

Basics of Site Plan Review



John Zepko
&
David Nelson
Cayuga County
Planning

SITE PLAN

- a rendering, drawing, or sketch prepared to specifications and containing necessary elements, as set forth in the applicable ordinance or local law, which shows the arrangement, layout and design of the proposed use of a single parcel of land as shown on said plan

*§ 27-a NYS General
Municipal Law*

Site Plan – purpose

- The purpose of site plan regulations is to ensure that the development of individual parcels of land do not have an adverse impact on adjacent properties or the surrounding neighborhood.
- Such regulations also ensure that the parcel's development fits properly into the community and conforms to its planning objectives.

- *“Land Use Primer” Pace
University School of Law*

Site Plan Criteria

- The development of individual parcels must conform to the provisions of local zoning which contain use and dimensional requirements for site development.
- Site plan specifications go beyond those of zoning, and protect adjacent areas and the community's residents from flooding and erosion, traffic congestion and accidents, unsightly design, noise pollution, and the erosion of neighborhood character

- *“Land Use Primer” Pace
University School of Law*

Site Plan Contents

- parking, means of access, screening, signs,
- landscaping, architectural features, location and dimensions of buildings,
- adjacent land uses and physical features meant to protect adjacent land uses
- **any additional elements specified by the town board in such zoning ordinance or local law.**

Site Plan Decision

- Disapprove
- Approve (as is)
- Approve with Conditions
 - The authorized board shall have the authority to impose such reasonable conditions and restrictions as are directly related to and incidental to a proposed site plan. Upon its approval of said site plan, any such conditions must be met in connection with the issuance of permits by applicable enforcement agents or officers of the town.

- *NYS Town Law §274-a.4*



Land Use Academy

Center for Land Use Education and Research

Basic Elements of Reading Plans

Welcome!



UConn
COLLEGE OF AGRICULTURE,
HEALTH AND NATURAL
RESOURCES

EXTENSION

Center for Land Use Education & Research

CLEAR provides information, education and assistance to land use decision makers on how better to protect natural resources while accommodating economic growth.



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RESOURCES

EXTENSION

Maps, Plans...What's the Difference?

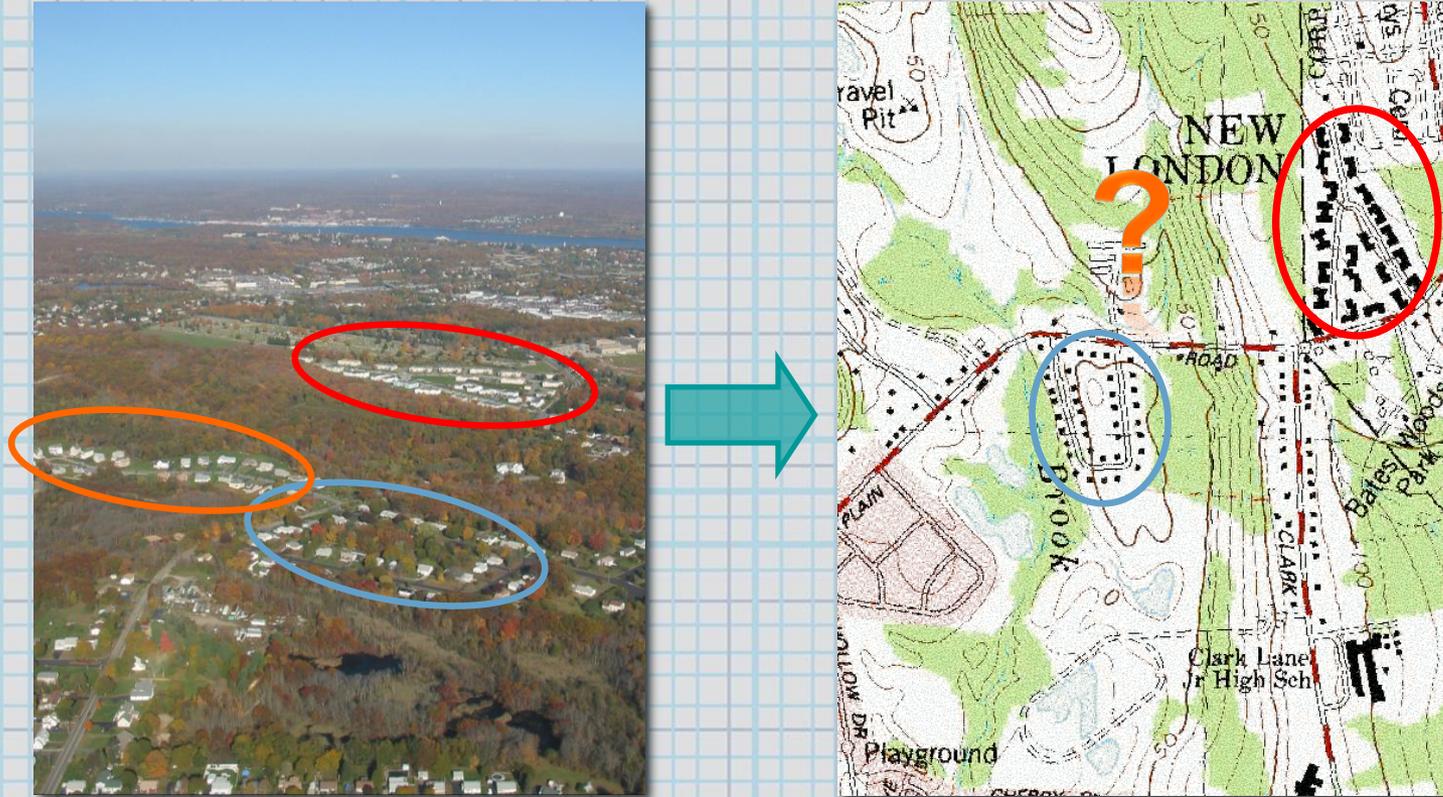
- * **Maps** show physical features of the natural or built environment at established scale and orientation.
- * **Plans** are engineered drawings made to scale showing existing physical features of a site and proposed changes to accommodate development.

Different levels of maps

- Parcel level
- Town wide maps
- USGS Quad map
- State
- Country
- Continent



A map may not represent what is on the ground

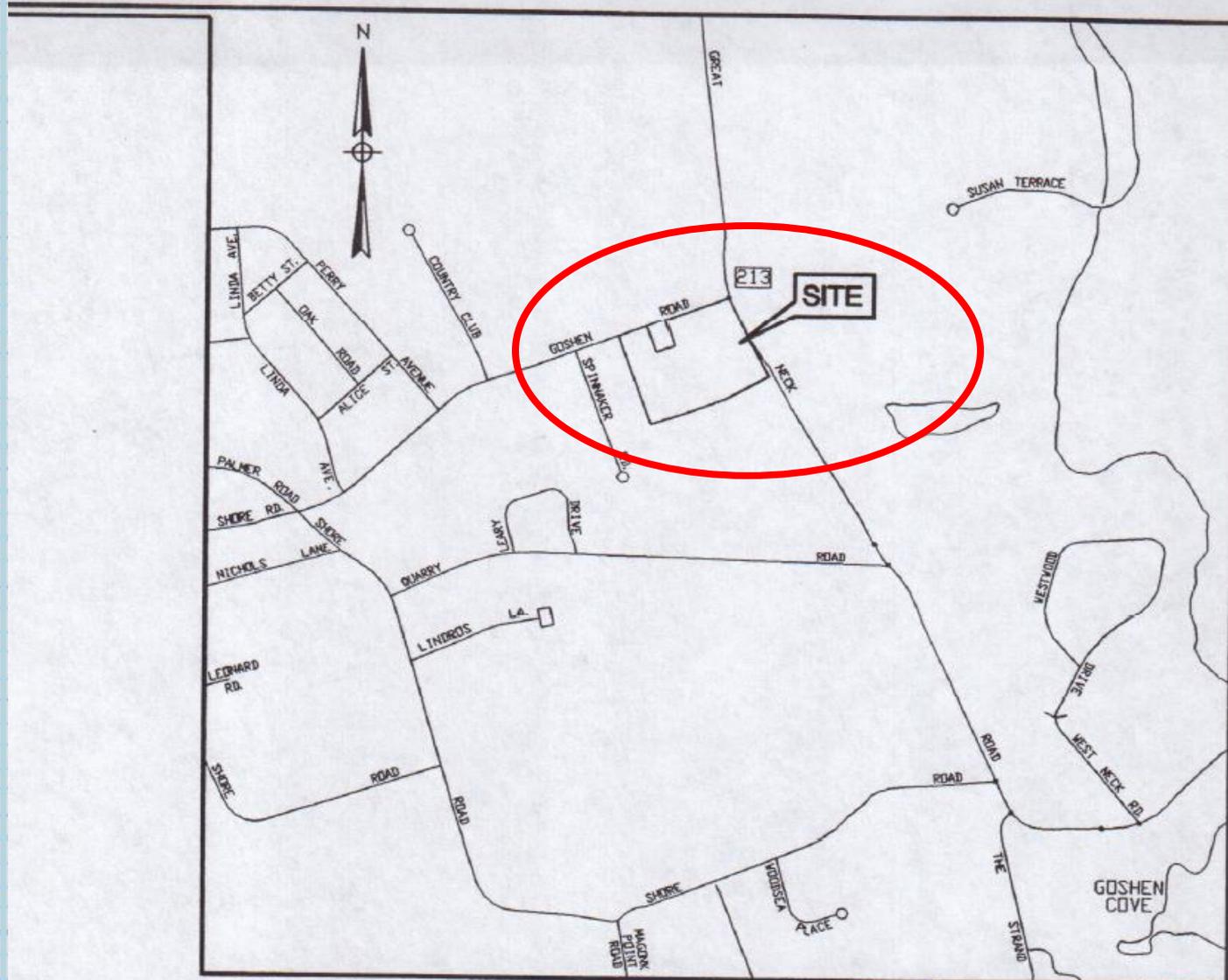


Maps are 2-dimensional representations of complex landscapes...*at one point in time!*

Help is on the Plans

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

Location Map



LOCATION MAP

SCALE 1"=1000'

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

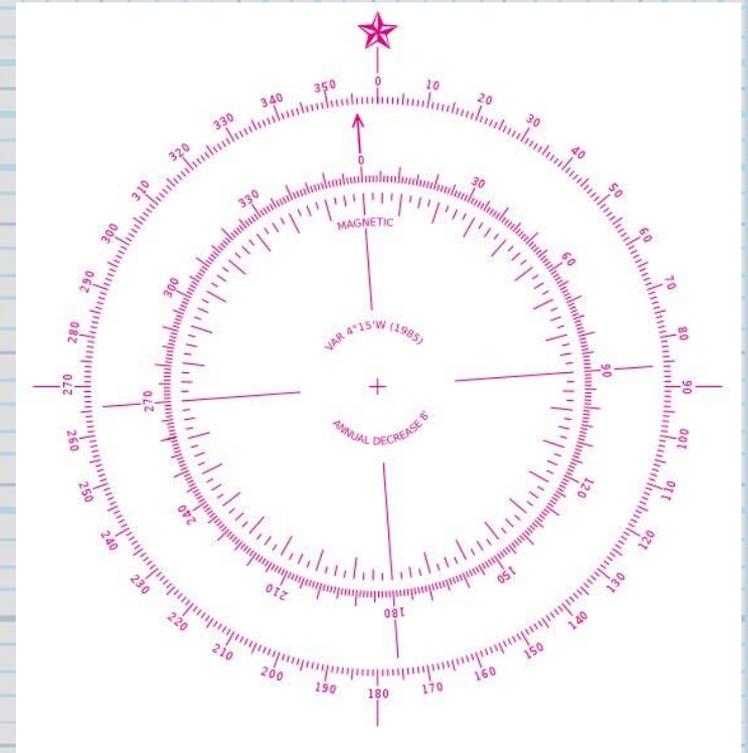
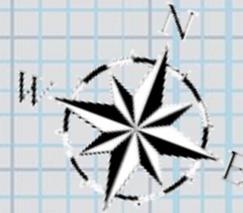
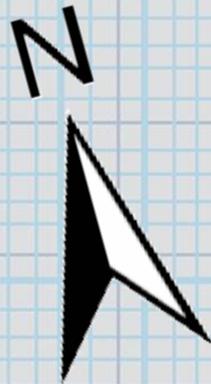
C-0.0 CIVIL ABBREVIATIONS, LEGEND AND GENERAL NOTES
C-0.1 SITE DEMOLITION, EROSION AND SEDIMENTATION CONTROL PLAN
C-1.0A SITE UTILITY PLAN
C-1.0B SITE UTILITY PLAN
C-1.1A SITE LIGHTING AND SECURITY PLAN
C-1.1B SITE LIGHTING AND SECURITY PLAN
C-2.0 SITE GRADING PLAN PHASE I
C-2.0A SITE DRAINAGE PLAN
C-2.0B 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

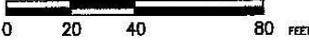
Orientation

North Arrow



Title Block

Information on who/what/when etc

<p>EXCAVATION PLAN PREPARED FOR</p> <p>Cartography Road Mapville, CT</p> <p>JUNE 01, 2004</p>	<p>REV. 8-23-04 TOWN REVIEW REV. 8-16-04 WETLANDS MEETING</p>
	<p> XYZ GROUP/ ABC ASSOCIATES</p> <p>500 Longitude Boulevard Mapville, Connecticut 06001 860-555-5555</p>
	<p>© 2003 The BSC Group, Inc. SCALE: 1" = 40'</p> <p></p>
	<p>FILE: P:\prj\8302200\dwg\ DWG. NO: 83022-5 JOB. NO: 83022.00</p>
	<p>SHEET 5 OF 5</p>

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

LEGEND	
	DTP LOCATION
	PERC TEST LOCATION
	WETLAND LINE PER FIELD INVESTIGATION
	BUILDING LOT SETBACK
	WETLAND FLAG NUMBER
	SOIL TYPE DESIGNATION
	APPROX. LIMIT OF SOIL TYPES
	SOIL EROSION CONTROL BARRIER
	EXISTING CONTOURS
	PROPOSED CONTOURS
	EXISTING SPOT ELEVATION
	PROPOSED SPOT ELEVATION
	100' REVIEW ZONE
	LIMIT OF VEGETATION
	EXISTING LEDGE OUTCROPPINGS
	EXISTING 20% SLOPE
	PROBE HOLE LOCATION NO LEDGE TO 24" OR MOTTLING/WATER TO 18" ENCOUNTERED IN PROBE HOLES

Scale

Shows relative size of objects



Key Elements of Plans

Scale

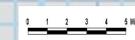
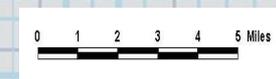
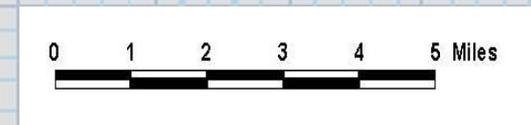
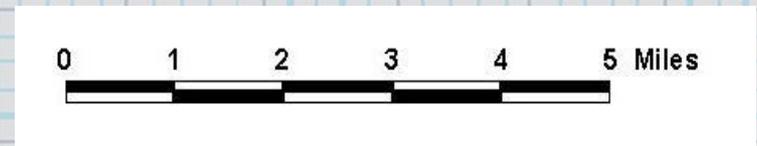
Shows relative size of objects

Written Scale

Graphical Scale

1:12,000 (ratio)

1" = 1,000' (equivalent)



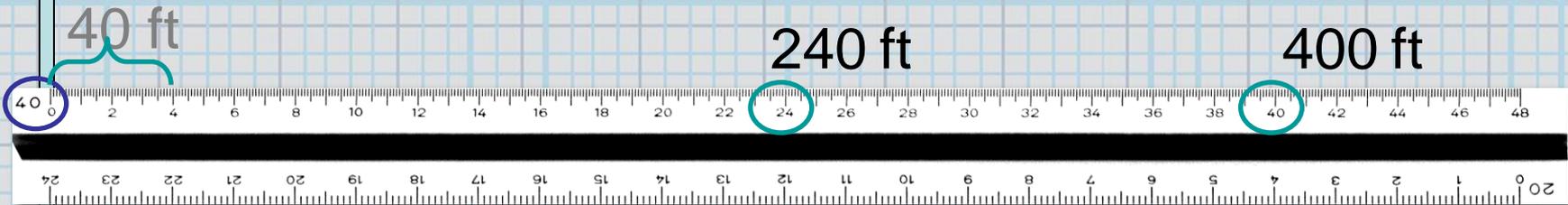
Graphic scales are the most reliable!



Beware of Xerox Distortion

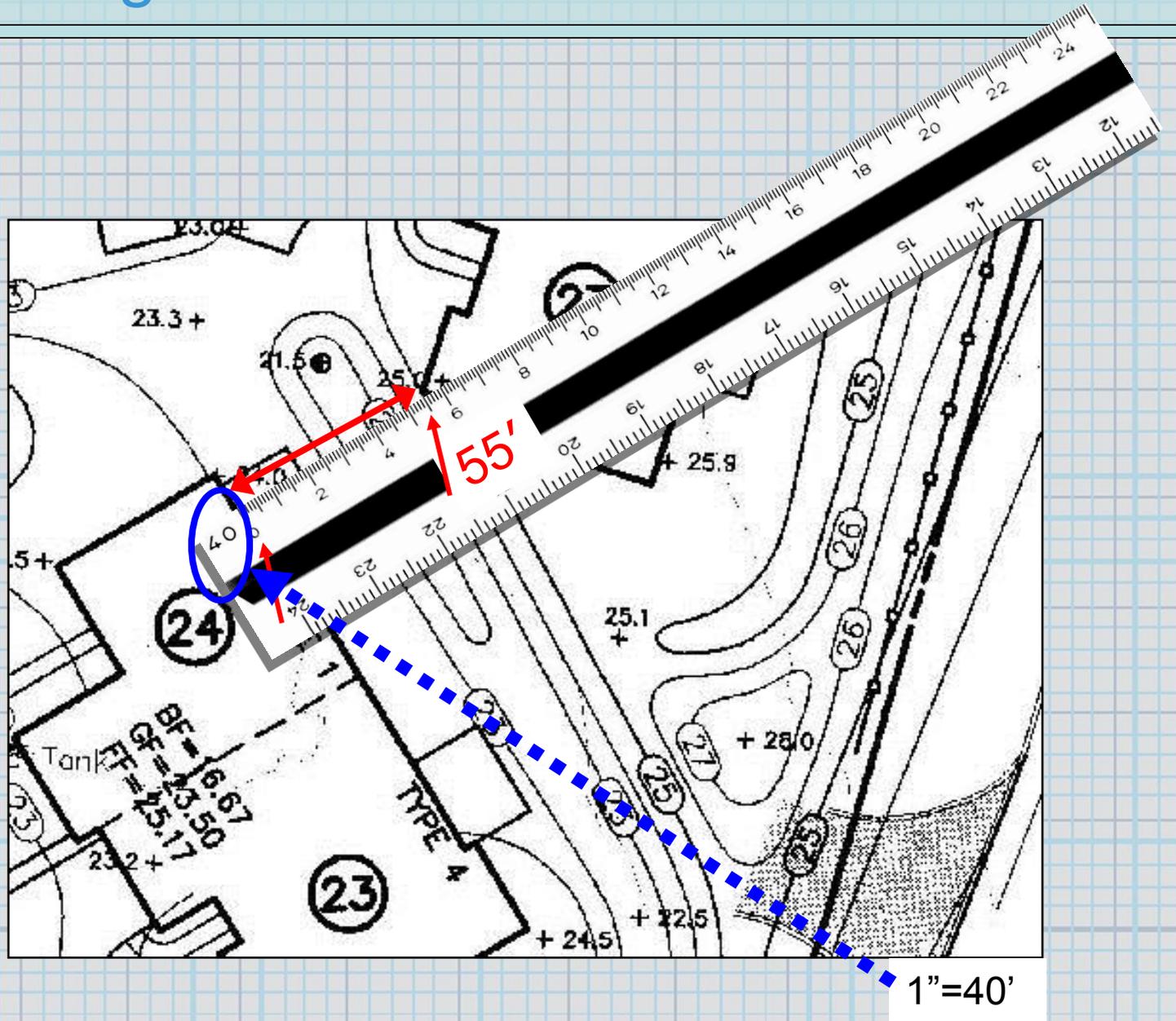
Measuring Distances

* 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

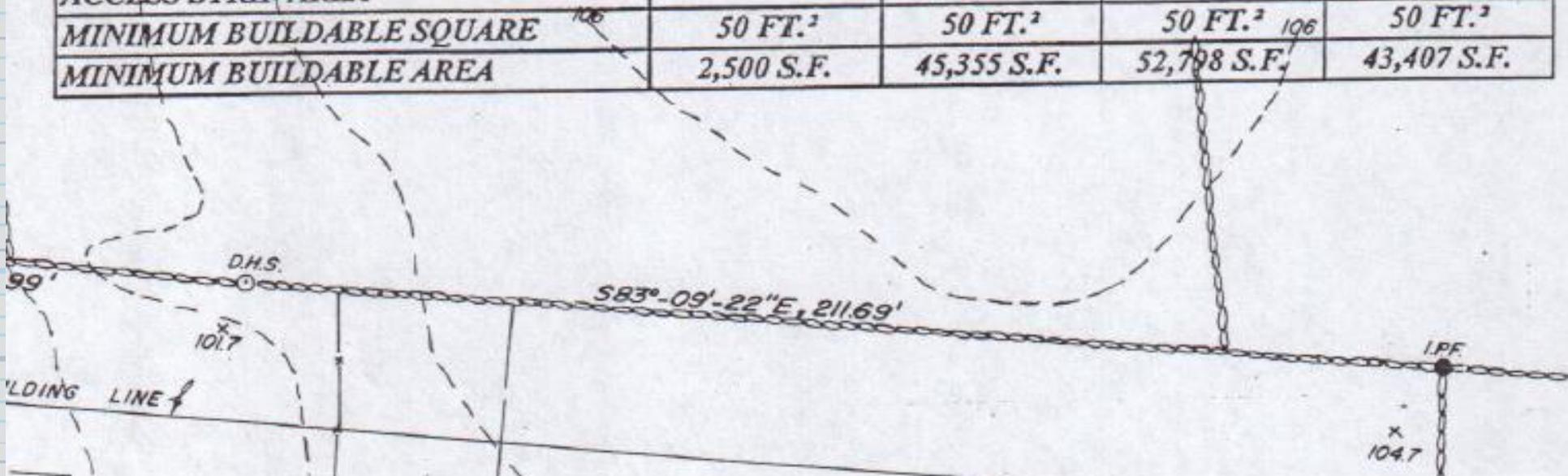
Measuring Distances



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

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 UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITY 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.

