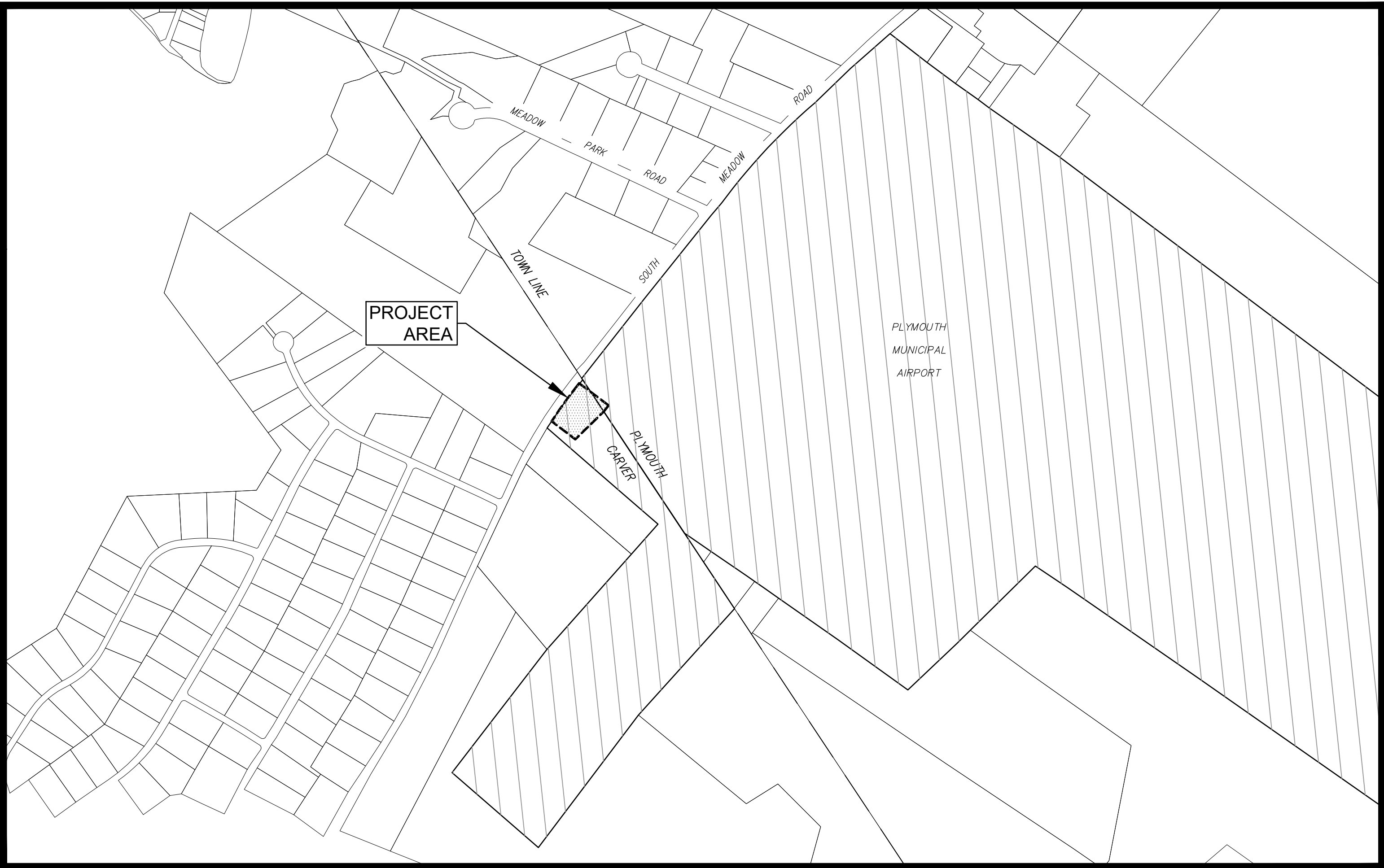


PROPOSED SITE DEVELOPMENT  
AT  
#169 SOUTH MEADOW ROAD  
CARVER, MASSACHUSETTS

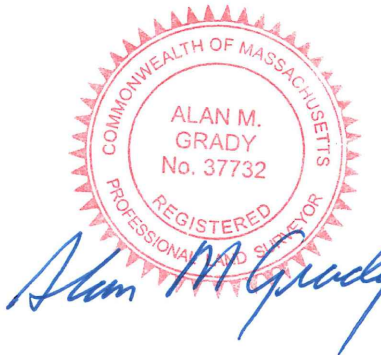
SEPTEMBER 15, 2023  
LAST REVISED: FEBRUARY 26, 2023

| SHEET INDEX                                | REVISED DATES |         |  |  |  |  | △ CONSTRUCTION REVISIONS |
|--|---------------|---------|--|--|--|--|--------------------------|
| 1 TITLE SHEET                              | NO CHANGE     | 2/26/24 |  |  |  |  |                          |
| 2 CONSTRUCTION NOTES                       | NO CHANGE     | 2/26/24 |  |  |  |  |                          |
| 3 EXISTING CONDITIONS and SITE PREPARATION | NO CHANGE     | 2/26/24 |  |  |  |  |                          |
| 4 LAYOUT and ZONING                        | 11/13/23      | 2/26/24 |  |  |  |  |                          |
| 5 GRADING, DRAINAGE and UTILITIES          | 11/13/23      | 2/26/24 |  |  |  |  |                          |
| 6 CONSTRUCTION DETAILS                     | 11/13/23      | 2/26/24 |  |  |  |  |                          |
| 7 LIGHTING & LANDSCAPE                     | 11/13/23      | 2/26/24 |  |  |  |  |                          |

- LOCUS: #169 SOUTH MEADOW ROAD  
MAP 113 PARCEL 7-0-E
- OWNER: TOWN OF PLYMOUTH  
246 SOUTH MEADOW ROAD  
PLYMOUTH, MA 02360
- DEED REF: Deed Bk: 2517 Pg: 8
- PLAN REF: Plan Bk: 17 Pg: 920
- ZONING DISTRICT: AIRPORT DISTRICT (AP)
- LOCUS DOES NOT FALL WITHIN A SPECIAL FLOOD  
HAZARD ZONE AS SHOWN ON FEMA FLOOD  
INSURANCE RATE MAP No. 25023C-0361-K dated  
07/06/2021.
- LOCUS DOES NOT FALL WITHIN THE NATURAL  
HERITAGE and ENDANGERED SPECIES PROGRAM  
(NHESP) AREAS OF ESTIMATED HABITATS OF RARE  
WILDLIFE and PRIORITY HABITATS OF RARE SPECIES.
- LOCUS DOES NOT FALL WITHIN A ZONE II WELLHEAD  
PROTECTION AREA NOR DOES THE LOCUS CONTAIN A  
POTABLE WELL.
- THE LOCATION OF UNDERGROUND UTILITIES AS  
REPRESENTED ON THESE PLANS IS BASED UPON  
PLANS AND INFORMATION PROVIDED BY THE  
RESPECTIVE UTILITY COMPANIES OR MUNICIPAL  
DEPARTMENTS SUPPLEMENTED BY FIELD  
IDENTIFICATION WHEREVER POSSIBLE. NO WARRANTY  
IS MADE AS TO THE ACCURACY OF THESE LOCATIONS  
OR THAT ALL UNDERGROUND UTILITIES ARE SHOWN.  
THE CONTRACTOR SHALL CONTACT DIG SAFE AT  
LEAST 72 HOURS PRIOR TO THE START OF  
CONSTRUCTION. DIG SAFE TELEPHONE NUMBER IS  
1-800-322-4844.



LOCUS MAP  
Scale : 1" = 500'



CIVIL ENGINEER / LAND SURVEYOR:

**BRACKEN**  
ENGINEERING, INC.  
49 HERRING POND ROAD BUZZARDS BAY, MA 02532 19 OLD SOUTH ROAD NANTUCKET, MA 02554  
(Tel) 508.833.0070 (Tel) 508.325.0044  
(Fax) 508.833.2282 www.brackeneng.com

BUILDING DESIGNER:

R<sup>2</sup> Architects, Inc.  
91 SAMOSET STREET  
PLYMOUTH, MA 02360  
W: www.r2arch.com  
T: 508-746-4646

OWNER:

TOWN OF PLYMOUTH  
246 SOUTH MEADOW ROAD  
PLYMOUTH, MA 02360

APPLICANT:

PLYMOUTH ELKS LODGE #1476  
P.O. BOX 1476  
PLYMOUTH, MA 02362-1476  
T: 508-746-9191



4. THE CONTRACTOR SHOULD REFER TO THE OPERATION & MAINTENANCE PLAN FOR ADDITIONAL INFORMATION PERTAINING TO STORMWATER FACILITY

- GENERAL GRADING & DRAINAGE NOTES: 12. SMALL, TEMPORARY, SEDIMENTATION BASINS MAY BE CONSTRUCTED ON AN AS-NEEDED BASIS DURING CONSTRUCTION TO AND IN THE CAPTURE OF EXISTING LIGHT POLE 49 HERRING POND ROAD 19 OLD SOUTH ROAD  
8U7ZARNS, MA 02532 NANTU'KET, MA 02554

1. ALL CUT AND FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.

- |  |       |                    |        |         |         |           |        |
|--|-------|--------------------|--------|---------|---------|-----------|--------|
|  | Date: | SEPTEMBER 15, 2023 | Drawn: | RED/BEL | at Bel: | ZLB / AMG | 2 of 7 |
|--|-------|--------------------|--------|---------|---------|-----------|--------|

OPERATION AND MAINTENANCE REQUIREMENTS AND SHALL MAINTAIN A WORKING COPY ON SITE AT ALL TIMES.

THE FOLLOWING CONSTRUCTION SEQUENCE IS TO BE USED AS A GENERAL GUIDELINE. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND

AS NECESSARY, AND REPAIRED WHEN REQUIRED.

- EROSION & SEDIMENT CONTROL NOTES:

1. THE SITE CONSTRUCTION FOREMAN SHALL BE DESIGNATED AS THE ON-SITE PERSONNEL RESPONSIBLE FOR THE DAILY INSPECTION AND MAINTENANCE

11. THE CONTRACTOR SHALL INSTALL A SILT SACK OR APPROVED EQUIVALENT IN EACH EXISTING CATCH BASIN RECEIVING RUNOFF FROM THE SITE. UPON

- [illegible]

- |       |        |          |        |
|-------|--------|----------|--------|
| Date: | Drawn: | Checked: | Sheet: |
|-------|--------|----------|--------|

- NOTE: OPERATION AND MAINTENANCE CHECKLIST AVAILABLE UPON REQUEST

WATER & SEWER INSTALLATION NOTES:

|  |  |                                |
|--|--|--------------------------------|
|  |  | MINIMUM HORIZONTAL DISTANCE TO |
|--|--|--------------------------------|

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835.

- WATER SYSTEM NOTES:

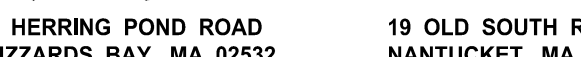
4. THE CONTRACTOR SHALL CONSTRUCT THE WATER LINE AND ITS APPURTENANCE IN ACCORDANCE WITH THE LOCAL WATER DEPARTMENT'S STANDARDS.

- WATER SYSTEM INSTALLATION INSPECTION NOTES:

[illegible]

EXISTING GUY WIRE

## DRACKEN



(tel) 508.833.0070  
(fax) 508.833.0000

Sheet Title:

### CONSTRUCTION NOTES

PROPOSED SITE  
CENTRAL STATION

Prepared For:  
PLYMOUTH FLK & LOG

#169 SOUTH MEADOW ROAD

|  |  |
|--|--|
|  |  |
|  |  |

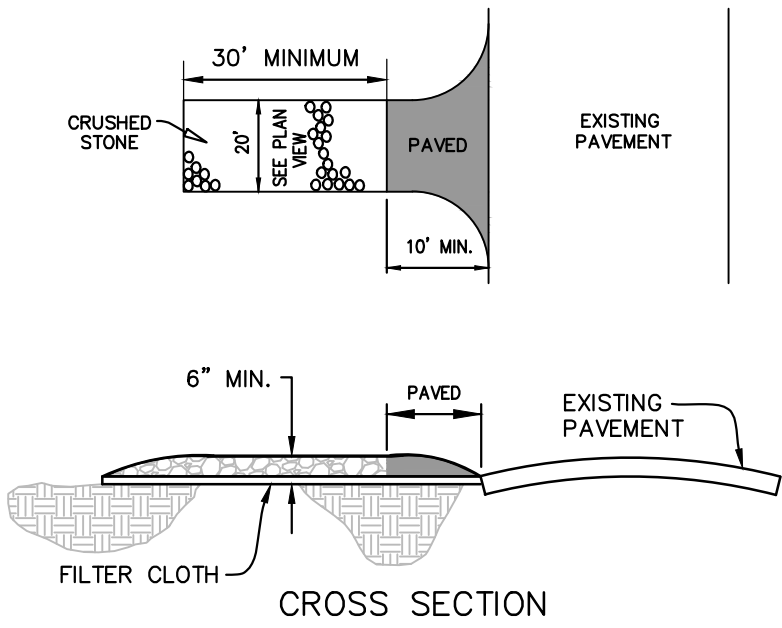
ISSUED FOR PERMIT

ISSUED FOR PERMIT



PROJECT NOTES:

1. THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER OF ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS FROM THOSE SHOWN ON THESE PLANS. ANY PROPOSED REVISIONS TO THE WORK, IF REQUIRED BY THESE SITE CONDITIONS SHALL NOT BE UNDERTAKEN UNTIL REVIEWED AND APPROVED BY THE OWNER AND THE ENGINEER.
2. THE LOCATION OF UNDERGROUND UTILITIES AS REPRESENTED ON THESE PLANS IS BASED UPON PLANS AND INFORMATION PROVIDED BY THE RESPECTIVE UTILITY COMPANIES OR MUNICIPAL DEPARTMENTS SUPPLEMENTED BY FIELD IDENTIFICATION WHEREVER POSSIBLE. NO WARRANTY IS MADE AS TO THE ACCURACY OF THESE LOCATIONS OR THAT ALL UNDERGROUND UTILITIES ARE SHOWN. THE CONTRACTOR SHALL CONTACT DIG SAFE AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION. DIG SAFE TELEPHONE NUMBER IS 1-800-322-4844.
3. THE CONTRACTOR SHALL VERIFY THE LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO TAPPING INTO, CROSSING OR EXTENDING THEM. IF THE NEW WORK POSES A CONFLICT WITH EXISTING UTILITIES, THE ENGINEER SHALL BE NOTIFIED PRIOR TO THE CONTRACTOR CONTINUING.
4. THE PLYMOUTH WATER DISTRICT WATER DEPARTMENT SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO ANY WORK ON THE WATER SYSTEM.
5. PROJECTS ELEVATIONS ARE BASED THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
6. ALL DISTURBED LANDSCAPE AND HARDSCAPE AREAS TO BE RE-ESTABLISHED.



