Land Use Academy

Center for Land Use Education and Research

Fundamentals of Site Plan Reading

Welcome!

Renata Bertotti, AICP, CCMO
UConn Department of Extension Center for Land Use, Education and Research (CLEAR)
College of Agriculture, Health and Natural Resources

Water

Land Use & Climate Resiliency

Geospatial Tools & Training

STEM Education & Local Conservation

CLEAR Program Areas

CLEAR

Website:
clear.uconn.edu

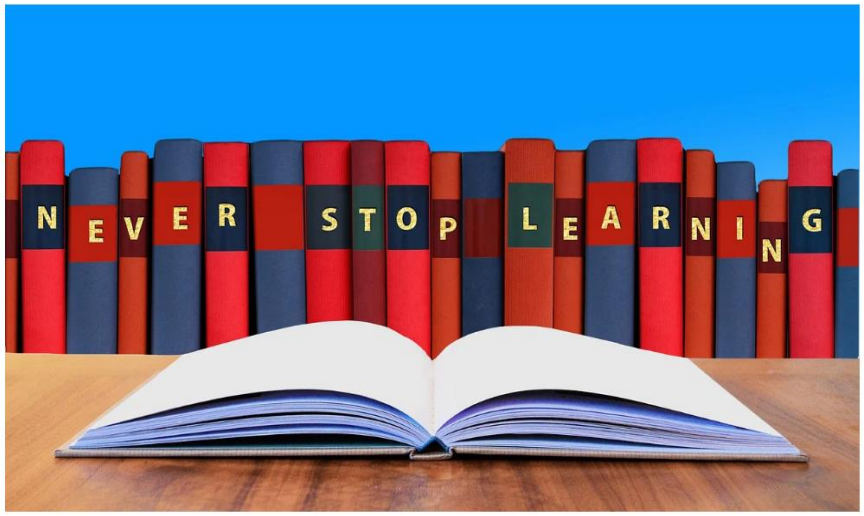
UCONN

Important Information

- ❑ **Training is not legal advice**
- ❑ **More training at:**

https://clear.uconn.edu/lua/upcoming/

- ❑ **Discussion is encouraged**
- ❑ **Exits**
- ❑ **Restrooms**
- ❑ **Interactive and hands on**
- ❑ **Let's have fun!**



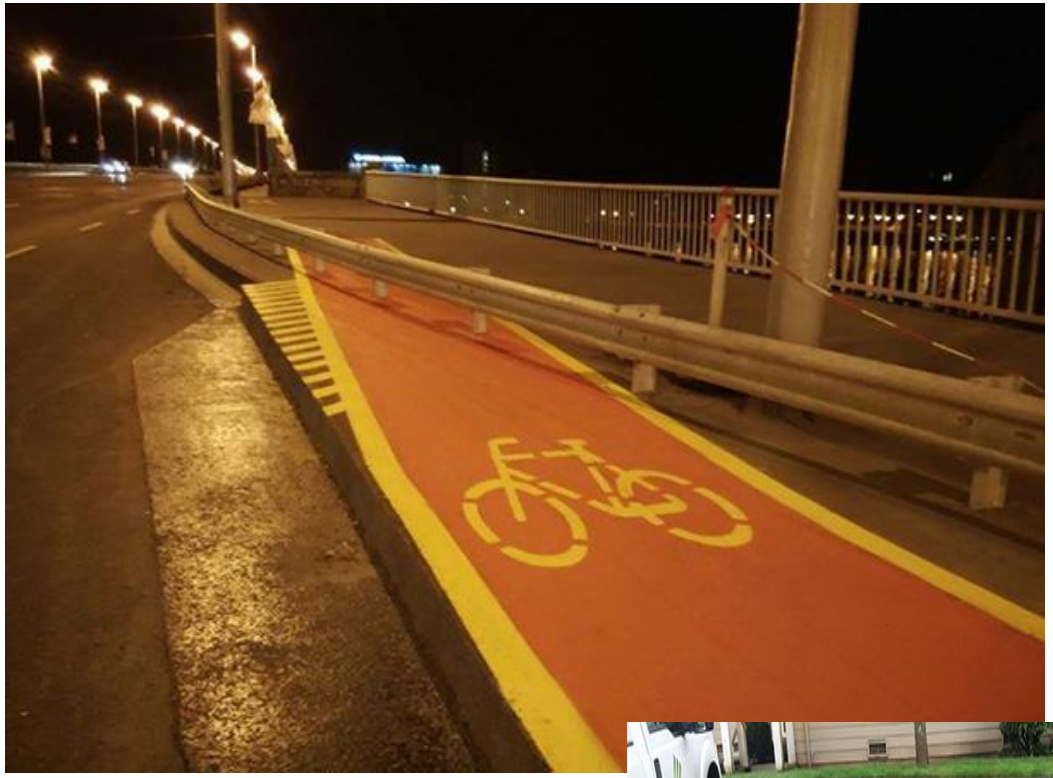
Land Use Academy

Fundamentals of Reading Plans

We will Cover:

- Plans = engineered drawings showing existing conditions and proposed development
- Scale, Measuring Distances and Topography
- Reading A Site Plan (Great Neck School, Waterford, CT)

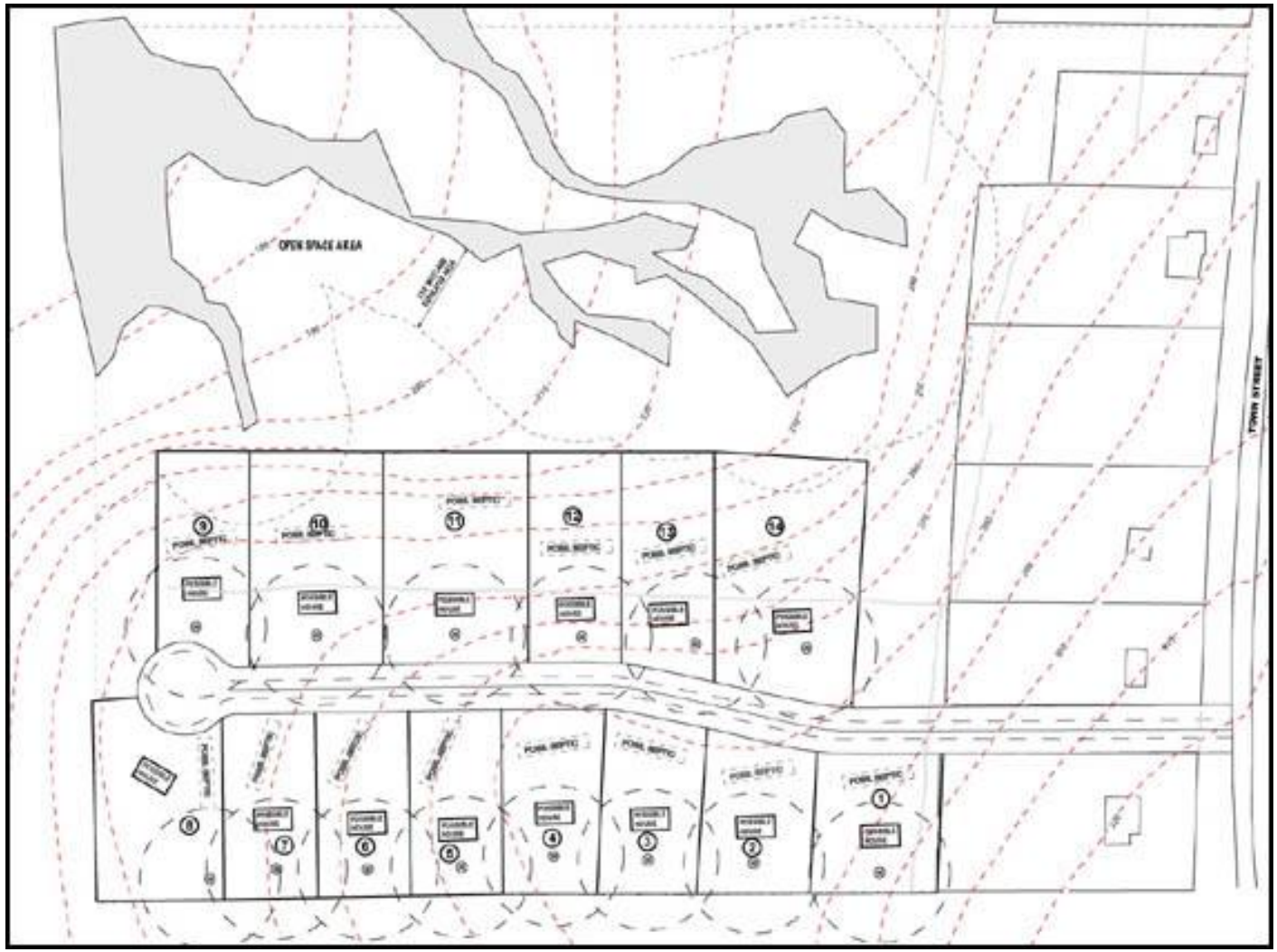
- CGS Sec. 8-4c
- Land Use Commissions make decisions that affect a community's quality of life for generations, where investment takes place and an individual's or business's financial well being.



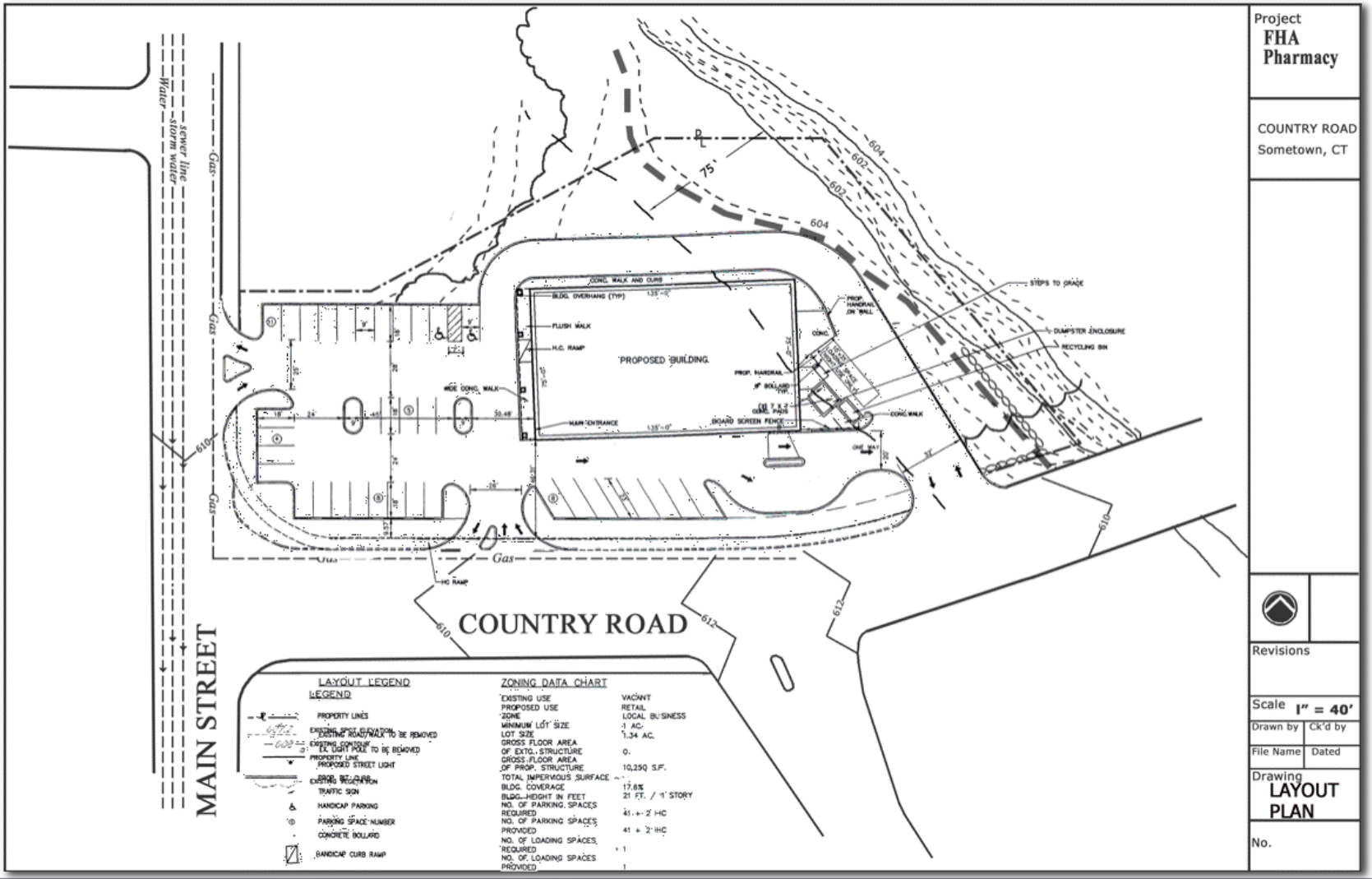
CLEAR

UCONN

Subdivision Plans



Site Plans



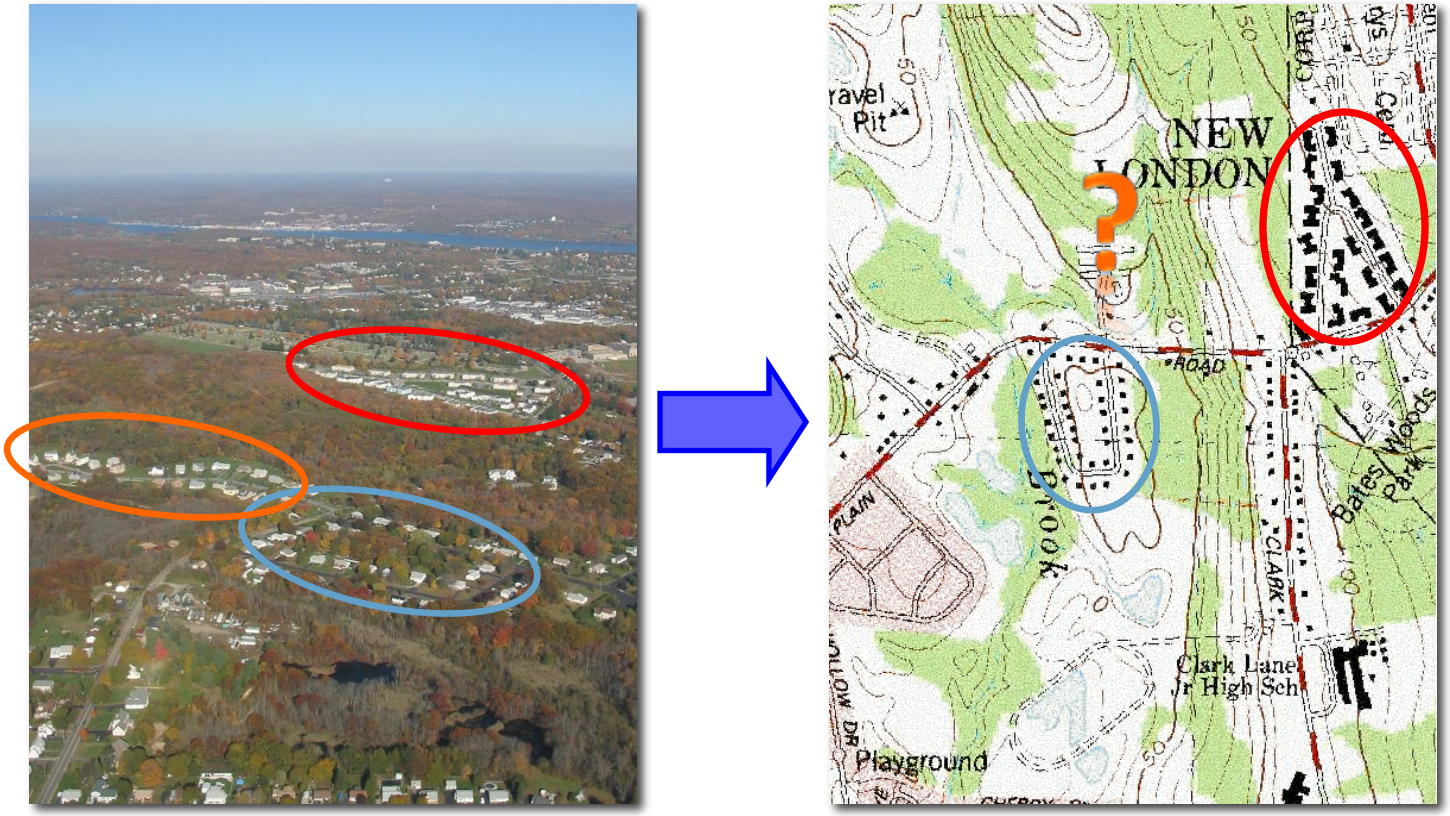
CLEAR

UCONN

What Does This Map/Plan Tell Me?

A map may not represent what is on the ground

-Alford Korzybski



Maps are 2-dimensional representations of complex landscapes…at a specific point in time!

What you see may look something like this

cole
engineering. surveying. planning.

Proposed Mixed-Use Development

12 North Main Street (Formerly 14 North Main Street)
Manchester, Connecticut

KEY MAP
SCALE: 1"=500'

Sheet Index:

Applicant:

3 Squared, LLC
100 Center Street
Southington, Connecticut 06489

Property Owner:

3 Squared, LLC
100 Center Street
Southington, Connecticut 06489

Consultants:

Engineering & Surveying
Harry E. Cole & Son
P.O. Box 44 - 876 South Main Street
Plantsville, Connecticut 06489
Tel. (860) 628-4484 Fax (860) 620-0196

PREPARED FOR

3 Squared, LLC

December 20, 2023

APPROVED
PLANNING AND ZONING COMMISSION
MANCHESTER, CT
DATE: February 21, 2024
SIGNED:

ADMINISTRATIVE APPROVAL
TOWN OF MANCHESTER
INLAND WETLANDS AGENCY
By: INLAND WETLANDS AGENT
Date: February 22, 2024

UNIT ADDRESSES

UNIT #	MAILING ADDRESS
RETAIL 1	12-124 North Main Street
RETAIL 2	12-122 North Main Street
RETAIL 3	12-126 North Main Street
RETAIL 4	12-123 North Main Street
RETAIL 5	12-121 North Main Street
1st Floor - Studio	12-102 North Main Street
1st Floor - Studio	12-104 North Main Street
1st Floor - 1 Bed	12-101 North Main Street
1st Floor - 1 Bed	12-103 North Main Street
1st Floor - 1 Bed	12-105 North Main Street
1st Floor - 1 Bed	12-107 North Main Street
2nd Floor - Studio	12-202 North Main Street
2nd Floor - Studio	12-204 North Main Street
2nd Floor - 1 Bed	12-201 North Main Street
2nd Floor - 1 Bed	12-203 North Main Street
2nd Floor - 1 Bed	12-205 North Main Street
2nd Floor - 1 Bed	12-207 North Main Street
2nd Floor - 1 Bed	12-209 North Main Street
2nd Floor - 1 Bed	12-211 North Main Street
2nd Floor - 1 Bed	12-213 North Main Street
3rd Floor - Studio	12-214 North Main Street
3rd Floor - Studio	12-216 North Main Street
3rd Floor - Studio	12-218 North Main Street
3rd Floor - 1 Bed	12-215 North Main Street
3rd Floor - 1 Bed	12-217 North Main Street
3rd Floor - 1 Bed	12-219 North Main Street
3rd Floor - Studio	12-302 North Main Street
3rd Floor - Studio	12-304 North Main Street
3rd Floor - Studio	12-306 North Main Street
3rd Floor - 1 Bed	12-301 North Main Street
3rd Floor - 1 Bed	12-303 North Main Street
3rd Floor - 1 Bed	12-305 North Main Street
3rd Floor - 1 Bed	12-307 North Main Street
3rd Floor - 2 Bed	12-308 North Main Street
3rd Floor - 2 Bed	12-310 North Main Street
3rd Floor - 2 Bed	12-311 North Main Street
3rd Floor - 2 Bed	12-312 North Main Street
3rd Floor - 2 Bed	12-313 North Main Street

Revision Table

03	03/15/2024	Revised per Property Address
02	03/04/2024	Revised per Town Comments
01	02/05/2024	Revised per Town Comments
	December 20, 2023	First Submittal Set

#2387

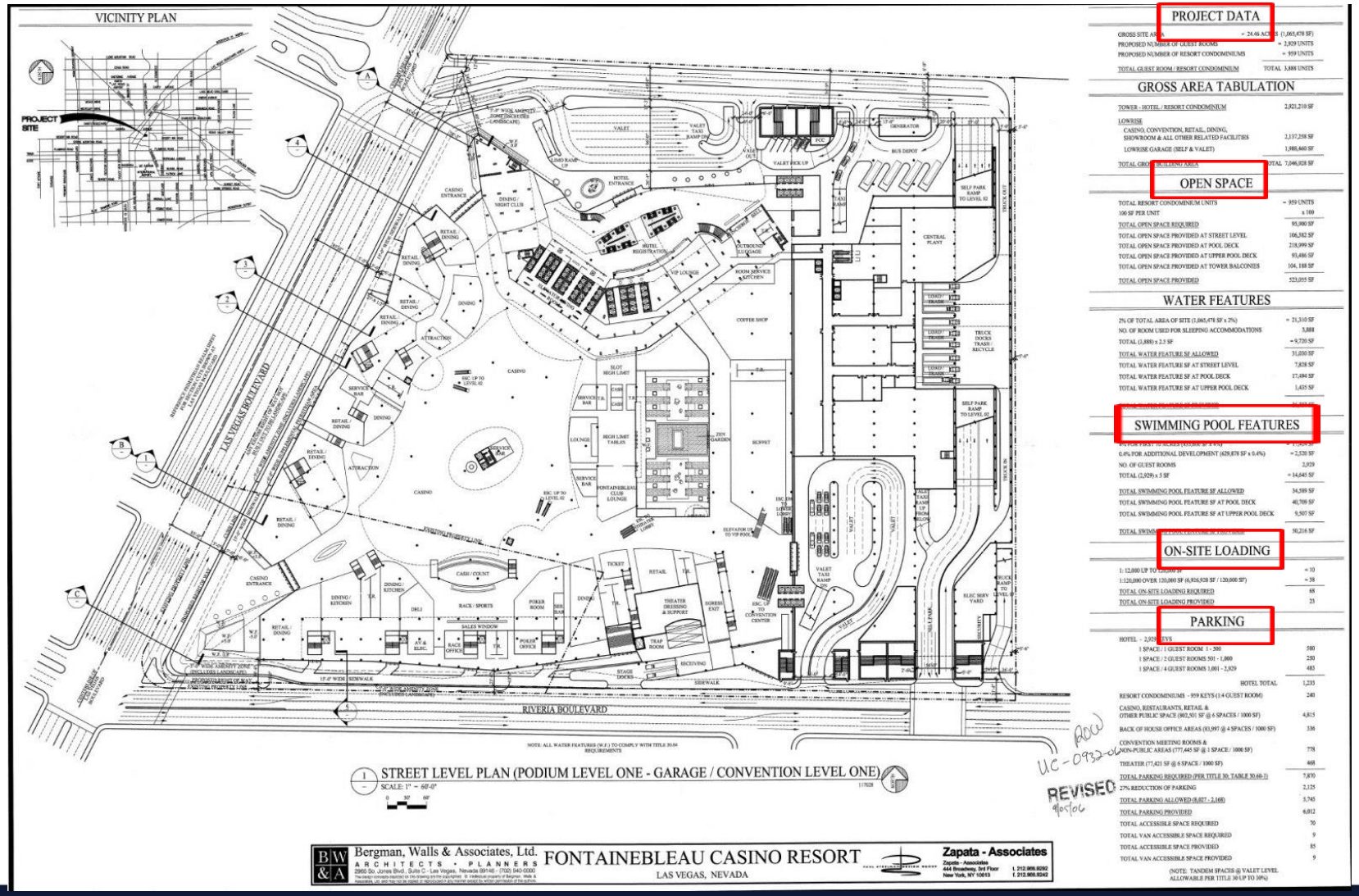
CLEAR

UCONN

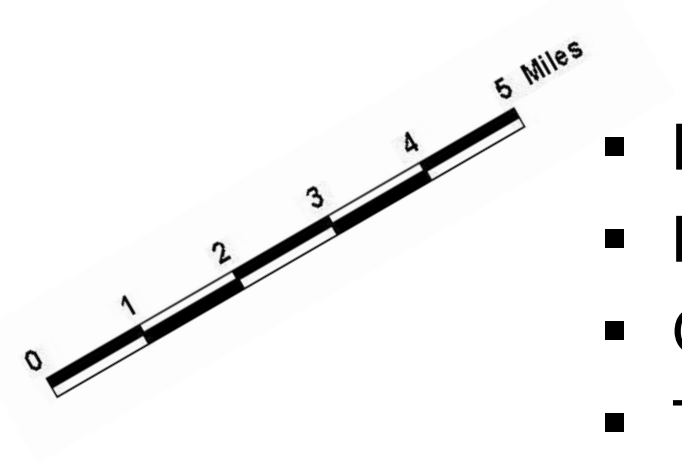
Typical Set of Plans May Contain:

- Cover Sheet
- Existing Conditions Plan
- Demolition Plan
- Utilities Plan
- Site Plan
- Landscape Plan
- Detail Sheets
- Drainage
- E&S Control
- Building Elevations
- Floor Plans

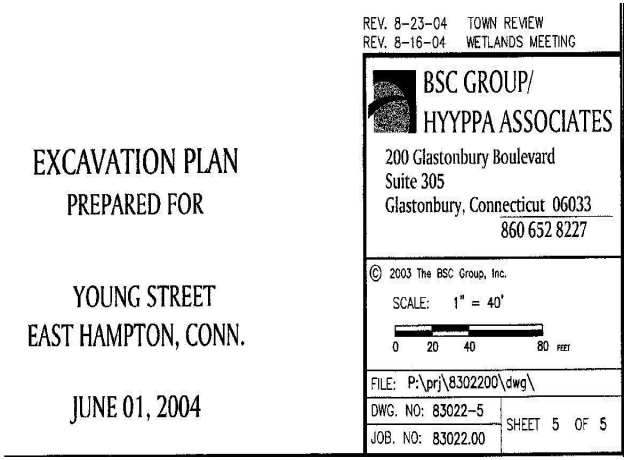
What Is This Plan Telling Me?



Help is on the Plans



- Location Map
- List of Drawings
- Orientation
- Title Block
- Legend
- Scale
- Zoning Table
- Notes
- And More….

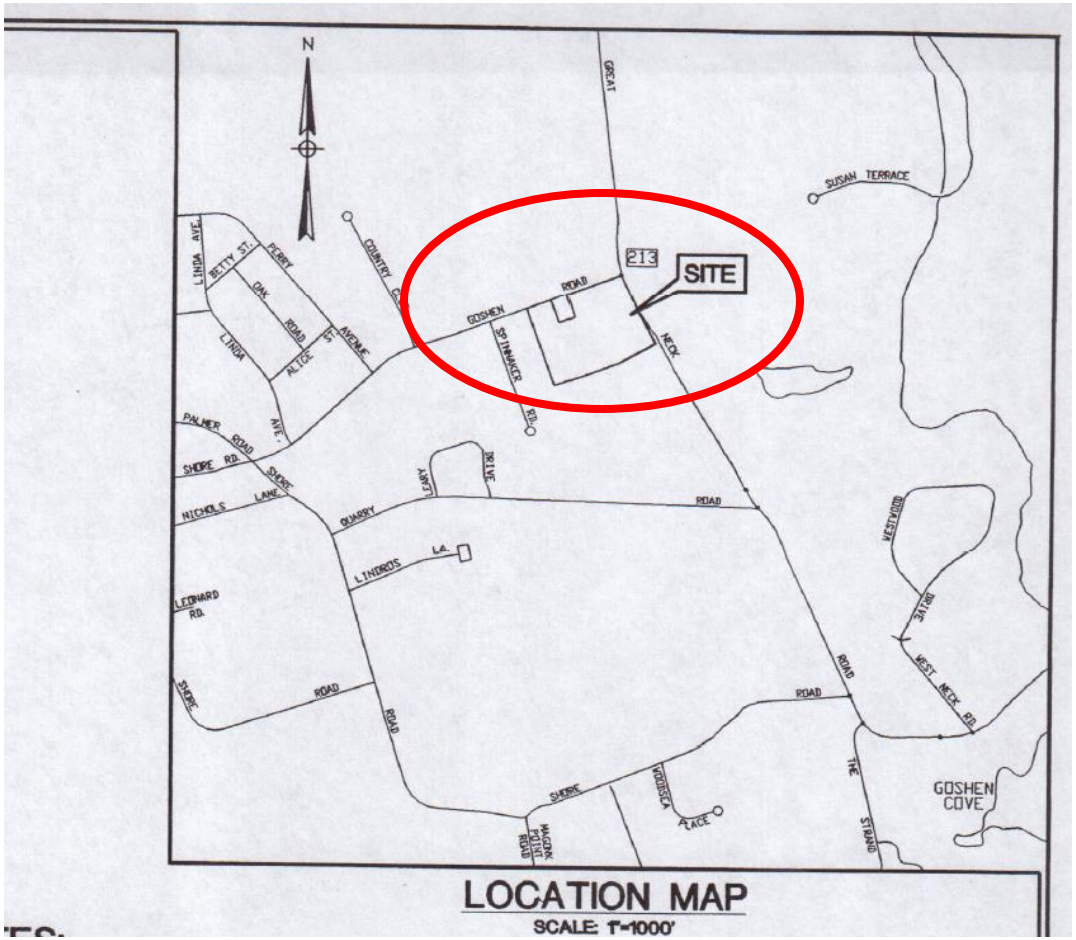


KEY MAP
SCALE: 1"=500'

CLEAR

UCONN

Location Map



CLEAR

UCONN

LIST OF DRAWINGS:

COVER SHEET

SITE

SHEET 1	SITE BOUNDARY AND EXISTING CONDITIONS

LANDSCAPE

L-0.0	OVERALL SITE PLAN
L-1.0	UTILITY DEMOLITION PLAN PHASE 2
L-1.1	SITE DEMOLITION PLAN PHASE 2
L-1.2	SITE DEMOLITION PLAN PHASE 2
L-1.3	SITE LAYOUT PLAN
L-1.4	SITE LAYOUT PLAN
L-1.5	SITE GRADING PLAN
L-1.6	SITE GRADING PLAN
L-1.7	SITE SCORING & SIGNAGE PLAN
L-1.8	SITE SCORING & SIGNAGE PLAN
L-1.9	SITE PLANTING PLAN
L-1.10	SITE PLANTING PLAN
L-1.11	DETAILED ENTRANCE LAYOUT & GRADING
L-1.12	DETAILED HANDICAP SPACE LAYOUT & GRADING
L-1.13	SITE DETAILS
L-1.14	SITE DETAILS

SITE / CIVIL

C-0.0	CIVIL ABBREVIATIONS, LEGEND AND GENERAL NOTES
C-0.1	SITE DEMOLITION, EROSION AND SEDIMENTATION CONTROL PLAN
C-1.0A	SITE UTILITY PLAN
C-1.0B	SITE UTILITY PLAN
C-1.1A	SITE LIGHTING AND SECURITY PLAN
C-1.1B	SITE LIGHTING AND SECURITY PLAN
C-2.0	SITE GRADING PLAN PHASE I
C-2.0A	SITE DRAINAGE PLAN
C-2.0B	SITE DRAINAGE PLAN
C-3.0A	SITE EROSION AND SEDIMENTATION CONTROL PLAN (PHASE I)
C-3.0B	SITE EROSION AND SEDIMENTATION CONTROL PLAN (PHASE II)
C-3.0C	SITE EROSION AND SEDIMENTATION CONTROL PLAN (PHASE III)
C-3.0D	SITE EROSION AND SEDIMENTATION CONTROL PLAN (PHASE IV)
C-3.1	EROSION CONTROL SPECIFICATIONS AND NARRATIVE
C-3.2	EROSION PROTECTION AND SEDIMENT CONTROL DETAILS
C-4.0	SITE DETAILS
C-4.1	SITE DETAILS

ARCHITECTURAL

A-1.1	FIRST FLOOR PLAN
A-1.2	SECOND FLOOR PLAN
A-2.1	BUILDING ELEVATIONS

Sheet Index:

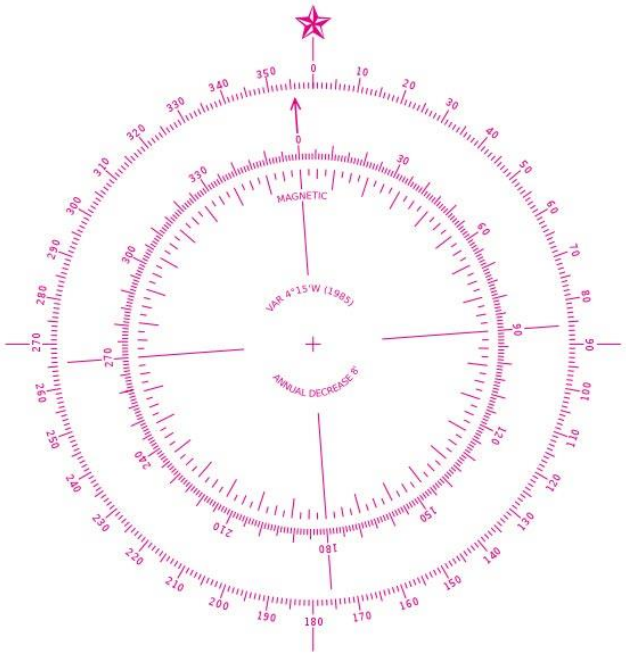
S1	Property & Topographic Survey Map
R1	Removal and Demolition Plan
C1	Site Layout & Landscaping Plan
C2	Site Development Plan
ES1	Soil Erosion & Sedimentation Control Plan
ES2	Soil Erosion & Sediment Control Details
D1	Details
D2	Details
D3	Details

UNIT ADDRESSES

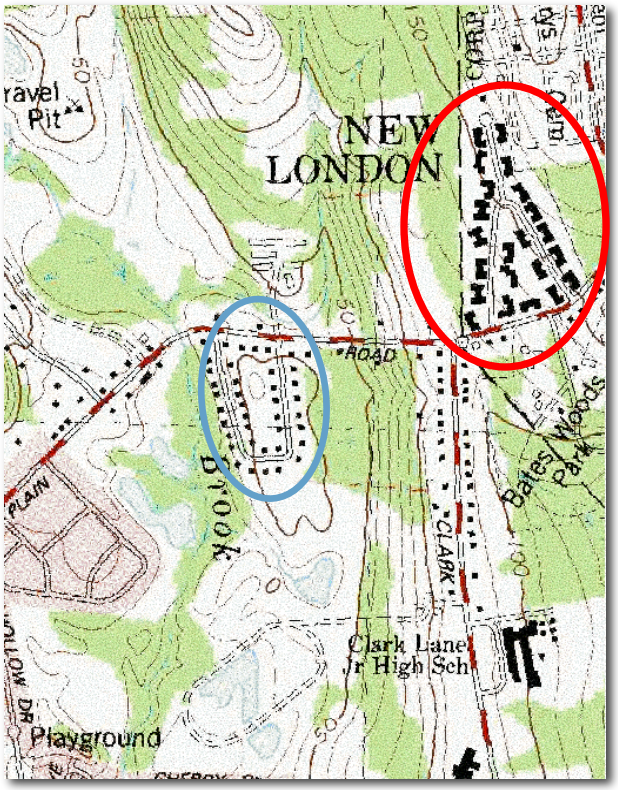
UCONN

Orientation: North Arrow

North arrow can change on different plan sheets

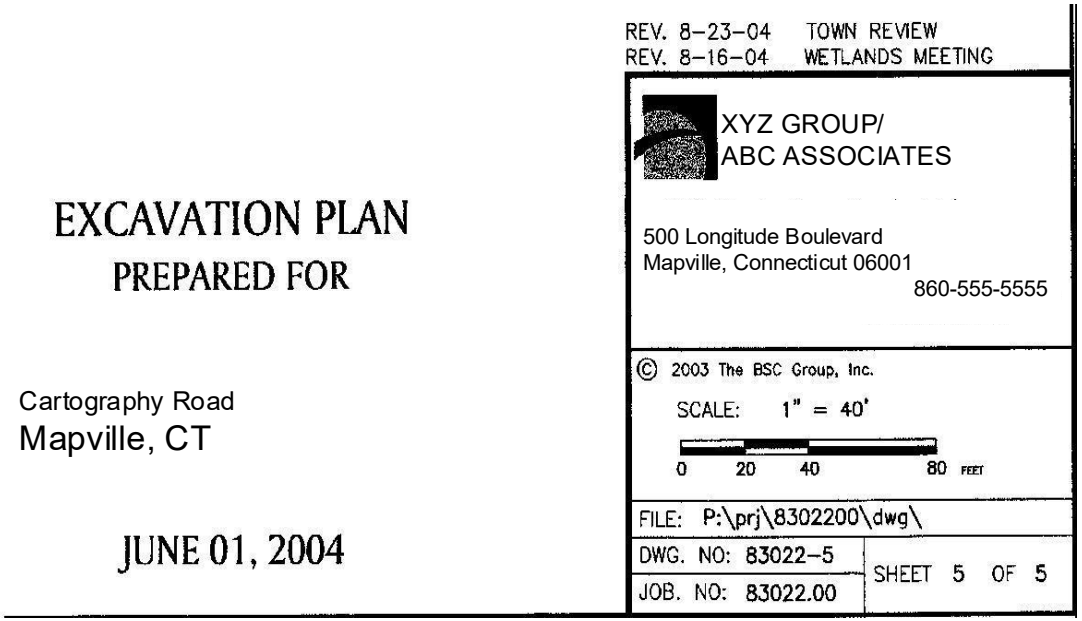


Map Orientation Matters…A Lot!



