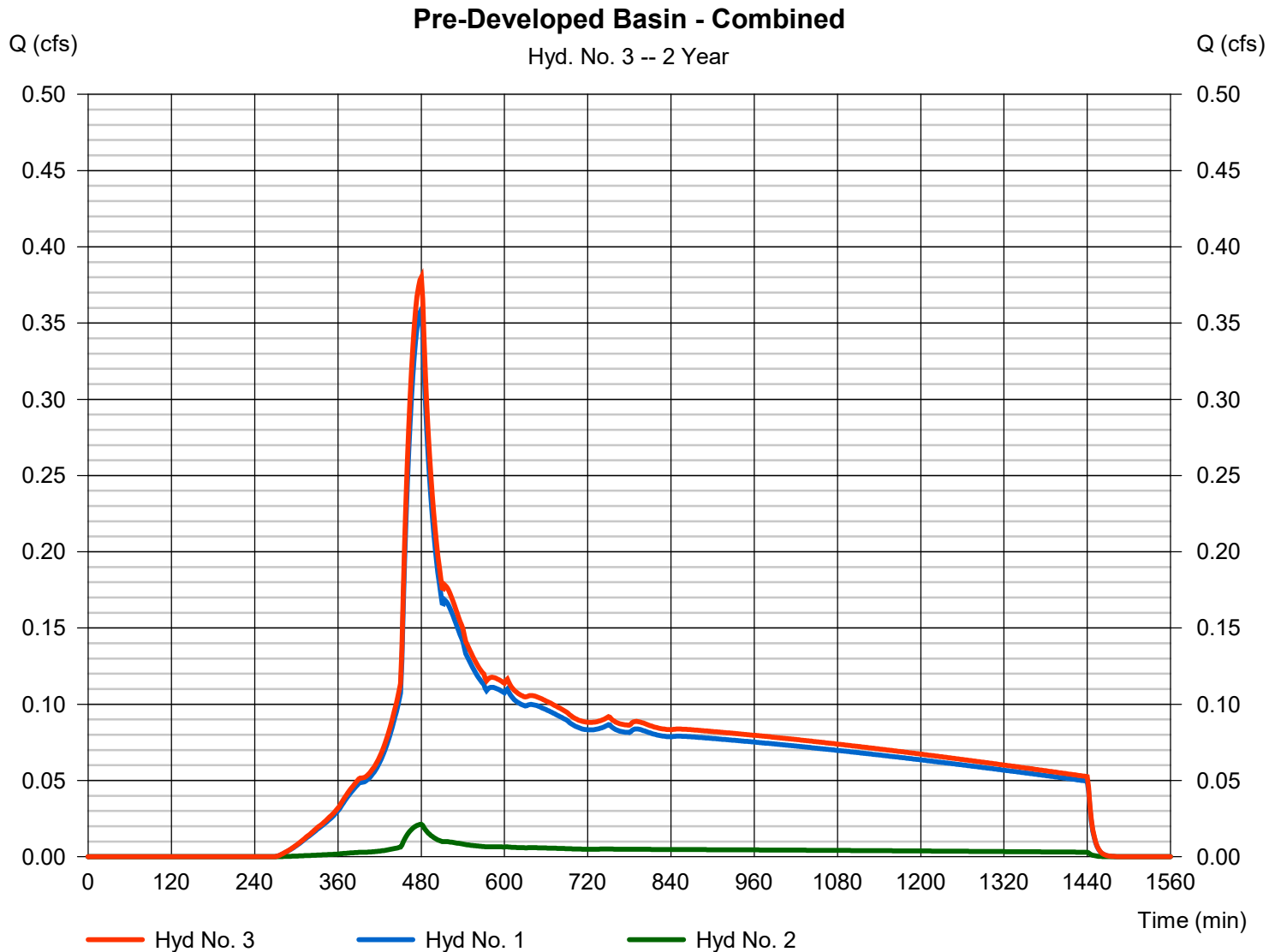
Friday, 10 / 21 / 2022

## Hyd. No. 3

Pre-Developed Basin - Combined

Hydrograph type = Combine  
Storm frequency = 2 yrs  
Time interval = 2 min  
Inflow hyds. = 1, 2

Peak discharge = 0.380 cfs  
Time to peak = 480 min  
Hyd. volume = 6,026 cuft  
Contrib. drain. area = 0.751 ac





# Hydrograph Report

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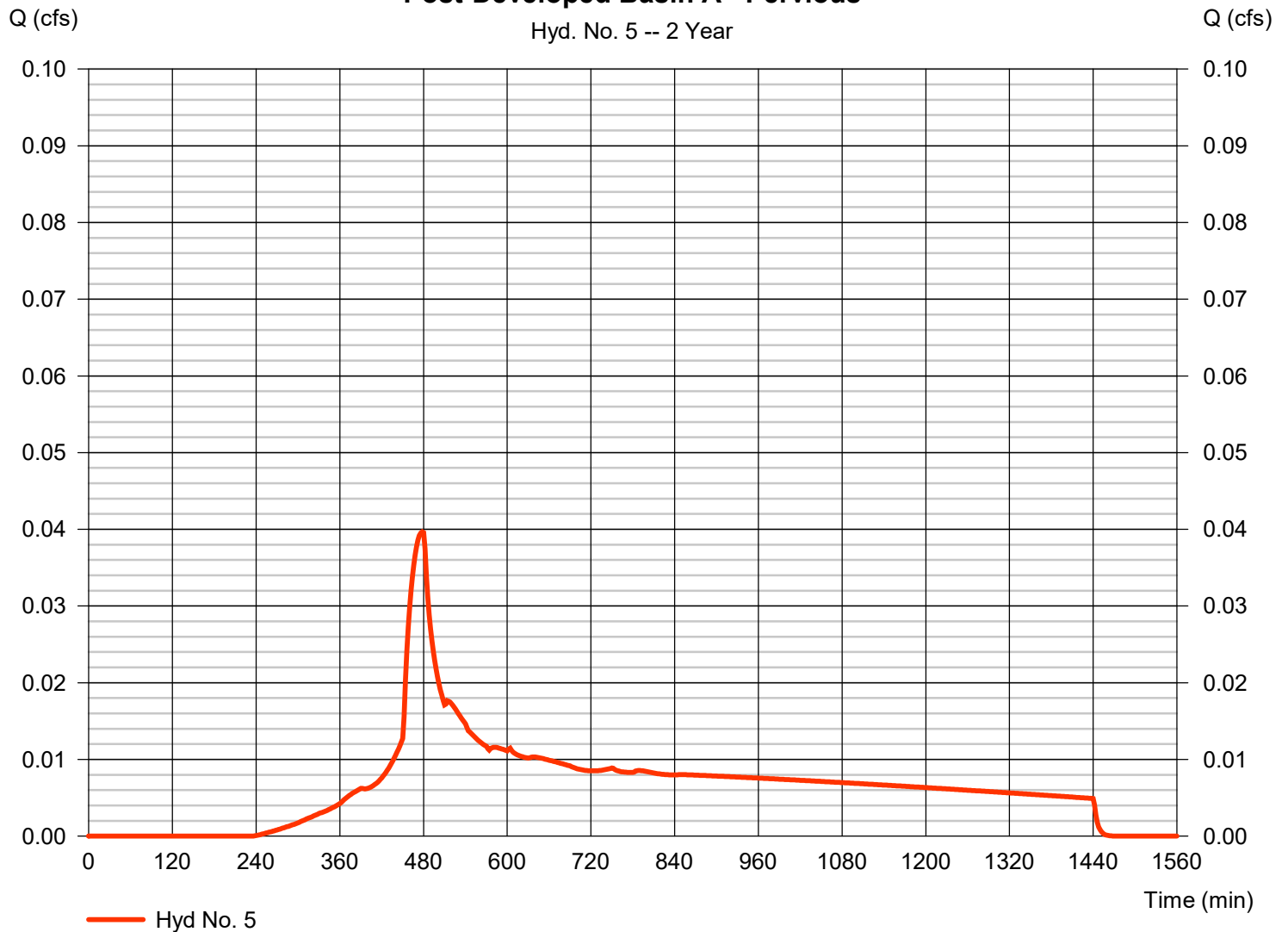
## Hyd. No. 5

Post-Developed Basin A - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.040 cfs
Storm frequency	= 2 yrs	Time to peak	= 478 min
Time interval	= 2 min	Hyd. volume	= 599 cuft
Drainage area	= 0.067 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

### Post-Developed Basin A - Pervious

Hyd. No. 5 -- 2 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

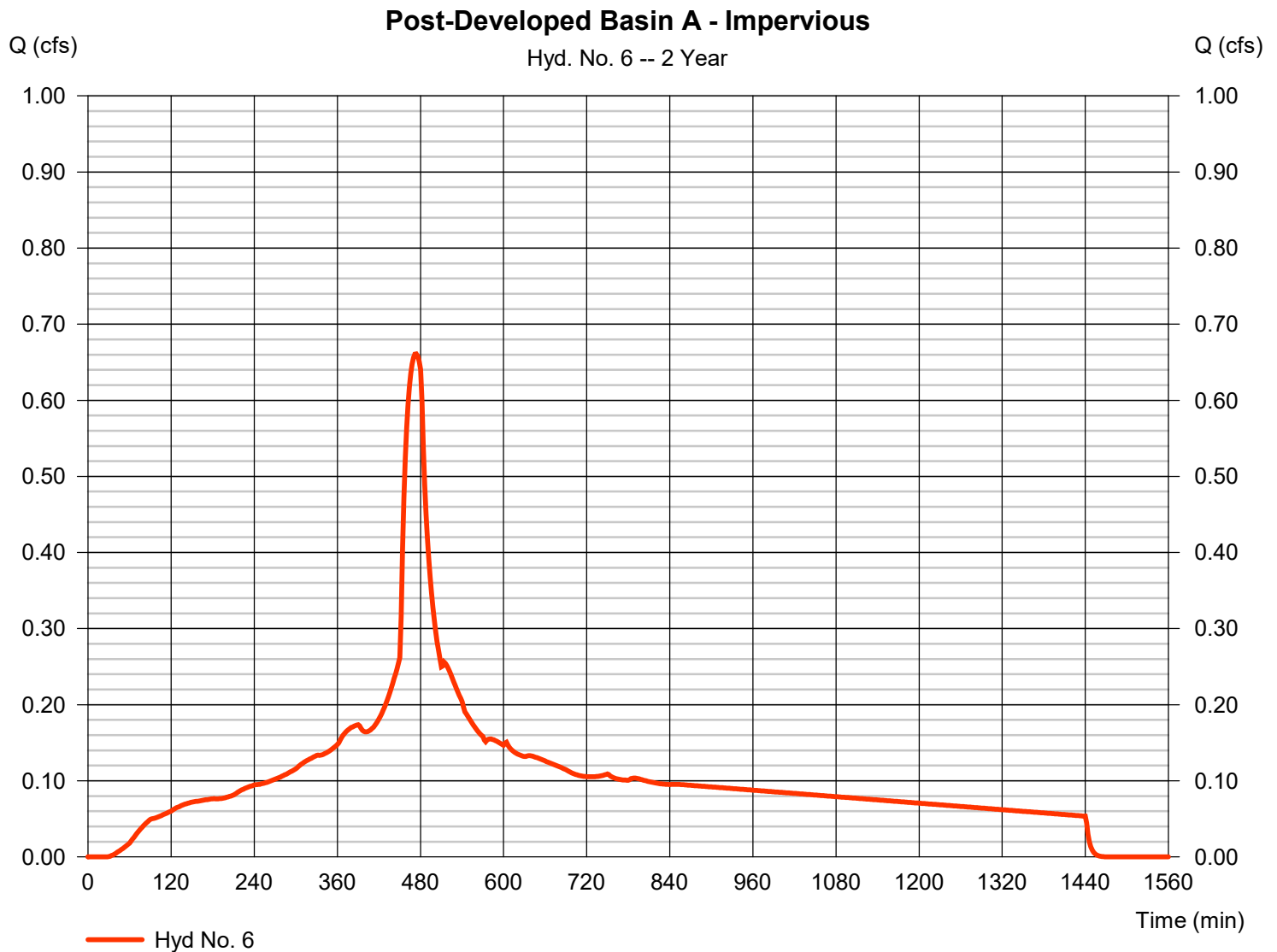
Friday, 10 / 21 / 2022

## Hyd. No. 6

Post-Developed Basin A - Impervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.661 cfs
Storm frequency	= 2 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 9,643 cuft
Drainage area	= 0.623 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

\* Composite (Area/CN) = [(0.750 x 98) + (0.840 x 74)] / 0.623



# Hydrograph Report

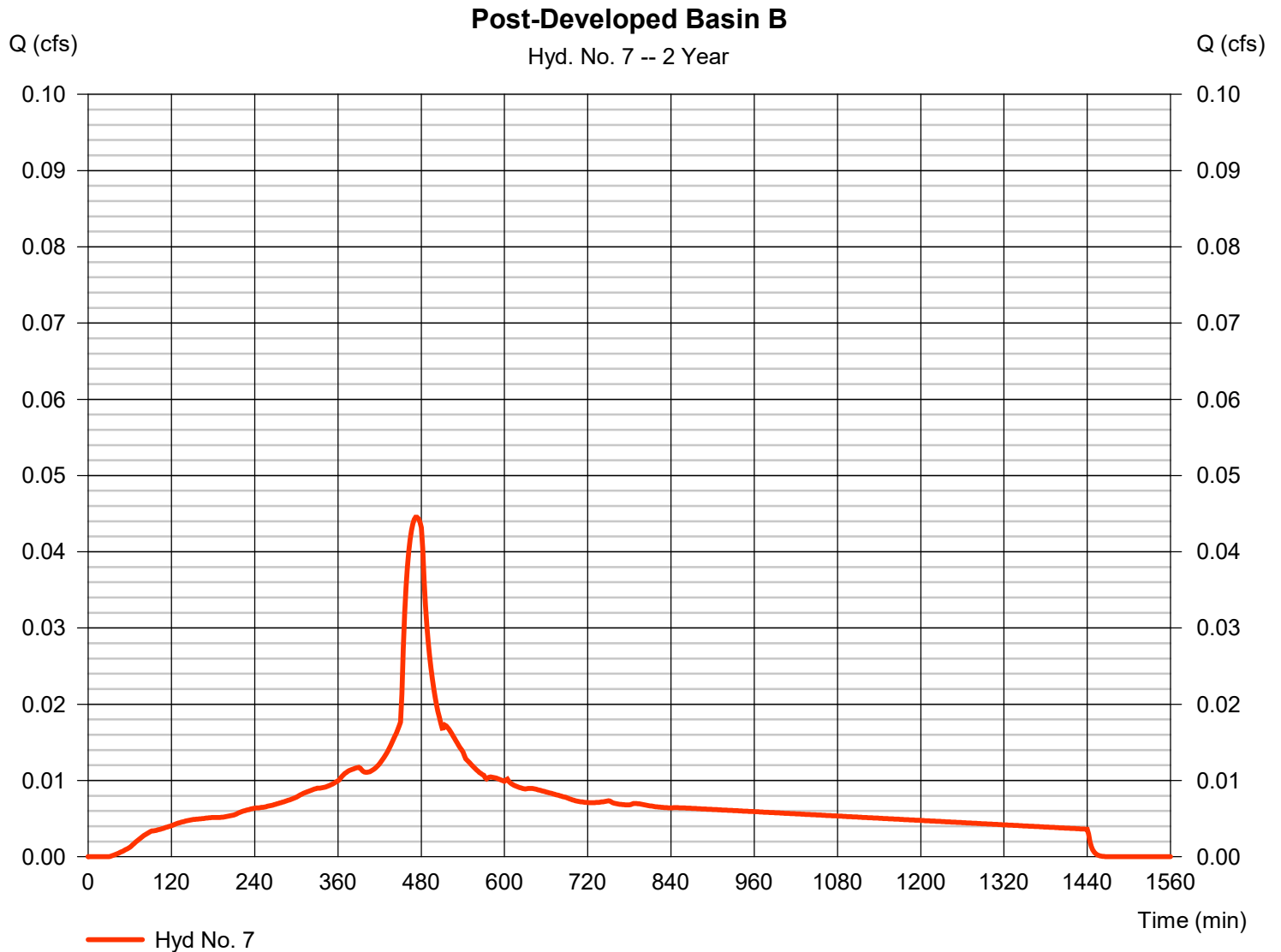
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

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## Hyd. No. 7

Post-Developed Basin B

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.045 cfs
Storm frequency	= 2 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 650 cuft
Drainage area	= 0.042 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



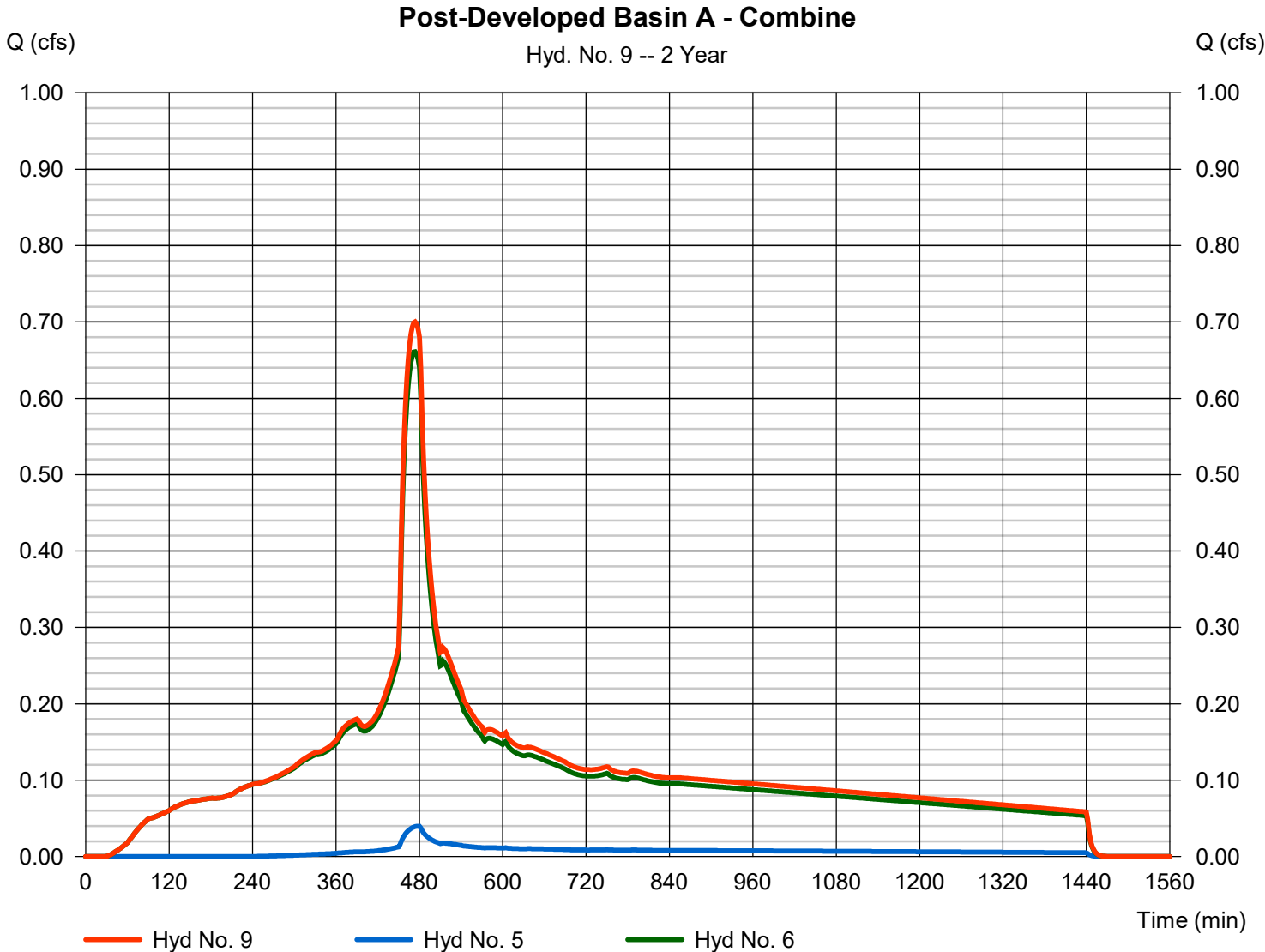
# Hydrograph Report

## Hyd. No. 9

Post-Developed Basin A - Combine

Hydrograph type = Combine  
Storm frequency = 2 yrs  
Time interval = 2 min  
Inflow hyds. = 5, 6

Peak discharge = 0.700 cfs  
Time to peak = 474 min  
Hyd. volume = 10,242 cuft  
Contrib. drain. area = 0.690 ac



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

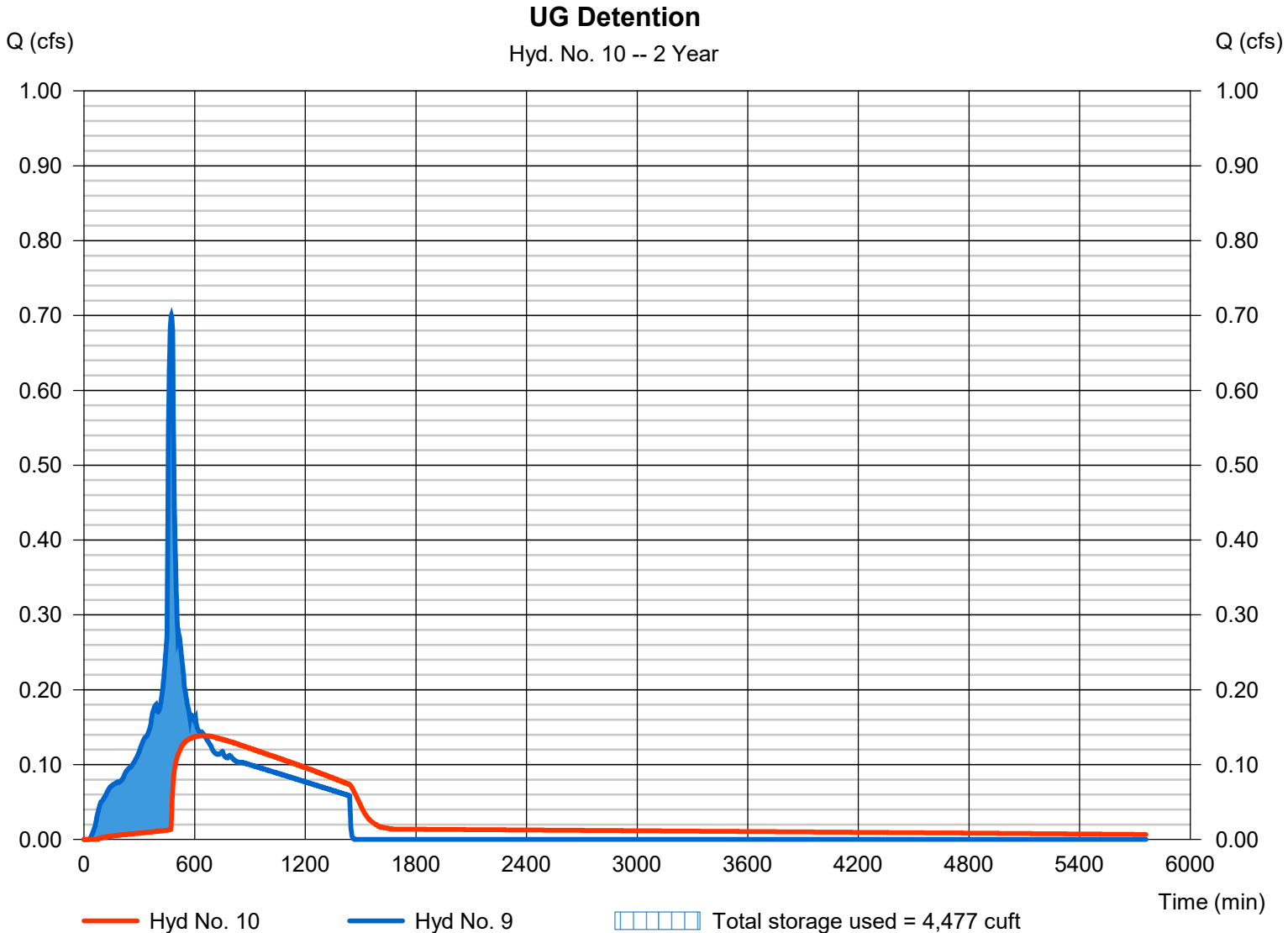
Friday, 10 / 21 / 2022

## Hyd. No. 10

### UG Detention

Hydrograph type	= Reservoir	Peak discharge	= 0.139 cfs
Storm frequency	= 2 yrs	Time to peak	= 654 min
Time interval	= 2 min	Hyd. volume	= 9,629 cuft
Inflow hyd. No.	= 9 - Post-Developed Basin A -	Max. Elevation	= 103.07 ft
Reservoir name	= UG Chamber	Max. Storage	= 4,477 cuft

Storage Indication method used.



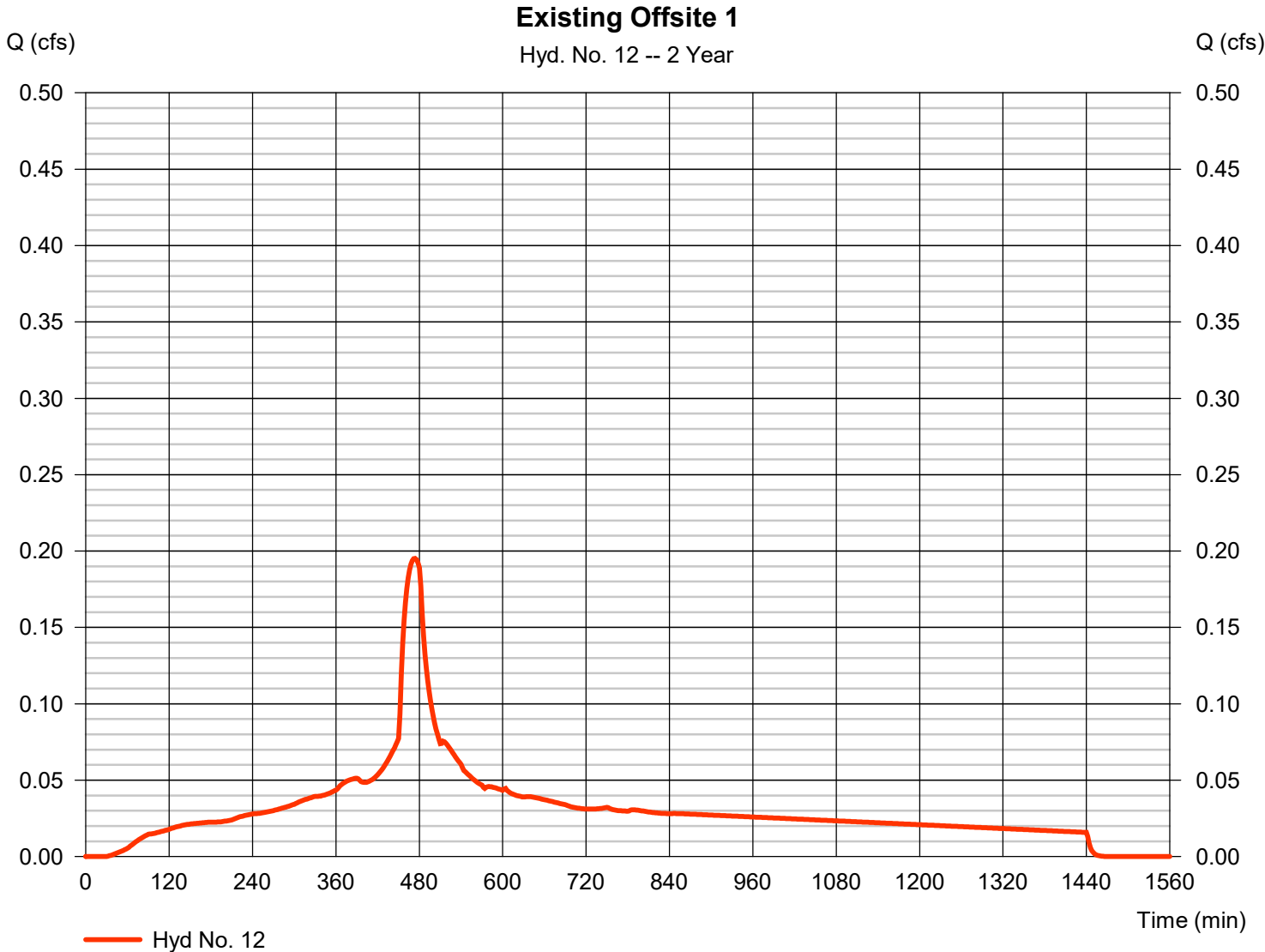


# Hydrograph Report

## Hyd. No. 12

### Existing Offsite 1

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.195 cfs
Storm frequency	= 2 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 2,848 cuft
Drainage area	= 0.184 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



# Hydrograph Report

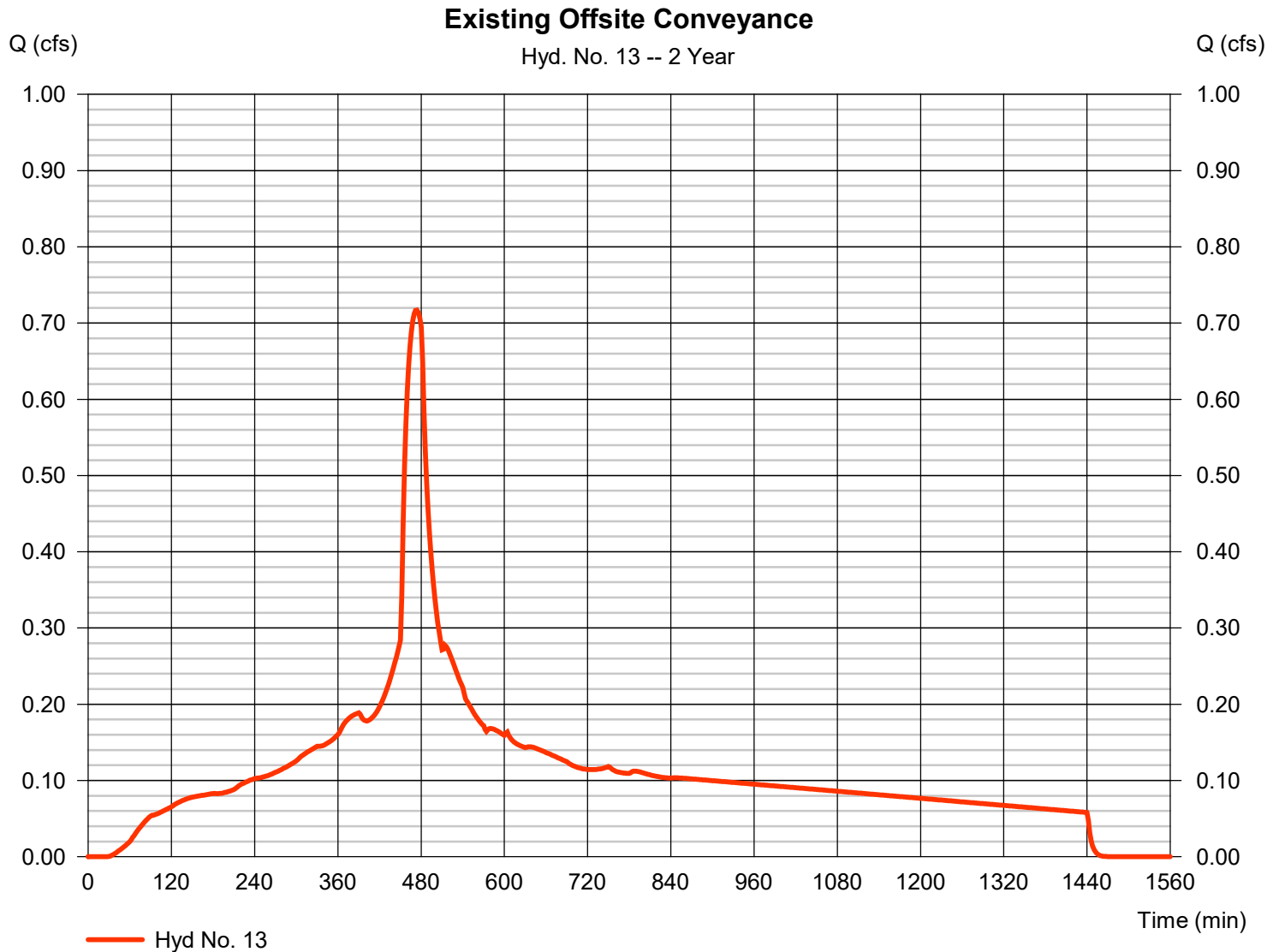
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

## Hyd. No. 13

### Existing Offsite Conveyance

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.717 cfs
Storm frequency	= 2 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 10,463 cuft
Drainage area	= 0.676 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

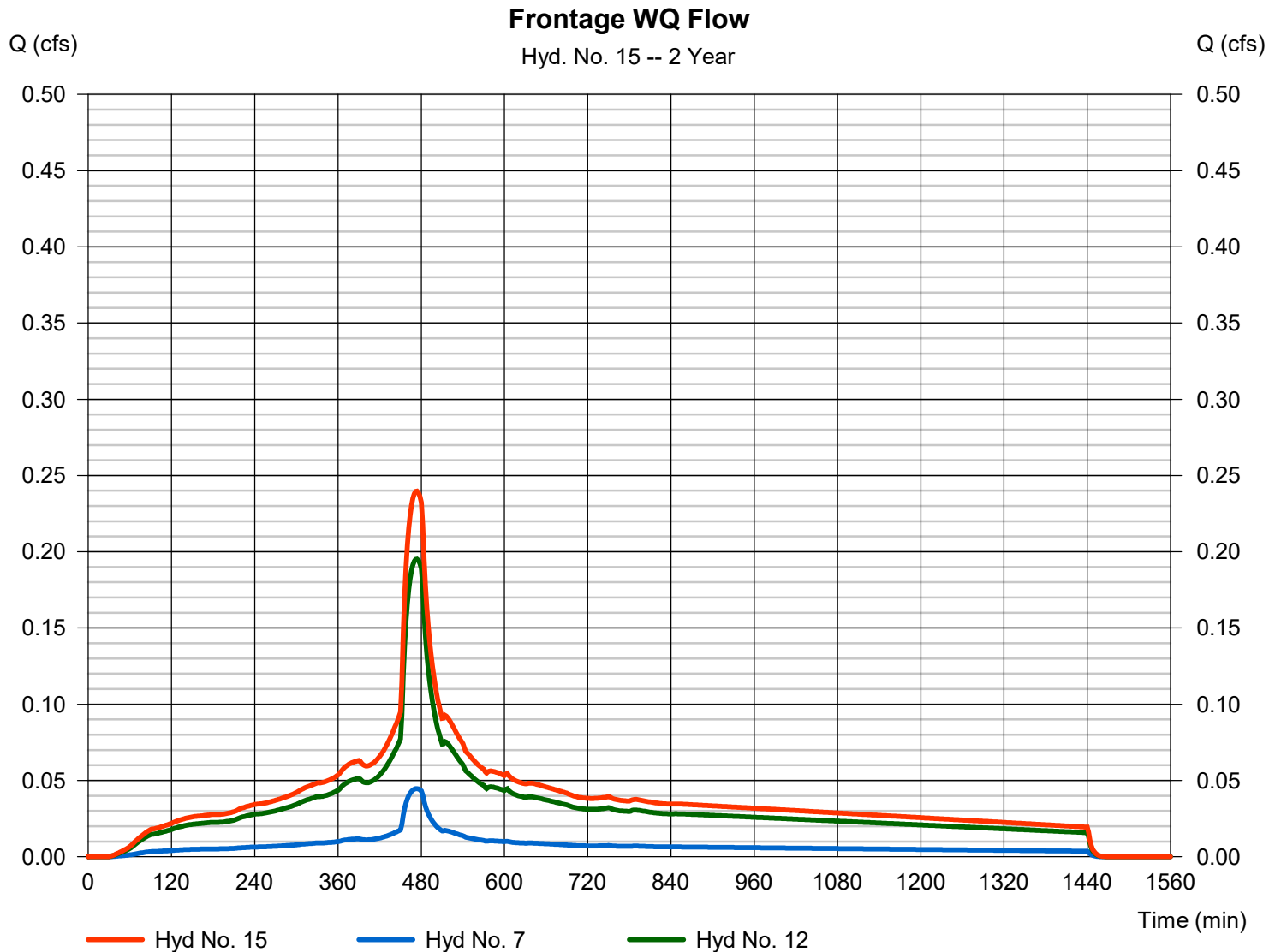
Friday, 10 / 21 / 2022

## Hyd. No. 15

### Frontage WQ Flow

Hydrograph type = Combine  
Storm frequency = 2 yrs  
Time interval = 2 min  
Inflow hyds. = 7, 12

Peak discharge = 0.240 cfs  
Time to peak = 474 min  
Hyd. volume = 3,498 cuft  
Contrib. drain. area = 0.226 ac



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SBUH Runoff	0.030	2	482	1,005	----	----	----	Pre-Developed Basin A - Pervious
2	SBUH Runoff	0.002	2	482	60	----	----	----	Pre-Developed Basin B - Pervious
3	Combine	0.031	2	482	1,064	1, 2	----	----	Pre-Developed Basin - Combined
5	SBUH Runoff	0.005	2	480	121	----	----	----	Post-Developed Basin A - Pervious
6	SBUH Runoff	0.266	2	474	3,766	----	----	----	Post-Developed Basin A - Impervious
7	SBUH Runoff	0.018	2	474	254	----	----	----	Post-Developed Basin B
9	Combine	0.270	2	474	3,887	5, 6,	----	----	Post-Developed Basin A - Combine
10	Reservoir	0.014	2	1444	3,390	9	102.16	3,075	UG Detention
12	SBUH Runoff	0.078	2	474	1,112	----	----	----	Existing Offsite 1
13	SBUH Runoff	0.288	2	474	4,087	----	----	----	Existing Offsite Conveyance
15	Combine	0.096	2	474	1,366	7, 12,	----	----	Frontage WQ Flow
					<b>42% of 2-year Storm Event</b>				
MHD01 - Model_SSS.gpw					Return Period: 3 Year			Friday, 10 / 21 / 2022	

# Hydrograph Report

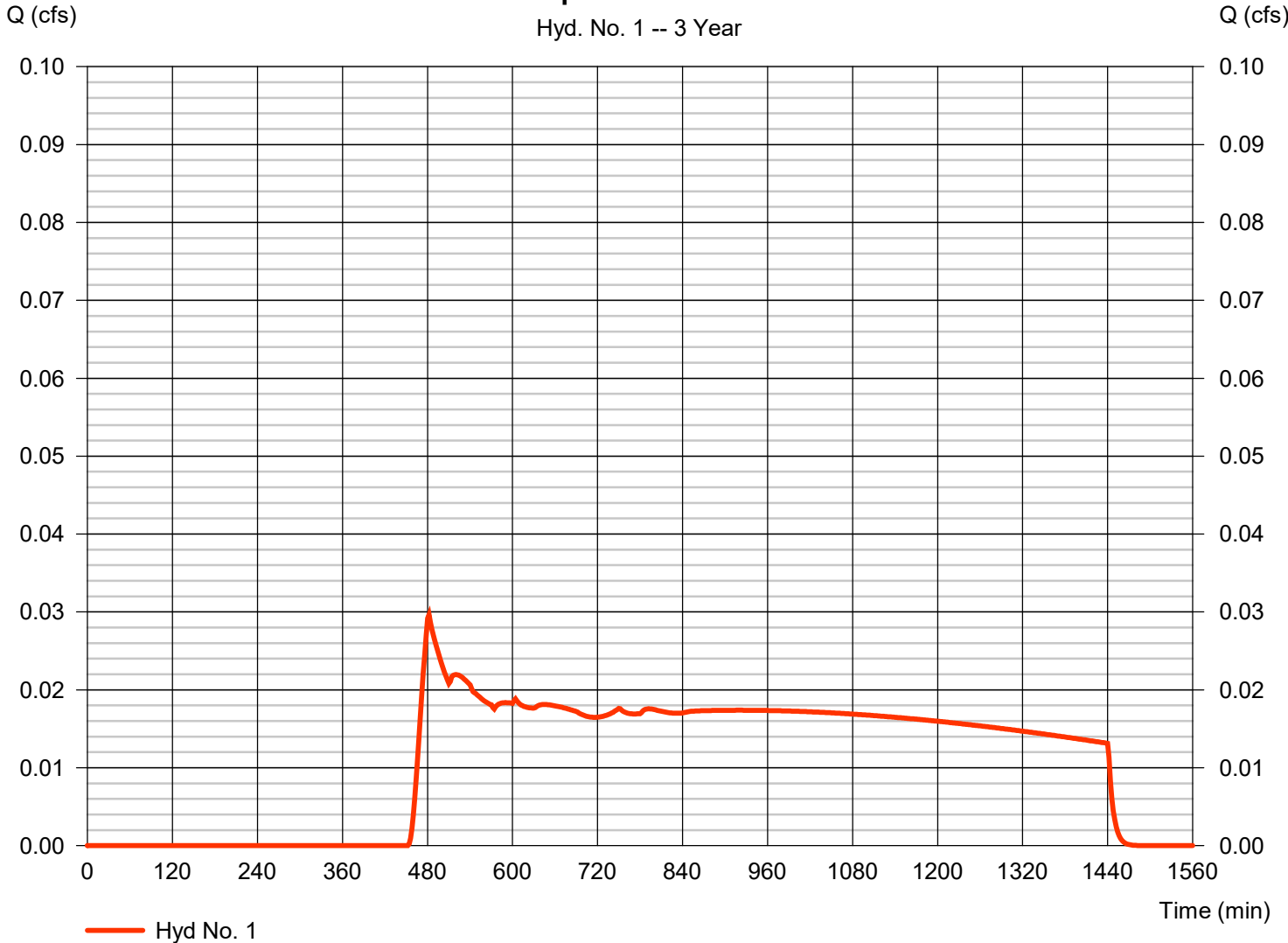
## Hyd. No. 1

Pre-Developed Basin A - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.030 cfs
Storm frequency	= 3 yrs	Time to peak	= 482 min
Time interval	= 2 min	Hyd. volume	= 1,005 cuft
Drainage area	= 0.709 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 1.89 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

