PLANS FOR A

LARGE SCALE DEVELOPMENT

TO SERVE

HARPS FOOD STORES, INC.

P.O. BOX 48
918 S. GUTENSOHN
SPRINGDALE, ARKANSAS 72766
PHONE: (479) 751-7601
FAX: (479) 751-3625

A COMMERCIAL DEVELOPMENT

IN

JONESBORO, ARKANSAS

FEBRUARY 2011

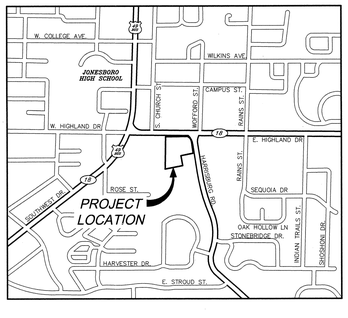
BY

ENGINEERING SERVICES, INC.

CONSULTING ENGINEERS
SPRINGDALE, ARKANSAS
PHONE: 479-751-8733
FAX: 479-751-8746

CONTACT LIST

MECHANICAL & ELECTRICAL ENGINEERS HENDERSON ENGINEERS, INC. 11627 WEST 79TH STREET LENEXA, KS 66214 CONTACT: CHUCK ROBINSON 913-307-5300	JONESBORO CITY ENGINEERING DIVISION 307 VINE STREET JONESBORO, AR 72401 CONTACT: CRAIG LIGHT 870-932-2438
ARCHITECT J. PRICE ARCHITECTURE 105 WEST KANSAS STREET LIBERTY, MO 64068 CONTACT: JEFF PRICE 816-792-5991	JONESBORO PLANNING & ZONNING DEPT. 307 VINE STREET JONESBORO, AR 72401 CONTACT: OTIS SPRIGGS 870-932-0406
ARKANSAS DEPT. OF HEALTH 4815 WEST MARKHAM, STREET, SLOT#39 LITTLE ROCK, AR 72205 501-661-2623	
ARKANSAS DEPT. OF ENVIROMENTAL QUALITY 5301 NORTH SHORE DRIVE NORTH LITTLE ROCK, AR 72118 501-682-0655	
GEOTECHNICAL SERVICES GTS, INC. 1946 BIRCH AVENUE FAYETTEVILLE, AR 72703 CONTACT: ANDY MCCLARRINON 479-521-7645	



VICINITY MAP

GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF EXISTING STRUCTURES, RELATED UTILITIES, AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED. THE REMOVAL AND DISPOSAL OF ALL MATERIALS SHALL BE DONE PER ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
2. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION OF THIS PROJECT.
3. THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH DESIGN STANDARDS OF THE CITY OF JONESBORO. HOWEVER, NEITHER THE ENGINEER NOR ITS EMPLOYEES CAN OR DO ASSURE THESE DESIGNS OR PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE THE ENGINEER INSPECTS AND CONTROLS THE PHYSICAL CONSTRUCTION ON SITE.
4. THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE THE SAFETY OF BUT NOT LIMITED TO THE PERSONS, PROPERTY, AND EQUIPMENT RELATED TO THE CONSTRUCTION OF THE SITE. THIS REQUIREMENT WILL APPLY DURING THE COMPLETE CONSTRUCTION OF THE PROJECT.
5. ALL CONSTRUCTION IN ARKANSAS HIGHWAY DEPARTMENT RIGHT-OF-WAY SHALL BE APPROVED BY THE ARKANSAS HIGHWAY DEPARTMENT.

NOTICE TO BIDDERS:

SUBCONTRACTOR MUST DIRECT THEIR QUESTIONS THROUGH THE GENERAL CONTRACTOR. THE CONSULTING ARCHITECT AND/OR THE CONSULTING ENGINEER SHALL NOT BE CONTACTED DIRECTLY WITHOUT PRIOR AUTHORIZATION FROM THE OWNER/DEVELOPER.

FLOOD ZONE NOTE:

THIS PROPERTY IS NOT WITHIN THE 100 YEAR FLOOD ZONE AS SHOWN ON THE F.I.R.M. MAP # 05031C0131 C, PANEL 31 OF 200, CRAIGHEAD COUNTY, ARKANSAS & INCORPORATED AREAS. EFFECTIVE DATE: SEPTEMBER 27, 1991.

INDEX OF SHEETS

PRELIMINARY

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14528

2-11-11

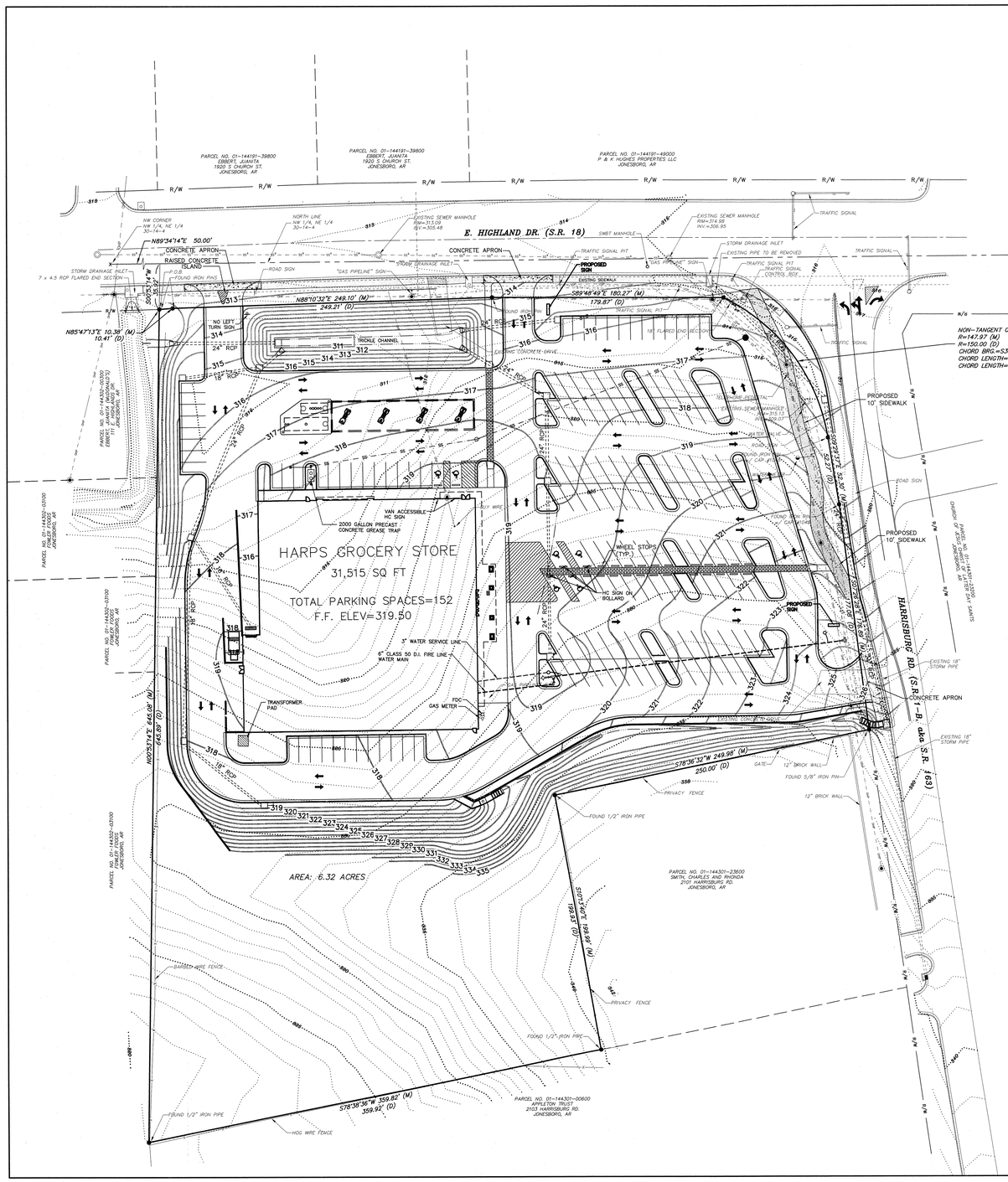
BO B. WILKINS, P.E. No. 14528
ENGINEERING SERVICES, INC.

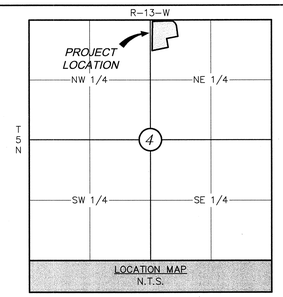
ENGINEERING SERVICES, INC.
131

NOTE :

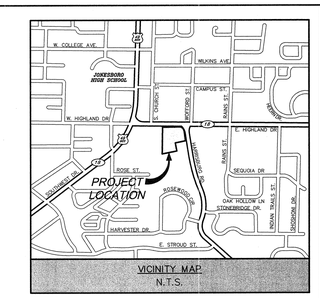
ALL STREET AND DRAINAGE CONSTRUCTION MUST COMPLY WITH THE REQUIREMENTS OF THE CITY OF JONESBORO, ARKANSAS.

ALL WATER AND SEWER CONSTRUCTION MUST COMPLY WITH THE SPECIFICATION REQUIREMENTS FOR THE CONSTRUCTION OF WATER AND SEWER FACILITIES OF THE CITY OF JONESBORO, ARKANSAS.





LOCATION MAP
N.T.S.



VICINITY MAP
N.T.S.