Title Block

Information on who/what/when etc

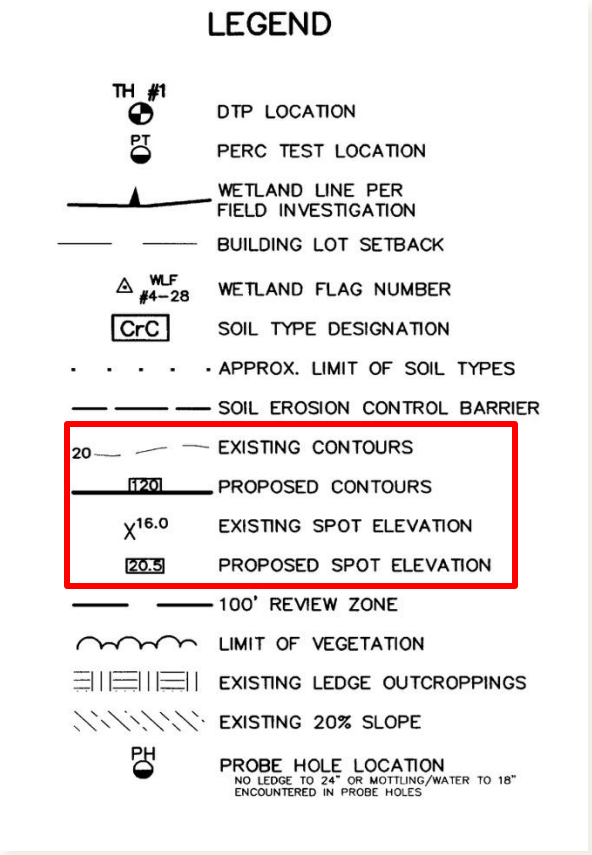


Title
Creation & Revision Dates
Source

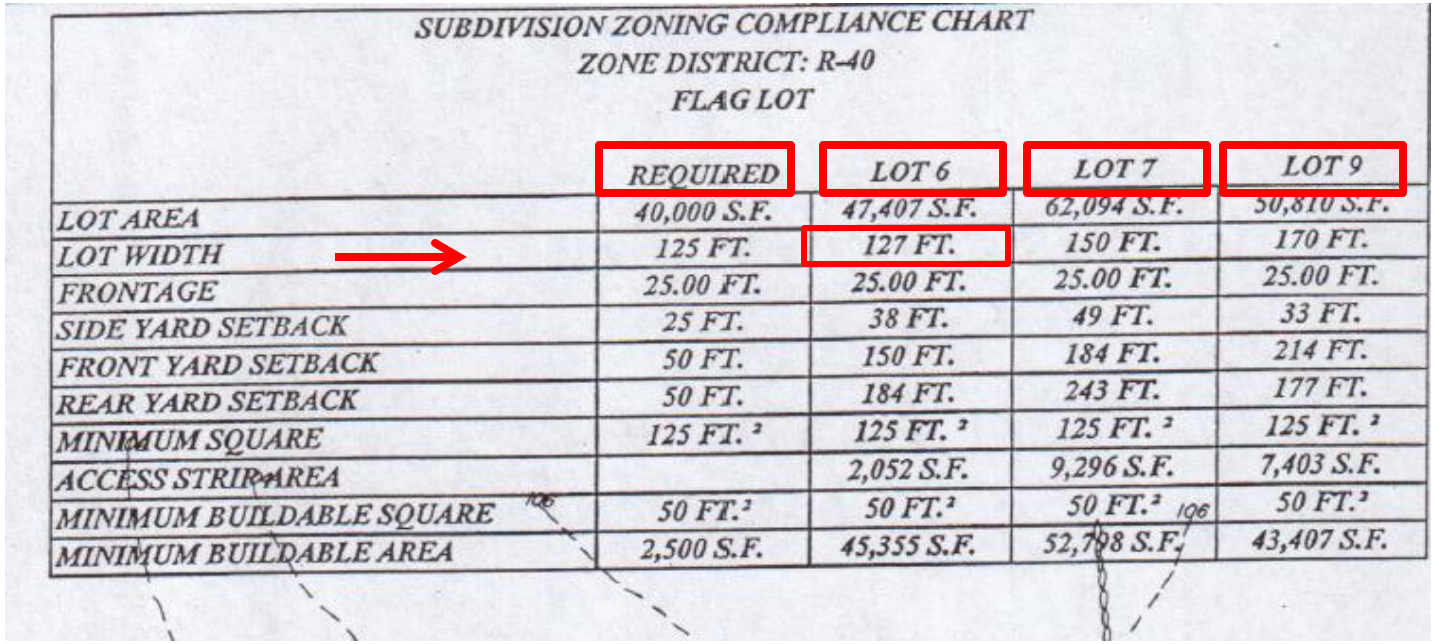
Legends

Provide a guide to the symbols used

Watershed Basins	Basins
Town	Town
Migratory Fish Runs	Fish Runs
Tidal Wetlands	Tidal Wetlands
Eelgrass	Eelgrass
Water Features	Streams, Lakes, Water, Shore
Urban Growth	Developed before 1985 Turf and Grass before 1985 Water Undeveloped Developed 1985-1990 Turf and Grass 1985-1990 Developed 1990-1995 Turf and Grass 1990-1995 Developed 1995-2002 Turf and Grass 1995-2002



Zoning Compliance Chart



SUBDIVISION ZONING COMPLIANCE CHART
ZONE DISTRICT: R-40
FLAG LOT

	REQUIRED	LOT 6	LOT 7	LOT 9
LOT AREA	40,000 S.F.	47,407 S.F.	62,094 S.F.	50,810 S.F.
LOT WIDTH	125 FT.	127 FT.	150 FT.	170 FT.
FRONTAGE	25.00 FT.	25.00 FT.	25.00 FT.	25.00 FT.
SIDE YARD SETBACK	25 FT.	38 FT.	49 FT.	33 FT.
FRONT YARD SETBACK	50 FT.	150 FT.	184 FT.	214 FT.
REAR YARD SETBACK	50 FT.	184 FT.	243 FT.	177 FT.
MINIMUM SQUARE	125 FT. [2]	125 FT. [2]	125 FT. [2]	125 FT. [2]
ACCESS STRIP AREA		2,052 S.F.	9,296 S.F.	7,403 S.F.
MINIMUM BUILDABLE SQUARE	50 FT.[2]	50 FT.[2]	50 FT.[2]	50 FT.[2]
MINIMUM BUILDABLE AREA	2,500 S.F.	45,355 S.F.	52,798 S.F.	43,407 S.F.

Notes and Map References

NOTES:

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 20-300b-1 THRU 20-300b-20 OF THE REGULATIONS FOR STATE AGENCIES "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC.

   A. TYPE OF SURVEY: BOUNDARY & TOPOGRAPHIC SURVEY
   B. BOUNDARY DETERMINATION CATEGORY: RESURVEY
   C. HORIZONTAL ACCURACY: CLASS A-2
      VERTICAL ACCURACY: CLASS V-2
      TOPOGRAPHIC ACCURACY: CLASS T-2
   D. INTENT: PROVIDE BASE MAP FOR FUTURE DEVELOPMENT

2. FIELD WORK PERFORMED IN MARCH 2004 BY CLA ENGINEERS INC.

3. HORIZONTAL AND VERTICAL DATUM ARE BASED ON TOWN OF WATERFORD MONUMENTS, TOW 264-W AND TOW 265-W.

4. SUBJECT LOT IS IN ZONE DISTRICT R-20.

5. WETLANDS WERE DELINEATED BY ROBERT RUSSO AND LOCATED IN THE FIELD.

6. SUBSURFACE AND ENVIRONMENTAL CONDITIONS EXCEPT FOR WETLANDS DELINEATION WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.

7. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVEGROUND STRUCTURES AND RECORD DRAWINGS PROVIDED TO THE SURVEYOR. LOCATIONS OF UNDERGROU UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIE STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES.

8. NO FLOOD HAZARD AREAS AS PER FIRM 090107 0015F, TOWN OF WATERFORD, CT., NEW LONDON COUNTY, REVISED SEPT. 6, 1995.

9. SURVEY IS VALID ONLY IF PRINT OR MYLAR HAS THE EMBOSSED SEAL AND LIVE SIGNATURE OF THE SURVEYOR.

Scale

Shows relative size of objects

20’ !

35’

Scale Shows relative size of objects

Written Scale

1:12,000 (ratio)

1” = 1,000’ (equivalent)

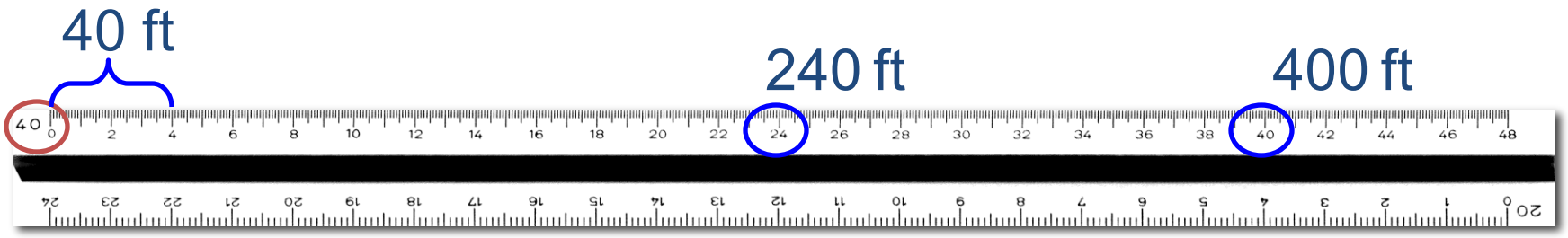
Graphical Scale

Graphic scales are the most reliable!

Beware of Xerox Distortion

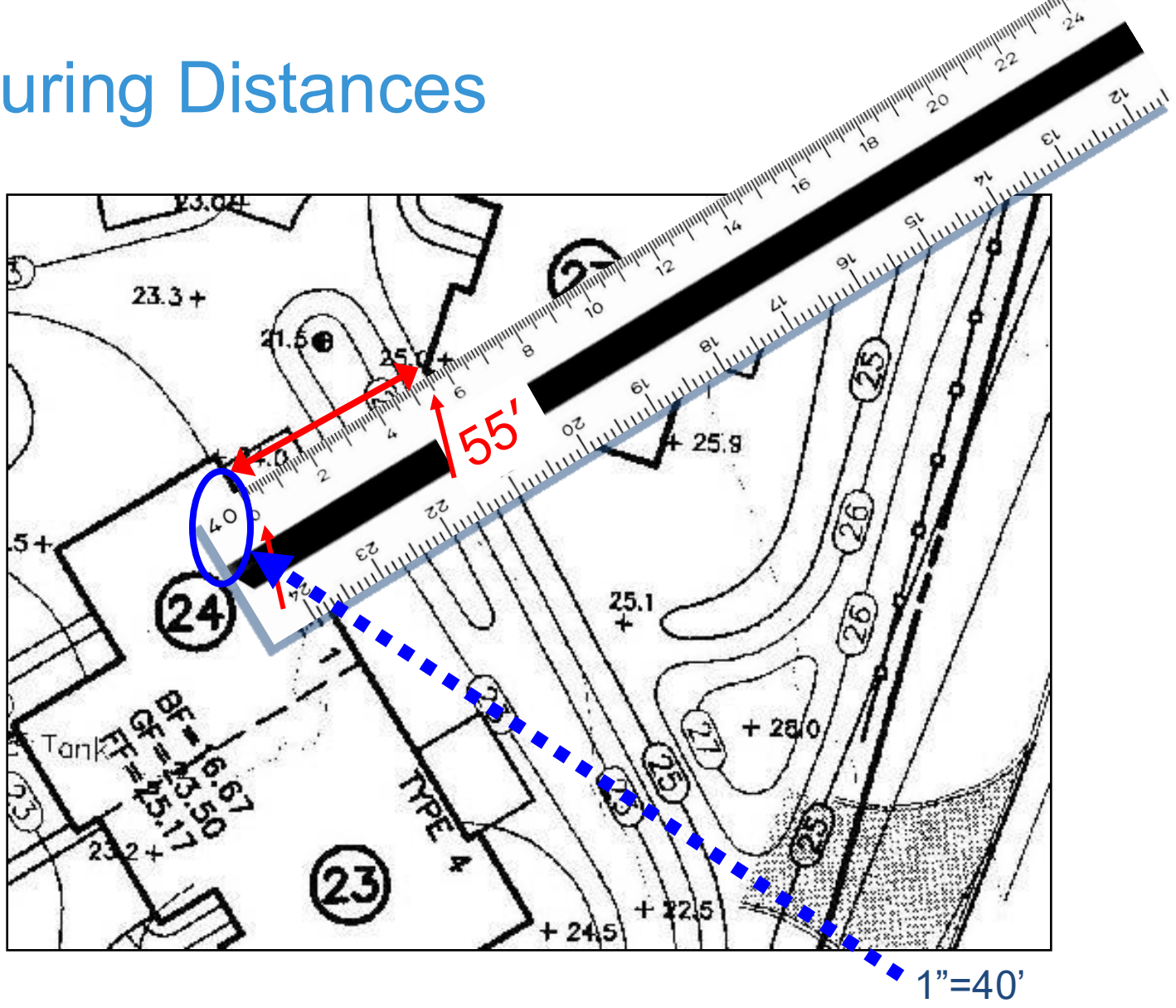
Measuring Distances

* Engineering Scales



Map Scale	Meaning
10	1 inch = 10 ft
20	1 inch = 20 ft
30	1 inch = 30 ft
40	1 inch = 40 ft
50	1 inch = 50 ft
60	1 inch = 60 ft

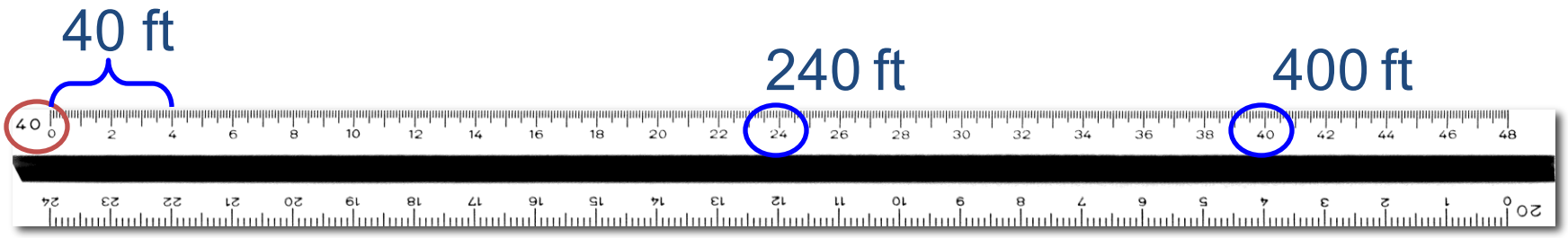
Measuring Distances




SMITH ST
from the street
45 ft
from neighbors house
9 ft
Market
22 ft
24 ft
PARKING

Measuring Distances

* Engineering Scales

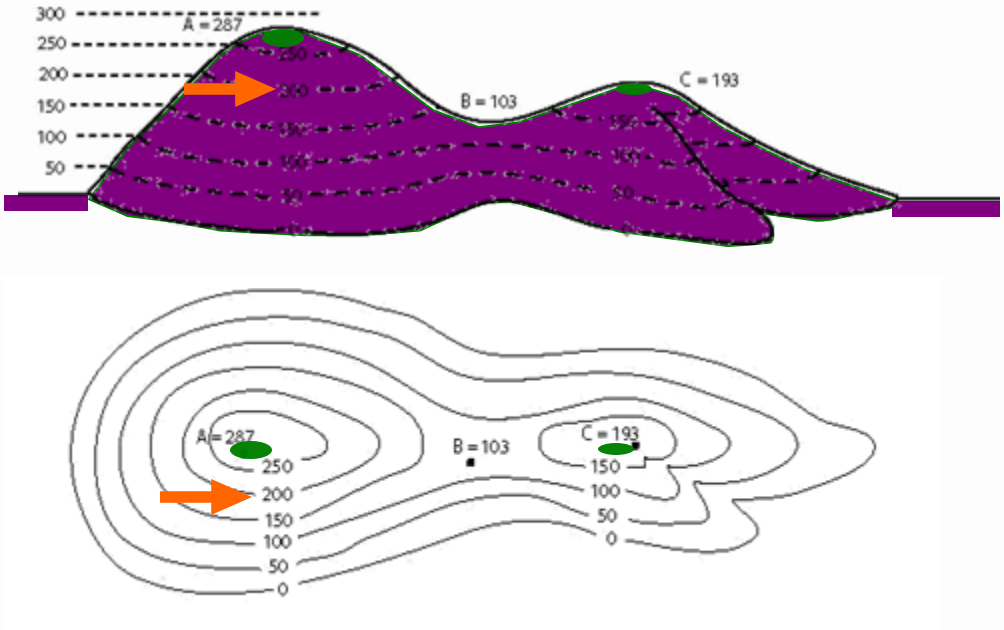


Map Scale	Meaning
10	1 inch = 10 ft
20	1 inch = 20 ft
30	1 inch = 30 ft
40	1 inch = 40 ft
50	1 inch = 50 ft
60	1 inch = 60 ft

Let's measure!

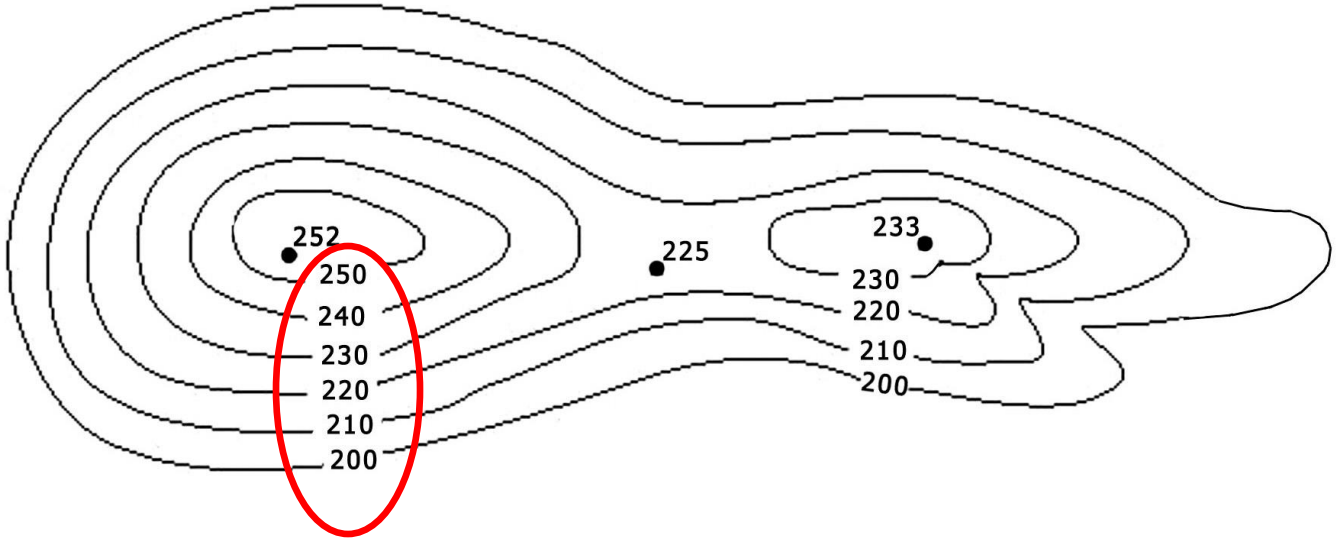
Topography

Contours: an imaginary line that connects points of equal elevation



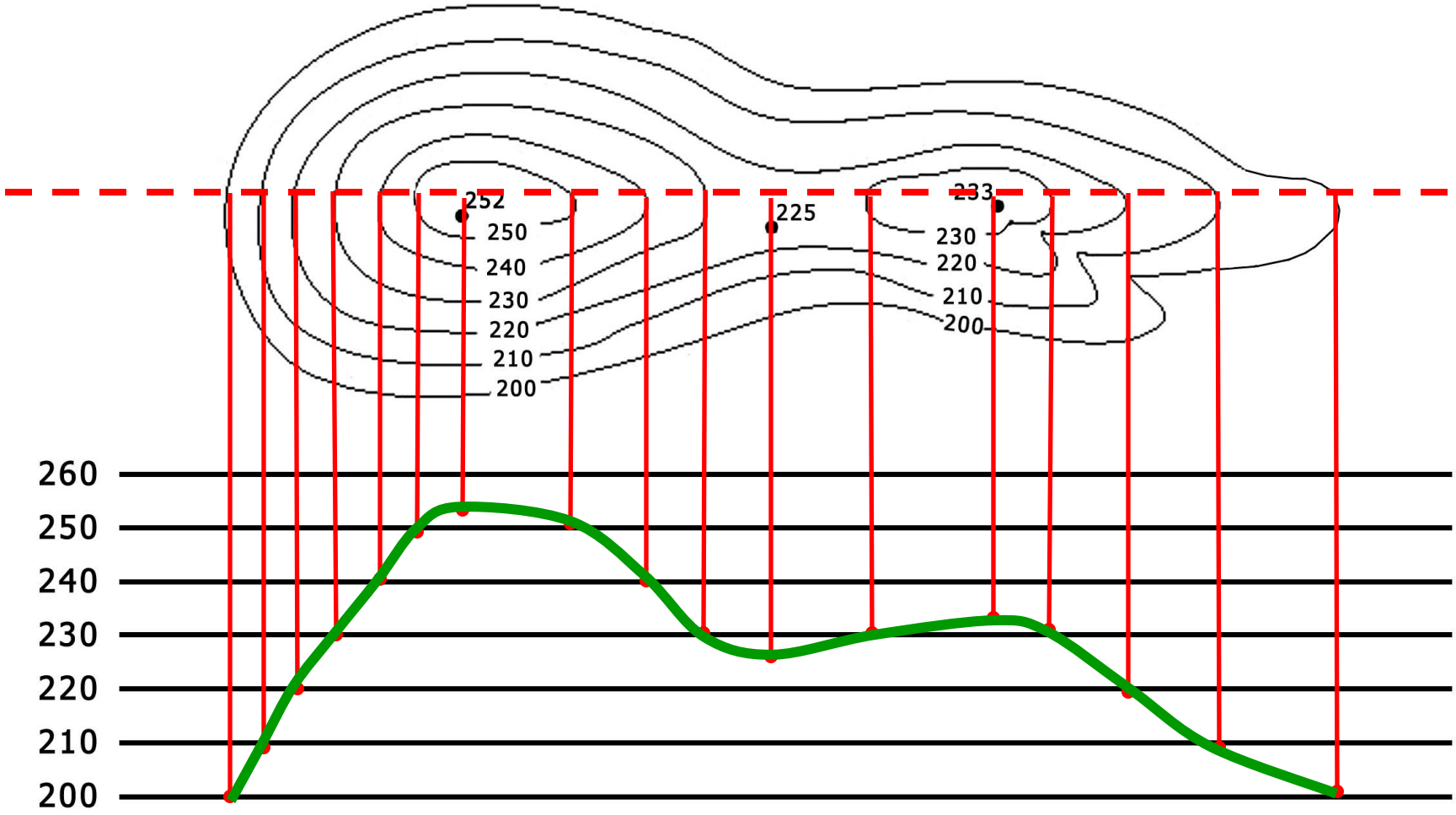
Topography

Cross-sections are sometimes used to represent 3-D objects in 2 dimensions.

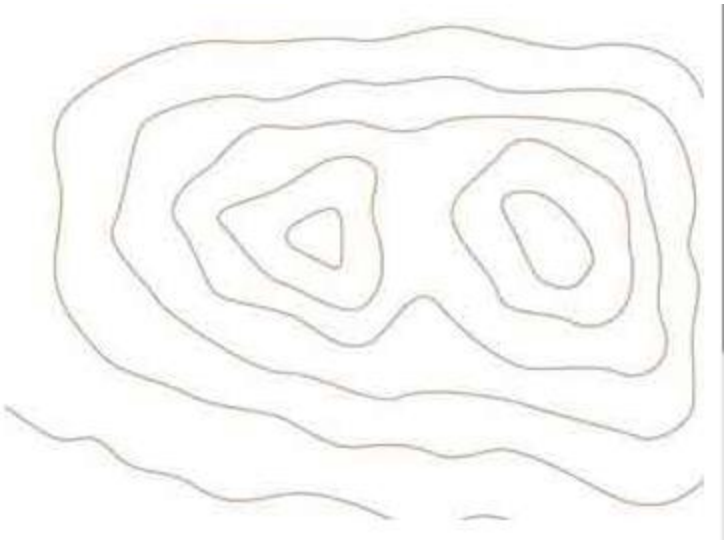


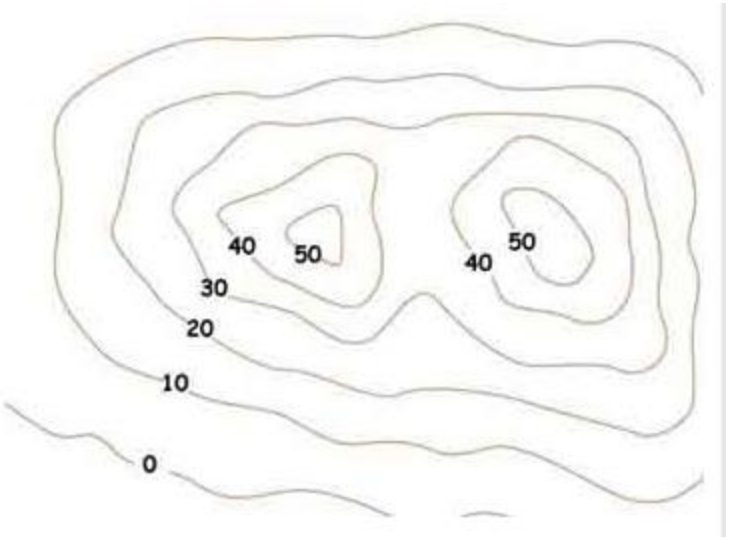
Topography

Cross-sections are sometimes used to represent 3-D objects in 2 dimensions.



Is it a Hill or a Hole?

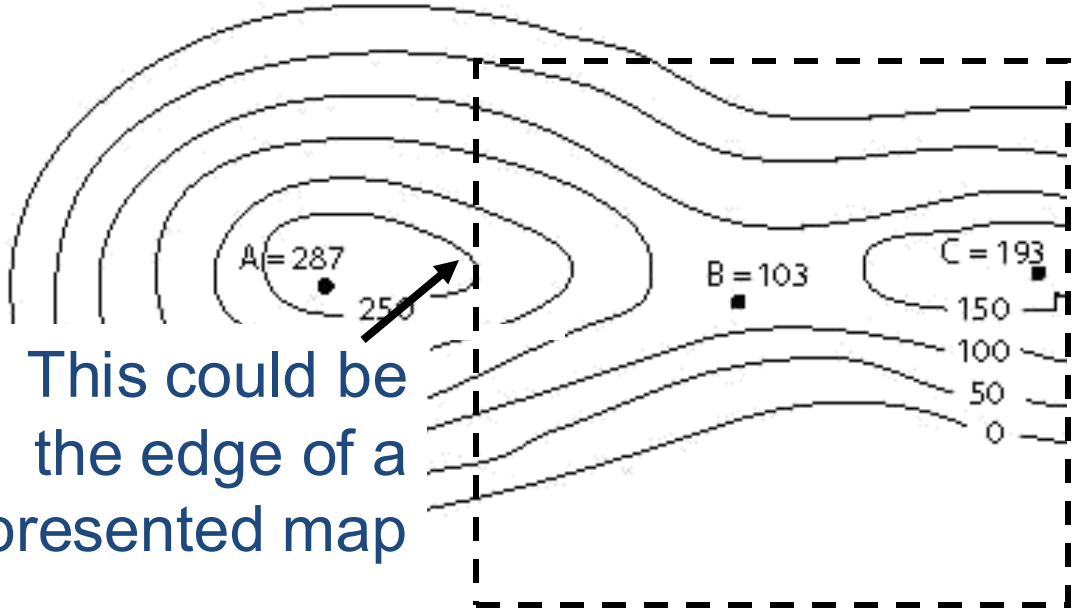




Topography

Contours always connect,
but not always within the map boundaries...

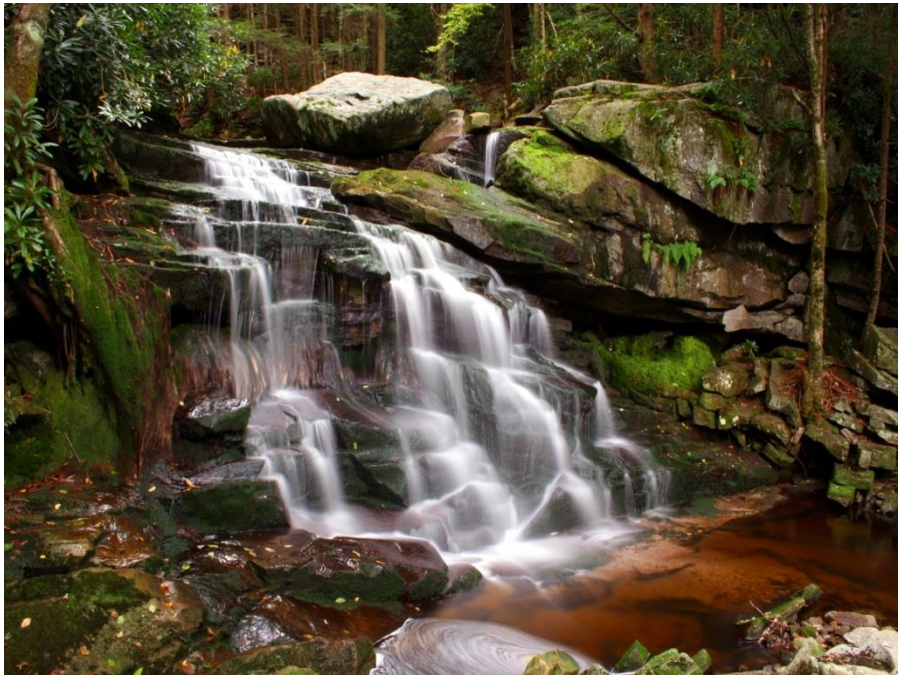
topography of 2 hills



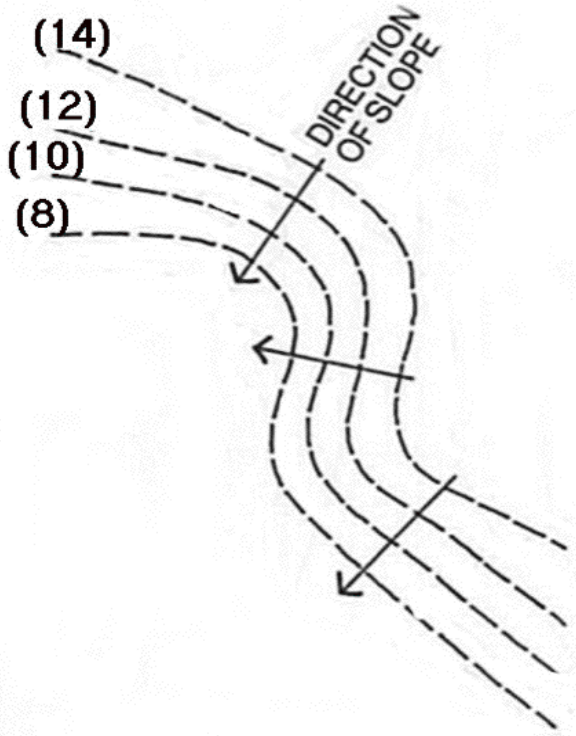
This could be the edge of a presented map

Topography

Slope direction is calculated perpendicular to the contour lines.

