

*Garage Village LLC
Stormwater Plan*

Prepared for:

*Garage Village
463 Telemark
Sandpoint, Idaho 83864*

Prepared by:

*Site Specific Design
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site specific design

SP22-091
RECEIVED

JUL 19, 2022

**PLANNING OFFICE
CITY OF PONDERAY**

**GARAGE VILLAGE LLC:
STORMWATER & EROSION CONTROL PLAN**

PROJECT:

This project is for new construction of storage units in the Ponderay area. The site is located along McNearny Road. Specifically: a portion of section 2, T57N, R2W, BM, Bonner County, Idaho. The parcel is owned by Garage Village LLC.

See attached vicinity map.

Site:

The site is flat with a difference of less than 2' in elevation change. Topographical survey data shows a slight drainage ditch that may slope to the south along the west side of the property. The parcel considered for construction is approximately 5.5 acres in size. The watershed considered for calculations is 10 acres, however the surrounding area is also very flat and there is no definitive crossland flow. The site is covered with grasses.

The new impervious area is to cover approximately 4 acres with a total disturbed area of 5 acres.

The soils are in map unit # 34, Odenson silt loam, 0 to 2%. The permeability of the Odenson soils is slow. Water capacity is high, runoff is very slow, and the hazard of water erosion is none to slight.

EROSION CONTROL PLAN: *Garage Village LLC; Sandpoint, Idaho 83864; or current owner is responsible for implementation of all erosion control and monitoring.*

Because the chance of water erosion is none to slight, a silt fence and hay bale BMP will be needed at the four corners of the project in main drainage channels as shown on plan. For low impact development all existing vegetation outside of construction site will be undisturbed.

Swales (discussed in Stormwater Section) will be incorporated into excavation process in order to help contain sediment runoff.

No spoils, waste or construction related materials are to be stored or located below the silt fence. All excavated material and construction waste is to be hauled away or used in construction.

After final grades are met all exposed areas are to be seeded with an approved

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seed mix or native plants. Any drainage areas not to be vegetated shall be armored with 4" minus crushed rock. Any utility lines will be compacted and crowned above existing elevation and seeded and mulched to prevent erosion and rilling.

These BMP's need to be monitored for duration of construction and until time of permanent stormwater and erosion control measures are in place.

STORMWATER PLAN: *Garage Village LLC; Sandpoint, Idaho 83864 or current owner is responsible for implementation of all stormwater requirements and monitoring.*

STORMWATER CALCULATIONS:

Standard Ponding Calculations for first 1/2" :

$$\frac{174,240}{6} = 29040 \text{ sq. ft. @ } 3'' = 7,260 \text{ cu. ft.}$$

A 25 year storm event is used.

Pre-development:

$$C = .35 \text{ avg.}$$

$$I = .11$$

$$A = 10.0$$

$$Q = .385$$

Pre-development runoff from 25 year, 24 hour storm is 33,264 cubic feet.

From: .385 cfs (Q) x 3600 sec/hr x 24 hrs

Post-development:

$$C = .57 \quad \text{avg. from: } \frac{(4 \text{ acres} \times .9) + (6 \text{ acres} \times .35)}{10.0 \text{ acre}} = .57$$

$$I = .11$$

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$$A = 10.0$$

$$Q = .627$$

Post-development runoff from 25 year, 24 hour storm is 54,173 cubic feet.

From: .627 cfs (Q) x 3600 sec/hr x 24 hrs

$$\text{Post-development} - \text{Pre-development} = \underline{7,508} \text{ cubic feet.}$$

Infiltration:

Square feet of proposed infiltration area in proposed swale: 15,456 sq. ft.

Infiltration rate: 0.6" per hour.

$$15,456 \text{ sq. ft.} \times 0.6 \text{ in/hr} \times 24 \text{ hr} \times 1 \text{ ft/} 12 \text{ in} = \underline{18,547} \text{ cubic feet per day.}$$

$$18,547 - 7,508 = \underline{11,039} \text{ cubic feet, shows ample storage and treatment.}$$

