

Montgomery County

Specification Download Acknowledgement



Invitation to Bid

New Danville
Infrastructure Expansion
MCCD

Project # 24-18
PLANS

VENDORS MUST IMMEDIATELY RETURN THIS FORM BY EMAIL: purchasing@mctx.org

Vendor Responsibilities

- Vendors must download and complete any addenda
- Vendors must submit responses in accordance with requirements stated on cover of document
- Vendor must submit 1295 form with Bid/Proposal
Detailed information regarding 1295 can be found under item 49 in the attached Terms and Conditions.
Texas Ethics Commission website for 1295:
https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

For completing the 1295:

Contract ID: 5154

Description: Project #24-18

Montgomery County will not be responsible for inaccurate or incomplete specifications and/or addenda pertaining to any bid/proposal that is received electronically.

Legal Name of Contracting Company

Contact Person

Complete Mailing Address

Telephone Number

Email Address

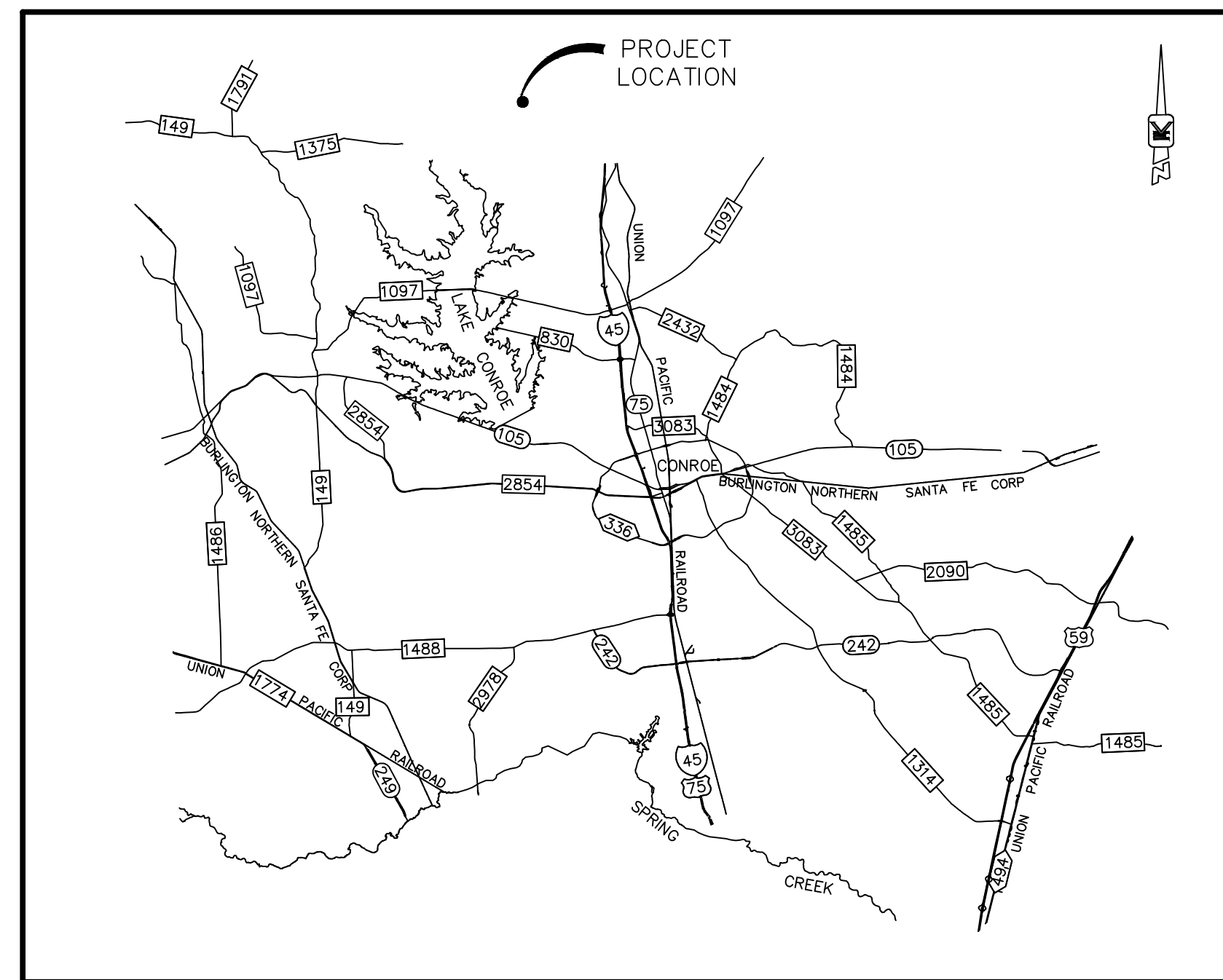
Signature

Date

CONSTRUCTION PLANS FOR NEW DANVILLE

WATERLINES, SANITARY SEWER, STORM SEWER, & DETENTION TO SERVE MEADOWBROOK RESIDENTIAL EXPANSION WITHIN MONTGOMERY COUNTY, TEXAS FEBRUARY 2024

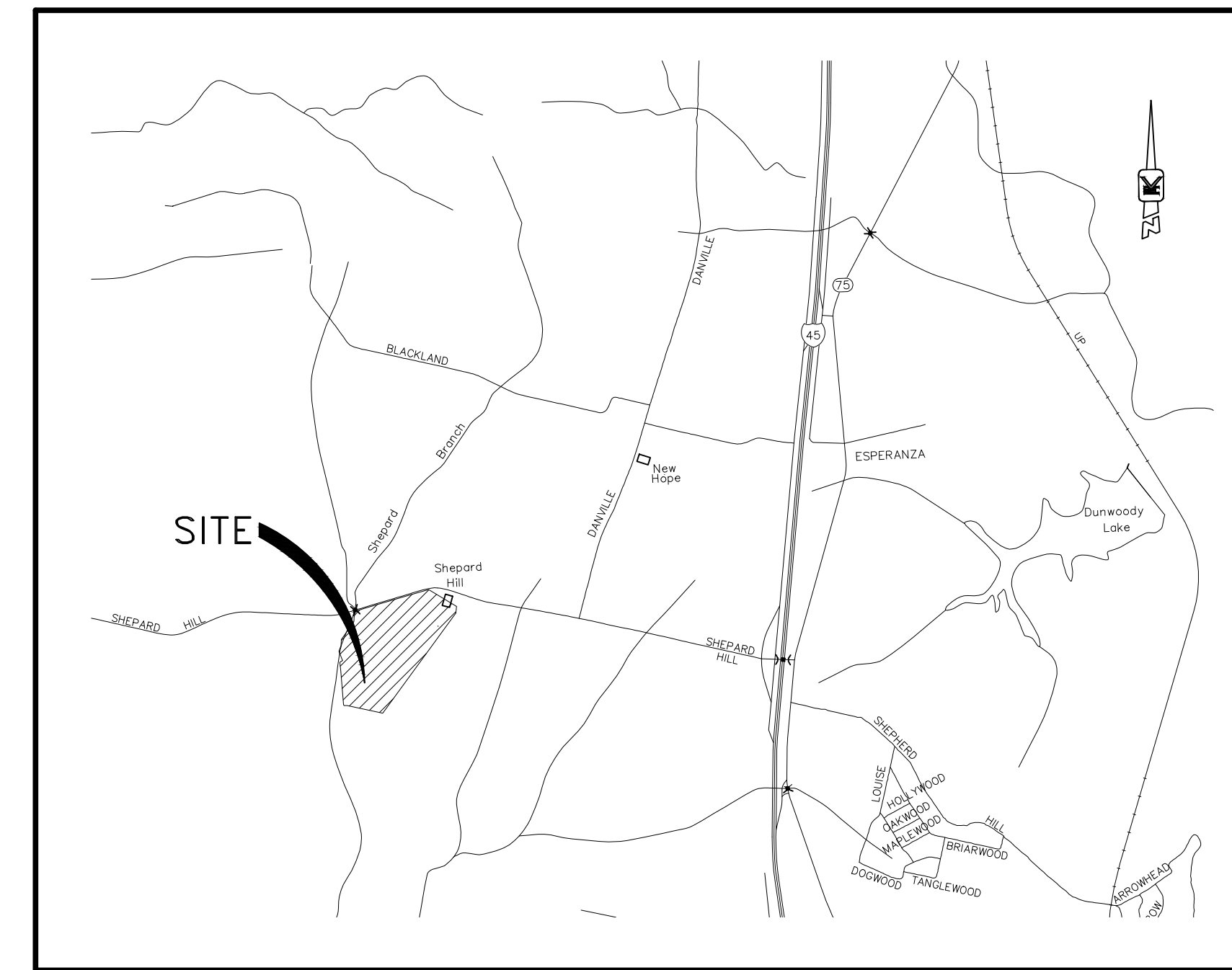
PREPARED FOR:
TEXAS NEW COMMUNITY ALLIANCE
10951 SHEPARD HILL RD
WILLIS, TX 77318



VICINITY MAP
(N.T.S.)

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MONTGOMERY COUNTY
KEYMAP NO. 96-M
(N.T.S.)

ONE-CALL NOTIFICATION SYSTEM
CALL BEFORE YOU DIG !!
(281)-970-0505
(New Statewide Number)
1-800-545-6005

THE CONTRACTOR SHALL NOTIFY MONTGOMERY COUNTY
AND TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
48 HOURS IN ADVANCE OF COMMENCING CONSTRUCTION

PREPARED BY

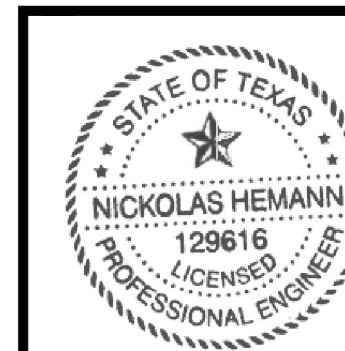


TEXAS BOARD OF PROFESSIONAL ENGINEERS FIRM REGISTRATION F-390

2203 Timberloch Pl., Suite 124
The Woodlands, Texas 77380
T 281.651.2972
www.vogtengineering.com
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NOTE:
THE SOURCE OF TOPOGRAPHIC SURVEY INFORMATION ON
THIS SHEET IS FROM SURVEYING BY:

SURVTECH
SURVEYORS
PLANNERS
PO BOX 1080 CONROE TX 77305/ 936-539-5444
SURVCORP.COM
TXBPLS No. 10005100



2024.02.09
13:08:32-06'00"

SHEET No: 01 OF 17

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TEXAS BOARD OF PROFESSIONAL ENGINEERS FIRM REGISTRATION F-390

CONSTRUCTION PLANS FOR
NEW DANVILLE
WITHIN MONTGOMERY COUNTY, TEXAS
FEBRUARY 2024

RESIDUE OF A
CALLED 6.364 ACRES
MELVIN R. MOORE & WIFE,
LATRICIA PETERSON MOORE
M.C.C.F. No. 9834989
O.P.R.O.R.P.M.C.T.

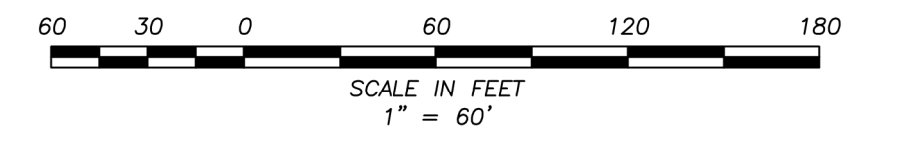
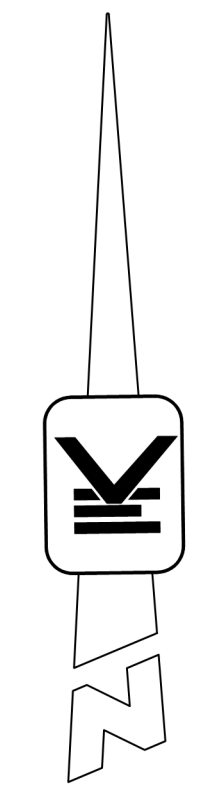
CALLLED 4.969 ACRES
MELVIN R. MOORE AND
LATRICIA A. PETERSON
M.C.C.F. No. 09511008
O.P.R.O.R.P.M.C.T.

CALLLED 2.75 ACRES
TIMOTHY CURRY &
FAYLA J. CHAMBERS
M.C.C.F. No. 2001-053107
O.P.R.O.R.P.M.C.T.

CALLLED 7.613 ACRES
ROBBINS FAMILY TRUST
M.C.C.F. No. 2003-008863
O.P.R.O.R.P.M.C.T.

CALLLED 48.46 ACRES
FLOYD A. NOVARK
VOL. 1162, PG. 600
D.R.M.C.T.

CALLLED 41.932 ACRES
(1,828,578 SQ. FT.)
TEXAS NEW COMMUNITY ALLIANCE NEW DANVILLE



EXISTING LEGEND:

- STORM SEWER
- SANITARY SEWER
- WATERLINE
- UNDERGROUND ELECTRIC
- OVERHEAD ELECTRIC
- DITCH FLOW DIRECTION
- HIGHBANK
- FIRE HYDRANT
- WATER METER
- WATER VALVE

FLOODPLAIN LEGEND:

- FLOODWAY
- 100 YEAR FLOODPLAIN
- 500 YEAR FLOODPLAIN

BENCHMARKS:

ELEVATIONS BASED ON NAVD 88 GEOID 18
TBM 5/8" IRS - IRON ROD SET, CAPPED "SURVTECH" LOCATED ON SUBJECT TRACT EAST OF THE POND.
EL: 249.35

FLOOD PLAIN INFORMATION:

A PORTION OF THE DETENTION LIE WITHIN THE 500 YEAR FLOODPLAIN AND IS IN ZONE X (SHADED) AS DELINEATED ON THE FEMA FIRM MAP FOR MONTGOMERY COUNTY PANEL NO. 48339C0225G, DATED AUGUST 18, 2014.

N:\448 New Danville\448-013 Meadowbrook Expansion\03 Drafting\Revisions\02 Existing Conditions.dwg Feb. 9, 24 by

NEW DANVILLE MEADOWBROOK EXPANSION	
EXISTING CONDITIONS	
VOGT ENGINEERING <small>TEXAS BOARD OF PROFESSIONAL ENGINEERS FIRM REGISTRATION F-395</small>	
FEBRUARY 2024	DRAWN BY JEO
	CHECKED BY NLH
	JOB NO. 448-013
	SCALE 1"=60'
ONE-CALL NOTIFICATION SYSTEM CALL BEFORE YOU DIG !! DIAL 811 or 1-800-344-8377 (HOUSTON: 713-432-0365) AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION	
<small>2024-02-09 13:09:04-06'00"</small>	SHEET 02 OF 17

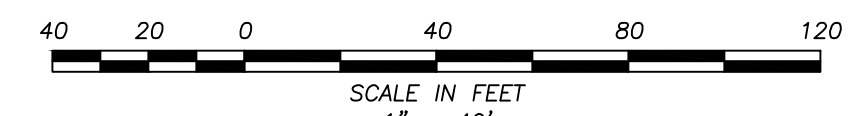
THE SOURCE OF SUPPLEMENTAL TOPOGRAPHIC AND EXISTING UTILITY INFORMATION ON THIS SHEET IS FROM:

SURVTECH
SURVEYORS & PLANNERS
"A Land Surveying Company"

P.O. BOX 1080 | CONROE, TEXAS 77385-1080
936.539.5444 | FAX 936.539.5442
EMAIL: SURVTECH@SURVTECH.COM
TSPER# No. 10005100

ONE-CALL NOTIFICATION SYSTEM
CALL BEFORE YOU DIG !!
DIAL 811 or 1-800-344-8377
(HOUSTON: 713-432-0365)
AT LEAST 48 HOURS BEFORE
PROCEEDING WITH ANY EXCAVATION

CALLED 23.819 ACRES
WILLIAM JOSEPH NOVAK
M.C.C.F. No. 2000-016260
O.P.R.O.R.P.M.C.T.



PROPOSED LEGEND:

- STORM SEWER
- SANITARY SEWER
- WATERLINE
- UNDERGROUND ELECTRIC
- DITCH FLOW DIRECTION
- HIGH BANK

EXISTING LEGEND:

- STORM SEWER
- SANITARY SEWER
- WATERLINE
- UNDERGROUND ELECTRIC
- OVERHEAD ELECTRIC
- DITCH FLOW DIRECTION
- HIGH BANK
- FIRE HYDRANT
- WATER METER
- WATER VALVE

CLEARING & EROSION CONTROL LEGEND:

- AREA TO BE CLEARED
- INLET PROTECTION BARRIER OR APPROVED SILT BARRIER EQUIVALENT
- STABILIZED CONSTRUCTION ENTRANCE (50' MINIMUM LENGTH OF TRAVEL)
- CONTINUOUS FILTER FABRIC FENCE (PLACE AT PRECISE EDGE OF CLEARED AREAS. SHOWN ON PLANS AS SLIGHTLY OFFSET OF CLEARING LINE FOR CLARITY ONLY.)
- TEMP RIVER ROCK FILTER

CLEARING & EROSION NOTES:

1. CONTRACTOR SHALL PROVIDE INLET PROTECTION FOR ALL EXISTING AND PROPOSED INLETS THAT ARE SUBJECT TO RUNOFF FROM SITE.
2. THE CONTRACTOR IS RESPONSIBLE TO IMPLEMENT AND MAINTAIN ALL EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS.
3. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED TO PREVENT SEDIMENT FROM LEAVING THE SITE AS CONSTRUCTION PROGRESSES.

BENCHMARKS:
ELEVATIONS BASED ON NAVD 88 GEOD 18
TBM 5/8" IRS - IRON ROD SET, CAPPED "SURVTECH" LOCATED ON SUBJECT TRACT EAST OF THE POND.
EL: 249.35

FLOOD PLAIN INFORMATION:
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NEW DANVILLE MEADOWBROOK EXPANSION
DIMENSION, CLEARING AND EROSION CONTROL PLAN

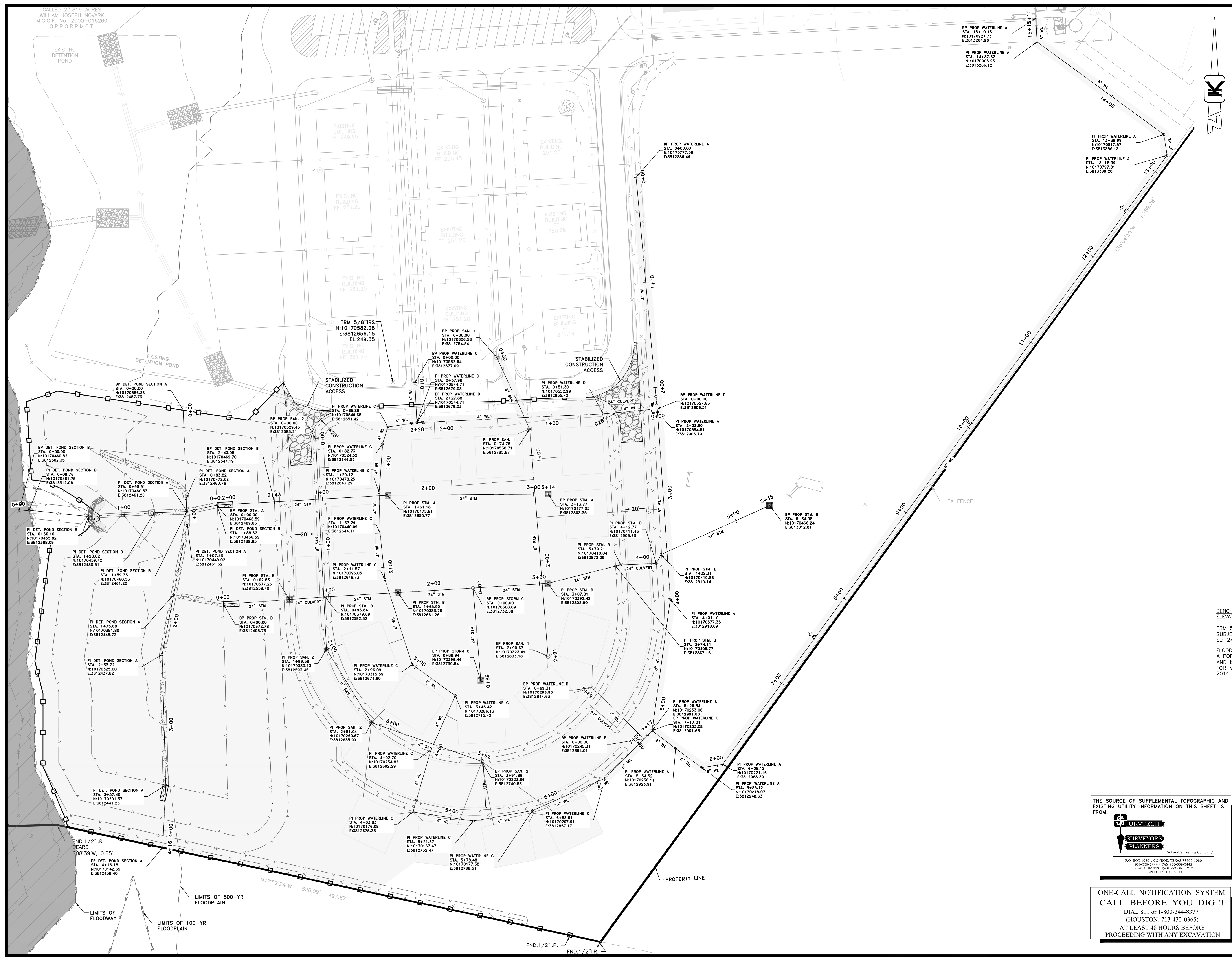
VOGT ENGINEERING
TEXAS BOARD OF PROFESSIONAL ENGINEERS FIRM REGISTRATION F-395

FEBRUARY 2024	DRAWN BY JEO
	CHECKED BY NLH
	JOB NO. 448-013
	SCALE 1"=40'
SHEET 03 OF 17	

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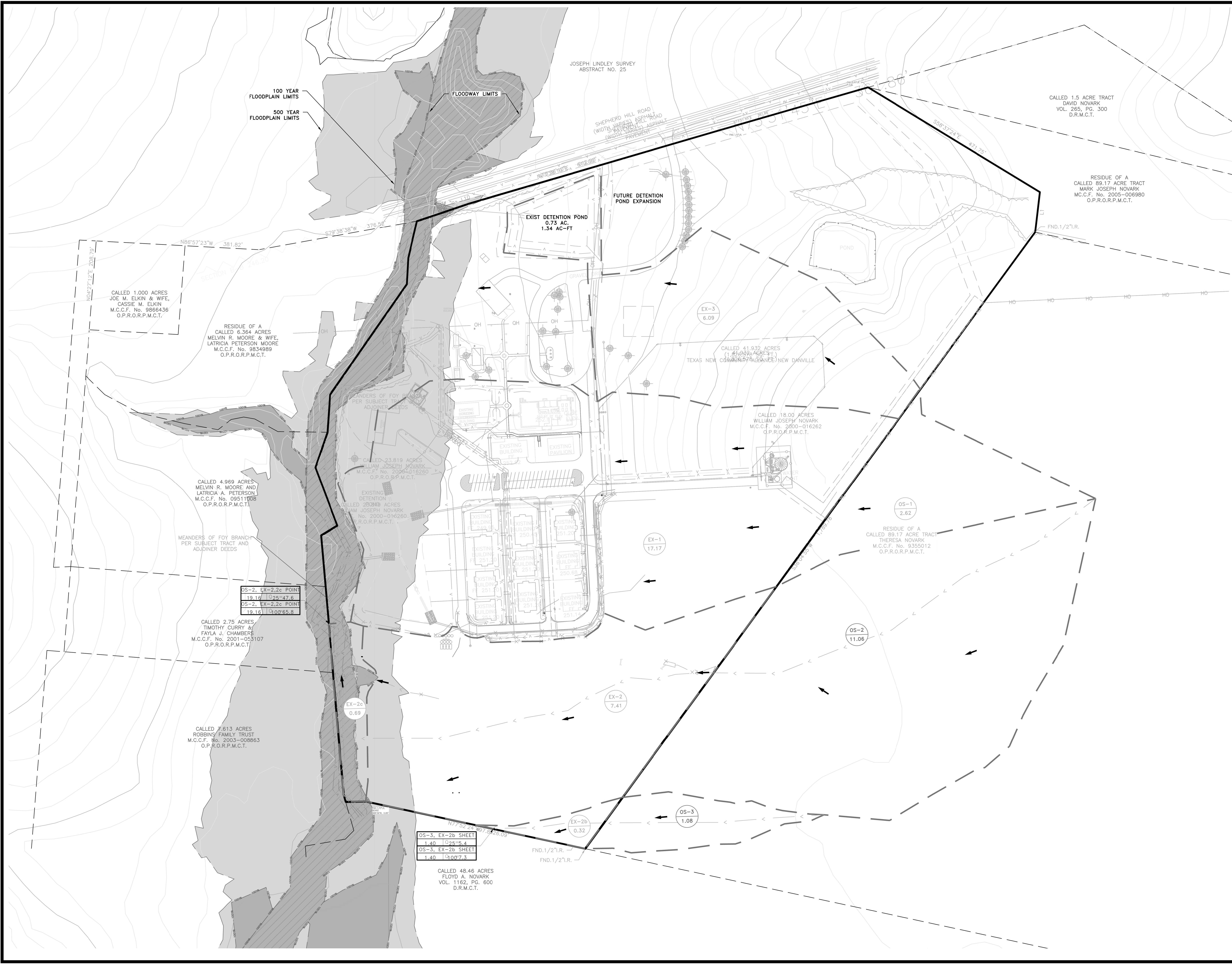
"A Land Surveying Company"
P.O. BOX 1090 • CONROE, TEXAS 77305-1090
936.539.8444 • FAX 936.539.8442
EMAIL: INFO@SURVTECHSURVEYING.COM
TRIPLE 8 No. 10095100