Site Plan Checklist

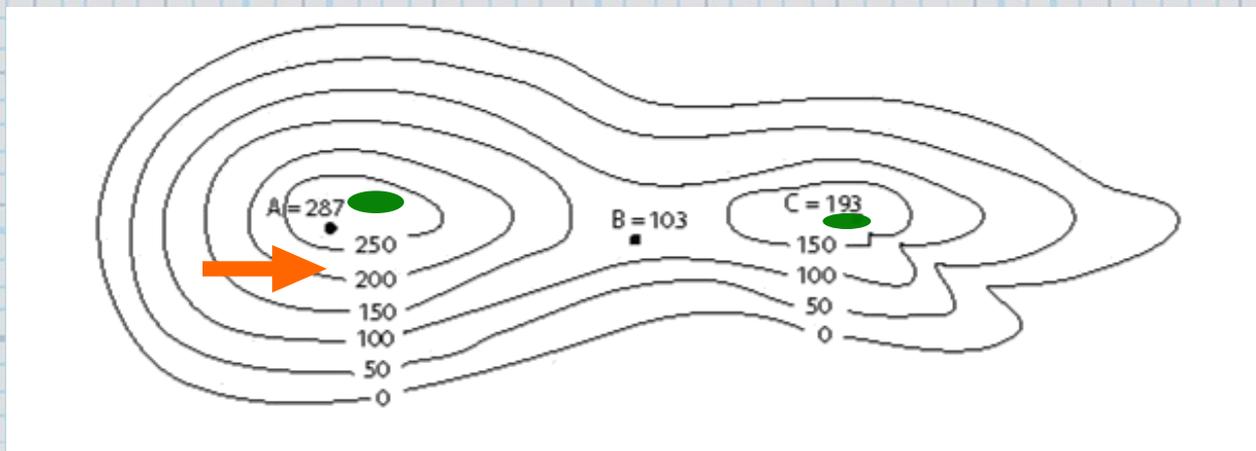
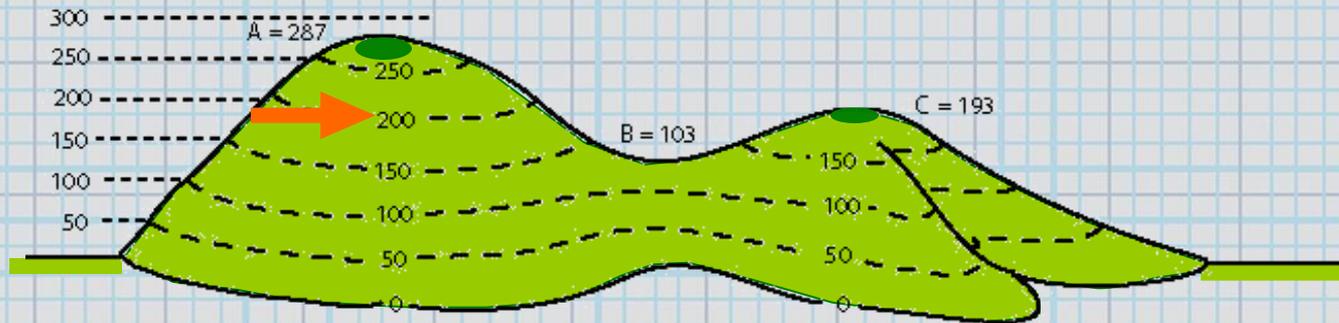
City of Groton - Site Plan Checklist

A complete Site Plan under Section 6.6 shall contain the following:

- A written statement of the proposed use of the building structure or use for which the application is made.
- A certificate by a registered engineer, qualified scientist, or other recognized authority as to his/her best estimate as to the impact of the proposed use from the standpoint of the standards set forth in Section 4.56 of these Regulations, and what, if any, environmental protection measures will be taken.
- Building plans, floor plans, and elevations for all proposed buildings and structures on the site or for alterations of existing buildings and structures on the site, where appropriate.
- A location sketch showing the approximate locations and use of structures in any residential zone contiguous to or lying immediately across the street from the site of the proposed use and within 100 feet thereof and the approximate distance of any street intersections within 500 feet of the site of the proposed use.
- All applications shall include an accurate Class A-2 survey of the property prepared by a land surveyor registered in the State of Connecticut. All plans shall be prepared, signed, and sealed by a Connecticut registered engineer, architect, or landscape architect, whichever is appropriate.
- Scale of not more than 40 feet to 1 inch.
- Name and address of the applicant, owner of record and all adjoining property owners, as listed on the City's tax rolls.
- Date, north arrow, and numerical and graphical scale.
- The words "Approved by City of Groton Planning and Zoning Commission" with designated places for the title and signature of the Commission Chairperson and the date.
- Location, width, and purpose of all existing and proposed easements, building setback lines, yard requirements, and dedicated areas on and within 100 feet of the site within the zone.
- A complete outline of all existing and proposed deed restrictions or covenants applying to the site.
- Location of all existing wooded areas, watercourses, wetlands, rock outcrops, and other significant physical features on and within 100 feet of the site within the zone.
- Existing trees with a diameter of 12 inches or more, as measured at the base located on the site.
- Existing contours with intervals of 5 feet or less referred to USGS MLW Datum.
- Location, design, and height of all existing and proposed structures, including buildings, signs, fences, and walls on the site.
- Areas for rubbish containers and recyclable containers surrounded with complete visual screening from abutting streets and residential zones.
- Location and design of all existing and proposed uses on the site not requiring a structure.
- Location and design of all existing and proposed parking and loading areas with the number of stalls thereof, paved areas, streets, curbs, sidewalks, and driveways on the site.
- Location and design of all existing and proposed sanitary sewer, storm drainage, and water supply facilities, as well as other underground and above-ground utilities on the site.
- Location and design of all existing and proposed external lights, lighting facilities, and lighted areas on the site.
- A landscaping and open space plan indicating:
 - o the location, design, arrangements, and use of open space areas on the site, including a description of facilities and equipment;
 - o the location, design, type, and size of plant material, fencing, screening devices, or other materials proposed;
 - o Grading plans, as appropriate.
- Other agency/official approval as required by the Planning and Zoning Commission.

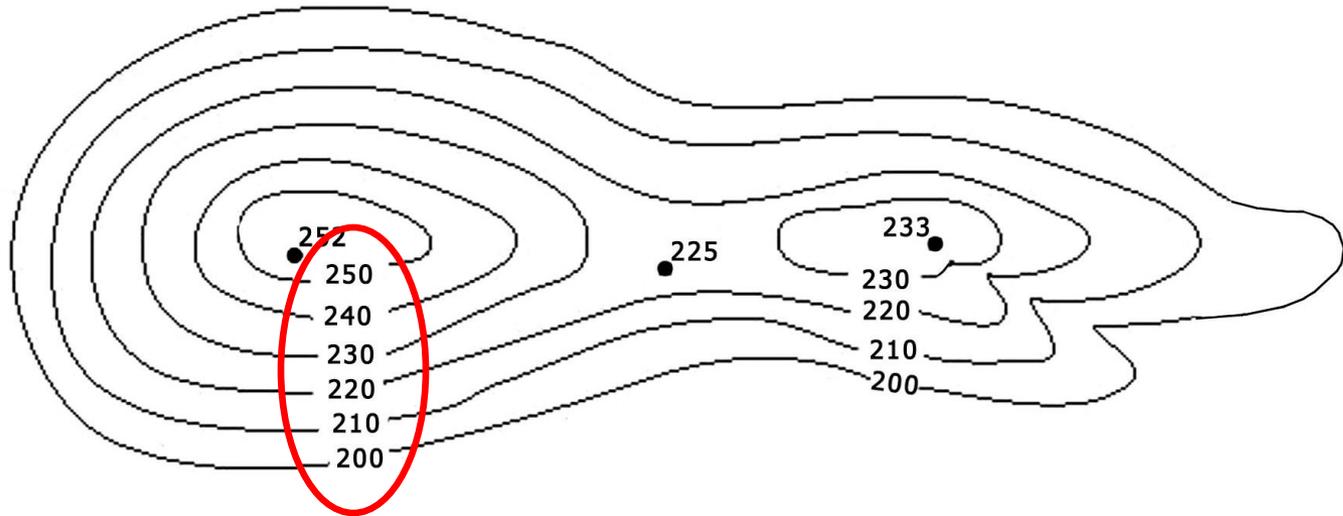
Topography

Contours: an imaginary line that connects points of equal elevation



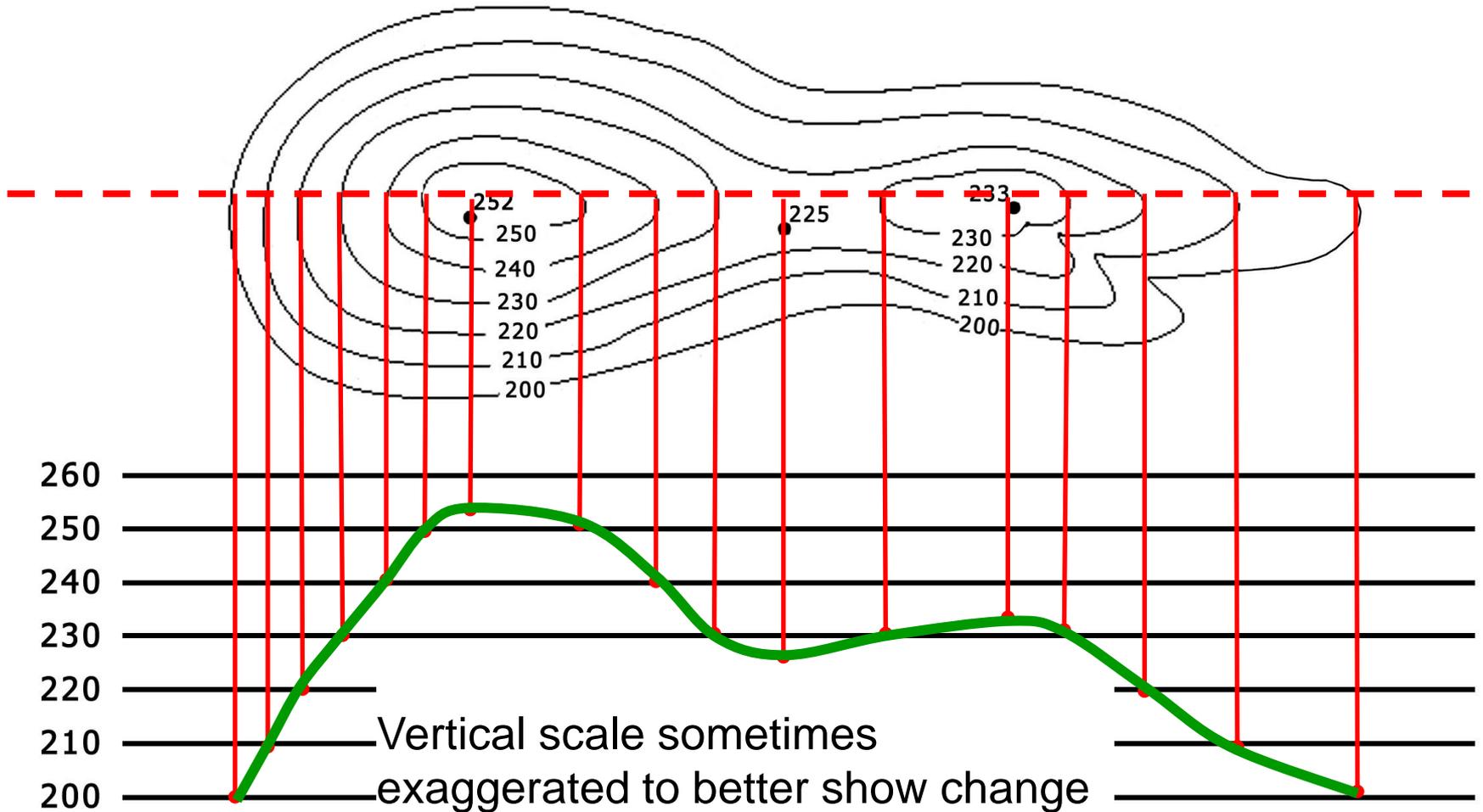
Topography

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.



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**

contours at a stream form a "V" that always points **uphill**

a **spot elevation** is a point of known elevation used as a pt of reference for surveys.

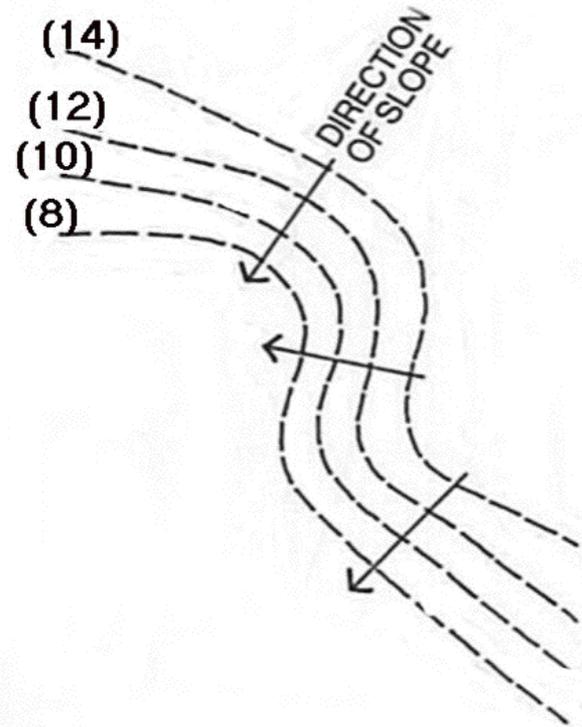
a **benchmark (BM)**: point of known position & elevation used as a pt of reference for surveys.

contours close together show a **steep slope**

contours very close together show a **cliff**

Topography

Slope direction is calculated perpendicular to the contour lines.

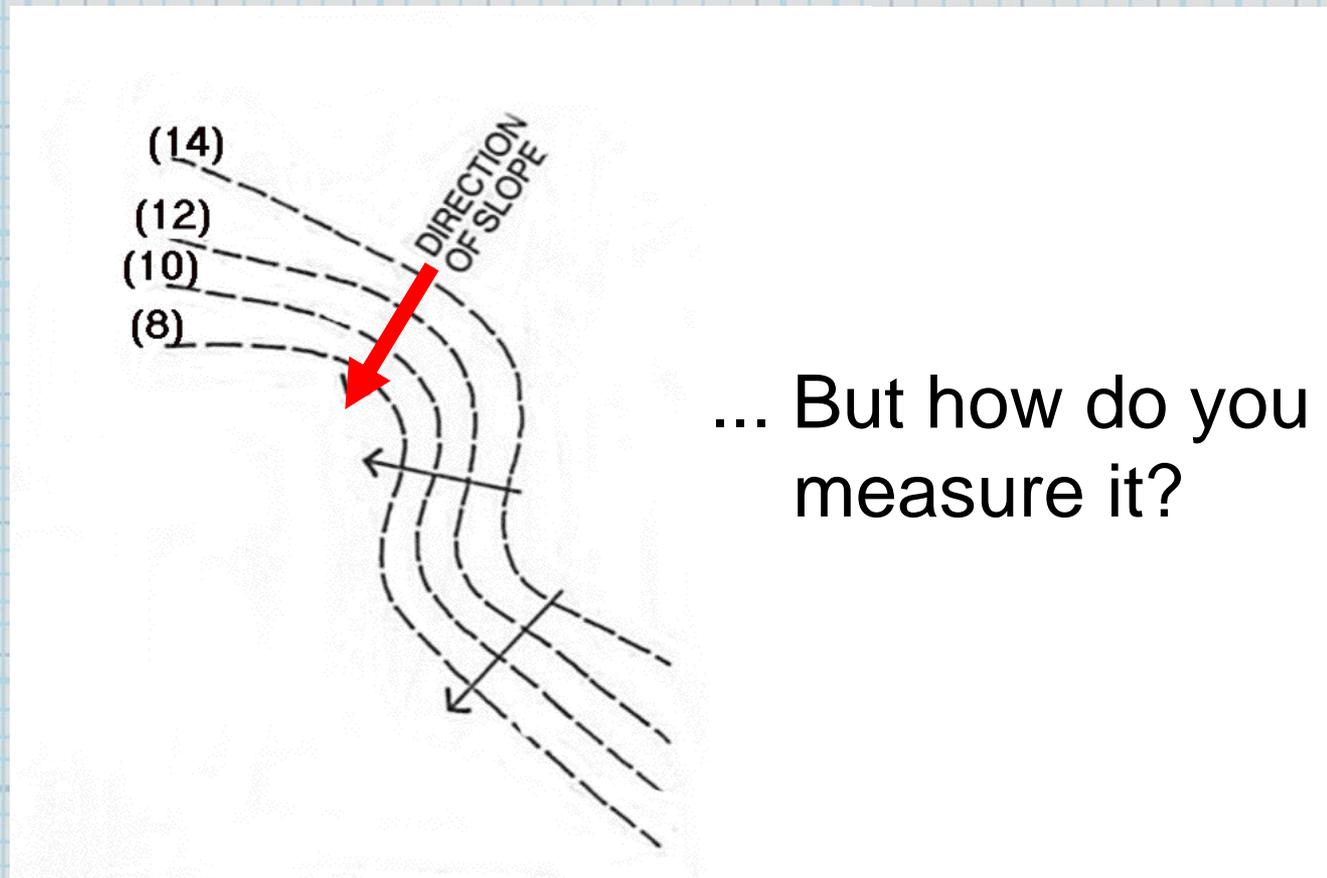


Water flows
downhill...

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

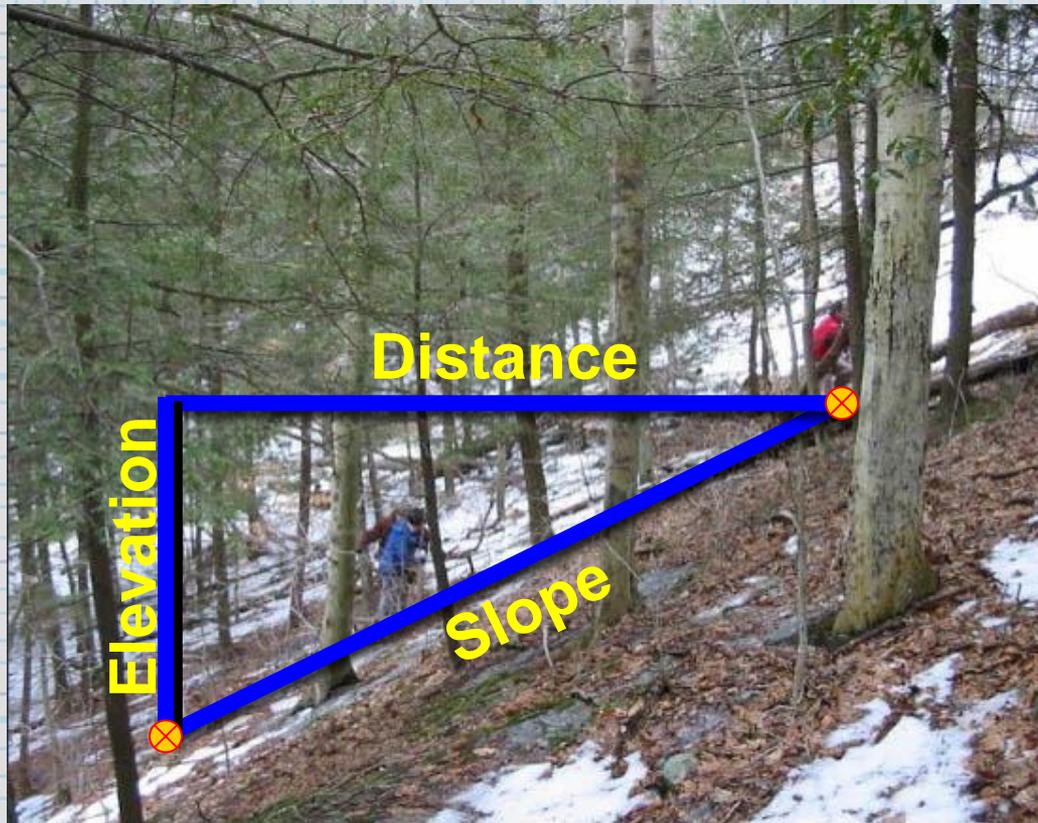
Topography-Slope

Slope direction is calculated perpendicular to the contour lines.



