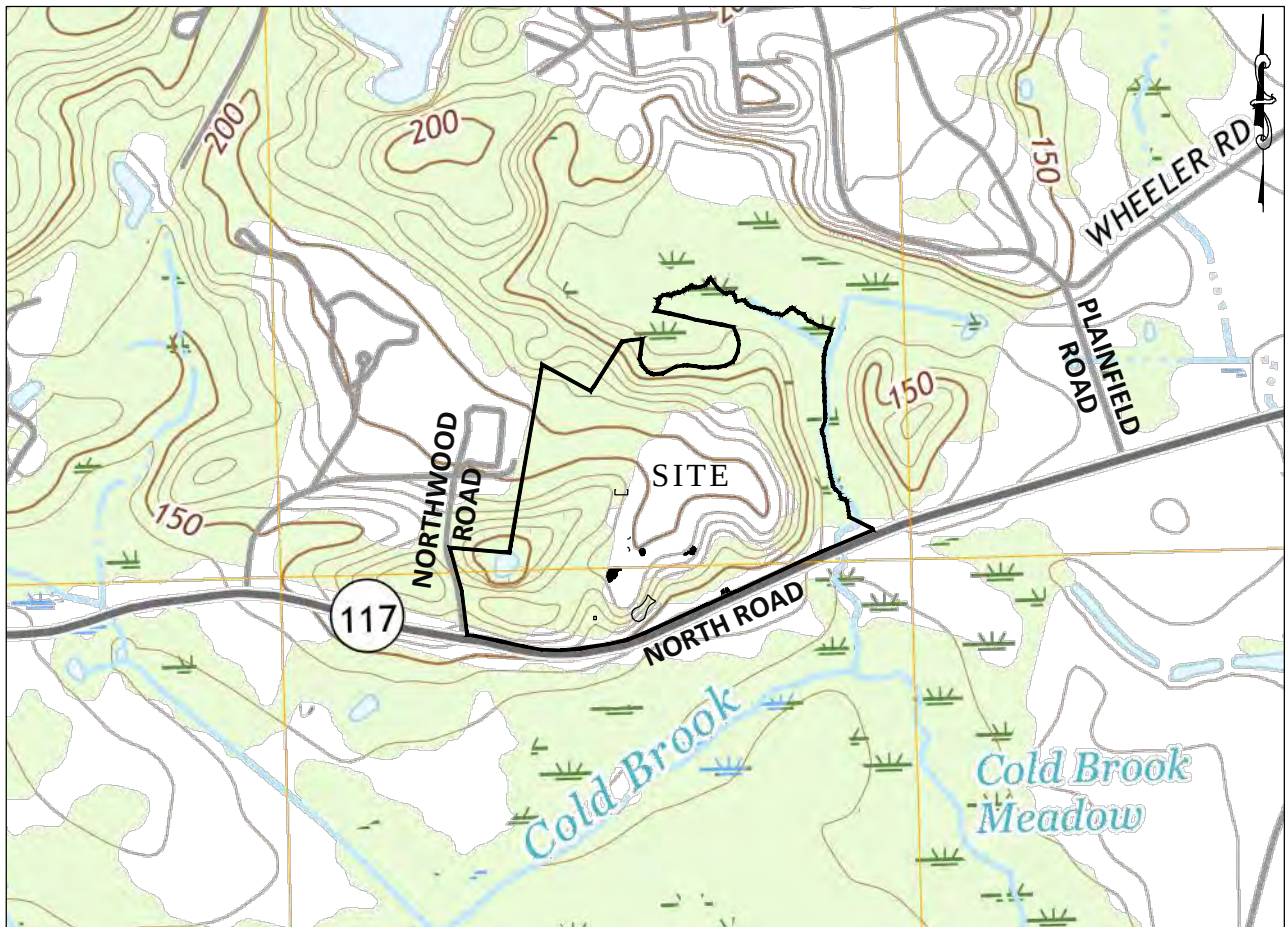




**LOCUS PLAN**  
SCALE: 1"=1000'±

| DATE       | DATE REVISED | SHEET NUMBER  | SHEET DESCRIPTION                            |
|------------|--------------|---------------|----------------------------------------------|
| 03/11/2020 | -            | 1             | COVER SHEET                                  |
| 03/11/2020 | -            | 2             | LEGEND & NOTES                               |
| 05/14/2019 | 07/15/2019   | 3             | EXISTING CONDITIONS PLAN                     |
| 03/11/2020 | -            | 4             | SITE CONTEXT PLAN                            |
| 03/11/2020 | -            | 5             | SITE PREPARATION & EROSION CONTROL PLAN      |
| 03/11/2020 | -            | 6             | OVERALL LAYOUT PLAN                          |
| 03/11/2020 | -            | 7             | LAYOUT PLAN A                                |
| 03/11/2020 | -            | 8             | LAYOUT PLAN B                                |
| 03/11/2020 | -            | 9             | LAYOUT PLAN C                                |
| 03/11/2020 | -            | 10            | GRADING & DRAINAGE PLAN A                    |
| 03/11/2020 | -            | 11            | GRADING & DRAINAGE PLAN B                    |
| 03/11/2020 | -            | 12            | GRADING & DRAINAGE PLAN C                    |
| 03/11/2020 | -            | 13            | UTILITY PLAN A                               |
| 03/11/2020 | -            | 14            | UTILITY PLAN B                               |
| 03/11/2020 | -            | 15            | UTILITY PLAN C                               |
| 03/11/2020 | -            | 16 ~ 24       | PLAN & PROFILE SHEETS                        |
| 03/11/2020 | -            | 25            | CONSTRUCTION PHASING                         |
| 03/11/2020 | -            | 26 ~ 32       | CONSTRUCTION DETAILS                         |
| 03/11/2020 | -            | L-001 ~ L-015 | LANDSCAPE, LIGHTING, & SIGNAGE PLANS/DETAILS |
| 03/06/2020 | -            | 2 SHEETS      | LEACH FIELD PLANS *                          |
| 03/11/2020 | -            | 9 SHEETS      | WASTE WATER TREATMENT FACILITY PLANS *       |
| 03/11/2020 | -            | A-1 ~ A-38    | ARCHITECTURAL PLANS *                        |

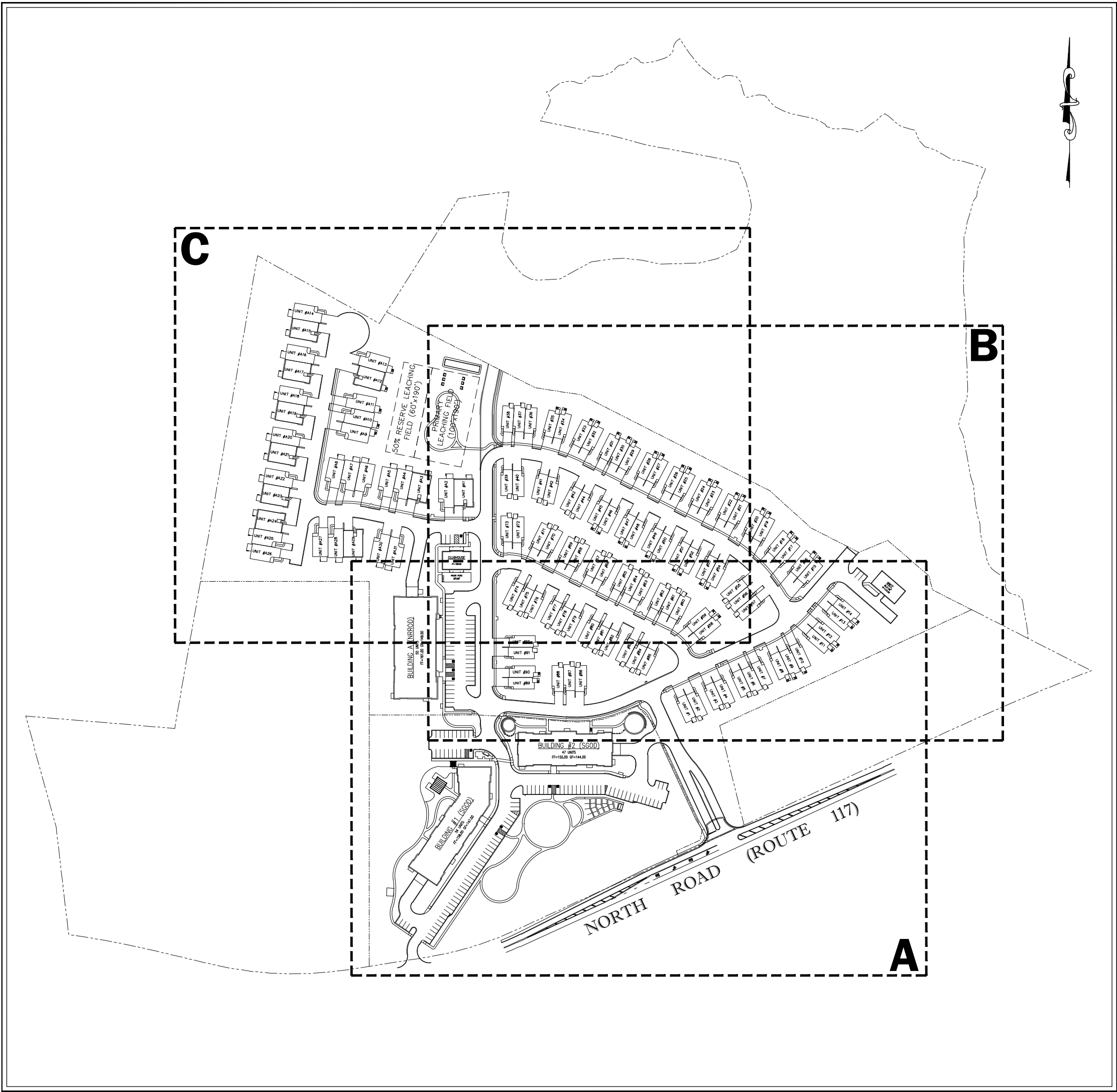
\* BOUND SEPARATELY

# SITE PLAN

## FOR

# COLD BROOK CROSSING

NORTH ROAD RESIDENTIAL OVERLAY DISTRICT (NRROD)  
& SMART GROWTH OVERLAY DISTRICT (SGOD)  
NORTH ROAD  
SUDBURY, MASSACHUSETTS



**OVERALL LAYOUT PLAN**  
SCALE: 1"=200'

**SURVEY:**  
SULLIVAN, CONNORS AND ASSOCIATES  
121 BOSTON POST ROAD  
SUDBURY, MA 01776  
978-443-9566  
CONTACT: VAROUJAN HAGOPIAN, P.L.S.

**WETLANDS:**  
LEC ENVIRONMENTAL CONSULTANTS  
380 LOWELL STREET, SUITE 101  
WAKEFIELD, MA 01880  
508-813-4129  
CONTACT: RICHARD KIRBY

**CONSULTANTS:**  
**LANDSCAPE ARCHITECT:**  
BOHLER  
352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
508-480-9900  
CONTACT: MATTHEW MRVA, RLA

**TRAFFIC:**  
MDM TRANSPORTATION CONSULTANTS, INC.  
28 LORD ROAD, SUITE 280  
MARLBOROUGH, MA 01752  
508-303-0370  
CONTACT: ROBERT MICHAUD, P.E.

**WASTE WATER TREATMENT FACILITY:**  
ON SITE ENGINEERING  
279 EAST CENTRAL STREET  
FRANKLIN, MA 02038  
508-553-0616  
CONTACT: RAY WILLIS

**WASTE WATER LEACH FIELD:**  
PROVENCHER ENGINEERING  
6 WASSERMAN HEIGHTS  
MERRIMACK, NH 03054  
603-883-4444  
CONTACT: DONALD PROVENCHER, P.E.

PLANNING BOARD:

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\_\_\_\_\_

**PREPARED BY:**

**CIVIL DESIGN  
GROUP, LLC**

21 HIGH STREET SUITE 207  
NORTH ANDOVER, MA 01845  
www.cdengineering.com  
p: 978-794-5400  
f: 978-965-3971  
CONTACT: MATTHEW LEIDNER, P.E.

**PREPARED FOR:**

**QUARRY NORTH ROAD, LLC**  
2134 SEVILLA WAY  
NAPLES, FL 34109

NOT FOR CONSTRUCTION

CDG PROJECT #: 19044 & 19045

SEAL:



*Matthew A. Leidner*  
MATTHEW A. LEIDNER, P.E.

SHEET:

**COVER SHEET**

**1**

DATE: 03/11/2020



GENERAL NOTES

1. ZONING INFORMATION OBTAINED FROM THE TOWN OF SUDBURY ZONING MAP, DATED OCTOBER 15, 2007, THE TOWN OF SUDBURY ZONING BYLAWS, REVISED THROUGH MAY 6, 2019.
2. THE PROJECT IS SUBJECT TO APPROVAL(S) BY THE SUDBURY PLANNING BOARD. THE CONTRACTOR SHALL BECOME FAMILIAR WITH AND ADHERE TO ALL CONSTRUCTION-RELATED REQUIREMENTS OF THE THESE APPROVALS.
3. THE CONTRACTOR SHALL GIVE TWENTY-FOUR (24) HOUR NOTICE TO PERTINENT TOWN DEPARTMENTS BEFORE COMMENCING ANY WORK IN THE FIELD.
4. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, SITE ENGINEER, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION.
5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS, AND PLANT SPECIFICATIONS TO THE OWNER AND SITE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
6. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF THE CONSTRUCTION.

SITE & DEMOLITION NOTES

1. THE LOCATION AND ELEVATION OF EXISTING UTILITIES AND STRUCTURES SHOWN ON THESE PLANS ARE BASED ON MEASUREMENTS TAKEN IN THE FIELD AND DISCOVERED RECORDS FROM VARIOUS UTILITY COMPANIES AND/OR FROM THE MUNICIPALITY. THIS INFORMATION SHALL NOT BE CONSIDERED EXACT AND THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL NOTIFY "DIG SAFE" (811) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXISTING UTILITY MARK OUT LOCATIONS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF EXISTING UTILITY LOCATIONS CONFLICT WITH THE PROPOSED DEVELOPMENT PROGRAM SO THAT A REMEDIAL ACTION CAN TAKE PLACE PRIOR TO ANY WORK. THE CONTRACTOR IS RESPONSIBLE FOR RELOCATING ALL EXISTING UTILITIES AS A RESULT OF THE PROPOSED DEVELOPMENT.
2. EXISTING BASE INFORMATION INCLUDING PROPERTY LINE, STRUCTURES, UTILITIES AND TOPOGRAPHY ARE TAKEN FROM PLAN ENTITLED "EXISTING CONDITIONS PLAN OF #16, 36, 0 NORTH STREET IN SUDBURY, MASS.," PREPARED BY SULLIVAN, CONNORS, AND ASSOCIATES, LAST UPDATED JULY 15, 2019, CONSISTING OF 1 SHEET.
3. ELEVATIONS SHOWN ARE BASED ON THE DATUM REFERENCED ON THE EXISTING CONDITIONS PLAN.
4. ALL WORK MUST BE INSPECTED PER TOWN REQUIREMENTS. CONTRACTOR SHALL CONTACT THE TOWN BUILDING DEPARTMENT PRIOR TO THE START OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING ALL CONSTRUCTION RELATED CONDITIONS OUTLINED IN THE APPROVALS IN ADDITION TO THE ITEMS OUTLINED IN THESE CONSTRUCTION DOCUMENTS.
6. THE LIMIT OF WORK FOR THIS PROJECT SHALL BE SHOWN ON THE PLANS AS SAWCUT LINES, EROSION CONTROL BARRIER LINES, AND/OR CONSTRUCTION DELINEATION FENCE LINES. LIMIT OF WORK LINES AND SHALL BE MARKED IN THE FIELD PRIOR TO CONSTRUCTION. EXISTING FEATURES OUTSIDE LIMIT OF WORK LINE ARE TO REMAIN UNLESS OTHERWISE SPECIFIED AND THE EXISTING FEATURES WITHIN LIMIT OF WORK LINE SHALL BE REMOVED UNLESS OTHERWISE SPECIFIED.
7. THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION MEETING WITH THE ENGINEER AND MUNICIPAL OFFICIALS PRIOR TO THE START OF CONSTRUCTION.
8. ALL DISTURBED OFF-SITE AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION.
9. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED PER THE DETAIL WHEREVER CONSTRUCTION ACCESS EXISTS. PAVED AREAS SHALL BE KEPT CLEAN AT ALL TIMES.
10. PEDESTRIAN AND VEHICULAR ACCESS WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE KEPT CLEAN AND IN FUNCTIONAL CONDITION THROUGHOUT CONSTRUCTION.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS AND UTILITY CONNECTION/DISCONNECTION FEES RELATED TO THE PROJECT. CONTRACTOR SHALL NOTIFY AND COORDINATE ALL UTILITY WORK WITH THE APPLICABLE UTILITY COMPANIES AND/OR LOCAL DEPARTMENTS. ALL PERMITS SHALL BE KEPT WITHIN THE TRAILER AND CLEARLY VISIBLE.
12. THE OFFSITE DISPOSAL OF ALL DEMOLISHED MATERIALS SHALL COMPLY WITH THE APPLICABLE LOCAL, STATE AND FEDERAL GUIDELINES.
13. FILL MATERIAL(S) SHALL NOT CONTAIN HAZARDOUS MATERIALS.
14. CONSTRUCTION DUMPSTERS SHALL BE LOCATED ON A STABLE SURFACE, PROPERLY MAINTAINED, AND EMPTIED ON A REGULAR BASIS.
15. THE CONTRACTOR IS RESPONSIBLE FOR THE GENERAL UPKEEP OF THE SITE DURING THE CONSTRUCTION PROCESS.

SITE LAYOUT NOTES

1. ALL STATION LABELS PERTAIN TO CENTERLINE OF ROAD GEOMETRY.
2. NO BUILDINGS, BUILDING PROJECTIONS, OR APPURTENANT STRUCTURES SUCH AS DECKS AND STAIRS SHALL BE CONSTRUCTED IN THE REQUIRED BUILDING SETBACKS.
3. CURB WITHIN THE SITE LIMITS SHALL BE CAPE COD BERM (CCB), WITH VERTICAL GRANITE CURB (VGC) AT RAMPS WHERE CURB TRANSITIONS FROM REVEAL TO NO REVEAL.
4. PAVEMENT MARKINGS AND STRIPING SHALL PAINTED WITH 2 COATS OF WHITE PAINT PER FEDERAL SPECIFICATION T1-P-115 TYPE 1: ALKYD.
5. CROSSWALK MARKINGS SHALL MEET THE REQUIREMENTS OF SECTION 3B.17 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AS PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION (LATEST EDITION).
6. STOP LINE SHALL MEET THE REQUIREMENTS OF SECTION 3B.16 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AS PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION (LATEST EDITION).
7. ALL ON-SITE TRAFFIC ADVISORY SIGNS INCLUDING STOP SIGNS SHALL BE MOUNTED ON A 4"x4" PRESSURE-TREATED POST WITH WHITE PVC WRAP AND MANSARD CAP, AND SHALL BE 48" FROM GROUND TO BOTTOM OF SIGN. STOP SIGNS DIMENSIONS SHALL BE 18"x18".
8. ACCESSIBLE PARKING SPACES SHALL CONFORM TO THE LATEST EDITION OF THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE ARCHITECTURAL ACCESS BOARD (AAB) AS SHOWN ON THE SITE LAYOUT PLAN.
9. ACCESSIBLE SIGNAGE SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR COLOR AND SIZE.

GRADING & DRAINAGE NOTES

1. THE ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON THE DATUM REFERENCE USED ON THE EXISTING CONDITIONS SURVEY.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND ELEVATION BENCHMARKS THROUGHOUT CONSTRUCTION.
3. EXTERIOR ELEVATIONS ALONG EACH BUILDING SIDE MAY VARY IN ORDER TO ACHIEVE GRADE IN CERTAIN AREAS. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM THE PROPOSED BUILDING. FOR GARDEN BUILDINGS, THE FINISHED GRADE ALONG THE BUILDING SHALL BE A MINIMUM OF 13" BELOW FIRST FLOOR ELEVATION EXCEPT AT DOORWAYS.
4. NEW SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%. FURTHERMORE, ACCESSIBLE PARKING SPACES AND PROXIMATE ACCESS AISLES SHALL BE SLOPED AT A MAXIMUM OF 2.0% IN ALL DIRECTIONS. SHOULD ANY DISCREPANCIES WITH THESE REQUIREMENTS ARISE DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT AN ACCEPTABLE SOLUTION CAN BE DETERMINED.
5. CONTRACTOR SHALL NOTIFY ENGINEER IF THE ILLUSTRATED GRADES CANNOT BE ACHIEVED WITHIN ACCESSIBLE AREAS, INCLUDING PARKING SPACES.
6. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF THE CONSTRUCTION.
7. PROPOSED BOTTOM OF CURB ELEVATIONS ALONG EXISTING STREETS ARE BASED ON EXISTING CONDITIONS INFORMATION AND SHALL BE CONSIDERED APPROXIMATE. CONTRACTOR SHALL MATCH EXISTING EDGE OF PAVEMENT GRADE.
8. EXISTING DRAINAGE AND UTILITY RIM ELEVATIONS LOCATED WITHIN THE LIMIT OF WORK TO REMAIN SHALL BE ADJUSTED BY THE CONTRACTOR TO MATCH NEW FINISHED GRADE.
9. ALL DISTURBED AREAS OUTSIDE THE LIMIT OF WORK SHALL BE RESTORED IN KIND.
10. PROPOSED CATCH BASINS SHALL INCLUDE ELIMINATOR HOODS AS SPECIFIED IN THE DETAILS.
11. UNLESS OTHERWISE SPECIFIED, ALL NEW DRAINAGE PIPE SHALL BE DUAL WALL CORRUGATED HDPE (ADS N-12 OR APPROVED EQUAL), RATED FOR H-20 LOADING, MINIMUM 12" COVER (UNLESS GREATER COVER IS REQUIRED BY THE MANUFACTURER), AND LAID AT A MINIMUM SLOPE OF 0.005'/'.
- 11.1. DRAINAGE PIPES CONNECTING CATCH BASINS TO MANHOLES AND MANHOLES TO MANHOLES: SIZE VARIES, REFER TO GRADING AND PROFILE SHEETS FOR SIZES.
- 11.2. GARAGE TRENCH DRAIN OUTLET PIPES: 8"
- 11.3. ROOF DRAIN PIPES: 12" IF LAID AT >=0.01'/'; 15" IF LAID BETWEEN 0.005'/' AND 0.01'/'.
- 11.4. FOUNDATION DRAIN PIPES: 6" FOR LOW-RISE BUILDINGS; 4" FOR EACH TOWNHOME BUILDING.
12. ROOF DRAINS:
  - 12.1. ALL BUILDING ROOFTOPS SHALL BE GUTTERED. GUTTER DOWNSPOUTS SHALL TIE INTO A ROOF DRAIN PIPE AS SHOWN.
  - 12.2. EACH BUILDING SHALL HAVE A MINIMUM OF ONE GUTTER DOWNSPOUT OVERFLOW ON EACH INDEPENDENT PIPE NETWORK. THE OVERFLOW SHALL BE INSTALLED ON THE DOWNSPOUT LOCATED AT THE LOWEST GROUND ELEVATION ALONG THE BUILDING WITHIN EACH PIPE NETWORK.
  - 12.3. PROPOSED ROOF DRAIN PIPES SHALL HAVE "NYLOPLAST" MANHOLES INSTALLED AS SHOWN ON THE GRADING & DRAINAGE PLANS.
  - 12.4. THE LOWEST GROUND ELEVATION AT THE GUTTER DOWNSPOUTS SHALL BE ABOVE THE 100-YEAR STORM PEAK WATER ELEVATION FOR THE STORMWATER MANAGEMENT SYSTEM INTO WHICH IT FLOWS.
13. FOUNDATION DRAINS:
  - 13.1. PROPOSED FOUNDATION DRAIN PIPES SHALL HAVE CLEANOUTS INSTALLED AT INTERSECTIONS AND ANGULAR BENDS. NOT REQUIRED AT RADIAL BENDS.
14. SEE DETAIL SHEETS AND PROFILES FOR WATER QUALITY UNITS MANUFACTURER AND MODELS.
15. GALVANIZED STEEL TRASH RACKS SHALL BE INSTALLED ON OPEN ENDS OF ALL INLET AND DISCHARGE DRAIN PIPES 12" OR LARGER IN DIAMETER. TRASH RACKS SHALL BE SIZED TO FIT THE SPECIFIC PIPE FOR WHICH THEY WILL BE USED AND SHALL BE REMOVABLE FOR SERVICING THE PIPE.
16. TOP AND BOTTOM OF WALL ELEVATIONS SHOWN ON GRADING & DRAINAGE PLANS REPRESENT THE EXPOSED PORTION OF THE WALL. ALL WALLS GREATER THAN 4 FEET EXPOSED HEIGHT SHALL BE DESIGNED BY A STRUCTURAL ENGINEER.
17. ELEVATION OF LANDSCAPED AREAS ARE GIVEN AT PLANTED GRADE.
18. ALL RETAINING WALLS GREATER THAN 4' IN EXPOSED HEIGHT SHALL BE DESIGNED BY A PROFESSIONAL STRUCTURAL ENGINEER.

