(This SWPPP Template is for the **Common Plan** Permit Only, and

does **NOT** address SWPPP requirements found in the CGP.)

Common Plan SWPPP for

Gassman Residence

152 NORTH 8750 EAST

Huntsville, Utah

Robert & Kathie Gassman

152 North 8750 East

Huntsville, Utah

CLH INC

5010 West 2550 South

Ogden, Utah 84401

Date

Oct 4, 2017

1. Project Information

Project Name Gassman
Address: 152 North 8750 East
City: Huntsville Meadow Lot 18 **State:** Utah **Zip:**
Latitude:
Longitude:
UPDES Permit Tracking Number: Click here to enter text.

Owner: Robert & Kathie Gassman
Contact Person: Robert
Address:
City: Eden **State:** Utah **Zip:** 84310
Telephone Number: 478 396 4221
Email Address:

General Contractor: CLH Inc
Contact Person: Cory Hancock
Address: 5010 West 2550 South
City: Ogden **State:** Utah **Zip:** 84401
Telephone Number: 801-390-1106
Email Address: clhconst@hotmail.com

2. Pollution Sources/Best Management Practices

Answer yes or no whether the following features are located at your site. If yes, select the BMP(s) that will be used to protect each feature. If no, continue to the next question. Attach necessary illustrated details for proper installation in Appendix L, and show locations of all controls on Site Map in Appendix B.

2.1 **Is there a SWPPP sign on site?**(see permit part 1.10) **Yes X** **No ☐**
The sign must include the UPDES tracking number, the owner or general contractor name, phone number and email, and if the SWPPP is on-line, instructions on how to view it.

2.2 **Will there be non-stormwater discharges on the site?** (see permit part 1.3) **Yes X** **No**
Concrete Wash container

2.3 **Are wetlands, sensitive areas, or UIC wells located on or adjacent to the site?** (see permit part 2.2) **Yes ☐** **No X**
BMP(s): ☐ Vegetative Buffers ☐ Berms ☐ Wattles
☐ Boundary Fence ☐ Silt Fence
☐ Other: Click here to enter text.

2.4 **Will there be stockpiles on the site?** **Yes X** **No ☐**
Note: *Select "Contained by other BMP" if another BMP on your site will contain runoff from the stockpiles CANNOT be placed in the street.*(see permit part 2.1.1)
BMP(s): X Silt Fence X Staked Straw Wattle Covering
☐ Other: Click here to enter text.
☐ Contained by other BMP. Explain: Click here to enter text.

2.5 Are surface waters located within 30 feet of your project's earth disturbances? **Yes** **No X**

Note:*A 30' natural vegetative buffer MUST be used if possible. If a buffer less than 30' is used, you must demonstrate that the additional controls offer the same protection as a 30' natural vegetative buffer, and select the reason for exemption below.*(see permit part 2.3.5)

BMP(s): X 30' Natural Vegetative Buffer X Less than 1 acre Disturbance
2 Silt Fence Barrier ☐ 2 Straw Wattle Barriers (Fiber Roll)
☐ Less than 30' Natural Vegetative Buffer. Additional Controls: Click here to enter text.

2.6 Does your site have steep slopes (greater than 70%)? (see permit part 2.3.2) **Yes ☐** **No X**

BMP(s): ☐ Erosion Control Blanket ☐Minimum Disturbance ☐ Seeding
☐Hydroseed ☐Mulch ☐Takifiers
☐ Other:

2.7 What perimeter and sediment controls will be used on the site? (see permit part 2.1.2 & 2.3)

BMP(s): X Silt Fence ☐Straw Wattles (Fiber Rolls) ☐ Sediment Trap
☐ Sediment Basin Swales Berms
X Vegetative Buffer ☐Cut-Back-Curb
☐ Other: Click here to enter text.

2.8 What storm drain inlet protection will be used on this site?(see permit part 2.1.3)

Where is/are the nearest downstream inlet(s): There are no catch basins in the vicinity of this project

BMP(s): ☐Rock/Sand-filled Bags ☐Drop Inlet Bags ☐ Inlet Wattles
☐Filter Fabric X Straw bales

☐ Other: Inlet wattles in gutter if needed

2.9 Will curb ramps be used at the site? **Yes ☐** **No X**

Note:*If curb ramps are used it must be done with material that will not wash away in stormwater.*(see permit part 2.4.2)

BMP(s): Crushed Rock ☐Wood Dunnage
☐ Other: Click here to enter text.

2.10 What dust control BMP(s) will be used?

BMP(s): X Wetting with Water if needed.
☐Other: Click here to enter text.

2.11 What track out control will be used on the site? (see permit part 2.4.1)

BMP(s): ☒Track Out Pad ☐Cobble X Gravel
☐Rumble Strips ☐Wash Down Pad ☐ Delivery Pad
☐Limited Site Access ☐Selective Access During Dry Weather
☐Other: Click here to enter text.

2.12 How will solid waste be dealt with on the site? (see permit part 2.4.3)

BMP(s): ☐Bag Lightweight Trash X Dumpsters ☐ Receptacles with Lids
☐Other: Click here to enter text.

2.13 How will non-aqueous liquid waste (oil, solvent, fuel) be dealt with on the site?

BMP(s): X Contained and Removed from the site. ☐Collected for Reuse
☐Other: Click here to enter text.

2.14 How will spoils (extra or left over dirt) be contained/managed?

BMP(s): ☐Cover Erodible Material ☐Runoff Containment X Haul Off Policy
☐Other: Click here to enter text.

2.15 How will sanitary waste be handled on the site?(see permit part 2.4.4)
BMP(s): X Portable Toilet(s) *(must be staked down & 10' from curb)*
☐ Onsite or Adjacent Indoor Bathrooms
☐Portable Toilet Secondary Containment
☐Other: Click here to enter text.

2.16 How will concrete wash water be contained on the site?(see permit part 2.4.5 & 2.9.1)
BMP(s): X Lined Depression ☐ Steel Dumpster
☐ Regional Washout (per development)
☐Other: Click here to enter text.

2.17 What controls will be used for construction materials stored on site?
BMP(s): Covering Erodible or Liquid Materials ☐Secondary Containment
X Strategic Storage and Staging
☐Other: Click here to enter text.

2.18 What controls will be in place for equipment fueling, maintenance, and washing?
BMP(s): ☐Fueling w/Mobile Track w/Spill Kit ☐Offsite O+M
X Other: No equipment fueling, maintenance or washing will take place onsite.

2.19 How will sediment be contained on site until home owner completes landscaping?
BMP(s): ☐Landscaping ☐Swales ☐ Rock Filters
X Perimeter Controls X Vegetated Buffer X Native Vegetative Barriers
☐ Cut-Back-Curb ☐ Leave Front-Yard Lower than Sidewalk
☐Other: Click here to enter text.

Note that any maintenance required to ensure proper BMP functioning must be done within 72 hours of becoming aware of compromised BMP.

3. Site Map

On a blank page (or include a page from the architectural drawings that show site layout and dimensions), please draw a chart (and place this chart in Appendix B) showing the layout of the site including locations of:

1. boundaries of project/property
2. boundaries of disturbance (including areas outside of property boundaries)
3. show slopes on site
4. location of structures/facilities
5. locations of :
    a. stockpiles for soils and materials
    b. construction supplies
    c. portable toilets
    d. garbage/trash containers
    e. egress points/track out pads
    f. concrete washout pits or containers
6. water bodies, wetlands, natural vegetative buffers
7. placement of all BMPs, perimeter, erosion control, sediment control, inlet, etc.
8. storm water inlets and storm water discharge points (where storm water drains off the site)
9. areas that will be temporarily or permanently stabilized on the site

4. Spill Prevention and Response Plan

Describe the spill prevention and control plan to include ways to reduce the chance of spills, stop the source of spills, contain and cleanup spills, dispose of materials contaminated by spills, and train personnel responsible for spill prevention and control.

Spill Plan:

Store materials in a location to prevent the possibility of a spill. Should a spill happen follow the procedures of the manufacture. If the spill is of another issue then the proper entity should be contacted and the necessary processes taken. See EPA's Spill Prevention and Control Plan BMP if necessary.
www.epa.gov/npdes/stormwater/menuofbmps/construciton/spill_control
htp://www.epa.gov/npdes/stormwater/menuofbmps

Any discharges in 24 hours equal to or in excess of the reportable quantities listed in 40 CFR 117, 40 CFR 110, and 40 CFR 302 will be reported to the National Response Center and the Division of Water Quality (DWQ) as soon as practical after knowledge of the spill is known to the permittee. The permittee shall submit within 14 calendar days of knowledge of the release a written description of: the release (including the type and estimate of the amount of material released), the date that such release occurred, the circumstances leading to the release, and measures taken and/or planned to be taken to the Division of Water Quality (DWQ), 288 North 1460 West, P.O. Box 144870, Salt Lake City, Utah 84114-4870. The Storm Water Pollution Prevention Plan must be modified within14 calendar days of knowledge of the release to provide a description of the release, the circumstances leading to the release, and the date of the release. In addition, the plan must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.

Agency	Phone Number
National Response Center	(800) 424-8802
Division of Water Quality (DWQ) 24-Hr Reporting	(801) 538-6146; (801) 536-4123
Utah Department of Health Emergency Response	(801) 580-6681
Weber Fire Department	(801) 782-3580

Minimum spill quantities requiring reporting:

Material	Media Released To	Reportable Quantity
Engine oil, fuel, hydraulic &brake fluid	Land	25 gallons
Paints, solvents, thinners	Land	100 lbs (13 gallons)
Engine oil, fuel, hydraulic &brake fluid	Water	Visible Sheen
Refrigerant	Air	1 lb
Antifreeze, battery acid, gasoline, engine degreasers	Air, Land, Water	100 lbs (13 gallons)

Emphasis to:

1st Priority: Protect all people (including onsite staff)
2nd Priority: Protect equipment and property
3rd Priority: Protect the environment

1. Make sure the spill area is safe to enter and that it does not pose an immediate threat to health or safety of any person.
2. Check for hazards (flammable material, noxious fumes, cause of spill) – if flammable liquid, turn off engines and nearby electrical equipment. If serious hazards are present leave area and call 911. LARGE SPILLS ARE LIKELY TO PRESENT A HAZARD.
3. Stop the spill source and contain flowing spills immediately with spill kits, dirt or other material that will achieve containment.
4. Call co-workers and supervisor for assistance and to make them aware of the spill and potential dangers
5. If spilled material has entered a storm sewer, regardless of containment; contact the Weber County Stormwater Division.
6. Cleanup all spills (flowing or non-flowing) immediately following containment. Clean up spilled material according to manufacturer specifications, for liquid spills use absorbent materials AND DO NOT FLUSH AREA WITH WATER.
7. Properly dispose of cleaning materials and used absorbent material according to manufacturer specifications.
8. Report the reportable quantity to the Weber County Stormwater Division.

Emergency Numbers

Utah Hazmat Response Officer 24 hrs	(801) 538-3745
Weber County Police Department	(801) 778-6600
County Engineering Division	(801) 399-8374

5. SWPPP, Inspections and Corrective Action Reports

Inspection Schedule and Procedures: The permit requires inspections once a week (see permit Part 3). You must list and provide details of your BMPs in Appendix L. Inspection reports require reporting on BMPs and how effective they are. You may be required to maintain, modify, remove, or apply/install more or different BMPs to control pollutants on the site. Please number your BMPs in Appendix L and refer to those numbers on your inspection reports and corrective action reports when you inspect or report on them.

Describe the general procedures for correcting problems when they are identified. Include responsible staff and time frames for making corrections:

Within a day or so of discovering the occurrence of a storm water or pollution control problem at your site, you must make an entry in a report/log or other devise for monitoring corrective action of the following:
a: What condition was identified at your site that required corrective action (BMPs needed or in need of altering or repairing.
b: The date and time the condition was identified and how it was identified (noticed it needed maintenance, Inspection)
Luke Berman is the Responsible Staff and he will Immediately take all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution for the problem is installed and made operational. See Part 5.2 or the General Permit

Corrective Actions: All corrective actions must be logged using the "Correction Action Log" attached in Appendix F. The log should be filled out completely for each corrective action.

6. Changes to the SWPPP

All changes to this SWPPP must be logged in the "Amendment Log" in Appendix G. The log should be filled out completely for each amendment to the SWPPP.

7. Record Keeping

The following items should be kept at the project site available for inspectors to review:

1. Dates of grading, construction activity, and stabilization
2. A copy of the construction general permit (Appendix C)
3. The signed and certified NOI form (Appendix D)
4. Inspection reports (Appendix E)

8. Delegation of Authority

Duly Authorized Representatives or Positions:

Company/Organization: CLH Construction
Name: Cory Hancock
Position: General Contractor
Address: 5010 West 2550 South
City: Ogden State: Utah Zip: 84401

Telephone: (801) 390-1106 Fax/Email: clhconst@hotmail.com

Note: *Any additional information (i.e. memoranda, agreements, etc.) should be attached in Appendix H.*

9. Discharge Information

Does your project/site discharge storm water into a Municipal Separate Storm Sewer System (MS4)?

X Yes ☐No

MS4 receiving the discharge from the construction project: Weber County

Receiving Waters (look up http://wq.deq.utah.gov to identify your receiving water body)

Enter the name(s) of the first surface water(s) that receives storm water directly from your site and/or from the MS4 listed above. **Note:** *multiple rows provided in the case that your site has more than one point of discharge in which each flows to different surface waters.*

1. **Strom Drain System within Development**
2. **Into drainage system**
3. **Into Pineview Reservoir**
4.

Impaired Waters (refer to http://wq.deq.utah.gov in the left hand column to determine status of receiving water body).

Select any impaired surface water(s) that your site will discharge to, either directly or through the MS4 selected above.

Impaired Surface Water	Is this surface water impaired?	Pollutant(s) causing the impairment	Has a TMDL been completed?	Pollutant(s) for which there is a TMDL
Pineview Reservoir	XYes ☐No	Dissolved Oxygen, Phosphorus, Temp.	X Yes ☐ No	Nitrogen & Phosphorus
Click here to enter text.	☐Yes ☐No	Click here to enter text.	☐Yes ☐ No	Click here to enter text.

10. Certification and Notification

I, Cory Hancock, certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

X _____

Construction Operator:

This SWPPP should be signed and certified by the construction operator(s). Attach certifications in Appendix H.

SWPPP Appendices

Ensure the following documentation is attached to the SWPPP:

Appendix A: General Location Map

Appendix B: SWPPP Site Maps

Appendix C: Construction General Permit Regulation

Appendix D: Acknowledgement Letter from Weber County

Appendix E: Inspection Reports

Appendix F: Corrective Action Log

Appendix G: SWPPP Amendment Log

Appendix H: Certifications, Agreements, and Delegation of Authority

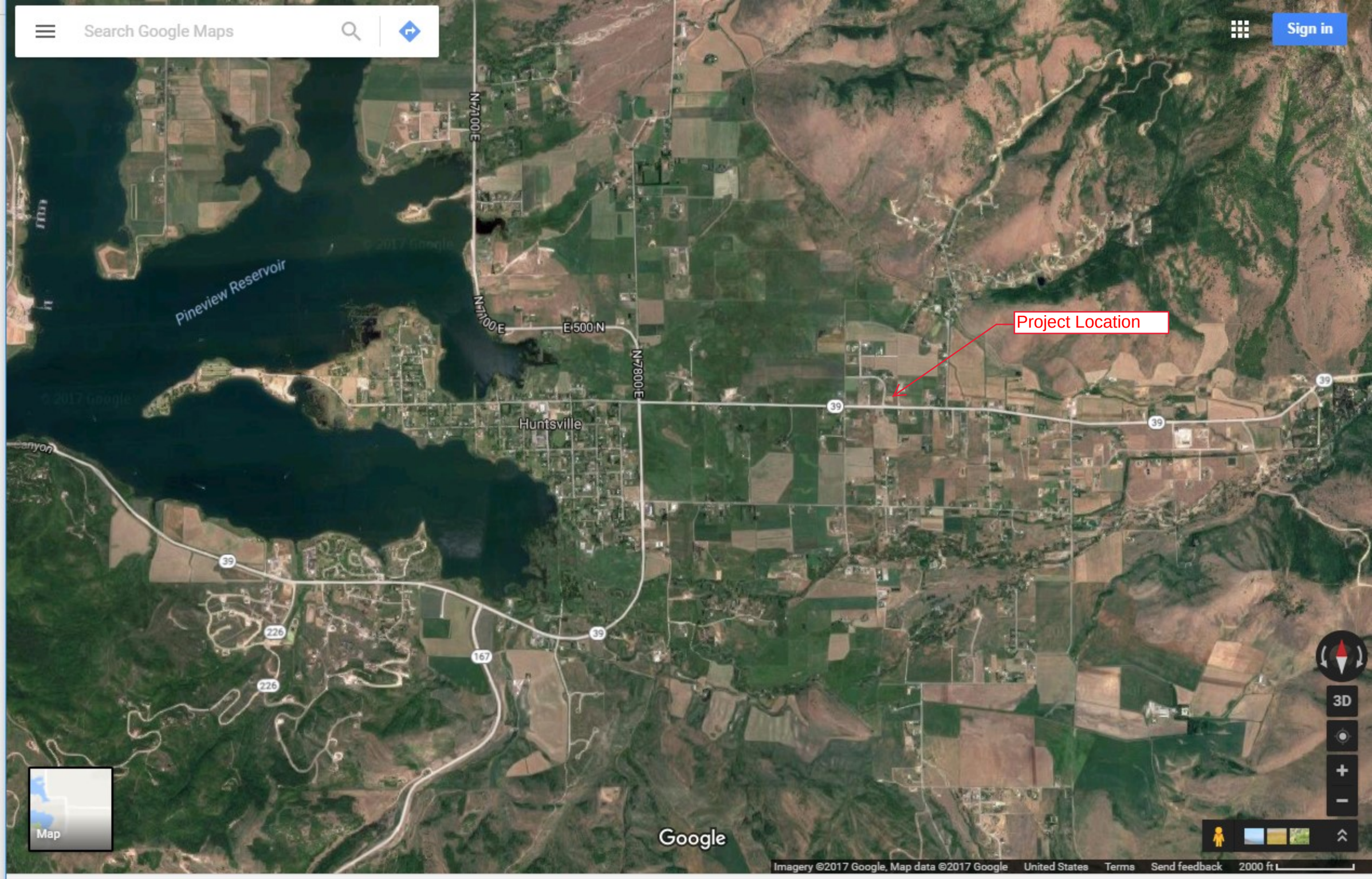
Appendix I: Grading and Stabilization Activities Log

Appendix J: Construction Plans

Appendix K: Additional Information (i.e. permits such as local permits, dewatering, stream alteration, wetland, and out of date SWPPP documents, etc.)

Appendix L: BMP Specifications and Details (label BMPs to match the sections identified in this document.)

APPENDIX A: Site Map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Pineview Reservoir
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Huntsville
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Terms
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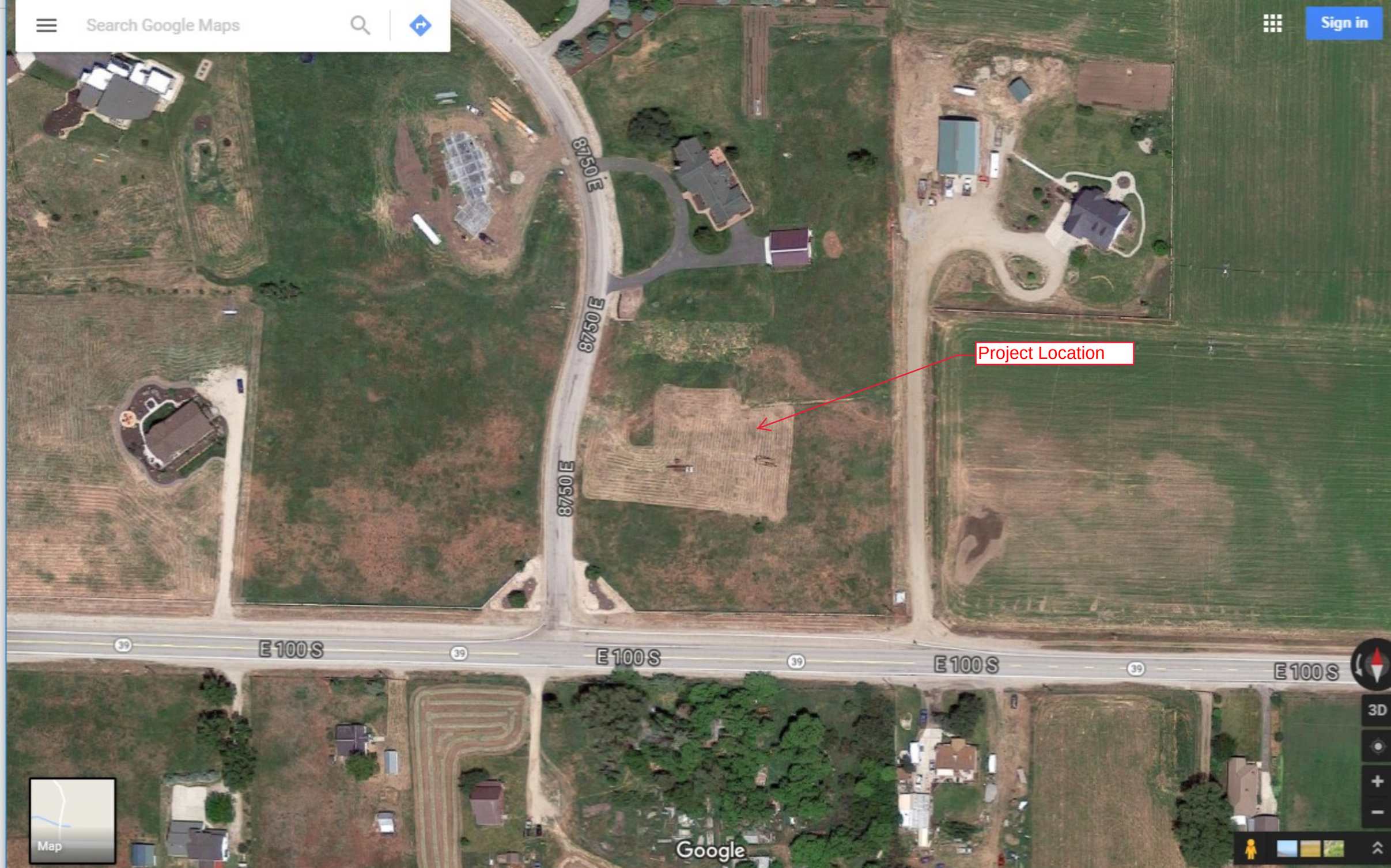
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Project Location
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APPENDIX B: SWPPP Site Maps

SITE PLAN

152 NORTH 8750 EAST
LOT #18
HUNTSVILLE MEADOWS SUBDIVISION
WEBER COUNTY, UTAH

SCALE: 1" = 20'-0"
Area = 109,028 Sq. Ft. = 2.503 ACRE

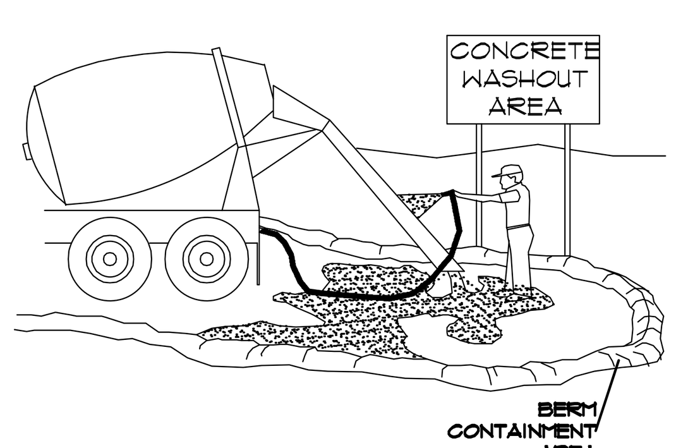
PLEASE NOTE:

1. SITE PLAN IS SHOWN FOR INFORMATION ONLY. OWNER /CONTRACTOR SHALL HAVE RESPONSIBILITY TO DETERMINE GRADES AND FINAL PLACEMENT AND ELEVATIONS OF FOOTINGS/FOUNDATIONS AND SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL STATE, NATIONAL, AND LOCAL BUILDING CODES & ORDINANCES.
2. THIS SITE PLAN IS A REPRESENTATION OF CONCRETE FOUNDATIONAL BUILDING FOOTPRINT ONLY. ALL SETBACK INFORMATION SHOWN IS TO CONCRETE FOUNDATION WALLS ONLY. SITE PLAN DOES NOT INDICATE THE LOCATION OF ROOF OVERHANGS OR CANTILEVERS (WALL POPOUTS OR FLOOR OVERHANGS) OR OTHER ARCHITECTURAL ELEMENTS THAT MAY PENETRATE THE PROPERTY SETBACKS OR EASEMENTS. THE PLAN COUNTY, CITY OR OTHER JURISDICTION REVIEWER, CONTRACTOR AND OWNER SHALL REVIEW ALL PLAN SUBMITTAL DRAWINGS (FLOOR PLANS, ELEVATIONS, DETAILS, ETC...) IN CONJUNCTION WITH THE SITE PLAN TO IDENTIFY ANY PROPOSED WALL CANTILEVERS OR OTHER FEATURES THAT MAY ENCROACH INTO SETBACKS AND SHALL REPORT ANY CONCERNS TO THE DESIGNER PRIOR TO EXCAVATION AND/OR CONSTRUCTION.

LINETYPE LEGEND

- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- HOME FOOTPRINT
- PROPOSED CONT.
- 10' CONT. LINE
- 2' CONT. LINE
- DIRECTIONAL DRAINAGE ARROWS

1. ALL STORM WATER AND DIRT WILL BE KEPT ON SITE DURING CONSTRUCTION UNTIL FINAL LANDSCAPING IS DONE.
2. THE GRADE AWAY FROM FOUNDATION WALLS SHALL FALL A MINIMUM OF 6 INCHES WITHIN THE FIRST 10 FEET (5%)
3. STREET, CURB AND GUTTER WILL BE INSPECTED AND CLEANED OF ALL MUD AND DIRT AT THE END OF EVERY DAY.
4. STRAW WATTLES (OR EQUIVALENT) TO BE PLACED AND MAINTAINED AROUND ANY STORM DRAIN INLET ADJACENT TO OR IMMEDIATELY DOWNSTREAM FROM SITE DURING CONSTRUCTION.
5. BERMS OR SWALES MAY BE REQUIRED ALONG PROPERTY LINES TO PREVENT STORM WATER FLOW ONTO ADJACENT LOTS. FINAL GRADING SHALL BLEND WITH ADJACENT LOTS.
6. ALL REAR DRAINAGE TO BE RETAINED ON THE PROPERTY.
7. FIXTURES THAT HAVE FLOOD LEVEL RIMS LOCATED BELOW THE ELEVATION OF THE NEXT UPSTREAM MANHOLE COVER OF THE PUBLIC SEWER SERVING SUCH FIXTURES SHALL BE PROTECTED FROM BACK FLOW OF SEWAGE BY INSTALLING AN APPROVED BACKWATER VALVE. FIXTURES HAVING FLOOD LEVEL RIMS ABOVE THE ELEVATION OF THE NEXT UPSTREAM MANHOLE SHALL NOT DISCHARGE THROUGH THE BACKWATER VALVE. BACKWATER VALVES SHALL BE PROVIDED WITH ACCESS.
8. LONG-TERM DRAINAGE CONTROL BY STANDARD RESIDENTIAL LANDSCAPING, INCLUDING GRASS, TREES AND BUSHES AND AN AUTOMATIC SPRINKLER SYSTEM.



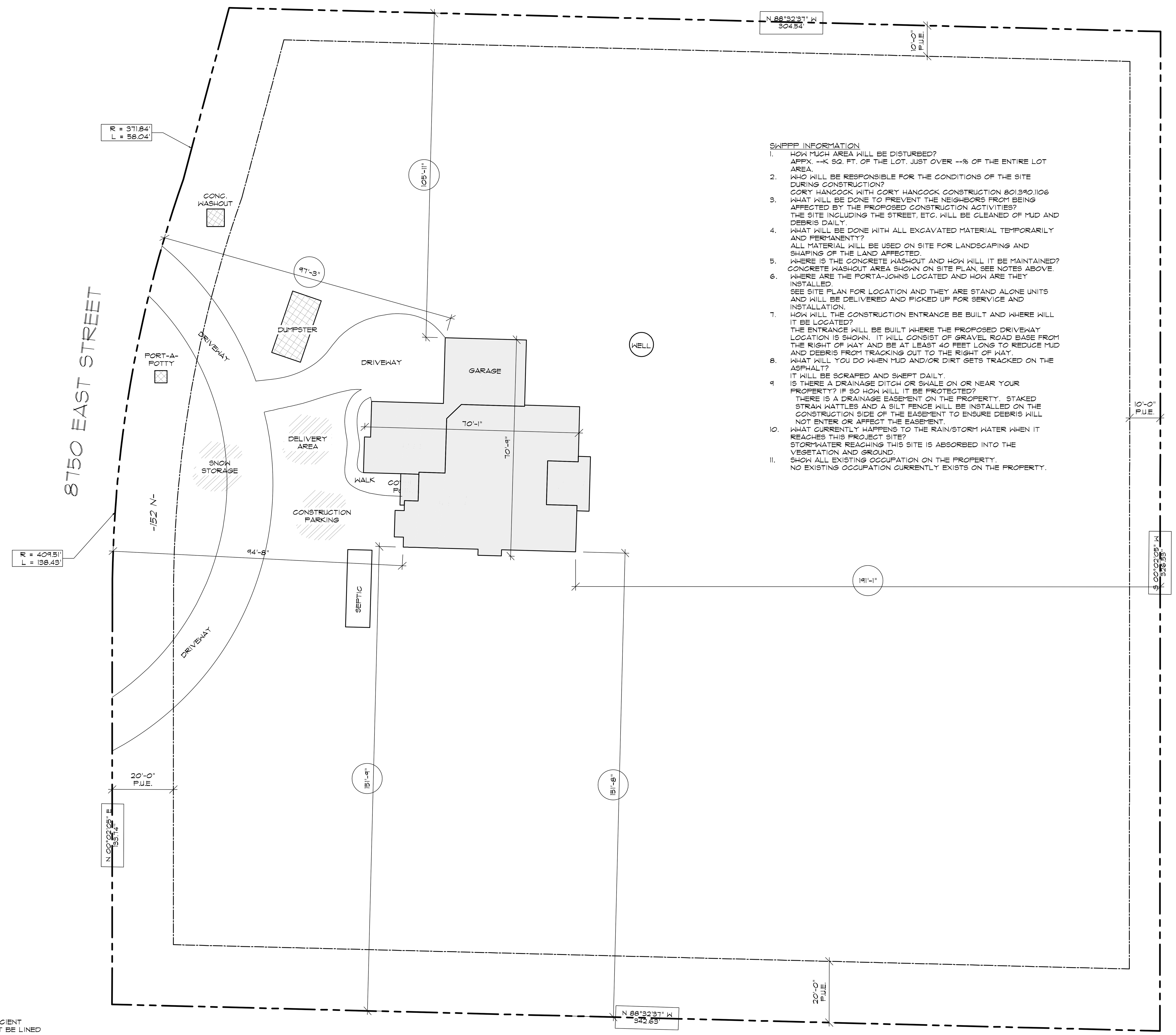
CONCRETE WASTE MANAGEMENT

NOTES:

1. EXCESS AND WASTE CONCRETE SHALL NOT BE WASHED INTO THE STREET OR INTO A DRAINAGE SYSTEM.

2. FOR WASHOUT OF CONCRETE AND MORTAR PRODUCTS, A DESIGNATED CONTAINMENT FACILITY OF SUFFICIENT CAPACITY TO RETAIN LIQUID AND SOLID WASTE SHALL BE PROVIDED ON SITE. THIS DISCHARGE AREA MUST BE LINED WITH AN IMPERMEABLE BARRIER.

3. SLURRY FROM CONCRETE AND ASPHALT SAW CUTTING SHALL BE VACUUMED OR CONTAINED, DRIED, PICKED UP, AND DISPOSED OF PROPERLY.



SWPPP INFORMATION

1. HOW MUCH AREA WILL BE DISTURBED?
   APPX. --K SQ. FT. OF THE LOT. JUST OVER --% OF THE ENTIRE LOT AREA.
2. WHO WILL BE RESPONSIBLE FOR THE CONDITIONS OF THE SITE DURING CONSTRUCTION?
   CORY HANCOCK WITH CORY HANCOCK CONSTRUCTION 801.390.1106
3. WHAT WILL BE DONE TO PREVENT THE NEIGHBORS FROM BEING AFFECTED BY THE PROPOSED CONSTRUCTION ACTIVITIES?
   THE SITE INCLUDING THE STREET, ETC. WILL BE CLEANED OF MUD AND DEBRIS DAILY.
4. WHAT WILL BE DONE WITH ALL EXCAVATED MATERIAL TEMPORARILY AND PERMANENTY?
   ALL MATERIAL WILL BE USED ON SITE FOR LANDSCAPING AND SHAPING OF THE LAND AFFECTED.
5. WHERE IS THE CONCRETE WASHOUT AND HOW WILL IT BE MAINTAINED?
   CONCRETE WASHOUT AREA SHOWN ON SITE PLAN, SEE NOTES ABOVE.
6. WHERE ARE THE PORTA-JOHNS LOCATED AND HOW ARE THEY INSTALLED.
   SEE SITE PLAN FOR LOCATION AND THEY ARE STAND ALONE UNITS AND WILL BE DELIVERED AND PICKED UP FOR SERVICE AND INSTALLATION.
7. HOW WILL THE CONSTRUCTION ENTRANCE BE BUILT AND WHERE WILL IT BE LOCATED?
   THE ENTRANCE WILL BE BUILT WHERE THE PROPOSED DRIVEWAY LOCATION IS SHOWN. IT WILL CONSIST OF GRAVEL ROAD BASE FROM THE RIGHT OF WAY AND BE AT LEAST 40 FEET LONG TO REDUCE MUD AND DEBRIS FROM TRACKING OUT TO THE RIGHT OF WAY.
8. WHAT WILL YOU DO WHEN MUD AND/OR DIRT GETS TRACKED ON THE ASPHALT?
   IT WILL BE SCRAPED AND SWEPT DAILY.
9. IS THERE A DRAINAGE DITCH OR SWALE ON OR NEAR YOUR PROPERTY? IF SO HOW WILL IT BE PROTECTED?
   THERE IS A DRAINAGE EASEMENT ON THE PROPERTY. STAKED STRAW WATTLES AND A SILT FENCE WILL BE INSTALLED ON THE CONSTRUCTION SIDE OF THE EASEMENT TO ENSURE DEBRIS WILL NOT ENTER OR AFFECT THE EASEMENT.
10. WHAT CURRENTLY HAPPENS TO THE RAIN/STORM WATER WHEN IT REACHES THIS PROJECT SITE?
   STORMWATER REACHING THIS SITE IS ABSORBED INTO THE VEGETATION AND GROUND.
11. SHOW ALL EXISTING OCCUPATION ON THE PROPERTY.
   NO EXISTING OCCUPATION CURRENTLY EXISTS ON THE PROPERTY.

VOICE: 801-476-1860
FAX: 801-476-1828
HABITATIONS
RESIDENTIAL DESIGN GROUP

SHEET TITLE: SITE PLAN

24X36 SHEET, 1" = 20'-0"

DRAWN BY: N. COOMBS

CHK'D BY: M. STEELE

ISSUE DATE: 9/1/2017

PLAN NUMBER: TS3650

APPENDIX C: Construction General Permit Regulation

General Permit for Storm Water Discharges from Construction Activities

STATE OF UTAH, DEPARTMENT OF ENVIRONMENTAL QUALITY,
DIVISION OF WATER QUALITY

General Storm Water Permit for Construction Activity
Connected with Single Lot Housing Projects
Utah Pollution Discharge Elimination System Permit No. UTRH00000
(Common Plan Permit)

This Permit is issued in compliance with the provisions of the Utah Water Quality Act (Utah Code Annotated 19-5, as amended) the federal Water Pollution Control Act (33 United States 1251 et. seq., as amended by the Water Quality Act of 1987, Public Law 100-4), and the rules and Regulations made pursuant to those statutes.

This permit applies to "construction activity" for a single lot disturbing a total of one acre or less and for construction activities related to residential dwellings. A single lot covered by this permit is part of a common plan of development or sale (see definitions in Part 6).

Issuance of this permit does not authorize any permittee to violate water quality standards. The permittee shall develop best management practices (BMPs) and engage in activities that will protect water quality during the construction project.

This permit shall become effective on February 1, 2016.

This permit and the authorization to discharge expire at midnight on January 31, 2021.

Signed this 20 day of January, 2016

Walter L. Baker, P.E.
Director

DWQ-2016-002081

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General Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects
UPDES Permit No. UTRH00000

1. COVERAGE UNDER THIS PERMIT. Conditions for coverage under this permit.

1.1. Coverage Limitations. A project site (see definition of a project site in Part 6) is eligible for this permit if it meets the following requirements:

1.1.1. It is found within the State of Utah but is not in Indian Country,

1.1.2. The construction activity is related to residential building on an individual lot or parcel.

1.1.3. It disturbs a total of one acre or less over the duration of the construction project,

1.1.4. *Multiple site coverage*:

1.1.4.a. This permit may apply to multiple lots with the contingency that each lot be covered under a different permit tracking number (separate permit coverage for each lot). Lots do not necessarily need to be located within the same sub-division.

1.1.4.b. If multiple lot coverage is desired under one permit, it may be obtained under the General Permit for Discharges from UPDES Permit No. UTRC00000. Multiple lots may be covered under one tracking number (one permit coverage) provided that UTRC00000 is the controlling permit, and all lots covered under that tracking number are within the same sub-division.

1.2. Discharges Allowed. This permit allows discharges of storm water from construction activity at a project site, provided the storm water discharge meets the requirements within this permit.

1.3. Non-Storm Water Discharges. Other non-storm water discharges that are allowed are:

1.3.1. Flushings from potable or irrigation water sources where they have not been used for a washing or cleaning activity;

1.3.2. Water used for dust control;

1.3.3. Spring water and groundwater that have not been soiled with sediment or other pollutants from construction activity;

1.3.4. Emergency fire-fighting activities, and;

1.3.5. Footing drains that have not been soiled from construction activity.

1.4. How to Obtain Permit Coverage. The permit may be obtained online at the Utah Department of Environmental Quality (DEQ) UPDES Permits website at http://www.waterquality.utah.gov/UPDES/stormwatercon.htm. Click on "Application for a Storm Water Permit". Create an account, or if an account has already been created, proceed with providing the information requested. **The notice of intent (NOI) for this permit is the same NOI that is used for the UTRC00000 permit.** To complete the application process the permittee must pay a permit fee. The NOI may be filled out electronically using the online permit application system. The NOI can also be submitted using a paper form obtained from the same website cited above along with the permit fee. The paper form and fee can either be hand delivered to Utah Division of Water Quality [DWQ], 195 North 1950 West, Salt Lake City, Utah, 3rd floor in the MASOB building, or mailed to DWQ, P.O. Box 144870, Salt Lake City, Utah 84114-4870. When a party receives coverage under the permit, they will receive a permit

tracking number and the opportunity to copy the NOI for "proof of coverage." A copy of this permit may be downloaded from the DEQ website at http://www.deq.utah.gov/Permits/water/updes/stormwatercon.htm.

1.5. Signature on the NOI. The owner and the general contractor, which in some cases could be the same party, must sign the paper copy of the NOI (see 5.16.1.a) and place it in the storm water pollution prevention plan (SWPPP) (see 4.2.8).

1.6. Permit Renewal. This permit must be renewed yearly on the anniversary date of the original permit application. This is done by logging onto the account created at the time of NOI application, refreshing the information on the NOI, and paying the yearly permit fee.

1.7. Start and end of Permit Coverage. Permit coverage begins immediately upon completion and submission of an NOI and the permit fee. If the NOI is submitted electronically on-line permit coverage begins on that day. If the NOI is submitted by mail permit coverage begins when the NOI is received and entered into the on-line data base by DWQ staff. For projects within the jurisdiction of a regulated MS4 (see definitions in Part 6; the list of regulated MS4's is found on http://www.deq.utah.gov/Permits/water/updes/stormwatermun.htm), the permittee must also notify and receive approval for the project from the regulated MS4 having jurisdiction before the project may commence (see 4.2.10.). The permit fee is an annual fee that must be paid yearly on the anniversary date of permit issuance. The permit will remain effective until or unless any of the following occurs:

1.7.1. The permittee completes the notice of termination (NOT) process, as outlined in section 1.8,

1.7.2. The permittee fails to submit the yearly permit fee,

1.7.3. Aside from permit coverage, which may be renewed annually by the permittee, as needed, this general permit expires every 5 years and normally is renewed through a public notice process by DWQ. In the event that the permit nears the end of its 5 year cycle, and the year of permit coverage for a construction site extends beyond the expiration date for the permit, the permittee must request continuing coverage through the permit renewal process. Otherwise permit coverage for a construction site will terminate when the general permit expires. Renewal of permit coverage can be done in the online electronic storm water data base up to 12 months prior to the expiration of the permit, or by letter received by DWQ before the expiration date of the specific permit coverage in question where concurrently all entries in the NOI can be updated as needed.

1.7.3.a. If a renewal permit has been issued and is in place at the expiration date of this permit, this permit will terminate and coverage under the renewed permit will begin on the expiration date unless 1.7.1 has been invoked by the permittee.

1.7.3.b. If a renewal permit has not been issued, this permit will be administratively extended until a renewal permit is issued or it is determined that this permit will not be continued. If a renewal permit is issued, and the permittee indicated a desire for continuing coverage under the new permit, coverage

will continue for the permittee under the new permit coverage unless 1.7.1 is invoked. If the permit is discontinued, the permittee must continue coverage under another general permit or an individual permit.

1.7.4. Coverage under this permit is rescinded or revoked for administrative reasons. In this case, the permittee will be notified in writing from the Director and will be required to apply for coverage under a different general or individual UPDES permit. This permit is terminated on the day coverage under another permit begins.

