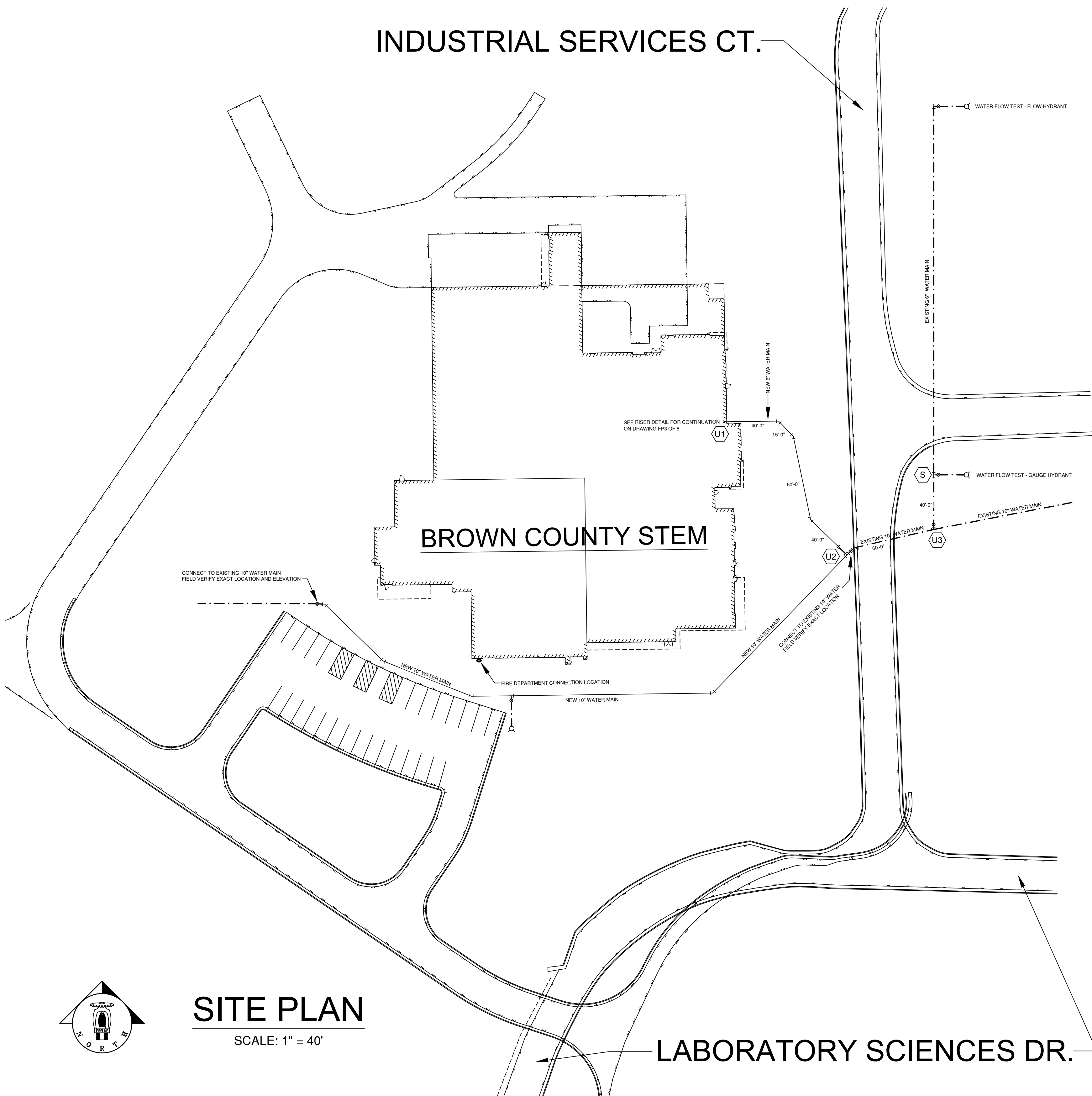
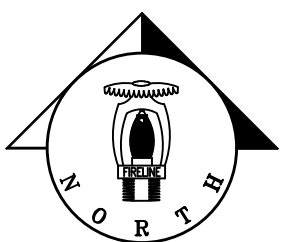


INDUSTRIAL SERVICES CT.



