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**TOWN OF NEWBURGH  
PLANNING BOARD  
TECHNICAL REVIEW COMMENTS**

**PROJECT: U.S. CRANE & RIGGING**  
**PROJECT NO.: 2016-14**  
**PROJECT LOCATION: SECTION 97, BLOCK 1, LOT 21.2**  
**REVIEW DATE: 15 MAY 2017**  
**MEETING DATE: 18 MAY 2017**  
**PROJECT REPRESENTATIVE: MASER CONSULTING**

1. A Noise Impact Evaluation has been submitted for the Boards use. Noise Impact Study is under review.
2. Details of the noise attenuating fence/barrier should be added to the plans.
3. Details of the retaining wall which has been incorporated to the rear of the properties fronting on Route 17K should be added to the plans.
4. Notes should be added to the plans identifying the architectural sound attenuating features of the building proposed.
5. Notes should be added to the plans restricting loading and unloading of equipment and materials. Noise Study identifies that all loading and unloading will occur within structures.
6. Notes regarding other management practices to attenuate sound should be added as requirements. The summary of recommended mitigation measures proposes examples and possible building wall attenuation treatments. The report should identify actual materials to be utilized. Notes and other measures identified that are to be implemented should be added to the plans so they are enforceable by the Building Department.
7. We would recommend extending the landscaping along the entire length of the sound barrier walls.
8. City of Newburgh Flow Acceptance Letter must be received prior to the Planning Board taking any action on the project.
9. Hydrant location should be confirmed with Gerry Canfield's office.



10. A Stormwater Facilities Control Maintenance Agreement must be executed.

11. Three parking spaces are located in the " front yard" on the emergency access road from Stewart Avenue. Design guidelines suggest no parking in front yard setbacks. The Applicant's representative has stated this is not a conventional front yard as access to the site is restricted to emergency vehicles from this location. We would recommend the Board consider a waiver of the design guidelines at this location for the parking within the front yard setback. The reason for the waiver would be the emergency access only and appropriate landscaping provided at the emergency access drive.

Respectfully submitted,

***McGoey, Hauser and Edsall  
Consulting Engineers, D.P.C.***

---

Patrick J. Hines  
Principal

PJH/kbw



**MASER**  
CONSULTING P.A.

## Noise Impact Evaluation

18 Route 17K  
Stewart Avenue and NYS Route 17k  
Town of Newburgh, Orange County, NY

May 4, 2017

*Prepared For*

18 Route 17K, LLC

*Prepared By*

Maser Consulting P.A.  
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Philip J. Grealy, Ph.D., P.E., Principal  
License No. 59858

MC Project No. 16001017A





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**A. PROJECT DESCRIPTION AND LOCATION (Figure No. 1)**

18 Route 17K, LLC proposes an approximately 62,000 square foot steel fabrication facility with additional ancillary office space of 4,000 square feet on the property known as the Newburgh Auto Auction located at 18 Route 17K in the Town of Newburgh, New York. The portion of the property which would be dedicated to this facility is located in the southwest corner of the site generally east of Stewart Avenue in proximity of the Putnam Street intersection and north of NYS Route 17K. The location of the site is show on Figure No. 1. Under current conditions, the primary noise sources in the area are associated with the traffic generated on Route 17K and Stewart Avenue and noise generated by the current use of the site.

**B. SCOPE OF EVALUATION**

This evaluation has been prepared to identify existing noise levels in the area and analyze future conditions with the proposed operations to identify any potential impacts due to increased noise generated by the project due to increased traffic, onsite equipment movement and assembly operations. In addition, to evaluate future conditions with the operation, site plan information regarding the building placement, level of traffic, and other activities to be occurring on the site were identified. The existing sound levels were measured to obtain ambient background noise levels along the south and west perimeter of the site including along Stewart Avenue. Traffic volume data on both Stewart Avenue and on Route 17 K were also identified. A description of the noise receptors, noise guidelines, and the analysis methodology utilizing and evaluating the noise levels is described in the following sections.

**C. CHARACTERISTICS OF ENVIRONMENTAL NOISE (Tables No. 1 and 2)**

A single value of broad band noise levels is established using a frequency weighting that simulates human perception to characterize the noise environment and to asses any impact on noise sensitive areas. Governmental noise criteria generally specify noise level guidelines in the units of A-weighted noise or decibels (dBA). The A-weighted noise measurement has been found to correlate well with the response of the human ear which is relatively insensitive to low frequencies. Table No. 1 provides a summary of some typical A-weighted noise levels. Governmental guidelines typically stipulate that noise impacts be evaluated in terms of noise levels designated  $L_{eq}$  or  $L_{10}$ . The  $L_{eq}$  (Equivalent Sound Level) is an equivalent level "energy averaged" over a specified period of time. This measure is useful for characterizing environmental noise including highway/roadway traffic noise since it specifically accounts for both the duration and magnitude of sound. Other descriptors include  $L_{max}$  and  $L_{90}$ . The  $L_{max}$  represents the maximum level observed for a specific time period of observation while the  $L_{90}$  represents the noise level which is exceeded 90% of the time.

Community noise guidelines are specified by several agencies including the Environmental Protection Agency (EPA), the Federal Highway Administration (FHWA),

and the Department of Housing and Urban Development (HUD). These agencies have established certain criteria for acceptable noise levels for various land uses and development types. The FHWA guidelines summarized in Table No. 2 recommend an exterior noise level of 57 dBA expressed in terms of  $L_{eq}$  for activity Category A or activity Category B and the FHWA recommends an exterior level of 67 dBA and for Category C, a level of 72 dBA.

The NYSDEC publication, *Assessing and Mitigating Noise Impacts*, revised February 2, 2001, provides guidance for evaluating noise impact assessments. It identifies typical thresholds for establishing significant impacts, and discusses potential methods of avoidance and measures to reduce or mitigate noise impacts. This publication sets forth thresholds that are recommended to be used in determining whether a noise increase due to a project may constitute a significant adverse impact. The guidelines summarize the following:

- Increases in noise of under 3 dBA should have no appreciable effect on receptors;
- Increases of between 3 to 6 dBA may have the potential for impacts where the sensitive receptors such as hospitals or schools are present;
- Increases of more than 6 dBA may require a more detailed analysis of potential impacts depending on the ambient noise levels under existing conditions and the character of surrounding receptors; and
- Increases of 10 dBA are very significant and mitigation measures should be implemented to avoid impacts in such cases.

The NYSDEC document also suggests that the addition of a noise source should generally not result in the  $L_{eq}$  noise level exceeding 65 dBA near residential receptors.

Also, Chapter 125 of the Town of Newburgh Code deals with noise regulations. The code addresses maximum permitted sound levels, which are set forth in section 125-5. Based on that portion of the code, noises occurring from 10:00 PM to 8:00 AM are limited to 70 decibels for B, 1B, and I Zoning districts and 56 decibels for various R-Districts.

#### **D. EXISTING NOISE LEVELS (Figure No. 1)**

A noise measurement survey was conducted at locations (receptors) surrounding the property to provide a representative sampling of existing noise levels. The receptor locations were chosen to include representative residential and commercial receptors within close proximity to the site and included areas to the south and west of the site.

Noise measurements were taken to identify ambient noise levels in the area. Traffic volumes were also observed along Stewart Avenue and Route 17K. Hourly historical traffic data for Route 17K was also obtained from the NYSDOT. The noise measurements were taken with Bruel and Kjaer Type 1-Precision Integrating Sound Level Meter-Type 2236. The meter was calibrated prior to actual measurements utilizing a standard Bruel and Kjaer Acoustical Calibrator Model No. 4231. The actual measurements and calibration procedures followed were completed in conformance with the American National Standards Institute (ANSI) criteria.

The microphones used in the measurements were located without obstruction from stationary objects at a height of five feet above a ground surface. Measurements taken included a  $L_{eq}$  level, a  $L_{10}$  level, and a  $L_{max}$  level. The measurements were taken during on Wednesday, April 5, 2017. Weather conditions were clear on the day of the measurements. Existing measured noise levels represented in terms of  $L_{eq}$  (dBA) during the peak periods ranged from the mid 60's to mid 70's along Route 17K and mid 50's to mid 60's along Stewart Avenue. At certain times during the measurements,  $L_{max}$  levels closer to Route 17K were observed exceeding 85 dBA during daytime hours. Also, the noise from the Auto Auction on-site equipment's back up alarms was noticeable along Stewart Avenue. The receptor locations considered are shown on Figure No. 1 was considered.

## **E. NOISE ANALYSIS METHODOLOGY**

In order to evaluate the potential noise impacts, two criteria are generally utilized:

1. Will the predicted noise levels exceed the recommended guidelines for a particular area?
2. Will there be a significant increase above the existing levels (i.e. 3 dBA or greater).

As indicated previously, community noise guidelines are published by several Federal Agencies including the Environmental Protection Agency (EPA), the Federal Highway Administration (FHWA), and the Department of Housing and Urban Development (HUD). These guidelines establish recommended design noise levels for specific land uses. With respect to roadway and traffic noise, FHWA has established certain guidelines for various land use categories. The FHWA recommends a  $L_{eq}$  design level of 72 dBA for commercial areas, 67 dBA for residential areas, and 57 dBA for other more noise sensitive areas. Table No. 2 summarizes the design level/land use relationships for various land use categories. Additional discussion of how the existing and future noise levels compare to the various noise guidelines is presented in the next section.

Table No. 3 summarizes the relationship between noise increases and significance of impacts. It is important to note that in order to produce a 3-dBA increase in the sound pressure level, which represents a perceptible change relative to human response, a doubling of the noise source (i.e. traffic volume) must occur. Furthermore, with regard to sound propagation in the air, as distance doubles from the sound source the amplitude drops by half. This is a drop of approximately 6 dBA for a point source. For a line source such as mobile sources, reductions of 3 dBA for doubling distances are encountered under typical field conditions. For example, if a highway has an hourly volume of 2,000 vehicles and a  $L_{eq}$  of 62 dBA and the volume increases to 4,000 vehicles with similar speeds and vehicle mix, the  $L_{eq}$  would increase to 65 dBA. To evaluate potential sound level impacts with respect to the proposed assembly operation, the existing measured noise levels were summarized and projected to future conditions.



## **F. PROPOSED OPERATIONS AND FUTURE SOUND LEVELS**

Traffic to and from the site will be from the site onto Route 17K west to Route 300 north to enter the New York State Thruway. No truck traffic on local roads is proposed. The access connection to Stewart Avenue will be a gated emergency access only. Traffic from the site would be periodic or sporadic and not a constant flow of vehicles. Typical hours of operation for the steel fabrication facility is 7:00 AM to 5:00 PM with possible peak days extended from 6:00 AM to 6:00 PM. Raw steel deliveries occur in the morning where a delivery truck would enter the site from Route 17K and enter the proposed 62,000 square foot building to be offloaded by building mounted cranes. All steel fabrication takes place inside the building. The unloaded truck then leaves the building and exiting the site onto Route 17K.

Jockey tractors move these trailers into the building where the trailers are loaded and then the loaded trailers are parked in the yard for pick up. Tractor trailer drivers hook up these loaded trailers and deliver steel to the job for assembly.

Typically trailers may enter and leave the yard at 5:00 AM and return at 5:00 or 6:00 PM. Tractor trailers may enter and leave the site 24 hours a day. Loading and unloading of these trailers is done inside the fabrication building.

The area adjacent to the site is characterized by a mix of residential and commercial uses. Immediately west of the proposed building is an existing industrial building and an existing multi-family residence on Stewart Avenue. On the west side of Stewart Avenue there are single family residences. Along Route 17K and south of the site, the former residential buildings have been converted to a mix of office, residential, and other commercial uses. It should also be noted that the existing commercial buildings are located less than 50 feet of NYS Route 17K and traffic noise levels are predominant with  $L_{max}$  levels exceeding 85 dBA during daytime hours.

The vehicle movements, to and from the two bays on the north side of the building, are in an area where the proposed grade provides an earth barrier. In the southeastern area, where traffic movements will occur entering to and from the building, the line of sight from that area looking south will result in sound propagating from this area of the site (see below for recommended improvements).

The proposed activities on the site, including tractor movements, are expected to have sound levels of between 75 to 85 dBA at a 50' reference distance. This would result in  $L_{eq}$  levels of between 65 to 75 dBA at the southern and southwestern property lines. Therefore, as summarized below, several mitigation measures were identified to bring the levels in compliance with Town requirements.

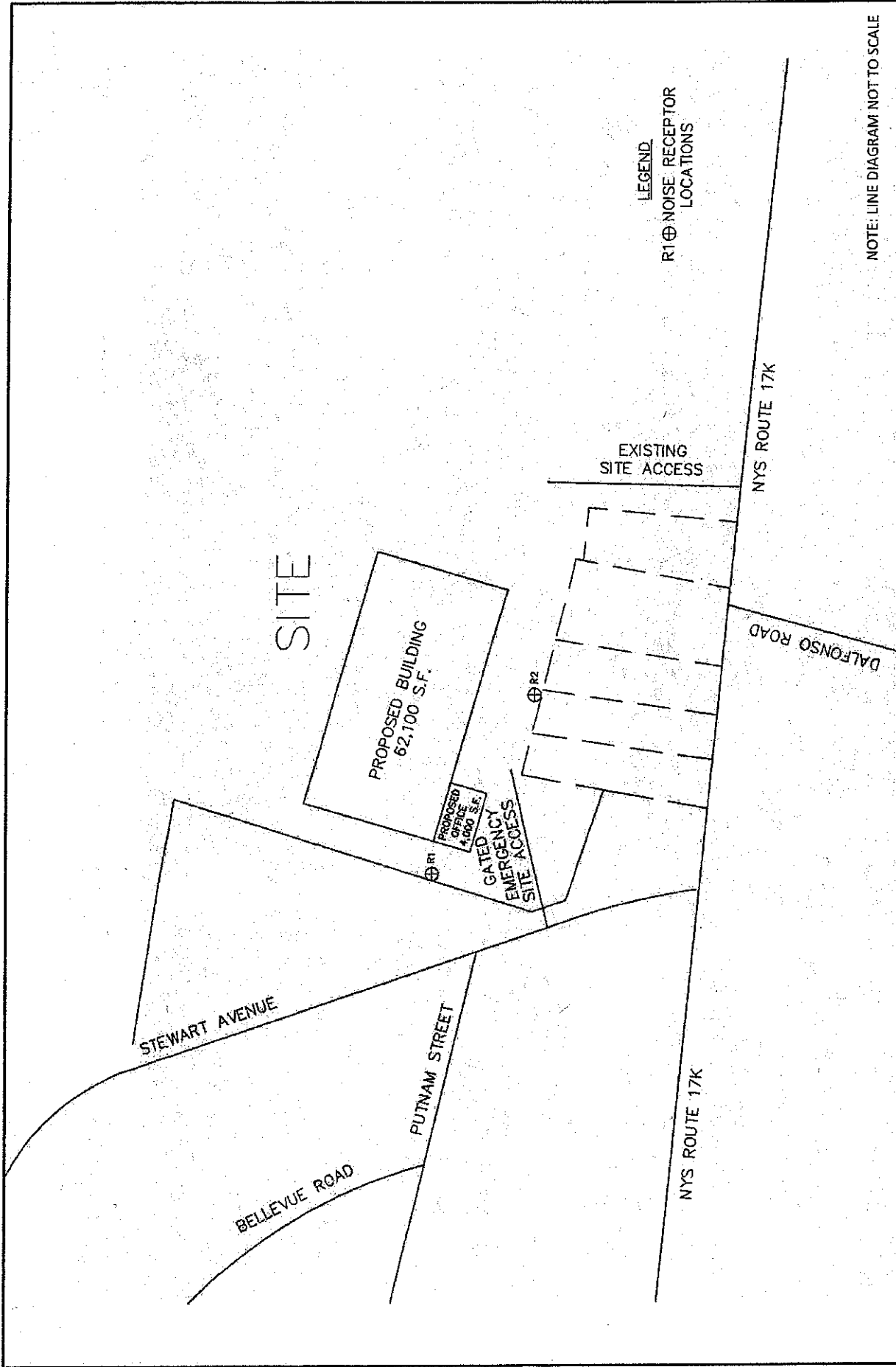
## **G. SUMMARY OF RECOMMENDED MITIGATION MEASURES**


Based on the results of the evaluation, several mitigation measures are recommended to minimize potential noise impacts as a result of the proposed steel fabrication facility. These include the following:

1. Sound Transmission Class (STC) is a single number classification used to rate the sound transmission loss of a wall. A higher STC value indicates a more efficient wall type in reducing sound transmission. Data was supplied for possible building wall attenuation treatments. Included in Appendix C are the data sheets summarizing the results for the Thermal Safe Panel, which had an STC rating of 31. This is recommended as the minimum for the site.
2. The difference in grade and presence of the new building will provide attenuation between the residential areas on Stewart Avenue and the sound levels from the proposed activities on the site. In fact, the new building should also act as a partial sound barrier from the existing activities on the eastern portion of the site. In addition to the provision of the Thermal Safe Panels or equivalent as part of the building construction, it is also recommended that along the south and southwest property lines that a sound barrier treatment be provided. This would extend along the south of the proposed internal site connector road as well as along the southwest area near the parking area for the office building. This will reduce the propagation of sound resulting from vehicle movements to and from the eastern building entrances by cutting off the line of sight to the adjacent properties.
3. The equipment used on-site will have to be inspected periodically to ensure that properly functioning muffler systems are used on all equipment.
4. While on the site, all equipment should not idle unnecessarily.
5. Alternative safety alarm systems should be utilized on the loading equipment. For example, in lieu of continuous backup beepers, infrared backup alarms or the equivalent should be used to minimize the use of the backup beepers.
6. In addition to the recommended building construction/insulation, sound attenuation measures, and the provision of baffling/enclosures around any HVAC equipment, should also be implemented. The HVAC equipment should also be positioned to face away from the residential areas.
7. As summarized in Table N-1, the provision of the above improvements will result in future levels at the adjacent property lines that will be in compliance with the Town Code and NYS DEC guidelines for avoiding adverse impacts.

APPENDIX "A"


FIGURES



	
JOB NUMBER:	DATE:
16001017A	4/19/2017
FIGURE NUMBER:	

18 RT 17K, LLC  
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

NOISE RECEPTOR LOCATIONS



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email: solutions @ maserconsulting.com




NOTE: LINE DIAGRAM NOT TO SCALE

JOB NUMBER:	DATE:
16001017A	4/19/2017
FIGURE NUMBER:	
1	

18 RT 17K, LLC  
 TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

NOISE RECEPTOR LOCATIONS

**WESTCHESTER OFFICE**  
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**MASER CONSULTING, LLC**  
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 State of N.Y. Certificate of Authorization: 008871

New Jersey New York Pennsylvania Virginia  
 Customer Loyalty through Client Satisfaction



APPENDIX "B"

TABLES

TABLE NO. 1

RANGE OF TYPICAL ENVIRONMENTAL A-WEIGHTED NOISE LEVELS

<u>SITUATION</u>	<u>NOISE LEVEL (Dba) (1,2)</u>
Discotheque/Rock Band at 5m	110
Jet Flyover at 1000 ft.	105
Gas Lawn Mower at 3 ft.	98
Inside Subway Train	95
Shouting at 3 ft.	78
Gas Lawn Mower at 100 ft.	70
Normal Speech at 3 ft.	65
Background Office Noise	50
Library	35 - 40
Optimum Sleeping Level	35 or less
Threshold of Hearing	5

Sources:

- 1) *The Audible Landscape: Manual for Highway Noise and Land Use*, Table A-16, Page 91, USDOT, 1974
- 2) *Transportation Planning Handbook*, Institute of Transportation Engineers, Figure 8-2, 2<sup>nd</sup> Edition, 1999

TABLE NO. 2

FHWA DESIGN LEVELS

Activity Category	Design Noise Level (dBA)		Description of Activity Category (2)
	$L_{eq}$	$L_{10}$	
A	57 (EXTERIOR)	60 (EXTERIOR)	Tracts where serenity and quiet are especially important.
B	67 (EXTERIOR)	70 (EXTERIOR)	Residences, motels, schools, churches, hospital, etc.
C	72 (EXTERIOR)	75 (EXTERIOR)	Developed lands other than those above.
E	52 (INTERIOR)	55 (INTERIOR)	Building interiors.

(1) - Source: Federal Highway Administration, *Procedures for the Abatement of Highway Traffic Noise and Construction Noise*, Federal Register 41 (80), Washington, D.C.

(2) - Either  $L_{eq}$  or  $L_{10}$  can be used - not both - and an hourly measure applies. The land-use descriptions are further qualified in the reference, and a category D is also reserved for undeveloped land. The interior noise levels may be established by subtracting from outdoor levels the attenuation expected of the particular wall and window constructions involved.

TABLE NO. 3

HUMAN REACTION TO INCREASES IN SOUND PRESSURE LEVEL

<u>INCREASE IN SOUND PRESSURE (dBA)</u>	<u>HUMAN REACTION</u>
2 - 3	Barely Perceptible
3 - 5	Noticeable
10	Somewhat Intrusive - Doubling of Loudness
10 - 15	Very Noticeable
15 - 20	Objectionable
Over 20	Very Objectionable to Intolerable

Source:

- 1) *Fundamentals and Abatement of Highway Traffic Noise*, FHWA, 1973

**Table N-1**  
Summary of Projected Future Noise Levels (Leq-dBA)

Receptor	Build	Build w/Building Insulation	Build w/BI & Sound Barrier
R1	68.5	60.5	53.9
R2	71.0	64.7	56.7

Notes:

- 1) Levels shown are at site property line at receptor locations identified on Figure 1.
- 2) Future Levels shown are based on internal building sound sources and external mobile sources.
- 3) Levels for "with Building Insulation" are based on installation of Thermal Safe Insulated Panels (Thickness 4") or equivalent.
- 4) Levels for "with South Barrier" include an 8' high AIL-PVC Soundwall or equivalent in addition to the building insulation treatment.

# **NYSDOT HISTORICAL DATA**

New York State Department of Transportation  
Traffic Count Hourly Report

ROUTE #: NY 17K ROAD NAME: FROM: ACC RT 871  
 DIRECTION: Eastbound FACTOR GROUP: 30 REC. SERIAL #: 9555  
 STATE DIR CODE: 1 WK OF YR: 25 PLACEMENT: 0.56 mi E of Rt 300  
 DATE OF COUNT: 06/22/2011 @ REF MARKER: 17K83011201  
 NOTES LANE 1: EB Travel Lane ADDL DATA:  
 NOTES LANE 2: EB Passing Lane COUNT TYPE: VEHICLES  
 COUNTY TAKEN BY: ORG CODE: TST INITIALS: --- PROCESSED BY: ORG CODE: DOT INITIALS: SJW

TO: NEWBURGH WEST CITY LINE  
 COUNTY: Orange  
 TOWN: NEWBURGH  
 LION#: 1014530  
 BIN: 20009570  
 JURIS: NYSDOT  
 CC.Stn:  
 RR CROSSING:  
 HPMS SAMPLE: 20009570  
 BATCH ID: DOT-SJWR8ww26a

DATE	DAY	12	1	2	3	4	5	6	7	8	9	10	11	12	PM	12	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL	DAILY HIGH	DAILY HIGH	DAILY HIGH
22	W	68	37	28	39	48	94	217	449	549	579	618	701	880	983	858	847	888	744	590	428	303	194	101	1082	16	1082	16				
23	T	119	61	48	55	41	110	213	365	532	564	671	763	907	841	785	1082	894	809	618	475	411	240	142	12589	12	12589	12				
24	F	108	88	46	48	55	56	107	251	430	544	746	924	1012	1002	949	952	951	794	620	513	494	279	190	11247	12	11247	12				
25	S	203	141	68	67	42	46	73	166	247	385	505	584	737	690	724	733	823	752	584	511	372	279	189	8864	16	8864	16				
26	S	78	39	31	39	31	103	274	410	613	638	737	841	860	922	871	834	841	724	586	459	386	209	112	11507	13	11507	13				
27	M	74	40	31	37	43	132	240	438	634	739	731	883	950	866	859	878	776	758	632	452	378	233	120	11866	13	11866	13				
28	T	91	48	37	42	79	87	285	426	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	950	12	950	12				
29	W																															
30	T																															
1	F																															
2	F																															
3	S																															
4	M																															

ADT 11569  
 AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)  
 88 46 36 43 53 106 246 418 546 655 702 822 899 903 843 860 914 852 759 606 464 370 219 119 11569  
 WEEKDAYS WEEKDAY Counted Hours AVERAGE WEEKDAY High Hour % of day Axle Adj. Factor Seasonal/Weekday Adjustment Factor ESTIMATED AADT 10470  
 8 168 5 102 914 8% 1,000 1,105

ROUTE # NY 17K ROAD NAME: FROM: ACC RT 871  
 STATION: 830154 STATE DIR CODE: 1 PLACEMENT: 0.56 mi E of Rt 300  
 TO: NEWBURGH WEST CITY LINE COUNTY: Orange  
 DATE OF COUNT: 06/22/2011

# New York State Department of Transportation Traffic Count Hourly Report

ROUTE #: NY 17K ROAD NAME: FROM: ACC RT 871 TO: NEWBURGH WEST CITY LINE COUNTY: Orange  
 DIRECTION: Westbound FACTOR GROUP: 30 REC. SERIAL #: 0416 TOWN: NEWBURGH  
 STATE DIR CODE: 2 WK OF YR: 25 PLACEMENT: 0.56 mi E of RT 300 NHS: 16 LION#: 1014530  
 DATE OF COUNT: 06/22/2011 @ REF MARKER: 17K83011201 JURIS: NYS DOT CC Sht: RR CROSSING: 20009570  
 NOTES LANE 1: WB Travel Lane ADDL DATA: BATCH ID: DOT-SJWR8ww26a HPMS SAMPLE:  
 NOTES LANE 2: WB Passing Lane COUNT TYPE: VEHICLES PROCESSED BY: ORG CODE: DOT INITIALS: SJW  
 COUNT TAKEN BY: ORG CODE: TST INITIALS: ---

DATE	DAY	PM												DAILY TOTAL	DAILY HIGH	DAILY LOW													
		12	1	2	3	4	5	6	7	8	9	10	11				12												
22	W	592	629	789	919	964	896	902	917	942	684	563	374	257	149	89	982	16											
23	T	88	43	41	46	75	184	310	438	551	618	644	898	938	851	788	891	982	920	801	686	542	448	216	159	12158	982	12	
24	F	124	75	62	73	72	165	257	417	526	756	841	949	994	991	938	960	973	993	805	670	511	335	225	189	12901	994	12	
25	S	168	106	59	64	66	94	154	306	497	679	843	924	909	845	823	792	774	692	648	660	518	345	253	182	11401	924	11	
26	S	137	114	120	91	84	83	134	203	372	386	533	690	726	707	674	734	677	635	507	419	379	302	177	132	9016	734	15	
27	M	69	62	29	48	81	179	298	392	577	727	696	857	933	948	889	891	903	808	674	566	460	285	201	114	11687	948	13	
28	T	80	41	26	59	58	158	300	423	601	661	696	820	955	906	915	910	909	896	713	596	445	295	158	121	11742	955	12	
29	W	80	33	32	45	75	169	326	402	386																			
30	T																												
1	F																												
2	S																												
3	S																												
4	M																												

DAYS	Counted	HOURS	Counted	AVERAGE WEEKDAY		Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED																	
				High Hour	% of day																				
93	48	40	56	70	169	298	414	528	671	701	863	936	917	872	898	928	892	718	603	455	321	181	121	11793	ADT
8		168		5		102						936		8%		1.000				1.105					
								<b>AADT</b>	<b>10672</b>																

ROUTE # NY 17K ROAD NAME: FROM: ACC RT 871 TO: NEWBURGH WEST CITY LINE COUNTY: Orange  
 STATION: 830154 STATE DIR CODE: 2 PLACEMENT: 0.56 mi E of RT 300 DATE OF COUNT: 06/22/2011



New York State Department of Transportation  
Classification Count Average Weekday Data Report

ROUTE #: NY 17K  
COUNTY NAME: Orange  
REGION CODE: 8  
FROM: ACC RT 871  
TO: NEWBURGH WEST CITY LINE  
REF-MARKER: 17K8301201  
END MILEPOINT: 0112099  
FUNC-CLASS: 16  
STATION NO: 0154  
COUNT TAKEN BY: ORG CODE: TST INITIALS: ---  
PROCESSED BY: ORG CODE: DOT INITIALS: SJW

ROAD NAME:  
YEAR: 2011  
MONTH: June  
NO OF LANES: 4  
HPMS NO: 20009570  
LION#: ---  
BATCH ID: DOT-SJWR8ww26a

STATION: 830154

DIRECTION	East	West	TOTAL
NUMBER OF VEHICLES	11585	11787	23372
NUMBER OF AXLES	23940	24418	48358
% HEAVY VEHICLES (F4-F13)	5.14%	5.61%	5.39%
% TRUCKS AND BUSES (F3-F13)	12.46%	13.07%	12.77%
AXLE CORRECTION FACTOR	0.97	0.97	0.97

VEHICLE CLASS	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	TOTAL
NO. OF AXLES	2	2	2	2.5	2	3	4	3.5	5	6	5	6	8.75	
ENDING HOUR	1:00	2	79	4	0	1	0	0	2	0	0	0	0	89
	2:00	2	40	2	0	0	0	0	2	0	0	0	0	46
	3:00	1	28	1	0	1	0	0	1	0	0	0	0	36
	4:00	1	36	3	0	1	0	0	1	0	0	0	0	43
	5:00	2	86	4	1	1	0	0	3	0	0	0	0	51
	6:00	3	86	4	2	2	0	1	6	0	0	0	0	106
	7:00	6	186	25	6	8	0	1	7	0	0	0	0	246
	8:00	8	320	49	3	3	0	5	9	1	0	0	0	417
	9:00	11	447	42	6	15	0	5	7	1	0	1	1	547
	10:00	8	540	65	3	15	0	5	7	1	0	0	1	655
DIRECTION	11:00	9	578	71	1	14	0	6	9	2	1	2	1	704
East	12:00	14	661	66	5	16	0	6	10	0	0	0	1	870
	13:00	18	775	74	4	18	0	7	11	2	0	0	1	924
	14:00	15	771	71	2	16	0	4	11	1	1	0	0	901
	15:00	14	742	71	3	9	0	6	6	2	0	0	1	846
	16:00	16	742	69	4	10	0	5	10	1	0	0	0	858
	17:00	14	608	58	3	11	0	4	6	0	0	1	0	813
	18:00	10	764	48	3	12	0	3	4	1	1	0	0	853
	19:00	6	686	43	2	8	0	2	5	0	0	0	0	759
	20:00	10	553	30	2	6	0	0	3	0	0	0	0	606
	21:00	11	413	24	1	3	0	0	4	0	0	0	0	462
	22:00	7	334	20	1	3	0	0	2	0	0	0	0	370
	23:00	4	199	9	1	2	0	0	2	0	0	0	0	218
	24:00	0	112	4	0	1	0	0	1	0	0	0	0	118
TOTAL VEHICLES	198	9943	848	54	185	134	8	61	131	12	3	4	6	11585
TOTAL AXLES	396	19986	1696	135	370	402	24	214	655	72	15	24	52	23940
ENDING HOUR	1:00	0	80	7	2	0	0	0	2	0	0	0	0	92
	2:00	0	43	2	0	1	0	0	1	0	0	0	0	47
	3:00	0	32	2	1	1	0	0	2	0	0	0	0	39
	4:00	0	44	4	0	0	0	0	5	0	0	0	0	55
	5:00	0	58	2	0	3	0	0	5	0	0	0	0	68
	6:00	1	135	7	2	12	0	0	11	0	0	0	0	168
	7:00	0	236	38	1	10	0	0	7	0	0	0	0	298
	8:00	2	319	46	4	18	0	3	12	0	0	0	0	415
	9:00	3	415	53	5	17	0	7	13	0	0	0	1	628
	10:00	6	552	63	3	19	0	1	5	9	1	0	0	671
DIRECTION	11:00	3	591	64	2	13	0	2	12	0	0	0	0	699
West	12:00	4	739	64	4	14	0	5	12	1	0	0	1	862
	13:00	6	819	67	6	15	0	4	13	1	0	0	0	948
	14:00	7	790	68	4	16	0	4	13	1	0	0	0	916
	15:00	6	756	67	4	13	0	4	8	0	0	0	0	870
	16:00	6	771	77	2	17	0	5	8	0	0	0	0	898
	17:00	9	815	62	4	11	0	8	10	0	0	0	0	927
	18:00	5	804	54	6	4	0	4	5	1	0	0	0	891
	19:00	2	658	44	2	4	0	2	1	0	0	0	0	716
	20:00	5	547	31	3	5	0	0	6	0	0	0	0	602
	21:00	3	407	32	2	1	0	2	5	0	0	0	0	456
	22:00	2	298	11	2	4	0	0	3	0	0	0	0	322
	23:00	0	160	7	3	2	0	0	6	0	0	0	0	179
	24:00	0	110	8	0	0	0	0	2	0	0	0	0	120
TOTAL VEHICLES	67	10179	880	62	200	146	16	60	168	7	0	0	2	11787
TOTAL AXLES	134	20358	1780	155	400	438	84	210	840	42	0	0	18	24418
GRAND TOTAL VEHICLES	265	20122	1728	116	385	280	22	121	299	19	3	4	8	23372
GRAND TOTAL AXLES	530	40244	3456	290	770	840	88	424	1495	114	15	24	70	48358

VEHICLE CLASSIFICATION CODES:

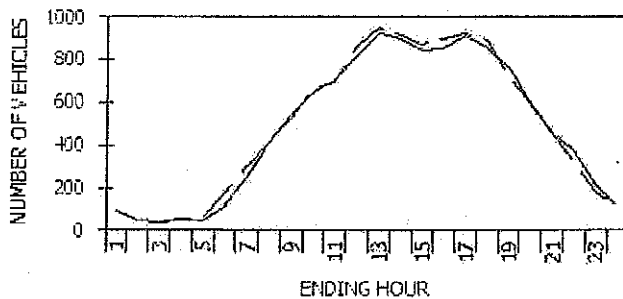
- F1 Motorcycles
- F2 Autos\*
- F3 2 Axle, 4-Tire Pickups, Vans, Motorhomes\*
- F4 Buses
- F5 2 Axle, 6-Tire Single Unit Trucks
- F6 3 Axle Single Unit Trucks
- F7 4 or More Axle Single Unit Trucks
- F8 4 or Less Axle Vehicles, One Unit is a Truck
- F9 5 Axle Double Unit Vehicles, One Unit is a Truck
- F10 6 or More Double Unit Vehicles, One Unit is a Truck
- F11 5 or Less Axle Multi-Unit Trucks
- F12 6 Axle Multi-Unit Trucks
- F13 7 or More Axle Multi-Unit Trucks

\* INCLUDING THOSE HAULING TRAILERS

FUNCTIONAL CLASS CODES:

- | RURAL | URBAN | SYSTEM                        |
|-------|-------|-------------------------------|
| 01    | 11    | PRINCIPAL ARTERIAL-INTERSTATE |
| 02    | 12    | PRINCIPAL ARTERIAL-EXPRESSWAY |
| 02    | 14    | PRINCIPAL ARTERIAL-OTHER      |
| 05    | 16    | MINOR ARTERIAL                |
| 07    | 17    | MAJOR COLLECTOR               |
| 08    | 17    | MINOR COLLECTOR               |
| 09    | 19    | LOCAL SYSTEM                  |

TRAFFIC FLOW BY DIRECTION



PEAK HOUR DATA

DIRECTION	HOUR	COUNT	2-WAY	HOUR	COUNT
East	13	924	A.M.	12	1682
West	13	870	P.M.	13	1872

SOURCE: NYSDOT DATA SERVICES BUREAU

New York State Department of Transportation  
Speed Count Average Weekday Report

Station: 830154  
Route #: NY 17K  
From: ACC RT 871  
To: NEWBURGH WEST CITY LINE  
Direction: East  
Lanes: 1, 2

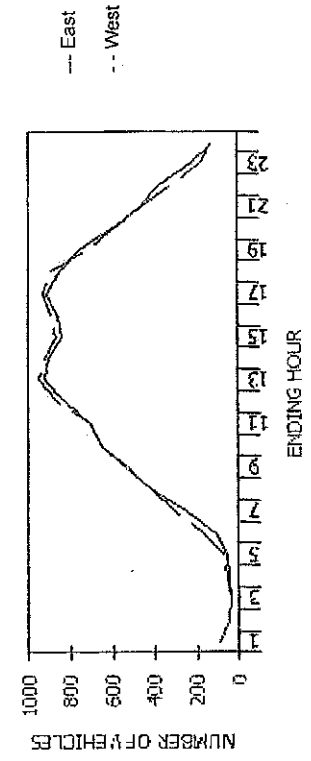
Road name:  
Road name:  
County: Orange  
Town: NEWBURGH  
Speed limit: 40  
LIC#:

Count duration: 293 hours  
Functional class: 16  
Factor group: 30  
Batch ID: DOT-SJWR&ww26a  
Count taken by: Org: TST Init: ---  
Processed by: Org: DOT Init: SJW

Counts have been summarized into NYSDOT EI standard bins

Hour	Speeds, mph										Total								
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100									
1:00	4	2	6	31	18	3	2	0	0	0	57	2.3	0.0	0.0	0.0	33.4	36.7	42.8	87
2:00	2	1	4	14	10	2	1	0	0	0	66	2.2	0.0	0.0	0.0	33.2	35.9	43.1	46
3:00	2	1	4	8	14	7	2	0	0	0	53	0.0	0.0	0.0	0.0	32.6	36.5	42.4	38
4:00	2	2	3	12	5	2	0	0	0	0	47	0.0	0.0	0.0	0.0	32.3	35.8	40.6	43
5:00	4	2	4	13	19	10	0	0	0	0	19	0.0	0.0	0.0	0.0	31.2	36.0	41.6	53
6:00	7	2	9	21	33	25	9	0	0	0	93	0.9	0.0	0.0	0.0	32.9	37.3	43.9	108
7:00	13	1	12	42	84	72	17	4	0	0	89	2.0	0.4	0.0	0.0	34.5	38.3	44.0	246
8:00	22	6	30	81	142	102	29	8	0	0	86	1.7	0.2	0.0	0.0	33.7	37.5	43.7	419
9:00	48	17	78	147	156	75	23	4	0	0	49	0.7	0.0	0.0	0.0	30.1	34.5	41.4	548
10:00	39	40	127	220	151	65	14	2	0	0	24	0.3	0.0	0.0	0.0	29.9	32.8	39.5	558
11:00	39	48	177	224	148	59	11	1	0	0	17	0.1	0.0	0.0	0.0	29.5	32.0	38.9	707
12:00	50	52	193	273	178	69	9	3	0	0	15	0.4	0.0	0.0	0.0	29.4	32.2	38.6	827
13:00	67	68	235	302	189	53	9	1	0	0	12	0.2	0.1	0.0	0.0	28.6	31.6	38.1	927
14:00	59	63	218	302	186	65	12	1	0	0	14	0.1	0.0	0.0	0.0	28.0	31.9	36.5	908
15:00	62	48	212	288	163	63	10	2	0	0	14	0.2	0.0	0.0	0.0	28.8	31.8	38.4	848
16:00	53	5*	221	283	182	60	14	1	0	0	17	0.1	0.0	0.0	0.0	28.3	31.9	38.5	865
17:00	60	56	223	288	184	89	16	2	0	0	20	0.2	0.0	0.0	0.0	28.3	32.1	39.2	918
18:00	46	44	212	280	180	78	14	4	0	0	21	0.5	0.0	0.0	0.0	29.8	32.3	39.1	858
19:00	43	44	185	241	179	60	6	2	0	0	11	0.3	0.0	0.0	0.0	29.6	32.3	39.8	760
20:00	34	28	144	186	126	60	15	3	0	0	30	0.5	0.0	0.0	0.0	30.0	32.5	39.5	608
21:00	32	24	122	142	94	42	8	1	0	0	19	0.2	0.0	0.0	0.0	29.1	32.0	38.1	485
22:00	18	16	86	114	96	34	6	2	0	0	22	0.5	0.0	0.0	0.0	30.4	32.9	39.3	372
23:00	12	12	37	58	64	32	5	2	0	0	32	0.9	0.0	0.0	0.0	31.0	34.4	40.9	222
24:00	3	6	10	26	40	25	8	1	0	0	76	0.8	0.0	0.0	0.0	34.0	36.9	43.3	119
<b>Avg Daily Total</b>	<b>723</b>	<b>635</b>	<b>2553</b>	<b>3598</b>	<b>2670</b>	<b>1177</b>	<b>245</b>	<b>46</b>	<b>3</b>	<b>0</b>	<b>2.5</b>	<b>0.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>28.8</b>	<b>32.7</b>	<b>39.5</b>	<b>11650</b>
Percent	6.2%	5.9%	21.9%	30.9%	22.9%	10.1%	2.1%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cum Percent	6.2%	11.7%	33.3%	64.5%	87.4%	97.5%	99.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Average hour	30	26	106	150	111	49	10	2	0	0	0	0	0	0	0	0	0	0	485