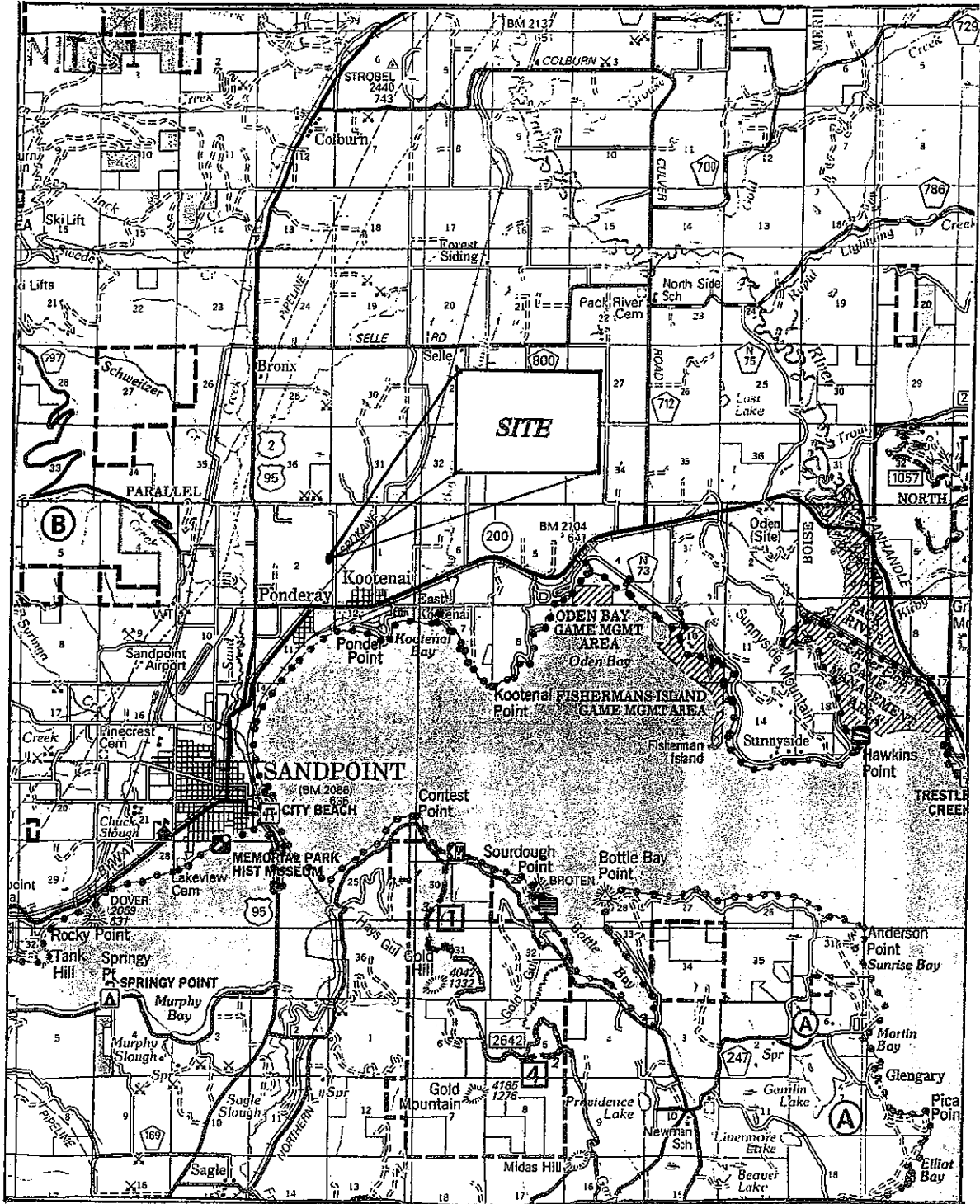
Determination: Because a 7,260 cu. ft. volume of water from the first half inch of runoff needs to be treated, swales can be used and runoff will be directed into these.

Water from new impervious areas will be directed through grading and drainage, and pipe to swales for storage and treatment. Swales can be seeded with grasses or planted with native type plants.

See site plan:

Maintenance: Sediments from runoff will be removed from swales when there is an accumulation of 2" or more. Plants in swale will be protected or replanted if damaged or diseased and encouraged to grow.

Schedule: Erosion control BMP's to be installed at start of construction with silt fence put in place first. All grading should be completed immediately after backfilling and seeded. Silt fence can be removed when vegetation is established.



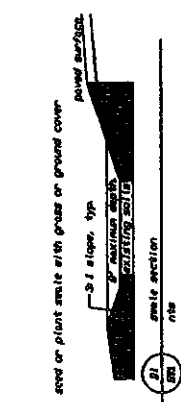
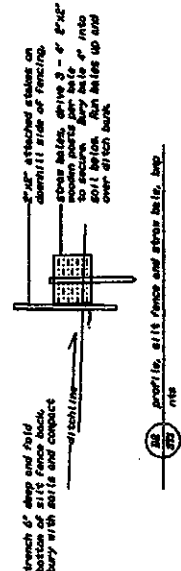
vicinity map



