



City of Jersey Village

**Floodplain and Drainage
Ordinance
Public Meeting**



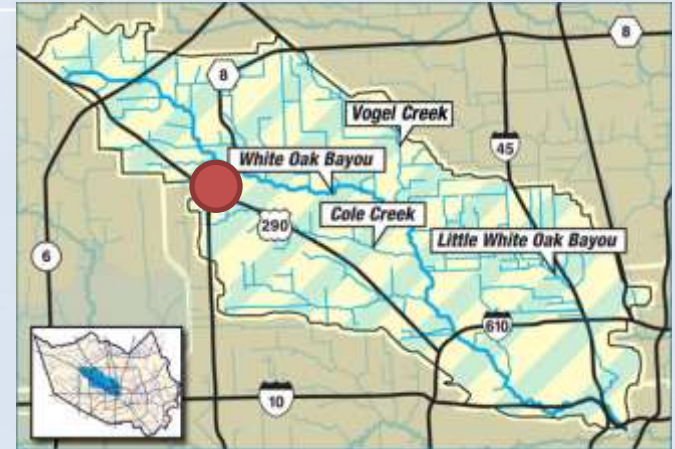


Project Objectives

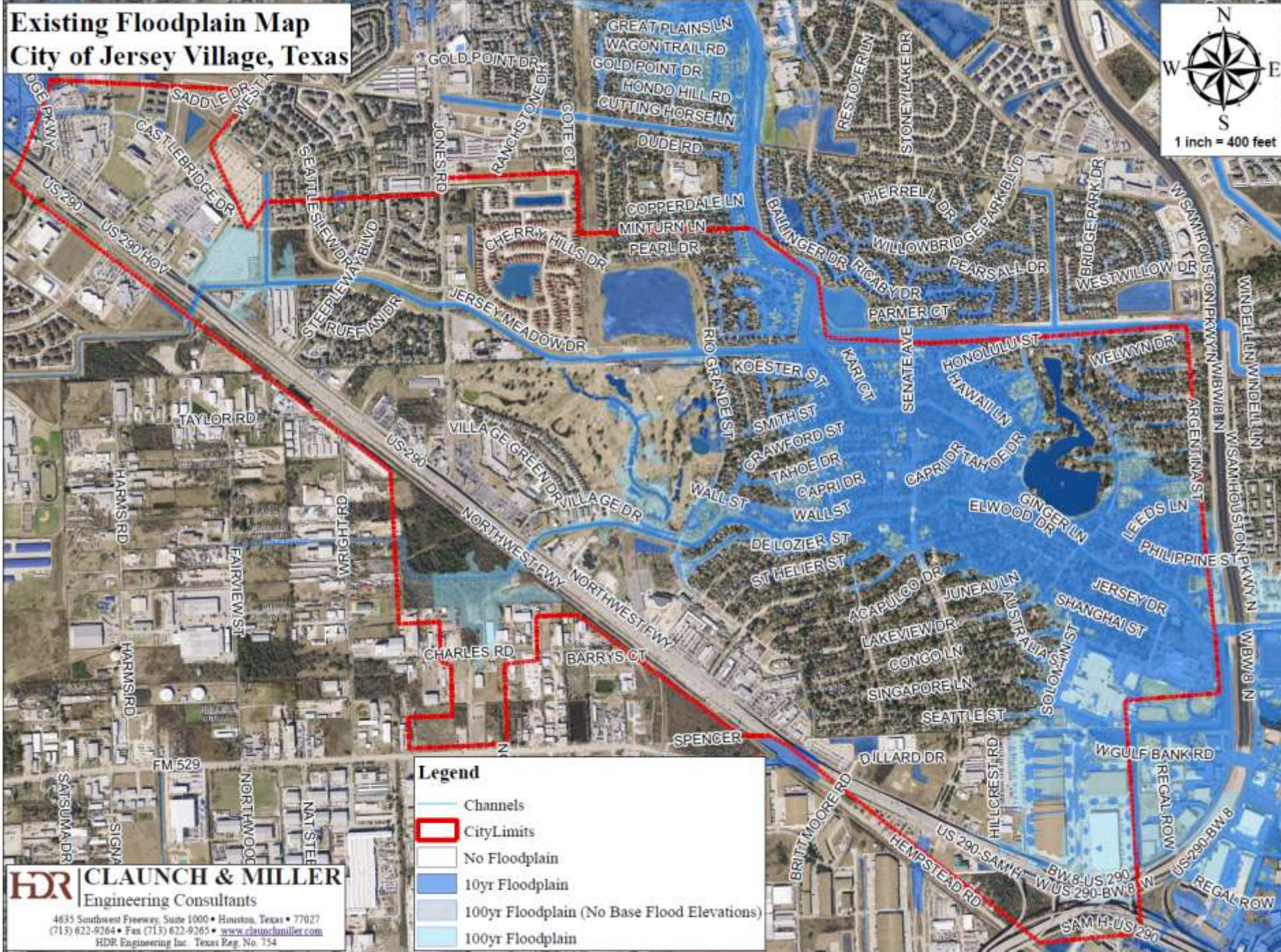
- Review of Floodplain and Drainage Ordinance
 - Slab Elevations for New Structures (Teardown and Rebuilds)
 - Development Requirements for All New Construction
- Develop Alternatives to Resolve Ordinance Conflicts
- Receive Input from Our Community
- Provide INITIAL General Recommendations