CONSTRUCTION ENTRANCE TRACKING PAD DETAIL

NOT TO SCALE

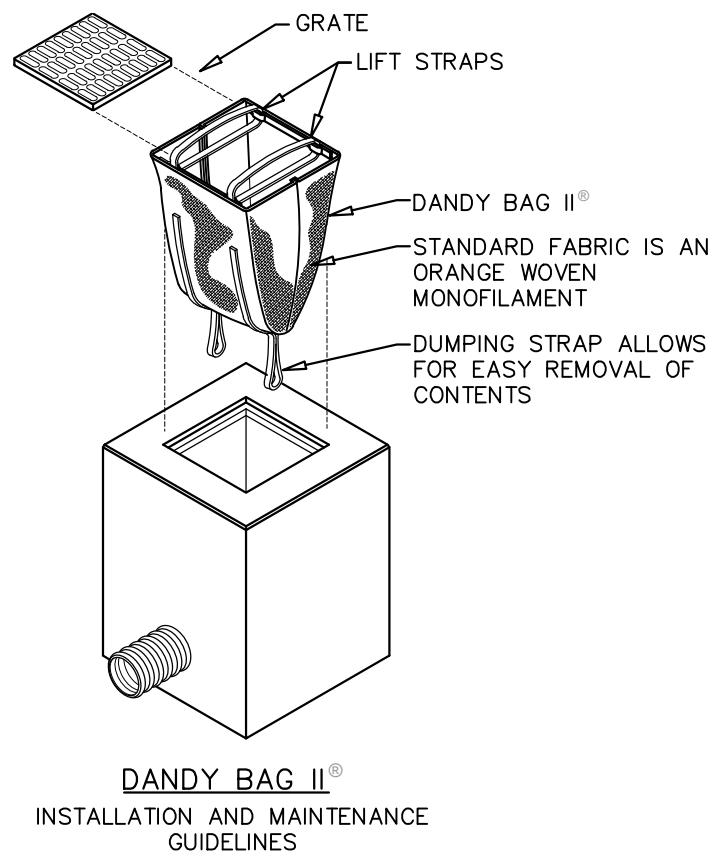
TRACKING PAD NOTES:

STONE SIZE – USE 2" CRUSHED STONE

FILTER CLOTH – SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. STONE USED SHALL BE LARGE ENOUGH SO THAT IT DOES NOT GET PICKED UP AND TRACKED OFF THE SITE BY THE VEHICLE TRAFFIC.

SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHOULD BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM SHOULD BE PERMITTED.

MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANING OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.



INSTALLATION:

REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS, PLACE ABSORBENT PILLLOW IN UNIT. STAND THE GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO THE DANDY BAG II SO THAT THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

MAINTENANCE:

REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE DANDY BAG II. IF THE CONTAINMENT AREA IS MORE THAN 1/4 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL OIL ABSORBENTS, REPLACE ABSORBENT WHEN NEAR SATURATION.

DANDY BAG II®  
INSTALLATION AND MAINTENANCE GUIDELINES

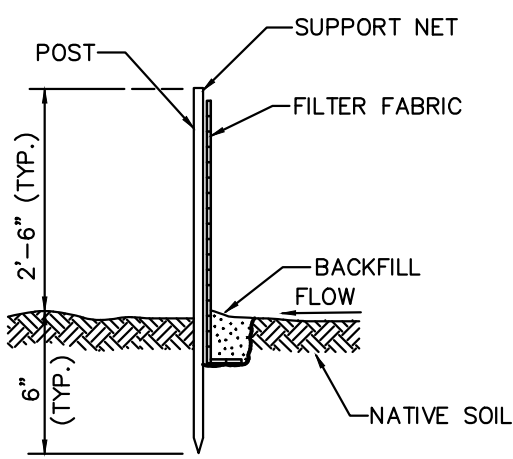
SILT SACK DETAIL

NOT TO SCALE

SOIL LOGS

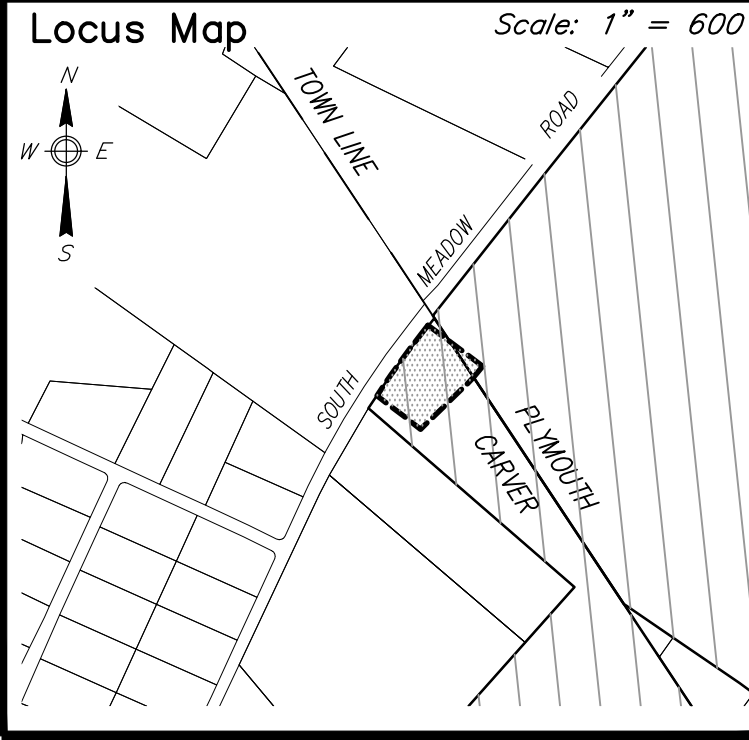
DATE PERFORMED: JUNE 7, 2023  
SOIL EVALUATOR: ROBERT E. DEWAR, EIT, SE#14230  
MAX. GROUND WATER ELEV.: NONE TO 126.0  
METHOD OF DETERMINATION: NO WATER / NO REDOX

|   |   |
|---|---|
| TP NO. 1<br>GRD. EL. 138.0<br>GW. EL. NONE TO 127.0   | TP NO. 2<br>GRD. EL. 138.0<br>GW. EL. NONE TO 126.0   |
| 0" A/FILL LOAMY SAND 10YR 3/2 138.0                   | 0" A/FILL LOAMY SAND 10YR 3/2 138.0                   |
| 16" Bw SLIGHTLY LOAMY SAND 10YR 7/6 136.7             | 12" Bw SLIGHTLY LOAMY SAND 10YR 7/6 137.0             |
| 32" C MEDIUM SAND 2.5Y 6/6 10% GRAVEL 135.3           | 24" C MEDIUM SAND 2.5Y 6/6 10% GRAVEL 136.0           |
| 132" NO REDOX NO WATER 127.0                          | 144" NO REDOX NO WATER 126.0                          |
| TP NO. 3<br>GRD. EL. 138.2<br>GW. EL. NONE TO 126.2   | TP NO. 4<br>GRD. EL. 138.1<br>GW. EL. NONE TO 128.1   |
| 0" Ap LOAMY SAND 10YR 3/2 138.2                       | 0" Ap LOAMY SAND 10YR 3/2 138.1                       |
| 10" Bw LOAMY SAND 10YR 5/4 137.4                      | 12" Bw LOAMY SAND 10YR 5/4 137.1                      |
| 24" C MEDIUM SAND 2.5Y 6/6 10% GRAVEL 2% COBBLE 136.2 | 30" C MEDIUM SAND 2.5Y 6/6 10% GRAVEL 2% COBBLE 135.6 |
| 144" NO REDOX NO WATER 126.2                          | 120" NO REDOX NO WATER 128.1                          |



SILTATION FENCE DETAIL

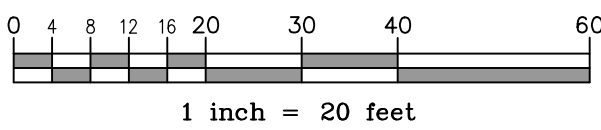
NOT TO SCALE



LEGEND

- OHW — EXISTING OVERHEAD WIRES
- UGE — EXISTING UNDERGROUND ELECTRIC
- S — EXISTING SEWER LINES
- W — EXISTING WATER LINES
- D — EXISTING DRAINAGE LINES
- G — EXISTING GAS LINE
- 90 --- EXISTING CONTOURS
- 90x5 EXISTING SPOT GRADE
- ⊕ EXISTING HYDRANT
- ⊕ EXISTING WATER VALVE
- ⊕ EXISTING SEWER MANHOLE
- ⊕ EXISTING DRAIN MANHOLE
- ⊕ EXISTING CATCH BASIN
- ⊕ EXISTING UTILITY POLE
- ⊕ EXISTING GUY WIRE
- ⊕ EXISTING ELECTRIC METER
- ⊕ EXISTING LIGHT POLE
- ⊕ EXISTING LIGHT POST
- ⊕ EXISTING HAND HOLES
- ⊕ EXISTING SIGNS
- ⊕ EXISTING BOLLARD
- ⊕ EXISTING HANDICAP PARKING
- ⊕ EXISTING TREES
- ⊕ EXISTING EDGE OF CLEARING

PLAN SCALE



ZONING REQUIREMENTS:

AIRPORT DISTRICT (AP)

MIN. LOT SIZE.....40,000 S.F.  
FRONTAGE.....150' MIN.  
FRONT YARD.....40' MIN.  
SIDE YARD.....30' MIN.  
REAR YARD.....30' MIN.  
LOT COVERAGE.....80% MAX. BUILDING  
HEIGHT.....40' MAX.

Prepared By:

**BRACKEN**  
ENGINEERING, INC.

49 HERRING POND ROAD  
BUZZARDS BAY, MA 02532

(tel) 508.833.0070  
(fax) 508.833.2282

19 OLD SOUTH ROAD  
NANTUCKET, MA 02554

(tel) 508.325.0044  
www.brackeneneng.com

Sheet Title:

**EXISTING CONDITIONS &  
SITE PREPARATION**

Project:

**PROPOSED SITE  
DEVELOPMENT  
IN CARVER, MA**  
Prepared For:  
**PLYMOUTH ELKS LODGE 1476**  
#169 SOUTH MEADOW ROAD  
MAP: 113 PARCEL: 7-0-E

|        |                    |                          |                  |
|--------|--------------------|--------------------------|------------------|
| 2      | 2/26/24            | REV. PER REVIEW COMMENTS | RED              |
| 1      | 11/13/23           | NO CHANGE                | RED              |
| No.    | Date               | Revision Description     | By               |
| Date:  | September 15, 2023 | Drawn: RED/BE            | Checked: ZLB/AMG |
| Sheet: | 3 of 7             |                          |                  |

ISSUED FOR PERMIT





**PARKING SUMMARY**

| <u>USE</u>  | <u>REQUIRED</u>       | <u>TOTAL</u> |
|---|-----------------------|--------------|
| CLUB WITH ALCOHOL<br>(76 SEATS)                                     | 1 SPACE /<br>SEATS    | 19 SPACES    |
| +   | +                     |              |
| (4 EMPLOYEES)   | 1 SPACE /<br>EMPLOYEE | 5 SPACES     |
| <br>TOTAL REQUIRED = 24 SPACES                                      |                       |              |
| TOTAL PROVIDED = 35 SPACES  |                       |              |
| ** ADDITIONAL SPACES PROVIDED FOR DROP-OFF, PICK-UP & VOLUNTEERS ** |                       |              |

**ADA PARKING SUMMARY**

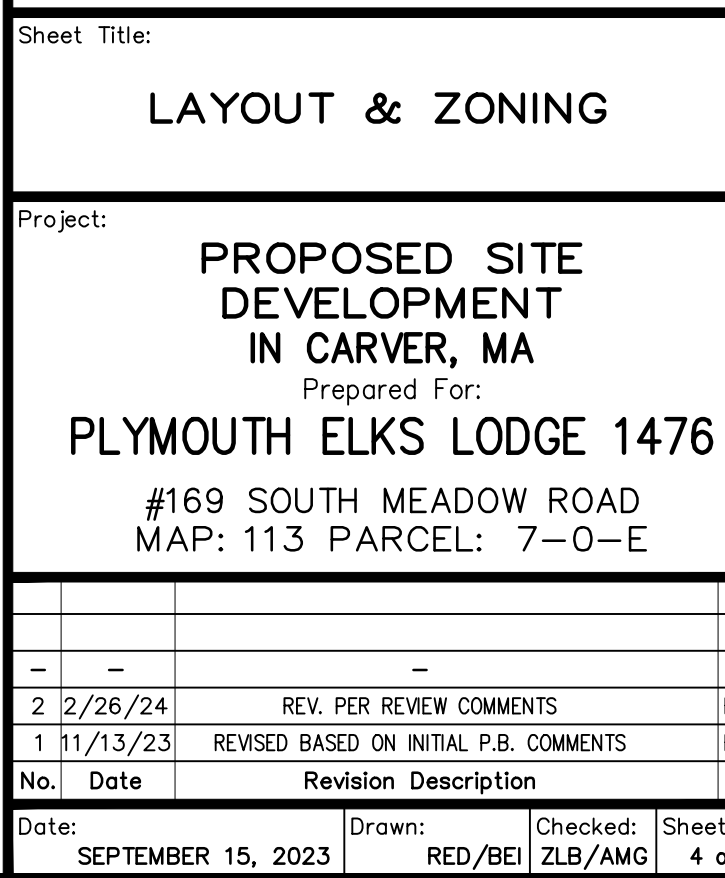
per §521 CMR 23.2.1

**REQUIRED:**

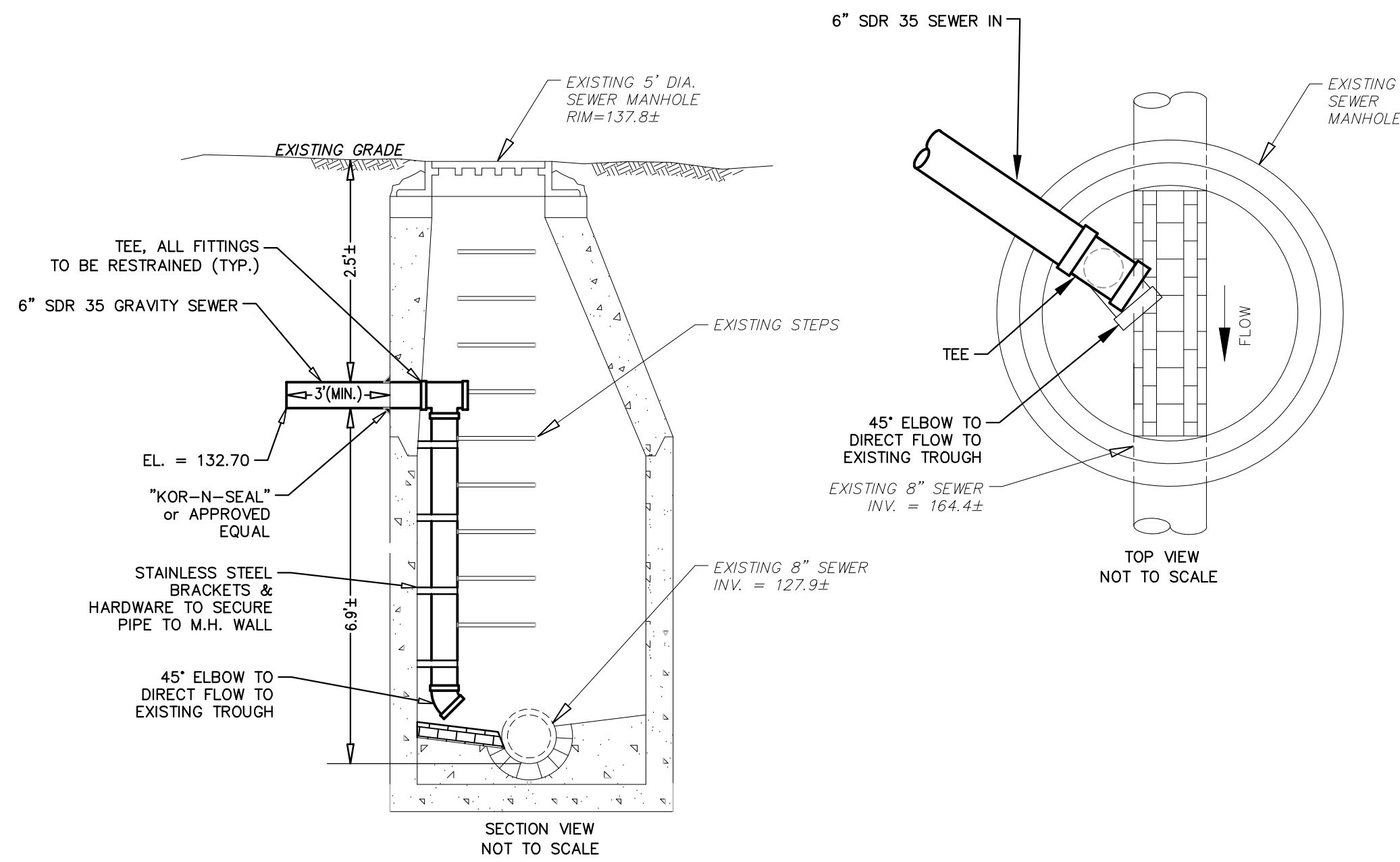
TOTAL PARKING SPACES = 35  
MIN. ACCESSIBLE SPACES REQUIRED = 2  
(MIN. of 1 VAN ACCESSIBLE)