Pre-Developed Basin A - Pervious

Hyd. No. 1 -- 3 Year





# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

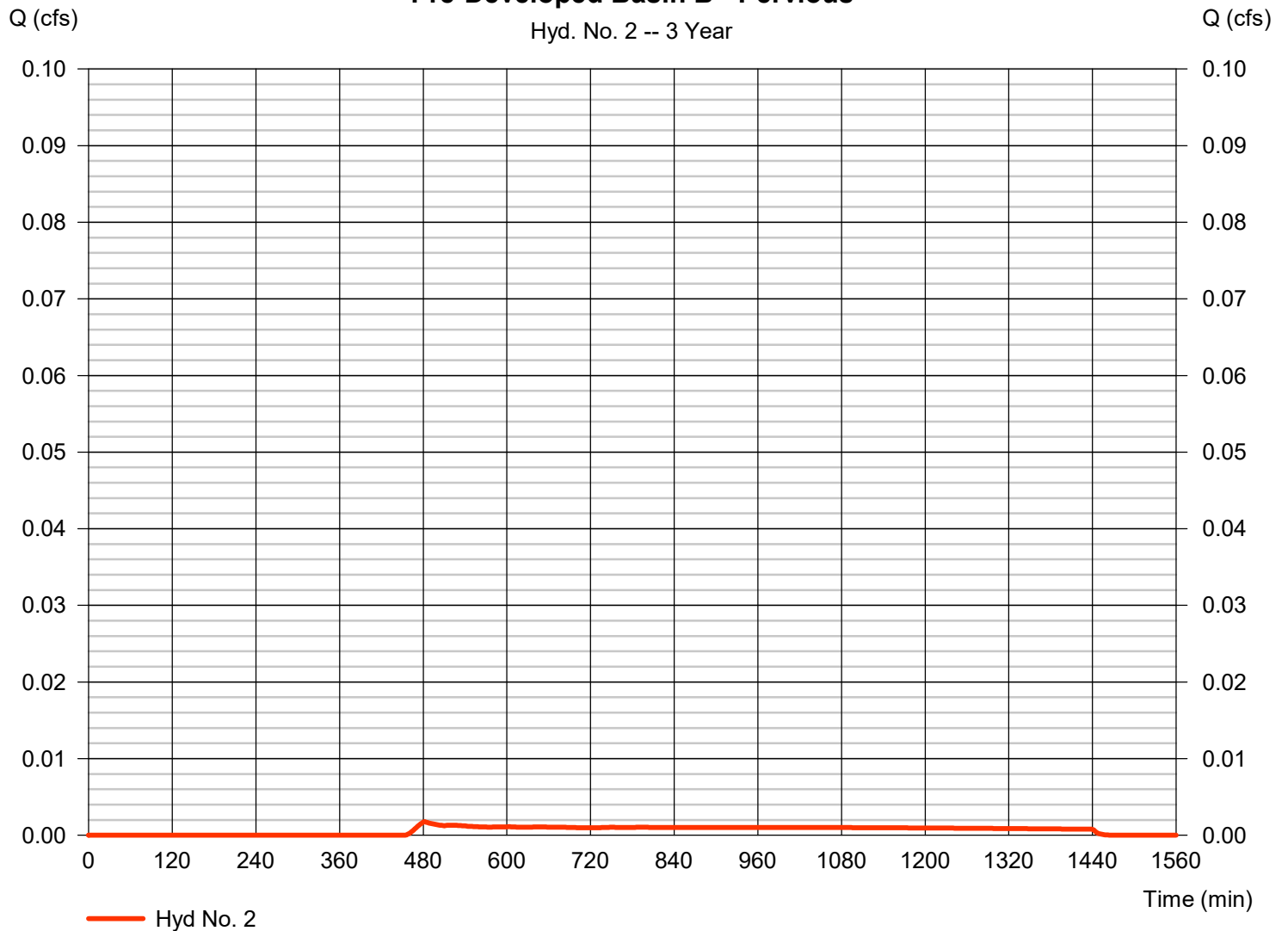
## Hyd. No. 2

Pre-Developed Basin B - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.002 cfs
Storm frequency	= 3 yrs	Time to peak	= 482 min
Time interval	= 2 min	Hyd. volume	= 60 cuft
Drainage area	= 0.042 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 1.89 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

### Pre-Developed Basin B - Pervious

Hyd. No. 2 -- 3 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

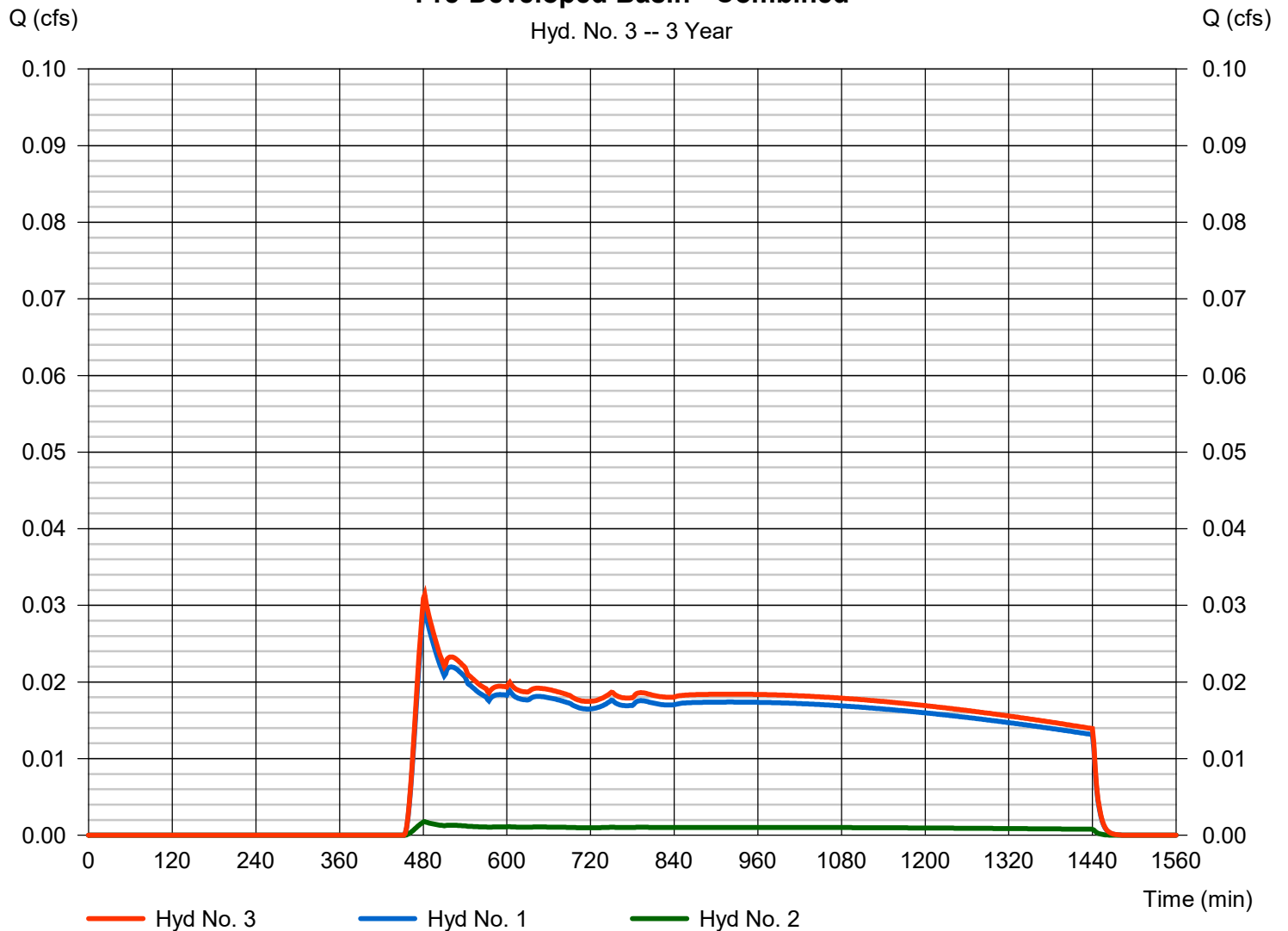
## Hyd. No. 3

Pre-Developed Basin - Combined

Hydrograph type	= Combine	Peak discharge	= 0.031 cfs
Storm frequency	= 3 yrs	Time to peak	= 482 min
Time interval	= 2 min	Hyd. volume	= 1,064 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.751 ac

### Pre-Developed Basin - Combined

Hyd. No. 3 -- 3 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

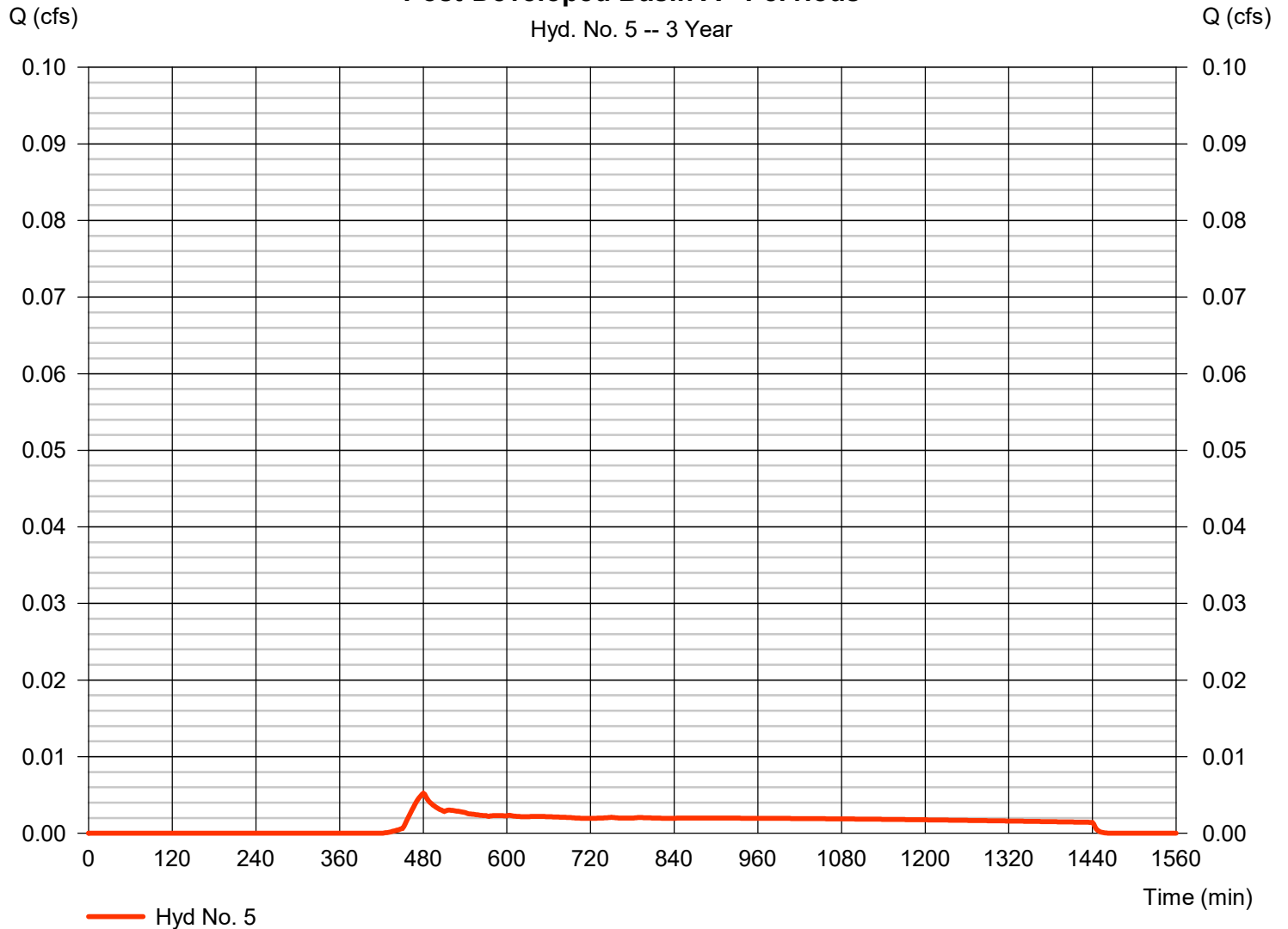
Friday, 10 / 21 / 2022

## Hyd. No. 5

Post-Developed Basin A - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.005 cfs
Storm frequency	= 3 yrs	Time to peak	= 480 min
Time interval	= 2 min	Hyd. volume	= 121 cuft
Drainage area	= 0.067 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 1.89 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

### Post-Developed Basin A - Pervious



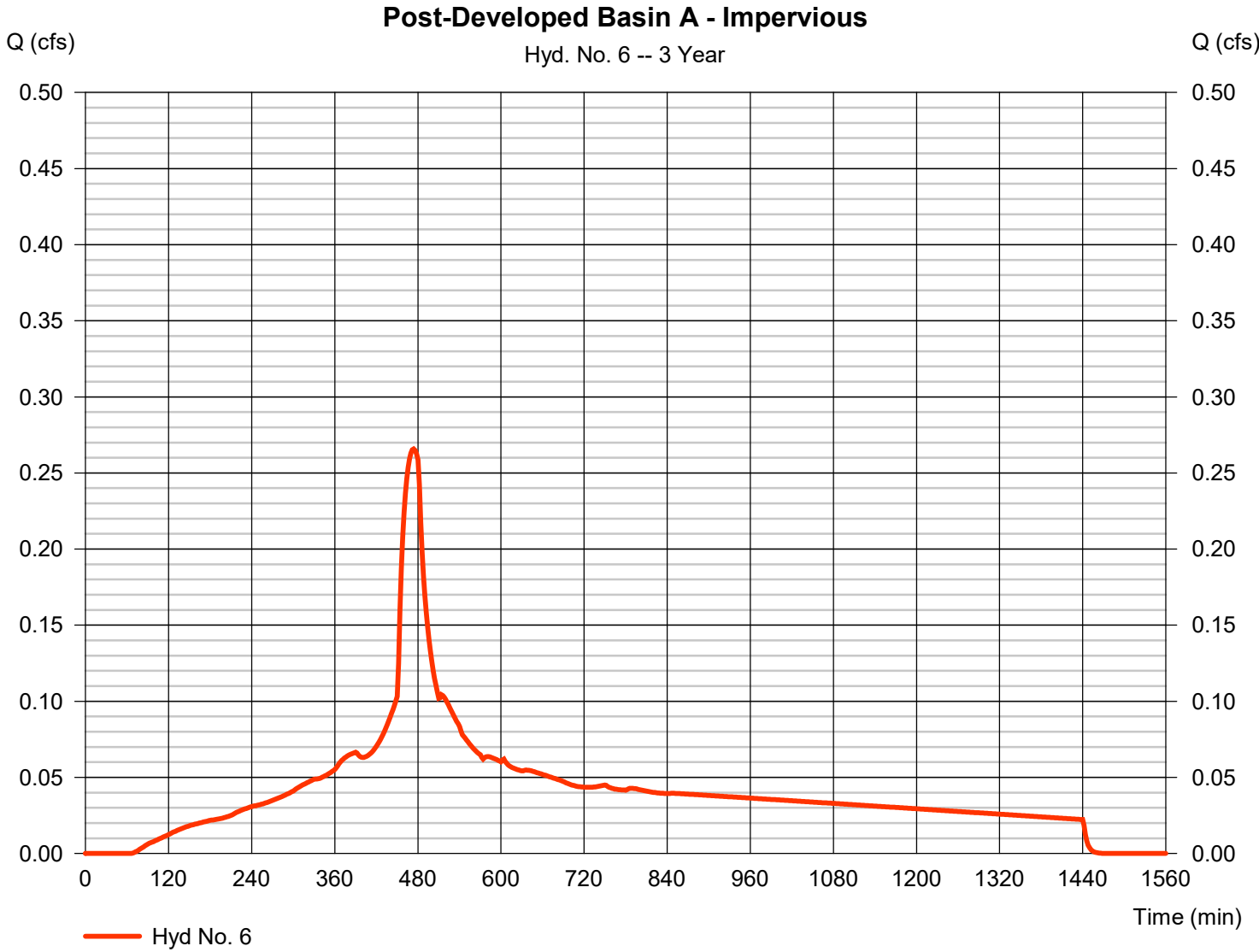
# Hydrograph Report

## Hyd. No. 6

### Post-Developed Basin A - Impervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.266 cfs
Storm frequency	= 3 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 3,766 cuft
Drainage area	= 0.623 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 1.89 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

\* Composite (Area/CN) = [(0.750 x 98) + (0.840 x 74)] / 0.623



# Hydrograph Report

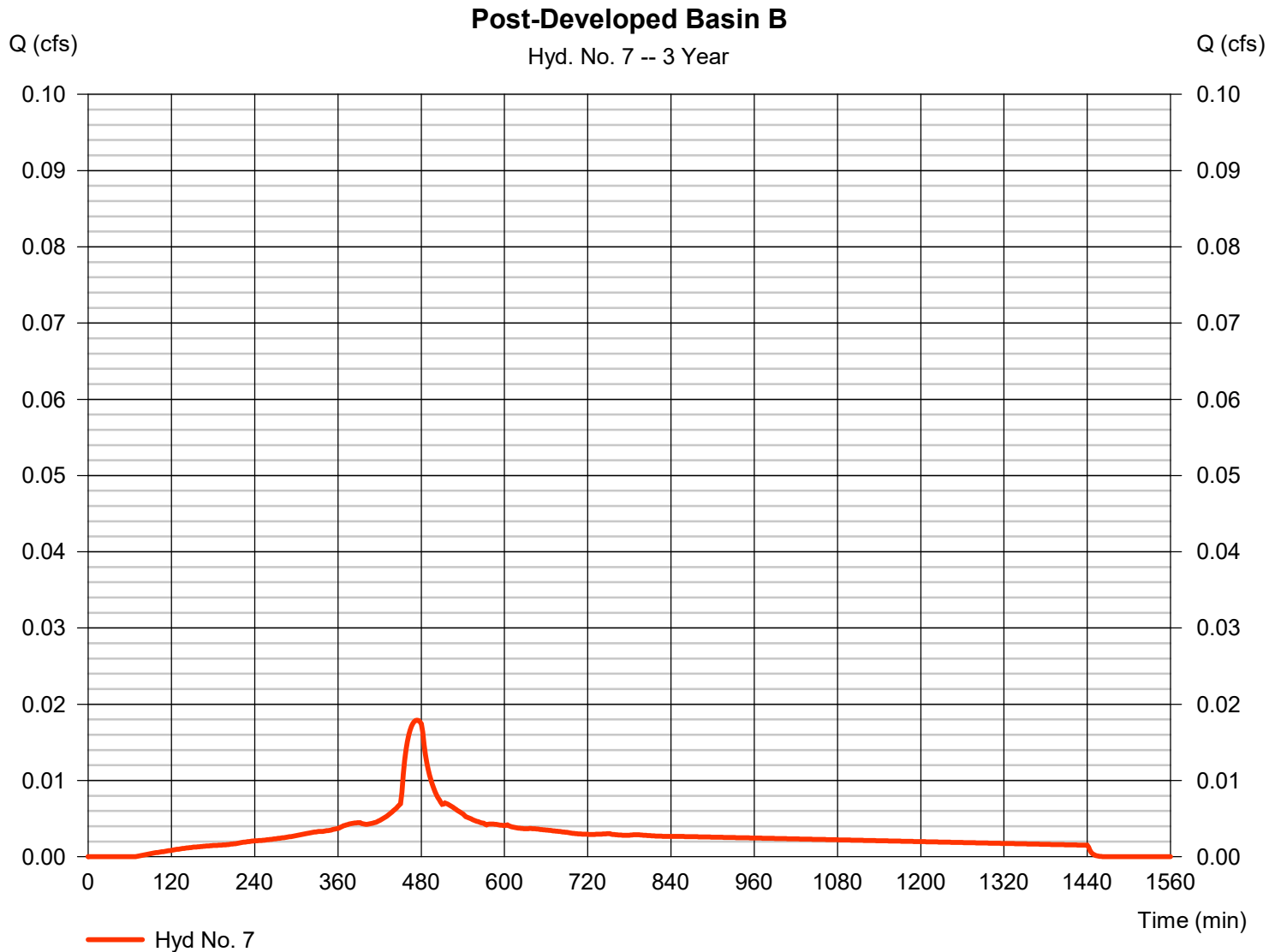
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

## Hyd. No. 7

### Post-Developed Basin B

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.018 cfs
Storm frequency	= 3 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 254 cuft
Drainage area	= 0.042 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 1.89 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a





# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

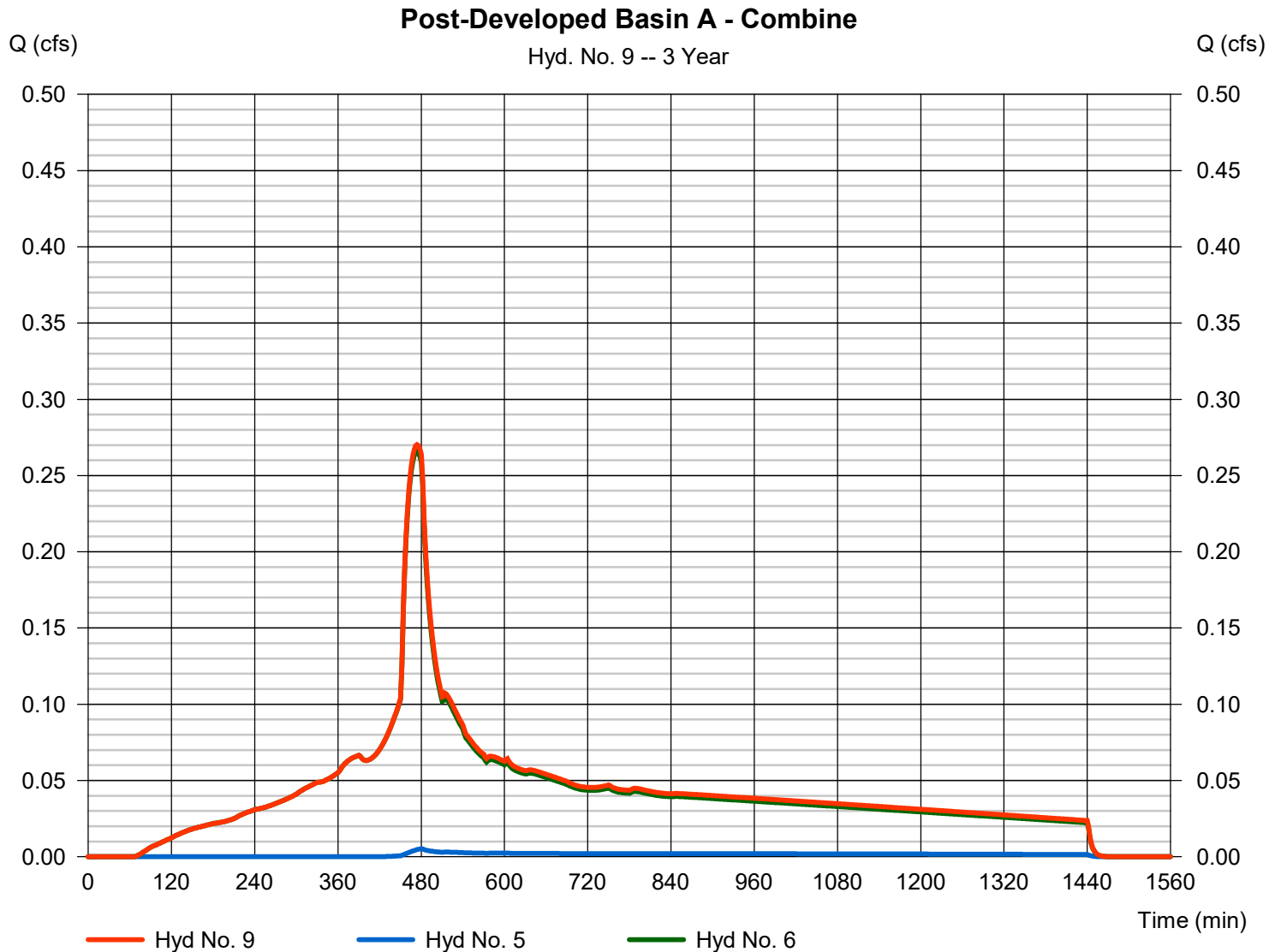
Friday, 10 / 21 / 2022

## Hyd. No. 9

Post-Developed Basin A - Combine

Hydrograph type = Combine  
Storm frequency = 3 yrs  
Time interval = 2 min  
Inflow hyds. = 5, 6

Peak discharge = 0.270 cfs  
Time to peak = 474 min  
Hyd. volume = 3,887 cuft  
Contrib. drain. area = 0.690 ac



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

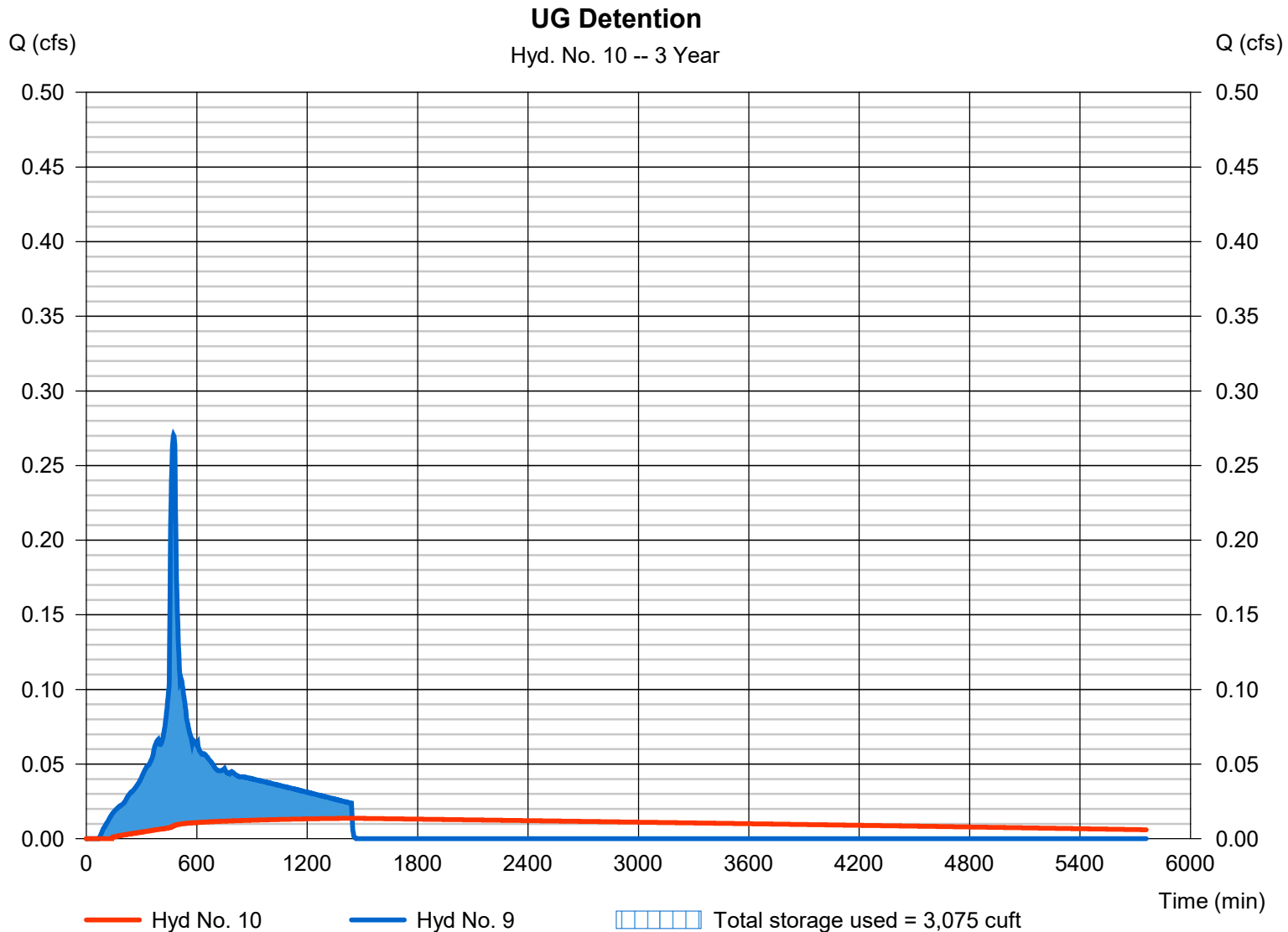
Friday, 10 / 21 / 2022

## Hyd. No. 10

### UG Detention

Hydrograph type	= Reservoir	Peak discharge	= 0.014 cfs
Storm frequency	= 3 yrs	Time to peak	= 1444 min
Time interval	= 2 min	Hyd. volume	= 3,390 cuft
Inflow hyd. No.	= 9 - Post-Developed Basin A - Max. Elevation	Max. Elevation	= 102.16 ft
Reservoir name	= UG Chamber	Max. Storage	= 3,075 cuft

Storage Indication method used.



# Hydrograph Report

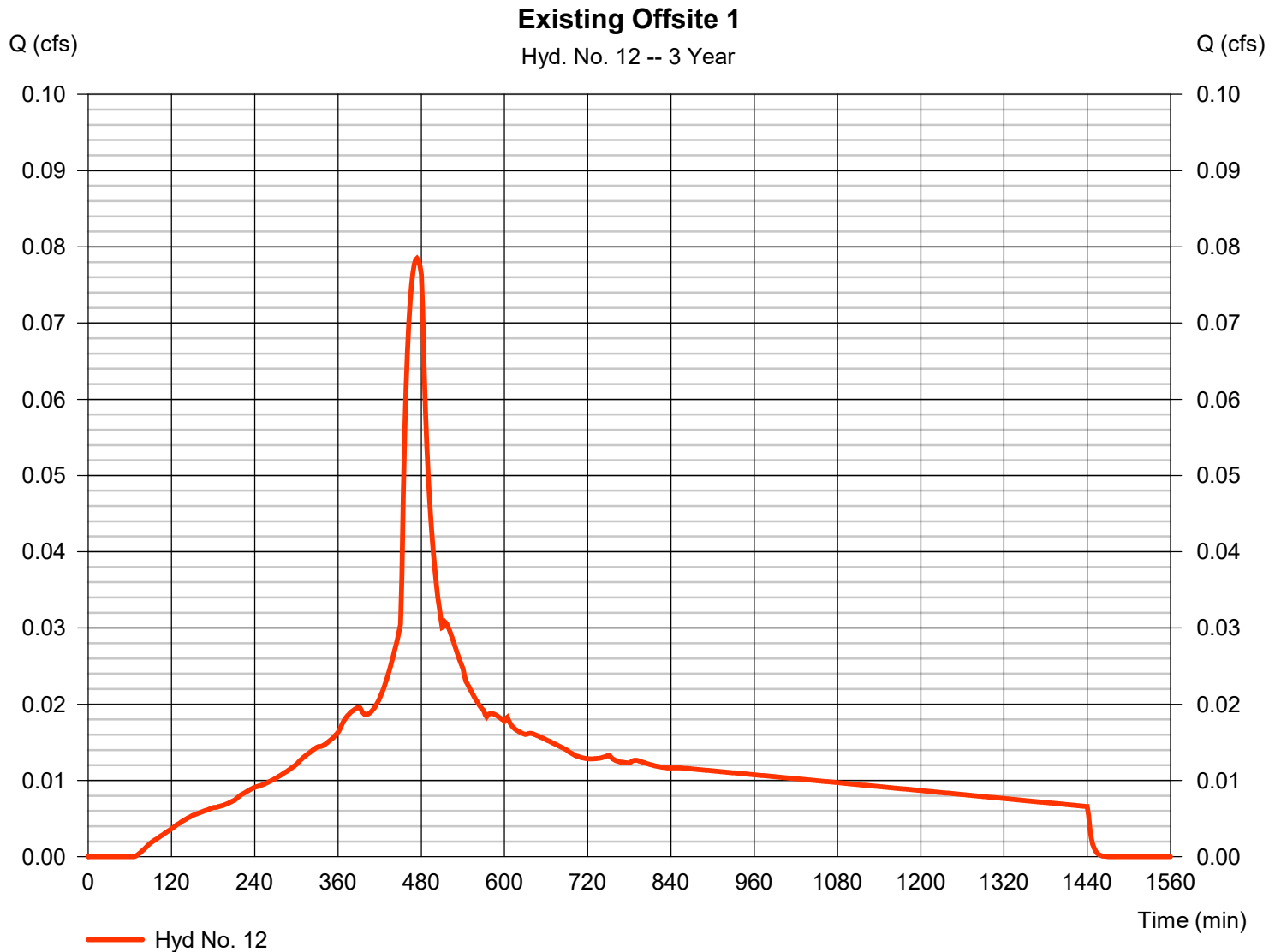
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

## Hyd. No. 12

Existing Offsite 1

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.078 cfs
Storm frequency	= 3 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 1,112 cuft
Drainage area	= 0.184 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 1.89 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



# Hydrograph Report

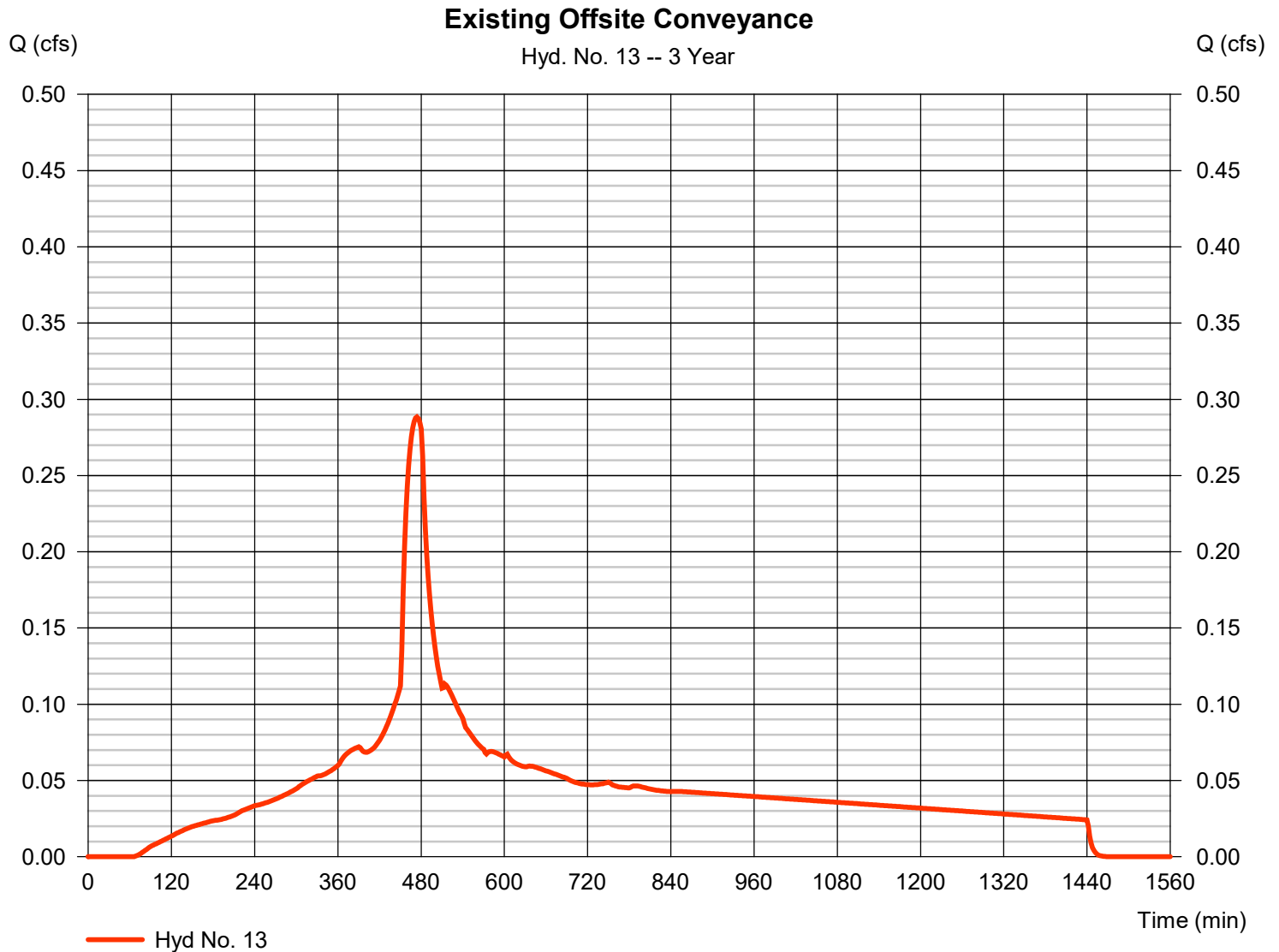
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

## Hyd. No. 13

### Existing Offsite Conveyance

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.288 cfs
Storm frequency	= 3 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 4,087 cuft
Drainage area	= 0.676 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 1.89 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

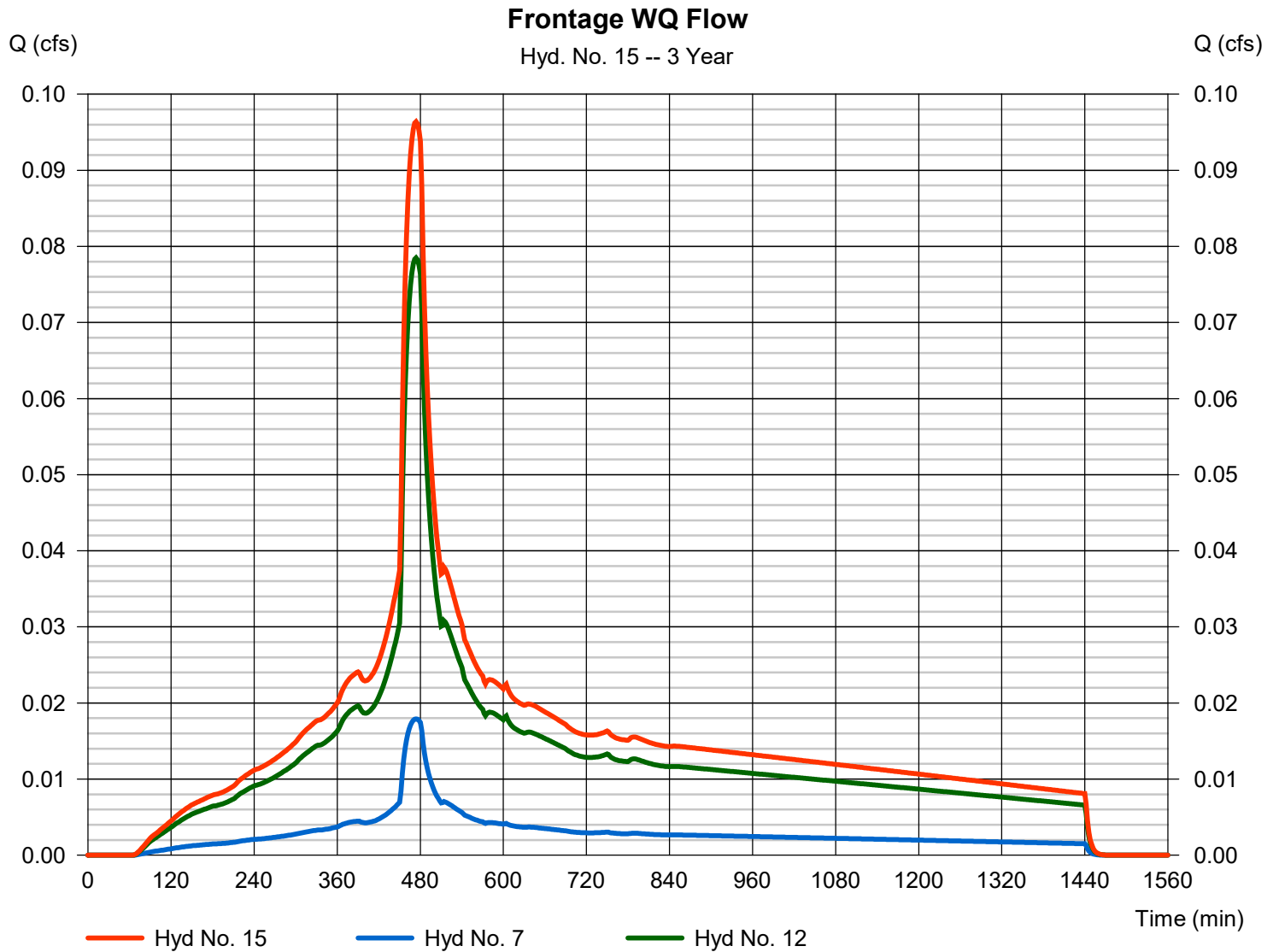
Friday, 10 / 21 / 2022

## Hyd. No. 15

Frontage WQ Flow

Hydrograph type = Combine  
Storm frequency = 3 yrs  
Time interval = 2 min  
Inflow hyds. = 7, 12

Peak discharge = 0.096 cfs  
Time to peak = 474 min  
Hyd. volume = 1,366 cuft  
Contrib. drain. area = 0.226 ac





# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SBUH Runoff	0.515	2	480	7,841	----	----	----	Pre-Developed Basin A - Pervious
2	SBUH Runoff	0.031	2	480	464	----	----	----	Pre-Developed Basin B - Pervious
3	Combine	0.546	2	480	8,305	1, 2	----	----	Pre-Developed Basin - Combined
5	SBUH Runoff	0.055	2	478	811	----	----	----	Post-Developed Basin A - Pervious
6	SBUH Runoff	0.811	2	474	11,901	----	----	----	Post-Developed Basin A - Impervious
7	SBUH Runoff	0.055	2	474	802	----	----	----	Post-Developed Basin B
9	Combine	0.866	2	474	12,712	5, 6,	----	----	Post-Developed Basin A - Combine
10	Reservoir	0.185	2	614	12,079	9	103.73	5,358	UG Detention
12	SBUH Runoff	0.239	2	474	3,515	----	----	----	Existing Offsite 1
13	SBUH Runoff	0.880	2	474	12,913	----	----	----	Existing Offsite Conveyance
15	Combine	0.294	2	474	4,317	7, 12,	----	----	Frontage WQ Flow
MHD01 - Model_SSS.gpw					Return Period: 5 Year			Friday, 10 / 21 / 2022	

# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

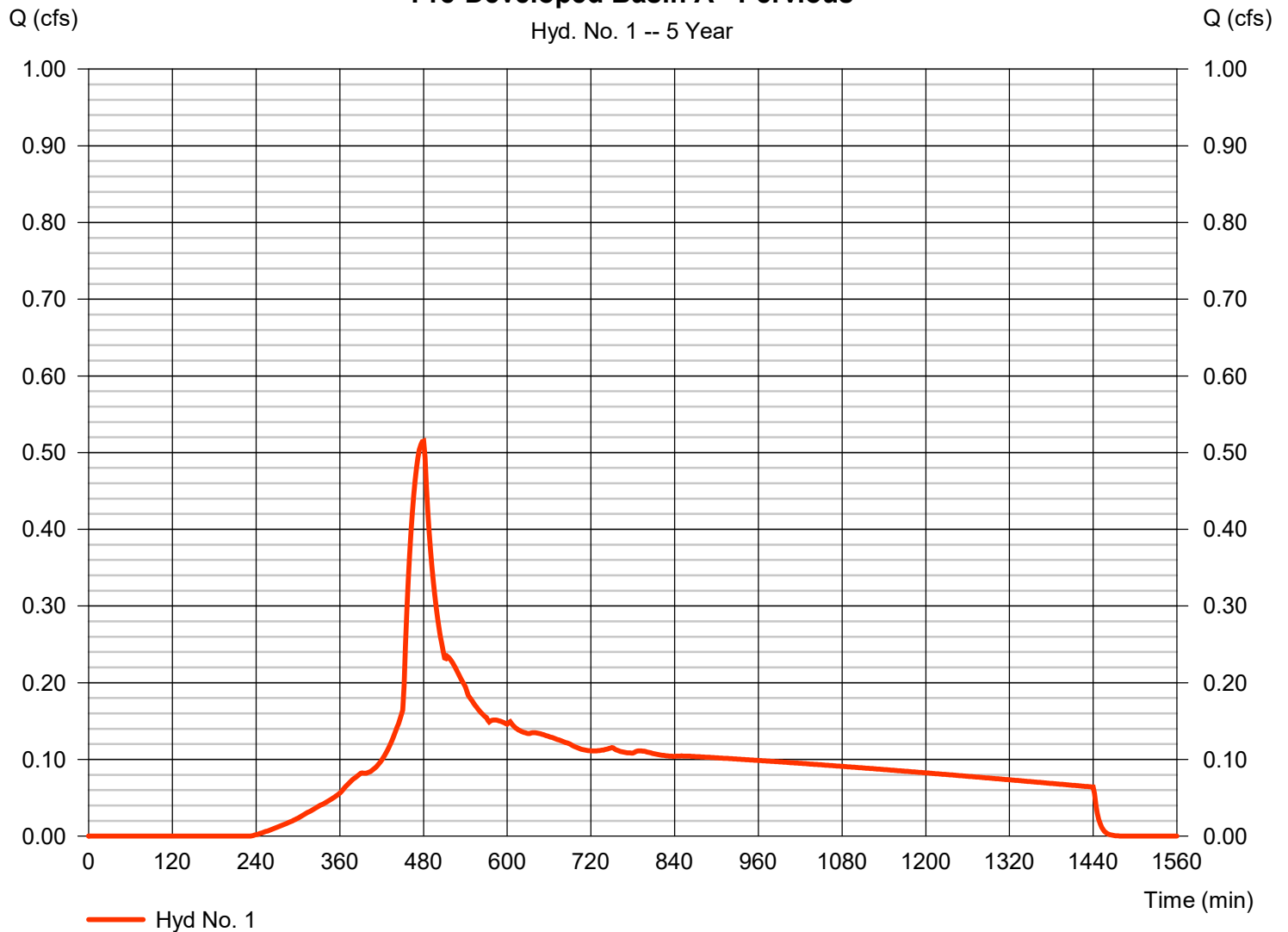
## Hyd. No. 1

Pre-Developed Basin A - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.515 cfs
Storm frequency	= 5 yrs	Time to peak	= 480 min
Time interval	= 2 min	Hyd. volume	= 7,841 cuft
Drainage area	= 0.709 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 5.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

### Pre-Developed Basin A - Pervious

Hyd. No. 1 -- 5 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

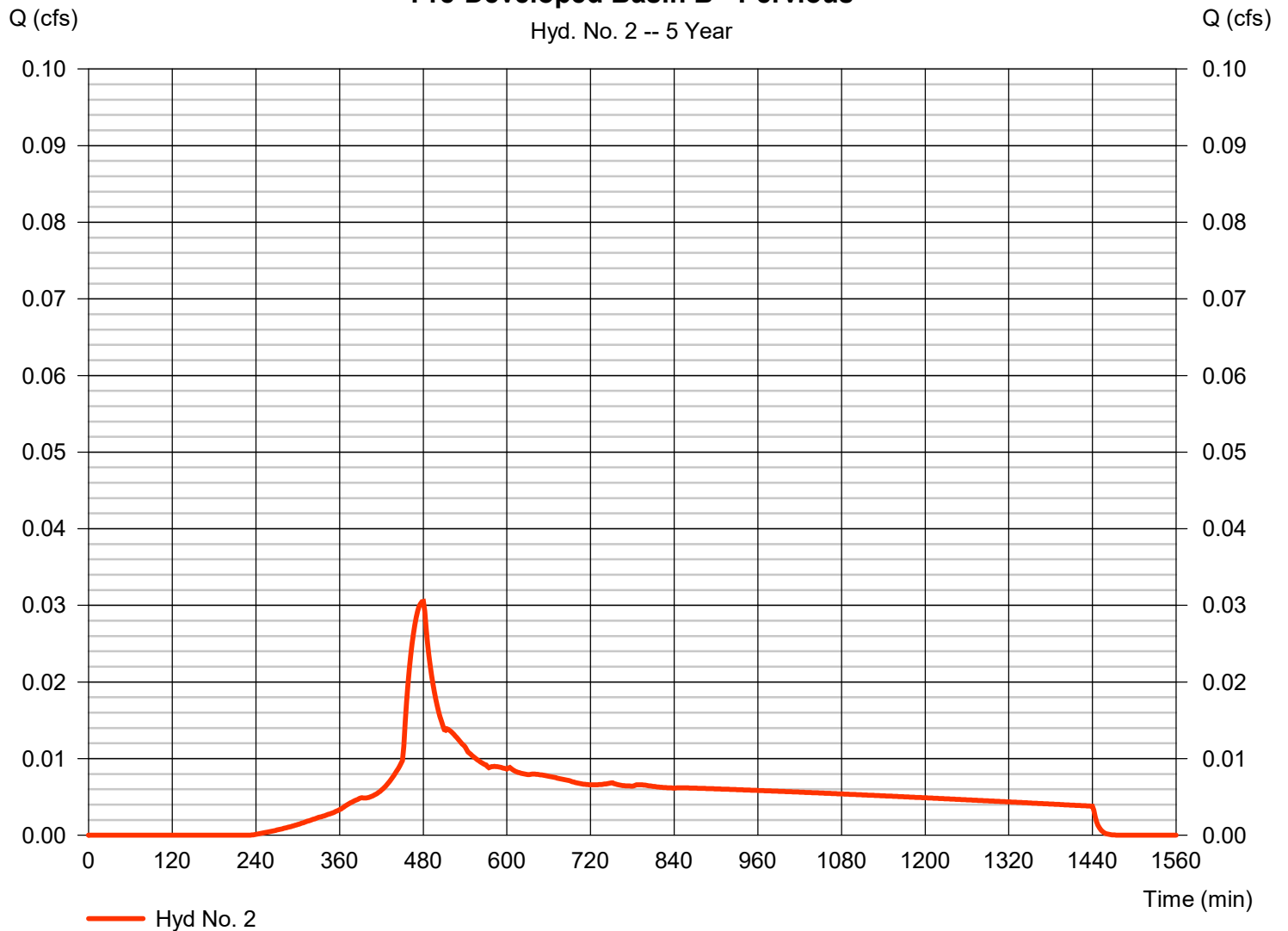
## Hyd. No. 2

Pre-Developed Basin B - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.031 cfs
Storm frequency	= 5 yrs	Time to peak	= 480 min
Time interval	= 2 min	Hyd. volume	= 464 cuft
Drainage area	= 0.042 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 5.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

### Pre-Developed Basin B - Pervious

Hyd. No. 2 -- 5 Year



# Hydrograph Report

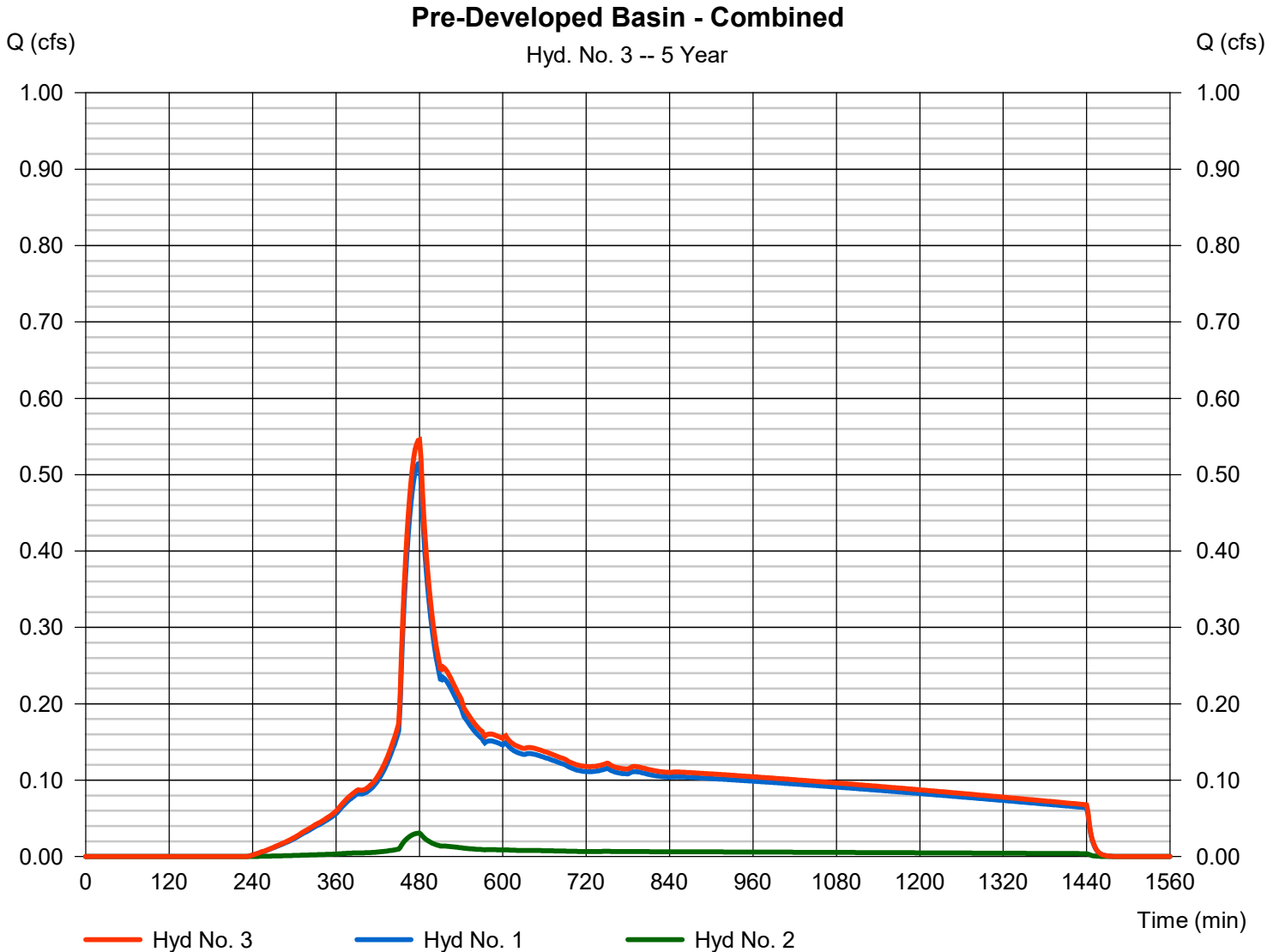
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

## Hyd. No. 3

Pre-Developed Basin - Combined

Hydrograph type	= Combine	Peak discharge	= 0.546 cfs
Storm frequency	= 5 yrs	Time to peak	= 480 min
Time interval	= 2 min	Hyd. volume	= 8,305 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.751 ac



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

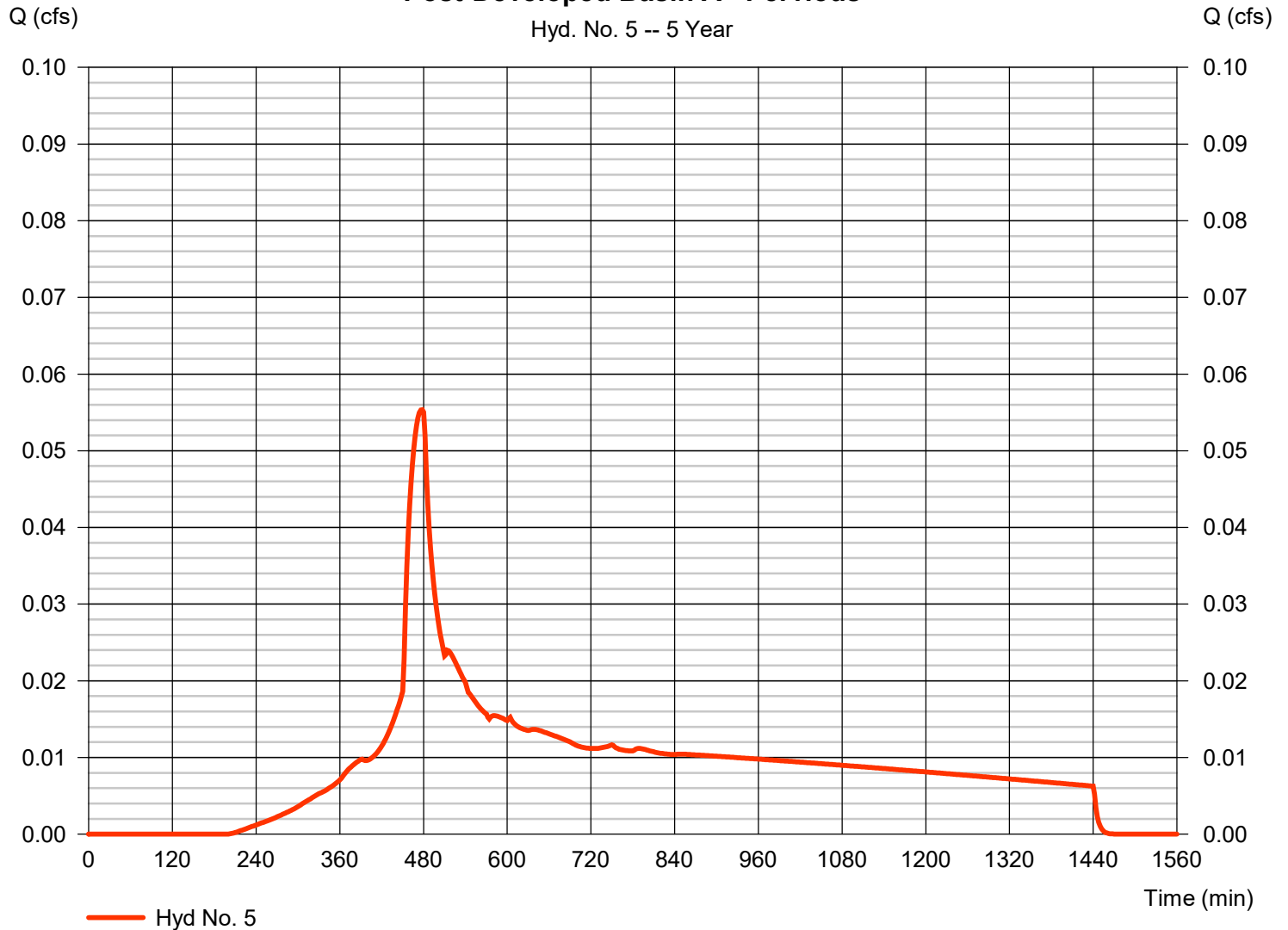
Friday, 10 / 21 / 2022

## Hyd. No. 5

Post-Developed Basin A - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.055 cfs
Storm frequency	= 5 yrs	Time to peak	= 478 min
Time interval	= 2 min	Hyd. volume	= 811 cuft
Drainage area	= 0.067 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

### Post-Developed Basin A - Pervious





# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

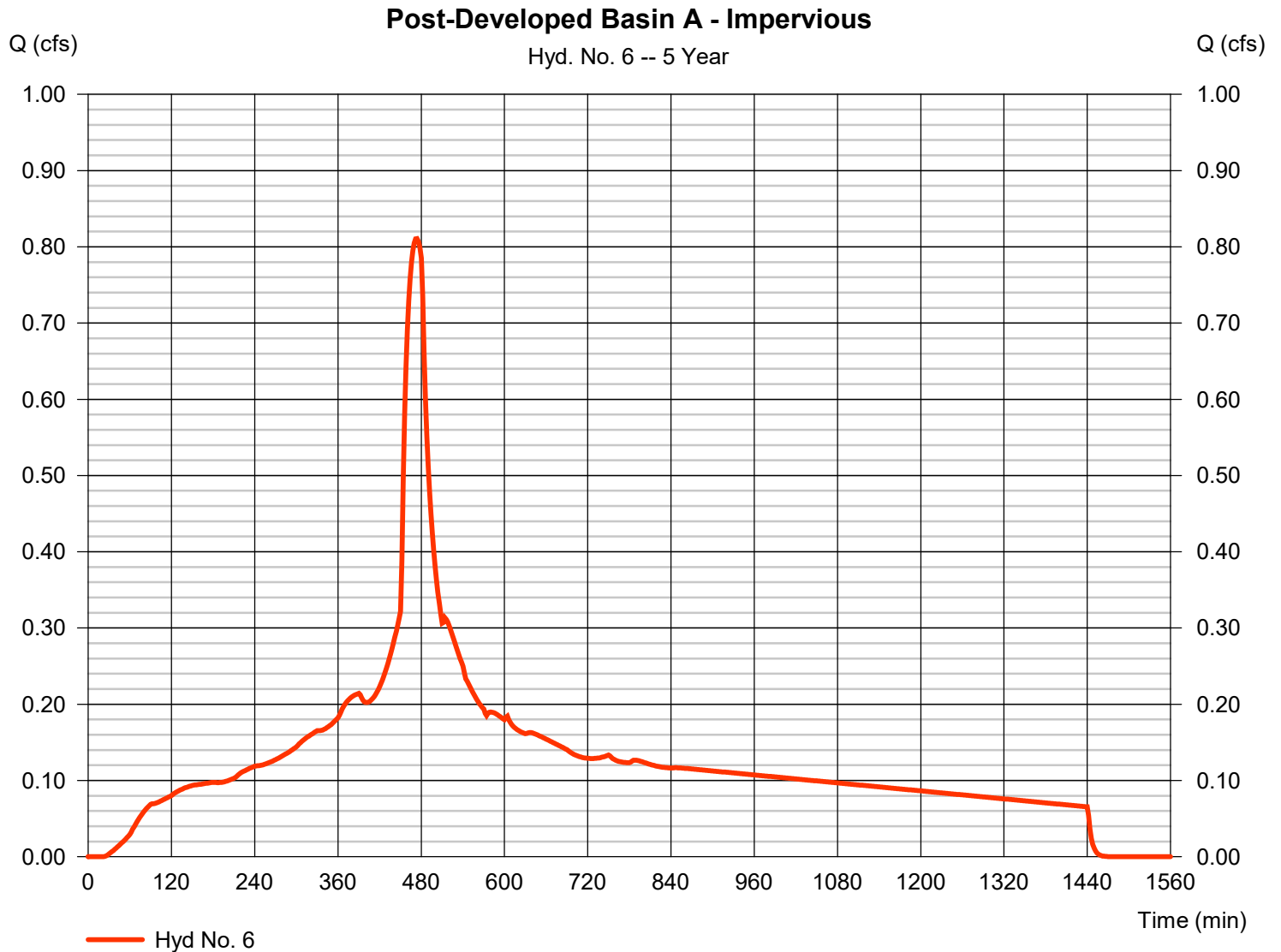
Friday, 10 / 21 / 2022

## Hyd. No. 6

Post-Developed Basin A - Impervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.811 cfs
Storm frequency	= 5 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 11,901 cuft
Drainage area	= 0.623 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

\* Composite (Area/CN) = [(0.750 x 98) + (0.840 x 74)] / 0.623

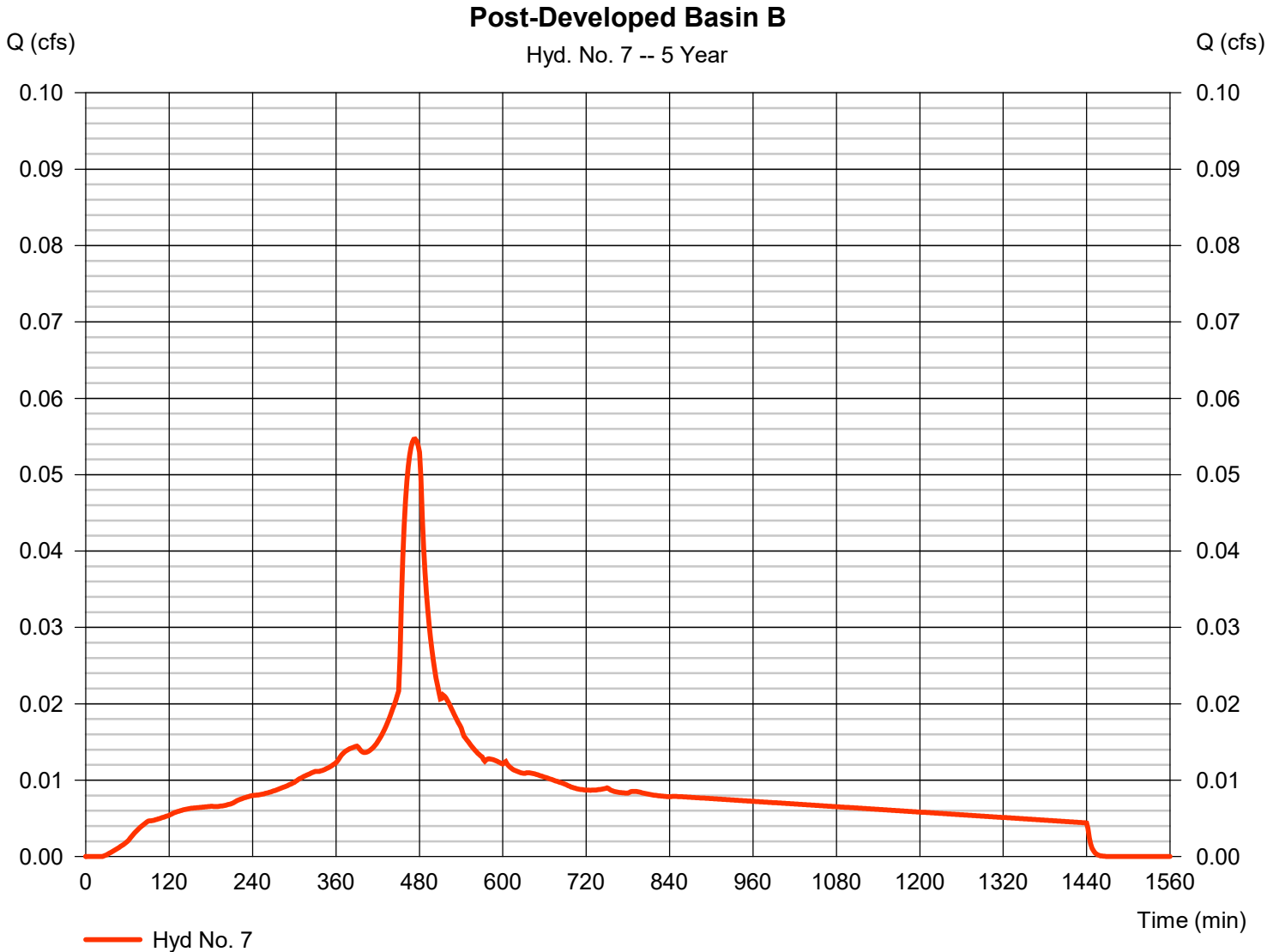


# Hydrograph Report

## Hyd. No. 7

### Post-Developed Basin B

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.055 cfs
Storm frequency	= 5 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 802 cuft
Drainage area	= 0.042 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

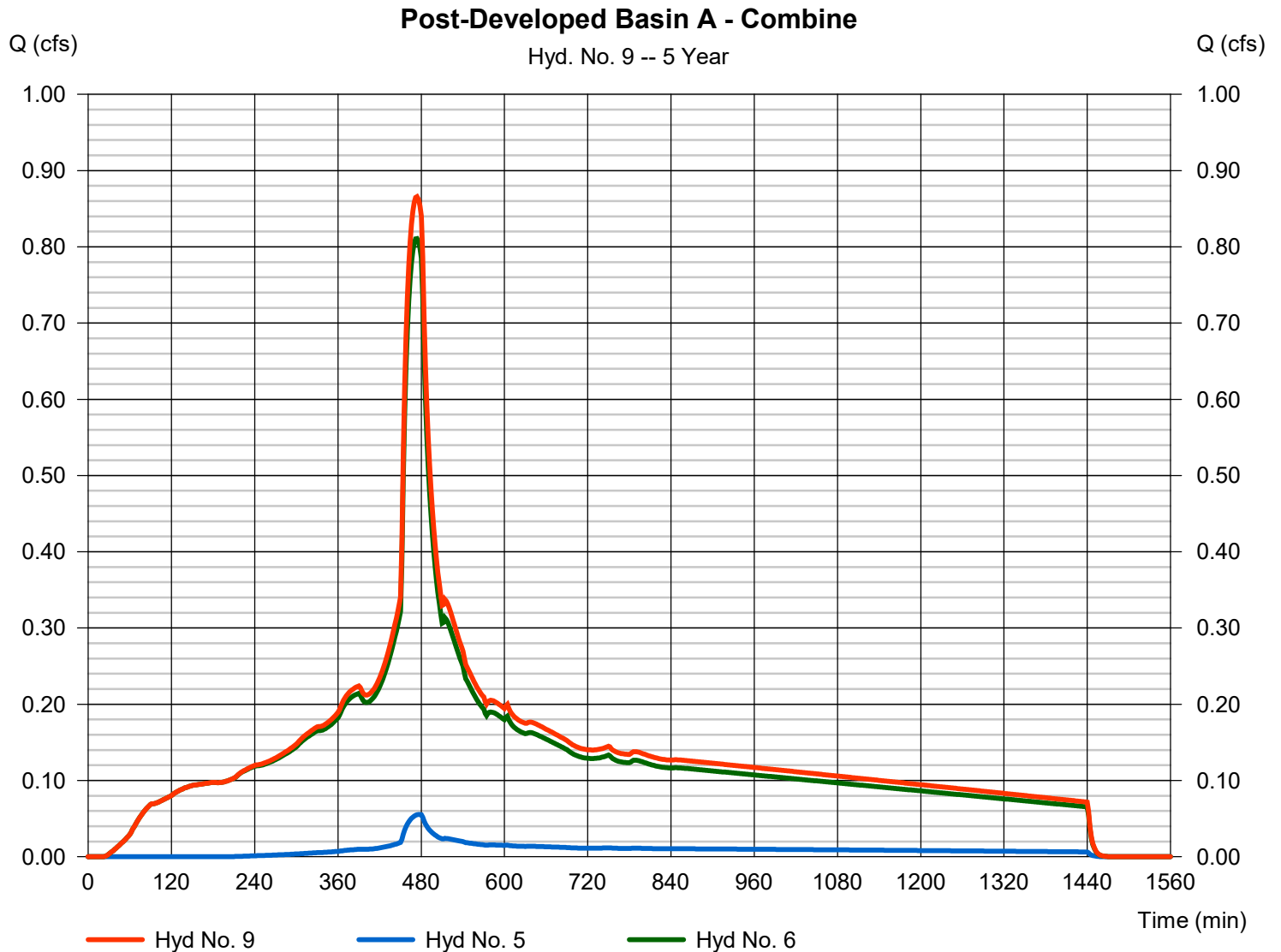
Friday, 10 / 21 / 2022

## Hyd. No. 9

Post-Developed Basin A - Combine

Hydrograph type = Combine  
Storm frequency = 5 yrs  
Time interval = 2 min  
Inflow hyds. = 5, 6

Peak discharge = 0.866 cfs  
Time to peak = 474 min  
Hyd. volume = 12,712 cuft  
Contrib. drain. area = 0.690 ac



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

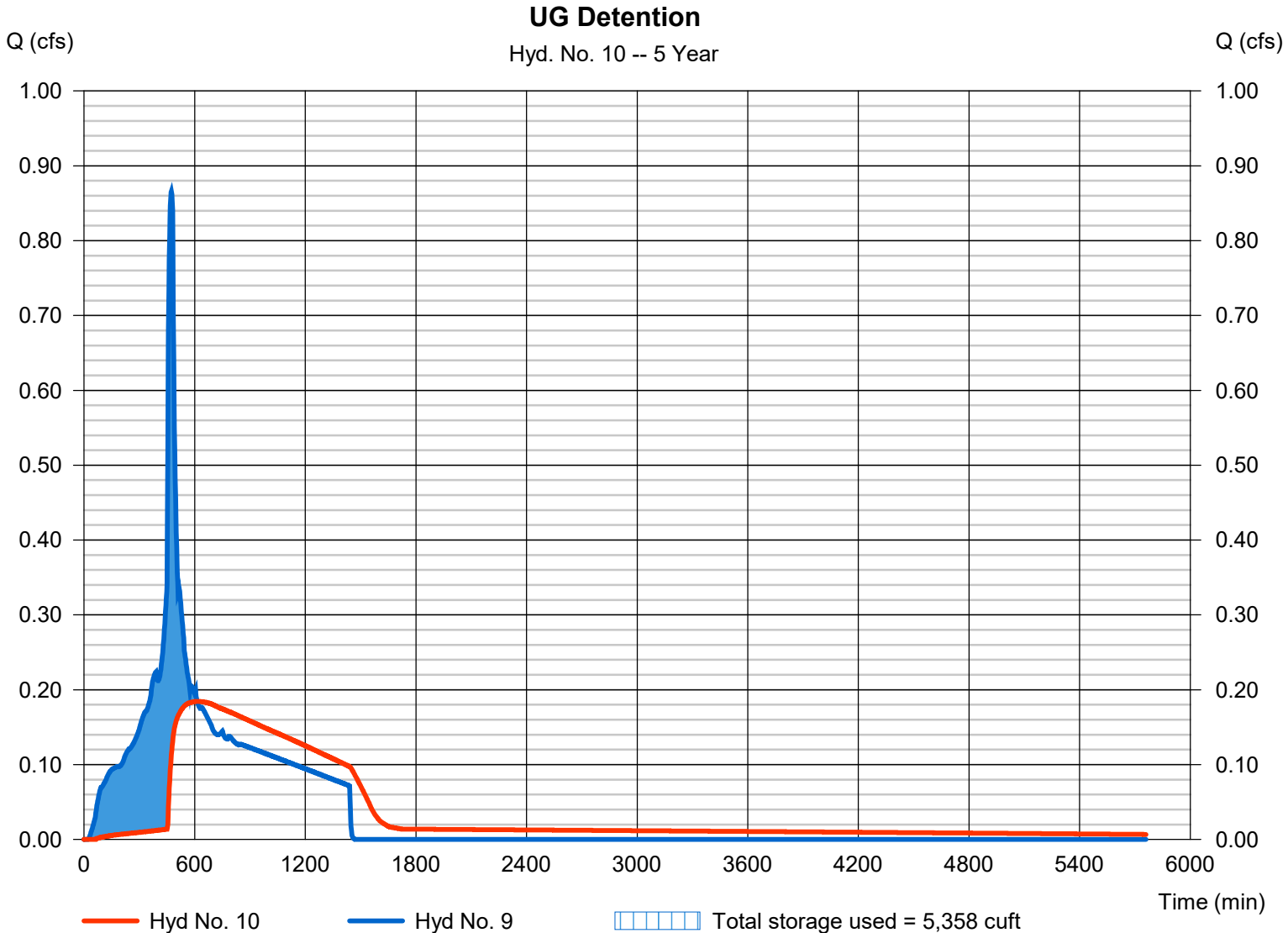
Friday, 10 / 21 / 2022

## Hyd. No. 10

### UG Detention

Hydrograph type	= Reservoir	Peak discharge	= 0.185 cfs
Storm frequency	= 5 yrs	Time to peak	= 614 min
Time interval	= 2 min	Hyd. volume	= 12,079 cuft
Inflow hyd. No.	= 9 - Post-Developed Basin A - Mobile	Max. Elevation	= 103.73 ft
Reservoir name	= UG Chamber	Max. Storage	= 5,358 cuft

Storage Indication method used.

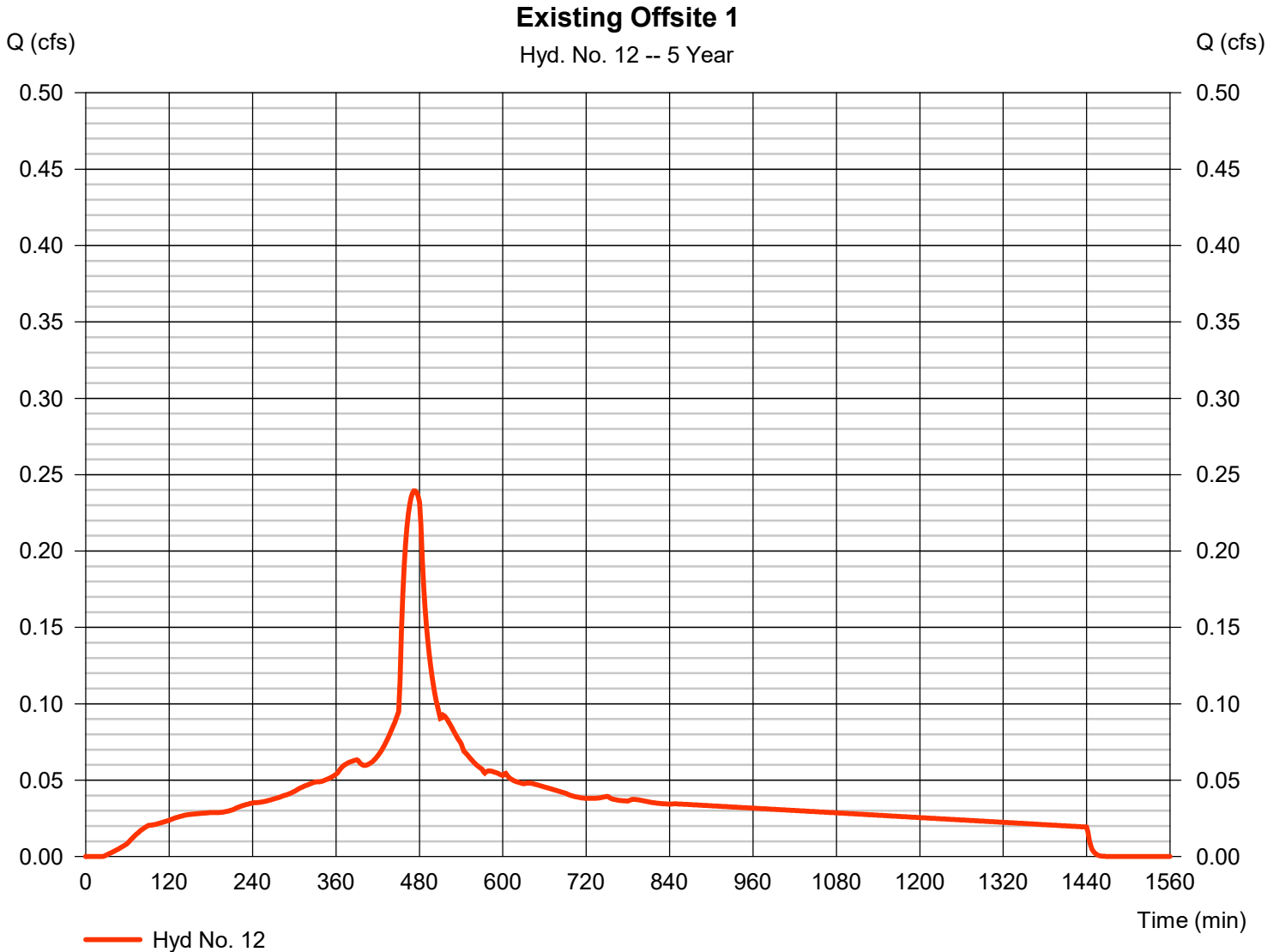


# Hydrograph Report

## Hyd. No. 12

### Existing Offsite 1

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.239 cfs
Storm frequency	= 5 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 3,515 cuft
Drainage area	= 0.184 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a





# Hydrograph Report

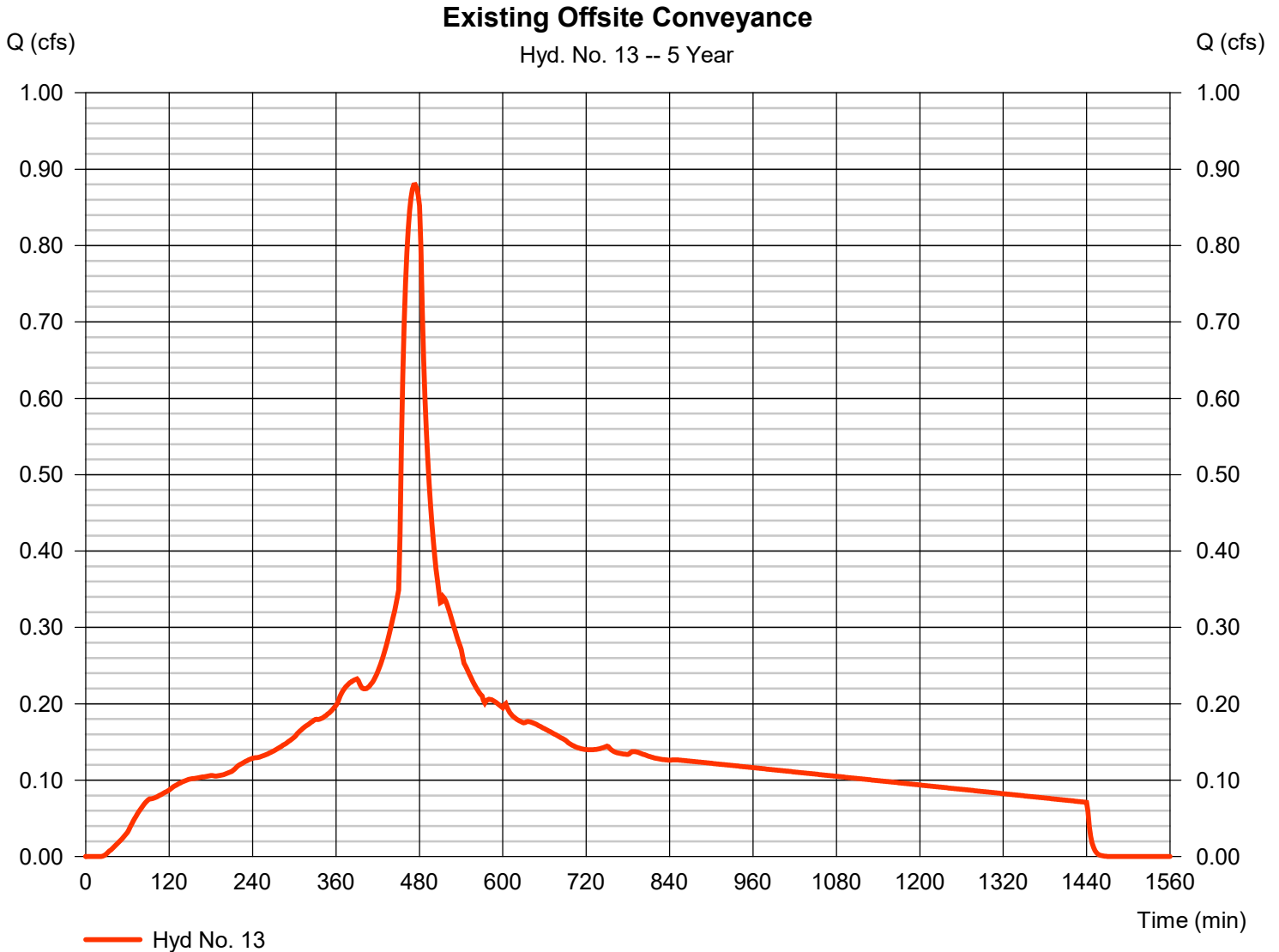
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

## Hyd. No. 13

### Existing Offsite Conveyance

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.880 cfs
Storm frequency	= 5 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 12,913 cuft
Drainage area	= 0.676 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



