



## STAFF REPORT

**Application:** Variance to construct a new detached garage approximately 41 feet from the centerline of a township road (65 feet required) and with an 8/12 roof pitch and 6.5 feet of headroom (max. 6/12 pitch and 6 feet of headroom allowed).

**Applicant:** Charles Onsrud

**Agenda Item:** 4(f)

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### Background Information:

**Location:**

- Property Address: 8338 Irvine Ave NW, Annandale
- Sec/Twp/Range: 22-121-27
- Parcel Number: 206000223201

**Zoning:** Urban/Rural Transitional (R-1)/Residential Recreation Shorelands (S-2) Overlay District, Cedar Lake (General Development lake).

**Lot size:** Approximately 58 (road) and 100+ (lake) x 306 or 23,166 sq ft (0.53 acres) according to provided survey (above OHWL).

Existing Impervious Coverage:

- Buildings: Approx. 1,038 sq ft (~4.5%)
- Total: Approx. 5,500-5,900 sq ft (24-25+%)

Proposed Impervious Coverage:

- Buildings: Approx. 1,766 sq ft (~7.6%)
- Total: Approx. 5,300-5,600 sq ft (23-24%) NOTE: These are based on measurements from the applicant and aerial photos – not from a survey of the lot.

**Septic System Status:** The existing sewer system was installed in 2008 and is considered compliant until 2013. The system is sized for three (3) bedrooms. The proposed garage would not affect the sewer in any way.

**Natural Features:**

Floodplain: The property is not within an identified floodplain.

Bluff/Steep Slopes: The property contains a steep slope running from the road down toward the lake that drops a total of about 38-40 feet. However, the slope is not sufficient enough to be considered a bluff.

Wetlands: There are not any wetlands on the property.

**Proposal:** The applicant is proposing to construct a new 28' x 26' "walkout" garage into the slope between the road and the existing dwelling. The project would involve moving approximately 40 cu yds of material off-site to accommodate the garage. The garage is proposed to have a second story storage area with an 8/12 pitch and 6.5 feet of headroom.

**Requested Variance(s):**

- Road centerline setback: Proposed garage to be approximately 41 feet from the centerline of a township road (65 feet required).
- Roof pitch: Construct a detached garage with a 8/12 roof pitch and 6.5 feet of headroom (max. 6/12 pitch and 6 feet of headroom allowed).
- (Potential) Impervious surface: Detailed calculations have not been submitted. Upon staff investigation, it appears the site may be close to or over the impervious limit already – largely due to the gravel driveway leading down to the lake. Staff is working with the applicant to have more detailed calculations completed and to verify some discrepancies between the deed and the measured calculations by a surveyor in 2008.

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**Applicable Statutes/Ordinances/Court Decisions:**

1.1A bill for an act

1.2relating to local government; providing for variances from city, county, and town

1.3zoning controls and ordinances;amending Minnesota Statutes 2010, sections

1.4394.27, subdivision 7; 462.357, subdivision 6.

1.5BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

1.6 Section 1. Minnesota Statutes 2010, section 394.27, subdivision 7, is amended to read:

1.7 Subd. 7. **Variances; ~~hardship~~ practical difficulties.** The board of adjustment shall

1.8have the exclusive power to order the issuance of variances from the ~~terms~~ requirements

1.9of any official control including restrictions placed on nonconformities. Variances shall

1.10only be permitted when they are in harmony with the general purposes and intent of the

1.11official control ~~in cases when there are practical difficulties or particular hardship in~~

1.12~~the way of carrying out the strict letter of any official control, and when the terms of~~

1.13~~the variance~~ variances are consistent with the comprehensive plan. "Hardship" as used

1.14~~in connection with the granting of a variance means the property in question cannot be~~

1.15~~put to a reasonable use if used under the conditions allowed by the official controls; the~~

1.16~~plight of the landowner is due to circumstances unique to the property not created by the~~

1.17~~landowner; and the variance, if granted, will not alter the essential character of the locality.~~

1.18Variances may be granted when the applicant for the variance establishes that there

1.19are practical difficulties in complying with the official control. "Practical difficulties,"

1.20as used in connection with the granting of a variance, means that the property owner

1.21proposes to use the property in a reasonable manner not permitted by an official control;

1.22the plight of the landowner is due to circumstances unique to the property not created by

1.23the landowner; and the variance, if granted, will not alter the essential character of the

1.24locality. Economic considerations alone shall do not constitute a hardship if a reasonable

2.1use for the property exists under the terms of the ordinance practical difficulties. Practical

2.2difficulties include, but are not limited to, inadequate access to direct sunlight for solar

2.3 energy systems. Variances shall be granted for earth sheltered construction as defined in  
2.4 section 216C.06, subdivision 14, when in harmony with the official controls. No variance  
2.5 may be granted that would allow any use that is ~~prohibited~~ not allowed in the zoning  
2.6 district in which the subject property is located. The board of adjustment may impose  
2.7 conditions in the granting of variances ~~to~~. A condition must be directly related to and must  
2.8 bear a rough proportionality to the impact created by the variance ~~insure compliance~~  
2.9 ~~and to protect adjacent properties and the public interest. The board of adjustment may~~  
2.10 ~~consider the inability to use solar energy systems a "hardship" in the granting of variances.~~  
2.11 **EFFECTIVE DATE.** This section is effective the day following final enactment.

2.12 Sec. 2. Minnesota Statutes 2010, section 462.357, subdivision 6, is amended to read:

2.13 Subd. 6. **Appeals and adjustments.** Appeals to the board of appeals and  
2.14 adjustments may be taken by any affected person upon compliance with any reasonable  
2.15 conditions imposed by the zoning ordinance. The board of appeals and adjustments has  
2.16 the following powers with respect to the zoning ordinance:

2.17 (1) To hear and decide appeals where it is alleged that there is an error in any  
2.18 order, requirement, decision, or determination made by an administrative officer in the  
2.19 enforcement of the zoning ordinance.

2.20 (2) To hear requests for variances from the ~~literal provisions of the ordinance~~  
2.21 ~~in instances where their strict enforcement would cause undue hardship because of~~  
2.22 ~~circumstances unique to the individual property under consideration, and to grant such~~  
2.23 ~~variances only when it is demonstrated that such actions will be in keeping with the spirit~~  
2.24 ~~and intent of the ordinance. "Undue hardship" as used in connection with the granting of a~~  
2.25 ~~variance means the property in question cannot be put to a reasonable use if used under~~  
2.26 ~~conditions allowed by the official controls, requirements of the zoning ordinance including~~  
2.27 restrictions placed on nonconformities. Variances shall only be permitted when they are in  
2.28 harmony with the general purposes and intent of the ordinance and when the variances are  
2.29 consistent with the comprehensive plan. Variances may be granted when the applicant for  
2.30 the variance establishes that there are practical difficulties in complying with the zoning  
2.31 ordinance. "Practical difficulties," as used in connection with the granting of a variance,  
2.32 means that the property owner proposes to use the property in a reasonable manner not  
2.33 permitted by the zoning ordinance; the plight of the landowner is due to circumstances  
2.34 unique to the property not created by the landowner; and the variance, if granted, will not  
2.35 alter the essential character of the locality. Economic considerations alone shall do not  
3.1 ~~constitute an undue hardship if reasonable use for the property exists under the terms of~~  
3.2 ~~the ordinance. Undue hardship also includes practical difficulties. Practical difficulties~~  
3.3 include, but is are not limited to, inadequate access to direct sunlight for solar energy  
3.4 systems. Variances shall be granted for earth sheltered construction as defined in section

3.5216C.06, subdivision 14 , when in harmony with the ordinance. The board of appeals and  
3.6adjustments or the governing body as the case may be, may not permit as a variance any  
3.7use that is not ~~permitted~~ allowed under the zoning ordinance for property in the zone  
3.8where the affected person's land is located. The board or governing body as the case  
3.9may be, may permit as a variance the temporary use of a one family dwelling as a two  
3.10family dwelling. The board or governing body as the case may be may impose conditions  
3.11in the granting of variances ~~to insure compliance and to protect adjacent properties.~~ A  
3.12condition must be directly related to and must bear a rough proportionality to the impact  
3.13created by the variance.  
3.14**EFFECTIVE DATE.**This section is effective the day following final enactment.

### MN Rules 6120.3900, Subp 3 (Variances)

Variances may only be granted in accordance with Minnesota Statutes, chapters 394 or 462, as applicable. They may not circumvent the general purposes and intent of the official controls. No variance may be granted that would allow any use that is prohibited in the zoning district in which the subject property is located. Conditions may be imposed in the granting of variances to ensure compliance and to protect adjacent properties and the public interest. In considering variance requests, boards of adjustment must also consider whether property owners have reasonable use of the lands without the variances, whether existing sewage treatment systems on the properties need upgrading before additional development is approved, whether the properties are used seasonally or year-round, whether variances are being requested solely on the basis of economic considerations, and the characteristics of development on adjacent properties.

### 502.3 Findings

The Board of Adjustment shall not grant a Variance unless it finds the following facts at the hearing where the applicant shall present a statement of evidence proving the following:

- (1) The granting of the Variance will not be in conflict with the Comprehensive Plan;
- (2) The property will not yield a reasonable return if used in compliance with this Ordinance;
- (3) The conditions causing the hardship are unique and are not shared by neighboring property in the same zone;
- (4) The granting of the Variance will not essentially alter the character of the neighborhood; and,
- (5) The granting of the Variance will not adversely affect the environmental quality of the area.

If the appellant fails to prove only one of the conditions, the Board of Adjustment cannot legally grant the Variance. The burden of proof of these matters rests on

the applicant. He is requesting a special privilege, and it is incumbent upon him to prove that the conditions necessary for granting of the privilege are satisfied.

### **302. DEFINITIONS**

(1) Accessory Use or Structure - A use or structure or portion of a structure subordinate to and serving the principal use structure on the same lot and customarily incidental thereto. Detached accessory structures and garages on lots less than one acre shall not have a second story, must have no more than six (6) feet of headroom in a rafter storage area, and have a maximum 6/12 roof pitch.

### **403. LOT COVERAGE**

Not more than fifteen (15) percent of a lot may be covered by buildings and not more than twenty-five (25) percent of lot may be covered by impervious surfaces, including all structures, decks and pavement areas except as provided in Section 608, 609, and 610.

### **605. URBAN/RURAL TRANSITIONAL R-1**

#### **605.5 Performance Standards**

(2) Front Yard Regulations:

(a) Required Setback Distance

<u>Required Setback Distance From Road Centerline</u>	<u>Road Class</u>
130	State Highway
130	County Road State Aid
65	Local Street (Twp. Rd.)
25	From right of way of cul-de-sac or approved "T"

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**Staff Findings:** The following findings of fact are presented by Staff for consideration by the Board of Adjustment:

**1) Will the granting of the variance be in harmony with the general purposes and intent of the Corinna Township Land Use (Zoning) and/or Subdivision Ordinance?**

a) Road Setback: The spirit and intent of the ordinance for structures is to help ensure the protection of those structures and motor vehicles from damage due to road maintenance activities, vehicles driving off the road, parking along-side roads or other such activities. In other zoning districts where development occurs more densely, the ordinance allows for setbacks from the right-of-way of a road as low as 20 feet. This is presumably to allow adequate space for a vehicle to park on the driveway without impinging on the road right-of-way.

The proposed garage will be about 30 feet from the right-of-way of the road and will thus meet the spirit of the ordinance as noted above. Further many of the

homes in this neighborhood have garages or other structures at similar or closer distances than the proposed garage.

- b) Roof Pitch: The spirit and intent of the ordinance is to prevent space within a detached accessory building to be used as dwelling space. A 6/12 roof pitch and maximum 6 foot of headroom effectively prevents the space from being used as dwelling space.

The proposed garage would have a roof pitch of 8/12 with headroom of 6.5 feet (headroom would be maintained for a width of 10 feet. Whether this meets the spirit and intent of the ordinance is dependent on whether the space is used for storage or as dwelling space. The ordinance is intended to address that issue by having a lower pitch and lower headroom than is proposed.

**2) Will the granting of the variance be consistent with the Corinna Township Comprehensive Plan?**

**Yes, with possible conditions addressing stormwater management, erosion control and impervious coverage.** The Corinna Township Comprehensive Plan does not directly address road setback issues except to make statements about protecting lake quality in shoreland areas as land is developed. The Wright County Comprehensive Plan states “Development of lakeshore property shall abide by State Shoreland Management Rules to maintain, as far as practical, a natural shoreline and natural views of shoreland areas from the lake’s surface.”

The Comprehensive Plan states the following as strategies to “protect, preserve, and enhance lake water quality”:

- Require on-site storm water retention and erosion-control plans for all new lakeshore development and redevelopment of existing sites, to ensure that storm water runoff is properly managed and treated before entering surface waters.
- Require the use of best management practices as outlined by the Minnesota DNR, University of Minnesota Extension, or other appropriate agencies during the development and re-development of all property in the Township to prevent erosion and sedimentation that eventually reaches area lakes and wetlands through ditches, direct runoff, or other means.
  - Staff Comment: No specific storm water retention or erosion-control plan has been submitted as part of the variance proposal. Wright Co SWCD has noted that the soils in the proposed construction area a highly erodible and that temporary erosion control measures will be needed. For long term erosion control, they have indicated that roof gutters from the garage should be directed into the existing french drain already located on the property.
- Seek ways to ensure that new development, landscaping, or other alterations on lakeshore properties preserve and/or provide for the planting of native trees and shoreline vegetation.
  - Staff Comment: No specific landscaping plans have been presented. It does not appear that any trees would be lost as part of the proposed construction.

- Limit the amount of grading and filling in the shoreland area so as to minimize the disturbance of soil and prevent erosion.
  - **Staff Comment:** The applicant has indicated that about 40 cubic yards of material would be moved to accommodate the new garage. This fill would be spread elsewhere on the site to help and address existing erosion concerns. No specific plans have been submitted, but this would be handled via an administrative permit so long as the amount remained under 50 cubic yards.

**3) Is the proposed use of the property reasonable?**

**Needs discussion.** The proposed use of the property is to add a reasonably sized garage. It is reasonable to request the road setback variance, as the only reasonable option for building a garage that meets the setback is to place it alongside the house, where it would require additional excavating and likely block access to the lakeshore.

