



**CITY OF EAST GRAND RAPIDS
BUILDING PERMIT APPLICATION**
750 Lakeside Drive SE, East Grand Rapids, MI 49506
Phone 616.940.4817 Fax 616.831.6121
buildingpermits@eastgr.org

Drainage
Plan
Example

INCOMPLETE APPLICATIONS WILL BE RETURNED AND NOT PROCESSED

I. LOCATION OF BUILDING PROJECT

Street Address 1234 Example Rd.

Permanent Parcel Number (can be found at <https://accessmygov.com/?uid=320>)

Is project located within 500 feet of lake or stream? Yes No If yes, a Soil Erosion and Sedimentation Control Permit from Kent County Road Commission is required.

II. PROPERTY OWNER INFORMATION

| | | | |
|--------------------------------|-------------------------------|-----------------|------------------|
| Name <u>John Public</u> | Phone <u>555-1234</u> | Email | |
| Address <u>1234 Example Rd</u> | City <u>East Grand Rapids</u> | State <u>MI</u> | Zip <u>49506</u> |

II. APPLICANT INFORMATION

Who is doing the work? Homeowner Contractor If you are a contractor, please fill out the following information.

| | | |
|--|------------------------------------|-----------------|
| Applicant Name <u>Anne Contractor</u> | State License Number | Expiration Date |
| Company Name <u>Home Reno</u> | | |
| Address (Street Number and Name) | Phone | |
| City | State | Zip Code |
| Federal ID (or reason for exemption) | MESC No. (or reason for exemption) | Fax |
| Workers Compensation Insurance Carrier (or reason for exemption) | Email | |

III. TYPE OF PROJECT

*Projects may be subject to East Grand Rapids infrastructure impact fees noted below. Fee must be paid to East Grand Rapids when submitting application (cash or check).

| | | | | |
|---|--|--|--|--------------------------|
| <input type="checkbox"/> New Single Family* \$150 | <input type="checkbox"/> Swimming Pool* \$50 | <input type="checkbox"/> Egress Window | Total Square Footage of New Construction | Project Value (required) |
| <input checked="" type="checkbox"/> Addition* \$100 | <input type="checkbox"/> Roofing | <input type="checkbox"/> Demolition* \$150 | | |
| <input type="checkbox"/> Interior Remodel | <input type="checkbox"/> Siding | <input type="checkbox"/> Commercial* \$150 | <u>300 SF</u> | <u>\$40,000</u> |
| <input type="checkbox"/> Accessory Structure or Building* \$75 | <input type="checkbox"/> Windows | <input type="checkbox"/> Sign | | |
| <input type="checkbox"/> Porch | <input type="checkbox"/> Deck | <input type="checkbox"/> Other | | |
| Project Description (required) <u>300 SF Addition on rear of home</u> | | | | |
| Was a zoning variance required? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If so, dated granted: _____ | | | | |

IV. PLAN REVIEW REQUIREMENTS - The following must be submitted with your signed application:

- NEW CONSTRUCTION AND ADDITIONS:**
 - Site Plan: Show setbacks, dimensions, and area of each component including the lot and all structures, existing and proposed. Show locations of all easements and streets. (Three copies)
 - Foundation Survey by a licensed surveyor when construction is complete.
 - Drainage/Storm Water Management Plan – see attached requirements. (Three copies)
- DETAILED BUILDING PLANS** drawn to scale to include floor plan, elevations and structural details such as foundation, floor, wall and roof information. (Three sets)
- BUILDING DEMOLITIONS:**
 - Copy of contract with property owner.
 - Utility disconnect verification forms
- ROOFING/SIDING:** Cascade Township worksheet is required.

V. APPLICANT AND OWNER SIGNATURES

Section 23a of the state construction code act of 1972, Act No. 230 of the Public Acts of 1972, being section 125.1523a of the Michigan Compiled Laws, prohibits a person from conspiring to circumvent the licensing requirements of this state relating to persons who are to perform work on a residential building or a residential structure. Violators of section 23a are subject to civil fines.

