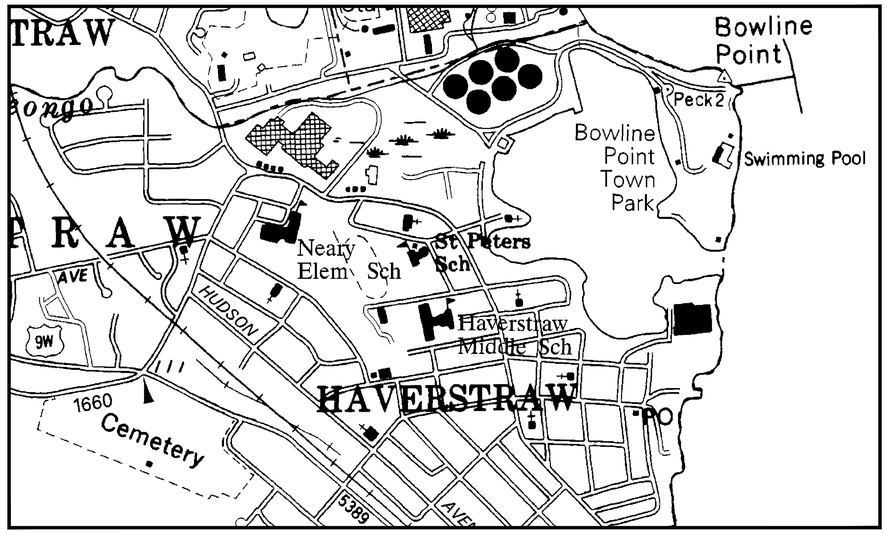
HAVERSTRAW CHAIR FACTORY

VILLAGE OF HAVERSTRAW, NY 10927

INDEX OF DRAWINGS				
PAGE NO.	REV	SHEET NO.	DATE	DESCRIPTION
1	0	G001	11/01/2024	COVER SHEET
2	0	G002	11/01/2024	NOTES & LEGENDS
3	0	1	11/01/2024	ALTA/NSPS LAND TITLE SURVEY
4	0	1	11/01/2024	SUBDIVISION PLAT
5	0	C120	11/01/2024	DEMOLITION PLAN
6	0	C130	11/01/2024	SITE PLAN
7	0	C140	11/01/2024	GRADING & DRAINAGE PLAN
8	0	C141	11/01/2024	FLOODPLAIN ANALYSIS
9	0	C150	11/01/2024	EROSION & SEDIMENT CONTROL PLAN
10	0	C160	11/01/2024	UTILITY PLAN
11	0	C161	11/01/2024	STORMWATER MANAGEMENT PLAN
12	0	C170	11/01/2024	PLAN & PROFILE
13	0	C171	11/01/2024	PLAN & PROFILE
14	0	L-101	11/01/2024	LANDSCAPING PLAN
15	0	C190	11/01/2024	PHOTOMETRIC LIGHTING PLAN
16	0	C530	11/01/2024	SITE DETAILS
17	0	C531	11/01/2024	SITE DETAILS
18	0	C532	11/01/2024	SITE DETAILS
19	0	C540	11/01/2024	STORM SEWER DETAILS
20	0	C541	11/01/2024	STORMWATER PRACTICE DETAILS
21	0	C550	11/01/2024	EROSION CONTROL NOTES AND DETAILS
22	0	C560	11/01/2024	WATER SYSTEM DETAILS
23	0	C561	11/01/2024	WATER SYSTEM DETAILS
24	0	C570	11/01/2024	SANITARY SEWER SYSTEM DETAILS
25	0	C574	11/01/2024	PUMP STATION DETAIL
26	0	FIG 1	11/01/2024	EMERGENCY VEHICLE MOVEMENT PLAN



LOCATION MAP

N.T.S.

THE HAVERSTRAW COMMUNITY CHAIR FACTORY LLC

PROJECT NO: 2230414

NOVEMBER 1, 2024

UDIG·NY SAFE DIGGING STARTS HERE

LaBella Powered by partnership.

4 British American Boulevard
Latham, NY 12110
518-439-8235

labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 016281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME: COVER SHEET
DRAWING NUMBER: G001

VERSION: 23.1
11/4/2024 11:32 AM

DEMOLITION NOTES:

1. REFER TO REQUIREMENTS OUTLINED IN THE EROSION & SEDIMENTS CONTROL PLANS & NOTES PRIOR TO COMMENCEMENT OF WORK.
2. BUILDING/STRUCTURE TO BE DEMOLISHED ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE NOT TO BE DEMOLISHED AS PART OF THIS WORK. PRIOR TO DEMOLISHING ANY BUILDINGS/STRUCTURES, THE CONTRACTOR SHALL PERFORM A PRE-DEMOLITION SURVEY IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS GOVERNING THE DISPOSAL OF SOLID WASTE. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS BY THE AUTHORITY HAVING JURISDICTION.
3. CONFORM TO APPLICABLE CODE FOR DEMOLITION OF STRUCTURES, SAFETY OF ADJACENT STRUCTURES, DUST CONTROL, RUNOFF CONTROL, AND HAULING, DISPOSAL AND STORAGE OF DEBRIS.
4. PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES.
5. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES SERVING OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION.
6. NOTIFY ADJACENT OWNERS OF WORK THAT MAY AFFECT THEIR PROPERTY, POTENTIAL NOISE, UTILITY OUTAGE, OR DISRUPTION. COORDINATE WITH OWNER.
7. PREVENT MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES. PROVIDE BRACING AND SHORING.
8. LOCATE AND IDENTIFY ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA. DISCONNECT AND SEAL OR CAP OFF UTILITY SERVICES THAT WILL BE AFFECTED BY THIS PROJECT. NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS. VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED AND CAPPED.
9. DEMOLISH AND REMOVE COMPONENTS IN AN ORDERLY AND CAREFUL MANNER.
10. PROTECT EXISTING FEATURES THAT ARE NOT TO BE DEMOLISHED.
11. CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESSES.
12. MAINTAIN EGRESS AND ACCESS AT ALL TIMES. DO NOT CLOSE OR OBSTRUCT ROADWAYS, OR SIDEWALKS WITHOUT PERMITS. COORDINATE W/ AUTHORITY HAVING JURISDICTION.
13. CEASE OPERATIONS IMMEDIATELY IF ADJACENT STRUCTURES APPEAR TO BE IN DANGER. NOTIFY AUTHORITY HAVING JURISDICTION.
14. ROUGH GRADE AND COMPACT AREAS AFFECTED BY DEMOLITION TO MAINTAIN SITE GRADES AND CONTOURS.
15. FIELD VERIFY EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED ON DEMOLITION PLAN TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
16. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH SELECTIVE DEMOLITION OPERATIONS.
17. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE AROUND SELECTIVE DEMOLITION AREA.
18. USE WATER MIST, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS TO LIMIT THE SPREAD OF DUST AND DIRT. COMPLY WITH GOVERNING ENVIRONMENTAL PROTECTION REGULATIONS. DO NOT USE WATER WHEN IT MAY DAMAGE EXISTING CONSTRUCTION, SUCH AS CAUSING ICING, FLOODING, AND TRANSPORTING POLLUTANTS.
19. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
20. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF SELECTIVE DEMOLITION.
21. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. ALL DEBRIS RESULTING FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE AT A FACILITY APPROVED TO RECEIVE THE DEBRIS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. DO NOT BURN DEMOLISHED MATERIALS ON-SITE.

SITE PLAN NOTES:

GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE ENGINEER OR OWNER, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AND UNDER THE SUPERVISION OF A NEW YORK STATE LICENSED LAND SURVEYOR.
2. ALL PAVEMENT RESTORATION SHALL MEET AND MATCH EXISTING GRADES.
3. ALL SAWCUT LINES SHALL BE PARALLEL AND CURVILINEAR TO EXISTING OR PROPOSED CURBING AND SHALL BE A CONSTANT DISTANCE OF 18" MIN AWAY.
4. ALL ARCHITECTURE IS SUBJECT TO PLANNING BOARD REVIEW.
5. NOTIFY ENGINEER 48 HOURS PRIOR TO INITIALIZATION OF ANY WORK ON SITE.
6. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT PRIOR REVIEW FROM THE ENGINEER.
7. CONTRACTOR IS RESPONSIBLE FOR EMPLOYING AND MAINTAINING ALL TRAFFIC CONTROL AND SAFETY MEASURES DURING CONSTRUCTION.
8. CONTRACTOR IS RESPONSIBLE FOR PROPERLY & SAFELY MAINTAINING AREA BETWEEN ALL ADJOINING PROPERTIES.
9. NO WORK, STORAGE OR TRESPASS SHALL BE PERMITTED BEYOND THE SITE PROPERTY LINES OR PUBLIC RIGHT-OF-WAY.
10. ALL EXISTING LAWN AREA, CURBING, PAVING, SIDEWALKS, CULVERTS OR OTHER PUBLIC OR PRIVATE PROPERTY DAMAGED BY TRENCHING OR EXCAVATION OPERATIONS SHALL BE REPLACED OR REPAIRED TO A CONDITION EQUAL TO EXISTING, AS DESCRIBED IN CONTRACT DOCUMENTS OR AS ORDERED BY ENGINEER (AOBE). MAILBOXES, SIGN POSTS, ETC SHALL BE PROTECTED OR REMOVED AND REPLACED EXACTLY AS THEY WERE BEFORE BEING DISTURBED. REMOVE AND REPLACE AFFECTED CURBING AND SIDEWALK TO NEAREST JOINT. REMOVE PAVEMENT AND REPLACE TO SAW CUT LINE, SAW CUT IN STRAIGHT LINE TO POINT NEEDED TO BLEND GRADE, REMOVE LAWN AND REPLACE TO MINIMUM LIMIT OF EXCAVATION.
11. IF PREVIOUSLY UNKNOWN CULTURAL, ARCHEOLOGICAL, OR HISTORIC REMAINS OR ARTIFACTS ARE DISCOVERED IN THE COURSE OF CONSTRUCTION OF THIS PROJECT, THE PROJECT SPONSORS SHALL SUSPEND CONSTRUCTION OPERATIONS IN THE PERTINENT AREA AND SHALL NOTIFY THE PROJECT ENGINEER. CONSTRUCTION IN THAT AREA SHALL RESUME ONLY AFTER COMPLETION OF FEDERAL, TRIBAL, AND STATE COORDINATION TO DETERMINE WHETHER PROTECTION OR RECOVERY OF THE REMAINS IS WARRANTED, OR WHETHER THE SITE IS ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES.

LAYOUT NOTES:

1. BUILDING DIMENSIONS TO BE TAKEN FROM ARCHITECTURAL BUILDING PLANS. NOTIFY THE ENGINEER OF ANY DEVIATION FROM CONDITIONS SHOWN ON THIS PLAN.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL FIELD LAYOUT. THE CONTRACTOR SHALL TAKE TIES TO ALL UTILITY CONNECTIONS AND PROVIDE MARKED-UP AS BUILT PLANS FOR ALL UTILITIES SHOWING TIES TO CONNECTIONS, BENDS, VALVES, LENGTHS OF LINES AND INVERTS. AS-BUILT PLANS SHALL BE REVIEWED BY THE OWNER AND THE ENGINEER AND THE CONTRACTOR SHALL PROVIDE ANY CORRECTION OR ADDITIONS TO THE SATISFACTION OF THE OWNER AND THE ENGINEER BEFORE UTILITIES WILL BE ACCEPTED.

PAVING NOTES:

1. NO VEHICULAR TRAFFIC OF ANY SORT SHALL BE PERMITTED ON THE SURFACE OF SUBBASE COURSE MATERIAL ONCE IT HAS BEEN FINE GRADED, COMPACTED, AND IS READY FOR PAVING. SUBBASE MATERIAL SO PREPARED FOR PAVING SHALL BE PAVED WITHIN THREE DAYS OF PREPARATION.
2. SUBBASE MATERIAL AND THE VARIOUS ASPHALT CONCRETE MATERIALS CALLED FOR IN THESE DRAWINGS SHALL CONFORM WITH THE REFERENCED SECTION OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED **"LATEST EDITIONS"**. CONSTRUCTION SHALL BE AS FURTHER SET FORTH IN THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS.
3. PLACE ASPHALT CONCRETE MIXTURE ON PREPARED SURFACE, SPREAD AND STRIKE-OFF USING A SELF-PROPELLED PAVING MACHINE, WITH VIBRATING SCREED. PLACEMENT IN INACCESSIBLE AND SMALL AREAS MAY BE BY HAND.
4. PROVIDE JOINTS BETWEEN OLD AND NEW PAVEMENTS OR BETWEEN SUCCESSIVE DAY'S WORK.
5. TACK COAT WHEN SPECIFIED OR CALLED OUT ON THE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATION SHALL CONFORM WITH THE FOLLOWING:
   A. TACK COAT SHALL MEET THE MATERIAL REQUIREMENTS OF 702-90 ASPHALT EMULSION FOR TACK COAT OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED **"LATEST EDITION"**, SHALL BE APPLIED IN ACCORDANCE WITH SECTION 407 – TACK COAT SHALL BE IN ACCORDANCE WITH THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS.
   B. REMOVE LOOSE AND FOREIGN MATERIAL FROM ASPHALT SURFACE BEFORE PAVING NEXT COURSE. USE POWER BROOMS, BLOWERS OR HAND BROOM.
   C. APPLY TACK COAT TO ASPHALT PAVEMENT SURFACES & AND SURFACES OF CURBS, GUTTERS, MANHOLES, AND OTHER STRUCTURES PROJECTING INTO OR ABUTTING PAVEMENT. DRY TO A "TACKY" CONSISTENCY BEFORE PAVING.
   D. TACK COAT ENTIRE VERTICAL SURFACE OF ABUTTING EXISTING PAVEMENT.
6. AFTER COMPLETION OF PAVING AND SURFACING OPERATIONS, CLEAN SURFACES OF EXCESS OR SPILLED ASPHALT, GRAVEL OR STONE MATERIALS TO THE SATISFACTION OF THE ENGINEER.

MAP REFERENCE:

1. BASE MAP TAKEN FROM DRAWING 1 PREPARED BY ATZL, NASHER & ZIGLER P.C. ENTITLED "ALTA/NSPS LAND TITLE SURVEY", DATED MAY 4, 2023, PROJECT NO. 3395.

TAX PARCEL DESIGNATION:

TOWN OF HAVERSTRAW, ROCKLAND COUNTY, NEW YORK
27.05-2-6.6 ,27.09-1-3, 27.46-1-77, 27.46-1-78,
27.46-1-80, 27.46-1-81, 27.46-1-82, 27.46-1-83,
27.46-1-84, 27.46-1-85, 27.46-1-86

SITE STATISTICS:

ZONE:	FORM BASED CODE
PROPOSED:	450 RESIDENTIAL UNITS
FRONTAGE:	PER FORM BASED CODE
SETBACKS:	PER FORM BASED CODE
BUILDING HEIGHT:	PER FORM BASED CODE

GRADING NOTES:

1. PRIOR TO SITE DISTURBANCE, CONTRACTOR TO INSTALL EROSION & SEDIMENT CONTROL MEASURES.
2. IF ROCK IS ENCOUNTERED DURING CONSTRUCTION & REMOVAL BY BLASTING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVALS AND PERMITS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
3. ALL BLASTING OPERATIONS WILL ADHERE TO NEW YORK STATE AND LOCAL AUTHORITY ORDINANCES GOVERNING THE USE OF EXPLOSIVES. THE STATE REGULATIONS ARE CONTAINED IN 12 NYCRR 39 AND INDUSTRIAL CODE RULE 753.
4. STRIP ALL TOPSOIL PRIOR TO COMMENCING EARTHWORK OPERATIONS. TOPSOIL MAY BE STORED AND REUSED IN LAWN AND PLANTING AREAS ONLY. TOPSOIL AND SEED ALL AREAS DISTURBED BY CONSTRUCTION THAT ARE TO REMAIN GREEN.
5. BOX ALL TREES AND HOUSE ALL SHRUBS AND HEDGES BEFORE PLACING EARTH AGAINST OR NEAR THEM. ORNAMENTAL TREES, SHRUBS AND HEDGES WHICH MUST BE REMOVED DURING CONSTRUCTION SHALL BE HEALED IN AND RE-PLANTED IN AS GOOD A CONDITION AS THEY WERE BEFORE THEIR REMOVAL. ANY DAMAGED TREES, SHRUBS, AND/OR HEDGES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. ALL EARTHWORK SHALL BE SMOOTHLY AND EVENLY BLENDED INTO EXISTING CONDITIONS. NO WORK, STORAGE OR TRESPASS SHALL BE PERMITTED BEYOND THE BOUNDARIES OF ANY EASEMENT OR PROPERTY LINE.
7. REMOVE ALL VEGETATION, TREES, STUMPS, GRASSES, ORGANIC SOILS, DEBRIS AND DELETERIOUS MATERIALS WITHIN THE AREAS SLATED FOR CONSTRUCTION.
8. IF PREVIOUSLY UNKNOWN CULTURAL, ARCHEOLOGICAL, OR HISTORIC REMAINS OR ARTIFACTS ARE DISCOVERED IN THE COURSE OF CONSTRUCTION OF THIS PROJECT, THE PROJECT SPONSORS SHALL SUSPEND CONSTRUCTION OPERATIONS IN THE PERTINENT AREA AND SHALL NOTIFY THE PROJECT ENGINEER. CONSTRUCTION IN THAT AREA SHALL RESUME ONLY AFTER COMPLETION OF FEDERAL, TRIBAL, AND STATE COORDINATION TO DETERMINE WHETHER PROTECTION OR RECOVERY OF THE REMAINS IS WARRANTED, OR WHETHER THE SITE IS ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES.
9. IT IS THE INTENT OF THIS PLAN FOR ALL SITE GRADING TO DRAIN & NO PONDING OCCURS. MINIMUM SLOPE OF AT LEAST ONE PERCENT ALONG THE FLOW LINE AND 2% CROSS SLOPE ON ALL PAVED OR CONCRETE SURFACES UNLESS OTHER WISE NOTED. CONTRACTOR SHALL COORDINATE WITH ENGINEER FOR ANY DEVIATIONS OR AREA ON THE PLAN WHERE THE SITE DOES NOT MEET THESE REQUIREMENT.

UTILITY PLAN NOTES:

GENERAL CONSTRUCTION NOTES:

1. ALL UNDERGROUND UTILITIES ARE SHOWN IN THEIR RELATIVE POSITION AND ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY THEIR ACTUAL LOCATION IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. ANY CONDITION ENCOUNTERED IN THE FIELD DIFFERING FROM THOSE SHOWN HEREON, SHALL BE REPORTED TO THE DESIGN ENGINEER BEFORE CONSTRUCTION IS TO PROCEED.
3. SEWER MAINS IN RELATION TO WATER MAINS: WHERE POSSIBLE, SEWERS SHALL BE LAID AT LEAST 10 (TEN) FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. VERTICAL SEPARATION SHALL BE MAINTAINED TO PROVIDE 18 (EIGHTEEN) INCHES BETWEEN TOP OF SEWER AND BOTTOM OF THE WATER MAIN AT UTILITY CROSSINGS. WHEN NOT POSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION, SEWER PIPE SHALL BE PRESSURE RATED AND TESTED @ 150psi, 10 (TEN) FEET ON EACH SIDE OF THE WATER MAIN BEING CROSSED.
4. ALL PROPOSED UTILITIES SHALL TERMINATE 5 FEET FROM ANY PROPOSED BUILDING FACE. CONTRACTOR TO COORDINATE WITH BUILDING PLANS FOR ANY CONNECTIONS.
5. ALL STORM SEWER SHALL BE SMOOTH INTERIOR HDPE UNLESS OTHERWISE SPECIFIED.
6. ALL GRAVITY SANITARY SEWER SHALL BE SDR 35 PVC UNLESS OTHERWISE SPECIFIED.
7. ALL WATER PIPE SHALL BE CL52 DUCTILE IRON PIPE UNLESS OTHERWISE SPECIFIED.
8. CONTRACTOR TO VERIFY STATUS OF ALL UTILITY SERVICES PRIOR TO INTERRUPTION.
9. EXPLORATORY EXCAVATIONS SHALL BE PERFORMED BY THE CONTRACTOR AT ALL UTILITY CONNECTION LOCATIONS AND AS NEEDED TO VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK.
10. BEFORE CONSTRUCTING LINES TO CONNECT TO EXISTING UTILITIES, VERIFY EXISTING UTILITY INVERTS AND NOTIFY THE ENGINEER IF ANY VARIATION FROM THE PLAN IS REQUIRED.
11. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES IN SERVICE FOR THE DURATION OF THE WORK.
12. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS AND ASSOCIATED CONDITIONS.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING UTILITY TRENCHES AND EXCAVATIONS AND FOR THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF THE WORK.
14. IF ROCK REMOVAL BY BLASTING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVALS AND PERMITS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

ROCK BLASTING NOTES:

BLASTING OF BEDROCK IS NOT ANTICIPATED AT THIS SITE IN ORDER TO COMPLETE THE PROPOSED DEVELOPMENT. HOWEVER, THESE NOTES ARE INCLUDED SHOULD UNFORESEEN CONDITIONS REQUIRE THE NEED FOR BLASTING TO EXCAVATE BEDROCK.

1. ALL RECOMMENDED SAFETY REQUIREMENTS AND STANDARDS REFERENCED AND ANY LOCAL RESTRICTIONS SHALL BE APPLIED AS REQUIRED FOR SAFETY, SECURITY, AND SPECIFICALLY RELATED DETAILS FOR BLASTING PROCEDURES. AT ALL TIMES, FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES WILL BE FOLLOWED CONCERNING THE TRANSPORTATION AND STORAGE OF EXPLOSIVES.
2. A MINIMUM OF FOUR (4) WEEKS PRIOR TO COMMENCEMENT OF THE INITIAL BLASTING OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES AS APPROPRIATE: POLICE AGENCIES, GAS AND ELECTRIC SERVICE COMPANIES, TELEPHONE AND CABLE OPERATING COMPANIES, TOWN WATER AND SEWER DEPARTMENTS, NYSDOT, AND LOCAL FIRE, RESCUE, AND AMBULANCE SERVICES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE RESULTING FROM THE USE OF EXPLOSIVES. EXPLOSIVES SHALL BE STORED IN A SECURE MANNER IN COMPLIANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES.
4. THE CONTRACTOR SHALL NOTIFY EACH PROPERTY AND UTILITY OWNER HAVING A BUILDING, STRUCTURE, OR OTHER INSTALLATION ABOVE OR BELOW GROUND IN PROXIMITY TO THE SITE OF THE WORK OF HIS INTENTION TO USE EXPLOSIVES. NOTICE SHALL BE GIVEN SUFFICIENTLY IN ADVANCE TO ENABLE THE OWNERS TO TAKE STEPS TO PROTECT THEIR PROPERTY. NOTICE SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR DAMAGE RESULTING FROM HIS BLASTING OPERATIONS.
5. THE CONTRACTOR SHALL SCHEDULE AND CONDUCT PRE-BLAST SURVEYS WITH PROPERTY OWNERS LOCATED IN THE AREA POTENTIALLY AFFECTED BY AIRBLAST OVERPRESSURE AND GROUND VIBRATION OR AS REQUIRED.
6. THE CONTRACTOR SHALL IMPLEMENT ENGINEERING MEASURES IN ORDER TO MINIMIZE THE POTENTIAL IMPACTS OF DUST, NOISE AND GROUND VIBRATION. BLAST VIBRATION CONTROL WILL BE ACHIEVED BY LIMITING THE CHARGE PER DELAY SO THAT THE PEAK PARTICLE VELOCITY REMAINS BELOW THE SPECIFIED LEVELS.
7. A APPROPRIATELY QUALIFIED, LICENSED BLASTING SPECIALIST, WITH EXPERIENCE SHALL BE ONSITE AND SUPERVISE BLASTING OPERATIONS. AT ALL TIMES, THE BLASTING AREA SHALL BE RESTRICTED TO BLASTING OPERATIONS AND AUTHORIZED PERSONNEL ONLY.
8. PROTECTIVE MEASURES INCLUDING INSTALLATION OF SIGNAGE, NOTIFICATION OF NEARBY RESIDENTS, TRAFFIC CONTROL AS NECESSARY ALONG NEARBY ROADS, AUDIBLE PRE-BLAST WARNINGS, AND USE OF BLAST MATS SHALL BE IMPLEMENTED.
9. DELIVERY AND TRANSPORT OF EXPLOSIVES FROM THE POWDER MAGAZINES TO THE BLAST AREA WILL BE BY VEHICLES SPECIFICALLY DESIGNED FOR THIS USE BY THE CRITERIA OUTLINED IN THE SAFETY REQUIREMENTS. ONLY AUTHORIZED PERSONS WILL TRANSPORT AND HANDLE THE EXPLOSIVES AS DESIGNATED BY THE ISSUING AUTHORITY OF THOSE LICENSES FOR THIS PURPOSE.
10. MONITORING OF PEAK PARTICLE VELOCITY (INCHES/SECOND) AND PEAK AIRBLAST OVERPRESSURE (PSI) SHALL BE PERFORMED DURING ALL BLASTS.

LEGEND:

LAYOUT:

- LOT LINE
- SETBACK LINE
- EASEMENT LINE
- BUILDING
- PAVED ROAD / DRIVEWAY / PARKING AREA
- ROAD CENTER LINE
- SIDEWALK
- CURB
- GRAVEL DRIVEWAY
- WORKLIMITS
- CHAIN LINK FENCE
- STOCKADE FENCE
- CONCRETE
- ROAD LINING & STRIPING
- GRAVEL AREA

UTILITIES:

- OHW — OVERHEAD WIRES
- S — SANITARY SEWER LINE
- FM — FORCE MAIN
- W — WATER LINE
- ST — STORM DRAIN LINE

GRADING & EROSION CONTROL:

- 500 — 10 FT CONTOUR
- 448 — 2 FT CONTOUR
- 501.25 — SPOT ELEVATIONS
- TREE LINE
- ORANGE CONSTRUCTION FENCE
- SILT FENCE / FIBER LOG
- CATCH BASIN SILT SAC DROP INLET PROTECTION
- SPOILS STORAGE AREA
- STABILIZED CONSTRUCTION ENTRANCE
- RIPRAP
- CONCRETE WASH OUT AREA
- TREE PROTECTION

DEMO:

- EXISTING FEATURE TO BE REMOVED
- EXISTING TREE TO BE REMOVED
- EXISTING SITE FEATURE TO BE REMOVED
- EXISTING PAVEMENT & SIDEWALK TO BE REMOVED
- EXISTING BUILDING TO BE REMOVED

SYMBOLS:

- SIGN
- BOLLARD
- LIGHTED BOLLARD
- CATCH BASIN
- YARD DRAIN
- CLEAN OUT / DOWN SPOUT
- FLARED END SECTION
- DRAINAGE MANHOLE
- SANITARY MANHOLE
- CLEANOUT
- WELL
- WATER SHUT OFF VALVE
- WATER VALVE
- HYDRANT
- REDUCER
- LIGHT POLE
- LIGHT WALL PACK
- POST AND LUMINAIRE
- 25 — PARKING COUNT
- SOIL BORING
- TEST PIT
- UTILITY POLE

LaBella
Powered by partnership.

4 British American Boulevard
Latham, NY 12110
518-439-8235

labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 018281
LAND SURVEYING: 017976
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

NOTES & LEGENDS

DRAWING NUMBER:

G002

VERSION 23.1 -
11/4/2024 11:32 AM

BOWLINE POND

TL. 27.05-2-6.6

TL. 27.05-2-6
N/F
GENON BOWLINE LLC

TL. 27.05-2-6
N/F
GENON BOWLINE LLC

SHOW AS "PROMENADE PARCEL–1" SUBDIVISION PLAT ENTITLED "VILLAGE OF HAVERSTRAW PROMENADE" FILED IN THE ROCKLAND COUNTY CLERK'S OFFICE ON DECEMBER 6, 2012, IN BOOK 129, PAGE 36, AS MAP No. 8192.

FORMER E ALLISON AVENUE

R.O.W. TO ORANGE AND ROCKLAND UTILITIES, INC. LIBER 702, PAGE 278

24 FT. WIDE R.O.W. FOR INGRESS & EGRESS TO ORANGE AND ROCKLAND UTILITIES, INC. LIBER 702, PAGE 278 & 283

100 YEAR FLOODPLAIN ZONE AE

MEAN HIGH WATER

SHORE LINE

WL A1 – WL A42

N84°30'02"E

N3°05'52"E 56.60'

N86°14'23"W 16.50'

N78°42'27"E

139.91'

EXISTING PAVEMENT

N71°25'07"E 78.16'

N71°25'07"W 62.43'

N16°34'53"W 6.00'

S71°25'07"W 197.25'

N75°58'17"E 209.22'

S15°58'17"W 138.05'

S5°59'27"W 125.06'

N15°39'27"E 115.82'

N10°00'19"W 133.84'

N5°04'26"E 75.40'

N5°04'26"E 84.00'

N0°08'57"W 84.00'

N4°21'06"W 107.68'

N3°08'32"E 180.10'

N52°20'57"E 83.15'

S45°08'33"E 99.20'

N80°42'57"E 91.40'

N65°05'02"E 95.50'

S81°23'03"E 89.09'

S10°03'07"W 98.94'

N85°13'07"E 119.97'

N77°04'37"E 416.0'

S5°49'19"E 159.50'

S77°04'37"W 420.0'

S26°48'E 526.48'

S15°42'37"E 252±

S84°20'37"W

N84°54'13"E 28.52'

S73°16'53"E 51.59'

S37°13'37"W 83.51'

N85°33'17"E 104.29'

S85°33'17"W 115.45'

S5°41'57"W 139.45'

N15°41'57"E 139.6'

N85°13'07"E 23.03'

160.00'

685.48'

R=16.00' L=18.85'

L=84.82' R=300.00'

L=47.12' R=30.00'

L=84.82' R=300.00'

R=16.00' L=18.85'

49.20' S82°03'27"W

N89°58'27"W 74.15'

N0°08'27"W 115.82'

N0°08'27"W 74.15'

N82°14'43"E 335.60'

N2°08'27"E 567.88'

N15°39'27"E 125.06'

N5°59'27"W 138.05'

N75°58'17"E 209.22'

S15°58'17"W 197.25'

N86°01'23"W 132.00'

N7°15'15"W 21.89'

S3°58'37"W 155.69'

N3°58'37"E 156.44'

N3°45'37"W 42.50'

S3°45'37"E 24.30'

N85°55'23"W 215.12'

S82°52'36"W 185.35'

168'±

N22°48'59"W 12.95'

N3°07'01"E 232.52'

N0°57'34"E 27.34'

N89°02'26"W 95.00'

N78°18'36"E 61.25'

S32°00'07"W 68.37'

S81°19'02"E 18.14'

N3°07'01"E 232.52'

S10°27'48"E 110.00'

N10°27'48"W 110.00'

S82°52'36"W 168'±

N3°07'01"E 232.52'

N22°48'59"W 12.95'

R-3 ZONE

R-2 ZONE

WD ZONE

CBD ZONE

TL. 27.09-1-3

TL. 27.10-1-1
N/F
DELETED PARCEL-
LAND UNDERWATER

RIVER

HUDSON

TL. 27.10-1-2
N/F
VILLAGE OF HAVERSTRAW

TL 27.14-1-1
N/F
VILLAGE OF HAVERSTRAW

WETLANDS AS FLAGGED ON APRIL 7, 2023 BY JAMES A. BATES, CPESC, CPSWQ OF ECOLOGICAL ANALYSIS LLC

TL. 27.46-1-76
N/F
GARY & MARIELETTA SMITH

TL. 27.46-1-77

TL. 27.46-1-78

TL. 27.46-1-80

TL. 27.46-1-81

TL. 27.46-1-82

TL. 27.46-1-83

TL. 27.46-1-84

TL. 27.46-1-85

TL. 27.46-1-86

TL. 27.46-2-63
N/F
BASSAR REALTY, LLC

TL. 27.46-2-61
N/F
LANDSLIDE HOLDING CORP.

TL. 27.46-2-62
N/F
LANDSLIDE HOLDING CORP.

TL. 27.46-2-59
N/F
G, M., A & E LOPEZ

TL. 27.46-2-58
N/F
KINGS DAUGHTERS LIBRARY

TL. 27.46-2-46
N/F
THOMAS VITALE

TL. 27.54-2-11
N/F
US POSTAL OFFICE

TL. 27.54-2-12
N/F
PARMIO LLC

TL. 27.54-2-16

TL. 27.54-2-54
N/F
NECTAR HEAD PROPERTIES, INC.

