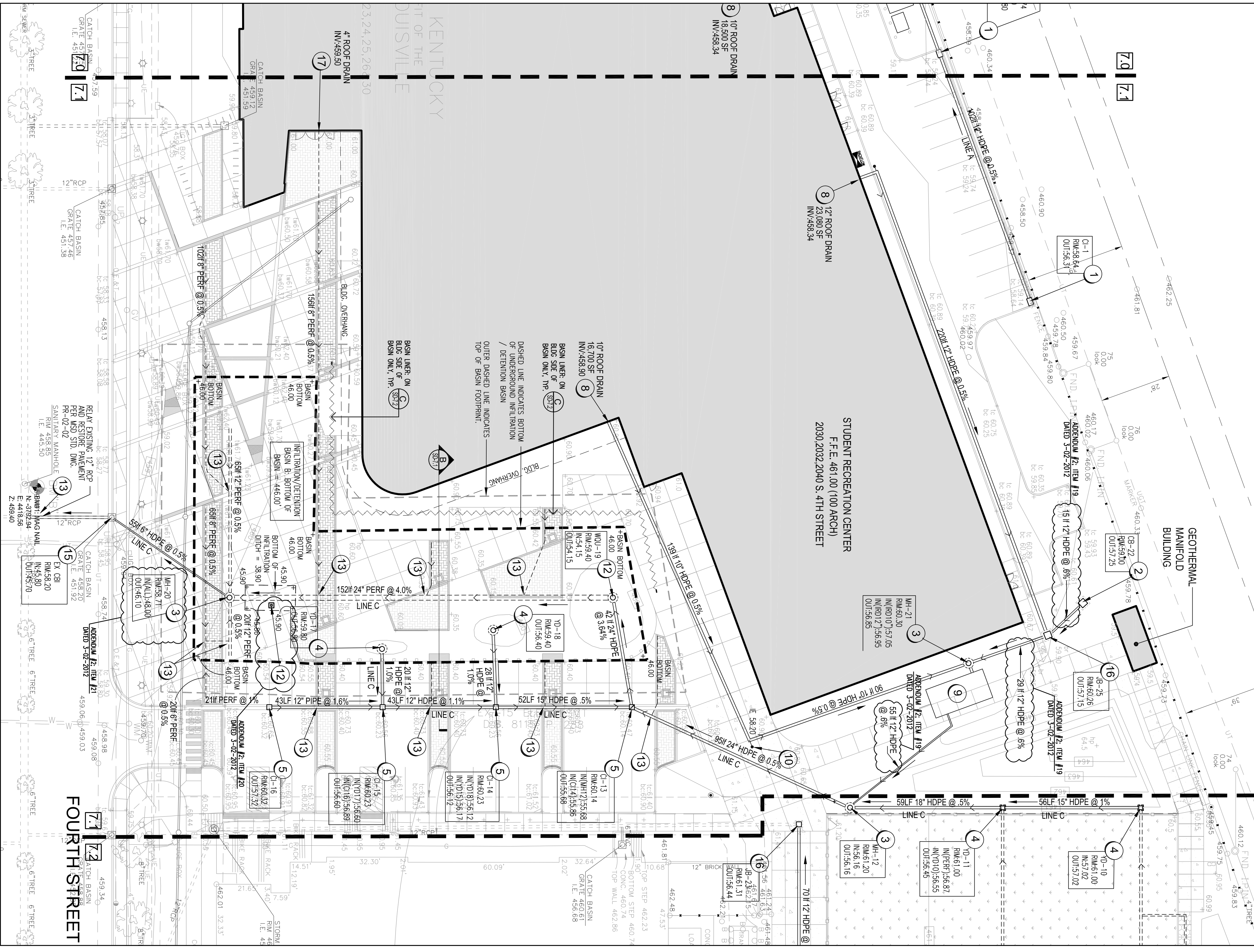


(EAST) MSD PIPE CHART

LINE NO.	LINE TYPE	START STA.	END STA.	DIAMETER	SLOPE	INVERT	OUTLET	REMARKS
1	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
2	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
3	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
4	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
5	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
6	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
7	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
8	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
9	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
10	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
11	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
12	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
13	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
14	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
15	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
16	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
17	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN
18	12" HOPE	460.34	460.34	12"	0.5%	459.89	460.34	12" ROOF DRAIN