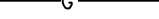
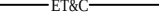
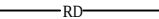
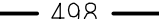
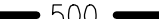
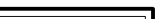
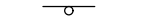
UTILITY NOTES

1. ALL UTILITIES ARE TO BE LOCATED UNDERGROUND UNLESS OTHERWISE NOTED.
2. ALL UTILITIES, PIPE MATERIALS, STRUCTURES, INSTALLATION METHODS, AND TESTING SHALL CONFORM TO MUNICIPALITY STANDARDS AND REQUIREMENTS. THE CONTRACTOR SHALL COORDINATE INSPECTIONS BY THE MUNICIPALITY WHEN REQUIRED.
3. WATER WILL BE SUPPLIED TO THE PROJECT VIA AN EXISTING WATER MAIN IN NORTH ROAD.
4. ON-SITE WATER MAIN SHALL BE 8" CLASS 52 CLDI WITH A MINIMUM OF 5' OF COVER EXCEPT AS NOTED OR DETAILED OTHERWISE.
5. EACH LOW-RISE BUILDING SHALL BE SERVICED BY ONE 4" CLASS 52 DUCTILE IRON DOMESTIC WATER SERVICE AND A SEPARATE 6" CLASS 52 DUCTILE IRON FIRE SERVICE.
6. WATER SERVICES SHALL BE INSTALLED WITH A MINIMUM 5' OF COVER EXCEPT AS NOTED OR DETAILED OTHERWISE.
7. NO WATER SERVICE PIPES SHALL BE LAID IN THE SAME TRENCH WITH GAS PIPES, SEWER PIPE OR ANY OTHER FACILITY OF A PUBLIC SERVICE COMPANY, OR WITHIN THREE FEET OF ANY OPEN EXCAVATION OR VAULT.
8. EACH LOW-RISE BUILDING SHALL BE SERVICED BY ONE 8" DOMESTIC SEWER LATERAL AND A SEPARATE 4" LATERAL FROM THE GARAGE FLOOR DRAINS. THE GARAGE FLOOR DRAIN LATERAL SHALL BE ROUTED THROUGH A GAS TRAP BEFORE COMBINING WITH THE SANITARY SEWER.
9. WASTEWATER FROM THE PROJECT WILL BE DIRECTED VIA GRAVITY TO AN ON-SITE WASTE WATER TREATMENT FACILITY AND DISCHARGED TO THE LEACH FIELD VIA A FORCE MAIN. REFER TO WASTE WATER TREATMENT FACILITY DESIGN BY ONSITE ENGINEERING AND THE LEACHING FIELD DESIGN BY PROVENCHER ENGINEERING FOR ADDITIONAL INFORMATION ON THESE TWO SYSTEMS.
10. SEWER PIPE SIZES AND MATERIALS SHALL BE AS FOLLOWS:
  - 10.1. PVC GRAVITY SEWER PIPES WITH A BURY DEPTH OF >10' SHALL BE SDR-26. FOR SHALLOWER INSTALLATIONS SDR-35 IS ACCEPTABLE.
  - 10.2. PVC FORCE MAIN SHALL BE SDR-21 UNLESS OTHERWISE SPECIFIED BY THE WASTE WATER TREATMENT FACILITY DESIGNER. REFER TO PUMP STATION DESIGN PLANS FOR SIZE.
  - 10.3. SEWER MAIN: 8" PVC LAID AT A MINIMUM SLOPE OF 0.004'/'.
  - 10.4. DOMESTIC SEWER SERVICE BETWEEN BUILDING AND "WYE" MANHOLE: 8" PVC LAID AT A MINIMUM SLOPE OF 0.02'/'.
  - 10.5. GARAGE FLOOR DRAIN SERVICE BETWEEN BUILDING AND GAS TRAP: 4" CAST IRON LAID AT A MINIMUM SLOPE OF 0.02'/'.
  - 10.6. GARAGE FLOOR DRAIN SERVICE BETWEEN GAS TRAP AND "WYE" MANHOLE: 4" PVC LAID AT A MINIMUM SLOPE OF 0.02'/'.
  - 10.7. "WYE" MANHOLE TO SMH: 8" PVC LAID AT A MINIMUM SLOPE OF 0.004'/'.
11. SEWER SHALL BE ENCASED IN CONCRETE IF THE SEWER IS PLACED WITHIN 10' (HORIZONTALLY) OF A WATER LINE AND THE SEWER IS EITHER ABOVE OR WITHIN 18" BELOW THE WATER LINE.
12. THE CONTRACTOR, ON BEHALF OF THE DEVELOPER, SHALL SUBMIT UTILITY AS-BUILT PLANS IN PAPER AND PDF FORMAT INCLUDING SWING TIES FOR SEWER AND WATER TO THE TOWN ENGINEERING DEPARTMENT.
13. THE CONTRACTOR SHALL COORDINATE ALL PROPOSED GAS, ELECTRIC, TELEPHONE, AND CABLE UTILITY WORK WITH THE RESPECTIVE UTILITY COMPANIES. THE PROPOSED CONNECTION LOCATIONS AND DETAILS PROVIDED HEREIN ARE FOR REPRESENTATION PURPOSES ONLY. FINAL CONNECTION POINTS AND DETAILS SHALL BE AS DETERMINED AND REQUIRED BY THE UTILITY COMPANIES.
14. TRANSFORMERS AND ASSOCIATED PROTECTIVE BOLLARDS SHALL BE PAINTED DARK GREEN IN COLOR. PAD SIZE AS DETERMINED BY UTILITY COMPANY.
15. GAS MAIN AND SERVICE SIZING SHALL BE AS DETERMINED BY THE UTILITY COMPANY.
16. DUE TO THE SCALE OF THE SITE WORK DRAWINGS, THE EXACT LOCATION OF UTILITY SERVICES TO THE BUILDING SHALL BE VERIFIED WITH THE BUILDING DRAWINGS.
17. SUITABLE, TEMPORARY PLUGS SHALL BE INSTALLED IN THE OPEN ENDS OF UTILITY SERVICES TO THE BUILDING PRIOR TO BACKFILLING. STUB LOCATIONS SHALL BE MARKED IN THE FIELD SO THAT THEY MAY BE EASILY LOCATED.
18. EXISTING DRAINAGE AND UTILITY RIM ELEVATIONS LOCATED WITHIN THE LIMIT OF WORK TO REMAIN SHALL BE ADJUSTED BY THE CONTRACTOR TO MATCH NEW FINISHED GRADE.
19. GUY WIRES SHALL BE INSTALLED AS REQUIRED/DESIGNED BY THE UTILITY COMPANY.
20. PIPE MATERIALS SHOWN ON THIS PLAN ARE SUBJECT TO SUBSTITUTION AT THE TIME OF CONSTRUCTION. ANY ALTERNATIVE PIPE MATERIAL SHALL CONFORM TO MUNICIPAL AND INDUSTRY STANDARDS FOR THE SELECTED APPLICATION.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1. THIS SITE IS SUBJECT TO THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM OF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY. SITE OPERATORS SHALL CONFORM TO MEET THE CRITERIA FOR A NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES.
2. ADAPTATION TO ACTUAL FIELD CONDITIONS MAY WARRANT VARIATIONS FROM WHAT IS SHOWN ON THESE PLANS FOR EROSION CONTROLS IN ORDER TO MAXIMIZE THE EFFECTIVENESS OF THE CONTROLS.
3. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING ALL CONSTRUCTION RELATED CONDITIONS OUTLINED IN THE APPROVALS IN ADDITION TO THE ITEMS OUTLINED IN THESE CONSTRUCTION DOCUMENTS. THE SEQUENCING PLANS INCLUDED HEREIN ARE PROVIDED AS A GUIDANCE DOCUMENT TO ASSIST IN THE IMPLEMENTATION OF EROSION/SEDIMENTATION CONTROLS AND STABILIZATION OF THE SITE. ADAPTATION TO ACTUAL FIELD CONDITIONS MAY WARRANT VARIATIONS FROM WHAT IS SHOWN ON THESE PLANS TO MAXIMIZE THE EFFECTIVENESS OF THE CONTROLS.
4. THE CONTRACTOR SHALL ADHERE TO PROCEDURES OUTLINED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH THE EPA NPDES CONSTRUCTION GENERAL PERMIT REQUIREMENTS.
5. IN ACCORDANCE WITH THE NPDES CONSTRUCTION GENERAL PERMIT AND ASSOCIATED STORMWATER POLLUTION PREVENTION PLAN (SWPPP), EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST EVERY 14 DAYS AND WITHIN 24 HOURS OF A 0.25" STORM. REPORTS DOCUMENTING THE RESULTS OF EACH INSPECTION AND ANY CORRECTIVE ACTIONS SHALL BE KEPT ON-FILE WITH THE SWPPP.
6. PROPOSED EROSION AND SEDIMENTATION CONTROL MEASURES WILL INCLUDE SILTATION FENCES, HAY BALES, CRUSHED STONE, RIPRAP, LOAM/SEED, HYDROSEEDING, MULCHING, EROSION CONTROL MATTING, DIVERSION BERMS, AND SEDIMENTATION BASINS AS FURTHER DESCRIBED HEREIN.
7. SILTATION FENCES AND WATTLES WILL BE USED FOR THE PERIMETER EROSION CONTROL BARRIER AS SHOWN ON THIS PLAN AND ELSEWHERE AS CONDITIONS WARRANT. HAY BALES WILL BE USED TO PROTECT OFFLINE CATCH BASINS (PRIOR TO BINDER) AND ELSEWHERE AS CONDITIONS WARRANT. THE CONTRACTOR WILL BE REQUIRED TO KEEP A REASONABLE STOCK OF SILTATION FENCE, WATTLES, AND HAY BALES ON SITE TO BE ABLE TO SUPPLEMENT OR MAKE REPAIRS AS NECESSARY.
8. LOAMING AND SEEDING OR HYDROSEEDING WILL BE USED AS A PERMANENT STABILIZATION MEASURE FOR ALL REVEGETATED AREAS OF THE SITE.
9. ALL PROPOSED SLOPES 3:1 AND STEEPER SHALL BE STABILIZED WITH AN EROSION CONTROL MATTING AND SHALL BE HYDROSEEDED.
10. MULCHING MAY BE USED TO REINFORCE SEEDED AREAS WHERE EROSION CONTROL MATTING IS NOT REQUIRED OR WARRANTED, BUT WHERE SOME PROTECTION IS WARRANTED. MULCHING MAY ALSO BE USED TO STABILIZE AREAS WHERE CONSTRUCTION ACTIVITIES WILL TEMPORARILY CEASE FOR MORE THAN 14 DAYS.
11. SEDIMENTATION BASINS SHALL BE USED THROUGHOUT THE SITE TO TREAT RUNOFF. DIVERSION BERMS SHALL BE UTILIZED TO DIVERT UNTREATED STORMWATER TO THE SEDIMENTATION BASINS. SEDIMENTATION BASINS AND DIVERSION BERMS SHALL BE ADDED, REMOVED, AND ADJUSTED AS THE SITE EVOLVES THROUGHOUT THE CONSTRUCTION PROCESS.
12. UPON CONVERTING ANY TEMPORARY SEDIMENTATION BASINS TO PERMANENT DETENTION/INFILTRATION BASINS, THE BASINS SHALL BE CLEARED OF ALL ACCUMULATED SEDIMENT TO ENSURE THAT THE VOLUMETRIC AND INFILTRATION DESIGN CAPACITIES ARE MAINTAINED.
13. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, IN ACCORDANCE WITH THE NPDES CONSTRUCTION GENERAL PERMIT. STABILIZATION MEASURES SHALL BE IMPLEMENTED NOT MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED, UNLESS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS IN WHICH CASE STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
14. EROSION AND SEDIMENTATION CONTROLS WILL BE REQUIRED TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT TO ENSURE THAT THEY FUNCTION AS INTENDED. DEFICIENCIES WILL BE CORRECTED BY CLEANING, REPAIRING, OR REPLACING THE AFFECTED CONTROL(S) OR PORTION(S) THEREOF TO REESTABLISH PROPER FUNCTIONING AS QUICKLY AS POSSIBLE. SEDIMENTATION CONTROLS WILL BE REQUIRED TO BE CLEARED OR REPLACED WHEN THE ACCUMULATED SEDIMENT EXCEEDS 50 PERCENT OF THE DESIGN CAPACITY OF THE CONTROL. ANY OFF-SITE ACCUMULATIONS OF SEDIMENT WILL BE REQUIRED TO BE REMOVED AS QUICKLY AS POSSIBLE IN A MANNER THAT MINIMIZES ADDITIONAL DISTURBANCE.
15. EROSION CONTROL BARRIER (WHERE SHOWN) REPRESENTS THE LIMIT OF WORK. WHERE NO EROSION CONTROL BARRIER IS REQUIRED (SUCH AS UPSLOPE AREAS), A LIMIT OF WORK LINE HAS BEEN SHOWN. WHERE NO EROSION CONTROL BARRIER IS REQUIRED, THE LIMIT OF WORK SHALL BE DELINEATED IN THE FIELD BY A VISUAL BARRIER SUCH AS TEMPORARY CONSTRUCTION FENCING IN ORDER TO KEEP CONSTRUCTION ACTIVITIES OUT OF THOSE AREAS.
16. THE PROPOSED ONSITE DRAINAGE SYSTEM SHALL BE INSTALLED AS SOON AS PRACTICABLE. ALL EXISTING AND PROPOSED CATCH BASIN INLETS SHALL BE PROTECTED WITH A SILT SACK (SEE DETAIL).
17. DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT BASIN OR OTHER SETTLING AREA TO ALLOW FOR SUFFICIENT SETTLING PRIOR TO DISCHARGE.
18. DUST SHALL BE CONTROLLED BY AN APPROVED METHOD ACCORDING TO LOCAL, STATE AND FEDERAL STANDARDS.
19. ABUTTING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS FROM THIS PROJECT AT ALL TIMES. WORK ON ABUTTING PROPERTY SHALL REQUIRE WRITTEN AUTHORIZATION FROM THE OWNER PRIOR TO ANY LAND DISTURBANCE.
20. THE EROSION CONTROL MEASURES ILLUSTRATED IN THIS PLAN SET SHALL BE THE MINIMUM REQUIRED CONTROLS IMPLEMENTED.
21. STOCKPILING LOCATIONS SHALL BE FIELD DETERMINED AND SHALL NOT LIE WITHIN THE 100-FOOT WETLAND BUFFER. DIVERSION BERMS AND EROSION CONTROL BARRIERS SHALL BE INSTALLED DOWNGRADIENT OF STOCKPILES IN ACCORDANCE WITH THE PLAN AND DETAILS.
22. ESTIMATED STABILIZED AREA AS SHOWN ON THE SEQUENCING PLANS PROVIDED HEREIN REPRESENTS THE APPROXIMATE AREA THAT WILL BE STABILIZED (EITHER TEMPORARILY OR PERMANENTLY) BY THE END OF THE CONSTRUCTION SEQUENCE.
23. CRUSHED STONE AND/OR RIPRAP SHALL BE USED TO CONSTRUCT THE TRACKING PAD, CUT SLOPE TREATMENT AREAS, CHECK DAMS, SEDIMENTATION BASIN OUTLET PROTECTION, AND ELSEWHERE AS CONDITIONS WARRANT. THE CONTRACTOR WILL BE REQUIRED TO KEEP A REASONABLE STOCK OF CRUSHED STONE AND RIPRAP ON SITE TO BE ABLE TO SUPPLEMENT OR MAKE REPAIRS AS NECESSARY.

LEGEND

| EXISTING                                                                            | PROPOSED                                                                            | DESCRIPTION                |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------|
|  |  | PROPERTY LINE              |
|  |  | CATCH BASIN                |
|  |  | DRAIN MANHOLE              |
|  |  | SEWER MANHOLE              |
|  |  | DRAIN PIPE                 |
|  |  | GAS LINE                   |
|  |  | OVERHEAD WIRES             |
|  |  | UNDERGROUND WIRES          |
|  |  | SEWER LINE                 |
|  |  | WATER LINE                 |
|  |  | FORCE MAIN                 |
|  |  | FOUNDATION DRAIN           |
|  |  | ROOF DRAIN                 |
|  |  | MINOR CONTOUR              |
|  |  | INDEX CONTOUR              |
|  |  | FENCE                      |
|  |  | CONSTRUCTION FENCE         |
|  |  | GUIDERAIL                  |
|  |  | STONE WALL                 |
|  |  | ECON: WATTLES + SILT FENCE |
|  |  | ECON: WATTLES ONLY         |
|  |  | TREELINE                   |
|  |  | BUILDING                   |
|  |  | CRUSHED STONE              |
|  |  | RIPRAP                     |
|  |  | CONSTRUCTION ENTRANCE      |
|  |  | MILL & OVERLAY             |
|  |  | HYDRANT                    |
|  |  | SIGN                       |
|  |  | SITE/STREET LIGHT          |
|  |  | BOLLARD LIGHT              |
|  |  | UTILITY POLE               |
|  |  | OUTLET CONTROL STRUCTURE   |
|  |  | FLARED END SECTION         |
|  |  | TEST PIT LOCATION          |
|  |  | SPOT ELEVATION             |
|  |  | NUMBER OF PARKING SPACES   |
|  |  | CURB RADIUS                |
|  |  | ACCESSIBLE MARKINGS        |

GENERAL ABBREVIATIONS

|                                |           |
|--------------------------------|-----------|
| ASSESSORS' PARCEL              | A.P.      |
| BOTTOM OF CURB                 | BC        |
| BITUMINOUS CONCRETE            | BIT. CONC |
| BEST MANAGEMENT PRACTICE       | BMP       |
| BORDERING VEGETATED WETLAND    | BWV       |
| CATCH BASIN                    | CB        |
| CAPE COD BERM                  | CCB       |
| CELLAR FLOOR                   | CF        |
| CENTERLINE                     | CL        |
| CLEANOUT                       | CO        |
| CONCRETE SURFACE               | CONC.     |
| DRAIN MANHOLE                  | DMH       |
| DIRECTION SIGN                 | DS        |
| EMERGENCY SPILLWAY             | ES        |
| FLARED END SECTION             | FES       |
| FOOTING DRAIN                  | FD        |
| GAS TRAP                       | GT        |
| HIGH DENSITY POLYETHYLENE      | HDPE      |
| HIGH POINT                     | HP        |
| INVERT ELEVATION               | I=        |
| IRON PIPE/PIN                  | IP        |
| LINEAL FEET                    | LF        |
| LOW POINT                      | LP        |
| LIMIT OF WORK                  | LOW       |
| MATCH EXISTING                 | ME        |
| NOW OR FORMERLY                | N/F       |
| NYLOPLAST DRAINAGE STRUCTURE   | NP        |
| OUTLET CONTROL STRUCTURE       | OCS       |
| PRECAST CONCRETE CURB          | PCC       |
| RADIUS                         | X'R       |
| RIM ELEVATION                  | R=        |
| ROOF DRAIN                     | RD        |
| REMOVE                         | REM       |
| SLOPED GRANITE CURB            | SGC       |
| SPEED LIMIT                    | SL        |
| SUBSURFACE INFILTRATION SYSTEM | SIS       |
| TOP OF CURB                    | TC        |
| TOP OF FOUNDATION              | TF        |
| TYPICAL                        | TYP.      |
| UNDERDRAIN                     | UD        |
| UTILITY POLE                   | UP        |
| WATER QUALITY UNIT             | WQU       |
| VERTICAL GRANITE CURB          | VGC       |

NOT FOR CONSTRUCTION

CDG PROJECT #: 19044 & 19045

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| PLANNING BOARD: |  |
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|                 |  |

SEAL:



MATTHEW A. LEIDNER, P.E.

PREPARED BY:



Civil Design Group, LLC

21 HIGH STREET, SUITE 207  
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PREPARED FOR:

QUARRY NORTH ROAD LLC

2134 SEVILLA WAY  
NAPLES, FL 34109

PROJECT:

COLD BROOK CROSSING

NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:

SHEET:

LEGEND & NOTES

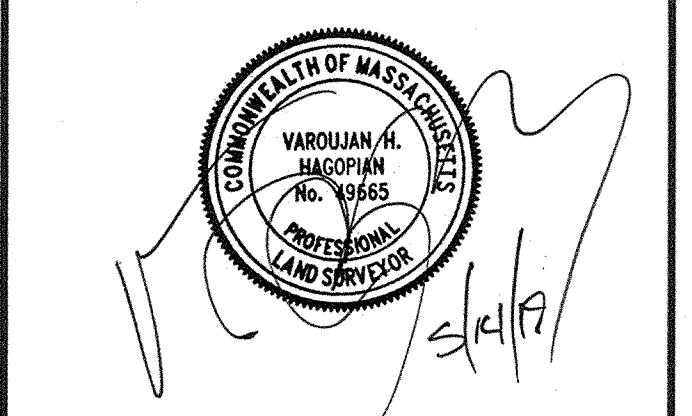
2

DATE: 03/11/2020





- GENERAL NOTES:
- OWNERS OF ADJOINING PROPERTIES ARE SHOWN ACCORDING TO CURRENT TOWN OF SUDBURY AND TOWN OF CONCORD ASSESSORS RECORDS.
  - THIS PLAN IS BASED ON AN ON-THE-GROUND SURVEY BY CONNORSTONE ENGINEERING INC. PERFORMED IN OCTOBER 2018, AND APRIL 2019.
  - TOPOGRAPHIC INFORMATION SHOWN HEREON HAS BEEN PLOTTED FROM A COMBINATION OF AERIAL PHOTOGRAMMETRY PROVIDED BY BLUESKY GEOSPATIAL AND ON-THE-GROUND TOPOGRAPHY PERFORMED BY SULLIVAN CONNORS AND ASSOCIATES.
  - ELEVATIONS SHOWN HEREON REFER TO THE NAVD 1988 DATUM.
  - WETLAND FLAGS SHOWN HEREON WERE FLAGGED BY LEC ENVIRONMENTAL CONSULTANTS INC. AND LOCATED ON-THE-GROUND BY SULLIVAN CONNORS AND ASSOCIATES.
  - PERENNIAL STREAM LOCATIONS ARE PLOTTED FROM AERIAL PHOTOGRAMMETRY PROVIDED BY BLUESKY GEOSPATIAL. PER LEC ENVIRONMENTAL CONSULTANTS INC. A 12 FOOT WIDE CHANNEL WAS ASSIGNED TO THE STREAMS BASED ON THE USGS STREAMSTATS WATERSHED DATA. THE RIVERFRONT AREA BOUNDARIES DEPICTED HEREON EXTEND FROM THE WESTERN AND SOUTHERN EDGE OF THE 12 FOOT WIDE STREAM CHANNELS.
  - STREAM LOCATION IN POND HAS BEEN PLOTTED BASED ON A SKETCH PLAN PROVIDED BY LEC ENVIRONMENTAL CONSULTANTS INC.
  - A PORTION OF THE LOCUS SHOWN HEREON IS LOCATED WITHIN THE 100 YEAR FEDERAL FLOOD HAZARD AREA AS SHOWN ON THE FLOOD INSURANCE RATE MAPS FOR THE TOWN OF SUDBURY, MAP NUMBER 25017C0367F, DATED JULY 7, 2014.



PREPARED FOR:  
CHRIS CLAUSSEN

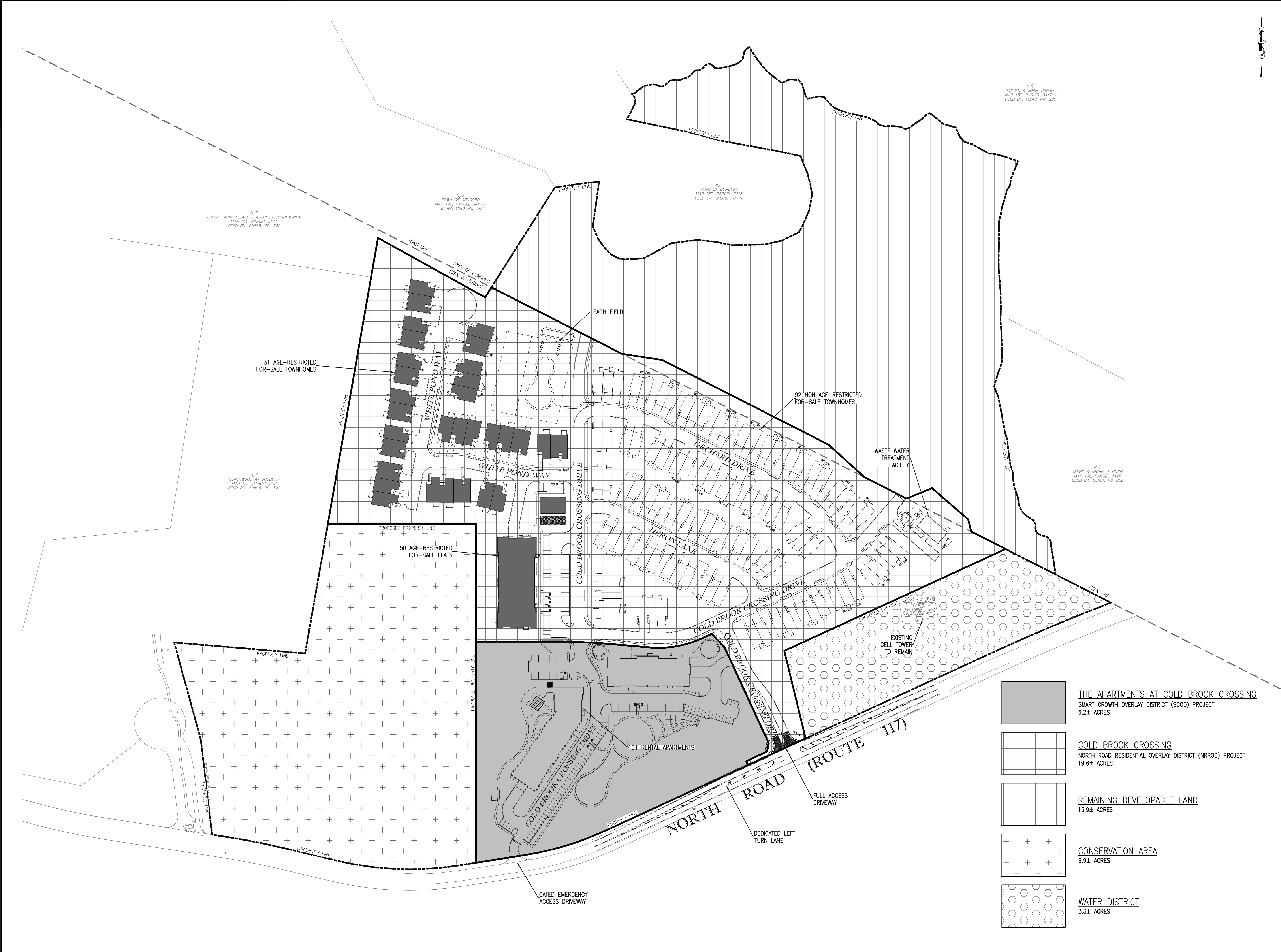
**SULLIVAN, CONNORS AND ASSOCIATES**  
LAND SURVEYING AND CIVIL ENGINEERING  
121 BOSTON POST ROAD  
SUDBURY, MASSACHUSETTS 01776  
PHONE: 978-443-9566 FAX: 978-443-8915

EXISTING CONDITIONS PLAN  
OF  
#16, 36, 0 NORTH STREET  
IN  
SUDBURY, MASS.

| DATE               | DESCRIPTION                     |
|--------------------|---------------------------------|
| 7-15-19            | TESTING LOCATIONS, STREAM SHOTS |
| REVISION:          | DESCRIPTION:                    |
| DRAWN BY: VHH      | CHECK BY: REM                   |
| DATE: MAY 14, 2019 |                                 |
| SCALE: 1"=100'     | SHEET 3                         |







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CDG PROJECT #: 19044 & 19045

REVISIONS:

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PLANNING BOARD:

SEAL:

COMMONWEALTH OF MASSACHUSETTS  
MATTHEW A. LEIDNER  
CIVIL  
No. 45641  
REGISTERED  
PROFESSIONAL ENGINEER

*Matthew A. Leidner*  
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NAPLES, FL 34109

PROJECT:

COLD BROOK CROSSING  
NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:

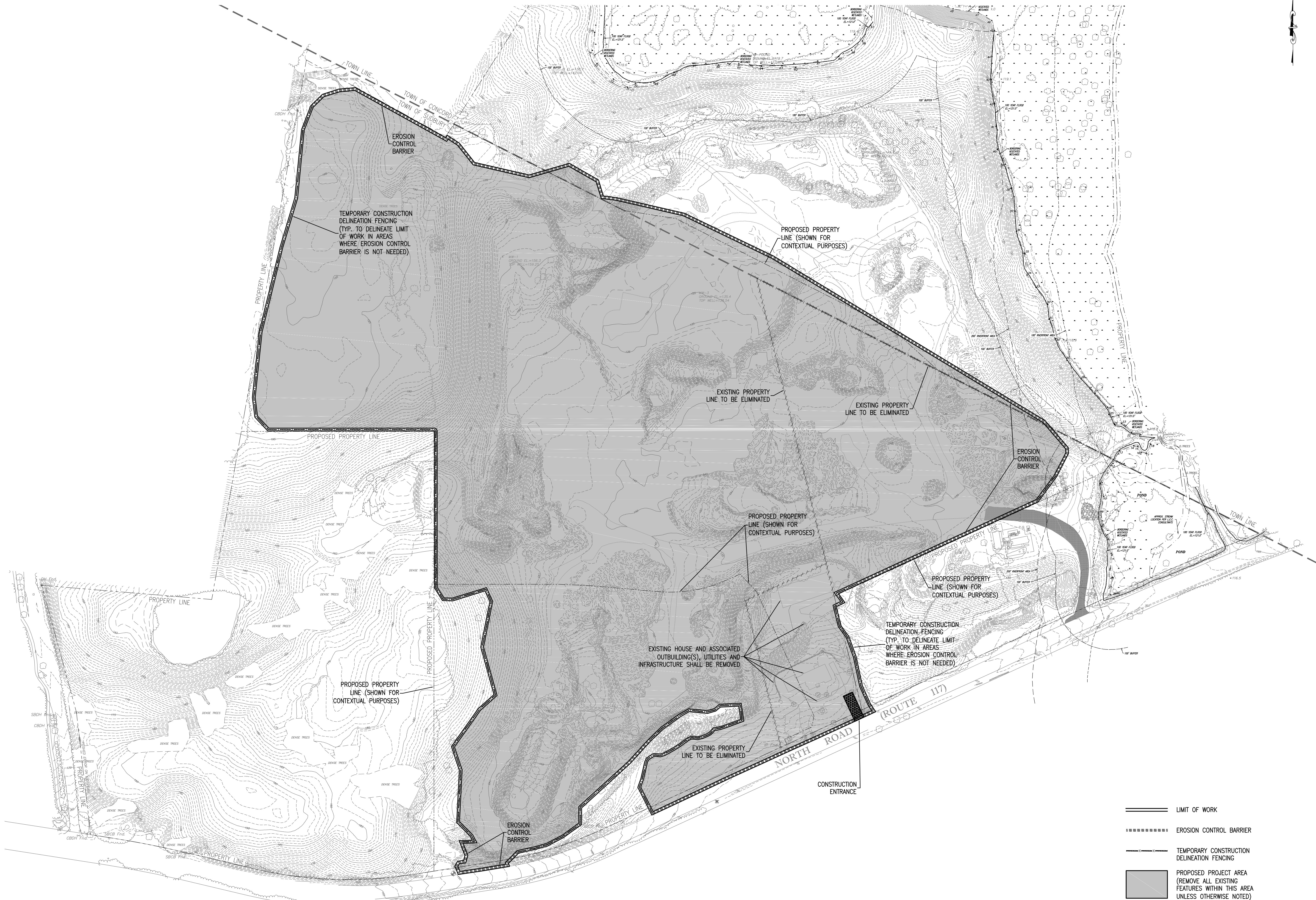
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SHEET:

SITE CONTEXT PLAN  
4

DATE: 03/11/2020





- LIMIT OF WORK
- EROSION CONTROL BARRIER
- TEMPORARY CONSTRUCTION DELINEATION FENCING
- PROPOSED PROJECT AREA (REMOVE ALL EXISTING FEATURES WITHIN THIS AREA UNLESS OTHERWISE NOTED)

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COLD BROOK CROSSING

NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:

80 0 40 80 160

GRAPHIC SCALE IN FEET

SHEET:

SITE PREPARATION & EROSION CONTROL PLAN

5

DATE:

03/11/2020

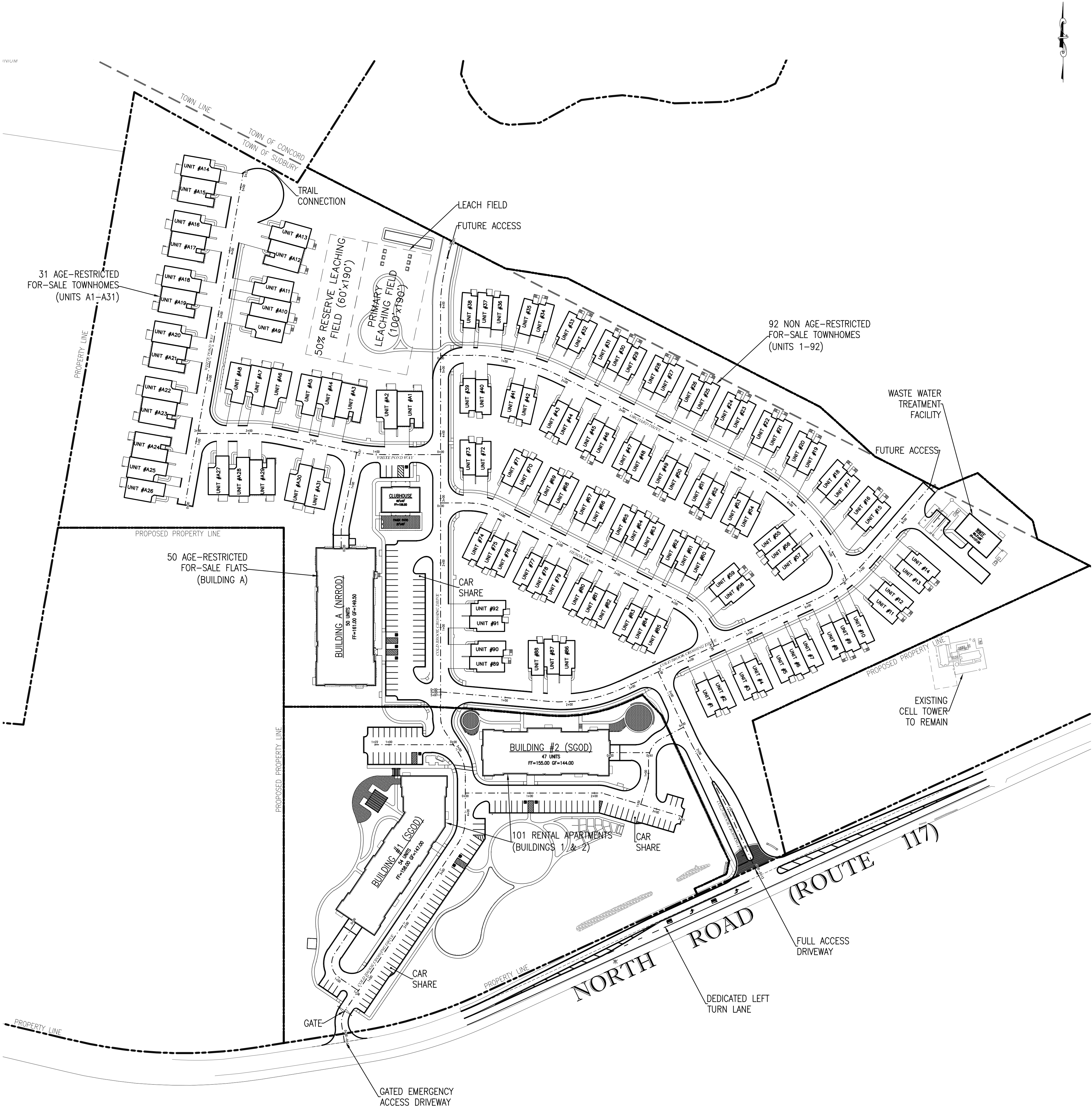


| SGOD ZONING SUMMARY                                                                                                                                                      |                                             |                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------|
| UNDERLYING DISTRICT(S): RESEARCH DISTRICT NO. 1 (RD1)<br>OVERLAY DISTRICT(S): SMART GROWTH OVERLAY DISTRICT (SGOD)<br>WATER RESOURCE PROTECTION OVERLAY DISTRICT (WRPOD) |                                             |                                                                           |
|                                                                                                                                                                          | REQUIRED                                    | PROVIDED                                                                  |
| DENSITY                                                                                                                                                                  | 20 UNITS PER ACRE<br>(MAXIMUM OF 101 UNITS) | 20 UNITS PER ACRE<br>(101 TOTAL UNITS<br>SGOD AREA LESS SETBACK=5.05 AC.) |
| MIN. DEVELOPMENT LOT AREA                                                                                                                                                | NONE                                        | 6.2± ACRES                                                                |
| MIN. FRONT YARD SETBACK                                                                                                                                                  | NONE                                        | 141± FEET                                                                 |
| MIN. SIDE YARD SETBACK                                                                                                                                                   | NONE                                        | 74± FEET                                                                  |
| MIN. REAR YARD SETBACK                                                                                                                                                   | NONE                                        | 19± FEET                                                                  |
| MAX. BUILDING HEIGHT                                                                                                                                                     | 4 STORIES/60 FEET                           | 4 STORIES OVER PARKING<br><60 FEET                                        |
| NUMBER OF PRINCIPAL BUILDINGS<br>ALLOWED ON A DEVELOPMENT LOT                                                                                                            | >=1                                         | 2                                                                         |
| MAX. RESIDENTIAL DEVELOPMENT                                                                                                                                             | 101 UNITS                                   | 101 UNITS                                                                 |
| MIN. NUMBER OF PARKING SPACES<br>(52 1-BED UNITS @ 1/UNIT;<br>49 2 & 3-BED UNITS @ 2/UNIT)                                                                               | 177 SPACES<br>(1.75 SPACES/UNIT; 101 UNITS) | 177 SPACES<br>(99 SURFACE + 78 GARAGE)                                    |
| MAX. NUMBER OF PARKING SPACES                                                                                                                                            |                                             |                                                                           |

| NRROD ZONING SUMMARY                                                                                                                                                                |                                              |                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------|
| UNDERLYING DISTRICT(S): RESEARCH DISTRICT NO. 1 (RD1)<br>OVERLAY DISTRICT(S): NORTH ROAD RESIDENTIAL OVERLAY DISTRICT (NRROD)<br>WATER RESOURCE PROTECTION OVERLAY DISTRICT (WRPOD) |                                              |                                                             |
|                                                                                                                                                                                     | REQUIRED                                     | PROVIDED                                                    |
| MAX. BUILDING HEIGHT<br>(WITHIN 500' OF ROUTE 117)                                                                                                                                  | 3 STORIES/45 FEET<br>(50' FOR PITCHED ROOFS) | <3 STORIES/45 FEET                                          |
| MAX. BUILDING HEIGHT<br>(> THAN 500' FROM ROUTE 117)                                                                                                                                | 4 STORIES/60 FEET                            | 4 STORIES OVER PARKING<br><60 FEET                          |
| MAX. BUILDING COVERAGE                                                                                                                                                              | 35%<br>OF PROJECT AREA                       | 23%<br>(TOTAL ROOF AREA = 4.5 AC.<br>NRROD AREA = 19.6 AC.) |
| MIN. FRONT YARD SETBACK                                                                                                                                                             | 100 FEET                                     | 231± FEET (TOWNHOMES)<br>502± FEET (BUILDING A)             |
| MIN. SIDE YARD SETBACK                                                                                                                                                              | 20 FEET                                      | 22± FEET (TOWNHOMES)<br>31± FEET (BUILDING A)               |
| MIN. REAR YARD SETBACK                                                                                                                                                              | 30 FEET                                      | 32± FEET (TOWNHOMES)<br>477± FEET (BUILDING A)              |
| MIN. NUMBER OF PARKING SPACES                                                                                                                                                       | 346 SPACES<br>(173 DWELLINGS @ 2/DWELLING)   | 589 SPACES<br>(293 SURFACE + 296 GARAGE)                    |

| SUMMARY OF PARKING PROVIDED |            |         |              |       |
|-----------------------------|------------|---------|--------------|-------|
|                             |            | SURFACE | GARAGE       | TOTAL |
| SGOD                        | BUILDING 1 | 52      | 42           | 94    |
|                             | BUILDING 2 | 47      | 36           | 83    |
|                             |            |         | SGOD TOTAL:  | 177   |
| NRROD                       | TOWNHOMES  | 246     | 246          | 492   |
|                             | BUILDING A | 40      | 50           | 90    |
|                             | CLUBHOUSE  | 4       | 0            | 4     |
|                             | WWTF       | 3       | 0            | 3     |
|                             |            |         | NRROD TOTAL: | 589   |

| EARTHWORK SUMMARY |          |                |                |
|-------------------|----------|----------------|----------------|
|                   | SGOD     | NRROD          | TOTAL SITE     |
| CY x 1000         | 18± FILL | 57± CUT/EXCESS | 39± CUT/EXCESS |



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CDG PROJECT #: 19044 & 19045

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PLANNING BOARD:

SEAL:

CIVIL ENGINEER

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NO. 45641

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COLD BROOK CROSSING

NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:

80 0 40 80 160

GRAPHIC SCALE IN FEET

SHEET:

OVERALL LAYOUT PLAN

6

DATE:

03/11/2020





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NORTH ROAD

SUDBURY, MASSACHUSETTS

SCALE:

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GRAPHIC SCALE IN FEET

SHEET:

LAYOUT PLAN

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DATE:

03/11/2020





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CDG PROJECT #: 19044 & 19045

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PROJECT:

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NORTH ROAD  
SUBBURY, MASSACHUSETTS

SCALE:

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GRAPHIC SCALE IN FEET

SHEET:

LAYOUT PLAN B

8

DATE:

03/11/2020





NOT FOR CONSTRUCTION

CDG PROJECT #:19044 & 19045

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NAPLES, FL 34109

PROJECT:

COLD BROOK

CROSSING

NORTH ROAD

SUDBURY, MASSACHUSETTS

SCALE:

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GRAPHIC SCALE IN FEET

SHEET:

LAYOUT PLAN

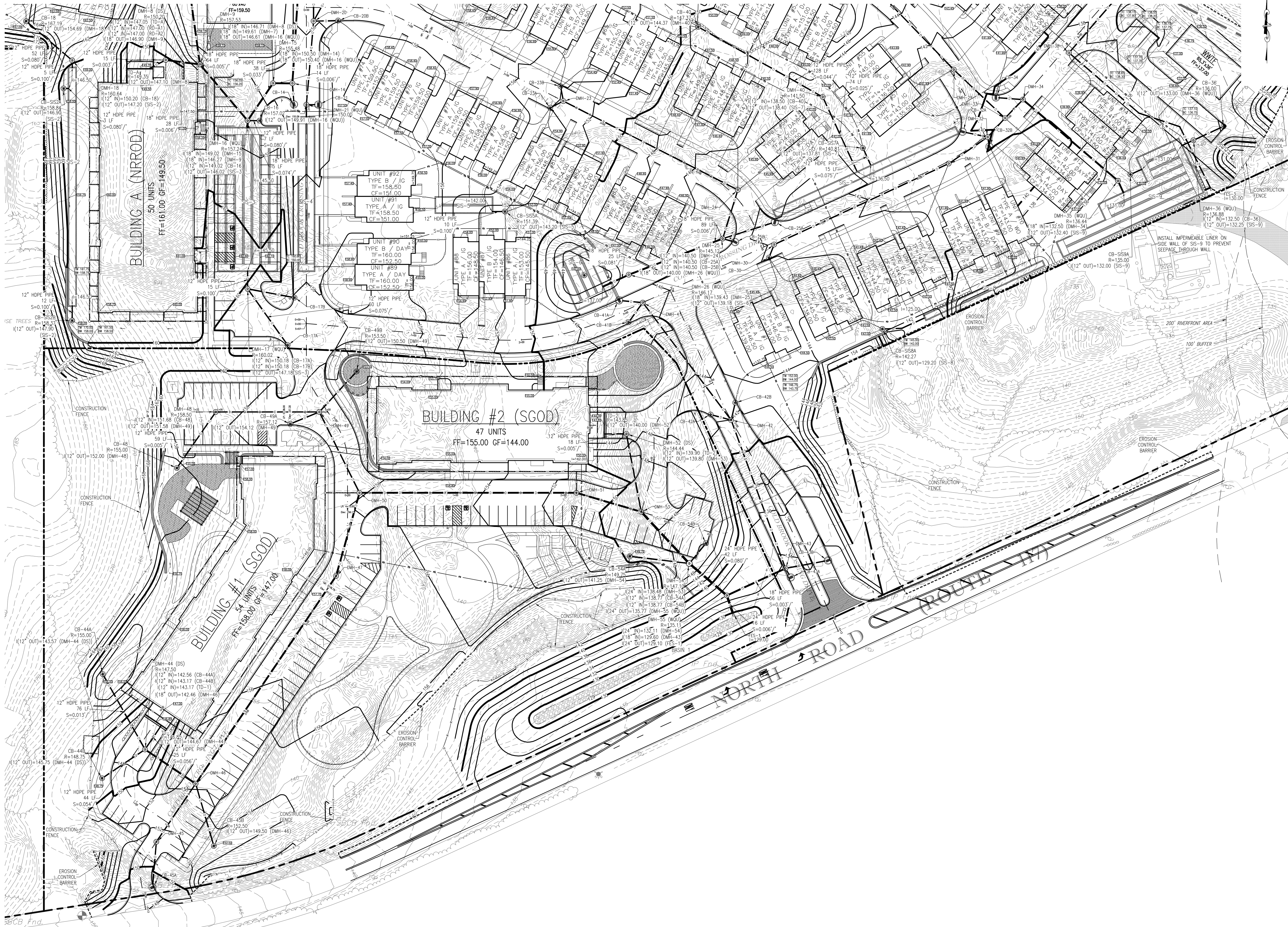
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DATE:

03/11/2020





NOT FOR CONSTRUCTION

CDG PROJECT #: 19044 & 19045

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SEAL:



MATTHEW A. LEIDNER, P.E.

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**CIVIL DESIGN GROUP, LLC**

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NORTH ANDOVER, MA 01845  
www.cdgengineering.com  
p: 978-794-5400 f: 978-965-3971

PREPARED FOR:

**QUARRY NORTH ROAD LLC**

2134 SEVILLA WAY  
NAPLES, FL 34109

PROJECT:

**COLD BROOK CROSSING**

NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:  
40 0 20 40 80  
GRAPHIC SCALE IN FEET

SHEET:

**GRADING & DRAINAGE PLAN A**

10

DATE: 03/11/2020





NOT FOR CONSTRUCTION

CDG PROJECT #:

19044 & 19045

REVISIONS:

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PLANNING BOARD:

SEAL:

COMMONWEALTH OF MASSACHUSETTS

MATTHEW A. LEIDNER

CIVIL

NO. 45641

REGISTERED PROFESSIONAL ENGINEER

*Matthew A. Leidner*

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2134 SEVILLA WAY  
NAPLES, FL 34109

PROJECT:

COLD BROOK CROSSING

NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:

40 0 20 40 80

GRAPHIC SCALE IN FEET

SHEET:

GRADING & DRAINAGE  
PLAN B

11

DATE:

03/11/2020





NOT FOR CONSTRUCTION

CDG PROJECT #:

19044 & 19045

REVISIONS:

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PLANNING BOARD:

SEAL:

COMMONWEALTH OF MASSACHUSETTS

MATTHEW A. LEIDNER

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*Matthew A. Leidner*

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2134 SEVILLA WAY  
NAPLES, FL 34109

PROJECT:

COLD BROOK CROSSING

NORTH ROAD  
SUBBURY, MASSACHUSETTS

SCALE:

40 0 20 40 80

GRAPHIC SCALE IN FEET

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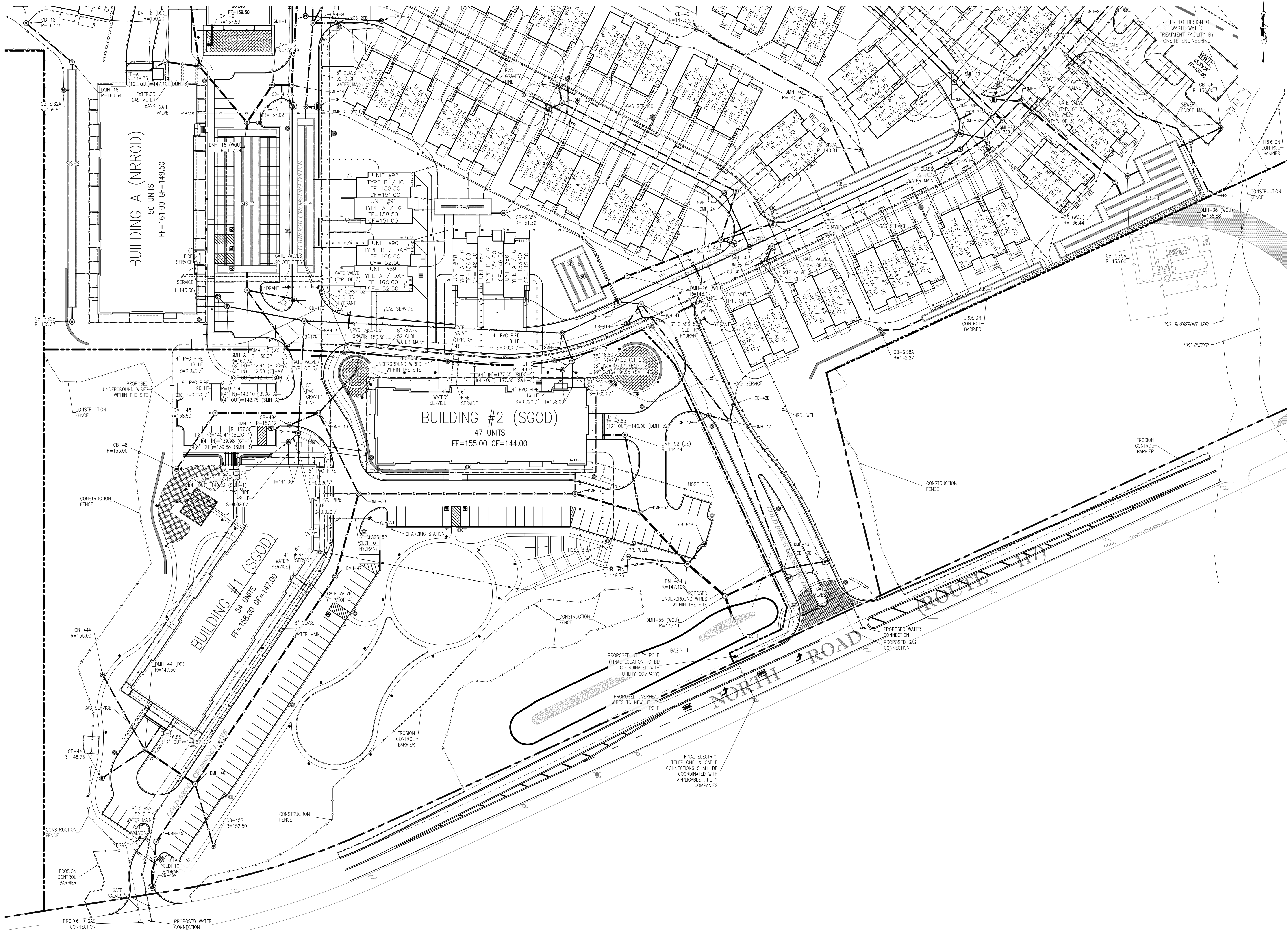
GRADING & DRAINAGE  
PLAN C

12

DATE:

03/11/2020





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CDG PROJECT #: 19044 & 19045

REVISIONS:

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PLANNING BOARD:

SEAL:

COMMONWEALTH OF MASSACHUSETTS

MATTHEW A. LEIDNER

CIVIL

No. 45641

REGISTERED PROFESSIONAL ENGINEER

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PREPARED FOR:

QUARRY NORTH ROAD LLC

2134 SEVILLA WAY  
NAPLES, FL 34109

PROJECT:

COLD BROOK CROSSING

NORTH ROAD

SUDBURY, MASSACHUSETTS

SCALE:

40 0 20 40 80

GRAPHIC SCALE IN FEET

SHEET:

UTILITY PLAN A

13

DATE:

03/11/2020





NOT FOR CONSTRUCTION

CDG PROJECT #: 19044 & 19045

REVISIONS:

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PLANNING BOARD:

SEAL:

COMMONWEALTH OF MASSACHUSETTS

MATTHEW A. LEIDNER

CIVIL

No. 45641

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2134 SEVILLA WAY  
NAPLES, FL 34109

PROJECT:

COLD BROOK CROSSING

NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:

40 0 20 40 80

GRAPHIC SCALE IN FEET

SHEET:

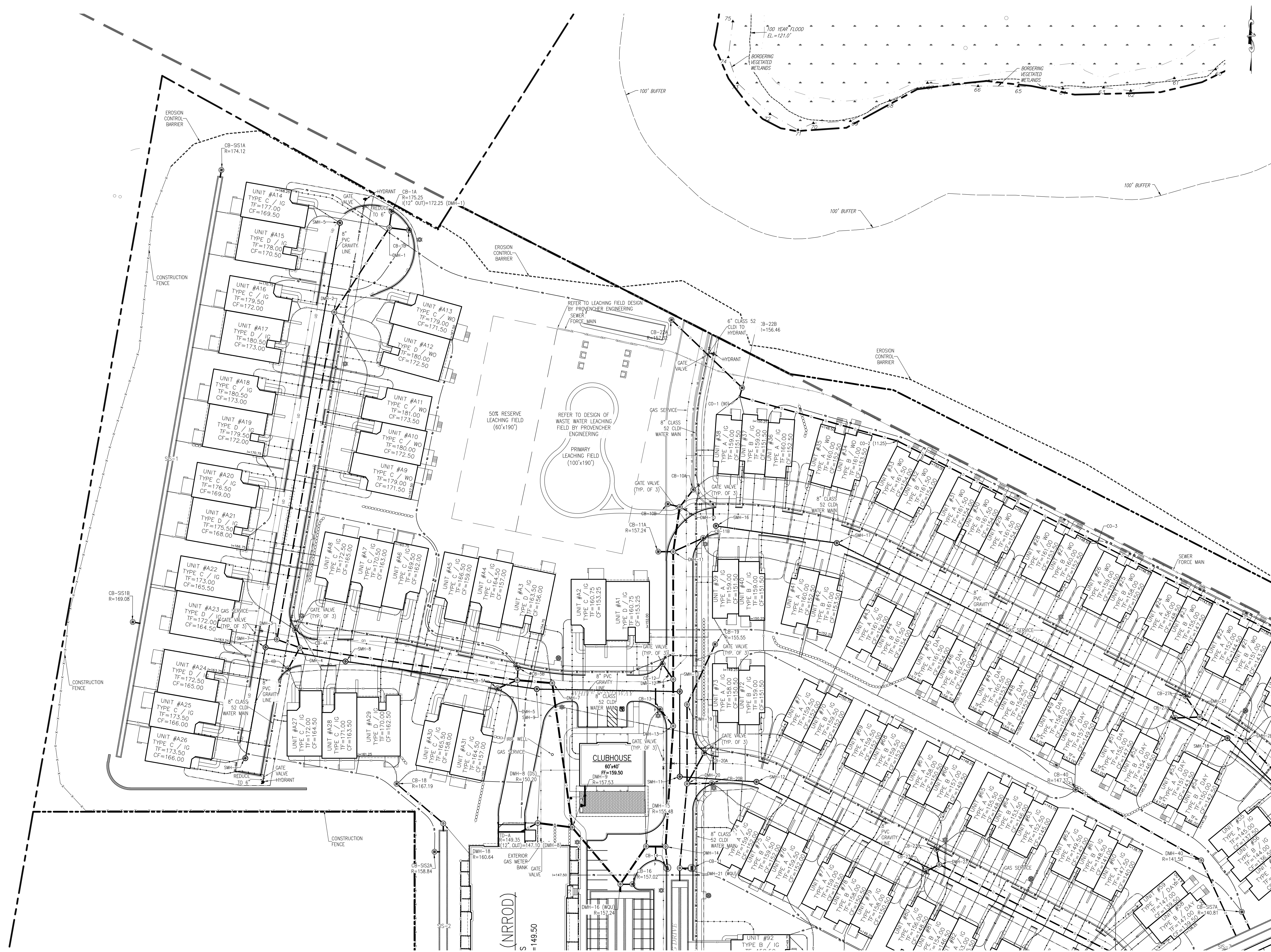
UTILITY PLAN B

14

DATE:

03/11/2020





NOT FOR CONSTRUCTION

CDG PROJECT #: 19044 & 19045

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PLANNING BOARD:

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SEAL:



*Matthew A. Leidner*

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NAPLES, FL 34109

PROJECT:

**COLD BROOK CROSSING**

NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:

40 0 20 40 80

GRAPHIC SCALE IN FEET

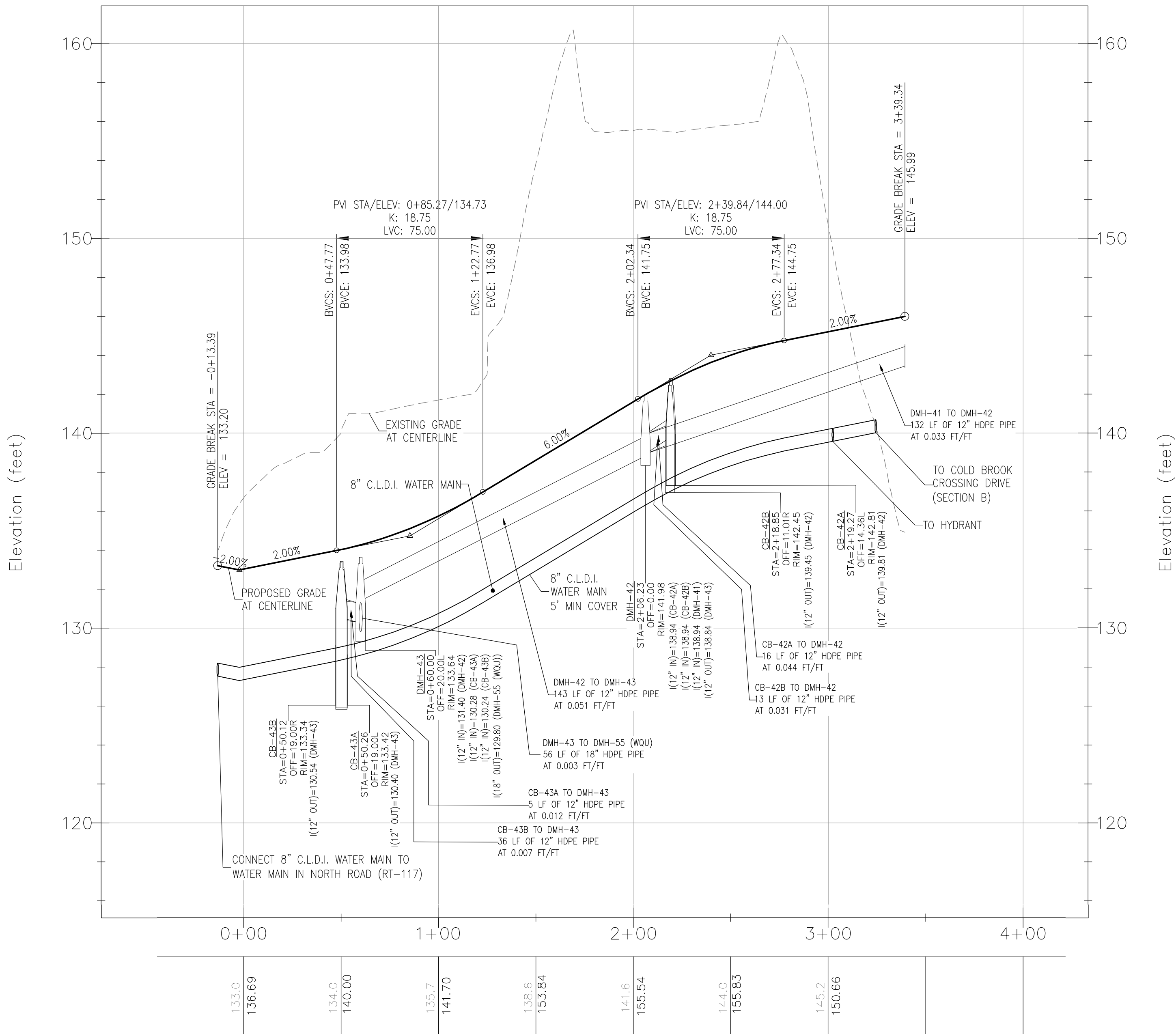
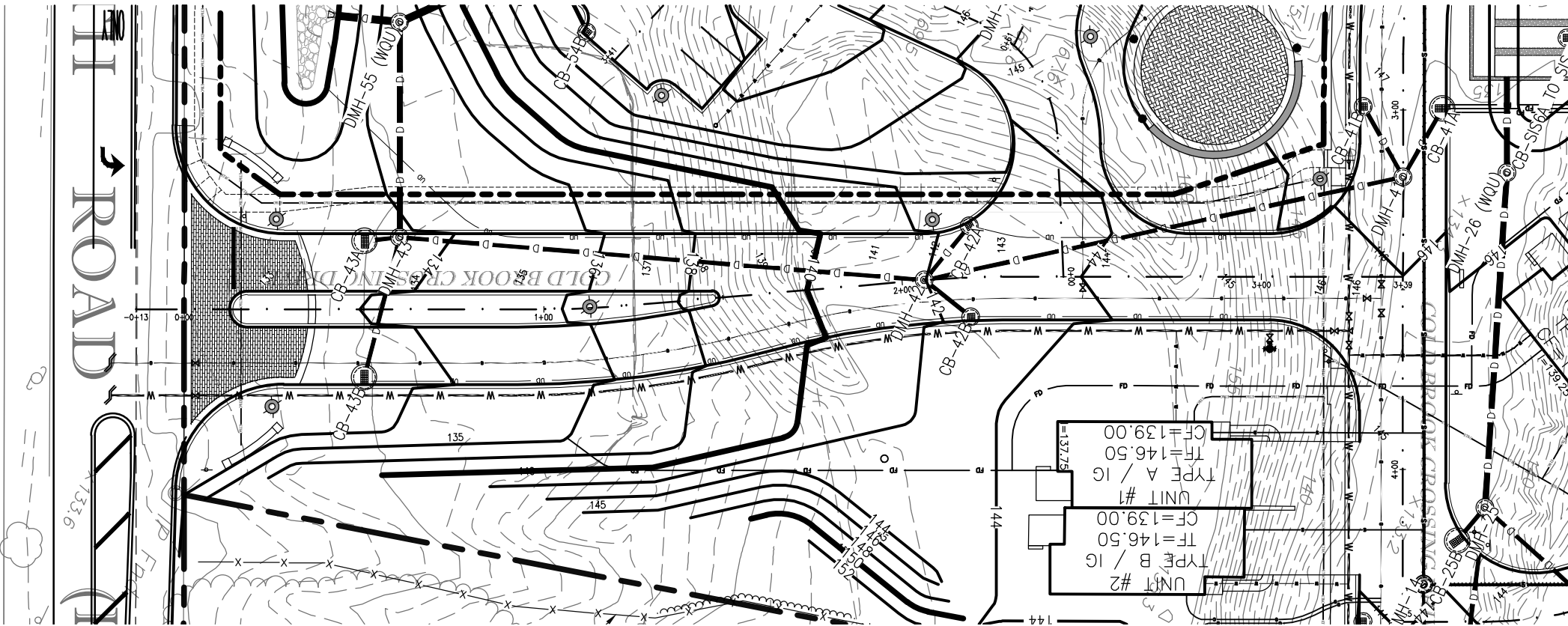
SHEET:

**UTILITY PLAN C**

**15**

DATE: 03/11/2020





PROFILE: COLD BROOK CROSSING DRIVE  
SECTION A: STA 0+00 THROUGH 3+39.34  
HORIZONTAL SCALE: 1" = 40', VERTICAL SCALE: 1" = 4'



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CDG PROJECT #: 19044 & 19045

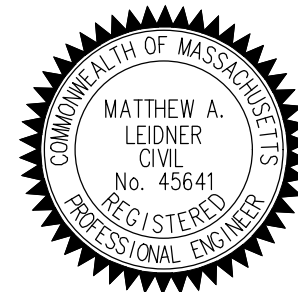
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PLANNING BOARD:

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SEAL:



*Matthew A. Leidner*  
MATTHEW A. LEIDNER, P.E.