The primary question from Staff's perspective relates to the reasonableness of the requested 8/12 roof pitch with 6.5 feet of headroom as compared to the maximum allowed of 6/12 and 6 feet, respectively. While it might be reasonable to want additional headroom in a storage area, the ordinance clearly limits headroom as a way to allow for storage, but prevent use of the space as dwelling space.

**4) Is the plight of the landowner due to circumstances unique to the property not created by the landowner?**

**Needs discussion (road setback),** The need for the road variance is partly necessitated by the location of the existing dwelling and the steep slope on the property – a situation not created by the current landowner. However, it does appear that there is sufficient space for a garage to the west of the existing dwelling that could meet the required road setback.

**No (roof pitch).** The need for the roof pitch/headroom variance appears to be created solely by the desire of the applicant to have more headroom in their storage area.

**5) Will the variance, if granted, alter the essential character of the locality?**

**No.** The proposed 728 sq ft garage appears to be in character with the neighborhood, which includes detached buildings of similar or even greater size. The proposed use of the garage would be for storage of vehicles or other materials/equipment typical of a residential setting.

**6) Are economic considerations the only reason the applicant cannot meet the strict requirements of the ordinance?**

**No.** There are other considerations involved, including the location of the existing house/garage and the steep slope of the hill.

**7) Could the practical difficulty be alleviated by a feasible method other than a variance (taking into account economic considerations)?**

**Needs discussion (road setback).** The only other feasible location for a garage is further back next to the house. This would likely involve greater amounts of fill/excavating, could block access to the lake down the steep slope,

and would likely require removal of the existing deck on the west side of the house.

**Yes (roof pitch/headroom).** There does not seem to be any reason that the roof pitch and headroom requirements couldn't be met except for the desire of the applicant for more headroom.

**8) Will the granting of the variance adversely affect the environmental quality of the area?**

The most likely impact on the environment would come from stormwater runoff from the garage. These could be reasonably addressed with proper planting of vegetation and/or other stormwater management efforts, although doing so is more challenging due to the steep slope.

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**Board of Adjustment Direction:** The Board of Adjustment may approve the variance request, deny the request, or table the request if the Board should need additional information from the applicant. If the Board should approve or deny the request, the Board should state the findings which support either of these actions.

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**Staff Recommendation:** Based on the findings of fact and discussion listed above, Staff would recommend denial of the requested 8/12 roof pitch and 6.5 ft of headroom in the proposed garage as the applicant has not demonstrated a practical difficulty justifying those variances.

Staff would recommend that the applicant provide information as to why the proposed garage could not reasonably be placed further back in the property to the west of the existing dwelling. It appears that such a location would be feasible as the slope is not significantly different than in the proposed location and it would still allow room to access the lake along the side of the garage.

If the Board does recommend approval of any variances, Staff would recommend the following:

1. That the applicant submits adequate information to assure that they will be meeting the limitations on impervious coverage. They have noted that they will be restoring some of the existing drive down the slope to the lake to grass as a way to assure this.
2. The applicant should submit a permanent stormwater management plan designed to minimize the potential for ongoing erosion or sedimentation. These may include directing rain gutters to appropriate areas, rain barrels, or other acceptable best management practices. Once approved, the plan should be implemented at the time of construction or within a reasonable time period after construction is completed.
3. Erosion and sedimentation control measures must be installed and maintained until the construction areas have been stabilized. These shall include at a minimum silt fences on downslope areas. Once disturbed areas are no longer being used for construction purposes, these shall be covered with mulch, erosion control blankets or other forms of temporary cover until vegetation is re-established.

Application # \_\_\_\_\_ Date Application Rec'd 6/15/2011 Fee Collected \$ 400.00

(for office use only)

**CORINNA TOWNSHIP  
VARIANCE APPLICATION**

Name of Applicant Charles R Onsrud Phone 763-559-3336

Property Address (E911#) 8338 Irvine Ave N.W

Mailing Address 8338 Irvine Ave NW Local Phone SAME  
(if different than above) (if different than above)

City, State, Zip Annandale, MN 55302

Applicant is: \_\_\_\_\_ Title Holder of Property (if other than applicant)

Legal Owner  \_\_\_\_\_  
 Contract Buyer  \_\_\_\_\_ (Name)  
 Option Holder  \_\_\_\_\_  
 Agent  \_\_\_\_\_ (Address)  
 Other \_\_\_\_\_ (City, State, Zip)

Signature of Legal Owner(s), authorizing application (required) [Signature]  
 (By signing the owner is certifying that they have read and understood the instructions accompanying this application.)

Signature of Applicant (if different than owner): \_\_\_\_\_  
 (By signing the applicant is certifying that they have read and understood the instructions accompanying this application.)

Property ID # (12 digit # beginning with 206-XXX-XXXXXX) 206-060-223201

Full legal description of property involved in this request, including total acreage or square footage (required - attach separate sheet if necessary):  
 \_\_\_\_\_ TOWN OF CORINNA  
 \_\_\_\_\_ Sect-22 Twp-121 Range-027 UNPLATTED  
 \_\_\_\_\_ LAND CORINNA TWP .40 AC TH PRT OF  
 \_\_\_\_\_ GOV LT5 DES COM SW \_\_\_\_\_

Zoning District \_\_\_\_\_, Lake Name (if applicable) Cedar Lake

What type of variance are you requesting (check as many as apply)?

- 1 per 40 Division
- Road Setback
- Building/Impervious Coverage
- Lot Line Adjustment
- Lake or River Setback
- Height of Structure? 8-12 Pitch
- Undersized Lot
- Side or Rear Line Setback
- Septic System Setback
- Appeal of Staff Interpretation
- Bluff Setback
- Other 7' - y wot a problem

What are you proposing for the property? State nature of request in detail: Build Garage  
28-60g 26 wide Setback at 41' +/- from  
Center of Irvine Ave N.W Trusses (Roof: 8-12 Pitch  
6'6" ht. in attic for storage ONLY if possible  
(NOT a deal breaker) otherwise 6-12 pitch 6' ht.

Please read the variance application in its entirety before submitting the application. See the attached schedule of public hearings for relevant application deadlines. The full land use ordinance is available at the Town Hall and online at [www.corinnaplanning.info](http://www.corinnaplanning.info).

NOTE: Incomplete applications, as determined by the Zoning Administrator, will not be accepted or scheduled for a hearing. It is recommended that you work with the Zoning Administrator well before the application deadline to ensure that you have all required information so as to avoid delays in the hearing of your application:

Please complete all of the following questions (if you are outside a shoreland zone, do not complete these questions. Instead complete the next set of questions below):

1. Describe why you believe the granting of the variance request would be in harmony with the general purposes and intent of the Corinna Township Land Use and/or Subdivision Ordinance (available at [www.corinnaplanning.info](http://www.corinnaplanning.info)).

Garage similar distance from road as other structures. It would still leave adequate parking (same as current parking) without interfering with Trwing. Pitch, Height only for comfort and storage not occupancy.

2. Describe why you believe the granting of the variance would be consistent with the Corinna Township Comprehensive Plan (Plan available at [www.corinnaplanning.info](http://www.corinnaplanning.info)).

to make home more livable and increase value without detracting from others property.

3. Describe why you feel that your proposal is a reasonable use of the property.

allow for enclosed storage and parking not outside storage of boats and cars.

4. Describe what factors contributing to the need for a variance were not in your control. Address factors such as the lot size or shape, topography, location of existing buildings, sewer systems and wells, and any other factors you feel are relevant.

Because of distance from home and direction it is impossible to have 65' setback from center of road.

5. Describe the character of the area and why your project will not substantially change the character of the neighborhood or be a detriment to nearby properties.

about 50-50 year round homes with garages and summer cabins. This is our home. Because of the proposed placement its out of site of lake buildings.

6. Describe why it is not feasible for your project to meet the minimum requirements of the ordinance. What options did you explore that would minimize the variance necessary and why did you determine these were not feasible alternatives?

Not enough room between House + road.

7. Discuss what impacts, if any, the requested variance may have on the environmental quality of the area. For any potential impacts, how do you intend to eliminate or minimize their effect?

No impact known

8. Please include any other comments pertinent to this request.

I would request consideration of a variance of setback from IRVINE AVE (center) I would not impact traffic on driveway. The off road parking will remain the same as now. If you would consider 8-12 pitch 6'6" Hgt. this is only for my comfort. This space is only for storage and the variance so I don't bump my head. If this is a problem please change to 6'2" Work should be done within 6-8 weeks from 6' Hgt. Start or sooner.

Thank you

Sincerely.

Charles & Linda ONSRED





Swivel change to 6/12 pitch to wt. inf problem.

WJRE00110430 | 141111 | Job Reference (optional)  
 Midwest Manufacturing, Eau Claire, WI, 54703 | 7.030 Jan 3 2008 MillTek Industries, Inc. Thu Jan 23 21:13:47 2009 Page 1  
 0-0-0 4-0-1 3-10-3 7-10-4 10-3-4 13-0-0 15-8-12 18-1-12 2-5-0 2-8-12 2-5-0 2-1-1-15 4-0-1 26-0-0  
 Scale = 1:84.9

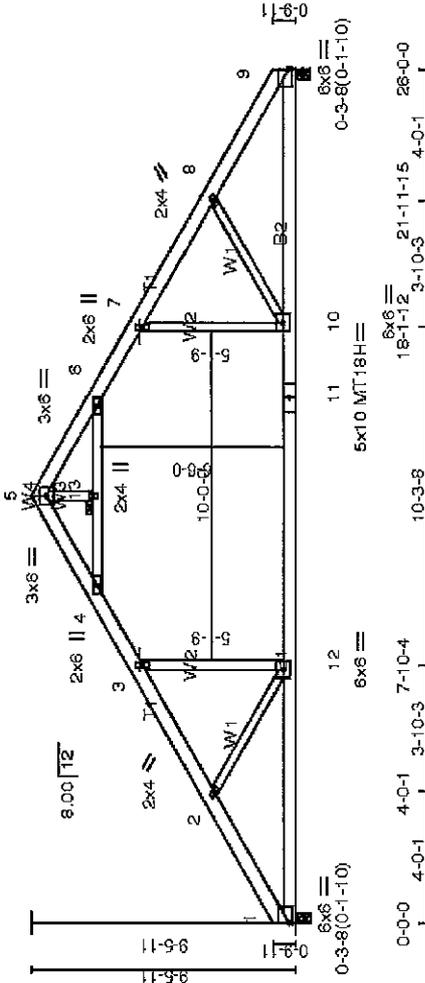


Plate Offsets (X,Y): [1:0-0-1,0-1-5], [9:0-0-1,0-1-5]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/d	PLATES	GRIP
TCLL 35.0	Plates Increase 1.15	TC 0.61	Vert(LL) -0.40	10-12	>763	MT20	197/144
TCDL 10.0	Lumber Increase 1.15	BC 0.58	Vert(TL) -0.56	10-12	>546	MT18H	244/190
BCLL 0.0	Rep Stress Incr YES	WB 0.66	Horz(TL) 0.05	9	n/a		
BCDL 10.0	Code IRC2006/TPI2002	(Matrix)					Weight: 166 lb
<b>LUMBER</b>							
TC 2 X 6 SYP 2400F 2.0E			<b>BRACING</b>		Structural wood sheathing directly applied or 5-0-8 oc purlins.		
BC 2 X 6 SYP 2400F 2.0E			TOP CHORD		Rigid ceiling directly applied or 10-0-0 oc bracing.		
WB 2 X 4 SPF Stud			BOT CHORD		1 Brace at Jt(s): 13		
<b>REACTIONS (lb/size)</b> 1=1923/0-3-8, 9=1923/0-3-8							
Max Horz 1=-208(LC 7)							
Max Uplift 1=-3(LC 9), 9=-3(LC 10)							
Max Grav 1=1932(LC 2), 9=1932(LC 2)							
<b>FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.</b>							
TOP CHORD 1-2=-3051/56, 2-3=-2712/35, 3-14=-1977/93, 4-14=-1874/108, 4-5=-5/335,							
5-6=-5/335, 6-15=-1874/108, 7-15=-1977/93, 7-8=-2712/35, 8-9=-3051/56							
BOT CHORD 1-12=-44/2354, 11-12=0/2033, 10-11=0/2033, 9-10=0/2354							
WEBS 4-13=-2364/85, 6-13=-2364/85, 3-12=0/904, 7-10=0/904, 2-12=-538/159,							
8-10=-538/160							
<b>NOTES (13)</b>							
1) Unbalanced roof live loads have been considered for this design.							
2) Wind: ASCE 7-05; 90mph; h=25ft; TC DL=4.2psf; BC DL=6.0psf; Category II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone: cantilever left and right exposed; and vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.							
3) TCLL: ASCE 7-05; Pl=35.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=50.0 psf (ground snow); Cof=1.0; BCLL: ASCE 7-05; Esnow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; C=1.1							

**CORINNA TOWNSHIP, MN**  
**Land Use/Building Permit Application**

Site Address (E-911#): <b>8338 IRVINE AVE NW, MN 55302</b>	E911 Address Needed? Yes <input type="checkbox"/> No <input type="checkbox"/>	Parcel Number (12 digits): 206-000223201
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**Legal Description (Lot, Block & Subdivision Name or attach full legal description):**

Description:  
Sect-22 Twp-121 Range-027 UNPLATTED LAND CORINNA TWP. 40  
AC TH PRT OF GOV LT5 DES COM SW COR OF GOV LT4 ALSO  
BNG SW COR OF SEC TH N1D2724"E ALG W LN OF SD LTS4&5  
1889.96FT TH S80D42'02"E 482.77FT TO POB TH

**Property Owner Info:**

Name: <b>Charlie Owsoud</b>		
Mailing Address: <b>8338 IRVINE AVE NW</b>		
City: <b>ANNANDALE</b>	State: <b>MN</b>	Zip Code: <b>55302</b>
Home Phone: <b>763-559-3336</b>	Cell Phone: <b>612-251-0880</b>	Fax Number:

**Applicant Info:**

Name: <b>SAME</b>		
Mailing Address:		
City:	State:	Zip Code:
Home Phone:	Cell Phone:	Fax Number:
Applicant Is:	<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Licensed Contractor <input type="checkbox"/> Design Prof. <input type="checkbox"/> Contract Buyer <input type="checkbox"/> Other:	