TRAFFIC FLOW BY DIRECTION



Direction	Hour	Count	2-way	Hour	Count
East	13	927	A.M.	12	1693
West	13	951	P.M.	13	1878

Avg. Speed	50th% Speed	85th% Speed
East 29.8	32.7	39.5
West 26.7	29.4	36.3

New York State Department of Transportation  
Speed Count Average Weekday Report

Station: 830154  
Route #: NY 17K  
From: ACC RT 871  
To: NEWBURGH WEST CITY LINE  
Direction: West  
Lanes: 1, 2

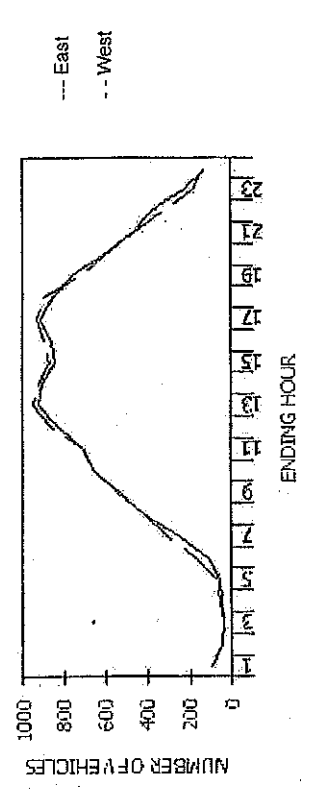
Start date: Wed 06/22/2011 09:00  
End date: Mon 07/04/2011 13:45  
County: Orange  
Town: NEWBURGH  
Speed limit: 40  
LION#:

Count duration: 293 hours  
Functional class: 16  
Factor group: 30  
Batch ID: DOT-SJWR8ww26a  
Count taken by: Org: TST Init: --  
Processed by: Org: DOT Init: SJW

Counts have been summarized into NYSDOT EI standard bins

Hour	Speeds, mph																Total					
	0.0-20.0	20.1-25.0	25.1-30.0	30.1-35.0	35.1-40.0	40.1-45.0	45.1-50.0	50.1-55.0	55.1-60.0	60.1-65.0	65.1-70.0	70.1-75.0	75.1-80.0	% Exc 45.0	% Exc 50.0	% Exc 55.0		% Exc 60.0	% Exc 65.0	Avg	50th%	85th%
1:00	1	3	12	35	30	9	1	1	0	0	0	0	0	2.2	1.1	0.0	0.0	0.0	33.2	34.3	39.5	92
2:00	0	1	7	14	21	4	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	34.0	35.4	39.3	47
3:00	0	1	2	16	12	5	2	2	0	0	0	0	0	10.0	5.0	0.0	0.0	0.0	35.5	35.5	43.0	40
4:00	1	2	10	16	13	12	1	1	0	0	0	0	0	3.8	1.8	0.0	0.0	0.0	33.2	34.7	42.4	56
5:00	2	6	7	26	20	9	1	0	0	0	0	0	0	1.4	0.0	0.0	0.0	0.0	31.7	34.0	38.9	71
6:00	4	5	23	51	52	26	6	1	0	0	0	0	0	4.2	0.6	0.0	0.0	0.0	33.1	35.1	41.6	168
7:00	4	5	30	99	98	51	10	2	0	0	0	0	0	4.0	0.7	0.0	0.0	0.0	34.3	35.6	41.8	299
8:00	8	18	66	145	121	45	11	1	0	0	0	0	0	2.9	0.2	0.0	0.0	0.0	32.4	34.0	39.8	415
9:00	25	59	127	170	112	31	5	1	0	0	0	0	0	1.1	0.2	0.0	0.0	0.0	29.1	31.6	36.2	530
10:00	44	110	205	196	99	16	3	0	0	0	0	0	0	0.4	0.0	0.0	0.0	0.0	27.2	29.5	35.9	873
11:00	54	110	225	202	90	19	3	0	0	0	0	0	0	0.4	0.0	0.0	0.0	0.0	26.8	28.2	35.4	703
12:00	92	185	273	221	79	15	1	0	0	0	0	0	0	0.1	0.0	0.0	0.0	0.0	25.2	27.9	34.3	865
13:00	162	211	285	211	69	11	0	0	0	0	0	0	0	0.1	0.0	0.0	0.0	0.0	24.6	26.8	33.6	951
14:00	120	185	308	209	76	16	2	0	0	0	0	0	0	0.2	0.0	0.0	0.0	0.0	25.0	27.5	34.0	921
15:00	102	182	276	220	78	14	2	0	0	0	0	0	0	0.2	0.0	0.0	0.0	0.0	26.0	28.6	35.5	894
16:00	88	193	272	230	88	26	2	0	0	0	0	0	0	0.2	0.0	0.0	0.0	0.0	26.0	28.6	35.5	894
17:00	91	160	286	250	108	25	2	0	0	0	0	0	0	0.2	0.0	0.0	0.0	0.0	26.0	28.6	35.5	894
18:00	87	166	272	226	106	33	4	0	0	0	0	0	0	0.4	0.0	0.0	0.0	0.0	26.0	28.6	35.5	894
19:00	39	138	227	204	90	18	2	0	0	0	0	0	0	0.3	0.0	0.0	0.0	0.0	26.9	29.1	35.2	718
20:00	41	107	189	166	82	18	1	0	0	0	0	0	0	0.2	0.0	0.0	0.0	0.0	28.3	29.9	36.5	458
21:00	17	66	150	136	66	16	4	1	0	0	0	0	0	1.1	0.2	0.0	0.0	0.0	30.5	30.5	36.5	323
22:00	18	36	98	108	50	11	2	0	0	0	0	0	0	0.6	0.0	0.0	0.0	0.0	30.6	32.5	38.3	180
23:00	5	10	39	71	42	10	1	0	1	0	0	0	0	1.1	0.6	0.0	0.0	0.0	32.7	34.3	39.7	122
24:00	2	6	14	46	38	14	2	0	0	0	0	0	0	1.6	0.0	0.0	0.0	0.0	26.7	28.4	36.3	11834
Avg Daily Total	1008	1966	3404	3278	1642	454	65	10	1	0	0	0	0	0.7	0.1	0.0	0.0	0.0	26.7	28.4	36.3	11834
Percent	8.5%	18.5%	28.8%	27.7%	13.6%	3.8%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	26.7	28.4	36.3	11834
Cum Percent	8.5%	25.1%	53.9%	81.6%	95.5%	99.3%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	26.7	28.4	36.3	11834
Average hour	42	82	142	137	68	19	3	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	26.7	28.4	36.3	493

TRAFFIC FLOW BY DIRECTION



Direction	Hour	Count	2-way A.M.	2-way P.M.	Hour	Count
East	13	927			12	1693
West	13	951			13	1878

Avg, Speed  
East 29.8  
West 26.7

50th% Speed  
32.7  
29.4

85th% Speed  
39.5  
36.3

**ACOUSTIC SYSTEMS  
ACOUSTICAL RESEARCH FACILITY  
OFFICIAL LABORATORY REPORT  
AS-TL2912**

**Subject:** Sound Transmission Loss Test

**Date:** 15 April 2006

**Contents:** Transmission Loss Data, One-third Octave Bands  
Transmission Loss Data, Octave Bands  
Sound Transmission Class Rating  
Outdoor / Indoor Transmission Class Rating  
Airborne Sound Reduction Index

on

**ThermalSafe™ Insulated Panels – Nominal Thickness 4”**

for

**Metl-Span I Ltd.**

**ACOUSTIC SYSTEMS ACOUSTICAL RESEARCH FACILITY is  
NVLAP-Accredited for this and other test procedures.**

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National Institute of  
Standards and Technology



National Voluntary Laboratory  
Accreditation Program

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## INTRODUCTION

Sound Transmission Loss of a partition in a specified frequency band is defined as ten times the common logarithm of the airborne sound power incident on the partition to the sound power transmitted by the partition and radiated on the other side. The quantity so obtained is expressed in decibels.

## APPLICABLE STANDARDS

ASTM E 90-04	"Standard Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements"
ASTM E 413-04	"Standard Classification for Rating Sound Insulation"
ASTM E 1332-90 (2003)	"Classification for Determination of Outdoor-Indoor Transmission Class"
ASTM E 2235-04e1	"Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods"
ISO 717-1:1996	"Acoustics -- Rating of sound insulation in buildings and of building elements Part 1: Airborne sound insulation"

## SPECIMEN DESCRIPTION

The test specimen was a symmetrical wall construction whose nominal overall dimensions were 2438 mm in length by 2438 mm in width by 102 mm in depth [96 by 96 by 4 inches]. The test specimen was designed, manufactured, submitted for test, and designated "ThermalSafe™ Insulated Panels – Nominal Thickness 4" by Metl-Span I Ltd. of Lewisville, Texas. Three (3) ThermalSafe™ insulated metal panels were utilized in the construction of this specimen – one (1) panel of the nominal plan dimension 305 mm in width by 2438 mm in height [12 by 96 inches]; and, two (2) panels of the nominal plan dimensions 1067 mm in width by 2438 mm in height [42 by 96 inches]. Actual thickness of these panels was 97 mm [3.8 inches]. Panels utilized double tongue and groove joints. The exterior and interior panel faces were 0.55 mm [26 ga] galvanized sheet metal with a baked finish. The insulation material was mineral fiber of density 136 kg/m<sup>3</sup> [8.5 lbs/ft<sup>3</sup>]. Exterior panel joints were sealed with cured bead of 5 mm [3/16 inch] silicone sealant.

The surface area of the specimen was 5.9 square meters [64.0 square feet]. The weight of the test specimen was measured as 129.3 kg [285.0 pounds], giving a weight per unit area of 21.7 kg/m<sup>2</sup> [4.5 pounds/ft<sup>2</sup>].

## TEST SPECIMEN MOUNTING

The specimen was mounted in the 2440 mm by 2440 mm transmission loss test opening. The face of the specimen was sealed to the edge of the test aperture with dense mastic putty. The calculated transmission loss of the test specimen was evaluated against facility flanking limits to determine any effects on specimen performance.

## DESCRIPTION OF TEST

Two (2) loudspeakers in a 200 cubic meter reverberation chamber, designated as the "Source Room", produced broadband pink noise. A 255.6 cubic meter reverberation chamber, designated as the "Receive Room", is coupled to the Source Room through the transmission loss opening. The steady-state space-time average sound pressure levels in the Source and Receive Room were determined using rotating microphone booms and a Norsonic Dual-Channel Real-Time Analyzer Nor-840. Sound absorption in the Receive Room was determined by performing decay rate measurements. Measurements are made in the ISO-preferred one-third octave bands from 50 Hz to 10000 Hz. Sound Transmission Class (STC) is the single number rating that is calculated from Sound Transmission Loss values to provide a performance estimate of a partition in certain interior sound insulation situations. Airborne Sound Reduction Index (R<sub>w</sub>), defined in ISO 717-1, is used internationally and is a similar rating to Sound Transmission Class (STC). Outdoor-Indoor Transmission Class (OITC) is the single number rating that is intended to rate effectiveness of building façade elements at reducing transportation noise intrusion.

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Precision of calculated Sound Transmission Loss values varies with frequency band and is included in the table within this document. The test was performed in strict accordance with ASTM E90-04. Data for laboratory flanking limit and reference specimen tests are available on request.

This test took place at **ACOUSTIC SYSTEMS ACOUSTICAL RESEARCH FACILITY**, Austin, Texas, on March 31, 2006.

#### **ENVIRONMENTAL CONDITIONS**

During the test, environmental conditions in the Receive Room were 21.9C with 68.0% relative humidity. Conditions in the Source Room were 22.6C with 69.6% relative humidity. Environmental conditions remained within strict limits imposed by the laboratory.

Respectfully Submitted,

Michael C. Black  
Laboratory Technical Director

*(Rest of page intentionally left blank.)*

## TRANSMISSION LOSS DATA

Sound Transmission Loss of the test specimen at the preferred one-third octave band center frequencies is tabulated below and then presented graphically. Octave-band Transmission Loss values are calculated as described in Section 12.3 of ASTM E90.

Metl-Span 1 Ltd. - ThermalSafe™ Insulated Panels - Nominal Thickness 4"

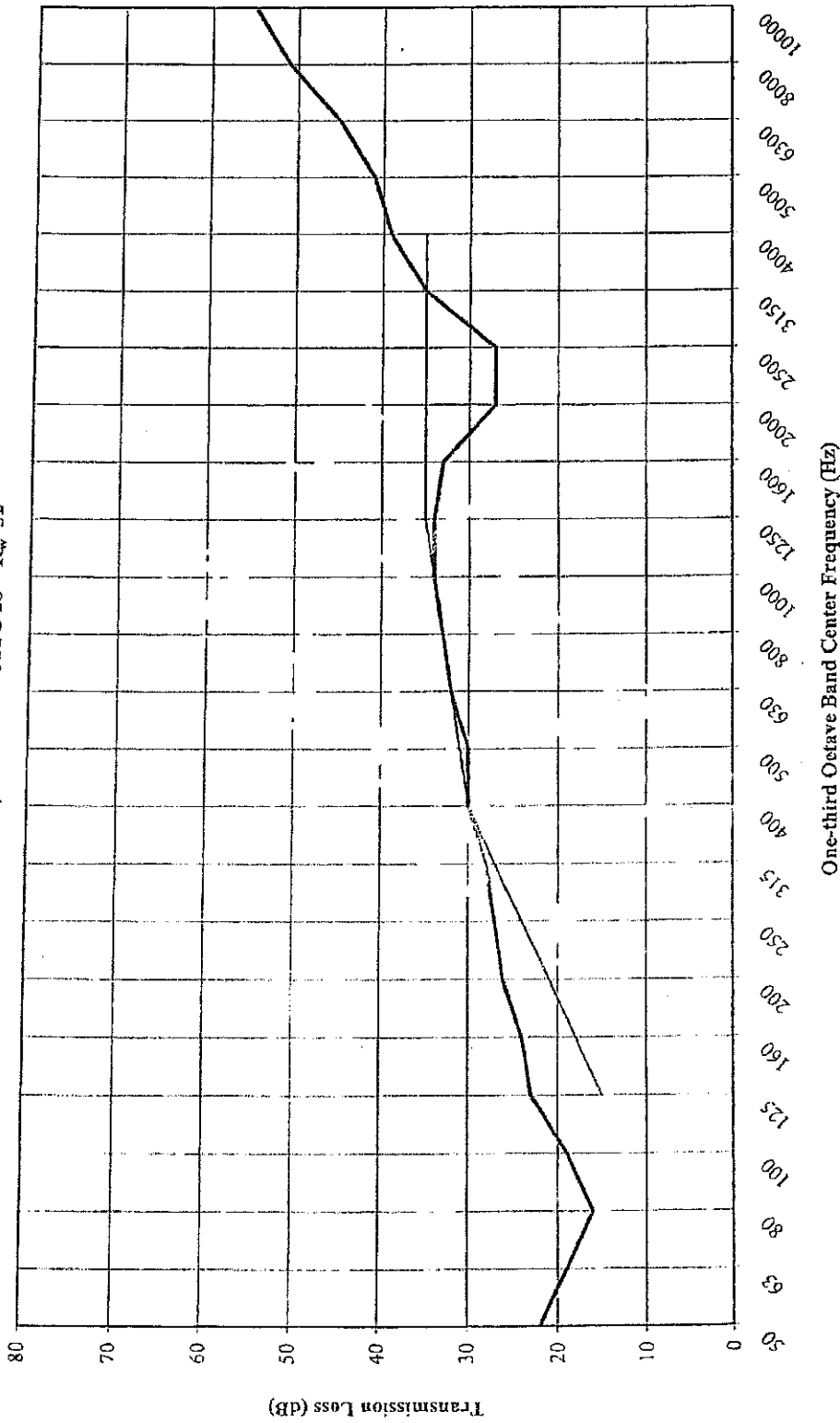
1/3 Octave Band Center Freq (Hz)	Transmission Loss (dB)	Uncertainty (+/- dB)	Notes	Octave Band TL (dB)	STC Deficiencies	R <sub>w</sub> Deviations >8dB
50	22		[b][f]			
63	19		[f]	18		
80	16	3.0				
100	19	2.9				
125	23	2.1		21		
160	24	1.8				
200	26	1.4				
250	27	0.7		27		
315	28	0.5				
400	30	0.5				
500	30	0.5		51	1	
630	32	0.3				
800	33	0.3				
1000	34	0.3		34		
1250	34	0.2			1	
1600	33	0.2			2	
2000	27	0.2		28	8	9.5
2500	27	0.2			8	9.2
3150	35	0.2				
4000	39	0.2		38		
5000	41	0.3				
6300	45	0.4				
8000	51	0.4		48		
10000	55	0.6				
STC	31					
OITC	28					
R <sub>w</sub>	32					

Note: [a]: Sound Pressure Level in Receive Room less than 5 dB above ambient. Correction of 2 dB applied. Value represents lower bound for specimen TL in this band; [b]: Specimen TL within 10 dB of facility flanking limits. No correction applied. Value represents lower bound for specimen TL in this band; [c]: Specimen TL corrected for sound transmission through laboratory filler wall per ASTM E90-04 Section 7.3.1.6; [d]: Specimen TL too close to laboratory filler wall. Value represents lower bound for specimen TL in this band; [e]: Uncertainty in this band exceeds limits of ASTM E90-04 Section A2.2.; [f]: Insufficient number of independent microphone samples to determine test uncertainty.

Method Precision, Bias, 95% Confidence Interval - Precision: Repeatability depends on the specimen tested. Round robin testing on ASTM E1289 reference specimen produced reproducibility standard deviation of 2 dB or less at all test frequencies 125 Hz to 4000 Hz. Bias: No bias in this method as true value defined by the test method. 95% Confidence Interval: Facilities and microphone systems produce one-third octave band Transmission Loss measurement uncertainties less than: 80 Hz - 6 dB; 100 Hz - 4 dB; 125 Hz, 160 Hz - 3 dB; 200 Hz, 250 Hz - 2 dB; 315 Hz to 4000 Hz - 1 dB.

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Mettl-Span 1 Ltd. ThermalSafe™ Insulated Panels - Nominal Thickness 4"  
AS-TL2912; STC 31 OITC 28 R<sub>w</sub> 32



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## Sound wall blends in with PVC fencing around Florida body shop

April 18, 2017



The recently constructed Foggy Ridge Body Shop had a pretty clear idea about what they wanted in a sound barrier wall to mitigate unwanted noise for their residential neighbors on one side of their shop.

They wanted a system that would blend in aesthetically with the white PVC perimeter fencing they were installing around the rest of their property. They wanted a lightweight, economical system that would install easily in this high water table area suburban Tampa.

They found everything they were looking for in AIL Sound Walls.

### **First served as a construction sound barrier**

Often on new construction sites like this, we recommend that our AIL Sound Walls go in first so they can also protect the neighbors against unwanted construction noise. That's how it went on this project.



**Operations Narrative**  
18 Route 17K, LLC

This narrative describes the uses and processes conducted within the proposed structural steel fabrication facility (“fabrication facility”).

The fabrication facility will include cutting, bending and assembling processes. The fabrication facility will bid on a job, usually based on engineering drawings, and if awarded the contract, will fabricate the product. There are various processes utilized in production including welding, cutting, forming and machining. Typical projects include columns, beams, loose parts and structural frames for buildings and heavy equipment and stairs and railings for buildings.

Cutting is done by sawing, shearing, or chiseling (all with manual or powered variants): torching with hand held torches (such as oxy-fuel torches or plasma torches with manual or powered variants); and via numerical control (CNC) cutters (using laser, mill bits, or water jet).

Bending is done by hammering (manual or powered) or via press brakes and similar tools. Press brakes will be used to bend metal into form. CNC-controlled back gauges use hard stops to position cut parts in order to place bend lines in the correct position. Off-line programming software makes programming the CNC-controlled press brakes seamless and efficient.

Assembling (joining of pieces) is done by welding, binding with adhesives, riveting, threaded fasteners, or even yet more bending in the form of a crimped seam. Structural steel is the usual starting material for the fabrication along with welding wire, flux and fasteners that will join the cut pieces if called for in the shop drawings. Both human labor and automation are used.

Fabrications for structural work begin as prefabricated segments in the fabrication facility and then moved to the construction site by truck, rail, or barge and finally installed by erectors at the construction site.

All work is conducted inside the facility. Outside, there will be a designated staging area (designated on the site plan) where the finished product will be placed on trailers for delivery.

Machines and equipment for the line and staging areas will include trailer jockeys, forklifts and tractor trailers.

Cutting and burning include special band saws designed for cutting metal and have hardened blades and a feed mechanism for even cutting. Abrasive cut-off saws, also known as chop saws are similar to miter saws but with a steel cutting abrasive disk. Cutting torches can cut very large sections of steel with little effort.

Burn tables are CNC cutting torches, usually natural gas powered. Plasma and laser cutting tables, and water jet cutters are also utilized for this process. Steel is loaded on a table and the parts are cut as programmed. This may also include CNC punch capability, with a carousel of different punches and taps. Fabrication of structural steel by plasma and laser cutting will be done with computerized machines.

Machining to remove unwanted material from the block of metal to get the desired shape is done as well. The steel fabrication facility will entail machining capability including metal lathes, magnetic based drills along with other portable working tools. Waste steel will be periodically removed from the site for recycling in a 30 yd. dumpster. Reusable pieces of steel will be stored in designated areas (as depicted on the site plan) away from residences and abutting businesses.

Formed and machined steel will be assembled and tack welded into place then re-checked for accuracy. The welder then completes welding as per the engineering drawings.

The fabrication facility contains office area for the administrative support of the fabrication facility business.



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May 5, 2017

**VIA HAND DELIVERY**

John Ewasutyn, Chairman  
Town of Newburgh Planning Board  
308 Gardnertown Road  
Newburgh, New York 12550

Re: 18 Route 17K, LLC  
Town of Newburgh, Orange County, New York  
MC Project No. 16001017A, PB#2016-14

Dear Chairman Ewasutyn:

Below please find our responses to comment letters received from Creighton Manning dated March 14, 2017; and McGoey, Hauser & Edsall (MHE), dated March 10, 2017 and April 6, 2017; the comments have been repeated here for clarity.

**Creighton Manning, March 14, 2017**

Comment 1. Based on the operations of the site, it does not appear that a significant volume of traffic will be generated. Proportionally, a large percentage may be heavy vehicles but relatively minor compared to the volumes on Route 17K.

Response 1. Statement is correct.

Comment 2. We expect Route 17K to accommodate the volume and type of traffic expected, particularly when cranes and deliveries occur outside the peak hours.

Response 2. There will be no cranes accessing the site. Traffic volume to and from the site will therefore be reduced compared to our prior application.

Comment 3. The Route 17K entrance is proposed to be narrowed, reducing the amount of impervious surface, and the Dollar General sidewalk extended west to the US Crane property line. We support the intent of these plan modifications and the applicant will need to review with NYSDOT.

Response 3. Maser Consulting met with the NYSDOT Eastern Orange County Regional Permit Engineer on April 25. We discussed the locations of the proposed sidewalk extensions, that the existing guiderail separating the two driveway lanes accessing the site would be cut back, the new reduced width of the driveway, the proposed



radii and minor adjustments to the rim of a drainage inlet in the driveway. Our traffic group is currently preparing plans for a permit application to the NYSDOT.

Comment 4. The truck turning movements should be checked at the Route 17K entrance as they may off-track on the driveway shoulder or hit the driveway guiderail.

Response 4. The existing guiderail has been cut back to allow for access to the site for tractor trailers.

**McGoev, Hauser & Edsall (MHE) March 10, 2017**

Comment 5. The site has been redesigned to provide an emergency access only from Stewart Ave. This access will be gated. Comments from Jurisdictional Fire Department regarding the access road should be received.

Response 5. Statement is correct.

Comment 6. City of Newburgh Flow Acceptance letter for the new building must be received. Planning Board can take no action on the project until City of Newburgh Flow Acceptance letter is received. Proposed hydraulic loading from the structure should be identified in a narrative report submitted to the Town Engineer for processing with the City of Newburgh.

Response 6. Maser Consulting has been following up with the Town Engineer diligently towards our obtaining this flow acceptance letter. It should be noted with that the flow projected from this facility is only 450 gallons per day.

Comment 7. Crane and truck parking areas have been delineated on the site. The balance of the site will be utilized for storage of passenger vehicles by the current site operator. Expansion of the contractor yard/ LHI use beyond those depicted on the site plan would require review and approval by the Planning Board for future expansions.

Response 7. The Applicant has rescinded their request for LHI Overlay. Trailer staging and storage are shown on the plan and outlined in the Operations Narrative provided by 18 Route 17 K, LLC.

Comment 8. Future submissions should incorporate architectural renderings for architectural review by the Planning Board.

Response 8. Comment noted.

Comment 9. A review of the proposed sanitary sewer lateral serving the new structure identifies



that only the proposed office portion of the building will be served by the sanitary sewer line. It is unclear if restroom facilities and or other water uses are proposed in the larger portion of the structure. It is noted that the finished floor elevations between the office and the proposed building are approximately 11 ft. elevation difference.

Response 9. A second sewer lateral has been added for the rest room in the fabrication building.

Comment 10. The Water Main Wet Tap detail identifies thrust blocks to be utilized. Town of Newburgh requires all piping be restrain joint pipe without the use of thrust blocks.

Response 10. Thrust blocks have been removed from the detail.

Comment 11. Sanitary sewer connection to an existing Town manhole must be by core drilling only; any other method is not acceptable to the Town. This must be noted on detail.

Response 11. Sanitary connection is proposed to 8" main that runs through the site. A Detail Connection has been provided.

Comment 12. Gerald Canfield's comments regarding location of any proposed hydrants on the site should be received.

Response 12. There are three existing fire hydrants serving the site: one at our emergency entrance off Stewart Avenue, one at the entrance at Route 17 K and the third is on the site at the south-west corner of the existing auto auction building. We have received no request for any additional hydrants on the site either from the fire department official or from Mr. Canfield.

Comment 13. Stormwater Pollution Prevention Plan is under review by this office. The majority of the site is existing impervious cover. A slight reduction in impervious cover is proposed through implementation of landscaping and green areas. Water quality controls are proposed utilizing proprietary treatment products. A stormwater facilities control maintenance agreement is required to be executed.

Response 13. This agreement will be coordinated with the Town of Newburgh. Maintenance requirements for the devices on the site are provided in the Stormwater Pollution Prevention Plan.

Comment 14. The proposed structure is located at the side yard setback. Standard note requiring submission of surveyed plot plan prior to issuance of Building Permit should be added to the plan.

Response 14. The building has been relocated and a note added to the Plan.



Comment 15. Previous comments regarding parking in front yard setback with regard to compliance with design guidelines still exist. The Applicants representatives have stated that landscaping is proposed to request a waiver for the design guideline requirement of no parking in front of structures. Planning Board should evaluate proposed landscape with regard to the need to grant the design guideline waiver.

Response 15. This 'front' access along Stewart Avenue does not propose typical 'front' access. The 'front' access at this location is only for emergency vehicles. Typical 'front' access will be utilized at the 17K entrance.

Comment 16. A more detailed survey has been submitted with the plans. This office withdraws the comment requiring delineation of the NYSDEC Wetlands as topography on the site clearly indicates no work is proposed within wetland areas. Flood plain boundary has been depicted based on 2009 mapping and site topography.

Response 16. We agree with the statement.

Comment 17. Project requires Town Board approval for an overlay district.

Response 17. No approvals are required from the Town Board. No variances are required from the zoning code.

Comment 18. Based on additional information submitted along with the detailed plans and Stormwater Pollution Prevention Plan identifying water quality control methodology this office would take no exception to the Planning Board issuing a Negative Declaration for the proposed project with the current scope of the project as indicated in the submitted narratives and plans.

Response 18. A Negative Declaration was declared by the Planning Board at an earlier meeting. The applicant request a copy of this Negative Declaration for their files. Thank you

Comment 19. It is requested the Applicants discuss with the Planning Board the storage of the cranes on the site. Visual impacts may result if numerous cranes are stored on the site in the operational mode for the cranes. Currently this office envisions the cranes being stored in a stowed condition and not with booms extended.

Response 19. LHI Overlay District is no longer proposed. No cranes will be proposed on site.





**McGoev, Hauser & Edsall (MHE) April 6, 2017**

Comment 20: This office has reviewed a Stormwater Pollution Prevention Plan received 7 March 2017 for the subject project. The project is covered under the redevelopment portions of the NYSDEC Stormwater Regulations, as it is an existing site and proposing to reduce impervious surfaces on the site in the vicinity of the project by approximately 4%. The project has instituted water quality controls utilizing a proprietary hydrodynamic separator system.

Response 20: Comment Noted.

Comment 21: The plans must be coordinated with the Stormwater Pollution Prevention Report with regard to the hydrodynamic separators proposed. Six-foot diameter separators are proposed in the report while four-foot separator is detailed on the plans. Pipe sizing should be coordinated between the plan details and the Stormwater Management Report.

Response 21: The Plans have been revised to match the Stormwater Pollution Prevention Plan.

Comment 22: A Stormwater Facilities Control Agreement must be executed by the site owner for long-term maintenance of the Stormwater Management system.

Response 22: Comment Noted.

Very truly yours,

MASER CONSULTING P.A.

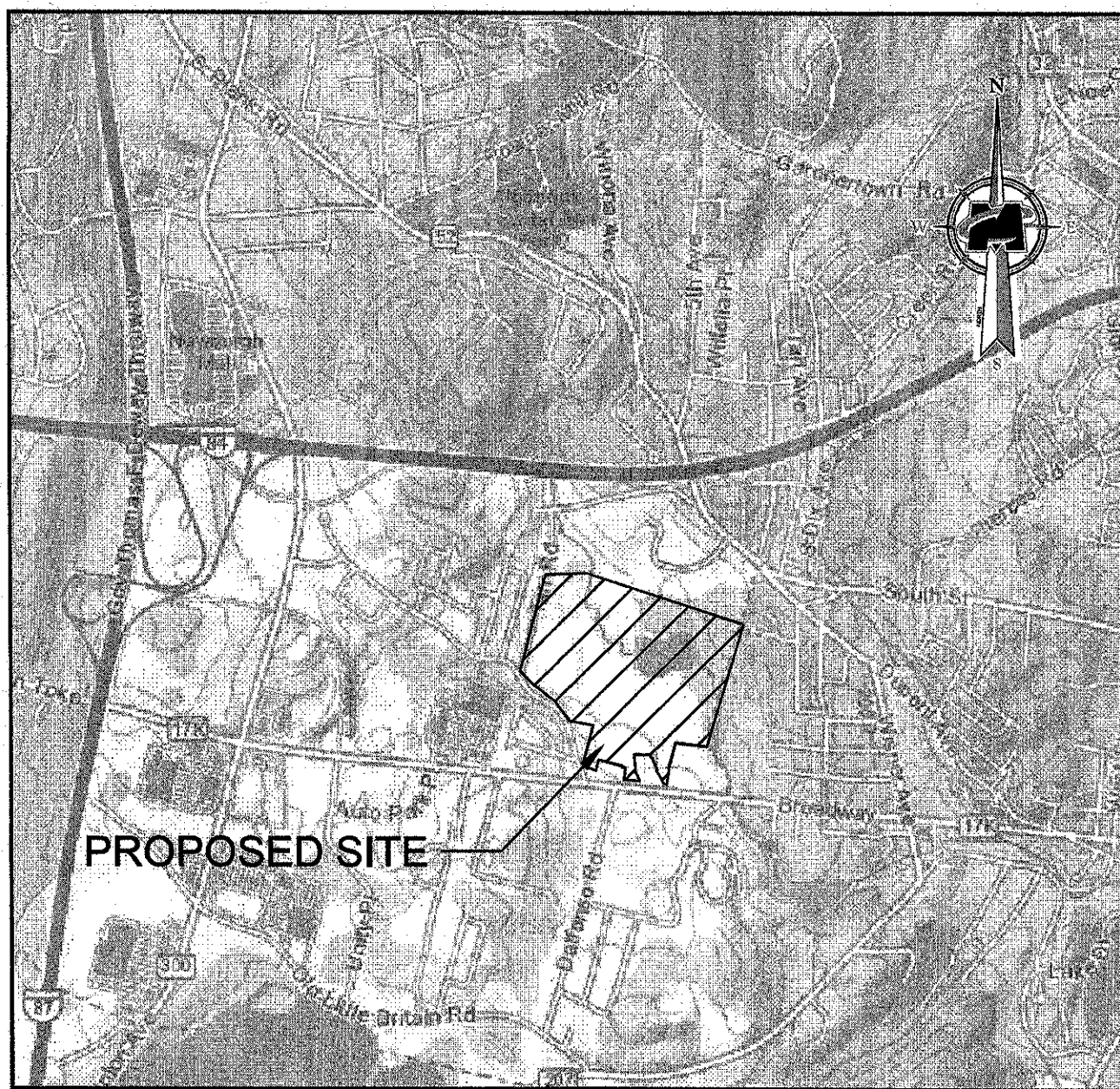
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Andrew B. Fetherston, P.E.  
Principal Associate

ABF/jm  
Enclosure

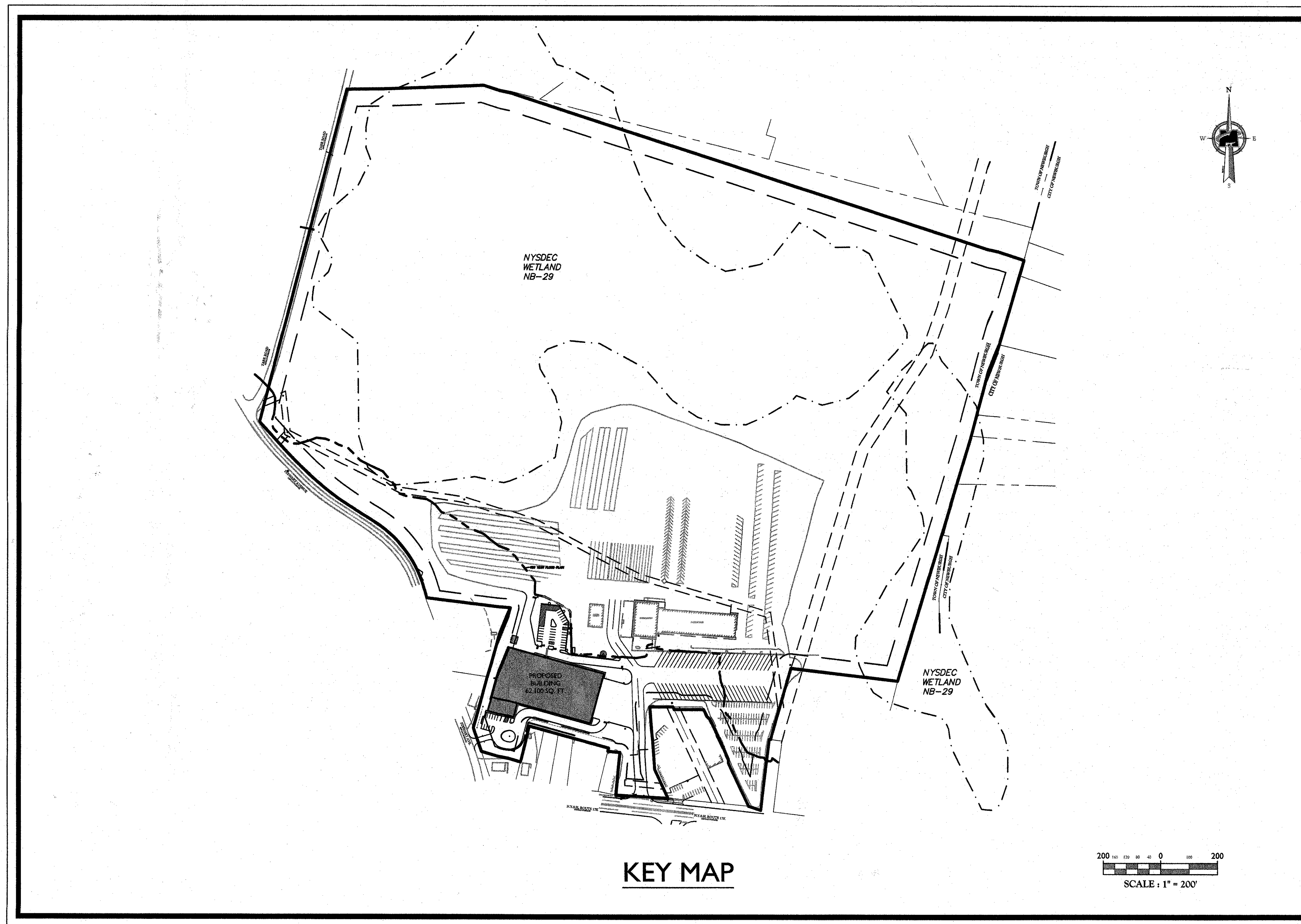
cc: Tom Auringer, w/enclosures  
Tim McColgan, w/enclosures  
Verticon, LTD, w/enclosures  
File, w/enclosures





TAX MAP  
1"=2000'

# SITE PLAN FOR 18 ROUTE 17K, LLC SECTION 97, BLOCK 1, LOT 21.2 TOWN OF NEWBURGH COUNTY OF ORANGE, STATE OF NEW YORK,



**KEY MAP**

**INDEX OF SHEETS**

SHT. No.	DESCRIPTION	LATEST REVISION
1	COVER SHEET	
2	EXISTING CONDITIONS & DEMOLITION PLAN	
3	OVERALL SITE PLAN	
4	DIMENSION PLAN	
5	GRADING, DRAINAGE & UTILITY PLAN	
6	SOIL EROSION AND SEDIMENT CONTROL PLAN	
7	SOIL EROSION AND SEDIMENT CONTROL DETAILS	
8	LANDSCAPE PLAN	
9	LIGHTING PLAN	
10-11	CONSTRUCTION DETAILS	

