



# Planning Permit Application

CITY OF BANDON PLANNING  
P.O. BOX 67  
555 HWY 101  
BANDON, OR 97411  
P:(541) 347-2437  
F:(541)347-1415

**Permit Number:**

<b>APPLICATION TYPE (select all that apply)</b>		
<input type="checkbox"/> Annexation*	<input type="checkbox"/> Land Use Review*	<input type="checkbox"/> Subdivision*
<input type="checkbox"/> Certificate of Appropriateness (CoA)*	<input type="checkbox"/> Partition*	<input type="checkbox"/> Vacation*
<input type="checkbox"/> Comprehensive Plan or Zone Amendment*	<input type="checkbox"/> Plan Review (PR)	<input type="checkbox"/> Variance*
<input type="checkbox"/> Conditional Use Permit (CUP)*	<input type="checkbox"/> Planned Unit Development (PUD)*	<input type="checkbox"/> Zoning Compliance (ZC)
<input type="checkbox"/> Floodplain Development*	<input type="checkbox"/> Property Line Adjustment (PLA)*	<input type="checkbox"/> Other _____*
<b>* Pre-application required</b>		<b>Total Fees: \$</b>

<b>I. PROJECT LOCATION</b>			
Street Address:			
Map Number / Tax Lot(s):	/	Zone:	Floodplain: <input type="checkbox"/> Yes <input type="checkbox"/> No

<b>II. APPLICANT'S INFORMATION</b> (applicant is the primary party responsible for development)	
Applicant's Name:	Phone:
	E-Mail:
Applicant's Mailing Address:	

<b>III. PROPERTY OWNER'S INFORMATION</b>	
Property Owner's Name:	Phone:
	E-mail:
Mailing Address:	

<b>IV. OTHER INFORMATION (APPLICANT'S REP, SURVEYOR, ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, ETC)</b>	
Title:	Name:
Email:	Phone:
Title:	Name:
Email:	Phone:
Title:	Name:
Email:	Phone:

<b>V. PROJECT DESCRIPTION</b>	
Use: <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Other _____	
<b>*Please attach a short narrative that describes your proposed project and indicates the proposed use.</b>	

**VI. SITE PLAN:** Please see our "How to Create a Site Plan" and sample site plan document for requirements and tips on how to create your site plan. Plans must be drawn to scale and may be submitted electronically; **printed copies must be submitted on 11x17, ledger size paper (larger or smaller paper sizes will not be accepted).**

**VII. PROPERTY OWNER SIGNATURE/AUTHORIZATION**

- I have read the application and the attached documentation and I understand that my application may be delayed or deemed incomplete if I have provided insufficient information and documentation to allow for approval.
- I certify that the information provided in this application, including all submittals and attachments, is true and correct to the best of my knowledge.
- I understand and agree that all required inspections will be requested 2 business days in advance, and it is the applicant's responsibility to ensure required inspections have been requested, completed, and approved.
- I authorize the City of Bandon or its acting agent, to enter onto the subject property, as described in section "I. Project location".
- I authorize the following party(s) to act as applicant in regard to the attached application for the subject property described above.

**X Applicant's Signature:** \_\_\_\_\_

**Date:** 6-1-22

*Property owner's signature required if applicant is not the property owner*

**X Property Owner's Signature:** \_\_\_\_\_

**Date:** 6-1-22

**Development Disclosure**

The City of Bandon is obligated to report all ground disturbances within the City of Bandon to the Coquille Indian Tribe. Property owners and applicants must adhere to all conditions and requirements set out by the Coquille Indian Tribe, State Historic Preservation Office (SHPO) or both if required. Please be aware that state statutes and federal law govern how archaeological sites are to be managed. ORS 97.745 prohibits the willful removal, mutilation, defacing, injury, or destruction of any cairn, burial, human remains, funerary objects, or objects of cultural patrimony of a Native Indian. ORS 358.920 prohibits excavation, injury, destruction, or alteration of an archaeological site or object, or removal of an archaeological object from public or private lands.

It is the property owner and applicant's responsibility to determine if additional permits from other agencies will be required, including but not limited to: Oregon State Building Codes, Oregon State Department of Environmental Quality, FEMA, Oregon State Fish and Wildlife and U.S. Fish and Wildlife. If additional permits are required, it is the responsibility of the property owner/applicant to obtain such permits and comply with their conditions of approval.

It is the property owner/applicant's responsibility to provide the City of Bandon all necessary legal documentation related to the property, including but not limited to: proof of ownership, receipts, deed restrictions, vacation records, easement records, etc.

**I acknowledge, understand, and agree, that all relevant documentation will be provided to the City of Bandon, and that all required permits and consent will be obtained prior to the start of construction, with all conditions of approval adhered to.**

**X** \_\_\_\_\_  
*Property Owner's Signature (Property owner's signature required if applicant is not the property owner)*

6-1-22  
**Date**

**X** \_\_\_\_\_  
**Applicant's Signature**

6-1-22  
**Date**

Staff's Signature of Intake: \_\_\_\_\_ Date: \_\_\_\_\_

Staff's Signature of Completeness: \_\_\_\_\_ Date: \_\_\_\_\_

Staff's Signature of Approval: \_\_\_\_\_ Date: \_\_\_\_\_

## Submittal Requirements:

1. Completed Pre-Application with summary notes from the Planning Department (if applicable)
2. Complete Planning Permit application (including fees and applicable property records)
3. Signed Development Disclosure
4. Completed Submittal Requirement sheet

### **Site Plan Requirements (please check that you have completed each of the following)**

- Setbacks on all sides of the property (must be marked from the closest structure to the property line)
- Property line must be clearly marked on all sides - if property corners cannot be determined a survey will be required.
- Location of all buildings and proposed building or addition
- Location of all mechanical equipment and proposed equipment (HVAC, propane tanks and enclosures - these cannot be located in the setback area)
- Fences, patios, sidewalks, (if being built along with the construction of a building)
- Decks, steps, porches (these cannot be located in the setback)
- All off-street parking
- Location of the front entrance and all exterior doorways
- Location & material of the driveway
- Direction of roof drainage
- Drywell, if required (must be engineered)
- Location of electric meter base (on the front or no farther than 5 feet down the side)
- Proposed water and sewer line locations
- Water shut off valve must be located beside the water meter box; 6" sewer clean out must be at the property line
- Square footage of the lot, structures including garage (1st & 2nd floors noted separately), and percentage of impermeable surface. (Impermeable surfaces must be shown on the site plan)

### **Design Feature Requirements (Please check your selections)**

*Homes in the R-1 and R-2 zones require a minimum of 6 (at least 3 on the face of the home)*

*Homes in the CD zones require a minimum of 8 (at least 4 on the face of the home)*

- |   |   |
|---|---|
| <input type="checkbox"/> Roof pitch at or greater than 3/12   | <input type="checkbox"/> Bay windows        |
| <input type="checkbox"/> Covered porch - (minimum of 25 square feet)  | <input type="checkbox"/> Cupolas            |
| <input type="checkbox"/> Tile or Architectural grade shingles (not composition shingle)                                   | <input type="checkbox"/> Hip roof           |
| <input type="checkbox"/> Off set of the building face or roof (at least one foot, minimum of 2 feet in cd-1 & cd-2 zones) | <input type="checkbox"/> Pillars or posts   |
| <input type="checkbox"/> Eaves with a minimum projection of six (6) inches  | <input type="checkbox"/> Mullioned windows  |
| <input type="checkbox"/> Horizontal lap siding, cedar shake or shingle on 100% of the exterior                            | <input type="checkbox"/> Window shutters    |
| <input type="checkbox"/> Recessed entry area (minimum depth of three feet)  | <input type="checkbox"/> Clerestory windows |
| <input type="checkbox"/> Garage (constructed with exterior finish materials matching the residence)                       | <input type="checkbox"/> Dormers            |
| <input type="checkbox"/> Combination of cedar shake and shingle siding or lap siding with stone                           | <input type="checkbox"/> Gables             |

### **Additional Required Plans**

- Floor plan - Including garage (before and after drawings must be included for remodel/additions)
- Elevation of all structures - All sides must show direction, dimensions, height, design features and depth of eaves/gutters.
- Grade of property and/or grading plan
- Foundation plan for all construction - (for a manufactured home the slab & runner system)
- DEQ septic system permit & plan drawings - (if applicable)
- Geotechnical report - (if applicable)
- Drainage plan – (with engineered drawings if applicable)
- Engineered foundation - (if applicable)

**YOUR APPLICATION WILL BE DEEMED INCOMPLETE IF YOUR SITE PLAN FAILS TO LIST ALL REQUIRED INFORMATION, INCLUDING DESIGN FEATURE REQUIREMENTS WHICH MUST ALSO BE SHOWN IN YOUR SUBMITTED ELEVATION PLANS.**

**INSPECTION SCHEDULE:** All city inspections must be requested at least 2 business days in advance. Failure to schedule or complete required inspections may delay the final approval of your project.

**Code Compliance Inspection List:**

**Inspection # 1:** Compliance with approved site plan Inspection required prior to pouring foundation footings.

**Inspection # 2:** Compliance with approved floor plans and elevation drawings - Inspection required after the roof trusses are placed but prior to any cover being installed.

**Inspection # 3:** Compliance with approved plans for drainage, utility service, off-street parking, any required street improvements, house numbering and authorized land use approvals. - Inspection required upon completion of structure and related site work, prior to occupancy. This inspection is done **AFTER** the State Building Codes inspectors have approved a final inspection for the project.

**Public Works Inspection List:**

**Inspection # 1:** Lot Drainage; Compliance with approved drainage plan - Inspection required prior to any drainage work.

**Inspection # 2:** Culvert; Compliance with approved plan - Inspection required prior to covering.

**Inspection # 3:** Water shut off control valve; per APWA Standards - Inspection required prior to covering.

**Inspection # 4:** Sewer lateral and clean out (6" at property line per Compliance with APWA Standards); Compliance with City requirements - Inspection required prior to covering.

**Inspection # 5:** Driveway: Per APWA Standards - Inspection required prior to pouring paving material.

Oregon Law allows the City up to 30 days to review an application to determine whether or not the application is "complete" or "incomplete." Planning staff strives to be responsive and minimize this review period. However, careful and thorough reviews lay a foundation for smoother and quicker subsequent review processes. A pre-application may be required prior to the submittal of an application. Please visit the City's website for submittal requirements <http://www.cityofbandon.org/general/page/welcome-planning-department>. Incomplete applications will not be scheduled for public hearing or plan review, until all of the required materials are submitted.

