

DARTMOUTH HITCHCOCK MEDICAL CENTER

253 PLEASANT STREET
CONCORD, NH

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SITE ENGINEER
NOBIS GROUP - CONCORD, NH
ARCHITECT
LAVALLEE BRENSINGER ARCHITECTS - MANCHESTER, NH
SURVEYOR
NOBIS GROUP - CONCORD, NH
LANDSCAPE ARCHITECT
WARRENSTREET ARCHITECTS- CONCORD, NH
OWNER/APPLICANT
DARTMOUTH HITCHCOCK CLINIC - LEBANON, NH

CITY OF CONCORD ZONING BOARD APPROVALS:

THE ZONING BOARD OF ADJUSTMENT OF THE CITY OF CONCORD, GRANTED THE FOLLOWING VARIANCES ON JUNE 3, 2026. (ZBA-0431-2026)

ARTICLE 28-7:

- SECTION 28-7-7(g)(1)** - PARKING AREA DESIGN STANDARDS – SETBACK AND RESTRICTIONS – PARKING RESTRICTIONS IN THE REQUIRED FRONT YARD, TO PERMIT CERTAIN PORTIONS OF THE EXISTING, LAWFULLY NONCONFORMING OFF-STREET PARKING TO CONTINUE TO BE WITHIN THE REQUIRED FRONT YARD
- SECTION 28-7-7(g)(1)** - PARKING AREA DESIGN STANDARDS – SETBACK AND RESTRICTIONS – PARKING RESTRICTIONS IN THE REQUIRED FRONT YARD, TO PERMIT PROPOSED ADDITIONAL OFF-STREET PARKING TO BE LOCATED WITHIN THE REQUIRED FRONT YARD
- SECTION 28-7-7(g)(2)** - PARKING AREA DESIGN STANDARDS – SETBACK AND RESTRICTIONS – SETBACKS FROM LOT LINES, TO PERMIT CERTAIN PORTIONS OF THE EXISTING, LAWFULLY NONCONFORMING OFF-STREET PARKING TO CONTINUE TO BE LOCATED WITHIN TEN FEET (10') OF THE EDGE OF THE RIGHT-OF-WAY OF AN ARTERIAL STREET
- SECTION 28-7-10(a)** - PARKING AREA LANDSCAPING STANDARDS – PARKING LOT PERIMETER LANDSCAPING REQUIRED, TO PERMIT CERTAIN PORTIONS OF THE EXISTING, LAWFULLY NONCONFORMING OFF-STREET PARKING TO CONTINUE TO BE LOCATED WITHIN THE TEN FOOT (10') WIDE PERIMETER LANDSCAPED BUFFER
- SECTION 28-7-10(b)** - PARKING AREA LANDSCAPING STANDARDS – PARKING LOT INTERIOR LANDSCAPING REQUIRED, TO PERMIT CERTAIN EXISTING, LAWFULLY NONCONFORMING LANDSCAPED OPEN SPACE AREAS WITHIN THE PARKING LOT INTERIOR TO CONTINUE TO HAVE HORIZONTAL DIMENSIONS OF LESS THAN NINE (9) FEET
- SECTION 28-7-10(b)** - PARKING AREA LANDSCAPING STANDARDS – PARKING LOT INTERIOR LANDSCAPING REQUIRED, TO PERMIT CERTAIN EXISTING, LAWFULLY NONCONFORMING PARKING SPACES TO CONTINUE TO BE LOCATED MORE THAN 120 FEET FROM LANDSCAPED OPEN SPACE AREAS WITHIN THE PARKING LOT
- SECTION 28-7-1(a)** - GENERAL PROVISIONS - APPLICABILITY, TO PERMIT THE CONTINUANCE OF THE FOREGOING EXISTING, LAWFULLY CONDITIONS WITH RESPECT TO THE PARKING LOT.

WAIVERS REQUESTED FOR SITE PLAN APPROVAL:

- SECTION 7.06
- SECTION 12.02 (1)(a)
- SECTION 12.07
- SECTION 15.03 (4)
- SECTION 15.03 (18)
- SECTION 15.03 (23)
- SECTION 16.02 (19)
- SECTION 18.17
- SECTION 18.22
- SECTION 20.05
- SECTION 20.06
- SECTION 20.07
- SECTION 22.07 (3)
- SECTION 25.2-1-2(a)(1)
- SECTION 32.06

CONDITIONAL USE PERMITS:

NONE

APPROVED
UNDER THE PROVISIONS OF R.S.A. 674:35 & R.S.A. 674:36
CITY PLANNING BOARD
CITY OF CONCORD, NEW HAMPSHIRE
In accordance with vote of the board dated:

Approval of this plan is limited to the lots as shown

Chair

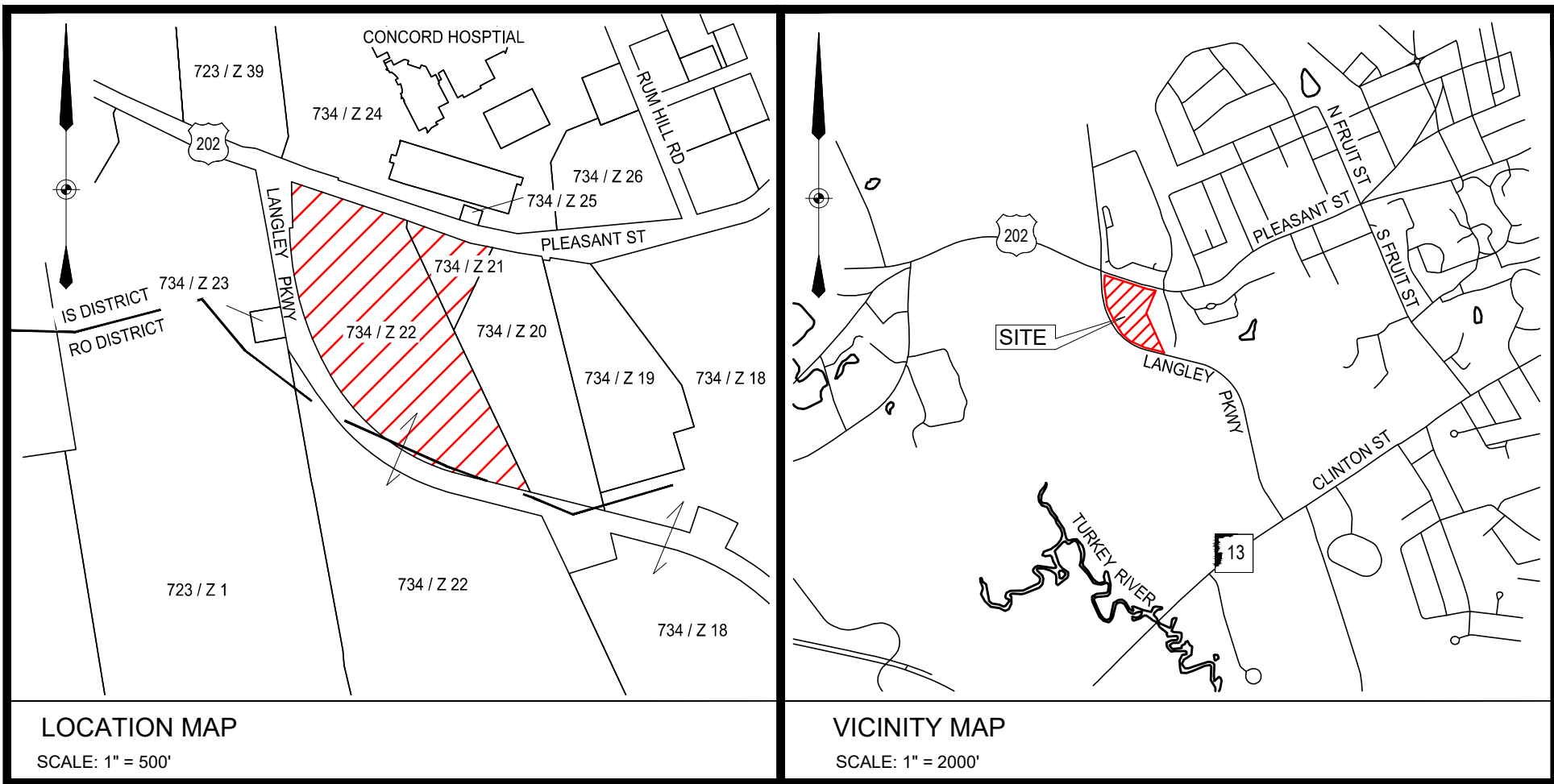
Clerk



nobis

Nobis Engineering Group, P.C.
18 Chenell Drive
Concord, NH 03301
T(800) 394-4182
www.nobis-group.com

JUNE 17, 2026



NOBIS PROJECT NO. 100781.000

LEGEND

EXISTING	PROPOSED	SUBJECT PROPERTY LINE	EXISTING	PROPOSED	
		SUBJECT PROPERTY LINE			DRAIN MANHOLE
		OTHER PROPERTY LINE			CATCH BASIN
		SETBACKS			UTILITY POLE
		EASEMENT			PAD MOUNTED TRANSFORMER
		STONE WALL			SANITARY SEWER MANHOLE
		RETAINING WALL			SANITARY SEWER CLEAN-OUT
		EDGE OF WETLAND			HYDRANT
		STREAM / RIVER			WATER VALVE
		TREE LINE			WATER SHUT OFF
		CHAIN LINK FENCE			WATER SUPPLY WELL
		STOCKADE FENCE			GAS SHUT OFF
		GUARDRAIL (STEEL)			GAS METER
		GUARDRAIL (WOOD)			SPOT GRADE
		CENTERLINE			CURB SPOT GRADE
		EDGE OF GRAVEL			SIGN POST
		EDGE OF PAVEMENT			LIGHT POLE
		SLOPED GRANITE CURB			TREE
		VERTICAL GRANITE CURB			CONCRETE
		VERTICAL CONCRETE CURB			GRAVEL
		BITUMINOUS CONCRETE CURB			RIP RAP
		CONCRETE CURB			WETLAND
		CAPE COD BERM			WETLAND IMPACT
		TIP DOWN			FLOW DIRECTION
		MAJOR CONTOUR			STONE CHECK DAM
		MINOR CONTOUR			INLET PROTECTION
		DRAIN LINE			SLOPE & DIRECTION
		ROOF DRAIN			TEST PIT LOCATION
		UNDER DRAIN			BORING LOCATION
		FOUNDATION DRAIN			MONITORING WELL LOCATION
		SWALE FLOW DIRECTION			PERC. TEST LOCATION
		SILT FENCE / WATTLE			PHOTO LOCATION / DIRECTION
		OVERHEAD UTILITY WIRE			MANHOLE
		UNDERGROUND ELECTRIC			TELECOM MANHOLE
		UNDERGROUND TELECOM			ELECTRIC MANHOLE
		SANITARY SEWER LINE			STEEP SLOPE
		SANITARY SEWER SERVICE			
		SANITARY SEWER FORCE MAIN			
		WATER LINE			
		WATER SERVICE			
		GAS LINE			
		STEAM LINE			
		FIBER OPTIC LINE			
		ZONING BOUNDARY LINE			
		FLOOD ZONE LINE			

GENERAL NOTES:

- THESE DRAWINGS SHOULD BE REVIEWED IN CONJUNCTION WITH THE ACCOMPANYING DESIGN REPORT TITLED "STORMWATER MANAGEMENT REPORT FOR DARTMOUTH HITCHCOCK MEDICAL CENTER, 253 PLEASANT STREET, CONCORD, NH DATED JUNE 17, 2026 PREPARED BY NOBIS GROUP.
- EXISTING CONDITIONS, TOPOGRAPHICAL INFORMATION, NORTH ORIENTATION, NORTH ARROW, AND COORDINATE VALUES DEPICTED ON THESE DRAWINGS ARE BASED ON PLANS TITLED "EXISTING CONDITIONS PLAN PREPARED FOR DARTMOUTH HITCHCOCK MEDICAL CLINICS", DATED APRIL 2026, PROVIDED BY NOBIS GROUP.
- THESE DRAWINGS AND ACCOMPANYING TEXT HAVE BEEN PREPARED FOR DARTMOUTH HITCHCOCK MEDICAL CENTER, FOR REVIEW BY THE CITY OF CONCORD PLANNING BOARD, CODE ENFORCEMENT, GENERAL SERVICES, POLICE, AND FIRE DEPARTMENTS.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF CONCORD'S CONSTRUCTION STANDARDS AND DETAILS (LATEST EDITION), AND CITY STANDARDS SHALL TAKE PRECEDENCE IN CASE OF ANY DETAILS OR PLANS IN CONFLICT.
- THE IMPROVEMENTS BUILT AND CONSTRUCTED AS PART OF AN APPROVED SITE PLAN SHALL BE MAINTAINED IN PERPETUITY IN ACCORDANCE WITH ALL STATE AND FEDERAL RULES AND REGULATIONS, AND THE MAINTENANCE AND OPERATIONS PLAN SET FORTH IN SECTION 22.05 OF THE CITY OF CONCORD'S CONSTRUCTION STANDARDS AND DETAILS (LATEST EDITION), AS WELL AS ANY MANUFACTURER'S SPECIFICATIONS.
- ALL UTILITIES SHALL BE INSTALLED UNDERGROUND IN ACCORDANCE WITH SECTION 25.02(1) OF THE SITE PLAN REGULATIONS.
- UPON COMPLETION OF CONSTRUCTION THE CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS TO THE ENGINEERING SERVICES DIVISION PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- THE CONTRACTOR SHALL SET UP A PRECONSTRUCTION MEETING WITH THE ENGINEERING SERVICES DIVISION TO DISCUSS CONSTRUCTION REQUIREMENTS, SITE INSPECTIONS, ASSOCIATED FEES, SCHEDULES, ETC.
- THE CONTRACTOR SHALL OBTAIN UTILITY CONNECTION PERMITS FROM THE ENGINEERING SERVICES DIVISION FOR THE PROPOSED WATER SERVICE, SEWER SERVICE, AND STORM DRAIN CONNECTION(S) IF APPLICABLE. INDIVIDUAL PERMITS WILL BE REQUIRED FOR EACH CONNECTION.

SPECIFICATION REFERENCES:

- REFERENCE TO CITY STANDARDS SHALL MEAN THE CITY OF CONCORD, CONSTRUCTIONS STANDARDS AND DETAILS, AS MOST RECENTLY PUBLISHED.
- REFERENCE TO STATE SPECIFICATIONS SHALL MEAN STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, AS MOST RECENTLY PROMULGATED.
- REFERENCE TO MUTCD SHALL MEAN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, AS MOST RECENTLY PUBLISHED.
- REFERENCE TO THE CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE NHDES SHALL MEAN THE CONSTRUCTION STANDARDS FOR SANITARY SEWER AND WATER SUPPLY SYSTEMS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES, AS MOST RECENTLY ADOPTED.
- REFERENCE TO THE ARCHITECTURAL BARRIER FREE CODE SHALL MEAN THE ACCESSIBLE AND USEABLE BUILDING AND FACILITIES CODE OF THE INTERNATIONAL CODE COUNCIL, AS MOST RECENTLY ADOPTED BY THE CITY.
- REFERENCE TO THE ALTERATIONS OF TERRAIN STANDARDS SHALL MEAN THE NH DEPARTMENT OF ENVIRONMENTAL SERVICES ALTERATION OF TERRAIN (AOT) CHAPTER ENV-WQ 1500.
- REFERENCE TO STANDARDS FOR SEWER DISCHARGE PERMITS SHALL MEAN THE NH DEPARTMENT OF ENVIRONMENTAL SERVICES STANDARDS OF DESIGN AND CONSTRUCTION FOR SEWERAGE AND WASTEWATER TREATMENT FACILITIES (CHAPTER ENV-WQ 700).
- REFERENCE TO STANDARDS FOR SEPTIC SYSTEMS SHALL MEAN THE NH DEPARTMENT OF ENVIRONMENTAL SERVICES SUBDIVISION AND INDIVIDUAL SEWAGE DISPOSAL SYSTEM DESIGN RULES (CHAPTER ENV-WQ 1000).
- REFERENCE TO STANDARDS FOR POTABLE WELLS SHALL MEAN NH WATER WELL BOARD STANDARDS FOR THE CONSTRUCTION, MAINTENANCE AND ABANDONMENT OF WELLS (CHAPTER ENV-WQ 600).
- REFERENCE TO THE ARCHITECTURAL DESIGN REVIEW GUIDELINES SHALL MEAN THE GUIDELINES ADOPTED BY THE CITY OF CONCORD, PLANNING BOARD AS SET FORTH HEREIN, IN SECTION 33.07, ARCHITECTURAL DESIGN GUIDELINES.

CONSTRUCTION SEQUENCE:

- CONSTRUCT TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO ANY EARTH MOVING OPERATIONS. INSPECT EROSION AND SEDIMENT CONTROL MEASURES WEEKLY AND WITHIN 24 HOURS OF ANY SIGNIFICANT RAINFALL EVENT (1/2" OF RAIN OR MORE). PERFORM ANY NEEDED MAINTENANCE AND STABILIZATION AS NEEDED.
- DISTURBANCES OF AREAS SHALL BE MINIMIZED. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED FOR LONGER THAN TWO WEEKS DURING THE GROWING SEASON. AREAS WHICH WILL NOT BE PERMANENTLY SEEDED WITHIN TWO WEEKS OF DISTURBANCE SHALL BE TEMPORARILY SEEDED AND MULCHED. ALL AREAS SHALL BE STABILIZED WITH SEED MULCH AND TACKIFIER WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE AND PRIOR TO THE END OF THE GROWING SEASON.
- PERFORM DEMOLITION OF EXISTING SITE FEATURES AS SHOWN ON DEMOLITION PLAN.
- PERFORM CLEARING AND GRUBBING TO LIMITS SHOWN ON DEMOLITION PLAN.
- REMOVE AND TEMPORARILY STOCKPILE LOAM AND TOPSOIL FOR REUSE, IF NEEDED, ON SITE. SEED AND/OR MULCH STOCKPILES AND ENCIRCLE WITH SILT FENCE.
- CONDUCT ALL UNDERGROUND UTILITY STRUCTURE AND PIPING INSTALLATION, BACKFILL, AND COMPACTING.
- CONSTRUCT BUILDING FOUNDATION AND FOOTINGS.
- PLACE AND COMPACT NEW GRAVEL COURSES IN THE PARKING, SIDEWALK, AND GRAVEL ACCESS DRIVE AREAS.
- PLACE, GRADE, AND STABILIZE DISTURBED AREAS WITH TEMPORARY SEEDING AND MULCHING.
- BEGIN CONSTRUCTION OF BUILDING AND REMAINING SITE WORK.
- PLACE PAVEMENT COURSES, SIDEWALKS, AND CURBING.
- ALL CUT AND FILL SLOPES SHALL BE STABILIZED, LOAMED, SEEDED, AND MULCHED.
- COMPLETE PERMANENT SEEDING AND LANDSCAPING IN ACCORDANCE WITH THE LANDSCAPE DESIGN AND DETAILS.
- SWEEP COMPLETED PAVEMENT AND CLEAN OUT CATCH BASINS AND DRAINAGE PIPES DURING CONSTRUCTION CLOSE-OUT PROCEDURES. PROPERLY DISPOSE OF COLLECTED SEDIMENT AND DEBRIS.
- REMOVE TEMPORARY EROSION CONTROL MEASURES AND PROPERLY DISPOSE OF FOLLOWING CONSTRUCTION AND ONCE FULL GROUND COVER HAS BEEN ESTABLISHED.

CAUTION

NEW HAMPSHIRE FISH AND GAME AOT PERMIT CONDITIONS RELATED TO THREATENED AND ENDANGERED SPECIES:

- ALL MANUFACTURED EROSION AND SEDIMENT CONTROL PRODUCTS, EXCEPT FOR SILT FENCE INSTALLED IN ACCORDANCE WITH ENV-WQ 1506.04, UTILIZED FOR, BUT NOT LIMITED TO, SLOPE PROTECTION, RUNOFF DIVERSION, SLOPE INTERRUPTION, PERIMETER CONTROL, INLET PROTECTION, CHECK DAMS, AND SEDIMENT TRAPS SHALL NOT CONTAIN WELDED PLASTIC, PLASTIC, OR MULTIFILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH.
- ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES SHALL BE REPORTED IMMEDIATELY TO THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT NHGREVIEW@WILDLIFE.NH.GOV. EMAIL SUBJECT LINE: DCT626-0843, DARTMOUTH HITCHCOCK MEDICAL CENTER, WILDLIFE SPECIES OBSERVATION. PHOTOGRAPHS SHALL BE PROVIDED FOR VERIFICATION AS FEASIBLE.
- PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT OR AREAS OF LAND DISTURBANCE SHALL BE PROVIDED TO NHF&G IN DIGITAL FORMAT AT THE ABOVE EMAIL ADDRESS FOR VERIFICATION, AS FEASIBLE.
- IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE TERM OF PERMIT, THE SPECIES SHALL NOT BE DISTURBED, HANDLED, OR HARMED IN ANY WAY PRIOR TO CONSULTATION WITH NHF&G AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHF&G. IF ANY, TO ASSURE THE PROJECT DOES NOT APPRECIABLY JEOPARDIZE THE CONTINUED EXISTENCE OF THREATENED AND ENDANGERED SPECIES AS DEFINED IN FIS 1002.04, AND
- THE NHF&G, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.

EROSION CONTROL NOTES:

CATCH BASINS: CARE SHOULD BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT ENTER CATCH BASINS DURING EXCAVATION FOR PIPE TRENCHES, DITCHES AND SWALES. THE CONTRACTOR SHOULD PLACE NON-WOVEN GEOTEXTILE FABRIC FOR INLET PROTECTION OVER INLETS IN AREAS OF SOIL DISTURBANCE, WHICH ARE SUBJECT TO SEDIMENT CONTAMINATION.

PLACE INLET PROTECTION DEVICES. IN CATCH BASINS AND MAINTAIN UNTIL ALL CONSTRUCTION ACTIVITIES HAVE CEASED AND THE SURROUNDING AREAS ARE WELL VEGETATED.

SEDIMENT TRAPS AND/OR BASINS SHOULD BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL BASINS/PONDS ARE STABILIZED.

ALL SWALES AND PONDS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF INTO THEM.

SCHEDULE OF WORK
THIS WORK IS ANTICIPATED TO BEGIN IN THE SUMMER 2026 WITH A FINAL COMPLETION DATE IN FALL 2027. NO WINTER EARTH DISTURBANCE IS EXPECTED FOR THIS PROJECT. SHOULD WINTER WORK BE REQUIRED, THIS PLAN AND THE ACCOMPANYING STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE MODIFIED ACCORDINGLY.

ADEQUATE MEASURES SHOULD BE TAKEN TO MINIMIZE AIR BORNE DUST PARTICLES ARISING FROM SOIL DISTURBANCE AND CONSTRUCTION.

- * DISTURBANCE OF AREAS SHOULD BE MINIMIZED AND NOT EXCEED 100,000 SQUARE FEET IN AREA AT ANY ONE TIME.
- * NO DISTURBED AREA SHOULD BE LEFT UNSTABILIZED FOR LONGER THAN TWO WEEKS DURING THE GROWING SEASON.
- * PERMANENT EROSION CONTROL FEATURES SHOULD BE INCORPORATED INTO THE PROJECT AT THE EARLIEST PRACTICABLE TIME, AS SPECIFIED ON THE CONTRACT PLANS.
- * WITHIN 14 DAYS OF COMPLETING WORK IN AN AREA, AND PRIOR TO ANTICIPATED RAIN EVENTS, APPLY HAY/STRAW MULCH AND TACKIFIER ON ALL DISTURBED SOIL AREAS. APPLICATION RATES OF 2 TONS OF STRAW OR HAY PER ACRE SHOULD BE USED TO PREVENT EROSION UNTIL VEGETATIVE COVER CAN BE ESTABLISHED. ALTERNATIVELY, APPLY WOOD CHIPS OR GROUND BARK MULCH 2 TO 6 INCHES DEEP AT A RATE OF 10 TO 20 TONS PER ACRE.
- * WHEN EROSION IS LIKELY TO BE A PROBLEM, GRUBBING OPERATION SHOULD BE SCHEDULED AND PERFORMED SUCH THAT GRADING OPERATION AND PERMANENT EROSION CONTROL FEATURES CAN FOLLOW IMMEDIATELY THEREAFTER.
- * AS WORK PROGRESSES, PATCH SEEDING AND MULCHING SHOULD BE DONE AS REQUIRED ON AREAS PREVIOUSLY TREATED TO MAINTAIN OR ESTABLISH PROTECTIVE COVER.
- * REMOVE ACCUMULATED SEDIMENTS AND DEBRIS WHEN SEDIMENT CONTAINMENT DEVICES REACH 33% CAPACITY.

EROSION CONTROL IMPLEMENTATION SCHEDULE

THE FOLLOWING GENERAL SCHEDULE IDENTIFIES THE PROPOSED SOIL EROSION AND SEDIMENT CONTROL AND STORM WATER MANAGEMENT MEASURES THAT ARE TO BE IMPLEMENTED PRIOR TO AND DURING CONSTRUCTION:

- * PERFORM LIMITED GRUBBING, STRIPPING AND SITE GRADING ONLY AS NEEDED TO COMPLETE IMMEDIATE WORK GOALS.
- * BLOCK STORM WATER FLOW AS NECESSARY TO INSTALL ALL STORM WATER STRUCTURES IN THE DRY.
- * INSTALL PERMANENT STORM DRAIN SYSTEM.
- * INSTALL TEMPORARY SOIL STABILIZATION MEASURE INCLUDING SEED, MULCH, FERTILIZER, MATTING, ETC.
- * REDIRECT FLOWS INTO FINISHED STRUCTURES PRIOR TO FILL OPERATIONS.
- * PLACE HUMUS AND CONDUCT PERMANENT SEEDING AND MULCHING OF ALL DISTURBED GROUND.

TEMPORARY STABILIZATION:

EROSION CONTROL MEASURES SHALL BE IMPLEMENTED, AS WRITTEN HEREIN AND AS DEPICTED ON THE ACCOMPANYING PLAN, FROM THE COMMENCEMENT OF CONSTRUCTION ACTIVITY UNTIL FINAL STABILIZATION IS COMPLETE:

TEMPORARY GRADING: TEMPORARY GRADING DURING CONSTRUCTION SHOULD BE PERFORMED IN SUCH A MANNER TO FACILITATE MAXIMUM INFILTRATION OF STORMWATER AND MINIMIZE OR ELIMINATE STORMWATER RUNOFF FROM THE SITE.

MULCH: MULCHING WITH LOOSE HAY OR STRAW, AT A RATE OF 2 TONS PER ACRE, SHALL BE DONE IMMEDIATELY AFTER EACH AREA HAS BEEN FINAL GRADED. WHEN SEED FOR EROSION CONTROL IS SOWN PRIOR TO PLACING THE MULCH, THE MULCH SHOULD BE PLACED ON THE SEEDED AREAS WITHIN 48 HOURS AFTER SEEDING.

TACKIFIER: PLACEMENT OF SOIL TACKIFIER HAS PROVEN TO BE AN EFFECTIVE METHOD OF PREVENTING SOIL AND ADHERING MULCH IN PLACE. THE PLACEMENT OF A SOIL TACKIFIER SHOULD BE PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND SHOULD BE REAPPLIED AS NECESSARY TO CONTROL AIR BORN DUST AND SOIL, AND MULCH LOSS UNTIL PERMANENT VEGETATION IS ESTABLISHED.

ROAD CLEANING: THE CONTRACTOR SHALL SWEEP ROADS DAILY, OR AS NEEDED TO MAINTAIN CLEAN PAVED SURFACES AT ALL CONSTRUCTION ACCESS/EGRESS POINTS.

DUST CONTROL: THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES AS NEEDED TO PREVENT AIRBORNE DUST PARTICLES FROM LEAVING THE SITE. DUST CONTROL MEASURES SHALL CONSIST OF USE OF A WATER TRUCK EQUIPPED WITH A SPRAY-BAR THAT DISSIPATES THE WATER EVENLY OVER THE SURFACE.

- PERMANENT STABILIZATION: GRASS, TREES, SHRUBS AND MULCHED PLANTING BEDS WILL BE CONSTRUCTED AND MAINTAINED IN LOCATIONS AS SHOWN ON THE DRAWINGS TO STABILIZE AREAS NOT WITHIN THE PARKING LOT/BUILDING FOOTPRINT. THE CONTRACTOR WILL BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL FOR ONE YEAR AFTER COMPLETION.
1. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
 2. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 3. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED;
 4. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

ALL ROADWAYS/PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

CONSTRUCTION SHALL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

EXCAVATION DEWATERING:

SHOULD EXCAVATION DEWATERING BE REQUIRED, THE CONTRACTOR MUST INSURE THAT ANY EXCAVATION DEWATERING DISCHARGES ARE NOT CONTAMINATED. NOTE: THE WATER IS CONSIDERED UNCONTAMINATED IF THERE IS NO GROUNDWATER CONTAMINATION WITHIN 1,000 FEET OF THE DISCHARGE.

THE CONTRACTOR MUST TREAT ANY UNCONTAMINATED EXCAVATION DEWATERING AS NECESSARY TO REMOVE SUSPENDED SOLIDS AND TURBIDITY DURING CONSTRUCTION. THE DISCHARGES MUST BE SAMPLED AT A LOCATION PRIOR TO MIXING WITH STORM WATER OR STREAM FLOW AT LEAST ONCE PER WEEK DURING WEEKS WHEN DISCHARGES OCCUR. THE SAMPLES MUST BE ANALYZED FOR TOTAL SUSPENDED SOLIDS (TSS) AND MUST MEET MONTHLY AVERAGE AND MAXIMUM DAILY TSS LIMITATIONS OF 50 MILLIGRAMS PER LITER (MGL), RESPECTIVELY.

SPECIFICATIONS FOR TEMPORARY AND PERMANENT SEEDING:

GRASS SEED MIXES SHALL CONSIST OF THE MIXTURES AS DETAILED IN THE FOLLOWING TABLES, WITH 98% PURITY:

EROSION CONTROL SEED MIX			
SEED	BY % MASS	% GERMINATION (MIN.)	
WINTER RYE 80 (MIN.)	80 (MIN.)	85	
RED FESCUE (CREEPING)	4 (MIN.)	80	
PERENNIAL RYE GRASS	3 (MIN.)	90	
RED CLOVER	3 (MIN.)	90	
OTHER CROP GRASS	0.5 (MAX.)		
NOXIOUS WEED SEED	0.5 (MAX.)		
INERT MATTER	1.0 (MAX.)		

PERMANENT SEED MIX			
SEED	BY % MASS	% GERMINATION (MIN.)	
RED FESCUE (CREEPING)	50	85	
KENTUCKY BLUE	25	85	
PERENNIAL RYE GRASS	10	90	
RED TOP	10	85	
LANDINO CLOVER	5	85	

WINTER CONSTRUCTION NOTES:

ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE ELSEWHERE. MULCH REMAINING IN THE SPRING SHALL BE REMOVED AND REPLACED AT RATE OF 2 TONS PER ACRE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND TACKIFIER SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND.

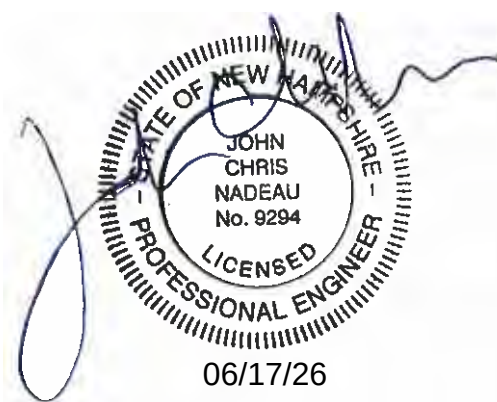
ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

AFTER OCTOBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3-INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3 OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.



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NOT ISSUED
FOR
CONSTRUCTION

DARTMOUTH
HITCHCOCK
MEDICAL CENTER

253 PLEASANT STREET
CONCORD, NH 03301

TAX MAP 734/Z LOT 21 & 22

OWNER/APPLICANT:
DARTMOUTH HITCHCOCK
CLINIC
1 MEDICAL CENTER DRIVE
LEBANON, NH 03756

NO.	DATE	DESCRIPTION
-----	------	-------------

REVISIONS

SCALE:
AS NOTED

DATE: JUNE 17, 2026

NOBIS PROJECT NO. 100781.000

DRAWN BY: GAK/GWS

CHECKED BY: JCN

CAD DRAWING FILE:

100781.000-C-005-NOTES&LEGEND.dwg

SHEET TITLE

GENERAL
NOTES &
LEGEND

SHEET

G - 1

- OWNERS OF RECORD: MAP 723 BLOCK Z LOT 22
253 PLEASANT ST
DARTMOUTH HITCHCOCK CLINIC
1 MEDICAL CENTER DR
LEBANON, NH 03756-1000
M.C.R.D. BK. 2959 PG. 1753
- MAP 723 BLOCK Z LOT 21
247-249 PLEASANT ST
DARTMOUTH HITCHCOCK CLINIC
1 MEDICAL CENTER DR
LEBANON, NH 03756-1000
M.C.R.D. BK. 3401 PG. 324
3. TOTAL PARCEL AREA: 371,212 SQ. FT. OR 8.52 ACRES
43,395 SQ. FT. OR 0.99 ACRES
4. SURVEY BY TOTAL STATION BETWEEN FEBRUARY 16, 2026 & JUNE 10, 2026. CONTROLLING TRAVELER ERROR OF CLOSURE IS 1": 45,473.
5. HORIZONTAL DATUM IS BASED ON NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM NAD 83 BASED ON GPS OBSERVATIONS AND OPUS SOLUTIONS.
6. VERTICAL DATUM IS BASED ON NAVD 88.
7. FLOOD HAZARD ZONE "X", PER FIRM MAPS #30132C050F & #3013C0533F, DATED 1/23/2026.
8. THE ACCURACY OF MEASURED UTILITY INVERTS AND PIPE SIZES/TYPES IS SUBJECT TO NUMEROUS FIELD CONDITIONS, INCLUDING THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS, MANHOLE CONFIGURATION, ETC.
9. THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION OR PLOTTED FROM EXISTING RECORD DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITY INFORMATION ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTION OF THE UTILITIES. ALL CONTRACTORS SHOULD NOTIFY, IN WRITING, ANY UTILITY COMPANY AND APPROPRIATE GOVERNMENTAL AGENCIES PRIOR TO ANY EXCAVATION WORK AND CALL DIG-SAFE AT 811.
10. THE INTENT OF THIS PLAT IS TO SHOW THE EXISTING CONDITIONS OF THE SUBJECT LOTS.
11. THERE ARE NO WELLS OR SEPTIC SYSTEMS IN THE VICINITY THAT THIS SURVEYOR IS AWARE OF NOR ARE THERE ANY PROPOSED.
12. THE SITE IS SERVICED BY MUNICIPAL SANITARY SEWER AND POTABLE WATER.
13. JURISDICTIONAL WETLANDS WERE DELINEATED IN EARLY SPRING 2025 BY ECOSYSTEMS LAND PLANNING IN ACCORDANCE WITH NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NHDES) ENV-WET 406 AND THE U.S. ARMY CORPS OF ENGINEERS DELINEATION MANUAL (TECHNICAL REPORT 7-671, 1987), UTILIZING CURRENT REGIONAL SUPPLEMENTS, SOIL INDICATORS AND PLANT LISTS.

1. "EXISTING CONDITIONS , THE HITCHCOCK CLINIC - CONCORD, 251 PLEASANT STREET, CONCORD, N.H. 03301" DATED MAR. 24, 1989 BY RICHARD D. BARTLETT & ASSOCIATES, INC.

MAP 723 BLOCK Z LOT 1
275 PLEASANT ST
CARMELITE MONASTERY
495 MAMMOTH RD
MANCHESTER, NH 03104-5463
M.C.R.D. BK. 3040 PG. 838

MAP 734 BLOCK Z LOT 23
259 PLEASANT ST
UNITIL ENERGY SYSTEMS INC
6 LIBERTY LN W
HAMPTON, NH 03842-1704

MAP 734 BLOCK Z LOT 20
243 PLEASANT ST
HARBOR/HILLSIDE INVESTMENT LLC
ATTN HARBOR MGMT CORP
100 CUMMINGS CTR STE 224G
BEVERLY, MA 01915-8113
M.C.R.D. BK. 2919 PG. 1283

MAP 723 BLOCK Z LOT 39
264 PLEASANT ST
GJC ASSOCIATES LLC
264 PLEASANT ST
CONCORD, NH 03301-255
M.C.R.D. BK. 3553 PG. 248

MAP 734 BLOCK Z LOT 24
250 PLEASANT ST
CAPITAL REGION HEALTH CARE CORPORATION
250 PLEASANT ST
CONCORD, NH 03301-2598
M.C.R.D. BK. 2297 PG. 1597

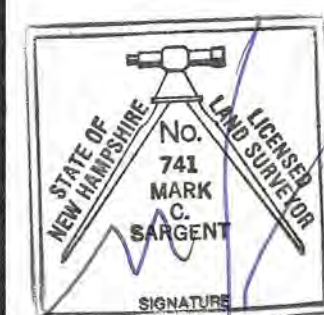
MAP 734 BLOCK Z LOT 26
242 PLEASANT ST
CAPITAL REGION HEALTH CARE CORPORATION
250 PLEASANT ST
CONCORD, NH 03301-2598



"I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED BY ME OR THOSE UNDER MY DIRECT IMMEDIATE SUPERVISION, AND DEPICTS A SURVEY CONDUCTED WITH A TOTAL STATION HAVING AN URBAN CLASSIFICATION AND A MINIMUM ERROR OF CLOSURE LESS THAN 1:10,000.

CERTIFICATION PER R.S.A. 676:18, III: "I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN."

SIGNATURE	741	6/16/26
	LICENSE NO.	DATE

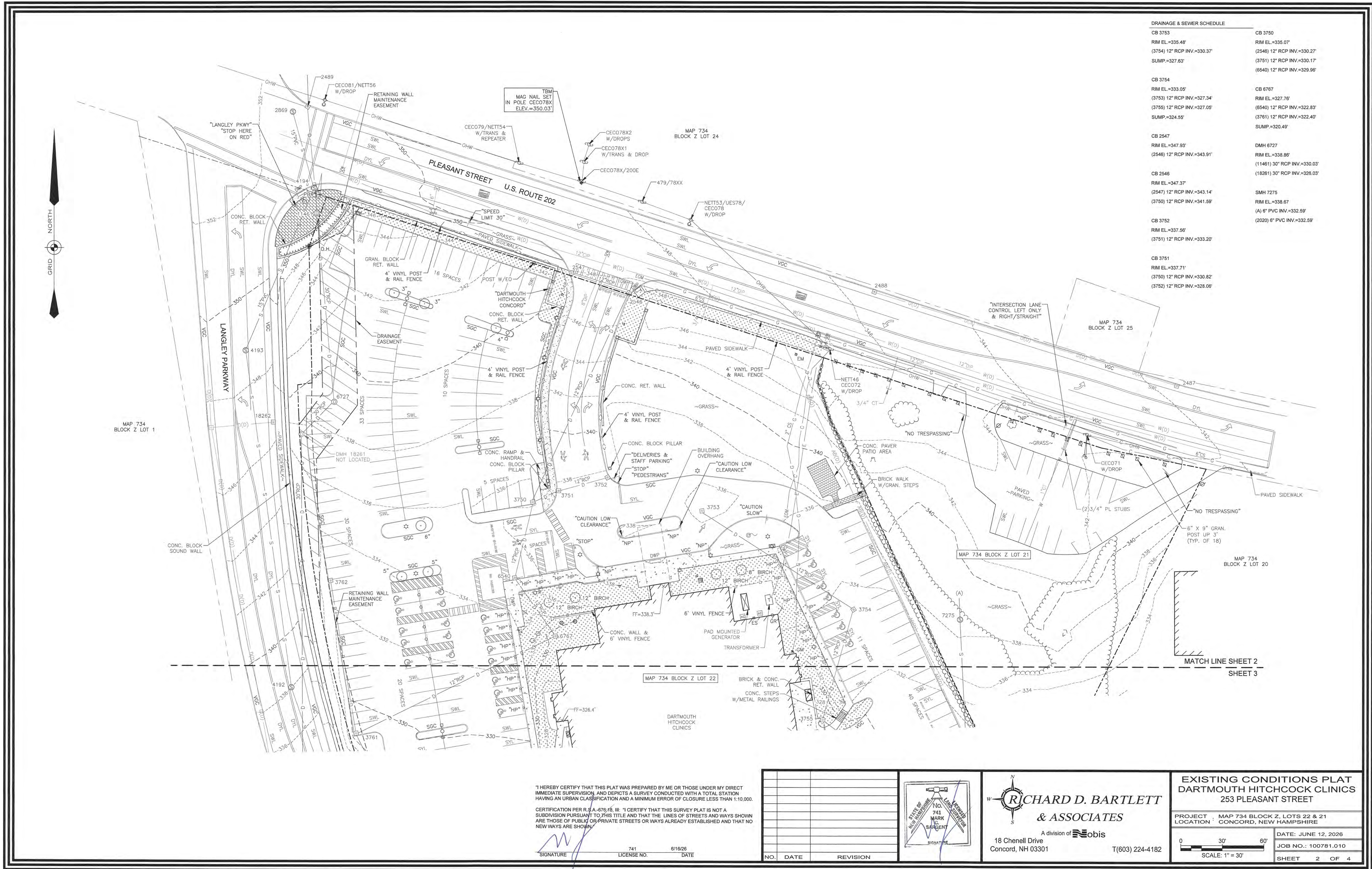
[illegible]

 **RICHARD D. BARTLETT**
& ASSOCIATES
A division of  **ebis**
18 Chenell Drive
Concord, NH 03301
T(603) 224-4182

PROJECT : MAP 734 BLOCK Z, LOTS 22 & 21
LOCATION : CONCORD, NEW HAMPSHIRE

0 60' 120'

SCALE: 1" = 60'



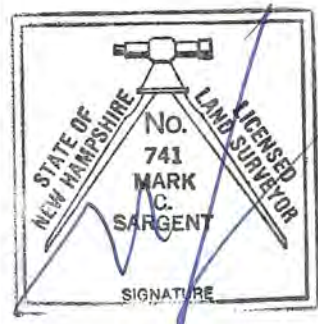
DRAINAGE & SEWER SCHEDULE	
CB 3753	CB 3750
RIM EL.=335.48'	RIM EL.=335.07'
(3754) 12" RCP INV.=330.37'	(2546) 12" RCP INV.=330.27'
SUMP.=327.63'	(3751) 12" RCP INV.=330.17'
	(6540) 12" RCP INV.=329.96'
CB 3754	CB 6767
RIM EL.=333.05'	RIM EL.=327.76'
(3753) 12" RCP INV.=327.34'	(6540) 12" RCP INV.=322.83'
(3755) 12" RCP INV.=327.05'	(3761) 12" RCP INV.=322.40'
SUMP.=324.55'	SUMP.=320.49'
CB 2547	DMH 6727
RIM EL.=347.93'	RIM EL.=338.86'
(2546) 12" RCP INV.=343.91'	(11461) 30" RCP INV.=330.03'
	(18261) 30" RCP INV.=326.03'
CB 2546	SMH 7275
RIM EL.=347.37'	RIM EL.=338.67'
(2547) 12" RCP INV.=343.14'	(A) 6" PVC INV.=332.59'
(3750) 12" RCP INV.=341.59'	(2020) 6" PVC INV.=332.59'
CB 3752	
RIM EL.=337.56'	
(3751) 12" RCP INV.=333.20'	
CB 3751	
RIM EL.=337.71'	
(3750) 12" RCP INV.=330.82'	
(3752) 12" RCP INV.=328.06'	

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED BY ME OR THOSE UNDER MY DIRECT IMMEDIATE SUPERVISION, AND DEPICTS A SURVEY CONDUCTED WITH A TOTAL STATION HAVING AN URBAN CLASSIFICATION AND A MINIMUM ERROR OF CLOSURE LESS THAN 1:10,000.

CERTIFICATION PER R.S.A. 678:16, III: "I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN."

SIGNATURE: [Signature] 741 LICENSE NO. 6/16/26 DATE

NO.	DATE	REVISION



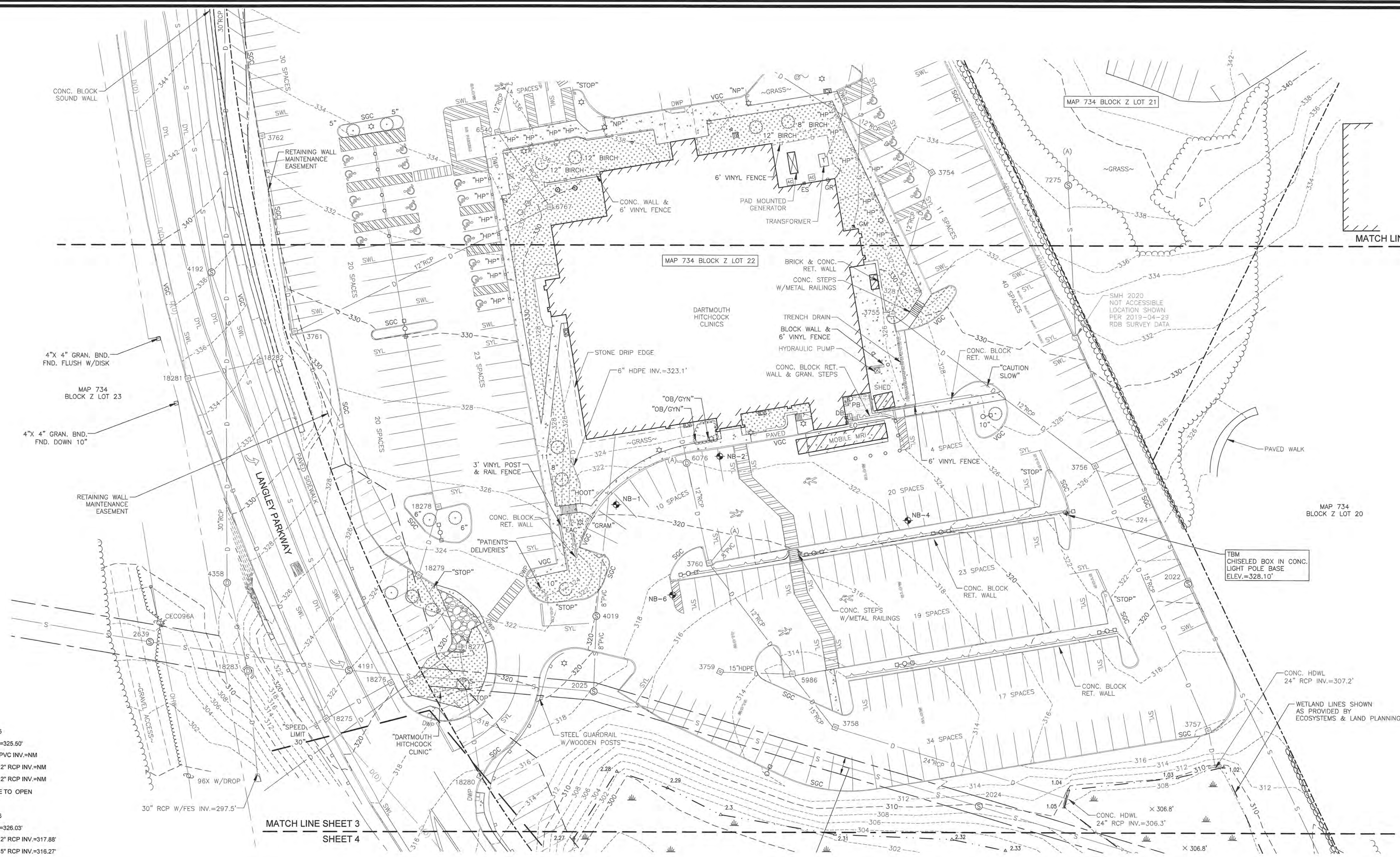
RICHARD D. BARTLETT
& ASSOCIATES
A division of **obis**
18 Chenell Drive
Concord, NH 03301
T(603) 224-4182

EXISTING CONDITIONS PLAT
DARTMOUTH HITCHCOCK CLINICS
253 PLEASANT STREET

PROJECT : MAP 734 BLOCK Z, LOTS 22 & 21
LOCATION : CONCORD, NEW HAMPSHIRE

DATE: JUNE 12, 2026
JOB NO.: 100781.010
SHEET 2 OF 4

0 30' 60'
SCALE: 1" = 30'



DRAINAGE & SEWER SCHEDULE

DMH 6076
RIM EL.=321.96'
(A) 8" CIP INV.=317.61'
(BLD) 12" CIP INV.=317.54'
(5670) 12" RCP INV.=317.52'

CB 3760
RIM EL.=319.06'
(A) 8" PVC INV.=315.00'
(6076) 12" RCP INV.=314.42'
(5986) 12" RCP INV.=313.62'
SUMP.=311.43'

CB 5986
RIM EL.=313.05'
(3760) 12" RCP INV.=307.95'
(3759) 12" RCP INV.=308.08'
(3758) 15" RCP INV.=307.95'
SUMP.=304.95'

CB 3759
RIM EL.=314.58'
(5986) 15" HDPE INV.=309.20'
SUMP.=306.83'

CB 3758
RIM EL.=312.30'
(5986) 15" RCP INV.=307.34'
(HDWL) 24" RCP INV.=306.55'
SUMP.=304.80'

CB 3755
RIM EL.=325.50'
(TD) 6" PVC INV.=NM
(3754) 12" RCP INV.=NM
(3756) 12" RCP INV.=NM
UNABLE TO OPEN

CB 3756
RIM EL.=326.03'
(3755) 12" RCP INV.=317.88'
(3757) 15" RCP INV.=316.27'
SUMP.=315.03'

CB 3757
RIM EL.=315.71'
(3756) 15" RCP INV.=309.46'
(HDWL) 24" RCP INV.=306.84'
SUMP.=305.91'

SMH 4019
RIM EL.=319.94'
(BLD) 8" PVC INV.=311.59'
(2025) 8" PVC INV.=311.65'

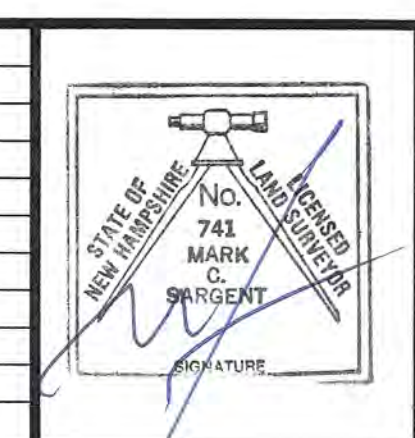
MATCH LINE SHEET 3
SHEET 4

"I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED BY ME OR THOSE UNDER MY DIRECT IMMEDIATE SUPERVISION, AND DEPICTS A SURVEY CONDUCTED WITH A TOTAL STATION HAVING AN URBAN CLASSIFICATION AND A MINIMUM ERROR OF CLOSURE LESS THAN 1:10,000.

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SIGNATURE _____
741 LICENSE NO. _____
6/18/26 DATE _____

NO.	DATE	REVISION



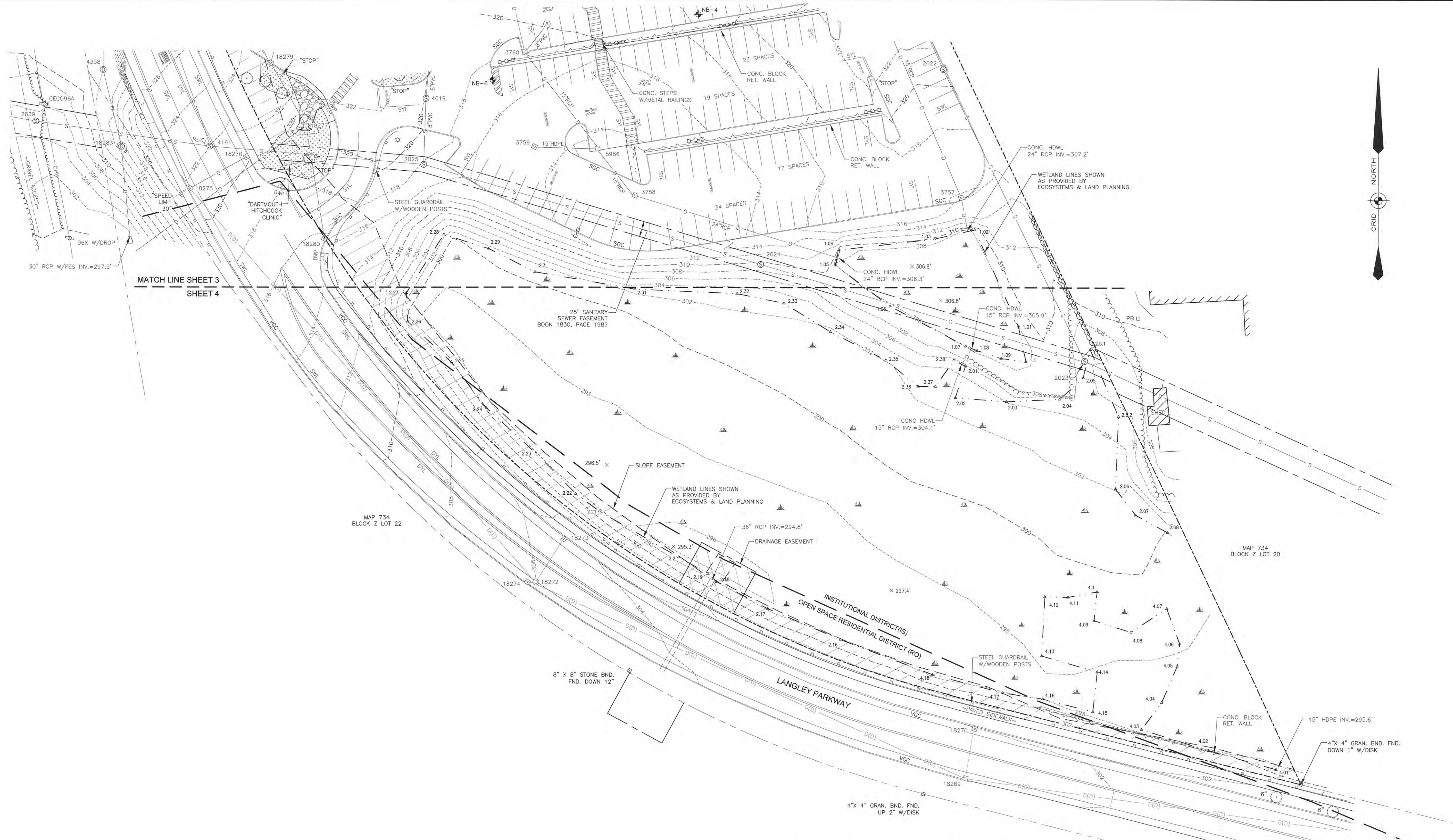
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EXISTING CONDITIONS PLAT
DARTMOUTH HITCHCOCK CLINICS
253 PLEASANT STREET

PROJECT : MAP 734 BLOCK Z, LOTS 22 & 21
LOCATION : CONCORD, NEW HAMPSHIRE

DATE: JUNE 12, 2026
JOB NO.: 100781.010
SHEET 3 OF 4

SCALE: 1" = 30'

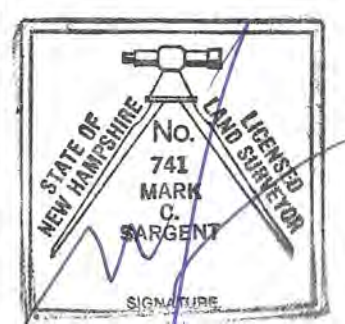


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SIGNATURE _____ 741 6/16/26
LICENSE NO. DATE

NO.	DATE	REVISION



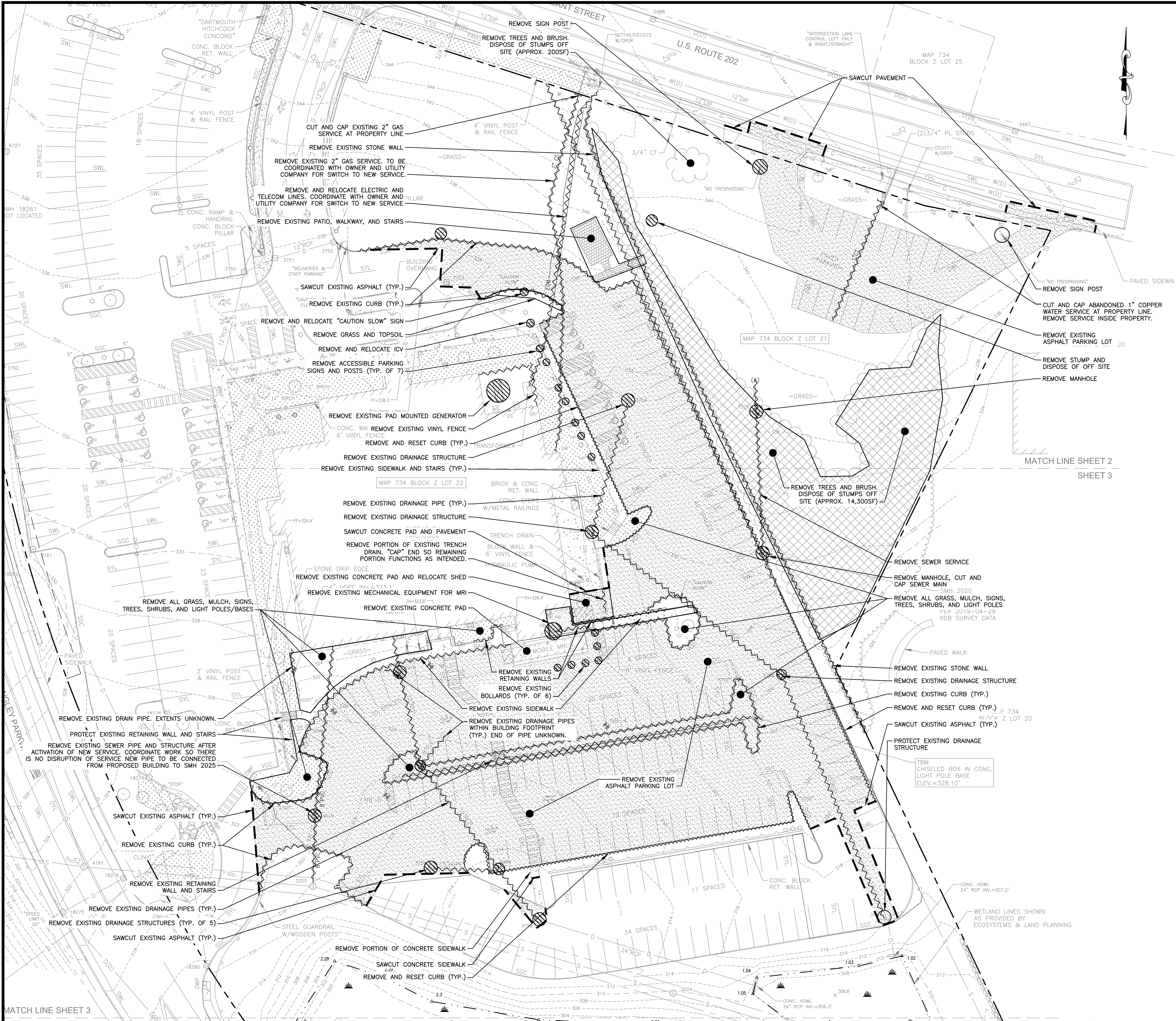
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EXISTING CONDITIONS PLAT
DARTMOUTH HITCHCOCK CLINICS
253 PLEASANT STREET

PROJECT : MAP 734 BLOCK Z, LOTS 22 & 21
LOCATION : CONCORD, NEW HAMPSHIRE

DATE: JUNE 12, 2026
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SHEET 4 OF 4

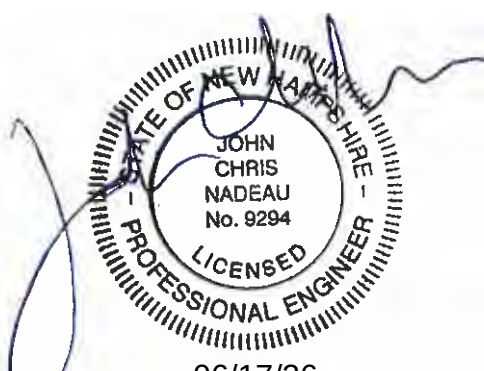
0 30' 60'
SCALE: 1" = 30'



- NOTES:
1. REFER TO SURVEYOR'S PLAN FOR PLAN REFERENCES ADDITIONAL NOTES, EXISTING DRAINAGE AND SANITARY SEWER INVERT INFORMATION.
 2. LOCATION AND ELEVATION OF UTILITIES ARE APPROXIMATE ONLY AND ARE BASED ON FIELD MEASUREMENTS OF VISIBLE STRUCTURES. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO CONSTRUCTION AND WILL NOTIFY ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS.
 3. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING DIG SAFE (1-888-DIG-SAFE) AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR WILL COORDINATE WORK WITH THE TOWN FIRE AND POLICE DEPARTMENTS.
 4. DEMOLISH STRUCTURES AND SITE FEATURES AS SHOWN HEREON AND REMOVE PAVEMENT TO LIMITS INDICATED.
 5. CONTRACTOR IS RESPONSIBLE FOR OFF-SITE DISPOSAL OF CONSTRUCTION DEMOLITION DEBRIS IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
 6. CONTRACTOR WILL COORDINATE REMOVAL/RELOCATION OF UNDERGROUND GAS AND OVERHEAD UTILITIES WITH RESPECTIVE UTILITY COMPANIES.
 7. ABATEMENT OF HAZARDOUS MATERIALS SUCH AS LEAD PAINT, ASBESTOS, ETC., WILL BE PERFORMED BY A LICENSED CONTRACTOR PRIOR TO COMMENCEMENT OF DEMOLITION. A PRE-DEMOLITION SURVEY WILL BE PERFORMED BY CONTRACTOR PRIOR TO THE START OF DEMOLITION ACTIVITIES TO ENSURE PROPER DEMOLITION AND DISPOSAL PROCEDURES.
 8. DEMOLITION SEQUENCING WILL BE AS DIRECTED BY THE PRIME CONTRACTOR AND THE ARCHITECT.
 9. FOR AREAS OUTSIDE OF THE PROPOSED BUILDING FOOTPRINT, DEMOLISH ALL EXISTING BUILDINGS AND FOUNDATIONS TO 24" BELOW FINISHED GRADE. CONSULT WITH ENGINEER FOR DEMOLITION REQUIREMENTS FOR AREAS WITHIN THE PROPOSED BUILDING FOOTPRINT.
 10. ALL WORK PERFORMED TO CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE MUNICIPAL CONSTRUCTION STANDARDS.
 11. REFER TO SHEET G-1 FOR GENERAL NOTES AND LEGEND FOR CONSTRUCTION SEQUENCING NOTES.
 12. CONTRACTOR WILL NOTIFY OWNER, ENGINEER, AND ARCHITECT IMMEDIATELY IF SITE CONDITIONS DIFFER FROM WHAT IS SHOWN ON PLAN.
 13. CONTRACTOR WILL PROTECT ALL EXISTING UTILITIES WITHIN THE LIMIT OF WORK. CONTRACTOR WILL BE RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES AND ALL COSTS ASSOCIATED WITH REPLACEMENT OR REPAIR WILL BE BORNE BY THE CONTRACTOR.
 14. CONTRACTOR WILL PROTECT ALL SITE FEATURES OUTSIDE LIMIT OF WORK SHOWN HEREON. CONTRACTOR WILL BE RESPONSIBLE FOR DAMAGES TO EXISTING SITE FEATURES AND ALL COSTS ASSOCIATED WITH REPLACEMENT OR REPAIR WILL BE BORNE BY THE CONTRACTOR.
 15. DEMOLITION/REMOVAL OF EXISTING STORMWATER STRUCTURES AND PIPING WILL BE CONDUCTED IN DRY CONDITIONS TO THE EXTENT PRACTICAL. INSTALLATION OF NEW STRUCTURES AND PIPE WILL BE CONDUCTED PRIOR TO DEMOLITION TO THE EXTENT PRACTICAL.
 16. PRIOR TO THE START OF CONSTRUCTION AND ISSUANCE OF ANY PERMITS, A PRE-CONSTRUCTION MEETING WILL BE HELD WITH CITY OF CONCORD ENGINEERING SERVICES TO DISCUSS SITE INSPECTIONS, ASSOCIATED FEES, SCHEDULE, ETC.
 17. EROSION CONTROL SYSTEMS AS SHOWN ON SHEETS C-4.0 SHALL BE IMPLEMENTED IN PLACE PRIOR TO CONSTRUCTION.