**GENERAL INFORMATION**

- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS TAKEN FROM A FIVE PAGE PLAN ENTITLED "BOUNDARY AND PARTIAL TOPOGRAPHIC SURVEY" PREPARED BY MASER CONSULTING, P.A. AND PREPARED FOR 18 ROUTE 17K, LLC, DATED JANUARY 19, 2017.
- THE HORIZONTAL DATUM IS RELATIVE TO THE NEW YORK STATE PLANE COORDINATE SYSTEM EAST ZONE AND ADJUSTED TO NAD 1983. THE VERTICAL DATUM IS RELATIVE TO N.A.V.D. 1988.
- THE 100 YEAR FLOOD PLAIN THAT IS ON SITE IS PER THE FLOOD INSURANCE RATE MAP 3607C0143E, DATED AUGUST, 2009 PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
- MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR THE SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
  - NEW YORK STATE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", 2002; AS SUPPLEMENTED.
  - CURRENT PREVAILING MUNICIPAL, COUNTY, AND/OR STATE AGENCY SPECIFICATIONS, STANDARDS, CONDITIONS, AND REQUIREMENTS.
  - CURRENT PREVAILING UTILITY COMPANY/AUTHORITY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
  - CURRENT MANUFACTURER SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
- WATER SERVICE TO BE PROVIDED FROM THE EXISTING 12" WATER MAIN LINE ON STEWART AVENUE. WATER MAIN SIZE IS REFERENCED FROM INFORMATION PROVIDED BY THE TOWN OF NEWBURGH WATER DEPARTMENT. PROPOSED WATER MAIN EXTENSIONS AND FIRE HYDRANT LOCATIONS ARE SUBJECT TO MUNICIPAL REVIEW AND APPROVAL, AND AMERICAN WATERWORKS ASSOCIATION STANDARDS. PIPE MATERIAL SHALL BE CEMENT LINED DUCTILE IRON PIPE, CLASS 52, WITH ASPHALTIC EPOXY TYPE COATING. WATER MAINS SHALL BE INSTALLED TO PROVIDE A MINIMUM 4 FEET OF COVER FROM THE TOP OF PIPE TO THE PROPOSED GRADE.
- SANITARY SEWER SERVICE SHALL BE PROVIDED BY GRAVITY. EXISTING SEWER MAINS ON-SITE, THE GRAVITY MAIN WILL TIE INTO THE SEWER OWNED AND OPERATED BY THE TOWN SEWER DEPARTMENT. PROPOSED SEWER MAIN EXTENSIONS AND MANHOLE LOCATIONS ARE SUBJECT TO MUNICIPAL REVIEW AND APPROVAL, ACCORDING TO MUNICIPAL AND ORANGE COUNTY HEALTH DEPARTMENT REGULATIONS. PIPE MATERIALS SHALL BE PVC SDR-35, EXCEPT AS NOTED OTHERWISE ON THE PLANS, EXCEPT WHERE SHALLOWER DEPTHS ARE PERMITTED BY THE MUNICIPALITY OR UTILITY AUTHORITY. SEWER LINES, INCLUDING FORCE MAINS AND LATERALS, SHALL BE INSTALLED TO PROVIDE A MINIMUM 4 FEET OF COVER FROM THE TOP OF PIPE TO PROPOSED GRADE.
- SANITARY SEWERS AND STORM DRAINAGE PIPES SHALL BE SEPARATED FROM WATER MAINS BY AT LEAST 10 FEET HORIZONTALLY. IF SUCH SEPARATION IS NOT POSSIBLE, THE PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SANITARY SEWER AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN, WHERE APPROPRIATE SEPARATION IS NOT POSSIBLE THE SEWER SHALL BE RIGIDLY IN CONCRETE OR CONSTRUCTED OF DUCTILE-IRON-PIPE USING MECHANICAL OR SLIP ON JOINTS, FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS ARE AS FAR AWAY AS POSSIBLE FROM THE WATER LINE.
- GAS, ELECTRIC, LIGHTING, CABLE TELEVISION, AND ELECTRICAL SERVICE PLANS, IF REQUIRED, SHALL BE PREPARED BY THE RESPECTIVE UTILITY COMPANIES THAT SERVICE THE AREA PRIOR TO SITE CONSTRUCTION AND SHALL BE INSTALLED PER ORDINANCE REQUIREMENTS.
- TELEPHONE, ELECTRIC, AND GAS LINES WILL BE INSTALLED UNDERGROUND. CROSSINGS OF PROPOSED PAVEMENTS WILL BE INSTALLED PRIOR TO THE CONSTRUCTION OF PAVEMENT BASE COURSE.
- UTILITY RELOCATIONS SHOWN HEREON, IF ANY, ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT ALL REQUIRED UTILITY RELOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING AND/OR COORDINATING ALL REQUIRED UTILITY RELOCATIONS IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANY/AUTHORITIES.
- STORM SEWERS SHALL BE CLASS III (OR HIGHER IF NOTED) REINFORCED CONCRETE PIPE (RCP) WITH 10" RING GASKETS, HIGH DENSITY POLYETHYLENE PIPE (HDPE) OR APPROVED EQUAL AS NOTED. PROPOSED PIPE COVER SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION. PIPE LENGTHS SHOWN HEREON ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- REFUSE AND RECYCLABLES SHALL BE AS SHOWN ON THE PLAN AND AS DEEMED ACCEPTABLE BY THE TOWN OF NEWBURGH.
- TRAFFIC SIGNAGE AND STRIPING SHALL CORRESPOND TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- THIS IS A SITE DEVELOPMENT PLAN AND UNLESS SPECIFICALLY NOTED ELSEWHERE HEREON, IS NOT A SURVEY.
- BUILDING FOOTPRINT DIMENSIONS SHOWN HEREON ARE APPROXIMATE. FINAL BUILDING FOOTPRINT DIMENSIONS FOR EACH BUILDING SHALL BE FURNISHED ON THE INDIVIDUAL PLOT PLANS/ARCHITECTURAL PLANS AT THE TIME OF APPLICATION FOR A BUILDING PERMIT. ALL STRUCTURES SHALL CONFORM TO THE APPROVED BULK ZONING REQUIREMENTS.
- DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
- THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL APPROVALS REQUIRED HAVE BEEN OBTAINED. ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED AND THE DRAWINGS HAVE BEEN STAMPED "ISSUED FOR CONSTRUCTION". THIS SHALL INCLUDE APPROVAL OF ALL CATALOG CUTS, SHOP DRAWINGS AND/OR DESIGN CALCULATIONS AS REQUIRED BY THE PROJECT OWNER AND/OR MUNICIPALITY. CONSTRUCTION ON SITE SHALL BE IN COMPLIANCE WITH SITE PLANS APPROVED BY THE TOWN PLANNING BOARD.
- EXISTING UNDERGROUND UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTIONS, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS, AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS. THE CONTRACTOR SHALL NOTIFY THE UNDER SIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGN HEREON INAPPROPRIATE OR INEFFECTIVE.
- THE CONTRACTOR IS RESPONSIBLE FOR PROJECT SAFETY, INCLUDING PROVISION OF ALL APPROPRIATE SAFETY DEVICES AND TRAINING REQUIRED.
- THESE GENERAL NOTES SHALL APPLY TO ALL SHEETS IN THIS SET.
- INFORMATION SHOWN HEREON IS INCORPORATED WITH THE CONTENTS OF THE FOLLOWING REPORTS:
  - "STORMWATER POLLUTION PREVENTION PLAN (SWPPP)" PREPARED FOR 18 ROUTE 17K LLC, PREPARED BY MASER CONSULTING, P.A. DATED MAY 2017.
  - "LIMITED PHASE II REPORT/BUILDING B" PREPARED BY MASER CONSULTING P.A. FOR 18 ROUTE 17 K LLC, DATED OCTOBER 27, 2016.
  - "NOISE IMPACT EVALUATION" PREPARED BY MASER CONSULTING DATED APRIL 28, 2017.
- PROPERTY DESCRIPTION:
  - TAX LOT: 97-1-21.2
  - LOT SIZE: 97.8 ACRES
  - ZONE: IB (INTERCHANGE BUSINESS);
  - PROPERTY LOCATION: 18 ROUTE 17K, NEWBURGH NY, 12550

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REV	DATE	DRAWN BY	DESCRIPTION
1	05/01/17	CM	ISSUED FOR PLANNING BOARD COMMENTS

REV	DATE	DRAWN BY	DESCRIPTION
1	05/01/17	CM	ISSUED FOR PLANNING BOARD COMMENTS

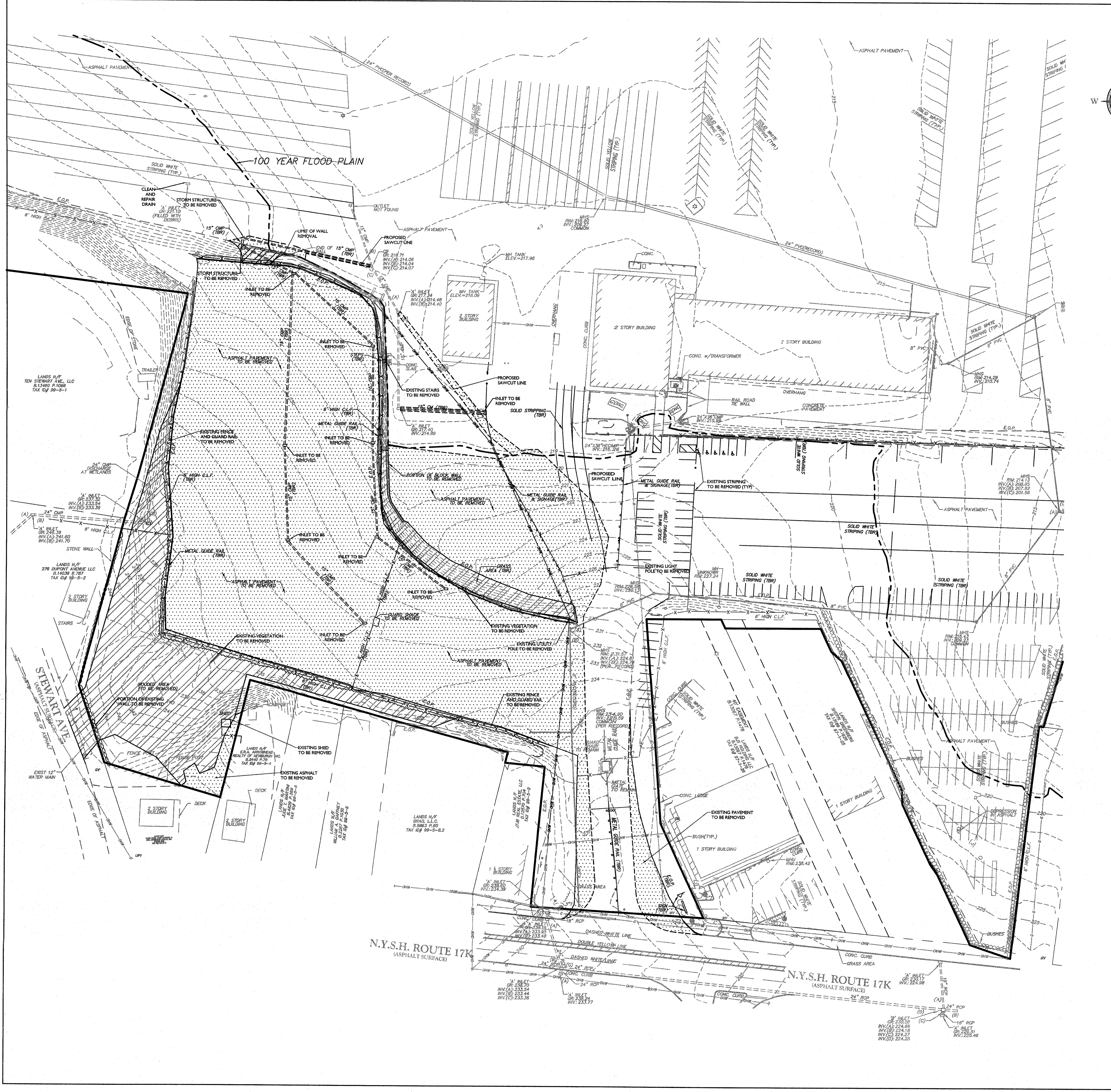
**ANDREW B. FETHERSTON**  
 NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 073551-1

**SITE PLAN**  
 FOR  
**18 ROUTE 17K, LLC**  
 SECTION 97  
 BLOCK 1  
 LOT 21.2  
 TOWN OF NEWBURGH  
 COUNTY OF ORANGE  
 STATE OF NEW YORK

**NEW WINDSOR OFFICE**  
 555 Hudson Valley Avenue  
 Suite 101  
 New Windsor, NY 12553  
 Phone: 845.564.4495  
 Fax: 845.567.1025

DATE AS SHOWN	DATE	DRAWN BY	CHECKED BY
1401017A	3/28/17	CM	ABF
PROJECT NUMBER	DRAWING NAME		
1401017A	C-COVER		



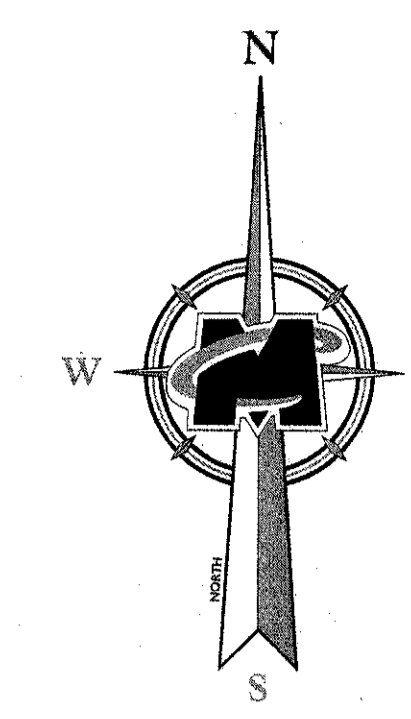
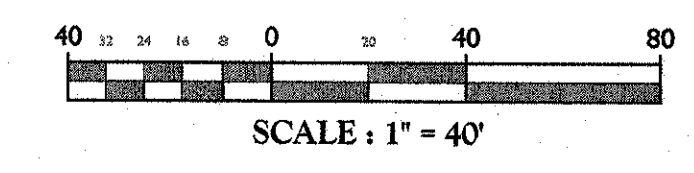


**DEMOLITION NOTES:**

1. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL BE REQUIRED TO CALL THE BOARD OF PUBLIC UTILITIES ONE CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK CUT IN ADVANCE OF ANY EXCAVATION, DIG SAFELY, NEW YORK, LABORING OR B.I. A RESOLUTION CONFERENCE WILL NEED TO BE ARRANGED WITH DIG SAFELY, NEW YORK AND MUST BE HELD A MINIMUM OF 7 DAYS BEFORE THE START OF ANY DEMOLITION.
2. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING SITE IMPROVEMENTS AND UTILITIES. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IN WRITING.
3. ALL DEMOLITION DEBRIS TO BE REMOVED BY CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
4. MASER CONSULTING, P.A. IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION.
5. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN ACCORDANCE WITH THESE PLANS, AS WELL AS ALL FEDERAL, STATE AND LOCAL REGULATIONS. ANY DISCREPANCIES OR DEVIATIONS SHALL BE IDENTIFIED BY THE CONTRACTOR TO MASER CONSULTING, P.A. IN WRITING FOR RESOLUTION PRIOR TO INITIATION OF SITE ACTIVITY.
6. PRIOR TO STARTING ANY DEMOLITION CONTRACTOR IS RESPONSIBLE FOR:
  - A. ENSURING COPIES OF ALL PERMITS AND APPROVALS MUST BE MAINTAINED ON SITE AND AVAILABLE FOR REVIEW (SEE EROSION AND SEDIMENT CONTROL PLAN, THIS DRAWING SET).
  - B. INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE.
  - C. ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE, THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL UNDERGROUND UTILITIES.
  - D. PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.
  - E. FAMILIARIZING THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING PROVIDER AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY NOTIFICATION REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
  - F. CLEAN THE EXISTING UTILITY STRUCTURES ON-SITE PRIOR TO CONSTRUCTION AND VERIFY THE INVERTS FOR CONNECTION.
7. COORDINATION WITH UTILITY COMPANIES AND THE TOWN OF NEWBURGH REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES.
8. A COMPLETE INSPECTION FOR CONTAMINANTS BY A LICENSED ENVIRONMENTAL TESTING AGENCY, SHALL BE PERFORMED PRIOR TO REMOVAL OF FOUNDATION WALLS AND OTHER STRUCTURES. ALL FEDERAL, STATE AND LOCAL REGULATIONS, ANNUAL CONTAMINANTS SHALL BE REMOVED AND DISPOSED OF BY A FEDERALLY LICENSED CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. ALL ENVIRONMENTAL WORK INCLUDING HAZARDOUS MATERIAL, SOILS, ASBESTOS, OR OTHER REFERENCED OR IMPLIED HAZARD IS THE SOLE RESPONSIBILITY OF THE OWNERS ENVIRONMENTAL CONSULTANT.
9. MASER CONSULTING, P.A. IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR IS TO PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE O.S.H.A. REQUIREMENTS TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
10. THE CONTRACTOR SHALL PROVIDE ALL THE "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF THE SITE. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN AS A RESULT OF HIS ACTIVITIES. ALL REPAIRS SHALL USE NEW MATERIAL. THE REPAIRS SHALL RESTORE THE ITEM TO THE PRE-DEMOLITION CONDITION.
11. TREE CLEARING ACTIVITIES CAN ONLY OCCUR BETWEEN THE DATES OF OCTOBER 1ST AND MARCH 31ST.
12. THE CONTRACTOR SHALL PERFORM EARTH MOVEMENT ACTIVITIES, DEMOLITION AND REMOVAL OF ALL FOUNDATION WALLS, FOOTINGS, AND OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE IN ACCORDANCE WITH DIRECTION BY OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
13. ROCK EXCAVATIONS WILL BE PERFORMED BY MECHANICAL MEANS ONLY. USE OF EXPLOSIVES IS PROHIBITED. ALL THE REQUIRED PERMITS AND CONTROL MEASURES THAT ARE REQUIRED BY THE FEDERAL, STATE AND LOCAL GOVERNMENTS SHALL BE IN PLACE PRIOR TO STARTING THE DEMOLITION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES, AS APPLICABLE.
14. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL" AS WELL AS FEDERAL, STATE AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS OR ROADWAY RIGHTS-OF-WAY.
15. CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROAD, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY.
16. DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROPERTY LINE WITHOUT WRITTEN PERMISSION OF THE OWNER, AND/OR APPROPRIATE GOVERNMENT AGENCY.
17. USE DIRT CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR PRE-DEMOLITION CONDITION.
18. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL METHODS AND MEANS ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL O.S.H.A. AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
19. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL TOWN, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES.
20. DEMOLITION SHALL NOT PROCEED UNTIL THE APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE MARKED IN THE FIELD AND ALL UTILITY CONNECTIONS ARE SUITABLY SHUT OFF AND DISCONNECTED AND PROPER DEMOLITION PERMITS ARE IN PLACE WITH THE TOWN.
21. CONTRACTOR IS RESPONSIBLE TO RESTORE ALL DISTURBED SITE AREAS TO ORIGINAL CONDITION AS DIRECTED BY THE OWNER.
22. PROTECT ALL EXISTING UTILITIES TO REMAIN (INCLUDING DRAINAGE STRUCTURES, HYDRANTS, VALVES, SEWER MANHOLES, ETC.) DURING DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIMSELF OR SUB-CONTRACTORS.

**DRAWING LEGEND**

PROPERTY BOUNDARY	---
EDGE OF PAVEMENT (E.O.P.)	=====
EXISTING CURB	=====
DEPRESSED CURB	=====
PAVEMENT STRIPING	----
OVERHEAD WIRES	---O---
WATERLINE MARKOUT	---W---
EASEMENTS	----
MAJOR CONTOUR	----
MINOR CONTOUR	----
SANITARY PIPES	---S---
STORMWATER PIPES	---SW---
TREELINE	-----
POST / BOLLARD	+
UTILITY POLE	o
GUY WIRE	o
LIGHT POLE	*
SANITARY MANHOLE	o
SANITARY CLEANOUT	o
DRAINAGE MANHOLE	o
WATER VALVE	o
CATCH BASIN	+
UTP = TO BE REMOVED UTILITY POLE	o
DI = DRAIN INLET	o
CB = CATCH BASIN	+
GR = GRATE	+
CO = CLEANOUT	o
SAWCUT LINE	----
VEGETATION TO BE REMOVED	-----



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**ANDREW B. FETHERSTON**  
 NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER 07355-1

**SITE PLAN**  
 FOR  
**18 ROUTE 17K, LLC**  
 SECTION 97  
 BLOCK 1  
 LOT 21.2  
 TOWN OF NEWBURGH  
 COUNTY OF ORANGE  
 STATE OF NEW YORK

**NEW WINDSOR OFFICE**  
 555 Hudson Valley Avenue  
 Suite 101  
 New Windsor, NY 12553  
 Phone: 845.564.4495  
 Fax: 845.567.1025

SCALE	DATE	DRAWN BY	CHECKED BY
AS SHOWN	3/01/17	CPM	ABF
PROJECT NUMBER	DRAWING NAME	SHEET TITLE	
14001017A	C-DEM0	EXISTING CONDITIONS & DEMOLITION PLAN	

SHEET NUMBER:  
**02** of **11**





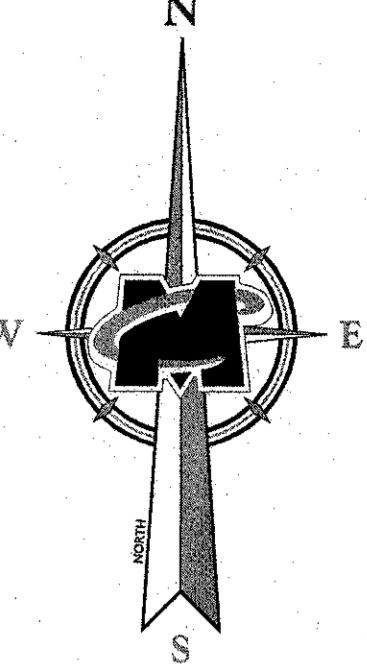


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REV	DATE	DESCRIPTION

**ANDREW B. FETHERSTON**  
 NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 07355-1

**SITE PLAN**  
 FOR  
**18 ROUTE 17K, LLC**

**SECTION 97**  
**BLOCK 1**  
**LOT 21.2**

**TOWN OF NEWBURGH**  
**COUNTY OF ORANGE**  
**STATE OF NEW YORK**

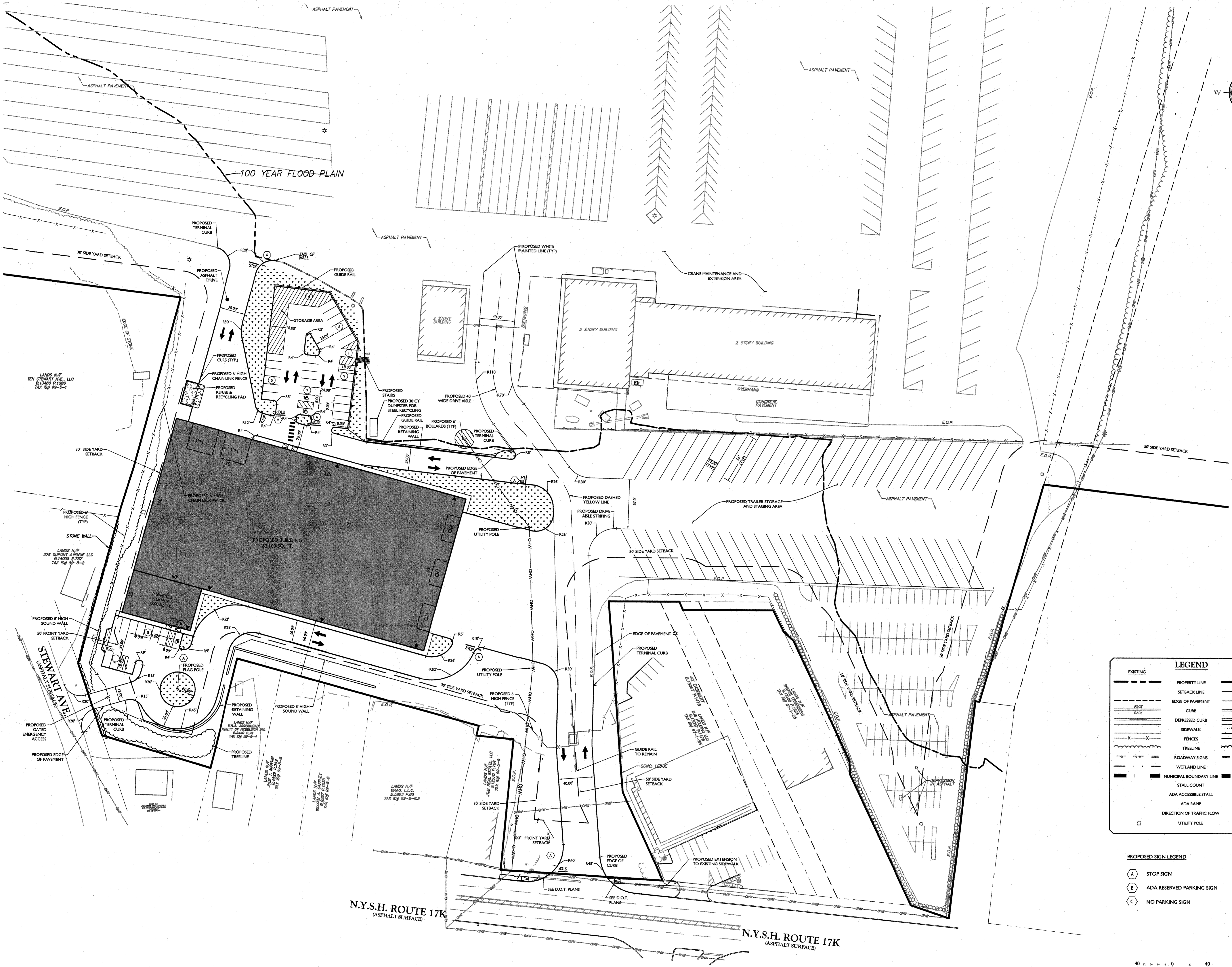
**NEW WINDSOR OFFICE**  
 155 Hudson Valley Avenue  
 Suite 101  
 New Windsor, NY 12553  
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SCALE	DATE	DRAWN BY	CHECKED BY
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PROJECT NUMBER	DRAWING NAME		CLAYT
1608017A			

**SHEET TITLE**

**DIMENSION PLAN**

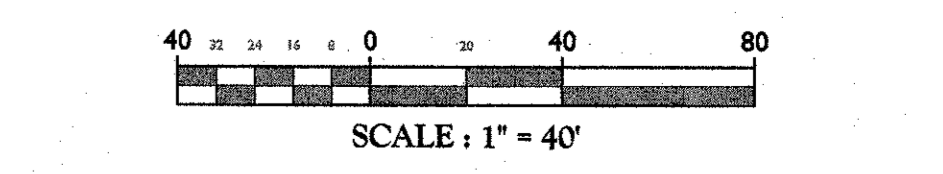
SHEET NUMBER: **04** of **11**



EXISTING		LEGEND	PROPOSED
- - -	PROPERTY LINE	———	PROPERTY LINE
---	SETBACK LINE	---	SETBACK LINE
---	EDGE OF PAVEMENT	---	EDGE OF PAVEMENT
---	CURB	---	CURB
---	DEPRESSED CURB	---	DEPRESSED CURB
---	SEAWALK	---	SEAWALK
---	FENCES	---	FENCES
---	TREELINE	---	TREELINE
---	ROADWAY SIGNS	---	ROADWAY SIGNS
---	WETLAND LINE	---	WETLAND LINE
---	MUNICIPAL BOUNDARY LINE	---	MUNICIPAL BOUNDARY LINE
---	STALL COUNT	---	STALL COUNT
---	ADA ACCESSIBLE STALL	---	ADA ACCESSIBLE STALL
---	ADA RAMP	---	ADA RAMP
---	DIRECTION OF TRAFFIC FLOW	---	DIRECTION OF TRAFFIC FLOW
---	UTILITY POLE	---	UTILITY POLE

**PROPOSED SIGN LEGEND**

(A) STOP SIGN  
 (B) ADA RESERVED PARKING SIGN  
 (C) NO PARKING SIGN



20250102-18R017A-MEASUREMENTS-CITY-CLAYT







- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN FOURTEEN (14) DAYS FOR DISTURBANCES LESS THAN FIVE (5) ACRES AND SEVEN (7) DAYS FOR DISTURBANCES GREATER THAN FIVE (5) ACRES, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.
- PERMANENT VEGETATION TO BE SEED OR SODDED ON ALL EXPOSED AREAS WITHIN FIVE (5) DAYS AFTER FINAL GRADING. MULCHING IS REQUIRED ON ALL SEEDING, WHEN HYDROSEEDING, MULCH SHALL NOT BE INCLUDED IN THE TANK WITH THE SEED.
- ALL WORK TO BE DONE IN ACCORDANCE WITH THE LATEST VERSION OF THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
- A SUBBASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUBBASE SHALL BE INSTALLED WITHIN FIVE (5) DAYS OF THE PRELIMINARY GRADING.
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.
- ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION CONTINUES (I.E. SLOPES GREATER THAN 3:1).
- THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A STONE PAD, AT ALL CONSTRUCTION DRIVEWAYS, BEFORE INITIAL SITE DISTURBANCE.
- IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF TWELVE (12) INCHES OF SOIL, HAVING A PH OF 5 OR MORE PRIOR TO SEEDING PREPARATION. AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF TWENTY-FOUR (24) INCHES OF SOIL, HAVING A PH OF 5 OR MORE.
- AT THE TIME THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
- CONDUIT OUTLET PROTECTION MUST BE REVIEWED & SUPPLEMENTED AT ALL OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
- UNFILTERED DEWATERING IS NOT PERMITTED. TAKE ALL NECESSARY PRECAUTIONS DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH STATE STANDARDS.
- SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED IN ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.
- ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAY WILL BE REMOVED IMMEDIATELY.
- THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION AND SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
- STOCKPILE AND STAGING LOCATIONS DETERMINED IN THE FIELD, SHALL BE PLACED WITHIN THE LIMITS OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN.
- CONCRETE WASHOUT, DUMPSTER, & STAGING AREA LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED AT THE PRE-CONSTRUCTION MEETING. THEY SHALL BE PLACED IN THE PROXIMITY OF THE CONSTRUCTION ENTRANCE AND STAGING AREAS AND SHALL BE USED PRIOR TO EXITING THE PROJECT SITE. THE LOCATION SHALL BE IN A PRACTICAL, CLEARLY DELINEATED, AREA AND BE MAINTAINED THROUGHOUT CONSTRUCTION.
- ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH THE LATEST VERSION OF THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- IF SOIL ACTIVITIES HAVE BEEN TEMPORARILY SUSPENDED, I.E. WINTER SHUTDOWN, ALL DISTURBED AREAS MUST BE TEMPORARILY STABILIZED AND ONCE A MONTH INSPECTIONS CAN OCCUR. THE GENERAL PERMIT CAN BE REFERENCED FOR FURTHER INFORMATION.
- ALL PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED BY THE PROPERTY OWNER, AND SHALL BECOME THEIR RESPONSIBILITY.
- PAVEMENT AREAS ARE TO BE KEPT CLEAN AT ALL TIMES.
- DURING CONSTRUCTION, ANY ADDITIONAL CONTROL MEASURES DEEMED NECESSARY TO PREVENT EROSION OR CONTROL SEDIMENT BEYOND THESE MEASURES SHOWN ON THE APPROVED PLAN SHALL BE INSTALLED OR EMPLOYED AT THE DIRECTION OF THE PROJECT ENGINEER.
- ALL TEMPORARY, STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES CAN BE REMOVED, WHEN ALL CONSTRUCTION ACTIVITY IDENTIFIED IN THE SWPPP HAS BEEN COMPLETED, ALL AREAS OF DISTURBANCE HAVE ACHIEVED FINAL STABILIZATION<sup>\*\*\*</sup> AND ALL POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE SWPPP AND ARE OPERATIONAL.

<sup>\*\*\*</sup>FINAL STABILIZATION - MEANS THAT ALL SOIL DISTURBANCE ACTIVITIES HAVE CEASED AND A UNIFORM, PERENNIAL VEGETATIVE COVER WITH A DENSITY OF EIGHTY (80) PERCENT OVER THE ENTIRE PERVIOUS SURFACE HAS BEEN ESTABLISHED, OR OTHER EQUIVALENT STABILIZATION MEASURES, SUCH AS PERMANENT LANDSCAPE MULCHES, ROCK RIP-RAP OR WASHED/CRUSHED STONE HAVE BEEN APPLIED ON ALL DISTURBED AREAS THAT ARE NOT COVERED BY PERMANENT STRUCTURES, CONCRETE OR PAVEMENT.

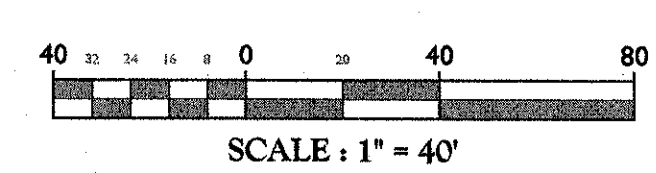
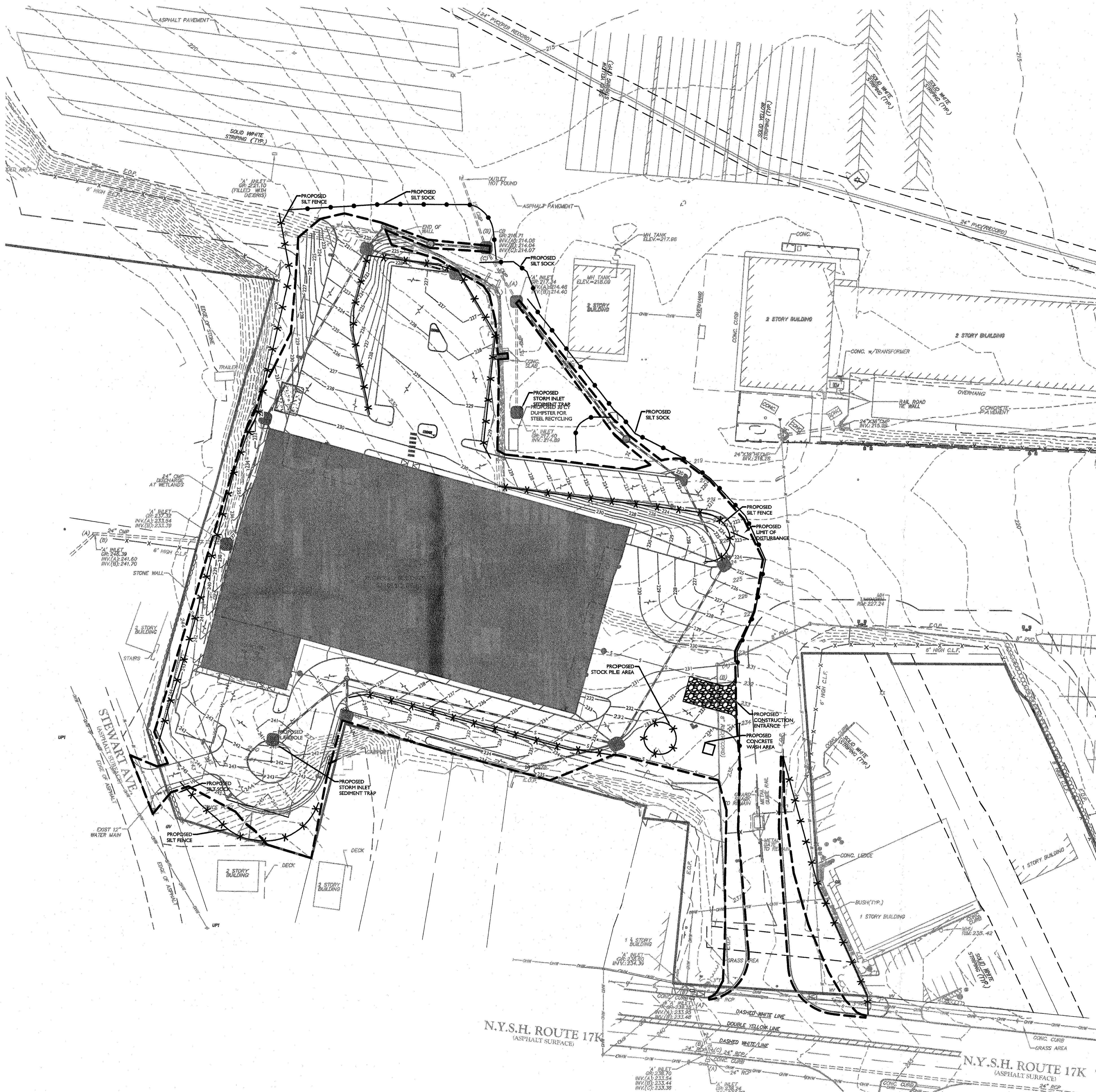
MAINTENANCE PLAN DURING CONSTRUCTION:

INSPECTION AND MAINTENANCE SHALL BE PERFORMED IN CONFORMANCE WITH GP-0-15-002. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED AND INSTALLED FOR THE PROJECT. THE SEDIMENT TRAPS WILL BE CLEANED OUT WHEN THE LEVEL OF SEDIMENT REACHES 25% OF ITS CAPACITY. SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES APPROXIMATELY 6" DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. ALL SEEDED AREAS WILL BE FERTILIZED, RE-SEED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE LANDSCAPE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

NOTE: DURING THE CONSTRUCTION OF A PHASE, EACH SUBSEQUENT PHASE WILL HAVE BEEN CAPPED AND STABILIZED WITH DENSE GRASS COVER.