GRAPHIC REPRESENTATION ONLY
SCALE 1"= 40'
0 20 40 80

OWNER/DEVELOPER: HARPS FOOD STORES, INC.
918 S. GUTENSOHN
P.O. BOX 48
SPRINGDALE, AR 72766

ENGINEER / SURVEYOR: ENGINEERING SERVICES, INC.
1207 S. OLD MISSOURI RD.
P.O. BOX 262
SPRINGDALE, AR 72762

WORK ORDER #: 10917

ZONING: PD-C

SETBACKS FOR PD-C:

FRONT: 25'
REAR: 20'
SIDES: 10'

LEGAL DESCRIPTION:

A PART OF THE NORTHWEST QUARTER (NW ¼) OF THE NORTHEAST QUARTER (NE ¼) OF SECTION 30, TOWNSHIP 14 NORTH, RANGE 4 EAST OF THE 5TH PRINCIPAL MERIDIAN, CRAIGHEAD COUNTY, ARKANSAS, AND ORIGINALLY RECORDED ON PLAT ENTITLED TEASDALE ACRES, LOT 15, ON FILE IN THE OFFICE OF THE CIRCUIT CLERK AND EX-OFFICIO RECORDER OF CRAIGHEAD COUNTY, JONESBORO, ARKANSAS, BOOK 123, PAGE 4, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NW CORNER OF SAID NW ¼ OF THE NE ¼ OF SECTION 30, THENCE ALONG NORTH LINE OF SAID 40 ACRE TRACT, N89°34'14"E A DISTANCE OF 50.00 FEET TO A POINT; THENCE LEAVING SAID NORTH LINE, S00°53'14"W A DISTANCE OF 35.92 FEET TO THE **POINT OF BEGINNING** AND THE SOUTHERN RIGHT OF WAY LINE OF ARKANSAS STATE HIGHWAY 18 (HIGHLAND DR.); THENCE ALONG SAID SOUTHERN RIGHT OF WAY LINE, N85°47'13"E A DISTANCE OF 10.38 FEET TO A POINT; THENCE CONTINUING ALONG SAID SOUTHERN RIGHT OF WAY LINE, N88°10'32"E A DISTANCE OF 249.10 FEET TO A POINT; THENCE CONTINUING ALONG SAID SOUTHERN RIGHT OF WAY LINE, S89°48'49"E A DISTANCE OF 180.27 FEET TO THE POINT OF CURVATURE FOR A NON-TANGENT CURVE TO THE RIGHT, SAID CURVE HAVING A 150-FT RADIUS, BEING SUBTENDED BY A CHORD BEARING OF S36°39'43"E AND A CHORD DISTANCE OF 135.99 FEET TO A POINT AT THE END OF SAID CURVE, SAID POINT BEING ON THE WESTERN RIGHT OF WAY OF ARKANSAS STATE HIGHWAY 1B (HARRISBURG ROAD, aka STATE HIGHWAY 163); THENCE CONTINUING ALONG SAID RIGHT OF WAY, S08°29'37"E A DISTANCE OF 52.30 FEET TO A POINT; THENCE CONTINUING ALONG SAID WESTERN RIGHT OF WAY, S07°26'28"E A DISTANCE OF 178.89 FEET TO A POINT; THENCE LEAVING SAID WESTERN RIGHT OF WAY, S78°36'32"W A DISTANCE OF 249.98 FEET TO A POINT; THENCE S10°13'40"E A DISTANCE OF 199.99 FEET TO A POINT; THENCE S78°38'36"W A DISTANCE OF 359.82 FEET TO A POINT; THENCE N00°53'14"E A DISTANCE OF 645.08 FEET TO THE POINT OF BEGINNING.

SAID PARCEL OR TRACT OF LAND CONTAINING 6.32 ACRES AS SHOWN ON PLAT BY ENGINEERNG SERVICES, INC.

FLOOD PLAIN ZONING:

THIS PROPERTY IS NOT WITHIN THE 100 YEAR FLOOD ZONE AS SHOWN ON THE F.I.R.M. MAP # 05031C0131 C, PANEL 131 OF 200, CRAIGHEAD COUNTY, ARKANSAS & INCORPORATED AREAS. EFFECTIVE DATE: SEPTEMBER 27, 1991.

LEGEND

●	IRON PIN FOUND
———	PROPERTY LINE
(M)	MEASURED DISTANCE
(D)	DEED DISTANCE
— — —	ADJACENT LINE
R/W	RIGHT-OF-WAY
— — —	SECTION LINE
316	EXISTING CONTOURS
———	EXISTING BACK OF CURB
— — —	EXISTING CENTERLINE
UGP	EXISTING UNDERGOUND POWERLINE
———	EXISTING FENCE
GAS	EXISTING GAS LINE
OHP	EXISTING OVERHEAD POWER
●	EXISTING POWER POLE
●	EXISTING GUYWIRE
SS	EXISTING SEWER LINE
◎	EXISTING SEWER MANHOLE
T	EXISTING TELEPHONE LINE
W	EXISTING WATERLINE
———	PROPOSED BACK OF CURB
321	PROPOSED CONTOURS
SS	PROPOSED SEWER SERVICE LINE
●	PROPOSED SEWER MANHOLE
□	PROPOSED DRAINAGE BOX
———	PROPOSED DRAINAGE PIPE
———	PROPOSED SWALE
———	PROPOSED WATERLINE
	PROPOSED TEE
	PROPOSED GATE VALVE
	PROPOSED FIRE HYDRANT

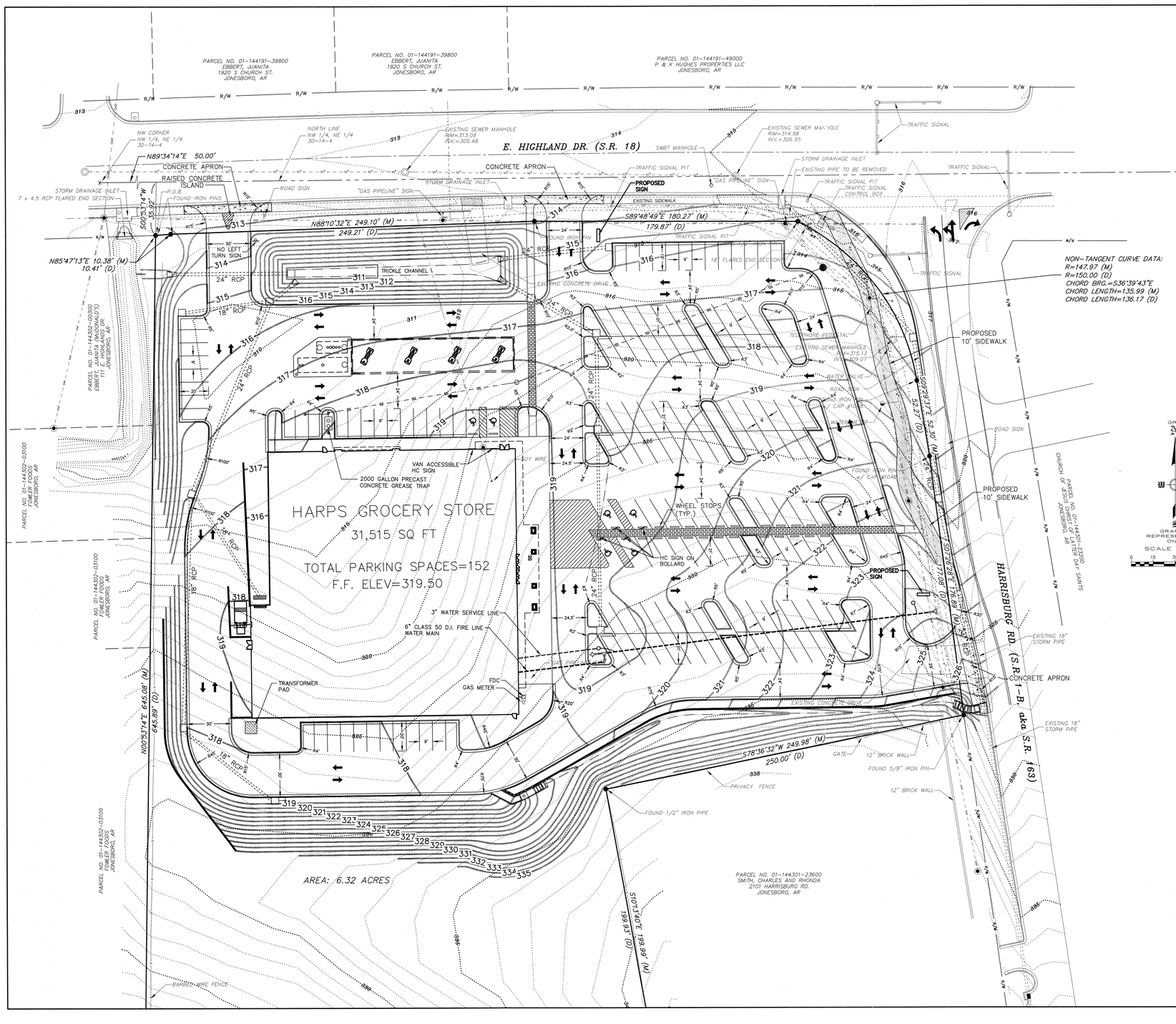
ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764
501-927-1022 FAX 501-927-1033
E-MAIL: ESI@SPRINGDALENET.COM

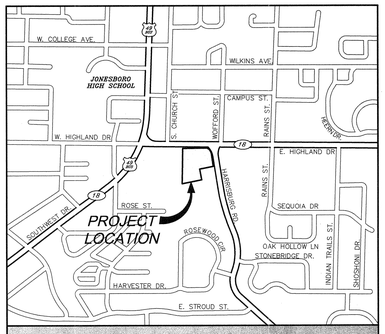
LARGE SCALE DEVELOPMENT
HARPS FOOD STORES, INC.
JONESBORO, ARKANSAS

REVISION	DATE	DESCRIPTION

SCALE: 1"= 40'
DATE: JAN., 2011
ENGINEER: BBW
DRAWN BY: ——
W.O. #: 10917

1





VICINITY MAP
N.T.S.