ONE-CALL NOTIFICATION SYSTEM
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(HOUSTON: 713-432-0365)
AT LEAST 48 HOURS BEFORE
PRECEDING WITH ANY EXCAVATION



N: \448 New Danville\448-013 Meadowbrook Expansion\03 DIM CONTROL & EROSION.dwg Feb. 9, 24 by

N:\448 New Danville\448-013 Meadowbrook Expansion\03 Drafting\Revisions\05 DA MAP.dwg Feb. 9. 24 by



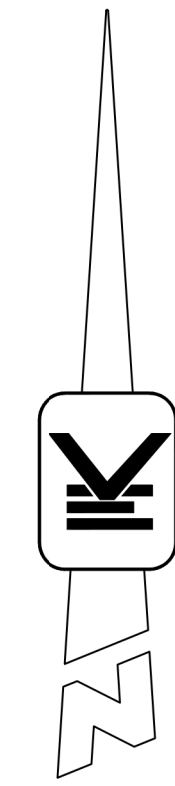
DRAINAGE LEGEND:

- AREA
- ACREAGE
- DRAINAGE AREA BREAK LINE
- EXTREME EVENT OVERFLOW
- DRAINAGE AREA NUMBERS
- TOTAL RUNOFF IN CFS STORM EVENT FREQUENCY TOTAL AREA IN ACRES
- SHEET FLOW DIRECTION

FLOODPLAIN LEGEND:

- FLOODWAY
- 100 YEAR FLOODPLAIN
- 500 YEAR FLOODPLAIN

NEW DANVILLE MEADOWBROOK EXPANSION	
PRE-DEV DA MAP	
VOGT ENGINEERING <small>TEXAS BOARD OF PROFESSIONAL ENGINEERS FIRM REGISTRATION F-395</small>	
FEBRUARY 2024	DRAWN BY JEO
	CHECKED BY NLH
	JOB NO. 448-013
	SCALE 1"=100'
SHEET 04 OF 17	



CALLED 41.932 ACRES
(1.814522 ACRES)
TEXAS NEW CONDOMINIUM SUBDIVISION NEW DANVILLE

CALLED 18.00 ACRES
WILLIAM JOSEPH NOVARK
M.C.C.F. No. 2000-016262
O.P.R.O.R.P.M.C.T.

BOUNDERS OF FLOYD BRANCH
SUBJECT TRACT AND
ADJOINER DEEDS

EXISTING
DETENTION
POND
CALLED 25.00 ACRES
WILLIAM JOSEPH NOVARK
M.C.C.F. No. 2000-016260
O.P.R.O.R.P.M.C.T.

RESIDUE OF A
CALLED 89.17 ACRE TRACT
THERESA NOVARK
M.C.C.F. No. 9355012
O.P.R.O.R.P.M.C.T.

OS-2, EX-2.2c POINT	OS-2, DA 1-3, 5-15, POND
19.16 0.25=47.6	19.35 0.25=34.2
OS-2, EX-2.2c POINT	OS-2, DA 1-3, 5-15, POND
19.16 100°65.8	19.35 100°45.1

EX-2c
0.69

POND
1.99

OS-3, EX-2b SHEET	OS-3, DA-4
1.40 0.25=5.4	1.26 0.25=4.9
OS-3, EX-2b SHEET	OS-3, DA-4
1.40 19.00°7.3	1.26 19.00°6.5

CALLED 48.46 ACRES
FLOYD A. NOVARK
VOL. 1162, PG. 600
D.R.M.C.T.

PROP 47 LF 24" HDPE
CULVERT @ 0.11%

PROP 34 LF 24" HDPE
CULVERT @ 1.49%

PROP 34 LF 24" HDPE
CULVERT @ 1.91%

OS-2
11.06

DA-1
1.37

DA-13
0.19

DA-11
0.26

DA-8
0.28

DA-5
0.18

DA-12
0.29

DA-9
0.27

DA-6
0.14

DA-10
0.24

DA-7
0.40

DA-2
0.68

DA-3
1.23

OS-3
1.08

DA-4
0.18

INLET DRAINAGE FLOW TABLES

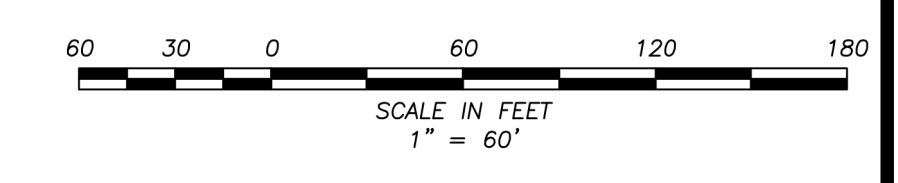
INLET-1 TYPE A	DA-8	0.28	Q ₂₅ =1.77
INLET-2 TYPE A	DA-9	0.27	Q ₂₅ =1.71
INLET-3 TYPE A	DA-10	0.24	Q ₂₅ =1.54
INLET-4 TYPE A	DA-11	0.26	Q ₂₅ =1.63
INLET-5 TYPE A	DA-12	0.29	Q ₂₅ =1.82
INLET-6 TYPE E	DA-1	11.47	Q ₂₅ =26.43
INLET-7 TYPE A	OS-2, DA-1	10.95	Q ₂₅ =16.01

FLOODPLAIN LEGEND:

- FLOODWAY
- 100 YEAR FLOODPLAIN
- 500 YEAR FLOODPLAIN

DRAINAGE LEGEND:

- AREA
- ACREAGE
- DRAINAGE AREA BREAK LINE
- EXTREME EVENT OVERFLOW
- STORM SEWER SYSTEM
- DRAINAGE AREA NUMBERS
- TOTAL RUNOFF IN CFS
STORM FREQUENCY
TOTAL AREA IN ACRES
- SHEET FLOW DIRECTION



**NEW DANVILLE
MEADOWBROOK EXPANSION**

POST-DEV DA MAP

VOGT ENGINEERING
TEXAS BOARD OF PROFESSIONAL ENGINEERS FIRM REGISTRATION F-395

2203 Timberbrook Pl., Suite 124
The Woodlands, Texas 77380
T 281.651.2972 F 281.651.2970
www.vogtengineering.com
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PROFESSIONAL ENGINEER

FEBRUARY 2024	DRAWN BY JEO
	CHECKED BY NLH
	JOB NO. 448-013
	SCALE 1"=60'
	SHEET 05 OF 17

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SURVEYORS
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"A Land Surveying Company"

P.O. BOX 1080 | CONROE, TEXAS 77385-1080
936.539.5444 | FAX 936.539.5442
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TSP#22 No. 10095100

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AT LEAST 48 HOURS BEFORE
PROCEEDING WITH ANY EXCAVATION

BENCHMARKS:
ELEVATIONS BASED ON NAVD 88 GEOD 18

TBM 5/8" IRS - IRON ROD SET, CAPPED "SURVTECH" LOCATED ON SUBJECT TRACT EAST OF THE POND.
EL: 249.39

FLOOD PLAIN INFORMATION:
A PORTION OF THE DETENTION LIE WITHIN THE 500 YEAR FLOODPLAIN AND IS IN ZONE X (SHADED) AS DELINEATED ON THE FEMA FIRM MAP FOR MONTGOMERY COUNTY PANEL NO. 48339C02256, DATED AUGUST 18, 2014.

N: \\448 New Danville\448-013 Meadowbrook Expansion\03 Drafting\Revisions\03 DA MAP.dwg Feb. 9, 24 by

CULVERT CALCULATIONS

CULVERT ID.	Drainage Areas Designation	Area (Ac)	Runoff Coefficient c	Time of Concentration (min.)	I25 (In./Hr.)	Q25 (cfs)	Reach Length (ft.)	Number of Culverts	Diam. (In.)	Pipe Area (sft.)	Hydraulic Radius (ft.)	Slope %	Manning's n	Fall (ft.)	Flowline Elevation Upstream (ft.)	Flowline Elevation Downstream (ft.)	Design Culvert Velocity (fps)	Change in Head (ft)	Elevation of Hyd. Grad. Upstream (ft)	Elevation of Hyd. Grad. Downstream (ft)	Top of Pavement	Top of Bank (ft)
CULVERT 1	OS-1, EX-1	5.28	0.18	21.92	6.72	7.03	47	1	24	3.14	0.50	0.11%	0.013	0.05	248.30	248.25	4.84	0.16	250.41	250.25	251.30	251.1
CULVERT 2	OS-2, DA-1	11.04	0.26	20.97	6.87	21.69	34	1	24	3.14	0.50	1.47%	0.013	0.50	247.30	246.80	9.14	1.43	250.23	248.80	250.00	249.8
CULVERT 3	OS-2, DA-2	7.22	0.30	13.92	8.33	19.85	34	1	24	3.14	0.50	1.91%	0.013	0.65	247.00	246.35	9.51	1.19	249.54	248.35	249.53	249.33
CULVERT 4	OS-2, DA-1, DA-2, DA-5, DA-6, DA-7, DA-13	10.64	0.32	24.73	6.32	23.67	34	1	24	3.14	0.50	1.85%	0.013	0.63	245.28	244.65	9.50	1.70	248.35	246.65	248.10	247.9

RAINFALL INTENSITY-DURATION-FREQUENCY COEFFICIENTS

Coefficient	10% (10-year)	4% (25-year)	1% (100-year)
e=	0.6752	0.6397	0.5857
b=	55.26	56.72	56.68
d=	7.3	6.12	4.46

DITCH CALCULATIONS

DITCH	DESIGNATIONS	DRAINAGE AREA	CUMULATIVE DRAINAGE AREA THROUGH DITCH	C	10-YR RAINFALL INTENSITY (in/hr)	25-YR RAINFALL INTENSITY (in/hr)	100-YR RAINFALL INTENSITY (in/hr)	10-YR DITCH FLOW Q (cfs)	25-YR DITCH FLOW Q (cfs)	100-YR DITCH FLOW Q (cfs)	10-YR VELOCITY (ft/s)	100-YR VELOCITY (ft/s)	MODELED MAX DITCH Q (cfs)	DEPTH (ft)	MANNING'S ROUGHNESS COEFFICIENT, n	CROSS-SECTIONAL FLOW AREA (sf)	DITCH AT FULL FLOW VELOCITY (ft/s)	W. PER. (ft)	HYD. RADIUS	TOP WIDTH (ft)	DOWNSTREAM BANK SLOPE	BOTTOM WIDTH (FT)	UPSTREAM TP	DOWNSTREAM TP	UPSTREAM FL	DOWNSTREAM FL	DITCH LENGTH	ACTUAL SLOPE
DITCH 1	OS-2, DA-1	1.36	11.04	0.26	5.79	6.87	8.52	16.38	21.40	30.13	1.36	2.51	37.27	2	0.04	12	3.11	12.65	0.01	12	3.00:1, 3.00:1	0	249.94	250	248.35	247.30	141	0.745%
DITCH 2	OS-2, DA-2	0.68	7.22	0.30	7.02	8.33	10.30	15.05	19.65	27.59	0.80	1.47	33.11	2.5	0.04	18.75	1.77	15.81	0.02	15	3.00:1, 3.00:1	0	250	249.53	247.30	247.00	165	0.182%
DITCH 3	OS-2, DA-3	1.40	0.70	0.48	6.51	7.73	9.56	2.19	2.86	4.02	0.32	0.60	15.61	1.5	0.04	6.75	2.31	9.49	0.02	9	3.00:1, 3.00:1	0	249.53	248.1	247.50	244.65	464	0.614%
DITCH 4	DA-14	0.13	0.13	0.80	9.75	11.65	14.53	1.01	1.33	1.89	0.15	0.28	28.19	1.5	0.04	6.75	4.18	9.49	0.01	9	3.00:1, 3.00:1	0	249.64	248.1	248.25	244.65	181	1.989%
DITCH 5	DA-5	0.16	0.16	0.80	10.88	13.07	16.46	1.39	1.84	2.63	0.07	0.14	86.55	2.5	0.04	18.75	4.62	15.81	0.01	15	3.00:1, 3.00:1	0	249.94	250	248.51	246.80	139	1.230%
DITCH 6	DA-6	0.14	10.21	0.16	5.46	6.48	8.05	8.72	11.41	16.09	0.30	0.56	78.36	3.1	0.04	28.83	2.72	19.61	0.01	18.60	3.00:1, 3.00:1	0	250	249.53	246.80	246.35	140	0.321%
DITCH 7	DA-7	0.40	10.64	0.32	5.32	6.32	7.86	17.84	23.34	32.94	0.87	1.60	48.44	2.62	0.04	20.59	2.35	16.57	0.02	15.72	3.00:1, 3.00:1	0	249.53	248.1	246.35	245.28	357	0.300%
DITCH 8	DA-13	0.17	0.17	0.80	9.30	11.10	13.80	1.27	1.66	2.35	0.06	0.11	109	2.62	0.04	20.59	5.29	16.57	0.01	15.72	3.00:1, 3.00:1	0	249.64	248.1	247.93	245.28	174	1.523%

STORM SEWER CALCULATIONS

PROJECT: NEW DANVILLE
JOB NO.: 448-013
BY: Vogt Engineering

DESIGN STORM: 5 YR
HGL STARTING ELEVATION: TOP OF PIPE

b = 54.09
d = 8.34 AS PER TXDOT
e = 0.7051 DRAINAGE CRITERIA
Cf = 1

DRAINAGE AREA	FROM	TO	AREA (Acres)	SUM OF A	C	TIME OF CONC (min)	INTENSITY I (in/hr)	SUM OF FLOWS (CFS)	REACH LENGTH (IN)	DIA. (IN)	SLOPE (%)	MANNING'S (n)	DESIGN VELOCITY (ft/s)	DESIGN CAPACITY (CFS)	FLOWLINE ELEVATIONS		ELEVATION OF HYD. GRAD.		CRITICAL ELEVATION				
															UpSTREAM (FT)	DnSTREAM (FT)	UpSTREAM (FT)	DnSTREAM (FT)	UpSTREAM (FT)	DnSTREAM (FT)			
DA-8	A-2	A-1	0.28	0.28	0.80	10.00	6.95	1.56	152	24	0.26%	0.013	3.68	11.57	241.18	240.78	0.50	0.005%	0.01	236.56	236.55	249.66	249.71
DA-11	A-1	OUT	0.26	0.54	0.80	15.11	5.85	2.53	162	24	0.26%	0.013	3.68	11.57	234.95	234.53	0.80	0.012%	0.02	236.55	236.53	249.71	0.00
DA-1	B-6	B-5	0.41	10.09	0.21	20.03	5.11	10.83	113	24	0.26%	0.013	3.68	11.57	247.59	247.00	3.45	0.228%	0.26	237.76	237.50	254.67	249.30
DA-5	B-5	B-4	0.16	2.85	0.27	20.97	5.00	3.90	66	24	0.26%	0.013	3.68	11.57	246.80	246.63	1.24	0.029%	0.02	237.50	237.48	249.30	249.66
DA-9	B-4	B-3	0.27	3.12	0.32	21.86	4.89	4.87	71	24	0.26%	0.013	3.68	11.57	241.93	241.75	1.55	0.046%	0.03	237.48	237.45	249.66	251.50
DA-10	C-1	B-3	0.24	0.24	0.80	10.00	6.95	1.34	89	24	0.26%	0.013	3.68	11.57	243.35	243.12	0.43	0.003%	0.00	237.45	237.45	249.50	251.50
DA-9	B-3	B-2	0.00	3.36	0.35	22.62	4.81	5.71	71	24	0.26%	0.013	3.68	11.57	241.75	241.56	1.82	0.063%	0.04	237.45	237.41	251.50	249.71
DA-12	B-2	B-1	0.29	3.65	0.39	23.27	4.74	6.73	103	24	0.26%	0.013	3.68	11.57	237.93	237.66	2.14	0.088%	0.09	237.41	237.32	249.71	244.65
DA-14	B-1	OUT	0.13	15.12	0.35	24.07	4.65	24.51	63	24	0.26%	0.013	3.68	11.57	234.74	234.58	7.80	1.167%	0.74	237.32	236.58	244.65	0.00

STORM SEWER CALCULATIONS

PROJECT: NEW DANVILLE
JOB NO.: 448-013
BY: Vogt Engineering

DESIGN STORM: 100 YR
HGL STARTING ELEVATION: TOP OF PIPE

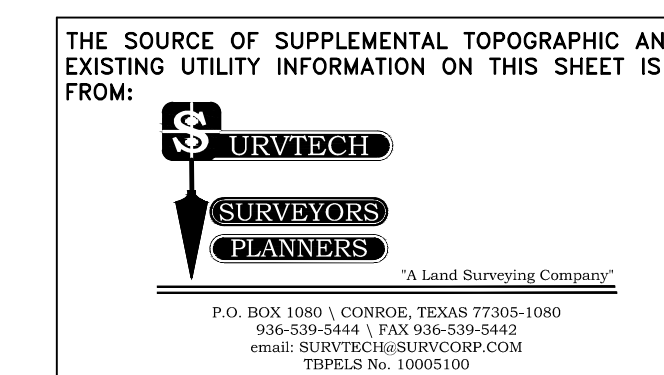
b = 56.68
d = 4.46 AS PER TXDOT
e = 0.5857 DRAINAGE CRITERIA
Cf = 1.25

DRAINAGE AREA	FROM	TO	AREA (Acres)	SUM OF A	C	TIME OF CONC (min)	INTENSITY I (in/hr)	SUM OF FLOWS (CFS)	REACH LENGTH (IN)	DIA. (IN)	SLOPE (%)	MANNING'S (n)	DESIGN VELOCITY (ft/s)	DESIGN CAPACITY (CFS)	FLOWLINE ELEVATIONS		ELEVATION OF HYD. GRAD.		CRITICAL ELEVATION				
															UpSTREAM (FT)	DnSTREAM (FT)	UpSTREAM (FT)	DnSTREAM (FT)	UpSTREAM (FT)	DnSTREAM (FT)			
DA-8	A-2	A-1	0.28	0.28	0.80	10.00	11.86	3.32	152	24	0.26%	0.013	3.68	11.57	241.18	240.78	1.06	0.021%	0.03	236.67	236.64	249.66	249.71
DA-11	A-1	OUT	0.26	0.54	0.80	12.40	10.84	5.85	162	24	0.26%	0.013	3.68	11.57	234.95	234.53	1.86	0.067%	0.11	236.64	236.53	249.71	0.00
DA-1	B-6	B-5	0.41	10.09	0.21	10.00	11.86	31.40	113	24	0.26%	0.013	3.68	11.57	247.29	247.00	10.00	1.916%	2.17	247.33	245.16	254.67	249.30
DA-5	B-5	B-4	0.16	2.85	0.27	10.00	11.86	11.55	66	24	0.26%	0.013	3.68	11.57	246.80	246.63	3.68	0.259%	0.17	245.16	244.99	249.30	249.66
DA-9	B-4	B-3	0.27	3.12	0.32	10.30	11.71	14.58	71	24	0.26%	0.013	3.68	11.57	241.93	241.75	4.64	0.413%	0.29	244.99	244.70	249.66	251.50
DA-10	C-1	B-3	0.24	0.24	0.80	10.00	11.86	2.85	89	24	0.26%	0.013	3.68	11.57	243.35	243.12	0.91	0.016%	0.01	243.47	243.45	249.50	251.50
DA-9	B-3	B-2	0.00	3.36	0.35	10.55	11.60	17.22	71	24	0.26%	0.013	3.68	11.57	241.75	241.56	5.48	0.576%	0.41	244.70	244.29	251.50	249.71
DA-12	B-2	B-1	0.29	3.65	0.39	10.77	11.50	20.41	103	24	0.26%	0.013	3.68	11.57	237.93	237.66	6.50	0.809%	0.83	244.29	243.45	249.71	244.65
DA-14	B-1	OUT	0.13	15.12	0.35	11.03	11.39	74.92	63	24	0.26%	0.013	3.68	11.57	234.74	234.58	23.85	10.909%	6.87	243.45	236.58	244.65	0.00

BENCHMARKS:
ELEVATIONS BASED ON NAVD 88 GEOID 18

TBM 5/8" IRS - IRON ROD SET, CAPPED "SURVTECH" LOCATED ON SUBJECT TRACT EAST OF THE POND.
EL: 249.35

FLOOD PLAIN INFORMATION:
A PORTION OF THE DETENTION LIE WITHIN THE 500 YEAR FLOODPLAIN AND IS IN ZONE X (SHADED) AS DELINEATED ON THE FEMA FIRM MAP FOR MONTGOMERY COUNTY PANEL NO. 48339C0225G, DATED AUGUST 18, 2014.