Floodplain Impacts

- White Oak Bayou
- Extensive Floodplain Limits
 - 100-Year Storm (1% Probability):
26% Chance of Flooding During a 30-Year Mortgage
 - 10-Year Storm (10% Probability):
96% Chance of Flooding During a 30-Year Mortgage
- Future Participation In Community Rating System



Existing Floodplain Map City of Jersey Village, Texas



Legend

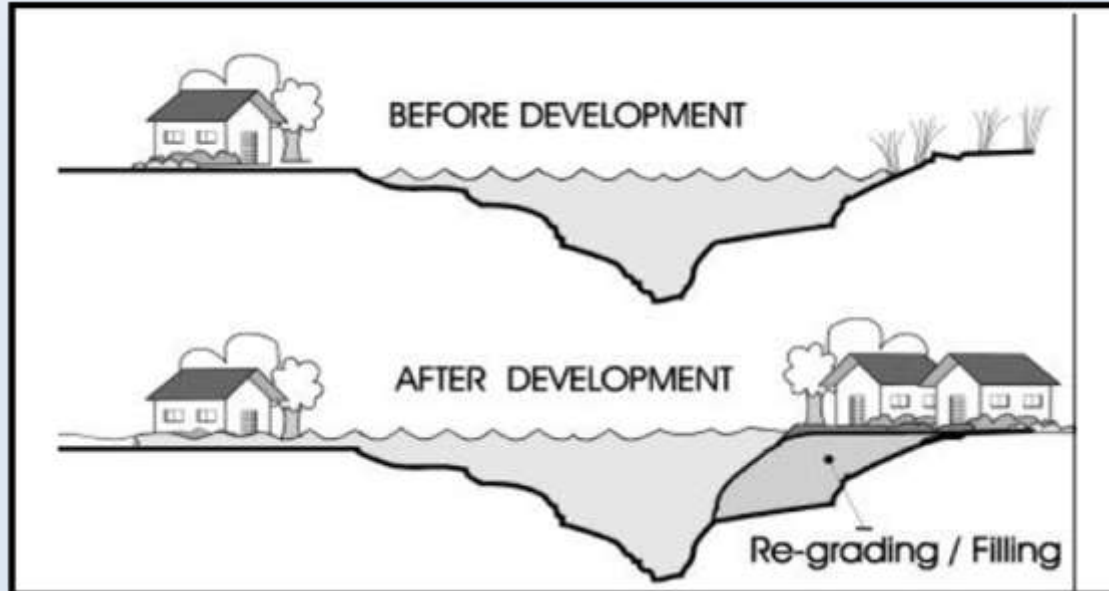
- Channels
- City Limits
- No Floodplain
- 10yr Floodplain
- 100yr Floodplain (No Base Flood Elevations)
- 100yr Floodplain

