



NORTHWEST ASSOCIATED CONSULTANTS, INC.

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Telephone: 763.957.1100 Website: www.nacplanning.com

MEMORANDUM:

To: Sunfish Lake Planning Commission

From: Ryan Grittman

Date: May 13, 2019

RE: 1 Sunfish Lane – Major Site Plan Review; Conditional Use Permit; Minor Subdivision

File: 211.02

The applicants of this project have applied for a major site and building plan review; conditional use permit; and minor subdivision. The application was first accepted on April 8, 2019. The City Engineer has requested additional information for his review.

At this time, Staff cannot make a recommendation on the project due to the significant amount of Engineering data that's still missing from the application. In review of the application submittal date, the City has until August 6, 2019 to make a final decision on the project.

Staff is recommending tabling action on this project to the June Planning Commission meeting to be held on June 19, 2019 so that all the items from the City Engineer can be addressed. Attached to this memo is the latest correspondence from the City Engineer that addresses the updates needed.

c: Sunfish Lake Mayor and City Council
Catherine Iago, City Clerk
Tim Kuntz, City Attorney
Jeff Sandberg and Brandon Movall, City Engineers
Mike Andrejka, Building Official
Jim Naves, City Forester
Ron Wasmund, Septic System Inspector
Dave Dreelan, Fire Chief

Attached: City Engineer Memos Dated May 7, 2019; May 13, 2019

Memorandum

To: Jeff Sandberg, PE – Sunfish Lake City Engineer
WSB

From: Brandon Movall, EIT, ENV SP – Graduate Engineer
Kendra Fallon, EIT – Graduate Engineer
WSB

Date: May 10, 2019

Re: Major Site and Building Plan Review, Submittal 05/07/19
1 Sunfish Lane
City of Sunfish Lake, MN
WSB Project No. 013724-000

Project Background

The applicant is proposing to construct a new home, pool, retaining walls and patio along with the necessary grading and stormwater improvements. The following review is only for the engineering, stormwater management, and site grading issues. The building compliance will be handled by the City planners and building inspectors.

The following requirements and comments need to be addressed as the project moves forward:

General Notes

1. Construction limits must be revised to encompass all proposed work. There are multiple instances around the entire site in which the proposed contours go outside of the shown construction limits.
2. Both primary and alternate drain field locations must be shown on the plans. The primary septic location is shown, but an alternate location is not. There is a callout for 'Also contact Project Engineer if alternate septic location will be required prior to construction', but this callout points to the inside slope of Rain Garden 1, which is not an acceptable location for a drain field.
3. A completed SWPPP must be provided prior to construction.

Stormwater Management

1. An operations and maintenance plan for the proposed stormwater management system should be included with future submittals.
2. The applicant should rework the infiltration rock trench to get a drawdown time closer to 72 hours. The bottom of the rock trench is at 979 and the outlet elevation is at 983.5, giving a depth of 4.5 feet. With the proposed 0.2 inch per hour infiltration rate, the rock trench would hold water for 11.25 days with the current design. This will not be allowed, as it will not provide the designed storage for back to back storm events. We would recommend the applicant look at changing the design to a filtration system rather than an infiltration system due to the poor soils onsite.
3. The dry basin near the driveway will be required to meet the City's freeboard requirements. One foot will be required between the EOF elevation and the low opening on the home and three feet of separation will be required between the high water level and the low opening.

4. The rain garden is being modeled with a 6" orifice as the primary outlet but the orifice is not shown in the plans. Applicant should either callout the location of the proposed 6" orifice or it should be removed from the model.
5. The stormwater summary shows an 0.247 acre increase in impervious however only a 0.221 acre increase in impervious is being modeled in HydroCAD. Applicant should update the HydroCAD model to be representative of the existing and proposed conditions shown in the plans.
6. Applicant should add in the 982-contour surface area for the south rain garden into the HydroCAD model to accurately represent the storage shown on the plans.
7. The HydroCAD model shows surface storage above the rock trench starting at 986 but there is not a 986 contour in this area. Applicant should update the storage in the HydroCAD model to accurately represent the plans.
8. A turf reinforcement mat (TRM) is shown in the plan details however there is no callout for a TRM on the plans. Applicant should add the proposed location for the TRM to the plans or remove the detail.

Site Grading

1. All proposed contours must tie back into existing contours. For example, the proposed contour line 1012 on the north side of the property grading back into the existing hill does not tie to existing contour line 1012.