**General Contractor: SELF**

MN Lic. #:	Lead Abate. Lic. #:
Mailing Address:	
City:	State:
Business Phone:	Cell Phone:
	Fax Number:

**Design Professional/Architect: SELF**

Mailing Address:	
City:	State:
Business Phone:	Cell Phone:
	Fax Number:

**Lot Information:**

Lot Size (sq ft or acres): <b>3000 +/-</b>	Within 1000 ft of lake? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Lake Name: <b>Cedar</b>	Width at lake/rear: <b>120 FT</b>	Width at road: <b>57 FT</b>
Road frontage is: <input type="checkbox"/> State Hwy <input type="checkbox"/> County Rd <input checked="" type="checkbox"/> Private Rd	Zoning District: <b>G.D.</b>	<input type="checkbox"/> AG <input type="checkbox"/> A/R <input type="checkbox"/> R-2a <input type="checkbox"/> R-2 <input type="checkbox"/> R-1	<input type="checkbox"/> S-3 <input type="checkbox"/> B-1 <input type="checkbox"/> B-2 <input type="checkbox"/> I-1	

**Structure Setback Information (feet):**

Setback from lake (ord. high water mark) is: <b>250</b> ft	Setback from bluff (if present) is: _____ ft
Elevation of lowest floor above (if applicable): Highest Known Water Level: <b>9.51</b> ft ; 100-year Flood Elevation : _____ ft	
Setback from road(s) (centerline) are: <b>45.04</b> ft and _____ ft	Setbacks from Side Yard are: <b>18</b> ft and <b>18</b> ft

**Type of Improvement(s) - check all that apply:**

<input type="checkbox"/> Addition	<input checked="" type="checkbox"/> Build New	<input type="checkbox"/> Demolish	<input type="checkbox"/> Move	<input type="checkbox"/> Mechanical Only	<input type="checkbox"/> Plumbing Only
<input type="checkbox"/> Fireplace	<input type="checkbox"/> Re-side	<input type="checkbox"/> Re-roof (no structural change)	<input type="checkbox"/> Re-roof (structural/pitch change)	<input type="checkbox"/> Chimney	
<input type="checkbox"/> Interior Alteration/Repair (interior remodel, finish basement, etc...)	<input type="checkbox"/> Replace Windows/Doors	<input type="checkbox"/> Pre-1978 Construction (note lead abatement lic # above)	<input checked="" type="checkbox"/> Other (specify): <b>GARAGE</b>		

**Variance/Conditional/Interim Use Permit (if applicable - attach documentation):**

Variance granted on (date):	Conditional/Interim use permit granted on (date):
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**Structure Information:**

Structure #1			Structure #2			Structure #3		
<b>Type of Structure:</b> <input type="checkbox"/> Dwelling <input type="checkbox"/> Mobile Home <input type="checkbox"/> Storage Building <input checked="" type="checkbox"/> Detach. Garage <input type="checkbox"/> Attached Garage <input type="checkbox"/> Open Deck <input type="checkbox"/> Roofed Deck <input type="checkbox"/> Enclosed Porch <input type="checkbox"/> Patio <input type="checkbox"/> Other	<b>Use:</b> <input type="checkbox"/> Residential <input type="checkbox"/> Comm/Indus <input type="checkbox"/> Home Business <input type="checkbox"/> Other <b>Foundation:</b> <input type="checkbox"/> Basement <input type="checkbox"/> Walkout? <input type="checkbox"/> Slab-on-Grade <input type="checkbox"/> Piers <input type="checkbox"/> Other		<b>Type of Structure:</b> <input type="checkbox"/> Dwelling <input type="checkbox"/> Mobile Home <input type="checkbox"/> Storage Building <input type="checkbox"/> Detach. Garage <input type="checkbox"/> Attached Garage <input type="checkbox"/> Open Deck <input type="checkbox"/> Roofed Deck <input type="checkbox"/> Enclosed Porch <input type="checkbox"/> Patio <input type="checkbox"/> Other	<b>Use:</b> <input type="checkbox"/> Residential <input type="checkbox"/> Comm/Indus <input type="checkbox"/> Home Business <input type="checkbox"/> Other <b>Foundation:</b> <input type="checkbox"/> Basement <input type="checkbox"/> Walkout? <input type="checkbox"/> Slab-on-Grade <input type="checkbox"/> Piers <input type="checkbox"/> Other		<b>Type of Structure:</b> <input type="checkbox"/> Dwelling <input type="checkbox"/> Mobile Home <input type="checkbox"/> Storage Building <input type="checkbox"/> Detach. Garage <input type="checkbox"/> Attached Garage <input type="checkbox"/> Open Deck <input type="checkbox"/> Roofed Deck <input type="checkbox"/> Enclosed Porch <input type="checkbox"/> Patio <input type="checkbox"/> Other	<b>Use:</b> <input type="checkbox"/> Residential <input type="checkbox"/> Comm/Indus <input type="checkbox"/> Home Business <input type="checkbox"/> Other <b>Foundation:</b> <input type="checkbox"/> Basement <input type="checkbox"/> Walkout? <input type="checkbox"/> Slab-on-Grade <input type="checkbox"/> Piers <input type="checkbox"/> Other	
# of Stories above bsmnt	Footprint	Roof Pitch	# of Stories above bsmnt	Footprint	Roof Pitch	# of Stories above bsmnt	Footprint	Roof Pitch
1	28x26	8x12						
# Bedrooms	# Baths	Eave Width	# Bedrooms	# Baths	Eave Width	# Bedrooms	# Baths	Eave Width
		1 FT						
Estimated Cost: \$ 20,000	Plumbing in Structure? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Estimated Cost: \$	Plumbing in Structure? <input type="checkbox"/> Yes <input type="checkbox"/> No		Estimated Cost: \$	Plumbing in Structure? <input type="checkbox"/> Yes <input type="checkbox"/> No	

**Grading/Lot Preparation**

Project will involve grading/reshaping: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>EXCAVATION</b>	Amount of material to be moved (cubic yards): <input type="checkbox"/> 0-10 cu yds <input checked="" type="checkbox"/> 10-49 cu yds <input type="checkbox"/> 50-500 cu yds <input type="checkbox"/> Over 500 cu yds
Describe Temporary Erosion Control Measures to be implemented (check all that apply): <input checked="" type="checkbox"/> Silt fence <input type="checkbox"/> Straw/Other Mulch <input type="checkbox"/> Erosion Blanket <input type="checkbox"/> Biorolls <input type="checkbox"/> Berm <input type="checkbox"/> Temporary Sediment Basin <input type="checkbox"/> Other ?	Describe how vegetation will be re-established (check all that apply): <input type="checkbox"/> Sod <input type="checkbox"/> Hydroseed <input checked="" type="checkbox"/> Hand seed <input type="checkbox"/> Other

**Describe the Proposed Improvement/Project (any other relevant information not already mentioned):**

Build garage 28x26 SPANCRETE floor
28x26 underneath 2 STALLS up 1 stall + work
shop/Storage Down.

Signature of Applicant*:	Date: 5-13-11
Signature of Title Holder*: _____	Date: _____

mtg??

\* By signing, the applicant or agent hereby makes application for a permit to construct as herein specified, agreeing to do all such work in strict accordance with all Corinna Township and other applicable ordinances or federal and state laws. Applicant or agent agrees that site plan, sketches, and other attachments submitted herewith and which are approved by the Corinna Township Zoning Administrator are true and accurate, and shall become part of the permit. Applicant or agent agrees that, in making said application for a permit, applicant grants permission to Corinna Township's designated zoning or building inspection officials, at reasonable times during the application process and thereafter, to enter applicant's premises covered by said permit, to determine the feasibility of granting said permit or for compliance of that permit with any applicable township, state, or federal ordinances or statutes. Applicant or agent understands that it is applicant's sole responsibility to contact any other federal, state, county or local agencies to make sure applicant has complied with all relevant Municipal, State, Federal or other applicable laws concerning applicant's project described above.

SKETCH DRAWING

Front

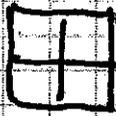
ROOF

8 x 12 PITCH

1' EAVES

GARAGE DOOR

GARAGE DOOR



36" DOOR

1 2'

9' x 7'  
W H

1 2'

8' x 7'  
W H

12' - 1

3'

1 2'

28' wide 26' DEEP GARAGE.  
SPAN CONCRETE LOWER LEVEL.  
O H W OF WATER BODY

Impervious Surface Calculation

List all existing structures* or other improvements on the property and their outside dimensions		List all proposed structures* or other improvements on the property and their outside dimensions:	
Type of Structure or Improvement	Footprint - incl. eaves (sq ft)	Type of Structure or Improvement	Footprint - incl. eaves (sq ft)
1. Home	930 sq ft (EXIST)		
2. SHED	108 sq ft		
3.			
4. GARAGE (NEW)	840 sq ft (28x20 w 1' EAVES)		
5.			
Total	1878 sq ft	Total	

\*Note: Include all roofed structures (including eaves), patios, decks, driveways, parking areas, retaining walls, stairways, sidewalks, propane tanks, landscaping underlain with fabric/plastic, etc...

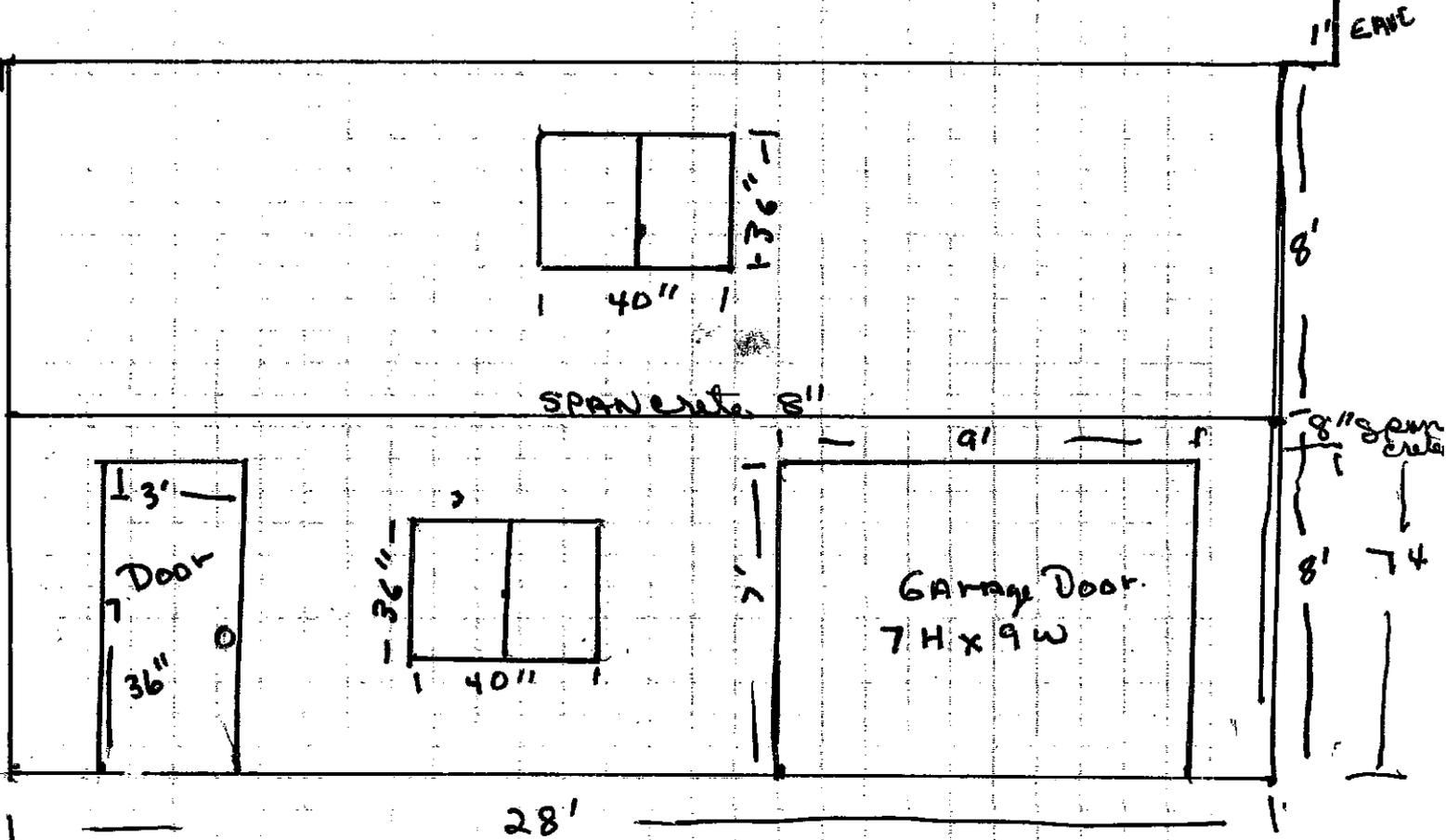
Total Lot Size = 30000 sq ft or acres

Total Impervious Coverage (Total Impervious / Total Lot Size) \* 100 = 15.16 %

Back.

SKETCH DRAWING

ROOF.



OHW OF WATER BODY

Impervious Surface Calculation

List all existing structures* or other improvements on the property and their outside dimensions		List all proposed structures* or other improvements on the property and their outside dimensions:	
Type of Structure or Improvement	Footprint - incl. eaves (sq ft)	Type of Structure or Improvement	Footprint - incl. eaves (sq ft)
1.			
2.			
3.			
4.			
5.			
Total		Total	

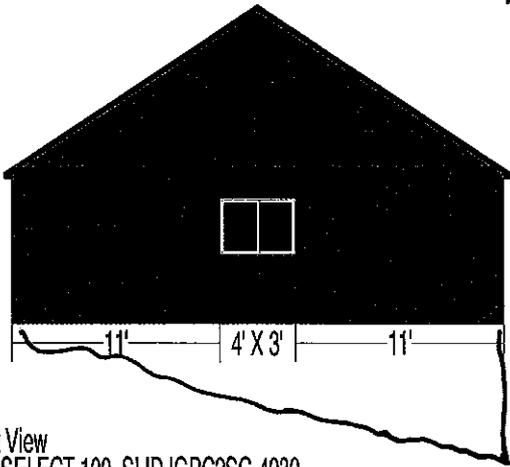
\*Note: Include all roofed structures (including eaves), patios, decks, driveways, parking areas, retaining walls, stairways, sidewalks, propane tanks, landscaping underlain with fabric/plastic, etc...