TL. 27.54-2-13
N/F
SLP PROPERTIES, INC.

TL. 27.54-2-53
N/F
ANGEL GUADALUPE HERNANDEZ

TL. 27.54-2-14
N/F
KEVIN FREY & ELEANOR STERLING

TL. 27.54-2-52.110
N/F
MARGARUTA RAMIREZ

TL. 27.54-2-15
N/F
VILLAGE OF HAVERSTRAW

TL. 27.54-2-52.120
N/F
LUIS & CHARISTOPHER ESTRELLA

TL. 27.54-2-51
N/F
MAXIMO & RUFINA GOMEZ

TL. 27.14-1-1
N/F
VILLAGE OF HAVERSTRAW

TL. 27.54-2-18
N/F
MIRIAM ABRAHAM

BROAD STREET

LIBERTY STREET

ALLISON AVENUE

MAIN STREET

FIRST STREET

SECOND STREET

SOUTH STREET

15' R.O.W.

MEANDERING LINE ±715±

100 YEAR FLOODPLAIN ZONE AE

TOTAL AREA = 652,860 SQ.FT.
UPLAND AREA = 471,040 SQ.FT.
(TO MEAN HIGH WATER LINE)

LEGEND

- 362 — EXISTING 2' CONTOUR
- 360 — EXISTING 10' CONTOUR
- W — EXISTING WATER LINE
- EXISTING FIRE HYDRANT
- G — EXISTING GAS LINE
- CB EXISTING CATCH BASIN
- EXISTING STORM DRAIN LINE
- SMH EXISTING SEWER MANHOLE
- S — S — EXISTING SEWER LINE
- + 360.0 EXISTING SPOT ELEVATION
- EXISTING STONE WALL
- EXISTING SIGN
- LP EXISTING LIGHT POLE
- UP EXISTING UTILITY POLE
- WV EXISTING WATER VALVE
- GV EXISTING GAS VALVE
- WL WETLANDS LINE
- ZONE LINE
- 100 YEAR FLOODPLAIN

NOTES:

1. SUBJECT TO AN UP TO DATE ABSTRACT OF TITLE.
2. 100 YEAR FLOODPLAIN PER FEMA FIRM FOR THE VILLAGE OF HAVERSTRAW (COMMUNITY No. 36042), MAP No. 36087C0104G, WITH AN EFFECTIVE DATE OF MARCH 3, 2014.
3. ZONES PER VILLAGE OF HAVERSTRAW ZONING MAP DATED OCTOBER 2021:
   CBD - CENTER BUSINESS DISTRICT
   R-2 - SECOND RESIDENCE DISTRICT
   R-3 - THIRD RESIDENCE DISTRICT
   WD - WATER FRONT DEVELOPMENT DISTRICT

BOUNDARY SURVEY OF THE FOLLOWING LOTS:

27.05-2-6.6	WARREN AVENUE
27.09-1-3	30 LIBERTY STREET
27.46-1-77	9 ALLISON AVENUE
27.46-1-78	8 ALLISON AVENUE
27.46-1-80	87 MAIN STREET
27.46-1-81	87 NAIN STREET
27.46-1-82	6 ALLISON AVENUE
27.46-1-83	4 ALLISON AVENUE
27.46-1-84	2A ALLISON AVENUE
27.46-1-85	2 ALLISON AVENUE
27.46-1-86	89 MAIN STREET
27.54-2-16	EMELINE PARK

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS. THE FIELD WORK WAS COMPLETED ON MARCH 3, 2023.

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."
"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"THE CERTIFICATION INDICATED HERE ON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYOR'S ADOPTED BY THE DELAWARE – HUDSON LAND SURVEYORS ASSOCIATION. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

STATE OF NEW YORK
JOHN R. ATZL
16
LICENSED LAND SURVEYOR

JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228

REVISION	DATE	DESCRIPTION

ATZL, NASHER & ZIGLER P.C.
ENGINEERS–SURVEYORS–PLANNERS
232 North Main Street
New City, New York 10956
Tel: (845) 634–4694
Fax: (845) 634–5543
E–mail: info@anzny.com
Web: www.ANZNY.com

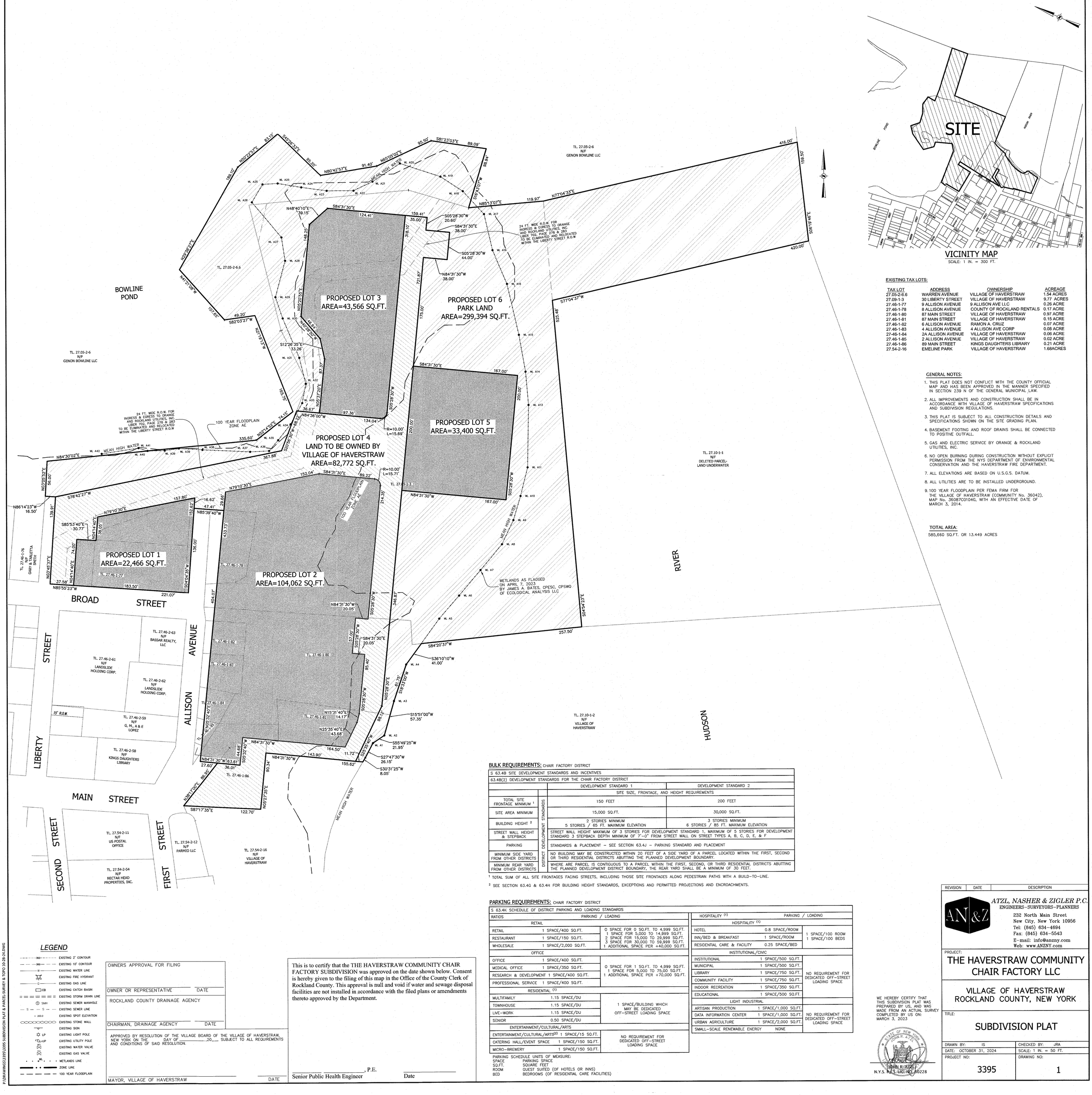
PROJECT:
CHAIR FACTORY

VILLAGE OF HAVERSTRAW
ROCKLAND COUNTY, NEW YORK

TITLE:
ALTA/NSPS LAND TITLE SURVEY

DRAWN BY: IS	CHECKED BY: JRA
DATE: MAY 04, 2023	SCALE: 1 IN. = 50 FT.
PROJECT NO: 3395	DRAWING NO: 1

P:\DRAWINGS\3395\3395 SURVEY & TOPO 5-2-23.DWG


PROPOSED LOT 1
AREA=22,466 SQ.FT.
PROPOSED LOT 2
AREA=104,062 SQ.FT.
PROPOSED LOT 3
AREA=43,566 SQ.FT.
PROPOSED LOT 4
LAND TO BE OWNED BY
VILLAGE OF HAVERSTRAW
AREA=82,772 SQ.FT.
PROPOSED LOT 5
AREA=33,400 SQ.FT.
PROPOSED LOT 6
PARK LAND
AREA=299,394 SQ.FT.
BOWLINE
POND
MEAN HIGH WATER
100 YEAR FLOODPLAIN
ZONE AE
24 FT. WIDE R.O.W. FOR
INGRESS & EGRESS TO ORANGE
AND ROCKLAND UTILITIES, INC.
AND ROCKLAND UTILITIES, INC.
LIBER 702, PAGE 278 & 283
TO BE ELIMINATED AND RELOCATED
WITHIN THE LIBERTY STREET R.O.W
TL. 27.05-2-6
N/F
GENON BOWLINE LLC
TL. 27.05-2-6.6
TL. 27.10-1-1
N/F
DELETED PARCEL-
LAND UNDERWATER
TL. 27.10-1-3
TL. 27.10-1-2
N/F
VILLAGE OF
HAVERSTRAW
WETLANDS AS FLAGGED
ON APRIL 7, 2023
BY JAMES A. BATES, CPESC, CPSWO
OF ECOLOGICAL ANALYSIS LLC
RIVER
HUDSON
BROAD STREET
ALLISON AVENUE
LIBERTY STREET
MAIN STREET
FIRST STREET
SECOND STREET
TL. 27.46-2-63
N/F
BASSAR REALTY,
LLC
TL. 27.46-2-61
N/F
LANDSLIDE
HOLDING CORP.
TL. 27.46-2-62
N/F
LANDSLIDE
HOLDING CORP.
TL. 27.46-2-59
N/F
G, M., A & E
LOPEZ
TL. 27.46-2-58
N/F
KINGS DAUGHTERS
LIBRARY
TL. 27.46-1-76
N/F
GARY & TARLETTA
SMITH
TL. 27.46-1-77
TL. 27.46-1-78
TL. 27.46-1-80
TL. 27.46-1-81
TL. 27.46-1-82
TL. 27.46-1-83
TL. 27.46-1-84
TL. 27.46-1-86
TL. 27.54-2-11
N/F
US POSTAL
OFFICE
TL. 27.54-2-12
N/F
PARMIO LLC
TL. 27.54-2-16
N/F
VILLAGE OF
HAVERSTRAW
TL. 27.54-2-54
N/F
NECTAR HEAD
PROPERTIES, INC.
15' R.O.W.
N48°40'10"E 39.15'
S84°31'30"E 124.41'
S05°28'30"W 20.60'
S84°31'30"E 38.00'
S05°28'30"W 44.00'
N84°31'30"W 38.00'
N85°13'07"E 119.97'
N77°04'33"E 416.00'
S16°43'07"W 98.84'
S81°23'03"E 89.09'
S45°26'33"E 95.20'
N80°42'57"E 91.40'
N65°05'02"E 95.50'
N50°22'57"E 83.15'
N29°38'27"E 189.10'
N41°21'08"W 107.85'
S82°03'27"W 49.20'
N27°19'13"W 185.75'
N62°14'52"E 74.15'
N84°36'00"W 97.36'
N05°37'20"E 36.67'
S20°56'30"W 88.22'
N84°30'02"E 367.88'
N03°05'52"E 56.00'
S78°42'27"W 157.80'
N86°14'23"W 16.50'
N79°10'30"E 152.62'
S85°53'40"E 30.77'
N04°14'40"E 38.65'
N85°39'40"W 152.62'
S04°04'35"W 136.00'
N85°55'23"W 183.50'
N03°48'37"E 139.91'
N84°31'30"W 167.00'
S05°28'30"W 200.00'
S84°31'30"E 167.00'
N05°28'30"E 200.00'
S77°04'37"W 525.48'
S04°54'23"E 257.50'
S84°20'37"W
S36°10'10"W 41.00'
S78°33'00"W 61.75'
N05°28'30"E 98.72'
S15°51'00"W 57.35'
S55°49'25"W 21.95'
S27°47'30"W 26.15'
S30°31'25"W 8.05'
S22°35'40"W 11.72'
N84°31'30"W 155.62'
N84°31'30"W 143.90'
N84°31'30"W 164.50'
N25°35'40"E 43.68'
N15°31'40"E 14.17'
S05°28'30"W 95.40'
S05°28'30"W 346.87'
S05°28'30"W 214.35'
S05°28'30"W 433.73'
S05°28'30"W 404.07'
S05°28'30"W 57.00'
S84°31'30"E 20.05'
N84°31'30"W 20.05'
N05°32'40"E 44.68'
N84°31'30"W 27.60'
N84°31'30"W 63.61'
N38°17'30"E 89.95'
N05°27'35"E 90.34'
S87°17'35"E 122.70'
N05°32'40"E 152.62'
N05°20'55"E 148.25'
N40°28'50"W 46.84'
S12°26'35"E 33.26'
N05°20'55"E 87.37'
S84°31'30"E 159.41'
S84°31'30"E 35.00'
N84°31'30"W 134.04'
R=10.00'
L=15.69'
R=10.00'
L=15.71'
S84°31'30"E 152.04'
S84°31'30"E 89.22'
N79°10'30"E 214.35'
S84°31'30"E 318.10'
S84°31'30"E 175.00'
S84°31'30"E 721.87'
N84°31'30"W 159.41'
N79°10'30"E 433.73'
N84°31'30"W 346.87'
N84°31'30"W 404.07'
N84°31'30"W 98.72'
N84°31'30"W 175.00'
N84°31'30"W 318.10'
N84°31'30"W 721.87'
S84°31'30"E 89.22'
S84°31'30"E 152.04'
S84°31'30"E 134.04'
S84°31'30"E 97.36'
S84°31'30"E 36.67'
S84°31'30"E 87.37'
S84°31'30"E 46.84'
S84°31'30"E 148.25'
S84°31'30"E 107.85'
S84°31'30"E 185.75'
S84°31'30"E 74.15'
S84°31'30"E 335.60'
S84°31'30"E 367.88'
S84°31'30"E 56.00'
S84°31'30"E 157.80'
S84°31'30"E 139.91'
S84°31'30"E 16.50'
S84°31'30"E 38.65'
S84°31'30"E 74.00'
S84°31'30"E 37.58'
S84°31'30"E 183.50'
S84°31'30"E 136.00'
S84°31'30"E 221.07'
S84°31'30"E 404.07'
S84°31'30"E 433.73'
S84°31'30"E 214.35'
S84°31'30"E 346.87'
S84°31'30"E 95.40'
S84°31'30"E 98.72'
S84°31'30"E 57.00'
S84°31'30"E 164.50'
S84°31'30"E 143.90'
S84°31'30"E 155.62'
S84°31'30"E 27.60'
S84°31'30"E 36.01'
S84°31'30"E 90.34'
S84°31'30"E 122.70'
S84°31'30"E 11.72'
S84°31'30"E 8.05'
S84°31'30"E 26.15'
S84°31'30"E 21.95'
S84°31'30"E 57.35'
S84°31'30"E 41.00'
S84°31'30"E 257.50'
S84°31'30"E 504.54'23"E
S84°31'30"E 525.48'
S84°31'30"E 420.00'
S84°31'30"E 159.50'
S84°31'30"E 416.00'
S84°31'30"E 119.97'
S84°31'30"E 85.13'
S84°31'30"E 16.62'
S84°31'30"E 47.41'
S84°31'30"E 29.66'
S84°31'30"E 38.65'
S84°31'30"E 74.00'
S84°31'30"E 136.00

LEGEND:

- EXISTING FEATURE TO BE REMOVED
- EXISTING TREE TO BE REMOVED
- EXISTING SITE FEATURE TO BE REMOVED
- EXISTING PAVEMENT & SIDEWALK TO BE REMOVED
- EXISTING BUILDING TO BE REMOVED
- WORKLIMITS
- TREE PROTECTION FENCING
- PAVEMENT SAWCUT LINE
- SHORE LINE

MAIN STREET
FIRST STREET
FRONT STREET
ALLISON AVENUE
BROAD STREET
EXISTING PAVEMENT
SHORE LINE
EXISTING FENCE TO BE REMOVED
EXISTING ASPHALT PAVEMENT TO BE REMOVED
EXISTING CHAIN LINK FENCE TO BE REMOVED
EXISTING BUILDINGS TO BE REMOVED
EXISTING GUIDE RAIL TO BE REMOVED
EXISTING FENCE TO BE REMOVED
EXISTING BUILDING TO BE REMOVED
EXISTING STONE WALL TO BE REMOVED
EXISTING BLOCK WALL TO BE REMOVED
EXISTING PAVER LOOKOUT TO REMAIN
EXISTING ASPHALT PAVEMENT TO BE REMOVED (TYP)
EXISTING GRAVEL AREA TO BE REMOVED
EXISTING UTILITY POLE AND OVERHEAD WIRES TO BE REMOVED. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER
PROPERTY LINE (TYP)
LIMIT OF SOIL DISTURBANCE (TYP)
EXISTING TREE LINE TO BE CLEARED (TYP)
HUDSON RIVER

1 / C120 DEMOLITION PLAN
SCALE: 1" = 30'

VERSION: 23.1
11/4/2024 11:32 AM

LaBella Powered by partnership.
4 British American Boulevard
Latham, NY 12110
518-439-8235
labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 018281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

DEMOLITION PLAN

DRAWING NUMBER:

C120

SITE LEGEND:

- PROPERTY LINE
- SHORE LINE
- RETAINING WALLS
- BUILDING
- PAVEMENT
- SIDEWALK
- SECTION OF PROJECT TO BE DESIGNED BY OTHERS AND SUBMITTED UNDER SEPARATE APPLICATION (PUBLIC BENEFIT AREA)
- CONCRETE SURFACE
- (8) PARKING COUNT

PARKING QUANTITIES - PROVIDED

	STRUCTURED	COVERED	SURFACE LOT*	ON STREET	TOTAL
BLDG. 1/2	362.0	0.0	0.0	0.0	362.0
BLDG. 3	28.0	0.0	9.0	0.0	35.0
BLDG. 4	49.0	0.0	57.0	0.0	106.0
TOTAL	437.0	0.0	66.0	0.0	**503.0**

PARKING QUANTITIES - REQUIRED

	(# OF UNITS)	RESIDENTIAL	STAFF	COMMERCIAL	TOTAL
BLDG. 1/2	292.0	335.8	8.0	17.3	361.1
BLDG. 3	67.0	33.5	1.0	0.0	34.5
BLDG. 4	91.0	104.7	1.0	0.0	105.7
TOTAL	450.0	474.0	10.0	17.3	**501.2**

PARKING NOTES:
1. STAFF PARKING INCLUDES 1 MAINTENANCE SPACE PER BLDG, 3 MGMT OFFICE SPACES, AND 3 SOLDIER ON SPACES
2. ZONING REQUIRES 1 SPACE PER 400/SF OF COMMERCIAL
3. ON STREET SPACES DO NOT COUNT TOWARD PARKING REQUIREMENT
4. *SURFACE LOT SPACES FOR BUILDING 4 INCLUDE ALL SPACES AT LIBERTY SQUARE AND ALL SPACES TO THE WEST AND NORTH OF BUILDING 4
5. SEE ARCHITECTURAL PLANS FOR PARKING SPACE LAYOUT WITHIN BUILDINGS.

1 / C130 SITE PLAN
SCALE: 1" =30'

VERSION: 23.1
11/4/2024 11:32 AM

LaBella
Powered by partnership.

4 British American Boulevard
Latham, NY 12110
518-439-8235

labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 018281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

SITE PLAN

DRAWING NUMBER:

C130



GRADING & DRAINAGE LEGEND:

- PROPERTY LINE
- BUILDING
- PAVEMENT
- XXX — 5 FT CONTOUR
- XXX — 1 FT CONTOUR
- XXX.X — SPOT GRADE
- WORK LIMIT LINE

ABBREVIATIONS:

TF	TOP OF FRAME
HP	HIGH POINT
LP	LOW POINT
TC	TOP OF CURB
BC	BOTTOM OF CURB
INV	INVERT

1 C140 GRADING PLAN
SCALE: 1" = 30'

VERSION 23.1 - 11/4/2024 11:32 AM

LaBella
Powered by partnership.

4 British American Boulevard
Latham, NY 12110
518-439-8235

labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 016281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

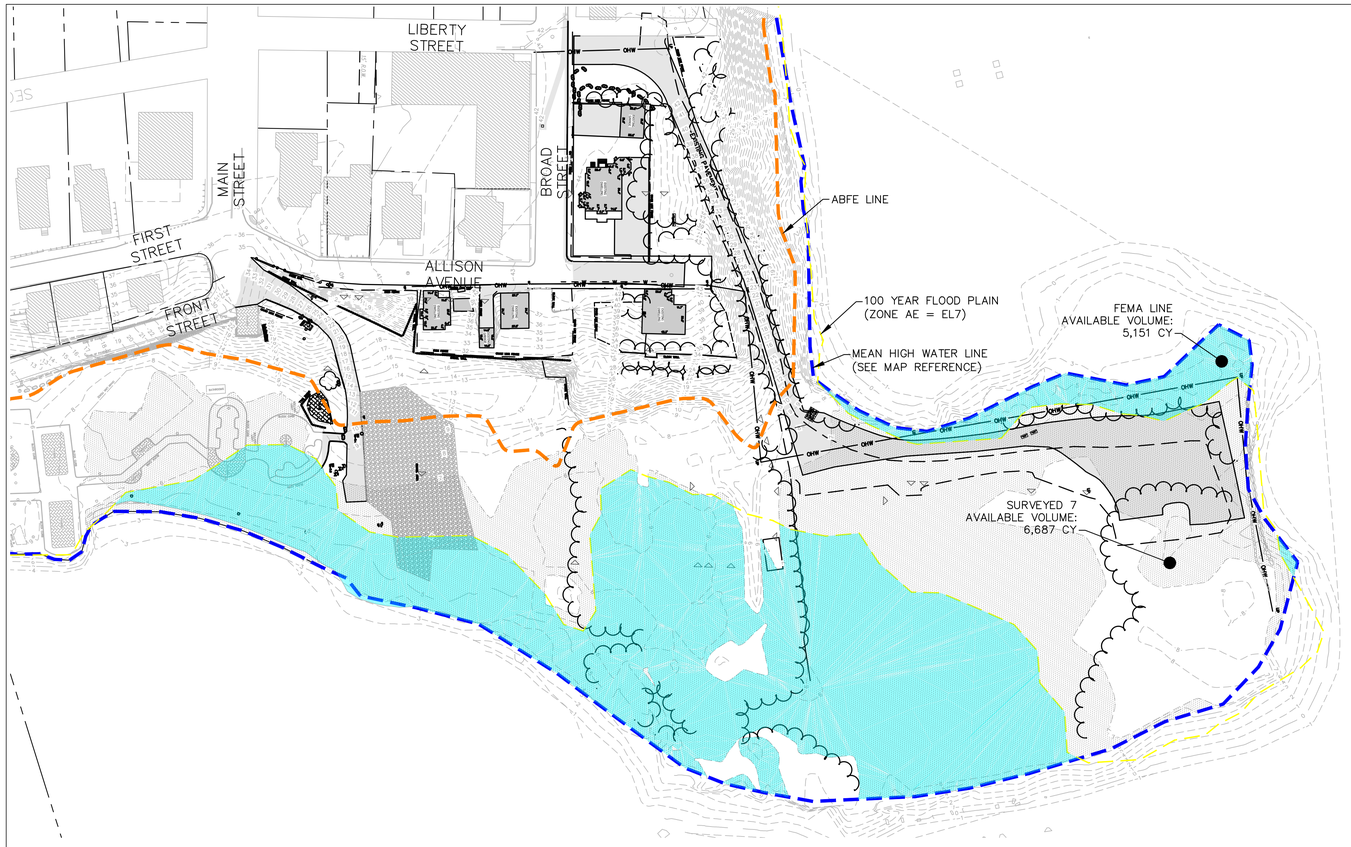
NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

GRADING PLAN

DRAWING NUMBER:

C140



1 C141 EXISTING FLOODPLAIN ANALYSIS
SCALE: 1" = 60'

MAP REFERENCE:

1. BASE MAP TAKEN FROM DRAWING 1 PREPARED BY ATZL, NASHER & ZIGLER P.C. ENTITLED "ALTA/NSPS LAND TITLE SURVEY", DATED MAY 4, 2023, PROJECT NO. 3395.

VOLUME CALCULATIONS:

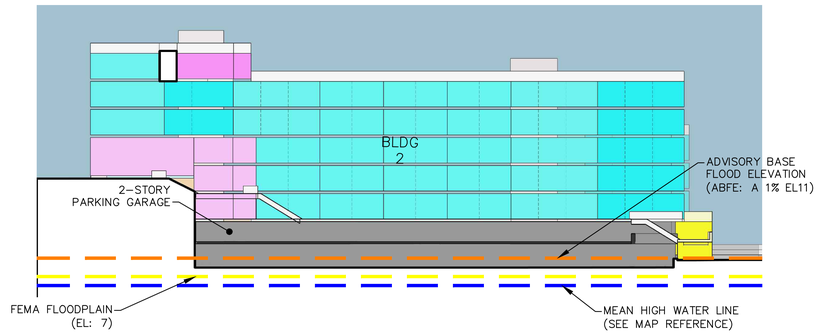
FEMA 100-YEAR LINE AVAILABLE VOLUME = 5,151 CY
PROPOSED ELEVATION 7 AVAILABLE VOLUME = 7,656 CY
DIFFERENCE = +2,505 CY

SURVEYED 7 AVAILABLE VOLUME = 6,687 CY
PROPOSED ELEVATION 7 AVAILABLE VOLUME = 7,656 CY
DIFFERENCE = +969 CY

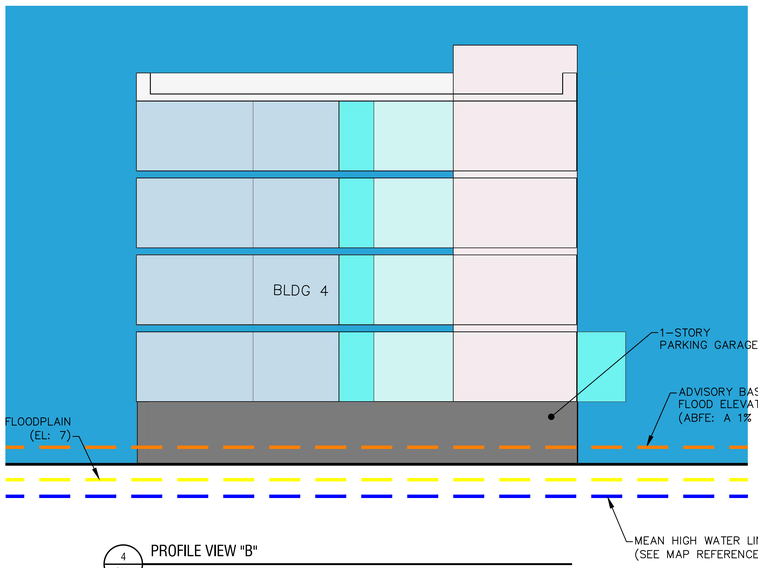
*VOLUME CALCULATIONS ARE DETERMINED FROM THE MEAN HIGH WATER LINE

LEGEND:

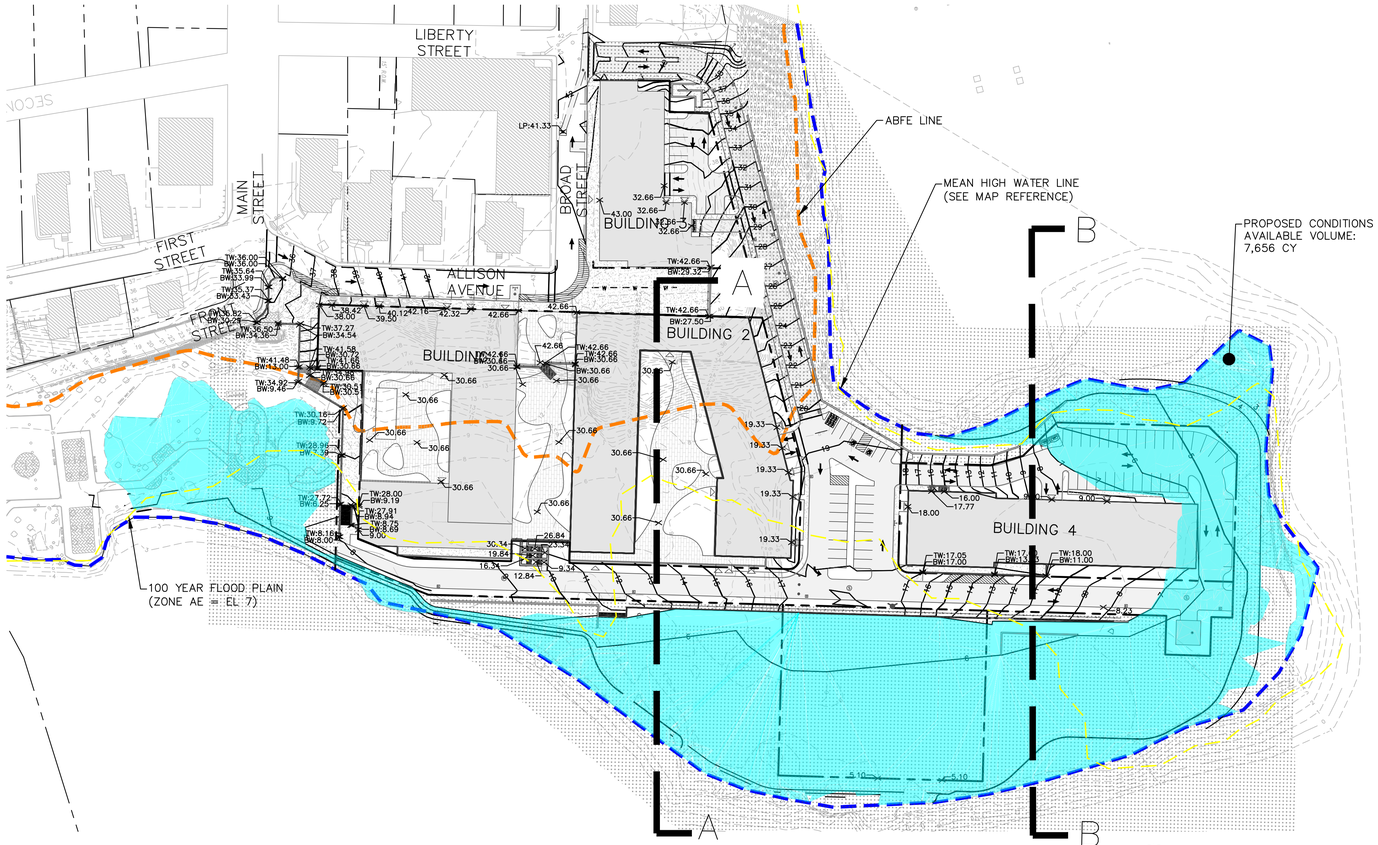
- PROJECT PROPERTY LINE
- BUILDING
- PAVEMENT
- XXX 5 FT CONTOUR
- XXX 1 FT CONTOUR
- XXX.X SPOT GRADE
- MEAN HIGH WATER LINE
- ABFE LINE = EL 11
- AREA OF FLOOD BASED ON FEMA FLOOD LINE
- 100 YEAR FLOOD PLAIN ZONE AE = EL 7
- AREA OF FLOOD BASED ON SURVEYED ELEVATION OF 7



3 C141 PROFILE VIEW "A"



4 C141 PROFILE VIEW "B"



2 C141 PROPOSED FLOODPLAIN ANALYSIS
SCALE: 1" = 60'

LaBella Powered by partnership.
4 British American Boulevard
Latham, NY 12110
518-439-8235
labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 016281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

NO:	DATE:	DESCRIPTION:
Revisions		

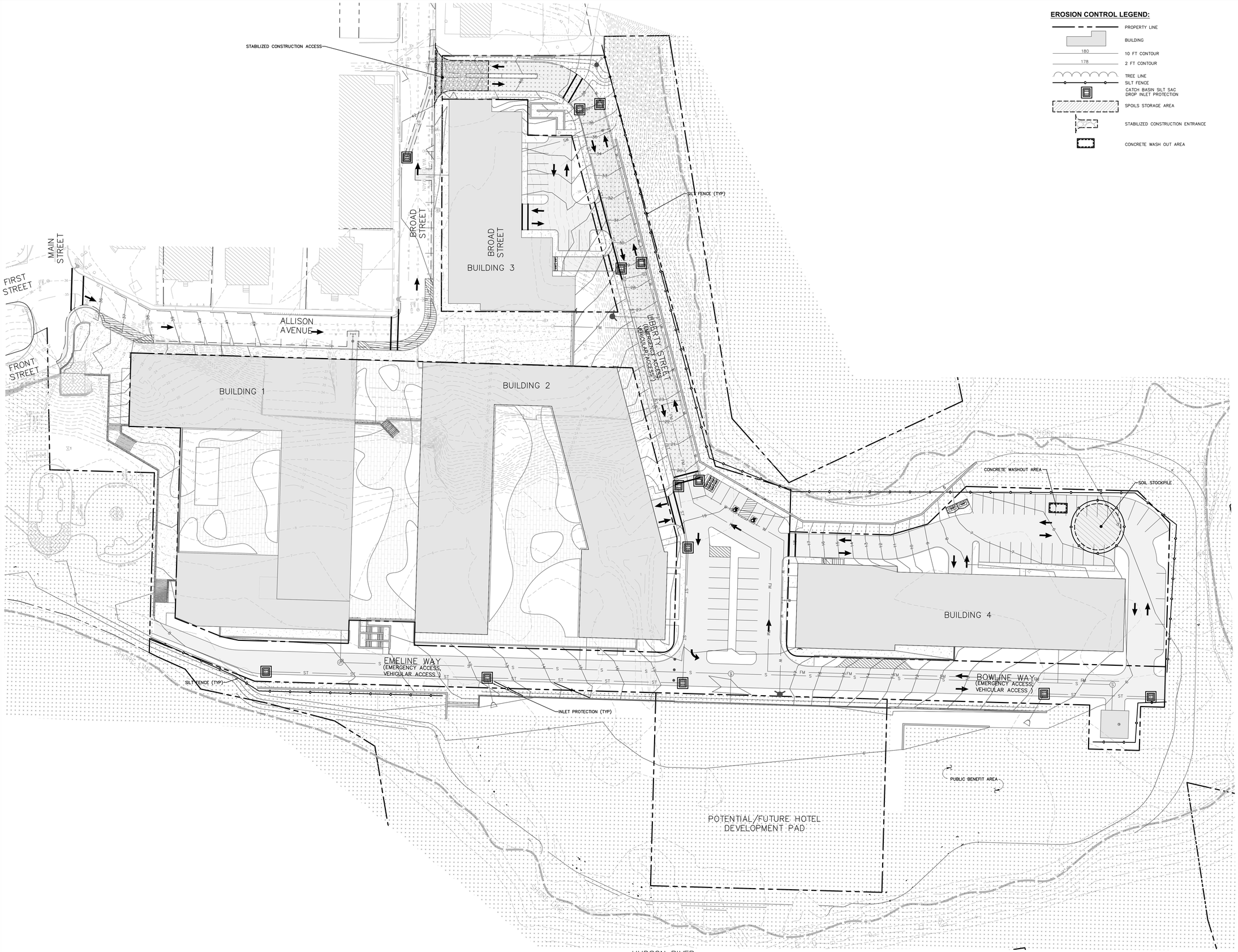
PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

FLOODPLAIN ANALYSIS (FEMA 100-YEAR ELEVATION 7)

DRAWING NUMBER:

C141

VERSION: 23.1
11/4/2024, 11:33 AM



EROSION CONTROL LEGEND:

- PROPERTY LINE
- BUILDING
- 180 — 10 FT CONTOUR
- 178 — 2 FT CONTOUR
- TREE LINE
- SILT FENCE
- CATCH BASIN SILT SAC DROP INLET PROTECTION
- SPOILS STORAGE AREA
- STABILIZED CONSTRUCTION ENTRANCE
- CONCRETE WASH OUT AREA

1 C150 EROSION & SEDIMENT CONTROL PLAN
SCALE: 1" = 30'

VERSION 23.1
11/4/2024 11:33 AM

LaBella
Powered by partnership.

