

SITE RENDERING NOT TO SCALE





TOWN OF MONTAGUE NEW DPW FACILITY

128 TURNERS FALLS WAY TURNERS FALLS, MA 01376

SITE PLAN REVIEW & SPECIAL PERMT

INDEX TO DRAWINGS:

Sheet Number	Sheet Name
C-001	COVER SHEET
C-101	EXISTING CONDITIONS PLAN
C-111	SITE PREPARATION PLAN
C-121	LAYOUT, MATERIALS, & PLANTING PLAN
C-131	GRADING & UTILITIES PLAN
C-501	DETAILS I
C-502	DETAILS II
C-503	DETAILS III
C-504	DETAILS IV
A-101	FLOOR PLAN
A-301	EXTERIOR ELEVATIONS SHEET I
A-302	EXTERIOR ELEVATIONS SHEET II
A-401	SALT STORAGE STRUCTURE
A-402	MATERIAL STORAGE STRUCTURE
SL1	LIGHTING PLAN, SCHEDULES, AND SPECIFICATIONS

04/16/2019

PROJECT # 19029



ARCHITECTURE ENGINEERING Planning INTERIORS

	PROPOSED NEW PROPERTY
	LEGEND
0	FOUND IRON PIN
۲	FOUND IRON PIN REBAR TO BE SET
_	FOUND IRON PIN REBAR TO BE SET FOUND CONCRETE BOUND
	FOUND IRON PIN REBAR TO BE SET
•	FOUND IRON PIN REBAR TO BE SET FOUND CONCRETE BOUND FOUND GRANITE HIGHWAY BOUND
• - - (\$)	FOUND IRON PIN REBAR TO BE SET FOUND CONCRETE BOUND FOUND GRANITE HIGHWAY BOUND SEWER MANHOLE
• - - - - - - - - - - - - - - - - - - -	FOUND IRON PIN REBAR TO BE SET FOUND CONCRETE BOUND FOUND GRANITE HIGHWAY BOUND SEWER MANHOLE DRAIN MANHOLE
• • • • • • • • • • • • • • • • • • •	FOUND IRON PIN REBAR TO BE SET FOUND CONCRETE BOUND FOUND GRANITE HIGHWAY BOUND SEWER MANHOLE DRAIN MANHOLE CATCH BASIN
• • • • • • • • • • • • • • • • • • •	FOUND IRON PIN REBAR TO BE SET FOUND CONCRETE BOUND FOUND GRANITE HIGHWAY BOUND SEWER MANHOLE DRAIN MANHOLE CATCH BASIN UTILITY POLE SECURITY LAMP FIRE HYDRANT
● □ ■ ③ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	FOUND IRON PIN REBAR TO BE SET FOUND CONCRETE BOUND FOUND GRANITE HIGHWAY BOUND SEWER MANHOLE DRAIN MANHOLE CATCH BASIN UTILITY POLE SECURITY LAMP
	FOUND IRON PIN REBAR TO BE SET FOUND CONCRETE BOUND FOUND GRANITE HIGHWAY BOUND SEWER MANHOLE DRAIN MANHOLE CATCH BASIN UTILITY POLE SECURITY LAMP FIRE HYDRANT WATER VALVE TEST PIT (APRIL 2019) ABUTTERS LOT LINE
	FOUND IRON PIN REBAR TO BE SET FOUND CONCRETE BOUND FOUND GRANITE HIGHWAY BOUND SEWER MANHOLE DRAIN MANHOLE CATCH BASIN UTILITY POLE SECURITY LAMP FIRE HYDRANT WATER VALVE TEST PIT (APRIL 2019) ABUTTERS LOT LINE PROPERTY LINE
■ ③ ③ □ □ □ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	FOUND IRON PIN REBAR TO BE SET FOUND CONCRETE BOUND FOUND GRANITE HIGHWAY BOUND SEWER MANHOLE DRAIN MANHOLE CATCH BASIN UTILITY POLE SECURITY LAMP FIRE HYDRANT WATER VALVE TEST PIT (APRIL 2019) ABUTTERS LOT LINE PROPERTY LINE SEWER LINE (PIPE SIZE PER DPW)
	FOUND IRON PIN REBAR TO BE SET FOUND CONCRETE BOUND FOUND GRANITE HIGHWAY BOUND SEWER MANHOLE DRAIN MANHOLE CATCH BASIN UTILITY POLE SECURITY LAMP FIRE HYDRANT WATER VALVE TEST PIT (APRIL 2019) ABUTTERS LOT LINE PROPERTY LINE SEWER LINE (PIPE SIZE PER DPW) DRAIN LINE
■ ③ ③ ③ ③ ③ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	FOUND IRON PIN REBAR TO BE SET FOUND CONCRETE BOUND FOUND GRANITE HIGHWAY BOUND SEWER MANHOLE DRAIN MANHOLE CATCH BASIN UTILITY POLE SECURITY LAMP FIRE HYDRANT WATER VALVE TEST PIT (APRIL 2019) ABUTTERS LOT LINE PROPERTY LINE SEWER LINE (PIPE SIZE PER DPW) DRAIN LINE WATER LINE (LOCATION & SIZE PER WATER DEPT.
■ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③	FOUND IRON PIN REBAR TO BE SET FOUND CONCRETE BOUND FOUND GRANITE HIGHWAY BOUND SEWER MANHOLE DRAIN MANHOLE CATCH BASIN UTILITY POLE SECURITY LAMP FIRE HYDRANT WATER VALVE TEST PIT (APRIL 2019) ABUTTERS LOT LINE PROPERTY LINE SEWER LINE (PIPE SIZE PER DPW) DRAIN LINE WATER LINE (LOCATION & SIZE PER WATER DEPT. TREE LINE
■ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③	FOUND IRON PIN REBAR TO BE SET FOUND CONCRETE BOUND FOUND GRANITE HIGHWAY BOUND SEWER MANHOLE DRAIN MANHOLE CATCH BASIN UTILITY POLE SECURITY LAMP FIRE HYDRANT WATER VALVE TEST PIT (APRIL 2019) ABUTTERS LOT LINE PROPERTY LINE SEWER LINE (PIPE SIZE PER DPW) DRAIN LINE WATER LINE (LOCATION & SIZE PER WATER DEPT. TREE LINE MINOR CONTOURS

_____/

---- 100--

105———————————

100----

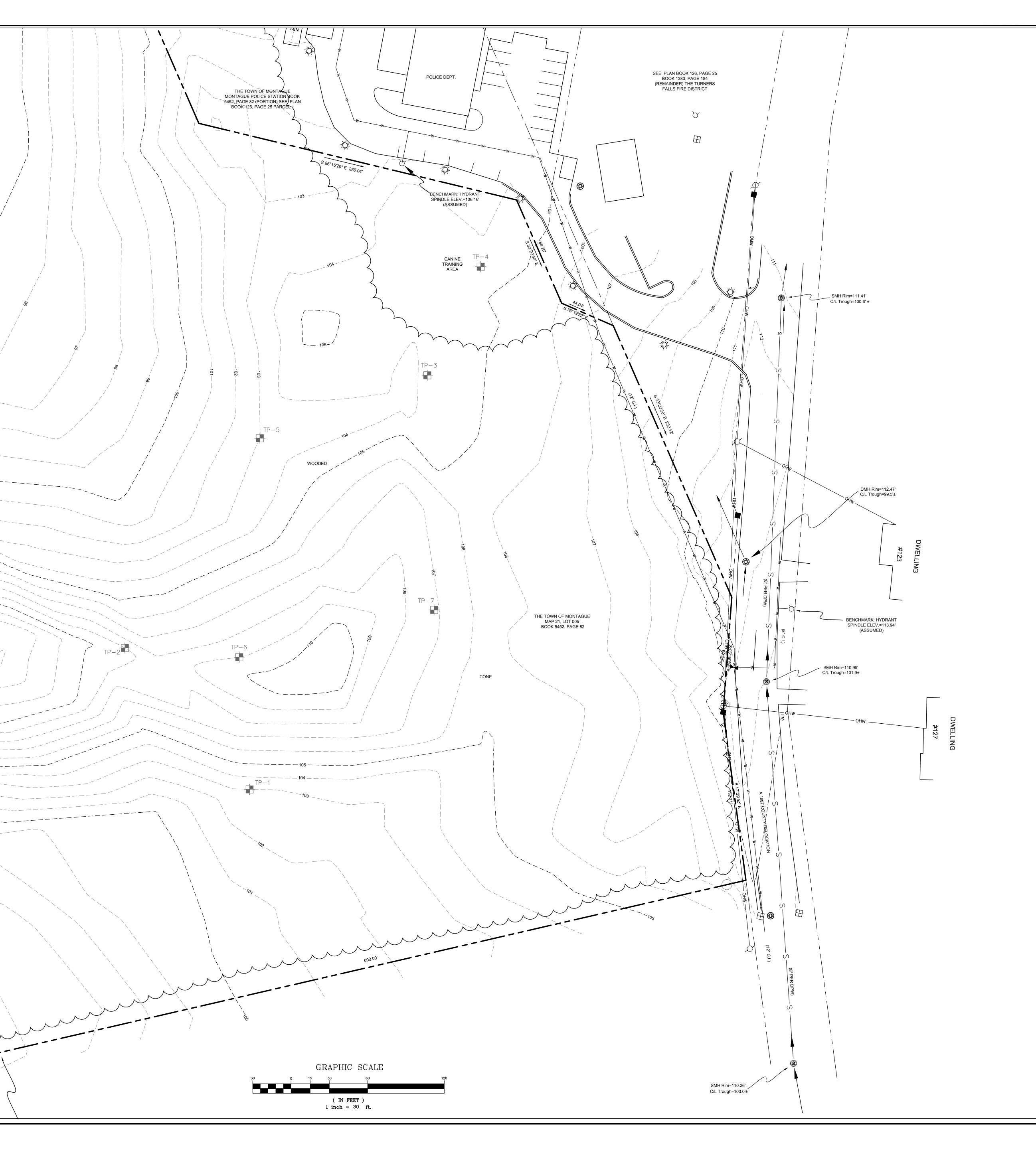
PLAN REFERENCES:

1. EXISTING CONDITIONS INFORMATION SHOWN HEREON WAS TAKEN FROM A PLAN ENTITLED "TOPOGRAPHIC PLAN OF LAND IN MONTAGUE, MASSACHUSETTS, PREPARED FOR TOWN OF MONTAGUE", SHEET 1 OF 1, SCALE: 1" = 80', DATED JANUARY 24, 2019, BY HAROLD L. EATON AND ASSOCIATES, INC., REGISTERED PROFESSIONAL LAND SURVEYORS, 235 RUSSELL STREET, HADLEY, MASSACHUSSETS.

NOTES:

- 1. THE HORIZONTAL DATUM SHOWN HEREON REFERENCES NAD 83 (MASS MAINLAND).
- 2. THE VERTICAL DATUM SHOWN HEREON REFERENCES NAVD 1988.
- 3. SUPPLEMENTAL INFORMATION SHOWN ON THIS PLAN WAS OBTAINED FROM AERIAL/GIS MAPPING BY SMMA.
- 4. THE LOCATION OF THE UTILITIES AS SHOWN HEREON HAVE BEEN COMPILED FROM VISIBLE STRUCTURES AND INFORMATION OBTAINED FROM VARIOUS SOURCES. THE ACTUAL LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES SHALL BE CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY THE OWNER PRIOR TO ANY CONSTRUCTION. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
- 5. SOIL TEST PITS WERE PERFORMED BY GEOTECHNICAL CONSULTANTS INC., ON APRIL 9, 2019. LOCATIONS SHOWN ARE APPROXIMATE, BASED ON FIELD MEASUREMENTS.

S 67° 10' 18" W 1548.38'



MONTAGUE
NEW DPW FACILITY
OWNER: TOWN OF MONTAGUE ONE AVENUE A TURNERS FALLS, MA 01376
Architects, Inc. 61 Skyfields Drive, Groton, Massachusetts 01450
CIVIL ENGINEER: SYMMES, MAINI & McKEE ASSOCIATES 1000 MASSACHUSETTS AVENUE CAMBRIDGE, MA 02138
STRUCTURAL ENGINEER: SYMMES, MAINI & McKEE ASSOCIATES 1000 MASSACHUSETTS AVENUE CAMBRIDGE, MA 02138
MECHANICAL ENGINEER: SEAMAN ENGINEERING CORP. 22 WEST STREET, UNIT C MILLBURY, MA 01527
ELECTRICAL ENGINEER: JOHN J. MURPHY, JR. ELECTRICAL CONSTRUCTION AND ENGINEERING, INC. 379 LIBERTY STREET
ROCKLAND, MA 02370
STAMP
STAMP
O4/16/19 ISSUED FOR SITE PLAN REVIEW & SPECIAL PERMIT REV DATE DESCRIPTION
DATE 4-16-2019 SCALE 1"=30'
JRAWN BYCJRCHECKED BYPSGPROJECT NO.19001
BUILDING: SHEET TITLE:
EXISTING CONDITIONS PLAN
DRAWING NO.
C-101



EROSION CONTROL NOTES - GENERAL:

1. CONFORM TO CONDITIONS LISTED IN THE SITE PLAN REVIEW APPROVAL ISSUED FOR THIS PROJECT. A COPY OF THE CONDITIONS IS TO BE KEPT ON-SITE.

2. CONFORM TO CONDITIONS OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND THE NPDES GENERAL PERMIT. A COPY OF THE SWPPP IS TO BE KEPT ON-SITE.

3. INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY SITEWORK OR EARTHWORK OPERATIONS, OR AS REQUIRED BY THE ORDER OF CONDITIONS (WHICHEVER IS GREATER) AND MAINTAIN THROUGHOUT CONSTRUCTION. MEASURES ARE TO REMAIN IN PLACE UNTIL SITEWORK IS COMPLETE AND GROUNDCOVER IS ESTABLISHED, AS DETERMINED BY THE ARCHITECT.

4. SUBMIT A NPDES APPLICATION TO THE EPA AT LEAST 14 DAYS PRIOR TO THE COMMENCEMENT OF ANY SITEWORK OR EARTHWORK OPERATIONS. SUBMIT PROOF OF APPLICATION FOR A NPDES GENERAL PERMIT TO THE ARCHITECT AND OWNER PRIOR TO THE COMMENCEMENT OF ANY SITEWORK.

5. INSTALL TEMPORARY CONSTRUCTION ENTRANCES PER DETAIL AT LOCATIONS INDICATED. RELOCATE AND MAINTAIN AS NECESSARY DURING CONSTRUCTION.

6. SURROUND SOIL STOCKPILES ON THEIR PERIMETERS WITH STAKED HAYBALES AND SILT FENCES TO CONTROL EROSION. MAINTAIN THROUGHOUT CONSTRUCTION.

7. STABILIZE SOIL STOCKPILES AND EXPOSED SOIL AREAS WHERE CONSTRUCTION ACTIVITIES WILL CEASE FOR 14 DAYS OR MORE, IN ACCORDANCE WITH THE NPDES GENERAL PERMIT.

8. PERFORM EARTHWORK ACTIVITY ON THE SITE IN A MANNER SUCH THAT RUNOFF IS DIRECTED TO TEMPORARY DRAINAGE SWALES AND TEMPORARY SEDIMENTATION BASINS. TEMPORARY DRAINAGE FEATURES ARE TO BE ADJUSTED AND RELOCATED AS NECESSARY THROUGHOUT CONSTRUCTION.