OWNER/DEVELOPER: HARPS FOOD STORES, INC.
918 S. GUTENSOHN
P.O. BOX 48
SPRINGDALE, AR 72766

ENGINEER / SURVEYOR: ENGINEERING SERVICES, INC.
1207 S. OLD MISSOURI RD.
P.O. BOX 282
SPRINGDALE, AR 72762

WORK ORDER #: 10917

ZONING: PD-C

SETBACKS FOR PD-C:

FRONT: 25'
REAR: 20'
SIDES: 10'

LEGEND

●	IRON PIN FOUND
	PROPERTY LINE
	ADJACENT LINE
R/W	RIGHT-OF-WAY
	SECTION LINE
316	EXISTING CONTOURS
	EXISTING BACK OF CURB
	EXISTING CENTERLINE
UGP	EXISTING UNDERGOUND POWERLINE
	EXISTING FENCE
G	EXISTING GAS LINE
OHP	EXISTING OVERHEAD POWER
◉	EXISTING POWER POLE
	EXISTING GUYWIRE
SS	EXISTING SEWER LINE
	EXISTING SEWER MANHOLE
T	EXISTING TELEPHONE LINE
W	EXISTING WATERLINE
	PROPOSED BACK OF CURB
321	PROPOSED CONTOURS
SS	PROPOSED SEWER SERVICE LINE
●	PROPOSED SEWER MANHOLE
□	PROPOSED DRAINAGE BOX
	PROPOSED DRAINAGE PIPE
	PROPOSED SWALE
	PROPOSED WATERLINE
	PROPOSED TEE
	PROPOSED GATE VALVE
	PROPOSED FIRE HYDRANT

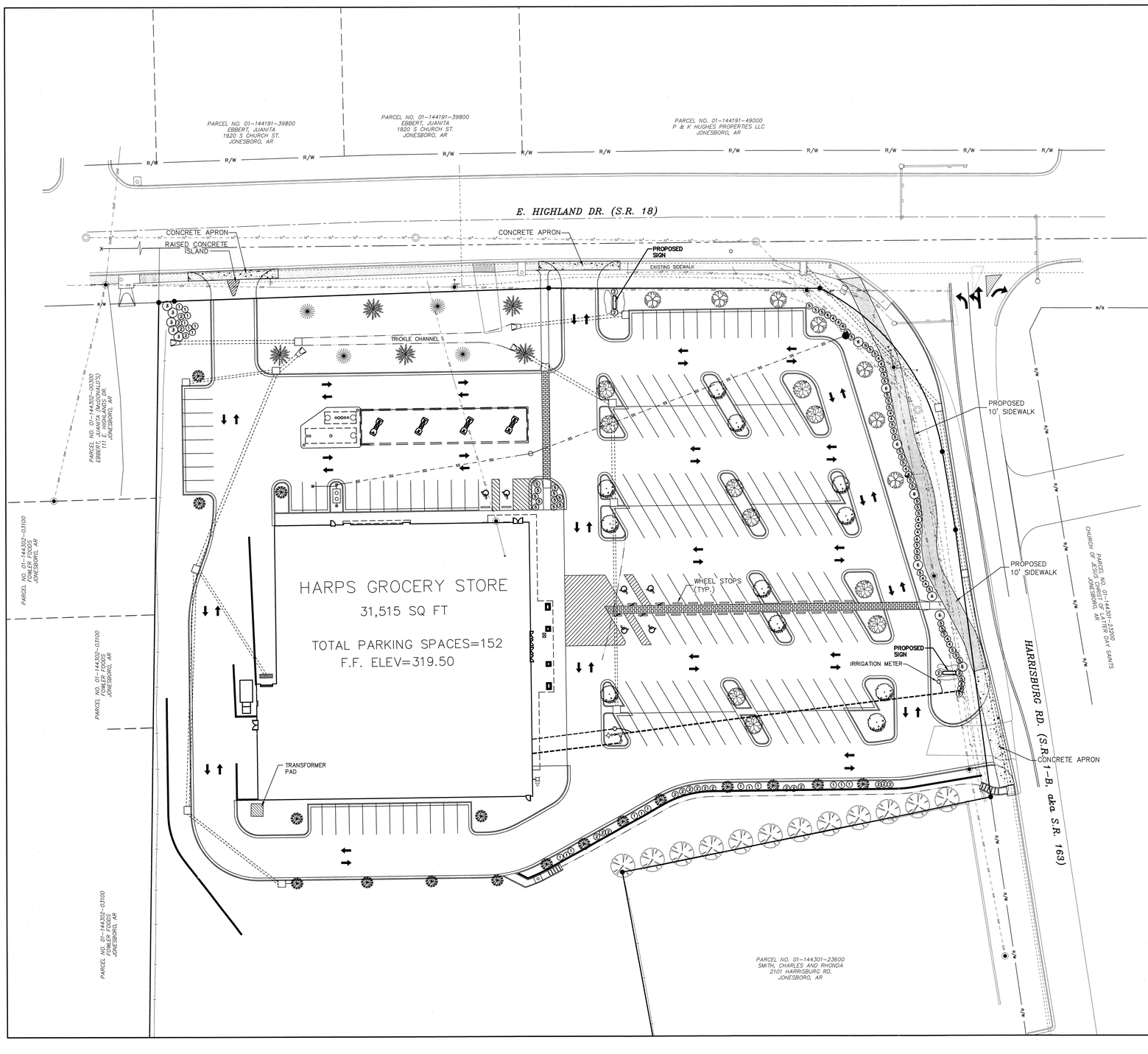
ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

SITE LAYOUT PLAN
HARPS FOOD STORES, INC.
JONESBORO, ARKANSAS

REVISION	DATE	DESCRIPTION

SCALE: 1"= 30'
DATE: JAN, 2011
ENGINEER: BBW
DRAWN BY: ----
W.O. #: 10917

2



LEGEND

●	IRON PIN FOUND
	PROPERTY LINE
	ADJACENT LINE
R/W	RIGHT-OF-WAY
	SECTION LINE
	EXISTING BACK OF CURB
	EXISTING CENTERLINE
UGP	EXISTING UNDERGOUND POWERLINE
	EXISTING FENCE
G	EXISTING GAS LINE
OHP	EXISTING OVERHEAD POWER
	EXISTING POWER POLE
	EXISTING GUYWIRE
SS	EXISTING SEWER LINE
	EXISTING SEWER MANHOLE
T	EXISTING TELEPHONE LINE
W	EXISTING WATERLINE
	PROPOSED BACK OF CURB
SS	PROPOSED SEWER SERVICE LINE
●	PROPOSED SEWER MANHOLE
□	PROPOSED DRAINAGE BOX
	PROPOSED DRAINAGE PIPE
	PROPOSED SWALE
	PROPOSED WATERLINE
	PROPOSED TEE
	PROPOSED GATE VALVE
	PROPOSED FIRE HYDRANT

INDEX OF PLANTS/TREES

SYMBOL	COMMON NAME	BOTANICAL NAME	QUANTITY	SIZE
	BALD CYPRESS	Taxodium distichum	5	MIN. 1.5" CAL.
	LELAND CYPRESS	X Cupressocyparis leylandii	12	MIN. 8' TALL AT TIME OF PLANTING
	IRONWOOD	Ostrya virginiana	10	MIN. 1.5" CAL.
	TRIDENT MAPLE	Acer buergerianum	7	MIN. 1" CAL.
	NORTHERN RED OAK	Quercus rubra	12	MIN. 1.5" CAL.
	EASTERN REDBUD	Cercis canadensis	21	MIN. 1" CAL.
	RED BUCKEYE	Aesculus pavia	9	MIN. 1" CAL.
	AMERICAN BEECH	Fagus grandifiora	4	MIN. 1.5" CAL.
	BEAUTY BERRY	Callicarpa americana	28	3 GAL. MIN.
	COMMON WITCH-HAZEL	Hamamelis virginiana	28	3 GAL. MIN.
	SASSAFRAS	Sassafras albidum	3	3 GAL. MIN.
	DWARF CREPE MYRTLE	Lagerstromia indica x L. Fauriei	22	3 GAL. MIN.
	INKBERRY	Ilex glabra	55	3 GAL. MIN.
	SEASONAL PLANTINGS		120 SQ. FT.	1 GALLON

ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

LANDSCAPING PLAN
HARPS FOOD STORES, INC.
JONESBORO, ARKANSAS

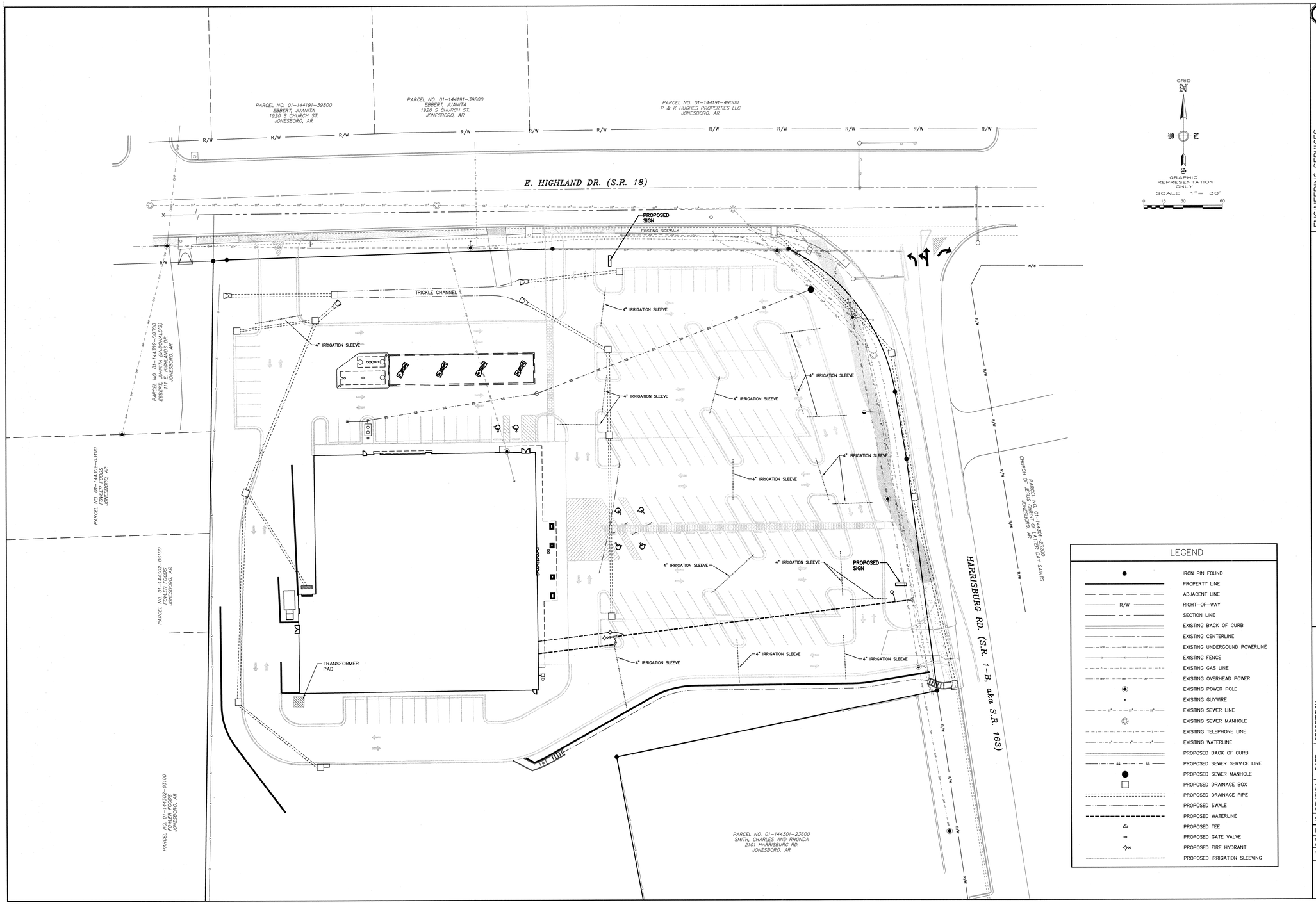
REVISION	DATE	DESCRIPTION

SCALE: 1"= 30'

DATE: JAN., 2010

ENGINEER: BBW
DRAWN BY: ---

W.O. #: 10917



LEGEND

●	IRON PIN FOUND
	PROPERTY LINE
	ADJACENT LINE
R/W	RIGHT-OF-WAY
	SECTION LINE
	EXISTING BACK OF CURB
	EXISTING CENTERLINE
UGP	EXISTING UNDERGOUND POWERLINE
	EXISTING FENCE
G	EXISTING GAS LINE
OHP	EXISTING OVERHEAD POWER
	EXISTING POWER POLE
	EXISTING GUYWIRE
SS	EXISTING SEWER LINE
	EXISTING SEWER MANHOLE
T	EXISTING TELEPHONE LINE
W	EXISTING WATERLINE
	PROPOSED BACK OF CURB
SS	PROPOSED SEWER SERVICE LINE
●	PROPOSED SEWER MANHOLE
□	PROPOSED DRAINAGE BOX
	PROPOSED DRAINAGE PIPE
	PROPOSED SWALE
	PROPOSED WATERLINE
	PROPOSED TEE
	PROPOSED GATE VALVE
	PROPOSED FIRE HYDRANT
	PROPOSED IRRIGATION SLEEVING

ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

IRRIGATION SLEEVE LAYOUT
HARPS FOOD STORES, INC.
JONESBORO, ARKANSAS

REVISION	DATE	DESCRIPTION

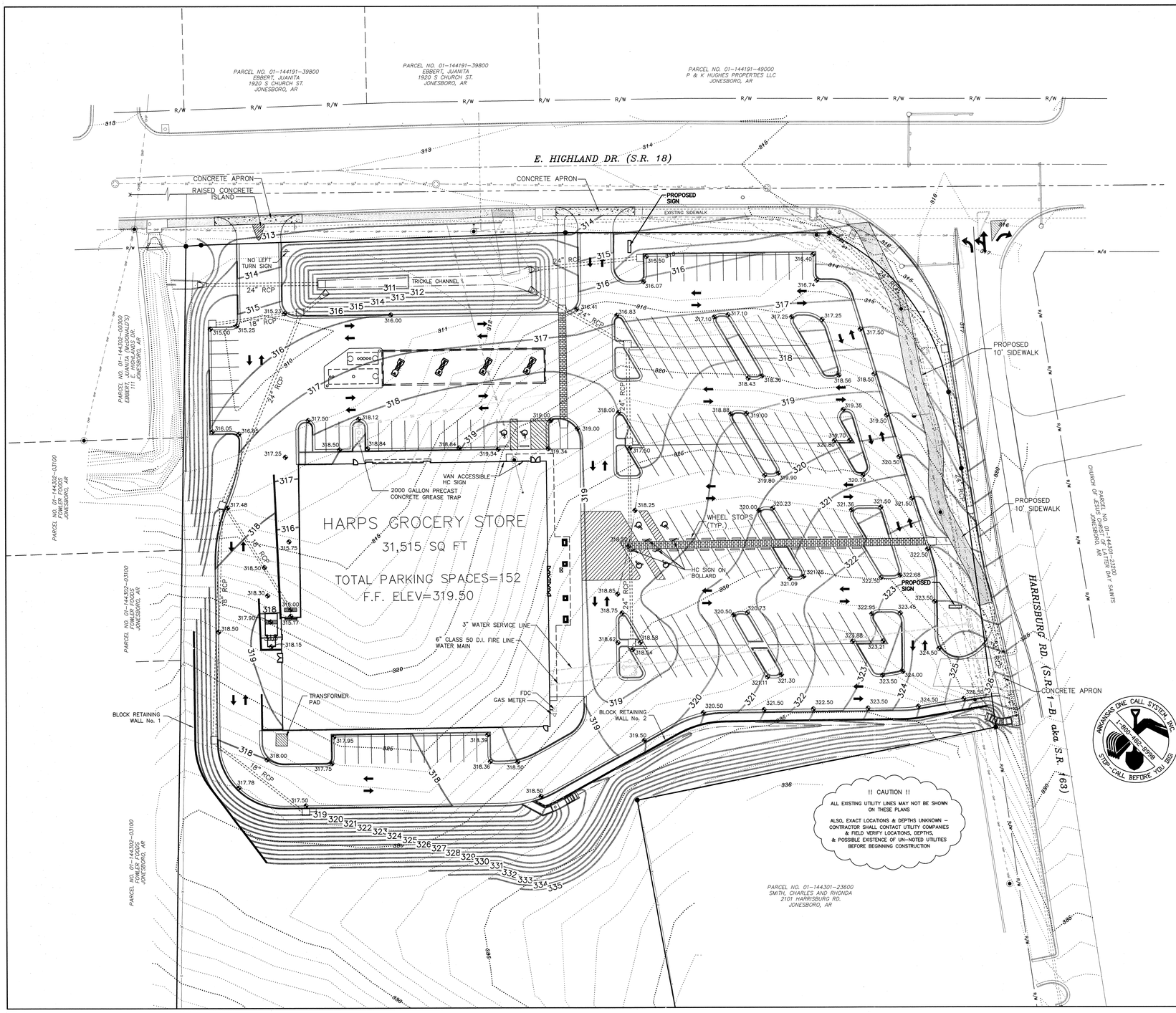
SCALE: 1"= 30'

DATE: FEB. 2011

ENGINEER: BBW
DRAWN BY: ---

W.O. #: 10917

4



NOTE:
ALL HANDICAPPED PARKING SPACES SHALL NOT EXCEED A 2.0% SLOPE IN ANY DIRECTION.