**Other agency contacts:**

City of Bandon	<a href="http://www.cityofbandon.org/">http://www.cityofbandon.org/</a>	(541) 347-2437
State Building Codes (coos bay)	<a href="http://www.oregon.gov/bcd/permit-services/Pages/coos-county.aspx">http://www.oregon.gov/bcd/permit-services/Pages/coos-county.aspx</a>	(541) 266-1098
State Fire Marshall	<a href="http://www.oregon.gov/osp/sfm/Pages/index.aspx">http://www.oregon.gov/osp/sfm/Pages/index.aspx</a>	(541) 618-7951
State Department of Environmental Quality (DEQ)	<a href="http://www.oregon.gov/DEQ/Pages/index.aspx">http://www.oregon.gov/DEQ/Pages/index.aspx</a>	(541) 269-2721
U.S. Fish and Wildlife	<a href="https://www.fws.gov/">https://www.fws.gov/</a>	(541) 888-1470
Oregon Fish and Wildlife	<a href="http://www.dfw.state.or.us/">http://www.dfw.state.or.us/</a>	(541) 888-5515
Coquille Indian Tribe	<a href="http://www.coquilletribe.org/">http://www.coquilletribe.org/</a>	(541) 756-0904
Coos County Planning Department	<a href="http://www.co.coos.or.us/Departments/Planning.aspx">http://www.co.coos.or.us/Departments/Planning.aspx</a>	(541) 396-7770
Coos County Assessor's Office	<a href="http://www.co.coos.or.us/Departments/Assessors.aspx">http://www.co.coos.or.us/Departments/Assessors.aspx</a>	(541) 396-7900
FEMA (floodplain issues)	<a href="https://www.fema.gov/">https://www.fema.gov/</a>	
Department of State Lands (DSL)	<a href="http://www.oregon.gov/dsl/pages/index.aspx">http://www.oregon.gov/dsl/pages/index.aspx</a>	

## How to create a Site Plan

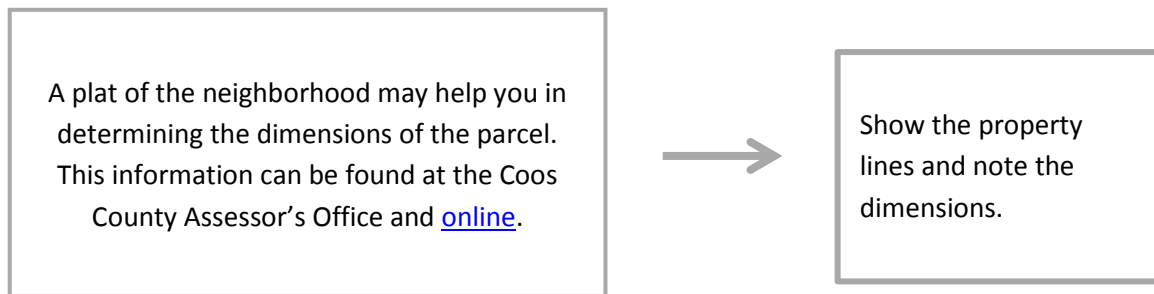
A **Site Plan** is a drawing of your property as seen from above that shows key information about your project. Listed below are key components of a site plan that must be included when applicable. Please draw clearly and accurately on 11" x 17" paper. No other paper size will be accepted.

### 1. Use a Scale

Choose a standard scale (Engineering or Architectural) and note the numeric scale used on plan (i.e. 1 inch = 20 feet).

### 2. Draw Property Lines

Label all dimensions in feet. Show surrounding streets.



### 3. Draw all Buildings and Structures on the Plan

Show existing buildings and structures as a solid line and all additions as a dashed line. Be sure to also show the precise footprint of all buildings or structures including, but not limited to steps, decks, porches, fences, eaves, gutters, and any meter boxes, propane tanks and HVAC platforms. Dashed lines should also be used to indicate changes above (roof) or below (septic) grade.

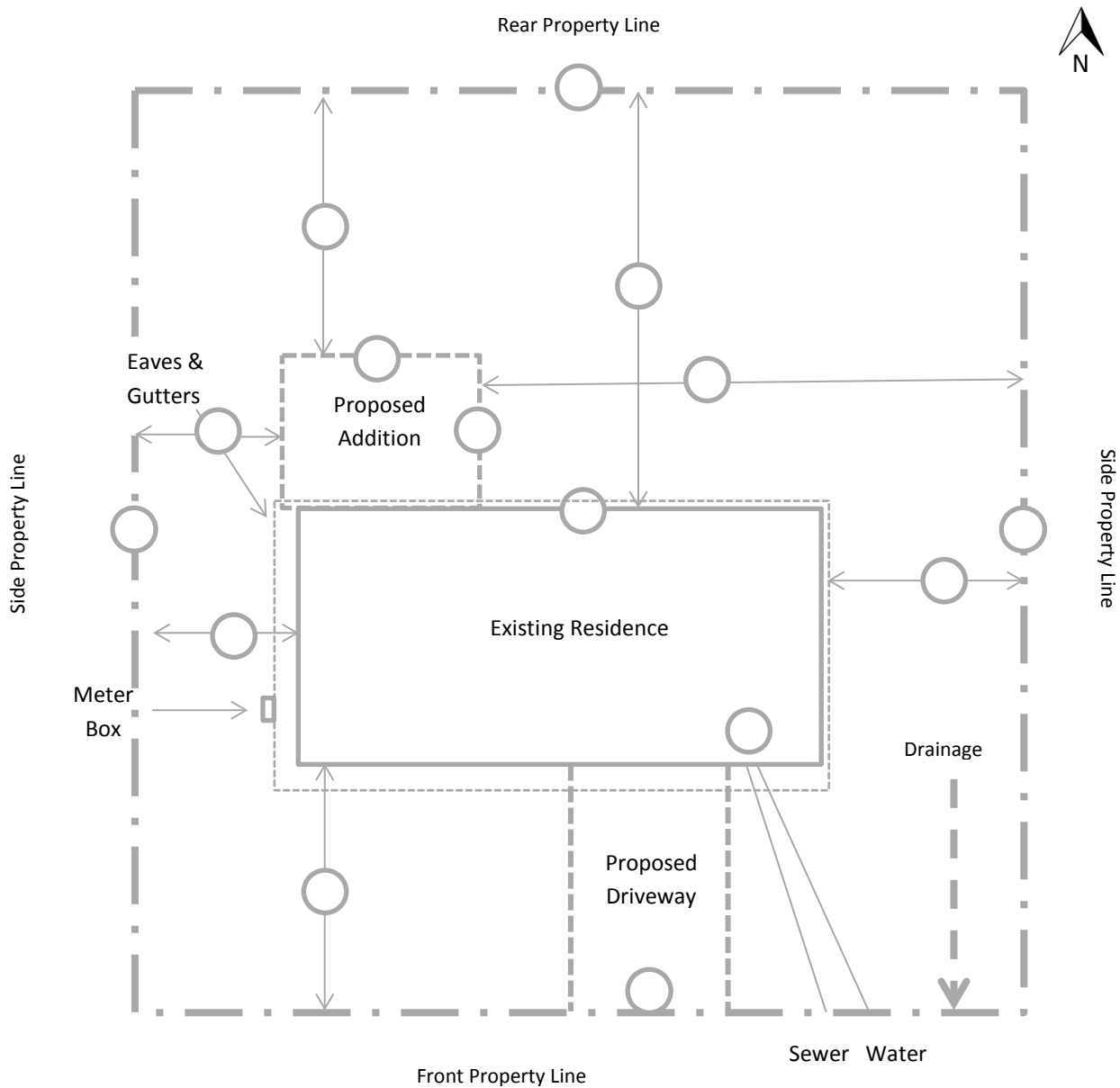
### 4. Draw Driveway and Parking on the Plan

Show all impermeable surfaces including parking areas, driveways, walkways, and patios in their precise locations in relation to your property lines and with their accurate footprint. Show proposed paved areas with a dashed line. You must also show the percent of your land that contains impermeable surfaces.

### 5. Other Items that must be on the Plan

- Tax Map #, Address, Property Owner, and north arrow. Drainage, meter box location, and required landscape buffers such as vision clearance.
- Required setbacks, any known easements, and water and sewer connection.
- Materials list for any hard surfaces may also be necessary
- Topographic information, including elevations and direction of slope.

# Sample Site Plan



**House Number and Street Name**  
**Applicant's Name**

- Additional information including: materials list for hard surfaces, location of meter box, known easements, applicable vision clearance, etc.

**Note:** On the site plan you create, please show distances in feet where you see circles shown on the Sample Site Plan above.

## City of Bandon Development Fact Sheet

- System Development Charges (**SDCs**) must be paid in full or bonded prior to the release of your Zoning Compliance permit. SDCs may be bonded over 10 years at a 6% interest rate and are recorded as a lien against the subject property. *Please contact the Finance Department for more information about SDC Lien Agreements.*
- Water service may be applied for by requesting a Work Order. Water service requires a **\$500.00** deposit.
- If your building is over **2,500** square feet, 3" electrical conduit will be required.
- The City charges **actual** costs for water service installation. Your \$500.00 deposit is applied to the cost of installation, with any remaining balance being refunded or billed upon completion of the work.
- Sewer service requires inspection upon connection. Call the City to arrange a Work Order for the inspection.
- Electric service may be applied for by requesting a Work Order. Utility Department staff will inform you of the cost for your electric service. The City charges **actual** costs for electric service. You will be billed for those costs on your utility billing, or by a miscellaneous billing.
- All utilities are considered temporary until the City's final inspection has been completed and approved, and a Certificate of Occupancy has been issued
- A **Public Works Permit** must be completed for any construction activity in the City's right-of-way. Any damage done to the City's right-of-way must be repaired to the level of the improvement prior to the damage.
- The City will bill the property owner or contractor for engineering required by the City (drainage, streets, subdivisions etc.).
- The City may require a property survey prior to the #1 Code Compliance inspection.
- If the contractor or the applicant owes the City for utilities, engineering, service fees, etc. for any project, the Certificate of Occupancy will **not** be issued until payment has been made in full.
- Zoning Compliance permits **expire** one year after the date of issue. A one-time, six month extension may be requested. If an extension is not requested prior to expiration of your Zoning Compliance permit, you will be required to re-apply for a new permit.
- Ingress/egress at the construction site must be **graveled** so that dirt, mud, and debris from the construction site do not get on the sidewalk or street.
- The Utility Department requires a **legal description** (map & tax lot number or tax account number) in order to process an application for water and/or sewer service.
- All subdivisions, commercial developments, and residential developments **must** provide the City with as-built plans showing public improvements and utilities including but not limited to streets, signage, sidewalks, water, sewer, street drainage, street lights & electric.

Please remember to post your Zoning Compliance permit card on site

Sheri McGrath, Inc  
Coos Curry Consulting  
P.O. Box 1548 \* Bandon, Oregon 97411  
cooscurry@gmail.com  
541-982-9531

CONSENT FOR REPRESENTATION

I, Michael Berry of 1107 6th St SE, Bandon, OR 97411 give permission to Coos Curry Consulting to represent me on all design, permit and consulting matters concerning the property located on Coos County Tax Assessor's Map 28-14-30DA TL 2308. The tax account for this property is 3008205. The situs address is 1107 6th ST SE, Bandon, OR 97411.

Sheri McGrath is the direct contact for all permit application questions, plan review comments, concerns or questions, and any other information related to the above property.

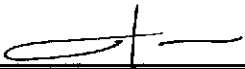
Contact information for Sheri McGrath is:

Cell: 541-982-9531  
E-mail: cooscurry@gmail.com  
Mailing address: P.O. Box 1548, Bandon, OR 97411

This consent automatically expires twelve months from the date below, without requirement of notice.