HDR **CLAUNCH & MILLER**
Engineering Consultants

4635 Southwest Freeway, Suite 1000 • Houston, Texas • 77027
(713) 622-9264 • Fax (713) 622-9265 • www.claunchmiller.com
HDR Engineering Inc. Texas Reg. No. 734

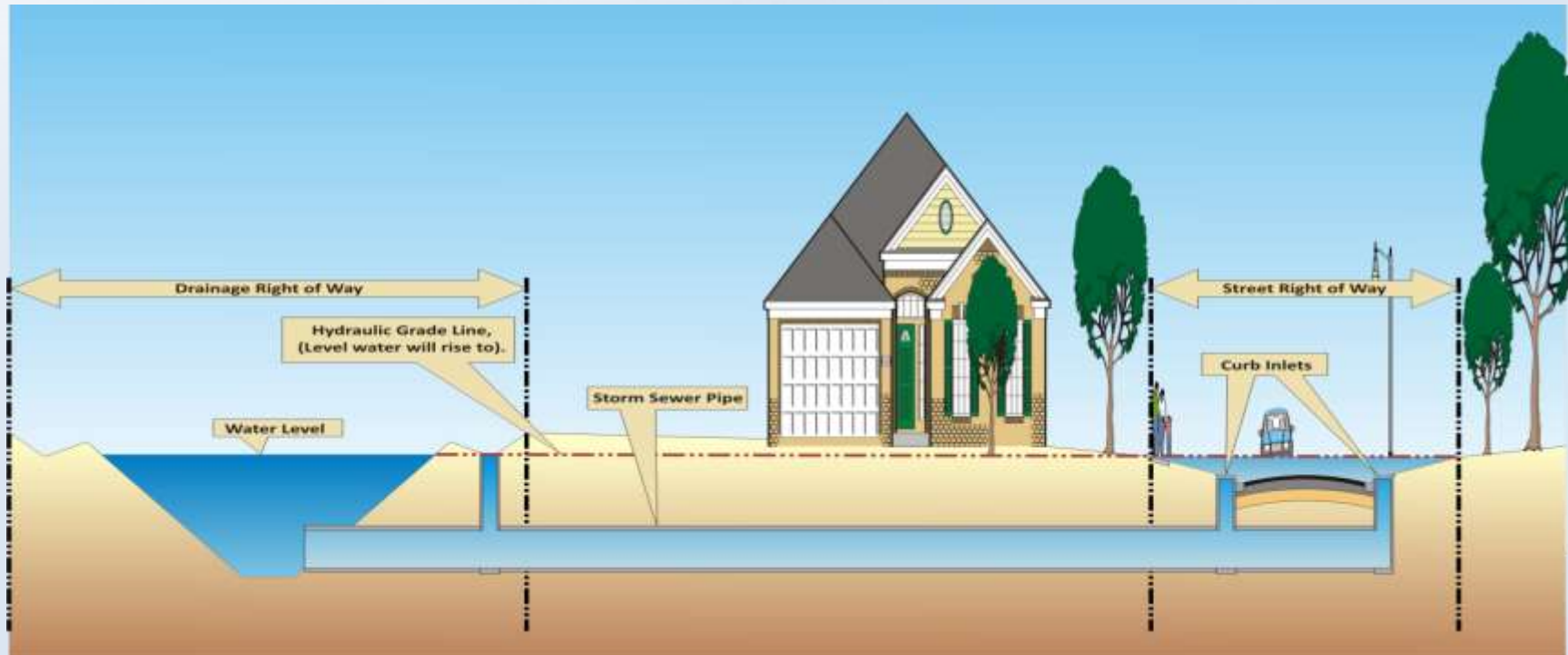
Floodplain Impacts

- Protect Structures
 - Older Homes Typically More Prone to Flooding
- Preserve Floodplain Storage
 - Prevents Downstream Impacts



Drainage Impacts

- Protect Structures
 - Utilize Overland Flow Paths
 - Avoid Impacts to Adjacent Lots



Recommendations

- Submittals
- Floodplain Development
- Fill Requirements
- Site Drainage
- Landscape



Submittal Process Recommendations



- Provide General Development Packet
 - Reduce Work Load of Staff
 - Provide Consistent Guidance to all Developers
 - Expand Upon Information Already Used
- All Plans Approved Together (Current City Policy)
 - Including:
 - Site Civil
 - Grading
 - Drainage
 - Landscape