LEGEND

●	IRON PIN FOUND
	PROPERTY LINE
	ADJACENT LINE
R/W	RIGHT-OF-WAY
	SECTION LINE
316	EXISTING CONTOURS
	EXISTING BACK OF CURB
	EXISTING CENTERLINE
UGP	EXISTING UNDERGOUND POWERLINE
	EXISTING FENCE
G	EXISTING GAS LINE
OHP	EXISTING OVERHEAD POWER
	EXISTING POWER POLE
	EXISTING GUYWIRE
SS	EXISTING SEWER LINE
	EXISTING SEWER MANHOLE
T	EXISTING TELEPHONE LINE
W	EXISTING WATERLINE
	PROPOSED BACK OF CURB
321	PROPOSED CONTOURS
SS	PROPOSED SEWER SERVICE LINE
●	PROPOSED SEWER MANHOLE
323.50	SPOT ELEVATIONS
□	PROPOSED DRAINAGE BOX
	PROPOSED DRAINAGE PIPE
	PROPOSED SWALE
	PROPOSED WATERLINE
	PROPOSED TEE
	PROPOSED GATE VALVE
	PROPOSED FIRE HYDRANT

ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

GRADING PLAN
HARPS FOOD STORES, INC.
JONESBORO, ARKANSAS

REVISION	DATE	DESCRIPTION

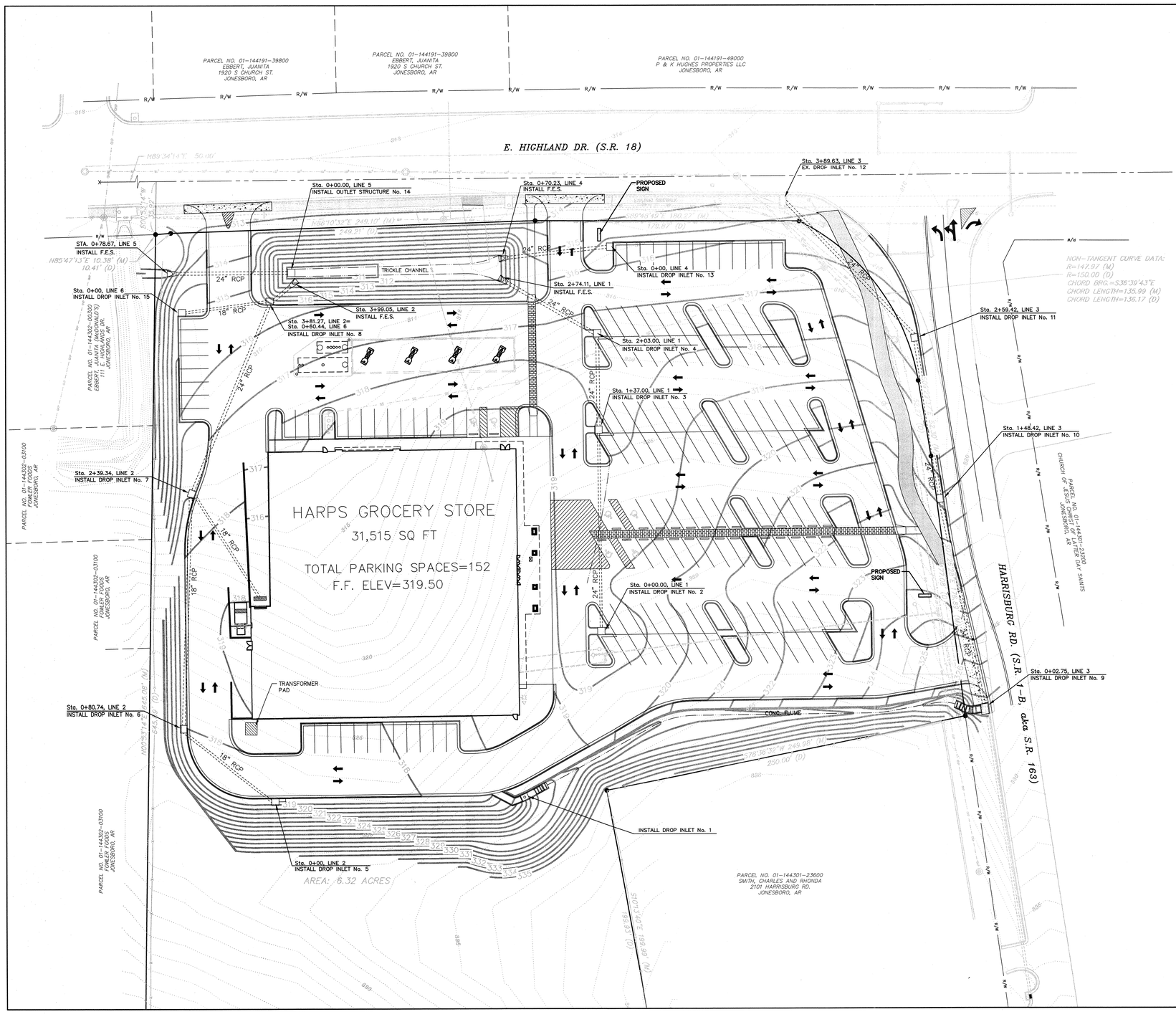
SCALE: 1"= 30'

DATE: FEB. 2011

ENGINEER: BBW
DRAWN BY: ---

W.O. #: 10917

5



LEGEND

●	IRON PIN FOUND
	PROPERTY LINE
	ADJACENT LINE
R/W	RIGHT-OF-WAY
	SECTION LINE
316	EXISTING CONTOURS
	EXISTING BACK OF CURB
	EXISTING CENTERLINE
UP	EXISTING UNDERGOUND POWERLINE
F	EXISTING FENCE
G	EXISTING GAS LINE
OP	EXISTING OVERHEAD POWER
	EXISTING POWER POLE
	EXISTING GUYWIRE
SS	EXISTING SEWER LINE
	EXISTING SEWER MANHOLE
T	EXISTING TELEPHONE LINE
W	EXISTING WATERLINE
	PROPOSED BACK OF CURB
321	PROPOSED CONTOURS
SS	PROPOSED SEWER SERVICE LINE
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	PROPOSED GATE VALVE
	PROPOSED FIRE HYDRANT

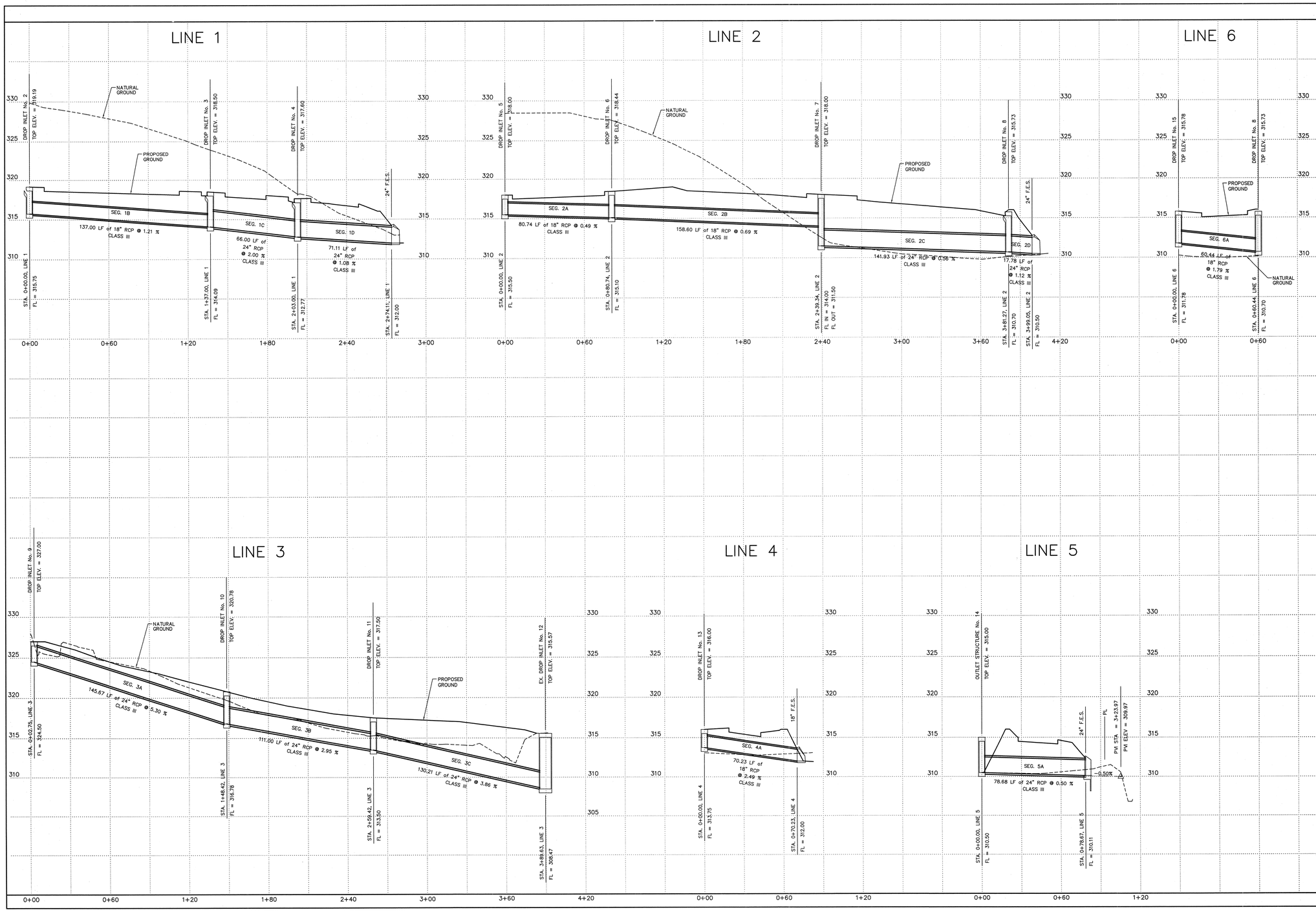
ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE ARKANSAS 72764
P.O. BOX 1181 - SPRINGDALE, ARKANSAS 72765 - (479) 751-7845 - FAX (479) 751-8521

STORM LAYOUT PLAN
HARPS FOOD STORES, INC.
JONESBORO, ARKANSAS

REVISION	DATE	DESCRIPTION

SCALE: 1"= 30'
DATE: JAN. 2011
ENGINEER: BBW
DRAWN BY: ---
W.O. #: 10917

6



ENGINEERING SERVICES INCORPORATED
CIVIL ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

STORM DRAINAGE PROFILES
HARPS FOOD STORES, INC.
JONESBORO, ARKANSAS

REVISION	DATE	DESCRIPTION

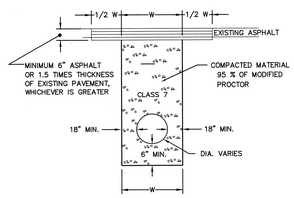
SCALE: 1"= 30'