Total Lot Size = \_\_\_\_\_ sq ft or acres

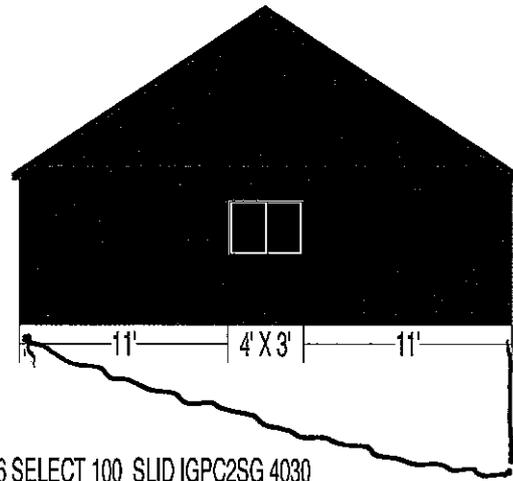
Total Impervious Coverage (Total Impervious / Total Lot Size) \* 100 = \_\_\_\_\_ %

\*\*\* Here are the wall configurations for your design.

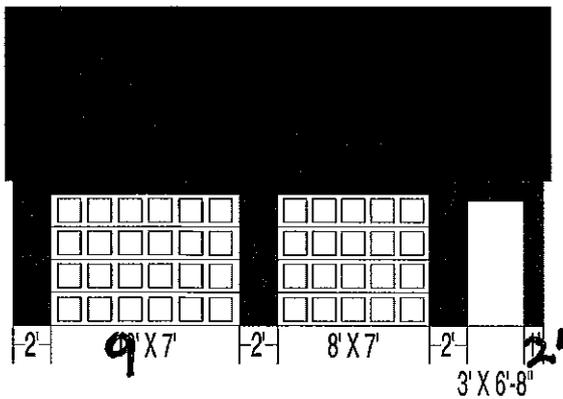
Illustration May Not Depict All Options Selected



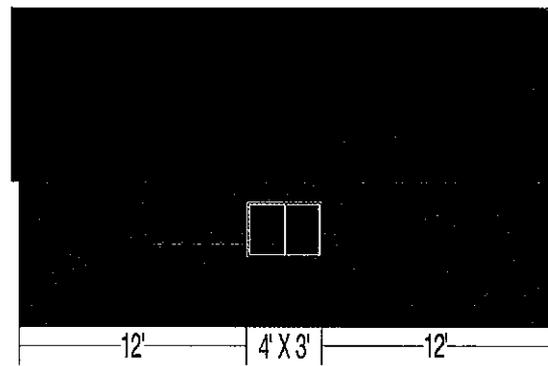
Gable Front View  
(1) - 48X36 SELECT 100 SLID IGPC2SG 4030



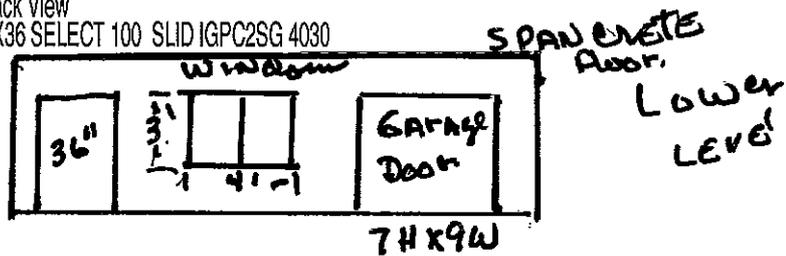
(1) - 48X36 SELECT 100 SLID IGPC2SG 4030



Eave Front View  
(1) - POLY MDP38U 10' X 7' EXTSN  
(1) - 8X7 WHITE INSUL RAISED PNLEZSETTORSN M4SV  
(1) - CP1 FLUSH STEEL DOOR PH 36X80 RH SB



Eave Back View  
(1) - 48X36 SELECT 100 SLID IGPC2SG 4030



Building Size: 26 feet wide X 28 feet long X 8 feet high

Approximate Peak Height: 17 feet 6 inches (210 inches)

Menards provided material estimates are intended as a general construction aid and have been calculated using typical construction methods. Because of the wide variable in codes and site restrictions, all final plans and material lists must be verified with your local zoning office, architect and/or builder for building design and code compliance. Menards is a supplier of construction materials and does not assume liability for design, engineering or the completeness of any material lists provided. Underground electrical, phone and gas lines should be located and marked before your building plans are finalized. Remember to use safety equipment including dust masks and sight and hearing protection during construction to ensure a positive building experience.

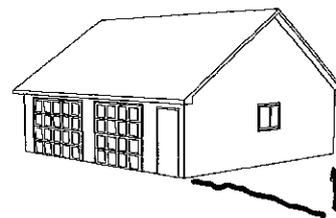
### Items Selected:

- Gable room in attic roof w/ 8/12 pitch trusses 2' O.C.
- Truss Design Location Zip Code: 55302
- 3/4" T&G OSB RIA Floor Sheathing
- Partical Board Stair Tread - 42"
- 2x4 Wall Framing Material
- 26' Wide X 28' Deep X 8' High
- 6' 6" H x 10' W RIA Room Size
- 8" Cedar Lap Siding
- 7/16" OSB Wall Sheathing
- 12" gable/12" eave overhangs
- 1/2" OSB Roof Sheathing
- 30 yr. Duration, Colonial Slate Shingles
- Mongoose Ridge Vent
- Royal Brown Aluminum Soffit & Fascia
- Royal Brown Premium Roof Edge
- 2 - Garage Door Opener
- White Vinyl Overhead Door Jamb

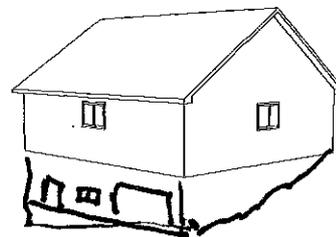
### Options Selected:

- The options you have selected are:
- 15 LB Roof Felt
  - 2 Rows Granular Ice & Water Barrier

Front View



Back View



Today's estimated base price: \$4,245.19

The base price includes: 0" Eave/0" Gable Overhangs, Framing Materials, 7/16 OSB Roof Sheathing, 20 yr. Fiberglass Classic - Onyx Black Shingles, Pine Fascia, Galvanized Regular Roof Edge, 8" Textured Vertical Hardboard Siding, No Service Doors, No Overhead Doors, No Windows, or Any Other Options.

Today's estimated price: \$9,466.32

If purchased today, you save: \$453.97

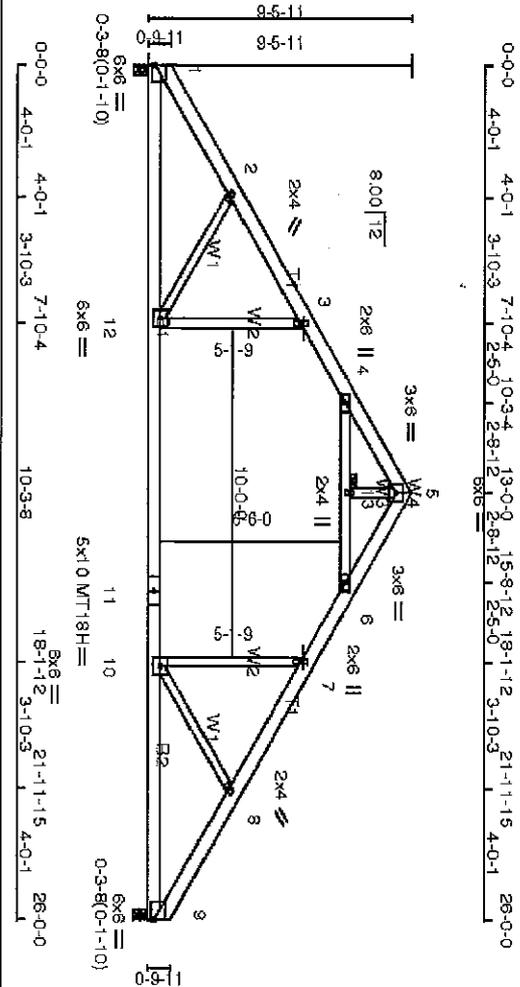
Monthly BIG Card payment: \$265.84

Jobsite delivery may be required for trusses.

**\*\*\* Take this sheet to the Building Materials counter to purchase your materials. \*\*\***

All information on this form, other than price, has been provided by guest and Menards is not responsible for any errors in the information on this estimate, including but not limited to quantity, dimension and quality. Please examine this estimate carefully. MENARDS MAKES NO REPRESENTATIONS, ORAL, WRITTEN OR OTHERWISE, THAT THE MATERIALS LISTED ARE SUITABLE FOR ANY PURPOSE BEING CONSIDERED BY THE GUEST. BECAUSE OF THE WIDE VARIATIONS IN CODES, THERE ARE NO REPRESENTATIONS THAT THE MATERIALS LISTED HEREIN MEET YOUR CODE REQUIREMENTS.

ULTRALIGHTS GARAGES  
Midwest Manufacturing, Eau Claire, WI, 54703  
Job Reference (optional): 7.030 s Jan 3 2008 Mitak Industries, Inc. Thu Jan 29 21:13:47 2009 Page 1



LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 35.0	Plates Increase 1.15	TC 0.61	in (loc) 10-12	MT20	197/144
TCCL 10.0	Lumber Increase 1.15	BC 0.58	Vert(TL) -0.56	MT18H	244/190
BCCL 0.0	Rep Stress Incr YES	WB 0.66	Horz(TL) 0.05		
BCDL 10.0	Code IRC2006/TPP2002	(Matrix)			

**LUMBER**  
TC 2 X 6 SYP 2400F 2.0E  
BC 2 X 6 SYP 2400F 2.0E  
WB 2 X 4 SPF Std

**BRACING**  
TOP CHORD  
BOT CHORD  
JOINTS  
Structural wood sheathing directly applied or 5-0-8 oc purlins.  
Rigid ceiling directly applied or 10-0-0 oc bracing.  
1 Brace at Jk(s): 13

**REACTIONS** (lb/size)  
1=1923/0-3-8, 9=1923/0-3-8  
Max Horz 1=208(LC 7)  
Max Uplift 1=3(LC 9), 9=3(LC 10)  
Max Grav 1=1932(LC 2), 9=1932(LC 2)

**FORCES** (lb) - Max. Comp/Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD  
1-2=-3051/156, 2-3=-2712/35, 3-14=-1977/93, 4-14=-1874/108, 4-5=-5/335, 5-6=-5/335, 6-15=-1874/108, 7-15=-1977/93, 7-8=-2712/35, 8-9=-3051/156  
BOT CHORD  
1-12=-44/2354, 11-12=0/2033, 10-11=0/2033, 9-10=0/2354  
WEBS  
4-13=-2364/85, 6-13=-2364/85, 3-12=0/904, 7-10=0/904, 2-12=-538/159, 8-10=-538/160

**NOTES** (13)  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-05; 90mph; h=25ft; TCCL=4.2psf; BCDL=6.0psf; Category II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.  
3) TCLL: ASCE 7-05; P=35.0 psf (roof live load); Lumber DOL=1.15 Plate DOL=1.15; Pg=50.0 psf (ground snow);  
Cathedral Slope/Snow: Lumber DOL=1.15 Plate DOL=1.15; Category II; Exp B; Fully Exp.; Ct=1.1

Scale = 1:84.9





Milwaukee Manufacturing, Eau Claire, WI, 544 US

7:03U S Jan 3 2008 11:16K INDUSTRIES, INC. 1UE APR 26 10:00:44 2008 Page 2

**NOTES**

- 9) Gable requires continuous bottom chord bearing.
- 10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 11) Gable studs spaced at 2'-0"-0 OC.
- 12) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6"-0 tall by 2'-0"-0 wide will fit between the bottom chord and any other members.
- 13) Bearing at joint(s) 27, 1, 13 considers parallel to grain value using ANSIT/P1 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 27, 1, 13, 22, 23, 24, 25, 20, 19, 17, 16 except (ft=lb) 26=108; 15=102.
- 15) This truss is designed in accordance with the 2006 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSIT/P1 1.
- 16) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

**LOAD CASE(S)** Standard

U:\HEAVY\114830 | GARAGE\U | A\114 | | | | Job Reference (optional) | 7:030 s Jan 3 2008 | Mitek Industries, Inc. | Thu Jan 29 21:13:48 2009 | Page 2

Midwest Manufacturing, Eau Claire, WI, 54703

**NOTES (13)**

- 4) Roof design snow load has been reduced to account for slope.
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) All plates are MT20 plates unless otherwise indicated.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
- 9) Ceiling dead load (5.0 psf) on member(s): 3-4, 6-7, 4-13, 6-19; Wall dead load (5.0psf) on member(s):3-12, 7-10
- 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room: 1-0-12
- 11) One RT7 USP connectors recommended to connect truss to bearing walls due to uplift at it(s) 1 and 9.
- 12) This truss is designed in accordance with the 2006 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSIT/P1 1.
- 13)

**LOAD CASE(S)** Standard

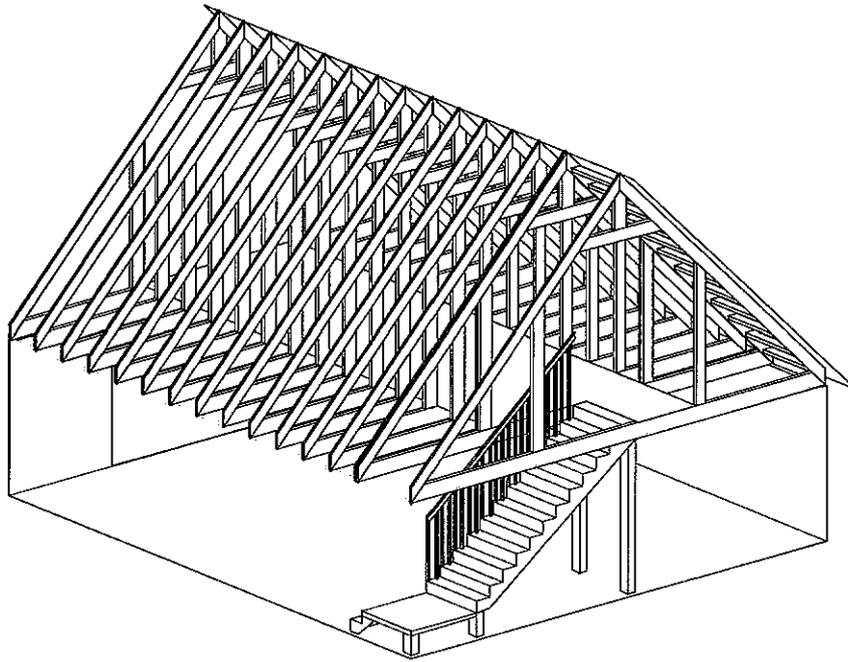


Illustration May Not Depict All Options Selected

## Helpful Hints for Room In Attic Garage Construction

- ~ Trusses can not be cut or modified.
- ~ Increased loading for the floor is included in the room area only.
- ~ Trusses estimated do not include eave overhangs, material to hand frame the overhangs is included in the estimate. Review the truss spec sheet for overall truss dimensions and room size. Additional truss designs are available that can include eave overhangs or additional room sizes. See a Building Materials team member for more information.
- ~ Dormers as well as other stair designs are possible. To receive a custom estimate, see a Building Materials team member for details.
- ~ Stair materials included for this estimate are based on the stairs being placed at the end of your garage. Additional construction materials will be needed to move the stairs to another location in the garage.
- ~ Review all door and window placement to avoid overlap of stairs.