DATED: April 21, 2022

COOS CURRY CONSULTING

  
\_\_\_\_\_  
By: SHERI MCGRATH

CLIENT   
\_\_\_\_\_  
By: MICHAEL BERRY



# COOS County Assessor's Summary Report

## Real Property Assessment Report

FOR ASSESSMENT YEAR 2022  
**NOT OFFICIAL VALUE**

May 30, 2022 11:49:31 am

**Account #** 3008205  
**Map #** 28S1430DA02308  
**Code - Tax #** 5400-3008205

**Tax Status** ASSESSABLE  
**Acct Status** ACTIVE  
**Subtype** NORMAL

**Legal Descr** See Record

**Mailing Name** BERRY, MICHAEL C

**Deed Reference #** 2020-10866

**Agent**

**Sales Date/Price** 10-29-2020 / \$420,000.00

**In Care Of**

**Appraiser**

**Mailing Address** 1107 6TH ST SE  
 BANDON, OR 97411-9256

**Prop Class** 101      **MA**    **SA**    **NH**    **Unit**  
**RMV Class** 101      06    25    CBN    28307-1

Situs Address(s)	Situs City
ID# 10 1107 6TH ST SE	BANDON

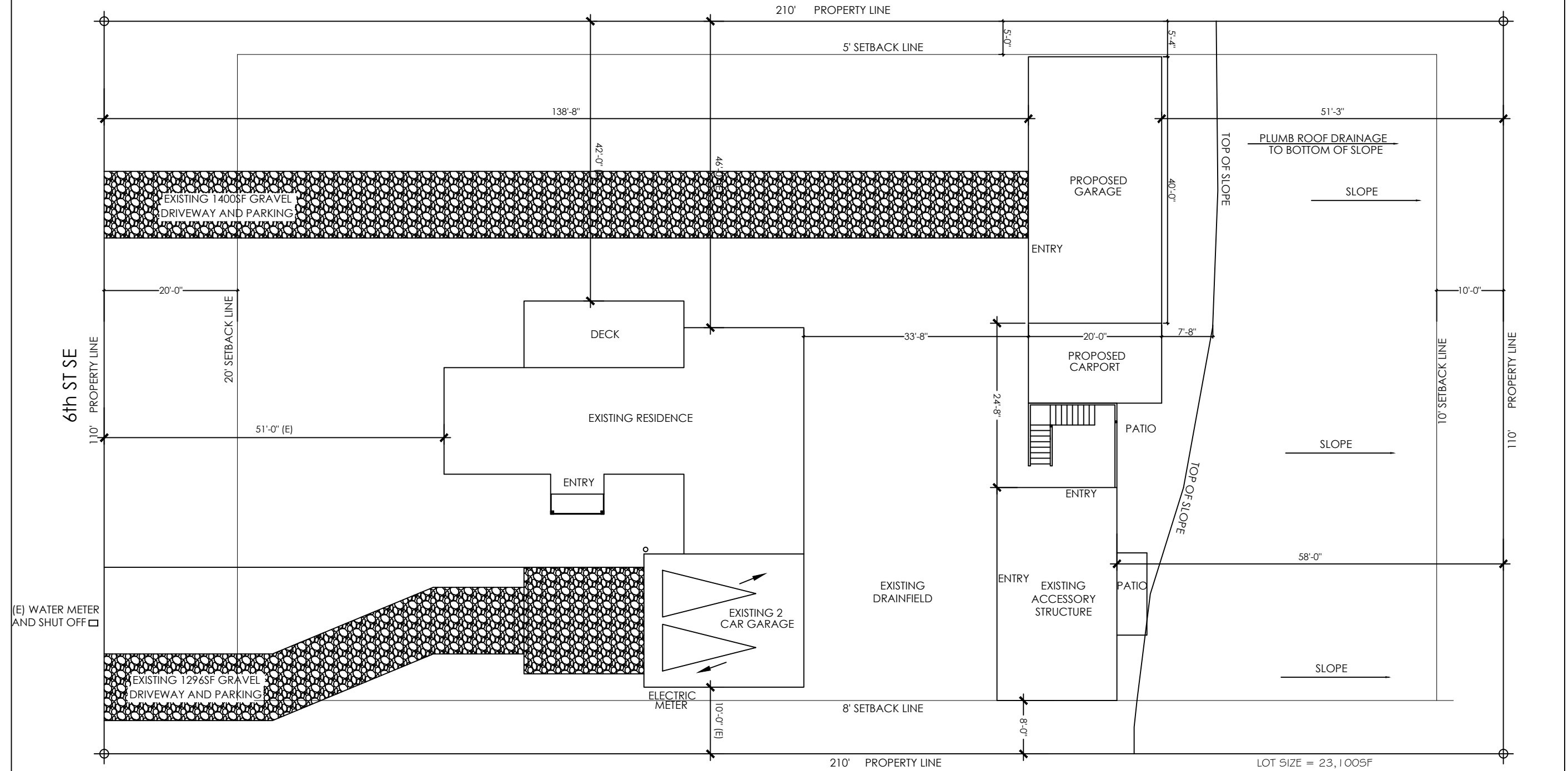
Code Area		Value Summary					RMV Exception	CPR %
		RMV	MAV	AV	SAV	MSAV		
5400	Land	127,840					0	
	Impr.	388,020					0	
<b>Code Area Total</b>		515,860	352,050	352,050	0	0	0	
<b>Grand Total</b>		515,860	352,050	352,050	0	0	0	

Code Area	ID#	RFPD	Ex	Plan Zone	Value Source	Land Breakdown				Trended RMV		
						TD%	LS	Size	Land Class		LUC	
5400	10	<input checked="" type="checkbox"/>		R-1	Residential Site	100	A	0.53	HS	001	127,840	
<b>Grand Total</b>										0.53		127,840

Code Area	ID#	Yr Built	Stat Class	Description	Improvement Breakdown			Total Sq. Ft.	Ex% MS Acct #	Trended RMV
					TD%					
5400	1	1993	141	One story-Class 4	100		1,218		148,610	
5400	2	2010	137	Shop - Class 3	100		636		239,410	
<b>Grand Total</b>								1,854		388,020

**PROJECT DESCRIPTION:**

THE SUBJECT PROPERTY IS LOCATED AT 1107 6TH ST SE IN BANDON, OREGON FOUND ON THE COOS COUNTY TAX ASSESSOR'S MAP 28-14-30DA TL 2308. CURRENT DEVELOPMENT INCLUDES A SINGLE FAMILY DWELLING AND AN ACCESSORY STRUCTURE/SHOP. PROPOSED DEVELOPMENT IS FOR A 20X40 DETACHED GARAGE.

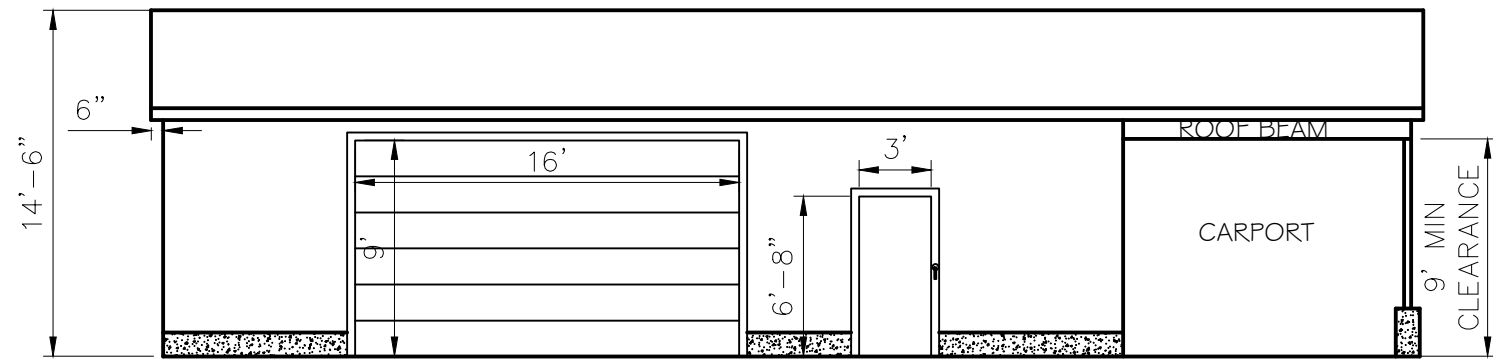


PROPERTY INFORMATION:  
 MICHAEL BERRY  
 1107 6TH ST SE  
 BANDON, OREGON 97411  
 28-14-30DA TL 2308  
 TAX ACCT #3008205

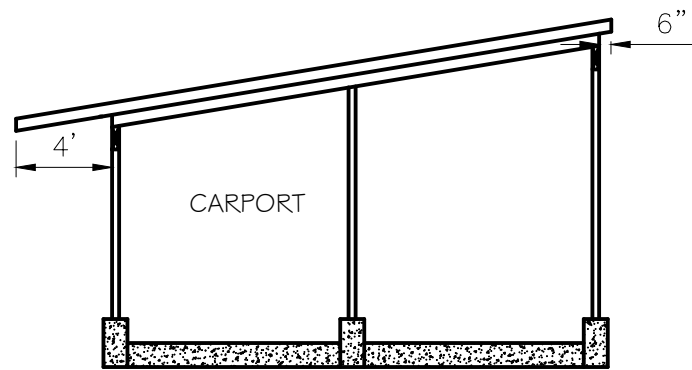
PLOT PLAN  
 $\frac{1}{16}'' = 1'-0''$



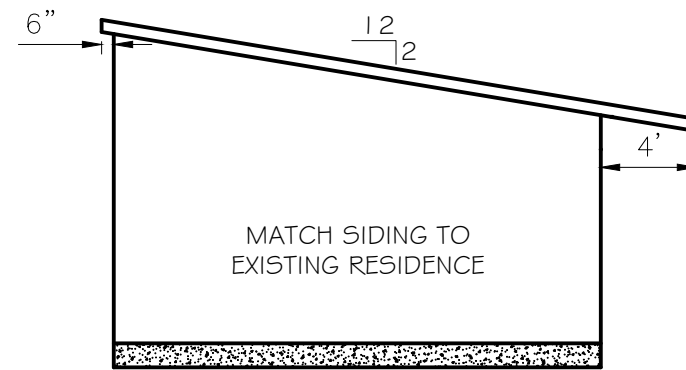
LOT SIZE = 23,100SF  
 EXISTING RESIDENCE WITH GARAGE = 1690SF  
 EXISTING SHOP FIRST FLOOR = 576SF  
 EXISTING SHOP SECOND FLOOR = 576SF  
 PROPOSED GARAGE = 800SF  
 PROPOSED CARPORT = 240SF  
 TOTAL LOT COVERAGE = 3306SF OR 14%  
 CONCRETE PATIOS = 180SF  
 TOTAL IMPERMEABLE SERVICES = 3486SF OR 15%



