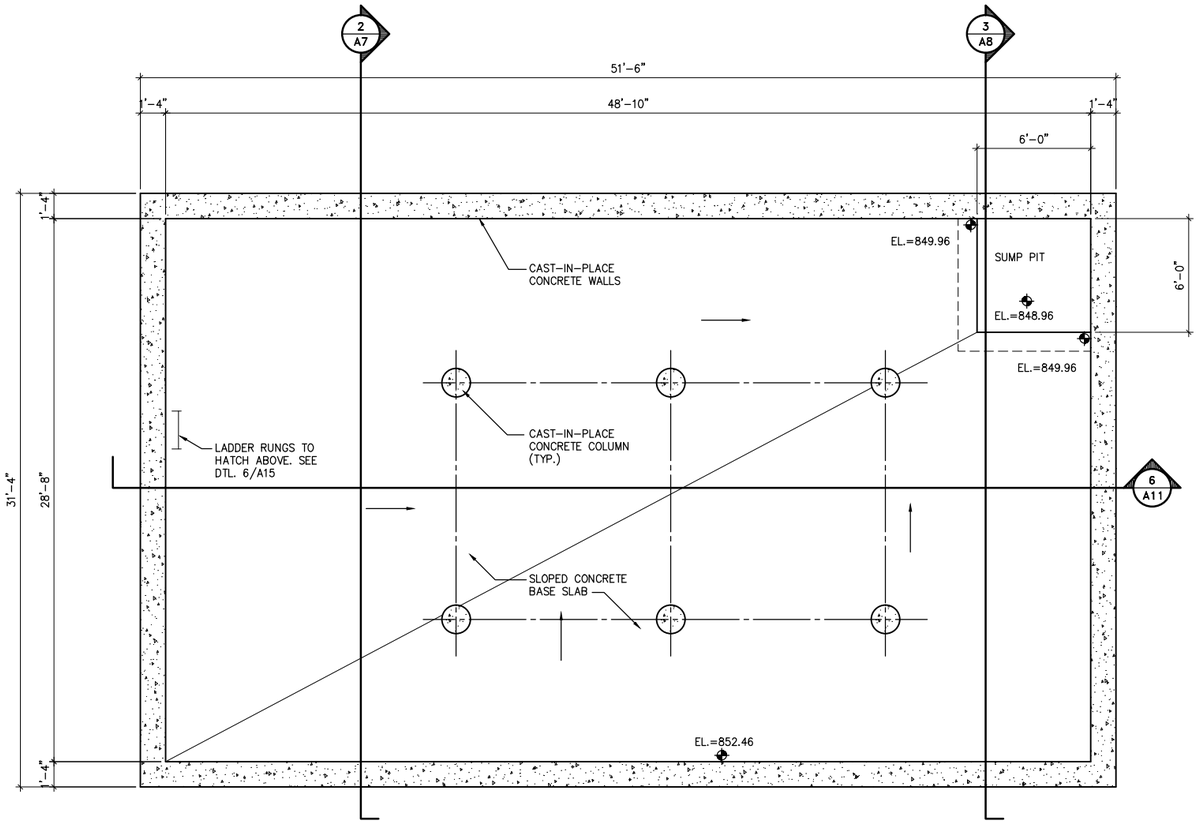
Well U10



BACKWASH TANK PLAN

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

NORTH

RECORD DRAWINGS

DRAFTED BY: RLM

CHECKED: DJV

THIS SHEET SIZED TO 0.5 TIMES THE INDICATED SCALE.

McMAHON
ENGINEERING
ARCHITECTURE
1445 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O.BOX 1025 NEENAH, WI 54957-1025
Tel: (920) 751-4200 Fax: (920) 751-4284
www.mcmgrp.com

STRAND ASSOCIATES INC ENGINEERS

McMahon provides this drawing and data, regardless of form, as instruments of service. All rights including copyrights are retained by McMahon. The client and/or recipient agrees that to the fullest extent permitted by law to indemnify and hold harmless McMahon for any reuse of or changes made to the original contents of this drawing without prior written consent by McMahon.

NO.	DATE	REVISION
1	2/26/10	RELEASED FOR BIDDING
2	6/20/12	RECORD DRAWINGS

WELL U10 TREATMENT FACILITY ADDITION
CITY OF ROCKFORD, ILLINOIS
BACKWASH TANK PLAN

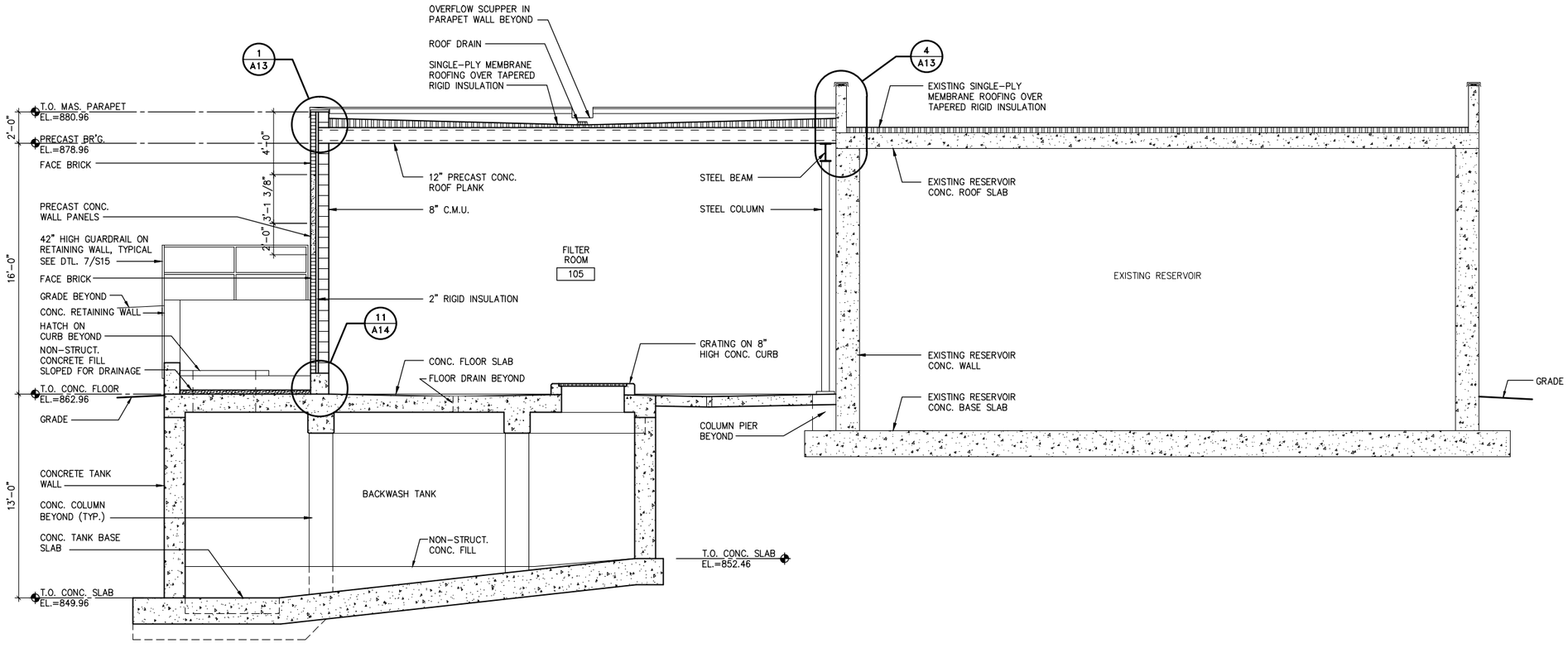
DESIGNED	DRAWN
PWH	PGK

PROJECT NO.
R0018-990794.02

DATE
FEB. 26, 2010

SHEET NO.
A3

w:\PROJECTS\R0018\990794\02\DRAWINGS\ROC-U10-A03.dwg, ROC-U10-A03, 4/9/2013 10:27:53 AM, pkolarik, 1:2



BUILDING SECTION

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

2 A7

RECORD DRAWINGS

DRAFTED BY: RLM

CHECKED: DJV

THIS SHEET SIZED TO 0.5 TIMES THE INDICATED SCALE.

McMAHON ENGINEERS ARCHITECTS
1445 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O.BOX 1025 NEENAH, WI 54957-1025
Tel: (920) 751-4200 Fax: (920) 751-4284
www.mcmgrp.com

STRAND ASSOCIATES ENGINEERS

McMahon provides this drawing and data, regardless of form; as instruments of service. All rights including copyrights are retained by McMahon. The client and/or recipient agrees to the fullest extent permitted by law to indemnify and hold McMahon harmless for any reuse of or changes made to the original drawing or data without prior written consent by McMahon.

NO.	DATE	REVISION
1	2/26/10	RELEASED FOR BIDDING
2	6/20/12	RECORD DRAWINGS

WELL U10 TREATMENT FACILITY ADDITION
CITY OF ROCKFORD, ILLINOIS
BUILDING SECTION

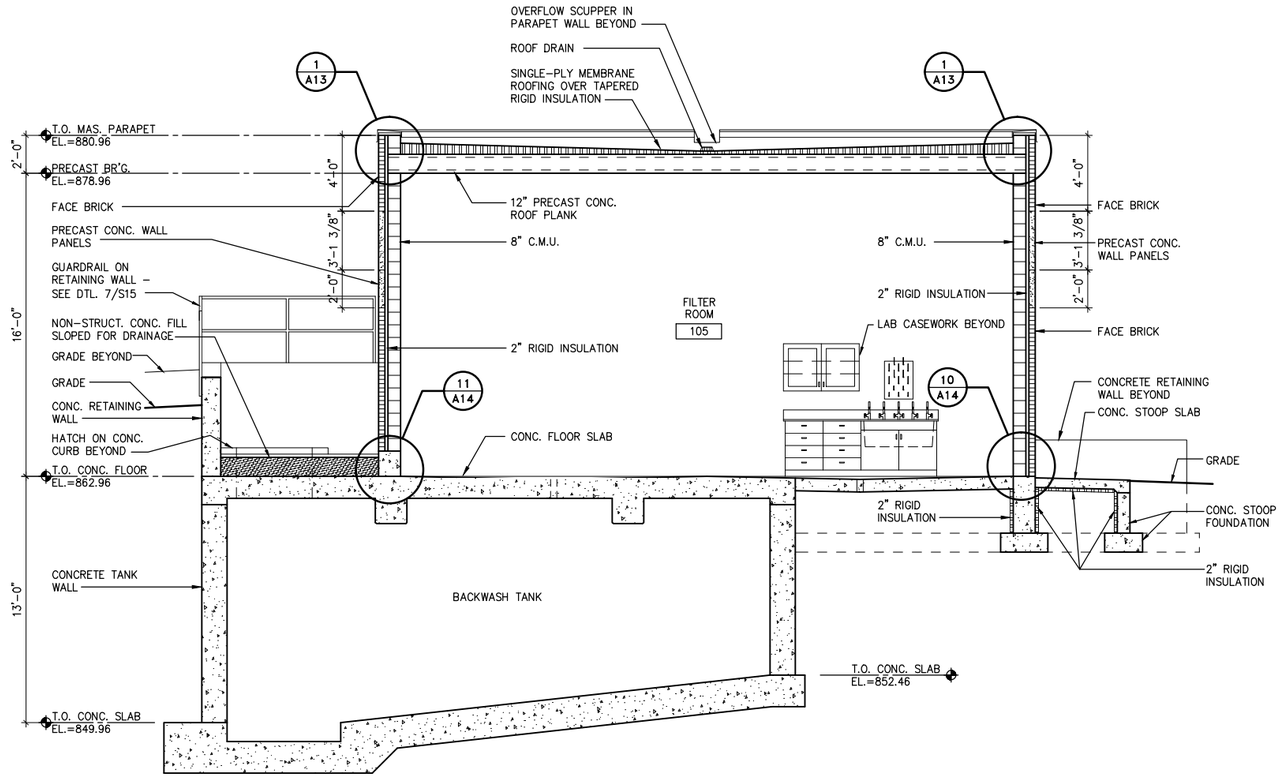
DESIGNED	DRAWN
PWH	PGK

PROJECT NO. R0018-990794.02

DATE FEB. 26, 2010

SHEET NO. A7

w:\PROJECTS\R0018\990794\02\DRAWINGS\ROC-U10-A07.dwg, Layout1, 4/9/2013 10:27:58 AM, pkolarik, 1:2



BUILDING SECTION

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

3 A8

RECORD DRAWINGS

DRAFTED BY: RLM

CHECKED: DJV

THIS SHEET SIZED TO 0.5 TIMES THE INDICATED SCALE.

McMAHON
ENGINEERS ARCHITECTS
1445 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O.BOX 1025 NEENAH, WI 54957-1025
Tel: (920) 751-4200 Fax: (920) 751-4284
www.mcmgrp.com

STRAND ASSOCIATES ENGINEERS

McMahon provides this drawing and data, regardless of form, as instruments of service. All rights including copyrights are retained by McMahon. The client and/or recipient agrees that to the fullest extent permitted by law to indemnify and hold McMahon harmless for any reuse of or changes made to the original documents or data without prior written consent by McMahon.

NO.	DATE	REVISION
1	2/26/10	RELEASED FOR BIDDING
2	6/20/12	RECORD DRAWINGS

WELL U10 TREATMENT FACILITY ADDITION
CITY OF ROCKFORD, ILLINOIS
BUILDING SECTION

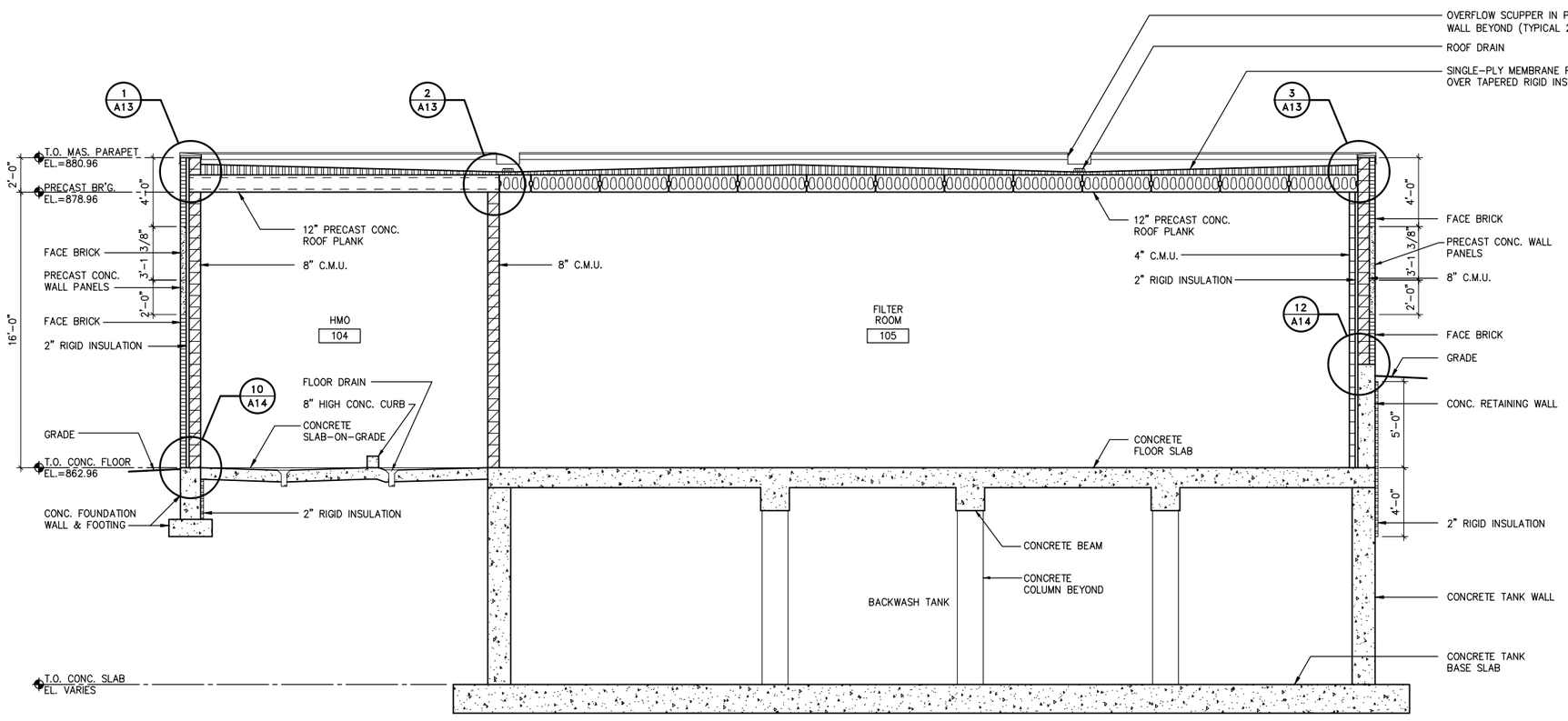
DESIGNED	DRAWN
PWH	PGK

PROJECT NO. R0018-990794.02

DATE FEB. 26, 2010

SHEET NO. A8

w:\PROJECTS\R0018\990794\02\DRAWINGS\ROC-U10-A08.dwg, Layout1, 4/9/2013 10:28:02 AM, pkolarik, 1:2



BUILDING SECTION

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

6 A11

RECORD DRAWINGS

DRAFTED BY: RLM

CHECKED: DJV

THIS SHEET SIZED TO 0.5 TIMES THE INDICATED SCALE.

McMAHON ENGINEERS ARCHITECTS
1445 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O.BOX 1025 NEENAH, WI 54957-1025
Tel: (920) 751-4200 Fax: (920) 751-4284
www.mcmgrp.com

STRAND ASSOCIATES INC. ENGINEERS

McMahon provides this drawing and data, regardless of form; as instruments of service. All rights including copyrights are retained by McMahon. The client and/or recipient agrees to the fullest extent permitted by law to indemnify and hold McMahon harmless for any reuse of or changes made to the original drawing or data without prior written consent by McMahon.