**PROVIDED:**

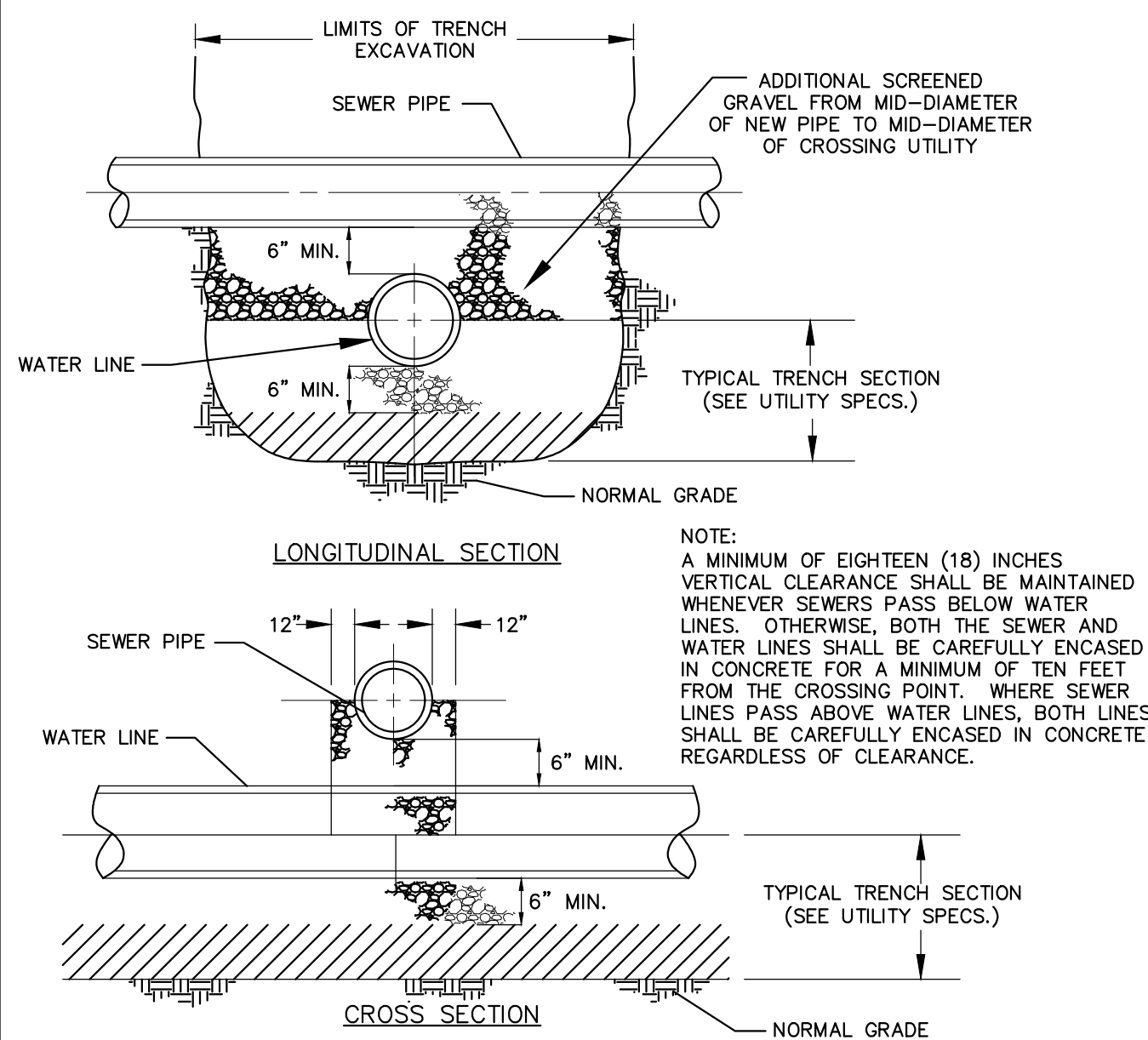
(2) VAN ACCESSIBLE SPACE



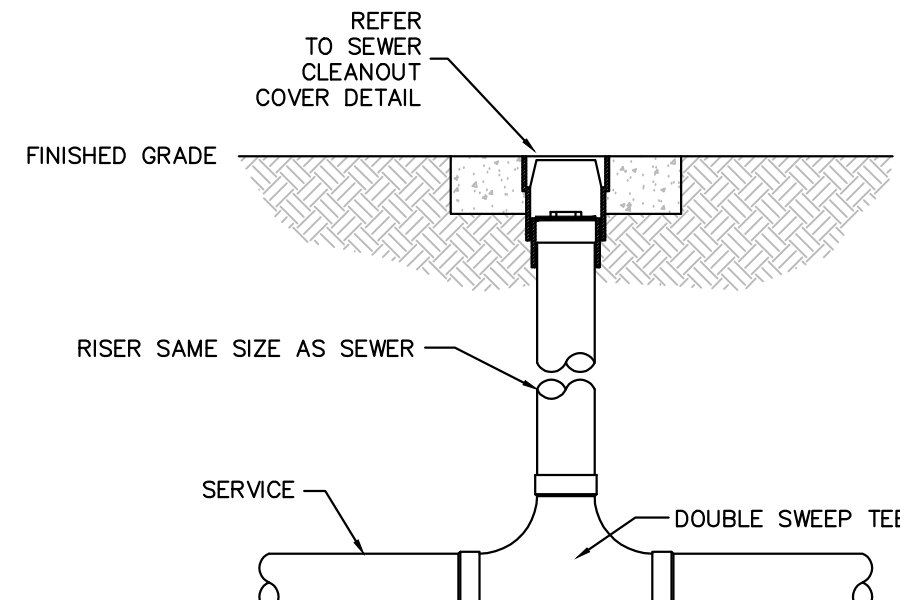




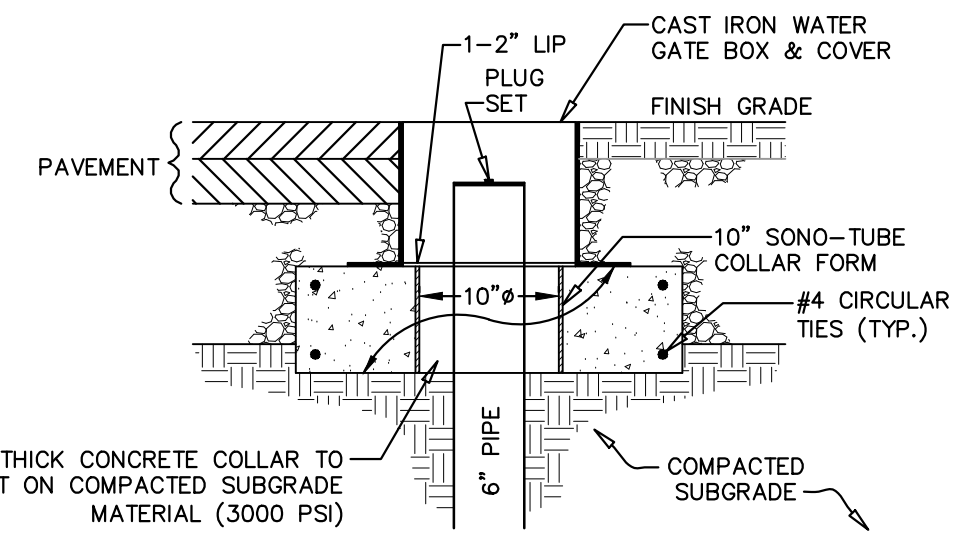
INSIDE DROP CONNECTION SEWER MANHOLE DETAIL  
NOT TO SCALE



UTILITY CROSSING DETAILS  
NOT TO SCALE



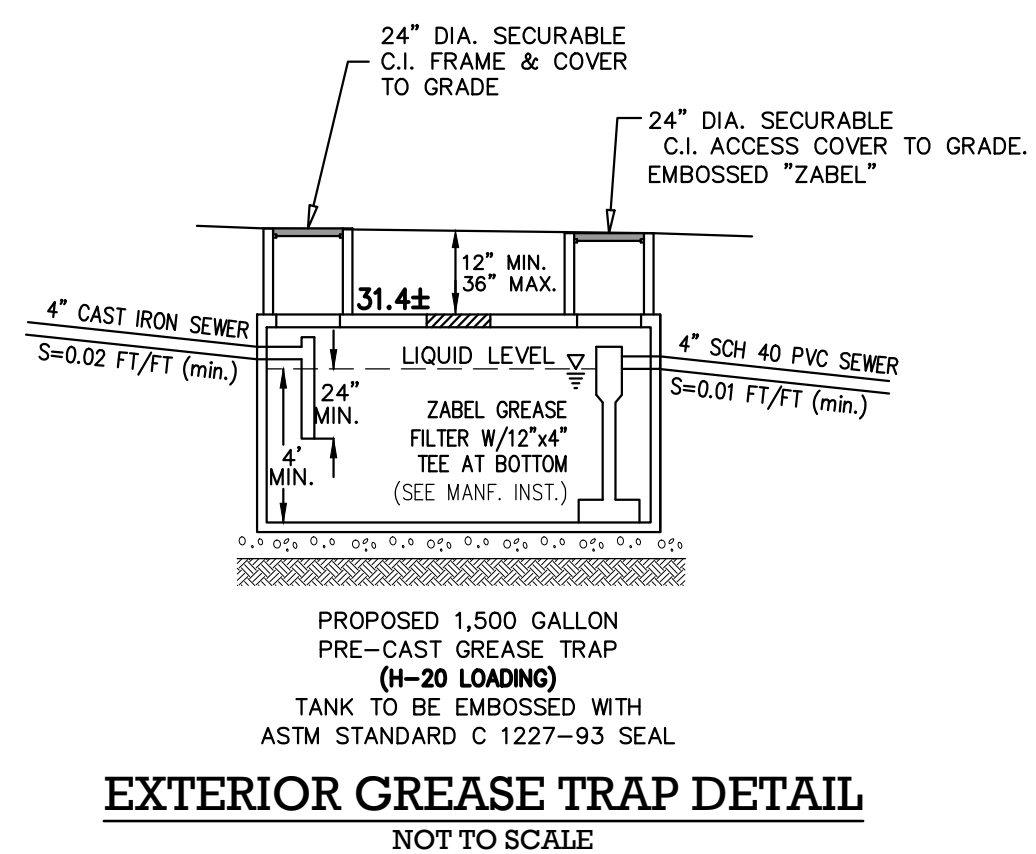
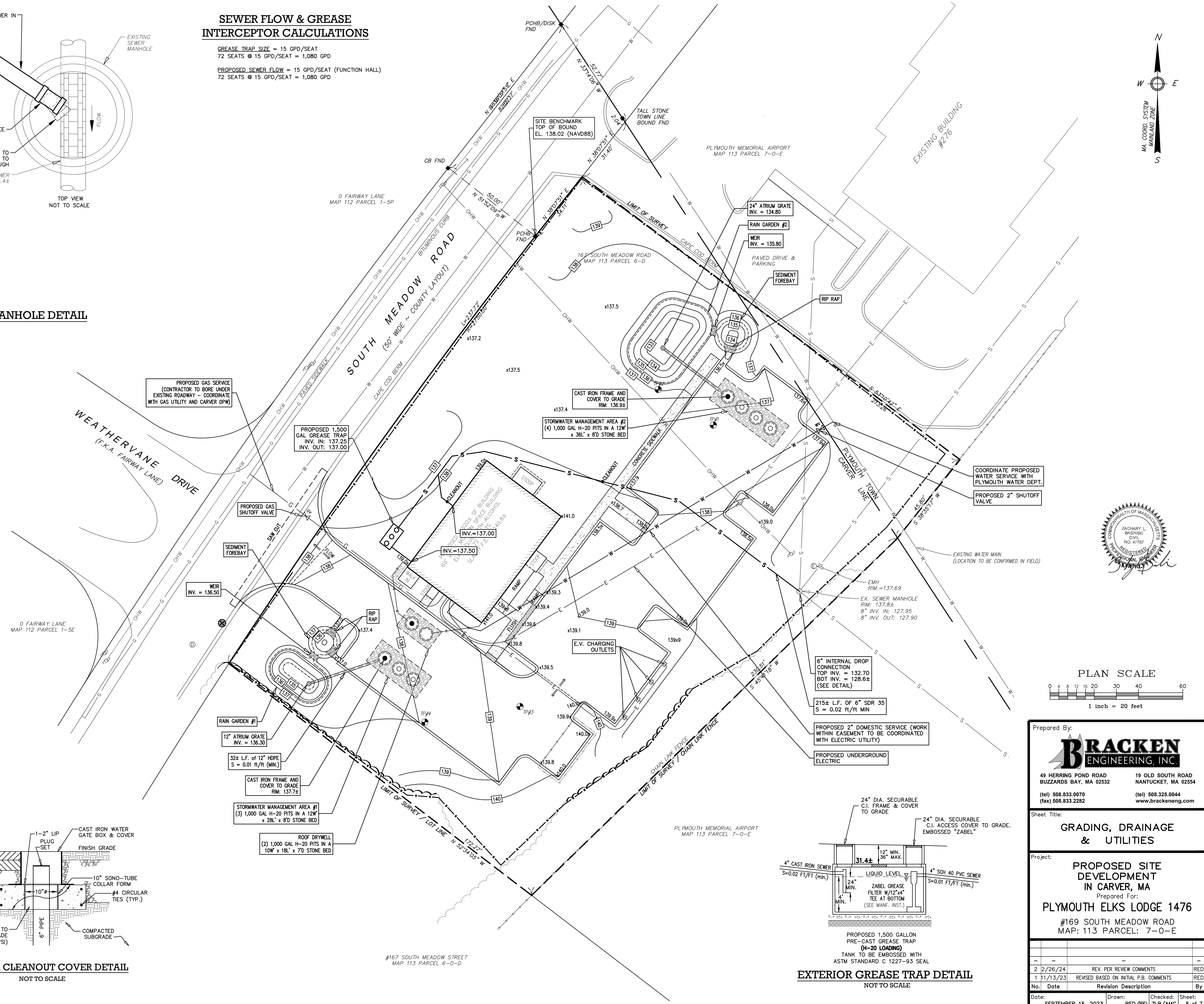
TWO-WAY SEWER CLEANOUT DETAIL  
NOT TO SCALE



SEWER CLEANOUT COVER DETAIL  
NOT TO SCALE

## SEWER FLOW & GREASE INTERCEPTOR CALCULATIONS

GREASE TRAP SIZE = 15 GPD/SEAT  
72 SEATS @ 15 GPD/SEAT = 1,080 GPD  
PROPOSED SEWER FLOW = 15 GPD/SEAT (FUNCTION HALL)  
72 SEATS @ 15 GPD/SEAT = 1,080 GPD