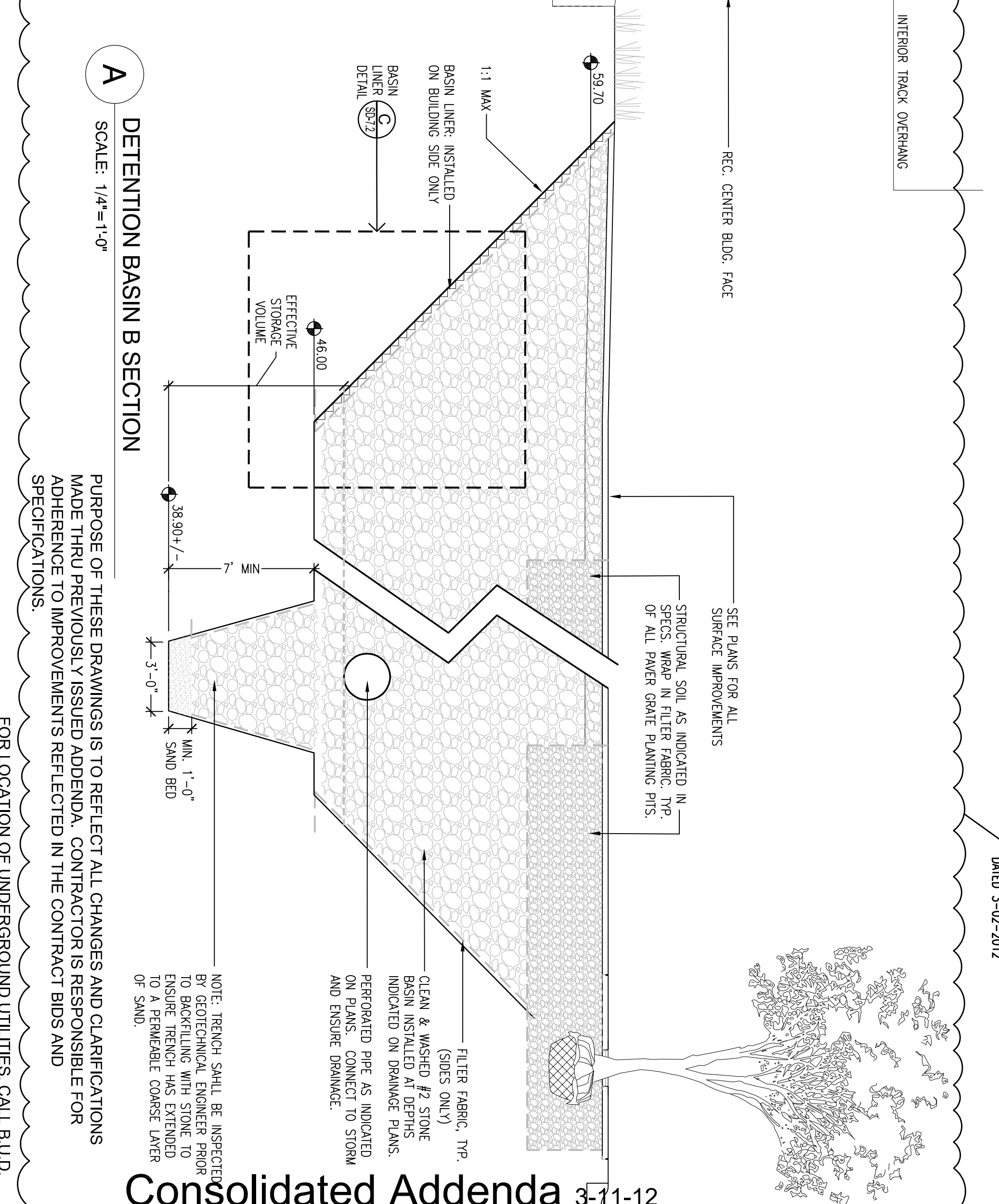


DRAINAGE PLAN

SCALE: 1"=20'-0"