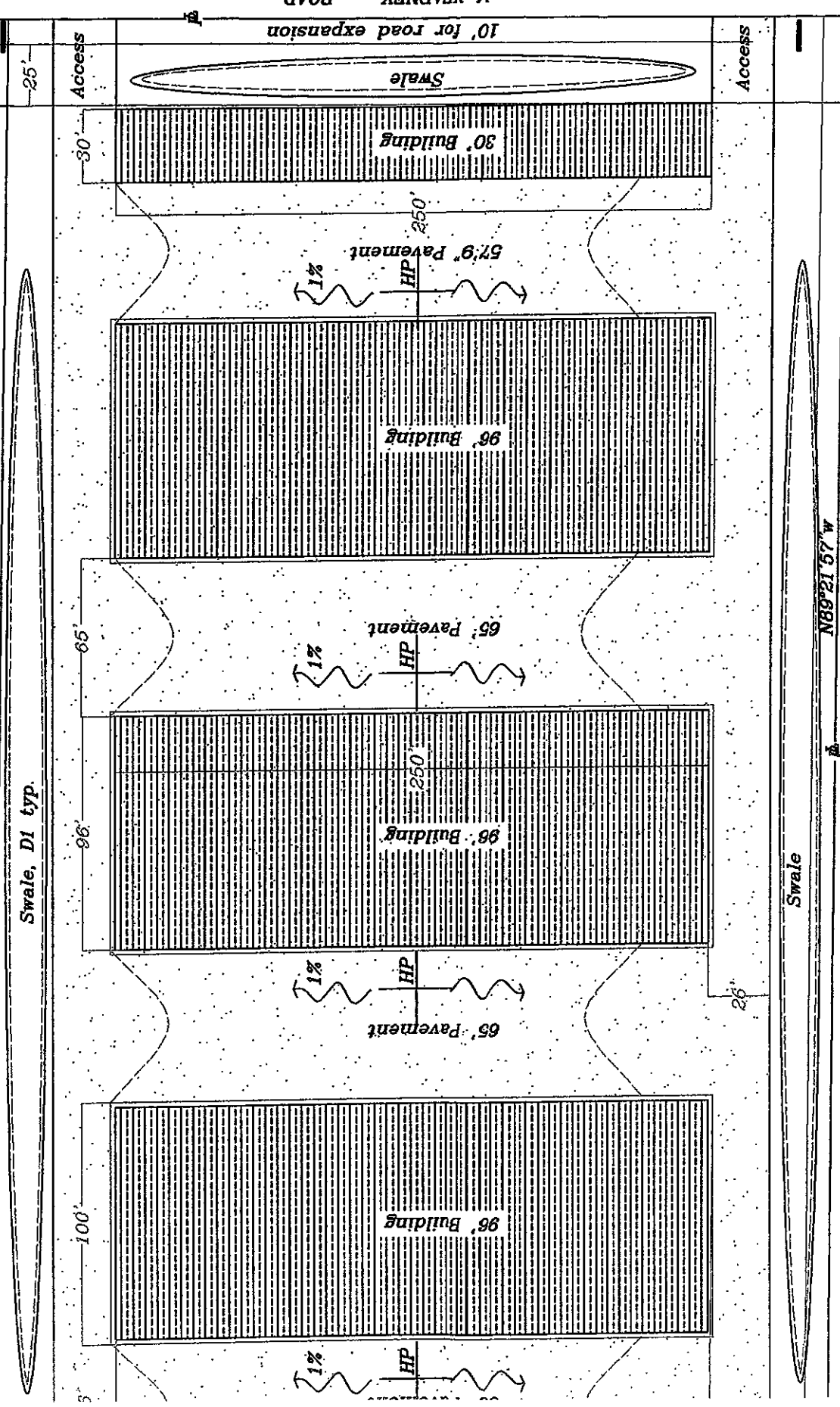
site specific design — landscape architecture

- 1. impervious area of 174,240 sq', a 7,260 cu' of detention is needed.
- 2. need 15,333 sq' of swale space.
- 3. shown on plan, 15,456 sq'.
- 4. access to be installed per 10' road expansion requirements.

LEGEND:
New contours



1. arbitrary line set at 352' offset from southern property line
Swale, DI typ.



Storm water

From: Tim Rickard (trickard53@hotmail.com)

To: dfhutton9180@yahoo.com

Date: Friday, June 24, 2022 at 09:55 AM PDT

To Whom it may concern,

Do has my permission to use the storm water plan that I had when I was going to build the building to make rollercoaster track.

Tim Rickard

208-659-9525

Sent from [Mail](#) for Windows

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