LEGEND FOR EROSION CONTROL  
DURING CONSTRUCTION

- SILT FENCE
- STORM INLET SEDIMENT TRAP
- STABILIZED CONSTRUCTION ENTRANCE
- STONE OUTLET SEDIMENT TRAP
- TEMPORARY SWALE
- CONSTRUCTION LIMIT LINE
- SILT SOCK
- 6' FOOT HIGH CHAIN LINK FENCE
- CONCRETE WASH AREA



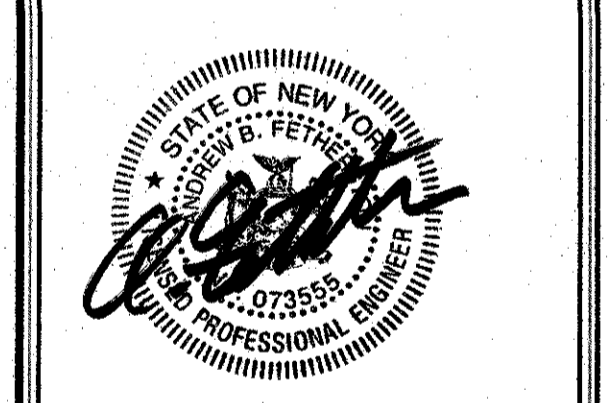
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 NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 07355-1

SITE PLAN  
 FOR  
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 SECTION 97  
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 STATE OF NEW YORK

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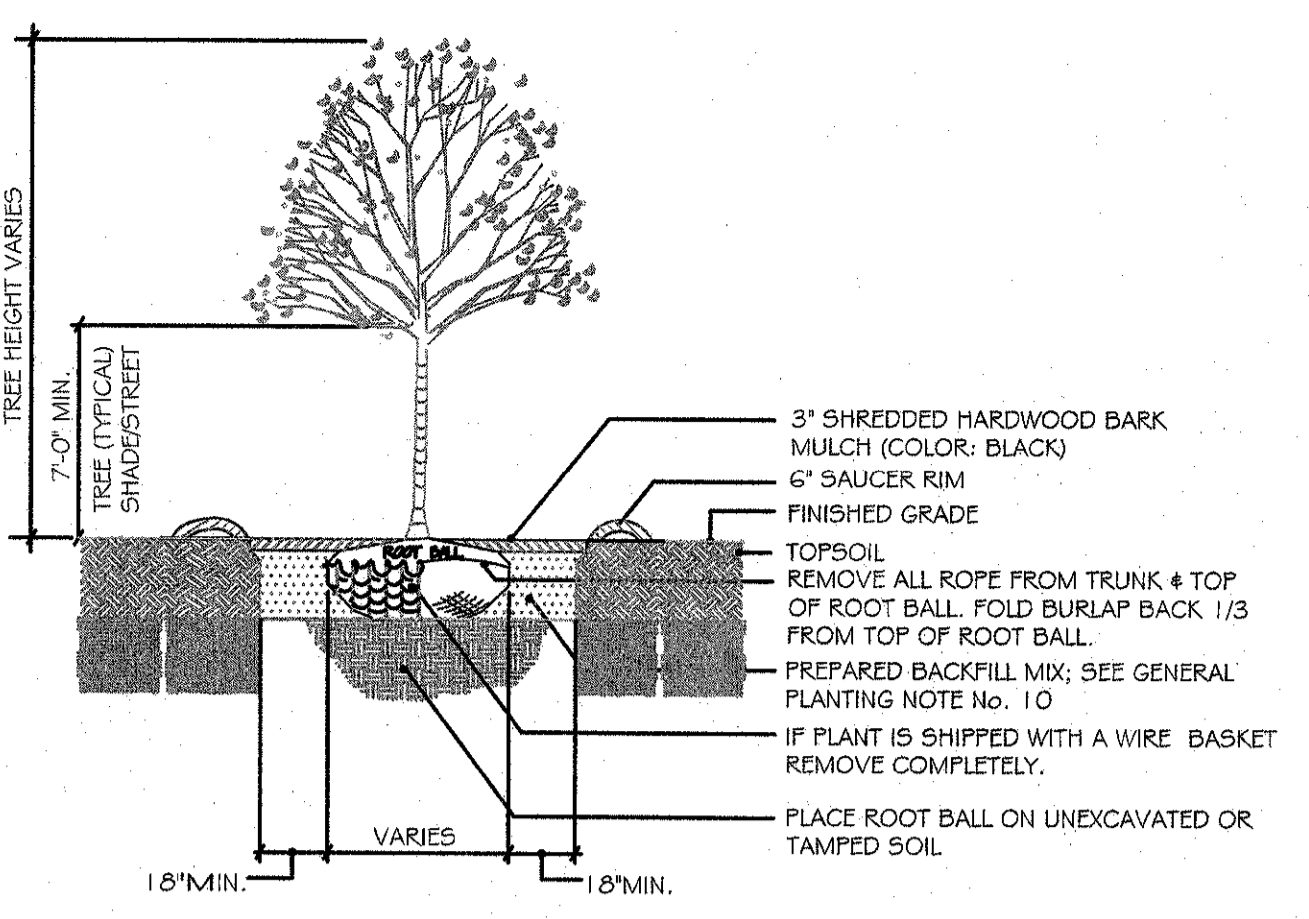
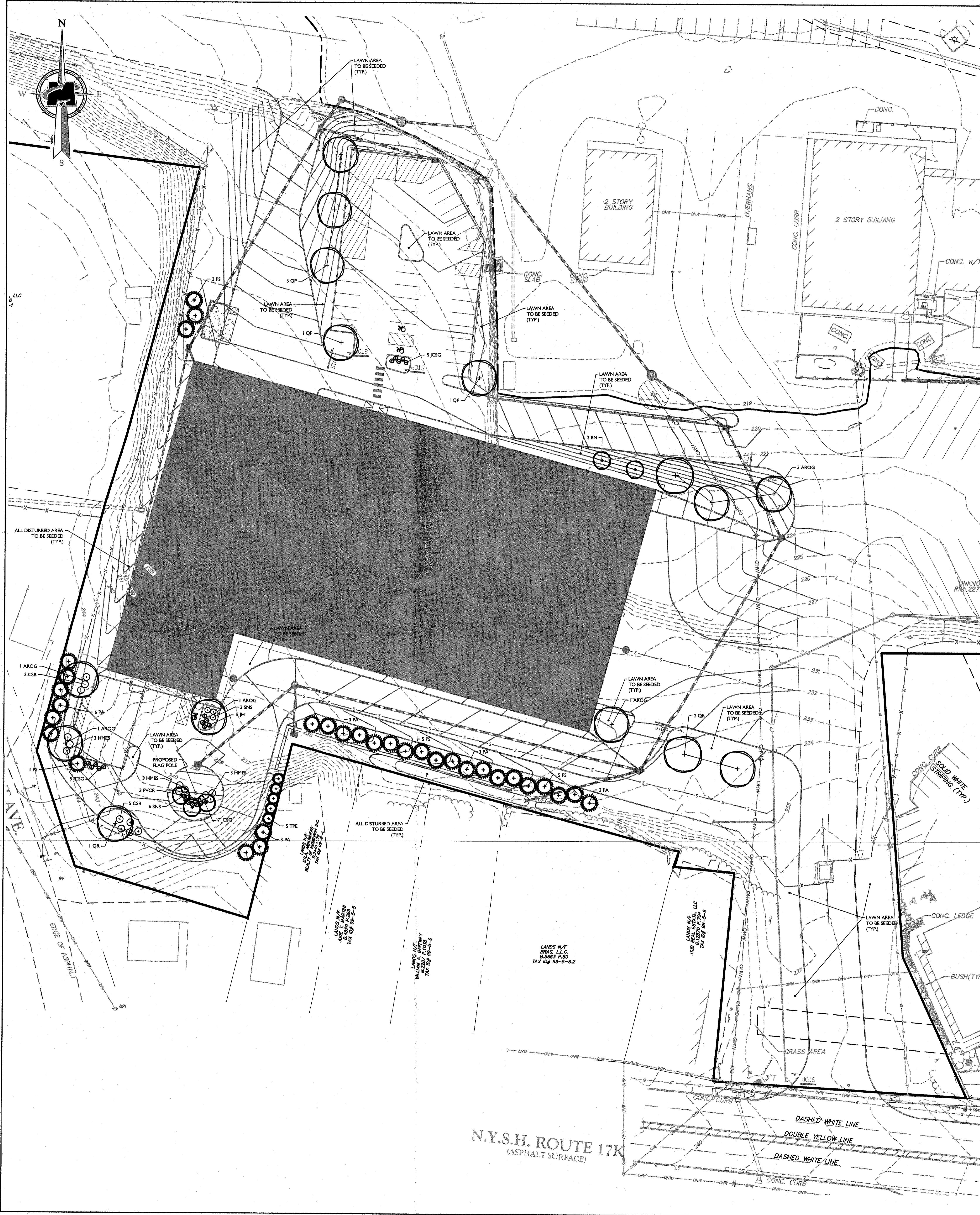
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SHEET TITLE  
**SOIL EROSION & SEDIMENT CONTROL PLAN**  
 SHEET NUMBER:  
 6 of 11

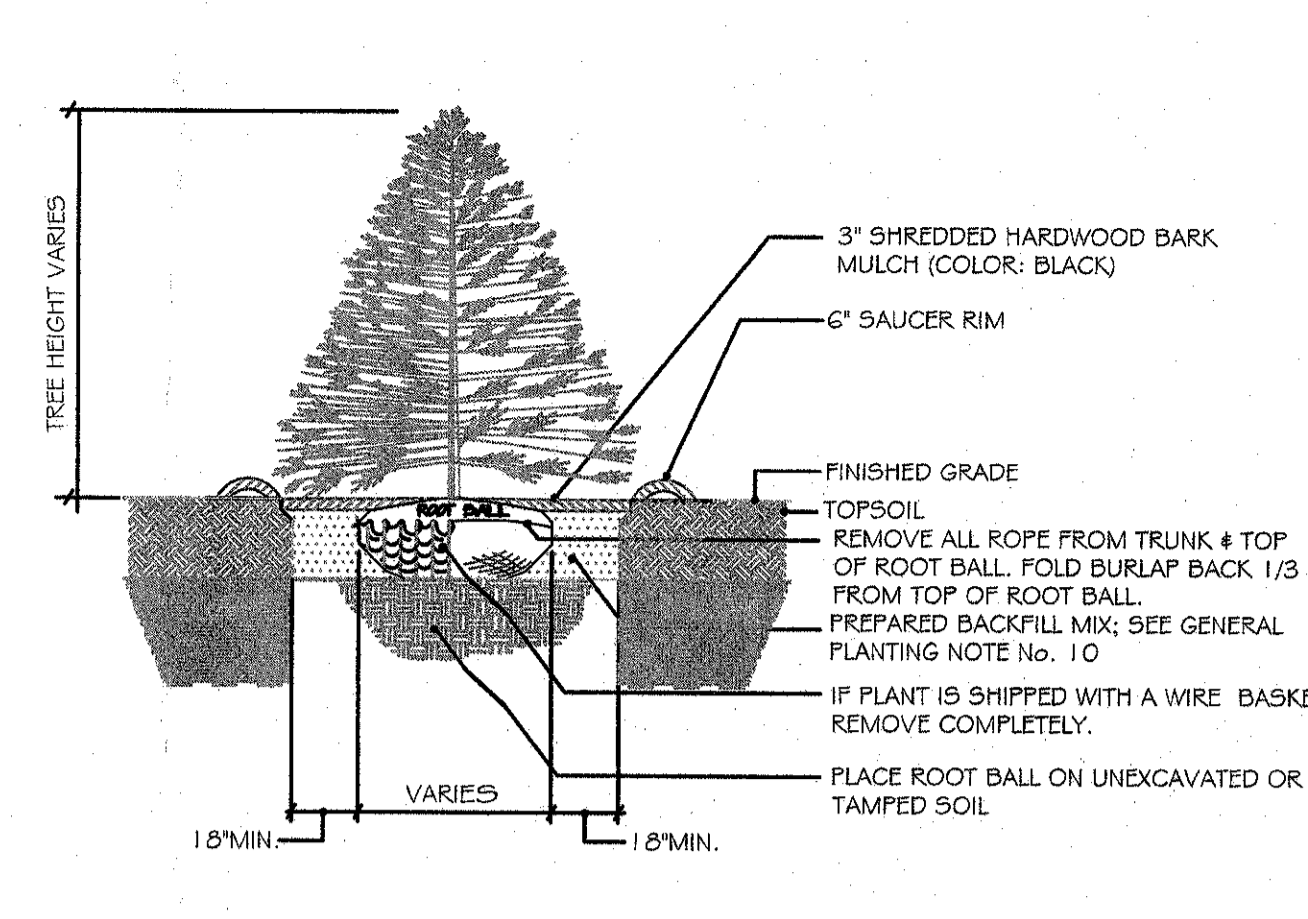




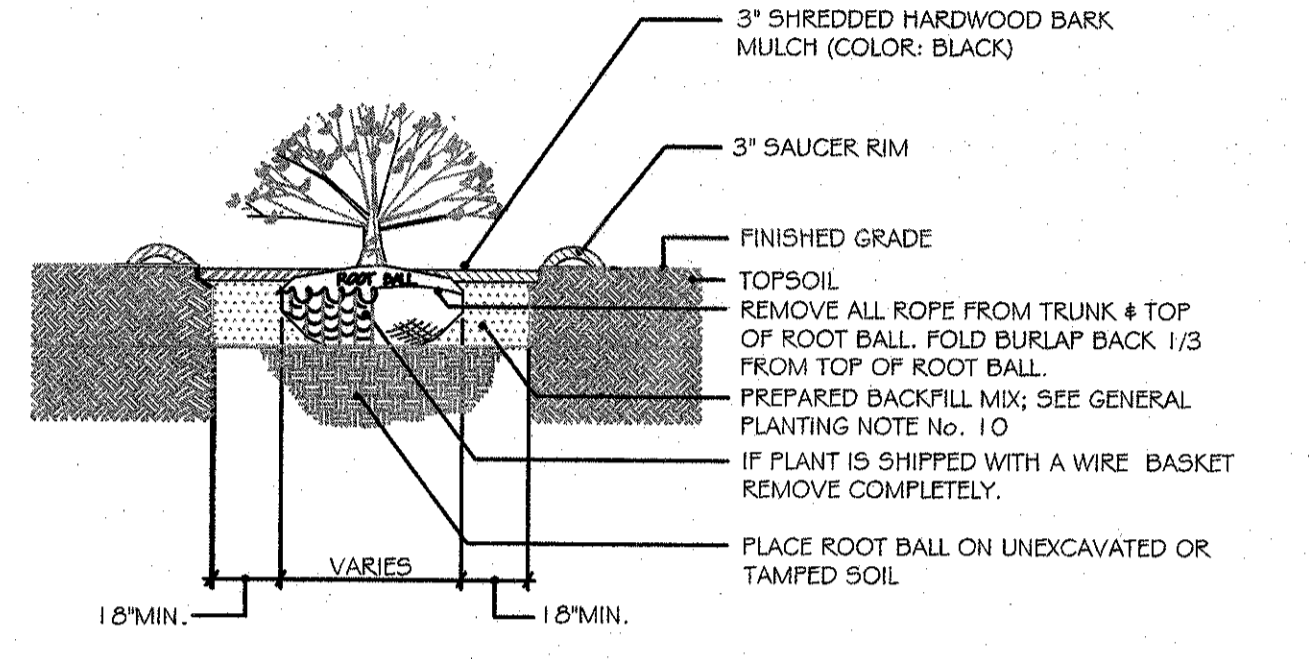




**DECIDUOUS TREE PLANTING DETAIL**  
NOT TO SCALE



**EVERGREEN TREE PLANTING DETAIL**  
NOT TO SCALE



**SHRUB PLANTING DETAIL**  
NOT TO SCALE

**GENERAL PLANTING NOTES**

1. THIS PLAN SHALL BE USED FOR LANDSCAPE PLANTING PURPOSES ONLY. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES AND STRUCTURES AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES OR LOCATION CONFLICTS PRIOR TO PLANTING INSTALLATION.
2. THE CONTRACTOR IS RESPONSIBLE TO LOCATE AND VERIFY LOCATION OF ALL UTILITIES ON SITE PRIOR TO CONSTRUCTION.
3. ALL PLANT MATERIAL SHALL CONFORM TO GUIDELINES AS SET FORTH IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARD FOR NURSERY STOCK OR THE PLANT MATERIAL WILL BE UNACCEPTABLE. ALL PLANT MATERIAL SHALL BE TRUE TO SPECIES, VARIETY, SIZE AND BE CERTIFIED DISEASE AND PEST FREE. THE OWNER AND/OR THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO APPROVE ALL PLANT MATERIAL ON SITE PRIOR TO INSTALLATION.
4. NO PLANT SUBSTITUTIONS SHALL BE PERMITTED WITH REGARD TO SIZE, SPECIES, OR VARIETY WITHOUT WRITTEN PERMISSION OF THE LANDSCAPE CONSULTANT FOR THE TOWN OF NEWBURGH. WRITTEN PROOF OF PLANT MATERIAL AVAILABILITY MUST BE DOCUMENTED.
5. THE LOCATION OF ALL PLANT MATERIAL INDICATED ON THE LANDSCAPE PLANS ARE APPROXIMATE. THE FINAL LOCATION OF ALL PLANT MATERIAL AND PLANTING BED LINES SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT.
6. ALL STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 4'0" ABOVE GRADE. ALL PLANT MATERIAL LOCATED WITHIN SIGHT TRIANGLE EASEMENTS SHALL NOT EXCEED A MATURE HEIGHT OF 30' ABOVE THE ELEVATION OF THE ADJACENT CURB. ALL STREET TREES PLANTED IN SIGHT TRIANGLE EASEMENTS SHALL BE PRUNED TO NOT HAVE BRANCHES BELOW 10'0".
7. THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR.
8. ALL PLANT MATERIAL SHALL BE PROPERLY INSTALLED IN CONFORMANCE WITH THE TYPICAL PLANTING DETAILS. INSTALL ALL PLANT MATERIAL ON UNDISTURBED GRADE. CUT AND REMOVE JUTE BURLAP FROM TOP ONE-THIRD OF THE ROOT BALL. WIRE BASKETS AND NON-JUTE BURLAP SHALL BE COMPLETELY REMOVED PRIOR TO BACKFILLING THE PLANT PIT.
9. BRANCHES OF DECIDUOUS TREES SHALL BE PRUNED BACK BY NO MORE THAN ONE QUARTER (1/4) TO BALANCE THE TOP GROWTH WITH ROOTS AND TO PRESERVE THEIR CHARACTER AND SHAPE. THE CENTRAL LEADER OF TREE SHALL NOT BE PRUNED.
10. PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH ONE PART EACH OF TOPSOIL, PEAT MOSS AND PARENT MATERIAL. IF WET SOIL CONDITIONS EXIST THEN PLANTING PITS SHALL BE EDUCATED AN ADDITIONAL 12" AND FILLED WITH CRUSHED STONE.
11. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO EXISTING GRADE AT NURSERY.
12. OPTIMUM PLANTING TIME:  
DECIDUOUS - APRIL 1 TO JUNE 1 + OCTOBER 15 TO DECEMBER 15.  
CONIFEROUS - APRIL 1 TO JUNE 1 + SEPTEMBER 1 TO NOVEMBER 1.

**PLANT DETAIL NOTES**

1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT. MULCH SHALL NOT TOUCH THE TREE TRUNK.
2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.
3. WIRE BASKETS AND NON-JUTE BURLAP MUST BE ENTIRELY REMOVED FROM THE ROOT BALL. JUTE BURLAP MUST BE REMOVED FROM THE TOP 1/3 OF THE ROOT BALL.
4. DEPTH OF PLANT PIT SHALL BE INCREASED BY 12" WHEREVER POOR SOIL CONDITIONS OCCUR, WITH THE ADDITION OF LOOSE AGGREGATE.
5. CONTRACTOR SHALL PARTIALLY FILL WITH WATER A REPRESENTATIVE NUMBER OF PITS IN EACH AREA OF THE PROJECT PRIOR TO PLANTING TO DETERMINE IF THERE IS ADEQUATE PERCOLATION. IF PIT DOESN'T PERCOLATE, MEASURES MUST BE TAKEN TO ASSURE PROPER DRAINAGE BEFORE PLANTING.
6. PLANTING MUST BE GUARANTEED FOR TWO FULL GROWING SEASONS FROM THE TIME OF FINAL ACCEPTANCE BY THE TOWN LANDSCAPE CONSULTANT. CONTRACTOR SHALL REMOVE ALL WRAPPING AT THE END OF GUARANTEE PERIOD.
7. BACKFILL MIXTURE TO BE SPECIFIED BASED UPON SOIL TEST AND CULTURAL REQUIREMENTS OF PLANT.
8. PRUNE DAMAGED AND CONFLICTING BRANCHES MAINTAINING NORMAL TREE SHAPE, NEVER CUT CENTRAL TRUNK OR LEADER.
13. NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION. REGULAR WATERING SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH AND SURVIVAL OF ALL PLANTS.
14. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR TWO YEARS AFTER THE DATE OF FINAL ACCEPTANCE. ANY PLANT MATERIAL THAT DIES WITHIN THAT TIME PERIOD SHALL BE REMOVED, INCLUDING THE STUMP, AND REPLACED BY A TREE OF SIMILAR SIZE AND SPECIES AT NO EXPENSE TO THE OWNER.
15. THE LANDSCAPE CONTRACTOR SHALL PROVIDE A MINIMUM 4"-6" LAYER OF TOPSOIL IN ALL LAWN AREAS AND A MINIMUM OF 12" OF TOPSOIL IN ALL PLANTING AREAS. A FULL SOIL ANALYSIS SHALL BE CONDUCTED AFTER CONSTRUCTION AND PRIOR TO PLANTING TO DETERMINE THE EXTENT OF SOIL AMENDMENT REQUIRED. SOIL PH SHOULD BE 5.4-5.5.
16. ALL DISTURBED LAWN AREAS SHALL BE STABILIZED WITH SEED AS INDICATED ON THE LANDSCAPE PLANS. TEMPORARY SEEDING SHALL BE IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENT CONTROL PLAN. WHILE PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH THE SEEDING NOTES ON THE EROSION CONTROL SHEET. ALL DISTURBED LAWN AREAS SHALL BE TOPSOILED, LIMED, FERTILIZED AND FINE GRADED PRIOR TO LAWN INSTALLATION.
17. ALL PLANTING BEDS SHALL RECEIVE 3" OF SHREDDED HARDWOOD BARK MULCH (COLOR: BLACK).
18. ALL SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS.
19. ALL EXISTING TREES AND SHRUBS TO BE PRESERVED ON SITE SHALL BE PROTECTED AGAINST CONSTRUCTION DAMAGE BY SNOW FENCING. ALL FENCING SHALL BE PLACED OUTSIDE THE INDIVIDUAL TREE CANOPY. ALL TREES TO REMAIN SHALL BE IDENTIFIED IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION, GRADING OR CLEARING. ALL EXISTING VEGETATION PRESERVED AND LOCATED AT THE EDGE OF THE NEW TREELINE, SHALL BE PRUNED AND TRIMMED TO REMOVE ALL DEAD, DISEASED, OR DAMAGED BRANCHES.
20. ALL PLANTING DEBRIS (WIRE, TWINE, RUBBER HOSE, BACKFILL ETC.) SHALL BE REMOVED FROM THE SITE AFTER PLANTING IS COMPLETE. PROPERTY IS TO BE LEFT IN A NEAT ORDERLY CONDITION IN ACCORDANCE WITH ACCEPTED FINISHING PRACTICES.

KEY	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	SPREAD	ROOT	REMARKS
<b>SHADE TREES</b>								
AROG	7	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	20' - 25'1/2"	2"	2'-2 1/2'	B & B	STRAIGHT LEADER/TYP. BRANCHING
QP	5	QUERCUS PALLASTRIS	PI NOAK	8' - 12'	2"	2'-2 1/2'	B & B	STRAIGHT LEADER/TYP. BRANCHING
QR	3	QUERCUS RUBRA	NORTHERN RED OAK	20' - 25'	2"	2'-2 1/2'	B & B	STRAIGHT LEADER/TYP. BRANCHING
<b>EVERGREEN TREES</b>								
PA	20	PICEA ABIES	NORWAY SPRUCE	10' - 12'	1 1/2"	10' - 12'	B & B	STRAIGHT LEADER/TYP. SPECIES HABIT
PS	11	PINUS STROBUS	EASTERN WHITE PINE	10' - 12'	1 1/2"	10' - 12'	B & B	STRAIGHT LEADER/TYP. SPECIES HABIT
TRE	5	THUJA PLATA 'EXCELSA'	EXCELSA WESTERN ARBORVITAE	8' - 10'	1 1/2"	8' - 10'	B & B	STRAIGHT LEADER/TYP. SPECIES HABIT
<b>ORNAMENTAL TREES</b>								
BN	3	BETULA NIGRA 'DURA HEAT'	DURA HEAT RIVER BIRCH	8' - 10'	1 1/2"	8' - 10'	CONT.	CLUMP/TYP. SPECIES HABIT
PVCR	3	PRUNUS VIRGINIANA 'CANADA RED'	CANADA RED CHOCHECHERRY	8' - 10'	1 1/2"	8' - 10'	B & B	STRAIGHT LEADER/TYP. SPECIES HABIT
<b>SHRUBS</b>								
CSB	8	CORNUS SERICEA 'BAILEY'	RED OBER DOGWOOD	24"-30"	1 1/2"	24"-30"	CONT.	TYPICAL SPECIES HABIT
HMES	9	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER'	ENDLESS SUMMER HYDRANGEA	24"-30"	1 1/2"	24"-30"	CONT.	TYPICAL SPECIES HABIT
JCSG	17	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	24"-30"	1 1/2"	24"-30"	CONT.	TYPICAL SPECIES HABIT
JH	5	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR JUNIPER	24"-30"	1 1/2"	24"-30"	CONT.	TYPICAL SPECIES HABIT
SNS	9	SPIRAEA JAPONICA 'SNOWMOUND'	SNOWMOUND SPIREA	18"-24"	1 1/2"	18"-24"	CONT.	TYPICAL SPECIES HABIT

NOTE: FALL PLANTING HAZARD

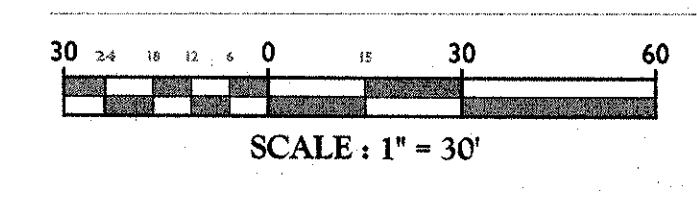
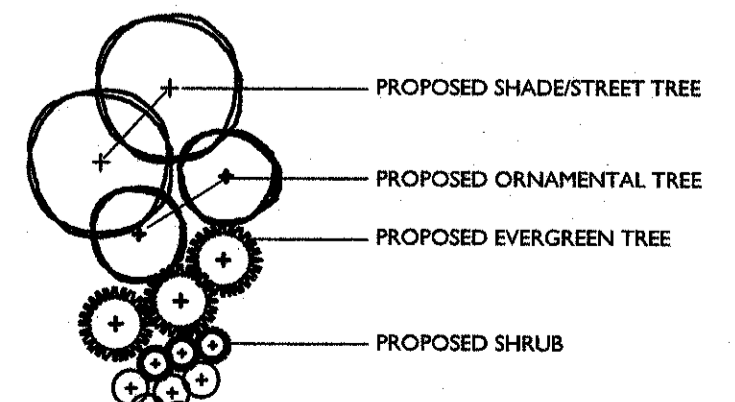
**PLAN NOTE**

1. THESE PLANS ARE TO BE USED FOR LANDSCAPE PURPOSES ONLY. REFER TO EROSION AND SEDIMENT CONTROL DETAIL SHEET FOR SEEDING NOTES.

**LANDSCAPE NOTES**

1. LOCATIONS OF ALL PLANT MATERIAL AND PLANTING BED OUTLINES IS APPROXIMATE AND MAY VARY DUE TO THE LOCATIONS OF SITE IMPROVEMENTS AND/OR BUILDINGS.
2. FINAL LOCATION OF ALL PLANT MATERIAL AND PLANTING BED OUTLINES SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE PROJECT LANDSCAPE ARCHITECT.
3. ALL AREAS WITHIN THE PLANTING BED LIMITS SHALL BE MULCHED WITH 3" OF SHREDDED HARDWOOD BARK MULCH (COLOR: BLACK).
4. LAWN AREAS SHALL BE STABILIZED WITH SEED.
5. ANY PROPOSED IRRIGATION DESIGN AND/OR SYSTEM WILL BE DETERMINED IN THE FIELD BY THE IRRIGATION CONTRACTOR.
6. ALL PLANT MATERIAL SHALL CONFORM TO GUIDELINES AS SET FORTH IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARD FOR NURSERY STOCK.
7. NO SUBSTITUTIONS OF PLANT MATERIALS SHALL BE MADE WITHOUT WRITTEN CONSENT FROM THE TOWN OF NEWBURGH LANDSCAPE CONSULTANT.

**LANDSCAPE LEGEND**



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1			

REGISTERED LANDSCAPE ARCHITECT  
JUSTIN E. DATES  
NEW YORK REGISTERED  
LANDSCAPE ARCHITECT - LICENSE NUMBER: 001964

**SITE PLAN**  
FOR  
**18 ROUTE 17K, LLC**

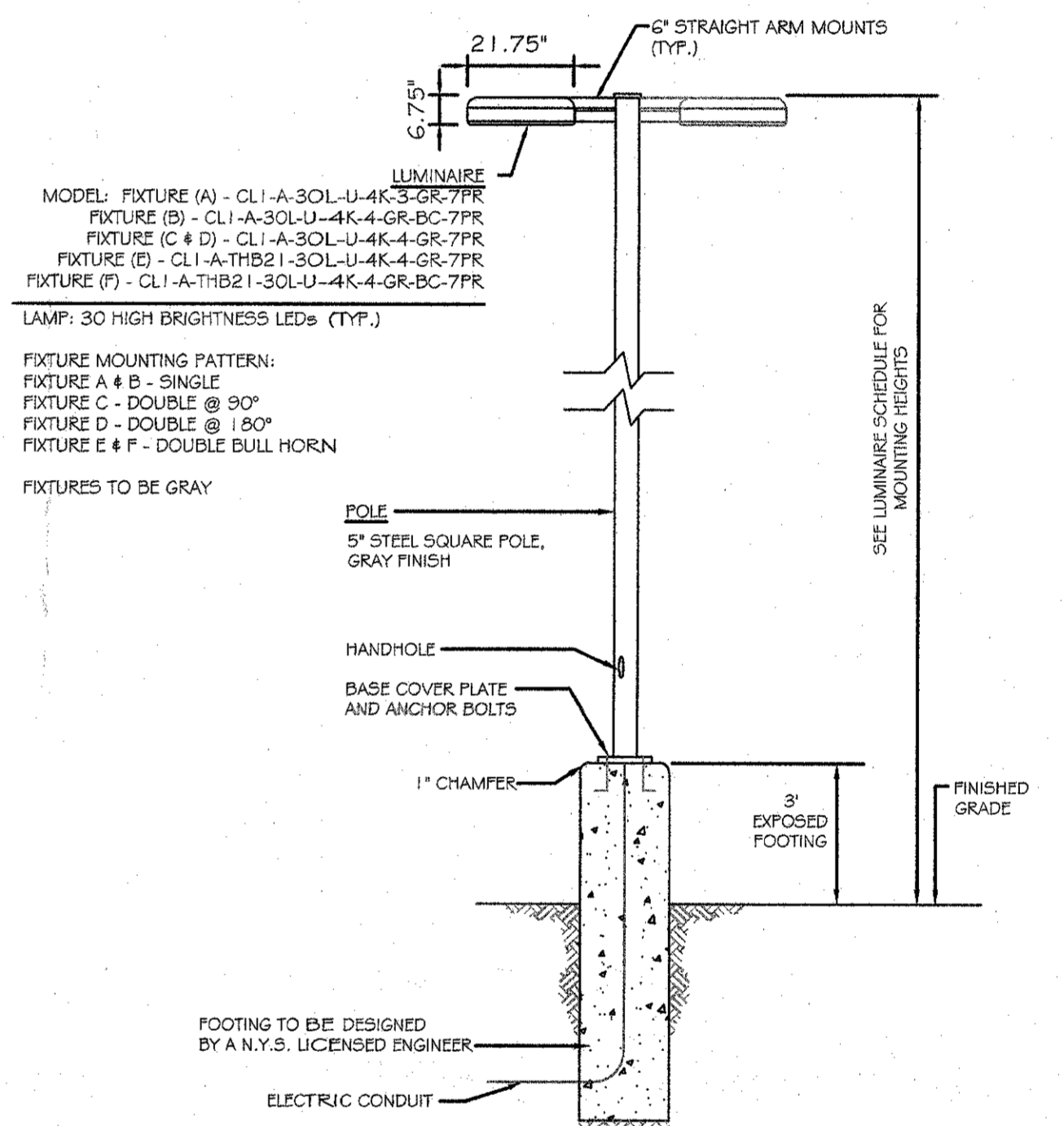
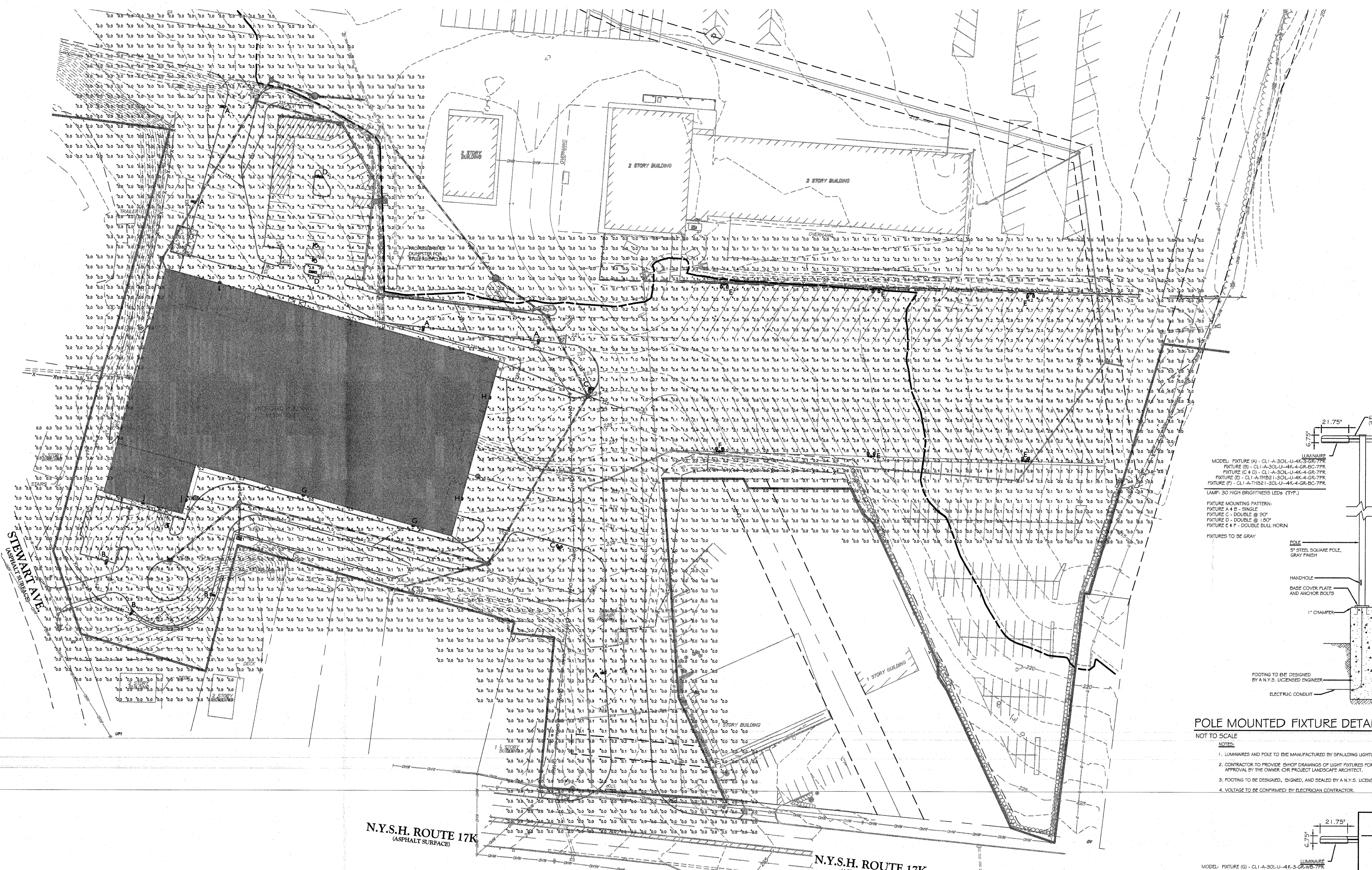
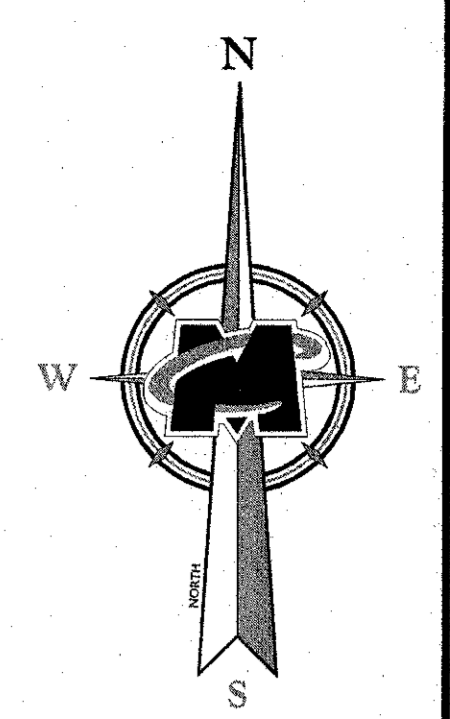
SECTION 97  
BLOCK 1  
LOT 21.2  
TOWN OF NEWBURGH  
COUNTY OF ORANGE  
STATE OF NEW YORK

NEW WINDSOR OFFICE  
355 Hudson Valley Avenue  
Suite 101  
New Windsor, NY 12553  
Phone: 845.564.4895  
Fax: 845.567.1025

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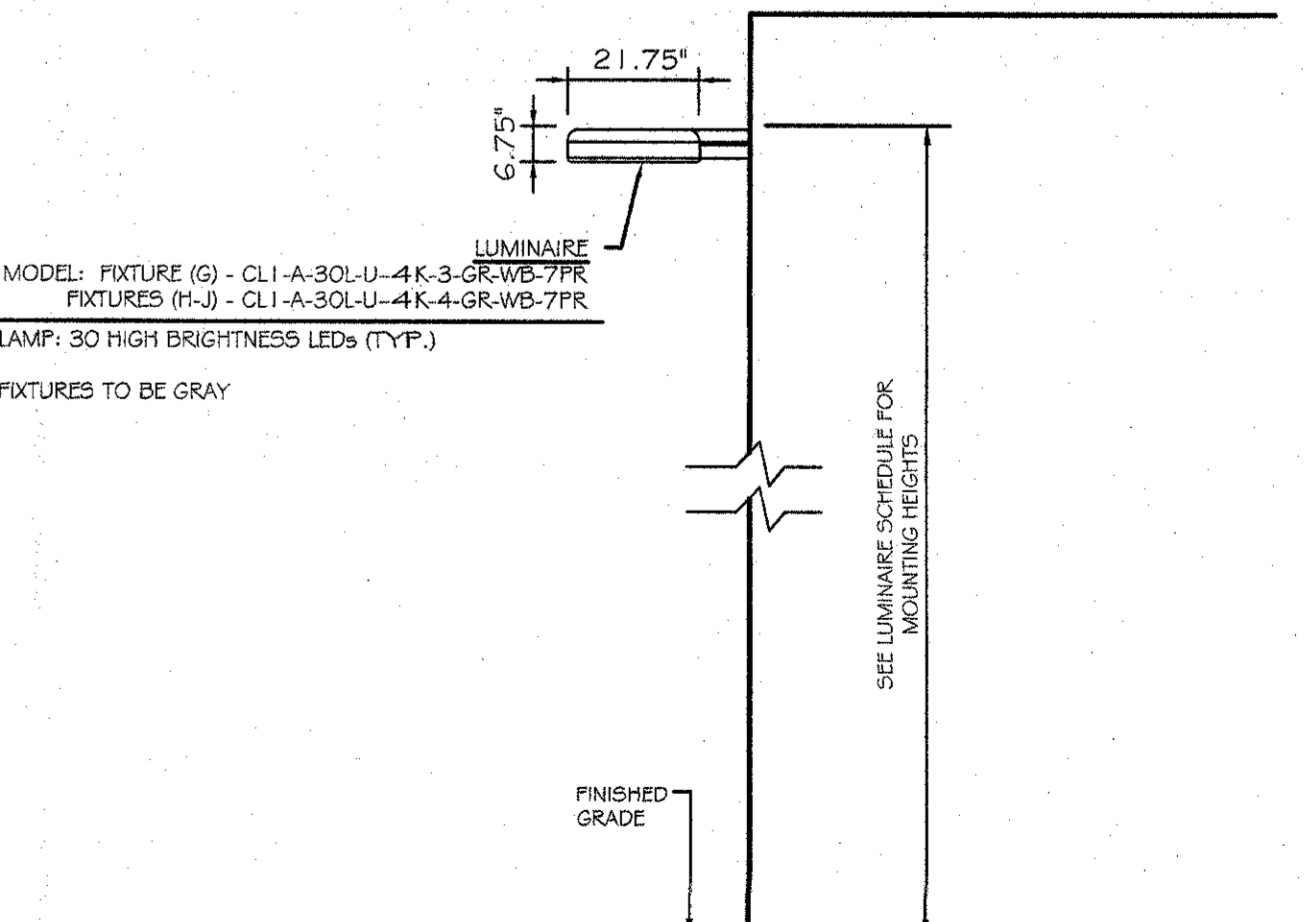
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DRAWING NAME: CLAND  
SHEET TITLE: **LANDSCAPE PLAN**  
SHEET NUMBER: **08** of **11**





POLE MOUNTED FIXTURE DETAIL (FIXTURES: A-F)  
 NOT TO SCALE

- NOTES:
1. LUMINAIRES AND POLE TO BE MANUFACTURED BY SPAULDING LIGHTING.
  2. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.
  3. FOOTING TO BE DESIGNED, SIGNED, AND SEALED BY A N.Y.S. LICENSED ENGINEER.
  4. VOLTAGE TO BE CONFIRMED BY ELECTRICIAN CONTRACTOR.



