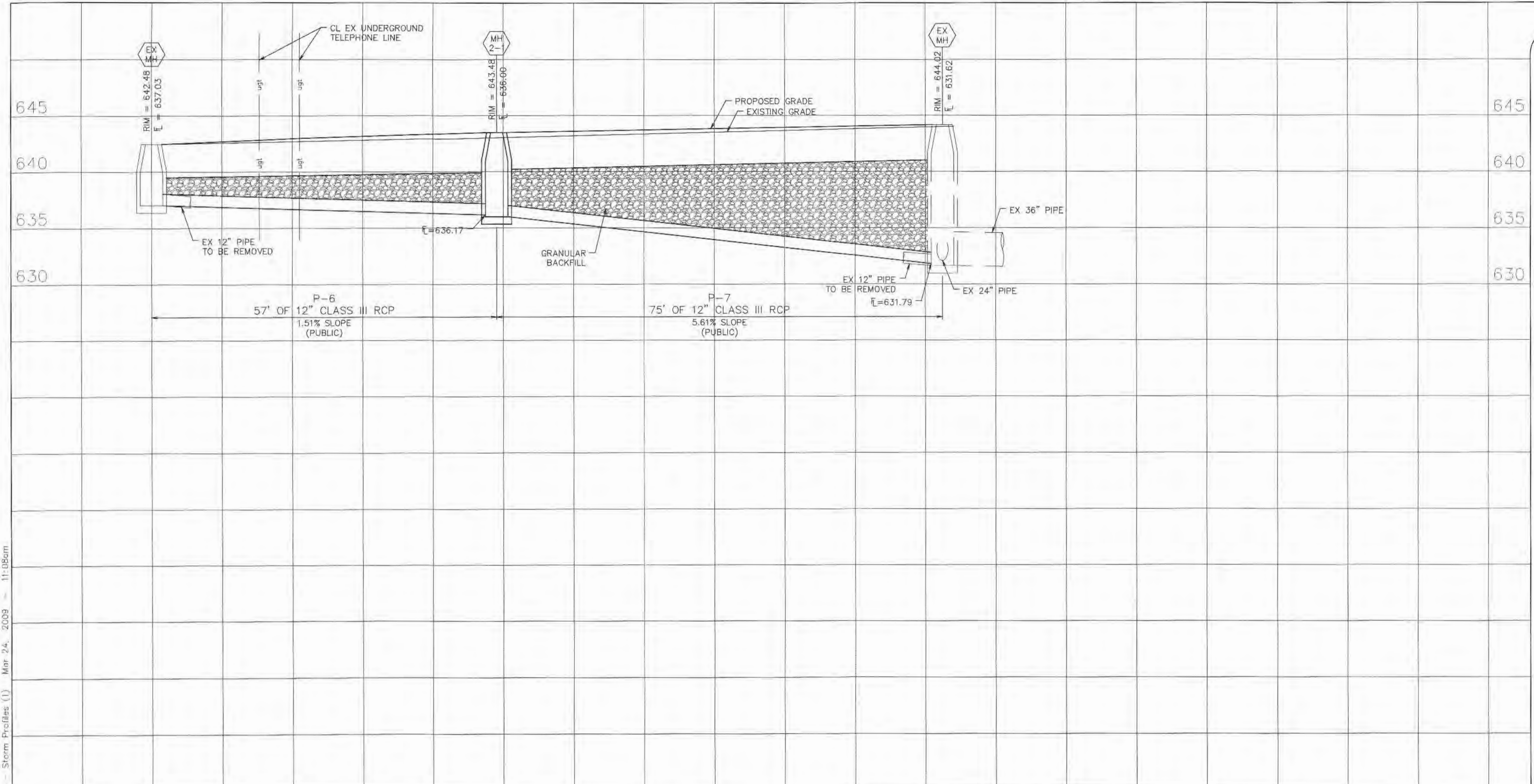


Z:\QuikTrip\06115_Store_657-Bryan and Felbe Survey\DWG\657_Base_Final_2009.dwg - Storm Profiles (1) Mnr 24, 2009 11:08am



STORMWATER HYDRAULIC CALCULATIONS - 15 YR, 20 MIN. DESIGN STORM

Pipe	Upstream Node	Downstream Node	Length (ft)	Total System Flow (cfs)	Full Capacity (cfs)	Section Size	Material	Manning's n	Constructed Slope (ft/ft)	Velocity In (ft/s)	Velocity Out (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Upstream Ground Elevation (ft)	Downstream Ground Elevation (ft)	Upstream Cover (ft)	Downstream Cover (ft)	Energy Grade Line In (ft)	Energy Grade Line Out (ft)	Hydraulic Grade Line In (ft)	Hydraulic Grade Line Out (ft)	Depth to Hydraulic Grade
P-5	CB 1-5	CB 1-4	57.0	0.420	3.73	12,000	PVC	0.010	0.0065	2.49	1.56	640.06	639.69	643.06	643.11	2.00	2.42	640.42	640.11	640.33	640.07	2.73
P-4	CB 1-4	CB 1-3	118.0	0.820	4.65	12,000	PVC	0.010	0.0101	3.00	2.29	639.69	638.50	643.11	642.75	2.42	3.25	640.21	639.05	640.07	638.96	3.04
P-3	CB 1-3	CB 1-2	47.0	1.210	6.04	12,000	PVC	0.010	0.0170	3.39	2.21	638.50	637.70	642.75	642.75	3.25	4.05	639.14	638.43	638.96	638.36	3.79
P-2	CB 1-2	MH 1-1	10.0	2.350	11.62	12,000	PVC	0.010	0.0630	4.30	8.12	637.70	637.07	642.75	643.67	4.05	5.60	638.64	638.49	638.36	637.47	4.39
P-1	MH 1-1	EX-AI	182.0	2.350	4.92	12,000	PVC	0.010	0.0113	4.30	2.99	637.07	635.02	643.67	642.22	5.60	6.20	638.01	636.41	637.73	636.27	5.94

* P-6 AND P-7 ARE REPLACEMENT PIPES, THEREFORE ADDITIONAL HYDRAULIC CALCULATIONS WERE NOT NECESSARY



GENERAL NOTES
UTILITY INSTALLATION CONSIDERATIONS
 AS POSSIBLE, ALL PROPOSED UTILITIES SHALL BE ROUTED THROUGH IMPERVIOUS AREAS SPECIFICALLY AVOIDING ON-SITE PAVED AREAS DESIGNATED FOR PARKING, ACCESS, AND VEHICULAR TRAFFIC FLOW.
 REFER TO THIS SHEET FOR LOCATION, AND SHEETS 1b AND 1c FOR TRENCHING, BACKFILL, AND PLACEMENT DETAILS.

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No.	Revision	Date
3	OWNER REVISIONS	3/24/09
1	CITY COMMENTS	9/20/07

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STORM PROFILES - 1

DRAWN BY: JJA	SHEET
DESIGNED BY: CDL	12
CHECKED BY: PJK	
ISSUE DATE: Mar 24, 2009	OF 27

SCALE:
 VERT: 1" = 5'
 HORIZ: 1" = 10'

DARDENNE PRAIRIE, MISSOURI
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