

<u>Division 21 – Fire Suppression</u>

Preface

The Texas Tech University System's '<u>Design and Construction Standards</u>', as administrated by Facilities Planning and Construction, are intended T

Division 21 - Fire Suppression

-nstall !ire risers and !ire #um#s \$i! re (uired% in a dedicated !ire #um# room'

*t the end o! the one1year) arranty #eriod, the Fire Su##ression contractor shall execute a documented annual ins#ection, acce#table to the com#onent -nstitution Fire " arshall's 3!!ice,) ithout change in the Contract amount' The -ns#ection !orm shall be !illed out in tri#licate and submitted to the com#onent -nstitution Fire " arshall's 3!!ice and TTUS Facilities Planning and Construction'

This section encom#asses and #rovides general re(uirements !or ball valves, butter!ly valves, chec/

and F " 8 lobal standard !or indicating valves \$ball ty#e%, Class 7 umber 1116' *ctuators can be) orm gear o! traveling nut' Su#ervisory s) itch to be internal or external de#endent on valve', nd connections !or valves to be threaded ends'

Butterfly valves with indicators Per U> 1?F1 1 2ron4e body) ith minimum #ressure rating o! 1G; #sig, !ull #ort si4e, , P " seats, stainless steel stems and disc, and F " 8 lobal standard !or indicating valves \$butter!ly ty#e%, Class 7 umber 1116' *ctuators can be) orm gear o! traveling nut' Su#ervisory s) itch to be internal or external de#endent on valve', nd connections !or valves to be threaded ends'

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To be develo#ed'

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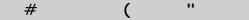
Underground #i#ing to be CF?? PCC or C1;1 ductile iron) ater #i#e' Underground #i#ing under !ootings and #enetrating !looring to be Class =?? * 9 9 * C1;1 ductile iron) ater #i#e or F " a##roved stainless steel s#igot assembly'

\$ %

To be develo#ed'

& " '

^{* !}ire de#artment connection) ill be #rovided !or each building and located as directed by the 3) ner and the com#onent -nstitution Fire " arshal's 3!!ice' S#eci!y the !ire de#artment connection to be either) all mounted !lush ty#e or F?1degree side) al/ ty#e de#ending on #rolect location' Side) al/ ty#e) ill be mar/ed) ith a F C mar/ing sign and a metal sign



*boveground #i#ing !or) et systems to be schedule <? blac/ steel #i#ing con!orming to *ST " *; = installed) ith a##roved scre) ed, grooved, !langed, and) elded !ittings' Schedule <? galvani4ed #i#e) ill be re (uired !or dry systems and #re1action systems' Com#ly) ith a##licable governing regulations and industry standards' Pi#ing shall be domestically manu!actured' *II non1galvani4ed blac/ steel #i#ing used in) ater1based !ire #rotection systems shall be #rovided) ith an antimicrobial coating designed to inhibit the gro) th o! microbiologically in!luenced corrosion \$ " -C%' The use o! thd

Fire su##ression #i#ing is not allo) ed in - F0 " F rooms, elevator machine rooms, and electrical rooms exce#t) here serving that s#eci!ic room'

For #endant heads in !inished ceilings, s#eci!y) hite concealed s#rin/ler heads) ith round cover #lates Unless a##roved other) ise by the FP5C Prolect " anager' *II s#rin/ler heads are to be installed center o! the tile, unless a##roved other) ise' 3ther #endent s#rin/ler head o#tions) ill only be allo) ed i! a##roved by the com#onent -nstitution Fire " arshall'

F " a##roved !lexible dro# connections are allo) ed !or center o! tile a##lications only'

Fire #rotection design !or each system should include a 11inch ins#ector's test) ith a smooth bore corrosion resistant ori!ice giving a !lo) e (ual to one s#rin/ler o! a ty#e having the smallest I1!actor installed on the system' -ns#ector's test should be located at the most accessible remote location', ach system shall include a 6A main drain) ith gauges !or the dual #ur#ose o! draining the entire s#rin/ler system and !or conducting !uture main drain test'

System #i#ing and com#onents) ill be hydrostatically tested #er 7FP* 1= re(uirements' * Il aboveground and underground #i#e 958493(I)4.19225(e)07(c)-0.9 anec co boiallin tyom'

0.59025187(I)108.957(a)0.58959.08 Tdc[(-18.90

- *rrange the !ire #um# !or manual sto# only' *ccording to FM Global Data Sheet !"# the !ire #um# should be arranged to automatically start as !ollo) si
 - 1' The loc/ey #um# start #oint e (uals the #um# #ressure at churn \\$4ero !lo) \\$ #lus the maximum static #um# suction #ressure #lus; #si
 - 6' The loc/ey #um# sto# #oint is 1? #si more than the loc/ey #um# start #oint'
 - =' The !ire #um# start #oint is ; to 1? #si less than the loc/ey #um# start #oint'