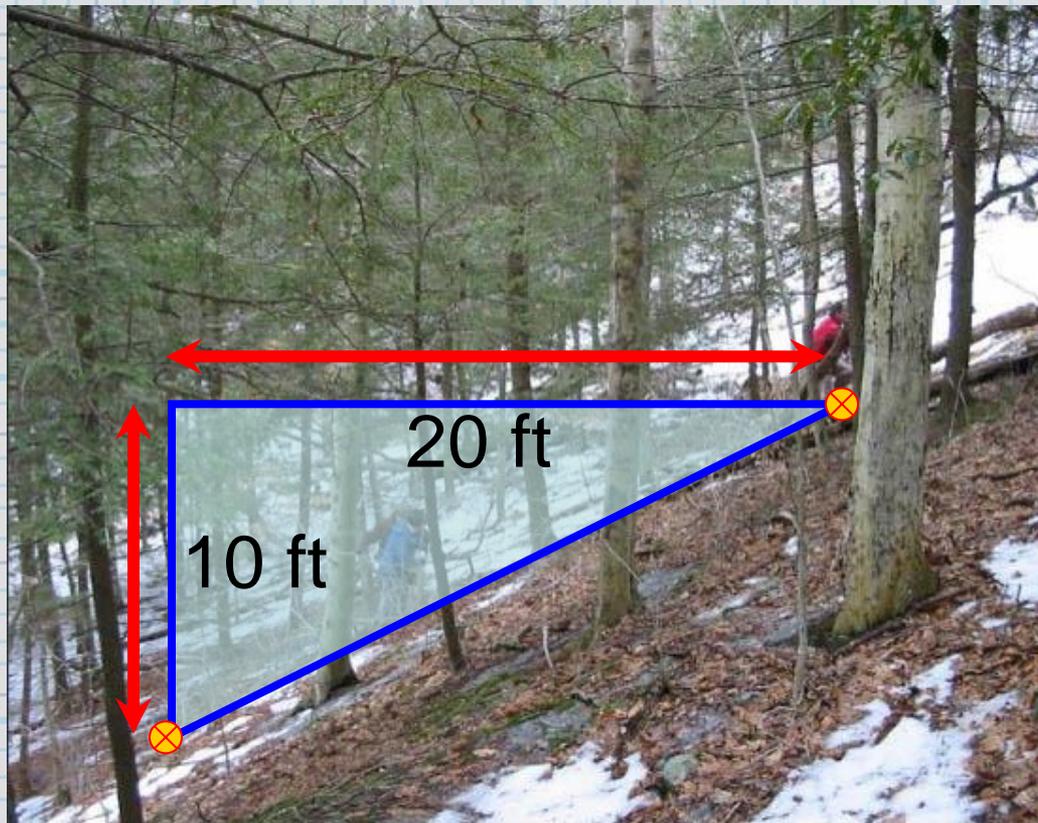
Slope

Change of elevation between two points,
over a given distance...



Slope

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

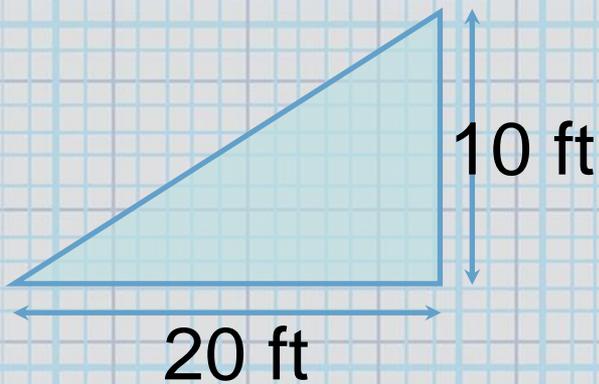


$$(10' / 20') \times 100 = \mathbf{50\% \text{ slope}}$$

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



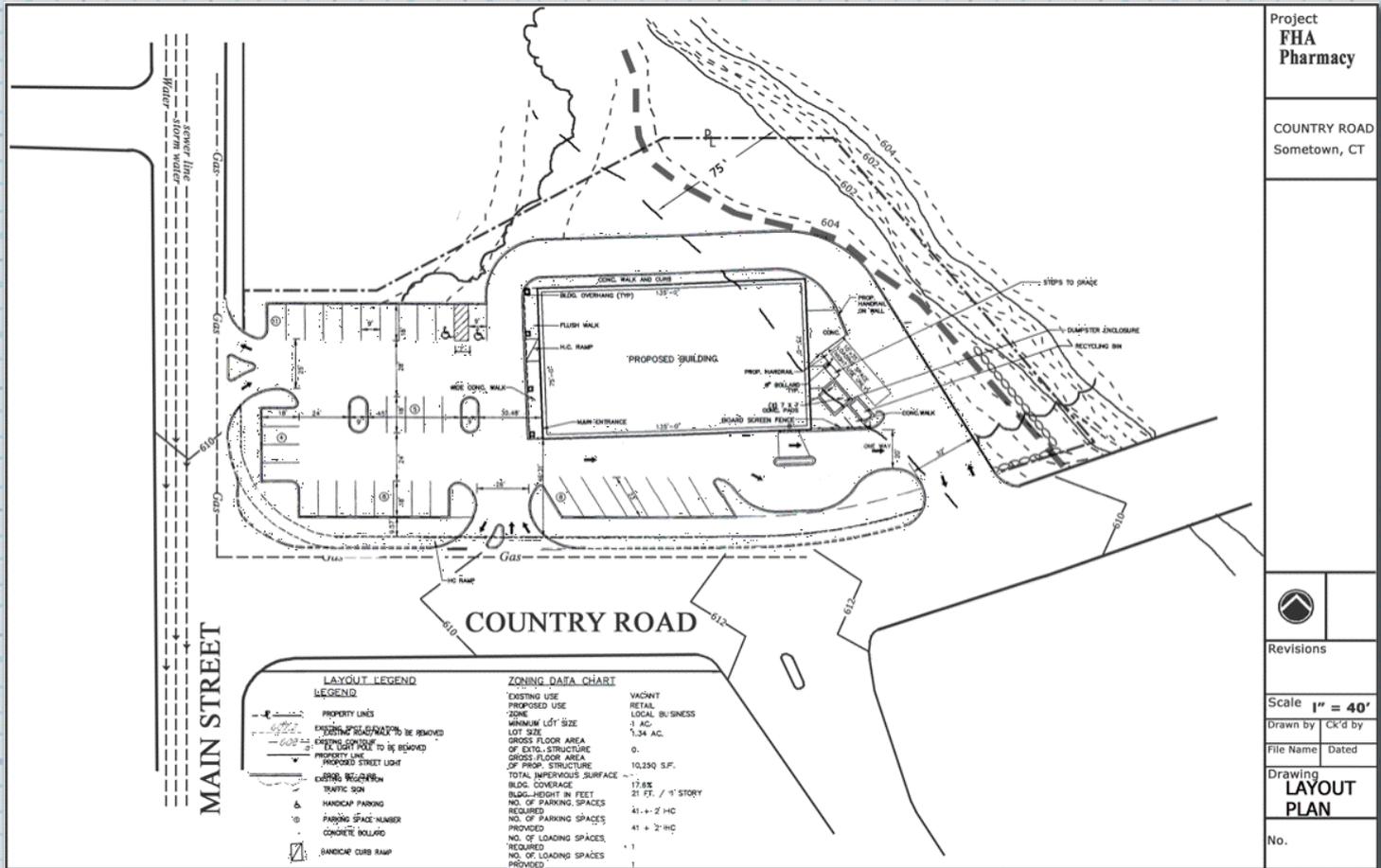
Typical Set of Plans May Contain:

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

Site Plans

Review to see if it meets regulations

If it doesn't meet regulations, must go to Zoning Board of Appeals for variance



Project FHA Pharmacy
COUNTRY ROAD Sometown, CT
Revisions
Scale 1" = 40'
Drawn by CK'D by
File Name Dated
Drawing LAYOUT PLAN
No.

Site Plan Reading

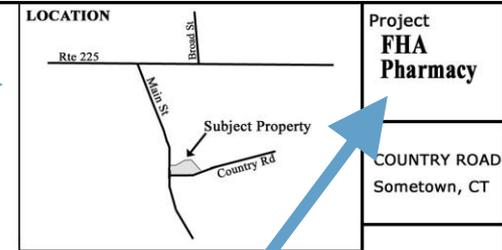
FHA Pharmacy
Survey
Layout Plan
Grading Plan
Utility S&E Control
Elevation
Planting Plan
Details

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

Plan Reading

who? what? where? when?

Where is it? →



What's the project name?

Where's north?

What's the scale?

When drawn?

What kind of plan?

What's it all Mean?

Who prepared the plan?

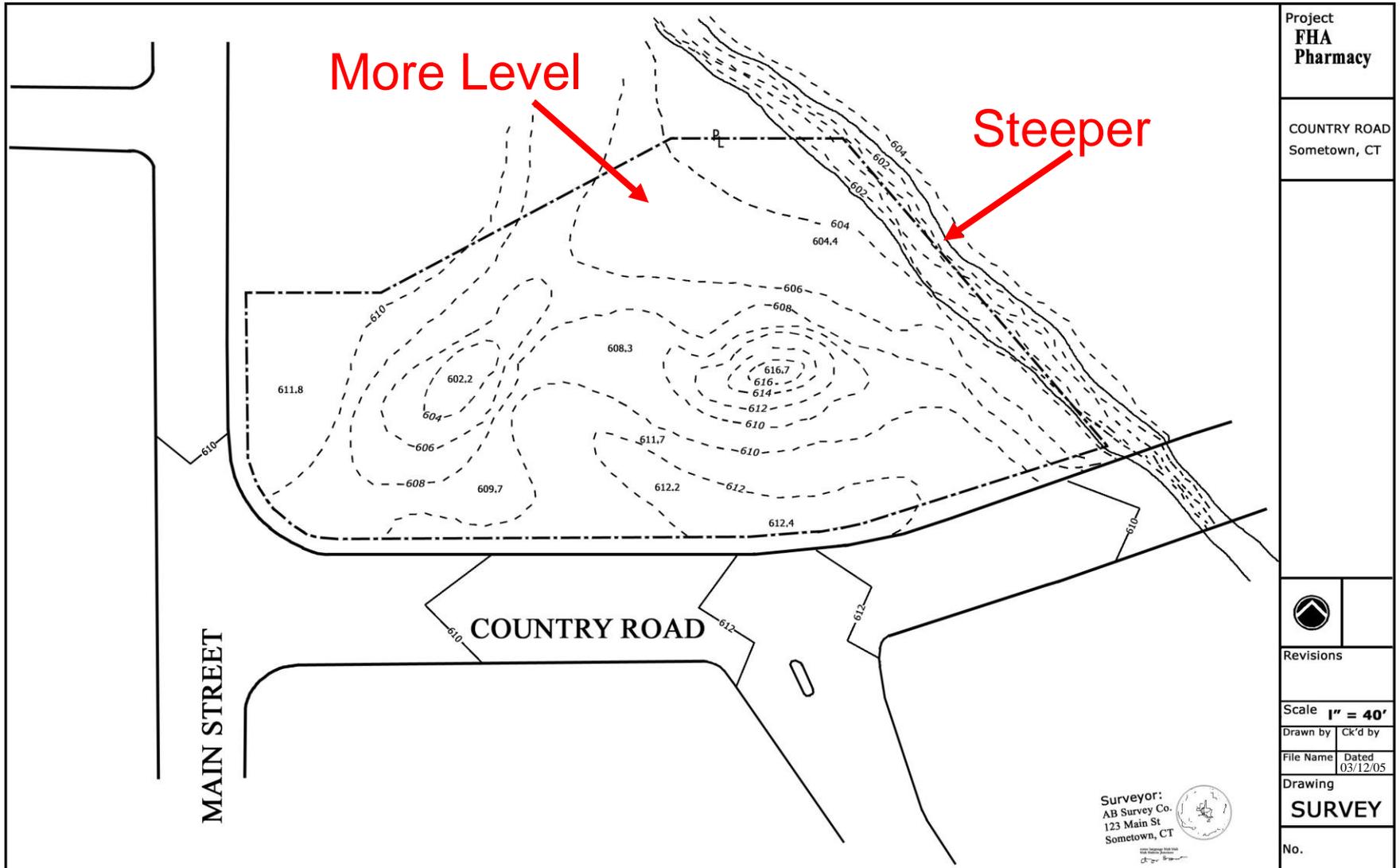
Are they qualified?

LEGEND	
602.2	EXISTING SPOT ELEVATION
---	EXISTING CONTOUR
---	PROPERTY LINE
---	UNDERGROUND UTILITIES
---	CENTERLINE
~	WOODS EDGE

Surveyor:
AB Survey Co.
123 Main St
Somertown, CT

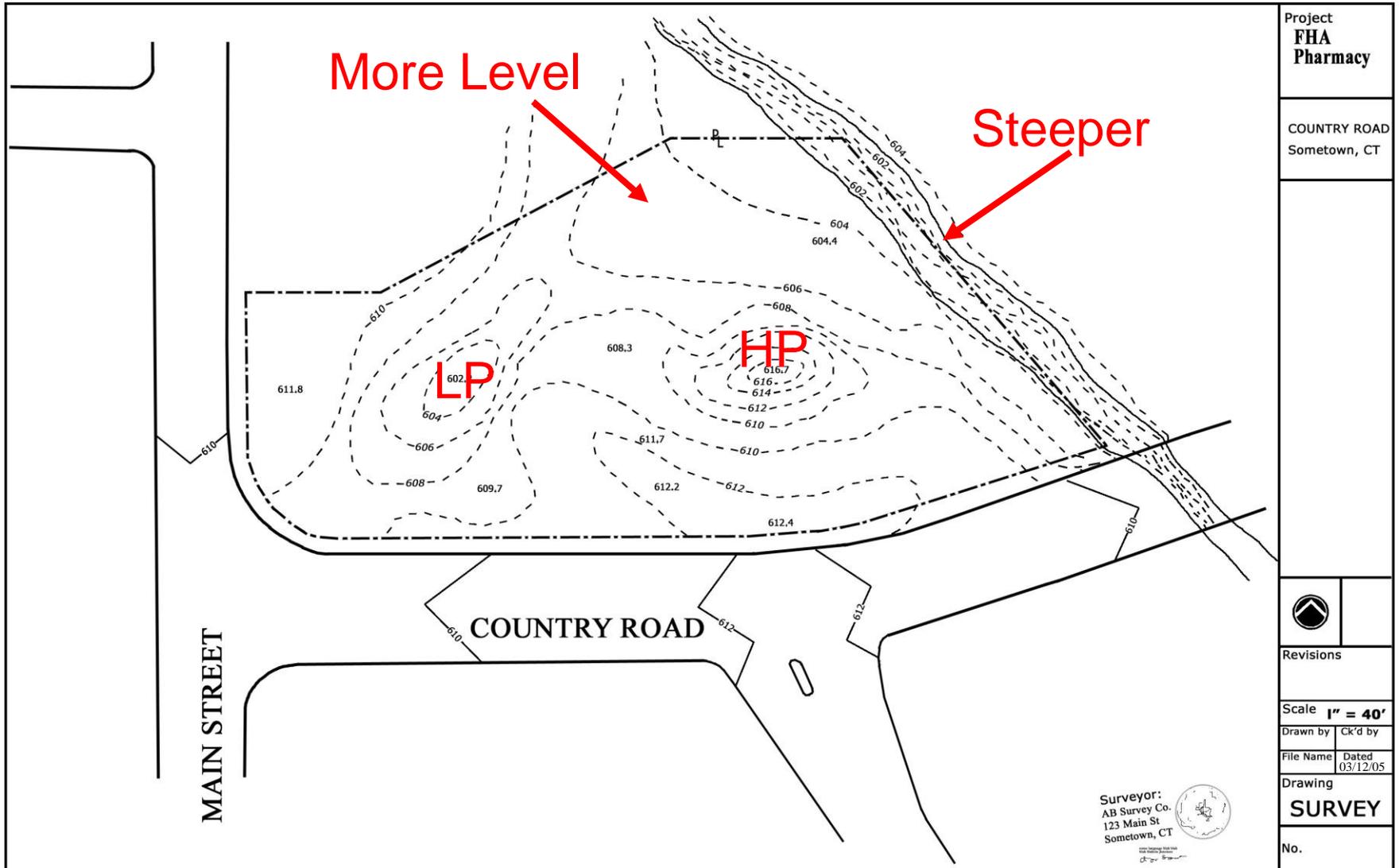
Project FHA Pharmacy	
COUNTRY ROAD Somertown, CT	
North Arrow	
Scale 1" = 40'	
Drawn by	Ck'd by
Date	Dated 03/12/05
Drawing SURVEY	
No.	

Plan Reading



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

Plan Reading

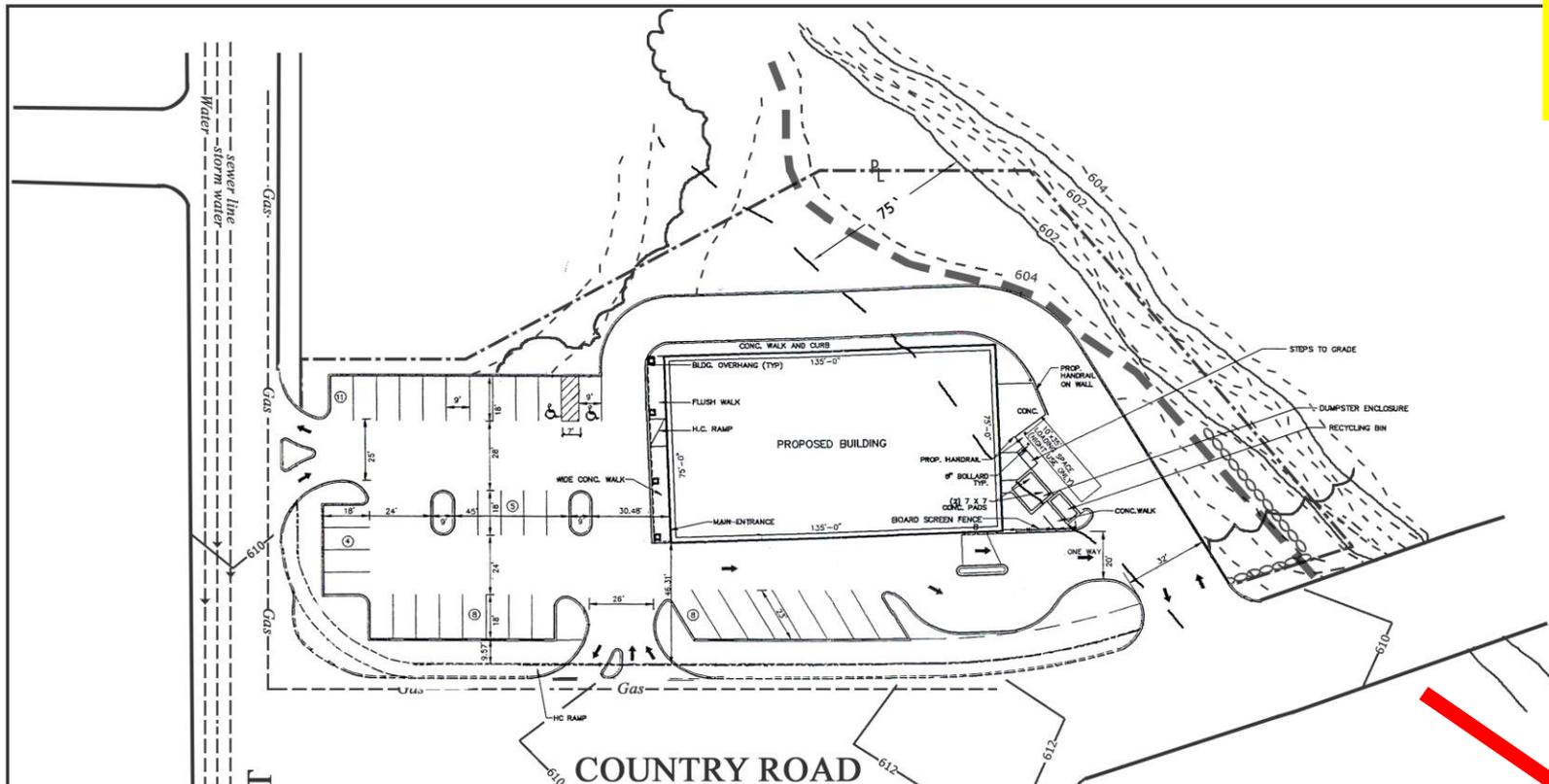


Question: Where are the high and low points?

Plan Reading

Project
**FHA
Pharmacy**

COUNTRY ROAD
Somertown, CT



MAIN STREET

COUNTRY ROAD

LAYOUT LEGEND		ZONING DATA CHART	
	PROPERTY LINES	EXISTING USE	VACANT
	PROPOSED USE	PROPOSED USE	RETAIL
	EXISTING STRUCTURE TO BE REMOVED	ZONE	LOCAL BUSINESS
	EXISTING LIGHT POLE TO BE REMOVED	MINIMUM LOT SIZE	1 AC.
	EXISTING STREET LIGHT	LOT SIZE	1.34 AC.
	PROPOSED STREET LIGHT	GROSS FLOOR AREA OF EXIST. STRUCTURE	0
	PROPOSED STREET LIGHT	GROSS FLOOR AREA OF PROP. STRUCTURE	10,250 S.F.
	EXISTING VEGETATION	TOTAL IMPERVIOUS SURFACE	17.8%
	TRAFFIC SIGN	BLDG. HEIGHT IN FEET	21 FT. / 1 STORY
	HANDICAP PARKING	NO. OF PARKING SPACES REQUIRED	41 + 2 H/C
	PARKING SPACE NUMBER	NO. OF PARKING SPACES PROVIDED	41 + 2 H/C
	CONCRETE BOLLARD	NO. OF LOADING SPACES REQUIRED	+ 1
	HANDICAP CURB RAMP	NO. OF LOADING SPACES PROVIDED	1

Is this a copy?
Is that really the scale?