Floodplain Development Recommendations



- Increase Freeboard to 18" Above BFE
 - Currently 12" Required
 - Extents of 10-Year Floodplain are Significant
 - Provides Additional Protection to Future Changes to Bayou
- Elevation Certificates For All New Construction
 - Insurable Structures
 - Includes Areas Outside of Floodplain
 - Verify Elevations at:
 - Design
 - Prior to Placement of Concrete
 - After Lowest Finished Floor Is Complete



Floodplain Development Recommendations



- Plan Requirements

- Engineer Shall Show Floodplain/Floodway Limits and Data
- CLOMR/CLOMR-F – Meet Endangered Species Act (ESA) Requirements
- Use or Relate Elevations to FEMA Effective Map Benchmarks (TSARP)

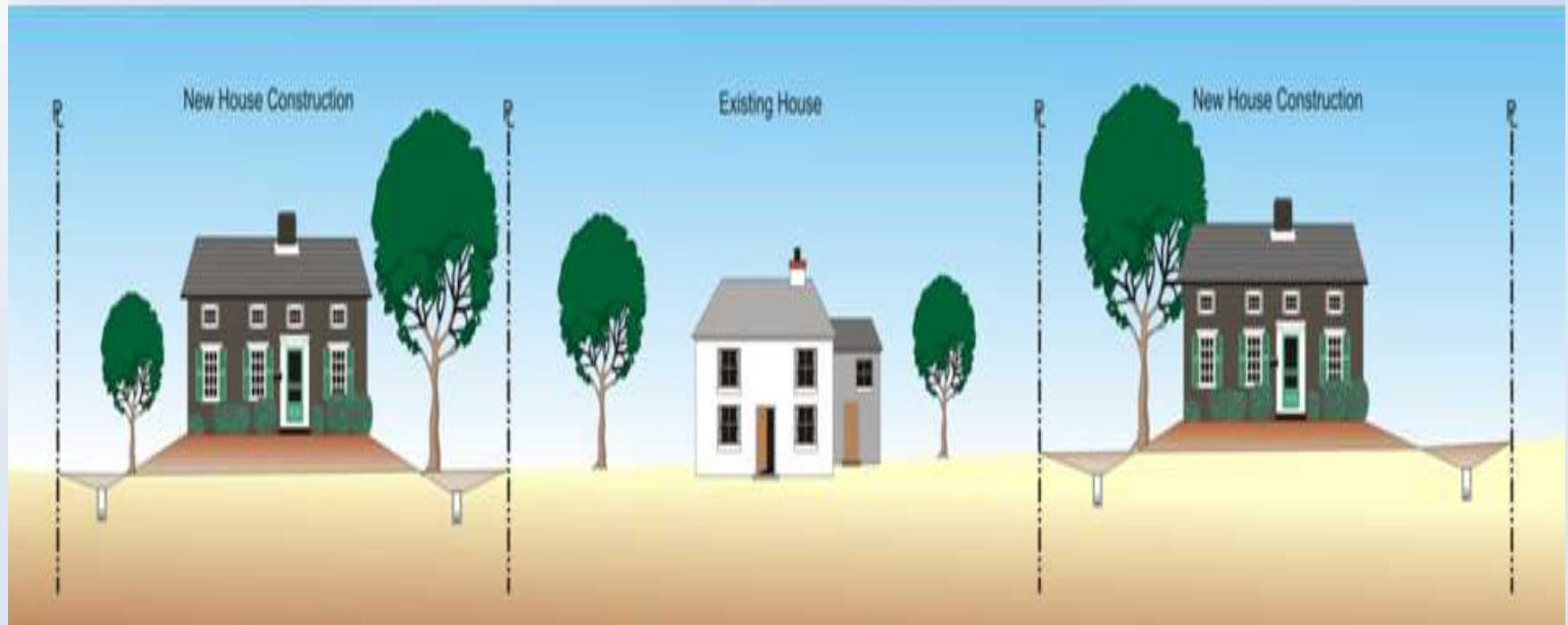


- Create Formal Floodplain Development Permit
- No Additional Floodplain Fill

Floodplain Development Recommendations



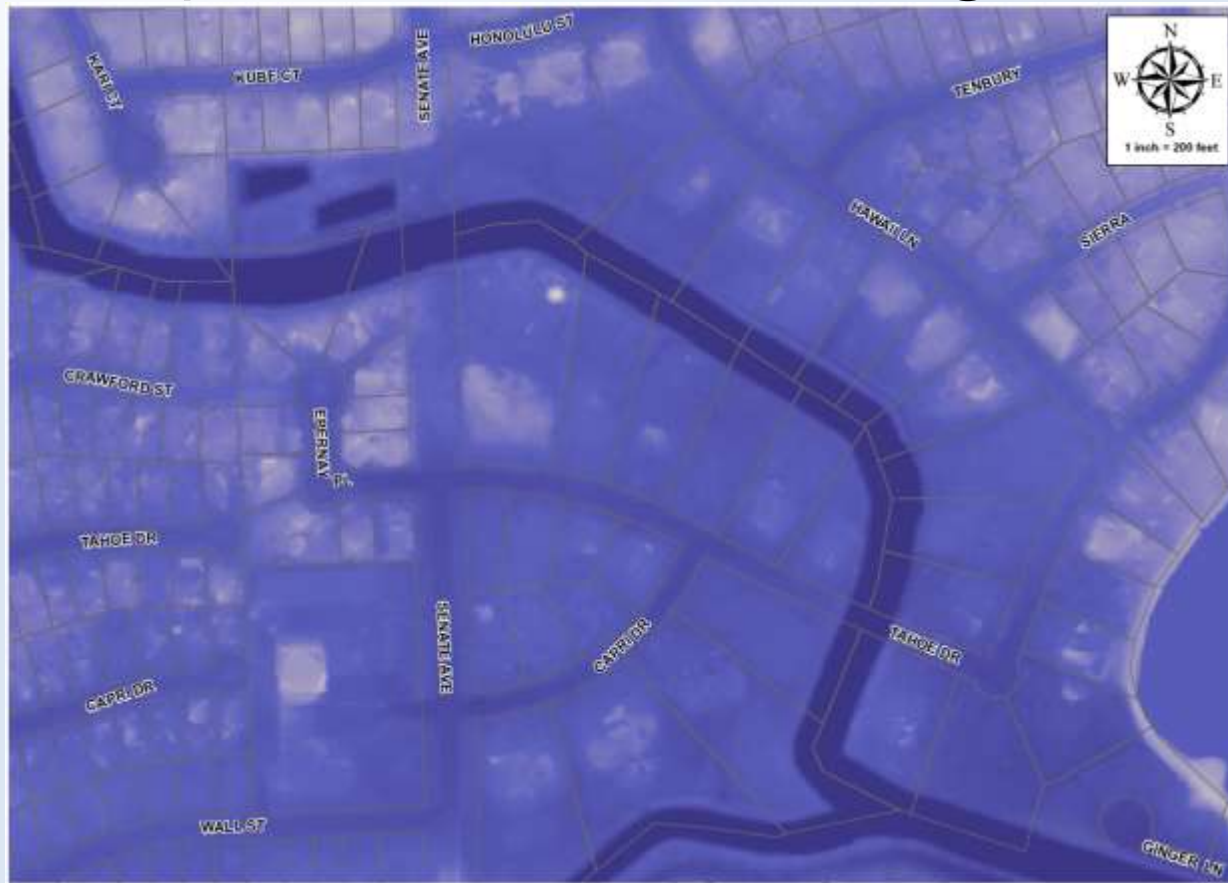
- No Floodplain Fill – Avoids “Mogul” Effect