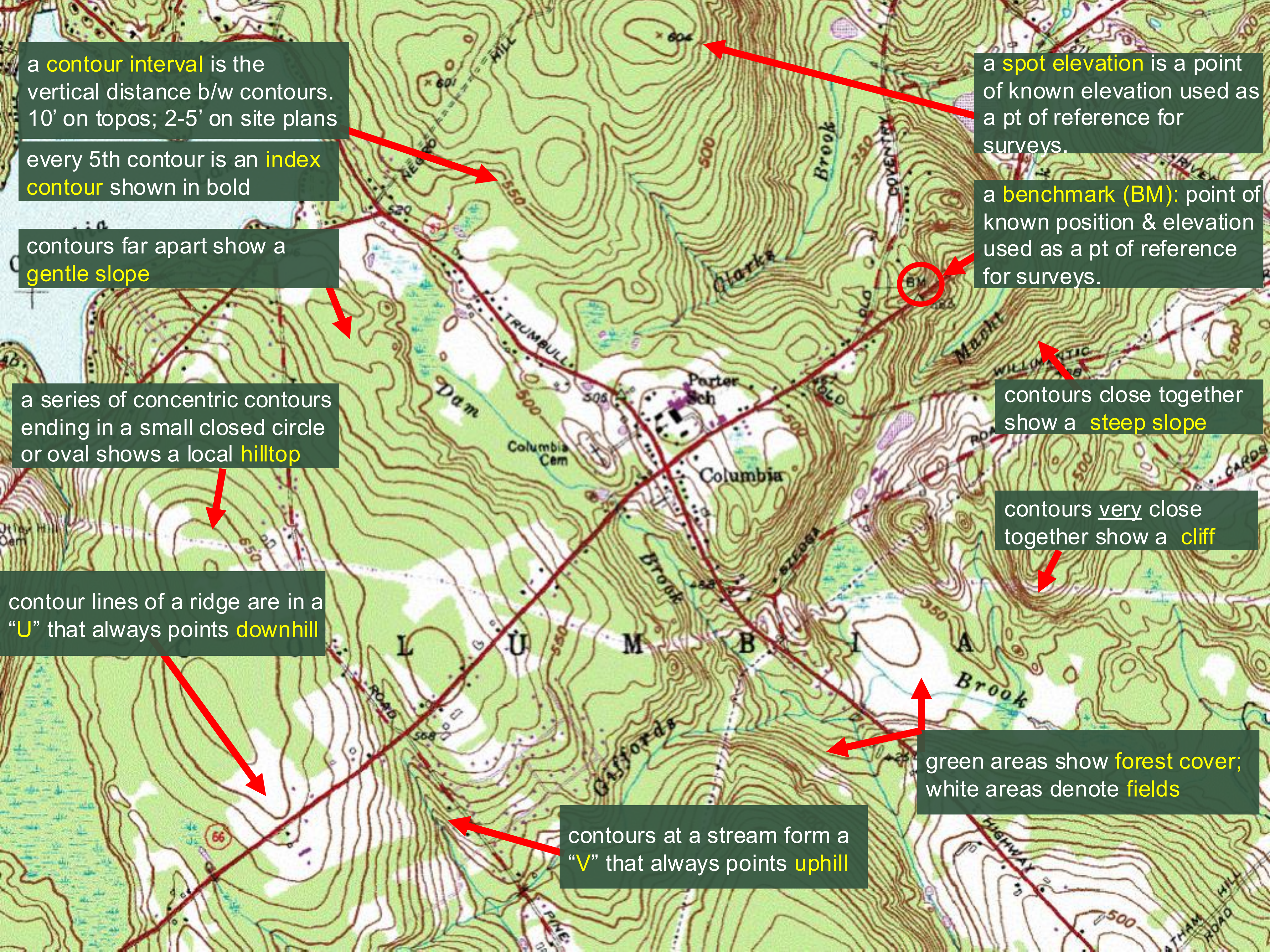


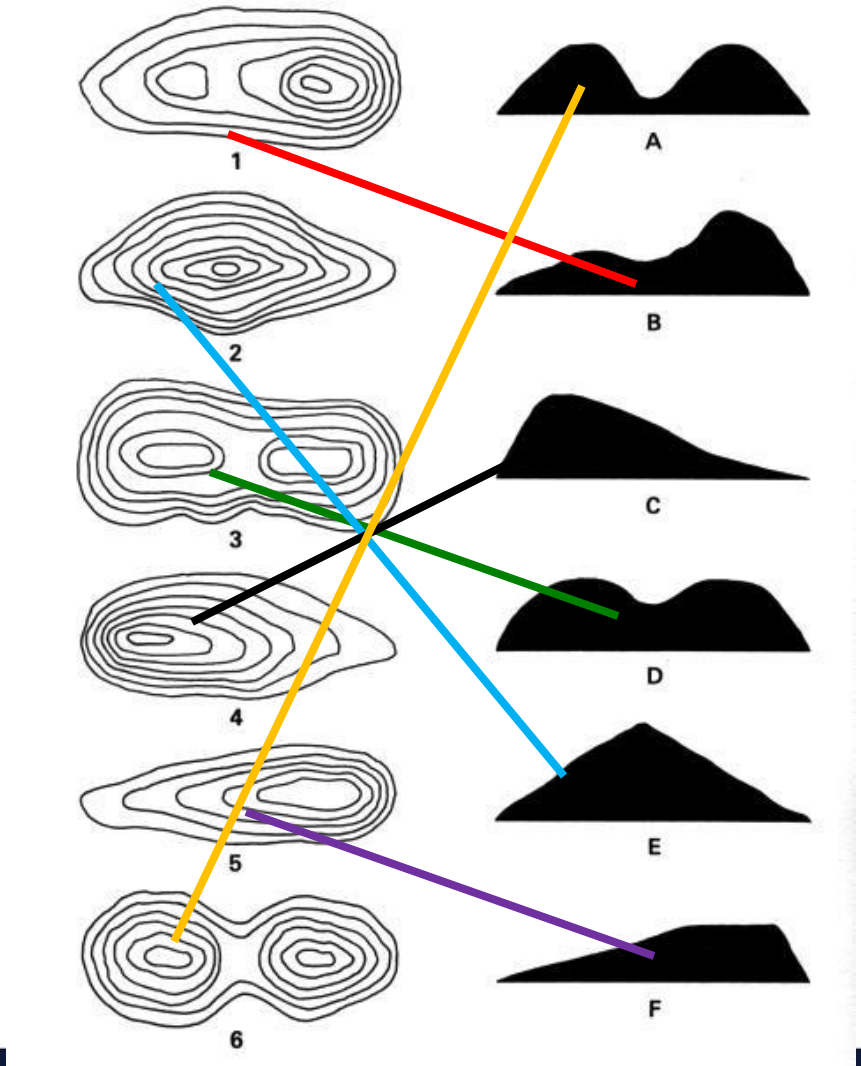
Water flows downhill...



…so the direction of flow is always perpendicular to the contour lines, since this is the steepest slope

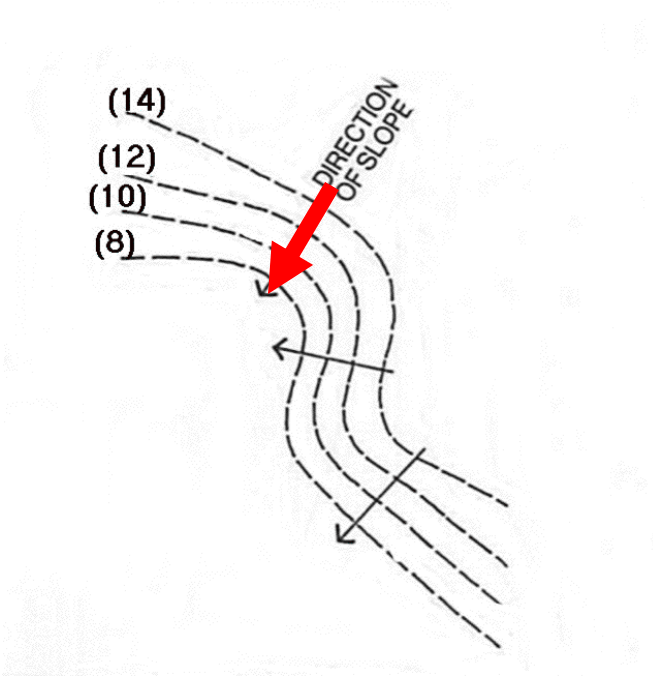
UCONN


a contour interval is the vertical distance b/w contours. 10’ on topos; 2-5’ on site plans
every 5th contour is an index contour shown in bold
contours far apart show a gentle slope
a series of concentric contours ending in a small closed circle or oval shows a local hilltop
contour lines of a ridge are in a “U” that always points downhill
a spot elevation is a point of known elevation used as a pt of reference for surveys.
a benchmark (BM): point of known position & elevation used as a pt of reference for surveys.
contours close together show a steep slope
contours very close together show a cliff
green areas show forest cover; white areas denote fields
contours at a stream form a “V” that always points uphill
BM
Porter Sch
Columbia
Columbia Cem
Clarks
Brook
Dam
Giffords
TRUMBULL
HIGHWAY
L U M B I A


1
2
3
4
5
6
A
B
C
D
E
F

Topography-Slope

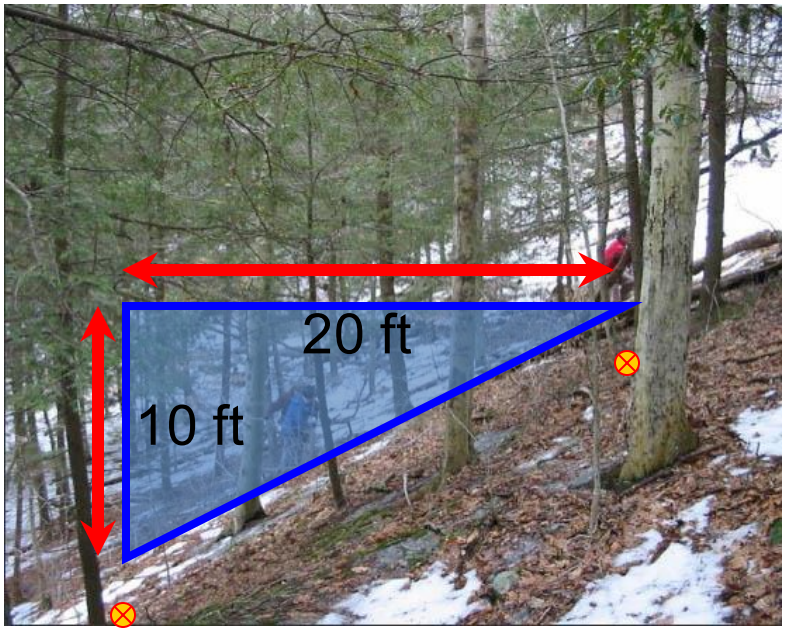
Slope direction is calculated perpendicular to the contour lines.



... But how do you measure it?

Slope

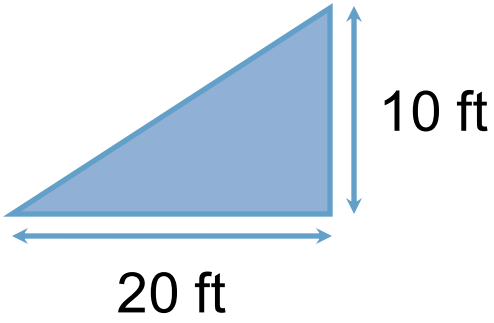
$$\text{Percent Slope} = \frac{\text{Change in Elevation}}{\text{Distance}} \times 100$$



(10′ / 20′) X 100 = **50% slope**

Why is Slope Important?

If too Steep:
- potential erosion
- soil stability
- safety



Why is Slope Important?

If too flat:

- storm water may not drain
- may flood

Too steep?

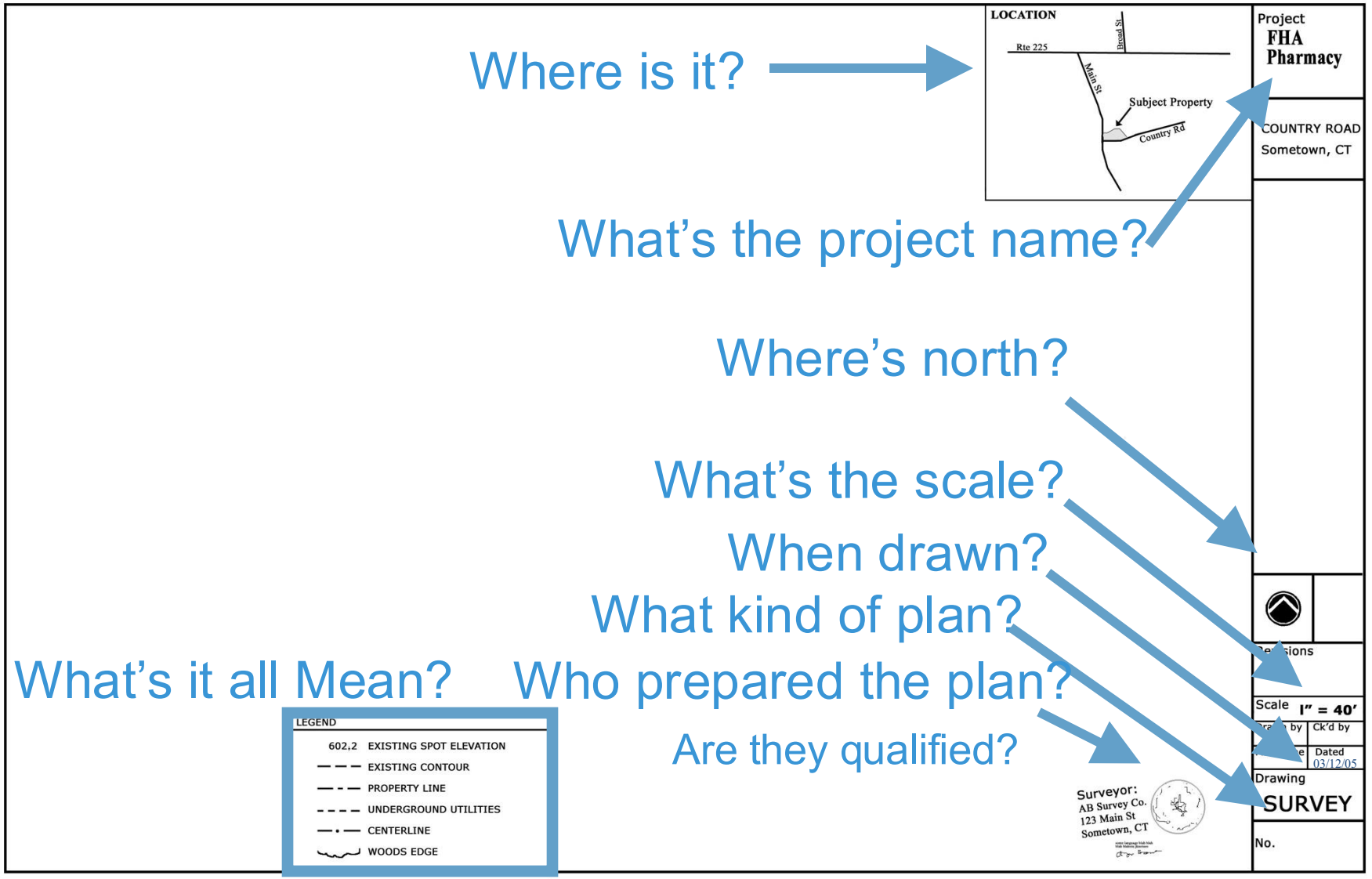
Site Plan Reading

FHA Pharmacy
- Survey
- Layout Plan
- Grading Plan
- Utility S&E Control
- Elevation
- Planting Plan
- Details

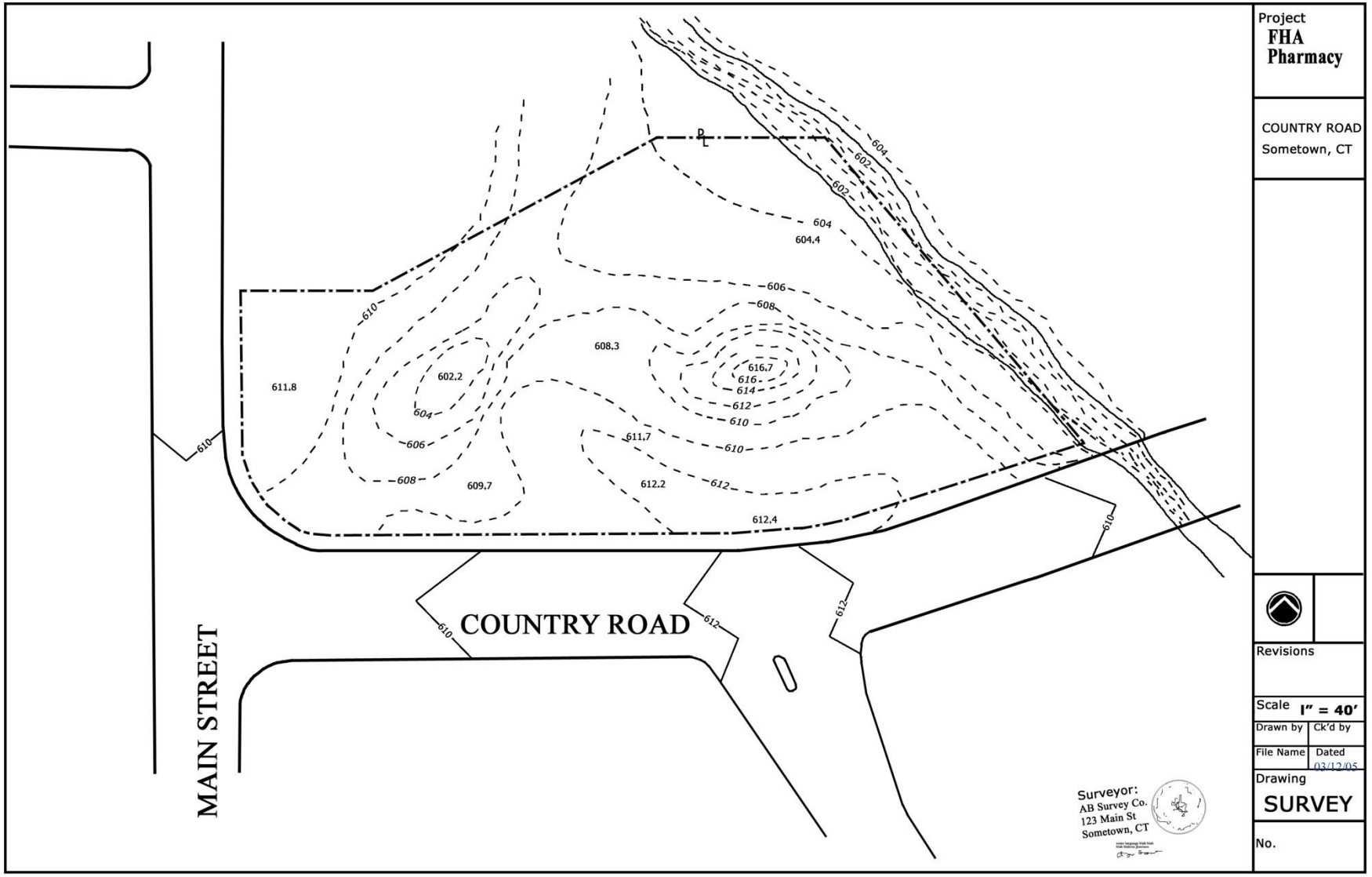
Let’s go through this set of plans, page by page.

Plan Reading

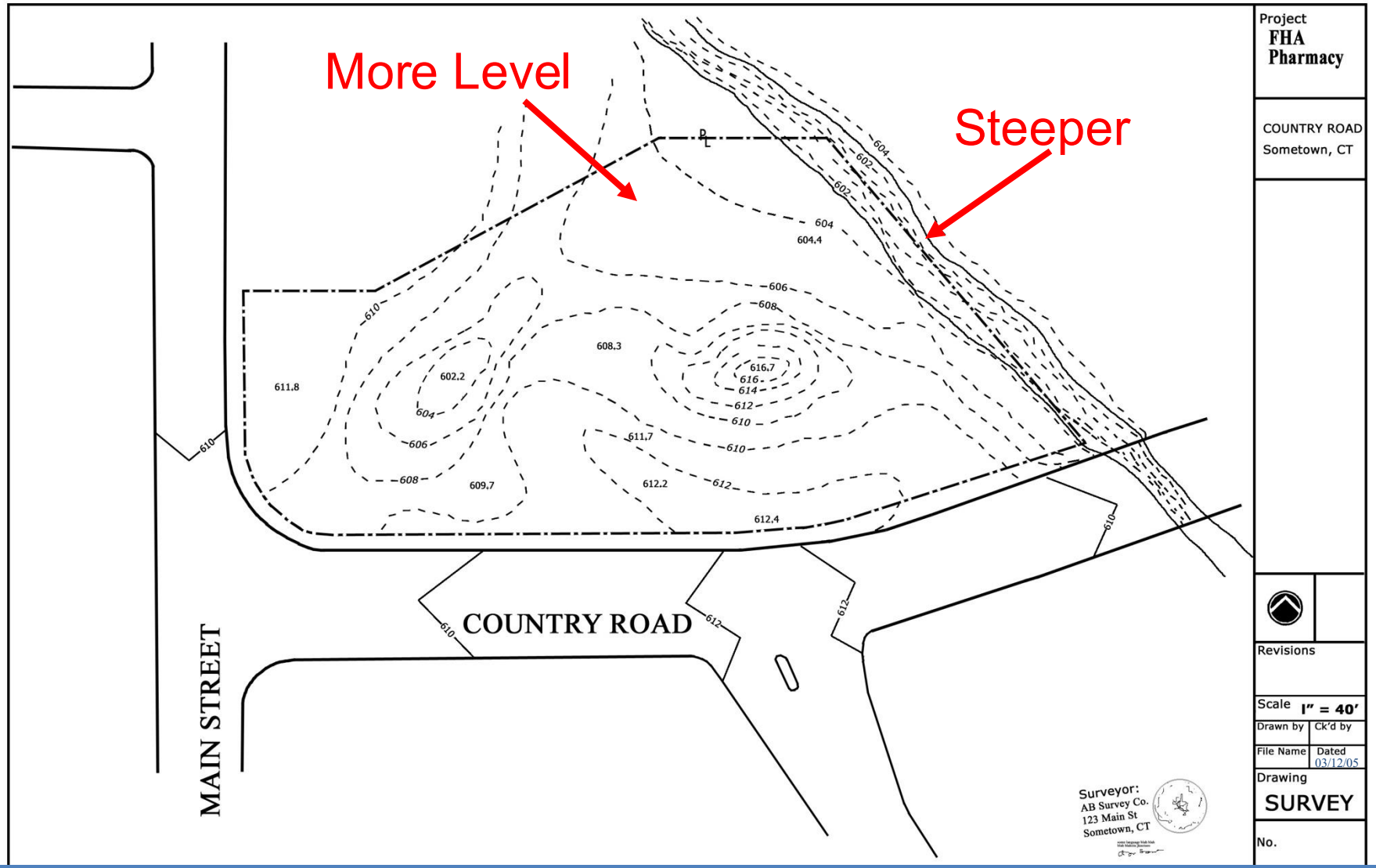
who? what? where? when?



Plan Reading

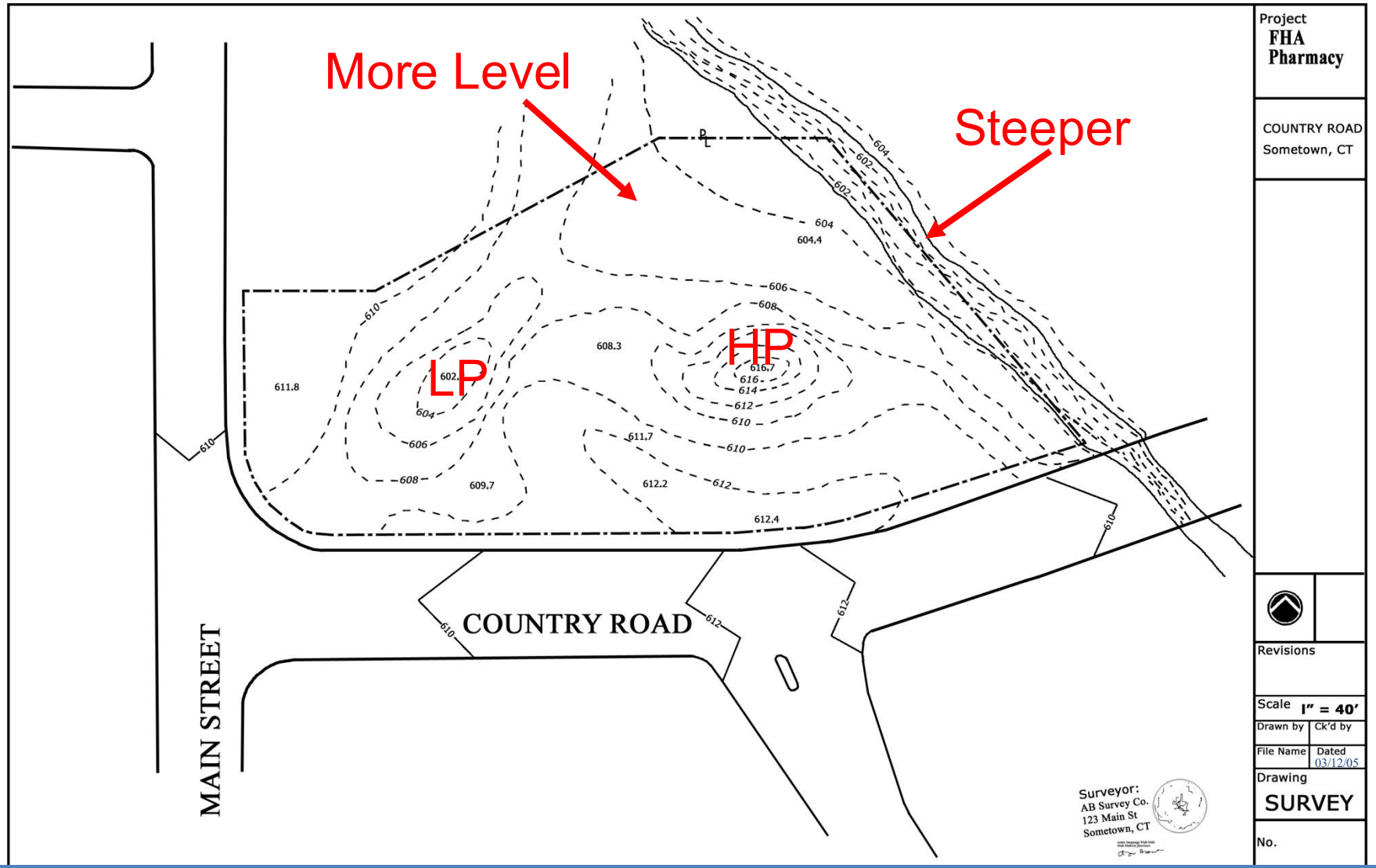


Plan Reading



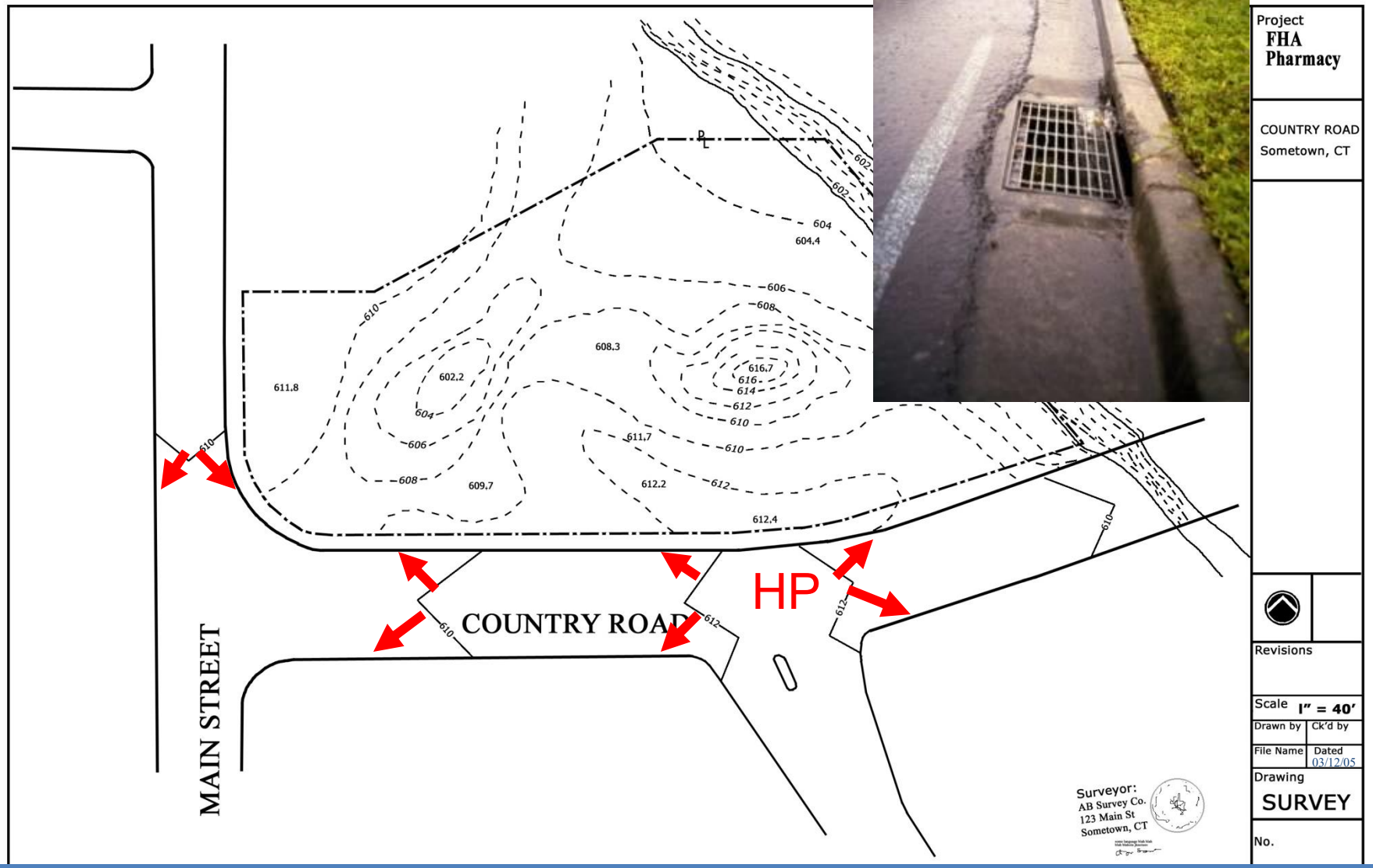
Question: Where's the steepest and the flattest areas?

Plan Reading



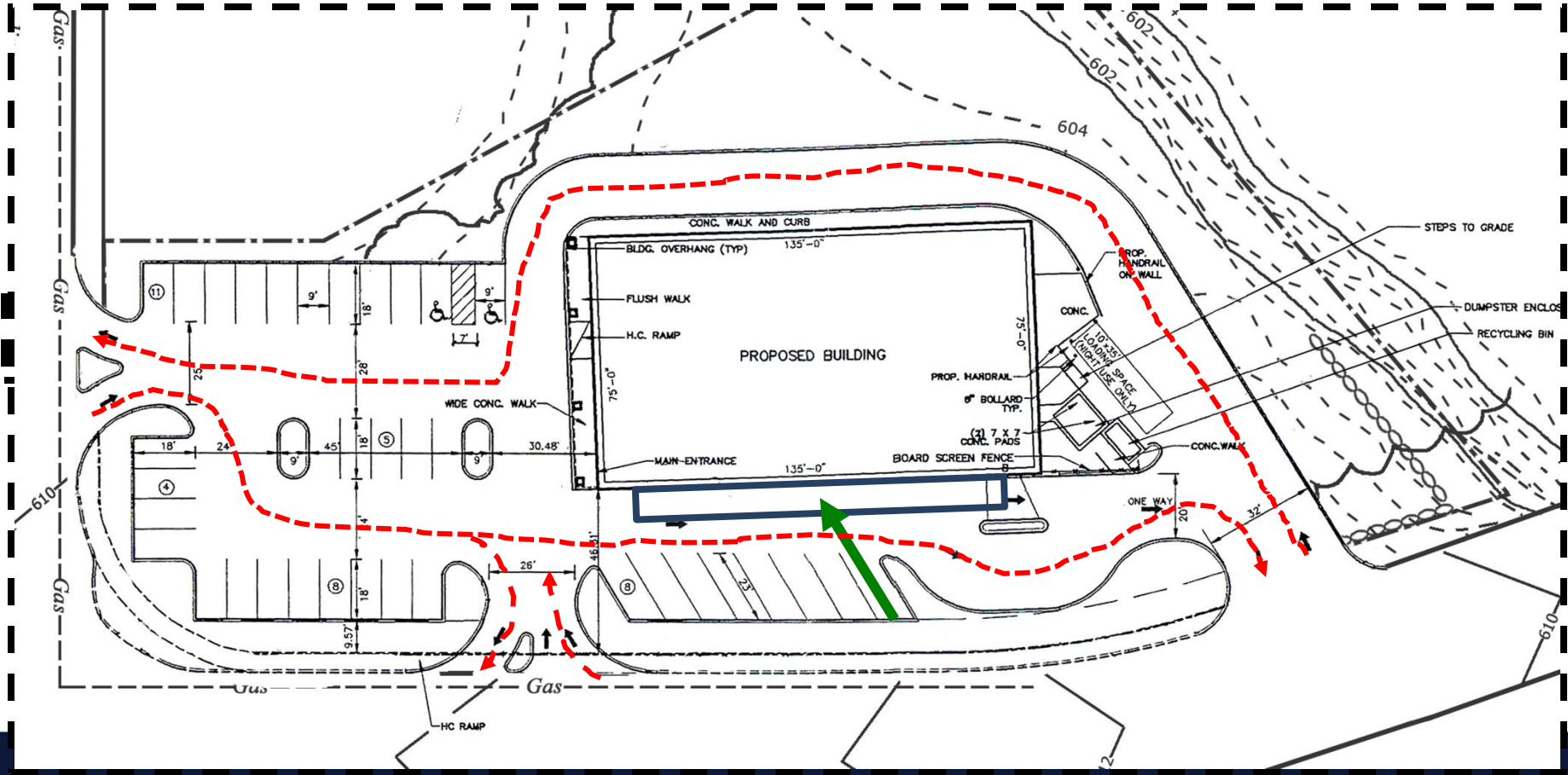
Question: Where are the high and low points?