Menards provided material estimates are intended as a general construction aid and have been calculated using typical construction methods. Because of the wide variable in codes and site restrictions, all final plans and material lists must be verified with your local zoning office, architect and/or builder for building design and code compliance. Menards is a supplier of construction materials and does not assume liability for design, engineering or the completeness of any material lists provided. Underground electrical, phone and gas lines should be located and marked before your building plans are finalized. Remember to use safety equipment including dust masks and sight and hearing protection during construction to ensure a positive building experience.

# SPECIFICATION

## for Precast, Prestressed Hollow Core Plank

### 1. GENERAL

#### 1.01 Description

A Work included: Manufacture, transportation, and erection of precast, prestressed concrete hollow core plank including grouting of joints between adjacent slab units.

B Work excluded: Caulking, round openings and rectangular openings less than 8 in. on all sides, cast in place embedments and rebar, plank bearing lintels and underlayment such as concrete and gypsum toppings.

#### 1.02 Quality Assurance

A Manufacturer's Qualifications: The precast concrete manufacturing plant shall conform to the requirements of the Prestressed Concrete Institute Plant Certification Program. The manufacturer shall retain a registered qualified engineer to ensure that production is in accordance with design requirements.

B Erector Qualifications: Regularly engaged for at least 5 years in the erection of precast structural concrete similar to the requirements of this project. Retain a qualified registered engineer to certify that erection is in accordance with design requirements.

C Qualifications of Welders: In accordance with AWS D1.1.

D Testing: In general compliance with applicable provisions of Prestressed Concrete Institute MNL-116.

E Requirements of Regulatory Agencies: All local codes plus applicable sections of ACI 318, AWS and ASTM.

#### 1.03 Submittals and Design

A Shop Drawings and Design Criteria: Provide plans locating all hollow core plank, all major openings, sections and details showing connections, weld plates, and support conditions. List all dead, live and other applicable loads used in the design. Also list fire rating which shall be a \_\_\_\_\_ hour per applicable codes.

B Approvals: Submit \_\_\_\_\_ copies of erection drawings for approval prior to fabrication. Fabrication shall not proceed prior to receipt of approved drawings.

C Test Reports: Test reports on concrete and other materials shall be submitted upon request.

### 2. PRODUCTS

#### 2.01 Materials

A Portland Cement (Type I, II or III), admixtures and aggregates in accordance with applicable ASTM standards.

B Water: Potable or free from foreign materials in amounts harmful to concrete and embedded steel.

C Reinforcing Steel and Welded Studs: Bars, wires and structural steel shapes in accordance with applicable ASTM standards. Studs in accordance with AWS D1.1.

D Prestressing Strand: Uncoated, 7-Wire, Low Lax Strand: ASTM A416 (including supplement) - Grade 250K or 270K.

E Grout: A mixture of not less than one part portland cement to three parts fine sand. Grout that seeps from the joint shall be completely removed before it hardens. Minimum 28-day compressive strength - 3000 psi.

F Bearing Strips: Multi-monomer plastic, hardboard or approved equal.

#### 2.02 Concrete Mixes

A 28-day compressive strength: 5000 psi. or other as used by the local manufacturer

#### 2.03 Manufacture

A Hollow core plank shall be machine cast under the trade name Spancrete.

B Finishes: Bottom surface shall be flat and uniform as resulting from an extrusion process without major chips, spalls and imperfections. Top surface shall be machine finished.

### 3. EXECUTION

#### 3.01 Product Delivery, Storage & Handling

A Delivery and Handling: Hollow core plank shall be lifted and supported during manufacturing, stockpiling, transporting and erection operations only at the lifting or supporting points, designated by the manufacturer.

Transportation, site handling, and erection shall be performed with acceptable equipment and methods, and by qualified personnel.

B Storage: Store all units off ground on firm level surfaces with dunnage placed at bearing points.

Place stored units so that identification marks are discernible.

Separate stacked units by dunnage across full width of each plank.

#### 3.02 Erection

A Site Access: Erection access suitable for cranes and trucks to move unassisted from public roads to all crane working areas as required by erector, or otherwise indicated herein,

will be provided and maintained by the general contractor. Obstructing wires shall be shielded or removed and, when applicable, snow removal and winter heat will be provided by the general contractor.

B Preparation: The General Contractor shall be responsible for:

Providing true, level bearing surfaces on all field placed bearing walls and other field placed supporting members. Masonry wall bearing surfaces shall be bond beams with properly filled and cured concrete.

All pipes, stacks, conduits and other such items shall be stubbed off at a level lower than the bearing plane until after the plank are set. Masonry, concrete or steel shall not be installed above plank bearing surface until after the plank is in place.

C Installation: Installation of hollow core slab units shall be performed by the manufacturer. Members shall be lifted with slings at points determined by the manufacturer. Bearing strips shall be set, where required. Grout keys shall be filled. If field cut openings are required, they shall only be cut after grout has cured, unless authorized by the manufacturer's engineer.

D Alignment: Members shall be properly aligned. Variations between adjacent members shall be reasonably leveled out by jacking, bolting, loading, or any other feasible method as recommended by the manufacturer.

#### 3.03 Field Welding

A Field welding is to be done by qualified welders using equipment and materials compatible to the base material.

#### 3.04 Attachments and Small Holes

A Subject to approval of the Architect/Engineer, hollow core plank units may be drilled or "shot" provided no contact is made with the prestressing steel. Round holes and those less than 8 in. on any side shall be drilled or cut by the respective trades. Should spalling occur, it shall be repaired by the trade doing the drilling, shooting or cutting.

#### 3.05 Clean Up

A Remove rubbish and debris resulting from hollow core plank work from premises upon completion.

#### 3.06 Safety

A The general contractor will provide and maintain all safety barricades and opening covers required for plank after grouting is completed.

# Span Notes



No. 12

## How to Use Spancrete for Inexpensive Space Under Your Garage

Thousands of residential garages have been built with Spancrete floors, providing large, open spaces below for additional parking, storage, shop and living space – even swimming pools and storm shelters. The following information is intended to assist you in planning additional space under your garage floor.

### WORKING WITH SPANCRETE IS EASY

Spancrete is a prestressed concrete hollowcore plank for floors and roofs. It is machine extruded and sawed to specified lengths for each project. Widths, dependent upon local manufacturer standards, will be 3'-4", 4'-0" or 5'-0". Where required, narrow widths will be provided from standard width units.

Spancrete plank is manufactured in standard depths of 4'-6", 8", 10" and 12". The depth required for your project is dependent upon plank spans and loading requirements. The most common plank depths used for residential garages, based on typical loading, are 8" for spans to 30'-0" and 12" for spans to 40'-0".

Plank notches and/or openings required for your floor layout will be cut prior to shipping or in the field depending upon your local manufacturer's standard practice. Note that small openings are usually provided by others.

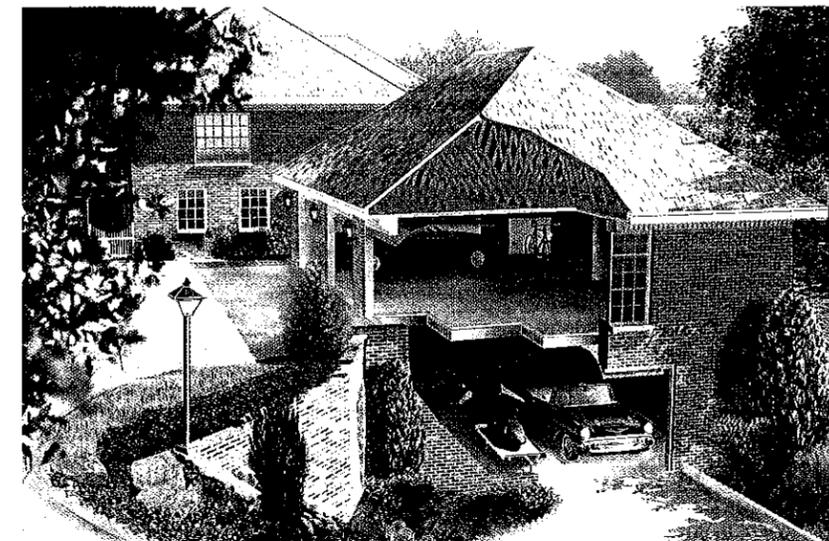
Live-load design requirements for residential garage floors in most areas of the country are 50 lbs. per square foot. Additional loads for which Spancrete garage plank would be designed include such items as unbonded concrete topping (topping adhered directly to plank is considered bonded) and walls or roof supported by plank.

The erection process for a typical garage floor takes less than a day. A mobile crane and experienced erection crew hoist the plank from a truck's flatbed trailer, place them directly on the supporting structure and make all necessary plank-to-wall and/or beam connections. Plank-to-plank joints are first leveled and then grouted, which transforms the plank floor into a monolithic unit.

A residential garage floor would be typically designed for a minimum one-hour fire rating, but can be fire rated to four hours. Spancrete also is resistant to high levels of sound transmission and noise impact. It is durable and is rot and termite proof.

### ORDERING SPANCRETE IS EASY

1. For a firm estimate, provide your Spancrete manufacturer with a plan showing dimensions, type and thickness of bearing walls, size and location of any beams, as well as size and location of openings. Also advise of any problems for crane or truck access.
2. Upon ordering Spancrete, provide a schedule and final plans with a map locating your project. Spancrete will prepare and submit to you for approval an erection drawing showing your garage plank layout with dimensions and details.
3. Completely review and check all dimensions and details on the drawing submittal. Mark any changes and discrepancies, return promptly and note, with your signature on the drawing, "approved," "approved as noted" or "revise and resubmit." Your project will not be produced until written approval is received.
4. Confirm your delivery/erection schedule requirements with your Spancrete producer when you have assurance of a completion date for the walls, as well as the steel beams and lintels. Note that concrete and masonry walls require curing time prior to plank erection.



## Spancrete® Manufacturers Association Providing Quality Worldwide

### EAST

**Oldcastle Precast, Inc.**  
P.O. Box 218/123 CR 101  
South Bethlehem, NY 12161  
Telephone (518) 767-2269  
Fax (518) 767-9390

**Oldcastle Precast, Inc.**  
155 State Street  
Manchester, NY 14504  
Telephone (716) 289-3530  
Fax (716) 289-9263

**Concrete Precast Systems Inc.**  
4215 Lafayette Center Dr., Ste. 1  
Chantilly, VA 20151  
Telephone (703) 222-9700  
Fax (703) 222-6998

### MIDWEST

**Spancrete Great Lakes**  
1330 Chicago Drive  
Jenison, MI 49428  
Telephone (616) 224-6176  
Fax (616) 224-2651  
Toll-Free 1-800-434-5830

**North American Precast Inc.**  
837 Seasons Road  
Stow, OH 44224  
Telephone (330) 528-0022  
Fax (330) 656-5155

**Spancrete Inc.**  
P.O. Box 10508  
2448 Century Road  
Green Bay, WI 54307-0508  
Telephone (920) 494-0274  
Fax (920) 494-7901

### Spancrete Industries, Inc.

N16 W23415 Stoneridge Drive  
Waukesha, WI 53188  
Mail: P.O. Box 828  
Waukesha, WI 53187-0828  
Telephone (414) 290-9000  
Fax (414) 290-9125

**Hanson Spancrete Midwest, Inc.**  
P.O. Box 1360  
Maple Grove, MN 55311  
Telephone (763) 425-5555  
Fax (763) 425-1277

**Spancrete of Illinois Inc.**  
4012 Route 14  
Crystal Lake, IL 60014  
Telephone (815) 459-5580  
Telephone (773) 775-6402  
Fax (815) 459-0510

### WEST

**Hanson Spancrete Pacific, Inc.**  
13131 Los Angeles Street  
Irwindale, CA 91706  
Telephone (626) 962-8751  
Fax (626) 962-8752

### SOUTHWEST

**Gate Concrete Products Co.**  
3201 Vetrans Drive  
Pearland, TX 77584  
Mail: P.O. Box 38  
Pearland, Tx 77588-0038  
Telephone (281) 485-3273  
Fax (281) 485-7644

### SOUTH

**Cement Industries Inc.**  
2709 Jeffcott Street  
Fort Myers, FL 33901-5337  
P.O. Box 823  
Fort Myers, FL 33902-0823  
Telephone (941) 332-1440  
Fax (941) 332-7144  
Toll-Free 1-800-332-1440

**Gate Concrete Products Co.**  
402 Heckscher Dr.  
Jacksonville, FL 32226  
Telephone (904) 757-0860  
Fax (904) 751-5435  
Toll Free 1-800-227-8591