I agree to comply with the terms and requirements of all codes and ordinances in effect in the City of East Grand Rapids pertaining to all phases of construction and development of this project. It is also understood that a certificate of use and occupancy must be obtained prior to any use or occupancy. **New construction and additions must be inspected for zoning compliance before a certificate of use and occupancy will be issued.**

NOTE: All information on this form is subject to disclosure under the Freedom of Information Act. The property owner hereby gives permission for the City of East Grand Rapids officials, staff and consultants to go on the property for purposes of verifying the information submitted.

| | | |
|---|-------|------|
| Signature of Applicant – Property Owner's Agent/Contractor (required) | Title | Date |
| <u>[Signature]</u> | | |
| Signature of Property Owner (required) | Date | |
| <u>[Signature]</u> | | |



**CITY OF EAST GRAND RAPIDS
BUILDING PERMIT APPLICATION REQUIREMENTS**

DATE: _____ SITE ADDRESS: _____

Permanent Parcel Number: _ _ - _ _ - _ _ - _ _ - _ _ Zoned: _____

| | |
|--|-------------|
| ALL PERMITS | |
| <input type="checkbox"/> Application - completed and signed by contractor and property owner. | |
| NEW CONSTRUCTION AND ADDITIONS | |
| <input type="checkbox"/> 3 complete sets of building plans (include elevations, floor plan, foundation, floor, wall, roof and beam details). | |
| <input type="checkbox"/> 3 copies of site plan showing the following: | |
| <input type="checkbox"/> Lot coverage calculations of existing and proposed | |
| <input type="checkbox"/> Setbacks and dimensions of proposed structure and all other existing structures on the same premises | |
| <input type="checkbox"/> 3 copies of drainage/storm water management plan | |
| <input type="checkbox"/> Foundation Survey by a licensed surveyor when construction is complete. | |
| <input type="checkbox"/> Infrastructure Impact Fee | |
| <input type="checkbox"/> New Residential or Commercial Construction - \$150.00 | |
| <input type="checkbox"/> Addition - \$100.00 | |
| <input type="checkbox"/> Accessory Building - \$75.00 | |
| <input type="checkbox"/> Soil Erosion and Sedimentation Control Permit if within 500 feet of lake or stream | |
| <input type="checkbox"/> Utility permit applications and fees. These may include the following: | |
| <input type="checkbox"/> Water | |
| <input type="checkbox"/> Sanitary Sewer | |
| <input type="checkbox"/> Storm Sewer | |
| <input type="checkbox"/> Right of Way | |
| <input type="checkbox"/> Water Tap | |
| <input type="checkbox"/> Water Meter | |
| <input type="checkbox"/> Integrated Connection Fee | |
| INTERIOR REMODEL | |
| <input type="checkbox"/> 3 sets of detailed building plans showing existing and proposed construction | |
| <input type="checkbox"/> Basement remodel w/egress window: Site plan and drainage plan (three sets) | |
| SWIMMING POOL | |
| <input type="checkbox"/> 3 copies of site plan showing the following: | |
| <input type="checkbox"/> Location and description of fencing | |
| <input type="checkbox"/> Location of pump and mechanical equipment | |
| <input type="checkbox"/> Location of accessory buildings | |
| <input type="checkbox"/> 3 copies of drainage/storm water management plan | |
| <input type="checkbox"/> Infrastructure Impact Fee - \$50.00 | |
| ROOFING, SIDING (replacement only) | |
| <input type="checkbox"/> Cascade Township worksheet | |
| DEMOLITION PERMITS | |
| <input type="checkbox"/> Signed copy of contract with property owner | |
| <input type="checkbox"/> Utility disconnect verification forms | |
| <input type="checkbox"/> Infrastructure Impact Fee - \$150.00 | |
| ZONING APPROVAL | DATE |
| APPLICATION APPROVAL | DATE |
| <input type="checkbox"/> This permit requires East Grand Rapids sign off before C of O is issued. | |



Supplemental Building Permit Worksheet

(To be submitted with building permit application)

Property Address 1234 Example Rd Date _____

1. Will a dumpster be present at the work site for longer than 3 days? If yes, a dumpster application will need to be submitted. Dumpsters must be located on a private property driveway.
 Yes No
2. Will new HVAC equipment or other mechanical equipment (i.e. generators) be installed on the exterior of the house? If in the side yard, then a side yard AC unit permit will need to be submitted.
 Yes No Location: _____
3. Will new egress/window wells be installed? If yes, please make sure they are shown on the site plan.
 Yes No
4. Will any new fencing be installed on the property? If yes, a fence permit application will need to be submitted.
 Yes No
5. Will temporary storage units be present during construction? If yes, then a temporary storage unit permit will need to be submitted. Temporary storage units must be located on a private property driveway.
 Yes No
6. If any demolition is to occur, do the building plans adequately describe what is to be demolished? Any section of a house that is non-conforming and is demolished must be rebuilt to the current zoning requirements.
 Yes No N/A
7. Is any new pavement/impervious surface coverage shown on the site plan?
 Yes No N/A
8. Will any work be done in the city right-of-way (utility connection, driveway approach, sidewalk closing, street closing, etc.)? If yes, then a Right-of-Way permit will need to be submitted.
 Yes No
9. Are all setbacks and lot coverage/building coverage calculations identified and expressed on the submitted site plan?
 Yes No N/A
10. Will you be needing water and sewer disconnected/connected and/or a new water meter installed? If yes, a Right of Way permit and/or a Water Tap and Meter application will need to be submitted.
 Yes No N/A

Please read through the following rules and regulations, and then have the property owner and contractor sign at the bottom stating that you have read and acknowledge them.