NO.	DATE	REVISION
1	2/26/10	RELEASED FOR BIDDING
2	6/20/12	RECORD DRAWINGS

WELL U10 TREATMENT FACILITY ADDITION
CITY OF ROCKFORD, ILLINOIS
BUILDING SECTION

DESIGNED	DRAWN
PWH	PGK

PROJECT NO. R0018-990794.02

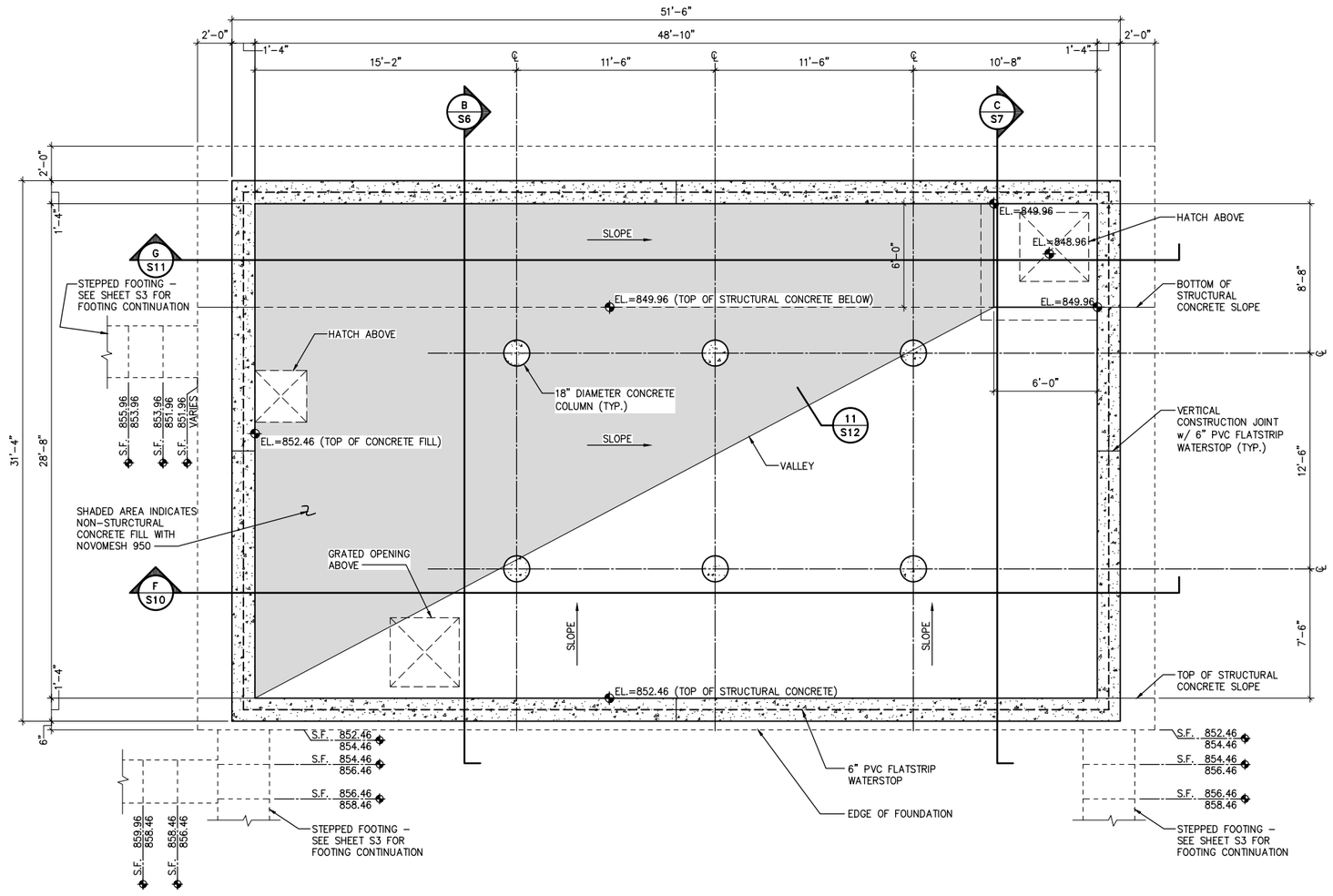
DATE FEB. 26, 2010

SHEET NO. A11

w:\PROJECTS\R0018\990794\02\DRAWINGS\ROC-U10-A11.dwg, Layout1, 4/9/2013 10:28:07 AM, pkolarik, 1:2

STRUCTURAL NOTES:

1. FOR WATERSTOP PROFILES, SEE DETAIL 1/S12.
2. FOR WATERSTOP CONNECTIONS, SEE DETAILS 2/S12 & 3/S12.
3. FOR TYPICAL CONCRETE CORNERS AND INTERSECTIONS, SEE DETAIL 4/S12.
4. FOR BASE SLAB AND WALL CONSTRUCTION JOINTS, SEE DETAILS 5/S12 & 6/S12.
5. FOR OPENINGS IN CONCRETE SLABS AND WALLS, SEE DETAIL 7/S12.



RECORD DRAWINGS
DRAFTED BY: RLM
CHECKED: DJV

LOWER LEVEL PLAN

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

NORTH

THIS SHEET SIZED TO 0.5 TIMES THE INDICATED SCALE.

McMAHON
ENGINEERS ARCHITECTS
1445 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O.BOX 1025 NEENAH, WI 54957-1025
Tel: (920) 751-4200 Fax: (920) 751-4284
www.mcmgrp.com

URBAN LAND INTERESTS ENGINEERS

McMahon provides this drawing and data, regardless of form, as instruments of service which, including copyrights are retained by McMahon. The client and/or recipient agrees to the fullest extent permitted by law to indemnify and hold McMahon harmless for any reuse of or changes made to the original documents or data without the written consent by McMahon.

NO.	DATE	REVISION
1	2/26/10	RELEASED FOR BIDDING
2	6/20/12	RECORD DRAWINGS

WELL U10 TREATMENT FACILITY ADDITION
CITY OF ROCKFORD, ILLINOIS
LOWER LEVEL PLAN

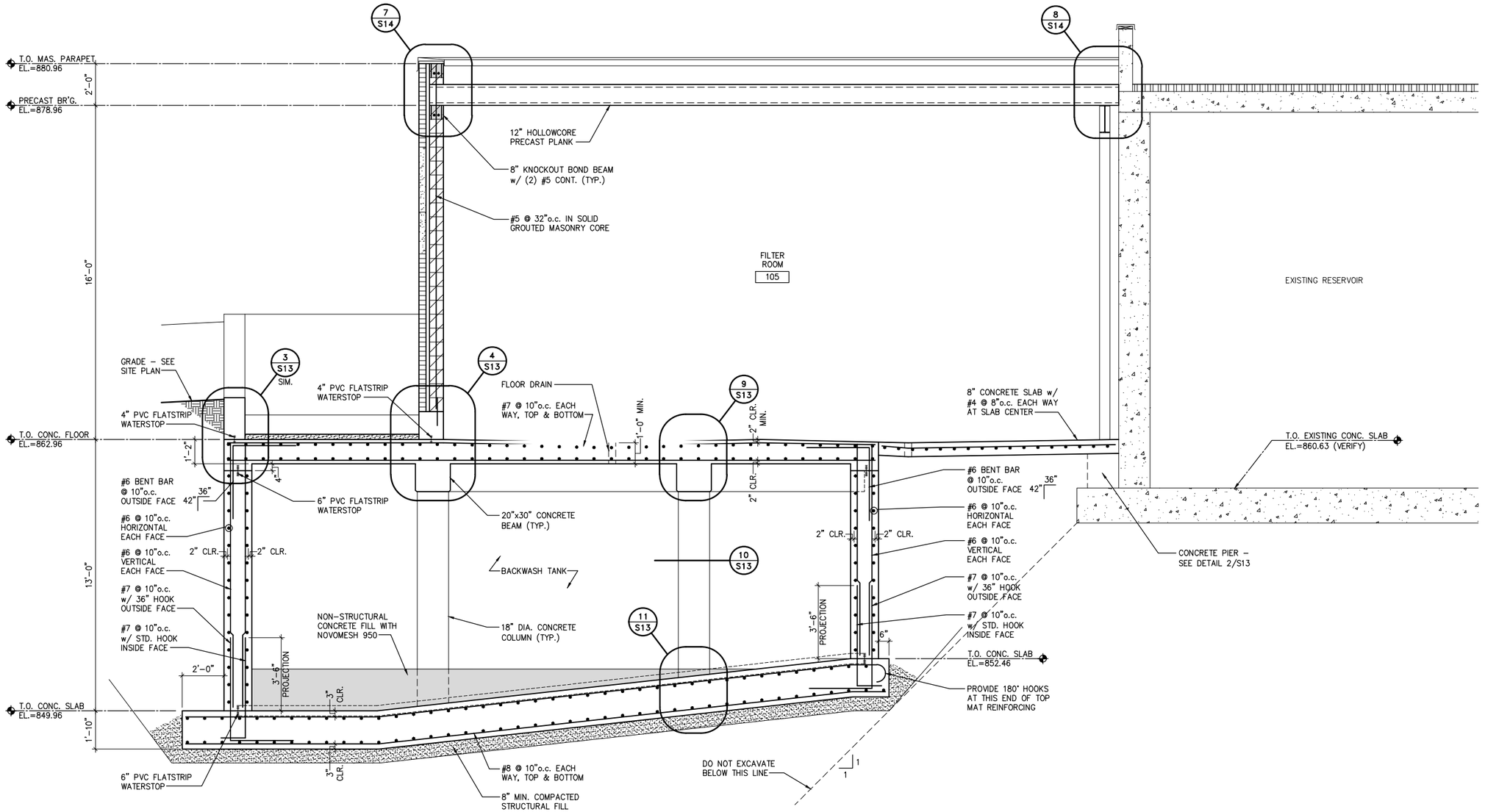
DESIGNED	DRAWN
MOB	SEG

PROJECT NO. R0018-990794.02

DATE FEB. 26, 2010

SHEET NO. S2

w:\PROJECTS\R0018\990794\02\DRAWINGS\ROC-U10-S02.dwg, ROC-U10-S02, 4/9/2013 10:28:12 AM, pkolarik, 1:2



SECTION

SCALE: 3/8" = 1'-0"

B S6

RECORD DRAWINGS

DRAFTED BY: RLM

CHECKED: DJV

THIS SHEET SIZED TO 0.5 TIMES THE INDICATED SCALE.

McMAHON ENGINEERS ARCHITECTS
1445 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O.BOX 1025 NEENAH, WI 54957-1025
Tel: (920) 751-4200 Fax: (920) 751-4284
www.mcmgrp.com

STRAND ASSOCIATES INC ENGINEERS

McMahon provides this drawing and data, regardless of form, as instruments of service. All rights including copyrights are retained by McMahon. The client and/or recipient agrees to indemnify to the extent permitted by law to hold harmless McMahon from any reuse of or changes made to the original contents of this drawing without written consent by McMahon.

NO.	DATE	REVISION
1	2/26/10	RELEASED FOR BIDDING
2	6/20/12	RECORD DRAWINGS

WELL U10 TREATMENT FACILITY ADDITION
CITY OF ROCKFORD, ILLINOIS
STRUCTURAL SECTION

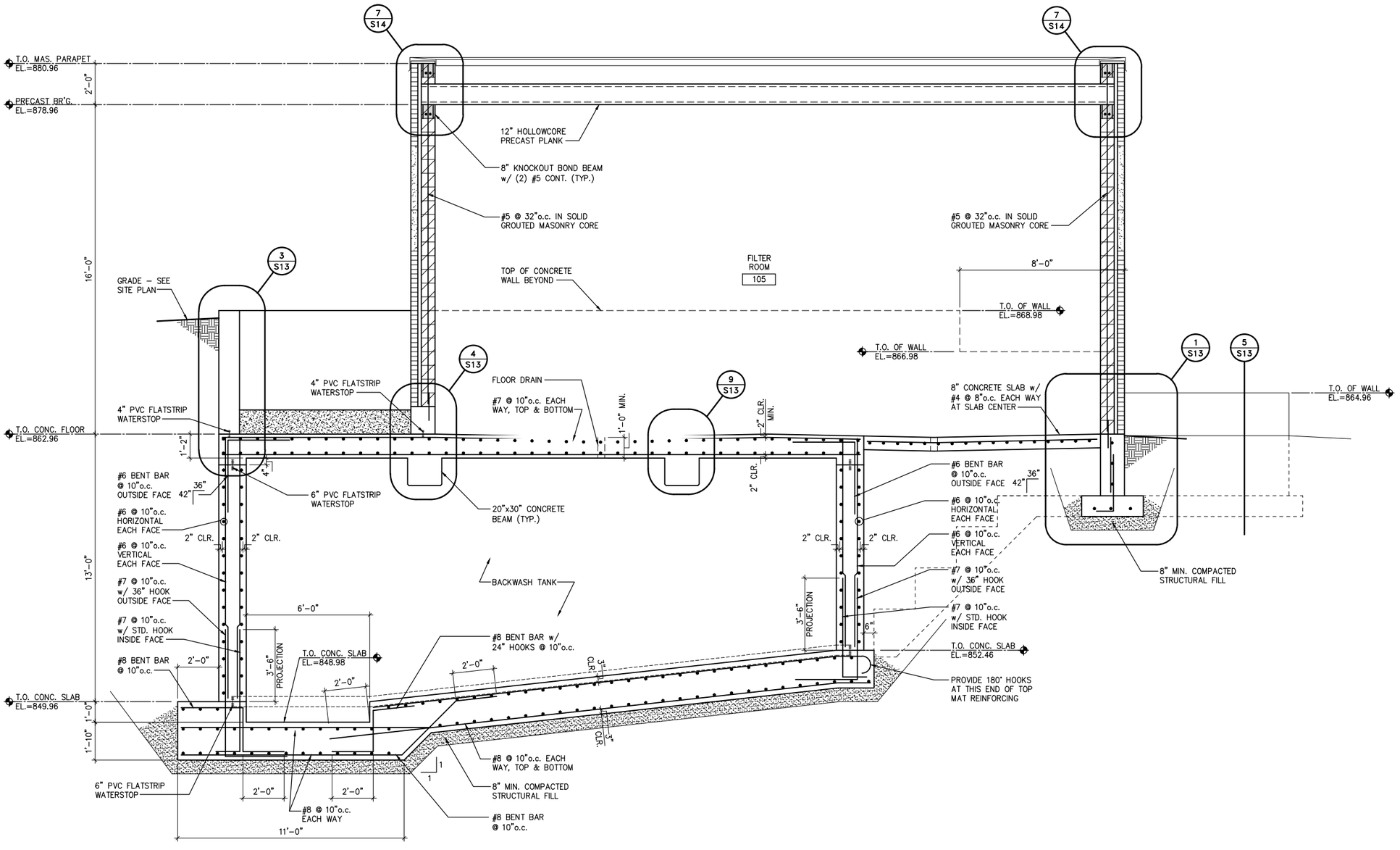
DESIGNED	DRAWN
MOB	SEG

PROJECT NO. R0018-990794.02

DATE FEB. 26, 2010

SHEET NO. S6

w:\PROJECTS\R0018\990794\02\DRAWINGS\ROC-U10-S06.dwg, ROC-U10-S06, 4/9/2013 10:28:17 AM, pkolarik, 1:2



SECTION C/S7

SCALE: 3/8" = 1'-0"

RECORD DRAWINGS

DRAFTED BY: RLM

CHECKED: DJV

THIS SHEET SIZED TO 0.5 TIMES THE INDICATED SCALE.

McMAHON ENGINEERS ARCHITECTS
1445 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O.BOX 1025 NEENAH, WI 54957-1025
Tel: (920) 751-4200 Fax: (920) 751-4284
www.mcmgrp.com

STRAND ASSOCIATES ENGINEERS

McMahon provides this drawing and data, regardless of form; as instruments of service. All rights including copyrights are retained by McMahon. The client and/or recipient agrees to the fullest extent permitted by law to indemnify and hold McMahon harmless for any reuse of or changes made to the original drawing or data without prior written consent by McMahon.