# Hydrograph Report

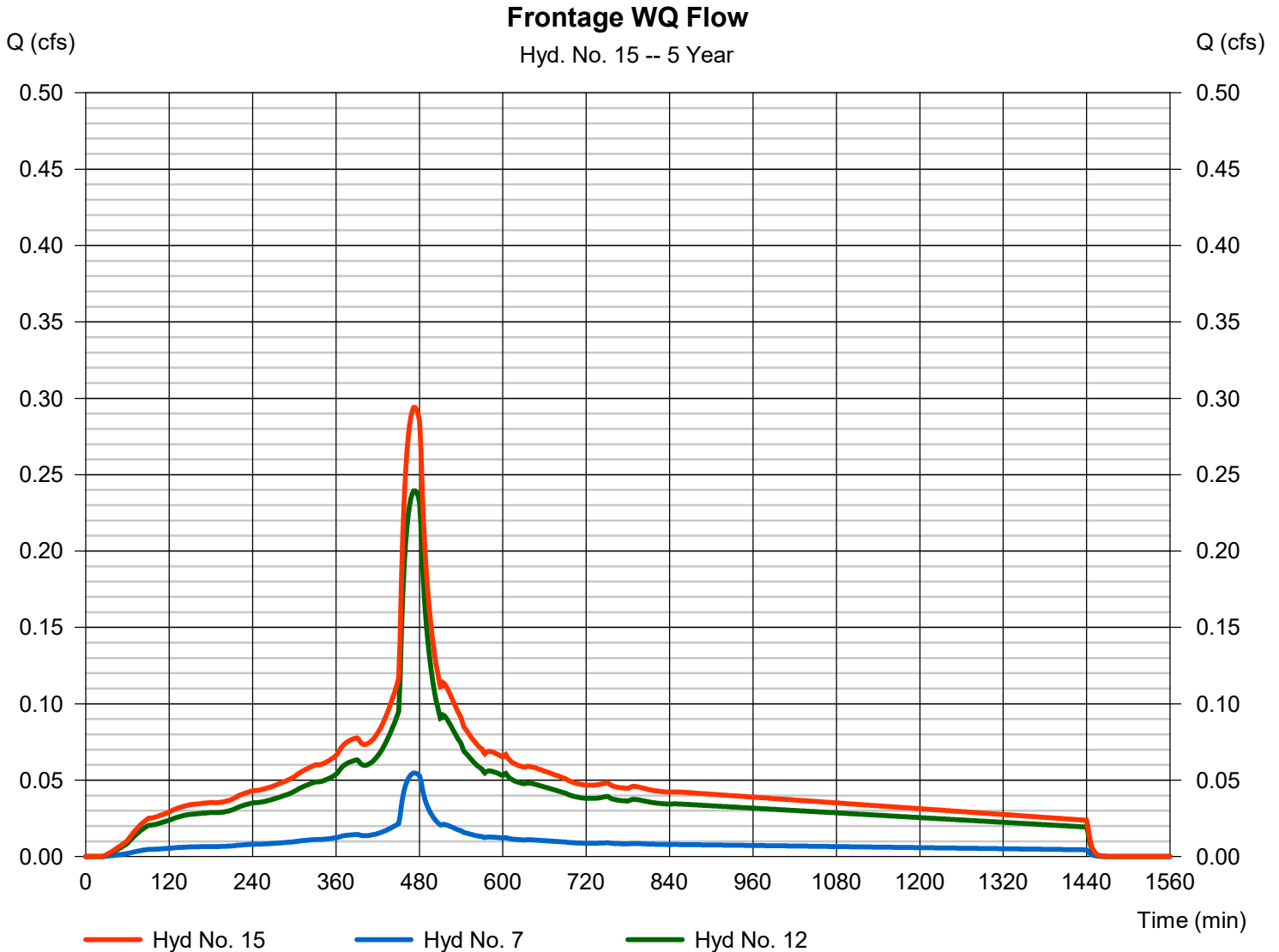
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

## Hyd. No. 15

### Frontage WQ Flow

Hydrograph type	= Combine	Peak discharge	= 0.294 cfs
Storm frequency	= 5 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 4,317 cuft
Inflow hyds.	= 7, 12	Contrib. drain. area	= 0.226 ac



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

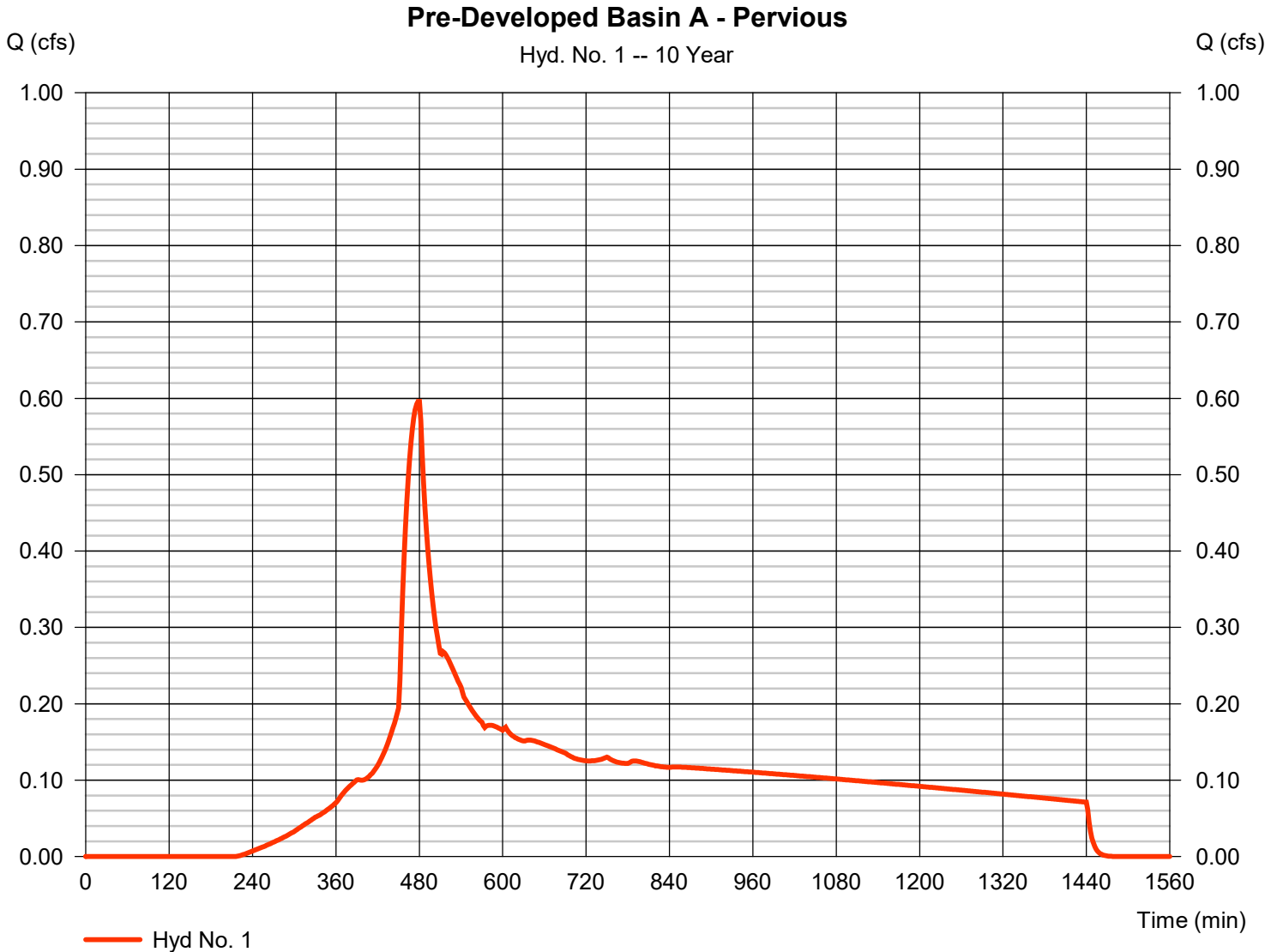
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SBUH Runoff	0.596	2	480	8,954	-----	-----	-----	Pre-Developed Basin A - Pervious
2	SBUH Runoff	0.035	2	480	530	-----	-----	-----	Pre-Developed Basin B - Pervious
3	Combine	0.631	2	480	9,484	1, 2	-----	-----	Pre-Developed Basin - Combined
5	SBUH Runoff	0.063	2	476	920	-----	-----	-----	Post-Developed Basin A - Pervious
6	SBUH Runoff	0.885	2	474	13,030	-----	-----	-----	Post-Developed Basin A - Impervious
7	SBUH Runoff	0.060	2	474	878	-----	-----	-----	Post-Developed Basin B
9	Combine	0.949	2	474	13,950	5, 6,	-----	-----	Post-Developed Basin A - Combine
10	Reservoir	0.337	2	526	13,308	9	103.86	5,497	UG Detention
12	SBUH Runoff	0.262	2	474	3,848	-----	-----	-----	Existing Offsite 1
13	SBUH Runoff	0.961	2	474	14,139	-----	-----	-----	Existing Offsite Conveyance
15	Combine	0.321	2	474	4,727	7, 12,	-----	-----	Frontage WQ Flow
MHD01 - Model_SSS.gpw					Return Period: 10 Year			Friday, 10 / 21 / 2022	

# Hydrograph Report

## Hyd. No. 1

Pre-Developed Basin A - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.596 cfs
Storm frequency	= 10 yrs	Time to peak	= 480 min
Time interval	= 2 min	Hyd. volume	= 8,954 cuft
Drainage area	= 0.709 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 6.00 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

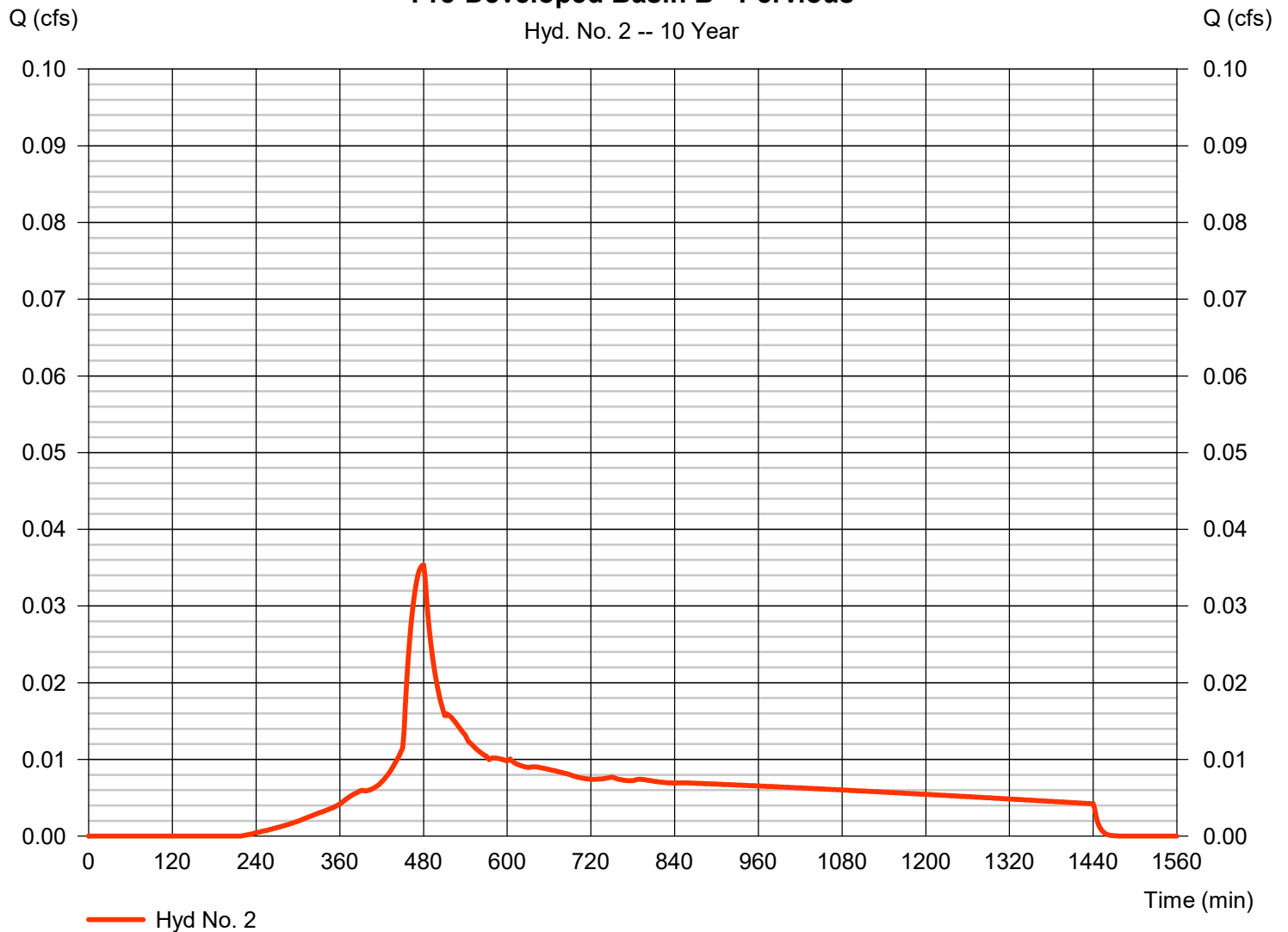
## Hyd. No. 2

Pre-Developed Basin B - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.035 cfs
Storm frequency	= 10 yrs	Time to peak	= 480 min
Time interval	= 2 min	Hyd. volume	= 530 cuft
Drainage area	= 0.042 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 6.00 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

### Pre-Developed Basin B - Pervious

Hyd. No. 2 -- 10 Year





# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

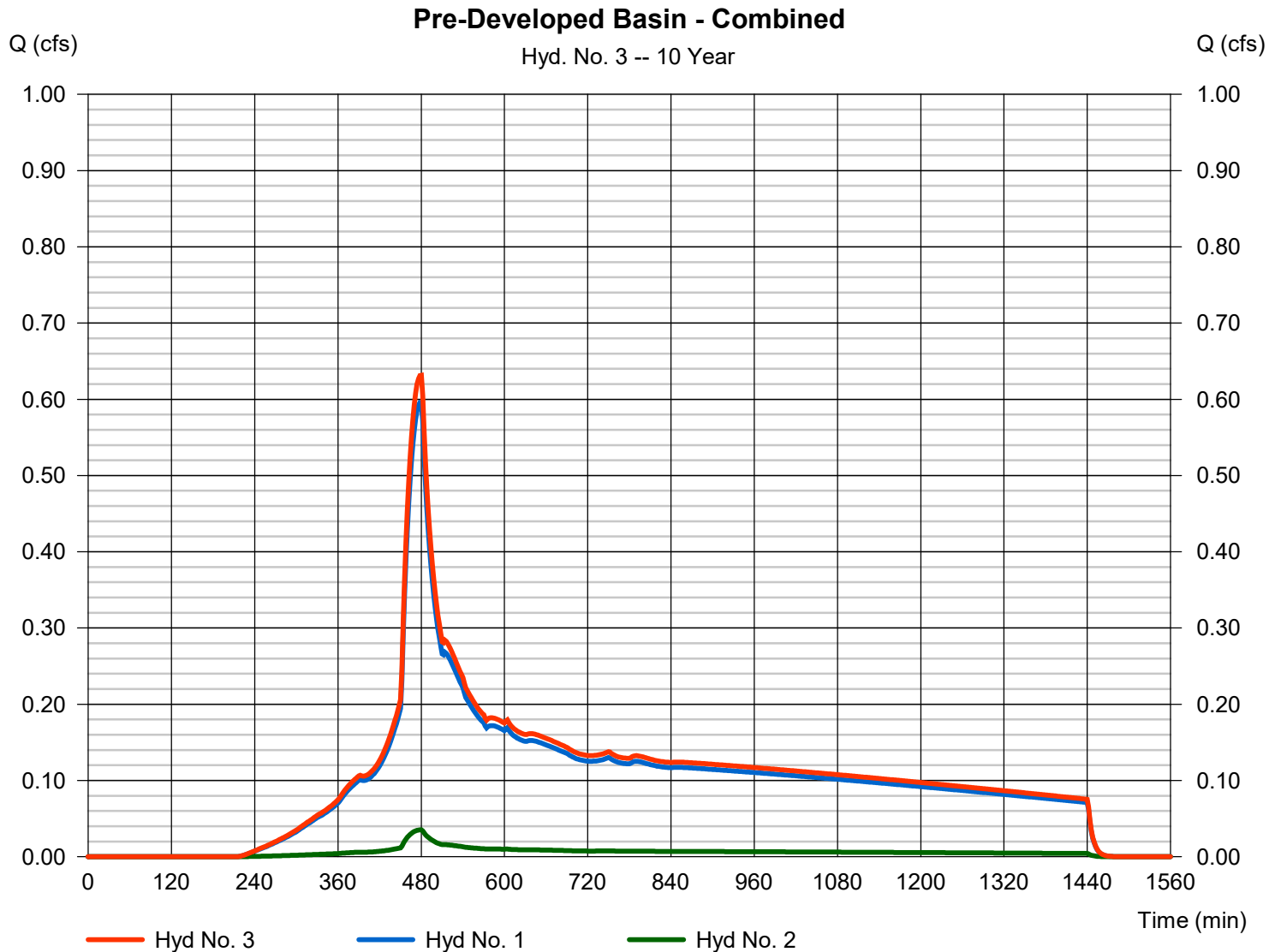
Friday, 10 / 21 / 2022

## Hyd. No. 3

Pre-Developed Basin - Combined

Hydrograph type = Combine  
Storm frequency = 10 yrs  
Time interval = 2 min  
Inflow hyds. = 1, 2

Peak discharge = 0.631 cfs  
Time to peak = 480 min  
Hyd. volume = 9,484 cuft  
Contrib. drain. area = 0.751 ac



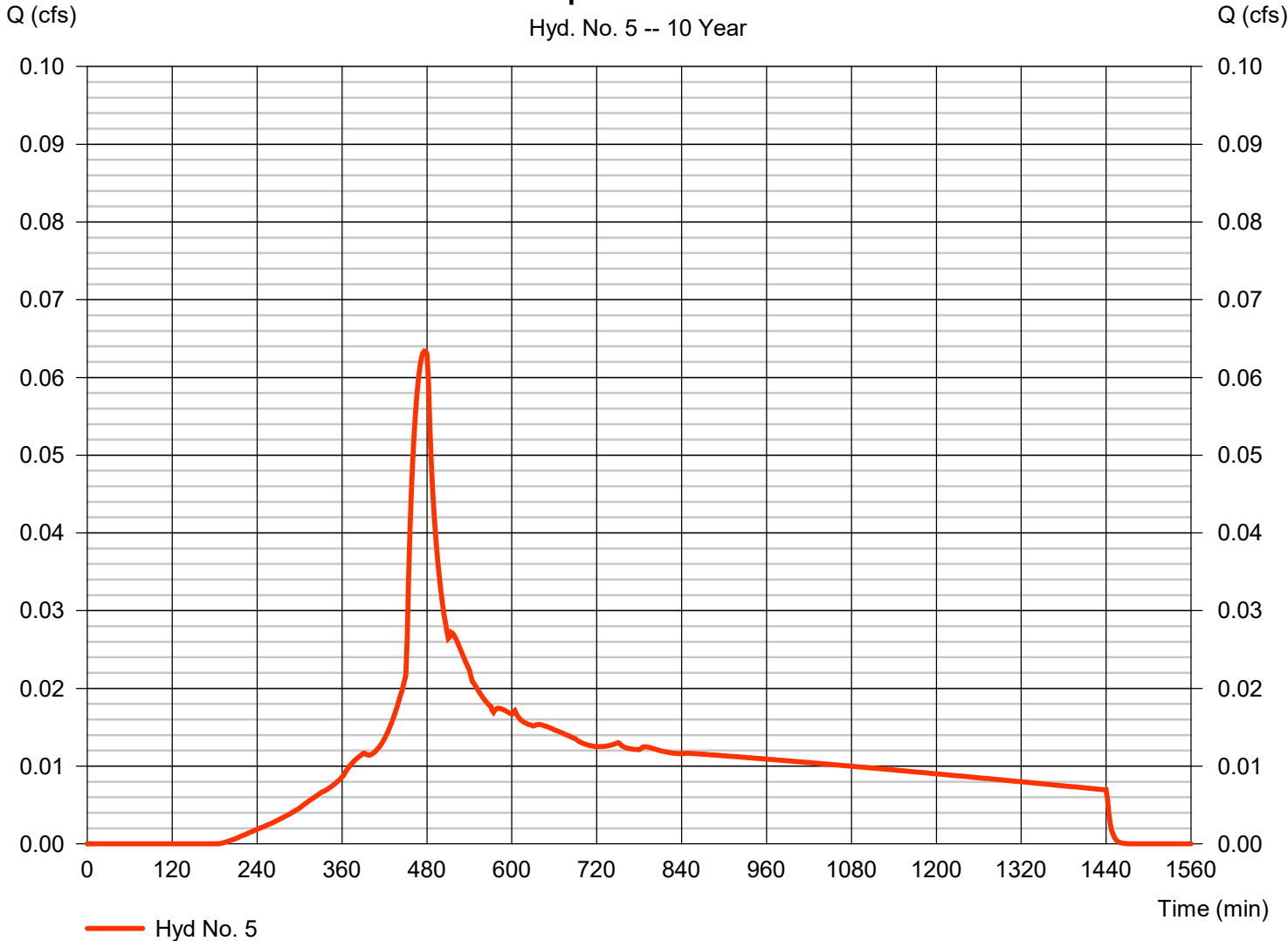
# Hydrograph Report

## Hyd. No. 5

### Post-Developed Basin A - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.063 cfs
Storm frequency	= 10 yrs	Time to peak	= 476 min
Time interval	= 2 min	Hyd. volume	= 920 cuft
Drainage area	= 0.067 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.00 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

### Post-Developed Basin A - Pervious



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

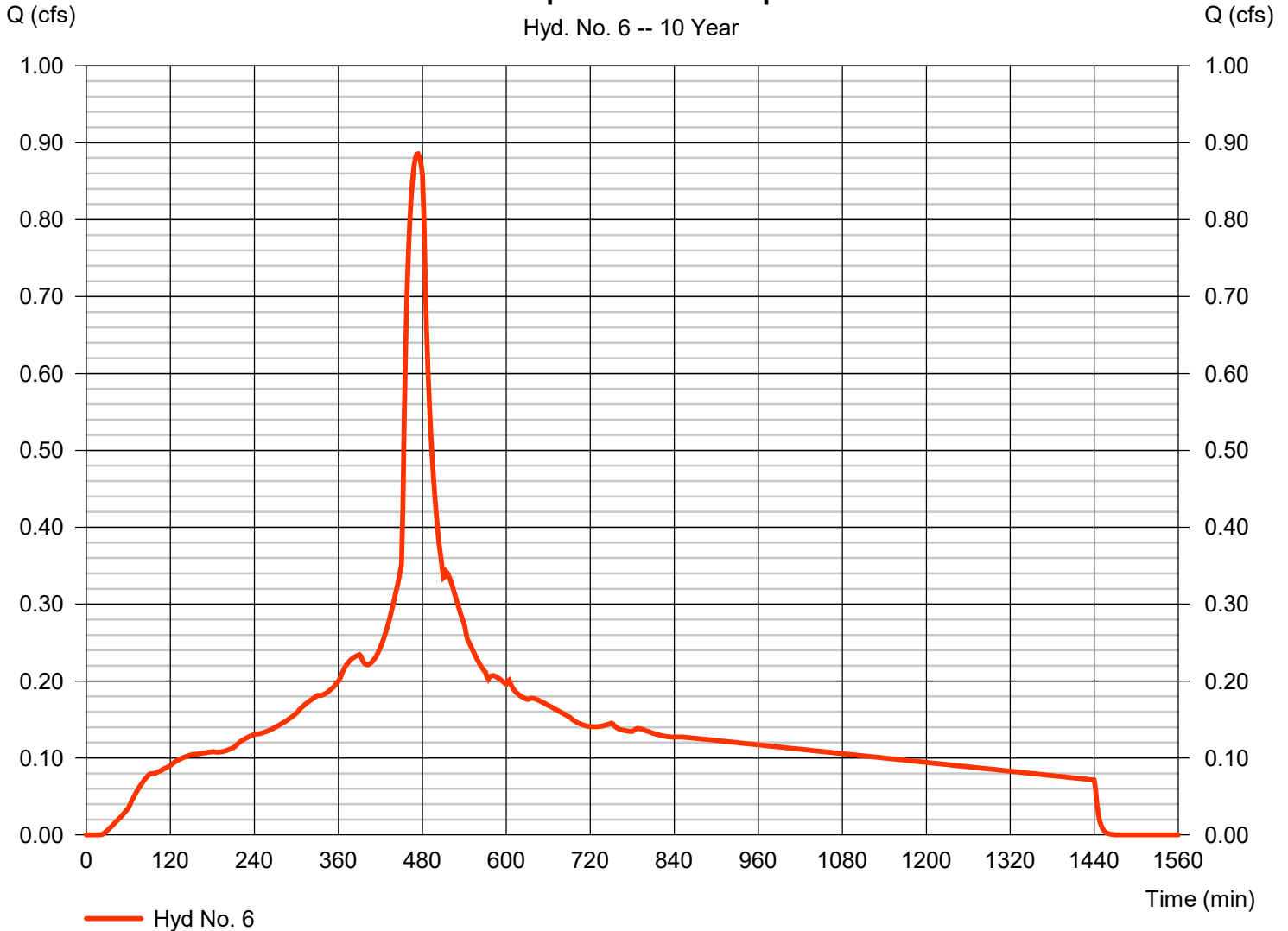
## Hyd. No. 6

Post-Developed Basin A - Impervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.885 cfs
Storm frequency	= 10 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 13,030 cuft
Drainage area	= 0.623 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.00 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

\* Composite (Area/CN) = [(0.750 x 98) + (0.840 x 74)] / 0.623

### Post-Developed Basin A - Impervious



# Hydrograph Report

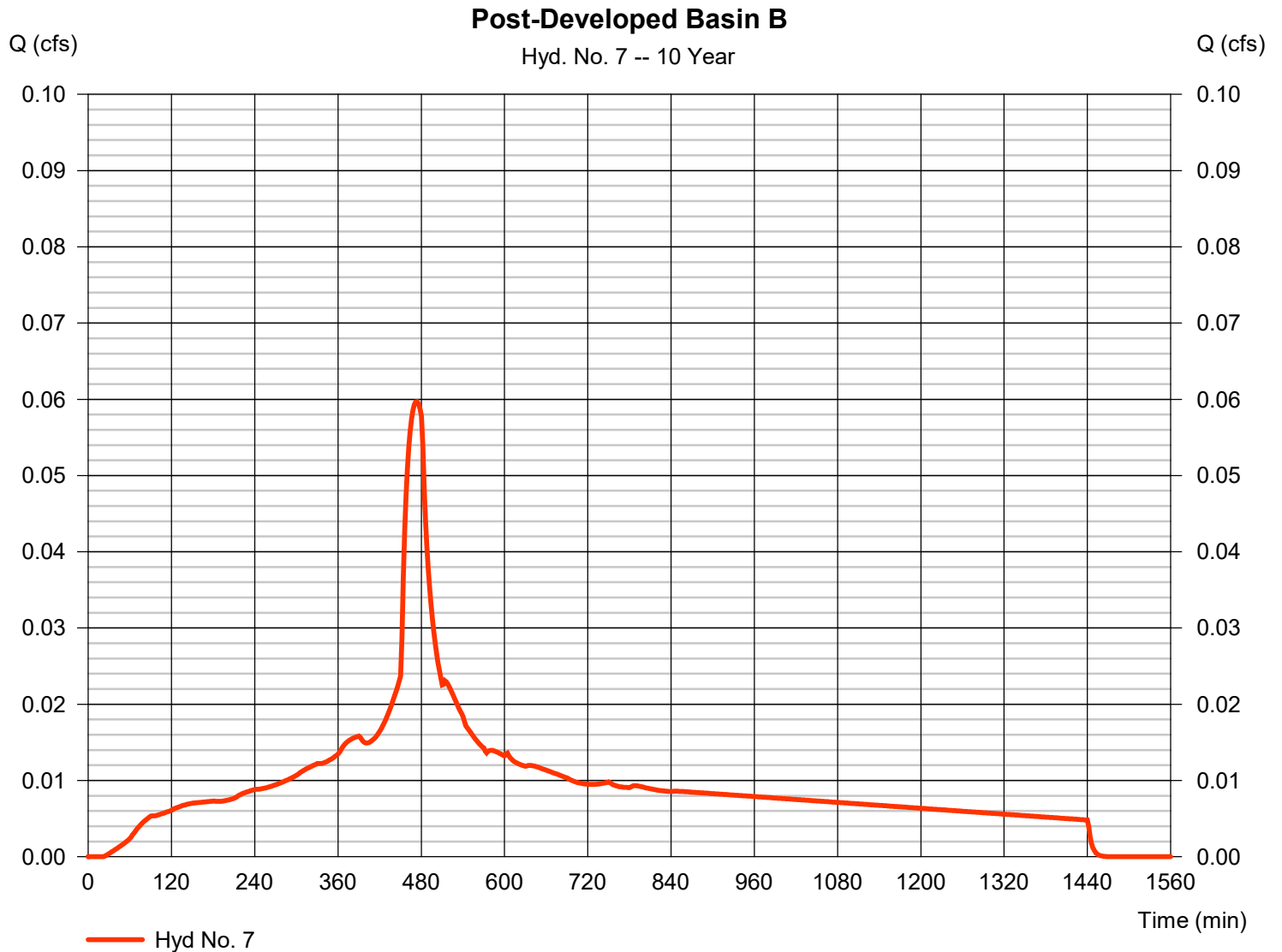
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

## Hyd. No. 7

Post-Developed Basin B

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.060 cfs
Storm frequency	= 10 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 878 cuft
Drainage area	= 0.042 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.00 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



# Hydrograph Report

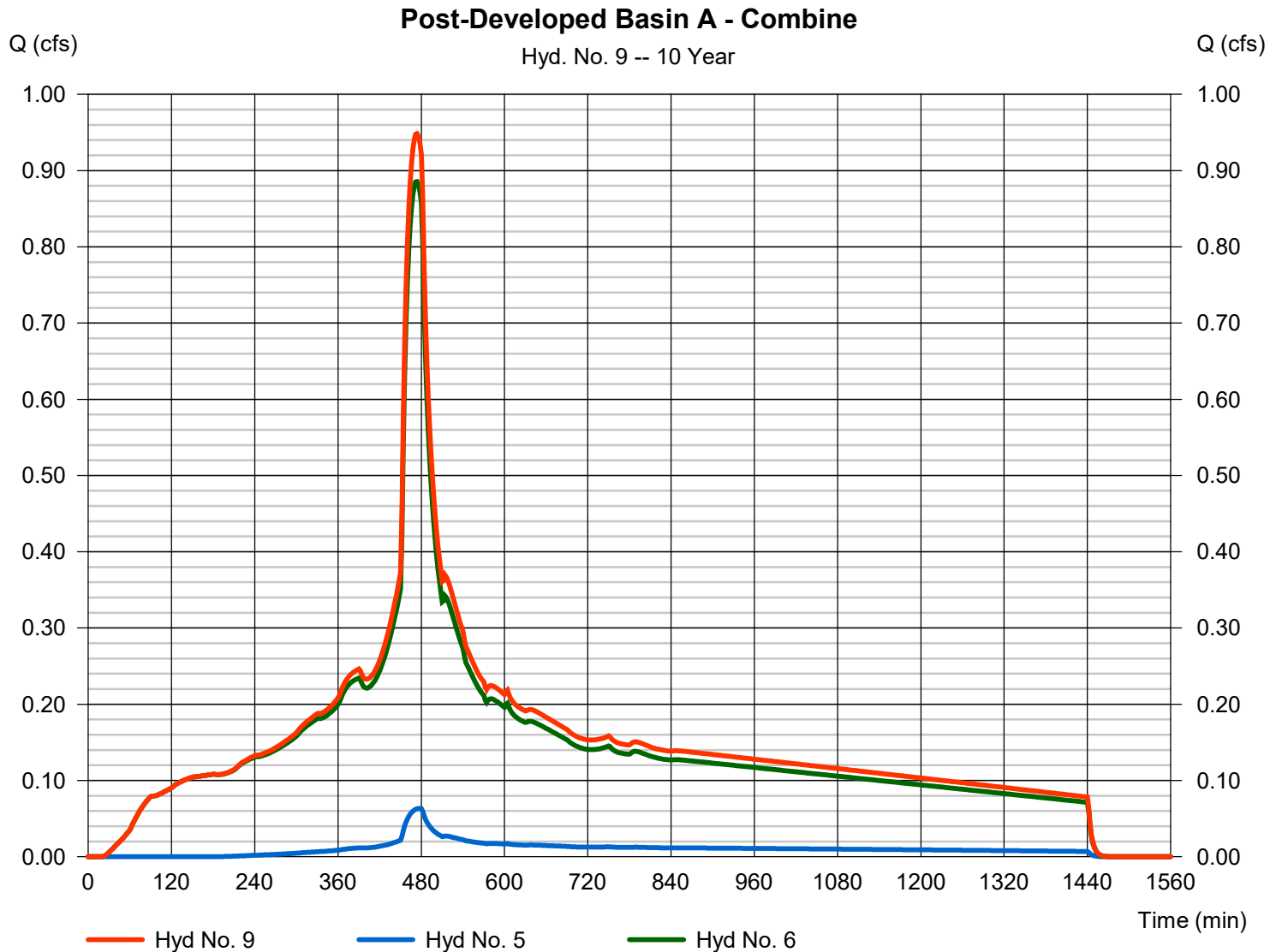
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

## Hyd. No. 9

Post-Developed Basin A - Combine

Hydrograph type	= Combine	Peak discharge	= 0.949 cfs
Storm frequency	= 10 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 13,950 cuft
Inflow hyds.	= 5, 6	Contrib. drain. area	= 0.690 ac





# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

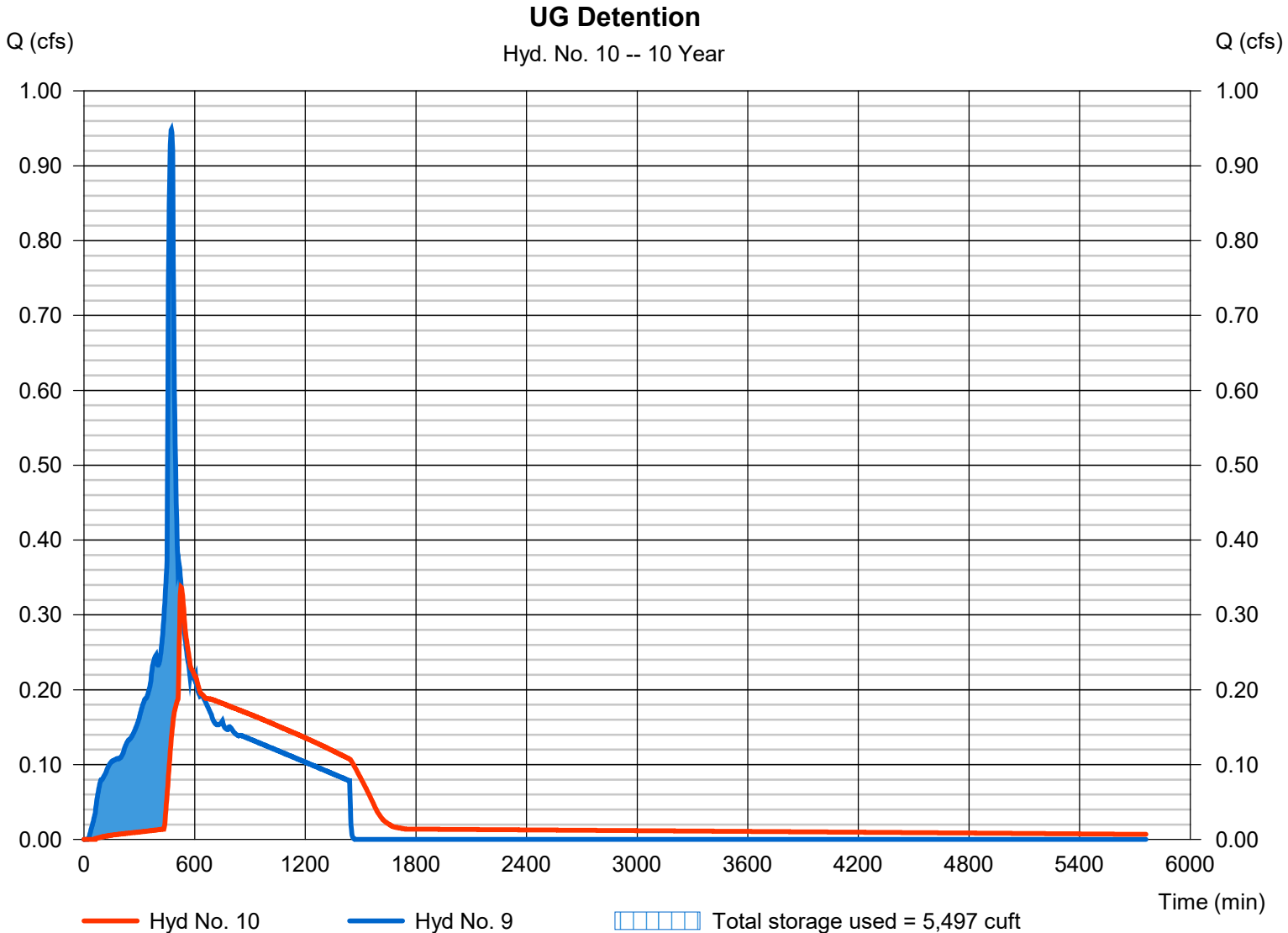
Friday, 10 / 21 / 2022

## Hyd. No. 10

### UG Detention

Hydrograph type	= Reservoir	Peak discharge	= 0.337 cfs
Storm frequency	= 10 yrs	Time to peak	= 526 min
Time interval	= 2 min	Hyd. volume	= 13,308 cuft
Inflow hyd. No.	= 9 - Post-Developed Basin A - Mobile	Max. Elevation	= 103.86 ft
Reservoir name	= UG Chamber	Max. Storage	= 5,497 cuft

Storage Indication method used.