TEMPORARY DRAINAGE (6

BASIN OUTLET DEVICE (C-501

COMPOST SOCK (3

```

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

100-----

\_\_\_\_

TEMPORARY DRAINAGE 6 BASIN OUTLET DEVICE C-501

YP.) **\**C-501

9. CONSTRUCT TEMPORARY SEDIMENTATION BASINS TO CONTAIN A VOLUME OF RUNOFF EQUAL TO THE RESULTANT VOLUME OF RUNOFF FROM A 2-YEAR, 24-HOUR STORM EVENT FOR THE AREA THAT IS TRIBUTARY TO THE BASIN.

10. CONSTRUCT THE DRAINAGE SYSTEM, INCLUDING THE DETENTION BASIN AND FOREBAYS, DURING THE INITIAL PHASE OF THE PROJECT (TO THE EXTENT PRACTICAL) SO IT IS FUNCTIONAL DURING CONSTRUCTION. KEEP STRUCTURES FREE OF SILT AND DEBRIS TO ENSURE THEIR PROPER OPERATION.

11. INSTALL SILT SACKS AT EXISTING AND PROPOSED CATCH BASIN GRATES AND USE SUPPLEMENTAL STAKED HAYBALES AT CATCH BASINS IN EXPOSED SOIL AREAS, AND AS INDICATED ON THE PLANS. PROTECT CULVERT AND PIPE INLETS AND OUTFALLS WITH HAYBALE FILTERS. MAINTAIN THESE MEASURES UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED.

12. DEWATERING REQUIRED DURING CONSTRUCTION IS TO BE DISCHARGED INTO A TEMPORARY SEDIMENTATION BASIN. DO NOT DISCHARGE DIRECTLY INTO THE PIPED STORM DRAIN SYSTEM OR RESOURCE AREA.

13. KEEP ON SITE AT ALL TIMES: 50LF RESERVE OF COMPOST SOCK (MINIMUM), 50 LF RESERVE OF SILT FENCE WITH STAKES (MINIMUM), ADDITIONAL EROSION CONTROL BLANKETS, STONE RIP-RAP, AND OTHER EROSION CONTROL DEVICES USED DURING CONSTRUCTION. THESE ARE TO BE INSTALLED AS NEEDED AND AT THE DIRECTION OF THE ARCHITECT OR THE OWNER, TO MITIGATE AN EMERGENCY CONDITION. PROVIDE ADDITIONAL QUANTITIES IF REQUIRED BY THE APPROVAL CONDITIONS.

EROSION CONTROL NOTES - MAINTENANCE:

DURING THE PERIOD OF CONSTRUCTION AND UNTIL LONG TERM VEGETATION IS ESTABLISHED:

1. INSPECT EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING SEDIMENTATION BASINS AND SWALES, AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A 0.25-INCH OR GREATER STORM EVENT.

2. REPLACE OR REPAIR EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO 1/2 THE DESIGN HEIGHT OR CAPACITY OF THE MEASURE. REFER TO THE SWPPP FOR ADDITIONAL INFORMATION.

3. MAINTAIN THE ENTRANCES AND EXITS FROM THE SITE IN A CONDITION THAT PREVENTS TRACKING OR FLOWING OF SEDIMENT INTO THE PRIVATE OR PUBLIC WAY. SEDIMENT THAT IS TRACKED, SPILLED, OR WASHED INTO THESE WAYS, IS TO BE REMOVED BY THE CONTRACTOR IMMEDIATELY.

4. CATCH BASINS, OUTLET CONTROL STRUCTURES, AND WATER QUALITY UNITS ARE TO BE INSPECTED AT LEAST EIGHT TIMES PER YEAR, DURING CONSTRUCTION, AND CLEANED OF SEDIMENT IF OVER SIX INCHES DEEP. ADDITIONALLY, CLEAN THESE STRUCTURES AT THE END OF CONSTRUCTION.

## UTILITIES AND DEMOLITION NOTES:

1. PRIOR TO CONSTRUCTION, VERIFY EXISTING UTILITY LOCATIONS AS SHOWN ON THE DRAWINGS. REPORT DISCREPANCIES TO THE ARCHITECT.

2. CONTACT THE APPROPRIATE UTILITY COMPANY AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. NOTIFY THE ARCHITECT OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION.

3. PROTECT NEW AND EXISTING UTILITIES DURING CONSTRUCTION. ONLY REMOVE EXISTING UTILITIES THAT ARE SPECIFICALLY DESIGNATED ON THIS PLAN TO BE REMOVED.

4. MAINTAIN FUNCTIONING UTILITIES AND NOTIFY THE OWNER AND ARCHITECT A MINIMUM OF 5 DAYS PRIOR TO ANY UTILITY SERVICE INTERRUPTION. OBTAIN APPROVAL TO PROCEED PRIOR TO INTERRUPTION.

 IF UNDOCUMENTED UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, CONTACT THE ARCHITECT FOR DIRECTION, PRIOR TO ALTERING THE UTILITY IN ANY WAY.
 PROTECT EXISTING SITE FEATURES DURING CONSTRUCTION, EXCEPT FOR THOSE

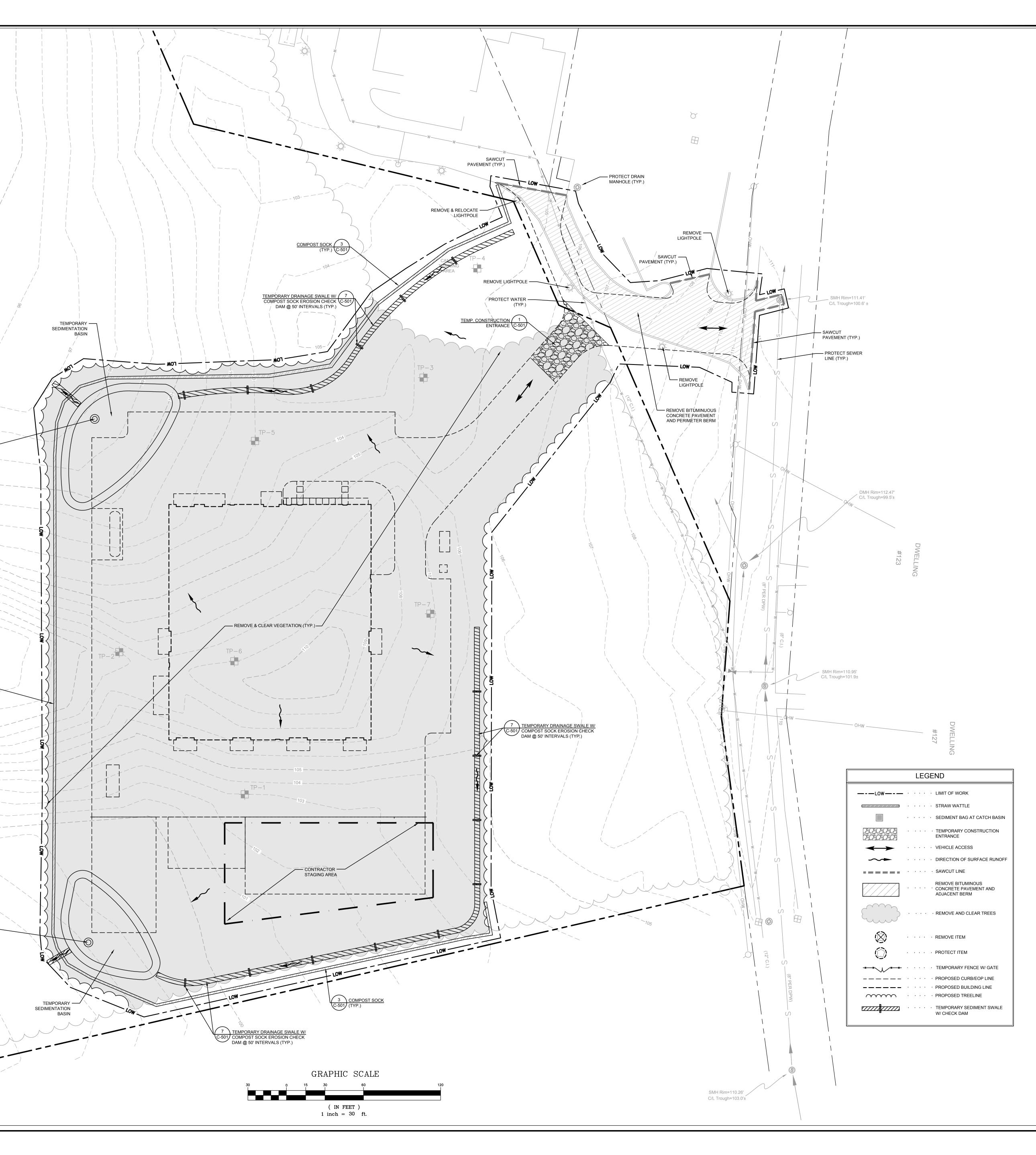
ITEMS OR AREAS SPECIFICALLY DESIGNATED ON THIS PLAN TO BE REMOVED.

7. PROTECT EXISTING TREES AND VEGETATION DURING CONSTRUCTION, EXCEPT FOR THOSE ITEMS OR AREAS SPECIFICALLY DESIGNATED ON THIS PLAN TO BE REMOVED. INSTALL TREE PROTECTION PER DETAIL AT LOCATIONS INDICATED. REPLACE OR PROVIDE COMPENSATION FOR TREES DAMAGED OR DECEASED THAT WERE DESIGNATED TO BE PROTECTED, AS A RESULT OF CONSTRUCTION ACTIVITIES.

8. REMOVE DEMOLISHED MATERIALS NOT DESIGNATED FOR SALVAGE OR STOCKPILE, OFF THE SITE AND DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL

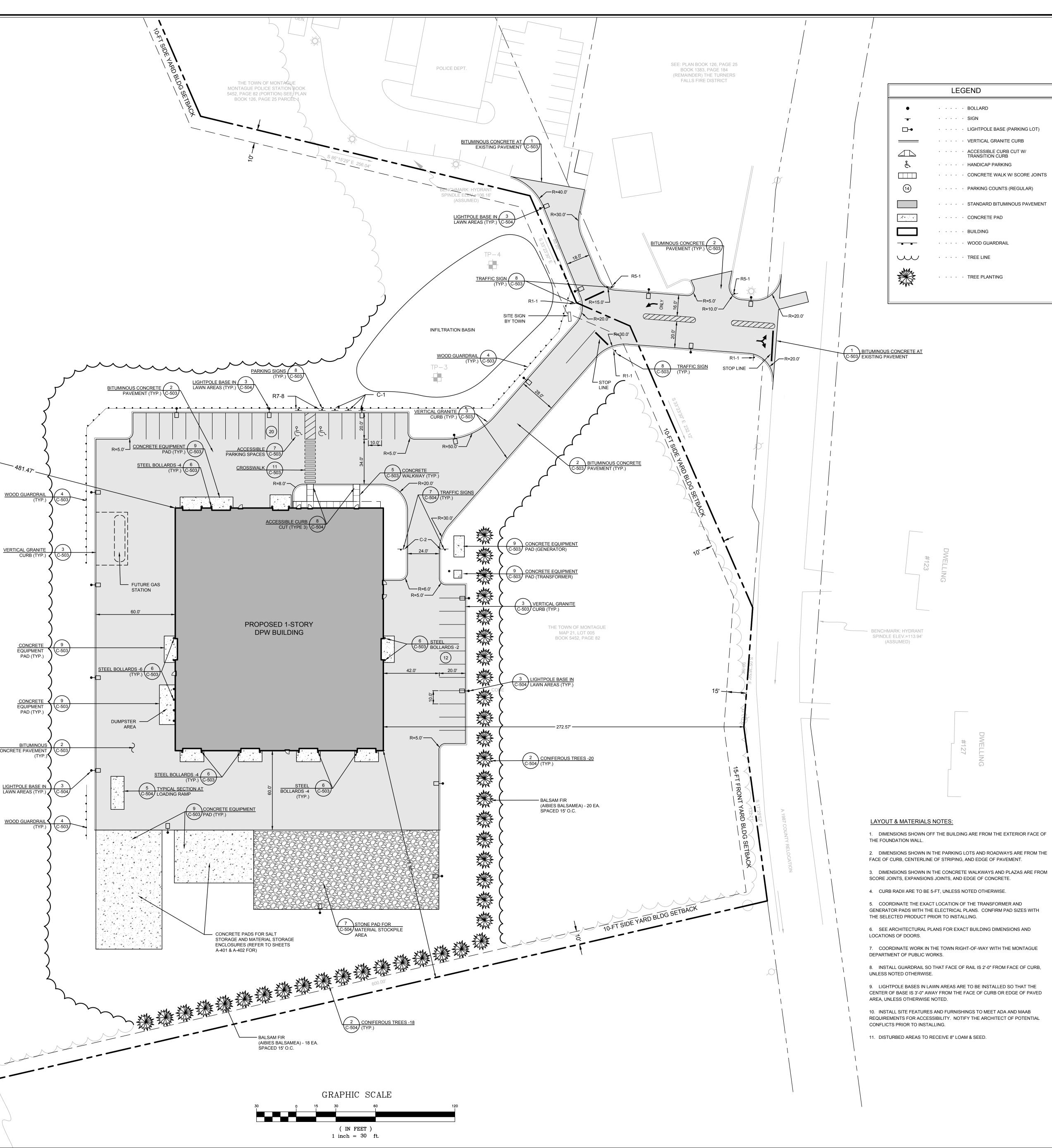
CODES AND REGULATIONS. 9. ADJUST TEMPORARY FENCING AS REQUIRED THROUGHOUT CONSTRUCTION.

10. THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE CONSTRUCTION OF THE PROJECT.

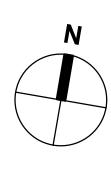


| MUNICIPALITY AND                                                               |
|--------------------------------------------------------------------------------------------------------------------|
| TOWN OF<br>MONTAGUE                                                                                                |
| NEW DPW FACILITY                                                                                                   |
| OWNER:<br>TOWN OF MONTAGUE<br>ONE AVENUE A<br>TURNERS FALLS, MA 01376                                              |
| ARCHITECT:<br>HELENE • KARL<br>Architects, Inc.                                                                    |
| 61 Skyfields Drive, Groton, Massachusetts 01450                                                                    |
| SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                               |
| STRUCTURAL ENGINEER:<br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138       |
| MECHANICAL ENGINEER:<br>SEAMAN ENGINEERING CORP.<br>22 WEST STREET, UNIT C<br>MILLBURY, MA 01527                   |
| ELECTRICAL ENGINEER:<br>JOHN J. MURPHY, JR. ELECTRICAL<br>CONSTRUCTION AND ENGINEERING, INC.<br>379 LIBERTY STREET |
| ROCKLAND, MA 02370                                                                                                 |
|                                                                                                                    |
|                                                                                                                    |
|                                                                                                                    |
|                                                                                                                    |
|                                                                                                                    |
| STAMP                                                                                                              |
|                                                                                                                    |
|                                                                                                                    |
| 04/16/19 ISSUED FOR SITE PLAN REVIEW<br>& SPECIAL PERMIT                                                           |
| REV   DATE   DESCRIPTION     DATE   4-06-2019                                                                      |
| SCALE 1"=30'<br>DRAWN BY CJR                                                                                       |
| CHECKED BY PSG<br>PROJECT NO. 19001                                                                                |
| BUILDING:<br>SHEET TITLE:<br>SITE PREPARATION<br>PLAN                                                              |
| DRAWING NO.                                                                                                        |
| C-111                                                                                                              |

| <b>—</b> | 1            |                                  |                |                   |                   |                          |                       |                |          |    |                                           |                    |
|----------|--------------|----------------------------------|----------------|-------------------|-------------------|--------------------------|-----------------------|----------------|----------|----|-------------------------------------------|--------------------|
|          | N 04°38'37"E |                                  |                | N                 |                   |                          |                       |                |          |    |                                           |                    |
|          | ;            |                                  |                |                   |                   |                          |                       |                |          |    |                                           |                    |
|          | 1            |                                  |                |                   |                   |                          |                       |                |          |    |                                           |                    |
|          |              |                                  |                |                   |                   |                          |                       |                |          |    |                                           |                    |
|          |              |                                  |                |                   |                   |                          |                       |                |          |    |                                           |                    |
|          |              |                                  |                |                   |                   |                          |                       |                |          |    |                                           |                    |
|          |              |                                  |                |                   |                   | PROPOSEI                 | D NEW PROPERTY LIN    | IE             |          |    | -                                         |                    |
|          |              |                                  |                |                   |                   |                          |                       |                |          |    |                                           |                    |
|          |              |                                  |                |                   |                   |                          |                       |                |          |    |                                           |                    |
|          |              |                                  |                |                   |                   |                          |                       |                |          |    |                                           |                    |
|          |              |                                  |                |                   |                   |                          |                       |                |          |    |                                           |                    |
|          |              |                                  |                |                   |                   |                          |                       |                |          |    |                                           |                    |
|          |              |                                  |                |                   |                   |                          |                       |                |          |    |                                           | ſ                  |
|          |              |                                  |                |                   |                   |                          |                       |                | _        |    |                                           | )<br>}             |
|          |              |                                  |                |                   |                   |                          |                       |                |          |    |                                           | )<br>)             |