Plan Reading



Question: What direction does the water flow on the road?

Plan Reading Traffic Circulation



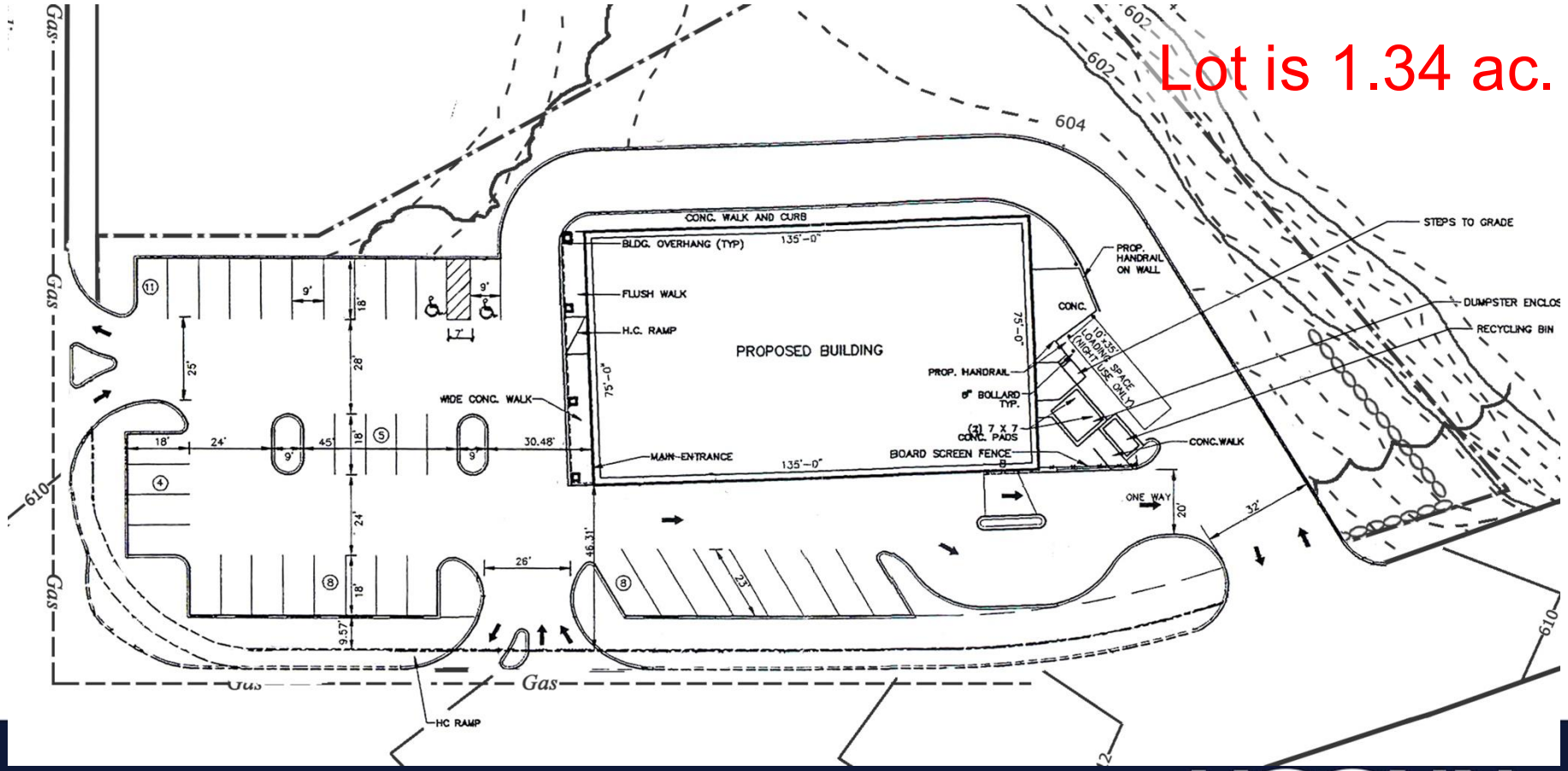
UCONN

Plan Reading

ask questions .....

What's the lot size?

Regulations: 1 ac.

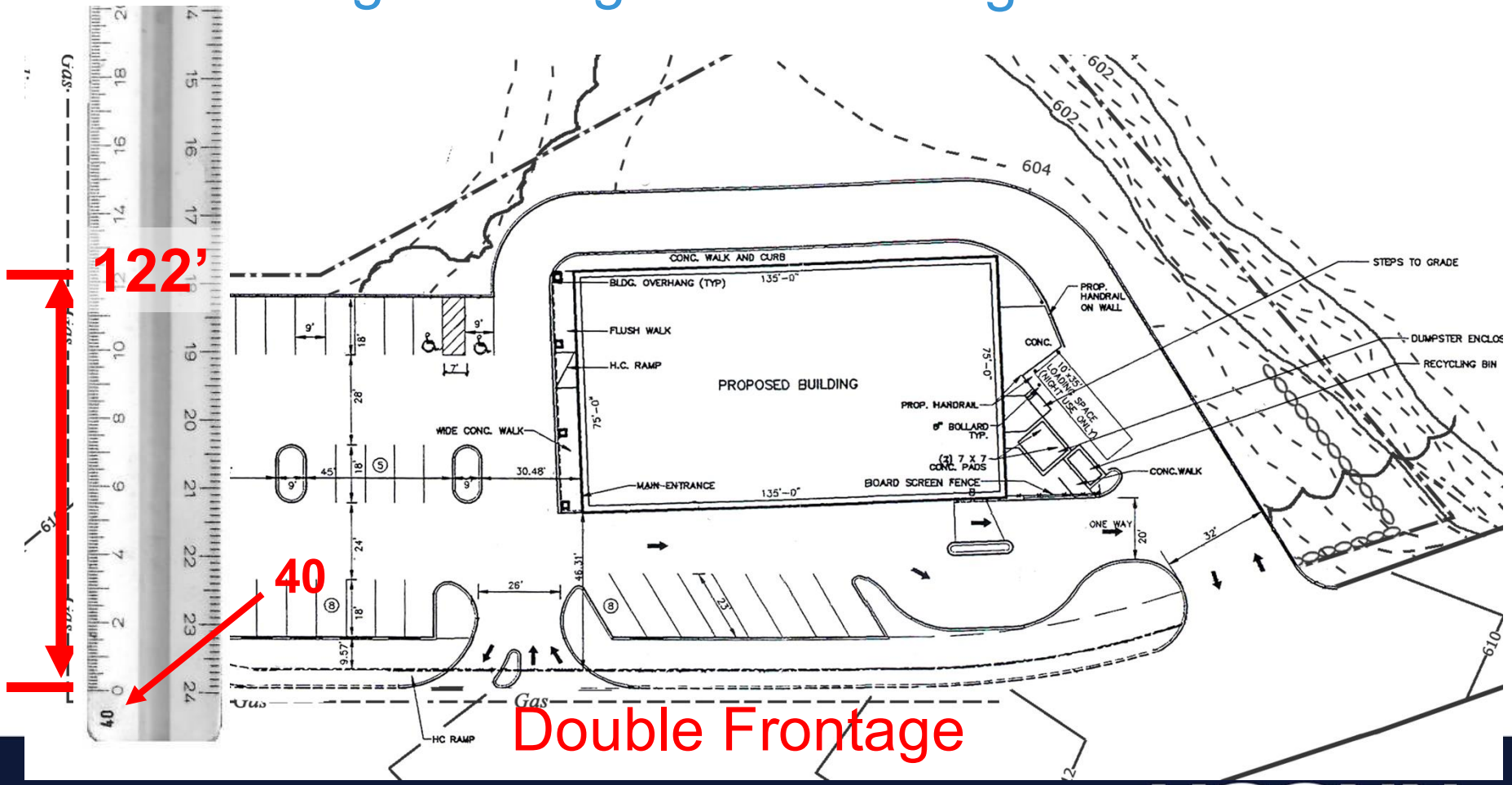


UCONN

Plan Reading

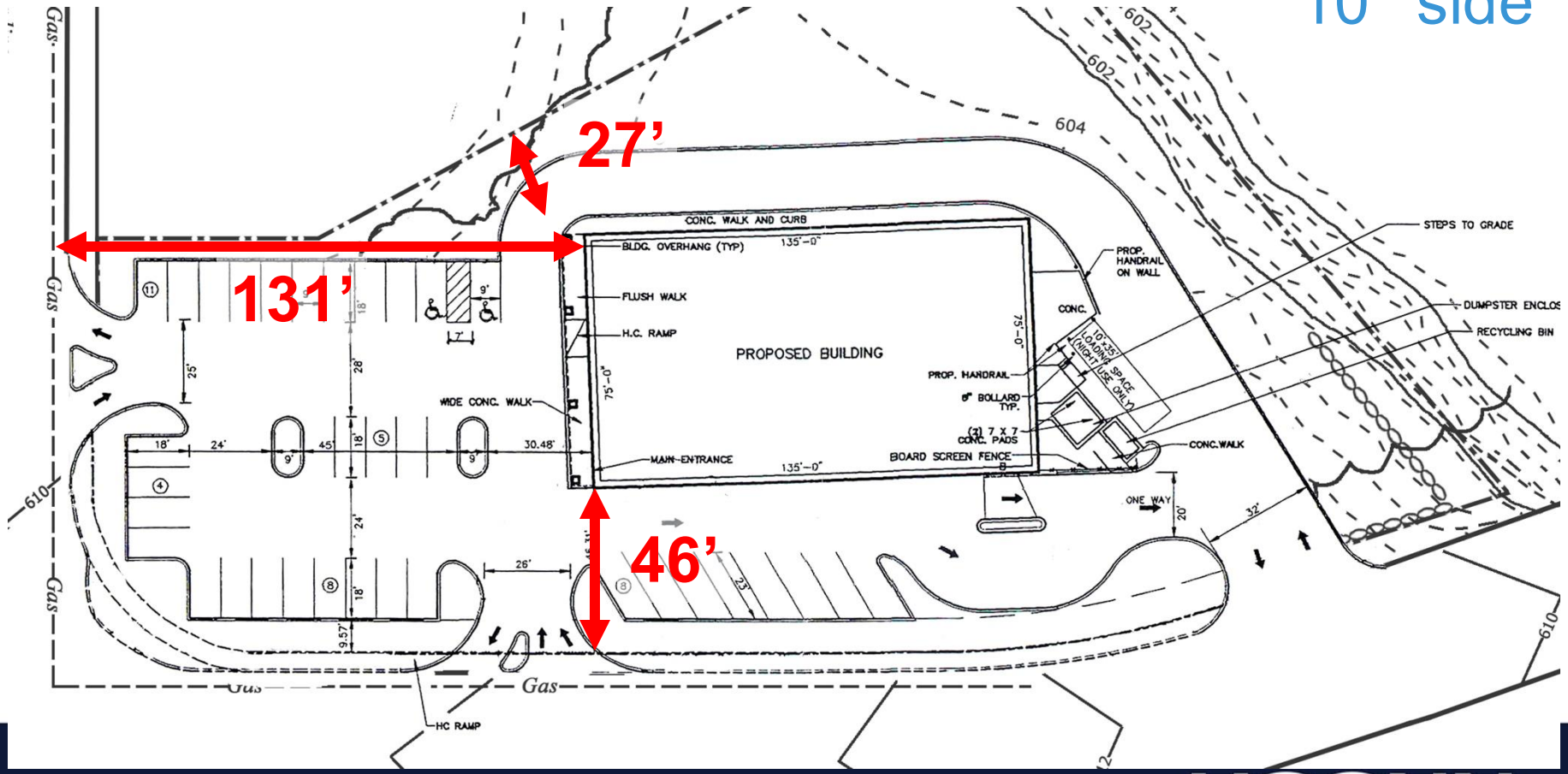
Is that enough frontage?

Regulations: 100’ min.



Plan Reading

Is the building within setbacks? Regulations: 40’ front
10’ side

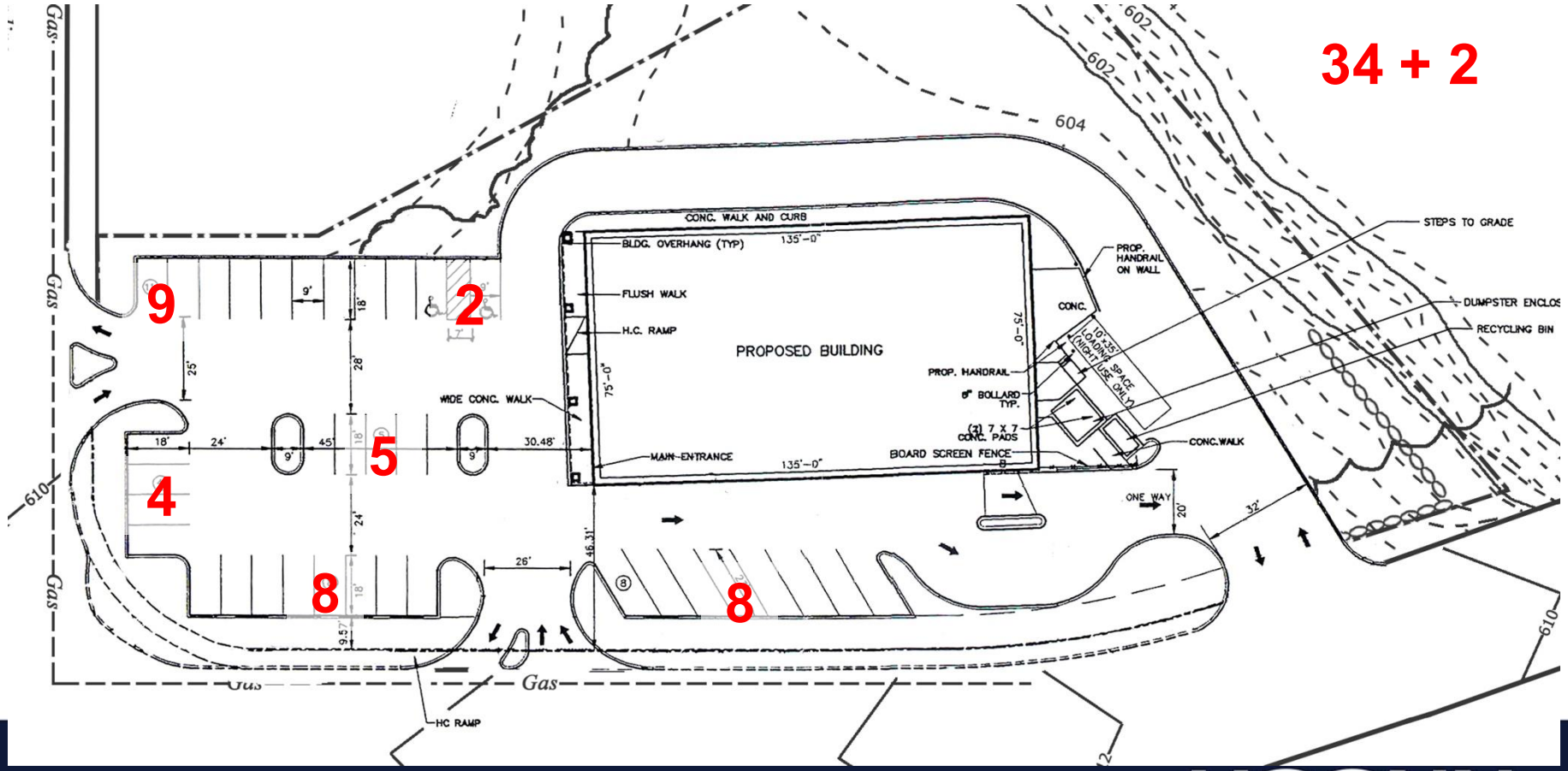


UCONN

Plan Reading

How many parking spaces?

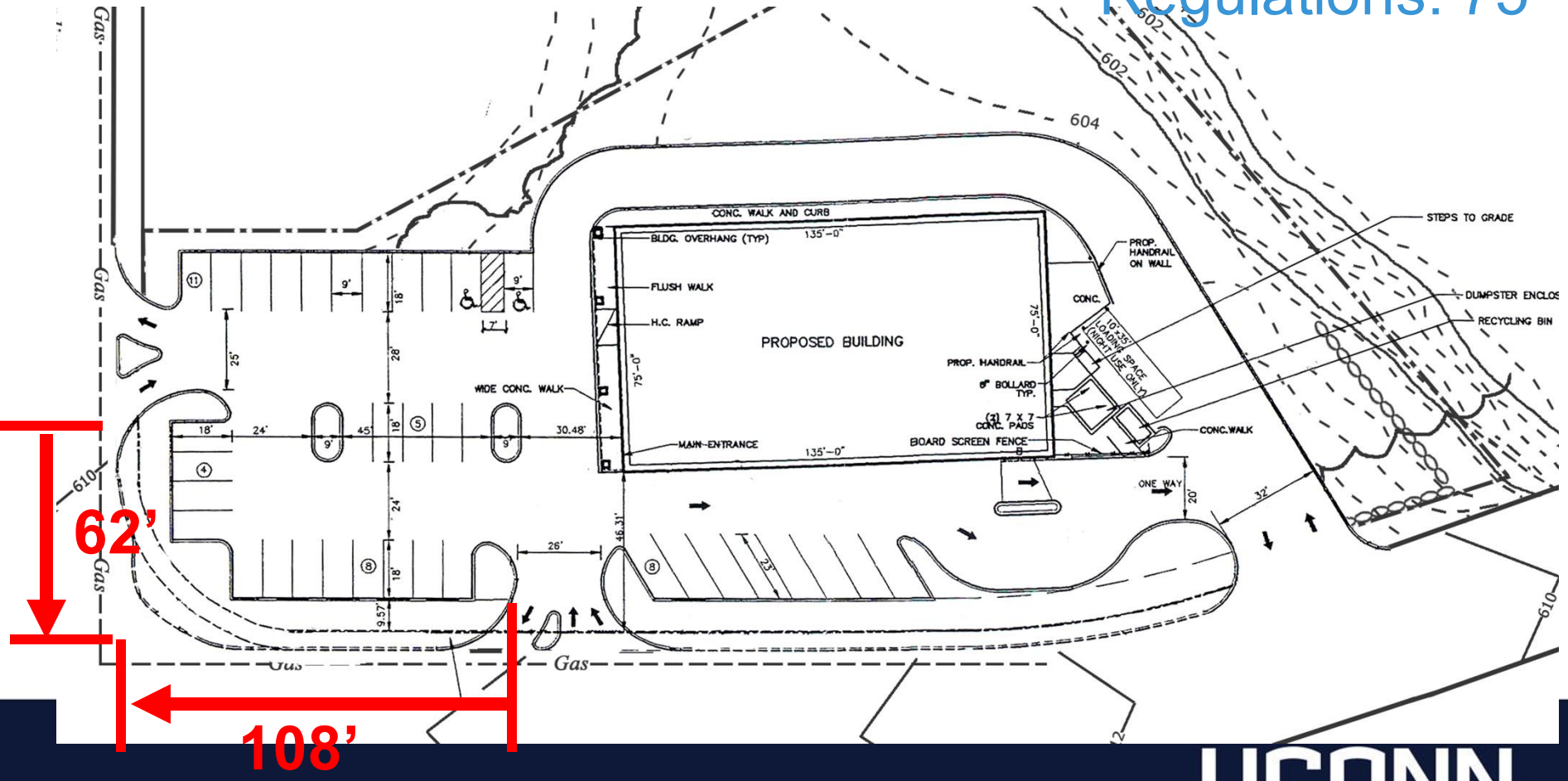
Regulations: 41 + 2



Plan Reading

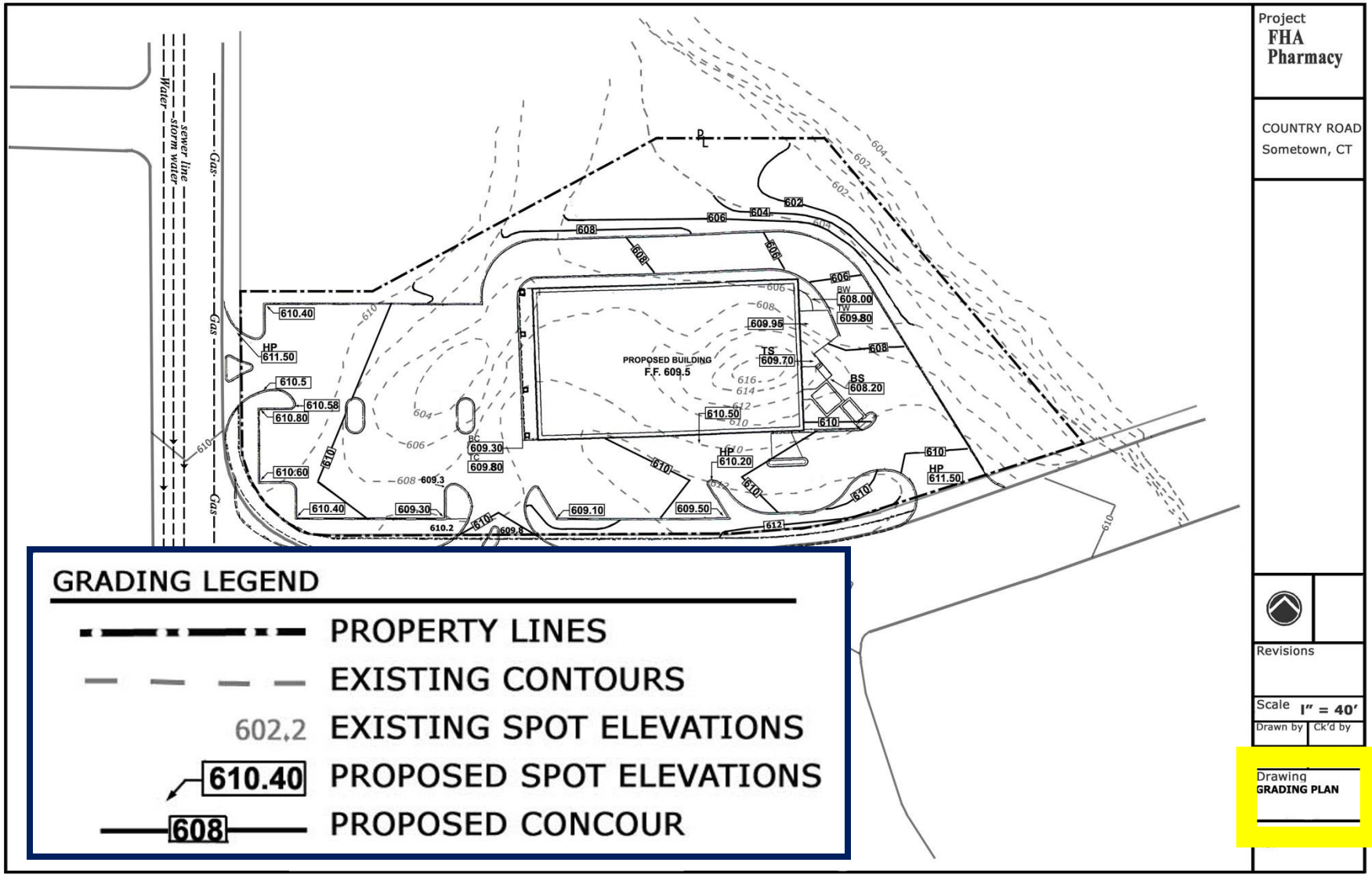
What's the distance from the intersection?

Regulations: 75'

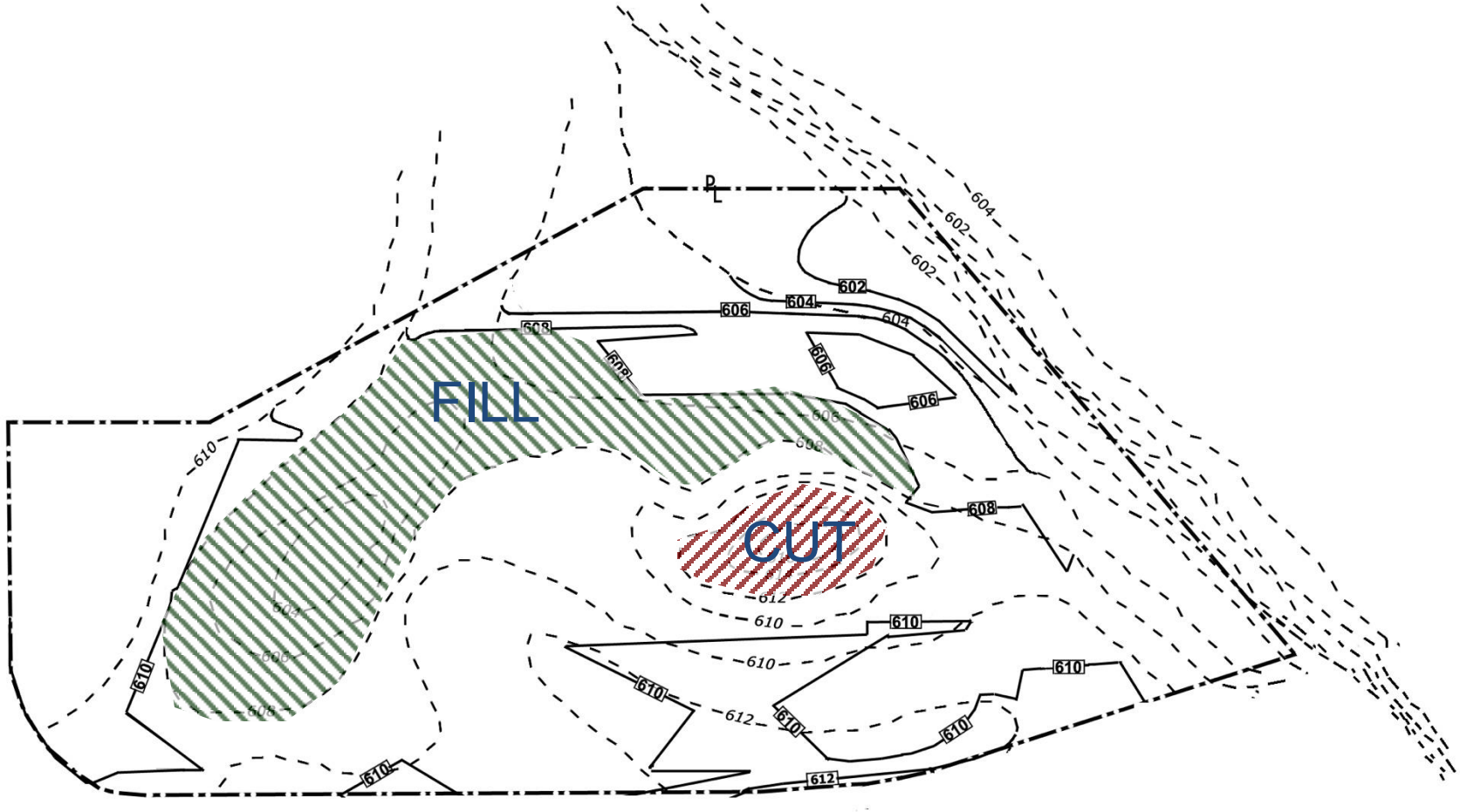


UCONN

Plan Reading

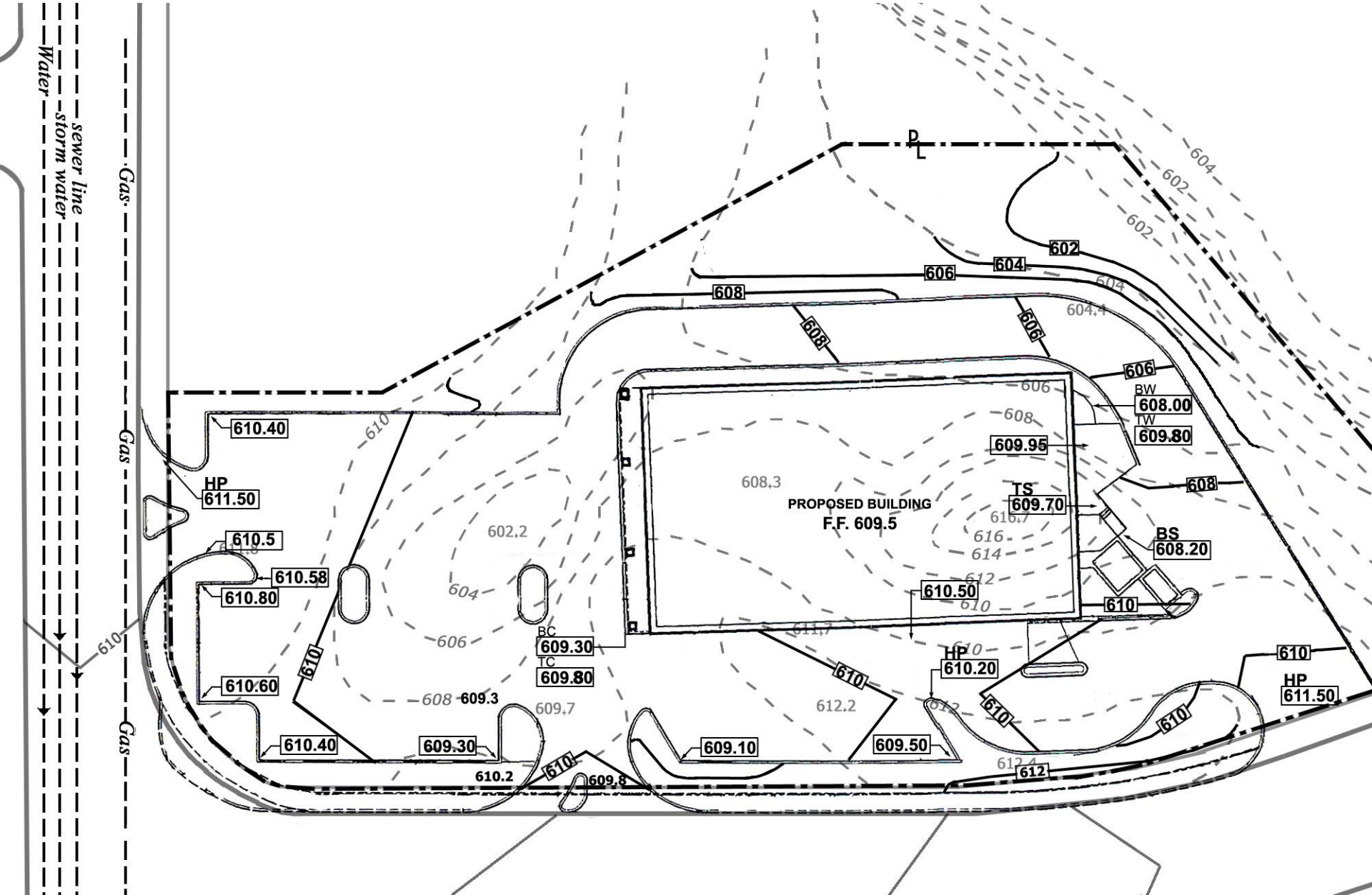


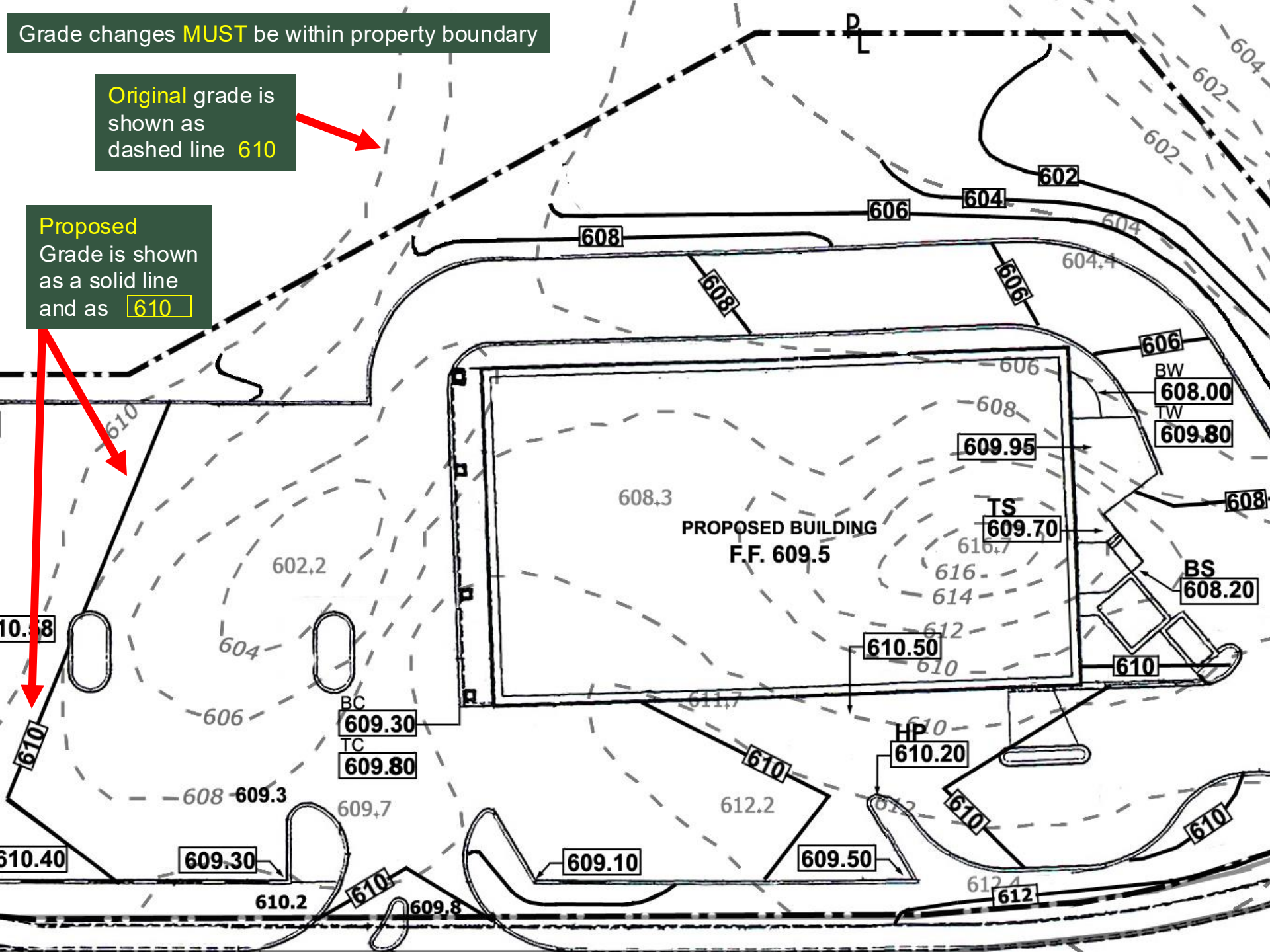
Site Plan Review – Cut and Fill

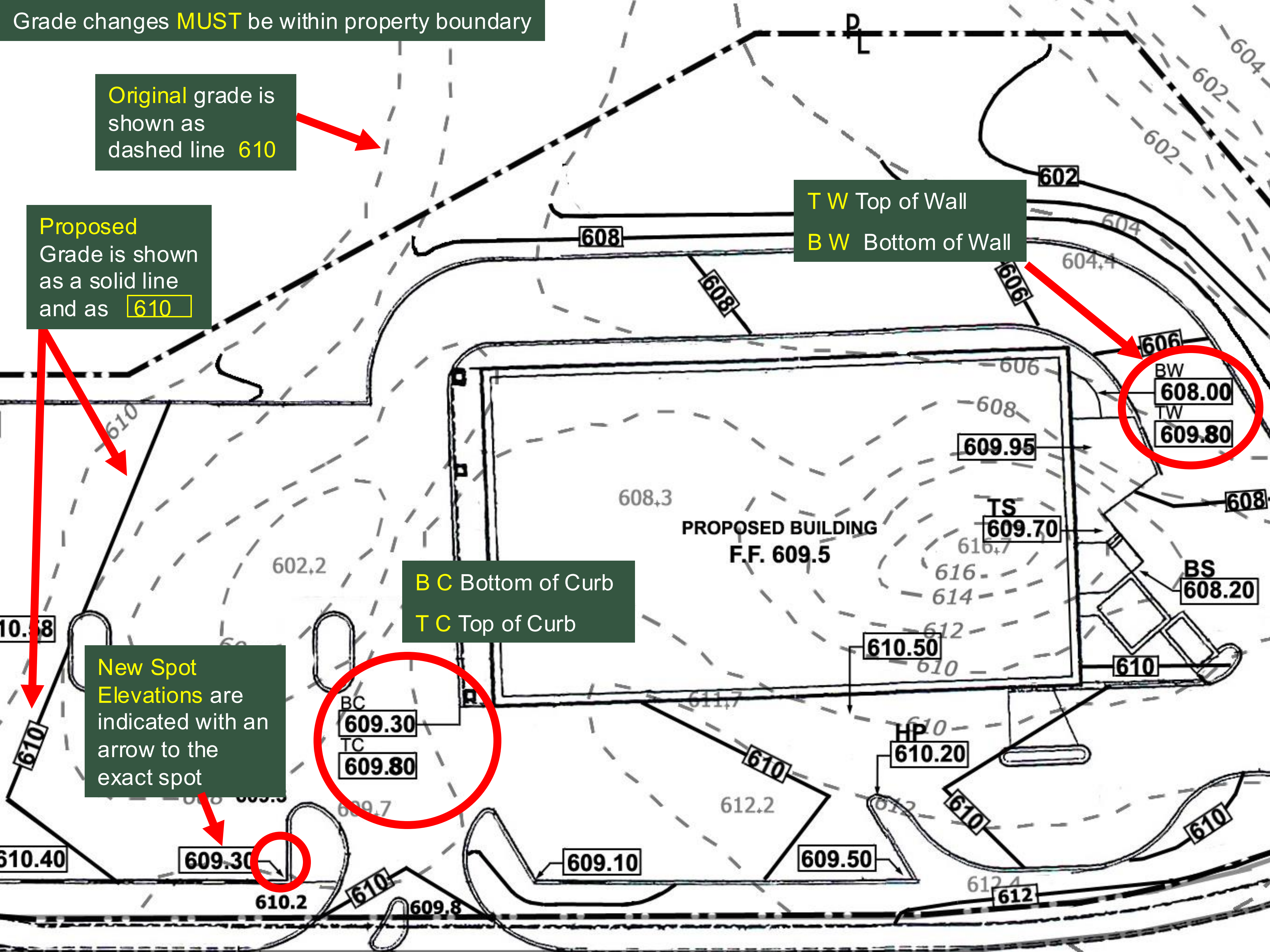


Question: Why should you be concerned with the amount of cut and fill?