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(HOUSTON: 713-432-0365)
AT LEAST 48 HOURS BEFORE
PRECEDING WITH ANY EXCAVATION

NEW DANVILLE MEADOWBROOK EXPANSION

STORM CALCULATIONS

VOGT ENGINEERING
TEXAS BOARD OF PROFESSIONAL ENGINEERS FIRM REGISTRATION F-395

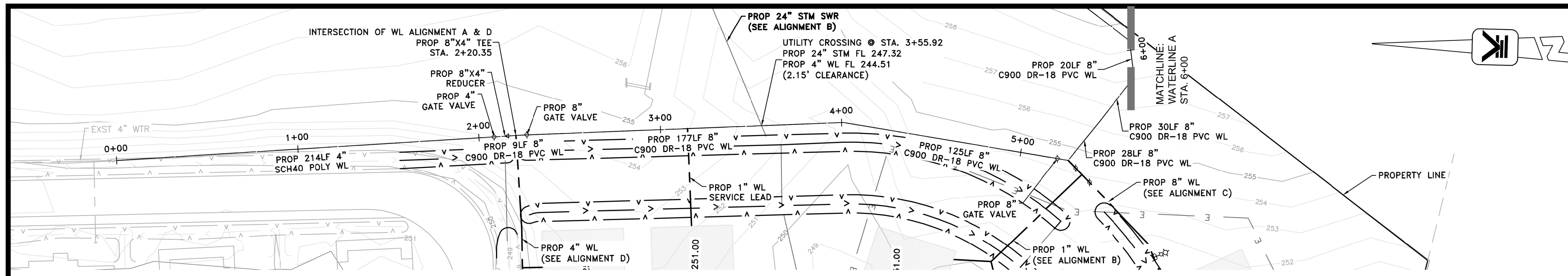
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SCALE: N.T.S.

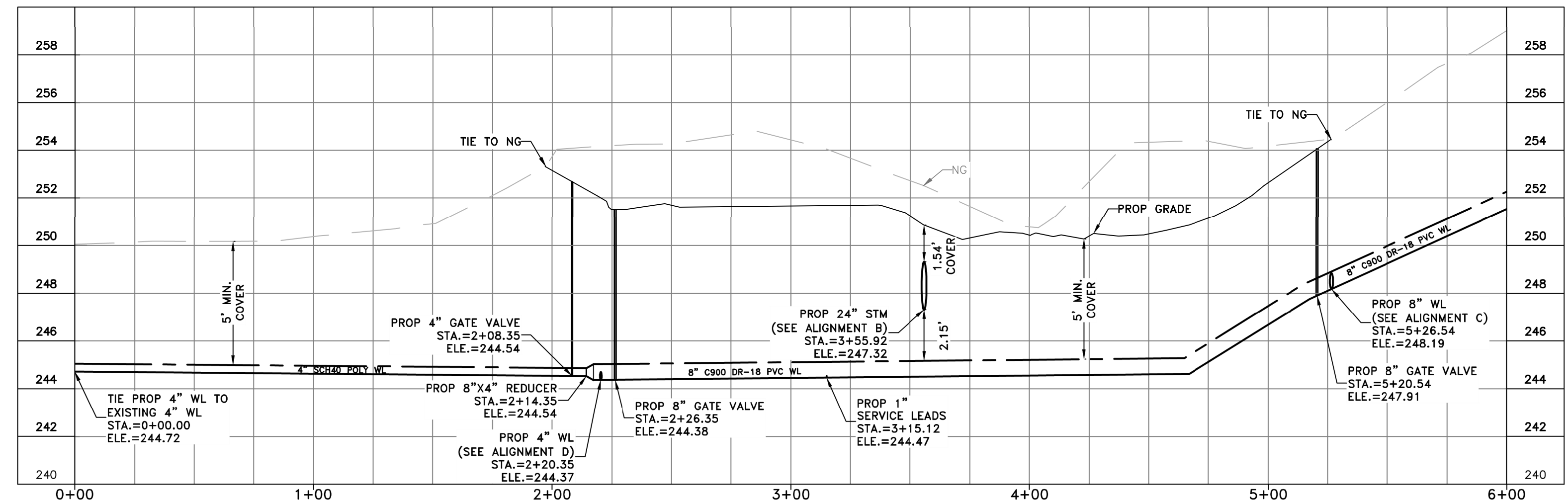
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129616
LICENSED PROFESSIONAL ENGINEER

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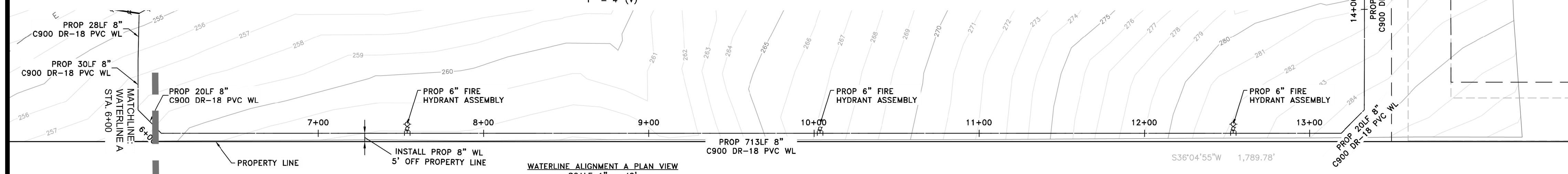
SHEET 06 OF 17



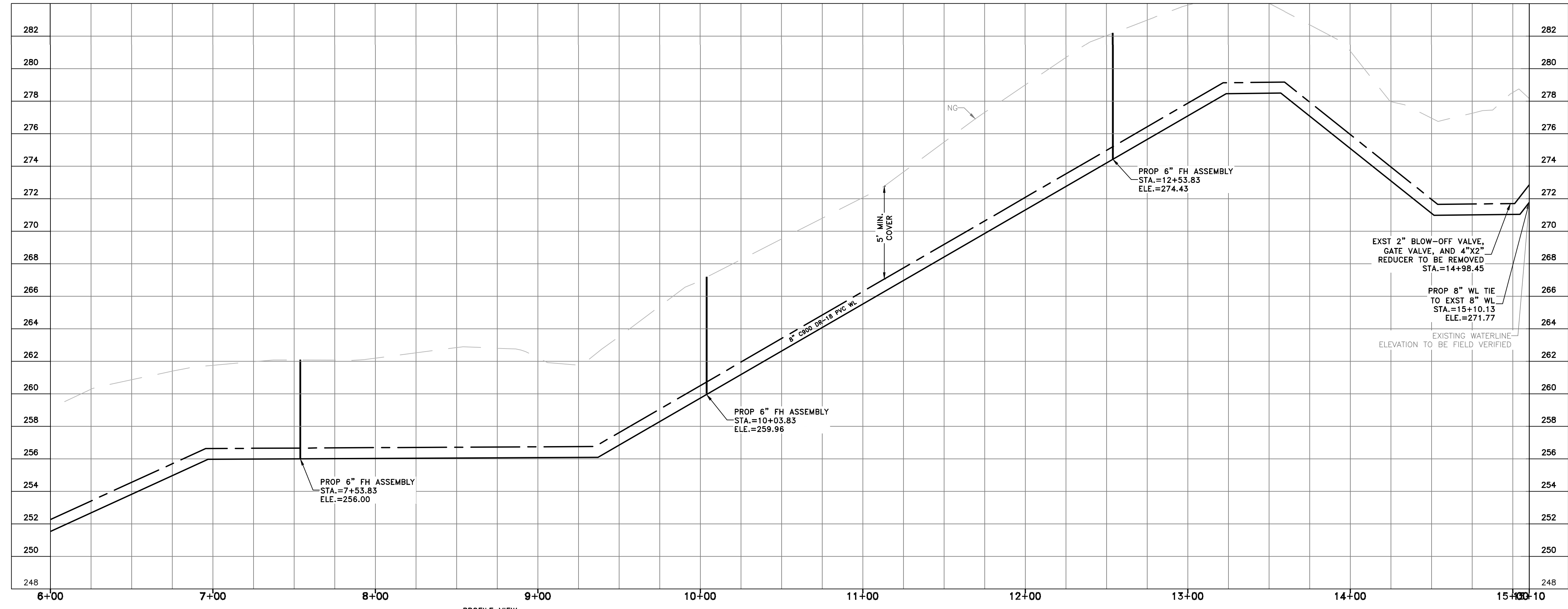
WATERLINE ALIGNMENT A PLAN VIEW
SCALE 1" = 40'



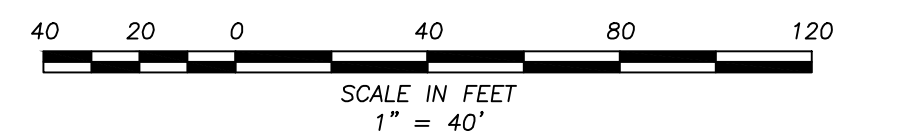
PROFILE VIEW
SCALE: 1" = 40' (H)
1" = 4' (V)



WATERLINE ALIGNMENT A PLAN VIEW
SCALE 1" = 40'



PROFILE VIEW
SCALE: 1" = 40' (H)
1" = 4' (V)



- PROPOSED LEGEND:**
- STORM SEWER
 - SANITARY SEWER
 - WATERLINE
 - UNDERGROUND ELECTRIC
 - DITCH FLOW DIRECTION
 - HIGHBANK

- EXISTING LEGEND:**
- STORM SEWER
 - SANITARY SEWER
 - WATERLINE
 - OVERGROUND ELECTRIC
 - OVERHEAD ELECTRIC
 - DITCH FLOW DIRECTION
 - HIGHBANK
 - FIRE HYDRANT
 - WATER METER
 - WATER VALVE

NOTES:

- PROPOSED UNDERGROUND ELECTRICAL LINE SHOWN FOR REFERENCE ONLY. ENTRY ELECTRICAL DESIGN IN PROGRESS.

BENCHMARKS:
ELEVATIONS BASED ON NAVD 88 GEOID 18

TBM 5/8" IRS - IRON ROD SET, CAPPED "SURVTECH" LOCATED ON SUBJECT TRACT EAST OF THE POND.
EL: 249.35

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email: RESURV@SURVTECH.COM
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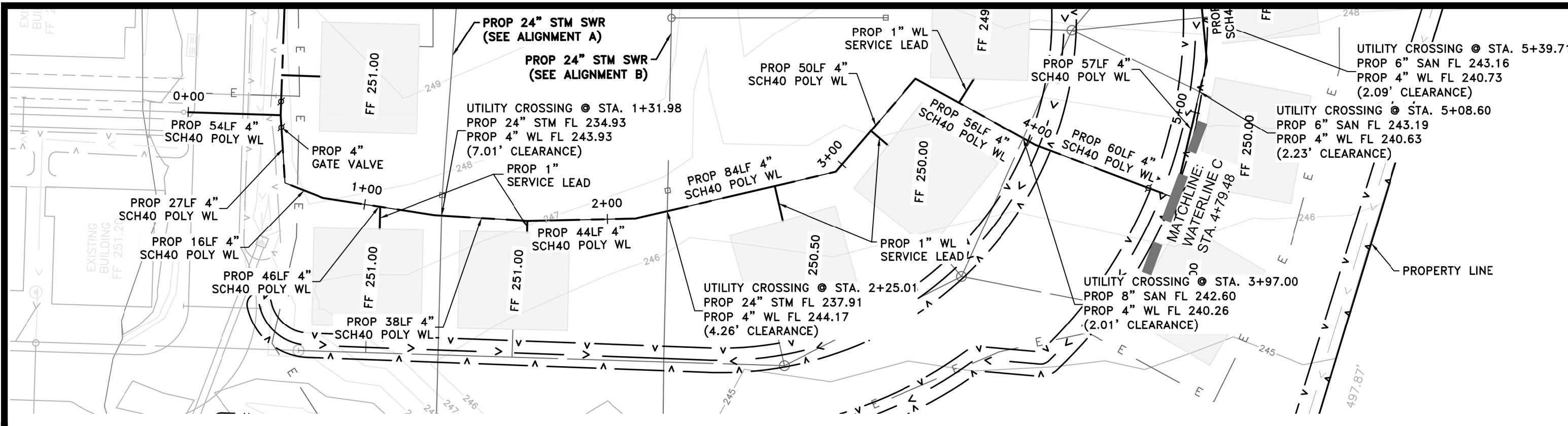
**NEW DANVILLE
MEADOWBROOK EXPANSION**

**WATERLINE ALIGNMENT A
P&P**

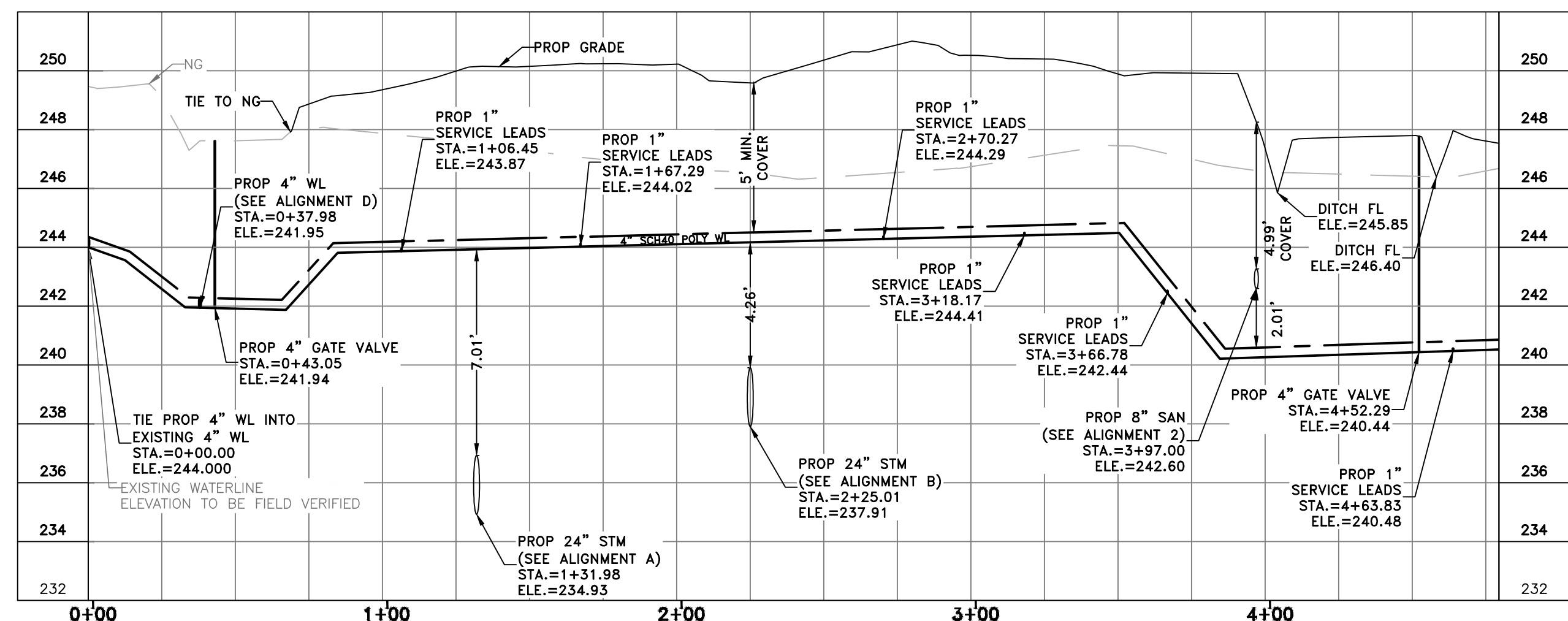
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	CHECKED BY NLH
	JOB NO. 448-013
	SCALE H: 1" = 40' V: 1" = 4'
SHEET 07 OF 17	

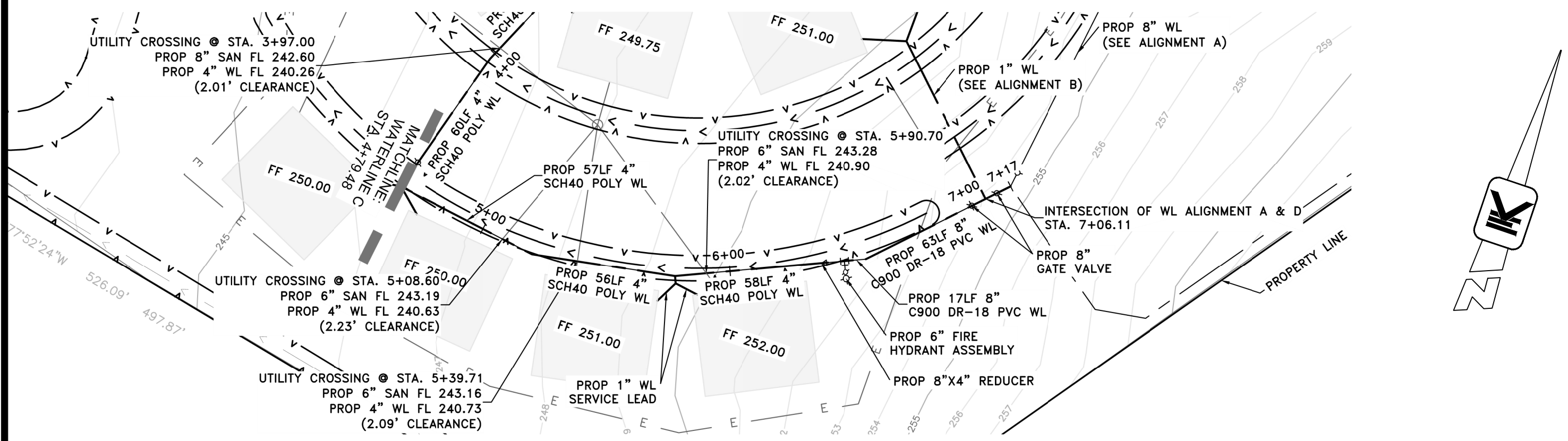
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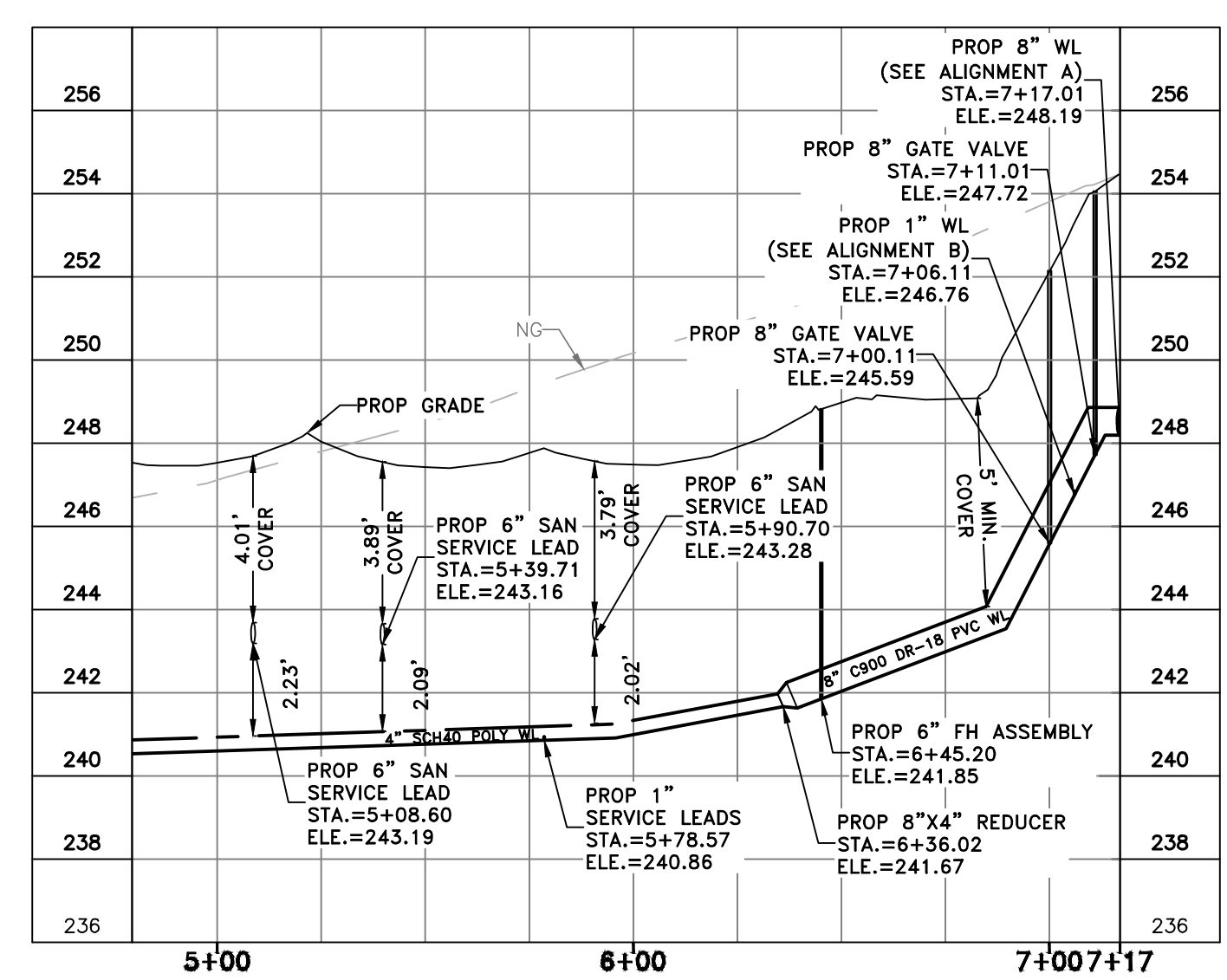
WATERLINE ALIGNMENT C PLAN VIEW
SCALE 1" = 40'



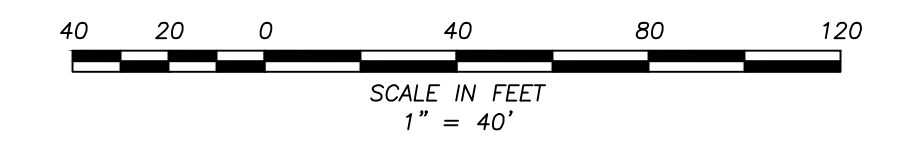
PROFILE VIEW
SCALE: 1" = 40' (H)
1" = 4' (V)



WATERLINE ALIGNMENT C PLAN VIEW
SCALE 1" = 40'



PROFILE VIEW
SCALE: 1" = 40' (H)
1" = 4' (V)



- PROPOSED LEGEND:**
- STORM SEWER
 - SANITARY SEWER
 - WATERLINE
 - UNDERGROUND ELECTRIC
 - DITCH FLOW DIRECTION
 - HIGHBANK

- EXISTING LEGEND:**
- STORM SEWER
 - SANITARY SEWER
 - WATERLINE
 - UNDERGROUND ELECTRIC
 - OVERHEAD ELECTRIC
 - DITCH FLOW DIRECTION
 - HIGHBANK
 - FIRE HYDRANT
 - WATER METER
 - WATER VALVE

NOTES:

- PROPOSED UNDERGROUND ELECTRICAL LINE SHOWN FOR REFERENCE ONLY. ENERGY ELECTRICAL DESIGN IN PROGRESS.