|          |              |                                  |                |                   |                   |                          |                       |                |          |    | <sup>481.47'</sup>                        |                    |
|          |              |                                  |                |                   |                   |                          |                       |                |          |    | WOOD GUARDRA<br>(TYF                      |                    |
|          |              |                                  |                |                   |                   |                          |                       |                |          |    |                                           |                    |
|          |              |                                  |                |                   |                   |                          |                       |                |          | 7  | VERTICAL GRANIT<br>CURB (TYF              |                    |
|          |              | PA                               |                | ING               | AN                |                          | MOUNT                 | SIGN           | IS       |    |                                           | Ş                  |
|          |              | SIGN                             | SIGN<br>NUMBER | SIZE C            | DF SIGN<br>HEIGHT | DESCRIPTION              | HEIGHT<br>(TO BOTTOM) | MOUNT<br>TYPE  | QUANTITY |    |                                           | Ş                  |
|          |              |                                  | R7-8           | 12"               | 18"               | BLUE & GREEN<br>ON WHITE | 5'-9"                 | SQUARE<br>POST | 2        |    | <u>CONCRETE</u><br>EQUIPMENT<br>PAD (TYP. | т 🔨 (с             |
|          |              | VAN<br>ACCESSIBLE                | R7-8A          | 18"               | 9"                | GREEN ON WHIT            | Ξ 5'-0"               | SQUARE<br>POST | 1        |    |                                           | $\left\{ \right\}$ |
|          |              | DPW<br>VISITOR<br>PARKING        | C-1            | 12"               | 18"               | BLACK ON WHITE           | = 5'-6"               | SQUARE<br>POST | 3        |    | <u>CONCRETE</u><br>EQUIPMENT<br>PAD (TYP. | т \С               |
|          |              | AUTHORIZED<br>VEHICLES<br>ONLY   | C-2            | 18"               | 18"               | BLACK ON WHITE           | 5'-6"                 | SQUARE<br>POST | 2        | -  | BITUMINOL<br>CONCRETE PAVEMEN<br>(TYI     |                    |
|          |              | STOP                             | R1-1           | 30"               | 30"               | WHITE ON RED             | 7'-0"                 | CHANNEL        | 4        |    | LIGHTPOLE BASE<br>LAWN AREAS (TYP         |                    |
|          |              | DO NOT<br>ENTER                  | R5-1           | 30"               | 30"               | WHITE ON RED             | 7'-0"                 | CHANNEL        | 2        |    | <u>WOOD GUARDRA</u><br>(TYF               |                    |
|          |              | ZONING -                         | NEIGHB         | ORHOOI            |                   | NESS (NB)                |                       |                |          |    |                                           | $\left\{ \right\}$ |
|          |              |                                  |                | REQUIRE           | D                 | PROPOSED                 |                       |                |          |    |                                           | }                  |
|          |              | MIN LOT AREA, SO                 |                | 10,000 S<br>75 FT |                   | 1,043,698 SF<br>223 FT   |                       |                |          |    |                                           | $\left\{ \right.$  |
|          |              | MIN FRONT YARD                   |                | 15 FT<br>10 FT    |                   | 272 FT<br>175 FT         |                       |                |          |    |                                           | 5                  |
|          |              | MIN REAR YARD D                  | DEPTH, FT.     | 30 FT             |                   | 481 FT                   |                       |                |          |    |                                           | 2                  |
|          |              | MAX HEIGHT, FT.                  |                | 28 FT             |                   | 30.5 FT                  |                       |                |          |    |                                           | ζ                  |
|          |              |                                  |                |                   |                   |                          |                       |                |          |    |                                           | 2                  |
|          |              | P                                | ARKING         | SUMMA             | RY                |                          |                       |                |          |    |                                           |                    |
|          |              | REGULAR PARKIN<br>& TRUCK SPACES | IG SPACES (S   | TAFF, VISITOF     | RS,               | 28                       |                       |                |          |    |                                           |                    |
|          |              | HANDICAP ACCES                   |                | NG SPACES         |                   | 2<br>26                  |                       |                |          |    | l<br>l                                    |                    |
|          |              | TOTAL                            |                |                   |                   | 56                       |                       |                |          | AA |                                           | •                  |



| MUNICIPALITY OF THE PROPERTY O |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TOWN OF<br>MONTAGUE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| NEW DPW FACILITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| OWNER:<br>TOWN OF MONTAGUE<br>ONE AVENUE A<br>TURNERS FALLS, MA 01376                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ARCHITECT:<br>HELENE • KARL<br>Architects, Inc.<br>61 Skyfields Drive, Groton, Massachusetts 01450                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| CIVIL ENGINEER:<br>SYMMES, MAINI & MCKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| STRUCTURAL ENGINEER:<br>SYMMES, MAINI & MCKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| MECHANICAL ENGINEER:<br>SEAMAN ENGINEERING CORP.<br>22 WEST STREET, UNIT C<br>MILLBURY, MA 01527                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| ELECTRICAL ENGINEER:<br>JOHN J. MURPHY, JR. ELECTRICAL<br>CONSTRUCTION AND ENGINEERING, INC.<br>379 LIBERTY STREET<br>ROCKLAND, MA 02370                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| STAMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| OA/AC/AO ISSUED FOR SITE PLAN REVIEW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 04/16/19     Issued for site plan review<br>& special permit       REV     DATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DATE         4-16-2019           SCALE         1"=30'           DRAWN BY         CJR           CHECKED BY         PSG           PROJECT NO.         19001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| BUILDING:<br>SHEET TITLE:<br>LAYOUT, MATERIALS,<br>& PLANTING PLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DRAWING NO. C-121                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |



|              |   | LE | EGE | ND                                         |
|--------------|---|----|-----|--------------------------------------------|
| FES          |   |    |     | FLARED END SECTION                         |
| $\mathbf{H}$ | • |    |     | WATER GATE                                 |
| ● SMH        | • |    |     | SEWER MANHOLE                              |
| DMH          | • |    |     | DRAIN MANHOLE                              |
| • тмн        | • |    |     | TELEPHONE MANHOLE                          |
| ● EMH        | • |    |     | ELECTRIC MANHOLE                           |
| СВ           | • |    | •   | CATCH BASIN                                |
| Ø UP         | • |    | •   | UTILITY POLE                               |
| <b>Ä</b>     | ٠ |    | •   | HYDRANT                                    |
| •CO          | • |    | •   | CLEAN OUT                                  |
| • PIV        | • |    | •   | POST INDICATOR VALVE                       |
| -0           | • |    |     | GUY WIRE                                   |
|              | • |    | •   | RIPRAP                                     |
| x91.00       | • |    | •   | SPOT GRADE                                 |
| 1            | • |    | •   | 1' CONTOUR                                 |
| <del>5</del> | • |    | •   | 5' CONTOUR                                 |
| —W           | • |    | •   | WATER LINE                                 |
| D            |   |    | •   | DRAIN LINE                                 |
| — —UD— —     | • |    | •   | PERFORATED DRAIN LINE                      |
| s            | • |    | •   | SEWER LINE                                 |
| UGE          | • |    |     | UNDERGROUND ELECTRIC LINE                  |
| TC / TW      | • |    | •   | TOP OF CURB / TOP OF WALL                  |
| BC / BW      | • |    | •   | BOTTOM OF CURB /<br>BOTTOM OF WALL         |
| FFE          |   |    | •   | FINISH FLOOR ELEVATION                     |
| R=           |   |    | •   | RIM ELEVATION                              |
| I.=          | • |    | •   | INVERT ELEVATION                           |
| TS&V         | • |    | •   | TAPPING SLEEVE & VALVE                     |
| PVC          | • |    | •   | POLYVINYL CHLORIDE PIPE                    |
| RCP          | • |    | •   | REINFORCED CONCRETE PIPE                   |
| CPE          |   |    |     | CORRUGATED<br>POLYETHYLENE PIPE            |
| PCPE         |   |    | ·   | PERFORATED CORRUGATED<br>POLYETHYLENE PIPE |
| CLDI         | • |    | •   | CEMENT LINE DUCTILE IRON PIPE              |
| CI           |   |    | •   | CAST IRON                                  |
|              |   |    |     |                                            |

\_\_\_\_/

100----

**GRADING & UTILITY NOTES:** 

1. PRIOR TO CONSTRUCTION, VERIFY EXISTING UTILITY LOCATIONS AS SHOWN ON THE DRAWINGS. REPORT DISCREPANCIES TO THE ARCHITECT.

2. FILE AND PAY FOR APPLICABLE PERMITS AND FEES (UNLESS OTHERWISE NOTED).

3. PIPE MATERIALS (UNLESS OTHERWISE SPECIFIED):

STORM DRAIN: CORRUGATED POLYETHYLENE PIPE (CPE) WATER: CLASS 52 CEMENT LINED DUCTILE IRON (CLDI) SEWER: POLYVINYL CHLORIDE PIPE (PVC)

4. PROVIDE ADEQUATE BRACING AND SHORING OF ALL EXCAVATIONS IN ACCORDANCE WITH ALL GOVERNING CODES AND REGULATIONS.

5. PROTECT NEW AND EXISTING UTILITIES TO REMAIN, DURING CONSTRUCTION.

6. COORDINATE WORK WITH APPROPRIATE UTILITY COMPANIES.

7. CONTACT THE APPROPRIATE UTILITY COMPANY AND "DIG SAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATIONS OF EXISTING UTILITIES. NOTIFY THE ARCHITECT OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION.

8. NOTIFY THE ARCHITECT A MINIMUM OF 5 DAYS PRIOR TO PERFORMING ANY WORK THAT INVOLVES CONFLICTS BETWEEN PROPOSED UTILITIES AND EXISTING UTILITIES TO REMAIN.

9. IF UNDOCUMENTED UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, CONTACT THE ARCHITECT FOR DIRECTION, PRIOR TO ALTERING THE UTILITY IN ANY WAY.

10. THE ELECTRIC AND TELEPHONE SERVICES SHOWN ARE APPROXIMATE. COORDINATE ACTUAL LOCATIONS WITH THE APPROPRIATE SUBCONTRACTOR AND UTILITY COMPANY.

11. REFER TO SL1 PLAN FOR INFORMATION REGARDING THE SITE LIGHTING FIXTURES.