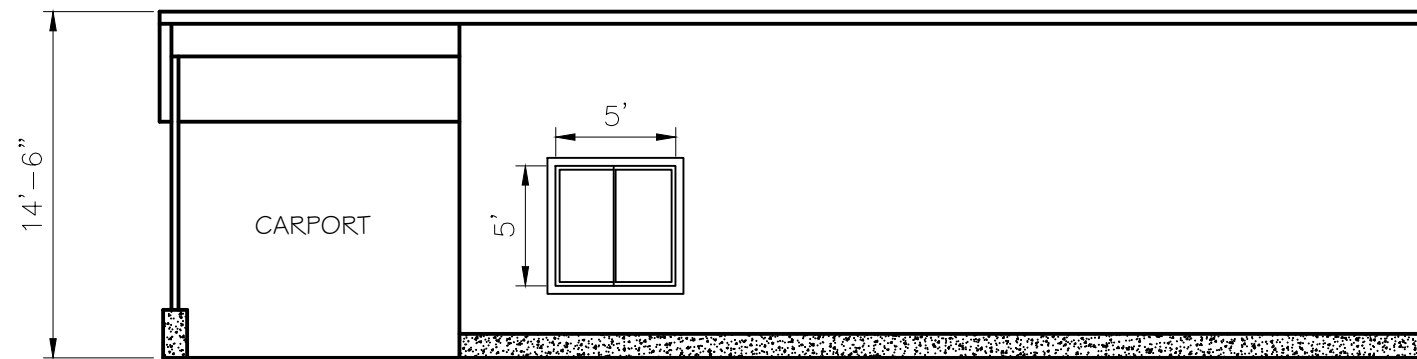
**A** FRONT (SOUTH) ELEVATION  
 $\frac{1}{8}'' = 1'-0''$



**B** RIGHT (EAST) ELEVATION  
 $\frac{1}{8}'' = 1'-0''$

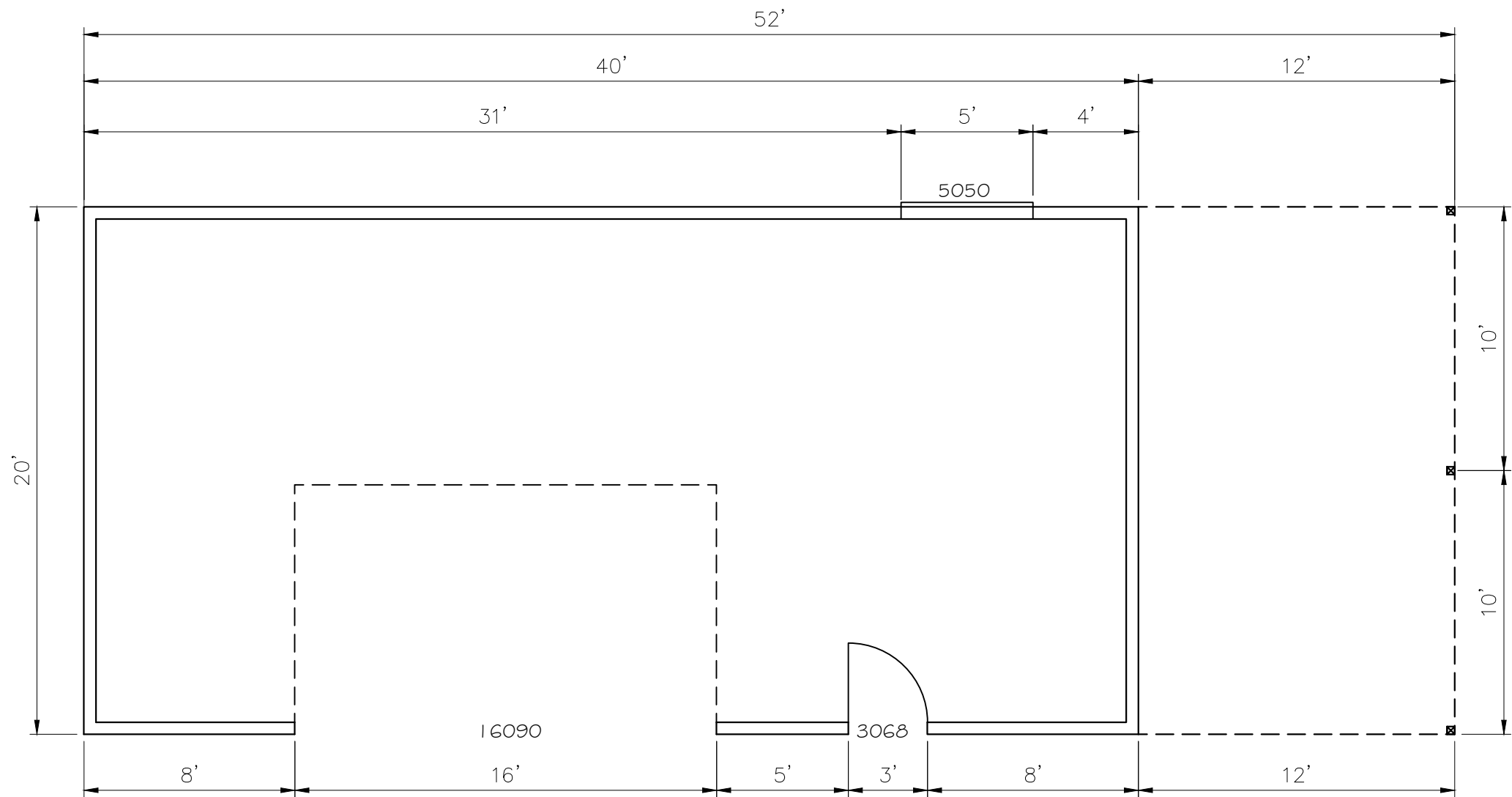


**C** LEFT (WEST) ELEVATION  
 $\frac{1}{8}'' = 1'-0''$



**D** REAR (NORTH) ELEVATION  
 $\frac{1}{8}'' = 1'-0''$

SQUARE FOOTAGE:		
GARAGE	800SF	
CARPORT	240SF	
PLAN SET INCLUDES:		
	TYPE	PAGES
X	ENGINEERING	
	TRUSS DESIGN	
	INTERIOR DESIGN SPECS	
	ELECTRICAL LAYOUT	
	ENERGY PATH INFORMATION	
	MATERIAL SPECIFICATIONS	
NO.	REVISION/ISSUE	DATE
DESIGNER NAME AND ADDRESS:		
SHERI MCGRATH, INC COOS CURRY CONSULTING P.O. BOX 1548 BANDON, OR 97411 COOSCURRY@GMAIL.COM 541-982-9531		
ENGINEER NAME AND ADDRESS:		
RESIDENTIAL ENGINEERING, LLC 2689 BOWMAN RD REEDSPORT, OR 97467 SCOTT.KENT.ENGINEERING@GMAIL.COM 541-757-0015		
BUILDER NAME AND ADDRESS:		
OWNER NAME AND ADDRESS:		
MIKE BERRY 1107 6TH STREET SE BANDON, OR 97411 541-404-6639		
SITE LOCATION:		
1107 6TH ST SE BANDON, OREGON 97411 28-14-30DA TL 2308 TAX ACCT #3008205		
PROJECT: DETACHED GARAGE	SHEET: A1	
DATE: MAY 30, 2022		
SCALE: AS NOTED		



FLOOR PLAN  
 $\frac{3}{16}'' = 1'-0''$

SQUARE FOOTAGE:	
GARAGE	800SF
CARPORT	240SF

PLAN SET INCLUDES:		
	TYPE	PAGES
X	ENGINEERING	
	TRUSS DESIGN	
	INTERIOR DESIGN SPECS	
	ELECTRICAL LAYOUT	
	ENERGY PATH INFORMATION	
	MATERIAL SPECIFICATIONS	

NO.	REVISION/ISSUE	DATE

DESIGNER NAME AND ADDRESS:

SHERI MCGRATH, INC  
 COOS CURRY CONSULTING  
 P.O. BOX 1548  
 BANDON, OR 97411  
 COOSCURRY1@GMAIL.COM  
 541-982-9531

ENGINEER NAME AND ADDRESS:

RESIDENTIAL ENGINEERING, LLC  
 2689 BOWMAN RD  
 REEDSPORT, OR 97467  
 SCOTT.KENT.ENGINEERING@GMAIL.COM  
 541-757-0015

BUILDER NAME AND ADDRESS:

OWNER NAME AND ADDRESS:

SITE LOCATION:

1107 6TH ST SE  
 BANDON, OREGON 97411  
 28-14-30DA TL 2308  
 TAX ACCT #3008205

PROJECT: DETACHED GARAGE	SHEET: A2
DATE: MAY 30, 2022	
SCALE: AS NOTED	

FOUNDATION NOTES:  
8"X16" CONTINUOUS FOOTING

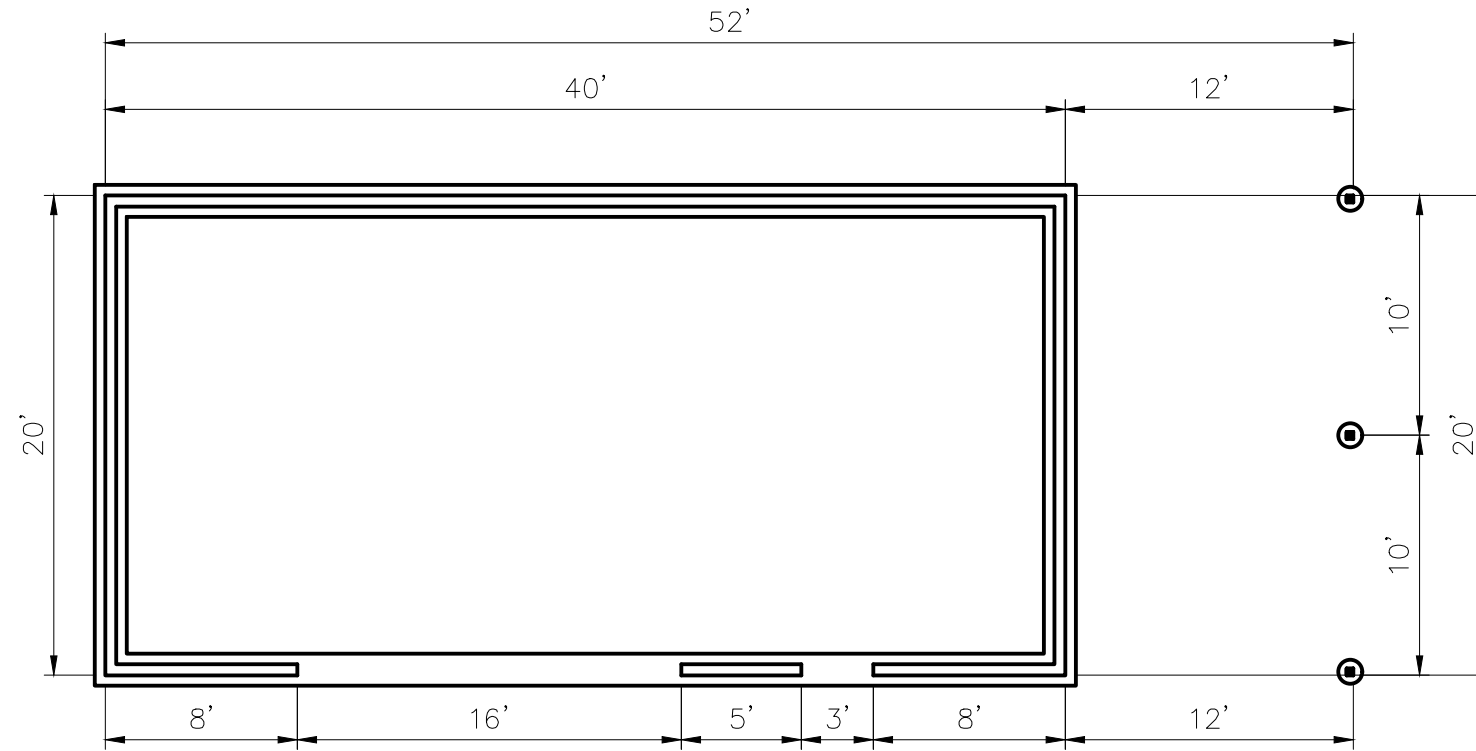
12" POURED STEM WALL

4" SLAB ON GRADE; SEPARATE POUR; REINFORCE WITH REBAR OR 6X6 MESH PER CONTRACTOR

PROVIDE ANCHOR BOLTS 48" O.C.