Plan Reading focus in

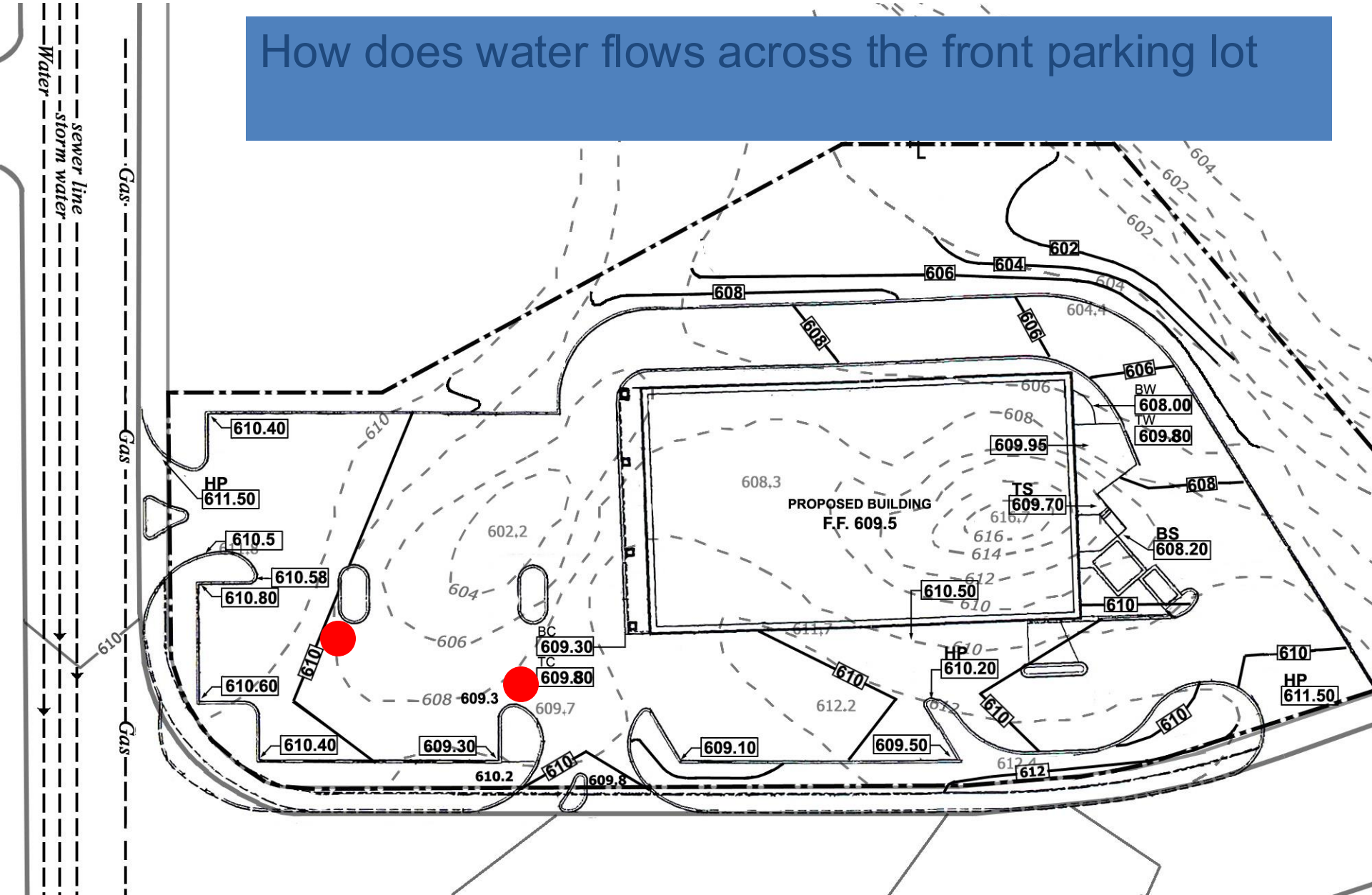



Grade changes MUST be within property boundary
Original grade is shown as dashed line 610
Proposed Grade is shown as a solid line and as 610
PROPOSED BUILDING
F.F. 609.5
BW
608.00
TW
609.80
609.95
TS
609.70
BS
608.20
610.50
HP
610.20
BC
609.30
TC
609.80
609.30
609.10
609.50
610.40
610.2
609.8
602
604
606
608
610
612

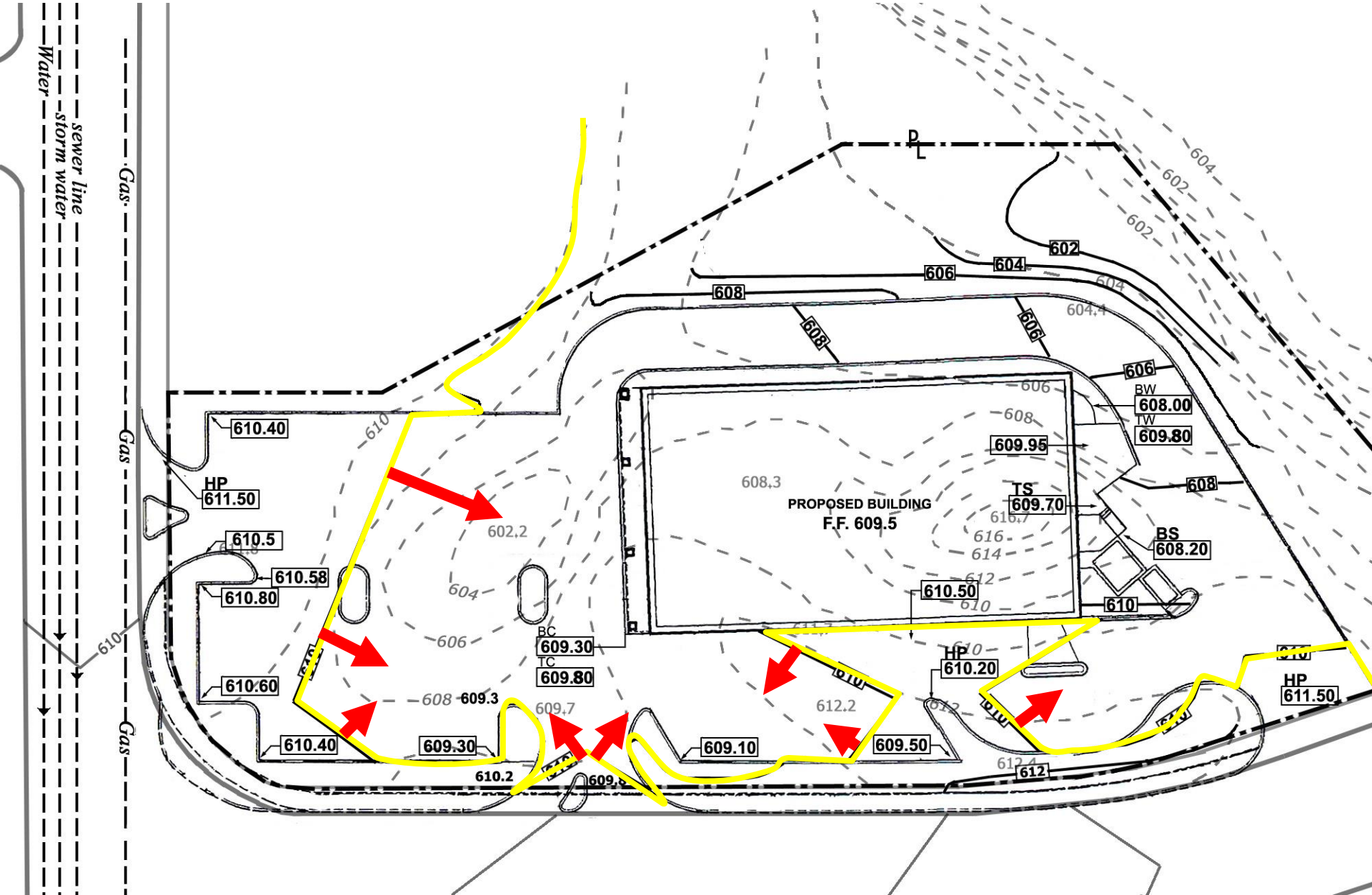

Grade changes MUST be within property boundary
Original grade is shown as dashed line 610
Proposed Grade is shown as a solid line and as 610
T W Top of Wall
B W Bottom of Wall
B C Bottom of Curb
T C Top of Curb
New Spot Elevations are indicated with an arrow to the exact spot
PROPOSED BUILDING
F.F. 609.5
BW
608.00
TW
609.80
609.95
TS
609.70
BS
608.20
610.50
HP
610.20
BC
609.30
TC
609.80
609.30
610.2
610.40
609.10
609.50
609.8
608.3
602.2
612.2
611.7
616.7
604.4
612.4

Site Plan Review

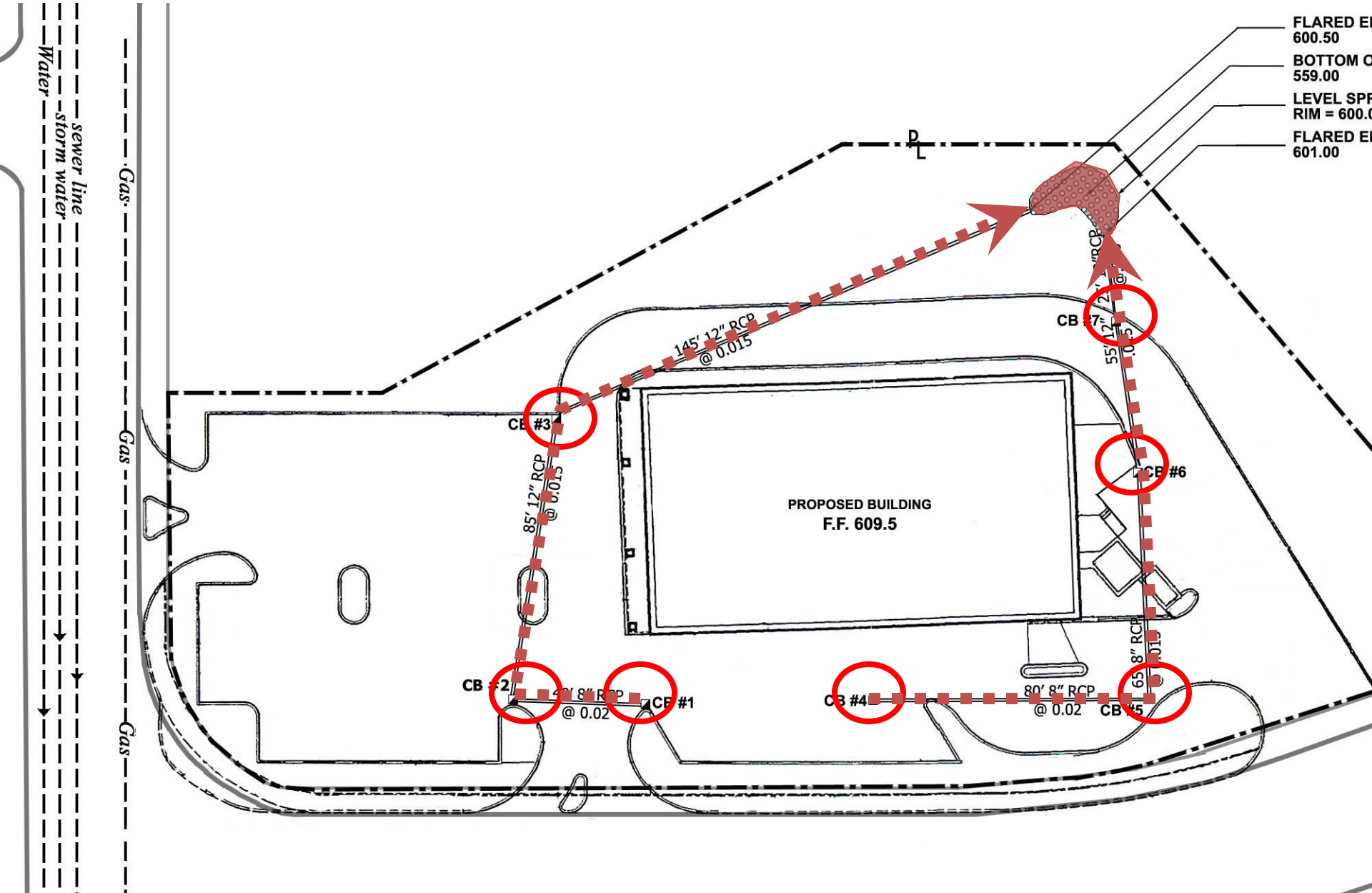
How does water flows across the front parking lot



Site Plan Review

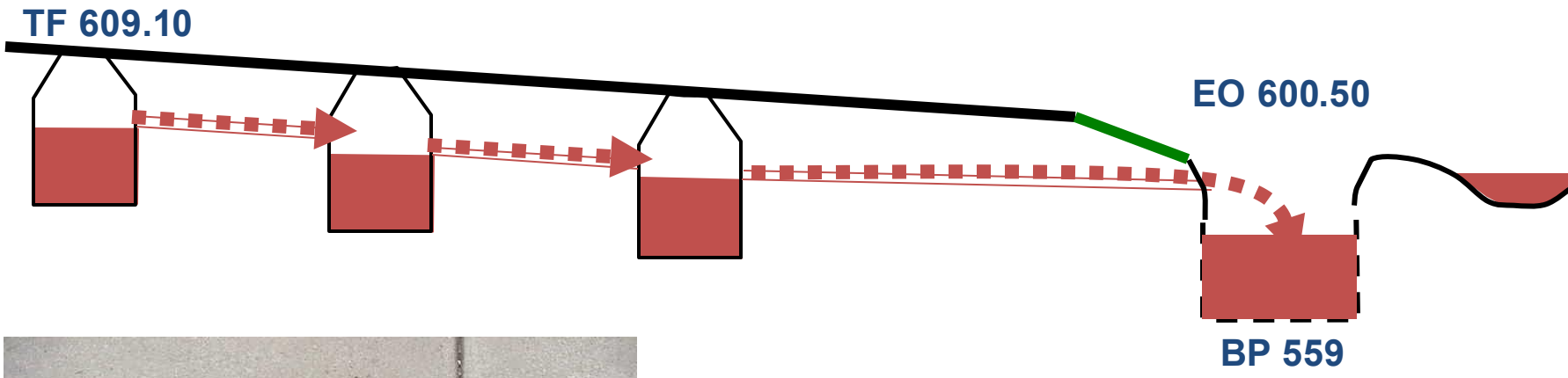


Site Plan Review Stormwater System



Site Plan Review Stormwater System

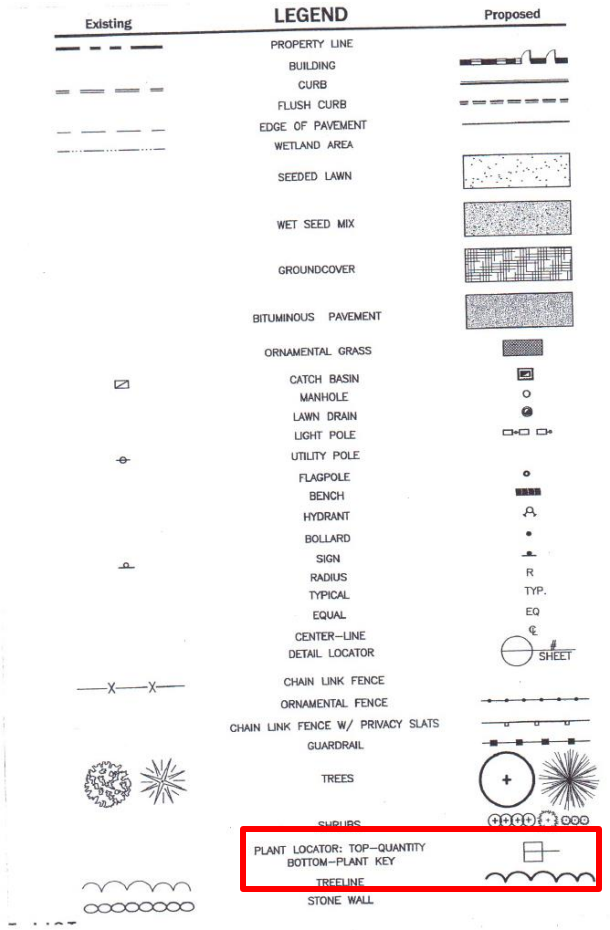
System Schematic

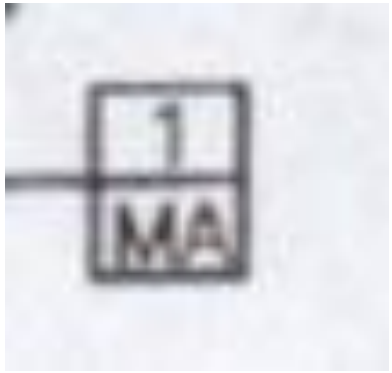


Question: Any concerns?

CLEAR UCONN

Landscaping/Planting Plan



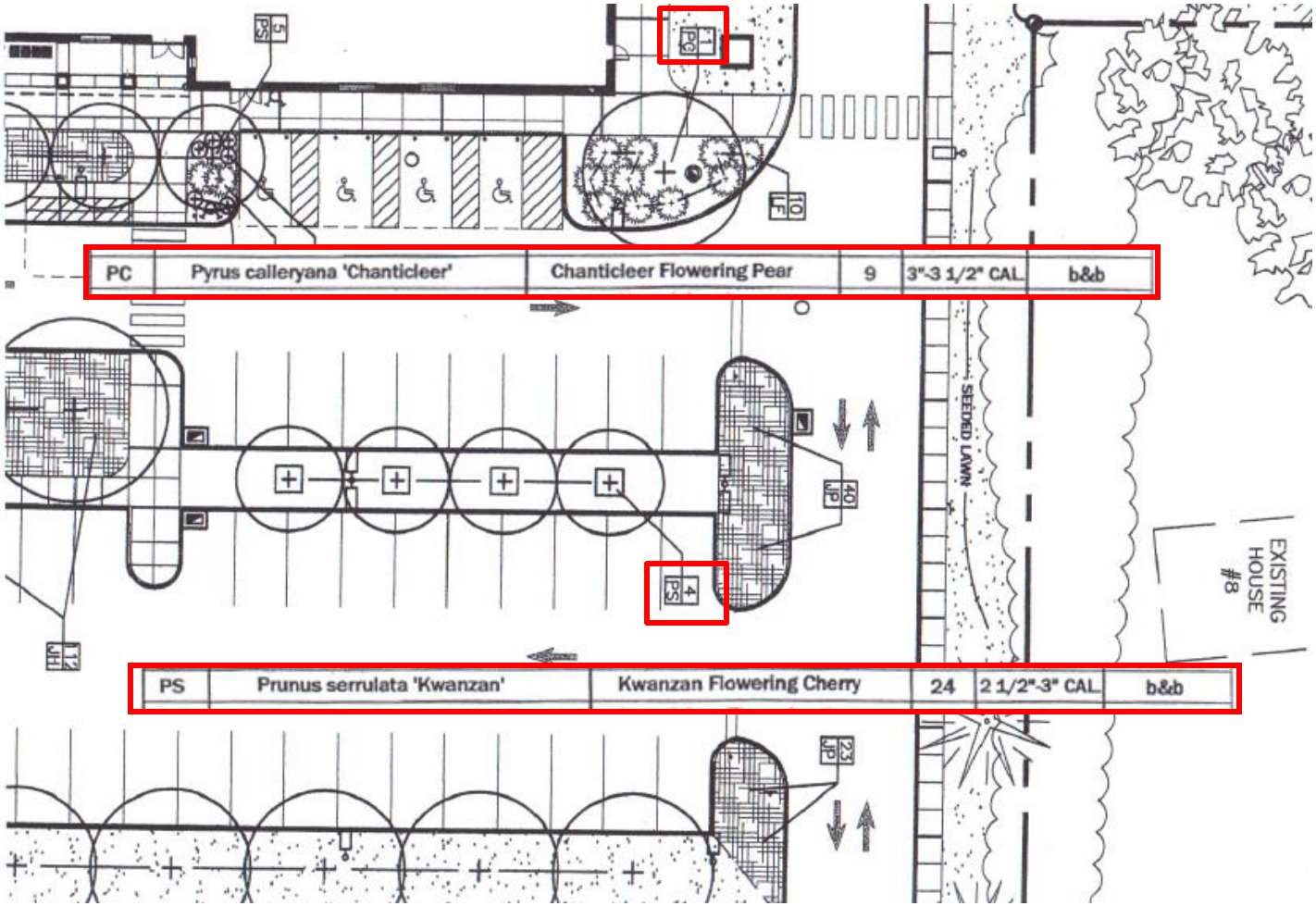


Landscaping/Planting Plan

PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	REMARKS
	TREES:				
MA	Acer saccharum 'Green Mountain'	Green Mountain Sugar Maple	13	2 1/2"-3" CAL.	b&b
PP	Picea pungens 'Foxtail'	Foxtail Spruce	24	4'-5' HT.	b&b
PG	Pinus parviflora 'Glauca'	Japanese White Pine	23	6'-7' HT.	b&b
PS	Prunus serrulata 'Kwanzan'	Kwanzan Flowering Cherry	24	2 1/2"-3" CAL.	b&b
PC	Pyrus calleryana 'Chanticleer'	Chanticleer Flowering Pear	9	3"-3 1/2" CAL.	b&b
AR	Thuja plicata x standishii	Green Giant Arborvitae	43	6'-7' HT.	b&b
ZS	Zelkova serrata 'Green Vase'	Green Vase Zelkova	11	2 1/2"-3" CAL.	b&b
	SHRUBS:				
BM	Caryopteris x clandonensis 'Blue Mist'	Bluebeard	43	18"-24" SPD.	
CA	Clethra alnifolia	Summersweet	62	18"-24" SPD.	
SD	Cornus alba 'Sibirica'	Siberian Dogwood	17	2'-2.5' HT.	
YT	Cornus sericea 'Flaviramea'	Yellow Twig Dogwood	28	2'-2.5' HT.	
JP	Juniperus procumbens 'Nana'	Dwarf Japanese Garden Juniper	107	18"-24" SPD.	4' O.C.
JH	Juniperus horizontalis 'Wiltoni'	Wiltoni Juniper	164	18"-24" SPD.	4' O.C.
KL	Kalmia latifolia	Hybrid Mountain Laurel	4	30"-36" SPD.	
LF	Leucothoe fontanesiana 'Rainbow'	Rainbow Leucothoe	20	18"-24" SPD.	
PJ	Pieris japonica 'Mountain Fire'	Mountain Fire Andromeda	14	24"-30" SPD.	
PM	Pinus mugho 'Pumilio'	Dwarf Mugho Pine	58	24"-30" SPD.	
VD	Viburnum dentatum	Arrowood Viburnum	12	4'-5' HT.	
	Wetland Plants				
CC	Carex comosa	Bearded Sedge	36	1 QT.	2' O.C.
CL	Carex lupulina	Hop Sedge	45	1 QT.	2' O.C.
LC	Lobelia cardinalis	Cardinal Flower	50	1 QT.	2' O.C.
VH	Verbena hastata	Blue Vervain	112	1 QT.	3' O.C.
JE	Juncus effuses	Soft Rush	35	1 QT.	4' O.C.
MG	Myrica gale	Sweetgale	127	18"-24" SPD.	4'-6" O.C.
PF	Potentilla fruticosa	Bush Cinqufoil	324	15"-18" SPD.	3' O.C.
SL	Spiraea latifolia	Meadowsweet	68	18"-24" SPD.	4'-6" O.C.
	Ornamental Grass				
HM	Hakonechloa macra 'Aureola'	Japanese Forest Grass	96	18"-24" SPD.	

Landscaping/Planting Plan



CLEAR

UCONN

Landscaping/Planting Plan

NOTES

1. If a discrepency exists between the number of plants shown on the plan and the quantity in the plant list, the plan shall govern.

2. The Contractor shall seed to lawn all areas within the contract limits and seeding limits as shown on the plan and as specified. The Contractor is also responsible for any areas beyond these two limits which may have been disturbed by construction activities. If such disturbance has occurred, the area(s) shall be topsoiled and seeded to lawn as detailed and specified.

3. All plant materials are to be approved by the Landscape Architect prior to delivery to the site. See the Specification.

4. Refer to the Specification for acceptable planting season dates. Planting out-of-season will not be allowed without written approval from the Landscape Architect.

5. Shrub beds shall have a weed barrier fabric and a minimum of four inches (after settlement) of shredded pine bark mulch. Groundcover beds shall omit the weed barrier and have a minimum of four inches (after settlement) of shredded pine bark mulch. See details on sheet L-1.14 and the Specification.

6. Final plant locations shall be coordinated in the field so that no tree is planted within approximately 6 feet of any underground utility new or existing.

7. Erosion control mat locations shown on this plan are general, minimum areas to be covered. All slopes 4:1 or greater are to receive erosion control matting; coordinate with the Grading Plans, sheet L-1.5 and L-1.6. See the Specification for additional information.

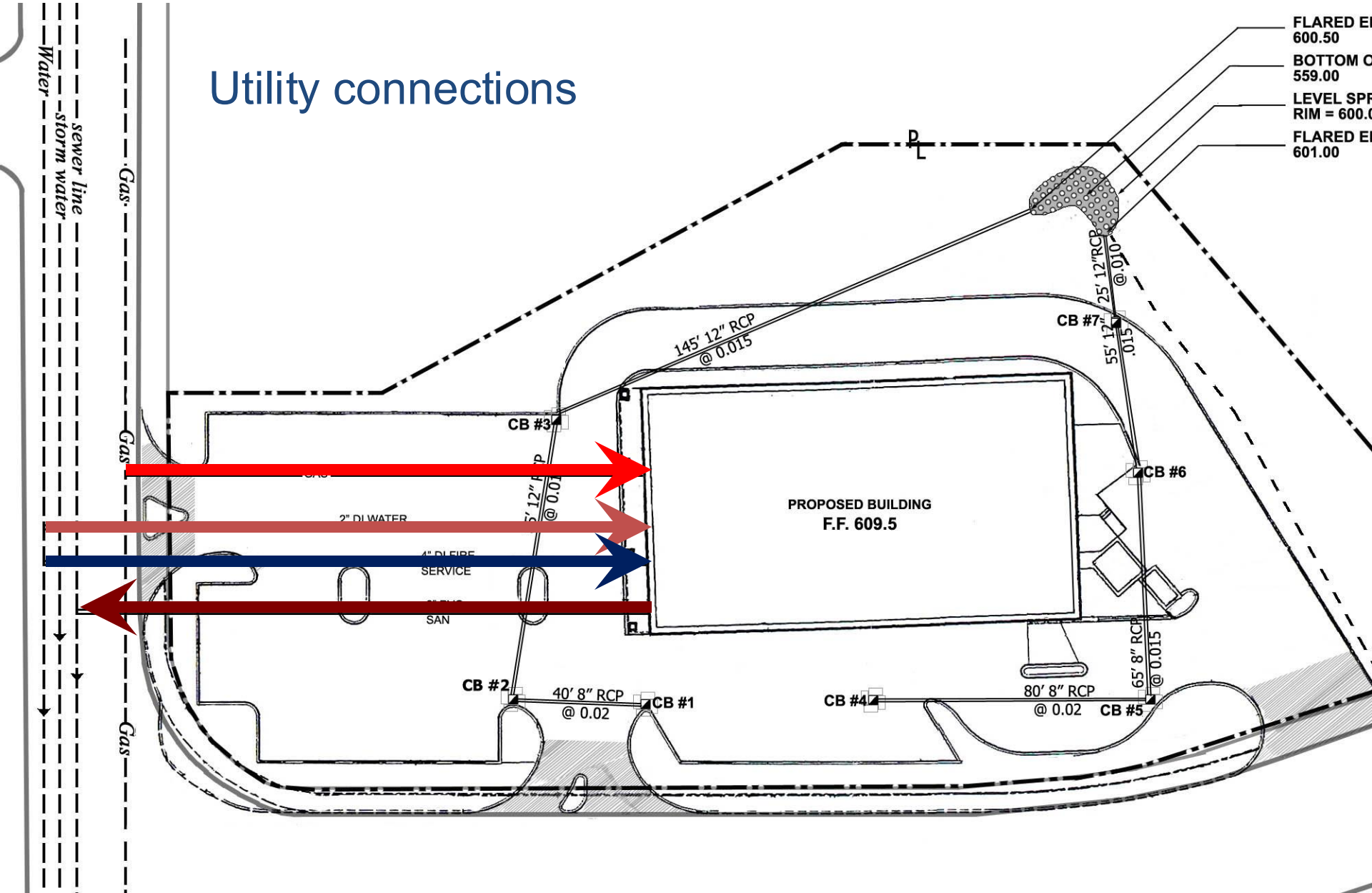
8. Plantings within water quality swales may be adjusted before installation to allow spacing for inspection and maintenance, as directed by the Landscape Architect.

Pay Attention!

Would deliberately specifying Toxicodendron radicans as a ground cover to see if we were paying attention count as a bad plan?