1.8. Notice of Termination. The permittee must terminate the permit by submitting an NOT when the project is completed. The NOT must be filed and retained for 3 years after the permit has been terminated (see 3.7). To terminate the permit, the permittee must comply with either 1.8.1 or 1.8.2, outlined below, and must comply with 1.8.3 if the project is within the jurisdiction of a regulated MS4 (see http://www.deq.utah.gov/Permits/water/updes/stormwatermun.htm for regulated MS4s):

1.8.1. The landscaping is completed and the site meets "final stabilization" requirements (see part 6, definitions, for final stabilization).

1.8.2. When a project (residential building) is completed but 'final stabilization' is not established, the building must be in process of being sold and ready for homeowners to take possession. If built by the homeowners, they must be in the process of moving in or already have moved in the house. The lot must have perimeter controls on downslope boundaries and surface stabilization controls on all surfaces that are 20 % (1 to 5 slope, or 11.3 derees) or greater to prevent erosion and soil migration offsite;

1.8.3. The permittee must submit a paper copy of a NOT form to the MS4 of jurisdiction and schedule a final inspection (with the MS4). Termination is complete upon approval of the final inspection from the local MS4, or from DWQ if outside the jurisdiction of a regulated MS4.

1.9. Water Quality: Through the design of appropriate BMPs, it is expected that the permittee will achieve compliance with water-quality standards. If additional information becomes available indicating a project site is causing or is contributing to a violation of water quality standards or an existing total maximum daily load (TMDL), coverage under this permit may be revoked or rescinded, and the permittee may be required to get coverage under an individual UPDES permit or another UPDES general permit. If this occurs, the owner and the general contractor will be notified in writing by the Director and given instructions on how they must proceed.

1.10. Requirement to Post a Notice of Permit Coverage. The permittee must post a sign at the project site that includes the UPDES Permit tracking number, owner or general contractor contact name, a phone number for the owner or general contractor, an email address for the owner or general contractor, and in the case of an electronic SWPPP, a web address or information on how to access the electronic SWPPP. The notice must be posted with lettering large enough to be readable from a public right-of-way.

2. POLLUTION PREVENTION REQUIREMENTS

2.1. Structural Controls. Minimize sediment transport off the site as follows:

2.1.1. *Stockpiled Material.* Stockpiled material must not be stored on an impervious surface, except a material that will not be transported with precipitation, such as two-inch graded and washed gravel, unless it will be permanently placed and the holding area will be swept clean the same day it is dropped. If stored temporarily for more than a day, it must be placed as far as feasibly possible from roads or other impervious surfaces, storm water inlets, or water bodies, and with stockpile perimeter runoff controls utilized.

2.1.2. *Perimeter Controls.* Perimeter controls such as silt fences, straw wattles, other filter berms, cut back curbs, vegetative buffers, etc., must be properly placed on the downslope sides of the project to prevent sediment from leaving the site during a storm event. As perimeter controls become loaded to 1/3 of capacity, they must be cleaned.

2.1.3. *Inlet Protection.* Storm-drain inlets on the project site and on adjacent roads immediately down gradient from the site must be protected if they receive drainage from the active constructionsite. Protection may be, but is not limited to, rock wattles, sand bags, proprietary devices, or other. Rock wattles and sand bags are not advised for use in winter because they can be destroyed or removed by snow plows.

2.2. Protection of Critical or Sensitive Areas: Critical or sensitive areas such as preservation of the drip line around trees, wetlands, buffer zones by water bodies, etc., must be separated and isolated by clearly marking the areas with environmental fencing.

2.3. Managing the Site to Minimize Sediment Transport Offsite.

2.3.1. The total area of soil disturbance at any one time must be minimized by disturbing only the area necessary to complete that stage of construction in the construction process.

2.3.2. Soil disturbances on steep slopes must be minimized. For purposes of this permit a steep slope is 70% (or 1 to 1.66, or 35 degrees), or greater. This means avoiding a disturbance of soils on steep slopes or if disturbing the soil surface is necessary providing a robust surface stabilizing cover (such as geomats, environmental blankets, or other robust slope stabilizing control) to prevent erosion.

2.3.3. Storm water volume and velocity must be controlled to minimize soil erosion and sediment transport by methods such as allowing or not obstructing infiltration and using velocity-control devices to reduce energy in runoff flowing on slopes.

2.3.4. Storm water discharges leaving the site, including both peak flowrates and total storm water volume, must be controlled to minimize channel and stream-bank erosion and scour in the immediate vicinity of discharge points. This may be accomplished using experience, estimates, and good judgement; unless unusual or extraordinary site conditions present a potential for excessive erosion, hillside/impoundment collapse, environmental/safety hazards, or other site problems; for which a professional engineer must be consulted.

2.3.5. *Thirty-Foot Vegetative Buffer*. If a waterbody is adjacent to, within 30 feet from, or passing through the project boundaries, a 30-foot natural buffer between the waterbody and construction activity must be provided. If a 30-foot natural buffer cannot be provided, a substitute control measure equivalent to the 30-foot buffer must be provided, or the SWPPP must contain an explanation why neither is feasible. If it is not feasible to maintain a 30-foot natural buffer, as much natural buffer as is possible must be preserved and coupled with placement of additional erosion and sediment controls designed, implemented, and maintained to substitute and be equivalent to the 30-foot natural buffer.

The requirement for a natural buffer or substitute controls does not apply to any area outside of the project boundaries, but if a waterbody is within, for example, 20 feet from the project boundary, there must be 10 feet of natural vegetative buffer or substitute controls, or if within 25feet from the project boundary, there must be 5 feet of natural vegetative buffer or substitute controls, and so forth.

2.3.5.a. Substitution for a natural buffer should be calculated with models such as USDA's RUSLE2 or WEPP, or by using SEDCAD, SEDIMOT, or other similar models. In lieu of using a model for calculation of a substitution buffer, the permittee shall deploy the following:

2.3.5.a.i. For every full 9 feet of natural buffer that is not provided on slopes up to 10 percent, one row of an effective perimeter control, such as a silt fence, staked straw wattle, proprietary or other filter berm, or other perimeter control, must be properly placed. For example, if only 15 feet of natural buffer can be provided, the permittee will substitute one row of a perimeter control in addition to the 15 feet of natural buffer to make up for the 15 feet of buffer that could not be preserved.

2.3.5.a.ii. In addition to the requirements above for substitutions in place of the 30-foot natural buffer, on slopes between 10 percent and 30 percent, five feet of surface stabilization must be placed down gradient of and between each perimeter control substituted. For slopes steeper than 30 percent, 6 feet of surface stabilization must be placed downgradient of and between each perimeter control substituted, such as mulch, hydromulch, wood chips, bark, compost, erosion mat, etc., but excluding tackifiers.

2.4. Good Housekeeping Measures. The permittee must address the following:

2.4.1. *Track Out*. Track-out pads (see definitions) and or rumble strips (see definitions) must be used to prevent dirt/mud tracked on streets as vehicles leave the site. If traffic onto and off the site is not frequent, a site operator may impose a blanket prohibition of vehicle traffic onto the site, allowing for the occasions to deliver and unload, but afterwards providing sweeping and/or cleaning of tracked out dirt (keep in mind that vehicles leaving a muddy site with no track out protection can track mud for several

blocks – the operator is liable for all track out from the site except for a dirt stain after sweeping -- see note after 3.2.2.). Dirt or mud tracked out on the street must not be washed or hosed into a storm drain. Tracked out mud or dirt on the street must be swept and/or scraped up as needed every day (see 3.2.2).

2.4.2. *Curb Ramps*: This permit prohibits the intentional placement of dirt and/or mud on paved streets or sidewalks. Curb ramps may be crushed rock, wood or steel ramps, or another material that does not wash away with storm water.

2.4.3. *Waste and Debris*. The site must be cleaned of waste and debris daily (see daily self-inspection 3.2.2). Waste and debris must be contained and secured adequately to prevent scattering from wind until it is removed from the site and disposed of properly.

2.4.4. *Portable Toilet*. Portable toilets must be tied down, staked down, or secured using other measures to prevent turn over, and they must be placed away from a road gutter, storm water inlet, or waterbody.

2.4.5. *Washing of Concrete, Stucco, and Paint Equipment*. A plastic film-lined pit or sealed container must be provided for washout of equipment used for concrete, stucco, and water-based paint. After completion of concrete, stucco, and paint tasks, the permittee must dispose of the waste by drying and sending solids to a landfill. Oil-based paint cleanout must be done in containers, taken off-site, and disposed of separately.

2.5. Soil Compaction/Top Soil. Topsoil must be preserved and placed on areas to be landscaped or areas planned for receiving vegetative cover, unless infeasible. Soil compaction must be minimized on areas that will not be used for support of structural elements such as roads, parking areas, structures, etc., unless infeasible.

2.6. Stabilization Requirement. Stabilization requirements are as follows:

2.6.1. *Stabilization requirements for areas that receive 20 inches of rainfall annually or greater*: Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the site or have temporarily ceased on any portion of the site for greater than 14 calendar days. Stabilization can be sodding, planting, application of mulch (wood chips, rock, gravel, bark, compost, cat tracking on straw, hydromulch, etc.), application of geotextiles or erosion blankets, application of a tackifier, seeding (including preparation for germination and growth), a combination of these methods, or other method.

2.6.2. *Stabilization or equivalent requirements for arid and semi-arid areas (areas receiving less than 20 inches of rainfall annually)*: Stabilization for visually flat areas is not required (roughly up to 5 percent, 1 to 20 slope, or 2.3 degrees slope). Areas with slopes up to roughly 20 percent (1 to 5 slope or 11.3 degrees) must have, at minimum, velocity-control devices in every area where storm water collects and flows, spaced close enough across the flow to stop erosion (see also 2.3.3). Soil surface stabilization such as sodding, planting, hydromulch, compost, bark, cat tracking on straw, gravel,

geotextiles, erosion blankets, or other stabilization methods is required on all other sloped areas, increasing the robust nature of stabilizing cover commensurately with increasingly steeper slopes.

2.6.3. *Permanent Stabilization for Arid areas.*

2.6.3.a. In addition to requirements above (see 2.6.2), permanent stabilization requires seeding on all areas that are not covered with permanent stabilization elements or structural elements such as building structure or pavement, or that are engineered or intended for structural purposes like graveled parking or dirt roads.

2.6.3.b. Disturbed areas on projects located outside of populated and developed areas and where no irrigation water is available and where future periodic landscaping maintenance is not planned must be reclaimed with a seed mix of plants indigenous to the area or tolerant to the local climatic conditions that does not include invasive species. Velocity-control devices may be permanent or temporary. If velocity-control devices are intended for temporary use, they must be biodegradable and designed durable enough to withstand extreme weather.

2.7. Construction Dewatering. Construction dewatering can occur onsite without an additional UPDES permit if it is infiltrated or contained onsite and is not discharged offsite. Otherwise, construction dewatering discharges must be permitted under the General Permit for Construction Dewatering and Hydrostatic Testing UPDES Permit UTG070000, which can be obtained online through submittal of an NOI at https://secure.utah.gov/waterquality.

2.8. Pollution Prevention Measures. The permittee must design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must address the following:

2.8.1. *Vehicle, Wheel, and Other Washing.* Minimize the discharge of pollutants from equipment and vehicle washing, wheel-wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge

2.8.2. *Exposure to Pollutants.* Minimize the exposure of building materials, building products, construction wastes, trash (see 2.4.3), landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste (see 2.4.4), and other materials present on the site to precipitation and to storm water. Minimization of exposure is not required in cases where the exposure to precipitation and to storm water will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of storm water contamination (e.g., final products and materials intended for outdoor use).

2.8.3. *Leaks and Spills.* Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.

2.9. Prohibited Discharges. The following discharges are prohibited:

2.9.1. Wastewater from washout or cutting of concrete (see 2.4.5),

2.9.2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials (see 2.4.5),

2.9.3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance,

2.9.4. Soaps or solvents used in vehicle and equipment washing.

3. SELF-INSPECTION REQUIREMENTS.

3.1. Inspector Qualifications. Weekly inspections (see 3.2.1 below) must be done by a qualified person. A qualified person means a person knowledgeable in the principles and practices of erosion and sediment control that possesses the skills to:

3.1.1. Assess conditions at the construction site that could impact storm water quality,

3.1.2. Assess the effectiveness of a storm water control measure selected to control the quality of storm water discharges from the construction activity.

3.2. Self-Inspections.

3.2.1. *Weekly Self Inspections*: Self-inspections must occur every 7 days. A written report is required (see 3.4).

3.2.2. *Daily Site Check*: Each day of construction activity, the site must be inspected for dirt in the street and trash on the site. Streets must be swept clean (see note below), if soiled. Dirt must be removed off the street (not swept or washed into the storm drain system). Trash on the site must be picked up and disposed of into trash containers (see 2.4.3.) or disposed of off-site (e.g., municipal/private garbage collection service or construction waste landfill). Sub-contractors must be held responsible by the permit holder to perform these duties in accordance with this paragraph for the activities they are contracted to perform. A written report is not required, however the operator will keep a daily log (for the active construction days) listing the initials of the person doing the site check.

Note: Swept clean means sweeping and scraping. Scraping if there is dirt left behind that is crusted and that sweeping will not pick up. This does not mean removing the microscopic layer of dust or the minute amounts of dirt in the cracks and crevices of the surface left behind staining the pavement.

3.3. Weekly Self-Inspection Requirements.

3.3.1. *Areas to check include the following:*

3.3.1.a. Areas that have been cleared, graded, or excavated that are not stabilized,

3.3.1.b. All storm water control measures, including perimeter controls,

3.3.1.c. Material piles, waste-disposal containers, sanitary facilities, loose trash, litter, washout areas, portable toilets, track out pad, egress points (if any), etc.,

3.3.1.d. Storm water conveyances through the site, treatment areas, and drainages,

3.3.1.e. All storm water discharge points, street gutters, storm water inlets,

3.3.1.f. Areas that have been temporarily stabilized,

3.3.1.g. Areas that have been permanently stabilized and are completed do not need further inspections.

3.3.2. *Items to check include the following*:

3.3.2.a. All erosion and sediment controls and other pollution prevention controls

have been installed, are operational, and are working as intended to minimize pollutant discharges. Determine if any controls need to be replaced, repaired, or maintained.

3.3.2.b. Identify any locations where new or modified storm water controls are necessary.

3.3.2.c. Signs of visible erosion and sedimentation (i.e., sediment deposits) that have occurred and are attributable to discharges from your site,

3.4. Weekly Inspection Reports. The weekly self-inspection report must be written within 24 hours of inspection and must include:

3.4.1. The initials of the person doing the inspection,

3.4.2. The date of the inspection,

3.4.3. The weather during the inspection,

3.4.4. The problems that were found needing correction (as they pertain to 3.3.1 and 3.3.2 above),

3.4.5. The date when corrective action is completed,

3.4.6. All self-inspection reports must be filed with other permit records regarding the permit. Inspection reports must be available during an oversight inspection.

3.5. Corrective Action: Corrective action must be completed before the next weekly inspection.

3.6. Inspections by an Oversight Authority. A copy of an oversight inspection report must be filed and be available for review during other oversight inspections.

3.7. Record Keeping. Records regarding this permit, the NOI, the NOT, the SWPPP, inspection reports, other related information and documents must be preserved for 3 years after the submission of the NOT (see 5.10).

4. STORM WATER POLLUTION PREVENTION PLAN (SWPPP).

4.1. SWPPP Requirement. The permittee must prepare a SWPPP before the NOI for the project is submitted. The SWPPP must address all the applicable requirements in Part 2.

4.1.1. *SWPPP Site Design.* The design, installation, and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation; the nature of resulting storm water runoff; and soil characteristics, including the range of soil particle sizes expected to be present onsite. These may be accomplished using experience, estimates, and good judgement, unless unusual or extraordinary site conditions create hazards for which a professional engineer must be consulted.

4.1.2. *Surface Outlets*: When discharging from basins and impoundments, utilize outlet structures that withdraw water from the surface, unless infeasible.

4.2. Contents of a SWPPP. A SWPPP must contain the following:

4.2.1. *Contacts.* The contacts for the site with contact information (name, address, telephone, email) including owner, general contractor, and any other party that significantly affects the implementation of the SWPPP or has responsibilities over the SWPPP.

4.2.2. *Sequence and Estimated Dates of Construction Activities.* Listed in the sequence with estimated dates including the following:

4.2.2.a. Start and end of excavation activities, initial excavation, backfill excavation and final grading,

4.2.2.b. Any temporary or permanent cessation of earth-disturbing activities,

4.2.2.c. Start and end of landscaping if this is done as part of the construction activity before the home is sold.

4.2.3. *Site Map or Chart.* A site map may be hand drawn (as close to scale as possible) or may be a copy of an architect drawing including the following information:

4.2.3.a. Boundaries of the property,

4.2.3.b. Boundaries of soil surface disturbances, including any outside the boundaries of the property,

4.2.3.c. Slopes, including areas of steep slopes,

4.2.3.d. Locations of stockpiles of soils, storage of construction materials, portable toilets, trash containers, concrete washout pits or containers, egress points, and track out pads,

4.2.3.e. Waterbodies, wetlands, and natural buffer areas,

4.2.3.f. Locations and types of BMPs or storm water control measures for the control and/or treatment of storm water flowing onto, through, and/or offsite,

4.2.3.g. Locations of storm water inlets, storm water discharge points going off site,

4.2.3.h. Areas that will be temporarily or permanently stabilized during the construction period.

4.2.4. *Thirty-Foot Natural Buffer.* The SWPPP must show the dimensions and placement of the 30-foot natural buffer, the substitute control measures, or a detailed explanation of why a natural buffer or substitute control measure could not be applied.

4.2.5. *Pollutants.* A list of construction site pollutants including the pollutant-generating activity, and an inventory of pollutants for each pollutant generating activity (e.g., paints, solvents, form oil, fuels, and other chemicals; applications, materials, and liquids that if released could pollute storm water).

4.2.6. *Waste Management.* Waste management procedures including soil removal, clearing debris removal, demolition removal, trash disposal, construction-waste disposal, and sanitary-waste disposal.

4.2.7. *Training.* The permittee will ensure that each subcontractor or utility provider is aware of their responsibilities for keeping soil on the site and preventing pollution. The permittee must keep in mind that they are responsible for and may be issued fines for poor performances by their subcontractors and utility providers. Consideration will be given if the permittee can document when and what instructions were given to the subordinate party.

4.2.8. *NOI and Permit.* The SWPPP must contain a copy of this permit and a copy of the NOI for the project.

4.2.9. *SWPPP Signature and Certification.* The SWPPP must be signed and certified by both the Owner and the General Contractor in accordance with 5.16.1.a.

4.2.10. *MS4 Approval of Project.* For areas where projects are within a regulated MS4's jurisdiction (see definitions in Part 6; the list of regulated MS4's is found on http://www.deq.utah.gov/Permits/water/updes/stormwatermun.htm), the SWPPP must contain the signature and date of the MS4 reviewer who has approved the proposed project for construction (see 1.7.).

4.2.11. *Availability of the SWPPP.* The SWPPP must be available at the construction site covered under this permit during onsite construction activity, unless the SWPPP is available online. If the SWPPP is available online there must be a sign (see 1.10) that describes where the SWPPP can be accessed online. The SWPPP is a plan for the site, and workers must be able to refer to the SWPPP and update it as needed to manage the site (including SWPPPs found on the internet). The SWPPP is not required to be on the site when construction workers leave for the day or when there is no activity occurring on the site, but at all times there must be posted contact information where the SWPPP can be obtained (see Part 1.10). The SWPPP must be made available within 24 hours to DWQ representatives or other oversight inspectors, e.g., U.S. Environmental Protection Agency [EPA] or a local MS4, on request, or immediately during an inspection on the site when there are workers and activity at the site.

4.2.12. *Required Modifications of the SWPPP.* The SWPPP must be modified as follows:

4.2.12.a. During inspections when it is determined from observations of site conditions that storm water control measures are:

4.2.12.a.i. Not adequate or not shown in the SWPPP, or

4.2.12.a.ii. Changes in the SWPPP are necessary for compliance with this permit.

4.2.12.b. When an oversight authority determines that the SWPPP is not adequate based on missing a required SWPPP or permit item, not addressing pollutants properly, not being up to date and reflecting current site conditions, or not being clear, thorough, and understandable.

4.2.13. *SWPPP Modifications Deadline.* Modifications to the SWPPP from inspections or oversight authority direction must occur before or during the next weekly inspection.

5. STANDARD PERMIT CONDITIONS.

5.1. Duty to Comply.

5.1.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Utah Water Quality Act (the Act) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

5.1.2. *Penalties for Violations of Permit Conditions*

5.1.2.a. *Violations*. The Act provides that any person who violates the Act, Utah wastewater or storm water rules, or conditions of a permit issued under the Act, is subject to a fine of $10,000 per day.

5.1.2.b. *Willful or Gross Negligence*. The Act provides that any person who discharges a pollutant to waters of the State as a result of criminal negligence or who intentionally discharges is criminally liable and is subject to imprisonment and a fine of up to $50,000 per day (Utah Code Annotated 19-5-115).

5.1.2.c. *False Statements*. The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act, the rules, or this permit, or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act shall upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for 6 months, or by both (Utah Code Annotated 19-5-115(4)).

5.2. Duty to Reapply. If a permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit except as provided in 1.6 and 1.7 of this permit.

5.3. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

5.4. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

5.5. Duty to Provide Information. The permittee shall furnish to the Director or an authorized representative, within a reasonable time, any information that is requested to determine compliance with this permit. The permittee must also furnish to the Director or an authorized representative copies of records to be kept by this permit.

5.6. Other Information. When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the NOI or in any other report to the Director, he or she shall promptly submit such facts or information.

5.7. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under the Act.

5.8. Property Rights. The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

5.9. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

5.10. Record Retention. The permittee shall retain copies of SWPPPs and all reports required by this permit, and records of all data used to complete the NOI to be covered by this permit, for a period of at least three years from the date that the permit for the site is terminated (see 3.7). This period may be extended by request of the Director at any time.

5.11. Addresses. All written correspondence under this permit shall be directed to the DWQ at the following address:

Department of Environmental Quality
Division of Water Quality
195 North 1950 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870

5.12. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Utah Code Annotated 19-5-117.

5.12.1. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

5.13. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control and related appurtenances which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of SWPPPs. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the condition of the permit.

5.14. Inspection and Entry. The permittee shall allow, upon presentation of credentials, the Director or an authorized representative to:

5.14.1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

5.14.2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit.

5.14.3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

5.14.4. Sample or monitor at reasonable times for the purposes of assuring permit compliance or as otherwise authorized by law, any substances or parameters at any location.

5.15. Reopener Clause.

5.15.1. *Reopener Due to Water Quality Impacts.* If there is evidence indicating that the storm water discharges authorized by this permit cause, have the reasonable potential to cause, or contribute to a violation of a water-quality standard, the discharger may be required to obtain an individual permit or an alternative general permit in accordance with 1.7.4 of this permit or the permit may be modified to include different limitations and/or requirements.

5.15.2. *Reopener Guidelines.* Permit modification or revocation will be conducted according to Utah Administrative Code R317-8-5.6 and UAC R317-8-6.2.

5.15.3. *Permit Actions.* This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification revocation and reissuance, termination, a modification of planned changes or anticipated noncompliance does not stay any permit condition.

5.16. Signatory Requirements.

5.16.1. All NOIs, SWPPPs, reports, certifications or information submitted to the Director, or that this permit requires be maintained by the permittee, shall be signed as follows:

5.16.1.a. All NOIs and SWPPPs shall be signed by both the owner or lessee of the project/property and the general contractor.

5.16.1.b. All reports required by the permit and other information requested by the Director or by an authorized representative of the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

5.16.1.b.i. The authorization is made in writing by a person described above and submitted to the Director; and

5.16.1.b.ii. The authorization specifies either an individual or a position having such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may therefore be either a named individual or any individual occupying a named position.

5.16.1.c. *Certification.* Any person signing documents under 5.16 shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

5.16.2. If a document is to be signed electronically, the Division's rules regarding electronic transactions govern, if applicable.

6. DEFINITIONS

Arid Areas: Areas with an average annual rainfall of 10 inches or less.

Common Plan of Development (or sale): A plan to subdivide a parcel of land into separate parts for separate sale. This can be for a residential, commercial, or industrial development. The plan originates as a single parcel that is separated into parts. This usually goes through an approval process by a local governmental unit, but in some cases, it may not require that process. The original plan is considered the "common plan of development or sale" whether phased or completed in steps.

Additional information related to *Common Plan of Development for Permit Purposes*:

For UPDES storm water permit purposes, a common plan must have been initiated after October, 1992. A common plan of development or sale remains so until each lot or section of the development has fulfilled its planned purposes (e.g. in a residential development as homes are completed, stabilized, and sold or occupied). As lots or separated sections of the development are completed, the lot or section is stabilized, and the plan purposes are fulfilled for that area, lot, or section, it is no longer part of the common plan of development or sale (e.g. if a home is sold in a development and the owner decides to add a garage somewhere on the lot, that garage project is not part of the common plan of development or sale.

In this process a common plan of development or sale may become reduced in size and/or separated by completed areas which are no longer part of the common plan of development or sale, but all unfinished lots remain part of the same common plan development or sale until they are completed, stabilized, and fulfilled according to the purposes of the plan.

Construction Activity: Earth-disturbing activities, such as the clearing, grading, and excavation of land.

Construction Waste: Discarded material such as packaging materials, scrap construction materials, masonry products, timber, steel, pipe, and electrical cuttings, plastics, and Styrofoam.

Corrective Action: For the purposes of the permit, any action taken to 1) repair, modify, or replace any storm water control used at the site; 2) clean up and dispose of spills, releases, or other deposits found on the site; and 3) remedy a permit violation.

Dewatering: The act of draining rainwater and/or groundwater from building foundations, vaults, and trenches (Note: if dewatering is occurring on a construction site and it causes a discharge to waters of the State, it must be permitted separately under the General Permit for Construction Dewatering and Hydrostatic Testing , UPDES Permit UTG070000).

Director: The director of the Division of Water Quality.

Discharge Point: For the purposes of this permit, the location where collected and concentrated storm water flows are discharged from the construction site.

Final Stabilization: All disturbed areas must be covered by permanent structures such as pavement, concrete slab, building, etc., or for areas not covered by permanent structures but that are receiving 20 inches or more of average annual precipitation, vegetation has been established with a uniform (e.g.,

evenly distributed, without large bare areas) perennial vegetative cover equivalent to 70 percent of the natural background vegetative cover. In the case of areas that are not covered by permanent structures, but that are receiving less than 20 inches of average annual precipitation (arid areas, 0-10 inches; semi-arid areas, 10-20 inches), final stabilization is equivalent to the requirements of 2.6.3 of this permit, including the provisions for permanent stabilization.

Impervious Surface: For the purpose of this permit, any land surface with a low or no capacity for water infiltration including, but not limited to, pavement, sidewalks, parking areas, driveways, or rooftops.

Indian Country: Defined at 40 CFR §122.2 as follows:

1. All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;

2. All dependent Indian communities within the borders of the United States whether within the originally or subsequently acquired territory thereof; and

3. All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-ways running through the same.

Infeasible: Infeasible means not technologically possible or not economically practicable and achievable in light of best industry practices. DWQ notes that it is not intentional for permit storm water control efforts required in the permit to conflict with State water rights law.In the case of conflict, State water rights law supersedes.

Install or Installation: When used in connection with storm water controls, to connect or set in position storm water controls to make them operational.

Municipal Separate Storm Sewer System or MS4: A storm-sewer system owned and operated by a state, city, town, county, district, association, or other public body created by or pursuant to State law having jurisdiction over disposal of storm water that discharges to waters of the State (e.g., Sandy City owns and operates the MS4 within the jurisdiction of Sandy City, or essentially Sandy City is the MS4).

Natural Buffer: For the purposes of this permit, an area of undisturbed natural cover surrounding surface waters within which construction activities are restricted. Natural cover includes the vegetation, exposed rock, or barren ground that exists before earth-disturbing activities begin.

Oversight Authority: Oversight authorities for storm water permits are agents from the EPA, DWQ or the Municipality of jurisdiction, when they are addressing compliance of storm water permits.

Owner: For the purpose of this permit an owner has ownership of a property on which construction activity is taking place, but it also includes ownership of a project for which construction activity is occurring on property that is leased. An owner is the party that has ultimate control over construction plans and specifications, including the ability at the highest level to make modifications to those plans and specifications. "Owner" in this context is the party that has ultimate control over the destiny of a project.

Permittee: The owner and/or the general contractor (those that signed on the NOI), for the project.

Pollutant-Generating Activities: At construction sites, for the purposes of this permit, those activities that lead to or could lead to the generation of pollutants, either as a result of earth-disturbance or a related support activity. Some of the types of pollutants that are typically found at construction sites are as follows:

- Sediment
- Nutrients
- Heavy metals
- Pesticides and herbicides
- Oil and grease
- Bacteria and viruses
- Trash, debris, and solids
- Treatment polymers
- Any other toxic chemicals

Pollution Prevention Measures: Storm water controls designed to reduce or eliminate the addition of pollutants to construction site discharges through analysis of pollutant sources, implementation of proper handling/disposal practices, employee education, and other actions.

Project Site: A project site is not necessarily contained within the property boundaries designated for the final construction objective, or property owned by the owner of the project. The project site includes all areas affected by the construction process where disturbances, storage, or other construction activity occurs. If an area outside of property boundaries is used for the construction process, DWQ assumes the permittee has the right to access and use that area and the permittee must also meet permit requirements in that area.

Receiving Water: A "Water(s) of the State" is as defined in UAC R317-1-1, into which the regulated storm water discharges (see waters of the State listed below).

Rumble Strip: A rigid ramp/track (often made of steel) that vehicles drive over that causes tires to flex and shake for the removal of dirt.

Semi-Arid Areas: Areas with an average annual rainfall of between 10 and 20 inches.

Stabilization: The use of vegetative and/or non-vegetative cover to prevent erosion and sediment loss in areas of disturbed soil exposed from the construction process.

Storm water: Means storm water runoff, snowmelt runoff, and surface runoff and drainage.

Storm Water Control Measures: Refers to any storm water control, BMP, or other method used to prevent or reduce the discharge of pollutants to waters of the state.

Storm Water Inlet: An entrance or opening to a storm water conveyance system, generally placed below grade so as to receive storm water drainage from the surrounding area.

Storm Event: A precipitation event that results in a measurable amount of precipitation.

Track Out Pad: A track out pad is a pad normally made up of 4 to 6 inches of up to 6 inch cobble rocks or gravel of various size (the size is sometimes specified by a local MS4). Sometimes it is underlain with a fabric to keep dirt and mud separated from rock or gravel. It is wide enough to underlay the tires of any/all traffic leaving a construction site as vehicles exit the site. Its function is to flex and shake the tires to dislodge mud and dirt from the tires of vehicles leaving the construction site. Track out pads must be stirred or worked periodically so that mud or dirt collected is moved to the bottom and the rock/gravel on the pad is clean and effective dislodging more mud/dirt.

Waters of the State: All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, that are contained within, flow through, or border upon this state or any portion thereof, except that bodies of water confined to and retained within the limits of private property, and that do not develop into or constitute a nuisance, or a public health hazard, or a menace to fish and wildlife, shall not be considered to be "Waters of the State" under this definition (see Utah Code Annotated, 19-5-102(23)(a) &(b), and UAC R317-1-1).

APPENDIX D: Acknowledgement Letter from Weber County

APPENDIX E: Inspection Reports

INSPECTION REPORT — **SITE NAME:** John Doe Project
INSPECTION PERIOD: 2012.03.01-2012.03.07 — **LAST RAIN EVENT:** 2012.03.01
INSPECTOR: jd — **CURRENT WEATHER:** clear

BMP	DATE	OK/NOT OK?	BMP CONDITION	CORRECTIVE ACTION REQUIREMENTS
Are all pollution sources controlled? Do any other problems exist?	3/7/2012	OK	na	All pollution sources are controlled. No new BMPs are necessary.
4.7.2 LOT Cutdown	3/7/2012	OK	In place	
4.7.1 Silt Fencing	3/7/2012	not OK	Silt fence at south boundary was buried by excavator.	Informed xyz excating by phone this must be repaired including the sediment washed onto the adjacent lot, no later than two days or before the next storm event which ever comes first. Sediment had washed onto the south property
4.9.1 Drop Inlet Bags	3/7/2012	OK	Only about 4" of sediment	
4.9.2 Gutter Dam	3/7/2012	OK	Gutter dams are tight to the curb and free of sediment.	Gutter dams were clean March 3rd in anticipation of the forecast storm on March 4th. The dams were also cleaned on the 5th following the storm.
4.10.1 Dust Controls	3/7/2012	OK	Water and hose are ready. No wind today.	Wind did blow the morning of March 3rd before the storm. City warned my excavator. The excavator began watering as he was loading.
5.1.2 Gravel Parking	3/7/2012	na	not scheduled per SWPPP	The gravel pad area is covered with excavation from the footing and foundation.
5.1.3 Tpost and Tape	3/7/2012	OK	fence post and tape in place.	Excavation ceased during the March 4th storm. Excavator needed to access at a point not shown on SWPPP. Ground was dry and barrier tape was but back.
5.1.4 Sq Nose Shovel and Broom	3/7/2012	OK	Minor tracking today	Minor tracking occurred on March 6th. The excavator's laborer cleaned the road with a hand broom and shovel in the middle of the day and at the end.
5.2.1 Dumpster	3/7/2012	na	not scheduled per SWPPP	Subs have been told to carry out any lunch trash.
5.2.3 Portable Toilet	3/7/2012	OK	In place.	
5.2.5 Concrete Washout	3/7/2012	OK	In place. About 25% full.	
5.3.1 Material Storage	3/7/2012	OK	No materials being stored	
5.3.3 Construction Staging	3/7/2012		not scheduled per SWPPP	
5.3.4 Spoil Waste Limits	3/7/2012	not OK	see 2.5	see 2.5
5.5 Spill Kit	3/7/2012	OK	In place	
5.8.1 Frontage Swale	3/7/2012		not scheduled per SWPPP	

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: John Does — Title: owner
Signature: jd — Date: 2012-03-07

APPENDIX F: Corrective Action Log

Corrective Action Log							
Date & Time of Inspection/Random Notice of Problem	**Inspection or Randomly Noticed?**	**BMP # and Name**	**Description of BMP Deficiency (or reference the inspection report)**	**Initial**	**Correction Date (MM/DD/YY)**	**How the BMP was Corrected**	**SWPPP Changed (Y/N)**

APPENDIX G: Amendment Log

Amendment Log			
Amendment No.	**Description of the Amendment**	**Date of Amendment**	**Amendment Prepared by [Name(s) and Title]**

APPENDIX H: Certifications, Agreements, and Delegation of Authority

APPENDIX I: Grading and Stabilization Activities Log

Project Name:Click here to enter text.

SWPPP Contact: Click here to enter text.

Date Grading Activity Initiated	Description of Grading Activity	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures are Initiated	Description of Stabilization Measure and Location

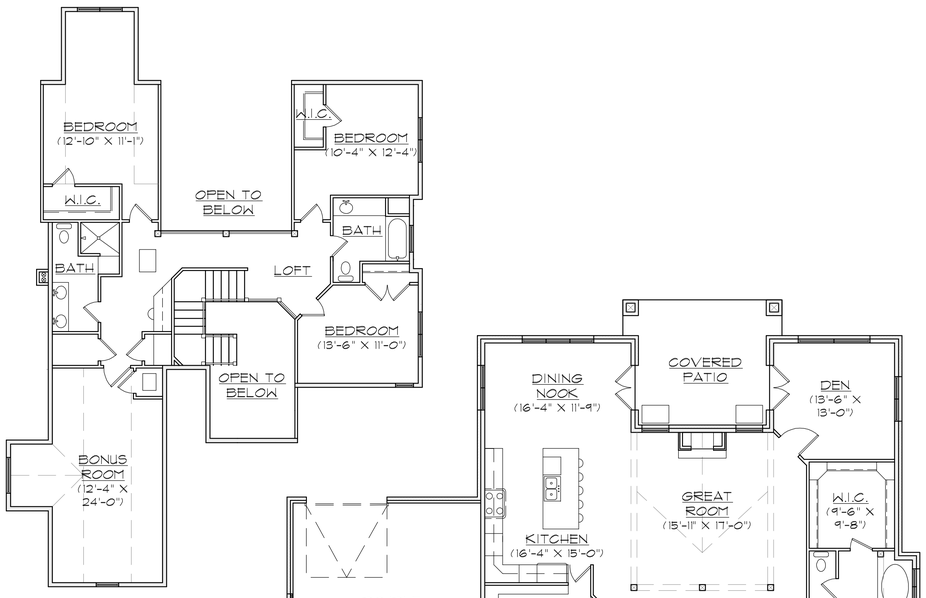
APPENDIXJ: Construction Plans

AUTHORIZED COPY

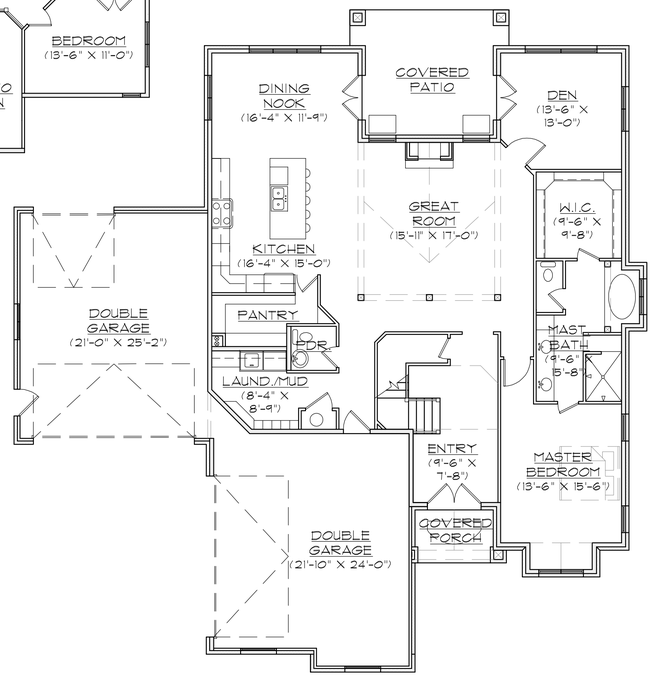
PROFESSIONAL ENGINEER 9/2017 MICHAEL C. DENT STATE OF UTAH

(MUST HAVE WET INK STAMP)

FRONT ELEVATION



UPPER LEVEL FLOOR PLAN



MAIN LEVEL FLOOR PLAN

CLIENT:

BOB & KATHLEEN GASSMAN

CONTRACTOR:

CORY HANCOCK

WARNING: ELECTRONIC FILES INCLUDING THOSE IN PDF FORMAT ARE TO BE USED FOR BIDDING PURPOSES ONLY. ANY CONSTRUCTION WORK THAT IS TO BE DONE ON THE HOME INCLUDING SITE WORK SHALL BE BASED ON APPROVED, STAMPED HARD COPY DRAWINGS OF THE MOST CURRENT REVISION ONLY.

THE ABOVE MENTIONED CONTRACTOR/ CUSTOMER IS AUTHORIZED BY HABITATIONS TO UTILIZE THIS PLAN TO CONSTRUCT ONE (1) HOME ONLY ON THE PROPERTY LOCATED AT THE ADDRESS INDICATED IN "PROJECT INFORMATION". THE CONSTRUCTING OF MULTIPLE HOMES UTILIZING THIS SET OF PLANS IS NOT AUTHORIZED WITHOUT WRITTEN PERMISSION FROM HABITATIONS AND IS A VIOLATION OF HABITATIONS PROPERTY PROTECTION RIGHTS UNDER LAW.

DESIGNER:

1523 E. SKYLINE DR.
SUITE B
OGDEN, UT 84405
801-476-1860

HABITATIONS
RESIDENTIAL DESIGN GROUP

DISCLAIMERS AND CONSTRUCTION WARNINGS:
THESE PLANS HAVE BEEN PREPARED TO MEET GENERALLY ACCEPTED PROFESSIONAL STANDARDS AND PRACTICES IN EFFECT AT THE TIME THEY WERE CREATED. BECAUSE LOCAL AND STATE BUILDING REGULATIONS VARY WIDELY AND ARE SUBJECT TO CHANGE, CONFORMANCE TO THE PLANS WITH THE REQUIREMENTS OF EACH SPECIFIC JURISDICTION IS IMPOSSIBLE. THEREFORE, SUPPLEMENTAL TO THESE DOCUMENTS, IT IS THE PURCHASER'S AND HIS/HER BUILDER'S RESPONSIBILITY TO KNOW AND BUILD WITH CURRENT CODES AND REGULATIONS IN THE JURISDICTION GOVERNING THE PROJECT. THE USE OF THESE PLANS IS EXPRESSLY CONDITIONED UPON THE PURCHASER'S OBLIGATION AND AGREEMENT TO STRICTLY COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, REGULATIONS AND REQUIREMENTS INCLUDING, IF MANDATED BY THE STATE, THE SEAL OF AN ENGINEER REGISTERED IN THAT STATE, BEFORE STARTING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE PURCHASER TO CHECK AND BE RESPONSIBLE FOR ALL DIMENSIONS AND OTHER DETAILS. IT IS THE RESPONSIBILITY OF THE PLAN PURCHASER TO OBTAIN ANY STRUCTURAL, LAND USE, ENERGY OR OTHER REQUIRED ANALYSIS, ENGINEERING CALCULATIONS AND ANY OTHER SPECIFICATIONS THAT MAY BE REQUIRED IN THE JURISDICTION IN WHICH THE PROJECT IS TO BE BUILT. TOPOGRAPHIC AND SUBSURFACE CONDITIONS SHOULD BE VERIFIED AND FOUNDATION PLANS ADAPTED ACCORDINGLY, AND THE MATERIAL AND EQUIPMENT MANUFACTURER'S INSTRUCTIONS MUST BE FOLLOWED. CODE GOVERN OVER DRAWINGS AND DIMENSIONS GOVERN OVER SCALE. ANY USE OF THIS INFORMATION WITHOUT ADAPTATION TO CHANGES AND CODES, STANDARDS, SITE CONDITIONS AND OTHER FACTORS IS AT THE PURCHASER'S SOLE RISK. HABITATIONS HOME PLANS, IT'S PARENT COMPANY, OFFICERS EMPLOYEES, AND AGENTS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING MERCHANT ABILITY OR FITNESS OF PURPOSE. PLAN PURCHASER AGREES THAT HABITATIONS HOME PLANS SHALL NOT BE LIABLE FOR DIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL, OR INDIRECT DAMAGES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, LOSS OF ANTICIPATED PROFITS, BUSINESS OPPORTUNITY, OR OTHER ECONOMIC LOSS ARISING OUT OF THE USE OF THE PLANS. HABITATIONS HOME PLANS ASSUME NO RESPONSIBILITY FOR CHANGES MADE TO THESE PLANS BY OTHERS. THE PURCHASER AGREES TO DEFEND AND INDEMNIFY HABITATIONS HOME PLANS FOR ALL CLAIMS, COSTS, LOSSES OR DAMAGES RESULTING FROM THE USE OF THIS INFORMATION

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PROJECT INFORMATION

SQUARE FOOTAGE CALCULATIONS		CLIENT:	BOB & KATHLEEN GASSMAN
MAIN FLOOR	2215 SQ. FT.	TYPE:	RESIDENTIAL PLAN
UPPER FLOOR	1070 SQ. FT.	ISSUE DATE:	9/1/2017
BONUS ROOM	365 SQ. FT.	REV. DATE:	
GARAGE	1179 SQ. FT.	LOCATION:	
COVERED DECK	214 SQ. FT.	152 NORTH 8750 EAST LOT #18 HUNTSVILLE MEADOWS SUBDIVISION WEBER COUNTY, UTAH	
COVERED PORCH	54 SQ. FT.		