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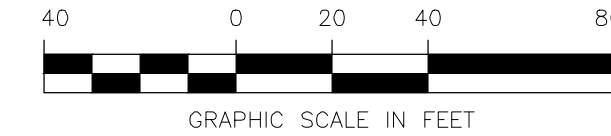
2134 SEVILLA WAY  
NAPLES, FL 34109

PROJECT:

COLD BROOK  
CROSSING

NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:



SHEET:

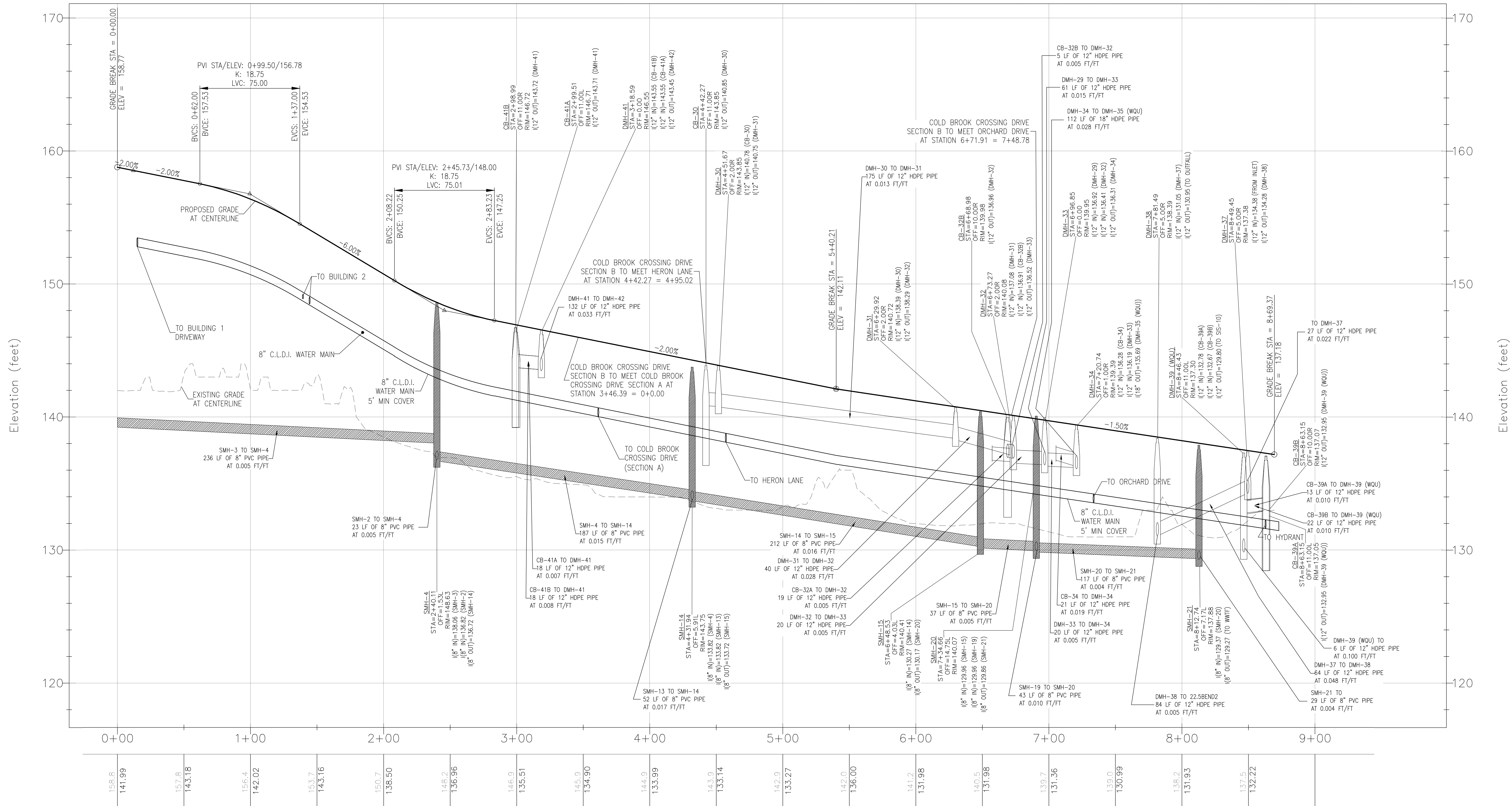
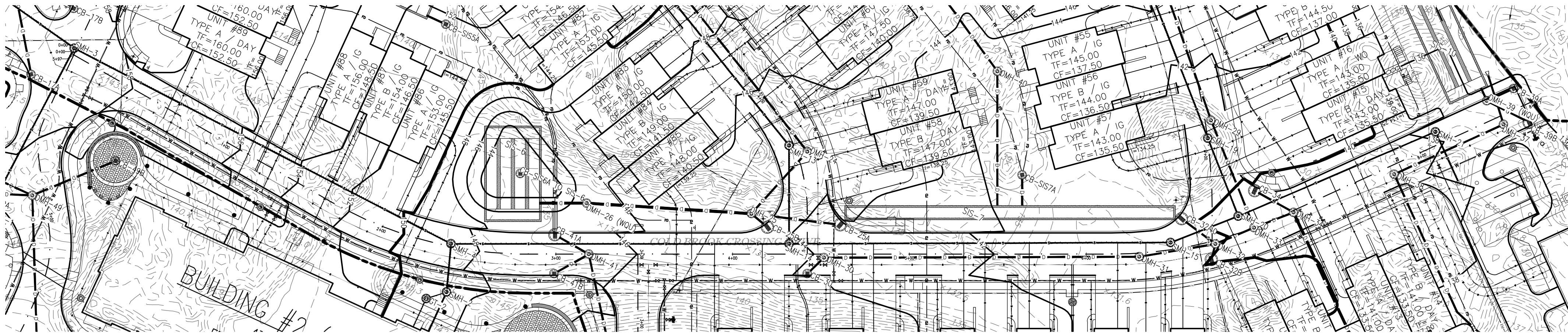
PLAN & PROFILE

16

DATE:

03/11/2020





# PROFILE: COLD BROOK CROSSING DRIVE SECTION B: STA 0+00 THROUGH 8+69.37

HORIZONTAL SCALE: 1" = 40', VERTICAL SCALE: 1" = 4'

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CDG PROJECT #: 19044 & 19045

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SEAL:

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PREPARED FOR:

QUARRY NORTH ROAD LLC

2134 SEVILLA WAY  
NAPLES, FL 34109

PROJECT:

COLD BROOK CROSSING

NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:

GRAPHIC SCALE IN FEET

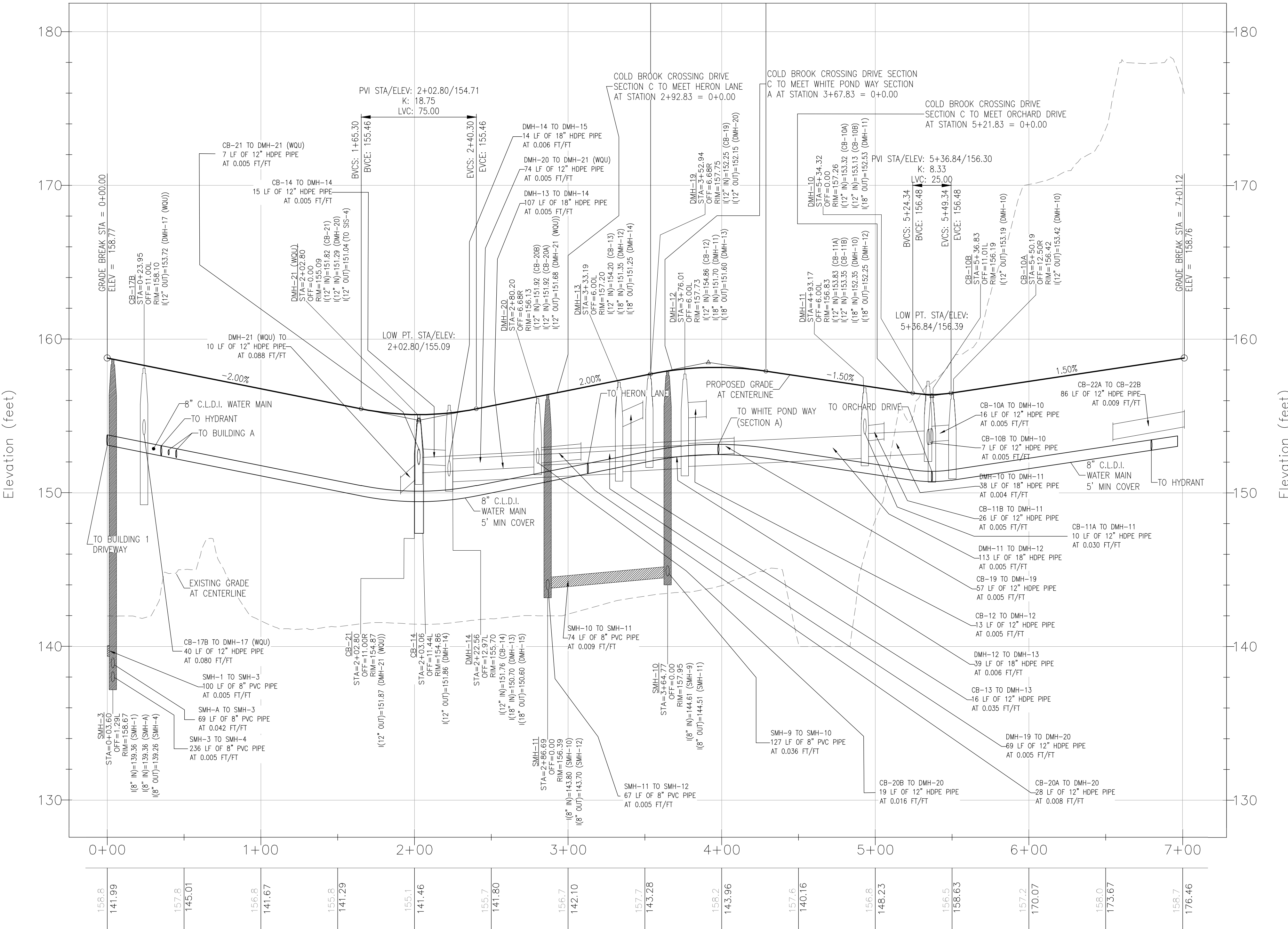
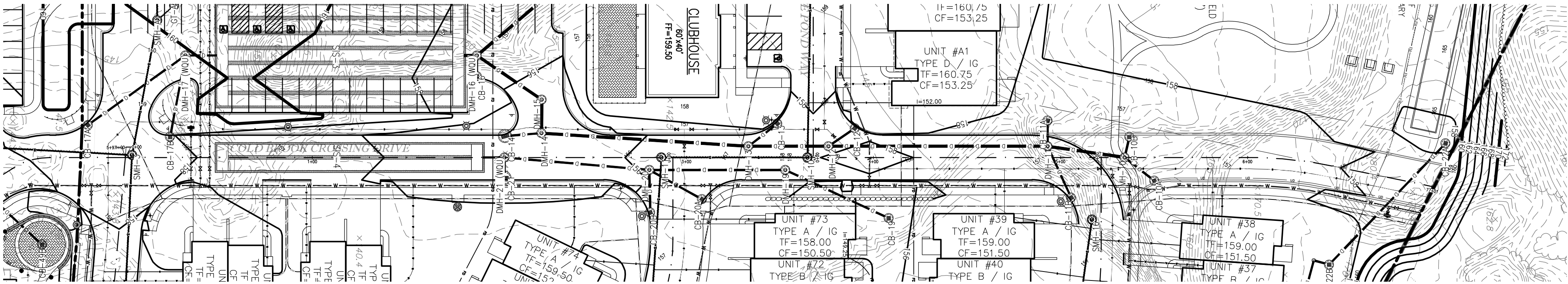
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PLAN & PROFILE

17

DATE: 03/11/2020





PROFILE: COLD BROOK CROSSING DRIVE  
SECTION C: STA 0+00 THROUGH 7+01.12  
HORIZONTAL SCALE: 1" = 40', VERTICAL SCALE: 1" = 4'



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CDG PROJECT #: 19044 & 19045

REVISIONS:

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PLANNING BOARD:

SEAL:

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PREPARED FOR:

QUARRY NORTH ROAD LLC

2134 SEVILLA WAY  
NAPLES, FL 34109

PROJECT:

COLD BROOK CROSSING

NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:

40 0 20 40 80  
GRAPHIC SCALE IN FEET

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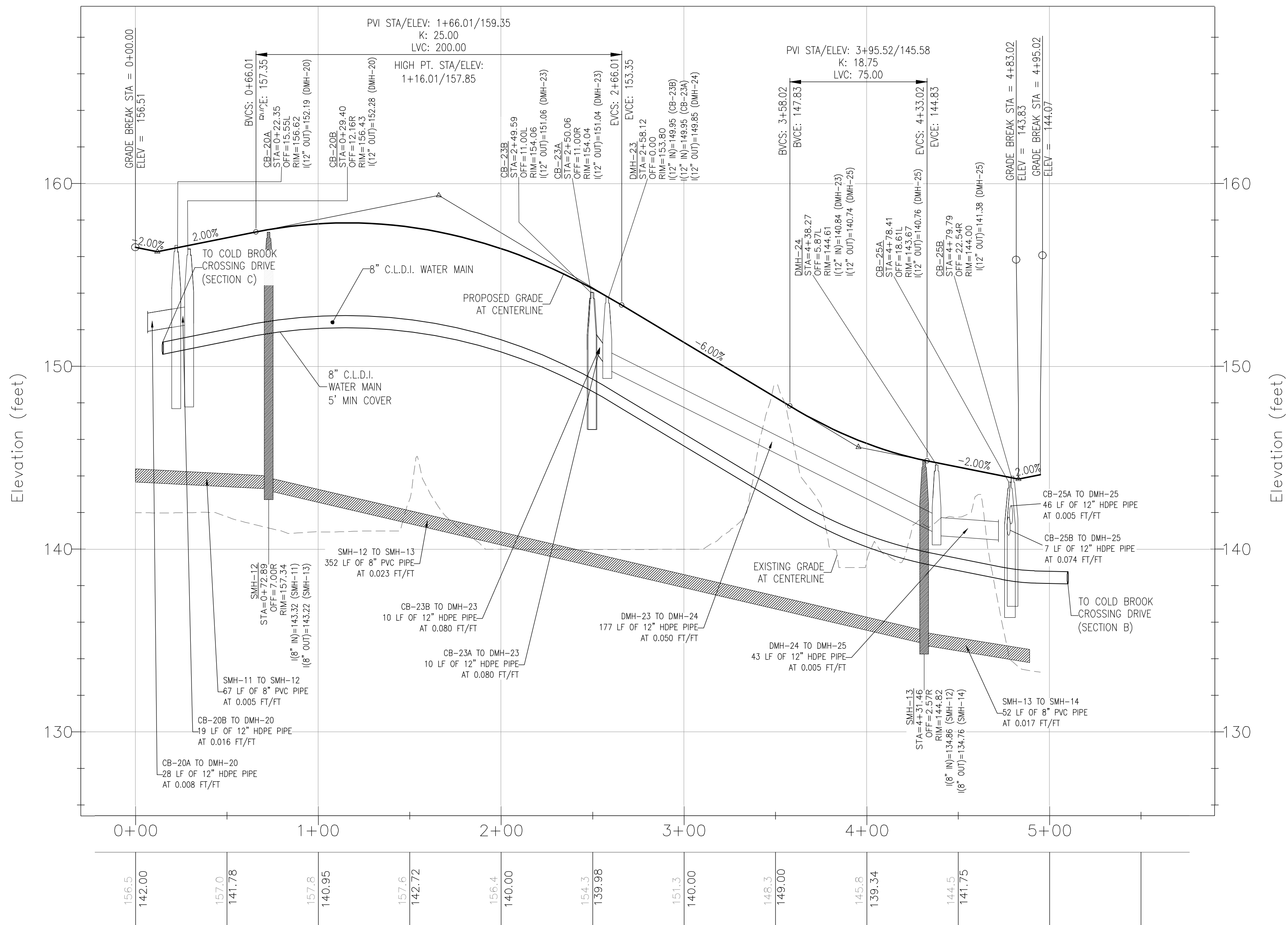
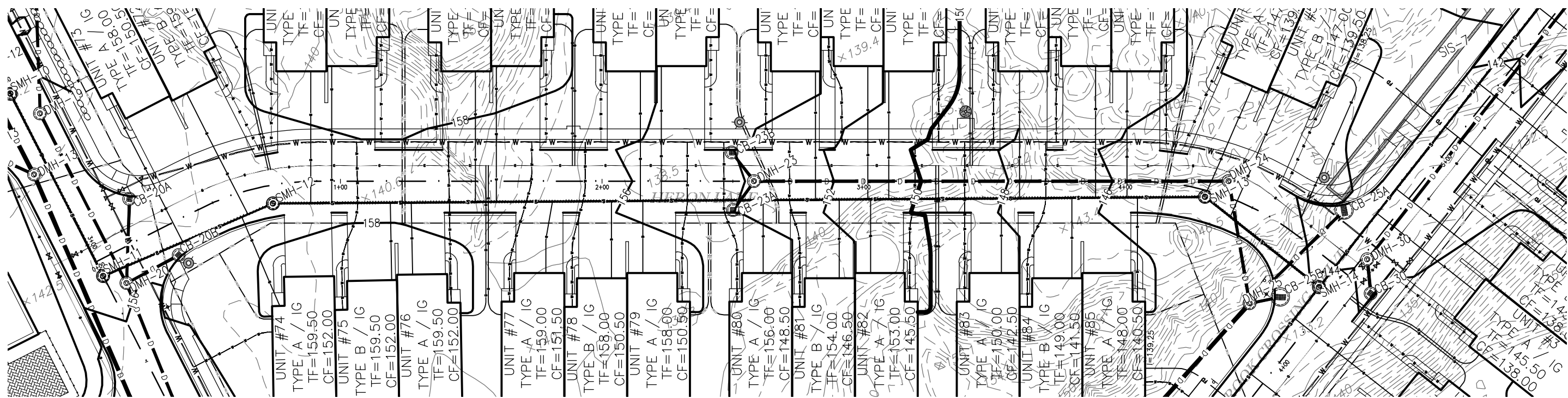
PLAN & PROFILE

18

DATE:

03/11/2020





**PROFILE: HERON LANE**  
**STA 0+00 THROUGH 4+95.02**  
HORIZONTAL SCALE: 1" = 40', VERTICAL SCALE: 1" = 4'

NOT FOR CONSTRUCTION

CDG PROJECT #: 19044 & 19045

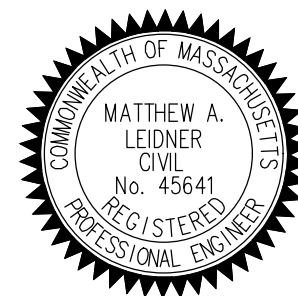
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PLANNING BOARD:

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SEAL:



*Matthew A. Leidner*  
MATTHEW A. LEIDNER, P.E.

PREPARED BY:

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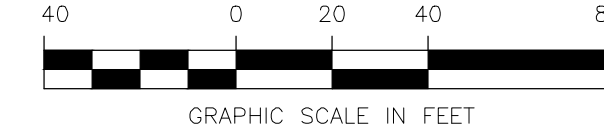
2134 SEVILLA WAY  
NAPLES, FL 34109

PROJECT:

**COLD BROOK  
CROSSING**

**NORTH ROAD  
SUDBURY, MASSACHUSETTS**

SCALE:



SHEET:

**PLAN & PROFILE**

**19**

DATE: 03/11/2020





**PROFILE: ORCHARD DRIVE**  
**STA 0+00 THROUGH 7+48.78**  
HORIZONTAL SCALE: 1" = 40', VERTICAL SCALE: 1" = 4'

NOT FOR CONSTRUCTION

CDG PROJECT #: 19044 & 19045

| REVISIONS: |      |         |
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PLANNING BOARD:

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SEAL:



*Matthew A. Leidner*

**MATTHEW A. LEIDNER, P.E.**

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2134 SEVILLA WAY  
NAPLES, FL 34109

PROJECT:

**COLD BROOK CROSSING**

**NORTH ROAD**  
**SUDBURY, MASSACHUSETTS**

SCALE:



GRAPHIC SCALE IN FEET

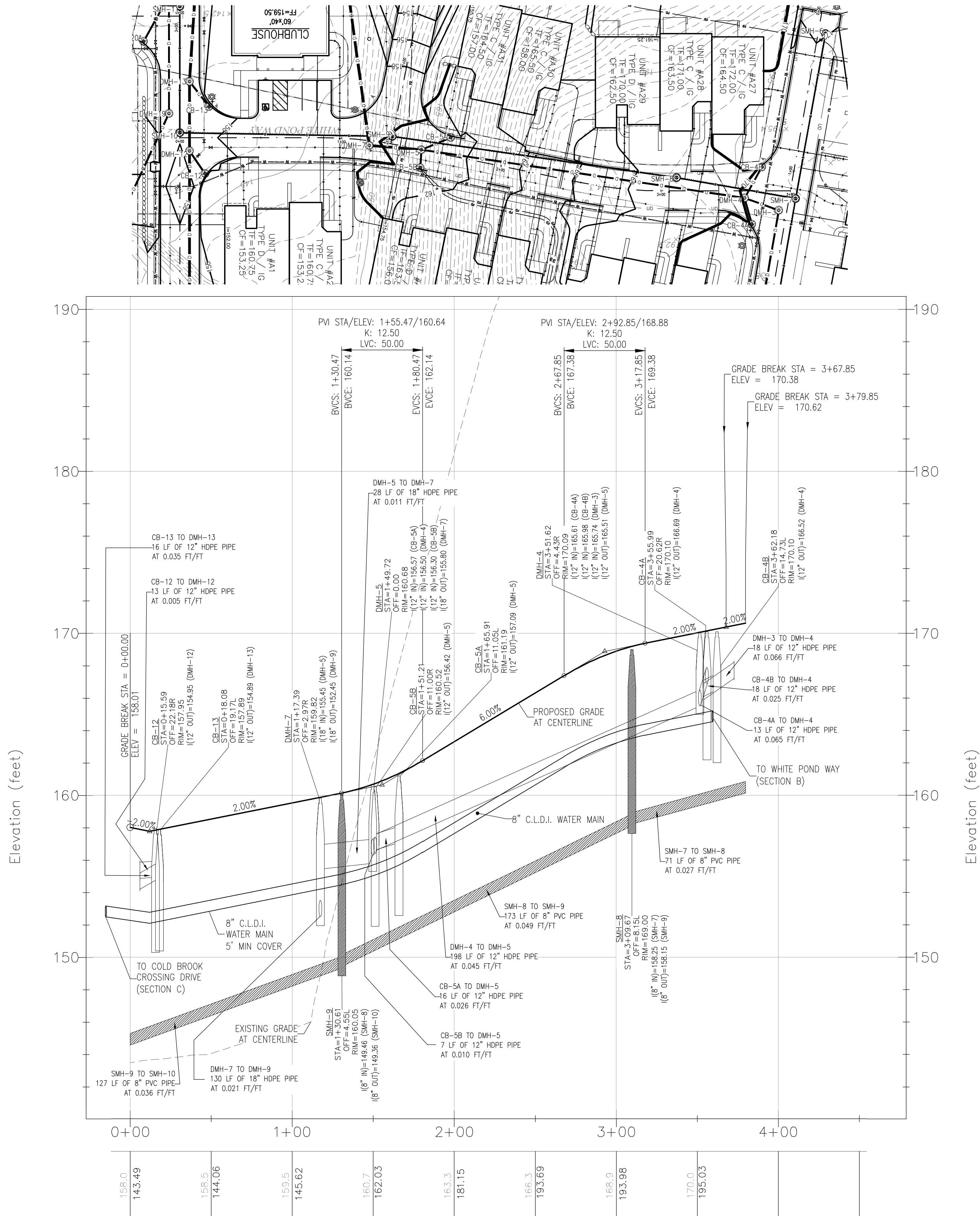
SHEET:

**PLAN & PROFILE**

**20**

DATE: 03/11/2020





PROFILE: WHITE POND WAY  
SECTION A: STA 0+00 THROUGH 3+79.85  
HORIZONTAL SCALE: 1" = 40', VERTICAL SCALE: 1" = 4'



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CDG PROJECT #:19044 & 19045

REVISIONS:

| REV | DATE | COMMENT |
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PLANNING BOARD:

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SEAL:

MATTHEW A. LEIDNER, P.E.