WALL MOUNTED FIXTURE DETAIL (FIXTURES: G-J)  
 NOT TO SCALE

- NOTES:
1. LUMINAIRES AND WALL BRACKET TO BE MANUFACTURED BY SPAULDING LIGHTING.
  2. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.
  3. WALL BRACKET CATALOG NUMBERS: WB-AREA-CB
  4. VOLTAGE TO BE CONFIRMED BY ELECTRICIAN CONTRACTOR.

KEY	QTY.	DESCRIPTION	ARRANGEMENT	MTG. HT.	LUMENS	LLF	CATALOG #
A	5	SPAULDING LIGHTING CIMARRON LED	POLE - SINGLE	20'	13,500	0.98	CL1-A-30L-U-4K-3-GR-7PR
B	3	SPAULDING LIGHTING CIMARRON LED	POLE - SINGLE	16'	13,500	0.98	CL1-A-30L-U-4K-4-GR-BC-7PR
C	2	SPAULDING LIGHTING CIMARRON LED	POLE-DOUBLE @ 90°	25'	13,500	0.98	CL1-A-30L-U-4K-4-GR-7PR
D	2	SPAULDING LIGHTING CIMARRON LED	POLE-DOUBLE @ 180°	20'	13,500	0.98	CL1-A-30L-U-4K-4-GR-7PR
E	5	SPAULDING LIGHTING CIMARRON LED	POLE-DOUBLE BULL HORN	25'	13,500	0.98	CL1-A-30L-U-4K-4-GR-7PR
F	1	SPAULDING LIGHTING CIMARRON LED	POLE-DOUBLE BULL HORN	25'	13,500	0.98	CL1-A-30L-U-4K-4-GR-7PR
G	2	SPAULDING LIGHTING CIMARRON LED	WALL MOUNT-SINGLE	17'	13,500	0.98	CL1-A-30L-U-4K-3-GR-WB-7PR
H	2	SPAULDING LIGHTING CIMARRON LED	WALL MOUNT-SINGLE	20'	13,500	0.98	CL1-A-30L-U-4K-4-GR-WB-7PR
I	1	SPAULDING LIGHTING CIMARRON LED	WALL MOUNT-SINGLE	17'	13,500	0.98	CL1-A-30L-U-4K-4-GR-WB-7PR
J	2	SPAULDING LIGHTING CIMARRON LED	WALL MOUNT-SINGLE	12'	13,500	0.98	CL1-A-30L-U-4K-4-GR-WB-7PR

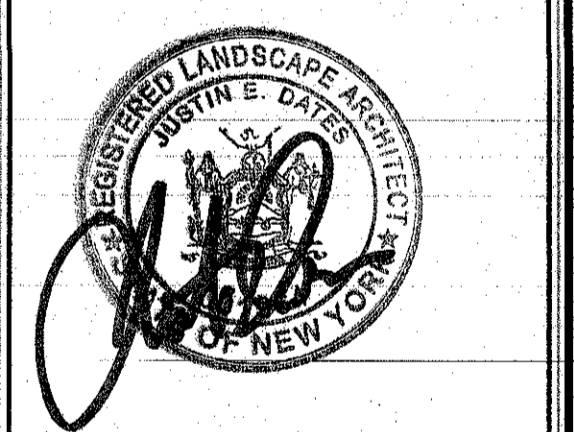
**LIGHTING NOTES:**

1. THIS PLAN IS TO BE USED FOR LIGHTING PURPOSES ONLY.
2. POLES, LUMINAIRES AND FIXTURES AS SUPPLIED BY SPAULDING LIGHTING.
3. LAMPS ARE TO BE LED'S. A LIGHT LOSS FACTOR OF 0.98 WAS USED.
4. LUMINAIRES AND POLES ARE TO BE GRAY.
5. POLE MOUNTED FIXTURES SHALL BE PLACED A MINIMUM OF THREE (3) FEET BEHIND CURBS IN CAR PARKING AREAS.
6. PROPOSED LIGHT FIXTURE LOCATIONS ARE CRITICAL TO PROVIDE THE LIGHTING LEVELS DEPICTED ON THIS PLAN. THE LIGHTING CONTRACTOR SHALL FIELD VERIFY FIXTURE LOCATIONS PRIOR TO INSTALLATION. IF ADJUSTMENT TO ANY LIGHT FIXTURE LOCATION IS REQUIRED DUE TO FINAL CONSTRUCTION OF UTILITIES AND SITE IMPROVEMENTS, THE LIGHTING CONTRACTOR SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO INSTALLATION.
7. POLE SIZES TO BE CONFIRMED WITH MANUFACTURER.
8. LIGHTING SHOWN ON PLAN DEPICTS AVERAGE MAINTAINED FOOTCANDLE LEVELS AT GRADE.
9. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT.
10. ELECTRICAL PLANS FOR WIRING LAYOUT BY OTHERS.
11. POLE BASE INSTALLATION SHALL INCLUDE A SUPPLEMENTARY GROUND ROD AND WIRE LEAD TO BASE FOR POWER CONNECTION. DETAILS PER PROJECT ELECTRICAL ENGINEER.