- GRADING & DRAINAGE NOTES**
1. ALL SPOT ELEVATIONS INDICATE FINISH GRADE OF SURFACE. ADJUSTMENTS MUST BE MADE TO ESTABLISH GRADES OF SUB-BASE OR SUBGRADE. SPOT ELEVATIONS ARE INCLUSIVE OF ANY LANDSCAPE MULCH REQUIRED.
 2. PRIOR TO CONSTRUCTION OR REMEDIATION, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF ALL EXISTING UTILITIES SO THAT NEW CONSTRUCTION WILL NOT DAMAGE OR INTERFERE WITH EXISTING UTILITIES. THE CONTRACTOR'S EXPENSE. FINISHED GRADES OR ELEVATIONS SHALL BE THE RESPONSIBILITY OF THE OWNER.
 3. ALL EXCESS EXCAVATED MATERIAL OTHER THAN TOPSOIL IS TO BE REMOVED FROM THE SITE.
 4. UNLESS OTHERWISE NOTED, ALL TREES AND VEGETATION SHALL BE PROTECTED DURING CONSTRUCTION. ALL ROOTS OF EXISTING TREES TO BE SAVED. NO BURNING ON SITE.
 5. BEFORE STARTING SITE EXCAVATION, CONTRACTOR SHALL STAKE ANY TOPSOIL FROM DEVELOPED PORTIONS OF THE SITE. CONTRACTOR SHALL STORE AND PROTECT THIS TOPSOIL IN ALL FINISHED GRADE AREAS. BANK FILLING CURBS, SIDEWALKS, ETC. SHALL BE CONSTRUCTED TO PROTECT THIS TOPSOIL.
 6. CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES TO PREVENT SOIL EROSION AND SEDIMENTATION. EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT CONSTRUCTION.
 7. CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES TO PREVENT SOIL EROSION AND SEDIMENTATION. EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT CONSTRUCTION.
 8. MINIMUM 12" CRUSHED STONE BACKFILL OTHER STORM PIPING. STORM PIPING UNDER PAVED SURFACES TO BE BACKFILLED FULL DEPTH WITH CRUSHED STONE.
 9. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO VERIFY IF ROCK EXCAVATION FOR MASS GRADING OR FOUNDATION EXCAVATION IS NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR ROCK EXCAVATION.
 10. IT IS THE DESIGN INTENT FOR ALL WATER TO BE DIRECTED AWAY FROM THE PROPOSED AND EXISTING BUILDINGS.
 11. IT IS THE DESIGN INTENT FOR ALL WATER TO BE DIRECTED AWAY FROM THE PROPOSED AND EXISTING BUILDINGS.
 12. BORROWED FILL MATERIALS ARE TO BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO USE ON THIS SITE.
 13. ALL EXCAVATIONS SHALL BE PROTECTED FROM THE STORM PIPING WITH THE CONTRACTOR HAS SELECTED.
 14. ALL EXCAVATIONS SHALL BE PROTECTED FROM THE STORM PIPING WITH THE CONTRACTOR HAS SELECTED.
 15. IF ANY EXISTING ASBESTOS COATED SEWER LINE IS UNDETECTED, IT WILL REQUIRE ADEQUATE REMEDIATION WITH LOCAL, STATE AND/OR FEDERAL AGENCIES. CONTRACTOR SHALL NOTIFY UNIVERSITY HEALTH & ENVIRONMENTAL WORKS STANDARDS.
 16. ALL CONSTRUCTION AND MATERIALS INSTALLED WITHIN THE RIGHT-OF-WAY SHALL COMPLY WITH METRO PUBLIC WORKS STANDARDS.
 17. CONTRACTOR SHALL VERIFY PROPOSED GRADES AND SLOPES MEET APPLICABLE CODE COMPLIANCE. CONTACT CHAIRMAN OF THE OPEN AND DISSEMINATION.