- City right-of-way will remain free of all building materials and will be clean of any dirt or construction debris. Silt fencing may be required by the city if deemed necessary.
- Construction work hours are between 7am and 9pm. (strictly enforced)
- Storm water drainage plans must be installed as approved by the city and must be inspected for compliance before a certificate of occupancy can be granted. Both property owner and contractor have read and understand the Drainage and Storm Water Management Plan Requirements.
- Port-a-Potties must be kept on your private property. They must be maintained in a cleanly manner.
- While it is not a requirement, the city highly recommends that property owners discuss their construction projects with adjacent neighbors as a courtesy.

Property Owner Signature: _____

Contractor Signature: _____



Residential Construction Drainage Management Plan Requirements

For all new building construction and additions, including pools and egress window wells, a drainage management plan is required. The purpose of this plan is to demonstrate how storm water is to be managed within the property. An impervious area worksheet is also required for all new building construction and additions. The purpose of this worksheet is to calculate out total building and impervious area square footage, and to determine what treatment measures will be used for the “first flush” of rainwater. All new residential homes, as well as large renovations/additions over 400SF in size, must submit a drainage management plan sealed by a licensed professional civil engineer showing no increase of storm water runoff to adjacent properties. Please respect the intent of this process and provide as much detail as possible.

For projects under 400 square feet in size, the following is required:

- A scaled site plan using symbols and notations to indicate gutters, downspouts, underground piping, sump-pumps, direction of discharge or runoff, and any other element of your plan. Please indicate any change in grade or removal of vegetation. Property lines, parcel dimensions, north arrow, and street names must be identified.

For new residential homes and projects 400 square feet and over in size, the following is required:

- Everything required for projects under 400 square feet in size, plus topographic information, location of public storm utilities, location of storm easements, and plan sealed by a professional civil engineer.

We do not allow the following:

- Discharge or increased runoff to neighboring property without a recorded easement
- Discharge onto any public sidewalk
- Curb cores/cuts for storm water drainage
- Additional discharge of stormwater into foundation drains that may be connected to the sanitary sewer system
- Discharge into the public right of way or street where an underground storm sewer connection is available on the same side of the street within 100 feet of the front property corners. In cases where a storm sewer connection is not practical, a dry well or pop-up may be placed in the outlawn with Right-of-Way permit approval in conjunction with approval drainage plan.
- Use of colored highlighters or markers on an existing site plan to indicate drainage plan features – they do not copy well
- Approval of a Certificate of Occupancy prior to complete installation and inspection of the drainage/storm water management system by the City of East Grand Rapids

The property owner is responsible to make sure that there is no increased storm water being discharged to neighboring properties. By submitting a detailed plan, the applicant and the property owner certify and acknowledge that they may be held liable in a civil claim by any adjacent property owners impacted by increased storm water runoff.

We cannot inspect what we cannot see. The applicant must call EGR, not Cascade, for inspection of any underground drainage system before it is buried.

Please call East Grand Rapids Public Works Administration and Engineering at 616-940-4817 with questions at any time in the process.

City of East Grand Rapids

Residential Construction Drainage Plan- Impervious Area Worksheet

Dept. of Public Works Engineering Services

Phone: (616) 940-4817

Email: buildingpermits@eastgr.org



Applicants for all projects creating new structure/impervious area must fill out this worksheet and submit it to the Department of Public Works Engineering Services with their building permit application. A stormwater management plan must be submitted with all projects altering a structure. Details on this plan can be found in the "Drainage and Stormwater Management Plan Requirements" form.