CALCULATION SUMMARY					
AREA	CALC TYPE	UNITS	AVG	MAX	MIN
PARKING/DRIVES/WALKS	ILLUMINANCE	Fc	1.1	6.4	0.1

DATE	DESCRIPTION	DATE	DESCRIPTION

DATE	DESCRIPTION	DATE	DESCRIPTION



**JUSTIN E. DATES**  
 NEW YORK REGISTERED  
 LANDSCAPE ARCHITECT - LICENSE NUMBER 00194

**SITE PLAN**  
 FOR  
**18 ROUTE 17K, LLC**

**SECTION 97**  
**BLOCK 1**  
**LOT 21.2**

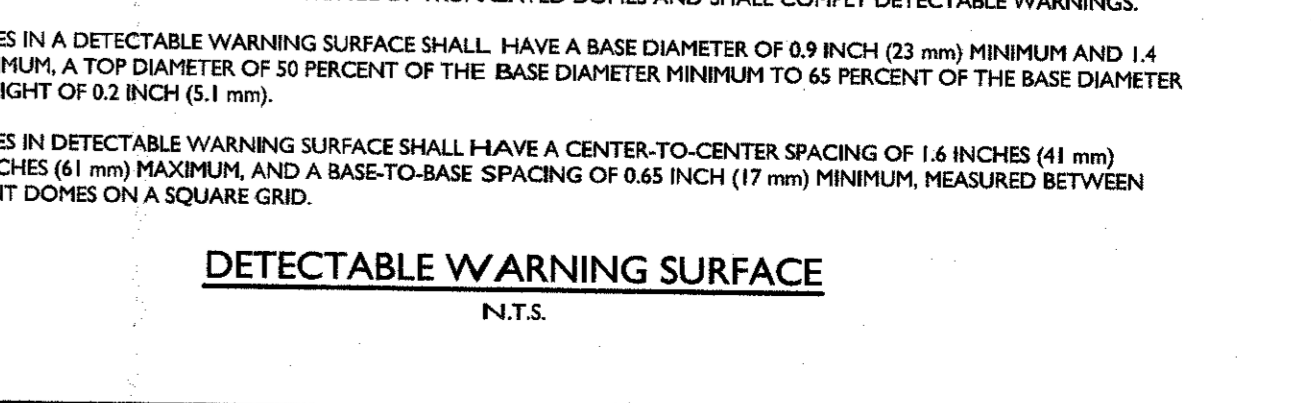
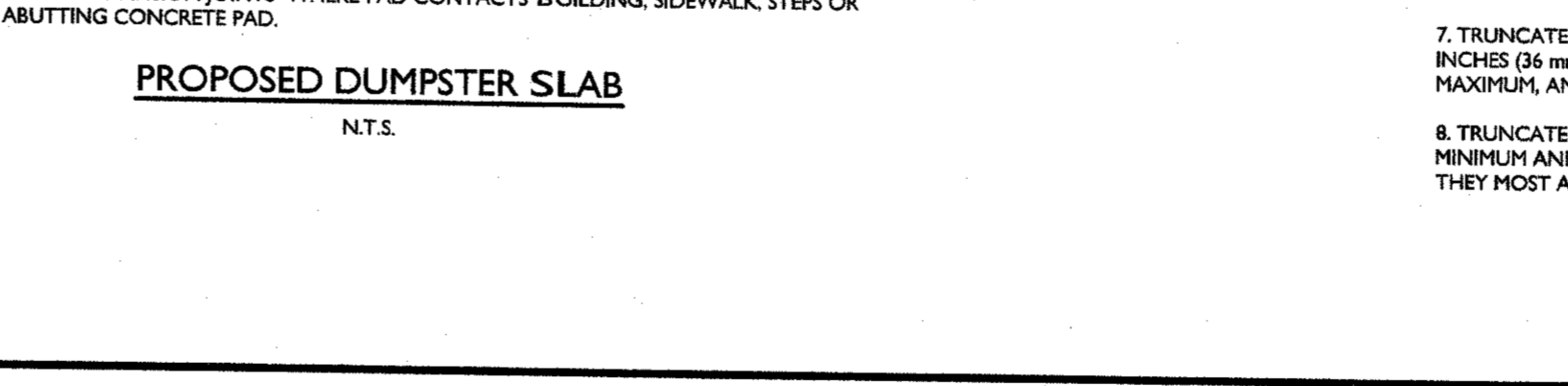
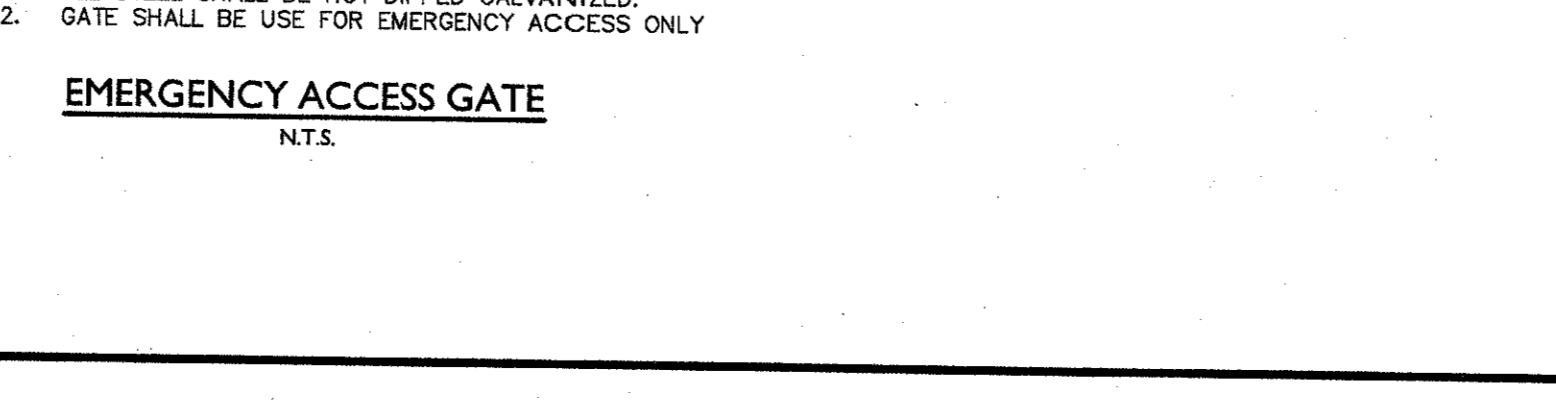
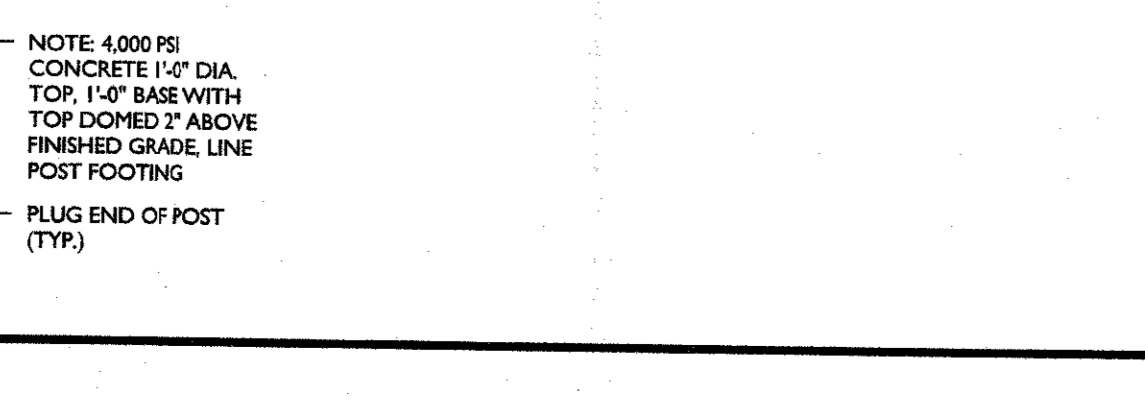
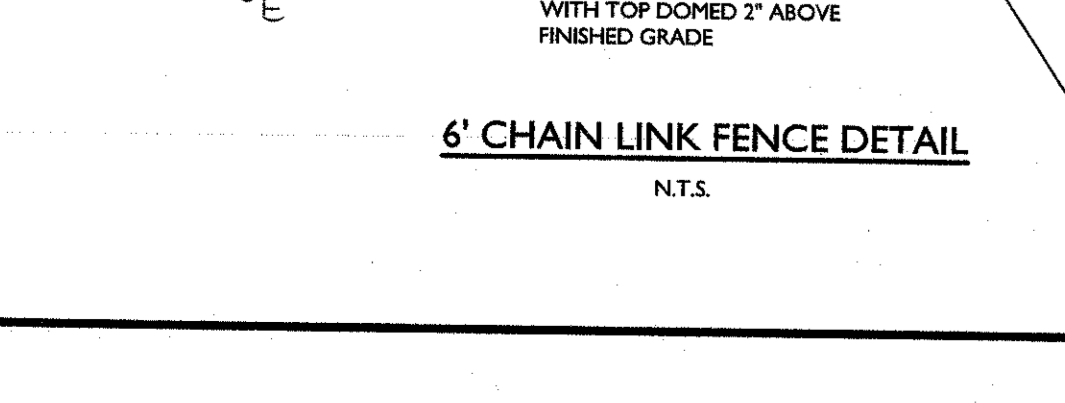
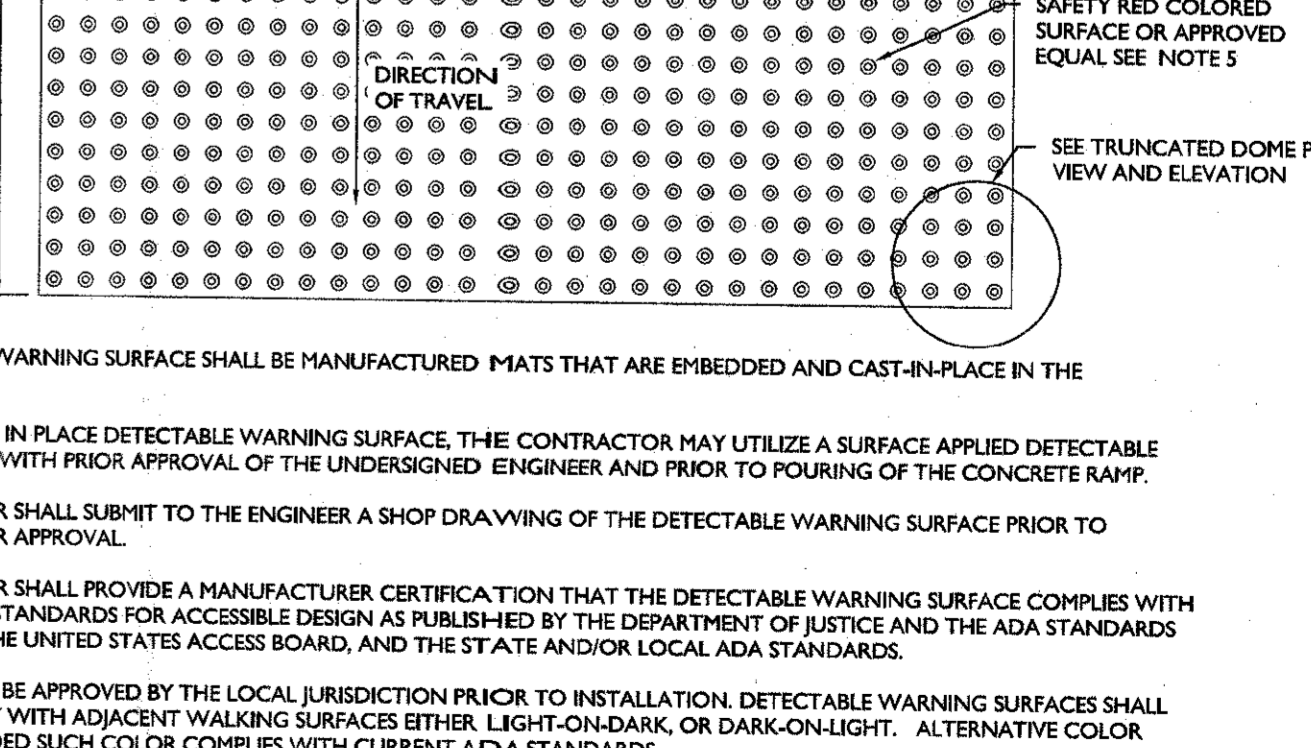
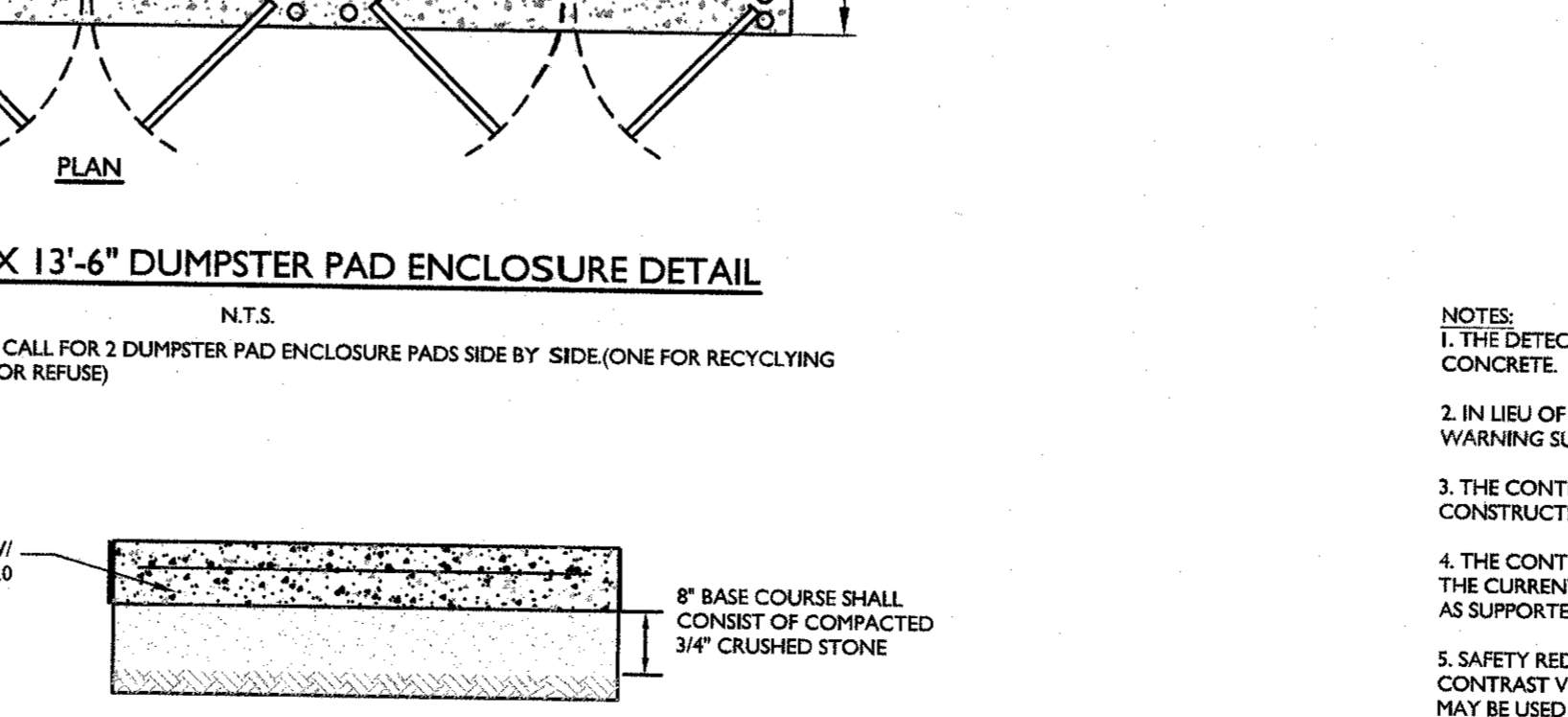
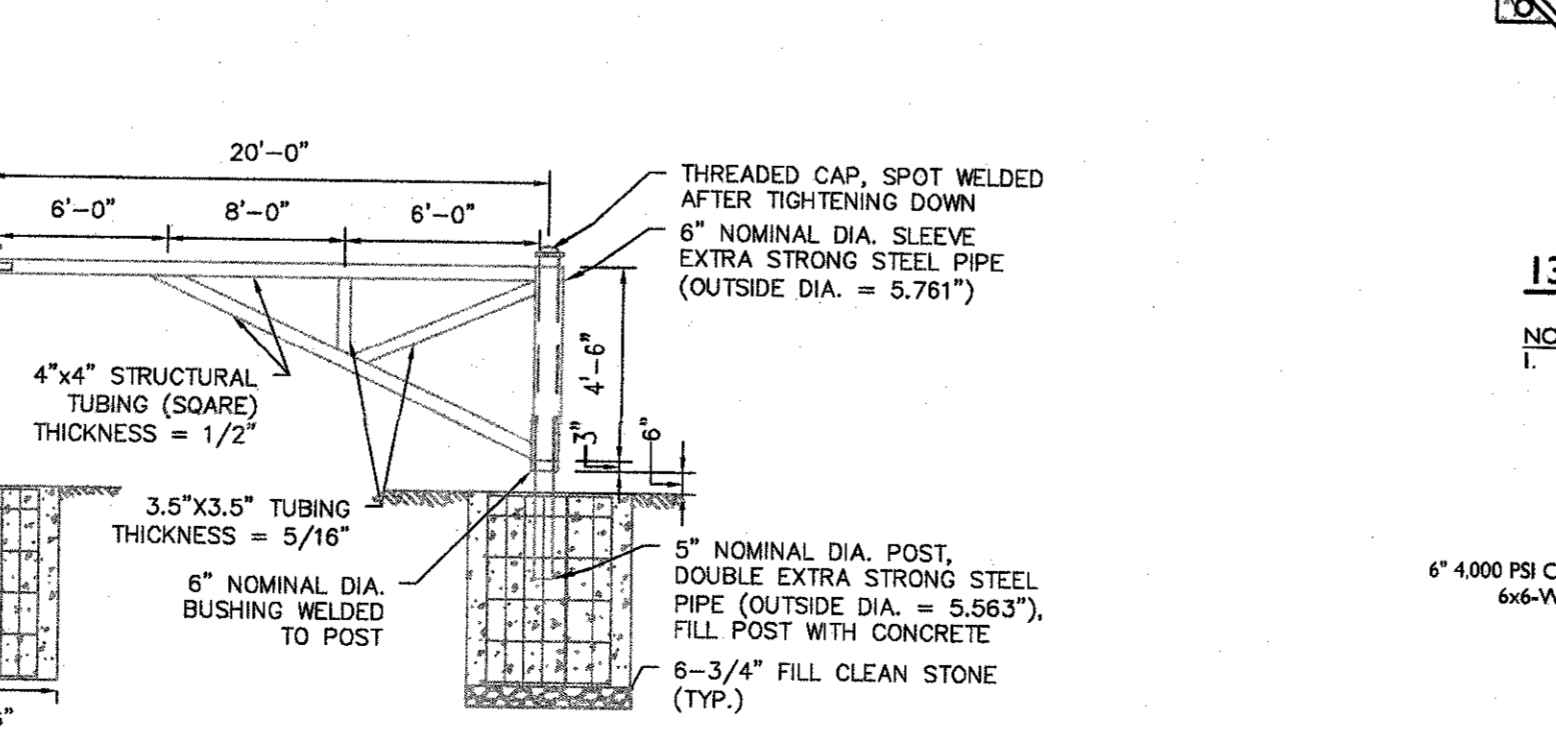
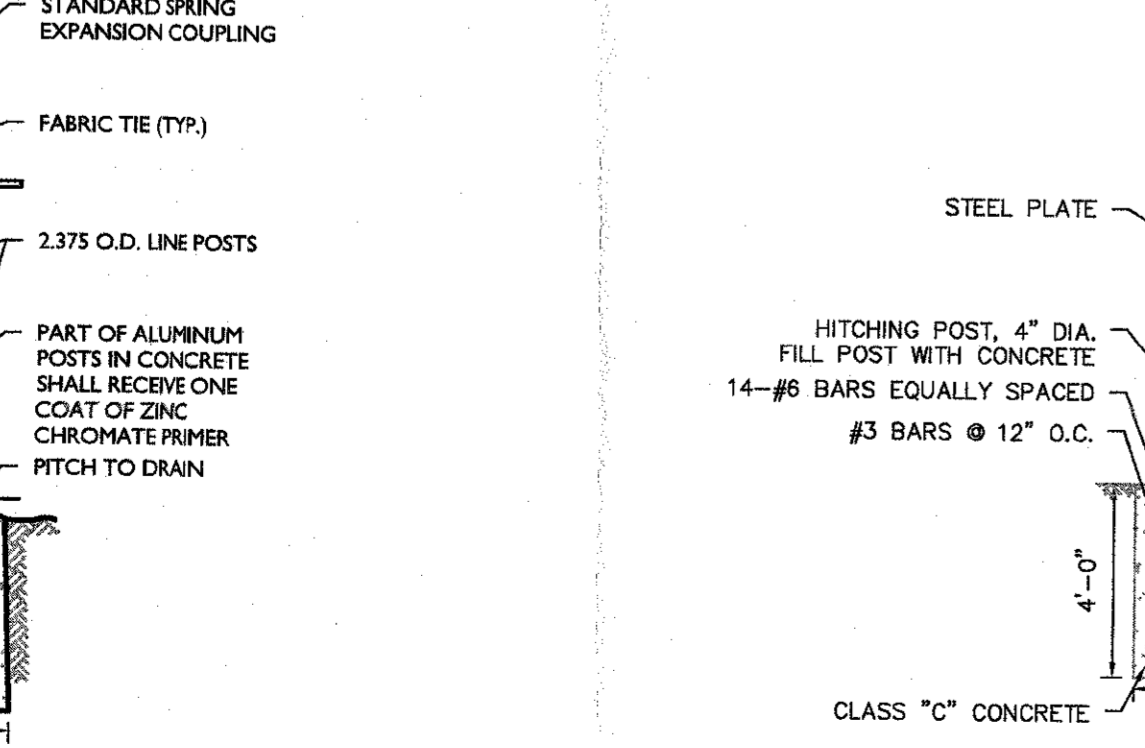
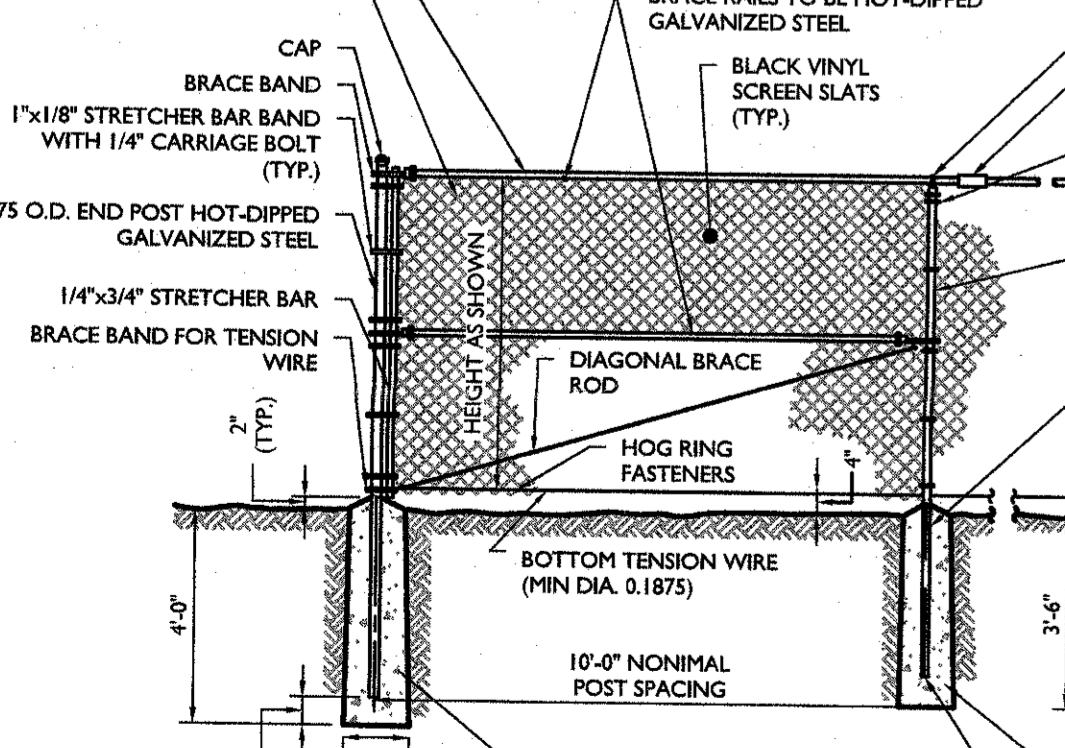
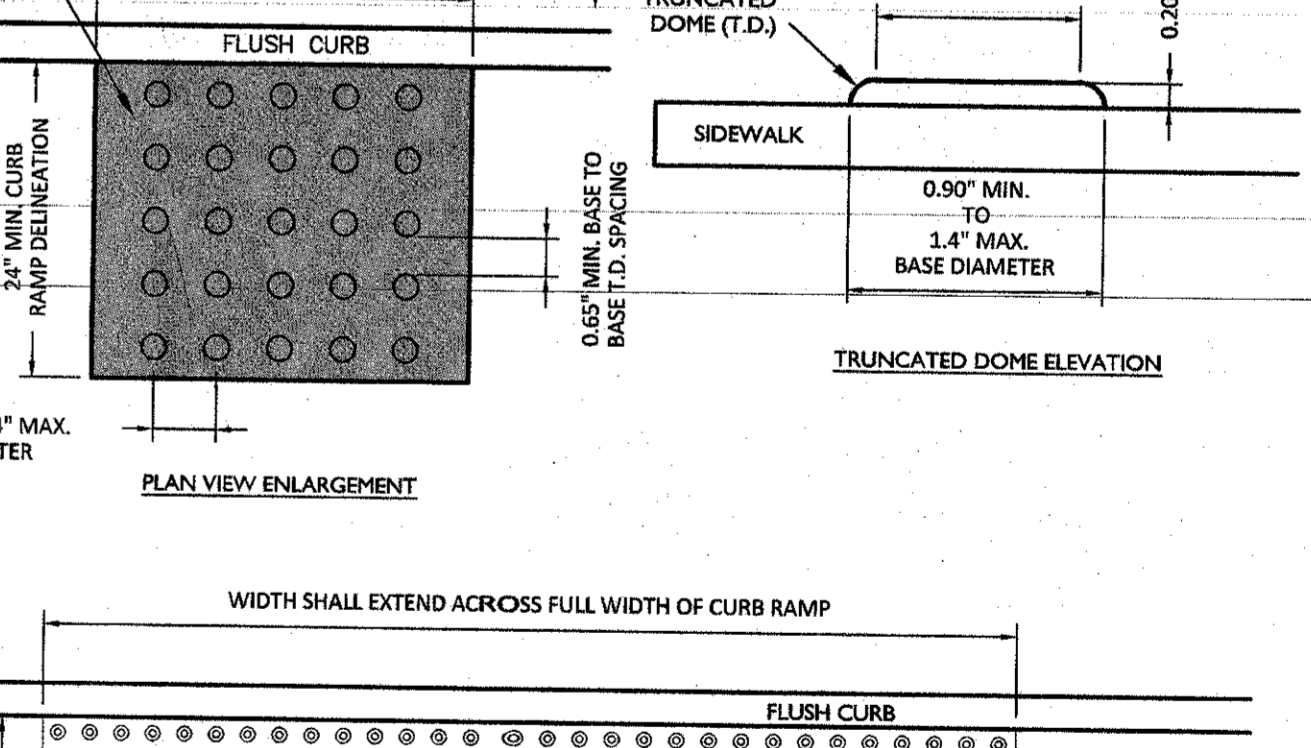
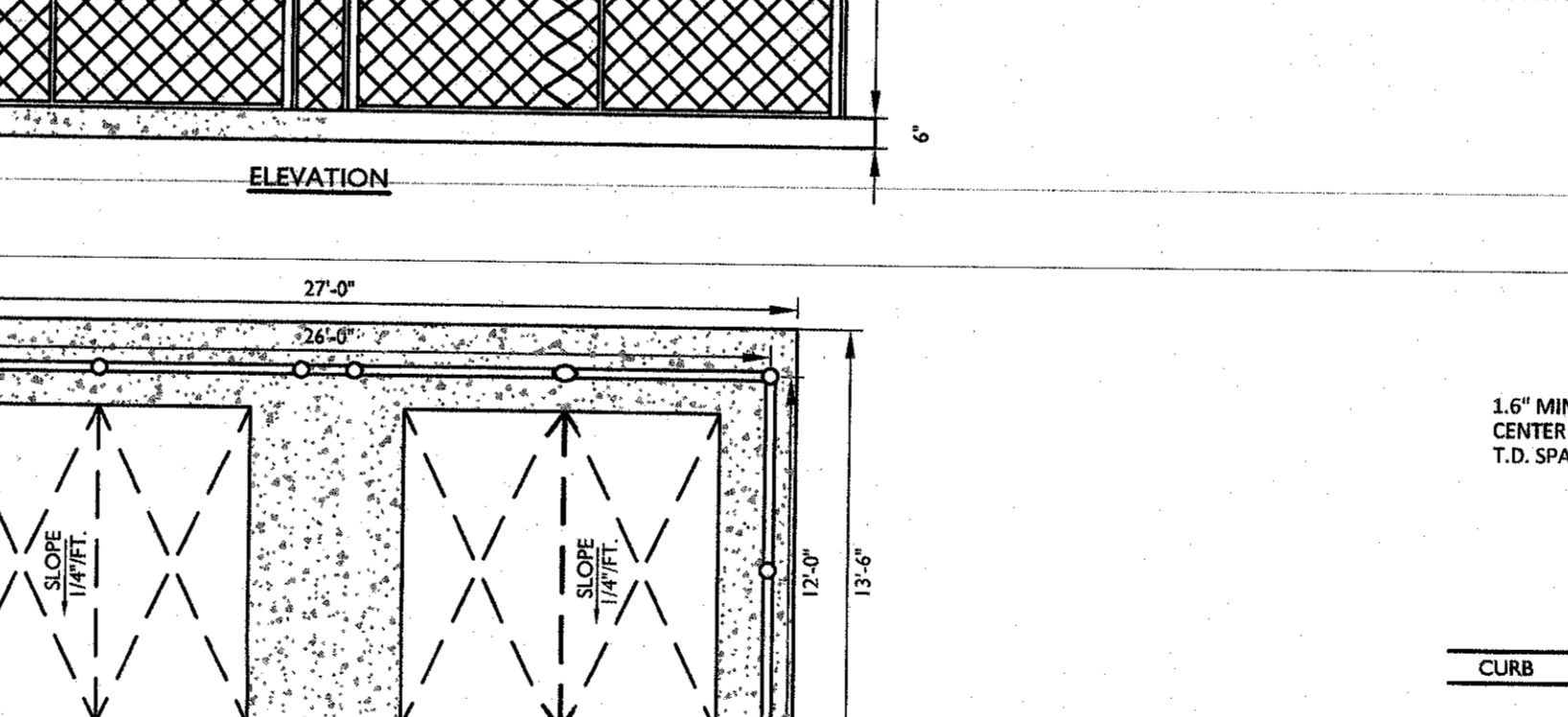
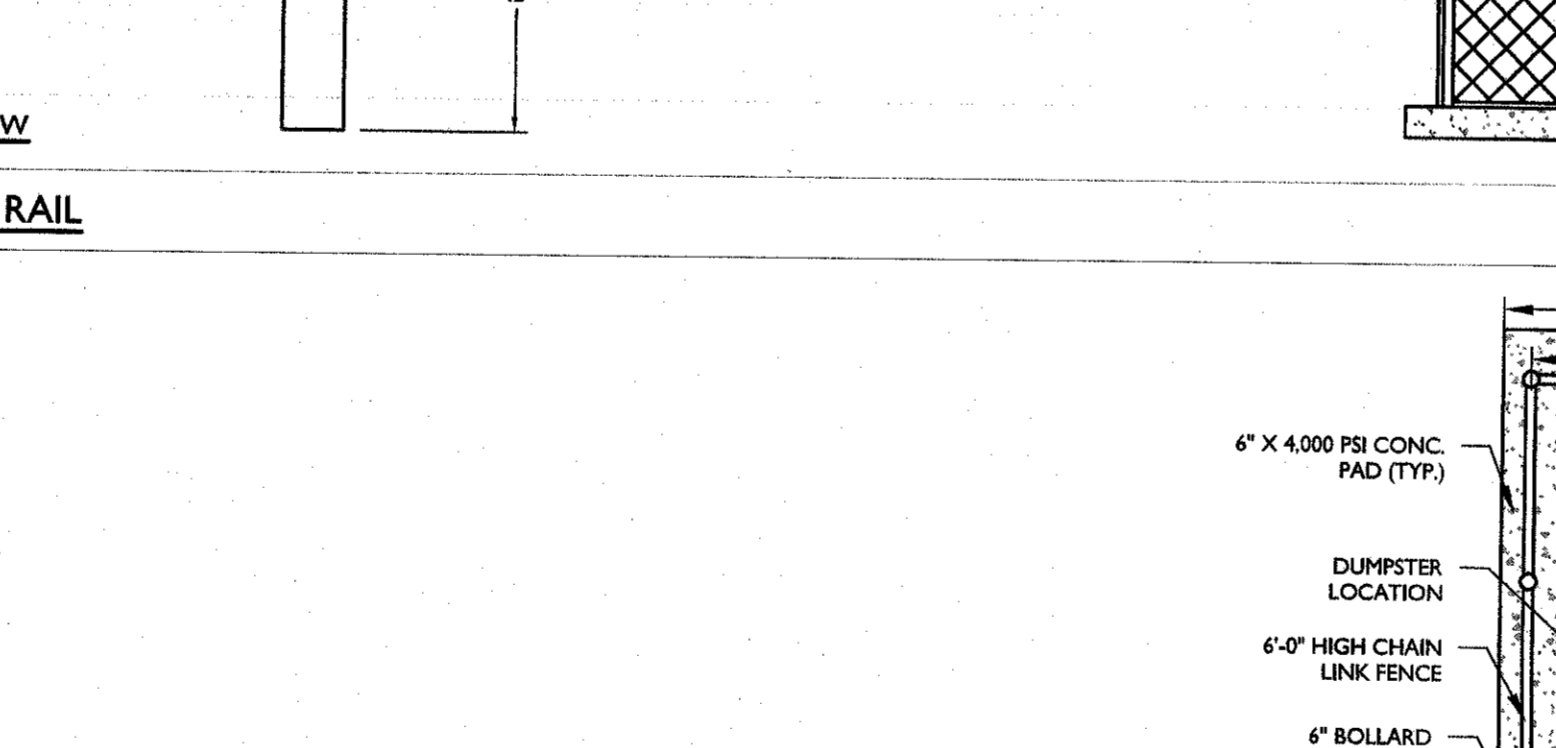
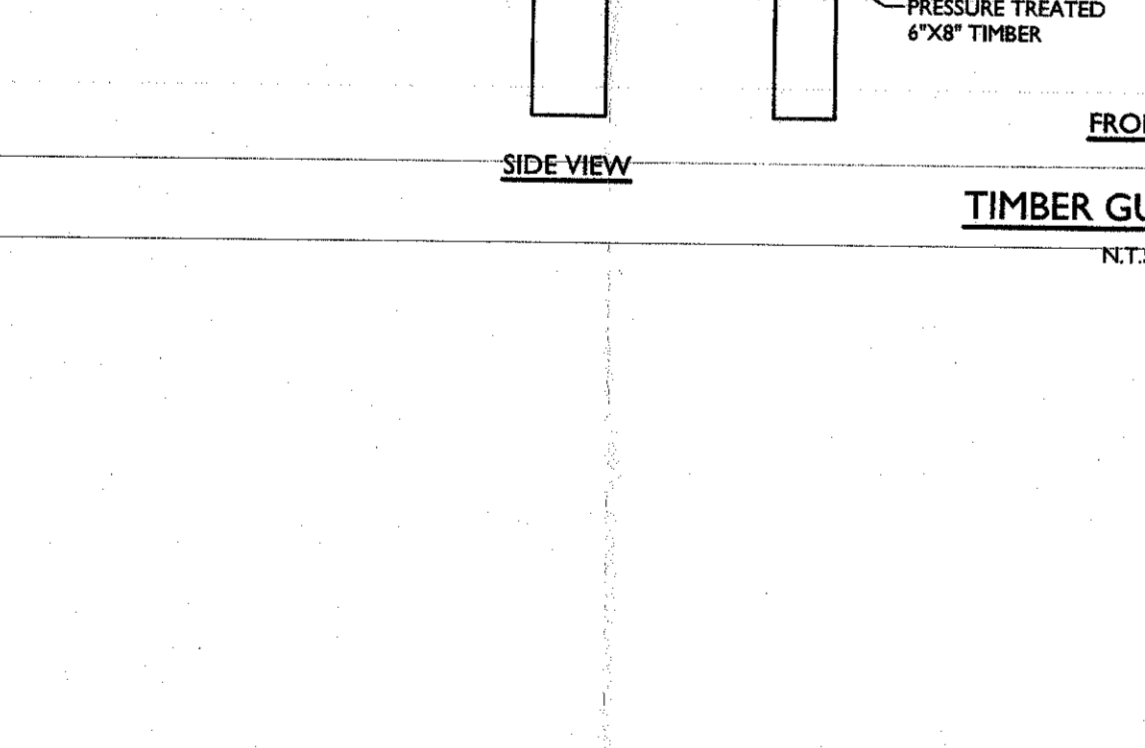
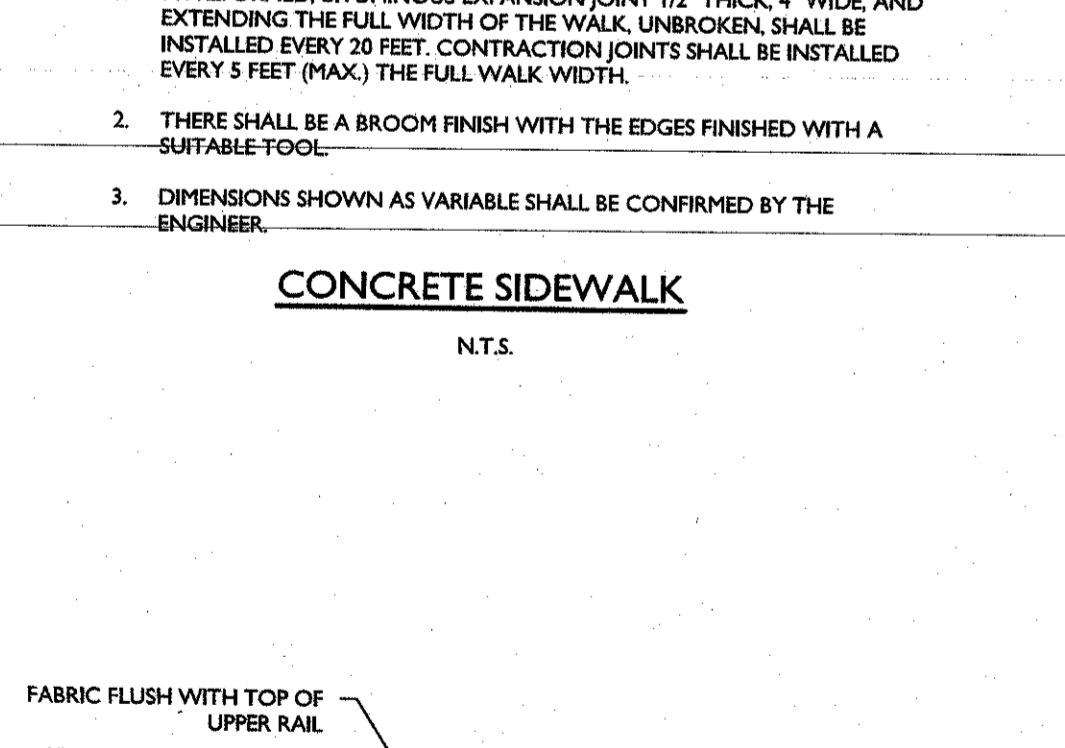
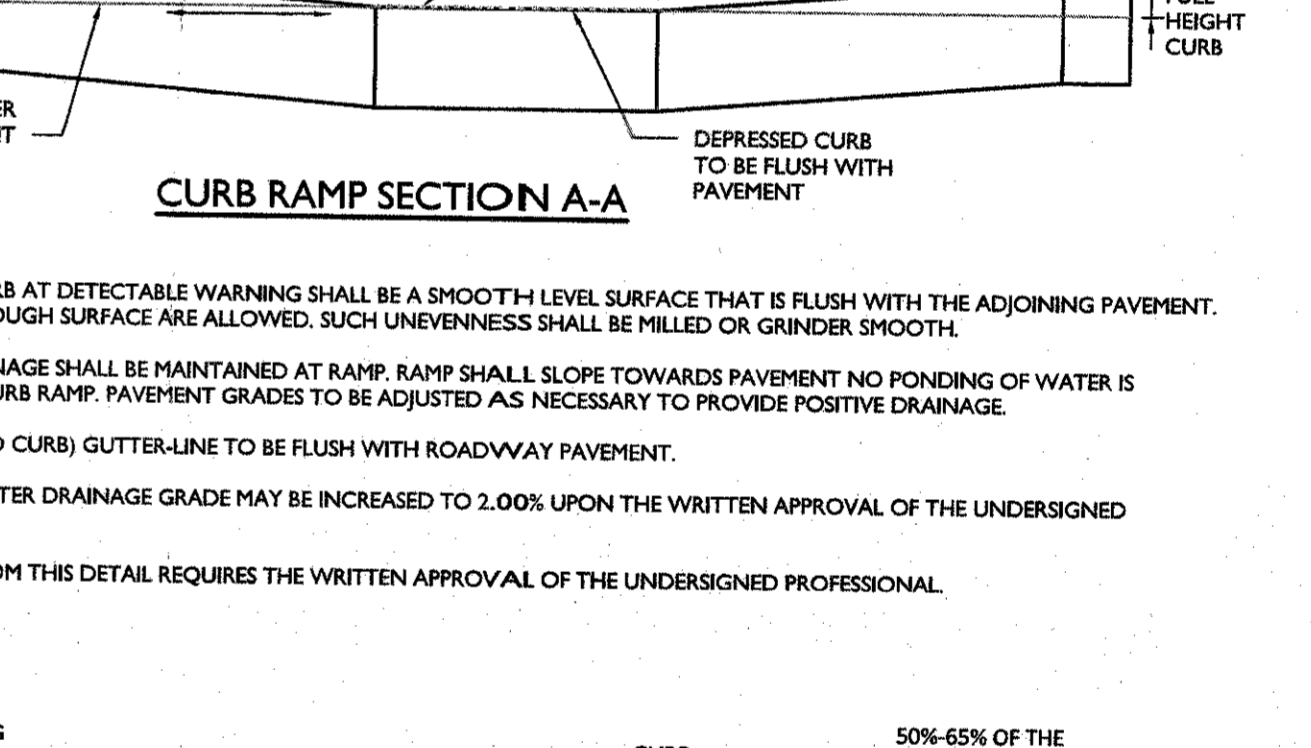
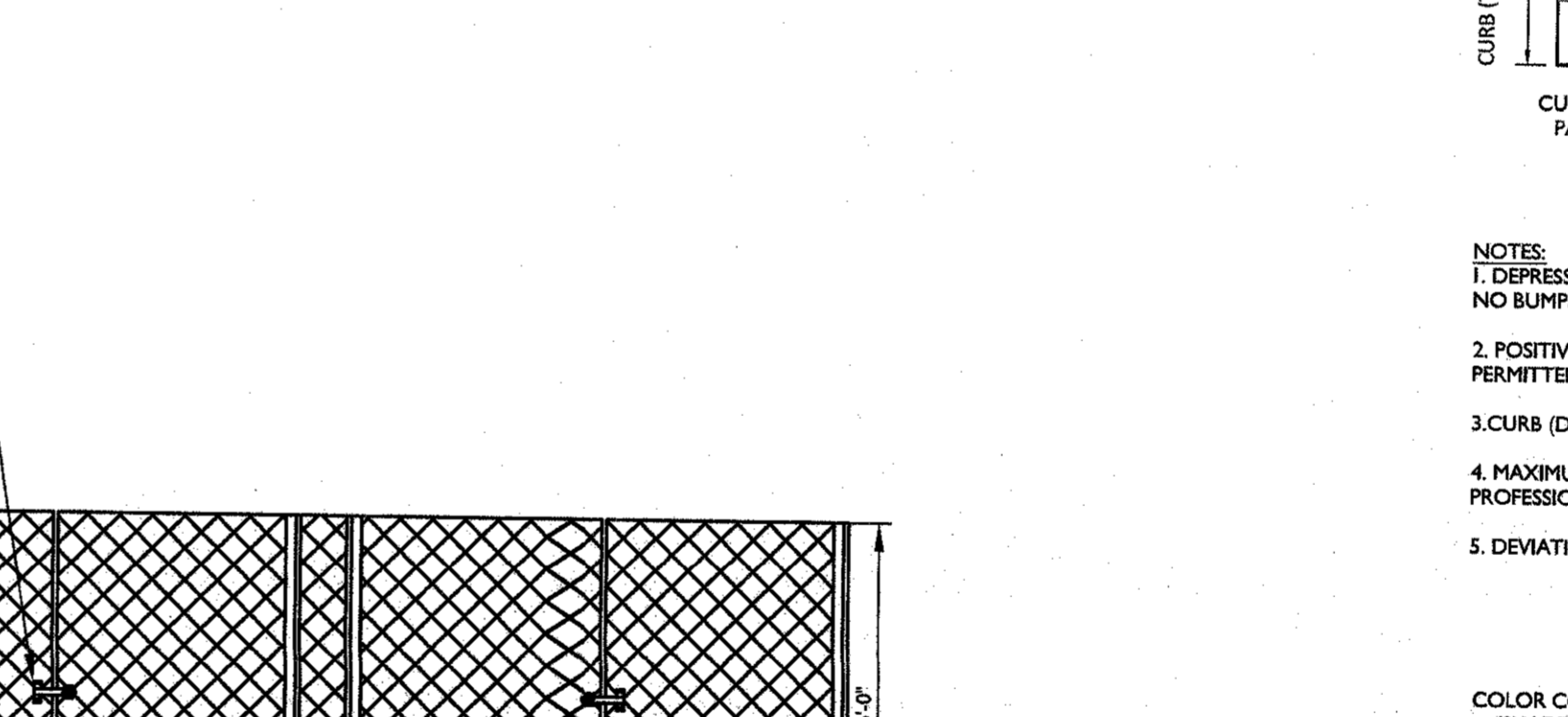
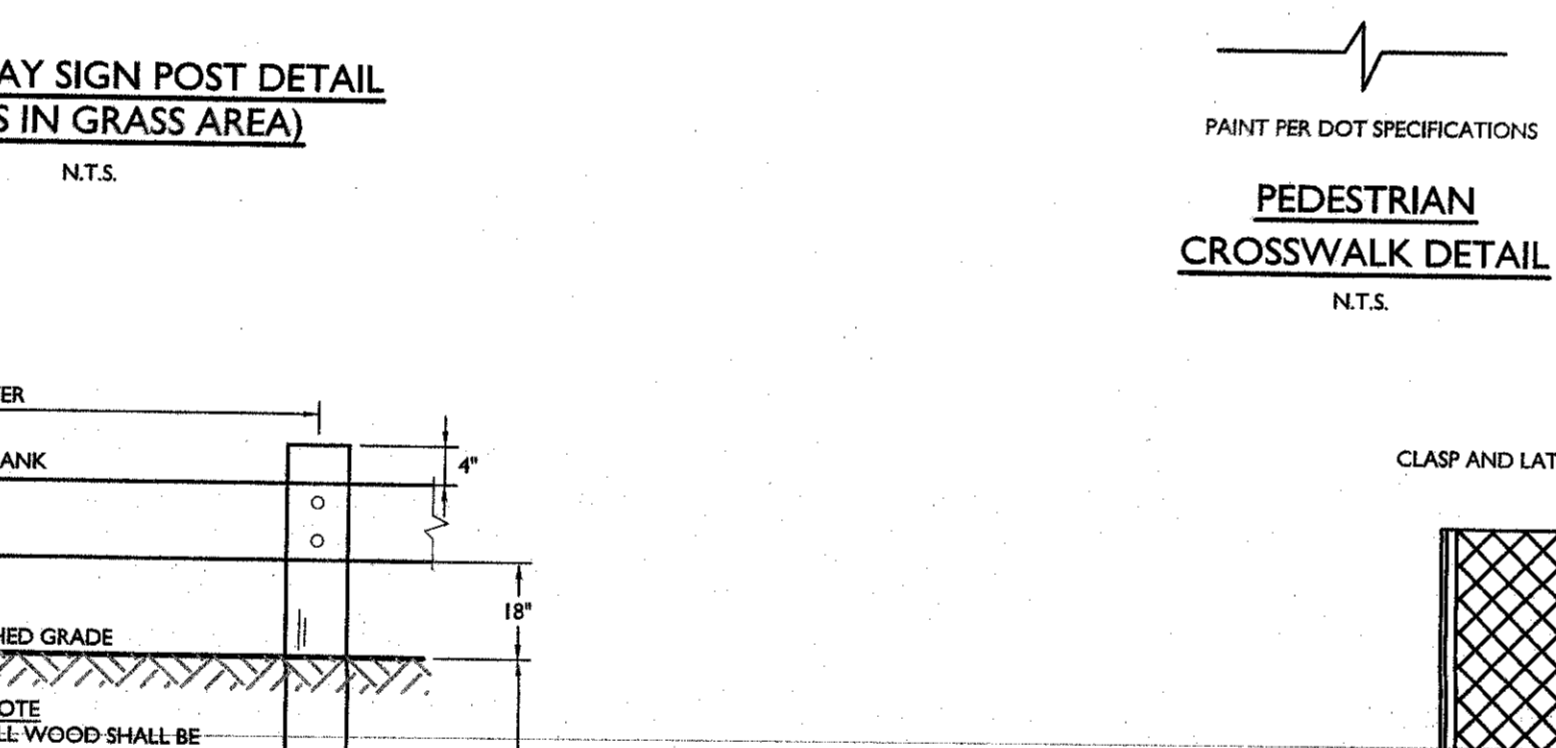
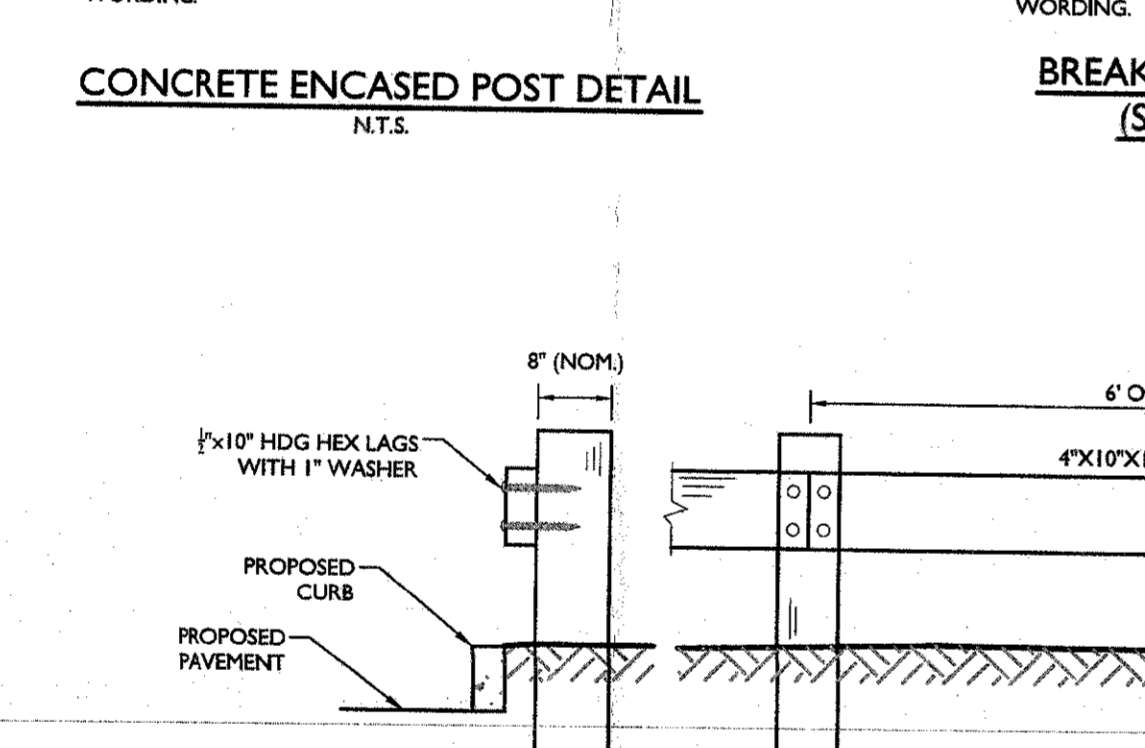
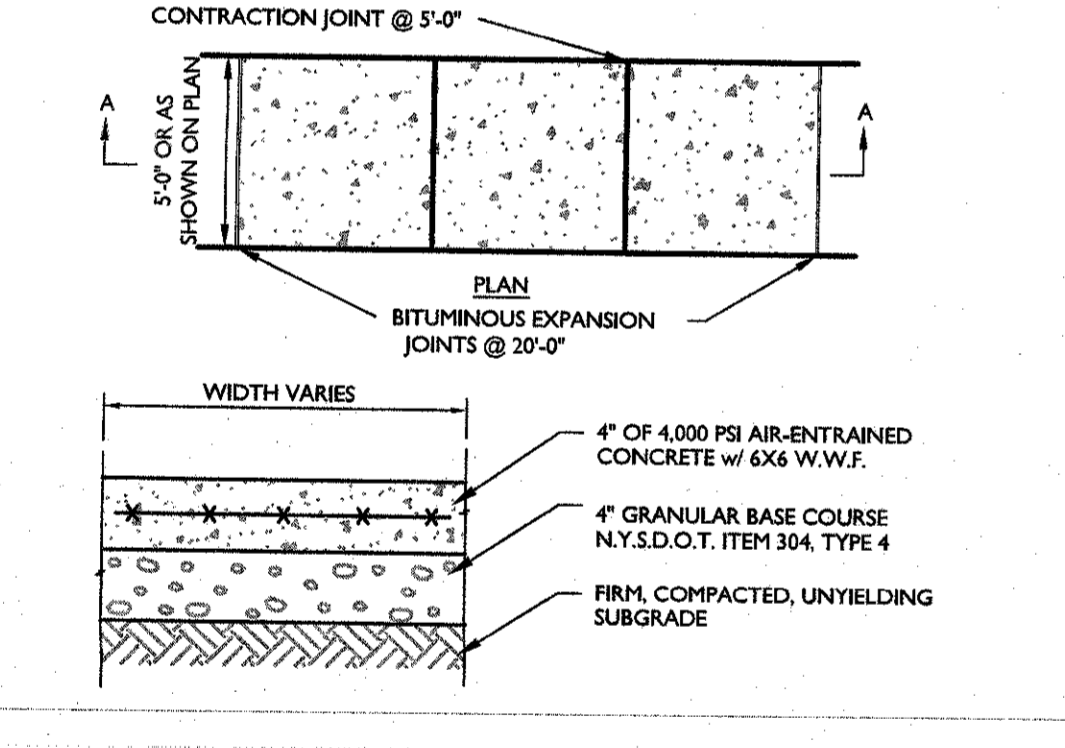
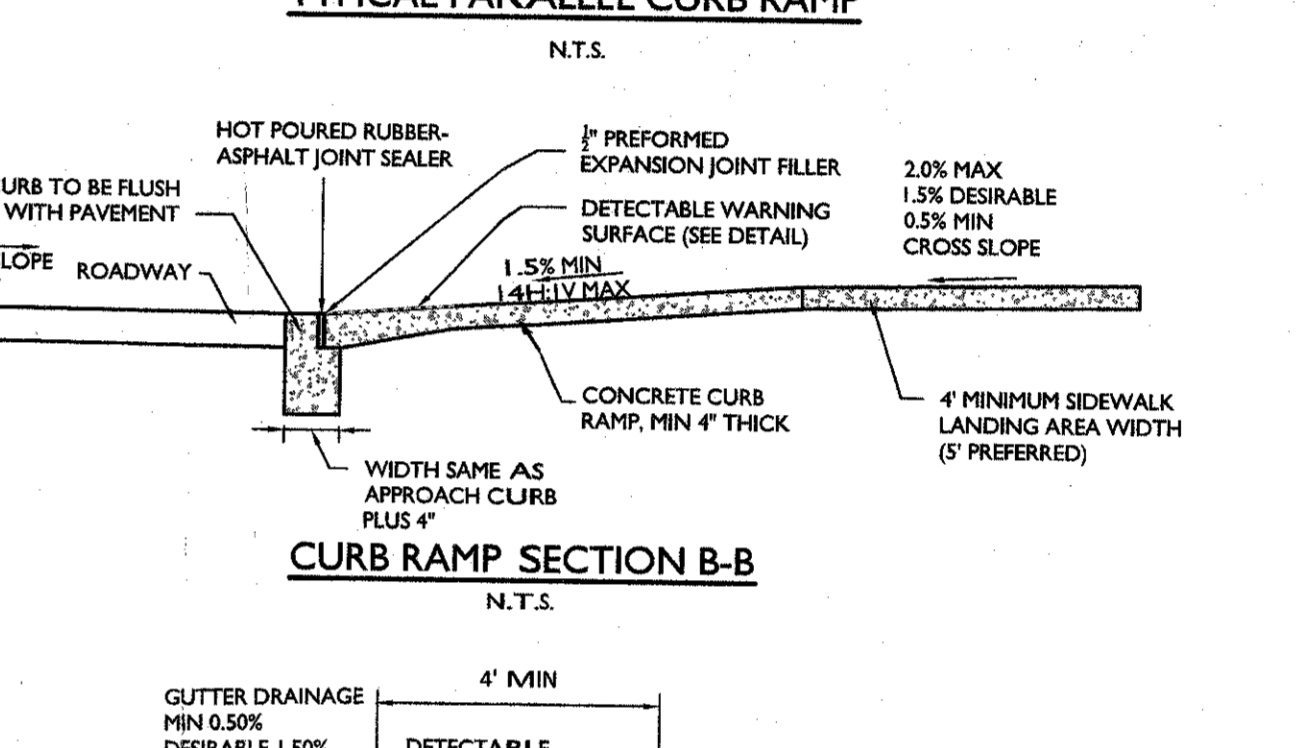
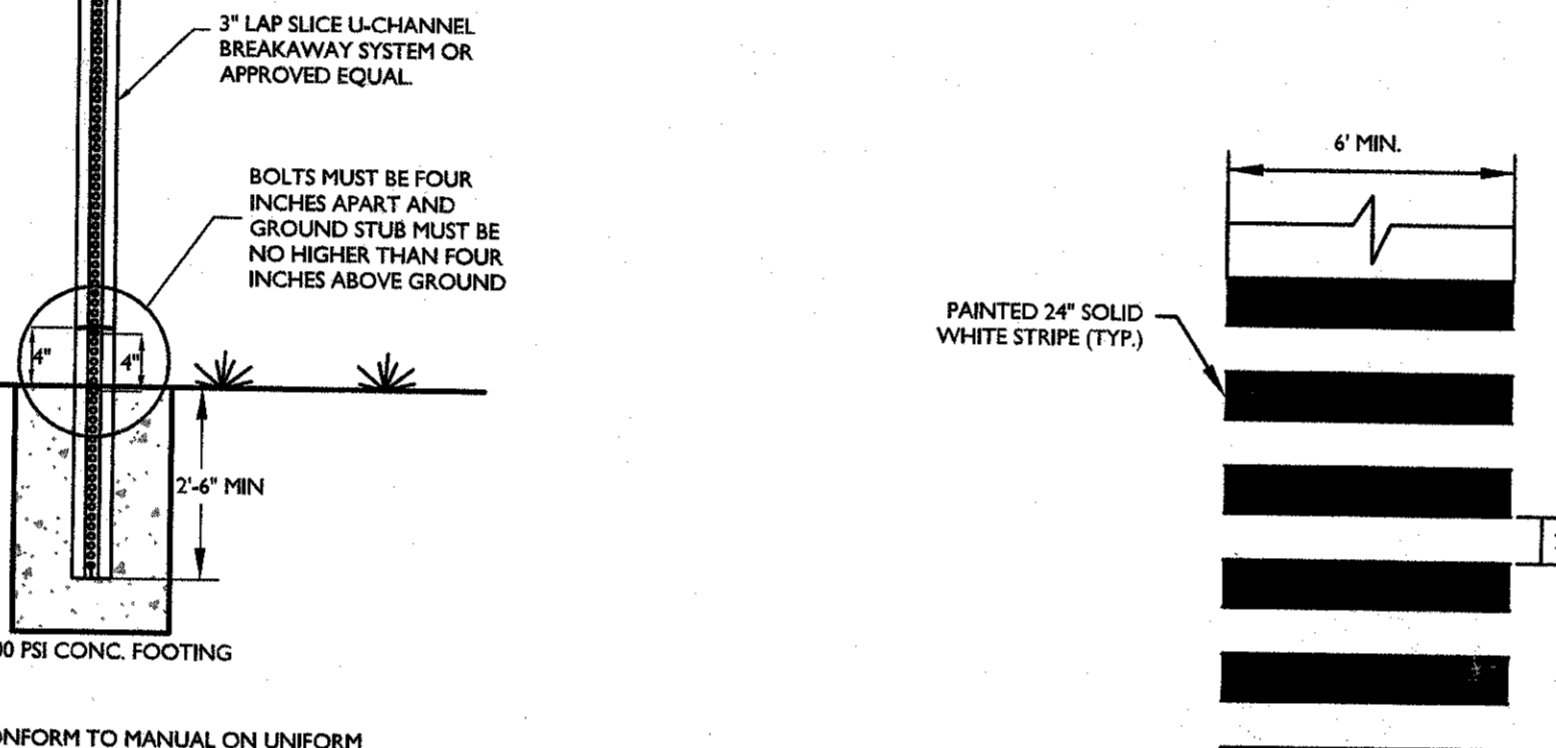
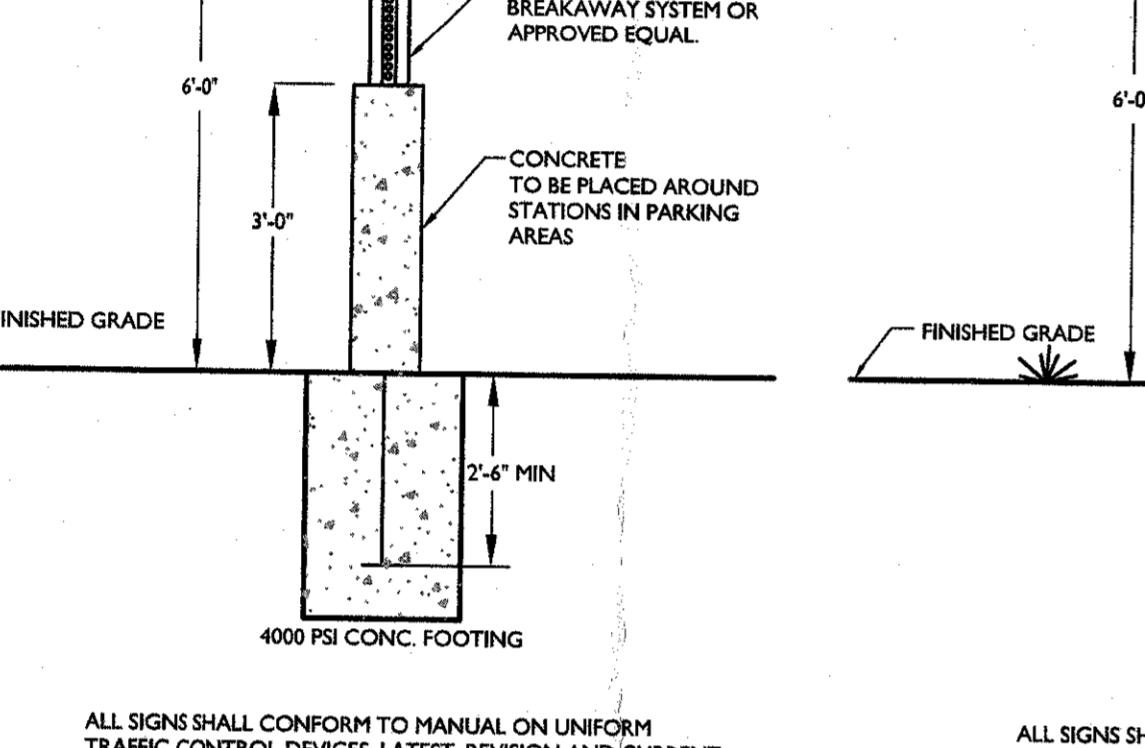
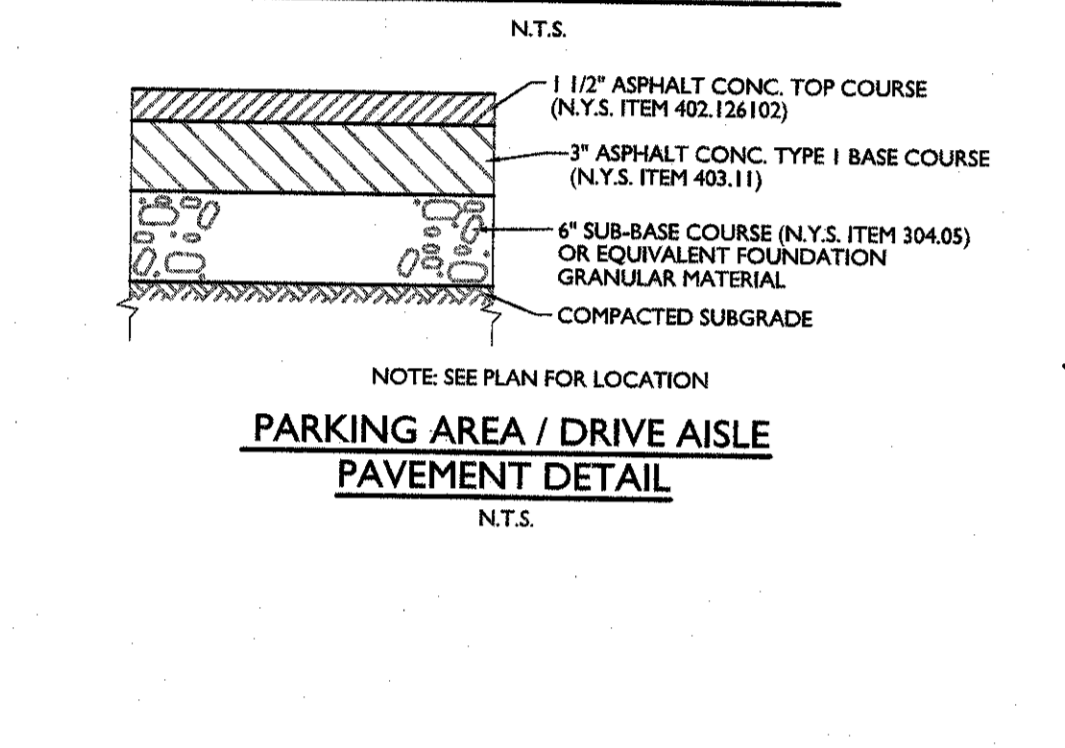
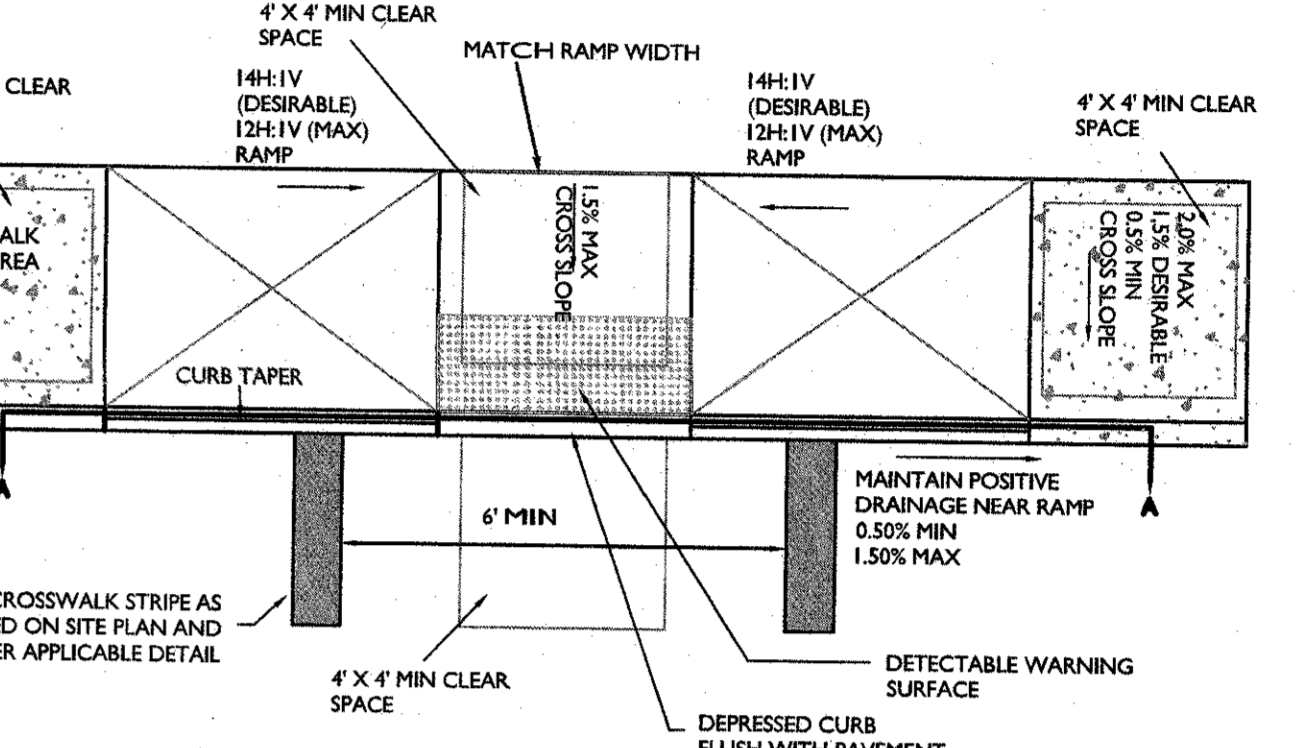
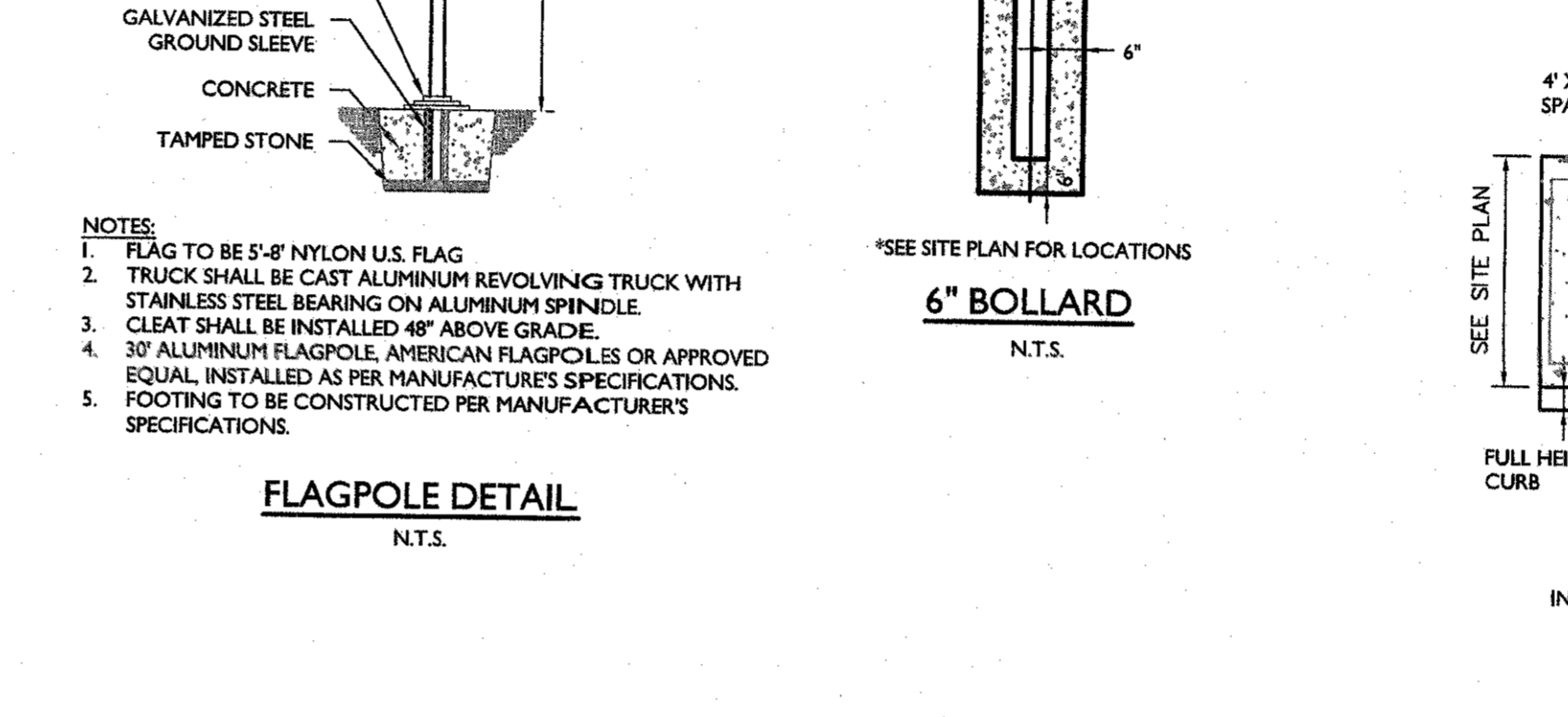
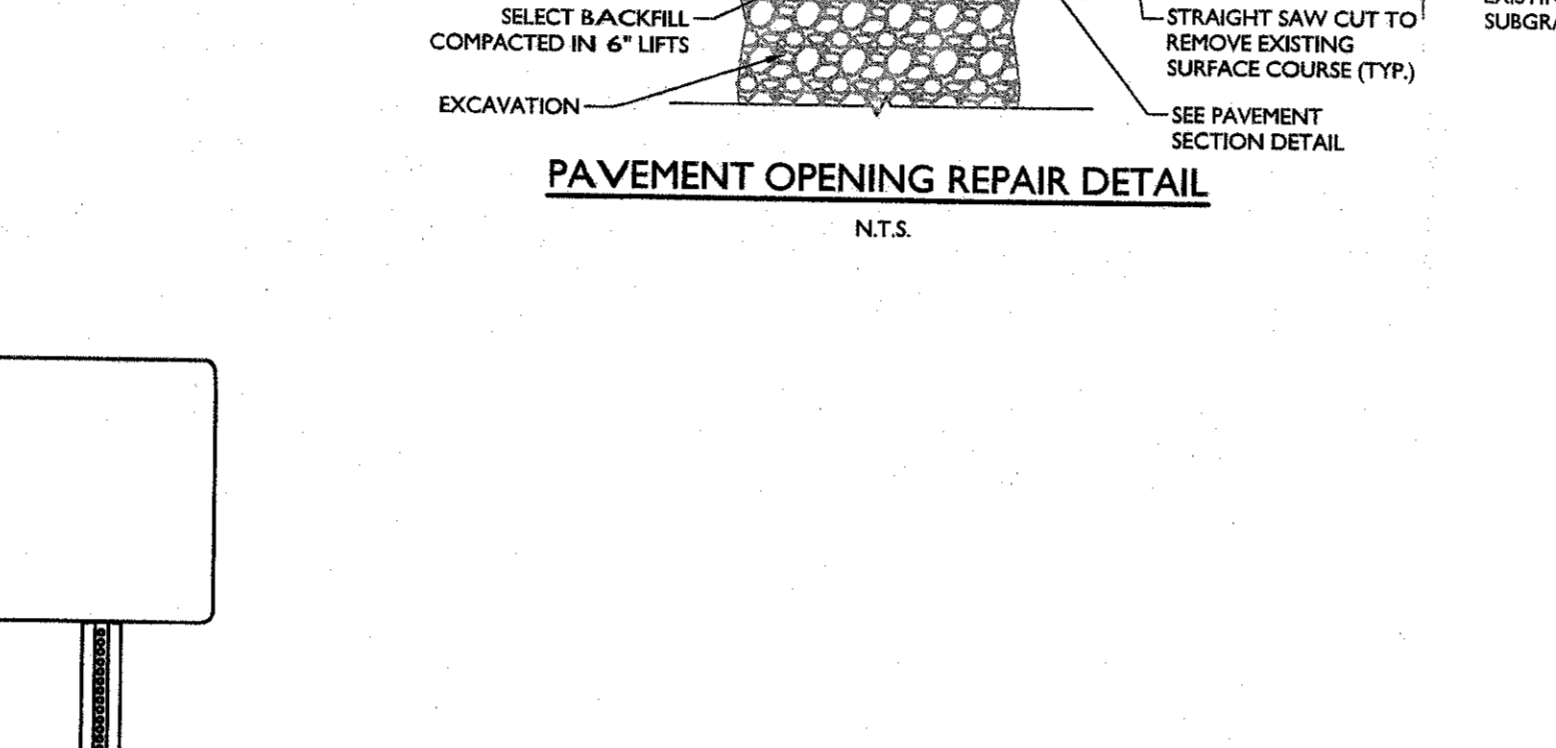
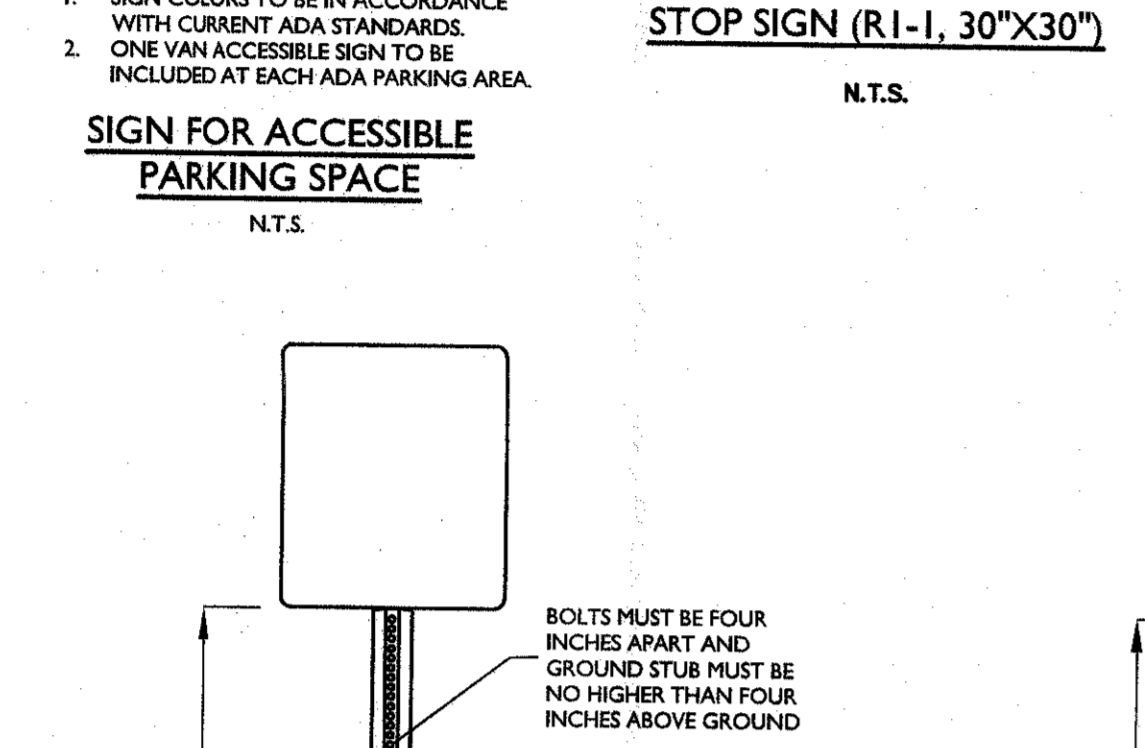
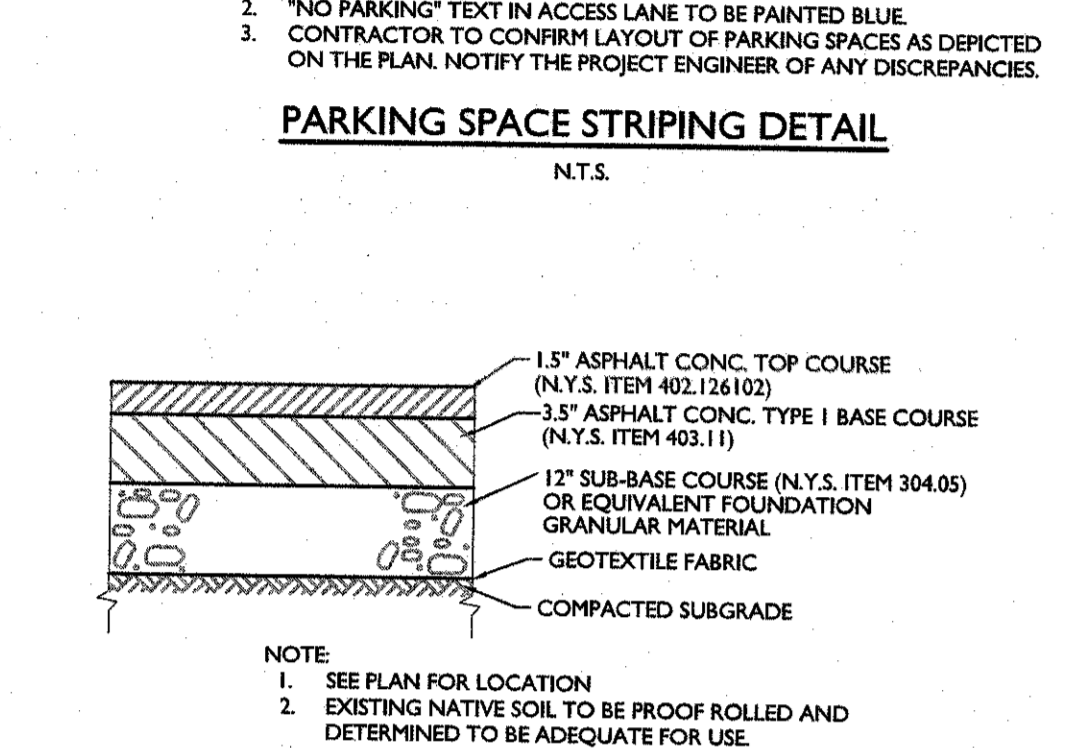
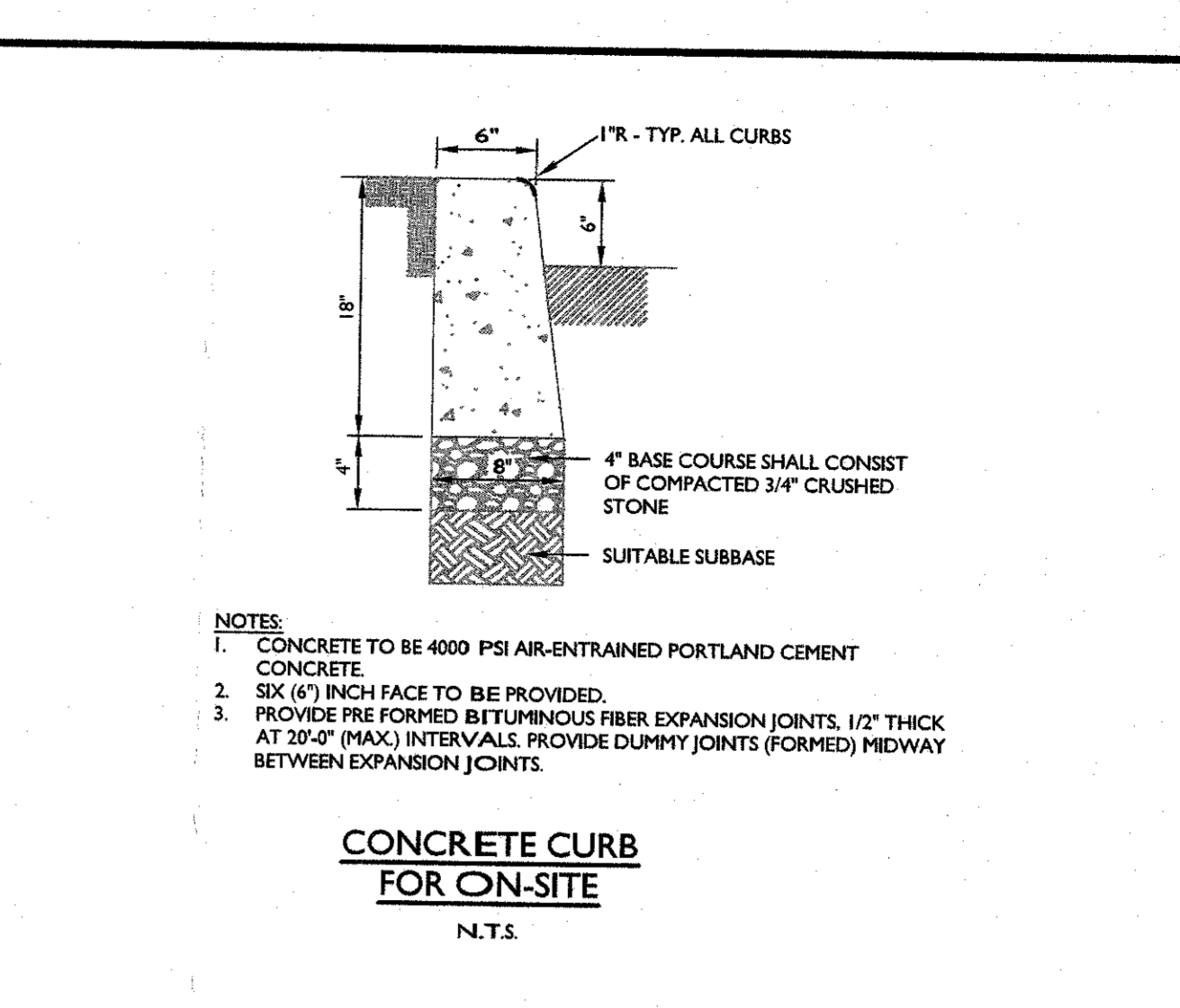
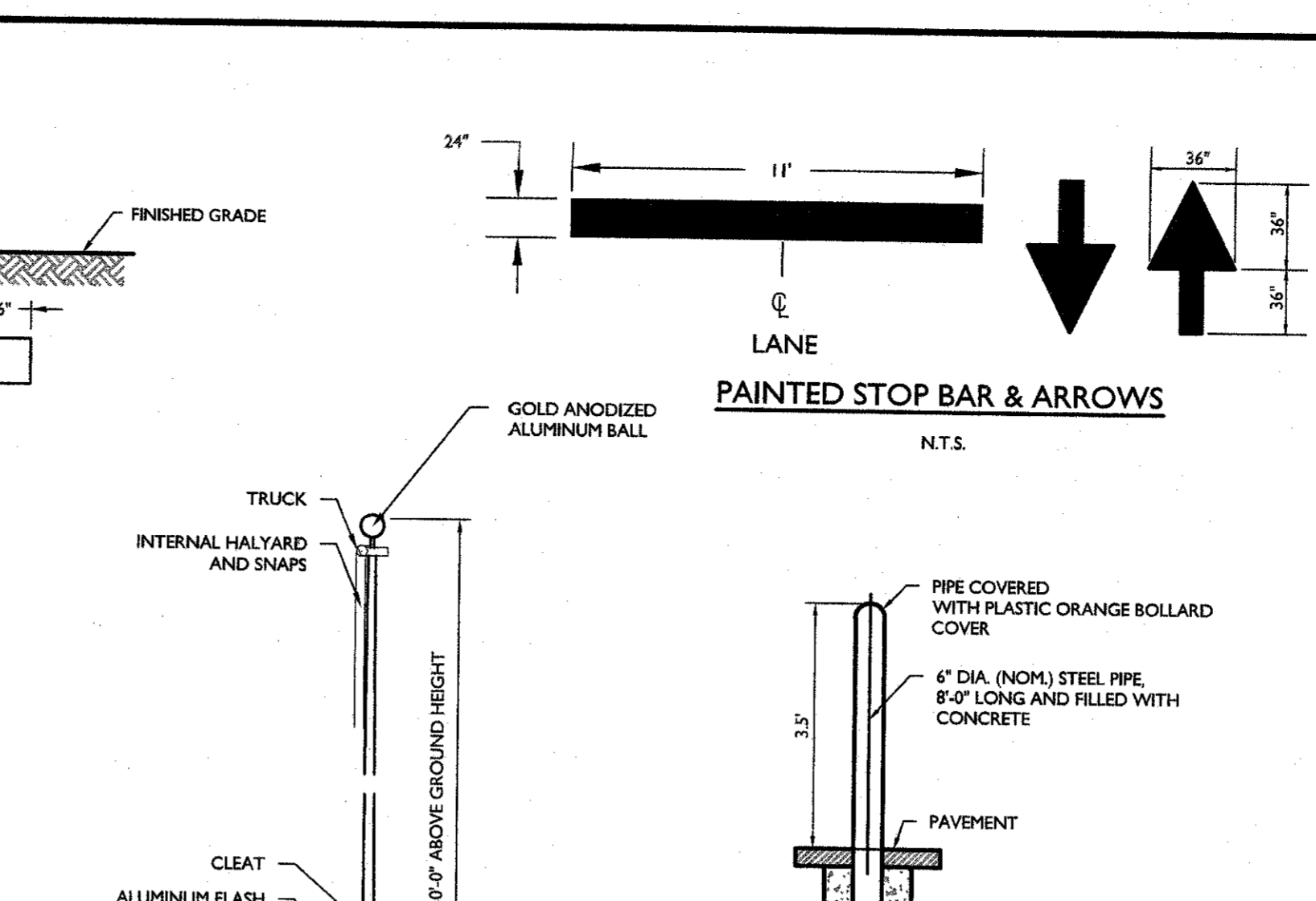
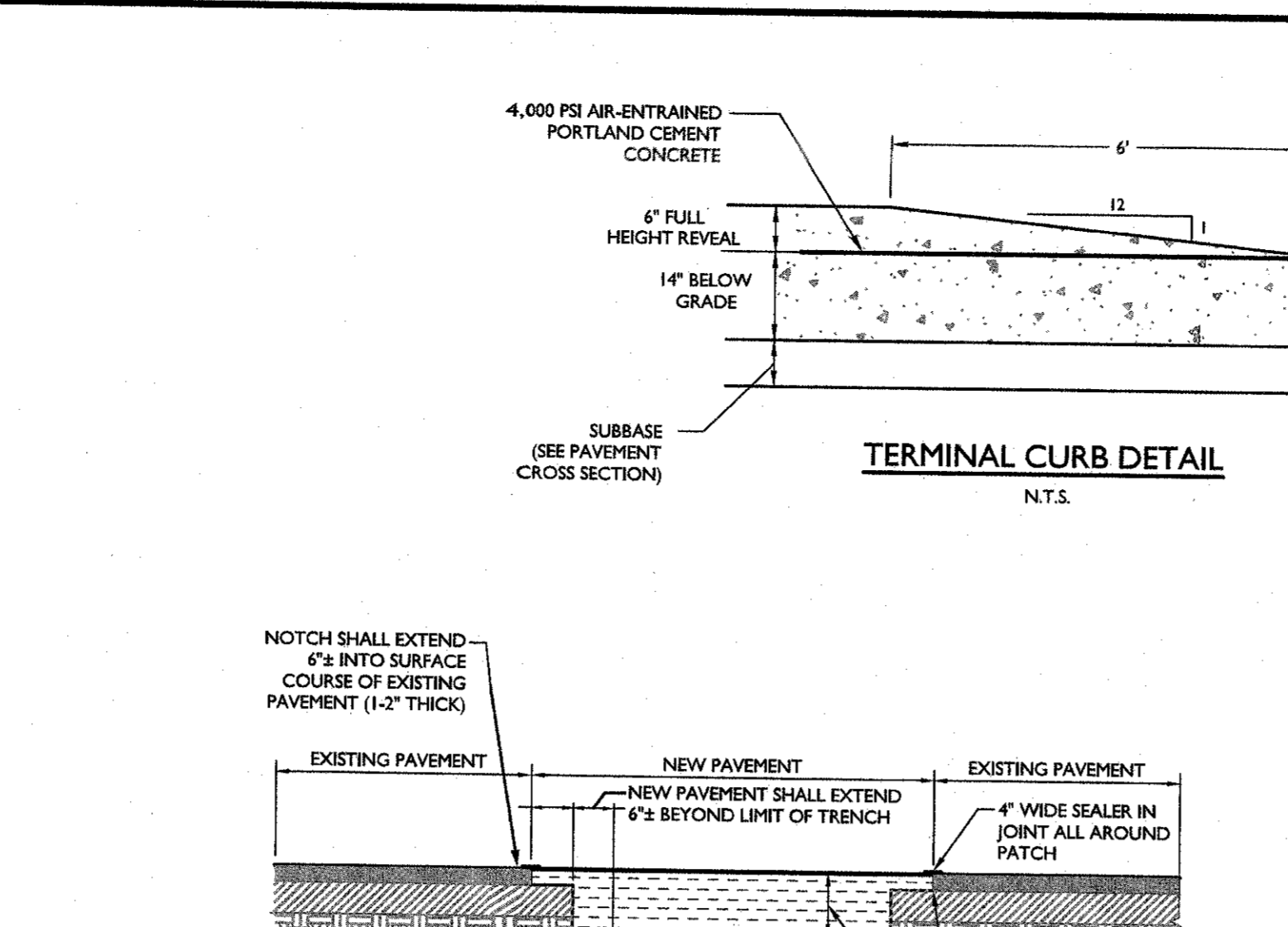
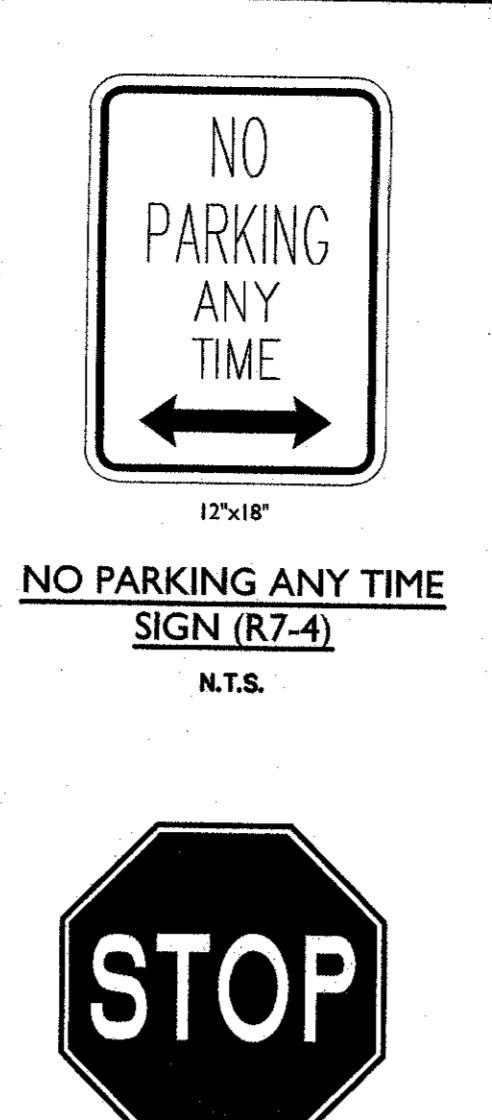
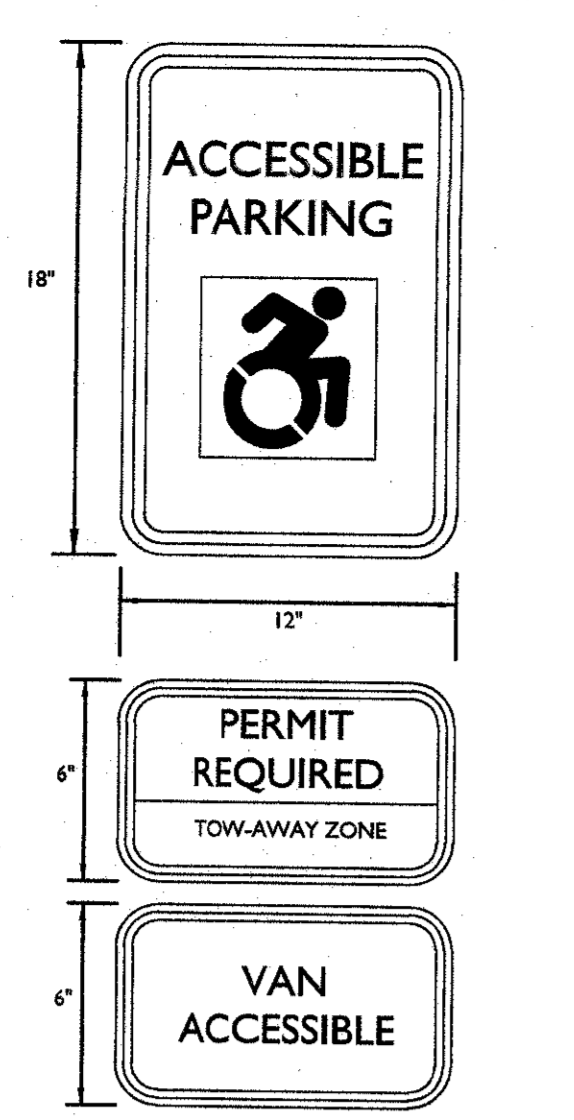
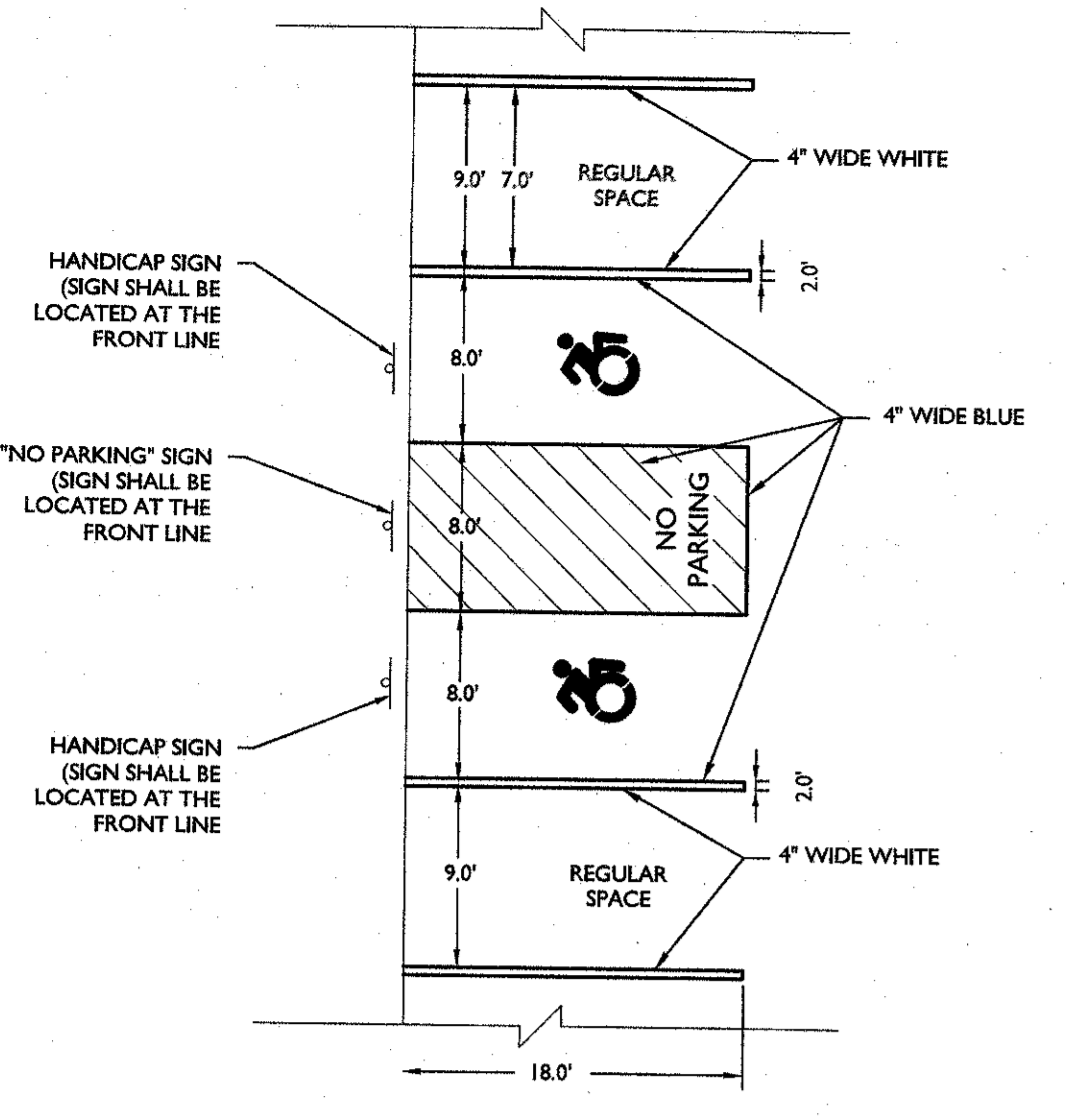
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**COUNTY OF ORANGE**  
**STATE OF NEW YORK**