CODE: IRC 2015

PLAN NUMBER: TS3650

SHEET NUMBER: 1 OF 16

GENERAL MATERIALS SPECIFICATIONS:

("THE FOLLOWING GENERAL MATERIALS SPECIFICATIONS ARE PRESENTED FOR INFORMATION ONLY". THE GENERAL CONTRACTOR/ OWNER/ STRUCTURAL ENGINEER/ PROFESSIONAL TRADE CONTRACTORS/ GOVERNING JURISDICTIONS SHALL BE RESPONSIBLE FOR THE SELECTIONS AND APPLICATION OF ACTUAL MATERIALS UTILIZED. HABITATIONS MAKES NO GUARANTEE AS TO THE ACCURACY OR COMPLETENESS OF OR CODE COMPLIANCE OF THESE GENERAL MATERIALS.)

1. EXCAVATION:

A. CONTRACTOR TO VERIFY SOIL CONDITION AND PROVIDE STABILIZATION AS REQUIRED (SEE SITE PLAN).
B. ALL EARTH UNDER STRUCTURE OR SLAB SHALL BE STERILIZED.

2. CONCRETE:

A. FOOTINGS AND FOUNDATIONS SHALL BE ON UNDISTURBED SOIL. IF ANY UNSTABLE OR COLLAPSIBLE OR OTHERWISE POOR SOIL CONDITIONS ARE DISCOVERED, A SOILS ENGINEER SHOULD BE NOTIFIED FOR SOILS STABILITY. SOILS BEARING CAPACITY SHALL BE 1,500 PSF.
B. FOOTINGS: 3000 PSI MINIMUM COMPRESSIVE STRENGTH AFTER 28 DAYS. #4 REINFORCING BARS PER ASTM GR. 60, UNLESS OTHERWISE SPECIFIED BY ENGINEER. SEE ELEVATIONS FOR FOOTING DEPTH AS REQ'D BY LOCAL CONDITIONS/AUTHORITIES.
C. FOUNDATIONS: 3000 PSI MINIMUM COMPRESSIVE STRENGTH AFTER 28 DAYS. #4 & 5 REINFORCING BARS PER ASTM 615 GR, 60, UNLESS OTHERWISE SPECIFIED BY ENGINEER.
D. WATERPROOFING: TWO (2) COATS ASPHALT (TAR) EMULSION (BELOW GRADE).
E. CONCRETE SLAB: 2500 PSI MINIMUM COMPRESSIVE STRENGTH AFTER 28 DAYS, 4" MIN. (INTERIOR), 5" MIN. (EXTERIOR) THICK OVER 4" COMPACTED GRAVEL.
F. WATER DRAINAGE: PERFORATED ABS PIPE FULL PERIMETER OF FOUNDATION AND EXTENDING TO TERMINATION 20' FROM FOUNDATION AT ALL FOUNDATION CORNERS WITH GRAVEL OVERLAY (IF DETERMINED NECESSARY BY CONTRACTOR AND OWNER).

3. EXTERIOR WALLS:

A. STUDS: 2X6 #2 OR BTR HEMLOCK OR DOUGLAS FIR; 16" O.C. (UNLESS OTHERWISE NOTED).
B. SHEATHING: 7/16" OSB WAFERBOARD SHEATHING UNLESS OTHERWISE SPECIFIED BY STRUCTURAL ENGINEERING LATERAL ANALYSIS. FASTEN SHEAR PANEL 25' O.C. AND CORNERS WITH 8D NAILS 6" O.C. AT EDGE, 12" O.C. IN FIELD. SOLID BLOCK ABOVE SHEAR PANELS MINIMUM AND NAIL WITH 4-10D NAILS PER BLOCK. METAL HURRICANE TIES EVERY RAFTER OR TRUSS END.
C. VAPOR BARRIER: WRAP EXTERIOR WALLS WITH TYPAR HOUSEWRAP UNLESS OTHERWISE SPECIFIED.
D. MASONRY: (IF USED) NATURAL THIN CUT STONE BY NATURAL STONE CONNECTION ((801) 475-4216)) INSTALL AS PER MFG. SPECS (STYLE SHALL BE CONFIRMED WITH THE OWNER PRIOR TO INSTALLATION).
E. STUCCO: (IF USED) SYNTHETIC TYPE OVER STYRENE BOARD WITH BROWN COAT CONCRETE MIX. DRIVIT TYPE OR EQUAL. INSTALL AS PER MFG. SPECS (THE COLOR AND STYLE SHALL BE CONFIRMED WITH THE OWNER PRIOR TO INSTALLATION).
F. EXTERIOR WALL FINISHES MUST BE LISTED, LABELED AND INSTALLED AS PER MANUFACTURER'S INSTALLATION GUIDE. ALL INSTALLERS MUST BE APPROVED BY MANUFACTURER.

4. FLOOR FRAMING:

A. JOIST: TJI FLOOR JOISTS AS SHOWN ON PLANS BY TRUSS JOIST CORP. OR EQUAL (EXCEPT AS_OTHERWISE NOTED). MANUFACTURERS INSTRUCTIONS/SPECIFICATIONS SHALL BE FOLLOWED FOR INSTALLATION.
B. RIM JOISTS: 1-1/4"X11-7/8" TIMBERSTRAND AROUND ENTIRE PERIMETER OF STRUCTURE UNLESS OTHERWISE SPECIFIED.
C. BLOCKING: TJI TRUSS JOIST REQUIRED AT ALL LOAD BEARING WALLS ABOVE AND AT ALL CANTILEVERS
D. SILLPLATE: 2X REDWOOD OR PRESSURE TREATED FIR (INSULATE WITH POLYSTYRENE FOAM STRIP AGAINST (OVERHANGS) CONCRETE SURFACES).
E. SUB FLOOR: 3/4" T&G EXTERIOR WAFER BOARD OR (CDX) PLYWOOD, GLUED AND NAILED W/ 8D NAILS @ 6" OC EDGES, 12" OC ALONG INTERMEDIATE FRAMING MEMBERS.
F. MAIN FLOOR DIAPHRAGM BLOCKING REQUIRED FOR ALL FLOOR JOIST BAYS RUNNING PARALLEL WITH THE FOUNDATION (MUST HAVE FULL HEIGHT BLOCKING 48" O.C.)

5. INTERIOR WALLS

A. STUDS: 2X4 (2X6 WHERE NOTED) #2 OR BTR HEMLOCK OR DOUGLAS FIR, 16" O.C.
B. FINISH: WALLBOARD (WALLS & CEILINGS): 1/2" GYPSUM BOARD (WATERPROOF AT ALL SPLASH AREAS), 5/8" ONE HOUR FIRE RATED WALL & CEILING IN GARAGE AND UNDER ALL STAIRWAYS PER I.R.C. SECT. R302.6 & R302.7. APPLIED WITH SCREWS OR NAILS 6" OC CEILING, 7" OC WALLS. ROUNDED CORNERS TO MATCH THE EXISTING SHALL BE USED.
C. TUBS AND SHOWERS WITH TILE WALLS REQUIRE CEMENT, FIBER-CEMENT OR GLASS MAT GYPSUM BACKERS. GREEN BOARD IS NOT ALLOWED.

6. ROOF/CEILING FRAMING:

A. TRUSSES: #2 OR BTR HEMLOCK OR DOUGLAS FIR. REFER TO MANUFACTURER'S SPECS FOR TRUSS ENGINEERING. SIMPSON METAL HURRICANE TIES SHALL BE INSTALLED AT EACH TRUSS TO BEARING WALL INTERFACE.
B. RAFTERS: TJI ENGINEERED RAFTERS BY TRUSS JOIST CORP. OR EQ. OR 2X #2 OR BETTER HEMLOCK OR DOUGLAS FIR DIMENSIONAL LUMBER SHALL BE UTILIZED UNLESS OTHERWISE NOTED BY ENGINEER. SIMPSON METAL HURRICANE TIES SHALL BE INSTALLED AT EACH RAFTER TO BEARING WALL INTERFACE.
C. SHEATHING: 5/8" OR 11/16" 40/20 APA RATED SHEATHING OR EQUAL (GRAIN SHALL BE PERPENDICULAR TO SUPPORTS, EDGES SHALL BE FASTENED W/ 8D NAILS 6" O.C. @ 3/8" FROM EDGE OF PANEL AT ALL PANEL ENDS, SUPPORTED EDGES, SHEAR WALL TOPS AND ALL BLOCKING. NAIL @ 12" OC ALONG ALL INTERMEDIATE FRAMING MEMBERS.

7. ROOF:

A. UNDERLAY: 30 # FELT PAPER (WATER AND ICE SHIELD AT ALL VALLEYS AND AT ALL OVERHANGS).
B. FLASHING: ALUMINUM- SHALL BE INSTALLED IN SUCH A MANNER SO AS TO PREVENT MOISTURE FROM ENTERING A WALL, ROOF OR FLOOR AND REDIRECT IT TO THE EXTERIOR. FLASHING SHALL BE INSTALLED AT THE PERIMETERS OF EXTERIOR DOOR AND WINDOW ASSEMBLIES, PENETRATIONS AND TERMINATION'S OF EXTERIOR WALL ASSEMBLIES, EXTERIOR WALL INTERSECTIONS WITH ROOFS, CHIMNEYS, PORCHES, DECKS, BALCONIES AND SIMILAR PROJECTIONS AND AT BUILT-IN GUTTERS AND SIMILAR LOCATIONS WHERE MOISTURE COULD ENTER THE WALL. FLASHING WITH PROJECTED FLANGES SHALL BE INSTALLED ON BOTH SIDES AND THE ENDS OF COPINGS, UNDER SILLS AND CONTINUOUSLY ABOVE PROJECTED TRIM. A FLASHING SHALL BE INSTALLED AT THE INTERSECTION OF THE FOUNDATION TO STUCCO, MASONRY, SIDING OR BRICK VENEER. THE FLASHING SHALL BE AN APPROVED CORROSION- RESISTANT FLASHING .
C. VENTILATION: RIDGE OR HIP ROOF VENTS AS SHOWN ON THE ELEVATIONS MEETING I.R.C. R806 AND SHALL BE A NET FREE VENTILATION AREA SHALL NOT BE LESS THAN 1/150TH OF THE AREA OF THE SPACE VENTILATED , EXCEPT THE AREA MAY BE 1/300TH PROVIDED THAT NO LESS THAN 40% AND NO MORE THAN 50% OF THE REQ'D. VENTILATING AREA IS LOCATED IN THE UPPER PORTION (36" MIN. ABOVE CORNICE VENTS OR EAVE) OF THE SPACE TO BE VENTILATED WHILE THE BALANCE OF REQ'D. VENTILATION IS PROVIDED BY EAVES OR CORNICE VENTS.
D. SHINGLES: SEE ELEVATIONS FOR ROOFING STYLE. FOLLOW ALL MANUFACTURER SPECIFICATIONS FOR INSTALLATION.
E. MISCELLANEOUS: 22"X30" ATTIC ACCESS SHALL BE PROVIDED FOR ALL SEPARATE ATTIC AREAS EXCEEDING 30 SQ. FT.. ACCESS LOCATED IN A HALLWAY OR OTHER READILY ACCESSIBLE LOCATION PER IRC R807.1.

8. INSULATION:

A. WALLS: FIBERGLASS BATT OR BLOWN WET CELLULOSE (AS SELECTED BY OWNER) TYPE MINIMUM R-23 (2X6) OR R-19 (2X4) VALUE DEPENDING ON WALL TYPE.
B. BLOWN OR SPRAYED ROOF/CEILING: BLOWN ROCKWOOL OR FIBERGLASS MINIMUM R-49 VALUE. THE THICKNESS OF BLOWN IN OR SPRAYED ROOF/CEILING INSULATION (FIBERGLASS OR CELLULOSE) SHALL BE WRITTEN IN INCHES ON MARKERS THAT ARE INSTALLED AT LEAST ONE FOR EVERY 300 FT THROUGHOUT THE ATTIC SPACE.THE MARKERS SHALL BE AFFIXED TO THE TRUSSES OR JOIST AND MARKED WITH THE MINIMUM INITIAL INSTALLED THICKNESS WITH NUMBERS A MINIMUM OF 1" HIGH. EACH MARKER SHALL FACE THE ATTIC ACCESS OPENING.
C. MISC.: FOAM INSULATE UNDER ALL CONCRETE SILL PLATES, AROUND ALL OUTLET BOXES AND WINDOW AND DOOR FRAMES.
D. WINDOW TAPE: ALL WINDOWS SHALL BE TAPED WITH A WATER BARRIER TAPE TO SEAL AGAINST MOISTURE AND AIR INFILTRATION.
E. PROVIDE INSULATION DEPTH MARKERS EVERY 300 SQ. FT. OF ATTIC AREAS.
F. ALL MATERIALS, SYSTEMS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THE PROVISIONS OF THIS CODE.
G. CERTIFICATE: A PERMANENT CERTIFICATE SHALL BE POSTED ON OR IN THE ELECTRICAL DISTRIBUTION PANEL. THE CERTIFICATE SHALL BE COMPLETED BY THE BUILDER OR REGISTERED DESIGN PROFESSIONAL. THE CERTIFICATE SHALL LIST THE PREDOMINANT R-VALUES OF INSULATION INSTALLED IN OR ON CEILING/ROOF, WALLS, FOUNDATION (SLAB, BASEMENT WALL, CRAWLSPACE WALL AND /OR FLOOR) AND DUCTS OUTSIDE CONDITIONED SPACES. THE CERTIFICATE SHALL ALSO LIST THE TYPE AND EFFICIENCY OF HEATING, COOLING AND SERVICE WATER HEATING EQUIPMENT.

9. EXTERIOR TRIM:

A. FASCIA: SEE ELEVATIONS (CONFIRM W/ OWNER)
B. SOFFIT: ALUM. W/ VENTILATION OR AS SELECTED BY OWNER.
C. DRIP EDGE: ALUMINUM OR AS SELECTED BY OWNER.
D. DOWNSPOUTS/GUTTERS: ALUMINUM OR AS SELECTED BY OWNER.

10. INTERIOR DETAILS:

A. TRIM: DOOR/WINDOW CASINGS, BASEBOARDS, CHAIR RAIL AND CROWN MOLDING PAINT GRADE EXCEPT GREAT ROOM/KITCHEN/NOOK SHALL BE STAIN GRADE KNOTTY ALDER OR AS SELECTED BY OWNER.
B. CABINETS: ALL CABINETRY SHALL BE HARDWOOD OR AS SELECTED BY OWNER.
C. COUNTERTOPS/BACKSPLASH: GRANITE IN KITCHEN, LAUNDRY, BASEMENT KITCHEN AND IN ALL BATHROOMS.

11. ELECTRICAL:

A. PANEL: MINIMUM 200 AMP SERVICE AND SHALL COMPLY WITH N.E.C. AND LOCAL CODES.
B. WIRING/OUTLETS: SHALL BE AS SHOWN ON THE PLANS AND PER N.E.C. AND LOCAL CODES. LIGHTING, EXHAUST FANS, DOOR CHIME, SMOKE DETECTORS, ETC. SHALL BE SELECTED BY OWNER. ALL SMOKE DETECTORS SHALL BE WIRED IN SERIES WITH BATTERY BACKUP SO THE ALARM IS AUDIBLE IN ALL SLEEPING AREAS PER IRC R314 ATTIC ACCESS AREA SHALL HAVE A SWITCHED LIGHT FIXTURE. CARBON MONOXIDE ALARMS SHALL BE INSTALLED PER IRC 315.
C. MISCELLANEOUS: OUTDOOR FLOOD LIGHTING SHALL BE AS SELECTED BY CONTRACTOR/OWNER.
D. INSTALL WEATHER PROOF BUBBLE COVERS ON ALL EXTERIOR ELECTRICAL OUTLETS.
E. INSTALL 110 VOLT GFI ELECTRICAL OUTLET WITHIN 25 FEET OF A/C UNIT.
F. PROVIDE COMBINATION ARC FAULTS PROTECTION ON ALL BEDROOM LIGHTS, SWITCHES, SMOKE DETECTORS AND RECEPTACLES.
G. PROVIDE A CONCRETE ENCASED ELECTRODE (UFER GROUND) AND WATER PIPE ELECTRODE FOR GROUNDING SYSTEM FOR ELECTRICAL SERVICE. UFER CONNECTIONS MUST BE ACCESSIBLE.

12. HEATING/AIR CONDITIONING:

A. HEATING: MINIMUM 90% ENERGY EFFICIENT GAS FIRED FORCED AIR HEATERS, QUANTITY PER HVAC CALCULATIONS WHICH ARE THE RESPONSIBILITY OF THE HVAC CONTRACTOR. DESIGN AND SELECTION SHALL BE BY HEATING/PLUMBING CONTRACTOR AND CONFIRMED BY OWNER. ALL MANUFACTURERS INSTALLATION INSTRUCTIONS AS WELL AS ALL APPLICABLE LOCAL AND FEDERAL CODES SHALL BE FOLLOWED BY THE CONTRACTOR.
B. AIR CONDITIONING: CENTRAL AIR AIR CONDITIONING UNITS SHALL BE SUPPLIED AND LOCATED ON A CONCRETE PAD LOCATED AWAY FROM DECKS & BEDROOM WINDOWS.
C. DUCTING AND REGISTERS: DESIGN, LOCATION AND TYPE SHALL BE BY PLUMBING/HEATING CONTRACTOR AND SHALL BE CONFIRMED BY CONTRACTOR/OWNER AND SHALL MEET ALL APPLICABLE CODES.
D. MISCELLANEOUS: ALL HEATING IS TO BE PERFORMED BY A LICENSED CONTRACTOR IN KEEPING WITH THE PRACTICES OR THE INTERNATIONAL MECHANICAL CODE.
E. ALL BUILDINGS ARE CONSIDERED TO BE UNUSUALLY TIGHT CONSTRUCTION AND ALL COMBUSTION AIR TO ROOMS SPACES CONTAINING FUEL BURNING APPLIANCES SHALL BE OBTAINED FROM THE OUTDOORS OR FROM SPACES FREELY COMMUNICATING WITH THE OUTDOORS PER IRC M1701.
F. HEATING AND COOLING EQUIPMENT SHALL BE SIZED IN ACCORDANCE WITH ACCA (AIR CONDITIONING CONTRACTORS OF AMERICA) MANUAL J OR OTHER APPROVED CALCULATIONS. DUCT SYSTEMS SERVING HEATING OR COOLING EXHAUST SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH ACCA MANUAL D OR OTHER APPROVED METHODS. CALCULATIONS AND DOCUMENTATION IS NOW REQUIRED. IRC M 1301 & M1601
G. CONDENSATE FROM ALL COOLING COILS OR EVAPORATORS SHALL E CONVEYED FROM THE DRAIN PAN OUTLET TO AN APPROVED PLACE OF DISPOSAL. CONDENSATE SHALL NOT DISCHARGE INTO A STREET, ALLEY, OR OTHER AREAS SO AS TO CAUSE A NUISANCE. I.R.C.M1411.3
H. IN ADDITION TO THE REQUIREMENTS OF SECTION 1411.3, A SECONDARY DRAIN OR AUXILIARY DRAIN PAN SHALL BE REQUIRED FOR EACH COOLING OR EVAPORATOR COIL WHERE DAMAGE TO ANY BUILDING COMPONENTS WILL OCCUR AS A RESULT OF OVERFLOW FROM THE EQUIPMENT DRAIN PAN OR STOPPAGE IN THE CONDENSATE DRAIN PIPING. DRAIN PIPING SHALL BE A MINIMUM OF 3/4" (19.1 MM) NOMINAL PIPE SIZE. I.R.C. M1411.3.1
I. RADIANT IN FLOOR HEATING:AN IN-FLOOR RADIANT HEAT SYSTEM SHALL BE INSTALLED (AS SELECTED BY OWNER). THE SYSTEM SHALL BE WIRSBRO OR EQUAL BOILER & TUBING. TUBING SHALL BE CROSSLINK POLYETHYLENE W/BRASS FITTINGS AND MANIFOLD. ONE 83% EFFICIENT BOILER SHALL BE USED IN CONJUNCTION W/(2) 80 GAL. WATER TANKS.
- SLAB INSTALLATION:TUBING SHALL INSTALLED ON 12" CENTERS TIED TO 6X6 WIRE MESH MAT.
- SUB-FLOOR INSTALLATION:(IF APPLICABLE): TUBING SHALL BE STAPLED TO SUBFLOOR ON 6" OR 12" O.C. (DEPENDING ON HEAT LOAD). SHALL BE COVERED W/1-1/2" LIGHTWEIGHT GYPSUM OR 6-1/2 BAG MIX PORTLAND CONCRETE MIX W/PEA GRAVEL (10-12 LBS/SQ. FT. LOADING). AREA OF HARDWOOD SHALL RECEIVE 2X2 DF SLEEPERS AS COORDINATED WITH FLOOR MANUFACTURER. IN LIEU OF CONCRETE FLOOR IN HARDWOOD AREAS, QUICK TRACK SYSTEM (1/2" PLYWOOD PANELS) SHALL BE INSTALLED FOR INSERTION OF TUBING.

13. PLUMBING:

A. SEWER/DRAIN: PLASTIC ABS TYPE.- BACKWATER VALVE IF REQUIRED PER IRC. P3008, WATER PIPE: COPPER SUPPLY TO METER.
B. WATER HEATER: TWO (2) GAS FIRED, GLASS LINED A.O. SMITH SUB CHAMBER OR EQUAL, MINIMUM 50 GALLON EACH.
C. WATER HEATERS SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION.
D. FIXTURES: ALL FIXTURES SHALL BE SELECTED BY OWNER.
E. MISCELLANEOUS: FAUCETS SELECTED BY OWNER. COLD WATER SUPPLY (NO WATER SOFTENER) TO KITCHEN SINK AND REFRIGERATOR.
F. SHOWERS: ALL SHOWER COMPARTMENTS SHALL HAVE A MIN. FINISHED INTERIOR OF 1024 SQ. IN. AND SHALL ALSO HAVE A MIN. IMPACT RESISTANT SAFETY GLASS SHOWER DOOR WIDTH OF 22". IF GLASS SHOWER ENCLOSURES ARE UTILIZED, GLASS SHALL BE IMPACT RESISTANT SAFETY RATED.
G. APPLIANCES: ALL APPLIANCES (WATER HEATER, BOILER, STEAM GENERATOR, ETC.) WHICH REQUIRE PRESSURE RELIEF VALVES SHALL BE PROVIDED WITH A FULL SIZE DRAIN EXTENDING TO THE FLOOR DRAIN.
H. SHOWER PAN LINERS MUST EXTEND 3 INCHED ABOVE THE SHOWER DOOR THRESHOLD HEIGHT AND SOLID BLOCKING IS REQUIRED BEHIND ALL LINER LOCATIONS. SHOWER PAN LINERS MUST BE INSTALLED ON BUILT UP FLOORS AND MUST BE INSPECTED.
I. BATHTUBS AND WHIRLPOOL (JETTED TUBS MUST NOW HAVE A TEMPERATURE LIMITING (120 DEGREES) MIX VALVE.
J. BACKWATER VALVES- FIXTURES THAT HAVE FLOOD LEVEL RIMS LOCATED BELOW THE ELEVATION OF THE NEXT UPSTREAM MANHOLE COVER OF THE PUBLIC SEWER SERVING SUCH FIXTURES SHALL BE PROTECTED FROM BACK FLOW OF SEWAGE BY INSTALLING AN APPROVED BACKWATER VALVE. FIXTURES HAVING FLOOD LEVEL RIMS ABOVE THE ELEVATION OF THE NEXT UPSTREAM MANHOLE SHALL NOT DISCHARGE THROUGH THE BACKWATER VALVE. BACKWATER VALVES SHALL BE PROVIDED WITH ACCESS. I.R.C. P3008

14. DOORS:

A. EXTERIOR: SOLID CORE WOOD WITH WEATHER-STRIPPING. EXTERIOR DOORS WITH SIDELIGHTS OR AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24" ARC OF THE DOOR IN A CLOSED POSITION & WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE SHALL HAVE IMPACT RESISTANT GLAZING PER I.R.C. 308.4 EXTERIOR DOORS TO GARAGE SHALL BE A 20 MIN. FIRE RATED FEATURE WITH A SELF CLOSING FEATURE PER I.R.C. R309.1 (STYLE AND TYPE SELECTED BY OWNER, SEE PLAN DRAWING).
B. INTERIOR: HOLLOW CORE MASONITE AS INDICATED ON THE DOOR SCHEDULE. (STYLE AND TYPE SELECTED BY OWNER. SEE PLAN DRAWINGS).
C. GARAGE: INSULATED OVERHEAD METAL SECTIONAL TYPE MARTIN DOORS OR EQUAL WITH ELECTRICAL/MECHANICAL DOOR OPERATOR(DOOR SHALL BE WIRED ON SEPARATE CIRCUIT TO ALLOW. SHUTOFF AT INTERIOR OF HOME. (STYLE AND TYPE SELECTED BY OWNER).
D. PATIO/GLASS DOORS: ALL PATIO/GLASS DOORS SHALL BE SAFETY RATED TEMPERED GLASS. (STYLE AND TYPE SELECTED BY OWNER).
E. PROVIDE CORROSION RESISTANT METAL L FLASHING OVER ALL EXTERIOR DOORS INCLUDING GARAGE DOORS WITHOUT NAILING FINS OR FLANGES.

15. WINDOWS/SKYLIGHTS:

A. MARVIN, ANDERSON OR EQUAL SUPPLIED BY BMC (COLOR AND STYLE BY OWNER). MANUFACTURERS DETAILS SHALL BE FOLLOWED FOR ROUGH FRAMING AND INSTALLATION (SEE PLAN DRAWINGS).
B. GLAZING TO BE DOUBLE ARGON GAS FILLED WITH LOW E RATING OR AS SELECTED BY OWNER. ALL WINDOWS LOWER THAN 18" FROM THE FLOOR SHALL BE IMPACT RESISTANT SAFETY GLASS.
C. SCREENS SHALL BE NYLON FABRIC.
D. WINDOW WELLS: WINDOW WELL SHALL MEET I.R.C. R310.2 WITH A CLEAR HORIZONTAL AREA OF 9 SQ. FT. AND A MINIMUM WIDTH OF 3'-0". WINDOW WELL WITH A DEPTH OF 44" OR GREATER SHALL BE PROVIDED WITH A STAIR OR AN APPROVED LADDER.
E. EGRESS: ALL BEDROOM WINDOWS SHALL HAVE A WINDOW OPENING OF 44" MAX. FROM THE FINISHED FLOOR, HAVE WINDOW GLASS OPENINGS OF 20" MIN. CLEAR WIDTH, AND 24" MIN. CLEAR HEIGHT. WITH A MIN. NET CLEAR OPENING OF 5.7 SQ. FT. EGRESS PER I.R.C. R310.1
F. WINDOWS OVER ALL BATHTUBS AND SHOWERS SHALL BE IMPACT RESISTANT SAFETY GLASS AS WELL AS WINDOWS WITHIN 24" OF A DOOR..
G. GLAZING IN WALLS ENCLOSING STAIRWAY LANDINGS OR WITHIN 60 " OF THE TOP AND BOTTOM OF STAIRWAYS WHERE THE BOTTOM EDGE OF THE GLASS IS LESS THAN 60 " ABOVE THE WALKING SURFACE SHALL HAVE IMPACT RESISTANT GLAZING PER I.R.C. R308.4.6 & R308.4.7
H. FLASH AND CAULK ALL EXTERIOR WINDOWS AND DOORS AS PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
I. PROVIDE 9 INCH FLASHINGS FOR WINDOWS AS PER MANUFACTURER INSTALLATION INSTRUCTIONS.
J. WINDOWS WITH SILL HEIGHTS LESS THAN 18 INCHES ABOVE THE FINISHED FLOOR AND WHEN THE EXTERIOR SILL HEIGHT IS GREATER THAN 6 FEET ABOVE GRADE MUST BE FIXED WINDOWS OF LABELED SAFETY GLAZING OR MUST HAVE 36 INCH HIGH GUARD WITH 4" MAX. OPENINGS TO PROTECT PERSON(S) FROM FALLING THROUGH (R613.2)
K. PROVIDE CORROSION RESISTANT METAL L FLASHING OVER ALL EXTERIOR DOORS INCLUDING GARAGE DOORS WITHOUT NAILING FINS OR FLANGES.

16. WALL FINISH:

A. WALL PAINT SHALL BE LATEX BASED SEALER, PRIMER AND 2 COATS OF ALKYD FINISH. (ALL PAINT AND COLORS SHALL BE CONFIRMED BY OWNER)

17. FIREPLACES/ STOVES:

A. FIREPLACES SHALL CONSIST OF NATURAL GAS, DIRECT VENT, SEALED COMBUSTION, METAL FIREBOX AS MANUFACTURED BY HEAT-N-GLO MODEL 6000XT OR EQUAL OR AS SELECTED BY OWNER. MANUFACTURERS INSTRUCTIONS AND ALL LOCAL CODES SHALL BE FOLLOWED FOR INSTALLATION.
B. ACTUAL FIREBOX OPENING/ FRAMING PER CONTRACTOR/ OWNER & FIREBOX SELECTED CONTACT ENGINEER FOR APPROVAL FOR SHEER WALL OPENING

18. HANDRAILINGS:.

A. REQUIRED GUARDS ON OPEN SIDES OF STAIRWAYS, RAISED FLOOR AREAS, BALCONIES AND PORCHES SHALL HAVE INTERMEDIATE RAILS OR ORNAMENTAL CLOSURES WHICH DO NOT ALLOW PASSAGE OF A SPHERE 4 INCHES (102 MM) OR MORE IN DIAMETER. (IRC. R312)
B. EXTERIOR: HAND RAILING SHALL BE POWDER COATED STEEL RAILING SYSTEM (OR AS SELECTED BY OWNER).
C. INTERIOR: HAND RAILING SHALL BE KNOTTY ALDER RAIL AND NEWELS WITH WROUGHT IRON BALUSTERS (STAIN AND FINISH OR AS SELECTED BY OWNER).

19. FINISH COLORS:

A. CARPET: AREAS TO BE CARPETED SHALL BE SHOWN ON PLANS (CARPET AND PADDING SELECTED BY OWNER).
B. WOOD FLOOR: AREAS TO BE COVERED WITH HARDWOOD SHALL SHOWN ON PLANS (STYLE AND TYPE TO BE SELECTED BY THE OWNER).
C. TILE/STONE: AREAS TO BE COVERED WITH TILE/NATURAL STONE SHALL BE SHOWN ON PLANS (STYLE AND TYPE TO BE SELECTED BY THE OWNER).

20. APPLIANCES:

A. ALL APPLIANCES SHALL BE SELECTED BY OWNER.
B. BATHROOM EXHAUST FAN DUCTS MUST CONTINUE AND DISCHARGE DIRECTLY OUTSIDE THE STRUCTURE. CLOSE PROXIMITY TO ATTIC VENTS OR TO SOFFIT AREAS ARE SPECIFICALLY PROHIBITED. ALL EXHAUST DUCTS MUST NOW CONNECT TO AN OPENING WITH PROPER SCREEN FOR TERMINATIONS IN WALL AREAS OR TO AN APPROVED THROUGH THE ROOF DISCHARGE FITTING INSTALLED AS NOT TO BE BLOCKED OR STOPPED BY SNOW OR ICE.

GENERAL DRAWING NOTES HABITATIONS MAKES EVERY EFFORT TO PRESENT ACCURATE & RELIABLE INFORMATION, HOWEVER IT DOES NOT ENDORSE, APPROVE, OR CERTIFY THE INFORMATION PROVIDED BY OTHERS, NOR DOES HABITATIONS GUARANTEE IT'S ACCURACY OR COMPLETENESS. USE OF THIS INFORMATION IS VOLUNTARY AND RELIANCE ON IT SHOULD ONLY BE UNDERTAKEN AFTER CAREFUL REVIEW AND INDEPENDENT VERIFICATION OF ITS ACCURACY AND COMPLETENESS. THE CONTRACTOR/ OWNER/ TRADE CONTRACTORS SHALL ASSUME ALL RISKS FOR THE USE OF THE INFORMATION CONTAINED HEREIN. UNDER NO CIRCUMSTANCES WILL HABITATIONS , IT'S OFFICERS, EMPLOYEES OR AGENTS BE LIABLE FOR YOUR USE, MISUSE, REFERENCE TO, OR RELIANCE ON ANY OF THE INFORMATION PROPOSED OR THAT RESULT FROM MISTAKES, ERRORS, OMISSIONS, INTERPRETATIONS, OR DEFECTS.

1. FLOOR PLAN INTERIOR DIMENSIONS ARE TO INSIDE OF UNFINISHED (STUD) WALLS (UNFINISHED WALL THICKNESS EQUALS 3 1/2"). SQUARE FOOTAGE IS DETERMINED TO THE OUTSIDE OF ALL EXTERIOR WALLS IN EVERY LOCATION WHERE THE FLOOR JOISTS PROJECT FROM THE FOUNDATION.
2. FLOOR PLAN EXTERIOR DIMENSIONS ARE TO THE OUTSIDE FACE OF THE STUDS. (EXCLUDING SHEATHING).
3. AN ATTEMPT HAS BEEN MADE TO DESIGN TO FEDERAL, STATE AND LOCAL BUILDING CODES AND ORDINANCES HOWEVER THE CONTRACTOR/ OWNER SHALL HAVE RESPONSIBILITY TO INSURE THAT ALL APPLICABLE FEDERAL , STATE & LOCAL BUILDING CODES AND ORDINANCES ARE MET. THE CONTRACTOR/ OWNER SHALL CHECK AND VERIFY ALL DIMENSIONS AND SPECIFICATIONS AND ASSUME RESPONSIBILITY FOR ALL DAMAGES OR STRUCTURAL FAILURES DUE TO ANY OMISSIONS OR ERRORS IN THE DESIGN AND/OR USE OF THESE DRAWINGS/SPECIFICATIONS.
4. ELECTRICAL, PLUMBING AND HVAC DETAILS ARE NOT SHOWN. THE GENERAL CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO INSURE THAT SUBCONTRACTORS FOLLOW ALL APPLICABLE CODES.
5. STRUCTURAL ROOF, FLOOR AND WALL FRAMING DETAILS ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FRAMING TO MEET STRUCTURAL REQUIREMENTS OF ALL APPLICABLE CODES.
6. CABINET DETAILS ARE NOT SHOWN. DESIGN, STYLE AND COLOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR/OWNER.
7. SITE PLAN IS SHOWN FOR INFORMATION ONLY. OWNER /CONTRACTOR SHALL HAVE RESPONSIBILITY TO DETERMINE GRADES AND FINAL PLACEMENT AND ELEVATIONS OF FOOTINGS/FOUNDATIONS AND TO MEET ALL LOCAL ZONING CODES/ORDINANCES.
8. A TRASH DUMPSTER AND PORTA-POTTY SHALL BE PROVIDED AT ALL NEW CONSTRUCTION SITES. CAN NOT BE PLACED IN STREET OR ACROSS SIDEWALK AND PARKSTRIP.
9. A CERTIFICATE MUST BE POSTED IN OR BY THE ELECTRICAL PANEL OR FURNACE ROOM LISTING THE R VALUES OF THE INSULATION INSTALLED IN THE WALLS, ,CEILINGS, ,FOUNDATION WALLS, SLAB, CRAWLSPACE AND DUCTS OUTSIDE CONDITIONED SPACES. WINDOWS U-FACTORS AND SOLAR HEAT GAIN CONSTANTS MUST ALSO BE LISTED AND SHOWN. THE TYPE AND EFFICIENCY OF THE FURNACE, BOILER, WATER HEATER AND AIR CONDITIONING EQUIPMENT SHALL ALSO BE LISTED.