4 British American Boulevard
Latham, NY 12110
518-439-8235

labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 016281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

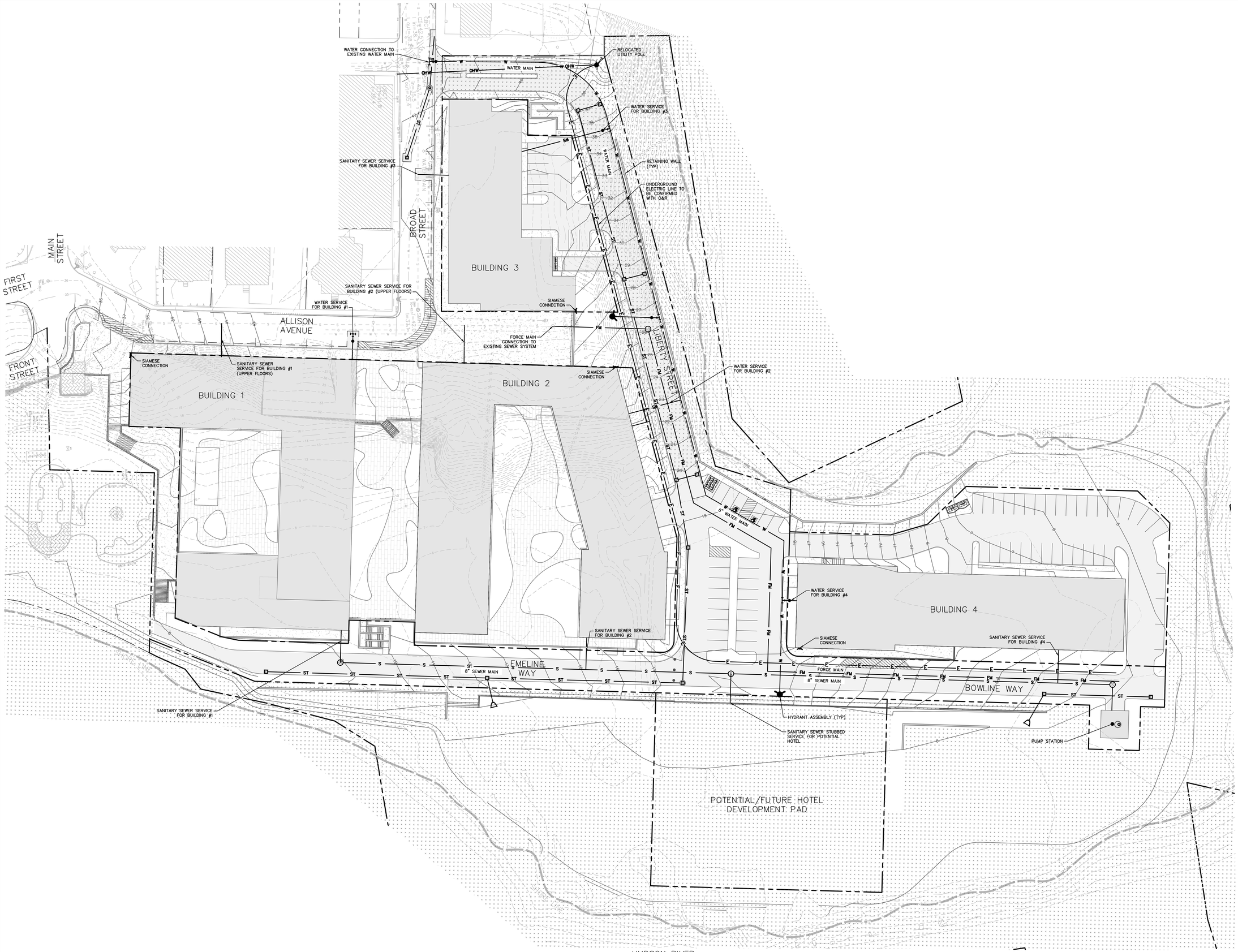
NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

EROSION & SEDIMENT CONTROL PLAN

DRAWING NUMBER:

C150



1 C160 UTILITY PLAN

SCALE: 1" = 30'

VERSION 23.1
11/4/2024 11:53 AM

LaBella
Powered by partnership.

4 British American Boulevard
Latham, NY 12110
518-439-8235

labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 016281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

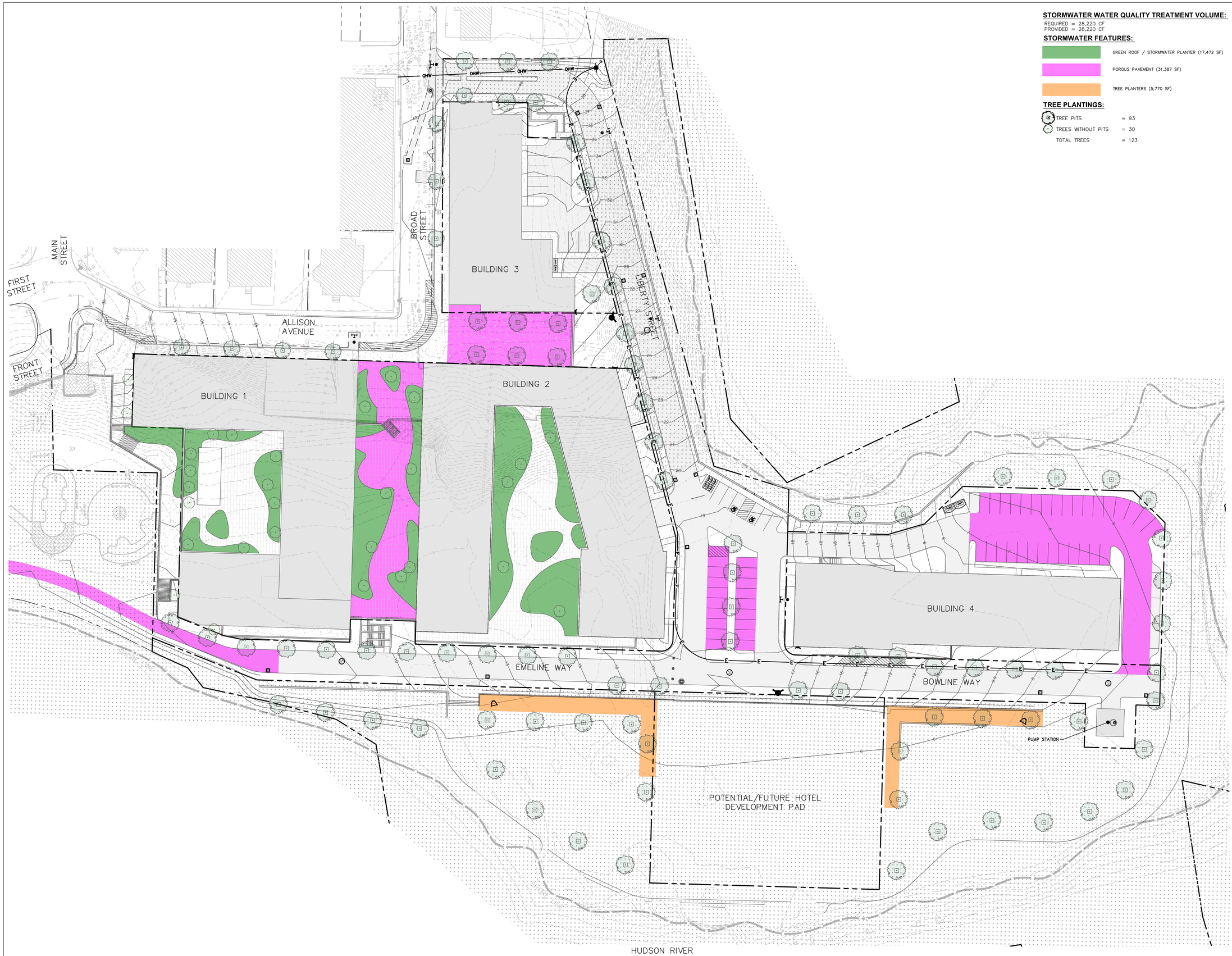
NO.	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

UTILITY PLAN

DRAWING NUMBER:

C160



STORMWATER WATER QUALITY TREATMENT VOLUME:

REQUIRED = 28,220 CF
PROVIDED = 28,220 CF

STORMWATER FEATURES:

- GREEN ROOF / STORMWATER PLANTER (17,472 SF)
- POROUS PAVEMENT (31,387 SF)
- TREE PLANTERS (5,770 SF)

TREE PLANTINGS:

TREE PITS	= 93
TREES WITHOUT PITS	= 30
TOTAL TREES	= 123

1 C161 STORMWATER MANAGEMENT PLAN
SCALE: 1" = 30'

LaBella Powered by partnership.
4 British American Boulevard
Latham, NY 12110
518-439-8235
labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 016281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

NO:	DATE:	DESCRIPTION:
Revisions		

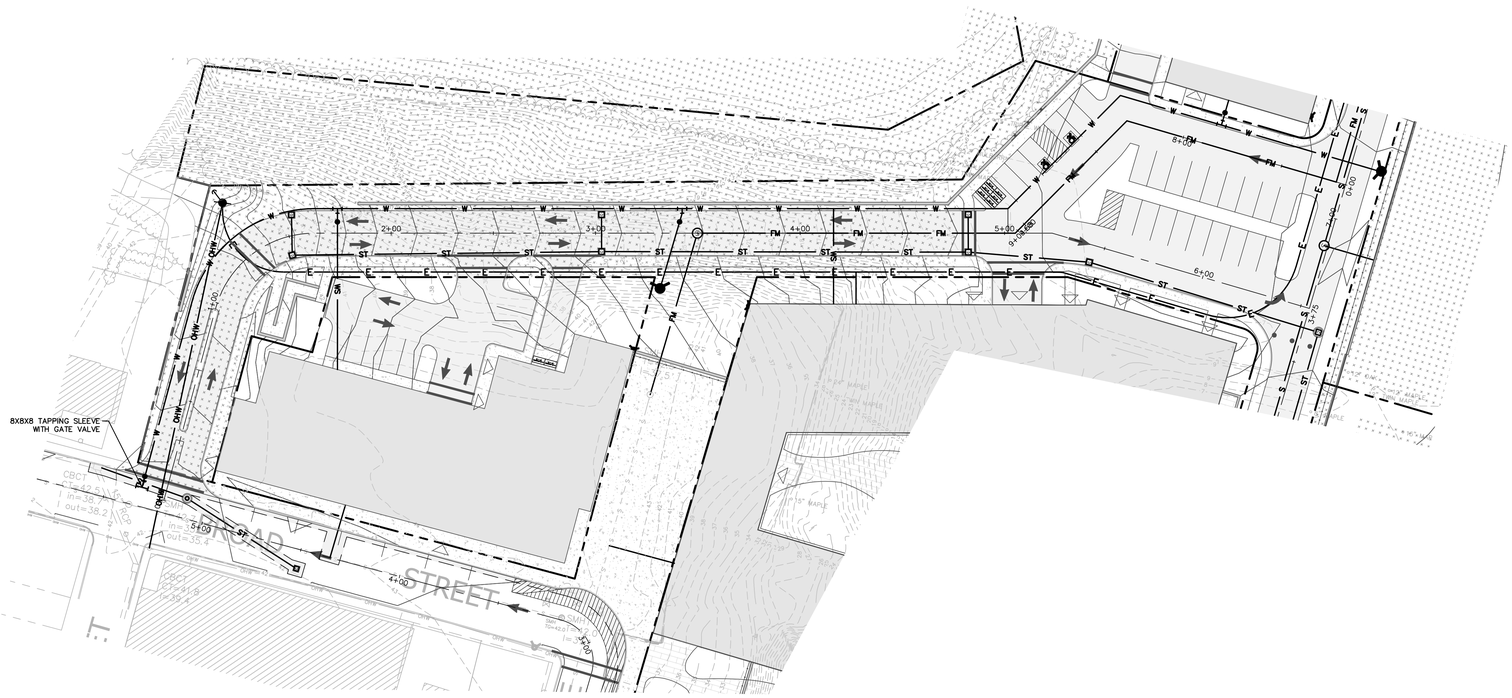
PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

STORMWATER MANAGEMENT PLAN

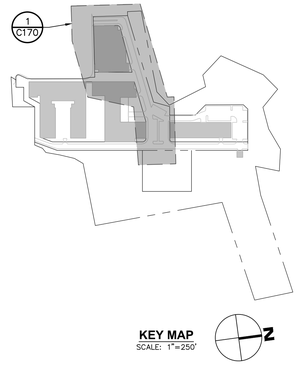
DRAWING NUMBER:

C161

VERSION: 23.1 -
11/4/2024 11:34 AM



1 / C170 — PLAN STA: 0+00 - 9+00
SCALE: 1" = 30'



PROFILE LEGEND:

- – – – – – – EXISTING GRADE
- ——————— PROPOSED GRADE

ABBREVIATIONS:

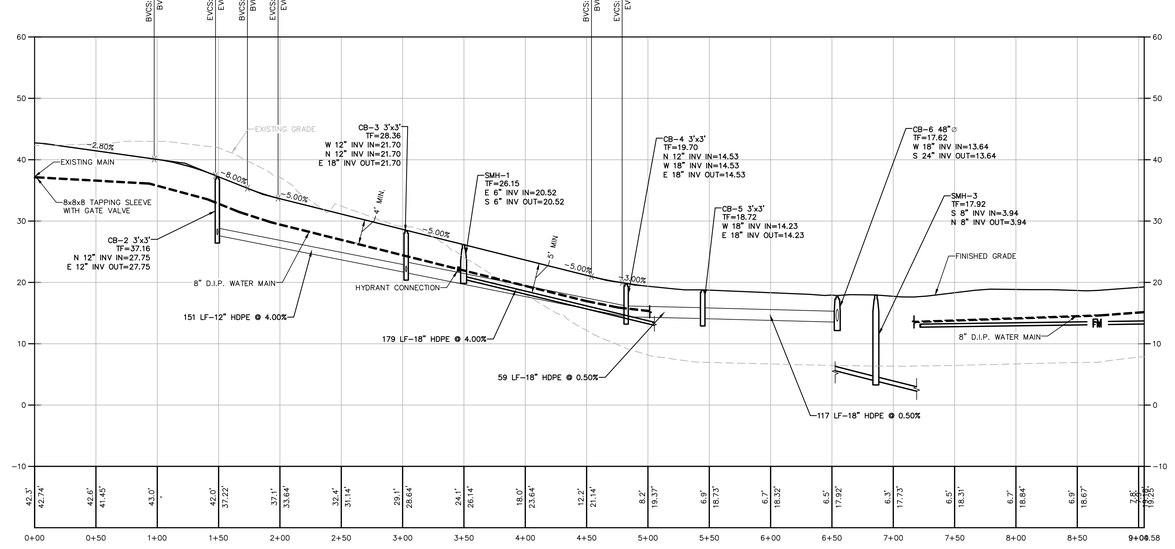
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
HORIZ	HORIZONTAL
VERT	VERTICAL
ID	INSIDE DIAMETER
S=	SLOPE
INV	INVERT

STRUCTURES:

CB	CATCH BASIN
DMH	DRAINAGE MANHOLE
SMH	SEWER MANHOLE
FES	FAIRED END SECTION
CO	CLEAN OUT
WSO	WATER SHUT OFF
HYD	HYDRANT

PIPES:

DI	DUCTILE IRON PIPE
VC	VITRIFIED CLAY
PVC	POLYVINYLCHLORIDE PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
SCPP	SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE



NOTE:
1. STATIONING SHOWN ON PROFILE IS CENTERLINE OF ROADWAY STATIONING.

2 / C170 — PROFILE STA: 0+00 - 9+00
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

LaBella
Powered by partnership.

4 British American Boulevard
Latham, NY 12110
518-439-8235

labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 016281
LAND SURVEYING: 017976
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

NO:	DATE:	DESCRIPTION:
Revisions		

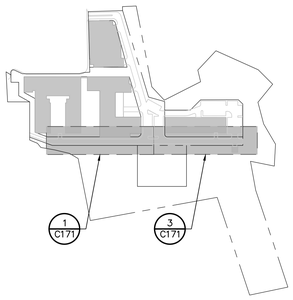
PROJECT NUMBER: 2230414
DRAWN BY:
REVIEWED BY:
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

PLAN & PROFILE

DRAWING NUMBER:

C170

VERSION: 23.1
11/4/2024 11:24 AM



KEY MAP
SCALE: 1"=250'

PROFILE LEGEND:

– – – – – – EXISTING GRADE

——— PROPOSED GRADE

ABBREVIATIONS:

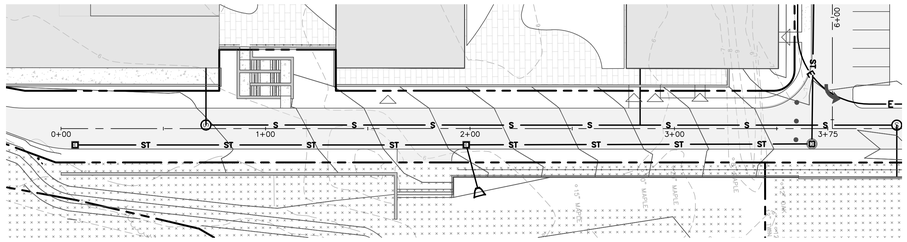
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
HORIZ	HORIZONTAL
VERT	VERTICAL
ID	INSIDE DIAMETER
S=	SLOPE
INV	INVERT

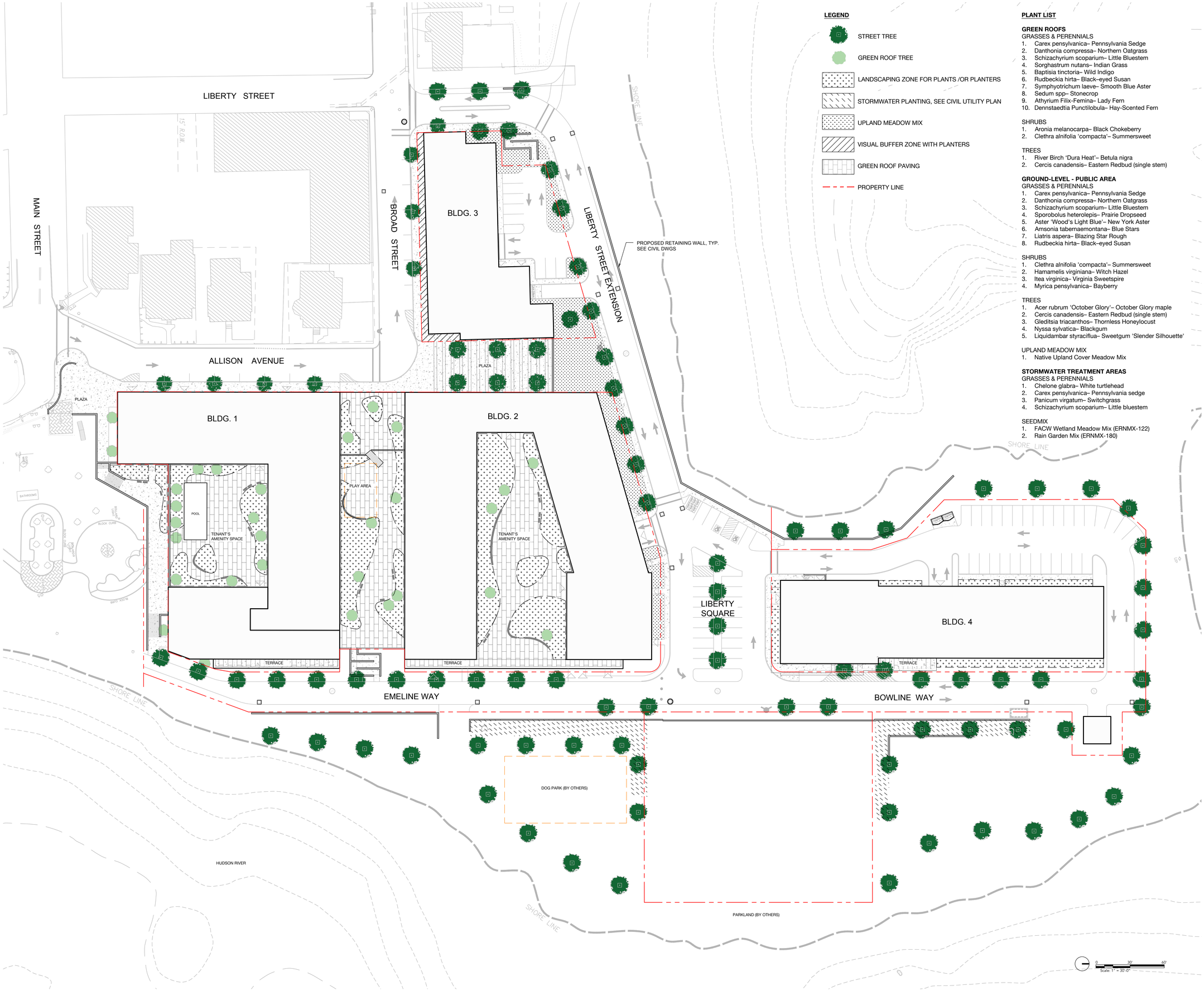
STRUCTURES:

CB	CATCH BASIN
DMH	DRAINAGE MANHOLE
SMH	SEWER MANHOLE
FES	FAIRED END SECTION
CO	CLEAN OUT
WSO	WATER SHUT OFF
HYD	HYDRANT

PIPES:

DI	DUCTILE IRON PIPE
VC	VITRIFIED CLAY
PVC	POLYVINYLCLORIDE PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
SCPP	SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE


0+00
1+00
2+00
3+00
3+75
ST
S
E
W
W
W



LEGEND

- STREET TREE
- GREEN ROOF TREE
- LANDSCAPING ZONE FOR PLANTS /OR PLANTERS
- STORMWATER PLANTING, SEE CIVIL UTILITY PLAN
- UPLAND MEADOW MIX
- VISUAL BUFFER ZONE WITH PLANTERS
- GREEN ROOF PAVING
- PROPERTY LINE

PLANT LIST

GREEN ROOFS
GRASSES & PERENNIALS
1. Carex pensylvanica– Pennsylvania Sedge
2. Danthonia compressa– Northern Oatgrass
3. Schizachyrium scoparium– Little Bluestem
4. Sorghastrum nutans– Indian Grass
5. Baptisia tinctoria– Wild Indigo
6. Rudbeckia hirta– Black–eyed Susan
7. Symphyotrichum laeve– Smooth Blue Aster
8. Sedum spp– Stonecrop
9. Athyrium Filix-Femina– Lady Fern
10. Dennstaedtia Punctilobula– Hay-Scented Fern

SHRUBS
1. Aronia melanocarpa– Black Chokeberry
2. Clethra alnifolia 'compacta'– Summersweet

TREES
1. River Birch 'Dura Heat'– Betula nigra
2. Cercis canadensis– Eastern Redbud (single stem)

GROUND-LEVEL - PUBLIC AREA
GRASSES & PERENNIALS
1. Carex pensylvanica– Pennsylvania Sedge
2. Danthonia compressa– Northern Oatgrass
3. Schizachyrium scoparium– Little Bluestem
4. Sporobolus heterolepis– Prairie Dropseed
5. Aster 'Wood's Light Blue'– New York Aster
6. Amsonia tabernaemontana– Blue Stars
7. Liatris aspera– Blazing Star Rough
8. Rudbeckia hirta– Black–eyed Susan

SHRUBS
1. Clethra alnifolia 'compacta'– Summersweet
2. Hamamelis virginiana– Witch Hazel
3. Itea virginica– Virginia Sweetspire
4. Myrica pensylvanica– Bayberry

TREES
1. Acer rubrum 'October Glory'– October Glory maple
2. Cercis canadensis– Eastern Redbud (single stem)
3. Gleditsia triacanthos– Thornless Honeylocust
4. Nyssa sylvatica– Blackgum
5. Liquidambar styraciflua– Sweetgum 'Slender Silhouette'

UPLAND MEADOW MIX
1. Native Upland Cover Meadow Mix

STORMWATER TREATMENT AREAS
GRASSES & PERENNIALS
1. Chelone glabra– White turtlehead
2. Carex pensylvanica– Pennsylvania sedge
3. Panicum virgatum– Switchgrass
4. Schizachyrium scoparium– Little bluestem

SEEDMIX
1. FACW Wetland Meadow Mix (ERNMX-122)
2. Rain Garden Mix (ERNMX-180)

HAVERSTRAW CHAIR FACTORY

87 Main Street
Village of Haverstraw, NY

The Haverstraw Community Chair Factory LLC
1046 New York Avenue, Unit A
Huntington Station, NY 11746

STUDIO EDITION

Landscape Architect
STUDIO EDITION
1617 JFK Blvd 20th Floor, Suite 2039
Philadelphia, PA 19103
mc-studioedition.com

REVISIONS

11/04/2024	SITE PLAN REVIEW

KEY MAP



Date	11/04/2024	Scale	As Shown
Drawn By	SE	Checked By	SE

SEAL

Project No. 39009

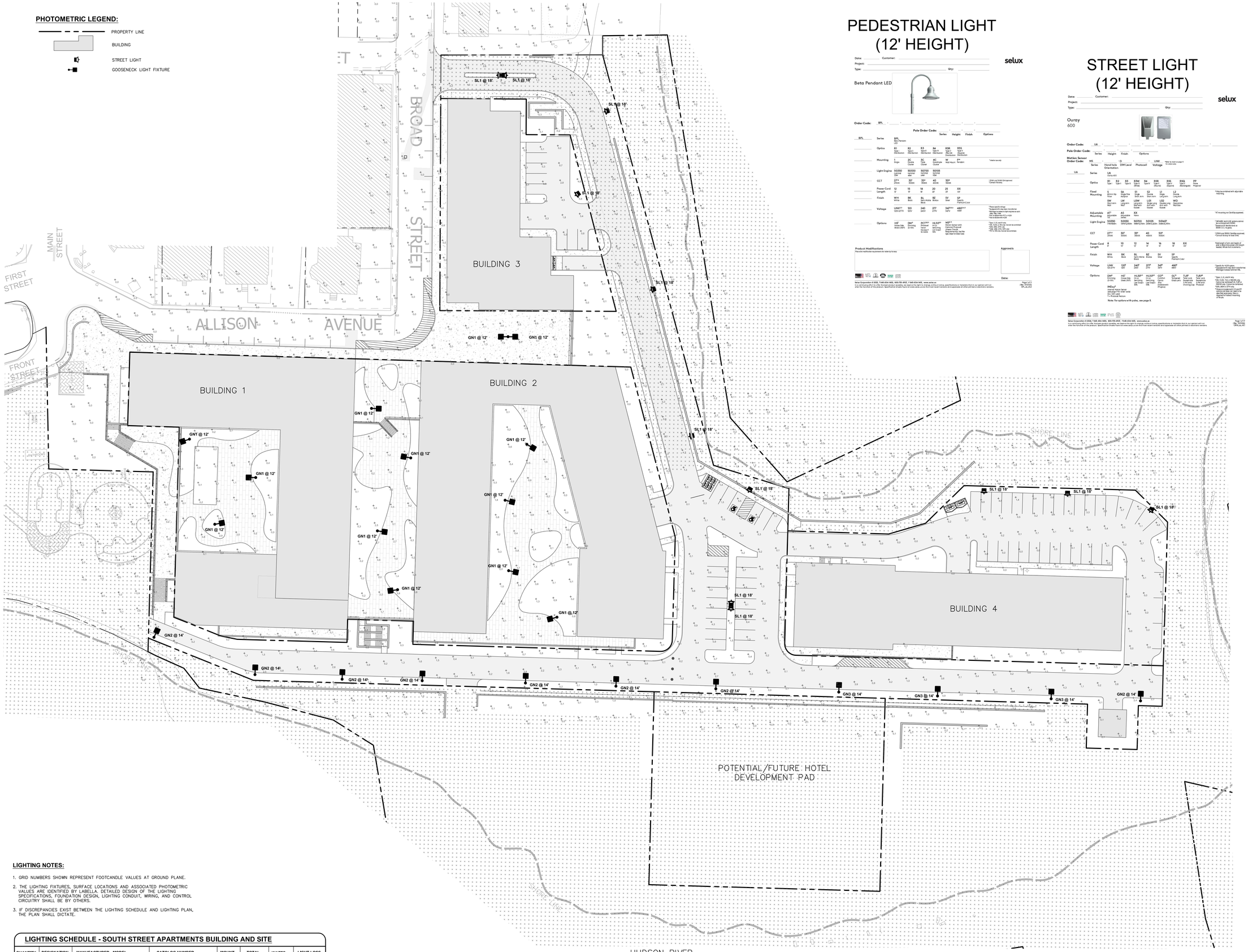
LANDSCAPE PLAN

Sheet No.