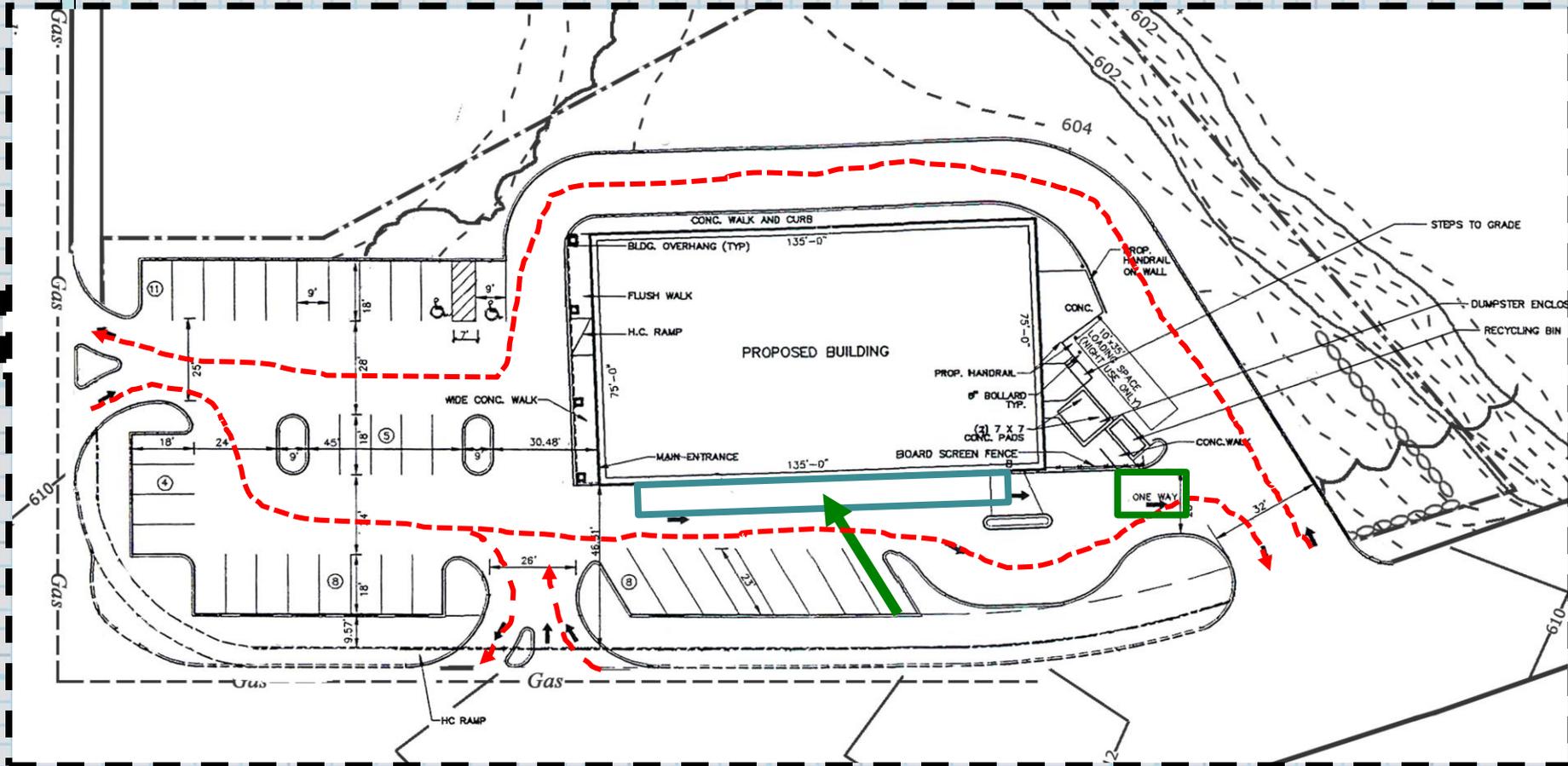


Scale **1" = 40'**

Drawn by CK'd by

Drawing
**LAYOUT
PLAN**

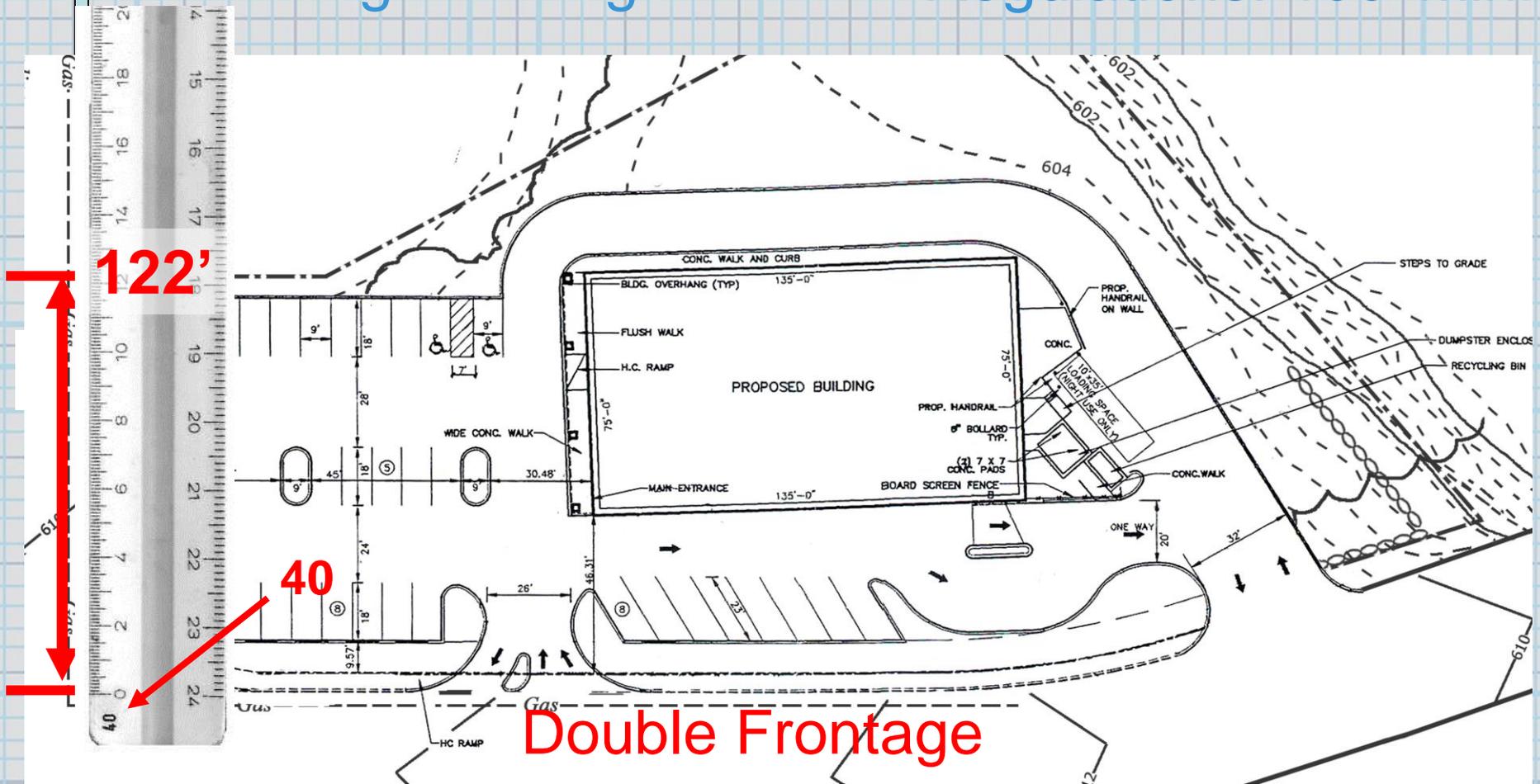
Plan Reading Traffic Circulation



Plan Reading

Is that enough frontage?

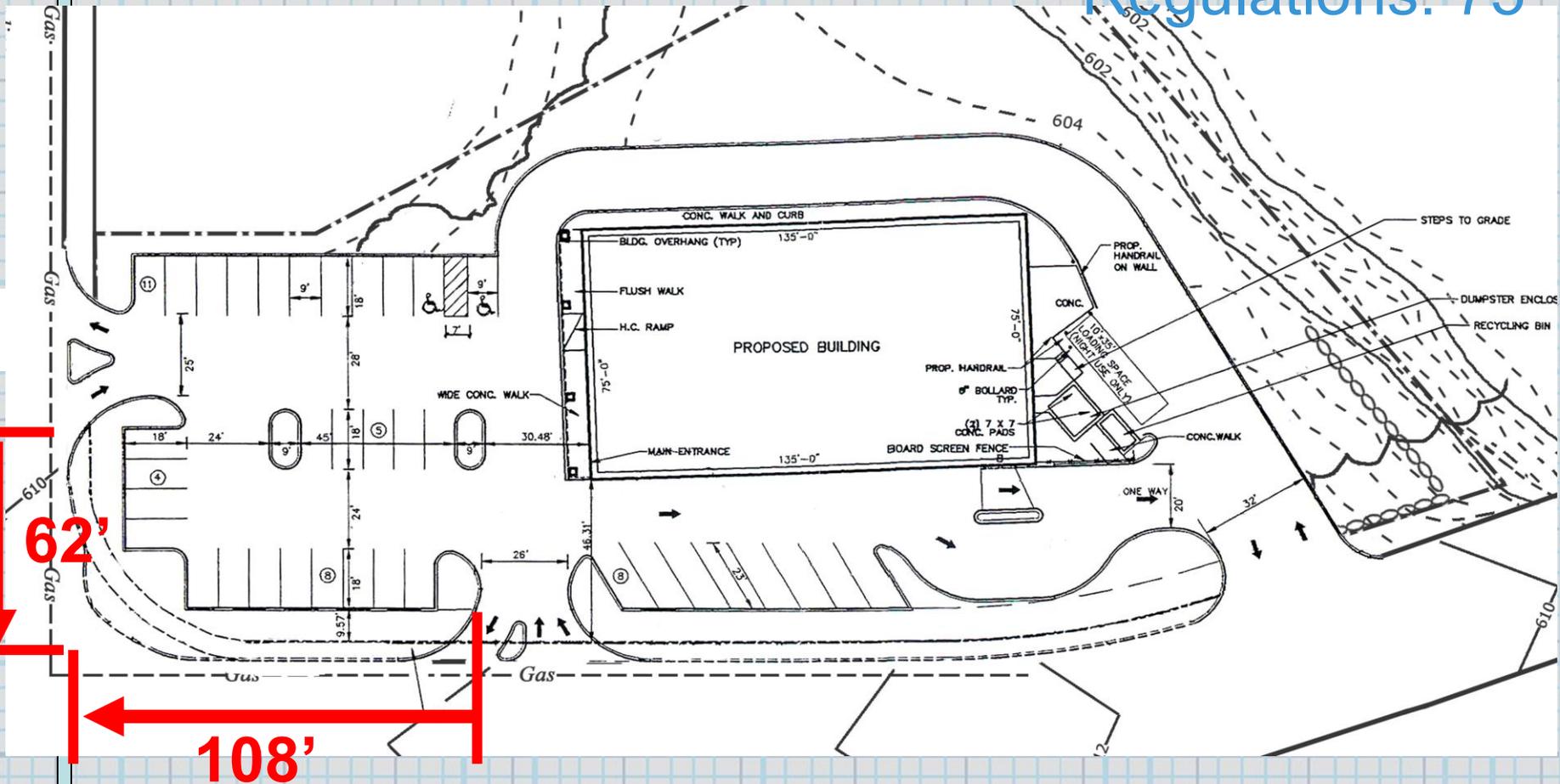
Regulations: 100' min.



Plan Reading

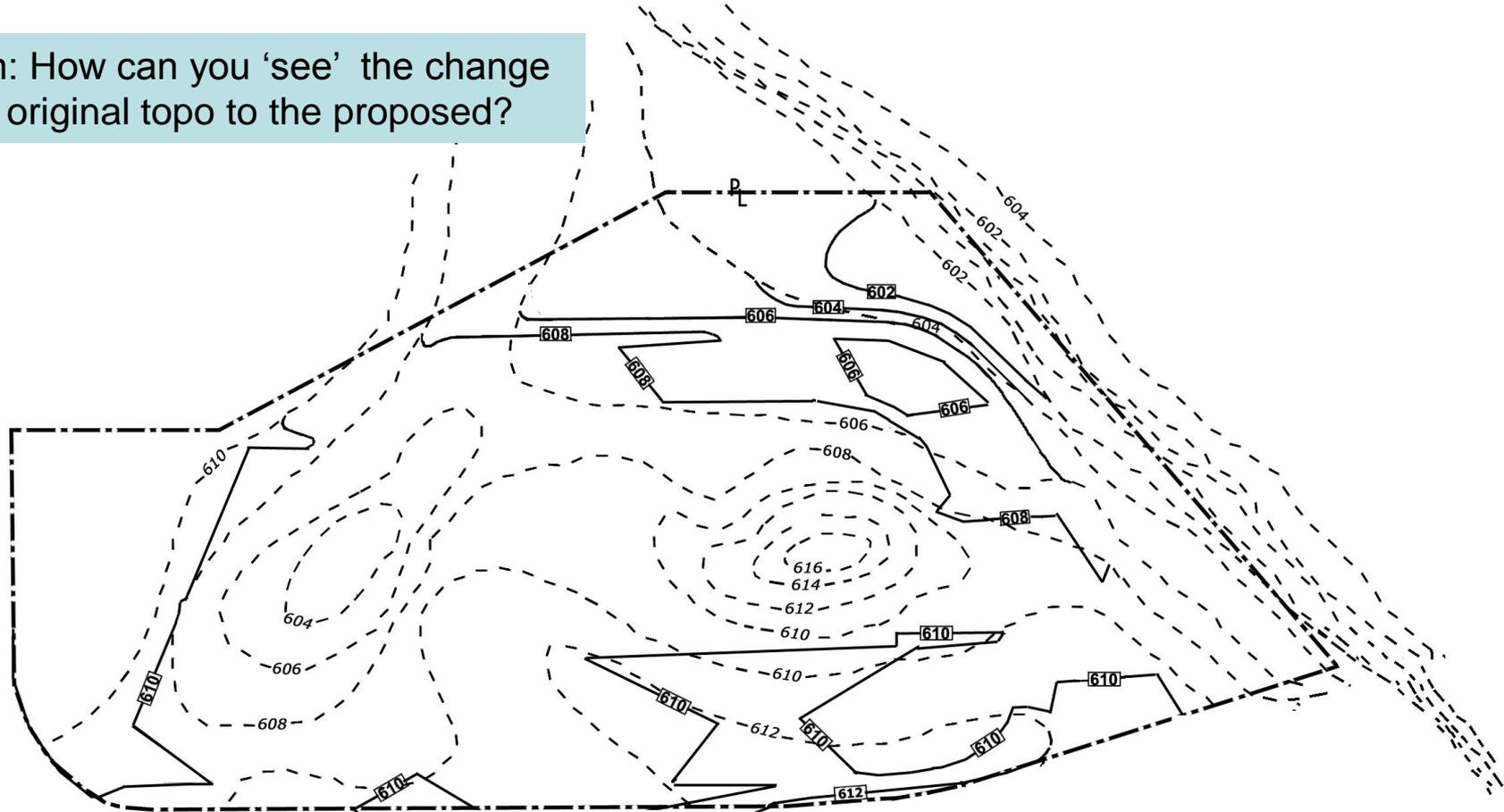
What's the distance from the intersection?

Regulations: 75'



Site Plan Review – Focus on Topo

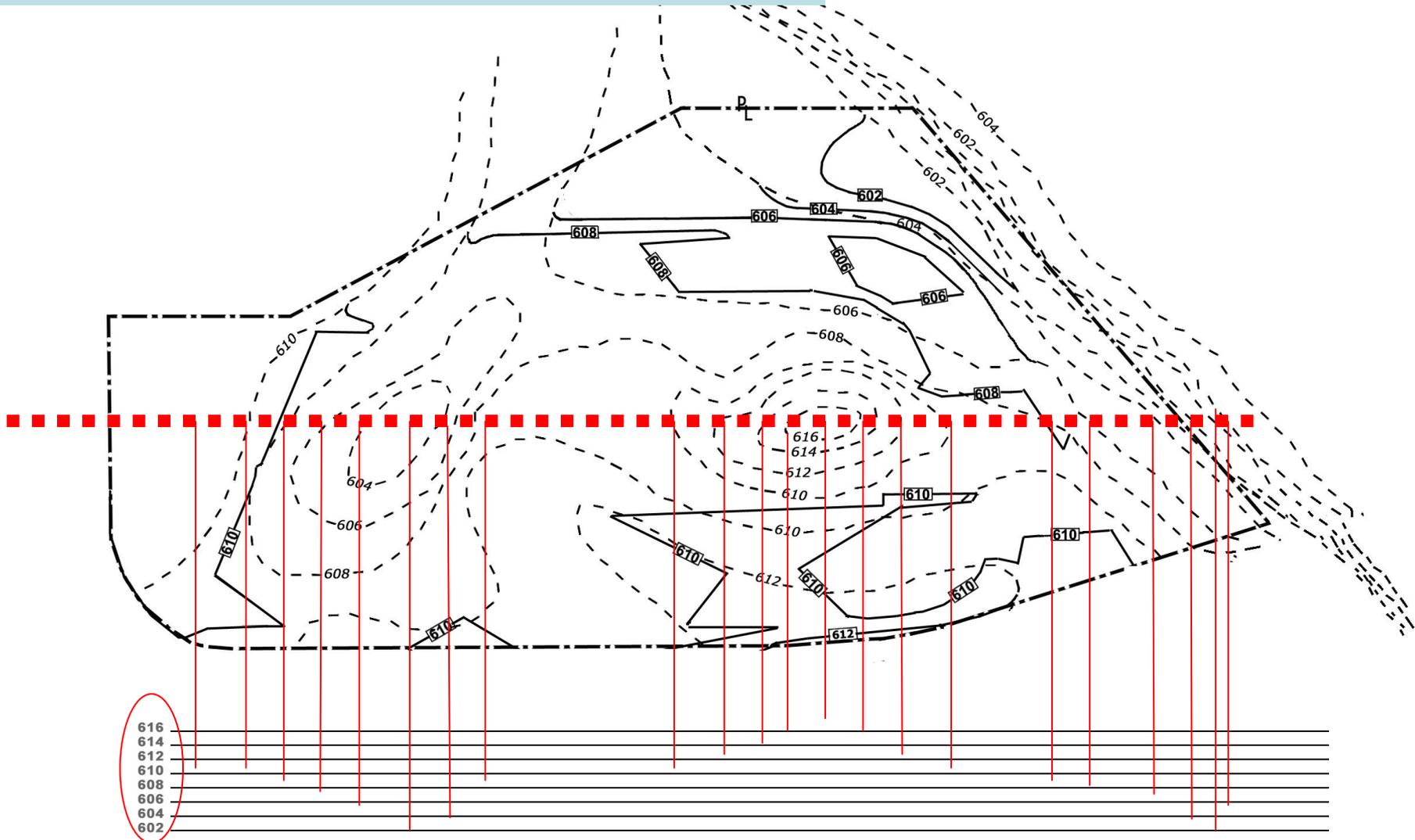
Question: How can you 'see' the change from the original topo to the proposed?



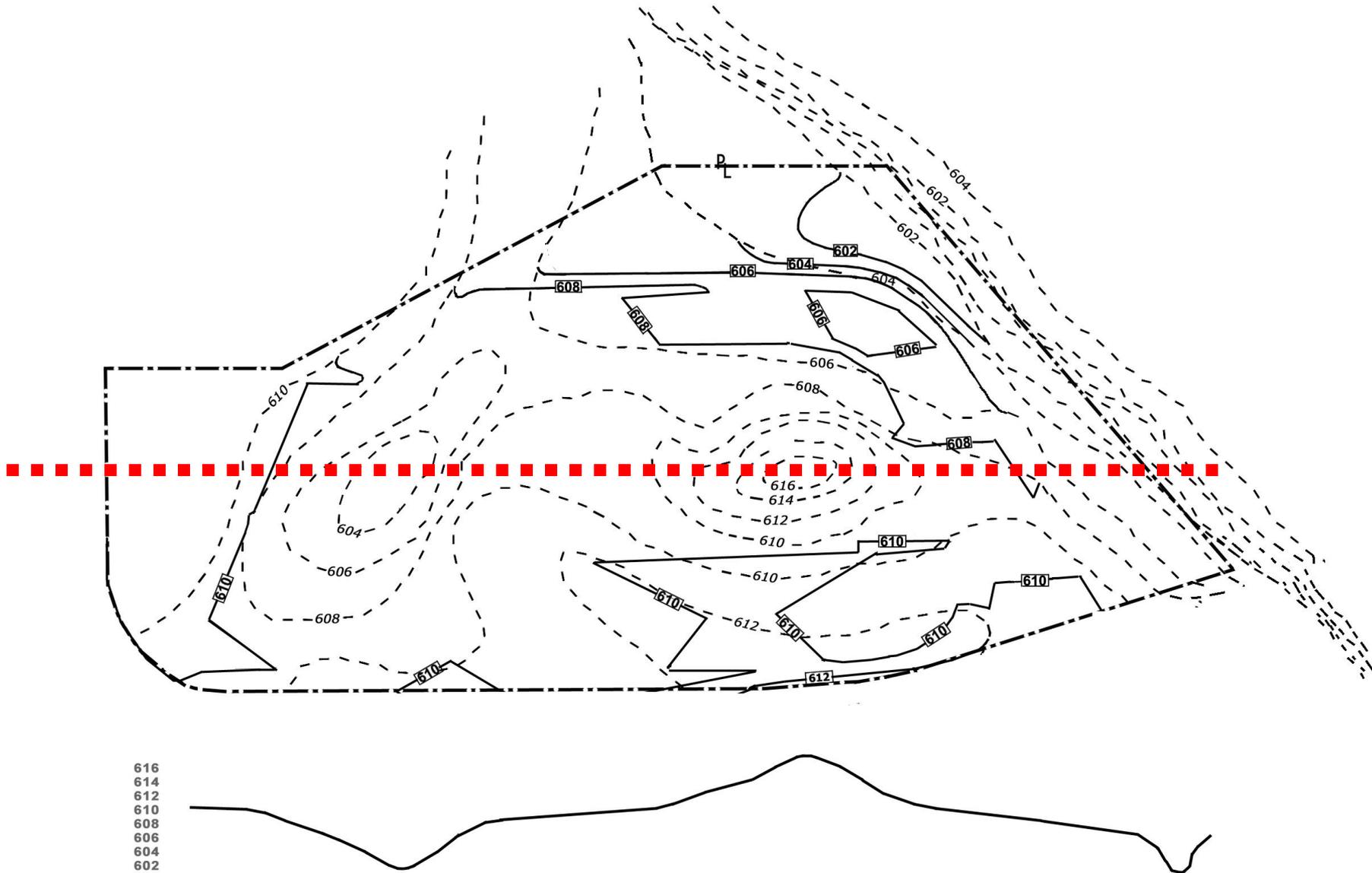
616	_____
614	_____
612	_____
610	_____
608	_____
606	_____
604	_____
602	_____