# Hydrograph Report

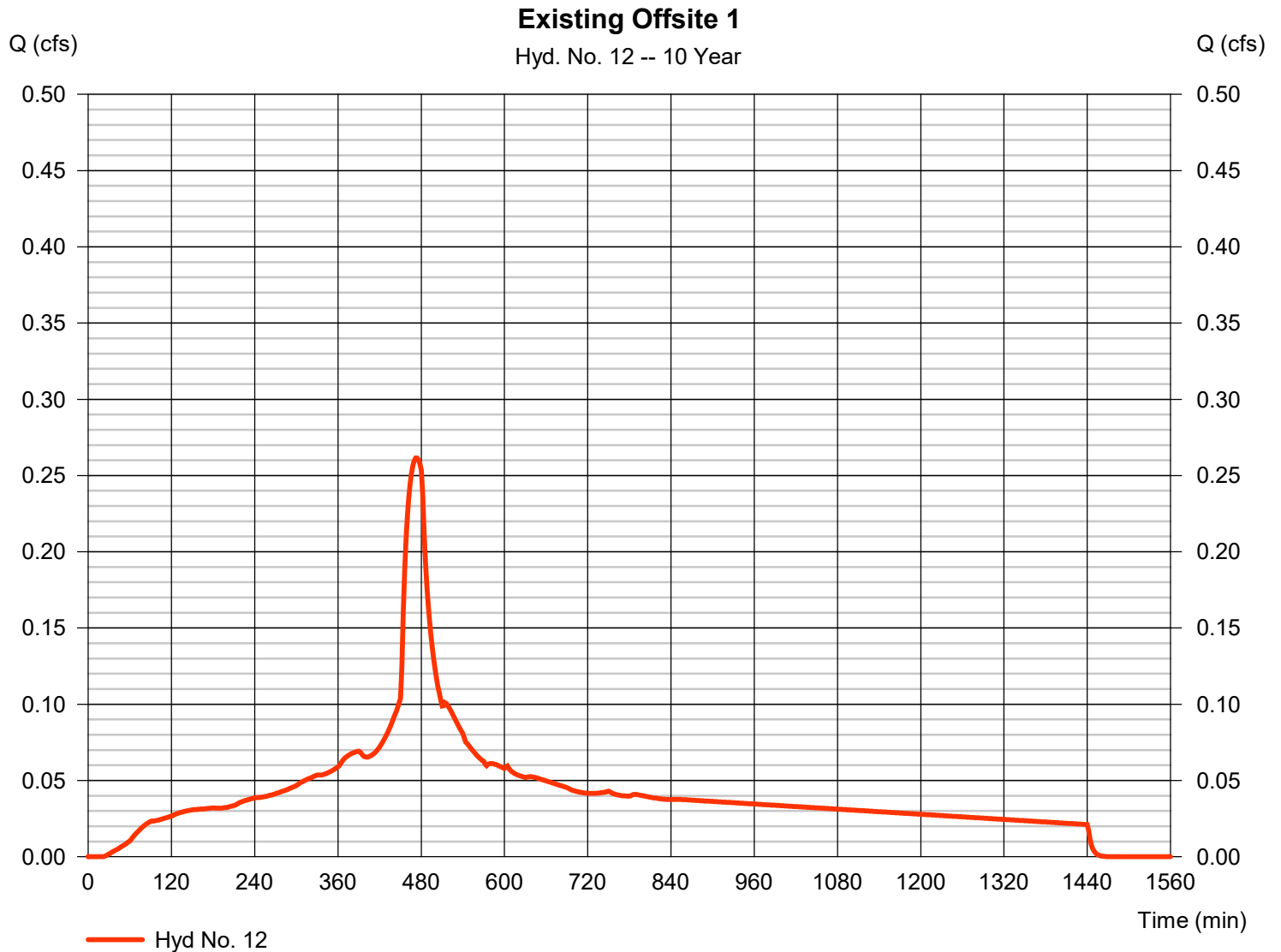
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

## Hyd. No. 12

Existing Offsite 1

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.262 cfs
Storm frequency	= 10 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 3,848 cuft
Drainage area	= 0.184 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.00 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

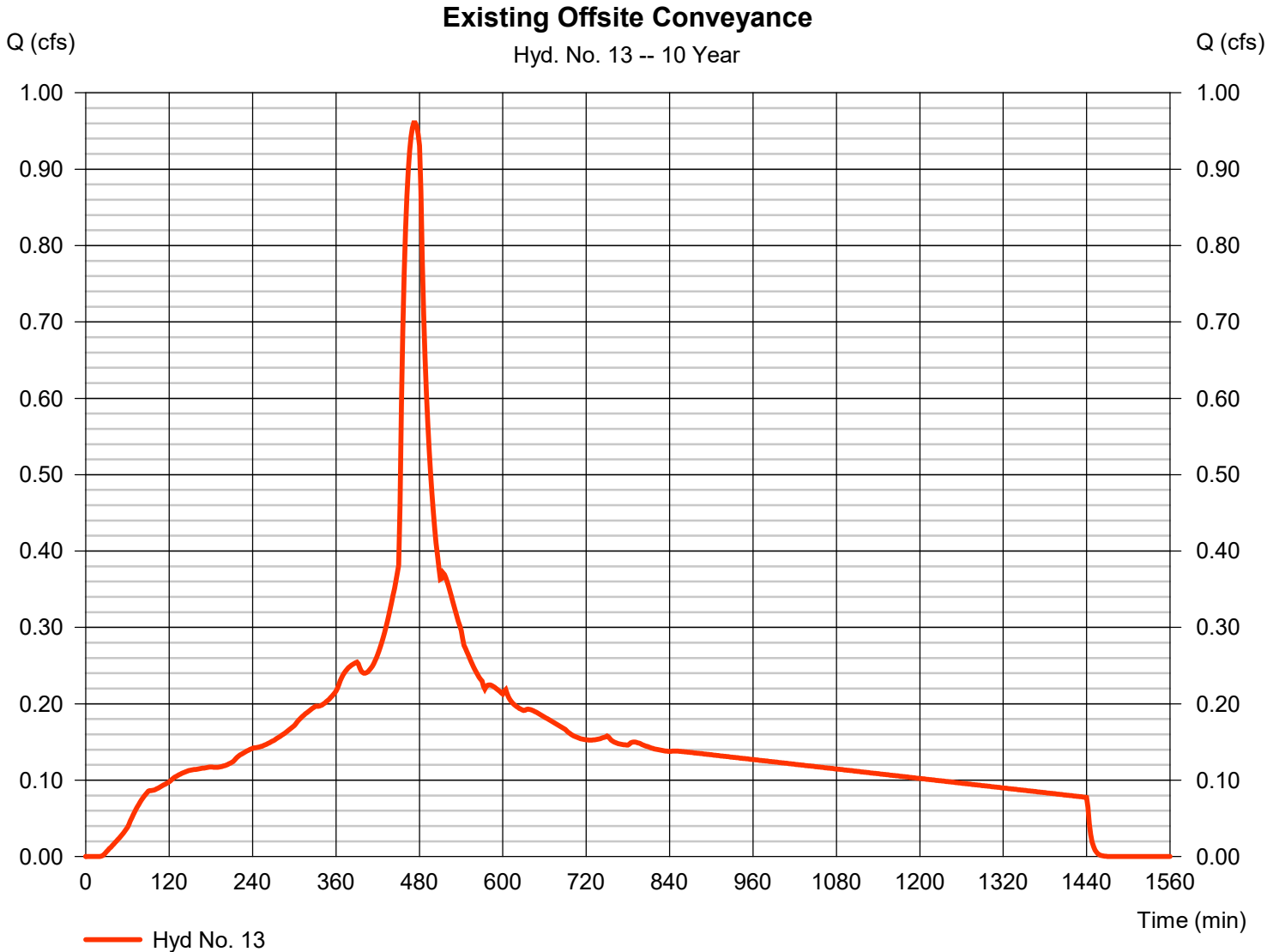


# Hydrograph Report

## Hyd. No. 13

### Existing Offsite Conveyance

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.961 cfs
Storm frequency	= 10 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 14,139 cuft
Drainage area	= 0.676 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.00 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



# Hydrograph Report

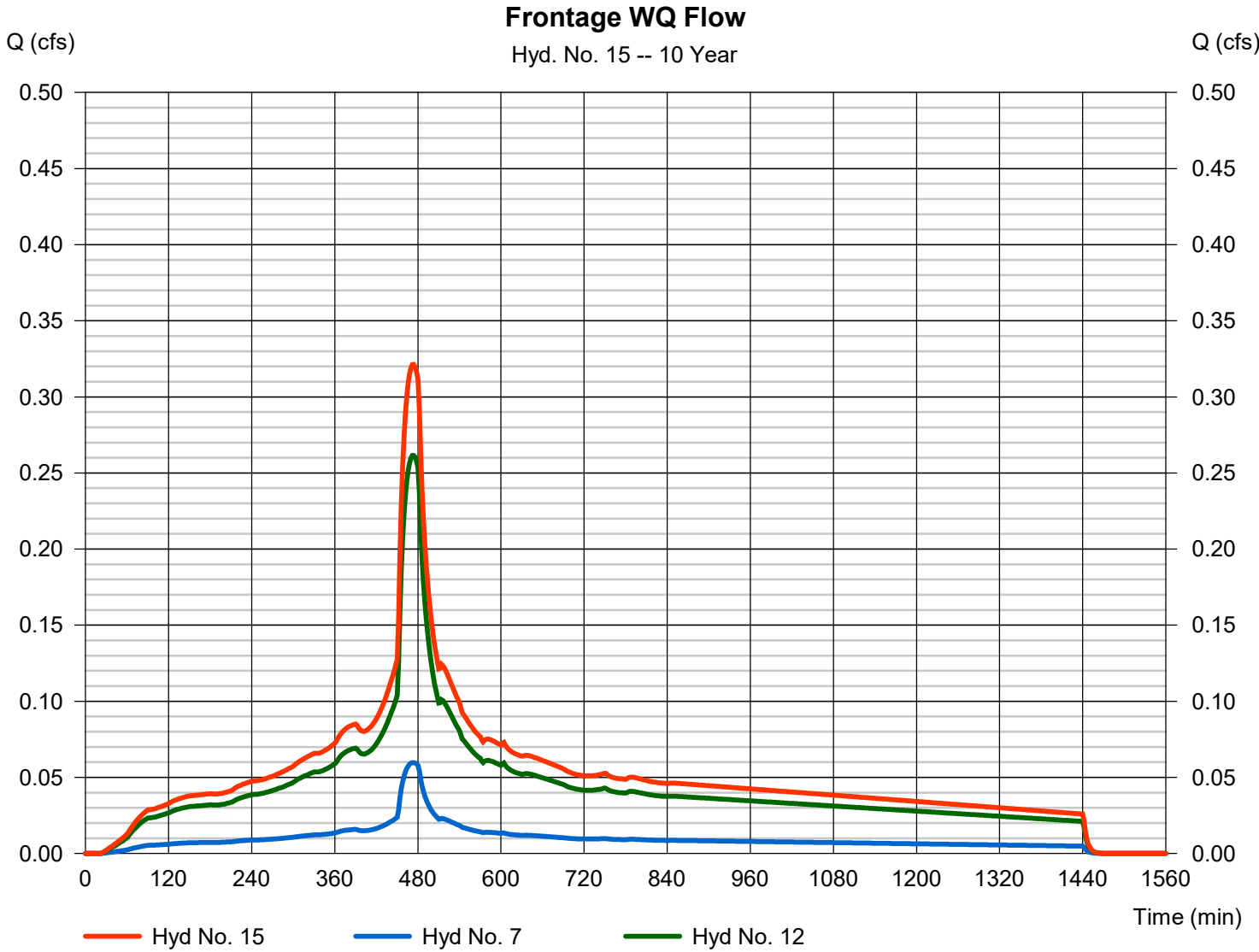
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

## Hyd. No. 15

### Frontage WQ Flow

Hydrograph type	= Combine	Peak discharge	= 0.321 cfs
Storm frequency	= 10 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 4,727 cuft
Inflow hyds.	= 7, 12	Contrib. drain. area	= 0.226 ac



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SBUH Runoff	0.679	2	478	10,087	----	----	----	Pre-Developed Basin A - Pervious
2	SBUH Runoff	0.040	2	478	598	----	----	----	Pre-Developed Basin B - Pervious
3	Combine	0.719	2	478	10,684	1, 2	----	----	Pre-Developed Basin - Combined
5	SBUH Runoff	0.072	2	476	1,030	----	----	----	Post-Developed Basin A - Pervious
6	SBUH Runoff	0.960	2	474	14,160	----	----	----	Post-Developed Basin A - Impervious
7	SBUH Runoff	0.065	2	474	955	----	----	----	Post-Developed Basin B
9	Combine	1.031	2	474	15,190	5, 6,	----	----	Post-Developed Basin A - Combine
10	Reservoir	0.517	2	498	14,540	9	103.90	5,543	UG Detention
12	SBUH Runoff	0.284	2	474	4,182	----	----	----	Existing Offsite 1
13	SBUH Runoff	1.042	2	474	15,365	----	----	----	Existing Offsite Conveyance
15	Combine	0.348	2	474	5,137	7, 12,	----	----	Frontage WQ Flow
MHD01 - Model_SSS.gpw					Return Period: 25 Year			Friday, 10 / 21 / 2022	

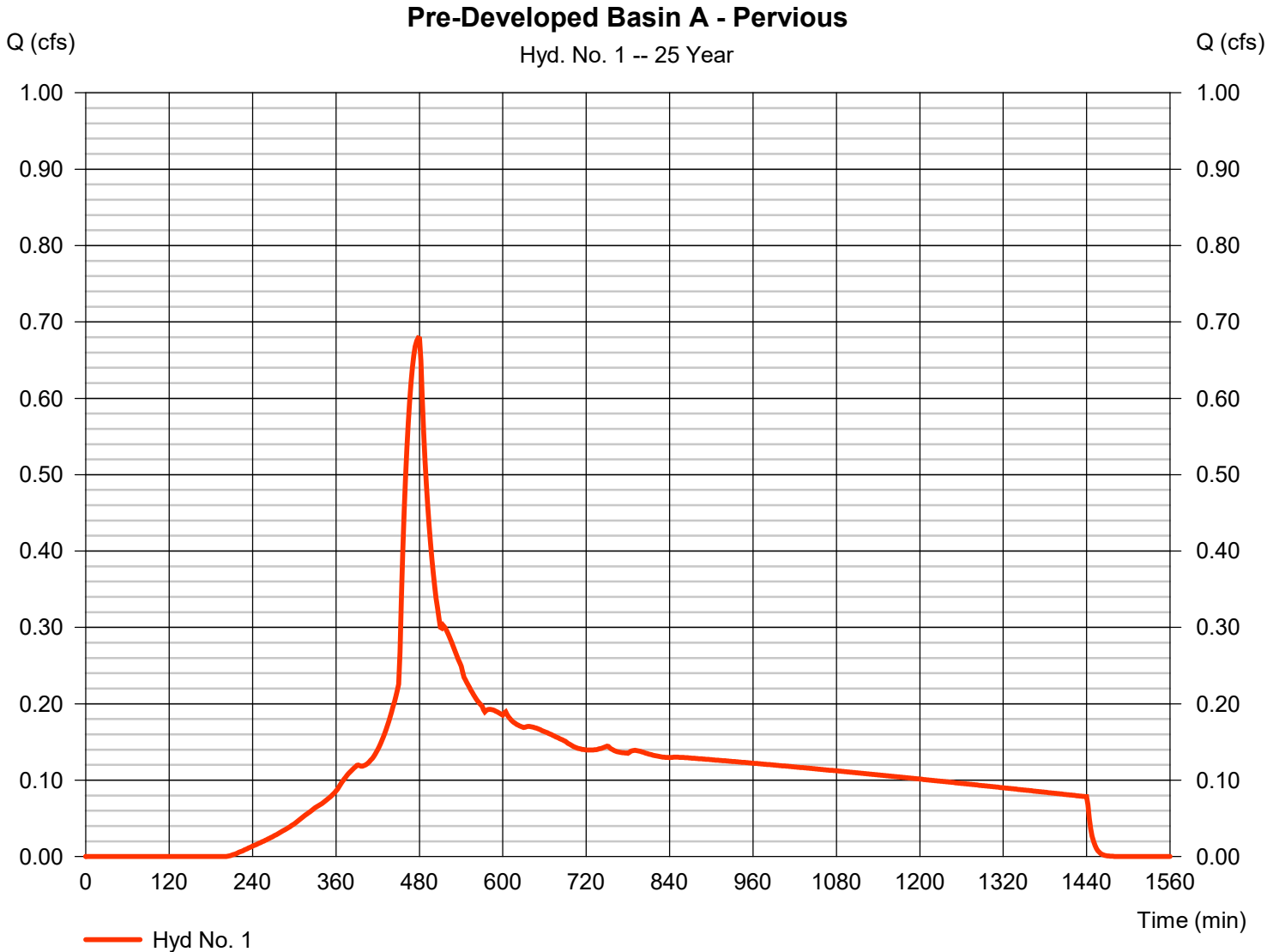


# Hydrograph Report

## Hyd. No. 1

Pre-Developed Basin A - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.679 cfs
Storm frequency	= 25 yrs	Time to peak	= 478 min
Time interval	= 2 min	Hyd. volume	= 10,087 cuft
Drainage area	= 0.709 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 6.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

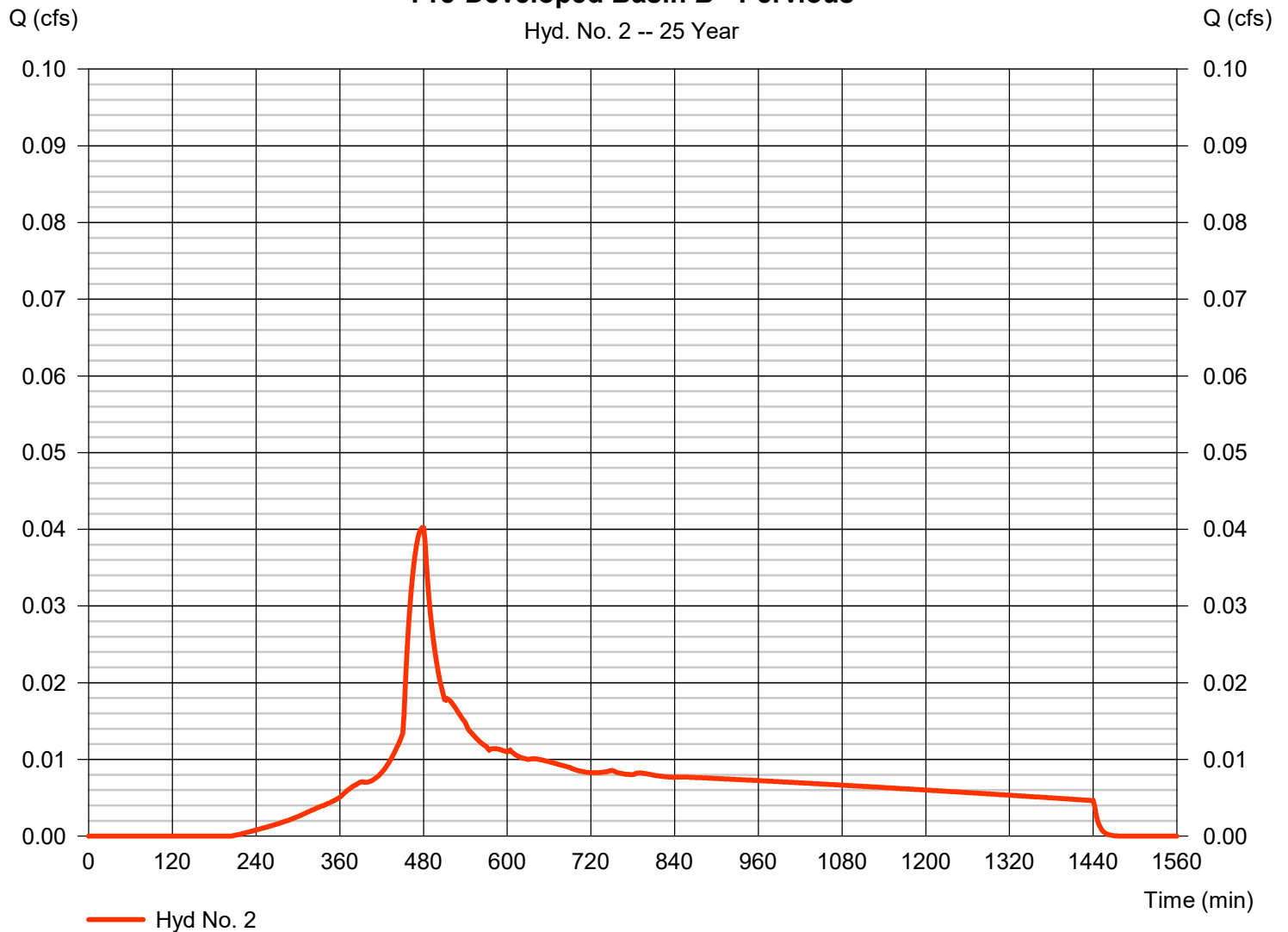
## Hyd. No. 2

Pre-Developed Basin B - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.040 cfs
Storm frequency	= 25 yrs	Time to peak	= 478 min
Time interval	= 2 min	Hyd. volume	= 598 cuft
Drainage area	= 0.042 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 6.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

### Pre-Developed Basin B - Pervious

Hyd. No. 2 -- 25 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

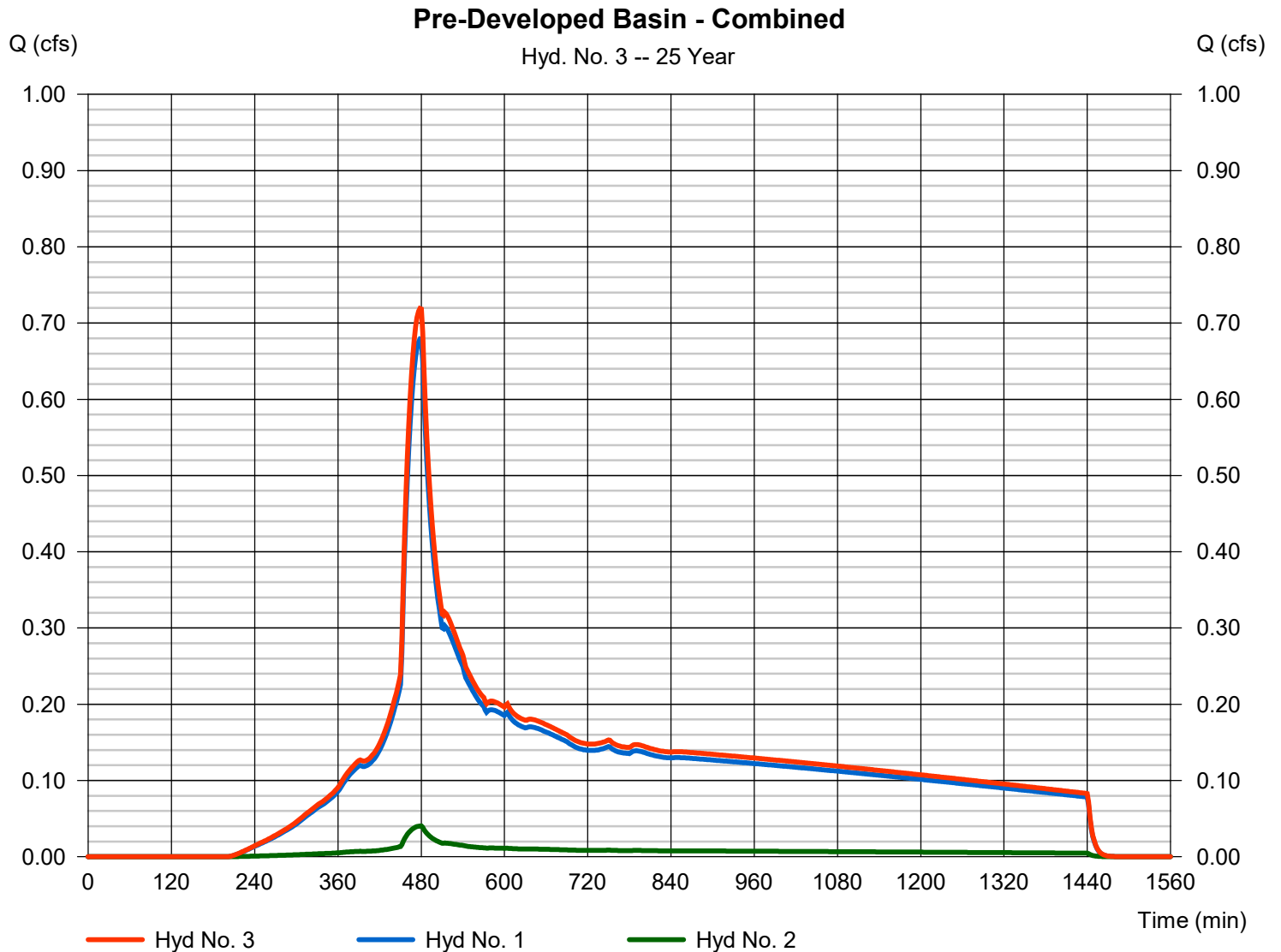
Friday, 10 / 21 / 2022

## Hyd. No. 3

Pre-Developed Basin - Combined

Hydrograph type = Combine  
Storm frequency = 25 yrs  
Time interval = 2 min  
Inflow hyds. = 1, 2

Peak discharge = 0.719 cfs  
Time to peak = 478 min  
Hyd. volume = 10,684 cuft  
Contrib. drain. area = 0.751 ac



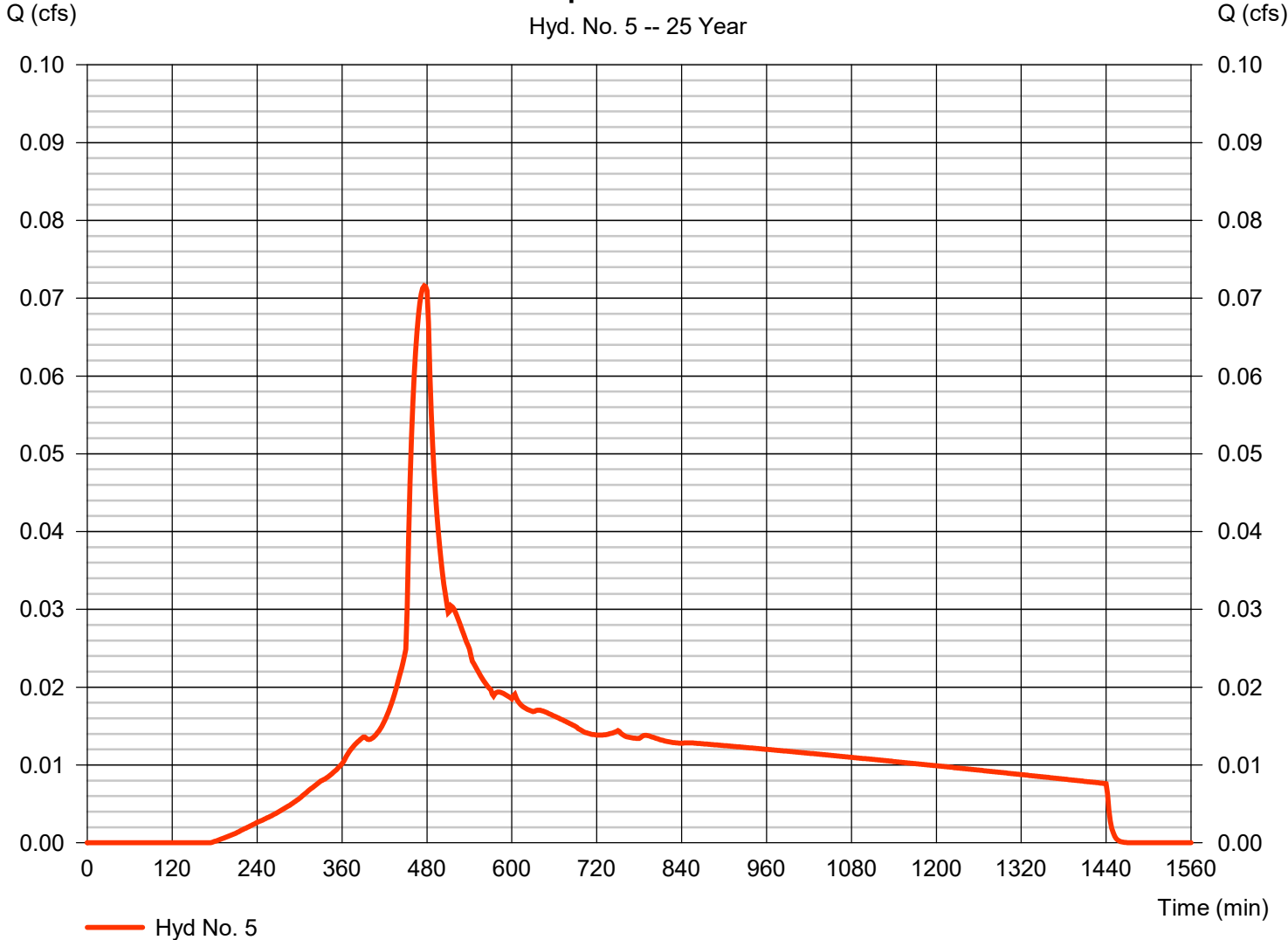
# Hydrograph Report

## Hyd. No. 5

Post-Developed Basin A - Pervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.072 cfs
Storm frequency	= 25 yrs	Time to peak	= 476 min
Time interval	= 2 min	Hyd. volume	= 1,030 cuft
Drainage area	= 0.067 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

Post-Developed Basin A - Pervious



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

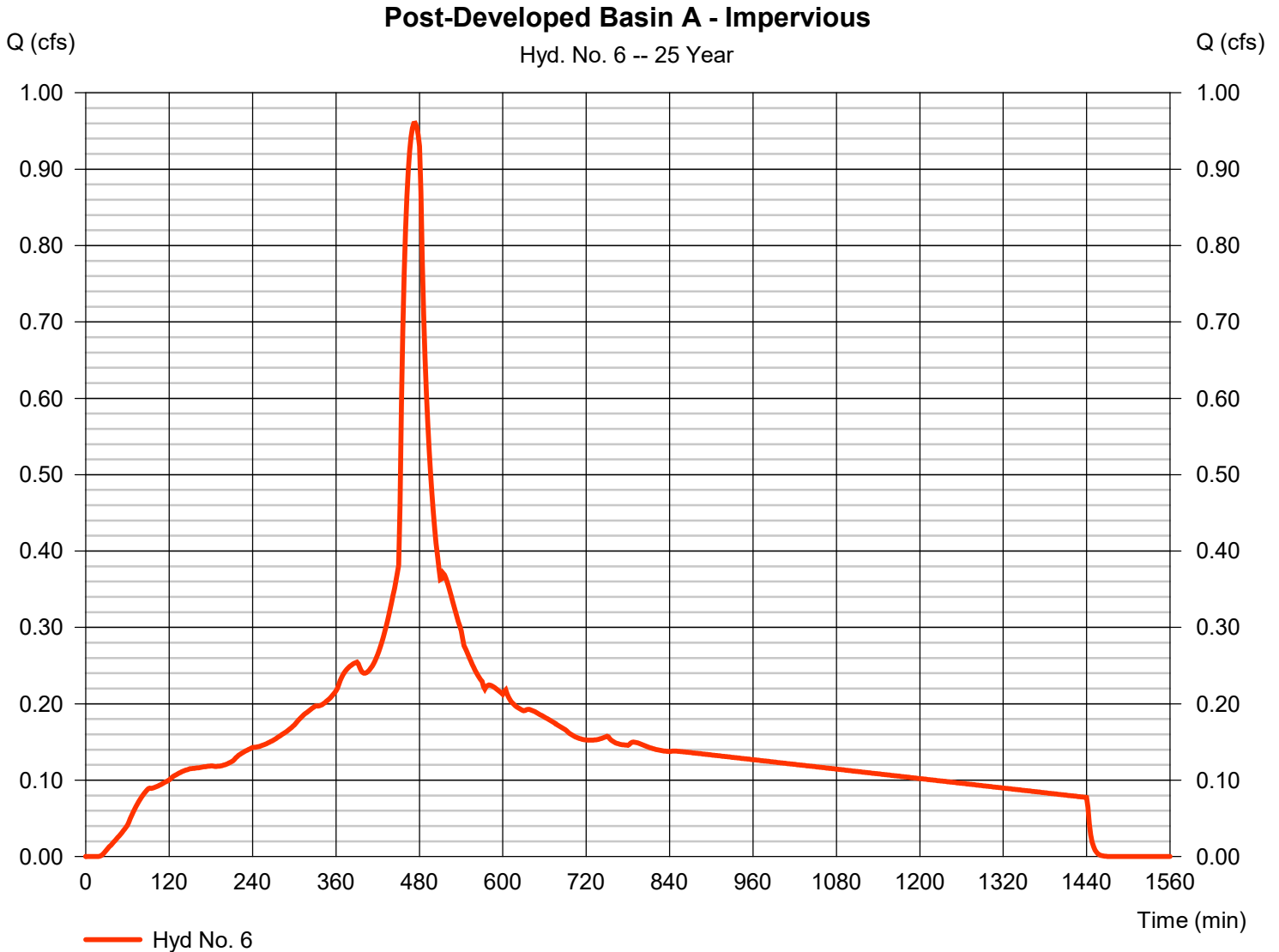
Friday, 10 / 21 / 2022

## Hyd. No. 6

Post-Developed Basin A - Impervious

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.960 cfs
Storm frequency	= 25 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 14,160 cuft
Drainage area	= 0.623 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a

\* Composite (Area/CN) = [(0.750 x 98) + (0.840 x 74)] / 0.623



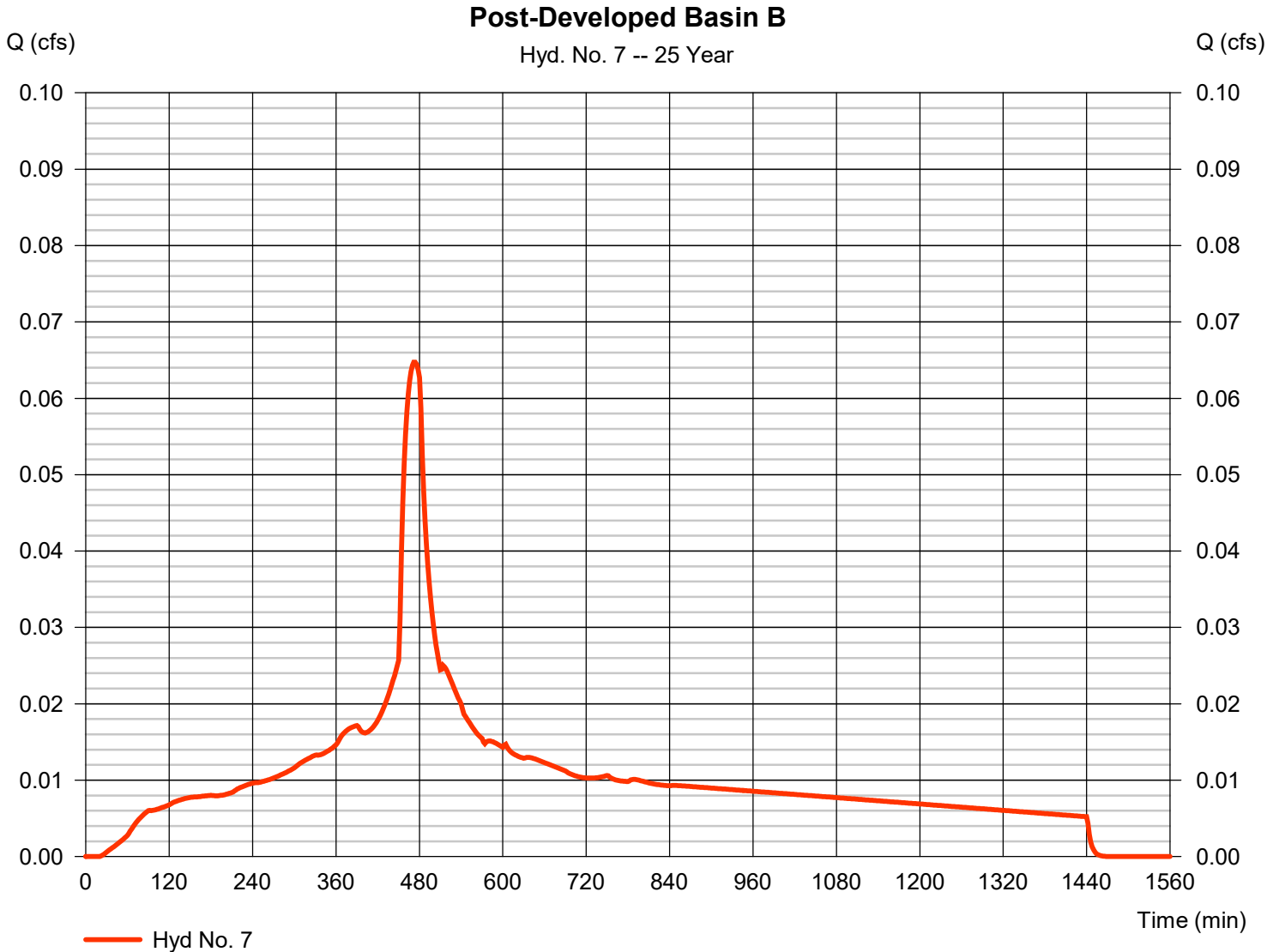


# Hydrograph Report

## Hyd. No. 7

### Post-Developed Basin B

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.065 cfs
Storm frequency	= 25 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 955 cuft
Drainage area	= 0.042 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



# Hydrograph Report

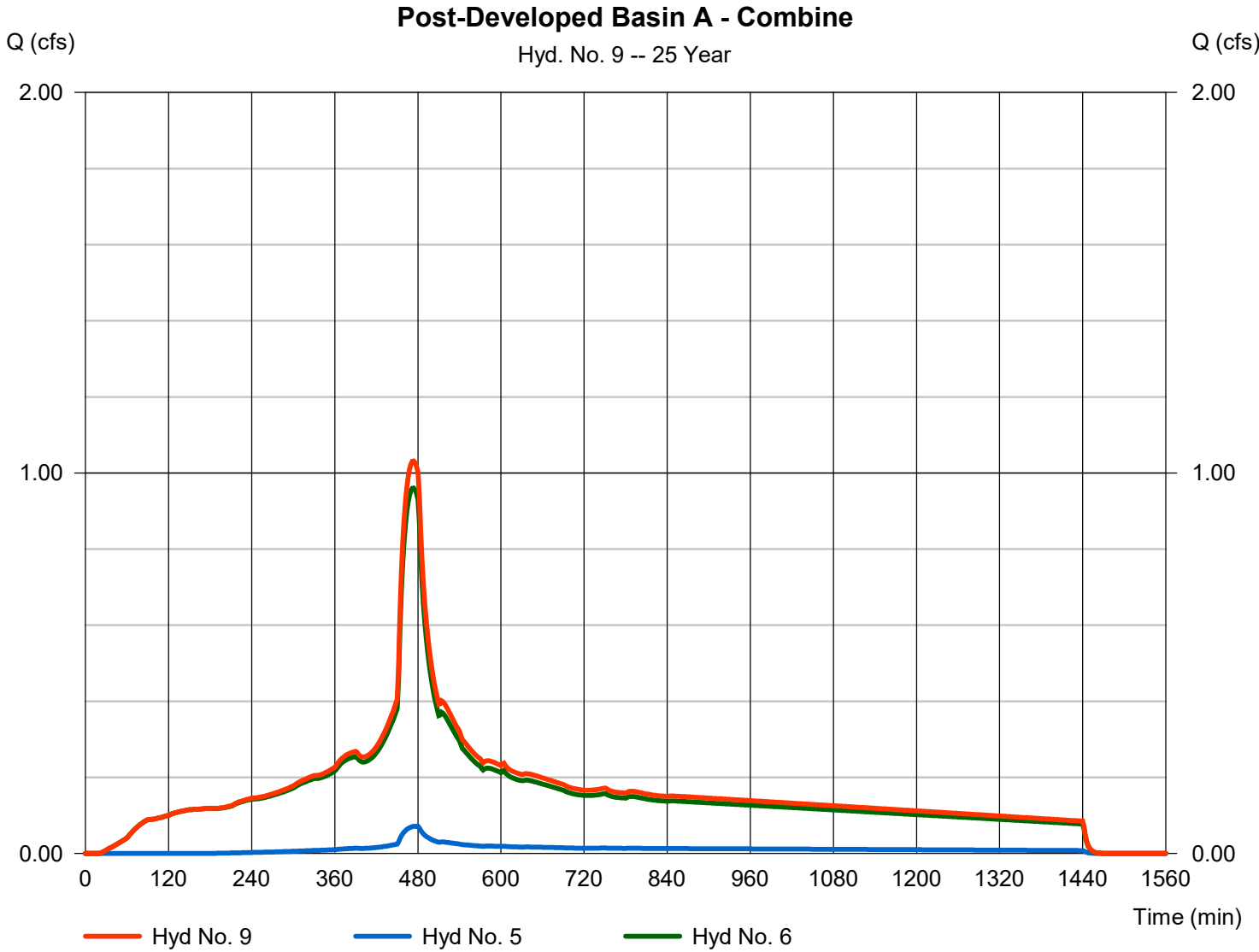
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

## Hyd. No. 9

Post-Developed Basin A - Combine

Hydrograph type	= Combine	Peak discharge	= 1.031 cfs
Storm frequency	= 25 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 15,190 cuft
Inflow hyds.	= 5, 6	Contrib. drain. area	= 0.690 ac



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

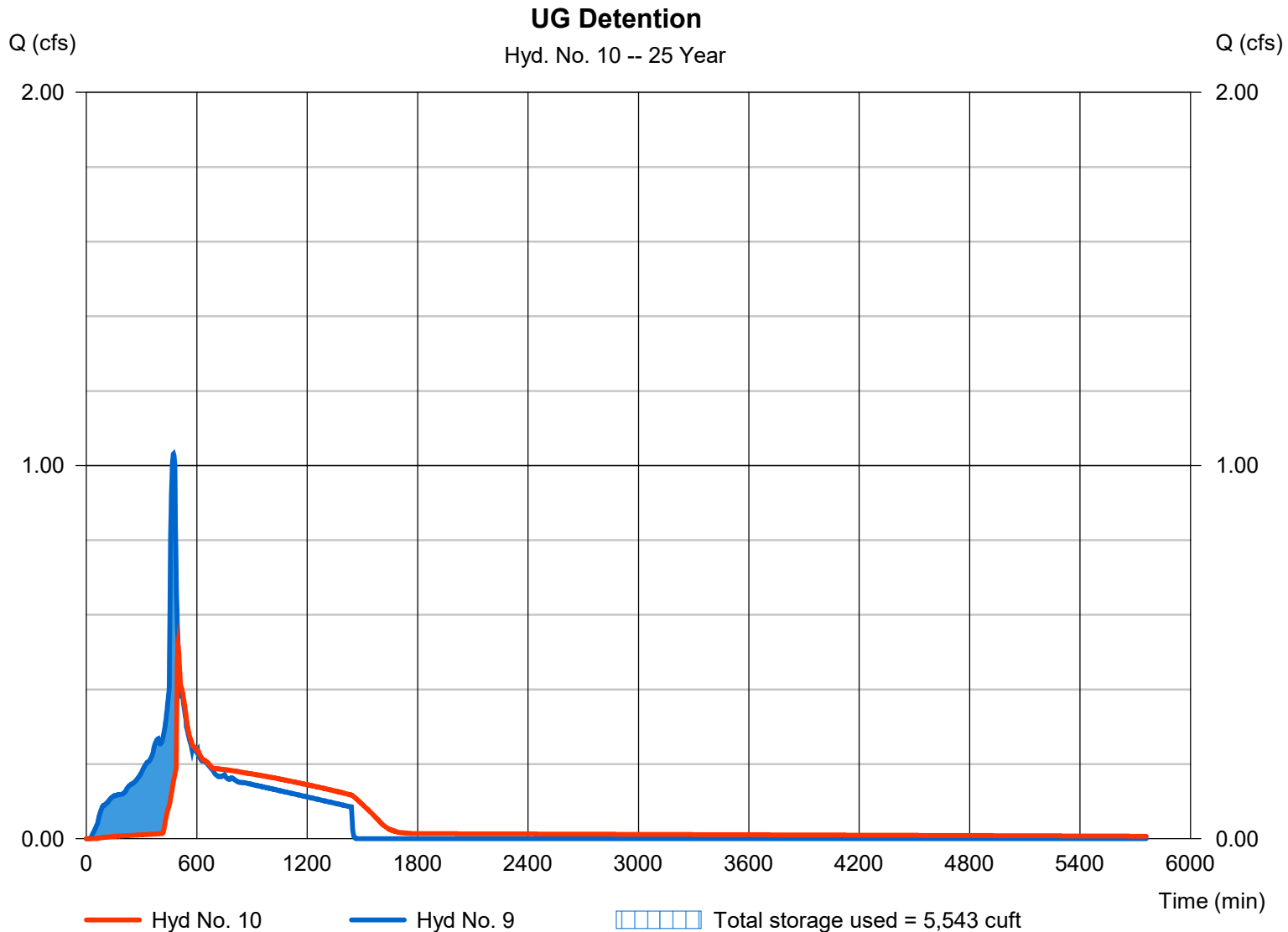
Friday, 10 / 21 / 2022

## Hyd. No. 10

### UG Detention

Hydrograph type	= Reservoir	Peak discharge	= 0.517 cfs
Storm frequency	= 25 yrs	Time to peak	= 498 min
Time interval	= 2 min	Hyd. volume	= 14,540 cuft
Inflow hyd. No.	= 9 - Post-Developed Basin A - Mobile	Max. Elevation	= 103.90 ft
Reservoir name	= UG Chamber	Max. Storage	= 5,543 cuft

Storage Indication method used.