Erosion Control and Restoration

1. As the area of disturbance exceeds one acre, a NPDES permit must be obtained prior to construction.

Site Access

1. The Contractor must adhere to axle load limits when delivering material to the site. Any damage to the roadway and City right-of-way shall be repaired to the City's satisfaction by the applicant.
2. It is recommended that the Contractor take pictures of the roadway and driveway prior to construction to document the condition of each. These pictures should be taken at a wide enough angle to verify their location.

Conclusion and Recommendations

Based upon our review of the engineering, stormwater management and site grading for 1 Sunfish Lane, the proposed site and grading plans appear to be consistent with the City's requirements, with the exception of the above-noted items in this memorandum. Therefore, we hereby find the proposed plans not to be in accordance with City requirements and recommend denial from an engineering standpoint for this project until these items are addressed. We are requesting a new set of plans addressing these comments and new drainage calculations be resubmitted to our office prior to approval. We request that the applicant restate each comment and detail how each comment was addressed.

Memorandum

To: Ryan Grittman
Northwest Associated Consultants

From: Jeff Sandberg, PE
City Engineer

Date: May 13, 2019

Re: Major Site and Building Plan Review
1 Sunfish Lane
City of Sunfish Lake, MN
WSB Project No. 013724-000

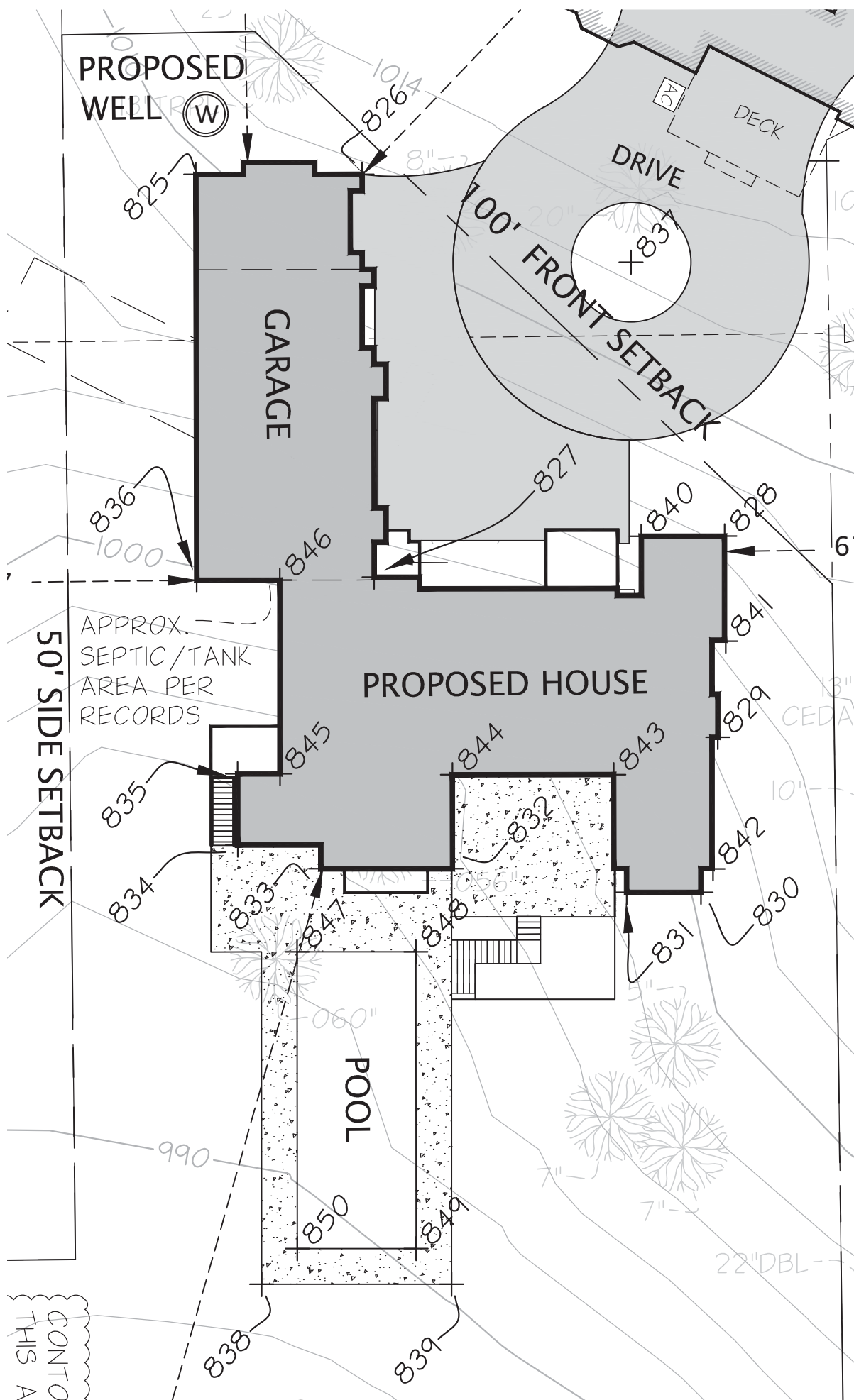
Project Background

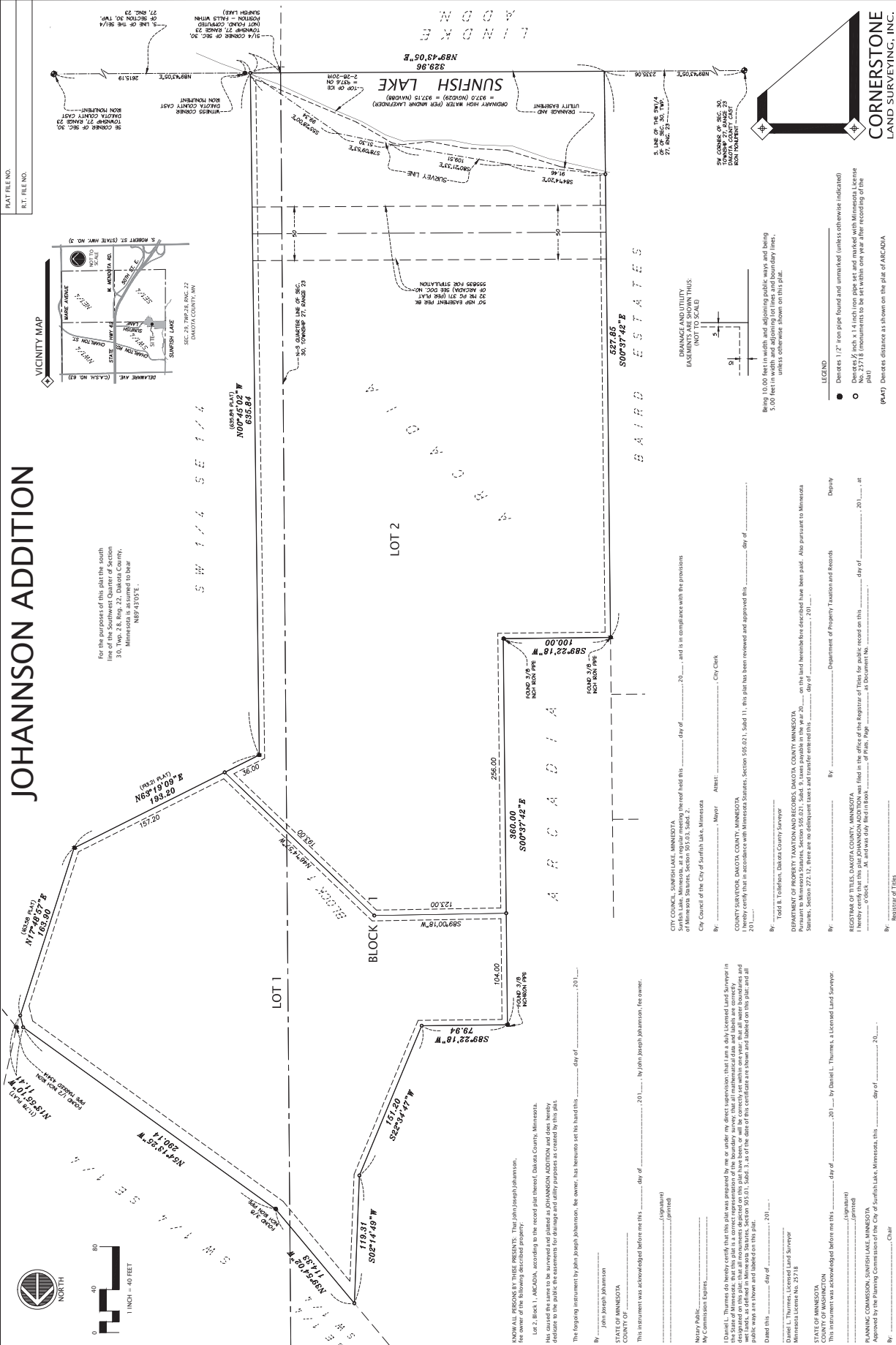
The applicant is proposing to construct a new home, pool, retaining walls and patio along with the necessary grading and stormwater improvements. WSB performed a review of the engineering, stormwater management, and site grading issues.