Site Plan Review – Focus on Topo

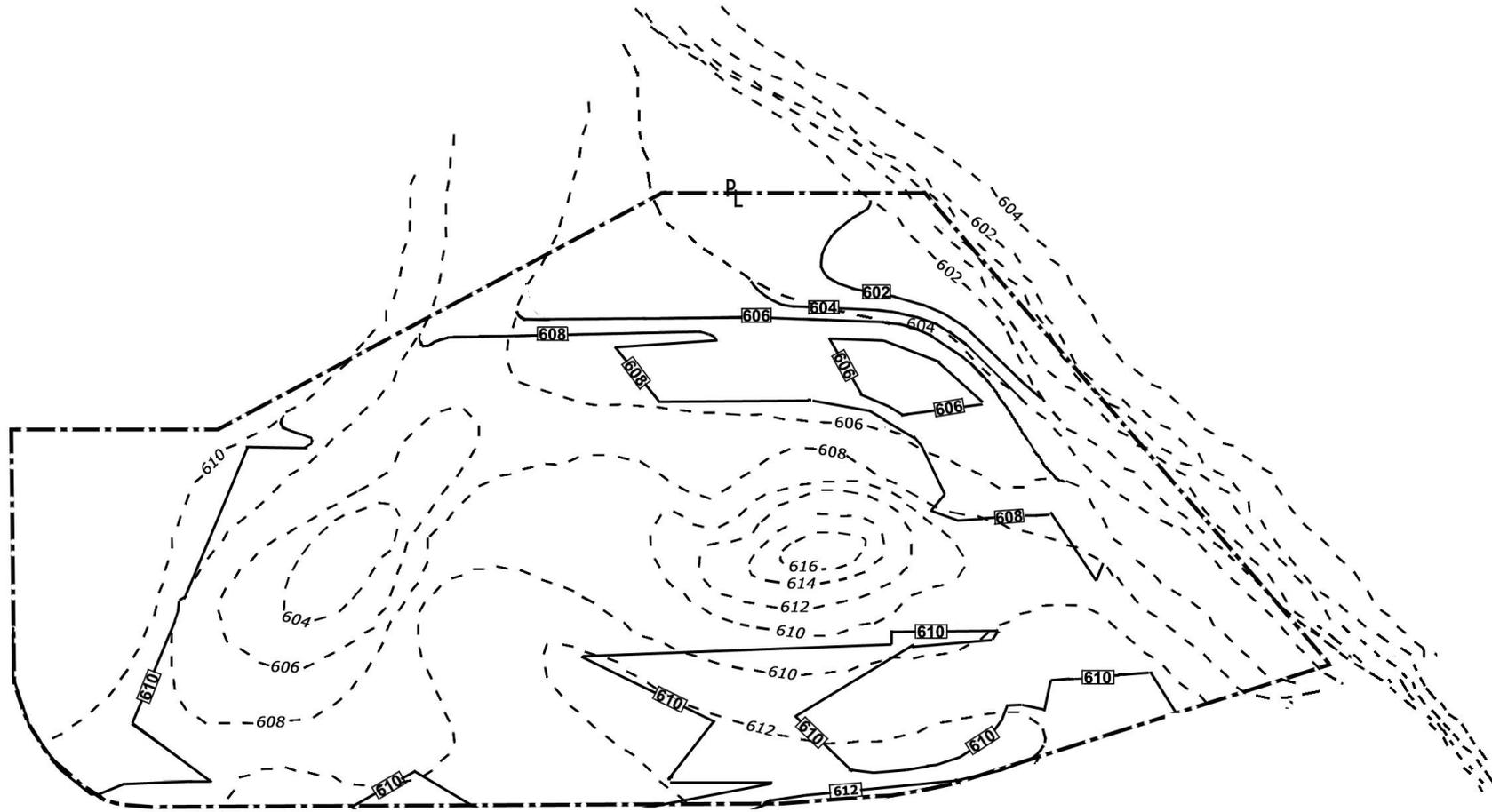
Look at the site in section



Site Plan Review – Changing Topo

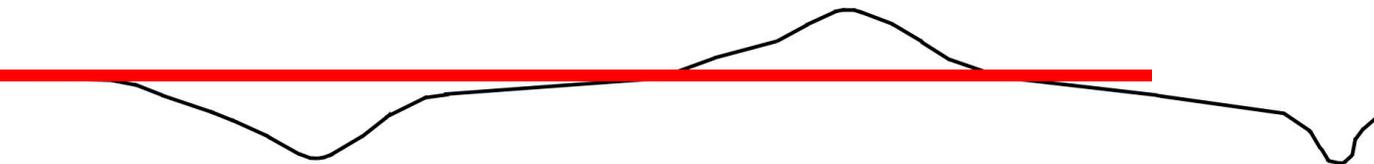


Site Plan Review – Changing Topo



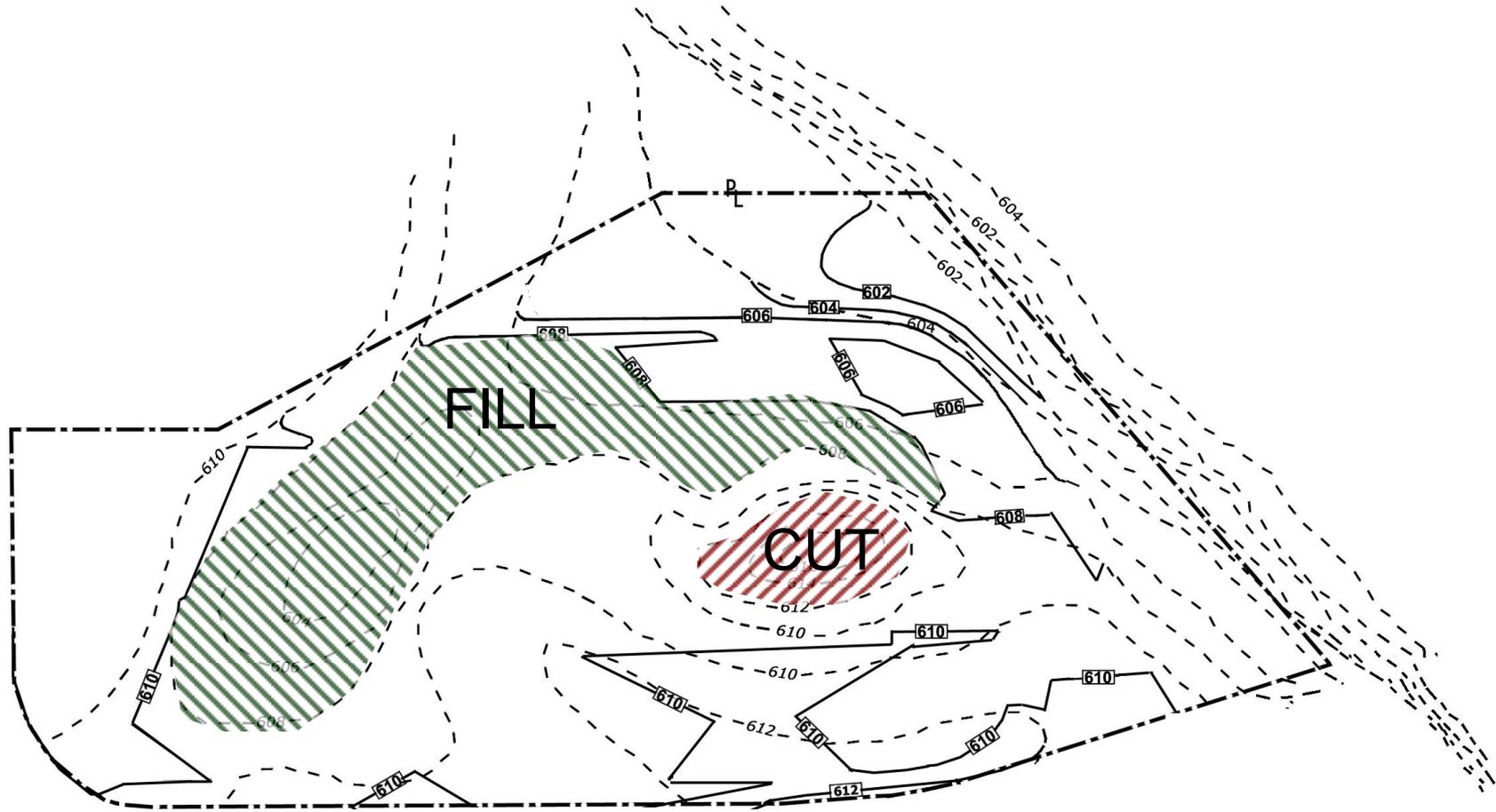
610

- 616
- 614
- 612
- 610
- 608
- 606
- 604
- 602



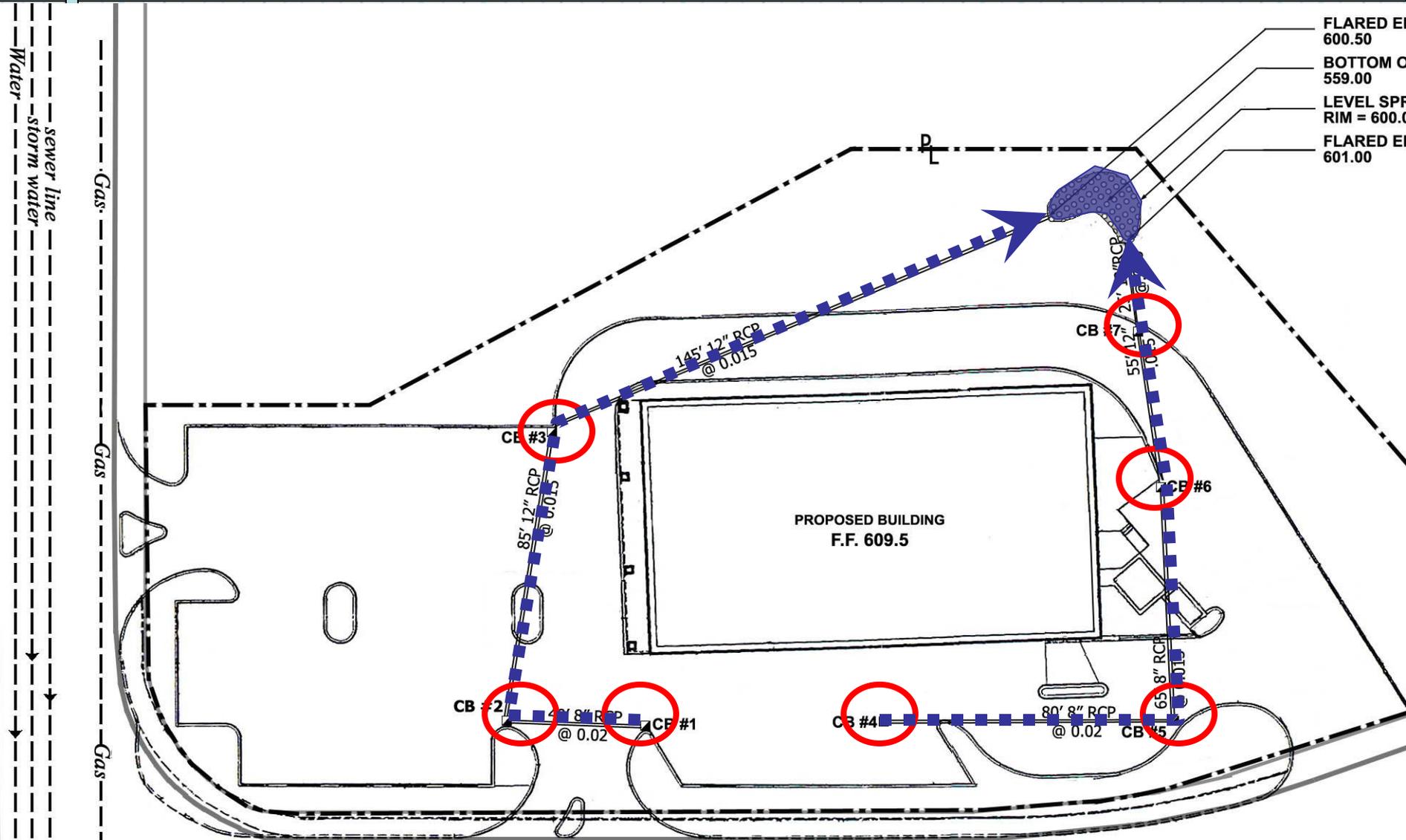
Is there the right amount of soil to smooth the site out?

Site Plan Review – Cut and Fill



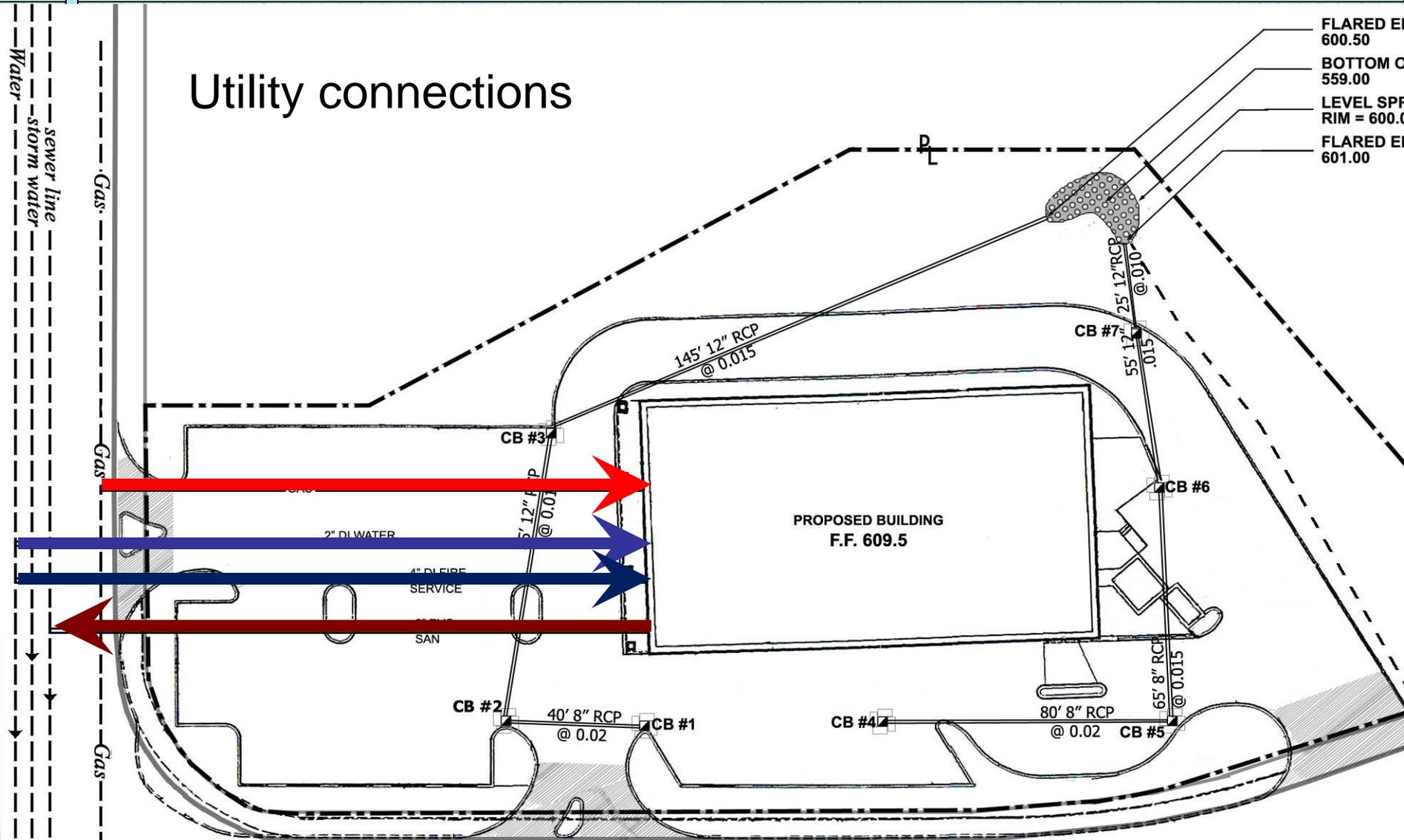
Question: Why should you be concerned with the amount of cut and fill?

Site Plan Review Stormwater System



Site Plan Review Utilities

Utility connections



Plan Review

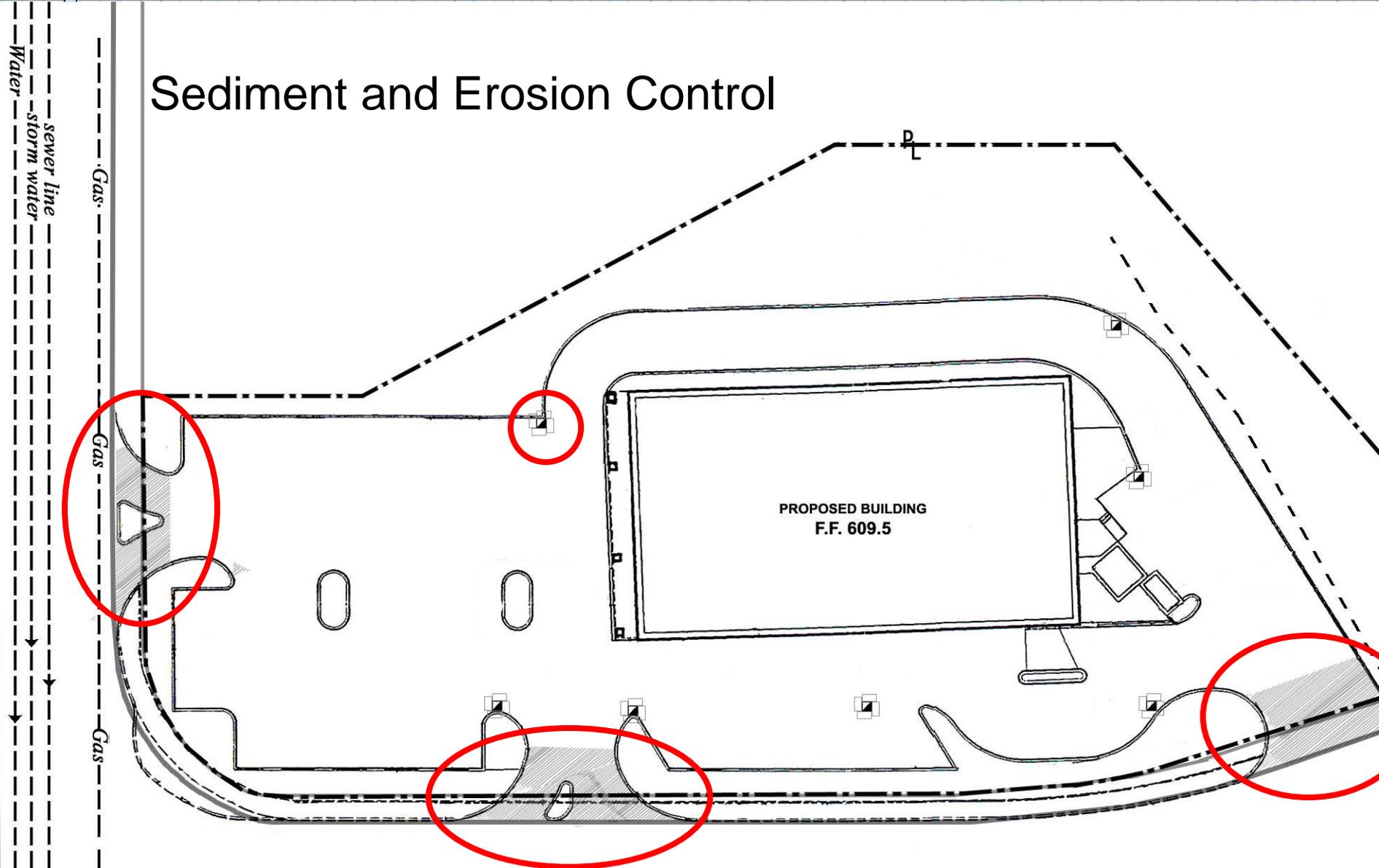
Construction Activity



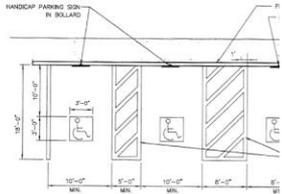
Site Plan Review

Construction Activity

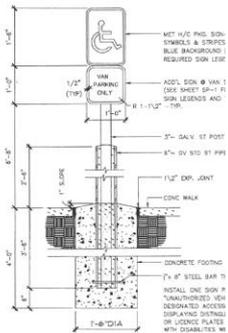
Sediment and Erosion Control



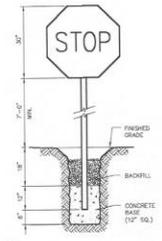
Site Plan Review Details



**ACCESSIBLE
PARKING SPACE AND RAMP**



**HANDICAPPED SIGN
IN CONC FILLED BOLLARD**



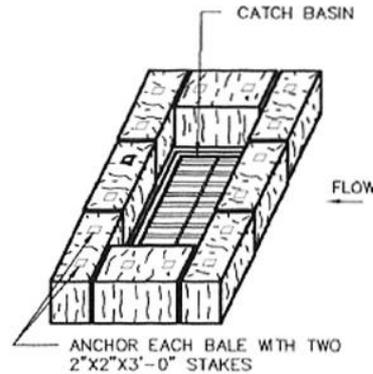
STOP SIGN



1. SET POSTS AND



2. ATTACH FILTER FABRIC



**HAY BALE FILTER INSTALLATION AT
CATCH BASIN AT LOW POINTS**

STORMWATER INLETS WHICH DO NOT DISCHARGE TO SEDIMENT TRAPS OR BASINS, MUST BE PROTECTED UNTIL THE TRIBUTARY AREAS ARE STABILIZED.

SEDIMENT MUST BE REMOVED FROM INLET PROTECTION AFTER EACH STORM EVENT.