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Concord, NH 03301
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www.nobis-group.com



JOHN CHRIS
WADZEAU
No. 6294
LICENSED
PROFESSIONAL ENGINEER
06/17/26

NOT ISSUED
FOR
CONSTRUCTION

**DARTMOUTH
HITCHCOCK
MEDICAL CENTER**

253 PLEASANT STREET
CONCORD, NH 03301

TAX MAP 734/Z LOT 21 & 22

OWNER/APPLICANT:
DARTMOUTH HITCHCOCK
CLINIC
1 MEDICAL CENTER DRIVE
LEBANON, NH 03756

NO.	DATE	DESCRIPTION
REVISIONS		
0 30' 60' GRAPHIC SCALE 1 INCH = 30 FEET		
DATE: JUNE 17, 2026		
NOBIS PROJECT NO. 100781.000		
DRAWN BY: GAK/GWS		
CHECKED BY: JCN		
CAD DRAWING FILE: 100781.000-C-100-DEMO.dwg		
SHEET TITLE		
DEMOLITION PLAN		
SHEET C-1.0		

APPROVED
UNDER THE PROVISIONS OF R.S.A. 674:35 & R.S.A. 674:36
CITY PLANNING BOARD
CITY OF CONCORD, NEW HAMPSHIRE
in accordance with vote of the board dated:

Approval of this plan is limited to the lots as shown

Chair Clerk

275 PLEASANT STREET
CARMELO MONASTERY
495 MAMMOTH ROAD
MANCHESTER, N.H. 03104
MAP 723Z LOT 1
V. 3040 P. 0838

RETAINING WALL
MAINTENANCE
EASEMENT

RETAINING WALL
MAINTENANCE
EASEMENT

RETAINING WALL
MAINTENANCE
EASEMENT

RETAINING WALL
MAINTENANCE
EASEMENT

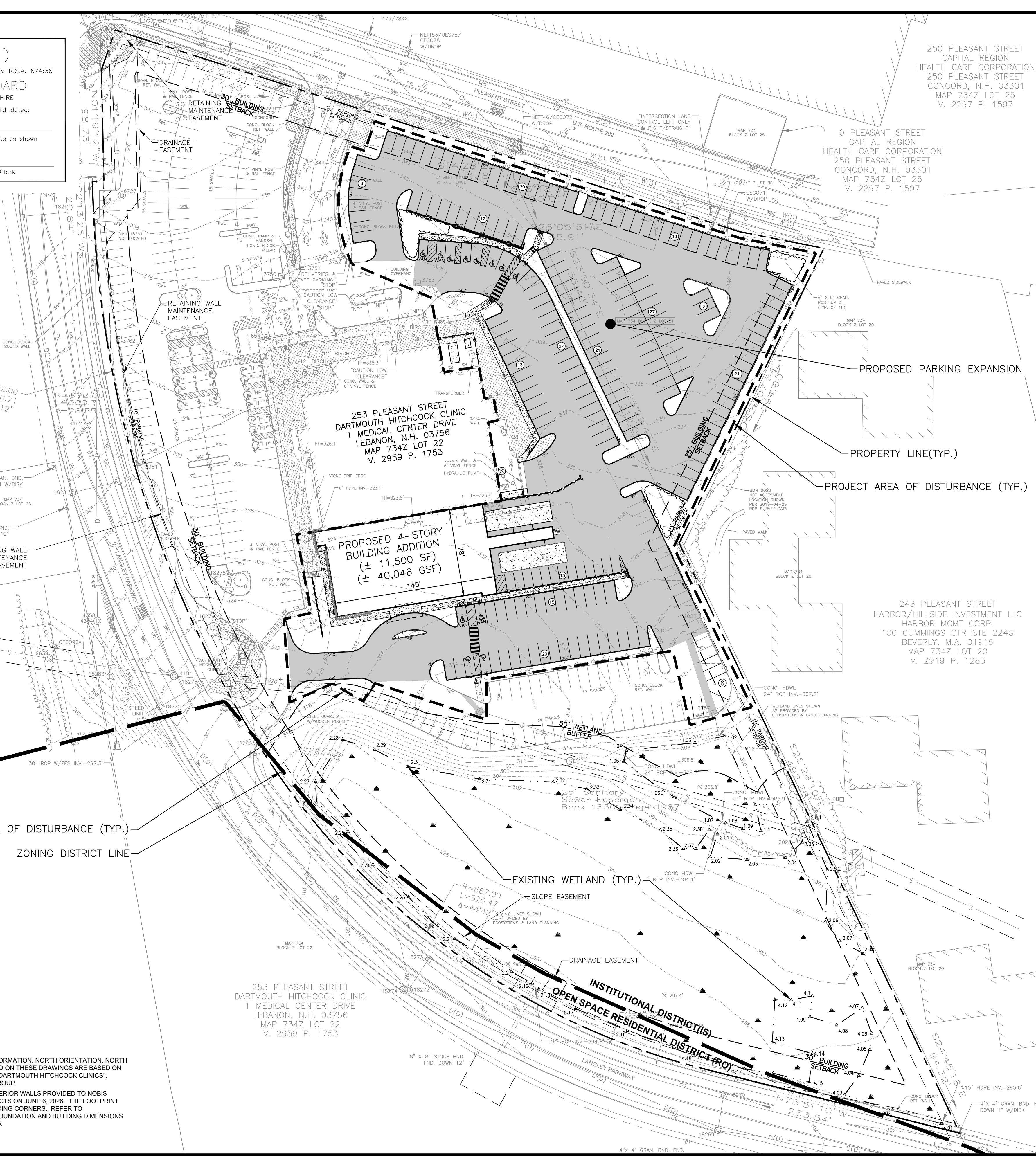
RETAINING WALL
MAINTENANCE
EASEMENT

RETAINING WALL
MAINTENANCE
EASEMENT

RETAINING WALL
MAINTENANCE
EASEMENT

RETAINING WALL
MAINTENANCE
EASEMENT

RETAINING WALL
MAINTENANCE
EASEMENT



ZONING ANALYSIS

TAX MAP/BLOCK/LOT: MAP 734Z/ LOTS 22 & 21

ADDRESS: 253 PLEASANT STREET
CONCORD, NH

ZONING DISTRICT: INSTITUTIONAL (IS) DISTRICT

SITE USE:
CURRENT: OFFICES OF HEALTH CARE PRACTITIONERS INCLUDING CLINICS AND OUTPATIENT HEALTH CARE

PROPOSED: OFFICES OF HEALTH CARE PRACTITIONERS INCLUDING CLINICS AND OUTPATIENT HEALTH CARE

MINIMUM LOT AREA	EXISTING	PROVIDED
25,000 SF	371,212 SF (8.52 ACRES)	414,607 SF (9.52 ACRES)

MINIMUM LOT FRONTAGE	EXISTING	PROVIDED
150'	377.4'	665.4'

MAXIMUM LOT COVERAGE	EXISTING	PROVIDED
75%		

BUILDINGS	EXISTING	PROVIDED
IMPERVIOUS SURFACES:	23,245 SF	34,583 SF
TOTAL LOT COVERAGE:	167,533 SF	201,972 SF
	190,778 SF (51.4%)	236,922 SF (57.1%)

IMPERVIOUS INCREASE = 46,144 SF
PROJECT AREA OF DISTURBANCE = 148,450 SF

INT. LANDSCAPING MINIMUM	EXISTING	PROVIDED
6%	7,862 SF (5.8%)	11,870 SF (6.7%)**

*EXISTING PARKING AREA = 135,288 SF
**PROPOSED PARKING AREA = 176,900 SF

BUILDING SETBACKS REQUIRED	REQUIRED
FRONT YARD	30'
SIDE YARD	25'
REAR YARD	30'

MAXIMUM BUILDING HEIGHT	PROVIDED
45'	39'***

***AVERAGE GROUND ELEV. = 326.0'

PARKING SETBACKS REQUIRED	REQUIRED
FRONT YARD	30'
SIDE YARD	5' (10' over 375 parking spaces)
REAR YARD	5' (10' over 375 parking spaces)

REQUIRED PARKING SPACES
PROJECT CLASSIFICATION = OFFICES OF HEALTH CARE PRACTITIONERS INCLUDING CLINICS AND OUTPATIENT HEALTH CARE
1 SPACE / 225 GSF

EXISTING LEVEL 1 = 19,736
EXISTING LEVEL 2 = 22,702
EXISTING LEVEL 3 = 22,523
EXISTING BUILDING = 64,961 GSF

PROPOSED ADDITION = 40,046 GSF
PROPOSED FINAL CONDITION = 105,007 GSF (USE: MEDICAL CLINIC)

	REQUIRED	EXISTING	PROPOSED
TOTAL SPACES:	467	350	467
ACCESSIBLE SPACES:	9	28	28
LOADING AREAS:	2	2	2
COMPACT SPACES:	0	0	16

ACCESSIBLE SPACE CALCULATION = 401-501 PROPOSED SPACES = 9 ADA SPACES
LOADING AREA CALCULATION = 101,001-150,000 GSF = 2 LOADING AREAS (INSTITUTIONAL USE)

NOTES:

- THE PURPOSE OF THIS PLAN IS TO DEPICT THE PROPOSED BUILDING ADDITION FOOTPRINT, PARKING AREA EXPANSION AND AMENDMENT, AND OTHER SITE INFRASTRUCTURE FOR THE DARTMOUTH HITCHCOCK MEDICAL CENTER.
- ALL SITE CONSTRUCTION TO COMPLY WITH THE RULES AND REGULATIONS OF THE AMERICANS WITH DISABILITY ACT (ADA) LATEST EDITION.
- DIMENSIONS SHOWN TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR TO USE CAUTION WHEN SCALING REPRODUCED PLANS. IN THE EVENT OF A CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWINGS AND / OR SPECIFICATIONS, THE ENGINEER WILL BE NOTIFIED BY THE CONTRACTOR.
- THE PROPOSED ADDITION WILL BE SERVICED BY MUNICIPAL WATER AND SEWER.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING DIG SAFE (1-888-DIG-SAFE) AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR WILL COORDINATE WORK WITH THE CITY FIRE, POLICE, AND COMMUNITY DEVELOPMENT DEPARTMENTS.
- A MANDATORY PRE-CONSTRUCTION MEETING WILL NEED TO BE HELD PRIOR TO ISSUANCE OF ANY PERMITS TO DISCUSS INSPECTION FEES, CONSTRUCTION SCHEDULE, ETC.
- REFER TO CONSTRUCTION DETAIL SHEETS FOR ALL APPLICABLE SITE DETAILS.
- CONTRACTOR WILL NOTIFY ENGINEERS IMMEDIATELY IF SITE CONDITIONS DIFFER FROM WHAT IS SHOWN ON PLAN.
- REFER TO SHEET G-1 FOR GENERAL NOTES AND LEGEND.
- TEST PITS PERFORMED BY NOBIS GROUP ON APRIL 16, 2026. REFER TO STORMWATER REPORT FOR TEST PIT LOGS.
- PRIOR TO THE ISSUANCE OF A CERTIFICATE OF APPROVAL, ALL ITEMS STATED IN SECTION 12.08, SHALL BE PROVIDED TO THE PLANNING DEPARTMENT AND CITY ENGINEER AS AN ELECTRONIC SUBMISSION.
- PRIOR TO THE ISSUANCE OF A CERTIFICATE OF APPROVAL, ALL ITEMS STATED IN SECTION 13.02, WHERE REQUIRED, SHALL BE PROVIDED TO THE PLANNING DEPARTMENT AND CITY ENGINEER.
- PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY DIGITAL AS-BUILT DRAWINGS SHALL BE PROVIDED CONFORMING TO THE CITY ENGINEERING DIVISION'S AS-BUILT CHECKLIST.
- PRIOR TO THE ISSUANCE OF A CERTIFICATE OF APPROVAL, DIGITAL INFORMATION FROM THE SITE PLAN DRAWINGS SHALL BE PROVIDED TO THE CITY ENGINEER FOR INCORPORATION INTO THE CITY OF CONCORD'S GEOGRAPHIC INFORMATION SYSTEM (GIS) AND TAX MAPS AS SPECIFIED IN SECTION 12.08 (SPR).
- THE FOLLOWING STATE AND FEDERAL PERMITS ARE REQUIRED FOR THIS PROJECT.
 - NHDES ALTERATION OF TERRAIN PERMIT
 - NHDES SEWER CONNECTION PERMIT
 - EPA GENERAL CONSTRUCTION PERMIT
 - WETLANDS WERE DELINEATED BY JOHN J. ST. JOHN, CWS #221, IN MAY 2026 IN ACCORDANCE WITH ENV-WT 406.01.
- THE UNDERGROUND UTILITIES DEPICTED HERON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND PLOTTED FROM EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTION OF THE UTILITIES. ALL CONTRACTORS SHOULD NOTIFY, IN WRITING, ANY UTILITY COMPANY AND APPROPRIATE AGENCIES PRIOR TO EXCAVATION WORK.
- THE SITE DOES NOT FALL WITHIN THE AQUIFER PROTECTION DISTRICT.
- THE PARCEL IS NOT LOCATED WITHIN ANY FLOOD HAZARD ZONE AS SHOWN ON THE FLOOD INSURANCE RATE MAP NO. 3301100533F HAVING AN EFFECTIVE DATE OF JANUARY 23, 2026. THIS PARCEL IS NOT LOCATED IN THE FLOOD HAZARD ZONING OVERLAY DISTRICT.
- THE SITE DOES NOT FALL WITHIN THE SHORELAND PROTECTION (SP) OVERLAY DISTRICT.
- THERE ARE NO PUBLIC SPACES, PARKS, OR HISTORIC STRUCTURES ON SITE.
- THERE ARE NO WELLS OR SEPTIC SYSTEMS IN THE VICINITY THAT THE SURVEYOR IS AWARE OF.
- REFER TO SHEET G-1 FOR GENERAL NOTES AND LEGEND.
- THE PROJECT IS TO BE CONSTRUCTED IN ONE PHASE
- NO OUTDOOR STORAGE IS PROPOSED
- ROOF TOP MECHANICAL EQUIPMENT IS PROPOSED AND WILL BE SCREENED FROM VIEW BY A LOUVERED SCREEN CONFORMING TO SECTION 26.02 OF THE CITY OF CONCORD SITE PLAN REGULATIONS.
- THE EXISTING AND PROPOSED BUILDING WILL BE EQUIPPED WITH AUTOMATIC FIRE SUPPRESSION SYSTEMS.
- SNOW WILL BE STOCKPILED ONSITE WITHIN PARKING STALLS AND WILL BE REMOVED OFFSITE BY DHC FACILITIES AND MAINTENANCE STAFF PERIODICALLY IF NEEDED. SNOW STORAGE IS PROHIBITED WITHIN THE 50-FT WETLAND BUFFER

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HITCHCOCK
MEDICAL CENTER

253 PLEASANT STREET
CONCORD, NH 03301

TAX MAP 734/Z LOT 21 & 22

OWNER/APPLICANT:
DARTMOUTH HITCHCOCK
CLINIC
1 MEDICAL CENTER DRIVE
LEBANON, NH 03756

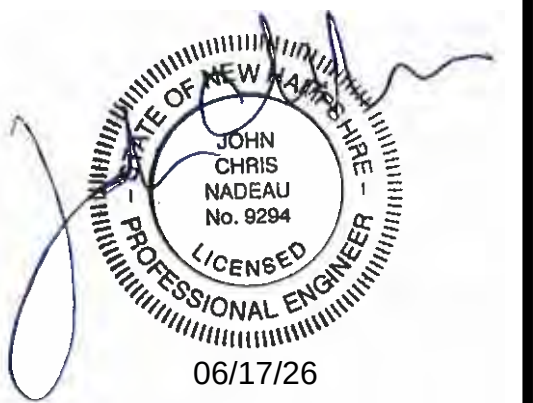
NO.	DATE	DESCRIPTION
REVISIONS		
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DATE:	JUNE 17, 2026	
NOBIS PROJECT NO.	100781.000	
DRAWN BY:	GAK/GWS	
CHECKED BY:	JCN	
CAD DRAWING FILE:	100781.000-C-200-SITE.dwg	
SHEET TITLE		

PROPOSED SITE
PLAN
OVERVIEW

SHEET
C-2.0



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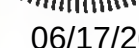
PROPOSED SITE PLAN

SHEET

C-2.1



911



DARTMOUTH
HITCHCOCK
MEDICAL CENTER

TAX MAP 734/Z LOT 21 & 22

OWNER/APPLICANT:
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CLINIC
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LEBANON, NH 03756

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REVISIONS



DATE: JUNE 17, 2026

NOBIS PROJECT NO. 100781.000

DRAWN BY: GAK/GWS

CHECKED BY: JCN

CAD DRAWING FILE:
100781.000-C-200-SITE.dwg

SHEET TITLE

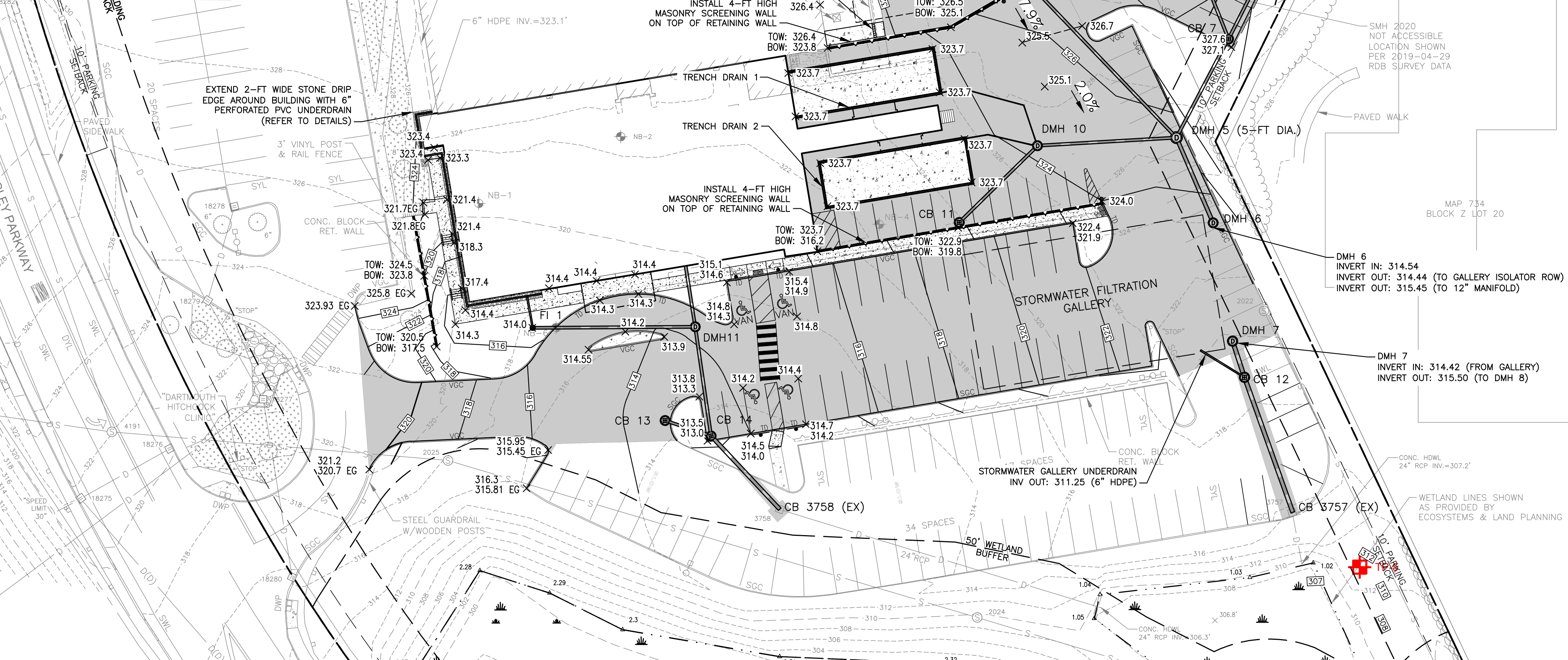
FIRETRUCK TURNING PLAN

SHEET

C-2.2

- NOTES:
1. REFER TO SURVEYOR'S PLAN FOR BASE PLAN REFERENCES AND ADDITIONAL NOTES.
 2. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE SURVEY PLAN AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
 3. CONTRACTOR WILL NOTIFY OWNER & ENGINEER IMMEDIATELY IF SITE CONDITIONS DIFFER FROM WHAT IS SHOWN ON PLAN.
 4. SPOT ELEVATIONS SHOWN AT BUILDING CORNERS ARE PROPOSED GROUND ELEVATIONS.
 5. STONE DRIP EDGE PIPING WILL BE CONNECTED TO THE CLOSED DRAINAGE SYSTEM.
 6. FINISH WALK AND CURB ELEVATIONS WILL BE 7" ABOVE FINISH PAVEMENT.
 7. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR AT GROUND BREAK.
 8. LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES ARE APPROXIMATE ONLY AND ARE BASED ON RECORDS FROM THE UTILITY COMPANIES AND FIELD MEASUREMENTS OF VISIBLE STRUCTURES. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO CONSTRUCTION AND WILL NOTIFY ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS.
 9. ALL WORK ON SITE, ALL UTILITY WORK AND ALL WORK WITH CITY R.O.W. WILL BE PERFORMED IN ACCORDANCE WITH THE CITY OF CONCORD SPECIFICATIONS, LATEST EDITION.
 10. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING DIG SAFE (1-888-DIG-SAFE) AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR WILL COORDINATE WORK WITH THE CITY FIRE, POLICE, AND COMMUNITY DEVELOPMENT DEPARTMENTS.
 11. ALL STORM DRAIN PIPING WITH LESS THAN 3.0 FEET OF COVER WILL BE OVERLAID WITH 2" THICK RIGID INSULATION FOR THE FULL WIDTH OF PIPE TRENCH.
 12. REFER TO SHEET G-1 FOR GENERAL NOTES AND LEGEND.

DRAINAGE SCHEDULE				
Structure Name	Rim Elev.	Pipe Inv. In	Pipe Inv. Out	Pipe Out Info
ROOF DRAIN (INVERT OUT)			I = 309.40 (12" HDPE Pipe)	L= 25.19 S=0.79% TO DMH11
DRIP EDGE UNDERDRAIN			I = 311.80 (6" HDPE Pipe)	L= 12.82 S=0.78% TO FI 1
DMH11	RIM = 314.10	I = 309.20 I = 309.20	I = 309.10 (12" HDPE Pipe)	L= 45.25 S=2.21% TO CB 14
FI 1	RIM = 314.00	I = 311.70	I = 309.60 (12" HDPE Pipe)	L= 66.72 S=0.60% TO DMH11
CB 13	RIM = 313.20		I = 308.20 (12" HDPE Pipe)	L= 19.91 S=0.50% TO CB 14
CB 14	RIM = 313.00	I = 308.10 I = 308.10	I = 308.00 (15" HDPE)	L= 41.19 S=1.60% TO CB 3758 (EX)
CB 3758 (EX)	RIM = 312.66	I = 307.34	I = 306.55 (24" Concrete Pipe)	L= 136.79 S=0.19% TO CONC HW (EX)
CONC HW (EX)		I = 306.30		



DRAINAGE SCHEDULE				
Structure Name	Rim Elev.	Pipe Inv. In	Pipe Inv. Out	Pipe Out Info
DMH 3	RIM = 340.95	I = 333.14		
DMH 2	RIM = 340.32		I = 336.10 (12" HDPE Pipe)	L= 80.17 S=7.20% TO CB 3753 (EX)
CB 3	RIM = 338.90		I = 333.80 (12" HDPE Pipe)	L= 48.51 S=1.36% TO DMH 3
DMH 1	RIM = 338.68	I = 334.14		
CB 1	RIM = 338.30		I = 334.70 (12" HDPE Pipe)	L= 22.52 S=0.67% TO CB 2
CB 2	RIM = 337.90	I = 334.55	I = 334.45 (12" HDPE Pipe)	L= 60.43 S=0.51% TO DMH 1
CB 3753 (EX)	RIM = 335.48	I = 330.47	I = 330.37 (12" Concrete Pipe)	L= 130.81 S=2.39% TO CB 3754 (EX)
CB 3754 (EX)	RIM = 333.30	I = 327.34	I = 327.05 (12" HDPE Pipe)	L= 83.56 S=4.85% TO CB 9
CB 6	RIM = 332.10		I = 327.10 (12" HDPE Pipe)	L= 118.22 S=4.23% TO CB 7
CB 5	RIM = 331.20		I = 326.30 (12" HDPE Pipe)	L= 30.24 S=0.66% TO DMH 4
DMH 4	RIM = 331.00	I = 326.10 I = 326.10	I = 326.00 (12" HDPE Pipe)	L= 78.72 S=4.95% TO CB 7
CB 4	RIM = 330.70		I = 326.30 (12" HDPE Pipe)	L= 31.36 S=0.64% TO DMH 4
CB 10	RIM = 327.35	I = 321.10	I = 320.85 (12" HDPE Pipe)	L= 92.96 S=3.76% TO DMH 5 (5-FT DIA.)
CB 7	RIM = 327.10	I = 322.10 I = 322.10	I = 320.60 (12" HDPE Pipe)	L= 45.75 S=7.43% TO DMH 5 (5-FT DIA.)
TRENCH DRAIN (EX)	RIM = 325.80		I = 322.50 (6" PIPE EX)	L= 14.38 S=4.04% TO CB 9
CB 9	RIM = 325.50	I = 323.00 I = 322.00	I = 322.90 (12" HDPE Pipe)	L= 67.68 S=2.83% TO CB 10
DMH 5 (5-FT DIA.)	RIM = 325.45	I = 317.35 I = 317.35 I = 317.35	I = 317.25 (15" HDPE)	L= 38.08 S=7.12% TO DMH 6
DMH 10	RIM = 324.28	I = 318.75 I = 318.75 I = 318.75	I = 318.65 (12" HDPE Pipe)	L= 57.14 S=2.28% TO DMH 5 (5-FT DIA.)
TRENCH DRAIN 2	RIM = 323.70		I = 321.00 (6" HDPE Pipe)	L= 29.87 S=7.53% TO DMH 10
TRENCH DRAIN 1	RIM = 323.70		I = 321.00 (6" HDPE Pipe)	L= 50.70 S=4.44% TO DMH 10
DMH 6	RIM = 323.30	I = 314.54		
CB 11	RIM = 322.90		I = 319.00 (12" HDPE Pipe)	L= 44.97 S=0.56% TO DMH 10
DMH 7	RIM = 319.76		I = 315.50 (18" HDPE Pipe)	L= 15.63 S=7.68% TO CB 12
GALLERY UNDERDRAN			I = 311.00 (6" HDPE Pipe)	L= 21.16 S=1.18% TO CB 12
CB 12	RIM = 318.75	I = 314.30 I = 311.25	I = 311.15 (18" HDPE Pipe)	L= 58.82 S=2.87% TO CB 3757 (EX)
CB 3757 (EX)	RIM = 315.71	I = 309.46	I = 307.30 (24" Concrete Pipe)	L= 20.86 S=0.48% TO CONCRETE HW (EX)
CONCRETE HW (EX)		I = 307.20		

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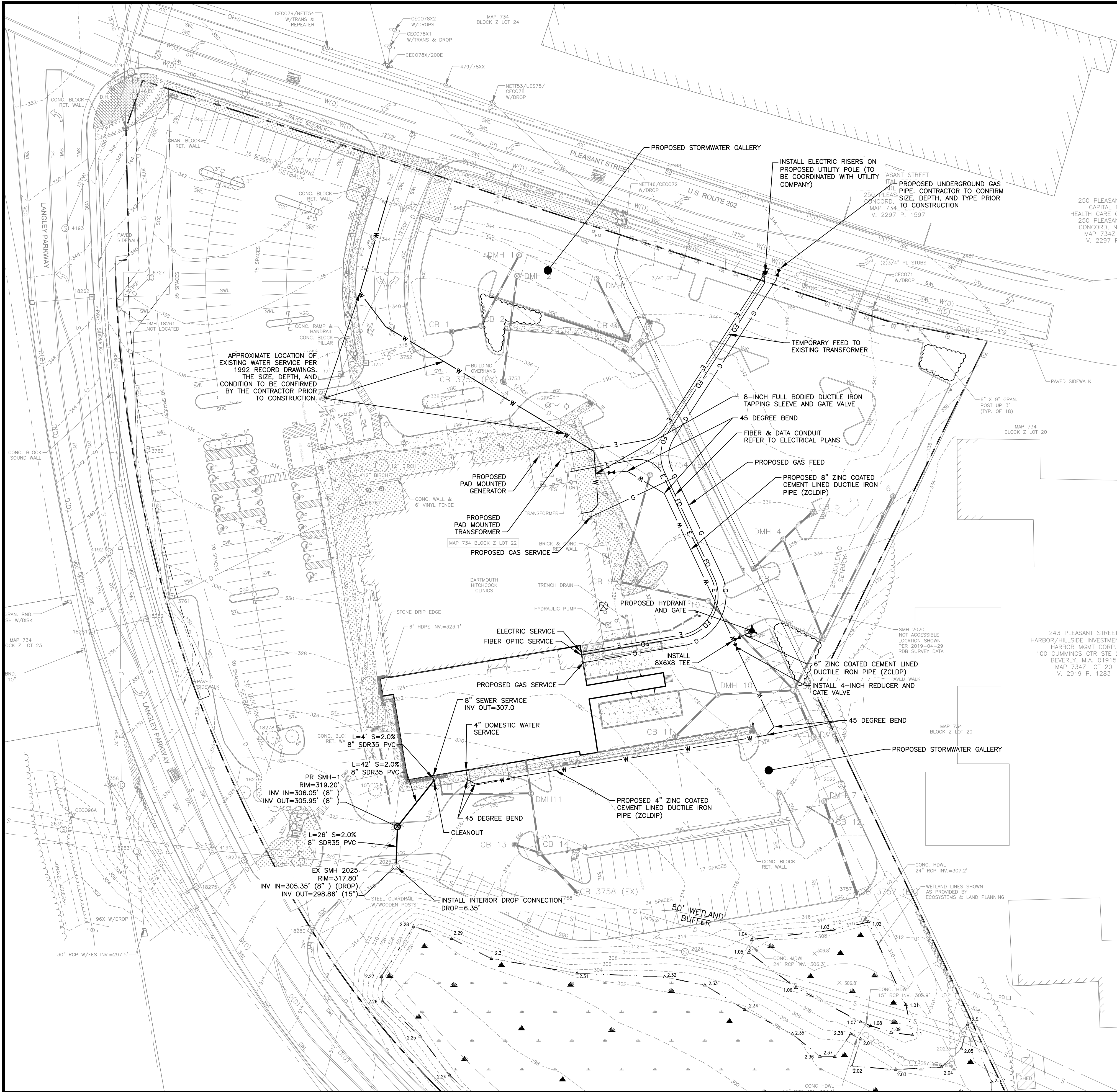
TAX MAP 734/Z LOT 21 & 22

OWNER/APPLICANT:
DARTMOUTH HITCHCOCK
CLINIC
1 MEDICAL CENTER DRIVE
LEBANON, NH 03756

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0 30' 60' GRAPHIC SCALE 1 INCH = 30 FEET		
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NOBIS PROJECT NO.	100781.000	
DRAWN BY:	GAK/GWS	
CHECKED BY:	JCN	
CAD DRAWING FILE:	100781.000-C-300-G&D.dwg	
SHEET TITLE		

GRADING AND
DRAINAGE PLAN

SHEET
C-3.0

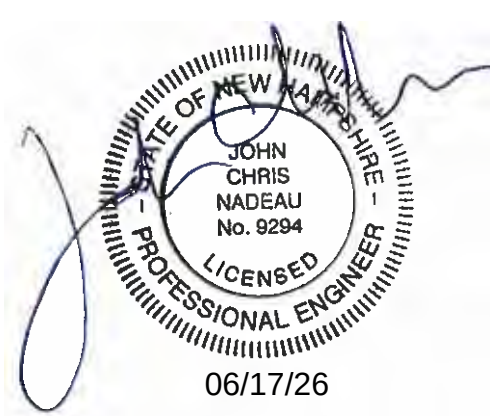


- NOTES:
1. REFER TO SURVEYOR'S PLAN, FOR BASE PLAN REFERENCES AND ADDITIONAL NOTES.
 2. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE SURVEY PLAN AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
 3. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION.
 4. LOCATIONS AND ELEVATIONS OF UTILITIES ARE APPROXIMATE ONLY AND ARE BASED ON RECORDS FROM THE UTILITY COMPANIES AND FIELD MEASUREMENTS OF VISIBLE STRUCTURES. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO CONSTRUCTION AND WILL NOTIFY ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS.
 5. THERE WILL BE NO PHYSICAL CONNECTION BETWEEN A PUBLIC OR PRIVATE POTABLE WATER SUPPLY SYSTEM AND A SEWER OR SEWER APPURTENANCE WHICH WOULD PERMIT THE PASSAGE OF SEWAGE OR POLLUTED WATER INTO THE POTABLE SUPPLY. NO WATER PIPE WILL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SEWER OR SEWER MANHOLE. SEWERS WILL BE LOCATED AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN.
 - WHENEVER SEWERS MUST CROSS WATER MAINS, THE SEWER WILL BE CONSTRUCTED AS FOLLOWS:
 - 5.1. VERTICAL SEPARATION OF THE SEWER AND WATER MAIN WILL BE NOT LESS THAN 18 INCHES, WITH WATER ABOVE SEWER; AND
 - 5.2. SEWER PIPE JOINTS WILL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATER MAIN.
 6. THE CONTRACTOR WILL PROVIDE A MINIMUM NOTICE OF FOURTEEN (14) DAYS TO ALL CORPORATIONS, COMPANIES AND INDIVIDUALS HAVING A JURISDICTION OVER UTILITIES RUNNING TO, THROUGH OR ACROSS PROJECT AREAS PRIOR TO DEMOLITION AND/OR CONSTRUCTION ACTIVITIES.
 7. THE LOCATION, SIZE, DEPTH AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES WILL BE TO THE STANDARDS AND REQUIREMENTS OF THE RESPECTIVE UTILITY COMPANY (ELECTRIC, TELEPHONE, CABLE TELEVISION, FIRE ALARM, GAS, WATER, AND SEWER).
 8. ALL CONSTRUCTION WILL CONFORM TO THE CITY/TOWN STANDARDS AND REGULATIONS, UNLESS OTHERWISE SPECIFIED. ALL CONSTRUCTION ACTIVITIES WILL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
 9. THE CONTRACTOR IS TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITY STUBS PRIOR TO CONSTRUCTION AND DISCONNECT ALL EXISTING SERVICE CONNECTIONS AT THEIR RESPECTIVE MAINS IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANY'S STANDARDS AND SPECIFICATIONS. ENGINEERS TO BE NOTIFIED.
 10. AS-BUILT PLANS WILL BE SUBMITTED TO DEPARTMENT OF PUBLIC WORKS.
 11. INVERTS AND SHELVES: MANHOLES WILL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW AT CHANGES IN DIRECTION. THE INVERTS WILL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES WILL BE CONSTRUCTED TO THE ELEVATION OF THE THROUGH CHANNEL UNDERLAYMENT OF INVERT, AND SHELF WILL CONSIST OF GRADE SS HARD BRICK MASONRY.
 12. FRAMES AND COVERS: MANHOLE FRAMES AND COVERS WILL BE OF HEAVY DUTY DESIGN AND PROVIDE A 24 INCH DIA. CLEAR OPENING. THE WORD "SEWER" WILL BE CAST INTO THE CENTER OF THE UPPER FACE OF EACH COVER WITH RAISED 3" LETTERS. FRAMES AND COVERS SHALL MEET MASSDOT CONSTRUCTION STANDARDS.
 13. CONTRACTOR WILL PLACE 2" WIDE METAL WIRE IMPREGNATED GREEN PLASTIC WARNING TAPE OVER ENTIRE LENGTH OF ALL GRAVITY SEWERS, SERVICES, AND FORCE MAINS.
 14. ALL SANITARY STRUCTURE INTERIOR DIAMETERS (4" MIN) WILL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS.
 15. PROPOSED RIM ELEVATIONS OF SANITARY MANHOLES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES. ADJUST ALL OTHER RIM ELEVATIONS OF MANHOLES, WATER GATES, GAS GATES AND OTHER UTILITIES TO FINISH GRADE.
 16. ALL SANITARY SEWER SERVICE LATERALS, FOR FUTURE RESIDENTIAL CONNECTION, WILL END AT THE LIMITS OF THE R.O.W., AS SHOWN ON PLANS AND WILL BE PROVIDED WITH A TEMPORARY PLUG AND WITNESS AT END.
 17. DIMENSIONS ARE SHOWN TO CENTERLINE OF PIPE OR FITTING.
 18. SEWERS WILL BE BURIED TO A MINIMUM DEPTH OF 6 FEET BELOW GRADE IN ALL ROADWAY LOCATIONS, AND TO A MINIMUM DEPTH OF 4 FEET BELOW GRADE IN ALL CROSS-COUNTRY LOCATIONS.
 19. SEWER AND WATER INFRASTRUCTURE ON PRIVATE PROPERTY IS TO REMAIN PRIVATE. HOWEVER, THE CITY/TOWN RESERVES THE RIGHT TO ENTER THE PROPERTY IN ORDER TO INSPECT, REPAIR AND/OR TERMINATE INDIVIDUAL SEWER OR WATER SERVICES (AT OWNER'S EXPENSE).
 20. CONTRACTOR WILL SET RIMS OF NEW SANITARY SEWER MANHOLES TO EXISTING FINISHED GRADE FOR THE WINTER SEASON. RIMS WILL BE RAISED IN THE SPRING PRIOR TO PLACEMENT OF 1" BITUMINOUS OVERLAY.
 21. CONTRACTOR SHALL CONFIRM EXISTING UTILITY LOCATIONS AND INVERTS PRIOR TO INSTALLING CONNECTIONS. NOTIFY THE ENGINEER IMMEDIATELY IF EXISTING CONDITIONS DIFFER FROM WHAT IS SHOWN ON THE PLANS.
 22. REFER TO SHEET G-1 FOR GENERAL NOTES AND LEGEND.



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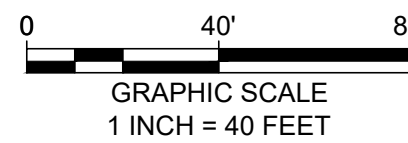
DARTMOUTH HITCHCOCK MEDICAL CENTER

253 PLEASANT STREET
CONCORD, NH 03301

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CHECKED BY:	JCN
CAD DRAWING FILE:	100781.000-C-400-UTILITY.dwg
SHEET TITLE	

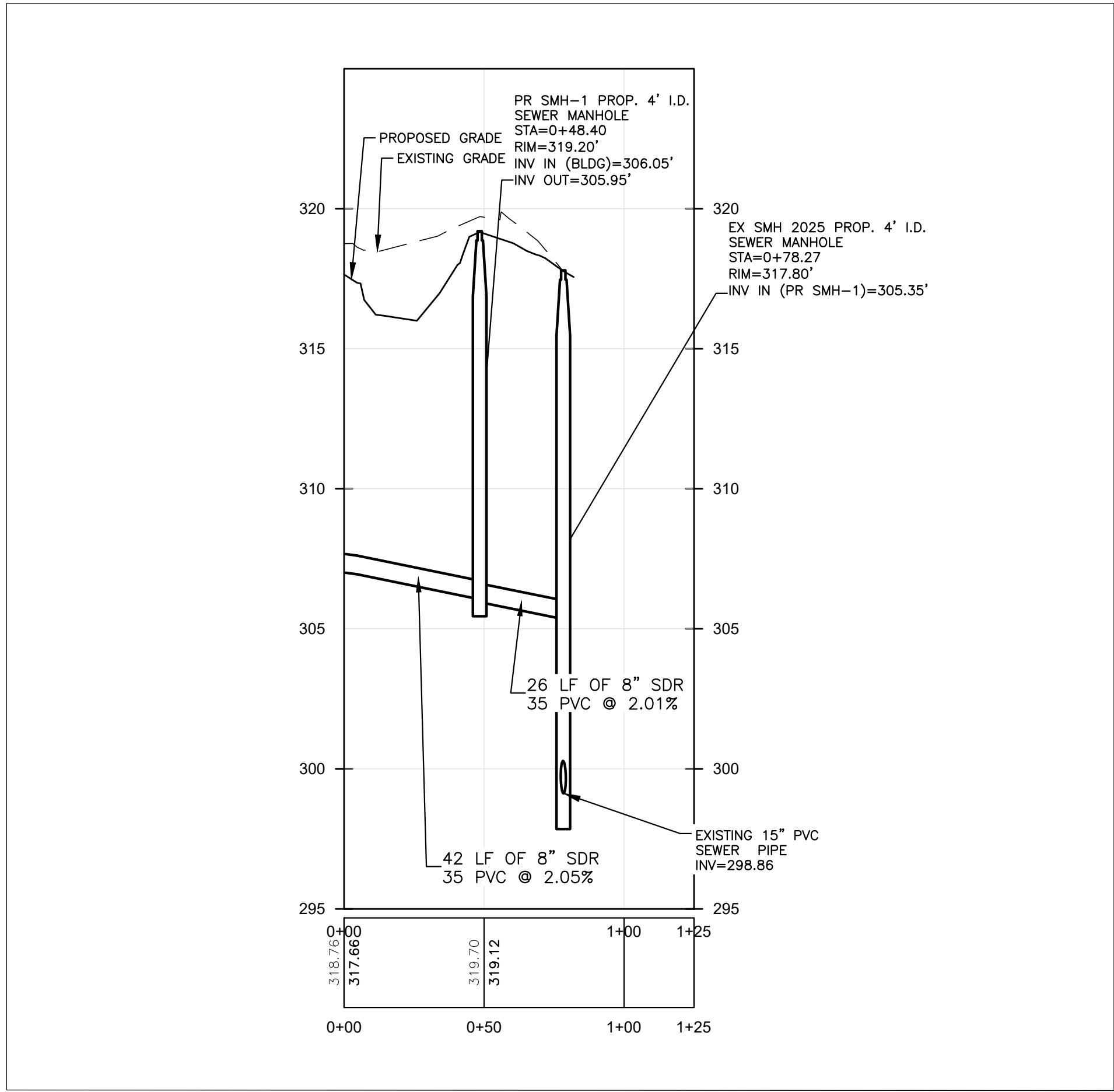
UTILITY LAYOUT PLAN

SHEET
C-4

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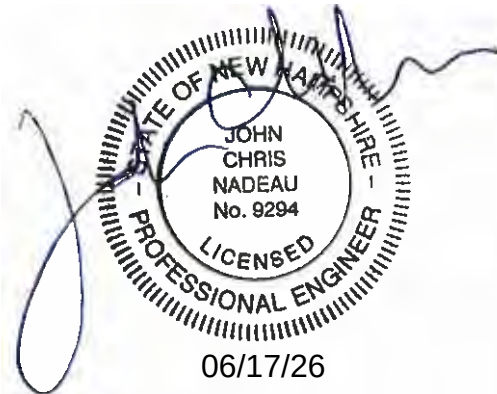
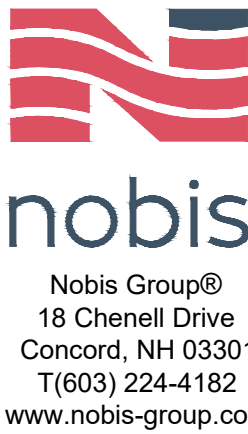


SEWER PLAN VIEW :
SEWER ALIGNMENT-1 (BLDG TO EX SMH-2025)
SCALE: 1" = 40'



SEWER PROFILE-1 (BLDG TO EX SMH-2025)
HORIZ. SCALE: 1" = 40'
VERT. SCALE: 1" = 4'

- NOTES:
1. REFER TO GRADING AND DRAINAGE PLAN AND UTILITY LAYOUT PLANS FOR ADDITIONAL INFORMATION.
 2. REFER TO SHEET G-1 FOR GENERAL NOTES AND LEGEND.
 3. THE HORIZONTAL SEPARATION FROM THE WATER MAIN TO ALL OTHER UTILITIES SHALL BE A MINIMUM OF 5-FT, PURSUANT THE CITY OF CONCORD CONSTRUCTION STANDARDS 5.03.D.14.
 4. THE HORIZONTAL SEPARATION FROM WATER MAIN AND SEWER MAIN SHALL BE A MINIMUM OF 10-FT PURSUANT THE CITY OF CONCORD'S CONSTRUCTION STANDARDS 5.03.D.12.
 5. THE MINIMUM COVER OVER PROPOSED WATER MAINS SHALL BE 5.5-FT, PURSUANT THE CITY OF CONCORD'S CONSTRUCTION STANDARDS 5.03.D.15.
 6. WHEN SEWER CROSSES WATER MAINS, THE SEWER WILL BE CONSTRUCTED AS FOLLOWS:
 - VERTICAL SEPARATION OF THE SEWER AND WATER MAIN WILL NOT BE LESS THAN 18 INCHES, WITH WATER ABOVE SEWER; AND
 - SEWER PIPE JOINT WILL BE LOCATED AT LEAST 6-FT HORIZONTAL FROM THE WATER MAIN.
 7. SEWER CONNECTIONS SHALL BE INSTALLED WITH A MINIMUM DEPTH OF 6-FT BLOW GRADE IN ALL ROADWAY LOCATIONS, AND TO A MINIMUM DEPTH OF 4-FT BELOW GRADE IN ALL CROSS COUNTRY LOCATIONS. A NOTES WAIVER IS REQUESTED.



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MEDICAL CENTER

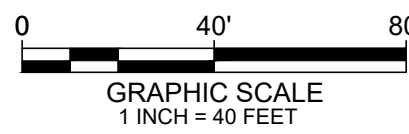
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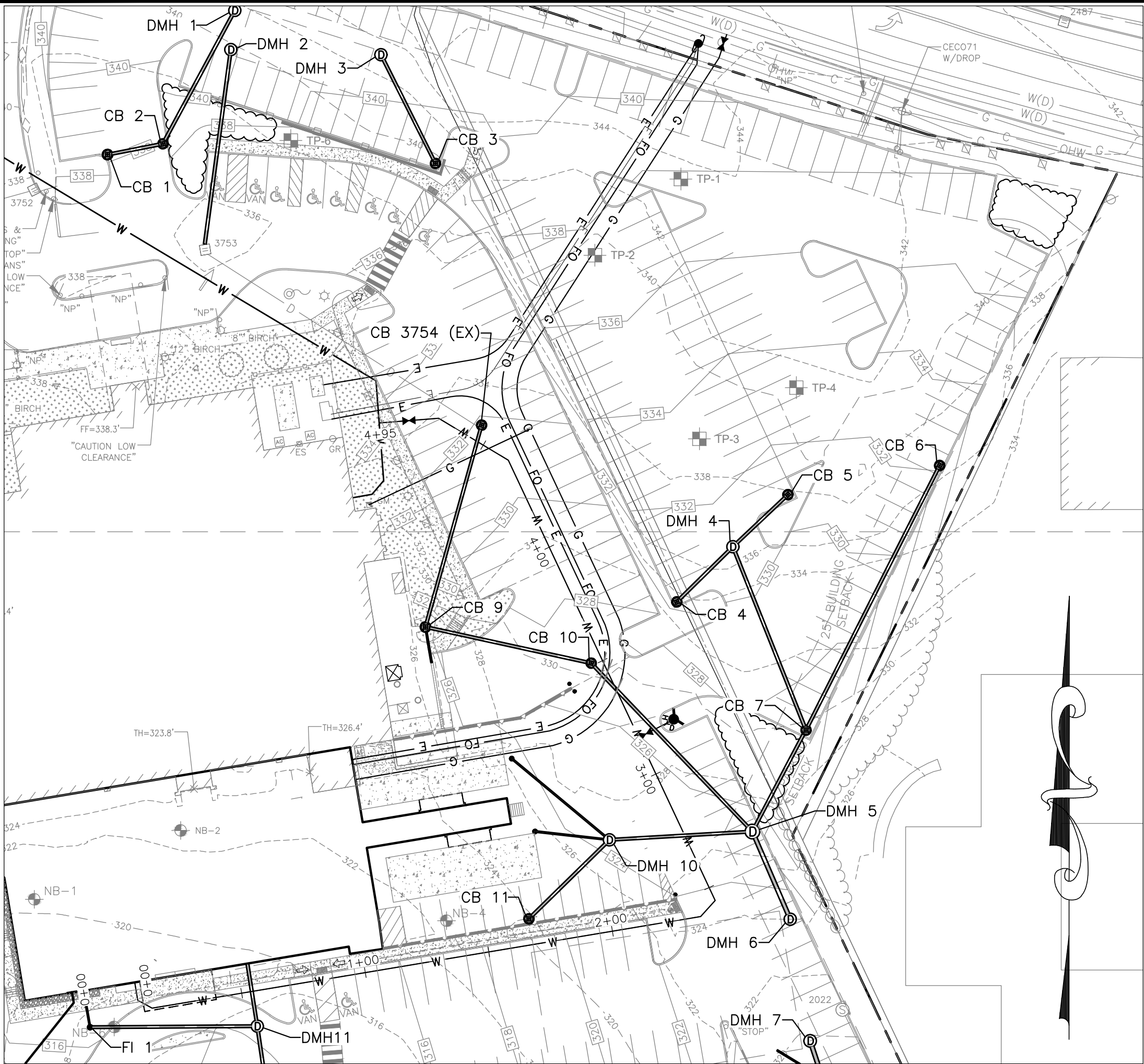
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SEWER
PROFILE PLAN

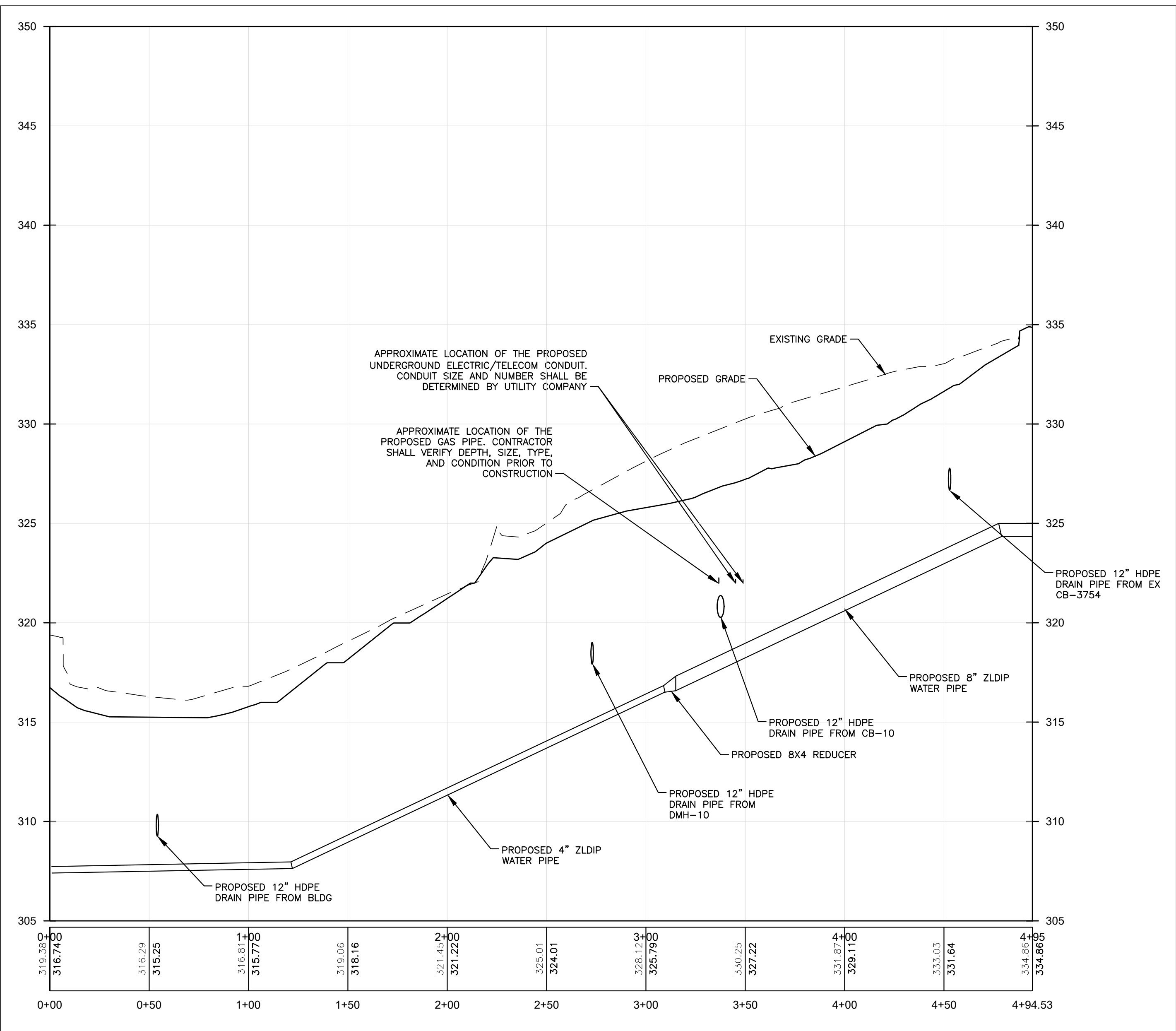
SHEET

C-4.1

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WATER PLAN VIEW :
WATER ALIGNMENT-1 (0+00 TO 4+95)
SCALE: 1" = 40'



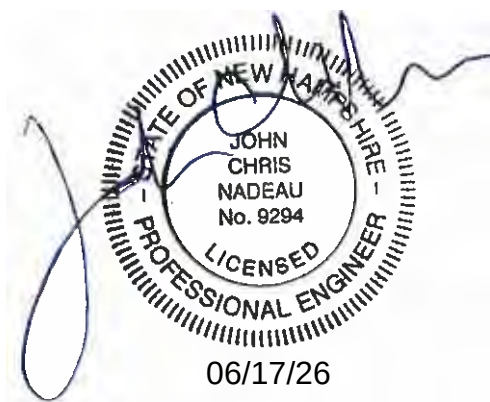
WATER PROFILE-1 (0+00 TO 4+95)
HORIZ. SCALE: 1" = 40'
VERT. SCALE: 1" = 4'

- NOTES:
1. REFER TO GRADING AND DRAINAGE PLAN AND UTILITY LAYOUT PLANS FOR ADDITIONAL INFORMATION.
 2. REFER TO SHEET G-1 FOR GENERAL NOTES AND LEGEND.
 3. THE HORIZONTAL SEPARATION FROM THE WATER MAIN TO ALL OTHER UTILITIES SHALL BE A MINIMUM OF 5-FT, PURSUANT THE CITY OF CONCORD CONSTRUCTION STANDARDS 5.03.D.14.
 4. THE HORIZONTAL SEPARATION FROM WATER MAIN AND SEWER MAIN SHALL BE A MINIMUM OF 10-FT PURSUANT THE CITY OF CONCORD'S CONSTRUCTION STANDARDS 5.03.D.12.
 5. THE MINIMUM COVER OVER PROPOSED WATER MAINS SHALL BE 5.5-FT, PURSUANT THE CITY OF CONCORD'S CONSTRUCTION STANDARDS 5.03.D.15.
 6. WHEN SEWER CROSSES WATER MAINS, THE SEWER WILL BE CONSTRUCTED AS FOLLOWS:
 - VERTICAL SEPARATION OF THE SEWER AND WATER MAIN WILL NOT BE LESS THAN 18 INCHES, WITH WATER ABOVE SEWER; AND
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 7. SEWER CONNECTIONS SHALL BE INSTALLED WITH A MINIMUM DEPTH OF 6-FT BLOW GRADE IN ALL ROADWAY LOCATIONS, AND TO A MINIMUM DEPTH OF 4-FT BELOW GRADE IN ALL CROSS COUNTRY LOCATIONS. A HIDES WAIVER IS REQUESTED.