NOMENCLATURE

ABBREVIATION	DESCRIPTION		ABBREVIATION	DESCRIPTION
ALUM	ALUMINUM		LIN	LINEN
A/R	AS REQUIRED		MFG	MANUFACTURER
AV	AUDIO VIDEO		MECH	MECHANICAL
BSMNT	BASEMENT		MIN	MINIMUM
BRG.	BEARING			
BTR	BETTER		MOD	MODIFIED
BKS	BOOKS		MTR	MOTOR
BI	BUILT IN		NTS	NOT TO SCALE
CAB	CABINET		OC	ON CENTER
CLG	CEILING		PAN	PANTRY
CV	CENTRAL VACUUM		PSI	POUNDS PER SQUARE INCH
CONC.	CONCRETE		PLCS	PLACES
CTR	COUNTER		PL	POINT LOAD
DW	DISH WASHER		PDR	POWDER ROOM
DBL	DOUBLE		REF	REFRIGERATOR
DF	DOUGLAS FIR		R & S	ROD AND SHELF
DN	DOWN		RB	ROOF BEAM
ELEV.	ELEVATION		SHLVS	SHELVES
EQ	EQUAL		SPECS	SPECIFICATIONS
FP	FIREPLACE		SURF.	SURFACE
FB	FLOOR BEAM		SUSP.	SUSPENDED
FTG	FOOTING		SQ.	SQUARE
FDN	FOUNDATION		T & G	TONGUE AND GROOVE
FT.	FEET		T.O.F	TOP OF FOUNDATION
FURN.	FURNACE		TYP	TYPICAL
GYP.	GYPSUM		UNCL	UNDER COUNTER LIGHTING
HVAC	HEATING, VENTILATION, AIR CONDITIONING		UNO	UNLESS NOTED OTHERWISE
HT/HGT	HEIGHT		WIC	WALK-IN-CLOSET
IRC	INTERNATIONAL RESIDENTIAL CODE		WO	WALL OVEN
LAUN	LAUNDRY		WH	WATER HEATER

CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS AND MEASUREMENTS AT THE JOB PRIOR TO CONSTRUCTION. THIS PLAN IS THE EXCLUSIVE PROPERTY OF HABITATIONS AND SHALL NOT BE REPRODUCED OR COPIED IN ANY WAY WHATSOEVER WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF HABITATIONS. ANY UNAUTHORIZED USE OF THIS PLAN WITHOUT WRITTEN APPROVAL SHALL BE A VIOLATION OF THE LAW AND VIOLATORS WILL BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW. IF THIS COPY DOES NOT HAVE A WET INK SIGNATURE FROM HABITATIONS THEN THIS IS AN UNAUTHORIZED COPY AND SHOULD BE REPORTED TO HABITATIONS BY PHONING (801)476-1860
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HABITATIONS
RESIDENTIAL DESIGN GROUP

AUTHORIZED COPY

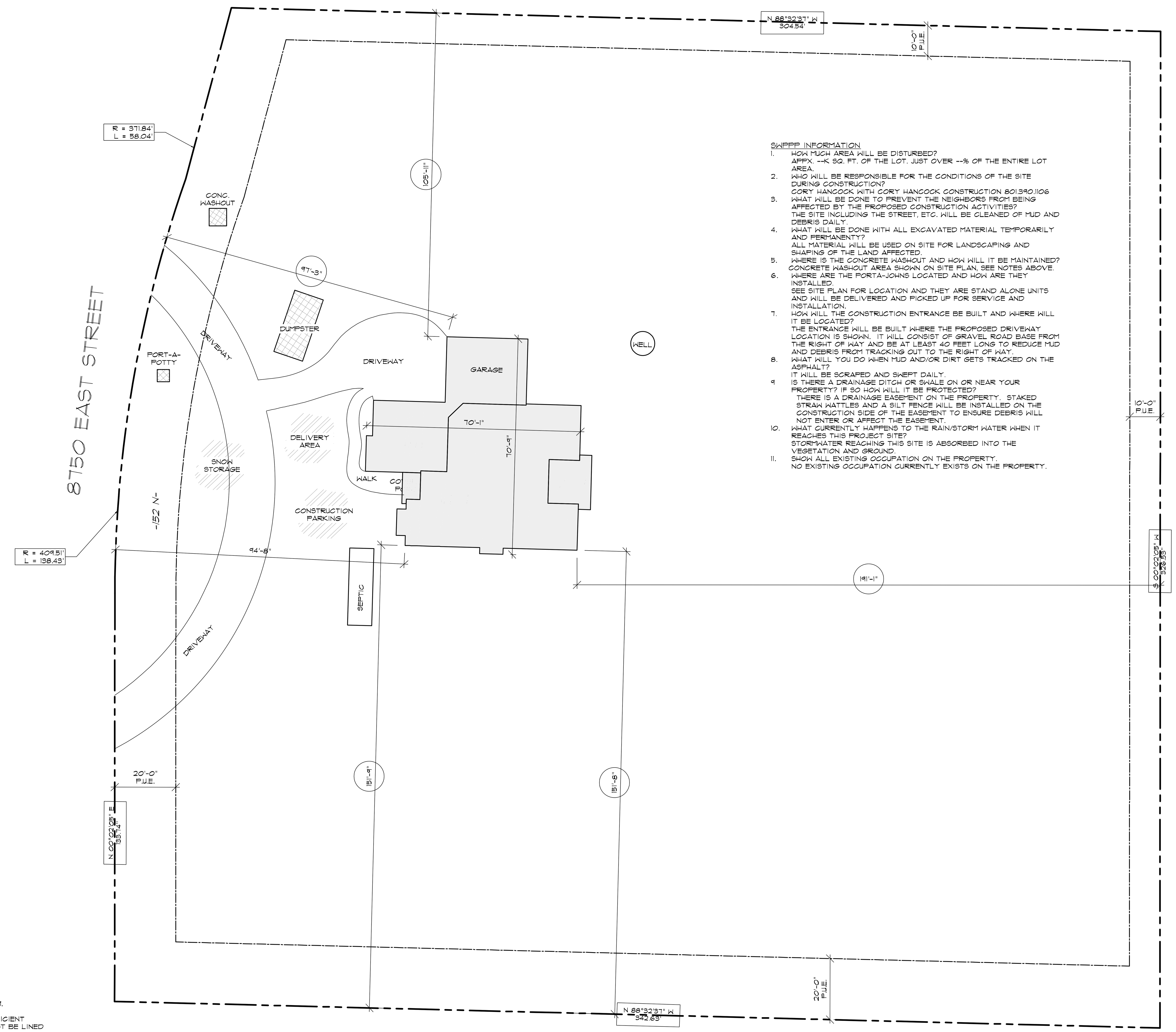
MUST HAVE WET INK STAMP

SHEET TITLE:
GENERAL NOTES & SPECIFICATIONS

DRAWN BY:
N. COOMBS
CHK'D BY:
M. STEELE
ISSUE DATE:
9/1/2017
PLAN NUMBER:
TS3650
SHEET NUMBER:
2 OF 16

SITE PLAN
152 NORTH 8750 EAST
LOT #18
HUNTSVILLE MEADOWS SUBDIVISION
WEBER COUNTY, UTAH

SCALE: 1" = 20'-0"
Area = 109,028 Sq. Ft. = 2.503 ACRE



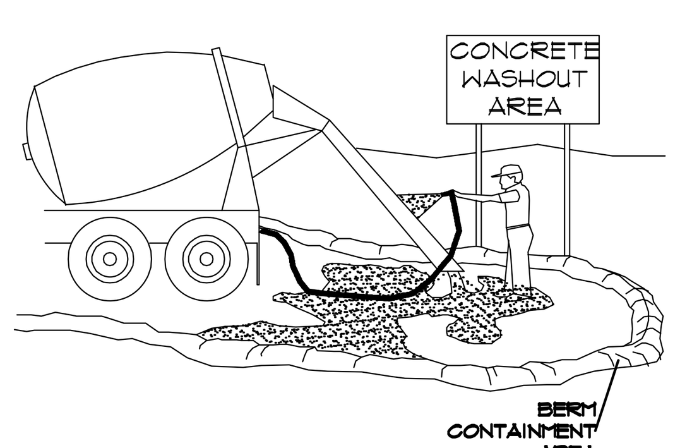
PLEASE NOTE:

1. SITE PLAN IS SHOWN FOR INFORMATION ONLY. OWNER /CONTRACTOR SHALL HAVE RESPONSIBILITY TO DETERMINE GRADES AND FINAL PLACEMENT AND ELEVATIONS OF FOOTINGS/FOUNDATIONS AND SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL STATE, NATIONAL, AND LOCAL BUILDING CODES & ORDINANCES.
2. THIS SITE PLAN IS A REPRESENTATION OF CONCRETE FOUNDATIONAL BUILDING FOOTPRINT ONLY. ALL SETBACK INFORMATION SHOWN IS TO CONCRETE FOUNDATION WALLS ONLY. SITE PLAN DOES NOT INDICATE THE LOCATION OF ROOF OVERHANGS OR CANTILEVERS (WALL POPOUTS OR FLOOR OVERHANGS) OR OTHER ARCHITECTURAL ELEMENTS THAT MAY PENETRATE THE PROPERTY SETBACKS OR EASEMENTS. THE PLAN COUNTY, CITY OR OTHER JURISDICTION REVIEWER, CONTRACTOR AND OWNER SHALL REVIEW ALL PLAN SUBMITTAL DRAWINGS (FLOOR PLANS, ELEVATIONS, DETAILS, ETC...) IN CONJUNCTION WITH THE SITE PLAN TO IDENTIFY ANY PROPOSED WALL CANTILEVERS OR OTHER FEATURES THAT MAY ENCROACH INTO SETBACKS AND SHALL REPORT ANY CONCERNS TO THE DESIGNER PRIOR TO EXCAVATION AND/OR CONSTRUCTION.

LINETYPE LEGEND

- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- HOME FOOTPRINT
- PROPOSED CONT.
- 10' CONT. LINE
- 2' CONT. LINE
- DIRECTIONAL DRAINAGE ARROWS

1. ALL STORM WATER AND DIRT WILL BE KEPT ON SITE DURING CONSTRUCTION UNTIL FINAL LANDSCAPING IS DONE.
2. THE GRADE AWAY FROM FOUNDATION WALLS SHALL FALL A MINIMUM OF 6 INCHES WITHIN THE FIRST 10 FEET (5%)
3. STREET, CURB AND GUTTER WILL BE INSPECTED AND CLEANED OF ALL MUD AND DIRT AT THE END OF EVERY DAY.
4. STRAW WATTLES (OR EQUIVALENT) TO BE PLACED AND MAINTAINED AROUND ANY STORM DRAIN INLET ADJACENT TO OR IMMEDIATELY DOWNSTREAM FROM SITE DURING CONSTRUCTION.
5. BERMS OR SWALES MAY BE REQUIRED ALONG PROPERTY LINES TO PREVENT STORM WATER FLOW ONTO ADJACENT LOTS. FINAL GRADING SHALL BLEND WITH ADJACENT LOTS.
6. ALL REAR DRAINAGE TO BE RETAINED ON THE PROPERTY.
7. FIXTURES THAT HAVE FLOOD LEVEL RIMS LOCATED BELOW THE ELEVATION OF THE NEXT UPSTREAM MANHOLE COVER OF THE PUBLIC SEWER SERVING SUCH FIXTURES SHALL BE PROTECTED FROM BACK FLOW OF SEWAGE BY INSTALLING AN APPROVED BACKWATER VALVE. FIXTURES HAVING FLOOD LEVEL RIMS ABOVE THE ELEVATION OF THE NEXT UPSTREAM MANHOLE SHALL NOT DISCHARGE THROUGH THE BACKWATER VALVE. BACKWATER VALVES SHALL BE PROVIDED WITH ACCESS.
8. LONG-TERM DRAINAGE CONTROL BY STANDARD RESIDENTIAL LANDSCAPING, INCLUDING GRASS, TREES AND BUSHES AND AN AUTOMATIC SPRINKLER SYSTEM.



CONCRETE WASTE MANAGEMENT

NOTES:

1. EXCESS AND WASTE CONCRETE SHALL NOT BE WASHED INTO THE STREET OR INTO A DRAINAGE SYSTEM.

2. FOR WASHOUT OF CONCRETE AND MORTAR PRODUCTS, A DESIGNATED CONTAINMENT FACILITY OF SUFFICIENT CAPACITY TO RETAIN LIQUID AND SOLID WASTE SHALL BE PROVIDED ON SITE. THIS DISCHARGE AREA MUST BE LINED WITH AN IMPERMEABLE BARRIER.

3. SLURRY FROM CONCRETE AND ASPHALT SAW CUTTING SHALL BE VACUUMED OR CONTAINED, DRIED, PICKED UP, AND DISPOSED OF PROPERLY.

SWPPP INFORMATION

1. HOW MUCH AREA WILL BE DISTURBED?
   APPX. --K SQ. FT. OF THE LOT. JUST OVER --% OF THE ENTIRE LOT AREA.
2. WHO WILL BE RESPONSIBLE FOR THE CONDITIONS OF THE SITE DURING CONSTRUCTION?
   CORY HANCOCK WITH CORY HANCOCK CONSTRUCTION 801.390.1106
3. WHAT WILL BE DONE TO PREVENT THE NEIGHBORS FROM BEING AFFECTED BY THE PROPOSED CONSTRUCTION ACTIVITIES?
   THE SITE INCLUDING THE STREET, ETC. WILL BE CLEANED OF MUD AND DEBRIS DAILY.
4. WHAT WILL BE DONE WITH ALL EXCAVATED MATERIAL TEMPORARILY AND PERMANENTY?
   ALL MATERIAL WILL BE USED ON SITE FOR LANDSCAPING AND SHAPING OF THE LAND AFFECTED.
5. WHERE IS THE CONCRETE WASHOUT AND HOW WILL IT BE MAINTAINED?
   CONCRETE WASHOUT AREA SHOWN ON SITE PLAN, SEE NOTES ABOVE.
6. WHERE ARE THE PORTA-JOHNS LOCATED AND HOW ARE THEY INSTALLED.
   SEE SITE PLAN FOR LOCATION AND THEY ARE STAND ALONE UNITS AND WILL BE DELIVERED AND PICKED UP FOR SERVICE AND INSTALLATION.
7. HOW WILL THE CONSTRUCTION ENTRANCE BE BUILT AND WHERE WILL IT BE LOCATED?
   THE ENTRANCE WILL BE BUILT WHERE THE PROPOSED DRIVEWAY LOCATION IS SHOWN. IT WILL CONSIST OF GRAVEL ROAD BASE FROM THE RIGHT OF WAY AND BE AT LEAST 40 FEET LONG TO REDUCE MUD AND DEBRIS FROM TRACKING OUT TO THE RIGHT OF WAY.
8. WHAT WILL YOU DO WHEN MUD AND/OR DIRT GETS TRACKED ON THE ASPHALT?
   IT WILL BE SCRAPED AND SWEPT DAILY.
9. IS THERE A DRAINAGE DITCH OR SWALE ON OR NEAR YOUR PROPERTY? IF SO HOW WILL IT BE PROTECTED?
   THERE IS A DRAINAGE EASEMENT ON THE PROPERTY. STAKED STRAW WATTLES AND A SILT FENCE WILL BE INSTALLED ON THE CONSTRUCTION SIDE OF THE EASEMENT TO ENSURE DEBRIS WILL NOT ENTER OR AFFECT THE EASEMENT.
10. WHAT CURRENTLY HAPPENS TO THE RAIN/STORM WATER WHEN IT REACHES THIS PROJECT SITE?
    STORMWATER REACHING THIS SITE IS ABSORBED INTO THE VEGETATION AND GROUND.
11. SHOW ALL EXISTING OCCUPATION ON THE PROPERTY.
    NO EXISTING OCCUPATION CURRENTLY EXISTS ON THE PROPERTY.

VOICE: 801-476-1860
FAX: 801-476-1828

HABITATIONS
RESIDENTIAL DESIGN GROUP

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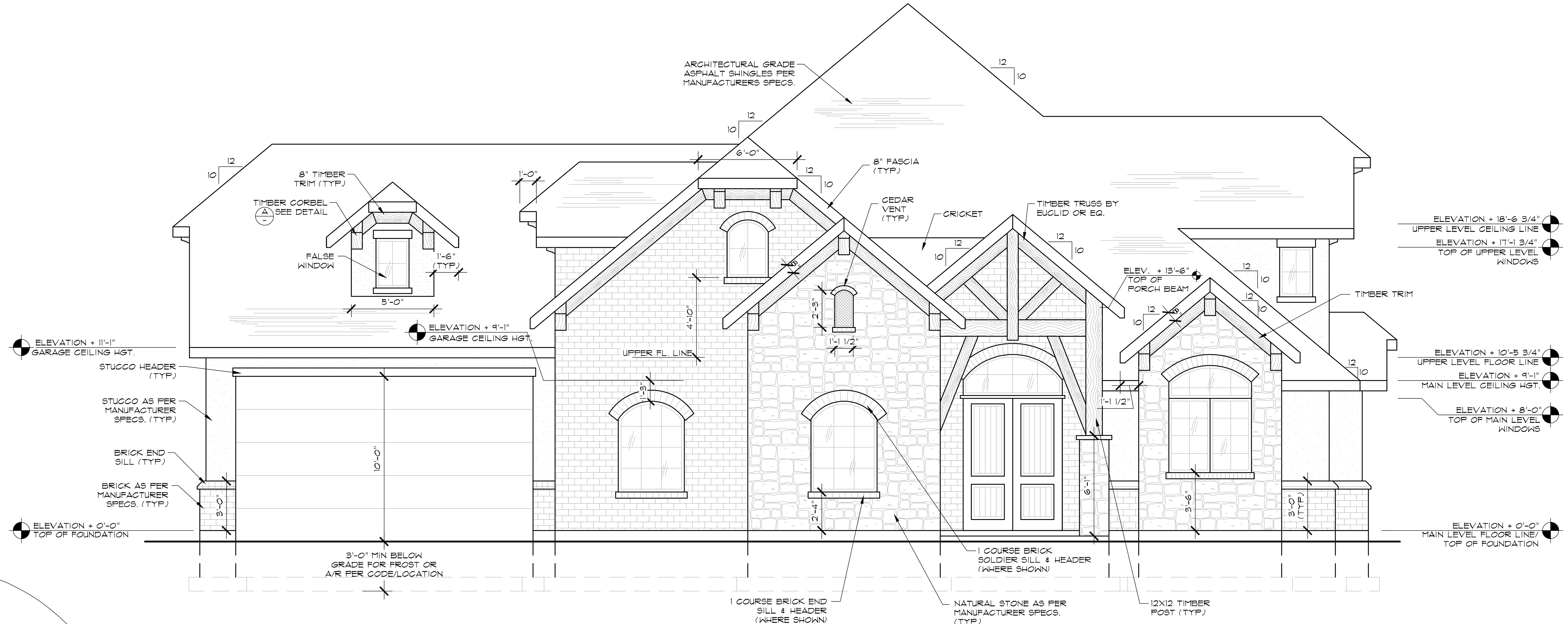
SHEET TITLE: SITE PLAN

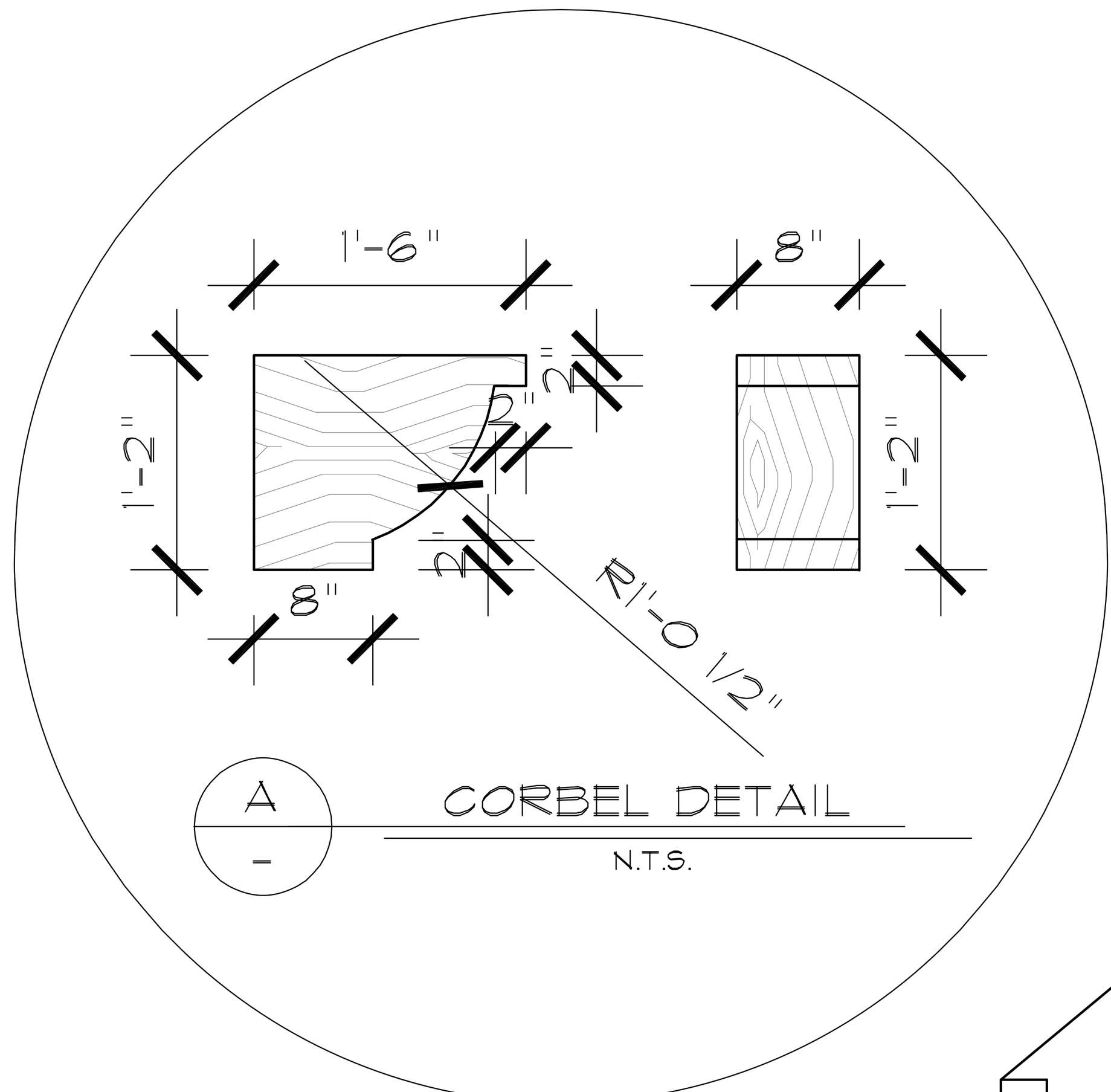
24X36 SHEET, 1" = 20'-0"

DRAWN BY: N. COOMBS
CHK'D BY: M. STEELE
ISSUE DATE: 9/1/2017
PLAN NUMBER: TS3650
SHEET NUMBER: 3 OF 16



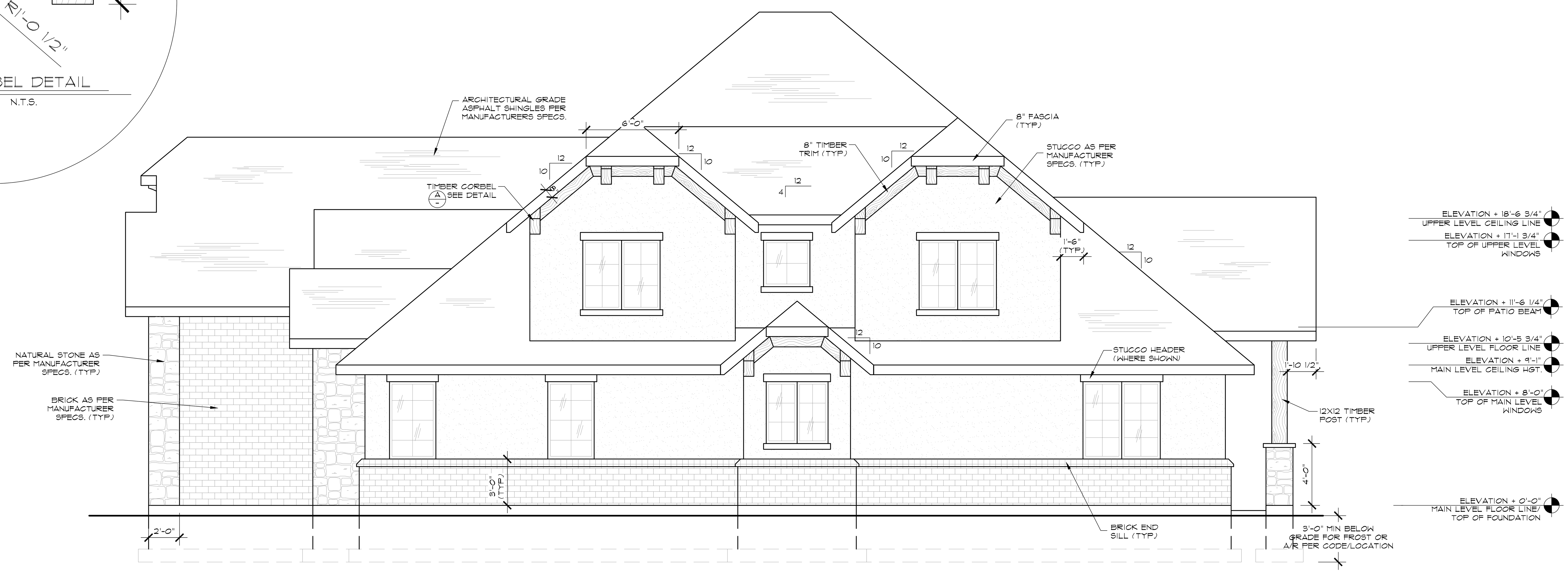
FRONT ELEVATION

SCALE: 1/4"=1'-0"



CORBEL DETAIL

N.T.S.



RIGHT SIDE ELEVATION

SCALE: 1/4"=1'-0"

HABITATIONS RESIDENTIAL DESIGN GROUP

VOICE: 801-476-1860
FAX: 801-476-1828

SHEET TITLE: FRONT / RIGHT SIDE ELEVATIONS

24X36 SHEET: 1/4" = 1'-0"
12X18 SHEET: 1/8" = 1'-0"

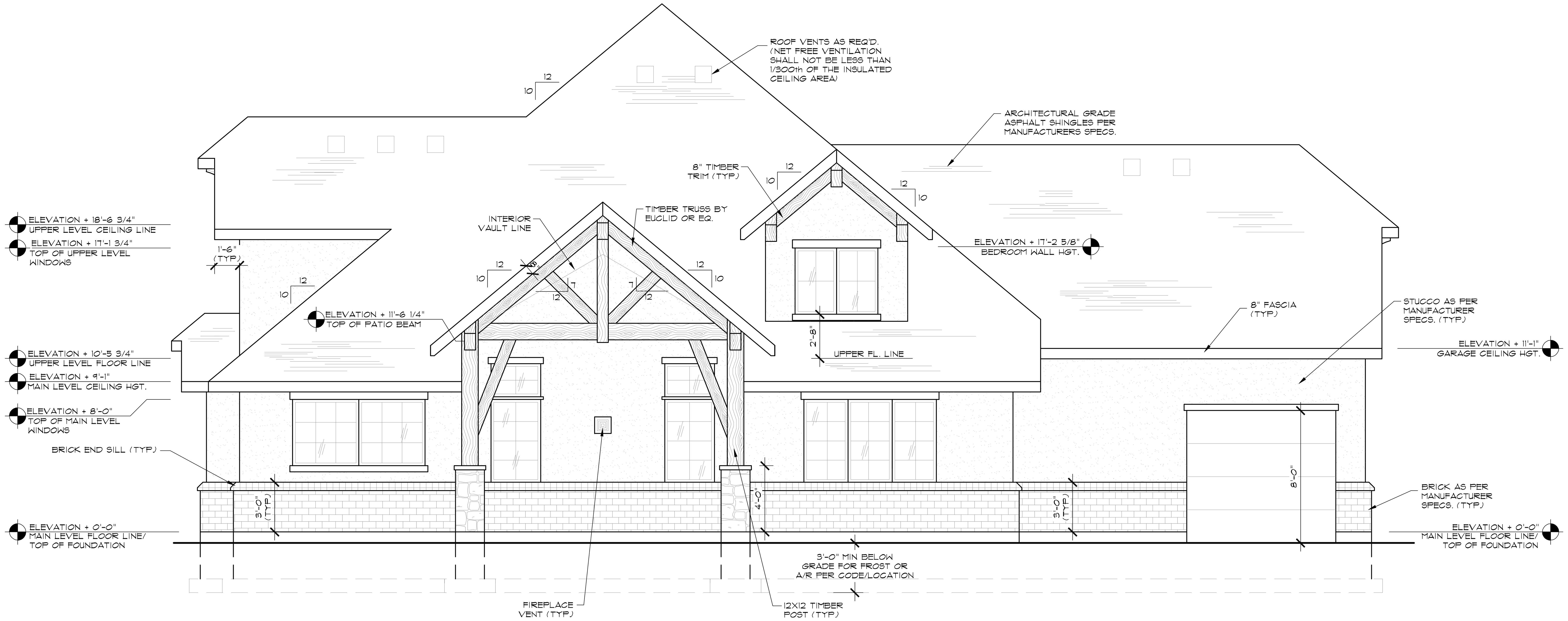
DRAWN BY: N. COOMBS

CHK'D BY: M. STEELE

ISSUE DATE: 9/1/2017

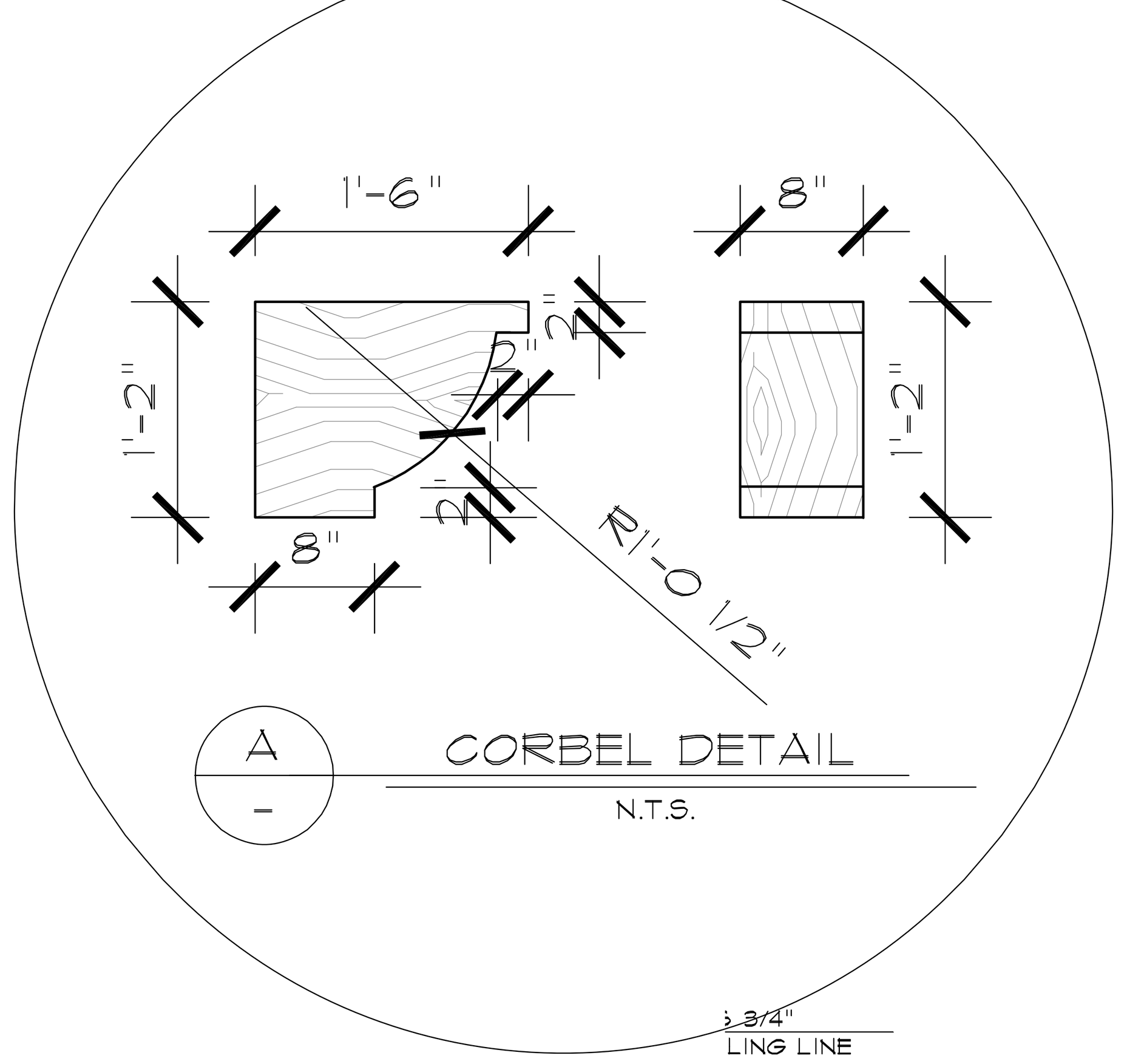
PLAN NUMBER: TS3650

SHEET NUMBER: 4 of 16



REAR ELEVATION

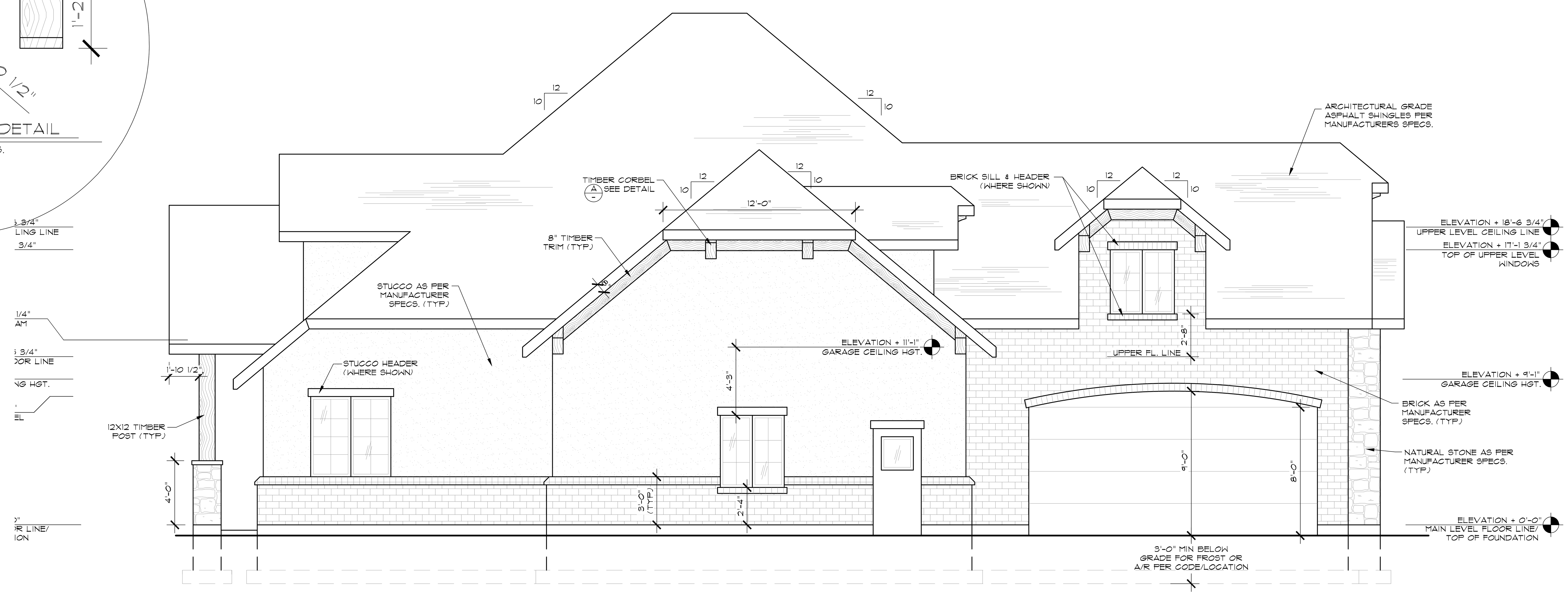
SCALE: 1/4"=1'-0"



A

CORBEL DETAIL

N.T.S.



LEFT SIDE ELEVATION

SCALE: 1/4"=1'-0"

VOICE: 801-476-1860
FAX: 801-476-1828

HABITATIONS
RESIDENTIAL DESIGN GROUP

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SHEET TITLE:
REAR / LEFT SIDE ELEVATIONS

24X36 SHEET: 1/4" = 1'-0"
12X18 SHEET: 1/8" = 1'-0"

DRAWN BY: N. COOMBS
CHK'D BY: M. STEELE
ISSUE DATE: 9/1/2017
PLAN NUMBER: TS3650
SHEET NUMBER: 5 OF 16

FOUNDATION SCHEDULE

3,000 PSI CONCRETE																	60,000 PSI STEEL	
MAXIMUM WALL HEIGHT FROM T.O. FOOTING	TOP EDGE SUPPORT	MIN. WALL WIDTH	VERTICAL WALL REINF.		HORIZONTAL WALL REINF.		ADDITIONAL REINF. FOR OPENINGS						MAX. LINTEL LENGTH	MIN. LINTEL DEPTH	ADDITIONAL FTG. SIZE AND REINF.		NOTES	FOUNDATION BOLTS (MIN. 7" EMBEDMENT)
							ABOVE		SIDES		BELOW							
			SIZE	SPACING	SIZE	SPACING	NO.	SIZE	NO.	SIZE	NO.	SIZE			WIDTH	LENGTH		
2'-0" TO 5'-0"	NONE	8"	#4	24" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	2'	6"	SEE FTG. SCHED.			½" X 10" @32" O.C.
5'-1" TO 6'-0"	NONE	8"	#4	18" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	3'	6"	36"	4 #4 X CONT	SEE NOTE 8 BELOW	½" X 10" @32" O.C.
6'-1" TO 7'-0"	NONE	8"	#4	12" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	4'	8"	42"	5 #4 X CONT	SEE NOTE 8 BELOW	½" X 10" @32" O.C.
7'-10" TO 8'-0"	FLOOR	8"	#4	24" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	5'	10"	SEE FTG. SCHED.			½" X 10" @32" O.C.
8'-1" TO 9'-0"	FLOOR	8"	#4	16" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	6'	12"	SEE FTG. SCHED.			½" X 10" @32" O.C.
9'-1" TO 10'-0"	FLOOR	8"	#4	12" O.C.	#4	12" O.C.	2	#4	1	#4	1	#4	6'	12"	24"	2 #4 X CONT	USE MIN F-24 FOOTING	⅝" X 10" @24" O.C.
10'-1" TO 11'-0"	FLOOR	8"	#4	8" O.C.	#4	12" O.C.	2	#4	1	#4	1	#4	6'	12"	24"	2 #4 X CONT	USE MIN F-24 FOOTING	⅝" X 10" @24" O.C.
› 11'-0"+	REQ. ENG.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		REQ. ENG.

NOTES:
1. REBAR TO BE PLACED IN THE CENTER OF THE WALL AND EXTEND FROM THE FOOTING TO WITHIN 3" OF THE TOP OF THE WALL.
2. #4 FOOTING DOWELS SHALL EXTEND 24" INTO THE FOUNDATION AND MATCH VERTICAL STEEL.
3. ONE BAR SHALL BE LOCATED IN THE TOP 3" AND ONE BAR IN THE BOTTOM 3" OF THE FOUNDATION WALL. (THE REMAINING EQUALLY SPACED BETWEEN)
4. BARS SHALL BE PLACED WITHIN 2" OF THE OPENING AND EXTEND 24" BEYOND THE EDGE OF THE OPENING.
5. THIS TABLE ASSUMES A MINIMUM OF 1500 PSF BEARING CAPACITY, 38 PSF EQUIVALENT FLUID PRESSURE AND A GLOBALLY STABLE SITE
6. ALL FOUNDATION STEPS SHALL BE 2'-0" MINIMUM.
7. USE 3" X 3" X ¼" WASHERS, IF SLOTTED WASHER IS USED, ADD CUT WASHER.
8. LARGER FOOTINGS AND INCREASED FOUNDATION RE-ENFORCEMENT SPECIFIED ON 5'-1" TO 7'-0" WALLS MAY BE REDUCED TO FOOTING SIZE SPECIFIED ON PLANS (MIN F-20) AND WALL RE-ENFORCEMENT PLACED AT 24" O.C. VERTICAL AND 18" O.C. HORIZONTAL PROVIDED ONE OF THE FOLLOWING CONDITIONS EXIST
   A. 5'-1" TO 7'-0" WALL LENGTH NOT TO EXCEED 15'-0" BEFORE A JOG IN THE FOUNDATION
   B. 5'-1" TO 7'-0" WALL LENGTH NOT TO EXCEED 15'-0" BEFORE IT STEPS BELOW 5'1" IN HEIGHT
   C. UNBALANCED BACKFILL DOES NOT EXCEED 4'
9. MINIMUM STRENGTH REQUIRES 2,500 PSI CONCRETE, HOWEVER, AS PER IRC 402.2 3,000 PSI CONCRETE SHALL BE USED

FOOTING SCHEDULE

TYPE	WIDTH	LENGTH	THICK	REINFORCEMENT
F-16	16"	CONT.	10"	2: # 4 BARS CONT.
F-18	18"	CONT.	10"	2: # 4 BARS CONT.
F-20	20"	CONT.	10"	2: # 4 BARS CONT.
F-24	24"	CONT.	10"	3: # 4 BARS CONT.
F-30	30"	CONT.	10"	3: # 4 BARS CONT.
F-36	36"	CONT.	10"	4: # 4 BARS CONT.
S-24	24"	24"	10"	3: # 4 BARS EACH WAY
S-30	30"	30"	10"	3: # 4 BARS EACH WAY
S-36	36"	36"	10"	4: # 4 BARS EACH WAY
S-42	42"	42"	12"	5: # 4 BARS EACH WAY
S-48	48"	48"	12"	6: # 4 BARS EACH WAY
S-60	60"	60"	12"	7: # 4 BARS EACH WAY

FOOTING, FOUNDATION AND CONCRETE

ALL FOOTINGS ARE BASED ON ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF. FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR ENGINEERED GRANULAR FILL COMPACTED TO 95% OF MAXIMUM DENSITY. NO FOOTINGS SHALL BE PLACED IN WATER OR FROZEN GROUND. ALL FOOTINGS TO BE PLACE AT MIN. BELOW LOCAL FROST DEPTH, CONTINUOUS AND MONOLITHIC POUR. CHANGES IN ELEV. SHALL BE STEPPED WITH STEP HEIGHT NOT HIGHER THAN ½ THE STEP LENGTH AND NOT GREATER THAN 5 FT. MIN. 6" THICKNESS ON VERT. STEP. FOOTINGS TO HAVE 2 #4 BAR CONTINUOUS. NOTIFY ENGINEER IF GRADE DROPS OVER 8 FEET IN 24 FEET (G.T. 1 TO 3 SLOPE) SO THAT APPROPRIATE DESIGN CHANGES MAY BE MADE TO FOUNDATION AND FOOTINGS.

ALL FOOTINGS, FOUNDATIONS, AND INTERIOR SLABS SHALL BE NORMAL WT. CONCRETE WITH A COMPRESSIVE STRENGTH EQUAL TO AT LEAST 3,000 PSI WITHIN 28 DAYS AFTER POURING. ALL CONC WORK SHALL BE PLACED, CURED, STRIPPED, AND PROTECTED AS DIRECTED BY THE SPECIFICATIONS AND ACI STANDARDS AND PRACTICES.

ALL REINFORCING SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318. REINFORCEMENT SHALL BE FREE FROM MUD AND OIL AND OTHER NON-METALLIC COATINGS THAT HAMPER BONDING CAPACITY. ALL SPLICES IN CONTINUOUS REINFORCING SHALL LAP 45 BAR DIAMETERS (24" LAP FOR #4 BARS).

VERT & HORZ. #4 BAR (GRADE 60) AS PER FND SCHEDULE. OPENINGS TO HAVE 1 VERT. #4 BAR EA. SIDE OF OPENING TIED TO HORZ. BAR. 2 #4 BAR ABOVE AND 1 #4 BELOW. WINDOW OPENING EXTENDING 24" BEYOND OPENING. USE ANCHOR BOLTS AS PER FND SCHEDULE USE SIMPSON STHDX(RJ) STRAPS AS NOTED ON DRAWING.
OWNER\CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS LISTED ON THE DRAWING. VERIFICATION OF ALL SITE CONDITIONS INCLUDING SITE STABILITY IS THE RESPONSIBILITY OF OTHERS

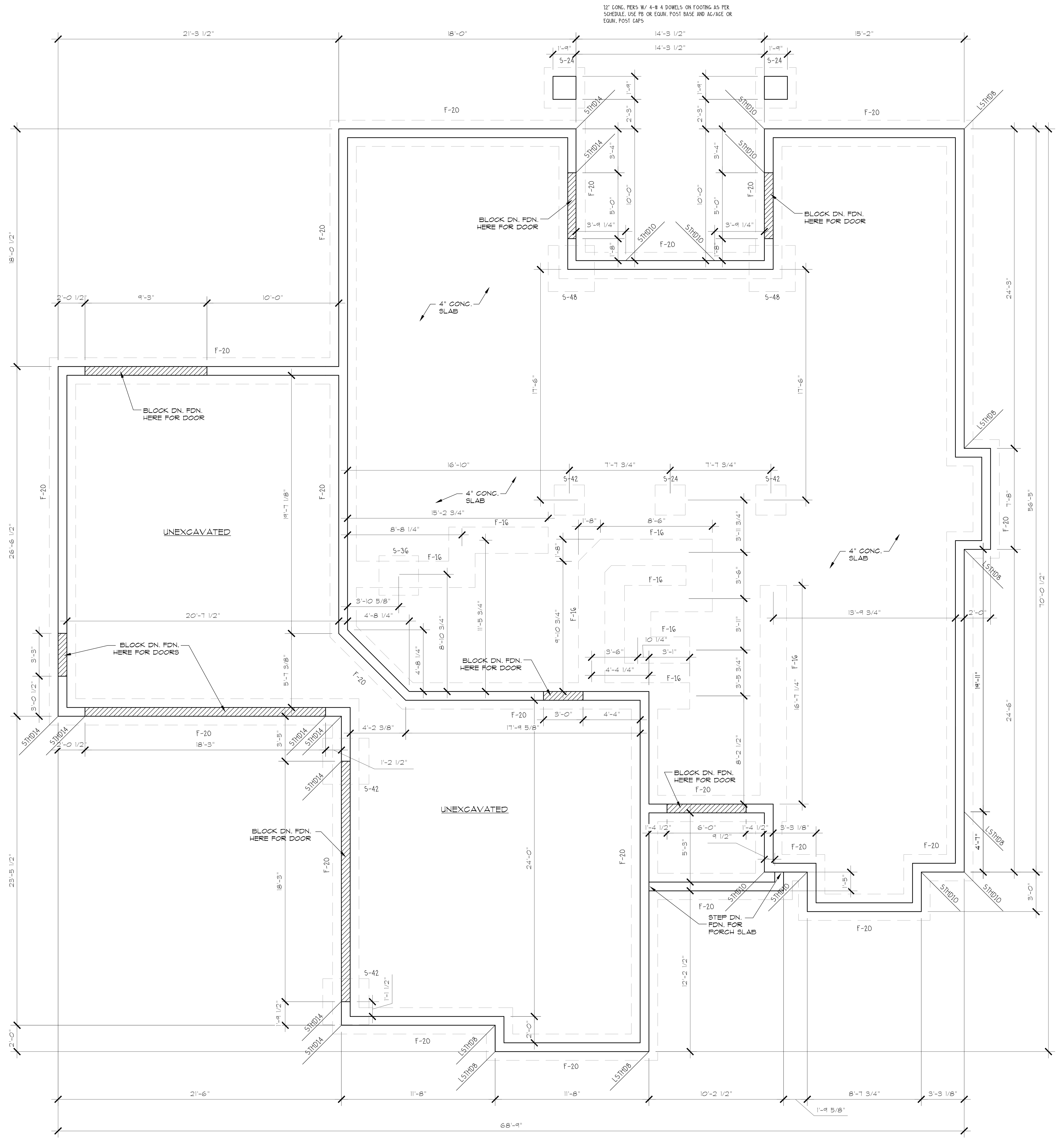
ALLOW 14 DAYS FOR CONCRETE TO CURE PRIOR TO BACKFILL.