Site Plan Review Utilities

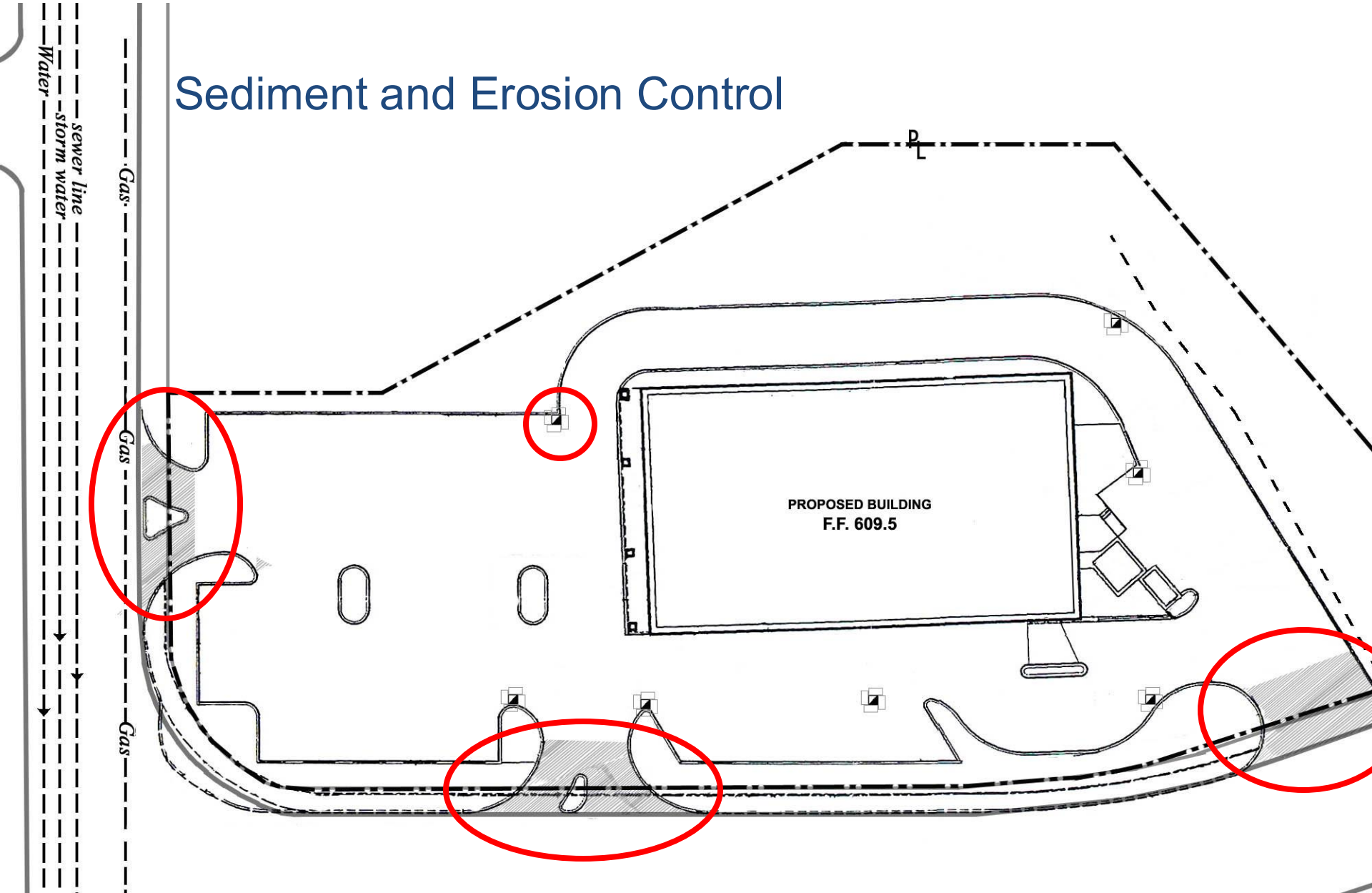
Utility connections



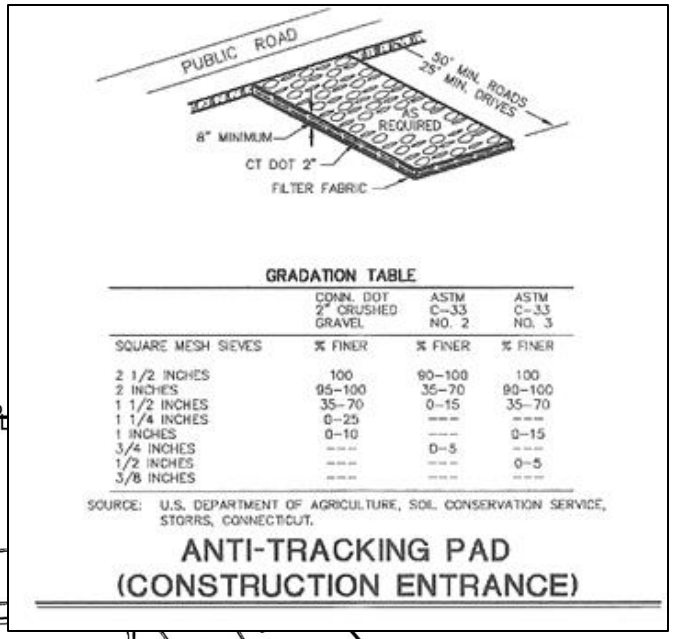
Site Plan Review

Construction Activity

Sediment and Erosion Control



Site Plan Review Details S&E

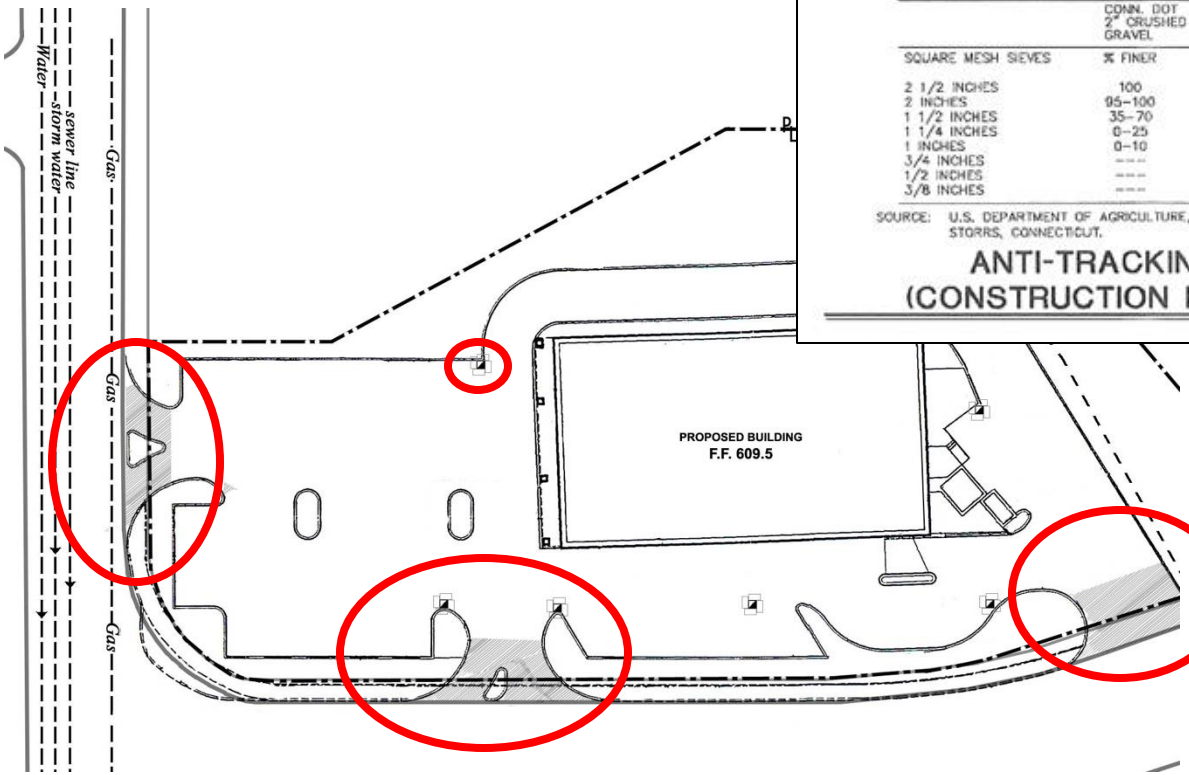


GRADATION TABLE

SQUARE MESH SIEVES	CONN. DOT 2" CRUSHED GRAVEL % FINER	ASTM C-33 NO. 2 % FINER	ASTM C-33 NO. 3 % FINER
2 1/2 INCHES	100	90-100	100
2 INCHES	95-100	35-70	90-100
1 1/2 INCHES	35-70	0-15	35-70
1 1/4 INCHES	0-25	---	---
1 INCHES	0-10	---	0-15
3/4 INCHES	---	0-5	---
1/2 INCHES	---	---	0-5
3/8 INCHES	---	---	---

SOURCE: U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, STORRS, CONNECTICUT.

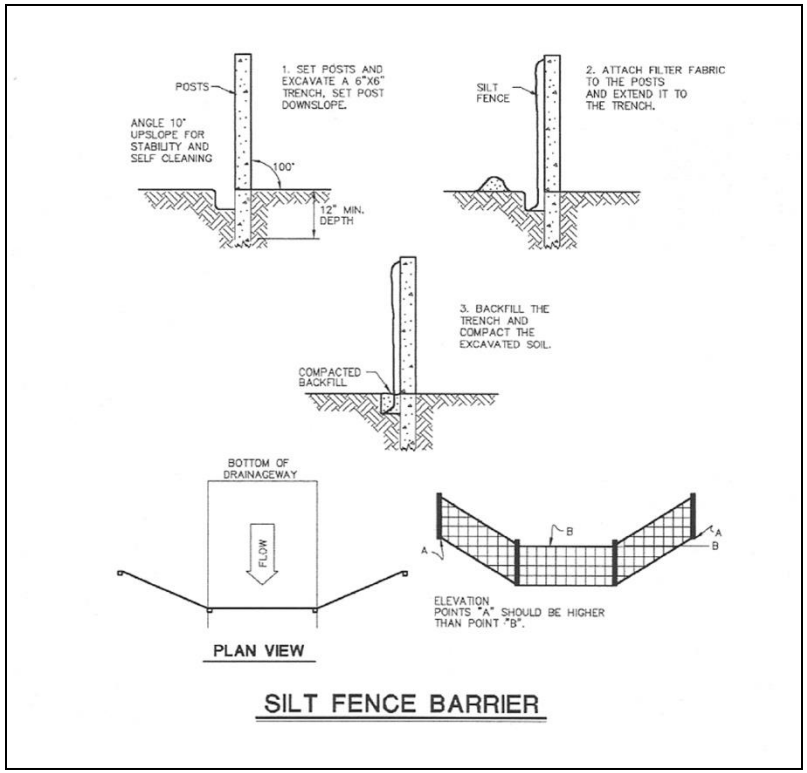
ANTI-TRACKING PAD
(CONSTRUCTION ENTRANCE)

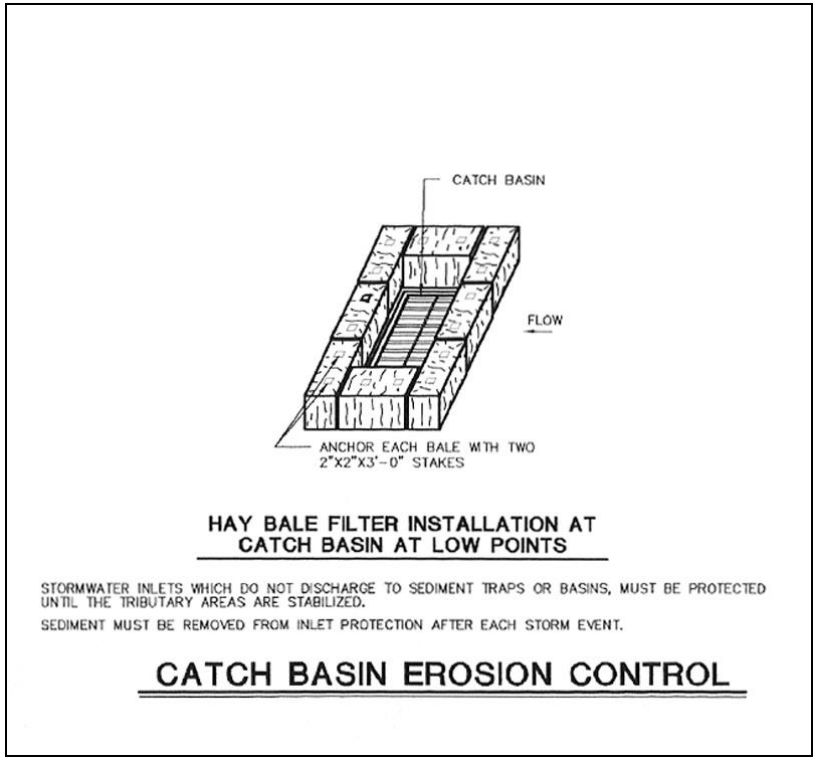


CLEAR

UCONN

Site Plan Review Details





Site Plan Review

Construction Activity

Site Plan Review Details S&E

Silt Fence

Hay-Bales

Anti-Tracking Pad

UCONN

The Planner's Role

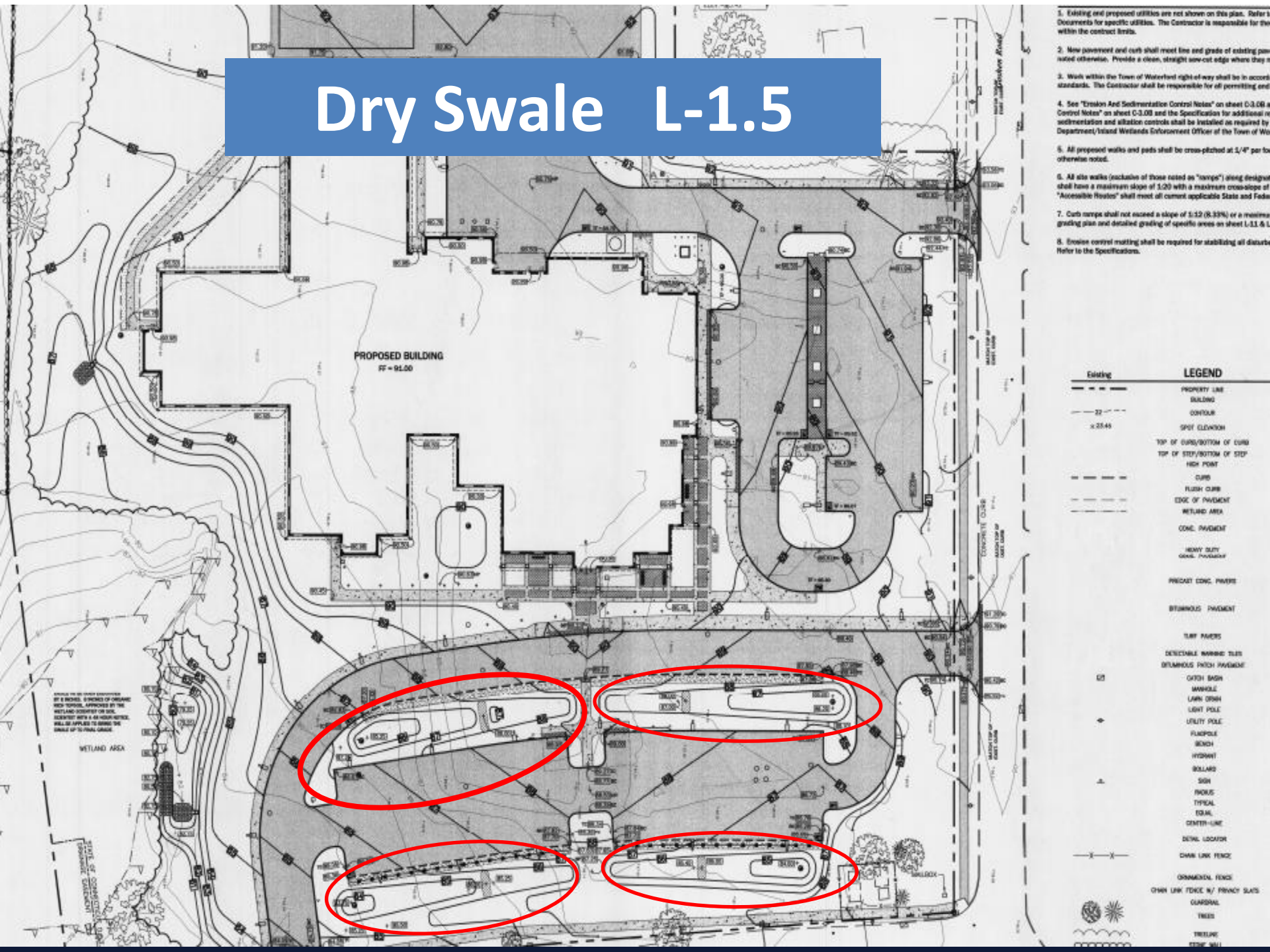
Your planner, if you have one, will have reviewed the plans and may issue a pre-meeting memo highlighting any issues. Use your planner as a resource to help you focus in on issues or problems.

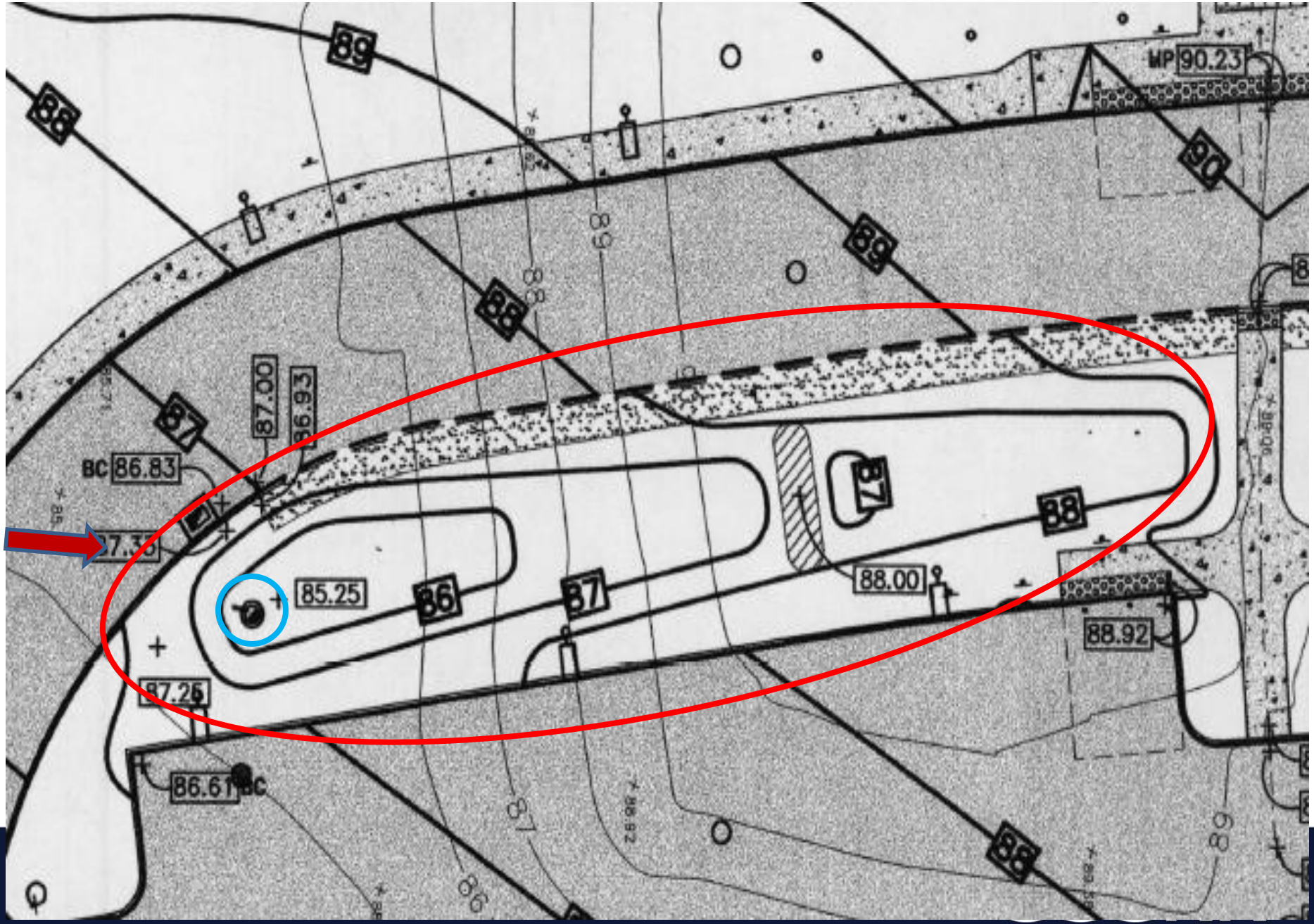
This is a team effort with all staff being part of the team.

And now—It's your turn

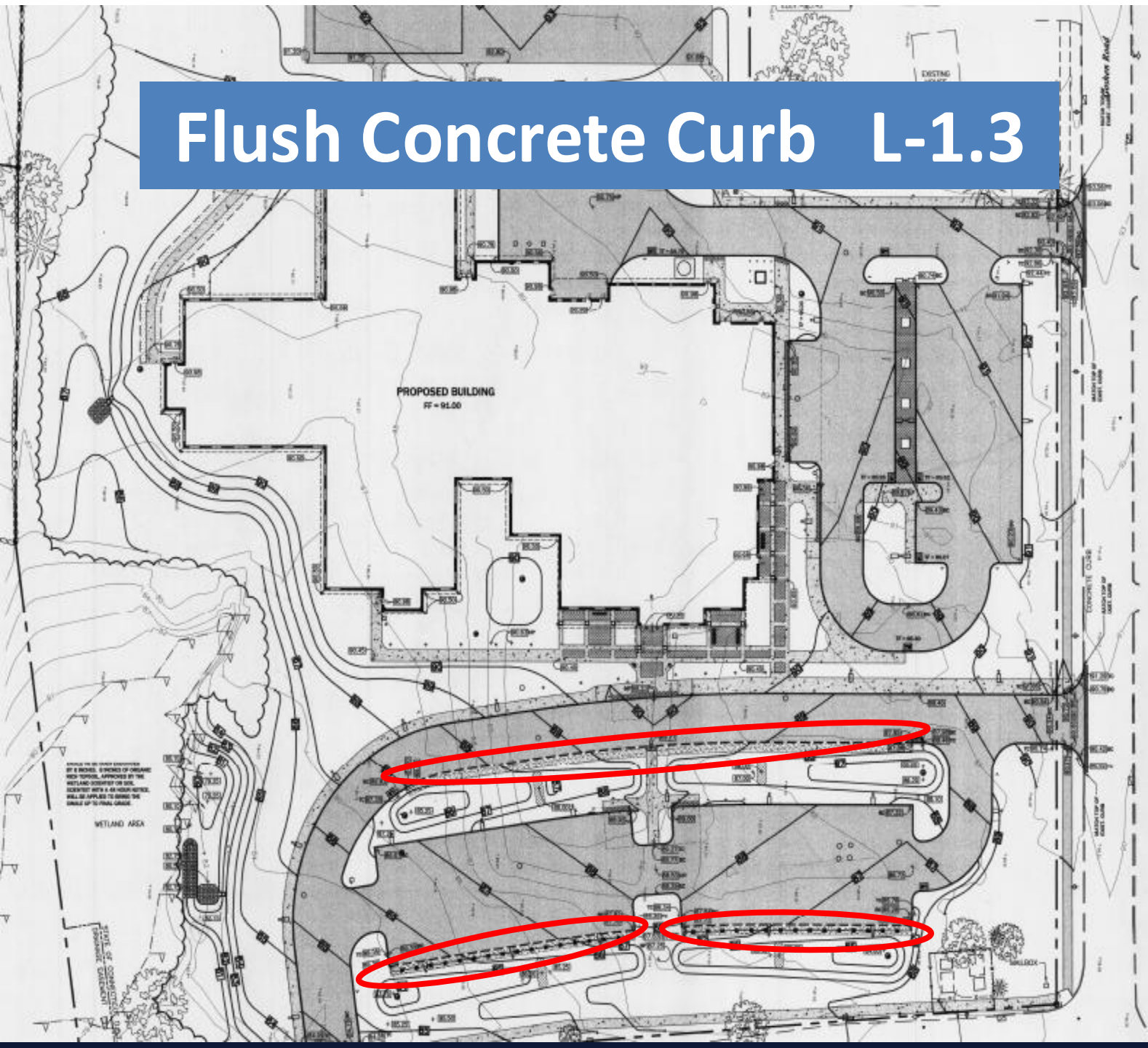
Great Neck School, Waterford, CT

Dry Swale L-1.5




MP 90.23
BC 86.83
87.00
86.93
85.25
88.00
88.92
87.25
86.61 BC

Flush Concrete Curb L-1.3



1. Existing and proposed utilities are not shown on this plan. Refe
Documents for specific utilities. The Contractor is responsible for
within the contract limits.

2. New pavement and curb shall meet line and grade of existing p
noted otherwise. Provide a clean, straight saw-cut edge where the

3. Work within the Town of Waterford right-of-way shall be in acco
standards. The Contractor shall be responsible for all permitting

4. See "Erosion And Sedimentation Control Notes" on sheet C-3.0
Control Notes" on sheet C-3.00 and the Specification for additiona
sedimentation and siltation controls shall be installed as required
Department/Inland Wetlands Enforcement Officer of the Town of W

5. All proposed walks and pads shall be cross-pitched at 1/4" per
otherwise noted.

6. All site walks (exclusive of those noted as "ramps") along desig
shall have a maximum slope of 1:20 with a maximum cross-slope
"Accessible Routes" shall meet all current applicable State and Fe

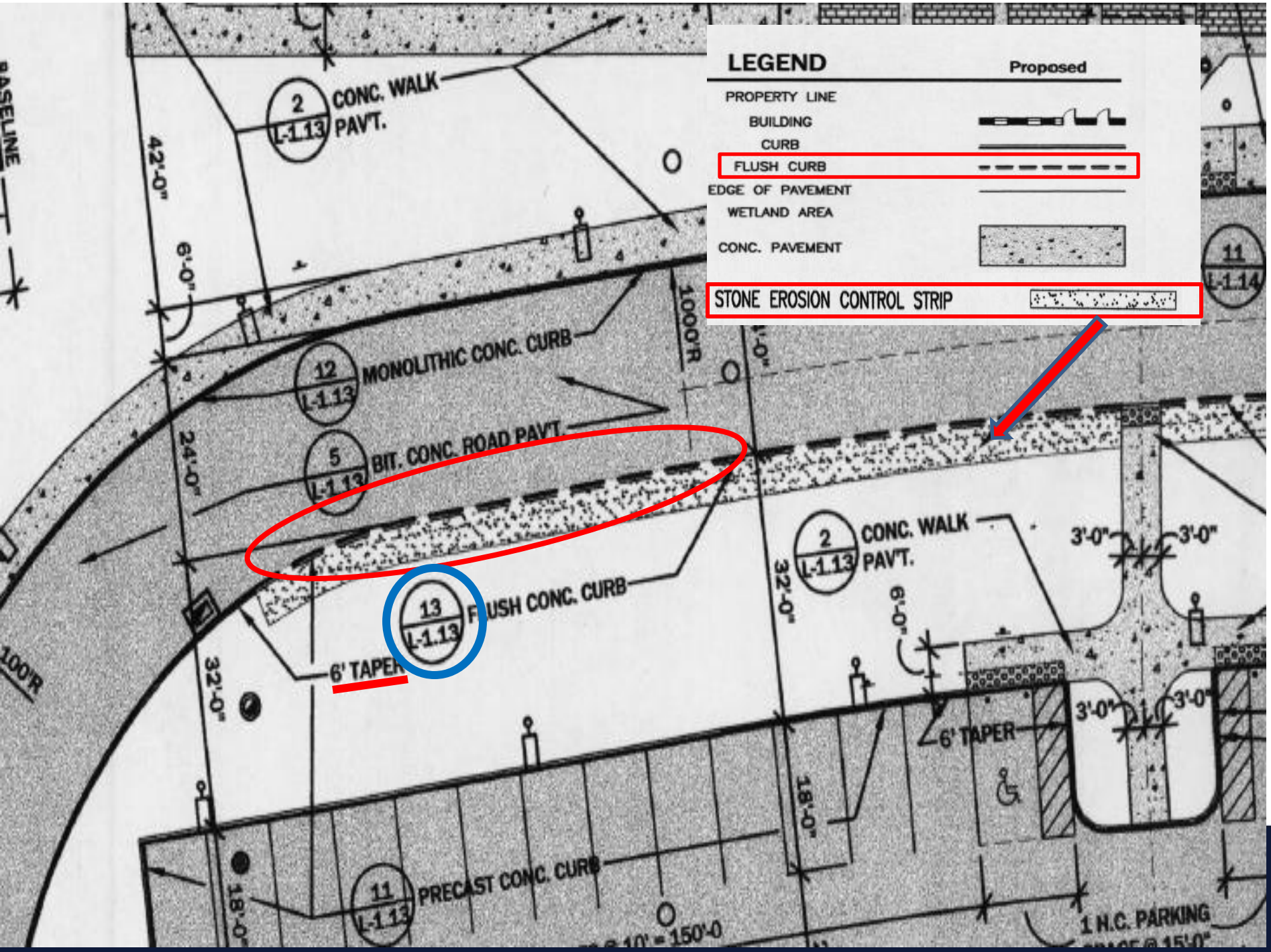
7. Curb ramps shall not exceed a slope of 1:12 (8.33%) or a maxim
grading plan and detailed grading of specific areas on sheet L-11.

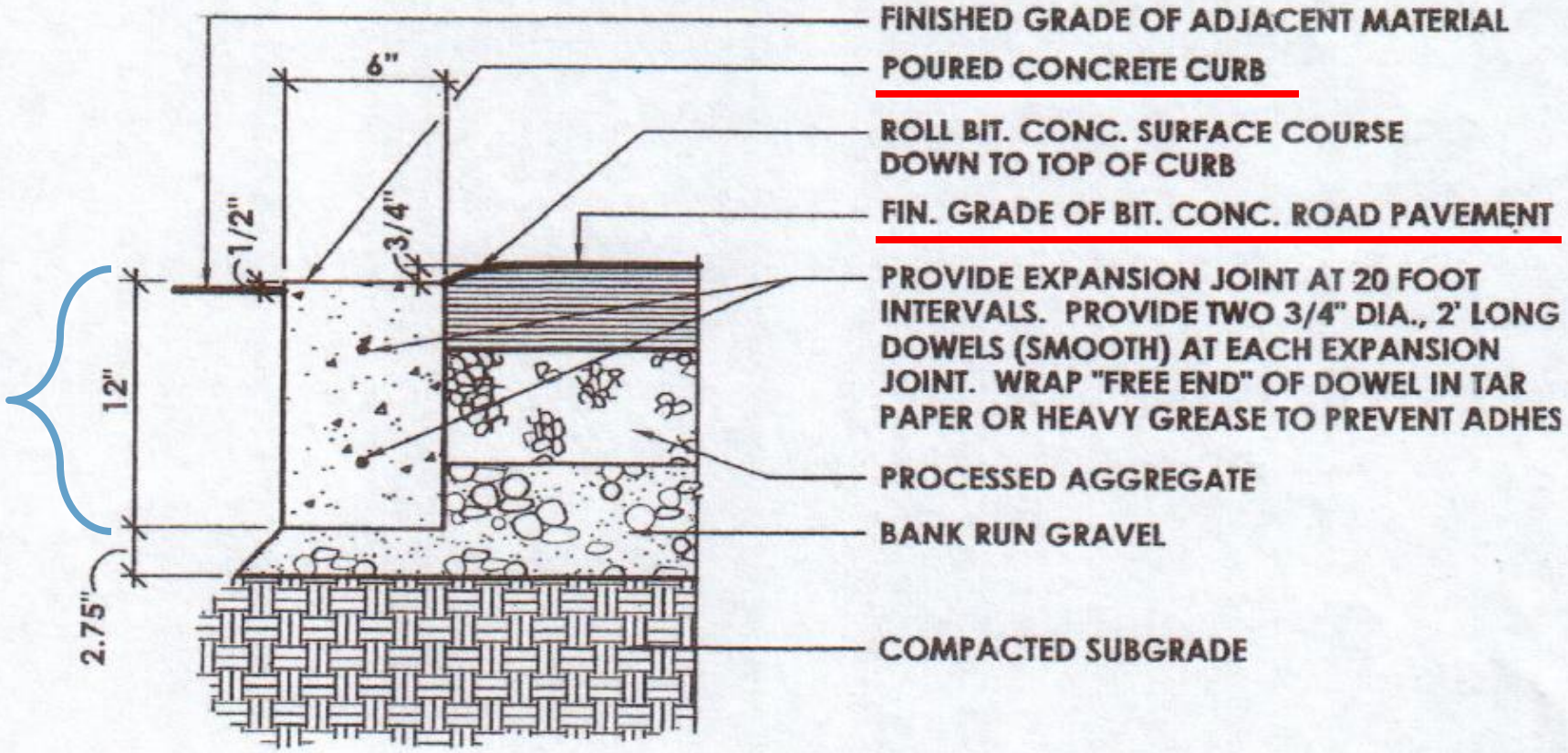
8. Erosion control matting shall be required for stabilizing all distu
Refer to the Specifications.