SITE PLAN

SCALE: 1" = 40'



RISER MATERIAL LEGEND

1. 6" WATER SUPPLY FROM CITY WATER
2. 6" GROOVED DOUBLE CHECK BACKFLOW PREVENTER w/ BUTTERFLY VALVES & TAMPER SWITCHES - ALARM WIRING BY OTHERS
3. 6" GROOVED FLANGE ADAPTER
4. 6" 90-DEGREE GROOVED ELBOW & COUPLINGS
5. PIPE STAND
6. 6" GROOVED HEADER w/ GROOVED CAP
7. HEADER DRAIN VALVE
8. 6" WET SHOT-GUN RISER - COMPLETE w/ WET TRIM, DRAIN, WATER FLOW SWITCH AND PRESSURE GAUGE
9. 3" VICTAULIC GROOVED DRY-PIPE VALVE ASSEMBLY - COMPLETE w/ BUTTERFLY VALVE CONTROL VALVE, PRESSURE SWITCHES, TRIM AND RISER MOUNT AIR COMPRESSOR
10. SPARE HEAD CABINET
11. 120-V HORN & STROBE
12. 6" GROOVED TEE & COUPLINGS
13. GROOVED 90-DEGREE ELBOW
14. WET SYSTEM INSPECTOR'S TEST CONN. w/ RELIEF VA. - RUN TO DRAIN
15. BACKFLOW PREVENTER FULL-FLOW TEST CONNECTION
16. 6" FLANGED TEE - OUTLET FOR DOMESTIC WATER

GENERAL NOTES

SCOPE OF WORK

- NEW 2-STORY STEM FACILITY PROTECTED THROUGHOUT WITH FIRE PROTECTION AS FOLLOWS:
 - TOTAL SQ.FT. = 62,548
 - 1ST FLOOR AREA "A" = 22,880 SQ.FT.
 - 1ST FLOOR AREA "B" = 22,831 SQ.FT.
 - 2ND FLOOR = 16,821 SQ.FT.
 - WET SYSTEM TO BE INSTALLED THROUGHOUT BOTH LEVELS AS (1) SYSTEM - ALLOWABLE SQ.FT. NOT EXCEEDED
 - DRY SYSTEM TO BE INSTALLED IN THE LOADING DOCK
- DESIGN PER NFPA #13, 2013 EDITION FOR THE FOLLOWING OCCUPANCIES:
 - GENERAL AREAS - NFPA #13, SECTION A.5.2 LIGHT HAZARD
 - MECHANICAL / ELECTRICAL / UTILITY AREAS - NFPA #13, SECTION A.5.3.1 ORDINARY HAZARD GROUP I
 - LOADING DOCK AREA - NFPA #13, SECTION A.5.3.1 ORDINARY HAZARD GROUP I
 - SHOP AREAS - NFPA #13, SECTION A.5.3.2 ORDINARY HAZARD GROUP II
 - WAREHOUSE AREAS - NFPA #13, CHAPTER 16 RACK STORAGE OF CLASS I-W COMMODITIES
- SPRINKLER HEADS TO BE LOCATED IN THE CENTER OF SQUARE / AT QUARTER POINT OF RECTANGULAR CEILING TILES
- HANGER MATERIALS / SPACING MEETING NFPA #13
- SEISMIC BRACE HANGERS - NOT REQUIRED
- WATER FLOW SWITCH / TAMPER SWITCH / PRESSURE SWITCHES / ELECTRIC BELLS WILL BE INSTALLED - WIRING BY FA CONTRACTOR
- UNDERGROUND WATER MAINS - NOT IN CONTRACT (INSTALLED BY OTHERS)