BENCHMARKS:
ELEVATIONS BASED ON NAVD 88 GEOID 18

TBM 5/8" IRS - IRON ROD SET, CAPPED "SURVTECH" LOCATED ON SUBJECT TRACT EAST OF THE POND.
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EMAIL: INFO@SURVTECHSURVEY.COM
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**NEW DANVILLE
MEADOWBROOK EXPANSION**

**WATERLINE ALIGNMENT C
P&P**

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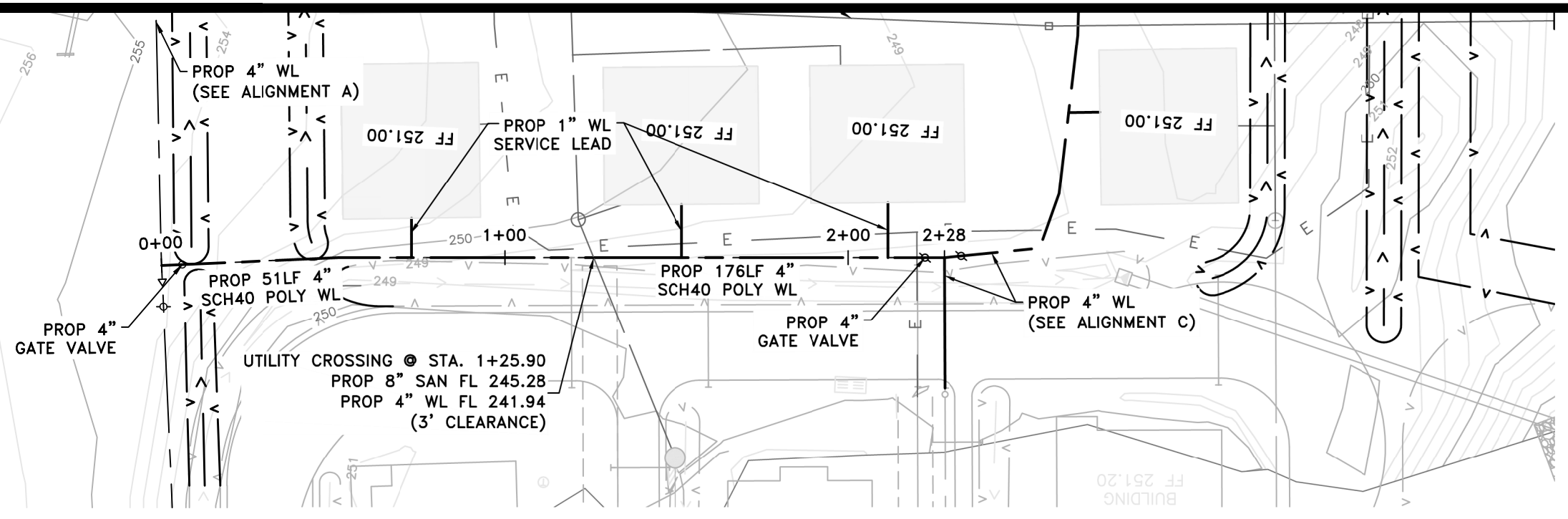
JOB NO.: 448-013

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V: 1"=4'

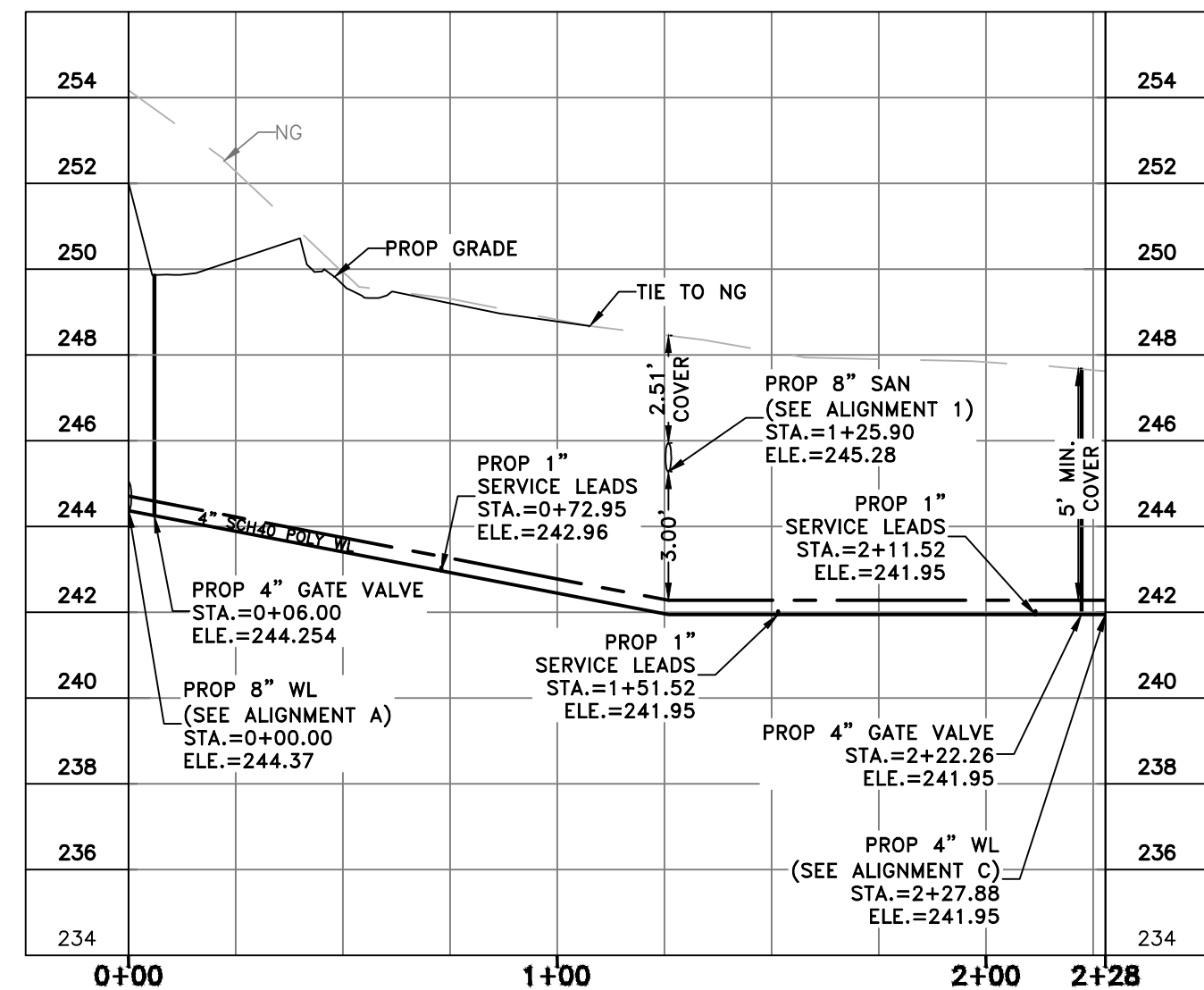
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SHEET 08 OF 17

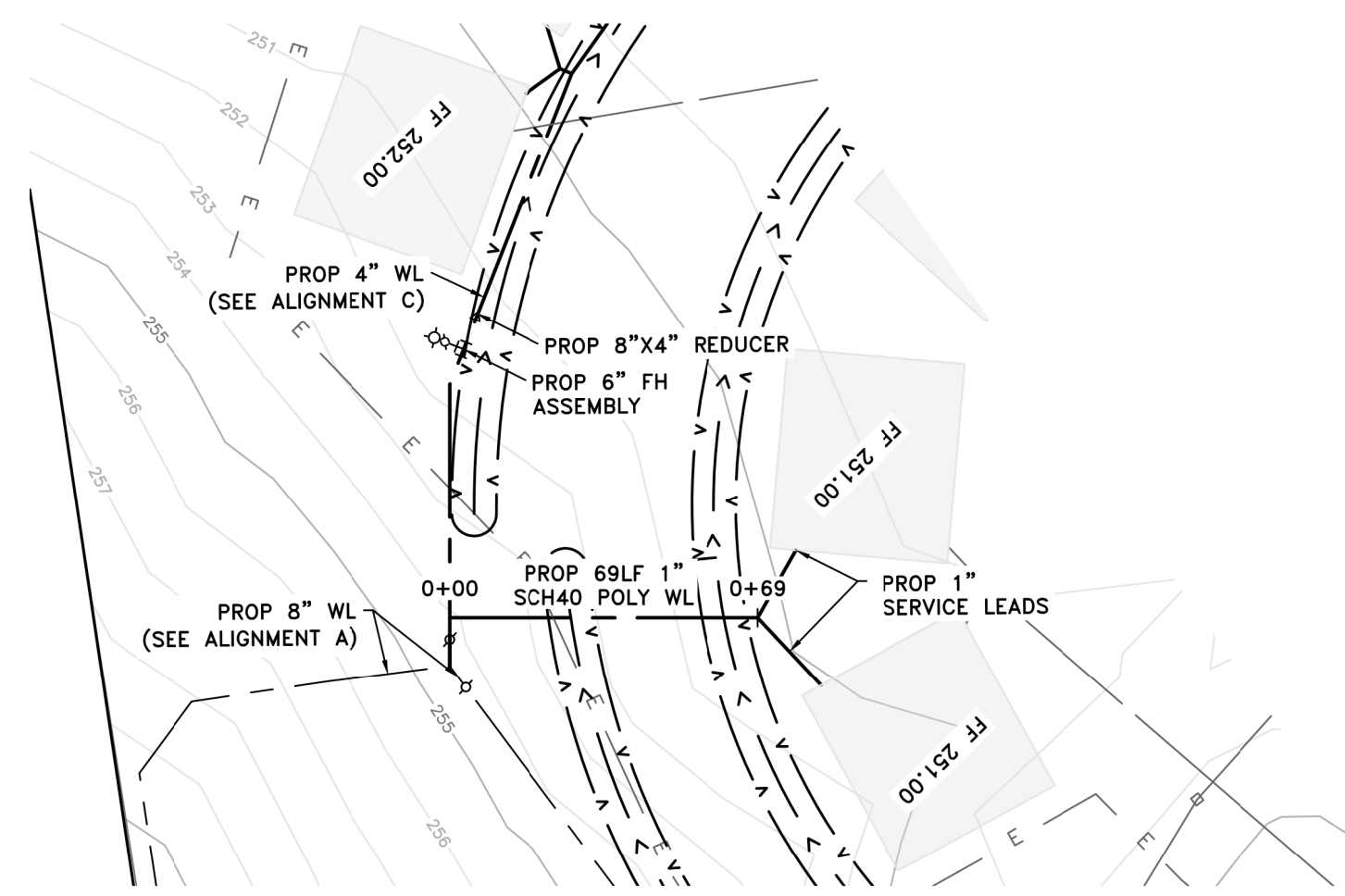
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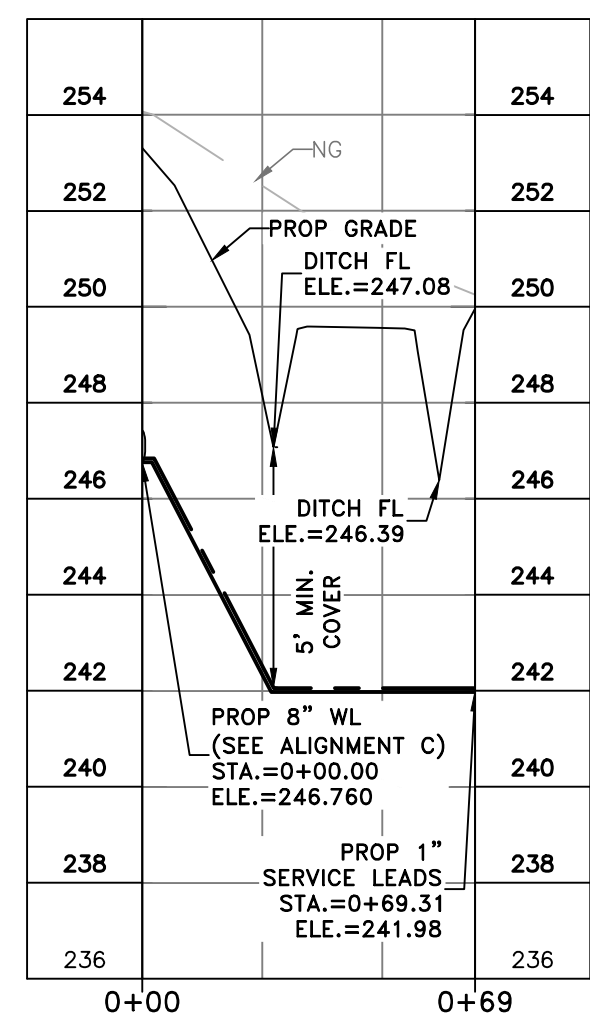
WATERLINE ALIGNMENT D PLAN VIEW
SCALE 1" = 40'



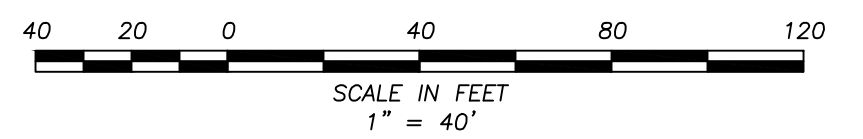
PROFILE VIEW
SCALE: 1" = 40' (H)
1" = 4' (V)



WATERLINE ALIGNMENT B PLAN VIEW
SCALE 1" = 40'



PROFILE VIEW
SCALE: 1" = 40' (H)
1" = 4' (V)



- PROPOSED LEGEND:**
- STORM SEWER
 - SANITARY SEWER
 - WATERLINE
 - UNDERGROUND ELECTRIC
 - DITCH FLOW DIRECTION
 - HIGHBANK

- EXISTING LEGEND:**
- STORM SEWER
 - SANITARY SEWER
 - WATERLINE
 - UNDERGROUND ELECTRIC
 - OVERHEAD ELECTRIC
 - DITCH FLOW DIRECTION
 - HIGHBANK
 - FIRE HYDRANT
 - WATER METER
 - WATER VALVE

NOTES:

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BENCHMARKS:
ELEVATIONS BASED ON NAVD 88 GEOID 18

TBM 5/8" IRS - IRON ROD SET, CAPPED "SURVTECH" LOCATED ON SUBJECT TRACT EAST OF THE POND.
EL: 249.35

FLOOD PLAIN INFORMATION:
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MEADOWBROOK EXPANSION**

**WATERLINE ALIGNMENT
B & D P&P**

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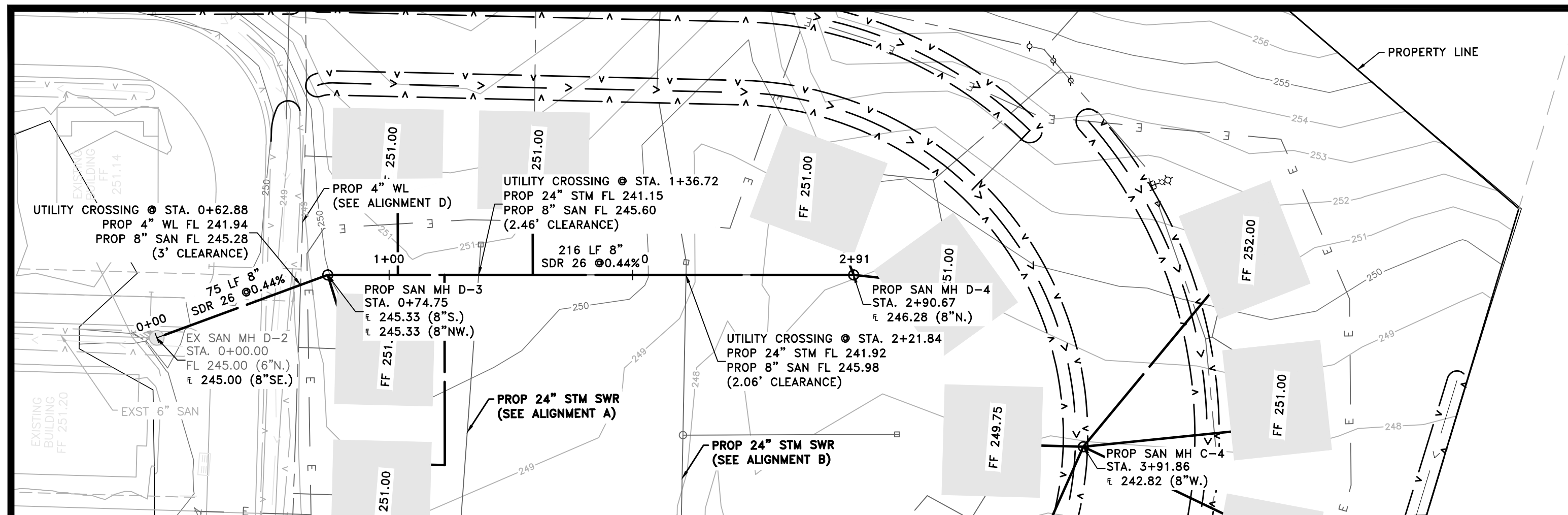
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V: 1"=4'

NICKOLAS HEMANN
129616
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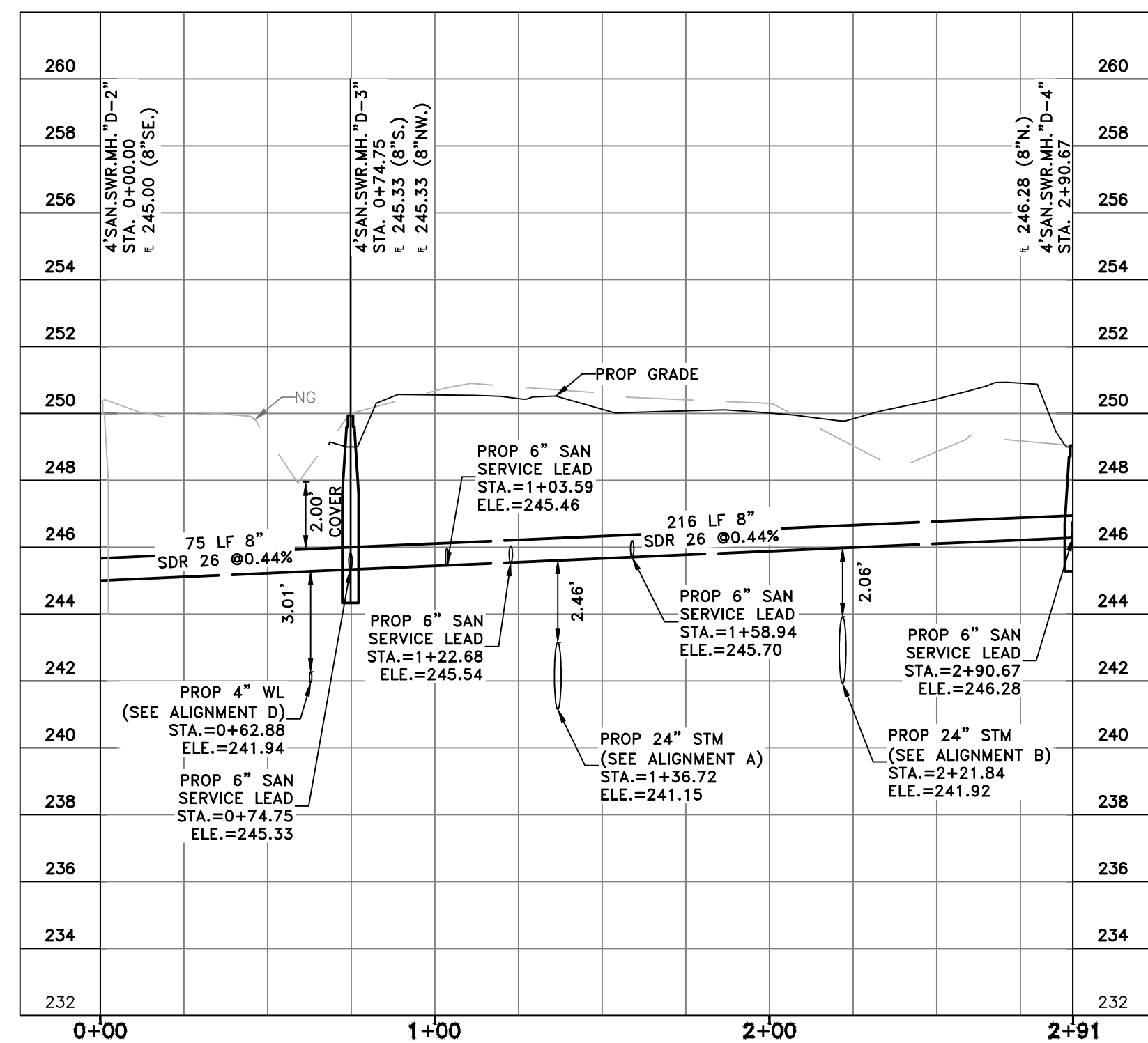
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SHEET 09 OF 17

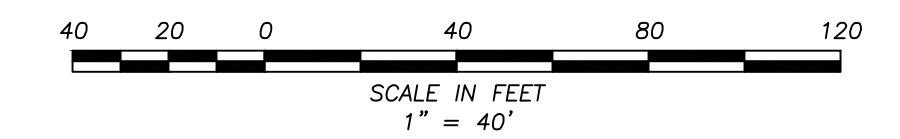
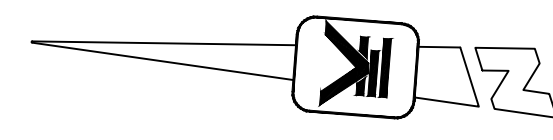
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SANITARY ALIGNMENT 1 PLAN VIEW
SCALE 1" = 40'



PROFILE VIEW
SCALE: 1" = 40' (H)
1" = 4' (V)



PROPOSED LEGEND:

- STORM SEWER
- SANITARY SEWER
- WATERLINE
- UNDERGROUND ELECTRIC
- DITCH FLOW DIRECTION
- HIGHBANK

EXISTING LEGEND:

- STORM SEWER
- SANITARY SEWER
- WATERLINE
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- WATER VALVE

NOTES:

1. PROPOSED UNDERGROUND ELECTRICAL LINE SHOWN FOR REFERENCE ONLY. ENTERGY ELECTRICAL DESIGN IN PROGRESS.

BENCHMARKS:

ELEVATIONS BASED ON NAVD 88 GEOID 18

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N:\448 New Danville\448-013 Meadowbrook Expansion\03 Drafting\Revisions\06 SANITARY P&P.dwg Feb. 9, 24 by