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2134 SEVILLA WAY  
NAPLES, FL 34109

PROJECT:

COLD BROOK CROSSING

NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:

GRAPHIC SCALE IN FEET

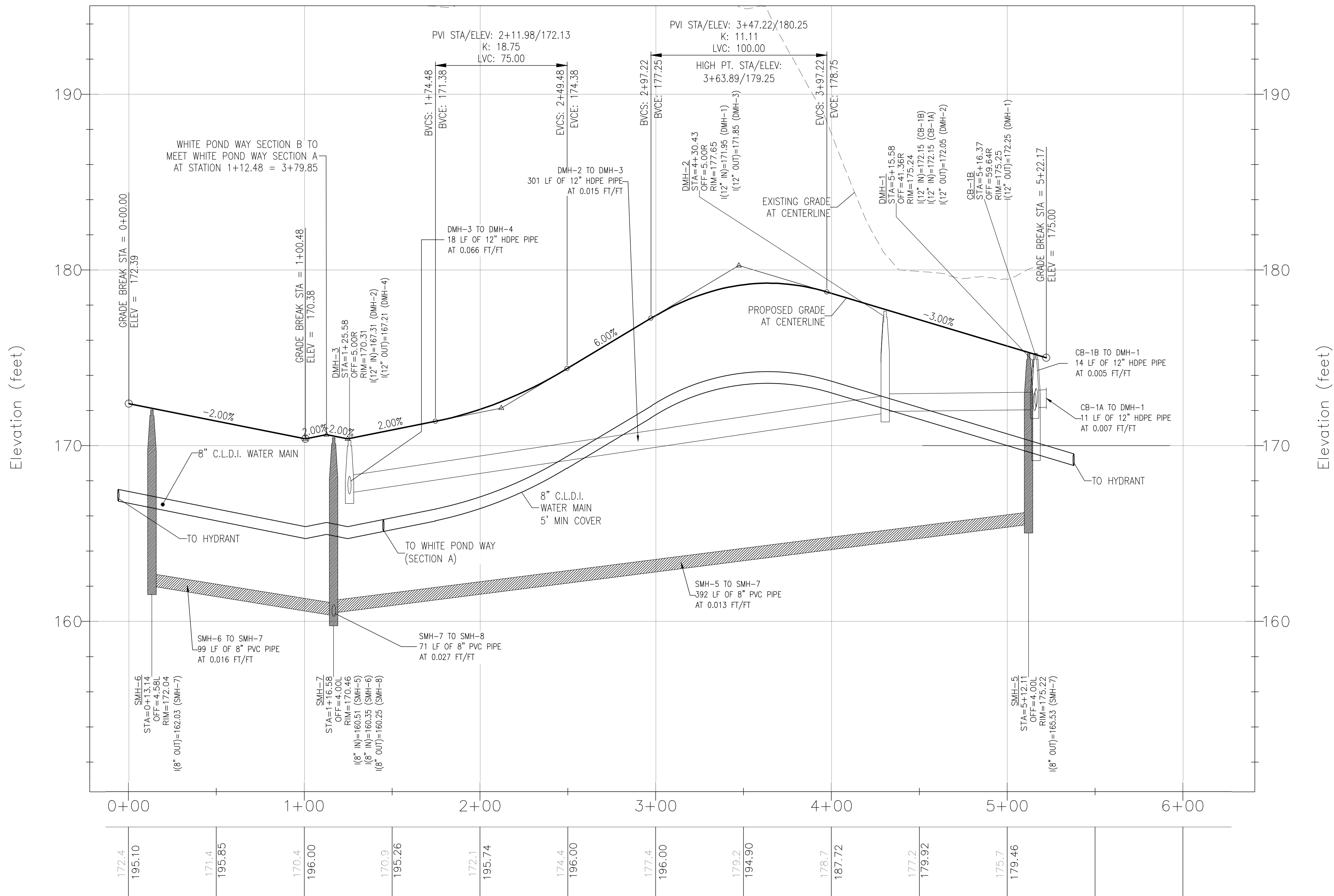
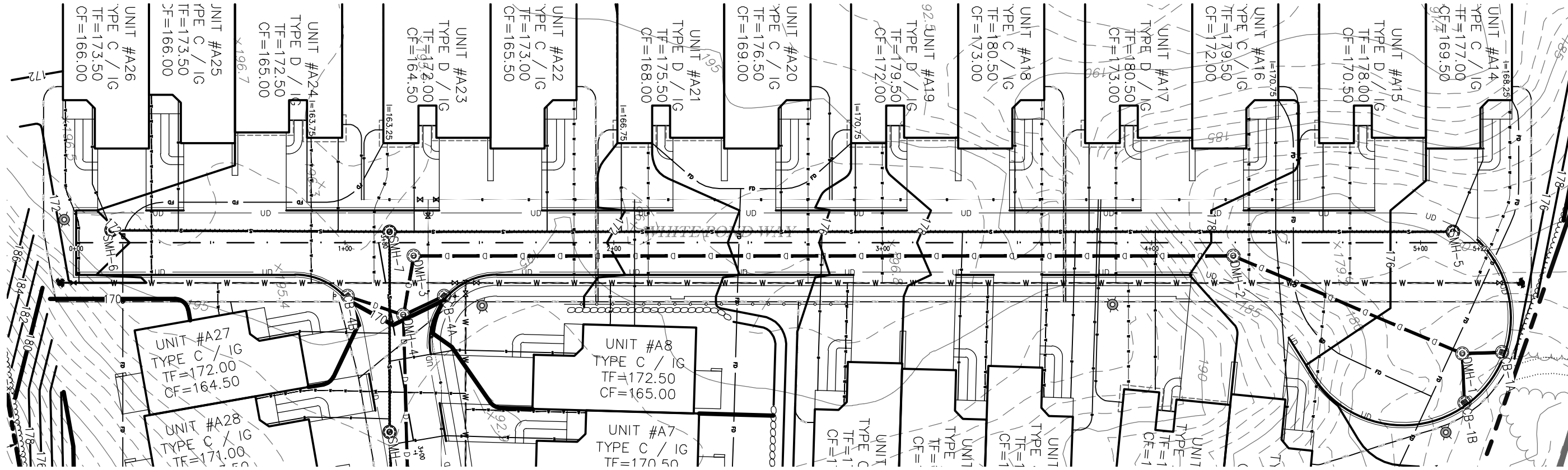
SHEET:

PLAN & PROFILE

21

DATE:03/11/2020





**PROFILE: WHITE POND WAY**  
**SECTION B: STA 0+00 THROUGH 5+22.17**  
HORIZONTAL SCALE: 1" = 40', VERTICAL SCALE: 1" = 4'



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CDG PROJECT #: 19044 & 19045

REVISIONS:

| REV | DATE | COMMENT |
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PLANNING BOARD:

SEAL:

COMMONWEALTH OF MASSACHUSETTS

MATTHEW A. LEIDNER

CIVIL

No. 45641

REGISTERED PROFESSIONAL ENGINEER

*Matthew A. Leidner*

MATTHEW A. LEIDNER, P.E.

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PROJECT:

COLD BROOK CROSSING

NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:

40 0 20 40 80

GRAPHIC SCALE IN FEET

SHEET:

PLAN & PROFILE

22

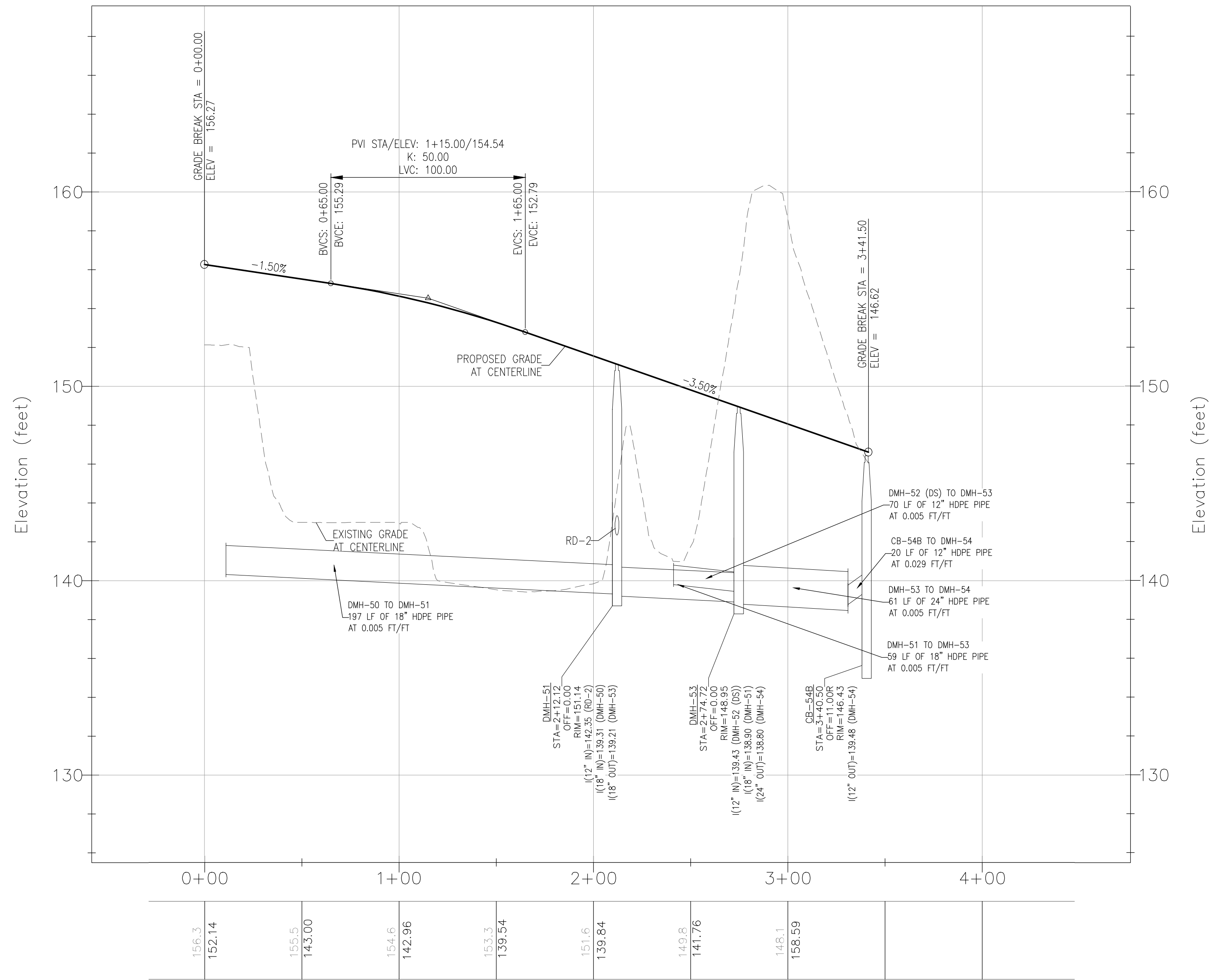
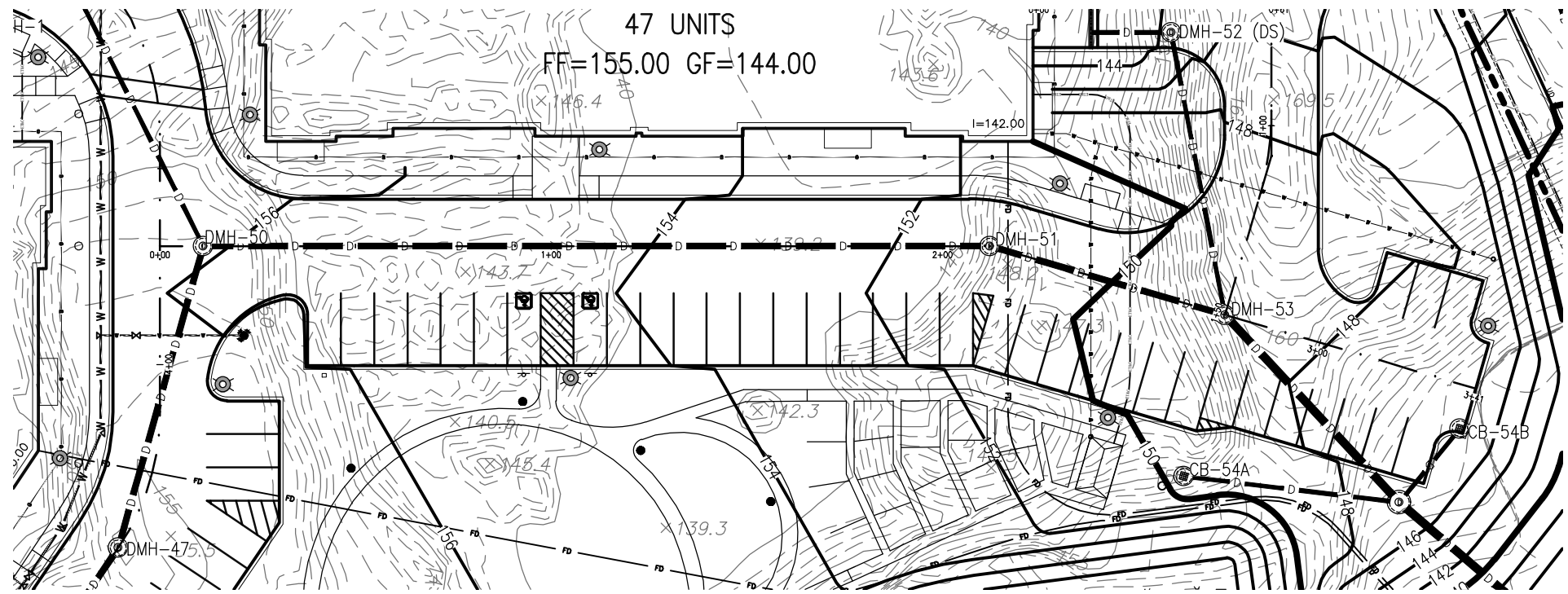
DATE:

03/11/2020









PROFILE: BUILDING 2 PARKING LOT  
STA 0+00 THROUGH 3+41.50  
HORIZONTAL SCALE: 1" = 40', VERTICAL SCALE: 1" = 4'



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CDG PROJECT #: 19044 & 19045

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SEAL:

COMMONWEALTH OF MASSACHUSETTS  
MATTHEW A. LEIDNER  
CIVIL  
No. 45641  
REGISTERED PROFESSIONAL ENGINEER

MATTHEW A. LEIDNER, P.E.

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2134 SEVILLA WAY  
NAPLES, FL 34109

PROJECT:

COLD BROOK CROSSING  
NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:

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GRAPHIC SCALE IN FEET

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PLAN & PROFILE  
24

DATE: 03/11/2020





PHASING NOTE

THIS PHASING PLAN IS INTENDED TO SHOW THE PROGRESSION OF CONSTRUCTION IN A GENERAL MANNER AS IS ANTICIPATED AT THIS TIME. THERE WILL BE SOME OVERLAP OF PHASES TO FACILITATE A SEAMLESS FLOW OF SITE WORK AND VERTICAL CONSTRUCTION ACTIVITIES AS THE BUILDOUT PROGRESSES, AND THEREFORE THE CONTRACTOR MAY MOVE TO SUBSEQUENT PHASES PRIOR TO COMPLETING PRIOR PHASE.

- CONSTRUCTION PHASE 1
- CONSTRUCTION PHASE 2
- CONSTRUCTION PHASE 3

NOT FOR CONSTRUCTION

CDG PROJECT #:19044 & 19045

REVISIONS:

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SEAL:

COMMONWEALTH OF MASSACHUSETTS  
MATTHEW A. LEIDNER  
CIVIL  
No. 45641  
REGISTERED PROFESSIONAL ENGINEER

*Matthew A. Leidner*  
MATTHEW A. LEIDNER, P.E.

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CIVIL DESIGN GROUP, LLC

21 HIGH STREET, SUITE 207  
NORTH ANDOVER, MA 01845  
www.cdengineering.com  
p: 978-794-5400 f: 978-965-3971

PREPARED FOR:

QUARRY NORTH ROAD LLC

2134 SEVILLA WAY  
NAPLES, FL 34109

PROJECT:

COLD BROOK CROSSING

NORTH ROAD  
SUDBURY, MASSACHUSETTS

SCALE:

80 0 40 80 160

GRAPHIC SCALE IN FEET

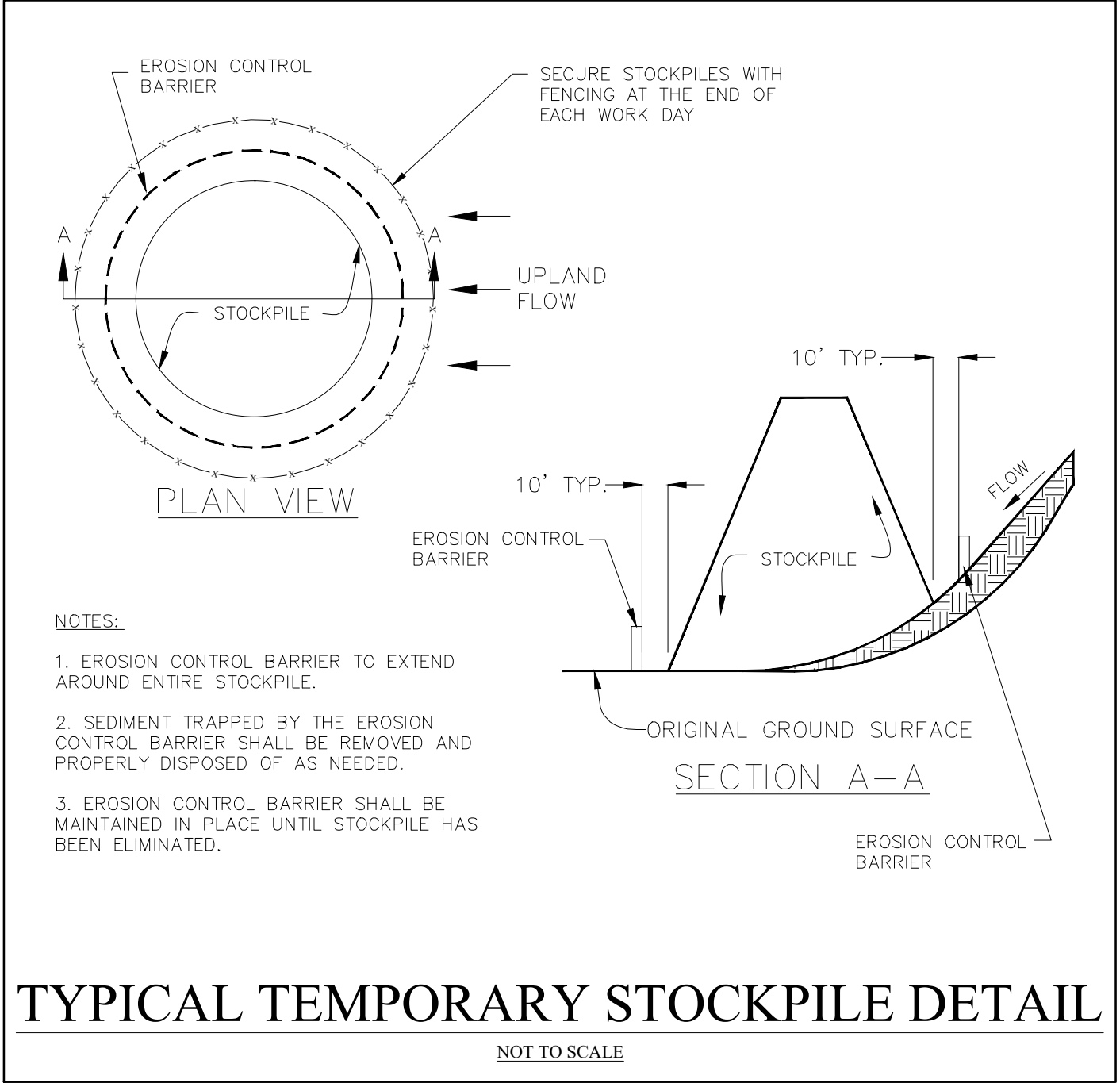
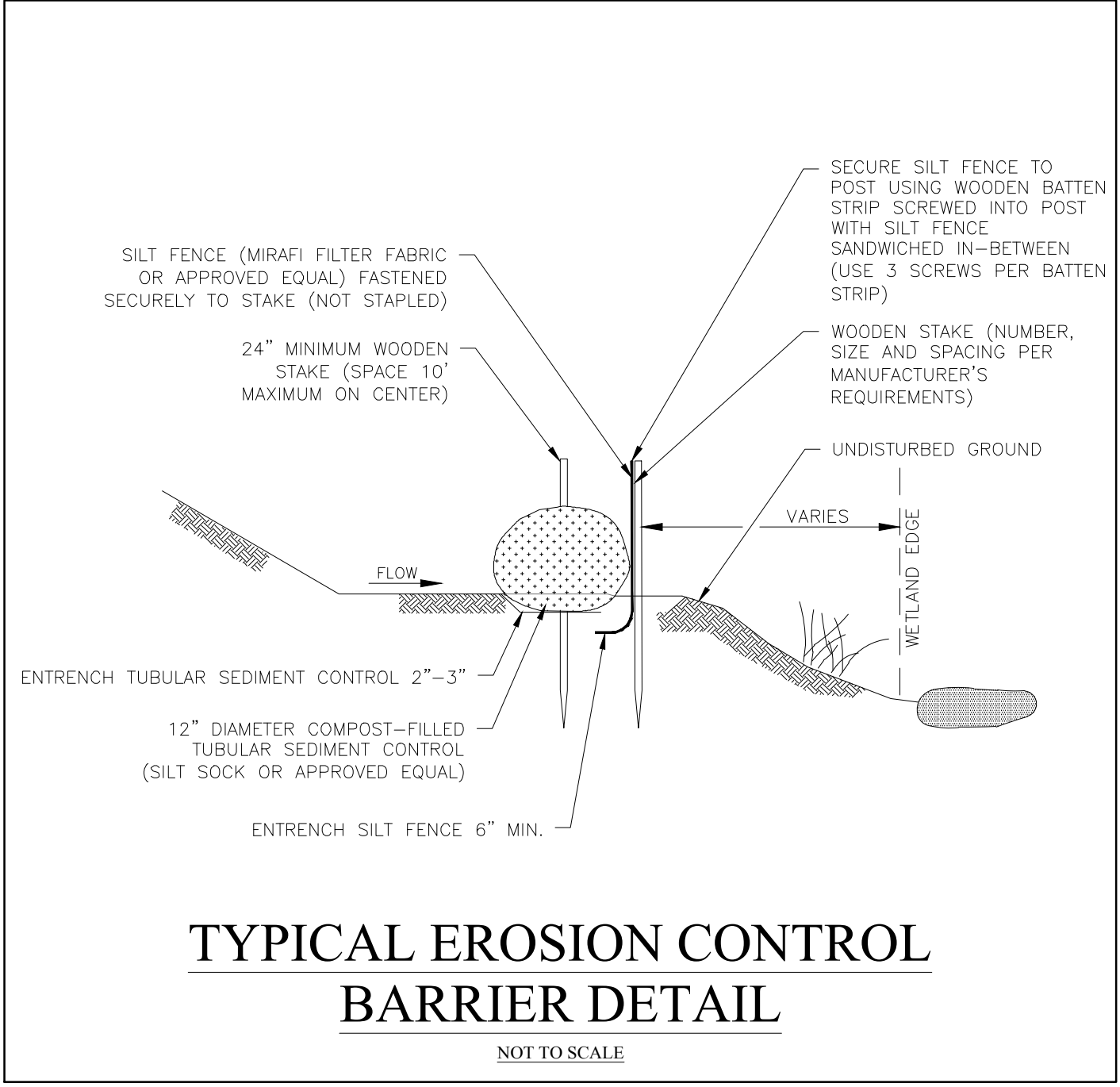
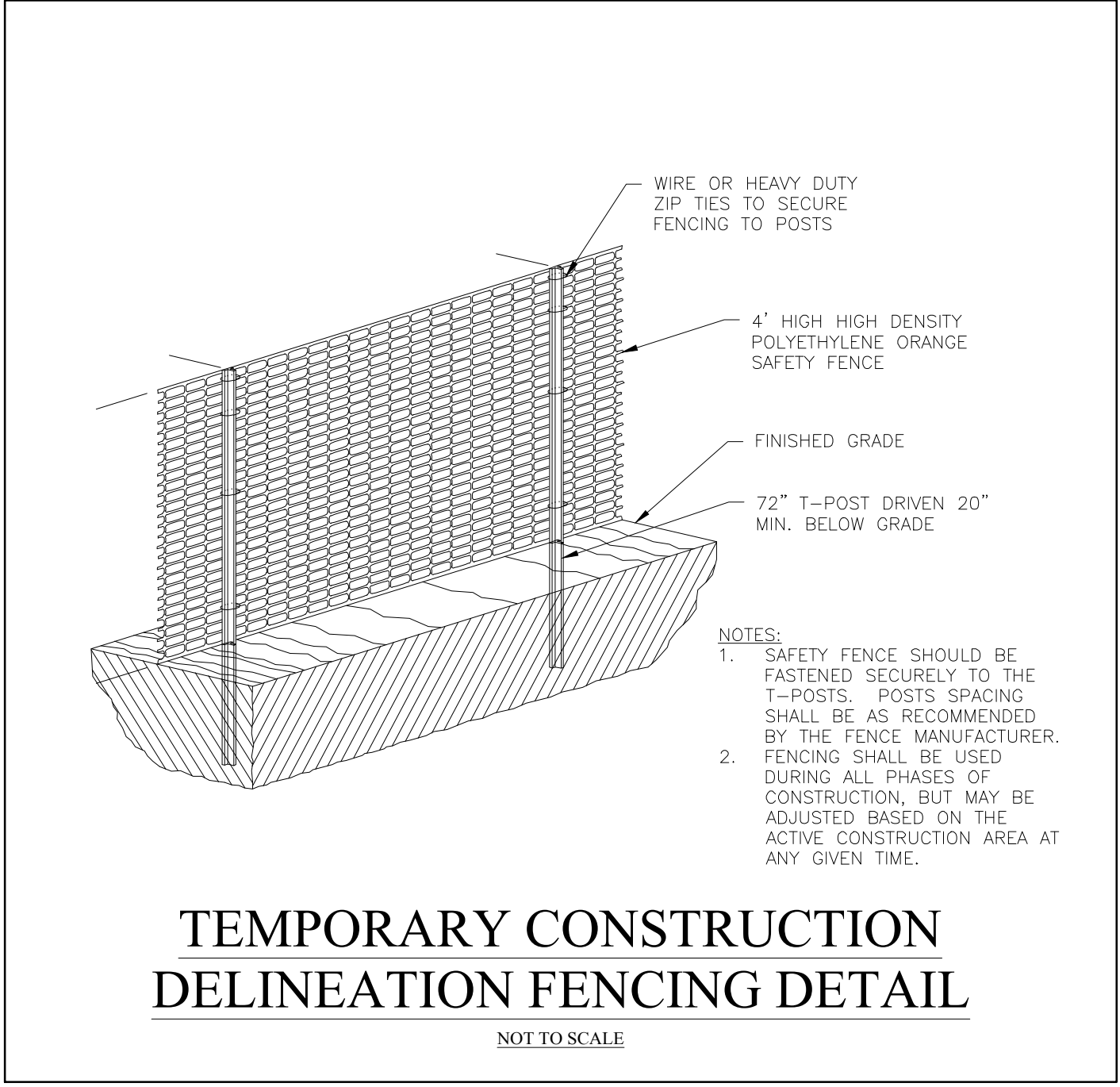
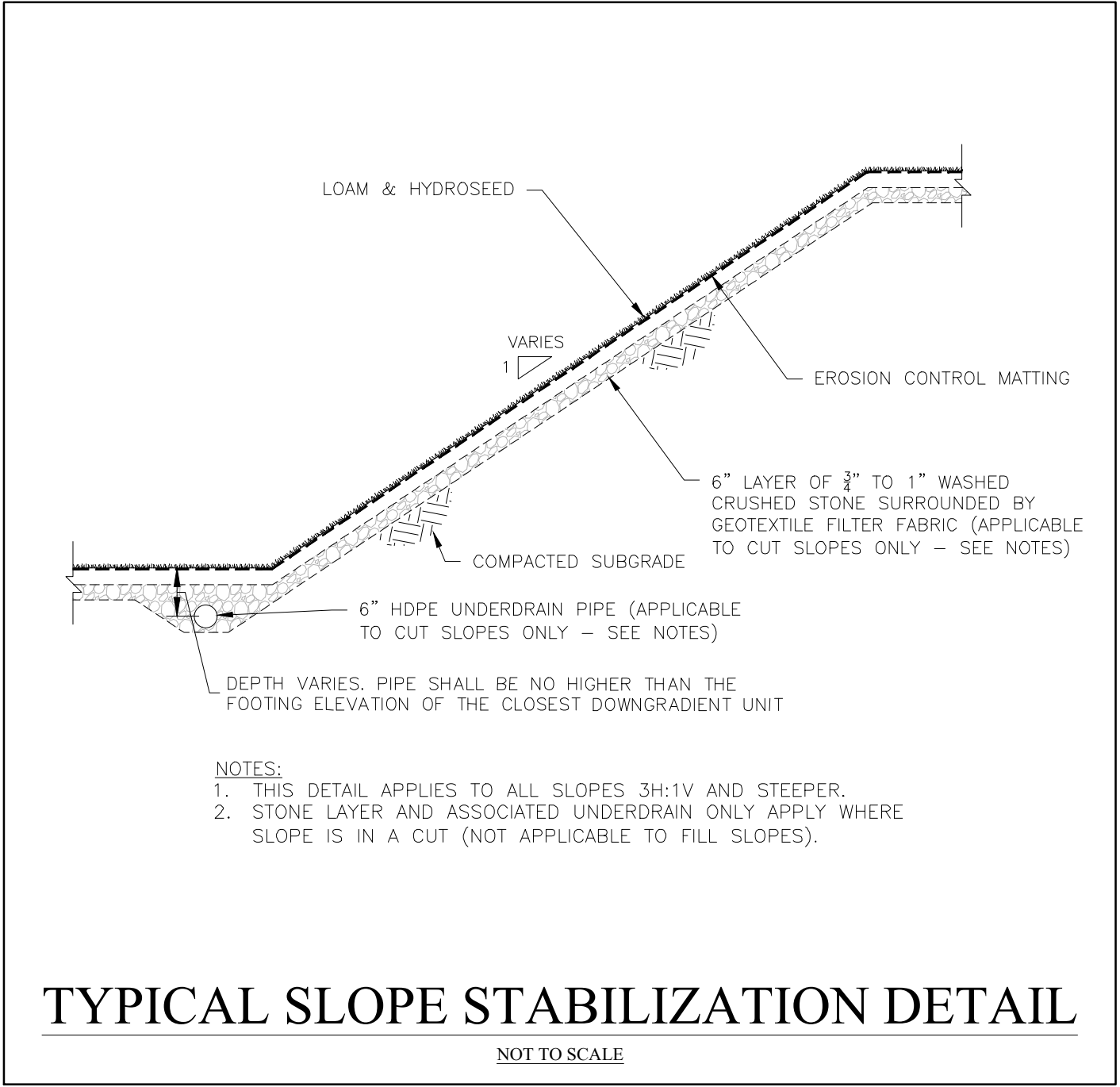
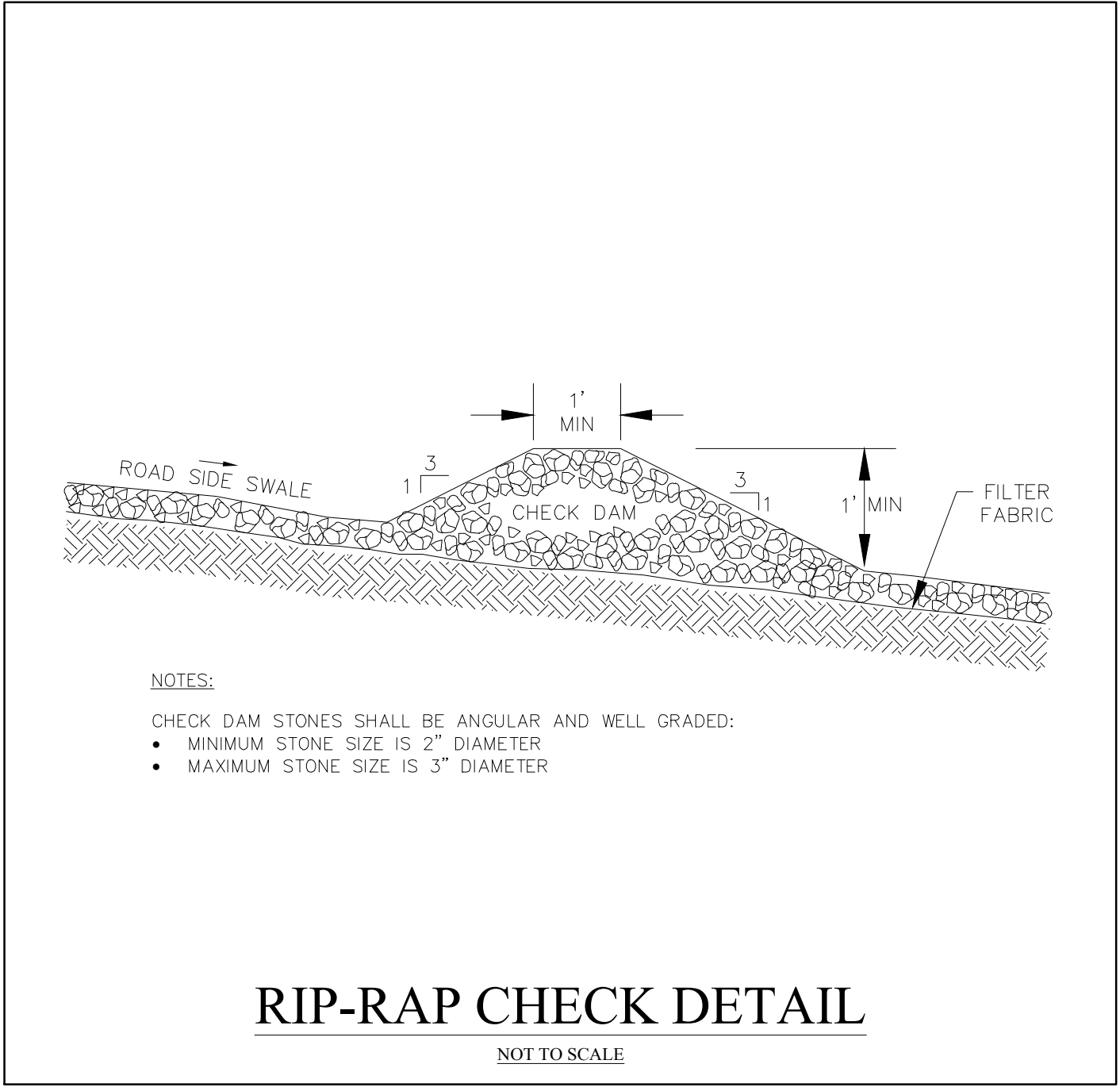
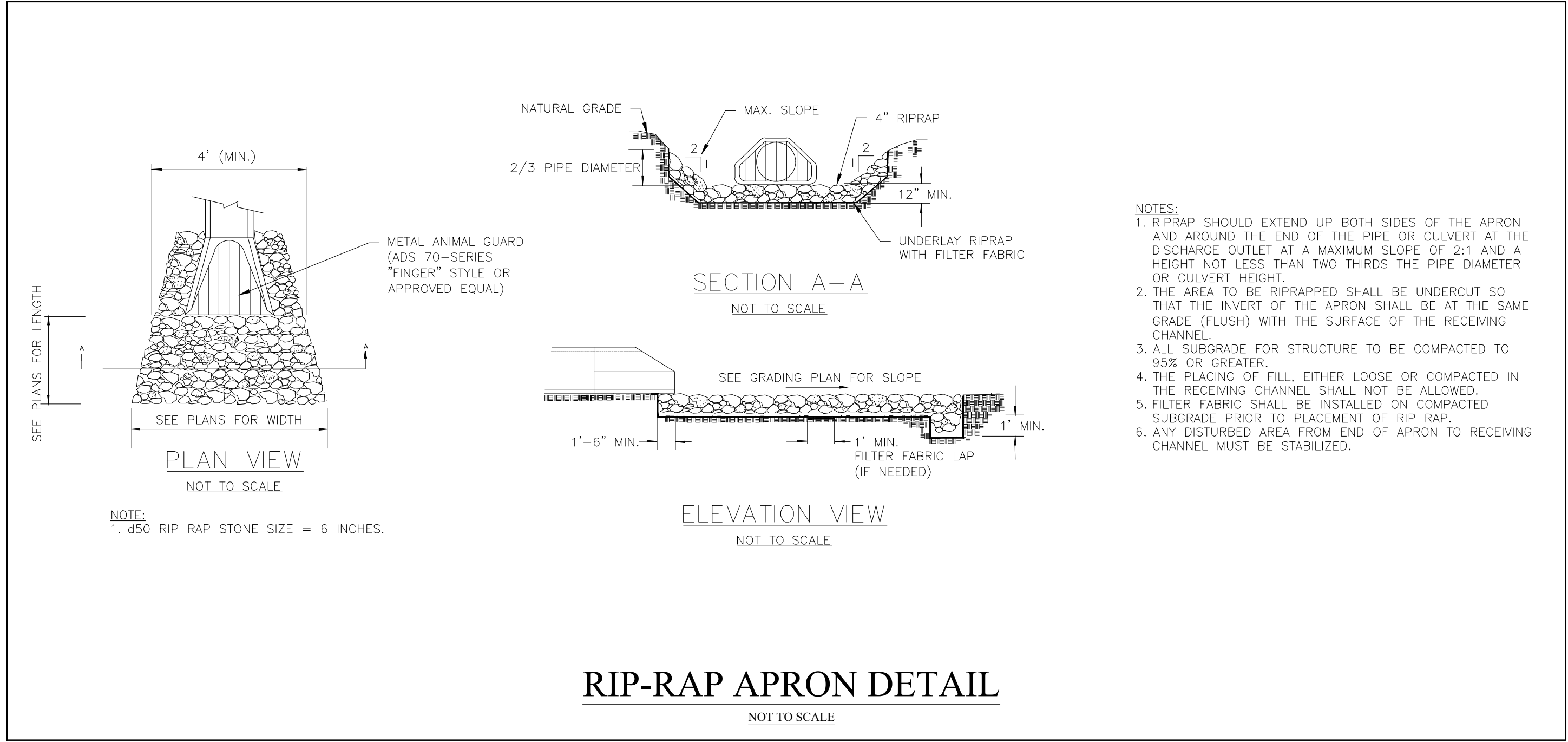
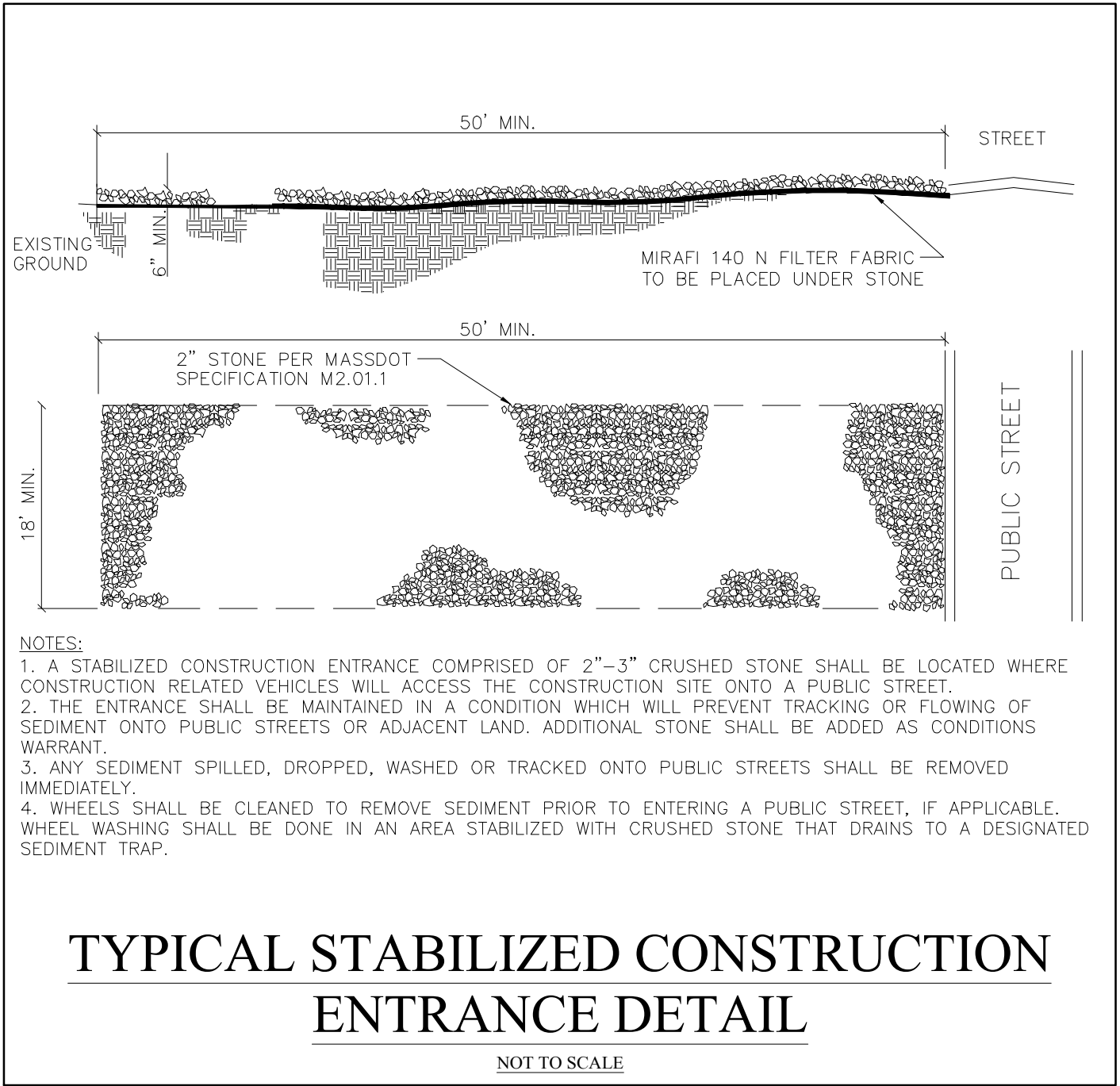
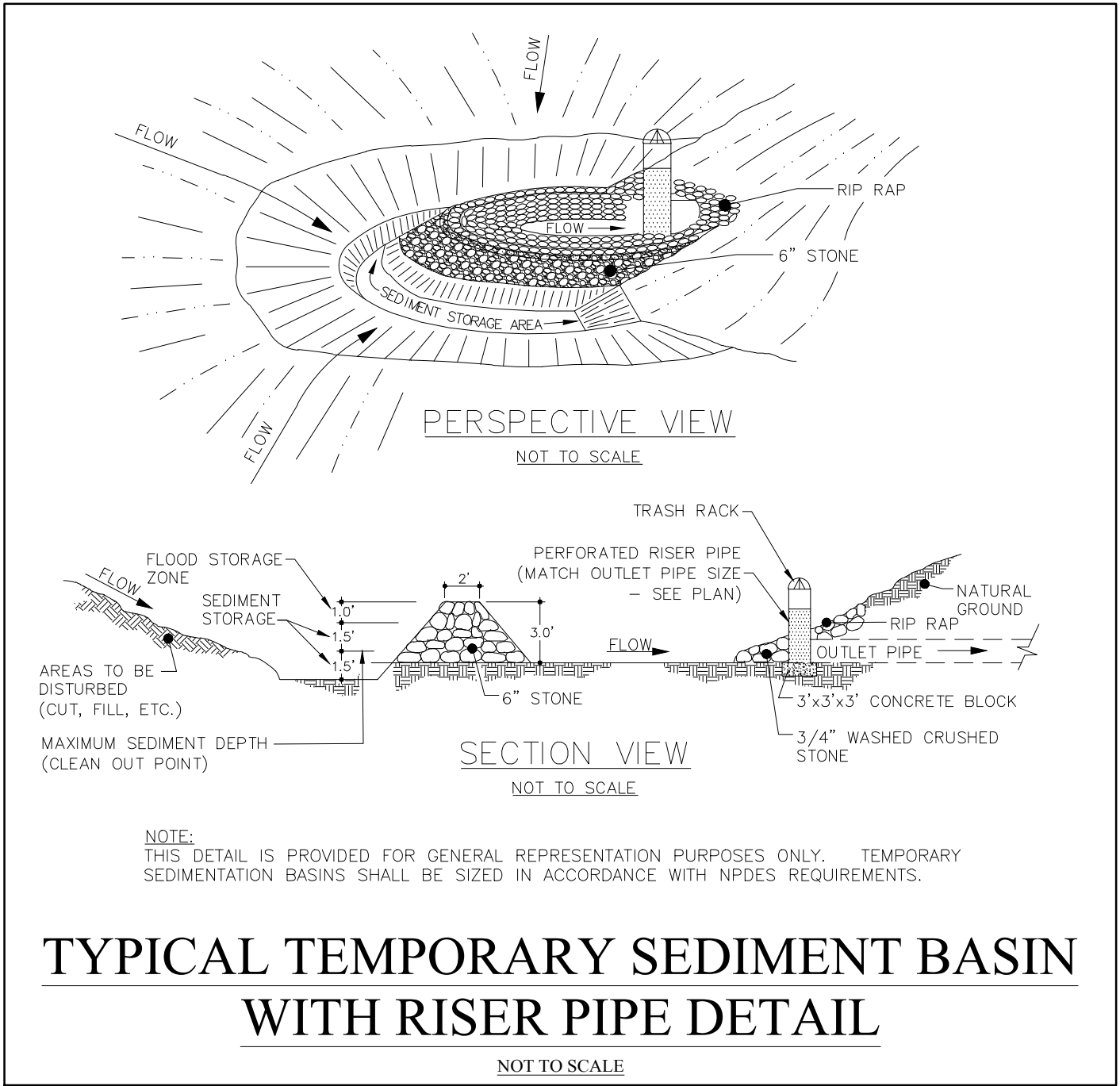
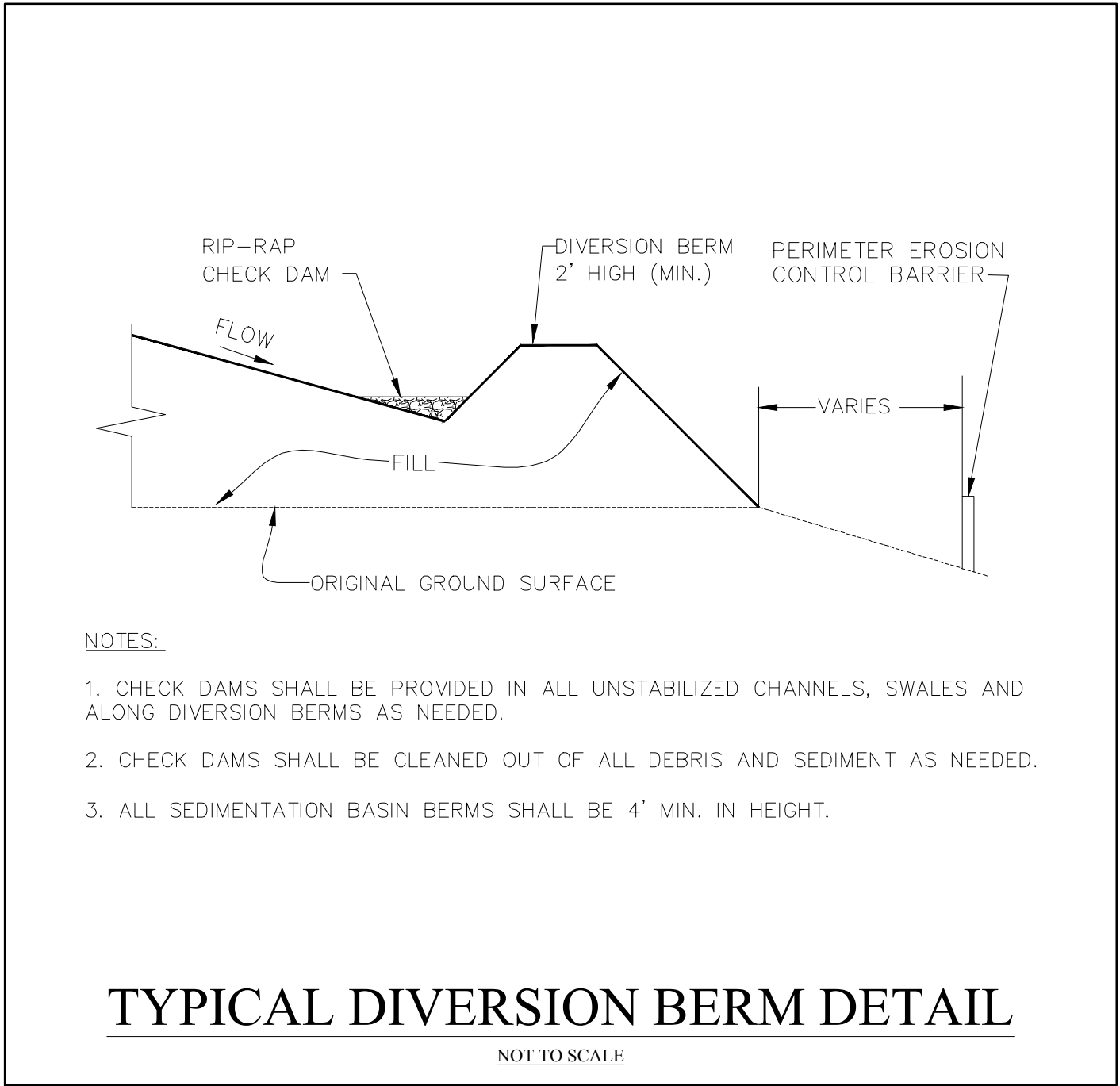
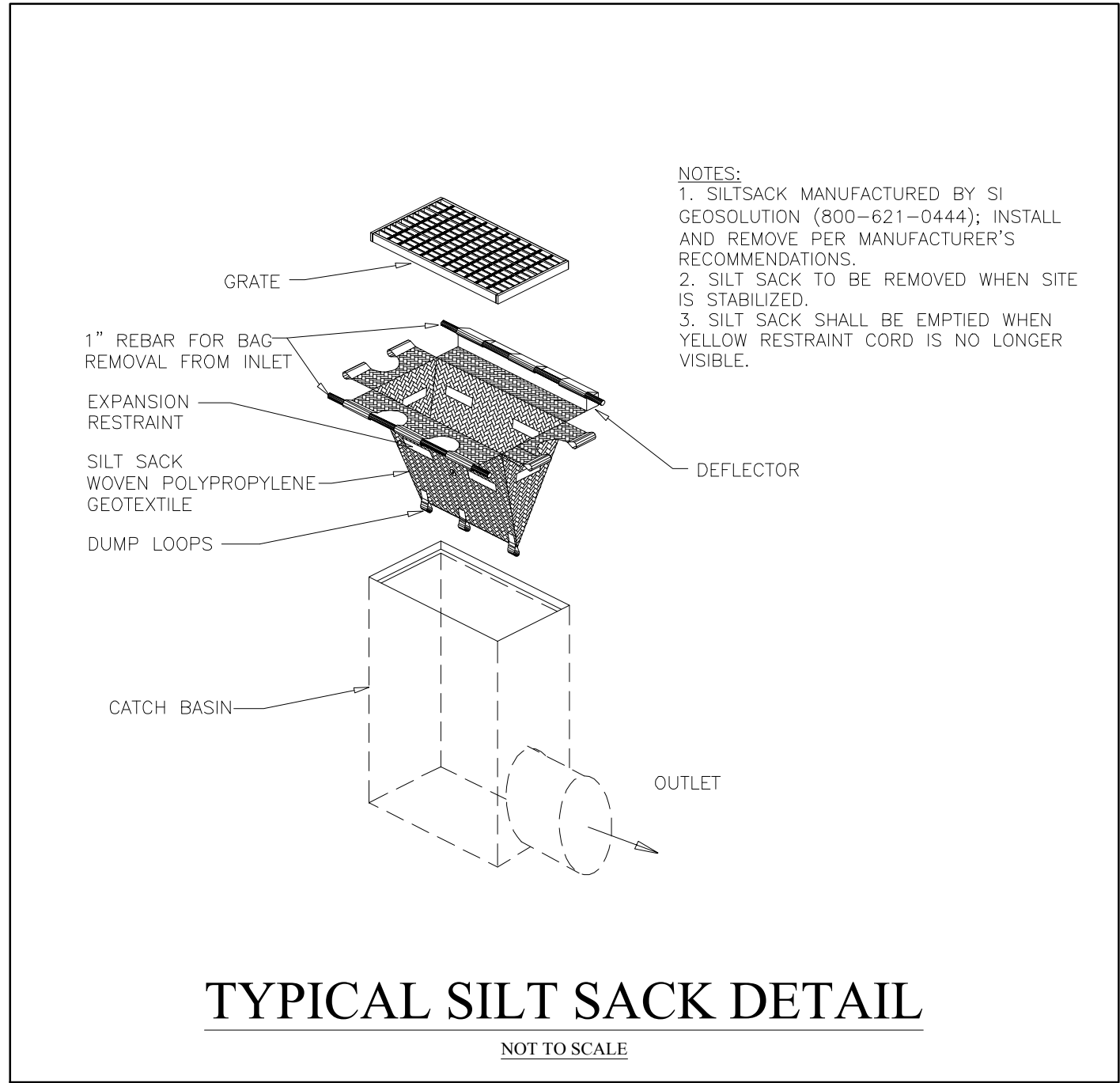
SHEET:

CONSTRUCTION PHASING

25

DATE:03/11/2020





NOT FOR CONSTRUCTION

CDG PROJECT #: 19044 & 19045

| REVISIONS: |      |         |
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PLANNING BOARD:

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**AS-NOTED**

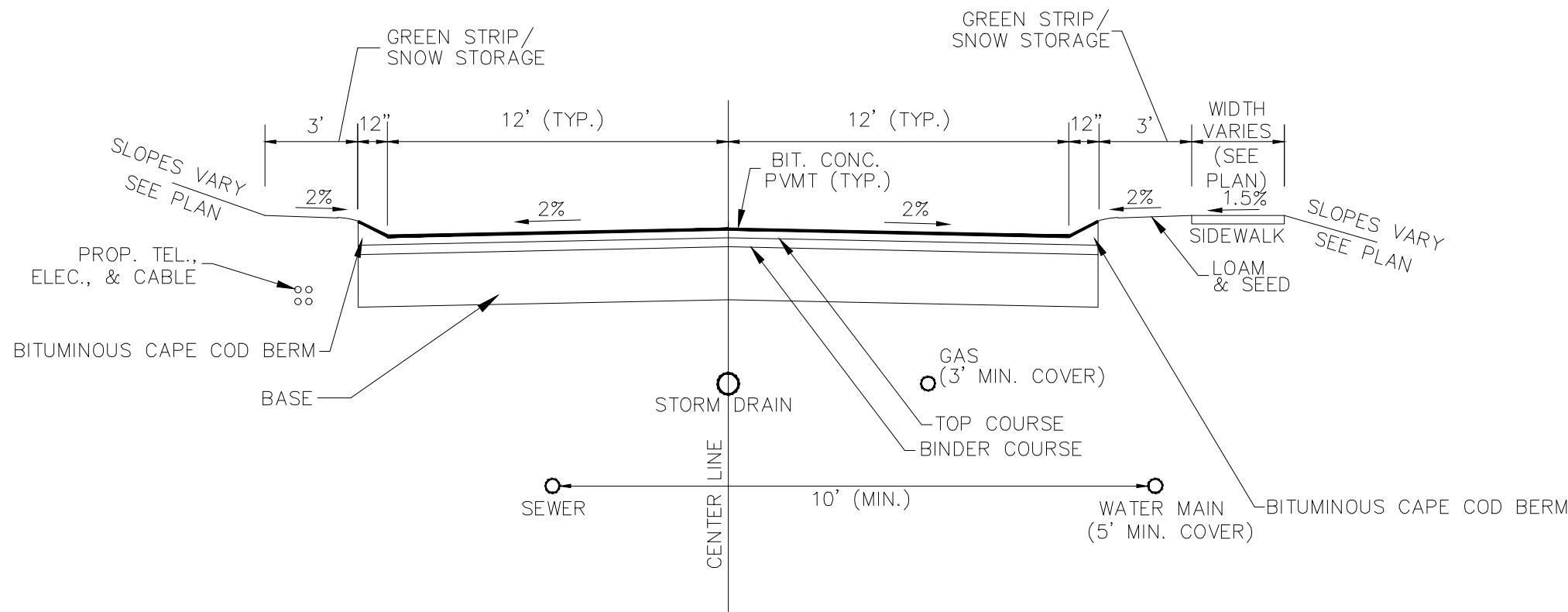
SHEET:

**CONSTRUCTION DETAILS**

**26**

DATE: 03/11/2020

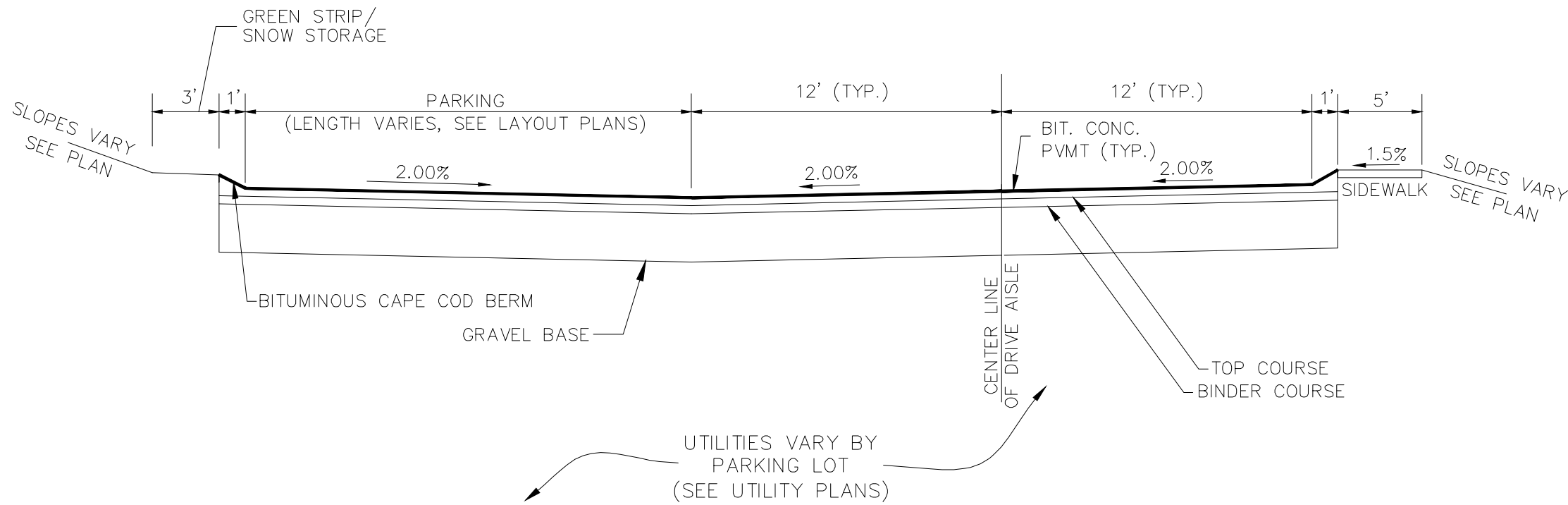




NOTES:  
1. LOCATIONS OF UTILITIES SHOWN IN THIS DETAIL FOR REPRESENTATION PURPOSES ONLY. SEE SITE PLAN FOR PROPOSED LOCATIONS OF UTILITIES.  
2. REFER TO TYPICAL PAVEMENT SECTION DETAIL FOR FURTHER INFORMATION ON PAVEMENT SYSTEM.