OCCUPANCY / DESIGN CRITERIA AND SPECIAL COMPONENTS

- OCCUPANCIES: LIGHT HAZARD / ORDINARY HAZARD GROUP I & II / STORAGE
- LIGHT HAZARD DESIGN:
 - VARIOUS AREAS - 0.10 GPM/SQ.FT. OVER 1,500 SQ.FT. + 100 GPM HOSE
- ORDINARY HAZARD DESIGN:
 - MECHANICAL / ELECTRICAL / UTILITY AREAS - GROUP I 0.15 GPM/SQ.FT. OVER 1,500 SQ.FT. + 250 GPM HOSE
 - LOADING DOCK AREA - GROUP I 0.15 GPM/SQ.FT. OVER 1,950 SQ.FT. + 250 GPM HOSE (ENTIRE ROOM)
 - SHOP AREAS - 0.20 GPM/SQ.FT. OVER 1,500 SQ.FT. + 250 GPM HOSE
- STORAGE DESIGN:
 - WAREHOUSE AREAS - 0.30 GPM/SQ.FT. OVER 2,000 SQ.FT. + 500 GPM HOSE
 - ALLOWABLE TO UTILIZE DESIGN AREA REDUCTION PER NFPA #13, FIGURE 11.2.3.2.3.1 FOR LIGHT AND ORDINARY HAZARD OCCUPANCIES
- SPRINKLER HEADS TO BE USED:
 - BRASS - 5.6K QUICK RESPONSE (QR) STANDARD COVERAGE UPRIGHT (MISC. AREAS)
 - BRASS - 5.6K STANDARD RESPONSE (SR) STANDARD COVERAGE UPRIGHT (LOADING DOCK)
 - BRASS - 8.0K STANDARD RESPONSE (SR) STANDARD COVERAGE (SC) UPRIGHT (WAREHOUSE AREAS)
 - WHITE - 5.6K QUICK RESPONSE (QR) STANDARD COVERAGE (SC) SEMI-RECESSED PENDENT (MISC. AREAS)
 - WHITE - 8.0K QUICK RESPONSE (QR) EXTENDED COVERAGE (EC) SEMI-RECESSED PENDENT (MISC. AREAS)
- SPRINKLER HEAD SPACING:
 - LIGHT HAZARD AREAS (STANDARD COVERAGE) - 225 SQ.FT. MAX. PER SPRINKLER
 - LIGHT HAZARD AREAS (EXTENDED COVERAGE) - 324 SQ.FT. MAX. PER SPRINKLER (18'x18')
 - ORDINARY HAZARD AREAS - 130 SQ.FT. MAX. PER SPRINKLER
 - STORAGE AREAS (WAREHOUSE) - 100 SQ.FT. MAX. PER SPRINKLER

INSTALLATION METHODS:

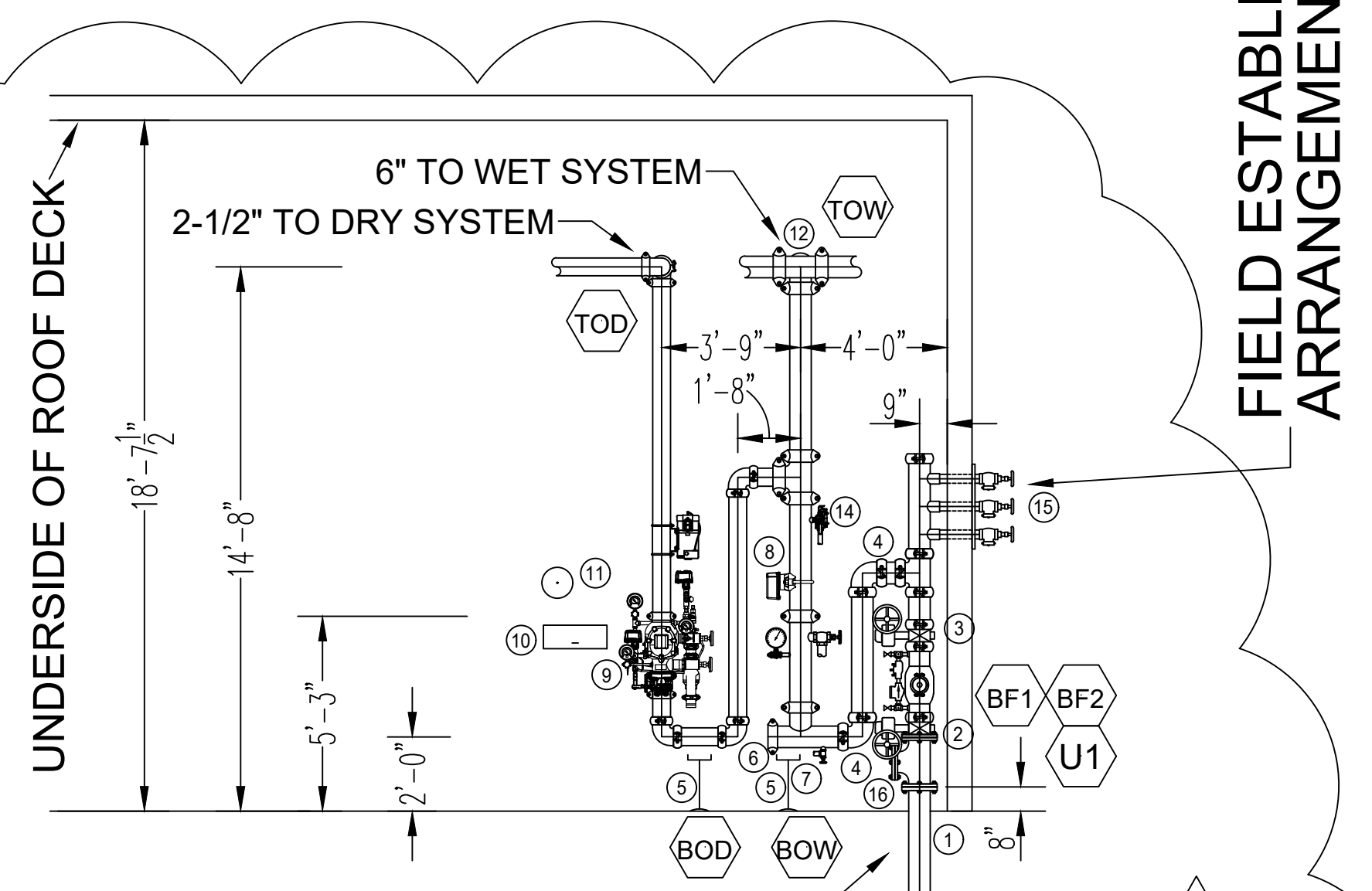
- ALL MATERIALS / INSTALLATION METHODS WILL COMPLY WITH NFPA #13, 2013 EDITION AND MANUFACTURED FOR 175-PSI WORKING PRESSURE. SYSTEM PIPING TO BE TESTED @ 200-PSI FOR 2-HOURS
- WET SYSTEM CROSSMAIN PIPE - BLACK STEEL PIPE, UTILIZING PAINTED GROOVED COUPLINGS AND FITTINGS
- WET SYSTEM BRANCHLINES - BLACK STEEL PIPE, UTILIZING PAINTED GROOVED FITTINGS & COUPLINGS / OR THREADED FITTINGS
- SPRINKLER HEAD RETURN BENDS TO UTILIZE 1" PIPE & THREADED FITTINGS AND / OR FLEXIBLE DROPS - SEE DETAIL ON FP DRAWINGS
- DRY SYSTEM CROSSMAIN PIPING - GALVANIZED STEEL PIPE, UTILIZING PAINTED GROOVED COUPLINGS AND FITTINGS
- DRY SYSTEM BRANCHLINES - GALVANIZED STEEL PIPE, UTILIZING THREADED FITTINGS

MATERIALS:

- PIPE:
- WET SYSTEM CROSS-MAINS = BLACK STEEL SCHEDULE #10
 - WET SYSTEM BRANCHLINES = BLACK STEEL SCHEDULE #10 & #40
 - DRY SYSTEM CROSS-MAINS = GALVANIZED STEEL SCHEDULE #10
 - DRY SYSTEM BRANCHLINES = GALVANIZED SCHEDULE #40
- SPRINKLER HEADS:
- BRASS - 5.6K QUICK RESPONSE (QR) STANDARD COVERAGE UPRIGHT (MISC. AREAS)
 - BRASS - 5.6K STANDARD RESPONSE (SR) STANDARD COVERAGE UPRIGHT (LOADING DOCK)
 - BRASS - 8.0K STANDARD RESPONSE (SR) STANDARD COVERAGE (SC) UPRIGHT (WAREHOUSE AREAS)
 - WHITE - 5.6K QUICK RESPONSE (QR) STANDARD COVERAGE (SC) SEMI-RECESSED PENDENT (MISC. AREAS)
 - WHITE - 8.0K QUICK RESPONSE (QR) EXTENDED COVERAGE (EC) SEMI-RECESSED PENDENT (MISC. AREAS)
- GROOVED FITTINGS:
- 125 LB. DUCTILE IRON PAINTED FLEXIBLE GROOVED COUPLINGS & FITTINGS
- THREADED FITTINGS:
- 125 LB. DUCTILE AND MALLEABLE IRON
- HANGERS:
- TOP BEAM CLAMP, ALL THREAD ROD AND HANGER RING COMPONENTS (HANGER #10) - SPACING PER NFPA #13
- BACKFLOW PREVENTER:
- DOUBLE CHECK DETECTOR BACKFLOW PREVENTER (LOCATED AT RISERS)
- CONTROL VALVES:
- BUTTERFLY VALVES OR OS&Y GATE VALVES w/ TAMPER SWITCHES
- WET RISER:
- SHOT-DOWN w/ NO VALVES
- DRY RISER:
- DRY RISER ASSEMBLY w/ ALARM TRIM AND RISER MOUNT AIR COMPRESSOR
- ALARM DEVICES:
- WATER FLOW SWITCH / TAMPER SWITCH / PRESSURE SWITCHES / 120-V ELECTRIC BELLS w/ WEATHERPROOF BOX
- FIRE DEPT. CONN.:
- MEET LOCAL FIRE DEPARTMENT REQUIREMENTS

WATER SUPPLY:

- 6" / 10" CITY MAIN ADJACENT TO FACILITY IN LABORATORY SCIENCES DR.
 - ALL UNDERGROUND WATER MAINS & INSTALLATION BY OTHERS
 - FIRE DEPARTMENT CONNECTION TO BE LOCATED ON THE FACE OF BUILDING - SEE 1ST FLOOR AREA "A" FOR LOCATION
- WATER FLOW DATA:
- STATIC - 72 PSI
 - RESIDUAL - 49 PSI
 - GPM FLOW - 1,593 GPM
 - TEST DATE - 10/31/18
 - ELEVATION - 645 FT. (FACILITY LOWER LEVEL IS AT 650 FT.)
 - LOCATION - ON 6" CITY MAIN AT INTERSECTION OF LABORATORY SCIENCES DR. / INSTRUCTIONAL SERVICES CT.