NO.	DATE	REVISION
1	2/26/10	RELEASED FOR BIDDING
2	6/20/12	RECORD DRAWINGS

WELL U10 TREATMENT FACILITY ADDITION
CITY OF ROCKFORD, ILLINOIS
STRUCTURAL SECTION

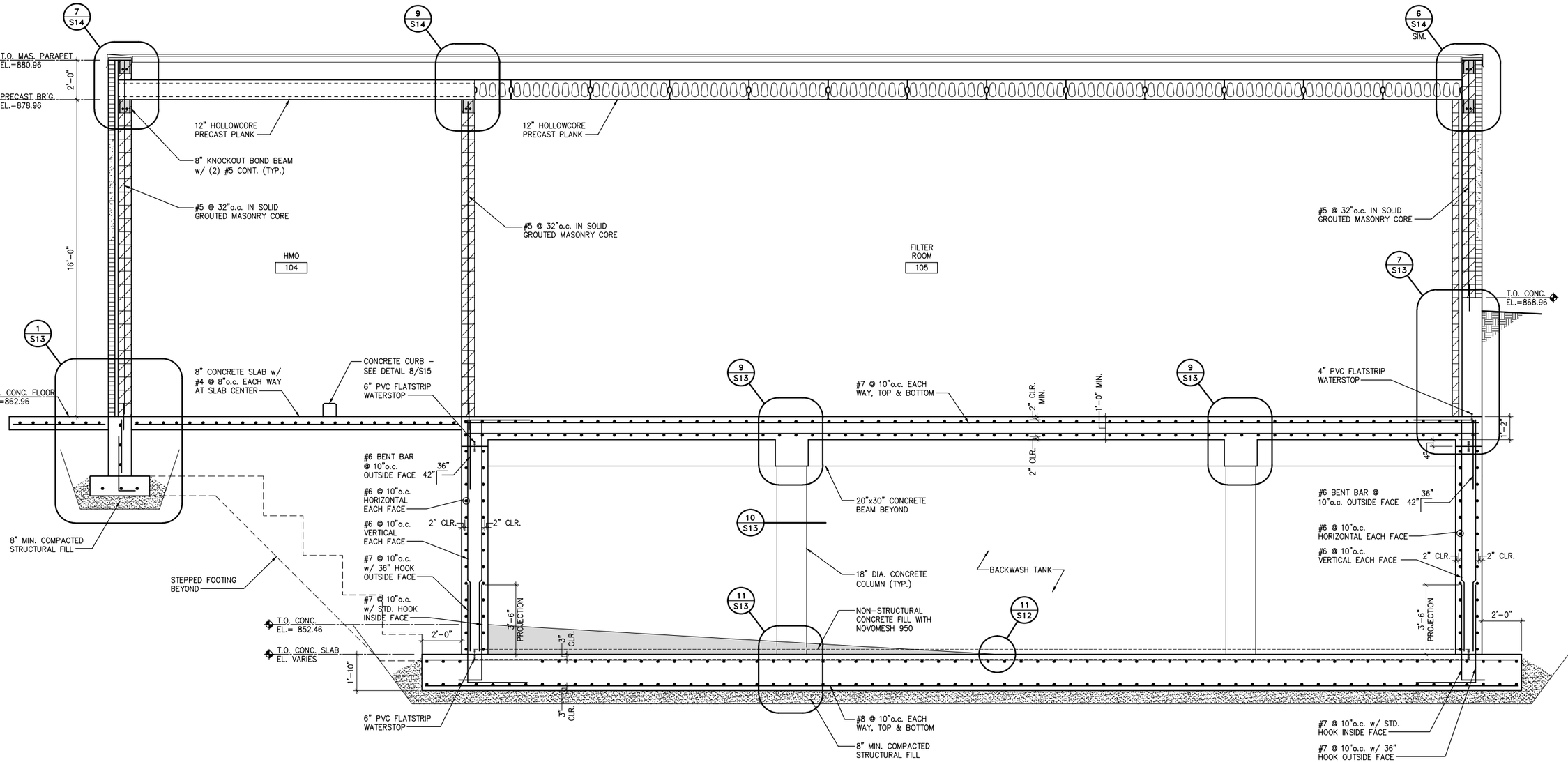
DESIGNED	DRAWN
MOB	SEG

PROJECT NO. R0018-990794.02

DATE FEB. 26, 2010

SHEET NO. S7

w:\PROJECTS\R0018\990794\02\DRAWINGS\ROC-U10-S07.dwg, ROC-U10-S07, 4/9/2013 10:28:22 AM, pkolarik, 1:2



SECTION

SCALE: 3/8" = 1'-0"

F S10

RECORD DRAWINGS

DRAFTED BY: RLM

CHECKED: DJV

THIS SHEET SIZED TO 0.5 TIMES THE INDICATED SCALE.

McMAHON
ENGINEERS ARCHITECTS
1445 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O.BOX 1025 NEENAH, WI 54957-1025
Tel: (920) 751-4200 Fax: (920) 751-4284
www.mcmgrp.com

STRAND ASSOCIATES ENGINEERS

McMahon provides this drawing and data, regardless of form, as instruments of service. All rights including copyrights are retained by McMahon. The client and/or recipient agrees that to the fullest extent permitted by law to indemnify and hold McMahon harmless for any reuse of or changes made to the original drawings or data without the prior written consent by McMahon.

NO.	DATE	REVISION
1	2/26/10	RELEASED FOR BIDDING
2	6/20/12	RECORD DRAWINGS

WELL U10 TREATMENT FACILITY ADDITION
CITY OF ROCKFORD, ILLINOIS
STRUCTURAL SECTION

DESIGNED	DRAWN
MOB	SEG

PROJECT NO. R0018-990794.02

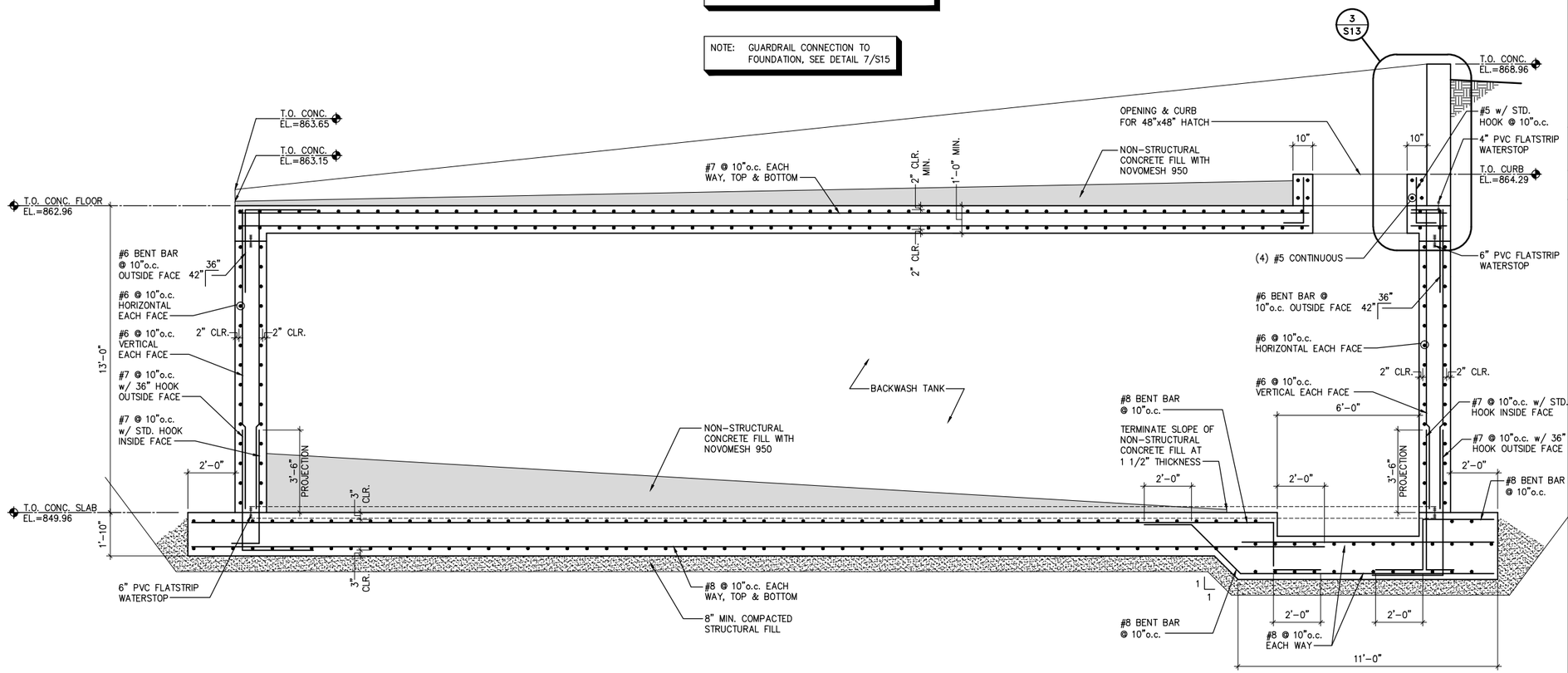
DATE FEB. 26, 2010

SHEET NO. S10

w:\PROJECTS\R0018\990794\02\DRAWINGS\ROC-U10-S10.dwg, ROC-U10-S10, 4/9/2013 10:28:27 AM, pkolarik, 1:2

NOTE: SEE ARCHITECTURAL PLANS FOR GUARDRAILS MOUNTED TO WALL BEYOND.

NOTE: GUARDRAIL CONNECTION TO FOUNDATION, SEE DETAIL 7/S15



SECTION

SCALE: 3/8" = 1'-0"

G / S11

RECORD DRAWINGS

DRAFTED BY: RLM

CHECKED: DJV

THIS SHEET SIZED TO 0.5 TIMES THE INDICATED SCALE.

McMAHON
ENGINEERS ARCHITECTS
1445 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O.BOX 1025 NEENAH, WI 54957-1025
Tel: (920) 751-4200 Fax: (920) 751-4284
www.mcmgrp.com

STRAND ASSOCIATES ENGINEERS

McMahon provides this drawing and data, regardless of form, as instruments of service which, including copyrights are retained by McMahon. The client and/or recipient agrees to the fullest extent permitted by law to indemnify and hold McMahon harmless for any reuse of or changes made to the original drawing or data without first written consent by McMahon.

NO.	DATE	REVISION
1	2/26/10	RELEASED FOR BIDDING
2	6/20/12	RECORD DRAWINGS

WELL U10 TREATMENT FACILITY ADDITION
CITY OF ROCKFORD, ILLINOIS
STRUCTURAL SECTION

DESIGNED	DRAWN
MOB	SEG

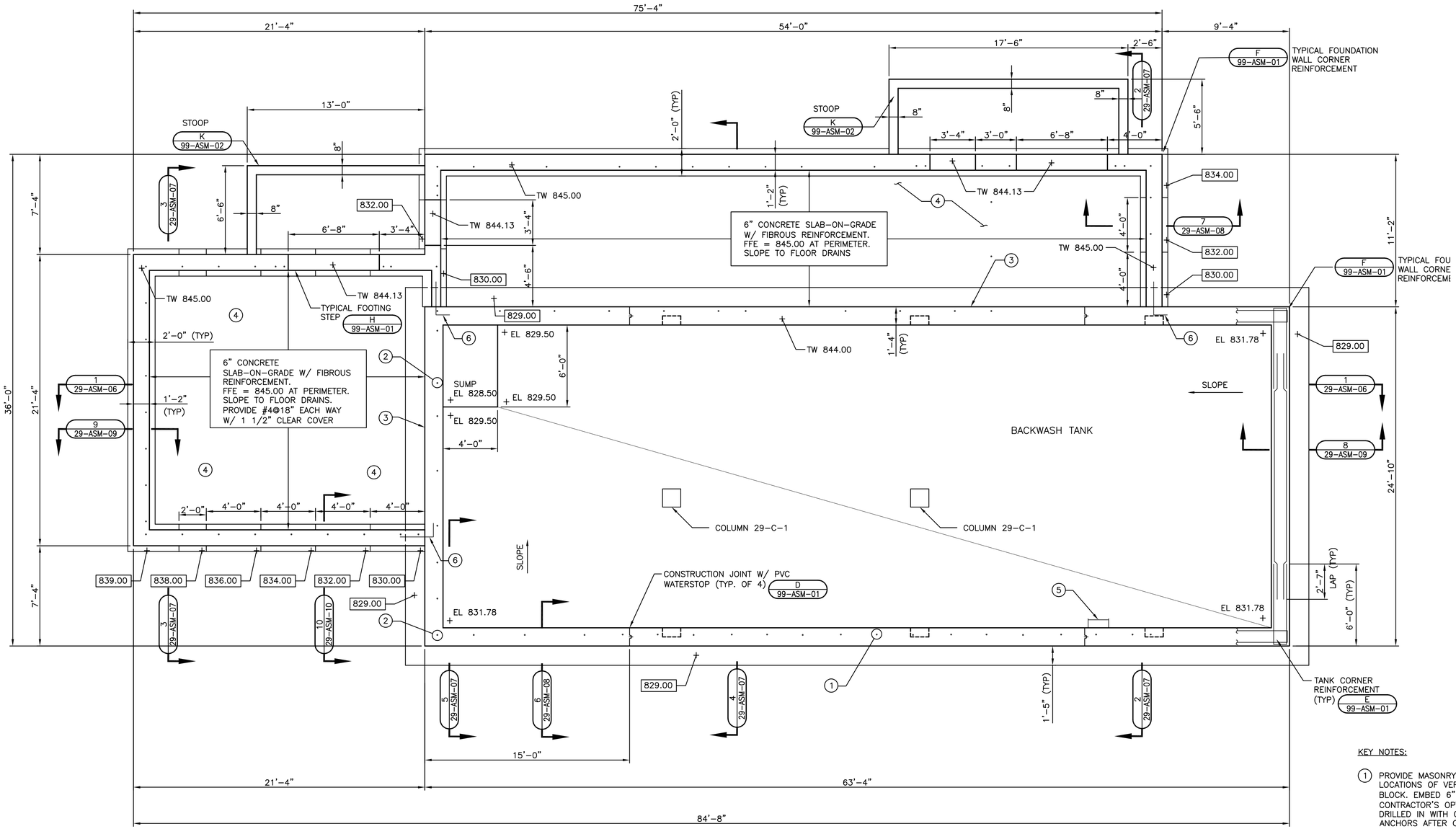
PROJECT NO. R0018-990794.02

DATE FEB. 26, 2010

SHEET NO. S11

w:\PROJECTS\R0018\990794\02\DRAWINGS\ROC-U10-S11.dwg, ROC-U10-S11, 4/9/2013 10:28:32 AM, pkolarik, 1:2

Well U29



FOUNDATION PLAN

0 1' 2' 4' 8'

GENERAL NOTES:

1. PROVIDE EXTRA REINFORCEMENT AT OPENINGS IN WALLS AND SLABS PER C 99-ASM-01 .
2. BACKWASH TANK TOP SLAB REQUIRED BEFORE BACKFILL AROUND WALLS.
3. FOR TYPICAL FOUNDATION WALL REINFORCEMENT SEE L 99-ASM-03 .

KEY NOTES:

(1) PROVIDE MASONRY DOWELS TO MATCH LOCATIONS OF VERTICAL REINFORCING IN BLOCK. EMBED 6" IN FOUNDATION. AT CONTRACTOR'S OPTION, DOWELS MAY BE DRILLED IN WITH GROUT OR EPOXY ANCHORS AFTER CONCRETE HAS CURED. LAP 48 BAR DIAMETERS. TYPICAL ALL WALLS. SEE FLOOR PLAN FOR SIZE AND SPACING.

(2) PROVIDE #7 x 7'-0" REINFORCING BAR. LAP 3'-6" WITH VERTICAL REINFORCING IN TANK WALL AND LAP 3'-6" WITH VERTICAL REINFORCING IN BLOCK. LOCATE TO CLEAR ALL DOORS.

(3) PROVIDE 1/2" EXPANSION MATERIAL AND CAULK BETWEEN SLAB-ON-GRADE AND TANK SLAB.

(4) PROVIDE #4@12" EACH WAY CENTERED IN SLAB IN CONTAINMENT AREAS. DO NOT JOINT FLOOR IN THESE AREAS.

(5) PROVIDE STAINLESS STEEL LADDER PER F 99-ASM-02 .

(6) PROVIDE #4@12" DOWELS. LAP 1'-10" WITH TYPICAL FOUNDATION WALL REINFORCEMENT.

NO.	REVISIONS	DATE:
1	RECORD DRAWINGS	7/2010

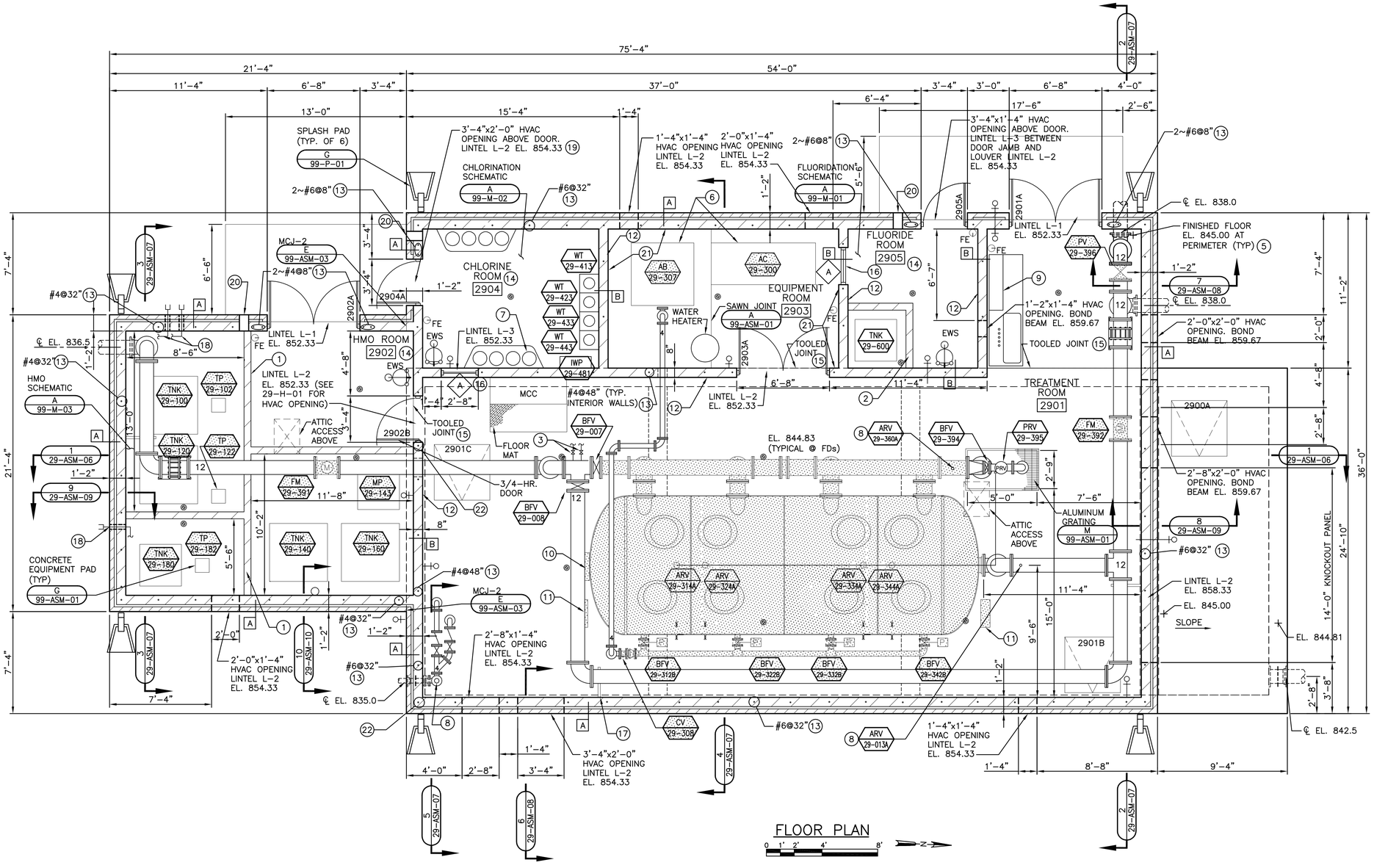
DATE: JUNE, 2008
DES BY: CTB CHK BY: ALM
RECORD DRAWING
BY:
DATE:
CONTRACTOR:

FOUNDATION PLAN
WELL NO. 29
WATER TREATMENT IMPROVEMENTS - GROUP 2
WELL NOs. 29, 30, AND 43
CITY OF ROCKFORD
WINNEBAGO COUNTY, ILLINOIS

STRAND ASSOCIATES, INC.® ENGINEERS

SHEET 7
29-ASM-01
JOB NO. 1-110-074

File: S:\MAD\1100--1199\1110\074\Acad\Group-2\29-ASM-01.dwg Time: Oct 24, 2011 - 9:07am



KEY NOTES:

(1) 8" HIGH MASONRY CONTAINMENT WALL. SEE DETAIL K / 99-ASM-03 .