### TYPICAL SITE DRIVE CROSS-SECTION (NO PARKING)

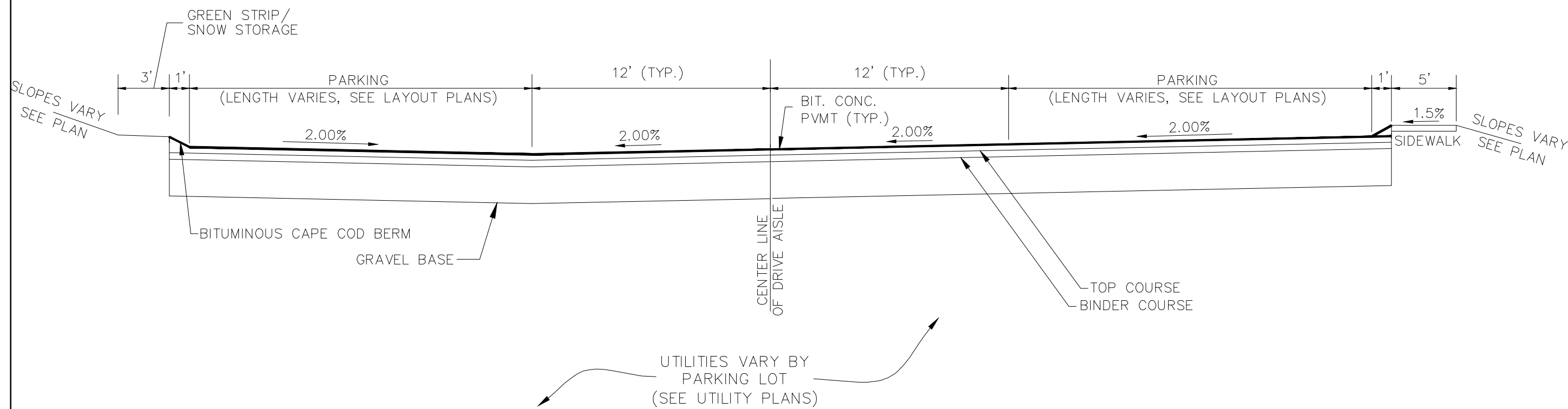
NOT TO SCALE



NOTES:  
1. LOCATIONS OF UTILITIES SHOWN IN THIS DETAIL FOR REPRESENTATION PURPOSES ONLY. SEE SITE PLAN FOR PROPOSED LOCATIONS OF UTILITIES.  
2. REFER TO TYPICAL PAVEMENT SECTION DETAIL FOR FURTHER INFORMATION ON PAVEMENT SYSTEM.

### TYPICAL PARKING LOT CROSS-SECTION (PARKING ON ONE SIDE)

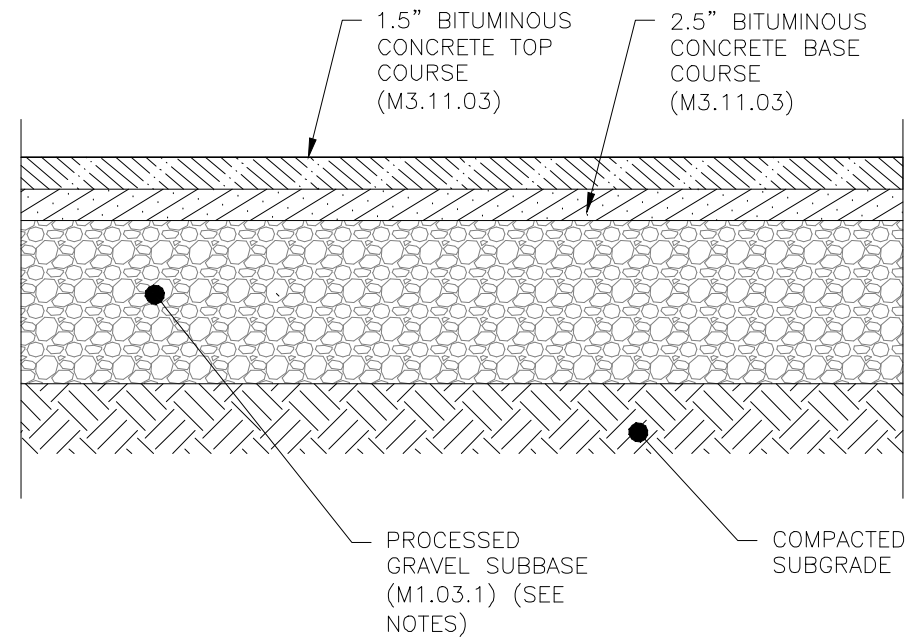
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NOTES:  
1. LOCATIONS OF UTILITIES SHOWN IN THIS DETAIL FOR REPRESENTATION PURPOSES ONLY. SEE SITE PLAN FOR PROPOSED LOCATIONS OF UTILITIES.  
2. REFER TO TYPICAL PAVEMENT SECTION DETAIL FOR FURTHER INFORMATION ON PAVEMENT SYSTEM.

### TYPICAL PARKING LOT CROSS-SECTION (PARKING ON BOTH SIDES)

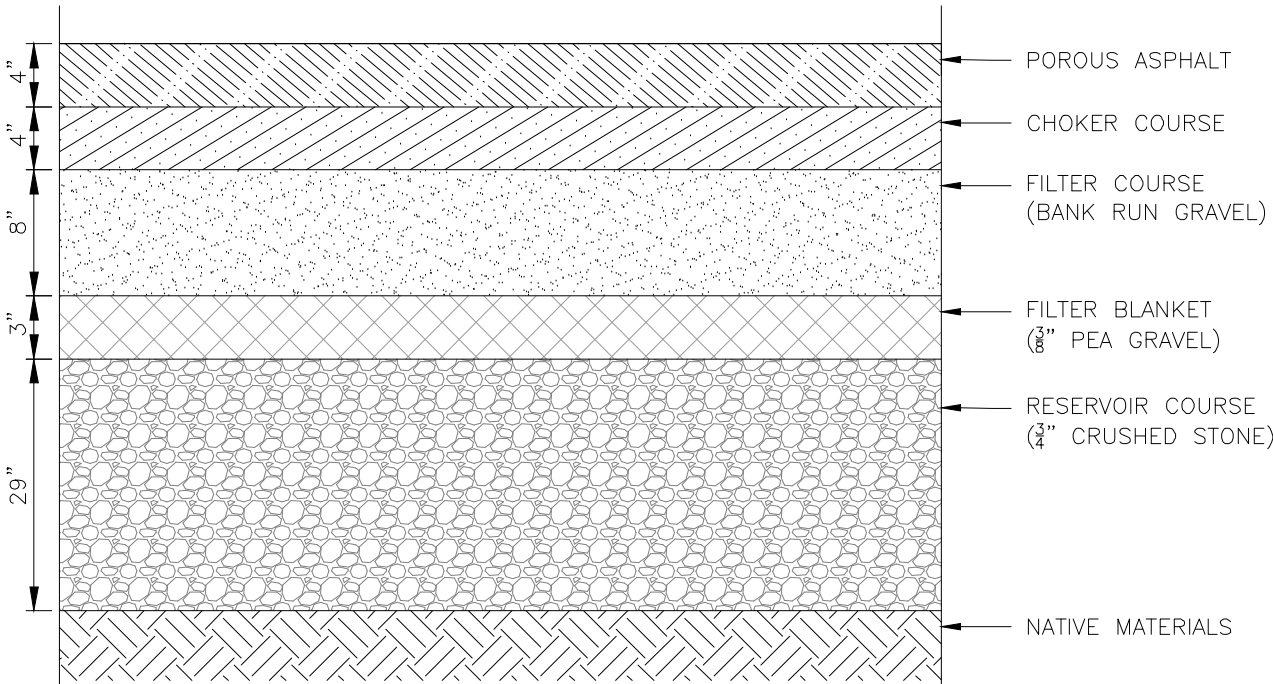
NOT TO SCALE



NOTES:  
1. THIS DETAIL PROVIDES A MINIMUM STANDARD FOR PAVEMENT CONSTRUCTION BASED ON THE AASHTO GUIDE FOR DESIGN OF PAVEMENT STRUCTURES. THE FINAL PAVEMENT SECTION SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER AND SHALL BE UTILIZED IF MORE STRINGENT THAN THIS DETAIL.  
2. MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MassDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.  
3. THE SOIL MUST HAVE A MOISTURE CONTENT DRY OF OPTIMUM AS DETERMINED BY THE MOISTURE-DENSITY RELATIONSHIP TEST METHOD ASTM D1557.  
4. THE SOIL CAN BE COMPACTED TO 98% OF THE MAXIMUM STANDARD PROCTOR DENSITY AS DETERMINED BY THE MOISTURE-DENSITY RELATIONSHIP TEST METHOD ASTM D698.  
5. THE SOIL SHALL NOT BE USED IF THE MATERIAL CONTAINS ORGANIC MATTER, RUBBLE, DEBRIS OR ANY OTHER DELETERIOUS MATERIAL.

### TYPICAL BITUMINOUS PAVEMENT DETAIL

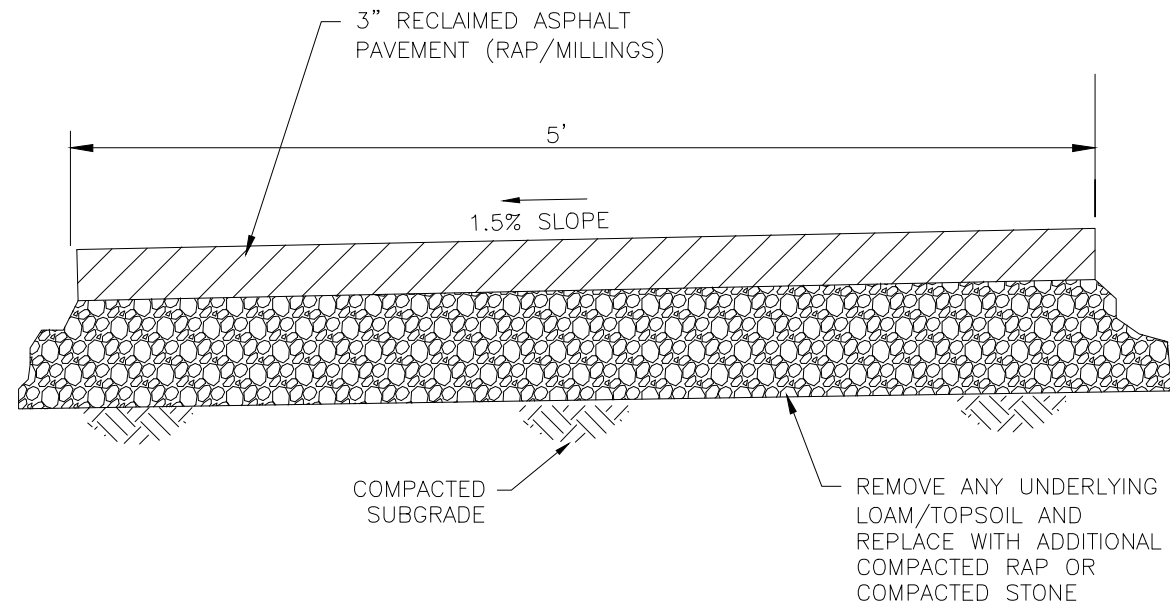
NOT TO SCALE



NOTES:  
1. MATERIAL SPECIFICATIONS FOR THE POROUS PAVEMENT SECTIONS SHALL BE AS OUTLINED IN THE LATEST REVISION OF THE "UNIVERSITY OF NEW HAMPSHIRE STORMWATER CENTER (UNHSC) DESIGN SPECIFICATIONS FOR POROUS ASPHALT PAVEMENT AND INFILTRATION BEDS".  
2. RESERVOIR COURSE DEPTH CALCULATED AS FOLLOWS IN ACCORDANCE WITH SECTION 2.1.4.e OF THE ABOVE REFERENCED UNHSC SPECIFICATIONS:  
100-YEAR RAINFALL DEPTH = 8.6"  
VOIDS = 30%  
8.6" / 30% = 29"

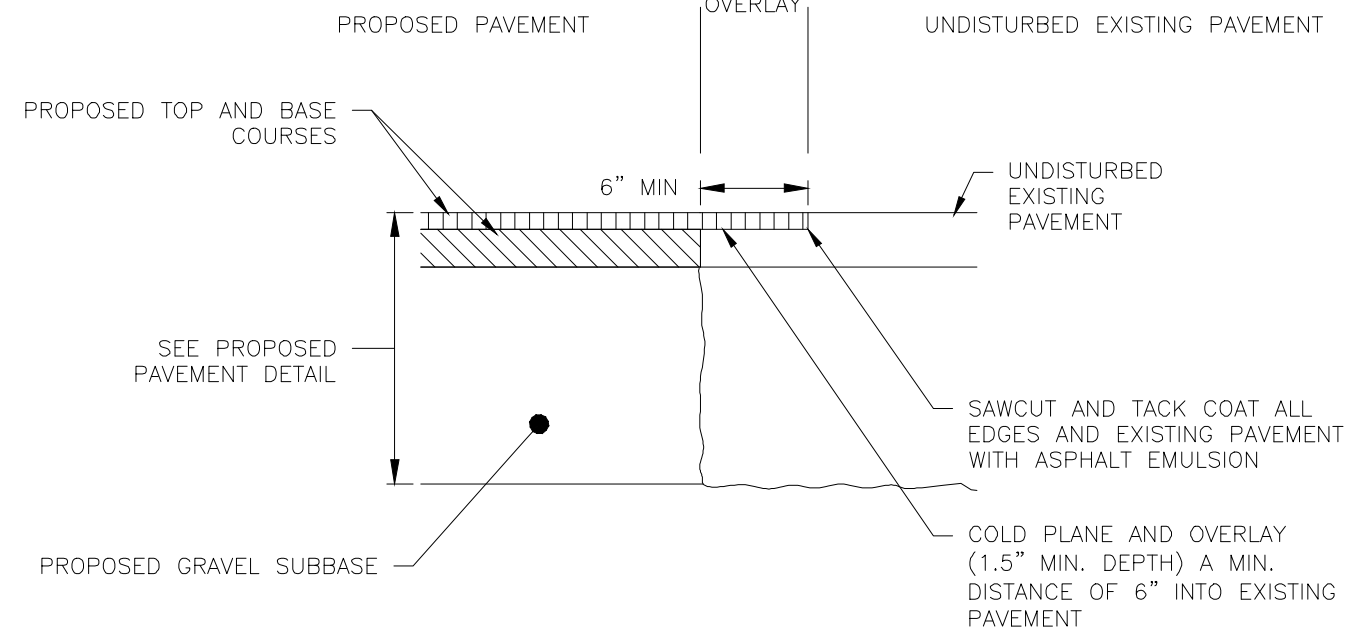
### TYPICAL POROUS PAVEMENT DETAIL

NOT TO SCALE



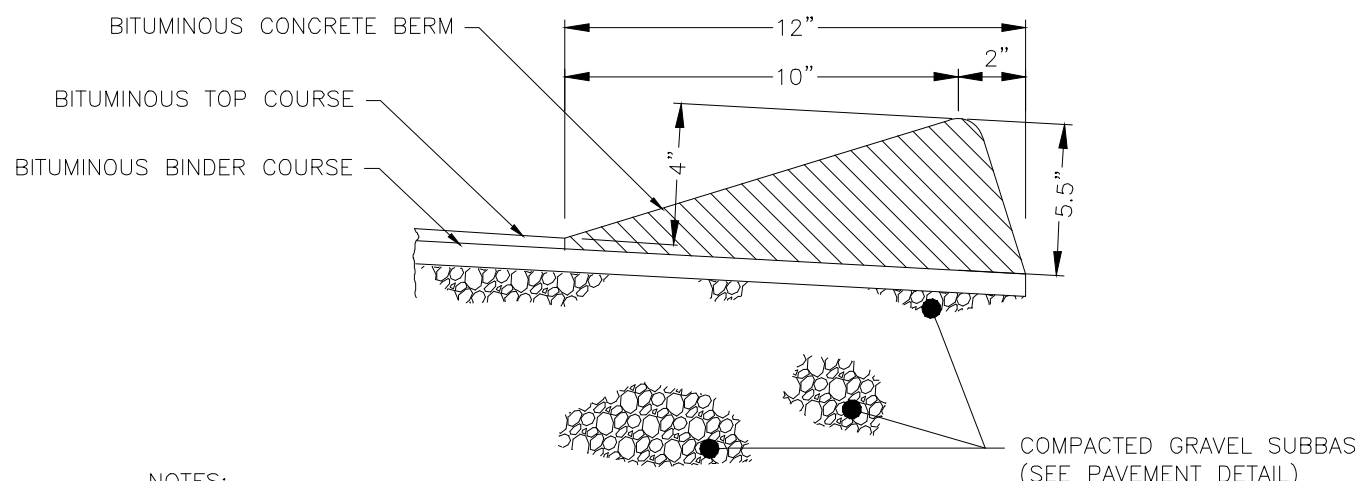
### TRAIL DETAIL

NOT TO SCALE



### PAVEMENT TIE-IN DETAIL

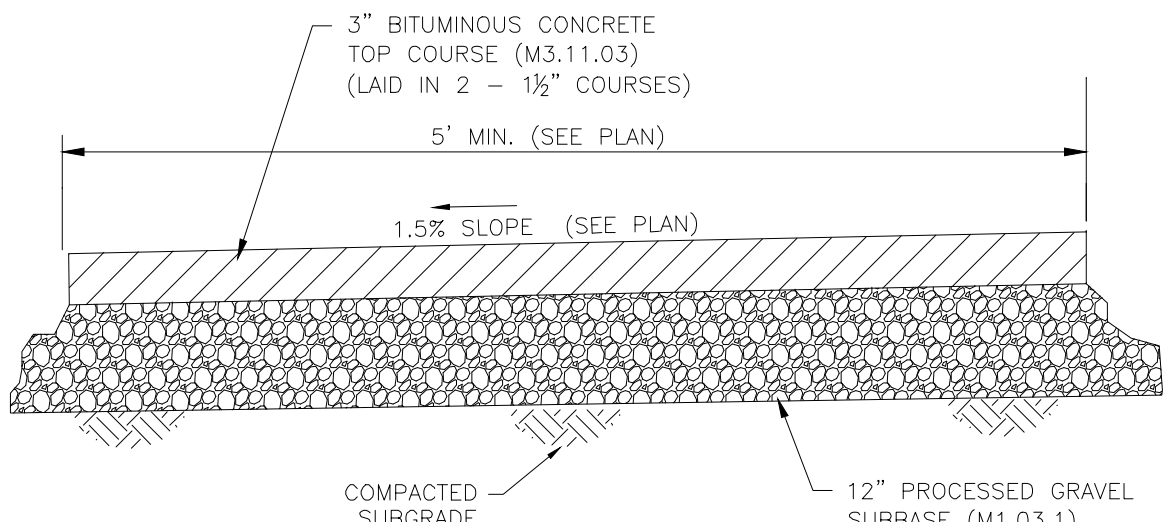
NOT TO SCALE



NOTES:  
1. SEE NOTES SHEET AND LAYOUT PLAN FOR WHERE EACH CURB TYPE IS TO BE UTILIZED.

### TYPICAL MONOLITHIC CAPE COD BERM DETAIL

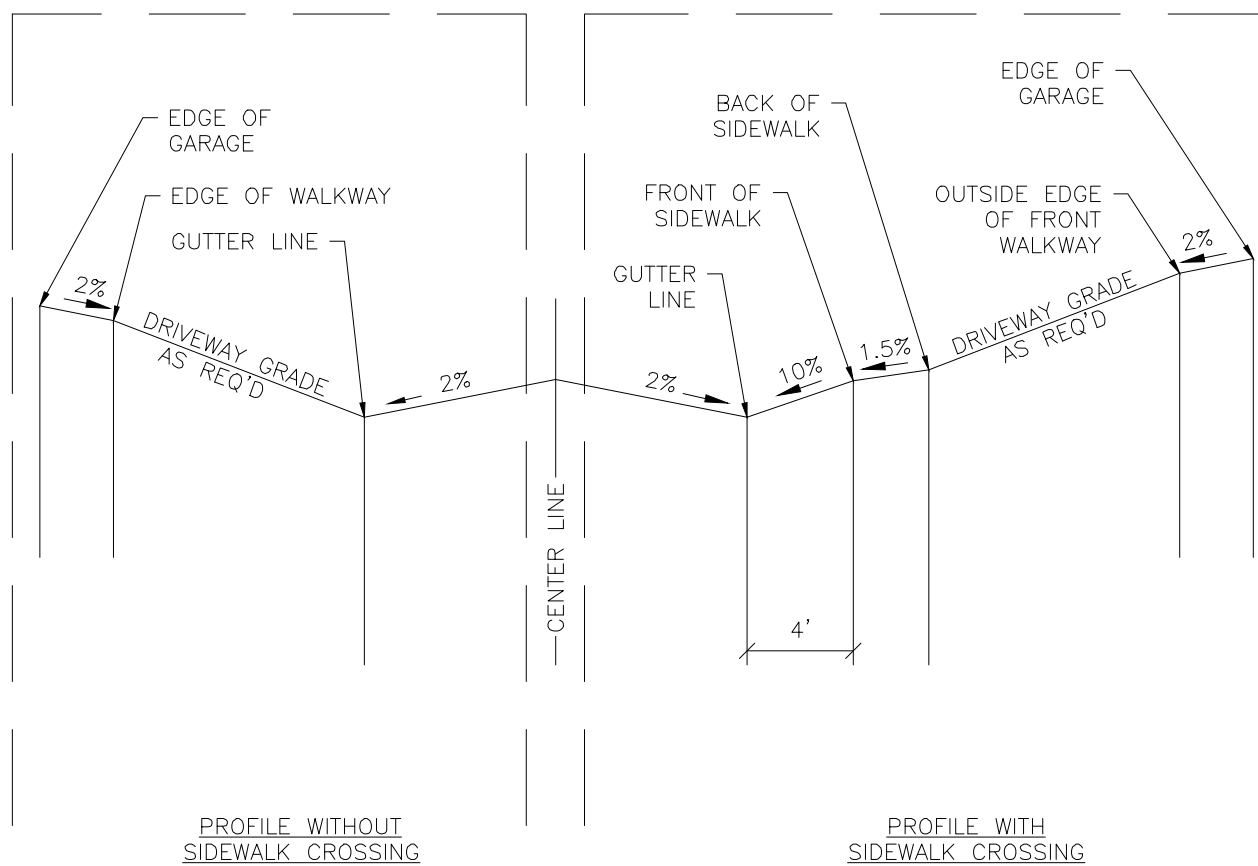
NOT TO SCALE



NOTES:  
1. THIS DETAIL PROVIDES A MINIMUM STANDARD FOR SIDEWALK CONSTRUCTION. THE FINAL SIDEWALK SECTION SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER AND SHALL BE UTILIZED IF MORE STRINGENT THAN THIS DETAIL.  
2. FLAT WORK WITHIN THE MUNICIPAL RIGHT OF WAY SHALL BE CONSTRUCTED IN CONFORMANCE WITH MUNICIPAL STANDARD SPECIFICATIONS.

### TYPICAL ASPHALT SIDEWALK DETAIL

NOT TO SCALE



### TYPICAL TOWNHOME DRIVEWAY DETAIL

NOT TO SCALE

NOT FOR CONSTRUCTION

CDG PROJECT #: 19044 & 19045

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| PLANNING BOARD: |  |  |
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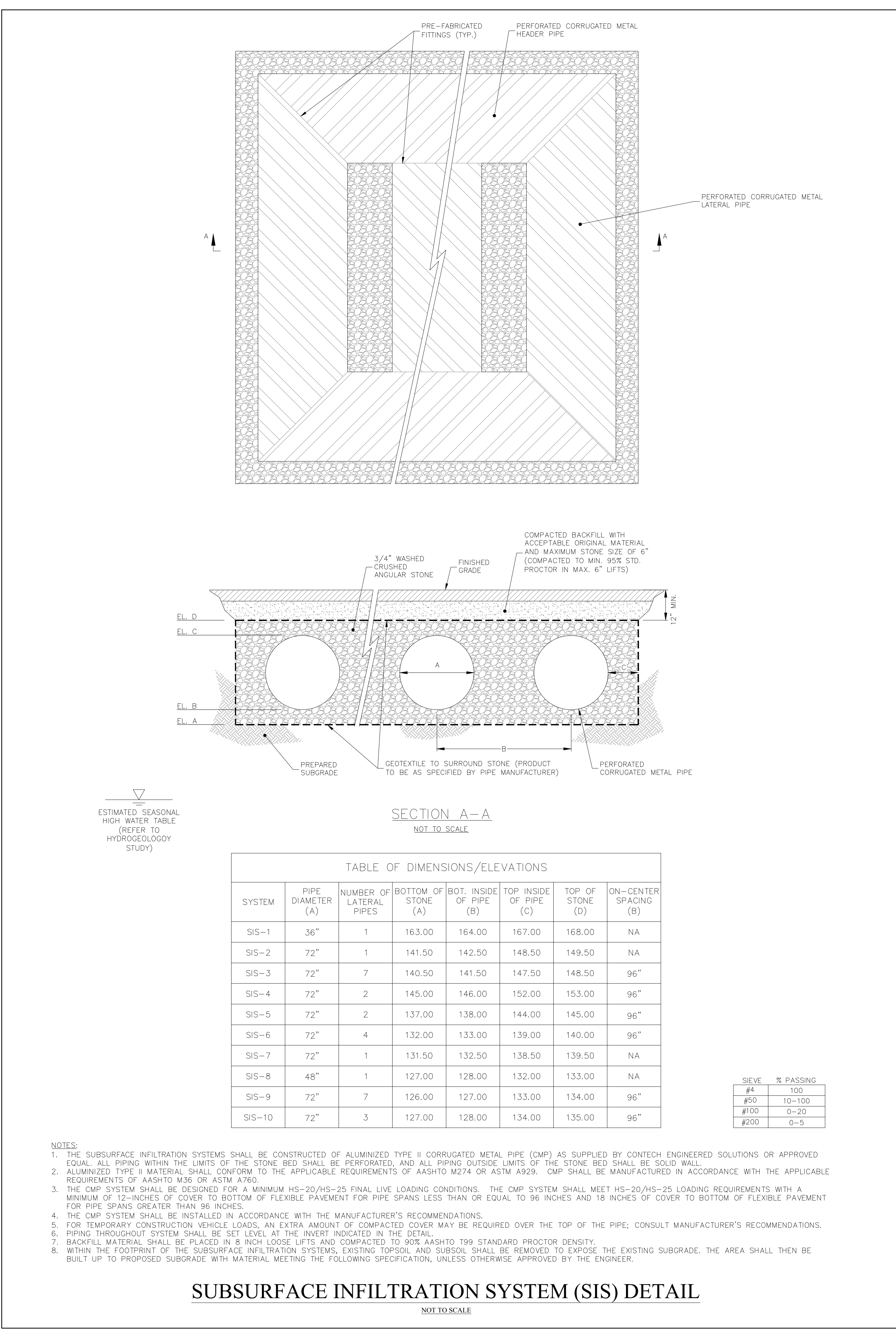
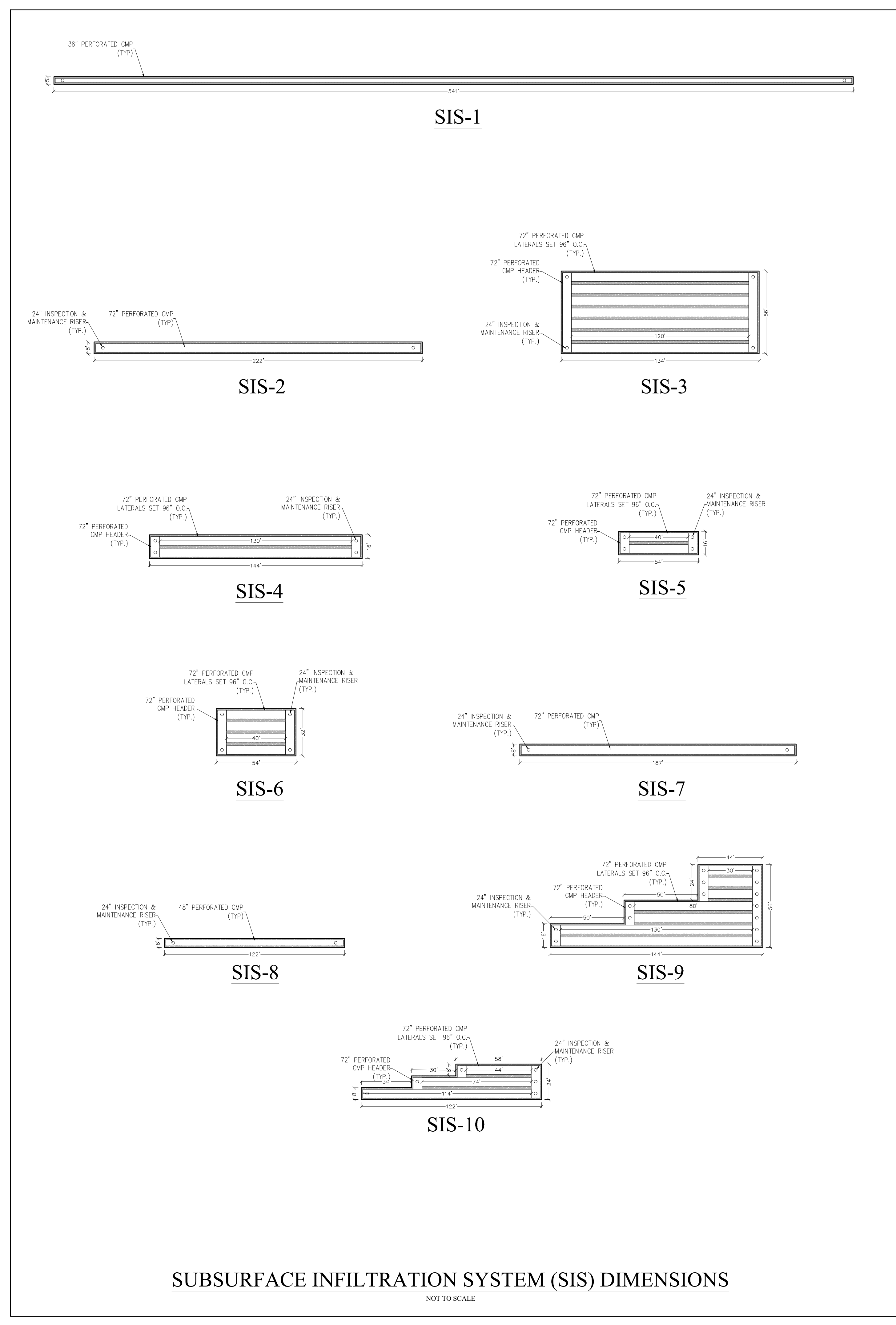
27