CATCH BASIN EROSION CONTROL

SILT FENCE BARRIER

Project
**FHA
Pharmacy**

COUNTRY ROAD
Somertown, CT

Revisions

Scale **NTS**

Drawn by Ck'd by

File Name Dated

Drawing

DETAIL - 2

No.

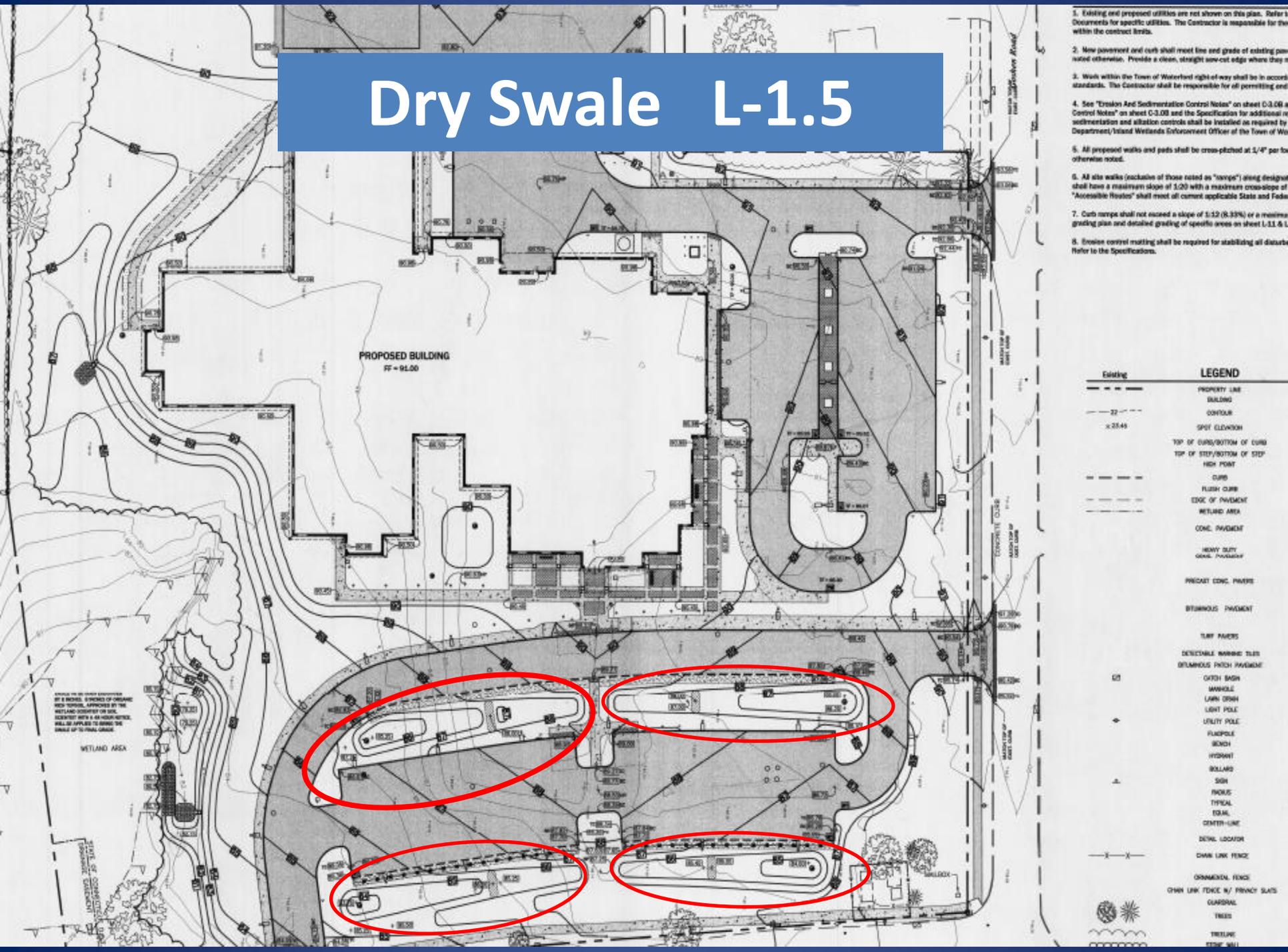
DRAWN BY: [REDACTED]

And now—It's your turn



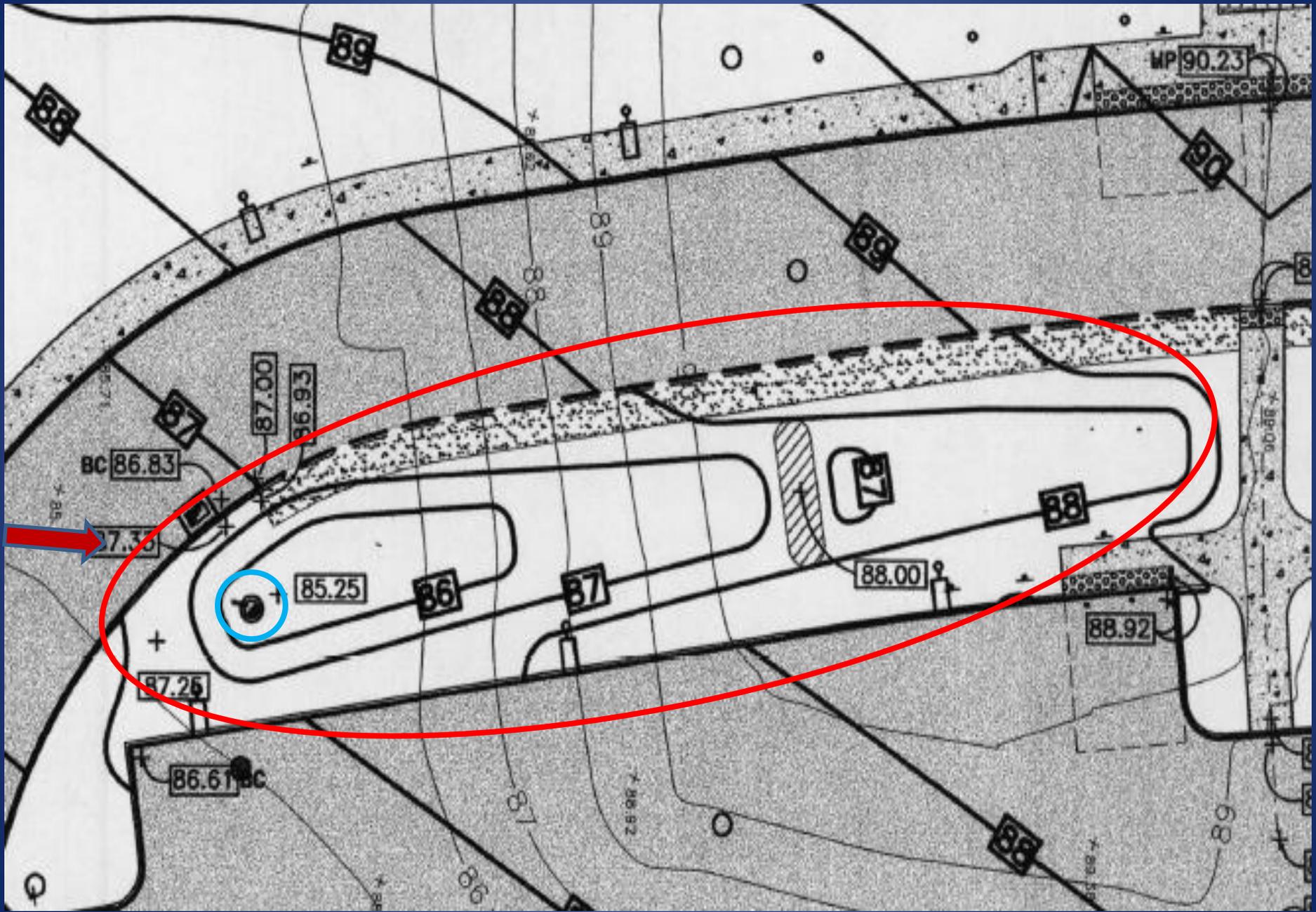
Great Neck School, Waterford, CT

Dry Swale L-1.5

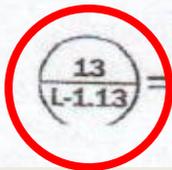
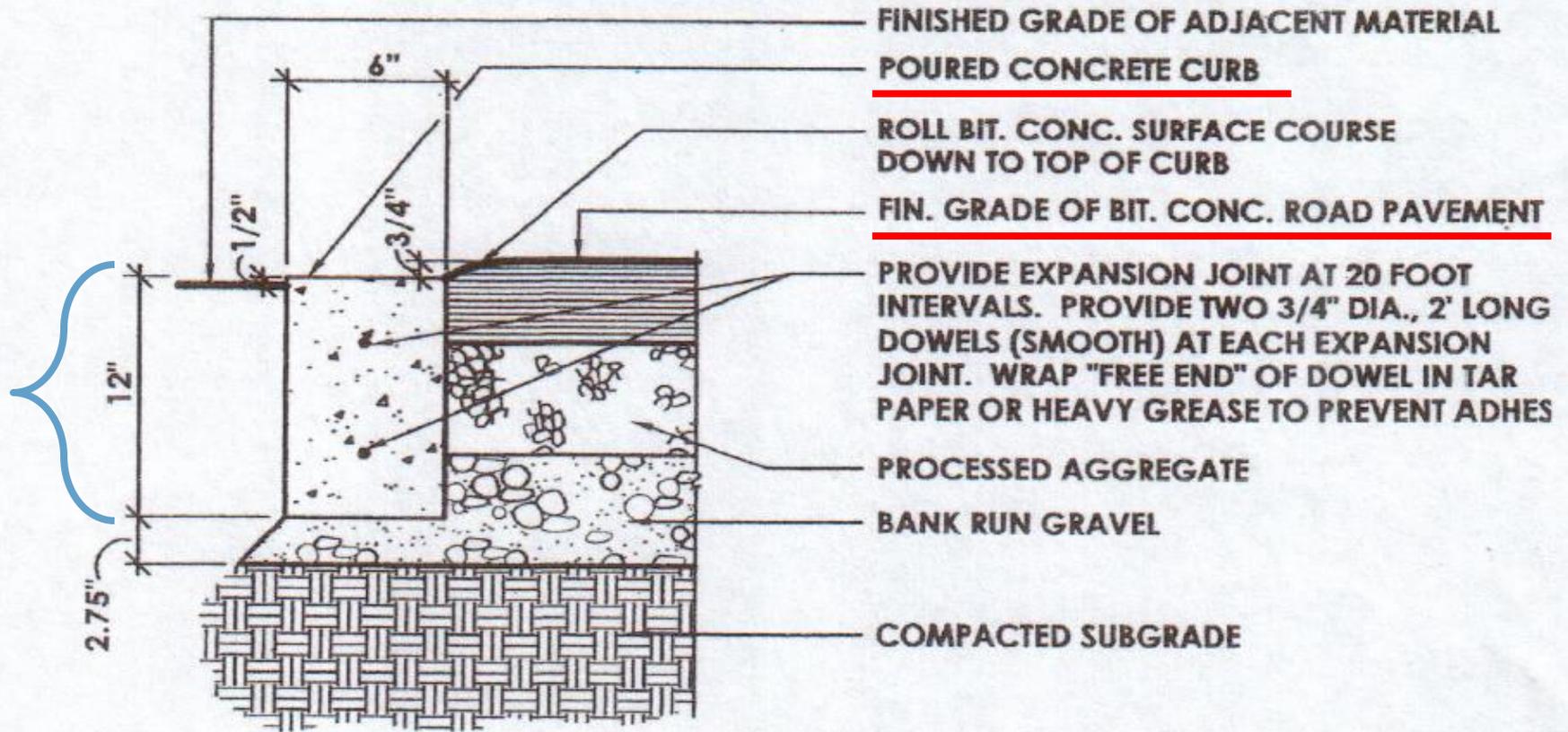


- Existing and proposed utilities are not shown on this plan. Refer to Documents for specific utilities. The Contractor is responsible for the within the contract limits.
- New pavement and curb shall meet line and grade of existing pavement otherwise. Provide a clean, straight saw-cut edge where they meet.
- Walk within the Town of Waterford right of way shall be in accordance with standards. The Contractor shall be responsible for all permitting and
- See "Erosion And Sedimentation Control Notes" on sheet C-3.08 and "Control Notes" on sheet C-3.09 and the Specification for additional erosion and sedimentation controls shall be installed as required by Department/Island Wetlands Enforcement Officer of the Town of Waterford.
- All proposed walks and pads shall be cross-pitched at 1/4" per foot to otherwise road.
- All site walks (inclusive of those noted as "orange") along design shall have a maximum slope of 1:20 with a maximum cross-slope of "Accessible Routes" shall meet all current applicable State and Federal standards.
- Curb ramps shall not exceed a slope of 1:12 (8.33%) or a maximum grading plan and detailed grading of specific areas on sheet L-1.1 & L-1.2.
- Erosion control matting shall be required for stabilizing all disturbed areas. Refer to the Specifications.

Existing	LEGEND
---	PROPERTY LINE
---	BUILDING
---	CONTOUR
○	SPOT ELEVATION
---	TOP OF CURB/BOTTOM OF CURB
---	TOP OF STEP/BOTTOM OF STEP
○	HIGH POINT
---	CURB
---	FLASH CURB
---	EDGE OF PAVEMENT
---	WETLAND AREA
---	CONC. PAVEMENT
---	HEAVY DUTY CONC. PAVEMENT
---	PRECAST CONC. PAVERS
---	BURNISHED PAVEMENT
---	TUFF PAVERS
---	DETECTABLE WARNING SLIPS
---	DETECTABLE PITCH PAVEMENT
○	GIRTH BASH
○	MANHOLE
○	LAWN DRAIN
○	LIGHT POLE
○	UTILITY POLE
○	FLANPOLE
○	BENCH
○	HYDRANT
○	BOLLARD
○	SIGN
○	POLE
○	TYPICAL
○	EQUAL
○	CENTER-LINE
○	DETAILED LOCATOR
○	CHAIN LINK FENCE
○	ORNAMENTAL FENCE
○	CHAIN LINK FENCE W/ PRIVACY SLATS
○	CONCRETE
○	TREES
○	TREELINE
○	TREELINE







FLUSH CONCRETE CURB

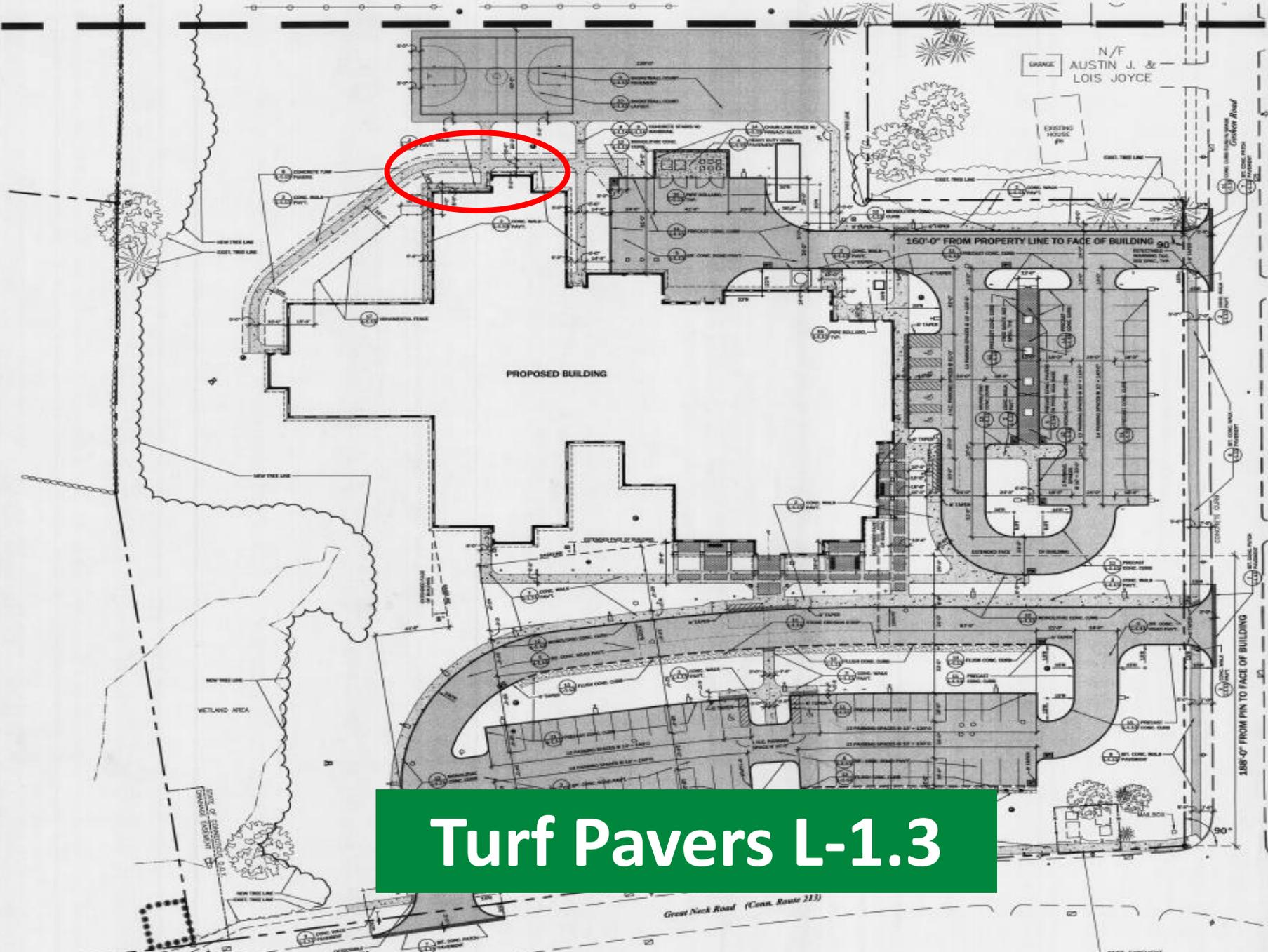
NOT TO SCALE



6' Taper



- NOTES**
1. Do not scale. Contact the architect for questions.
 2. All dimensions are in feet and inches.
 3. All dimensions are to the centerline unless otherwise noted.
 4. All dimensions are to the face of the building unless otherwise noted.
 5. New site areas include but are not limited to: parking, pavement, etc.
 6. Tack coat concrete surface the next course.
 7. New concrete walls, foundations, etc.
 8. The Contractor shall coordinate with all other trades.
 9. See Site Plan for location of all structures.
 10. All site work shall have a minimum 48" clearance from the building.
 11. Spacing shall be as shown.
 12. See site plan for location of all structures.



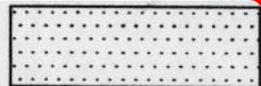
Turf Pavers L-1.3

188'-0" FROM PIN TO FACE OF BUILDING

Great Neck Road (Conn. Route 213)

LEGEND

TURF PAVERS



91.20

91.75

91

90.68

TF = 90.16

90.45

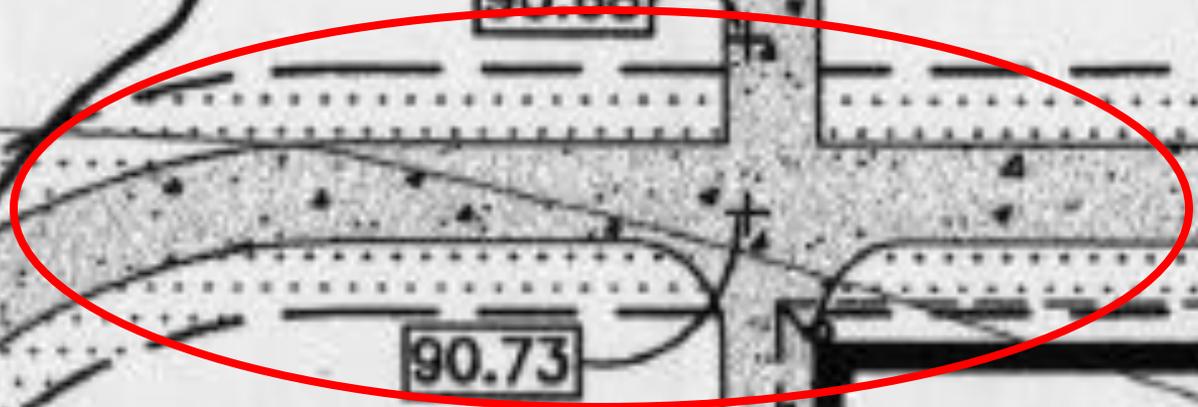
90.73

90.35

90.50

90.98

90.50





PROPOSED BUILDING
FF = 91.00

Wet Swale

SWALE TO BE OVER-EXCAVATED BY 8 INCHES. 8 INCHES OF ORIGINAL TOPSOIL, APPROVED BY THE WETLAND SCIENTIST OR SOE, SCIENTIST WITH A 48 HOUR NOTICE, WILL BE APPLIED TO BRING THE SWALE UP TO FINAL GRADE.