EXTERIOR GREASE TRAP DETAIL  
NOT TO SCALE

Prepared By:  
**BRACKEN ENGINEERING, INC.**  
49 HERRING POND ROAD  
BUZZARDS BAY, MA 02532  
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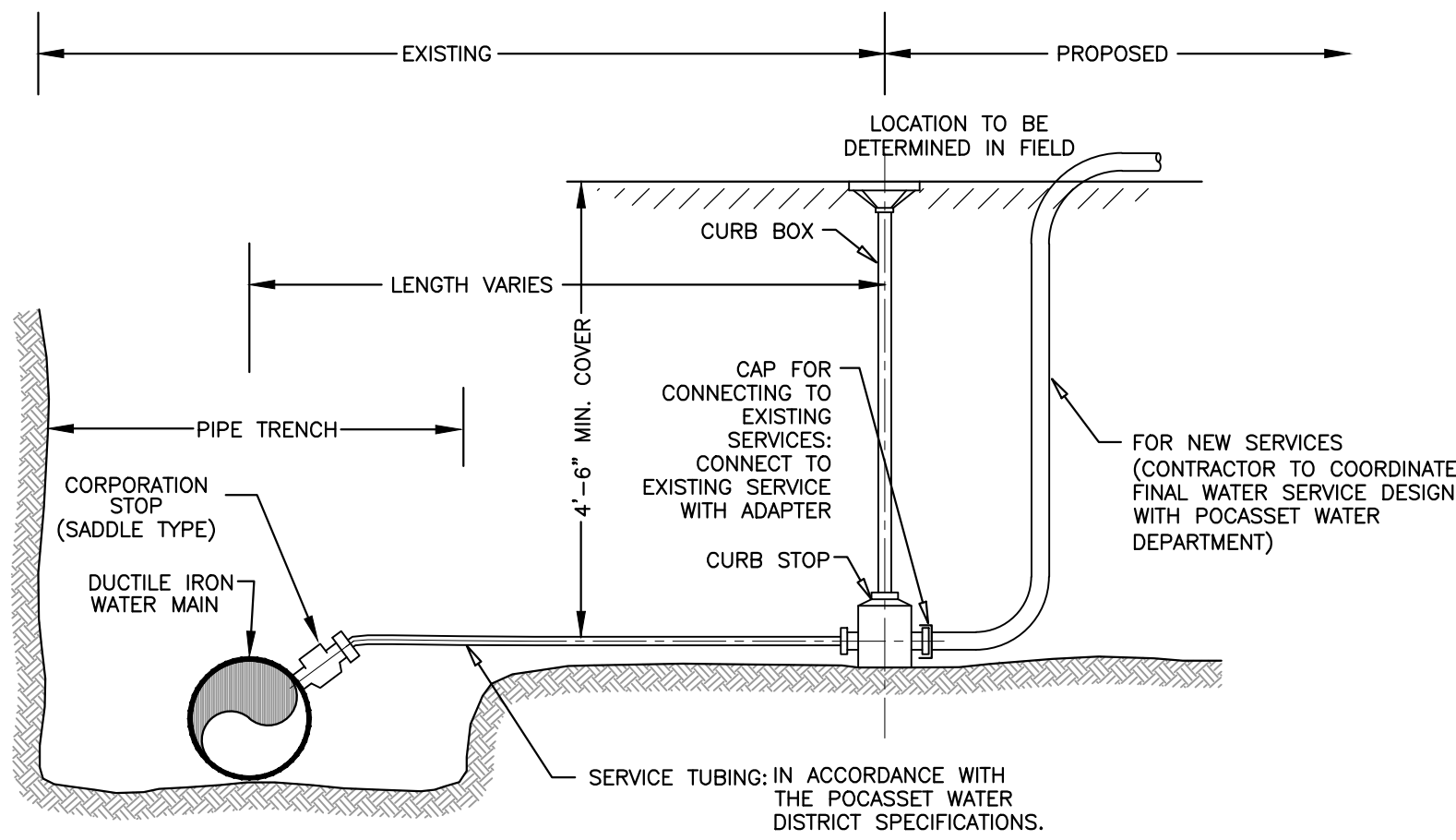
Sheet Title:  
**GRADING, DRAINAGE  
& UTILITIES**

Project:  
**PROPOSED SITE  
DEVELOPMENT  
IN CARVER, MA**  
Prepared For:  
**PLYMOUTH ELKS LODGE 1476**  
#169 SOUTH MEADOW ROAD  
MAP: 113 PARCEL: 7-0-E

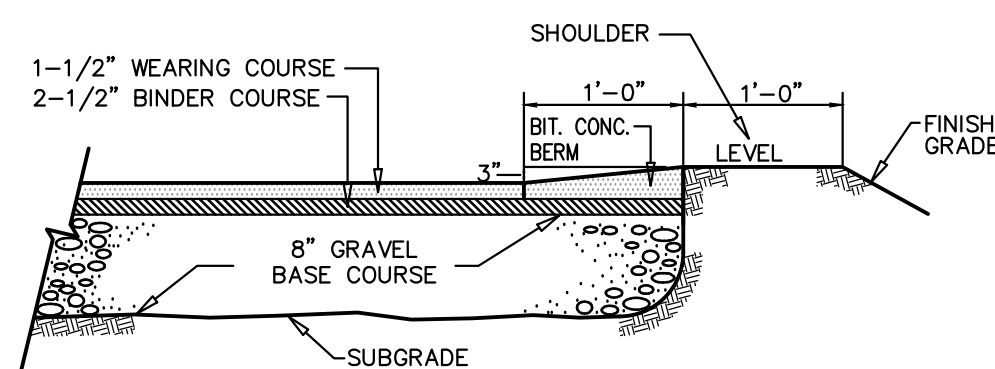
| No. | Date     | Revision Description                   | By  |
|-----|----------|--|-----|
| 1   | 11/13/23 | REVISED BASED ON INITIAL P.B. COMMENTS | RED |
| 2   | 2/26/24  | REV. PER REVIEW COMMENTS               | RED |

Date: SEPTEMBER 15, 2023  
Drawn: RED/BE  
Checked: ZLB/AMG  
Sheet: 5 of 7

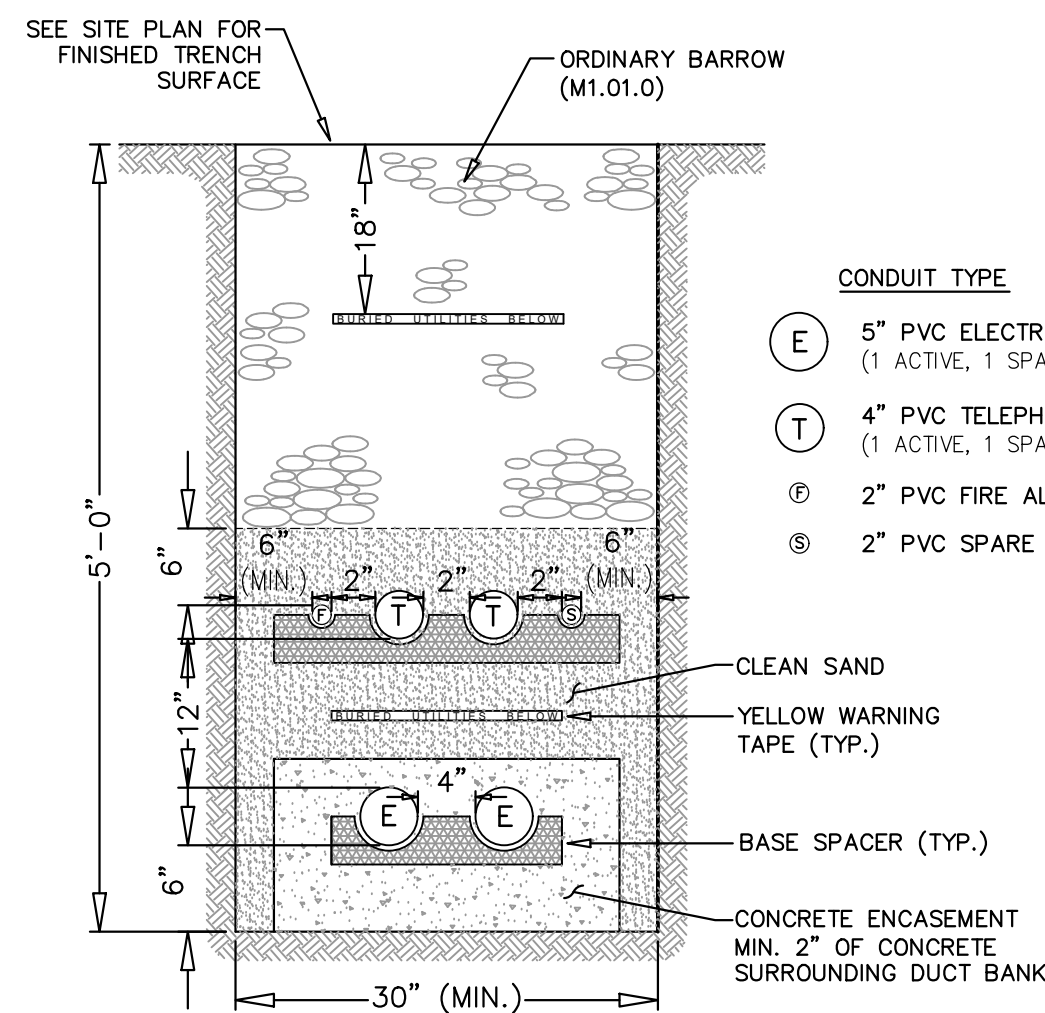




**TYPICAL WATER SERVICE CONNECTION**  
NOT TO SCALE



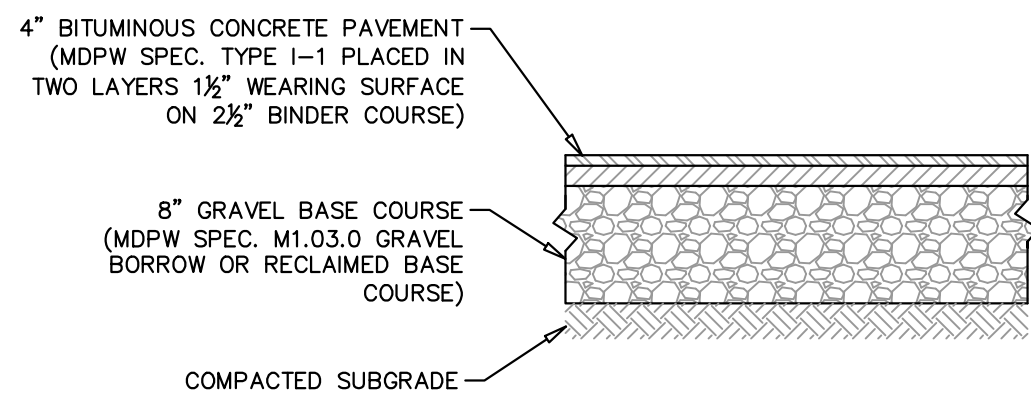
**CAPE COD BERM**  
NOT TO SCALE



ALL TRENCH CONDUITS SHALL BE SCHEDULE 40 PVC, UNLESS OTHERWISE NOTED  
FINAL CONFIGURATION SUBJECT TO CHANGE BASED ON FINAL UTILITY COMPANY DESIGN.

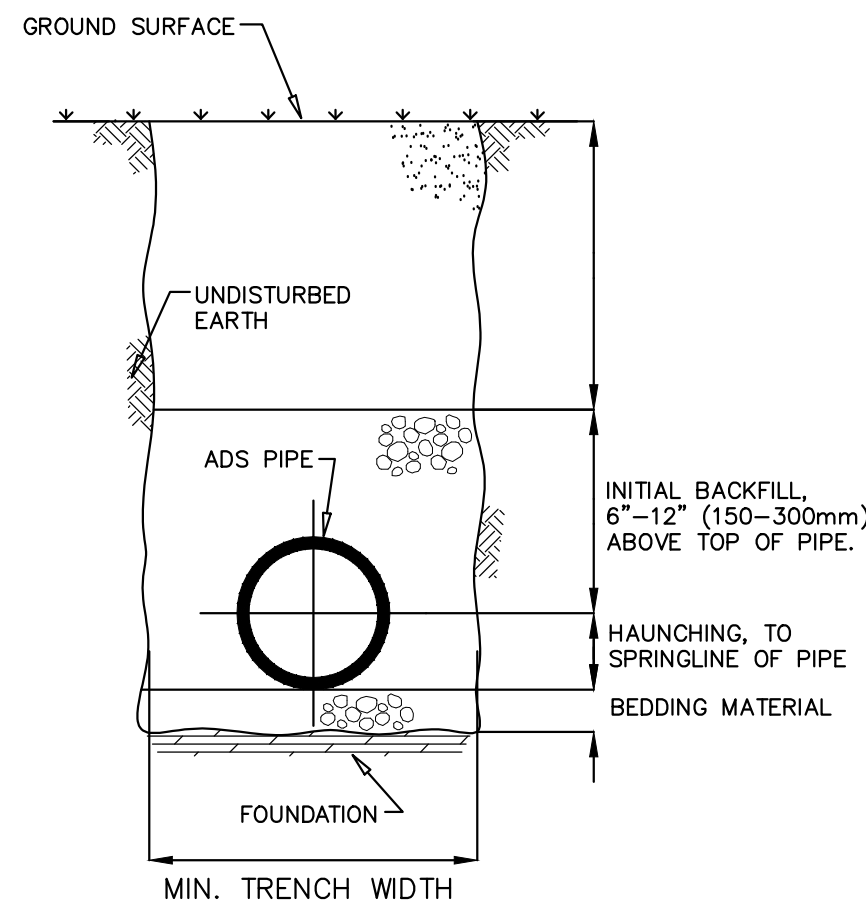
**COMMON TRENCH DETAIL**  
**ELECTRIC/TELEPHONE/FIRE ALARM/CABLE**

NOT TO SCALE



- NOTE:
1. SANDY LOAM and/or LOAMY SAND TOPSOIL MATERIAL SHALL BE EXCAVATED FROM ALL PAVED AREAS PRIOR TO SUB-BASE INSTALLATION.
  2. SUB-GRADE (EXISTING MATERIAL) SHALL CONSIST OF INERT MATERIAL THAT IS HARD, DURABLE STONE and/or COARSE SAND, FREE FROM LOAM and CLAY TO A DEPTH NOT LESS THAN 4 FEET BELOW THE FINISH PAVEMENT SURFACE.
  3. SUBGRADE FILL SHALL BE COMPACTED TO 95% COMPACTION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
  4. SEE SITE LAYOUT PLAN FOR PAVEMENT WIDTH and LOCATION.
  5. SEE GRADING PLAN FOR PAVEMENT SLOPE and CROSS SLOPE.
  6. PRIOR TO INSTALLING THE WEARING COURSE, THE EXISTING BINDER COURSE SURFACE SHALL BE SWEEPED COMPLETELY CLEAN BY A STREET SWEEPING MACHINE AND A TACK COAT SHALL BE INSTALLED TO A LEVEL APPROVED BY THE ENGINEER.

**PARKING AREA PAVEMENT SECTION**  
NOT TO SCALE



**NOTES:**

1. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH A FOUNDATION OF CLASS I OR II MATERIAL AS DEFINED IN ASTM D2321. "STANDARD PRACTICE FOR INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS," LATEST EDITION; AS AN ALTERNATIVE AND AT THE DISCRETION OF THE ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A WOVEN GEOTEXTILE FABRIC.