**NEW WINDSOR OFFICE**  
 355 Hudson Valley Avenue  
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PROJECT NUMBER	DRAWING NAME	SHEET NUMBER	SHEET TOTAL
E001817A	CLIGHT		

**LIGHTING PLAN**





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10		

**STATE OF NEW YORK**  
Professional Seal of Andrew B. Fetherston  
Professional Engineer License No. 073555-1

**SITE PLAN**  
FOR  
**18 ROUTE 17K, LLC**  
SECTION 97  
BLOCK 1  
LOT 21.2  
TOWN OF NEWBURGH  
COUNTY OF ORANGE  
STATE OF NEW YORK

**NEW WINDSOR OFFICE**  
353 Hudson Valley Avenue  
Suite 101  
New Windsor, NY 12553  
Phone: 845.564.4495  
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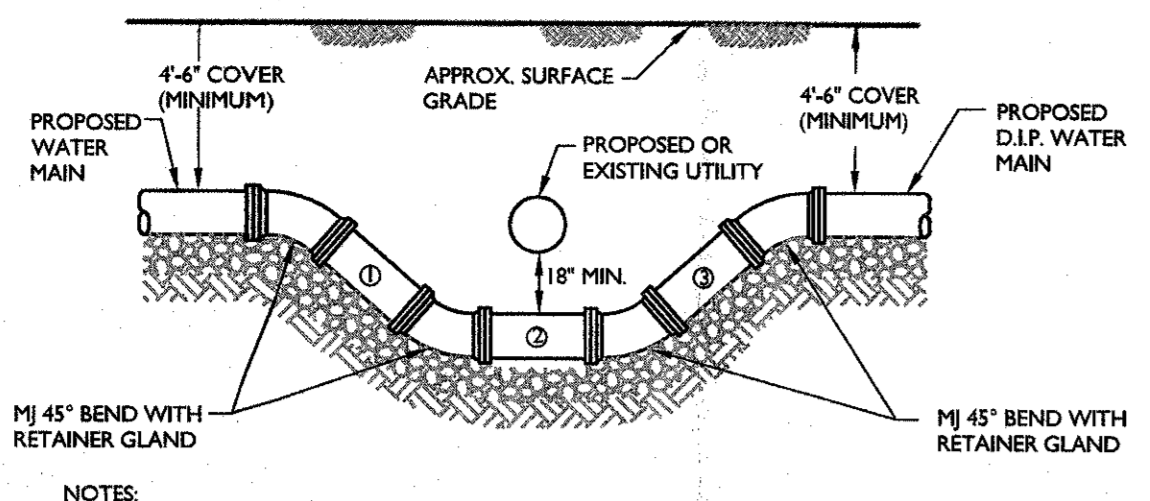
SCALE	DATE	BY	CHECKED BY
AS SHOWN	3/31/17	DAWN BT	ARF

PROJECT NUMBER: 1801017A  
DRAWING NAME: CDTLS  
SHEET TITLE: CONSTRUCTION DETAILS  
SHEET NUMBER: 10 of 11

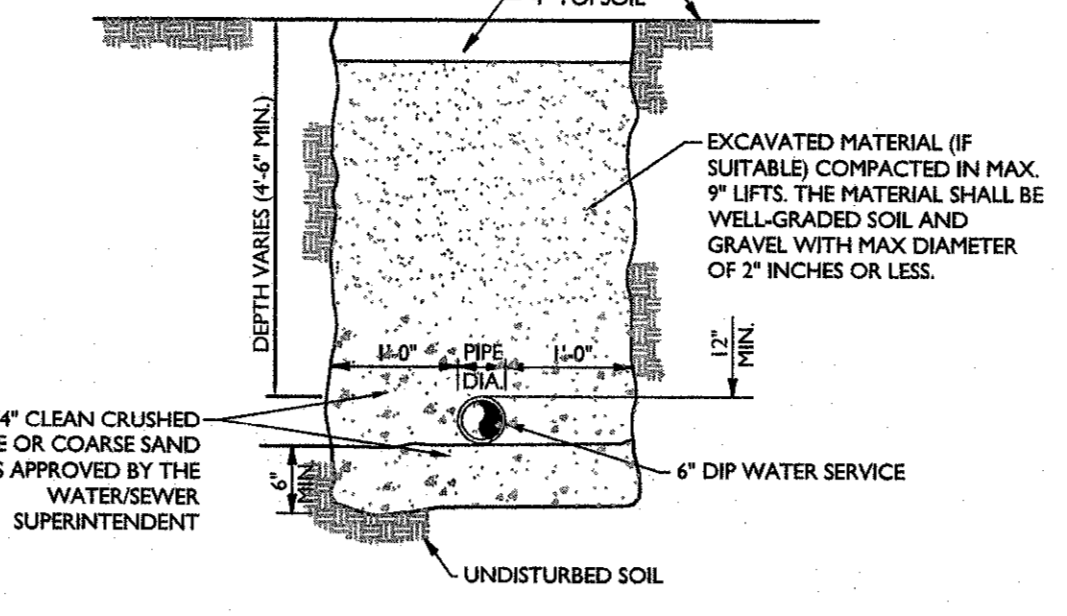


**TOWN WATER SYSTEM NOTES**

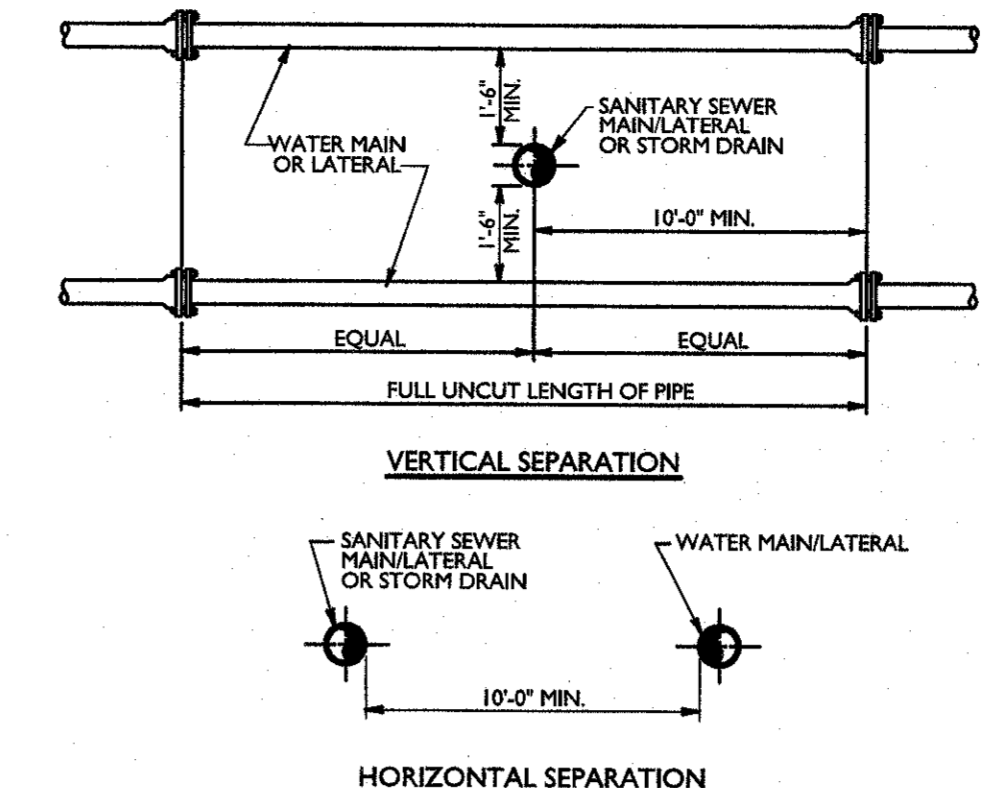
- CONSTRUCTION OF POTABLE WATER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH WATER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH WATER DEPARTMENT. ALL REQUIREMENTS SHALL CONFORM TO THE REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF HEALTH AND THE TOWN OF NEWBURGH.
- ALL WATER SERVICE LINES FOUR (4) INCHES AND LARGER IN DIAMETER SHALL BE CAST IRON UNLESS OTHERWISE SPECIFIED. ALL WATER SERVICE LINES SHALL BE CAST IRON UNLESS OTHERWISE SPECIFIED. ALL WATER SERVICE LINES SHALL BE CAST IRON UNLESS OTHERWISE SPECIFIED. ALL WATER SERVICE LINES SHALL BE CAST IRON UNLESS OTHERWISE SPECIFIED.
- THRUST RESTRAINT OF THE PIPE SHALL BE THROUGH THE USE OF JOINT RESTRAINT. THRUST RESTRAINT SHALL BE THROUGH THE USE OF JOINT RESTRAINT. THRUST RESTRAINT SHALL BE THROUGH THE USE OF JOINT RESTRAINT.
- ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON, MECHANICAL JOINT, CLASS 250 AND CONFORM TO ANSI/AWWA C151/A21.10-87 OR LATEST REVISION FOR DUCTILE AND GRAY IRON FITTINGS OR ANSI/AWWA C151/A21.10-87 FOR LATEST REVISION FOR DUCTILE IRON COMPACT FITTINGS.
- ALL VALVES SHALL BE RESILIENT WEDGE MECHANICAL JOINT VALVES CONFORMING TO ANSI/AWWA C509 OR LATEST REVISION SUCH AS MUELLER A236-03 OR APPROVED EQUAL. ALL GATE VALVES SHALL OPEN LEFT (COUNTER CLOCK WISE).
- TAPPING SLEEVES SHALL BE MECHANICAL JOINT SUCH AS MUELLER H-415 OR EQUAL. TAPPING VALVE SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSI/AWWA C509 SUCH AS MUELLER MODEL T-236-19 OR APPROVED EQUAL. ALL TAPPING SLEEVES AND VALVES SHALL BE TESTED TO 150 PSI MINIMUM TESTING OF THE TAPPING SLEEVE AND VALVE MUST BE WITNESSED AND ACCEPTED BY THE TOWN OF NEWBURGH WATER DEPARTMENT PRIOR TO CUTTING INTO THE PIPE.
- ALL WATER SERVICE LINES TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING. CORROSION STOPS SHALL BE MUELLER H-16009 FOR 1/2 AND 1 INCH, MUELLER H-15000 OR B-25000 FOR 1 1/2 OR 2 INCH SIZES. CURB VALVES SHALL BE MUELLER H-1501-2 FOR 1/2 AND 1 INCH AND MUELLER B-25204 FOR 1 1/2 AND 2 INCH SIZES. CURB BOXES SHALL BE MUELLER H-10312 FOR 1/2 AND 1 INCH AND MUELLER H-10310 FOR 1 1/2 AND 2 INCH SIZES.
- ALL PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH WATER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT.
- THE WATER MAIN SHALL BE TESTED, DISINFECTED AND FLUSHED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING, DISINFECTION AND FLUSHING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT. PRIOR TO PUTTING THE WATER MAIN IN SERVICE, SATISFACTORY SANITARY RESULTS FROM A CERTIFIED LAB MUST BE SUBMITTED TO THE TOWN OF NEWBURGH WATER DEPARTMENT. THE TEST SAMPLES MUST BE COLLECTED BY A REPRESENTATIVE OF THE TESTING LABORATORY AND WITNESSED BY THE WATER DEPARTMENT.
- THRUST RESTRAINT SHALL BE PROVIDED BY THE ROOS AND RETAINER GLANDS. THE LENGTH OF RESTRAINED PIPE SHALL BE DETERMINED BASED UPON WORKING PRESSURES, SOIL CONDITIONS AND DEPTH OF BURY ACCORDING TO DIPA STANDARDS.
- PRESSURE AND LEAKAGE TESTS ARE REQUIRED AND SHALL BE DONE IN ACCORDANCE WITH AWWA C-600 STANDARDS.
- DISINFECTION OF ALL NEW WORK SHALL BE DONE IN ACCORDANCE WITH AWWA C-651 - YEAR OF LATEST REVISION STANDARDS.
- ALL WATER MAINS SHALL BE 8" CLASS 52, DUCTILE IRON PIPE UNLESS OTHERWISE NOTED.
- THE FINAL LAYOUT OF THE PROPOSED WATER AND/OR SEWER CONNECTION, INCLUDING ALL MATERIALS, SIZE AND LOCATION OF SERVICE AND ALL APPURTENANCES IS SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF NEWBURGH WATER AND/OR SEWER DEPARTMENT. NO PERMITS SHALL BE ISSUED FOR A WATER AND/OR SEWER CONNECTION UNTIL A FINAL LAYOUT IS APPROVED BY THE RESPECTIVE DEPARTMENT.