Please reference the WSB review memorandum dated May 10, 2019 that outlines our comments on the plans as submitted. While the applicant has addressed most of staff's comments, there are still some significant issues that have not been addressed.

Conclusion and Recommendations

Based upon our review of the engineering, stormwater management and site grading for 1 Sunfish Lane, the proposed site and grading plans appear to be consistent with the City's requirements, with the exception of the items noted items in the attached memorandum. Therefore, we hereby find the proposed plans not to be in accordance with City requirements and recommend denial from an engineering standpoint for this project until these items are addressed. We are requesting a new set of plans addressing these comments and new drainage calculations be resubmitted to our office prior to approval.





CORNERSTONE
LAND SURVEYING, INC.

- Legend:
- Densities 1/2" iron pipe found and unmarked (unless otherwise indicated)
- Densities 1/2" x 1/4 inch iron pipe set and marked with Minnesota License No. 23718 (instruments to be set within one year after recording of the plat)
- (6447) Densities distance as shown on the plat of ARCADIA

Within 16.00 feet of the plat and adjoining public ways and being 5.00 feet in width and adjoining lot lines and boundary lines, unless otherwise shown on this plat.

BRANCHES AND UTILITY EASEMENTS ARE SHOWN THUS (NOT TO SCALE)

527.05 S007742"E

527.05 S007742"E

527.05 S007742"E

527.05 S007742"E

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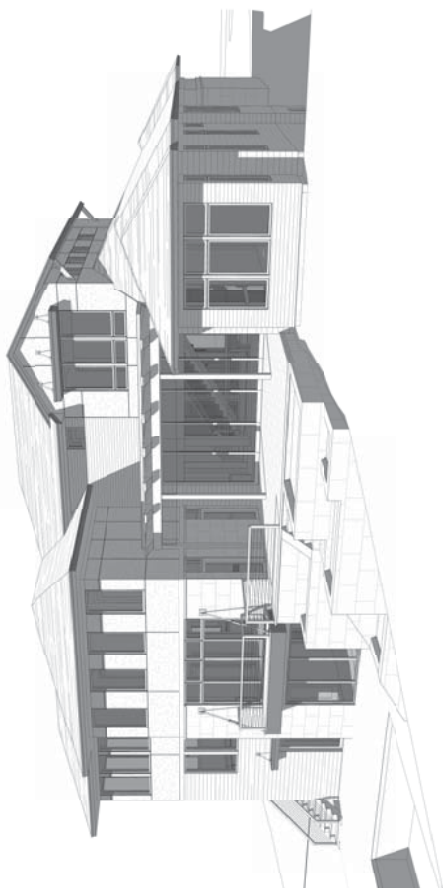
527.05 S007742"E

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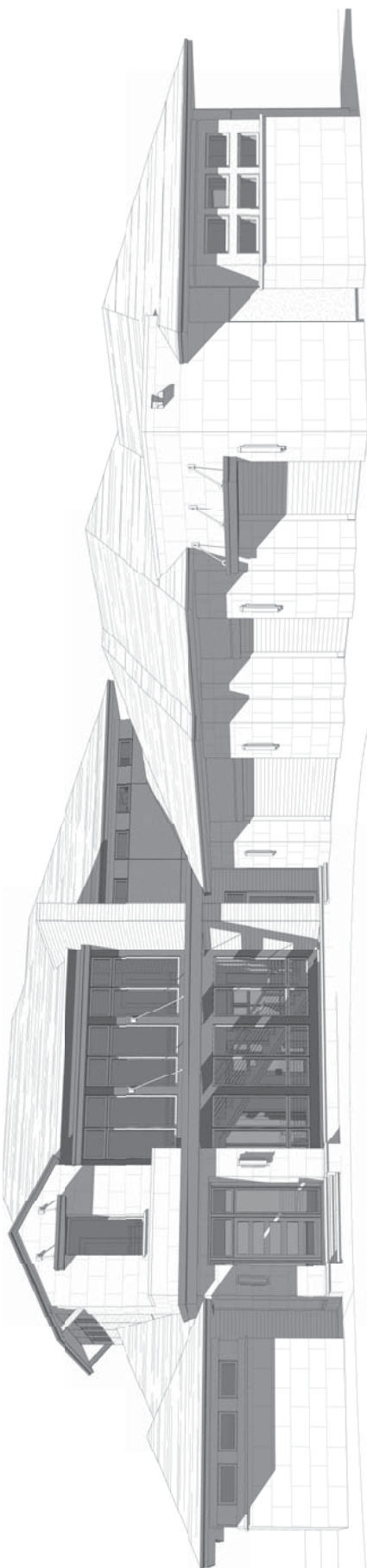
PRELIMINARY PLAT HANSSON ADDITION