### BRAZIL

**Reago Industria E Comercio SA**  
Av. Marginal Do Rio Jundiá 650  
Distrito Industrial Jundiá-SP  
Caixa Postal 451  
Sao Paulo Brazil 13212-780  
Telephone 55-11-7392-8288  
Fax 55-11-7392-8625

### ISRAEL

**Spancrete of Israel**  
Kibbutz Palmachim  
D.N. Emek Sorek  
Palmachim 76-980  
Telephone 972-3-948-2500  
Fax 972-3-965-8089

### MEXICO

**Itisa**  
Rio Tiber 78 Col. Cuauhtemoc  
Mexico, D.F.C.P. 06500  
Telephone 525 229-8500  
Fax 525 229-9938

### TURKEY

**Yapi Merkezi**  
H. Resit Pasa So. 7  
Camlica-Istanbul, 81180 Turkey  
Telephone (90) 216-321-9000  
Fax (90) 216-321-9013

### WEST INDIES

**Spancrete Caribbean Ltd.**  
P.O. Box 808, Port of Spain  
Trinidad W.I.  
Telephone 868-645-5555/9  
Fax 868-645-6161

### MACHINE MANUFACTURER:

**Spancrete Machinery Corporation**  
N16 W23415 Stoneridge Drive  
Waukesha, WI 53188  
Mail: P.O. Box 828  
Waukesha, WI 53187-0828  
Telephone (414) 290-9000  
Fax (414) 290-9130

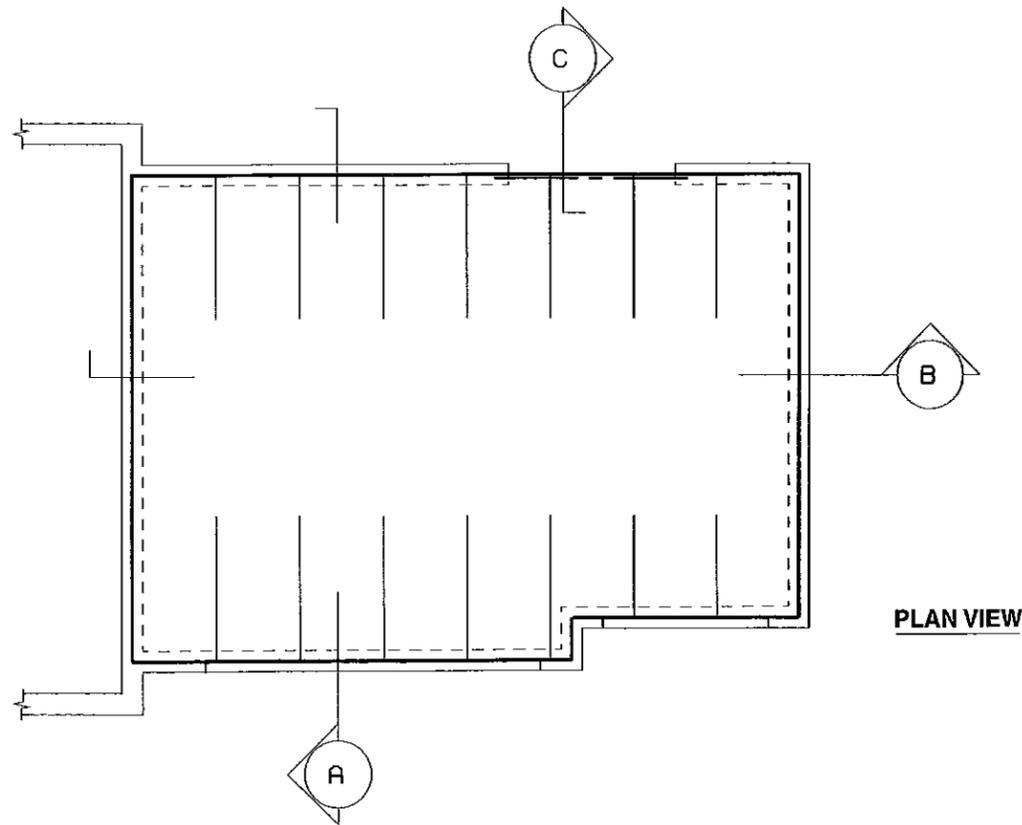
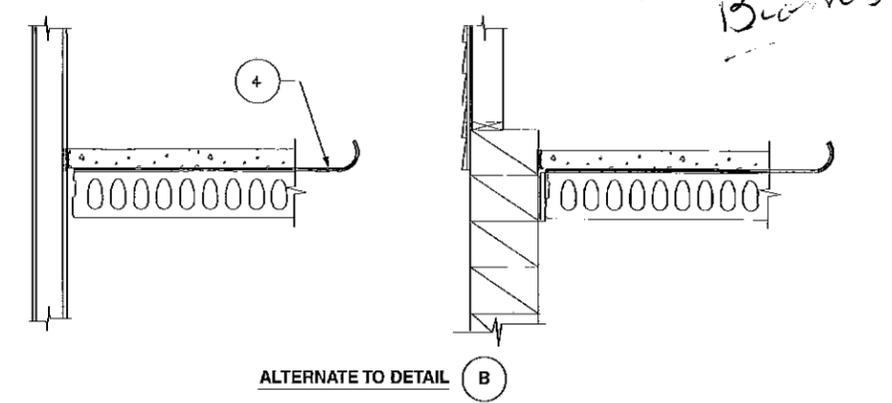
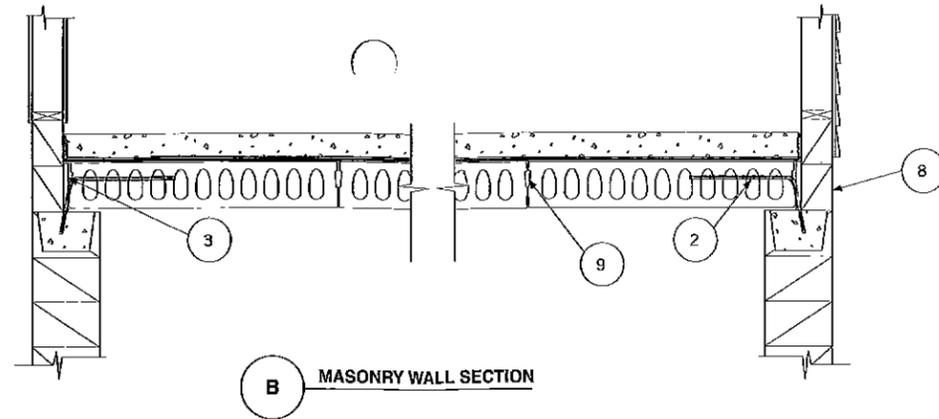
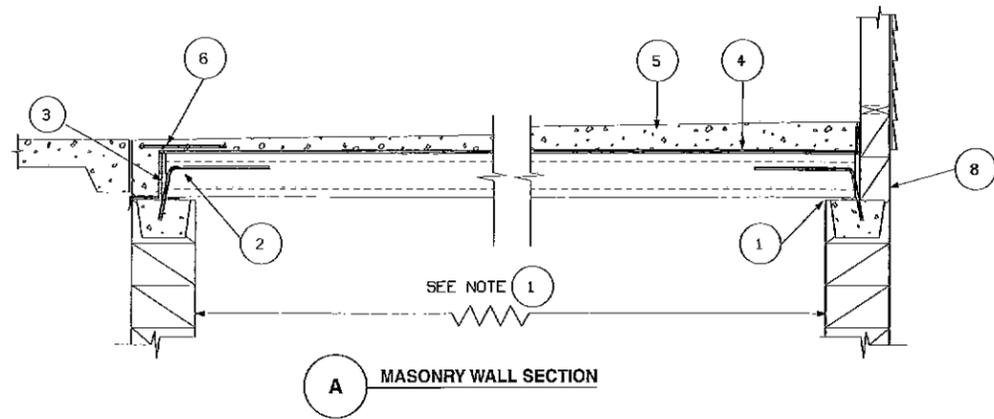
## Spancrete® is also manufactured in

Armenia      China  
Australia      Korea  
Guatemala      Egypt  
Switzerland      Japan

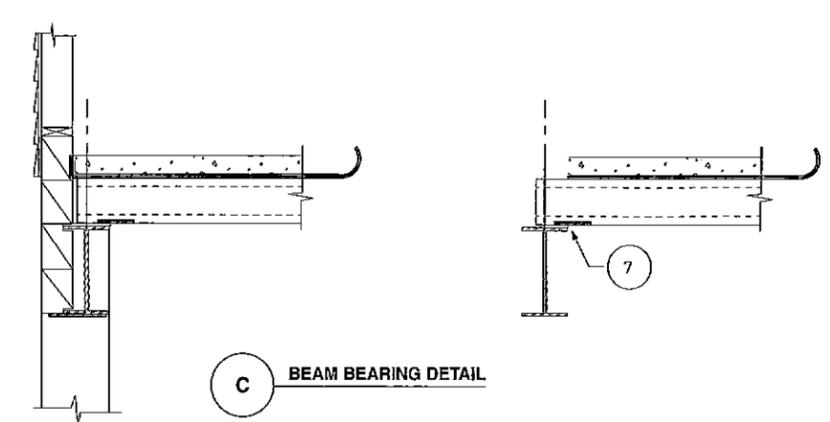
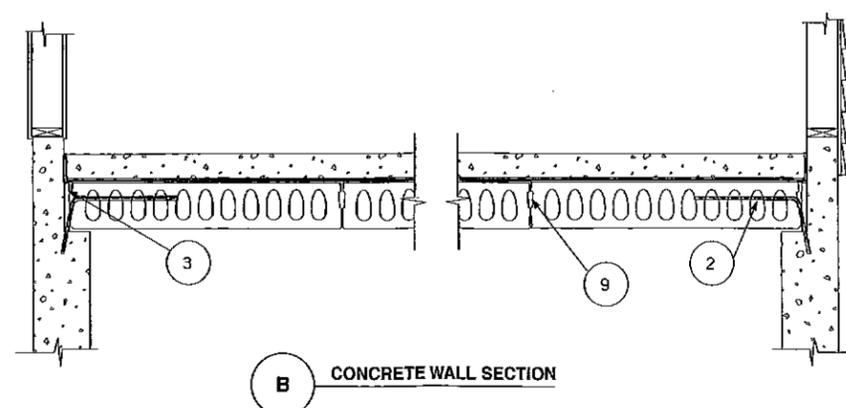
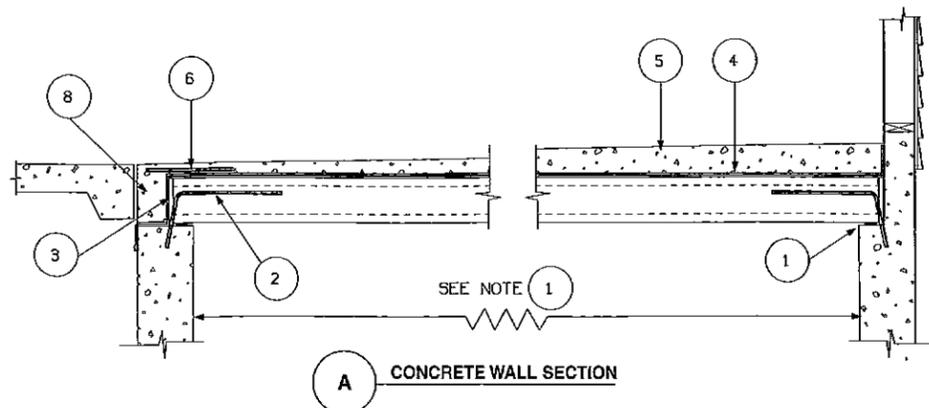


Visit our website at [www.spancrete-sma.com](http://www.spancrete-sma.com)

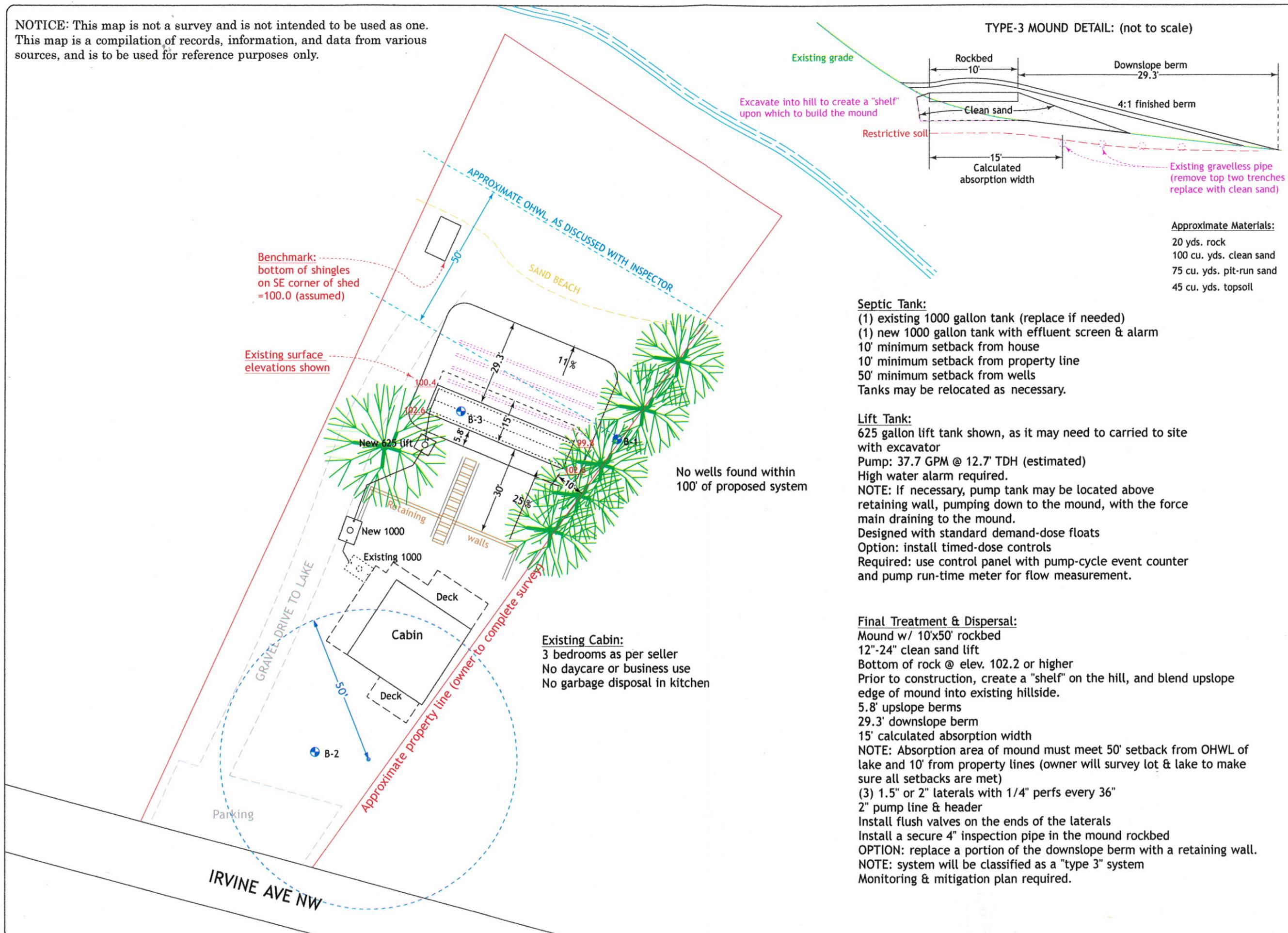
Spancrete is a registered trademark.