2. BEDDING, HAUNCHING & INITIAL BACKFILL: SUITABLE MATERIAL SHALL CONSIST OF CLEAN, HARD, PARTICLES OF GRAVEL MEETING THE FOLLOWING:

| SIEVE SIZES | PASSING |
|-------------|---------|
| No. 4       | 85-95%  |
| No. 8       | 5-15%   |
|             | 0-2%    |

MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

MINIMUM BEDDING THICKNESS SHALL BE 4" (100MM) FOR 4"-24" (100-600MM) AND 42"-48" (1050-1200MM) CORRUGATED POLYETHYLENE PIPE (CPEP); 6" (150MM) FOR 30"-36" (750-900MM) CPEP.

4. MINIMUM TRENCH WIDTHS SHALL BE AS FOLLOWS:

| NOMINAL Ø<br>in (mm) | MIN. RECOMMENDED<br>TRENCH WIDTH, in (mm) |
|----------------------|---|
| 8 (200)              | 25 (630)                                  |
| 10 (250)             | 28 (710)                                  |
| 12 (300)             | 31 (790)                                  |
| 15 (375)             | 34 (860)                                  |
| 18 (450)             | 39 (990)                                  |

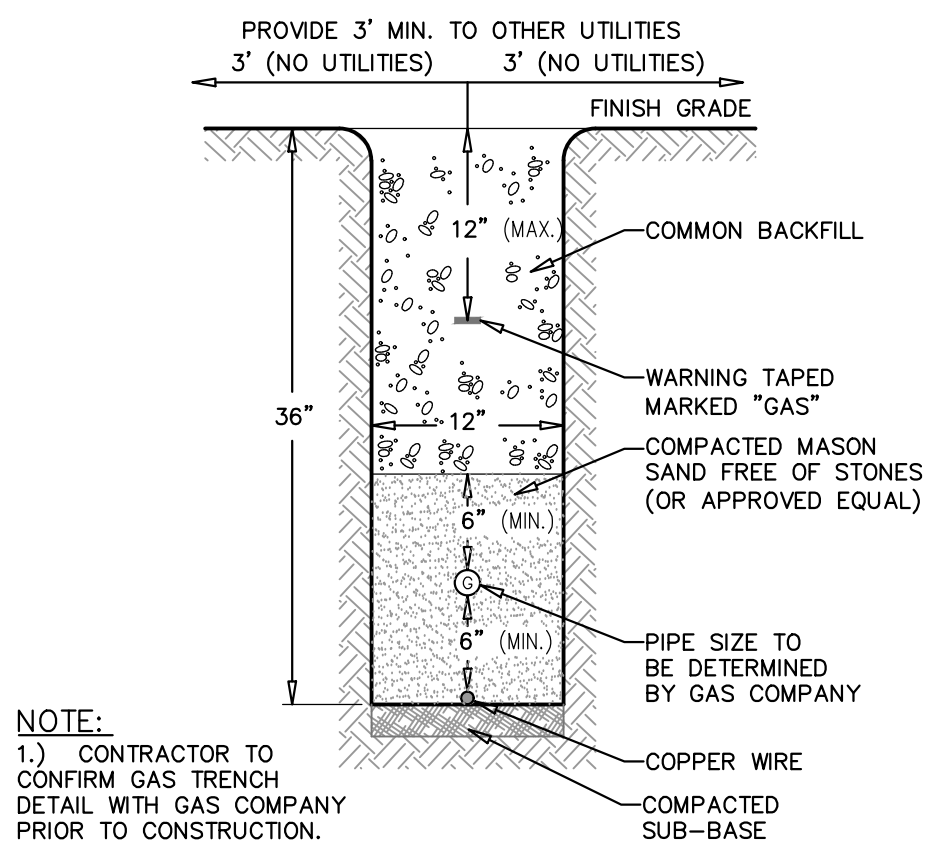
5. MINIMUM COVER: MINIMUM RECOMMENDED DEPTHS OF COVER FOR VARIOUS LIVE LOADING CONDITIONS ARE SUMMARIZED IN THE FOLLOWING TABLE. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE TAKEN FROM THE TOP OF PIPE TO THE GROUND SURFACE.

| SURFACE LIVE<br>LOADING CONDITION | MINIMUM RECOMMENDED<br>COVER, in (mm) |
|-----------------------------------|---------------------------------------|
| H25 (FLEXIBLE PAVEMENT)           | 12 (300)                              |
| H25 (RIGID PAVEMENT)              | 12 (300)                              |
| E80 RAILWAY                       | 24 (610)                              |
| HEAVY CONSTRUCTION                | 48 (1220)                             |

\*TOP OF PIPE TO BOTTOM OF BITUMINOUS PAVEMENT SECTION

**TRENCH CROSS-SECTION & A.D.S. PIPE INSTALLATION DETAIL**

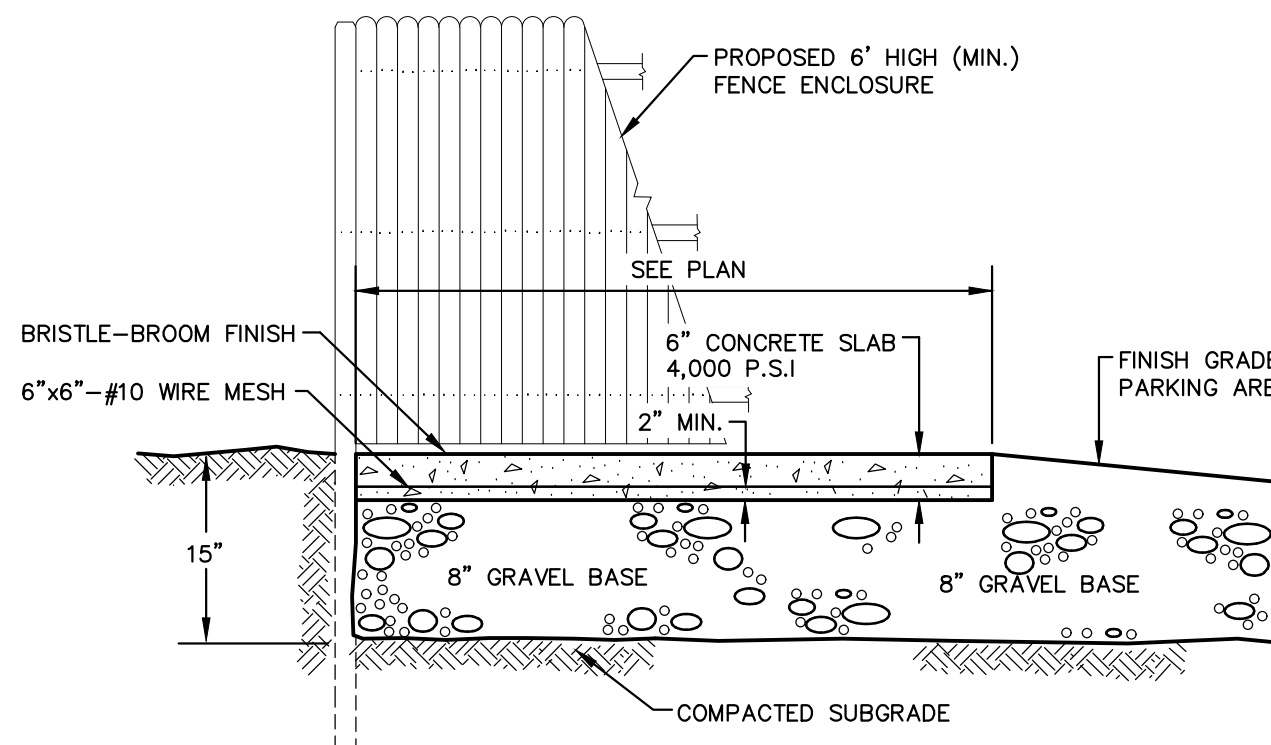
NOT TO SCALE



NOTE:  
1.) CONTRACTOR TO CONFIRM GAS TRENCH DETAIL WITH GAS COMPANY PRIOR TO CONSTRUCTION.

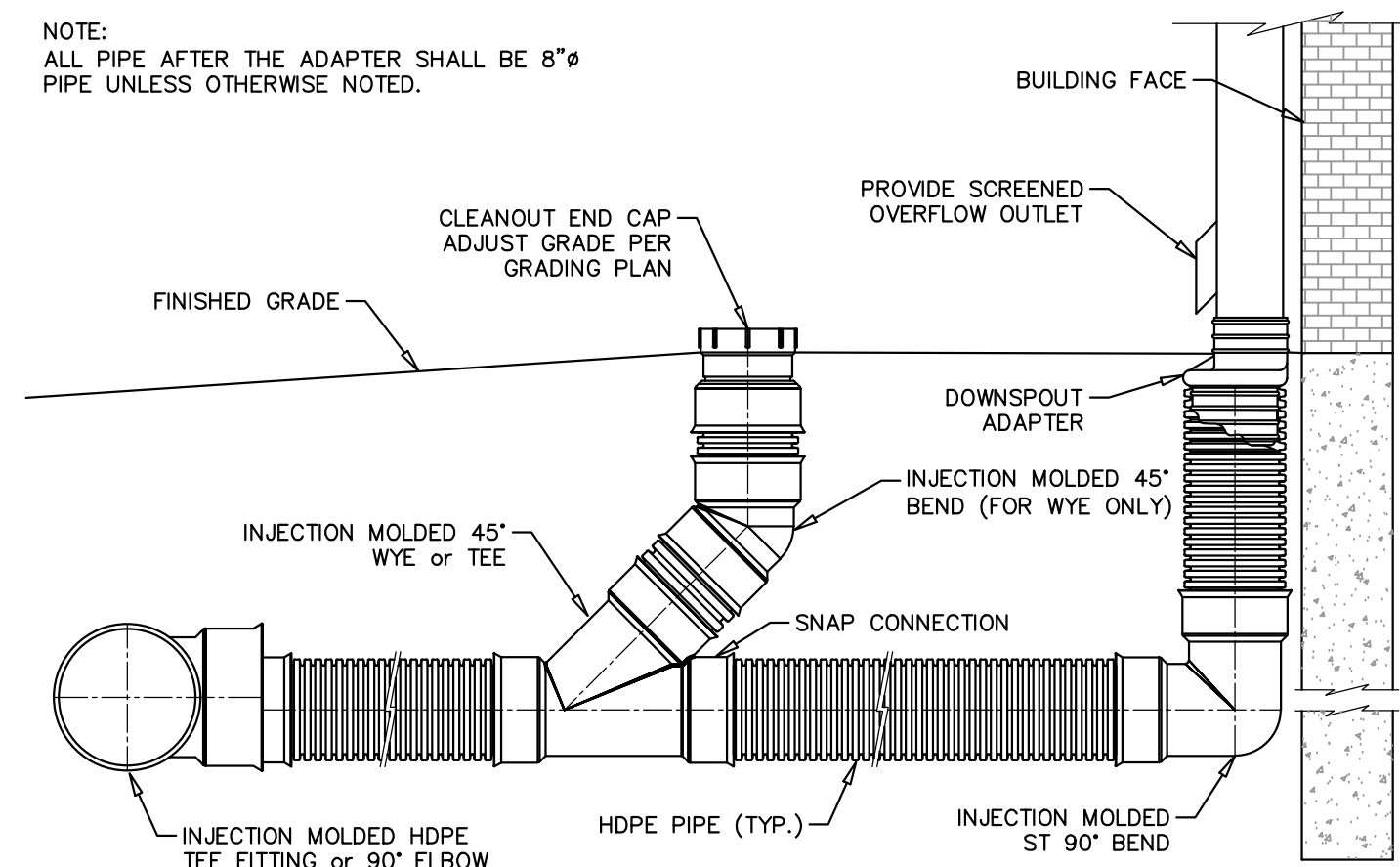
**TYPICAL NATURAL GAS TRENCH DETAIL**

NOT TO SCALE



**CONCRETE PAD and FENCE FOR TRASH CONTAINER**

NOT TO SCALE



**TYPICAL ROOF DRAIN DETAIL**

NOT TO SCALE

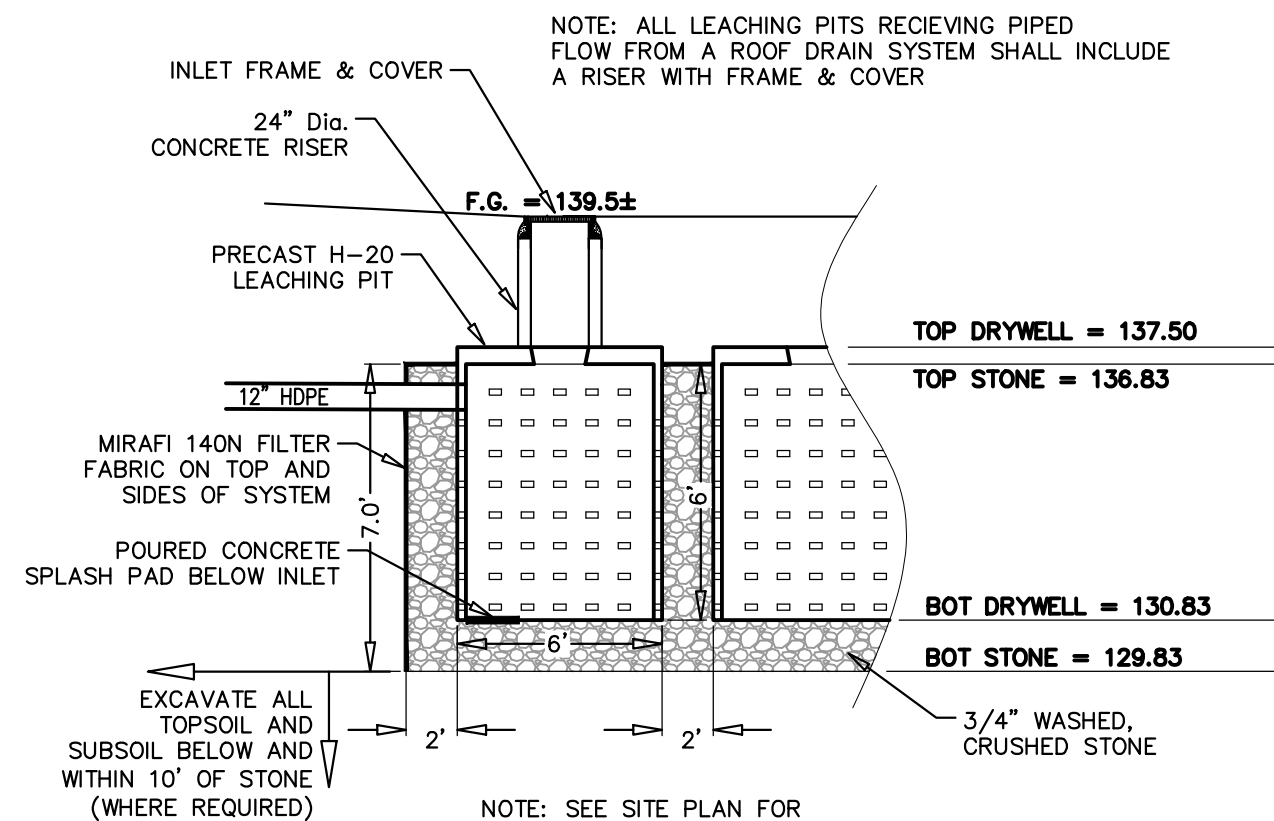
| SIZE OF MAIN | 90° BENDS, TEES, CAPS AND PLUGS | 45° BENDS AND WYES | 22 1/2° BENDS | 11 1/4° BENDS |
|--------------|---------------------------------|--------------------|---------------|---------------|
| 3"-4"        | 5                               | 4                  | 2             | 2             |
| 6"-12"       | 12                              | 9                  | 5             | 2             |

**NOTES:**

1. ALL FORCE MAIN FITTINGS SHALL HAVE CONCRETE BACKING FOR THRUST RESTRAINT UNLESS OTHERWISE SPECIFIED.
2. CONTRACTOR SHALL USE CARE TO AVOID PLACEMENT OF CONCRETE ON THE FITTING JOINTS.
3. VOLUME AND ACTUAL PLACEMENT DETERMINED BY CHART.
4. PLACE ALL CONCRETE ON UNDISTURBED SOIL OR ROCK.
5. ENGINEER MAY REQUIRE THRUST RODS TO BE USED INSTEAD OF CONCRETE ANCHORS, AT NO ADDITIONAL COST DUE TO FIELD CONDITIONS.
6. REINFORCING (TIE) RODS TO BE #8 BARS. COAT EXPOSED BAR WITH ASPHALT.
7. RESTRAINED JOINT RETAINER GLANDS SHALL BE USED WHERE DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.