DATE: FEB. 2011

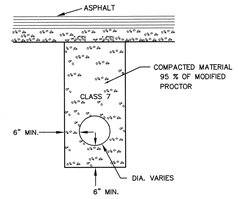
ENGINEER: BBW
DRAWN BY: ---

W.O. #: 10917

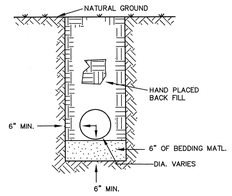
7



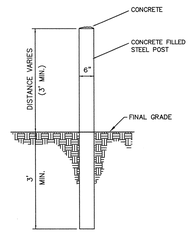
TYPICAL
PAVEMENT REPAIR



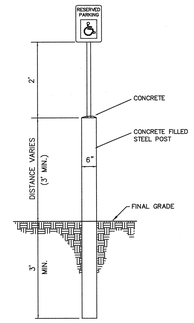
STORM SEWER PIPE
BEDDING IN ROAD



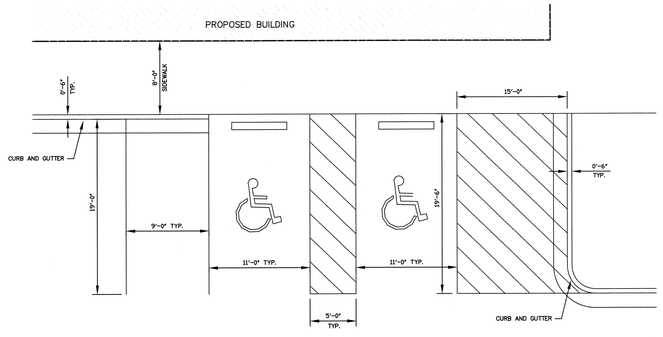
STORM SEWER PIPE
BEDDING IN GROUND



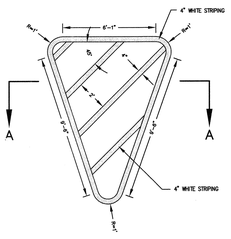
BOLLARD DETAIL



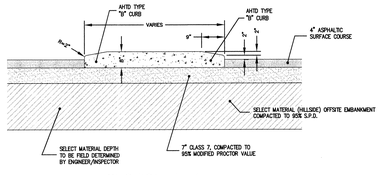
BOLLARD DETAIL
WITH HANDICAP SIGN



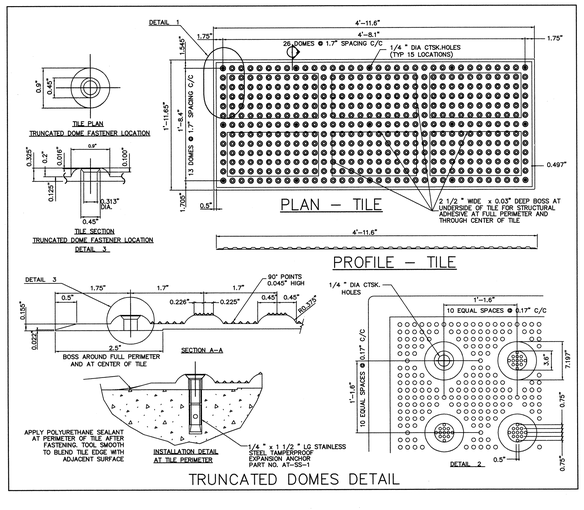
HANDICAPPED RAMP AND PARKING DETAILS



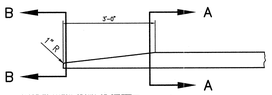
RAISED CONCRETE ISLAND DETAIL

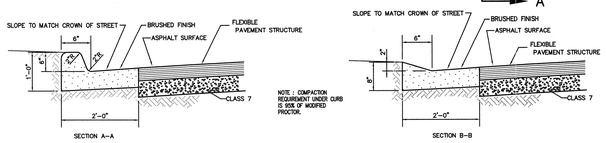


SECTION A–A

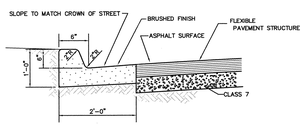


TRUNCATED DOMES DETAIL





CURB TURNDOWN DETAIL

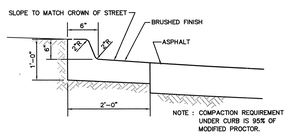


NOTE : COMPACTION REQUIREMENT UNDER IS 95% OF MODIFIED PROCTOR.

NOTE : CONTRACTION JOINTS ARE REQUIRED EVERY 15' MINIMUM.

NOTE : EXPANSION JOINTS ARE REQUIRED AT ALL STRUCTURES (DROP INLETS, JUNCTION BOXES, HANDICAP RAMPS, ETC.) AND EVERY 200' MINIMUM.

STANDARD
CONCRETE CURB & GUTTER



NOTE : COMPACTION REQUIREMENT UNDER CURB IS 95% OF MODIFIED PROCTOR.

CONCRETE
SPILL CURB & GUTTER

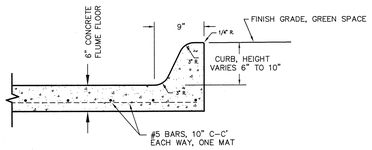
ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764
© COPYRIGHT 2011, ENGINEERING SERVICES, INC. 501-751-4174 FM
Z:\2010\10917-Harp's Jonesboro\Plan\10917-TYPICAL DETAILS.dwg

TYPICAL DETAILS
HARP'S FOOD STORES, INC.
JONESBORO, ARKANSAS

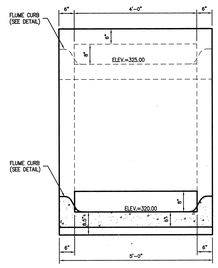
REVISION	DATE	DESCRIPTION

SCALE: NONE
DATE: JAN. 2011
ENGINEER: BBW
DRAWN BY: ---
W.O. #: 10917

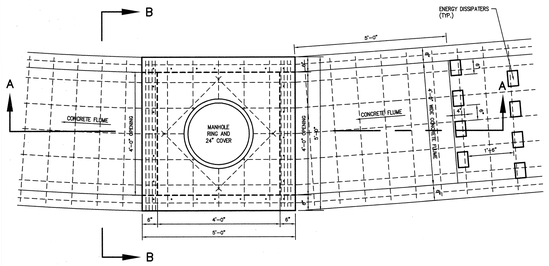
8



FLUME CURB DETAIL



SECTION B-B

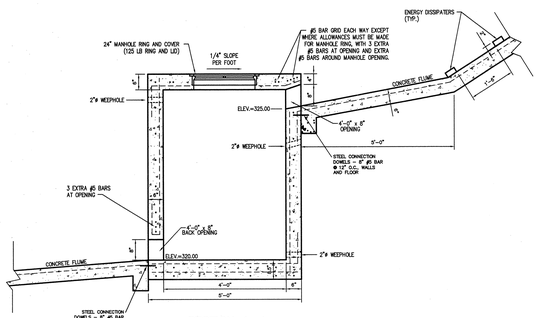


PLAN

NOTES:

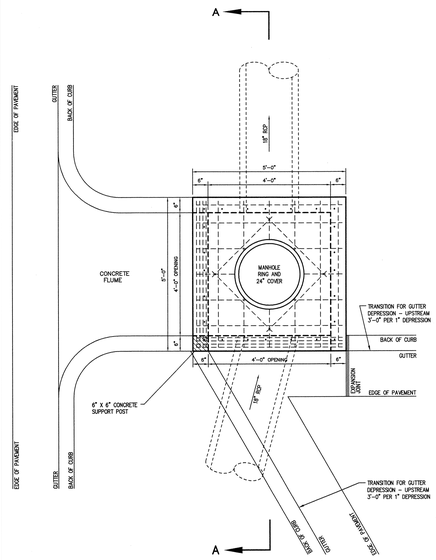
ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.

NEOPRENE-COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'-0" OR GREATER. STEP SPACING TO BE 12".



SECTION A-A

DROP INLET #1

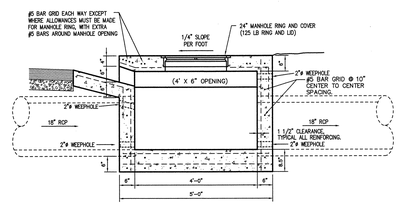


PLAN

NOTES:

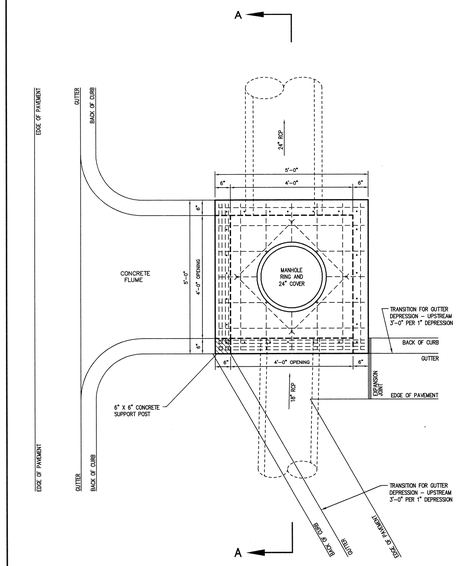
ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.

NEOPRENE-COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'-0" OR GREATER. STEP SPACING TO BE 12".