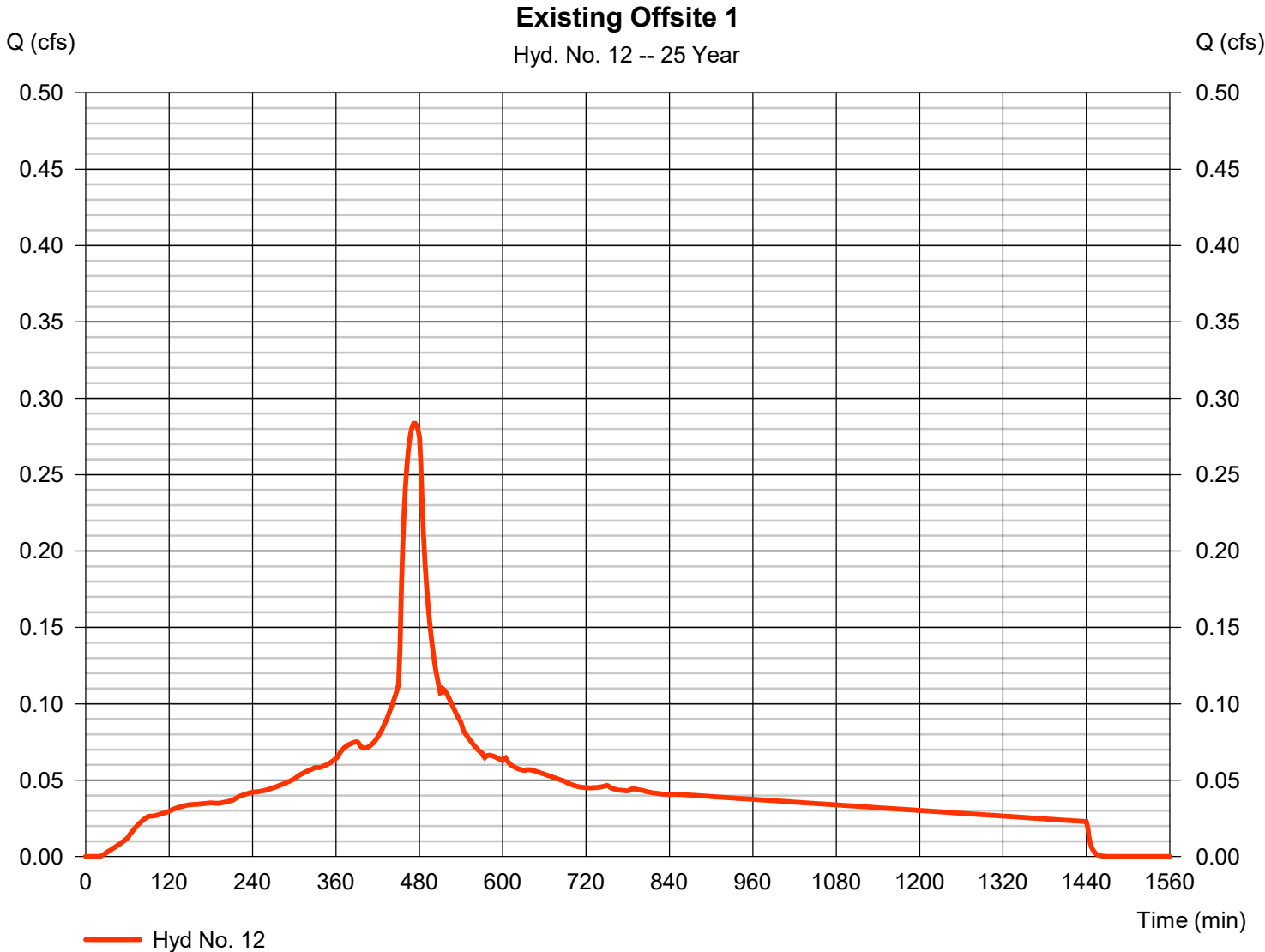


# Hydrograph Report

## Hyd. No. 12

### Existing Offsite 1

Hydrograph type	= SBUH Runoff	Peak discharge	= 0.284 cfs
Storm frequency	= 25 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 4,182 cuft
Drainage area	= 0.184 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a



# Hydrograph Report

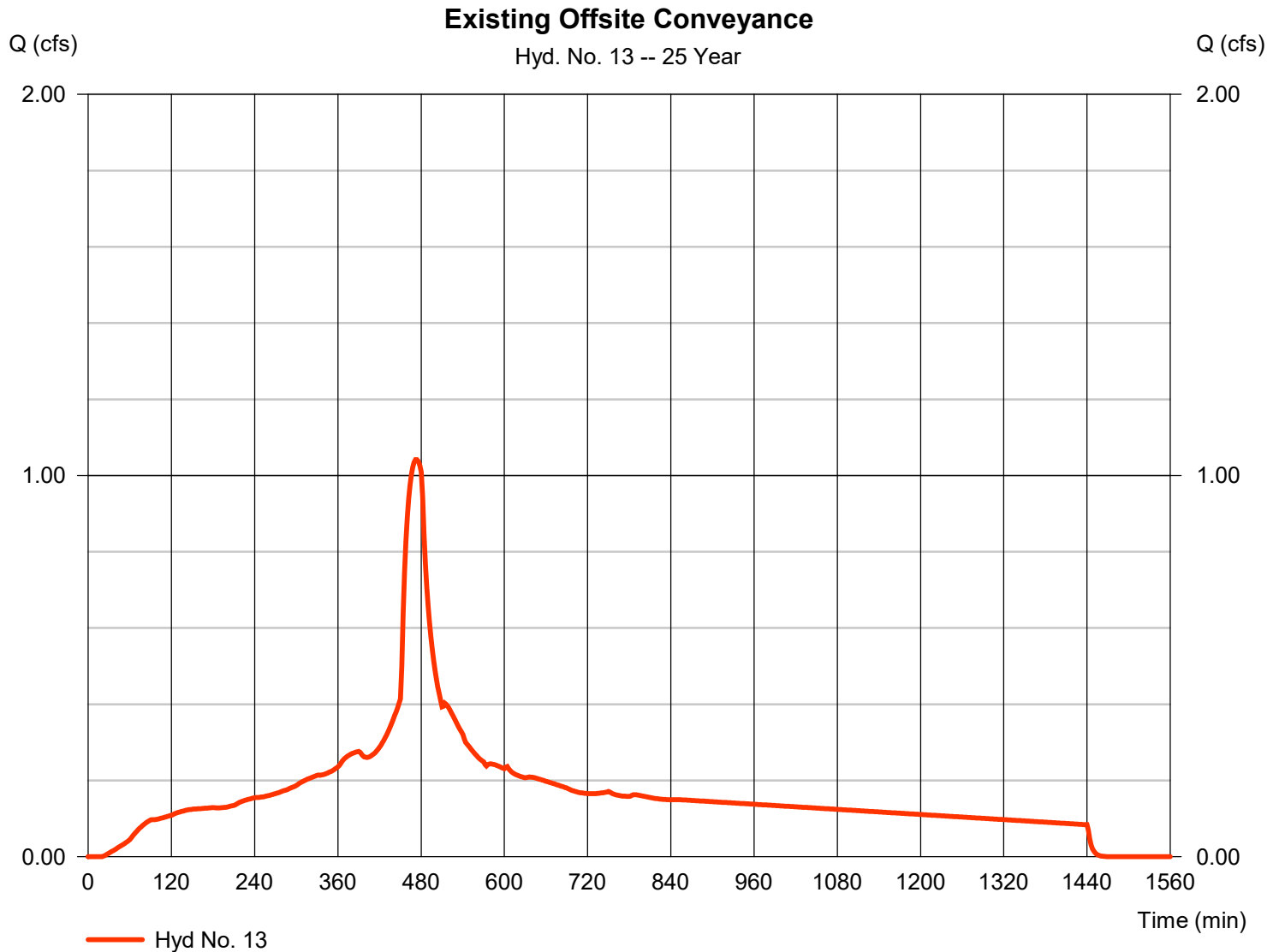
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

## Hyd. No. 13

### Existing Offsite Conveyance

Hydrograph type	= SBUH Runoff	Peak discharge	= 1.042 cfs
Storm frequency	= 25 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 15,365 cuft
Drainage area	= 0.676 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.50 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= n/a





# Hydrograph Report

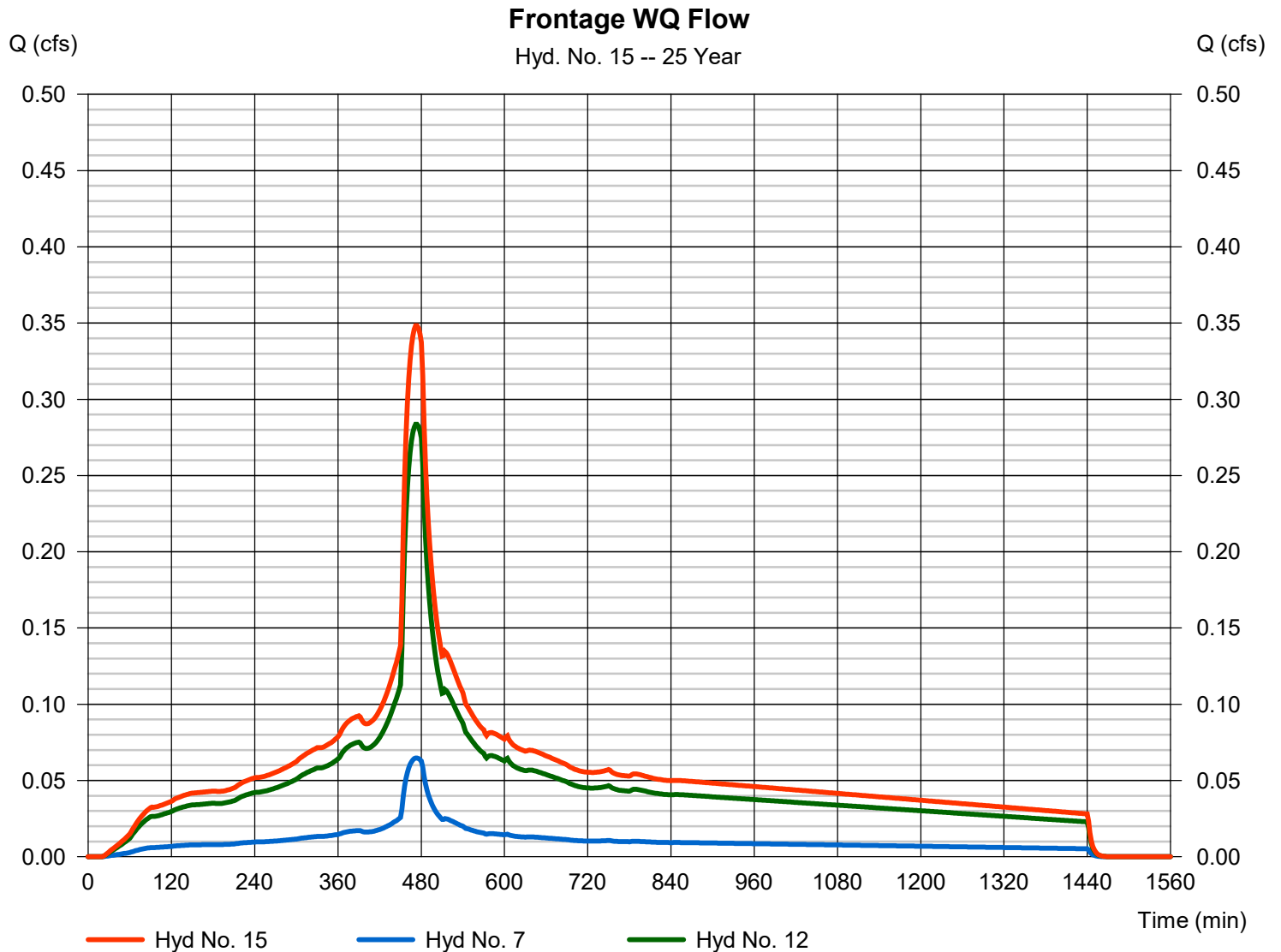
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Friday, 10 / 21 / 2022

## Hyd. No. 15

### Frontage WQ Flow

Hydrograph type	= Combine	Peak discharge	= 0.348 cfs
Storm frequency	= 25 yrs	Time to peak	= 474 min
Time interval	= 2 min	Hyd. volume	= 5,137 cuft
Inflow hyds.	= 7, 12	Contrib. drain. area	= 0.226 ac



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020.4

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SBUH Runoff	0.848	2	478	12,399	-----	-----	-----	Pre-Developed Basin A - Pervious
2	SBUH Runoff	0.050	2	478	735	-----	-----	-----	Pre-Developed Basin B - Pervious
3	Combine	0.898	2	478	13,134	1, 2	-----	-----	Pre-Developed Basin - Combined
5	SBUH Runoff	0.088	2	476	1,254	-----	-----	-----	Post-Developed Basin A - Pervious
6	SBUH Runoff	1.110	2	474	16,420	-----	-----	-----	Post-Developed Basin A - Impervious
7	SBUH Runoff	0.075	2	474	1,107	-----	-----	-----	Post-Developed Basin B
9	Combine	1.197	2	474	17,674	5, 6,	-----	-----	Post-Developed Basin A - Combine
10	Reservoir	1.076	2	482	17,008	9	103.99	5,648	UG Detention
12	SBUH Runoff	0.328	2	474	4,849	-----	-----	-----	Existing Offsite 1
13	SBUH Runoff	1.204	2	474	17,816	-----	-----	-----	Existing Offsite Conveyance
15	Combine	0.402	2	474	5,956	7, 12,	-----	-----	Frontage WQ Flow
MHD01 - Model_SSS.gpw					Return Period: 100 Year			Friday, 10 / 21 / 2022	

## WATER QUALITY MANHOLE CALCULATIONS

Frontage

Water Quality Flow by SBUH

Q  
0.159

Contech Cartridge

Water Quality Flow x (449 gpm/cfs) / (18.79 gpm/ cartridge\*)

0.16 cfs x 449/18.79=

**3.80** cartridges

**Use 4 cartridges**

\* 18.79 GPM/Cartridge for Contech Stormfilter 27" PSORB Cartridge Height Approved by WES for Maintained Proprietary Systems

Onsite

Water Quality Flow by SBUH

Q  
0.456

Contech Cartridge

Water Quality Flow x (449 gpm/cfs) / (18.79 gpm/ cartridge\*)

0.46 cfs x 449/18.79=

**10.90** cartridges

**Use 11 cartridges**

\* 18.79 GPM/Cartridge for Contech Stormfilter 27" PSORB Cartridge Height Approved by WES for Maintained Proprietary Systems



April 2017

**GENERAL USE LEVEL DESIGNATION FOR BASIC (TSS) AND  
PHOSPHORUS TREATMENT**

**For  
CONTECH Engineered Solutions  
Stormwater Management StormFilter®  
with PhosphoSorb® media**

**Ecology's Decision:**

**1. Based on Contech Engineered Solutions application, Ecology hereby issues the following use level designation for the Stormwater Management StormFilter® using PhosphoSorb® media cartridges:**

- **General Use Level Designation (GULD) for Basic Treatment (total suspended solids) and for Phosphorus (total phosphorus) treatment.**
  - **Sized at a hydraulic loading rate of no greater than 1.67 gallon per minute (gpm) per square foot (sq ft.) of media surface, per Table 1.**
  - **Using Contech's PhosphoSorb media. Specifications for the media shall match the specifications provided by the manufacturer and approved by Ecology.**

**Table 1. StormFilter cartridge design flow rates for 18-inch diameter cartridges with PhosphoSorb media operating at 1.67 gpm/sq ft.**

<b>Effective cartridge height (in)</b>	<b>Cartridge flow rate (gpm/cartridge)</b>
<b>12</b>	<b>8.35</b>
<b>18</b>	<b>12.53</b>
<b>27</b>	<b>18.79</b>

2. Ecology approves StormFilter systems containing PhosphoSorb media for treatment at the cartridge flow rate shown in Table 1, and sized based on the water quality design flow rate for an off-line system. Contech designs their StormFilter systems to maintain treatment of the water quality design flow while routing excess flows around the treatment chamber during periods of peak bypass. Calculate the water quality design flow rates using the following procedures:
  - **Western Washington:** For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute flow rate as calculated using the latest version of the Western Washington Hydrology Model or other Ecology-approved continuous runoff model.
  - **Eastern Washington:** For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute flow rate as calculated using one of the three methods described in Chapter 2.2.5 of the Stormwater Management Manual for Eastern Washington (SWMMEW) or local manual.
  - **Entire State:** For treatment installed downstream of detention, the water quality design flow rate is the full 2-year release rate of the detention facility.
3. The GULD designation has no expiration date but it may be amended or revoked by Ecology and is subject to the conditions specified below.

**Ecology's Conditions of Use:**

StormFilter systems containing PhosphoSorb media shall comply with these conditions:

1. Design, assemble, install, operate, and maintain StormFilter systems containing PhosphoSorb media in accordance with applicable Contech Engineered Solutions manuals, documents, and the Ecology Decision.
2. Use sediment loading capacity, in conjunction with the water quality design flow rate, to determine the target maintenance interval.
3. Owners shall install StormFilter systems in such a manner that bypass flows exceeding the water quality treatment rate or flows through the system will not re-suspend captured sediments.
4. Pretreatment of TSS and oil and grease may be necessary, and designers shall provide pre-treatment in accordance with the most current versions of the CONTECH *Product Design Manual* or the applicable Ecology Stormwater Manual. Design pre-treatment using the performance criteria and pretreatment practices provided in the Stormwater Management Manual for Western Washington (SWMMWW), the Stormwater Management Manual for Eastern Washington (SWMMEW), or on Ecology's "Evaluation of Emerging Stormwater Treatment Technologies" website.
5. **Maintenance:** The required maintenance interval for stormwater treatment devices is often dependent upon the degree of pollutant loading from a particular drainage basin. Therefore, Ecology does not endorse or recommend a "one size fits all" maintenance cycle for a particular model/size of manufactured filter treatment device.
  - Typically, CONTECH designs StormFilter systems for a target filter media replacement interval of 12 months. Maintenance includes removing accumulated



**sediment from the vault, and replacing spent cartridges with recharged cartridges.**

- **Indications of the need for maintenance include the effluent flow decreasing to below the design flow rate, as indicated by the scumline above the shoulder of the cartridge.**
  - **Owners/operators must inspect StormFilter with PhosphoSorb media for a minimum of twelve months from the start of post-construction operation to determine site-specific maintenance schedules and requirements. You must conduct inspections monthly during the wet season, and every other month during the dry season. (According to the SWMMWW, the wet season in western Washington is October 1 to April 30. According to SWMMEW, the wet season in eastern Washington is October 1 to June 30). After the first year of operation, owners/operators must conduct inspections based on the findings during the first year of inspections.**
  - **Conduct inspections by qualified personnel, follow manufacturer's guidelines, and use methods capable of determining either a decrease in treated effluent flowrate and/or a decrease in pollutant removal ability.**
  - **When inspections are performed, the following findings typically serve as maintenance triggers:**
    - **Accumulated vault sediment depths exceed an average of 2 inches, or**
    - **Accumulated sediment depths on the tops of the cartridges exceed an average of 0.5 inches, or**
    - **Standing water remains in the vault between rain events, or**
    - **Bypass during storms smaller than the design storm.**
  - **Note: If excessive floatables (trash and debris) are present, perform a minor maintenance consisting of gross solids removal, not cartridge replacement.**
- 6. Discharges from the StormFilter systems containing PhosphoSorb media shall not cause or contribute to water quality standards violations in receiving waters.**

**Applicant:**

CONTECH Engineered Solutions

**Applicant's Address:**

11835 NE Glenn Widing Dr.

Portland, OR 97220

### **Application Documents:**

- The Stormwater Management StormFilter, PhosphoSorb at a Specific Flow Rate of 1.67 gpm/ft<sup>2</sup>, Conditional Use Level Designation Application. August 2012.
- Quality Assurance Project Plan The Stormwater Management StormFilter<sup>®</sup> PhosphoSorb<sup>®</sup> at a Specific Flow Rate of 1.67 gpm/ft<sup>2</sup> Performance Evaluation. August 2012.
- The Stormwater Management StormFilter<sup>®</sup> PhosphoSorb<sup>®</sup> at a Specific Flow Rate of 1.67 gpm/ft<sup>2</sup>, General Use Level Designation, Technical Evaluation Report. October 2015.

### **Applicant's Use Level Request:**

- General use level designation as a basic (TSS) and phosphorus (total phosphorus) treatment device in accordance with Table 2 of Ecology's 2011 *Technical Guidance Manual for Evaluating Emerging Stormwater Treatment Technologies Technology Assessment Protocol – Ecology (TAPE)*.

### **Applicant's Performance Claims:**

Based on results from laboratory and field-testing, the applicant claims:

- The Stormwater Management StormFilter<sup>®</sup> with PhosphoSorb<sup>®</sup> media operating at 1.67 gpm/ft<sup>2</sup> is able to remove 80% of Total Suspended Solids (TSS) for influent concentrations greater than 100 mg/L, is able to remove greater than 80% TSS for influent concentrations greater than 200 mg/L, and achieve a 20 mg/L effluent for influent concentrations less than 100 mg/L.
- The StormFilter with PhosphoSorb media is able to remove 50% or greater total phosphorus for influent concentrations between 0.1 to 0.5 mg/L.

### **Recommendations:**

Ecology finds that:

- CONTECH Engineered Solutions has shown Ecology, through laboratory and field testing, that the Stormwater Management StormFilter<sup>®</sup> with PhosphoSorb<sup>®</sup> media is capable of attaining Ecology's Basic and Total Phosphorus treatment goals.

### **Findings of Fact:**

#### Laboratory testing

- A Phosphosorb StormFilter cartridge test unit, operating at 28 L/min (equivalent to 1.0 gpm/ sq. ft.), and subject to SSC with a silt loam texture (25% sand, 65% silt, and 10% clay by mass) originating from SCS 106 provides a mean SSC removal efficiency of 88%;
- A Phosphosorb StormFilter cartridge test unit, operating at 56 L/min (equivalent to 2.0 gpm/sq. ft.), and subject to SSC with a silt loam texture (25% sand, 65% silt, and 10% clay by mass) originating from SCS 106 provides a mean turbidity reduction of 82%;

- Laboratory testing of PhosphoSorb media in a Horizontal Flow Column (HFC; a 1/24<sup>th</sup> scale of a full cartridge) resulted in 50 percent dissolved phosphorus removal for the first 1,000 bed volumes. Granular activated carbon (GAC) tested under the same conditions resulted in 30 percent removal of dissolved phosphorus.

#### Field testing

- Contech conducted monitoring of a StormFilter® with PhosphoSorb® media at a site along Lolo Pass Road in Zigzag, Oregon between February 2012 and February 2015. The manufacturer collected flow-weighted influent and effluent composite samples during 17 separate storm events. The system treated approximately 96 percent of the flows recorded during the monitoring period. The applicant sized the system at 1.67 gpm/sq. ft.
  - Influent TSS concentrations for qualifying sampled storm events ranged from 40 to 780 mg/L. For influent concentrations less than 100 mg/L (n=2) the effluent concentration was less than 10 mg/L. For influent concentrations greater than 100 mg/L the bootstrap estimate of the lower 95 percent confidence limit (LCL95) of the mean TSS reduction was 85%.
  - Total phosphorus removal for 16 events with influent TP concentrations in the range of 0.1 to 0.5 mg/L averaged 75 percent. A bootstrap estimate of the lower 95 percent confidence limit (LCL95) of the mean total phosphorus reduction was 67 percent.

#### **Other StormFilter system with PhosphoSorb media items the Company should address:**

1. Conduct testing to obtain information about maintenance requirements in order to come up with a maintenance cycle.
2. Conduct loading tests on the filter to determine maximum treatment life of the system.

**Technology Description:** Download at: <http://www.conteches.com/Products/Stormwater-Management/Treatment/Stormwater-Management-StormFilter®.aspx>

#### **Contact Information:**

Applicant: Jeremiah Lehman  
Contech Engineered Solutions  
11815 NE Glenn Widing Drive  
Portland, OR, 97220  
503-258-3136  
[jlehman@conteches.com](mailto:jlehman@conteches.com)

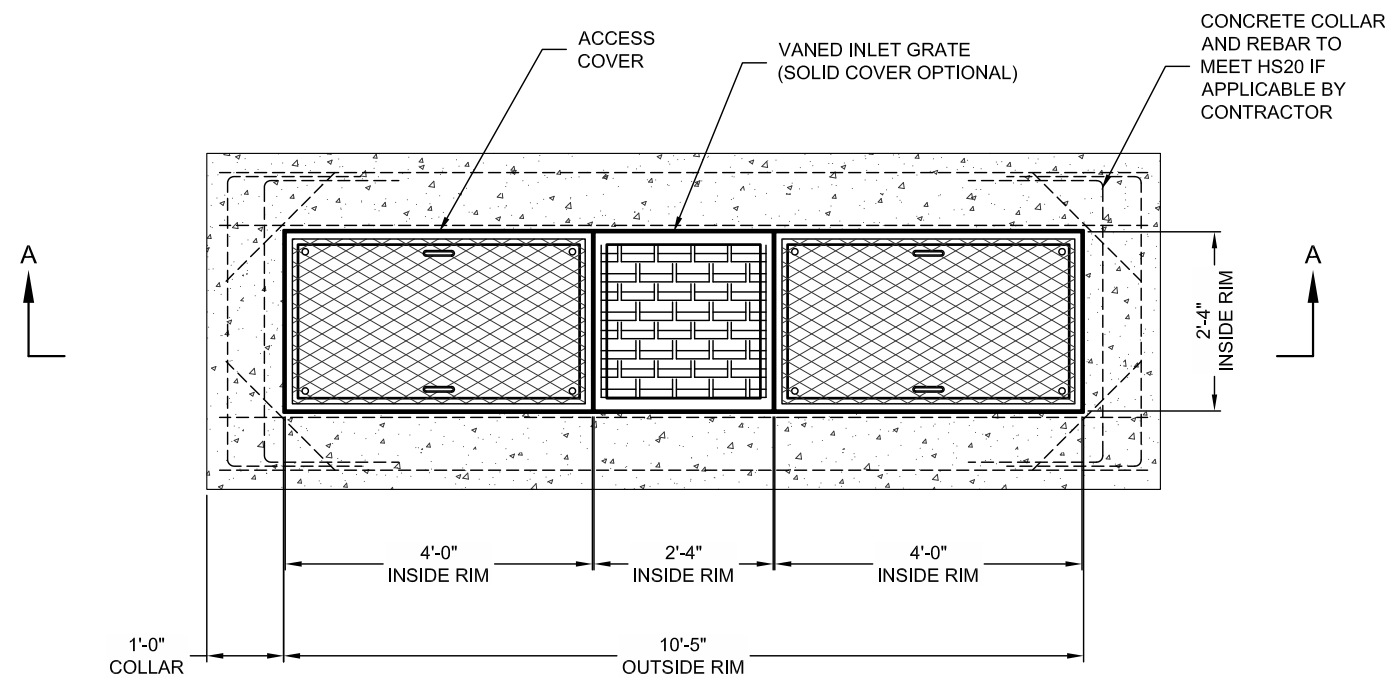
Applicant website: [www.conteches.com](http://www.conteches.com)

Ecology web link: <http://www.ecy.wa.gov/programs/wq/stormwater/newtech/index.html>

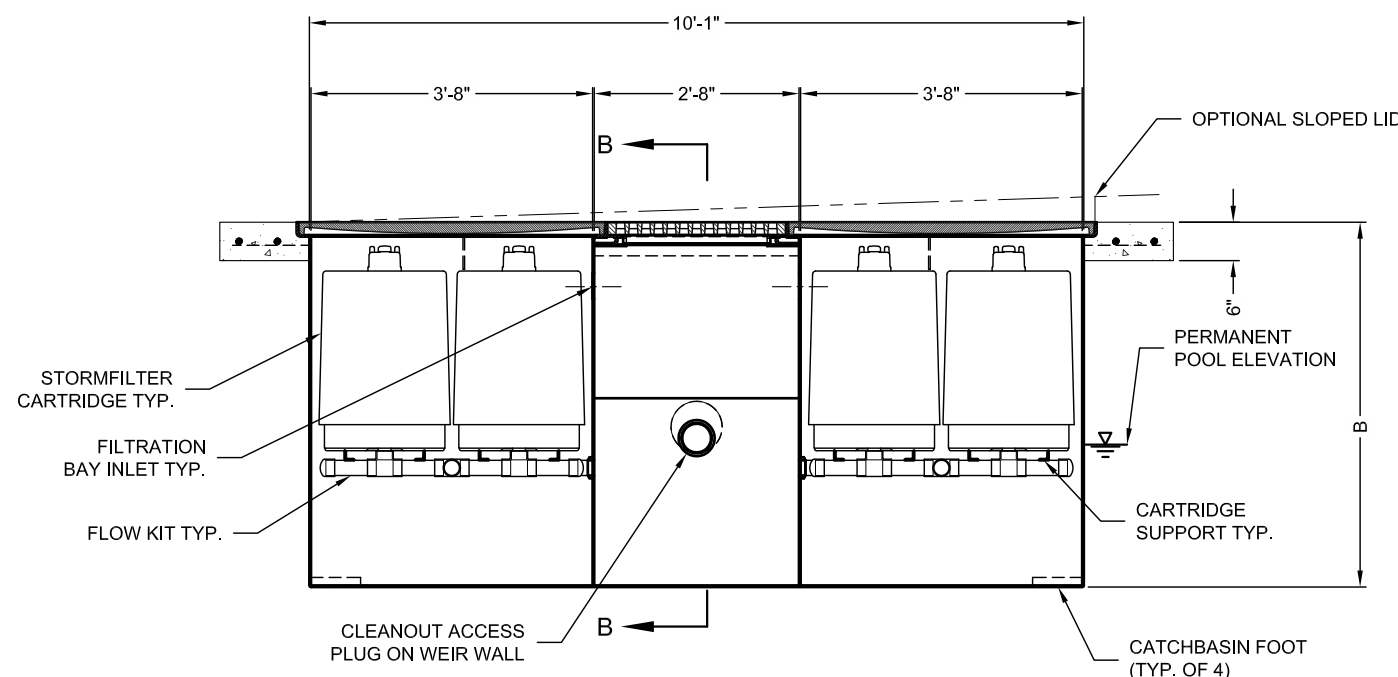
Ecology: Douglas C. Howie, P.E.  
Department of Ecology  
Water Quality Program  
(360) 407-6444  
[douglas.howie@ecy.wa.gov](mailto:douglas.howie@ecy.wa.gov)

### Revision History

<b>Date</b>	<b>Revision</b>
December 2012	Original use-level-designation document: CULD for basic and phosphorus treatment.
January 2013	Revised document to match standard formatting
August 2014	Revised TER and expiration dates
November 2015	Approved GULD designation for Basic and Phosphorus treatment
November 2016	Revised Contech contact information
April 2017	Revised sizing language to note sizing based on Off-line calculations



**PLAN VIEW**  
27" CARTRIDGES



**SECTION A-A**

**STORMFILTER STEEL CATCHBASIN DESIGN NOTES**

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. 4 CARTRIDGE CATCHBASIN HAS A MAXIMUM OF FOUR 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. PEAK HYDRAULIC CAPACITY PER TABLE BELOW. IF THE SITE CONDITIONS EXCEED PEAK HYDRAULIC CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

**CARTRIDGE SELECTION**

CARTRIDGE HEIGHT	27"			18"			18" DEEP		
RECOMMENDED HYDRAULIC DROP (H)	3.05'			2.3'			3.3'		
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/sf	1.67* gpm/sf	1 gpm/sf	2 gpm/sf	1.67* gpm/sf	1 gpm/sf	2 gpm/sf	1.67* gpm/sf	1 gpm/sf
CARTRIDGE FLOW RATE (gpm)	22.5	18.79	11.25	15	12.53	7.5	15	12.53	7.5
PEAK HYDRAULIC CAPACITY	1.0			1.0			1.8		
INLET PERMANENT POOL LEVEL (A)	1'-0"			1'-0"			2'-0"		
OVERALL STRUCTURE HEIGHT (B)	4'-9"			3'-9"			4'-9"		

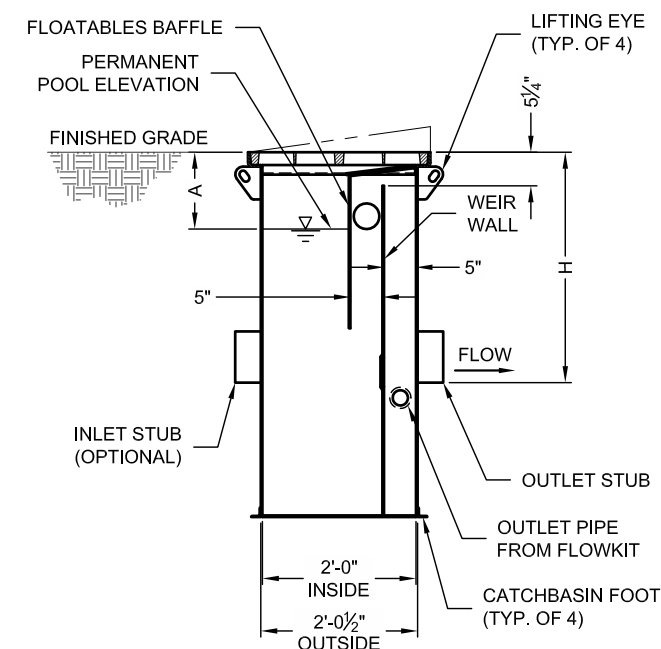
\* 1.67 gpm/sf SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY

**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.contechES.com](http://www.contechES.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.
- MANUFACTURER TO APPLY A SURFACE BEAD WELD IN THE SHAPE OF THE LETTER "O" ABOVE THE OUTLET PIPE STUB ON THE EXTERIOR SURFACE OF THE STEEL SFCB.
- 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 15 INCHES IN DIAMETER. CONNECTION TO COLLECTION PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR.
- STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE. CASTINGS SHALL MEET AASHTO M306 LOAD RATING. TO MEET HS20 LOAD RATING ON STRUCTURE, A CONCRETE COLLAR IS REQUIRED. WHEN REQUIRED, CONCRETE COLLAR WITH #4 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 38 SECONDS.
- SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).

**INSTALLATION NOTES**

- ANY SUB-BASE, 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.

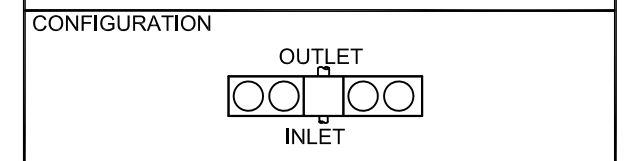


**SECTION C-C**

**4-CARTRIDGE CATCHBASIN  
STORMFILTER DATA**

STRUCTURE ID	XXX
WATER QUALITY FLOW RATE (cfs)	X.XX
PEAK FLOW RATE (<1 cfs)	X.XX
RETURN PERIOD OF PEAK FLOW (yrs)	XXX
CARTRIDGE FLOW RATE (gpm)	XX
MEDIA TYPE (PERLITE, ZPG, PSORB)	XXXXX
RIM ELEVATION	XXX.XX'

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



SLOPED LID	YES/NO
SOLID COVER	YES/NO

NOTES/SPECIAL REQUIREMENTS:

\*PER ENGINEER OF RECORD



## STORMFILTER DESIGN NOTES

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD VAULT STYLE IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (12). VAULT STYLE OPTIONS INCLUDE OUTLET BAY (7). STORMFILTER 8X6 PEAK HYDRAULIC CAPACITY IS 1.8 CFS. IF THE SITE CONDITIONS EXCEED 1.8 CFS AN UPSTREAM BYPASS STRUCTURE IS REQUIRED

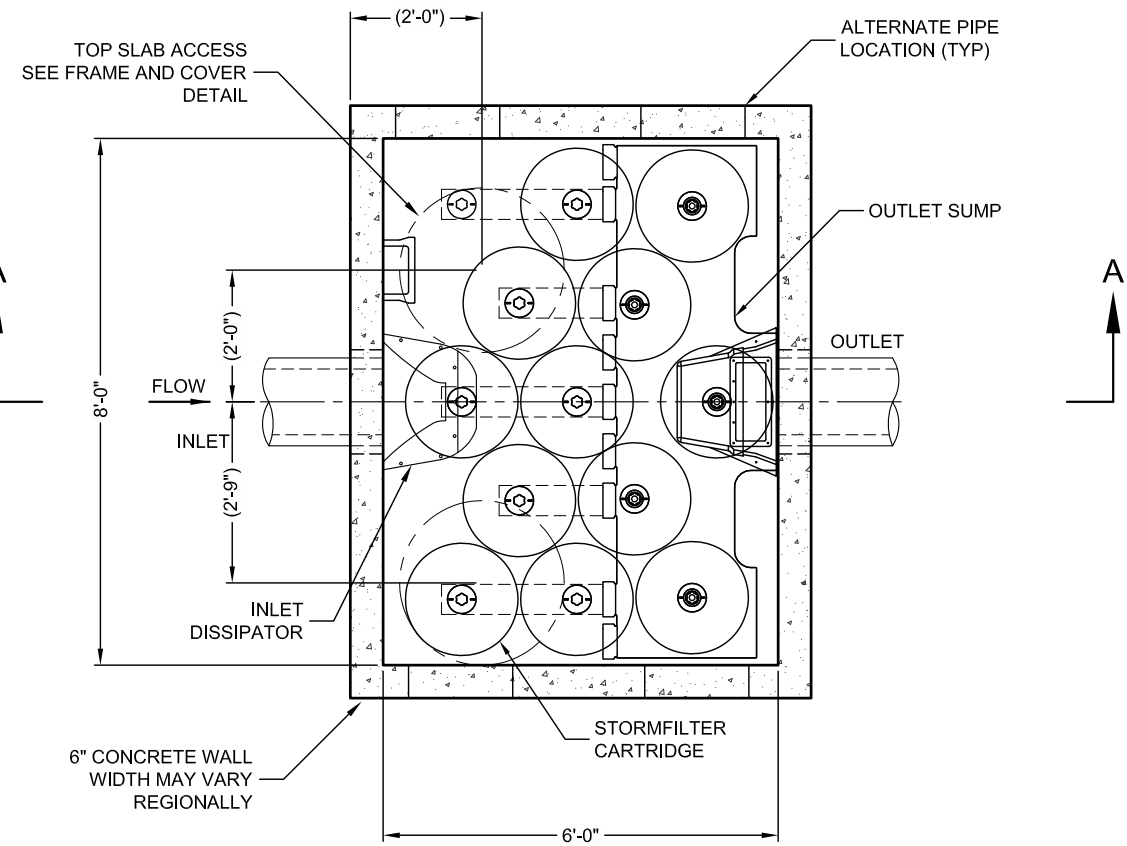
### CARTRIDGE SELECTION

CARTRIDGE HEIGHT	27"			18"			LOW DROP		
RECOMMENDED HYDRAULIC DROP (H)	3.05'			2.3'			1.8'		
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/sf	1.67* gpm/sf	1 gpm/sf	2 gpm/sf	1.67* gpm/sf	1 gpm/sf	2 gpm/sf	1.67* gpm/sf	1 gpm/sf
CARTRIDGE FLOW RATE (gpm)	22.5	18.79	11.25	15	12.53	7.5	10	8.35	5

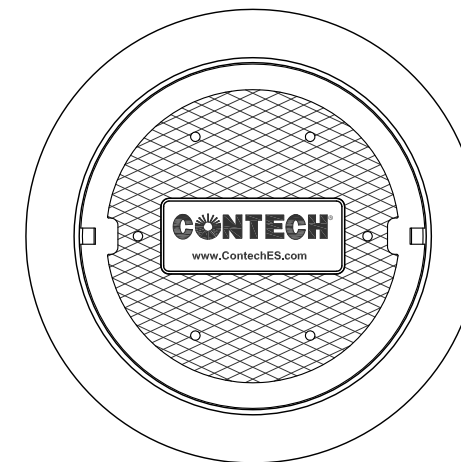
\* 1.67 gpm/sf SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY

### SITE SPECIFIC DATA REQUIREMENTS

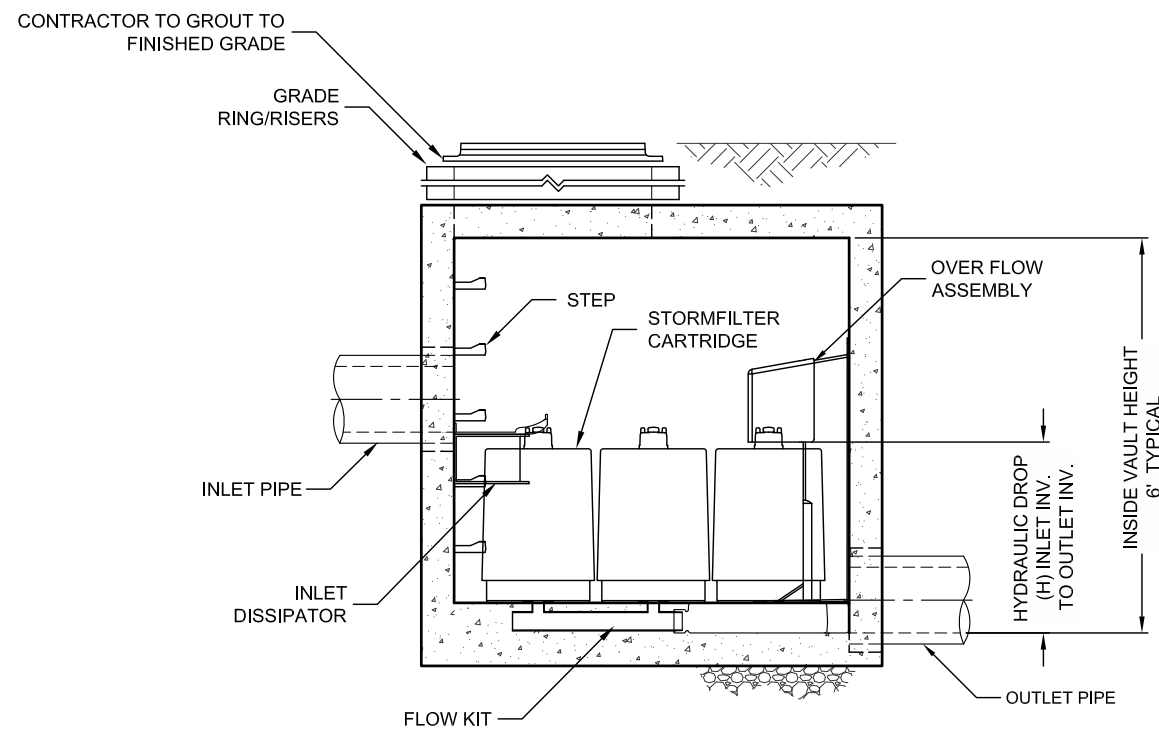
STRUCTURE ID	*		
WATER QUALITY FLOW RATE (cfs)	*		
PEAK FLOW RATE (cfs)	*		
RETURN PERIOD OF PEAK FLOW (yrs)	*		
CARTRIDGE HEIGHT (27", 18", LOW DROP(LD))	*		
NUMBER OF CARTRIDGES REQUIRED	*		
CARTRIDGE FLOW RATE	*		
MEDIA TYPE (PERLITE, ZPG, PSORB)	*		
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE #1	*	*	*
INLET PIPE #2	*	*	*
OUTLET PIPE	*	*	*
UPSTREAM RIM ELEVATION	*		
DOWNSTREAM RIM ELEVATION	*		
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT	
	*	*	*
NOTES/SPECIAL REQUIREMENTS:			
<b>11 cartridges</b>			
* PER ENGINEER OF RECORD			



**SECTION B-B**  
VAULT STYLE: OUTLET SUMP (NIB)



**FRAME AND COVER**  
(DIAMETER VARIES)  
N.T.S.



**SECTION A-A**

### GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
- STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
- 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 38 SECONDS.
- SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).
- STORMFILTER STRUCTURE SHALL BE PRECAST CONFORMING TO ASTM C-857 AND AASHTO LOAD FACTOR DESIGN METHOD.