Floodplain Development Recommendations



- No Floodplain Fill – Avoids “Mogul” Effect



Floodplain Development Recommendations



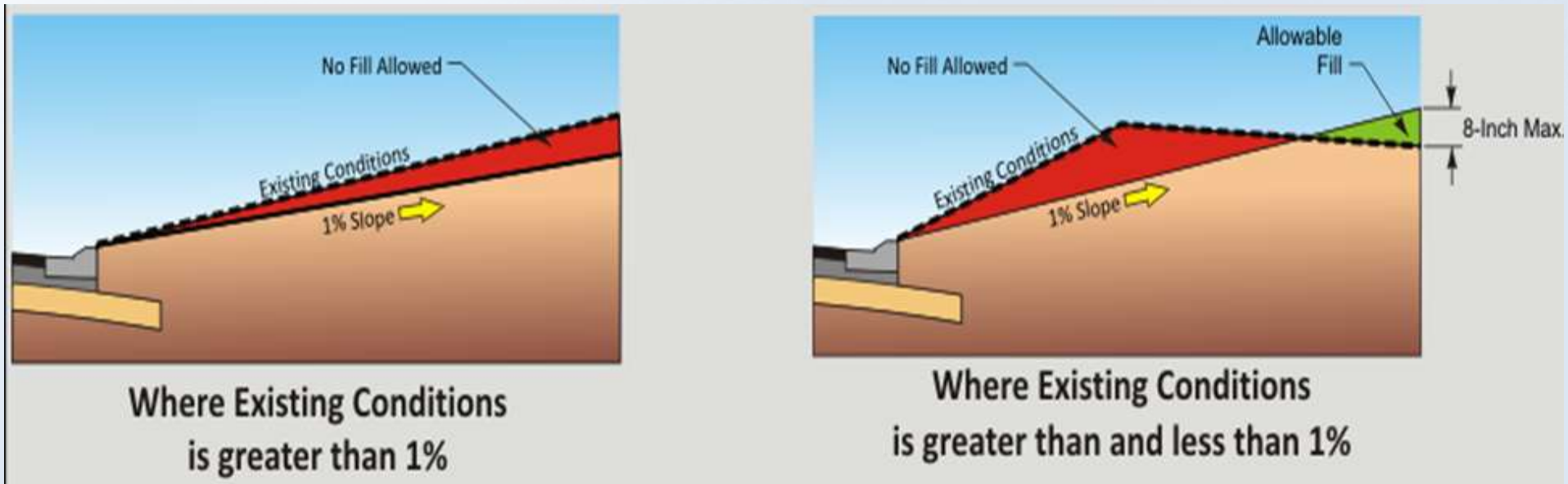
- Elevate Finished Floor Elevations
 - Stem Walls
 - Block Walls
 - Pier and Beam
- Lower Garage Elevation



Fill Limitation Requirements



Examples of Existing Conditions and Allowable Re-Grading

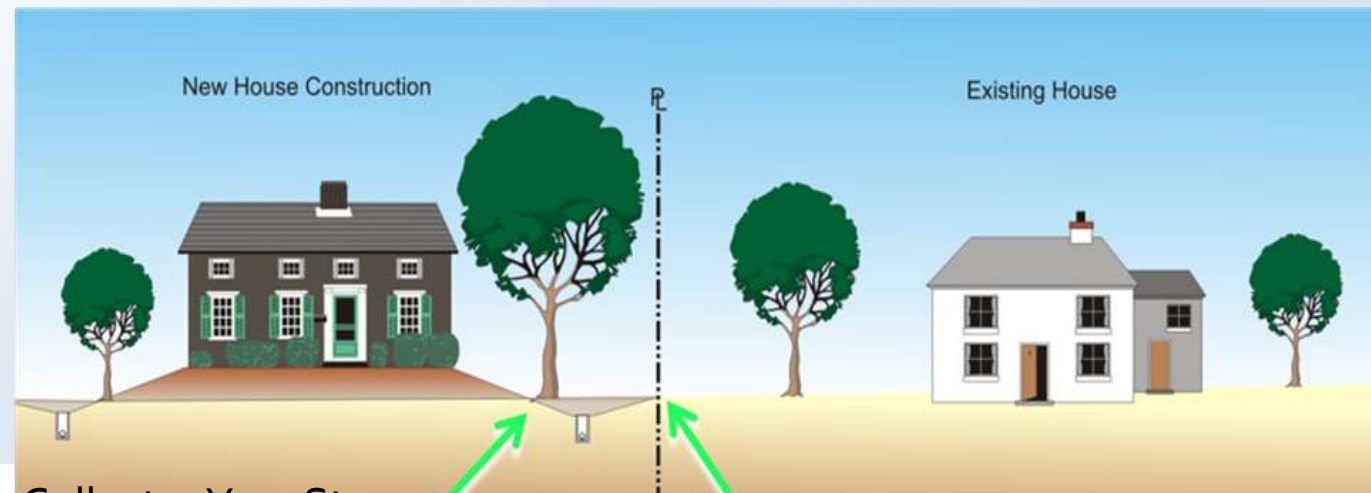


All off-site flows historically draining to the parcel will be accommodated in the on-site system