LEGEND

Existing

PROPERTY LINE
BUILDING
CONTOUR
SPOT ELEVATION
TOP OF CURB/BOTTOM OF CURB
TOP OF STEP/BOTTOM OF STEP
HIGH POINT
CURB
FLUSH CURB
EDGE OF PAVEMENT
WETLAND AREA
CONC. PAVEMENT
HEAVY DUTY CONC. PAVEMENT
PRECAST CONC. PAVERS
BITUMINOUS PAVEMENT
TURF PAVERS
DETECTABLE WARNING TILES
BITUMINOUS PATCH PAVEMENT
CATCH BASIN
MANHOLE
LAWN DRAIN
LIGHT POLE
UTILITY POLE
FLAGPOLE
BENCH
HYDRANT
BOLLARD
SIGN
RADIUS
TYPICAL
EQUAL
CENTER-LINE
DETAIL LOCATOR
CHAIN LINK FENCE
ORNAMENTAL FENCE
CHAIN LINK FENCE W/ PRIVACY SLATS
GUARDRAIL
TREES
TREELINE
STONE WALL


LEGEND
Proposed
PROPERTY LINE
BUILDING
CURB
FLUSH CURB
EDGE OF PAVEMENT
WETLAND AREA
CONC. PAVEMENT
STONE EROSION CONTROL STRIP
2 L-1.13 CONC. WALK PAV'T.
12 L-1.13 MONOLITHIC CONC. CURB
5 L-1.13 BIT. CONC. ROAD PAV'T.
13 L-1.13 FLUSH CONC. CURB
6' TAPER
11 L-1.13 PRECAST CONC. CURB
11 L-1.14
42'-0"
6'-0"
24'-0"
32'-0"
18'-0"
1000'R
100'R
3'-0"
1 N.C. PARKING



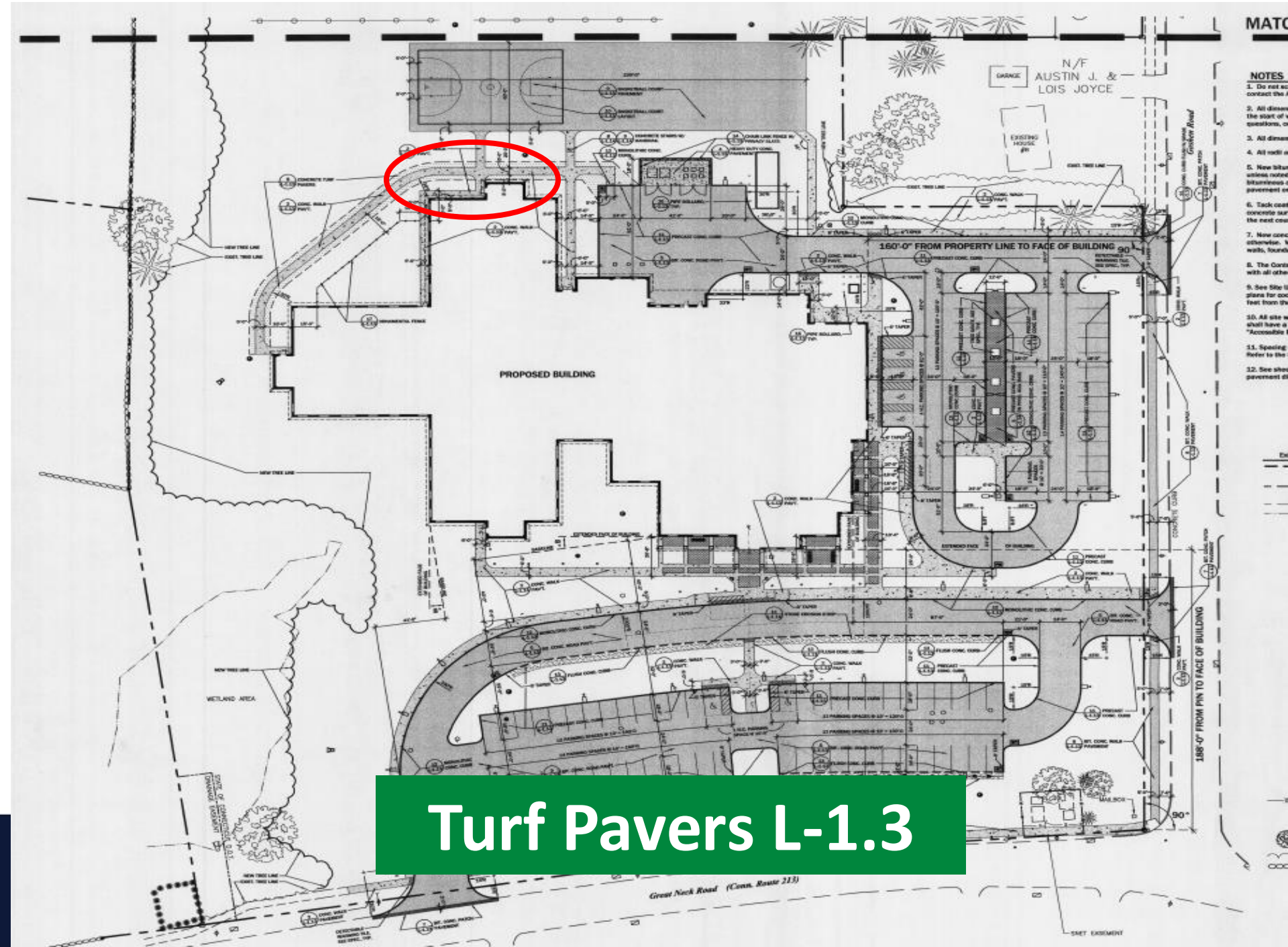
13
L-1.13

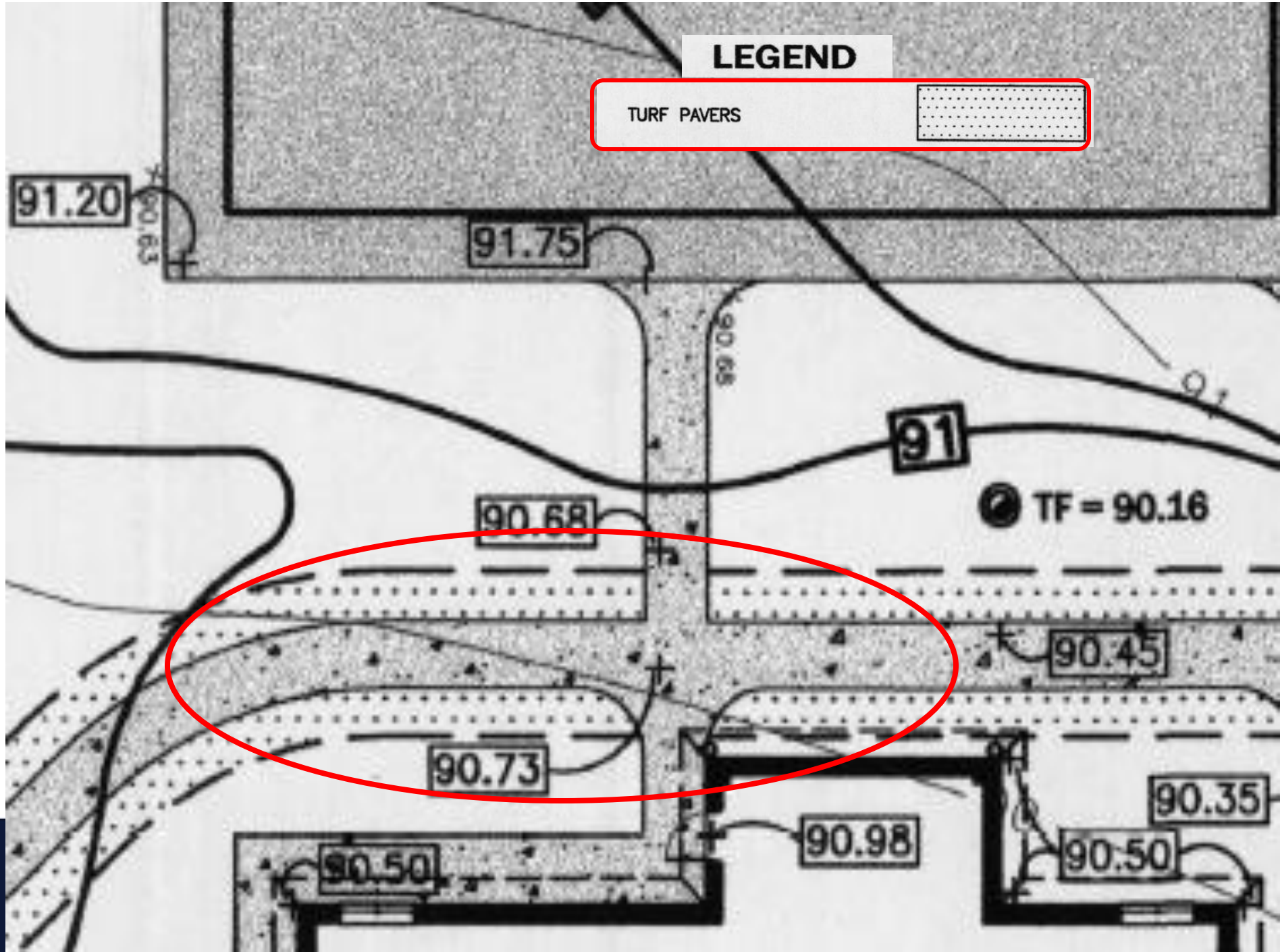
FLUSH CONCRETE CURB

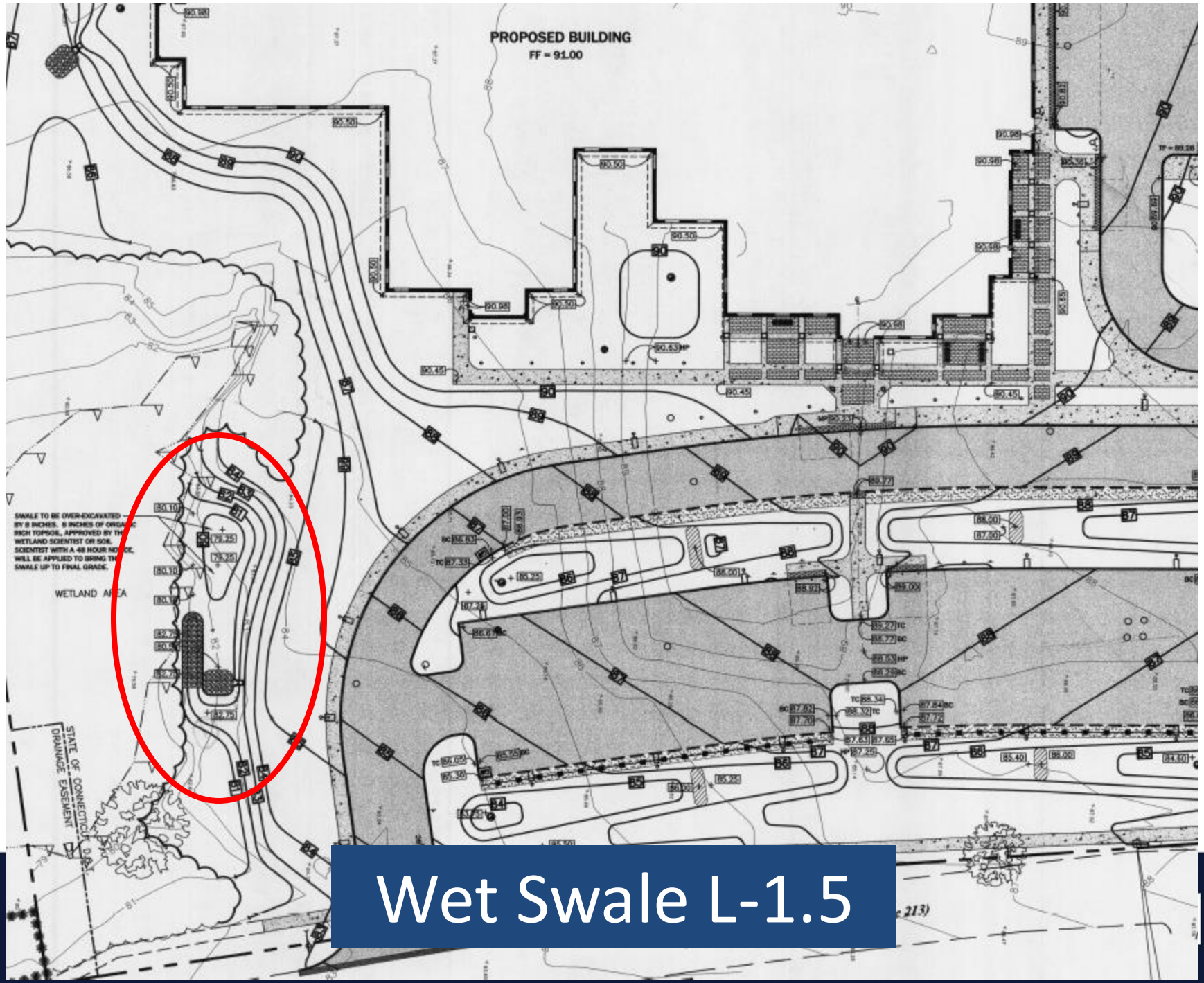
NOT TO SCALE

UCONN

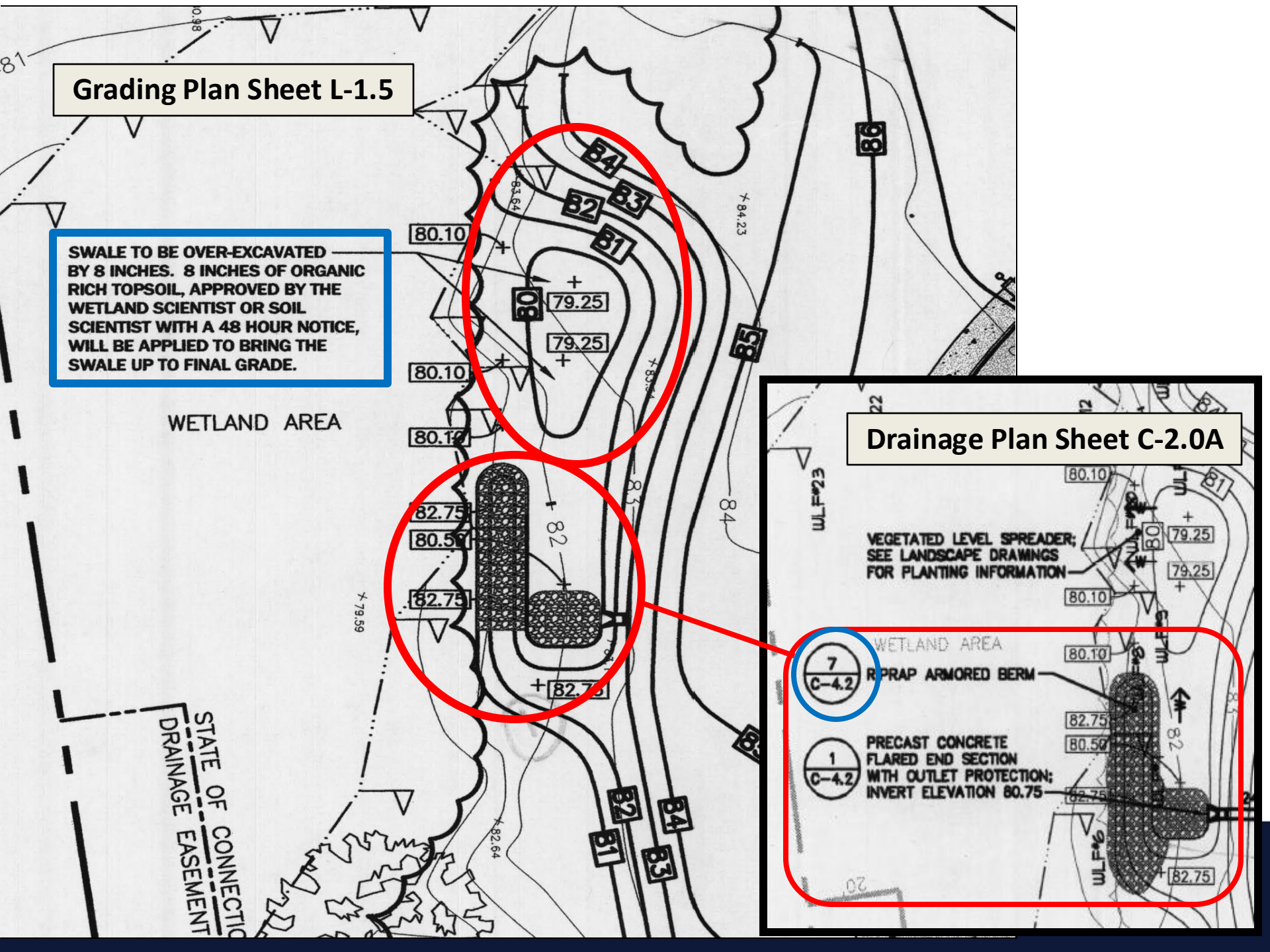

6’ Taper


N/F
AUSTIN J. &
LOIS JOYCE
GARAGE
EXISTING HOUSE
160'-0" FROM PROPERTY LINE TO FACE OF BUILDING
PROPOSED BUILDING
WETLAND AREA
Great Neck Road (Conn. Route 213)
188'-0" FROM PIN TO FACE OF BUILDING
Turf Pavers L-1.3


LEGEND
TURF PAVERS
91.20
91.75
91
TF = 90.16
90.68
90.45
90.73
90.35
90.98
90.50
90.50



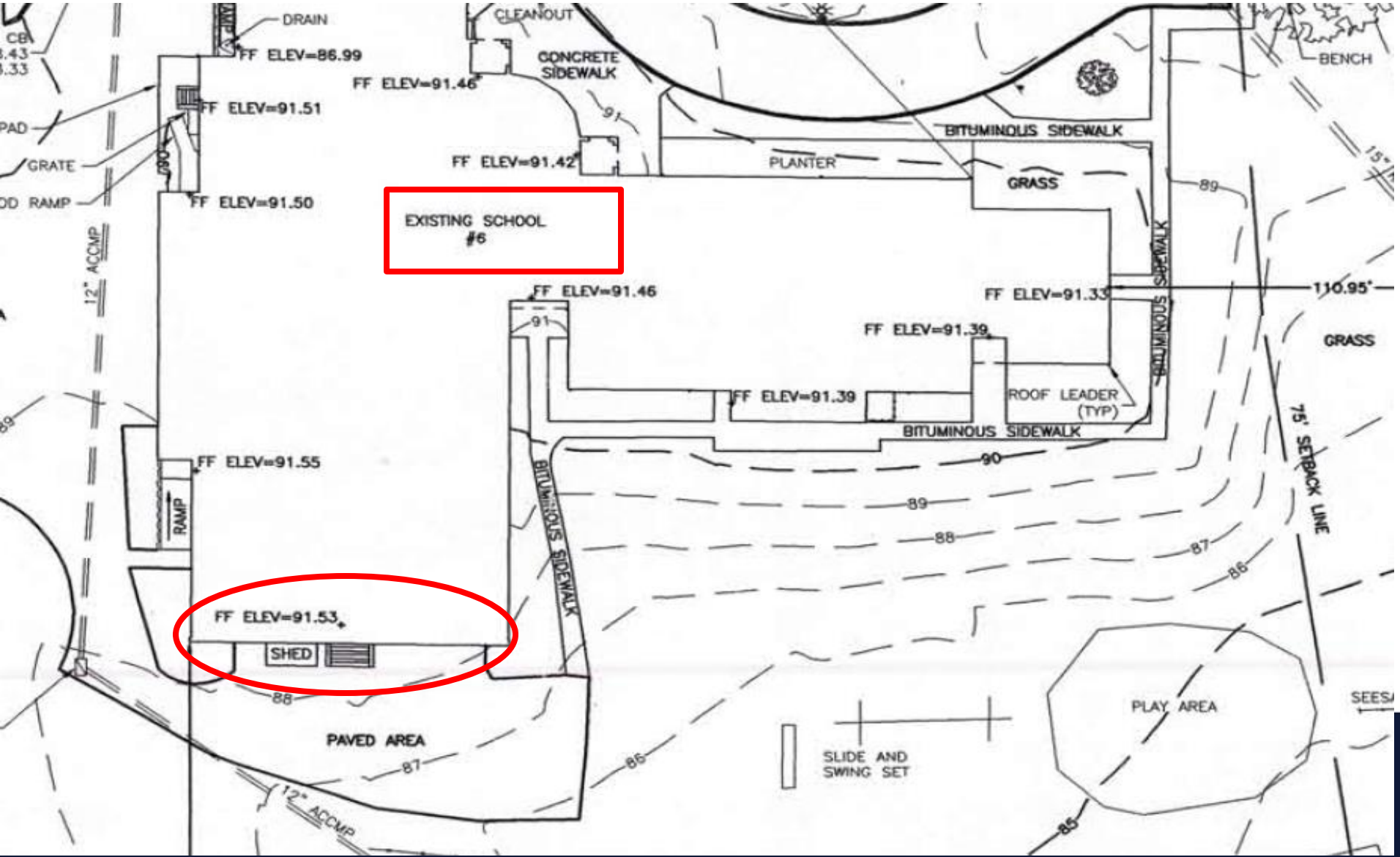
Wet Swale L-1.5


Grading Plan Sheet L-1.5
SWALE TO BE OVER-EXCAVATED BY 8 INCHES. 8 INCHES OF ORGANIC RICH TOPSOIL, APPROVED BY THE WETLAND SCIENTIST OR SOIL SCIENTIST WITH A 48 HOUR NOTICE, WILL BE APPLIED TO BRING THE SWALE UP TO FINAL GRADE.
WETLAND AREA
80.10
79.25
79.25
80.10
80.10
82.75
80.50
82.75
STATE OF CONNECTIC
DRAINAGE EASEMENT
Drainage Plan Sheet C-2.0A
VEGETATED LEVEL SPREADER; SEE LANDSCAPE DRAWINGS FOR PLANTING INFORMATION
WETLAND AREA
7
C-4.2
RIPRAP ARMORED BERM
PRECAST CONCRETE FLARED END SECTION WITH OUTLET PROTECTION; INVERT ELEVATION 80.75
1
C-4.2

Questions

- What is the first floor elevation at the southwest corner of the existing school? Sheet 1
- When were the plans last revised? Sheet 1
- What is the required setback from the road? Sheet 1
- How many lawn drains are the in the swales adjacent to the parking lots? L-1.5
- What is the elevation of the bottom of the wet swale? L-1.5
- What is the approximate elevation of wetland flag #21? C-2.0A
- What is the distance from catch basin #1 (CB01) to catch basin#2 (CB02)? C-2.0A
- On which detail sheet would you find the details of the basketball court? L-1.3
- What material is sidewalk at the entrance to the school made from? L-1.3
- What type of trees are planted along Great Neck Rd. L-1.9
- What type of plants are planted in the wet swale? L-1.9
- Follow the rain

#1 FF Elevation of Existing School



#2 Last Revision

GREAT NECK ROAD, SCALE: 1"=40', DATE: MAY, 1973, BY: GEORGE DIETER.

9. "PLAN OF ROAD OR STREET IN THE TOWN OF WATERFORD, LAID OUT AND BUILT BY THE GOSHEN REALTY CO., AND ACCEPTED BY THE TOWN SEPT. 30, 1929", SCALE: 1"=100', BY: DABOLL AND CRANDALL, CIVIL ENGINEERS, NEW LONDON, CONN..

No.	Date	Revision
2	1/30/08	Additional Sewer Inverts
1	4/3/07	Setback Lines

CLA Engineers, Inc.
CIVIL · STRUCTURAL · SURVEYING
317 Main Street Norwich, Connecticut
(860) 886-1966 Fax (860) 886-9165

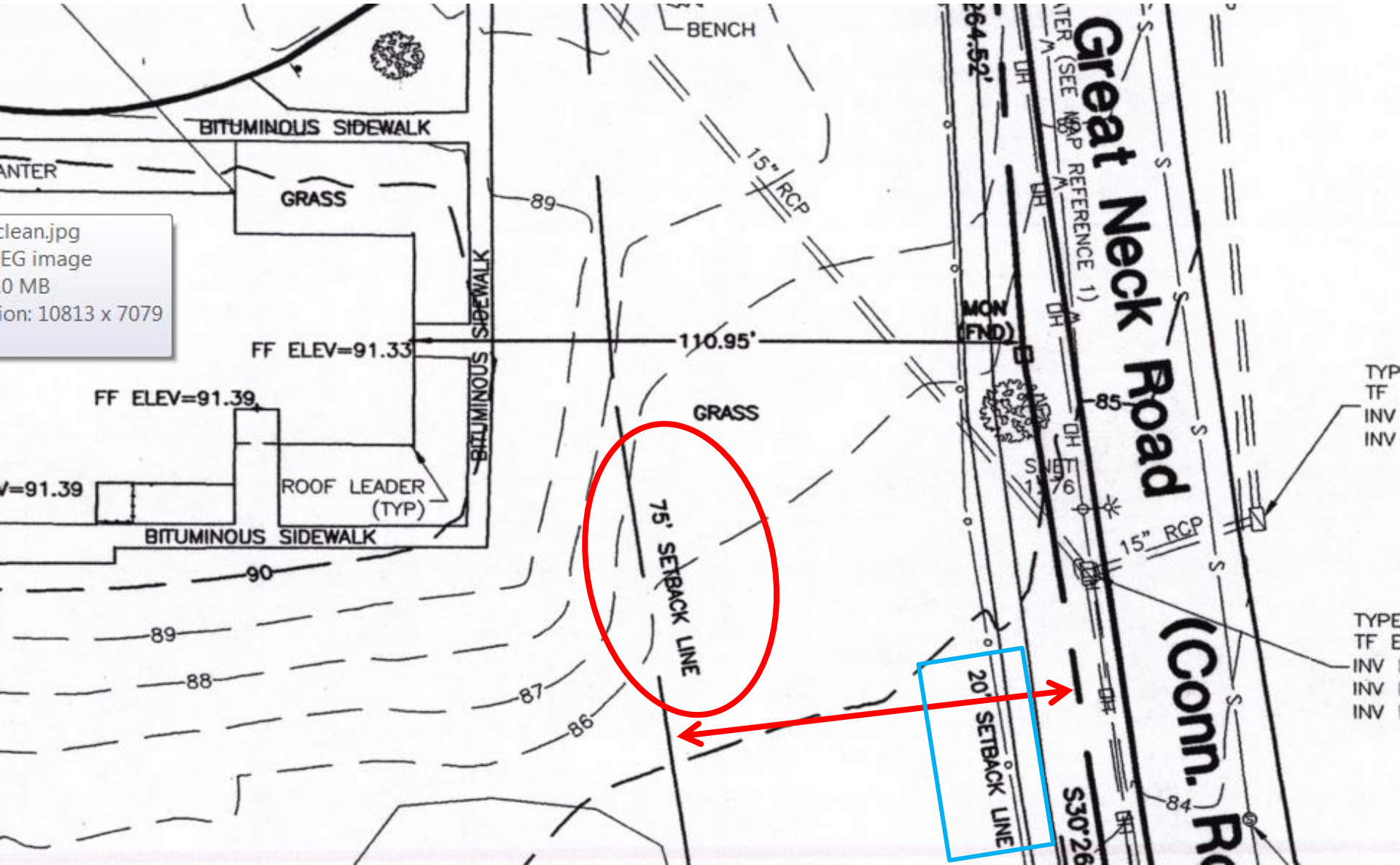
Boundary and Existing Conditions Plan

TOWN OF WATERFORD
GREAT NECK SCHOOL

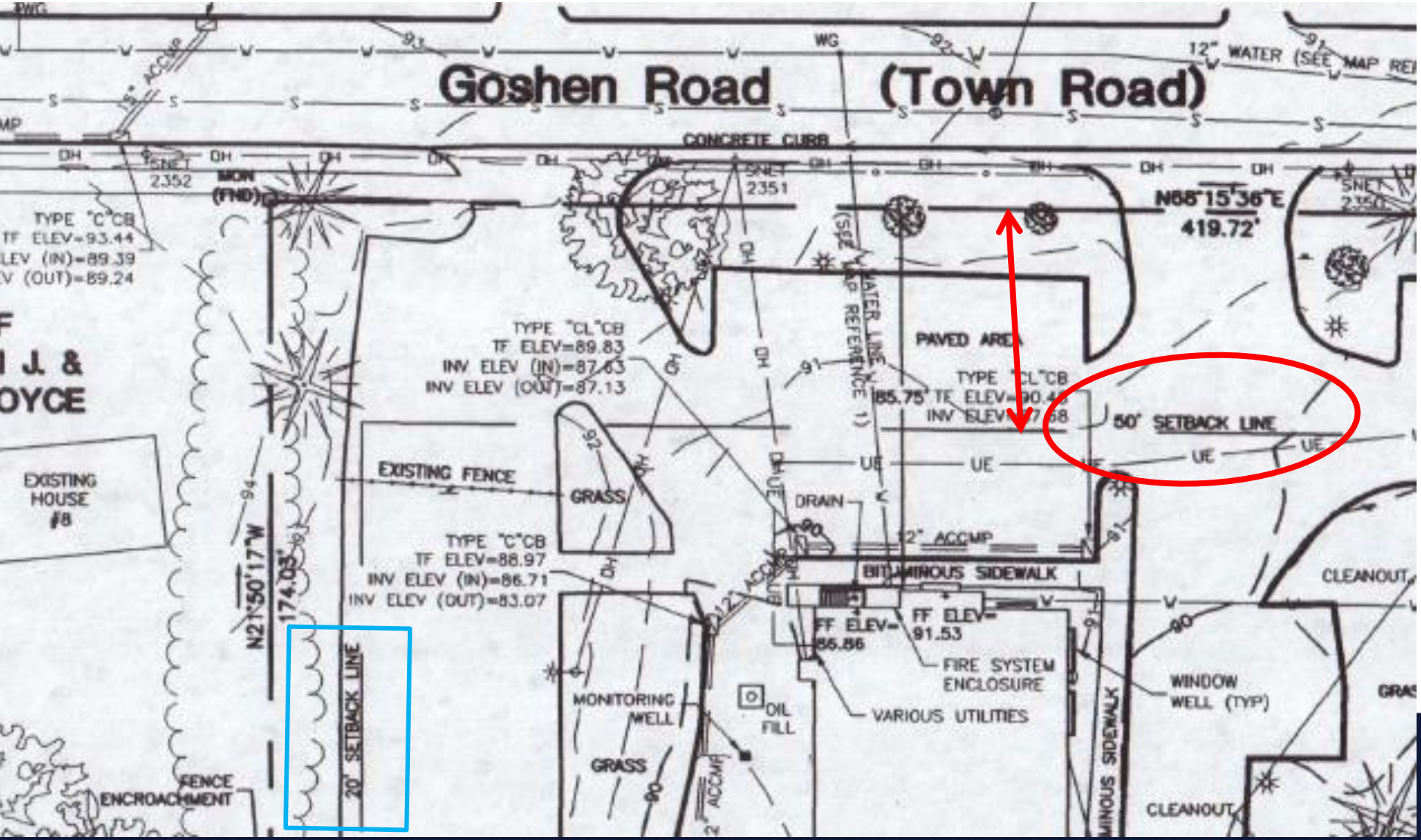
Great Neck Road & Goshen Road
Waterford, Connecticut