WETLAND AREA

STATE OF CONNECTICUT
DRAINAGE EASEMENT

Wet Swale L-1.5

213)

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

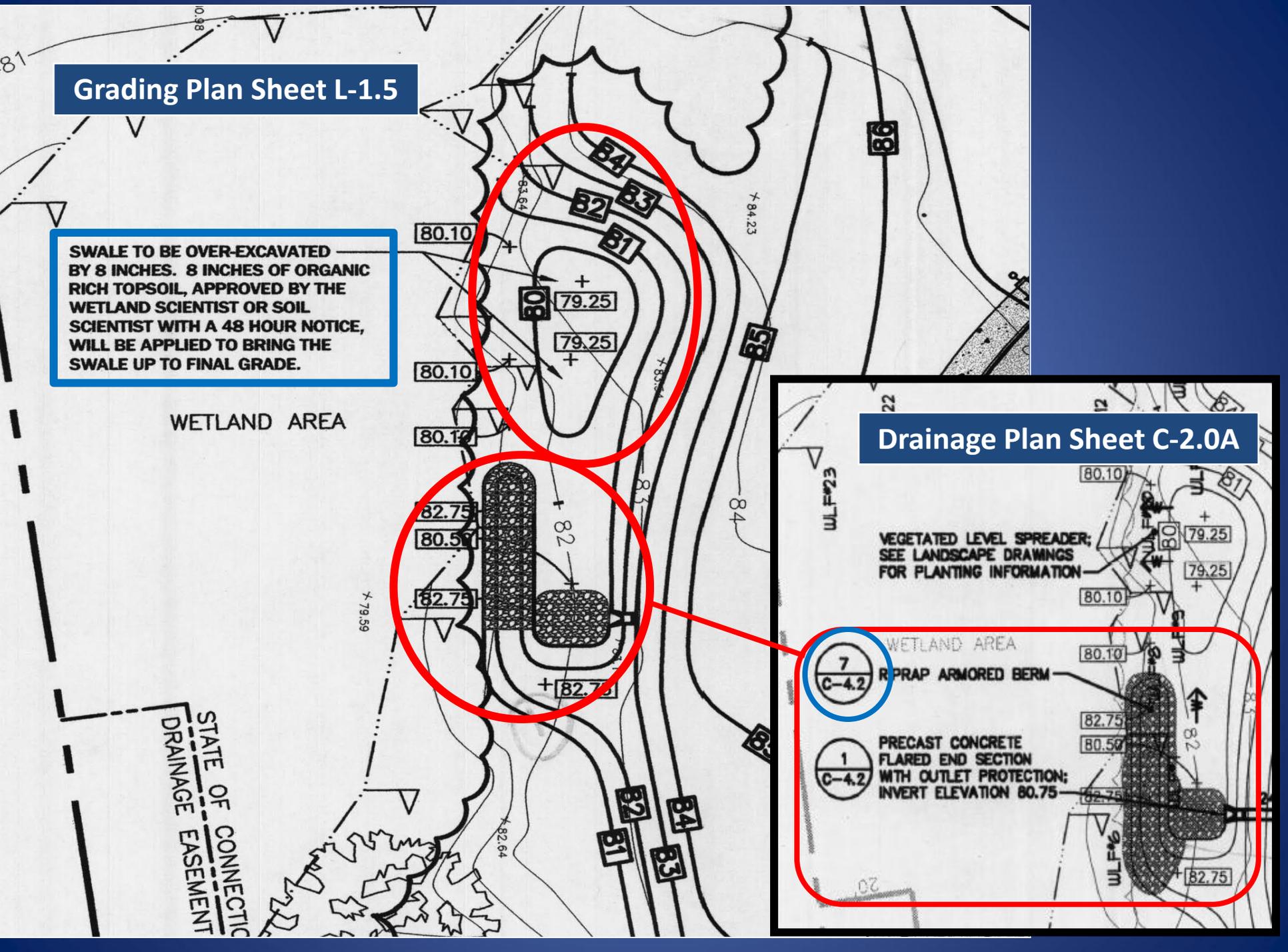
STATE OF CONNECTICUT
DRAINAGE EASEMENT

Drainage Plan Sheet C-2.0A

VEGETATED LEVEL SPREADER;
SEE LANDSCAPE DRAWINGS
FOR PLANTING INFORMATION

WETLAND AREA
R/RAP ARMORED BERM

PRECAST CONCRETE
FLARED END SECTION
WITH OUTLET PROTECTION;
INVERT ELEVATION 80.75





Questions

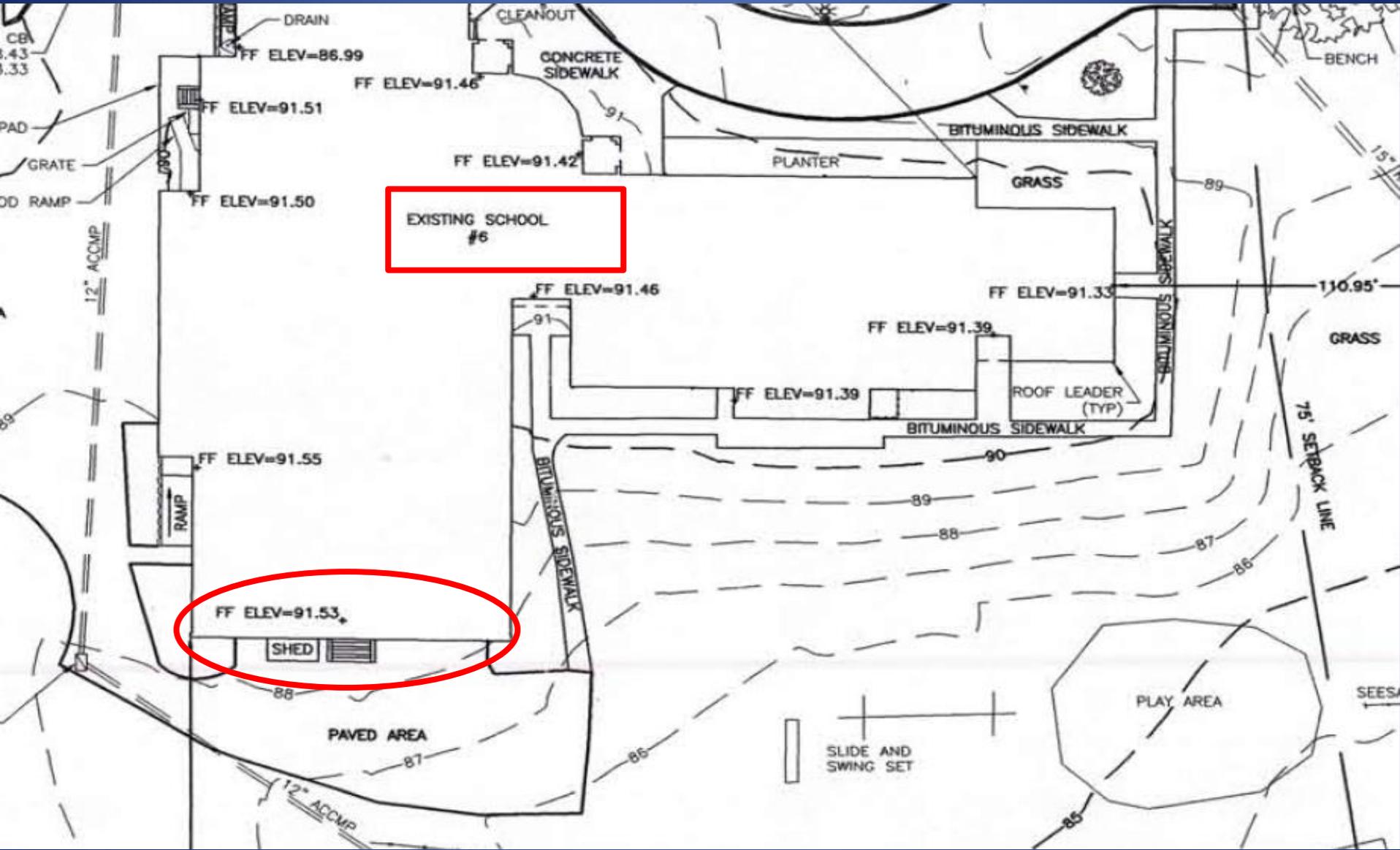
- What is the first floor elevation at the southwest corner of the existing school?
Sheet 1
- When were the plans last revised? Sheet 1
- What is the required setback from the road? Sheet 1
- How many lawn drains are there in the swales adjacent to the parking lots? L-1.5
- What is the elevation of the 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



Goshen Rd

Great Neck

#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..

CLA Engineers, Inc.
CIVIL • STRUCTURAL • SURVEYING

317 Main Street Norwich, Connecticut
(860) 886-1966 Fax (860) 886-9165

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

Boundary and Existing Conditions Plan

**TOWN OF WATERFORD
GREAT NECK SCHOOL**

Great Neck Road & Goshen Road
Waterford, Connecticut

Project No.
CLA-3232G

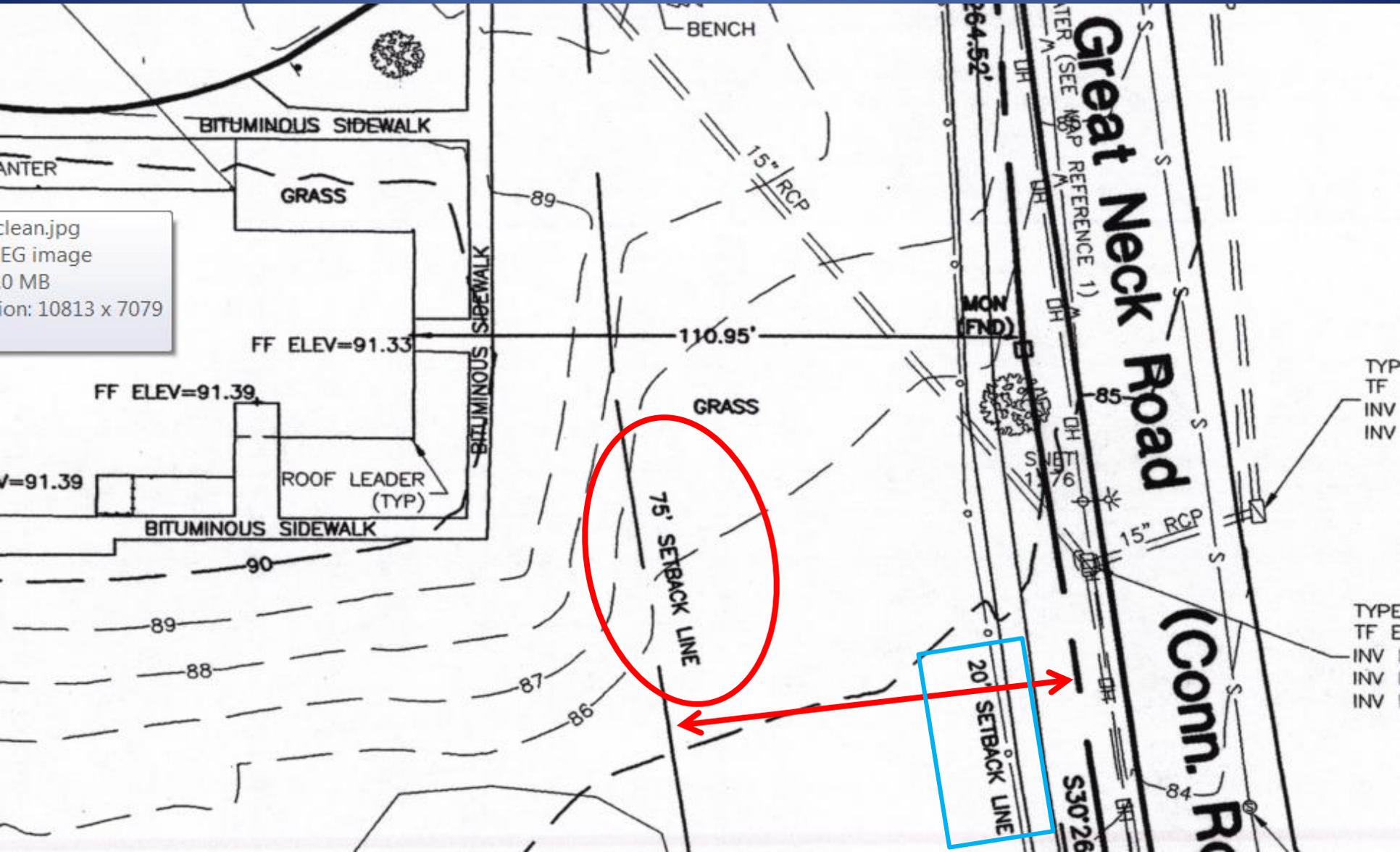
Proj. Engineer
E.M.B.

Date:
04/01/04

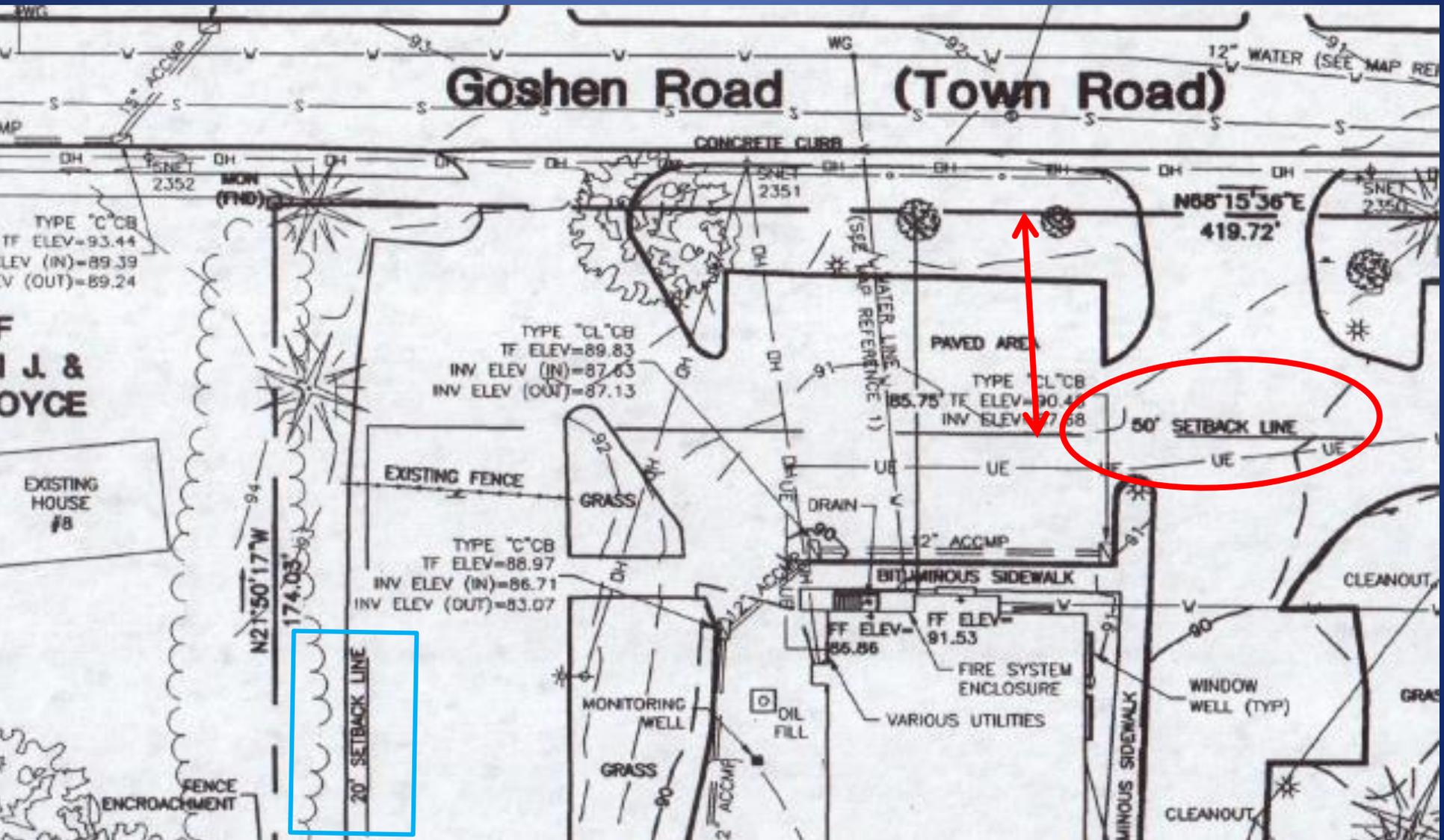
Sheet No.