SECTION A-A

DROP INLET # 2
LINE # 1

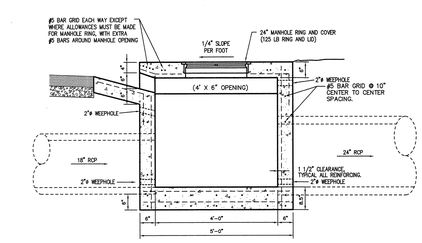


PLAN

NOTES:

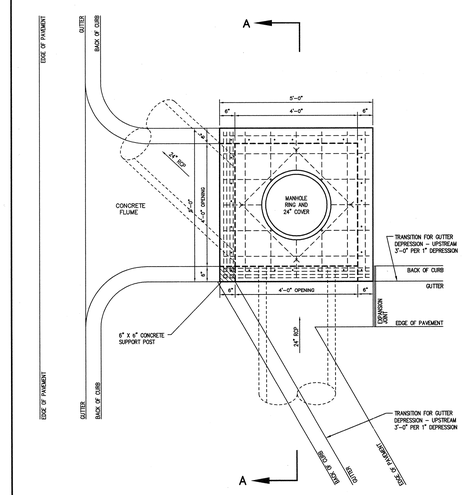
ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.

NEOPRENE-COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'-0" OR GREATER. STEP SPACING TO BE 12".



SECTION A-A

DROP INLET # 3
LINE # 1

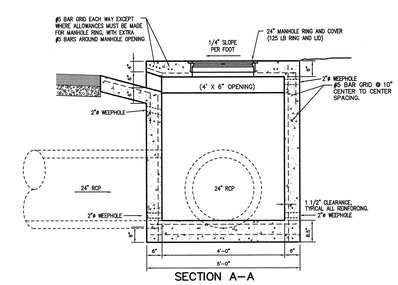


PLAN

NOTES:

ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.

NEOPRENE-COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'-0" OR GREATER. STEP SPACING TO BE 12".



SECTION A-A

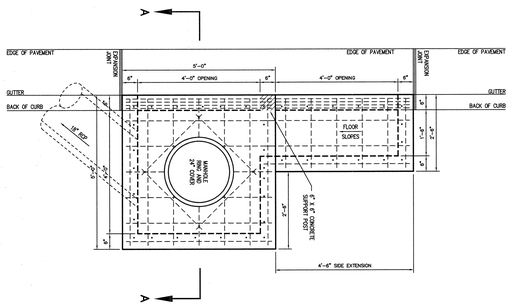
DROP INLET # 4
LINE # 1

ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

STREET & STORM DRAINAGE DETAILS
HARP'S FOOD STORES, INC.
JONESBORO, ARKANSAS

REVISION	DATE	DESCRIPTION

SCALE: NONE
DATE: JAN 2011
ENGINEER: BWW
DRAWN BY:
W.O. #: 10917

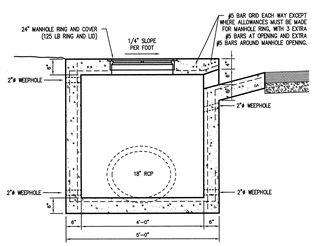


PLAN

NOTES:

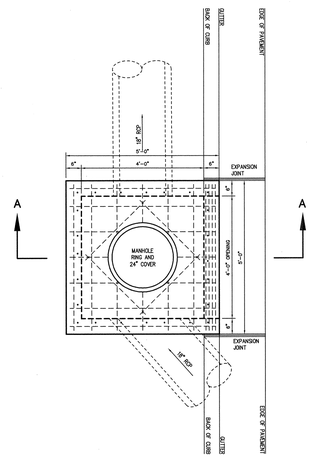
ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.

NEOPRENE-COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'-0" OR GREATER. STEP SPACING TO BE 12".



SECTION A–A

DROP INLET # 5
LINE # 2

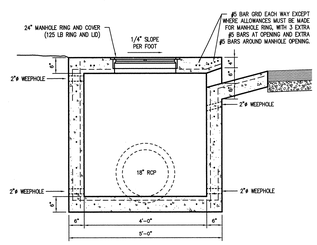


PLAN

NOTES:

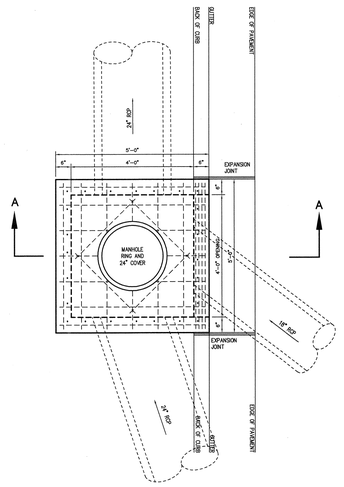
ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.

NEOPRENE-COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'-0" OR GREATER. STEP SPACING TO BE 12".



SECTION A–A

DROP INLET # 6
LINE # 2

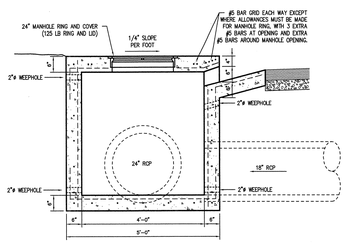


PLAN

NOTES:

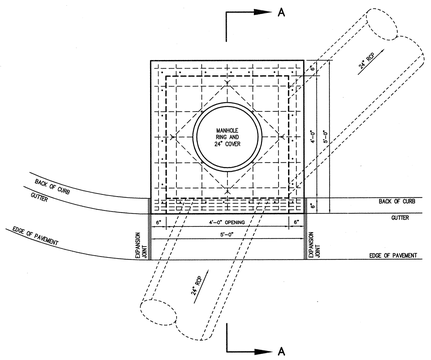
ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.

NEOPRENE-COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'-0" OR GREATER. STEP SPACING TO BE 12".



SECTION A–A

DROP INLET # 7
LINE # 2

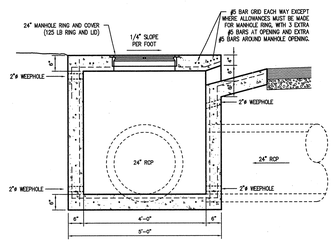


PLAN

NOTES:

ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.

NEOPRENE-COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'-0" OR GREATER. STEP SPACING TO BE 12".



SECTION A–A

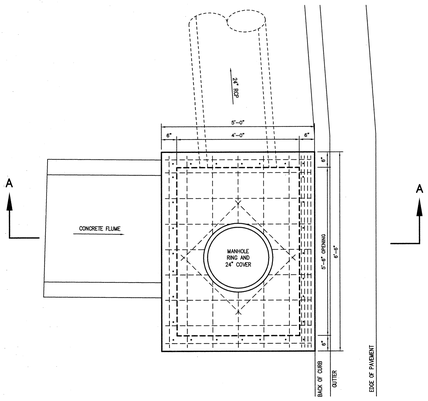
DROP INLET # 8
LINE # 2

ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

STREET & STORM DRAINAGE DETAILS
HARP'S FOOD STORES, INC.
JONESBORO, ARKANSAS

REVISION	DATE	DESCRIPTION

SCALE: NONE
DATE: JAN 2011
ENGINEER: BBW
DRAWN BY: ----
W.O. #: 10917

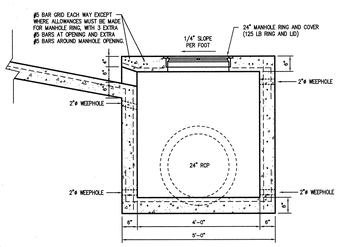


PLAN

NOTES:

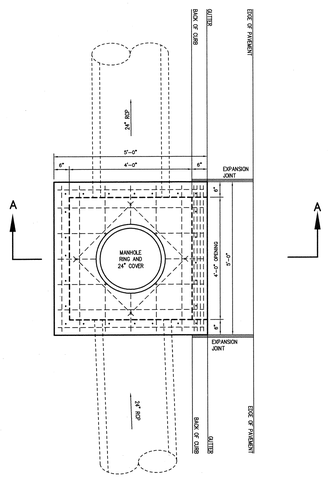
ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.

NEOPRENE-COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'-0" OR GREATER. STEP SPACING TO BE 12".



SECTION A–A

DROP INLET # 9
LINE # 3

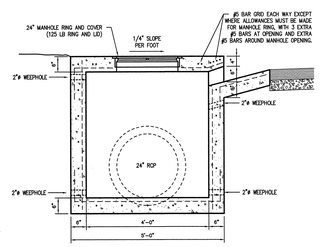


PLAN

NOTES:

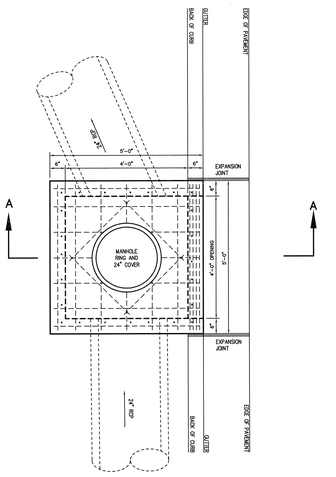
ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.

NEOPRENE-COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'-0" OR GREATER. STEP SPACING TO BE 12".



SECTION A–A

DROP INLET # 10
LINE # 3

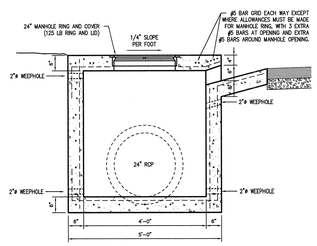


PLAN

NOTES:

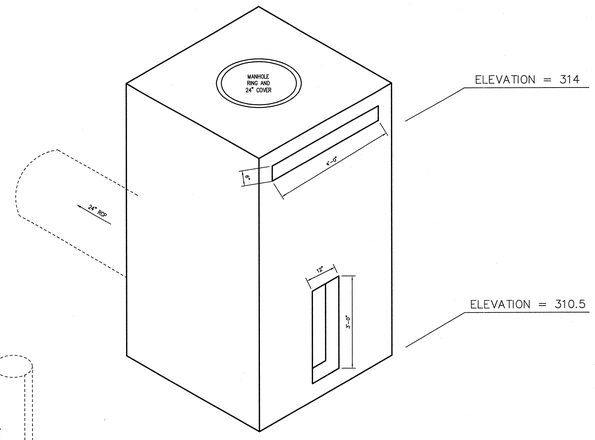
ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.