12. VERIFY EXISTING SEWER INVERTS WHERE NEW UTILITY CONNECTIONS ARE PROPOSED. REPORT DISCREPANCIES FROM EXISTING OR PROPOSED CONNECTING INVERTS SHOWN TO THE ARCHITECT, PRIOR TO PERFORMING ANY SEWER WORK TRIBUTARY TO THE CONNECTION POINT.

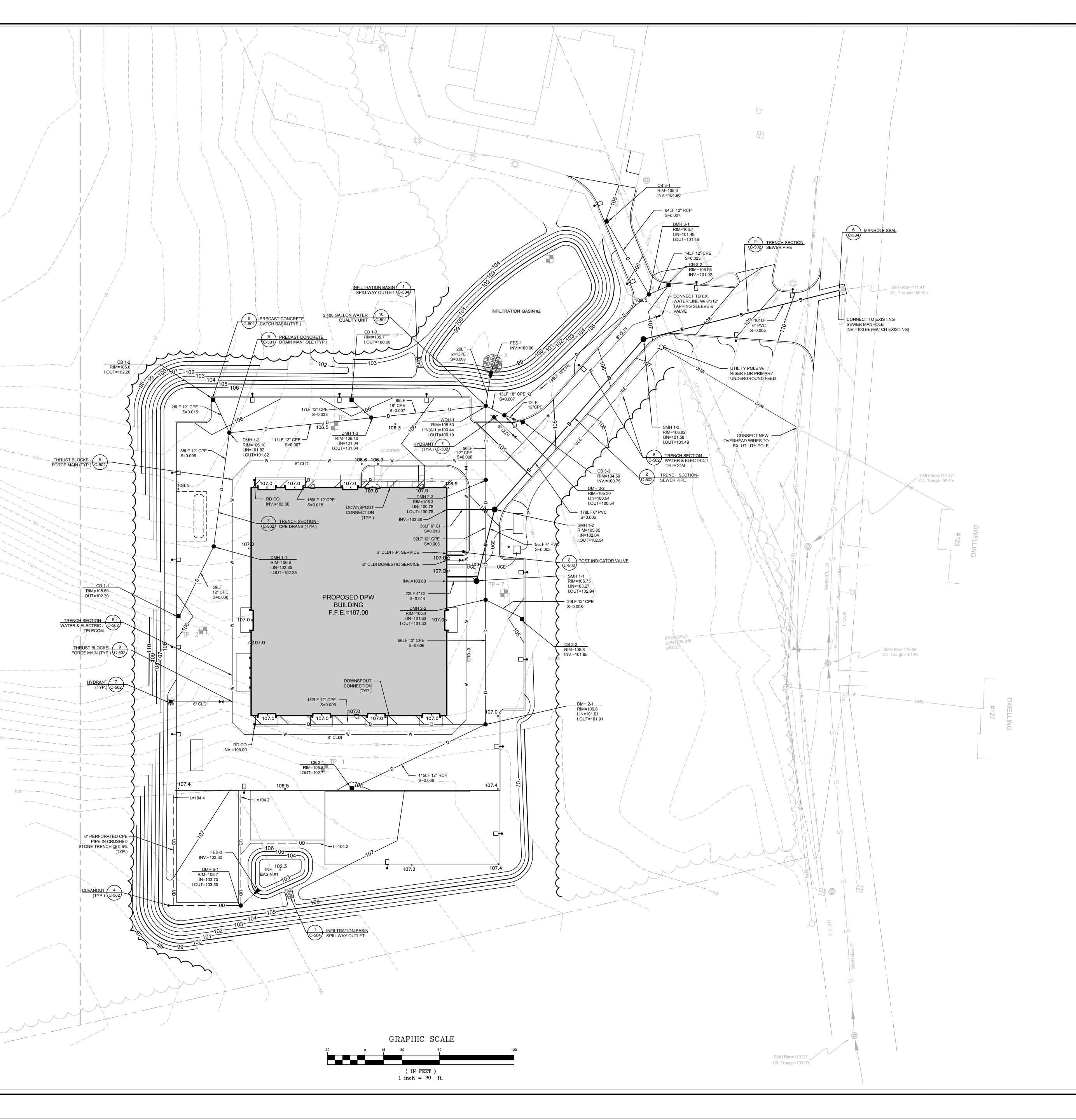
13. RESET RIMS OF EXISTING UTILITY FRAMES, COVERS, AND GRATES WITH NEW BRICK AND MORTAR RISER COURSE TO MATCH PROPOSED FINISH GRADE WITHIN THE LIMIT OF WORK. NOTIFY ARCHITECT IF EXISTING STRUCTURES NEED ADDITIONAL REPAIR OR REPLACEMENT DUE TO CONDITION.

14. INSTALL BITUMINOUS PAVEMENT AND CEMENT CONCRETE TO HAVE 1% MINIMUM SLOPE FOR DRAINAGE, AND IN ACCORDANCE WITH THE PROPOSED GRADES SHOWN. REPORT ANY AREAS OF DISCREPANCY WITH THE GRADING INDICATED TO THE ARCHITECT PRIOR TO GRADING BASE MATERIAL.

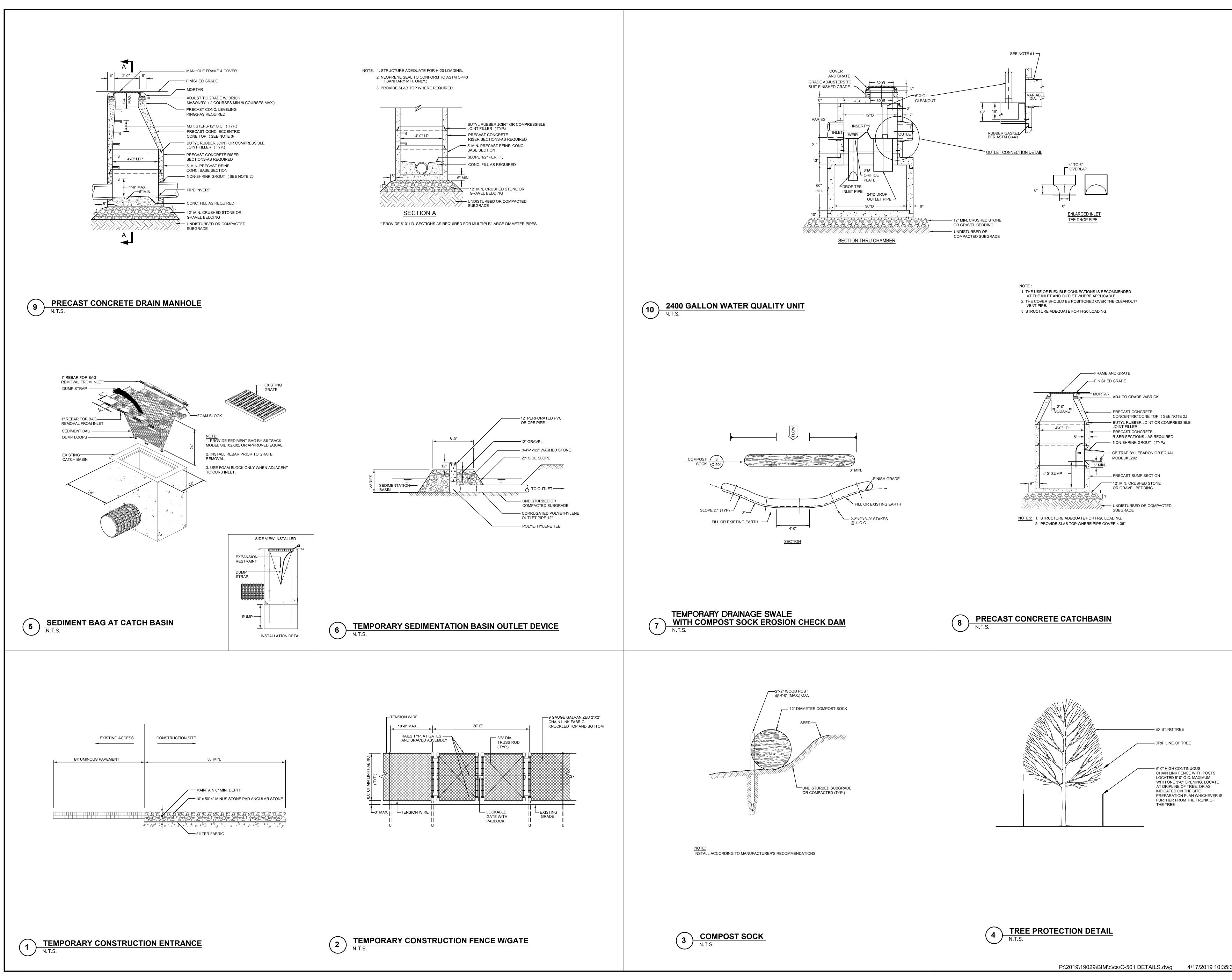
15. PROVIDE CONCRETE THRUST BLOCKS AT ALL BENDS 22.5° AND GREATER IN NEW WATER LINES. 16. CONFIRM NEW HYDRANTS, VALVES, AND FITTINGS MEET THE REQUIREMENTS OF THE TURNERS FALLS FIRE

DEPARTMENT AND WATER DEPARTMENT. 17. ESTABLISH AND MAINTAIN CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE CONSTRUCTION OF THE PROJECT.

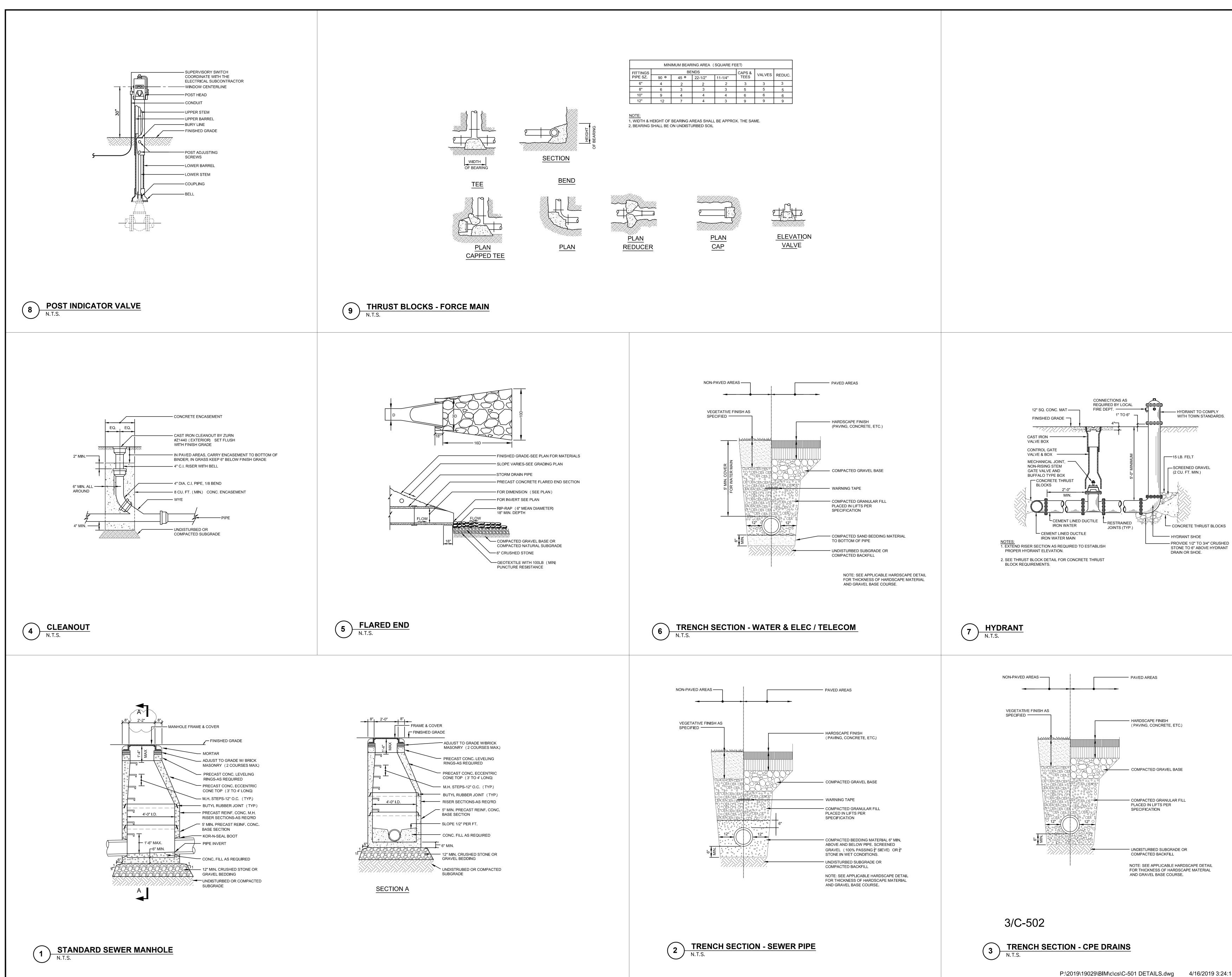
18. CLEAN UTILITY STRUCTURES PRIOR TO PROJECT CLOSE-OUT.



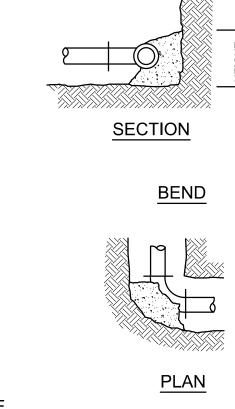
| NEW DPW FACILITY                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------|
| OWNER:<br>Town of montague                                                                                         |
| ONE AVENUE A<br>TURNERS FALLS, MA 01376                                                                            |
| <b>HELENE • KARL</b><br>Architects, Inc.<br>61 Skyfields Drive, Groton, Massachusetts 01450                        |
| CIVIL ENGINEER:<br>SYMMES, MAINI & MCKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138            |
| STRUCTURAL ENGINEER:<br>SYMMES, MAINI & MCKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138       |
| MECHANICAL ENGINEER:<br>SEAMAN ENGINEERING CORP.<br>22 WEST STREET, UNIT C<br>MILLBURY, MA 01527                   |
| ELECTRICAL ENGINEER:<br>JOHN J. MURPHY, JR. ELECTRICAL<br>CONSTRUCTION AND ENGINEERING, INC.<br>379 LIBERTY STREET |
| ROCKLAND, MA 02370                                                                                                 |
|                                                                                                                    |
|                                                                                                                    |
|                                                                                                                    |
| STAMP                                                                                                              |
| STAMP                                                                                                              |
|                                                                                                                    |
|                                                                                                                    |
| 04/16/19     ISSUED FOR SITE PLAN REVIEW       & SPECIAL PERMIT       REV     DATE                                 |
| DATE 4-16-2019<br>SCALE 1"=30'                                                                                     |
| DRAWN BY CJR<br>CHECKED BY PSG                                                                                     |
| PROJECT NO. 19001<br>BUILDING:                                                                                     |
| SHEET TITLE:<br>GRADING &<br>UTILITIES PLAN                                                                        |
| DRAWING NO.                                                                                                        |

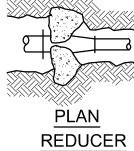


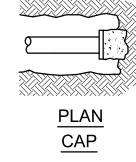
|       | MONTAGUE                                                                                                                                 |
|-------|------------------------------------------------------------------------------------------------------------------------------------------|
|       | TOWN OF<br>MONTAGUE                                                                                                                      |
|       | NEW DPW FACILITY                                                                                                                         |
|       | <b>OWNER:</b><br>TOWN OF MONTAGUE<br>ONE AVENUE A<br>TURNERS FALLS, MA 01376                                                             |
|       | ARCHITECT:<br>HELENE • KARL<br>Architects, Inc.<br>61 Skyfields Drive, Groton, Massachusetts 01450                                       |
|       | CIVIL ENGINEER:<br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                                  |
|       | STRUCTURAL ENGINEER:<br>SYMMES, MAINI & MCKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                             |
|       | MECHANICAL ENGINEER:<br>SEAMAN ENGINEERING CORP.<br>22 WEST STREET, UNIT C<br>MILLBURY, MA 01527                                         |
|       | ELECTRICAL ENGINEER:<br>JOHN J. MURPHY, JR. ELECTRICAL<br>CONSTRUCTION AND ENGINEERING, INC.<br>379 LIBERTY STREET<br>ROCKLAND, MA 02370 |
|       |                                                                                                                                          |
|       |                                                                                                                                          |
|       |                                                                                                                                          |
|       |                                                                                                                                          |
|       | STAMP                                                                                                                                    |
|       |                                                                                                                                          |
|       | 04/16/19 ISSUED FOR SITE PLAN REVIEW                                                                                                     |
|       | REV DATE DESCRIPTION                                                                                                                     |
|       | DATE NTS<br>SCALE NTS<br>DRAWN BY CJR<br>CHECKED BY PSG                                                                                  |
|       | PROJECT NO. 19001<br>BUILDING:                                                                                                           |
|       | SHEET TITLE:                                                                                                                             |
|       | DETAILS I                                                                                                                                |
|       |                                                                                                                                          |
| 34 AN | C-501                                                                                                                                    |

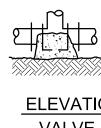


|                           |             | · · · ·                                                        | MINIMUM BEARING AREA (SQUARE FEET)                                                                                                     |                                                                                                                                                                                      |                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                              |  |  |  |
|---------------------------|-------------|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| BENDS CAPS & VALVED DEDUC |             |                                                                |                                                                                                                                        |                                                                                                                                                                                      |                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                              |  |  |  |
| 0 0                       | 45 <b>°</b> | 22-1/2"                                                        | 11-1/4"                                                                                                                                | TEES                                                                                                                                                                                 | VALVES                                                                                                                                                                                                                    | REDUC.                                                                                                                                                                                                                                                                       |  |  |  |
| 4                         | 2           | 2                                                              | 2                                                                                                                                      | 3                                                                                                                                                                                    | 3                                                                                                                                                                                                                         | 3                                                                                                                                                                                                                                                                            |  |  |  |
| 6                         | 3           | 3                                                              | 3                                                                                                                                      | 5                                                                                                                                                                                    | 5                                                                                                                                                                                                                         | 5                                                                                                                                                                                                                                                                            |  |  |  |
| 9                         | 4           | 4                                                              | 4                                                                                                                                      | 6                                                                                                                                                                                    | 6                                                                                                                                                                                                                         | 6                                                                                                                                                                                                                                                                            |  |  |  |