6" UNDERGROUND WATER LINE LEAD-IN
SEE SITE PLAN FOR CONTINUATION
SEE 1ST FLOOR AREA "A" FOR FDC LOCATION

DESIGN NOTE

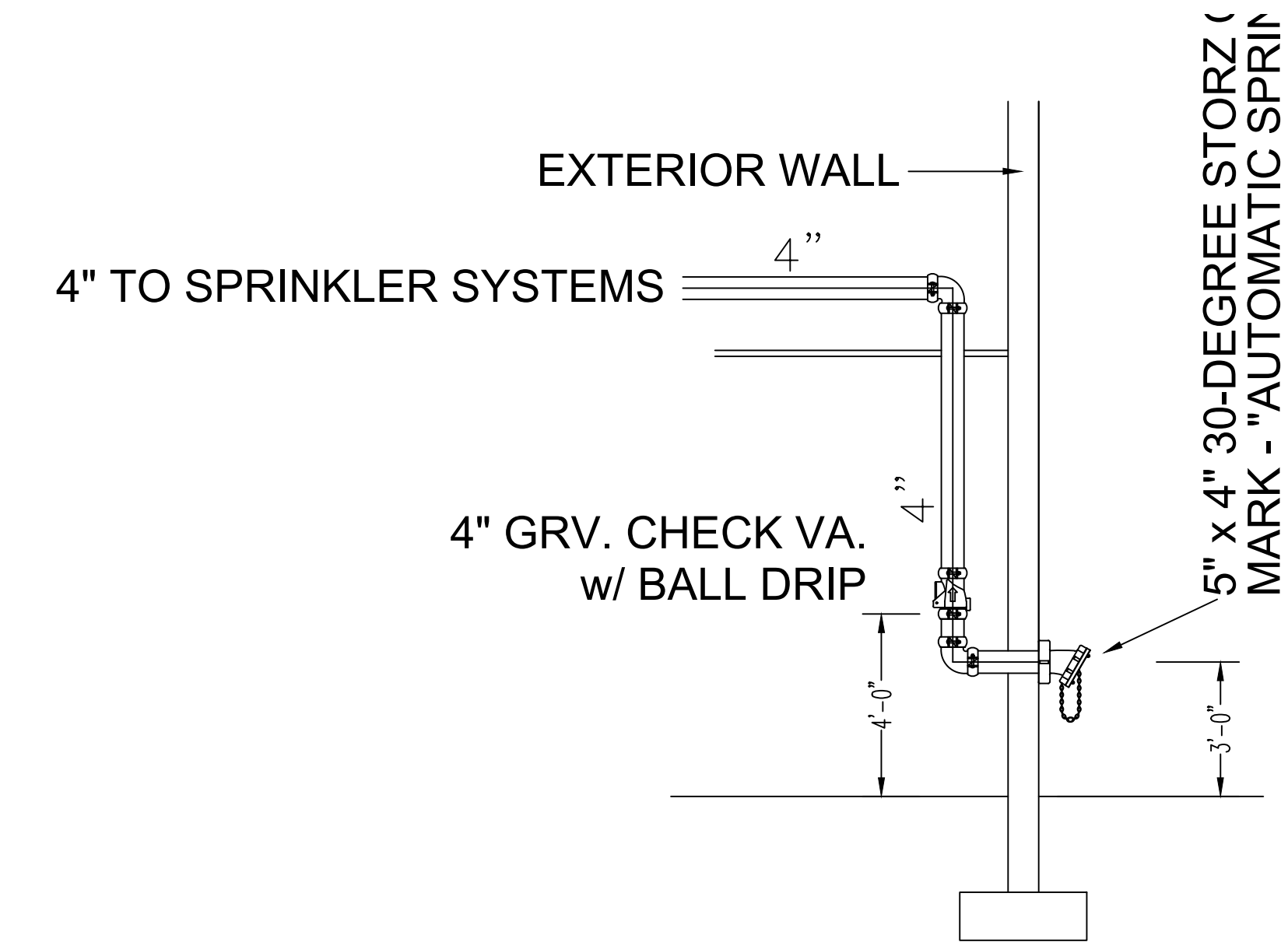
RISER PIPING CONFIGURATION IS TO ALLOW WET PIPE SYSTEM TO SUPPLY AUXILIARY DRY PIPE SYSTEM PER NFPA #13, SECTION 7.1.3

RISER DETAIL

SCALE: 1/4" = 1'-0"