L-101

PHOTOMETRIC LEGEND:

- PROPERTY LINE
- BUILDING
- STREET LIGHT
- GOOSENECK LIGHT FIXTURE



PEDESTRIAN LIGHT (12' HEIGHT)

selux

Date: Customer:
Project:
Type: Qty:

Beta Pendant LED

Order Code: BPL - - - - - - - - - - - - - - - - - -

Pole Order Code

		Series	Height	Finish	Options
BPL	Series	BPL Bell Pendant LED			
	Optics	R1 Type I Distribution	R2 Type II Distribution	R3 Type III Distribution	R4 Type IV Distribution	R3R Type III Distribution	R5S Type V Square Distribution	
	Mounting	S Single	DC Double Center	DO Double Offset	4D 4 Directional	W Wall Mount	PP Pendant	*Interior use only
	Light Engine	5G350 Optimal 350ma	5G530 optimal 530ma	5G700 optimal 700ma	5G105 optimal 1050ma			
	CCT	27K 2700K	30K 3000K	35K 3500K	40 4000K	50K 5000K		* 2700 and 5000K EA Approval *Contact factory
	Power Cord Length	12 12'	15 15'	18 18'	20 20'	25 25'	XX XX'	
	Finish	WH White	BK Black	BL Satin Matte Black	BZ Satin Bronze	SV Silver	SP Specify Premium color	
	Voltage	UNV*1 120V-277V	120 120V	240 240V	277 277V	347/480 347V / 480V*1	480 480V*1	*Please specify voltage *Multi-tap voltage requires transformer *Voltage is subject to lead time and availability *Not available in PCT or HLTR *Not available in HLTR
	Options	HF Hinged Door (Not Available in 5G105)	DM* Dimming (0-10V)	PCT*2 Photocell Twist Lock (Not Available in 5G105)	HLTR* Hotel Tamper Resistant Locking Screw	MDT Occupancy Sensor with Dimming Photocell Programming Required (Specify) See Task Tri-State Data		* Type I, II, III, and V only *Not available in 5G105, cannot be combined. *DM, HMU, DTN only *Not available in 5G105 with HMU *2 or HR only. Cannot be combined.

Product Modifications
Please list modifications requirements for review by factory:

Approvals

Date:

Selux Corporation © 2020, T 845-854-1480, 800-705-8937, F 845-854-1485, www.selux.us
Any and all lighting and/or controls offered and described, shall depend on the ability of the user, by method of testing, specifications, or instruction (from or our sponsors) with how under the function of the product. Specifications sheets found at www.selux.us are the from our/insert/insert revisions and supersedes all online (printed or electronic) versions.

STREET LIGHT (12' HEIGHT)

selux

Date: Customer:
Project:
Type: Qty:

Ouray 600

Order Code: U6 - - - - - - - - - - - - - - - - - -

Pole Order Code: - - - - - - - - - - - - - - - - - -

		Series	Height	Finish	Options
U6	Series	U6 Ouray 600			
	Optics	R1 Type I	R2 Type II	R3 Type III	R3W Type III (Wide)	R4 Type IV	R5R Type V (Round)	R5S Type V (Square)	R5Q Type V (Rectangular)	PP Pole Projector	
	Fixed Mounting	S Square Slip Fitter	SA Square Side Arm/Post	D1 Double Arm	D2 Double Arm	L1 Long Arm	L2 Long Arm	* Amp Secondhand with adjustable mounting
		SW Square Wall Mount	LW Long Arm Wall Mount	LSW Long Arm Wall Mount Sidearm	LSR Long Arm Wall Mount Round	LSQ Long Arm with Mounting Gusset	WO Wall Plate Mid Size	
	Adjustable Mounting	AT* Adjustable Tenon	AS Adjustable Slipfitter	XX None				*AT mounting not Sandtrap approved.
	Light Engine	5G350 Warm/Neutral	5G700 Neutral	5G105 Cool	5G540* Green			* 5G540* and 5G700 Sandtrap approved. *Consult factory for lead time.
	CCT	27K* 2700K	30* 3000K	35* 3500K	40 4000K	50* 5000K		*2700K and 5000K Sandtrap approved. *Consult factory for lead time.
	Power Cord Length	8 8'	10 10'	12 12'	14 14'	16 16'	18 18'	XX XX'	*Add length of arm and length of wire to determine power cord length needed. Whole foot increments.
	Finish	WH White	BK Black	BL Satin Matte Black	BZ Satin Bronze	SV Silver	SP Specify Premium Color	
	Voltage	UNV 120-277V	120 120V	240 240V	277 277V	347 347V	480 480V	*Specify for 4.5A option. *Standard with multi-tap transformer. Wiring per nameplate.
	Options	DIM* Dimming (0-10V)	HS* House Side Shield (NW)	HL5/7* Hi-Lo Dimming Level 5 (NW) or 7 (CW)	HL5/7P* Hi-Lo Dimming Level 5 (NW) or 7 (CW) with Photocell	CCT* Custom Color Temp (Not Available with Photocell)	DLT* Tamper Resistant	TLB* Twist Lock Receptacle & Bird Spikes	TLBP* Twist Lock Receptacle & Bird Spikes with Photocell	* Dim 1-5, 4000K only. *DA, HLDS, TLS, or MCWS only. *HL5/7 not available in 5G105, 5G540, 4A, Colorcore, or white *30K, 3000K CPA only. *Consult factory for use of CCT options and does not apply to the 5G540 option. Not all options/combinations meeting all fixtures.
		IMSCha* Motion Sensor Detector (Not Available in 5G105)						

Note: For options with poles, see page 8.

Selux Corporation © 2020, T 845-854-1480, 800-705-8937, F 845-854-1485, www.selux.us
Any and all lighting and/or controls offered and described, shall depend on the ability of the user, by method of testing, specifications, or instruction (from or our sponsors) with how under the function of the product. Specifications sheets found at www.selux.us are the from our/insert/insert revisions and supersedes all online (printed or electronic) versions.

LIGHTING NOTES:

1. GRID NUMBERS SHOWN REPRESENT FOOTCANDLE VALUES AT GROUND PLANE.
2. THE LIGHTING FIXTURES, SURFACE LOCATIONS AND ASSOCIATED PHOTOMETRIC VALUES ARE IDENTIFIED BY LABELLA. DETAILED DESIGN OF THE LIGHTING SPECIFICATIONS, FOUNDATION DESIGN, LIGHTING CONDUIT, WIRING, AND CONTROL CIRCUITRY SHALL BE BY OTHERS.
3. IF DISCREPANCIES EXIST BETWEEN THE LIGHTING SCHEDULE AND LIGHTING PLAN, THE PLAN SHALL DICTATE.

LIGHTING SCHEDULE - SOUTH STREET APARTMENTS BUILDING AND SITE

QUANTITY	DESIGNATION	MANUFACTURER - MODEL	CATOLOG NUMBER	MOUNT HEIGHT *	TOTAL LUMENS	WATTS	LIGHT LOSS FACTOR
13	GN-1	SELUX - BETA PENDANT LED	BPL-X-R4-5G350-30-XX-UNV	12'-0"	ABSOLUTE	32.9W	1.00
8	GN-2	SELUX - BETA PENDANT LED	BPL-X-R4-5G350-30-XX-UNV	14'-0"	ABSOLUTE	32.9W	1.00
3	GN-3	SELUX - BETA PENDANT LED	BPL-X-R3-5G700-30-XX-UNV	14'-0"	ABSOLUTE	64.3W	1.00
12	SL-1	SELUX - OURAY 600	U6-R3W-XX-XX-5G350-30-XX-UNV	18'-0"	ABSOLUTE	154.0W	1.00

1 / C190 LIGHTING PLAN
SCALE: 1" = 30'

VERSION 23.1
11/4/2024 11:34 AM

LaBella
Powered by partnership.

4 British American Boulevard
Latham, NY 12110
518-439-8235

labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 018281
LAND SURVEYING: 017976
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

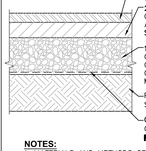
NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2230414
DRAWN BY: RD
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

LIGHTING PLAN

DRAWING NUMBER:

C190



NOTES:

1. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED **"CURRENT VERSION"**, AND ALL ADDENDA THERE TO.
2. SUBBASE MATERIAL SHALL CONFORM WITH **SECTION 304** – SUBBASE COURSE OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND THE TYPE CALLED OUT IN THESE DRAWINGS.
3. WARM MIX ASPHALT (WMA) PAVEMENT SHALL CONFORM WITH **SECTION 400**–WARM MIX ASPHALT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND THE TYPE CALLED OUT IN THESE DRAWINGS. ALTHOUGH **SECTION 400** IN ITS ENTIRETY IS REFERENCED, THE WARM MIX ASPHALT (WMA) PAVEMENT(S) SPECIFIED FOR THIS CONTRACT SHALL BE AS SPECIFIED UNDER **SECTION 402**–WARM MIX ASPHALT (WMA) PAVEMENTS.
4. TACK COAT WHEN SPECIFIED OR CALLED OUT IN THESE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATIONS SHALL CONFORM WITH **SECTION 407**–TACK COAT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
5. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSES OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMANCE WITH **SECTION 203**–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
6. PAVEMENT SECTION SHOWN IS PRELIMINARY. PRIOR TO BIDDING AND COMMENCEMENT OF CONSTRUCTION, THE FINAL DESIGN OF THE PAVEMENT SECTION MUST BE PREPARED BY A NYS LICENSED PROFESSIONAL ENGINEER AND MUST BE BASED ON A CURRENT GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT.

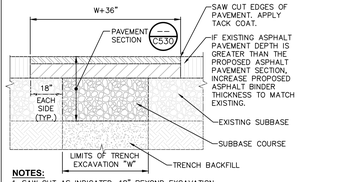
ALT. NOTE 6:

6. PAVEMENT SECTION DESIGN IS BASED ON THE GEOTECHNICAL REPORT PREPARED BY XXXXX DATED XX/XX/XX.

ALT. NOTE 6 FOR CD'S – IF CLIENT DOES NOT PROVIDE OR WILL NOT AUTHORIZE PREPARATION OF A GEOTECHNICAL REPORT PRIOR TO ISSUANCE OF CD'S

6. PAVEMENT SECTION SHOWN IS PRELIMINARY. PRIOR TO CONSTRUCTION, SHOP DRAWINGS SHOWING THE FINAL DESIGN OF THE PAVEMENT SECTION MUST BE PREPARED BY A NYS LICENSED PROFESSIONAL ENGINEER AND SUBMITTED FOR REVIEW.

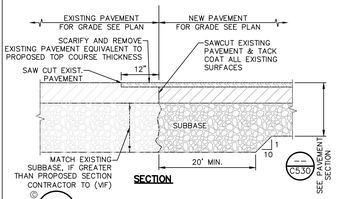
⑤ PAVEMENT SECTION DETAIL
SCALE: NOT TO SCALE



NOTES:

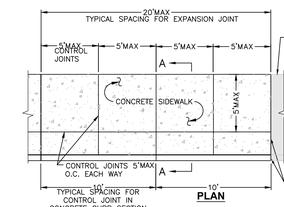
1. SAW CUT AS INDICATED, 18" BEYOND EXCAVATION.
2. FURNISH, PLACE, AND COMPACT SUBBASE.
3. TACK COAT IN ACCORDANCE WITH NYSDOT STANDARD SPEC.
4. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.

⑤ TRENCH SURFACE RESTORATION IN ASPHALT PAVEMENT
SCALE: NOT TO SCALE

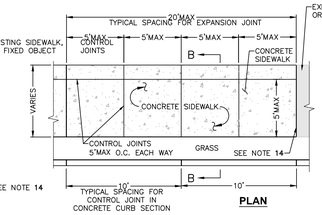


SECTION

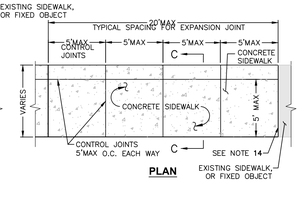
⑤ PAVEMENT TRANSITION DETAIL
SCALE: NOT TO SCALE



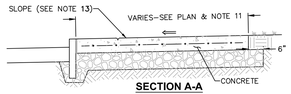
PLAN



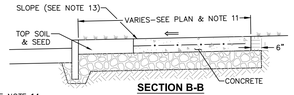
PLAN



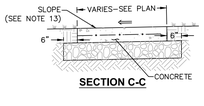
PLAN



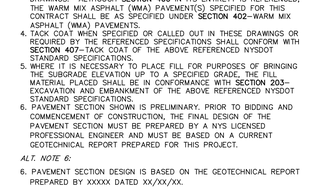
SECTION A-A



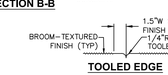
SECTION B-B



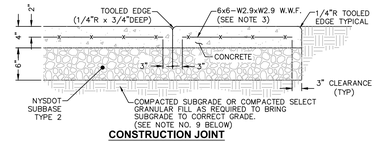
SECTION C-C



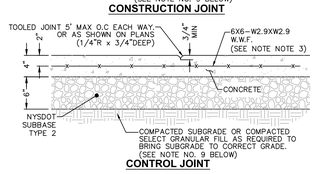
EXPANSION JOINT



TOOLED EDGE



CONSTRUCTION JOINT



CONTROL JOINT

NOTES:

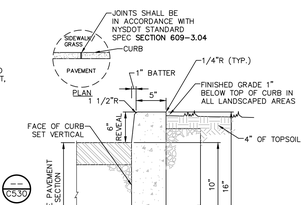
1. MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED "CURRENT VERSION", AND ALL ADDENDA THERE TO.
2. ALL CONCRETE SHALL BE **4,500** CONCRETE. CONCRETE MATERIALS, PLACEMENT, AND CONSTRUCTION SHALL CONFORM WITH **SECTION 500** OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
3. REINFORCING STEEL FOR CONCRETE SHALL CONFORM WITH SECTION 556 – REINFORCING STEEL FOR CONCRETE STRUCTURES OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND AS SPECIFICALLY CALLED OUT IN THE DRAWINGS.
4. ALL EXPOSED SURFACES SHALL HAVE A BROOM TEXTURED FINISH & TOOLED EDGES. TOOL SHALL PROVIDE MAX 1–1/2" WIDE SMOOTH TROWEL FINISH AT JOINT.
5. EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20' ON CENTER, OR AS INDICATED ON PLANS.
6. JOINTS SHALL NOT BE SAW CUT.
7. EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH **"SUREBOND" 1100 RESIN–BASED, WATER EMULSION CONCRETE CURING COMPOUND**, OR EQUAL. RATE AND METHOD OF APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
8. SUBBASE MATERIAL SHALL CONFORM WITH **SECTION 304** OF THE ABOVE REFERENCED NYSDOT STANDARD.
9. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN ACCORDANCE WITH SECTION 203–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
10. ALL WORK SHALL CONFORM WITH **SECTION 608**–SIDEWALK, DRIVEWAYS, AND BICYCLE PATHS OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
11. ALL WORK SHALL CONFORM WITH AASHTO GEOMETRIC DESIGN OF HIGHWAYS AND STREET 2001, IDC A117.1 2009. OR LATEST EDITION.
12. SIDEWALK WIDTH SHOWN ON THE PLANS IS TO BE MEASURED FROM THE BACK OF THE CURB.
13. SIDEWALKS SHALL HAVE A CROSS SLOPE OF **1.5%** MAX. UNLESS OTHERWISE NOTED ON PLAN.
14. INSTALL EXPANSION JOINT WITH PREMOLDED RESILIENT JOINT FILLER & SEALANT AT ALL EXISTING SIDEWALKS, CURBS, FIXED OBJECTS, ETC., INCLUDING THOSE PLACED ON PREVIOUS DAYS.

② CONCRETE SIDEWALK DETAIL
SCALE: NOT TO SCALE

NOTES:

1. CONCRETE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION **SECTION 609.**
2. PRECAST CONCRETE CURB MAY BE SUBSTITUTED, WHEN ALTERNATE CONSTRUCTION DETAILS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. ALTERNATE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT SPEC **SECTION 609.**

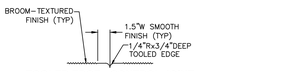
② CAST IN PLACE CONCRETE CURB AT SIDEWALK
SCALE: NOT TO SCALE



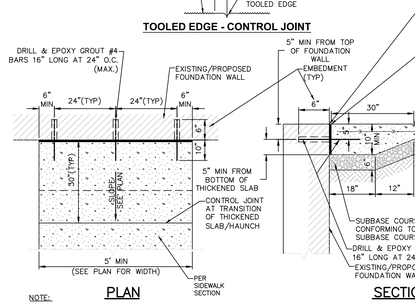
NOTES:

1. CONCRETE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION **SECTION 609.**
2. PRECAST CONCRETE CURB MAY BE SUBSTITUTED, WHEN ALTERNATE CONSTRUCTION DETAILS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. ALTERNATE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT SPEC **SECTION 609.**

② CAST IN PLACE CONCRETE CURB
SCALE: NOT TO SCALE



TOOLED EDGE - CONTROL JOINT



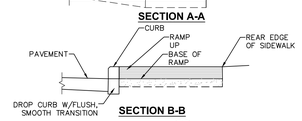
NOTE:

1. THICKENED (HAUNCH) & ADDITIONALLY REINFORCED CONCRETE SIDEWALK ENDS ARE REQUIRED AT ALL EXISTING/PROPOSED BUILDING ENTRANCES.
2. SEE CONCRETE SIDEWALK DETAIL FOR ADDITIONAL DETAILS & NOTES.

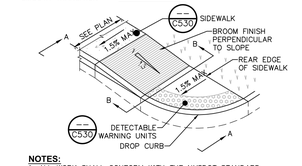
PLAN — SECTION

② CONCRETE SIDEWALK AT BUILDING ENTRANCES
SCALE: NOT TO SCALE

SECTION A-A



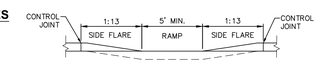
SECTION B-B



NOTES:

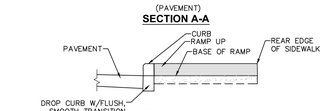
1. ALL WORK SHALL CONFORM WITH THE NYSDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS DATED, **"CURRENT VERSION"**, AND ALL ADDENDA THERE TO; SPECIFICALLY **SECTION 608**– SIDEWALKS, DRIVEWAYS, AND BICYCLE PATHS.
2. SLOPE RAMP AND SIDE FLARES AS INDICATED IN THE PLANS OR AS ORDERED BY THE ENGINEER.
3. DETECTABLE WARNING UNITS SHALL BE PROVIDED ON ALL RAMPS IN ACCORDANCE W/ ADA REQUIREMENTS.

② PEDESTRIAN RAMP SECTION - DROP CURB
SCALE: NOT TO SCALE

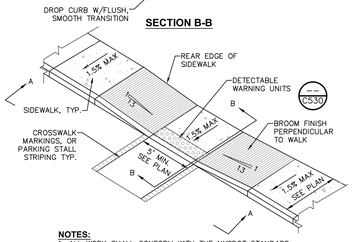


(PAVEMENT)

SECTION A-A



SECTION B-B



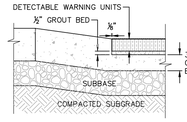
NOTES:

1. ALL WORK SHALL CONFORM WITH THE NYSDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS DATED, **"CURRENT VERSION"**, AND ALL ADDENDA THERE TO; SPECIFICALLY **SECTION 608**– SIDEWALKS, DRIVEWAYS, AND BICYCLE PATHS.
2. SLOPE RAMP AND SIDE FLARES AS INDICATED IN THE PLANS OR AS ORDERED BY THE ENGINEER.
3. DETECTABLE WARNING UNITS SHALL BE PROVIDED ON ALL RAMPS IN ACCORDANCE W/ ADA REQUIREMENTS.

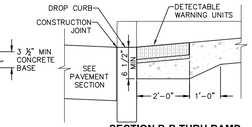
② PEDESTRIAN RAMP SECTION - DROP CURB
SCALE: NOT TO SCALE



DOME PLAN



SECTION A-A THRU RAMP



SECTION B-B THRU RAMP

NOTES:

1. COORDINATE W/ OWNER FOR COLOR.
2. DETECTABLE WARNING UNIT SHALL BE ADA COMPLIANT, AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
3. MATERIALS: UNIT SHALL BE 24–INCH DETECTABLE WARNING ADA PAVERS, DOME STRAIGHT ROW SPACING PATTERN ADA–2 OR ADA–3, ADA COMPLIANT WARNING PAVER AS MANUFACTURED BY WAUSAU TILE OR CAST IRON, CAST IN PLACE ADA COMPLIANT WARNING PLATE A MANUFACTURED BY TUFTILE OR EQUAL.

ALTERNATIVE NOTE 3, SEE SPECIFICATION SECTION 3XXXXXX FOR DETECTABLE WARNING ADA PAVERS.

⑤ DETECTABLE WARNING UNITS FOR RAMPS
SCALE: NOT TO SCALE

PLAN — SECTION A

NOTES:

1. ALL FASTENERS TO BE DOUBLE HOT–DIPPED GALVINIZED STEEL.
2. PRESSURE TREATED HARDWOOD TO CONFORM TO AWPB LP–22 FOR 0.40 PRESERVATIVE RETENTION.

⑤ WOOD FENCE RAILING
SCALE: NOT TO SCALE

VERSION: 23.1
11/4/2024 12:27 PM

LaBella
Powered by partnership.
4 British American Boulevard
Latham, NY 12110
518-439-8235
labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 016281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

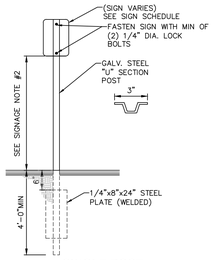
NO.	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

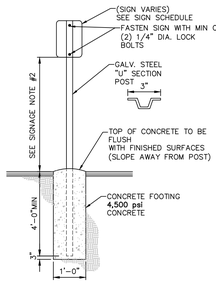
SITE DETAILS

DRAWING NUMBER:

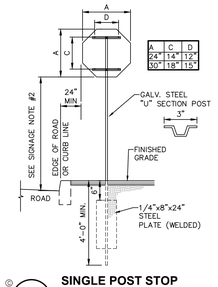
C530



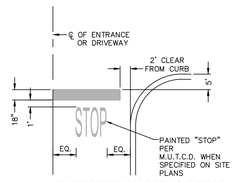
SINGLE POST SIGN MOUNTING DETAIL
SCALE: NOT TO SCALE



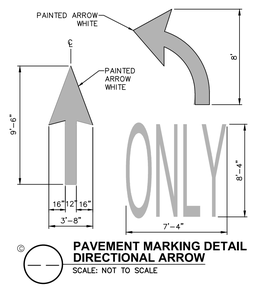
SINGLE POST IN CONCRETE SIGN MOUNTING DETAIL
SCALE: NOT TO SCALE



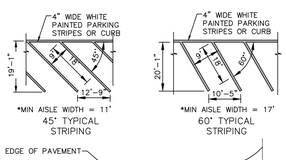
SINGLE POST STOP SIGN MOUNTING DETAIL
SCALE: NOT TO SCALE

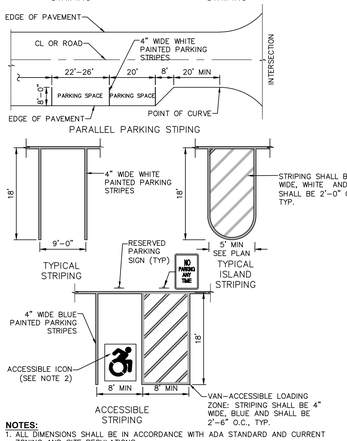


PAVEMENT MARKING DETAIL STOP BAR
SCALE: NOT TO SCALE



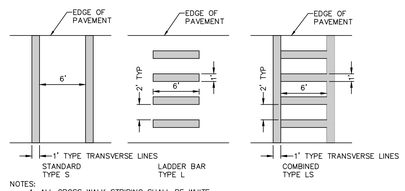
PAVEMENT MARKING DETAIL DIRECTIONAL ARROW
SCALE: NOT TO SCALE





NOTES:
1. ALL DIMENSIONS SHALL BE IN ACCORDANCE WITH ADA STANDARD AND CURRENT ZONING AND SITE REGULATIONS.
2. PAINTED ACCESSIBLE LOGO TO BE IN ACCORDANCE W/ NEW YORK STATE LAW.
3. SLOPE OF PAVEMENT SURFACE IN ACCESSIBLE PARKING AREA SHALL NOT EXCEED 1.5% IN ANY DIRECTION.
4. SEE PLAN FOR ACTUAL LOCATION OF SIGNAGE

PAVEMENT MARKING DETAIL PARKING STRIPING
SCALE: NOT TO SCALE



NOTES:
1. ALL CROSS WALK STRIPING SHALL BE WHITE
2. TYPE S CROSS WALK SHALL BE USED IN LOW TRAFFIC VOLUME STREET CROSSINGS.
3. TYPE L CROSS WALK SHALL BE USED IN MEDIUM TRAFFIC VOLUME STREET CROSSINGS.
4. TYPE LS CROSS WALK SHALL BE USED IN HIGH TRAFFIC VOLUME STREET CROSSINGS.

PAVEMENT MARKING DETAIL CROSS WALK STRIPING
SCALE: NOT TO SCALE

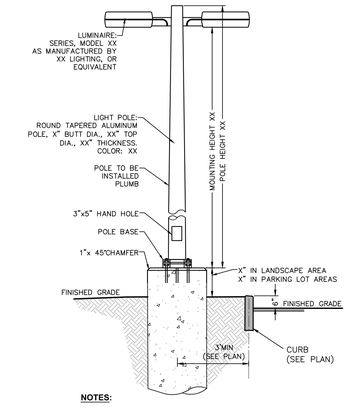
MUTCD SIGN SCHEDULE

SIGN NO.	SIGN FACE	MUTCD NUMBER	MIN SIZE	COLORS BCK GRND	COLORS LEGEND	MOUNTING
1	STOP	R1-1	30"x30"	RED	WHITE	7' ©5:30
2	ALL WAY	R1-4	18"x6"	RED	WHITE	7' ©5:30
3		R4-7c	18"x24"	WHITE	BLACK	7' ©5:30
4	ONE WAY	R6-1L	36"x12"	BLACK	WHITE	7' ©5:30
5	ONE WAY	R6-1R	36"x12"	BLACK	WHITE	7' ©5:30
6		W11-2	24"x24"	YELLOW/ FYG	BLACK	7' ©5:30
7		W16-7P	24"x12"	YELLOW/ FYG	BLACK	7' ©5:30
8	SPEED LIMIT 30	R2-1	18"x24"	WHITE	BLACK	7' ©5:30
9	DO NOT ENTER	R5-1	30"x30"	RED	WHITE	7' ©5:30
10	RESERVED PARKING	NY R7-8D	12"x18"	WHITE/ BLUE	GREEN/ WHITE	7' ©5:30
11	VAN ACCESSIBLE	R7-8P	12"x6"	WHITE	BLUE	7' ©5:30
12	YIELD	R1-2	30"	WHITE/RED	RED	7' ©5:30
13	NO PARKING ANY TIME	R7-1	12"x18"	WHITE	RED	7' ©5:30
14		R3-2	30"x30"	WHITE	BLACK/ RED	7' ©5:30
15	ELECTRIC VEHICLE CHARGING STATION	AS SHOWN	12"x18"	WHITE	GREEN	14,17 ©500

MUTCD SIGN SCHEDULE
SCALE: NOT TO SCALE

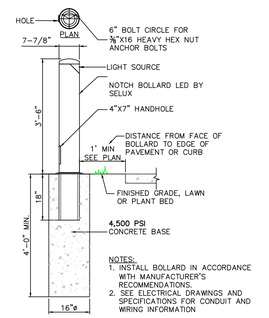
STRIPING NOTES:
1. ALL STRIPING SHALL CONFORM TO THE LATEST EDITION OF THE NYSDOT STANDARD SPECIFICATIONS, **SECTION 640** AND THE "NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" – **2009 EDITION** AND THE "NYS SUPPLEMENT."
2. STRIPE PAVEMENT AS INDICATED ON THE PLANS AND/OR IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS.
3. STRIPING WORK WILL BE REVIEWED AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION.
4. COLOR: DRIVE LANE DIVIDERS – WHITE OR AOBE
   NO PARKING ZONE WARNINGS – WHITE OR AOBE
   PARKING DIVIDERS – WHITE OR AOBE
   WALKING LINES – WHITE OR AOBE
   ACCESSIBLE PARKING LINES & SYMBOL – BLUE

SIGNAGE NOTES:
1. ALL SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE NYSDOT STANDARD SPECIFICATIONS, **SECTION 645** AND THE "NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" – **2009 EDITION** AND THE "NYS SUPPLEMENT."
2. SIGN MOUNTING HEIGHT SHALL BE A MINIMUM OF 7', MINIMUM MOUNTING HEIGHT MAY BE ADJUSTED ONLY IN ACCORDANCE WITH PROVISIONS OUTLINED IN THE "NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" – **2009 EDITION** AND THE "NYS SUPPLEMENT."
3. SIGN POST SHALL BE IN ACCORDANCE W/ NYSDOT STANDARD SPECS **SECTION 730**.



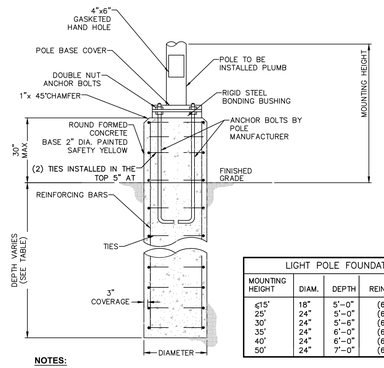
NOTES:
1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
2. ALL EXCAVATIONS SHALL BE BACKFILLED WITH STRUCTURAL FILL AND COMPACTED TO 95% OF MAXIMUM MATERIAL DENSITY.
3. ELECTRICAL POWER SUPPLY, WIRE, AND CONDUIT BY OTHERS.

TYPICAL LIGHT POLE
SCALE: NOT TO SCALE



NOTES:
1. INSTALL BOLLARD IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. SEE ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR CONDUIT AND WIRING INFORMATION

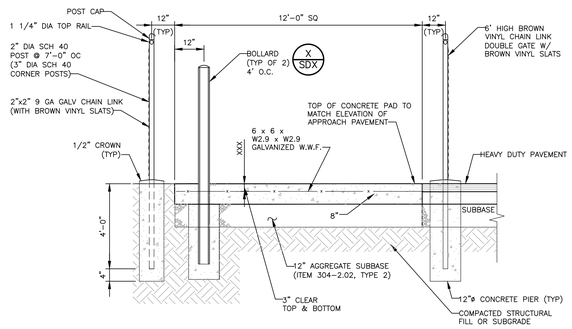
BOLLARD LIGHT - LED - DETAIL
SCALE: NOT TO SCALE



LIGHT POLE FOUNDATIONS				
MOUNTING HEIGHT	DIAM.	DEPTH	REINF BARS	TIES
≤15'	18"	5'-0"	(6)#6	#3@18"
25'	24"	5'-0"	(6)#6	#3@12"
30'	24"	5'-6"	(6)#6	#3@12"
35'	24"	6'-0"	(6)#6	#3@12"
40'	24"	6'-0"	(6)#6	#3@12"
50'	24"	7'-0"	(6)#6	#3@12"

NOTES:
1. CONDUITS AND GROUNDING SHALL BE AS REQUIRED BY THE ELECTRICAL DESIGN.
2. ALL CONCRETE SHALL BE **4,500 PSI @** 28 DAYS.
3. ALL REINFORCING STEEL SHALL BE GRADE 60.
4. DESIGNED FOR **90 MPH** WIND WITH FIXTURE AREA OF **13 SF.**
5. FOUNDATION DIAMETER AND REINFORCING CIRCLE SHALL BE COORDINATED WITH ANCHOR BOLT LIMITS.
6. FOUNDATIONS SHALL BE AUGERED INTO UNDISTURBED NATURAL SOIL OR COMPACTED FILL PER SITE GRADING PLANS.