### INSTALLATION NOTES

- ANY SUB-BASE, 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 STORMFILTER VAULT (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL VAULT SECTIONS AND ASSEMBLE VAULT.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

**CONTECH**  
ENGINEERED SOLUTIONS LLC

www.ContechES.com  
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069  
800-338-1122    513-645-7000    513-645-7993 FAX

SF806  
STORMFILTER  
STANDARD DETAIL

# PROJECT SUMMARY

## CALCULATION DETAILS

- LOADING = HS20/HS25
- APPROX. LINEAR FOOTAGE = 331 LF

## STORAGE SUMMARY

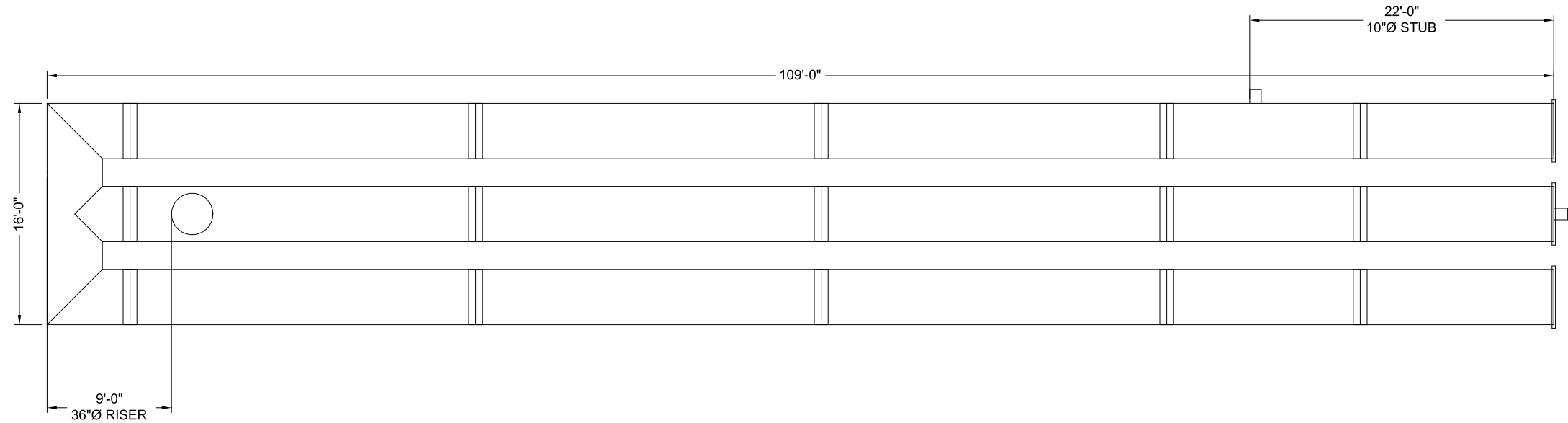
- STORAGE VOLUME REQUIRED = 5,657 CF
- PIPE STORAGE VOLUME = 4,159 CF
- BACKFILL STORAGE VOLUME = 1,533 CF
- TOTAL STORAGE PROVIDED = 5,692 CF

## PIPE DETAILS

- DIAMETER = 48"
- CORRUGATION = 2 2/3x1/2
- GAGE = 16
- COATING = ALT2
- WALL TYPE = PERFORATED
- BARREL SPACING = 24"

## BACKFILL DETAILS

- WIDTH AT ENDS = 12"
- ABOVE PIPE = 0"
- WIDTH AT SIDES = 12"
- BELOW PIPE = 0"



## NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2 2/3" x 1/2" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

**ASSEMBLY**  
SCALE: 1" = 10'

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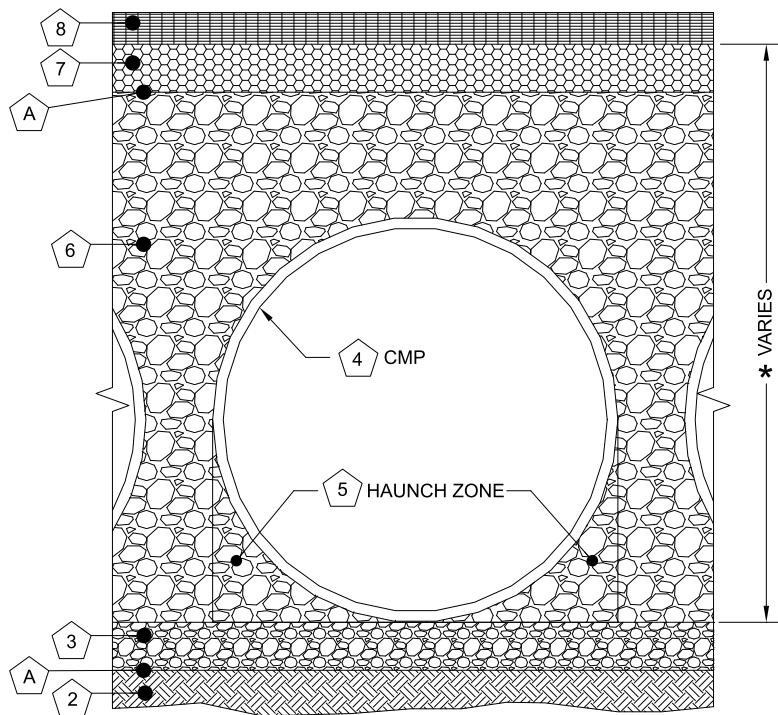
The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for such use.		
If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.		
DATE	REVISION DESCRIPTION	BY


**CONTECH**  
ENGINEERED SOLUTIONS LLC  
www.ContechES.com  
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069  
800-338-1122 513-645-7000 513-645-7993 FAX

**CONTECH**  
CMP DETENTION SYSTEMS  
CONTECH  
**DYODS**  
DRAWING

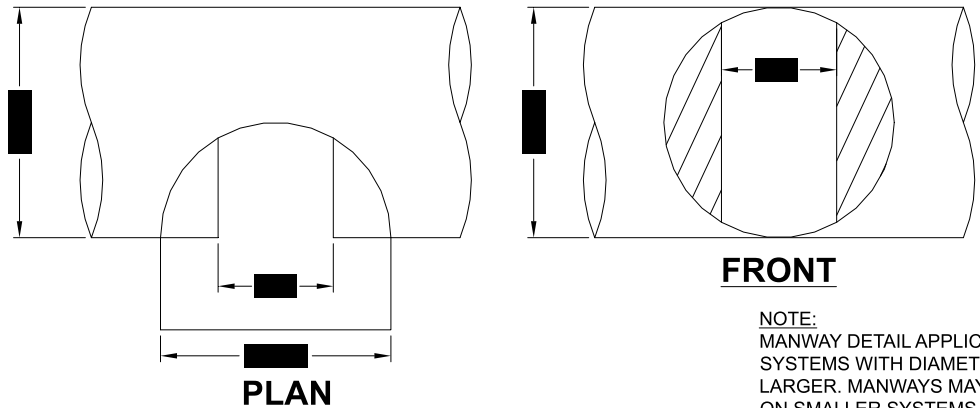
DYO22798 Government Camp Hotel  
Government Camp Hotel System  
Government Camp, OR  
DETENTION SYSTEM

PROJECT No.: 14995	SEQ. No.: 22798	DATE: 10/21/2022
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.:		1



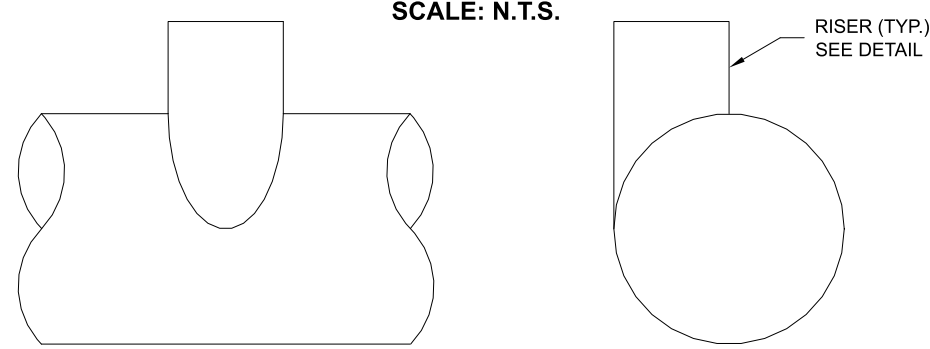
Infiltration Systems - CMP Infiltration & CMP Perforated Drainage Pipe			
Material Location	Description	Material Designation	Designation
8	Rigid or Flexible Pavement (if applicable)		
7	Road Base (if applicable)		
A	Geotextile Layer	Non-Woven Geotextile CONTECH C-40 or C-45	Engineer Decision for consideration to prevent soil migration into varying soil types. Wrap the trench only.
6	Backfill	Infiltration pipe systems have a pipe perforation sized of 3/8" diameter. An open graded, free draining stone, with a particle size of 1/2" - 2 1/2" diameter is recommended.	AASHTO M 145-A-1 or AASHTO M 43 - 3, 4 Material shall be worked into the pipe haunches by means of shovel-slicing, rodding, air-tamper, vibratory rod, or other effective methods. Compaction of all placed fill material is necessary and shall be considered adequate when no further yielding of the material is observed under the compactor, or under foot, and the Project Engineer or his representative is satisfied with the level of compaction"
3	Bedding Stone	Well graded granular bedding material w/maximum particle size of 3"	AASHTO M43 - 3,357,4,467, 5, 56, 57 For soil aggregates larger than 3/8" a dedicated bedding layer is not required for CMP. Pipe may be placed on the trench bottom comprised of native suitable well graded & granular material. For Arch pipes it is recommended to be shaped to a relatively flat bottom or fine-grade the foundation to a slight v-shape. Soil aggregates less than 3/8" and unsuitable material should be over-excavated and re-placed with a 4"-6" layer of well graded & granular stone per the material designation.
A	Geotextile Layer	None	None Contech does not recommend geotextiles be placed under the invert of infiltration systems due to the propensity for geotextiles to clog over time.

\* Note: The listed AASHTO designations are for gradation only. The stone must also be angular and clean.



TYPICAL MANWAY DETAIL

NOTE: MANWAY DETAIL APPLICABLE FOR CMP SYSTEMS WITH DIAMETERS 48" AND LARGER. MANWAYS MAY BE REQUIRED ON SMALLER SYSTEMS DEPENDING ON ACTUAL SITE SPECIFIC CONDITIONS.



TYPICAL RISER DETAIL

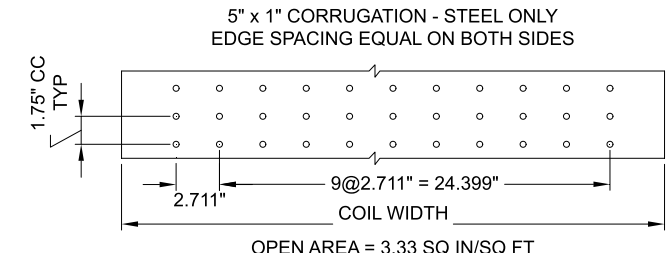
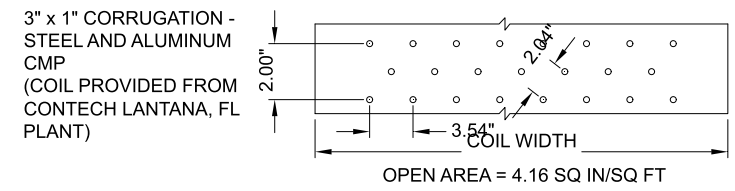
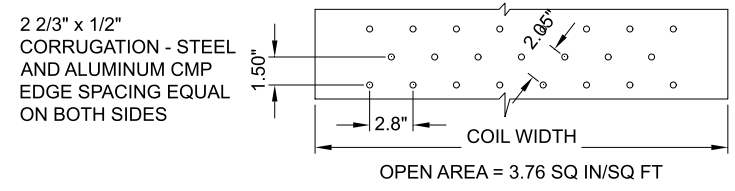
NOTE: LADDERS ARE OPTIONAL AND ARE NOT REQUIRED FOR ALL SYSTEMS.

- 1 MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT.
- 2 PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER.
- 5 HAUNCH ZONE MATERIAL SHALL BE PLACED AND UNIFORMLY COMPACTED WITHOUT SOFT SPOTS.

**BACKFILL**  
MATERIAL SHALL BE PLACED IN 8"-10" MAXIMUM LIFTS. INADEQUATE COMPACTON CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY PIPE IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE SO AS NOT TO DISTORT, DAMAGE, OR DISPLACE THE PIPE. ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT. MAINTAIN BALANCED LOADING ON ALL PIPES IN THE SYSTEM DURING ALL SUCH OPERATIONS.

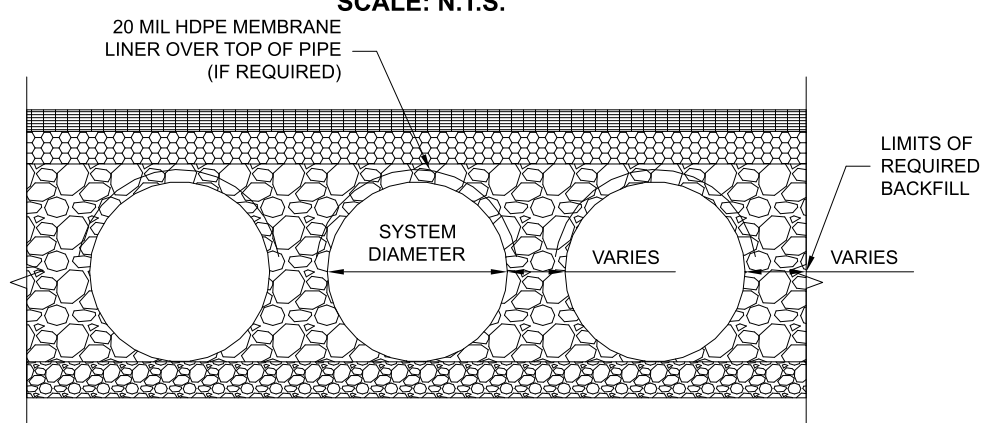
OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. REFER TO TYPICAL BACKFILL DETAIL FOR MATERIAL REQUIRED.



- NOTES:
- PERFORATIONS MEET AASHTO AND ASTM SPECIFICATIONS.
  - PERFORATION OPEN AREA PER SQUARE FOOT OF PIPE IS BASED ON THE NOMINAL DIAMETER AND LENGTH OF PIPE.
  - ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
  - ALL HOLES  $\varnothing$ 3/8".

TYPICAL PERFORATION DETAIL

SCALE: N.T.S.



TYPICAL SECTION VIEW

NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, AN HDPE MEMBRANE LINER IS RECOMMENDED WITH THE SYSTEM. THE IMPERMEABLE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.

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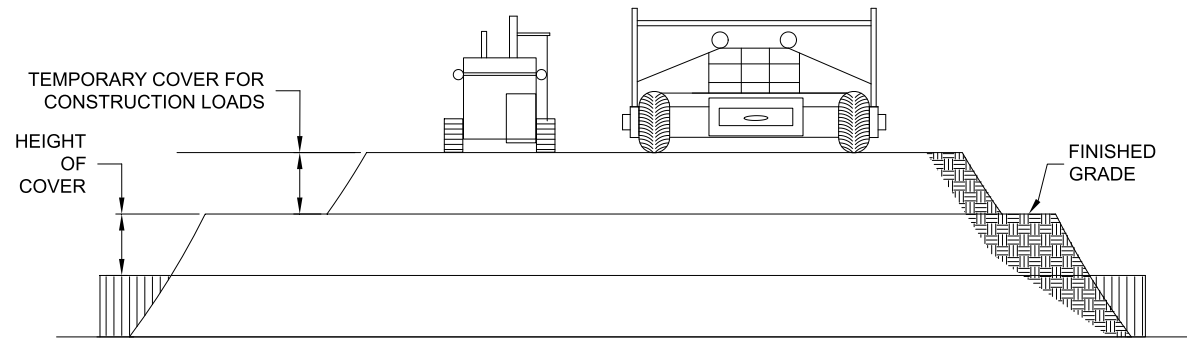
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DY022798 Government Camp Hotel  
Government Camp Hotel System  
Government Camp, OR  
DETENTION SYSTEM

PROJECT No.: 14995	SEQ. No.: 22798	DATE: 10/21/2022
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.:		1



**CONSTRUCTION LOADS**

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

\*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

**CONSTRUCTION LOADING DIAGRAM**

SCALE: N.T.S.

**SPECIFICATION FOR DESIGNED DETENTION SYSTEM:**

**SCOPE**

THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE DESIGNED DETENTION SYSTEM DETAILED IN THE PROJECT PLANS.

**MATERIAL**

THE MATERIAL SHALL CONFORM TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-274 OR ASTM A-92.

THE GALVANIZED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.

THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-246 OR ASTM A-742.

THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE OF AASHTO M-197 OR ASTM B-744.

**CONSTRUCTION LOADS**

CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSIPA GUIDELINES.

**PIPE**

THE PIPE SHALL BE MANUFACTURED IN ACCORDANCE TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2: AASHTO M-36 OR ASTM A-760

GALVANIZED: AASHTO M-36 OR ASTM A-760

POLYMER COATED: AASHTO M-245 OR ASTM A-762

ALUMINUM: AASHTO M-196 OR ASTM B-745

**APPLICABLE**

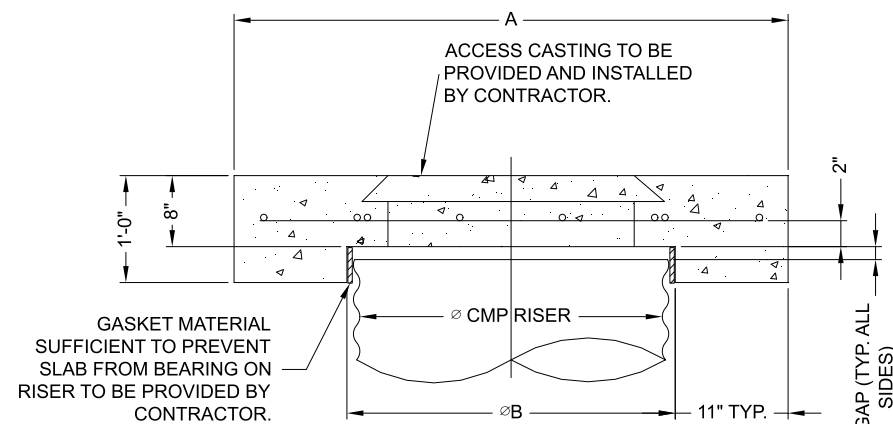
**HANDLING AND ASSEMBLY**

SHALL BE IN ACCORDANCE WITH NCSP'S (NATIONAL CORRUGATED STEEL ASSOCIATION) FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL. SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR ALUMINUM PIPE.

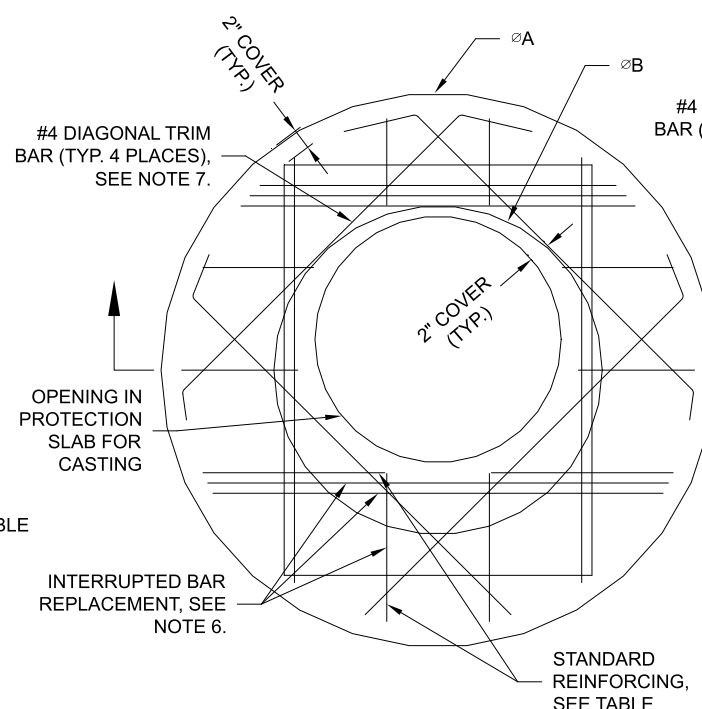
**INSTALLATION**

SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II DIVISION II OR ASTM A-798 (FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL) OR ASTM B-788 (FOR ALUMINUM PIPE) AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

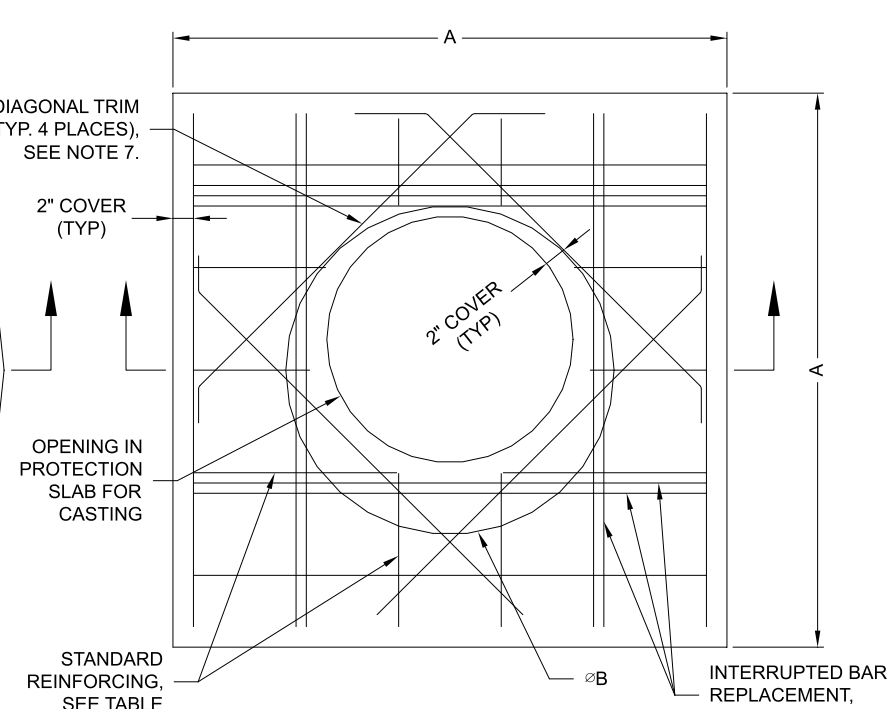
IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.



**SECTION VIEW**



**ROUND OPTION PLAN VIEW**



**SQUARE OPTION PLAN VIEW**

**NOTES:**

- DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION.
- DESIGN LOAD HS25.
- EARTH COVER = 1' MAX.
- CONCRETE STRENGTH = 3,500 psi
- REINFORCING STEEL = ASTM A615, GRADE 60.
- PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
- TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
- PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
- DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

**MANHOLE CAP DETAIL**

SCALE: N.T.S.

Ø CMP RISER	A	Ø B	REINFORCING	**BEARING PRESSURE (PSF)
24"	Ø 4' 4'X4'	26"	#5 @ 12" OCEW #5 @ 12" OCEW	2,410 1,780
30"	Ø 4'-6" 4'-6" X 4'-6"	32"	#5 @ 12" OCEW #5 @ 12" OCEW	2,120 1,530
36"	Ø 5' 5' X 5'	38"	#5 @ 10" OCEW #5 @ 10" OCEW	1,890 1,350
42"	Ø 5'-6" 5'-6" X 5'-6"	44"	#5 @ 10" OCEW #5 @ 9" OCEW	1,720 1,210
48"	Ø 6' 6' X 6'	50"	#5 @ 9" OCEW #5 @ 8" OCEW	1,600 1,100

\*\* ASSUMED SOIL BEARING CAPACITY

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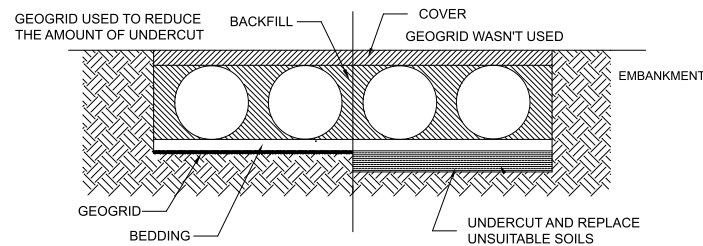
## CMP DETENTION INSTALLATION GUIDE

PROPER INSTALLATION OF A FLEXIBLE UNDERGROUND DETENTION SYSTEM WILL ENSURE LONG-TERM PERFORMANCE. THE CONFIGURATION OF THESE SYSTEMS OFTEN REQUIRES SPECIAL CONSTRUCTION PRACTICES THAT DIFFER FROM CONVENTIONAL FLEXIBLE PIPE CONSTRUCTION. CONTECH ENGINEERED SOLUTIONS STRONGLY SUGGESTS SCHEDULING A PRE-CONSTRUCTION MEETING WITH YOUR LOCAL SALES ENGINEER TO DETERMINE IF ADDITIONAL MEASURES, NOT COVERED IN THIS GUIDE, ARE APPROPRIATE FOR YOUR SITE.

## FOUNDATION

CONSTRUCT A FOUNDATION THAT CAN SUPPORT THE DESIGN LOADING APPLIED BY THE PIPE AND ADJACENT BACKFILL WEIGHT AS WELL AS MAINTAIN ITS INTEGRITY DURING CONSTRUCTION.

IF SOFT OR UNSUITABLE SOILS ARE ENCOUNTERED, REMOVE THE POOR SOILS DOWN TO A SUITABLE DEPTH AND THEN BUILD UP TO THE APPROPRIATE ELEVATION WITH A COMPETENT BACKFILL MATERIAL. THE STRUCTURAL FILL MATERIAL GRADATION SHOULD NOT ALLOW THE MIGRATION OF FINES, WHICH CAN CAUSE SETTLEMENT OF THE DETENTION SYSTEM OR PAVEMENT ABOVE. IF THE STRUCTURAL FILL MATERIAL IS NOT COMPATIBLE WITH THE UNDERLYING SOILS AN ENGINEERING FABRIC SHOULD BE USED AS A SEPARATOR. IN SOME CASES, USING A STIFF REINFORCING GEOGRID REDUCES OVER EXCAVATION AND REPLACEMENT FILL QUANTITIES.

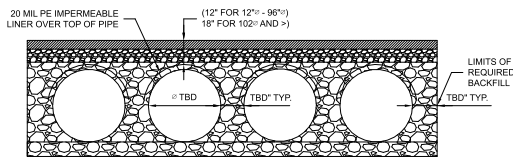


GRADE THE FOUNDATION SUBGRADE TO A UNIFORM OR SLIGHTLY SLOPING GRADE. IF THE SUBGRADE IS CLAY OR RELATIVELY NON-POROUS AND THE CONSTRUCTION SEQUENCE WILL LAST FOR AN EXTENDED PERIOD OF TIME, IT IS BEST TO SLOPE THE GRADE TO ONE END OF THE SYSTEM. THIS WILL ALLOW EXCESS WATER TO DRAIN QUICKLY, PREVENTING SATURATION OF THE SUBGRADE.

## GEOMEMBRANE BARRIER

A SITE'S RESISTIVITY MAY CHANGE OVER TIME WHEN VARIOUS TYPES OF SALTING AGENTS ARE USED, SUCH AS ROAD SALTS FOR DEICING AGENTS. IF SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM THE USE OF SUCH AGENTS INCLUDING PREMATURE CORROSION AND REDUCED ACTUAL SERVICE LIFE.

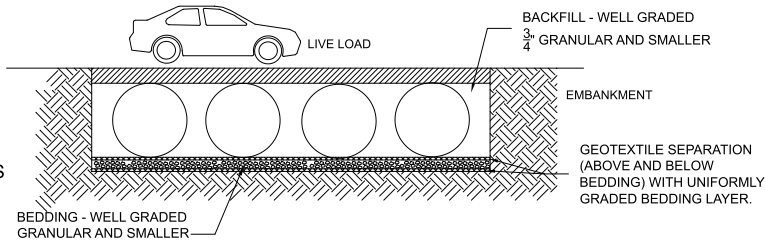
THE PROJECT'S ENGINEER OF RECORD IS TO EVALUATE WHETHER SALTING AGENTS WILL BE USED ON OR NEAR THE PROJECT SITE, AND USE HIS/HER BEST JUDGEMENT TO DETERMINE IF ANY ADDITIONAL PROTECTIVE MEASURES ARE REQUIRED. BELOW IS A TYPICAL DETAIL SHOWING THE PLACEMENT OF A GEOMEMBRANE BARRIER FOR PROJECTS WHERE SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE.



## IN-SITU TRENCH WALL

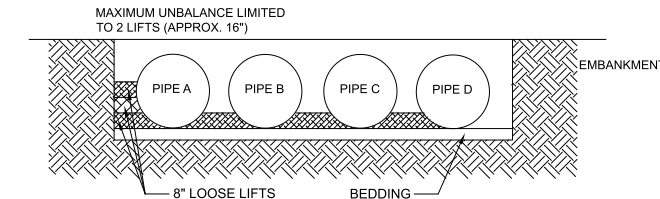
IF EXCAVATION IS REQUIRED, THE TRENCH WALL NEEDS TO BE CAPABLE OF SUPPORTING THE LOAD THAT THE PIPE SHEDS AS THE SYSTEM IS LOADED. IF SOILS ARE NOT CAPABLE OF SUPPORTING THESE LOADS, THE PIPE CAN DEFLECT. PERFORM A SIMPLE SOIL PRESSURE CHECK USING THE APPLIED LOADS TO DETERMINE THE LIMITS OF EXCAVATION BEYOND THE SPRING LINE OF THE OUTER MOST PIPES.

IN MOST CASES THE REQUIREMENTS FOR A SAFE WORK ENVIRONMENT AND PROPER BACKFILL PLACEMENT AND COMPACTION TAKE CARE OF THIS CONCERN.



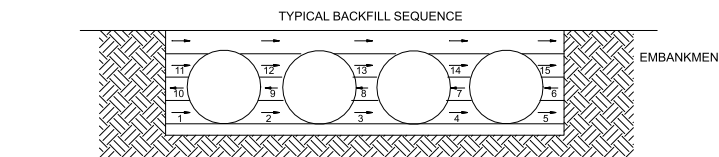
## BACKFILL PLACEMENT

MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-SLICING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS.

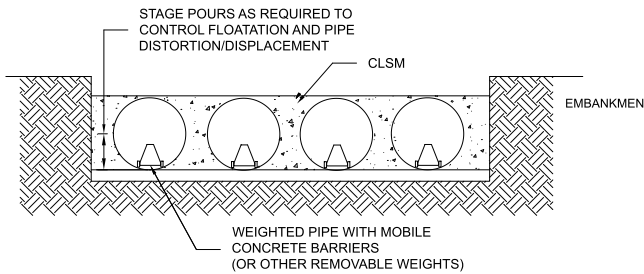


IF AASHTO T99 PROCEDURES ARE DETERMINED INFEASIBLE BY THE GEOTECHNICAL ENGINEER OF RECORD, COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE GEOTECHNICAL ENGINEER OF RECORD (OR REPRESENTATIVE THEREOF) IS SATISFIED WITH THE LEVEL OF COMPACTION.

FOR LARGE SYSTEMS, CONVEYOR SYSTEMS, BACKHOES WITH LONG REACHES OR DRAGLINES WITH STONE BUCKETS MAY BE USED TO PLACE BACKFILL. ONCE MINIMUM COVER FOR CONSTRUCTION LOADING ACROSS THE ENTIRE WIDTH OF THE SYSTEM IS REACHED, ADVANCE THE EQUIPMENT TO THE END OF THE RECENTLY PLACED FILL, AND BEGIN THE SEQUENCE AGAIN UNTIL THE SYSTEM IS COMPLETELY BACKFILLED. THIS TYPE OF CONSTRUCTION SEQUENCE PROVIDES ROOM FOR STOCKPILED BACKFILL DIRECTLY BEHIND THE BACKHOE, AS WELL AS THE MOVEMENT OF CONSTRUCTION TRAFFIC. MATERIAL STOCKPILES ON TOP OF THE BACKFILLED DETENTION SYSTEM SHOULD BE LIMITED TO 8- TO 10- FEET HIGH AND MUST PROVIDE BALANCED LOADING ACROSS ALL BARRELS. TO DETERMINE THE PROPER COVER OVER THE PIPES TO ALLOW THE MOVEMENT OF CONSTRUCTION EQUIPMENT SEE TABLE 1, OR CONTACT YOUR LOCAL CONTECH SALES ENGINEER.



WHEN FLOWABLE FILL IS USED, YOU MUST PREVENT PIPE FLOATATION. TYPICALLY, SMALL LIFTS ARE PLACED BETWEEN THE PIPES AND THEN ALLOWED TO SET-UP PRIOR TO THE PLACEMENT OF THE NEXT LIFT. THE ALLOWABLE THICKNESS OF THE CLSM LIFT IS A FUNCTION OF A PROPER BALANCE BETWEEN THE UPLIFT FORCE OF THE CLSM, THE OPPOSING WEIGHT OF THE PIPE, AND THE EFFECT OF OTHER RESTRAINING MEASURES. THE PIPE CAN CARRY LIMITED FLUID PRESSURE WITHOUT PIPE DISTORTION OR DISPLACEMENT, WHICH ALSO AFFECTS THE CLSM LIFT THICKNESS. YOUR LOCAL CONTECH SALES ENGINEER CAN HELP DETERMINE THE PROPER LIFT THICKNESS.

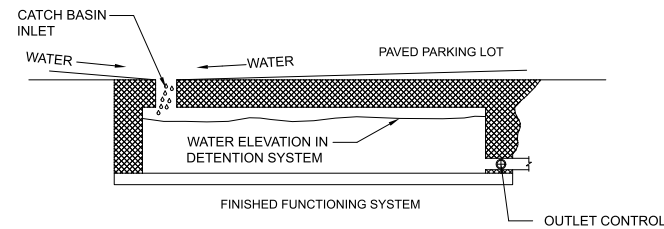


## CONSTRUCTION LOADING

TYPICALLY, THE MINIMUM COVER SPECIFIED FOR A PROJECT ASSUMES H-20 LIVE LOAD. BECAUSE CONSTRUCTION LOADS OFTEN EXCEED DESIGN LIVE LOADS, INCREASED TEMPORARY MINIMUM COVER REQUIREMENTS ARE NECESSARY. SINCE CONSTRUCTION EQUIPMENT VARIES FROM JOB TO JOB, IT IS BEST TO ADDRESS EQUIPMENT SPECIFIC MINIMUM COVER REQUIREMENTS WITH YOUR LOCAL CONTECH SALES ENGINEER DURING YOUR PRE-CONSTRUCTION MEETING.

## ADDITIONAL CONSIDERATIONS

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL CAN RAPIDLY FILL THE EXCAVATION; POTENTIALLY CAUSING FLOATATION AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR THE WATER TO ESCAPE. TEMPORARY DIVERSION MEASURES MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE OUTLET PIPE.



## CMP DETENTION SYSTEM INSPECTION AND MAINTENANCE

UNDERGROUND STORMWATER DETENTION AND INFILTRATION SYSTEMS MUST BE INSPECTED AND MAINTAINED AT REGULAR INTERVALS FOR PURPOSES OF PERFORMANCE AND LONGEVITY.

### INSPECTION

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE OF CMP DETENTION SYSTEMS AND IS EASILY PERFORMED. CONTECH RECOMMENDS ONGOING, ANNUAL INSPECTIONS. SITES WITH HIGH TRASH LOAD OR SMALL OUTLET CONTROL ORIFICES MAY NEED MORE FREQUENT INSPECTIONS. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE ON SITE SPECIFIC ACTIVITIES RATHER THAN THE SIZE OR CONFIGURATION OF THE SYSTEM.

INSPECTIONS SHOULD BE PERFORMED MORE OFTEN IN EQUIPMENT WASHDOWN AREAS, IN CLIMATES WHERE SANDING AND/OR SALTING OPERATIONS TAKE PLACE, AND IN OTHER VARIOUS INSTANCES IN WHICH ONE WOULD EXPECT HIGHER ACCUMULATIONS OF SEDIMENT OR ABRASIVE/ CORROSIVE CONDITIONS. A RECORD OF EACH INSPECTION IS TO BE MAINTAINED FOR THE LIFE OF THE SYSTEM

### MAINTENANCE

CMP DETENTION SYSTEMS SHOULD BE CLEANED WHEN AN INSPECTION REVEALS ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE ORIFICE.

ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE. IF MAINTENANCE IS NOT PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE OUTLET ORIFICE. MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES. CONTECH SUGGESTS THAT ALL SYSTEMS BE DESIGNED WITH AN ACCESS/INSPECTION MANHOLE SITUATED AT OR NEAR THE INLET AND THE OUTLET ORIFICE. SHOULD IT BE NECESSARY TO GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES, ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

ANNUAL INSPECTIONS ARE BEST PRACTICE FOR ALL UNDERGROUND SYSTEMS. DURING THIS INSPECTION, IF EVIDENCE OF SALTING/DE-ICING AGENTS IS OBSERVED WITHIN THE SYSTEM, IT IS BEST PRACTICE FOR THE SYSTEM TO BE RINSED, INCLUDING ABOVE THE SPRING LINE SOON AFTER THE SPRING THAW AS PART OF THE MAINTENANCE PROGRAM FOR THE SYSTEM.

MAINTAINING AN UNDERGROUND DETENTION OR INFILTRATION SYSTEM IS EASIEST WHEN THERE IS NO FLOW ENTERING THE SYSTEM. FOR THIS REASON, IT IS A GOOD IDEA TO SCHEDULE THE CLEANOUT DURING DRY WEATHER.

THE FOREGOING INSPECTION AND MAINTENANCE EFFORTS HELP ENSURE UNDERGROUND PIPE SYSTEMS USED FOR STORMWATER STORAGE CONTINUE TO FUNCTION AS INTENDED BY IDENTIFYING RECOMMENDED REGULAR INSPECTION AND MAINTENANCE PRACTICES. INSPECTION AND MAINTENANCE RELATED TO THE STRUCTURAL INTEGRITY OF THE PIPE OR THE SOUNDNESS OF PIPE JOINT CONNECTIONS IS BEYOND THE SCOPE OF THIS GUIDE.

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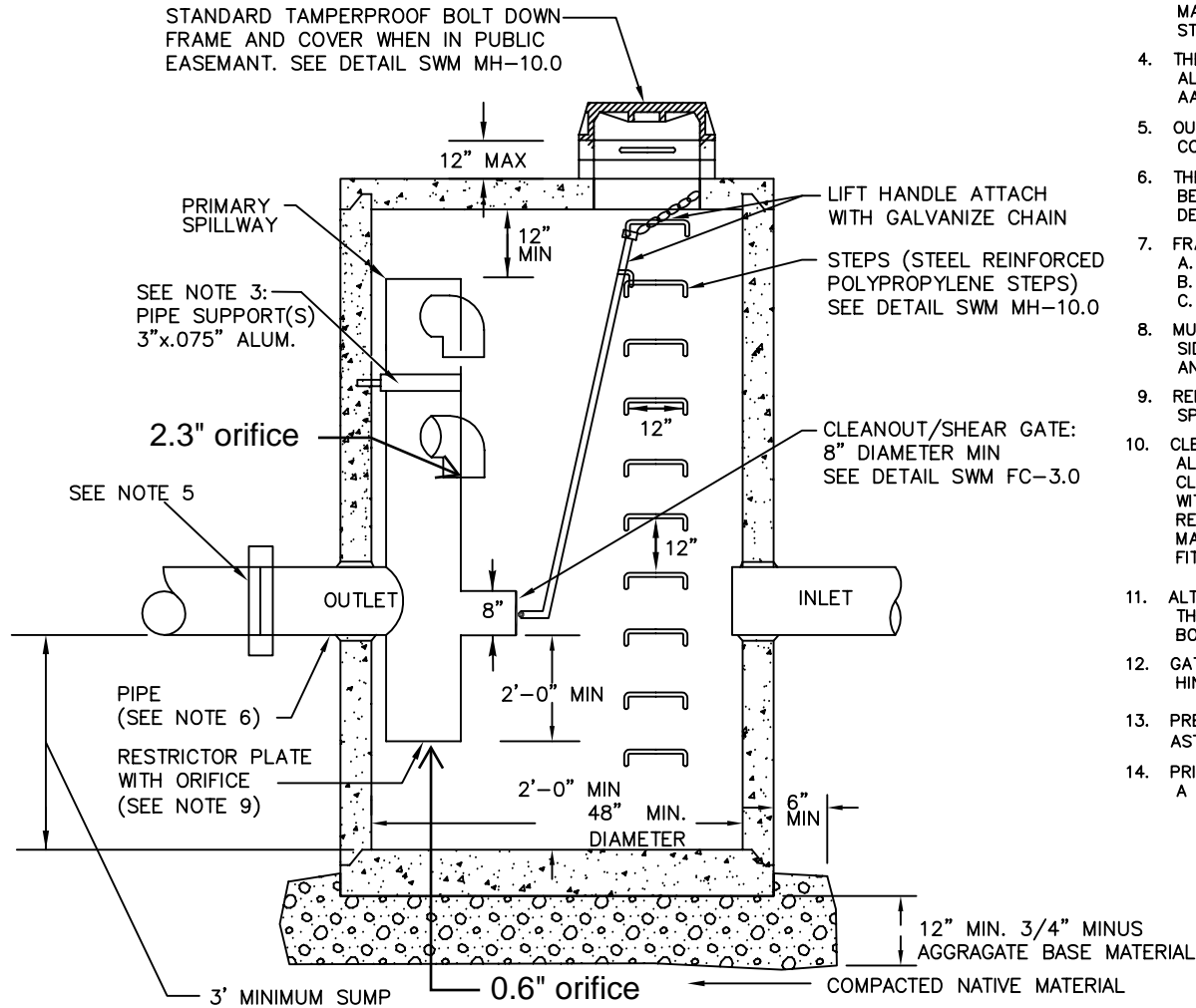
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Government Camp Hotel System  
Government Camp, OR  
DETENTION SYSTEM

PROJECT No.: 14995	SEQ. No.: 22798	DATE: 10/21/2022
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.:		1





## NOTES

- EXCEPT AS SHOWN OR NOTED, UNITS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
- FLAT TOP SHALL BE H-20 LOAD RATED.
- PIPE SUPPORTS AND RESTRICTOR/SEPARATOR SHALL BE OF THE SAME MATERIAL, AND BE ANCHORED AT 3' MAX SPACING BY 5/8" DIA. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED 2" IN WALL.
- THE RESTRICTOR/SEPARATOR SHALL BE FABRICATED FROM .060" (MM) ALUMINUM, IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF AASHTO M 36, M 196, M197, AND M 274.
- OUTLET SHALL BE CONNECTED TO STORM SEWER PIPE WITH A STANDARD COUPLING BAND.
- THE VERTICAL RISER STEM OF THE RESTRICTOR/SEPARATOR SHALL BE THE SAME DIAMETER AS THE HORIZONTAL OUTLET PIPE, SEE DETAIL SWM FC 4.0.
- FRAME AND LADDER OR STEPS ARE TO BE OFFSET SO THAT:
  - CLEANOUT GATE IS VISIBLE FROM TOP.
  - CLIMB-DOWN SPACE IS CLEAR OF RISER AND GATE.
  - FRAME IS CLEAR OF CURB (IF ANY EXISTS).
- MULTI-ORIFICE ELBOWS MAY BE LOCATED AS SHOWN OR ALL ON ONE SIDE OF RISER TO ASSURE LADDER CLEARANCE. SIZE OF ELBOWS AND PLACEMENT TO BE DETERMINED BY THE ENGINEER.
- REMOVABLE ORIFICE AS SPECIFIED IN THE CONTRACT PLANS. SPECIFIED OPENING TO BE CUT ROUND AND SMOOTH.
- CLEANOUT/SHEAR GATE:
  - ALUMINUM ALLOY PER ASTM B-26-ZG-32a OR CAST IRON ASTM A48 CLASS 30B AS REQUIRED. LIFT HANDLE EITHER SOLID OR TUBING WITH ADJUSTABLE HOOK AS REQUIRED. NEOPRENE RUBBER GASKET REQUIRED BETWEEN RISER MOUNTING FLANGE AND GATE FLANGE. MATING SURFACES OF LID AND BODY TO BE MACHINED FOR PROPER FIT. FLANGE MOUNTING BOLTS SHALL BE 3/8" DIA STAINLESS
- ALTERNATE CLEANOUT/SHEAR GATES ARE ACCEPTABLE, PROVIDED THEY MEET THE MATERIAL SPECIFICATIONS ABOVE AND HAVE A SIX BOLT, 10 3/8" BOLT CIRCLE FOR BOLTING THE FLANGE CONNECTION.
- GATE SHALL NOT OPEN BEYOND THE CLEAR OPENING BY LIMITED HINGE MOVEMENT, STOP TAB, OR SOME OTHER DEVICE.
- PRECAST CONCRETE MANHOLE CONSTRUCTED IN ACCORDANCE WITH ASTM C478.
- PRIMARY SPILLWAY AND OUTLEST PIPE SHALL BE SIZED TO CONVEY A 25-YEAR STORM EVENT.