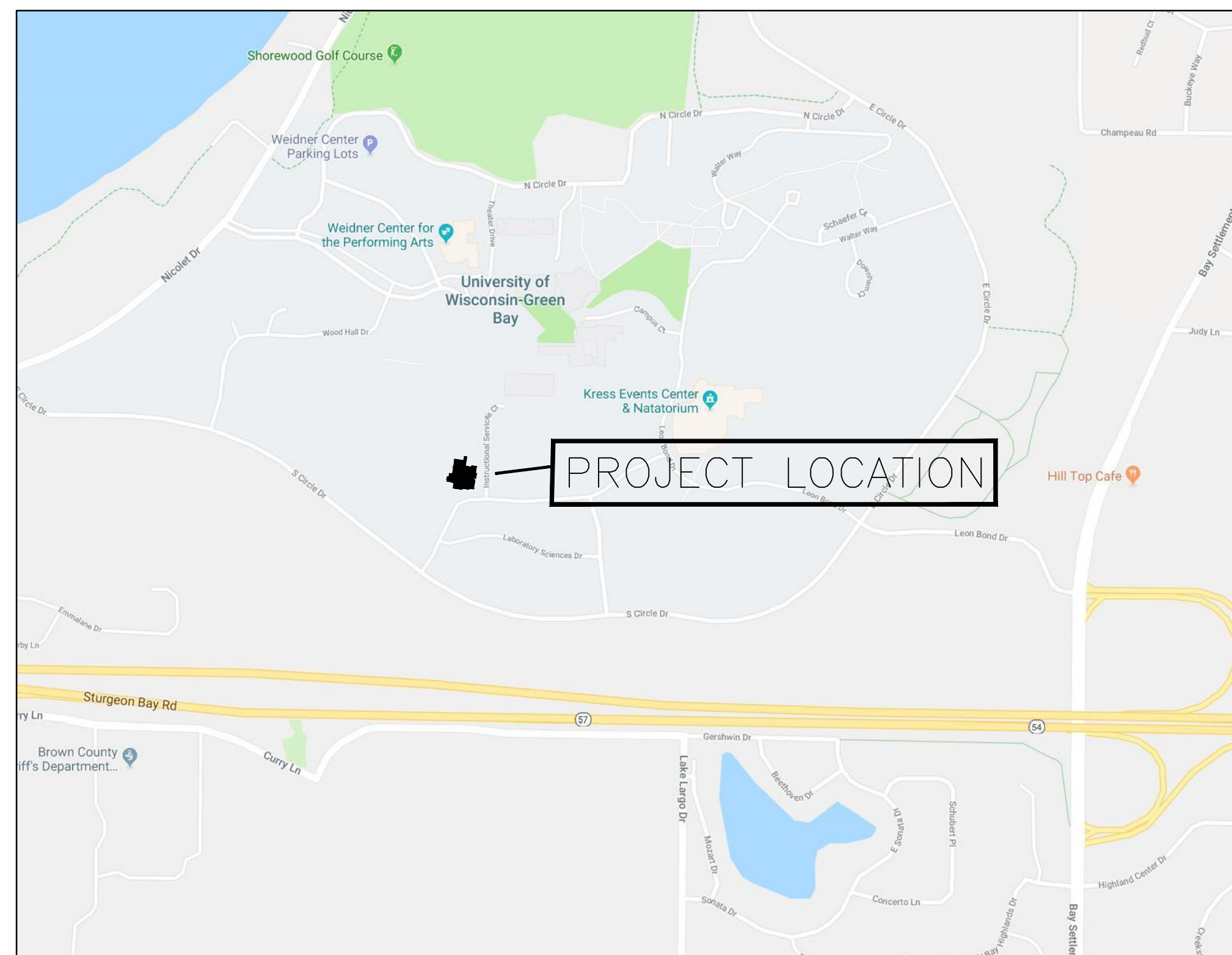
FIELD ESTABLISH SUITABLE ARRANGEMENT & LOCATION

1



FIRE DEPARTMENT CONNECTION
NO SCALE

FIRE DEPARTMENT CONNECTION SERVES ENTIRE BUILDING - ALL SYSTEMS SEE DETAILS THIS SHEET FOR CONT.



FLOW TEST RESULTS:

DATE OF FLOW TEST	10/31/18
NUMBER OF PORTS	1
PORT DIAMETER	4"
PITOT PRESSURE (PSI)	20 PSI
STATIC PRESSURE (PSI)	72 PSI
RESIDUAL PRESSURE (PSI)	49 PSI
GPM FLOW	1,593 GPM
APPROX. ELEVATION	645 FT.
LOWER LEVEL FLOOR ELEVATION	650 FT.

FIRE PROTECTION SHEET INDEX

FP-1 OF 5	SITE PLAN / GENERAL NOTES / DETAILS
FP-1 OF 5	FIRST FLOOR AREA "A"
FP-3 OF 5	FIRST FLOOR AREA "B"
FP-4 OF 5	SECOND FLOOR
FP-5 OF 5	DETAILS AND SECTIONS