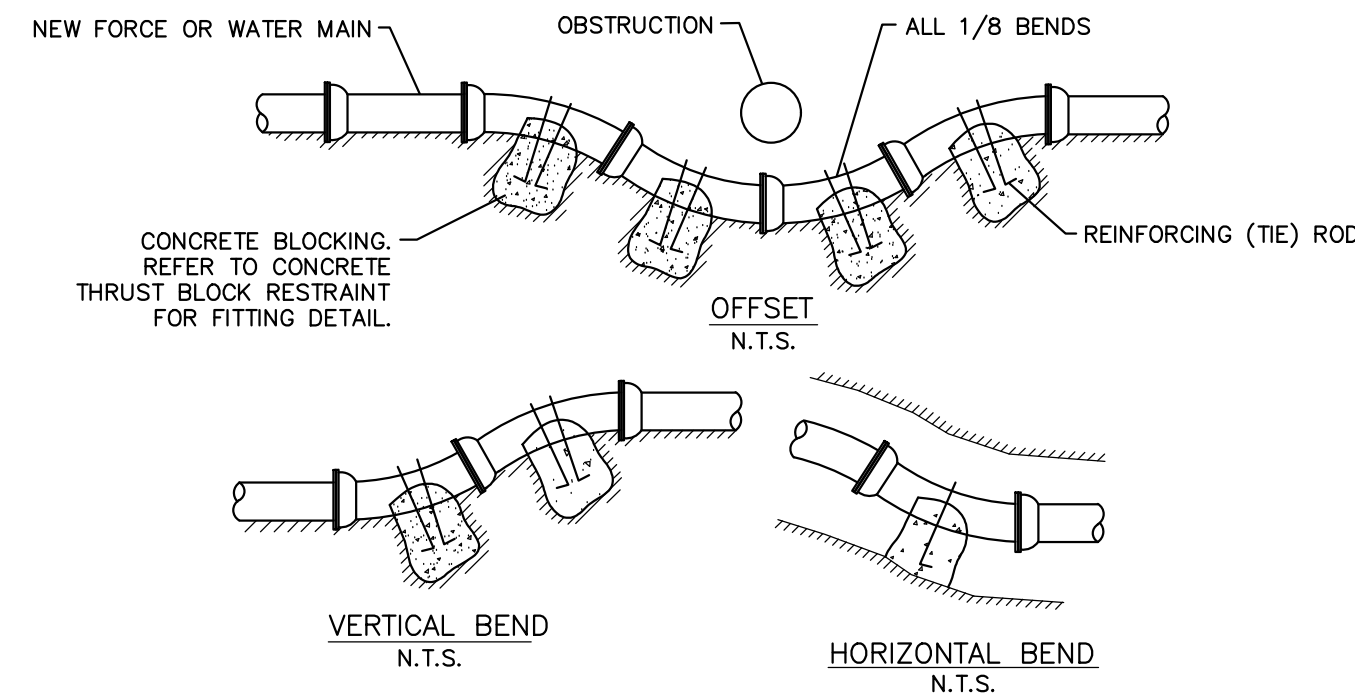
**CONCRETE THRUST RESTRAINT FOR FITTINGS**

NOT TO SCALE



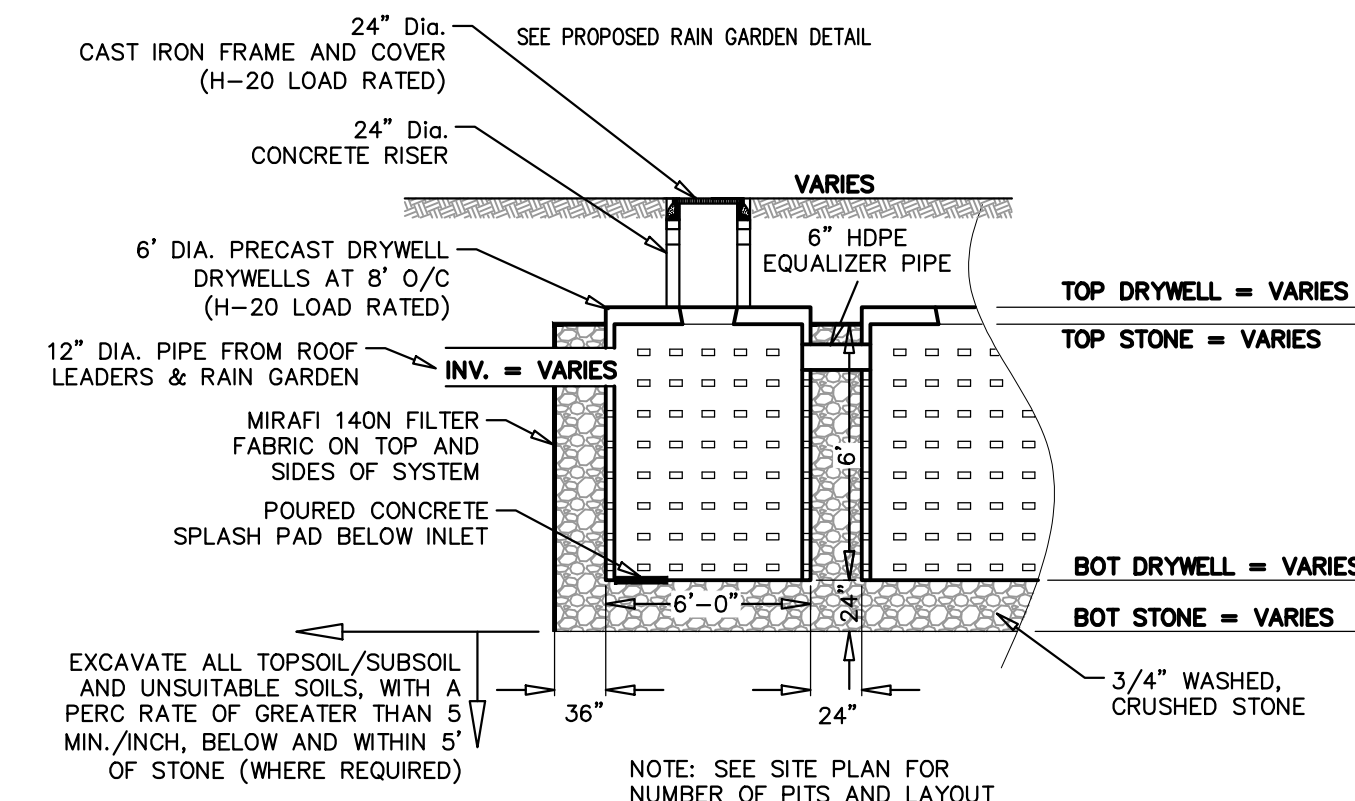
**ROOF DRYWELL DETAIL**

NOT TO SCALE



**ANCHORAGE DETAILS**

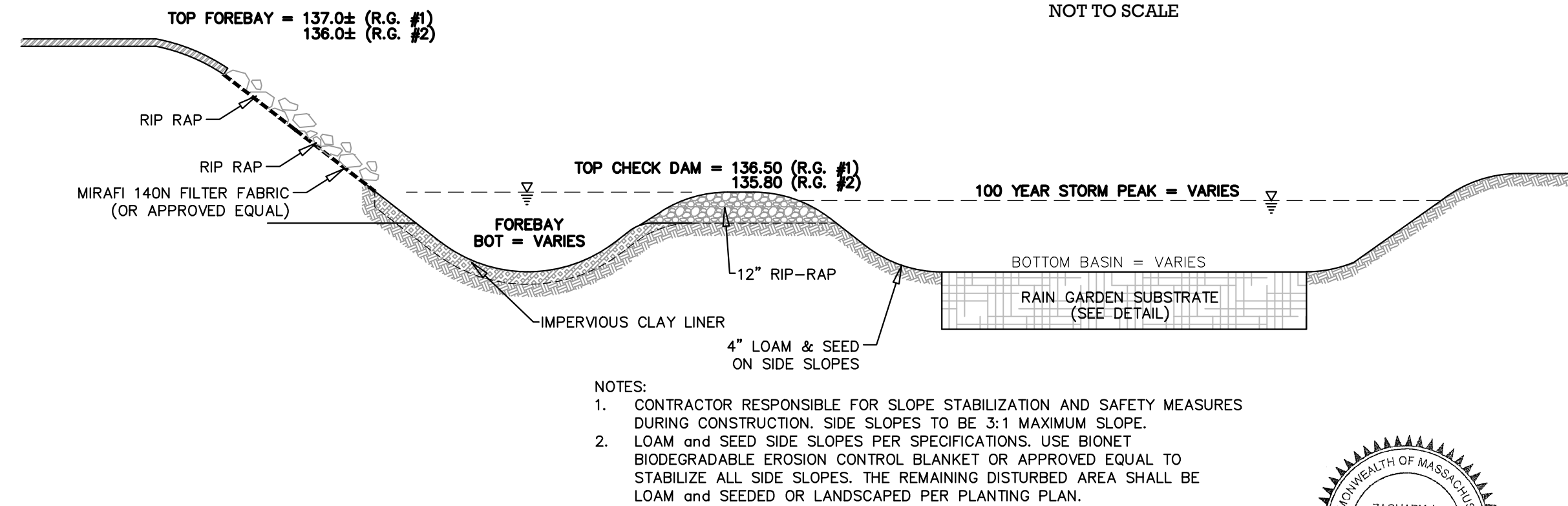
NOT TO SCALE



| ELEVATION SCHEDULE | ACCESS<br>PORT RIM | 12" INVERT IN | TOP OF<br>DRYWELL | TOP OF<br>STONE | BOTTOM OF<br>STONE | BOTTOM OF<br>STONE |
|--------------------|--------------------|---------------|-------------------|-----------------|--------------------|--------------------|
| RAIN GARDEN #1     | 137.7±             | 132.00        | 134.17            | 133.50          | 127.50             | 125.50             |
| RAIN GARDEN #2     | 136.9±             | 130.00        | 132.17            | 131.50          | 125.50             | 123.50             |

**STORMWATER MANAGEMENT AREA DETAIL**

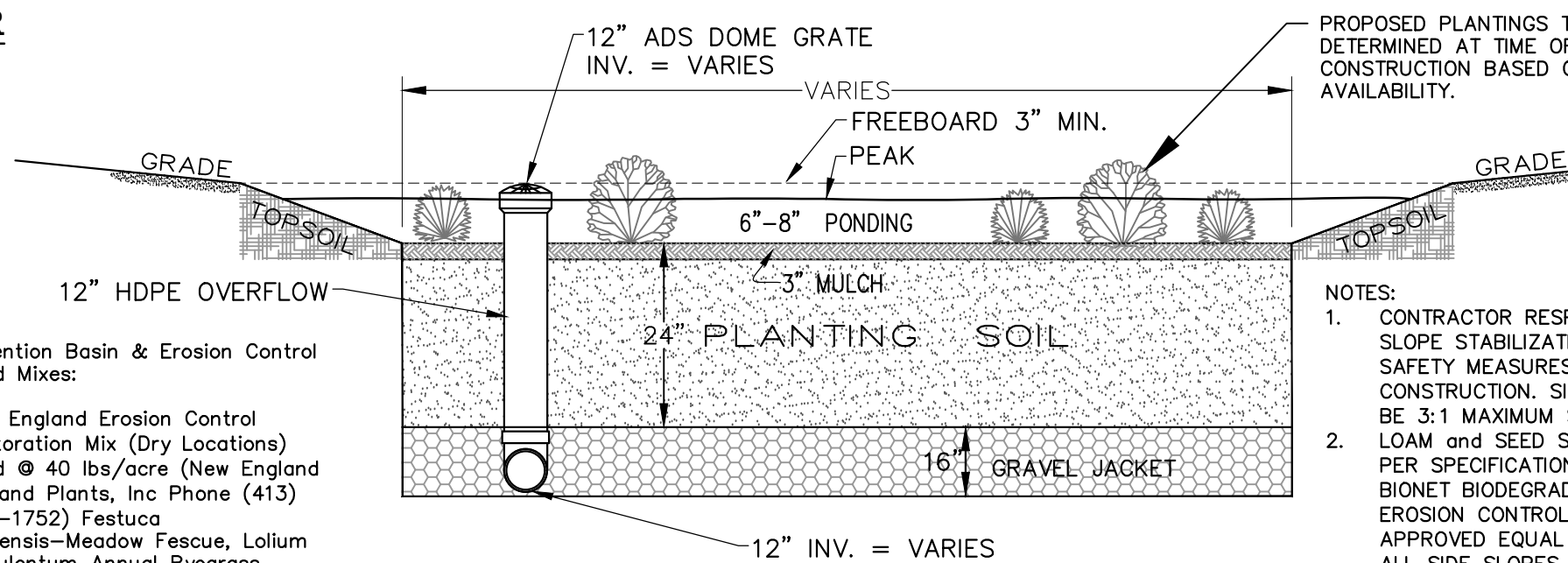
NOT TO SCALE



- NOTES:
1. CONTRACTOR RESPONSIBLE FOR SLOPE STABILIZATION AND SAFETY MEASURES DURING CONSTRUCTION. SIDE SLOPES TO BE 3:1 MAXIMUM SLOPE.
  2. LOAM and SEED SIDE SLOPES PER SPECIFICATIONS. USE BIONET BIODEGRADABLE EROSION CONTROL BLANKET OR APPROVED EQUAL TO STABILIZE ALL SIDE SLOPES. THE REMAINING DISTURBED AREA SHALL BE LOAM and SEEDED OR LANDSCAPED PER PLANTING PLAN.

**TYPICAL FOREBAY TO RAIN GARDEN DETAIL**

NOT TO SCALE



| ELEVATION SCHEDULE | TOP OF MULCH/<br>BASIN BOTTOM | TOP OF<br>PLANTING SOIL | BOTTOM OF<br>PLANTING SOIL | BOTTOM OF<br>STONE | 25 YEAR<br>PEAK | 100 YEAR<br>PEAK |
|--------------------|-------------------------------|-------------------------|----------------------------|--------------------|-----------------|------------------|
| RAIN GARDEN #1     | 134.50                        | 134.25                  | 132.50                     | 131.17             | 133.47          | 136.31           |
| RAIN GARDEN #2     | 133.00                        | 132.75                  | 131.00                     | 129.67             | 133.87          | 135.58           |

**USE ENGINEERED SOIL MIX FOR BIOTENTION/RAIN GARDEN SYSTEMS**

- THE SOIL MIX SHOULD BE A MIXTURE OF SAND, COMPOST AND SOIL (40% SAND; 20-30% TOPSOIL; 30-40% COMPOST)
- THE SOIL MIX MUST BE UNIFORM, FREE OF STONES, STUMPS, ROOTS OR SIMILAR OBJECTS LARGER THAN 2 INCHES. CLAY CONTENT SHOULD NOT EXCEED 5%.
- SOIL pH SHOULD GENERALLY BE BETWEEN 5.5-6.5.