DATE: 03/11/2020









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CDG PROJECT #:

19044 & 19045

REVISIONS:

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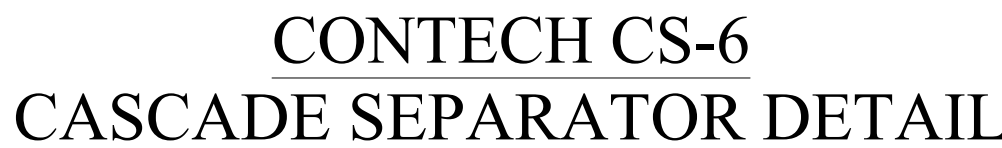
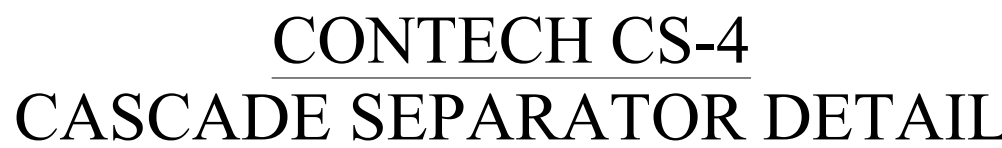
CONSTRUCTION DETAILS

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DATE:

03/11/2020

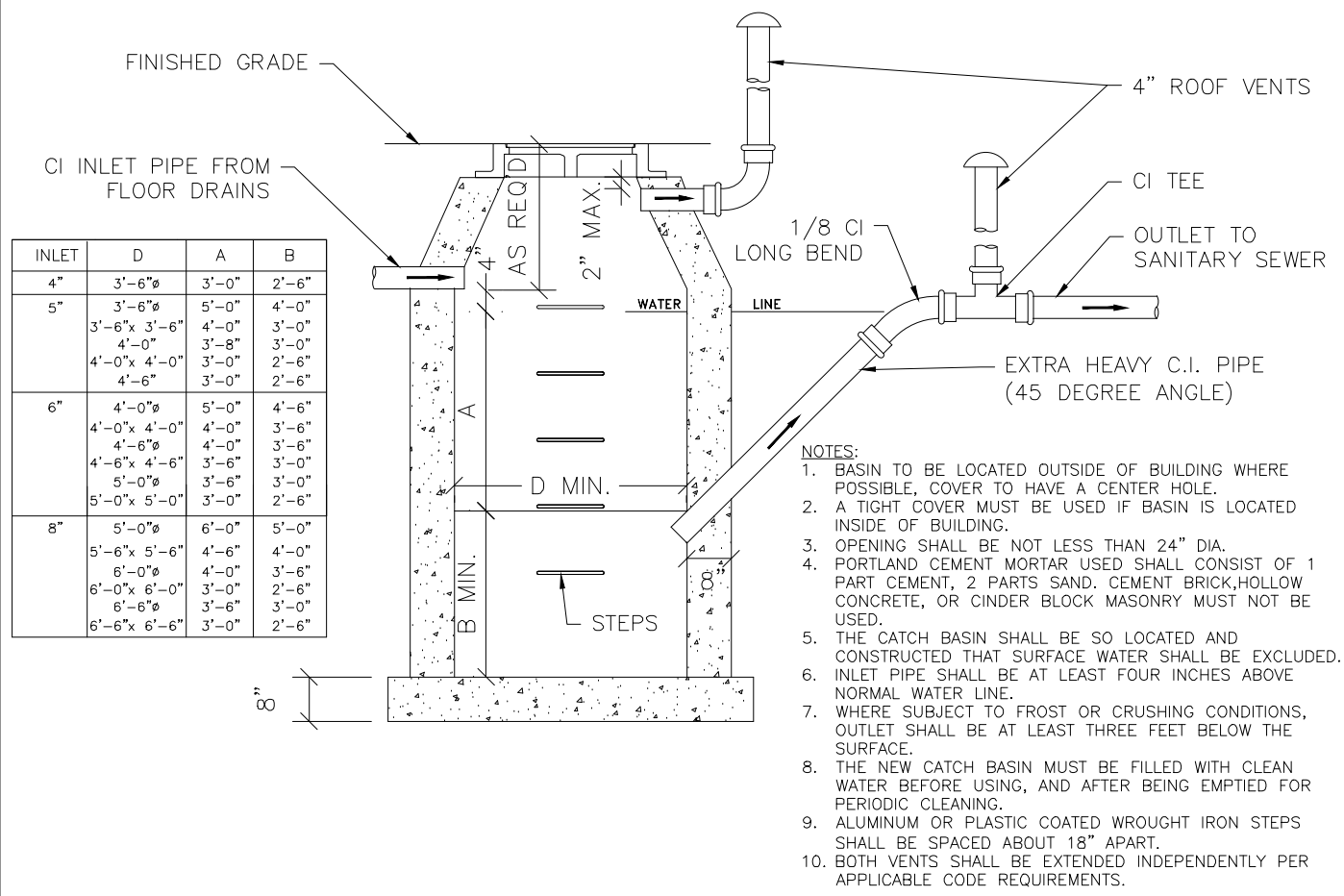




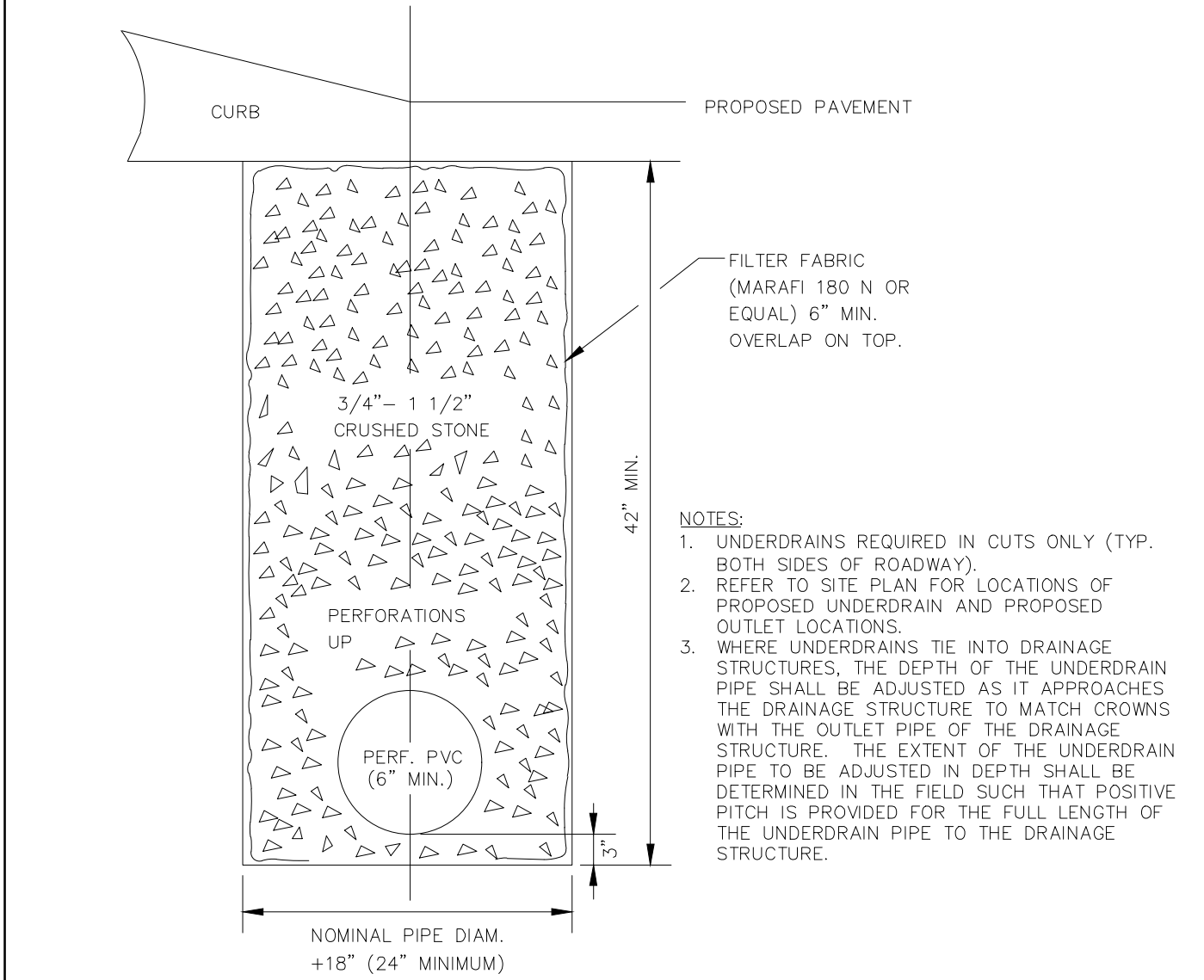
## WATER QUALITY UNIT (WQU) SCHEDULE

DATE: 03/11/2020

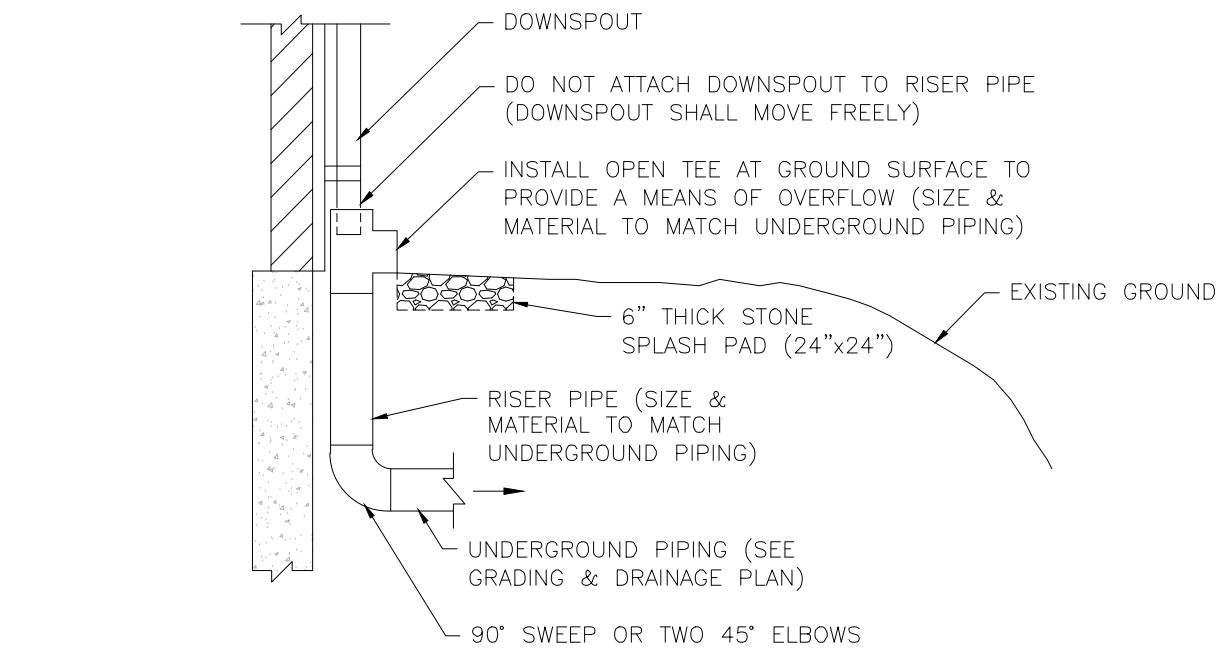




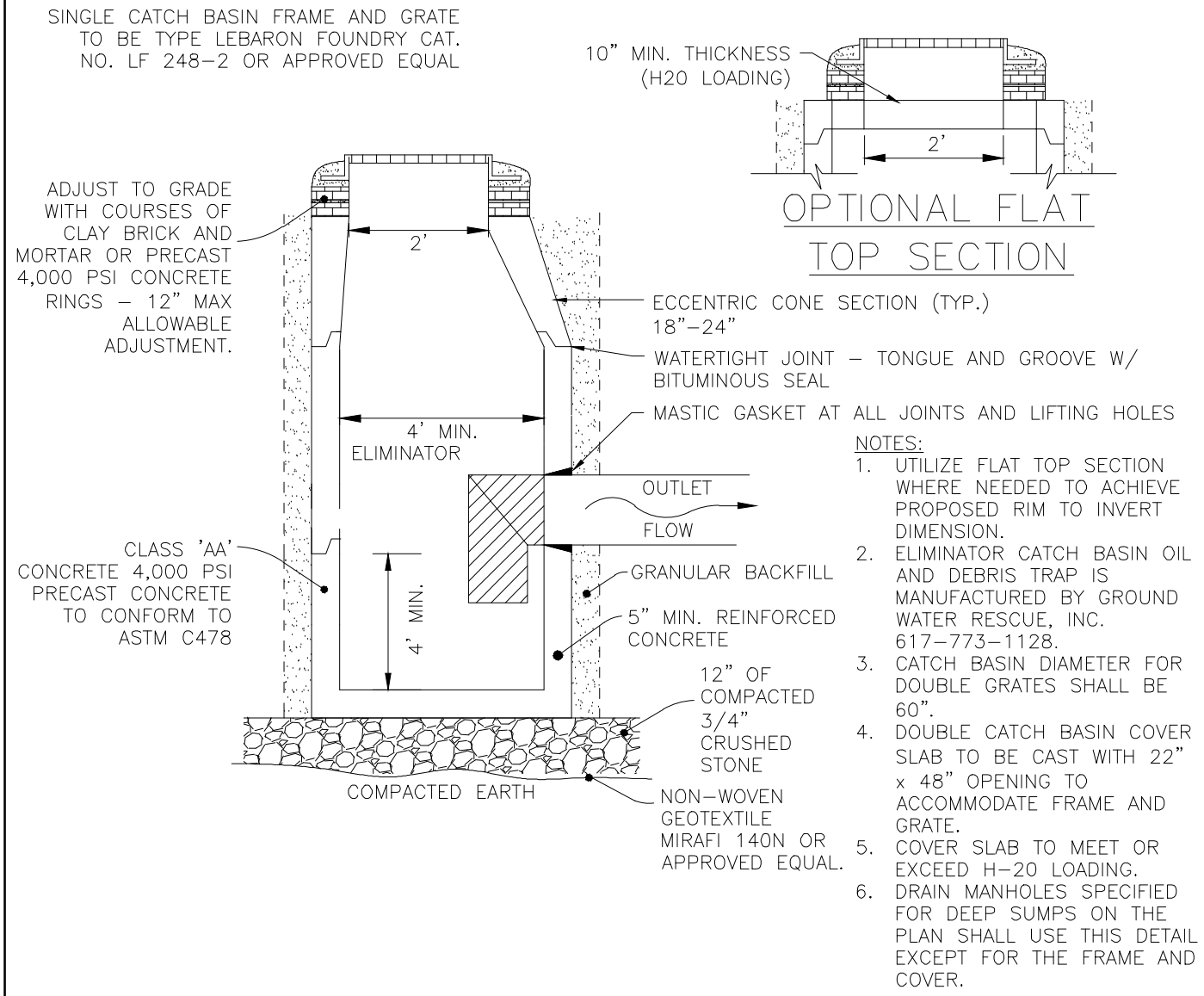
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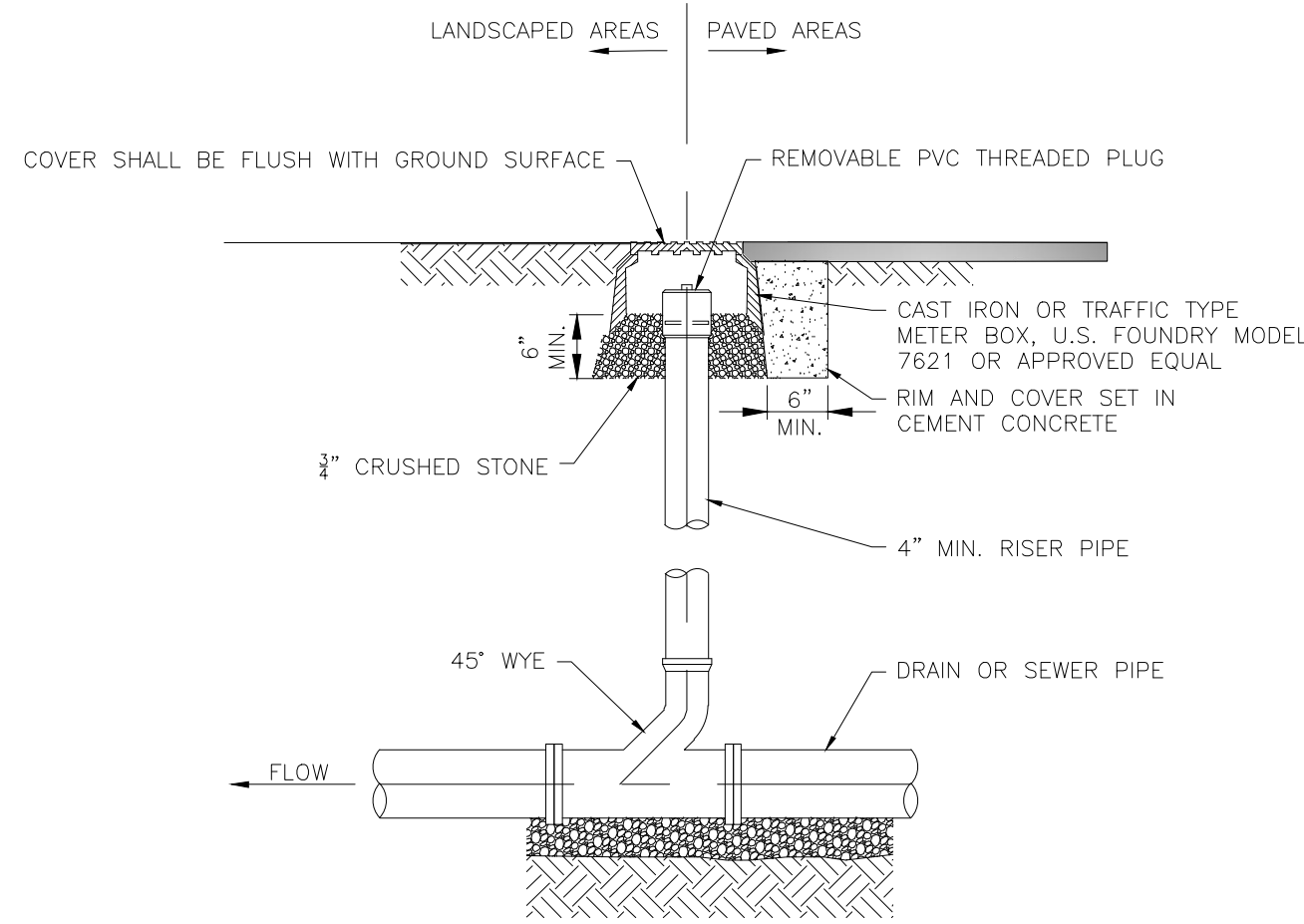
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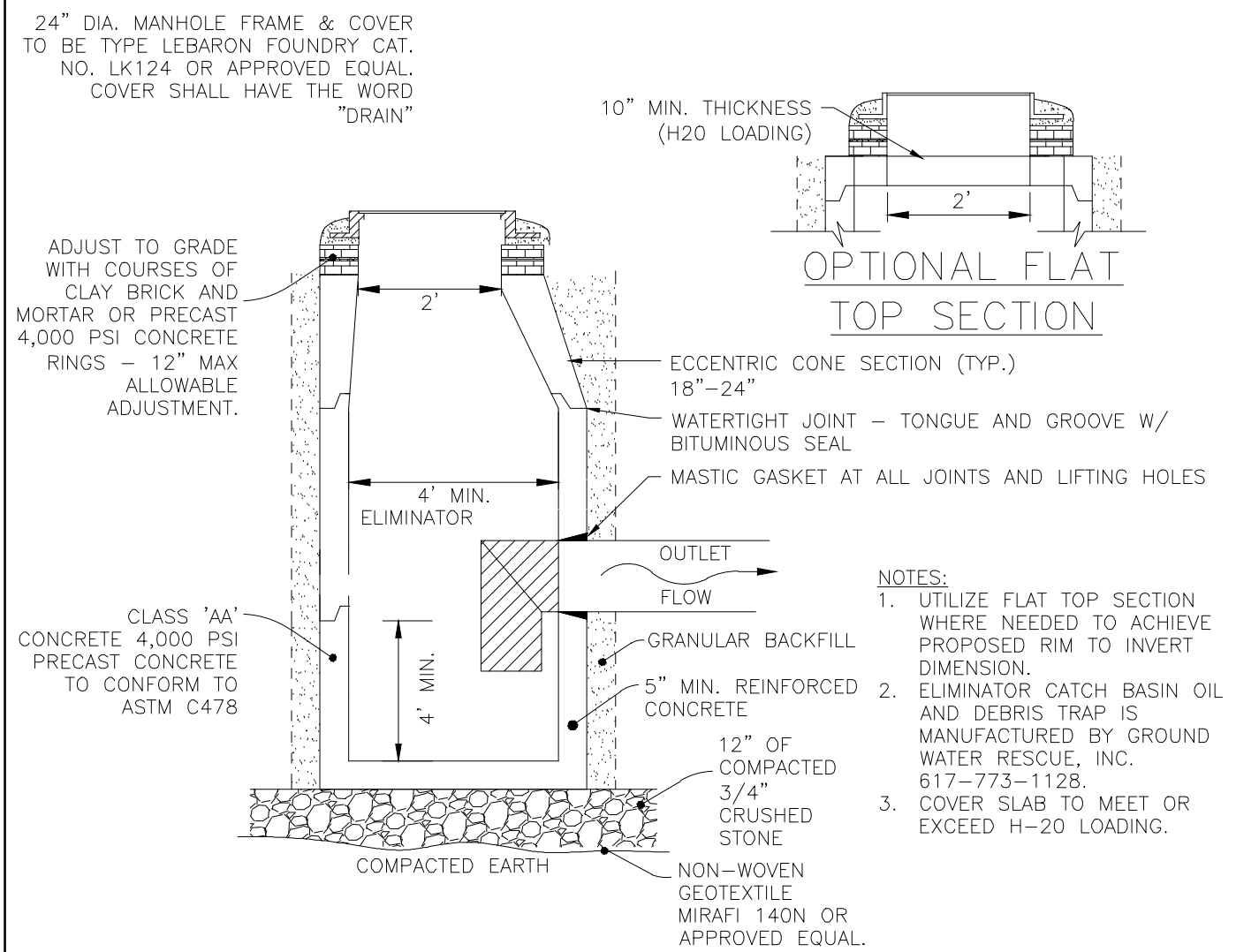
**GUTTER DOWNSPOUT DETAIL**  
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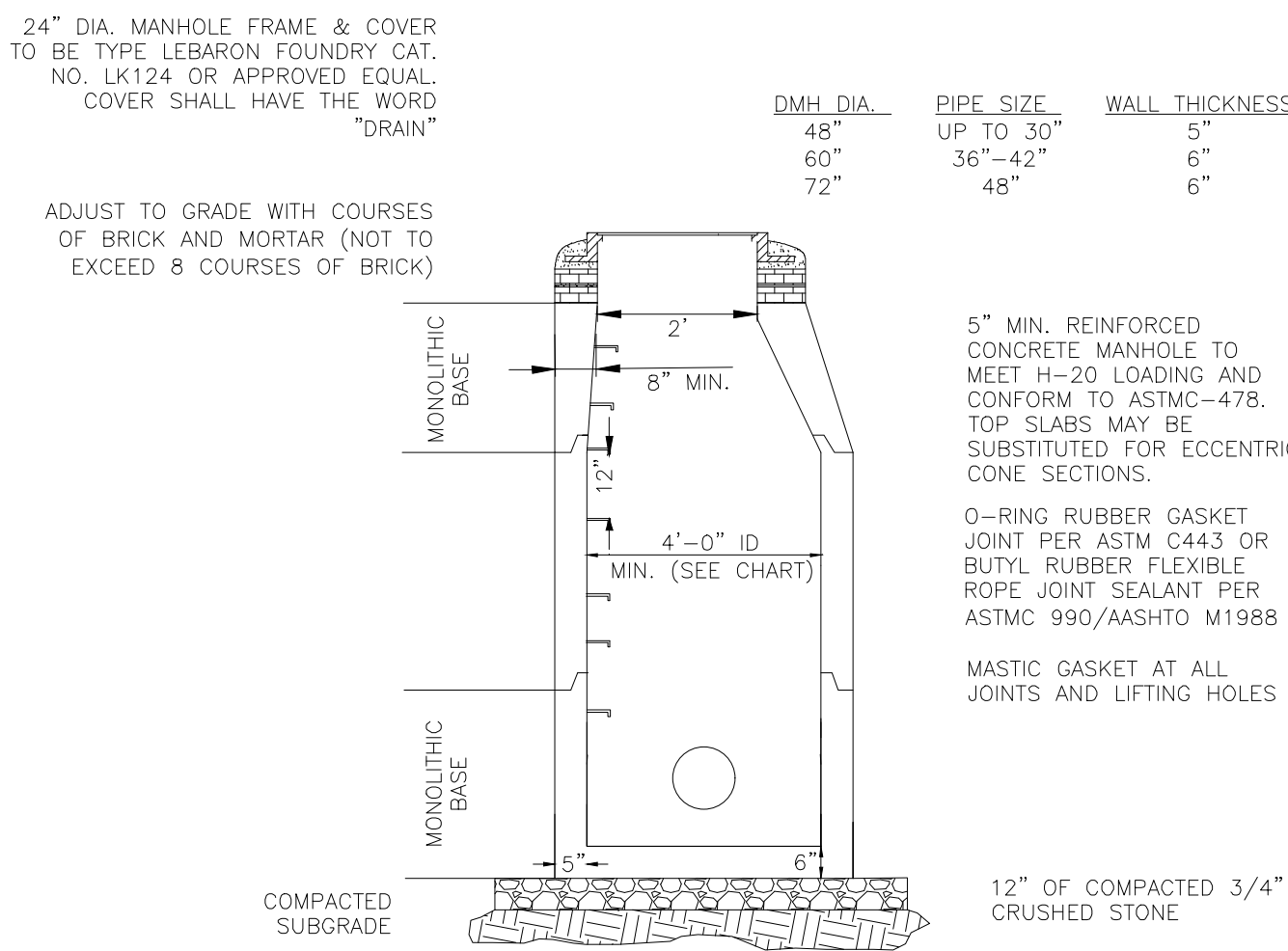
**TYPICAL CATCH BASIN DETAIL**  
NOT TO SCALE



**TYPICAL CLEANOUT DETAIL**  
NOT TO SCALE



**TYPICAL DEEP SUMP MANHOLE DETAIL**  
NOT TO SCALE



**TYPICAL DRAIN MANHOLE DETAIL**  
NOT TO SCALE

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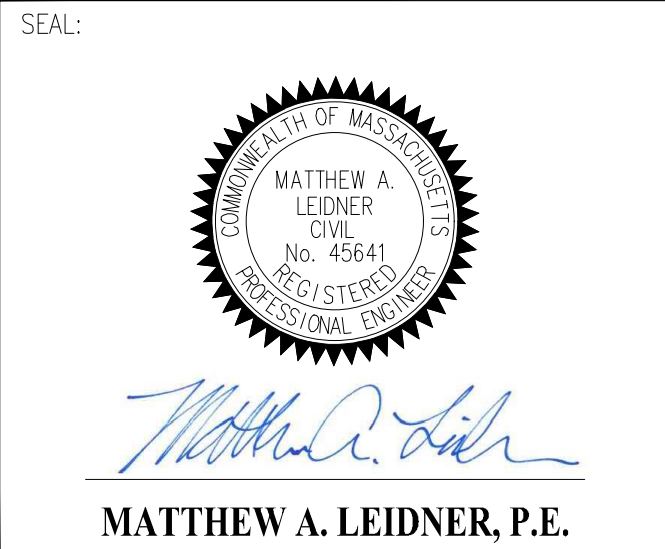
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