NOTE: THIS ENGINEERING ASSUMES THAT THE CLEARANCE + SETBACK REQUIREMENTS LISTED IN IRC SECTION R403.1.7 ARE MET. IF THESE PROVISIONS ARE NOT MET. CONTACT THE ENGINEER FOR FURTHER DESIGN.

NOTE: THIS ENGINEERING ASSUMES THAT THE SITE IS STABLE HAVING NO GLOBAL STABILITY CONCERNS OR HAZARDS. IF THIS IS NOT TRUE THEN CONTACT ENGINEER FOR FURTHER ANALYSIS AND DESIGN.

IMPORTANT NOTE:

- THE CONTRACTOR IS REQUIRED TO CONSULT WITH A GEO-TECHNICAL ENGINEER TO VERIFY ALLOWABLE SOIL BEARING PRESSURE, AND THAT EXPANSIVE SOILS DO NOT EXIST IN THE VICINITY OF CONSTRUCTION PRIOR TO INSTALLING THE FOUNDATION. ALL FINDINGS ARE TO BE REPORTED TO THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING.
- THE FOOTING/ FOUNDATION PLAN INFORMATION PRESENTED HEREIN IS "FOR INFORMATION ONLY." THE STRUCTURAL ENGINEER SHALL BE RESPONSIBLE FOR FOOTING/ FOUNDATION PLAN DETAILS AND REQUIREMENTS. ELEVATIONS OF FOOTINGS OR TOP OF FOUNDATIONS SHOULD BE DETERMINED BY THE GENERAL CONTRACTOR BASED ON SITE CONDITIONS AND OWNER DESIRES.
- FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION
- FOUNDATION MUST BE INSULATED WITH A MIN. OF R-10 RIGID INSULATION.



SEE PAGE 7 FOR WINDOW AND DOOR SCHEDULE

PROFESSIONAL ENGINEER MICHAEL C. DENT STATE OF UTAH

CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS AND MEASUREMENTS AT THE JOB PRIOR TO CONSTRUCTION. THIS PLAN IS THE EXCLUSIVE PROPERTY OF HABITATIONS AND SHALL NOT BE REPRODUCED OR COPIED IN ANY WAY WHATSOEVER WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF HABITATIONS. ANY UNAUTHORIZED USE OF THIS PLAN WITHOUT WRITTEN APPROVAL SHALL BE A VIOLATION OF THE LAW AND VIOLATORS WILL BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW. IF THIS COPY DOES NOT HAVE A WET INK SIGNATURE FROM HABITATIONS THEN THIS IS AN UNAUTHORIZED COPY AND SHOULD BE REPORTED TO HABITATIONS BY PHONING (801)476-1860
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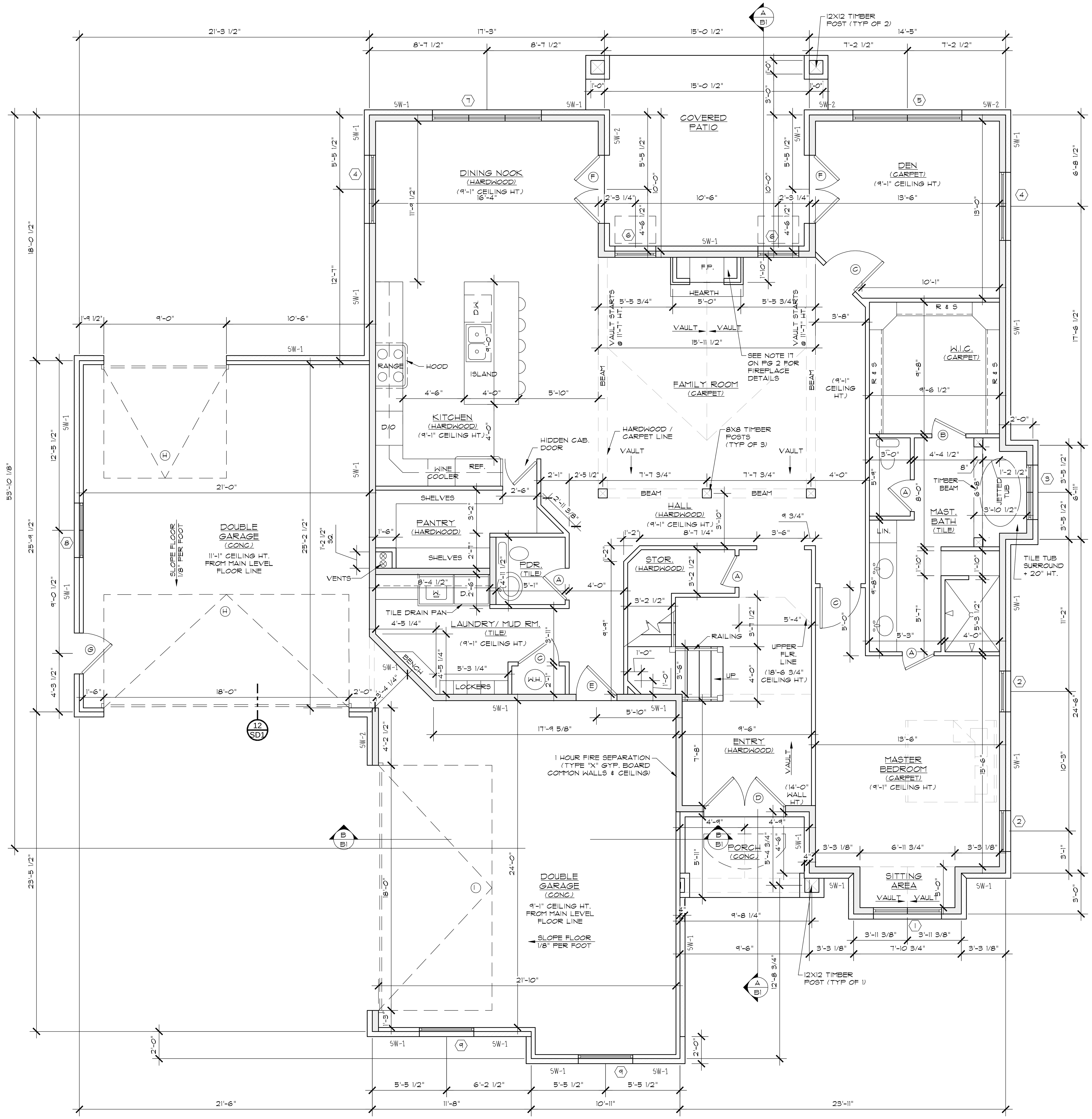
SHEET TITLE:
FOOTING / FOUNDATION PLAN

24X36 SHEET: 1/4" = 1'-0"
12X18 SHEET: 1/8" = 1'-0"

DRAWN BY: N. COOMBS
CHK'D BY: M. STEELE
ISSUE DATE: 9/1/2017
PLAN NUMBER: TS3650
SHEET NUMBER: 6 OF 16



SHEAR WALL NOTES

ALL EXTERIOR WALLS AND VERTICAL SURFACES AT STEPS IN ROOF SHALL BE SHEATHED WITH 7/16" APA RATED 24/0 OR BETTER STRUCTURAL WOOD PANELS. BLOCK ALL HORZ EDGES WITH 2" NOM. OR WIDER. 2" OR WIDER FRAMING AT ADJOINING PANEL EDGES AND NAILS SHALL BE STAGGERED WHERE 8d NAILS ARE SPACED 3" O.C. OR LESS. SHEATHING SHALL EXTEND CONTINUOUS FROM FLOOR TO TOP PLATE FRAMING ON UPPER EXT. WALLS. NAILS SHALL BE PLACED NOT LESS THAN 1/2" FROM EDGE OF PANEL AND DRIVEN FLUSH BUT SHALL NOT FRACTURE THE SURFACE OF THE SHEATHING. EXTEND SHEATHING OVER RIM AND NAIL TO RIM AND WALL PLATES 4" O.C.

SHEAR WALL SCHEDULE

TYPE	SHEATHING	NAIL	EDGE	FIELD	STAPLE EQ
TYPICAL	7/16" ONE SIDE	8d	6" O.C.	12" O.C.	16G @ 3" O.C.
SW-1	7/16" ONE SIDE	8d	4" O.C.	12" O.C.	16G @ 2" O.C.
SW-2	7/16" ONE SIDE	8d	3" O.C.	12" O.C.	NOT ALLOWED
SW-3	7/16" ONE SIDE	8d	2" O.C.	12" O.C.	NOT ALLOWED

NOTE: 16 GAUGE STAPLES MAY BE SUBSTITUTED FOR 8d NAILS AT 1/2 SPACING ON TYPICAL AND SW-1.
SW-2 AND SW-3 REQUIRE 3X OR (2) 2X ON JOINING PANEL EDGES.

DOOR SCHEDULE

ID	QTY	DESCRIPTIONS
A	4	2'-4" X 8'-0" INTERIOR 2 PANEL DOOR
B	1	2'-6" X 8'-0" INTERIOR 2 PANEL DOOR
C	3	3'-0" X 8'-0" INTERIOR 2 PANEL DOOR
D	1	6'-0" X 8'-0" DBL ENTRY DOOR W/ 2'-6" ARCHED TRANSOM
E	1	3'-0" X 8'-0" EXTERIOR 20 MIN. FIRE RATED W/ SELF CLOSER
F	2	5'-0" X 8'-0" EXTERIOR FULL GLASS DBL. DOOR
G	1	3'-0" X 6'-8" EXTERIOR HALF GLASS
H	1	18'-0" X 10'-0" INSULATED OVERHEAD SECTIONAL
I	1	18'-0" X 9'-0" INSULATED OVERHEAD SECTIONAL
J	2	2'-4" X 6'-8" INTERIOR 2 PANEL DOOR
K	8	2'-6" X 6'-8" INTERIOR 2 PANEL DOOR
L	1	3'-0" X 6'-8" INTERIOR 2 PANEL DOOR
M	1	5'-0" X 6'-8" INTERIOR 2 PANEL DBL. DOOR

NOTE: UNLESS OTHERWISE SPECIFIED ALL INTERIOR DOORS SHALL HAVE PINE JAMBS. ALL EXTERIOR DOORS SHALL HAVE PINE JAMBS, DEAD BOLTS AND WEATHER-STRIPPING. ALL GLASS ENTRY & PATIO DOORS SHALL HAVE LOW-E, DOUBLE GLAZED, TEMPERED SAFETY GLASS.

WINDOW SCHEDULE

ID	QTY	DESCRIPTIONS
1	1	5'-0" X 4'-6" CASEMENT 2 UNIT W/ 2'-6" ARCHED TRANSOM
2	2	3'-0" X 5'-0" CASEMENT
3	1	4'-0" X 4'-0" CASEMENT 2 UNIT (TEMP.)
4	2	5'-0" X 5'-0" CASEMENT 2 UNIT
5	1	8'-0" X 4'-0" CASEMENT 2 UNIT
6	2	3'-0" X 5'-0" CASEMENT W/ 2'-0" TRANSOM
7	1	8'-0" X 5'-0" CASEMENT 3 UNIT (CTR. UNIT FIXED)
8	1	4'-0" X 4'-6" CASEMENT 2 UNIT
9	2	4'-0" X 5'-6" ARCHED FIXED
10	1	2'-0" X 3'-0" FIXED
11	2	5'-0" X 4'-6" CASEMENT 2 UNIT
12	1	3'-0" X 3'-0" CASEMENT (TEMP.)
13	1	5'-0" X 4'-0" CASEMENT 2 UNIT
14	1	4'-0" X 4'-0" CASEMENT 2 UNIT
15	1	2'-6" X 3'-6" FIXED ARCHED TOP

NOTE: UNLESS OTHERWISE NOTED ALL WINDOWS SHALL BE ALUMINUM CLAD WOOD BY MARVIN OR VINYL SUPPLIED BY BMC WEST OR EQUAL. MANUFACTURERS DIRECTIONS SHALL BE FOLLOWED FOR INSTALLATION AND FRAMING DIMENSIONS. ALL WINDOWS SHALL BE DOUBLE GLAZED AND LOW E GLASS. SEE ELEVATIONS TO DETERMINE STYLE AND CONFIGURATION.

WALL SCHEDULE

- 2"X4" FRAMED WALL
- 2"X6" FRAMED WALL
- 2"X10" FRAMED WALL
- THIN CUT NATURAL STONE
- BRICK

1. NOTE: UNLESS OTHERWISE SPECIFIED ALL ANGLED WALLS SHALL BE IN 45° INCREMENTS.
2. WALL SIZES SHALL BE GOVERNED IN ALL CASES BY THE WALL HEIGHT SCHEDULE (SEE FRAMING SHEETS).

NOTE:

VERIFY ALL FIELD DIMENSIONS PRIOR TO CONSTRUCTION.

BUILT-IN CABINETRY SHALL BE SELECTED BY OWNER.

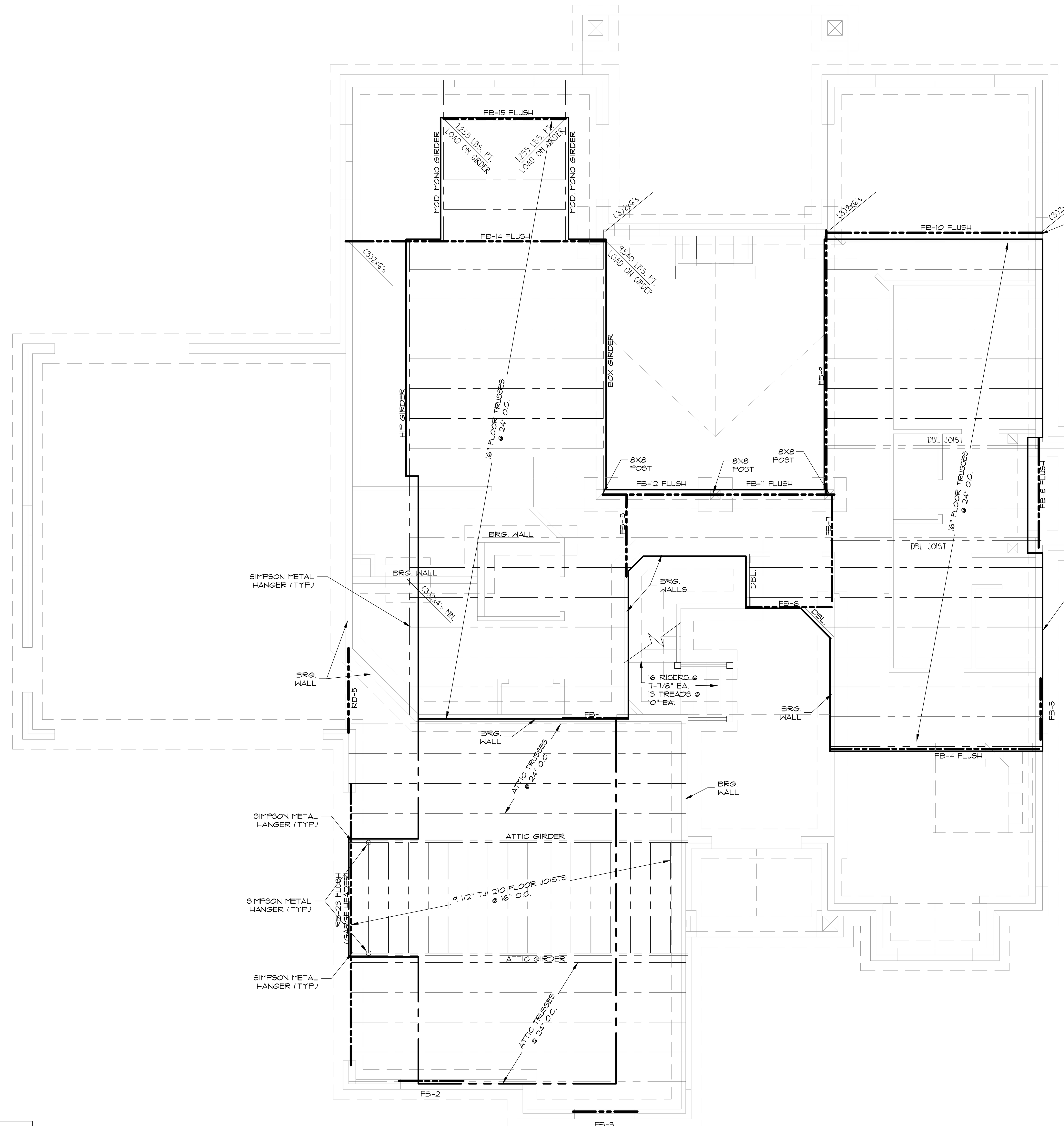
MAIN FLOOR	2215 SQ. FT.
GARAGE	1179 SQ. FT.
COVERED DECK	214 SQ. FT.
COVERED PORCH	54 SQ. FT.

HABITATIONS RESIDENTIAL DESIGN GROUP
VOICE: 801-476-1860
FAX: 801-476-1828

SHEET TITLE: MAIN LEVEL FLOOR PLAN

24X36 SHEET: 1/4" = 1'-0"
12X18 SHEET: 1/8" = 1'-0"

DRAWN BY: N. COOMBS
CHK'D BY: M. STEELE
ISSUE DATE: 9/1/2017
PLAN NUMBER: TS3650
SHEET NUMBER: 7 OF 16



FLOOR BEAM SCHEDULE

FB-1	(2) 2 X 6
FB-2	(2) 2 X 6
FB-3	(2) 2 X 6
FB-4	(2) 1¾" X 16" LVL
FB-5	(2) 2 X 6
FB-6	(1) 1¾" X 16" LVL
FB-7	(2) 1¾" X 7¼" LVL
FB-8	(2) 1¾" X 16" LVL
FB-9	(2) 1¾" X 16" LVL
FB-10	(2) 1¾" X 16" LVL
FB-11	(1) 1¾" X 16" LVL
FB-12	(1) 1¾" X 16" LVL
FB-13	(2) 2 X 10
FB-14	(4) 1¾" X 16" LVL - CONNECT PLYS W/ (2) ROWS OF 6" SDS SCREWS @ 19.2" O.C.
FB-15	(1) 1¾" X 16" LVL

* IF CONTRACTOR USES FLOOR TRUSSES SHALLOWER THAN 16", "FLUSH" BEAM SIZES WILL NEED TO BE RE-ENGINEERED.

FRAMING AND SHEATHING

ALL 2X4 STUDS TO BE MAX. 16" O.C. 2X6 STUDS TO BE MAX 24" O.C. FLOOR SHEATHING SHALL BE 3/4" T&G APA RATED 40/20 OSB SHEATHING NAILED WITH 8d NAILS 6" O.C. AT ALL PANEL EDGES, SUPPORTED EDGES, AND ALL BLOCKING. USE 8d NAILS 12" O.C. IN FIELD. NAILS SHALL BE MIN. 1/2" FROM EDGE OF PANEL. LAY SHEATHING LONG DIMENSIONS PERPENDICULAR WITH JOISTS AND GLUE WITH GLUE CONFORMING TO APA SPECS. FLOOR JOISTS SHALL BE BLOCKED AT ALL BEARING POINTS. BLOCK ALL HORZ. EDGES OF WALL SHEATHING WITH 2 X 4 BLOCKING. EXTEND SHEATHING OVER RIM JOIST AND NAIL TO WALL PLATES ABOVE AND BELOW. OR BREAK UPPER AND LOWER SHEETING AT MID HEIGHT OF RIM BOARD. EXTEND SHEATHING DOWN TO SILL PLATE AND NAIL PER SHEAR WALL SCHEDULE.

TYPICAL ROOF SHEATHING SHALL BE 7/16" RATED OSB SHEATHING NAILED WITH 8d NAILS 6" O.C. AT PANEL EDGES, SUPPORTED EDGES, AND ALL BLOCKING WITH 8d NAILS, 12" O.C. ALONG INTERMEDIATE FRAMING MEMBERS. UNLESS OTHERWISE NOTED USE 2:2X10 FOR BEARING HEADER. NOTE: FOR ROOF SNOW LOADS OVER 40 PSF USE 5/8" OSB WITH 10d NAILS @ 6" O.C.

EXCEPT WHERE OTHERWISE NOTED, CONNECT ALL WOOD TO CONCRETE, WOOD TO STEEL AND WOOD TO WOOD (EXCEPT STUD TO PLATE) WITH SIMPSON METAL CONNECTORS. SOLID 2" NOMINAL BLOCKING SHALL BE PROVIDED AT ENDS OR POINTS OF SUPPORT OF ALL WOOD JOISTS AND TRUSSES. INSTALL JOIST, RAFTER, AND BEAM HANGERS & POST CAPS PER MANUFACTURES SPECIFICATIONS. FASTEN 2X4 STUDS TO TOP AND BOTTOM PLATES WITH TWO 16d NAILS, 2X6's REQUIRE THREE NAILS. BUILT UP 2X COLUMNS REQUIRE TWO ROWS OF 16d NAILS @ 9" O.C. STAGGERED. CONNECT TWO-PLY HEADERS WITH TWO ROWS OF 16d NAILS @ 12" O.C.

MINIMUM NAILING SHALL BE AS PER SHEAR WALL SCHEDULE. STAPLES CAN BE SUBSTITUTED FOR NAILS AT HALF SPACING. PROVIDE SOLID BEARING THROUGH FLOOR SYSTEMS AND POSTS DOWN TO CONC. FTG.

CONTRACTOR AND ALL SUB-CONTRACTORS SHALL FOLLOW ALL STANDARD BUILDING CODES, PRACTICES, AND REQUIREMENTS AS LISTED IN THE 2015 IRC.

USE BALLOON FRAMING METHOD TO CONNECT FLOOR SYSTEMS IN SPLIT LEVEL DESIGNS. USE DOUBLE FLOOR JOIST UNDER EA. END OF SHEAR WALLS OVER CANT. FLOOR SECTIONS.

INSTALL JOIST AND RAFTER HANGERS AS PER MANUFACTURERS SPECIFICATIONS. UNLESS OTHERWISE NOTED CONNECT ALL HEADER TO STUD/POST, POST TO FLOOR, BEAM TO BEAM, RAFTER TO WALL OR TRUSS, ETC. WITH APPROPRIATE METAL CONNECTORS.

USE SIMPSON A35 TIES ON EACH CANT JOISTS TO BEARING WALL PLATE. INSTALL JOIST HANGERS AS PER MANUFACTURE SPECIFICATIONS.

USE SIMPSON CS16 STRAPS 36" LONG 32" O.C. BETWEEN FLOORS CTR ON RIM JOIST. OR EITHER DROP SHEATHING DOWN OVER RIM 12" ON WALL BELOW OR CENTER ON SOLID RIM BOARD AND NAIL AS PER SCHEDULE. BLOCK ALL EDGES. EXTEND WAFER ACROSS GABLE END/WALL FRAMING JOINT

IMPORTANT NOTE:

- THE FLOOR FRAMING PLAN INFORMATION PRESENTED HEREIN IS "FOR INFORMATION ONLY." THE ACTUAL FLOOR FRAMING PLAN SHALL BE THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER. HABITATIONS MAKES NO GUARANTEE TO THE PLAN ACCURACY OR COMPLETENESS AND ASSUMES NO LIABILITY FOR SUCH.

VOICE: 801-476-1860
FAX: 801-476-1828

HABITATIONS
RESIDENTIAL DESIGN GROUP

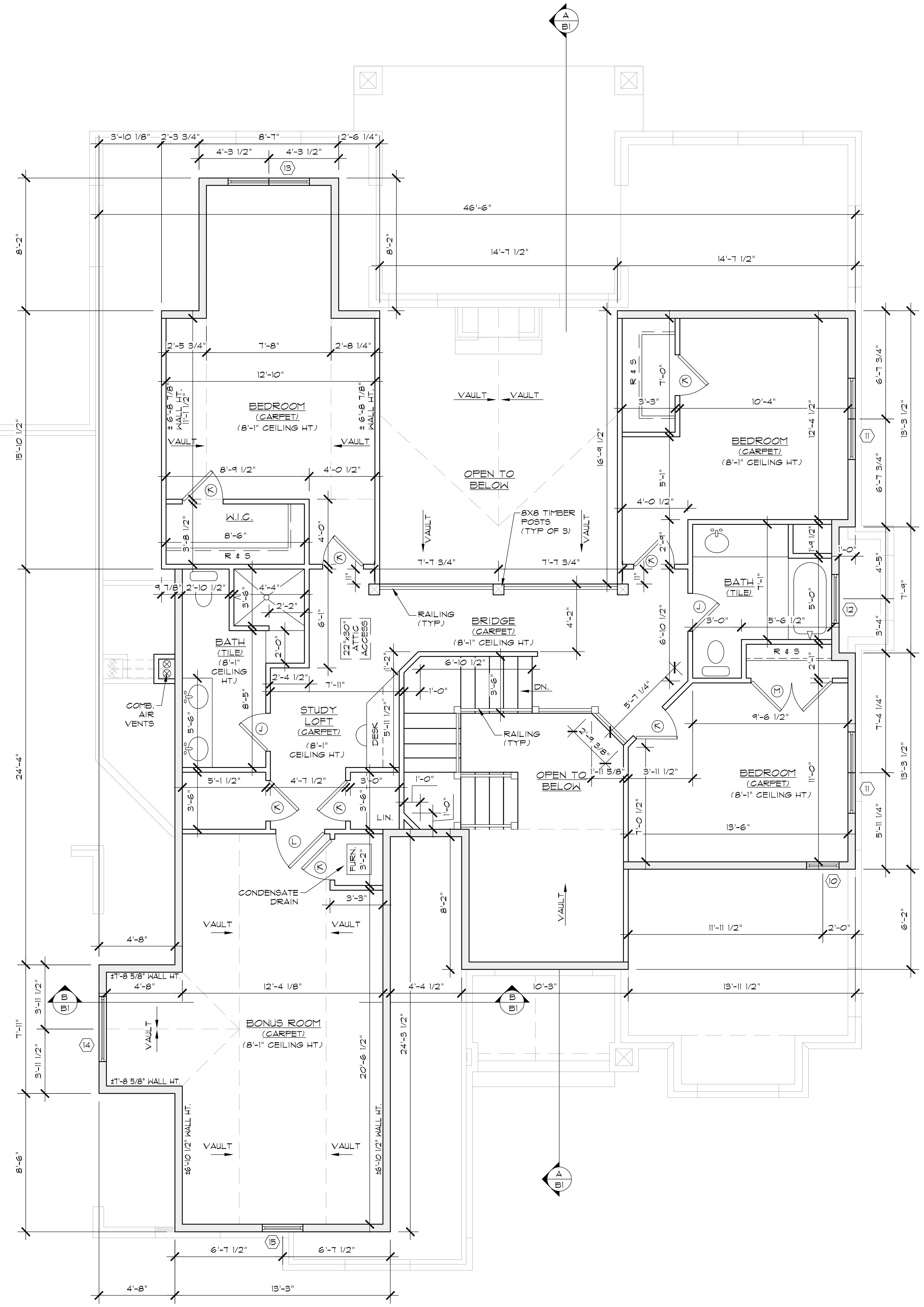
AUTHORIZED COPY

MUST HAVE WET INK STAMP

SHEET TITLE:
UPPER LEVEL FLOOR FRAMING PLAN

24X36 SHEET: 1/4" = 1'-0"
12X18 SHEET: 1/8" = 1'-0"

DRAWN BY: N. COOMBS
CHK'D BY: M. STEELE
ISSUE DATE: 9/1/2017
PLAN NUMBER: TS3650
SHEET NUMBER: 8 OF 16



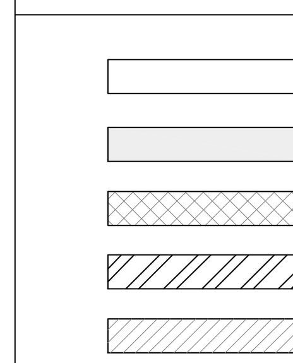
DOOR SCHEDULE		
ID	QTY	DESCRIPTIONS
A	4	2'-4" X 8'-0" INTERIOR 2 PANEL DOOR
B	1	2'-6" X 8'-0" INTERIOR 2 PANEL DOOR
C	3	3'-0" X 8'-0" INTERIOR 2 PANEL DOOR
D	1	6'-0" X 8'-0" DBL ENTRY DOOR W/ 2'-6" ARCHED TRANSOM
E	1	3'-0" X 8'-0" EXTERIOR 20 MIN. FIRE RATED W/ SELF CLOSER
F	2	5'-0" X 8'-0" EXTERIOR FULL GLASS DBL. DOOR
G	1	3'-0" X 6'-8" EXTERIOR HALF GLASS
H	1	18'-0" X 10'-0" INSULATED OVERHEAD SECTIONAL
I	1	18'-0" X 9'-0" INSULATED OVERHEAD SECTIONAL
J	2	2'-4" X 6'-8" INTERIOR 2 PANEL DOOR
K	8	2'-6" X 6'-8" INTERIOR 2 PANEL DOOR
L	1	3'-0" X 6'-8" INTERIOR 2 PANEL DOOR
M	1	5'-0" X 6'-8" INTERIOR 2 PANEL DBL. DOOR

NOTE: UNLESS OTHERWISE SPECIFIED ALL INTERIOR DOORS SHALL HAVE PINE JAMBS. ALL EXTERIOR DOORS SHALL HAVE PINE JAMBS, DEAD BOLTS AND WEATHER-STRIPPING. ALL GLASS ENTRY & PATIO DOORS SHALL HAVE LOW-E, DOUBLE GLAZED, TEMPERED SAFETY GLASS.

WINDOW SCHEDULE		
ID	QTY	DESCRIPTIONS
1	1	5'-0" X 4'-6" CASEMENT 2 UNIT W/ 2'-6" ARCHED TRANSOM
2	2	3'-0" X 5'-0" CASEMENT
3	1	4'-0" X 4'-0" CASEMENT 2 UNIT (TEMP.)
4	2	5'-0" X 5'-0" CASEMENT 2 UNIT
5	1	8'-0" X 4'-0" CASEMENT 2 UNIT
6	2	3'-0" X 5'-0" CASEMENT W/ 2'-0" TRANSOM
7	1	8'-0" X 5'-0" CASEMENT 3 UNIT (CTR. UNIT FIXED)
8	1	4'-0" X 4'-6" CASEMENT 2 UNIT
9	2	4'-0" X 5'-6" ARCHED FIXED
10	1	2'-0" X 3'-0" FIXED
11	2	5'-0" X 4'-6" CASEMENT 2 UNIT
12	1	3'-0" X 3'-0" CASEMENT (TEMP.)
13	1	5'-0" X 4'-0" CASEMENT 2 UNIT
14	1	4'-0" X 4'-0" CASEMENT 2 UNIT
15	1	2'-6" X 3'-6" FIXED ARCHED TOP

NOTE: UNLESS OTHERWISE NOTED ALL WINDOWS SHALL BE ALUMINUM CLAD WOOD BY MARVIN OR VINYL SUPPLIED BY BMC WEST OR EQUAL. MANUFACTURERS DIRECTIONS SHALL BE FOLLOWED FOR INSTALLATION AND FRAMING DIMENSIONS. ALL WINDOWS SHALL BE DOUBLE GLAZED AND LOW E GLASS. SEE ELEVATIONS TO DETERMINE STYLE AND CONFIGURATION.

WALL SCHEDULE



1. NOTE: UNLESS OTHERWISE SPECIFIED ALL ANGLED WALLS SHALL BE IN 45° INCREMENTS.
2. WALL SIZES SHALL BE GOVERNED IN ALL CASES BY THE WALL HEIGHT SCHEDULE (SEE FRAMING SHEETS).

NOTE:

VERIFY ALL FIELD DIMENSIONS PRIOR TO CONSTRUCTION.

BUILT-IN CABINETRY SHALL BE SELECTED BY OWNER.

UPPER LEVEL 1070 SQ. FT.

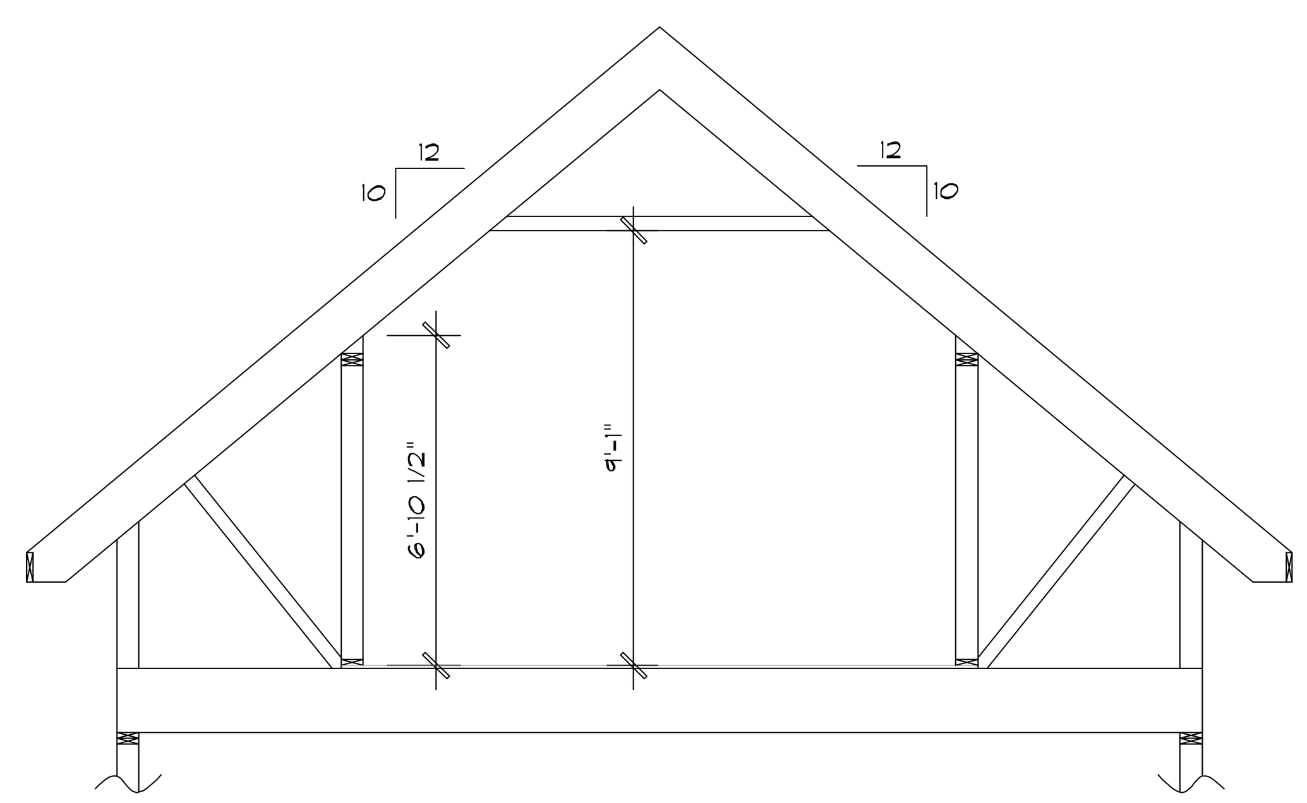
HABITATIONS
RESIDENTIAL DESIGN GROUP

VOICE: 801-476-1860
FAX: 801-476-1828

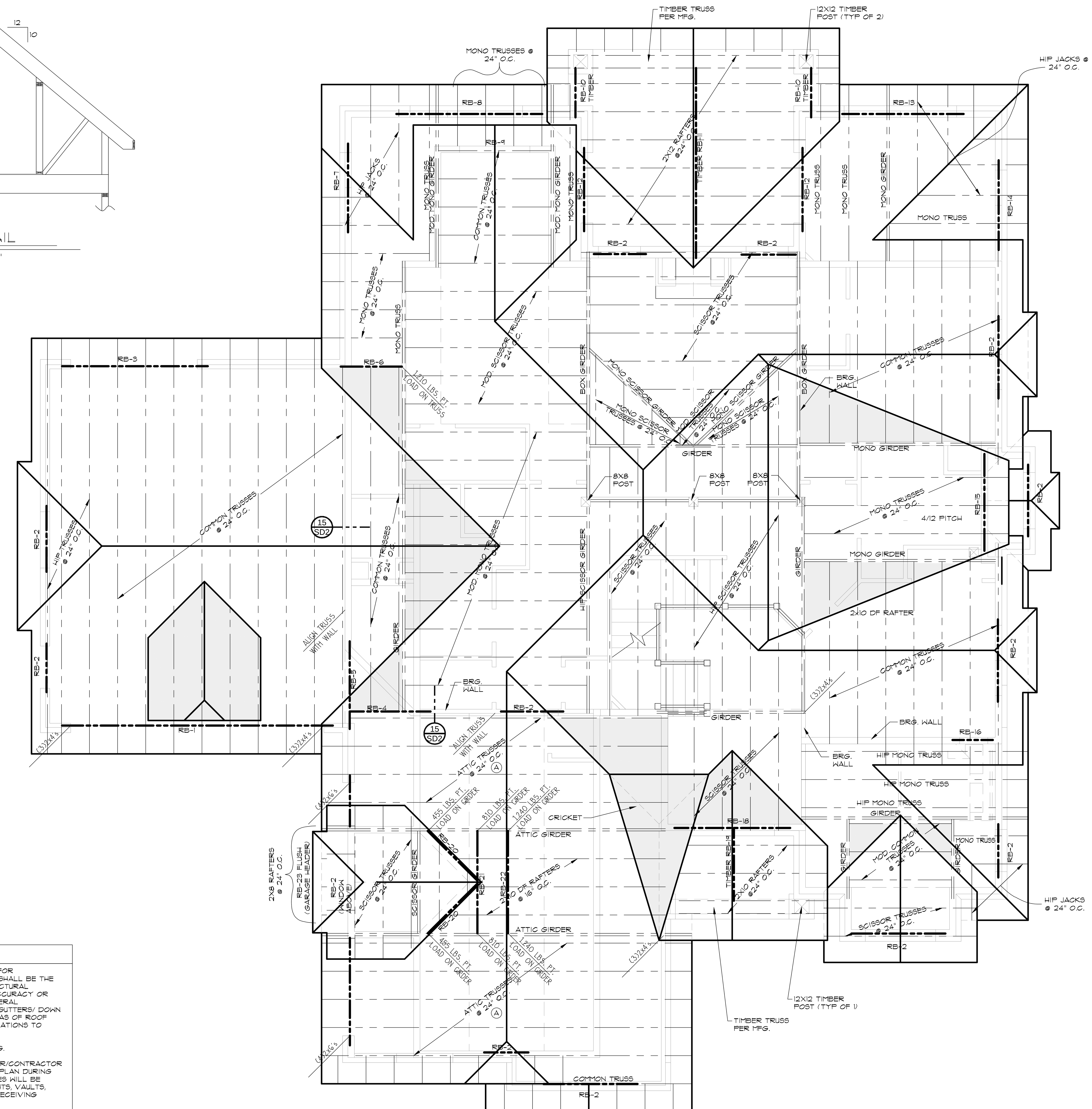
SHEET TITLE:
UPPER LEVEL FLOOR PLAN

24X36 SHEET: 1/4" = 1'-0"
12X18 SHEET: 1/8" = 1'-0"

DRAWN BY: N. COOMBS
CHK'D BY: M. STEELE
ISSUE DATE: 9/1/2017
PLAN NUMBER: TS3650
SHEET NUMBER: 9 of 16



(A) TRUSS DETAIL
SCALE: 1/4"=1'-0"



NOTE: ENGINEER TO APPROVE TRUSS PACKED BEFORE STAMP

ROOF BEAM SCHEDULE

RB-1	(2) 1¾" X 18" LVL
RB-2	(2) 2 X 6
RB-3	(2) 1¾" X 9½" LVL
RB-4	(2) 1¾" X 11⅞" LVL
RB-5	(2) 2 X 8
RB-6	(2) 2 X 6
RB-7	(2) 2 X 6
RB-8	(2) 1¾" X 9½" LVL
RB-9	(2) 2 X 6
RB-10	5" X 5" TIMBER
RB-11	6" X 10" TIMBER
RB-12	(2) 2 X 8
RB-13	(2) 1¾" X 7¼" LVL
RB-14	(2) 2 X 6
RB-15	(2) 2 X 10
RB-16	(2) 2 X 6
RB-17	(2) 2 X 6
RB-18	(2) 2 X 10
RB-19	5" X 5" TIMBER
RB-20	(2) 2 X 6
RB-21	(2) 2 X 8
RB-22	(2) 2 X 8
RB-23	5⅛" X 22½" GLB

TRUSS/ GIRDER CONNECTION

USE SIMPSON H1 OR EQUIV. TIES EACH END OF EA. TRUSS. INSTALL RAFTER HANGERS EA. END OF EA. RAFTER AS PER MANUFACTURE SPECS. INSTALL SOLID BLOCKING BETWEEN TRUSSES ALONG BEARING WALLS. INSTALL H16-2 OR EQUIV. STRAPS TO EA. END GIRDERS IF UPLIFT LESS THAN 1265 LBS. INSTALL VGT OR EQUIV. STRAPS TO EA. END GIRDERS IF UPLIFT LESS THAN 4940 LBS.