- USE SOILS WITH 1.5% TO 3% ORGANIC CONTENT AND MAXIMUM 500 ppm SOLUBLE SALTS.
- THE SAND COMPONENT SHOULD BE GRAVELLY SAND THAT MEETS ASTM D422.
- THE TOPSOIL COMPONENT SHALL BE A LOAMY SAND TEXTURE.
- THE COMPOST COMPONENT MUST BE PROCESSED FROM YARD WASTE

IN ACCORDANCE WITH MassDEP GUIDELINES (SEE [HTTP://WWW.MASS.GOV/DEP/RECYCLE/REDUCE/LEAFGUID.DOC](http://www.mass.gov/dep/RECYCLE/REDUCE/LEAFGUID.DOC)). THE COMPOST MUST NOT CONTAIN BIOSOLIDS.

- ON-SITE SOIL MIXING OR PLACEMENT IS NOT ALLOWED IF SOIL IS SATURATED OR SUBJECT TO WATER WITHIN 48 HOURS. COVER AND STORE SOIL TO PREVENT WETTING OR SATURATION.
- PLACE PLANTING SOILS IN 6" LIFTS AND COMPACT WITH MINIMAL PRESSURE UNTIL THE DESIRED ELEVATION IS REACHED.

**RAIN GARDEN DETAIL**

NOT TO SCALE



Prepared By:

**BRACKEN**  
ENGINEERING, INC.

49 HERRING POND ROAD  
BUZZARDS BAY, MA 02532  
(tel) 508.833.0070  
(fax) 508.833.2282

19 OLD SOUTH ROAD  
NANTUCKET, MA 02554  
(tel) 508.325.0044  
www.brackeneng.com

Sheet Title:

**CONSTRUCTION DETAILS**






Project:

**PROPOSED SITE  
DEVELOPMENT  
IN CARVER, MA**  
Prepared For:  
**PLYMOUTH ELKS LODGE 1476**  
#169 SOUTH MEADOW ROAD  
MAP: 113 PARCEL: 7-0-E

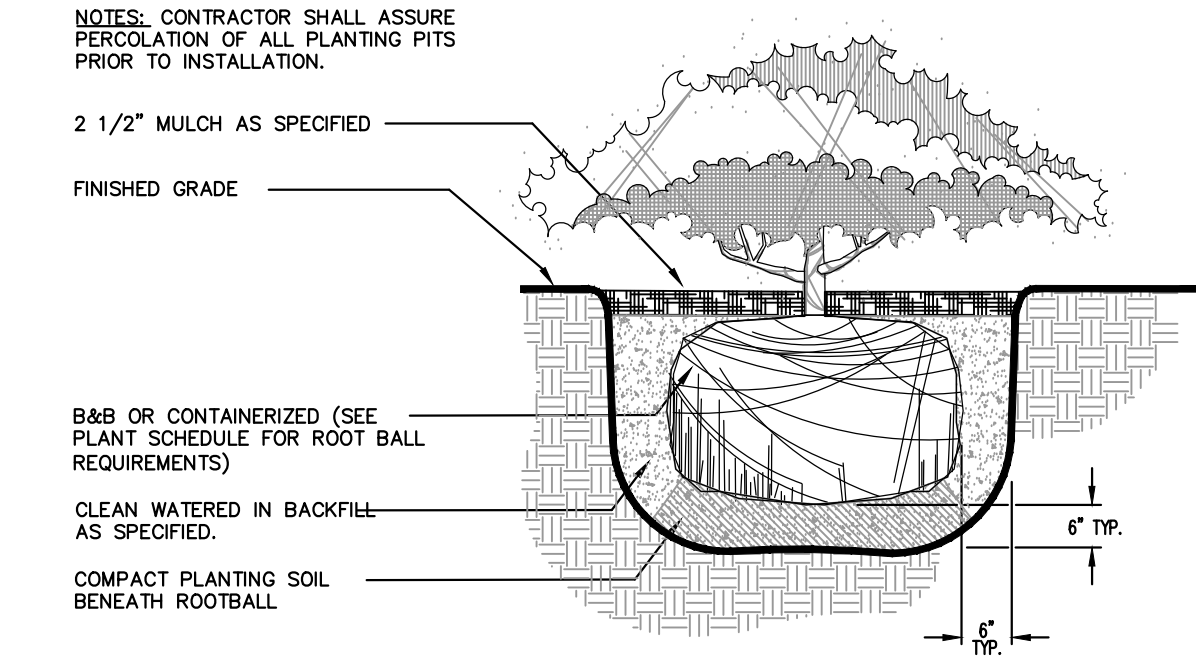
| No.  | Date     | Revision Description                   | By  |
|--|----------|--|-----|
| 1  | 11/13/23 | REV. PER REVIEW COMMENTS               | RED |
| 2  | 2/26/24  | REVISED BASED ON INITIAL P.B. COMMENTS | RED |
| Date: SEPTEMBER 15, 2023 Drawn: RED/BEI Checked: ZLB/AMG Sheet: 6 of 7 |          |  |     |

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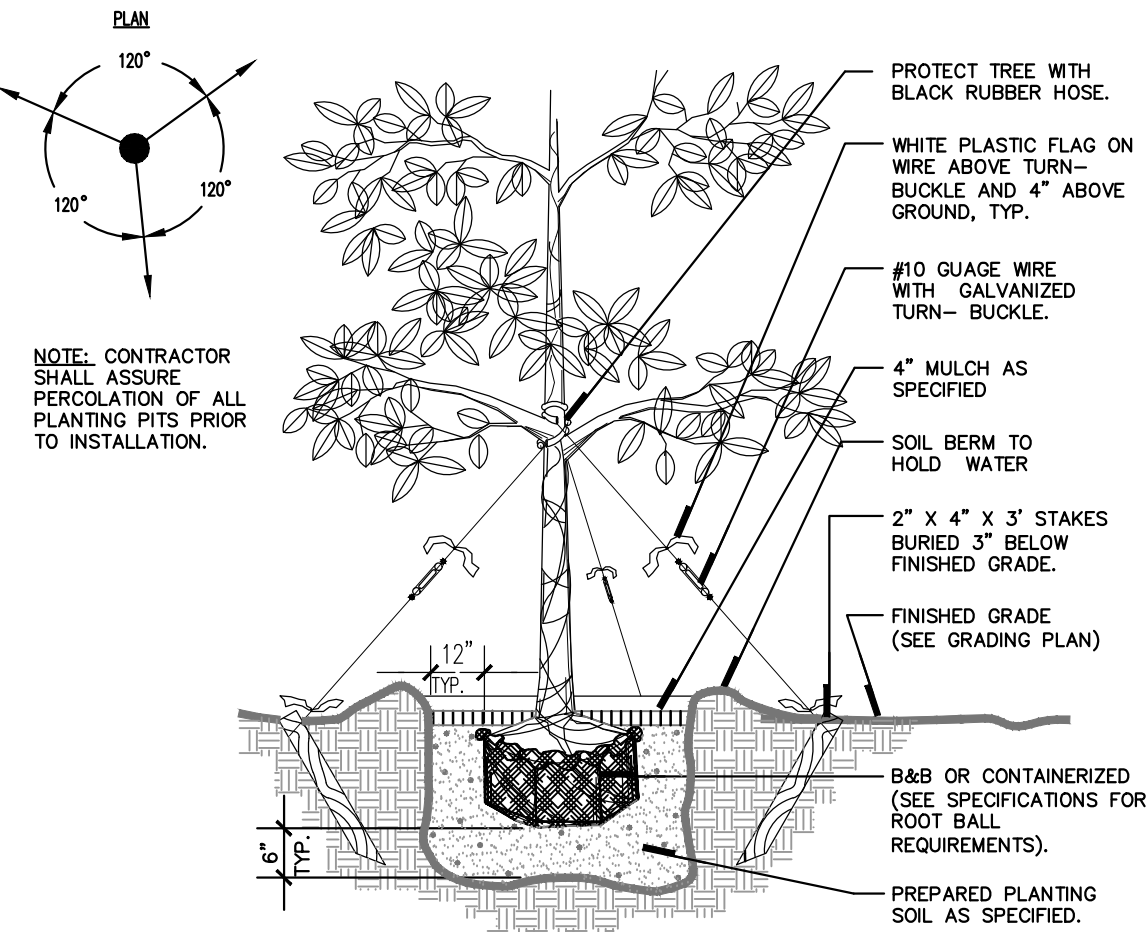


| PLANTING SCHEDULE   |   |   |                             |            |                |       |
|---|---|---|-----------------------------|------------|----------------|-------|
| SYMB.   | BOTANICAL NAME  |   | COMMON NAME                 | SIZE       | COMMENTS       | QNTY. |
| GENERAL SITE SHRUBS   |   |   |                             |            |                |       |
|  | HMN   | HYDRANGEA MACROPHYLLA 'NIKKO BLUE'      | NIKKO BLUE HYDRANGEA        | 24"-30" HT | 3 GAL. 5" O/C  | 19    |
|  | ROD   | RHODODENDRON MAXIMUM                    | GREAT ROSEBAY, GREAT LAUREL | 4'-6" HT   | 3 GAL. 10" O/C | 23    |
|  | VPTS  | VIBURNUM PLICATUM TOMENTOSUM 'SHOSHONI' | COMPACT DOUBLEFILE VIBURNUM | 18"-24" HT | 3 GAL. 5" O/C  | 16    |
| PERENNIALS  |   |   |                             |            |                |       |
|  | HRH   | HEMEROCALLIS 'HAPPY RETURNS'            | DWARF PALE YELLOW DAYLILY   | 18" HT     | 1 GAL. 24" O/C | 8     |
| GENERAL SITE TREES  |   |   |                             |            |                |       |
|  | STREET TREES - FINAL SPECIES TO BE DETERMINED - TREES TO BE SPACED 35'± O/C |   |                             | 3" CAL.    | B & B          | 6     |

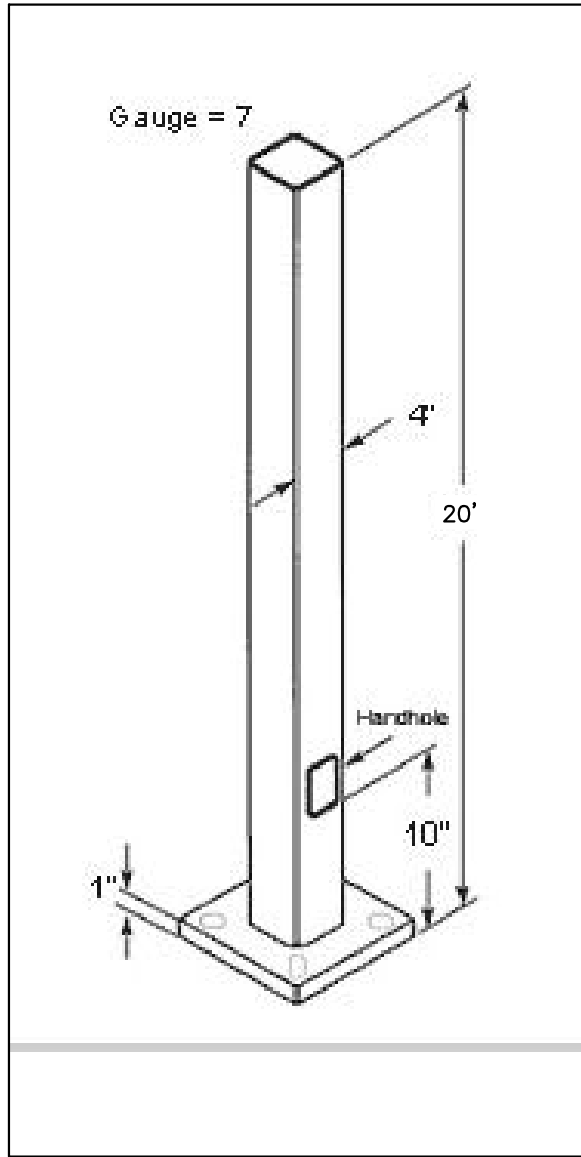
| LANDSCAPE SUMMARY |   |   |
|-------------------|---|---|
| USE               | REQUIRED  | PROPOSED  |
| LANDSCAPE AREA    | 150 S.F. OF LANDSCAPE AREA PER 1,000 S.F. OF PARKING AREA FOR PARKING AREAS WITH >10 SPACES | 5,022 S.F. OF PARKING AREA (>10 SPACES) REQUIRES 754 S.F. INTERIOR LANDSCAPE AREA 790 S.F. PROVIDED |



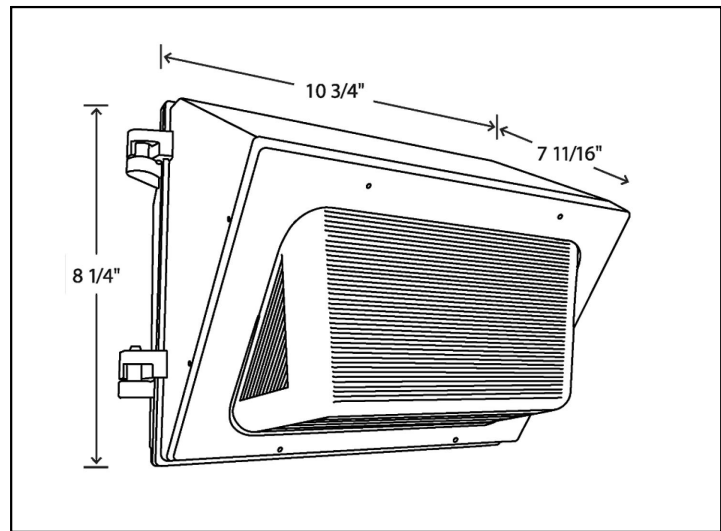
SHRUB PLANTING DETAIL  
NOT TO SCALE



LARGE TREE PLANTING DETAIL  
NOT TO SCALE

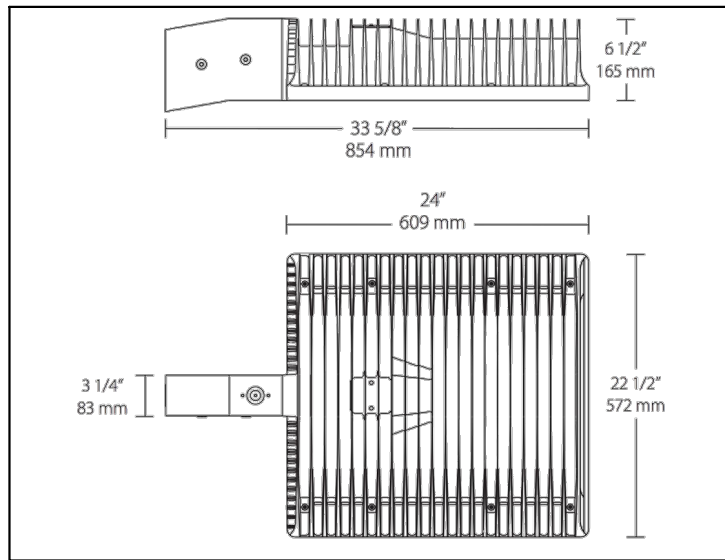


PS4-07-25D2 POLE  
NOT TO SCALE



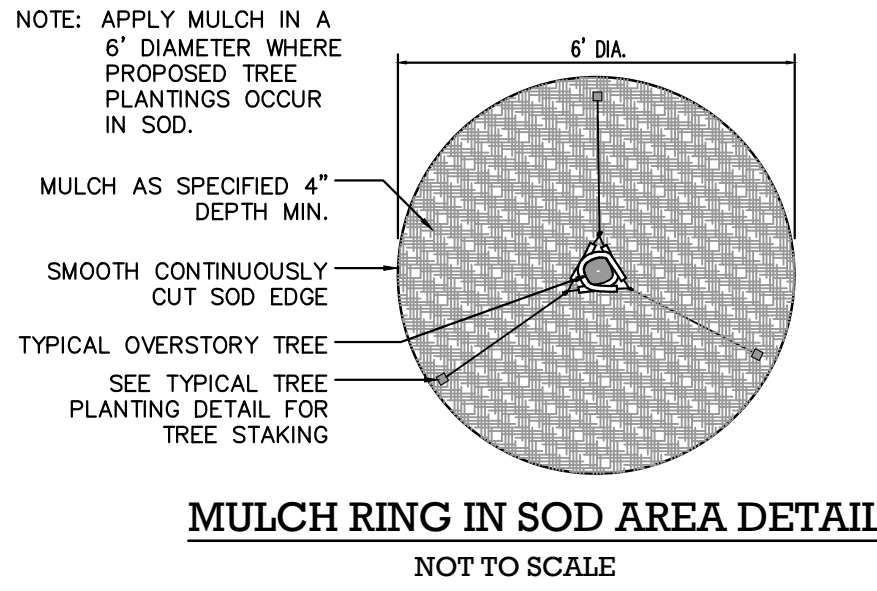
- NOTE:
1. MODEL: WP1XFU29 MANUFACTURED BY RAB LIGHTING, INC. OR APPROVED EQUAL
  2. INPUT WATTAGE: 29W; COLOR TEMP: ADJUSTABLE 3000K, 4000K, 5000K
  3. TYPE: CONSTANT CURRENT
  4. MOUNTING TYPE: WALL MOUNT
  5. MOUNTING HEIGHT: 9-11 FT