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[illegible]

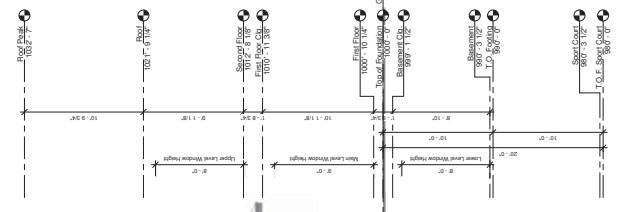
JOHANNSON RESIDENCE

1 SUNFISH LANE
SUNFISH LAKE, MN 55118

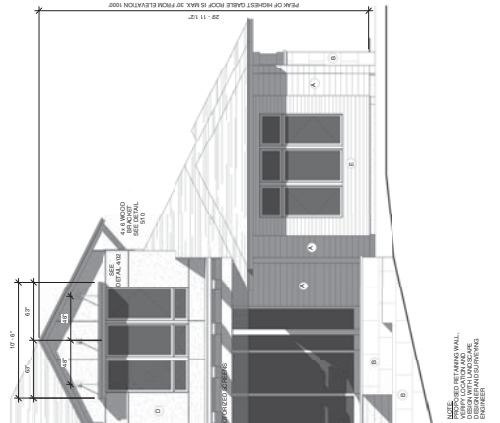


[illegible]

1/4" = 1'-0"



1/4" = 1'-0"



ROOF, CEILING & EAVE
CONSTRUCTION:

- CONSTRUCTION:**
- ARCHITECTURAL GRADE ASPHALT SHINGLES
 - 1/2" OSB SHEET & NAIL (16" O.C.)
 - 1/2" OSB SHEET & NAIL (16" O.C.)
 - TRUSSES @ 24" O.C. (PER MFG. SPEC.)
 - BAFFLES W/ 1" AIR SPACE
 - 2X4 LOOKOUTS
 - 2X8 SUB FASCIA W/ 2" COMPOSITE FASCIA
 - COMPOSITE VENTED SOFFITS
 - COMPOSITE FRIEZE BOARDS
 - R-50 BLOWN INSULATION
 - POLY VAPOR BARRIER
 - 5/8" GYP. BRD. CEILING

UPPER LEVEL
CONSTRUCTION:

- 3/4" T & G PLYWOOD SUBFLOOR
GLUED & SCREWED
20" FLOOR TRUSSES @ 19.2' O.C.
(FLOOR SYSTEM DESIGNER TO
VERIFY SIZE & SPACING BASED
ON SPANS)
5/8" GYP. BRD. ON CEILING
SPRAY INSULATE RIMS (R-21)

**WALL
CONSTRUCTION:**

- SIDING PER ELEVATION
HOUSE WRAP (WRAP
WINDOWS PER MFG. SPEC.)
1/2" PLYWOOD SHEATHING
2X6 STUDS @ 16" O.C.
DBL. TOP PLATE
R-21 WALL INSULATION
4 MIL POLY VAPO R BARRIER
1/2" GYP. BRD.
2X6 SOLE PLATE
ALL DETAILS TO CONFORM W/
ENERGY CODE