SLOPE SLAB TOWARDS GARAGE DOOR OPENING  $\frac{1}{4}$ " MIN SLOPE

PROVIDE GROUNDING AS REQUIRED

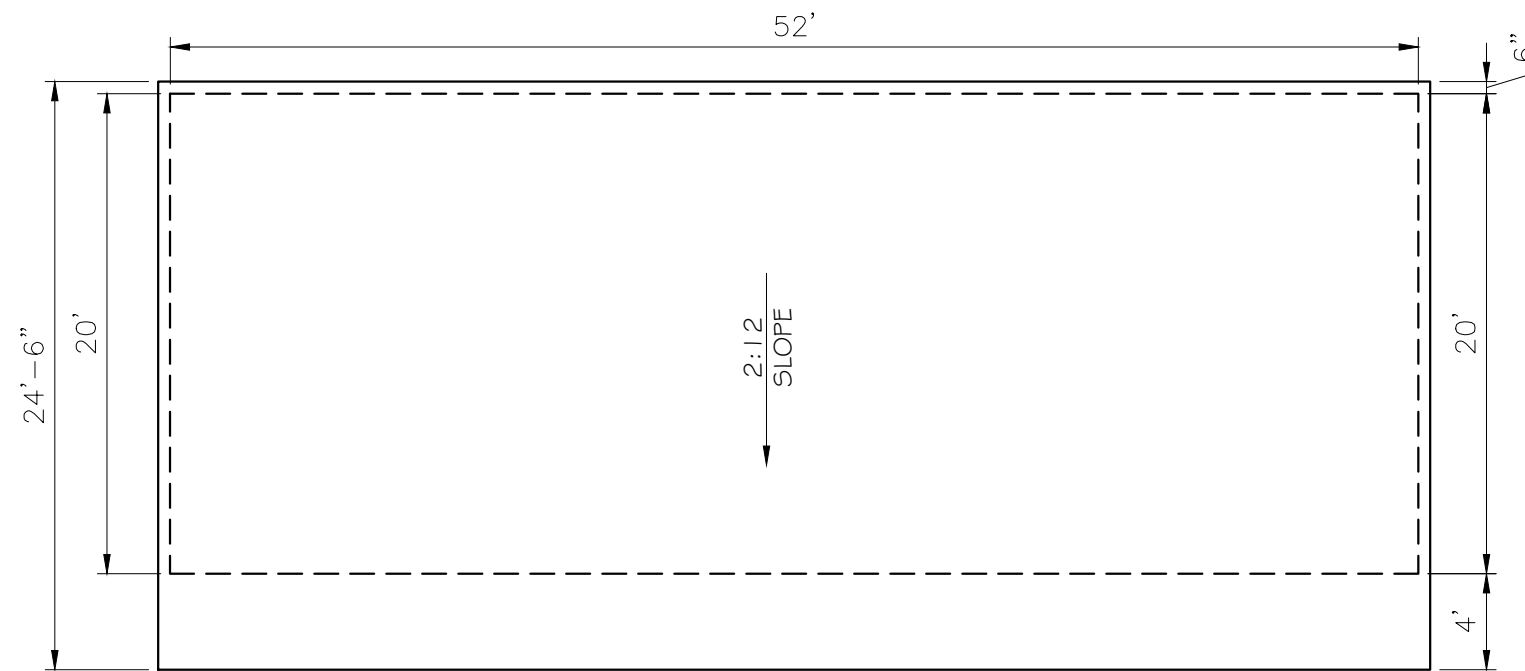


**A** FOUNDATION PLAN  
 $\frac{1}{8}" = 1'-0"$

ROOF NOTES:  
STICK FRAME ROOF WITH  $1\frac{7}{8}"$  6000 SERIES BCI'S, 24" O.C.

6" EAVE ON THREE SIDES

48" EAVE ON THE FRONT



**B** ROOF PLAN  
 $\frac{1}{8}" = 1'-0"$

SQUARE FOOTAGE:	
GARAGE	800SF
CARPORT	240SF

PLAN SET INCLUDES:		
	TYPE	PAGES
X	ENGINEERING	
	TRUSS DESIGN	
	INTERIOR DESIGN SPECS	
	ELECTRICAL LAYOUT	
	ENERGY PATH INFORMATION	
	MATERIAL SPECIFICATIONS	

NO.	REVISION/ISSUE	DATE

DESIGNER NAME AND ADDRESS:  
SHERI MCGRATH, INC  
COOS CURRY CONSULTING  
P.O. BOX 1548  
BANDON, OR 97411  
COOSCURRY@GMAIL.COM  
541-982-9531

ENGINEER NAME AND ADDRESS:  
RESIDENTIAL ENGINEERING, LLC  
2689 BOWMAN RD  
REEDSPORT, OR 97467  
SCOTT.KENT.ENGINEERING@GMAIL.COM  
541-757-0015

BUILDER NAME AND ADDRESS:

OWNER NAME AND ADDRESS:  
MIKE BERRY  
1107 6TH STREET SE  
BANDON, OR 97411  
541-404-6639

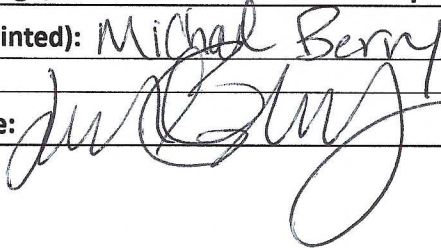
SITE LOCATION:  
1107 6TH ST SE  
BANDON, OREGON 97411  
28-14-30DA TL 2308  
TAX ACCT #3008205

PROJECT: DETACHED GARAGE	SHEET: A3
DATE: MAY 30, 2022	
SCALE: AS NOTED	

**17.78.060 Development Standards for Uses Subject to Review**

B. *Hazard Disclosure Statement: All applications for new development or substantial improvements subject to Geologic Assessment Review shall provide a Hazard Disclosure Statement signed by the property owner that acknowledges:*

1. *The property is subject to potential natural hazards and that development thereon is subject to risk of damage from such hazards;*
2. *The property owner has commissioned an engineering geologic report for the subject property, a copy of which is on file with City of Bandon Planning Department, and that the property owner has reviewed the Geologic Report and has thus been informed and is aware of the type and extent of hazards present and the risks associated with development on the subject property;*
3. *The property owner accepts and assumes all risks of damage from natural hazards associated with the development of the subject property.*

<b>I acknowledge, understand, and agree to the statements listed above in the Hazards Disclosure Statement language, as listed in Bandon Municipal Code 17.78.060</b>	
<b>X Property Owner's Name (printed):</b>	Michael Berry
<b>X Property Owner's Signature:</b>	
<b>Date:</b>	6/12/22

**GEOTECHNICAL ENGINEERING INVESTIGATION  
BERRY PROPERTY  
PROPOSED NEW GARAGE  
1107 6<sup>TH</sup> STREET SE  
BANDON, OREGON**

*Prepared for:*

**Michael Berry  
c/o  
Lynn Green  
EVREN Northwest  
PO Box 14488  
Portland, Oregon 97293**

**May 31, 2022  
Project No. 1029-001**

**TERRA DOLCE CONSULTANTS, INC.**

May 31, 2022  
Project No. 1029-001

**Michael Berry**  
c/o  
**Lynn Green**  
**EVREN Northwest**  
**PO Box 14488**  
**Portland, Oregon 97293**

**GEOTECHNICAL ENGINEERING INVESTIGATION**  
**BERRY PROPERTY**  
**PROPOSED NEW GARAGE**  
**1107 6<sup>TH</sup> STREET SE**  
**BANDON, OREGON**

Dear Michael:

Terra Dolce Consultants, Inc. (TDC) is pleased to present this report summarizing the results of our geotechnical evaluation for the referenced project. The scope of our geotechnical evaluation included field investigation, engineering analyses, and preparation of this report. In addition, TDC reviewed the March 17 2022 Reconnaissance-Level Geologic Hazard Technical Memorandum prepared by EVREN NW for the property.

**SITE DESCRIPTION**

The referenced site is located to the southeast of Bandon, Oregon (see Figure 1). The 0.53-acre property is developed with one single-family residence on the south side and a two-story Accessory Structure on the north end (see Figure 2). The driveway for the residence is on the east side of the property and for the Accessory Structure is on the west side of the property.

The property is oriented north to south (see Figure 2). Elevations of the property ranges from about 82 feet above mean sea level (msl) at the street to about 80 feet msl at the back edge of the primary residence. From there, the property slopes steeply down to about 25 feet msl along the Ferry Creek drainage.

**PROJECT DESCRIPTION**

TDC understands that you are planning to build a new 20 ft x 40 ft garage to the west of the Accessory Structure. The garage will be a lightly-framed building supported on concrete slab-on-grade. The proposed northern wall of the garage is located approximately 10 feet from the top of the steep slope. A large conifer tree with large surface roots is located in northern portion of the proposed garage. The tree, rootball, and large shallow roots shall be removed during the grading for the foundation, as discussed below.



## **GEOLOGIC SETTING**

Geologic maps of the area indicate that the site is underlain by the Quaternary Marine Deposit and the Tertiary Marine Sedimentary rocks. The Quaternary Deposits include alluvium, colluvium, river and coastal terraces. They are typically unconsolidated to slightly cemented silts, sands, and gravels. The Tertiary Marine Sedimentary rocks in the area are grey Siltstones that weather into reddish brown clay.

## **SEISMIC CONDITIONS**

### **Seismic Design Spectrum**

The design spectral accelerations were obtained from the ASCE 7.16 Hazards Report (USGS) National Seismic Hazard Mapping Program probabilistic seismic hazard analyses (PSHA). The location of the ground motions for the evaluation is:

Latitude = 43.115887    Longitude = -124.397499

The seismically induced acceleration values at the rock interface, and the coefficients used to estimate ground surface response adjusted for Site Class C, for the MCE at the site are presented below:

**Table 1 – Summary of Seismic Parameters**

Seismic Parameters	Value
<b>Mapped Peak Ground Acceleration, ASCE 7-16, PGA</b>	<b>0.991 g</b>
<b>Peak Ground Acceleration adjusted for site effects, <math>PGA_M</math></b>	<b>1.189 g</b>
<b>MCE Bedrock Spectral Acceleration, 0.2 second period, <math>S_s</math></b>	<b>2.007 g</b>
<b>MCE Bedrock Spectral Acceleration, 1.0 second period, <math>S_1</math></b>	<b>0.956 g</b>
<b>Short-Period Site Factor, <math>F_a</math></b>	<b>1.2</b>
<b>Long-Period Site Factor, <math>F_v</math></b>	<b>1.4</b>
<b>Soil MCE Spectral Acceleration, 0.2 second period, Site Class D, <math>S_{MS}</math></b>	<b>2.409 g</b>
<b>Soil MCE Spectral Acceleration, 1.0 second period, Site Class D, <math>S_{M1}</math></b>	<b>1.338 g</b>
<b>Soil Design Spectral Acceleration, 0.2 second period, Site Class D, <math>S_{DS}</math></b>	<b>1.039 g</b>
<b>Soil Design Spectral Acceleration, 1.0 second period, Site Class D, <math>S_{D1}</math></b>	<b>0.892 g</b>

## **SITE INVESTIGATION**

On April 25, 2022, TDC conducted a site investigation to evaluate the surface and subsurface conditions of the site. Our observations and explorations are summarized below.