- COORDINATES**
- | KEY | DESCRIPTION |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | SINGLE CURB INLET W/ SINGLE FRAME AND GRATE TYPE 1-A, MSD STD. DWG. # D1-01-02 D0-02-03 |
| 2 | CATCH BASIN TYPE 1, MSD STD. DWG. #DC-01-01 |
| 3 | PRECAST MANHOLE - TYPE 1 W/ STAINLESS FRAME & LID, MSD STD. DWG. #M-01-04, D4-05-03 |
| 4 | 18"x18" SAND DRAIN, MSD STD. DWG. #D0-08-01 |
| 5 | ROLLED CURB INLET BY METAL FOUNDRY OR ENGINEERED EQUAL, METAL R. #3001-1R |
| 6 | 8" PREPARED PIPE W/ SOCK, INSTALL WHERE INDICATED AT 5% MIN. SEE DRAWINGS FOR DIRECTION OF DRAINAGE. ENGINE POSITIVE DRAINAGE. |
| 7 | 8" PREPARED PIPE W/ SOCK, INSTALL WHERE INDICATED AT 5% MIN. SEE DRAWINGS FOR DIRECTION OF DRAINAGE. ENGINE POSITIVE DRAINAGE. |
| 8 | 12" HDPE 12" PIPE, AERIAL ROOF DRAIN AT MIN. 5% SLOPE. PROPOSED MIN. 12" CURB OVER PIPE & CONNECT TO STORM SYSTEM WITH WTC OR TIE FITTING. |
| 9 | RFD ALTERNATE #1 - 8" DIA WATER HANDLING JUNK REEFER TO RAIN WATER PERSISTING SHEET FOR ADDITIONAL INFORMATION. |
| 10 | CLEAN OUT |
| 11 | 0.5% WATER QUALITY UNIT OR ENGINEERED EQUIVALENT TO TREAT FIRST FLUSH VOLUME OF 0.999 AC-FT OR 0+1.1 CFS |
| 12 | 0.5% WATER QUALITY UNIT OR ENGINEERED EQUIVALENT TO TREAT FIRST FLUSH VOLUME OF 0.999 AC-FT OR 0+1.1 CFS |
| 13 | TIE OR WTC AND PIPE AS SHOWN WITH APPROVED FITTINGS |
| 14 | USE CAUTION AT UTILITY INTERSECTIONS. CONTRACTOR MAY NEED TO MODIFY UTILITIES. |
| 15 | EXISTING CURB BOX INLET |
| 16 | JUNCTION BOX TYPE B BY SERRAVALLO FRAME OR EQUAL, DWF# 555-584 |
| 17 | 8" HOPE INTERNAL ROOF GAIN AT MIN. 0.5% SLOPE. PROPOSED MIN. 12" COVER OVER PIPE & CONNECT TO STORM SYSTEM WITH WTC OR TIE FITTING. |
| 18 | INFILTRATION BASIN MONITORING WELL SEE DETAIL A / SD-7.2 |



A DETENTION BASIN B SECTION

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

PURPOSE OF THESE DRAWINGS IS TO REFLECT ALL CHANGES AND CLARIFICATIONS MADE THRU PREVIOUSLY ISSUED ADDENDA. CONTRACTOR IS RESPONSIBLE FOR ADHERENCE TO IMPROVEMENTS REFLECTED IN THE CONTRACT BIDS AND SPECIFICATIONS.

FOR LOCATION OF UNDERGROUND UTILITIES CALL B.U.D. 1-502-286-6123 (2) WORKING DAYS IN ADVANCE OF DIGGING

Consolidated Addenda 3-11-12

University of Louisville - Student Recreational Facility (Bid Phase #4)

100 % CD's
Louisville, Ky

SD-7.1

Drawing Name / Description	#	Revision Date
DRAINAGE PLAN	1	
U of L Project Number:	2	
A&E Project Number:	3	
Date:	4	JANUARY, 2012
Drawn By:	5	SDS
Checked By:	6	JLC / KLW

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