Property Address _____ Date _____

Contractor Name _____

Property Owner Name _____

IMPERVIOUS AREA CALCULATION

Size of Property

9,600 sq ft 80' x 120'

Existing Impervious Area on Property

Structures (house + accessory structures) 2,200 sq ft
 Driveway 1,300 sq ft
 Walkways 200 sq ft
 Unroofed Patios 0 sq ft
 Deck 0 sq ft
 Other (Specify _____) 0 sq ft

Total

3,700 sq ft

Proposed Impervious Area on Property

Structures (house + accessory structures) 2,500 sq ft 26% ✓
 Driveway 1,300 sq ft
 Walkways 200 sq ft
 Unroofed Patios _____ sq ft
 Deck _____ sq ft
 Other (Specify _____) _____ sq ft

Total

4,000 sq ft 41.7% ✓

Net Difference

300 sq ft

Table 5.28-1a Maximum Lot Coverage

| Lot Size (square feet) | Maximum Building Coverage ¹ | Maximum Impervious Surface | Maximum Not-to-Exceed Impervious Surface (square feet) |
|------------------------|--|----------------------------|--|
| < 5,000 SF | 35 % | 50 % | 2,500 SF |
| 5,000 - 7,199 SF | 35 % | 50 % | 3,240 SF |
| 7,200 - 11,999 SF | 35 % | 45 % | 4,800 SF |
| ≥ 12,000 SF | 35 % | 40 % | |



¹ Includes principal and accessory buildings and structures, including covered walkways; but does not include unroofed structures such as porches, patios, or decks.

City of East Grand Rapids

Residential Construction Drainage Plan- Impervious Area Worksheet

Dept. of Public Works Engineering Services

Phone: (616) 940-4817

Email: buildingpermits@eastgr.org



STORMWATER MANAGEMENT INFORMATION

Square Footage of increased impervious area (net difference) multiplied by 0.08 = cubic feet of storage volume required.

Multiply your "Proposed Net Difference Impervious Area" by 0.08 to determine the volume of storage required on site.

300 sq. ft. of proposed new impervious area x 0.08* = 24 Cubic Feet

*0.08 represents the "first flush" or the first inch of rain during any storm that carries approx. 90% of pollutants)

As described in the "Drainage and Stormwater Management Plan Requirements" worksheet, property owners are required to manage stormwater runoff within their property. The following stormwater treatment measures can be utilized to manage the "required volume". The "total capacity" of the proposed stormwater treatment measure must be greater than or equal to the "required volume". Please indicate below the size of the proposed stormwater management measure that is chose for this project.

| Treatment Measure | Conversion Formula | Storage Volume |
|--------------------------|---|------------------------------|
| Rain Barrel | # Gallons x 0.13369 = | Cubic Ft. |
| Rain Garden/Bioretention | ft (length) x ft (radius) x ft (average depth) = | Cubic Ft. |
| Drywell (w/ pea stone) | ft (radius) x ft (radius) x 3.14 x ft (depth) x 0.4 = | <u>19.3</u> Cubic Ft. |
| Cistern | Gallons x 0.13369 OR ft (radius) x ft (radius) x 3.14 x ft (depth) = | Cubic Ft. |
| Swale | ft (length) x ft (width) x ft (average depth) = | Cubic Ft. |
| Storage Basin | ft (length) x ft (width) x ft (average depth) = | Cubic Ft. |
| Porous Pavement | ft (length) x ft (width) x ft (average depth) x 0.5 = | Cubic Ft. |
| Other: | <u>EZ Flow Pipe French Drain 20' Length</u> | <u>10</u> Cubic Ft. |
| | Total Capacity (Must be equal or greater than calculation above) | <u>29.3</u> Cubic Ft. |

*Submit separate document for calculations.

For more information on stormwater management practices, please visit the Lower Grand River Organization of Watershed (LGROW) at their website <https://www.gvmc.org/epabout>.

The calculations contained on this application need to be reviewed and approved by a civil engineer who must sign the application below to indicate their approval (if construction over 400 SF in size).

Chapter 28 (Storm Water) of the City Code describes best practices for managing storm water as well as rules on soil erosion and sedimentation control. Section 8.9 of Chapter 80 requires residential construction drainage plans.