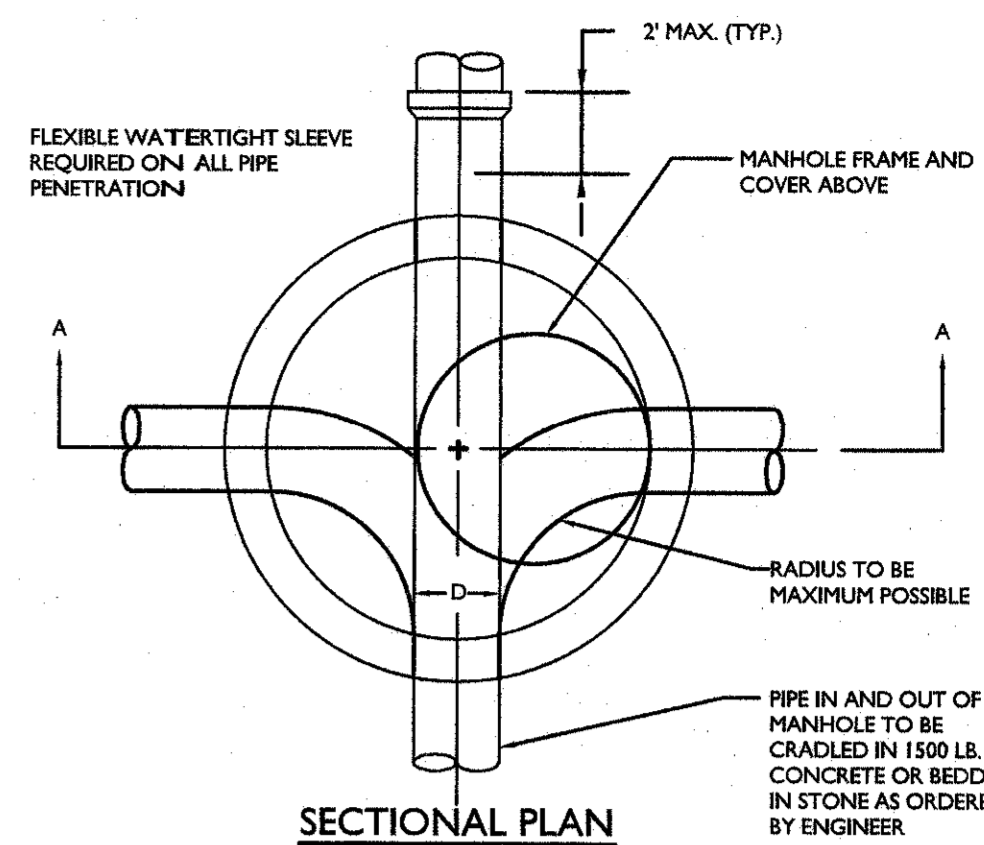
**TYPICAL POTABLE WATER SERVICE DETAIL**  
N.T.S.



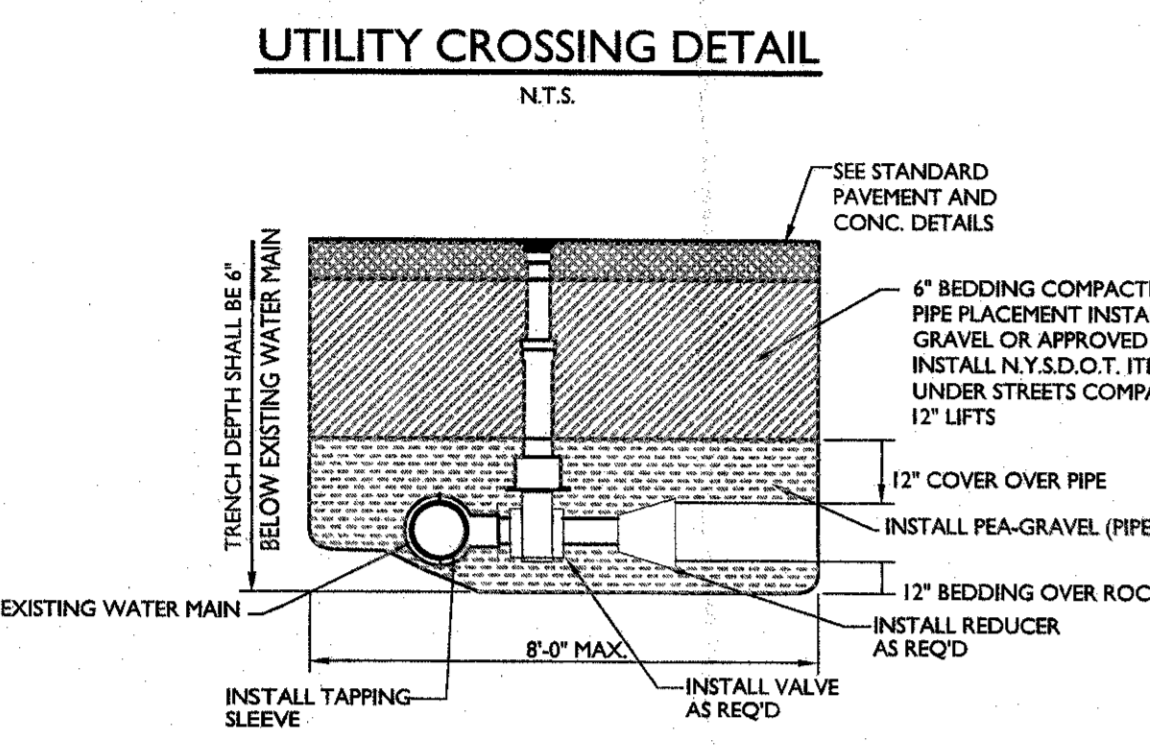
**WATER SERVICE TRENCH DETAIL**  
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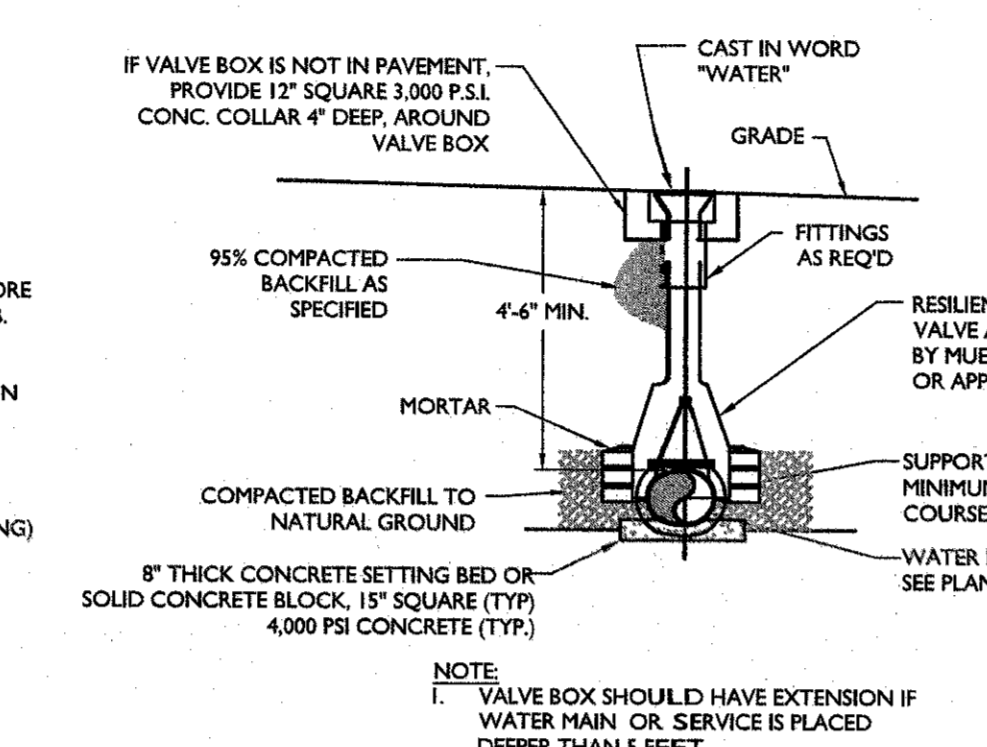
**SANITARY/STORM SEWER-WATER MAIN SEPARATION DETAIL**  
N.T.S.



**PRECAST STANDARD SEWER MANHOLE DETAIL**  
N.T.S.



**UTILITY CROSSING DETAIL**  
N.T.S.



**VALVE BOX DETAIL**  
N.T.S.

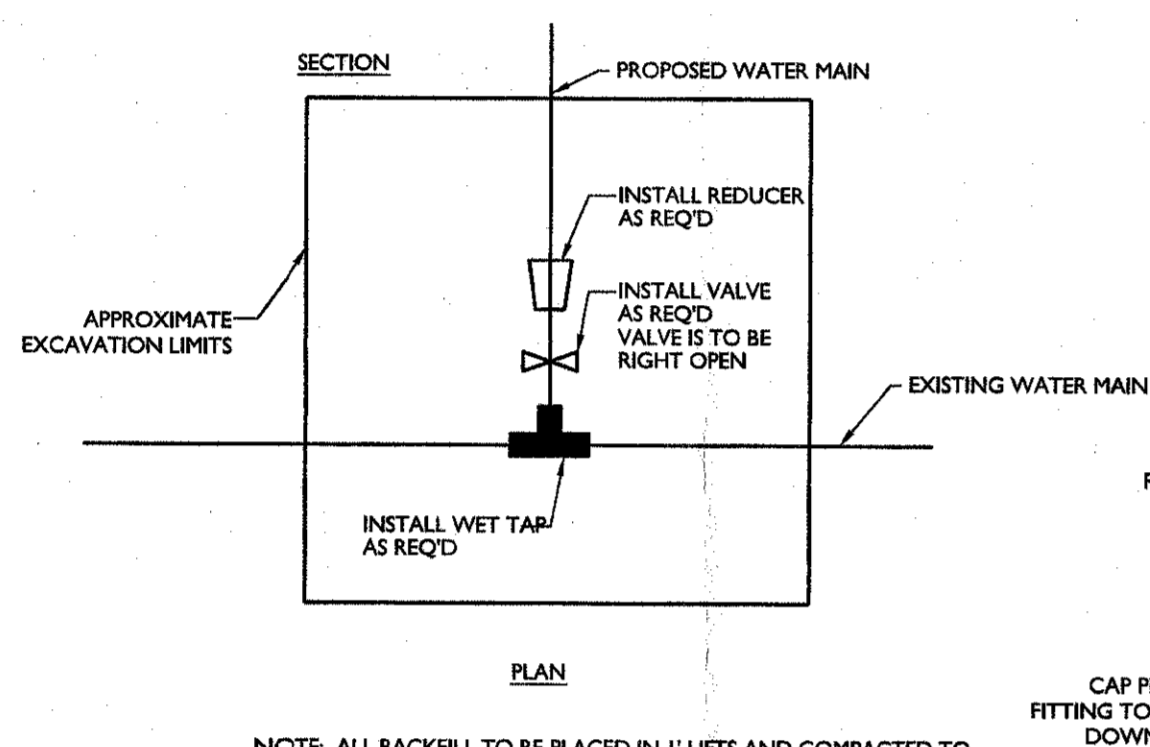
**JOINT RESTRAINT SCHEDULE**

PIPE SIZE (INCHES)	90° TEE OR END AND PLUG	45°	15°
2	3/4"	3/4"	3/4"
3	3/4"	3/4"	3/4"
4	3/4"	3/4"	3/4"

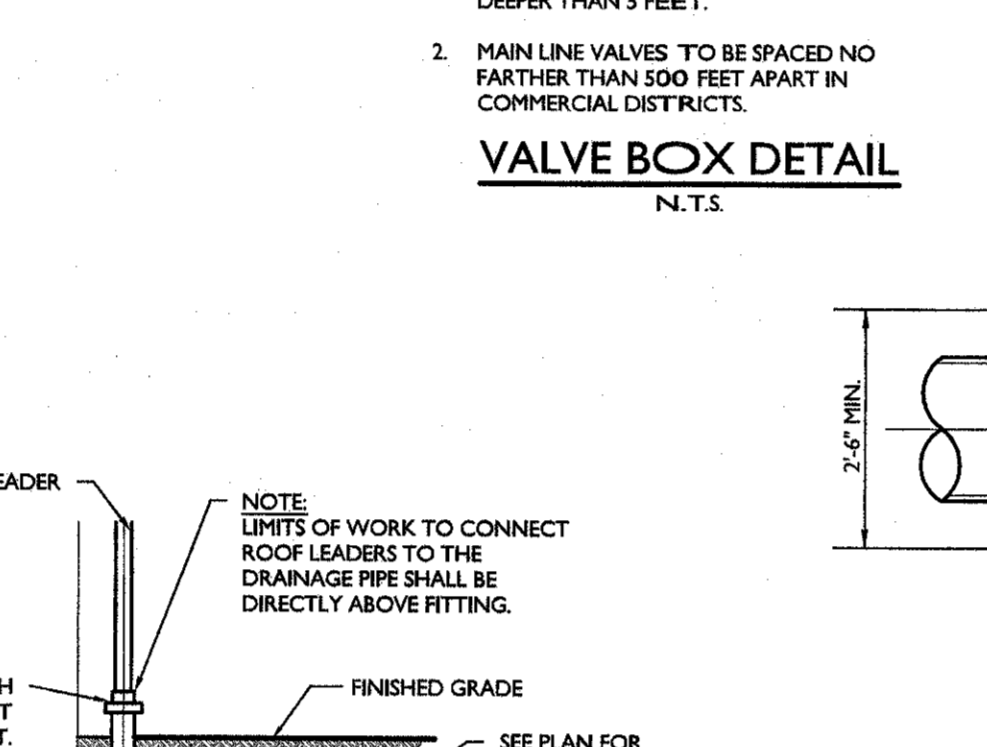
\* LENGTH OF PIPE TO BE RESTRAINED IS FOR EACH SIDE OF BEND

NOTE: 1. USE OF MECHANICAL JOINT RESTRAINT GLANDS SHALL PROVIDE A THRUST RESTRAINT SYSTEM EQUIVALENT TO THAT LISTED IN THE TABLE FOR CLAMPS AND RODS. 2. LENGTHS ARE BASED ON THE FOLLOWING CRITERIA: 150 P.S.I. MAXIMUM PRESSURE AND 3/4" COVER. TABLE IS FOR USE WITH CLIP ONLY. IF TEST CONDITIONS ARE MORE SEVERE OR LARGER PIPES ARE PROPOSED, THEN SPECIAL COMPUTATIONS MUST BE PROVIDED BY LICENSED P.E.

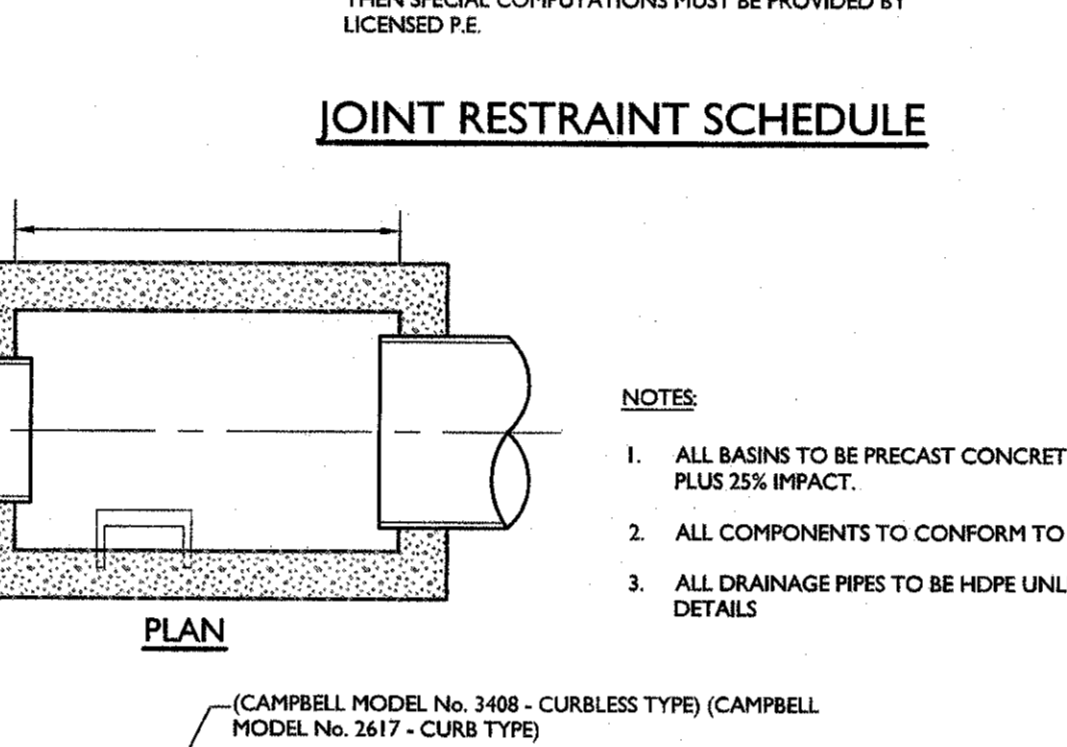
**JOINT RESTRAINT SCHEDULE**  
N.T.S.



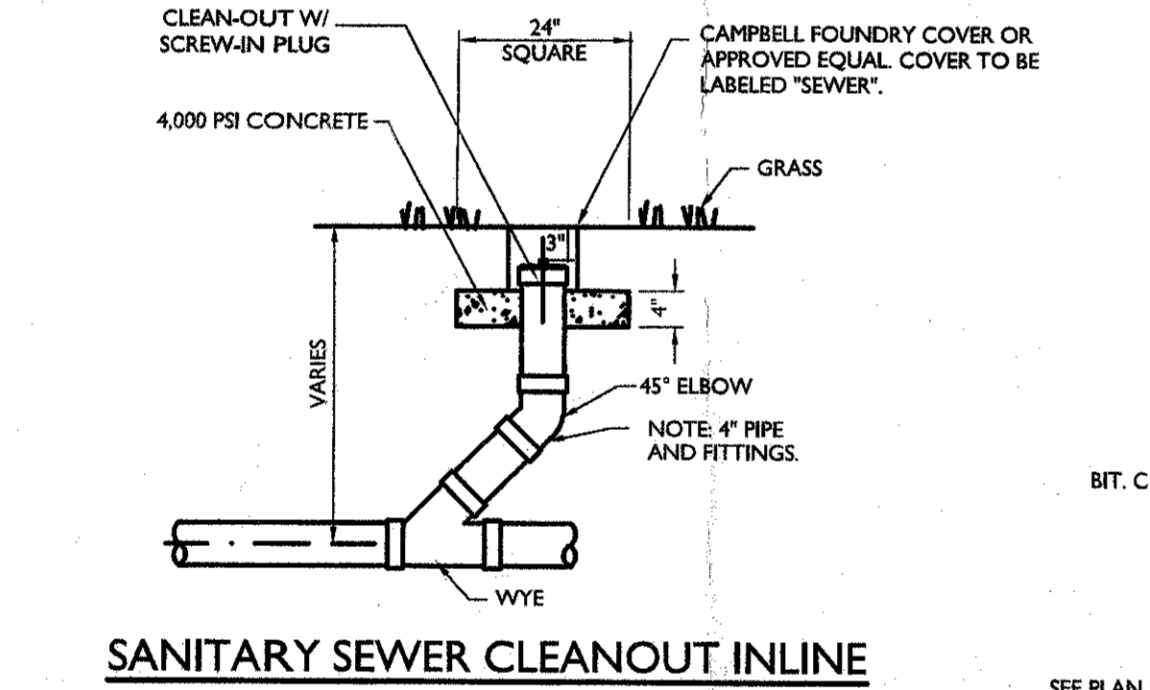
**TAPPING SLEEVE & VALVE**  
N.T.S.



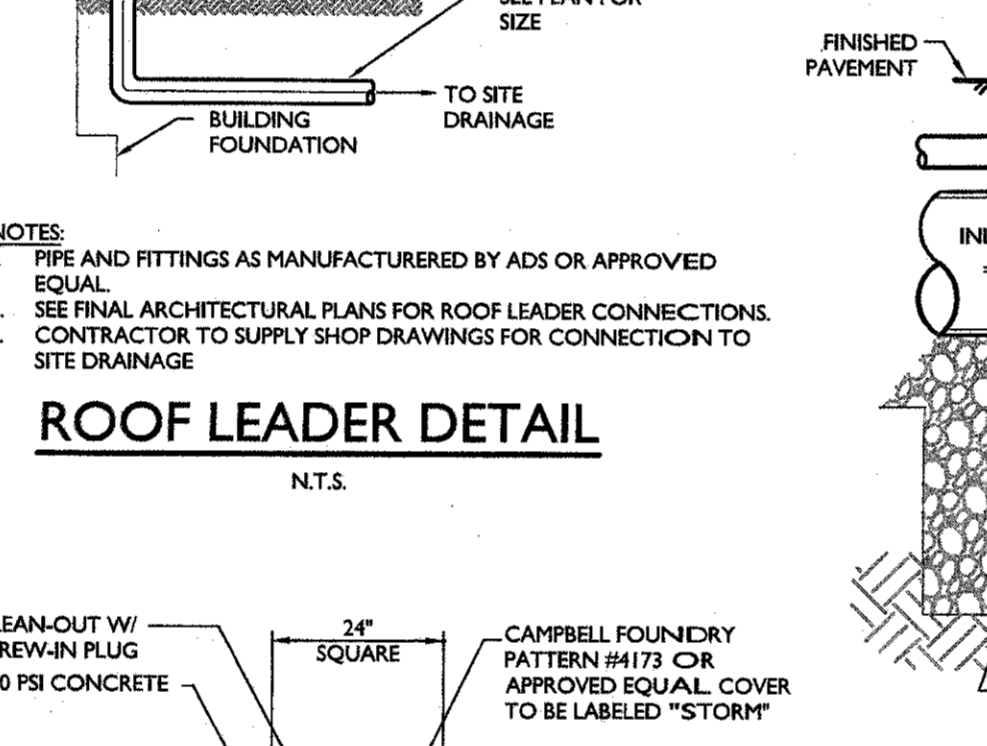
**ROOF LEADER DETAIL**  
N.T.S.



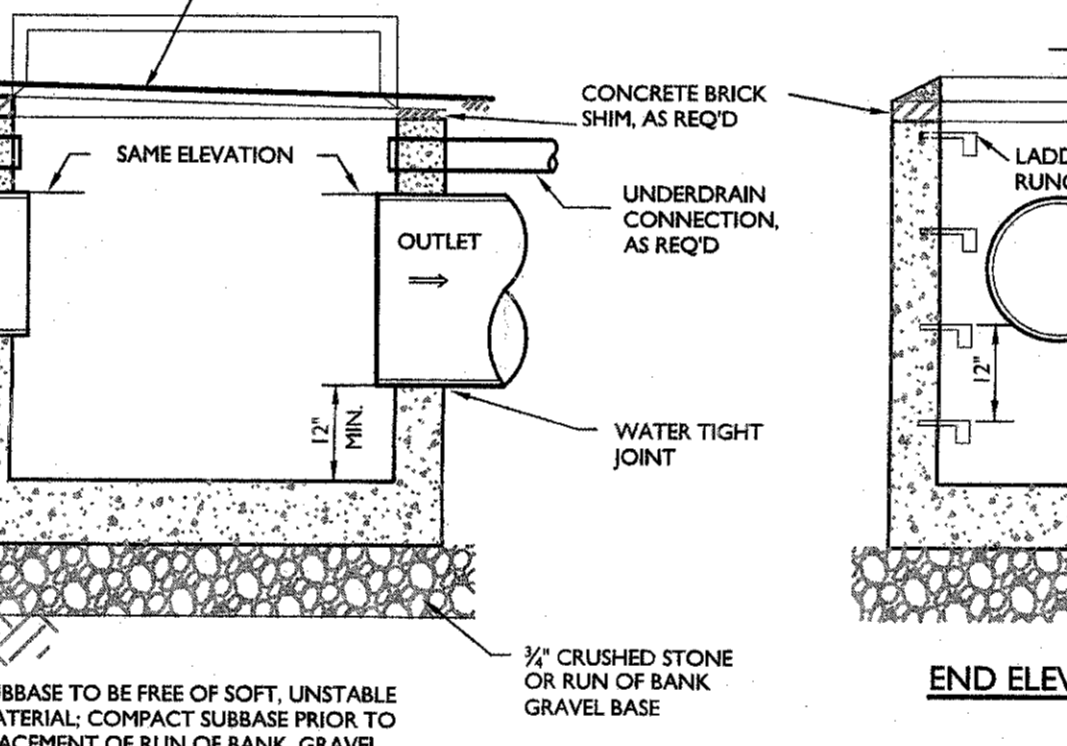
**STANDARD CATCH BASIN DETAILS**  
N.T.S.



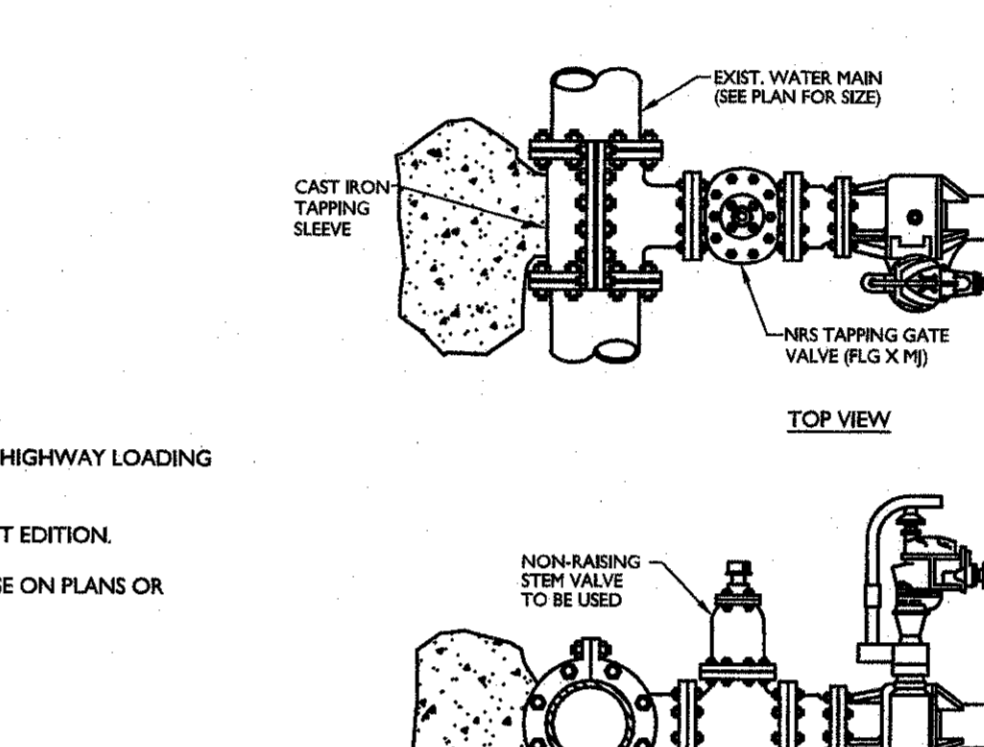
**SANITARY SEWER CLEANOUT INLINE**  
N.T.S.



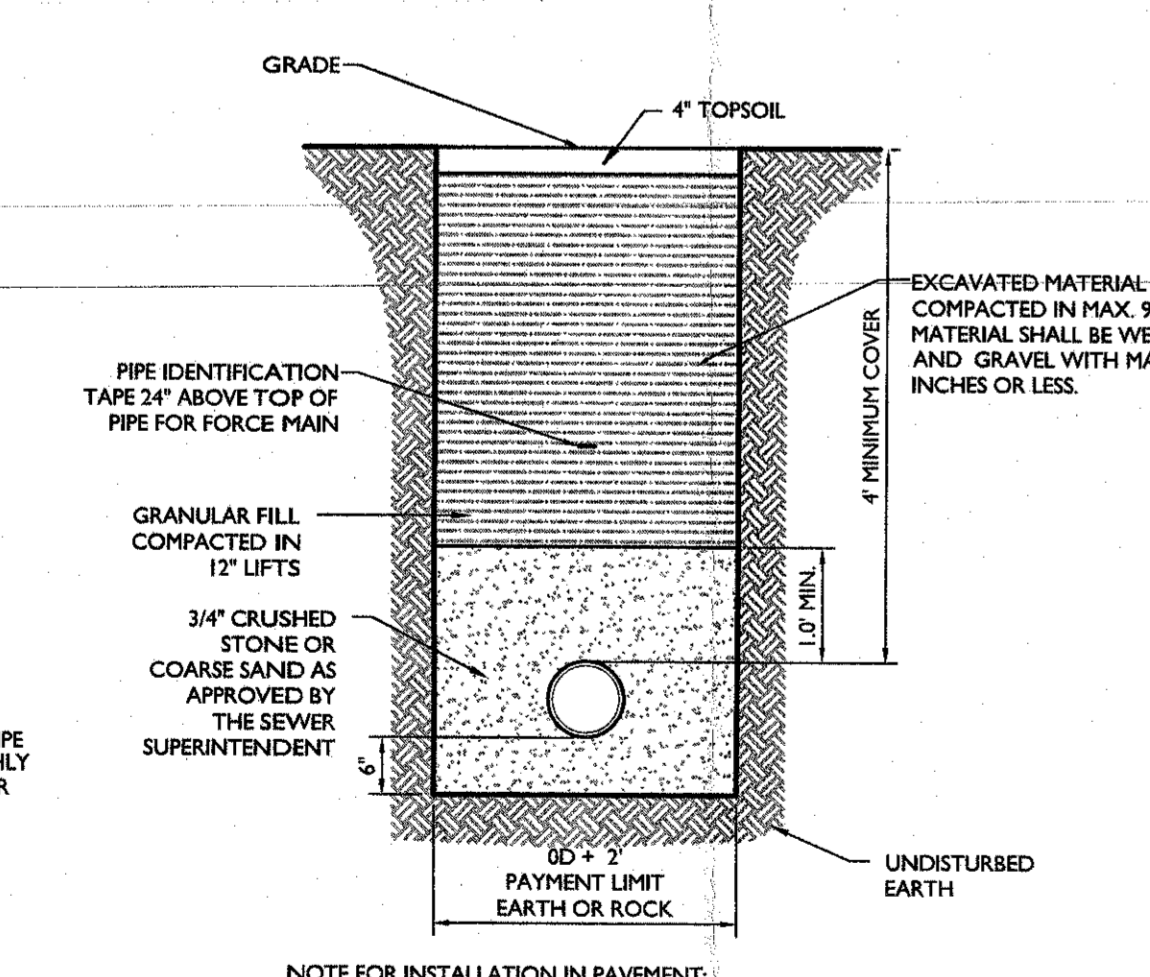
**ROOF LEADER CLEANOUT AT BEND**  
N.T.S.



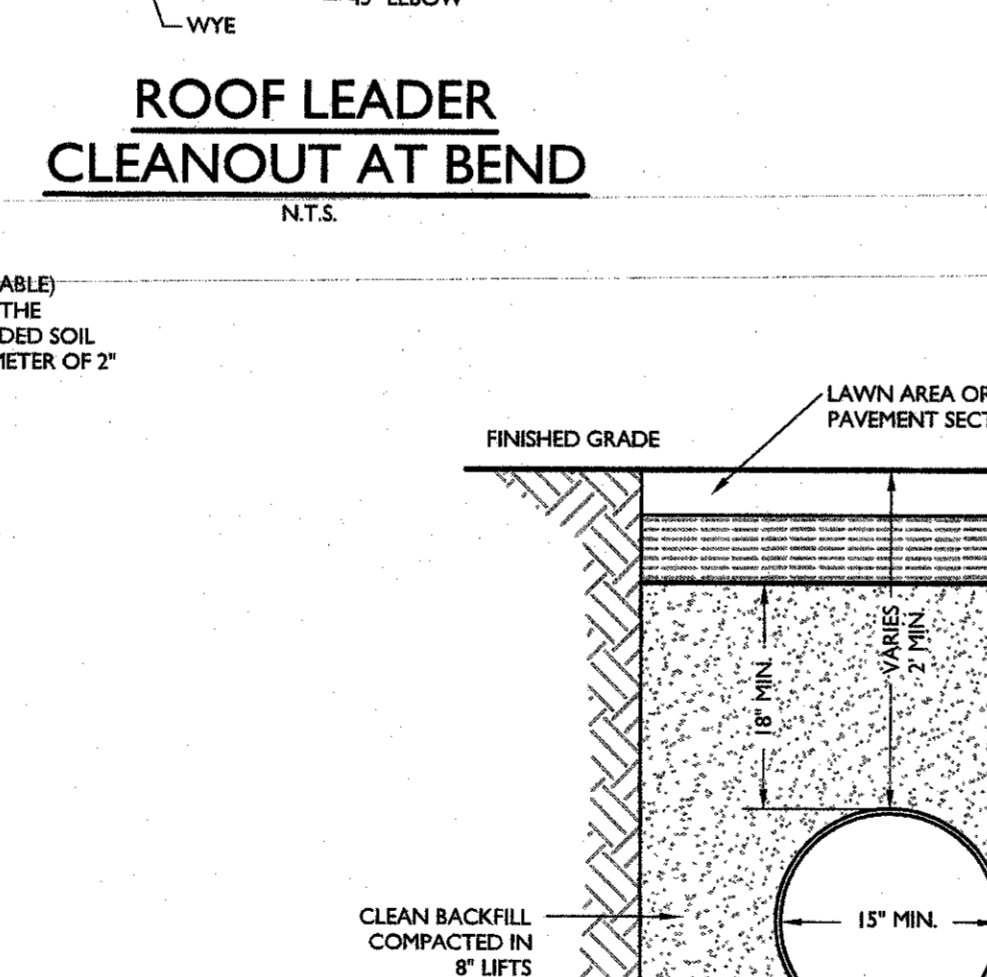
**PRECAST STORM DRAIN MANHOLE SECTION**  
N.T.S.



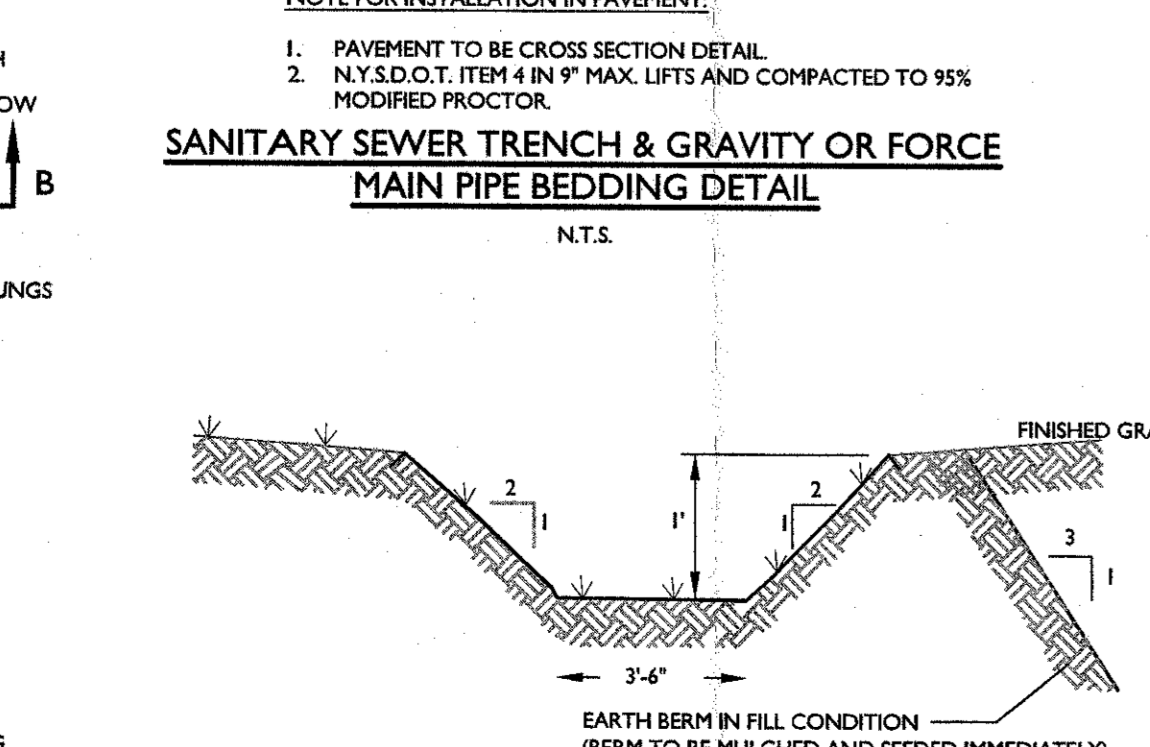
**WET TAP DETAIL**  
N.T.S.



**SANITARY SEWER TRENCH & GRAVITY OR FORCE MAIN PIPE BEDDING DETAIL**  
N.T.S.



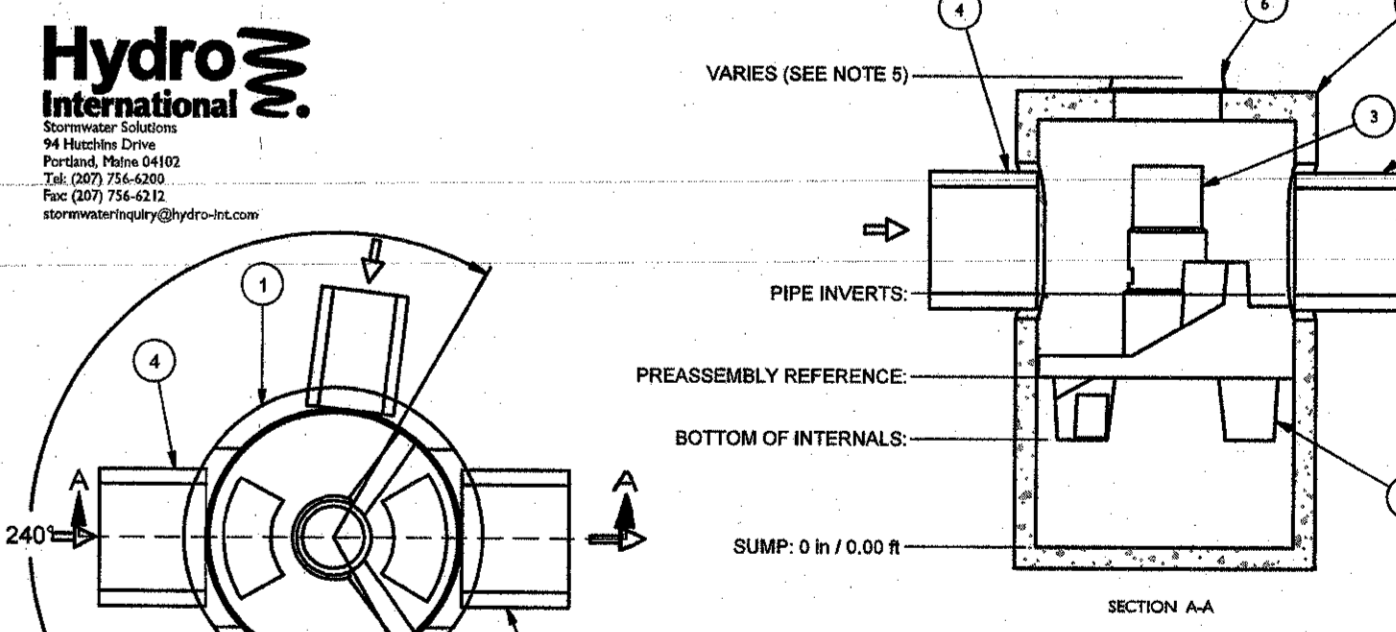
**STORM DRAIN TRENCH & BEDDING**  
N.T.S.



**DRAINAGE SWALE DETAIL**  
N.T.S.



**SEWER CONNECTION TO EXISTING MANHOLE DETAIL**  
N.T.S.



**SITE PLAN**

**HEIGHT OF COMPONENT**

Model	BOTTOM OF INTERNALS	PREASSEMBLY REFERENCE	PIPE INVERTS
4" DIAMETER FIRST DEFENSE	27"	41-1/2"	59-1/2"
6" DIAMETER FIRST DEFENSE	30-3/8"	47-3/8"	71"
8" DIAMETER FIRST DEFENSE	30-3/8"	50-1/2"	88-3/8"

**HYDRO INTERNATIONAL 6" FIRST DEFENSE DETAIL**  
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**ANDREW B. FETHERSTON**  
NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 02355-1

**FOR 18 ROUTE 17K, LLC**

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PROJECT NUMBER: 1601017A  
DRAWING NAME: C-DT15  
SHEET NUMBER: 11 of 11

**CONSTRUCTION DETAILS**