1

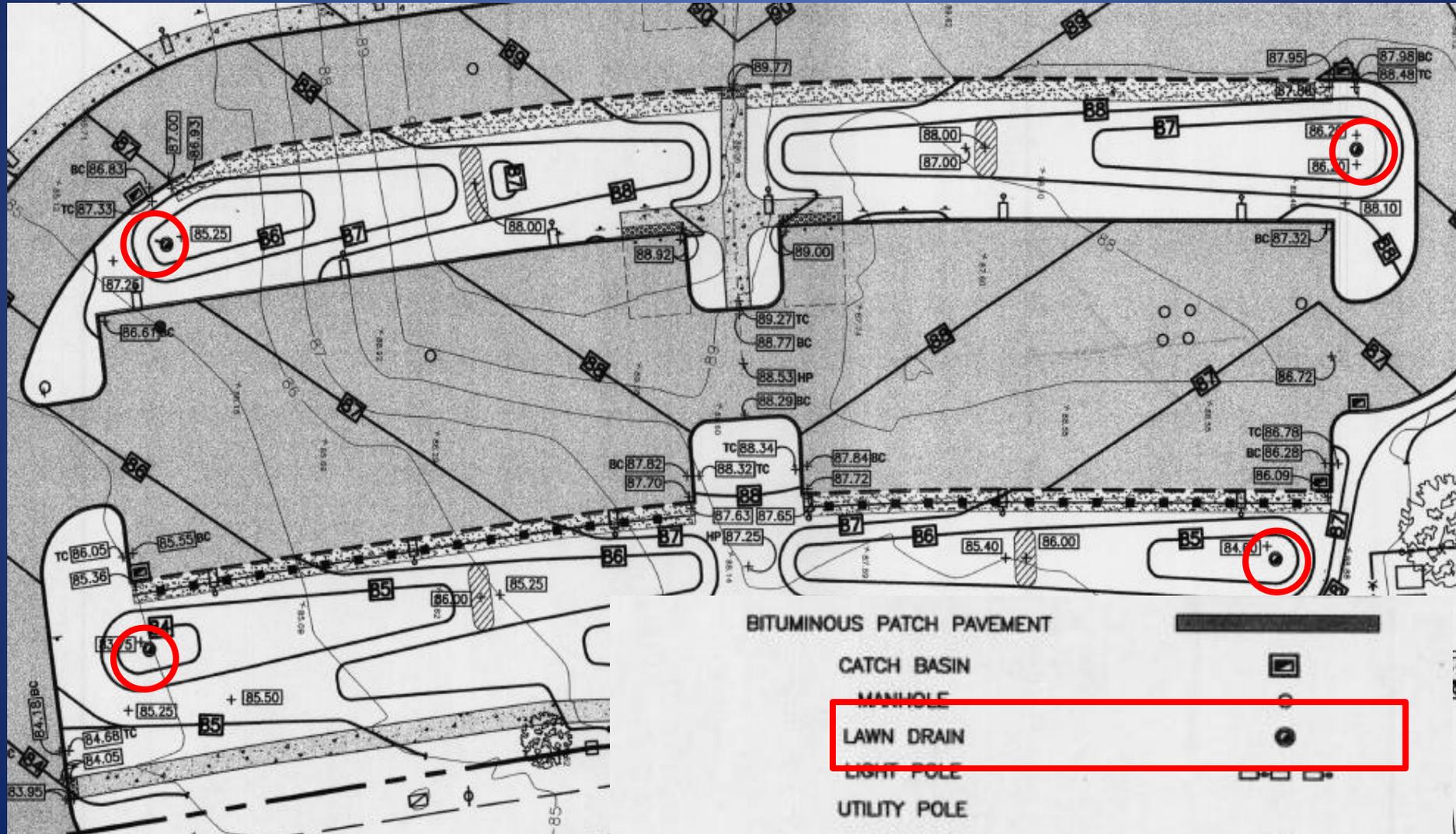
#3 Setback from Great Neck Rd



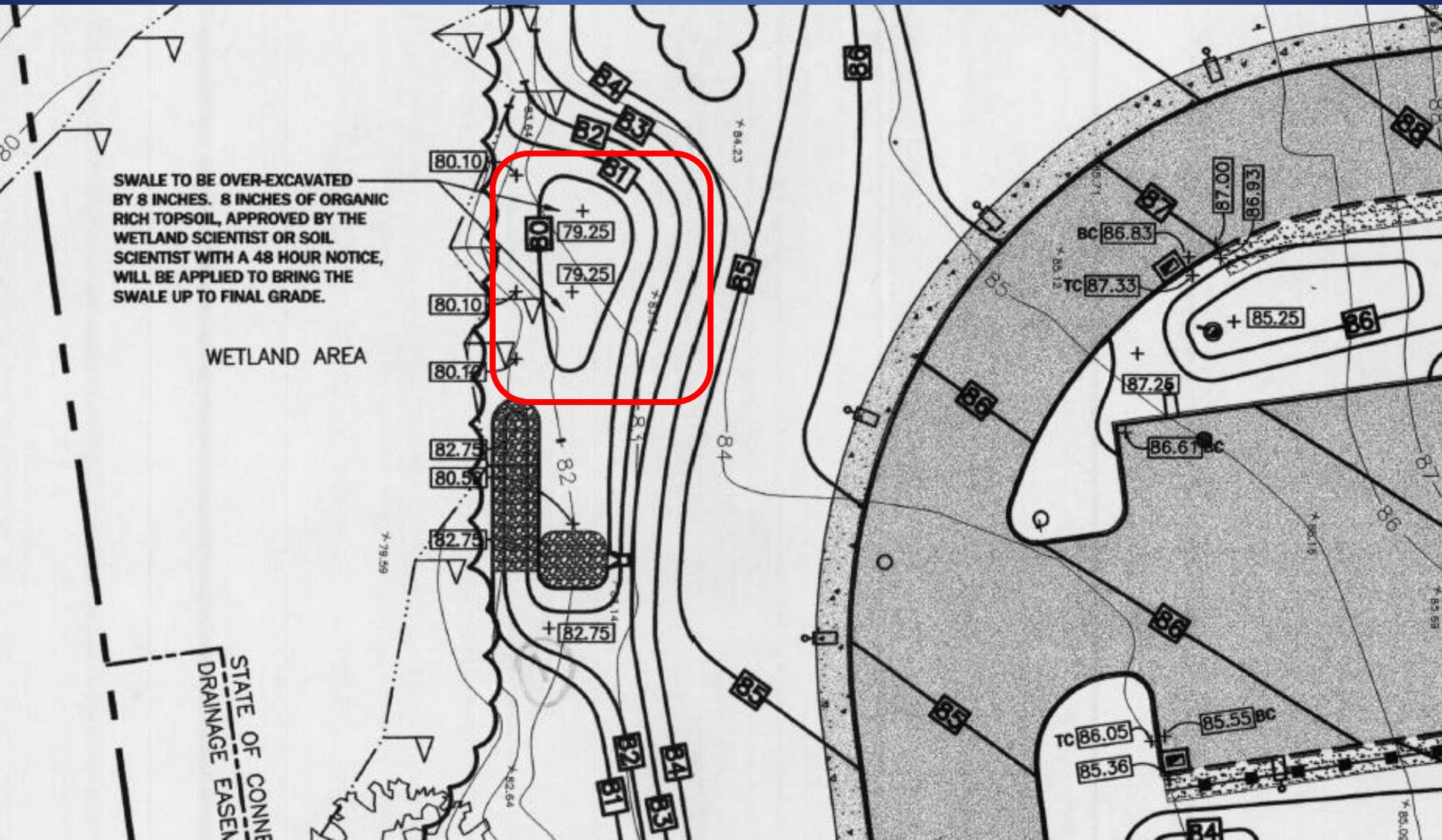
#3 Setback from Goshen Rd



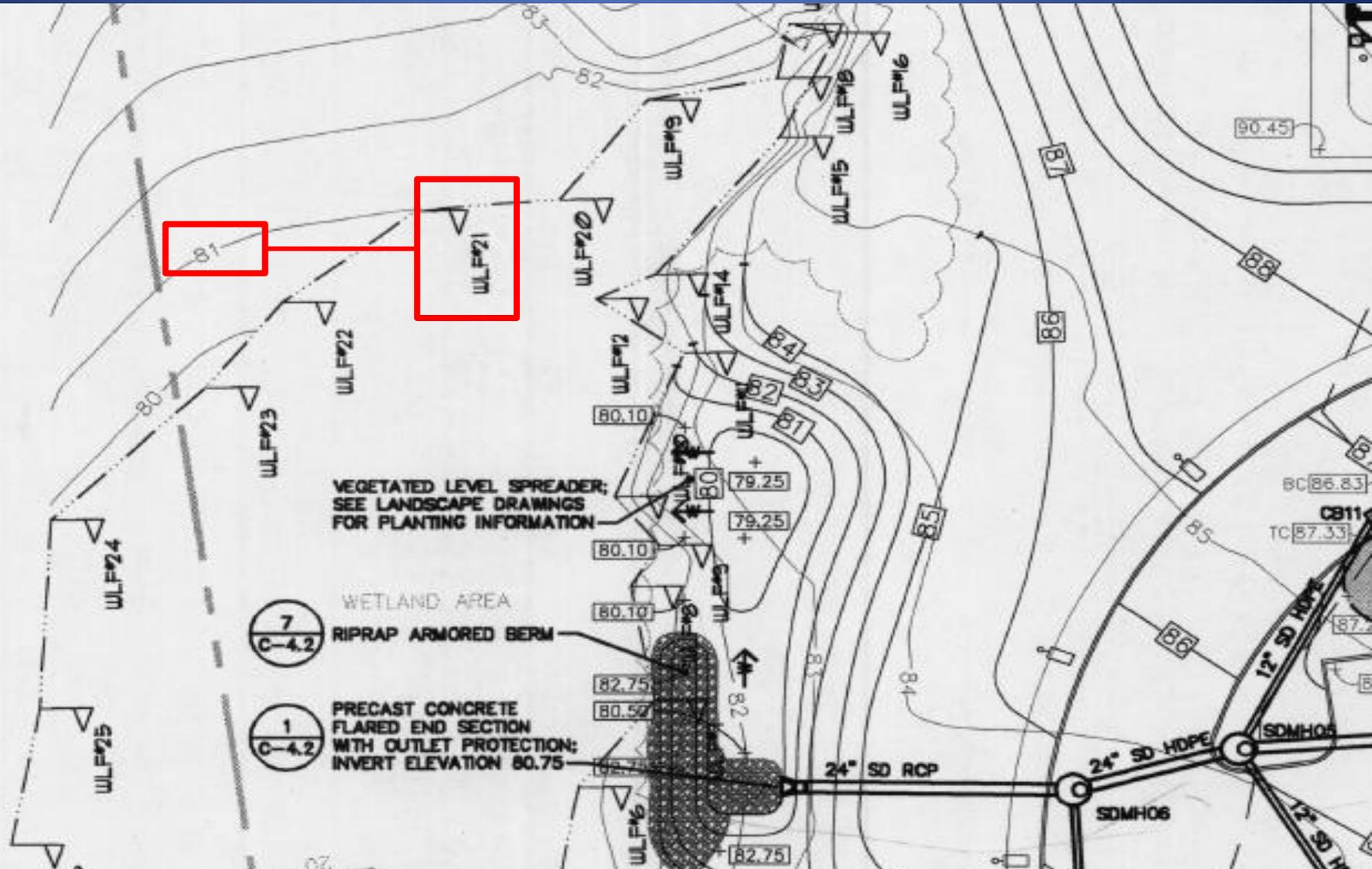
#4--How Many Lawn Drains



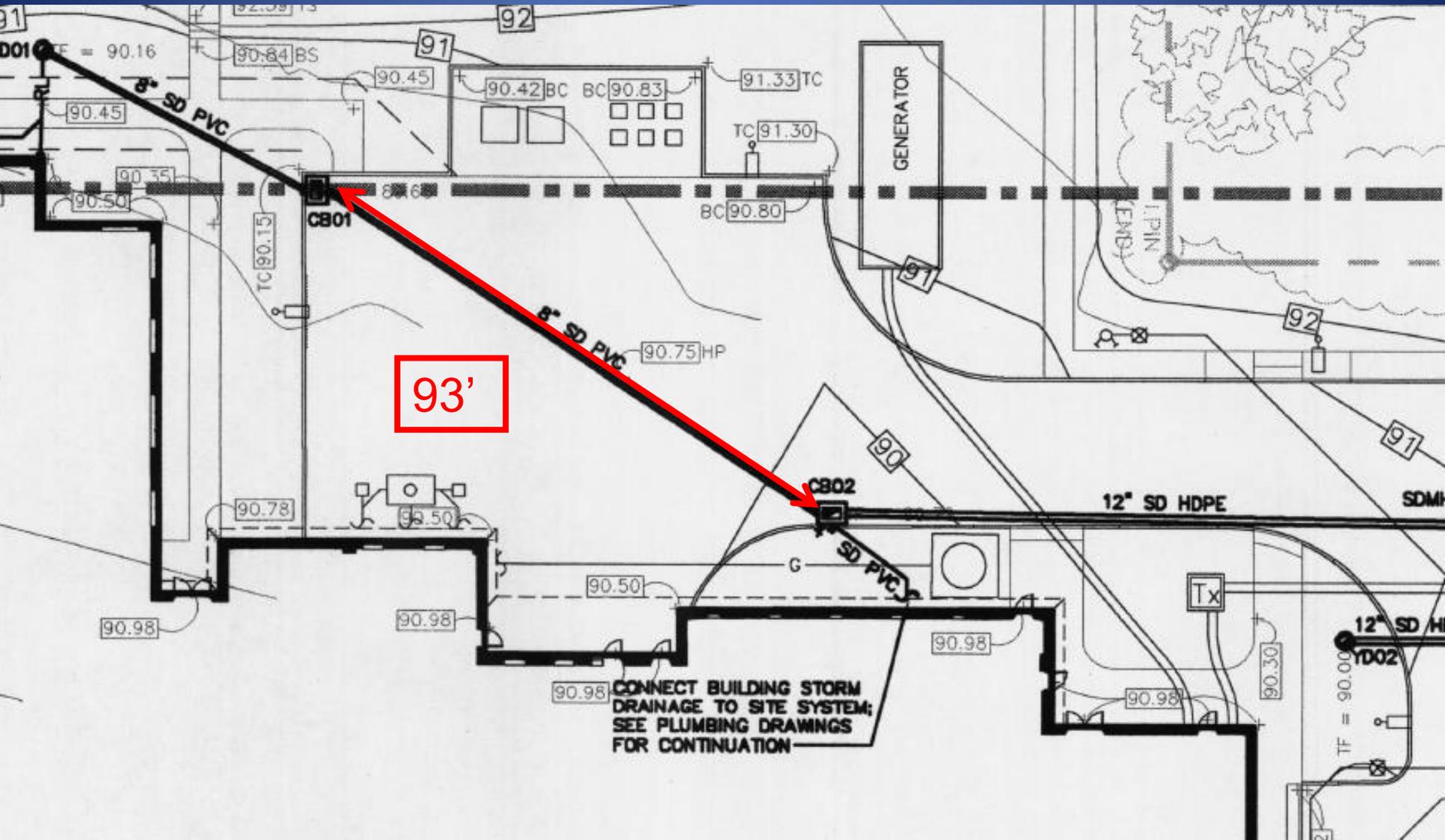
#5 Elevation at Bottom of Wet Swale



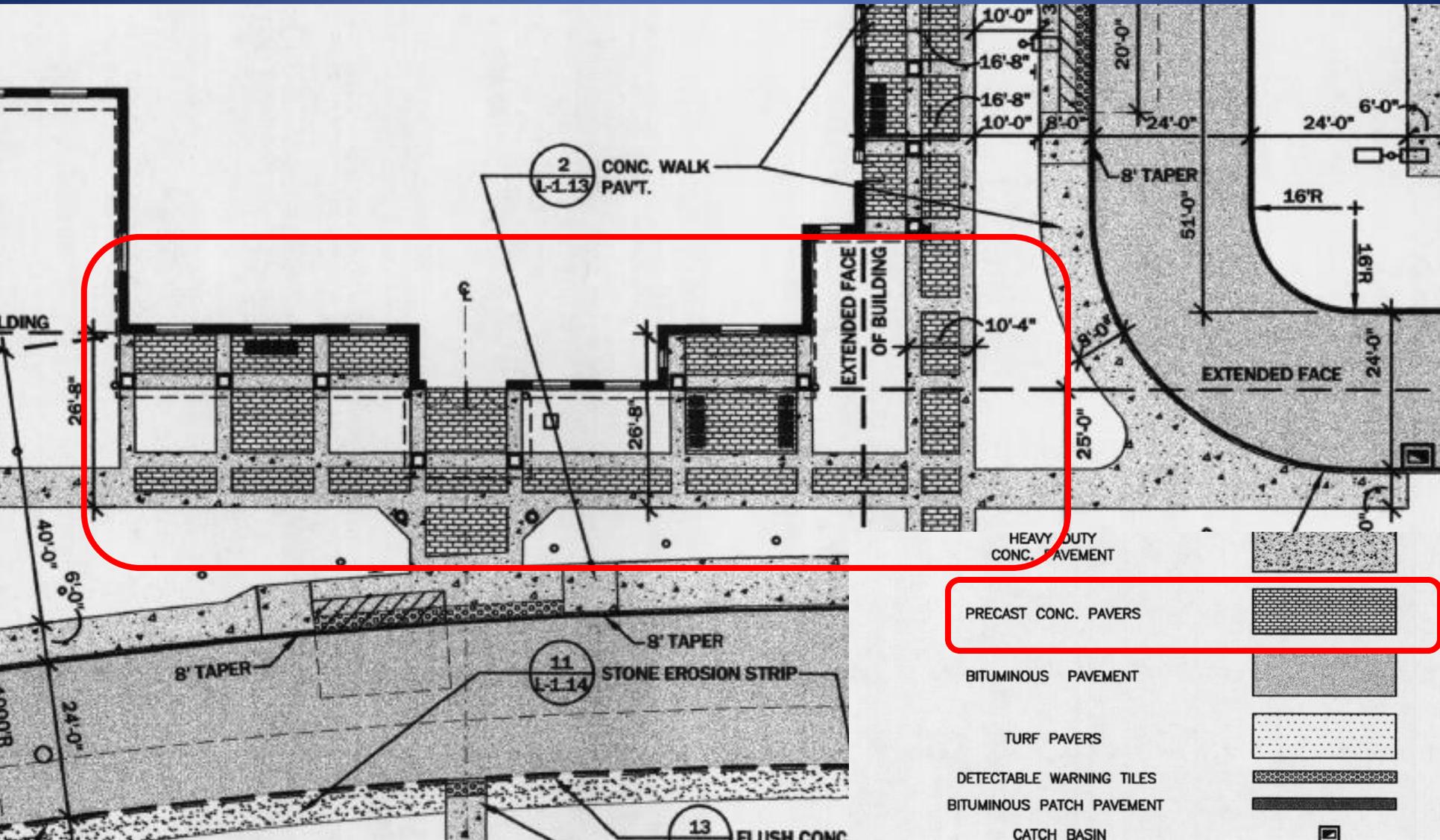
#6 Elevation of Wetlands Flag #21



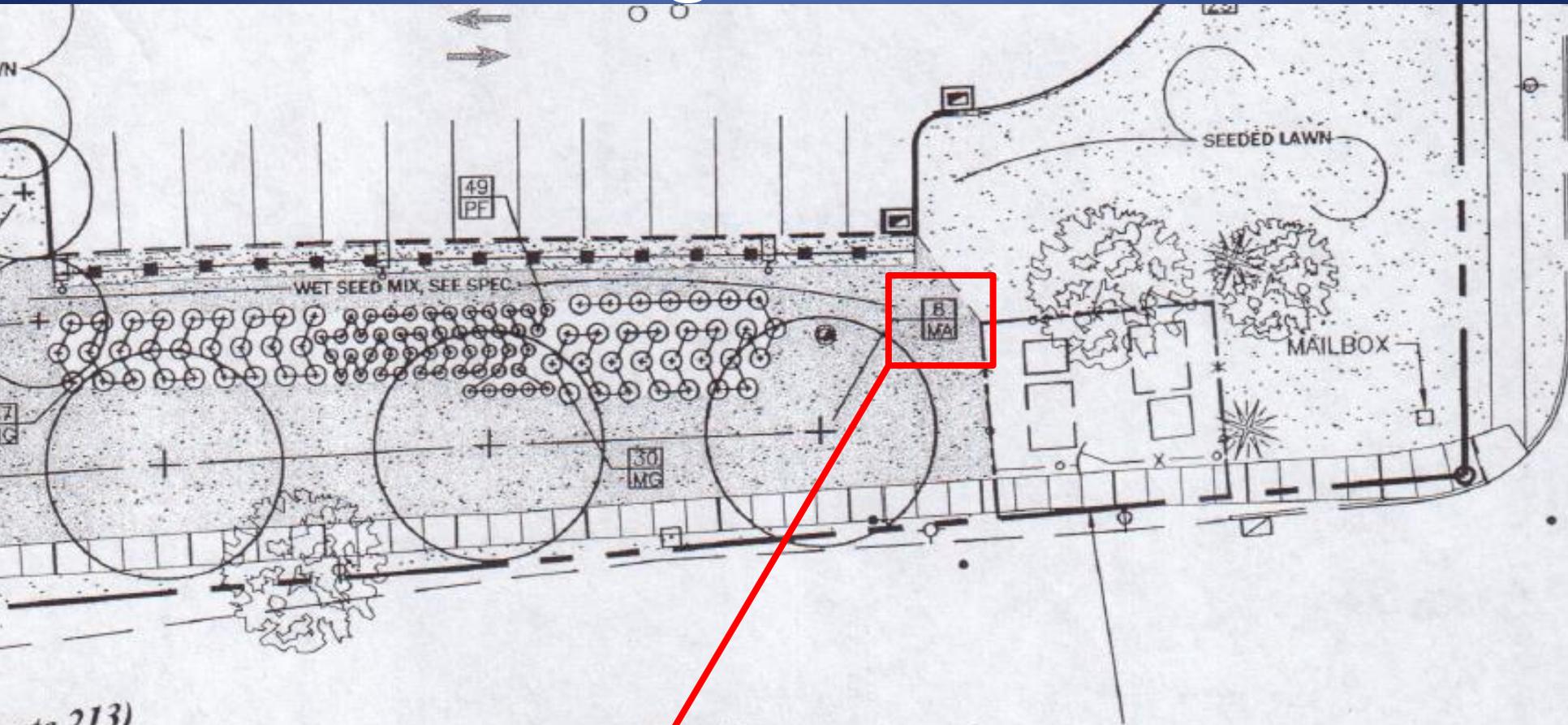
#7 Distance from CB01 to CB02



#9 Sidewalk Treatment at Entrance



#10 Trees Along Great Neck Rd.



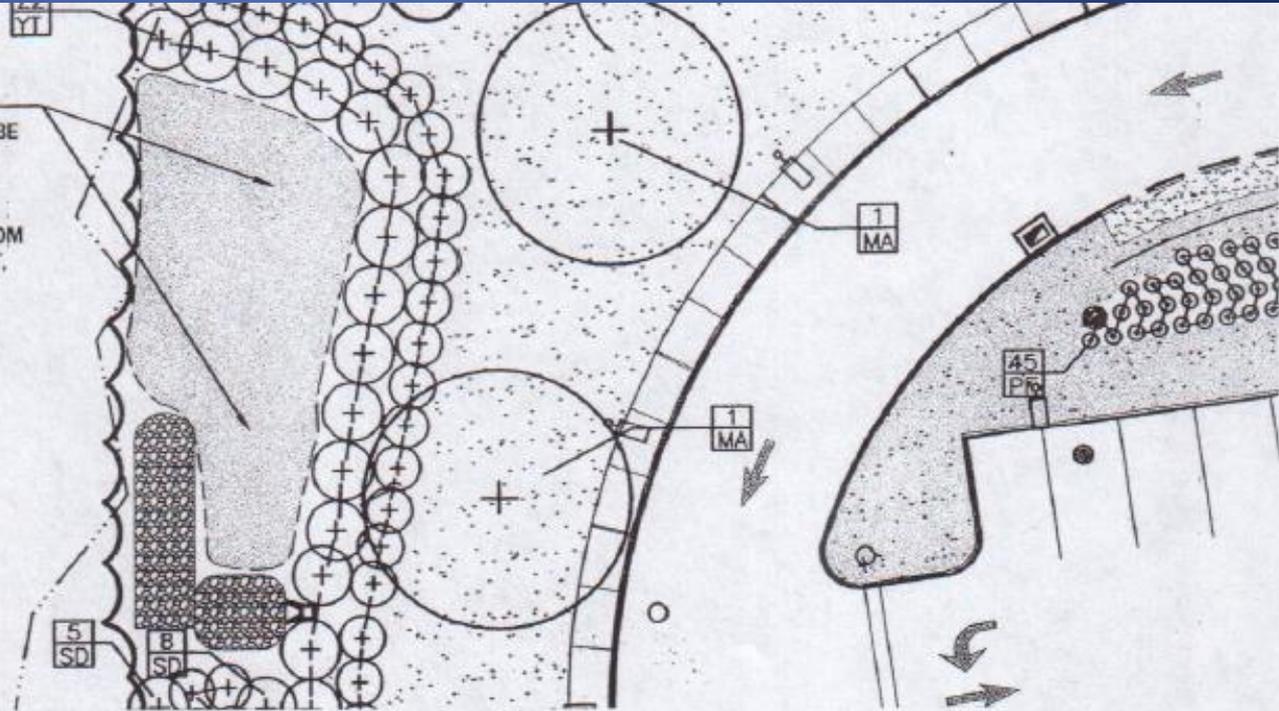
PLANT LIST

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

#11 Plants in Wet Swale

WETLAND PLANTING AREA.
PLANTS CC, CL, LC, JE, & VH WILL BE
 LOCATED IN THE SWALE BY THE
 SOIL OR WETLAND SCIENTIST
 ON-SITE. SWALE TO BE SEEDED
 WITH NEW ENGLAND WETMIX, FROM
 NEW ENGLAND PLANTS, AMHERST,
 MA AT 1lb PER 2000 SQ. FT.

WETLAND AREA



PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	REMARKS
-----	----------------	-------------	------	------	---------

Wetland Plants

CC	<i>Carex comosa</i>	Bearded Sedge	36	1 QT.	2' O.C.
CL	<i>Carex lupulina</i>	Hop Sedge	45	1 QT.	2' O.C.
LC	<i>Lobelia cardinalis</i>	Cardinal Flower	50	1 QT.	2' O.C.
VH	<i>Verbena hastata</i>	Blue Vervain	112	1 QT.	3' O.C.
JE	<i>Juncus effuses</i>	Soft Rush	35	1 QT.	4' O.C.
MG	<i>Myrica gale</i>	Sweetgale	127	18"-24" SPD.	4'-6" O.C.

Follow the Rain





Goshen Rd



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University of Connecticut
College of Agriculture & Natural Resources
Center for Land Use Education & Research

RESEARCH OUTREACH EDUCATION IMAGERY & DATA TOOLS

Research
Project Guide

Education
Program Guide

- NEMO Program
- National NEMO Network
- Land Use Academy
- Forestry
- Green Valley Institute
- Geospatial Technology Program
- Land Use Planning Program

Imagery & Data
Data Guide

TRAINING & EVENTS

WEBINAR - May 26 - Register Now!

Connecticut's Changing Landscape Project: A User's Guide & Cook's Tour

- basics of the project's remote sensing-based methods
- a brief description of the differences

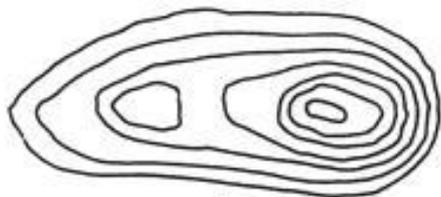
Geospatial Training

- Intro to GPS 5/13 - 5/14
- Making Good Maps 6/12
- Intro to GPS 6/25 - 6/26

Click here for more information on the geospatial trainings.

Website: clear.uconn.edu

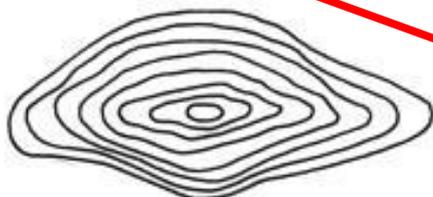




1



A



2



B



3



C



4



D



5



E



6



F