LOT LIGHTING CONCRETE BASE
SCALE: NOT TO SCALE



NOTE:
1. ITEM NUMBERS, REFER TO NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
2. ALL CONCRETE FOR DUMPSTER PADS SHALL BE 4000 PSI @ 28 DAYS WITH BROOM FINISH

DUMPSTER PAD & ENCLOSURE DETAIL
SCALE: NOT TO SCALE

LaBella
Powered by partnership.
4 British American Boulevard
Latham, NY 12110
518-439-8235
labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 018281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

NO:	DATE:	DESCRIPTION:
Revisions		

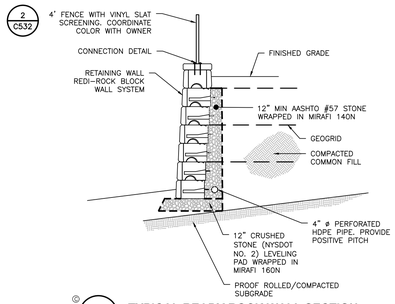
PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

SITE DETAILS

DRAWING NUMBER:

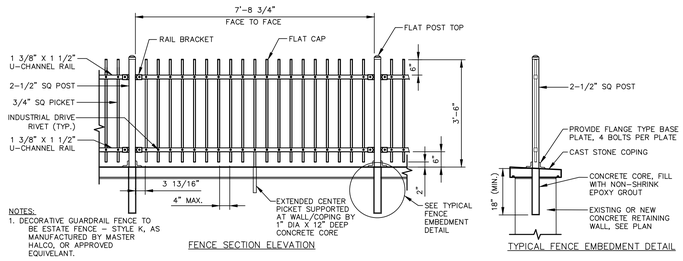
C531

VERSION: 23.1
11/4/2024 12:27 PM

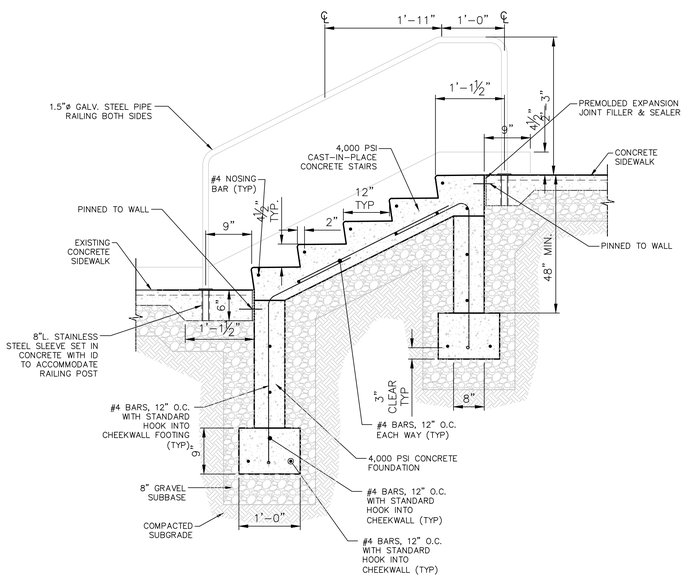


2 / C532

© 1 **TYPICAL READY ROCK WALL SECTION**
SCALE: NOT TO SCALE



© 2 **TYPICAL FALL PROTECTION FENCE DETAIL**
SCALE: NOT TO SCALE



NOTES:
1.ACTUAL NUMBER OF RISERS VARIES BY LOCATION (SEE SITE PLANS FOR REFERENCE).

2. #4 DOWEL, DRILL & DOWEL GROUT 12" O.C. 4" MIN EMBEDMENT AND 8" MIN LAP W/ REINFORCEMENT INTO CHEEK WALL

3. PROVIDE 1% WASH ON STAIR TREADS.

© 3 **CONCRETE STAIRS WITH CHEEK WALL & RAILING 6/12 RISE/RUN**
SCALE: NOT TO SCALE

LaBella
Powered by partnership.

4 British American Boulevard
Latham, NY 12110
518-439-8235

labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 018281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

NO:	DATE:	DESCRIPTION:
Revisions		

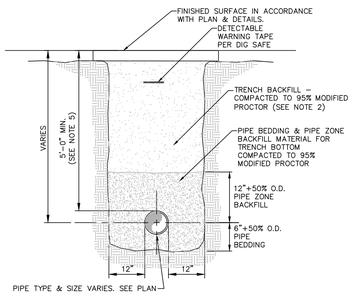
PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

SITE DETAILS

DRAWING NUMBER:

C532

VERSION: 23.1
11/4/2024 12:27 PM



NOTES:

1. PIPE BEDDING & PIPE ZONE BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) SAND OR A MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. BEDDING GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
3/4"	100%
NO. 40	0-70%
NO. 200	0-10%

2. TRENCH BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) OR PROCESSED GRAVEL, OR EXCAVATED MATERIAL FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. TRENCH BACKFILL GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
4"	100%
NO. 40	0-70%
NO. 200	0-10%

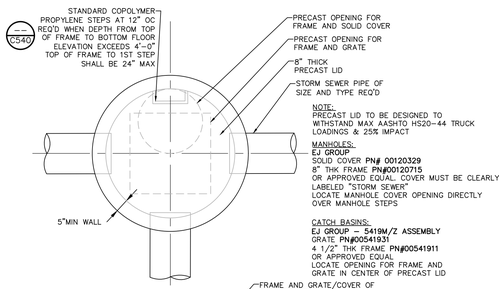
IN NON-TRAFFIC UNPAVED AREAS TRENCH BACKFILL CAN BE MATERIALS EXCAVATED FROM THE TRENCH AS APPROVED BY THE ENGINEER AND COMPACTED TO 90% MODIFIED PROCTOR.

3. INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS & SLAB.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.
5. 5'-0" MIN COVER SHALL BE APPLIED TO WATER MAIN OR SANITARY SEWER FORCE MAINS ONLY.

6. DEWATERING:

7. TRENCH BOX:

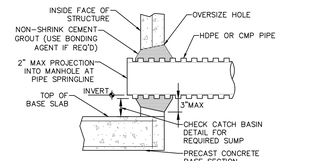
C540 — **PIPE TRENCH DETAIL (TYPICAL)**
SCALE: NOT TO SCALE



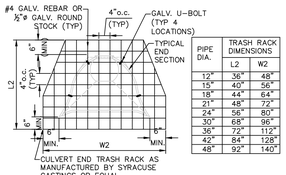
NOTES:

1. CATCH BASIN SHALL BE PRECAST CONCRETE. DESIGNED FOR HS20-44 VEHICULAR LOADING AND 25% IMPACT.
2. FRAME AND COVER SHALL BE DESIGNED FOR HS20-44 VEHICULAR LOADING & 25% IMPACT.
3. CONCRETE CATCH BASIN LID CLEAR OPENING DIMENSION MUST MATCH FRAME AND GRATE CLEAR OPENING DIMENSION.
4. CATCH BASINS HAVING A DEPTH GREATER THAN 48" FROM FINISHED SURFACE TO THE FLOOR OF THE CONCRETE BASE SHALL BE PROVIDED WITH STEPS.
5. BACKFILL USING TRENCH BACKFILL, COMPACTED IN 6" LIFTS.
6. SUMPS FOR CATCH BASINS SHALL BE 12".
7. ECCENTRIC CONE TOP CAN BE USED FOR MANHOLES DEPTH GREATER THAN 7 FEET.
8. SEE CHART FOR REQUIRED MANHOLES / CATCH BASINS DIAMETERS.
9. ALL PRECAST CONSTRUCTION IN ACCORDANCE W/ASTM C478

C540 — **PRECAST CONCRETE CATCH BASIN/MANHOLE DETAIL**
SCALE: NOT TO SCALE



C — **PIPE CONNECTION TO DRAINAGE STRUCTURE-CMP OR HDPE CEMENT GROUT SEAL JOINT**
SCALE: NOT TO SCALE

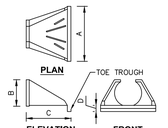


PIPE DIA.	TRASH RACK DIMENSIONS	
	L2	W2
12"	36"	48"
15"	40"	56"
18"	44"	64"
21"	48"	72"
24"	56"	80"
30"	68"	96"
36"	72"	112"
42"	84"	128"
48"	92"	140"

C — **CULVERT END TRASH RACK**
SCALE: NOT TO SCALE

TYPICAL HDPE END SECTION

PIPE DIA.	END SECTION DIMENSIONS			
	A	B	C	D
12"	42"	14"	34"	6"
15"	42"	17"	34"	6"
18"	59"	21"	48"	6"
24"	59"	27"	48"	6"
30"	82"	34"	58"	6"
36"	82"	41"	58"	6"



NOTES:

1. SCOPE: THIS SPECIFICATION DESCRIBES 12" THROUGH 36"-INCH ADS FLARED END SECTIONS FOR USE IN CULVERT AND DRAINAGE OUTLET APPLICATIONS. FES LARGER THAN 36" SHALL USE CIRCULAR CORRUGATED METAL FLARED END SECTIONS.
2. REQUIREMENTS: THE INVERT OF THE PIPE AND THE END SECTION SHALL BE AT THE SAME ELEVATION. THE ADS FLARED END SECTION SHALL BE HIGH DENSITY POLYETHYLENE MEETING **ASTM D3350 MINIMUM CELL CLASSIFICATION 213320C;** CONTACT MANUFACTURER FOR ADDITIONAL CELL CLASSIFICATION INFORMATION. WHEN PROVIDED, THE METAL THREADED FASTENING ROD SHALL BE STAINLESS STEEL.
3. INSTALLATION: INSTALLATION SHALL BE IN ACCORDANCE WITH ADS INSTALLATION INSTRUCTIONS AND WITH THOSE ISSUED BY STATE OR LOCAL AUTHORITIES. CONTACT YOUR LOCAL ADS REPRESENTATIVE OR VISIT WWW.ADS-PIPE.COM FOR THE LATEST INSTALLATION INSTRUCTIONS.
4. PROVIDE TRASH RACK ONLY WHERE SPECIFIED ON SITE PLANS.

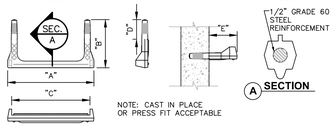
C — **TYPICAL END SECTION - HDPE**
SCALE: NOT TO SCALE

ACCEPTABLE MANHOLE STEPS

MANUFACTURER	PATTERN NUMBER	"A" STEP WIDTH	"B" LEG LENGTH	"C" RUNG CLEAR	"D" EMBED-MENT	"E" RUNG CLEAR
M.A. INDUSTRIES INC*	PS2-PF	14 3/4	9 1/4	13 3/4	3 3/8	5 7/8
M.A. INDUSTRIES INC*	PS2-PFS	14 3/4	8 1/4	13 3/4	3 3/8	4 7/8

* OR EQUIVALENT

MH STEP DESIGN AND INSTALLATION SHALL COMPLY WITH ALL OSHA REGULATIONS



C — **COPOLYMER POLYPROPYLENE MH STEP**
SCALE: NOT TO SCALE

STORM SEWER NOTES:

1. ALL STORM WATER MANAGEMENT STRUCTURES (I.E. CATCH BASIN, ETC.) SHALL BE REGULARLY INSPECTED FOR SEDIMENT ACCUMULATIONS. CATCH BASINS SHALL BE CLEANED WHEN SEDIMENT DEPTH REACHES A MAXIMUM OF 1/2 THE AVAILABLE SUMP DEPTH.
2. IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONSTRUCT A DEWATERING PIT (A.K.A. SUMP PIT) TO TRAP AND FILTER WATER FOR PUMPING TO A SUITABLE DISCHARGE AREA. THE DEWATERING PIT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NEW YORK STATE GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL, LATEST EDITION.
3. ALL EROSION CONTROL MEASURES EMPLOYED DURING THE CONSTRUCTION PROCESS SHALL BE AS OUTLINED ON THE EROSION AND SEDIMENT CONTROL PLANS, DETAILS AND NOTES.

LaBella Powered by partnership.
4 British American Boulevard
Latham, NY 12110
518-439-8235
labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 016281
LAND SURVEYING: 017976
GEOLOGICAL: 018750

It is a violation of New York Education Law Art, 145 Sec. 7209 & Art, 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

NO:	DATE:	DESCRIPTION:
Revisions		

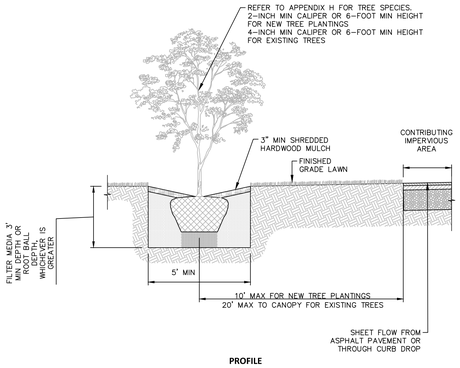
PROJECT NUMBER: 2230414
DRAWN BY:
REVIEWED BY:
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

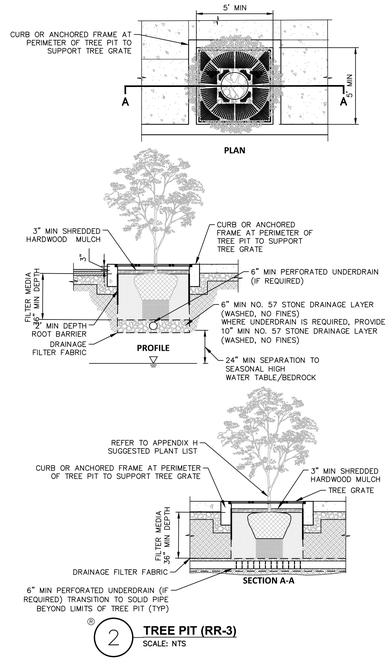
STORM SEWER DETAILS

DRAWING NUMBER:

C540

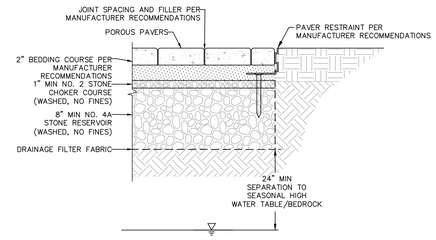
VERSION 23.1
11/4/2024 12:27 PM



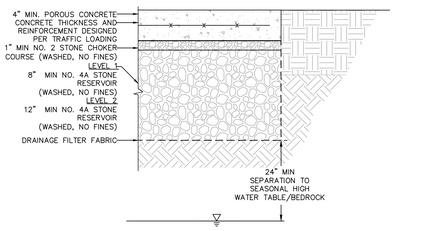


1 **TREE PLANTING (RR-2)**
SCALE: NTS

2 **TREE PIT (RR-3)**
SCALE: NTS



POROUS PAVER WITHOUT UNDERDRAIN SECTION VIEW

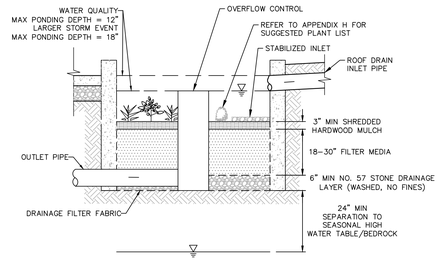


POROUS CONCRETE WITHOUT UNDERDRAIN SECTION VIEW

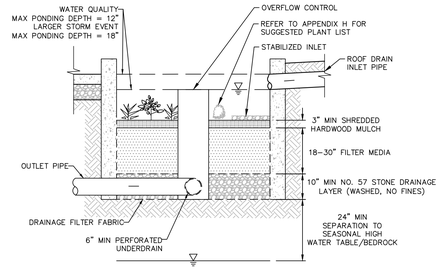
PAVER NOTES:
1. PAVERS TO HAVE 8–10% SURFACE OPENING.
2. FLOW RATE FOR PERMEABLE PAVER SYSTEM SHALL BE A MIN. OF 5"/HR. OR NO LESS THAN 10% VOIDS

CONCRETE NOTES:
1. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMATION WITH SECTION 203– EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
2. 4"–8" PORTLAND CEMENT TYPE I OR II (ASTM C150), No.8 (ASTM 33), AGG.:CEMENT RATIO 4:1 TO 4.5:1 WATER CEMENT RATIO 0.28–0.35.
3. FOR ADDITIONAL REQUIREMENTS SEE NYS STORMWATER MANAGEMENT DESIGN MANUAL

3 **POROUS PAVERS & CONCRETE (RR-9)**
SCALE: NTS

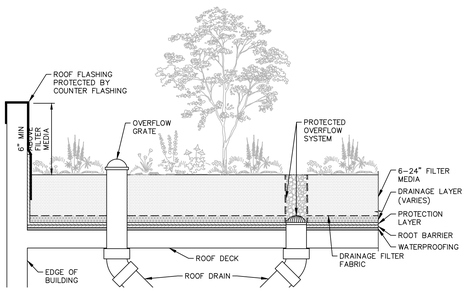


INFILTRATION STORMWATER PLANTER SECTION VIEW



FILTRATION STORMWATER PLANTER SECTION VIEW

4 **STORMWATER PLANTER (RR-7)**
SCALE: NTS



INTENSIVE GREEN ROOF PROFILE

5 **GREEN ROOF (RR-10)**
SCALE: NTS

VERSION: 23.1
11/4/2024 12:27 PM

LaBella Powered by partnership.
4 British American Boulevard
Latham, NY 12110
518-439-8235
labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 018281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

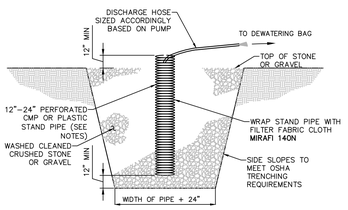
NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

STORMWATER PRACTICE DETAILS

DRAWING NUMBER:

C541



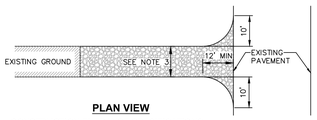
TYPICAL SECTION OF SUMP PIT

NOTES:

1. SUMP PIT QUANTITY & LOCATION SHALL BE DETERMINED BY CONTRACTOR.
2. PERFORATIONS IN THE STANDPIPE SHALL BE EITHER CIRCULAR OR SLOTS. PERFORATION SIZE SHALL NOT EXCEED 1/2" INCH DIAMETER. PUMP RATE SHALL NOT EXCEED INFLOW RATE INTO STAND PIPE.
3. CRUSHED STONE OR GRAVEL SHALL BE NYSDOT #2 SIZE OR EQUIVALENT AND SHALL BE WASHED PRIOR TO PLACEMENT WITHIN SUMP.
4. DISCHARGE SHALL BE THROUGH DEWATERING BAGS, OR AS DIRECTED BY ENGINEER.
5. CONTRACTOR TO SUBMIT DEWATERING PLAN TO ENGINEER FOR REVIEW & APPROVAL.

DEWATERING & SUMP PIT DETAIL

SCALE: NOT TO SCALE



PROFILE

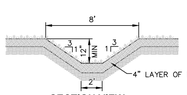
PLAN VIEW

CONSTRUCTION ENTRANCE SPECIFICATIONS:

1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. THICKNESS – NOT LESS THAN SIX (6) INCHES.
3. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY FOUR (24) FEET IF SINGLE ENTRANCE TO SITE.
4. LENGTH – NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH WOULD APPLY).
5. GEOTEXTILE – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ACCESS DETAIL

SCALE: NOT TO SCALE



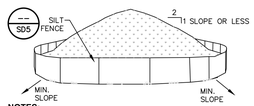
SECTION VIEW

NOTES:

1. MINIMUM DEPTH OF SWALE SHALL BE 12".
2. SWALE SHALL BE AT LEAST 6 FEET WIDE AT TOP.
3. SWALE SHALL BE SEEDED AND MULCHED WITH FAST GERMINATING RYE 15 LBS. TO 25 LBS. PER 1,000 SF.
4. SLOPE OF SWALE SHALL BE MINIMUM 2%

PERMANENT GRASS LINED DIVERSION SWALE DETAIL

SCALE: NOT TO SCALE



NOTES:

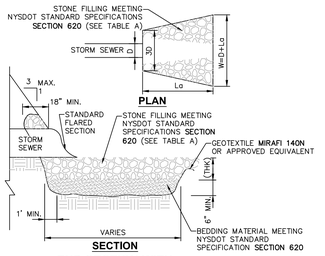
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.

TEMPORARY SOIL STOCKPILE DETAIL

SCALE: NOT TO SCALE

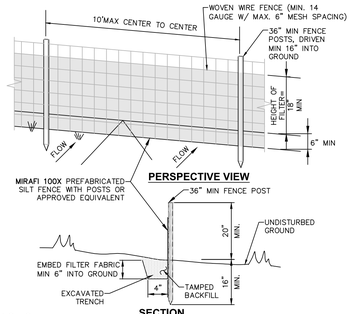
STONE APRON SIZING REQUIREMENT - TABLE "A"

CULVERT DIA. (D)	CULVERT SLOPE, %	NYSDOT STANDARD STONE FILLING APRON MATERIAL	d50	dMAX	MINIMUM APRON THICKNESS (IN)	MINIMUM OUTLET APRON LENGTH(FT) (Lo)
12"	< 8	LIGHT	6"	9"	18	10
	8–10	MEDIUM	9"–12"	14"–18"	24	10
18"	< 4	LIGHT	6"	9"	18	10
	4–6	MEDIUM	9"–12"	14"–18"	24	12
	6–8	HEAVY	15"–18"	22"–27"	36	12
	8–10	HEAVY	15"–18"	22"–27"	36	18
24"	< 3	LIGHT	6"	9"	18	12
	3–4	MEDIUM	9"–12"	14"–18"	24	16
	4–8	HEAVY	15"–18"	22"–27"	36	24
30"	< 1	LIGHT	6"	9"	18	15
	1–2	MEDIUM	9"–12"	14"–18"	24	20
	2–4	HEAVY	15"–18"	22"–27"	36	25
	4–6	HEAVY	15"–18"	22"–27"	36	30
36"	< 2	MEDIUM	9"–12"	14"–18"	24	24
	2–3	HEAVY	15"–18"	22"–27"	36	30
	3–5	HEAVY	15"–18"	22"–27"	36	36
42"	< 1	MEDIUM	9"–12"	14"–18"	24	28
	1–2	HEAVY	15"–18"	22"–27"	36	35
	2–3	HEAVY	15"–18"	22"–27"	36	42
48"	< 1	MEDIUM	9"–12"	14"–18"	24	32
	1–2	HEAVY	15"–18"	22"–27"	36	40
	2–3	HEAVY	15"–18"	22"–27"	36	48



END SECTION WITH STONE LINED APRON DETAIL

SCALE: NOT TO SCALE



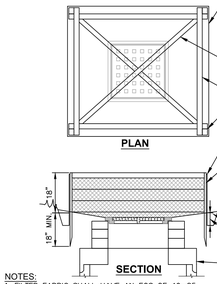
NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL "T" OR "U" TYPE OR HARDWOOD.
2. FILTER FABRIC TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAX MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIALS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
5. MAXIMUM DRAINAGE AREA FOR OVERLAND FLOW TO A SILT FENCE SHALL NOT EXCEED 1/4 ACRE PER 100 FEET OF FENCE.
6. SILT FENCE SHALL BE USED WHERE EROSION COULD OCCUR IN THE FORM OF SHEET EROSION.
7. SILT FENCE SHALL NOT BE USED WHEN A CONCENTRATION OF WATER IS FLOWING TO THE BARRIER.
8. MAXIMUM ALLOWABLE SLOPE LENGTHS CONTRIBUTING RUN-OFF TO A SILT FENCE ARE:

SLOPE STEEPNESS	MAXIMUM SLOPE LENGTH(FT)
2:1	25
3:1	50
4:1	75
5:1 OR FLATTER	100

SILT FENCE INSTALLATION DETAIL

SCALE: NOT TO SCALE



NOTES:

1. FILTER FABRIC SHALL HAVE AN EOS OF 40–85.
2. CUT FABRIC FROM CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED, OVERLAP TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2"x4" WOOD OR EQUIVALENT, WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE MINIMUM 18" DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2"x4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVERFLOW STABILITY.
7. MAXIMUM DRAINAGE AREA IS 1 ACRE.
8. INLET PROTECTION SHALL REMAIN IN–PLACE UNTIL SITE HAS BEEN STABILIZED.

TEMPORARY OUT OF PAVEMENT FILTER FABRIC DROP INLET PROTECTION DETAIL

SCALE: NOT TO SCALE

SPDES GENERAL PERMIT GP-0-20-001 COMPLIANCE NOTES:

THIS PLAN SET AND THE ACCOMPANYING SWPPP ENTITLED **[NAME]** HAVE BEEN SUBMITTED AS A SET. THESE ENGINEERING DRAWINGS ARE CONSIDERED AN INTEGRAL PART OF THE SWPPP, THEREFORE THE PLAN SET IS NOT CONSIDERED COMPLETE WITHOUT THE SWPPP.

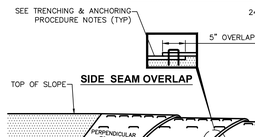
1. THIS PROJECT HAS NOT RECEIVED WRITTEN APPROVAL FROM **(INSERT NYSDEC OR MUNICIPALITY (IF MS4))** ALLOWING THE DISTURBANCE OF MORE THAN FIVE (5) ACRES OF LAND AT ANY ONE TIME. THEREFORE, IF THE CONTRACTOR'S CONSTRUCTION SEQUENCE REQUIRES THE DISTURBANCE OF MORE THAN FIVE ACRES AT ANY ONE TIME, ADDITIONAL APPROVAL MUST BE OBTAINED FROM NYSDEC PRIOR TO EXCEEDING THE 5 ACRE LIMIT.
1. THIS PROJECT HAS REQUESTED WRITTEN APPROVAL FROM **(INSERT NYSDEC OR MUNICIPALITY (IF MS4))** ALLOWING THE DISTURBANCE OF MORE THAN FIVE (5) ACRES OF LAND AT ANY ONE TIME. CONTRACTOR SHALL NOT DISTURB MORE THAN FIVE (5) ACRES UNTIL SUCH TIME THAT THE WAIVER IS GRANTED AND WRITTEN AUTHORIZATION IS RECEIVED FROM NYSDEC.

CONSTRUCTION SEQUENCING NOTES:

1. PRIOR TO COMMENCING ANY CLEARING, GRUBBING, EARTHWORK ACTIVITIES, ETC.AT THE SITE, THE CONTRACTOR SHALL FLAG THE WORK LIMITS AND SHALL INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (I.E. SILT FENCES, TREE PROTECTION/BARRIER FENCES, STABILIZED CONSTRUCTION ENTRANCES, STORM DRAIN SEDIMENT FILTERS, DRAINAGE DITCH SEDIMENT FILTERS, ETC.) INDICATED ON THE PROJECT DRAWINGS. THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THEIR TRIBUTARY AREAS.
2. THE CONTRACTOR SHALL CLEAR AND GRUB THE AREA OF THE STORMWATER MANAGEMENT FACILITIES. THIS AREA SHALL NOT EXCEED FIVE (5) ACRES IN EXTENT WITHOUT TEMPORARY STABILIZATION.
3. THE STORMWATER DETENTION BASIN SHALL BE UTILIZED AS A TEMPORARY SEDIMENT TRAP DURING CONSTRUCTION. THE CONTRACTOR SHALL INSTALL THE OUTLET CONTROL STRUCTURES AND THE EARTHEN BERM. THE BASIN SHALL BE GRADED TO THE TOP OF THE AQUATIC BENCH AS INDICATED IN THE TYPICAL STORMWATER MANAGEMENT BASIN SECTION PRESENTED IN THE PROJECT DRAWINGS.
4. PRIOR TO COMMENCING CLEARING, GRUBBING AND/OR EARTHWORK ACTIVITIES IN ANY OTHER AREA OF THE SITE, THE CONTRACTOR SHALL INSTALL INLET AND OUTLET PROTECTION MEASURES (RIPRAP OVERFLOW WEIR(S), CULVERT INLET/OUTLET PROTECTION, ETC.) AND SHALL STABILIZE THE AREAS DISTURBED DURING THE CONSTRUCTION OF THE SEDIMENT BASIN.
5. THE CONTRACTOR SHALL INSTALL TEMPORARY DIVERSION MEASURES WITH ASSOCIATED STABILIZATION MEASURES (I.E., VEGETATIVE COVER, DRAINAGE DITCH SEDIMENT FILTERS, STORM DRAIN SEDIMENT FILTERS, ETC.)TO ASSURE THAT STORMWATER RUNOFF IS CONVEYED TO THE TEMPORARY SEDIMENT BASIN.
6. TEMPORARY DIVERSION MEASURES SHALL BE LOCATED IN A MANNER THAT WILL ASSURE THAT THE AREA TRIBUTARY TO EACH DIVERSION DOES NOT EXCEED FIVE (5) ACRES. THESE TEMPORARY DIVERSION MEASURES SHALL BE INSPECTED DAILY AND REPAIRED/STABILIZED AS NECESSARY TO MINIMIZE EROSION.
7. THE CONTRACTOR SHALL COMMENCE SITE CONSTRUCTION ACTIVITIES INCLUDING CLEARING & GRADING OF THE PROPOSED AREA OF DISTURBANCE AS REQUIRED.
8. INSTALL PROTECTIVE MEASURES AT THE LOCATIONS OF ALL CURB INLETS, GRATE INLETS, AND AT THE ENDS OF ALL EXPOSED STORM SEWER PIPES.
9. CONSTRUCT ALL UTILITIES, CURB AND GUTTER, GUTTER INLETS, AREA INLETS, AND STORM SEWER MANHOLES, AS SHOWN ON THE PLANS. INLET PROTECTION MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION. PLACE REQUIRED RIP-RAP AT LOCATIONS SHOWN ON THE PLANS.
10. FINALIZE PAVEMENT SUB-GRADE PREPARATION.
11. REMOVE PROTECTIVE MEASURES AROUND INLETS AND MANHOLES NO MORE THAN 24 HOURS PRIOR TO PLACING STABILIZED BASE COURSE.
12. INSTALL SUB-BASE MATERIAL AS REQUIRED FOR PAVEMENT.
13. PRIOR TO FINALIZING CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY, ALL CATCH BASINS AND DRAINAGE LINES SHALL BE CLEANED OF ALL SILT AND SEDIMENT.
14. UPON COMPLETION OF SITE CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL FINALIZE CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY. CONTRACTOR SHALL FINISH GRADE THE FORBAY(S), AQUATIC BENCHES, AND WET POOL(S) AND STABILIZE AS INDICATED IN THE PROJECT DRAWINGS.
15. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND IMMEDIATELY ESTABLISH PERMANENT VEGETATION ON THE AREAS DISTURBED DURING THEIR REMOVAL.

EROSION AND SEDIMENT CONTROL MEASURES:

1. DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION SHALL BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES.
2. AS MUCH AS IS PRACTICAL, EXISTING VEGETATION SHALL BE PRESERVED, FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES IN ANY PORTION OF THE SITE, PERMANENT VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SOILS.
3. SITE PREPARATION ACTIVITIES SHALL BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISRUPTION.
4. PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL POINTS OF ENTRY ONTO THE PROJECT SITE.



"BOTTOM OF SLOPE TERMINATION"

NOTES:

1. PREPARE THE TOPSOIL (SEEDBED) FIRST BY RAKING, SHAPING, FINE GRADING, COMPACTING, SEEDING & FERTILIZING THE SLOPES.

2. USE THE TRENCHING & ANCHORING PROCEDURES DETAILED HEREIN TO SECURE ANY EXPOSED MATERIAL ENDS. SECURE ALL PRODUCT OVERLAPS. OVERLAP IN THE DIRECTION OF WATER FLOW, PERPENDICULAR TO THE SLOPE.

3. KEEP EROSION CONTROL BLANKET IN SOLID CONTACT WITH THE TOPSOIL.

4. USE THE REQUIRED NUMBER OF STAPLES/STAKES TO SECURELY FASTEN THE EROSION CONTROL BLANKET TO THE SLOPE. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLES/STAKES LENGTHS GREATER THAN 6" MAYBE NECESSARY FOR PROPER SECURING. STAPLE PATTERNS & OVERLAPS ARE DEPENDENT ON SITE CONDITIONS & MANUFACTURER'S REQUIREMENTS. CONTRACTOR SHALL CONSULT WITH MANUFACTURER FOR ACTUAL SITE SPECIFIC REQUIREMENTS.

TRENCHING & ANCHORING PROCEDURE NOTES:

SIDE SEAM OVERLAP: THE EDGES OF PARALLEL BLANKETS SHALL BE STAPLED WITH A 5" OVERLAP.

TOP OF SLOPE TRENCH: BEGIN AT THE TOP OF SLOPE BY ANCHORING THE EROSION CONTROL BLANKET IN A 6"D x 6"W TRENCH WITH A 12" OVERLAP EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR WITH A ROW OF STAPLES/STAKES 12" O.C. IN THE BOTTOM OF THE TRENCH. BACKFILL & COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL & FOLD THE REMAINING 12" PORTION OF THE EROSION CONTROL BLANKET BACK OVER THE SEED & COMPACTED SOIL. SECURE THE EROSION CONTROL BLANKET OVER THE COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED 12" O.C. ACROSS THE ENTIRE WIDTH.