| 12                        | 7           | 4                                                              | 3                                                                                                                                      | 9                                                                                                                                                                                    | 9                                                                                                                                                                                                                         | 9                                                                                                                                                                                                                                                                            |  |  |  |
| •                         | 4<br>6<br>9 | 0     •     45     •       4     2       6     3       9     4 | 0         45         0         22-1/2"           4         2         2           6         3         3           9         4         4 | 0         45         0         22-1/2"         11-1/4"           4         2         2         2           6         3         3         3           9         4         4         4 | 0 •         45 •         22-1/2"         11-1/4"         TEES           4         2         2         2         3           6         3         3         3         5           9         4         4         4         6 | 0         45         0         22-1/2"         11-1/4"         TEES         VALVES           4         2         2         2         3         3           6         3         3         3         5         5           9         4         4         4         6         6 |  |  |  |

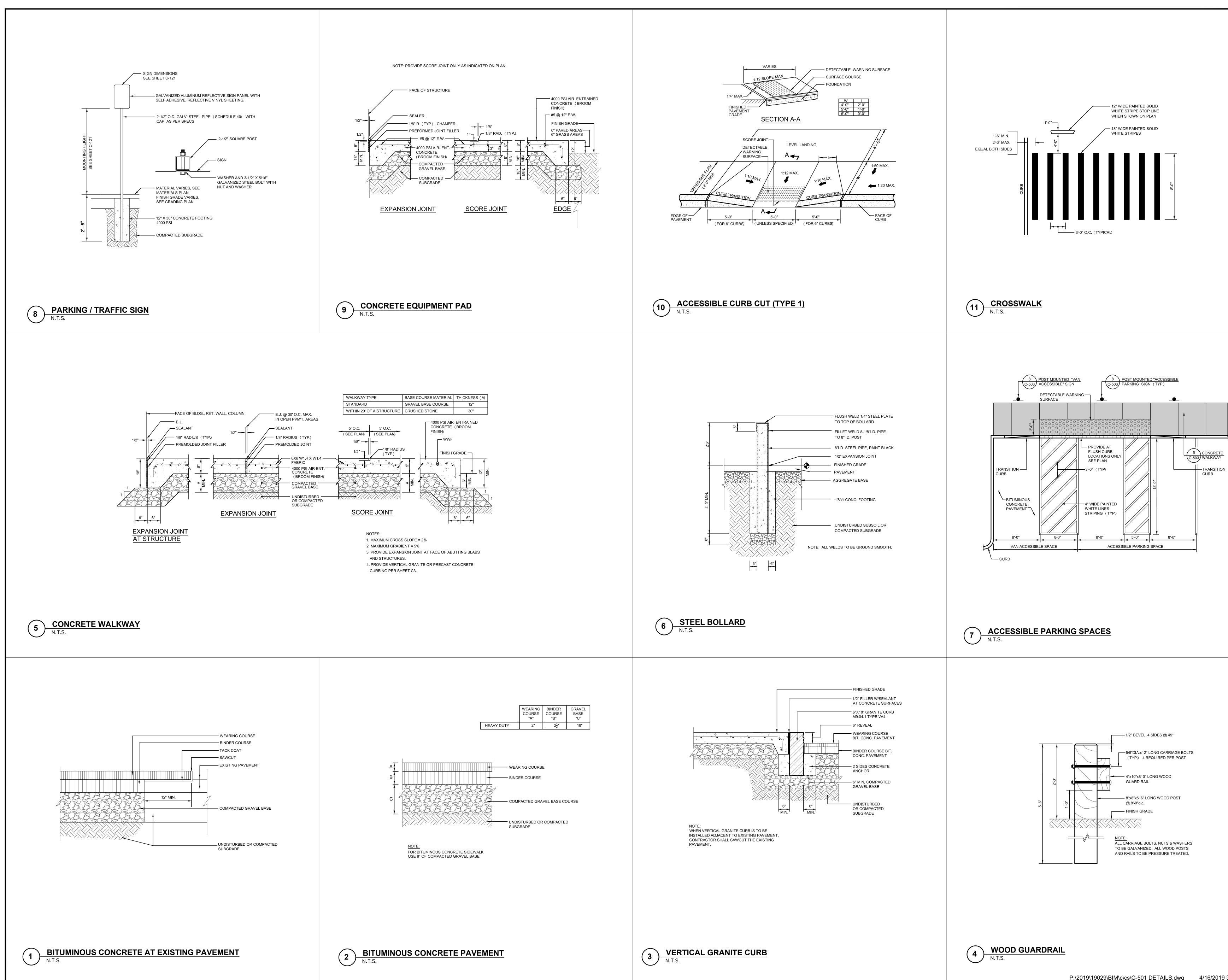






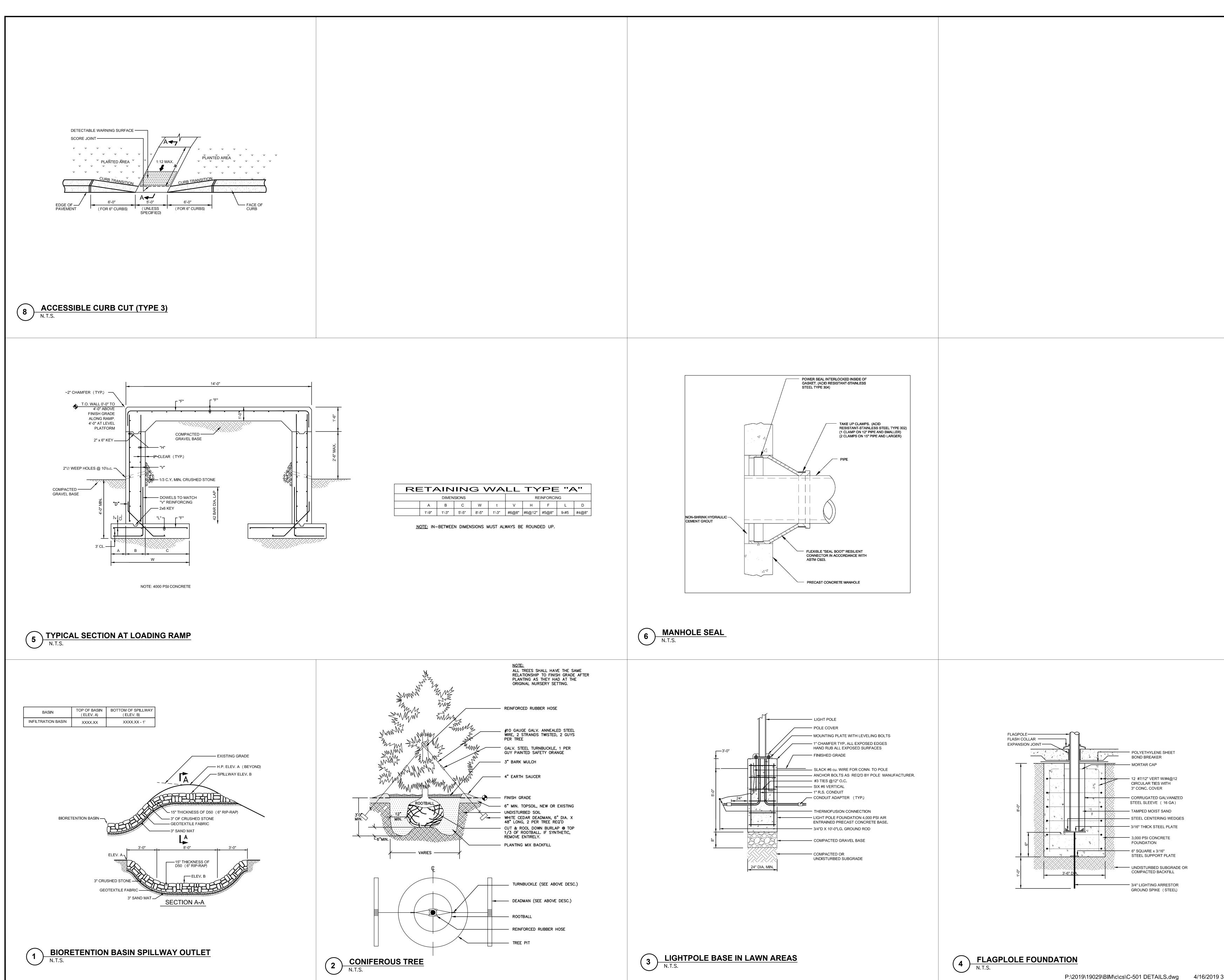


| MONTAGUE                                                                                                     |
|--------------------------------------------------------------------------------------------------------------|
| NEW DPW FACILITY                                                                                             |
| OWNER:<br>TOWN OF MONTAGUE<br>ONE AVENUE A<br>TURNERS FALLS, MA 01376                                        |
|                                                                                                              |
| Architects, Inc.<br>61 Skyfields Drive, Groton, Massachusetts 01450                                          |
| CIVIL ENGINEER:<br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138      |
| STRUCTURAL ENGINEER:<br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138 |
| <b>MECHANICAL ENGINEER:</b><br>SEAMAN ENGINEERING CORP.<br>22 WEST STREET, UNIT C                            |
| MILLBURY, MA 01527<br><b>ELECTRICAL ENGINEER:</b><br>JOHN J. MURPHY, JR. ELECTRICAL                          |
| CONSTRUCTION AND ENGINEERING, INC.<br>379 LIBERTY STREET<br>ROCKLAND, MA 02370                               |
|                                                                                                              |
|                                                                                                              |
|                                                                                                              |
|                                                                                                              |
|                                                                                                              |
| STAMP                                                                                                        |
| PETER S.<br>GLICK<br>CIVIL<br>No. 41514<br>SEIONALENS                                                        |
| (2000 Allah                                                                                                  |
|                                                                                                              |
|                                                                                                              |
| 04/06/19ISSUED FOR SITE PLAN REVIEW<br>& SPECIAL PERMITREVDATEDESCRIPTION                                    |
| DATE<br>SCALE NTS                                                                                            |
| DRAWN BY CJR<br>CHECKED BY PSG<br>PROJECT NO. 19001                                                          |
| BUILDING:                                                                                                    |
| SHEET TITLE:                                                                                                 |
| DETAILS II                                                                                                   |
|                                                                                                              |
| C-502                                                                                                        |

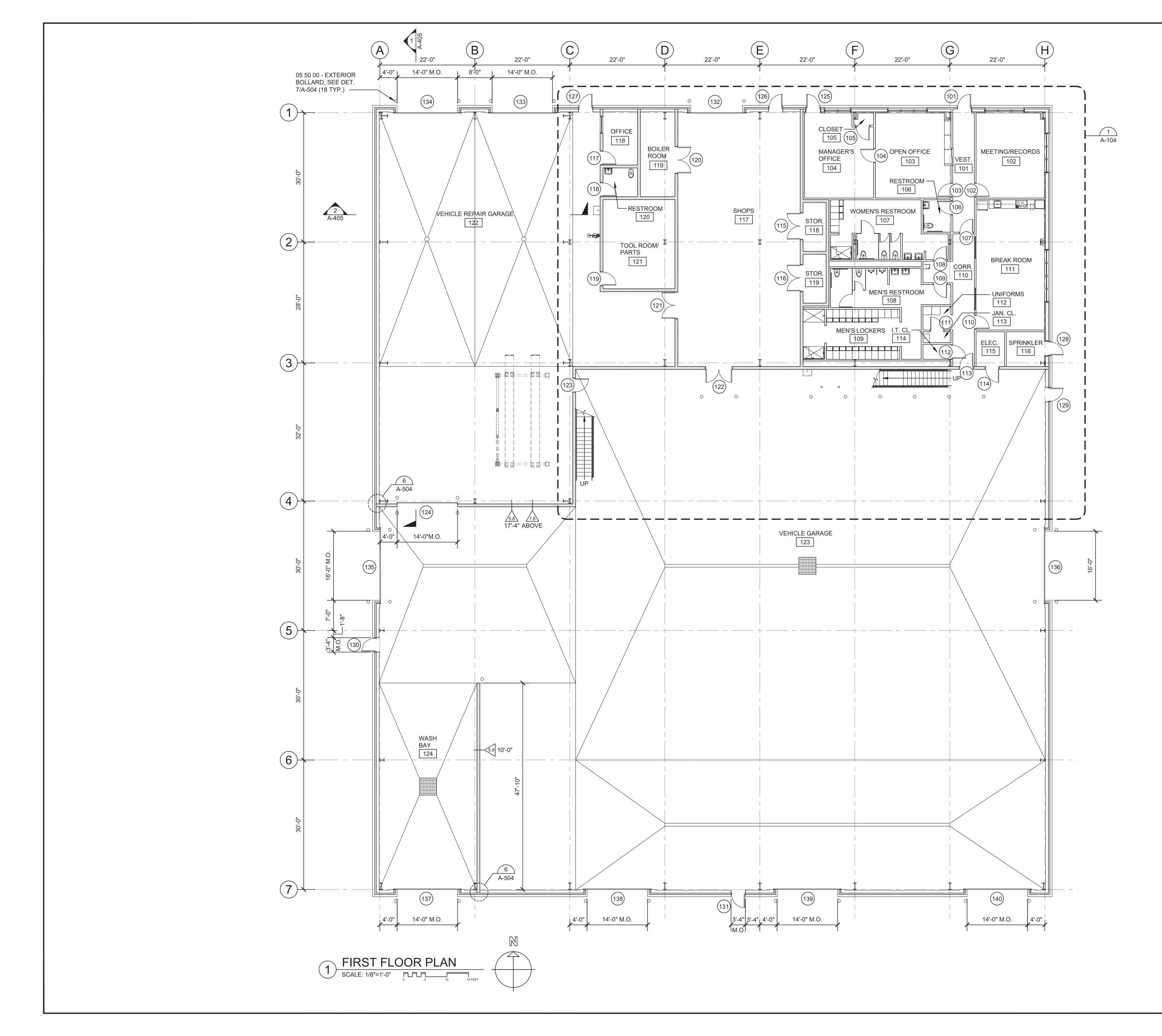




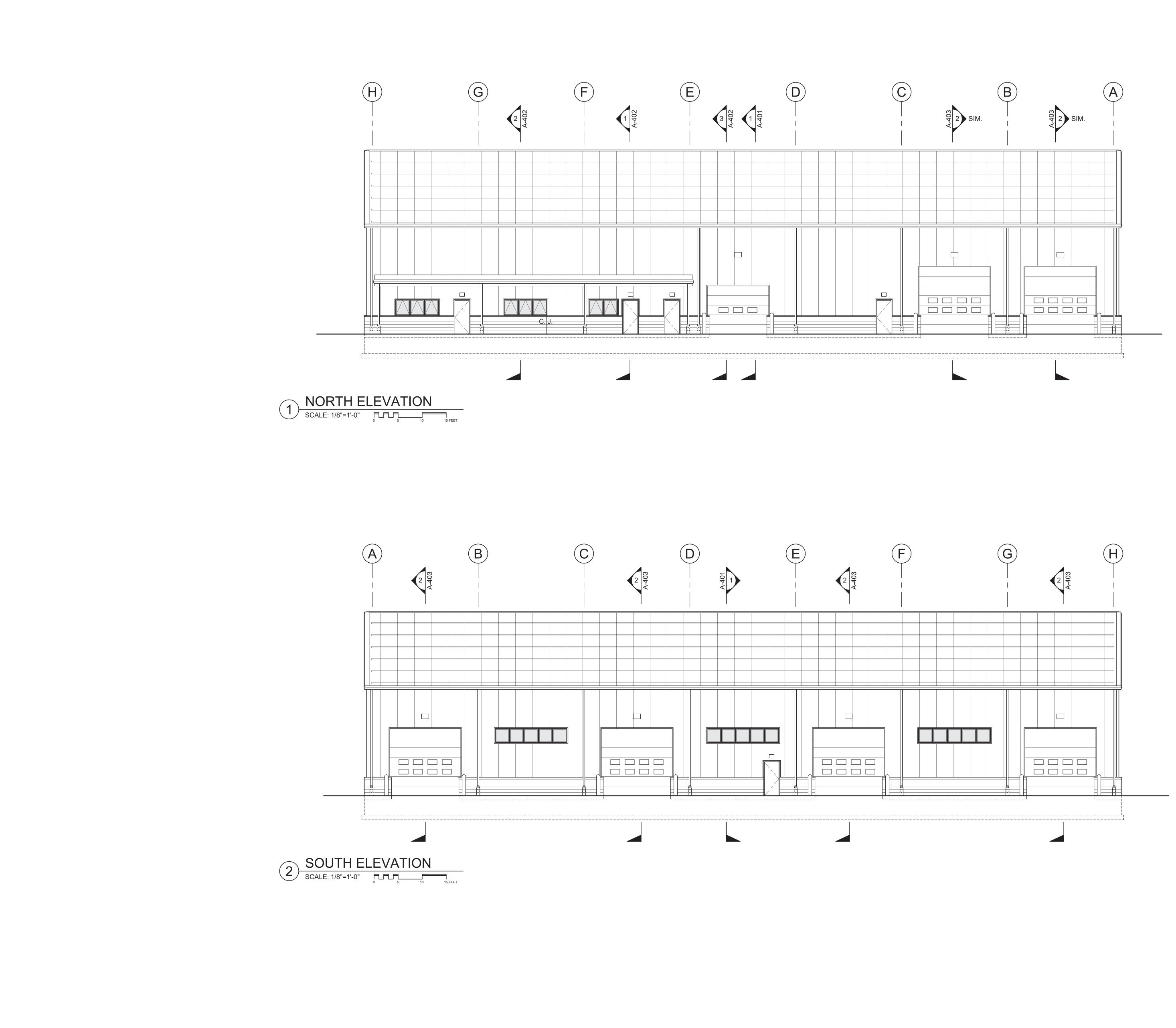
| MUNTAGUE CENTER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| TOWN OF<br>MONTAGUE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |  |  |  |  |
| NEW DPW FACILITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |  |  |  |  |  |  |
| <b>OWNER:</b><br>TOWN OF MONTAGUE<br>ONE AVENUE A<br>TURNERS FALLS, MA 01376                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
| Architects, Inc.<br>61 Skyfields Drive, Groton, Massachusetts 01450                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |  |  |  |  |
| CIVIL ENGINEER:<br>SYMMES, MAINI & MCKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |  |  |  |  |  |  |
| STRUCTURAL ENGINEER:<br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  |
| MECHANICAL ENGINEER:<br>SEAMAN ENGINEERING CORP.<br>22 WEST STREET, UNIT C<br>MILLBURY, MA 01527                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |  |  |  |  |  |  |
| ELECTRICAL ENGINEER:<br>JOHN J. MURPHY, JR. ELECTRICAL<br>CONSTRUCTION AND ENGINEERING, INC.<br>379 LIBERTY STREET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |  |  |  |  |  |  |  |
| ROCKLAND, MA 02370                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
| STAMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |  |  |  |  |  |  |
| ( Contraction to the second se |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
| 04/06/19     ISSUED FOR SITE PLAN REVIEW<br>& SPECIAL PERMIT       REV     DATE     DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
| DATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |  |  |  |  |  |
| SCALENTSDRAWN BYCJRCHECKED BYPSGPROJECT NO.19001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |  |  |  |  |  |  |
| BUILDING:<br>SHEET TITLE:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |
| DETAILS III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |  |  |  |  |  |  |
| DRAWING NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |  |  |  |  |  |  |
| C-503                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |  |  |  |  |  |  |



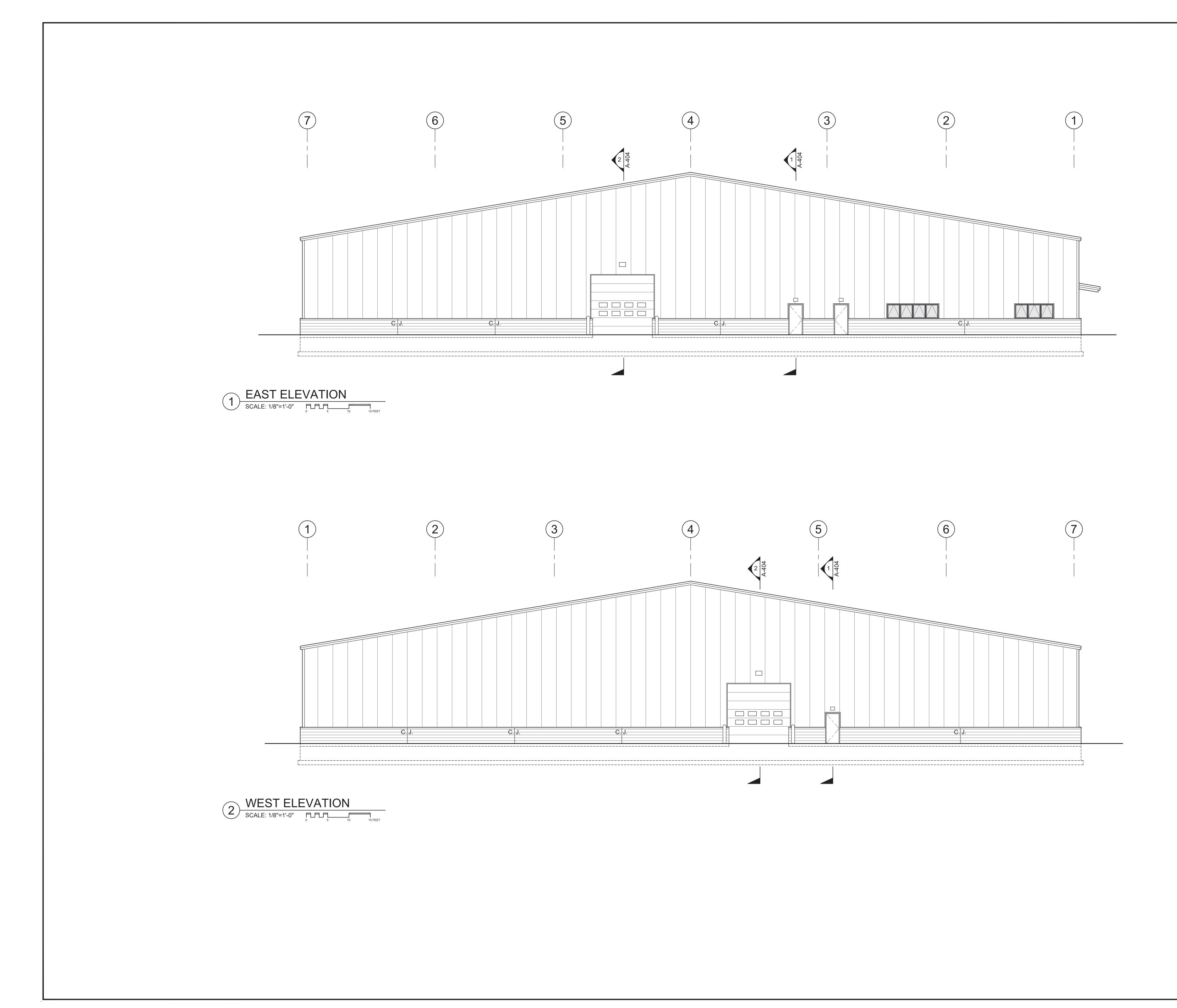
| MONTAGUE                                                                                                                                 |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|
| NEW DPW FACILITY                                                                                                                         |  |  |  |  |  |  |  |  |
| <b>OWNER:</b><br>TOWN OF MONTAGUE<br>ONE AVENUE A<br>TURNERS FALLS, MA 01376                                                             |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
| Architects, Inc.<br>61 Skyfields Drive, Groton, Massachusetts 01450                                                                      |  |  |  |  |  |  |  |  |
| CIVIL ENGINEER:<br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                                  |  |  |  |  |  |  |  |  |
| STRUCTURAL ENGINEER:<br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                             |  |  |  |  |  |  |  |  |
| MECHANICAL ENGINEER:<br>SEAMAN ENGINEERING CORP.<br>22 WEST STREET, UNIT C<br>MILLBURY, MA 01527                                         |  |  |  |  |  |  |  |  |
| ELECTRICAL ENGINEER:<br>JOHN J. MURPHY, JR. ELECTRICAL<br>CONSTRUCTION AND ENGINEERING, INC.<br>379 LIBERTY STREET<br>ROCKLAND, MA 02370 |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
| STAMP                                                                                                                                    |  |  |  |  |  |  |  |  |
| PETER S.<br>GLICK<br>CIVIL<br>No. 41514                                                                                                  |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
| 04/06/40 ISSUED FOR SITE PLAN REVIEW                                                                                                     |  |  |  |  |  |  |  |  |
| 04/06/19     ISSUED FOR SITE PLAN REVIEW<br>& SPECIAL PERMIT       REV     DATE       DESCRIPTION                                        |  |  |  |  |  |  |  |  |
| DATE<br>SCALE NTS                                                                                                                        |  |  |  |  |  |  |  |  |
| DRAWN BYCJRCHECKED BYPSGPROJECT NO.19001                                                                                                 |  |  |  |  |  |  |  |  |
| BUILDING:<br>SHEET TITLE:                                                                                                                |  |  |  |  |  |  |  |  |
| DETAILS IV                                                                                                                               |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
| drawing no. C-504                                                                                                                        |  |  |  |  |  |  |  |  |



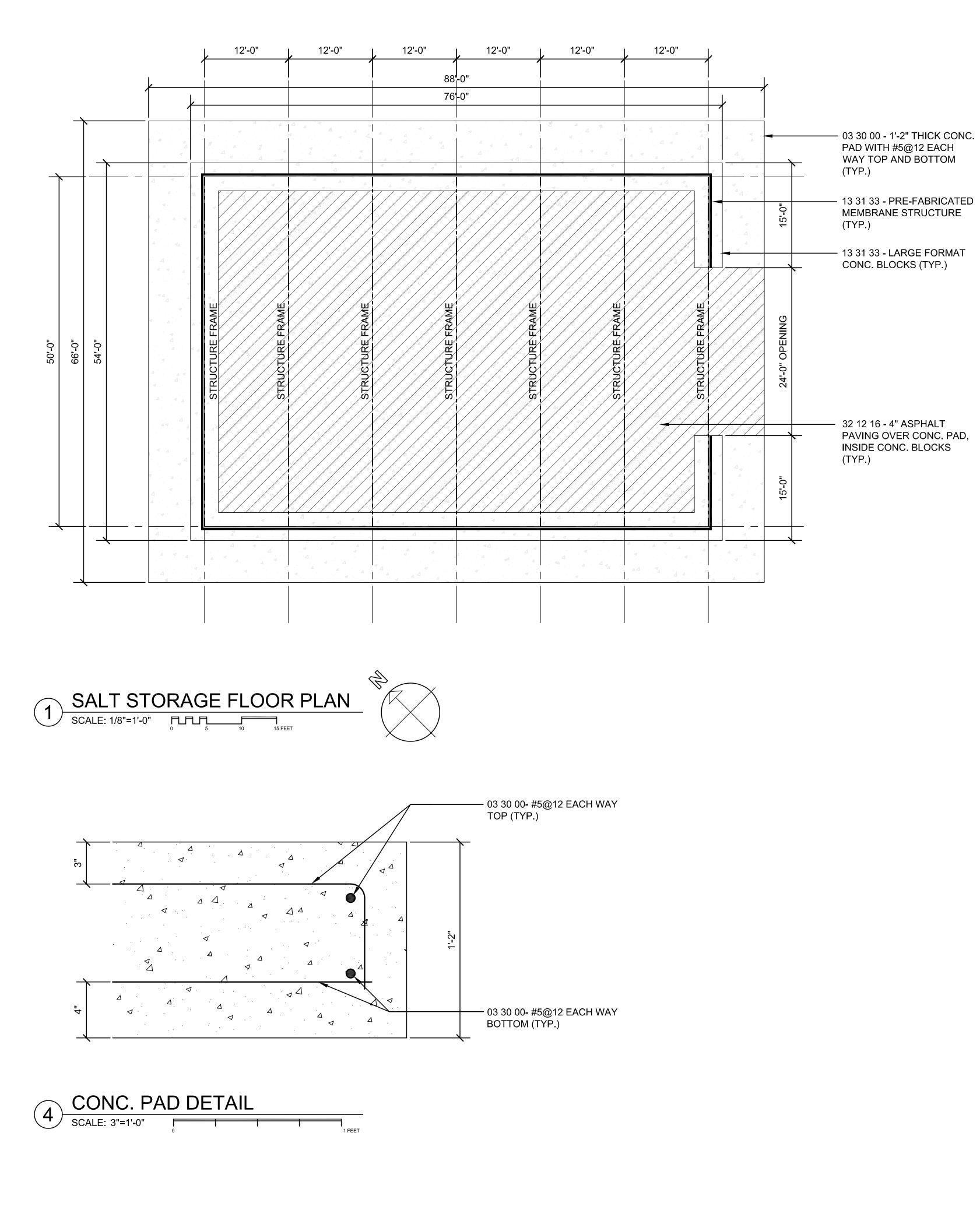
| MONTAGUE CENTER                                                                                                                                                             |  |  |  |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| TOWN OF<br>MONTAGUE                                                                                                                                                         |  |  |  |  |  |  |  |
| NEW DPW FACILITY                                                                                                                                                            |  |  |  |  |  |  |  |
| OWNER:<br>TOWN OF MONTAGUE<br>ONE AVENUE A<br>TURNERS FALLS, MA 01376<br>ARCHITECT:<br>MELENE • KARL<br>Architects, Inc.<br>61 Skyfields Drive, Groton, Massachusetts 01450 |  |  |  |  |  |  |  |
| CIVIL ENGINEER:<br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                                                                     |  |  |  |  |  |  |  |
| STRUCTURAL ENGINEER:<br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                                                                |  |  |  |  |  |  |  |
| MECHANICAL ENGINEER:<br>SEAMAN ENGINEERING CORP.<br>22 WEST STREET, UNIT C<br>MILLBURY, MA 01527                                                                            |  |  |  |  |  |  |  |
| ELECTRICAL ENGINEER:<br>JOHN J. MURPHY, JR. ELECTRICAL<br>CONSTRUCTION AND ENGINEERING, INC.<br>379 LIBERTY STREET<br>ROCKLAND, MA 02370                                    |  |  |  |  |  |  |  |