(2) 16" HIGH MASONRY CONTAINMENT WALL. SEE DETAIL K / 99-ASM-03 .

(3) 2~1" TAPS FOR PRESSURE GAUGE AND SAMPLE TAP.

(4) NOT USED.

(5) SLOPE FLOORS TO FLOOR DRAINS.

(6) CONCRETE EQUIPMENT PAD. SEE G / 99-ASM-01 (TYP).

(7) STORAGE CYLINDER WITH CHAINS (TYP).

(8) AIR RELEASE VALVE. SCREENED WITH RETURN BEND.

(9) CABINET DETAIL. SEE H / 99-ASM-03 .

(10) CELL SAMPLE TEST PANEL AND LOSS OF HEAD GAUGE PANEL.

(11) SOLENOID CABINET.

(12) NON-BEARING WALL. SEE K / 99-ASM-01 .

(13) GROUT CORES SOLID. PROVIDE DOWELS DRILLED 6" INTO FOUNDATION. LAP 48 BAR DIAMETERS. RUN 6" INTO BOND BEAM ABOVE. PROVIDE ADDITIONAL REINFORCING AS REQUIRED TO MEET STANDARDS FOR ORDINARY REINFORCED MASONRY SHEAR WALLS IN ACCORDANCE WITH IBC 2003 AS FOLLOWS: PROVIDE AT LEAST 1 ~ #4 VERTICAL BAR AT CORNERS, WITHIN 16" OF EACH SIDE OF OPENINGS, WITHIN 8" OF EACH SIDE OF MOVEMENT JOINTS (MCJ-2), AND WITHIN 8" OF THE ENDS OF WALLS. PROVIDE 2 ~ #5 HORIZONTAL BARS ON TOP OF AND BENEATH ALL WALL OPENINGS, EXTEND 25" PAST EDGE OF OPENING ON BOTH SIDES. PROVIDE LINTEL BLOCK AS REQUIRED. TYPICAL VERTICAL REINFORCING MAY BE USED TO MEET THE ABOVE REQUIREMENTS IF PROPERLY LOCATED.

(14) CHEMICAL ROOMS TO HAVE 1 HR. RATING. PROVIDE RATING FOR WALLS, CEILINGS, AND ALL PENETRATIONS.

(15) PROVIDE DOWELS PER B / 99-ASM-01 AT JOINT BETWEEN SLAB-ON-GRADE AND TANK TOP SLAB.

(16) 3/4 -HR. FIRE-RATED WINDOW. SILL EL. 849.00.

(17) WALL MOUNTED PIPE SUPPORT (TYP). NOT ALL PIPE SUPPORTS SHOWN. PROVIDE AS SPECIFIED. SEE N / 99-ASM-02 .

(18) CHEMICAL FILL AND DISCONNECT LOCATION. SEE D / 99-ASM-03 .

(19) PROVIDE 4'-8"x6"x3/8" STEEL PLATE BETWEEN DOOR HEAD AND LOUVER.

(20) CARD READER. SEE D / 99-ASM-02 .

(21) SOUND ABSORPTIVE BLOCK.

(22) PROVIDE #7 x 7'-0" REINFORCING BAR. LAP 3'-6" WITH VERTICAL REINFORCING IN TANK WALL AND LAP 3'-6" WITH VERTICAL REINFORCING IN BLOCK.

LEGEND:

PROCUREMENT EQUIPMENT TO BE SUPPLIED BY OTHERS

NO.	REVISIONS	DATE:
1	RECORD DRAWINGS	7/2010

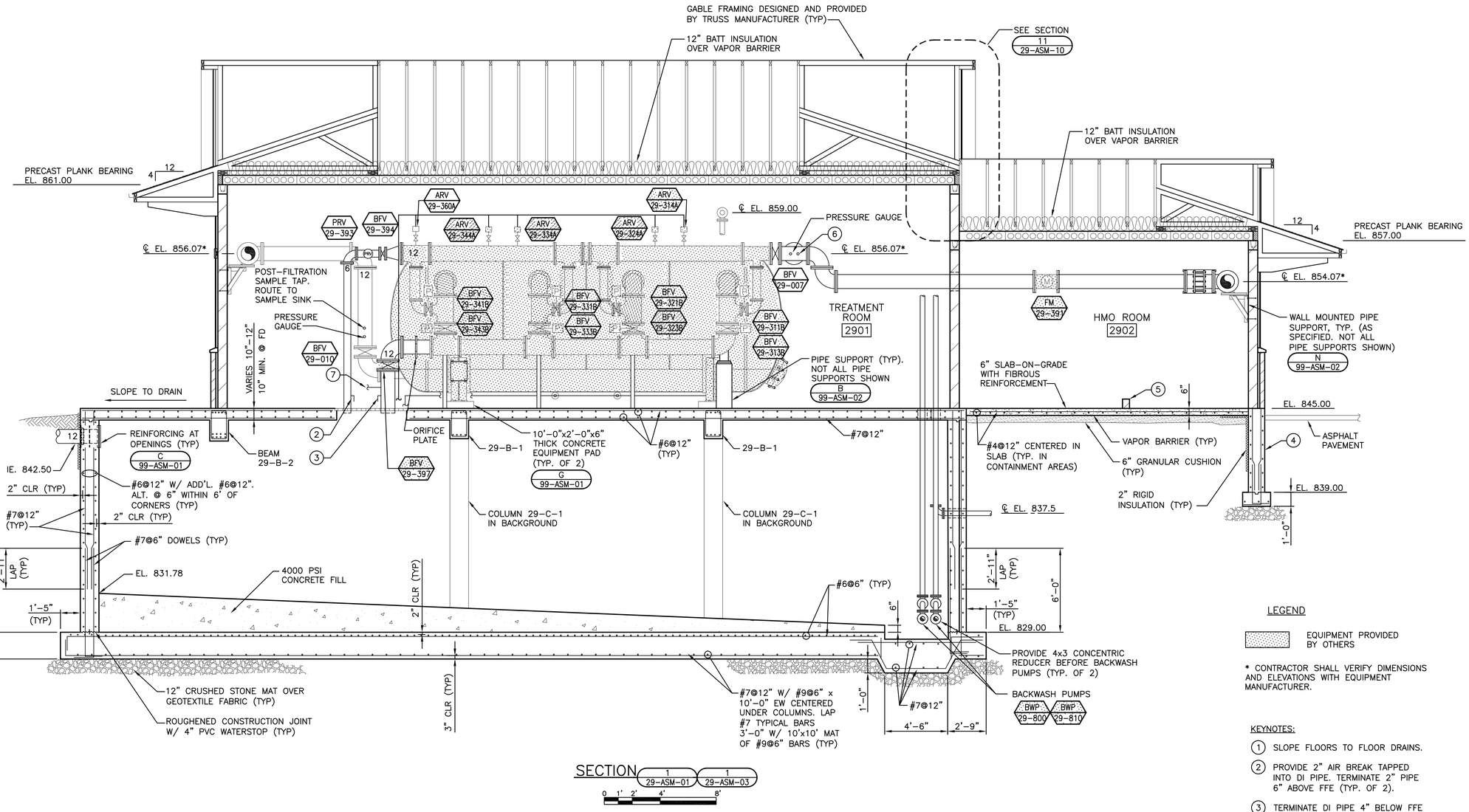
DATE: JUNE, 2008
DES BY:RDW CHK BY:ALM
RECORD DRAWING
BY:
DATE:
CONTRACTOR:

FLOOR PLAN
WELL NO. 29
WATER TREATMENT IMPROVEMENTS - GROUP 2
WELL NOs. 29, 30, AND 43
CITY OF ROCKFORD
WINNEBAGO COUNTY, ILLINOIS

STRAND ASSOCIATES, INC.® ENGINEERS

SHEET 9
29-ASM-03
JOB NO. 1-110-074

File: S:\MAD\1100--1199\1110\074\Acad\Group-2\29-ASM-03.dwg Time: Oct 24, 2011 - 9:07am



SECTION 1 29-ASM-01 / 1 29-ASM-03

0 1' 2' 4' 8'

LEGEND

EQUIPMENT PROVIDED BY OTHERS

* CONTRACTOR SHALL VERIFY DIMENSIONS AND ELEVATIONS WITH EQUIPMENT MANUFACTURER.

KEYNOTES:

1. SLOPE FLOORS TO FLOOR DRAINS.
2. PROVIDE 2" AIR BREAK TAPPED INTO DI PIPE. TERMINATE 2" PIPE 6" ABOVE FFE (TYP. OF 2).
3. TERMINATE DI PIPE 4" BELOW FFE (TYP. OF 2).
4. FOR TYPICAL FOUNDATION WALL REINFORCEMENT, SEE L 99-ASM-03.
5. MASONRY CONTAINMENT WALL 8" HIGH. SEE K 99-ASM-03.
6. PRE-FILTRATION SAMPLE TAP. ROUTE TO SAMPLE SINK.
7. TAP FOR FLOW SWITCH.

NO.	REVISIONS	DATE:
1	RECORD DRAWINGS	7/2010

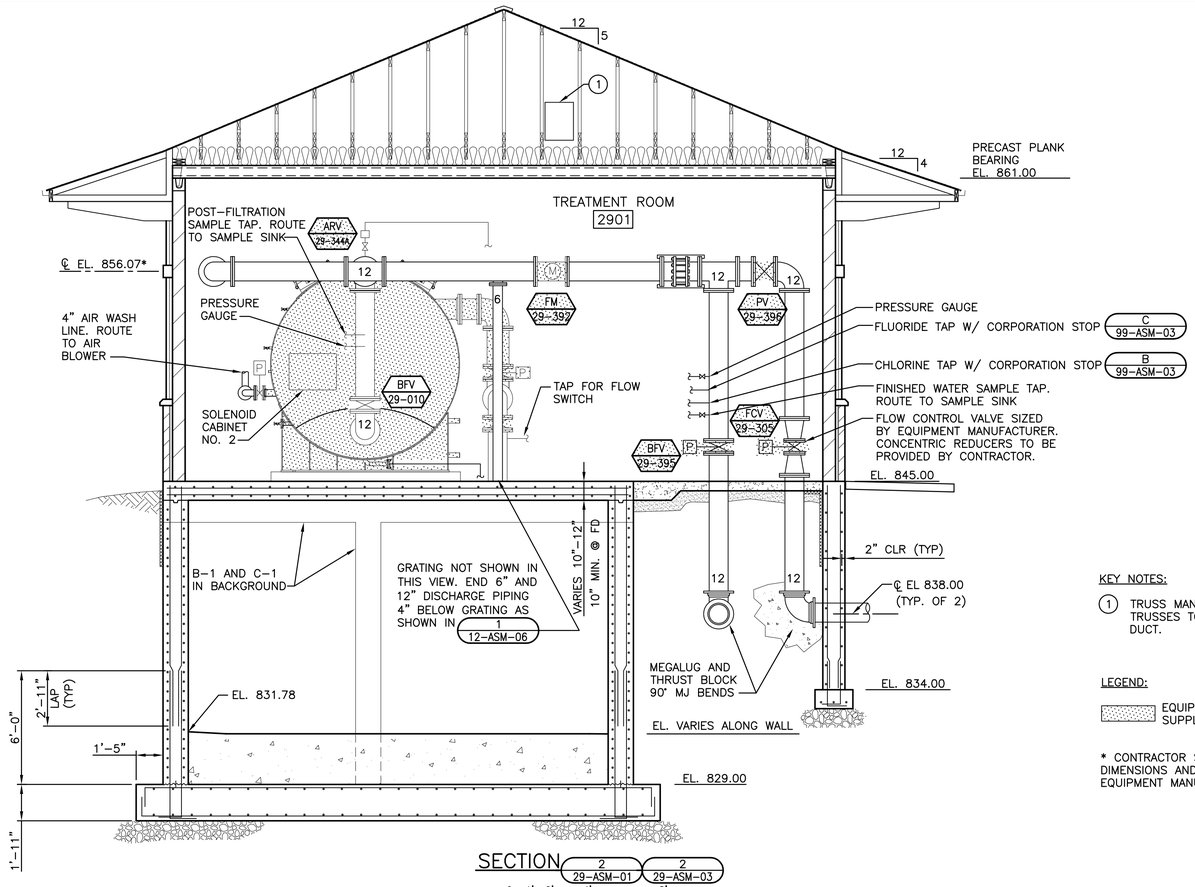
DATE: JUNE, 2008
DES BY:RDW CHK BY:ALM
RECORD DRAWING
BY:
DATE:
CONTRACTOR:

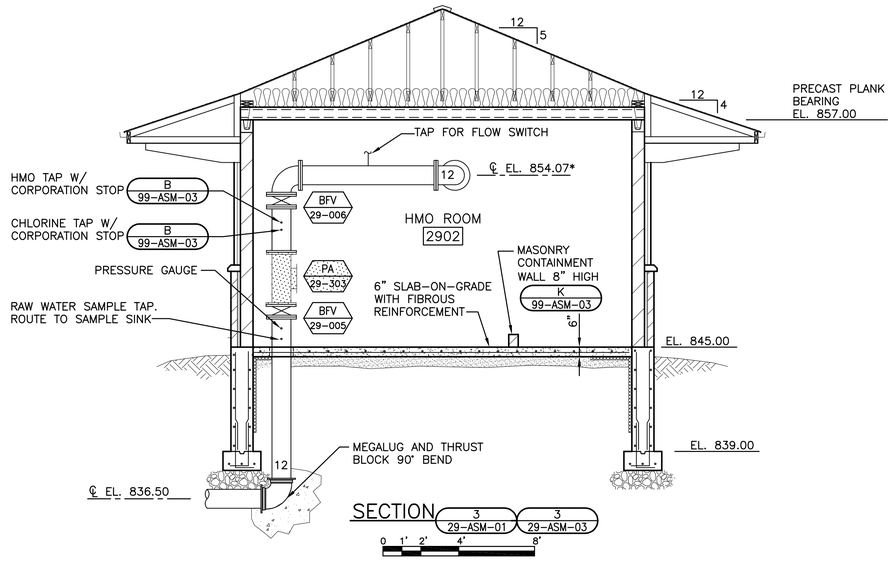
BUILDING SECTIONS - 1
WELL NO. 29
WATER TREATMENT IMPROVEMENTS - GROUP 2
WELL NOs. 29, 30, AND 43
CITY OF ROCKFORD
WINNEBAGO COUNTY, ILLINOIS

STRAND ASSOCIATES, INC.® ENGINEERS

SHEET 12
29-ASM-06
JOB NO. 1-110-074

File: S:\MAD\1100--1199\1110\074\Acad\Group-2\29-ASM-06.dwg Time: Oct 24, 2011 - 9:07am





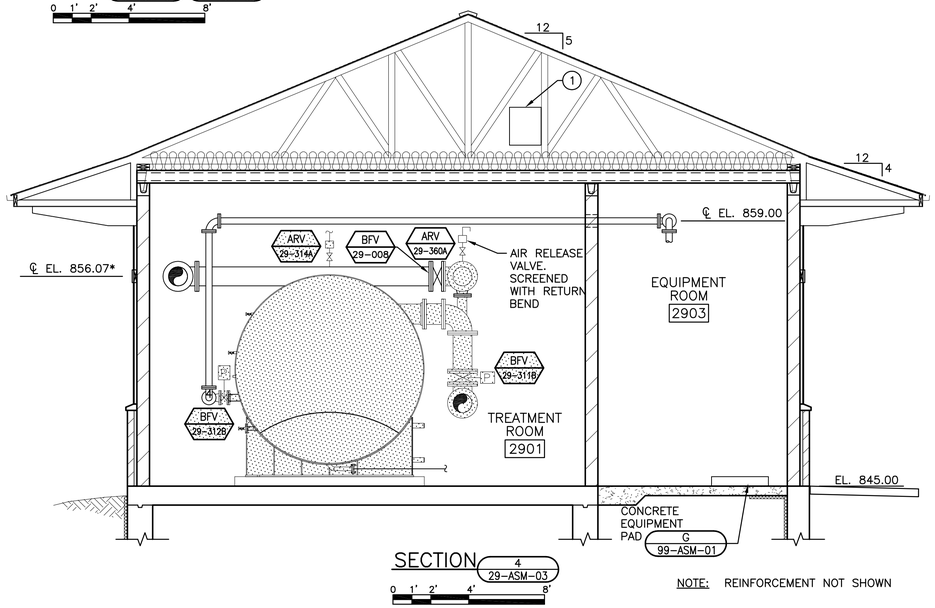
KEY NOTES:

(1) TRUSS MANUFACTURER TO DETAIL TRUSSES TO ALLOW CLEARANCE FOR DUCT.