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email: SURVTECH@SURVTECH.COM
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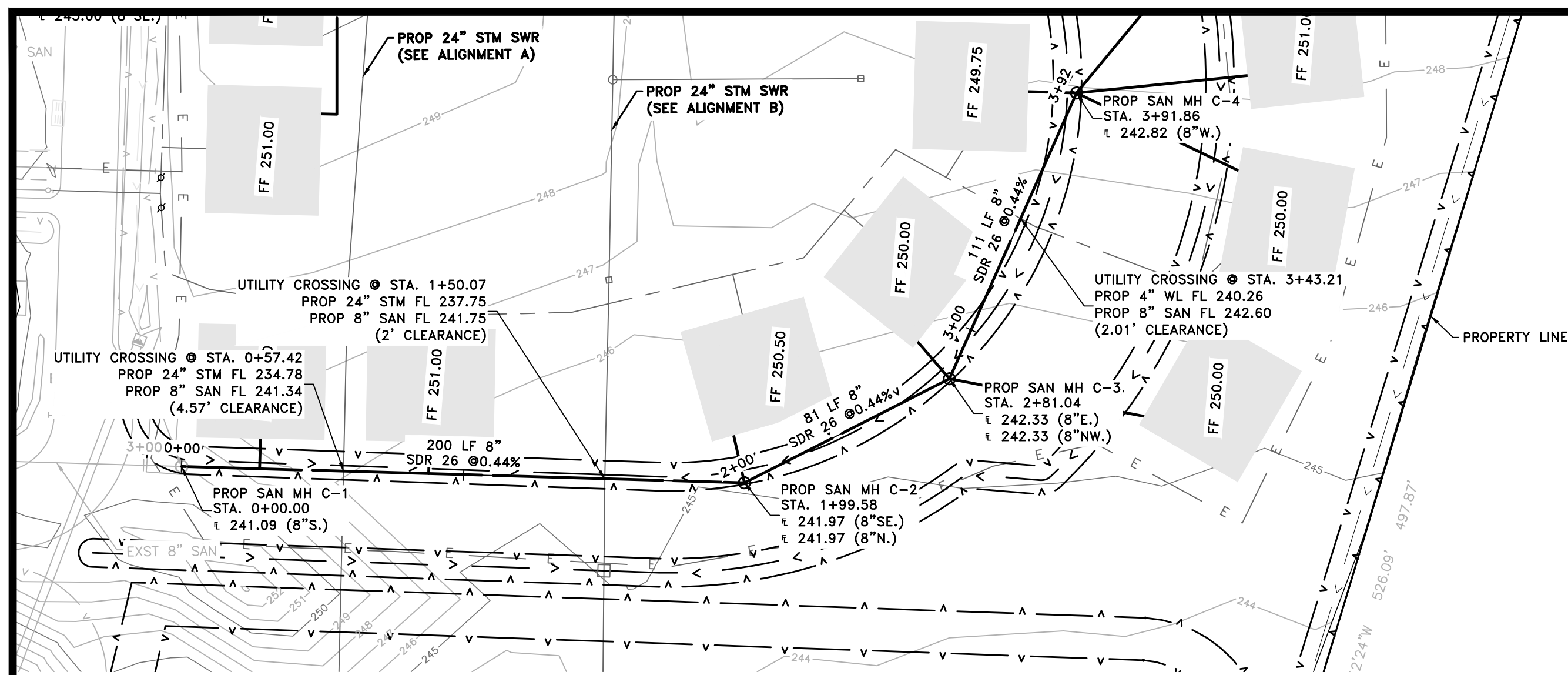
**NEW DANVILLE
MEADOWBROOK EXPANSION**

**SANITARY ALIGNMENT 1
P&P**

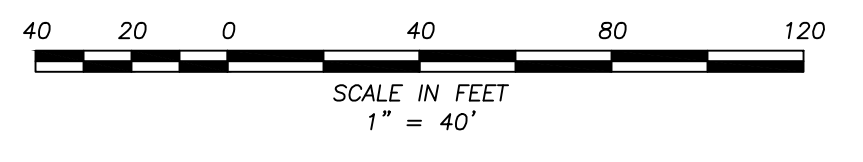
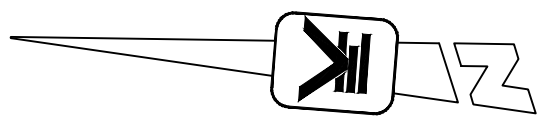
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	JOB NO. 448-013
	SCALE H: 1"=40' V: 1"=4'
<small>Nickolas Hemann 2024.02.09 13:20:50-06'00"</small>	

SHEET 10 OF 17



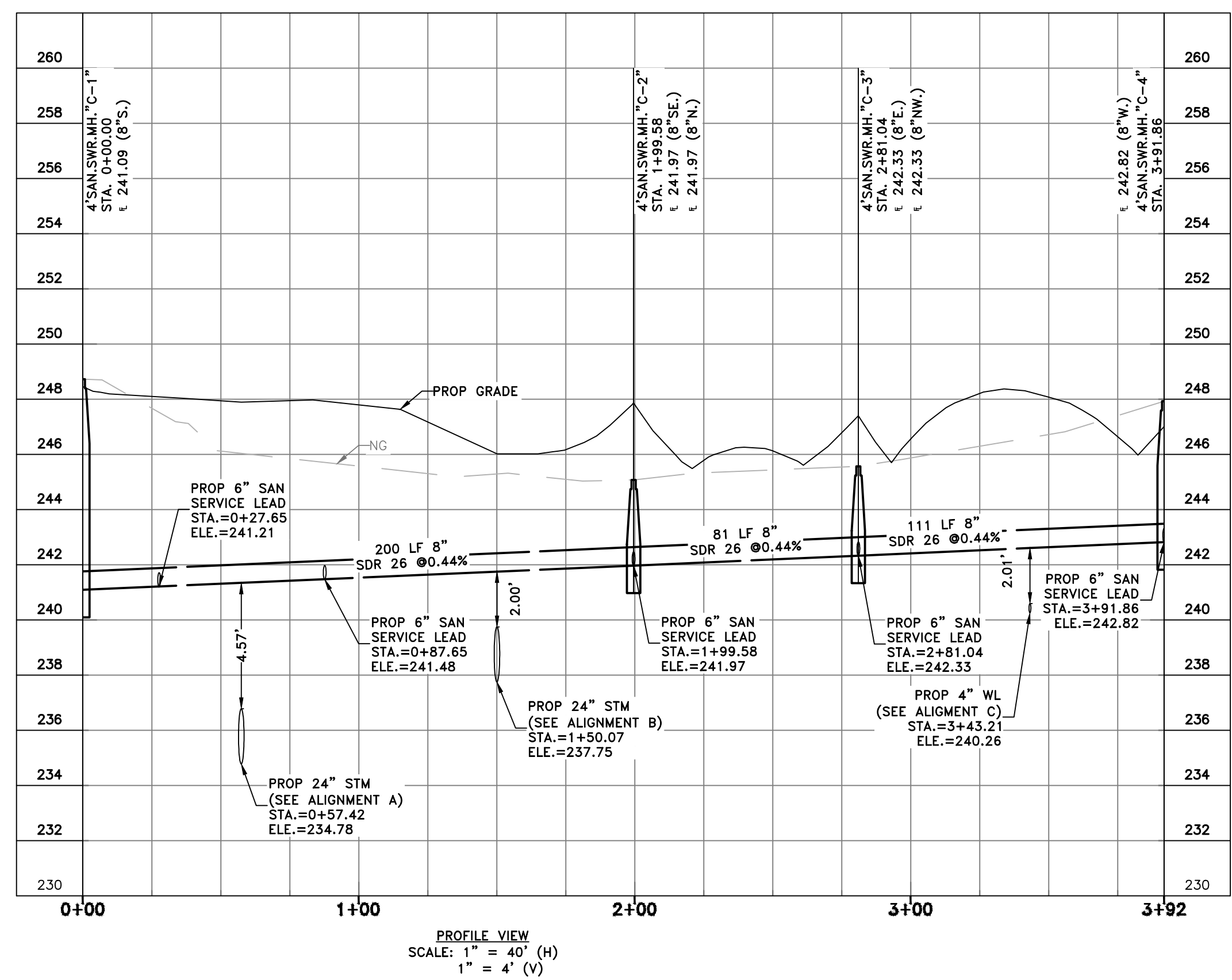
LLED: 48.46 ACRES
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 L 1162, P.O. BOX 600
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- PROPOSED LEGEND:**
- STORM SEWER
 - SANITARY SEWER
 - WATERLINE
 - UNDERGROUND ELECTRIC
 - DITCH FLOW DIRECTION
 - HIGH BANK
- EXISTING LEGEND:**
- STORM SEWER
 - SANITARY SEWER
 - WATERLINE
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BENCHMARKS:
 ELEVATIONS BASED ON NAVD 88 GEOID 18

TBM 5/8" IRS - IRON ROD SET, CAPPED "SURVTECH" LOCATED ON SUBJECT TRACT EAST OF THE POND.
 EL: 249.35

FLOOD PLAIN INFORMATION:
 A PORTION OF THE DETENTION LIE WITHIN THE 500 YEAR FLOODPLAIN AND IS IN ZONE X (SHADED) AS DELINEATED ON THE FEMA FIRM MAP FOR MONTGOMERY COUNTY PANEL NO. 48339C0225G, DATED AUGUST 18, 2014.

N: \\448 New Danville\448-013 Meadowbrook Expansion\03 Drafting\Revisions\06 SANITARY P&P.dwg Feb. 9, 24 by

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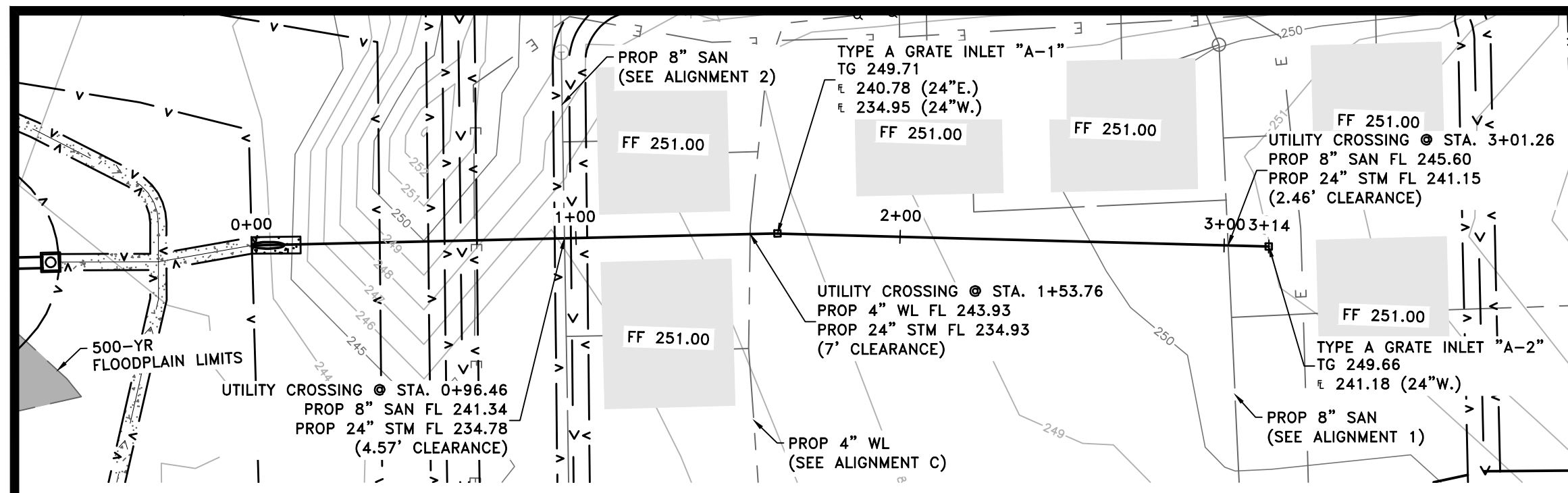
**NEW DANVILLE
 MEADOWBROOK EXPANSION**

**SANITARY ALIGNMENT 2
 P&P**

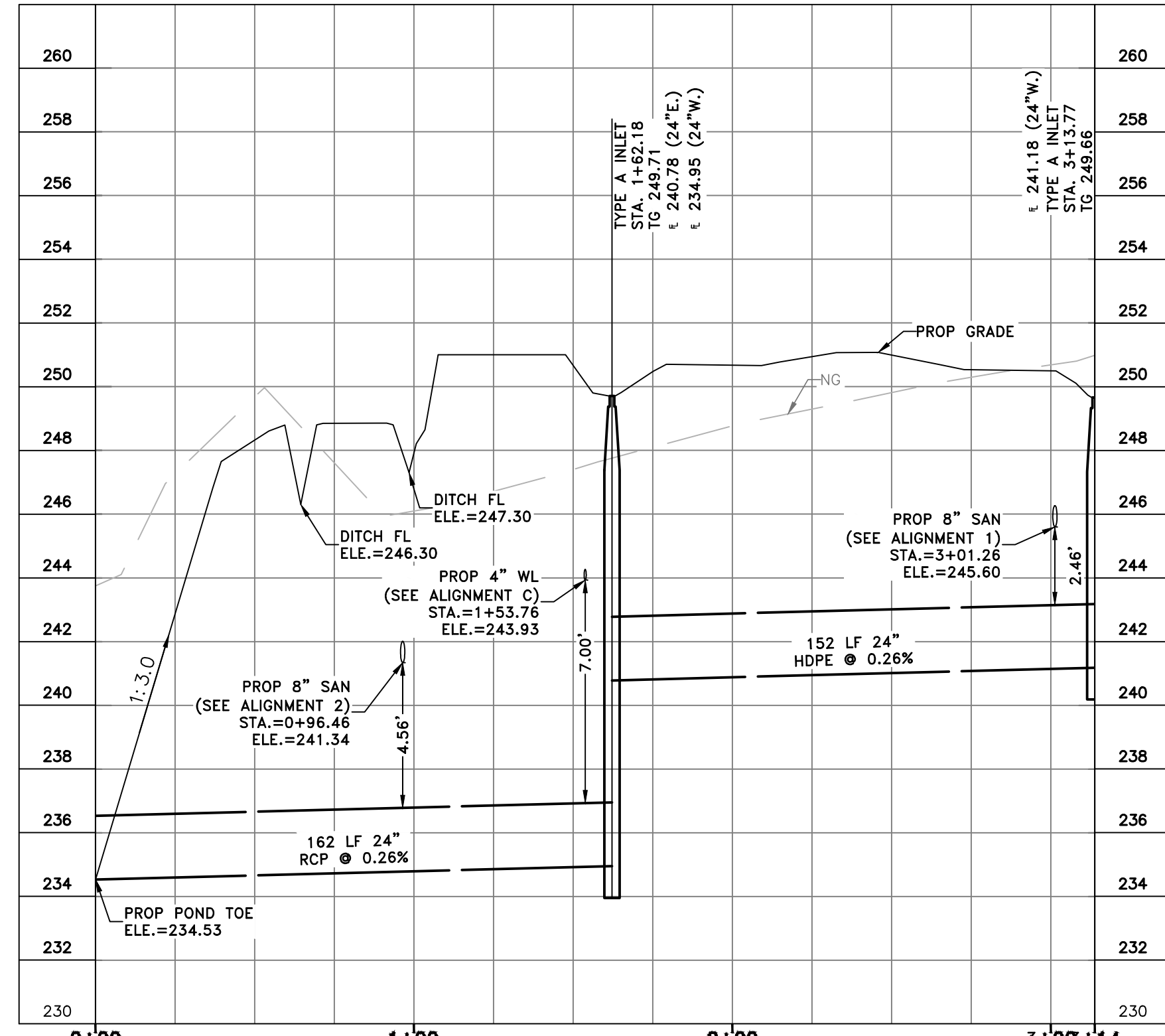
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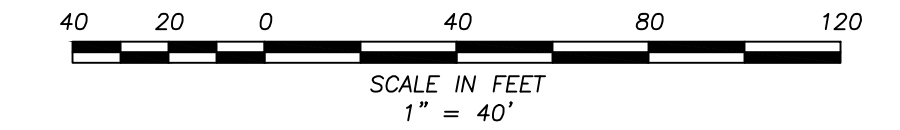
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	CHECKED BY NLH
	JOB NO. 448-013
	SCALE H: 1"=40' V: 1"=4'
SHEET 11 OF 17	



STORM ALIGNMENT A PLAN VIEW
SCALE 1" = 40'



PROFILE VIEW
SCALE: 1" = 40' (H)
1" = 4' (V)



PROPOSED LEGEND:

- STORM SEWER
- SANITARY SEWER
- WATERLINE
- UNDERGROUND ELECTRIC
- DITCH FLOW DIRECTION
- HIGHBANK

EXISTING LEGEND:

- STORM SEWER
- SANITARY SEWER
- WATERLINE
- UNDERGROUND ELECTRIC
- OVERHEAD ELECTRIC
- DITCH FLOW DIRECTION
- HIGHBANK
- FIRE HYDRANT
- WATER METER
- WATER VALVE

NOTES:

1. PROPOSED UNDERGROUND ELECTRICAL LINE SHOWN FOR REFERENCE ONLY. ENERGY ELECTRICAL DESIGN IN PROGRESS.

BENCHMARKS:
ELEVATIONS BASED ON NAVD 88 GEOID 18

TBM 5/8" IRS - IRON ROD SET, CAPPED "SURVTECH" LOCATED ON SUBJECT TRACT EAST OF THE POND.
EL: 249.35

FLOOD PLAIN INFORMATION:
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N: \\448 New Danville\448-013 Meadowbrook Expansion\03 Drafting\Revisions\07 S10RM P&P.dwg Feb. 9, 24 by

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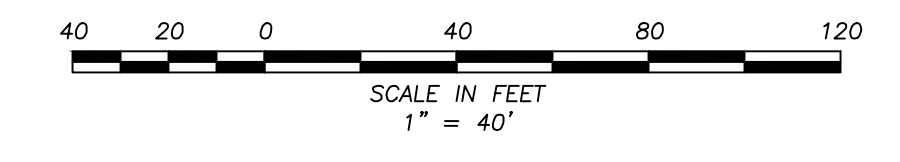
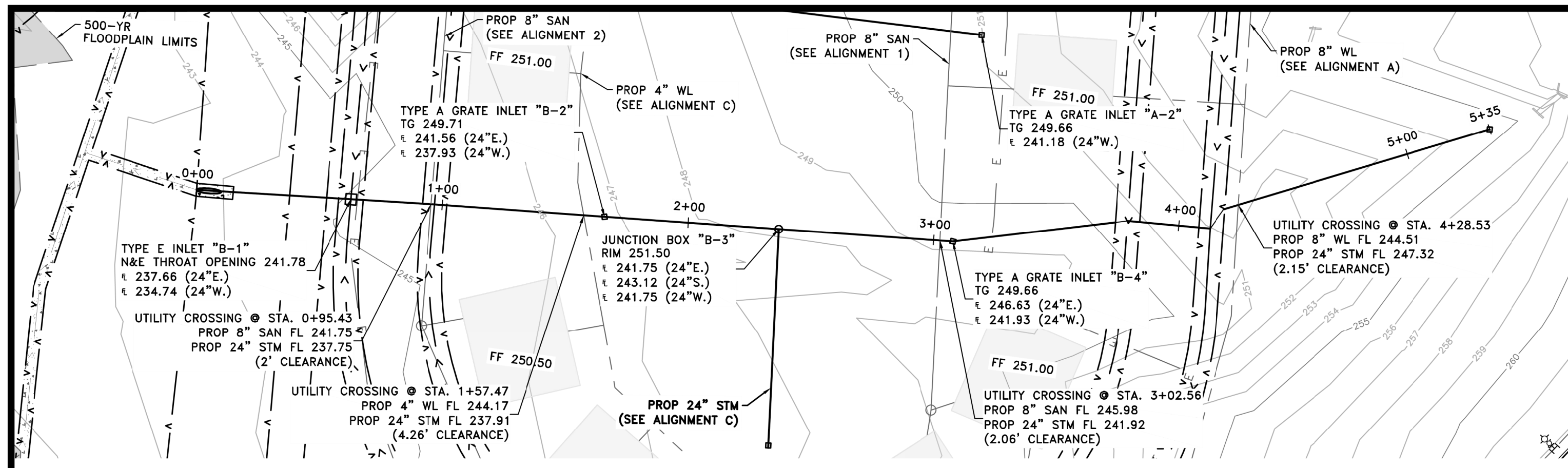
**NEW DANVILLE
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STORM ALIGNMENT A P&P