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DARTMOUTH
HITCHCOCK
MEDICAL CENTER

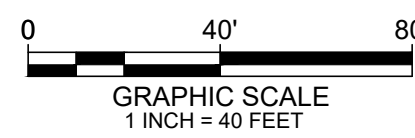
253 PLEASANT STREET
CONCORD, NH 03301

TAX MAP 734/Z LOT 21 & 22

OWNER/APPLICANT:
DARTMOUTH HITCHCOCK
CLINIC
1 MEDICAL CENTER DRIVE
LEBANON, NH 03756

NO.	DATE	DESCRIPTION
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REVISIONS



DATE: JUNE 17, 2026

NOBIS PROJECT NO. 100781.000

DRAWN BY: GAK/GWS

CHECKED BY: JCN

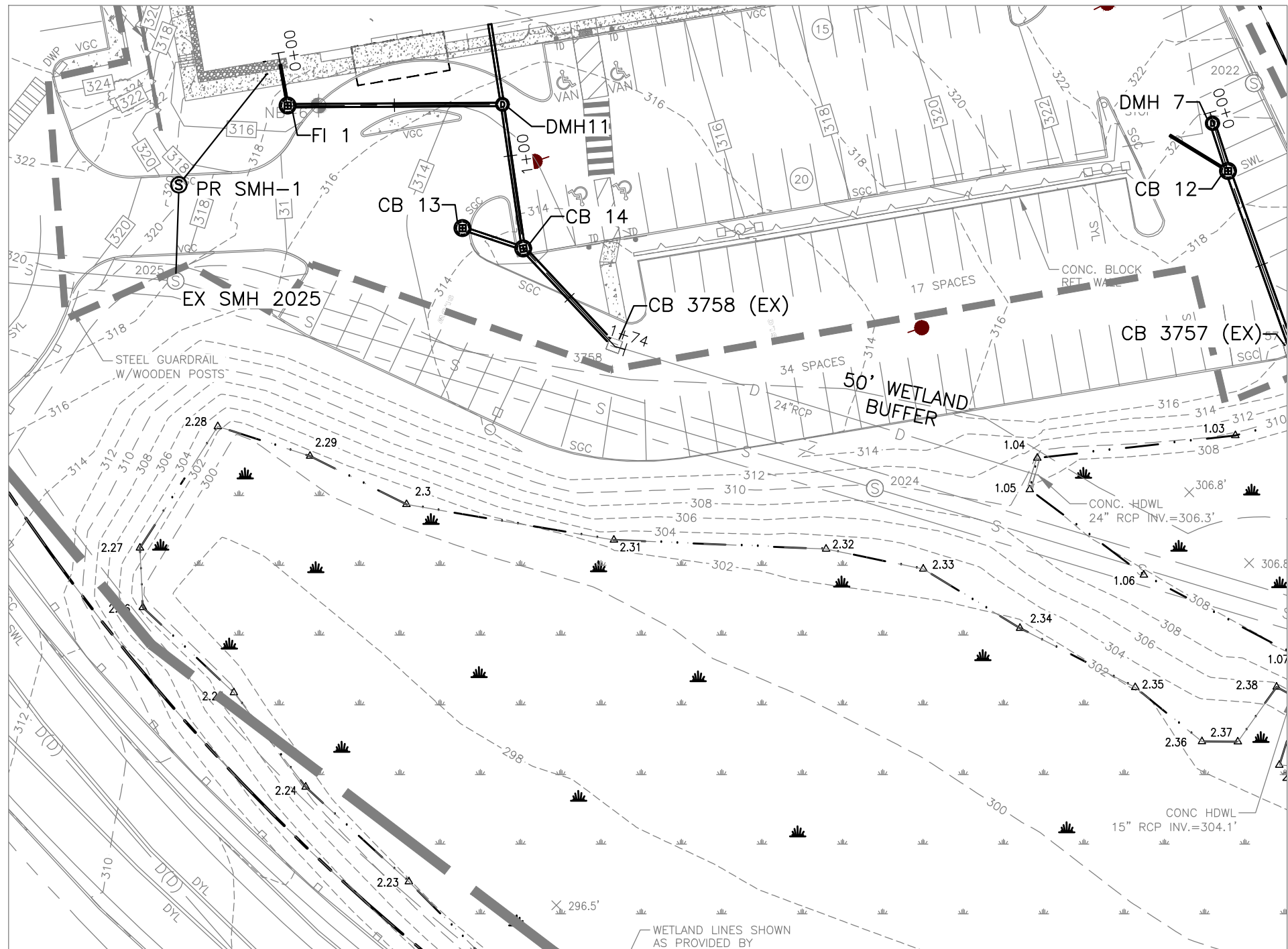
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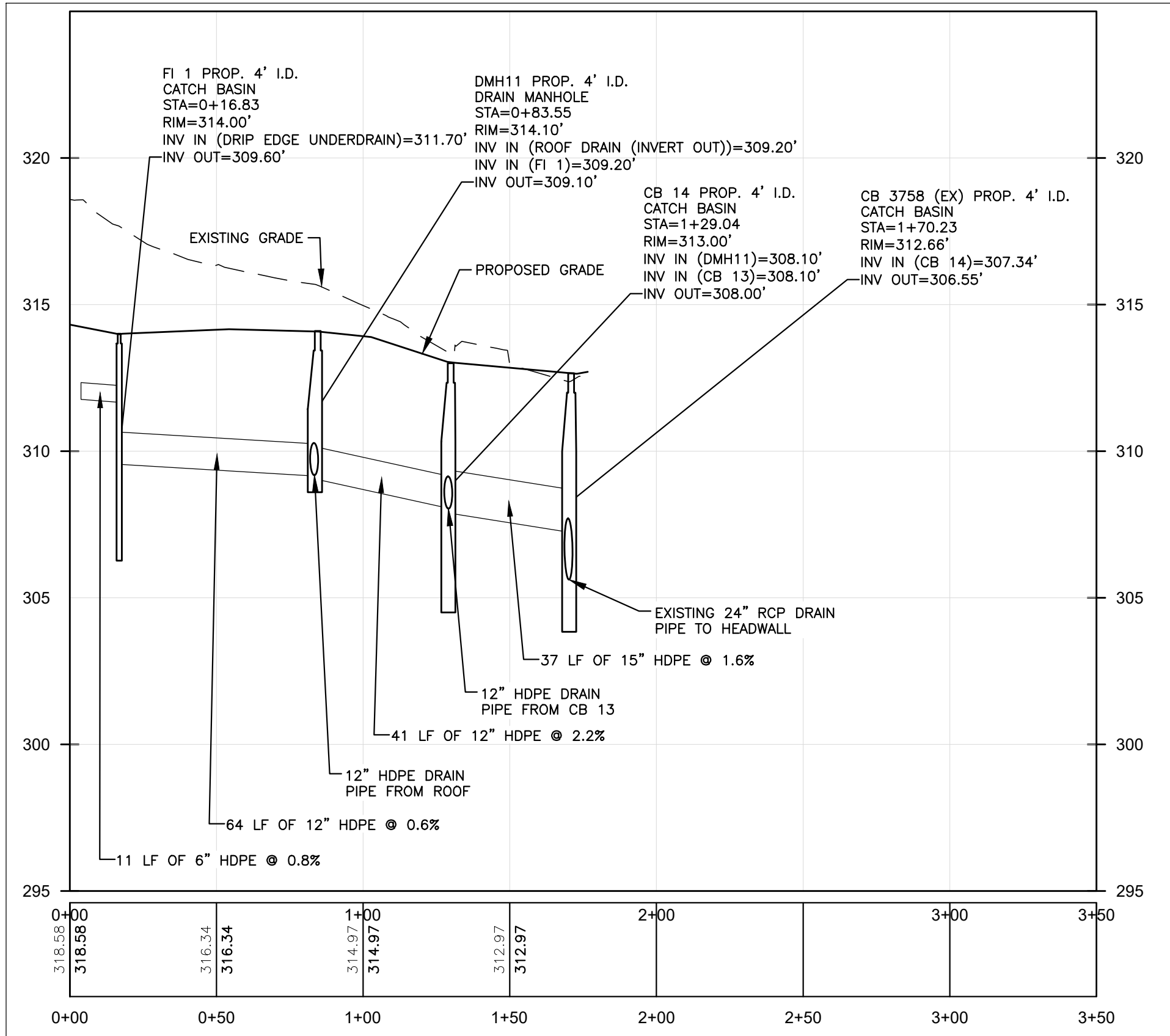
WATER PROFILE
PLAN

SHEET

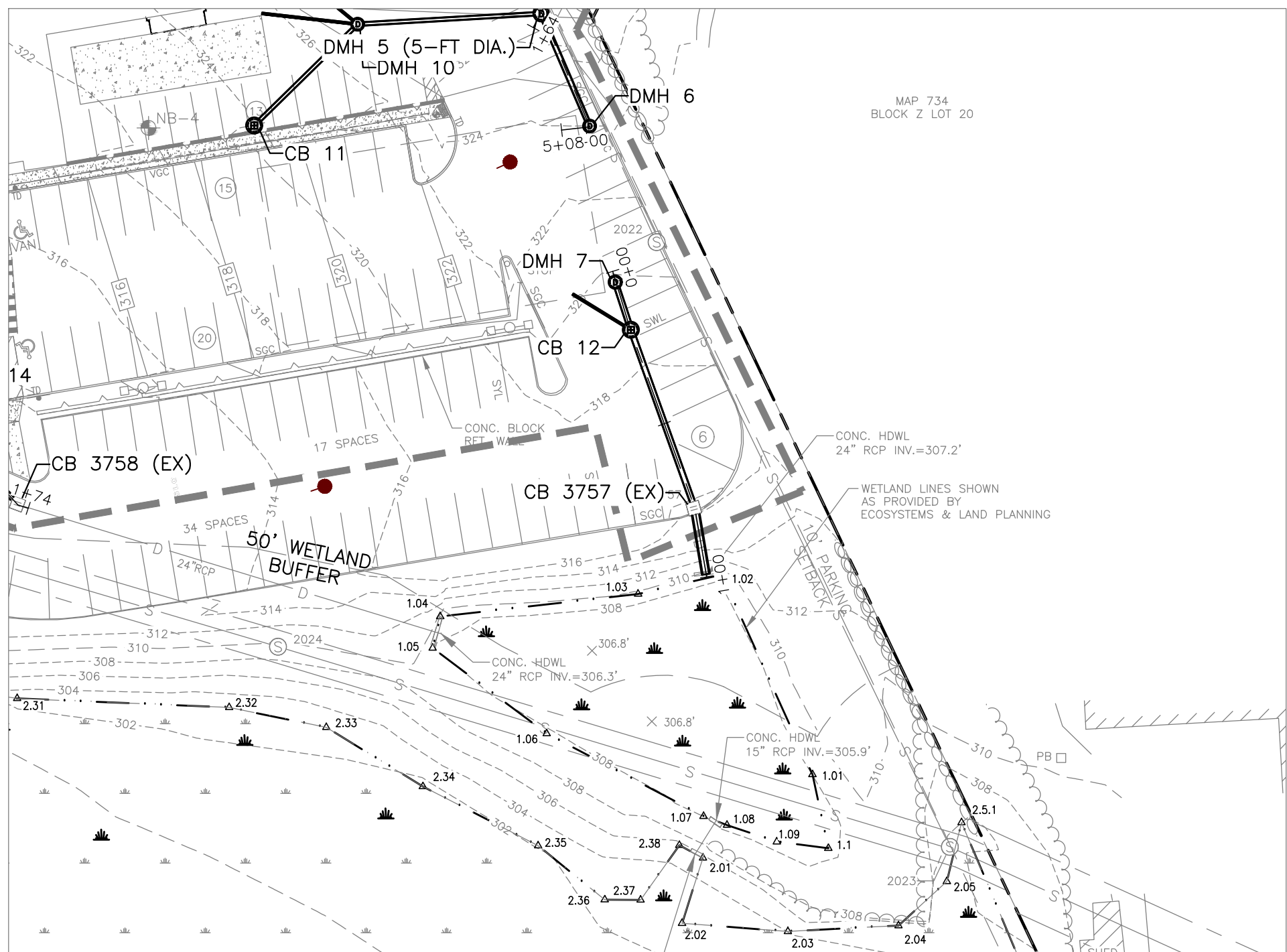
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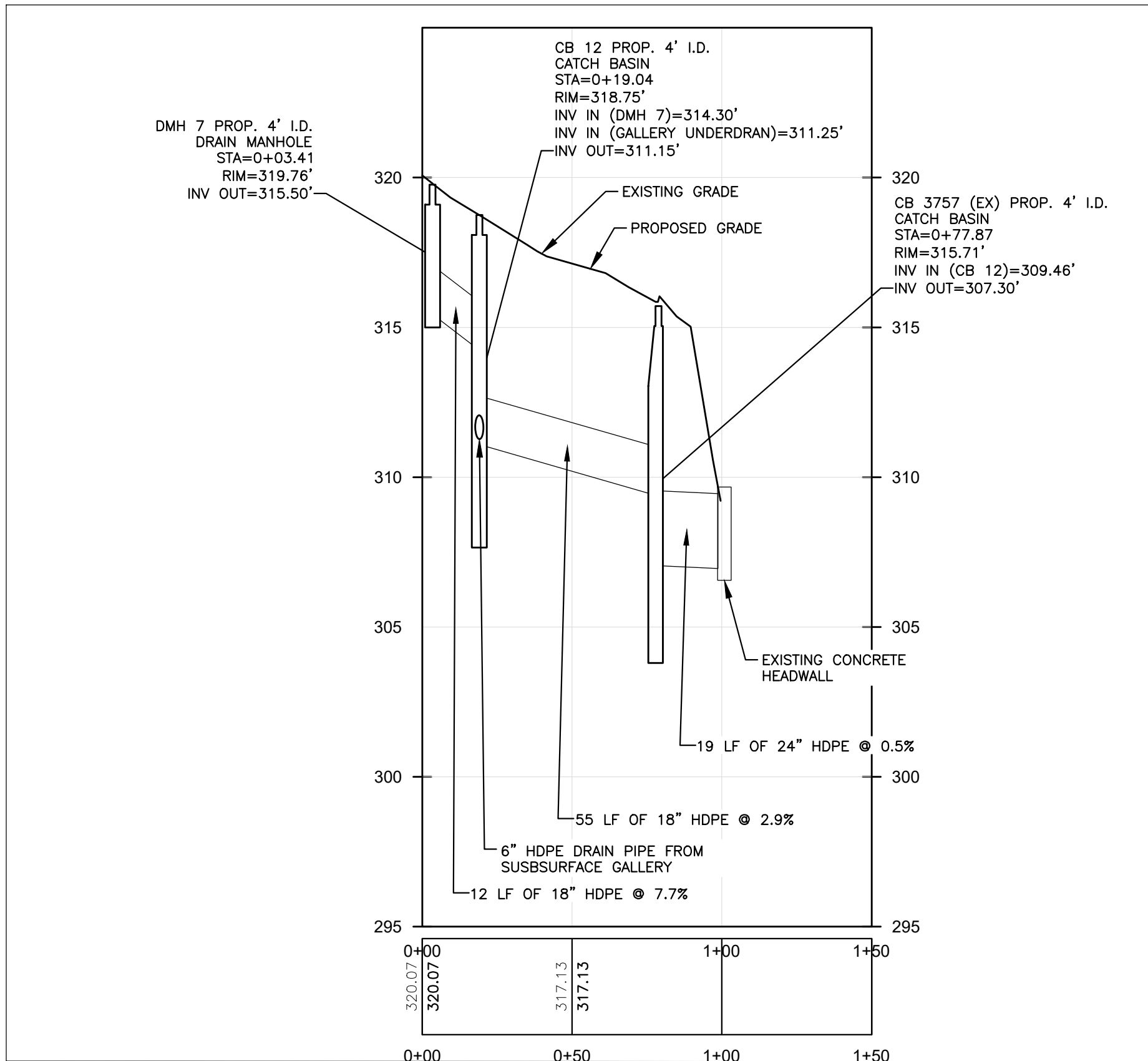
DRAINAGE PLAN VIEW :
DRAINAGE ALIGNMENT-1 (DRIP EDGE TO EX CB-3758)
SCALE: 1" = 40'



DRAINAGE PROFILE-1 (DRIP EDGE TO EX CB-3758)
HORIZ. SCALE: 1" = 40'
VERT. SCALE: 1" = 4'



DRAINAGE PLAN VIEW :
DRAINAGE ALIGNMENT-2 (DMH-7 TO WETLANDS)
SCALE: 1" = 40'



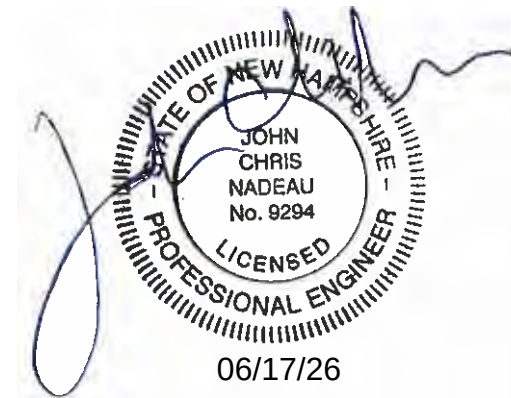
DRAINAGE PROFILE-1 (DMH-7 TO WETLANDS)
HORIZ. SCALE: 1" = 40'
VERT. SCALE: 1" = 4'

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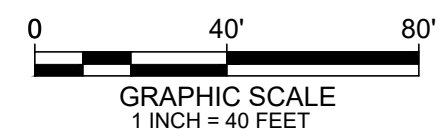
DARTMOUTH HITCHCOCK MEDICAL CENTER

253 PLEASANT STREET
CONCORD, NH 03301

TAX MAP 734/Z LOT 21 & 22

OWNER/APPLICANT:
DARTMOUTH HITCHCOCK
CLINIC
1 MEDICAL CENTER DRIVE
LEBANON, NH 03756

NO.	DATE	DESCRIPTION
REVISIONS		



DATE: JUNE 17, 2026

NOBIS PROJECT NO. 100781.000

DRAWN BY: GAK/GWS

CHECKED BY: JCN

CAD DRAWING FILE:

100781.00-C-500-DRAIN-P&P.dwg

SHEET TITLE

DRAINAGE PROFILE PLAN

SHEET

C-5.0



This profile view drawing illustrates the vertical alignment and infrastructure details for a project segment from station 0+00 to 5+25. The vertical axis shows elevation in feet, ranging from 310 to 340.

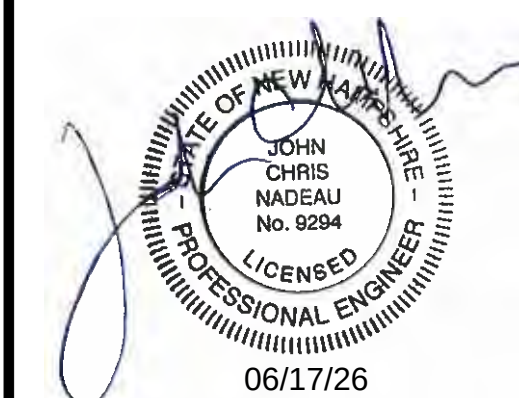
Key Features and Data:

- Proposed Grade:** Indicated by a solid line, starting at approximately 340.0' at station 0+00 and generally sloping downward to about 312.5' at station 5+25.
- Existing Grade:** Shown as a dashed line, which is higher than the proposed grade in several sections, particularly between stations 1+00 and 3+00.
- Catch Basins (CB):**
 - CB 3753 (EX) PROP. 4' I.D. CATCH BASIN: STA=0+84.77, RIM=337.14', INV IN (DMH 2)=330.47'
 - CB 3754 (EX) PROP. 4' I.D. CATCH BASIN: STA=2+15.59, RIM=333.30', INV OUT=327.05'
 - CB 9 PROP. 4' I.D. DRAIN MANHOLE: STA=2+99.43, RIM=325.50', INV IN (CB 3754 (EX))=323.00', INV IN (TRENCH DRAIN (EX))=322.00', INV OUT=322.90'
 - CB 10 PROP. 4' I.D. DRAIN MANHOLE: STA=3+47.28, RIM=327.35', INV IN (CB 9)=321.10', INV OUT=320.85'
- Drain Manholes (DMH):**
 - DMH 2 PROP. 4' I.D. DRAIN MANHOLE: STA=0+04.61, RIM=340.32', INV OUT=338.10'
 - DMH 5 (5-FT DIA.) PROP. 5' I.D. DRAIN MANHOLE: STA=1+59.04, RIM=325.45', INV IN (CB 7)=317.35', INV IN (CB 10)=317.35', INV IN (DMH 10)=317.35', INV OUT=317.25'
 - DMH 6 PROP. 4' I.D. DRAIN MANHOLE: STA=4+98.49, RIM=323.30', INV IN (DMH 5 (5-FT DIA.))=314.54'
- Pipe Segments:**
 - 78 LF OF 12" HDPE @ 1.2%
 - EXISTING 12" RCP DRAIN PIPE
 - APPROXIMATE LOCATION OF THE PROPOSED UNDERGROUND ELECTRIC/TELECOM CONDUIT (CONDUIT SIZE AND NUMBER SHALL BE DETERMINED BY UTILITY COMPANY)
 - APPROXIMATE LOCATION OF THE PROPOSED GAS PIPE (CONTRACTOR SHALL VERIFY DEPTH, SIZE, TYPE, AND CONDITION PRIOR TO CONSTRUCTION)
 - APPROXIMATE LOCATION OF THE PROPOSED UNDERGROUND ELECTRIC/TELECOM CONDUIT (CONDUIT SIZE AND NUMBER SHALL BE DETERMINED BY UTILITY COMPANY)
 - APPROXIMATE LOCATION OF THE PROPOSED UNDERGROUND ELECTRIC/TELECOM CONDUIT (CONDUIT SIZE AND NUMBER SHALL BE DETERMINED BY UTILITY COMPANY)
 - 6" HDPE DRAIN PIPE FROM EX. TRENCH DRAIN
 - 64 LF OF 12" HDPE @ 2.8%
 - 80 LF OF 12" HDPE @ 4.8%
 - 69 LF OF 12" HDPE @ 3.8%
 - 34 LF OF 15" HDPE @ 7.1%
 - 12" HDPE DRAIN PIPE FROM CB-7 AND DMH-10
 - PROPOSED STORMWATER GALLERY REFER TO SHEET C-7-6 FOR DETAIL

The horizontal axis is labeled with stationing from 0+00 to 5+25 in increments of 50 feet. Elevation values are provided at specific stations along both axes.

NOTES:

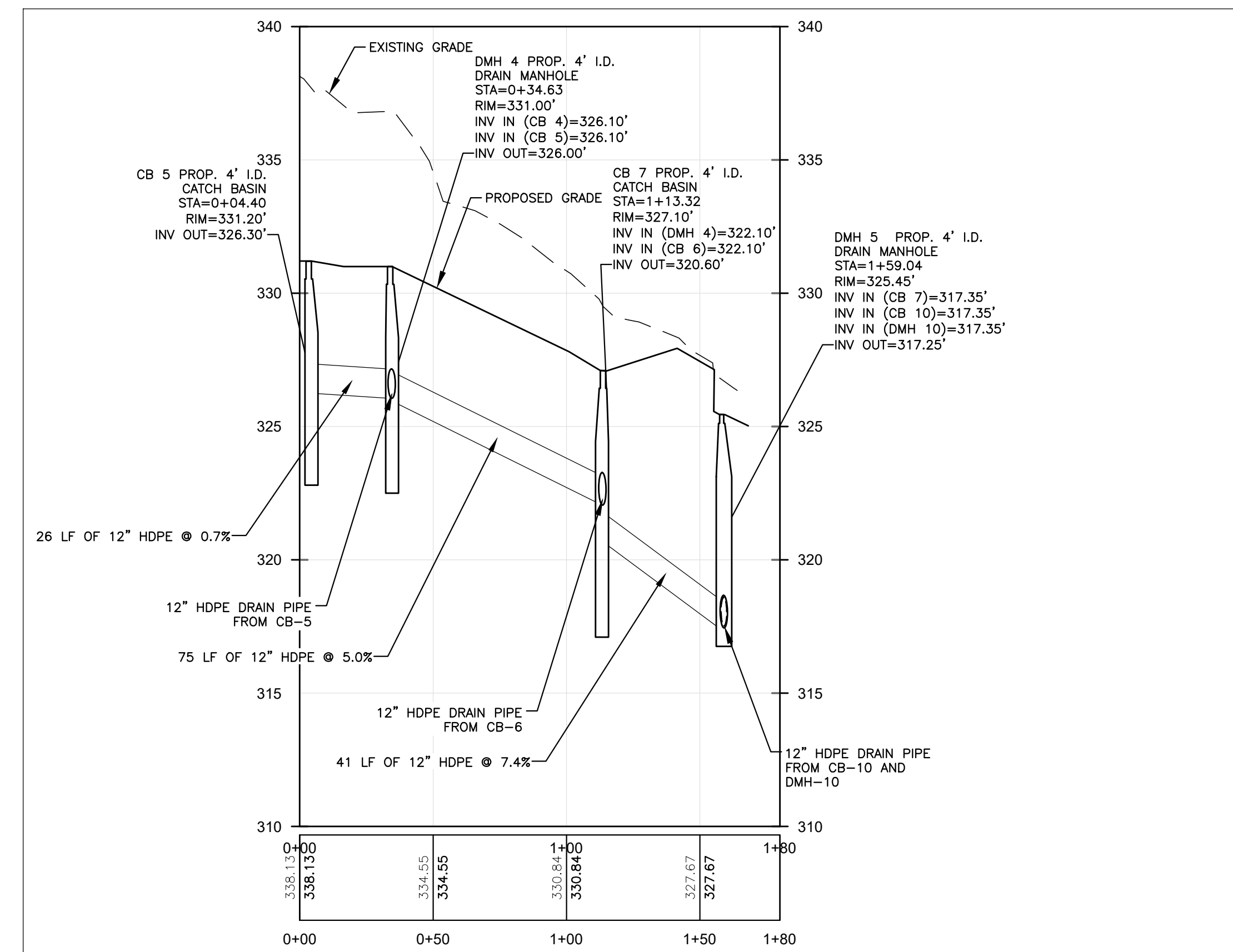
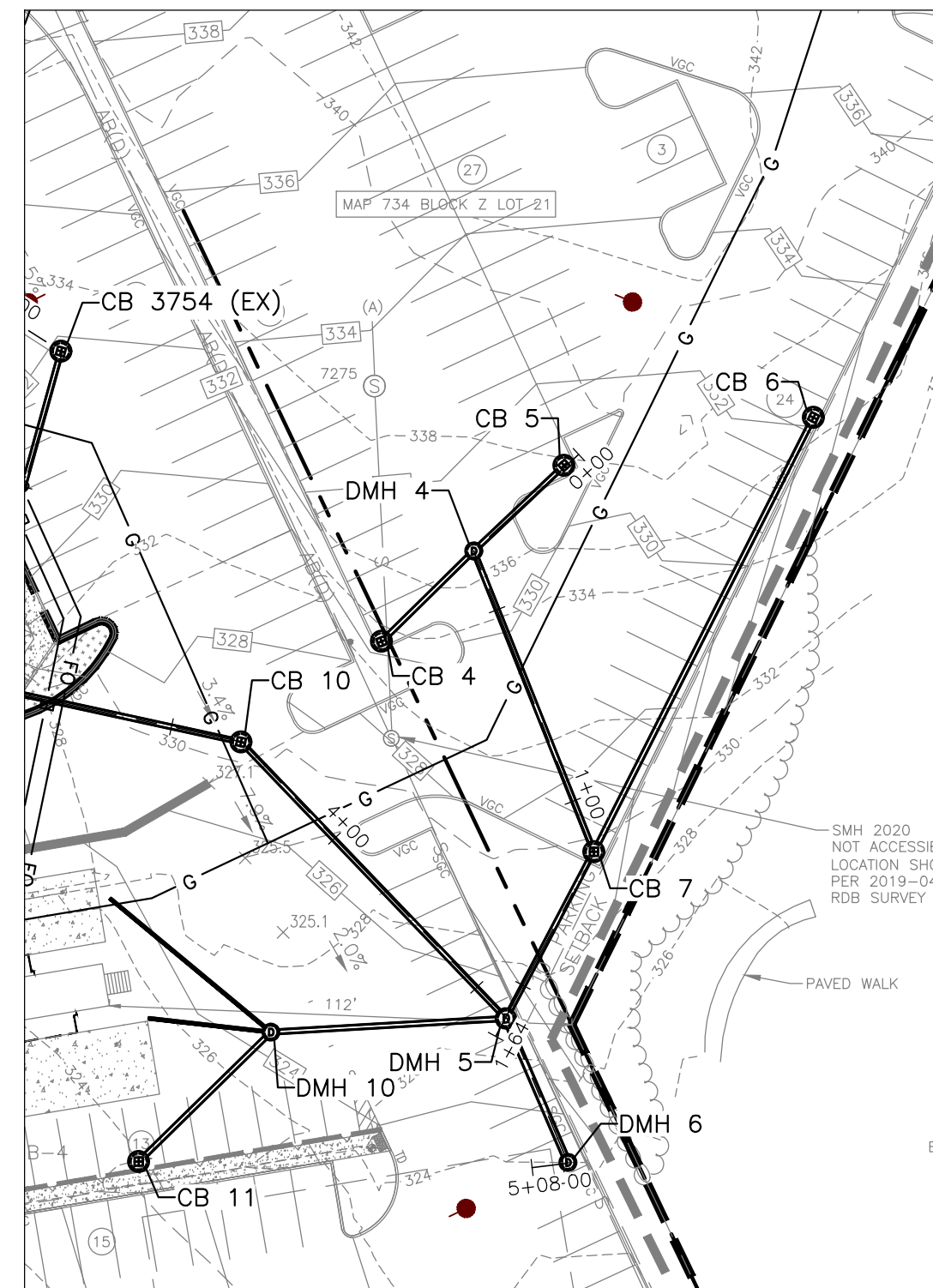
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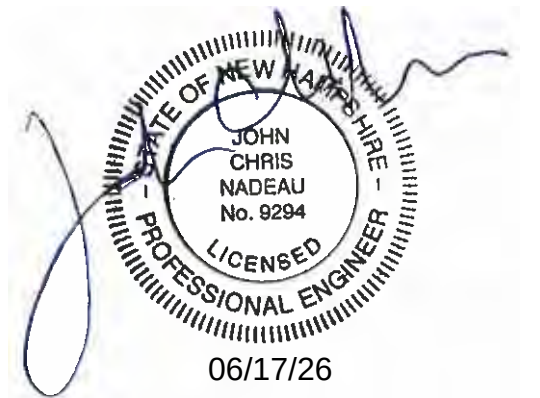
OWNER/APPLICANT:
DARTMOUTH HITCHCOCK
CLINIC
1 MEDICAL CENTER DRIVE
LEBANON, NH 03756

SHEET TITLE

C-5.1



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MEDICAL CENTER

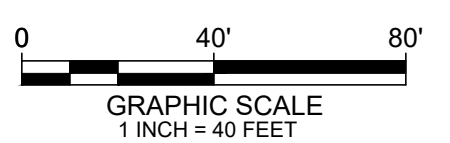
253 PLEASANT STREET
CONCORD, NH 03301

TAX MAP 734/Z LOT 21 & 22

OWNER/APPLICANT:
DARTMOUTH HITCHCOCK
CLINIC
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LEBANON, NH 03756

NO	DATE	DESCRIPTION

REVISIONS



DATE:	JUNE 17, 2026
NOBIS PROJECT NO.	100781.000
DRAWN BY:	GAK/GWS
CHECKED BY:	JCN
CAD DRAWING FILE:	100781.00-C-500-DRAIN-P&P.dwg

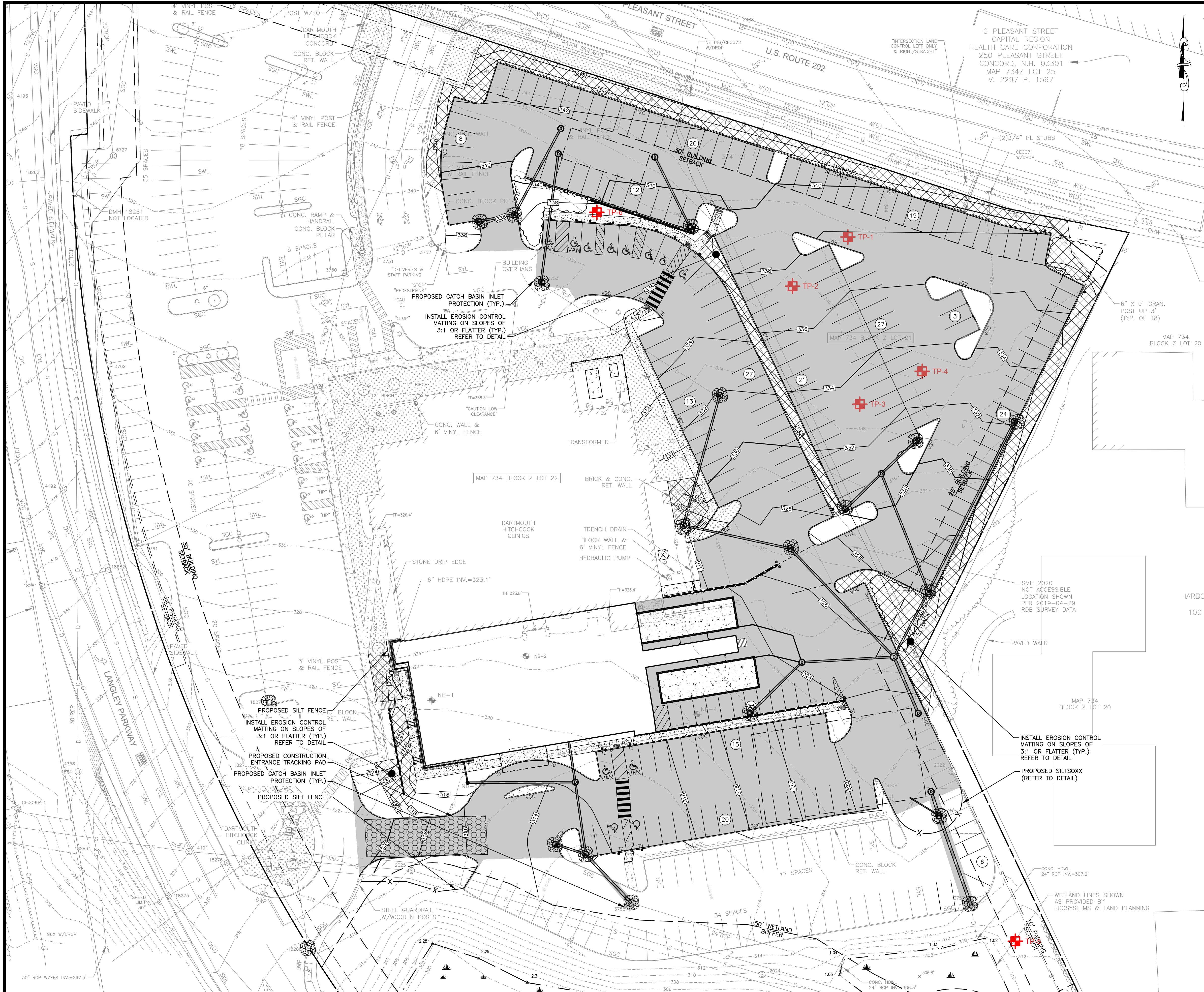
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DRAINAGE PROFILE PLAN

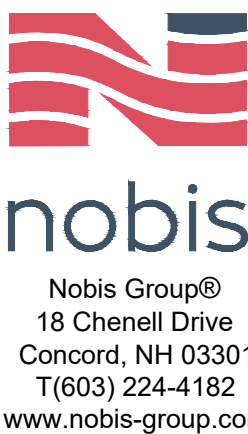
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- NOTES:
1. THIS PLAN IS NOT INTENDED TO SHOW PERMANENT DRAINAGE DESIGNS AND TO BE USED FOR TEMPORARY EROSION AND SEDIMENT CONTROL ONLY.
 2. CONTRACTOR TO GRADE ACTIVE EXCAVATION AREAS TO ALLOW MAXIMUM INFILTRATION OF STORMWATER AND MINIMIZE RUNOFF FROM DISTURBED AREAS.
 3. DISTURBANCES OF AREAS TO BE MINIMIZED. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED FOR LONGER THAN TWO WEEKS DURING THE GROWING SEASON INCLUDING SOIL STOCKPILES. AREAS WHICH WILL NOT BE PERMANENTLY SEEDED WITHIN TWO WEEKS OF DISTURBANCE SHALL BE TEMPORARILY SEEDED AND MULCHED. ALL AREAS SHALL BE STABILIZED WITH SEED AND MULCH AND TACKIFIER WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE AND PRIOR TO THE END OF THE GROWING SEASON.
 4. ALL DISTURBED LANDS SHALL BE RECOVERED WITH LOAM AT A MINIMUM DEPTH OF 6" AND THE SITE SHALL BE DEEMED STABILIZED WHEN IT IS IN A CONDITION WHICH THE SOILS ON THE SITE WILL NOT ERODE UNDER THE CONDITIONS OF A 10-YEAR STORM.
 5. USE TEMPORARY EROSION AND SEDIMENT CONTROL PRODUCTS THAT EITHER DO NOT CONTAIN NETTING, OR THAT CONTAIN NETTING MANUFACTURED FROM 100% BIODEGRADABLE, NON-PLASTIC MATERIALS SUCH AS JUTE, SISAL, OR COIR FIBER. DEGRADABLE, PHOTODEGRADABLE, UV-DEGRADABLE, OXO-DEGRADABLE, OR OXO-BIODEGRADABLE PLASTIC NETTING (INCLUDING POLYPROPYLENE, NYLON, POLYETHYLENE, AND POLYESTER) ARE NOT EQUIVALENT ALTERNATIVES. NETTING USED IN THESE PRODUCTS SHOULD HAVE A LOOSE-WEAVE WILDLIFE-SAFE DESIGN WITH MOVABLE JOINTS BETWEEN THE HORIZONTAL AND VERTICAL TWINES, ALLOWING THE TWINES TO MOVE INDEPENDENTLY AND THUS REDUCING THE POTENTIAL FOR WILDLIFE ENTANGLEMENT.
 6. AVOID THE USE OF SILT FENCES REINFORCED WITH METAL OR PLASTIC MESH OR IF POSSIBLE RECOMMEND THE USE OF EROSION CONTROL BERMS.
 7. WHEN NO LONGER REQUIRED, TEMPORARY EROSION AND SEDIMENT CONTROL PRODUCTS SHOULD BE REMOVED PROMPTLY FROM THE PROJECT SITE.
 8. USE NONWOVEN COIR FABRIC WHEN A SURFACE FABRIC TREATMENT IS REQUIRED FOR EROSION CONTROL AND STABILIZATION, SUCH AS 100% BIODEGRADABLE COCONUT FIBER MAT OR EQUAL, AS REVIEWED AND APPROVED BY THE PROJECT DESIGN ENGINEER.
 9. USE WOVEN COIR FABRIC WHEN SITE CONDITIONS WARRANT. THE OUTER LAYER OF WOVEN COIR FABRIC SHOULD BE A HIGH STRENGTH, CONTINUOUSLY WOVEN MAT (I.E., WITHOUT SEAMS) AND MADE OF 100% COCONUT FIBER.
 10. REFER TO GENERAL NOTES AND LEGEND SHEET FOR ADDITIONAL EROSION CONTROL NOTES AND CONSTRUCTION SEQUENCE.



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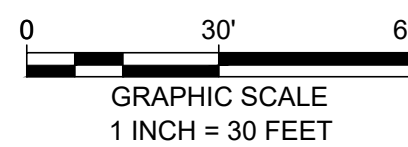
DARTMOUTH HITCHCOCK MEDICAL CENTER

253 PLEASANT STREET
CONCORD, NH 03301

TAX MAP 734/Z LOT 21 & 22

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CLINIC
1 MEDICAL CENTER DRIVE
LEBANON, NH 03756

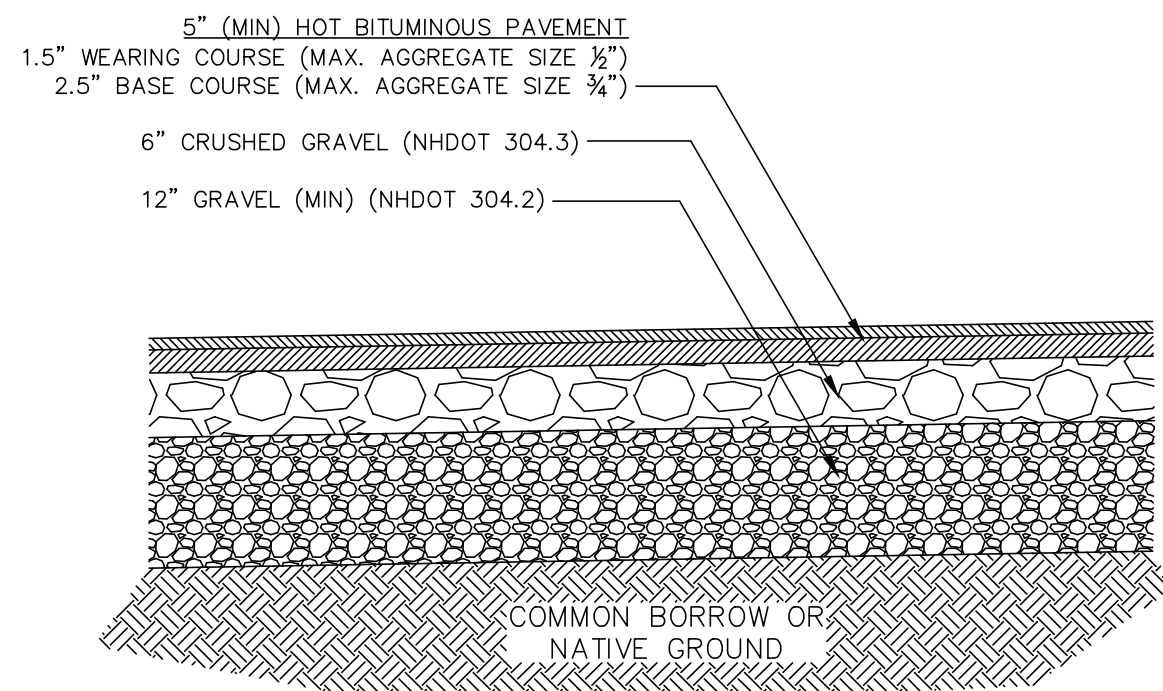
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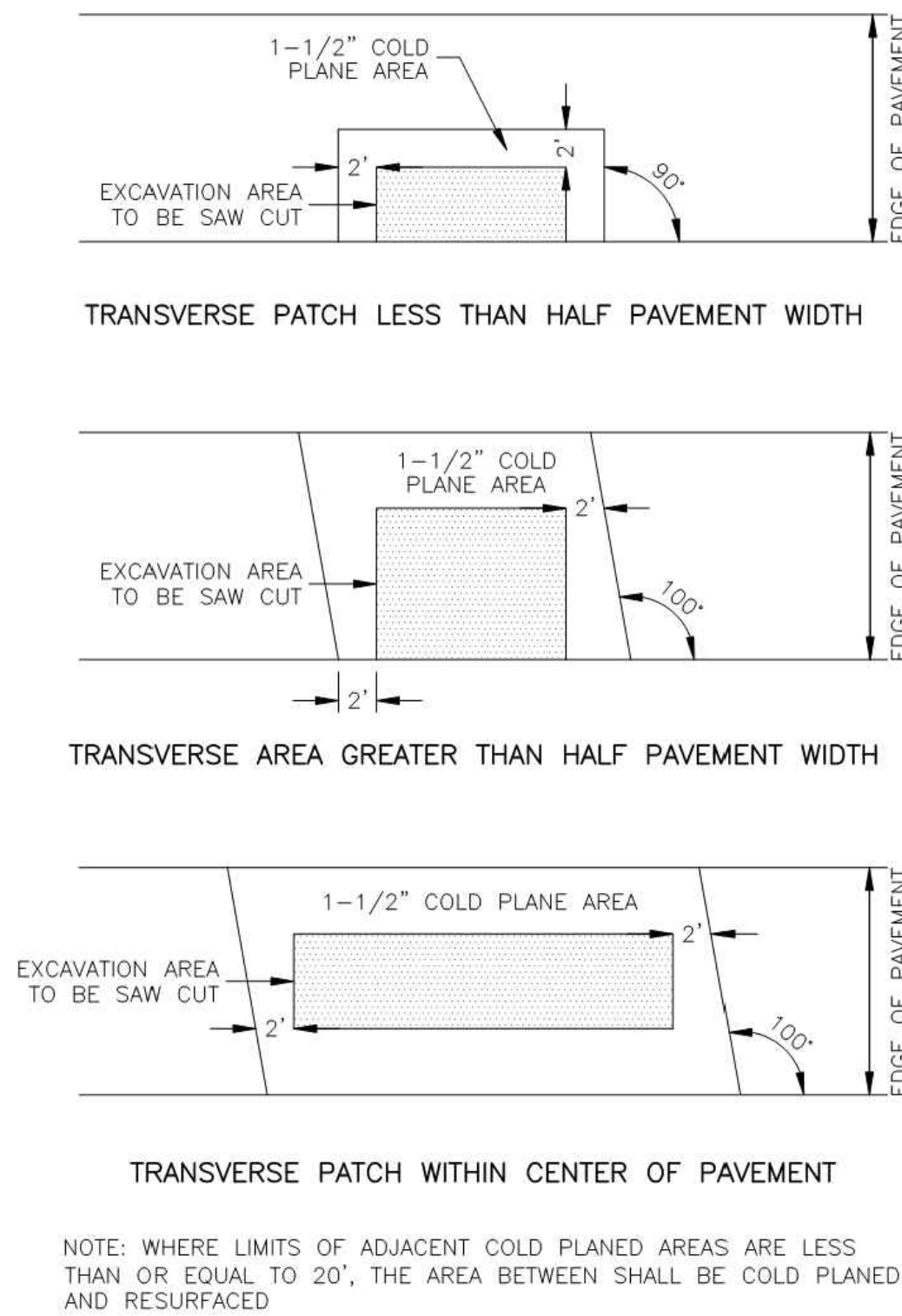
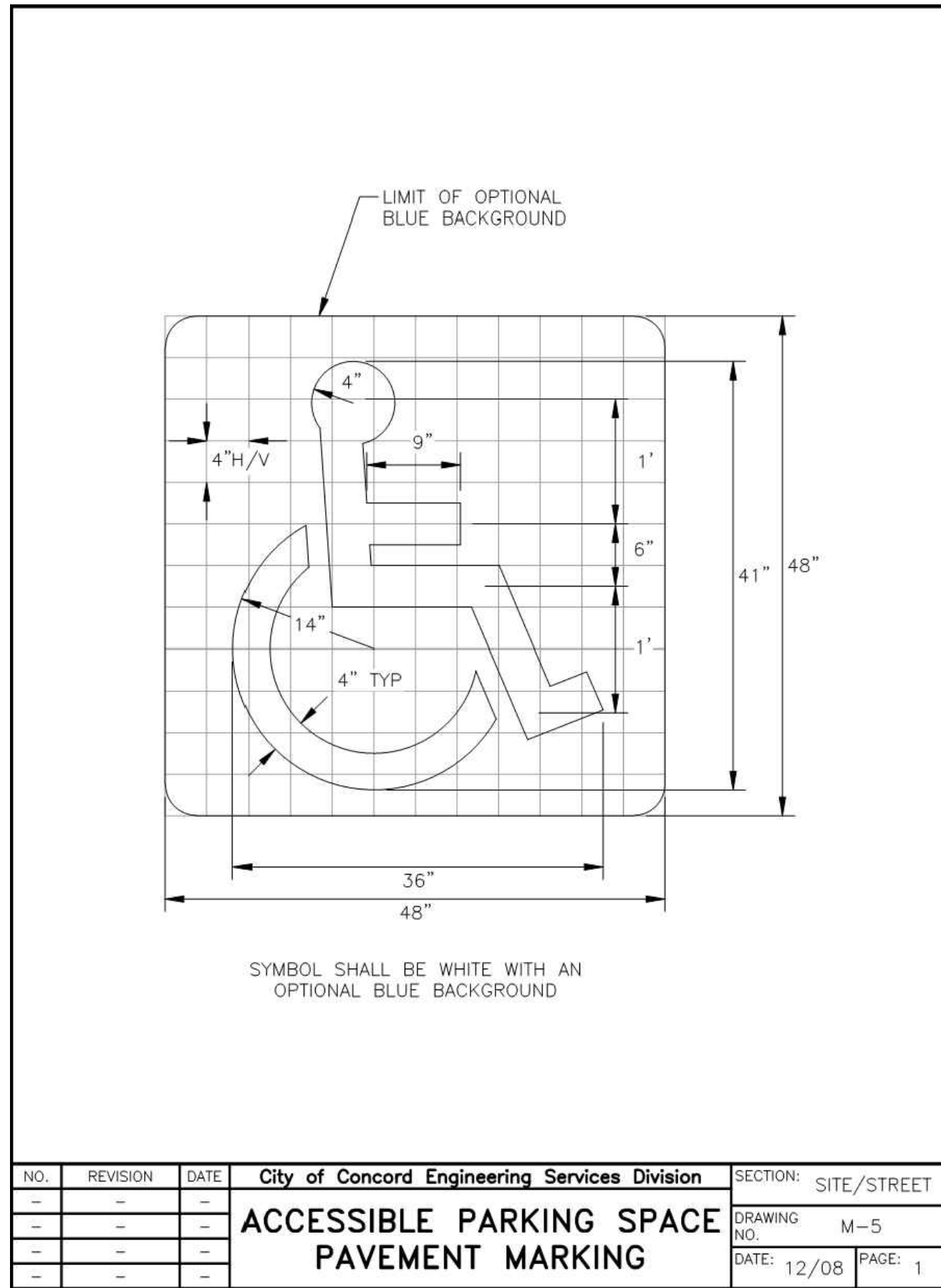
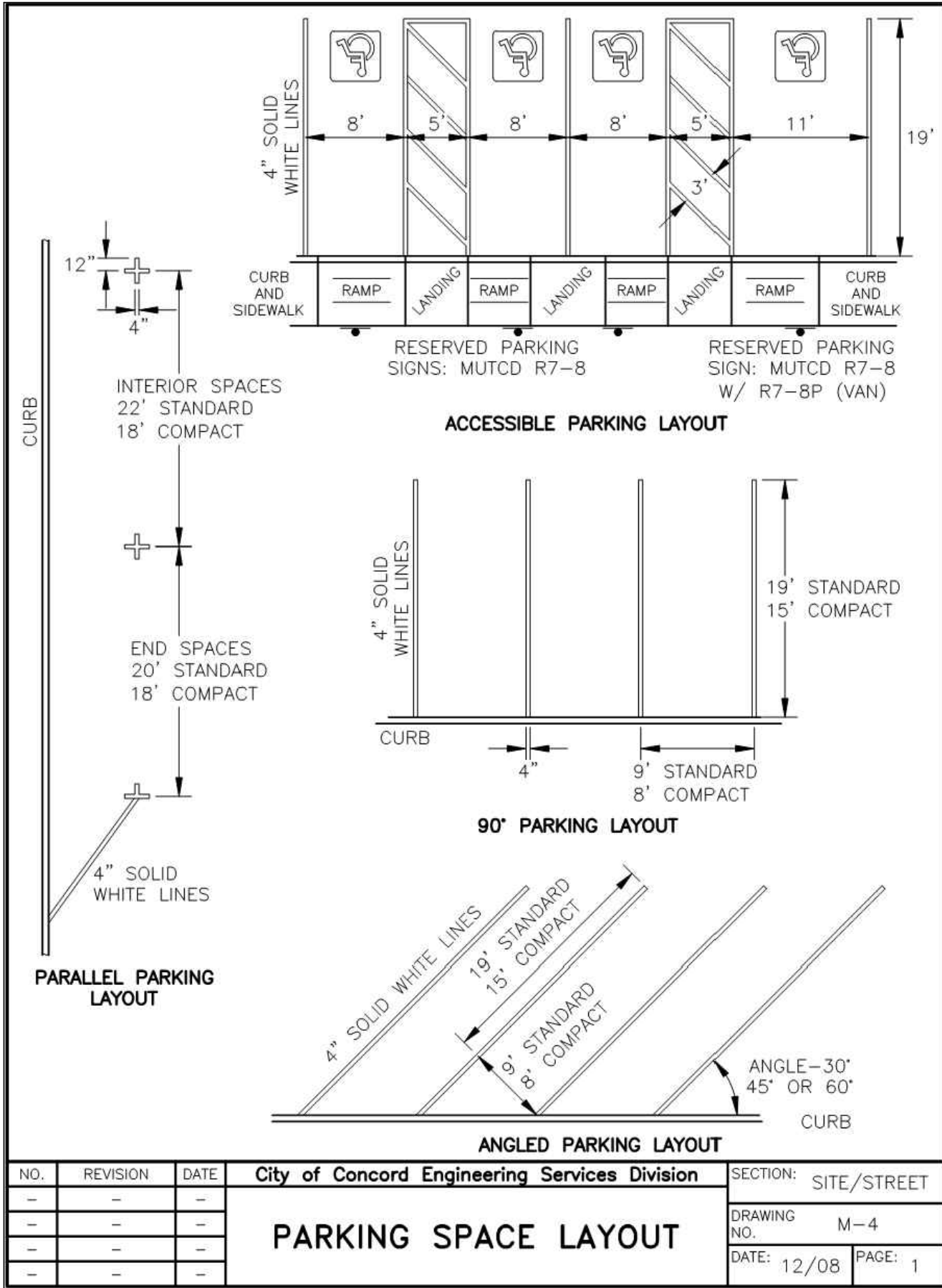
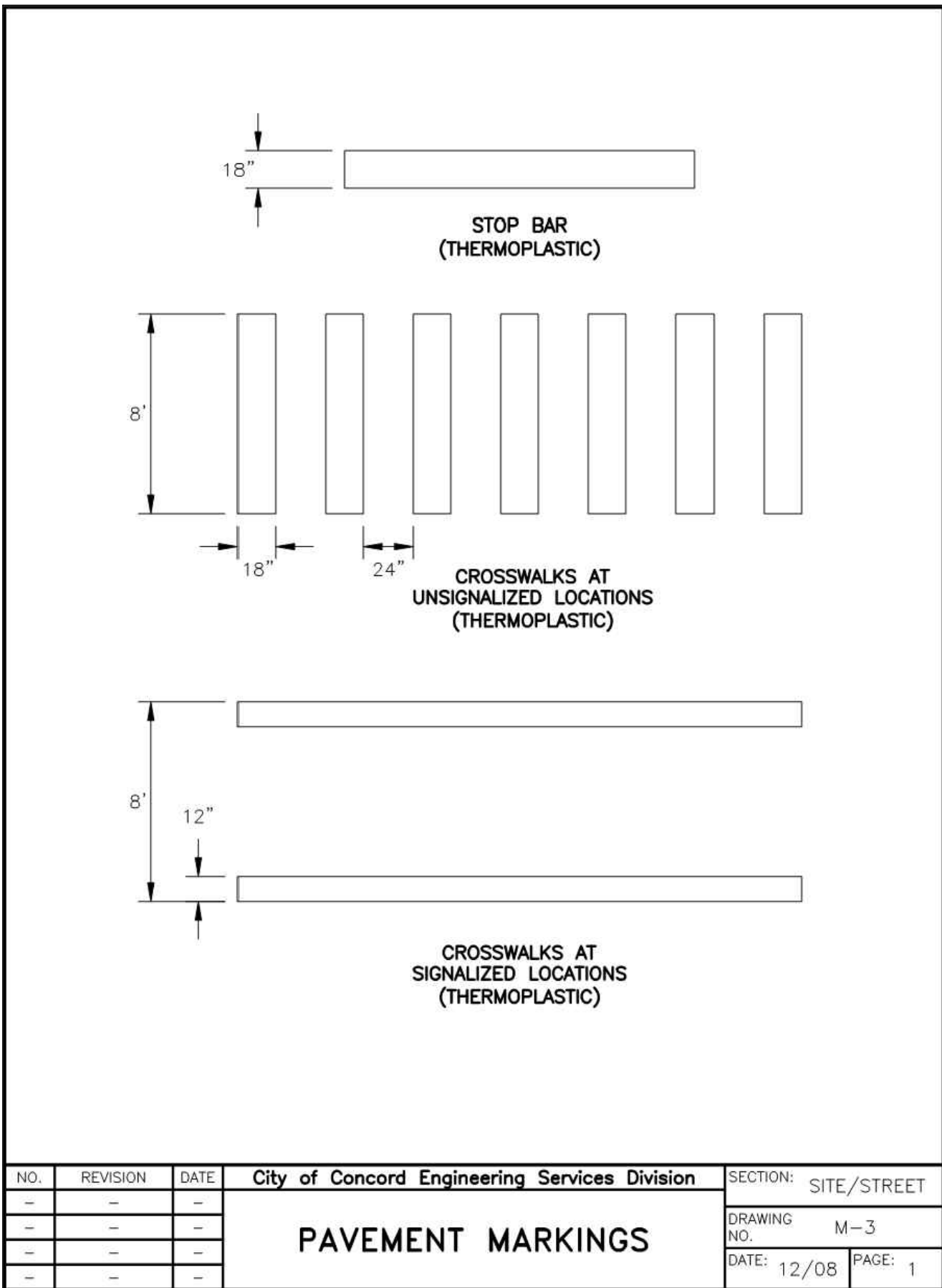
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DRAWN BY:	GAK/GWS
CHECKED BY:	JCN
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SHEET TITLE	

EROSION CONTROL PLAN

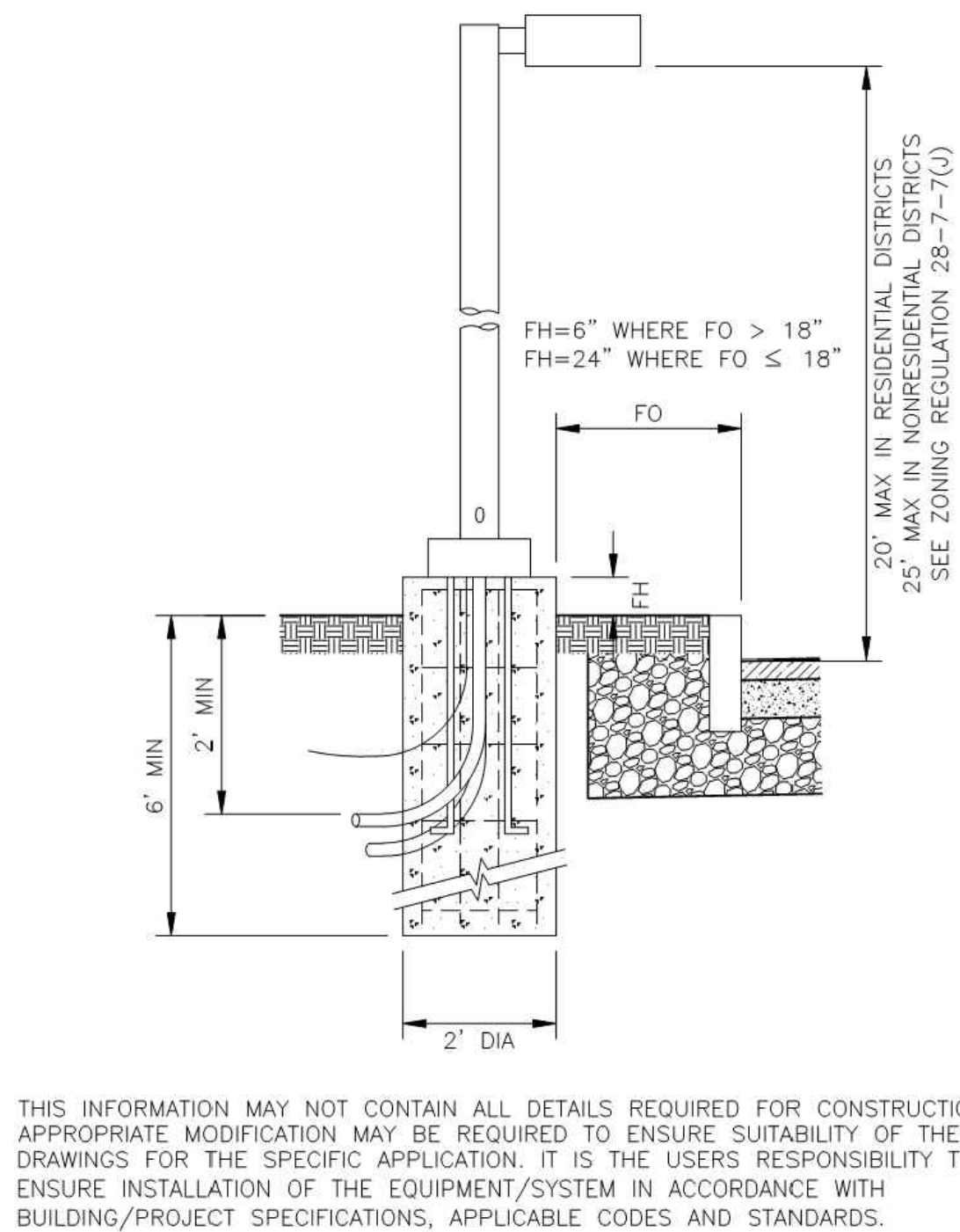
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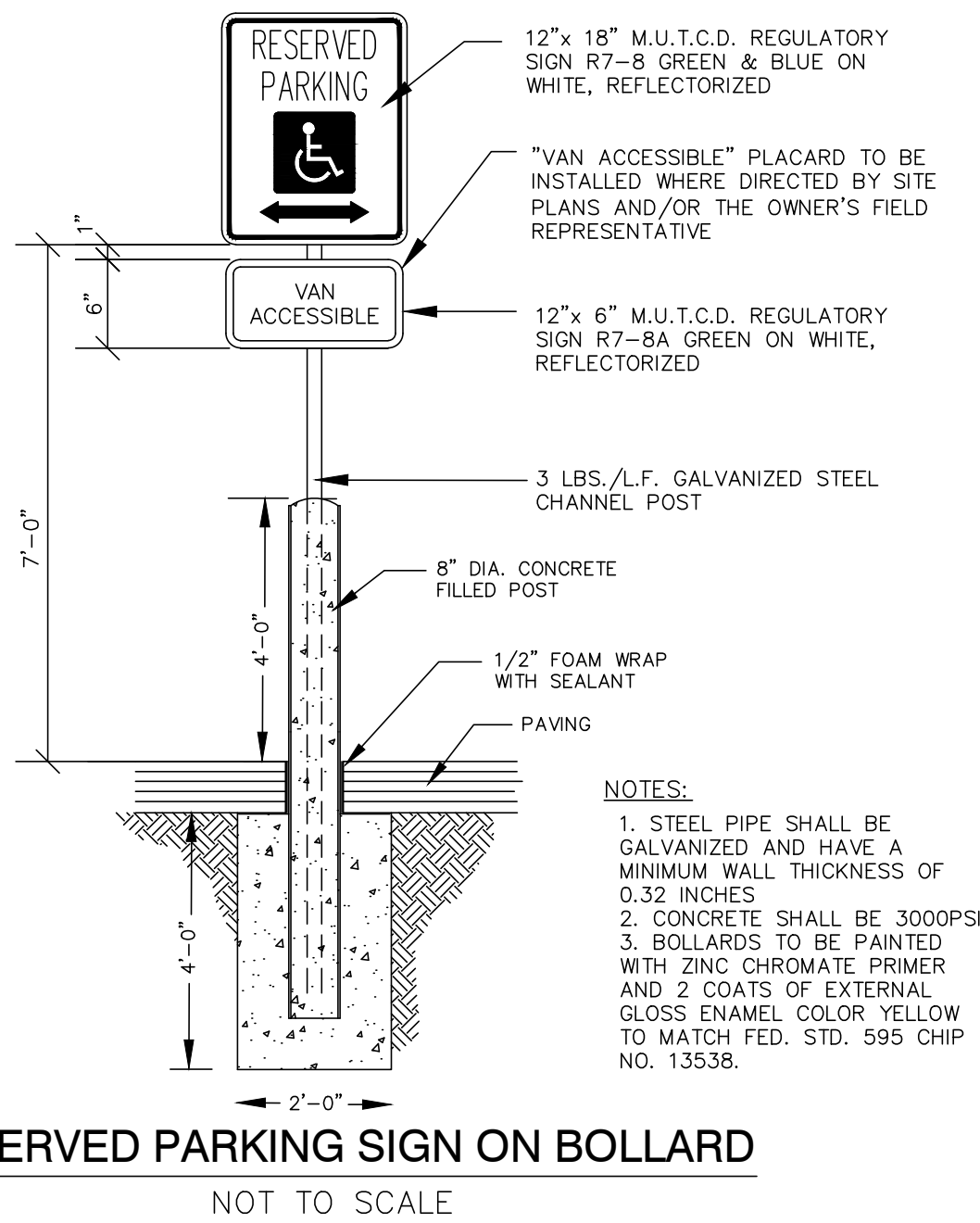
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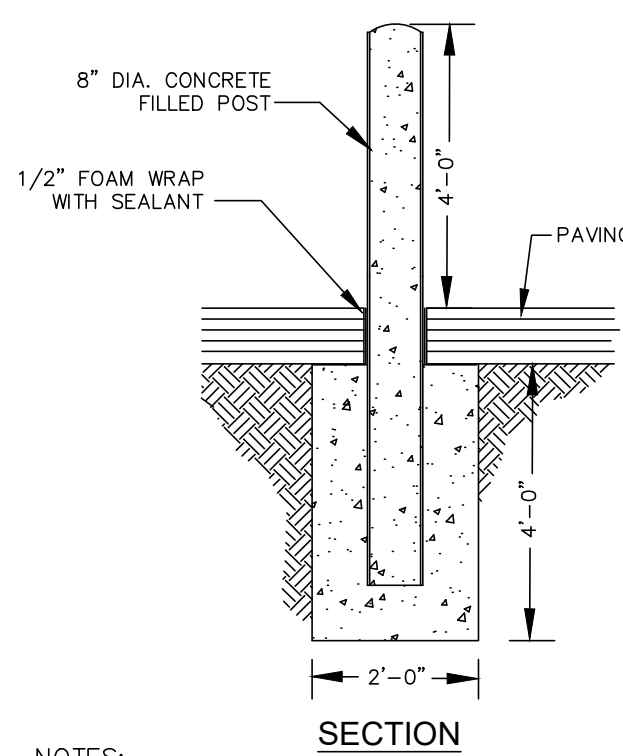
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2	MULTIPLE	12.15		DATE: 12/08
-	-	-		PAGE: 1
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NO.	REVISION	DATE	City of Concord Engineering Services Division	SECTION: ROADWAY
-	-	-	TYPICAL LIGHT POLE AND FOUNDATION	DRAWING NO. M-13
-	-	-		DATE: 01/14
-	-	-		PAGE: 1
-	-	-		



RESERVED PARKING SIGN ON BOLLARD
NOT TO SCALE



NOTES:

- STEEL PIPE SHALL BE GALVANIZED AND HAVE A MINIMUM WALL THICKNESS OF 0.32 INCHES
- CONCRETE SHALL BE 3000PSI
- BOLLARDS TO BE PAINTED WITH ZINC CHROMATE PRIMER AND 2 COATS OF EXTERNAL GLOSS ENAMEL COLOR YELLOW TO MATCH FED. STD. 595 CHIP NO. 1353B.