END ROLL OVERLAP: CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE SHALL BE PLACED END OVER END (SHINGLE-STYLE) WITH A 3" OVERLAP. STAPLE THRU OVERLAPPED AREAS, 12" APART ACROSS THE ENTIRE WIDTH.

EROSION CONTROL BLANKET INSTALLATION DETAIL

SCALE: NTS

MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES:

PERMANENT AND TEMPORARY VEGETATION:
INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. ALL AREAS DAMAGED BY EROSION OR WHERE SEED HAS NOT ESTABLISHED SHALL BE REPAIRED AND RESTABILIZED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE:
INSPECT THE ENTRANCE PAD EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. CHECK FOR MUD. SEDIMENT BUILD-UP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING WET WEATHER. RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL. WASH AND REPLACE STONE AS NEEDED, THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF-SITE BY VEHICLES. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. REMOVE TEMPORARY CONSTRUCTION ENTRANCE AS SOON AS THEY ARE NO LONGER NEEDED TO PROVIDE ACCESS TO THE SITE.

SILT FENCE:
INSPECT FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE FENCE. IF FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF FENCE IMMEDIATELY.

SOIL STOCKPILE:
INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE OR HAY BALE) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANYWAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCK PILE. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.

DUST CONTROL:
SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORK. APPLY TEMPORARY SOIL STABILIZATION PRACTICES SUCH AS MULCHING, SEEDING, AND SPRAYING (WATER). STRUCTURAL MEASURES (MULCH, SEEDING) SHALL BE INSTALLED IN DISTURBED AREAS BEFORE SIGNIFICANT BLOWING PROBLEMS DEVELOP. WATER SHALL BE SPRAYED AS NEEDED. REPEAT AS NEEDED, BUT AVOID EXCESSIVE SPRAYING, WHICH COULD CREATE RUNOFF AND EROSION PROBLEMS.

CHECK DAM:
INSPECT CHECK DAMS EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. IF SIGNIFICANT EROSION HAS OCCURRED BETWEEN STRUCTURES A LINER OF STONE OR OTHER SUITABLE MATERIAL SHOULD BE INSTALLED IN THAT PORTION OF THE CHANNEL. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAM AS NEEDED TO ALLOW CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. REPLACE STONES AS NEEDED TO MAINTAIN THE DESIGN CROSS SECTION OF THE STRUCTURES. REMOVE CHECK DAMS AS PER APPROVAL OF ENGINEER.

EROSION CONTROL BLANKET:
INSPECT THE BLANKET EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. REPLACE WIRE STAPLES AS REQUIRED. REPAIR AND RESEED WHERE CRACKS AND DAMAGED VEGETATION IS EVIDENT. WHEN DAMAGED BEYOND REPAIR OR NO LONGER FUNCTIONING, THE BLANKET SHALL BE REPLACED.

EARTH DIKE:
INSPECT ALL EARTH DIKES EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. ALL AREAS DAMAGED BY EROSION SHALL BE REPAIRED IMMEDIATELY.

TEMPORARY SWALE:
INSPECT ALL EARTH DIKES EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. ALL AREAS DAMAGED BY EROSION SHALL BE REPAIRED IMMEDIATELY.

SEDIMENT TRAP:
INSPECT ALL SEDIMENT TRAPS EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. REPAIRS SHALL BE MADE AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO THE ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO 1/2 OF THE DESIGN DEPTH OF THE TRAP.

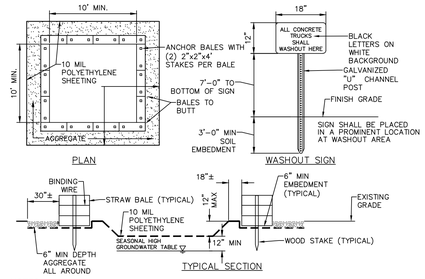
STORM DRAIN INLET PROTECTION:
INSPECT ALL STORM DRAIN INLET PROTECTION DEVICES EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE REPAIRS AS NEEDED, REMOVE SEDIMENT FROM THE POOL AREA AS NECESSARY.

DEWATERING PITS:
(IF REQUIRED) – INSPECT DAILY DURING OPERATION FOR CLOGGING OR OVERFLOW. CLEAR INLET AND DISCHARGE PIPES OF OBSTRUCTIONS. IF A FILTER MATERIAL BECOMES CLOGGED WITH SEDIMENT, PIT SHALL BE DISMANTLED AND CONSTRUCT NEW PITS AS NEEDED.

SNOW AND ICE CONTROL:
PARKING LOTS, ROADWAYS, AND DRIVEWAYS ADJACENT TO WATER QUALITY FILTERS SHALL NOT BE SANDED DURING SNOW EVENTS DUE TO HIGH POTENTIAL FOR CLOGGING FROM SAND IN SURFACE WATER RUNOFF. USE SALT ONLY FOR SNOW AND ICE CONTROL.

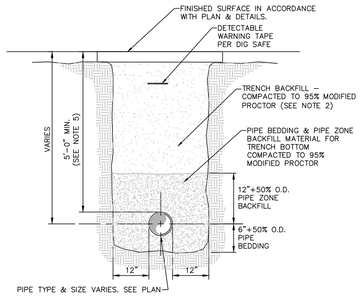
GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IN STRICT COMPLIANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", NOVEMBER 2016.
2. EXCESS SOIL TO BE STOCKPILED WITHIN THE LIMITS OF SITE DISTURBANCE IF NOT USED IMMEDIATELY FOR GRADING PURPOSES. INSTALL SILT FENCE AROUND SOIL STOCKPILES.
3. APPLY SURFACE STABILIZATION AND RESTORATION MEASURES. AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS DELAYED, SUSPENDED, OR INCOMPLETE AND WILL NOT BE REDISTURBED FOR 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS AFTER CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED. (SEE SPECIFICATIONS FOR TEMPORARY VEGETATIVE COVER). AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS COMPLETE AND WILL NOT BE REDISTURBED SHALL BE STABILIZED AND RESTORED WITH PERMANENT VEGETATIVE COVER AS SOON AS SITE AREAS ARE AVAILABLE AND WITHIN 14 DAYS AFTER WORK IS COMPLETE. (SEE SPECIFICATIONS FOR PERMANENT VEGETATIVE COVER). SEEDING FOR PERMANENT VEGETATIVE COVER SHALL BE WITHIN THE SEASONAL LIMITATIONS. PROVIDE STABILIZATION WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS AFTER WORK IS COMPLETE, FOR SEEDING OUTSIDE PERMITTED SEEDING PERIODS.
4. SEEDED AREAS TO BE MULCHED WITH STRAW OR HAY MULCH IN ACCORDANCE WITH VEGETATIVE COVER SPECIFICATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE COURSE OF CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST BY SPRINKLING EXPOSED SOIL AREAS PERIODICALLY WITH WATER AS REQUIRED. THE CONTRACTOR IS TO SUPPLY ALL EQUIPMENT AND WATER.
7. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED.



NOTES:

1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL. THIS INCLUDES REPLACEMENT OF THE 10 MIL POLYETHLENE SHEETING.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBL



PIPE TYPE & SIZE VARIES. SEE PLAN

NOTES:

1. PIPE BEDDING & PIPE ZONE BACKFILL SHALL BE AN IMPORTED NATURAL RUN-OF-BANK (R.O.B.) SAND OR A MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. BEDDING GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
3/4"	100%
NO. 40	0–70%
NO. 200	0–10%

2. TRENCH BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) OR PROCESSED GRAVEL, OR EXCAVATED MATERIAL FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. TRENCH BACKFILL GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

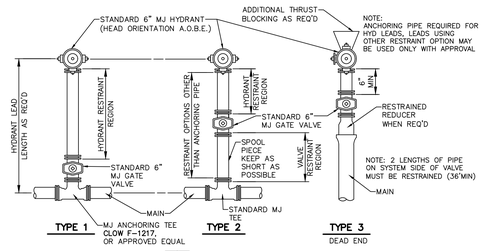
SIEVE DESIGNATION	% PASSING
4"	100%
NO. 40	0–70%
NO. 200	0–10%

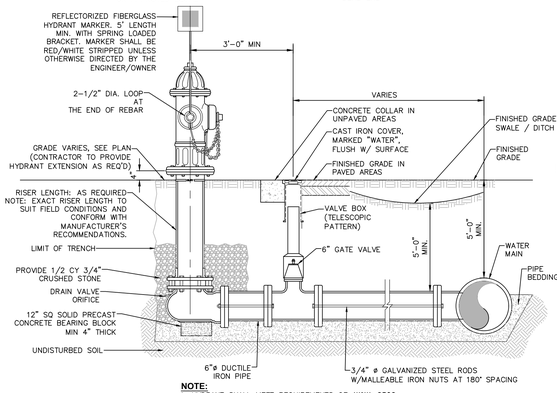
IN NON-TRAFFIC UNPAVED AREAS TRENCH BACKFILL CAN BE MATERIALS EXCAVATED FROM THE TRENCH AS APPROVED BY THE ENGINEER AND COMPACTED TO 90% MODIFIED PROCTOR.

3. INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS & SLAB.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.
5. 5'-0" MIN COVER SHALL BE APPLIED TO WATER MAIN OR SANITARY SEWER FORCE MAINS ONLY.

PIPE TRENCH DETAIL (TYPICAL)

SCALE: NOT TO SCALE





NOTES:

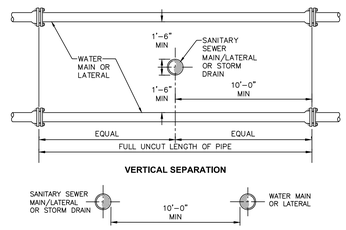
1. HYDRANTS SHALL BE **MUELLER SUPER CENTURION 250** OR APPROVED EQUIVALENT BY THE AUTHORITY HAVING JURISDICTION. HYDRANTS SHALL MEET REQUIREMENTS OF **AWWA STANDARD C-502.**
2. HYDRANTS SHALL BE CAST IRON BODY, DRY BARREL DESIGN, COMPRESSION-TYPE VALVE, OPENING AGAINST PRESSURE AND CLOSING WITH PRESSURE, 6-INCH MECHANICAL JOINT INLET FOOT PIECE, 5 ¼ INCH MAIN VALVE OPENING, O-RING TYPE PACKING, RATED FOR 250-PSI WORKING PRESSURE, TWO (2) 2 ½ INCH HOSE NOZZLES AND ONE (1) 4 ½ INCH PUMPER NOZZLE.
3. NOZZLE OUTLET THREADS SHALL MEET LOCAL FIRE DEPARTMENT REQUIREMENTS AND HAVE CAST IRON CAPS WITH NON-KINKING STEEL CHAINS. OPERATING AND CAP NUTS: PENTAGON 1 ½ INCH POINT TO FLAT. HYDRANT VALVES SHALL BE OPENED BY TURNING OPERATING NUT TO THE LEFT, OR **COUNTERCLOCKWISE.**
4. HYDRANTS SHALL BE TRAFFIC TYPE WITH BREAKABLE SAFETY FLANGE WITH RED EXTERIOR ALKYD GLOSS ENAMEL PAINT. HYDRANTS SHALL BE TOUCHED UP TO REMOVE ANY MARKS OR SCRAPED PAINT CAUSED BY INSTALLATION OR TRANSIT.

NOTE:

1. HYDRANT SHALL MEET REQUIREMENTS OF **AWWA C502.**

HYDRANT ASSEMBLY DETAIL

SCALE: NOT TO SCALE



VERTICAL SEPARATION

HORIZONTAL SEPARATION

NOTES:

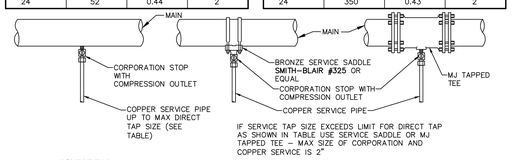
1. NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE EXPRESS APPROVAL OF THE NYS HEALTH DEPARTMENT. OFFSETTING OF WATERLINE SHALL BE REQUIRED WHERE SEPARATION DISTANCES CANNOT BE MAINTAINED.
2. WHEN IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS INDICATED ABOVE, BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE CONSTRUCTED OF MECHANICAL JOINT, DUCTILE IRON PIPE OR PVC WATER WORKS GRADE PRESSURE PIPE FOR 10' EACH SIDE OF CROSSING AND SHALL BE PRESSURE TESTED TO **150psi** TO ASSURE WATER TIGHTNESS.

SANITARY/STORM SEWER AND WATERMAIN SEPARATION DETAIL

SCALE: NOT TO SCALE

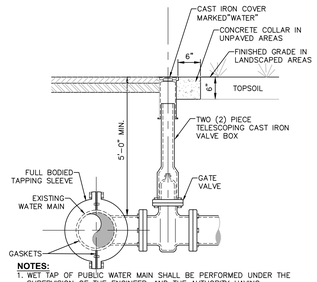
MAX DIRECT TAP SIZE FOR DIP			
PIPE SIZE (INCHES)	THICKNESS CLASS	WALL THICKNESS (INCHES)	MAX TAP SIZE INCHES
4"	52	0.29	3/4
6"	52	0.31	1
8	52	0.33	1 1/4
10"	52	0.35	1 1/2
12"	52	0.37	2
14"	52	0.39	2
16"	52	0.40	2
18"	52	0.41	2
20"	52	0.42	2
24"	52	0.44	2

MAX DIRECT TAP SIZE FOR DIP			
PIPE SIZE (INCHES)	PRESSURE CLASS	WALL THICKNESS (INCHES)	MAX TAP SIZE INCHES
4"	350	0.25	3/4
6"	350	0.25	1
8	350	0.25	1
10"	350	0.26	1
12"	350	0.28	1 1/4
14"	350	0.31	1 1/2
16"	350	0.34	2
18"	350	0.36	2
20"	350	0.38	2
24"	350	0.43	2



TYPICAL COPPER WATER SERVICE TAPS

SCALE: NOT TO SCALE

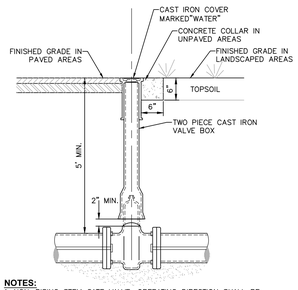


NOTES:

1. WET TAP OF PUBLIC WATER MAIN SHALL BE PERFORMED UNDER THE SUPERVISION OF THE ENGINEER, AND THE AUTHORITY HAVING JURISDICTION.
2. TAPPING SLEEVE AND VALVE SUPPORT SHALL BE COORDINATED WITH THE ENGINEER TO SUIT FIELD CONDITIONS.
3. MINIMUM DISTANCE TO JOINTS, FITTINGS, OR OTHER WET TAPS OR STOPS SHALL BE 3 FEET.
4. VALVE OPERATING DIRECTION SHALL BE **COUNTERCLOCKWISE** TO OPEN (TURNING LEFT).
5. TAPPING SLEEVE SHALL BE SELECTED TO FIT EXISTING PIPE MATERIAL (C.I., D.I., A.C.) AND OUTSIDE DIAMETERS.
6. THRUST BLOCK IS REQUIRED WHERE THE BRANCH OF THE TAPPING SLEEVE DOES NOT HAVE RESTRAINED JOINT.
7. TAPPING SLEEVE, VALVE & VALVE BOX SHALL BE IN ACCORDANCE WITH MUNICIPAL STANDARDS & AS MANUFACTURED BY **(MUELLER, CLOW OR WATEROUS)** OR APPROVED EQUIVALENT.

TAPPING SLEEVE AND VALVE DETAIL

SCALE: NOT TO SCALE



NOTES:

1. NON-RISING STEM GATE VALVE, OPERATING DIRECTION SHALL BE **COUNTERCLOCKWISE** TO OPEN.
2. MINIMUM DISTANCE TO JOINTS, FITTINGS, OR OTHER WET TAPS OR STOPS SHALL BE 3 FEET.
3. IF VALVE IS TO BE RODDED, PROVIDE VALVE WITH RODDING FLANGES OR EYEBOLTS. TWO (2) 3/4"ø GALVANIZED STEEL RODS WITH MALLEABLE IRON NUTS AT 180° SPACING SHALL BE USED FOR RODDING VALVES. FOR 12" DIA. PIPE OR LESS. FOR LARGER PIPE SIZES, SEE TABLE FOR NUMBER OF TIE RODS REQUIRED--"JOINT RESTRAINT OPTION DETAILS.)
4. GATE VALVE & VALVE BOX SHALL BE IN ACCORDANCE WITH MUNICIPAL STANDARDS & AS MANUFACTURED BY **(MUELLER, CLOW OR WATEROUS)** OR APPROVED EQUIVALENT.

TYPICAL GATE VALVE DETAIL

SCALE: NOT TO SCALE

LaBella
Powered by partnership.

4 British American Boulevard
Latham, NY 12110
518-439-8235

labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 018281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2230414
DRAWN BY:
REVIEWED BY:
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

WATER SYSTEM DETAILS

DRAWING NUMBER:

C560

VERSION: 23.1
11/4/2024 12:27 PM

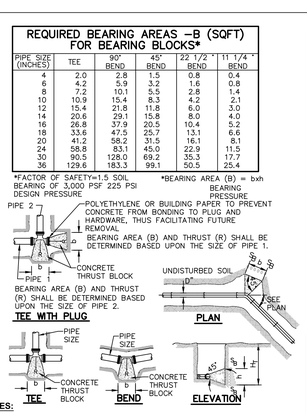
REQUIRED BEARING AREAS –B (SQFT) FOR BEARING BLOCKS*

PIPE SIZE (INCHES)	TEE	90° BEND	45° BEND	22 1/2 ° BEND	11 1/4 ° BEND
4	2.0	2.8	1.5	0.8	0.4
6	4.2	5.9	3.2	1.6	0.8
8	7.2	10.1	5.5	2.8	1.4
10	10.9	15.4	8.3	4.2	2.1
12	15.4	21.8	11.8	6.0	3.0
14	20.6	29.1	15.8	8.0	4.0
16	26.8	37.9	20.5	10.4	5.2
18	33.6	47.5	25.7	13.1	6.6
20	41.2	58.2	31.5	16.1	8.1
24	58.8	83.1	45.0	22.9	11.5
30	90.5	128.0	69.2	35.3	17.7
36	129.6	183.3	99.1	50.5	25.4

*FACTOR OF SAFETY=1.5 SOIL BEARING OF 3,000 PSF 225 PSI DESIGN PRESSURE

*BEARING AREA (B) = bxh

BEARING PRESSURE



NOTES:

1. CONCRETE SHALL NOT TO OVERLAP ANY JOINT.
2. THRUST BLOCKS SHALL BE CONFIGURED IN A MANNER THAT DOES NOT INTERFERE WITH REMOVAL OR INSTALLATION OF ANY JOINTING COMPONENTS.
3. FOR REDUCERS, USE MECHANICAL JOINT FITTINGS WITH RETAINER GLANDS.
4. BEARING SURFACE SHALL, WHERE POSSIBLE, BE PLACED AGAINST UNDISTURBED SOIL. WHERE THAT IS NOT POSSIBLE, THE FILL BETWEEN THE BEARING SURFACE AND UNDISTURBED SOIL MUST BE COMPACTED TO AT LEAST 90% STANDARD PROCTOR DENSITY.
5. BLOCK HEIGHT (h) SHALL BE EQUAL TO OR LESS THAN ONE-HALF THE TOTAL DEPTH TO THE BOTTOM OF THE BLOCK, (H'), BUT NOT LESS THAN THE PIPE DIAMETER (D).
6. BLOCK HEIGHT (h) SHALL BE ESTABLISHED SUCH THAT THE CALCULATED BLOCK WIDTH (b) VARIES BETWEEN ONE AND TWO TIMES THE HEIGHT.
7. VALUES FOR TEES APPLY TO TEES, END PLUGS, CAPS, AND TAPPING SLEEVES.
8. REQUIRED BEARING AREAS ARE DEVELOPED TO RESIST THRUSTS RESULTING FROM 150 PSI WORKING PRESSURE PLUS 50%(75 PSI) SURGE ALLOWANCE RESULTING IN 225 PSI TOTAL INTERNAL PRESSURE.
   REQUIRED BEARING AREAS ARE BASED UPON AN ALLOWABLE SOIL BEARING CAPACITY OF 3,000 POUNDS PER SQUARE FOOT. IN RESPONSE TO OTHER SOIL CONDITIONS ENCOUNTERED, BEARING AREAS REQUIRED MAY BE MODIFIED BY THE ENGINEER.

SOIL	BEARING STRENGTH Sa (LB/SQ FT)
MUCK	0
SOFT CLAY	1,000
SILT	1,500
SANDY SILT	3,000
SAND	4,000
SANDY CLAY	6,000
HARD CLAY	9,000

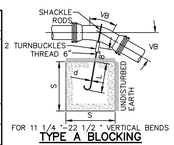
9. IN MUCK, PEAT, OR RECENTLY PLACED FILL, ALL THRUSTS SHALL BE RESISTED BY PILES OR TIE RODS TO SOLID FOUNDATIONS, OR BY REMOVAL OF SUCH UNSTABLE MATERIAL AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THE THRUSTS; ALL AS REQUIRED BY THE ENGINEER.
10. CONCRETE THRUST BLOCK SHALL BE USED ONLY AS ALLOWED BY THE PROJECT PLANS AND/OR SPECIFICATION. (IF RESTRAINED JOINT PIPE IS TO BE USED SEE SCHEDULE OF JOINT RESTRAINED PIPE.)

© **CONCRETE THRUST BLOCK DETAILS**
SCALE: NOT TO SCALE

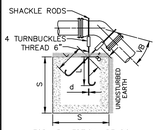
TYPE A BLOCKING
FOR 11 1/4 – 22 1/2 VERT BENDS

PIPE SIZE (NOM DIA-INCHES)	VB VERTICAL BEND DEGREES	NO. OF CUFT OF CONC BLOCKING PER SIDE (FEET)	S DIA RODS(2) (INCHES)	d RODS LENGTH* (INCHES)	L DEPTH OF CONC (FEET)
4"	11 1/4	8	2.0	3/4 "	1.6
	22 1/2	16	2.5		
6"	11 1/4	16	2.5	3/4 "	1.6
	22 1/2	32	3.2		
8"	11 1/4	28	3.0	3/4 "	1.6
	22 1/2	55	3.8		
10	11 1/4	42	3.5	3/4 "	1.6
	22 1/2	83	4.4		
12"	11 1/4	60	3.9	3/4 "	1.6
	22 1/2	118	4.9	7/8 "	2.2
14	11 1/4	81	4.3	7/8 "	2.2
	22 1/2	158	5.4		
16"	11 1/4	104	4.7	7/8 "	2.2
	22 1/2	205	5.9	1 1/8"	3.7
18	11 1/4	131	5.1	7/8 "	2.2
	22 1/2	257	6.4	1 1/8"	3.7
20"	11 1/4	161	5.4	7/8 "	2.2
	22 1/2	316	6.8	1 1/4"	4.6
24"	11 1/4	229	6.1	1"	2.9
	22 1/2	450	7.7	1 3/8"	5.7

* FOR 60KSI THREADED REBAR



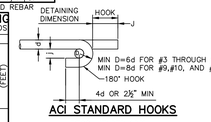
TYPE A BLOCKING



TYPE B BLOCKING

TYPE B BLOCKING
FOR 45° VERTICAL BENDS

PIPE SIZE (NOM DIA-INCHES)	S NO. OF CUFT OF CONC BLOCKING PER SIDE (FEET)	d RODS(2) DIA (INCHES)	L DEPTH OF CONC (FEET)
4"	29	3.1	3/4 " 1.6
6"	59	3.9	
8"	102	4.7	
10"	154	5.4	
12"	218	6.0	
14"	292	6.6	7/8 " 2.2
16"	378	7.2	1 1/8" 3.7
18"	478	7.8	
20"	583	8.3	1 1/4" 4.6
24"	832	9.4	3/8" 5.7



ACI STANDARD HOOKS

RECOMMENDED 180° END HOOK DIMS	
BAR SIZE	J (IN)
#6	6
#7	7
#8	8
#9	11 1/4
#10	12 3/4
#11	14 1/4

© **GRAVITY THRUST BLOCK DETAILS**
SCALE: NOT TO SCALE

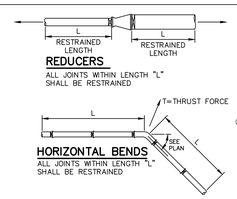
SCHEDULE OF JOINT RESTRAINT– (PVC OR POLYWRAPPED DIP)
(LENGTH OF PIPE EACH SIDE OF FITTING TO BE RESTRAINED IN FEET "L")

PIPE SIZE (INCHES)	FITTING TYPE 90°	45°	22½	11¼	TEE	VALVE*	DEAD END	REDUCER 24"	18"	16"	14"	12"	10"	8"	6"	4"
30"	241	100	48	24	202	206	206	72	130	145	159					
24"	196	82	39	20	163	166	166		72	91	108	123	136			
18"	149	62	30	15	122	125	125			26	49	68	85	99		
16"	134	56	27	14	109	112	112				26	48	67	82	95	
14"	118	49	24	12	95	98	98					26	47	64	79	89
12"	102	43	21	11	82	85	85						25	45	62	74
10"	86	36	17	9	68	71	71							25	44	58
8"	71	30	15	7	56	59	59								25	43
6"	54	22	11	6	41	44	44									23
4"	38	16	8	4	28	31	31									

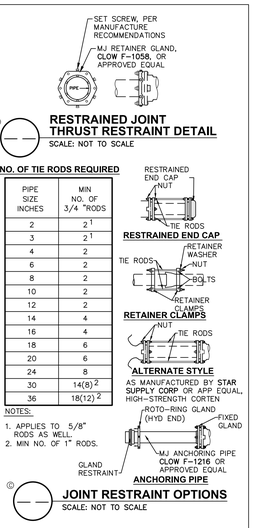
NOTES:

1. THE LENGTH OF PIPE REQUIRING RESTRAINT IS BASED UPON THE FOLLOWING ASSUMPTIONS:
   A. BEDDING TYPE 2 – FLAT BOTTOM TRENCH, BACKFILL LIGHTLY CONSOLIDATED TO CENTER LINE OF PIPE.
   B. SOIL TYPE CLAY 1 – CLAY OF MEDIUM TO LOW PLASTICITY, LL<50, <25% COURSE PARTICLES [CL & CL–ML] :
      CL – INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY GRAVELY CLAYS, SANDY CLAYS, SILTY CLAYS. LEAN CLAYS
      ML – INORGANIC SILTS, VERY FINE SAND, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS.
   C. PIPE TABLE CALCULATION IS BASED ON PVC OR POLYWRAPPED DIP
   D. DEPTH TO TOP OF PIPE 5'–0" MINIMUM
   E. MAXIMUM OPERATING PRESSURE OF 150 PSI
   F. FACTOR OF SAFETY OF 1.5
2. FOR END PLUGS, USE RESTRAIN PIPE LENGTH GIVEN FOR DEAD END FITTING.
3. THE LENGTH ("L") OF NEW PIPE TO BE RESTRAINED IS THE LENGTH FOR EACH SIDE OF THE FITTING.
4. THE ABOVE INFORMATION WAS PROVIDED USING THE THRUST RESTRAINT PROGRAM ISSUED BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) AND IS BASED ON THE ASSUMPTIONS LISTED IN NOTE 1. RESTRAINED LENGTH REQUIREMENTS FOR FIELD CONDITIONS AND PIPE SIZES DIFFERING FROM THOSE LISTED ABOVE SHOULD BE EVALUATED SEPARATELY.
5. RESTRAINED JOINT PIPE AND FITTINGS SHALL BE USED ONLY AS ALLOWED BY THE PROJECT PLANS AND/OR SPECIFICATION. (IF THRUST BLOCKS ARE USED SEE THRUST BLOCK DETAIL)
6. TEE FITTINGS: PIPE SIZE SHOWN FOR THE TEE IS THE SIZE OF THE RUN. THE RESTRAINED LENGTH SHOWN IS FOR THE BRANCH. THE VALUE OF THE RESTRAINED LENGTH ASSUMES THAT THE SIZE OF THE BRANCH IS EQUAL TO OR LESS THAN THE RUN. THE VALUE OF THE Lr=USED IN THE TABLE IS 10 FEET. (Lr= TOTAL LENGTH BETWEEN FIRST JOINTS ON EITHER SIDE OF THE TEE ON THE RUN.)

© **JOINT RESTRAINT SCHEDULE AND NOTES**
SCALE: NOT TO SCALE



© **RESTRAINED JOINT PIPE DIAGRAMS**
SCALE: NOT TO SCALE



PIPE SIZE INCHES	MIN NO. OF 3/4 "RODS
2	2[1]
3	2[1]
4	2
6	2
8	2
10	2
12	2
14	4
16	4
18	6
20	6
24	8
30	14(8)[2]
36	18(12)[2]

NOTES:
1. APPLIES TO 5/8" RODS AS WELL.
2. MIN NO. OF 1" RODS.