| STAMP                                                                                                                                                                       |  |  |  |  |  |  |  |
|                                                                                                                                                                             |  |  |  |  |  |  |  |
|                                                                                                                                                                             |  |  |  |  |  |  |  |
| 4/16/2019     ISSUED FOR SITE PLAN<br>REVIEW & SPECIAL PERMIT       REV     DATE                                                                                            |  |  |  |  |  |  |  |
| DATE SCALE 1/8" = 1'-0" DRAWN BY MTV CHECKED BY GKY PROJECT NO. 19001                                                                                                       |  |  |  |  |  |  |  |
| BUILDING:<br>SHEET TITLE:<br>FIRST FLOOR PLAN                                                                                                                               |  |  |  |  |  |  |  |
| drawing no.                                                                                                                                                                 |  |  |  |  |  |  |  |

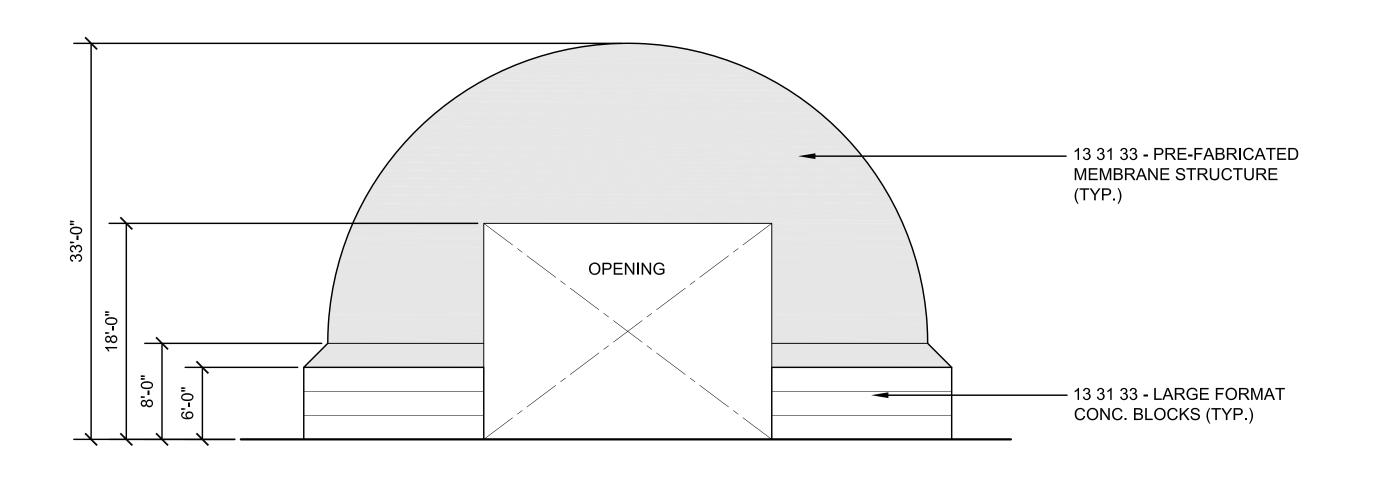


| TOWN OF<br>MONTAGUE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| NEW DPW FACILITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |
| OWNER:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |  |  |
| TOWN OF MONTAGUE<br>ONE AVENUE A<br>TURNERS FALLS, MA 01376                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |
| ARCHITECT:<br>HELENE • KARL<br>Architects, Inc.<br>61 Skyfields Drive, Groton, Massachusetts 01450                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |
| CIVIL ENGINEER:<br>SYMMES, MAINI & MCKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |
| STRUCTURAL ENGINEER:<br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |
| MECHANICAL ENGINEER:<br>SEAMAN ENGINEERING CORP.<br>22 WEST STREET, UNIT C<br>MILLBURY, MA 01527                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |
| ELECTRICAL ENGINEER:<br>JOHN J. MURPHY, JR. ELECTRICAL<br>CONSTRUCTION AND ENGINEERING, INC.<br>379 LIBERTY STREET<br>ROCKLAND, MA 02370                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |  |
| STAMP<br>STAMP<br>STAMP<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>St |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |  |
| 4/16/2019     ISSUED FOR SITE PLAN<br>REVIEW & SPECIAL PERMIT       REV     DATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |
| DATE<br>SCALE 1/8" = 1'-0"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |  |  |
| DRAWN BY MTV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |
| CHECKED BY GKY<br>PROJECT NO. 19001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |  |
| BUILDING:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |
| BUILDING:<br>SHEET TITLE:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |
| EXTERIOR ELEVATIONS<br>SHEET 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |
| DRAWING NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |
| A-301                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  |  |

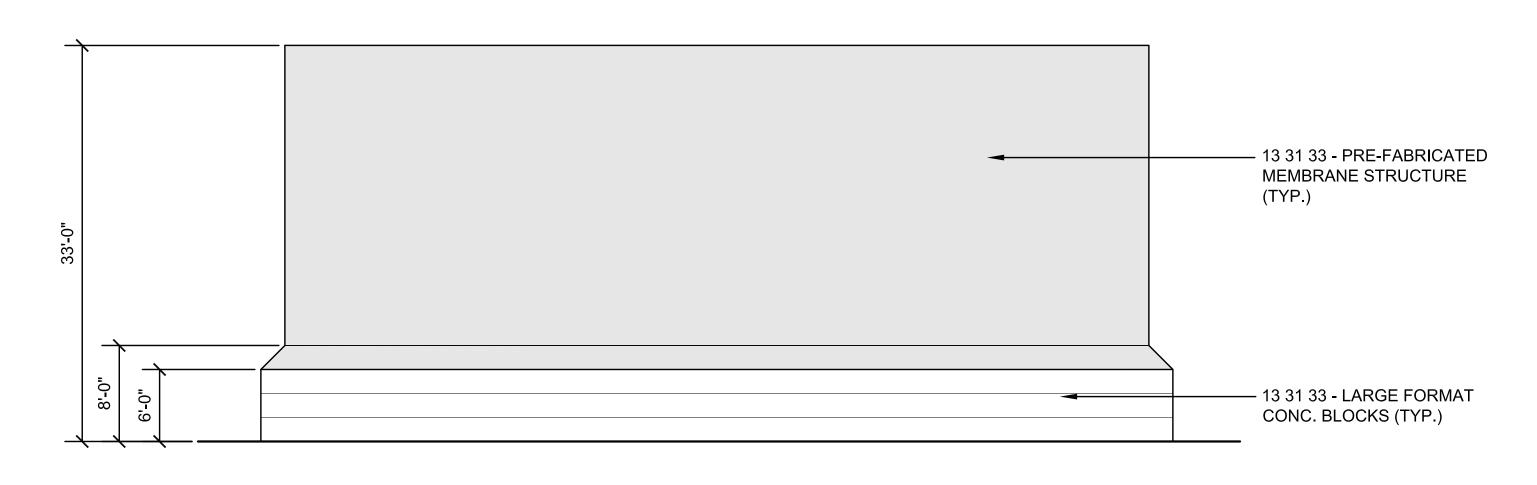


| MUNTAGUE CENTER                                                                                                                          |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|
| TOWN OF<br>MONTAGUE                                                                                                                      |  |  |  |  |  |  |  |  |
| NEW DPW FACILITY                                                                                                                         |  |  |  |  |  |  |  |  |
| <b>OWNER:</b><br>TOWN OF MONTAGUE<br>ONE AVENUE A<br>TURNERS FALLS, MA 01376                                                             |  |  |  |  |  |  |  |  |
| ARCHITECT:<br>HELENE • KARL<br>Architects, Inc.<br>61 Skyfields Drive, Groton, Massachusetts 01450                                       |  |  |  |  |  |  |  |  |
| CIVIL ENGINEER:<br>SYMMES, MAINI & MCKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                                  |  |  |  |  |  |  |  |  |
| STRUCTURAL ENGINEER:<br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                             |  |  |  |  |  |  |  |  |
| MECHANICAL ENGINEER:<br>SEAMAN ENGINEERING CORP.<br>22 WEST STREET, UNIT C<br>MILLBURY, MA 01527                                         |  |  |  |  |  |  |  |  |
| ELECTRICAL ENGINEER:<br>JOHN J. MURPHY, JR. ELECTRICAL<br>CONSTRUCTION AND ENGINEERING, INC.<br>379 LIBERTY STREET<br>ROCKLAND, MA 02370 |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
| STAMP                                                                                                                                    |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |  |
| 4/16/2019     ISSUED FOR SITE PLAN<br>REVIEW & SPECIAL PERMIT       REV     DATE                                                         |  |  |  |  |  |  |  |  |
| DATE<br>SCALE 1/8" = 1'-0"                                                                                                               |  |  |  |  |  |  |  |  |
| DRAWN BY MTV<br>CHECKED BY GKY<br>PROJECT NO. 19001                                                                                      |  |  |  |  |  |  |  |  |
| BUILDING:                                                                                                                                |  |  |  |  |  |  |  |  |
| SHEET TITLE:<br>EXTERIOR ELEVATIONS<br>SHEET 2                                                                                           |  |  |  |  |  |  |  |  |
| DRAWING NO.                                                                                                                              |  |  |  |  |  |  |  |  |
| A-302                                                                                                                                    |  |  |  |  |  |  |  |  |



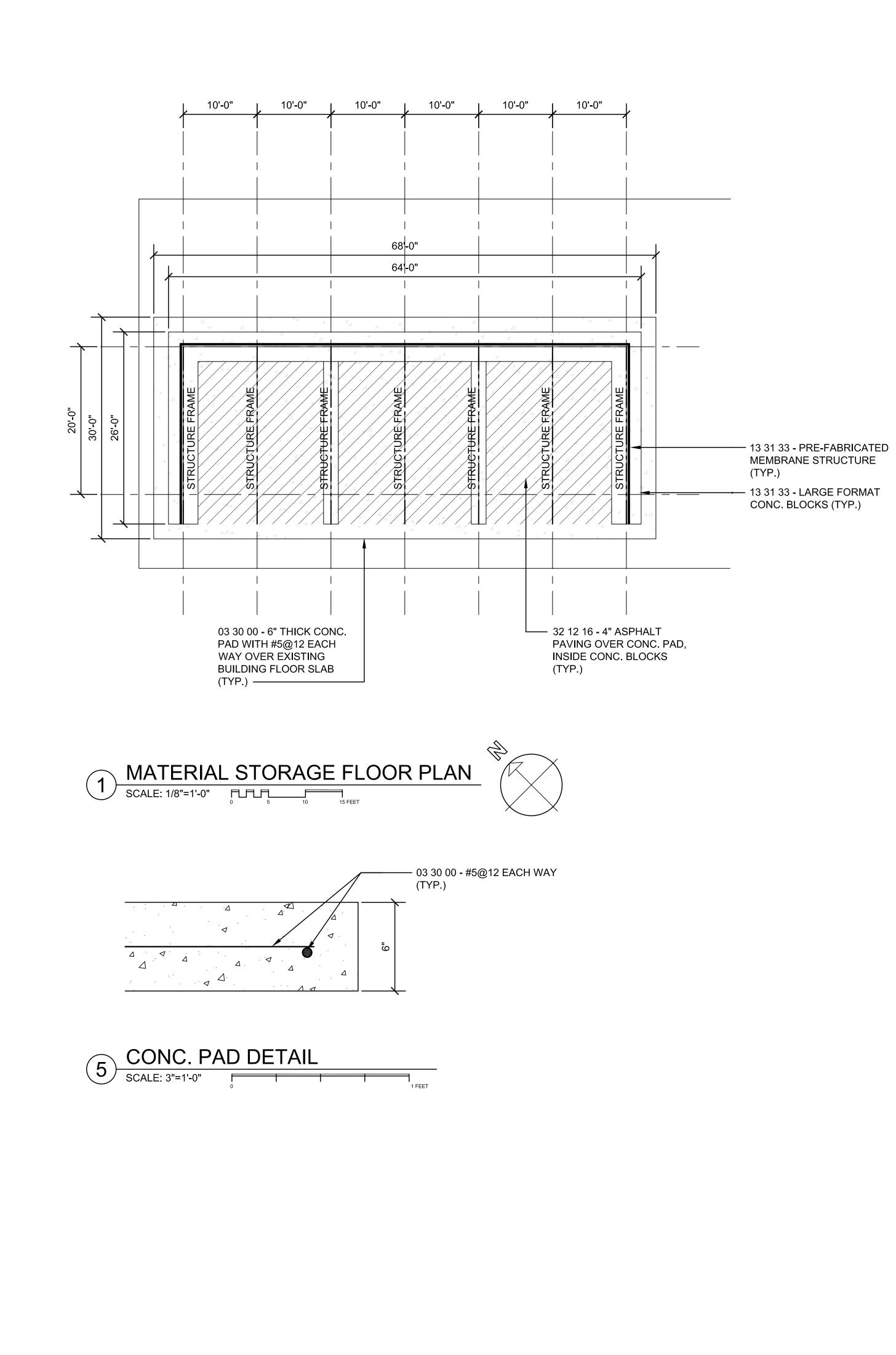


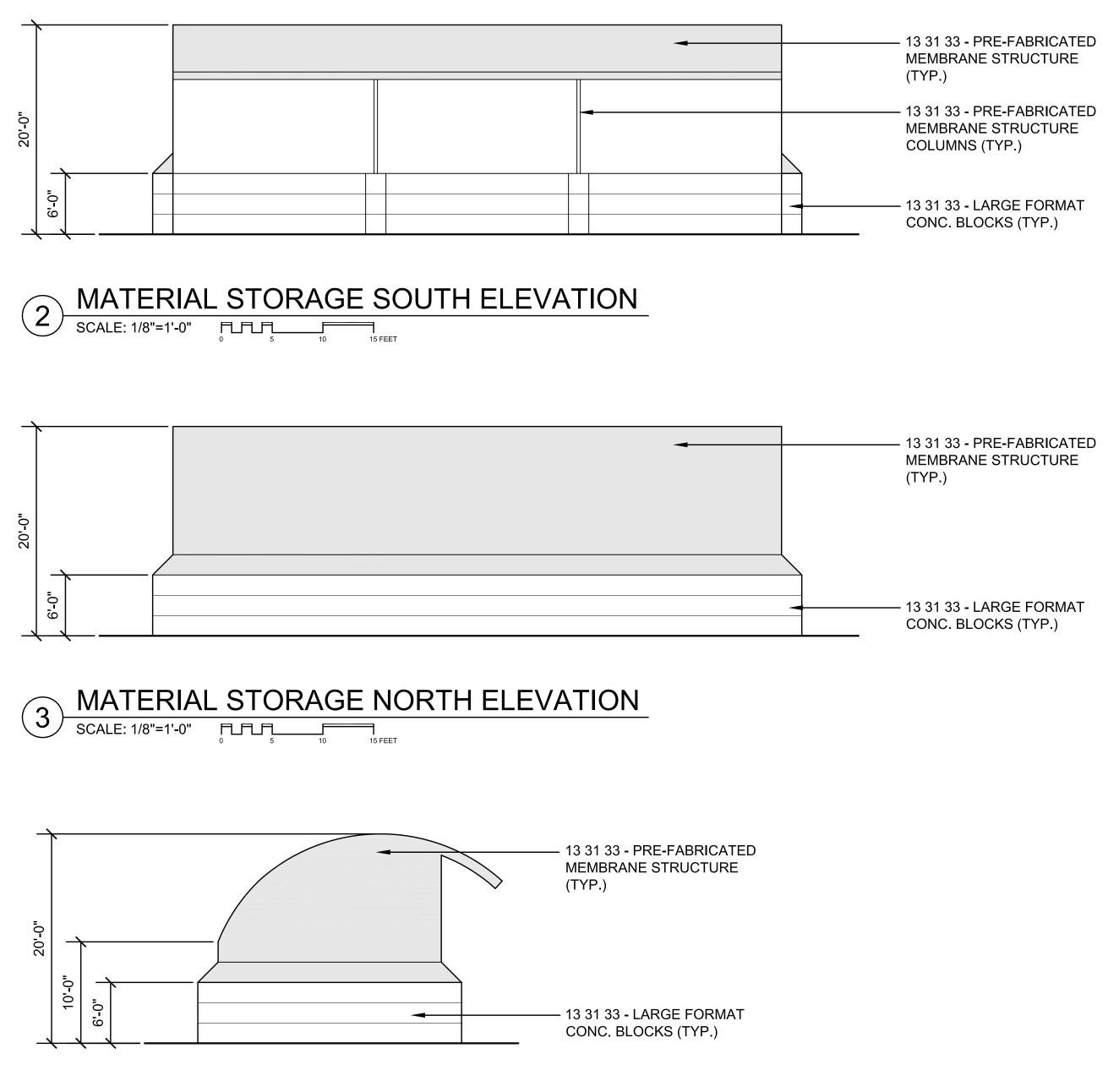


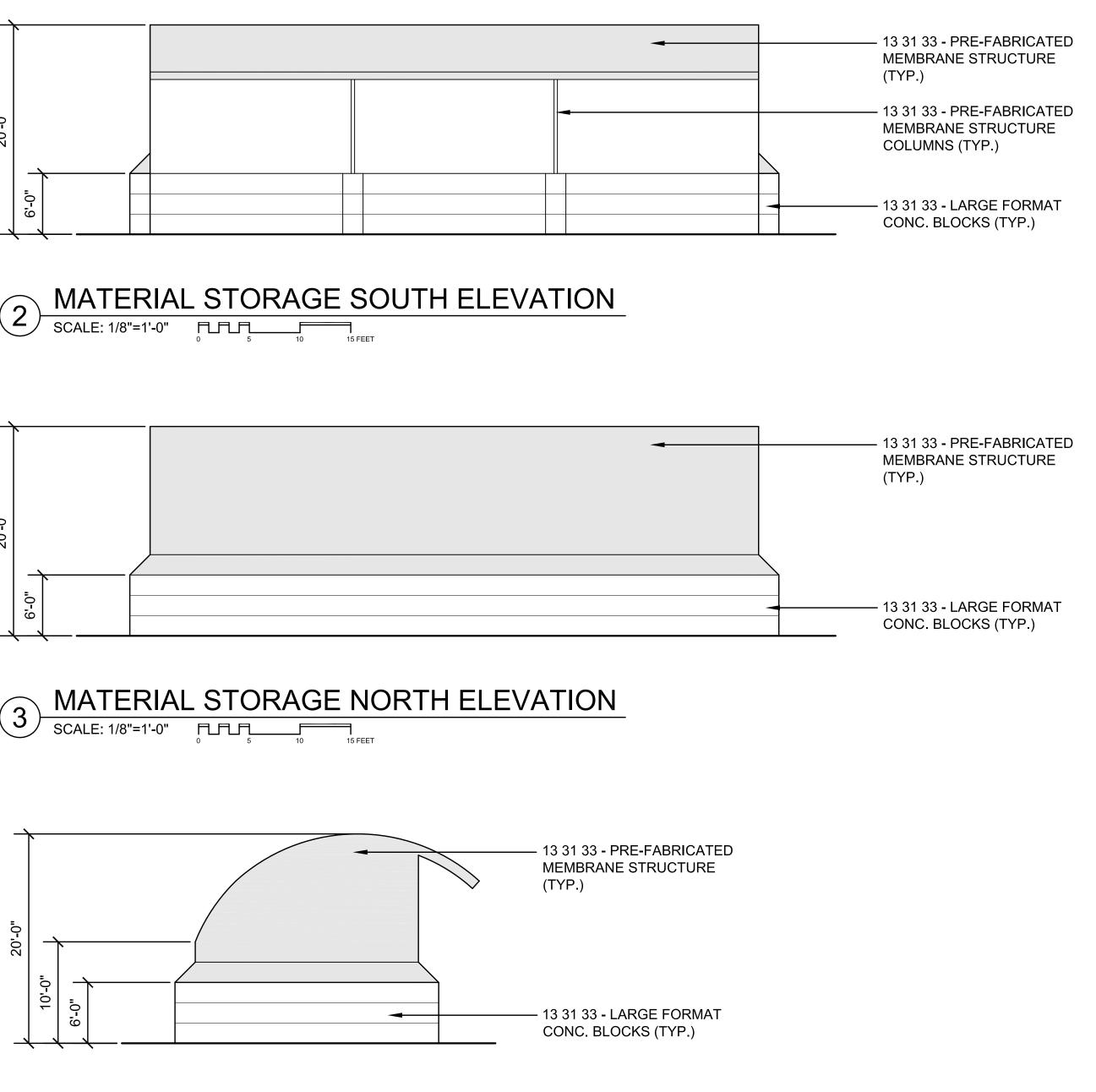


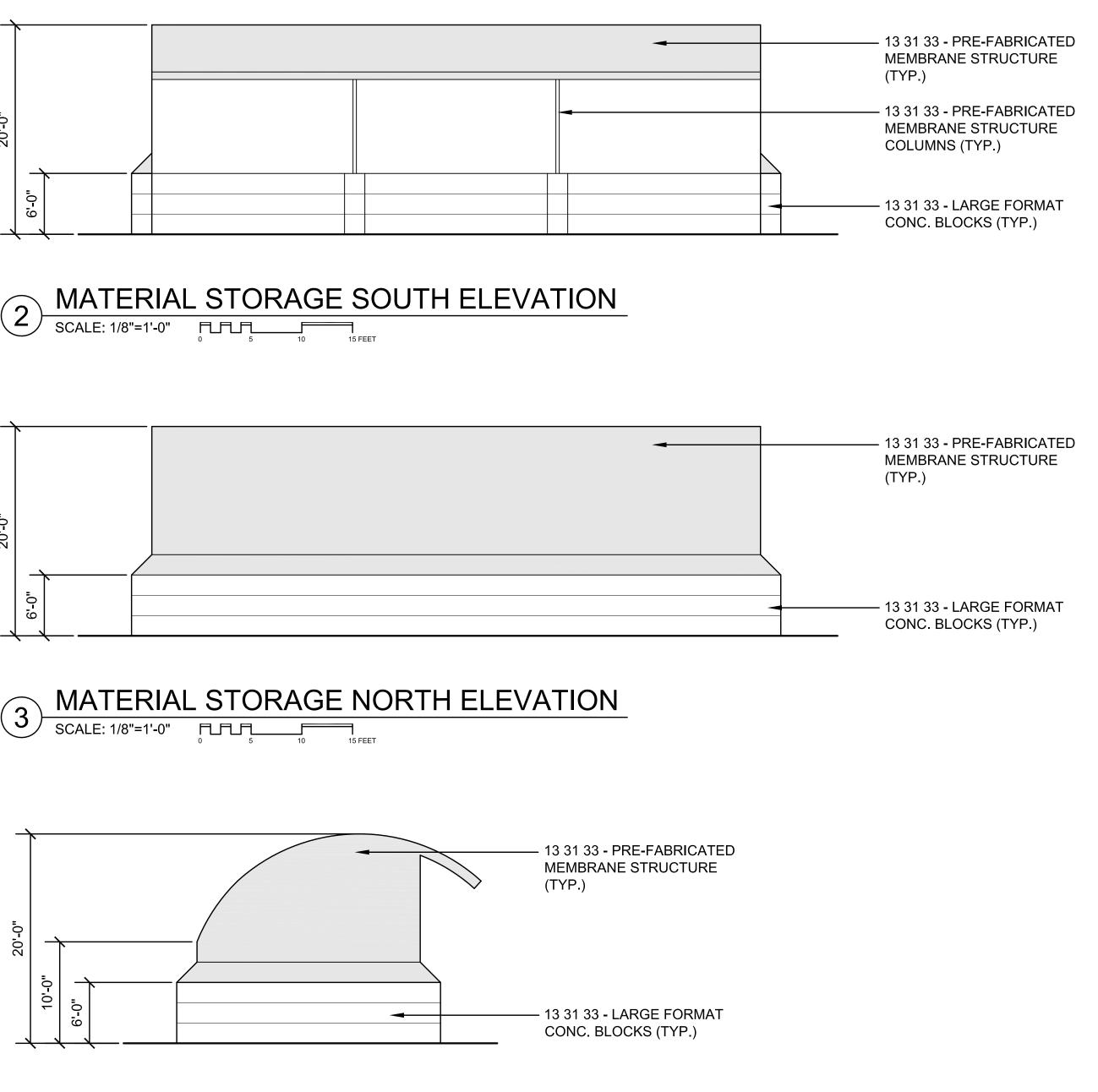
# 3 SALT STORAGE NORTH AND SOUTH ELEVATIONS SCALE: 1/8"=1'-0"

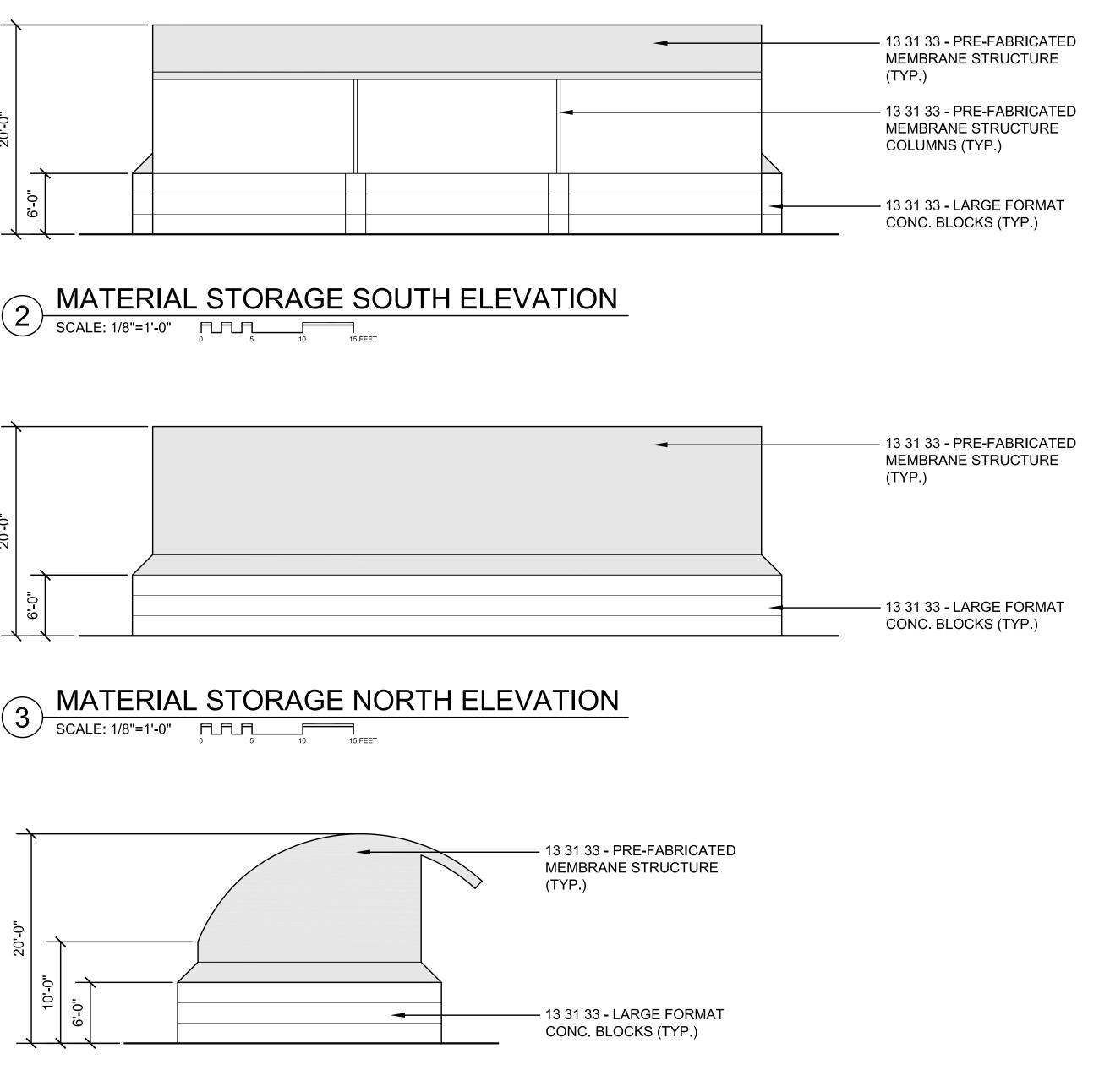
| MUNTAGUE CENTER                                                                                                                          |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| TOWN OF<br>MONTAGUE                                                                                                                      |  |  |  |  |  |  |  |
| NEW DPW FACILITY                                                                                                                         |  |  |  |  |  |  |  |
| <b>OWNER:</b><br>Town of montague<br>One avenue a<br>Turners falls, ma 01376                                                             |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |
| Architects, Inc.<br>61 Skyfields Drive, Groton, Massachusetts 01450                                                                      |  |  |  |  |  |  |  |
| CIVIL ENGINEER:<br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                                  |  |  |  |  |  |  |  |
| STRUCTURAL ENGINEER:<br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                             |  |  |  |  |  |  |  |
| MECHANICAL ENGINEER:<br>SEAMAN ENGINEERING CORP.<br>22 WEST STREET, UNIT C<br>MILLBURY, MA 01527                                         |  |  |  |  |  |  |  |
| ELECTRICAL ENGINEER:<br>JOHN J. MURPHY, JR. ELECTRICAL<br>CONSTRUCTION AND ENGINEERING, INC.<br>379 LIBERTY STREET<br>ROCKLAND, MA 02370 |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |
| STAMP                                                                                                                                    |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |
| 4/16/2019     ISSUED FOR SITE PLAN<br>REVIEW & SPECIAL PERMIT       REV     DATE                                                         |  |  |  |  |  |  |  |
| DATE 4/16/2019<br>SCALE 1/8" = 1'-0"                                                                                                     |  |  |  |  |  |  |  |
| DRAWN BY MTV<br>CHECKED BY GKY<br>PROJECT NO. 19001                                                                                      |  |  |  |  |  |  |  |
| BUILDING:<br>SHEET TITLE:                                                                                                                |  |  |  |  |  |  |  |
| SALT STORAGE<br>STRUCTURE                                                                                                                |  |  |  |  |  |  |  |
| DRAWING NO.                                                                                                                              |  |  |  |  |  |  |  |
| A-401                                                                                                                                    |  |  |  |  |  |  |  |

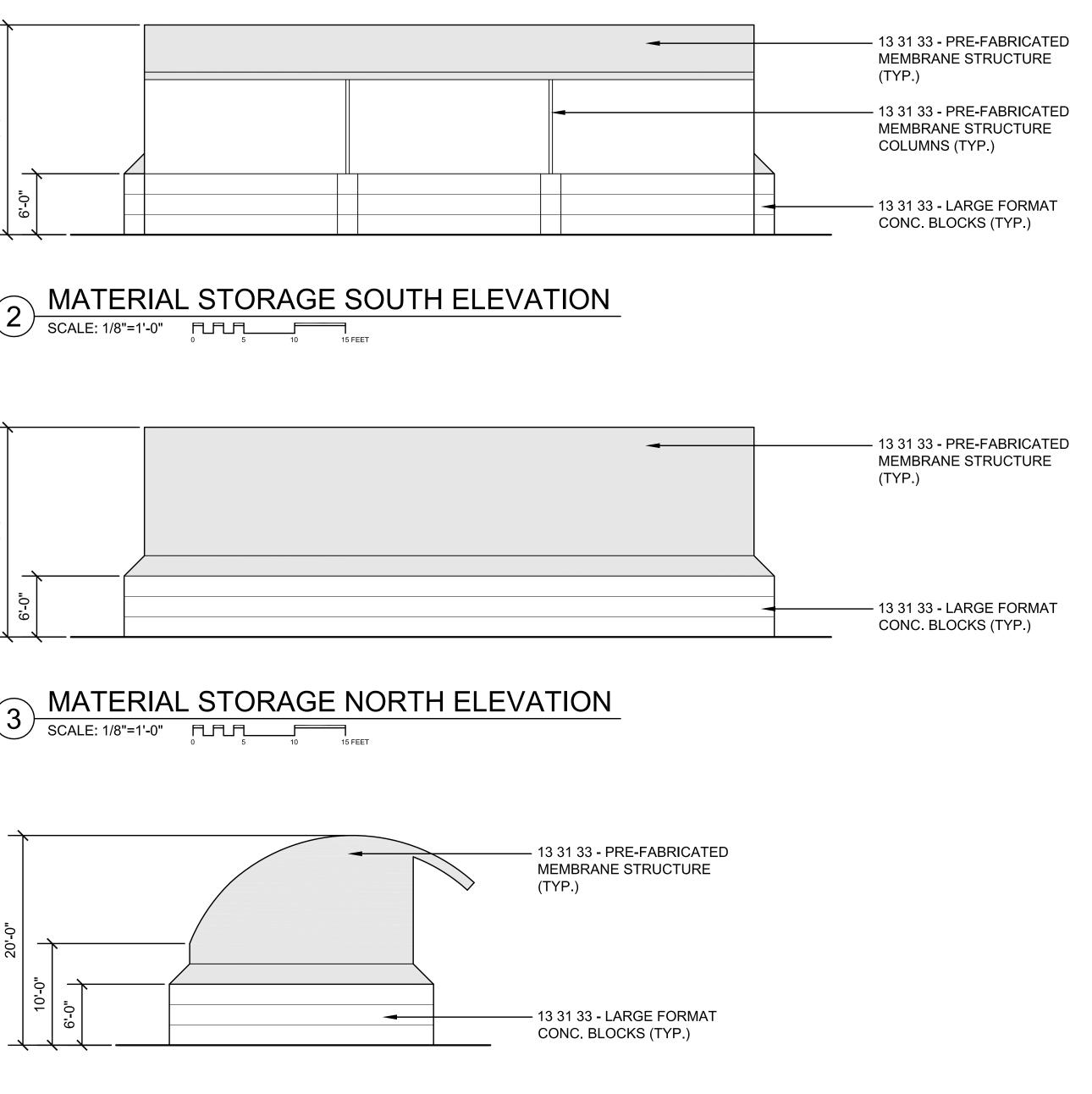














4 MATERIAL STORAGE EAST AND WEST ELEVATIONS SCALE: 1/8"=1'-0"

| MONTAGUE CENTER                                                                                                                          |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| TOWN OF<br>MONTAGUE                                                                                                                      |  |  |  |  |  |  |  |
| NEW DPW FACILITY                                                                                                                         |  |  |  |  |  |  |  |
| <b>OWNER:</b><br>Town of montague<br>one avenue a<br>Turners falls, ma 01376                                                             |  |  |  |  |  |  |  |
| ARCHITECT:<br>HELENE • KARL<br>Architects, Inc.<br>61 Skyfields Drive, Groton, Massachusetts 01450                                       |  |  |  |  |  |  |  |
| CIVIL ENGINEER:<br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                                  |  |  |  |  |  |  |  |
| STRUCTURAL ENGINEER:<br>SYMMES, MAINI & MCKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138                             |  |  |  |  |  |  |  |
| MECHANICAL ENGINEER:<br>SEAMAN ENGINEERING CORP.<br>22 WEST STREET, UNIT C<br>MILLBURY, MA 01527                                         |  |  |  |  |  |  |  |
| ELECTRICAL ENGINEER:<br>JOHN J. MURPHY, JR. ELECTRICAL<br>CONSTRUCTION AND ENGINEERING, INC.<br>379 LIBERTY STREET<br>ROCKLAND, MA 02370 |  |  |  |  |  |  |  |
| STAMP                                                                                                                                    |  |  |  |  |  |  |  |
| No.7480<br>GROTON<br>MA<br>MA<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A                            |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |
|                                                                                                                                          |  |  |  |  |  |  |  |
| 4/16/2019     ISSUED FOR SITE PLAN<br>REVIEW & SPECIAL PERMIT       REV     DATE                                                         |  |  |  |  |  |  |  |
| DATE 2/27/19<br>SCALE 1/8" = 1'-0"                                                                                                       |  |  |  |  |  |  |  |
| DRAWN BY MTV                                                                                                                             |  |  |  |  |  |  |  |