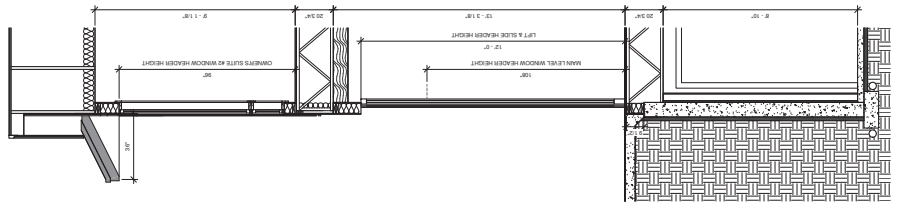
**MAIN LEVEL
CONSTRUCTION:**

- 3/4" T&G PLYWOOD SUBFLOOR
GLUED & SCREWED
20" FLOOR TRUSSES @ 19.2" O.C.
FLOOR SYSTEM DESIGNED TO
VERIFY SIZE & SPACING BASED ON
SPANS)
FLASHING UNDER SILLS & STOOD
TREATED 2X6 SILL PLATE w/
SEALER
1/2" ANCHOR BOLTS @ 6" O.C. & 1'
FROM CORNERS
5/8" GYP. BRD. ON CEILING
SPRAY INSULATOR (R-21)

FOUNDATION WALL \$
BASEMENT SLAB
CONSTRUCTION:

- WATERPROOFING: INTERIOR WALL:
2" RIGID INSULATION R-10 APPLIED TO
EXTERIOR, PROVIDE FLASHING TO
INTERIOR, 1/2" GALV. STEEL FLASHING,
POURED CONC. WALL PER PLAN
REINFORCE WALLS PER CODE AND
ENGINEER'S SPECIFICATION. FLOORING
UNLESS OTHERWISE NOTED.
4" CONC. SLAB
FLOORING PER BARBERS PER IRC
SECTION FOR EXTENDING UP THE WALL
AND SEALED TO FOUNDATION WALL
PER PLAN
N-FLOOR HALL PER PLAN
- INTERIOR: THERMAL WALL:
2" RIGID INSULATION (R-5)
2x4 STUDS @ 16" O.C.
2x4 STUDS @ 16" O.C.
1/2" GYP BD.
- INTERIOR & EXTERIOR 4"
CONC. WALL PER PLAN
TILE PIPED TO SUMP
BASKET

1/2" = 1'-0"

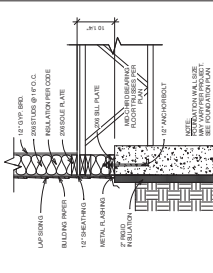


[illegible]

ATTENTION: BEAM SPACING, JOIST SPACING, CONCRETE SPECIFICATIONS SPECIFIED ON THIS SET OF PLANS MUST BE REVIEWED BY A FLOOR SYSTEM DESIGNER OR BY A STRUCTURAL ENGINEER BEFORE BEING USED TO BE STRUCTURALLY SOUND. BASED ON THAT REVIEW IF THERE ARE ANY CHANGES TO ADDED BEAMS/JOISTS, LOCATION, ETC., THE GENERAL CONTRACTOR'S ATTENTION MUST BE DRAWN TO THESE CHANGES.

2X6 SILL PLATE

NOTE: ALL APPLICABLE AREAS ON THIS PLAN TO BE BUILT ACCORDING TO THIS DETAIL FOR AREAS THAT DO NOT APPLY TO THIS DETAIL, REFERENCE ANOTHER DETAIL PROVIDED ON PLANS OR CONSULT WITH GENERAL CONTRACTOR FOR PERIOD



NOTE:

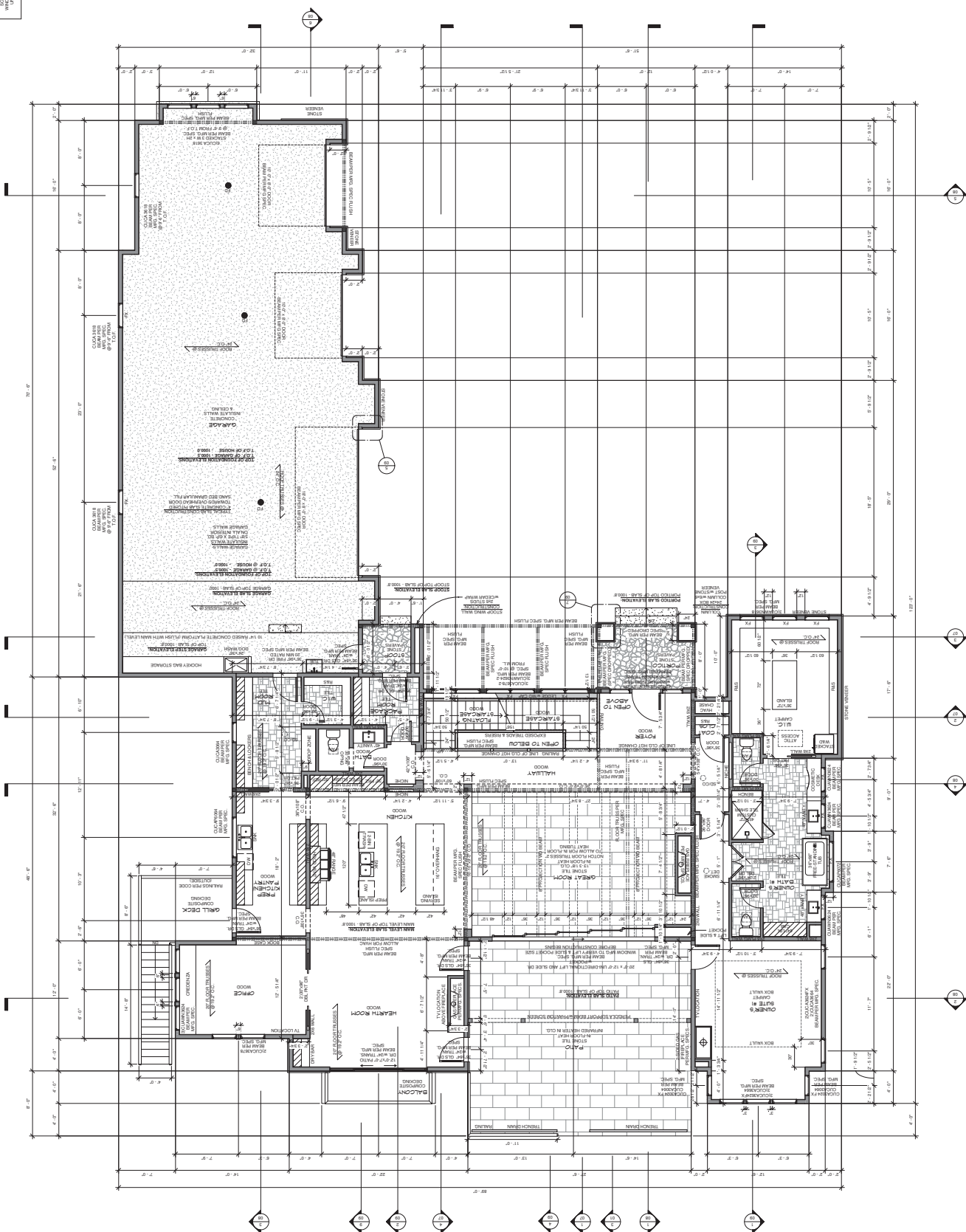
LOWER LEVEL NOTES:

FLOOR TRUSSES ARE CALLED OUT AT 19.2" O.C.
FLOOR SYSTEM DESIGNER VERIFY SPACING AND
ADJUST AS ALLOWED BY SPANS

CEILING HEIGHT @ 8'10" UNLESS NOTED
SET WINDOW HOURS @ 90° FROM HAN LEVEL UNLESS NOTED

GRAY AREAS A ROUNO WALL PERIMETERS INDICATE 2" STONE
TRANSFER BRACE

MAIN LEVEL NOTES:
FLOOR TRUSSES ARE CALLED OUT AT 19.2' O.C.
FLOOR SYSTEM DESIGNER VERIFY SPACING AND
ADJUST AS ALLOWED BY SPANS
CEILING HEIGHT @ 10'-1 1/8" UNLESS NOTED
SET WINDOW-HOISR FLUSHED INTO FLOOR SYSTEM @ 120" FROM
MAIN LEVEL UNLESS NOTED
GRAY AREAS AROUND WALL PERIMETERS INDICATE 2" STONE



NOTE: INTERFERING ROOF TOLERATES PERMANENT ELEVATION CHANGES AND IS NOT AFFECTED BY SHEDDING OR REMOVAL OF THE EXISTING SHEDDING SYSTEMS. PERMANENT ELEVATION IS NOT A FACT OF SHEDDING. USE AND WATER ON ALL EXISTING ROOFS.	EXISTING ROOF TYPE: SHEDDING SYSTEMS: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.
EXISTING ROOF TYPE: SHEDDING SYSTEMS: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.	EXISTING ROOF TYPE: SHEDDING SYSTEMS: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.