CONCRETE FILLED BOLLARD
NOT TO SCALE

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DARTMOUTH
HITCHCOCK
MEDICAL CENTER

253 PLEASANT STREET
CONCORD, NH 03301

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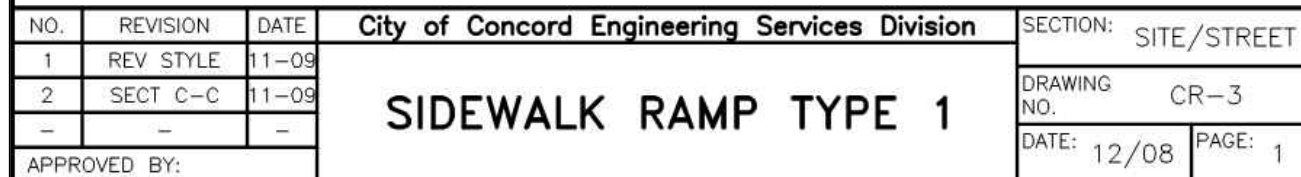
SCALE:
AS NOTED

DATE:	JUNE 17, 2026
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CHECKED BY:	JCN
CAD DRAWING FILE:	100781.000-C-700-DETAILS.dwg

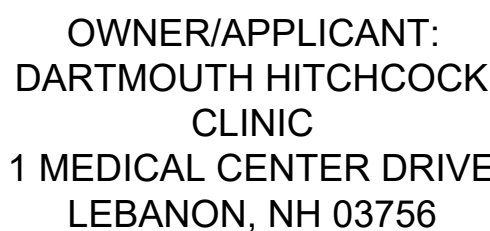
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CONSTRUCTION
DETAILS

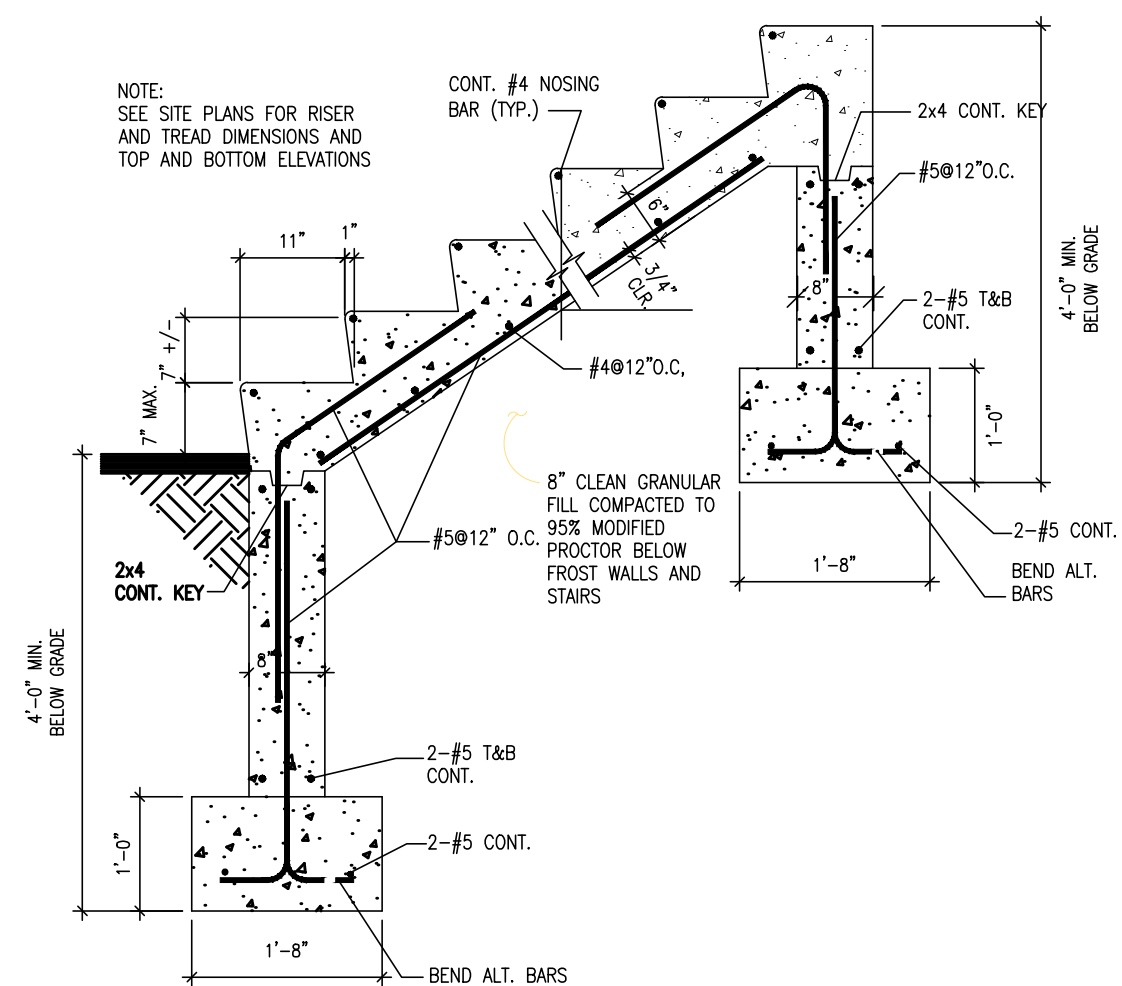
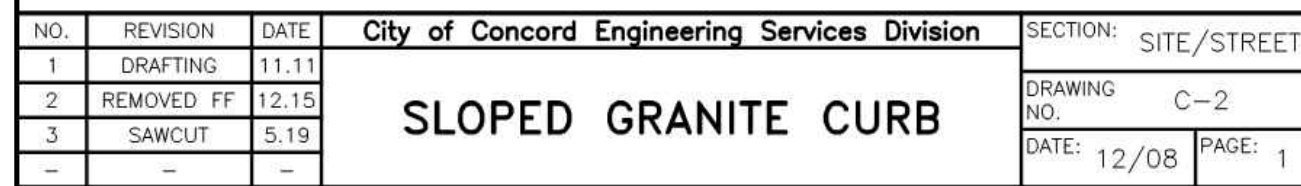
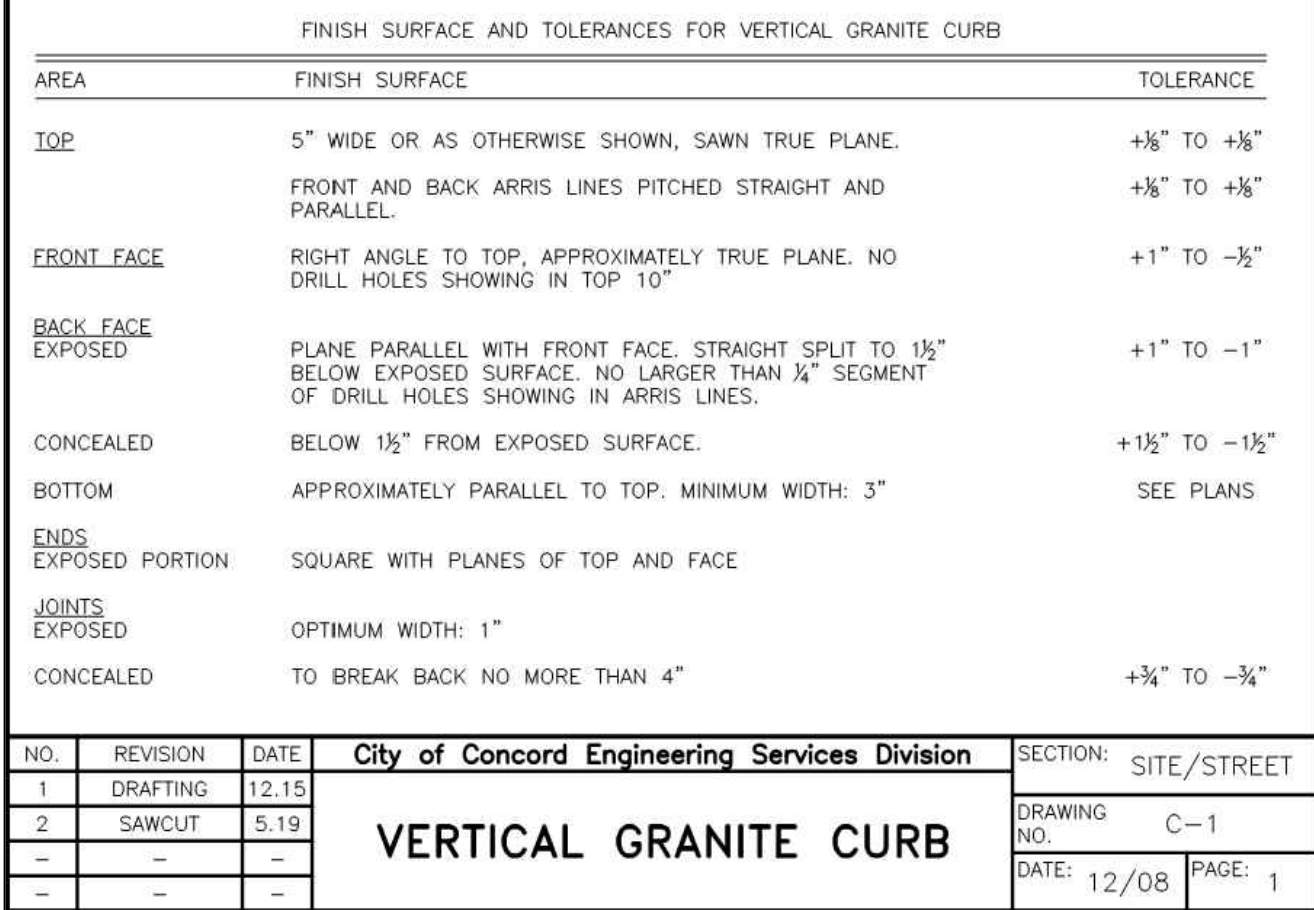
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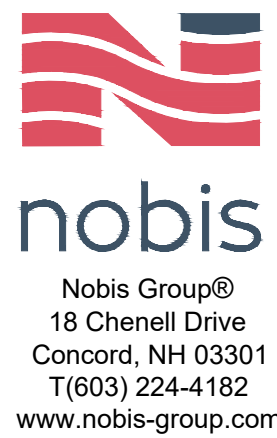
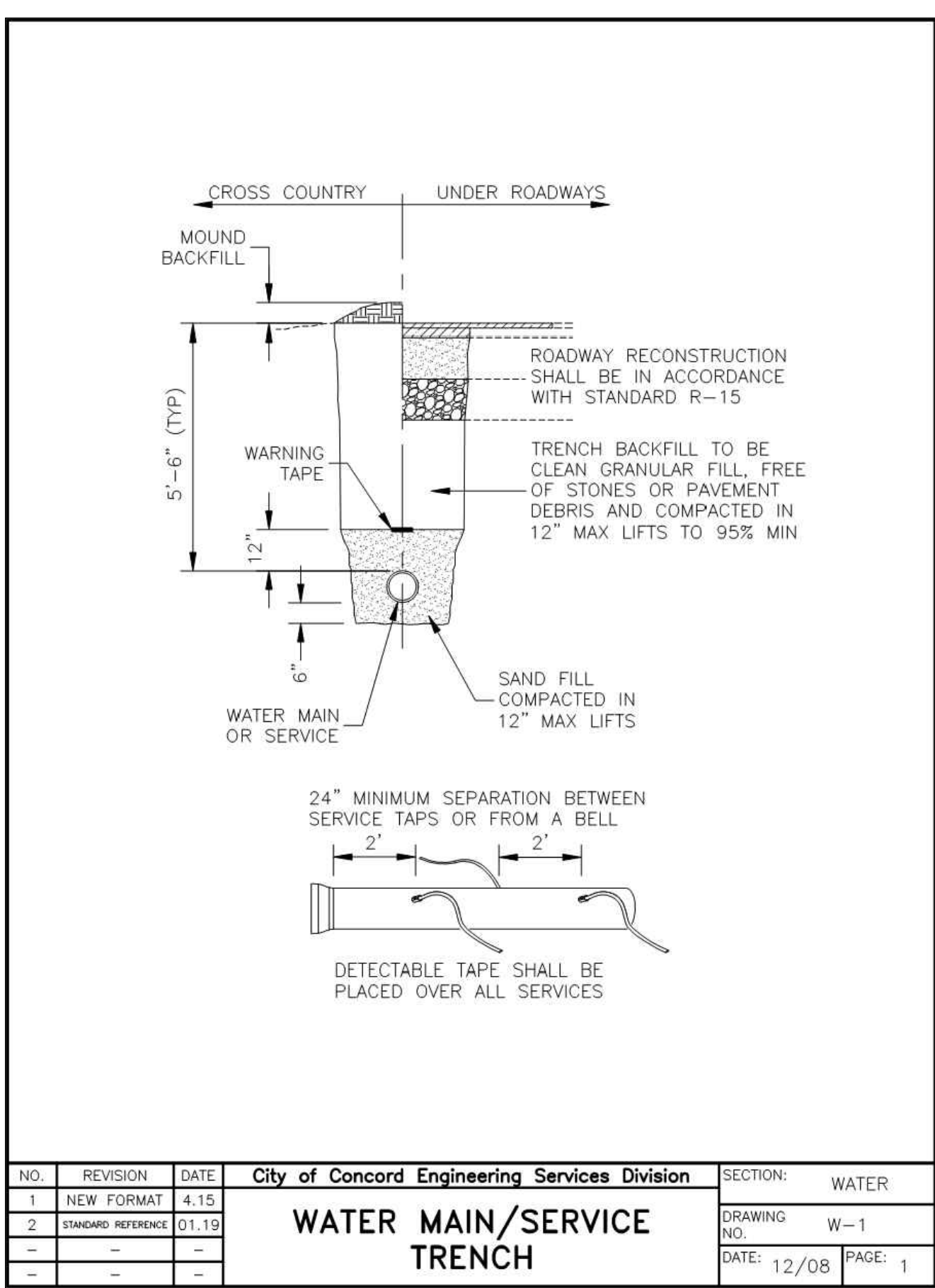
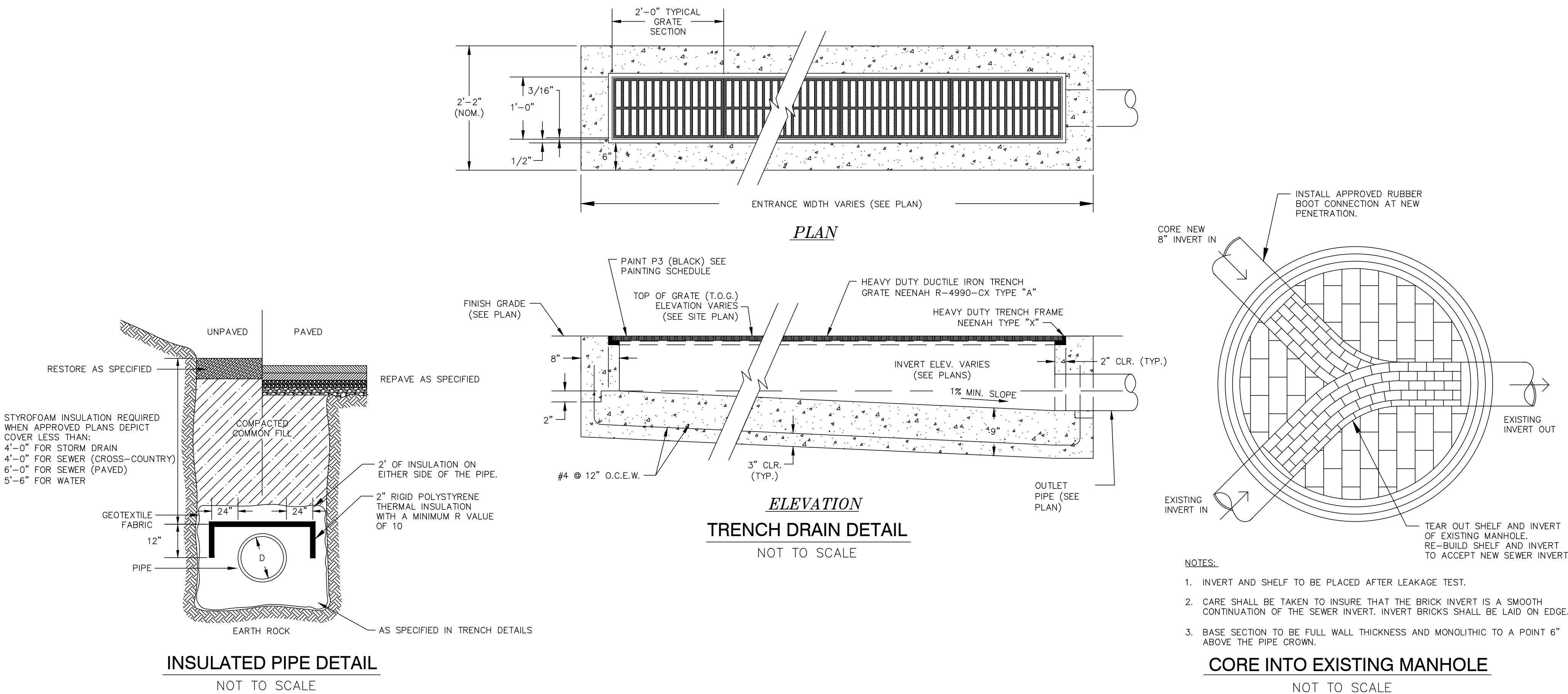
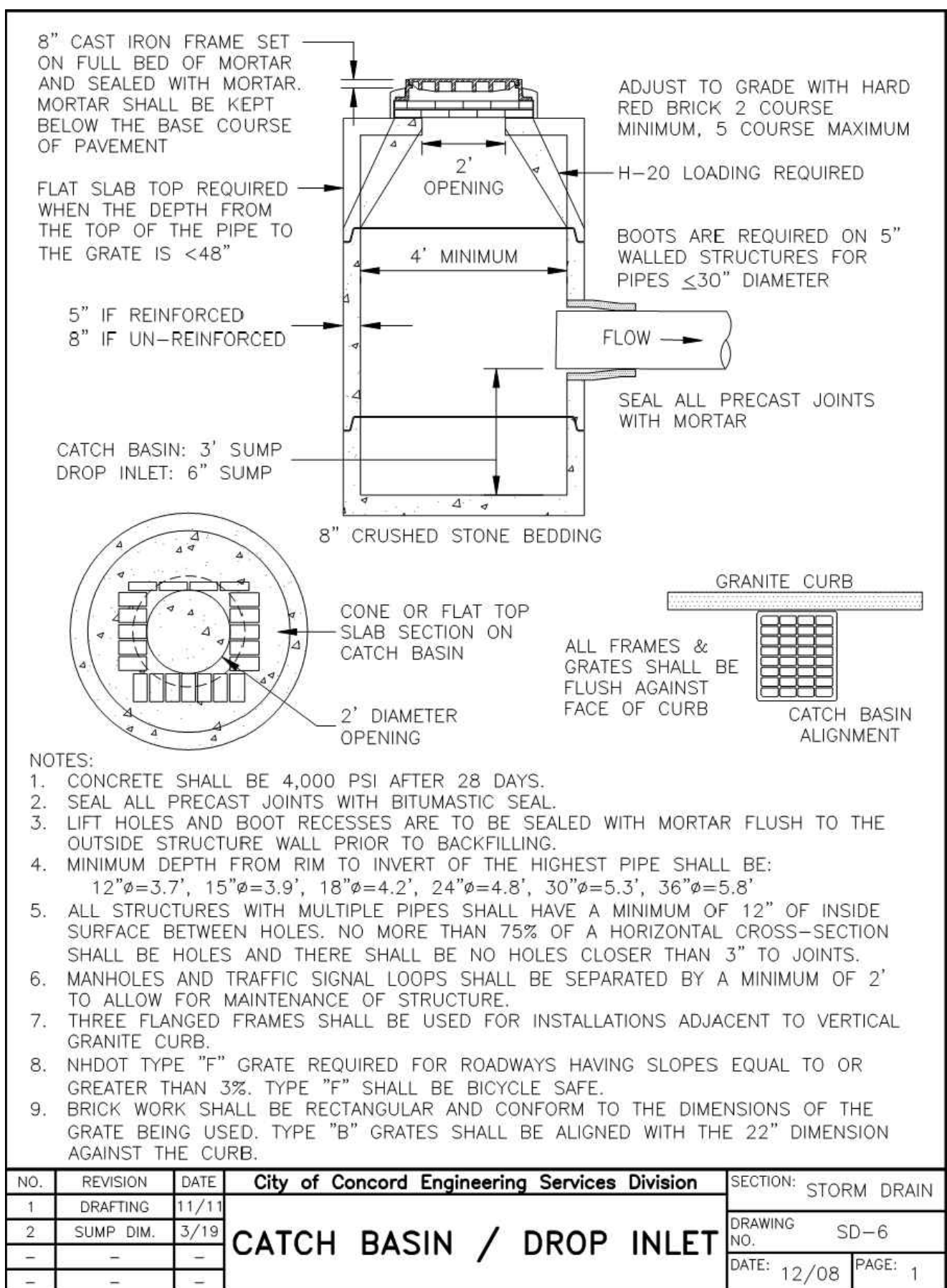
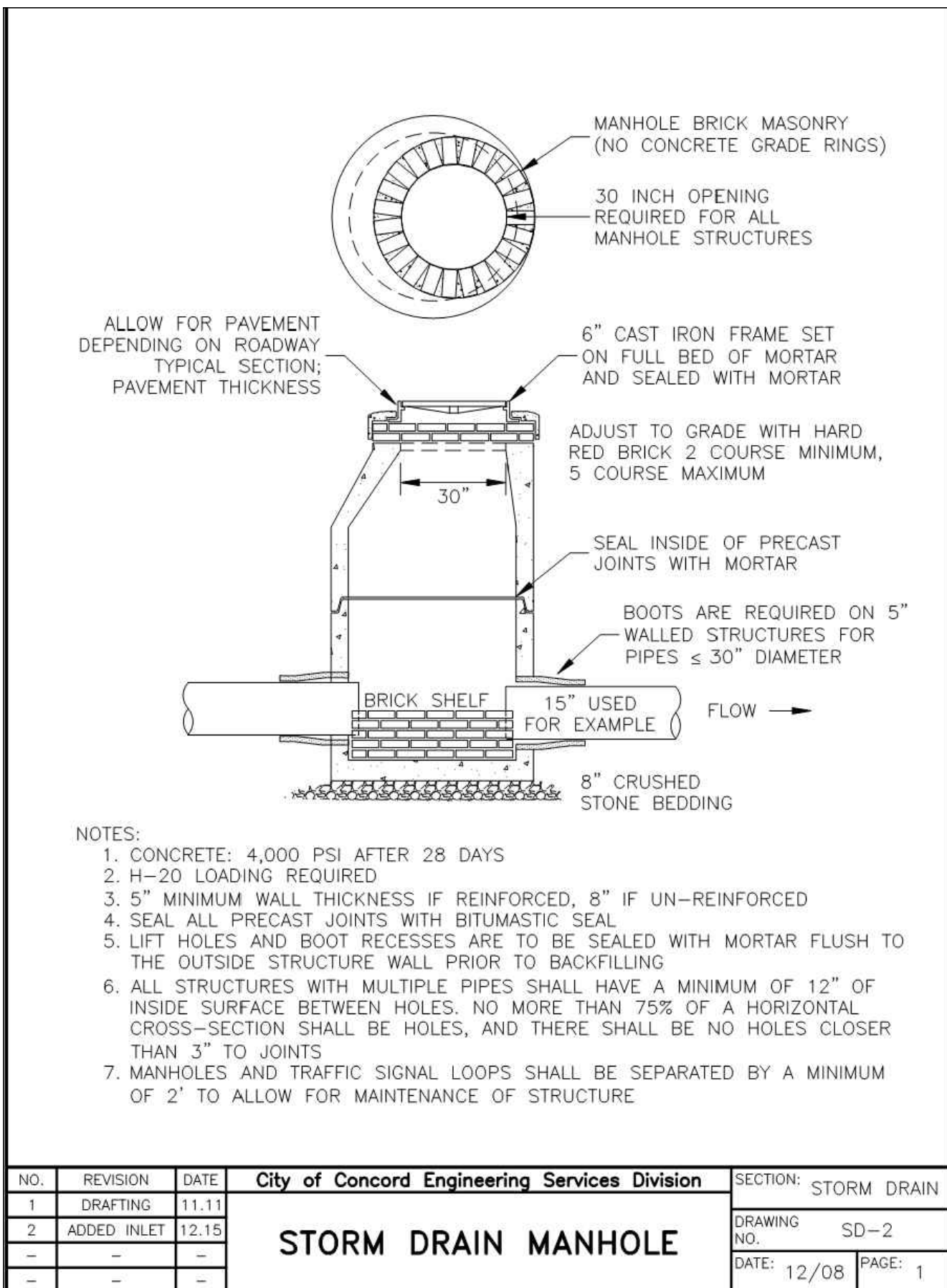
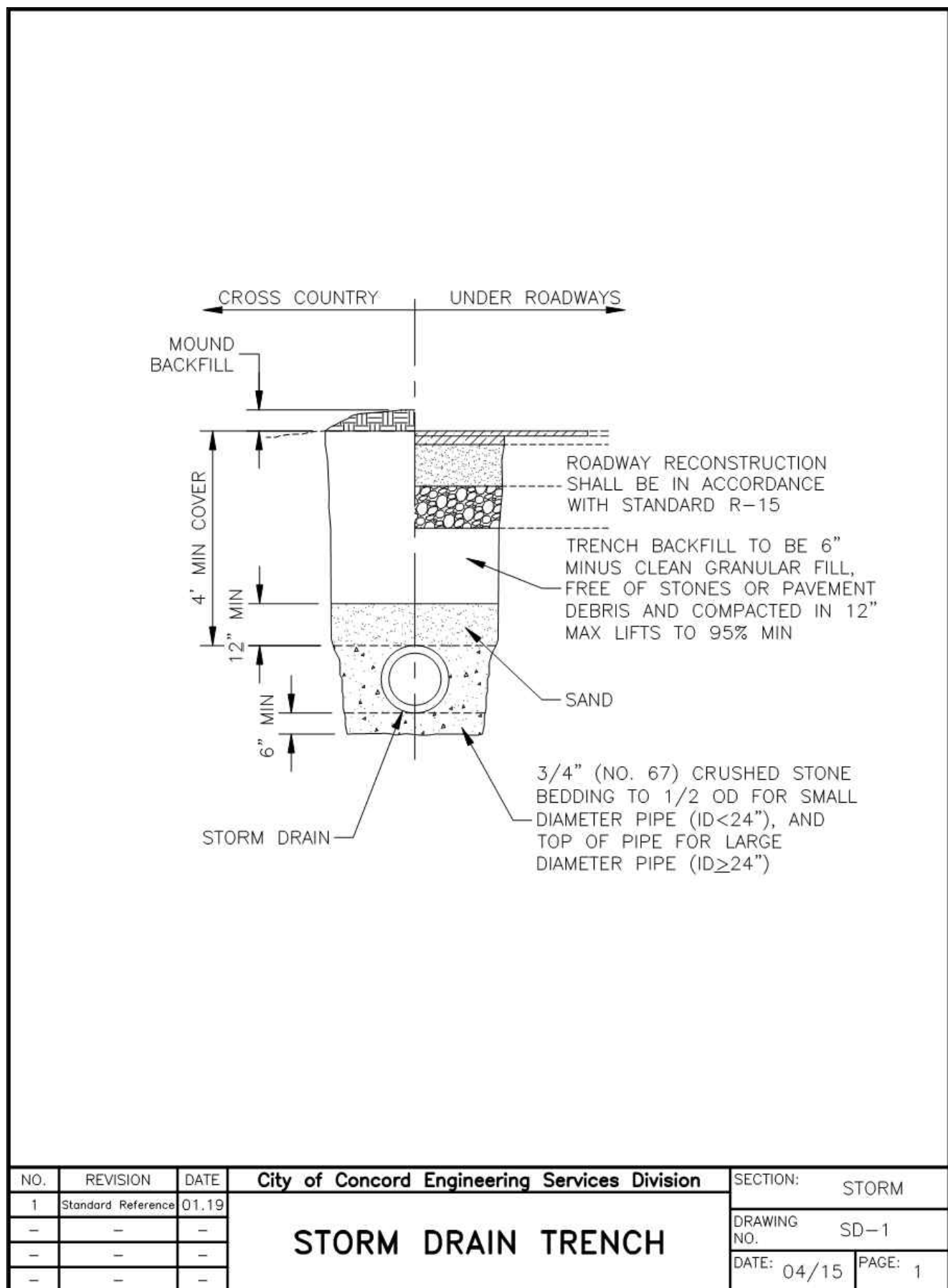
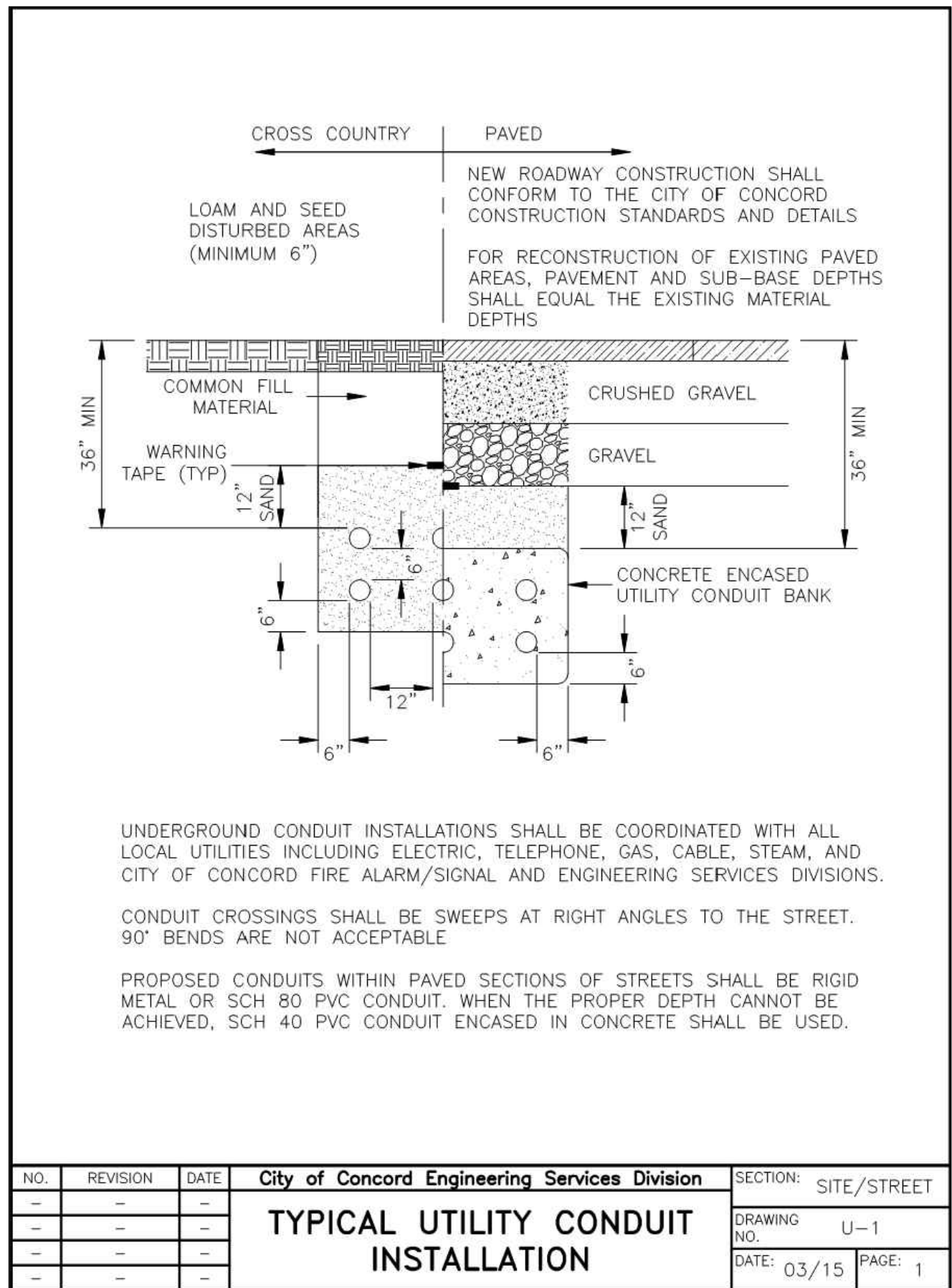
NO.	REVISION	DATE	City of Concord Engineering Services Division SIDEWALK RAMP GENERAL NOTES	SECTION:	SITE/STREET	
1	REV. STYLE	11-09		DRAWING NO.	CR-2	
2	NOTE 18	5.19		DATE:	12/08	PAGE: 1
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APPROVED BY: _____						



C-7.1



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SCALE:
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DATE:	JUNE 17, 2026
NOBIS PROJECT NO.	100781.000
DRAWN BY:	GAK/GWS
CHECKED BY:	JCN
CAD DRAWING FILE:	100781.000-C-700-DETAILS.dwg
SHEET TITLE	

CONSTRUCTION
DETAILS

SHEET
C-7.2



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FOR
CONSTRUCTION

DARTMOUTH HITCHCOCK MEDICAL CENTER

253 PLEASANT STREET
CONCORD, NH 03301

TAX MAP 734/Z LOT 21 & 22

OWNER/APPLICANT:
DARTMOUTH HITCHCOCK
CLINIC
1 MEDICAL CENTER DRIVE
LEBANON, NH 03756

NO.	DATE	DESCRIPTION
REVISIONS		

SCALE:
AS NOTED

DATE: JUNE 17, 2026

NOBIS PROJECT NO. 100781.000

DRAWN BY: GAK/GWS

CHECKED BY: JCN

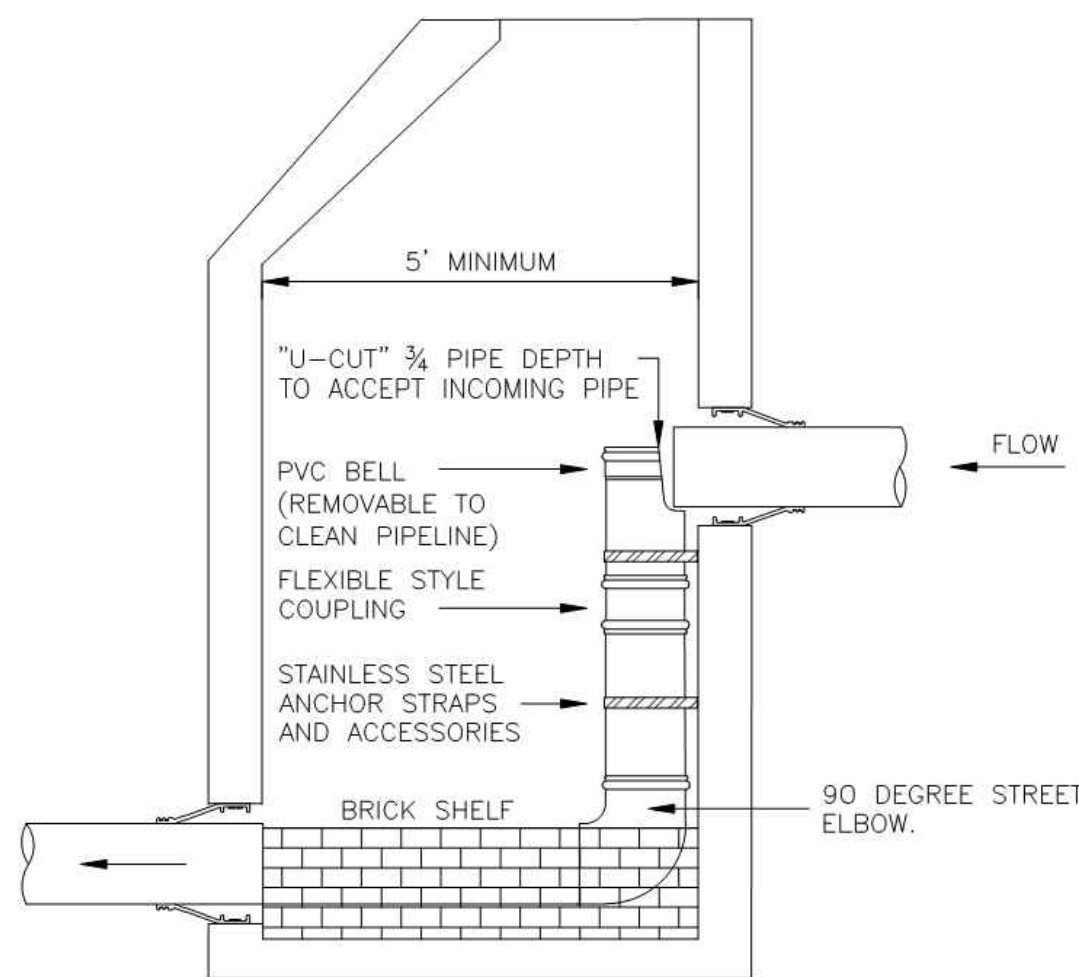
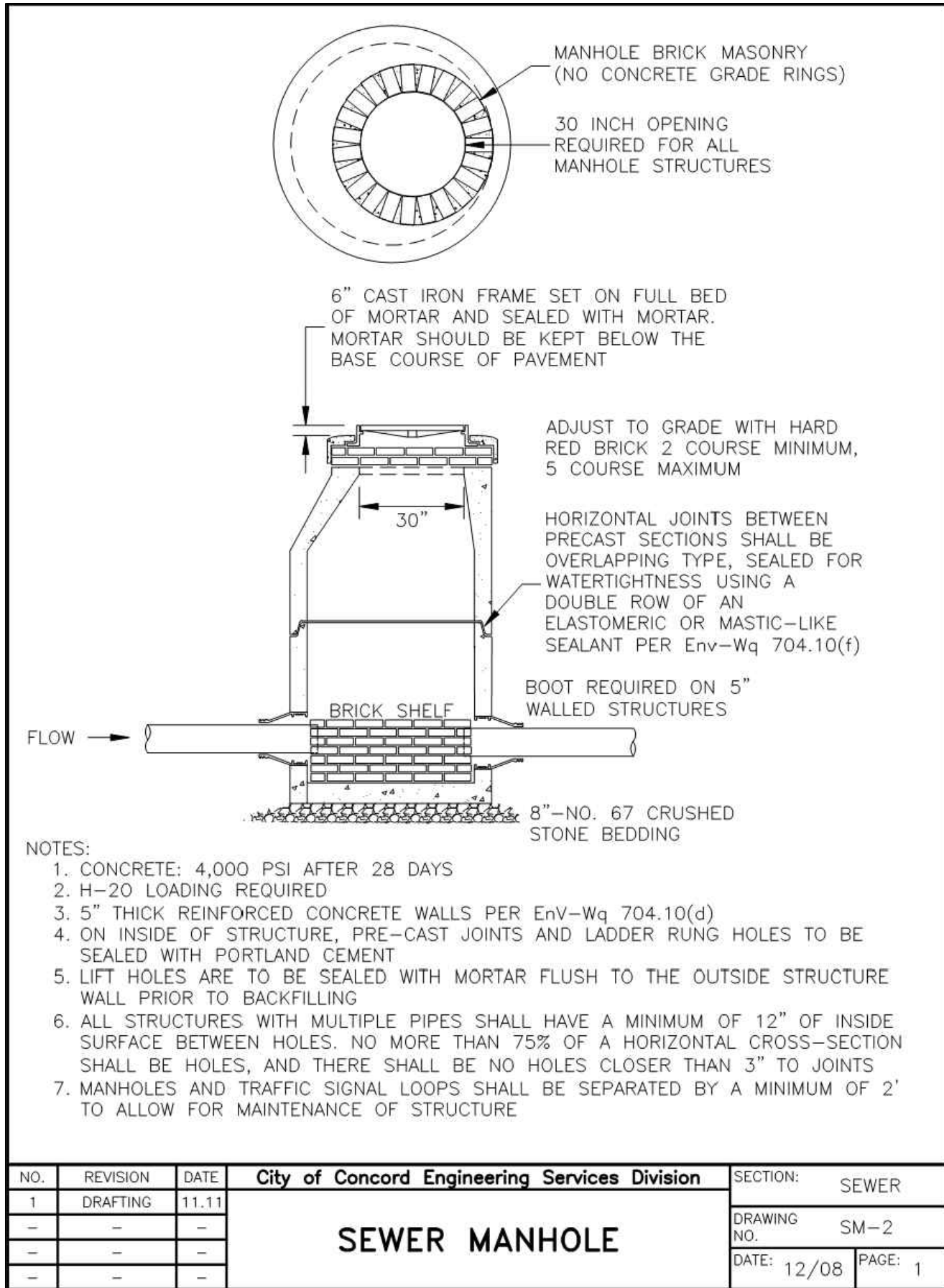
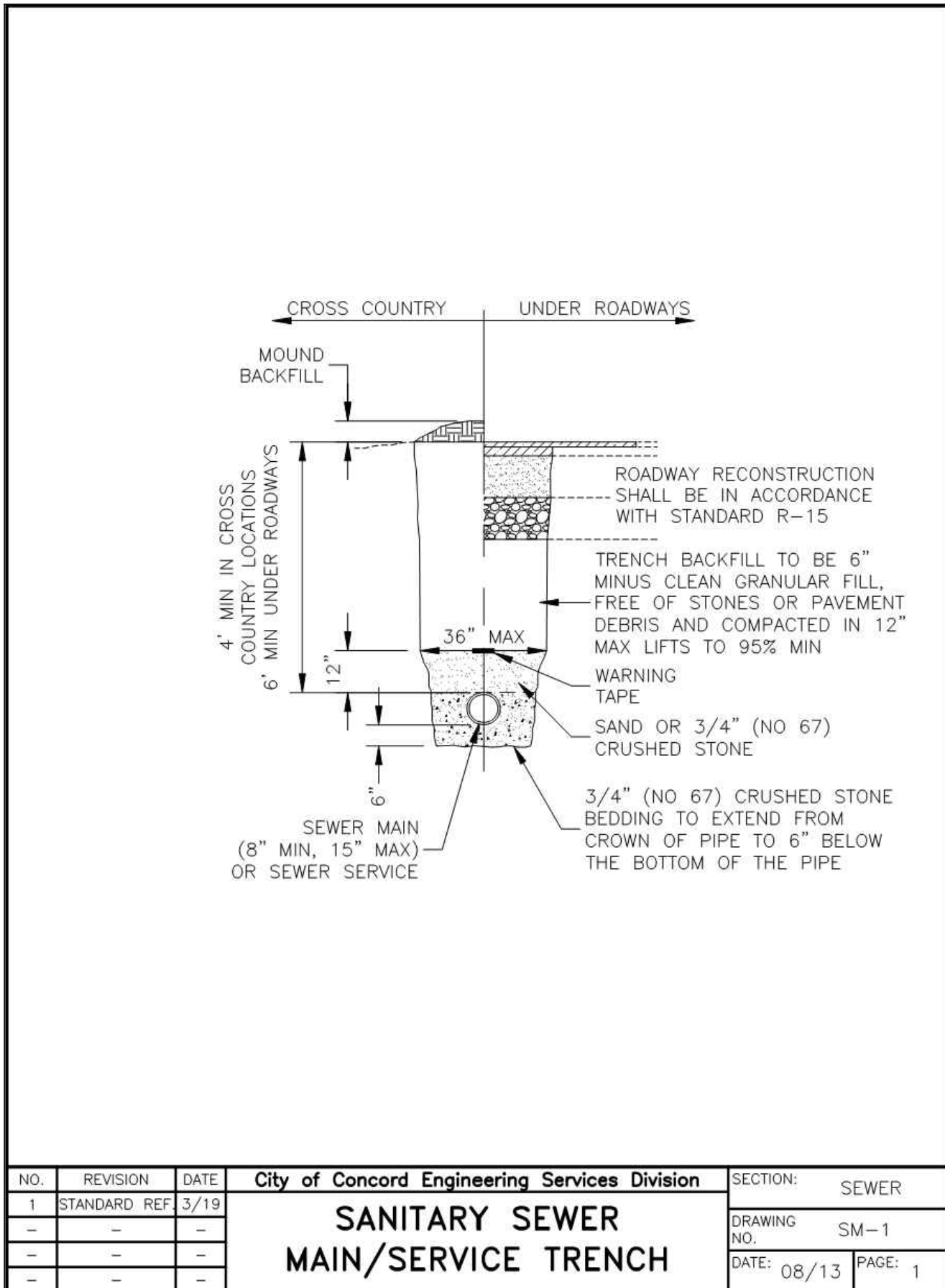
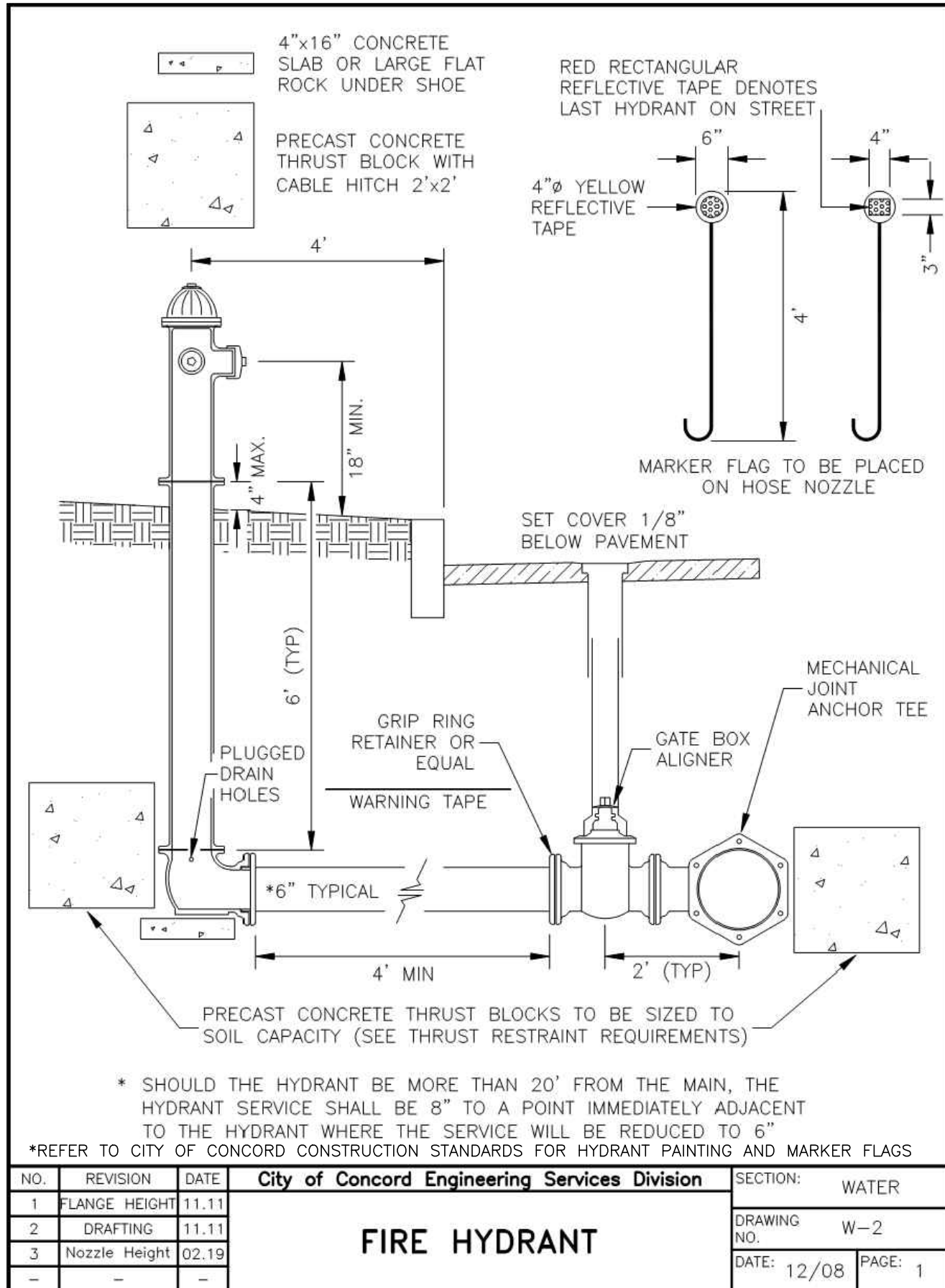
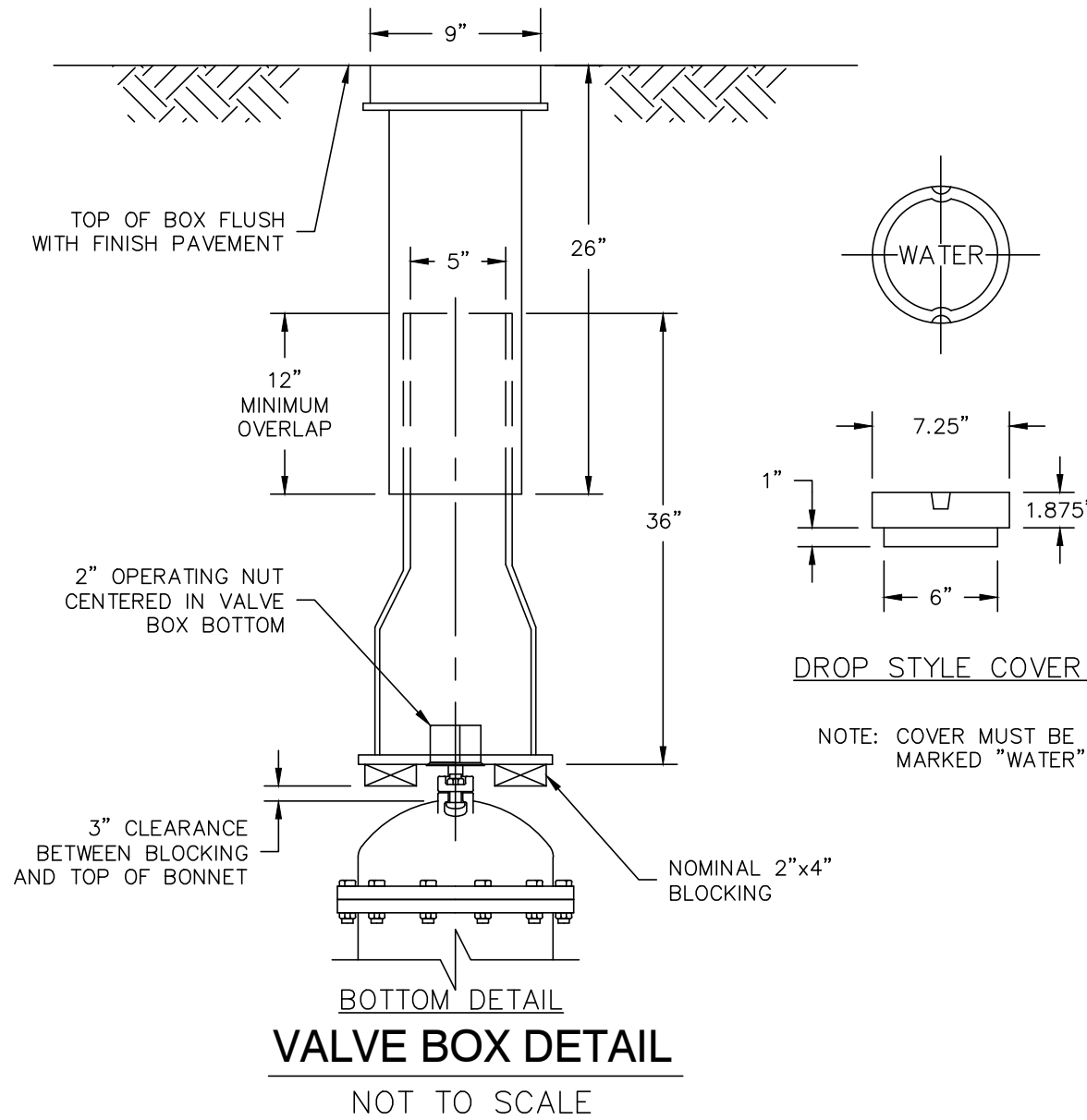
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100781.000-C-700-DETAILS.dwg

SHEET TITLE

CONSTRUCTION DETAILS

SHEET

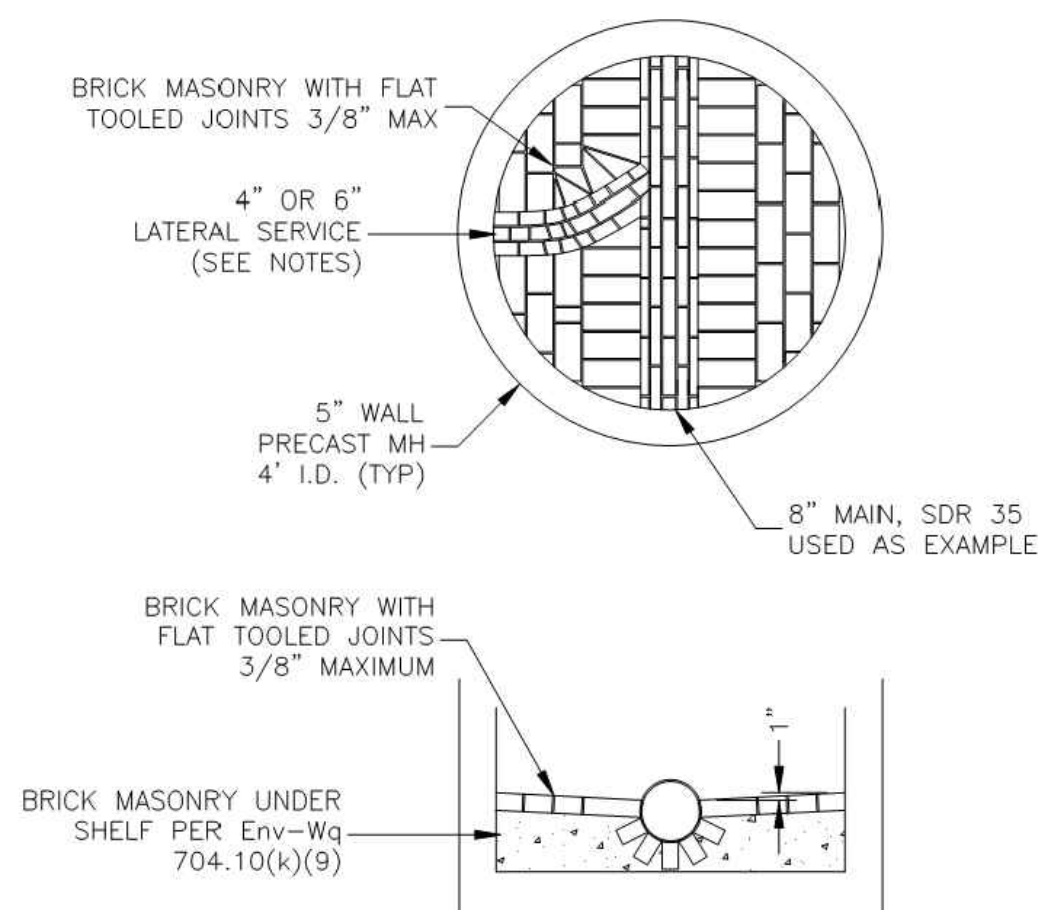
C-7.3



- NOTES:
1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE TO THE CITY OF CONCORD STANDARDS FOR SANITARY MANHOLE CONSTRUCTION
 2. INSIDE DROP MANHOLES SHALL HAVE A MINIMUM 5' INSIDE DIAMETER
 3. IF CONNECTING TO AN EXISTING MANHOLE THAT HAS NO OTHER DROP PIPING, A SINGLE 8" INSIDE DROP WILL BE ALLOWED
 4. ANCHOR STRAPS (MINIMUM OF 2) AND BOLTS TO BE 304 OR 316 STAINLESS STEEL AND NOT MORE THAN 3' ON CENTER. SECURE AS DIRECTED: STRAPS - 1" WIDE, BOLTS - 3/8" X 2 1/2" LONG

NO.	REVISION	DATE	City of Concord Engineering Services Division	SECTION:	SEWER
1	NOTES/DIM.	3/19		DRAWING NO.	SM-5
				DATE:	12/08
				PAGE:	1

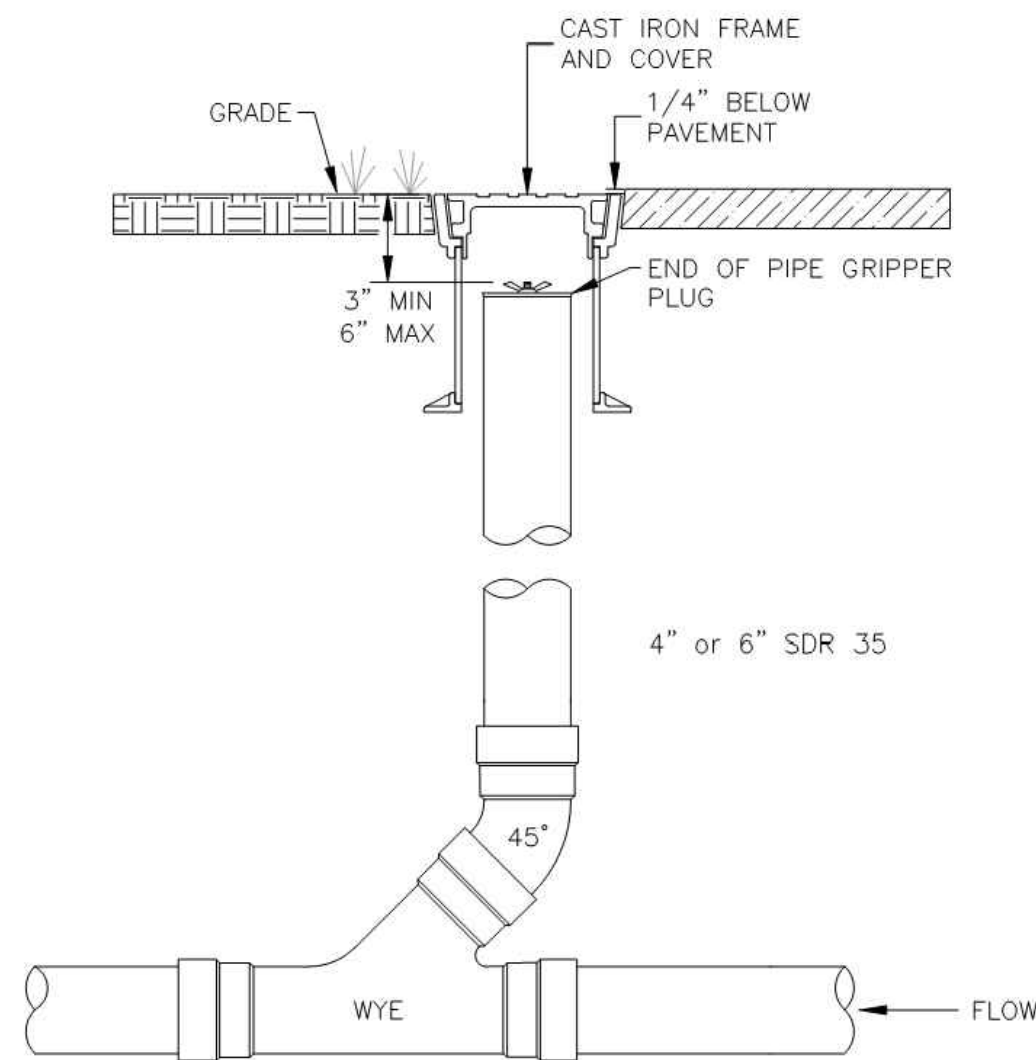
SEWER MAIN INSIDE
DROP MANHOLE



- NOTES:
1. FOR MAINS 8" TO 15", CONSTRUCT INVERT THROUGH THE LOWER HALF OF THE PIPE (MINIMUM 8" PIPE - 7 BRICK MINIMUM (JUST ABOVE THE MIDPOINT) 10" PIPE - 7 BRICK MINIMUM 12" PIPE - 9 BRICK MINIMUM 15" PIPE - 11 BRICK MINIMUM
 2. FOR MAINS GREATER THAN 15", CONSTRUCT BRICK INVERT TO TOP OF PIPE
 3. MAINTAIN TROUGH WIDTH THROUGH STRUCTURE
 4. TYPICAL BRICK, ASTM DESIGNATION: C321-93
 5. SERVICE CONNECTIONS SHOULD BE PER THE "SEWER SERVICE CONNECTION/ INSIDE DROP MANHOLE" DETAIL WHERE GRADES PROHIBIT SUCH A CONNECTION THE CONNECTION SHOULD BE AS SHOWN WITH THE SERVICE INVERT 2" ABOVE THE INVERT OF THE MAIN WHERE IT ENTERS THE MANHOLE.

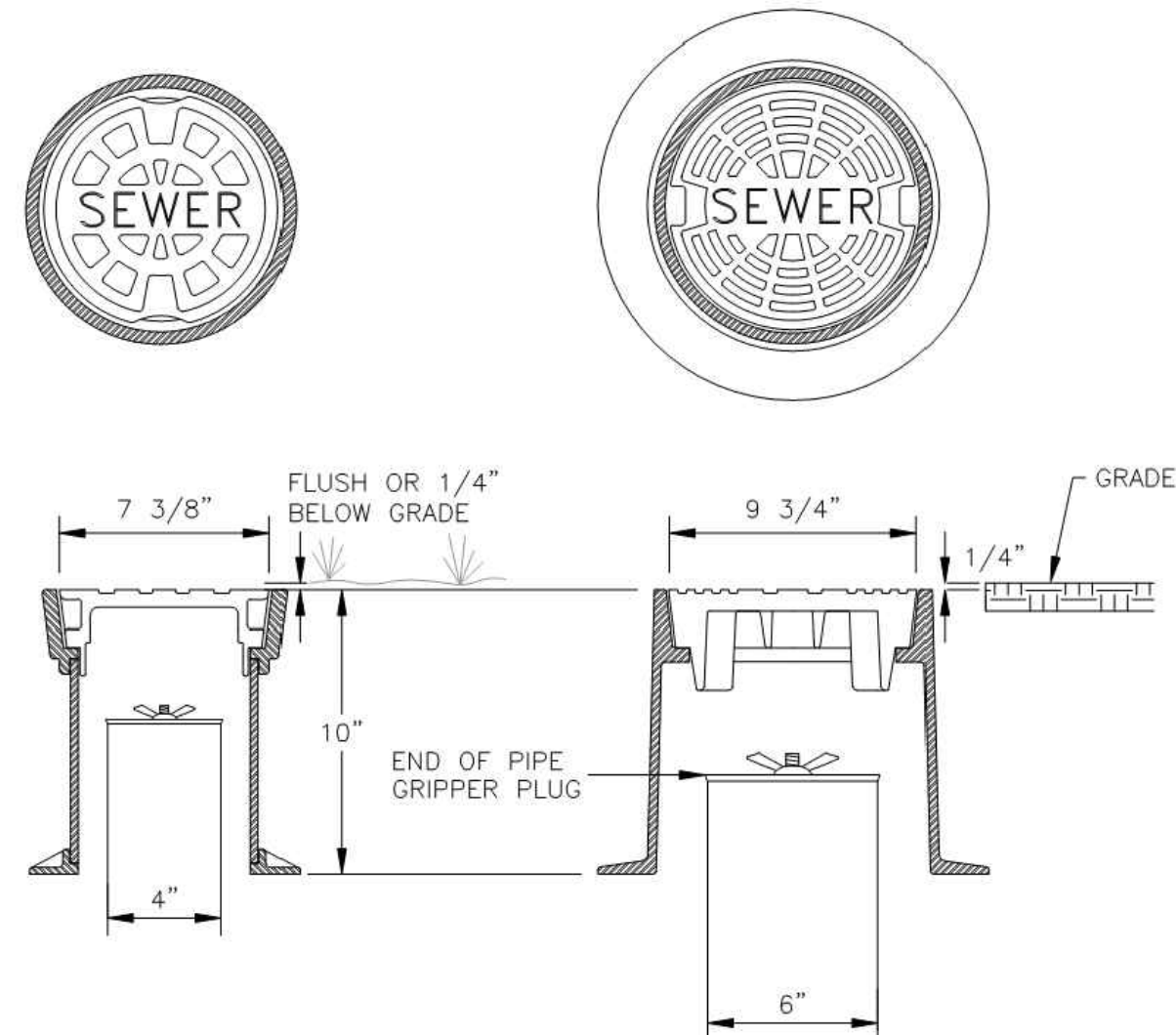
NO.	REVISION	DATE	City of Concord Engineering Services Division	SECTION:	SEWER
				DRAWING NO.	SM-3
				DATE:	03/15
				PAGE:	1

SANITARY BRICK SHELF
CONSTRUCTION



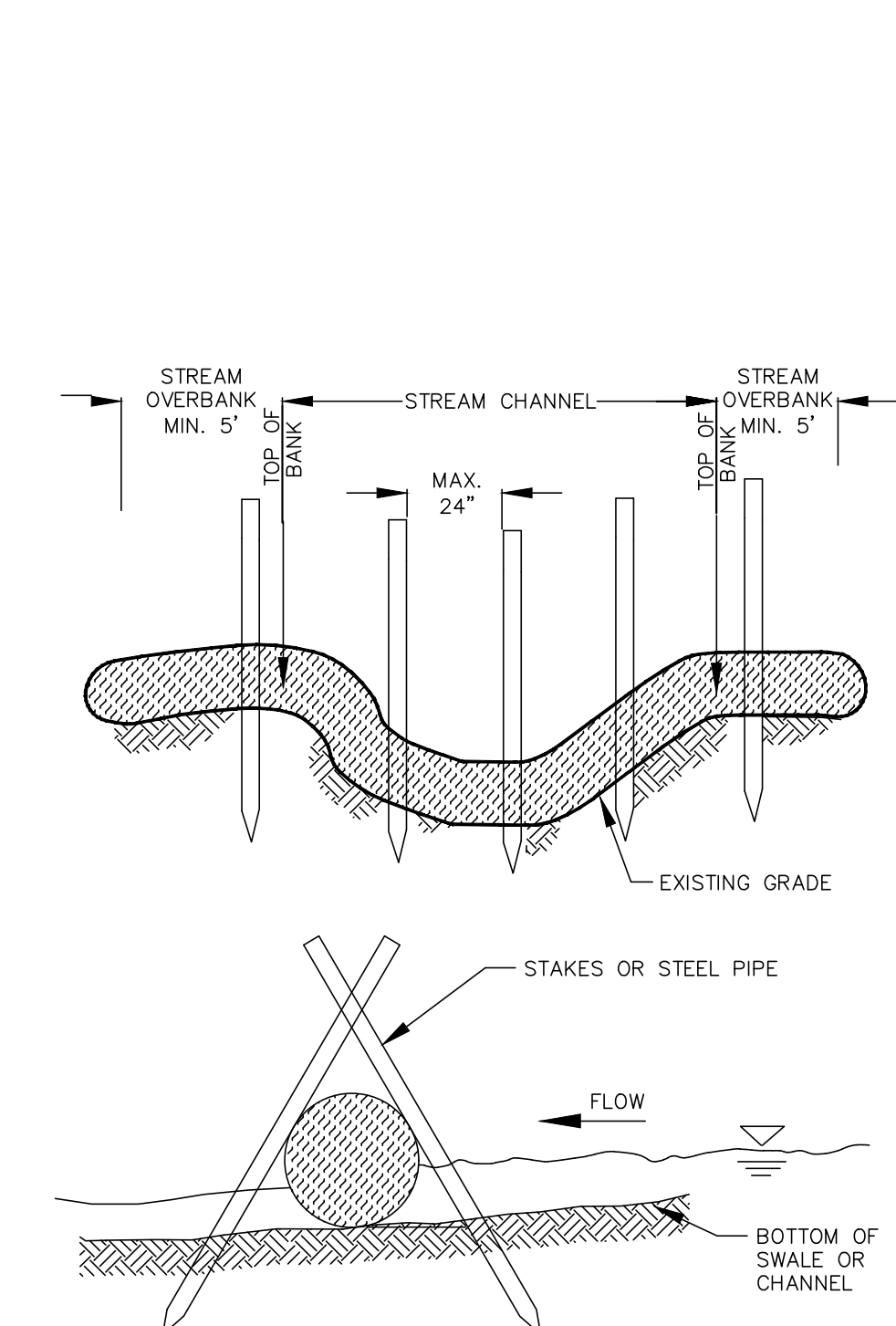
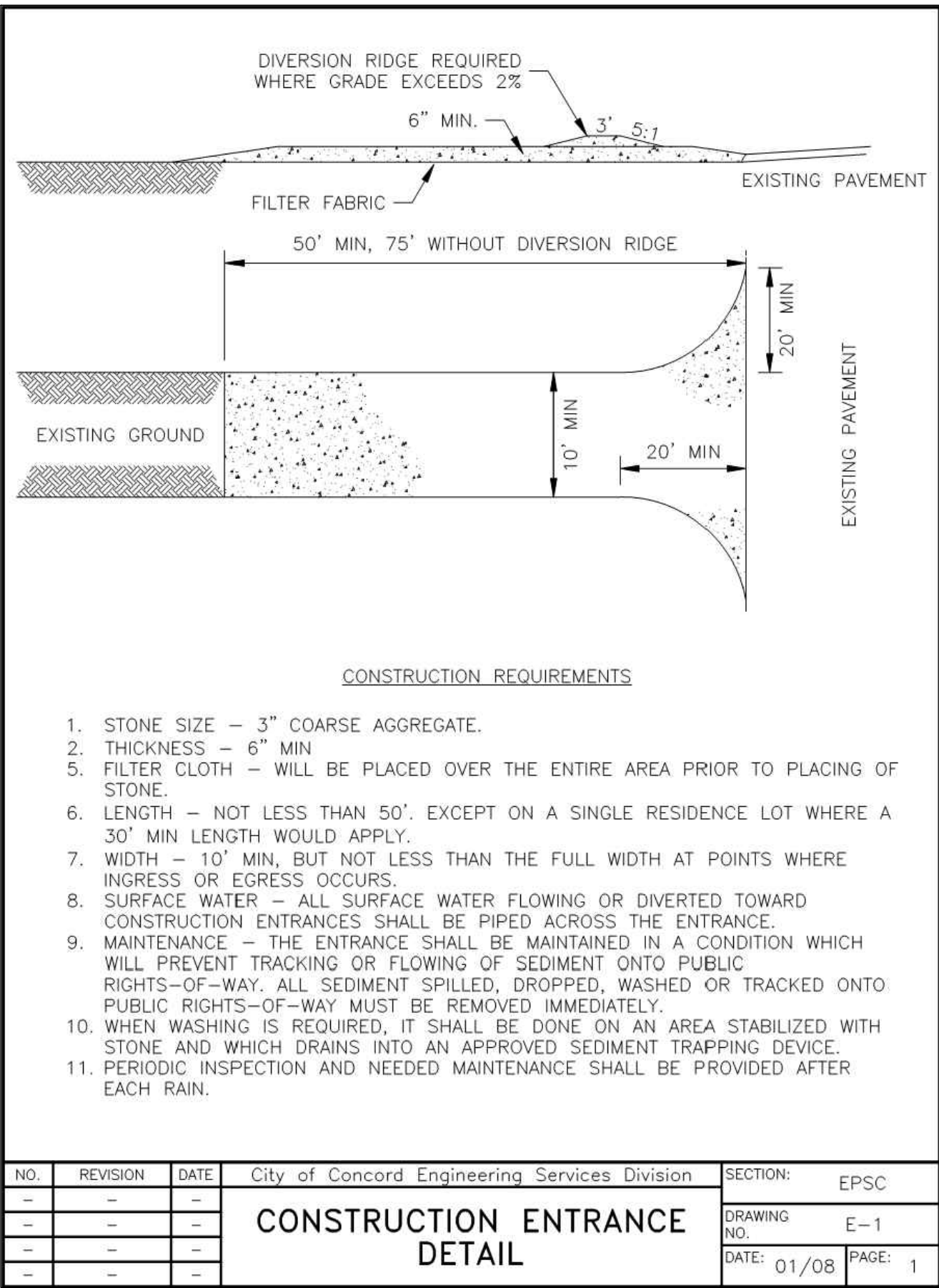
NO.	REVISION	DATE	City of Concord Engineering Services Division	SECTION:	SEWER
				DRAWING NO.	SS-3
				DATE:	12/08
				PAGE:	1