| CHECKED BY GKY<br>PROJECT NO. 19001                                                                                                      |  |  |  |  |  |  |  |
| BUILDING:                                                                                                                                |  |  |  |  |  |  |  |
| SHEET TITLE:<br>MATERIAL STORAGE<br>STRUCTURE                                                                                            |  |  |  |  |  |  |  |
| drawing no. A-402                                                                                                                        |  |  |  |  |  |  |  |

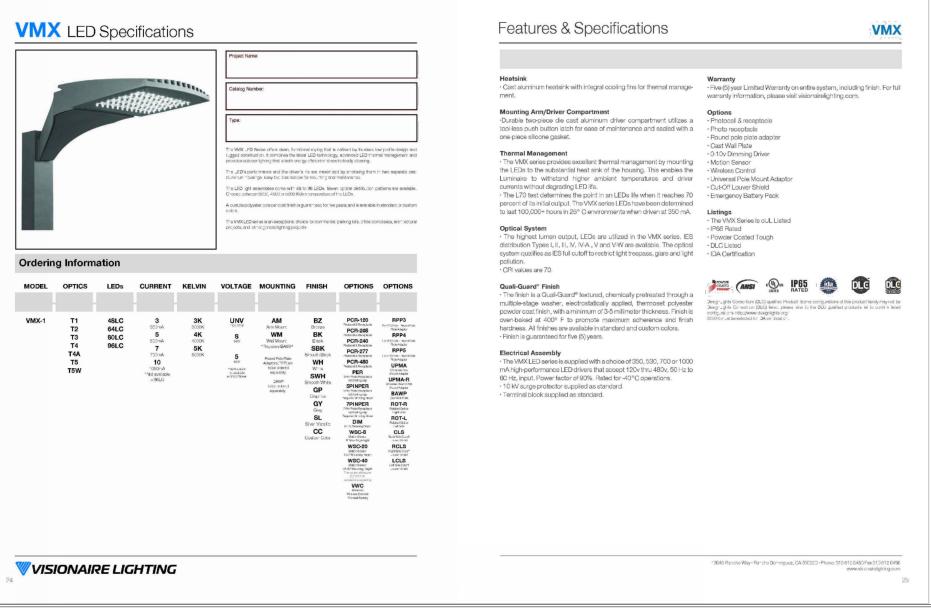
| ٥.<br>ألى الم                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0.0 $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$ $0.0$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| τ.ο                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| τ.ο                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ad a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <br>0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| '<br>0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0,5 0,5 0,5 0,5 0,5 0,5 0,5 0,5 0,5 0,5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5.0 b.0 b.0 b.0 b.0 b.0 b.0 b.0 b.0 b.0 b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| b.0         b.0         b.0         b.0         b.0         b.0         b.1         b.1 <td>1 b.1 b.1 b.1 b.1 b.1 b.1 b.1 b.1 b.1 b.</td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1 b.1 b.1 b.1 b.1 b.1 b.1 b.1 b.1 b.1 b.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| , , , , , , , , , , , , , , , , , , ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1 \$1 \$1.1 \$1.1 \$1.1 \$1.1 \$1.1 \$1.1 \$1.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| b.o                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2 b.2 b.2 b.2 b.1 b.1 b.1 b.1 b.1 b.2 b.2 b.3 b.7 1.1 2.0 3.1 2.5 1.4 1.1 b.8 b.5 b.2 b.1 b.0 b.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| b.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 3 0.3 0.3 0.2 0.2 0.1 0.2 0.2 0.3 0.5 1.0 2.3 45 4.2 3.4 2.1 1.3 0.8 0.4 0.1 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| b.0 b.0 b.0 b.0 b.0 b.0 b.0 b.0 b.0 b.1 b.1 b.1 b.2 b.2 b.4 b.7 b.9 b.9 b.7 b.5 b.4 b.5 b.7 b.9 b.9 b.7 b.5 b.7 b.9 b.9 b.7 b.5 b.7 b.9 b.9 b.7 b.8 b.9 b.7 b.9 b.9 b.9 b.7 b.9 b.9 b.7 b.9 b.9 b.9 b.7 b.9 b.9 b.7 b.9 b.9 b.9 b.7 b.9 b.9 b.9 b.7 b.9 b.9 b.9 b.7 b.9 b.9 b.7 b.9 b.9 b.9 b.9 b.7 b.9 b.9 b.9 b.7 b.9 b.9 b.9 b.9 b.9 b.7 b.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ŠEL1<br>5.9 0.7 0.5 0.3 0.2 0.2 0.2 0.3 0.4 0.6 1.4 3.5 4.9H: 223.9 3.7 7.9 1.1 0.6 0.2 0.1 0.0 0.0 0.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| b.0         b.0         b.0         b.0         b.0         b.1         b.3         b.5         b.7         b.9         1.2         1.5         1.1         1.6         1.5         1.6         1.8         2.1         2.1         1.7         1.6         1.5         1.6         1.8         2.1         1.6         1.7         2.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1 2.0 1.5 1.1 b.9 b.8 b.6 b.5 b.6 b.6 b.9 2.1 3.0 3.5 3.4 2.4 1.5 b.8 b.3 b.1 b.0 b.0 b.0 b.0 b.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 9 ± 1 3.5 2.1 1.4 1.6 1.5 0.3 1.2 1.3 1.9 2.0 2.8 3.6 2.4 1.7 1.1 0.5 0.1 0.1 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| MH: 22     MH: 22       0.0     0.0     0.0     0.1     0.1     0.4     1.3     1.7     1.8     1.8     1.9     3.4     4.7     4.8     3.9     3.2     2.2     3.3     3.9     4.9     3.9     3.2     2.1     3.3     3.9     4.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | MH: 22<br>3 4.6 3.2 2.4 1.4 1.7 2.1 2.8 2.9 3.5 3.1 2.1 2.4 2.4 1.7 1.1 0.5 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| b.0         b.0 <td>3 3.8 3.6 2.6 2.3 2.9 3.9 5.6 SL 5.5 3.9 3.3 2.0 1.9 1.7 1.1 0.6 0.2 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0</td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3 3.8 3.6 2.6 2.3 2.9 3.9 5.6 SL 5.5 3.9 3.3 2.0 1.9 1.7 1.1 0.6 0.2 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 0.0     0.0     0.0     0.0     0.1     0.1     0.2     0.3     0.6     1.7     2.1     2.4     2.4     2.2     2.3     2.4     2.4     2.5     2.5     2.4     2.4     2.4     2.3     2.3     2.4     2.4     2.5     2.5     2.4     2.4     2.3     2.3     2.2     2.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2 2.2 2.3 2.6 2.1 2.5 3.5 4.3 3.7 3.3 3.0 2.0 1.7 1.3 0.7 0.3 0.1 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 0.0     0.0     0.0     0.0     0.1     0.1     0.2     0.5     1.0     2.9     3.2     4.1     2.6     2.2     1.9     1.9     2.2     2.3     2.4     2.5     2.4     2.2     2.1     2.0     1.9     1.4     1.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 <sup>1</sup> .4 <sup>1</sup> .6 <sup>1</sup> .7 <sup>1</sup> .6 <sup>1</sup> .0 <sup>1</sup> 3.2 <sup>1</sup> 3.7 <sup>1</sup> 3.5 <sup>1</sup> 2.5 <sup>1</sup> .9 <sup>1</sup> 1.5 <sup>1</sup> .2 <sup>1</sup> 0.8 <sup>1</sup> 0.4 <sup>1</sup> 0.2 <sup>1</sup> 0.1 <sup>1</sup> 0.0 |
| b.0     b.0     b.0     b.0     b.1     b.1     b.2     b.6     f.3     f.6     f.2     f.7     f.1     f.7     f.9     f.3     f.7     f.8     f.0     f.9     f.2     f.7     f.7     f.2     f.7     f.1     f.7     f.9     f.3     f.7     f.8     f.0     f.9     f.3     f.3     f.7     f.7     f.9     f.3     f.7     f.8     f.0     f.9     f.3     f.3     f.7     f.2     f.7     f.7     f.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <u>5 6.6 5.7</u> 1.0 1.2 1.5 1.8 1.8 1.8 1.5 1.1 5.9 5.6 5.4 5.2 5.1 5.1 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.7 1.5 1.0 1.2.9 2.1 1.5 2.4 2.6 3.4 4.5 4.6 5.9 WM2 <sup>4</sup> .2 4.0 3.7 5.4 WM1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2 5.2 5.3 5.6 5.8 7.0 7.1 7.0 7.8 5.5 5.3 5.2 5.1 5.1 5.1 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| b.0     b.0     b.0     b.1     b.1     b.2     b.6     b.3     b.7     b.4     b.3     b.7     b.7 <td>b.5 b.6 b.6 b.6 b.6 b.2 b.1 b.1 b.1 b.1 b.0 b.0 b.0 b.0 b.0 b.0 b.0 b.0 b.0 b.0</td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | b.5 b.6 b.6 b.6 b.6 b.2 b.1 b.1 b.1 b.1 b.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| b.0 b.0 b.0 b.1 b.1 b.1 b.3 b.5 1.1 3.4 3.7 3.6 2.5 1.6 b.7 b.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | b.2 b.3 b.5 b.6 b.6 b.7 b.3 b.1 b.1 b.1 b.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| b.0         b.0         b.1         b.1         b.2         b.4         b.9         b.4         b.2         b.4         b.1         b.2         b.4         b.9         b.4         b.2         b.4         b.7         b.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | b.2 b.5 b.7 b.8 b.9 f.2 b.6 b.1 b.1 b.1 b.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| b.0     b.0     b.0     b.1     b.1     b.2     b.3     b.4     b.9     2.7     2.6     2.6     2.4     1.6     b.7     5.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | b.4 b.7 f.0 f.1 f.0 f.1 b.8 b.2 b.1 b.1 b.1 b.1 b.0 b.0 b.0 b.0 b.0 b.0 b.0 b.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| b.0     b.0     b.0     b.1     b.1     b.3     b.5     1.1     1.6     3.8     4.3     2     5     1.6     5.7     5.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1.5     1.0     1.3     1.7     1.6     1.6     1.1     0.3     0.2     0.1     0.1     0.0     0.0     0.0     0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| to.0 to.0 to.0 to.1 to.1 to.2 to.6 to.4 to.9 to.9 to.9 to.9 to.9 to.9 to.9 to.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3.8     1.5     1.6     2.6     3.0     1.6     0.6     0.3     0.2     0.1     0.1     0.0     0.0     0.0     0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| δ.0 δ.0 δ.0 δ.1 δ.0 δ.0 δ.7 1.5 4.1 SL15.1 3.1 2.7 1.6 δ.9 δ.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | WM2         5.9         2.0         3.7         4.1         4.8         2.2         0.9         0.4         0.2         0.1         0.0         0.0         0.0         0.0           MH: 7.833                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| b.0         b.0         b.1         b.1         b.3         b.6         1.2         3.5         4.2         3.7         2.6         1.8         1.1         5.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ₩1.7.555                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| b.0         b.0         b.1         b.1         b.3         b.5         1.0         3.3         3.7         3.6         2.6         2.0         1.3         5.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | MH: 7.833 MH: 22<br>2.8 2.2 2.5 3.9 4.0 4.7 2.1 0.8 0.4 0.2 0.1 0.1 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| b.0         b.0         b.1         b.2         b.3         b.8         2.6         2.4         2.6         2.7         2.3         1.9         1.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2.4 2.2 2.6 3.1 4.0 3.6 2.0 0.6 0.4 0.2 0.1 0.1 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| b.0     b.0     b.1     b.2     b.4     b.8     2.7     2.5     2.7     2.9     2.6     2.8     3.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5.4 2.5 2.7 2.6 2.3 243 1.7 0.4 0.3 0.2 0.1 0.1 0.1 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| b.0     b.0     b.1     b.1     b.3     b.5     1.1     3.9     4.4     4.3     3.0     2.6     3.5     4.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 138/11 12.5 2.5 2.8 2.8 2.6 2/7 1.8 0.5 0.3 0.2 0.1 0.1 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| b.0     b.0     b.0     b.1     b.2     b.6     i.5     i.5     i.1     i.4     i.8     i.1     i.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | $\begin{array}{c c} \mathbf{y}_{\text{ITI}} & \mathbf{y}_{\text{I}} \\ \hline & \mathbf{z}_{.4} & \mathbf{z}_{.2} & \mathbf{z}_{.6} & \mathbf{x}_{.3} & \mathbf{x}_{.1} & \mathbf{x}_{.0} & \mathbf{z}_{.1} & 0_{.7} & 0_{.4} & 0_{.2} & 0_{.1} & 0_{.1} & 0_{.0} & 0_{.0} & 0_{.0} & 0_{.0} \end{array}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| δ.0 δ.0 δ.0 δ.0 δ.0 δ.0 δ.6 1.6 4.7 SL1δ.2 4.0 3.1 2.3 MH <sup>3</sup> 2,833 5.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1.2 1.9 2.5 4.0 4.4 5.2 2.3 0.9 0.4 0.2 0.1 0.1 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| b.0     b.0     b.0     b.1     b.2     b.6     1.3     1.1     1.5     1.0     1.0     1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.1 1.8 2.5 4.0 SHL51 548 2.6 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| b.0     b.0     b.1     b.1     b.3     b.5     1.0     3.4     2.7     1.7     1.0     b.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | MH: 22<br>1.0 1.6 2.4 3.8 3.6 4.1 1.9 0.8 0.4 0.2 0.1 0.1 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| b.0     b.0     b.0     b.1     b.2     b.2     b.3     b.8     2.6     2.3     2.5     2.4     1.6     b.7     b.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1.0 1.6 2.3 3.2 3.6 2.6 1.5 0.6 0.3 0.2 0.1 0.1 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| b.0         b.0         b.1         b.1         b.2         b.3         b.4         b.8         2.8         2.7         2.4         1.5         b.6         b.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.1 1.5 2.1 2.6 2.2 1.4 1.1 0.3 0.2 0.2 0.1 0.1 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| b.0     b.0     b.0     b.1     b.1     b.3     b.5     1.1     3.7     4.3     2.4     1.4     b.6     b.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.3 1.7 2.1 2.3 2.1 1.5 1.0 0.3 0.2 0.1 0.1 0.1 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ₩₩1<br>₩ <u>₩</u> ₩:16 <sup>6</sup> 2.8 2.2 3.1 3.6 3.3 2.7 1.6 0.8 0.3 0.1 0.1 0.1 0.0 0.0 0.0 0.0 0.0 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| t∎<br>1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.7 1.5 4.0 SL15.2 3.3 3.2 2.6 2.1 2.1 2.5 2.7 2.4 2.3 2.5 2.7 2.6 2.7 2.9 3.0 2.7 2.1 2.0 2.