RESTRAINED JOINT DETAILS

CONCRETE THRUST BLOCK DETAILS - (TO ONLY BE USED AS REQUIRED, SEE WATER MAIN NOTES 5)

WATER MAIN NOTES:

1. ALL WATER LINES SHALL BE CEMENT LINED DUCTILE IRON PIPE, CLASS 52, **OR PVC C900** UNLESS OTHERWISE SPECIFIED BY OR APPROVED BY THE ENGINEER.
2. THE WATER LINE MAY BE DEFLECTED WITHIN PIPE SPECIFICATIONS OR LAID DEEPER IN AREAS WHERE CROSSINGS WITH THE SANITARY LINE OCCUR, TO ACHIEVE THE REQUIRED 1.5' VERTICAL SEPARATION DISTANCE. (SEE WATERLINE OFFSET DETAIL FOR FURTHER INFORMATION).
3. WATER MAINS SHALL BE TESTED PER **AWWA SECTION C600 OR C605. (SEE WATER MAIN TESTING NOTES)**
4. THE WATER MAIN IS TO BE INSTALLED AT A CONTINUOUS GRADE WITH NO ABRUPT HIGH OR LOW POINTS.
5. THRUST RESTRAINT:
   A. THE WATER MAIN THRUST RESTRAINT METHOD USED FOR THIS PROJECT SHALL BE RESTRAINED JOINT PIPE AND FITTINGS.
   B. IN ADDITION TO THE RESTRAINED JOINT PIPE AND FITTINGS, CONCRETE THRUST BLOCKS ARE REQUIRED ON ALL FITTINGS AT CONNECTIONS TO EXISTING WATER MAINS. IF THE CONNECTION TO AN EXISTING MAIN IS MADE WITH A STRAIGHT RUN OF PIPE AND THE CONNECTION TO THE EXISTING MAIN FALLS WITHIN THE RESTRAINED LENGTH REQUIRED FOR THE FIRST PROPOSED FITTING BEYOND THE CONNECTION THEN A CONCRETE THRUST BLOCK SHALL BE INSTALLED AT THAT FITTING.
   C. IN GENERAL CONCRETE THRUST BLOCKS MAY BE USED TO SUPPLEMENT, BUT NOT REPLACE, THE RESTRAINED JOINT PIPE AND FITTINGS WHERE NEEDED.
6. DISINFECTION OF PORTABLE WATER MAINS:
   D. DISINFECTION WILL BE ACCOMPLISHED AFTER PIPE HAS PASSED ANY LEAKAGE TESTS.
   E. THE MUNICIPALITY AND THE ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE START OF PRESSURE TESTING, LEAKAGE TESTING, AND DISINFECTION.
   F. DISINFECTION WILL BE PERFORMED IN ACCORDANCE WITH **AWWA STANDARD C651** LATEST EDITION. (EXCLUDING SECTION 4.4.2 COVERING THE TABLET METHOD). (SEE WATER MAIN DISINFECTION NOTES)

TESTING WATER MAINS:

1. THE CONTRACTOR SHALL SUBMIT A TESTING PLAN FOR FLUSHING, PRESSURE TESTING, LEAKAGE TESTING AND DISINFECTION OF WATER MAINS TO BE APPROVED BY THE ENGINEER PRIOR TO COMMENCING PIPING INSTALLATION.
2. AFTER TRENCH HAS BEEN BACKFILLED, HYDROSTATIC ACCEPTANCE TESTS, CONSISTING OF A PRESSURE TEST AND A LEAKAGE TEST, SHALL BE PERFORMED ON ALL SECTIONS OF WATER MAINS INSTALLED. LEAKAGE TEST SHALL BE CONDUCTED CONCURRENTLY WITH PRESSURE TEST. TEST SECTION SHALL BE LIMITED TO ABOUT 2,000 FT (MAX.) OR FOR EACH DIFFERENT PIPE MATERIAL SEGMENT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
3. AFTER ALL TESTS AND INSPECTIONS HAVE BEEN PERFORMED EVIDENCE OF COMPLIANCE SHALL BE FORWARDED TO OWNER/ENGINEER AND THE MUNICIPALITY PRIOR TO ACCEPTANCE.
4. ALL WATER FOR TESTS SHALL BE FURNISHED AND DISPOSED OF BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. SOURCE AND/OR QUALITY OF WATER WHICH THE CONTRACTOR PROPOSES TO USE IN TESTING LINES SHALL BE ACCEPTABLE TO THE ENGINEER.
5. HYDROSTATIC PRESUMPTIVE TESTS MAY BE PERFORMED WHEN SYSTEM IS PARTIALLY BACKFILLED TO SIMPLY CHECK WORK, BUT ACCEPTANCE OF SYSTEM SHALL BE BASED ON HYDROSTATIC TESTS RUN ON FINISHED SYSTEM AFTER IT HAS BEEN COMPLETELY BACKFILLED.
6. HYDROSTATIC TESTS SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING, AS MODIFIED HEREIN;
   6.1. SECTION 5 OF AWWA STANDARD C600, LATEST EDITION, FOR DUCTILE–IRON MAINS.
   6.2. SECTION 7 OF AWWA STANDARD C605, LATEST EDITION, FOR PVC MAINS.
   6.3. CHAPTER 9 OF AWWA STANDARD M55, LATEST EDITION, FOR HDPE MAINS.
7. FOR PRESSURE TESTING OF **DUCTILE–IRON** MAINS, THE SYSTEM SHALL BE PRESSURIZED AND MAINTAINED AT A MINIMUM OF 150 POUNDS PER SQUARE INCH, OR 1.5 TIMES THE WORKING PRESSURE, WHICHEVER IS GREATER, BASED ON THE ELEVATION OF THE LOWEST POINT IN THE SECTION BEING TESTED AND CORRECTED TO THE ELEVATION OF THE GAUGE. PROVISIONS SHALL BE MADE TO RELIEVE AIR TRAPPED AT HIGH POINTS IN THE SYSTEM THROUGH ADJACENT HYDRANTS OR THROUGH TAPS AND CORPORATION STOPS INSTALLED FOR THIS PURPOSE BY THE CONTRACTOR. AFTER SAID PRESSURE HAS BEEN MAINTAINED SUCCESSFULLY, WITH FURTHER PUMPING AS REQUIRED, FOR A PERIOD OF AT LEAST TWO HOURS, THE SECTION UNDER TEST SHALL BE CONSIDERED TO HAVE PASSED THE PRESSURE TEST.
8. FOR PRESSURE TESTING OF **PVC** MAINS, THE SYSTEM SHALL BE PRESSURIZED AND MAINTAINED AT A MINIMUM OF **1.25** TIMES THE THE MAXIMUM ANTICIPATED SUSTAINED WORKING PRESSURE AT THE HIGHEST POINT ALONG THE TEST SECTION UNLESS THE PRESSURE EXCEEDS THE DESIGN PRESSURE LIMIT FOR ANY PIPE, THRUST RESTRAINT, VALVE FITTING, OR OTHER APPURTENANCE OF THE TEST SECTION & NOT LESS THAN 1.5 TIMES THE STATED SUSTAINED WORKING PRESSURE AT THE LOWEST ELEVATION OF THE TEST SECTION. PROVISIONS SHALL BE MADE TO RELIEVE AIR TRAPPED AT HIGH POINTS IN THE SYSTEM THROUGH ADJACENT HYDRANTS OR THROUGH TAPS AND CORPORATION STOPS INSTALLED FOR THIS PURPOSE BY THE CONTRACTOR. AFTER SAID PRESSURE HAS BEEN MAINTAINED SUCCESSFULLY, WITH FURTHER PUMPING AS REQUIRED, FOR A PERIOD OF AT LEAST TWO HOURS, THE SECTION UNDER TEST SHALL BE CONSIDERED TO HAVE PASSED THE PRESSURE TEST.
9. FOR PRESSURE TESTING OF **HDPE** MAINS, THE SYSTEM SHALL BE PRESSURIZED AND MAINTAINED AT 1.5 TIMES THE DESIGN WORKING PRESSURE AT THE ELEVATION OF THE LOWEST POINT IN THE SECTION BEING TESTED AND CORRECTED TO THE ELEVATION OF THE GAUGE. PROVISIONS SHALL BE MADE TO RELIEVE AIR TRAPPED AT HIGH POINTS IN THE SYSTEM THROUGH ADJACENT HYDRANTS OR THROUGH TAPS AND CORPORATION STOPS INSTALLED FOR THIS PURPOSE BY THE CONTRACTOR. AFTER SAID PRESSURE HAS BEEN MAINTAINED SUCCESSFULLY, WITH FURTHER PUMPING AS REQUIRED, FOR A PERIOD OF AT LEAST FOUR HOURS, THE SECTION UNDER TEST SHALL BE CONSIDERED TO HAVE PASSED THE PRESSURE TEST. FAILING TEST SECTION MUST BE DEPRESSURIZED AND ALLOWED TO "RELAX" FOR AT LEAST EIGHT HOURS PRIOR TO RETESTING.
10. LEAKAGE TEST SHALL BE PERFORMED CONCURRENTLY USING A MINIMUM TEST PRESSURE OF 150 LBS/SQUARE INCH, OR 1.5 TIMES THE WORKING PRESSURE, WHICHEVER ISGREATER, BASED ON THE ELEVATION OF THE LOWEST POINT IN THE SECTION UNDER TEST AND CORRECTED TO ELEVATION OF THE GAUGE. LEAKAGE TEST DURATION SHALL BE A MINIMUM OF 2 HOURS AFTER LEAKAGE RATE HAS STABILIZED.
11. MAXIMUM ALLOWABLE LEAKAGE SHALL BE AS SHOWN IN THE FOLLOWING TABLE: ALLOWABLE LEAKAGE PER 1,000 FT (305M) OF PIPELINE (GPH)

AVG. TEST PRESSURE PSI	NOMINAL PIPE DIAMETER–IN. 4	6	8	10	12	14	16
450	0.57	0.86	1.15	1.43	1.72	2.01	2.29
400	0.54	0.81	1.08	1.35	1.62	1.89	2.16
350	0.51	0.76	1.01	1.26	1.52	1.77	2.02
300	0.47	0.70	0.94	1.17	1.40	1.64	1.87
275	0.45	0.67	0.90	1.12	1.34	1.57	1.79
250	0.43	0.64	0.85	1.07	1.28	1.50	1.71
225	0.41	0.61	0.81	1.01	1.22	1.42	1.62
200	0.38	0.57	0.76	0.96	1.15	1.34	1.53
175	0.36	0.54	0.72	0.89	1.07	1.25	1.43
150	0.33	0.50	0.66	0.83	0.99	1.16	1.32
125	0.30	0.45	0.60	0.76	0.91	1.06	1.21
100	0.27	0.41	0.54	0.68	0.81	0.95	1.08

12. IF LEAKAGE IN SYSTEM EXCEEDS THE SPECIFIED AMOUNT, THE CONTRACTOR SHALL, AT NO ADDED COST TO THE OWNER, LOCATE, REPAIR, AND/OR REPLACE DEFECT(S) AND RE–TEST PIPING SYSTEM.

DISINFECTION OF POTABLE WATER SERVICE MAINS:

1. CHLORINE–WATER SOLUTION IS PREPARED BY ADDING SODIUM HYPOCHLORITE TO WATER IN ACCORDANCE WITH THE FOLLOWING TABLE (VERIFY AGAINST TOWN REQUIREMENTS):
   CHLORINE REQUIRED TO PRODUCE 25 MG/L CONCENTRATION IN 100 FT. OF PIPE BY DIAMETER

PIPE SIZE IN.	100 PERCENT CHLORINE LB	1 PERCENT CHLORINE SOLUTIONS GAL.
4	0.013	0.16
6	0.030	0.36
8	0.054	0.65
10	0.085	1.02
12	0.120	1.44
16	0.217	2.60

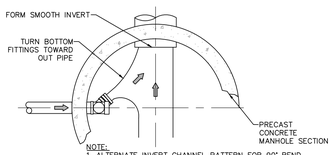
NOTE: 1% SOLUTIONS REQUIRE 1 POUND OF SODIUM HYPOCHLORITE IN 8 GAL OF WATER

2. PRODUCT DETERIORATION MUST BE CONSIDERED IN COMPUTING THE QUANTITY OF SODIUM HYPOCHLORITE REQUIRED FOR THE DESIRED CONCENTRATION.
3. CHLORINE–WATER SOLUTION SHALL BE INTRODUCED INTO THE WATER MAIN WITH A GASOLINE
   OR ELECTRICALLY POWERED CHEMICAL FEED PUMP DESIGNED FOR FEEDING CHLORINE SOLUTIONS. FEED LINES SHALL BE OF SUCH MATERIAL AND STRENGTH TO PERMIT THEM TO WITHSTAND SAFELY THE MAXIMUM PRESSURE THAT MAY BE CREATED BY PUMP. ALL CONNECTIONS SHALL BE CHECKED FOR TIGHTNESS BEFORE HYPOCHLORITE SOLUTION IS APPLIED TO MAIN.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL A CORPORATION STOP JUST DOWNSTREAM FROM THE NEWLY INSTALLED GATE VALVE OR AS OTHERWISE SHOWN ON DRAWINGS OR APPROVED BY THE ENGINEER.
5. GENERALLY, THE FOLLOWING PROCEDURE SHALL BE USED TO DISINFECT THE NEW MAIN. THE CONTRACTOR SHALL HOWEVER, REVIEW THEIR PROPOSED PROCEDURES WITH THE ENGINEER AT LEAST 48 HOURS PRIOR TO START OF DISINFECTION. ALL DISINFECTION PROCEDURES MUST BE APPROVED BY THE ENGINEER BEFORE DISINFECTION STARTS.
   A. ALL GATE VALVES AND HYDRANTS MUST BE CLOSED. THE NEW MAIN SHOULD ALREADY BE FULL OF WATER FROM THE HYDROSTATIC TESTS; IF NOT, IT SHALL BE FILLED.
   B. MIX CHLORINE–WATER SOLUTION IN 55 GALLON DRUMS; CONNECT FEED LINE TO PUMP AND NEW MAIN.
   C. OPEN GATE VALVE ON THE HYDRANT LEAD OF END HYDRANT; THEN OPEN HYDRANT FULLY. (NOTE: HYDRANT MUST ALWAYS BE EITHER FULLY OPENED OF FULLY CLOSED. THE HYDRANT FLOW MAY BE CONTROLLED BY THROTTLING THE GATE VALVE ON THE HYDRANT LEAD).
   D. START PUMPING CHLORINE–WATER SOLUTION INTO WATER MAIN; THEN OPEN UPSTREAM GATE VALVE SLOWLY UNTIL FLOW FROM HYDRANT IS PROPORTIONATE TO THE AMOUNT OF CHLORINE–WATER SOLUTION BEING PUMPED (30 PARTS WATER TO 1 PART CHLORINE– – WATER SOLUTION). IF A WATER METER IS NOT AVAILABLE, DISCHARGE RATE MAY BE DETERMINED BY USING EITHER A PITOT GAUGE IN THE DISCHARGE OR BY MEASURING THE TIME TO FILL A CONTAINER OF KNOWN VOLUME (SUCH AS A 55 GAL. BARREL). THE PUMPING RATE CAN BE DETERMINED BY MEASURING THE DROP IN LIQUID LEVEL IN A GIVEN LENGTH OF TIME. (NOTE: A STANDARD 55 GALLON STEEL BARREL CONTAINS 19.75 GAL/FT OF DEPTH OR 1.64 GAL/IN OF DEPTH).
   E. AFTER HYDRANT FLOW AND PUMPING RATE HAVE BEEN ADJUSTED, MAINTAIN A CONSTANT FLOW SO THAT CHLORINE CONCENTRATION IN THE MAIN IS MAINTAINED AT A MINIMUM OF 25 PPM.
   F. PERIODICALLY CHECK HYDRANT DISCHARGE FOR CHLORINE CONCENTRATION BY USING A FIELD CHLORINE RESIDUAL TEST KIT. MAINTAIN HYDRANT DISCHARGE AND PUMPING RATE UNTIL THE MINIMUM CHLORINE CONCENTRATION OF 25 PPM HAS BEEN ACHIEVED THROUGHOUT THE ENTIRE MAIN DISINFECTED.
   G. AFTER THE REQUIRED CONCENTRATION HAS BEEN ACHIEVED, ALL VALVES AND HYDRANTS ON THE MAIN LINE BETWEEN THE UPSTREAM GATE VALVE AND THE DISCHARGE HYDRANT SHALL BE OPERATED IN ORDER TO DISINFECT THE INTERNAL APPURTENANCES. DO NOT OPERATE ANY GATE VALVE THAT IS LOCATED ON A CONNECTION TO AN EXISTING WATER MAIN THAT IS IN SERVICE.
6. AFTER THE WATER SAMPLES HAVE BEEN TAKEN AND THE MINIMUM 25 PPM CHLORINE CONCENTRATION HAS BEEN VERIFIED, THE CONTRACTOR SHALL RETAIN THE CHLORINATED WATER IN THE MAIN BY THE FOLLOWING METHOD:
   A. FIRST, CLOSE THE UPSTREAM GATE VALVE.
   B. SECOND, CLOSE THE DISCHARGE HYDRANT.
   C. THIRD, SHUT OFF THE PUMP.
7. CHLORINATED WATER SHALL REMAIN IN THE MAIN FOR A MINIMUM OF 24 HOURS.
8. IF THE CHLORINE RESIDUAL IS LESS THAN 10 PPM AT TH END OF THE 24 HOURS, REPEAT SYSTEM TREATMENT.
9. ANY SECTION OF PIPE, VALVES OR FITTINGS, INCLUDING TAPPING SLEEVES AND VALVES WHICH ARE INSTALLED OUTSIDE THE LIMITS OF THE SYSTEM SUBJECTED TO THE CHLORINATION
   PROCEDURES SPECIFIED ABOVE, SHALL BE SPRAYED OR SWABBED WITH A 1% HYPOCHLORITE
   SOLUTION PRIOR TO INSTALLATION.
10. AFTER THE WATER SAMPLES HAVE BEEN TAKEN AND THE MINIMUM 10 PPM CHLORINE RESIDUAL HAS BEEN VERIFIED, CONTRACTOR SHALL THOROUGHLY FLUSH CHLORINATED WATER FROM THE MAIN BY THE FOLLOWING METHOD:
    A. FIRST, OPEN THE DISCHARGE HYDRANT.
    B. SECOND, OPEN THE UPSTREAM GATE VALVE.
    C. THIRD, OPEN ANY HYDRANTS ON THE MAIN LINE TO REMOVE ALL CHLORINATED WATER FROM THE HYDRANT LEADS.
11. FLUSH THE MAIN WITH POTABLE WATER IN SUCH A MANNER THAT DOES NOT ADVERSELY AFFECT FISH, PLANT, OR ANIMAL LIFE. PROVIDE FOR PROPER DISPOSAL OF HEAVY CHLORINATED WATER OR NEUTRALIZE IN ACCORDANCE WITH **APPENDIX C OF AWWA C651 LATEST EDITION.**
12. THE QUANTITY AND LOCATION OF WATER SAMPLES TO BE TAKEN SHALL BE IN ACCORDANCE WITH **AWWA C651 LATEST EDITION.**
13. WATER SAMPLES SHALL BE TAKEN BY THE CONTRACTOR IN STERILIZED BOTTLES.
14. ANALYZE WATER SAMPLES IN ACCORDANCE WITH STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER, **14TH EDITION, PUBLISHED BY AMERICAN WATER WORKS ASSN., 6666 WEST QUINCY AVE., DENVER, CO 80235.**
15. IF A BACTERIOLOGICAL TEST PROVES THE WATER QUALITY TO BE UNACCEPTABLE; REPEAT SYSTEM TREATMENT.
16. IF A BACTERIOLOGICAL TEST PROVES WATER TO BE ACCEPTABLE; REMOVE FEED LINE AND CORPORATION STOP. CORPORATION STOP WILL BE REPLACED WITH A THREADED BRASS PLUG UNLESS OTHERWISE DIRECTED BY ENGINEER.
17. SAMPLES MUST BE BACTERIOLOGICALLY SAFE AND THE MUNICAPALITY, ENGINEER & HEALTH DEPARTMANT MUST PROVIDE APPROVAL BEFORE THE WATERMAIN IS PLACED INTO SERVICE.

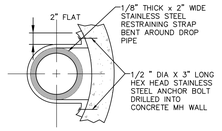
LaBella Powered by partnership.
4 British American Boulevard
Latham, NY 12110
518-439-8235
labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 018281

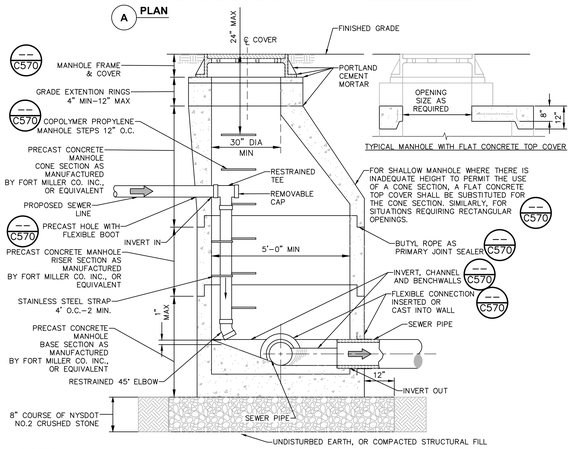


NOTE:
1. ALTERNATE INVERT CHANNEL PATTERN FOR 90° BEND
2 INLET AND OUTLET OF PIPE SHOWN ON PLAN VIEW OF BASE ARE NOT TYPICAL FOR ALL MANHOLES. REFER TO UTILITY PLAN FOR INLET AND OUTLET DIRECTION.



RESTRAINING STRAP

A PLAN



FOR SHALLOW MANHOLE WHERE THERE IS INADEQUATE HEIGHT TO PERMIT THE USE OF A CONE SECTION, A FLAT CONCRETE TOP COVER SHALL BE SUBSTITUTED FOR THE CONE SECTION. SIMILARLY, FOR SITUATIONS REQUIRING RECTANGULAR OPENINGS. C570

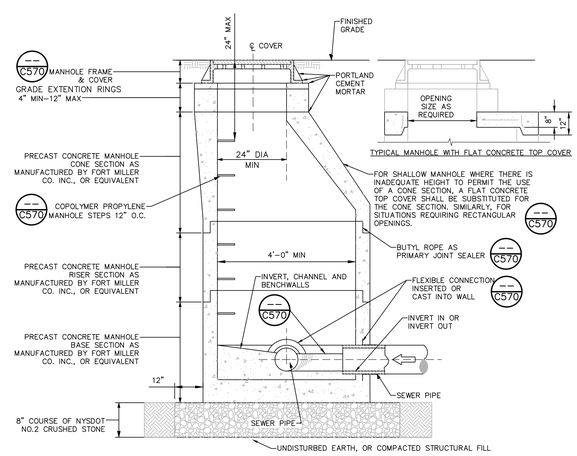
NOTES: USE ONLY WET–CAST UNITS. DRY–CAST NOT ACCEPTABLE

1.

CONE DIMENSIONS	
DIAM. OPENING	HEIGHT
30"	34"

2. INVERT SHALL BE FILLETED.
3. REINFORCEMENT FOR MANHOLE COMPONENTS SHALL BE DESIGNED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW. STRUCTURE SHALL BE DESIGNED FOR HS20–44 VEHICULAR LOADING PLUS 25% IMPACT.
4. CONCRETE TO TEST **4,500 PSI** AT 28 DAYS IN CONFORMANCE WITH **A.S.T.M. C–478.**
5. BENCH SHALL BE BUILT FOR FLOW BETWEEN INLET AND OUTLET.
6. EACH MANHOLE EXTERIOR SHALL RECEIVE TWO BITUMINOUS COATS.

PRECAST CONCRETE DROP MANHOLE-FORCE MAIN
SCALE: NOT TO SCALE



FOR SHALLOW MANHOLE WHERE THERE IS INADEQUATE HEIGHT TO PERMIT THE USE OF A CONE SECTION, A FLAT CONCRETE TOP COVER SHALL BE SUBSTITUTED FOR THE CONE SECTION. SIMILARLY, FOR SITUATIONS REQUIRING RECTANGULAR OPENINGS. C570

BUTYL ROPE AS PRIMARY JOINT SEALER C570
FLEXIBLE CONNECTION INSERTED OR CAST INTO WALL C570
INVERT IN OR INVERT OUT
SEWER PIPE

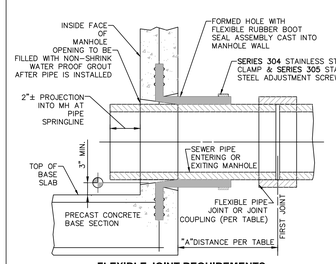
NOTES: USE ONLY WET–CAST UNITS. DRY–CAST NOT ACCEPTABLE

1.

CONE DIMENSIONS	
DIAM. OPENING	HEIGHT
24"	24" OR 42"
30"	34"

2. INVERT SHALL BE FILLETED.
3. REINFORCEMENT FOR MANHOLE COMPONENTS SHALL BE DESIGNED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW. STRUCTURE SHALL BE DESIGNED FOR HS20–44 VEHICULAR LOADING PLUS 25% IMPACT.
4. CONCRETE TO TEST **4,500 PSI** AT 28 DAYS IN CONFORMANCE WITH **A.S.T.M. C–478.**
5. BENCH SHALL BE BUILT FOR FLOW BETWEEN INLET AND OUTLET.
6. EACH MANHOLE EXTERIOR SHALL RECEIVE TWO BITUMINOUS COATS.

PRECAST CONCRETE MANHOLE
SCALE: NOT TO SCALE

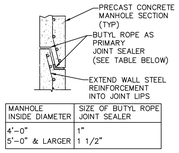


FLEXIBLE JOINT REQUIREMENTS

SEWER PIPE TYPE	FLEXIBLE JOINT TYPE IN & OUT	"A" DISTANCE (FEET)
DUCTILE IRON	STD RUBBER GASKET PIPE JOINT ONLY	10' MAX
PVC	STD RUBBER GASKET PIPE JOINT ONLY	3' MAX

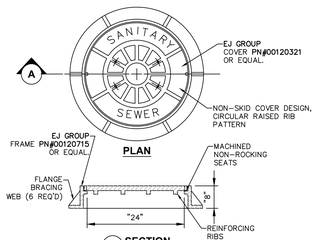
NOTE:
REFERENCE MANHOLE DETAIL(S) FOR REQUIRED INVERT CHANNEL CONFIGURATION.

PIPE CONNECTION TO MANHOLE- FLEXIBLE RUBBER BOOT CAST INTO MANHOLE WALL
SCALE: NOT TO SCALE



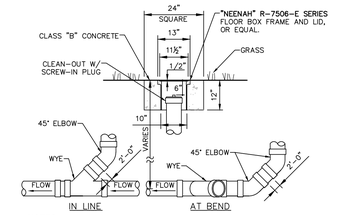
MANHOLE INSIDE DIAMETER	SIZE OF BUTYL ROPE JOINT SEALER
4'–0"	1"
5'–0" & LARGER	1 1/2"

MANHOLE JOINT
SCALE: NOT TO SCALE



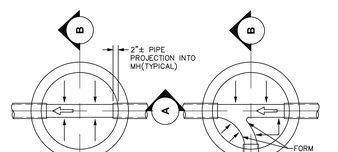
NOTE:
1. FRAME AND COVER SHALL BE DESIGNED FOR HS20–44 VEHICLE LOADING AND 25% IMPACT.

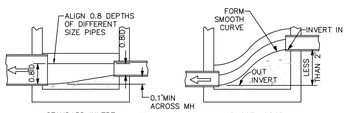
HEAVY DUTY STANDARD CAST IRON MH COVER
SCALE: NOT TO SCALE

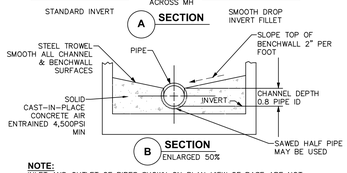


NOTES:
1. SEWER PIPE FITTINGS TO BE **ASTM D–3033 OR D–3034** SDR–35.
2. TO BE USED FOR GRAVITY PORTION OF SANITARY SYSTEM AS WELL AS THE STORM ROOF DRAINAGE SYSTEM.

CLEAN OUT - NON TRAFFIC AREAS
SCALE: NOT TO SCALE







NOTE:
INLET AND OUTLET OF PIPES SHOWN ON PLAN VIEW OF BASE ARE NOT NECESSARILY TYPICAL OF ALL MANHOLES. REFER TO UTILITY PLAN FOR INLET AND OUTLET DIRECTIONS.

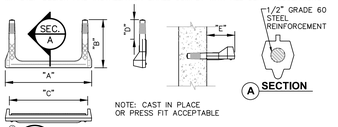
INVERT, CHANNEL AND BENCHWALLS
SCALE: NOT TO SCALE

ACCEPTABLE MANHOLE STEPS

MANUFACTURER	PATTERN NUMBER	"A" STEP WIDTH	"B" LEG LENGTH	"C" RUNG CLEAR	"D" EMBED–MENT	"E" RUNG CLEAR
M.A. INDUSTRIES INC*	PS2–PF	14 3/4	9 1/4	13 3/4	3 3/8	5 7/8
M.A. INDUSTRIES INC*	PS2–PFS	14 3/4	8 1/4	13 3/4	3 3/8	4 7/8

* OR EQUIVALENT

MH STEP DESIGN AND INSTALLATION SHALL COMPLY WITH ALL OSHA REGULATIONS



COPOLYMER POLYPROPYLENE MH STEP
SCALE: NOT TO SCALE

MANHOLES AND OTHER BELOW GRADE STRUCTURES:

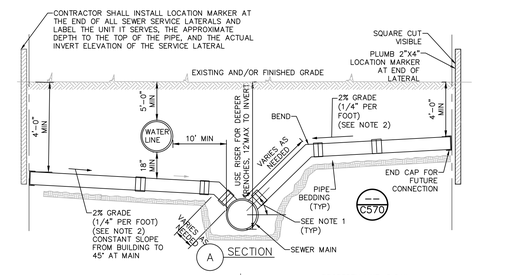
1. STRUCTURAL DESIGN FOR MANHOLES AND OTHER BELOW–GRADE PRECAST CONCRETE STRUCTURES:
A. NON–TRAFFIC LOADS:
BELOW GRADE PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED TO WITHSTAND LOADS IMPOSED BY STRUCTURE WEIGHT, EARTH COVER, LATERAL PRESSURE FROM EARTH AND GROUND WATER, AND LIVE LOADS SUCH AS PEDESTRIAN TRAFFIC OR MACHINERY ON OR ABOVE THE STRUCTURE; AND
B. TRAFFIC LOADS:
BELOW GRADE PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED TO ALSO WITHSTAND TRAFFIC LOADS CREATED BY AN HS20–44 TRUCK PLUS 25% IMPACT AS DEFINED IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) DESIGN STANDARDS.

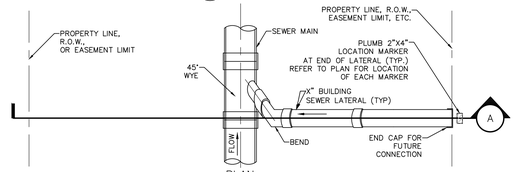
2. MATERIAL WHICH SHALL BE UTILIZED IN THE CONSTRUCTION OF PRECAST CONCRETE STRUCTURES:
CEMENT: ASTM C–150, TYPES **I,II,III,VI**
SAND: NYSDOT STD. SPEC. **SECTION NO. 703–0** CONCRETE SAND
STONE: NYSDOT STD. SPEC. **SECTION NO. 703–02** COARSE AGGREGATE
STEEL BAR REINFORCEMENT: **ASTM A615,** GRADE 60
WIRE MESH REINFORCEMENT: **ASTM A185** PLAIN
CONCRETE STRENGTH (28 DAY): **4,500** PSI (F'C)
ENTRAINED AIR: 5% MIN.

3. ALL CASTINGS (FRAMES AND COVERS, FRAMES AND GRATES, ETC.) FOR USE IN CONJUNCTION WITH MANHOLES AND OTHER BELOW GRADE STRUCTURES SHALL BE MANUFACTURED FROM GRAY IRON OR DUCTILE IRON. GRAY IRON SHALL CONFORM WITH ASTM A 48, CLASS 30B AND DUCTILE IRON SHALL CONFORM WITH **ASTM A 536** AND BE OF A GRADE APPROPRIATE TO ITS INTENDED USE.

4. ALL CASTINGS (FRAMES AND COVERS, FRAMES AND GRATES, ETC.) FOR USE IN CONJUNCTION WITH MANHOLES AND OTHER BELOW GRADE STRUCTURES SHALL BE DESIGNED TO WITHSTAND AASHTO HS 20–44 HIGHWAY LOADING PLUS 25% IMPACT.

5. ALL ASTM REFERENCES SHALL BE FOR THE LATEST ACTIVE STANDARD.





NOTES:
1. OPTIMUM ANGLE IS 45°. THE ENGINEER MAY CALL FOR OTHER ANGLES TO SUIT JOB CONDITIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE SEWER LATERAL AS CONFIGURED AT THE SLOPE SPECIFIED, AND FOR ESTABLISHING THE ELEVATION AT THE TERMINATION POINT OF THE LATERAL, IF EXISTING UTILITIES OR OTHER FEATURES PREVENT INSTALLATION IN THAT MANNER. THE ENGINEER SHALL BE CONSULTED PRIOR TO INSTALLATION.