WALL PACK LIGHT DETAIL  
NOT TO SCALE



- NOTE:
1. MODEL: ALED4T260N/D10 MANUFACTURED BY RAB LIGHTING, INC. OR APPROVED EQUAL
  2. INPUT WATTAGE: 258.7W; COLOR TEMP: 4000K
  3. TYPE: CONSTANT CURRENT
  4. MOUNTING TYPE: POLE MOUNT
  5. MOUNTING HEIGHT: 20 FT

AREA LIGHT DETAIL  
NOT TO SCALE



WEATHERVANE DRIVE  
(F.K.A. FAIRWAY LANE)

0 FAIRWAY LANE  
MAP 112 PARCEL 1-5P

SOUTH MEADOW ROAD  
(50' WIDE - COUNTY LAYOUT)

#167 SOUTH MEADOW STREET  
MAP 113 PARCEL 6-0-D

SITE BENCHMARK  
TOP OF BOUND  
EL. 138.02 (NAVD88)

PLYMOUTH MEMORIAL AIRPORT  
MAP 113 PARCEL 7-0-E

PAVED DRIVE & PARKING

EXISTING BUILDING  
#276

CONTRACTOR TO COORDINATE WITH OWNERS AND ENGINEER TO RELOCATE EXISTING SITE TREES TO AREA TO PROVIDE SCREENING AND MATCH EXISTING TREE ROW.  
(APPROXIMATELY 7 TREES AT 10' O/C)

EXISTING WATER MAIN  
(LOCATION TO BE CONFIRMED IN FIELD)

Prepared By:

**BRACKEN**  
ENGINEERING, INC.

49 HERRING POND ROAD  
BUZZARDS BAY, MA 02532

(tel) 508.833.0070  
(fax) 508.833.2282

19 OLD SOUTH ROAD  
NANTUCKET, MA 02554

(tel) 508.325.0044  
www.brackeneng.com

Sheet Title:

**LIGHTING & LANDSCAPE**

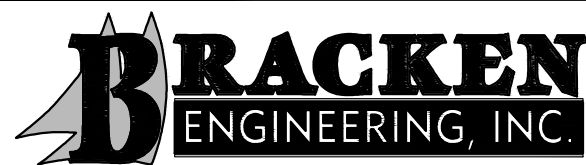
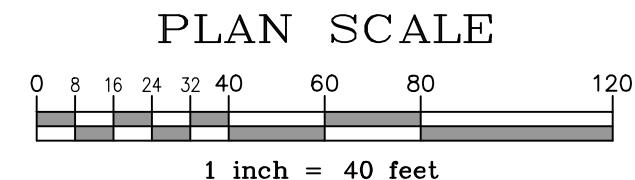
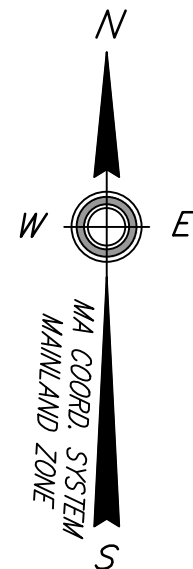
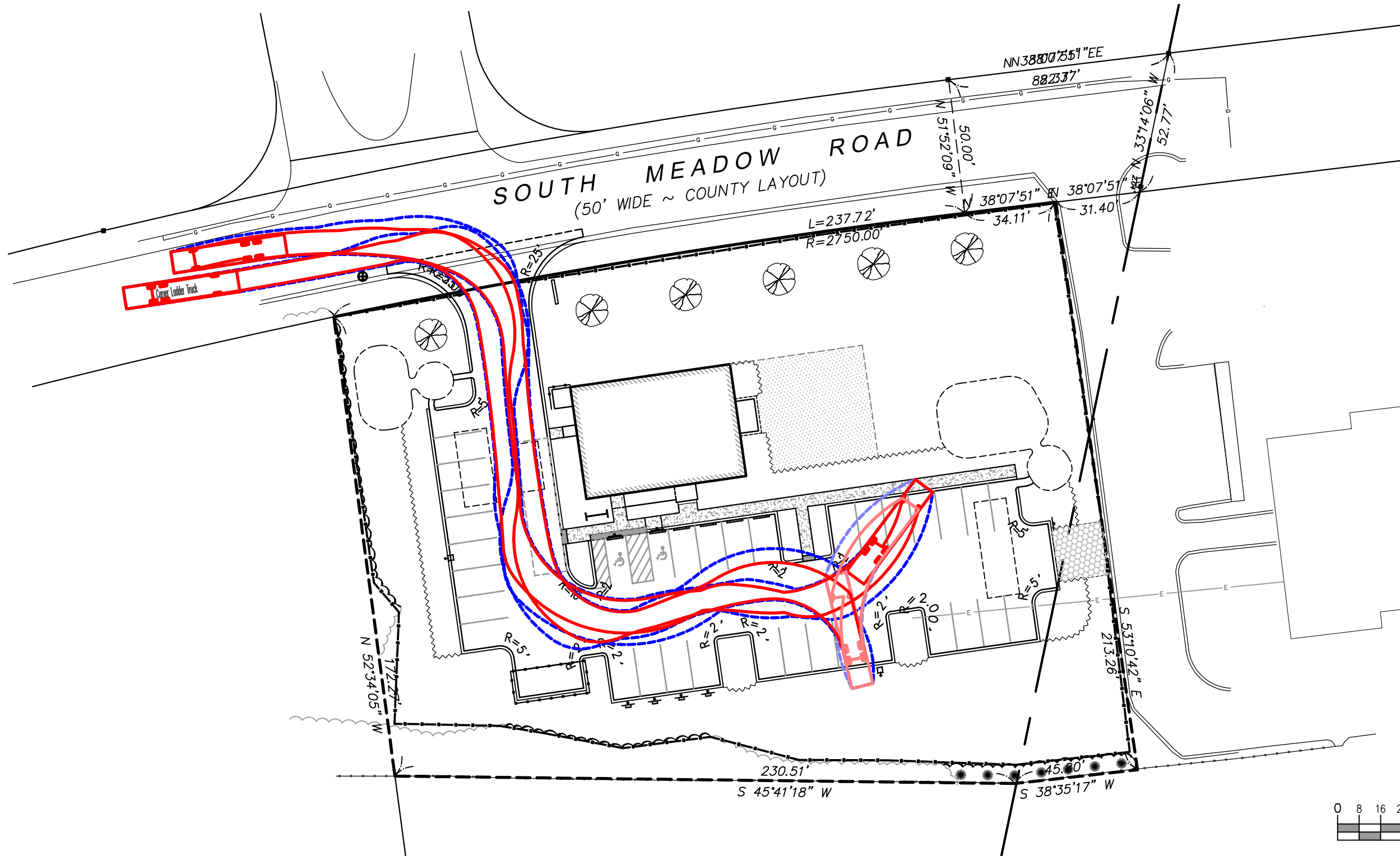
Project:

**PROPOSED SITE  
DEVELOPMENT  
IN CARVER, MA**  
Prepared For:  
**PLYMOUTH ELKS LODGE 1476**  
#169 SOUTH MEADOW ROAD  
MAP: 113 PARCEL: 7-0-E

| No.                      | Date     | Revision Description                   | By            |
|--------------------------|----------|--|---------------|
| 2                        | 2/26/24  | REV. PER REVIEW COMMENTS               | RED           |
| 1                        | 11/13/23 | REVISED BASED ON INITIAL P.B. COMMENTS | RED           |
| Date: SEPTEMBER 15, 2023 |          |  |               |
| Drawn: RED/BE            |          | Checked: ZLB/AMG                       | Sheet: 7 of 7 |

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49 HERRING POND ROAD  
BUZZARDS BAY, MA 02532

19 OLD SOUTH ROAD  
NANTUCKET, MA 02554

(tel) 508.833.0070  
(fax) 508.833.2282

(tel) 508.325.0044  
www.brackeneng.com

## VEHICLE TURNING ANALYSIS IN BOURNE, MASSACHUSETTS

Prepared for:

**PLYMOUTH ELKS LODGE 1476**  
#169 SOUTH MEADOW ROAD  
MAP 113 PARCEL 7-0-E

### LEGEND

- WHEELBASE PATH
- LIMIT OF VEHICLE OVERHANG
- VEHICLE NAME VEHICLE

Date: FEBRUARY 23, 2024

Drawn:

RED

Checked:

ZLB/AMG

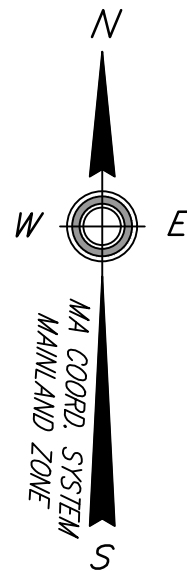
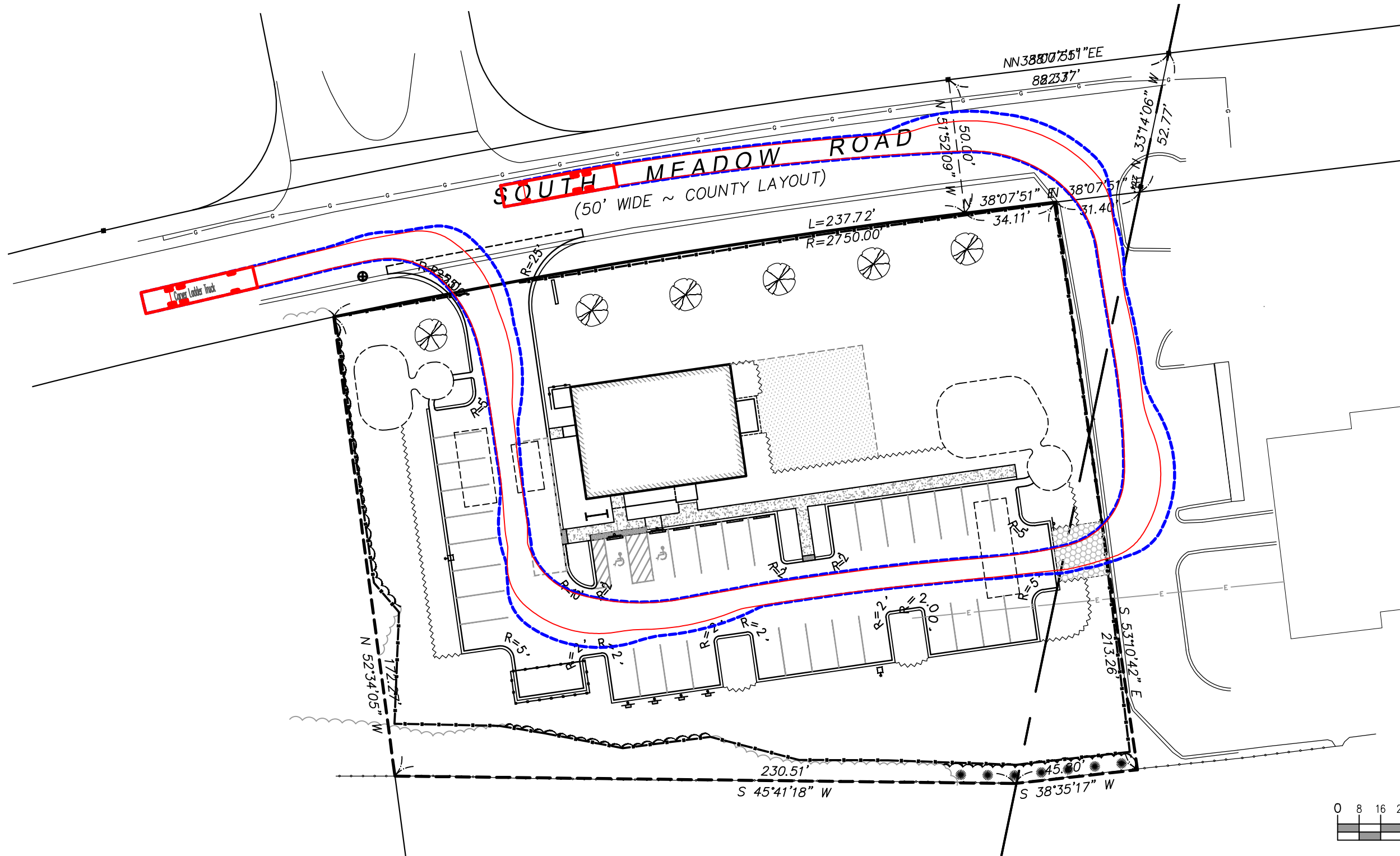
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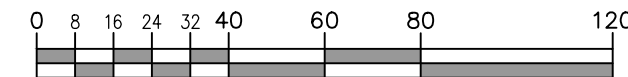
### TOWN OF CARVER LADDER TRUCK

|                |            |
|----------------|------------|
| WHEELBASE      | : 21'-7"   |
| LENGTH         | : 42'-7½"  |
| WIDTH          | : 8'-0"    |
| FRONT OVERHANG | : 8'-4"    |
| REAR OVERHANG  | : 14'-10½" |
| STEERING ANGLE | : 35.0°    |





PLAN SCALE



1 inch = 40 feet



49 HERRING POND ROAD  
BUZZARDS BAY, MA 02532

(tel) 508.833.0070  
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19 OLD SOUTH ROAD  
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## VEHICLE TURNING ANALYSIS IN BOURNE, MASSACHUSETTS

Prepared for:

**PLYMOUTH ELKS LODGE 1476**

#169 SOUTH MEADOW ROAD  
MAP 113 PARCEL 7-0-E

### LEGEND

- WHEELBASE PATH
- - - LIMIT OF VEHICLE OVERHANG
- VEHICLE NAME VEHICLE

Date: FEBRUARY 23, 2024

Drawn:

RED

Checked:

ZLB/AMG

Sheet:

2 of 2

### TOWN OF CARVER LADDER TRUCK

|                |            |
|----------------|------------|
| WHEELBASE      | : 21'-7"   |
| LENGTH         | : 42'-7½"  |
| WIDTH          | : 8'-0"    |
| FRONT OVERHANG | : 8'-4"    |
| REAR OVERHANG  | : 14'-10½" |
| STEERING ANGLE | : 35.0°    |