Site Drainage Requirements



- On-Site/Historic Off-Site Drainage Contained on Lot



Grade To Collect 3-Year Storm

Match Perimeter Elevation

Site Drainage Requirements



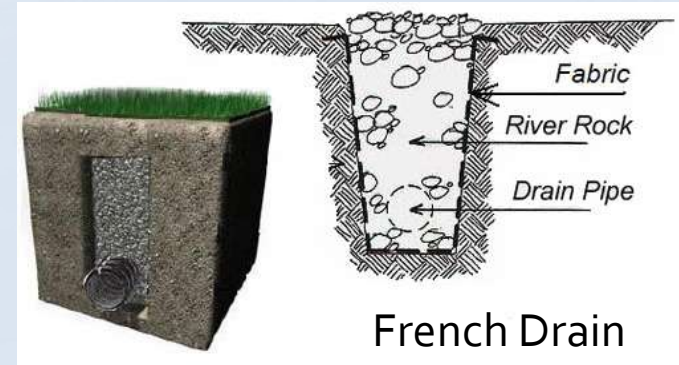
- Development Requirements
 - No “Private Deals” Between Homeowners Unless Recorded with County Clerk Office
 - Survey Spot Elevations in 25-foot Grid & at Property Lines
 - Side Swales Accept and Contain Sheet Flow (Additional Measures May be Required)
 - Curb Heads
 - Area Inlets
 - No Net Fill



Site Drainage Requirements



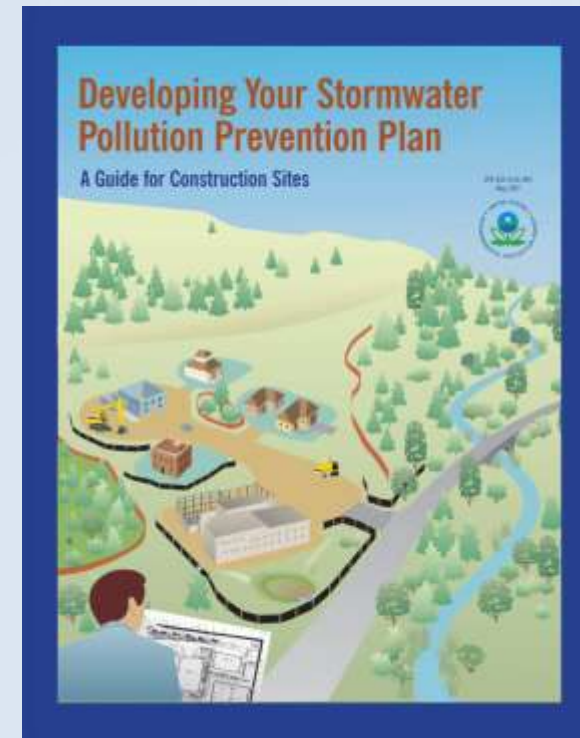
- Development Requirements
 - No French Drains (Landscape Use Only)
 - Area Drains
 - Minimum 3 ft/sec Velocity
 - Cleanouts/Inlets/Junctions at Every Bend
 - Minimum Inlet Size of 12 in. x 12 in.
 - Roof Drains
 - Identify on Plans Tie in Points
 - 1 per 4 in. line
 - 4 per 6 in. line



Site Drainage Requirements



- Standardize Engineer's Certification
- Storm Water & Erosion Control
 - Contractor Responsible for SWPPP
 - Contractor Responsible for Removal of Erosion Control Measures



Landscape Recommendations



- Landscape Plan Approval with Rest of Plan Set
- Fencing
 - Barrier is Permissible to Confine Pets
 - Provide Flow Area Through Barrier





Questions & Comments