STANDARD SEWER SERVICE CONNECTION PLAN
SCALE: NOT TO SCALE

TESTING GRAVITY SEWER SYSTEM:

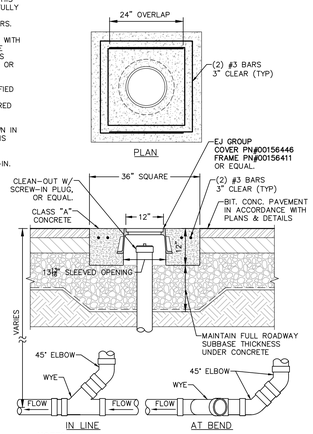
1. CONTRACTOR SHALL INSPECT AND TEST THE INSTALLATIONS AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION WHEN WORK IS READY FOR TESTING. AFTER ALL TESTS HAVE BEEN PERFORMED, EVIDENCE OF COMPLIANCE SHALL BE FORWARDED TO OWNER/ENGINEER AND THE AUTHORITY HAVING JURISDICTION PRIOR TO ACCEPTANCE.
2. THE CONTRACTOR SHALL TEST AND INSPECT FOR ALIGNMENT AND INFILTRATION AND EXFILTRATION OF ALL SANITARY SEWERS AND RELATED UTILITY STRUCTURES. INFILTRATION OR EXFILTRATION OF THE SANITARY SEWER SYSTEM SHALL NOT EXCEED 0.80 GAL/INCH OF INTERNAL PIPE DIAMETER PER 1000' OF PIPELINE PER HOUR WITH A MINIMUM HYDROSTATIC HEAD AT THE TOP OF THE PIPE OF 2 FT, OR AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. WHEN INFILTRATION OR EXFILTRATION OCCURS IN EXCESS OF ALLOWABLE AMOUNT, DEFECTS SHALL BE LOCATED AND REPAIRED.
3. INFILTRATION LEAKAGE TESTS SHALL BE RUN ON EACH SINGLE MANHOLE–TO–MANHOLE SECTION, OR REACH, INDEPENDENTLY OF ALL OTHER MANHOLE–TO–MANHOLE SECTIONS. A PIPELINE SECTION UNDER TEST SHALL INCLUDE ALL PIPE AND FITTINGS BETWEEN THE TWO MANHOLES PLUS THE UPSTREAM MANHOLE.
4. EACH MANHOLE–TO–MANHOLE SECTION SHALL BE REJECTED OR ACCEPTED BASED ONLY ON RESULTS OF ITS OWN INDEPENDENT SECTION TEST AND NOT ON RESULTS OF ANY ONE TEST RUN SIMULTANEOUSLY OVER MORE THAN ONE CONSECUTIVE MANHOLE–TO–MANHOLE SECTION. THE ONLY EXCEPTION ALLOWED: ACCEPTING SEVERAL CONSECUTIVE MANHOLE–TO–MANHOLE SECTIONS BASED ON ONE COMBINED INFILTRATION TEST INDICATING ZERO INFILTRATION.
5. INFILTRATION TESTS SHALL BE MADE BY INSTALLING A FLOW MEASURING DEVICE IN THE DOWNSTREAM MANHOLE OF SECTION BEING TESTED. TEST DURATION SHALL BE 24 HRS, OR FOR SHORTER PERIOD, PROVIDED A STEADY STATE FLOW CONDITION HAS BEEN ACHIEVED IN THE TEST PERIOD, AND RESULTS PROJECTED TO A 24 HR PERIOD.
6. EXFILTRATION TESTS SHALL BE RUN ON EACH SINGLE MANHOLE–TO–MANHOLE SECTION, OR REACH, INDEPENDENTLY OF ALL OTHER MANHOLE–TO–MANHOLE SECTIONS. A PIPELINE SECTION UNDER TEST SHALL INCLUDE ALL PIPE AND FITTINGS BETWEEN THE TWO MAN–HOLES PLUS THE UPSTREAM MANHOLE.
7. EXFILTRATION TESTS SHALL BE MADE BY MEASURING THE DROP IN WATER ELEVATION IN THE UPSTREAM MANHOLE 24 HRS AFTER INITIAL WATER LEVEL IS RECORDED. INITIAL WATER LEVEL IN UPSTREAM MANHOLE SHALL BE 2 FEET HIGHER THAN EITHER THE TOP OF PIPE OR GROUNDWATER ELEVATION AT THE DOWNSTREAM MANHOLE. ANY MANHOLE–TO–MANHOLE SECTION UNDERGOING AN EXFILTRATION TEST MUST HAVE THE NEXT ADJACENT SECTIONS, BOTH UPSTREAM AND DOWNSTREAM, DRY AND NOT UNDER TEST. THIS PROCEDURE MINIMIZES HYDROSTATIC PRESSURE PLACED ON STOPPERS, PLUGS, AND END CAPS.
8. LOW PRESSURE AIR TESTING MAY BE ALLOWED IN LIEU OF EXFILTRATION TESTS ONLY, WHEN SO ALLOWED, TEST SHALL BE PERFORMED UNDER DIRECTION OF ENGINEER ACCORDING TO ASTM F1417. LOW PRESSURE AIR TEST IS A COMPARISON OF THE MEASURED TIME NECESSARY FOR ONE (1) PSIG PRESSURE DROP TO OCCUR, IF AT ALL, WITH MINIMUM ALLOWABLE TIME FOR THAT PRESSURE DROP TO OCCUR DETERMINED BY METHODS INDICATED IN ASTM F1417. IF THE ONE (1) PSIG PRESSURE DROP OCCURS FASTER THAN ALLOWABLE TIME, SECTION IS UNACCEPTABLE.
9. AN AIR TEST SHALL NOT BE RUN UNTIL SECTION OF LINE TO BE TESTED HAS BEEN CLEANED OF ALL FOREIGN MATERIAL BY FLUSHING AND HAS BEEN VISUALLY INSPECTED AND APPROVED BY THE ENGINEER. CERTAIN PIPE MATERIALS PRODUCE MORE CONSISTENT RESULTS WHEN INTERIOR OF PIPE IS WETTED PRIOR TO TESTING.
10. WHERE AIR–TESTING IS TO BE USED FOR LINE ACCEPTANCE, CORROBORATIVE HYDROSTATIC TESTING SHALL BE PERFORMED ON SEWER INSTALLATION OF THE SAME PIPE SIZE, MATERIAL, AND CONDITIONS OF INSTALLATION. SEWER SECTIONS WHICH INDICATE RATES OF AIR LOSS PER UNIT OF SURFACE AREA WHICH MOST NEARLY APPROXIMATE RATE FOR PIPELINE ACCEPTANCE SHOULD BE SELECTED FOR CORROBORATIVE TESTS. AT LEAST 3 SECTIONS ARE TO BE SO TESTED. THE PURPOSE OF THESE CORROBORATIVE TESTS IS TO PERMIT A REASONABLE ASSUMPTION THAT, IF THESE 3 TEST SECTIONS MEET THE HYDROSTATIC TEST, THE BALANCE OF PROJECT ALSO MEETS OR EXCEEDS THESE REQUIREMENTS. IF AIR TEST IS NOT SUPPORTED BY ACCEPTABLE CORROBORATIVE HYDROSTATIC TESTS, COMPLETE HYDRO–STATIC TESTING OF SEWER LINES SHALL BE REQUIRED.
11. WHERE FLEXIBLE PIPE IS USED, CONTRACTOR SHALL TEST ALL MAINLINE PIPE FOR MAXIMUM ALLOWABLE DEFLECTION OF 5% OF OUTSIDE DIAMETER. DEFLECTION TESTS SHALL BE PERFORMED USING A CIRCULAR STEEL BALL ON SLED 1/16–INCH IN DIAMETER SMALLER THAN ALLOWABLE INSIDE DIAMETER OF FLEXIBLE PIPE WHEN DEFLECTED A MAXIMUM OF 5% OF OUTSIDE DIAMETER. DEFLECTION TESTING OF ANY PIPE SHALL BE DONE NO SOONER THAN 30 DAYS AFTER DATE OF INSTALLATION OF PIPE SECTION UNLESS WRITTEN EXCEPTION.
12. SEWERS SHALL BE LAID WITH STRAIGHT ALIGNMENT BETWEEN MANHOLES. STRAIGHT ALIGNMENT SHALL BE CHECKED EITHER USING A LASER BEAM OR LAMPING. TESTING SHALL COMPLY WITH REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
13. MANHOLES, WHICH CANNOT BE PROPERLY AIR TESTED, SHOULD BE VISUALLY INSPECTED AND LEAKAGE–TESTED USING INTERNAL OR EXTERNAL HYDROSTATIC PRESSURE. LEAKAGE TESTING SHALL COMPLY WITH REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
14. IN AREAS WHERE CONVENTIONAL TESTING IS IMPRACTICAL (I.E. AREAS DESIGNATED BY ENGINEER WHERE EXISTING SERVICES ARE TIED INTO NEW LINE IMMEDIATELY AND ANY BLOCKAGE COULD RESULT IN HEALTH PROBLEMS) NO LINES SHALL BE BACKFILLED UNTIL EACH PIPE SECTION AND CONNECTION IS INSPECTED AND APPROVED.
15. WHERE SEWERS ARE CONSTRUCTED OF PRESSURE–RATED PIPE AND INSTALLED WITH LESS THAN 18 INCHES VERTICAL SEPARATION FROM EXISTING OR PROPOSED WATER MAINS, SEWERS SHALL BE HYDROSTATICALLY TESTED AT 150 PSI TO ASSURE WATER TIGHTNESS. HYDROSTATIC ACCEPTANCE TESTS SHALL BE CONDUCTED AS SPECIFIED FOR TESTING WATER MAINS, EXCEPT THAT TESTING MAY BE PERFORMED WITH THE PIPE SECTION PARTIALLY BACK–FILLED.
16. IF THE ALLOWABLE RATE OF INFILTRATION, EXFILTRATION, OR AIR LEAKAGE IS EXCEEDED, THE CONTRACTOR SHALL LOCATE POINTS OF EXCESSIVE LEAKAGE AND SHALL PROMPTLY CORRECT, REPAIR, AND BRING SYSTEM UP TO THE STANDARD. COSTS OF ALL SUCH REPAIRS AND CORRECTIVE MEASURES, INCLUDING COSTS OF REPEATED TESTS, SHALL BE BORN BY CONTRACTOR, THE SEWER LINE SECTION (INCLUDING MANHOLES AND BUILDING SERVICES) UNDER TEST SHALL NOT BE ACCEPTED UNTIL THESE TEST CRITERIA ARE MET.

FORCE MAIN TESTING:

1. THE COMPLETE SEWAGE FORCE MAIN INCLUDING VALVES, FITTINGS CONNECTIONS TO PUMPS AND OTHER PIPELINE SYSTEMS SHALL BE TESTED FOR LEAKAGE.
2. THE SYSTEM SHALL BE PRESSURIZED TO 1.5 TIMES THE PIPE WORKING PRESSURE AT THE LOWEST POINT OF THE MAIN OR 100 PSI, WHICHEVER IS GREATER. AFTER THIS PRESSURE, ±5 PSI, HAS BEEN MAINTAINED SUCCESSFULLY FOR ONE HOUR, THE LEAKAGE TEST SHALL BE PERFORMED FOR A PERIOD OF NO LESS THAN 2 HOURS. HYDROSTATIC TESTS SHALL BE PERFORMED AND SUCCESSFUL TEST RESULTS DERIVED IN ACCORDANCE WITH AWWA C 600–05, SECTION 5. IN NO CASE SHALL THE TEST PRESSURE EXCEED THE DESIGN PRESSURE LIMITS FOR ANY PIPE, THRUST RESTRAINT, FITTINGS, VALVES OR OTHER APPURTENANCE OF THE TEST SECTION.
3. IF THE LEAKAGE IN THE SYSTEM EXCEEDS THE SPECIFIED AMOUNT, MAKE ANY REPAIRS OR REPLACEMENTS NECESSARY TO REDUCE THE LEAKAGE TO THE REQUIRED LIMITS AND RETEST THE SYSTEM.

THE MAXIMUM ALLOWABLE LEAKAGE SHALL BE AS SHOWN IN THE FOLLOWING TABLE: ALLOWABLE LEAKAGE IN GALLONS PER HOUR 1000 FT OF PIPELINE (GPH).

AVG. TEST PRESSURE PSI	NOMINAL PIPE DIAMETER–IN. 2	4	6
450	0.29	0.57	0.86
400	0.27	0.54	0.81
350	0.26	0.51	0.76
300	0.24	0.47	0.70
275	0.23	0.45	0.67
250	0.22	0.43	0.64
225	0.21	0.41	0.61
200	0.19	0.38	0.57
175	0.18	0.36	0.54
150	0.17	0.33	0.50
125	0.15	0.30	0.45
100	0.14	0.27	0.41



NOTES:
1. PIPE AND FITTINGS TO MATCH SERVICE LINE PER PLAN.
2. TO BE USED FOR GRAVITY PORTION OF SANITARY SYSTEM AS WELL AS THE STORM DRAINAGE SYSTEM.

CLEAN OUT - TRAFFIC AREAS
SCALE: NOT TO SCALE

LaBella
Powered by partnership.

4 British American Boulevard
Latham, NY 12110
518-439-8235

labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 018281
LAND SURVEYING: 017876
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

NO.	DATE:	DESCRIPTION:
Revisions		

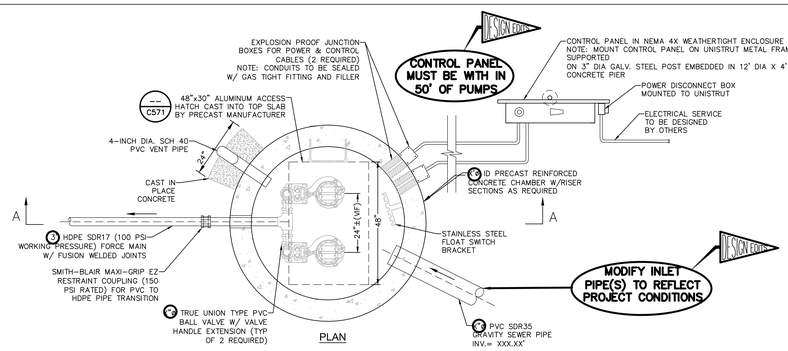
PROJECT NUMBER: 2230414
DRAWN BY:
REVIEWED BY:
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

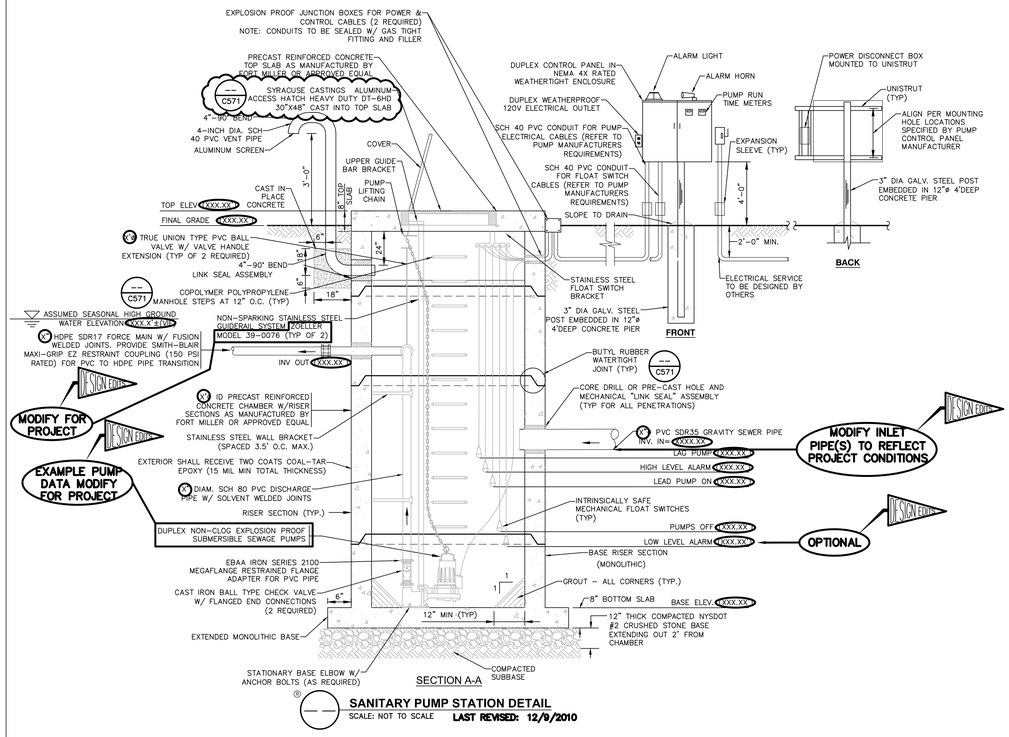
SANITARY SEWER SYSTEM DETAIL

DRAWING NUMBER:

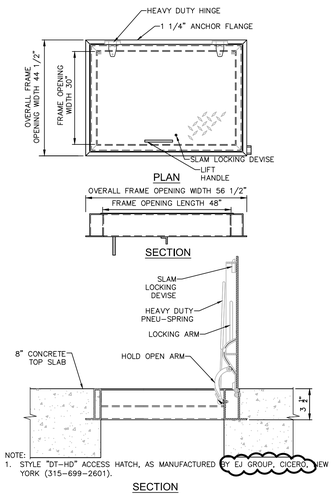
C570

VERSION: 29.1
11/4/2024 12:27 PM





SANITARY PUMP STATION DETAIL
SCALE: NOT TO SCALE **LAST REVISED: 12/9/2010**



NOTE:
1. STYLE "DT-HD" ACCESS HATCH, AS MANUFACTURED BY EJ GROUP, CICERO, NEW YORK (315-699-2601).

SYRACUSE CASTINGS ALUMINUM ACCESS HATCH
HEAVY DUTY DT-6HD 30"X48" CAST INTO TOP SLAB
SCALE: NOT TO SCALE **LAST REVISED: 10/12/09**

PUMP STATION DATA: DATE: 3/12/09

PUMP STATION:
FORCE MAIN HIGHEST ELEVATION = X
LOW WATER ELEVATION = X
STATIC HEAD , Hs = X
FM LENGTH = X
SIZE OF FORCE MAIN = X

PUMPS:
MANUFACTURES MODEL NUMBER = **ZOELLER MODEL NX292 W/ 3"** DIAM. NPT VERTICAL DISCHARGE
PUMPING RATE = XXX GPM @ XXX THD
DISCHARGING PIPE = X
SOLIDS HANDLING CAPACITY = X

MOTORS:
MAX MOTOR HORSEPOWER= XHP
VOLTAGE= 230V
PHASE = 1PH
RPM = 1725

WET WELL DATA:
DIAMETER OF WET WELL = X
VOLUME (GAL) X, WATER DEPTH X, BETWEEN LEAD PUMP ON & PUMPS OFF
BETWEEN LEAD PUMP ON & PUMPS STA INLET
(ADDITIONAL STORAGE BEYOND OPERATING RANGE)

DRAWDOWN (DESIGN AVERAGE FLOW) = X MIN.
CYCLE TIME (DESIGN AVERAGE FLOW) = $\frac{V}{Qo-Qi} \div \frac{X}{O}$ = X MIN

NOTES:
1. ELECTRICAL SERVICE DESIGN FOR THE PUMP STATION IS BY OTHERS.
2. EMERGENCY POWER SUPPLY DESIGN TO THE PUMP STATION IS BY OTHERS

CONFIRM NEED FOR STAND BY POWER

PUMP STATION NOTES:

1. ALL PRE CAST CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE A.S.T.M. STANDARDS. CONCRETE TO TEST 4000 PSI AT 28 DAYS.
2. CONTRACTOR SHALL SUBMIT PRE CAST CONCRETE CHAMBER SHOP DRAWINGS INDICATING PERTINENT DIMENSIONING, REINFORCEMENT SIZES, SPACING, LOCATIONS AND QUANTITIES. CHAMBER SHALL BE DESIGNED TO WITHSTAND TRAFFIC LOADS CREATED BY AN HS20-44 TRUCK PLUS 25% IMPACT AS DEFINED IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) DESIGN STANDARDS.
3. AN ALUMINUM WARNING PLATE SHALL BE RIVETED OR OTHERWISE PERMANENTLY ATTACHED TO THE CHAMBER. THE PLATE SHALL BE A MINIMUM OF 12" X 12" AND SHALL BE ENGRAVED WITH THE FOLLOWING LANGUAGE: "WARNING – CONFINED SPACE – ENTRY PROHIBITED WITHOUT AUTHORIZATION".
4. ALL MOUNTING HARDWARE INCLUDING BOLTS, NUTS, ANGLE BRACKETS AND OTHER MISC. ITEMS LOCATED WITHIN THE PUMP STATION SHALL BE OF NON-CORROSIVE CONST. (I.E.-STAINLESS STL., ALUM., GALV.)
5. ALL INSTALLATION SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION.
6. PROVIDE ADDITIONAL CONDUITS FOR CONTROL WIRING AS PER MANUFACTURER'S RECOMMENDATIONS. ALL CONDUITS SHALL BE GAS TIGHT SEALED.
7. MANHOLE STEPS SHALL BE ORIENTATED SUCH THAT ACCESS TO THE PUMP STATION WILL NOT BE RESTRICTED. STEPS SHALL BE COPOLYMER POLYPROPYLENE MANHOLE STEPS 12" O.C.
8. PROJECT ENGINEER AND OWNER'S REPRESENTATIVE SHALL BE NOTIFIED 72-HOURS PRIOR TO START UP AND TESTING OF THE STATION.
9. THE PUMP STATION SHALL BE PROVIDED WITH DUAL EXPLOSION PROOF SUBMERSIBLE NON-CLOG SEWAGE PUMPS INCLUDING DUPLEX CONTROL PANEL. PUMPS SHALL OPERATE ALTERNATIVELY IN A LEAD-LAG SEQUENCE ON EVERY PUMP CYCLE.
10. THE CONTROL PANEL SHALL INCLUDE THE FOLLOWING FEATURES AND ACCESSORIES:
    - NEMA 4X AND UL RATED ENCLOSURE W/ LOCKABLE HATCH
    - INTRINSICALLY SAFE RELAYS
    - HAND-OFF-AUTO (HOA) TOGGLE SWITCH FOR EACH PUMP
    - LEAD/LAG ALTERNATING CIRCUIT
    - INTRINSICALLY SAFE MECHANICAL FLOAT SWITCHES
    - TOP MOUNTED ALARM LIGHT
    - ALARM HORN WITH SILENCE SWITCH – MANUAL RESET
    - AUXILIARY DRY CONTACTS FOR ALARMS
    - CIRCUIT BREAKER PUMP DISCONNECT
    - GREEN RUN PILOT LIGHT FOR EACH PUMP
    - SEAL FAIL INDICATOR LIGHTS
    - THERMAL OVERLOAD PROTECTION

    IN ADDITION THE CONTROL PANEL SHALL INCLUDE INDIVIDUAL PUMP RUN TIME METERS AND ONE WEATHER PROOF 120V DUAL GFI RECEPTACLE OUTLET.
11. CONTRACTOR SHALL PROVIDE A TRIPOD & ELECTRICAL WINCH TO OWNER FOR PUMP REMOVAL.
12. THE FOLLOWING ALARMS SHALL BE RELAYED TO AN ON-SITE CENTRAL LOCATION OR TO A 24-HOUR ON CALL SERVICE AT THE DIRECTION OF OWNER:
    -PUMP FAILURE & MALFUNCTION/START LAG PUMP
    -HIGH WATER/START LAG PUMP
    -LOW WATER LEVEL
    -COMMUNICATION LINK FAILURE
13. PUMP STATION SHALL BE CONNECTED TO AN ELECTRICAL CIRCUIT THAT IS CONNECTED TO THE ON-SITE EMERGENCY GENERATOR TO ASSURE PUMP STATION OPERATION DURING POWER FAILURE.

PUMP STATION START-UP INSTRUCTIONS:

1. STARTING SYSTEM
   A. THE CONTRACTOR SHALL PROVIDE THREE (3) DAYS NOTIFICATION TO THE OWNER REPRESENTATIVES, PROJECT ENGINEER, AND BUILDING INSPECTOR, PRIOR TO START-UP OF THE PUMP STATION.
   B. THE CONTRACTOR SHALL ENSURE THAT EACH PIECE OF EQUIPMENT AND COMPONENT OF THE SYSTEM IS READY FOR OPERATION.
   C. THE CONTRACTOR SHALL EXECUTE START-UP UNDER THE SUPERVISION OF OWNER REPRESENTATIVES, PROJECT ENGINEER, BUILDING INSPECTOR, AND MUNICIPALITY HAVING JURISDICTION.
   D. THE CONTRACTOR SHALL SUBMIT A WRITTEN REPORT INDICATING THAT EACH PIECE OF EQUIPMENT AND COMPONENT OF THE SYSTEM HAS BEEN PROPERLY INSTALLED AND IS FUNCTIONING CORRECTLY.
2. DEMONSTRATIONS AND INSTRUCTIONS
   A. THE CONTRACTOR SHALL DEMONSTRATE OPERATION AND MAINTENANCE OF THE SYSTEM TO OWNER TWO (2) WEEKS PRIOR TO DATE OF PROJECT COMPLETION OR ISSUANCE OF CERTIFICATE OF OCCUPANCY.

   THE CONTRACTOR SHALL DEMONSTRATE START-UP, OPERATION, CONTROL, ADJUSTMENT, TROUBLE-SHOOTING, SERVICING, MAINTENANCE, AND SHUTDOWN OF EACH ITEM OF EQUIPMENT.
3. TESTING, ADJUSTING, AND BALANCING
   A. THE CONTRACTOR SHALL PROVIDE ALL TESTING, ADJUSTING, AND BALANCING OF SYSTEM.
   B. THE CONTRACTOR SHALL CLEAN, FLUSH, PRESSURE LEAK TEST ALL THE PIPING AND EQUIPMENT ACCORDING TO ACCEPTED STANDARDS.
4. OPERATION AND MAINTENANCE DATA
   A. THE CONTRACTOR SHALL SUBMIT THREE (3) SETS PRIOR TO PROJECT COMPLETION, BOUND IN 8-1/2 X 11 INCH TEXT PAGES, THREE (3) D SIDE RING BINDERS WITH DURABLE PLASTIC COVERS.
   B. A BINDER COVER SHALL BE PROVIDED WITH PRINTED TITLE "OPERATION AND MAINTENANCE INSTRUCTIONS" AND TITLE OF PROJECT.
   C. THE BINDER CONTENTS SHALL BE INTERNALLY SUBDIVIDED WITH PERMANENT PAGE DIVIDERS, LOGICALLY ORGANIZED, WITH TAB TITLES CLEARLY PRINTED UNDER REINFORCED LAMINATED PLASTIC TABS.
   D. AS A MINIMUM THE BINDER SHALL CONTAIN THE FOLLOWING:
      1. PART 1: DIRECTORY, LISTING NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF ENGINEER, CONTRACTOR, SUBCONTRACTORS, AND MAJOR EQUIPMENT SUPPLIERS.
      2. PART 2: COPY OF PLANS WITH ANNOTATED CHANGES IF ANY, SPECIFICATIONS AND ENGINEERING REPORT, COPY OF ALL APPROVED SHOP DRAWINGS, INSTALLATION MANUALS, OPERATION AND MAINTENANCE MANUALS, ARRANGED BY SYSTEM'S COMPONENTS.
      3. PART 3: PROJECT DOCUMENTS, MANUFACTURER'S AND SUPPLIER'S WARRANTIES AND CERTIFICATES.

PUMP STATION WET WELL TESTING:

1. PUMP STATION WET WELL SHALL BE TESTED FOR LEAKAGE AND ALL LEAKS SHALL BE REPAIRED IN A MANNER SUBJECT TO THE ENGINEER'S APPROVAL. A HYDROSTATIC SHALL BE PERFORMED IN CONFORMANCE WITH THE FOLLOWING REQUIREMENTS.
2. HYDROSTATIC TESTING
   - UNLESS OTHERWISE APPROVED, CONDUCT ALL TESTING IN THE PRESENCE OF THE ENGINEER.
   - NOTIFY THE ENGINEER 48 HOURS IN ADVANCE OF TESTING.
   - THE STRUCTURE SHALL BE COMPLETELY PLUGGED AND FILLED WITH WATER AND ALLOWED TO STAND FOR TWO (2) HOURS PRIOR TO ANY READING IN ORDER TO PERMIT ABSORPTION BY THE WET WELL STRUCTURE.
   - AFTER TWO (2) HOURS, A READING SHALL BE TAKEN AND THE STRUCTURE ALLOWED TO STAND FOR 24 HOURS.
   - THE DROP IN WATER LEVEL AFTER 24 HOURS SHALL BE NOTED.
   - LEAKAGE IN THE WET WELL SHALL NOT EXCEED 0.6 GALLONS/FT MANHOLE DIAMETER/FT OF MANHOLE DEPTH.
   - WET WELL FAILING THE TEST SHALL BE REPAIRED AND RETESTED TO THE SATISFACTION OF THE ENGINEER.
   - THE CONTRACTOR SHALL COORDINATE AND BEAR ALL COSTS FOR PROVISION AND DISPOSAL OF WATER NECESSARY FOR THE LEAK TESTING OF THE WET WELL.

WORK IN PROGRESS

LaBella
Powered by partnership.
4 British American Boulevard
Latham, NY 12110
518-439-8235
labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 018281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

NO:	DATE:	DESCRIPTION:
Revisions		

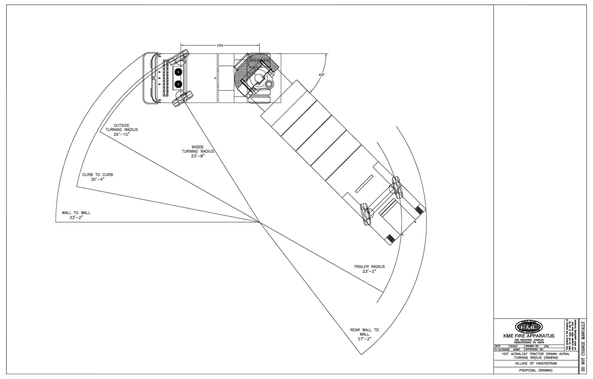
PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

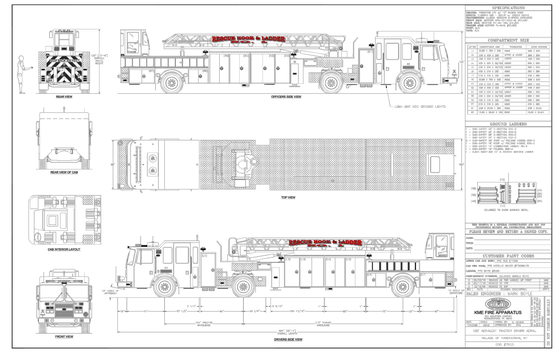
PUMP STATION DETAILS & NOTES

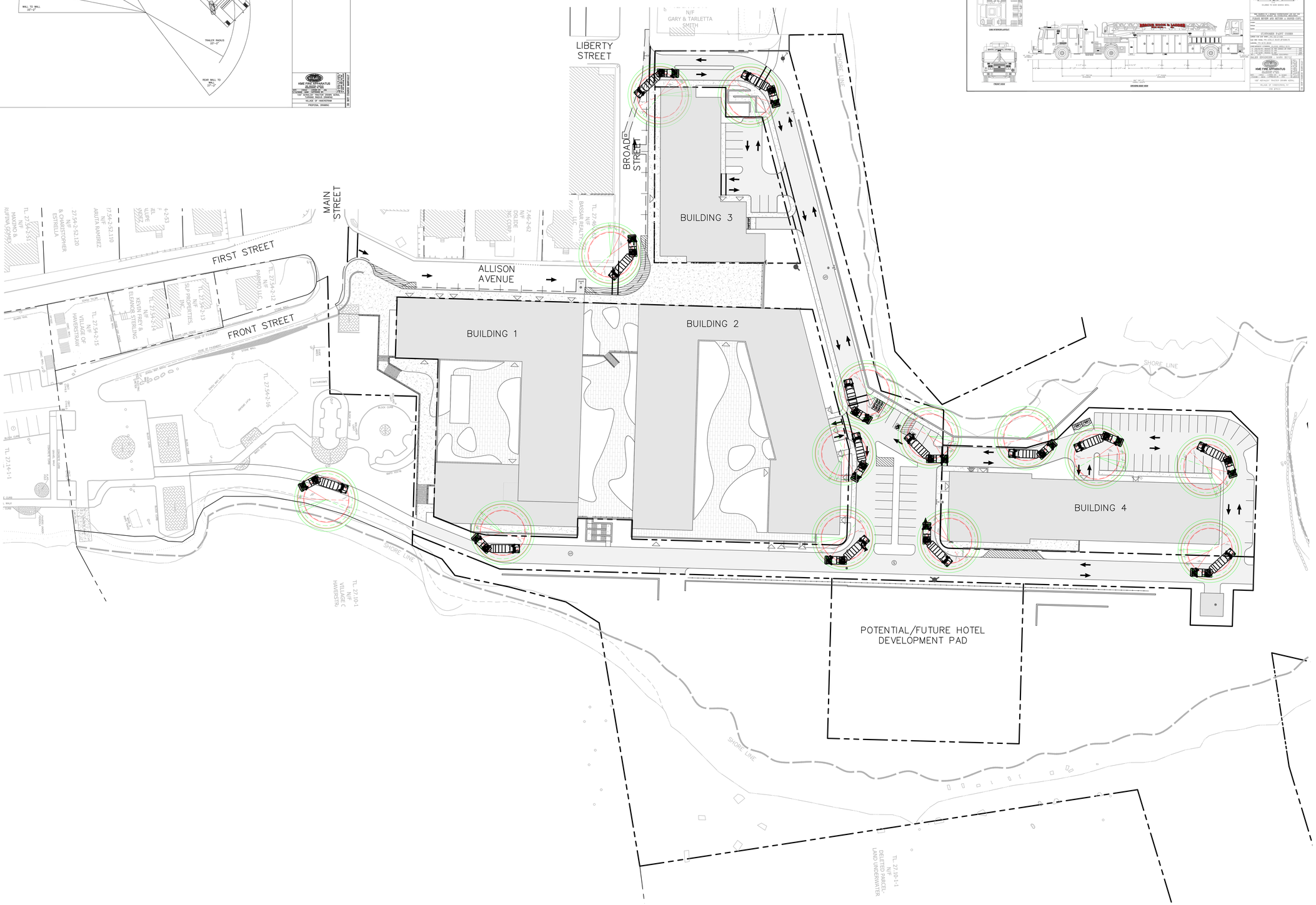
DRAWING NUMBER:

C574

VERSION 23.1
11/4/2024 12:27 PM







1 FIG1 EMERGENCY VEHICLE TURNING MOVEMENT PLAN
SCALE: 1" = 40'

VERSION: 20.1
11/4/2024 11:36 AM

LaBella Powered by partnership.
4 British American Boulevard
Latham, NY 12110
518-439-8235
labellapc.com

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 016281
LAND SURVEYING: 017676
GEOLOGICAL: 018750

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2023 LaBella Associates

The Haverstraw Community Chair Factory LLC

HAVERSTRAW CHAIR FACTORY
VILLAGE OF HAVERSTRAW, NY

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2230414
DRAWN BY: SF
REVIEWED BY: REK
ISSUED FOR: REVIEW
DATE: 11/1/2024
DRAWING NAME:

EMERGENCY VEHICLE TURNING MOVEMENT PLAN

DRAWING NUMBER:

FIG 1