Project No. CLA-3232G
Proj. Engineer E.M.B.
Date: 04/01/04
Sheet No. 1

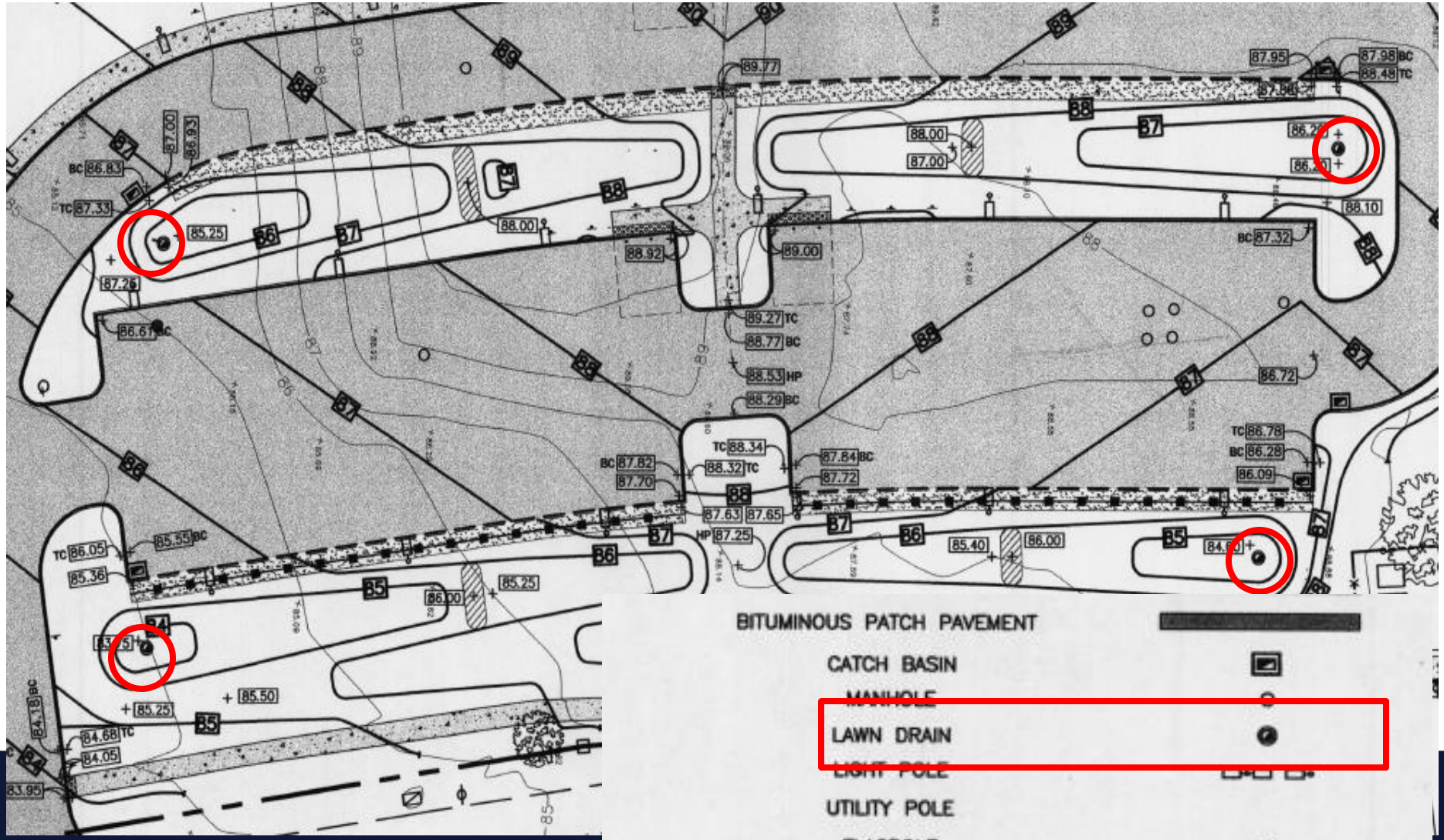
#3 Setback from Great Neck Rd



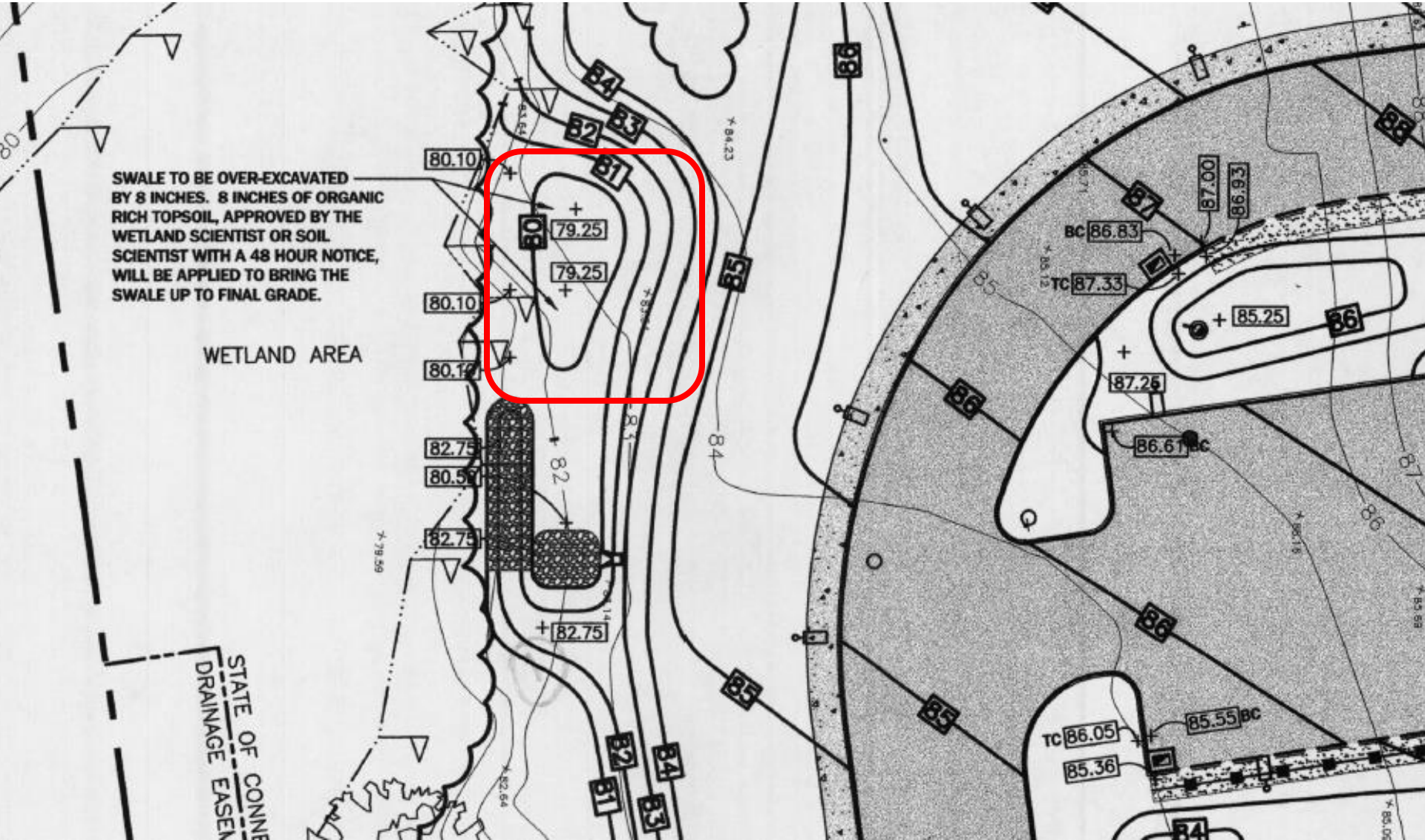
#3 Setback from Goshen Rd



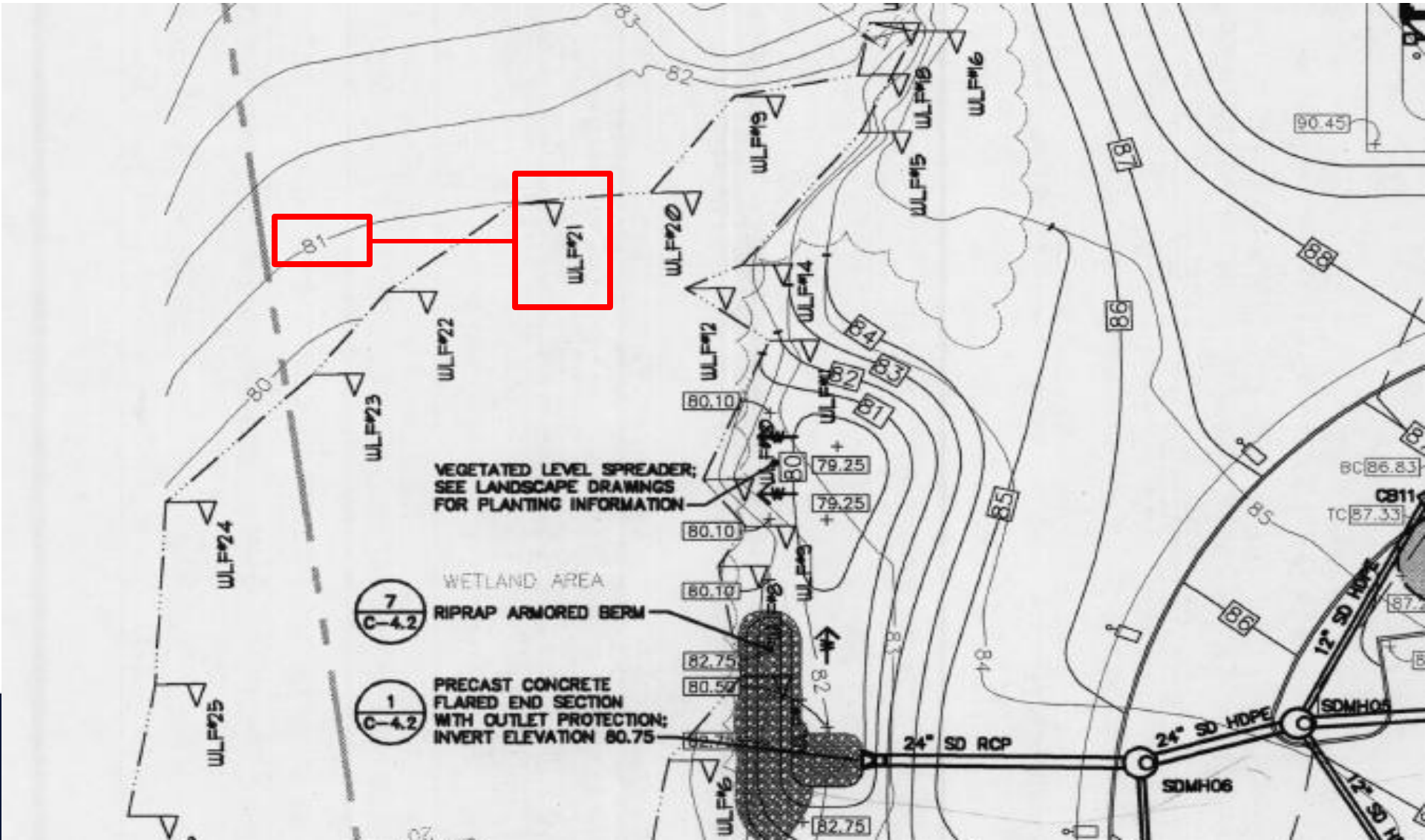
#4--How Many Lawn Drains



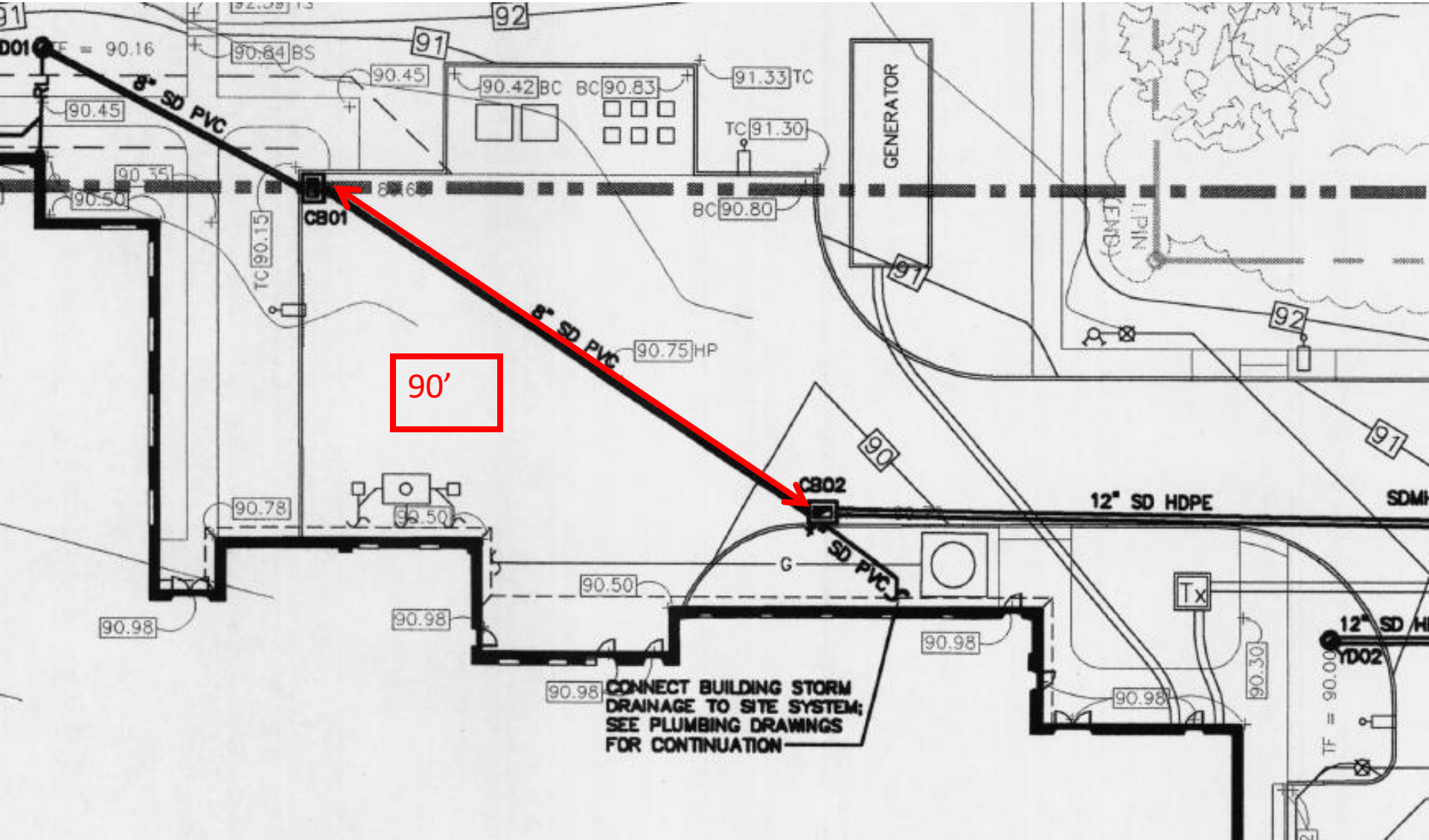
#5 Elevation at Bottom of Wet Swale



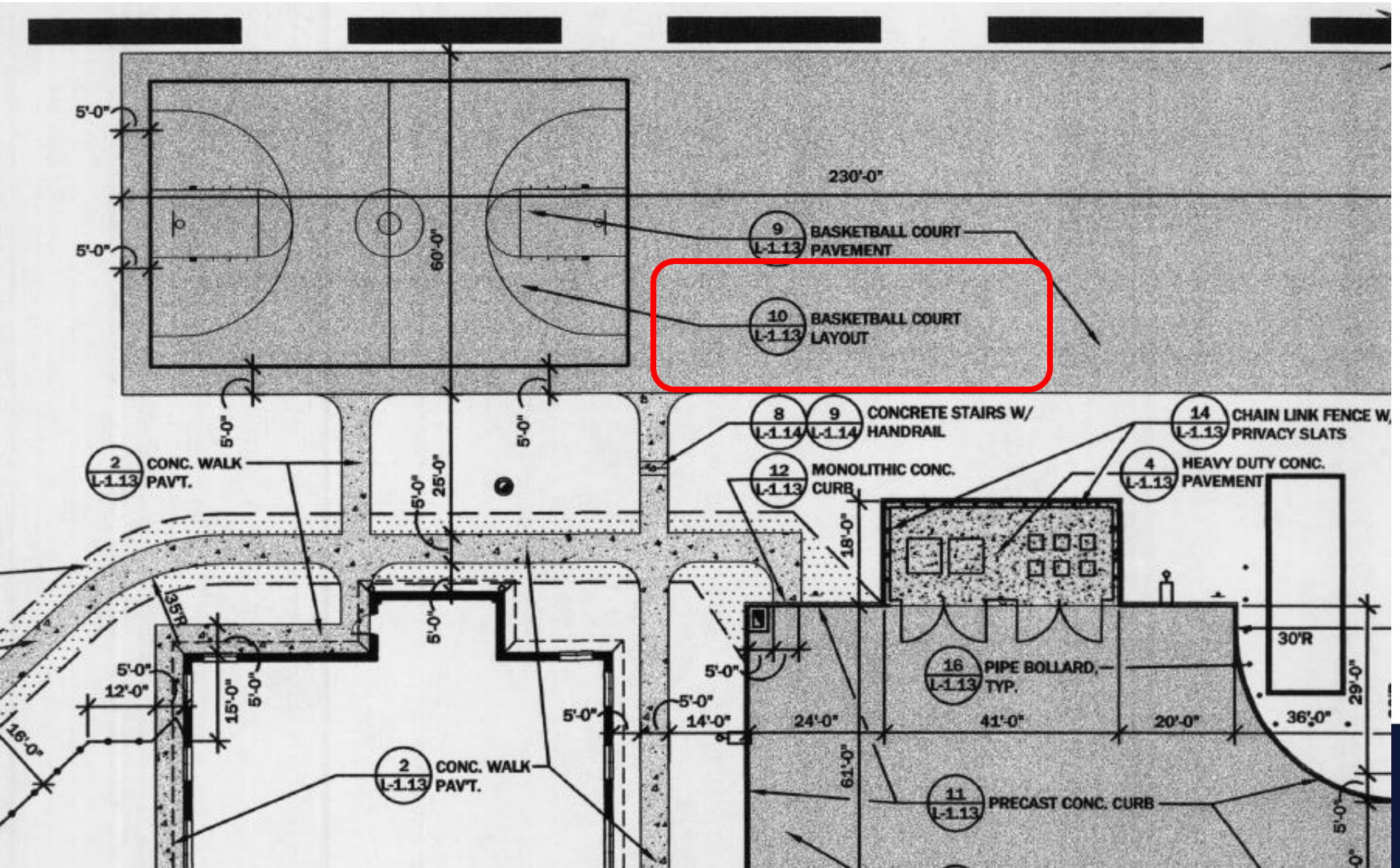
#6 Elevation of Wetlands Flag #21



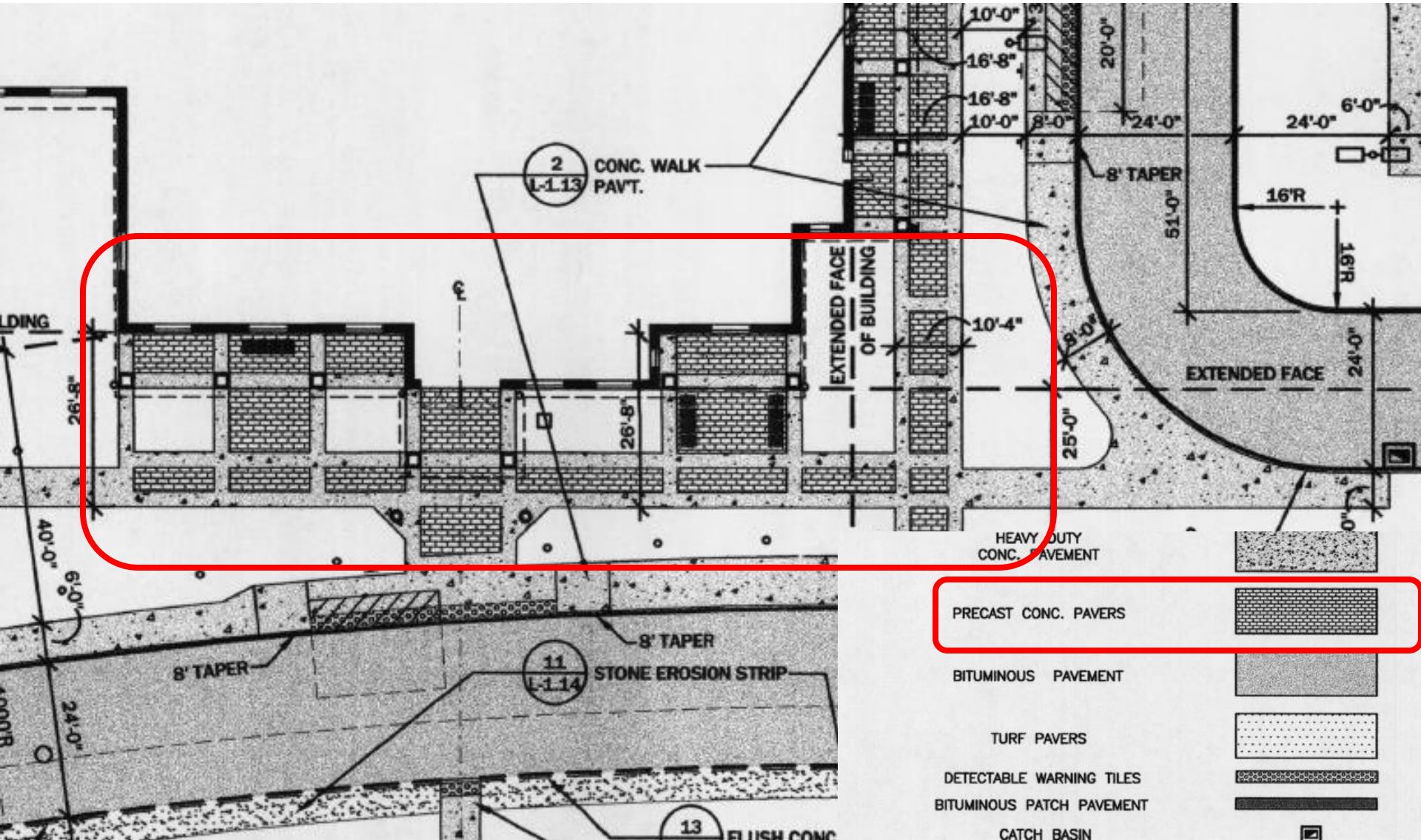
#7 Distance from CB01 to CB02



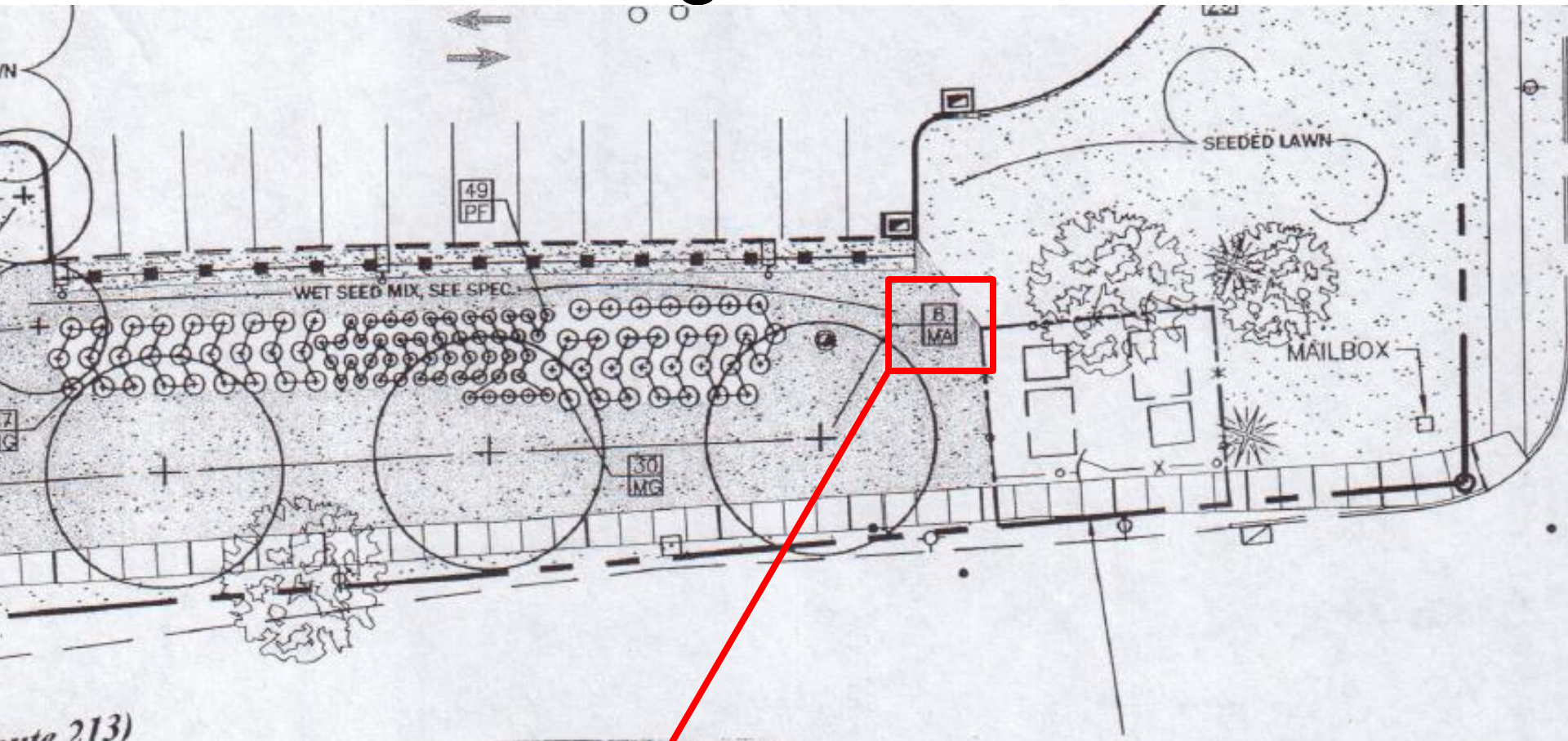
#8 Basketball Court Detail Sheet



#9 Sidewalk Treatment at Entrance



#10 Trees Along Great Neck Rd.

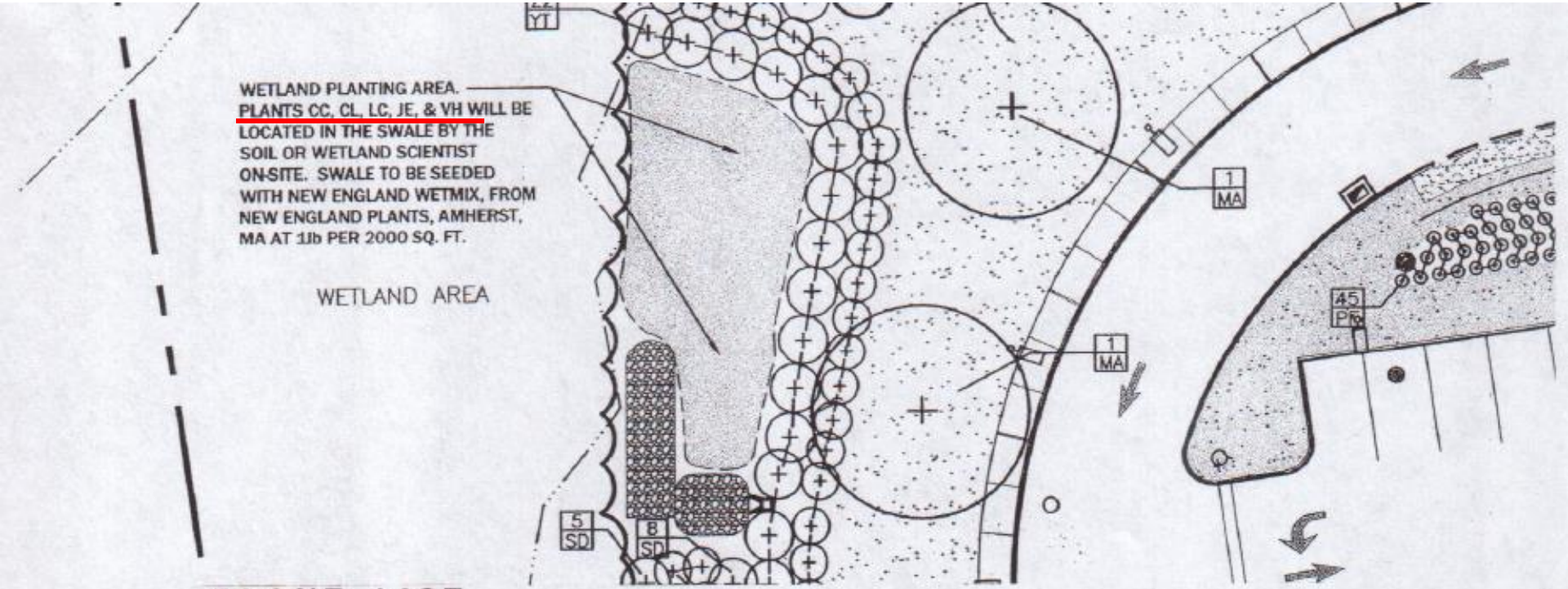


oute 213)

PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME
	TREES:	
MA	Acer saccharum 'Green Mountain'	Green Mountain Sugar Maple
PP	Picea pungens 'Foxtail'	Foxtail Spruce
PG	Pinus parviflora 'Glauca'	Japanese White Pine

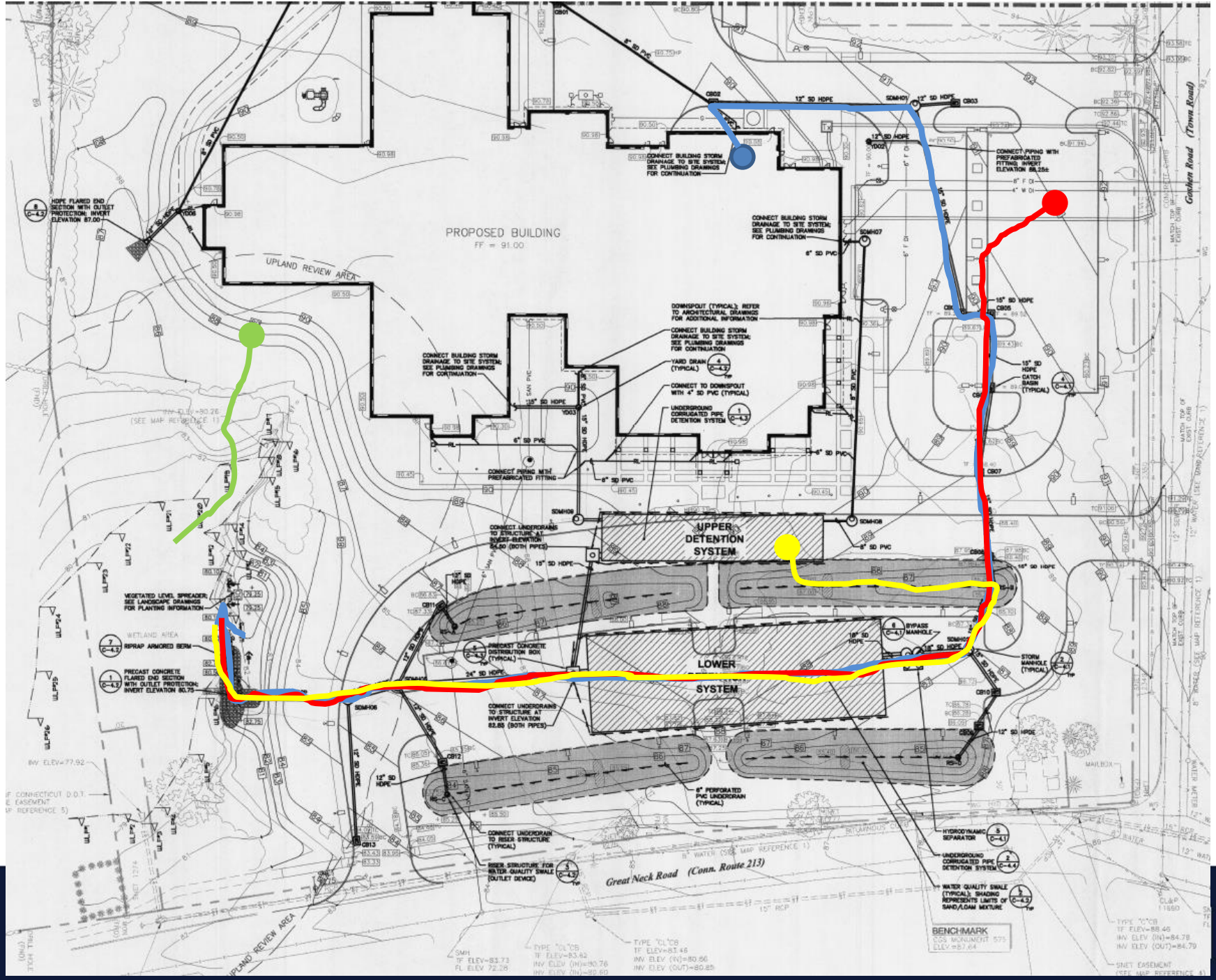
#11 Plants in Wet Swale

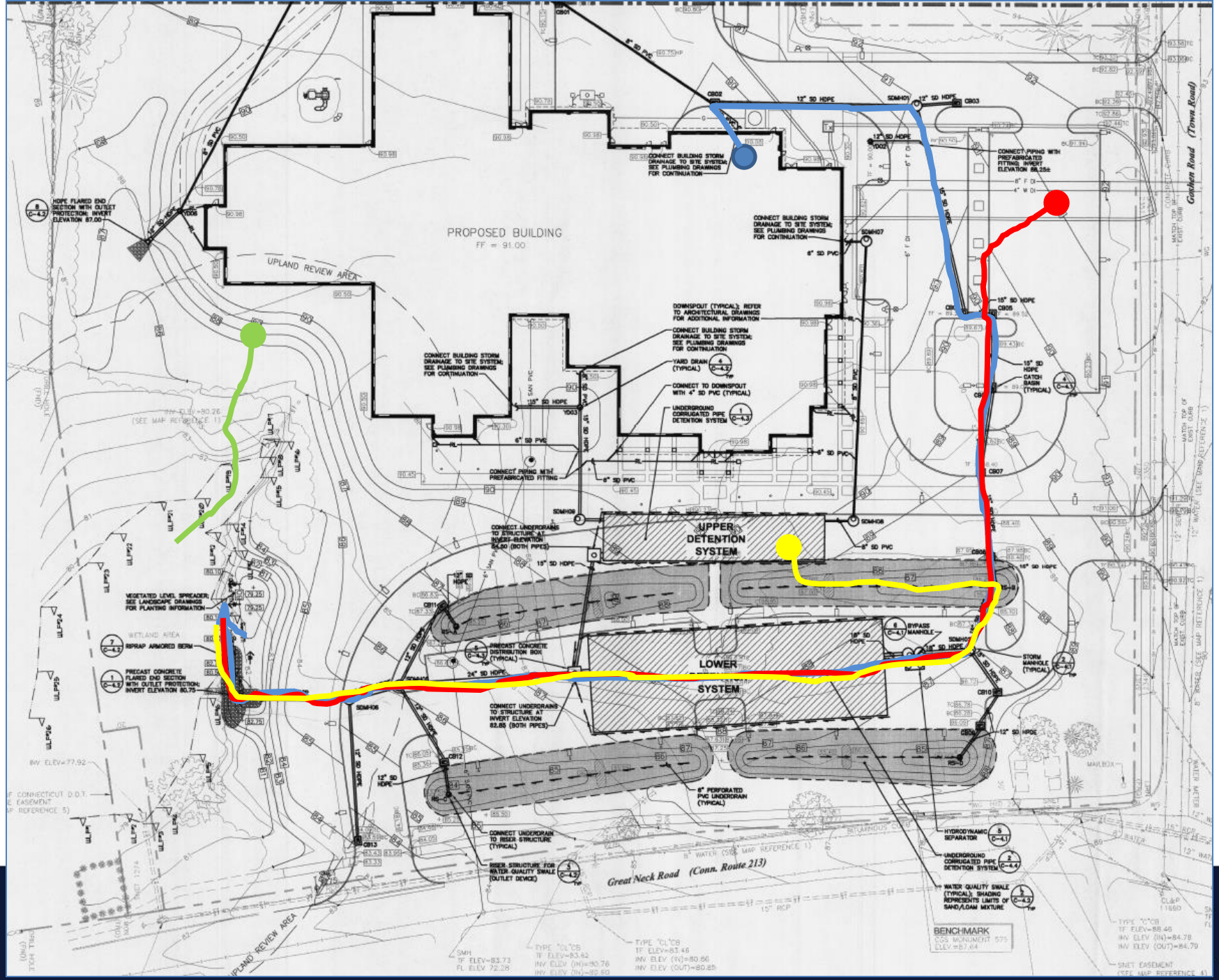


PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	REMARI
	Wetland Plants				
CC	Carex comosa	Bearded Sedge	36	1 QT.	2' O.C.
CL	Carex lupulina	Hop Sedge	45	1 QT.	2' O.C.
LC	Lobelia cardinalis	Cardinal Flower	50	1 QT.	2' O.C.
VH	Verbena hastata	Blue Vervain	112	1 QT.	3' O.C.
JE	Juncus effuses	Soft Rush	35	1 QT.	4' O.C.
MG	Myrica gale	Sweetgale	127	18"-24" SPD.	4'-6" O.C

Follow the Rain


PROPOSED BUILDING
FF = 91.00
UPLAND REVIEW AREA
UPPER DETENTION SYSTEM
LOWER SYSTEM
Great Neck Road (Conn. Route 213)
Goshen Road (Town Road)
WETLAND AREA
BENCHMARK


PROPOSED BUILDING
FF = 91.00
UPLAND REVIEW AREA
UPPER DETENTION SYSTEM
LOWER SYSTEM
Great Neck Road (Conn. Route 213)
Goshen Road (Town Road)
WETLAND AREA
BENCHMARK

Heading Here

- Lorem ipsum dolor sit amet, consectetur adipiscing elit
- Donec faucibus quam vitae ipsum pulvinar, suscipit aliquam diam elementum
- Maecenas aliquent nisi a metus luctus scelerisque
- Etiam viverra sem a massa lacinia imperdiet. Donec faucibus quam vitae ipsum pulvinar, suscipit aliquam diam elementum

Heading Here

Subheading 1

- Lorem ipsum dolor sit amet, consectetur adipiscing elit
- Donec faucibus quam vitae ipsum pulvinar, suscipit aliquam diam elementum
- Maecenas aliquent nisi a metus luctus scelerisque
- Etiam viverra sem a massa lacinia imperdiet.

Subheading 2

- Lorem ipsum dolor sit amet, consectetur adipiscing elit
- Donec faucibus quam vitae ipsum pulvinar, suscipit aliquam diam elementum
- Maecenas aliquent nisi a metus luctus scelerisque
- Etiam viverra sem a massa lacinia imperdiet.