HEADER TRIMMER CONNECTION

- FOR HEADERS LESS THAN 5' LONG
  - NAIL TO KING STUD USING (6)16d NAILS
- FOR HEADERS 5'1"- 8'-6" LONG
  - INSTALL TWO ACE EA. END OR 12" LONG CS16 STRAP
  - USE (2) TRIMMERS
- FOR HEADERS 9'-18' LONG
  - INSTALL TWO ST18 EA. END
  - USE (2) TRIMMERS
  - INSTALL MST48 THROUGH FLOOR DIAPHRAGM IF APPLICABLE
  - INSTALL LSTHD8 OR HTT22 OR HDU TO CONCRETE OR NAIL POST TO WALL SHEATHING

IMPORTANT NOTE:

- THE ROOF FRAMING PLAN INFORMATION PRESENTED HEREIN IS "FOR INFORMATION ONLY." THE ACTUAL ROOF FRAMING PLAN DESIGN SHALL BE THE RESPONSIBILITY OF THE ROOF TRUSS MANUFACTURER AND STRUCTURAL ENGINEER. HABITATIONS MAKES NO GUARANTEE TO THE PLAN ACCURACY OR COMPLETENESS AND ASSUMES NO LIABILITY FOR SUCH. THE GENERAL CONTRACTOR/ ROOFING CONTRACTOR SHALL DETERMINE RAIN GUTTERS/ DOWN SPOUT REQUIREMENTS AND LOCATION OF SUCH AS WELL AS AREAS OF ROOF CRICKETS AND ROOF DRAINAGE/ FLASHING AND MEMBRANE LOCATIONS TO ADDRESS DRAINAGE ISSUES AT THE LOCATIONS.
- FEILD VERIFY ALL DIMENSIONS PRIOR TO TRUSS MANUFACTURING.
- THE TRUSS MANUFACTURER IS REQUIRED TO CONTACT THE OWNER/CONTRACTOR IF THERE ARE ANY ISSUES DISCOVERED ON THE ROOF FRAMING PLAN DURING THE TRUSS DESIGN, PRIOR TO TRUSS MANUFACTURE. NO CHANGES WILL BE ALLOWED TO BE MADE TO THE FOLLOWING; ROOM CEILING HEIGHTS, VAULTS, INTERIOR OR EXTERIOR PITCHES OR FASCIA HEIGHTS WITHOUT RECEIVING APPROVAL.
- TRUSSES SHALL BE DESIGNED FROM APPROVED HARD COPY PLANS WITH THE RED AUTHORIZATION STAMP ONLY. THE OWNER/CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL SUBCONTRACTORS AND SUPPLIERS INCLUDING THE TRUSS MANUFACTURER HAVE THE MOST CURRENT AND UP TO DATE PLANS IN STAMPED AND APPROVED HARD COPY FORMAT PRIOR TO COMMENCING WITH CONSTRUCTION. FIELD MEASUREMENTS SHALL BE MADE AND VERIFIED PRIOR TO THE FINAL TRUSS DESIGN COMPLETION AND MANUFACTURE. TRUSSES SHALL NOT BE DESIGNED OR CONSTRUCTED FROM ELECTRONIC OR PDF TYPE DOCUMENTS.

LEGEND

2X OVERBUILD

OVERBUILD NOTE:

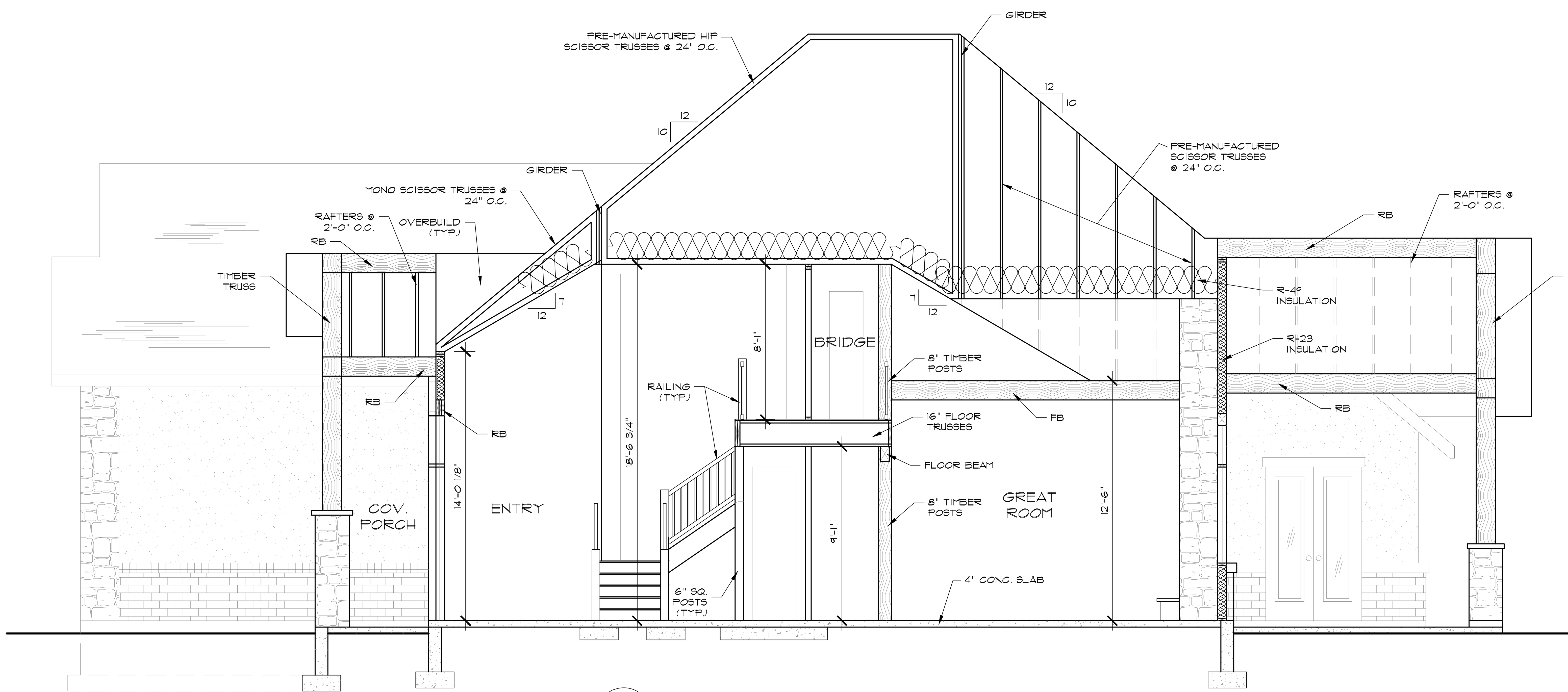
OVERBUILDS SHALL BE CONSTRUCTED BY SHEATHING THE LOWER ROOF THEN NAILING A 2x10 FLAT WITH (2)16d NAILS @ 24" O.C. IN THE VALLEY OF THE OVERBUILD. THE OVERBUILD SHALL THEN BE FRAMED ON THE 2x10 USING 2x6 ROOF JOISTS @ 24" O.C. AND WITH 2x6 KICKERS AT 4'-0" O.C. FROM EACH 2x6 ROOF JOIST DOWN TO THE TRUSSES OR ROOF JOISTS BELOW.

HABITATIONS RESIDENTIAL DESIGN GROUP
VOICE: 801-476-1860
FAX: 801-476-1828

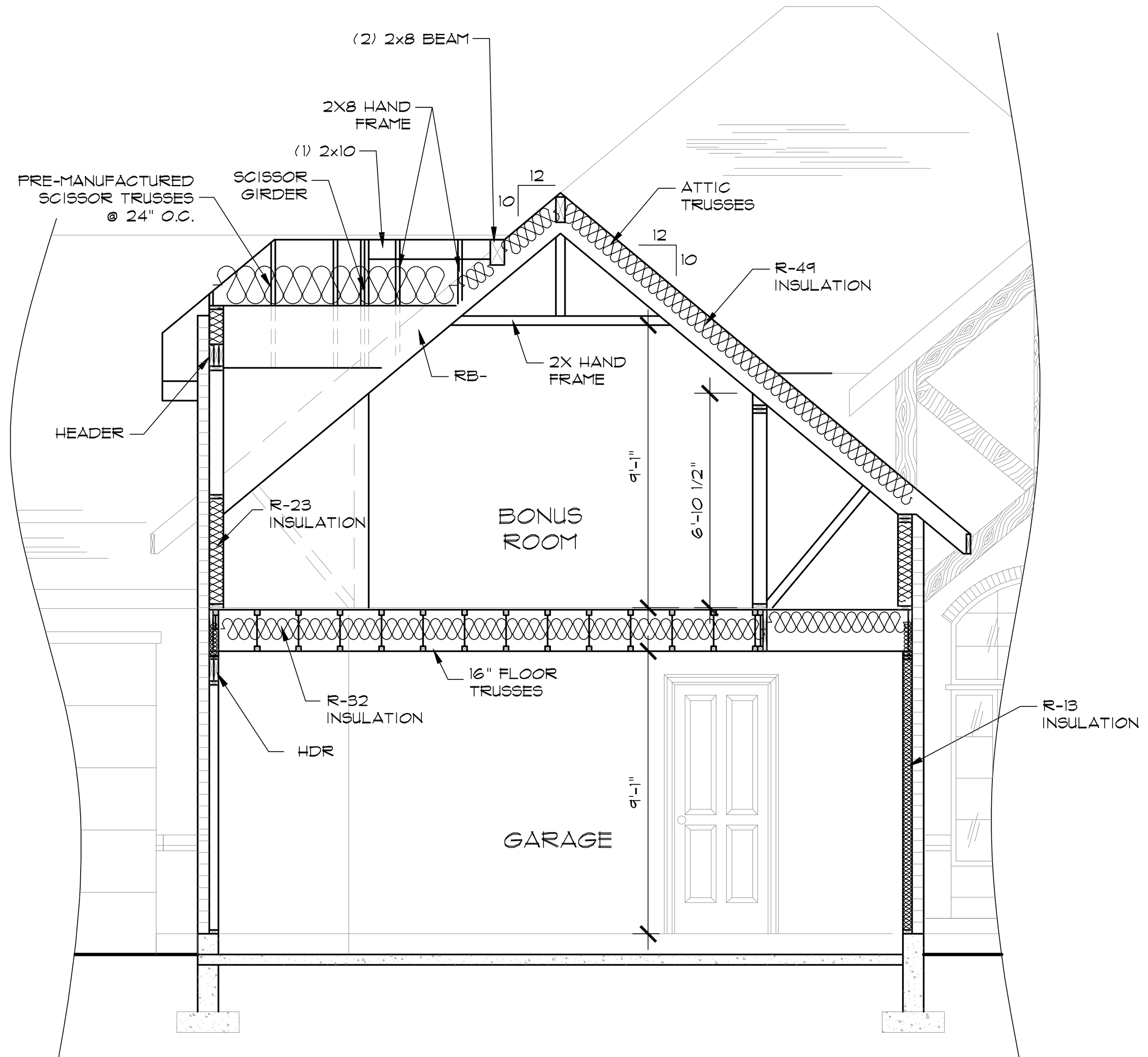
SHEET TITLE: ROOF FRAMING PLAN

24X36 SHEET: 1/4" = 1'-0"
12X18 SHEET: 1/8" = 1'-0"

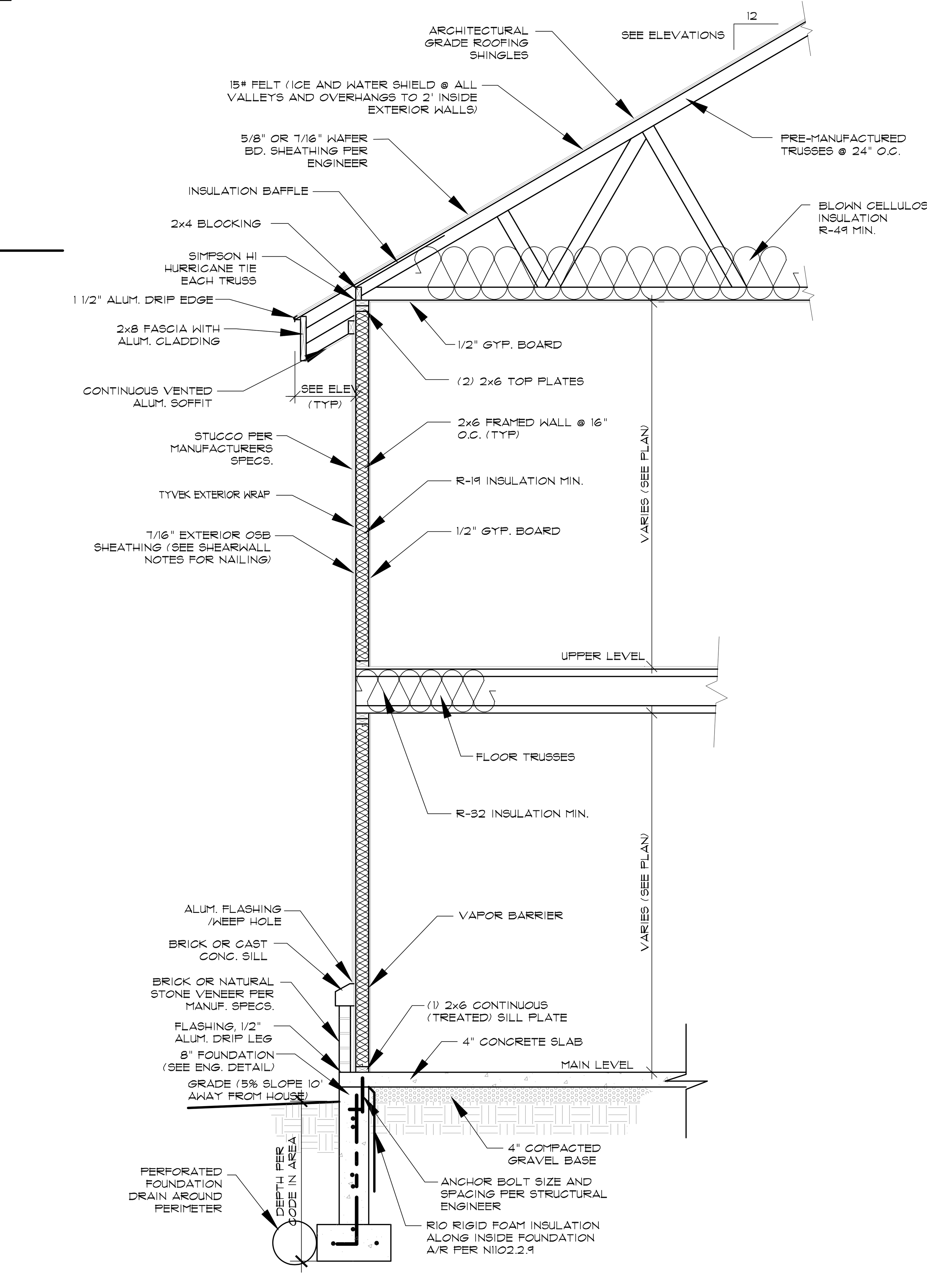
DRAWN BY: N. COOMBS
CHK'D BY: M. STEELE
ISSUE DATE: 9/1/2017
PLAN NUMBER: TS3650



A
BUILDING SECTION
SCALE: 1/4"=1'-0"



B
BUILDING SECTION
SCALE: 1/4"=1'-0"



TYPICAL WALL SECTION
SCALE: 1/4"=1'-0"

HABITATIONS
RESIDENTIAL DESIGN GROUP
VOICE: 801-476-1860
FAX: 801-476-1828

SHEET TITLE:
BUILDING SECTIONS

24X36 SHEET: 1/4" = 1'-0"
12X18 SHEET: 1/8" = 1'-0"

DRAWN BY:
N. COOMBS
CHK'D BY:
M. STEELE
ISSUE DATE:
9/1/2017
PLAN NUMBER:
TS3650
SHEET NUMBER:
B1 of 16

ELECTRICAL NOTES:

- UNDERGROUND ELECTRICAL SERVICE SHALL BE INSTALLED IN 2" RIGID RISER WITH 2" RIGID ELBOW ATTACHED TO 2" PVC ELECTRICAL DUCT TO WITHIN 1 FOOT OF PEDESTAL AND BURIED A MINIMUM 18" DEEP.
- SUPPLY DUCTS IN FLOOR MUST BE INSULATED W/ A MIN. OF R-8 INSULATION.
- ALL RECEPTICALS IN THE DWELLING UNIT ARE TO BE TAMPER RESISTANT RECEPTICALS.
- ALL EXTERIOR FIXTURES TO BE DARK SKY COMPLIANT
- ALL ELECTRICAL PER THE IRC 2015

ELECTRICAL LEGEND

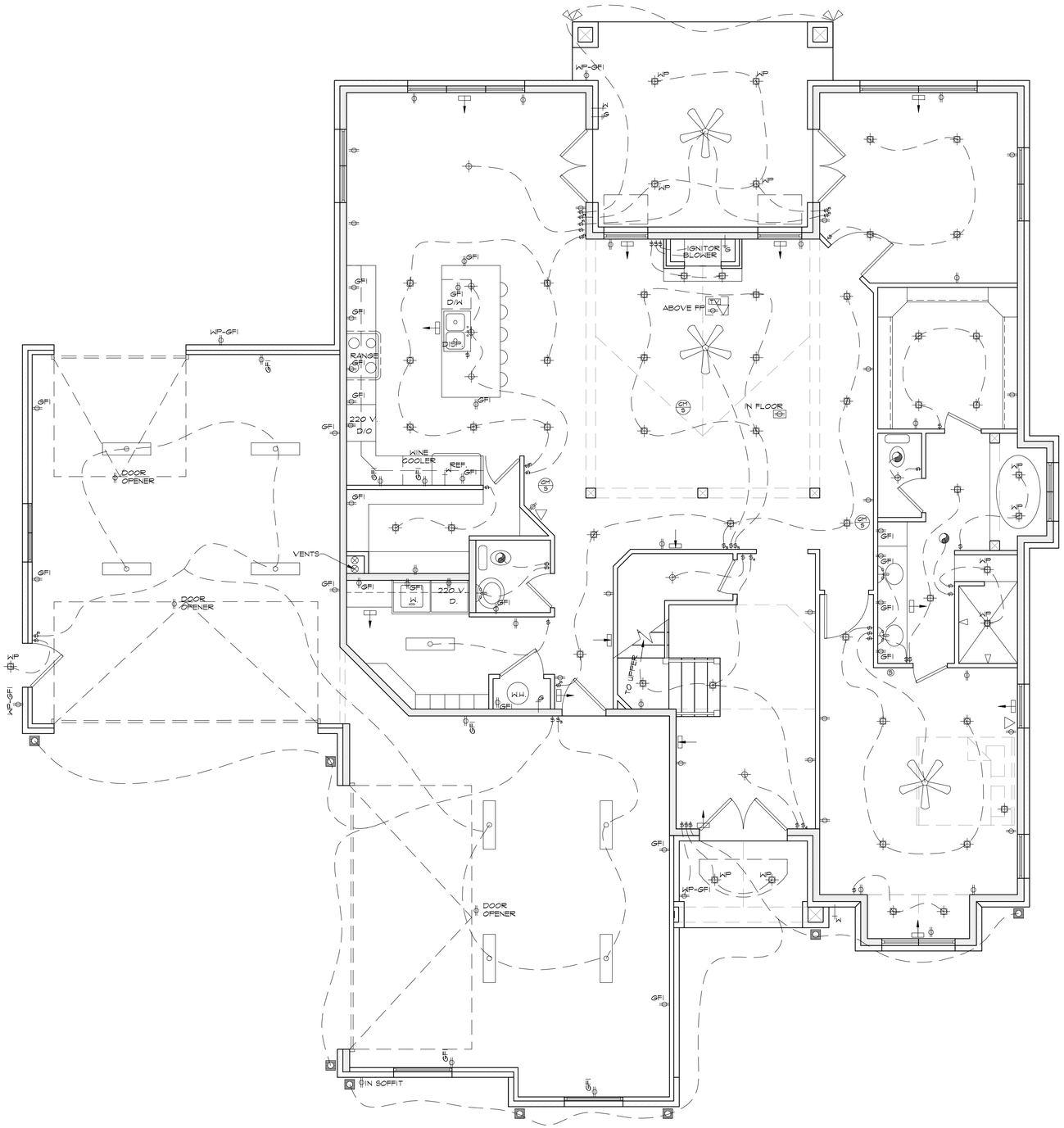
ID	DESCRIPTION
	110 VOLT RECEPTACLE
	220 VOLT RECEPTACLE
GFI	110 GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
WP-GFI	110 GROUND FAULT RECEPTACLE (WATER PROOF)
	RECESSED (CAN) LIGHTING
	STD. LIGHTING
PC	STD. LIGHT EQUIPPED W/ PULL CHAIN
S	SINGLE POLE SWITCH
S_3	THREE WAY SWITCH
S_4	FOUR WAY SWITCH
S_D	SINGLE POLE SWITCH W/DIMMER
	PHONE / DATA RECEPTACLE
TV	TELEVISION RECEPTACLE (COAXIAL CABLE)
S	SMOKE DETECTOR (SEE NOTE AT BOTTOM)
CM S	CARBON MONOXIDE DECTECTOR / SMOKE ALARM
	FLOURESCENT FIXTURE (SURFACE MOUNTED)
	FLOURESCENT FIXTURE (RECESSED)
	WALL MOUNTED SCONCE
	MOTION SENSITIVE FLOOD LIGHTS
	ELECTRIC VENT FAN
	CEILING FAN W/ LIGHTS
	IN FLOOR 110 VOLT RECEPTACLE
	STAIR LIGHT FIXTURE
	EXTERIOR RECESSED LIGHTING (WATER PROOF)
UCL	UNDER COUNTER LIGHTS
	EXTERIOR WEATHER PROOF WALL MOUNTED SCONCE

NOTE:
1. SMOKE DETECTORS SHALL BE WIRED IN SERIES ON SEPERATE CIRCUIT W/ BATTERY BACKUP.
2. AFCI PROTECT ALL 120 VOLT, SINGLE PHASE, 15 & 20 AMP BRANCH CIRCUITS INSTALLED IN BEDROOMS, KITCHENS, AND LAUNDRY AREAS. (THIS INCLUDES INDIVIDUAL BRANCH (MOTOR) CIRCUITS.
3. ALL BEDROOM RECEPTICLES, LIGHTS, SWITCHES, SMOKE DETECTOR, SHALL BE PROTECTED WITH ARC FAULT INTERRUPTERS.
4. CARBON MONOXIDE ALARMS SHALL BE INSTALLED ON EACH HABITABLE LEVEL OF A DWELLING UNIT EQUIPPED WITH FUEL BURNING APPLINCES. THESE SHALL COMPLY WITH ANSI/U.L. 2034-2008 AND INSTALLED IN ACCORDANCE WITH PROVISIONS OF THIS STANDARD.

MECHANICAL LEGEND

ID	DESCRIPTION
	AIR RETURN REGISTER
	AIR SUPPLY REGISTER (14"x4" IN FLOOR)
	AIR SUPPLY REGISTER (14"x4" IN CEILING)
G	NATURAL GAS COCK
W	POTABLE WATER HOSE BIB W/ANTI-SYPHON DEVICE
	RADIANT HEAT TUBING IN CONCRETE

NOTE: RETURN / DISTRIBUTION DUCTING NOT SHOWN



VOICE 801-476-1866
FAX: 801-476-1828
HABITATIONS
RESIDENTIAL DESIGN GROUP

SHEET TITLE:
MAIN LEVEL ELECTRICAL / HVAC PLAN

24X36 SHEET: 1-4" = 1'-0" 2" 1" 0
12X18 SHEET: 1/8" = 1'-0" 1" 1/2" 0

DRAWN BY: N. COOMBS
CHK'D BY: M. STEELE
ISSUE DATE: 9/1/2017
PLAN NUMBER: TS3650
SHEET NUMBER: E1 OF 16

ELECTRICAL NOTES:

- UNDERGROUND ELECTRICAL SERVICE SHALL BE INSTALLED IN 2" RIGID RISER WITH 2" RIGID ELBOW ATTACHED TO 2" PVC ELECTRICAL DUCT TO WITHIN 1 FOOT OF PEDESTAL AND BURIED A MINIMUM 18" DEEP.
- SUPPLY DUCTS IN FLOOR MUST BE INSULATED W/ A MIN. OF R-8 INSULATION.
- ALL RECEPTICALS IN THE DEWLLING UNIT ARE TO BE TAMPER RESISTANT RECEPTICALS.
- ALL EXTERIOR FIXTURES TO BE DARK SKY COMPLIANT
- ALL ELECTRICAL PER THE IRC 2015

ELECTRICAL LEGEND

ID	DESCRIPTION
—	110 VOLT RECEPTACLE
—	220 VOLT RECEPTACLE
GFI	110 GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
WP-GFI	110 GROUND FAULT RECEPTACLE (WATER PROOF)
—	RECESSED (CAN) LIGHTING
—	STD. LIGHTING
PC	STD. LIGHT EQUIPPED W/ PULL CHAIN
$	SINGLE POLE SWITCH
$_3$	THREE WAY SWITCH
$_4$	FOUR WAY SWITCH
$_D$	SINGLE POLE SWITCH W/DIMMER
—	PHONE / DATA RECEPTACLE
TV	TELEVISION RECEPTACLE (COAXIAL CABLE)
S	SMOKE DETECTOR (SEE NOTE AT BOTTOM)
CM S	CARBON MONOXIDE DECTECTOR / SMOKE ALARM
—	FLOURESCENT FIXTURE (SURFACE MOUNTED)
—	FLOURESCENT FIXTURE (RECESSED)
—	WALL MOUNTED SCONCE
—	MOTION SENSITIVE FLOOD LIGHTS
—	ELECTRIC VENT FAN
—	CEILING FAN W/ LIGHTS
—	IN FLOOR 110 VOLT RECEPTACLE
—	STAIR LIGHT FIXTURE
—	EXTERIOR RECESSED LIGHTING (WATER PROOF)
UCL	UNDER COUNTER LIGHTS
—	EXTERIOR WEATHER PROOF WALL MOUNTED SCONCE

NOTE:
1. SMOKE DETECTORS SHALL BE WIRED IN SERIES ON SEPERATE CIRCUIT W/ BATTERY BACKUP.
2. AFCI PROTECT ALL 120 VOLT, SINGLE PHASE, 15 & 20 AMP BRANCH CIRCUITS INSTALLED IN BEDROOMS, KITCHENS, AND LAUNDRY AREAS. (THIS INCLUDES INDIVIDUAL BRANCH (MOTOR) CIRCUITS.
3. ALL BEDROOM RECEPTICLES, LIGHTS, SWITCHES, SMOKE DETECTOR, SHALL BE PROTECTED WITH ARC FAULT INTERRUPTERS.
4. CARBON MONOXIDE ALARMS SHALL BE INSTALLED ON EACH HABITABLE LEVEL OF A DWELLING UNIT EQUIPPED WITH FUEL BURNING APPLINCES. THESE SHALL COMPLY WITH ANSI/U.L. 2034-2005 AND INSTALLED IN ACCORDANCE WITH PROVISIONS OF THIS STANDARD.

MECHANICAL LEGEND

ID	DESCRIPTION
—	AIR RETURN REGISTER
—	AIR SUPPLY REGISTER (14"x4" IN FLOOR)
—	AIR SUPPLY REGISTER (14"x4" IN CEILING)
G	NATURAL GAS COCK
W	POTABLE WATER HOSE BIB W/ANTI-SYPHON DEVICE
—	RADIANT HEAT TUBING IN CONCRETE

NOTE: RETURN / DISTRIBUTION DUCTING NOT SHOWN

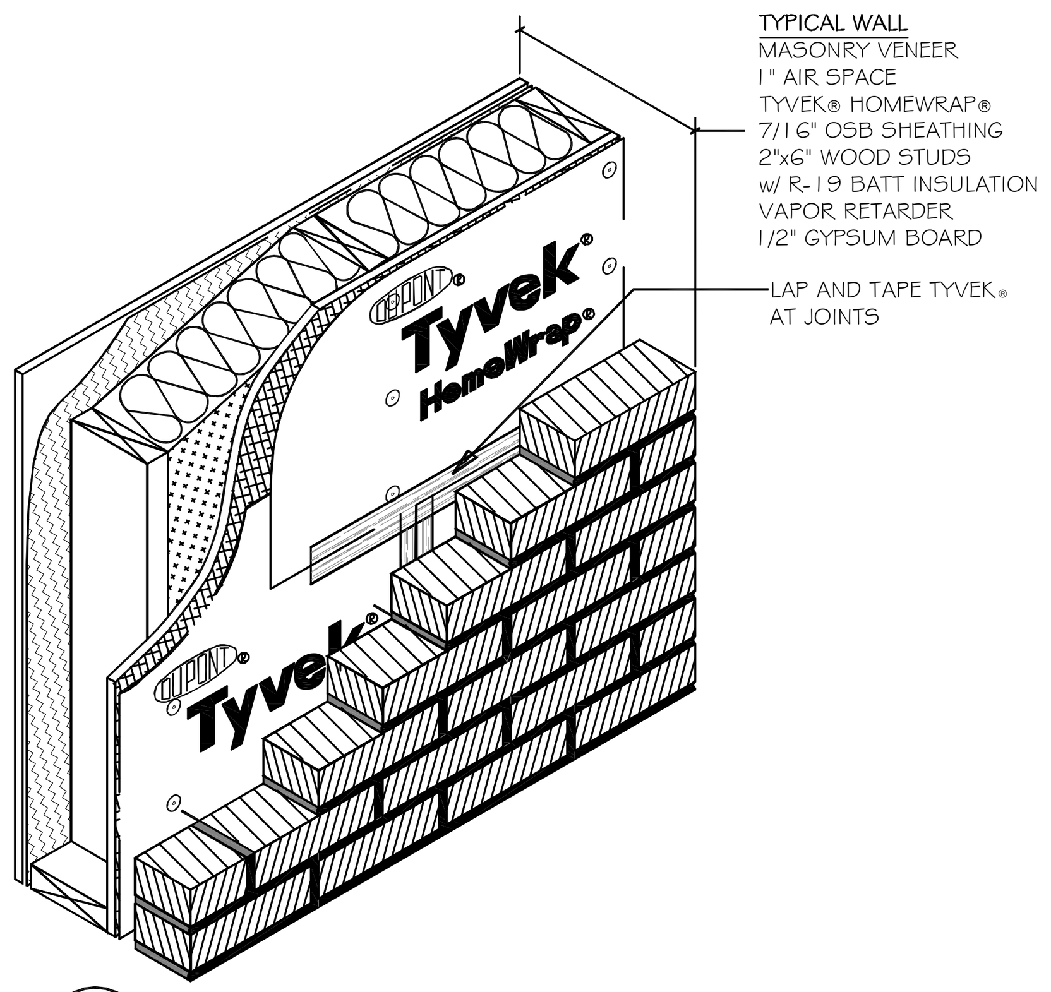
VOICE: 801-476-1860
FAX: 801-476-1828

HABITATIONS
RESIDENTIAL DESIGN GROUP

SHEET TITLE:
UPPER LEVEL ELECTRICAL / HVAC PLAN

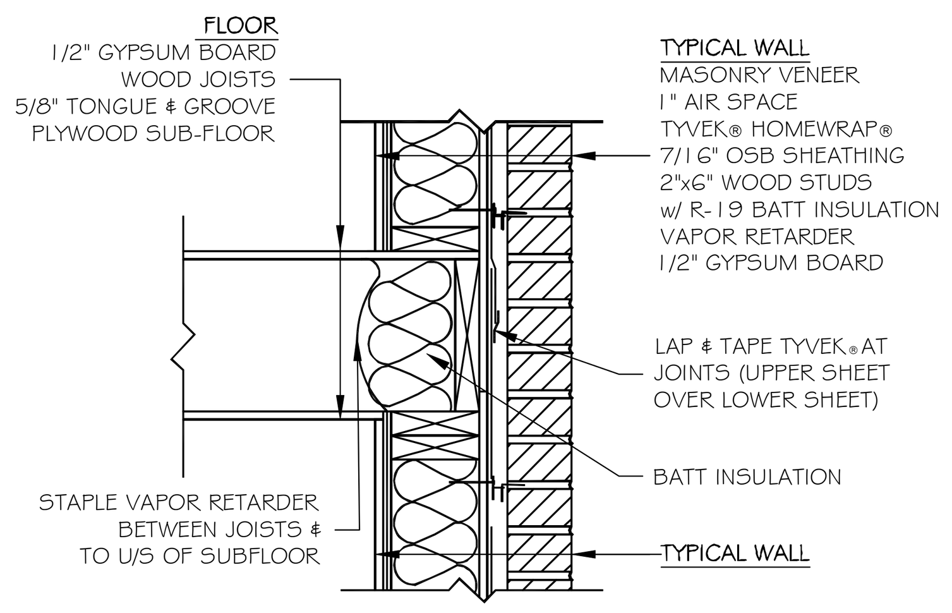
24X36 SHEET: 1/4" = 1'-0"
12X18 SHEET: 1/8" = 1'-0"

DRAWN BY: N. COOMBS
CHK'D BY: M. STEELE
ISSUE DATE: 9/1/2017
PLAN NUMBER: TS3650
SHEET NUMBER: E2 OF 16



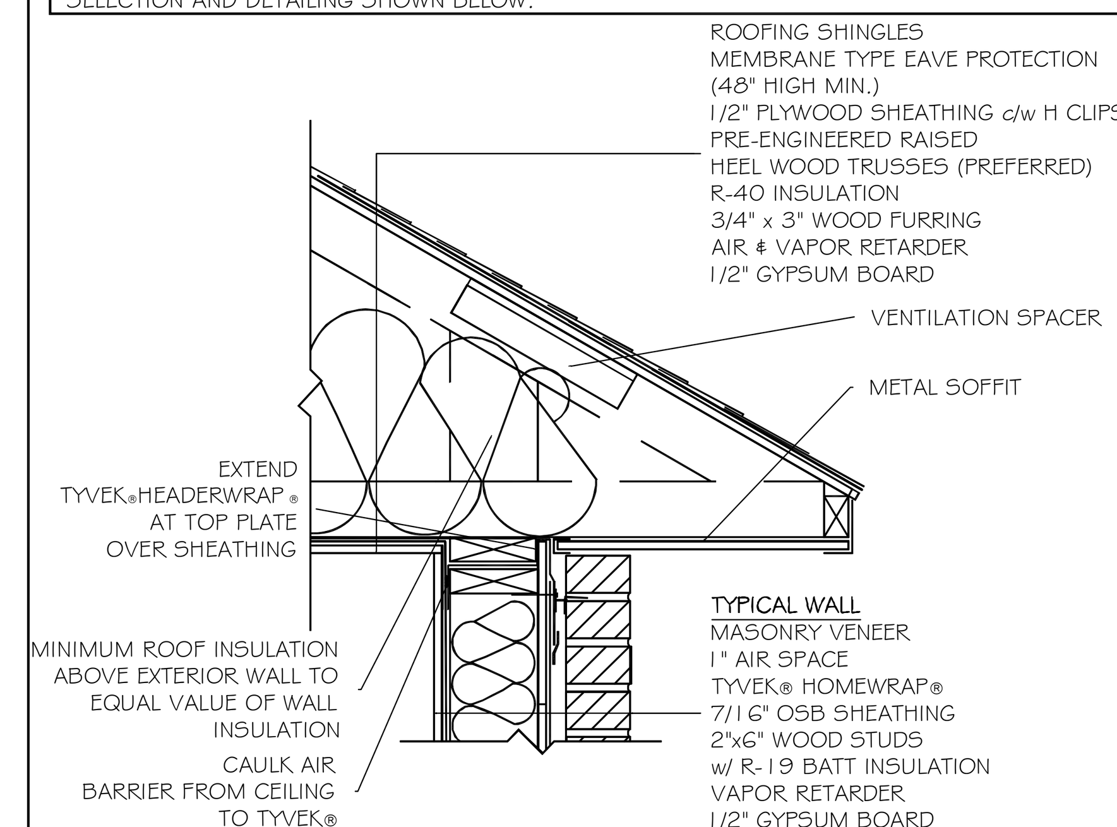
TYPICAL WALL ISOMETRIC
RESIDENTIAL WOOD FRAME STRUCTURE w/ MASONRY VENEER (HEATING CLIMATE)

GENERAL NOTES
*SEAL ALL TYVEK® JOINTS AND PENETRATIONS WITH APPROVED TAPE. (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK â TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*SEAL OR GASKET BRICK TIES AT THE FACE OF TYVEK ®
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.

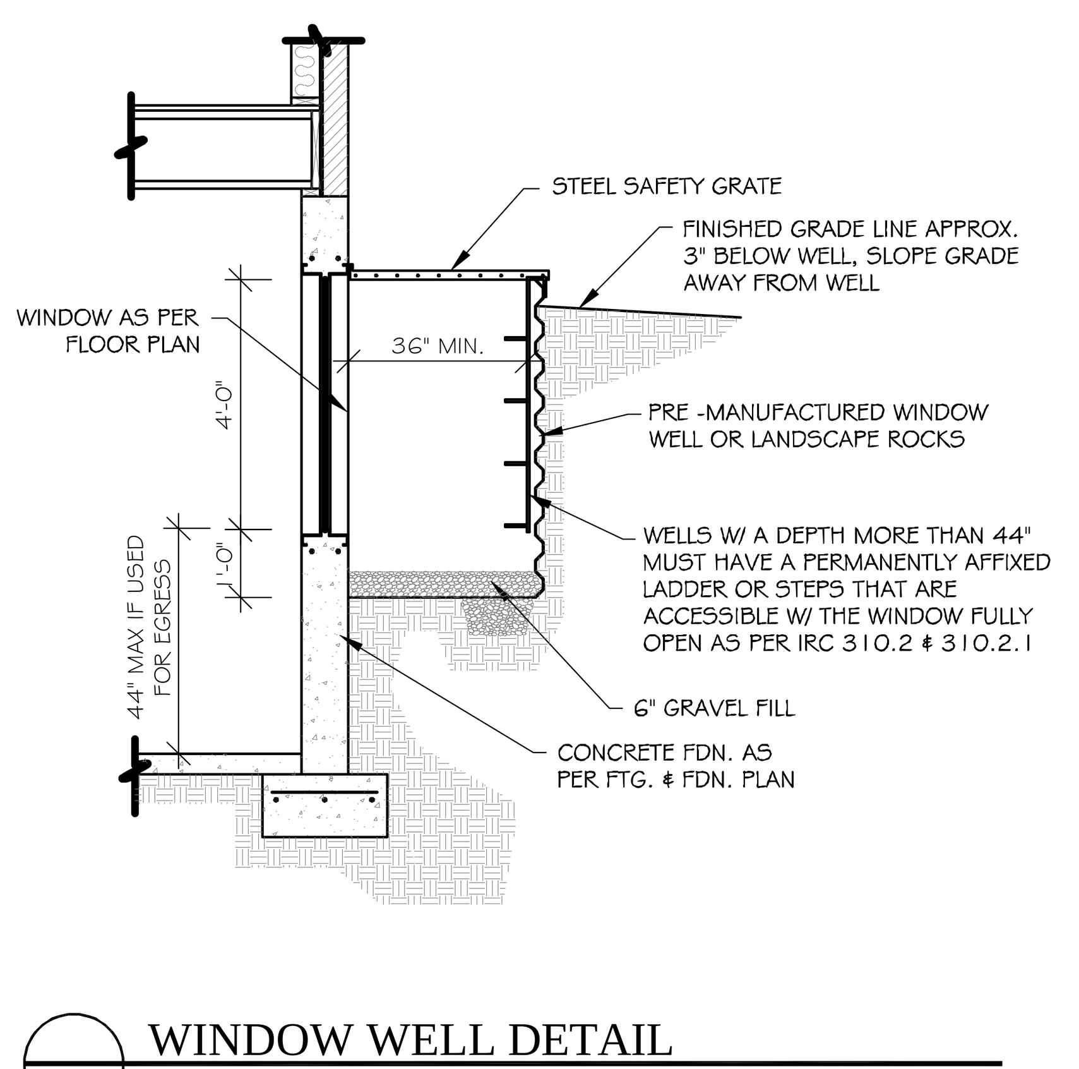


FLOOR/ WALL INTERFACE DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ MASONRY VENEER (HEATING CLIMATE)

GENERAL NOTES
*SEAL ALL TYVEK® JOINTS AND PENETRATIONS WITH APPROVED TAPE. (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK â TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*SEAL OR GASKET BRICK TIES AT THE FACE OF TYVEK ®
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.