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2 <sup>1</sup> 2.5 <sup>1</sup> 2.3 <sup>1</sup> 2.4 <sup>1</sup> 3.8 <sup>1</sup> 3.9 <sup>1</sup> 4.6 <sup>1</sup> 2.9 <sup>1</sup> .3 <sup>1</sup> 0.6 <sup>1</sup> 0.2 <sup>1</sup> 0.1 <sup>1</sup> 0.1 <sup>1</sup> 0.1 <sup>1</sup> 0.0 <sup>1</sup> 0.0 <sup>1</sup> 0.0 <sup>1</sup> 0.0 <sup>1</sup> 0.0 <sup>1</sup> 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| b.0         b.0         b.0         b.1         b.2         b.2         b.3         b.4         b.2         b.3         b.2         b.2         b.2         b.3         b.3         b.3         b.2         b.2         b.3         b.3 <td>(1.6) <math>(1.6)</math> <math>(1.6</math></td> | (1.6) $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6)$ $(1.6$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| to.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | MH: 22<br>6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 0.0 $0.0$ $0.0$ $0.0$ $0.0$ $0.1$ $0.1$ $0.2$ $0.3$ $0.7$ $1.8$ $2.1$ $2.4$ $3.0$ $4.6$ $3.7$ $3.6$ $3.2$ $3.2$ $1.4$ $1.1$ $0.9$ $0.6$ $0.3$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$ $0.2$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3 <sup>5</sup> .6 <sup>1</sup> .2 <sup>1</sup> .9 <sup>1</sup> .5 <sup>1</sup> 3.4 <sup>1</sup> 3.4 <sup>1</sup> 2.4 <sup>1</sup> 0.7 <sup>1</sup> 0.4 <sup>1</sup> 0.2 <sup>1</sup> 0.1 <sup>1</sup> 0.1 <sup>1</sup> 0.1 <sup>1</sup> 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| b.0     b.0     b.0     b.1     b.2     b.5     b.8     b.5     b.8     b.5     b.8     b.6     b.1     b.1     b.2     b.5     b.8     b.5     b.8     b.6     b.0     b.1     b.2     b.5     b.8     b.5     b.8     b.6     b.6     b.1     b.2     b.5     b.8     b.5     b.8     b.0     c.7     b.1     b.6     b.4     b.2     b.2 <td>3 <sup>5</sup>.6 <sup>1</sup>.2 <sup>1</sup>.9 <sup>1</sup>.5 <sup>1</sup>3.4 <sup>1</sup>3.4 <sup>1</sup>2.4 <sup>1</sup>0.7 <sup>1</sup>0.4 <sup>1</sup>0.2 <sup>1</sup>0.1 <sup>1</sup>0.1 <sup>1</sup>0.1 <sup>1</sup>0.0 <sup>1</sup>0.0 <sup>1</sup>0.0 <sup>1</sup>0.0 <sup>1</sup>0.0 <sup>1</sup>0.0 <sup>1</sup>0.0</td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3 <sup>5</sup> .6 <sup>1</sup> .2 <sup>1</sup> .9 <sup>1</sup> .5 <sup>1</sup> 3.4 <sup>1</sup> 3.4 <sup>1</sup> 2.4 <sup>1</sup> 0.7 <sup>1</sup> 0.4 <sup>1</sup> 0.2 <sup>1</sup> 0.1 <sup>1</sup> 0.1 <sup>1</sup> 0.1 <sup>1</sup> 0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| b.0     b.0     b.0     b.1     b.2     b.5     1.8     2.5     2.3     2.8     3.8     5.0     1.3     1.2     1.1     b.6     b.4     b.2     b.2     b.2     b.2     b.2     b.2     b.2     b.2     b.3       b.0     b.0     b.0     b.0     b.1     b.2     b.8     b.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3     0.6     1.2     1.9     2.5     3.4     3.4     2.4     0.7     0.4     0.2     0.1     0.1     0.1     0.0     0.0     0.0     0.0     0.0       3     0.7     1.3     1.9     2.1     2.0     2.1     0.5     0.3     0.2     0.1     0.1     0.1     0.0     0.0     0.0     0.0     0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3       b.6       1.2       1.9       2.5       3.4       3.4       2.4       b.7       b.4       b.2       b.1       b.1       b.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3       b.6       1.2       1.9       2.5       3.4       3.4       3.4       5.4       5.7       5.4       5.2       5.1       5.1       5.1       5.1       5.1       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0       5.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| SL1       SL1         MH: 22       ba                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3       b.6       1.2       1.9       2.5       3.4       3.4       b.7       b.4       b.2       b.1       b.1       b.1       b.0       b.0       b.0       b.0       b.0       b.0       b.0         3       b.7       1.3       1.9       2.1       2.0       2.1       2.1       b.5       b.3       b.2       b.1       b.1       b.1       b.0       b.0 </td                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | a       b.s       i.2       i.9       b.s       b.4       b.4       b.7       b.4       b.2       b.1       b.1       b.1       b.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | a       bs       1.2       1.9       2.5       3.4       3.4       3.4       b.7       b.4       b.2       b.1       b.1       b.1       b.0       b.0<                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | a       bs       12       18       2s       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4       3.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | b       12       19       28       8.4       8.4       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b       b<                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | bs       12       1a       2s       84       54       57       84       52       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       61       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60       60 <td< td=""></td<>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h       h                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | b.s         1.2         1.9         2.5         3.4         3.4         3.4         b.r         b.1         b.1         b.1         b.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | h         hz         hz <thz< th="">         hz         hz         hz</thz<>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k         k                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| $\frac{1}{14}  \frac{1}{14}  \frac{1}{14} $                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b         b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | be         be<                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

**1 Montague DPW- Site Lighting**SCALE: 1"=30'-0"

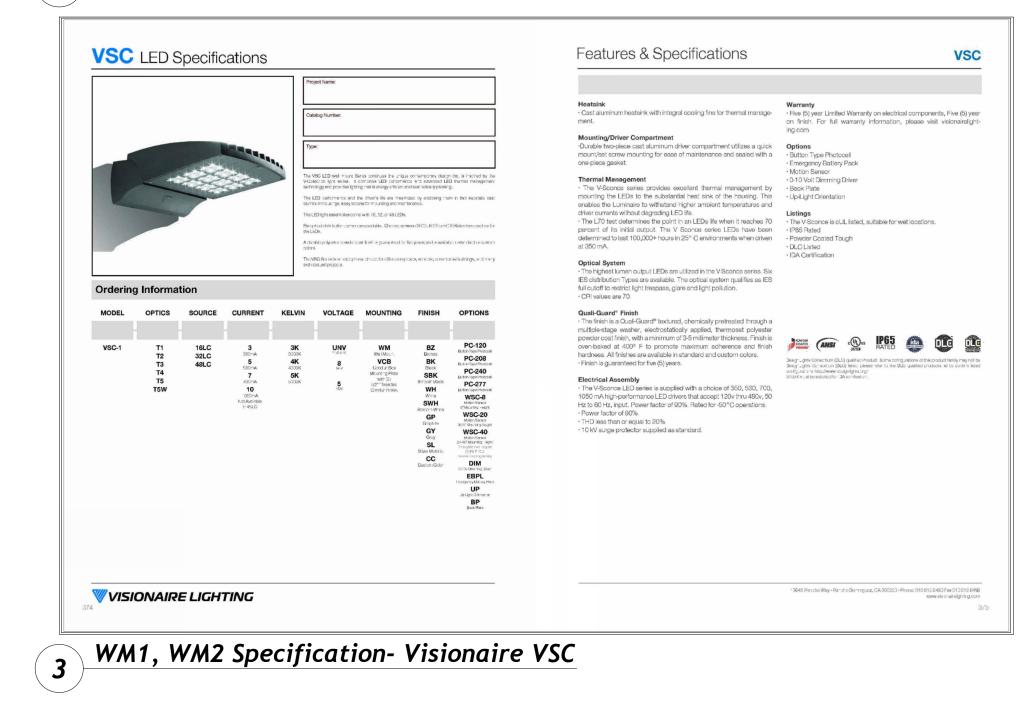
| Luminaire Schedu | Luminaire Schedule |       |  |  |  |  |
|------------------|--------------------|-------|--|--|--|--|
| Symbol           | Qty                | Label |  |  |  |  |
|                  | 13                 | SL1   |  |  |  |  |
|                  | 2                  | SL2   |  |  |  |  |
|                  | 9                  | WM1   |  |  |  |  |
|                  | 7                  | WM2   |  |  |  |  |
|                  | 1                  | 1     |  |  |  |  |
|                  |                    |       |  |  |  |  |

| Calculation Summary |
|---------------------|
| Label               |
| Site Points         |
| DPW_Overall         |
| Entry Road          |
| Scrapyard           |
|                     |

Avg= Average W = Watts









| Description                               | Arrangement | LLF   | Lum. Lumens | Lum. Watts | BUG Rating |
|-------------------------------------------|-------------|-------|-------------|------------|------------|
| Visionaire # VMX-1-T3-64LC-5-4K-UNV-AM-BK | SINGLE      | 0.900 | 14354       | 107        | B3-U0-G3   |
| Visionaire # VMX-1-T4-64LC-5-4K-UNV-AM-BK | SINGLE      | 0.900 | 13860       | 107        | B3-U0-G3   |
| Visionaire # VSC-1-T3-32LC-3-4K-UNV-WM-BK | SINGLE      | 0.900 | 4743        | 37         | B1-U0-G1   |
| Visionaire # VSC-1-T3-16LC-3-4K-UNV-WM-BK | SINGLE      | 0.900 | 2355        | 18         | B1-U0-G1   |

| CalcType    | Units | Avg  | Max | Min | Avg/Min | Max/Min |
|-------------|-------|------|-----|-----|---------|---------|
| Illuminance | Fc    | 0.71 | 6.5 | 0.0 | N.A.    | N.A.    |
| Illuminance | Fc    | 2.47 | 6.5 | 0.2 | 12.35   | 32.50   |
| Illuminance | Fc    | 2.39 | 4.9 | 0.7 | 3.41    | 7.00    |
| Illuminance | Fc    | 1.97 | 5.8 | 0.4 | 4.93    | 14.50   |

ABBREVIATIONS:

AFG= Above Finished Grade

CF = Compact Fluorescent

CV= Coefficient of variation

fc = Footcandles

HPS = High Pressure Sodium

LLF= Light Loss Factor

MH = Mounting Height

NTS = Not to Scale PSMH = Pulse Start Metal Halide

SF = Square foot

NOTES:

A. CALCULATION POINTS INDICATED ARE BASED ON MAINTAINED FOOTCANDLE (FC) LEVELS AFTER A LIGHT LOSS FACTOR (LLF) IS APPLIED TO FIXTURE. REFER TO SCHEDULES FOR LLF

AND LUMEN INFORMATION.

B. REFER TO PLAN FOR FIXTURE MOUNTING

HEIGHTS. C. CALCULATION POINTS TAKEN AT GRADE.

| MONTAGUE                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------|
| NEW DPW FACILITY                                                                                                    |
| <b>OWNER:</b><br>Town of montague<br>One avenue a<br>Turners falls, ma 01376                                        |
| ARCHITECT:                                                                                                          |
| Architects, Inc.<br>61 Skyfields Drive, Groton, Massachusetts 01450                                                 |
| <b>CIVIL ENGINEER:</b><br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138      |
| <b>STRUCTURAL ENGINEER:</b><br>SYMMES, MAINI & McKEE ASSOCIATES<br>1000 MASSACHUSETTS AVENUE<br>CAMBRIDGE, MA 02138 |
| <b>MECHANICAL ENGINEER:</b><br>SEAMAN ENGINEERING CORP.<br>22 WEST STREET, UNIT C<br>MILLBURY, MA 01527             |
| <b>ELECTRICAL ENGINEER:</b><br>John J. Murphy, Jr. Electrical<br>construction and engineering, inc.                 |
| 379 LIBERTY STREET<br>Rockland, MA 02370                                                                            |
|                                                                                                                     |
|                                                                                                                     |
|                                                                                                                     |
|                                                                                                                     |
|                                                                                                                     |
|                                                                                                                     |
| STAMP                                                                                                               |
| STANIF                                                                                                              |
|                                                                                                                     |
|                                                                                                                     |
|                                                                                                                     |
|                                                                                                                     |
| 04/16/10 ISSUED FOR SITE PLAN REVIEW                                                                                |
| 04/16/19     Issued for site plan review<br>& special permit       REV     DATE     DESCRIPTION                     |
| DATE <b>4-16-2019</b>                                                                                               |
| SCALE 1"=30'<br>DRAWN BY CJR<br>CHECKED BY PSG                                                                      |
| PROJECT NO. 19001                                                                                                   |
| BUILDING:<br>SHFFT_TITLF:                                                                                           |
| LIGHTING PLAN,                                                                                                      |
| SCHEDULES, AND<br>SPECIFICATIONS                                                                                    |
|                                                                                                                     |
| drawing no.                                                                                                         |