### **Surface Conditions**

The site is located southeast of Bandon, Oregon. The over half of the property is relatively flat and is developed a single-family residence and Accessory Structure. The Accessory Structure is located at the top of a steep slope that descends 60 feet down to Ferry Creek. The slope is covered in thick vegetation and large trees. TDC observed signs of a shallow soil slump next to the northeast corner of the Accessory

Structure. The slump appeared to be related to a drain pipe that is connected to the downspouts of the Accessory Structure. The slump indicates that the surficial stability of the slope is sensitive excessive water draining directly on to the slope.

The footprint of the proposed garage is covered in  $\frac{3}{4}$ -inch rock and geofabric. To the north of the driveway is a large fir tree, with large roots that extend towards the Accessory Structure.

### **Subsurface Conditions**

TDC observed the advancement of two solid-stem borings (designated B-1 and B-2, see Figure 2). Boring B-1 was advanced to 21 feet below the ground surface (bgs) and B-2 to 13 feet bgs. The both borings were terminated due to auger refusal.

Soil samples were taken in 2.5-foot intervals from 0 to 10 feet bgs and 5-foot interval from 10 feet bgs to the total depth of the borings. Samples were collected using Standard Penetration Test method (ASTM D 1586). The method includes driving an 18-inch-long split-spoon sampler with an automatic 140-pound hammer. The number of blows required to drive the sampler 18 inches were recorded in three (3) 6-inch intervals. The number of blows for the last two intervals were added together to determine the blow count (N) or blows per foot (bpf), which are used to estimate the in-place consistency of the soil. The soil types and blow counts were documented on boring logs (see Attached Boring Logs). The following conditions were encountered in the borings:

**$\frac{3}{4}$ -inch Rock (0 – 1 feet bgs).** Up to 1 foot of  $\frac{3}{4}$ -inch rock underlain with geofabric was encountered in the borings.

This material is not appropriate as subgrade material and will need to be stripped and removed from the site.

**Sand (1.0– 9 feet bgs).** Up to 8 feet of Sand was encountered at the site. The Sand was fine- to medium grained, loose to medium dense, and had iron staining throughout the thickness of the deposit.

**Gravel (9 – 18.5 feet bgs).** Approximately 9.0.5 feet of Sandy Gravel was encountered below the Sand unit. The Sandy Gravel was a mixture of coarse sand and rounded pebbles. The deposit was slightly cemented; however, the samples broke up easily in one's hand.

**Siltstone (18.5 to 21 feet bgs).** A thin weathered zone of Reddish-brown soft Clay was encountered at the top of Siltstone. Underneath, the Siltstone was dark gray, to black, moist and hard. Drilling was difficult in the Siltstone.

**Groundwater.** No groundwater was encountered in the borings.

### **CONCLUSIONS AND RECOMMENDATIONS**

The conclusions and recommendations presented in this report are based on the information provided by the client, results of the field investigation and professional judgment. We have observed only a small portion of the pertinent soil and groundwater conditions. The recommendations presented in this report are based

on the assumption that the soil and groundwater conditions do not deviate appreciably from the conditions encountered during our field investigation.

### **General Conclusions**

In our opinion, the site is geotechnically suitable for the proposed new garage. Our opinion is based on the assumption that the recommendations presented in this report shall be followed, and that if during construction site conditions change from what is presented in this report, that we will be consulted for updated recommendations for developing the site.

The main consideration for the project is the proximity of the proposed garage to the top of steep slope. Typically, there is a 25-foot-wide offset from the top of the slope to the facing of the foundation to provide adequate support to the building. Due to the limitations of the site, however, the northern foundation wall of the proposed garage is about 10 feet from the top of the slope. Therefore, to provide adequate support for the building, TDC recommends that the northern foundation wall shall be supported on auger-cast piles, as discussed below.

### **Site Preparation and Clearing Recommendations**

At the present, the footprint of the proposed garage is mantled with a geofabric and around 12 inches of  $\frac{3}{4}$ -inch crushed rock. TDC recommends that the area within 5 feet of the foundation shall be cleared of  $\frac{3}{4}$ -inch rock, geofabric, trees, vegetation and other deleterious material. The material shall be removed from the site.

This material is not appropriate for Structural Fill.

### **Wet Weather/Wet Soil Considerations Recommendations**

Onsite native soils are moisture sensitive, therefore, site grading should occur during the dry season, and that wet weather grading should be avoided if possible. If construction should take place during wet weather or if wet soils are encountered, then the area shall be protected by at least 12 inches of  $\frac{3}{4}$ -inch-minus crushed rock underlain with woven geotextile, such as LINQ GTF 300 or equivalent. Disturbed, soft soils shall be overexcavated to firm native subgrade and replaced with compacted imported Structural Fill, as discussed below.

### **Tree and Rootball Removal Recommendations**

At the time of our site investigation, a large pine tree, with large, shallow roots, was located in the northern portion of the proposed garage footprint. TDC recommends that the tree shall be cutdown and removed, and the rootball and roots over 4 inches in dimension shall be overexcavated and removed from the site.

The excavation shall be backfilled with Structural Fill, as described below.

### **Recommendations for Structural Fill**

Structural Fill shall consist of imported  $\frac{3}{4}$ -inch to  $1\frac{1}{2}$ -inch-minus crushed rock with about 5 percent passing the No. 200 sieve. The crushed rock should be compacted to 95 percent maximum dry density and the moisture content shall be within 5 percent of the Optimum Moisture Content, as determined by standard Proctor (ASTM D698).

Before the placement of the fill, the subgrade shall be firm native material, and should be free of deleterious materials. Soft areas and areas shall be overexcavated and replaced with Structural Fill.

### **Proposed Auger Cast Pile Recommendations**

Because the proposed garage footprint is less than 25 feet from the top of the slope, TDC recommends that the proposed garage's northern foundation wall be supported drilled auger cast piles with rebar reinforcement. The piles shall be 12 inches in diameter and extend a minimum of 2 feet into the underlying Siltstone. A concrete grade beam tied the pile heads together and shall be designed by the Structural Engineer.

The ultimate capacities for the piles were determined using the CT AllPile computer program (see Attached AllPile Calculations). The piles shall be designed by a structural engineer using the following parameters:

- Ultimate Tip Bearing Capacity: 100 ksf
- Ultimate Skin Friction Capacity (Down): 1 ksf
- Ultimate Skin Friction Capacity (Up): 0.75 ksf

### **Shallow Foundation Allowable Bearing Capacity Recommendations**

In the area of the shallow foundations, TDC recommends an allowable bearing pressure of 2,000 pounds per square foot (psf) for dead loads in the medium dense native Sands. The allowable bearing pressure may be increased by one-third for transitory live loads, such as loads and seismic loading.

### **Total and Differential Settlement Recommendations.**

Total and differential settlements were calculated for the shallow foundation on the sandy subgrade. The estimated total static settlement will be less than 1 inch, with a differential settlement less than ½ inch.

### **Shallow Foundation Footings Recommendations**

TDC recommends that continuous footings and individual spread footings should have a minimum width of 18 inches and a minimum embedment of 18 inches. Subgrades for the shallow foundations should be firm and free of organics and deleterious debris as determined by the geotechnical engineer. Soft soils or undocumented fills encountered during excavation of the footings should be removed to firm soils and backfilled with imported granular structural fill.

TDC recommends that the foundations be founded on a 6-inch layer of lightly compacted ¾-inch minus, which will increase the friction factor to 0.5. In addition, passive resistance may be considered using a passive equivalent fluid weight of 300 pound per cubic foot (pcf).

### **Slab-On-Grade Recommendations**

The slab-on-grade floor should be designed for an allowable subgrade reaction modulus of approximately 150 pounds per cubic inch. The subgrade soils must be in a firm, non-yielding conditional at the time of slab construction.

A capillary break consisting of at least 6 inches of clean gravel should be placed underneath the floor slab. The gravel should consist of ¼-inch to ¾-inch rock with no more than 2 percent passing the No. 200 sieve (washed analyses). Suitable material is PCC coarse aggregated specified in Section 02690.20 of the Oregon Department of Transportation "Standard Specification Highway Construction".

For wet weather conditions, care must be taken to reduce the potential of rainwater ponding on the slab-on-grade rock section. If the slab is to be covered with a moisture-sensitive flooring, and wet-weather conditions are anticipated, consideration should be given to use of a water retarding admixture added to the concrete or sealing of the finished slab. In addition, a 4-inch-thick lift of ¼-inch to ¾-inch, open graded, angular drain rock placed below the capillary break, discussed above, may be substituted for vapor barrier if approve by the geotechnical engineer or project architect and used in conjunction with an approved water proofing admixture.

It is our experience that concrete slab-on-grade commonly exhibit shrinkage cracks despite the presence of steel reinforcing or fiber strands. This cracking can be reduced by using a low-slump concrete, properly designed and constructed joints and by properly curing the concrete.

### **Stormwater Drainage Recommendations**

Because of the potential shallow movement on the slopes, TDC recommends that the stormwater from the proposed garage be discharged into the drainage ditch along the southern property line. The discharge drains shall consist of at least a 4-inch-diameter solid drainpipe.

Discharging stormwater onto the steep slope is not recommended and shall be avoided.

### **Document Review and Construction Monitoring**

TDC should be retained to review final plans and specifications. This review will allow us to examine the documents to determine whether the intent of our recommendations presented in this report was incorporated into the report.

TDC shall provide Special Inspections during the earthwork and foundation construction activities. The purpose of our field monitoring services is to confirm that the site conditions are as anticipated and to provide field recommendations as required based on the conditions encountered.

Special inspections by a Geotechnical Engineer should include the following items:

- Installation of Auger Cast Piles;
- Subgrades for Shallow Foundations and Slab-on-Grade; and
- If Structural Fill is required, then a **Material Testing Firm** (i.e., ACS Testing, Carlson Testing, etc.) shall be contracted directly by the Owner for compaction testing of the Structural Fill, and the Slab-on-Grade compacted rock.

### **LIMITATIONS**

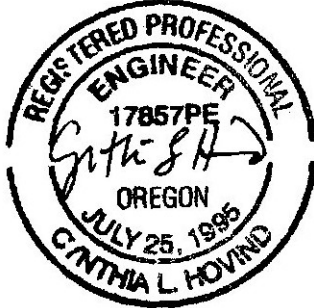
The recommendations presented in this report are based on the information provided to us, results of the field investigation, and professional judgment. We have observed only a small portion of the pertinent soil and groundwater conditions. The recommendations are based on the assumptions that the soil conditions do not deviate appreciably for those encountered during our field investigation.

Geotechnical review is of paramount importance in engineering practice. The poor performance of many foundations has been attributed to inadequate construction review. On-site grading and earthwork should be observed and, where necessary, tested by a qualified engineering firm to verify the compliance with the recommendations contained in this report. Foundation excavation should also be observed to compare the generalized site conditions assumed in this report with those found on the site at the time of construction. If the plans for site development are changed, or if various or undesirable geotechnical conditions are encountered during construction, the geotechnical engineer should be consulted for further recommendations.