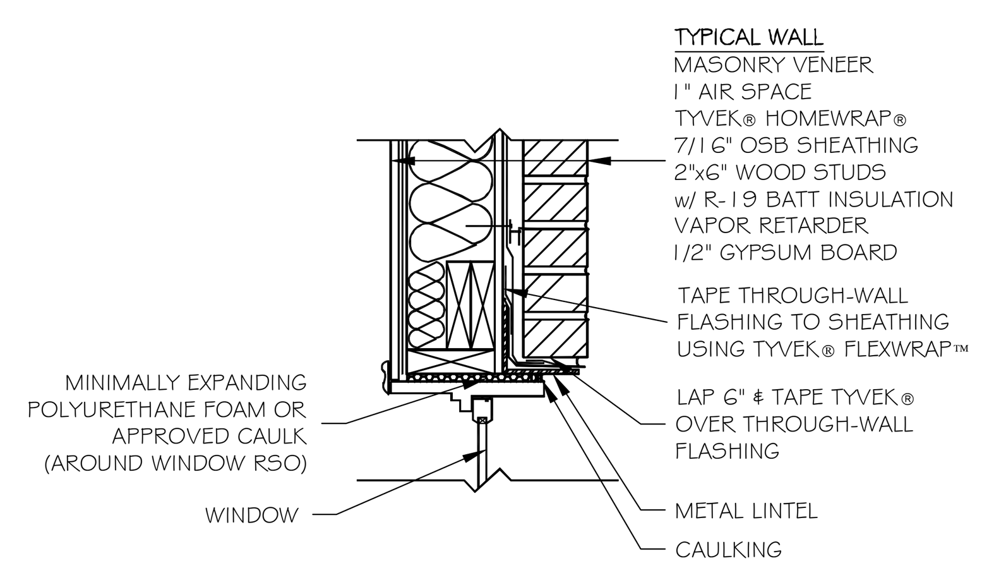


ROOF/ WALL INTERFACE DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ MASONRY VENEER (HEATING CLIMATE)



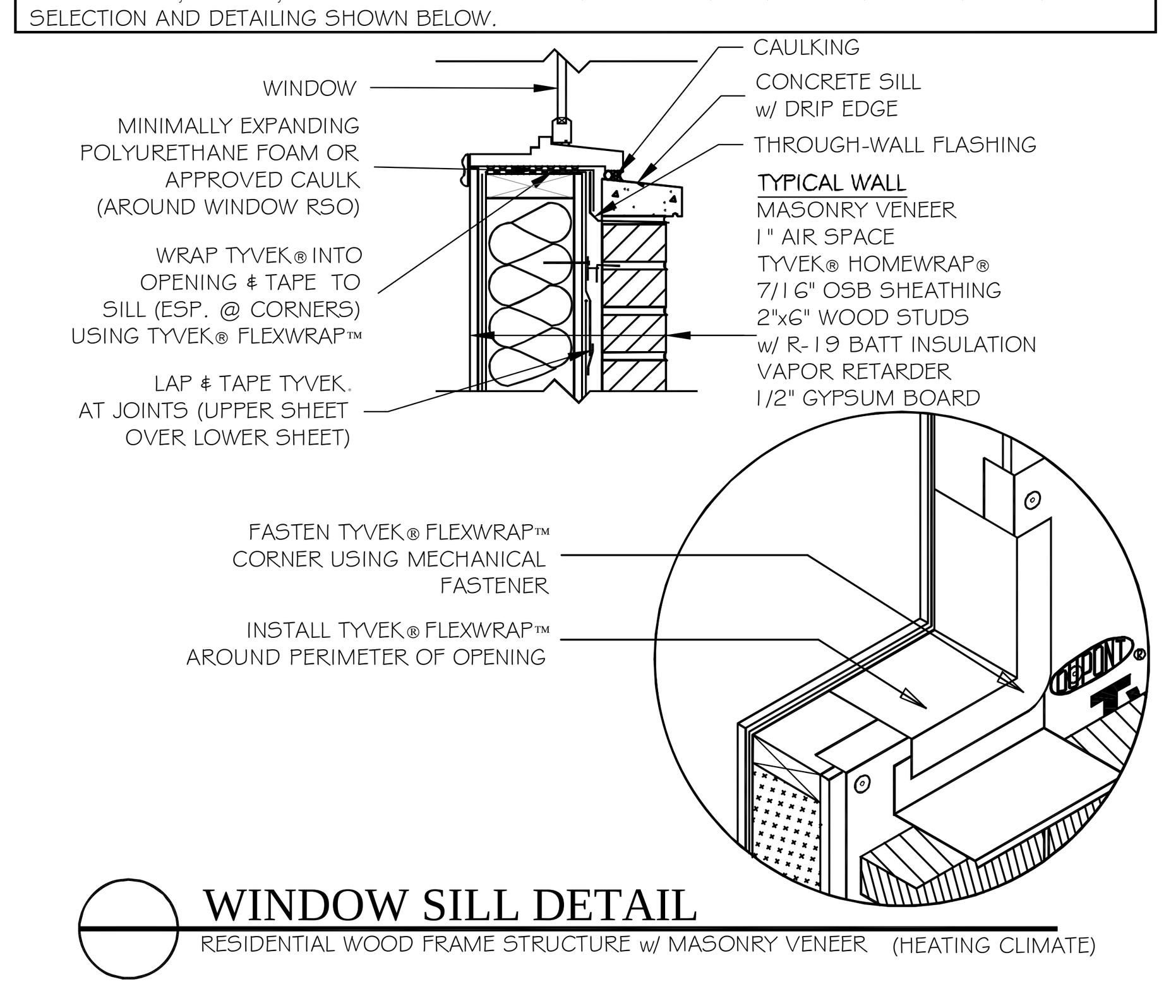
WINDOW WELL DETAIL
SCALE: N.T.S.

GENERAL NOTES
*SEAL ALL TYVEK® JOINTS AND PENETRATIONS WITH APPROVED TAPE. (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK â TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*SEAL OR GASKET BRICK TIES AT THE FACE OF TYVEK ®
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.



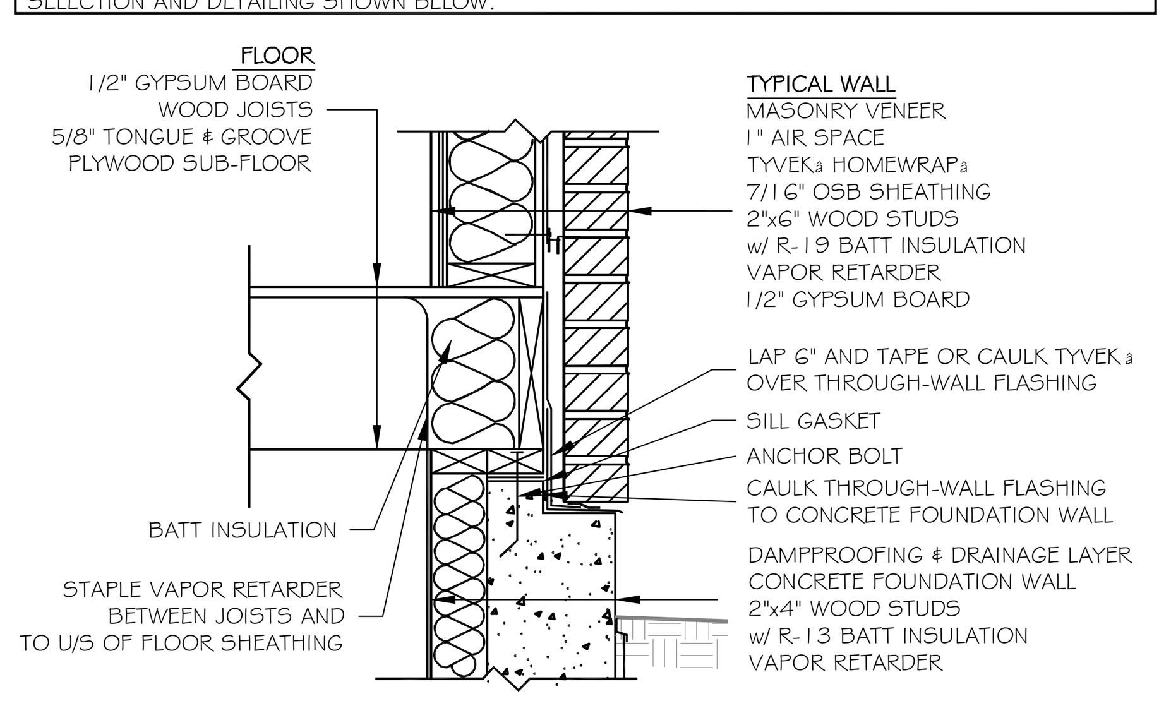
WINDOW HEAD DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ MASONRY VENEER (HEATING CLIMATE)

GENERAL NOTES
*SEAL ALL TYVEK® JOINTS AND PENETRATIONS WITH APPROVED TAPE. (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK â TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*SEAL OR GASKET BRICK TIES AT THE FACE OF TYVEK ®
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.



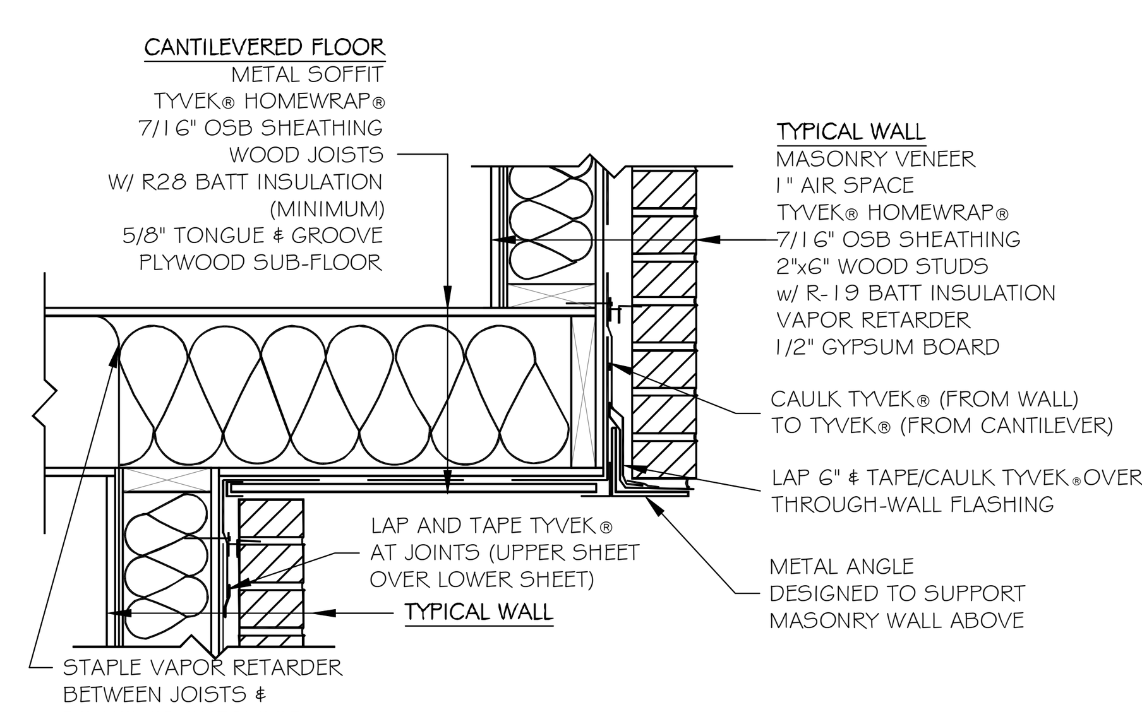
WINDOW SILL DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ MASONRY VENEER (HEATING CLIMATE)

GENERAL NOTES
*SEAL ALL TYVEKâ JOINTS AND PENETRATIONS WITH APPROVED TAPE. (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEKâ TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*SEAL OR GASKET BRICK TIES AT THE FACE OF TYVEK â
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.



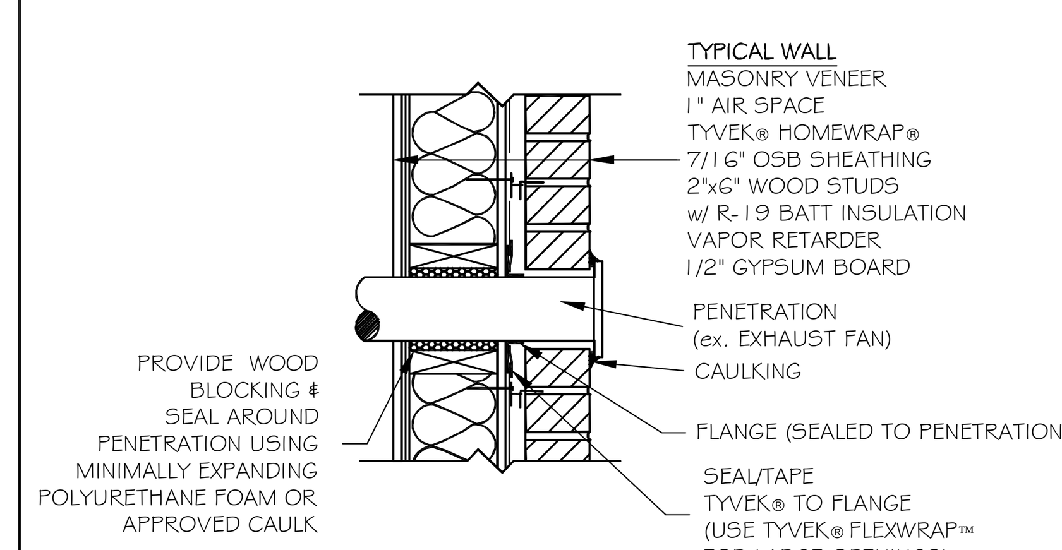
BASE OF WALL DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ MASONRY VENEER (HEATING CLIMATE)

GENERAL NOTES
*SEAL ALL TYVEK® JOINTS AND PENETRATIONS WITH APPROVED TAPE. (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK â TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*SEAL OR GASKET BRICK TIES AT THE FACE OF TYVEK ®
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.

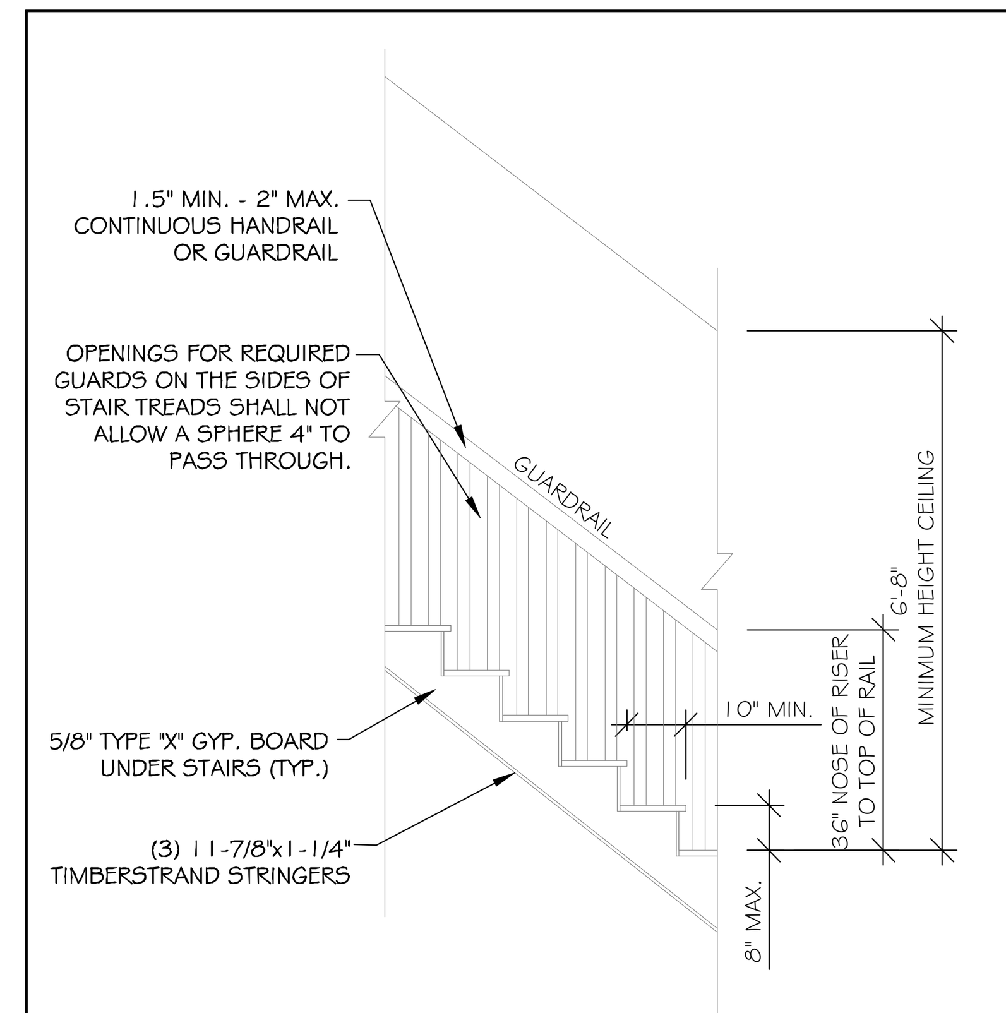


CANTILEVERED FLOOR DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ MASONRY VENEER (HEATING CLIMATE)

GENERAL NOTES
*SEAL ALL TYVEK® JOINTS AND PENETRATIONS WITH APPROVED TAPE. (ex. DUPONT CONTRACTOR TAPE)
*FASTEN TYVEK â TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (ex. DUPONT WRAPCAPS)
*SEAL OR GASKET BRICK TIES AT THE FACE OF TYVEK ®
*LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.



WALL PENETRATION DETAIL
RESIDENTIAL WOOD FRAME STRUCTURE w/ MASONRY VENEER (HEATING CLIMATE)



TYPICAL STAIR DETAIL
SCALE: N.T.S.

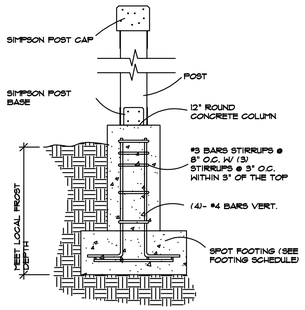
HABITATIONS
RESIDENTIAL DESIGN GROUP
VOICE: 801-476-1860
FAX: 801-476-1828

AUTHORIZED COPY

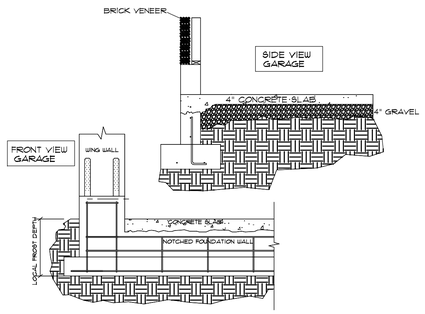
MUST HAVE WET INK STAMP

SHEET TITLE: HOUSE WRAP DETAILS

DRAWN BY: N. COOMBS
CHK'D BY: M. STEELE
ISSUE DATE: 9/1/2017
PLAN NUMBER: TS3650
SHEET NUMBER: AD1 OF 16



1 **PATIO POST FTG. DETAIL**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



2 **GARAGE SLAB TO FOUND. CONNECTION**
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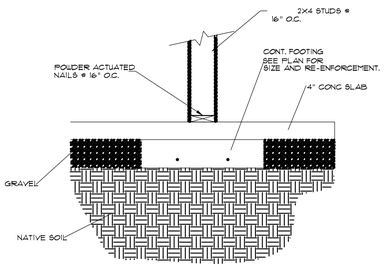
TYPICAL DETAIL, USE WHEN APPLIES



3 **INTERIOR BEARING WALL**
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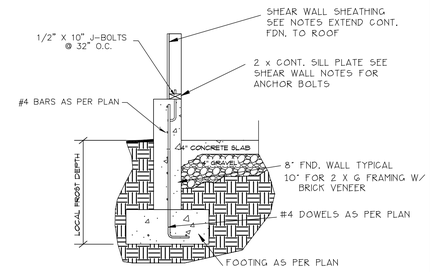
TYPICAL DETAIL, USE WHEN APPLIES



4 **FOUNDATION WALL**
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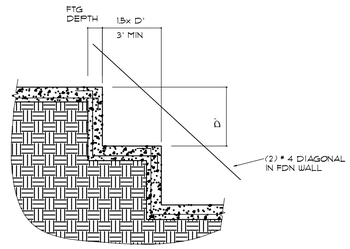
TYPICAL DETAIL, USE WHEN APPLIES



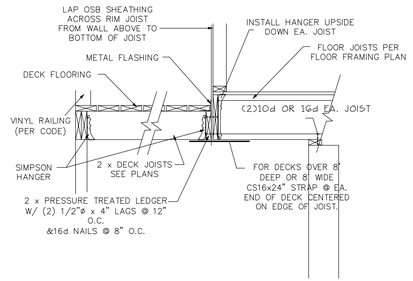
5 **FOOTING STEP DETAIL**
NTS
TYPICAL DETAIL, USE WHEN APPLIES

BEARING WALLS TO BE CONSTRUCTED AS FOLLOWS:

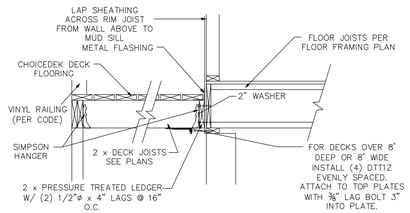
HEIGHT	STUD FRAMING
0' TO 10'	2x4's @ 16"o.c.
10' TO 12'	2x4's @ 12"o.c.
0' TO 12'	2x6's @ 24"o.c.
12' TO 14'	2x6's @ 16"o.c.
14' TO 16'	2x6's @ 12"o.c.
16' TO 20'	2x6 LSL's @ 12"o.c.

WALLS TALLER THAN 20' AND/OR OPENINGS GREATER THAN 6' WIDE TO BE SPECIFIED BY ENGINEER. USE DBL KING STUDS ON ALL WALLS 10' HIGH. USE 2X6 STUDS FOR ALL WALLS SUPPORTING OVER TWO LOADS.

6 **STUD HEIGHT/SIZE**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



7 **DECK LEDGER TO CANT. FLOOR**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



8 **DECK ATTACHMENT**
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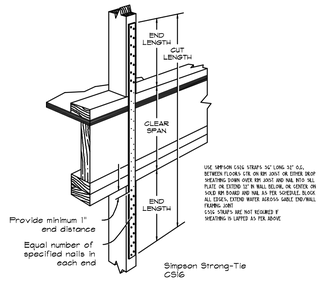
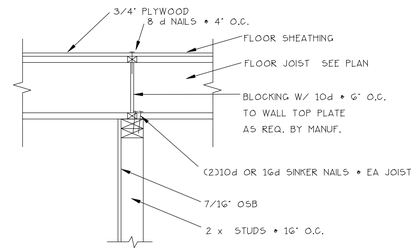
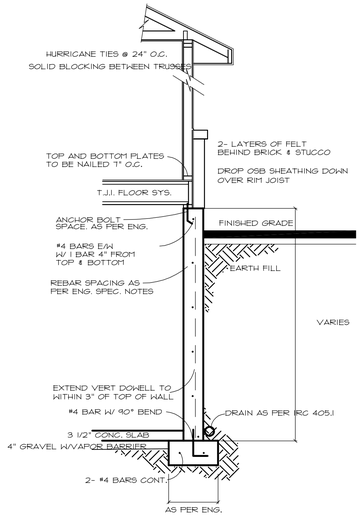
TYPICAL DETAIL, USE WHEN APPLIES



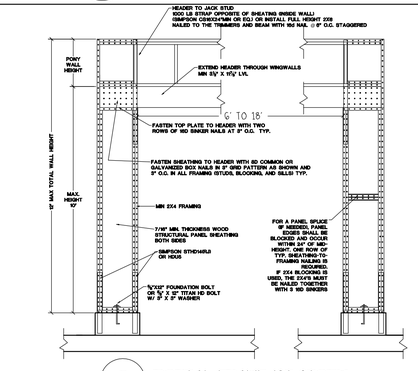
9 **TYP. CS16 DETAIL**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



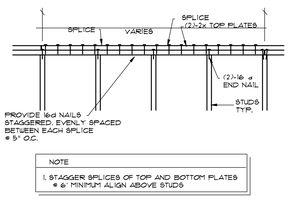
10 **INTERIOR SHEAR WALL**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



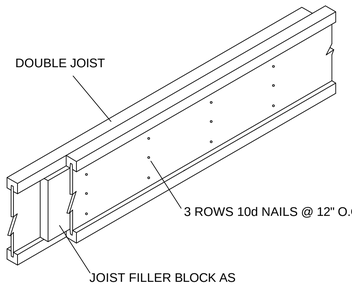
11 **TYP. WALL SECTION**
NTS



12 **PORTAL FRAME 1ST STORY**
NTS
USE ONLY IF CALLED OUT ON PLANS



13 **TYP. TOP PLATE NAILING**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



14 **DOUBLE JOIST CONNECTION**
NTS
TYPICAL DETAIL, USE WHEN APPLIES

FOOTING, FOUNDATION AND CONCRETE

ALL FOOTINGS ARE BASED ON ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF. FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR ENGINEERED GRANULAR FILL COMPACTED TO 95% OF MAXIMUM DENSITY. NO FOOTINGS SHALL BE PLACED IN WATER OR FROZEN GROUND. ALL FOOTINGS TO BE PLACE AT MIN. BELOW LOCAL FROST DEPTH, CONTINUOUS AND MONOLITHIC POUR. CHANGES IN ELEV. SHALL BE STEPPED WITH STEP HEIGHT NOT HIGHER THAN ½ THE STEP LENGTH AND NOT GREATER THAN 5 FT. MIN. 6" THICKNESS ON VERT. STEP. FOOTINGS TO HAVE 2 #4 BAR CONTINUOUS. NOTIFY ENGINEER IF GRADE DROPS OVER 8 FEET IN 24 FEET (G.T. 1 TO 3 SLOPE) SO THAT APPROPRIATE DESIGN CHANGES MAY BE MADE TO FOUNDATION AND FOOTINGS.

ALL FOOTINGS, FOUNDATIONS, AND INTERIOR SLABS SHALL BE NORMAL WT. CONCRETE WITH A COMPRESSIVE STRENGTH EQUAL TO AT LEAST 3,000 PSI WITHIN 28 DAYS AFTER POURING. THE WATER/CEMENT RATIO SHALL BE NO GREATER THAN .50 WITH A MINIMUM CEMENT CONTENT OF 504 LBS. PER CUBIC YARD ALL CONC WORK SHALL BE PLACED, CURED, STRIPPED, AND PROTECTED AS DIRECTED BY THE SPECIFICATIONS AND ACI STANDARDS AND PRACTICES.

ALL REINFORCING SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318. REINFORCEMENT SHALL BE FREE FROM MUD AND OIL AND OTHER NON-METALLIC COATINGS THAT HAMPER BONDING CAPACITY. ALL SPLICES IN CONTINUOUS REINFORCING SHALL LAP 30 BAR DIAMETERS.

VERT & HORZ. #4 BAR (GRADE 60) AS PER FND SCHEDULE. OPENINGS TO HAVE 1 VERT. #4 BAR EA. SIDE OF OPENING TIED TO HORZ. BAR. 2 #4 BAR ABOVE AND 1 #4 BELOW. WINDOW OPENING EXTENDING 36" BEYOND OPENING. USE ANCHOR BOLTS AS PER FND SCHEDULE USE SIMPSON STHDX(R,U) STRAPS AS NOTED ON DRAWING. OWNER\CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS LISTED ON THE DRAWING. VERIFICATION OF ALL SITE CONDITIONS INCLUDING SITE STABILITY IS THE RESPONSIBILITY OF OTHERS

ALLOW 14 DAYS FOR CONCRETE TO CURE PRIOR TO BACKFILL.

FRAMING AND SHEATHING

THE CONTRACTOR SHALL USE THE FOLLOWING LUMBER GRADES UNLESS OTHERWISE NOTED:

JOISTS	DOUG FIR #2 & BTR
PARALLAMS	PER MANUF. SPEC.
HEADERS	DOUG FIR #2 & BTR
PRE-FAB TRUSSES & JOIST	PER MANUF. SPEC.
BEARING WALL STUDS	DOUG FIR #2 & BTR
SILL PLATES	PRESSURE TREATED DOUG FIR #2 & BTR
POSTS	DOUG FIR #1 & BTR
EXT DECK JOIST & BEAMS	PRESSURE TREATED DOUG FIR #2 & BTR

EACH PIECE OF STRUCTURAL LUMBER, SHEATHING, AND TIMBER SHALL BE MARKED WITH A COMPETENT AND RELIABLE ORGANIZATION WHOSE REGULAR BUSINESS IS TO ESTABLISH LUMBER GRADES. THE ORGANIZATION, GRADING, AND GRADE MARKING SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.

THE SIZING AND SURFACING OF ALL LUMBER EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE SHALL BE MILL SIZED AND SURFACED ON 4 SIDES. ALL LUMBER SHALL BE STRAIGHT STOCK FREE FROT WARPS AND SINGLE LENGTH PIECES. SPLICING SHALL NOT BE PERMITTED EXCEPT WHERE NOTED OR APPROVED BY THE ENGINEER.

LUMBER SHALL BE AT LEAST OF THE GRADES NOTED ABOVE UNLESS OTHERWISE NOTED ON THE PLANS. ALL LUMBER SHALL BE SURFACED AND FREE OF HEART CENTER. LUMBER SHALL MEET SPECIES AND COMMERCIAL GRADE AS INDICATED ON THE PLANS AND THE DESIGN VALUES FOR VISUALLY GRADED LUMBER IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATION BY THE NATIONAL FOREST PRODUCTS ASSOCIATION, WHEREVER IS GREATER. BASE VALUES SHOWN MAY BE ADJUSTED IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATION. DF INDICATES DOUGLAS FIR, HF INDICATES HEM FIR, RD INDICATES REDWOOD, AND SDF INDICATES SPRUCE PINE FIR.

USE APPROPRIATE SIMPSON TIES/HARDWARE TO CONNECT ALL HEADERS TO POST OR TRIMMERS FOR ALL HEADERS 6' LONG AND LONGER. ALL MULTIPLE BEAMS AND HEADERS SHALL BE NAILED USING 16d @ 12" O.C. TWO ROWS.

ALL 2X4 STUDS TO BE MAX. 16" O.C. 2X6 STUDS TO BE MAX 24" O.C. FLOOR SHEATHING SHALL BE 3/4" T&G APA RATED 40/20 OSB SHEATHING NAILED WITH 8d NAILS 6" O.C. AT ALL PANEL EDGES, SUPPORTED EDGES. USE 8d NAILS 12" O.C. IN FIELD. NAILS SHALL BE MIN. 1/2" FROM EDGE OF PANEL. LAY SHEATHING LONG DIMENSIONS PERPENDICULAR WITH JOISTS AND GLUE WITH GLUE CONFORMING TO APA SPECS. FLOOR JOISTS SHALL BE BLOCKED AT ALL BEARING POINTS. BLOCK ALL HORZ. EDGES OF WALL SHEATHING WITH 2 X 4 BLOCKING. EXTEND SHEATHING OVER RIM JOIST AND NAIL TO WALL PLATES ABOVE AND BELOW, OR BREAK UPPER AND LOWER SHEETING AT MID HEIGHT OF RIM BOARD, EXTEND SHEATHING DOWN TO SILL PLATE AND NAIL PER SHEAR WALL SCHEDULE.

TYPICAL ROOF SHEATHING SHALL BE 7/16" RATED OSB SHEATHING NAILED WITH 8d NAILS 6" O.C. AT PANEL EDGES, SUPPORTED EDGES, AND ALL BLOCKING WITH 8d NAILS, 12" O.C. ALONG INTERMEDIATE FRAMING MEMBERS. UNLESS OTHERWISE NOTED USE 2-2X10 FOR BEARING HEADER. NOTE: FOR ROOF SNOW LOADS OVER 40 PSF USE 5/8" OSB W/ 16d NAILS @ 6" O.C.

FRAMING AND SHEATHING CONTINUED

LAY SHEATHING WITH FACE GRAIN PERPENDICULAR TO FRAMING UNLESS SHOWN OTHERWISE ON THE PLANS. WHERE SHEATHING IS LAID WITH FACE GRAIN PARALLEL TO FRAMING, 5 PLY MINIMUM SHEATHING SHALL BE USED. SHEATHING SHALL CONFORM TO APA STANDARDS PS-1 AND NER-108 EXPOSURE. USE AS FOLLOWS UNLESS OTHERWISE NOTED IN PLANS.

EXCEPT WHERE OTHERWISE NOTED, CONNECT ALL WOOD TO CONCRETE, WOOD TO STEEL AND WOOD TO WOOD (EXCEPT STUD TO PLATE) WITH SIMPSON METAL CONNECTORS. SOLID 2" NOMINAL BLOCKING SHALL BE PROVIDED AT ENDS OR POINTS OF SUPPORT OF ALL WOOD JOISTS AND TRUSSES. INSTALL JOIST, RAFTER, AND BEAM HANGERS & POST CAPS PER MANUFACTURES SPECIFICATIONS.

MINIMUM NAILING SHALL BE AS PER SHEAR WALL SCHEDULE. STAPLES CAN BE SUBSTITUTED FOR NAILS AT HALF SPACING. PROVIDE SOLID BEARING THROUGH FLOOR SYSTEMS AND POSTS DOWN TO CONC. FTG.

THE CONTRACTOR SHALL FOLLOW THE MINIMUM NAILING SCHEDULE LISTED IN THE NDS TABLE 3.2.1. USE COMMON NAILS WHEREVER NAILS ARE SPECIFIED FOR SHEAR WALLS OR DIAPHRAGMS. SINKERS MAY BE USED IN ALL OTHER LOCATIONS.

PROVIDE DOUBLE FLOOR JOISTS UNDER ALL BEARING OR SHEAR WALLS PARALLEL TO DIRECTION OF FRAMING. PROVIDE DOUBLE FLOOR JOISTS UNDER WINDOW AND DOOR TRIMMERS AND AT OUTSIDE EDGES OF ALL CANTILEVERED FLOOR SECTIONS.

BOLTS SHALL BE INSTALLED IN HOLES BORED ⅛" LARGER THAN THE BOLT DIAMETER. BOLTS AND NUTS SEATING ON WOOD SHALL HAVE 3" X 3" X ¼" CUT STEEL WASHERS UNDER ALL HEADS AND NUTS. NUTS SHALL BE SCREWED TIGHT. COUNTER BORE FOR HEADS AND NUTS ONLY WHERE NOTED ON THE DRAWINGS AND THEN ONLY TO SUFICIENT DEPTH TO FLUSH NUT OR HEAD. CUT OFF EXCESSIVE BOLT LENGTH AS REQUIRED AND NICK THE BOLT THREADS TO PREVENT NUT MOVEMENT OR LOOSENING.

CONTRACTOR AND ALL SUB-CONTRACTORS SHALL FOLLOW ALL STANDARD BUILDING CODES, PRACTICES, AND REQUIREMENTS AS LISTED IN THE 2015 IRC.

USE BALLOON FRAMING METHOD TO CONNECT FLOOR SYSTEMS IN SPLIT LEVEL DESIGNS. USE DOUBLE FLOOR JOIST UNDER EA. END OF SHEAR WALLS OVER CANT. FLOOR SECTIONS.

INSTALL JOIST AND RAFTER HANGERS AS PER MANUFACTURERS SPECIFICATIONS. UNLESS OTHERWISE NOTED CONNECT ALL HEADER TO STUD/POST, POST TO FLOOR, BEAM TO BEAM, RAFTER TO WALL OR TRUSS, ETC. WITH APPROPRIATE METAL CONNECTORS. USE METAL HURRICANE CLIPS EACH END OF EACH TRUSS.

ALL ROUGH HARDWARE, JOIST HANGERS, STRAPS, POST CAPS ETC, SHALL BE MANUFACTURED BY SIMPSON COMPANY OR AN APPROVED EQUAL. THE MAXIMUM SIZE AND NUMBER OF FASTENERS SPECIFIED BY THE MANUFACTURER SHALL BE USED UNLESS NOTED OTHERWISE.

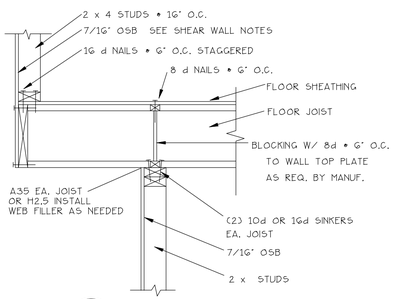
ALL FASTENERS WHICH ARE TO BE INSTALLED IN PRESERVATIVE TREATED WOOD SHALL MET THE REQUIREMENTS OF IBC 2304.9.5

ALL DETAILS MAY NOT BE APPLICABLE TO YOUR PLANS IF MARKED TYPICAL, USE ON PLAN ON ALL APPLICABLE AREAS

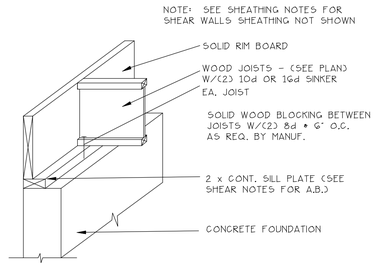
Structural Design and Analysis
4883 Old Highway Rd Suite A
Morgan, Utah 84050
(801) 876-3501

York Engineering

SD1



1 **CANT. FLOOR FRAMING**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



2 **WOOD JOIST FRAMING**
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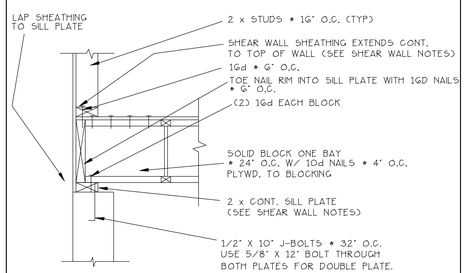
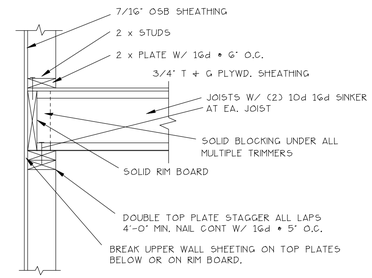
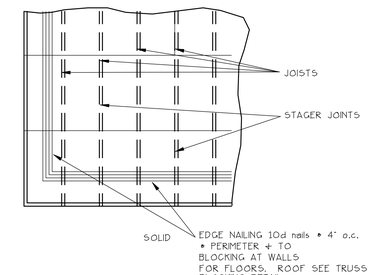
TYPICAL DETAIL, USE WHEN APPLIES



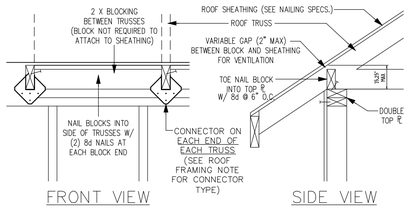
3 **WOOD JOIST FRAMING**
NTS
TYPICAL DETAIL, USE ON FULL HEIGHT FOUNDATION WALLS



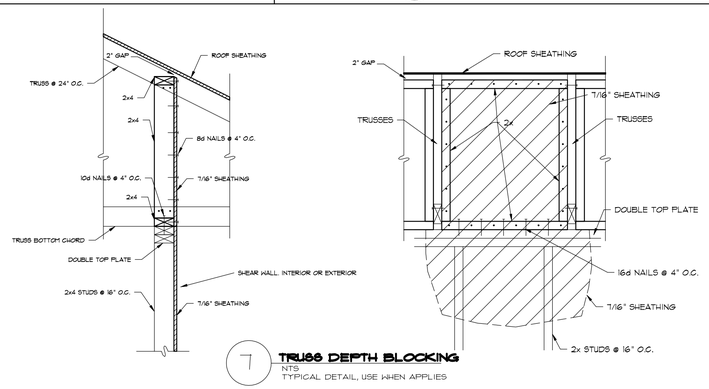
4 **WOOD JOIST FRAMING**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



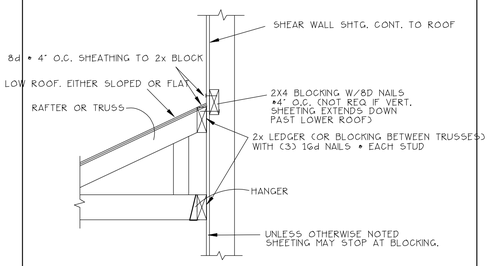
5 **HORIZ. SHEATHING LAYOUT**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



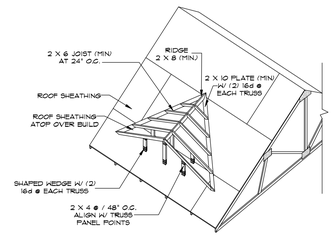
6 **TRUSS BLOCK DETAIL**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



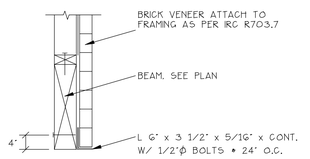
7 **TRUSS DEPTH BLOCKING**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



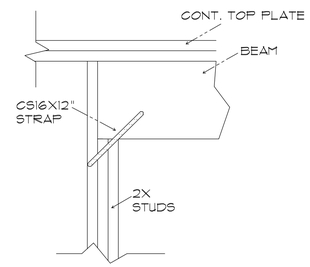
8 **LOW ROOF SHEAR WALL**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



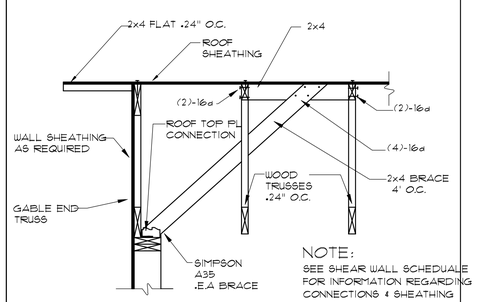
9 **ROOF OVERBUILD**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



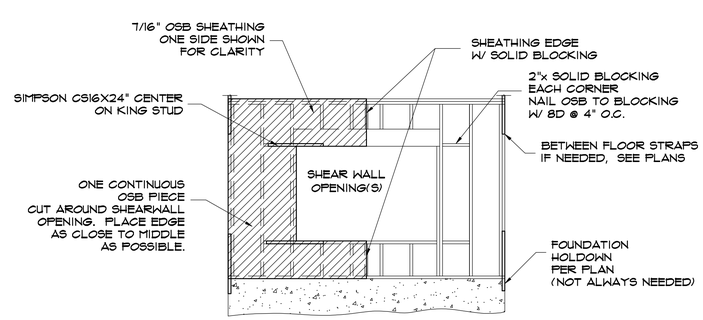
10 **BRICK VENEER CONNECTION**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



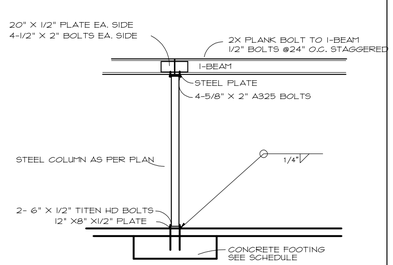
11 **HEADER DETAIL**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



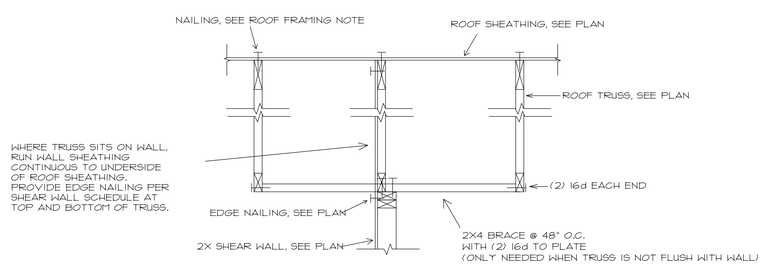
12 **GABLE BRACE DETAIL**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



13 **FORCE TRANSFER SHEAR WALL**
NTS
USE ONLY IF CALLED OUT ON PLANS



14 **I-BEAM/COLUMN**
NTS
TYPICAL DETAIL, USE WHEN APPLIES



15 **TRUSSES PARALLEL TO SHEAR WALL**
NTS
USE ONLY IF CALLED OUT ON PLANS

ALL DETAILS MAY NOT BE APPLICABLE TO YOUR PLANS IF MARKED TYPICAL, USE ON PLAN ON ALL APPLICABLE AREAS

Structural Design and Analysis
4883 Old Highway Rd Suite A
Morgan, Utah 84050
(801) 876-3501

York Engineering

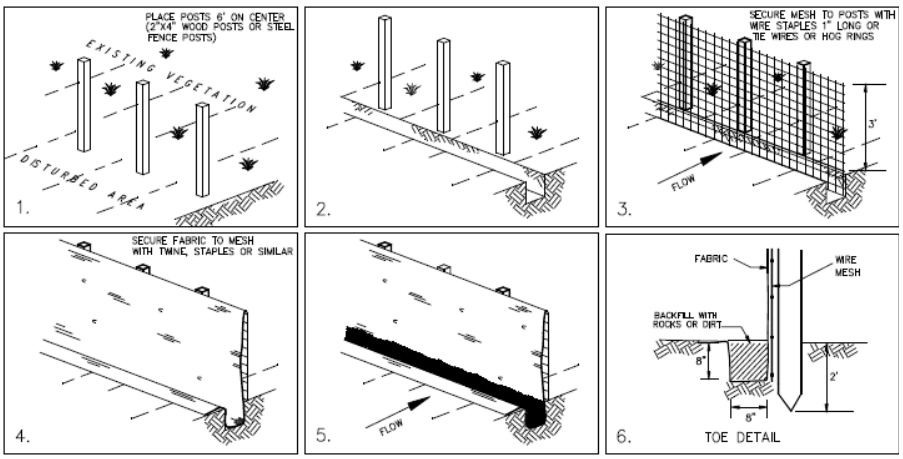
SD2

APPENDIX K: Additional Information (i.e. permits such as local permits, dewatering, stream alteration, wetland, and out of date SWPPP documents, etc.)