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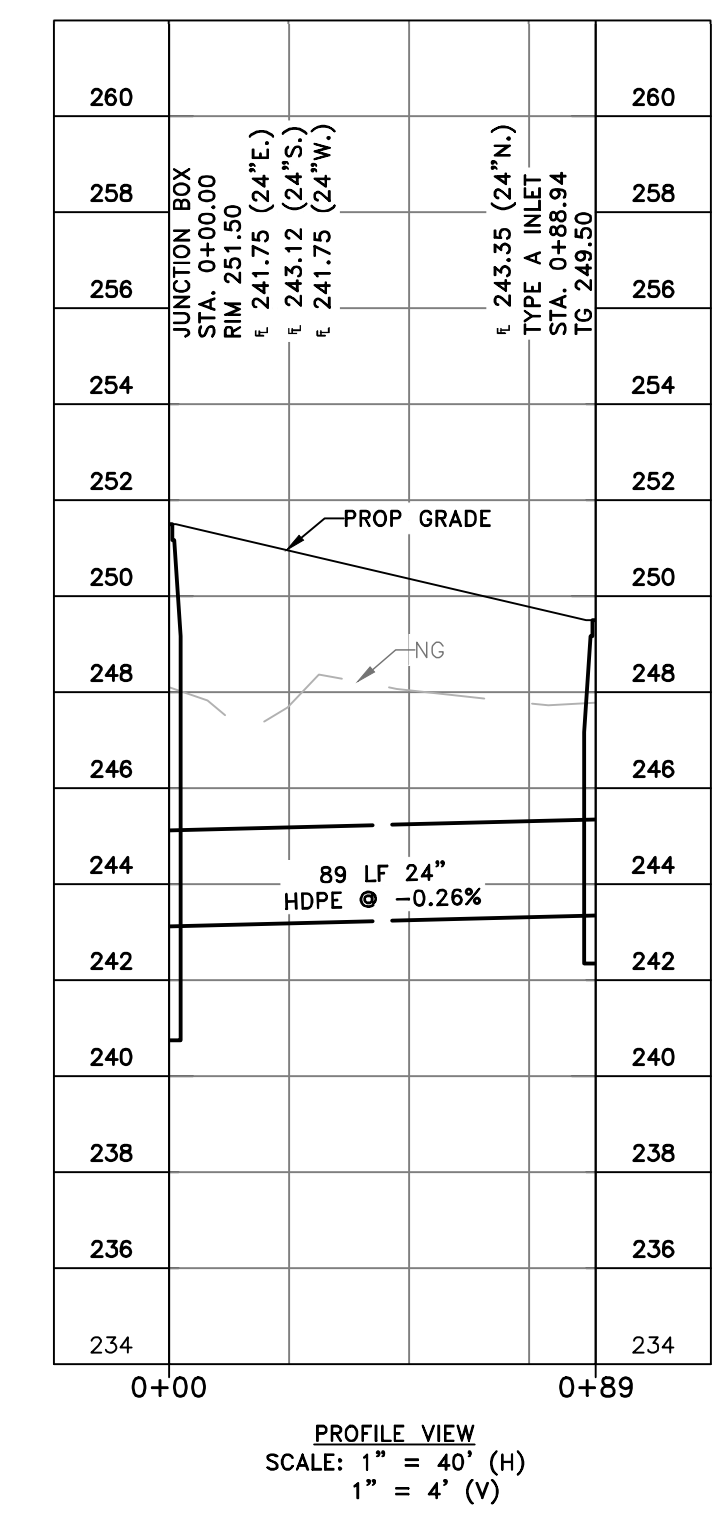
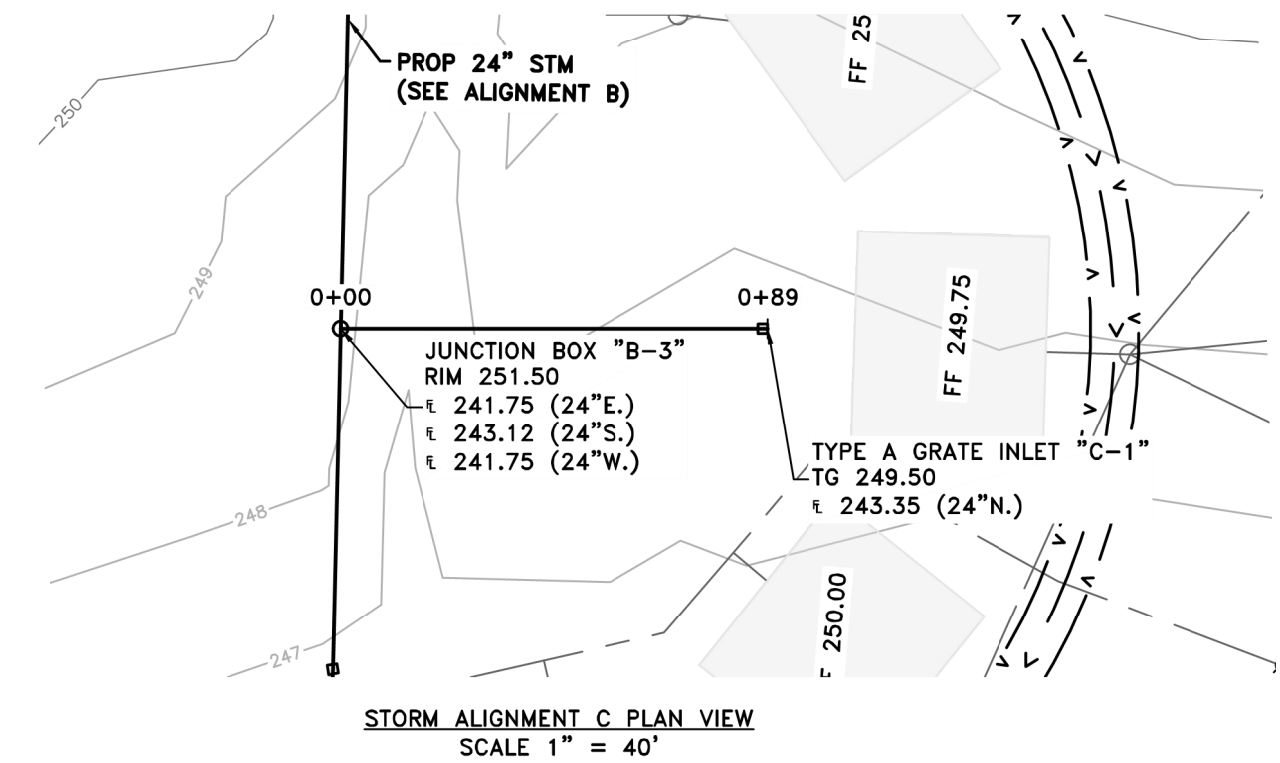
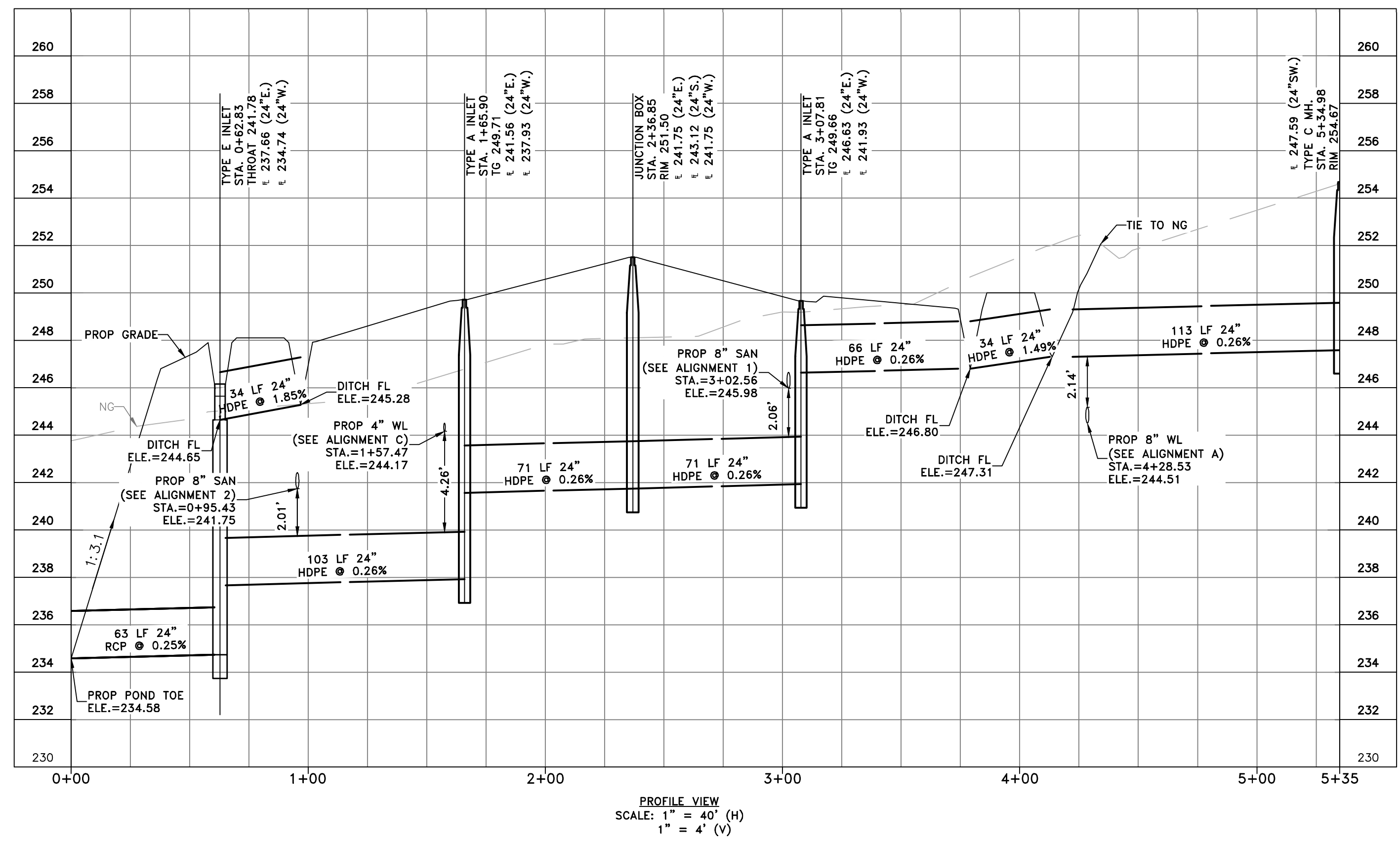
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	JOB NO. 448-013
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	SHEET 12 OF 17 <small>2024.02.09 13:25:28-06'00"</small>



- PROPOSED LEGEND:**
- STORM SEWER
 - SANITARY SEWER
 - WATERLINE
 - UNDERGROUND ELECTRIC
 - DITCH FLOW DIRECTION
 - HIGHBANK
- EXISTING LEGEND:**
- STORM SEWER
 - SANITARY SEWER
 - WATERLINE
 - UNDERGROUND ELECTRIC
 - OVERHEAD ELECTRIC
 - DITCH FLOW DIRECTION
 - HIGHBANK
 - FIRE HYDRANT
 - WATER METER
 - WATER VALVE

NOTES:

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BENCHMARKS:
ELEVATIONS BASED ON NAVD 88 GEOID 18

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MEADOWBROOK EXPANSION**

**STORM ALIGNMENT B & C
P&P**

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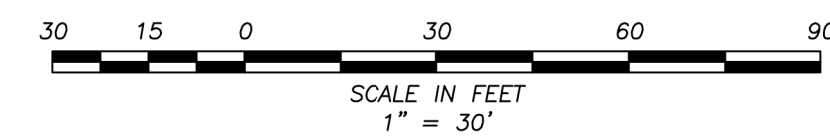
SCALE: H: 1" = 40'
V: 1" = 4'

2024.02.09
13:26:49-06'00"

SHEET 13 OF 17

N: \\448 New Danville\448-013 Meadowbrook Expansion\03 Drafting\Revisions\07 STORM P&P.dwg Feb. 9, 24 by

N: \\448 New Danville\448-013 Meadowbrook Expansion\03 Drafting\Revisions\09 GRADING PLAN.dwg Feb. 9, 24 by



- PROPOSED LEGEND:**
- STORM SEWER
 - SANITARY SEWER
 - WATERLINE
 - UNDERGROUND ELECTRIC
 - DITCH FLOW DIRECTION
 - HIGHBANK
 - EXTREME EVENT OVERFLOW

- EXISTING LEGEND:**
- STORM SEWER
 - SANITARY SEWER
 - WATERLINE
 - UNDERGROUND ELECTRIC
 - OVERHEAD ELECTRIC
 - DITCH FLOW DIRECTION
 - HIGHBANK
 - FIRE HYDRANT
 - WATER METER
 - WATER VALVE

- GRADING LEGEND:**
- TP TOP OF PAVEMENT
 - FF FINISH FLOOR
 - FL FLOW LINE
 - HB HIGH BANK
 - MEG MATCH EXISTING GRADE

BENCHMARKS:
ELEVATIONS BASED ON NAVD 88 GEOID 18

TBM 5/8" IRS - IRON ROD SET, CAPPED "SURVTECH" LOCATED ON SUBJECT TRACT EAST OF THE POND.
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**NEW DANVILLE
MEADOWBROOK EXPANSION**

GRADING PLAN

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	SCALE 1"=30'
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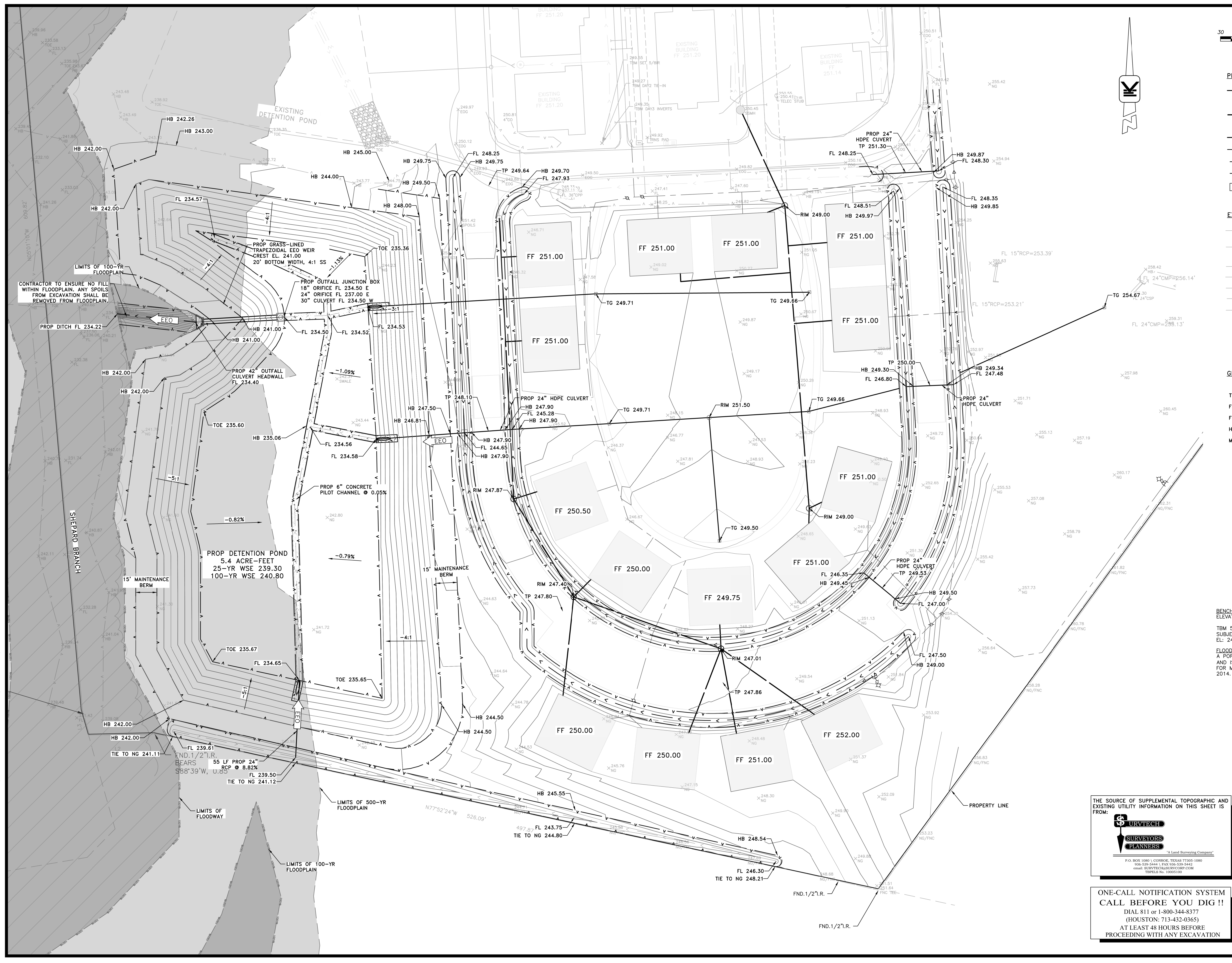
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CONTRACTOR TO ENSURE NO FILL WITHIN FLOODPLAIN. ANY SPOILS FROM EXCAVATION SHALL BE REMOVED FROM FLOODPLAIN.

PROP DETENTION POND
5.4 ACRE-FEET
25-YR WSE 239.30
100-YR WSE 240.80

55 LF PROP 24" RCP @ 0.82% BEARS S88°39'W, U.S.

SHEPARD BRANCH

15' MAINTENANCE BERM

15' MAINTENANCE BERM

PROPERTY LINE

LIMITS OF FLOODWAY

LIMITS OF 500-YR FLOODPLAIN

LIMITS OF 100-YR FLOODPLAIN

LIMITS OF 100-YR FLOODPLAIN

PROP GRASS-LINED TRAPEZOIDAL EEO WEIR
CREST EL. 241.00
20' BOTTOM WIDTH, 4:1 SS

PROP OUTFALL JUNCTION BOX
18" ORIFICE FL 234.50 E
24" ORIFICE FL 237.00 E
30" CULVERT FL 234.50 W

PROP 42" OUTFALL CULVERT HEADWALL
FL 234.40

PROP 6" CONCRETE PILOT CHANNEL @ 0.05%

PROP 24" HDPE CULVERT
HB 247.90
FL 245.28
HB 247.90

PROP 24" HDPE CULVERT
TP 249.53

RIM 247.40
TP 247.80

RIM 247.01
TP 247.86

PROP 24" HDPE CULVERT
TP 249.53

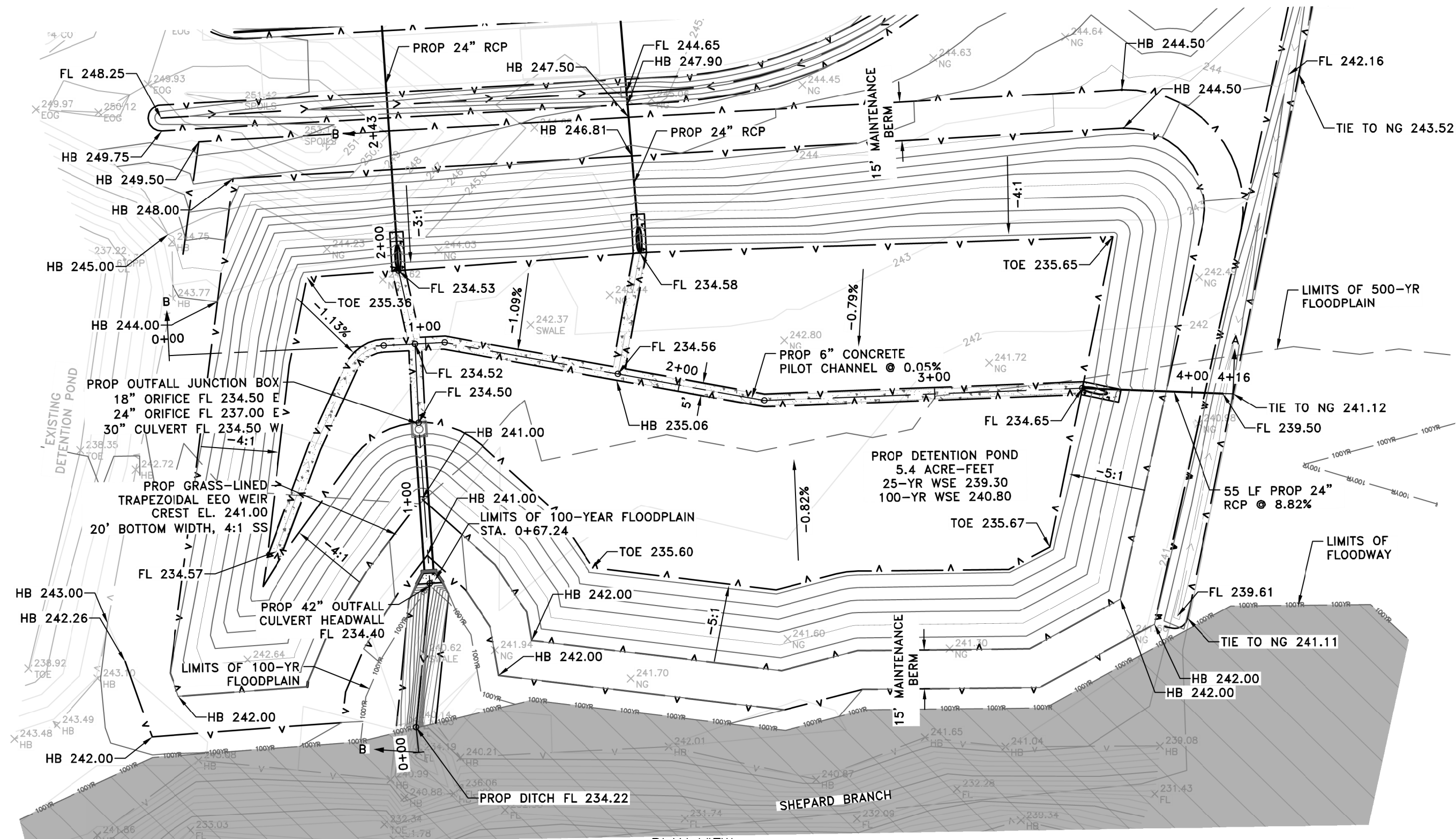
FND. 1/2" I.R.
TIE TO NG 241.11

FND. 1/2" I.R.
TIE TO NG 241.12

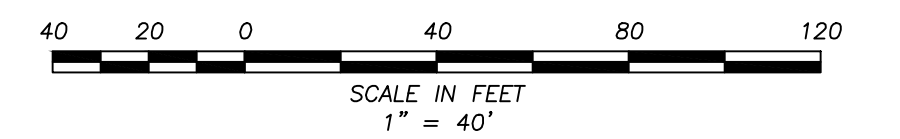
497.8' FL 243.75
TIE TO NG 244.80

FND. 1/2" I.R.

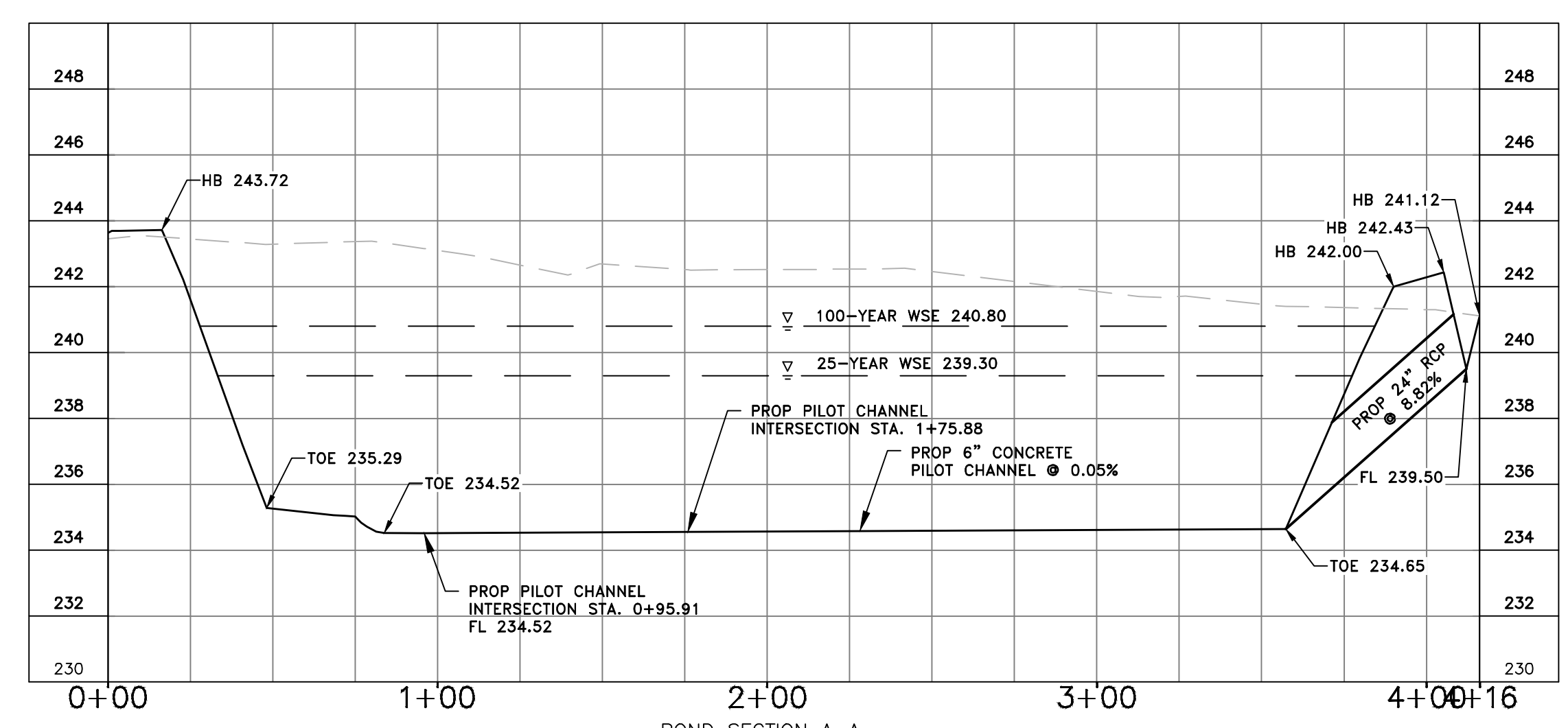
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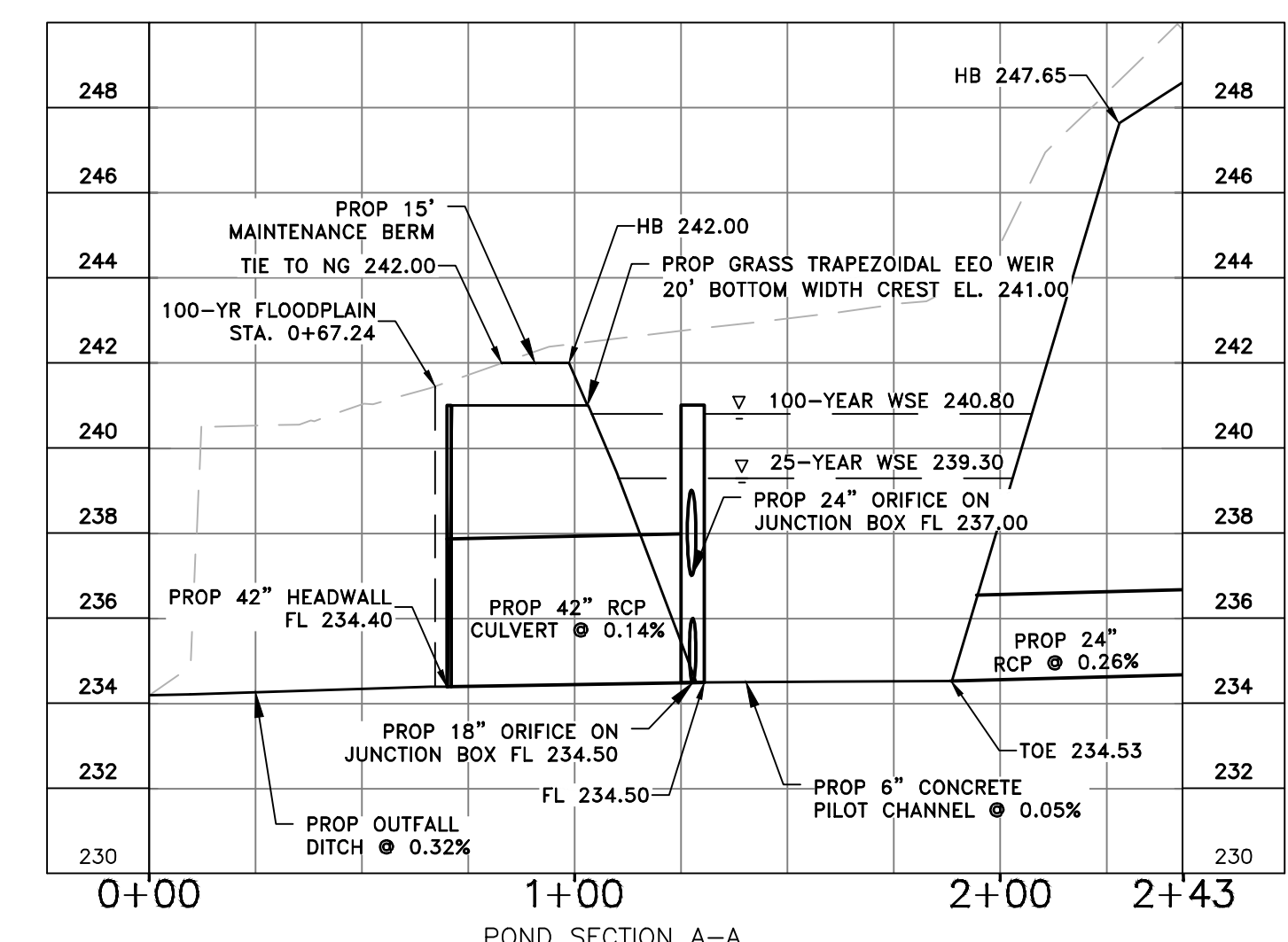
PLAN VIEW
SCALE: 1" = 40'