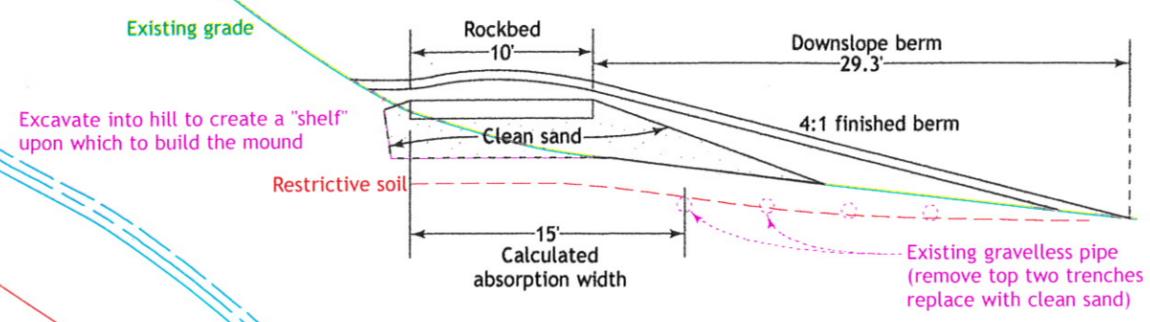
1. Plank length is determined by adding the amount of plank bearing to the inside-to-inside dimension of your bearing walls. The plank bearing surface typically required for concrete and masonry is 3-1/2". For masonry bearing, a bond beam is required. Note that a multi-monomer plastic hardboard strip (or approved equal) is placed on the wall 1/2" from the inside edge to ensure proper plank bearing.
2. A mechanical connection between the Spancrete plank and your structure may be required. Shown here are drilled bent bar connections which are provided by your erector. Your local Spancrete producer may use other connection types. Connections will be shown on the erection drawings.
3. In cold weather areas, insulation should be placed around the entire perimeter between the plank and the wall and at the entrance between the plank and topping edge. Insulation is provided and installed by the home builder.
4. A commercially available water-proofing membrane is recommended to be installed on top of the plank prior to placement of concrete topping. The membrane should be capable of flexibly bridging the insulation and small gaps around the perimeter walls. It should return up the walls and terminate at the top of the topping slab.  
The membrane is necessary to prevent water from penetrating the plank, which could cause deterioration of plank reinforcing and concrete in future years. It will also act as a vapor barrier in cold climates where the area below the floor is heated.
5. Quality, high-strength, air-entrained concrete, placed by qualified personnel, is the final important step to your project. Minimum concrete topping thickness is 2", and must be positively sloped to the garage door to ensure drainage and prevent water from ponding on the floor. If interior drains are used, the concrete should be sloped to the drains, and drain fixture detail should be capable of draining moisture from the membrane.  
Reinforcing is recommended in the topping, and a concrete sealer should be applied after curing.
6. Additional reinforcing, such as mesh, properly placed in the topping at the door entrance, can minimize the possibility of a crack developing in the topping along the base of your overhead door.
7. At steel beams, plank bearing must extend at least 1" past the beam-web center to prevent beam rotation. A weld plate, or other mechanical connection, is required. This detail should be shown on the erection drawing.
8. Masonry should not be installed above plank-bearing elevation prior to plank erection, as it is highly susceptible to damage during plank erection.  
In poured concrete wall situations, at least one edge lip (above plank bearing elevation) on the plank bearing wall has to be left down to provide ample space for erection tolerances.
9. Plank keyway joints must be grouted.



NOTICE: This map is not a survey and is not intended to be used as one. This map is a compilation of records, information, and data from various sources, and is to be used for reference purposes only.



**TYPE-3 MOUND DETAIL: (not to scale)**



- Approximate Materials:**
- 20 yds. rock
  - 100 cu. yds. clean sand
  - 75 cu. yds. pit-run sand
  - 45 cu. yds. topsoil

**Septic Tank:**  
 (1) existing 1000 gallon tank (replace if needed)  
 (1) new 1000 gallon tank with effluent screen & alarm  
 10' minimum setback from house  
 10' minimum setback from property line  
 50' minimum setback from wells  
 Tanks may be relocated as necessary.

**Lift Tank:**  
 625 gallon lift tank shown, as it may need to be carried to site with excavator  
 Pump: 37.7 GPM @ 12.7' TDH (estimated)  
 High water alarm required.  
 NOTE: If necessary, pump tank may be located above retaining wall, pumping down to the mound, with the force main draining to the mound.  
 Designed with standard demand-dose floats  
 Option: install timed-dose controls  
 Required: use control panel with pump-cycle event counter and pump run-time meter for flow measurement.

**Final Treatment & Dispersal:**  
 Mound w/ 10'x50' rockbed  
 12"-24" clean sand lift  
 Bottom of rock @ elev. 102.2 or higher  
 Prior to construction, create a "shelf" on the hill, and blend upslope edge of mound into existing hillside.  
 5.8' upslope berms  
 29.3' downslope berm  
 15' calculated absorption width  
 NOTE: Absorption area of mound must meet 50' setback from OHWL of lake and 10' from property lines (owner will survey lot & lake to make sure all setbacks are met)  
 (3) 1.5" or 2" laterals with 1/4" perfs every 36"  
 2" pump line & header  
 Install flush valves on the ends of the laterals  
 Install a secure 4" inspection pipe in the mound rockbed  
 OPTION: replace a portion of the downslope berm with a retaining wall.  
 NOTE: system will be classified as a "type 3" system  
 Monitoring & mitigation plan required.

Benchmark:  
 bottom of shingles  
 on SE corner of shed  
 =100.0 (assumed)

Existing surface  
 elevations shown

No wells found within  
 100' of proposed system

**Existing Cabin:**  
 3 bedrooms as per seller  
 No daycare or business use  
 No garbage disposal in kitchen

**CERTIFIED STATEMENT:** The proposed sewage treatment system has been designed in accordance with Mn. Rules, Ch. 7080 and local codes. The soil treatment area must be protected from disturbance and compaction before and after construction. Non-sewage wastes (drain tile, water softener discharge, etc.) shall not be discharged into this system. No warranty is made that this system will continue to function indefinitely. System must be properly maintained. For instructions on proper septic system operation & maintenance, go to <http://septic.coafes.umn.edu>, the University of Minnesota Extension Agency, or local regulating agency.

Watab Inc., MPCA Designer #2116  
 Date: 5/12/2008

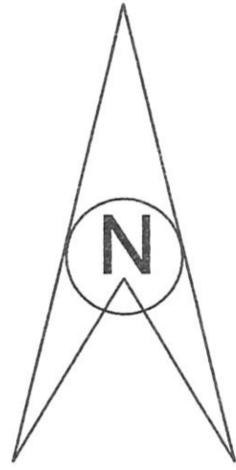


14234 Fruit Farm Road  
 St. Joseph, MN 56374  
 (320) 363-1300  
 (320) 363-7398 (fax)  
 www.watab.net

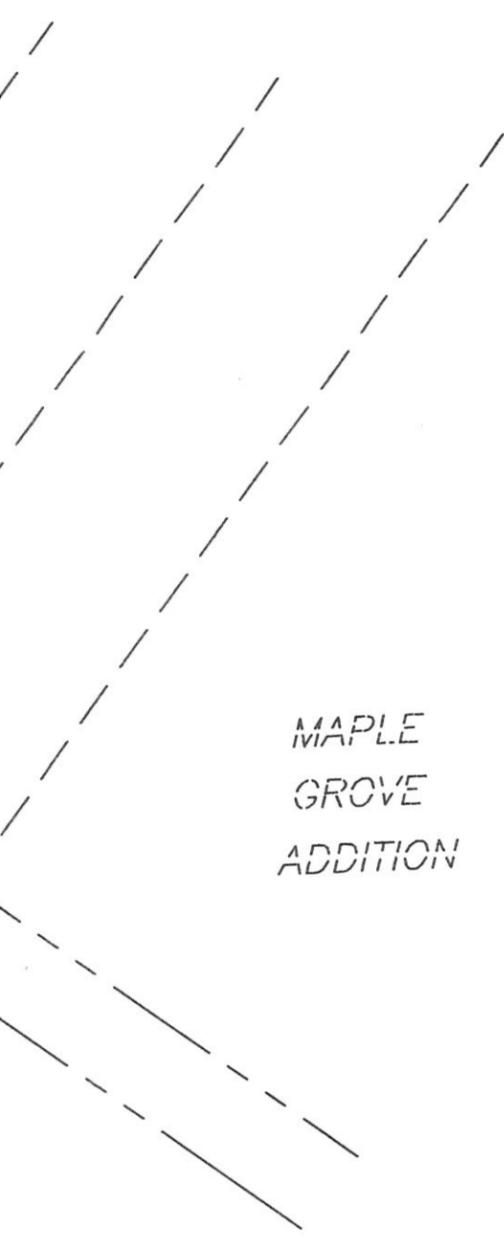
**Watab** Inc.

Project: Rich Theisen / Charlie Onsrud  
 Location: 8838 Irvine Ave, Annandale MN  
 Watab Job #: 2539

# of Survey



AREA TO SHORELINE = 23,799± SF  
 AREA TO O.H.W.L. = 23,166± SF



MAPLE  
 GROVE  
 ADDITION

**LEGAL DESCRIPTION:**

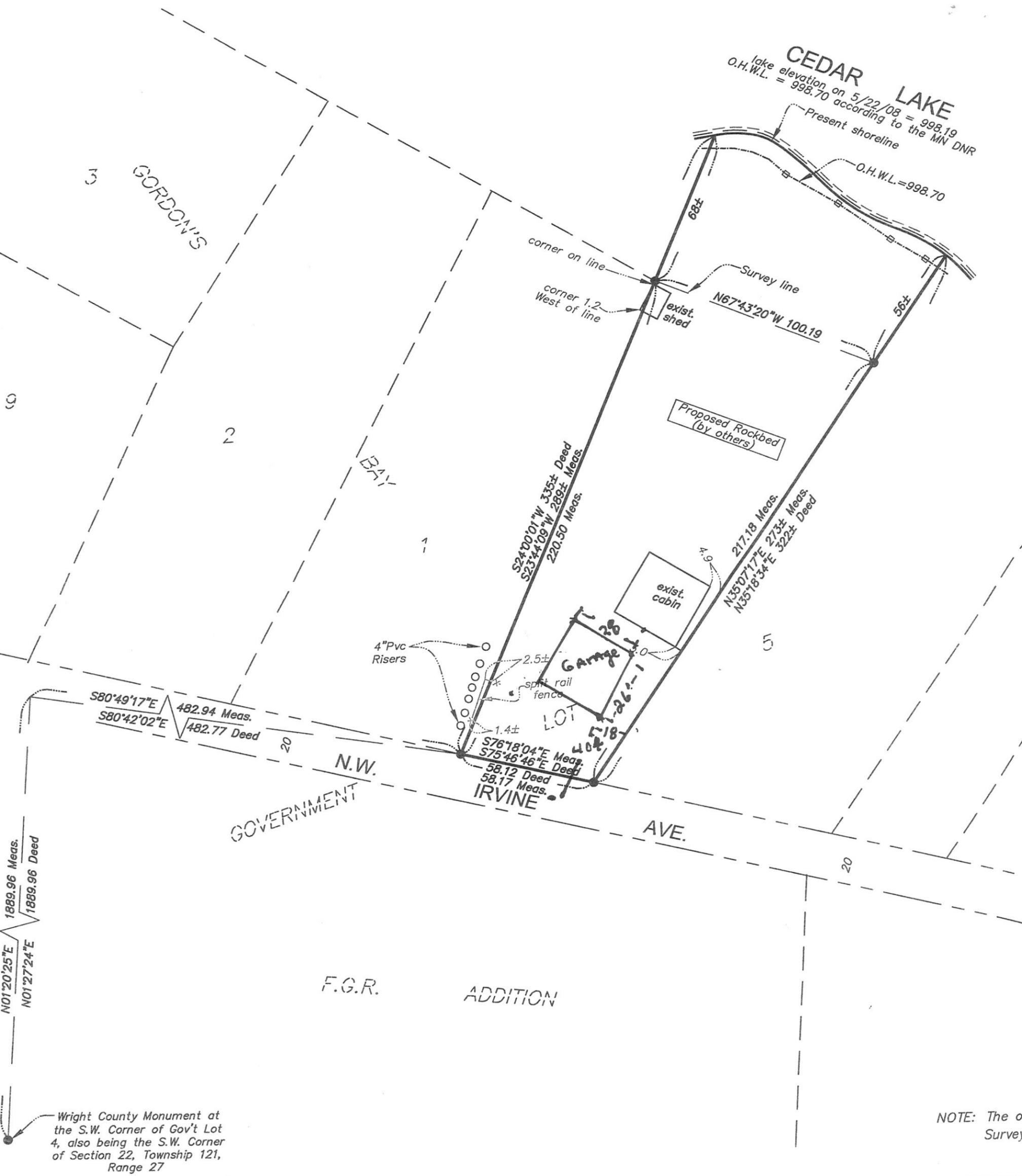
That part of Government Lot Five (5), of Section 22, in Township 121, of Range 27, Wright County, Minnesota, described as follows:

Commencing at the Southwest corner of Government Lot 4, also being the Southwest corner of said Section 22; thence North 01 degrees 27 minutes 24 seconds East assumed bearing, along the West line of said Government Lots 4 and 5, a distance of 1889.96 feet; thence South 80 degrees 42 minutes 02 seconds East, a distance of 482.77 feet to the actual point of beginning; thence South 75 degrees 46 minutes 46 seconds East, a distance of 58.12 feet; thence North 35 degrees 18 minutes 34 seconds East, a distance of 322.00 feet, more or less to the shoreline of Cedar Lake; thence Northwesterly along said shoreline a distance of 119.00 feet, more or less, to a line bearing North 24 degrees 00 minutes 01 seconds East from said point of beginning; thence South 24 degrees 00 minutes 01 seconds West along said line, a distance of 335.00 feet to the point of beginning.