APPENDIX L: BMP Specifications and Details (label BMPs to match the sections identified in this document.)

BMP: Silt Fence

SF



OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

DESCRIPTION:

- ► A temporary sediment barrier consisting of entrenched filter fabric stretched across and secured to supporting posts.

APPLICATION:

- ► Perimeter control: place barrier at downgradient limits of disturbance
- ► Sediment barrier: place barrier at toe of slope or soil stockpile
- ► Protection of existing waterways: place barrier at top of stream bank
- ► Inlet protection: place fence surrounding catchbasins

INSTALLATION/APPLICATION CRITERIA:

- ► Place posts 6 feet apart on center along contour (or use preassembled unit) and drive 2 feet minimum into ground. Excavate an anchor trench immediately upgradient of posts.
- ► Secure wire mesh (14 gage min. With 6 inch openings) to upslope side of posts. Attach with heavy duty 1 inch long wire staples, tie wires or hog rings.
- ► Cut fabric to required width, unroll along length of barrier and drape over barrier. Secure fabric to mesh with twine, staples, or similar, with trailing edge extending into anchor trench.
- ► Backfill trench over filter fabric to anchor.

LIMITATIONS:

- ► Recommended maximum drainage area of 0.5 acre per 100 feet of fence
- ► Recommended maximum upgradient slope length of 150 feet
- ► Recommended maximum uphill grade of 2:1 (50%)
- ► Recommended maximum flow rate of 0.5 cfs
- ► Ponding should not be allowed behind fence

MAINTENANCE:

- ► Inspect immediately after any rainfall and at least daily during prolonged rainfall.
- ► Look for runoff bypassing ends of barriers or undercutting barriers.
- ► Repair or replace damaged areas of the barrier and remove accumulated sediment.
- ► Reanchor fence as necessary to prevent shortcutting.
- ► Remove accumulated sediment when it reaches ½ the height of the fence.

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2380 Washington Blvd., Suite 240
Ogden, UT 84401
(801) 399-8374

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

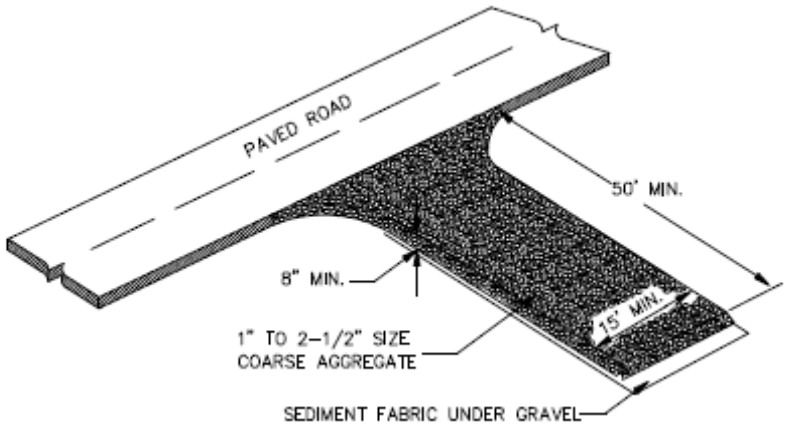
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

- ■ High
- ☒ Medium
- ☐ Low

BMP: Stabilized Construction Entrance SCE



OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☐ Control Internal Erosion

DESCRIPTION:

A stabilized pad of crushed stone located where construction traffic enters or leaves the site from or to paved surface.

APPLICATIONS:

- ► At any point of ingress or egress at a construction site where adjacent traveled way is paved. Generally applies to sites over 2 acres unless special conditions exist.

INSTALLATION/APPLICATION CRITERIA:

- ► Clear and grub area and grade to provide maximum slope of 2%.
- ► Compact subgrade and place filter fabric if desired (recommended for entrances to remain for more than 3 months.
- ► Place coarse aggregate, 1 to 2-1/2 inches in size, to a minimum depth of 8 inches.

LIMITATIONS:

- ► Requires periodic top dressing with additional stones.
- ► Should be used in conjunction with street sweeping on adjacent public right-of-way.

MAINTENANCE:

- ► Inspect daily for loss of gravel or sediment buildup.
- ► Inspect adjacent roadway for sediment deposit and clean by sweeping or shoveling.
- ► Repair entrance and replace gravel as required to maintain control in good working condition.
- ► Expand stabilized area as required to accommodate traffic and prevent erosion at driveways.

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TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

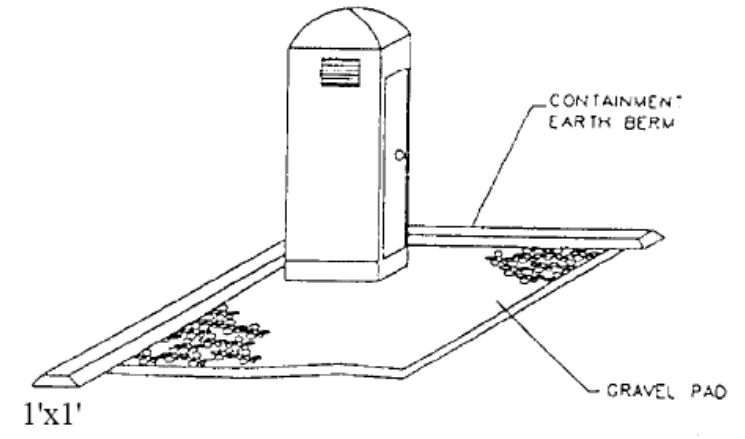
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

- ■ High
- ☒ Medium
- ☐ Low

BMP: Portable Toilets PT



OBJECTIVES

- ☒ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

DESCRIPTION:

Temporary on-site sanitary facilities for construction personnel.

APPLICATION:

- ► All sites with no permanent sanitary facilities or where permanent facility is too far from activities.

INSTALLATION/APPLICATION CRITERIA:

- ► Locate portable toilets in convenient locations throughout the site.
- ► Prepare level, gravel surface and provide clear access to the toilets for servicing and for on-site personnel.
- ► Construct earth berm perimeter (See Earth Berm Barrier Information Sheet), control for spill/protection leak.

LIMITATIONS:

No limitations.

MAINTENANCE:

- ► Portable toilets should be maintained in good working order by licensed service with daily observation for leak detection.
- ► Regular waste collection should be arranged with licensed service.
- ► All waste should be deposited in sanitary sewer system for treatment with appropriate agency approval.

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TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ■ Other Construction Waste

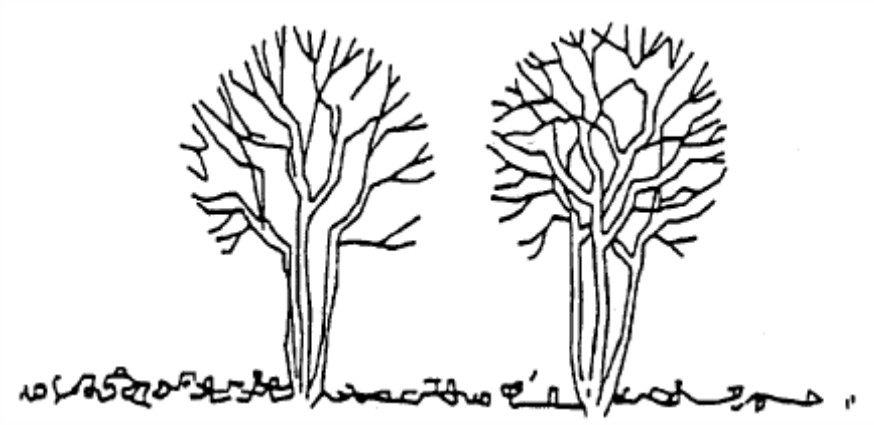
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

- ■ High
- ☒ Medium
- ☐ Low

BMP: Preservation of Existing Vegetation PEV



OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☐ Control Internal Erosion

DESCRIPTION:

Carefully planned preservation of existing vegetation minimizes the potential of removing or injuring existing trees, vines, shrubs and/or grasses that serve as erosion controls.

APPLICATIONS:

- ► This technique is applicable to all types of sites. Areas where preserving vegetation can be particularly beneficial are floodplains, wetlands, stream banks, steep slopes, and other areas where erosion controls would be difficult to establish, install, or maintain.

INSTALLATION/APPLICATION CRITERIA:

- ► Clearly mark, flag or fence vegetation or areas where vegetation should be preserved.
- ► Prepare landscaping plans which include as much existing vegetation as possible and state proper care during and after construction.
- ► Define and protect with berms, fencing, signs, etc. a setback area from vegetation to be preserved.
- ► Propose landscaping plans which do not include plant species that compete with the existing vegetation.
- ► Do not locate construction traffic routes, spoil piles, etc. where significant adverse impact on existing vegetation may occur.

LIMITATIONS:

- ► Requires forward planning by the owner/developer, contractor and design staff.
- ► For sites with diverse topography, it is often difficult and expensive to save existing trees while grading the site satisfactorily for the planned development.
- ► May not be cost effective with high land costs.

MAINTENANCE:

- ► Inspection and maintenance requirements for protection of vegetation are low.
- ► Maintenance of native trees or vegetation should conform to landscape plan specifications.

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TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

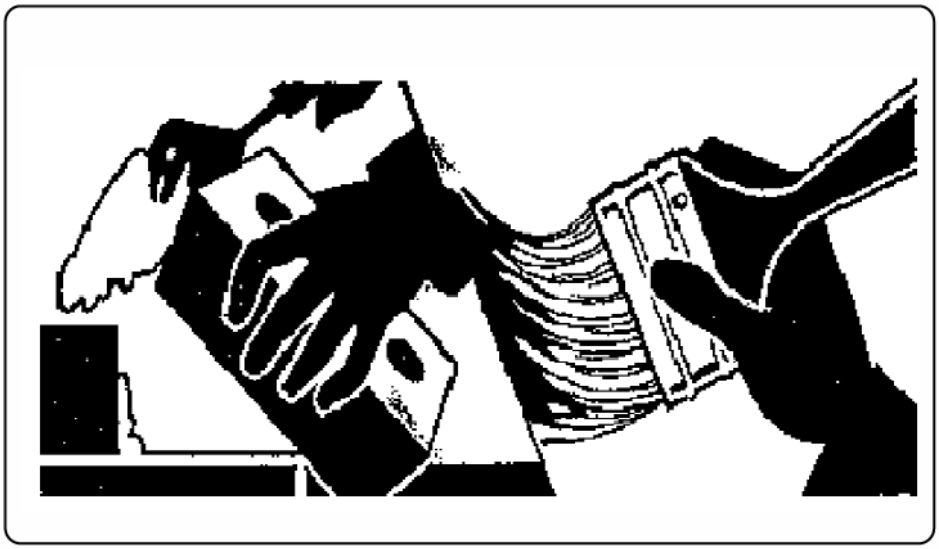
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☐ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ☐ Training

- ■ High
- ☒ Medium
- ☐ Low

BMP: Building Repair, Remodeling, and Construction BRRC



OBJECTIVES

- ☐ New Development
- ☐ Residential
- ☒ Commercial Activities
- ☒ Industrial Activities
- ☒ Municipal Facilities
- ☐ Illegal Discharges

DESCRIPTION:

Prevent or reduce the discharge of pollutants to stormwater from building repair, remodeling and construction by using soil erosion controls, enclosing or covering building material storage areas, using good housekeeping practices, using safer alternative products, and training employees.

APPROACH:

- ► Use soil erosion control techniques if bare ground is temporarily exposed.
- ► Use permanent soil erosion control techniques if the remodeling clears buildings that are not to be replaced.
- ► Enclose painting operations consistent with local air quality regulations and OSHA.
- ► Properly store materials that are normally used in repair and remodeling such as paints and solvents.
- ► Properly store and dispose waste materials generated from the activity.
- ► Maintain good housekeeping practices while work is underway.

LIMITATIONS:

- ► This BMP is for minor construction only.
- ► Hazardous waste that cannot be re-used or recycled must be disposed of by a licensed hazardous waste hauler.
- ► Safer alternative products may not be available, suitable, or effective in every case.
- ► Be certain that actions to help stormwater quality are consistent with OSHA and air quality regulations.

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TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☒ Heavy Metals
- ☒ Toxic Materials
- ☐ Oxygen Demanding Substance
- ☒ Oil & Grease
- ■ Floatable Materials
- ☐ Bacteria & Viruses

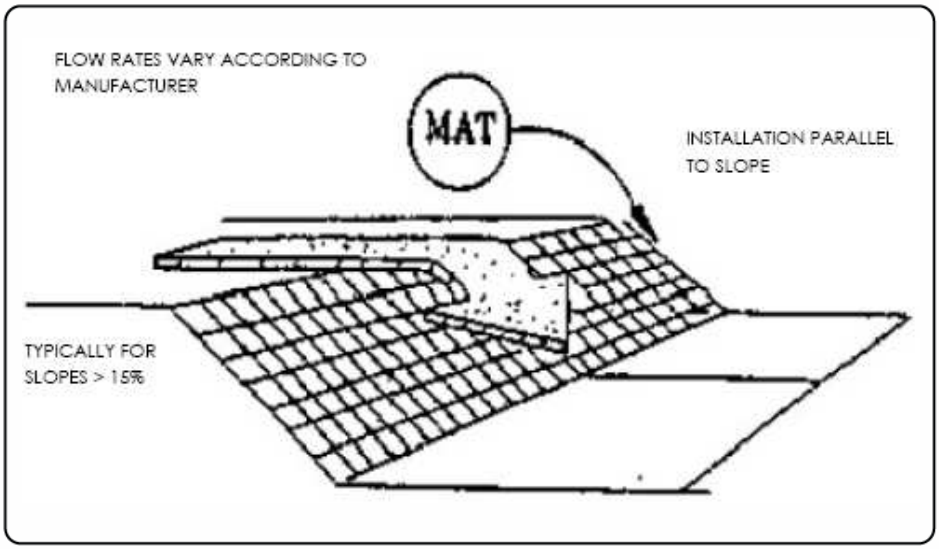
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☐ Regulatory
- ☒ Training
- ☒ Staffing
- ☒ Administrative

- ■ High
- ☒ Medium
- ☐ Low

BMP: Geotextiles and Mats GM



OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

DESCRIPTION:

Mats made of natural or synthetic material, which are used to temporarily or permanently stabilize soil.

APPLICATION:

- ► Typically suited for post-construction site stabilization, but may be used for temporary stabilization of highly erosive soils.
- ► Channels and streams.
- ► Steep slopes.

INSTALLATION/APPLICATION CRITERIA:

- ► Mats may be applied to disturbed soils and where existing vegetation has been removed.
- ► The following organic matting materials provide temporary protection until permanent vegetation is established, or when seasonal circumstances dictate the need for temporary stabilization until weather or construction delays are resolved: Jute mats and straw mats.
- ► The following synthetic mats may be used for either temporary or post-construction stabilization, both with and without vegetation: excelsior matting, glass fiber matting, and mulch matting.
- ► Staples are needed to anchor the matting.

LIMITATIONS:

- ► Mats are more costly than other BMP practices, limiting their use to areas where other BMPs are ineffective (e.g., channels, steep slopes).
- ► May delay seed germination, due to reduction in soil temperature.
- ► Installation requires experienced contractor to ensure soil stabilization and erosion protection.

MAINTENANCE:

- ► Inspect monthly and after significant rainfall.
- ► Re-anchor loosened matting and replace missing matting and staples as required.

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TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

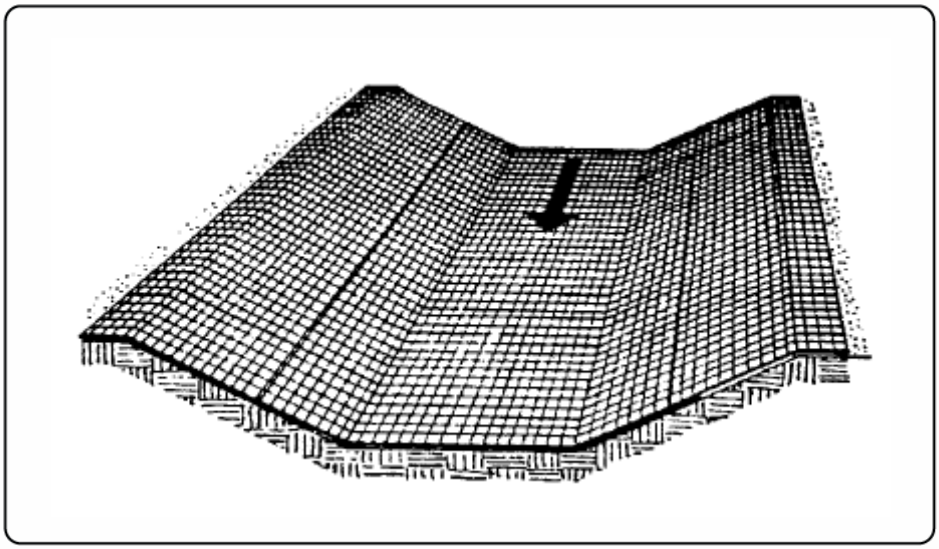
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

- ■ High
- ☒ Medium
- ☐ Low

BMP: Erosion Control Blankets — ECB



OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

DESCRIPTION:

- ► Erosion control blankets are used in place of mulch on areas of high velocity runoff and/or steep grade, to aid in controlling erosion on critical areas by protecting young vegetation.

APPLICATIONS:

- ► Where vegetation is likely to grow too slowly to provide adequate cover.
- ► In areas subject to high winds where mulch would not be effective.

INSTALLATION/APPLICATION CRITERIA:

- ► Install erosion control blankets parallel to the direction of the slope.
- ► In ditches, apply in direction of the flow.
- ► Place erosion control blankets loosely on soil - do not stretch.
- ► Ends of blankets should be buried no less than six inches deep.
- ► Staple the edges of the blanket at least every three feet.

LIMITATIONS:

- ► Not recommended in areas which are still under construction.

MAINTENANCE:

- ► Check for erosion and undermining periodically, particularly after rainstorms.
- ► Repair dislocations or failures immediately.
- ► If washouts occur, reinstall after repairing slope damage.
- ► Monitor until permanently stabilized.

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TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

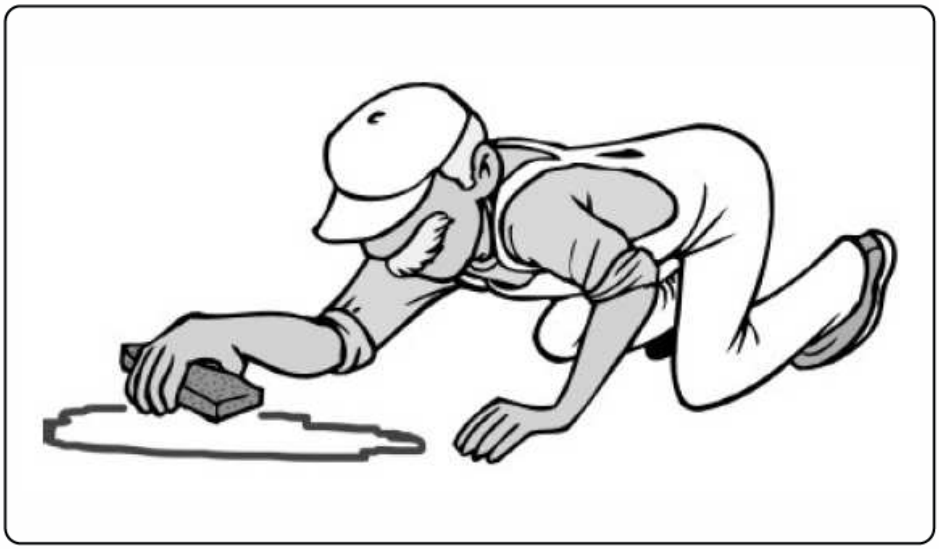
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

- ■ High
- ☒ Medium
- ☐ Low

BMP: Spill Clean-Up SCU



OBJECTIVES

- ☒ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

DESCRIPTION:

Practices to clean-up leakage/spillage of on-site materials that may be harmful to receiving waters.

APPLICATION:

- ► All sites

GENERAL:

- ► Store controlled materials within a storage area.
- ► Educate personnel on prevention and clean-up techniques.
- ► Designate an Emergency Coordinator responsible for employing preventative practices and for providing spill response.
- ► Maintain a supply of clean-up equipment on-site and post a list of local response agencies with phone numbers.

METHODS:

- ► Clean-up spills/leaks immediately and remediate cause.
- ► Use as little water as possible. NEVER HOSE DOWN OR BURY SPILL CONTAMINATED MATERIAL.
- ► Use rags or absorbent material for clean-up. Excavate contaminated soils. Dispose of clean-up material and soil as hazardous waste.
- ► Document all spills with date, location, substance, volume, actions taken and other pertinent data.
- ► Contact local Fire Department and State Division of Environmental Response and Remediation (Phone #536-4100) for any spill of reportable quantity.

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TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ■ Toxic Materials
- ☒ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Construction Waste

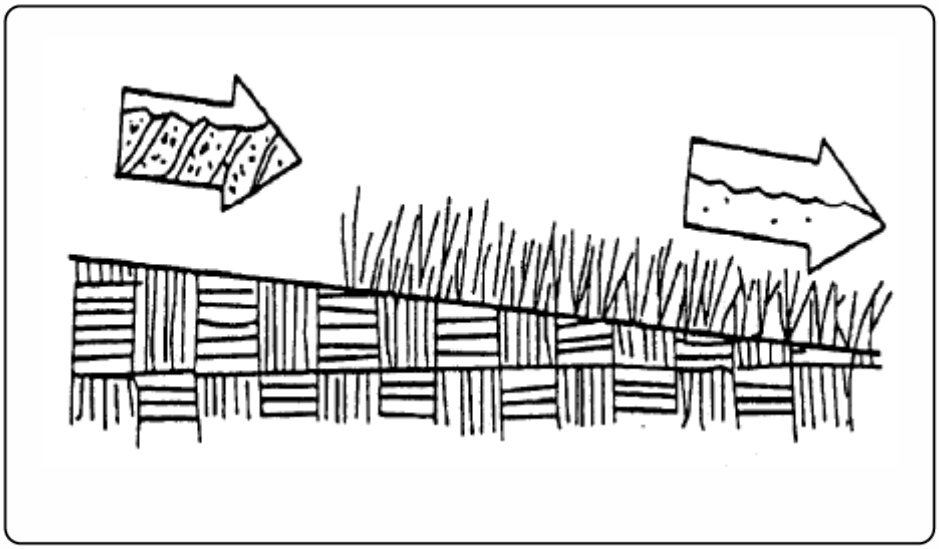
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ■ Training

- ■ High
- ☒ Medium
- ☐ Low

BMP: Seeding and Planting SP



OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

DESCRIPTION:

► Seeding of grass and plantings of trees, shrubs, vines and ground covers provide long-term stabilization of soil. In some areas, with suitable climates, grasses can be planted for temporary stabilization.

APPLICATION:

- ► Appropriate for site stabilization both during and after construction
- ► Any graded/cleared areas where construction activities have ceased.
- ► Open space cut and fill areas.
- ► Steep slopes, spoil piles, vegetated swales, landscape corridors, stream banks.

INSTALLATION/APPLICATION CRITERIA:

Type of vegetation, site and seedbed preparation, planting time, fertilization and water requirements should be considered for each application. Grasses:

- ► Ground preparation: fertilize and mechanically stabilize the soil.
- ► Tolerant of short-term temperature extremes and waterlogged soil composition.
- ► Appropriate soil conditions: shallow soil base, good drainage, slope 2:1 or flatter.
- ► Mowing, irrigating, and fertilizing are vital for promoting vigorous grass growth.

Trees and Shrubs:

- ► Selection criteria: vigor, species, size, shape & wildlife food source.
- ► Soil conditions: select species appropriate for soil, drainage & acidity.
- ► Other factors: wind/exposure, temperature extremes, and irrigation needs.

Vines and Ground Covers:

- ► Ground preparation: lime and fertilizer preparation.
- ► Use proper seeding rates.
- ► Appropriate soil conditions: drainage, acidity and slopes.
- ► Generally avoid species requiring irrigation.

LIMITATIONS:

- ► Permanent and temporary vegetation may not be appropriate in dry periods without irrigation.
- ► Fertilizer requirements may have potential to create stormwater pollution.

MAINTENANCE:

- ► Shrubs and trees must be adequately watered and fertilized and if needed pruned.
- ► Grasses may need to be watered and mowed.

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TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☒ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

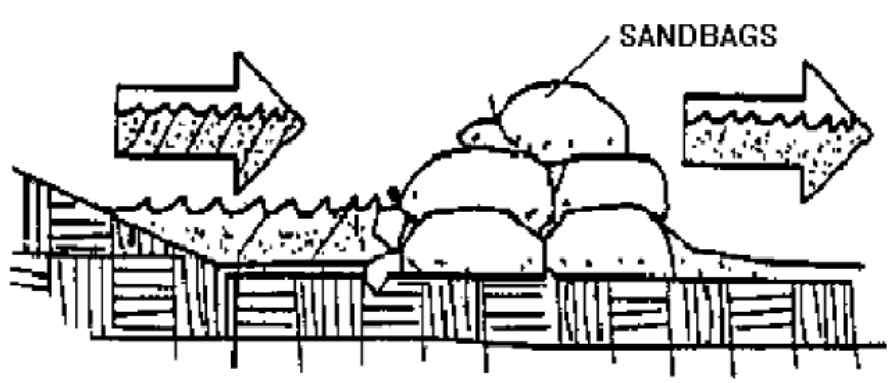
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

- ■ High
- ☒ Medium
- ☐ Low

BMP: Sand Bag Barrier SBB



OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

DESCRIPTION:

Stacking sand bags along a level contour creates a barrier which detains sediment laden water, ponding water upstream of the barrier and promoting sedimentation.

APPLICATION:

- ► Along the perimeter of the site.
- ► May be used in drainage areas up to 5 acres.
- ► Along streams and channels
- ► Across swales with small catchments.
- ► Around temporary spoil areas.
- ► Below the toe of a cleared slope.

INSTALLATION/APPLICATION CRITERIA:

- ► Install along a level contour.
- ► Base of sand bag barrier should be at least 48 inches wide.
- ► Height of sand bag barrier should be at least 18 inches high.
- ► 4 inch PVC pipe may be installed between the top layers of sand bags to drain large flood flows.
- ► Provide area behind barrier for runoff to pond and sediment to settle.
- ► Place below the toe of a slope.

LIMITATIONS:

- ► Sand bags are more expensive than other barriers, but also more durable.
- ► Burlap should not be used.

MAINTENANCE:

- ► Inspect after each rain.
- ► Reshape or replace damaged sand bags immediately.
- ► Replace sediment when it reaches six inches in depth.

WEBER COUNTY

ENGINEERING DEPARTMENT

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TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

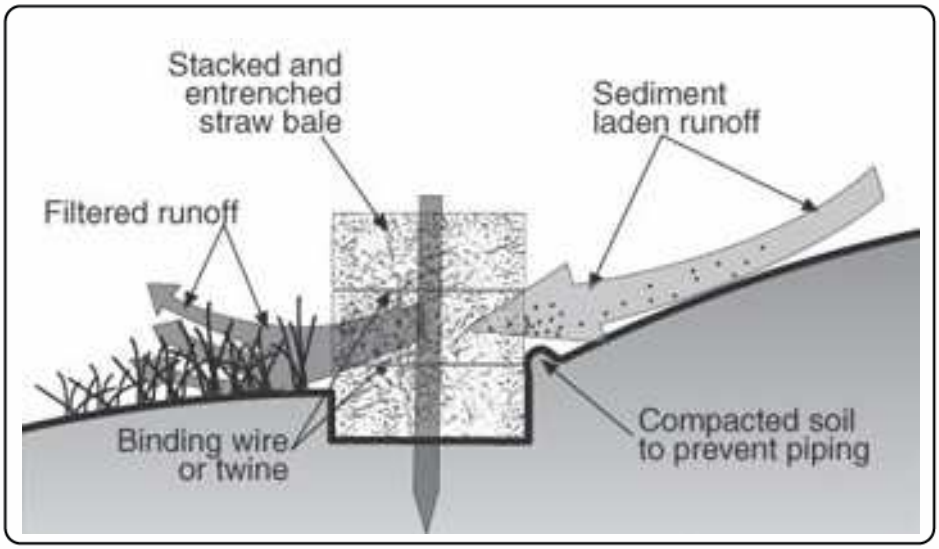
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ☐ Training

- ■ High
- ☒ Medium
- ☐ Low

BMP: Straw Bale Barrier STB



OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

DESCRIPTION:

Temporary sediment barrier consisting of a row of entrenched and anchored straw bales.

APPLICATION:

- ► Perimeter Control: place barrier at downgradient limits of disturbance.
- ► Sediment barrier: place barrier at toe of slope or soil stockpile.
- ► Protection of existing waterways: place barrier at top of stream bank.
- ► Inlet Protection.

INSTALLATION/APPLICATION CRITERIA:

- ► Excavate a 4-inch minimum deep trench along contour line, i.e. parallel to slope, removing all grass and other material that may allow underflow.
- ► Place bales in trench with ends tightly abutting; fill any gaps by wedging loose straw into openings.
- ► Anchor each bale with 2 stakes driven flush with the top of the bale.
- ► Backfill around bale and compact to prevent piping, backfill on uphill side to be built up 4-inches above ground at the barrier.

LIMITATIONS:

- ► Recommended maximum area of 0.5 acre per 100 feet of barrier
- ► Recommended maximum upgradient slope length of 150 feet
- ► Recommended maximum uphill grade of 2:1 (50%)

MAINTENANCE:

- ► Inspect immediately after any rainfall and at least daily during prolonged rainfall.
- ► Look for runoff bypassing ends of barriers or undercutting barriers.
- ► Repair or replace damaged areas of the barrier and remove accumulated sediment.
- ► Realign bales as necessary to provide continuous barrier and fill gaps.
- ► Recompact soil around barrier as necessary to prevent piping.

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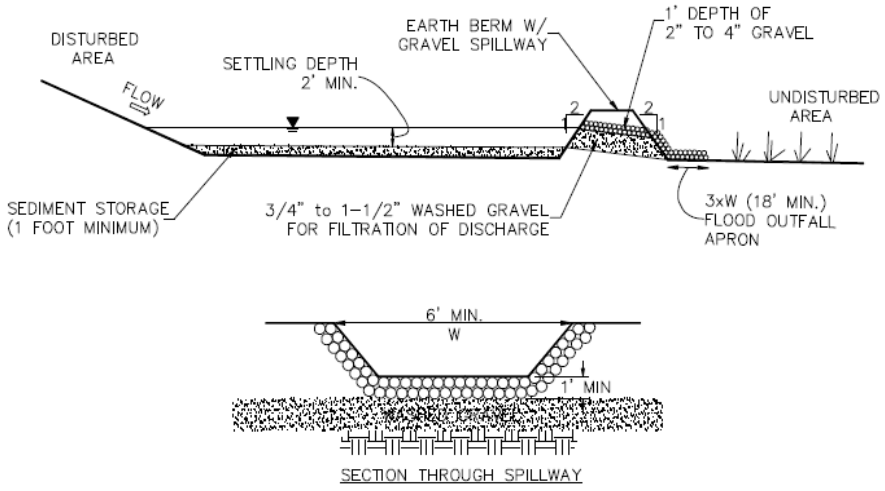
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

- ■ High
- ☒ Medium
- ☐ Low

BMP: Sediment Trap ST



OBJECTIVES

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DESCRIPTION:

A sediment trap is a small excavated or bermed area where runoff from small drainage areas is detained and sediment can settle.

APPLICATION:

- ► Temporary control for runoff from disturbed areas of less than 3 acres.
- ► Temporary control for discharge from diversion dike, surface benching, or other temporary drainage measures.

INSTALLATION/APPLICATION CRITERIA:

- ► Design basin for site specific location.
- ► Excavate basin or construct compacted berm containment.
- ► Construct outfall spillway with apron.
- ► Provide downstream silt fence if necessary.

LIMITATIONS:

- ► Should be sized based on anticipated runoff, sediment loading and drainage area size.
- ► May require silt fence at outlet for entrapment of very fine silts and clays.

MAINTENANCE:

- ► Inspect after each rainfall event and at a minimum of monthly.
- ► Repair any damage to berm, spillway or sidewalls.
- ► Remove accumulated sediment as it reaches 2/3 height of available storage.
- ► Check outlet for sedimentation/erosion of downgradient area and remediate as necessary. Install silt fence if sedimentation apparent.

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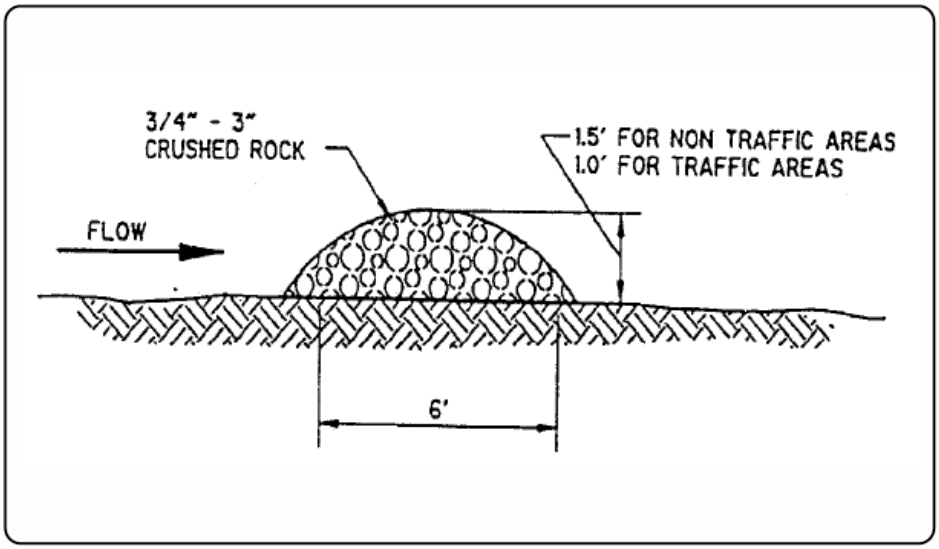
BMP: Brush or Rock Filter — BRF



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DESCRIPTION:

A rock filter is made of rock 3/4 - 3" in diameter and placed along a level contour. A brush filter is composed of brush (usually obtained during the site clearing) wrapped in filter cloth and anchored to the toe of the slope. If properly anchored brush or rock filters may be used for sediment trapping and velocity reduction.

APPLICATION:

- ► As check dams across mildly sloped construction roads.
- ► Below the toe of slopes.
- ► Along the site perimeter.
- ► In areas where sheet or rill flow occurs.
- ► Around temporary spoil areas.
- ► At sediment traps or culvert/pipe outlets.

INSTALLATION/APPLICATION CRITERIA:

- ► For rock filter, use larger rock and place in staked, woven wire sheathing if placed where concentrated flows occur.
- ► Install along a level contour.
- ► Leave area behind berm where runoff can pond and sediment can settle.
- ► Drainage areas should not exceed 5 acres.

LIMITATIONS:

- ► Rock berms may be difficult to remove.
- ► Removal problems limit their usefulness in landscaped areas.
- ► Runoff will pond upstream of the filter, possibly causing flooding if sufficient space does not exist.

MAINTENANCE:

- ► Inspect monthly after each rainfall.
- ► If berm is damaged, reshape and replace lost/dislodged rock.
- ► Remove sediment when depth reaches 1/3 of berm height, or 1 ft.

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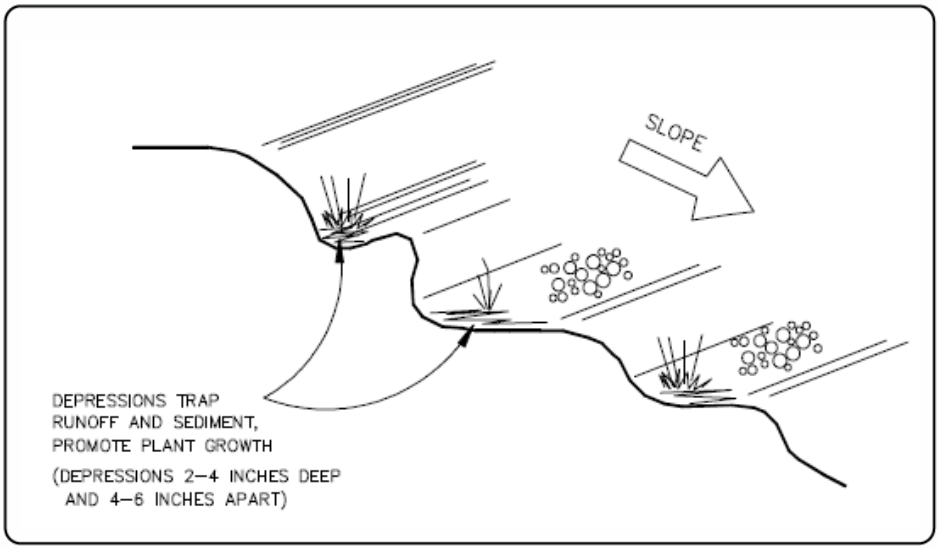
BMP: Surface Roughening SR



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DESCRIPTION:

Rough preparation of working areas leaving depressions and uneven surface. Depressions should be done parallel to contours.

APPLICATION:

- ► Surface roughening is appropriate for all construction that will not be receiving impervious cover within 14 days and that will be exposed less than 60 days (seed areas to be open in excess of 60 days).

INSTALLATION/APPLICATION CRITERIA:

- ► Surface should be left in rough condition during initial earthwork activity.
- ► Surfaces that have become smoothed or compacted due to equipment traffic should be roughened by use of disks, spring harrows, teeth on front end loader, or similar, operating along the contours of the slope. Tracking (by crawler tractor driving up and down slope) may also be used to provide depressions parallel to contours.
- ► Avoid compaction of soils during roughening as this inhibits plant growth and promotes storm water runoff. Limit tracked machinery to sandy soil.
- ► Seed or mulch areas to be exposed in excess of 60 days.
- ► Employ dust controls. (See Dust Control Detail Sheet).

LIMITATIONS:

- ► Will not withstand heavy rainfall.
- ► Slopes steeper than 2:1 (50%) should be benched. (See Benching Detail Sheet).

MAINTENANCE:

- ► Inspect following any storm event and at a minimum of weekly.
- ► If erosion in the form of rills (small waterways formed by runoff) is evident, perform machine roughening of area.
- ► For vegetated slopes reseed areas that are bare or have been reworked.

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