- PROPOSED LEGEND:**
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 - SANITARY SEWER
 - WATERLINE
 - UNDERGROUND ELECTRIC
 - DITCH FLOW DIRECTION
 - HIGHBANK
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 - DITCH FLOW DIRECTION
 - HIGHBANK
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 - WATER METER
 - WATER VALVE



POND SECTION A-A
SCALE: 1" = 40' H
1" = 4' V



POND SECTION A-A
SCALE: 1" = 40' H
1" = 4' V

BENCHMARKS:
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**NEW DANVILLE
MEADOWBROOK EXPANSION**

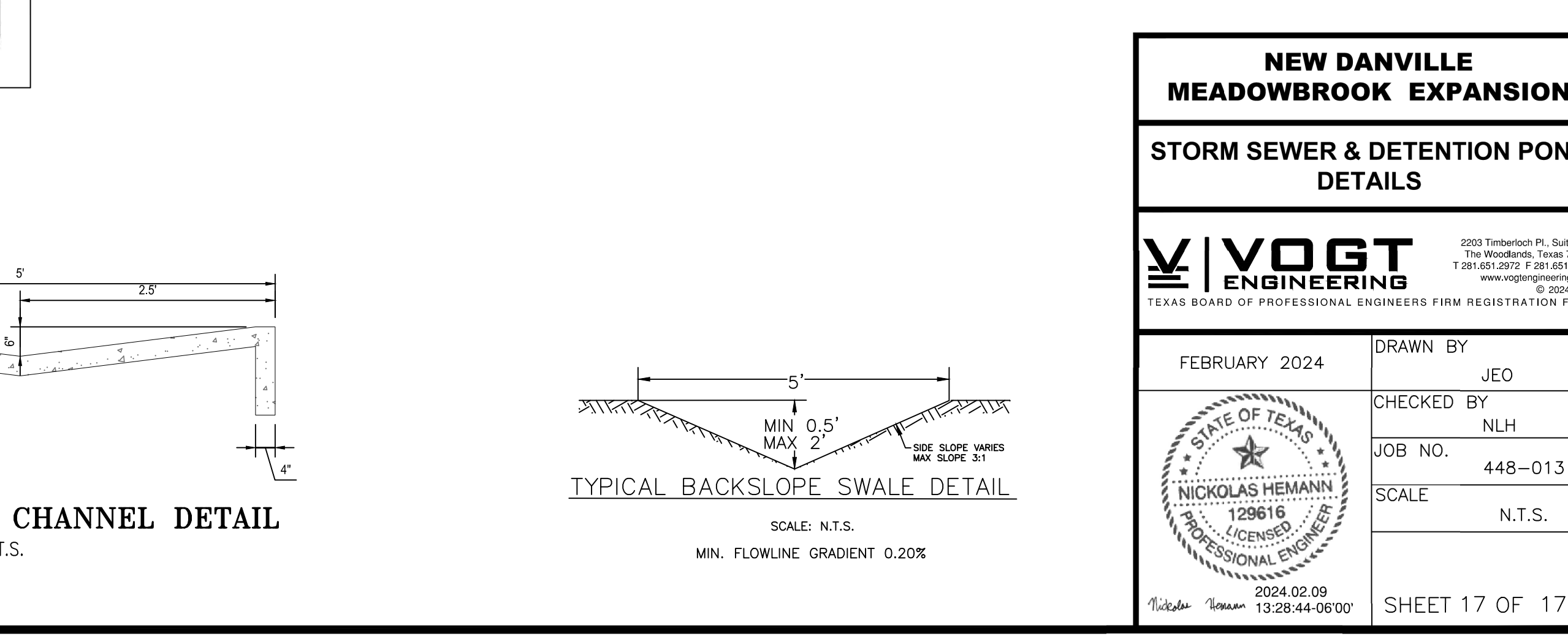
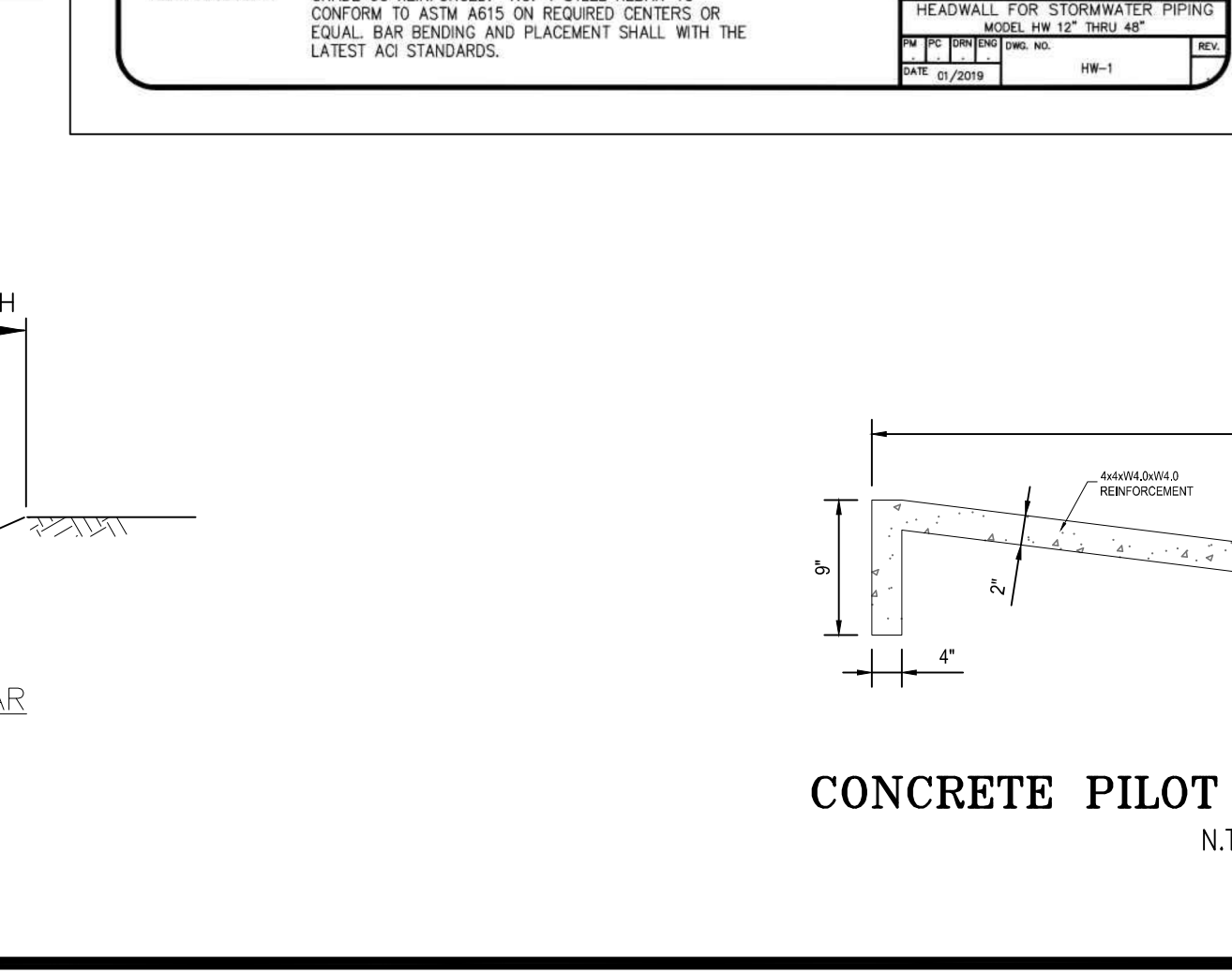