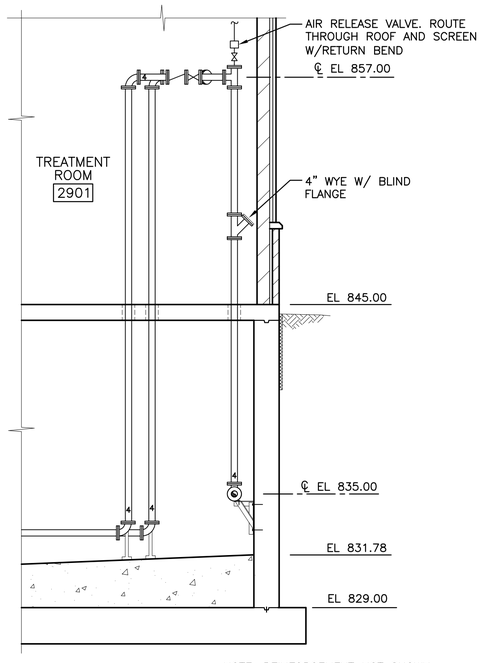
LEGEND:

EQUIPMENT TO BE SUPPLIED BY OTHERS

* CONTRACTOR SHALL VERIFY DIMENSIONS AND ELEVATIONS WITH EQUIPMENT MANUFACTURER.



NOTE: REINFORCEMENT NOT SHOWN



NOTE: REINFORCEMENT NOT SHOWN

NO.	REVISIONS	DATE:
1	RECORD DRAWINGS	7/2010

DATE: JUNE, 2008
DES BY:KRT CHK BY:ALM
RECORD DRAWING
BY:
DATE:
CONTRACTOR:

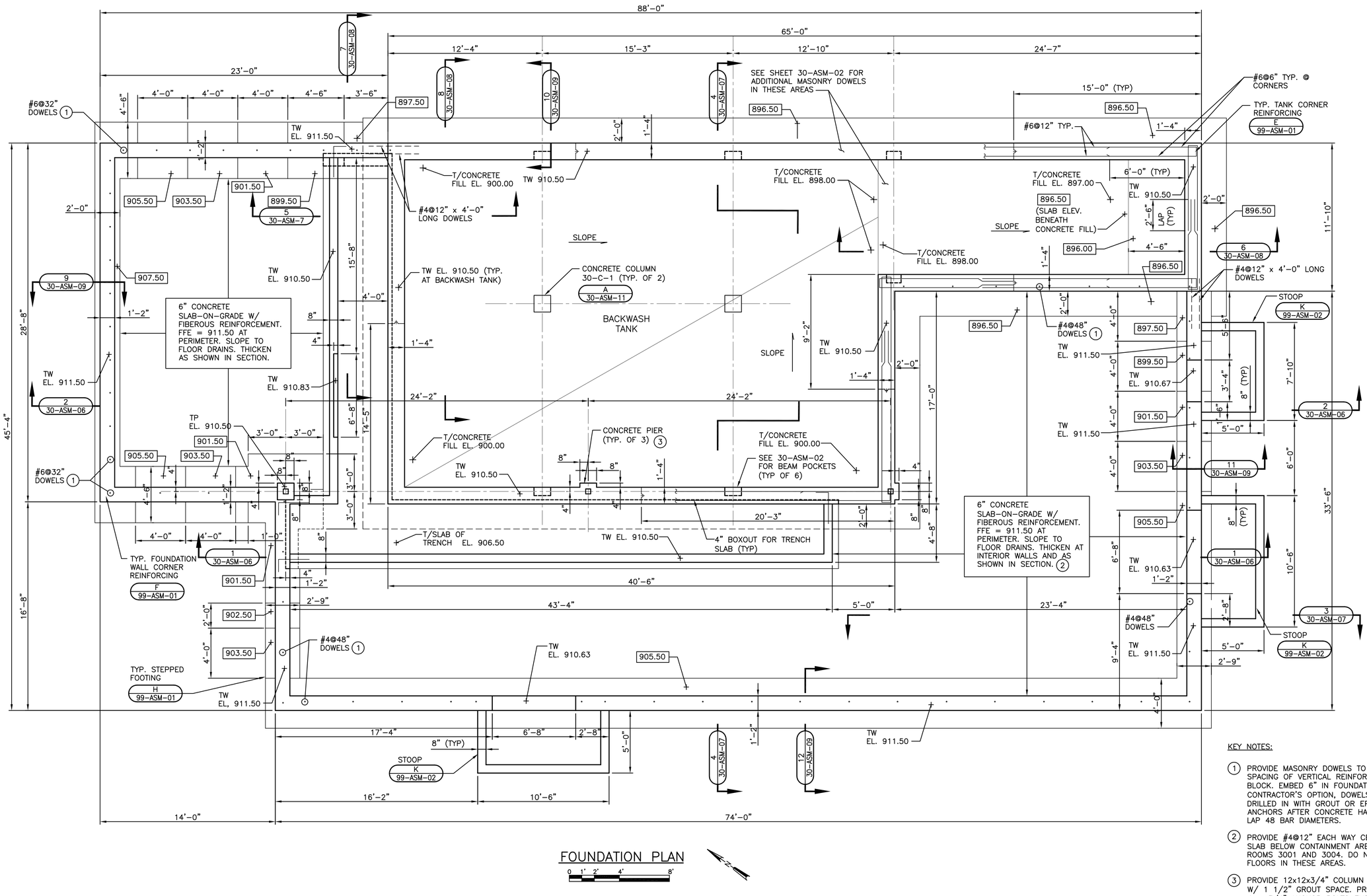
BUILDING SECTIONS - 2
WELL NO. 29
WATER TREATMENT IMPROVEMENTS - GROUP 2
WELL NOs. 29, 30, AND 43
CITY OF ROCKFORD
WINNEBAGO COUNTY, ILLINOIS

STRAND ASSOCIATES, INC.® ENGINEERS

SHEET 13
29-ASM-07
JOB NO. 1-110-074

File: S:\MAD\1100--1199\1110\074\Acad\Group-2\29-ASM-07.dwg Time: Oct 24, 2011 - 9:07am

Well U30



FOUNDATION PLAN

0 1' 2' 4' 8'

KEY NOTES:

(1) PROVIDE MASONRY DOWELS TO MATCH SPACING OF VERTICAL REINFORCING IN BLOCK. EMBED 6" IN FOUNDATION. AT CONTRACTOR'S OPTION, DOWELS MAY BE DRILLED IN WITH GROUT OR EPOXY ANCHORS AFTER CONCRETE HAS CURED. LAP 48 BAR DIAMETERS.

(2) PROVIDE #4@12" EACH WAY CENTERED IN SLAB BELOW CONTAINMENT AREAS IN ROOMS 3001 AND 3004. DO NOT JOINT FLOORS IN THESE AREAS.

(3) PROVIDE 12x12x3/4" COLUMN BASEPLATE W/ 1 1/2" GROUT SPACE. PROVIDE 4 ~ 3/4" ANCHOR BOLTS EMBEDDED 9" WITH 4" EXTENSION. PIERS SHALL HAVE 4~#6 VERTICAL BARS FULL HEIGHT WITH HOOKED DOWELS INTO BASE SLAB OR FOOTING. PROVIDE #3@12" TIES FULL HEIGHT WITH 2 ~ ADD'L. TIES WITHIN 3" OF TOP OF PIER.

NO.	REVISIONS	DATE:
1	RECORD DRAWINGS	7/2010

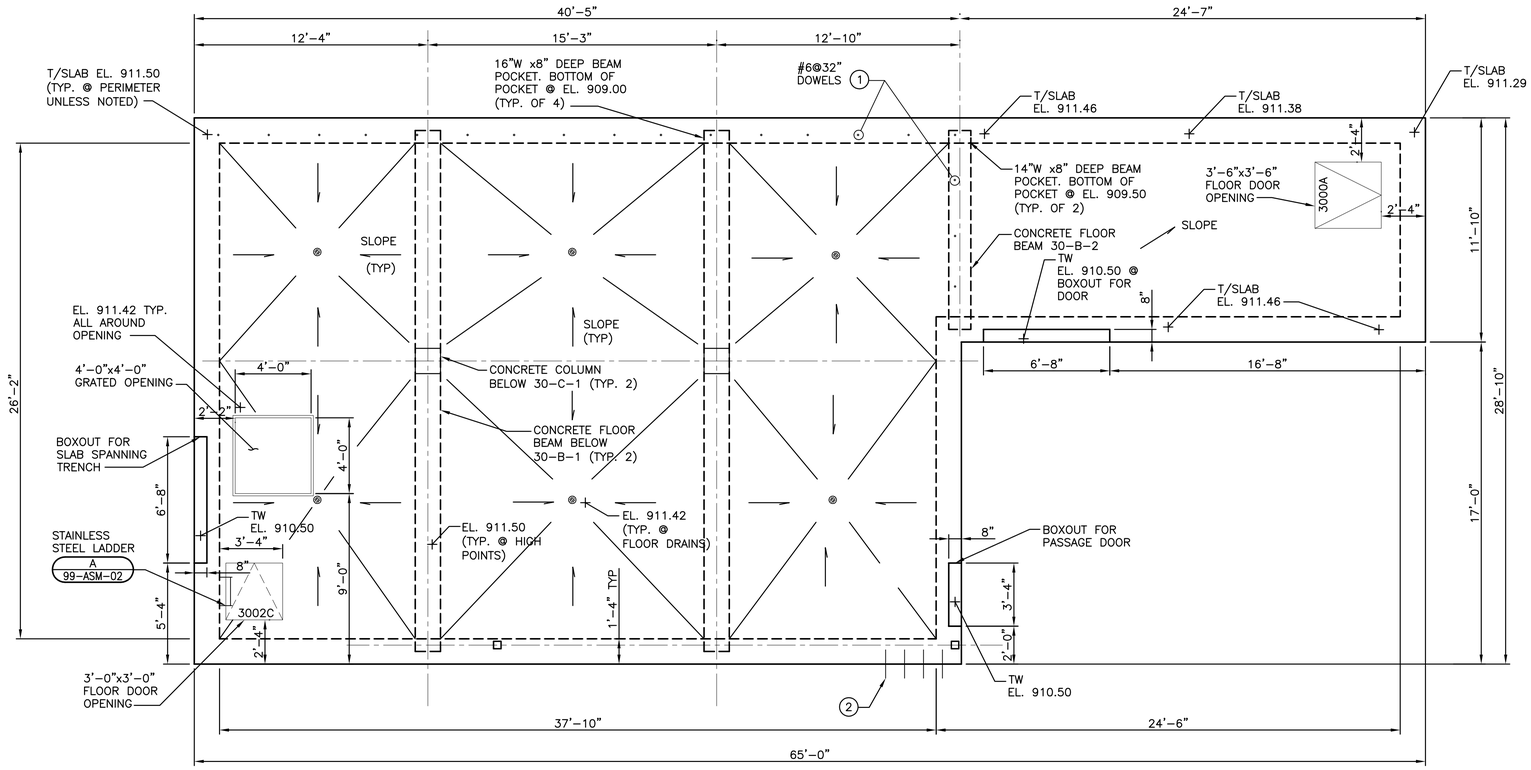
DATE: JUNE, 2008
DES BY: WDM CHK BY: ALM
RECORD DRAWING
BY:
DATE:
CONTRACTOR:

FOUNDATION PLAN
WELL NO. 30
WATER TREATMENT IMPROVEMENTS - GROUP 2
WELL NOs. 29, 30, AND 43
CITY OF ROCKFORD
WINNEBAGO COUNTY, ILLINOIS

STRAND ASSOCIATES, INC.® ENGINEERS

SHEET 37
30-ASM-01
JOB NO. 1-110-074

File: S:\MAD\1100--1199\1110\074\Acad\Group-2\30-ASM-01.dwg Time: Oct 24, 2011 - 9:09am



BACKWASH TANK FRAMING PLAN

0 1' 2' 4' 8'

GENERAL NOTES:

1. PROVIDE EXTRA REINFORCEMENT AT OPENINGS IN WALLS AND SLABS PER C / 99–ASM–01 .

2. BACKWASH TANK TOP SLAB REQUIRED BEFORE BACKFILL AROUND WALLS.

KEY NOTES:

(1) PROVIDE MASONRY DOWELS TO MATCH VERTICAL REINFORCING IN BLOCK. EMBED 6" IN FOUNDATION. AT CONTRACTOR'S OPTION, DOWELS MAY BE DRILLED IN WITH GROUT OR EPOXY ANCHORS AFTER CONCRETE HAS CURED. LAP 48 BAR DIAMETERS.

(2) PROVIDE HORIZONTAL DOWELS BETWEEN SLAB–ON–GRADE AND TANK TOP SLAB PER B / 99–ASM–01 .

NO.	REVISIONS	DATE:
1	RECORD DRAWINGS	7/2010

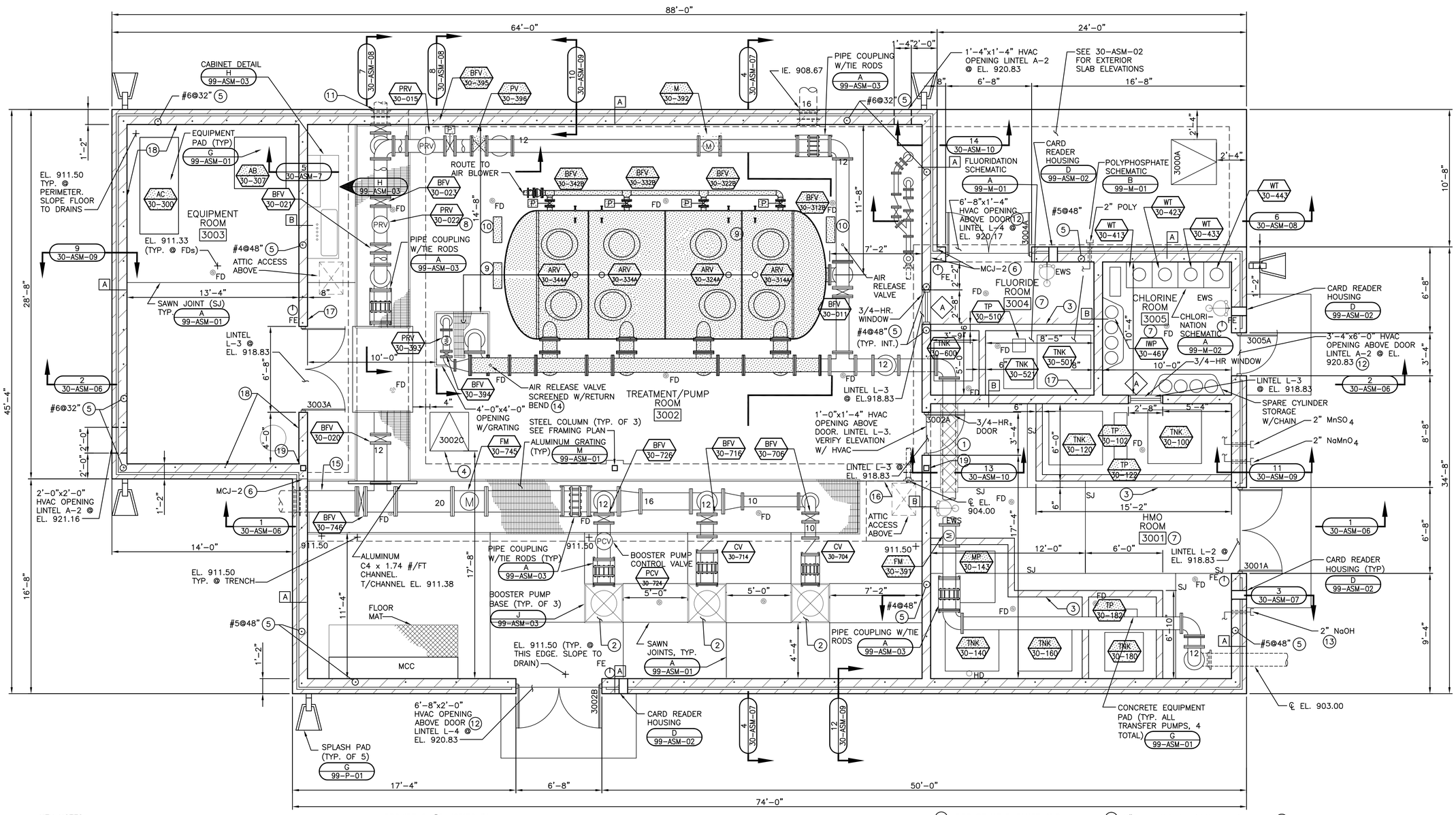
DATE: JUNE, 2008
DES BY:WDM CHK BY:ALM
RECORD DRAWING
BY:
DATE:
CONTRACTOR:

BACKWASH TANK FRAMING PLAN
WELL NO. 30
WATER TREATMENT IMPROVEMENTS - GROUP 2
WELL NOs. 29, 30, AND 43
CITY OF ROCKFORD
WINNEBAGO COUNTY, ILLINOIS

STRAND ASSOCIATES, INC.® ENGINEERS

SHEET
38
30–ASM–02
JOB NO. 1–110–074

File: S:\MAD\1100--1199\1110\074\Acad\Group-2\30-ASM-02.dwg Time: Oct 24, 2011 - 9:09am



KEY NOTES:

1. INSULATE PIPING IN THIS ROOM.
2. INSTALL AIR / VACUUM VALVE ON EACH VERTICAL TURBINE PUMP CAN. TERMINATE DISCHARGE W/ SCREENED RETURN BEND LOCATED MINIMUM 24" ABOVE FFE. PROVIDE THREADED COUPLING AT PUMP BASE.
3. MASONRY CONTAINMENT WALL, 16" HIGH. SEE DETAIL K 99-ASM-03
4. PROVIDE STAINLESS STEEL LADDER IN BACKWASH TANK FROM FLOOR DOOR TO EL. 900.00 F 99-ASM-02 .
5. PROVIDE VERTICAL REINFORCING AS INDICATED. GROUT CORES SOLID. PROVIDE DOWELS DRILLED 6" INTO FOUNDATION. LAP 48 BAR DIAMETERS. RUN 6" INTO BOND BEAM ABOVE. PROVIDE ADDITIONAL REINFORCING AS REQUIRED TO MEET STANDARDS FOR ORDINARY REINFORCED MASONRY SHEAR WALLS IN ACCORDANCE WITH IBC 2003 AS FOLLOWS: PROVIDE AT LEAST 1~#4 VERTICAL BAR AT CORNERS, WITHIN 16" OF EACH SIDE OF OPENINGS, WITHIN 8" OF EACH SIDE OF MOVEMENT JOINTS (MCJ-2), AND WITHIN 8" OF THE ENDS OF WALLS. PROVIDE 2~#5 HORIZONTAL BARS ON TOP OF AND BENEATH ALL WALL OPENINGS, EXTEND 25" PAST EDGE OF OPENING ON BOTH SIDES. PROVIDE LINTEL BLOCK AS REQUIRED. TYPICAL VERTICAL REINFORCING MAY BE USED TO MEET THE ABOVE REQUIREMENTS IF PROPERLY LOCATED.
6. SEE ELEVATION VIEWS FOR MCJ-1 CONTROL JOINTS PER E 99-ASM-03
7. ALL INTERIOR WALLS AND CEILINGS RATED 1-HOUR.
8. REINSTALL EXISTING RESERVOIR REFILL/PRESSURE RELIEF VALVE.
9. LOSS OF HEAD GAUGE AND CELL SAMPLE TEST PANEL.
10. FILTER SOLENOID CABINET.
11. ℄ EL. 908.50 AT BUILDING. 12" PIPE ELBOWS DOWN TO ℄ EL. 904.50.
12. PROVIDE 1/4" CONT. STEEL PLATE x 1'-1" WIDE BETWEEN DOOR FRAME AND LOUVER.
13. CHEMICAL TANK FILL PIPE PER DETAIL D 99-ASM-03 (TYP. OF 4).
14. CONTRACTOR TO TAP PIPE. PIPE PROVIDED BY OTHERS.
15. 2" TAP FOR BUILDING WATER SUPPLY AND PRESSURE SENSOR TAP.
16. PROVIDE DOWELS PER B 99-ASM-01 AT JOINT BETWEEN SLAB-ON-GRADE AND TANK TOP SLAB.
17. INTERIOR NON-BEARING WALL. SEE K 99-ASM-01 FOR TOP AND BOTTOM SUPPORT AND SLAB THICKENING.
18. SOUND ABSORPTIVE BLOCK.
19. PROVIDE WIRE MASONRY TIES @ 16" O.C. VERTICALLY WELDED TO COLUMN. GROUT ALL CAVITIES AROUND COLUMNS FULL.