CLEANOUTS ON
SERVICE LATERALS

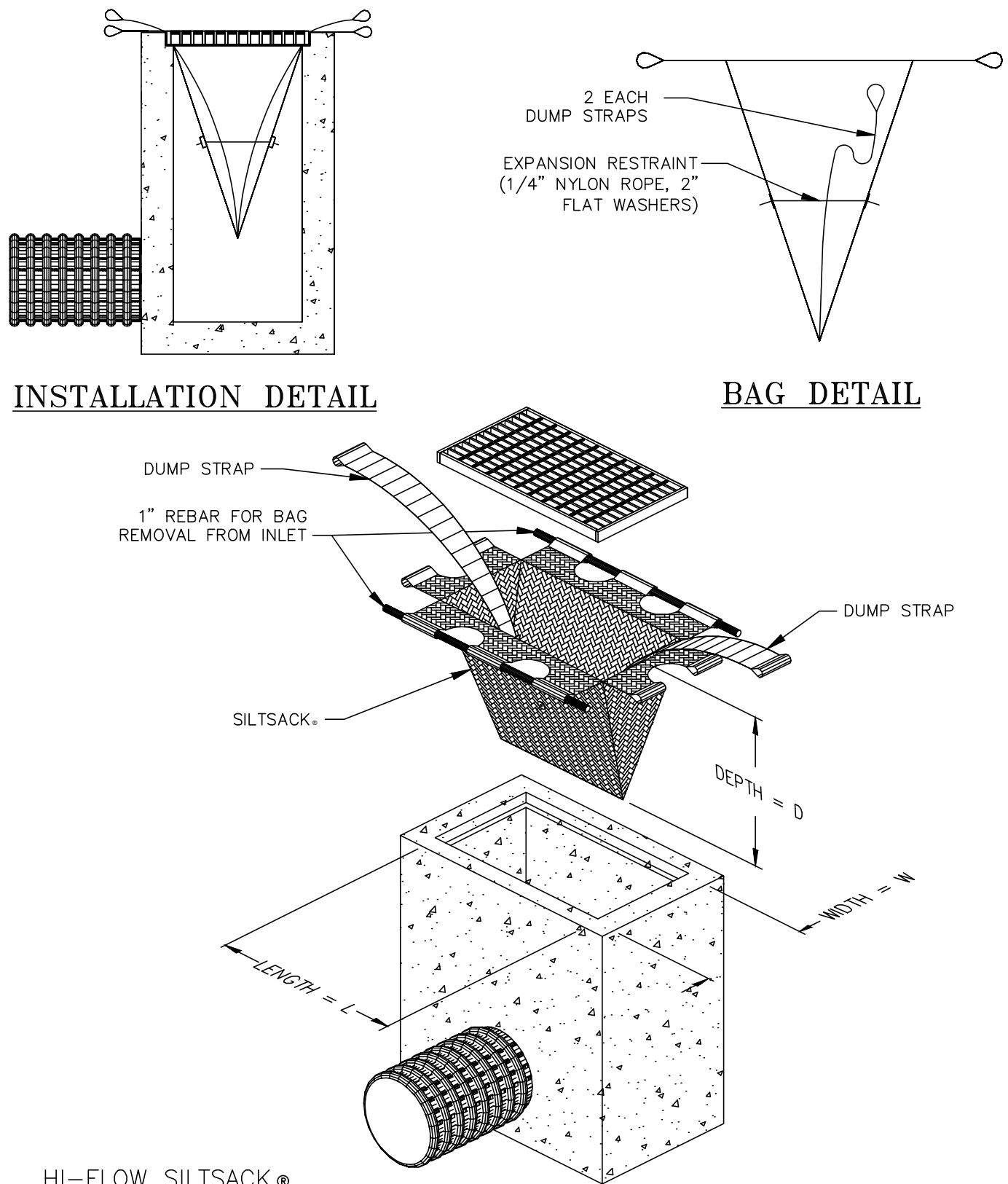


NO.	REVISION	DATE	City of Concord Engineering Services Division	SECTION:	SEWER
				DRAWING NO.	SS-4
				DATE:	12/08
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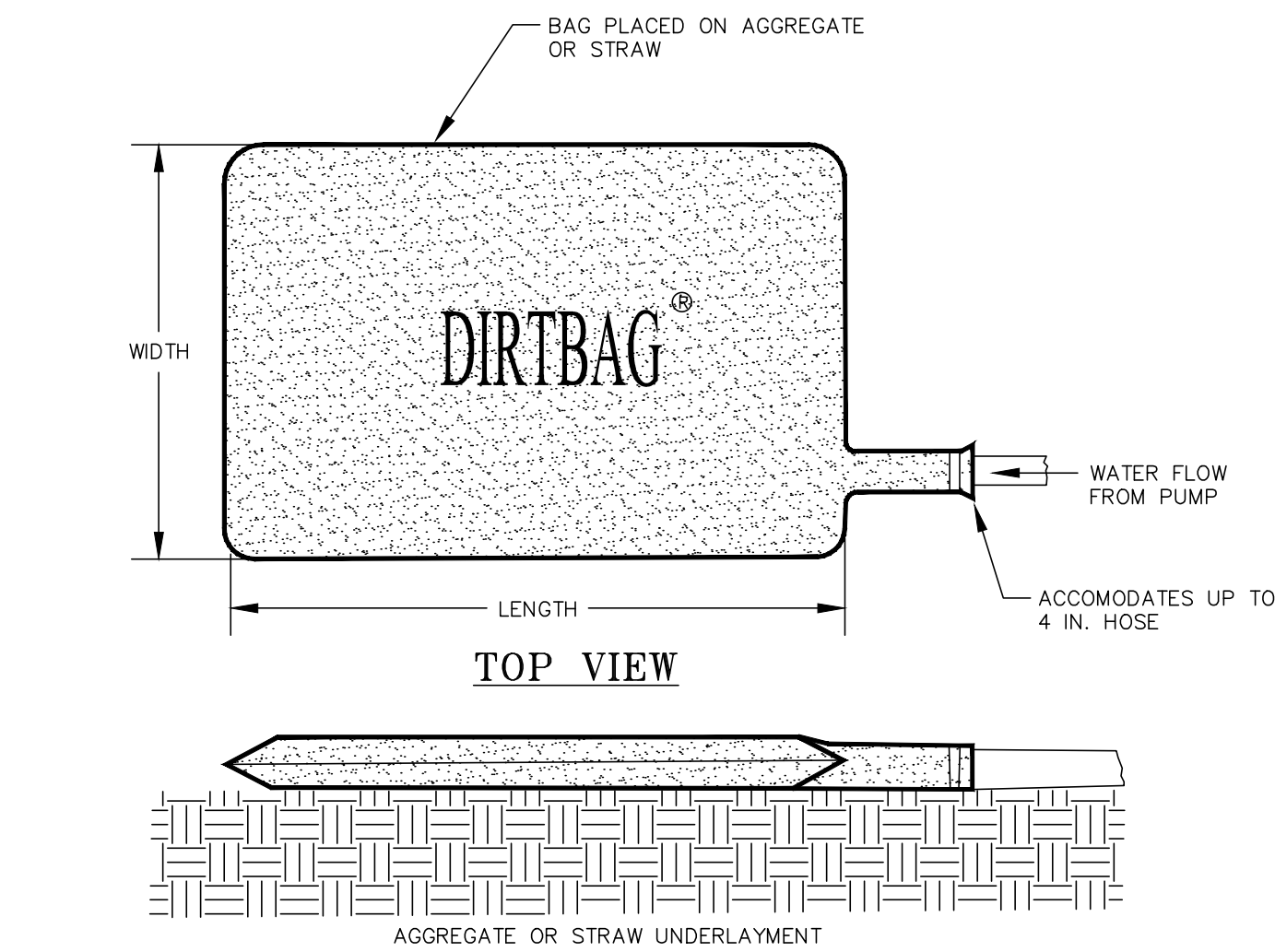
CLEANOUT COVERS
4" OR 6"



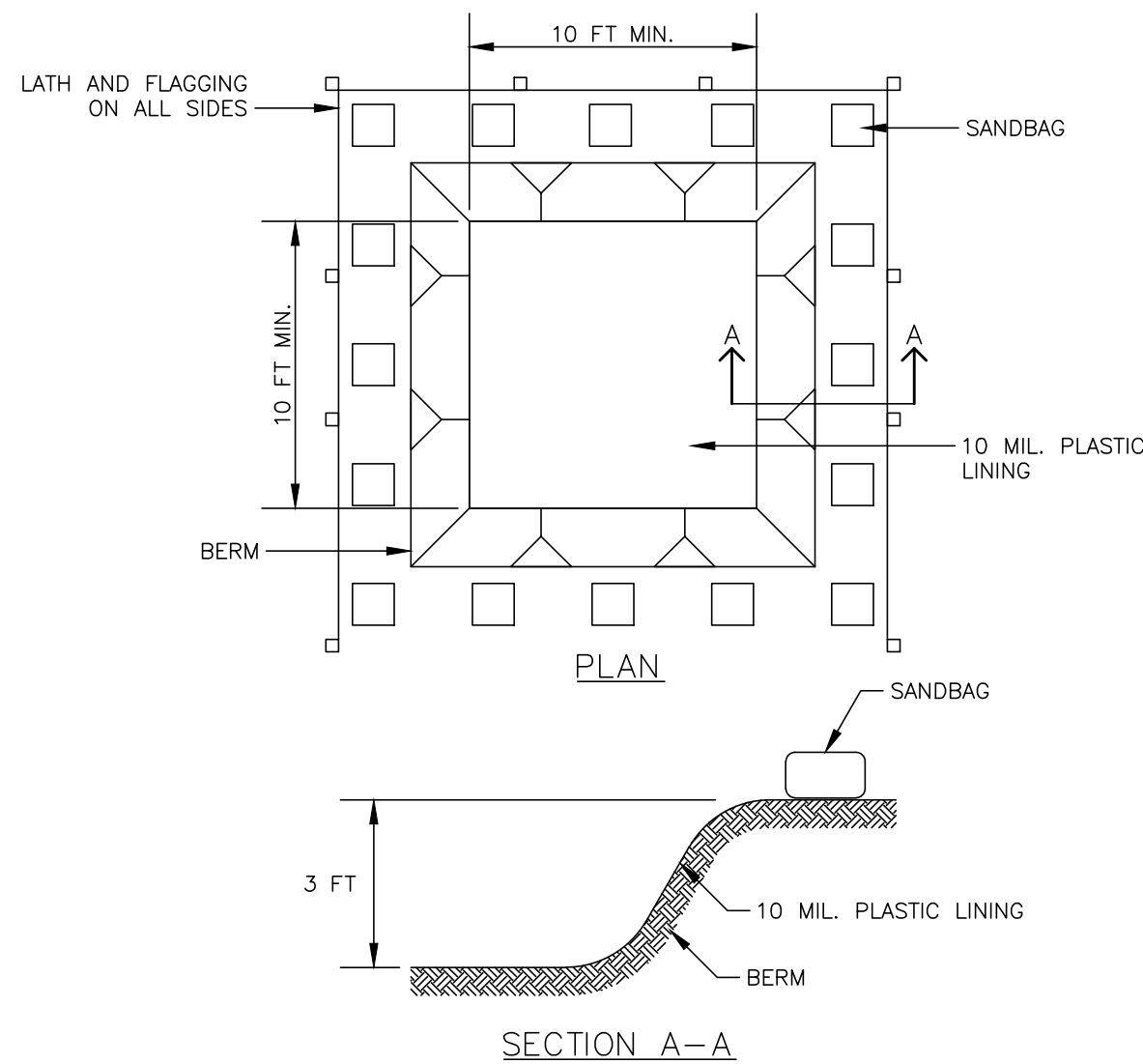
TEMPORARY SEDIMENT LOG
NOT TO SCALE



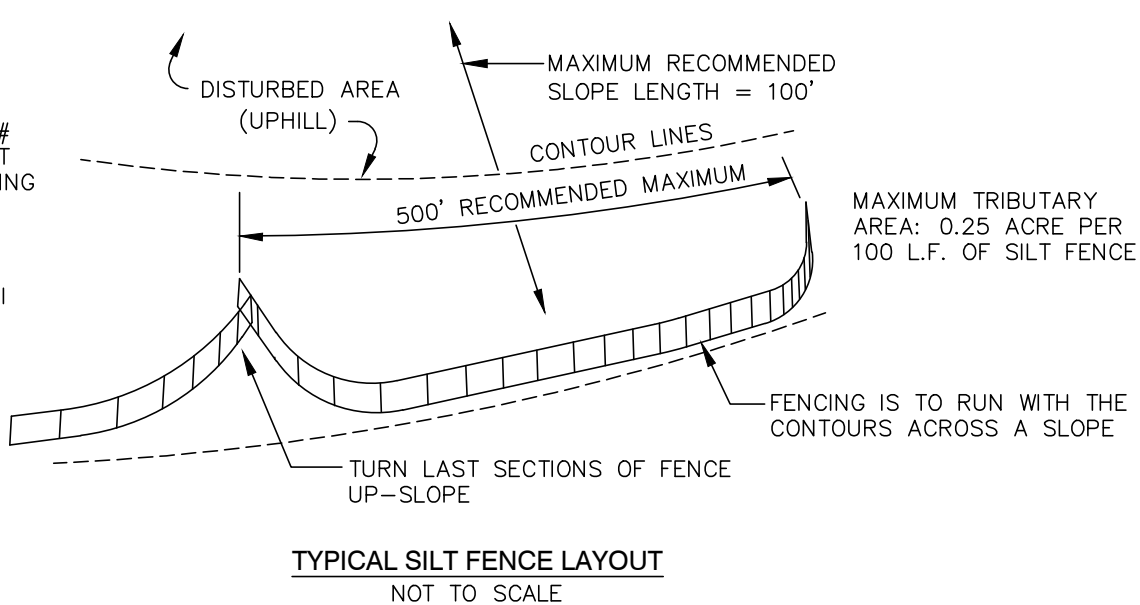
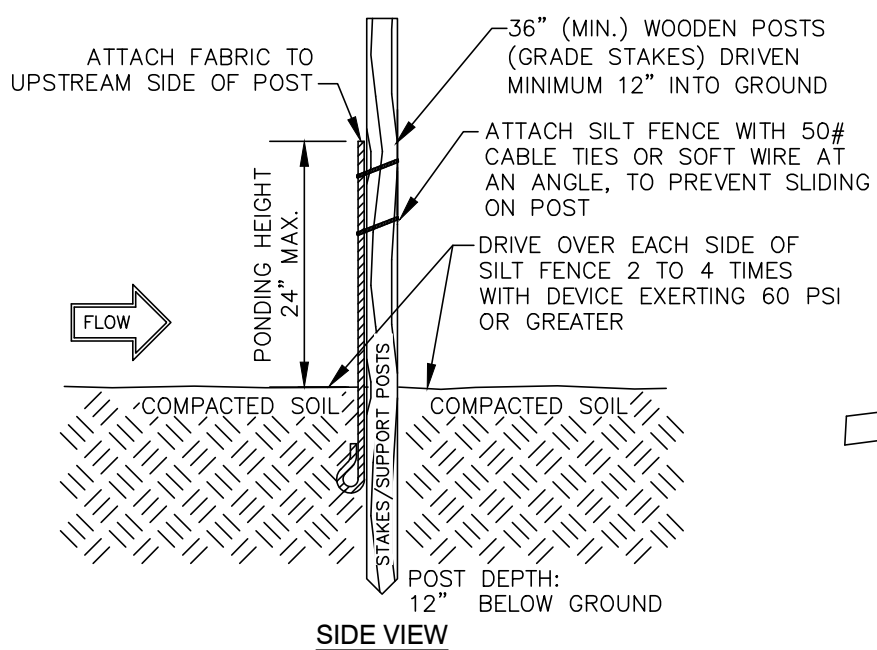
HI-FLOW SILTSACK
NOT TO SCALE



DIRTBAG
NOT TO SCALE

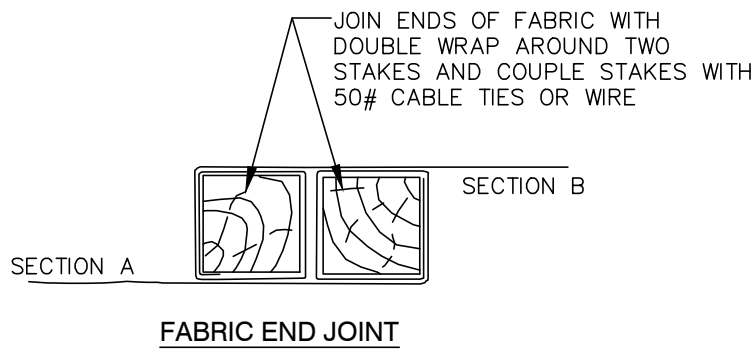
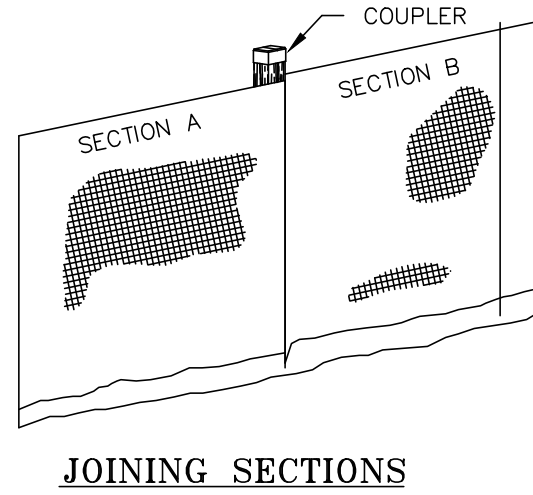
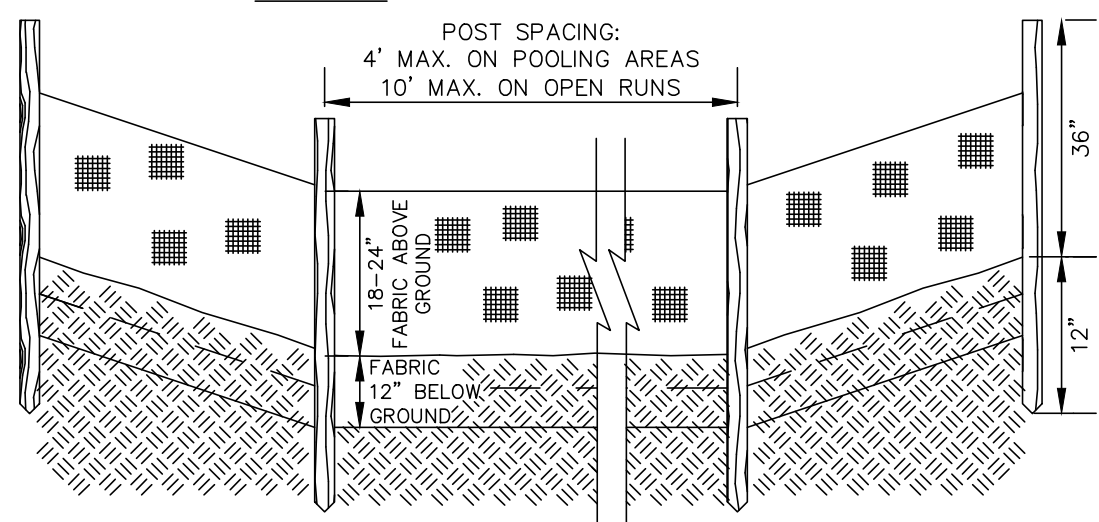


ONSITE CONCRETE DISPOSAL AREA
BELOW GRADE WASHOUT
NOT TO SCALE



SPECIFICATIONS FOR SILT FENCE INSTALLATION

- INSTALL POSTS 4 FEET APART IN CRITICAL WATER RETENTION AREAS AND 6-10 FEET APART ON STANDARD APPLICATIONS.
- INSTALL POSTS 12 INCHES DEEP ON THE DOWN HILL SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC.
- SECURELY ATTACH THE FABRIC TO EACH POST WITH TIES SECURED WITHIN THE TOP 8" OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 2" VERTICALLY APART.
- WRAP APPROXIMATELY 6 INCHES OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
- THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION. USE A FLAT-BLADED SHOVEL TO TUCK FABRIC DEEPER INTO THE SILT IF NECESSARY.
- COMPACTION IS VITALLY IMPORTANT FOR EFFECTIVE RESULTS. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQUARE INCH.



NOT ISSUED
FOR
CONSTRUCTION

**DARTMOUTH
HITCHCOCK
MEDICAL CENTER**

253 PLEASANT STREET
CONCORD, NH 03301

TAX MAP 734/Z LOT 21 & 22

OWNER/APPLICANT:
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CLINIC
1 MEDICAL CENTER DRIVE
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NO.	DATE	DESCRIPTION
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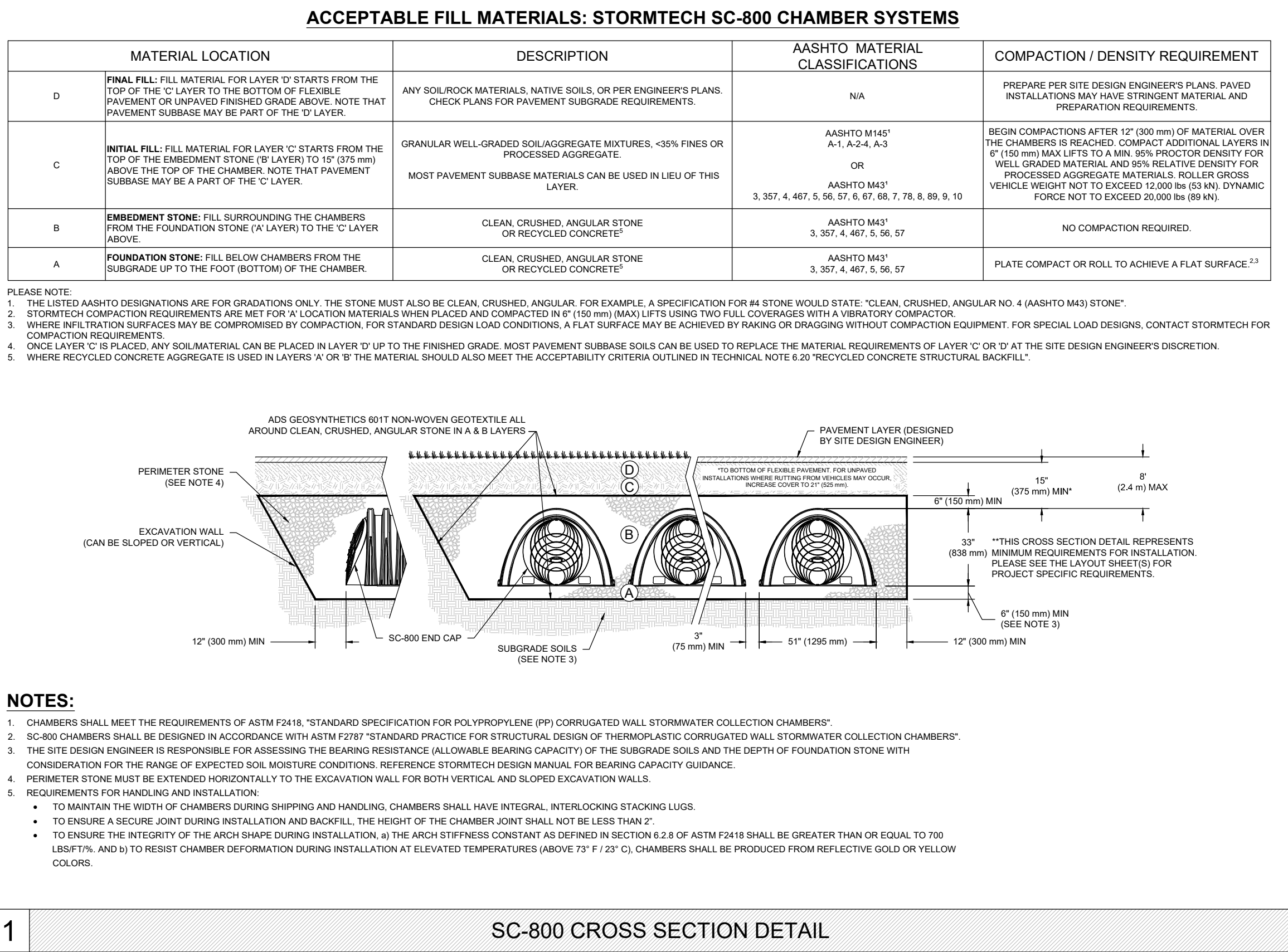
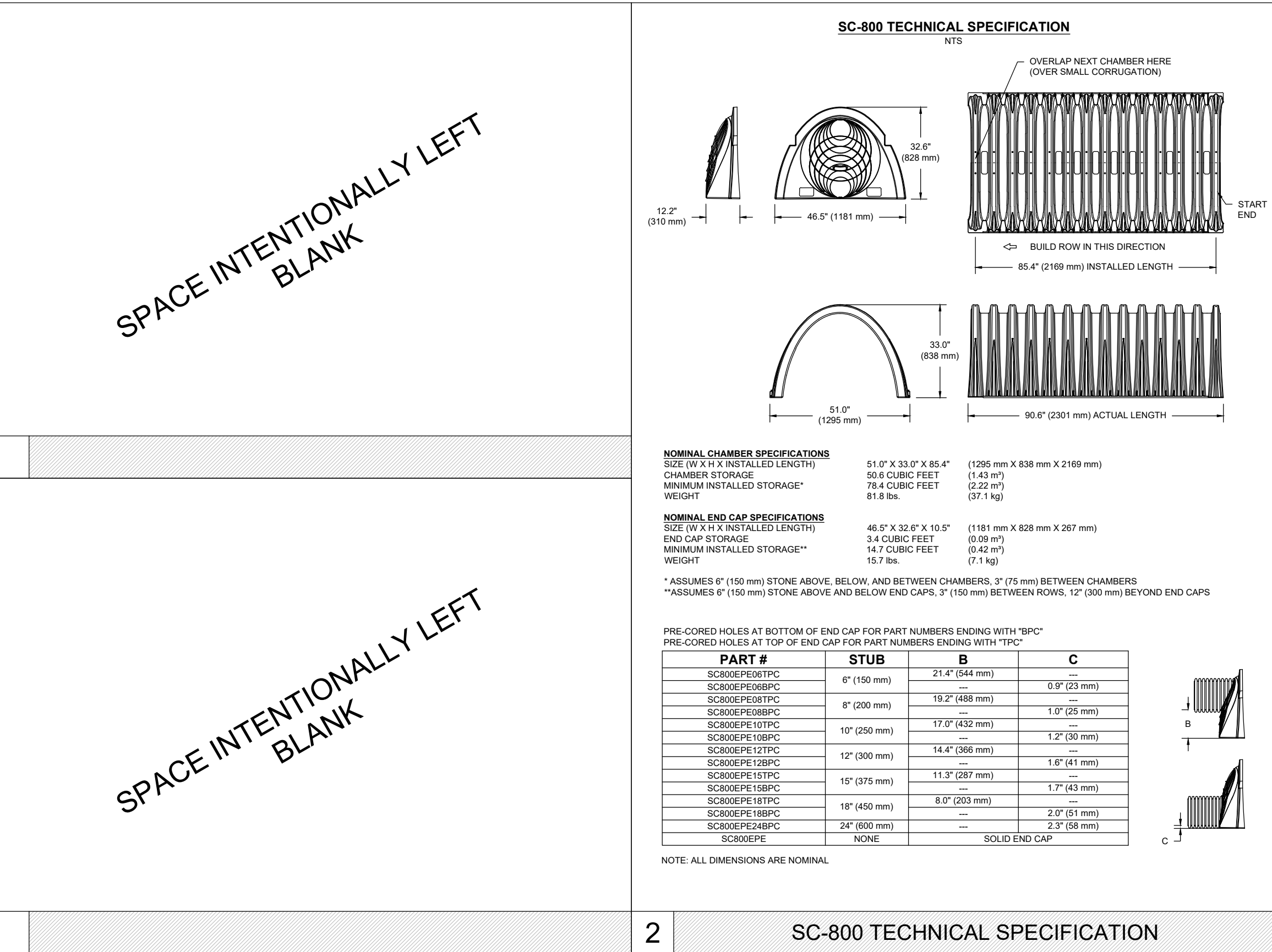
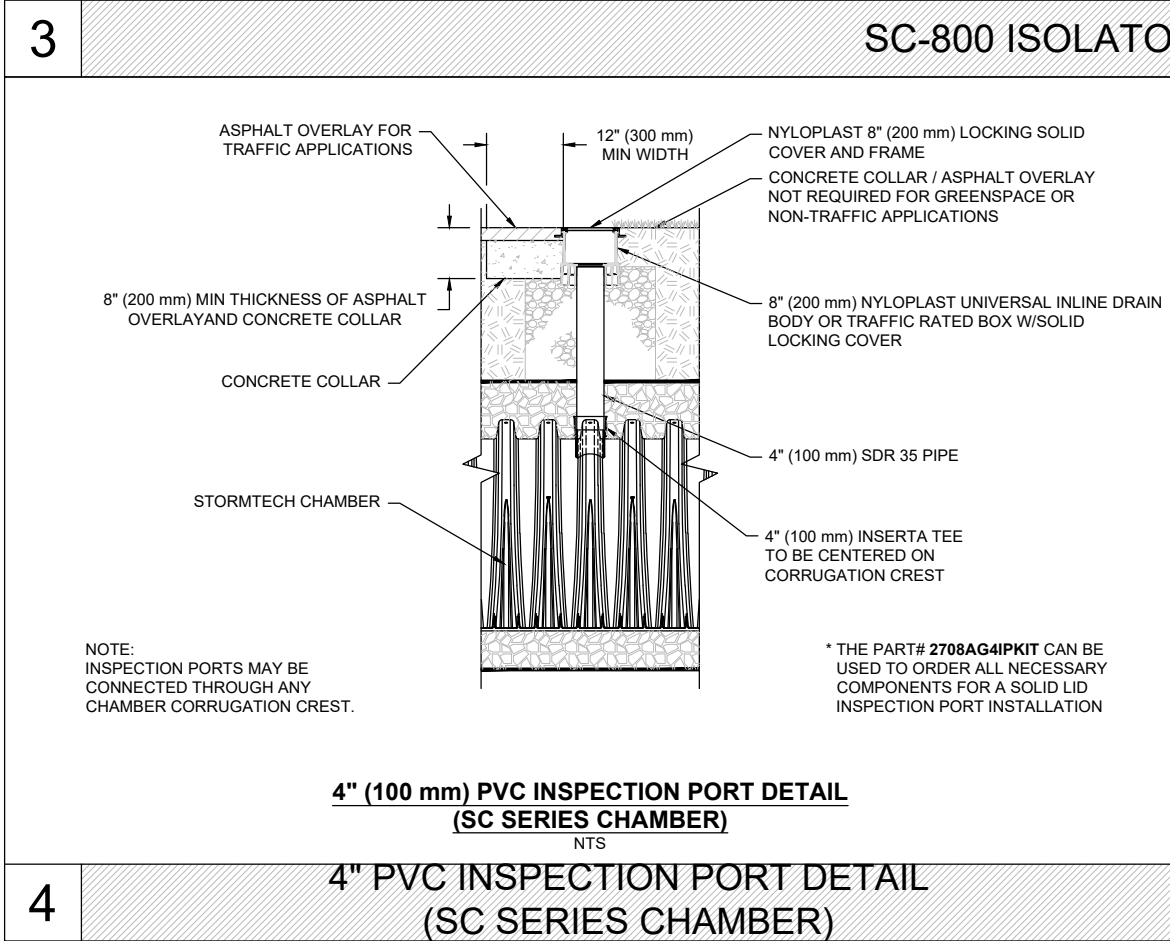
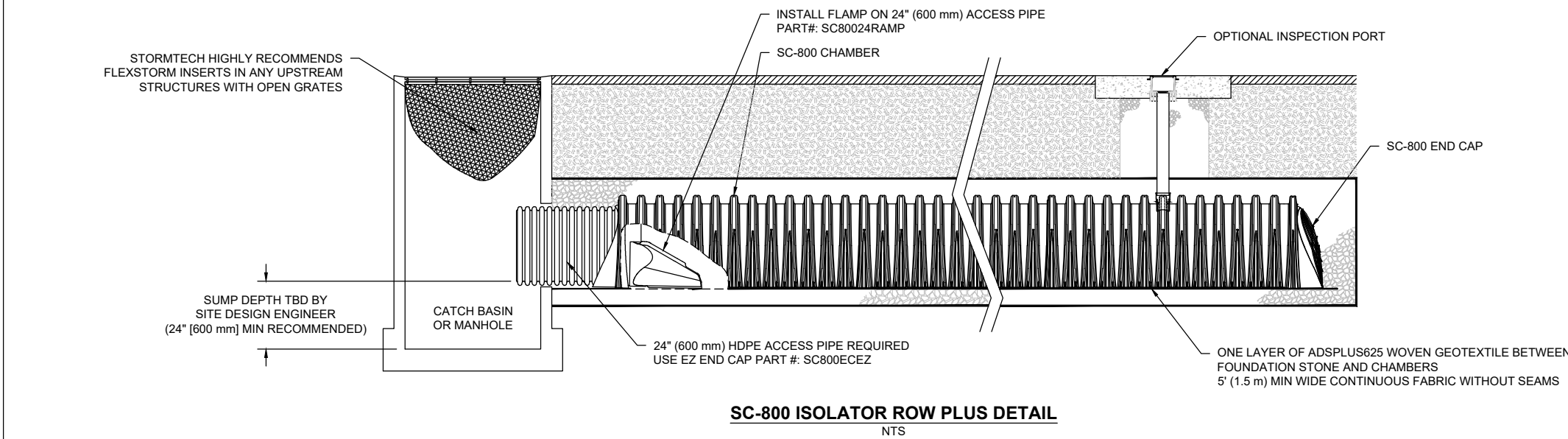
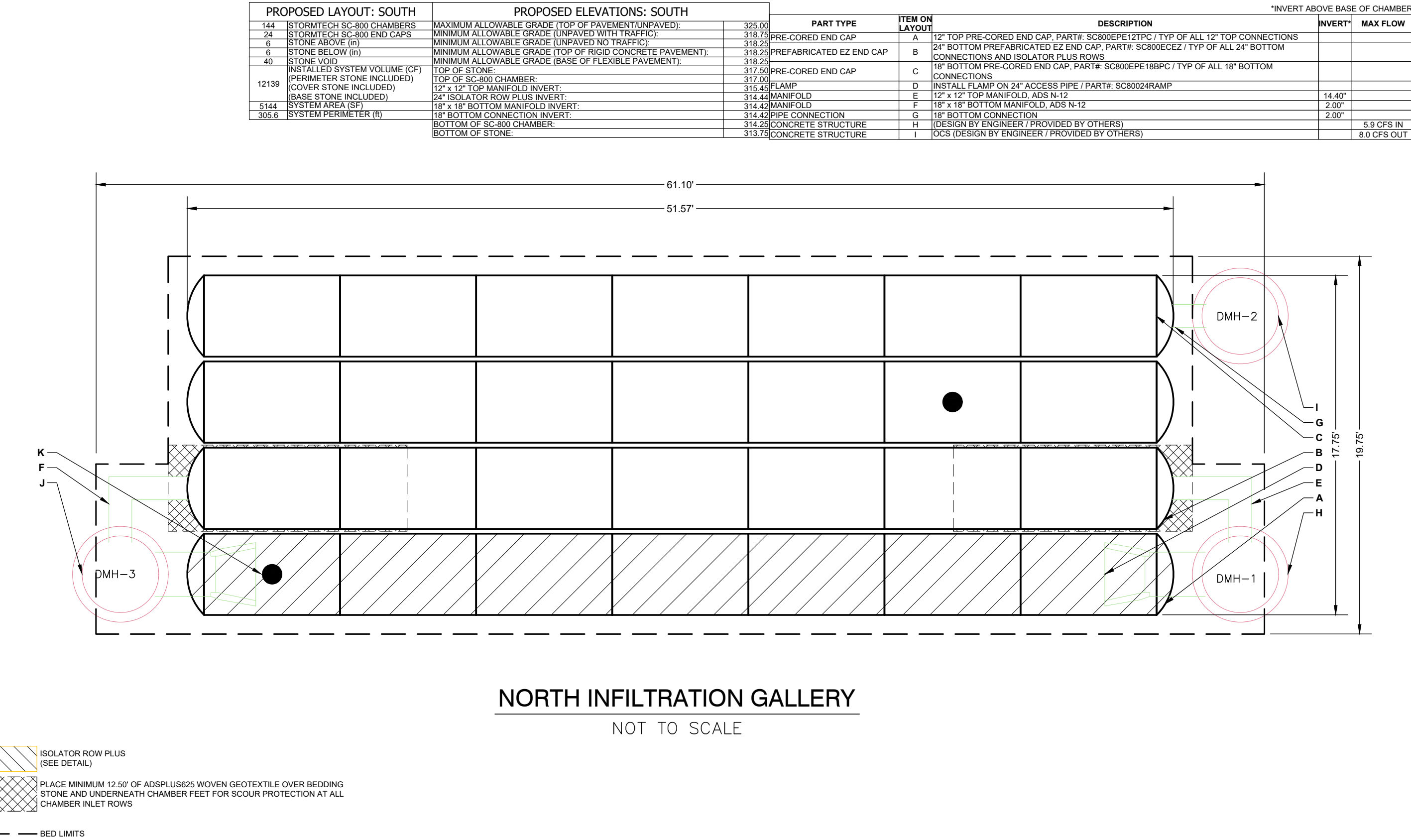
**SCALE:
AS NOTED**

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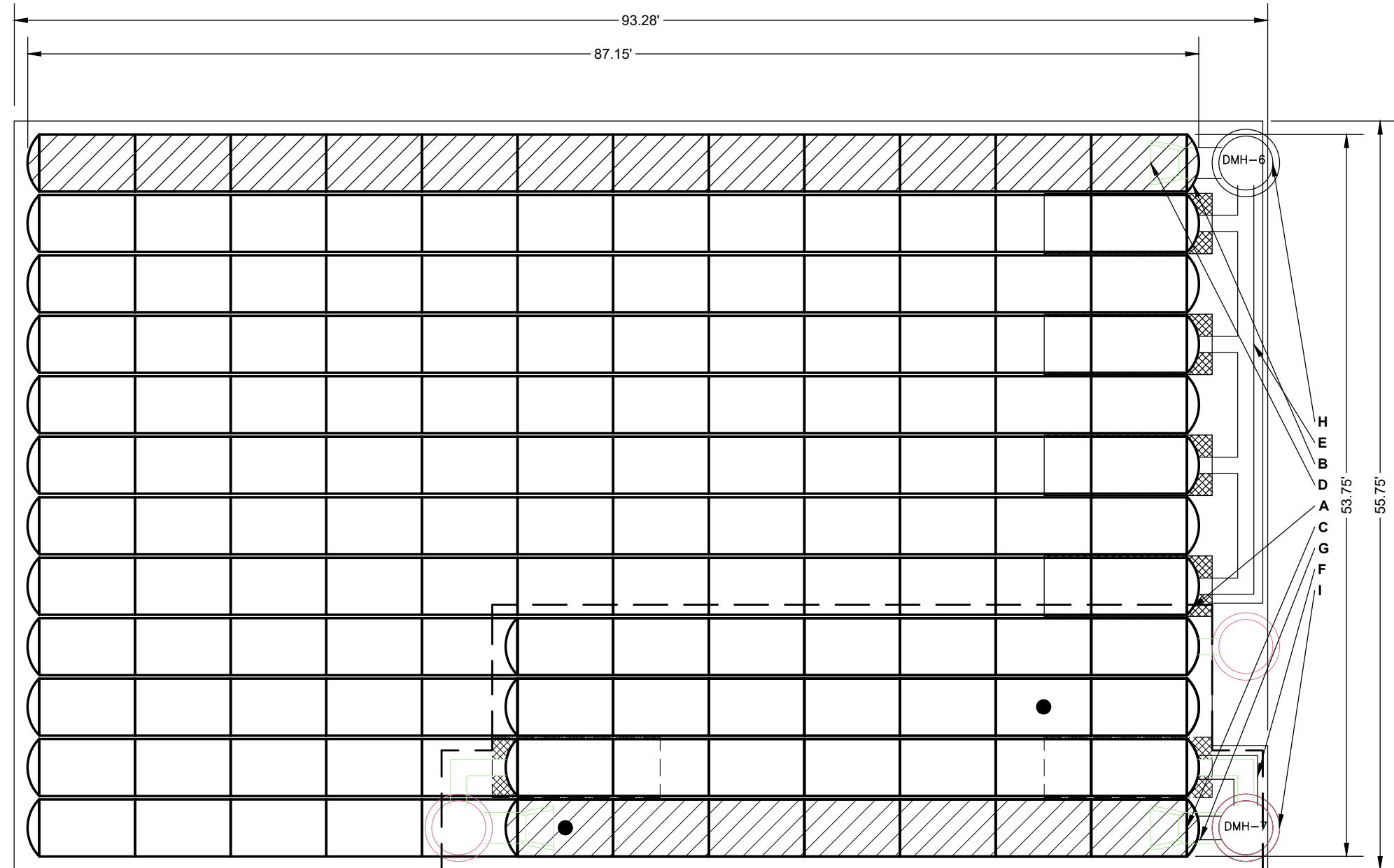
SHEET TITLE

**CONSTRUCTION
DETAILS**

SHEET
C-7.4

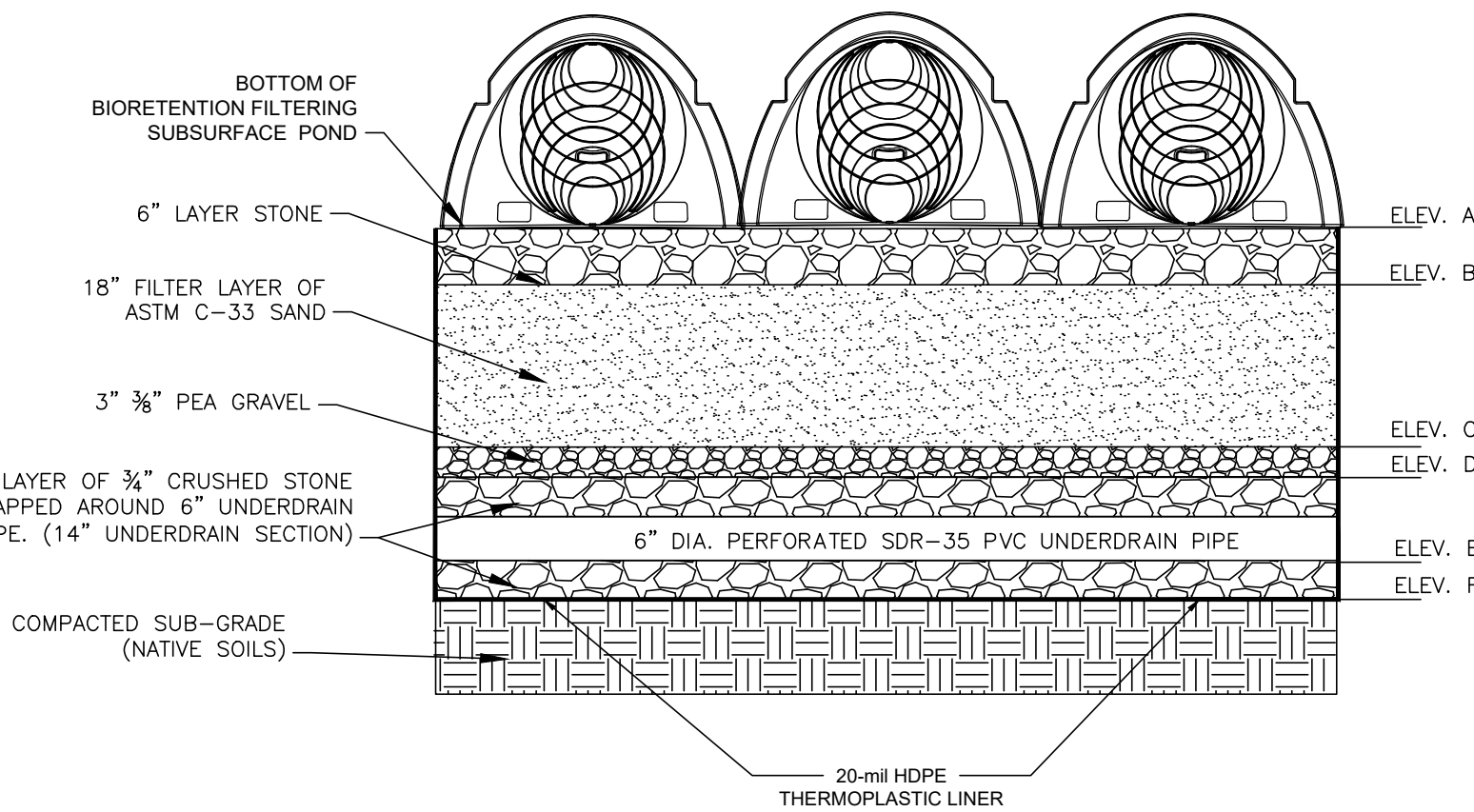


PROPOSED LAYOUT: SOUTH			PROPOSED ELEVATIONS: SOUTH						*INVERT ABOVE BASE OF CHAMBER		
						PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT	MAX FLOW	
144	STORMTECH SC-800 CHAMBERS		MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	325.00							
24	STORMTECH SC-800 END CAPS		MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	318.75							
6	STONE ABOVE (in)		MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	318.25							
6	STONE BELOW (in)		MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	318.25							
40	STONE VOID		MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	319.25							
12139	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)		TOP OF STONE:	317.00							
5144	SYSTEM AREA (SF)		TOP OF SC-800 CHAMBER:	316.45							
305.6	SYSTEM PERIMETER (in)		12" x 12" TOP MANIFOLD INVERT:	314.44					14.40"		
			24" ISOLATOR ROW PLUS INVERT:	314.42					2.00"		
			18" x 18" BOTTOM MANIFOLD INVERT:	314.42					2.00"		
			18" BOTTOM CONNECTION INVERT:	314.25					5.9 CFS IN		
			BOTTOM OF SC-800 CHAMBER:	313.75					8.0 CFS OUT		
			BOTTOM OF STONE:								



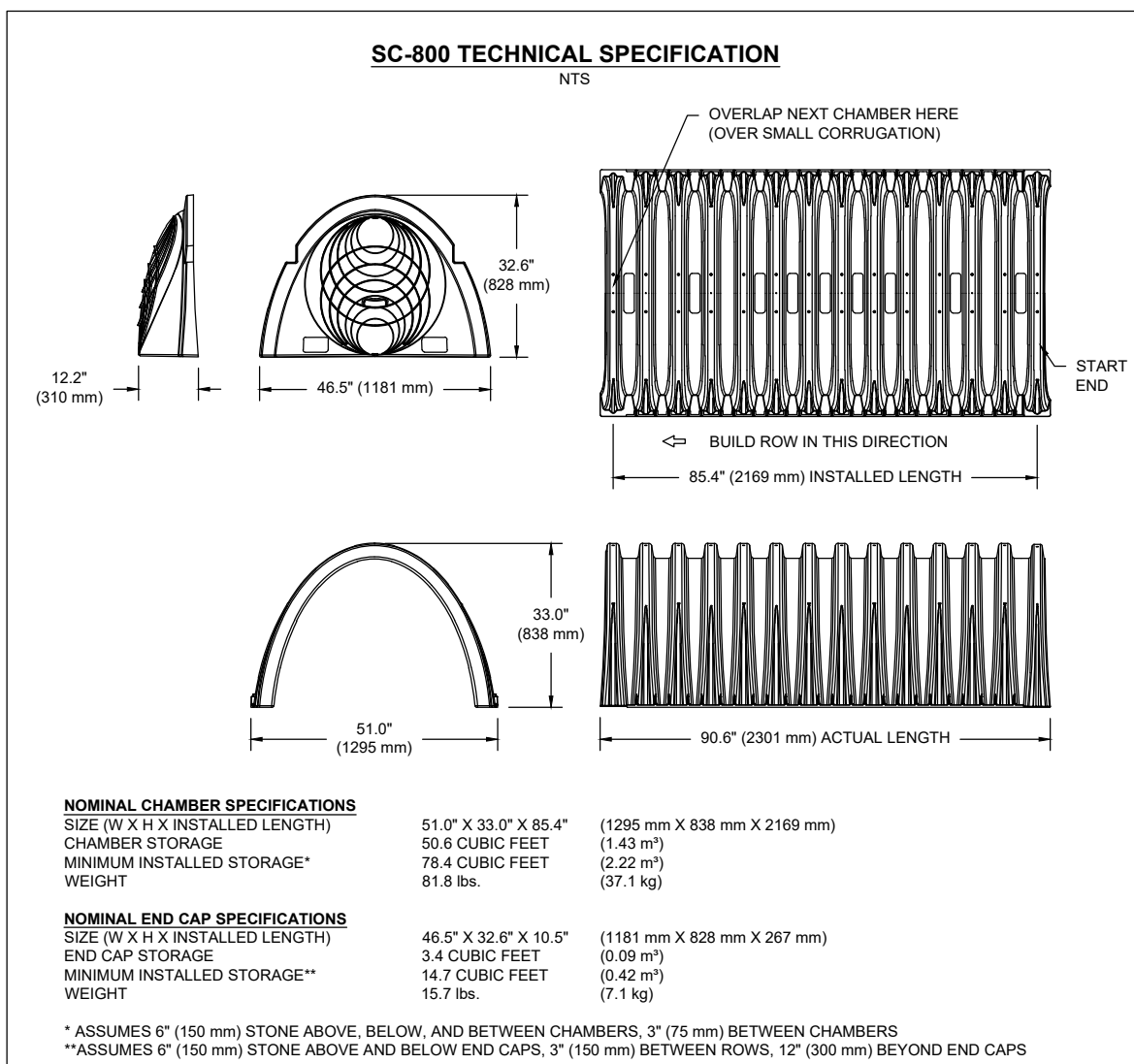
SOUTH FILTRATION GALLERY
NOT TO SCALE

- NOTES
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
 - NOT FOR CONSTRUCTION**: THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.



FILTERING PRACTICE ELEVATIONS						
SYSTEM	ELEV. A	ELEV. B	ELEV. C	ELEV. D	ELEV. E	ELEV. F
	314.25	313.75	312.25	312.0	311.25	310.83

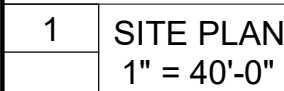
FILTERING PRACTICE SECTION (CHAMBERS)
NOT TO SCALE



PRE-CORED HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "BPC"			
PRE-CORED HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "TTP"			
PART #	STUB	B	C
SC800PE10T1PC	6" (150 mm)	21.4" (544 mm)	0.9" (23 mm)
SC800PE10B1PC	6" (150 mm)	19.2" (488 mm)	---
SC800PE10T2PC	8" (200 mm)	19.2" (488 mm)	1.0" (25 mm)
SC800PE10B2PC	10" (250 mm)	17.0" (432 mm)	1.2" (30 mm)
SC800PE12T1PC	10" (250 mm)	14.4" (366 mm)	---
SC800PE12B1PC	12" (300 mm)	11.3" (287 mm)	1.6" (41 mm)
SC800PE12T2PC	15" (375 mm)	11.3" (287 mm)	1.7" (43 mm)
SC800PE12B2PC	18" (450 mm)	8.0" (203 mm)	---
SC800PE18T1PC	---	---	2.0" (51 mm)
SC800PE18B1PC	---	---	2.3" (58 mm)
SC800PE18T2PC	---	---	---
SC800PE18B2PC	---	---	---
SC800PE24B1PC	---	---	---
SC800PE24B2PC	---	---	---
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Jonathan Halle, PLA, AIA

Jonathan Halle, PLA, AIA



 Small Flowers	SFL	NA	Native Seed Mix	Native Seed Mix - No Invasive Species	3-9	8"-36"	NA	Full Sun-Partial Shade	YES	YES	0	Seed Mix	Bag	NA	Luffa Seed Company or approved entity. Species: 70% tall tescus - <i>Tesca arundinacea</i> , 30% creeping red tescus - <i>Tesca rubra</i> . Fine Grade, fertilizer, seed and HydroMulch. Seed Rate: 5 bags / 1,000 sq ft add 10% if hydroseeded. Seed Dates April 15 - June 30 and August 15 - October 15 unless approved otherwise.
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USDA Plant Hardiness Zones - NH North of Laconia Zone 4 - Southern NH Zone 5 - Western Massachusetts Zone 5, - Eastern Massachusetts Zone 6.

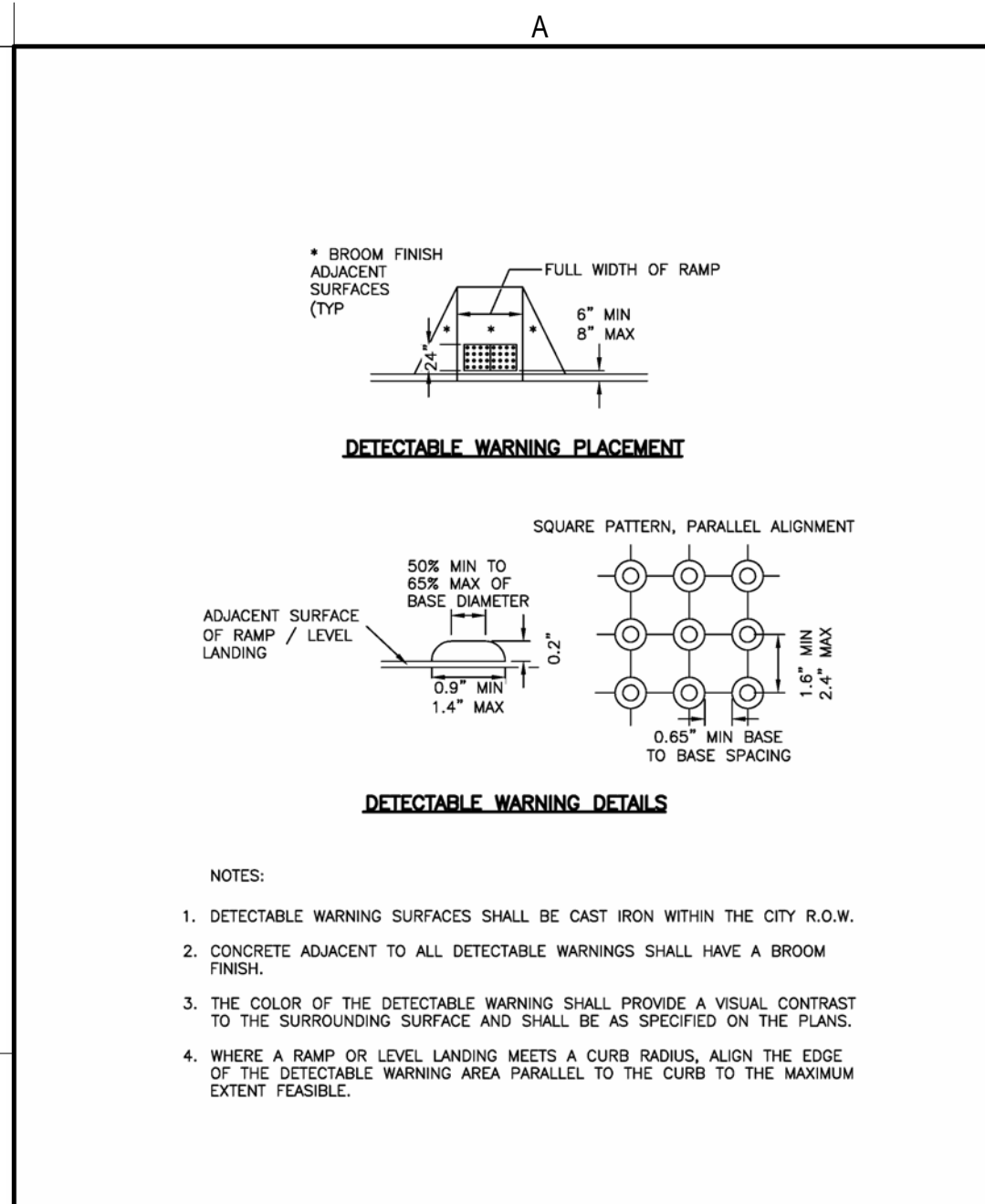
1. The above selection of plants is provided for design intent. Trees, Shrubs, Ground Cover, Flowers, Bedding and Seeding - See Specification and General Notes and Details on the Accompanying Drawings. It is understood that the final installation and implementation of this plan is subject to plant availability, substitutions, time of year, phasing and cost.

3. All planting beds shall be mulched with a minimum of 2" of shredded cedar "BLACK" bark mulch. All sod and/or seeded lawn areas to have minimum 6" topsoil blanket. All fall bulbs shall be planted in the fall, plan accordingly, retainage will be held until plantings occur. All mass planted shrubs beds and planters around building shall have minimum 18" deep topsoil blanket to compensate for the New England very sandy granular sub-grade material.

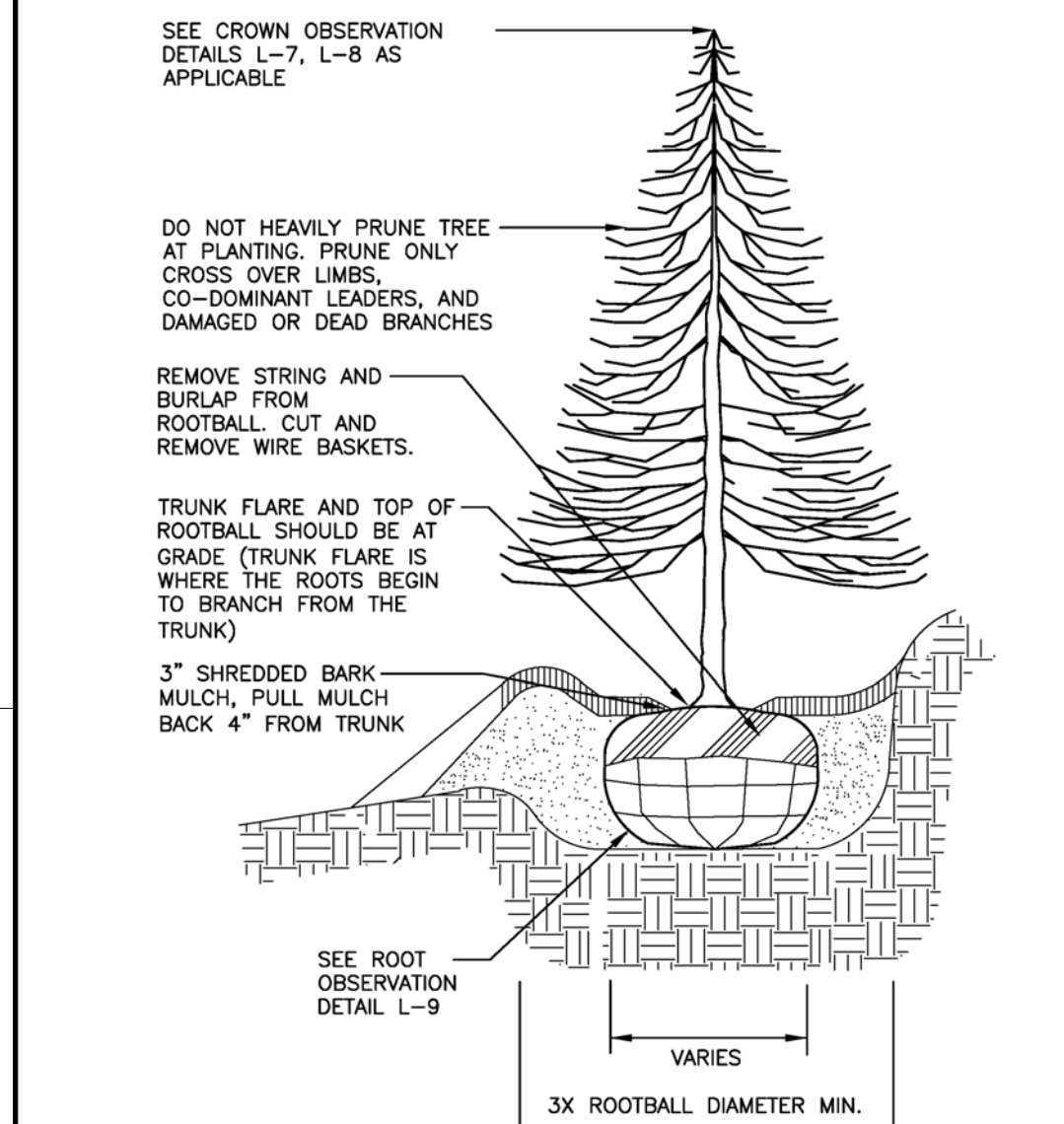
4. All plant material to conform to current AAN, American Standard for Nursery Stock, ANSI Z60.1-2014. All plantings shall be warranted for (1) one year from planting date. The landscape Contractor shall be responsible for two (2) lawn mowings and weedings prior to final acceptance of installation.