This report is issued with the understanding that it is the responsibility of the owner to ensure that the recommendations are incorporated in the plans and the necessary steps are taken to see that the constructor and subcontractors carry out such recommendations in the field. Geotechnical engineering is characterized by a certain degree of uncertainty. Professional judgments presented are based partly on our understanding of the proposed construction and partly on our general experience. Our engineering work and judgments rendered meet current professional standards; no other warranties, either expressed or implied are made. This report is subject to review and should not be relied upon after a period of 3 years.

It has been a pleasure providing you the geotechnical services for this project. If you have any questions, please call at 503.502.5114.

Sincerely,  
Terra Dolce Consultants, Inc.



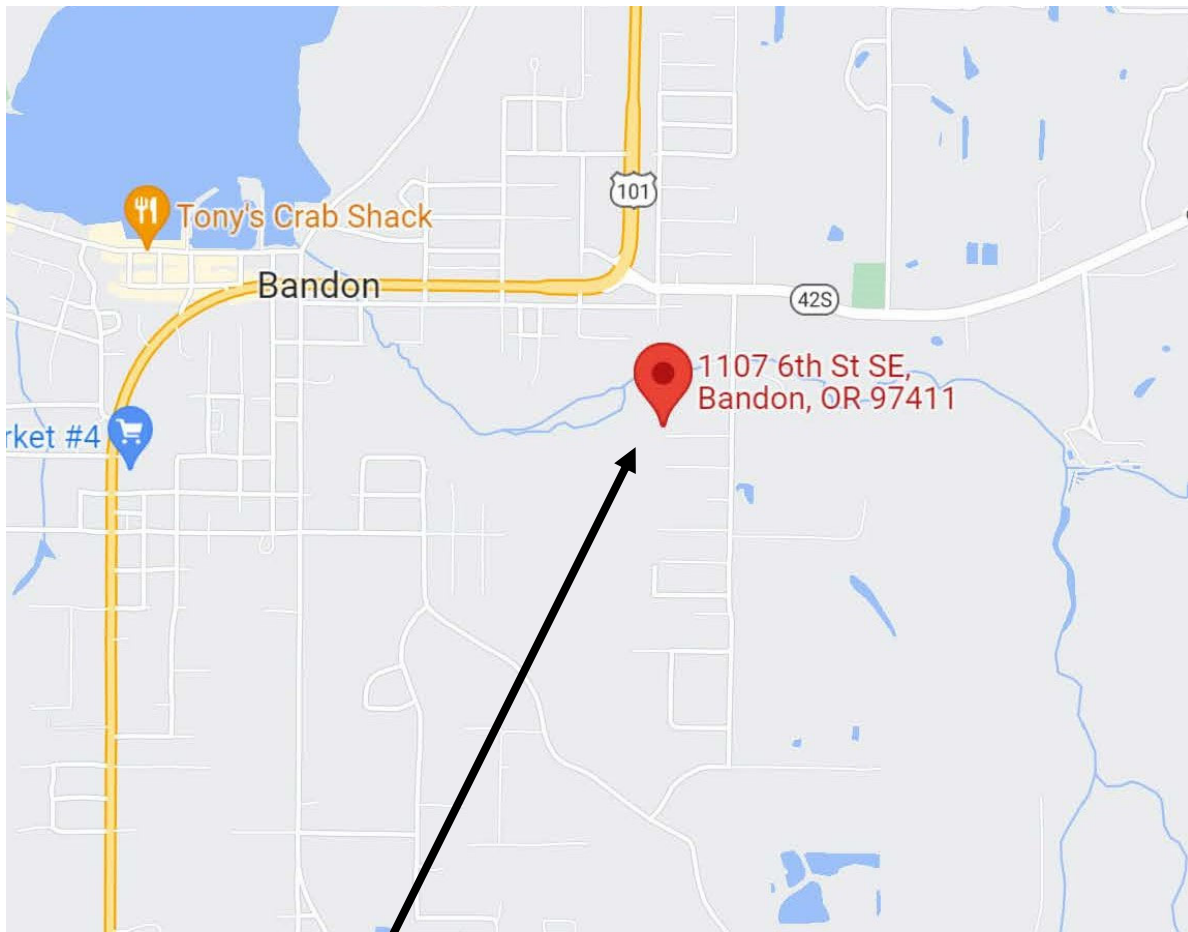
**DPRES.** 6-30-23

Cynthia L. Hovind, P.E., G.E.  
Professional Geotechnical Engineer, OR-17857PE

Attachments:

Figure 1-Vicinity Map  
Figure 2 -Site Plan  
Boring Logs  
CT AllPile Calculations

(1) Addressee



Site



GOOGLE MAP, 2022

**Terra Dolce Consultants, Inc.**  
4706 NE 75th Ave  
Portland, Oregon 97218  
Phone 503.502.5114  
Fax 503.206-5114

Berry Residence  
1107 6th St SE  
Bandon, Oregon 97411

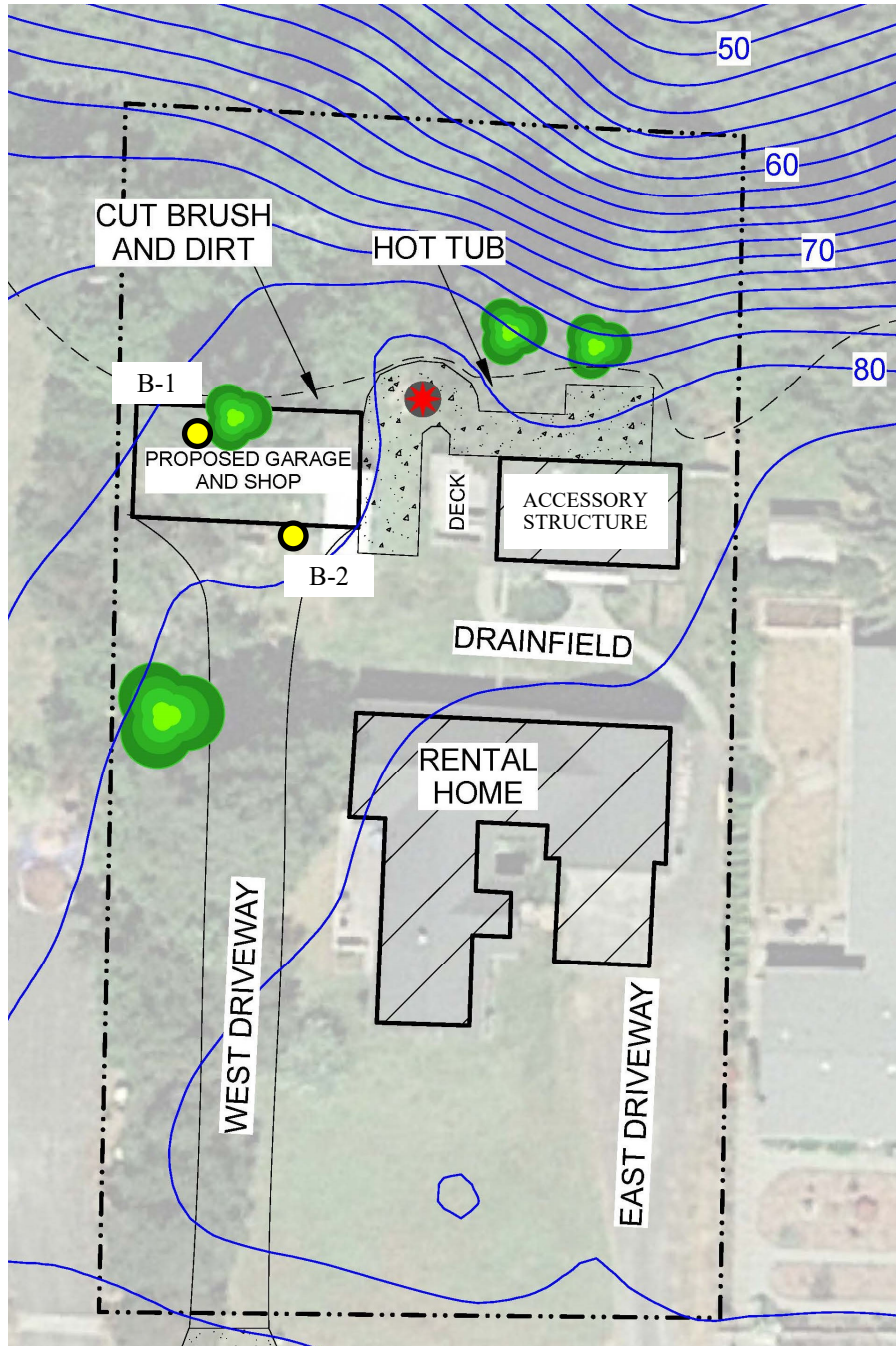
Project No. 1029-001

April 29, 2022

Vicinity Map

Figure 1





SITE PLAN BY EVREN NW, MAR 2022

**Terra Dolce Consultants, Inc.**

4706 NE 75th Ave  
 Portland, Oregon 97218  
 Phone 503.502.5114  
 Fax 503.206-5114

Berry Residence  
 1107 6th St SE  
 Bandon, Oregon 97411

Project No. 1029-001

April 29, 2022

Site Plan

Figure 2

## **BORING LOGS**

Location: 1107 6th St SE, Bandon, Oregon

WO#: 1029-001

Method: Solid Stem Auger 4"

Ground EL: N/A

Hammer: Safety Hammer

Hammer weight (lb): 140

Hole depth (ft): 30

Sampler: Split Spoon Sampler 2"

Drop (in): 30

G.W.T. @ Drilling (ft):