## FLOW CONTROL MANHOLE

SCALE: NTS MINIMUM SIZE -48" STANDARD MANHOLE

# APPENDIX D – CONVEYANCE CALCULATIONS



# Government Camp Hotel

## 25-year Pipe Conveyance

### Sewer Pipes

CIVIL TOOLS PRO

English Units

10-24-2022 11:53:31

### Results

Flow (cfs)	Diameter (in)	Manning's N	Slope (%)	Velocity (fps)
2.19	10.00	0.013	1.00	4.02
3.56	12.00	0.013	1.00	4.54
10.50	18.00	0.013	1.00	5.94

# APPENDIX E – GEOTECHNICAL INVESTIGATION



June 29, 2022

Mt. Hood LLC II  
 The Yoshida Group  
 8440 NE Alderwood Road, Suite A  
 Portland, OR 97220

Attention: Jesus Solis

**Report of Geotechnical Engineering Services**

Government Camp Hotel  
 Government Camp Loop  
 Government Camp, Oregon  
 Project: PDGConst-4-01

NV5 is pleased to submit this report of geotechnical engineering services for the proposed Government Camp Hotel project located on Government Camp Loop in Government Camp, Oregon. Our services for this project were conducted in general accordance with our proposal dated April 15, 2022.

We appreciate the opportunity to be of service to you. Please call if you have questions regarding this report.

Sincerely,

NV5



Brett A. Shipton, P.E., G.E.  
 Principal Engineer

cc: Brian Lessler, PDG Construction Services (via email only)

RTL:BAS:kt

Attachments

Document ID: PDGConst-4-01-062922-geor.docx

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## EXECUTIVE SUMMARY

This report presents the results of our geotechnical engineering evaluation for the proposed Government Camp Hotel project located on Government Camp Loop in Government Camp, Oregon. The project includes construction of a new five-story hotel with an additional basement level for vehicle parking. The upper three stories will be wood-framed construction and the lower levels will be concrete construction. Additional improvements may include retaining walls, AC pavement, and utilities. The site is 1.38 acres and currently undeveloped forest land that slopes down to the south.

Based on our review of available information and the results of our explorations, it is our opinion that the site can be developed as proposed. Our specific recommendations for site development and design are provided in this report. The following items will have an impact on design and construction of the proposed project:

- The existing fill at the ground surface is not suitable for supporting the proposed building. The fill contains significant organic material and will likely experience excessive settlement. Some settlement will occur relatively quickly as the building is constructed and some of the settlement will occur gradually as the organic material in the soil decomposes over time. In our opinion, the two best options for supporting the proposed building are to (1) remove the existing organic undocumented fill and replace it with new structural fill or (2) support the proposed building and floor slabs on a deep foundation system consisting of drilled concrete piles or helical piles.
- We recommend that floor slabs be supported on new structural fill that extends to firm native soil or be supported on a deep foundation system.
- In our opinion, the soil at the site is not suitable for infiltration.
- Design levels of ground shaking at the site should be computed using Site Class D in accordance with ASCE 7-16.
- A significant amount of surface water could flow downhill toward the building and retaining wall from snow melt. Full water proofing should be considered for all basement walls and floor slabs. The waterproofing should extend above the ground surface to a height that is above the snow accumulation level. High-capacity drains should be installed at the base of all basement walls that are capable of handling surface runoff from uphill snow melt and shallow groundwater that may be present during the wet season. An underslab drain system should be installed beneath the floor slab. Interceptor drains could also be installed to collect water before it reaches the building and parking lot. The drains installed for this project should be designed to continue operating in extended freezing temperatures and when there is snow accumulation.
- In our opinion, there are two options for constructing new on-site pavement. The first option is to completely remove the organic fill from beneath new pavement areas and replace it with imported granular structural fill. The second option is to place new structural fill over the organic fill to create a level site and wait until primary consolidation settlement is complete before constructing new AC pavement. We expect it will take approximately two months for primary consolidation to be complete. A budget should be established for periodic maintenance and repairs, if necessary.
- Benching should be used when placing structural fill on a slope.

- A slope stability evaluation of the site should be performed as part of the retaining wall design.
- The existing on-site fill generally contains significant organic material and should not be used as structural fill. The native on-site sand and gravel will generally be suitable for use as structural fill, provided it is properly moisture conditioned and over-sized material is removed.

Government Camp Loop. Elevations at the site range from approximately 3,826 feet at the northeast side of the property to 3,790 feet on the southwest side of the property. The site generally slopes down from north to south.

At the time of our site visits in May 2022, we observed significant water flowing along the ground surface and that appeared to be seeping out of the lower elevation slopes. We estimate that most of this water is runoff from snow melt. We also observed hydrophilic plant species, which indicates that near-surface water is likely present during much of the year.

### **3.3 SUBSURFACE CONDITIONS**

We conducted a subsurface exploration program that consisted of drilling four borings (B-1 through B-4) to depths between 21.5 and 31.5 feet BGS. The exploration locations are shown on Figure 2. Descriptions of the subsurface explorations and laboratory testing program, logs of the explorations, and laboratory test results are presented in Appendix A.

We generally encountered fill at the ground surface that is underlain by pyroclastic deposits consisting of sand and gravel that extend to a depth of at least 31.5 feet BGS, the maximum depth explored.

#### **3.3.1 Fill**

We encountered fill in all four of our borings that ranges in thickness from 3 to 11.5 feet. The fill generally consists of sandy silt, silt with sand, organic silt, and silty sand. The fill contains woody debris, rootlets, and charcoal. The silt is generally very soft to stiff, brown, moist, non-plastic, and contains varying proportions of fine sand. The sand is generally gray to brown, moist, and fine grained. The upper 18 to 36 inches appears to consist of topsoil that contains roots. Woody debris, including a log, is mixed throughout the fill. Laboratory testing indicates the moisture content of this layer ranged from 20 to 86 percent at the time of our explorations. We also used laboratory testing to determine the organic content of samples in this layer and found the organic contents to range from 3.4 to 9.1 percent. Soil such as this generally exhibits low strength and high compressibility.

Since this fill layer is not present on the north (uphill) side of Government Camp Loop, we suspect that it is side cast material from road construction. It appears that the roadway area was cleared of trees and vegetation that were pushed downhill onto the site. The thickness of the fill was generally thinner at higher elevations and thicker at lower elevations. We observed water seeping from the slope at lower elevations, which indicates that some of the surficial snow melt water may be infiltrating through the fill and exiting at lower elevations on the slope.

#### **3.3.2 Sand and Gravel Pyroclastic Deposits**

Beneath the fill we observed pyroclastic deposits of sand and gravel that extend to a depth of at least 31.5 feet BGS, the maximum depth explored. The sand is generally medium dense to very dense, gray to brown, moist to wet, fine to medium grained, and contains varying amounts of fines. The gravel is generally medium dense to very dense, gray to brown, moist to wet, angular, and contains varying amounts of sand and fines. We occasionally encountered cobbles within this layer and anticipate that boulders are also present. We also observed zones of volcanic ash

to be present within this layer. Laboratory testing indicates the moisture content of this layer ranged from 16 to 42 percent at the time of our explorations. Soil such as this generally exhibits high strength and low compressibility.

**3.3.3 Groundwater**

We observed groundwater in borings B-1, B-2, and B-3 at depths between 7 and 10 feet BGS during drilling. In boring B-4, we observed surface water and shallow seepage water entering the borehole and we were unable to distinguish between the surface/seepage water and the in-ground water level. We installed a VWP in boring B-2 and periodically measured the groundwater level, as summarized in Table 1.

**Table 1. VWP Groundwater Readings**

Date	Groundwater Depth (feet BGS)	Groundwater Elevation (feet)
05/12/22	10.8	3,812
05/25/22	10.7	3,812

We note that perched water could be present at shallower depths than the regional groundwater table. The depth to groundwater may fluctuate in response to seasonal changes, prolonged rainfall, changes in surface topography, and other factors not observed in this study. Since the site is located on a slope that is covered with snow for much of the year, the project design should account for significant amounts of surficial water resulting from melting snow.

**3.4 INFILTRATION TESTING**

We did not perform infiltration testing for this project. In our opinion, the soil at the site is not suitable for infiltration. Water should not be infiltrated into the fill soil at the site because of the potential for excessive settlement and unpredictable infiltration rates. In addition, the fill is already saturated with surficial snow melt at some locations during at least part of the year. It is not feasible to infiltrate water into the deeper sand and gravel pyroclastic deposits because of the shallow groundwater level.

**3.5 DCP TESTING**

We conducted DCP testing in general accordance with ASTM D6951 to estimate subgrade resilient modulus in three locations. We recorded penetration depth of the cone for each blow of the hammer and terminated testing when at refusal of penetration or end of rod length. We plotted depth of penetration versus blow count and visually assessed where the slope of the data plot was relatively constant and at depths where the slope of the data plot changed significantly. We used the slope of the data beyond the first change in slope to estimate the resilient modulus of the subgrade. We used least squares regression to determine the slopes and the equation from the ODOT Pavement Design Guide to estimate the moduli using a correction factor  $cf = 0.35$  for estimating the subgrade resilient moduli (ODOT, 2019). A summary of our DCP test results is presented in Appendix B. Table 2 lists our estimates of subgrade resilient modulus at each test location. We note that these DCP tests were conducted

# APPENDIX F – OPERATIONS & MAINTENANCE PLAN





## CatchBasin StormFilter™

*Important: These guidelines should be used as a part of your site stormwater plan.*

### Overview

The CatchBasin StormFilter™ (CBSF) consists of a multi-chamber steel, concrete, or plastic catch basin unit. The steel CBSF is offered both as a standard and as a deep unit for additional internal overflow and sediment capacity.

The CBSF is installed flush with the finished grade and is applicable for both constrained lot and retrofit applications. Steel and concrete units can accept surface and piped influent for roof leaders or similar applications.

The steel, concrete and plastic CBSF units have capacities of 4, 8 and 2 cartridges, respectively. Internal overflow capacity varies by system type from 0.5 cfs for the plastic, 1.3 cfs for the concrete and 1.0 or 1.8 cfs for the steel unit.

### Design Operation

The CBSF is installed as the primary receiver of runoff, similar to a standard, grated catch basin. The steel and concrete CBSF units have an H-20 rated, traffic bearing lid that allows the filter to be installed in parking lots, and for all practical purposes, takes up no land area. Plastic units can be used in landscaped areas or other non-traffic-bearing applications.

The steel CBSF consists of a sumped inlet chamber and cartridge chamber(s). Runoff enters the sumped inlet chamber either by sheet flow from a paved surface or from an inlet pipe discharging directly to the unit vault. The inlet chamber is equipped with an internal baffle, which traps debris and floating oil and grease, and an overflow weir. While in the inlet chamber, heavier solids are allowed to settle into the deep sump, while lighter solids and soluble pollutants are directed into the cartridge chamber through a port between the baffle and the overflow weir.

The concrete and plastic units operate similarly minus the presence of the inlet chamber or deep sump.

Once in the cartridge chamber, polluted water ponds and percolates horizontally through the media in the filter cartridges. Treated water collects in the cartridge's center tube from where it is directed to the outlet chamber and discharged to the outlet pipe on the downstream side of the overflow weir.

When influent flows exceed the water quality design value, excess water spills over the overflow weir, bypassing the cartridge bay, and discharges to the outlet pipe.

### Applications

The CBSF is particularly useful where small flows are being treated or for sites that have little available hydraulic head. The unit is ideal for applications in which standard catch basins are to be used. Both water quality and catchment issues can be resolved with the use of the CBSF.

### Retro-Fit

The retrofit market has many possible applications for the CBSF. The CBSF can be installed by replacing an existing catch basin without having to "chase the grade," thus reducing the high cost of re-piping the storm system.

## CatchBasin StormFilter™

### Maintenance Guidelines

Maintenance procedures for typical catch basins can be applied to the CatchBasin StormFilter (CBSF). The filter cartridges contained in the CBSF are easily removed and replaced during maintenance activities according to the following guidelines.

1. Establish a safe working area as per typical catch basin service activity.
2. Remove steel grate and diamond plate cover (weight 100 lbs. each) or plastic grating.
3. Turn cartridge(s) approximately ¼ turn counter-clockwise to disconnect from pipe manifold.
4. Remove cartridge(s) from catch basin by hand or with appropriate hoisting equipment.
5. Remove accumulated sediment via vactor truck from all interior chambers.
6. Rinse interior of both bays and vactor remaining water and sediment.
7. Install fresh cartridge(s), by rotating ¼ turn clockwise, taking care not to damage cartridge connectors.
8. Replace cover(s).
9. Dispose of accumulated debris and spent media in accordance with local regulations.
10. Return used, empty cartridges to Contech for refurbishing.

Media may be removed from the filter cartridges using the vactor truck before the cartridges are removed from the catch basin structure once the top cap and hood are removed. The vactor truck must be equipped with a hose capable of reaching areas of restricted clearance.

Empty cartridges can be easily removed from the catch basin structure by hand. Empty cartridges should be reassembled and returned to Contech as appropriate.

Refurbished cartridges are available from Contech on an exchange basis. Contact the maintenance department of Contech at 513-645-7770 for more information.

Onsite maintenance is estimated at 26 minutes once setup for a single cartridge unit. Add approximately 5 minutes for each additional cartridge.

### Mosquito Abatement

In certain areas of the United States, mosquito abatement is desirable to reduce the incidence of vectors.

In BMPs with standing water, which could provide mosquito breeding habitat, certain abatement measures can be taken.

1. Periodic observation of the standing water to determine if the facility is harboring mosquito larvae.
2. Regular catch basin maintenance.
3. Use of larvicides containing *Bacillus thuringiensis israelensis* (BTI). BTI is a bacterium toxic to mosquito and black fly larvae.

In some cases, the presence of petroleum hydrocarbons may interrupt the mosquito growth cycle.

### Using Larvicides in the CatchBasin StormFilter

Larvicides should be used according to manufacturer's recommendations.

Two widely available products are Mosquito Dunks and Summit B.t.i. Briquets. For more information, visit <https://www.amvac.com/products/summit-bti-briquets>.

The larvicide must be in contact with the permanent pool. The larvicide should also be fastened to the CatchBasin StormFilter to prevent displacement by high flows. A magnet can be used with a steel catch basin.

For more information on mosquito abatement in stormwater BMPs, refer to the following: <https://anrcatalog.ucanr.edu/pdf/8125.pdf>.

## StormFilter Inspection and Maintenance Procedures





## Maintenance Guidelines

The primary purpose of the Stormwater Management StormFilter® is to filter and prevent pollutants from entering our waterways. Like any effective filtration system, periodically these pollutants must be removed to restore the StormFilter to its full efficiency and effectiveness.

Maintenance requirements and frequency are dependent on the pollutant load characteristics of each site. Maintenance activities may be required in the event of a chemical spill or due to excessive sediment loading from site erosion or extreme storms. It is a good practice to inspect the system after major storm events.

## Maintenance Procedures

Although there are many effective maintenance options, we believe the following procedure to be efficient, using common equipment and existing maintenance protocols. The following two-step procedure is recommended::

### 1. Inspection

- Inspection of the vault interior to determine the need for maintenance.

### 2. Maintenance

- Cartridge replacement
- Sediment removal

## Inspection and Maintenance Timing

At least one scheduled inspection should take place per year with maintenance following as warranted.

First, an inspection should be done before the winter season. During the inspection the need for maintenance should be determined and, if disposal during maintenance will be required, samples of the accumulated sediments and media should be obtained.

Second, if warranted, a maintenance (replacement of the filter cartridges and removal of accumulated sediments) should be performed during periods of dry weather.

In addition to these two activities, it is important to check the condition of the StormFilter unit after major storms for potential damage caused by high flows and for high sediment accumulation that may be caused by localized erosion in the drainage area. It may be necessary to adjust the inspection/maintenance schedule depending on the actual operating conditions encountered by the system. In general, inspection activities can be conducted at any time, and maintenance should occur, if warranted, during dryer months in late summer to early fall.

## Maintenance Frequency

The primary factor for determining frequency of maintenance for the StormFilter is sediment loading.

A properly functioning system will remove solids from water by trapping particulates in the porous structure of the filter media inside the cartridges. The flow through the system will naturally decrease as more and more particulates are trapped. Eventually the flow through the cartridges will be low enough to require replacement. It may be possible to extend the usable span of the cartridges by removing sediment from upstream trapping devices on a routine as-needed basis, in order to prevent material from being re-suspended and discharged to the StormFilter treatment system.

The average maintenance lifecycle is approximately 1-5 years. Site conditions greatly influence maintenance requirements. StormFilter units located in areas with erosion or active construction may need to be inspected and maintained more often than those with fully stabilized surface conditions.

Regulatory requirements or a chemical spill can shift maintenance timing as well. The maintenance frequency may be adjusted as additional monitoring information becomes available during the inspection program. Areas that develop known problems should be inspected more frequently than areas that demonstrate no problems, particularly after major storms. Ultimately, inspection and maintenance activities should be scheduled based on the historic records and characteristics of an individual StormFilter system or site. It is recommended that the site owner develop a database to properly manage StormFilter inspection and maintenance programs..





## Inspection Procedures

The primary goal of an inspection is to assess the condition of the cartridges relative to the level of visual sediment loading as it relates to decreased treatment capacity. It may be desirable to conduct this inspection during a storm to observe the relative flow through the filter cartridges. If the submerged cartridges are severely plugged, then typically large amounts of sediments will be present and very little flow will be discharged from the drainage pipes. If this is the case, then maintenance is warranted and the cartridges need to be replaced.

**Warning:** In the case of a spill, the worker should abort inspection activities until the proper guidance is obtained. Notify the local hazard control agency and Contech Engineered Solutions immediately.

To conduct an inspection:

**Important:** Inspection should be performed by a person who is familiar with the operation and configuration of the StormFilter treatment unit and the unit's role, relative to detention or retention facilities onsite.

1. If applicable, set up safety equipment to protect and notify surrounding vehicle and pedestrian traffic.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the access portals to the vault and allow the system vent.
4. Without entering the vault, visually inspect the inside of the unit, and note accumulations of liquids and solids.
5. Be sure to record the level of sediment build-up on the floor of the vault, in the forebay, and on top of the cartridges. If flow is occurring, note the flow of water per drainage pipe. Record all observations. Digital pictures are valuable for historical documentation.
6. Close and fasten the access portals.
7. Remove safety equipment.
8. If appropriate, make notes about the local drainage area relative to ongoing construction, erosion problems, or high loading of other materials to the system.
9. Discuss conditions that suggest maintenance and make decision as to whether or not maintenance is needed.

## Maintenance Decision Tree

The need for maintenance is typically based on results of the inspection. The following Maintenance Decision Tree should be used as a general guide. (Other factors, such as Regulatory Requirements, may need to be considered).

Please note Stormwater Management StormFilter devices installed downstream of, or integrated within, a stormwater storage facility typically have different operational parameters (i.e. draindown time). In these cases, the inspector must understand the relationship between the retention/detention facility and the treatment system by evaluating site specific civil engineering plans, or contacting the engineer of record, and make adjustments to the below guidance as necessary. Sediment deposition depths and patterns within the StormFilter are likely to be quite different compared to systems without upstream storage and therefore shouldn't be used exclusively to evaluate a need for maintenance.

1. Sediment loading on the vault floor.
  - a. If  $>4$ " of accumulated sediment, maintenance is required.
2. Sediment loading on top of the cartridge.
  - a. If  $>1/4$ " of accumulation, maintenance is required.
3. Submerged cartridges.
  - a. If  $>4$ " of static water above cartridge bottom for more than 24 hours after end of rain event, maintenance is required. (Catch basins have standing water in the cartridge bay.)
4. Plugged media.
  - a. While not required in all cases, inspection of the media within the cartridge may provide valuable additional information.
  - b. If pore space between media granules is absent, maintenance is required.
5. Bypass condition.
  - a. If inspection is conducted during an average rain fall event and StormFilter remains in bypass condition (water over the internal outlet baffle wall or submerged cartridges), maintenance is required.
6. Hazardous material release.
  - a. If hazardous material release (automotive fluids or other) is reported, maintenance is required.
7. Pronounced scum line.
  - a. If pronounced scum line (say  $\geq 1/4$ " thick) is present above top cap, maintenance is required.



## Maintenance

Depending on the configuration of the particular system, maintenance personnel will be required to enter the vault to perform the maintenance.

**Important:** If vault entry is required, OSHA rules for confined space entry must be followed.

Filter cartridge replacement should occur during dry weather. It may be necessary to plug the filter inlet pipe if base flows is occurring.

Replacement cartridges can be delivered to the site or customers facility. Information concerning how to obtain the replacement cartridges is available from Contech Engineered Solutions.

**Warning:** In the case of a spill, the maintenance personnel should abort maintenance activities until the proper guidance is obtained. Notify the local hazard control agency and Contech Engineered Solutions immediately.

To conduct cartridge replacement and sediment removal maintenance:

1. If applicable, set up safety equipment to protect maintenance personnel and pedestrians from site hazards.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the doors (access portals) to the vault and allow the system to vent.
4. Without entering the vault, give the inside of the unit, including components, a general condition inspection.
5. Make notes about the external and internal condition of the vault. Give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
6. Using appropriate equipment offload the replacement cartridges (up to 150 lbs. each) and set aside.
7. Remove used cartridges from the vault using one of the following methods:

### Method 1:

- A. This activity will require that maintenance personnel enter the vault to remove the cartridges from the under drain manifold and place them under the vault opening for lifting (removal). Disconnect each filter cartridge from the underdrain connector by rotating counterclockwise 1/4 of a turn. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.

Using appropriate hoisting equipment, attach a cable from the boom, crane, or tripod to the loose cartridge. Contact Contech Engineered Solutions for suggested attachment devices.

- B. Remove the used cartridges (up to 250 lbs. each) from the vault.



**Important:** Care must be used to avoid damaging the cartridges during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner.

- C. Set the used cartridge aside or load onto the hauling truck.
- D. Continue steps a through c until all cartridges have been removed.

### Method 2:

- A. This activity will require that maintenance personnel enter the vault to remove the cartridges from the under drain manifold and place them under the vault opening for lifting (removal). Disconnect each filter cartridge from the underdrain connector by rotating counterclockwise 1/4 of a turn. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.
- B. Unscrew the cartridge cap.
- C. Remove the cartridge hood and float.
- D. At location under structure access, tip the cartridge on its side.
- E. Empty the cartridge onto the vault floor. Reassemble the empty cartridge.
- F. Set the empty, used cartridge aside or load onto the hauling truck.
- G. Continue steps a through e until all cartridges have been removed.

8. Remove accumulated sediment from the floor of the vault and from the forebay. This can most effectively be accomplished by use of a vacuum truck.
9. Once the sediments are removed, assess the condition of the vault and the condition of the connectors.
10. Using the vacuum truck boom, crane, or tripod, lower and install the new cartridges. Once again, take care not to damage connections.
11. Close and fasten the door.
12. Remove safety equipment.
13. Finally, dispose of the accumulated materials in accordance with applicable regulations. Make arrangements to return the used **empty** cartridges to Contech Engineered Solutions.

## Related Maintenance Activities - Performed on an as-needed basis

StormFilter units are often just one of many structures in a more comprehensive stormwater drainage and treatment system.

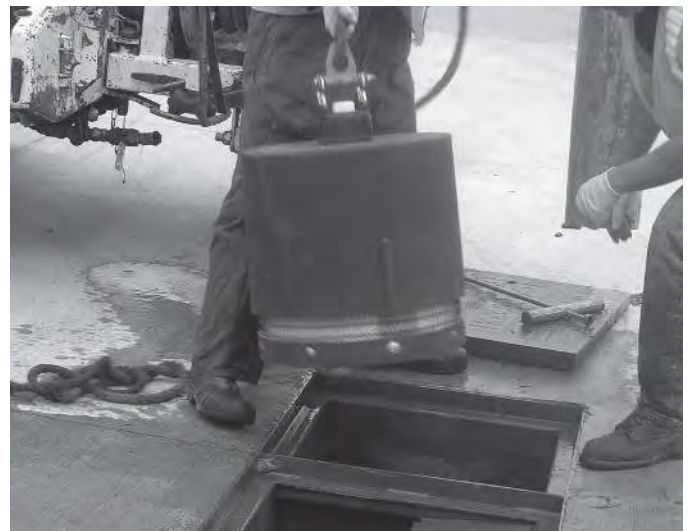
In order for maintenance of the StormFilter to be successful, it is imperative that all other components be properly maintained. The maintenance/repair of upstream facilities should be carried out prior to StormFilter maintenance activities.

In addition to considering upstream facilities, it is also important to correct any problems identified in the drainage area. Drainage area concerns may include: erosion problems, heavy oil loading, and discharges of inappropriate materials.

## Material Disposal

The accumulated sediment found in stormwater treatment and conveyance systems must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals (such as pesticides and petroleum products). Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads.

Sediments and water must be disposed of in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. This typically requires coordination with a local landfill for solid waste disposal. For liquid waste disposal a number of options are available including a municipal vacuum truck decant facility, local waste water treatment plant or on-site treatment and discharge.



# Inspection Report

Date: \_\_\_\_\_ Personnel: \_\_\_\_\_

Location: \_\_\_\_\_ System Size: \_\_\_\_\_ Months in Service: \_\_\_\_\_

System Type: Vault  Cast-In-Place  Linear Catch Basin  Manhole  Other: \_\_\_\_\_

Sediment Thickness in Forebay: \_\_\_\_\_ Date: \_\_\_\_\_

Sediment Depth on Vault Floor: \_\_\_\_\_

Sediment Depth on Cartridge Top(s): \_\_\_\_\_

Structural Damage: \_\_\_\_\_

Estimated Flow from Drainage Pipes (if available): \_\_\_\_\_

Cartridges Submerged: Yes  No  Depth of Standing Water: \_\_\_\_\_

StormFilter Maintenance Activities (check off if done and give description)

Trash and Debris Removal: \_\_\_\_\_

Minor Structural Repairs: \_\_\_\_\_

Drainage Area Report \_\_\_\_\_

Excessive Oil Loading: Yes  No  Source: \_\_\_\_\_

Sediment Accumulation on Pavement: Yes  No  Source: \_\_\_\_\_

Erosion of Landscaped Areas: Yes  No  Source: \_\_\_\_\_

Items Needing Further Work: \_\_\_\_\_

Owners should contact the local public works department and inquire about how the department disposes of their street waste residuals.

Other Comments:

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Review the condition reports from the previous inspection visits.

# StormFilter Maintenance Report

Date: \_\_\_\_\_ Personnel: \_\_\_\_\_

Location: \_\_\_\_\_ System Size: \_\_\_\_\_

System Type: Vault  Cast-In-Place  Linear Catch Basin  Manhole  Other: \_\_\_\_\_

List Safety Procedures and Equipment Used: \_\_\_\_\_

## System Observations

Months in Service: \_\_\_\_\_

Oil in Forebay (if present): Yes  No

Sediment Depth in Forebay (if present): \_\_\_\_\_

Sediment Depth on Vault Floor: \_\_\_\_\_

Sediment Depth on Cartridge Top(s): \_\_\_\_\_

Structural Damage: \_\_\_\_\_

## Drainage Area Report

Excessive Oil Loading: Yes  No  Source: \_\_\_\_\_

Sediment Accumulation on Pavement: Yes  No  Source: \_\_\_\_\_

Erosion of Landscaped Areas: Yes  No  Source: \_\_\_\_\_

## StormFilter Cartridge Replacement Maintenance Activities

Remove Trash and Debris: Yes  No  Details: \_\_\_\_\_

Replace Cartridges: Yes  No  Details: \_\_\_\_\_

Sediment Removed: Yes  No  Details: \_\_\_\_\_

Quantity of Sediment Removed (estimate?): \_\_\_\_\_

Minor Structural Repairs: Yes  No  Details: \_\_\_\_\_

Residuals (debris, sediment) Disposal Methods: \_\_\_\_\_

Notes:

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# APPENDIX G – FORMS





# SLOPES for Stormwater, Transportation and Utilities

(NMFS# NWR-2013-10411)

## Stormwater Information Form

If you are submitting a project that includes a stormwater plan for review under SLOPES for Stormwater, Transportation and Utilities please fill out the following cover sheet **to be included with** stormwater management plan, and any other supporting materials.

Also include a drawing of the stormwater treatment area including drainage areas, direction of flow, BMP locations and types, contributing areas, other drainage features, receiving water/location, etc.

Project Information					
Corps of Engineers permit #					
Name of Project:	Government Camp Hotel				
Type of project (i.e., residential, commercial, industrial, or combination)	Commercial				
Nearest receiving water occupied by ESA-listed species or designated critical habitat	Camp Creek				
Lat/Long (DDD.dddd) of Project Location:	45.304611, -121.760442				
Have you contacted anyone at NMFS regarding this project?	No				
Applicant/Consultant name:					
Applicant/Consultant email:					
Stormwater Designer and/or Engineer Contact Information					
Name:	Sheila Sayer, PE				
Phone:	503-221-1131				
Email:	sheilas@hhpr.com				
Summary of Design Elements					
1.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">24-hour design storm: 3.02 Inches</td> <td style="width: 55%;">50%* of 2-yr, 24-hr storm fully treated: Yes <input checked="" type="radio"/> No <input type="radio"/></td> </tr> <tr> <td></td> <td style="font-size: small;">If no, project may not meet the SLOPES programmatic criteria *May be greater than 50% - see PDC 36.e. for geographically based percentage</td> </tr> </table>	24-hour design storm: 3.02 Inches	50%* of 2-yr, 24-hr storm fully treated: Yes <input checked="" type="radio"/> No <input type="radio"/>		If no, project may not meet the SLOPES programmatic criteria *May be greater than 50% - see PDC 36.e. for geographically based percentage
24-hour design storm: 3.02 Inches	50%* of 2-yr, 24-hr storm fully treated: Yes <input checked="" type="radio"/> No <input type="radio"/>				
	If no, project may not meet the SLOPES programmatic criteria *May be greater than 50% - see PDC 36.e. for geographically based percentage				
2.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">2 year, 24 hour storm from NOAA Precipitation Atlas: <a href="http://www.nws.noaa.gov/ohd/hdsc/noaaatlas2.htm">http://www.nws.noaa.gov/ohd/hdsc/noaaatlas2.htm</a></td> <td style="width: 15%; text-align: center;">4.5</td> <td style="width: 15%; text-align: center;">Inches</td> </tr> </table>	2 year, 24 hour storm from NOAA Precipitation Atlas: <a href="http://www.nws.noaa.gov/ohd/hdsc/noaaatlas2.htm">http://www.nws.noaa.gov/ohd/hdsc/noaaatlas2.htm</a>	4.5	Inches	
2 year, 24 hour storm from NOAA Precipitation Atlas: <a href="http://www.nws.noaa.gov/ohd/hdsc/noaaatlas2.htm">http://www.nws.noaa.gov/ohd/hdsc/noaaatlas2.htm</a>	4.5	Inches			
3.	<b>Total</b> contributing impervious area including all contiguous surface (e.g. roads, driveways, parking lots, sidewalks, roofs, and similar surfaces) <span style="float: right;">0.849 Acres</span>				
	Proposed new <span style="float: right;">0.665 Acres</span>				
	Existing <span style="float: right;">0.184 Acres</span>				
	Acres of total impervious area 0.849 x 3.02 design storm = 9,307 ft <sup>3</sup> to be treated				
4.	Peak discharge of design storm: <span style="float: right;">0.615 cfs</span>				
5.	Total stormwater to be treated: <span style="float: right;">8,900 ft<sup>3</sup> 0.615 cfs</span>				
6.	<p>Stormwater Design Manual Used and Year/Version: (example: City of Portland, Clean Water Services, King County, Western Washington)</p> <p>Clackamas County Water Environmental Services (WES) CCSD#1 Stormwater Standards, National Marine Fisheries Service 2014</p> <p>Describe which elements of your stormwater plan came from this manual: WES- water quantity, facility design NMFS - water quality and quantity</p>				

7.	<p>Have you treated all stormwater to the design storm within the contributing impervious area?          Yes <input checked="" type="radio"/> No <input type="radio"/>          If no, why not and how will you offset the effects from remaining stormwater?</p>	
Water Quality		
8.	<p>Low Impact Development methods incorporated?    Yes <input type="radio"/> No <input checked="" type="radio"/>          (e.g. site layout, vegetation and soil protection, reforestation, integrated management practices such as amended soils, bioretention, permeable pavement, rainwater collection, tree retention)          Please describe:          Stormwater runoff will be treated with approved proprietary stormwater treatment technologies with designation of General Use and Phosphorous treatment. The proposed treatment devices are approved by the Washington Department of Ecology and allowed by the District per CCSD#1 Stormwater Standards, Appendix F.           How much of total stormwater is treated using LID: 0%</p>	
9.	<p>Treatment train, including pretreatment and bioretention methods used to treat water quality:          Public frontage will collect new and contiguous impervious surface with a treatment catch basin before discharging into creek tributary. Onsite improvements will collect runoff via sumped catch basins and route to a proprietary vault before entering underground detention pipe. <span style="float: right;">+</span>          Why this treatment train was chosen for the project site:          This treatment train was chosen based on site constraints, BMP capacity and effectiveness.            Page in stormwater plan where more details can be found: Appendix A, Figure 4</p>	
Water Quantity		
10.	<p>Does the project discharge directly into a major water body (see PDC 36.c.iii)?    Yes <input checked="" type="radio"/> No <input type="radio"/></p>	
11.	<p>Pre-development runoff rate          (i.e., before human-induced changes to the unimproved property)          2-yr, 24-hour storm: 0.380          10-yr storm:            0.631</p>	<p>Post-development runoff rate          (i.e., after proposed developments)          2-yr, 24-hour storm: 0.184          10-yr storm:            0.397</p>
<b>Post-development runoff rate must be less than or equal to pre-development runoff rate</b>		
12.	<p>Methods used to treat water quantity:          Underground detention pipe            Page in stormwater plan where more details can be found: 110-113</p>	

Maintenance and Inspection Plan

13. Have you included a stormwater maintenance plan with a description of the onsite stormwater system, inspection schedule and process, maintenance activities, legal and financial responsibility, and inspection and maintenance logs? Yes  No\*   
\*Projects cannot be submitted for review under SLOPES without a maintenance and inspection plan.

Page in stormwater plan where plan can be found: Appendix F

14. Contact information for the party/parties that will be legally responsible for performing the inspections and maintenance or the stormwater facilities:

Name: Jesus Solis  
Phone number: 503-730-1275  
Email: yoshidadesk@yoshida.com

Name: \_\_\_\_\_  
Phone number: \_\_\_\_\_  
Email: \_\_\_\_\_

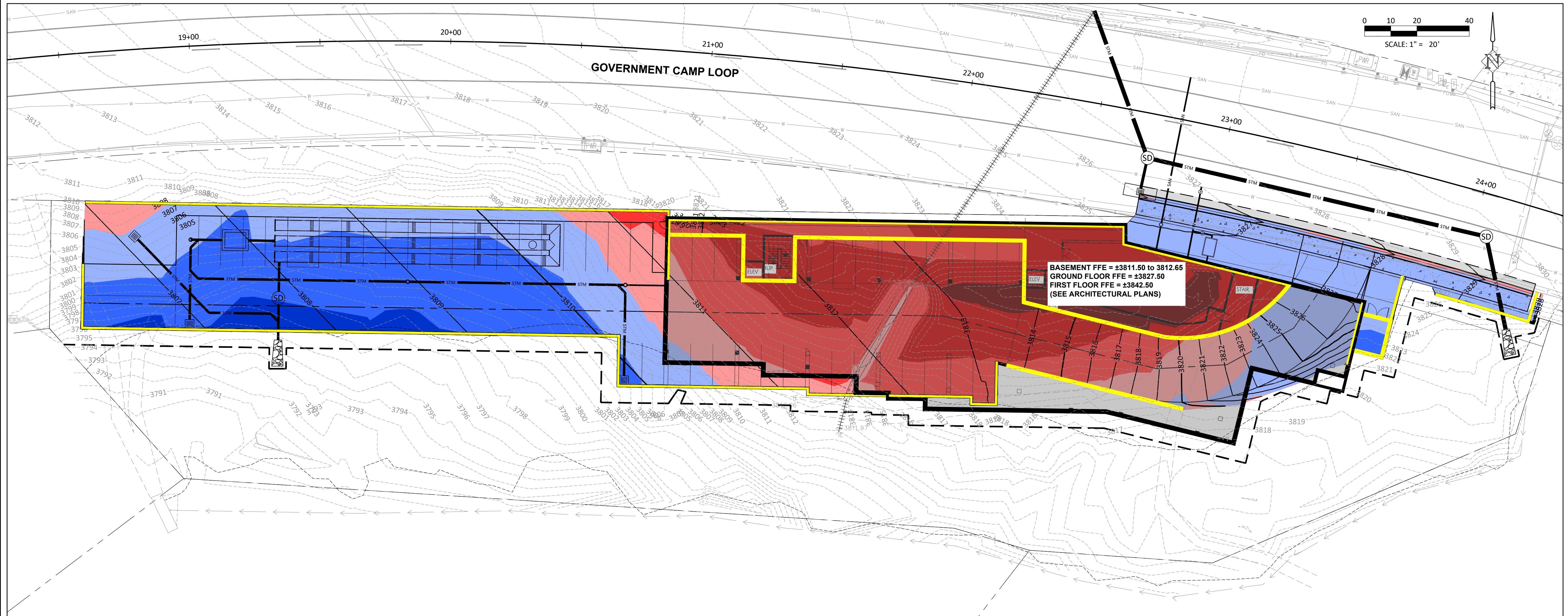
Name: \_\_\_\_\_  
Phone number: \_\_\_\_\_  
Email: \_\_\_\_\_

Page in stormwater plan where more details can be found: Appendix F

Exhibit M – Earthwork Exhibit



ELEVATIONS TABLE				
NUMBER	MINIMUM ELEVATION	MAXIMUM ELEVATION	AREA	COLOR
1	-20.00	-15.00	275.40	■
2	-15.00	-10.00	4354.65	■
3	-10.00	-5.00	4040.37	■
4	-5.00	0.00	5723.46	■
5	0.00	5.00	19001.14	■
6	5.00	10.00	6351.76	■
7	10.00	15.00	4160.94	■
8	15.00	20.00	152.42	■



**PLAN VIEW**  
SCALE: 1" = 20'

**PRELIMINARY**

PRELIMINARY GRADING AND EARTHWORK  
**MT HOOD LODGES DEVELOPMENT**  
GOVERNMENT CAMP, OREGON

**Harper Houf Peterson**  
**Righellis Inc.**  
ENGINEERS & PLANNERS  
LANDSCAPE ARCHITECTS & SURVEYORS  
206 SE Spokane Street, Suite 200, Portland, OR 97202  
phone: 503.221.1131 www.hhpr.com fax: 503.221.1171

DESIGNED:	DATE:	1-11-23
DRAWN:	CHECKED:	
R E V I S I O N S		
DATE	NO.	DESCRIPTION

SHEET NO.  
**EX-1**  
JOB NO.  
MHD-01

P:\01-Portland\MHD (Mt Hood Development)\MHD-01 (Mt Hood Lodges Development)\MHD-01-DWG\SE\Exhibits\Earthwork Exhibit\MHD01-Earthwork Exhibit.dwg