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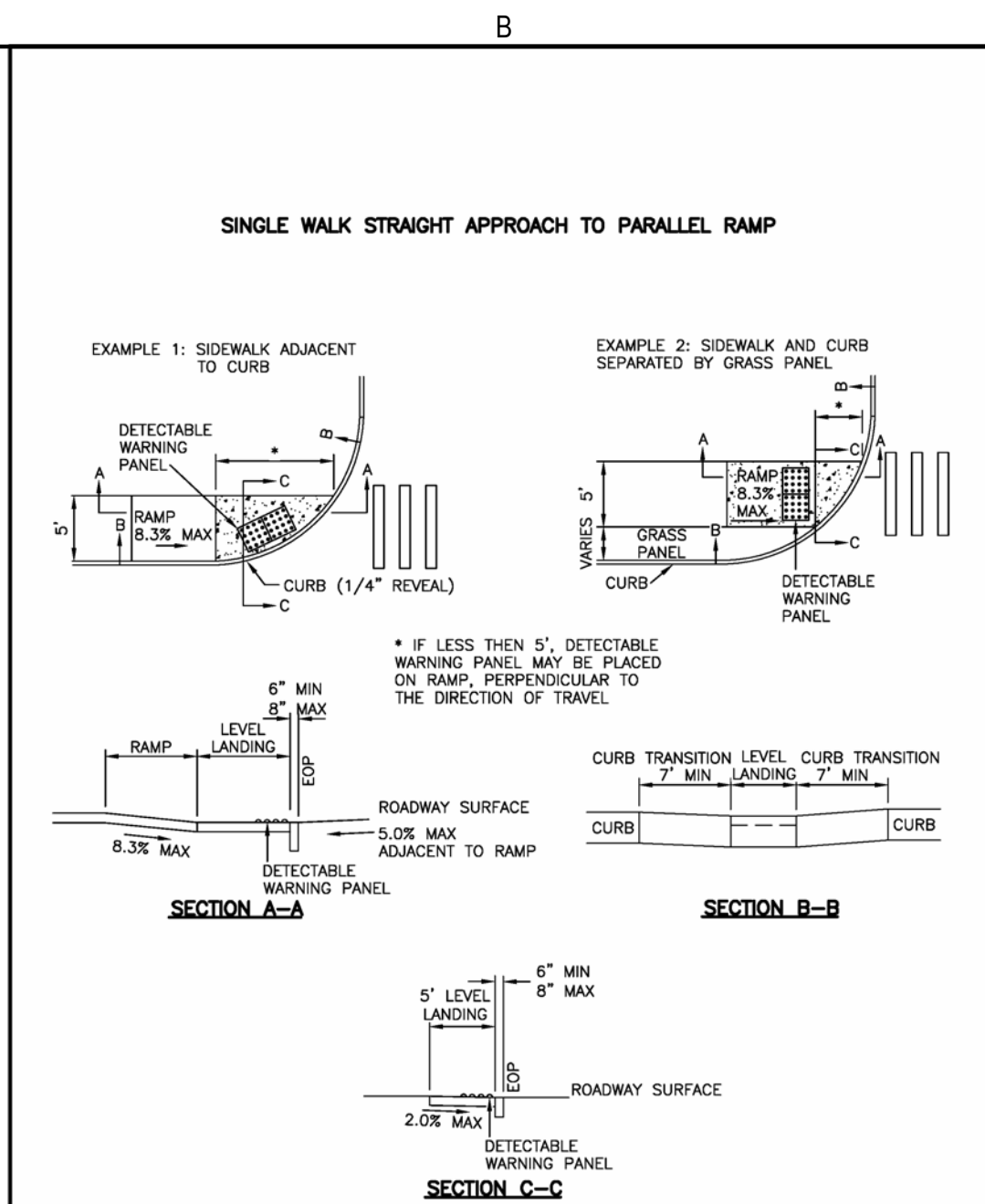
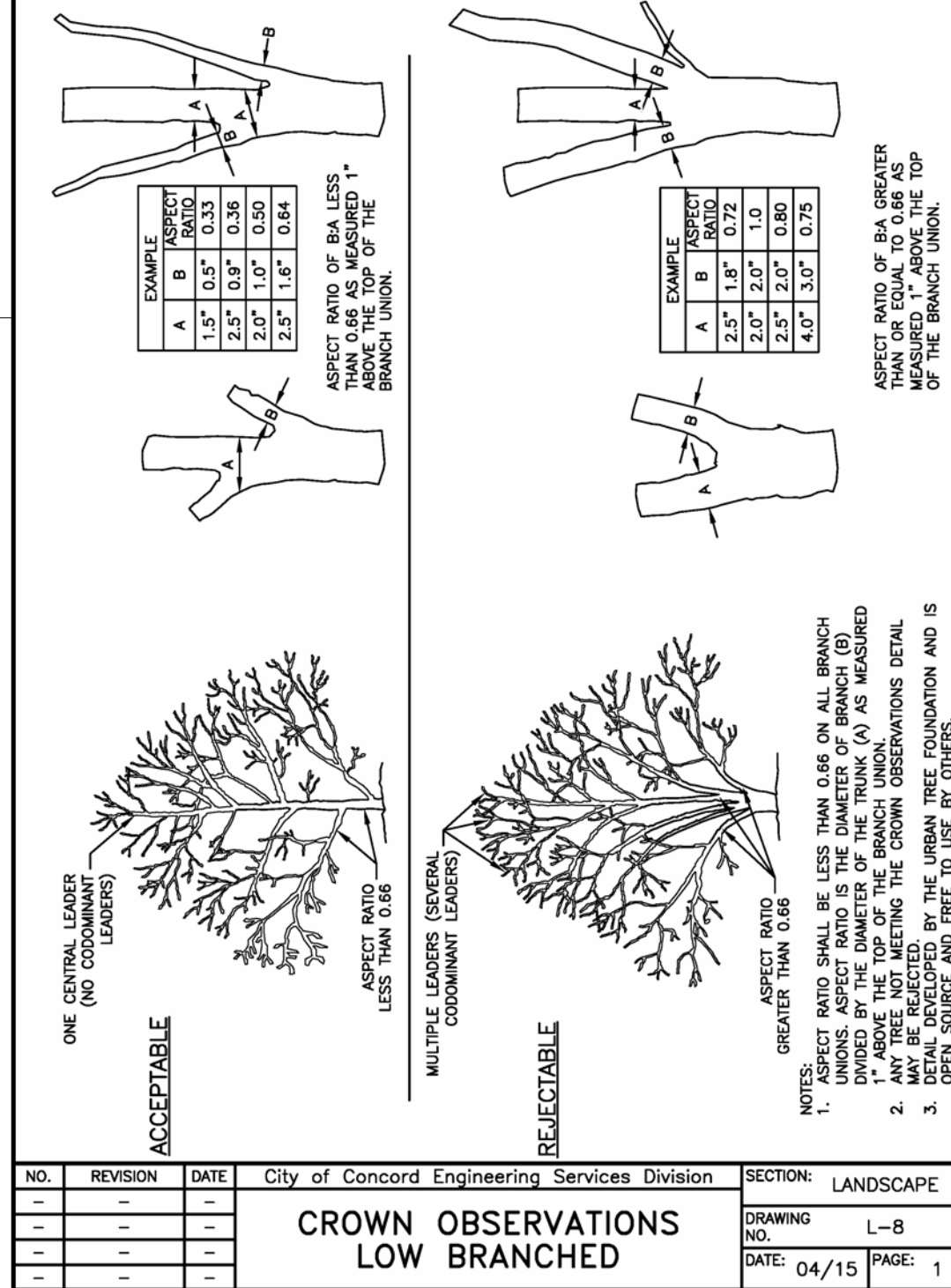
P:\PROJECTS\4054 DARTMOUTH HITCHCOCK LANDSCAPE\550 Planning & Landscape Design\4054 DARTMOUTH HITCHCOCK LANDSCAPE MODEL.rvt



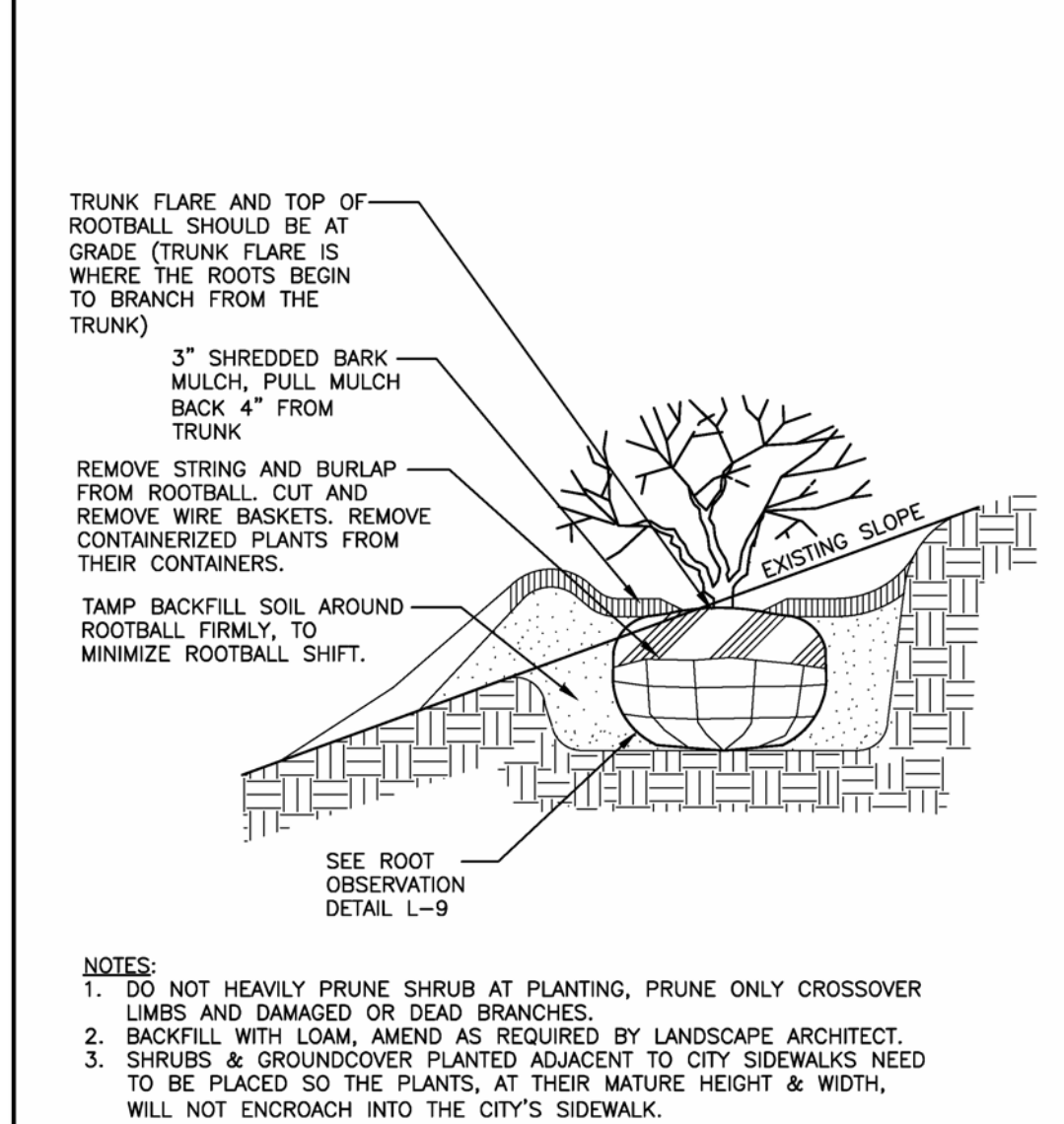
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1	REV STYLE	11-08		DRAWING NO.	CR-1
-	-	-		DATE:	12/08
-	-	-		PAGE:	1
APPROVED BY:					



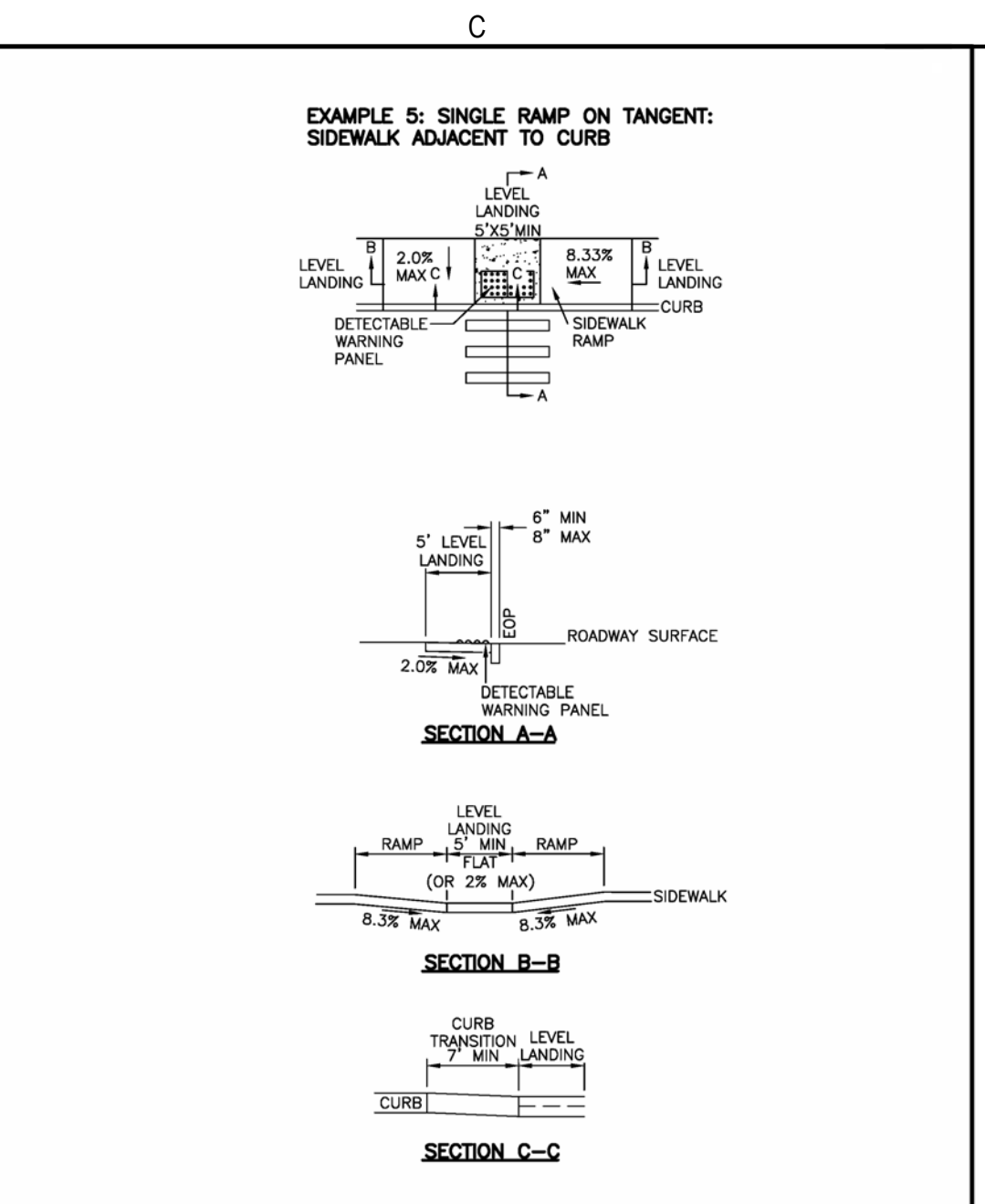
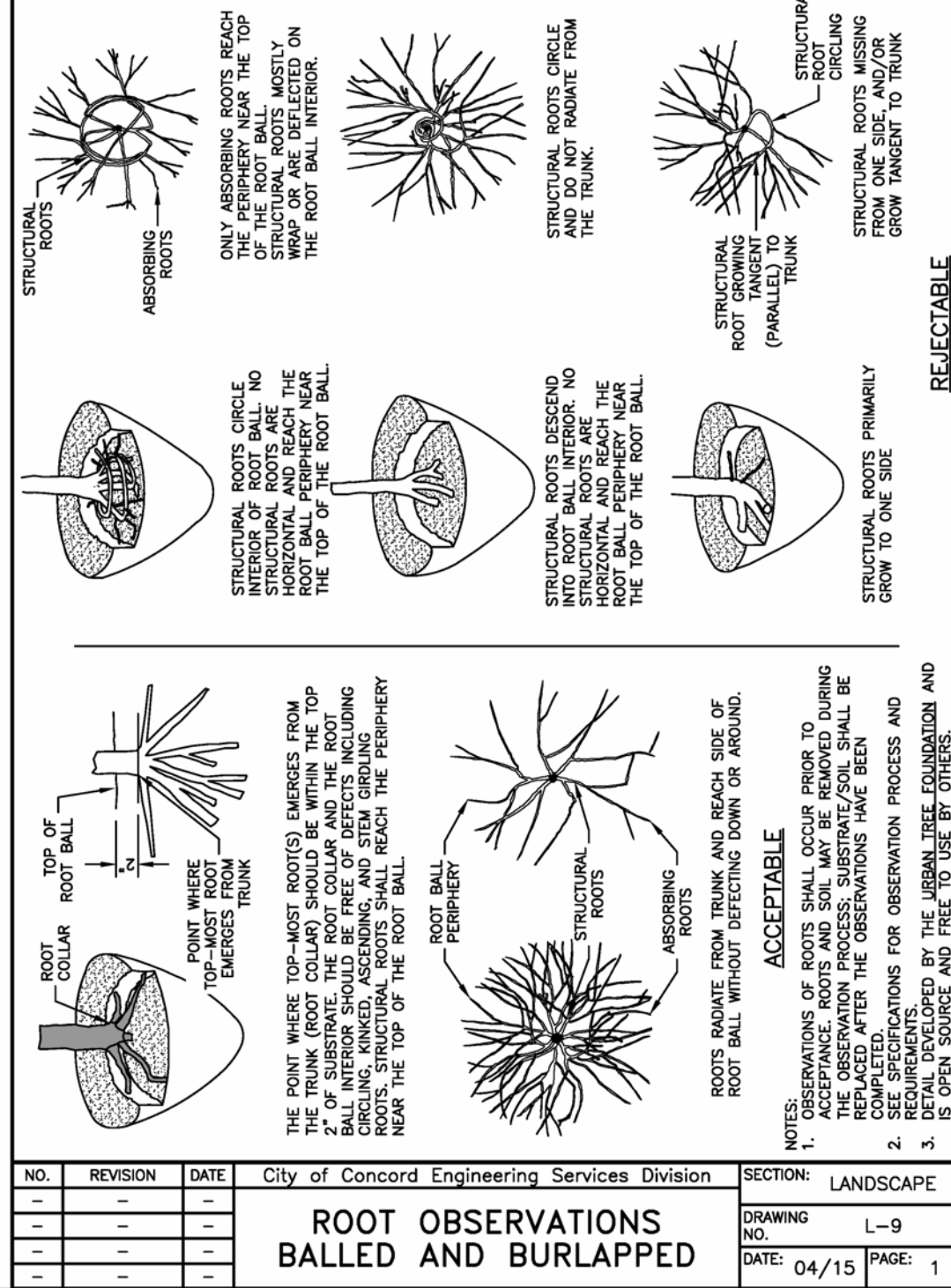
NO.	REVISION	DATE	City of Concord Engineering Services Division	SECTION:	LANDSCAPE
1	NOTES	4.15		DRAWING NO.	L-3
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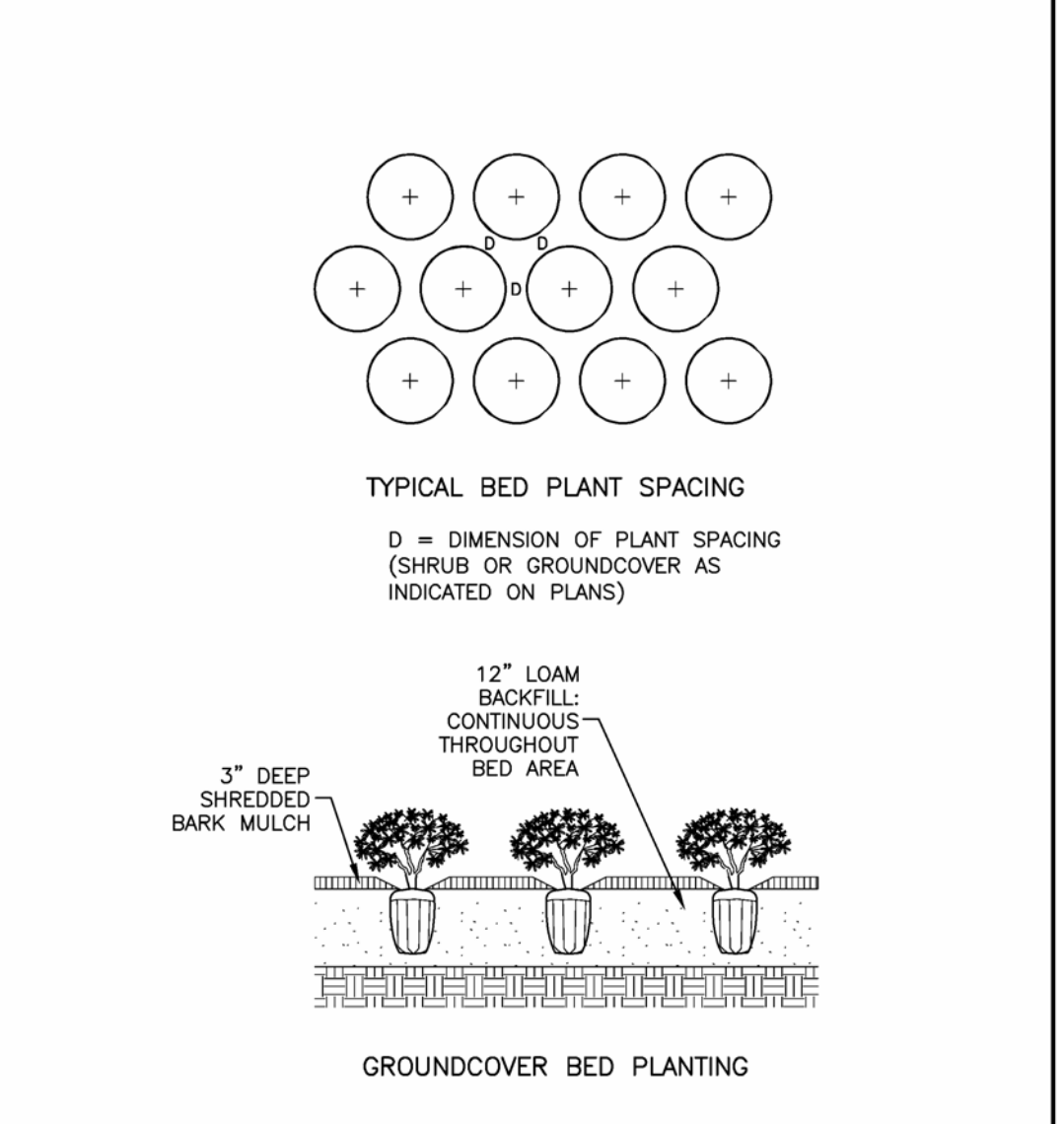
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2	SECT C-C	11-09		DATE:	12/08
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APPROVED BY:					



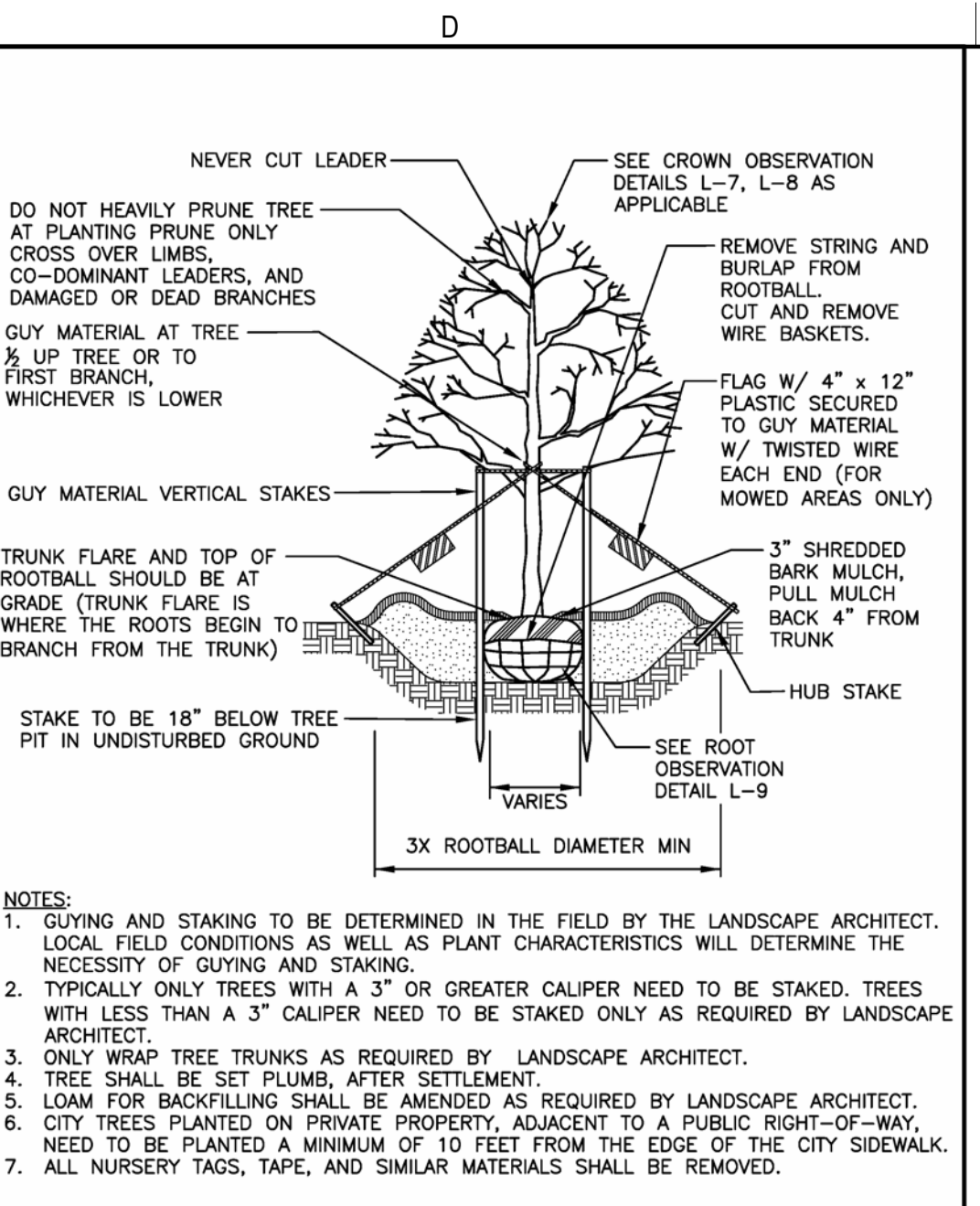
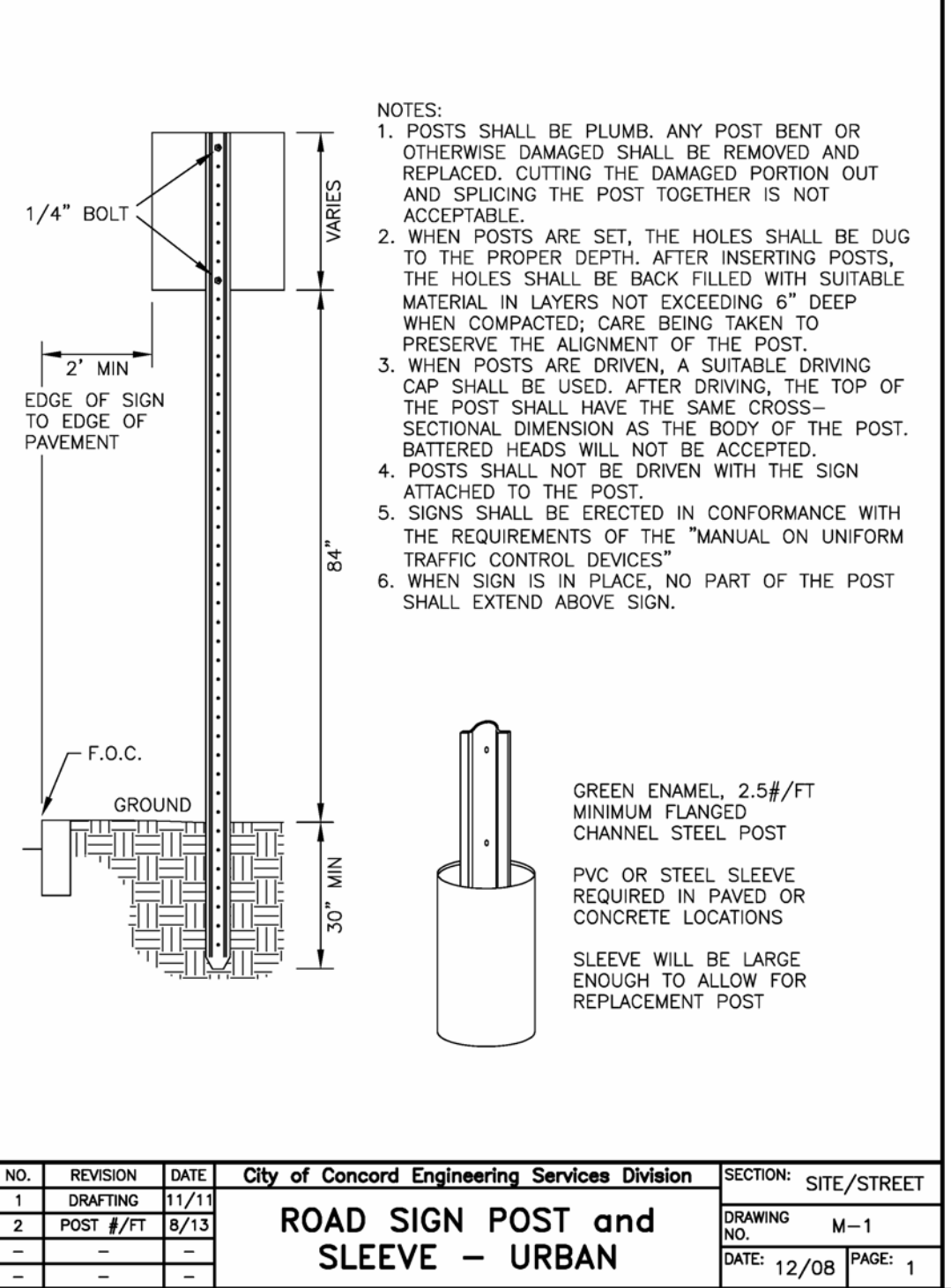
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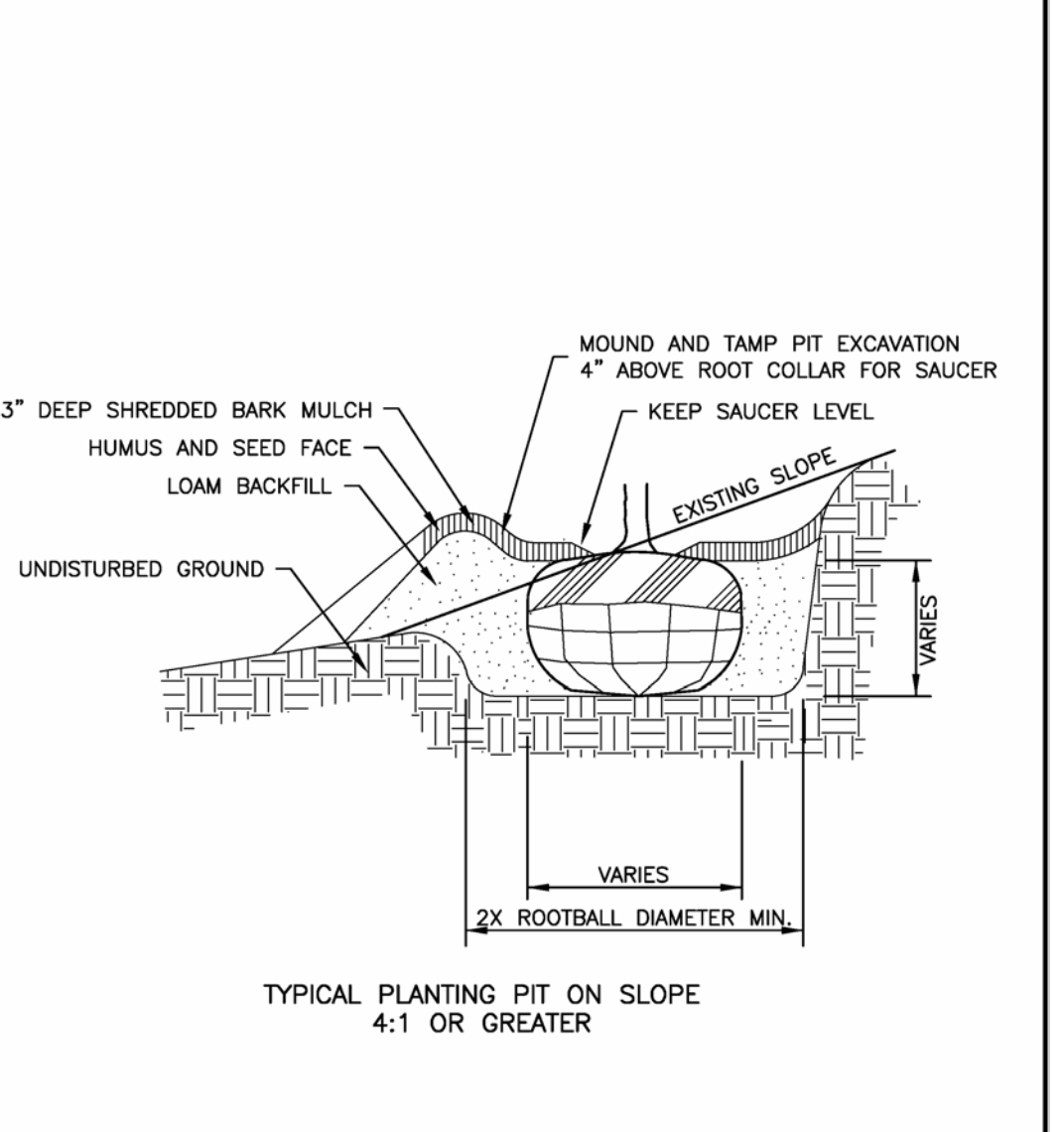
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1	REV STYLE	11-11		DRAWING NO.	CR-10
2	SECT A-A	11-11		DATE:	12/08
-	-	-		PAGE:	1
APPROVED BY:					



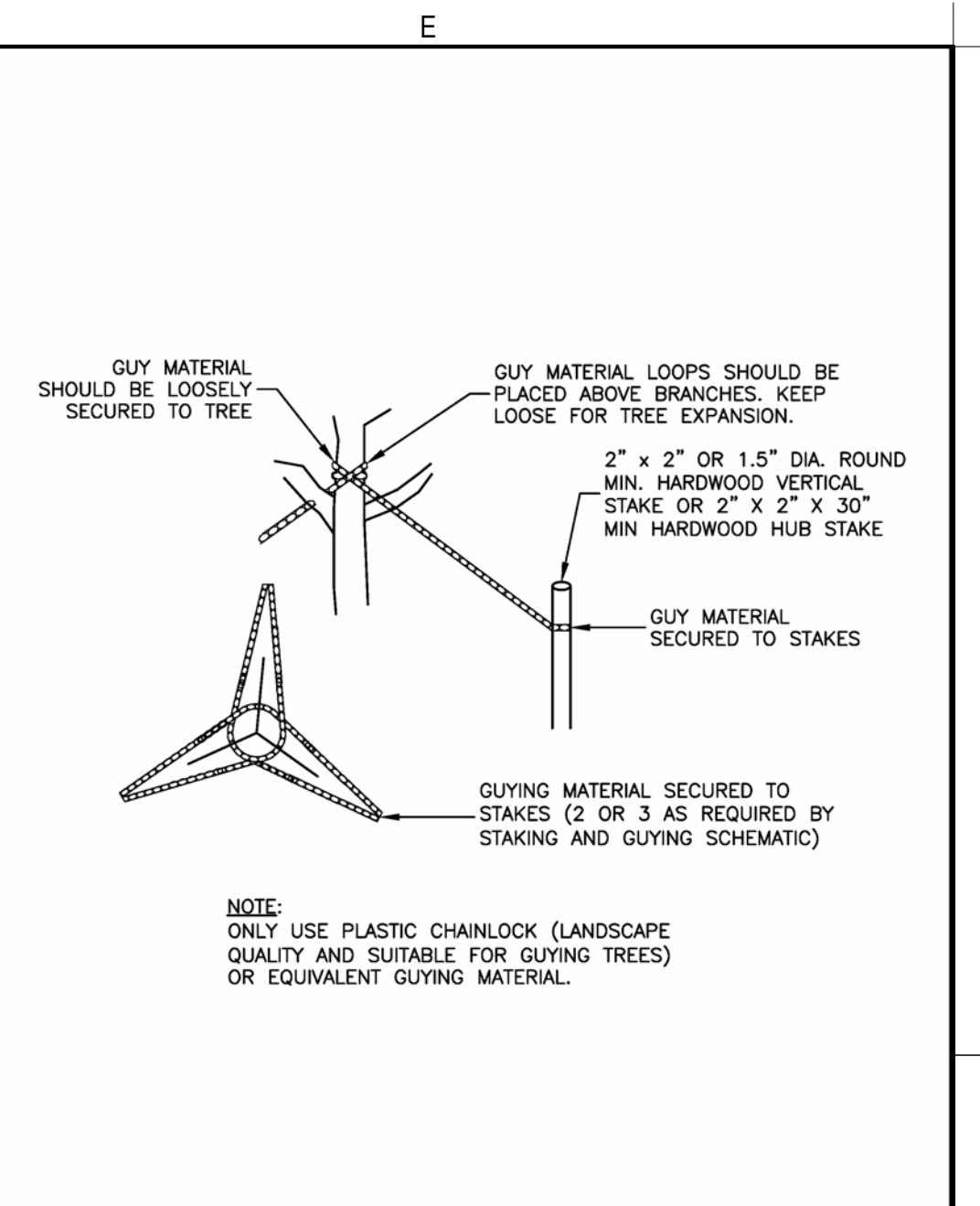
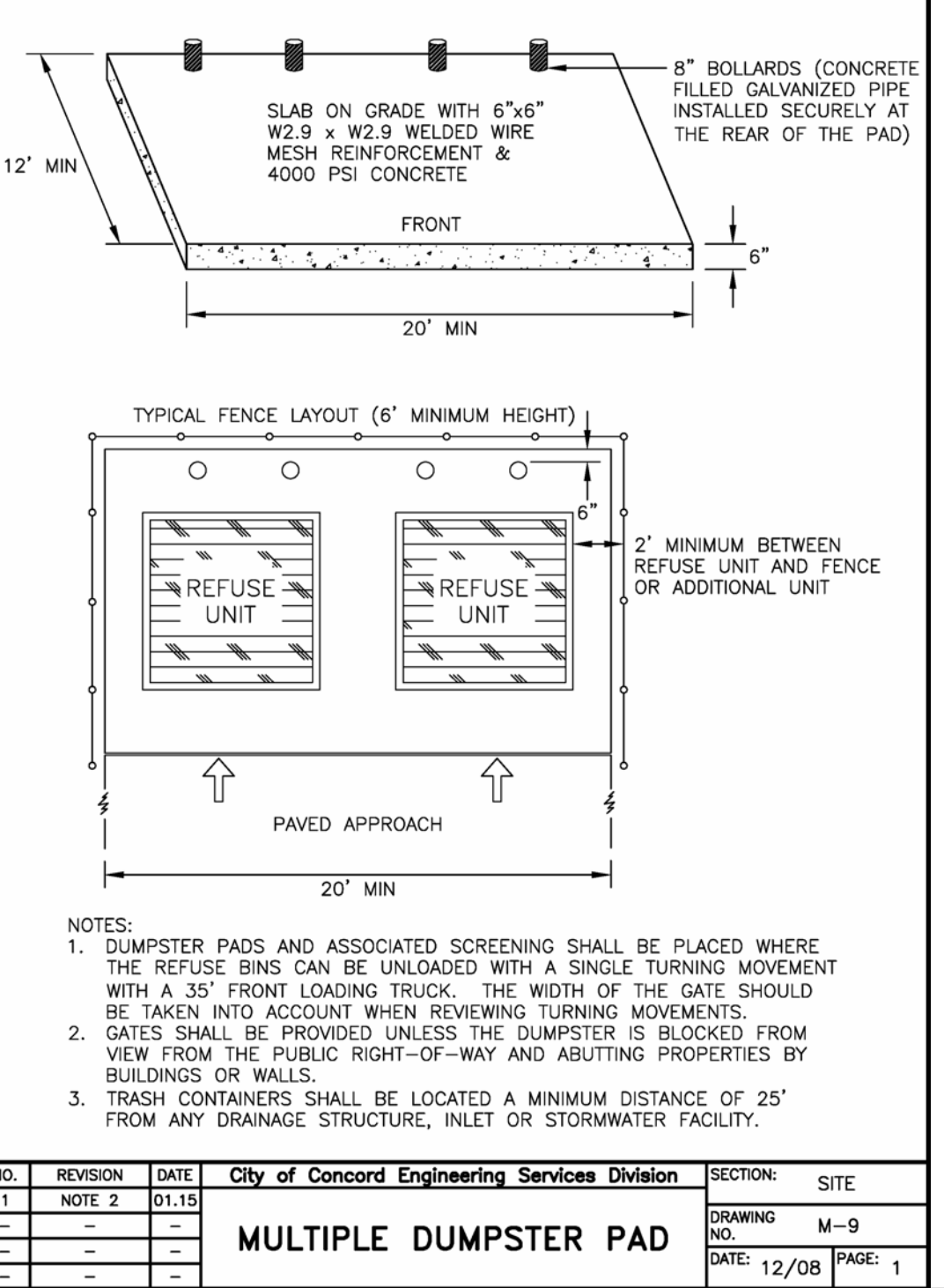
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--	--	--	GROUNDCOVER PLANTING	DRAWING NO.	L-5
--	--	--		DATE:	12/08
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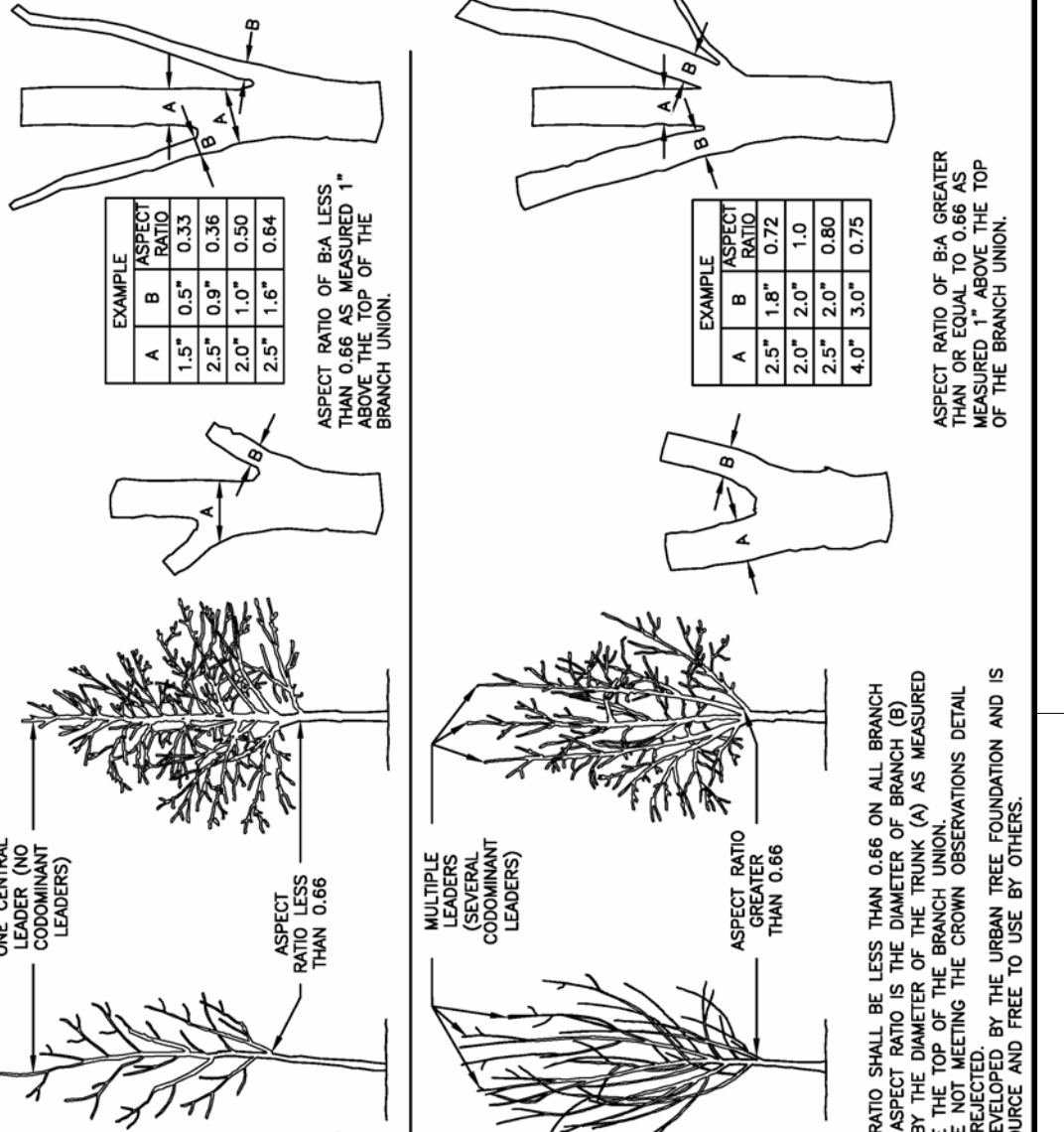
NO.	REVISION	DATE	City of Concord Engineering Services Division	SECTION: LANDSCAPE	
1	NOTES	4.15	DECIDUOUS TREE PLANTING	DRAWING NO.	L-1
-	-	-		DATE:	12/08
-	-	-		PAGE:	1
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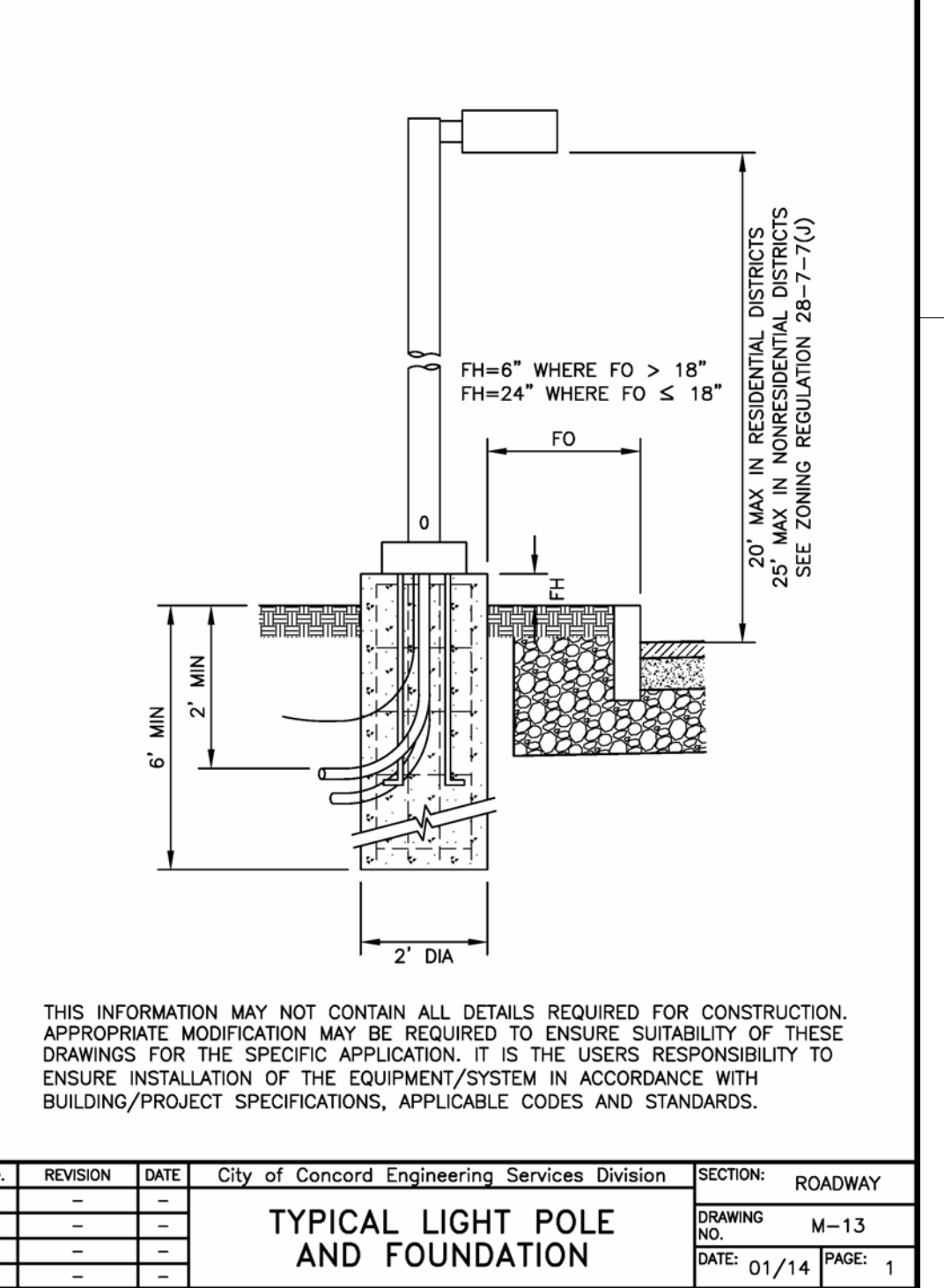
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-	-	-	TREE PLANTING ON SLOPE	DRAWING NO. L-6
-	-	-		DATE: 12/08
-	-	-		PAGE: 1
-	-	-		



NO.	REVISION	DATE	City of Concord Engineering Services Division	SECTION: LANDSCAPE
	-	-	DECIDUOUS TREE - GUYING & STAKING	DRAWING NO. L-2
	-	-		DATE: 12/08
	-	-		PAGE: 1
	-	-		



REVISION	DATE	City of Concord Engineering Services Division	SECTION:	LANDSCAPE
-	-	CROWN OBSERVATIONS HIGH BRANCHED	DRAWING NO.	L-7
-	-		DATE:	04/15
-	-		PAGE:	1
-	-			



OWNER
DARTMOUTH HITCHCOCK CLINIC
1 MEDICAL CENTER DRIVE
LEBANON, NH 03756
P. () F. ()

CONSTRUCTION MANAGER
NA

CONSULTANTS:

NOBIS GROUP
18 CHENELL DRIVE
CONCORD, NH 03301
(603) 224-1182

LANDSCAPE
WARRENSTREET ARCHITECTS
4 CRESCENT STREET, UNIT 2
CONCORD, NH 03303
(603) 225-0640

STRUCTURAL

MECHANICAL/PLUMBING

ELECTRICAL

OTHER

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CONCORD, NEW HAMPSHIRE 03303
P. (603) 225-0640
WWW.WARRENSTREET.COOP

SEAL



PROJECT TITLE \ ADDRESS

DARTMOUTH HITCHCOCK
MEDICAL CENTER

253 PLESEANT STREET
CONCORD, NH 03301

PLAN KEY

SCALE: AS NOTED DWN BY: Author
PROJECT #: 1234 CHK BY: Checker
PRINT DATE: 6/16/2026 7:35:59 PM

ISSUE DATE: 06/11/2026
NOT FOR CONSTRUCTION
SCHEMATIC DESIGN

[illegible]

LANDSCAPE DETAILS

LA102

SHEET NUMBER: 2 OF 6 LANDSCAPE

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4	GROUND COVER PLANTING 1/2" = 1'-0"
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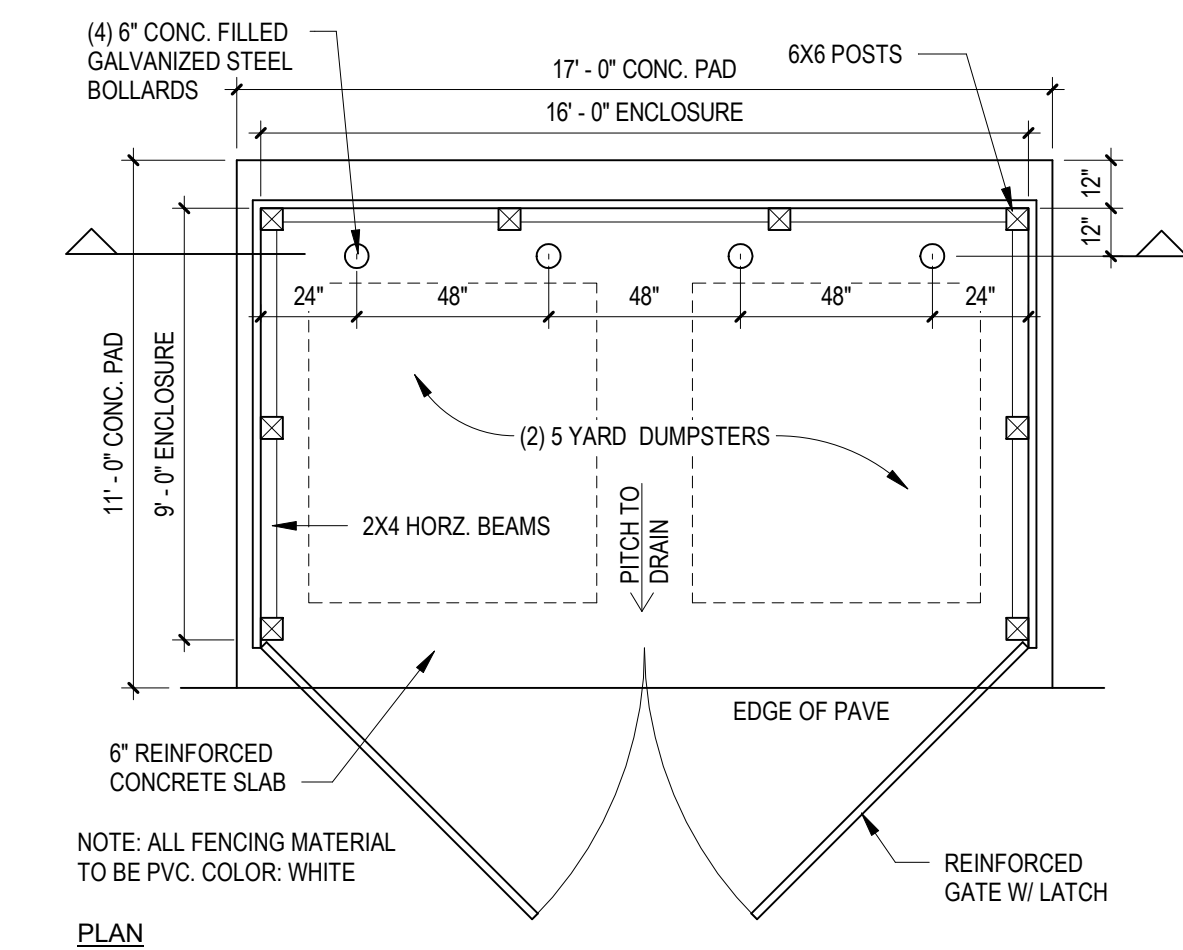
- NOTE: PLANT SPACING PER PLAN
& AS NOTED IN PLANT SCHEDULE
-
- A cross-sectional diagram of a raised garden bed. Three plants in pots are shown in a row. Below the pots is a layer of soil, indicated by a stippled pattern. Below the soil is a base layer, indicated by a dashed line. Arrows point to the soil and base layers with labels 'Soil' and 'Base' respectively.

N 9" TAMPED MOUND
X. SCARIFY SIDES IF

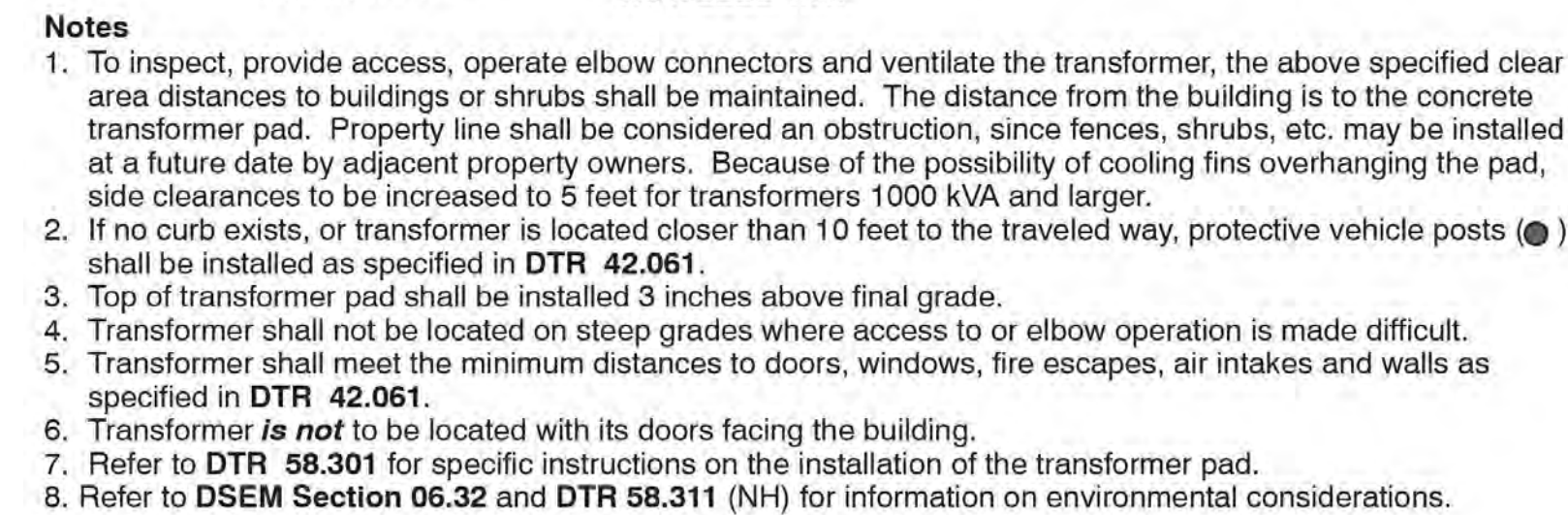
PLANTING SOIL MIX AS SPECIFIED. TAMP
BACKFILL FIRMLY TO MINIMIZE ROOTBALL SHIFT
SET ROOTBALL ON 9" TAMPED MOUND OF PLANTING
MIX. SCARIFY SIDES IF PLANT PIT

12" LOAM B
CONTINUO
THROUGH
AREA

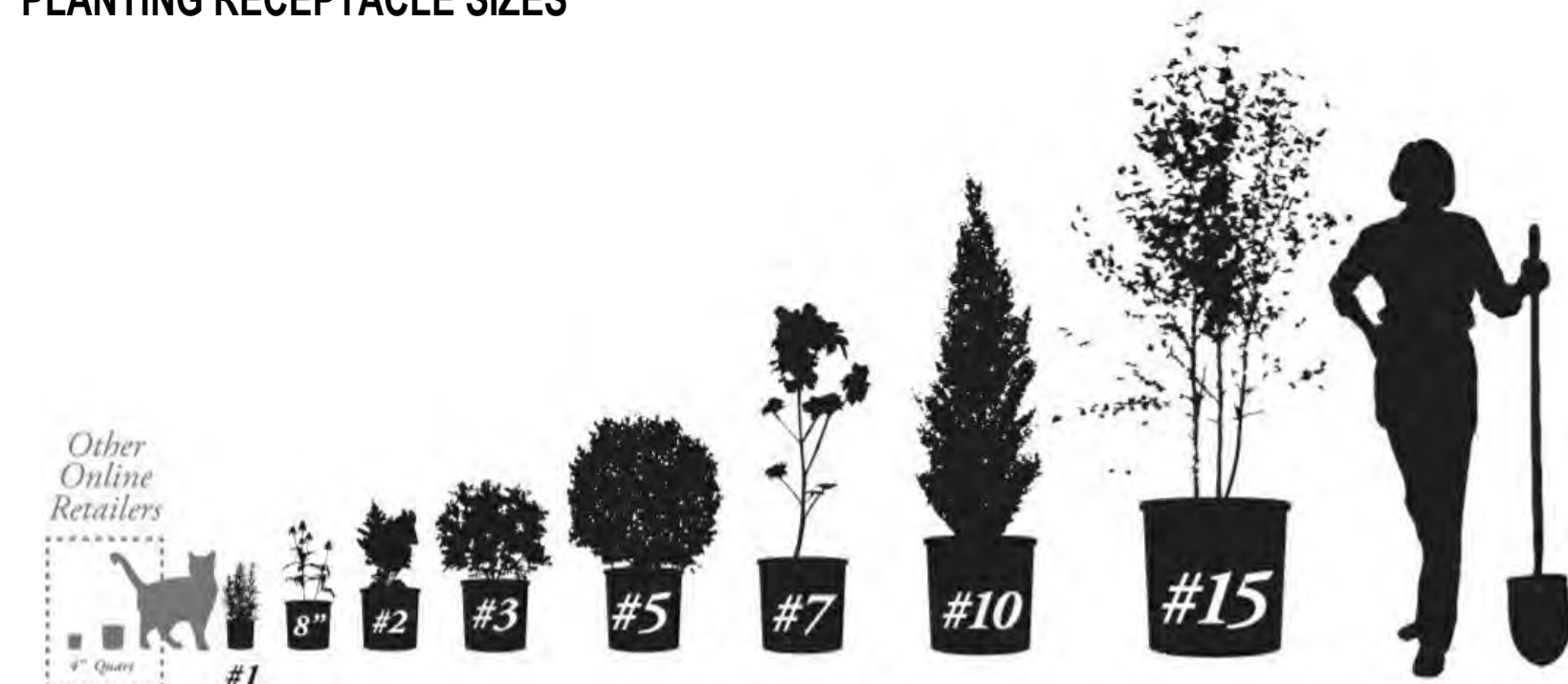
6	PVC PANEL FENCING 3/4" = 1'-0"
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7	LA - DUMPSTER ENCLOSURE 1/4" = 1'-0"
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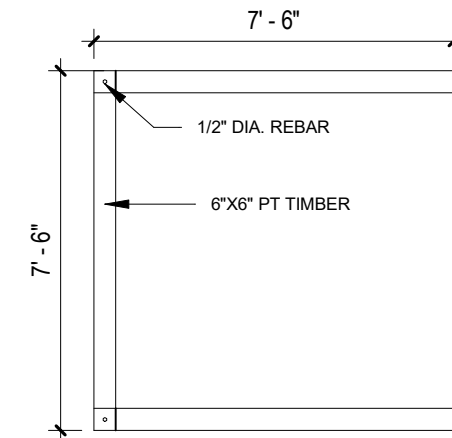


PLANTING RECEPTACLE SIZES



SECTION

9	Planting Box (Plan)
	1/4" = 1'-0"



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LANDSCAPE GENERAL SPECIFICATIONS

SECTION 02955 - TREES, SHRUBS AND GROUND COVERS

PART 1: GENERAL

1.1 GENERAL REQUIREMENTS

- A. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL CONDITIONS AND DIVISION I SPECIFICATION SECTIONS APPLY TO THIS SECTION.
- B. EXAMINE ALL OTHER SECTIONS OF THE SPECIFICATIONS FOR REQUIREMENTS WHICH AFFECT WORK OF THIS SECTION WHETHER OR NOT SUCH WORK IS SPECIFICALLY MENTIONED IN THIS SECTION. SEE DRAWINGS FOR LOCATIONS AND DETAILS.
- C. COORDINATE WORK WITH THAT OF ALL OTHER TRADES AFFECTING, OR AFFECTED BY WORK OF THIS SECTION. COOPERATE WITH SUCH TRADES TO ASSURE THE STEADY PROGRESS OF ALL WORK UNDER THE CONTRACT.

1.2 SUMMARY

- A. THIS SECTION INCLUDES THE FOLLOWING:
 - 1. FURNISHING ALL PLANTS, MATERIALS, SUPPLIES, LABOR, EQUIPMENT, AND PERFORMING ALL OPERATIONS IN CONNECTION WITH FURNISHING AND PLACEMENT OF TOPSOIL AND PLANTING MIXTURE, PLANTING OF ALL TREES, SHRUBS AND PERENNIAL GROUND COVERS, PRUNING/MULCHING/WATERING OF PLANTS, MAINTENANCE, GUARANTEE AND FINAL CLEAN-UP.
- B. RELATED SECTIONS: THE FOLLOWING SECTIONS CONTAIN REQUIREMENTS THAT RELATE TO THIS SECTION:
 - SECTION 02300 "EARTHWORK"
 - SECTION 02930 "SEEDING AND SODDING"
 - LOCAL GOVERNING AUTHORITY AND CODE REQUIREMENTS.
 - ALL NECESSARY CONSTRUCTION PERMITS.

1.3 SUBMITTALS

- A. SAMPLES: BEFORE ANY BARK MULCH IS DELIVERED TO THE JOB SITE, SUBMIT A SAMPLE TO THE LANDSCAPE ARCHITECT FOR THEIR APPROVAL.
- B. MATERIALS LIST:
 - 1. BEFORE ANY PLANTING MATERIALS ARE DELIVERED TO THE JOB SITE, SUBMIT TO THE LANDSCAPE ARCHITECT A COMPLETE LIST OF ALL PLANTS AND OTHER ITEMS PROPOSED TO BE INSTALLED
 - 2. INCLUDE COMPLETE DATA ON SOURCE, SIZE, AND QUALITY.
 - 3. DEMONSTRATE COMPLETE CONFORMANCE WITH THE REQUIREMENTS OF THIS SECTION. THIS SHALL IN NO WAY BE CONSTRUED AS PERMITTING SUBSTITUTION FOR SPECIFIC ITEMS DESCRIBED IN THE PLANS OR THESE SPECIFICATIONS UNLESS THE SUBSTITUTION HAS BEEN APPROVED IN ADVANCE BY THE LANDSCAPE ARCHITECT.
- C. AS-BUILT DRAWINGS: DURING THE COURSE OF THE INSTALLATION, CAREFULLY RECORD IN RED LINE ON A PRINT OF THE PLANTING PLANS ALL CHANGES MADE TO THE PLANTING LAYOUT DURING INSTALLATION.
- D. CERTIFICATES: ALL CERTIFICATES REQUIRED BY LAW SHALL ACCOMPANY SHIPMENTS. UPON COMPLETION OF THE INSTALLATION, DELIVER ALL CERTIFICATES TO THE LANDSCAPE ARCHITECT.