Sampled by: CLH

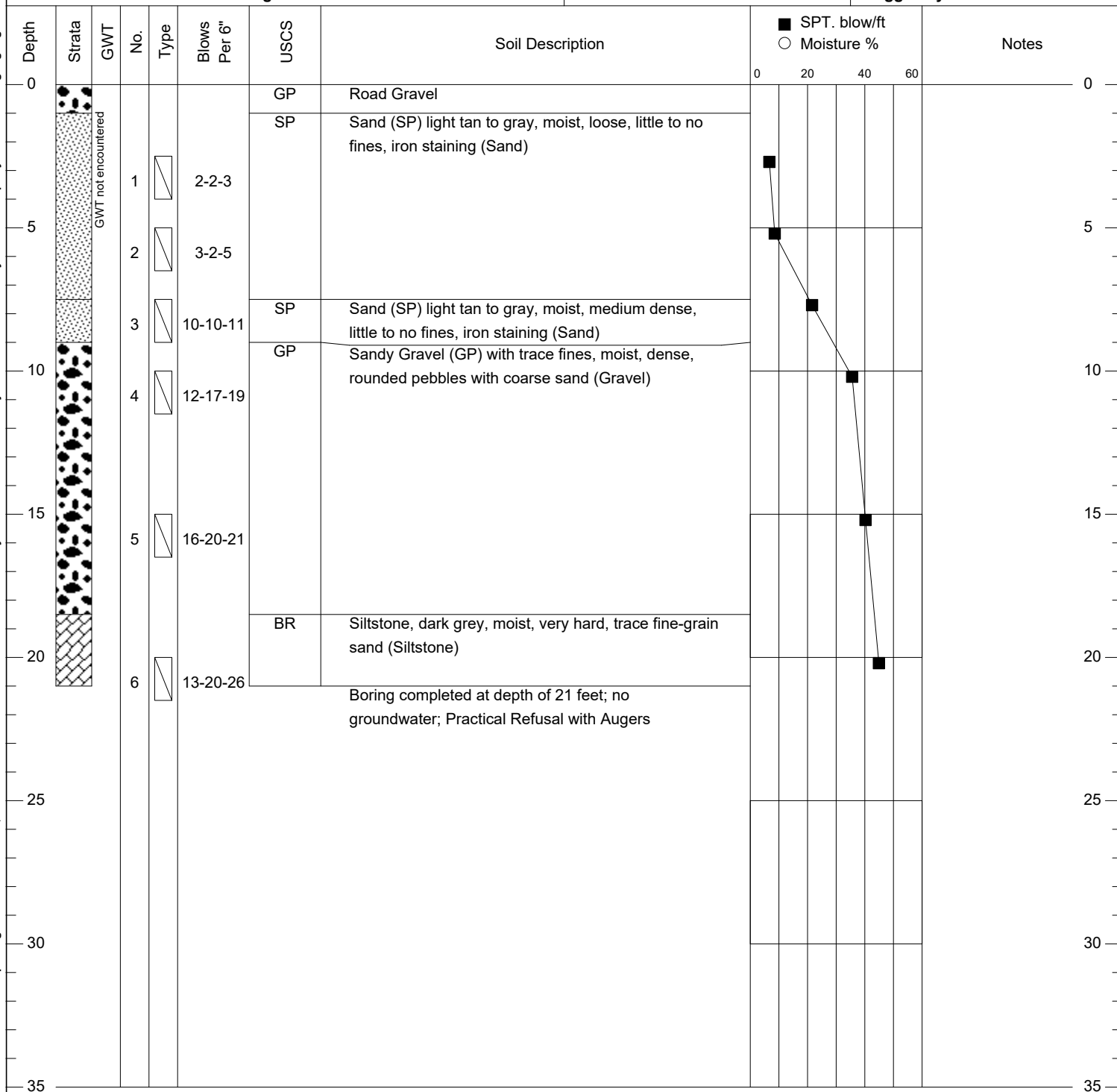
Driller: Dan J. Fischer Excavating

Drill Date: 4/21/22

Logged by: CLH

Date: 4/28/2022

SuperLog CivilTech Software, USA www.civiltech.com File: L:\Users\Cindy\Documents\TDC Projects\1029 Michael Berry Bandon Property\Bandon boring log.log



Remarks:

Location: 1107 6th St SE, Bandon, Oregon

WO#: 1029-001

Method: Solid Stem Auger 4"

Ground EL: N/A

Hammer: Safety Hammer

Hammer weight (lb): 140

Hole depth (ft): 13

Sampler: Split Spoon Sampler 2"

Drop (in): 30

G.W.T. @ Drilling (ft):

Sampled by: CLH

Driller: Dan J. Fischer Excavating

Drill Date: 4/21/22

Logged by: CLH

Date: 4/28/2022  
SuperLog CivilTech Software, USA www.civiltech.com  
File: L:\Users\Cindy\Documents\TDC Projects\1029 Michael Berry Bandon Property\Bandon boring log.log

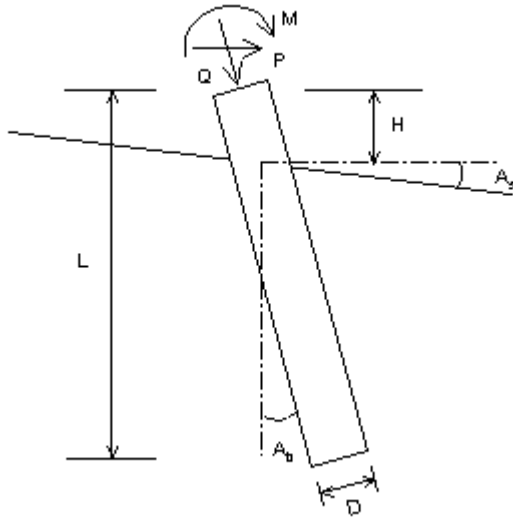
Depth	Strata	GWT	No.	Type	Blows Per 6"	USCS	Soil Description	SPT. blow/ft				Notes
								0	20	40	60	
0						GP	Road Gravel					
						SP	Sand (SP) light tan to gray, moist, loose, little to no fines, iron staining (Sand)					
1		GWT not encountered	1		2-2-3			■				
5			2		3-2-5			■				
10			3		10-10-11	SP	Sand (SP) light tan to gray, moist, medium dense, little to no fines, iron staining (Sand)			■		
13			4		12-17-19	GP	Sandy Gravel with trace fines, moist, dense, 1/4 - 1/2-inch rounded pebbles with coarse sand (Gravel)				■	
Boring completed at depth of 13 feet, no groundwater, practical refusal with auger.												

Remarks:

**CT ALLPILE**

# VERTICAL ANALYSIS

Figure 1



Drilled Pile (dia  $\leq$  24 in. or 61 cm)

**Loads:**

Load Factor for Vertical Loads= 1.0  
 Load Factor for Lateral Loads= 1.0  
 Loads Supported by Pile Cap= 0 %  
 Shear Condition: Static

Vertical Load, Q= 100.0 -kp  
 Shear Load, P= 0.0 -kp  
 Slope Restrain St= 0.00 -in/-in

**Profile:**

Pile Length, L= 21.0 -ft  
 Top Height, H= 0 -ft  
 Slope Angle, As= 0  
 Batter Angle, Ab= 0

Fixed Head Condition

**Soil Data:**

Depth -ft	Gamma -lb/f3	Phi	C -kp/f2	K -lb/i3	e50 or Dr %	Nspt
0	110	30	0.00	48.3	36.03	11
9	125	35	0.00	227.1	77.78	43
18.5	130	35	50	750	0.04	33

**Pile Data:**

Depth -ft	Width -in	Area -in2	Per. -in	I -in4	E -kp/i2	Weight -kp/f
0.0	12	113.1	37.7	1017.9	3000	0.118
21.0						

Vertical capacity:

Weight above Ground= 0.00 Total Weight= 2.48-kp \*Soil Weight is not included  
 Side Resistance (Down)= 414.665-kp Side Resistance (Up)= 404.108-kp  
 Tip Resistance (Down)= 399.213-kp Tip Resistance (Up)= 0.000-kp  
 Total Ultimate Capacity (Down)= 813.878-kp Total Ultimate Capacity (Up)= 406.586-kp  
 Total Allowable Capacity (Down)= 476.050-kp Total Allowable Capacity (Up)= 204.532-kp  
 OK! Qallow > Q

Settlement Calculation:

At Q= 100.00-kp Settlement= 0.07657-in  
 At Xallow= 1.00-in Qallow= 671.37274-kp

Note: If the program cannot find a result or the result exceeds the upper limit. The result will be displayed as 99999.



\*\*\*\*\*

ALLPILE 7  
VERTICAL ANALYSIS SUMMARY OUTPUT  
Copyright by CivilTech Software  
www.civiltechsoftware.com

\*\*\*\*\*

Licensed to  
Date: 5/31/2022 File: L:\Users\Cindy\Documents\tdc\TDC Projects\1029 Michael Berry  
Bandon Property\AllPile\Berry Garage.alp

Title 1: Michael Berry Garage  
Title 2: Proposed Foundation 12-inch piles

ALLPILE INPUT DATA:

\* Pile Type Page \*

Unit: English  
Concrete poured into drilled hole. Diameter is limited to 24in (61cm).  
Pile Type: Drilled Pile (dia <=24 in. or 61 cm)

\* Pile Profile \*

Foundation Depth: 21.0 -ft  
Top Height: 0 -ft  
Slope Angle: 0  
Pile Angle: 0

\* Pile Properties \*

Zs	Width	Area	Perim.	I	E	Weight	Mix	Out	In	
Other.	Type							Side	Side	
-ft	-in	-in <sup>2</sup>	-in	-in <sup>4</sup>	-kp/i <sup>2</sup>	-kp/f	%			
Par.										
0.0	12	113.1	37.7	1017.9	3000	0.118	0.0	4	4	0
Concrete (smooth)										
21.0	12	113.1	37.7	1017.9	3000	0.118	0.0	4	4	0
Pile Tip										

\* Group-Head-Loading Conditions \*

Head Condition: 5  
Vertical Load, Q: 100 -kp  
Shear Load, P: 5 -kp  
Shear Condition: Static  
Number of Cycles: 2  
Moment, M: 10-kp-f  
Displacement, yt: 0 -in  
Slope, St: 0  
Stiffness, Kt: 1 -kp-f  
Group Type: 1

Top Type: 5  
 Diameter: 0 -in  
 Sx: 1 -in  
 Sy: 1 -in  
 Nx: 1  
 Ny: 1

No Water Table  
 No Elevation Input

\* Soil Properties \*

Zs	Gamma	Phi	C	K	E50/Dr	Nspt	Type	Soil
-ft	-lb/f3	o	-kp/f2	-lb/i3	- %			
0.0	110	30	0.00	48.3	36.03	11	4	Sand/Gravel
9.0	125	35	0.00	227.1	77.78	43	4	Sand/Gravel
18.5	130	35	50	750	0.04	33	5	Weak Rock

ALLPILE ANALYSIS AND RESULTS:

---

TOTAL LOADS:

Vertical Load, Q: 100.0 -kp  
 Load Factor for Vertical Loads: 1.0  
 Loads Supported by Pile Cap: 0 %

PILE PROFILE:

Pile Length, L= 21.0 -ft  
 Top Height, H= 0 -ft  
 Slope Angle, As= 0  
 Batter Angle, Ab= 0.00      Batter Factor, Kbat= 1.00

SINGLE PILE:

Deduction factor due to Group Effect, R= 1.00  
 Vertical Load= 100.00 -kp

Single Pile Vertical Analysis:

Total Ultimate Capacity (Down)= 813.878-kp    Total Ultimate Capacity (Up)= 406.586-kp  
 Total Allowable Capacity (Down)= 476.050-kp    Total Allowable Capacity (Up)= 204.532-kp  
 Weight above Ground= 0.00      Total Weight= 2.48-kp      \*Soil Weight is not included  
 Side Resistance (Down)= 414.665-kp    Side Resistance (Up)= 404.108-kp  
 Tip Resistance (Down)= 399.213-kp    Tip Resistance (Up)= 0.000-kp  
 Negative Friction, Qneg= 0.000-kp, which has been subtracted from Total Ultimate Capacity (Down)  
 Negative friction does not affect Total Ultimate Capacity (Up)



At Work Load= 100.00-kp, Settlement= 0.07657-in  
At Work Load= 100.00-kp, Secant Stiffness Kqx= 1306.04-kp/-in  
At Allowable Settlement= 1.000-in, Capacity= 671.37-kp  
Work Load, 100.00-kp, OK with the Capacity at Allowable Settlement=  
1.00-in, Capacity= 671.37-kp  
Work Load, 100.00-kp, OK with the Allowable Capacity (Down)= 476.05-kp

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FACTOR OF SAFETY:

FSSide	FStip	FSuplif	FSweight
1.5	2.0	2.0	1.0

Note: If the program cannot find a result or the result exceeds the upper limit.  
The result will be displayed as 99999.

0	1	0	0	1
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