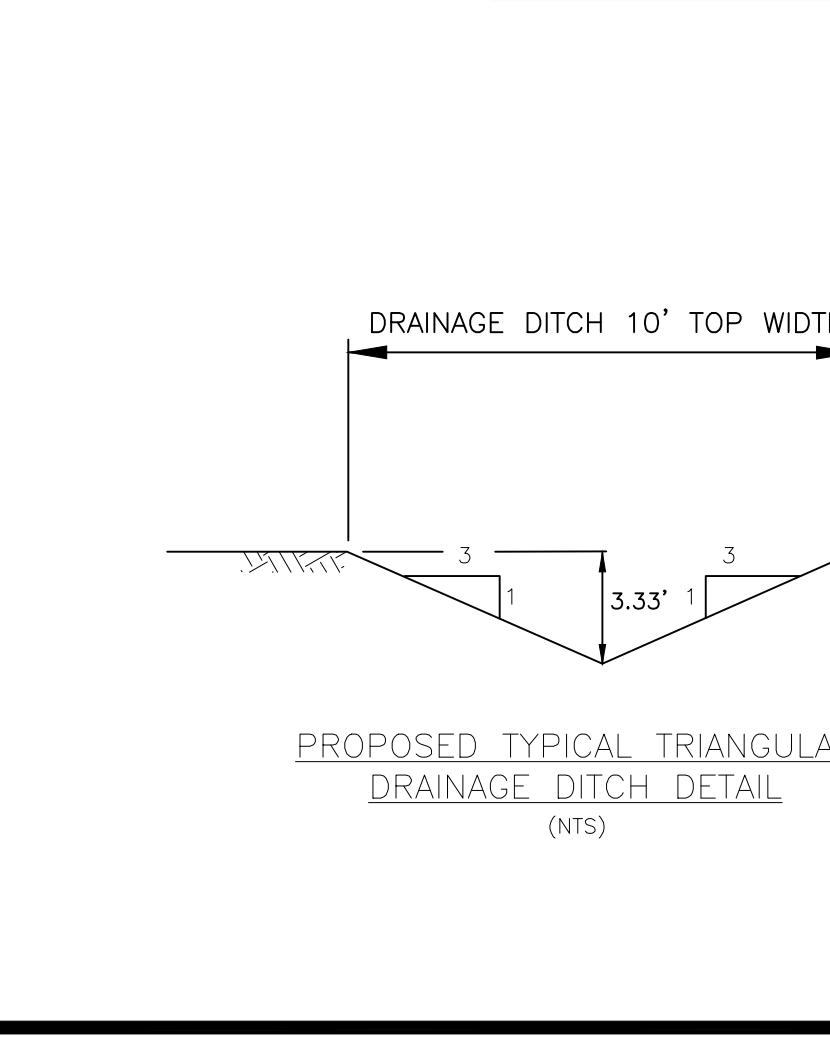
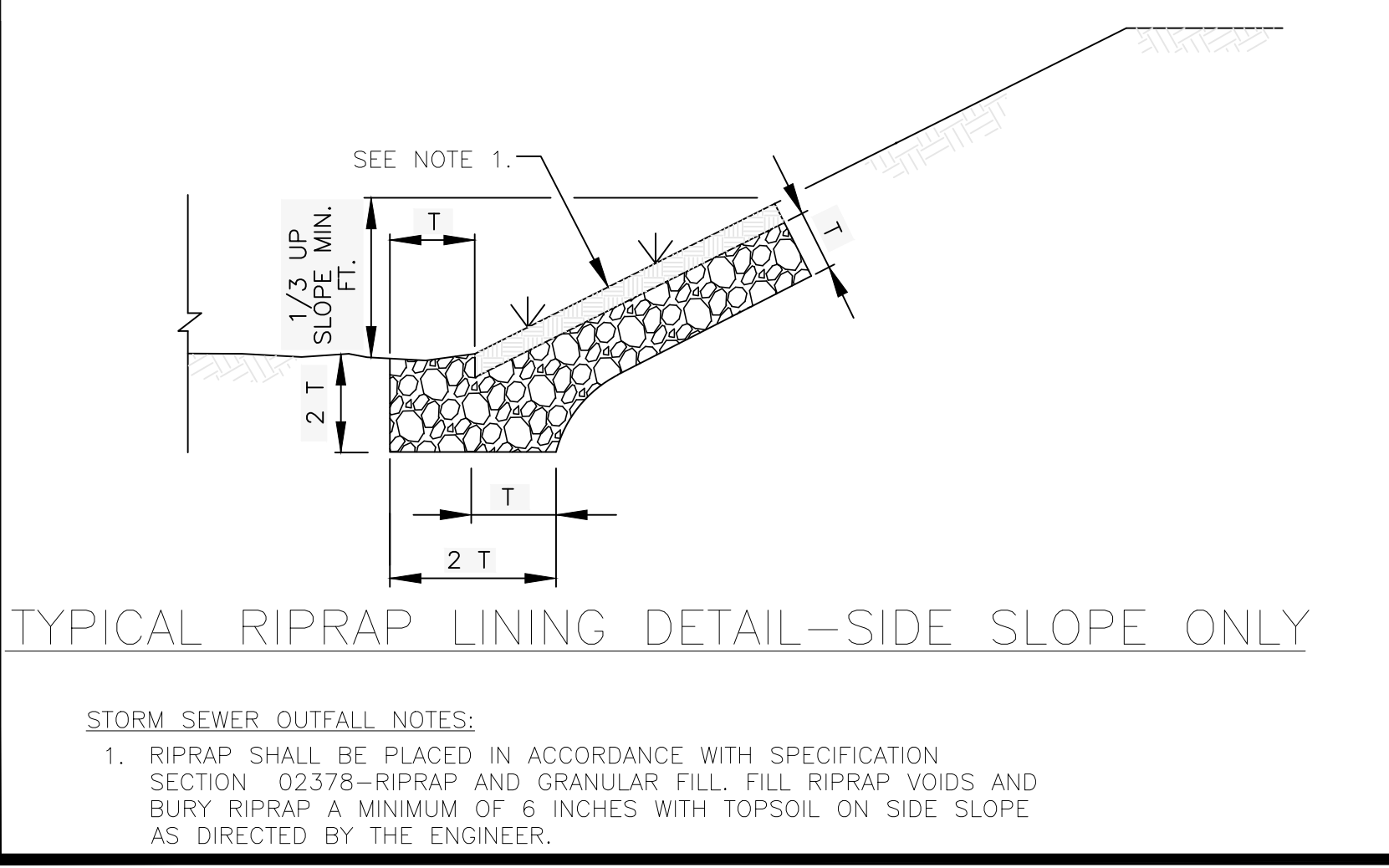
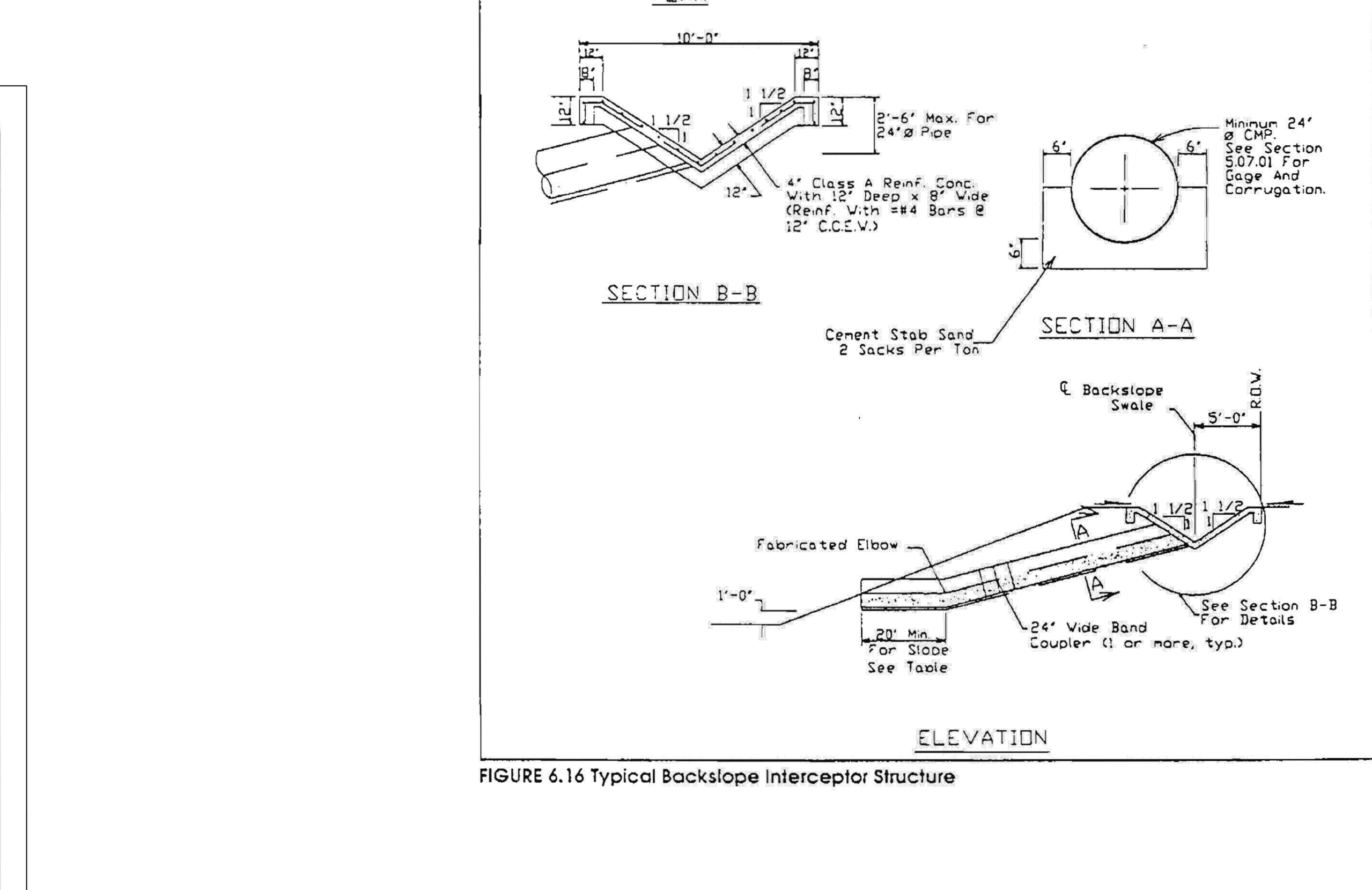
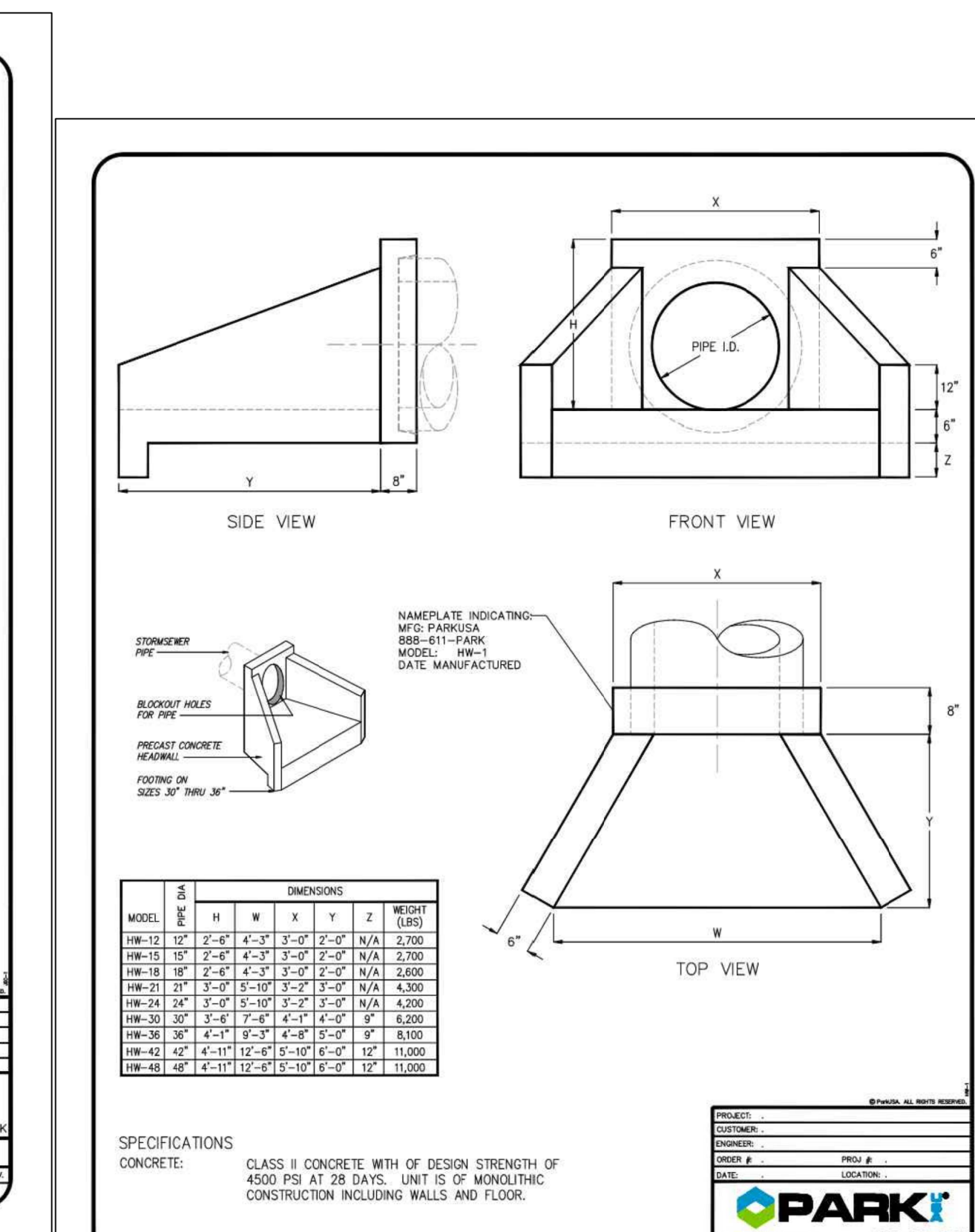
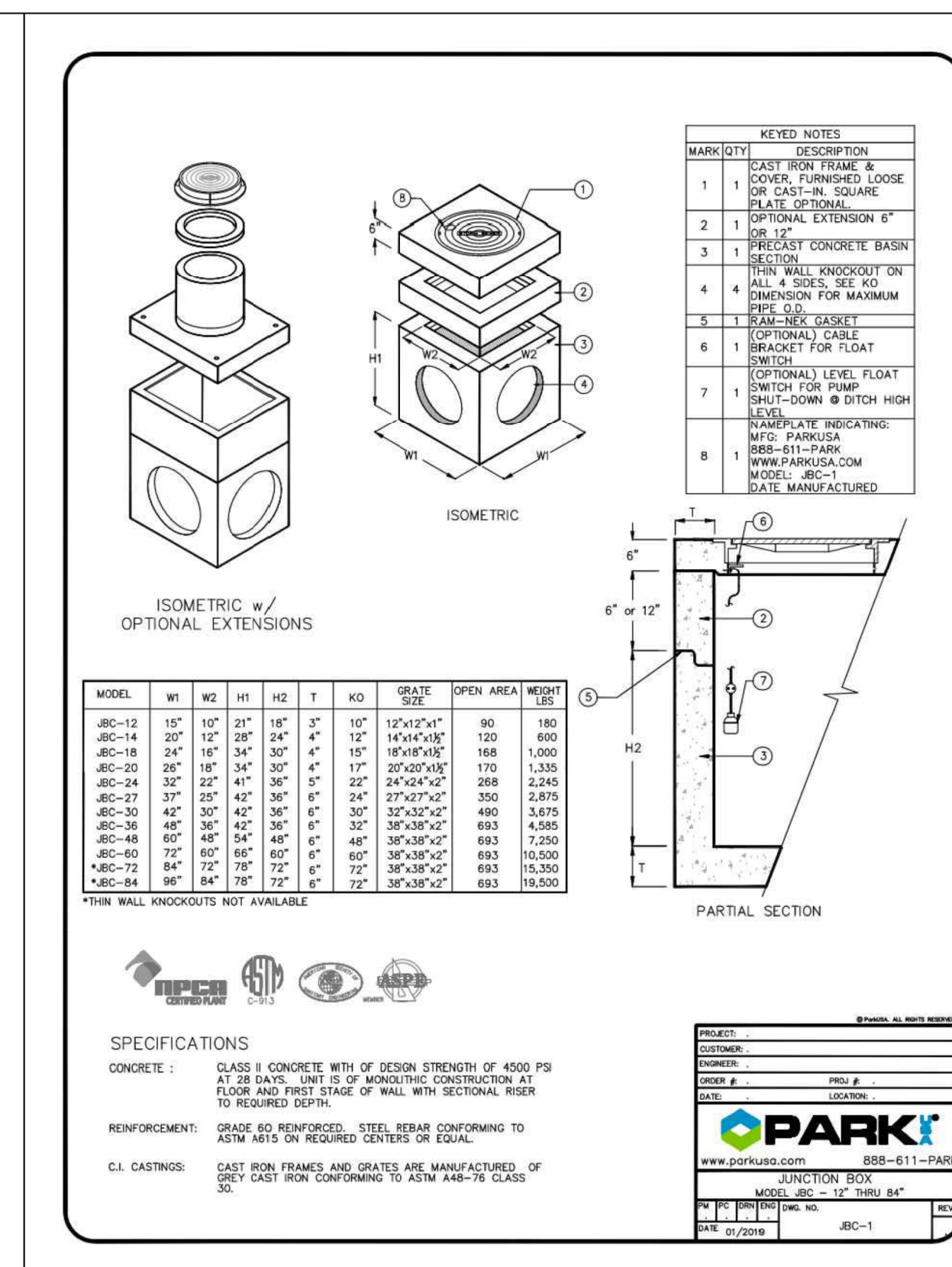
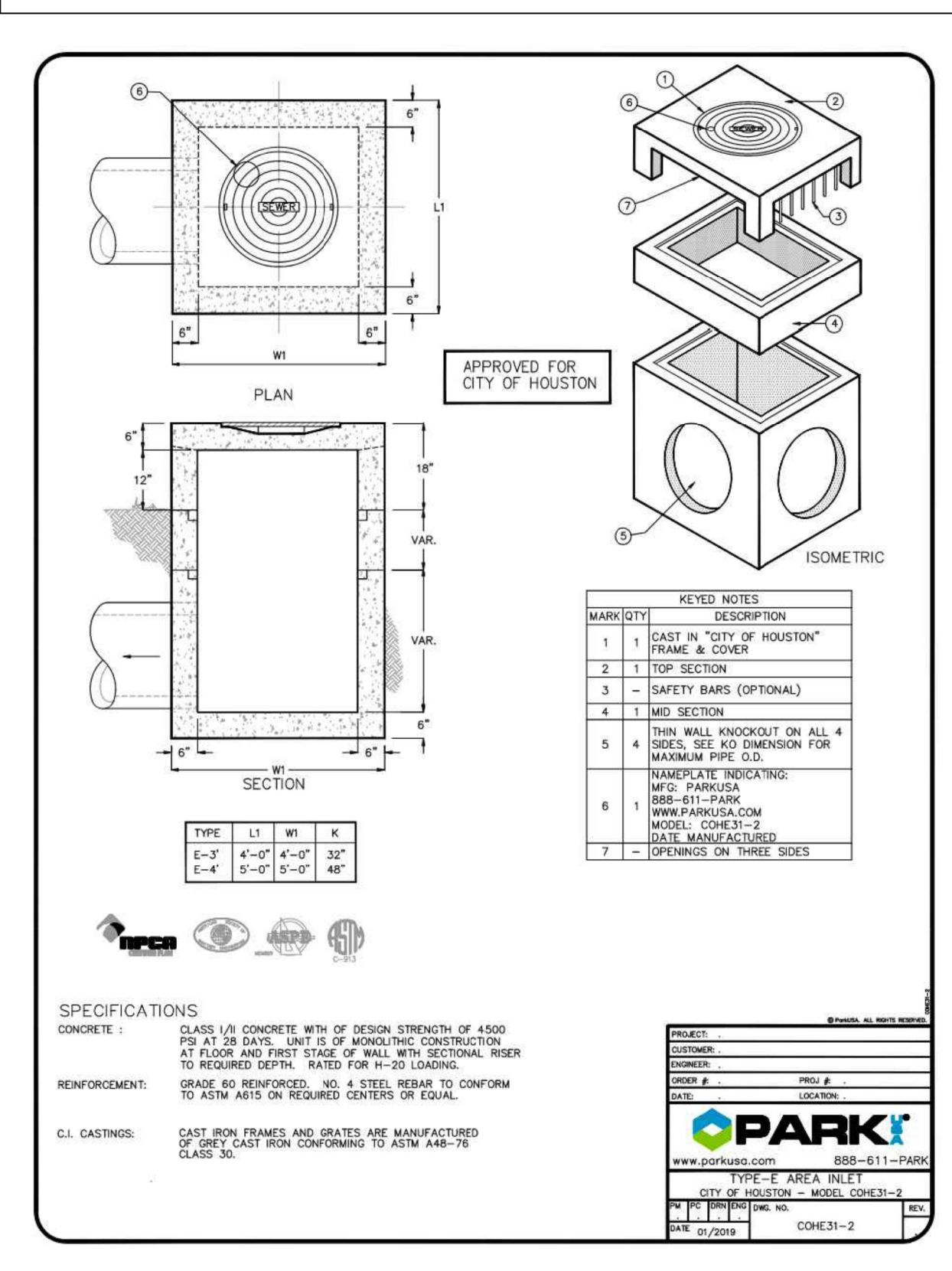
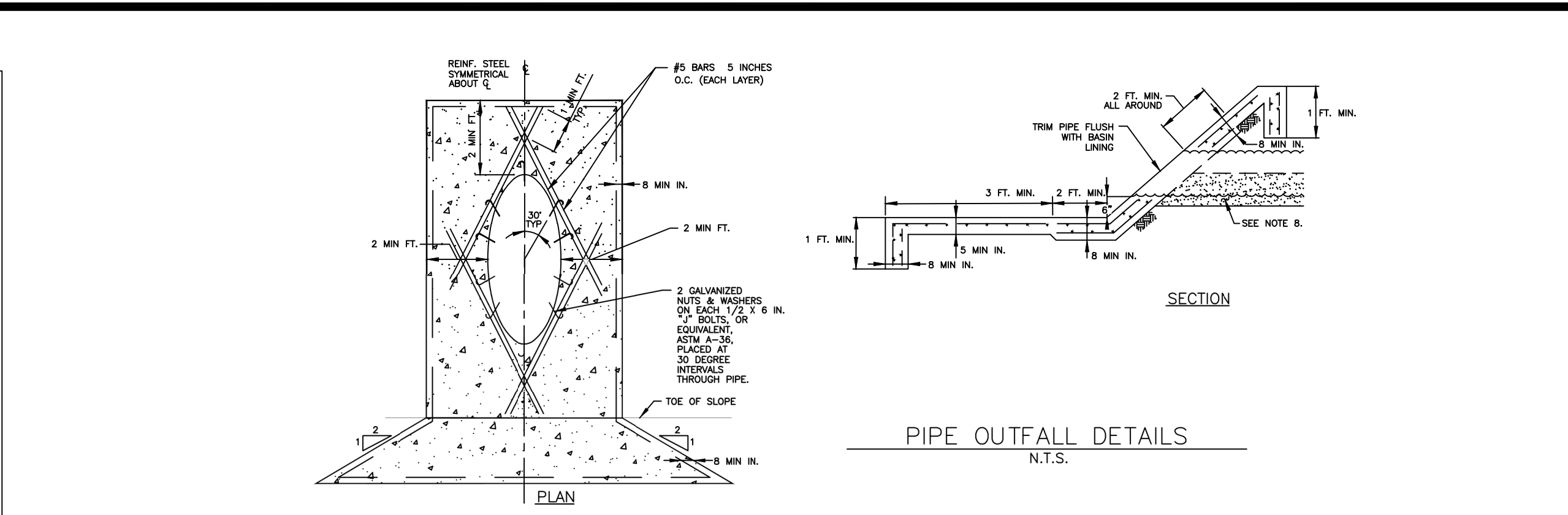
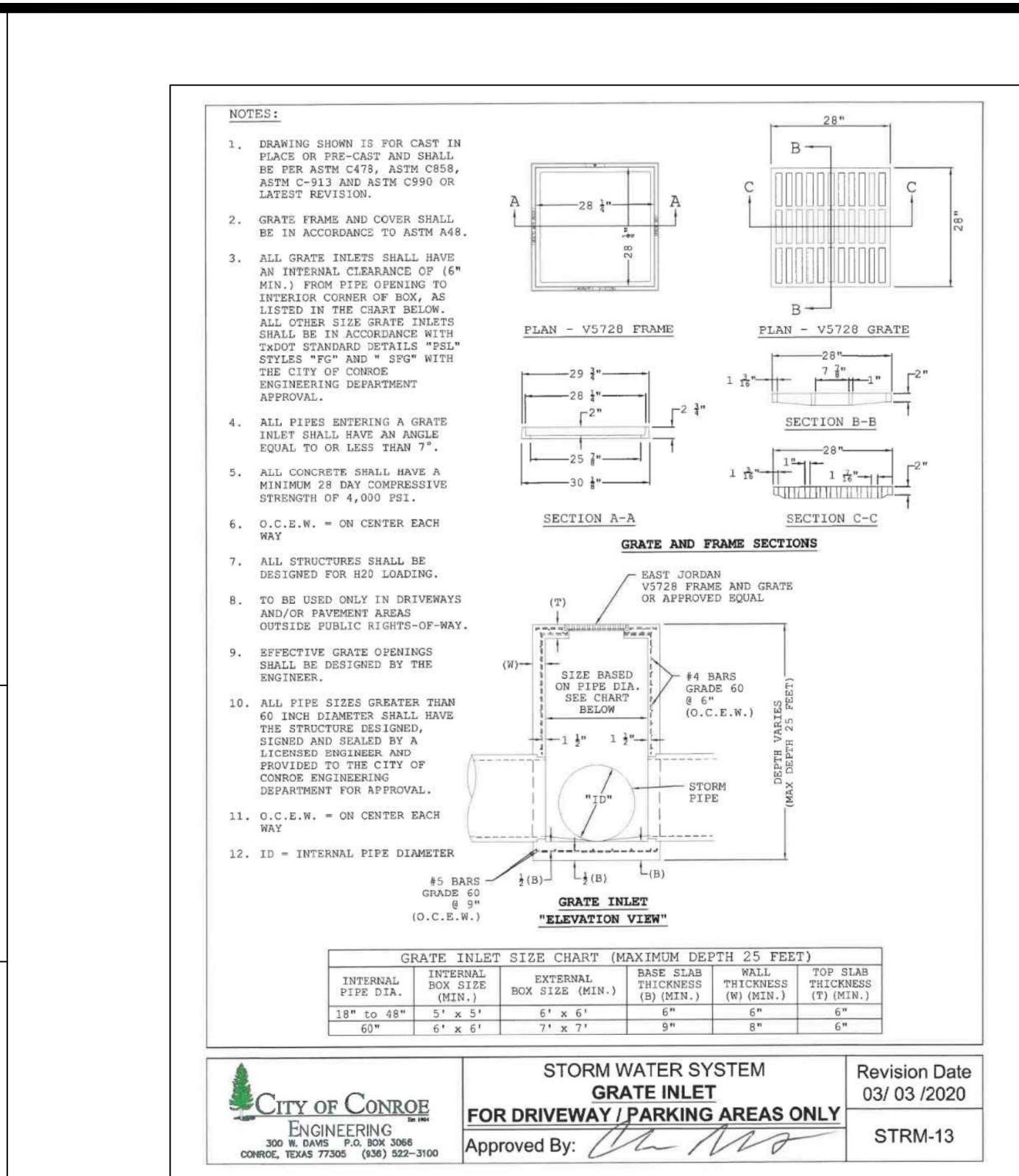
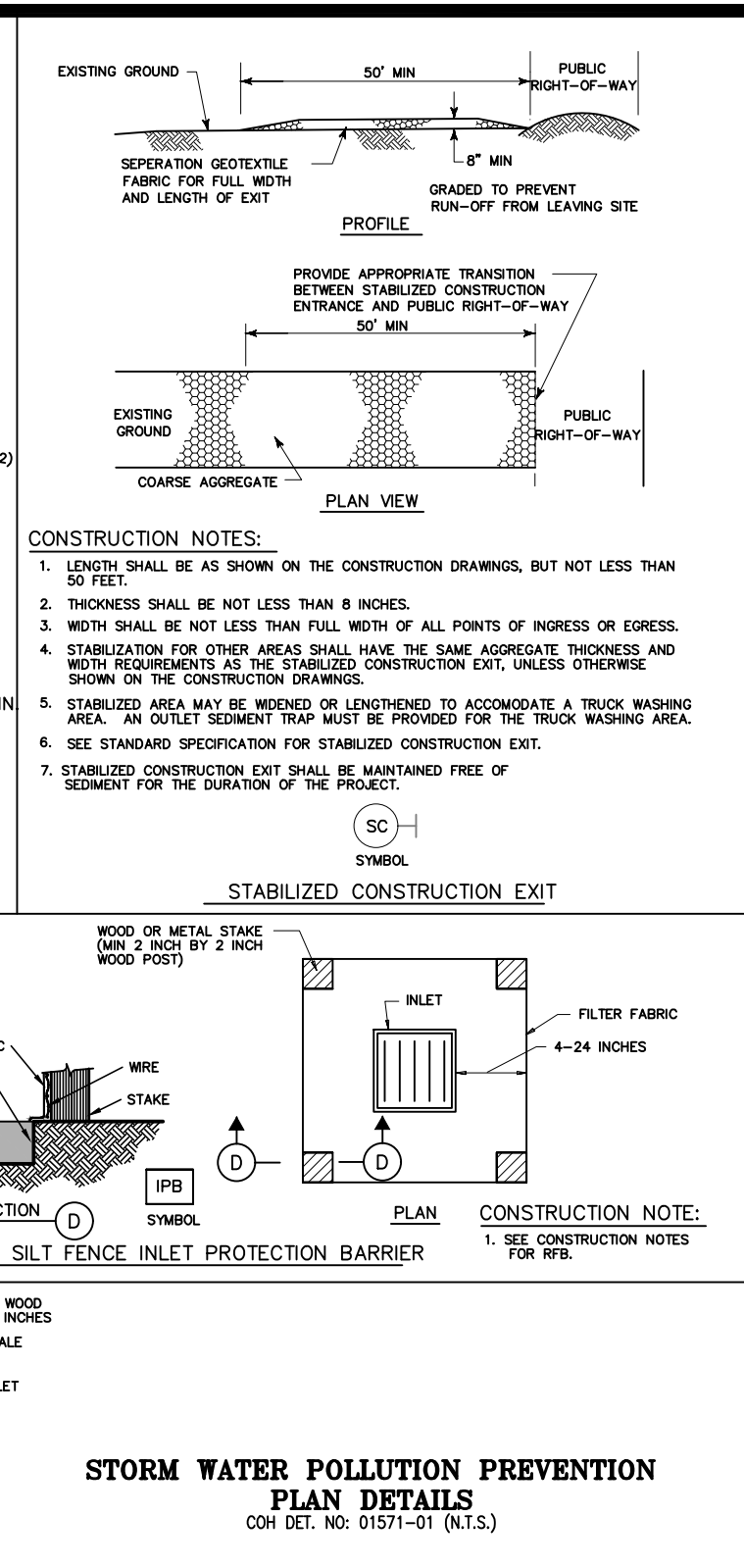
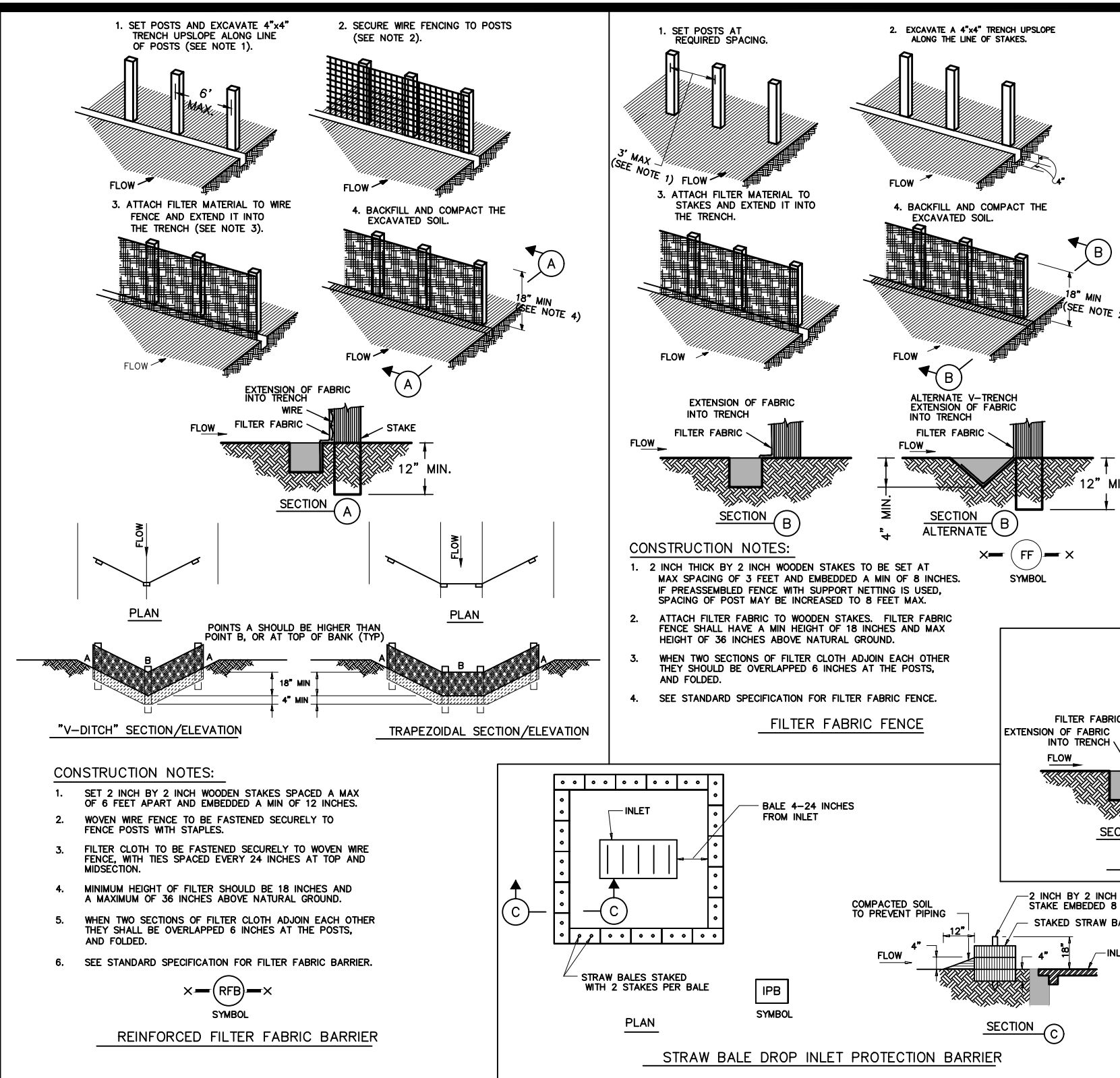
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NEW DANVILLE MEADOWBROOK EXPANSION

STORM SEWER & DETENTION POND DETAILS

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