FLOOR PLAN
0 1' 2' 4' 8'

TRUE NORTH

PLAN NORTH

LEGEND:

PROCUREMENT EQUIPMENT TO BE SUPPLIED BY OTHERS

NO.	REVISIONS	DATE:
1	RECORD DRAWINGS	7/2010

DATE: JUNE, 2008 DES BY: RML CHK BY: ALM

RECORD DRAWING

BY:

DATE:

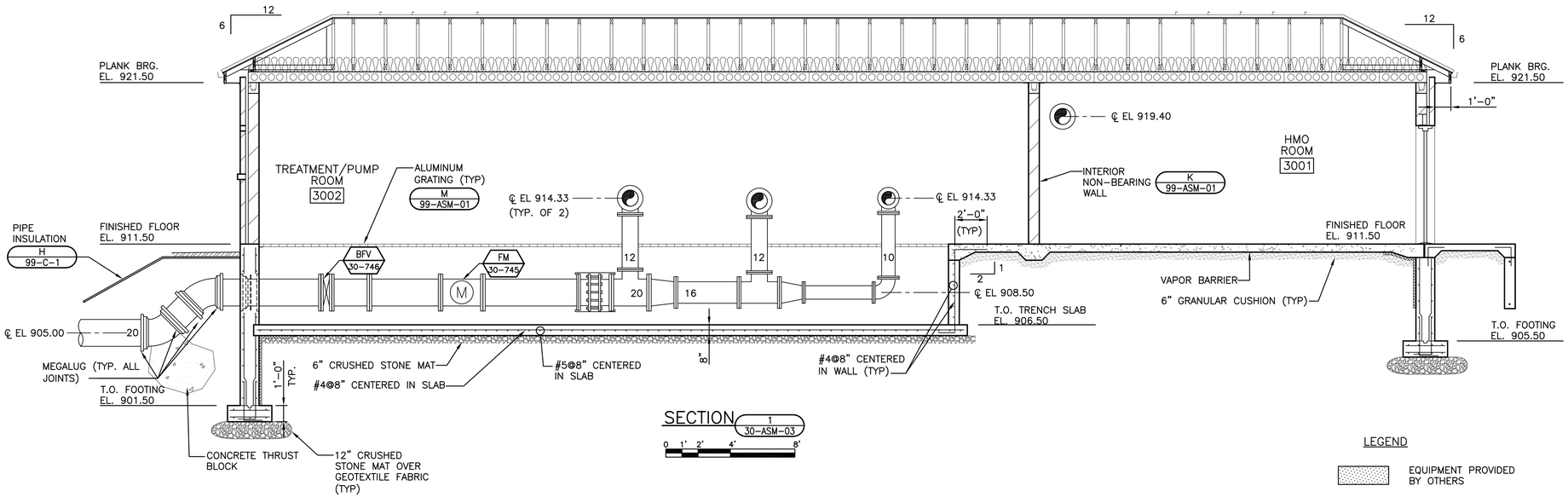
CONTRACTOR:

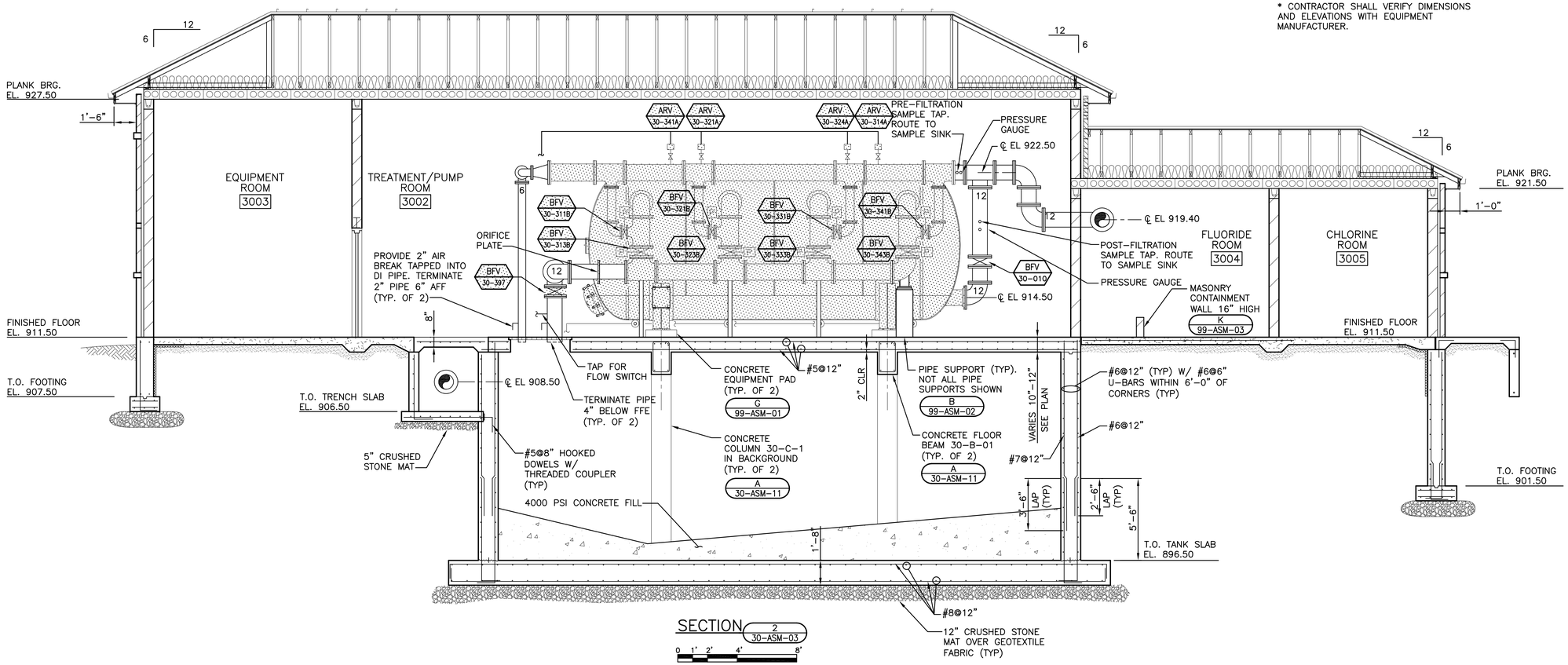
FLOOR PLAN
WELL NO. 30
WATER TREATMENT IMPROVEMENTS - GROUP 2
WELL NOs. 29, 30, AND 43
CITY OF ROCKFORD
WINNEBAGO COUNTY, ILLINOIS

STRAND ASSOCIATES, INC.® ENGINEERS

SHEET
39
30-ASM-03
JOB NO. 1-110-074

File: S:\MAD\1100--1199\1110\074\Acad\Group-2\30-ASM-03.dwg Time: Oct 24, 2011 - 9:09am





NO.	REVISIONS	DATE:
1	RECORD DRAWINGS	7/2010

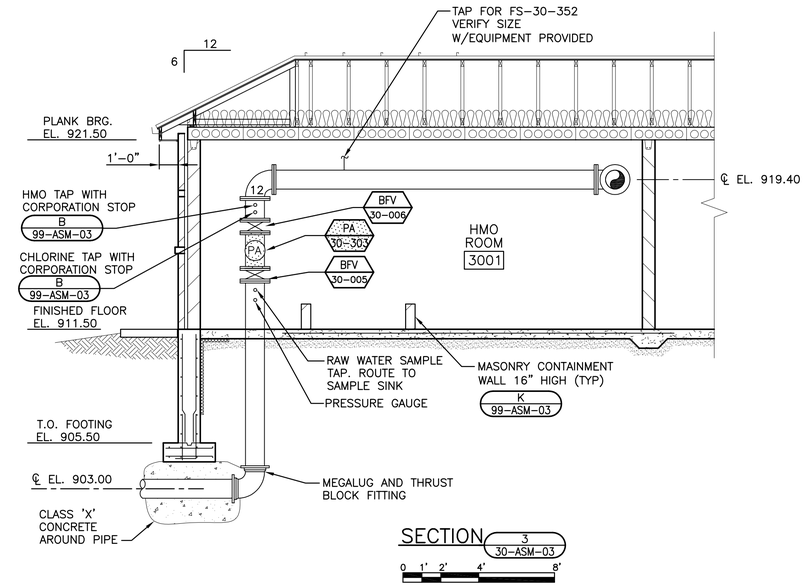
DATE: JUNE, 2008 DES BY:RML CHK BY:ALM
RECORD DRAWING
BY:
DATE:
CONTRACTOR:

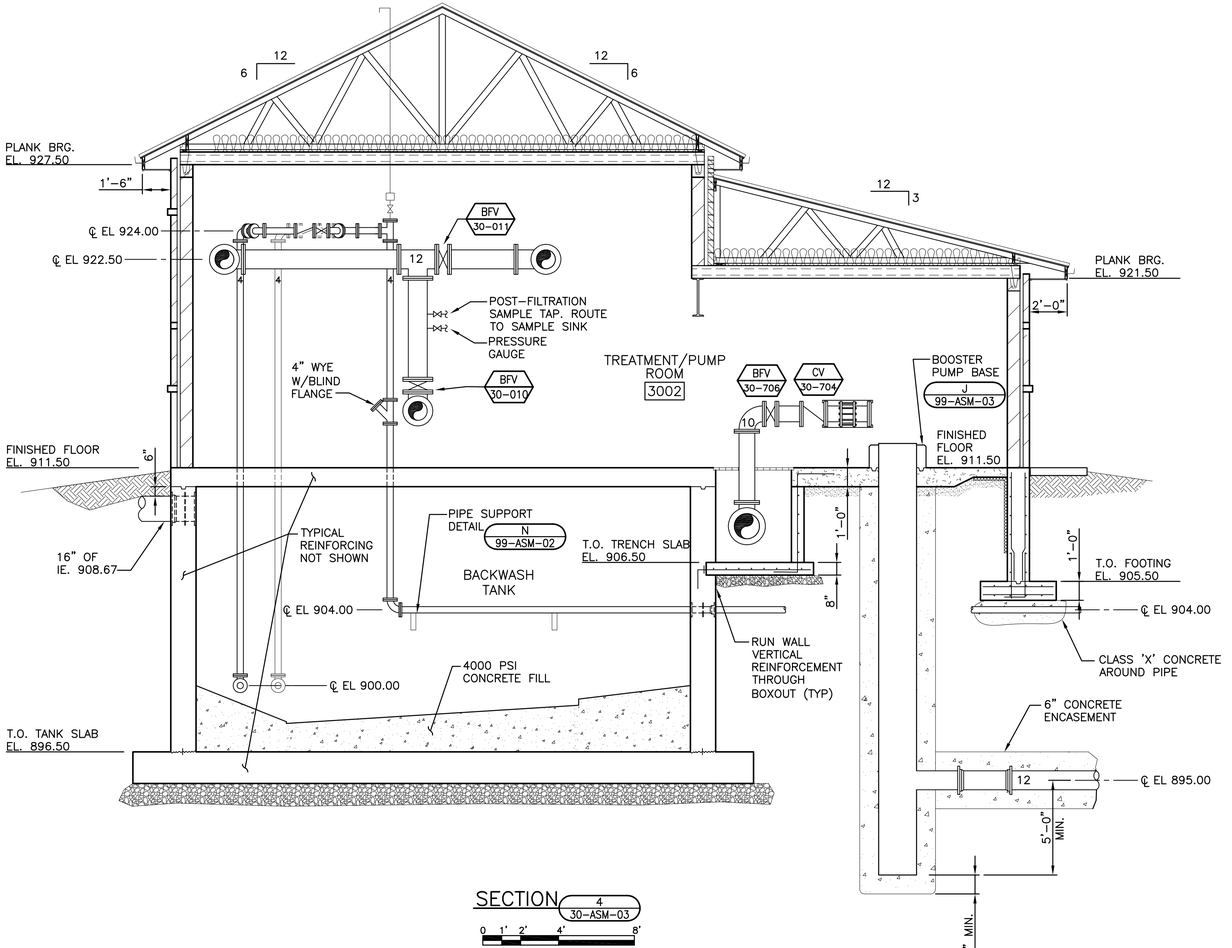
BUILDING SECTIONS - 1
WELL NO. 30
WATER TREATMENT IMPROVEMENTS - GROUP 2
WELL NOs. 29, 30, AND 43
CITY OF ROCKFORD
WINNEBAGO COUNTY, ILLINOIS

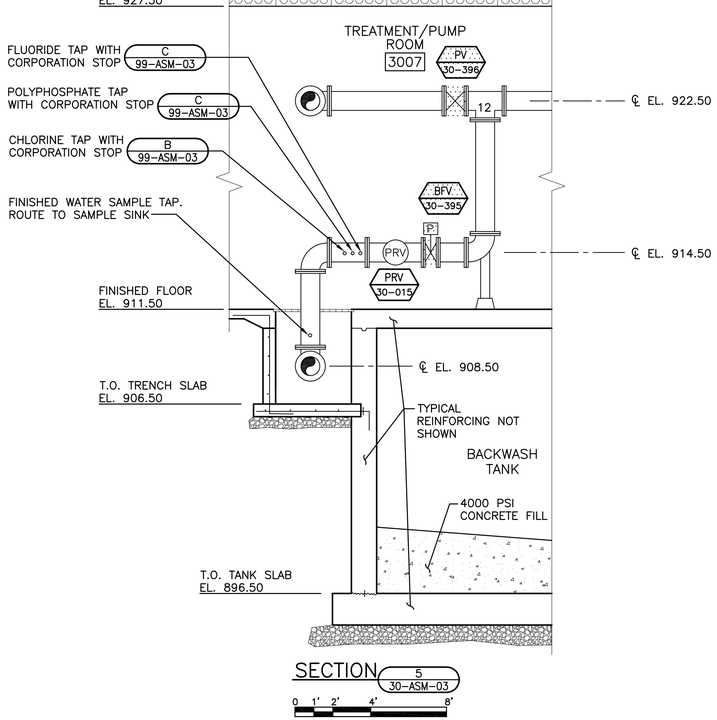
STRAND ASSOCIATES, INC.® ENGINEERS

SHEET
42
30-ASM-06
JOB NO. 1-110-074

File: S:\MAD\1100--1199\1110\074\Acad\Group-2\30-ASM-06.dwg Time: Oct 24, 2011 - 9:10am







NO.	REVISIONS	DATE:
1	RECORD DRAWINGS	7/2010

DATE: JUNE, 2008
DES BY:RML CHK BY:ALM
RECORD DRAWING
BY:
DATE:
CONTRACTOR:

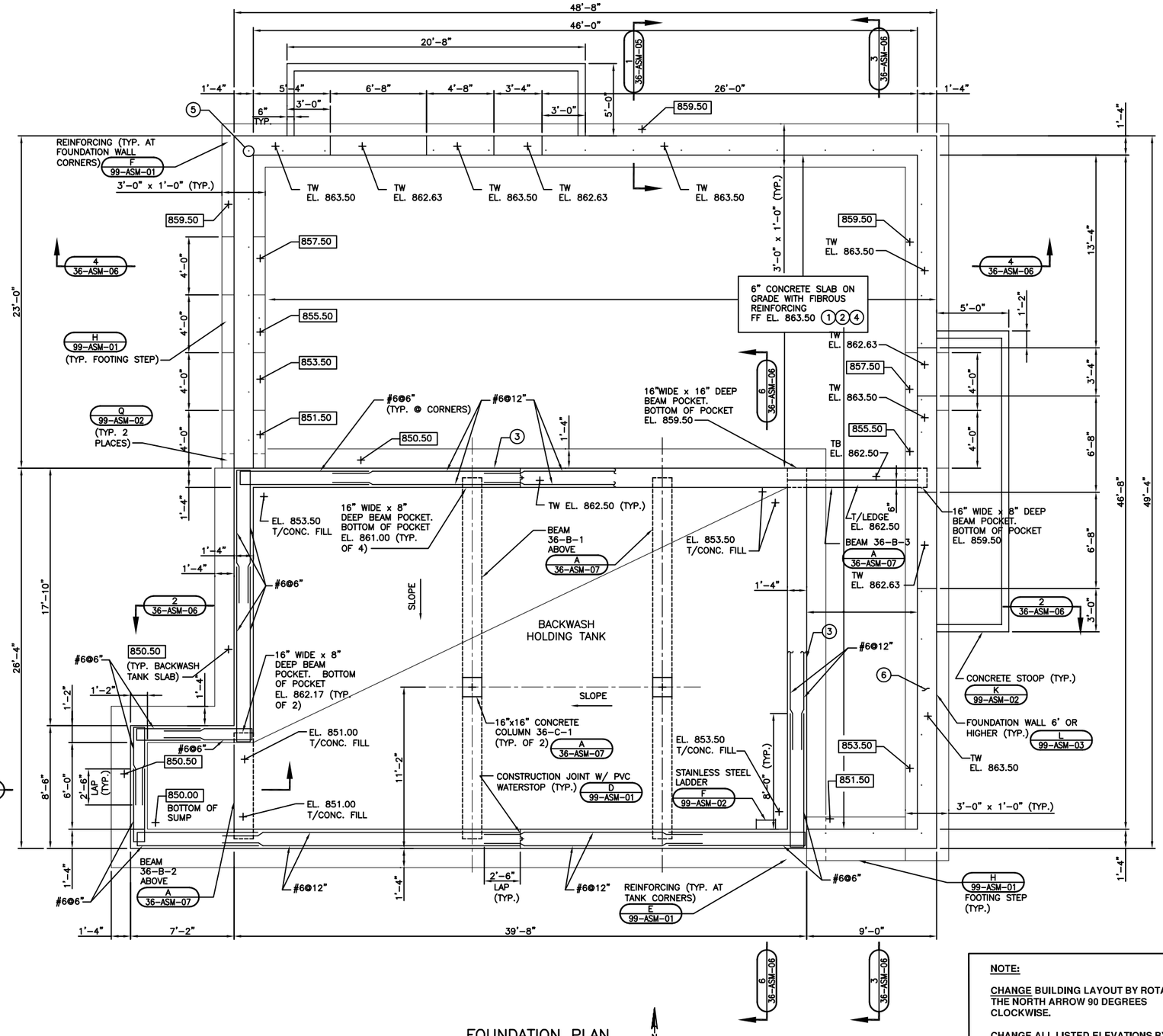
BUILDING SECTIONS - 2
WELL NO. 30
WATER TREATMENT IMPROVEMENTS - GROUP 2
WELL NOs. 29, 30, AND 43
CITY OF ROCKFORD
WINNEBAGO COUNTY, ILLINOIS

STRAND ASSOCIATES, INC.®
ENGINEERS

SHEET
43
30-ASM-07
JOB NO. 1-110-074

File: S:\MAD\1100--1199\1110\074\Acad\Group-2\30-ASM-07.dwg Time: Oct 24, 2011 - 9:10am

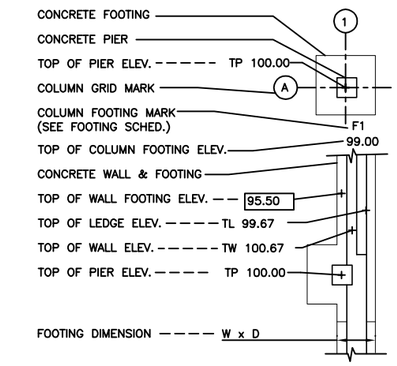
Well U36



FOUNDATION PLAN

0 1' 2' 4' 8'

N



A 36-ASM-01 FOUNDATION LEGEND
NO SCALE

NOTE:

CHANGE BUILDING LAYOUT BY ROTATING THE NORTH ARROW 90 DEGREES CLOCKWISE.

CHANGE ALL LISTED ELEVATIONS BY LOWERING ELEVATIONS BY 0.50 FEET. FINISHED FLOOR ELEVATION IS NOW 863.00.

GENERAL NOTES:

1. PROVIDE EXTRA REINFORCEMENT AT OPENINGS PER C/99-ASM-01.
2. SEE K/99-ASM-01 FOR REINFORCING IN FLOORS AT NON-BEARING WALLS. SEE 36-ASM-03 FOR WALL LOCATIONS.

KEY NOTES:

(1) PROVIDE GRADE 60 STEEL REINFORCING IN CHEMICAL ROOMS. SEE 36-ASM-03.

(2) AT LOCATIONS WITHOUT GRADE 60 REINFORCING BARS, PROVIDE SAWN JOINTS PER A/99-ASM-01 @ 15' O.C. MAX.

(3) PROVIDE SMOOTH DOWELS AT JOINT PER B/99-ASM-01.

(4) SEE 36-ASM-03 FOR FLOOR DRAIN (FD) LOCATIONS. FINISHED FLOOR TO BE AT EL. 863.33 AT FLOOR DRAINS UNLESS NOTED. SLOPE FLOORS TO DRAINS.

(5) #5@40" MASONRY DOWELS W/ADHESIVE ANCHORS. EMBED 6".

(6) FOR FOUNDATION WALLS 6'-0" OR HIGHER, PROVIDE REINFORCING PER L/99-ASM-03.

NO.	REVISIONS	DATE:
1	CONST. BULLETIN	7/29/10
2	RECORD DRAWINGS	JAN 2012

DATE: JULY, 2009
DES BY: WDM CHK BY: ALM
RECORD DRAWING
BY:
DATE:
CONTRACTOR:

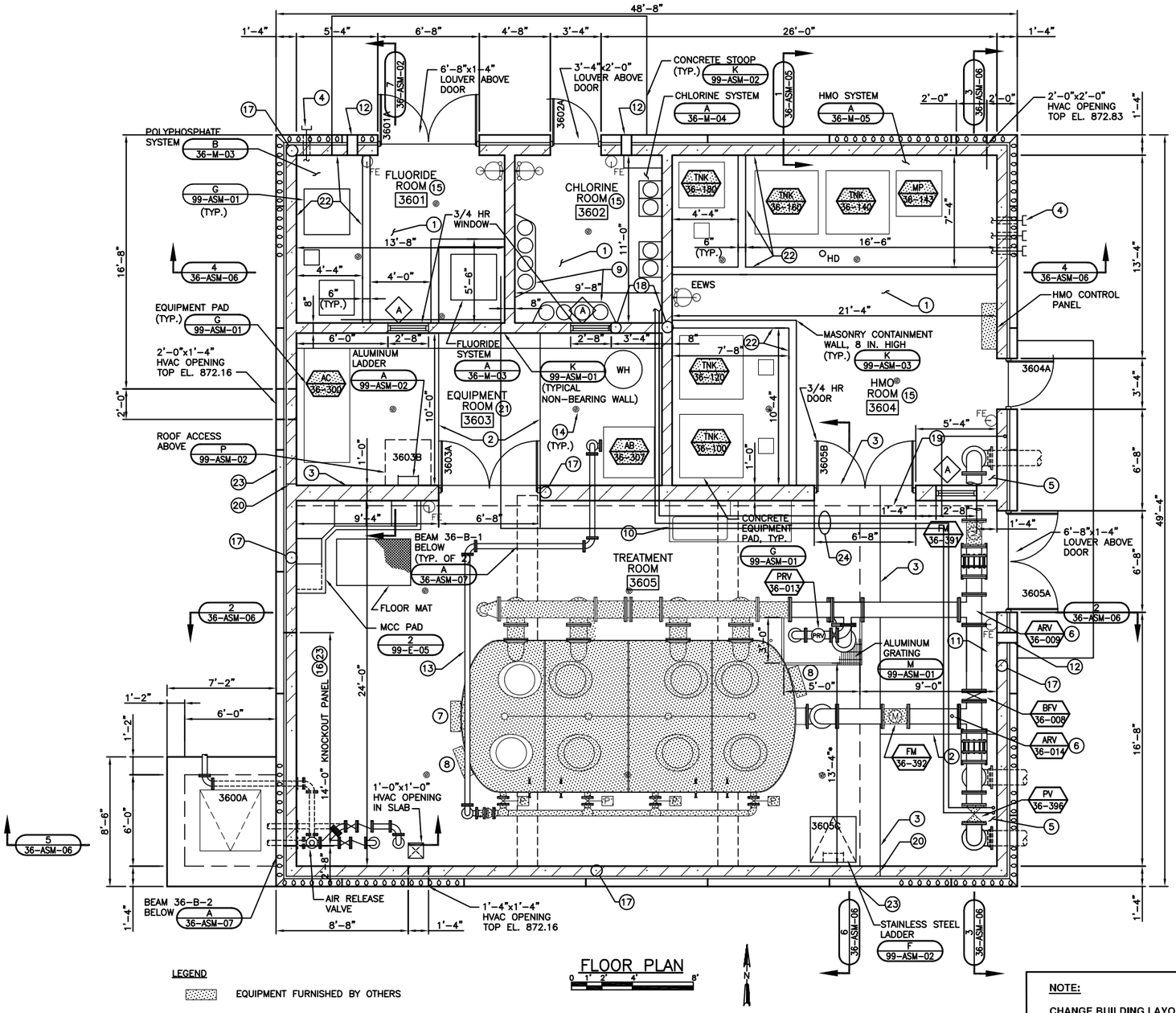
FOUNDATION PLAN

WATER TREATMENT IMPROVEMENTS - GROUP 4
WELL NO. 36
CITY OF ROCKFORD
WINNEBAGO COUNTY, ILLINOIS

STRAND ASSOCIATES, INC.® ENGINEERS

SHEET
112
36-ASM-01
JOB NO. 1-110-078

File: S:\MAD\1100--1199\1110\082\Acad\36-ASM-01.dwg Time: Feb 10, 2012 - 11:35am



FLOOR PLAN

LEGEND

EQUIPMENT FURNISHED BY OTHERS

* CONTRACTOR SHALL VERIFY DIMENSIONS AND ELEVATIONS WITH EQUIPMENT MANUFACTURER.

NOTE:

CHANGE BUILDING LAYOUT BY ROTATING THE NORTH ARROW 90 DEGREES CLOCKWISE.

CHANGE ALL LISTED ELEVATIONS BY LOWERING ELEVATIONS BY 0.50 FEET. FINISHED FLOOR ELEVATION IS NOW 863.00.

GENERAL NOTES:

1. SEE L/99-ASM-01 FOR LINTEL DETAILS. LINTELS ARE REQUIRED OVER ALL OPENINGS IN MASONRY.

KEY NOTES:

(1) PROVIDE #4@12" EACH WAY CENTERED IN FLOOR SLAB (NO SAWN JOINTS).

KEY NOTES:

(1) PROVIDE #4@12" EACH WAY CENTERED IN FLOOR SLAB (NO SAWN JOINTS).

(2) PROVIDE SAWN JOINTS PER A/99-ASM-01 @ 15' O.C. MAX. PROVIDE APPROXIMATELY SQUARE SECTIONS.

(3) PROVIDE SMOOTH DOWELS PER B/99-ASM-01 BETWEEN SLAB-ON-GRADE AND BACKWASH TANK TOP SLAB.

(4) CHEMICAL TANK FILL PER DETAIL D 99-ASM-03.

(5) LOCATE CHLORINE LEAK DETECTOR NEAR INJECTION POINT AS SPECIFIED (TYP.).

(6) PROVIDE AIR RELEASE VALVE WITH OPTIONAL VACUUM CHECK VALVE. ROUTE TO GRATING.

(7) LOSS OF HEAD GAUGE PANEL.

(8) SOLENOID CABINET.

(9) CYLINDER STORAGE WITH CHAINS (TYP.).

(10) SAMPLE SINK AND CABINET DETAIL H 99-ASM-03.

(11) PIPE SUPPORT (TYP.). NOT ALL PIPE SUPPORTS ARE SHOWN. PROVIDE AS SPECIFIED. PROVIDE FLOOR AND WALL PIPE SUPPORTS PER DETAILS B, M, AND N ON DWG. 99-ASM-02. PROVIDE CEILING SUPPORTS AS NECESSARY.

(12) CARD READER. SEE D 99-ASM-02. TYP. OF 3.

(13) ROUTE 4" AIR BLOWER PIPING FROM FILTER TO AIR BLOWER.

(14) SLOPE FLOORS TO FLOOR DRAINS. FD EL. 863.33 (TYP.).

(15) CHEMICAL ROOMS TO HAVE 1 HR. RATING. PROVIDE RATING FOR WALLS, CEILINGS, AND ALL PENETRATIONS.

(16) 14'-0"x14'-0" KNOCKOUT PANEL. PROVIDE MASONRY CONTROL JOINT AT JAMBS AND PLANK-TO-MASONRY CONNECTION PER D/36-ASM-05.

(17) #5@40" VERTICAL REINFORCING IN FULLY GROUTED CORES. EMBED 6" IN BOND BEAM ABOVE AND LAP 2'-6" W/DOWELS.

(18) #4@48" VERTICAL REINFORCING IN FULLY GROUTED CORES. EMBED 6" IN BOND BEAM ABOVE AND LAP 2'-0" DOWELS.

(19) BEAM 36-B-3 BELOW. SEE A/36-ASM-07.

(20) MCJ PER E/99-ASM-03.

(21) PROVIDE SOUND ABSORPTIVE BLOCK ALL 4 WALLS OF THIS ROOM.

(22) PROVIDE CHEMICAL RESISTANT COATING ON FLOORS, INNER FACE OF CURBS, AND WALLS IN CONTAINMENT AREAS (TYP.).

(23) PROVIDE PVC SLEEVE OVER DOWEL AT BASE OF PANEL. (TYP. @ KNOCKOUT AND 2 LOCATIONS NEAR MASONRY CONTROL JOINTS.)

(24) CHEMICAL FEED LINES.

NO.	REVISIONS	DATE:
1	CONST. BULLETIN	7/29/10
2	RECORD DRAWINGS	JAN 2012

DATE: JULY, 2009
DES BY: ROW CHK BY: ALM
RECORD DRAWING
BY:
DATE:
CONTRACTOR:

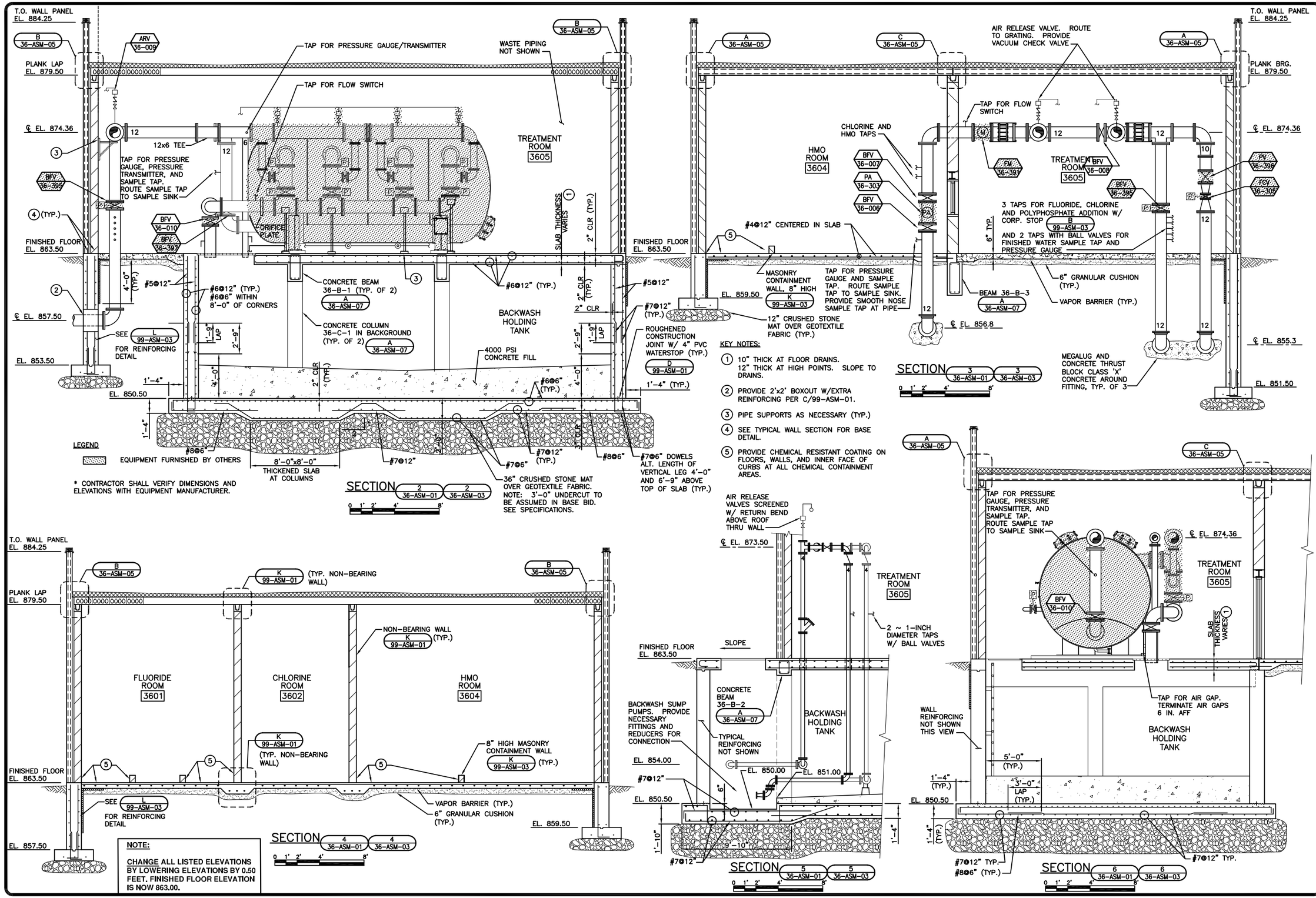
FLOOR PLAN - TREATMENT BUILDING

WATER TREATMENT IMPROVEMENTS - GROUP 4
WELL NO. 36
CITY OF ROCKFORD
WINNEBAGO COUNTY, ILLINOIS

STRAND ASSOCIATES, INC.® ENGINEERS

SHEET
114
36-ASM-03
JOB NO. 1-110-078

File: S:\MAD\1100--1199\1110\082\Acad\36-ASM-03.dwg Time: Feb 10, 2012 - 11:35am



NO.	REVISIONS	DATE:
1	CONST. BULLETIN	7/29/10
2	RECORD DRAWINGS	JAN 2012

DATE: JULY, 2009
DES BY: WDM CHK BY: ALM
RECORD DRAWING
BY:
DATE:
CONTRACTOR:

BUILDING SECTIONS

WATER TREATMENT IMPROVEMENTS - GROUP 4
WELL NO. 36
CITY OF ROCKFORD
WINNEBAGO COUNTY, ILLINOIS

STRAND ASSOCIATES, INC.® ENGINEERS

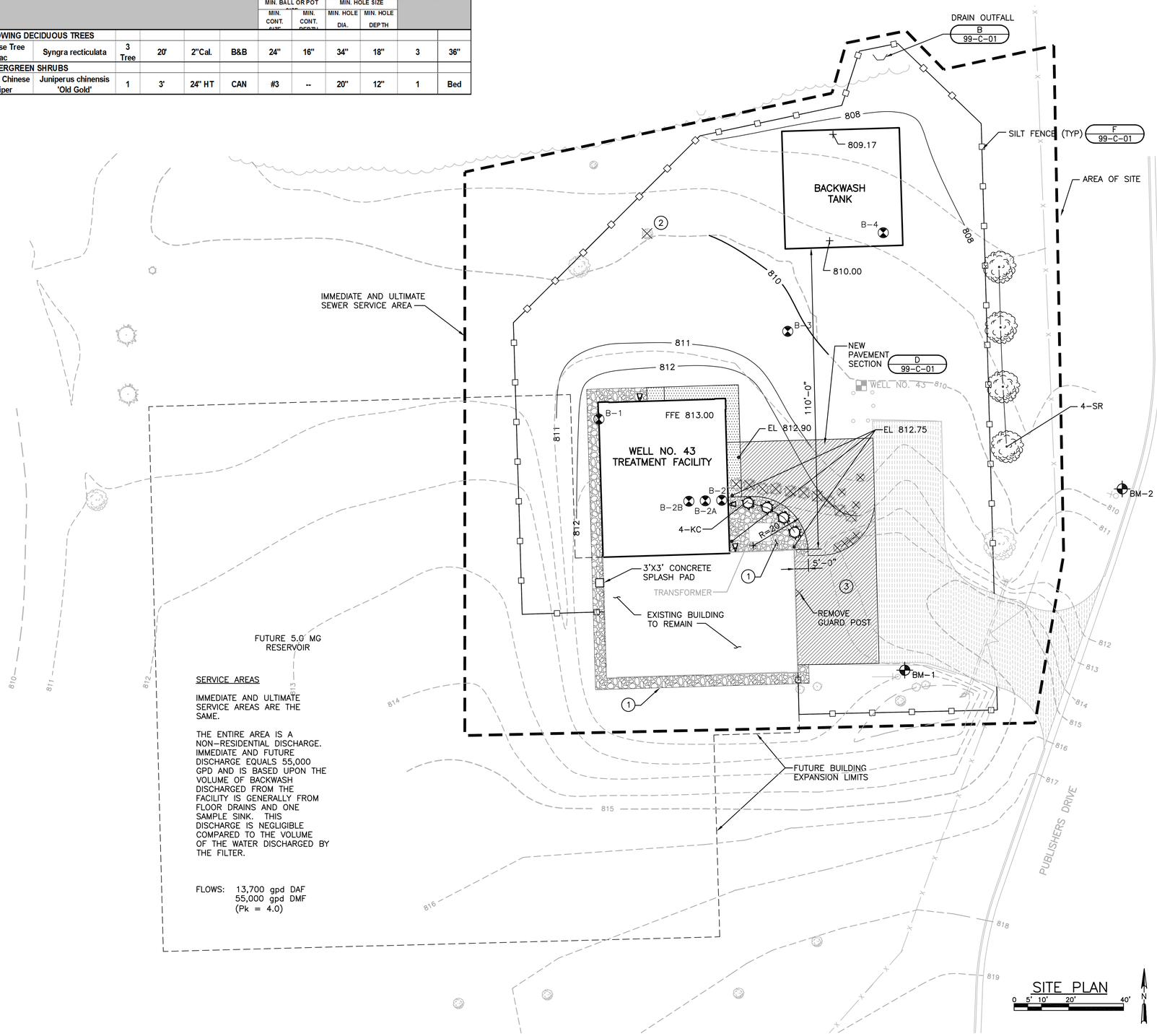
SHEET
117
36-ASM-06
JOB NO. 1-110-078

File: S:\MAD\1100--1199\1110\082\Acad\36-ASM-06.dwg Time: Feb 10, 2012 - 11:36am

Well U43

PLANT DATA CHART

PLANT CODE	COMMON NAME	SCIENTIFIC NAME	TYPE	AVG. MATURE HEIGHT	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE				FERT. PACK. REQ'D	MULCH RING DIA.
							MIN. BALL OR POT SIZE		MIN. HOLE SIZE			
							MIN. CONT. SIZE	MIN. CONT. DEPTH	MIN. HOLE DIA.	MIN. HOLE DEPTH		
Small GROWING DECIDUOUS TREES												
SR	Japanese Tree Lilac	Syngra recticulata	3 Tree	20'	2"Cal.	B&B	24"	16"	34"	18"	3	36"
EVERGREEN SHRUBS												
KC	Old Gold Chinese Juniper	Juniperus chinensis 'Old Gold'	1	3'	24" HT	CAN	#3	--	20"	12"	1	Bed



SERVICE AREAS

IMMEDIATE AND ULTIMATE SERVICE AREAS ARE THE SAME.

THE ENTIRE AREA IS A NON-RESIDENTIAL DISCHARGE. IMMEDIATE AND FUTURE DISCHARGE EQUALS 55,000 GPD AND IS BASED UPON THE VOLUME OF BACKWASH DISCHARGED FROM THE FACILITY IS GENERALLY FROM FLOOR DRAINS AND ONE SAMPLE SINK. THIS DISCHARGE IS NEGLIGIBLE COMPARED TO THE VOLUME OF THE WATER DISCHARGED BY THE FILTER.

FLOWS: 13,700 gpd DAF
55,000 gpd DMF
(Pk = 4.0)

MEMBER ONE CALL SYSTEMS INTERNATIONAL

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN ILLINOIS

CALL J.U.L.I.E.
1-800-892-0123
TOLL FREE

REQUIRES MIN. OF 48 HOURS NOTICE BEFORE YOU EXCAVATE. (EXCLUDING SAT., SUN., & HOL.)

BENCHMARKS:

1. BM-1: TOP NUT OF HYDRANT SOUTH OF DRIVEWAY. EL=815.45
2. B-2: TOP NUT OF HYDRANT NORTHEAST OF DRIVEWAY ENTRANCE. EL=812.29

KEY NOTES:

1. PROVIDE NEW STONE MULCH OVER WEED BARRIER. PROVIDE LANDSCAPE EDGING.
2. REMOVE AND REPLACE EXISTING TREES AS REQUIRED TO INSTALL NEW UNDERGROUND PIPING.
3. REMOVE AND REPLACE ASPHALT PAVEMENT. SAWCUT JOINTS.

GENERAL NOTES:

1. CONTRACTOR SHALL REPLACE PAVEMENT REMOVED OR DAMAGED DURING CONSTRUCTION. NOT ALL NEW PAVEMENT MAY BE SHOWN.
2. SILT FENCE AND STONE TRACKING PAD SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE.
3. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED AS REQUESTED BY ENGINEER OR GOVERNING AGENCY.
4. ALL PROPOSED EROSION CONTROL MEASURES AND STRUCTURES MUST BE INSPECTED AT LEAST WEEKLY AND WHENEVER 0.5 INCHES OF RAIN IS PRODUCED WITHIN 24 HOURS. NECESSARY MAINTENANCE SHALL FOLLOW THE INSPECTIONS WITHIN 24 HOURS.
5. FOR THE FIRST SIX WEEKS AFTER INITIAL STABILIZATION OF A DISTURBED AREA, THE CONTRACTOR SHALL MAKE PROVISIONS FOR WATERING WHENEVER MORE THAN 7 DAYS OF DRY WEATHER ELAPSE.
6. BACKWASH TANK WALLS SHALL BE PARALLEL TO EXISTING BUILDING WALLS. WEST WALL OF BACKWASH TANK SHALL BE ALIGNED WITH EAST WALL OF EXISTING BUILDING.

LEGEND:

- EXISTING ASPHALT PAVEMENT
- EXISTING SIDEWALK/CONCRETE PAVEMENT
- NEW ASPHALT PAVEMENT
- NEW SIDEWALK/CONRETE PAVEMENT
- STONE MULCH

NO.	REVISIONS	DATE:
1	RECORD DRAWINGS	7/2010

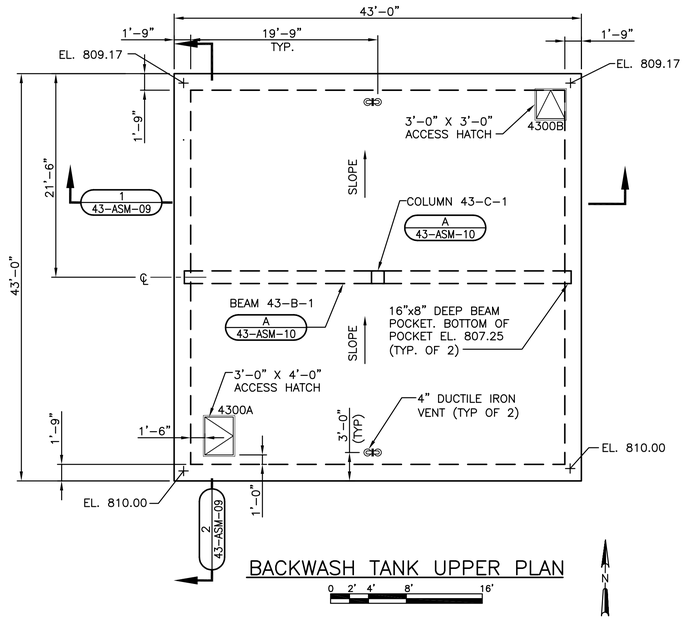
DATE: JUNE, 2008
DES BY: GWT CHK BY: ALM
RECORD DRAWING
BY:
DATE:
CONTRACTOR:

SITE PLAN
WELL NO. 43
WATER TREATMENT IMPROVEMENTS - GROUP 2
WELL NOs. 29, 30, AND 43
CITY OF ROCKFORD
WINNEBAGO COUNTY, ILLINOIS

STRAND ASSOCIATES, INC.® ENGINEERS

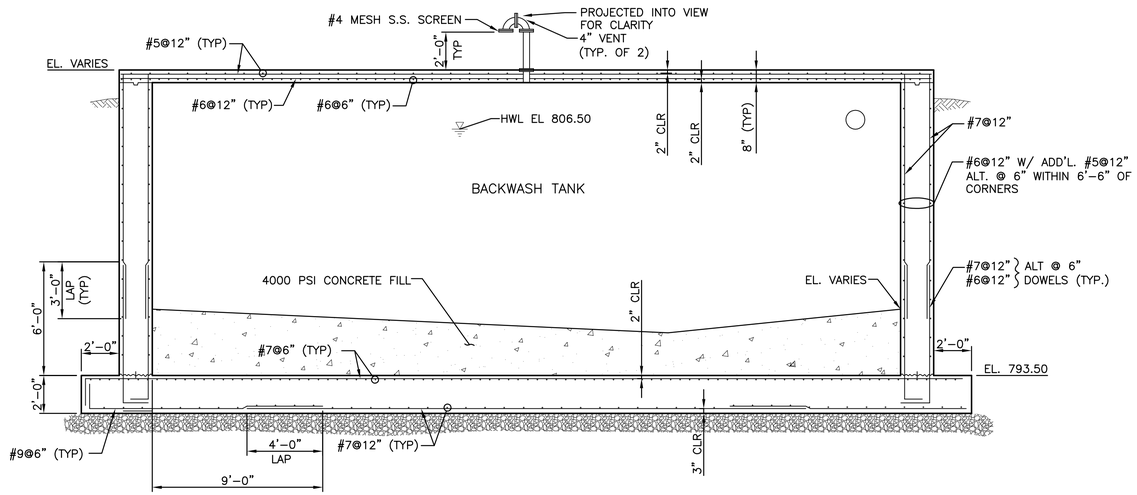
SHEET
64
43-C-01
JOB NO. 1-110-074

File: S:\MAD\1100--1199\1110\074\Acad\Group-2\43-C-01.dwg Time: Oct 24, 2011 - 9:12am



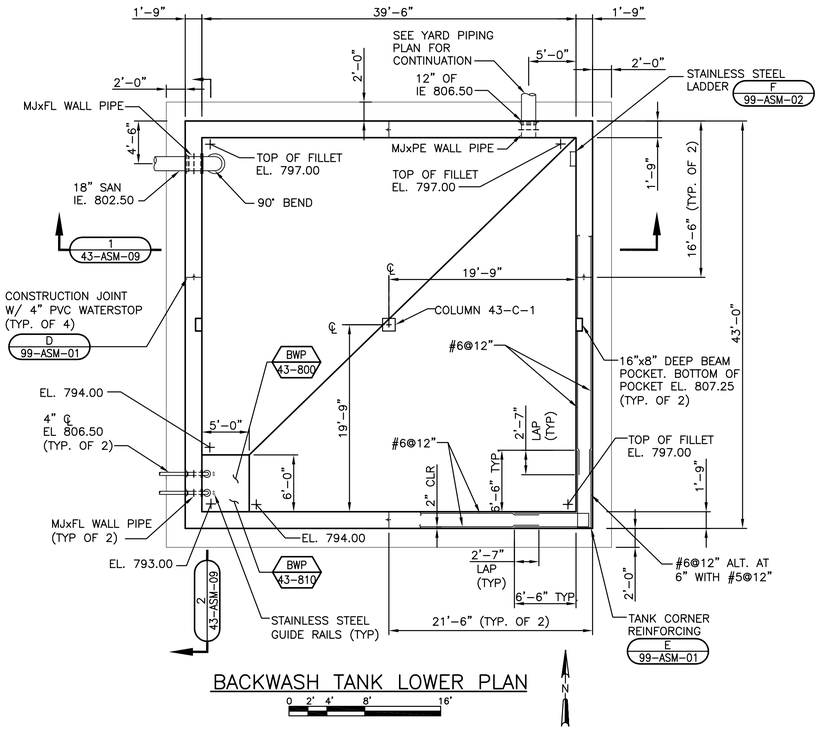
BACKWASH TANK UPPER PLAN

0 2' 4' 8' 16'



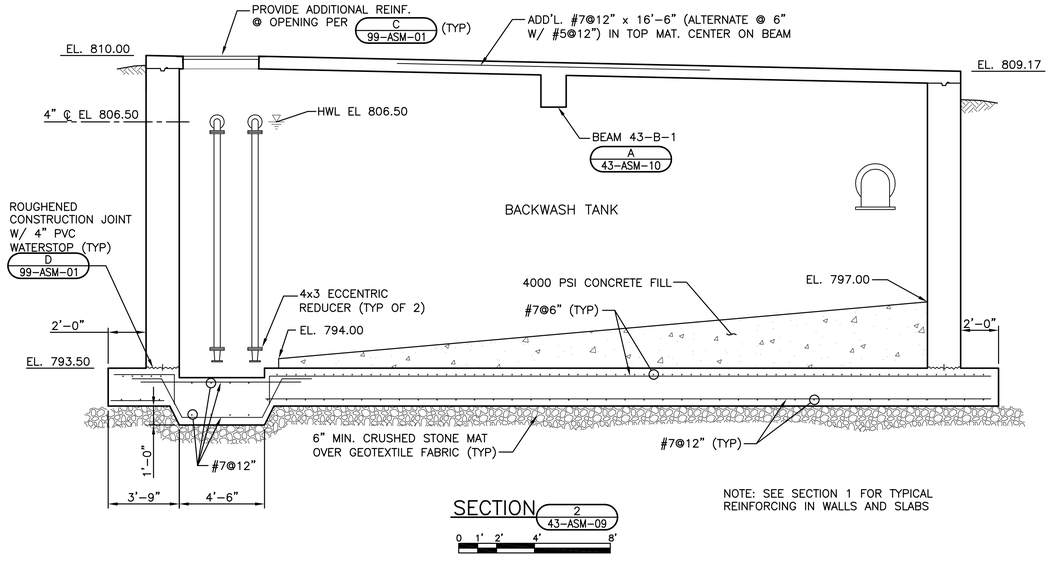
SECTION 1 43-ASM-09

0 1' 2' 4' 8'



BACKWASH TANK LOWER PLAN

0 2' 4' 8' 16'



SECTION 2 43-ASM-09

0 1' 2' 4' 8'

NOTE: SEE SECTION 1 FOR TYPICAL REINFORCING IN WALLS AND SLABS

GENERAL NOTES:

1. TOP SLAB REQUIRED BEFORE BACKFILL.
2. PROVIDE EXTRA REINFORCEMENT AT OPENINGS IN WALLS AND SLABS PER C 99-ASM-01 .

NO.	REVISIONS	DATE:
1	RECORD DRAWINGS	7/2010

DATE: JUNE, 2008
DES BY: GWT CHK BY: ALM
RECORD DRAWING
BY:
DATE:
CONTRACTOR:

BACKWASH TANK - PLANS AND SECTIONS
WELL NO. 43
WATER TREATMENT IMPROVEMENTS - GROUP 2
WELL NOS. 29, 30, AND 43
CITY OF ROCKFORD
WINNEBAGO COUNTY, ILLINOIS

STRAND ASSOCIATES, INC.® ENGINEERS

SHEET 75 43-ASM-09
JOB NO. 1-110-074