... of the bearing system on this  
 Wright County coordinate system.

<p>ud</p>	<p>I hereby certify that this survey, plan, or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.</p>	<p><b>OTTO ASSOCIATES</b>                  Engineers and Land Surveyors, Inc.</p>	<p>Web Site:  <a href="http://www.ottoassociates.com">www.ottoassociates.com</a></p>	<p>Revised:</p>
	<p>Checked By:  <b>E.J.O.</b></p>		<p>Edward J. Otto                  Date: <u>6/3/08</u> License # 14343</p>	<p>9 West Division St.                  Buffalo, MN 55313                  Ph: (763)682-4727                  Fax: (763)682-3522</p>

# Certificate



- denotes set lath at O.H.W.L.=998.70
- denotes iron monument found
- denotes iron pipe set and marked as shown: OTTO-14343  
OTTO-40062
- ⊕ denotes soil boring
- ⊙ denotes percolation test hole

Certificate of Survey on part of Government Lot 5, Section 22, Township 121, Range 27, Wright County, Minnesota

Requested By:		
<b>Charlie On</b>		
Date:	Drawn By:	Scale:
5/22/08	M.L.H.	1"



6-28-11

TO: BEN OLESON -  
FAX 1-866-924-1928

RE: Proposed Garage at  
8338 IRVINE AVE NW ANNANDALE  
(Cedar Lake CORINNA Township)

Enclosed: Changes to Existing Road  
per phone conversation 6-28-11.

DEAR Ben.

Thank you for your  
counseling and getting our ducks  
in a row. We will sod or seed the  
existing road to the steep hill below  
the house (marked on survey). This  
will lower impervious coverage to 13%.  
we ~~the~~ will not disturb the catch  
basin and drain tile installed by  
the township. Any questions  
please call

Thank you

Charlie Onsrud

1-763-559-3336

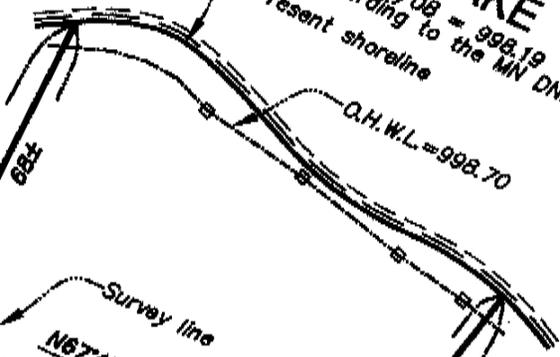
CELL 612-251-0880

# CEDAR LAKE

lake elevation on 5/22/08 = 998.19  
O.H.W.L. = 998.70 according to the MIN DNR

Present shoreline

O.H.W.L. = 998.70



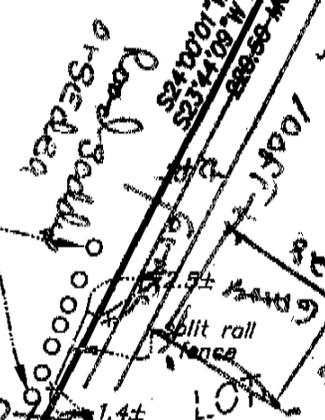
corner on line

corner 1.2 West of line

Proposed Rockbed (by others)

exist. cabin

4\"/>

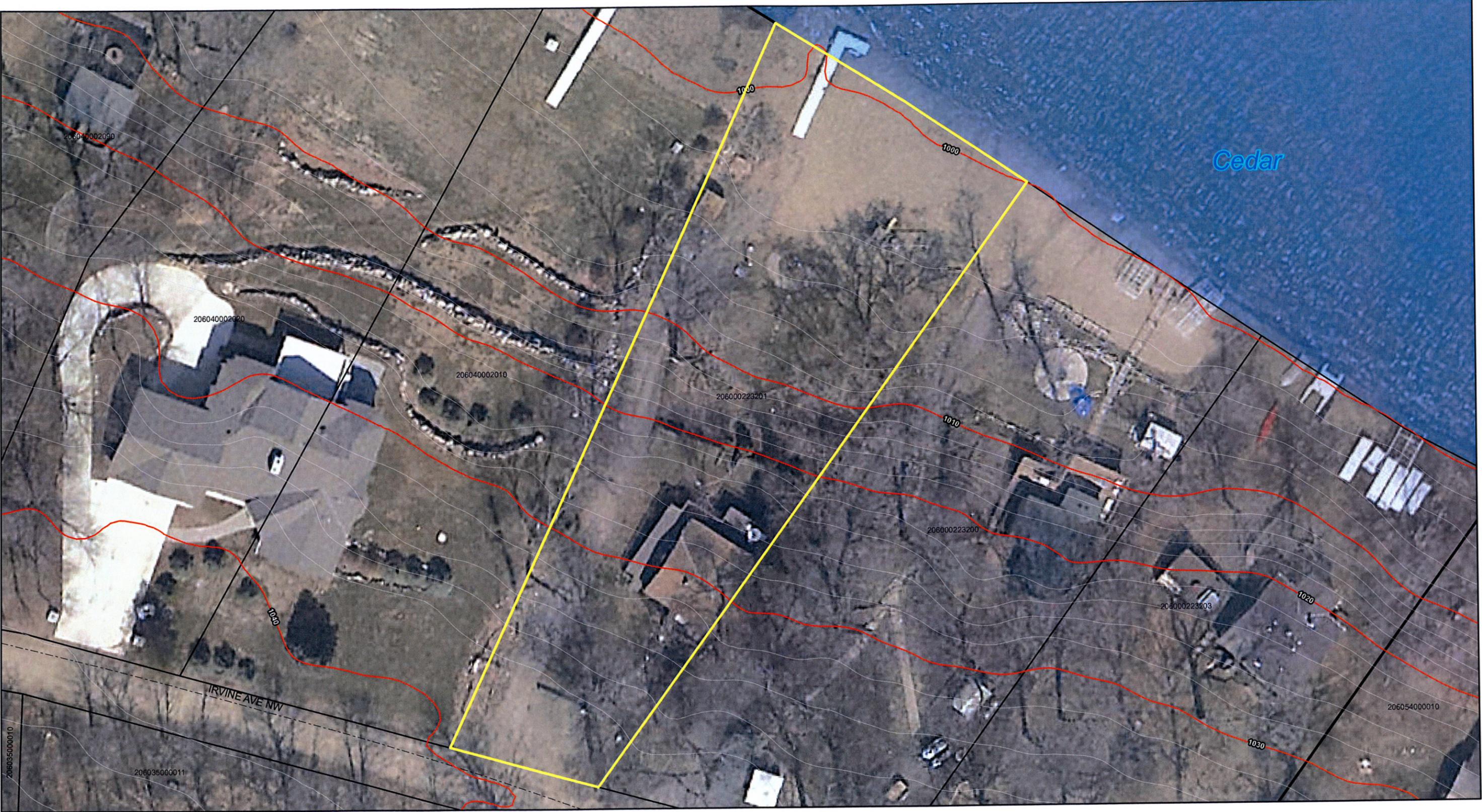


IRVINE

AVE.

20

# S1/2 Section 22, Township 121 North, Range 27 West



(Date of Photography : Spring 2008)  
 Created : Tuesday, June 14, 2011

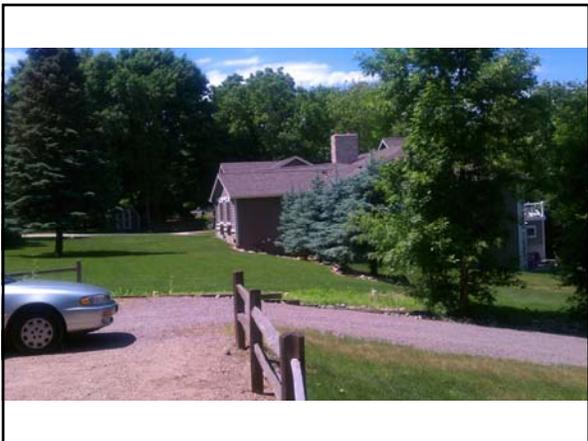


Wright County GIS  
 Office of the County Surveyor  
 1901 Highway 25 North  
 Buffalo, MN 55313  
 Phone: (763) 682-7691  
 Fax: (763) 682-7313

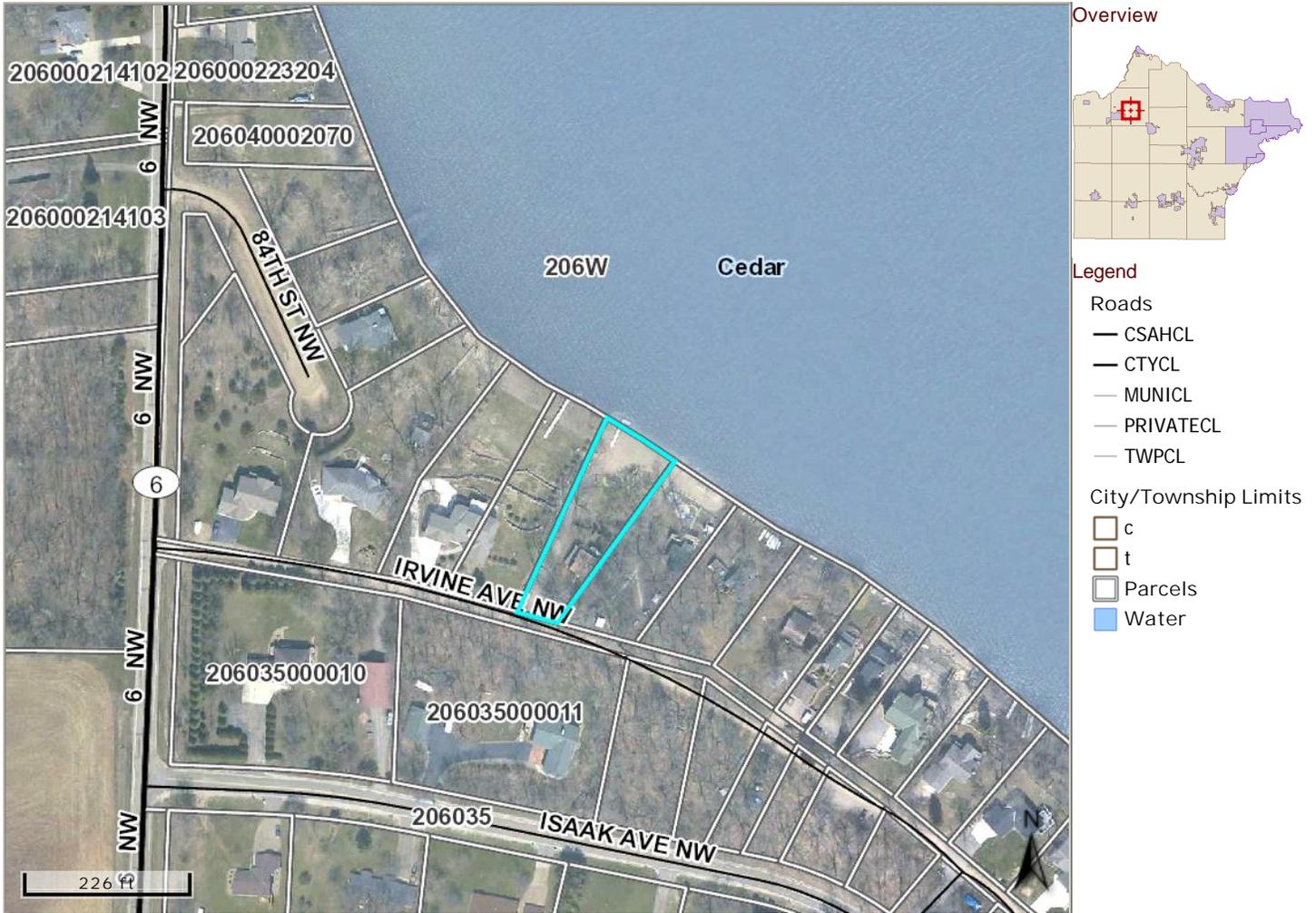


0 15 30 60 Feet

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Parcel ID	206000223201	Alternate ID	n/a	Owner Address	CHARLES R & LINDA S ONSRUD
Sec/Twp/Rng	22-121-27	Class	201 - RESIDENTIAL		8338 IRVINE AVE NW
Property Address	8338 IRVINE AVE NW	Acreeage	0.40		ANNANDALE, MN 55302
	ANNANDALE				

District n/a

Brief Tax Description Sect-22 Twp-121 Range-027 UNPLATTED LAND CORINNA TWP .40 AC TH PRT OF GOV LT5 DES COM SW COR OF GOV LT4 ALSO BNG SW COR OF SEC TH N1D27'24"E ALG W LN OF SD LTS4&5 1889.96FT TH S80D42'02"E 482.77FT TO POB TH S75D46'46"E 58.12FT TH N35D18'34"E 322FT M/L TO SHR LN OF CEDAR LK TH NWLY ALG SHR LN 119FT M/L TO LN BRG N24D0'01"E FR POB TH S24D0'01"W 335FT TO POB

(Note: Not to be used on legal documents)

Last Data Upload: 6/21/2011 8:13:37 AM