1.4 QUALITY ASSURANCE

- A. INSTALLER QUALIFICATIONS: PROVIDE AT LEAST ONE PERSON WHO SHALL BE PRESENT AT ALL TIMES DURING EXECUTION OF THIS PORTION OF THE WORK AND WHO SHALL BE THOROUGHLY FAMILIAR WITH THE TYPE OF MATERIALS BEING INSTALLED AND THE BEST METHODS FOR THEIR INSTALLATION AND WHO SHALL DIRECT ALL WORK PERFORMED UNDER THIS SECTION.
- B. MATERIAL STANDARDS:
 - 1. ALL PLANTS AND PLANTING MATERIAL SHALL MEET OR EXCEED THE SPECIFICATIONS OF FEDERAL, STATE, AND COUNTY LAWS REQUIRING INSPECTION FOR PLANT DISEASE AND INSECT CONTROL.
 - 2. QUALITY AND SIZE SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF CURRENT EDITION OF ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK, FOR NUMBER ONE GRADE NURSERY STOCK AS ADOPTED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
 - 3. ALL PLANTS SHALL BE TRUE TO NAME AND ONE OF EACH BUNDLE OR LOT SHALL BE TAGGED WITH THE NAME AND SIZE OF THE PLANTS IN ACCORDANCE WITH THE STANDARDS OF PRACTICE OF THE AMERICAN ASSOCIATION OF NURSERYMEN. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES.

1.5 DELIVERY, STORAGE, HANDLING

- A. DELIVERY AND STORAGE:
 - 1. DELIVER ALL ITEMS TO THE SITE IN THEIR ORIGINAL CONTAINERS WITH ALL LABELS INTACT AND LEGIBLE AT TIME OF LANDSCAPE ARCHITECT INSPECTION.
 - 2. IMMEDIATELY REMOVE FROM THE SITE ALL PLANTS WHICH ARE NOT TRUE TO NAME AND ALL MATERIALS WHICH DO NOT COMPLY WITH THE PROVISIONS OF THIS SECTION OF THESE SPECIFICATIONS.
- B. ROOT PROTECTION:
 - a. HANDLE PLANTS AT ALL TIMES IN ACCORDANCE WITH THE BEST HORTICULTURAL PRACTICES SO THAT THE ROOTS OR BARK ARE ADEQUATELY PROTECTED FROM THE SUN AND DRYING WINDS. NO PLANT SHALL BE BOUND WITH ROPE OR WIRE IN A MANNER THAT WOULD DAMAGE THE BALL, BREAK THE BRANCHES, OR DESTROY ITS NATURAL SHAPE.
- C. HANDLING:
 - a. LIFT AND HANDLE PLANTS FROM THE BOTTOM OF THE BALL OR CONTAINER ONLY. PLANTS HANDLED OTHERWISE WILL BE SUBJECT TO REJECTION. PLANT NO BALLED AND BURLAPPED PLANT WHICH HAS THE BALL CRACKED OR BROKEN WILL BE ACCEPTED. NO BALLED AND BURLAPPED PLANTS USING PLASTIC/POLYESTER BURLAP WILL BE ACCEPTED. PLANT NO CONTAINERIZED OR TUBE-PAK PLANT WHOSE ROOT SYSTEM HAS SEPARATED FROM THE SOIL IN ITS CONTAINER.
- D. PROTECTION DURING DELIVERY:
 - a. TRANSPORT PLANT MATERIAL IN CLOSED VEHICLES OR IN OPEN VEHICLES WITH THE ENTIRE LOAD PROPERLY COVERED FOR PROTECTION FROM DRYING WINDS.
 - b. PROTECTION AFTER DELIVERY:
 - a. PLANT TREES AND SHRUBS AS SOON AS POSSIBLE AFTER DELIVERY. PLANTS THAT CANNOT BE PLANTED IMMEDIATELY SHALL HAVE THEIR ROOTS KEPT MOIST AND ADEQUATELY PROTECTED UNTIL PLANTED.
 - b. COVER THE BALLS OF BALLED AND BURLAPPED, CONTAINERIZED, AND TUBE-PAK PLANTS WITH TOPSOIL OR AN APPROVED MULCH, AND KEEP CONSTANTLY MOIST UNTIL PLANTED.
 - c. STORE ALL PLANTS IN THE SHADE, OUT OF DIRECT SUNLIGHT AND DRYING WIND.
 - d. OWNERS REPRESENTATIVE WILL SELECT STORAGE OR HOLDING AREA AND UPON DELIVERY OF PLANTS, DESIGNATE WHERE CONTRACTOR CAN PROTECT AND MAINTAIN THESE PLANT MATERIALS UNTIL THEY ARE PLANTED.

1.6 SCHEDULES

- A. PLANTING SEASON:
 - a. PLANTING OPERATIONS FOR DECIDUOUS MATERIALS SHALL TAKE PLACE DURING MARCH 15 TO JUNE 30 FOR SPRING PLANTING AND AUGUST 15TH TO OCTOBER 1 OR UNTIL GROUND FREEZES FOR FALL PLANTING. BARE-ROOT DECIDUOUS PLANTS SHALL BE LIMITED TO PLANTING BETWEEN MARCH 15 TO MAY 1.
 - b. PLANTING OPERATIONS FOR EVERGREEN MATERIAL SHALL BE DURING MARCH 1 THROUGH JUNE 30 FOR SPRING PLANTING AND AUGUST 1 THROUGH SEPTEMBER 15 FOR FALL PLANTING.
- B. INSPECTION:
 - a. INSPECTION OF PLANTS:
 - 1. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH AND UPON DELIVERY FOR CONFORMITY TO SPECIFIED QUALITY, SIZE, AND VARIETY. SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION UPON DELIVERY AT THE SITE OR WHILE WORK IS IN PROGRESS.
 - 2. THE CONTRACTOR WILL INFORM THE LANDSCAPE ARCHITECT THREE BUSINESS DAYS (3) PRIOR TO THE PROPOSED ARRIVAL OF PLANT MATERIAL ON THE JOB SITE.
 - 3. DURING THE TIME PLANT MATERIAL IS BEING INSPECTED, THE CONTRACTOR SHALL PROVIDE A COMPLETE STAKED LAYOUT AND HAVE MANPOWER AND EQUIPMENT AVAILABLE TO UNLOAD, OPEN AND HANDLE PLANT MATERIAL DURING INSPECTION.

PART 2: MATERIALS

2.1 PLANT MATERIALS

- A. GENERAL:
 - 1. PLANT MATERIALS SHALL MEAN TREES AND PLANTS OF ALL DESCRIPTIONS REQUIRED TO BE FURNISHED FOR THE PROJECT, IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL PLANT MATERIAL SHALL BE TRUE TO NAME, WHICH SHALL CONFORM TO STANDARDIZED PLANT NAMES OF THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE, AND SHALL BE LEGIBLY TAGGED WITH THE NAME AND SIZE OF THE MATERIAL ACCORDING TO THE GENERAL NURSERY PRACTICE AS RECOMMENDED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
 - 2. ALL PLANTS SHALL BE FIRST-CLASS REPRESENTATIVES OF THEIR NORMAL SPECIES OR VARIETIES. PLANTS SHALL BE SOUND, HEALTHY, AND VIGOROUS, WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. UNLESS OTHERWISE SPECIFIED, PLANTS SHALL HAVE AVERAGE OR NORMALLY DEVELOPED BRANCH SYSTEMS AND VIGOROUS ROOT SYSTEMS. PLANTS SHALL BE FREE FROM SCALE, DISFIGURING KNOTS, SUN SCALD INJURIES, ABRASIONS OF THE BARK, OR OTHER OBJECTIONABLE BLEMISHES. WEAK PLANTS WILL NOT BE ACCEPTED. PLANTS MUST SHOW APPEARANCE OF NORMAL HEALTH AND VIGOR IN STRICT ACCORDANCE WITH THESE SPECIFICATIONS. ALL STOCK SHALL BE NURSERY GROWN.
 - 3. PLANTS FURNISHED IN CONTAINERS SHALL HAVE THE ROOTS WELL ESTABLISHED IN THE SOIL MASS AND SHALL HAVE GROWN IN THE CONTAINER FOR AT LEAST ONE (1) GROWING SEASON. CONTAINERS SHALL BE OF A SIZE LARGE ENOUGH TO PROVIDE AN EARTH-ROOT MASS OF ADEQUATE DIAMETER AND DEPTH OF THE STEM DIAMETER AND PLANT HEIGHTS OR SPREAD, AS ESTABLISHED BY ACCEPTED NURSERY PRACTICE. PLANTS, OVER ESTABLISHED IN THE CONTAINER, AS EVIDENCED BY POT BOUND ROOT ENDS, WILL NOT BE ACCEPTED. BARE ROOT MATERIAL WILL BE ACCEPTED ONLY FOR SPRING PLANTING. BARE ROOT STOCK SHALL BE HANDLED ACCORDING TO STANDARD HORTICULTURAL PRACTICE WITH SPECIAL ATTENTION BEING PAID TO PREVENTING PLANT ROOTS FROM DRYING AND PLANTS BEING APPROPRIATELY STORED.
 - 4. PLANTS LARGER THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED IF APPROVED BY THE LANDSCAPE ARCHITECT.
 - 5. THE HEIGHT OF TREES, MEASURED FROM THE CROWN OF THE ROOTS TO THE TOP OF THE TOP BRANCH, AND CALIPER OF THE TRUNK SHALL BE TAKEN 6 INCHES ABOVE THE GROUND UP TO AND INCLUDING 4 INCH CALIPER SIZE, AND 12 INCHES ABOVE THE GROUND FOR LARGER SIZES, AND SHALL NOT BE LESS THAN THE MINIMUM SPECIFIED ON THE PLANT LIST. EXCEPT WHEN A CLUMP IS DESIGNATED, THE TRUNK OF EACH TREE SHALL BE A SINGLE TRUNK GROWING FROM A SINGLE UNMULATED CROWN OF ROOTS. NO PART OF THE TRUNK SHALL BE CONSPICUOUSLY CROOKED AS COMPARED TO NORMAL TREES OF THE SAME VARIETY. THE TRUNK SHALL BE FREE FROM SUN SCALD, FROST CRACKS OR WOUNDS RESULTING FROM ABRASIONS, FIRE, OR OTHER CAUSES. NO PRUNING WOUNDS SHALL BE PRESENT HAVING A DIAMETER OF MORE THAN TWO (2) INCHES AND SUCH WOUNDS MUST SHOW VIGOROUS BARK ON ALL EDGES. EVERGREEN TREES SHALL BE BRANCHED TO WITHIN ONE FOOT OF THE GROUND.
 - 6. SHRUBS AND PERENNIALS SHALL COMPLY WITH THE SPECIFIED SPREAD, HEIGHT OR CONTAINER SIZE AS SPECIFIED ON THE PLANT LIST. THE MEASUREMENTS FOR HEIGHT ARE TO BE TAKEN FROM THE GROUND LEVEL TO THE AVERAGE HEIGHT OF THE SHRUB AND THE LONGEST BRANCH. THE THICKNESS OF EACH SHRUB SHALL CORRESPOND TO THE TRADE CLASSIFICATION "NO. 1". SINGLE STEMMED OR THIN PLANTS WILL NOT BE ACCEPTED. THE SIDE BRANCHES MUST BE GENEROUS, WELL TWIGGED, AND THE PLANT AS A WHOLE WELL-BRANCHED TO THE GROUND. THE PLANTS MUST BE IN A MOIST VIGOROUS CONDITION, FREE FROM DEAD WOOD, BRUISES OR OTHER ROOT OR BRANCH INJURIES.
 - 7. ALL PLANT MATERIAL SHALL COMPLY WITH STATE AND FEDERAL LAWS WITH RESPECT TO INSPECTION FOR PLANT DISEASE AND INFECTION. ANY INSPECTION CERTIFICATES REQUIRED BY LAW SHALL ACCOMPANY EACH SHIPMENT, INVOICE, OR ORDER OF STOCK.
 - 8. ALL PLANT MATERIAL IS SUBJECT TO LANDSCAPE ARCHITECTS APPROVAL AND INSPECTION AT ANY PLACE, BEFORE DURING AND/OR AFTER PLANTING. ANY PLANT MATERIAL NOT APPROVED BY THE LANDSCAPE ARCHITECT SHALL BE IMMEDIATELY REMOVED FOR THE SITE.
 - 9. NO PLANT MATERIAL SHALL BE ACCEPTED WITH LOOSE OR BROKEN BALLS, BROKEN CONTAINERS OR TUBE-PAKS
- B. BARK MULCH:
 - a. BARK MULCH SHALL BE SHREDDED PINE BARK AS LOCALLY OR REGIONALLY MANUFACTURED, OR AN EQUAL APPROVED IN ADVANCE BY THE LANDSCAPE ARCHITECT.

2.2 PLANTING MIXTURE

- A. TOPSOIL: MOST TOPSOIL REQUIRED SHALL BE OBTAINED FROM ON-SITE STOCKPILED MATERIAL. SHOULD ADDITIONAL TOPSOIL BE NEEDED, IT SHALL BE IMPORTED MATERIAL FROM A LOCALLY APPROVED SOURCE. IT SHALL BE LOOSE, FRIABLE, AND SHALL CONTAIN ORDINARY AMOUNT OF HUMUS. IT SHALL CONTAIN NO LUMPS OF SOIL, ROCKS LARGER THAN 1 INCH, OR STOCKS, OR ROOTS, AND OTHER DEBRIS. IT SHALL BE SUFFICIENTLY FERTILE TO SUSTAIN NORMAL HEALTHY PLANT GROWTH AND SHALL NOT HAVE A PH VALUE HIGHER THAN 7.0 OR LOWER THAN 6.5. THE TOPSOIL SHALL BE DELIVERED IN AN UNFROZEN AND NON-MUDDY CONDITION AND MUST MEET THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- B. PEAT: PEAT SHALL BE SPAGNUM PEAT, SEDGE PEAT MOSS. FURNISH AIR-DRIED, FINELY SHREDDED, ORPH BETWEEN 5.5 AND 6.5, CONTAINING NO MORE THAN THIRTY-FIVE (35%) PERCENT MOISTURE BY WEIGHT.
- C. COMPOSTED BARK MULCH/COMPOSTED BARK MULCH SHALL BE 1/4" MINUS, FINE TEXTURED AND WELL COMPOSTED MULCH SUITABLE FOR USE AS A PLANTING MIX AMENDMENT. IT SHALL BE LOCALLY OR REGIONALLY MANUFACTURED, OR AN EQUAL APPROVED IN ADVANCE BY THE LANDSCAPE ARCHITECT.
- D. TREES/SHRUB PLANTING MIX: TOPSOIL USED AS FILL AROUND PLANTS SHALL BE MIXED WITH PEAT MOSS AT THE RATE OF THREE PARTS TOPSOIL TO ONE PART PEAT.
- E. PERENNIAL/GRASS COVER PLANTING MIX: TOPSOIL USED AS FILL AROUND THESE PLANTS SHALL BE MIXED WITH PEAT MOSS AND COMPOSTED BARK MULCH AT THE RATE OF TWO PARTS TOPSOIL TO ONE PART PEAT TO TWO PARTS COMPOSTED BARK MULCH. THE ABOVE MIXTURE IS MIXED WITH MGS AMP (W. R. GRACE AND COMPANY, P.O. BOX 338, WEST CHICAGO, ILLINOIS) AT THE RATE OF 10 OUNCES PER CUBIC YARD OF PLANTING MIX.
- F. "ROOTS" - ROOT GROWTH ENHANCER: THIS PRODUCT SHALL BE A NATURAL, ORGANIC BIOSTIMULANT THAT PROMOTES ROOT GROWTH AND STRESS TOLERANCE IN PLANTS. APPLY TO ALL TREES, SHRUBS, AND PERENNIALS PER MANUFACTURER'S RECOMMENDATIONS.
- G. SUPERSORB C - WATER ABSORBENT GRANULES: THIS PRODUCT SHALL BE A COPOLYMER WATER ABSORBENT IN GRANULAR FORM TO BE INCORPORATED IN THE SPECIFIED PLANTING MIXES FOR BOTH TREES/SHRUBS AND PERENNIALS. ITS PURPOSE IS TO IMPROVE THE TOPSOIL'S WATER HOLDING CAPACITY.
- H. AGRIFORM FERTILIZER TABLETS: TREES AND SHRUBS SHALL BE FERTILIZED WITH TWO (2) FERTILIZER TABLETS PER PLANTING HOLE. TABLETS SHALL BE 21 GRAM SIZE, OF 20-10-5 ANALYSIS AS MANUFACTURED BY AGRIFORM.

2.3 MISCELLANEOUS MATERIALS

- A. WOOD STAKES: STAKES FOR TREE SUPPORT SHALL BE 2" X 2" X 8', WOOD STAKES.
- B. GUYING: GUYING WIRE SHALL BE NUMBER 12 GAUGE GALVANIZED OR HOT STEEL WIRE.
- C. HOSE: HOSE FOR COVERING WIRE SHALL BE NEW OR USED TWO PLY RUBBER HOSE NOT LESS THAN 1/2 INCH INSIDE DIAMETER, (PLASTIC 'C'ONCH-TIES' OR EQUIVALENT FASTENING DEVICE MAY BE AN ACCEPTABLE GUY WIRE AND HOSE PROTECTOR SUBSTITUTE)
- D. TREE PAINT: TREE PAINT SHALL BE WATERPROOF, ASPHALT BASE PAINT WITH ANTISEPTIC PROPERTIES, MANUFACTURED FOR USE ON TREE WOUNDS; R.I.W. TREE SURGERY PAINT BY TOUCH BROS., NEW YORK; SHERWIN WILLIAMS PRUNING COMPOUND OR APPROVED EQUAL.
- E. ANTI-DESSICANT: ANTI-DESSICANT SHALL BE AN EMULSION PERMEABLE ENOUGH TO PERMIT TRANSPIRATION, AND WILL BE USED TO RETARD EXCESS WATER LOSS. MIX IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- F. TREE WRAP: TREE WRAPPING PAPER SHALL BE WATERPROOFED CREPE TREE WRAPPING PAPER, AT LEAST 2-1/2 INCHES IN WIDTH, MADE UP OF TWO LAYERS OF CREPE KRAFT PAPER, WEIGHING NOT LESS THAN 30 POUNDS PER REAM, CEMENTED TOGETHER WITH ASPHALT.
- G. TWINE: WRAPPING TWINE USED IN TREE WRAPPING SHALL BE COMPOSED OF A MINIMUM OF TWO PLY JUTE MATERIAL. SYNTHETIC MATERIALS SUCH AS NYLON OR PLASTIC WILL NOT BE PERMITTED.

PART 3: EXECUTION

3.1 SURFACE CONDITIONS

- A. INSPECTION: PRIOR TO ALL WORK OF THIS SECTION, CAREFULLY INSPECT THE INSTALLED WORK OF ALL OTHER TRADES AND VERIFY THAT ALL SUCH WORK IS COMPLETE TO THE POINT WHERE THIS INSTALLATION MAY PROPERLY COMMENCE. DETERMINE LOCATION OF UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER WHICH WILL AVOID POSSIBLE DAMAGE TO ANY INSTALLED UTILITIES.
- B. LOCATION:
 - 1. VERIFY THAT PLANTING MAY BE COMPLETED IN ACCORDANCE WITH THE ORIGINAL DESIGN AND THE REFERENCED STANDARDS. STAKE OUT LOCATIONS OF ALL PLANTS AND SECURE THE LANDSCAPE ARCHITECT APPROVAL BEFORE EXCAVATING PLANT PITS.
 - 2. WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, LEDGE, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS, NOTIFY THE LANDSCAPE ARCHITECT BEFORE PLANTING.
- C. DISCREPANCIES:
 - 1. IN THE EVENT OF DISCREPANCY, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT.
 - 2. DO NOT PROCEED WITH INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL SUCH DISCREPANCIES HAVE BEEN FULLY RESOLVED.

3.2 TREE PROTECTION AND REMOVAL

- A. REMOVAL OF TREES:
 - 1. TREE REMOVAL UNDER THIS CONTRACT SHALL BE ACCOMPLISHED AS REQUIRED TO ACCOMMODATE THE SCOPE OF WORK AS INDICATED ON THE SITE PLANS AS PREPARED BY THERMAL, GREEN, OR SHAW. TREE REMOVAL SHALL BE IN ACCORDANCE WITH SECTION 0212 "SITE GRADING AND DRAINAGE".
 - 2. WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, LEDGE, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS, NOTIFY THE LANDSCAPE ARCHITECT BEFORE PLANTING.
- B. PROTECTION OF TREES:
 - 1. GENERAL PROTECTION: THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF TOPS, TRUNKS, AND ROOTS OF EXISTING TREES ON THE SITE THAT ARE TO REMAIN. EXISTING TREES SHALL BE BACKFILLED TO CONSTRUCTION DAMAGE SHALL BE BOXED, FENCED OR OTHERWISE PROTECTED BEFORE ANY WORK IS STARTED. REMOVE BOXING WHEN DIRECTED. DO NOT PERMIT HEAVY EQUIPMENT OR STOCKPILES WITHIN BRANCH SPREAD. REMOVE INTERFERING BRANCHES WITHOUT INJURY TO TRUNKS AND COVER SCARS WITH TREE PAINT.
 - 2. GRADING AROUND TREES: WHERE EXCAVATION, FILL OR GRADING IS REQUIRED WITHIN THE BRANCH SPREAD OF TREES THAT ARE TO REMAIN, THE WORK SHALL BE PERFORMED AS FOLLOWS:
 - a. EXCAVATING: WHEN TREING OCCURS AROUND TREES TO REMAIN, THE TREE ROOTS SHALL NOT BE CUT BUT THE TRENCH SHALL BE TUNNELED UNDER AND AROUND THE ROOTS BY CAREFUL HAND DIGGING AND WITHOUT INJURY TO THE ROOTS.
 - b. RAISING GRADES: WHEN THE EXISTING GRADE AT TREE IS BELOW THE NEW FINISHED GRADE, AND FILL NOT EXCEEDING 12 INCHES IS REQUIRED, CLEAN WASHED GRAVEL GRADED FROM 1 INCH TO 2 INCH SIZE SHALL BE PLACED DIRECTLY AROUND THE TREE TRUNK. THE GRAVEL SHALL EXTEND OUT FROM THE TRUNK ON ALL SIDES A MINIMUM OF 18 INCHES AND FINISH APPROXIMATELY 2 INCHES ABOVE THE FINISHED GRADE AT TREE. INSTALL GRAVEL BEFORE ANY EARTH FILL IS PLACED. NEW EARTH FILL SHALL NOT BE LEFT IN CONTACT WITH THE TRUNKS OF ANY TREES REQUIRING FILL.
 - c. TREES MARKED FOR PRESERVATION THAT ARE BURIED IN FILL OVER 12" DEEP SHALL HAVE AN OPEN DRY WELL OF DURABLE MASONRY (WITHOUT MORTAR SITUATED AT LEAST 24" FROM THE TREE TRUNK. ALL WELLS ARE TO BE PROPERLY DRAINED. BEFORE FILLS OF OVER 12" ARE MADE UPON THE TREE ROOT AREAS, IT IS ADVISABLE TO SPREAD AT LEAST A 6" LAYER OF BROKEN STONE OR COARSE GRAVEL COVERED BY INVERTED SODS TO FACILITATE PROPER DRAINAGE AND AERATION.
 - d. LOWERING GRADES: EXISTING TREES IN AREAS WHERE THE NEW FINISHED GRADE IS TO BE LOWERED, SHALL HAVE REGRADING WORK DONE BY HAND TO ELEVATION AS INDICATED. ROOTS AS REQUIRED SHALL BE CUT CLEANLY 3 INCHES BELOW FINISHED GRADE AND SCARS ARE COVERED WITH TREE PAINT. TREES MARKED FOR PRESERVATION THAT ARE LOCATED MORE THAN 6" ABOVE PROPOSED GRADES SHALL STAND ON BROAD, ROUNDED MOUNDS AND BE GRADED SMOOTHLY INTO THE LOWER LEVEL. EXPOSED OR BROKEN ROOTS SHALL BE CUT CLEAN AND COVERED WITH TOPSOIL.

3.3 PLANTING TREES, SHRUBS AND GROUND COVERS

- A. GENERAL:
 - 1. PLANT NURSERY STOCK IMMEDIATELY UPON DELIVERY TO THE SITE AND APPROVAL BY THE LANDSCAPE ARCHITECT EXCEPT THAT, IF THIS IS NOT FEASIBLE, HEAL-IN ALL BALLED MATERIAL WITH DAMP SOIL AND PROTECT FROM SUN AND WIND.
 - 2. REGULARLY WATER ALL NURSERY STOCK IN CONTAINERS AND TUBE-PAKS AND PLACE THEM IN A COOL AREA PROTECTED FROM SUN AND DRYING WINDS.
- B. EXCAVATION OF PLANT HOLES:
 - 1. TREE PITS SHALL HAVE SUBSTANTIALLY VERTICAL SIDES AND HORIZONTAL BOTTOMS. DEPTH OF PIT BELOW FINISH GRADE SHALL BE AT LEAST 9 INCHES (FOR TREES) AND 6 INCHES (FOR SHRUBS) GREATER THAN THE DEPTH OF THE BALL. IN NO CASE SHALL DEPTH OF TREE PITS BE LESS THAN 24 INCHES BELOW FINISHED GRADE. DIAMETER OF PITS FOR ALL TREES SHALL BE AT LEAST 9 INCHES GREATER THAN THE BALL DIAMETER AND FOR SHRUBS 6 INCHES.
 - 2. PLANTING POCKETS FOR TUBE-PAK: ONE GALLON CONTAINER SHRUBS, CONTAINERIZED PERENNIAL PLANTS & 1" CALIPER TREES INTENDED FOR "NATURALIZING" FILL AND DISTURBED SLOPES, SHALL BE EXCAVATED SIMILAR AS DESCRIBED ABOVE, BUT TO A DEPTH OF 6" BELOW THE BOTTOM OF THE TUBE-PAK OR CONTAINER AND A MINIMUM OF 12" IN DIAMETER.
- C. PLANTING OPERATION:
 - 1. TREES AND SHRUBS SHALL BE SUPPLIED IN SIZES SHOWN ON THE PLANTING PLANS WITH ALL PLANTS BALLED AND BURLAPPED, CONTAINERIZED, OR IN TUBE-PAKS.
 - 2. DURING PLANTING, EXCAVATION OF THE NURSERY STOCK SHALL NOT BE EXPOSED TO THE SUN, DRYING WINDS, OR WINTER FROST.
 - 3. THE SOIL IN THE BOTTOM OF THE HOLE, WHICH HAS BEEN EXCAVATED TO THE PRESCRIBED REQUIREMENTS, SHALL BE LOOSENED TO A DEPTH OF 3 INCHES AND MIXED WITH AN EQUAL AMOUNT OF TOPSOIL. A COMPACTED MOUND OF SOIL SHALL BE FORMED IN THE CENTER OF THE HOLE TO SUPPORT THE ROOTS OF THE PLANT. THE PLANT SHALL BE PLACED ON THIS MOUND OF SOIL AND HELD IN A VERTICAL POSITION. THE PLANT SHALL BE SO SET, BY ADJUSTING THE ELEVATION OF THE MOUND, THAT AFTER SETTLEMENT THE PLANT WILL STAND AT APPROXIMATELY THE SAME DEPTH IT STOOD IN THE NURSERY OR FIELD.
 - 4. THE PLANT HOLE SHALL BE BACKFILLED WITH TOPSOIL, PEAT AND MAG AMP MIXTURE PLACED IN LAYERS AROUND THE ROOTS. EACH LAYER SHALL BE CAREFULLY TAMPED TO FILL ALL VOIDS AND PLACED IN MANNER TO AVOID INJURY TO THE TREE OR DISTURBING THE POSITION OF THE PLANT.
 - 5. ALL BURLAP, ROPES OR WIRES SHALL BE COMPLETELY REMOVED FROM THE ROOT BALLS. TREES WITH WIRE BASKETS SHALL HAVE THE WIRE BASKET COMPLETELY REMOVED IF PRACTICAL. REMOVAL OF BASKET WIRE SHALL BE DONE WITH BOLT CUTTER OR SIMILAR DEVICE AND NOT BEFORE THE BOTTOM HALF OF PLANT HOLE HAS BEEN BACKFILLED AND TAMPED SO AS TO PREVENT THE BALL FROM BREAKING APART OR LOOSENING DURING THIS OPERATION. UNTIE AND REMOVE ALL ROPES AROUND TRUNK.
 - 6. WHEN APPROXIMATELY TWO-THIRDS OF THE PLANT HOLE HAS BEEN BACKFILLED, THE HOLE SHALL BE FILLED WITH WATER AND THE SOIL ALLOWED TO SETTLE AROUND THE ROOTS. AFTER THE WATER HAS BEEN ABSORBED, THE PLANT HOLE SHALL BE FILLED WITH TOPSOIL AND TAMPED LIGHTLY TO GRADE. ANY SETTLEMENT SHALL BE BROUGHT TO GRADE WITH TOPSOIL.
 - 7. ALL PLANTS SHALL BE SET PLUMB AND STRAIGHT, AND AT SUCH A LEVEL THAT, AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP OF THE TRUNK CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. PLANTS SHALL BE LOCATED IN THE CENTER OF THE PIT. THE SURFACE ABOUT THE PLANT SHALL BE SMOOTH AND FORMED TO A CUP-SHAPED DEPRESSION ABOUT THE STEM OR TRUNK SO AS TO HOLD WATER. ONCE THIS CUP-SHAPED DEPRESSION HAS BEEN FORMED, THEN APPLY THE "ROOTS" GROWTH ENHANCER/BIOSTIMULANT, PER MANUFACTURER'S RECOMMENDATIONS, TO ALL TREES, SHRUBS AND PERENNIALS PRIOR TO MULCHING. UPON COMPLETION OF THE PLANTING, ALL SURPLUS SUBSOIL AND WASTE MATERIALS SHALL BE REMOVED.
 - 8. FOR PLANTS ON LEVEL GROUND OR SLIGHT SLOPES, THE CONTRACTOR SHALL FORM AND LEAVE A SHALLOW BASIN A LITTLE LARGER THAN THE DIAMETER OF THE PLANT AROUND EACH PLANT. AFTER PLANTING, CULTIVATE THE SOIL IN THE SHRUB BED BETWEEN TREE/SHRUB PITS, RAKE SMOOTH AND OUTLINE AS PER PLANS.
 - 9. IN CASE OF PLANTING IN THE OPEN ON HOT DAYS, SHORTEN THE TIME BETWEEN PLANTING AND WATERING.

3.4 SEED BED PREPARATION

- A. SUB GRADE PREPARATION: SEED BED PREPARATION SHALL PERTAIN TO THE PREPARATION OF THE SURFACE OF THE GROUND TO RECEIVE THE SEED. THE GROUND SHALL BE HAND OR MACHINE RAKED SO AS TO REMOVE ALL DEBRIS, CLODS, STONES, OR OTHER FOREIGN MATTER LARGER THAN 1 INCH, TO A DEPTH OF 4 INCHES. PRIOR TO DUMPING AND SPREADING OF TOPSOIL, THE SURFACE SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 2 INCHES TO FACILITATE BONDING OF TOPSOIL TO SUB GRADE SOIL. WHERE SUB GRADES HAVE BEEN COMPACTED ARTIFICIALLY SCARIFY TO A DEPTH OF 6 INCHES. PRIOR TO SPREADING TOPSOIL, ALL SUB GRADES SHALL BE GRADED EVENLY ACCORDING TO THE CONTRACT DOCUMENTS. SUCH DEBRIS, CLODS, ROCKS, AND OTHER MATERIAL SO REMOVED SHALL BE DISPOSED OF AS APPROVED BY THE LANDSCAPE ARCHITECT/OWNER'S REPRESENTATIVE. SEED BED PREPARATION SHALL NOT COMMENCE UNTIL THE MOISTURE CONDITIONS MAKE THE GROUND AREA AND SOIL FRIABLE.
- B. PREPARATION OF SEED BED: SEED BEDS ARE TO BE SEED BEDS WHICH HAVE NOT BEEN DISTURBED BY SITE GRADING OR TOPSOIL STRIPPING OPERATIONS, SHALL BE MOVED AND RAKED PRIOR TO TILLING AND TOP SOILING OPERATIONS. TILLAGE OF THE EXISTING VEGETATION INTO THE GROUND WILL NOT BE ACCEPTED.

3.5 TOPSOIL PLACEMENT

- A. SPREADING: TOPSOIL SHALL BE SPREAD EVENLY ON THE PREPARED AREAS TO A MINIMUM DEPTH OF 6 INCHES AFTER MACHINE COMPACTION. SPREADING SHALL NOT BE DONE WHEN THE GROUND OR TOPSOIL IS FROZEN OR EXCESSIVELY WET. AFTER SPREADING, ANY LARGE, STIFF CLODS OR HARD LUMPS SHALL BE BROKEN UP AND THE GROUND SHALL BE HAND OR MACHINE RAKED TO REMOVE ALL DEBRIS, STONES, AND FOREIGN MATTER LARGER THAN 1 INCH TO A DEPTH OF 4 INCHES.
- B. FINISH GRADING: GRADE THE AREAS TO FINISH GRADES FILLING AS NEEDED OR REMOVING SURPLUS DIRT AND FLOATING AREAS TO A SMOOTH UNIFORM GRADE. ALL LAWN AREAS SHALL SLOPE TO DRAIN. WHERE NO GRADES ARE SHOWN, AREAS SHALL HAVE A SMOOTH AND CONTINUAL GRADE BETWEEN EXISTING OR FIXED CONTROLS (SUCH AS WALKS, CURBS, OR WALLS). RAKE AND LEVEL AS NECESSARY TO OBTAIN TRUE EVEN LAWN SURFACES. ALL FINISH GRADES SHALL MEET THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE SEED IS SOWN OR SOD IS LAYED.
- C. SEED BED PREPARATION: AFTER FINISH GRADING AND JUST BEFORE SEEDING, THE AREAS TO BE SEED BEDS SHALL BE LOOSENEED TO PROVIDE A ROUGH, FIRM BUT FINELY PULVERIZED SEED BED. THE INTENT IS A TEXTURE CAPABLE OF RETAINING WATER, SEED, AND FERTILIZER WHILE REMAINING STABLE AND ALLOWING SEED TIME TO GERMINATE. SEED SHALL BE APPLIED TO THE CONDITIONED SEED BED NOT MORE THAN 48 HOURS AFTER THE SEED BED HAS BEEN PREPARED.
- D. WATER: IF THERE HAS BEEN A TIME LAPSE BETWEEN THE PLACEMENT OF TOPSOIL AND SEEDING OPERATIONS TO ALLOW IT TO BECOME SETTLED AND COMPACTED ON THE SURFACE, THE AREA TO BE PLANTED WITH SEED SHALL BE THOROUGHLY HARROWED, WORKED TO A DEPTH OF 4 INCHES SO AS TO PROVIDE A SURFACE OF SUCH CONDITION THAT IT WILL ALLOW HAND RAKING AND APPLICATION OF THE SEED WITH THESE SPECIFICATIONS.
- E. FERTILIZER/SOIL AMENDMENTS: APPLICATION OF FERTILIZER WILL BE IN 2 STAGES. TWO WEEKS PRIOR TO APPLICATION OF SEED, FERTILIZER SHALL BE APPLIED AT THE RATE OF 3 LBS/1000 S.F. FOR TURF AREAS; FERTILIZER SHALL BE APPLIED BY BROADCASTING OR DRILL METHODS. IT SHALL BE APPLIED SEPARATELY FROM THE SEED AND MIXED INTO THE SOIL TO A MINIMUM DEPTH OF 2 INCHES AND MAY BE INCORPORATED AS PART OF THE TOPSOIL PLACEMENT AND SEED BED PREPARATION OPERATIONS. SPRINKLE IMMEDIATELY AFTER INITIAL APPLICATION OF THE FERTILIZER WITH A FINE SPRAY UNTIL GROUND IS THOROUGHLY SATURATED, WITH PARTICULAR CARE TO AVOID RUNOFF ON SLOPING AREAS.
- F. THE 2ND APPLICATION WILL FOLLOW THE FOLLOWING SEASON WITHIN THE SPECIFIED WARRANTY PERIOD AT A RATE DETERMINED BY SOIL TEST RESULTS FOR BOTH TURF AND NATIVE GRASS/ WILDFLOWER AREAS.
- G. APPLICATION OF SUPERPHOSPHATE AND GROUND LIME/STONE SHALL BE APPLIED AT RATES DETERMINED BY SOILS TEST RESULTS.
- H. SEEDING: IMMEDIATELY PRIOR TO THE APPLICATION OF THE SEED, THE SOIL SHALL BE LOOSE TO A DEPTH OF AT LEAST 1 INCH AND FREE FROM ALL MATERIAL AS SPECIFIED. IF SOIL IS TOO LOOSE OR DRY FOR GOOD HANDLING, IT SHOULD BE MOISTENED AND ROLLED LIGHTLY.
- I. SEEDING SHALL BE DONE WITHIN THE SPECIFIED TIME PERIODS AND AT THE FOLLOWING RATES:
 - a. FINE LAWN SEED SHALL BE SOWN AT A RATE OF 3.0 POUNDS PER 1000 SQUARE FEET AND SHALL BE PLANTED IN THE SPRING FROM APRIL 1ST TO MAY 30TH OR IN THE FALL FROM AUGUST 16TH TO OCTOBER 1ST.
 - b. NATIVE SEED MIX SHALL BE SOWN AT A RATE OF 5.0 POUNDS PER 1000 SQUARE FEET AND SHALL BE PLANTED IN THE SPRING FROM APRIL 1ST TO MAY 30TH OR IN THE FALL FROM AUGUST 16TH TO OCTOBER 1ST.
- J. METHODS: SEEDING BY DRILL IS PREFERABLE; HOWEVER, HYDRAULIC SEEDING OR BROADCASTING WILL BE PERMITTED. BROADCAST SEEDING AND HYDRAULIC SEEDING SHALL NOT BE USED DURING ADVERSE WEATHER. AREAS SOWN BY HYDRAULIC OR BROADCAST METHODS WILL BE VISUALLY INSPECTED FOR UNIFORMITY OF PLANTATION. AREAS WHICH FAIL TO REVEAL AN AVERAGE OF TWO SEEDS PER SQUARE INCH WILL BE RE-SOWN AT NO ADDITIONAL EXPENSE TO THE OWNER. THE APPLIED SEED, REGARDLESS OF APPLICATION, SHALL NOT BE COVERED BY A SOIL THICKNESS NO GREATER THAN 1/2 INCH.
- K. SEEDING BY DRILL: SEEDING EQUIPMENT USED FOR APPLYING GRASS SEED MUST BE DESIGNED, MODIFIED, OR EQUIPPED TO REGULATE THE APPLICATION RATE AND PLANTING DEPTH OF GRASS SEED. SEED MUST BE UNIFORMLY DISTRIBUTED IN THE DRILL HOPPER DURING THE DRILLING OPERATION. ALL GRASS ESTABLISHMENT SHOULD BE NO WIDER THAN THE WIDTH OF THE DRILL. SEED SHALL BE PLANTED AT AN ANGLE TO THE WIND OF THE AREA WHICH IT IS TO OPERATE. THE ROWS OF PLANTED SEEDS SHALL BE A MAXIMUM OF 8 INCHES APART AND SHALL BE AT RIGHT ANGLES TO THE FINISHED SLOPES.
- L. "ROOTCAST" SEEDING: WHEN SEED IS SOWN BY BROADCASTING, EXERCISE GREAT CARE THAT A UNIFORM DISTRIBUTION OF SEED IS OBTAINED. SEEDING SHALL BE DONE ON A STILL DAY USING A HOPPER TYPE SEEDER WITH ONE HALF OF THE SEED FOR EACH AREA BEING SOWN AT RIGHT ANGLES TO THE OTHER HALF. SEED DISTRIBUTION BY BROADCASTING SHALL BE COVERED WITH 1/4 TO 1/2 INCH OF SOIL. THE SEED MAY BE COVERED BY RAKING, DRAGGING, OR BY APPROPRIATE MECHANICAL MEANS.
- M. HYDRAULIC SEEDING: WHEN HYDRAULIC SEED IS USED, SEED AND MULCH SHALL BE APPLIED IN SEPARATE AND DISTINCT OPERATIONS EXCEPT FOR THE FOLLOWING SEED PREPARATION.
- N. THE CONTRACTOR MUST PROVIDE ONE POUND OF MULCH PER EACH THREE GALLONS OF WATER IN THE HYDROSEEDER AS A CUSHION AGAINST SEED DAMAGE. THE MULCH USED AS A CUSHION MAY BE PART OF THE TOTAL REQUIRED MULCH WITH THE REMAINDER APPLIED AFTER THE SEED IS METERING DURING APPLICATION.

- 7. THE CONTRACTOR MAY APPLY MULCH AND LAWN SEED MIX HYDRAULICALLY IN A SINGLE APPLICATION, PROVIDING ONE HALF OF THE SEED HAS BEEN SOWN BY BROADCAST OR DRILL METHODS AS AN INITIAL APPLICATION AND THE RATE OF APPLICATION OF LAWN SEED INCREASED BY 4 POUNDS PER 1000 SQUARE FEET.
- 8. THE APPLICATION OF THE SEED SLURRY SHALL BE MADE WITH EQUIPMENT HAVING A BUILT-IN AGITATION SYSTEM WITH CAPACITY SUFFICIENT TO AGITATE, SUSPEND AND HOMOGENIZE MIX A SLURRY CONTAINING WATER, SEED, AND MULCH OF SEED. THE SLURRY SHALL BE SPRAYED OVER THE SOIL IN A UNIFORM COAT. ALL HYDRAULICALLY SEEDED AREAS SHALL BE HYDROMULCHED UPON COMPLETION.
- F. WATERING: WATERING IMMEDIATELY AFTER SEEDING OR MULCHING WITH A FINE SPRAY TO A DEPTH OF 6 INCHES. AVOID RUNOFF ON SLOPING AREAS. THE SURFACE LAYER OF THE SOIL MUST BE KEPT DAMP BY FREQUENT LIGHT WATERING DURING THE GERMINATION PERIOD AND UNTIL PLANTS ARE FIRMLY ROOTED.
- G. PROTECTION: PROTECT ALL SEED AREAS BY ERECTING TEMPORARY FENCES, BARRIERS, SIGNS, ETC. AS NECESSARY TO PREVENT TRAMPLING. THEY SHALL REMAIN IN PLACE FOR AT LEAST SIX WEEKS UNLESS OTHER ARRANGEMENTS ARE MADE WITH THE LANDSCAPE ARCHITECT.
- H. MULCHING:
 - 1. MULCH ALL HYDROSEEDED AREAS, DRAINAGE SWALES, SLOPES 4:1 OR STEEPER, AND ANY AREAS WHERE LIKELY HAZARD OF EROSION EXISTS. TOPSOIL OR SEED WHICH WASHES OUT FOR REASONS ATTRIBUTABLE TO THE CONTRACTOR'S ACTIVITIES OR FAILURE TO TAKE PROPER PRECAUTIONS, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
 - a. ALL STRUCTURES SHALL BE PROTECTED FROM HYDRAULIC APPLICATION OF MULCH MATERIAL AND MATERIAL DEPOSITED ON FACILITIES SHALL BE REMOVED.
 - b. MULCH SHALL NOT BE APPLIED IN THE PRESENCE OF FREE SURFACE WATER, BUT MAY BE APPLIED ON DAMP GROUND.
- I. APPLICATION OF ORGANIC MULCH
 - a. WET APPLICATION: ORGANIC MULCH SHALL BE MIXED WITH WATER AT A RATE OF ONE POUND MULCH (DRY WEIGHT) TO ONE GALLON OF WATER HYDRAULICALLY APPLIED AS PER MANUFACTURER'S RECOMMENDATIONS AT A MINIMUM RATE OF 2000 POUNDS PER ACRE.
 - b. DRY APPLICATION: ORGANIC MULCH SHALL BE BROADCAST AT A MINIMUM RATE OF 2000 POUNDS PER ACRE, AND SHALL BE ROLLED LIGHTLY TO SET FIRMLY INTO THE SOIL.

3.6 MULCHING

- A. MULCHING:
 - 1. ALL TREES AND SHRUB BEDS WILL BE CULTIVATED FOLLOWING THE GENERAL SHAPE OF THE BEDS AS INDICATED ON THE PLANS. FORM A SAUCER AROUND THE TOP OF THE PLANTING PIT TO HELP HOLD WATER DURING WATERING AND FORM THE OUTLINE FOR MULCHING.
 - 2. APPLY THE SHREDDED BARK MULCH TO A DEPTH OF 4"; EVENLY SPREAD OVER THE ENTIRE AREA OF EACH PLANTING PIT.
 - 3. THOROUGHLY SOAK ALL MULCH AREAS. AFTER WATERING, RAKE MULCHED AREAS AND LEAVE IN A COMPLETED AND FINISHED CONDITION THOROUGHLY SOAK ALL MULCH AREAS. AFTER WATERING, RAKE MULCHED AREAS AND LEAVE IN A COMPLETED AND FINISHED CONDITION.

3.7 STAKING, GUYING, AND WRAPPING

- A. STAKING AND GUYING:
 - 1. TREES, GREATER THAN 1-1/2" IN CALIPER, SHALL BE STAKED IMMEDIATELY AFTER PLANTING. GUY WIRES SHALL BE ENCASED IN NET TO PREVENT DIRECT CONTACT WITH BARK OF THE TREE OR IT SHALL BE PLACED AROUND THE TRUNK IN A SINGLE LOOP. WIRES SHALL BE TIGHTENED AND KEPT TAUNT BY TWISTING THE STRANDS TOGETHER OR WITH TURNBUCKLES.
 - 2. WRAP TREES IMMEDIATELY AFTER PLANTING, BUT NOT BEFORE THE CONDITION OF THE TRUNKS HAS BEEN INSPECTED AND APPROVED. CAREFULLY WRAP THE TRUNKS OF DECIDUOUS TREES WITH TREE WRAPPING PAPER. BEGIN THE WRAPPER AT THE BASE OF THE TRUNK JUST ABOVE THE ROOTS AND BELOW THE NORMAL GROUND LINE, AND EXTEND WRAPPING UPWARD IN SPIRAL MANNER WITH AN OVERLAP OF ONE-HALF (1/2) THE WIDTH OF THE PAPER STRIP. COVER WITH SOIL THE PORTION OF THE WRAPPING BELOW THE FINISHED GRADE. THE PAPER SHALL BE HELD IN PLACE WITH APPROVED TWINE OR TAPE. TIE THE TWINE AROUND THE TREE IN AT LEAST THREE PLACES, IN ADDITION TO THE TOP AND BOTTOM.
 - 3. TREE GUYING AND STAKING SHALL BE AS DETAILED AS PER PROJECT PLANS AND COMPLETED IMMEDIATELY AFTER PLANTING.
- B. PRUNING:
 - 1. EACH TREE SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF PLANT. THE OBJECTIVE IS TO PRESERVE A SHAPE AND FORM REPRESENTATIVE OF THE SPECIES. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
 - 2. PRUNING:
 - 1. ALL DEAD WOOD, SUCKERS, BADLY BRUISED OR BROKEN BRANCHES SHALL BE REMOVED. THE TOPS OF DECIDUOUS PLANTS SHALL BE PRUNED EITHER BEFORE OR AFTER PLANTING TO BALANCE ROOT LOSS DUE TO TRANSPLANTING. THIS SHALL CONSIST OF REMOVING ONE-FOURTH OF THE CROWN BY THINNING OUT AND/OR HEADING BACK THE STEMS AND TOP BRANCHES, AND SHALL BE DONE SO THAT THE PLANT RETAINS ITS NATURAL FORM. EXCEPT WHEN HEADING BACK, ALL CUTS SHALL BE MADE FLUSH WITH THE TRUNK OR BRANCH. NEVER CUT A LEADING.
 - 2. CUTS OVER 1/2 INCH IN DIAMETER SHALL BE PAINTED WITH AN APPROVED TREE PAINT. PAINT SHALL COVER ALL EXPOSED CAMBIAL AS WELL AS OTHER EXPOSED LIVING TISSUE. PAINT SHALL BE WATERPROOF, ADHESIVE AND ELASTIC, ANTISEPTIC, FREE FROM KEROSENE, COAL TAR CREOSOTE OR ANY OTHER MATERIAL INJURIOUS TO THE LIFE OF THE TREE AND SHALL BE APPROVED BEFORE IT IS USED. USE "WOODTAR" OR APPROVED EQUAL.
 - 3. TREES THAT HAVE BEEN SO BADLY PRUNED AS TO SPOIL THEIR REPRESENTATIVE FORM AND USEFULNESS SHALL BE REMOVED AND REPLACED.

3.9 WATERING

- A. ALL PLANTS SHALL BE WATERED TWICE WITHIN THE FIRST 24 HOURS OF THE TIME OF PLANTING, AND ALL PLANTS DURING THE MAINTENANCE PERIOD SHALL BE WATERED AT LEAST TWICE EACH WEEK. AT EACH WATERING THE SOIL AROUND EACH TREE OR SHRUB SHALL BE THOROUGHLY SATURATED. IF SUFFICIENT MOISTURE IS RETAINED IN THE SOIL, AS DETERMINED BY THE LANDSCAPE ARCHITECT, THE REQUIRED WATERING MAY BE REDUCED.

3.10 INSPECTION FOR ACCEPTANCE AND CLEAN-UP.

- A. INSPECTION:
 - 1. IN ADDITION TO THE NORMAL PROGRESS INSPECTIONS, SCHEDULE AND CONDUCT THE FOLLOWING FORMAL INSPECTIONS, GIVING THE LANDSCAPE ARCHITECT AT LEAST 24 HOURS PRIOR NOTICE OF READINESS FOR INSPECTION.
 - 2. INSPECTION OF PLANTS IN CONTAINERS PRIOR TO PLANTING.
 - 3. INSPECTION OF PLANT LOCATIONS, TO VERIFY COMPLIANCE WITH THE PLANS.
 - 4. FINAL INSPECTION SHALL BE COMPLETED AFTER COMPLETION OF PLANTING. SCHEDULE THIS INSPECTION SUFFICIENTLY IN ADVANCE, AND IN COOPERATION WITH THE LANDSCAPE ARCHITECT SO THAT

B. SOD: UPON DELIVERY OF SOD TO THE WORK SITE, USE ALL MEANS NECESSARY TO PROTECT AND MAINTAIN THE SOD BEFORE, DURING AND AFTER INSTALLATION. DELIVERY OF SOD SHALL BE CAREFULLY COORDINATED SO ITS PLACEMENT CAN PROCEED DIRECTLY AFTER ITS ARRIVAL. SOD SHALL BE INSTALLED ON SITE NO MORE THAN 24 HOURS AFTER CUTTING.

C. FERTILIZER/LIME: FERTILIZER AND LIME SHALL BE DELIVERED TO THE SITE IN THE ORIGINAL, UNOPENED CONTAINERS BEARING THE MANUFACTURER'S GUARANTEED CHEMICAL ANALYSIS, NAME, TRADE NAME, TRADEMARK, AND CONFORMANCE WITH STATE AND FEDERAL LAWS. IN LIEU OF CONTAINERS, BOTH MATERIALS MAY BE FURNISHED IN BULK AND A CERTIFICATE INDICATING THE ABOVE INFORMATION SHALL ACCOMPANY EACH DELIVERY.

D. STORAGE: SEED, HYDROMULCH, HYDROMULCH BINDER, FERTILIZER AND LIME SHALL BE KEPT IN DRY STORAGE AWAY FROM CONTAMINANTS. THEY SHALL BE UNIFORM IN COMPOSITION, DRY, UNFROZEN AND FREE FLOWING. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY MATERIAL WHICH HAS BECOME CAKED FOR OTHER REASONS, DAMAGED OR DOES NOT MEET SPECIFIED REQUIREMENTS.

E. REPLACEMENTS: IN THE EVENT OF REJECTION OF THE SEED, IMMEDIATELY MAKE ALL REPLACEMENTS NECESSARY TO THE APPROVAL OF THE LANDSCAPE ARCHITECT AND AT NO ADDITIONAL COST TO THE OWNER.

F. SCHEDULES:

1. SEASONAL LIMITATIONS: CONDUIT SEEDING OPERATIONS DURING THE SPECIFIED TIME PERIODS. IF SPECIAL CONDITIONS EXIST THAT MAY WARRANT A VARIANCE IN THE SPECIFIED PLANT DATES OR CONDITIONS, A WRITTEN REQUEST SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT STATING THE SPECIAL CONDITIONS AND PROPOSED VARIANCE.

G. NOTICE TO PROCEED:

1. THE CONTRACTOR SHALL NOT PROCEED WITH SEEDING AND SOD PLACEMENT OPERATIONS UNTIL THE IRRIGATION SYSTEM HAS BEEN TESTED AND APPROVED.

2.1 TOPSOIL

2.2 SEED

2.3 SOD

2.4 SOIL AMENDMENTS

D. SUPERPHOSPHATE:
1. INCORPORATE SUPERPHOSPHATE INTO THE TOPSOIL WITH THE FIRST APPLICATION OF COMMERCIAL FERTILIZER AT THE RATE OF TWENTY POUNDS PER THOUSAND SQUARE FEET OR AT THE RATE DETERMINED FROM THE TEST RESULTS.

C. GROUND LIMESTONE:
1. INCORPORATE GROUND LIMESTONE INTO THE TOPSOIL AFTER IT HAS BEEN SPREAD AT THE RATE OF FIFTY POUNDS PER THOUSAND SQUARE FEET OR AT THE RATE DETERMINED FROM THE TEST RESULTS TO ACHIEVE A PH OF 6.0 TO 6.5.

PART 3: EXECUTION

3.2 SEED BED PREPARATION

SPREADING:

1. TOPSOIL SHALL BE SPREAD EVENLY ON THE PREPARED AREAS TO A MINIMUM DEPTH OF 6 INCHES AFTER MACHINE COMPACTION. SPREADING SHALL NOT BE DONE WHEN THE GROUND OR TOPSOIL IS FROZEN OR EXCESSIVELY WET. AFTER SPREADING, ALL LARGE, STEEP CLOSOS OR HARD LUMPS SHALL BE BROKEN UP AND THE GROUND SHALL BE HAND OR MACHINE RAKED TO REMOVE ALL DEBRIS, STONES, AND FOREIGN MATTER LARGER THAN 1 INCH TO A DEPTH OF 4 INCHES.

B. FINISH GRADING:

1. GRADE THE AREAS TO FINISH GRADES FILLING AS NEEDED OR REMOVING SURPLUS DIRT AND FLOATING AREAS TO A SMOOTH UNIFORM GRADE. ALL LAWN AREAS SHALL SLOPE TO DRAIN. WHERE NO GRADES ARE SHOWN, AREAS SHALL HAVE A SMOOTH AND CONTINUAL GRADE BETWEEN EXISTING OR FIXED CONTROLS (SUCH AS WALKS, CURBS OR WALLS). RAKE AND LEVEL AS NECESSARY TO OBTAIN TRUE EVEN LAWN SURFACES. ALL FINISH GRADES SHALL MEET THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE SEED IS SOWN OR SOD IS PLACED.

C. SEED BED PREPARATION:

1. AFTER FINISH GRADING AND JUST BEFORE SEEDING, THE AREAS TO BE SEEDBED SHALL BE LOOSENEED TO PROVIDE A ROUGH, FIRM BUT FINELY PULVERIZED SEED BED. THE INTENT IS A TEXTURE CAPABLE OF RETAINING WATER, SEED, AND FERTILIZER WHILE REMAINING STABLE AND ALLOWING SEED TO GERMINATE. SEED SHALL BE APPLIED AT THE RATE SPECIFIED ON THE SEED LABEL AND AS PART OF THE TOPSOIL PLACEMENT AND SEED BED PREPARATION OPERATIONS.

2. IF THERE HAS BEEN A TIME LAPSE BETWEEN THE PLACEMENT OF TOPSOIL AND SEEDING OPERATIONS TO ALLOW IT TO BECOME SETTLED AND COMPACTED ON THE SURFACE, THE AREA TO BE PLANTED WITH SEED SHALL BE THOROUGHLY HARROWED, WORKED TO A DEPTH OF 4 INCHES SO AS TO PROVIDE A SURFACE OF SUCH CONDITION THAT IT WILL ALLOW HAND RAKING AND APPLICATION OF THE SEED IN COMPLIANCE WITH THESE SPECIFICATIONS.

D. FERTILIZER/SOIL AMENDMENTS:

1. APPLICATION OF FERTILIZER WILL BE IN 2 STAGES. TWO WEEKS PRIOR TO APPLICATION OF SEED, FERTILIZER SHALL BE APPLIED AT THE RATE OF 3 LBS/1000 S.F. FOR TURF AREAS. FERTILIZER SHALL BE APPLIED BY BROADCASTING OR DRILL METHODS. IT SHALL BE APPLIED SEPARATELY FROM THE SEED AND MIXED INTO THE SOIL TO A MINIMUM DEPTH OF 2 INCHES AND THEN REAPPLIED AS PART OF THE TOPSOIL PLACEMENT AND SEED BED PREPARATION OPERATIONS. SPRINKLE IMMEDIATELY AFTER INITIAL APPLICATION OF THE FERTILIZER WITH A FINE SPRAY UNTIL GROUND IS THOROUGHLY SATURATED, WITH PARTICULAR CARE TO AVOID RUNOFF ON SLOPING AREAS.

2. THE 2ND APPLICATION WILL FOLLOW THE FOLLOWING SEASON WITHIN THE SPECIFIED WARRANTY PERIOD AT A RATE DETERMINED BY SOIL TEST RESULTS FOR BOTH TURF AND NATIVE GRASS/ WILDFLOWER AREAS.

3. APPLICATION OF SUPERPHOSPHATE AND GROUND LIMESTONE SHALL BE APPLIED AT RATES DETERMINED BY SOILS TEST RESULTS.

E. SEEDING:

1. IMMEDIATELY PRIOR TO THE APPLICATION OF THE SEED, THE SOIL SHALL BE LOOSE TO A DEPTH OF AT LEAST 1 INCH AND FREE FROM ALL MATERIAL AS SPECIFIED. IF SOIL IS TOO LOOSE OR DRY FOR GOOD HANDLING, IT SHOULD BE MOISTENED AND ROLLED LIGHTLY.

2. SEEDING SHALL BE DONE WITHIN THE SPECIFIED TIME PERIODS AND AT THE FOLLOWING RATES:

a. FINE LAWN SEED SHALL BE SOWN AT A RATE OF 3.0 POUNDS PER 1000 SQUARE FEET AND SHALL BE PLANTED IN THE SPRING FROM APRIL 1ST TO MAY 30TH OR IN THE FALL FROM AUGUST 15TH TO OCTOBER 1ST.

b. NATIVE SEED MIX SHALL BE SOWN AT A RATE OF 5.0 POUNDS PER 1000 SQUARE FEET AND SHALL BE PLANTED IN THE SPRING FROM APRIL 1ST TO MAY 30TH OR IN THE FALL FROM AUGUST 16TH TO OCTOBER 1ST.

F. METHODS:

1. SEEDING BY DRILL IS PREFERABLE; HOWEVER, HYDRAULIC SEEDING OR BROADCASTING WILL BE PERMITTED. BROADCAST SEEDING AND HYDRAULIC SEEDING SHALL NOT BE USED UNDER ADVERSE WEATHER CONDITIONS.

2. AREAS SOWN BY HYDRAULIC OR BROADCAST METHODS WILL BE VISUALLY INSPECTED FOR UNIFORMITY OF APPLICATION. AREAS WHICH FAIL TO REVEAL AN AVERAGE OF TWO SEEDS PER SQUARE INCH WILL BE RESOWN AT NO ADDITIONAL EXPENSE TO THE OWNER.

3. THE APPLIED SEED, REGARDLESS OF APPLICATION, SHALL NOT BE COVERED BY A SOIL THICKNESS NO GREATER THAN 1/2 INCH.

G. SEEDING BY DRILL:

1. SEEDING EQUIPMENT USED FOR APPLYING GRASS SEED MUST BE DESIGNED, MODIFIED, OR EQUIPPED TO REGULATE THE APPLICATION RATE AND PLANTING DEPTH OF GRASS SEED. SEED MUST BE UNIFORMLY DISTRIBUTED IN THE DRILL HOPPER DURING THE DRILLING OPERATION. ALL GRASS ESTABLISHMENT EQUIPMENT SHALL BE OPERATED PERPENDICULAR TO THE SLOPE DRAINAGE. A DRILL SHALL BE NO WIDER THAN THE WIDTH OF THE AREA WHICH IT IS TO OPERATE. THE ROWS OF PLANTED SEEDS SHALL BE A MAXIMUM OF 8 INCHES APART AND SHALL BE AT RIGHT ANGLES TO THE FINISHED SLOPES.

H. BROADCAST SEEDING:

1. SEEDING SHALL BE BY BROADCASTING. EXERCISE GREAT CARE THAT A UNIFORM DISTRIBUTION OF SEED IS OBTAINED. SEEDING SHALL BE DONE ON A STILL DAY USING A HOPPER TYPE SEEDER WITH ONE HALF OF THE SEED FOR EACH AREA BEING SOWN AT RIGHT ANGLES TO THE OTHER HALF. SEED DISTRIBUTION BY BROADCASTING SHALL BE COVERED WITH 1/4 TO 1/2 INCH OF SOIL. THE SEED MAY BE COVERED BY RAKING, DRAGGING, OR BY APPROPRIATE MECHANICAL MEANS.

I. HYDRAULIC SEEDING:

1. WHEN HYDRAULIC SEED IS USED, SEED AND MULCH SHALL BE APPLIED IN SEPARATE AND DISTINCT OPERATIONS EXCEPT FOR THE FOLLOWING.

a. THE CONTRACTOR MUST PROVIDE ONE POUND OF MULCH PER EACH THREE GALLONS OF WATER IN THE HYDROSEEDER AS A CUSHION AGAINST SEED DAMAGE. THE MULCH USED AS A CUSHION MAY BE PART OF THE TOTAL REQUIRED MULCH WITH THE REMAINDER APPLIED AFTER THE SEED IS METERING DURING APPLICATION.

b. THE CONTRACTOR MAY APPLY MULCH AND LAWN SEED HYDRAULICALLY IN A SINGLE APPLICATION, PROVIDING ONE HALF OF THE SEED HAS BEEN SOWN BY BROADCAST OR DRILL METHODS AS AN INITIAL APPLICATION AND THE RATE OF APPLICATION OF LAWN SEED MIX INCREASED BY 4 POUNDS PER 1000 SQUARE FEET.

c. THE APPLICATION OF THE SEED SLURRY SHALL BE MADE WITH EQUIPMENT HAVING A BUILT-IN AGITATION SYSTEM AND OPERATING CAPACITY SUFFICIENT TO AGITATE, STIR, AND HOMOGENEOUSLY MIX A SLURRY CONTAINING WATER, SEED, AND MULCH OF SEED. THE SLURRY SHALL BE SPRAYED OVER THE SOIL IN A UNIFORM COAT. ALL HYDRAULICALLY SEED AREAS SHALL BE HYDROMULCHED UPON COMPLETION.

J. WATERING:

1. WATERING IMMEDIATELY AFTER SEEDING OR MULCHING WITH A FINE SPRAY TO A DEPTH OF 6 INCHES. AVOID RUNOFF ON SLOPING AREAS.

2. THE SURFACE LAYER OF THE SOIL MUST BE KEPT DAMP BY FREQUENT LIGHT WATERING DURING THE GERMINATION PERIOD AND UNTIL PLANTS ARE FIRMLY ROOTED.

K. PROTECTION:

1. PROTECT ALL SEEDED AREAS BY ERECTING TEMPORARY FENCES, BARRIERS, SIGNS, ETC. AS NECESSARY TO PREVENT TRAMPLING. THEY SHALL REMAIN IN PLACE FOR AT LEAST SIX WEEKS UNLESS OTHER ARRANGEMENTS ARE MADE WITH THE LANDSCAPE ARCHITECT.