Signature of Application [Signature] Date

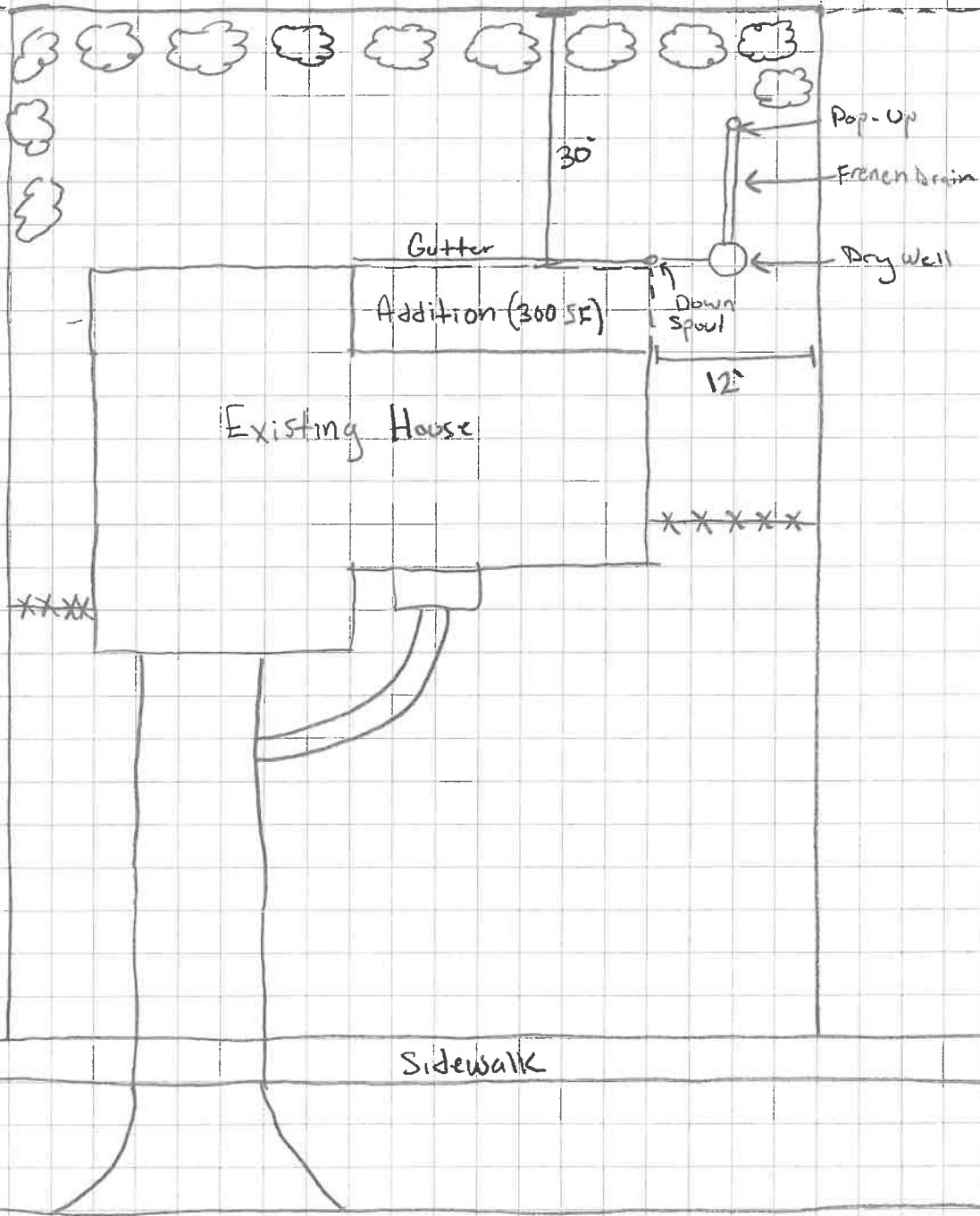
Signature of Property Owner [Signature] Date

Signature of Civil Engineer N/A Date N/A

(Civil Engineer signature required for all new houses and large additions over 400 SF in size)

EGR Approval [Signature] Date N/A

Storm Water Management Plan Example



Sidewalk

Street

**CITY OF EAST GRAND RAPIDS
STORMWATER CALCULATION WORKSHEET**

DRY WELL

VARIABLES:

DRY WELL

NUMBER OF DRY WELLS= 1 EACH
INDIVIDUAL DRY WELL CAPACITY= 50 GALLONS

VOID SPACE

DRY WELL RADIUS= 12 INCHES
DRY WELL HEIGHT= 24 INCHES
WASHED STONE THICKNESS (SIDE)= 12 INCHES
WASHED STONE THICKNESS (BOTTOM)= 12 INCHES

VOLUME CALCULATIONS:

STORAGE VOL (DRY WELL)= 6.7 FT³
STORAGE VOL (WASHED STONE)= 12.6 FT³
STORAGE VOL (TOTAL)= 19.3 FT³

**CITY OF EAST GRAND RAPIDS
STORMWATER CALCULATION WORKSHEET**

AGGREGATE FRENCH DRAIN (RECTANGULAR)

VARIABLES:

SLOTTED PIPE

TOTAL LENGTH OF PERFORATED PIPE= 20 FT
PIPE DIAMETER= 6 INCHES

VOID SPACE

AGGREGATE TRENCH WIDTH= 12 INCHES
AGGREGATE TRENCH HEIGHT= 12 INCHES

VOLUME CALCULATIONS:

STORAGE VOL (PERFORATED PIPE)= 3.93 FT³
STORAGE VOL (AGGREGATE)= 6.43 FT³
STORAGE VOL (TOTAL)= 10.36 FT³