USDA Plant Hardiness Zone Map

New Hampshire

Average Annual Extreme Minimum Temperature 1976-2005

Temp (F)	Zone	Temp (C)
-35 to -30	3b	-37.2 to -34.4
-30 to -25	4a	-34.4 to -31.7
-25 to -20	4b	-31.7 to -28.9
-20 to -15	5a	-28.9 to -26.1
-15 to -10	5b	-26.1 to -23.3
-10 to -5	6a	-23.3 to -20.6

Scale: 0 5 10 20 Miles / 0 10 20 40 Kilometers

Map labels: Coos, Lancaster, Berlin, Amherst, Littleton, Grafton, Carroll, Hanover, Sullivan, Newport, Merrimack, Concord, Stafford, Dover, Portsmouth, Keene, Cheshire, Hillsborough, Peterborough, Manchester, Rockingham, Nashua, Portsmouth.

NEW HAMPSHIRE INVASIVE SPECIES COMMITTEE - APPROVED BY THE ISC APRIL 11, 2018			
THE NH INVASIVE PLANT SPECIES WATCH LIST IS A NON-REGULATORY REFERENCE TOOL THAT SERVES TO: 1. IDENTIFY POTENTIALLY INVASIVE NON-NATIVE PLANT SPECIES BASED ON DEGREE OF INVASIVE CAPABILITIES (E.G., AGGRESSIVE GROWTH, RAPID REPRODUCTION, AND/OR LACK OF NATURAL HERBIVORES) AND PREVALENCE (BUT NOT NECESSARILY ABUNDANCE) IN NH AND/OR NEARBY ELSEWHERE IN NEW ENGLAND 2. INFORM PREVENTION (E.G., EARLY DETECTION/REPORT RESPONSE), MONITORING, AND MANAGEMENT DECISION-MAKING FOR SPECIES THAT MAY IMPACT NH'S ECOSYSTEMS OR ECONOMY 3. INCREASE AWARENESS OF INVASIVE PLANT SPECIES.			
SCIENTIFIC NAME	SYNONYMS		COMMON NAME
ABUTILON THEOPHRASTI MEDIK.			VELVETLEAF INDIAN-MALLOW
ACER GINNALA MAXIM.			AMUR MAPLE
AGROSTEMMA GITHAGO L. VAR. GITHAGO	LYCHNIS GITHAGO (L.) SCOP.		COMMON CORNCOCKLE
AIRA CARYOPHYLLEA L.	ASPRIS CARYOPHYLLEA (L.) NASH		COMMON SILVER-HAIRGRASS
ALLIUM VINEALE L.			CROW GARLIC
AMORPHA FRUTICOSA L.	AMORPHA FRUTICOSA L. VAR. ANGUSTIFOLIA PURSH; A. FRUTICOSA L. VAR. OBLONGIFOLIA PALMER; A. FRUTICOSA L. VAR. TENNESSEENSIS (SHUTTLEW. EX KUNZE) PALMER		FALSE INDIGO-BUSH
ARALIA ELATA (MIQ.) SEEM.	DIMORPHANTHUS ELATUS MIQ.		JAPANESE ANGELICA-TREE
BARBAREA VULGARIS AIT. F.	BARBAREA ARCUATA (OPIZ EX J. & K. PRESL) REICHENB.; B. STRICTA, OF AUTHORS NOT ANDRZ.; B. VULGARIS VAR. ARCUATA (OPIZ EX J. & K. PRESL) FRIES; CAMPE BARBAREA (L.) W. WIGHT EX PIPER; C. STRICTA, OF AUTHORS NOT (ANDRZ.) W. WIGHT EX PIPER; ERYSIMUM BARBAREA L.		GARDEN YELLOW-ROCKET
BRASSICA JUNCEA (L.) CZERN.	BRASSICA JUNCEA (L.) CZERN. VAR. CRISPIFOLIA BRAYLEY; SINAPIS JUNCEA L.		CHINESE MUSTARD
BRASSICA NIGRA (L.) W.D.J. KOCH	SINAPIS NIGRA L.		BLACK MUSTARD
BROMUS TECTORUM L.	ANISANTHA TECTORUM (L.) NEVSKI		CHEAT BROME
CARDAMINE IMPATIENS L.			NARROW-LEAVED BITTER-CRESS
CENTAUREA JACEA L.	CENTAUREA DEBEAUXII GREIN. & GODR. SSP. THUILLIERI DOSTÁL; C. JACEA L. SSP. DECIPiens (THUILL.) ČELÁK; C. JACEA L. SSP. PRATENSIS ČELÁK; C. PRATENSIS THUILL.; C. THUILLIERI (DOSTÁL) J. DUVERN. & LAMBINON; CYANUS JACEA (L.) P. GAERTN.; JACEA PRATENSIS LAM.		BROWN KNAPWEED
CENTAUREA NIGRA L.	JACEA NIGRA (L.) HILL		BLACK KNAPWEED
CHELIDONIUM MAJUS L.	CHELIDONIUM MAJUS L. VAR. LACINIATUM (P. MILL.) SYME; C. MAJUS L. VAR. PLENUM WEHRHAHN		GREATER CELANDINE
CIRSIIUM PALUSTRE (L.) SCOP.	CARDUS PALUSTRIS L.		MARSH THISTLE
CIRSIIUM VULGARE (SAVI) TEN.	CARDUS LANCEOLATUS L.; C. VULGARIS SAVI; CIRSIIUM LANCEOLATUM (L.) SCOP.		COMMON THISTLE
CONVOLVULUS ARVENSI L.	SPERMATOCALUS ARVENSI (L.) SMALL		FIELD BINDWEED
CYTISUS SCOPARIUS (L.) LINK	STROTUM SCOPARIUM L.		SCOTCH BROOM
DIGITARIA SANGUINALIS (L.) SCOP.	PANICUM SANGUINALE L.		HAIRY CRABGRASS
EICHORNIA CRASSIPES (MART.) SOLMS-LAUBACH	EICHORNIA SPECIOSA KUNTH; PIAROPUS CRASSIPES (MART.) RAF.		COMMON WATER-HYACINTH
ELYMUS REPENS (L.) GOULD	AGROPYRON REPENS (L.) GOULD; ELYTRIGIA REPENS (L.) DESV. EX B.D. JACKSON; TRITICUM REPENS L.		CREeping WILD-RYE
EPILOBIUM HIRSUTUM L.			HAIRY WILD-ROSE
EPIPACTIS HELLEBORINE (L.) CRANTZ	EPIPACTIS LATIFOLIA (L.) ALL.; SERAPIAS HELLEBORINE L.		BROAD-LEAVED HELLEBORINE
EUONYMUS EUROPAEUS L.			EUROPEAN SPINDLE-TREE
EUONYMUS FORTUNEI (TURCZ.) HAND.-MAZZ	EUONYMUS FORTUNEI (TURCZ.) HAND.-MAZZ VAR. RADICANS (SIEB. EX MIQ.) REHD.; E. FORTUNEI (TURCZ.) HAND.-MAZZ VAR. VEGETUS (REHD.) REHD.; E. RADICANS SIEB. EX MIQ.; E. RADICANS SIEB. EX MIQ. VAR. VEGETUS REHD.		CLIMBING SPINDLE-TREE
FESTUCA FILIFORMIS POURRET	FESTUCA CAPILLATA LAM.; F. OVINA L. VAR. CAPILLATA (LAM.) ALEF.; F. TENUIFOLIA SIBTHORP		FINE-LEAVED SHEEP FESCUE
FICARIA VERNA HUDS. SSP. FERTILIS (LAWLOR EX LAEGARD) STACE	FICARIA VERNA HUDS. SSP. BULBIFERA A. & D. LÖVE; RANUNCULUS FICARIA L. SSP. BULBIFER LAMBINON; R. FICARIA L. SSP. BULBIFERA (MARSDEN-JONES) LAWLORÉE, AN ILLEGITIMATE NAME; R. FICARIA VAR. BULBIFERA MARSDEN-JONES		FIG-CROWFOOT
FROELICHA GRACILIS (HOOK.) MOQ.	OPLOTEOMA GRACILIS MOQ.		SLENDER COTTON-WEED
GALIUM MOLLUOLO L.			WHORLED BEDSTRAW
GLECHOMA HEDERACEA L.	GLECHOMA HEDERACEA L. VAR. MICRANTHA MORIC.; G. HEDERACEA L. VAR. PARVIFLORA (BENTH.) HOUSE; NECTA HEDERACEA (L.) TREVISAN		GILL-OVER-THE-GROUND
KOCHIA SCOPARIA (L.) H. OHBA	SEDUM PURPUREUM (L.) J.A. SCHULTES; S. PURPURASCENS W.D.J. KOCH; S. TELEPHIUM L.		SUMMER ORPINE
KOCHIA SCOPARIA (L.) SCHRAD.	BASSIA SCOPARIA (L.) A.J. SCOTT; SCHENOPODIUM SCOPARIUM L.; KOCHIA SCOPARIA (L.) SCHRAD. VAR. PUBESCENS FENZL; K. SCOPARIA (L.) SCHRAD. VAR. SUBVILLOSA MOQ.		PURPER-CYPRESS
LAMIUM AMPLEXICAULE L. VAR. AMPLEXICAULE			COMMON HENBIT
LAMIUM PURPUREUM L.	LAMIUM DISSECTUM WITH.; L. HYBRIDUM, OF AUTHORS NOT VILL.		RED HENBIT
LONICERA XYLOSTEUM L.			FLY HONEYSUCKLE
LUPINUS POLYPHYLLUS LINDL. VAR. POLYPHYLLUS	LUPINUS PALLIDIPES HELLER; L. POLYPHYLLUS LINDL. VAR. ALBIFLORUS L.H. BAILEY; L. POLYPHYLLUS LINDL. VAR. PALLIDIPES (HELLER) C.P. SM.		BLUE LUPINE
LYCHNIS FLOS-CUCULI L. SSP. FLOS-CUCULI	CORONARIA FLOS-CUCULI (L.) A. BRAUN; SILENE FLOS-CUCULI (L.) CLAIRVILLE		RAGGED ROBIN LYCHNIS
LYSIMACHIA ARVENSI L. VAR. MANNIS & A. ANDERB.	ANGALLIS ARVENSI L.; A. ARVENSI L. VAR. CAERULEA (SCHREB.) GREIN. & GODR.; A. CAERULEA SCHREB.		GARLET PIMPERNEL
LYSIMACHIA VULGARIS L.			SCARLET YELLOW-LOOSESTRIFE
MISCANTHUS SINENSIS ANDERSS.	MISCANTHUS SINENSIS ANDERSS. VAR. GRACILIMUS A.S. HITCHC.		CHINESE SILVERGRASS
MYCELIS MURALIS (L.) DUMORT.	LACTUCA MURALIS (L.) FRESN.		WALL-LETUCE
MYOSOTIS SCORPIOIDES L.	MYOSOTIS PALUSTRIS (L.) HILL		WATER-FORGET-ME-NOT
NASTURTIUM MICROPHYLLUM BOENN. EX REICHENB.	NASTURTIUM OFFICINALE AIT. F. VAR. MICROPHYLLUM (BOENN. EX REICHENB.) THELLUNG; RORIPPA MICROPHYLLA (BOENN. EX REICHENB.) HYL. EX A. & D. LÖVE		ONE-ROWED WATER-CRESS
NASTURTIUM OFFICINALE AIT. F.	BAEUMERTA NASTURTIUM-AQUATICUM (L.) HAYEK; RORIPPA NASTURTIUM-AQUATICUM (L.) HAYEK; SISYMBRIUM NASTURTIUM-AQUATICUM L.		TWO-ROWED WATER-CRESS
ONANTHE JAVANICA (BLUME) DC			JAVA WATER DROPPORT
PERSICARIA LONGISETA (BRUIJN) KITAGAWA	PERSICARIA CAESPITOSA (BLUME) NAKAI VAR. LONGISETA (BRUIJN) REED; POLYGONUM CAESPITOSUM BLUME VAR. LONGISETUM (BRUIJN) STEWARD; P. LONGISETUM BRUIJN		ORIENTAL LADY'S-THUMB SMARTWEED
PHELLODENDRON AMURENSE RUPE.	PHELLODENDRON AMURENSE RUPE. VAR. SACHALINENSE F. SCHMIDT; P. JAPONICUM MAXIM.; P. SACHALINENSE (F. SCHMIDT) SARG.		AMUR CORKTREE
POA COMPRESSA L.			FLAT-STEMMED BLUE GRASS
POA NEMORALIS L.			WOOD BLUE GRASS
POPULUS ALBA L.	POPULUS ALBA L. VAR. BOLLEANA LAUCHE		WHITE POPLAR
RANUNCULUS REPENS L.			

CONSTRUCTION MANAGER

CONSULTANTS

CIVIL
NOBIS GROUP
18 CHENELL DRIVE
CONCORD, NH 03301
(603) 224-4182

LANDSCAPE

WARRENSTREET ARCHITECTS
4 CRESCENT STREET, UNIT 2
CONCORD, NH 03303
(603) 225-0640

STRUCTURAL

MECHANICAL/PLUMBING

ELECTRICAL

OTHER

SEAL



DARTMOUTH HITCHCOCK
MEDICAL CENTER

253 PLESEANT STREET
CONCORD, NH 03301

PLAN KEY

SCALE: AS NOTED DWN BY:
PROJECT #: 1234 CHK BY: JH
PRINT DATE: 6/16/2026 7:35:59 PM

ISSUE DATE: 06/11/2026

NOT FOR CONSTRUCTION
SCHEMATIC DESIGN

[illegible]

LANDSCAPE
SPECIFICATIONS, CONT. &
INVASIVE SPECIES LIST
LA105

SHEET NUMBER: 6 OF 6 LANDSCAPE

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three inches = one foot
one and one half inches = one foot
one inch = one foot
one and one half inches = one foot
three quarter inch = one foot
three quarter inch = one foot
one quarter inch = one foot
one eighth inch = one foot
P:\PROJECTS\0454 DARTMOUTH HITCHCOCK LANDSCAPE\0550 Planning & Landscape Design\0454 DARTMOUTH HITCHCOCK LANDSCAPE MODEL.rvt
TEMPLATE DATE: 11/25/2019

LANDSCAPE GENERAL SPECIFICATIONS

SECTION 32 84 00 - PLANTING IRRIGATION
PART 1 - GENERAL
1.1 SUMMARY
A. THE INTENT IS THAT THE LANDSCAPE IRRIGATION SYSTEM SHALL BE DESIGN-BUILT AND THAT ALL LAWN AND PLANTING AREAS FOR THIS PROJECT RECEIVE FULL COVERAGE OF THE IRRIGATION SYSTEM.
B. SECTION INCLUDES:
1. PIPES, TUBES, AND FITTINGS.
2. MANUAL VALVES.
3. AUTOMATIC CONTROL VALVES.
4. AUTOMATIC DRAIN VALVES.
5. SPRINKLERS.
6. QUICK COUPLERS.
7. CONTROLLERS.
8. BOXES FOR AUTOMATIC CONTROL VALVES.
9. INCLUDE RATED CAPACITIES, OPERATING CHARACTERISTICS, ELECTRICAL CHARACTERISTICS, AND FURNISHED SPECIALTIES AND ACCESSORIES.
10. WIRING DIAGRAMS: FOR POWER, SIGNAL, AND CONTROL WIRING.
11. DELEGATED DESIGN SUBMITTAL: FOR IRRIGATION SYSTEMS ANALYSIS DATA SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.
12. INFORMATIONAL SUBMITTALS
A. COORDINATION DRAWINGS: IRRIGATION SYSTEMS, DRAWN TO SCALE, ON WHICH COMPONENTS ARE INDICATED AND COORDINATED WITH EACH OTHER, USING INPUT FROM INSTALLERS OF THE ITEMS INVOLVED. ALSO INCLUDE ADJUSTMENTS NECESSARY TO AVOID PLANTINGS AND OBSTRUCTIONS, SUCH AS SIGNS AND LIGHT STANDARDS.
B. ZONING CHART: INDICATE EACH IRRIGATION ZONE AND ITS CONTROL VALVE.
C. CONTROLLER TIMING SCHEDULE: INDICATE TIMING SETTINGS FOR EACH AUTOMATIC CONTROLLER ZONE.
D. FIELD QUALITY-CONTROL SUBMITTALS:
1. FIELD QUALITY-CONTROL REPORTS.
1.3 CLOSEOUT SUBMITTALS
A. OPERATION AND MAINTENANCE DATA.
1.4 QUALITY ASSURANCE
A. QUALIFICATIONS:
1. INSTALLERS: ENTITY THAT EMPLOYS A CERTIFIED IRRIGATION DESIGNER - LANDSCAPE QUALIFIED BY THE IRRIGATION ASSOCIATION.
B. ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70, BY A QUALIFIED TESTING AGENCY, AND MARKED FOR INTENDED LOCATION AND APPLICATION.
PART 2 - PRODUCTS
2.1 PERFORMANCE REQUIREMENTS
A. IRRIGATION ZONE CONTROL: AUTOMATIC OPERATION WITH CONTROLLER AND AUTOMATIC CONTROL VALVES.
B. LOCATION OF SPRINKLERS AND SPECIALTIES: DESIGN LOCATION IS APPROXIMATE. MAKE MINOR ADJUSTMENTS NECESSARY TO AVOID PLANTINGS AND OBSTRUCTIONS, SUCH AS SIGNS AND LIGHT STANDARDS. MAINTAIN 100 PERCENT IRRIGATION COVERAGE OF ALL LAWN AND PLANTING AREAS INDICATED.
C. DELEGATED DESIGN: DESIGN 100 PERCENT COVERAGE IRRIGATION SYSTEM, INCLUDING COMPREHENSIVE ENGINEERING ANALYSIS BY A QUALIFIED PROFESSIONAL ENGINEER, USING PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA TO BE DETERMINED BASED UPON FINAL SITE DISTURBANCE.
1. AVAILABLE LAND RECORDS INDICATE THE FOLLOWING SOIL CONDITIONS: TBD
D. MINIMUM WORKING PRESSURES: THE FOLLOWING ARE MINIMUM PRESSURE REQUIREMENTS FOR PIPING, VALVES, AND SPECIALTIES UNLESS OTHERWISE INDICATED:
1. IRRIGATION MAIN PIPING: 200 PSIG.
2. CIRCUIT PIPING: 150 PSIG.
2.2 PIPES, TUBES, AND FITTINGS
A. COMPLY WITH REQUIREMENTS IN "PIPING SCHEDULE" ARTICLE FOR APPLICATIONS OF PIPE, TUBE, AND FITTING MATERIALS, AND FOR JOINING METHODS FOR SPECIFIC SERVICES, SERVICE LOCATIONS, AND PIPE SIZES.
B. PE PIPE WITH CONTROLLED ID: ASTM D2239, PE 3408 COMPOUND, SDR 15.
1. INSERT FITTINGS FOR PE PIPE: ASTM D2609, NYLON OR PROPYLENE PLASTIC WITH BARBED ENDS. INCLUDE BANDS OR OTHER FASTENERS.
C. PVC PIPE: ASTM D1785, PVC 1120 COMPOUND, SCHEDULES 40 AND 80.
1. PVC SOCKET FITTINGS: ASTM D2466, SCHEDULES 40 AND 80.
2. PVC THREADED FITTINGS: ASTM D2464, SCHEDULE 80.
3. PVC SOCKET UNIONS: CONSTRUCTION SIMILAR TO THAT OF MSS SP-107, EXCEPT BOTH HEADPIECE AND TAILPIECE SHALL BE PVC WITH SOCKET ENDS.
D. PVC PIPE, PRESSURE RATED: ASTM D2241, PVC 1120 COMPOUND, SDR 26.
1. PVC SOCKET FITTINGS: ASTM D2467, SCHEDULE 80.
2. PVC SOCKET UNIONS: CONSTRUCTION SIMILAR TO THAT OF MSS SP-107, EXCEPT BOTH HEADPIECE AND TAILPIECE SHALL BE PVC WITH SOCKET OR THREADED ENDS.
2.3 PIPING JOINING MATERIALS
A. PIPE-FLANGE GASKET MATERIALS: AWWA C110, RUBBER, FLAT FACE, 1/8 INCH THICK UNLESS OTHERWISE INDICATED; FULL-FACE OR RING TYPE UNLESS OTHERWISE INDICATED.
B. METAL, PIPE-FLANGE BOLTS AND NUTS: ASME B18.2.1, CARBON STEEL UNLESS OTHERWISE INDICATED.
C. BRAZING FILLER METALS: AWS A5.8/A5.8M, BCUP SERIES, COPPER-PHOSPHORUS ALLOYS FOR GENERAL-DUTY BRAZING UNLESS OTHERWISE INDICATED.
D. SOLDER FILLER METALS: ASTM B32, LEAD-FREE ALLOYS. INCLUDE WATER-FLUSHABLE FLUX IN ACCORDANCE WITH ASTM B813.
E. SOLVENT CEMENTS FOR JOINING PVC PIPING: ASTM D2564. INCLUDE PRIMER IN ACCORDANCE WITH ASTM F666.
F. PLASTIC, PIPE-FLANGE GASKET, BOLTS, AND NUTS: TYPE AND MATERIAL RECOMMENDED BY PIPING SYSTEM MANUFACTURER UNLESS OTHERWISE INDICATED.
2.4 MANUAL VALVES
A. CURB VALVES:
1. DESCRIPTION:
A. STANDARD: AWWA C800.
B. NPS 1 AND SMALLER: PRESSURE RATING: 150 PSIG.
C. NPS 1-1/4 TO NPS 2: PRESSURE RATING: 800 PSIG.
D. BODY DESIGN: TWO PIECE.
E. BODY MATERIAL: FORGED BRASS.
F. ENDS: THREADED OR SOLDER JOINT IF INDICATED.
G. SEATS: PTFE OR TFE.
H. STEM: BRASS.
I. BALL: CHROME-PLATED BRASS.
J. PORT: FULL.
E. BRONZE BALL VALVES:
1. DESCRIPTION:
A. STANDARD: MSS SP-110.
B. SWP RATING: 150 PSIG.
C. CWP RATING: 600 PSIG.
D. BODY DESIGN: TWO PIECE.
E. BODY MATERIAL: BRONZE.
F. ENDS: THREADED OR SOLDER JOINT IF INDICATED.
G. SEATS: PTFE OR TFE.
H. STEM: BRONZE.
I. BALL: CHROME-PLATED BRASS.
J. PORT: FULL.
F. IRON BALL VALVES:
1. DESCRIPTION:
A. STANDARD: MSS SP-72.
B. CWP RATING: 200 PSIG.
C. BODY DESIGN: SPLIT BODY.
D. BODY MATERIAL: ASTM A126, GRAY IRON.
E. ENDS: FLANGED.
F. SEATS: PTFE OR TFE.
G. STEM: STAINLESS STEEL.
H. BALL: STAINLESS STEEL.
I. PORT: FULL.
J. PLASTIC BALL VALVES:
1. DESCRIPTION:
A. STANDARD: MSS SP-122.
B. PRESSURE RATING: 150 PSIG.
C. BODY MATERIAL: PVC.
D. TYPE: UNION.
E. END CONNECTIONS: SOCKET OR THREADED.
F. PORT: FULL.
H. IRON GATE VALVES, RESILIENT SEATED:
1. DESCRIPTION:
A. STANDARD: AWWA C509.
B. PRESSURE RATING: 200 PSIG MINIMUM.
C. BODY MATERIAL: DUCTILE OR GRAY IRON WITH BRONZE TRIM.
D. END CONNECTIONS: MECHANICAL JOINT OR PUSH-ON JOINT.
E. INTERIOR COATING: COMPLY WITH AWWA C550.
F. BODY DESIGN: NONRISING STEM.
G. OPERATOR: STEM NUT.
H. DISC: SOLID WEDGE WITH RESILIENT COATING.
I. IRON GATE VALVE CASINGS:
1. STANDARD: AWWA M44 FOR CAST-IRON VALVE CASINGS.
2. TOP SECTION: ADJUSTABLE EXTENSION OF LENGTH REQUIRED FOR DEPTH OF BURIAL OF VALVE.
3. BARREL: APPROXIMATELY 5-INCH DIAMETER.
4. PLUG: WITH LETTERING "WATER".
5. BOTTOM SECTION: WITH BASE OF SIZE TO FIT OVER VALVE.
6. BASE SUPPORT: CONCRETE COLLAR.
J. OPERATING WRENCHES FOR IRON GATE VALVE CASINGS: FURNISH TWO STEEL, TEE-HANDLE OPERATING WRENCH(ES) WITH ONE POINTED END, STEM OF LENGTH TO OPERATE DEEPEST BURIED VALVE, AND SOCKET MATCHING VALVE OPERATING NUT FOR PROJECT.
2.5 AUTOMATIC CONTROL VALVES
A. BRONZE, AUTOMATIC CONTROL VALVES:
1. DESCRIPTION: CAST-BRONZE BODY, NORMALLY CLOSED, DIAPHRAGM TYPE WITH MANUAL-FLOW ADJUSTMENT, AND OPERATED BY 24 V AC SOLENOID.
B. PLASTIC, AUTOMATIC CONTROL VALVES:
1. DESCRIPTION: MOLDED-PLASTIC BODY, NORMALLY CLOSED, DIAPHRAGM TYPE WITH MANUAL-FLOW ADJUSTMENT, AND OPERATED BY 24 V AC SOLENOID.
2.6 AUTOMATIC DRAIN VALVES
A. DESCRIPTION: SPRING-LOADED-BALL TYPE OF CORROSION-RESISTANT CONSTRUCTION AND DESIGNED TO OPEN FOR DRAINAGE IF LINE PRESSURE DROPS BELOW 2-1/2 TO 3 PSIG.
2.7 SPRINKLERS
A. GENERAL REQUIREMENTS: DESIGNED FOR UNIFORM COVERAGE OVER ENTIRE SPRAY AREA INDICATED AT AVAILABLE WATER PRESSURE.
B. PLASTIC, EXPOSED, IMPACT-DRIVE ROTARY SPRINKLERS:
1. DESCRIPTION:
A. CONSTRUCTION: ABS AND CORROSION-RESISTANT METALS.
B. MOUNTING: ABOVEGROUND, EXPOSED ON RISER.
2. CAPACITIES AND CHARACTERISTICS:
A. FLOW: 150 GPM.
B. ARC: FULL OR HALF CIRCLE.
C. RADIUS: 20 FEET.
D. INLET: NPS 3/4.
C. PLASTIC, POP-UP, GEAR-DRIVE ROTARY SPRINKLERS:
1. DESCRIPTION:
A. BODY MATERIAL: ABS.
B. NOZZLE: ABS.
C. RETRACTION SPRING: STAINLESS STEEL.
D. INTERNAL PARTS: CORROSION RESISTANT.
2. CAPACITIES AND CHARACTERISTICS:
A. FLOW: 150 GPM.
B. POP-UP HEIGHT: 4 INCHES ABOVEGROUND TO NOZZLE.
C. ARC: FULL OR HALF CIRCLE.
D. RADIUS: 20 FEET.
E. INLET: NPS 3/4.
D. PLASTIC, POP-UP, IMPACT-DRIVE ROTARY SPRINKLERS:
1. DESCRIPTION:
A. CASE: ABS.
B. POP-UP HEIGHT: 4 INCHES ABOVEGROUND TO NOZZLE.
C. SPRINKLER CONSTRUCTION: ABS AND OTHER CORROSION-RESISTANT METALS.
2. CAPACITIES AND CHARACTERISTICS:
A. NOZZLE: BRASS.
B. FLOW: 150 GPM.
C. ARC: FULL OR HALF CIRCLE.
D. RADIUS: 20 FEET.
E. INLET: NPS 3/4.
E. PLASTIC, SURFACE SPRAY SPRINKLERS:
1. DESCRIPTION:
A. BODY MATERIAL AND FLANGE: ABS.
B. PATTERN: FIXED, WITH FLOW ADJUSTMENT.
2. CAPACITIES AND CHARACTERISTICS:
A. NOZZLE: BRASS.
B. FLOW: 150 GPM.
C. ARC: FULL OR HALF CIRCLE.
D. RADIUS: 20 FEET.
E. INLET: NPS 3/4.
F. PLASTIC, SURFACE, POP-UP SPRAY SPRINKLERS:
1. DESCRIPTION:
A. BODY MATERIAL AND FLANGE: ABS.
B. PATTERN: FIXED, WITH FLOW ADJUSTMENT.
2. CAPACITIES AND CHARACTERISTICS:
A. POP-UP HEIGHT: 4 INCHES ABOVEGROUND TO NOZZLE.
B. NOZZLE: BRASS.
C. FLOW: 150 GPM.
D. ARC: FULL OR HALF CIRCLE.
E. RADIUS: 20 FEET.
F. INLET: NPS 3/4.
G. PLASTIC, POP-UP SPRAY SPRINKLERS:
1. DESCRIPTION:
A. BODY MATERIAL: ABS.
B. NOZZLE: BRASS.
C. RETRACTION SPRING: STAINLESS STEEL.
D. INTERNAL PARTS: CORROSION RESISTANT.
E. PATTERN: FIXED, WITH FLOW ADJUSTMENT.
2. CAPACITIES AND CHARACTERISTICS:
A. NOZZLE: BRASS.
B. FLOW: 150 GPM.
C. POP-UP HEIGHT: 4 INCHES ABOVEGROUND TO NOZZLE.
D. ARC: FULL OR HALF CIRCLE.
E. RADIUS: 20 FEET.
F. INLET: NPS 3/4.
H. PLASTIC SHRUB SPRINKLERS:
1. DESCRIPTION:
A. BODY MATERIAL: ABS OR OTHER PLASTIC.
B. PATTERN: FIXED, WITH FLOW ADJUSTMENT.
2. CAPACITIES AND CHARACTERISTICS:
A. FLOW: 150 GPM.
B. ARC: HALF CIRCLE.
C. RADIUS: 10 FEET.
D. MOUNTING HEIGHT: 4 INCHES ABOVEGROUND TO NOZZLE.
E. INLET: NPS 3/4.
2.8 QUICK COUPLERS
A. DESCRIPTION: FACTORY-FABRICATED, BRONZE OR BRASS, TWO-PIECE ASSEMBLY. INCLUDE COUPLER WATER-SEAL VALVE; REMOVABLE UPPER BODY WITH SPRING-LOADED OR WEIGHTED, RUBBER-COVERED CAP; HOSE SWIVEL WITH ASME B1.20.7, 3/4-11.5NH THREADS FOR GARDEN HOSE ON OUTLET; AND OPERATING KEY.
1. LOCKING-TOP OPTION: VANDAL-RESISTANT LOCKING FEATURE. INCLUDE (2) TWO MATCHING KEYS).
2.9 CONTROLLERS
1. DESCRIPTION:
A. CONTROLLER STATIONS FOR AUTOMATIC CONTROL VALVES: EACH STATION IS VARIABLE FROM APPROXIMATELY 5 TO 60 MINUTES. INCLUDE SWITCH FOR MANUAL OR AUTOMATIC OPERATION OF EACH STATION.
2. EXTERIOR CONTROL ENCLOSURES: NEMA 250, TYPE 4, WEATHERPROOF, WITH LOCKING COVER AND TWO MATCHING KEYS; INCLUDE PROVISION FOR GROUNDING.
A. BODY MATERIAL: MOLDED PLASTIC.
B. MOUNTING: SURFACE TYPE FOR WALL.
3. INTERIOR CONTROL ENCLOSURES: NEMA 250, TYPE 12, DRIPPROOF, WITH LOCKING COVER AND TWO MATCHING KEYS.
A. BODY MATERIAL: MOLDED PLASTIC.
B. MOUNTING: SURFACE TYPE FOR WALL.
4. CONTROL TRANSFORMER: 24 V SECONDARY, WITH PRIMARY FUSE.
5. TIMING DEVICE: ADJUSTABLE, 24-HOUR, 14-DAY CLOCK, WITH AUTOMATIC OPERATIONS TO SKIP OPERATION ANY DAY IN TIMER PERIOD, TO OPERATE EVERY OTHER DAY, OR TO OPERATE TWO OR MORE TIMES DAILY.
A. MANUAL OR SEMIAUTOMATIC OPERATION: ALLOWS THIS MODE WITHOUT DISTURBING PRESET AUTOMATIC OPERATION.
B. NICKEL-CADMIUM BATTERY AND TRICKLE CHARGER: AUTOMATICALLY POWERS TIMING DEVICE DURING POWER OUTAGES.
C. SURGE PROTECTION: METAL-OXIDE-VARISTOR TYPE ON EACH STATION AND PRIMARY POWER.
6. MOISTURE SENSOR: ADJUSTABLE FROM ONE TO SEVEN DAYS, TO SHUT OFF WATER FLOW DURING RAIN.
7. SMART CONTROLLERS: USE ET, TESTED IN ACCORDANCE WITH IA SWAT CLIMATOLOGICAL BASED CONTROLLERS 8TH DRAFT TESTING PROTOCOL AND COMPLIANT WITH ASHRAE 189.1.
8. WIRING: UL 483, TYPE UF MULTICONDUCTOR, WITH SOLID-COPPER CONDUCTORS; INSULATED CABLE; SUITABLE FOR DIRECT BURIAL.
A. FEEDER-CIRCUIT CABLES: NO. 12 AWG MINIMUM, BETWEEN BUILDING AND CONTROLLERS.
B. LOW-VOLTAGE, BRANCH-CIRCUIT CABLES: NO. 14 AWG MINIMUM, BETWEEN CONTROLLERS AND AUTOMATIC CONTROL VALVES; COLOR-CODED DIFFERENT FROM FEEDER-CIRCUIT CABLE. JACKET COLOR: WITH JACKETS OF DIFFERENT COLORS FOR MULTIPLE-CABLE INSTALLATION IN SAME TRENCH.
C. SPLICING MATERIALS: MANUFACTURER'S PACKAGED KIT CONSISTING OF INSULATING, SPRING-TYPE CONNECTOR OR CRIMPED JOINT AND EPOXY RESIN MOISTURE SEAL; SUITABLE FOR DIRECT BURIAL.
9. CONCRETE BASE: REINFORCED PRECAST CONCRETE NOT LESS THAN 36 BY 24 BY 4 INCHES THICK, AND 6 INCHES GREATER IN EACH DIRECTION THAN OVERALL DIMENSIONS OF CONTROLLER. INCLUDE OPENING FOR WIRING.
2.10 BOXES FOR AUTOMATIC CONTROL VALVES
A. PLASTIC BOXES:
1. DESCRIPTION: BOX AND COVER, WITH OPEN BOTTOM AND OPENINGS FOR PIPING; DESIGNED FOR INSTALLING FLUSH WITH GRADE.
A. SIZE: AS REQUIRED FOR VALVES AND SERVICE.
B. SHAPE: SQUARE.
C. SIDEWALL MATERIAL: ABS.
D. COVER MATERIAL: ABS.
2. LETTERING: "IRRIGATION"
B. DRAINAGE BACKFILL: CLEANED GRAVEL OR CRUSHED STONE, GRADED FROM 3/4 INCH MINIMUM TO 3 INCHES MAXIMUM.

PART 3 - EXECUTION
3.1 EARTHWORK
A. EXCAVATING, TRENCHING, AND BACKFILLING ARE SPECIFIED IN SECTION 31 20 00 "EARTH MOVING."
B. INSTALL WARNING TAPE DIRECTLY ABOVE PRESSURE PIPING, 12 INCHES BELOW FINISHED GRADES, EXCEPT 6 INCHES BELOW SUBGRADE UNDER PAVEMENT AND SLABS.
C. DRAIN POCKETS: EXCAVATE TO SIZES INDICATED. BACKFILL WITH CLEANED GRAVEL OR CRUSHED STONE, GRADED FROM 3/4 TO 3 INCHES TO 1/2 INCHES BELOW GRADE. COVER GRAVEL OR CRUSHED STONE WITH SHEET OF ASPHALT-SATURATED FELT AND BACKFILL REMAINDER WITH EXCAVATED MATERIAL.
D. PROVIDE MINIMUM COVER OVER TOP OF UNDERGROUND PIPING ACCORDING TO THE FOLLOWING:
1. IRRIGATION MAIN PIPING: MINIMUM DEPTH OF 48 INCHES BELOW FINISHED GRADE, OR NOT LESS THAN 18 INCHES BELOW AVERAGE LOCAL FROST DEPTH, WHICHEVER IS DEEPER.
2. CIRCUIT PIPING: 12 INCHES
3. DRAIN PIPING: 12 INCHES
4. SLEEVES: 24 INCHES
3.2 INSTALLATION OF PIPING
A. LOCATION AND ARRANGEMENT: DRAWINGS INDICATE LOCATION AND ARRANGEMENT OF PIPING SYSTEMS. INSTALL PIPING AS INDICATED UNLESS DEVIATIONS ARE APPROVED ON COORDINATION DRAWINGS.
B. INSTALL PIPING AT MINIMUM UNIFORM SLOPE OF 0.5 PERCENT DOWN TOWARD DRAIN VALVES.
C. INSTALL PIPING FREE OF SAGS AND BENDS.
D. INSTALL GROUPS OF PIPES PARALLEL TO EACH OTHER, SPACED TO PERMIT VALVE SERVICING.
E. INSTALL FITTINGS FOR CHANGES IN DIRECTION AND BRANCH CONNECTIONS.
F. INSTALL UNIONS ADJACENT TO VALVES AND TO FINAL CONNECTIONS TO OTHER COMPONENTS WITH NPS 2 OR SMALLER PIPE CONNECTION.
G. INSTALL FLANGES ADJACENT TO VALVES AND TO FINAL CONNECTIONS TO OTHER COMPONENTS WITH NPS 2-1/2 OR LARGER PIPE CONNECTION.
H. INSTALL UNDERGROUND THERMOPLASTIC PIPING IN ACCORDANCE WITH ASTM D2774.
I. INSTALL EXPANSION LOOPS IN CONTROL-VALVE BOXES FOR PLASTIC PIPING.
J. LAY PIPING ON SOLID SUBBASE, UNIFORMLY SLOPED WITHOUT HUMPS OR DEPRESSIONS.
K. INSTALL DUCTILE-IRON PIPING IN ACCORDANCE WITH AWWA C900.
L. INSTALL PVC PIPING IN DRY WEATHER WHEN TEMPERATURE IS ABOVE 40 DEG F. ALLOW JOINTS TO CURE AT LEAST 24 HOURS AT TEMPERATURES ABOVE 40 DEG F BEFORE TESTING.
3.3 JOINT CONSTRUCTION
A. REAM ENDS OF PIPES AND TUBES AND REMOVE BURRS. BEVEL PLAIN ENDS OF STEEL PIPE.
B. REMOVE SCALE, SLAG, DIRT, AND DEBRIS FROM INSIDE AND OUTSIDE OF PIPE AND FITTINGS BEFORE ASSEMBLY.
C. THREADED JOINTS: THREAD PIPE WITH TAPERED PIPE THREADS IN ACCORDANCE WITH ASME B1.20.1. CUT THREADS FULL AND CLEAN USING SHARP DIES. REAM THREADED PIPE ENDS TO REMOVE BURRS AND RESTORE FULL ID. JOIN PIPE FITTINGS AND VALVES AS FOLLOWS:
1. APPLY APPROPRIATE TAPE OR THREAD COMPOUND TO EXTERNAL PIPE THREADS UNLESS DRY SEAL THREADING IS SPECIFIED.
2. DAMAGED THREADS: DO NOT USE PIPE OR PIPE FITTINGS WITH THREADS THAT ARE CORRODED OR DAMAGED. DO NOT USE PIPE SECTIONS THAT HAVE CRACKED OR OPEN WELDS.
D. FLANGED JOINTS: SELECT RUBBER GASKET MATERIAL OF SIZE, TYPE, AND THICKNESS FOR SERVICE APPLICATION. INSTALL GASKET CONCENTRICALLY POSITIONED. USE SUITABLE LUBRICANTS ON BOLT THREADS.
E. DUCTILE-IRON PIPING GASKETED JOINTS: COMPLY WITH AWWA C600 AND AWWA M41.
F. COPPER-TUBING BRAZED JOINTS: CONSTRUCT JOINTS IN ACCORDANCE WITH CDAS "COPPER TUBE HANDBOOK," USING COPPER-PHOSPHORUS BRAZING FILLER METAL.
G. COPPER-TUBING SOLDERED JOINTS: APPLY ASTM B813 WATER-FLUSHABLE FLUX TO TUBE END UNLESS OTHERWISE INDICATED. CONSTRUCT JOINTS IN ACCORDANCE WITH ASTM B828 OR CDAS "COPPER TUBE HANDBOOK," USING LEAD-FREE SOLDER ALLOY (0.20 PERCENT MAXIMUM LEAD CONTENT) COMPLYING WITH ASTM B32.
H. PE PIPING FASTENER JOINTS: JOIN WITH INSERT FITTINGS AND BANDS OR FASTENERS IN ACCORDANCE WITH PIPING MANUFACTURER'S WRITTEN INSTRUCTIONS.
I. PVC PIPING SOLVENT-CEMENTED JOINTS: CLEAN AND DRY JOINING SURFACES. JOIN PIPE AND FITTINGS IN ACCORDANCE WITH THE FOLLOWING:
1. COMPLY WITH ASME F402 FOR SAFE HANDLING PRACTICE OF CLEANERS, PRIMERS, AND SOLVENT CEMENTS.
2. PVC PRESSURE PIPING: JOIN SCHEDULE NUMBER, ASTM D1785, PVC PIPE AND PVC SOCKET FITTINGS IN ACCORDANCE WITH ASTM D2672. JOIN OTHER-THAN-SCHEDULE-NUMBER PVC PIPE AND SOCKET FITTINGS IN ACCORDANCE WITH ASTM D2865.
3. PVC NONPRESSURE PIPING: JOIN IN ACCORDANCE WITH ASTM D2865.
3.4 INSTALLATION OF VALVES
A. UNDERGROUND CURB VALVES: INSTALL IN CURB-VALVE CASINGS WITH TOPS FLUSH WITH GRADE.
B. UNDERGROUND IRON GATE VALVES, RESILIENT SEAT: COMPLY WITH AWWA C600 AND AWWA M44. INSTALL IN VALVE CASING WITH TOP FLUSH WITH GRADE.
1. INSTALL VALVES AND PVC PIPE WITH RESTRAINED, GASKETED JOINTS.
C. ABOVEGROUND VALVES: INSTALL AS COMPONENTS OF CONNECTED PIPING SYSTEM.
D. THROTTLING VALVES: INSTALL IN UNDERGROUND PIPING IN BOXES FOR AUTOMATIC CONTROL VALVES.
E. DRAIN VALVES: INSTALL IN UNDERGROUND PIPING IN BOXES FOR AUTOMATIC CONTROL VALVES.
3.5 INSTALLATION OF SPRINKLERS
A. INSTALL SPRINKLERS AFTER HYDROSTATIC TEST IS COMPLETED.
B. INSTALL SPRINKLERS AT MANUFACTURER'S RECOMMENDED HEIGHTS.
C. LOCATE PART-CIRCLE SPRINKLERS TO MAINTAIN A MINIMUM DISTANCE OF 4 INCHES FROM WALLS AND 2 INCHES FROM OTHER BOUNDARIES UNLESS OTHERWISE INDICATED.
3.6 INSTALLATION OF AUTOMATIC IRRIGATION CONTROL SYSTEM
A. FLOW: 150 GPM.
1. PLACE AND SECURE ANCHORAGE DEVICES. USE SETTING DRAWINGS, TEMPLATES, DIAGRAMS, INSTRUCTIONS, AND DIRECTIONS FURNISHED WITH ITEMS TO BE EMBEDDED.
2. INSTALL ANCHOR BOLTS TO ELEVATIONS REQUIRED FOR PROPER ATTACHMENT TO SUPPORTED EQUIPMENT.
B. EQUIPMENT MOUNTING, EXTERIOR: INSTALL EXTERIOR FREESTANDING CONTROLLERS ON PRECAST CONCRETE BASES.
1. PLACE AND SECURE ANCHORAGE DEVICES. USE SETTING DRAWINGS, TEMPLATES, DIAGRAMS, INSTRUCTIONS, AND DIRECTIONS FURNISHED WITH ITEMS TO BE EMBEDDED.
2. INSTALL ANCHOR BOLTS TO ELEVATIONS REQUIRED FOR PROPER ATTACHMENT TO SUPPORTED EQUIPMENT.
C. INSTALL CONTROL CABLE IN SAME TRENCH AS IRRIGATION PIPING AND AT LEAST 2 INCHES BELOW OR BESIDE PIPING. PROVIDE CONDUCTORS OF SIZE NOT SMALLER THAN RECOMMENDED BY CONTROLLER MANUFACTURER. INSTALL CABLE IN SEPARATE SLEEVE UNDER PAVED AREAS.
3.7 IDENTIFICATION
A. IDENTIFY SYSTEM COMPONENTS. COMPLY WITH REQUIREMENTS FOR IDENTIFICATION SPECIFIED IN SECTION 22 05 53 "IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT."
B. EQUIPMENT NAMEPLATES AND SIGNS: INSTALL ENGRAVED PLASTIC-LAMINATE EQUIPMENT NAMEPLATES AND SIGNS ON EACH AUTOMATIC CONTROLLER.
1. TEXT: IN ADDITION TO IDENTIFYING UNIT, DISTINGUISH BETWEEN MULTIPLE UNITS. INFORM OPERATOR OF OPERATIONAL REQUIREMENTS, INDICATE SAFETY AND EMERGENCY PRECAUTIONS, AND WARN OF HAZARDS AND IMPROPER OPERATIONS.
C. WARNING TAPES: ARRANGE FOR INSTALLATION OF CONTINUOUS, UNDERGROUND, DETECTABLE WARNING TAPES OVER UNDERGROUND PIPING DURING BACKFILLING OF TRENCHES. SEE SECTION 31 20 00 "EARTH MOVING" FOR WARNING TAPES.
3.8 FIELD QUALITY CONTROL
A. PERFORM TESTS AND INSPECTIONS.
B. TESTS AND INSPECTIONS:
1. LEAK TEST: AFTER INSTALLATION, CHARGE SYSTEM AND TEST FOR LEAKS. REPAIR LEAKS AND RETEST UNTIL NO LEAKS EXIST.
2. OPERATIONAL TEST: AFTER ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, OPERATE CONTROLLERS AND AUTOMATIC CONTROL VALVES TO CONFIRM PROPER SYSTEM OPERATION.
3. TEST AND ADJUST CONTROLS AND SAFETIES. REPLACE DAMAGED AND MALFUNCTIONING CONTROLS AND EQUIPMENT.
4. IRRIGATION SYSTEM WILL BE CONSIDERED DEFECTIVE IF IT DOES NOT PASS TESTS AND INSPECTIONS.
C. PREPARE TEST AND INSPECTION REPORTS.
3.9 ADJUSTING
A. ADJUST SETTINGS OF CONTROLLERS.
B. ADJUST AUTOMATIC CONTROL VALVES TO PROVIDE FLOW RATE AT RATED OPERATING PRESSURE REQUIRED FOR EACH SPRINKLER CIRCUIT.
C. ADJUST SPRINKLERS AND DEVICES, EXCEPT THOSE INTENDED TO BE MOUNTED ABOVEGROUND, SO THEY WILL BE FLUSH WITH, OR NOT MORE THAN 1/2 INCH ABOVE, FINISH GRADE.
3.10 PIPING SCHEDULE
A. INSTALL COMPONENTS HAVING PRESSURE RATINGS EQUAL TO OR GREATER THAN SYSTEM OPERATING PRESSURE.
B. PIPING IN CONTROL-VALVE BOXES AND ABOVEGROUND MAY BE JOINED WITH FLANGES OR UNIONS INSTEAD OF JOINTS INDICATED.
C. ABOVEGROUND IRRIGATION MAIN PIPING:
1. NPS 4 AND SMALLER:
A. GALVANIZED-STEEL PIPE AND GALVANIZED-STEEL PIPE NIPPLES; GALVANIZED, GRAY-IRON THREADED FITTINGS; AND THREADED JOINTS.
B. TYPE M HARD COPPER TUBE, WROUGHT-OR CAST-COPPER FITTINGS, AND SOLDERED JOINTS.
C. SCHEDULE 80, PVC PIPE, SOCKET-TYPE PVC FITTINGS, AND SOLVENT-CEMENTED JOINTS.
D. SCHEDULE 80, PVC PIPE, SCHEDULE 80, THREADED PVC FITTINGS, AND THREADED JOINTS.
D. UNDERGROUND IRRIGATION MAIN PIPING:
1. NPS 4 AND SMALLER:
A. NPS 3 AND NPS 4 DUCTILE-IRON, PUSH-ON JOINT PIPE; DUCTILE-IRON, PUSH-ON JOINT FITTINGS AND GASKETS; AND GASKETED JOINTS.
B. TYPE M HARD COPPER TUBE, WROUGHT-OR CAST-COPPER FITTINGS, AND SOLDERED JOINTS.
C. SCHEDULE 80, PVC PIPE AND SOCKET FITTINGS, AND SOLVENT-CEMENTED JOINTS.
D. SCHEDULE 80, PVC PIPE, SCHEDULE 80, THREADED PVC FITTINGS, AND THREADED JOINTS.
E. SDR 21, PVC, PRESSURE-RATED PIPE; SCHEDULE 80, PVC SOCKET FITTINGS; AND SOLVENT-CEMENTED JOINTS.
F. CIRCUIT PIPING:
1. NPS 2 AND SMALLER:
A. SDR 9, PE, CONTROLLED ID PIPE; INSERT FITTINGS FOR PE PIPE; AND FASTENER JOINTS.
B. SCHEDULE 40, PVC PIPE AND SOCKET FITTINGS; AND SOLVENT-CEMENTED JOINTS.
C. SDR 26, PVC, PRESSURE-RATED PIPE; SCHEDULE 40, PVC SOCKET FITTINGS; AND SOLVENT-CEMENTED JOINTS.
2. NPS 2-1/2 TO NPS 4:
A. SDR 9, PE, CONTROLLED ID PIPE; INSERT FITTINGS FOR PE PIPE; AND Banded OR FASTENER JOINTS.
B. DR 11, PE, CONTROLLED ID PIPE; PE SOCKET OR BUTT-FUSION FITTINGS; AND HEAT-FUSION JOINTS. NPS 3 PIPE AND FITTINGS IF NPS 2-1/2 PIPE AND FITTINGS ARE NOT AVAILABLE.
C. SCHEDULE 40, PVC PIPE AND SOCKET FITTINGS; AND SOLVENT-CEMENTED JOINTS.
D. SDR 26, PVC, PRESSURE-RATED PIPE; SCHEDULE 40, PVC SOCKET FITTINGS; AND SOLVENT-CEMENTED JOINTS.
F. UNDERGROUND BRANCHES AND OFFSETS AT SPRINKLERS AND DEVICES: SCHEDULE 80, PVC PIPE; THREADED PVC FITTINGS; AND THREADED JOINTS.
1. OPTION: PLASTIC SWING-JOINT ASSEMBLIES, WITH OFFSETS FOR FLEXIBLE JOINTS, MANUFACTURED FOR THIS APPLICATION.
G. RISERS TO ABOVEGROUND SPRINKLERS AND SPECIALTIES:
1. TYPE M HARD COPPER TUBE, WROUGHT-COPPER FITTINGS, AND SOLDERED JOINTS.
2. SCHEDULE 80, PVC PIPE AND SOCKET FITTINGS; AND SOLVENT-CEMENTED JOINTS.
H. DRAIN PIPING SHALL BE [E] ONE OF THE FOLLOWING:
1. SDR 9, 11.5, OR 15, PE, CONTROLLED ID PIPE; INSERT FITTINGS FOR PE PIPE; AND Banded OR FASTENER JOINTS.
2. SCHEDULE 40, PVC PIPE AND SOCKET FITTINGS; AND SOLVENT-CEMENTED JOINTS.
3. SDR 21, OR SDR 25, PVC, PRESSURE-RATED PIPE; SCHEDULE 40, PVC SOCKET FITTINGS; AND SOLVENT-CEMENTED JOINTS.
3.11 VALVE SCHEDULE
A. UNDERGROUND, SHUTOFF-DUTY VALVES: USE THE FOLLOWING:
1. NPS 2 AND SMALLER: CURB VALVE, CURB-VALVE CASING, AND SHUTOFF ROD.
2. NPS 3 AND LARGER: IRON GATE VALVE, RESILIENT SEATED; IRON GATE VALVE CASING; AND OPERATING WRENCH(ES).
B. ABOVEGROUND, SHUTOFF-DUTY VALVES:
1. NPS 2 AND SMALLER:
A. BRASS BALL VALVE.
B. BRONZE GATE VALVE.
2. NPS 2-1/2 AND LARGER:
A. IRON BALL VALVE.
B. IRON GATE VALVE.
C. THROTTLING-DUTY VALVES:
1. NPS 2 AND SMALLER:
A. PLASTIC AUTOMATIC CONTROL VALVE.
B. BRASS BALL VALVE.
2. NPS 2-1/2 AND NPS 3:
A. PLASTIC AUTOMATIC CONTROL VALVE.
3. PLASTIC AUTOMATIC CONTROL VALVE.
4. IRON BALL VALVE.
D. DRAIN VALVES:
1. NPS 1/2 AND NPS 3/4:
A. AUTOMATIC DRAIN VALVE.
2. NPS 2-1/2 AND NPS 3:
A. BRASS BALL VALVE.
B. BRONZE GATE VALVE.
2. NPS 1 TO NPS 2:
A. BRASS BALL VALVE.
B. BRONZE GATE VALVE.

END OF SECTION 32 84 00

OWNER

DARTMOUTH HITCHCOCK CLINIC
1 MEDICAL CENTER DRIVE
LEBANON, NH 03756
P. () F. ()

CONSTRUCTION MANAGER

NA

CONSULTANTS:

CIVIL
NOBIS GROUP
18 CHENNEL DRIVE
CONCORD, NH 03301
(603) 224-4182

LANDSCAPE

WARRENSTREET ARCHITECTS
4 CRESCENT STREET, UNIT 2
CONCORD, NH 03303
(603) 225-0640

STRUCTURAL

MECHANICAL/PLUMBING

ELECTRICAL

OTHER

Warrenstreet

Planning Landscapes Architecture Interiors

WARRENSTREET ARCHITECTS, INC.
4 CRESCENT STREET, UNIT 2
CONCORD, NEW HAMPSHIRE 03303
P. (603) 225-0640
WWW.WARRENSTREET.COOP

SEAL:

JONATHAN
R.
HALLE

11/10

PROJECT TITLE / ADDRESS:

DARTMOUTH HITCHCOCK
MEDICAL CENTER

253 PLEASANT STREET
CONCORD, NH 03301

PLAN KEY:

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PROJECT #: 1234 CHK BY: Checker
PRINT DATE: 6/16/2026 7:35:59 PM

ISSUE DATE: 06/11/2026

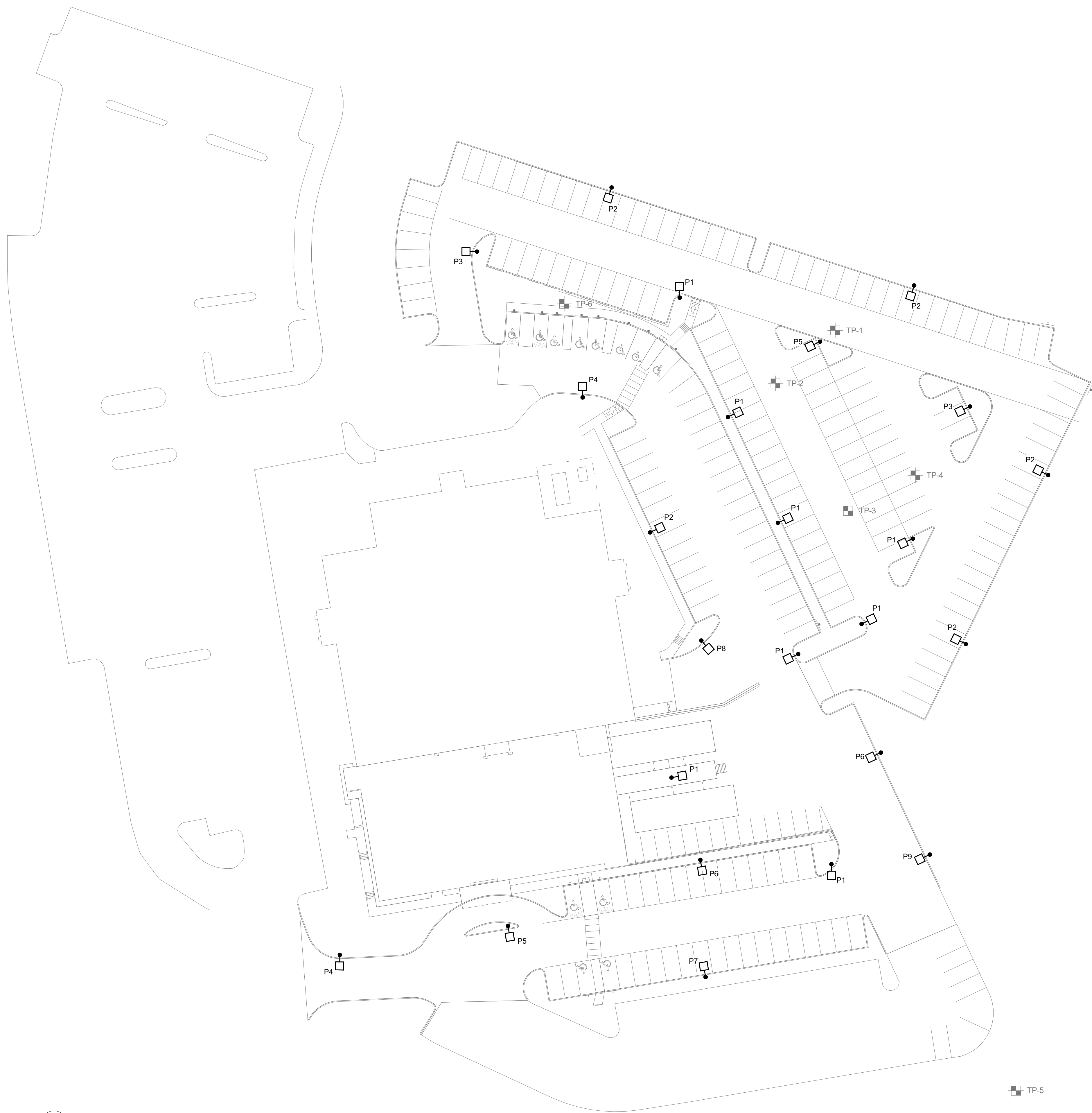
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SCHEMATIC DESIGN

REV.	DATE	COMMENTS

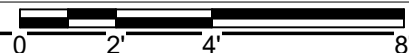
IRRIGATION SPECIFICATIONS

LA106

SHEET NUMBER: 7 OF 6 LANDSCAPE
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1 ELECTRICAL LIGHTING SITE PLAN
E321 3/8" = 1'-0"



DARTMOUTH HEALTH

DARTMOUTH-HEALTH- CONCORD EXPANSION

ELECTRICAL LIGHTING SITE PLAN

SCALE: 3/8" = 1'-0"

LAVALLEE BRENSINGER ARCHITECTS

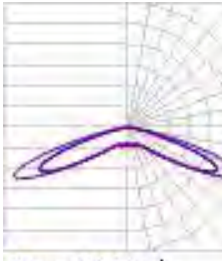
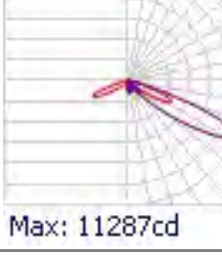
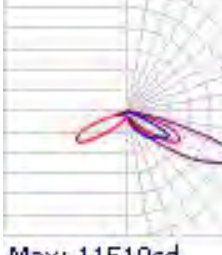
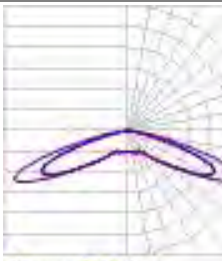
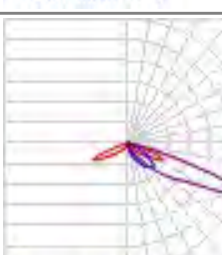
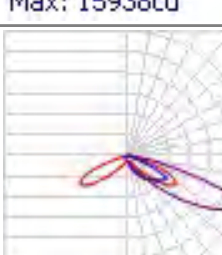
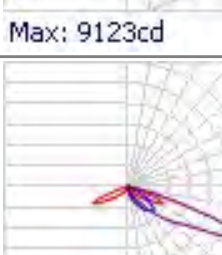


06/18/2026



Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
INNER PERIMETER (10')	+	0.7 fc	4.6 fc	0.2 fc	23.0:1	3.5:1
OUTER PERIMETER	+	0.2 fc	0.8 fc	0.0 fc	N/A	N/A
PARKING AREA 1	+	1.9 fc	4.4 fc	0.5 fc	8.8:1	3.8:1
PARKING AREA 2	+	2.3 fc	6.1 fc	0.6 fc	10.2:1	3.8:1
ROADWAY	+	1.9 fc	3.6 fc	0.6 fc	6.0:1	3.2:1

Schedule											
Symbol	Label	Image	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage	Polar Plot
	P1		8	ASLI-160L-100-4K7-SQW		B-70-CRI	1	12073	0.9	87.6	 Max: 5462cd
	P2		5	ASLI-160L-70-4K7-2-BC	AIRO MICROSTRIKE	B-70-CRI	1	5468	0.9	68.4	 Max: 11287cd
	P3		2	ASLI-160L-115-4K7-SQW		B-70-CRI	1	15634	0.9	109.7	 Max: 6534cd
	P4		2	ASLI-160L-100-4K7-3		B-70-CRI	1	12012	0.9	87.6	 Max: 11519cd
	P5		2	ASLI-160L-115-4K7-SQW		B-70-CRI	1	15634	0.9	109.7	 Max: 6534cd
	P6		2	ASLI-160L-115-4K7-3-BC	AIRO MICROSTRIKE	B-70-CRI	1	10611	0.9	109.7	 Max: 15938cd
	P7		1	ASLI-160L-135-4K7-3		B-70-CRI	1	17760	0.9	133.1	 Max: 17361cd
	P8		1	ASLI-160L-70-4K7-3		B-70-CRI	1	9514	0.9	68.4	 Max: 9123cd
	P9		1	ASLI-160L-70-4K7-3-BC	AIRO MICROSTRIKE	B-70-CRI	1	6553	0.9	68.4	 Max: 9843cd

FEATURES

- Compact sleek design with multiple LED configurations and simple installation
- Field interchangeable mounting provides additional flexibility after the fixture has shipped
- Capable of replacing up to 1000W HID luminaires
- Micro Strike optical distributions of Type 2, 3, 4F, 4W or 5GW
- Tool-less entry option for easy installation and maintenance
- 3G rated for high vibration applications including bridges and overpasses



CONTROL TECHNOLOGY



SERVICE PROGRAMS



SPECIFICATIONS

CONSTRUCTION
• Die-cast corrosion

- Housing with smooth exterior and concealed front face for efficient thermal performance
 - Durable TGIC polyester powder coat finish (2.5 mil nominal)
 - Separate optical and electrical compartments for improved thermal management and component reliability
- ### OPTICS
- Full optical aperture illumination creates a larger luminous surface for low-grade applications
 - Precision optically lensed provide ES Type III, IIIA, IV (Forward & Wide), and V (Wide) distributions
 - Field-rotatable or interchangeable optics (80° increments) for on-site aiming flexibility
 - Available in 3000K, 4000K, or 5000K (70 CRI)
 - Configured with 1600 or 320 mcd power LEDs
 - Zero uplight at 0° tilt
- Arm mount compatible with E3 drill pattern
 - Optional universal mounting block for retrofit applications (square or round poles)
 - Field-interchangeable mounting options available
- ### ELECTRICAL
- Universal voltage: 120-277V or 347-480V, 50/60 Hz
 - Operating temperature: -40°C to 40°C
 - 80% power factor, <2% THD
 - Integrated drive protections: over-voltage, over-current, short circuit with auto-recovery
 - Standard 8kV surge protection; optional field-replaceable SPD provides 20kA/10kV surge protection per ANSI/IEEE C62.41 Category C
- ### CONTROLS
- Available photocells, occupancy sensors, and ZigBee wireless for on/off and dimming
 - Optional 7-pin ANSI C136.41 receptacle for

INSTALLATION
• Optional tool

- Arm mounting compatible with B3 drill pattern
 - Optional universal mounting block for retrofit applications (square or round poles)
 - Field-interchangeable mounting options available
- ELECTRICAL**
- Universal voltage: 120-277V or 347-480V, 50/60 Hz
 - Operating temperature: -40°C to 40°C
 - 90% power factor, <20% THD

CERTIFICATIONS
• UL 1598 and CS

- DLC® Qualified (select configurations Premium)
 - ANSI C136.31 3G vibration rated
 - IP65-rated optical chamber
 - Complies with Buy American Act and Trade Agreements Act
- WARRANTY**
- 5 Year warranty