NEOPRENE-COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'-0" OR GREATER. STEP SPACING TO BE 12".

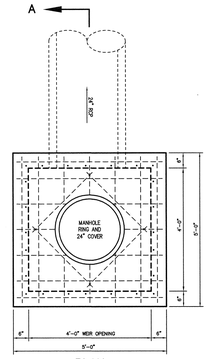


SECTION A–A

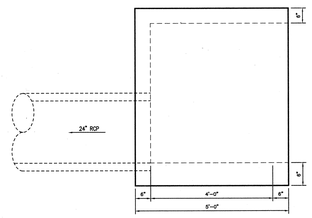
DROP INLET # 11
LINE # 3



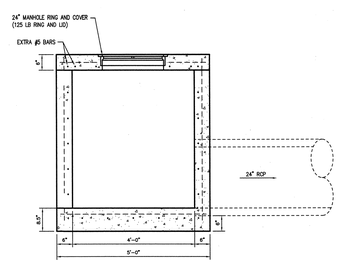
ISOMETRIC VIEW



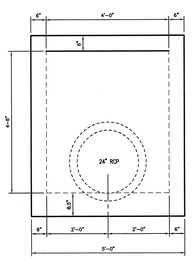
PLAN



SIDE ELEVATION



SECTION A–A



FRONT ELEVATION

NOTES:

ALL REINFORCING TO BE #5 BAR GRID @ 10" O.C., E.W. EXCEPT WHERE ALLOWANCES MUST BE MADE FOR PIPES, OPENING, OR MANHOLE RING.

NEOPRENE-COATED STEEL STEPS ARE TO BE INSTALLED IN ALL DROP INLETS AND JUNCTION BOXES WITH A DEPTH OF 4'-0" OR GREATER. STEP SPACING TO BE 12".

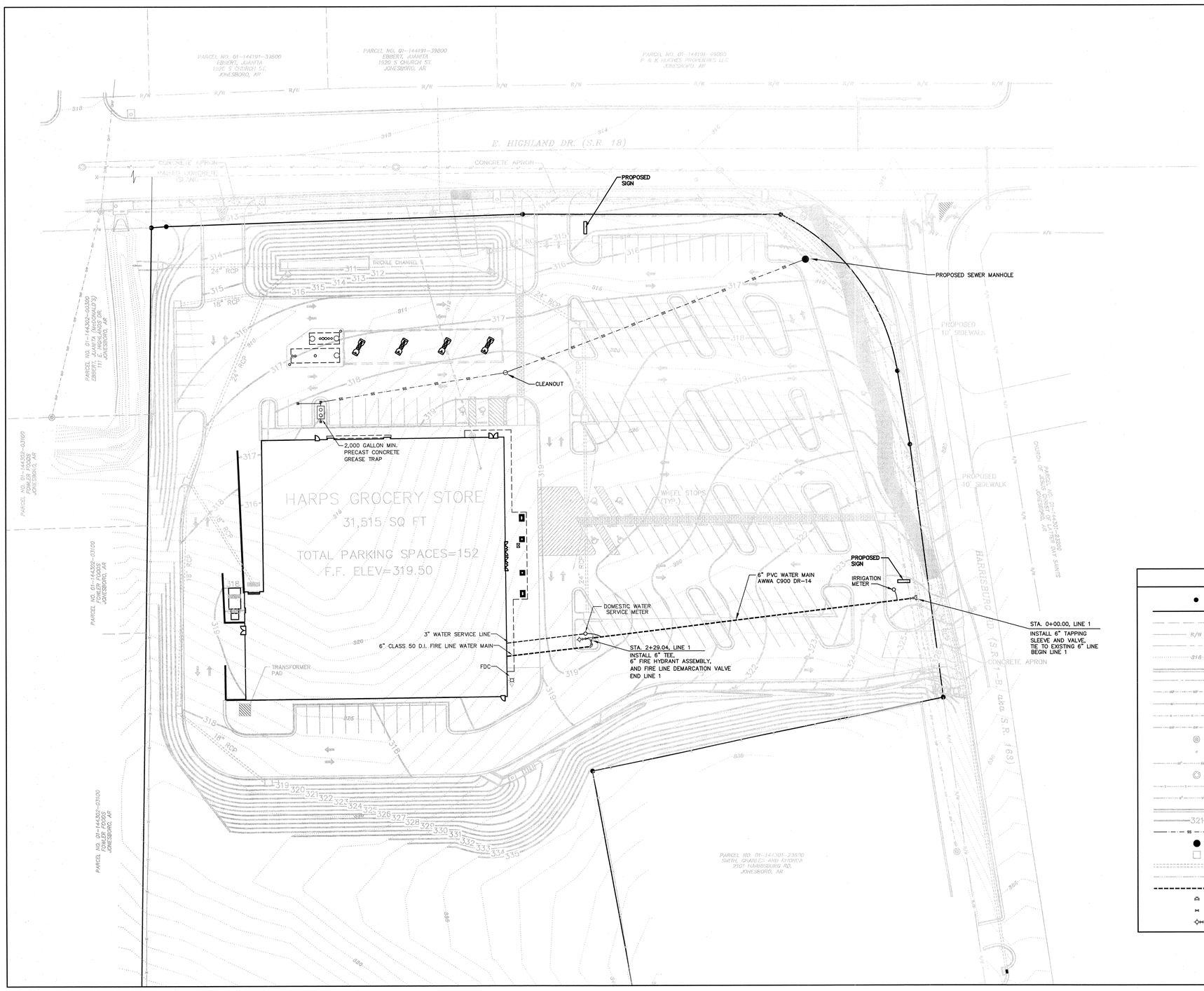
DETENTION POND
OUTLET STRUCTURE No.14
LINE No.5

ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

STREET & STORM DRAINAGE DETAILS
HARP'S FOOD STORES, INC.
JONESBORO, ARKANSAS

REVISION	DATE	DESCRIPTION

SCALE: NONE
DATE: JAN 2011
ENGINEER: BBW
DRAWN BY: ---
W.O. #: 10917



LEGEND

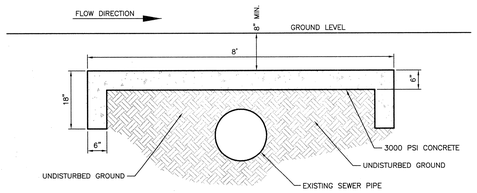
●	IRON PIN FOUND
	PROPERTY LINE
	ADJACENT LINE
R/W	RIGHT-OF-WAY
	SECTION LINE
318	EXISTING CONTOURS
	EXISTING BACK OF CURB
	EXISTING CENTERLINE
UP	EXISTING UNDERGOUND POWERLINE
	EXISTING FENCE
G	EXISTING GAS LINE
OP	EXISTING OVERHEAD POWER
	EXISTING POWER POLE
	EXISTING GUYWIRE
SP	EXISTING SEWER LINE
	EXISTING SEWER MANHOLE
T	EXISTING TELEPHONE LINE
W	EXISTING WATERLINE
	PROPOSED BACK OF CURB
321	PROPOSED CONTOURS
SS	PROPOSED SEWER SERVICE LINE
●	PROPOSED SEWER MANHOLE
□	PROPOSED DRAINAGE BOX
	PROPOSED DRAINAGE PIPE
	PROPOSED SWALE
	PROPOSED WATERLINE
	PROPOSED TEE
	PROPOSED GATE VALVE
	PROPOSED FIRE HYDRANT

ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

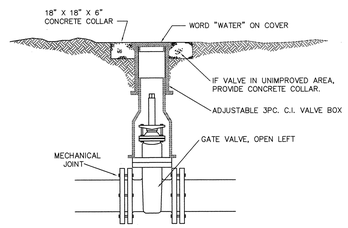
WATER AND SANITARY SEWER LAYOUT
HARPS FOOD STORES, INC.
JONESBORO, ARKANSAS

REVISION	DATE	DESCRIPTION

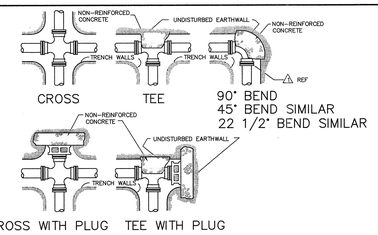
SCALE: 1"= 30'
DATE: JAN 2011
ENGINEER: BBW
DRAWN BY: ---
W.O. #: 10917



CONCRETE CAP



TYPICAL VALVE BOX INSTALLATION

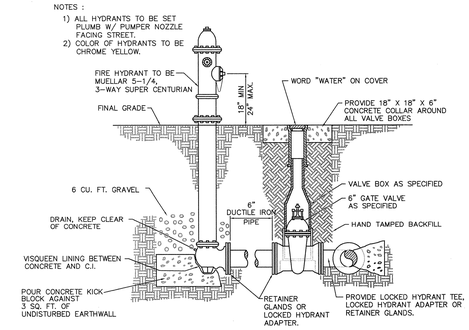


NOTES:

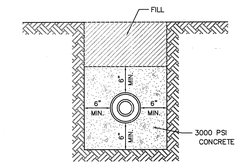
1. ALL FITTINGS SHALL BE MECHANICAL JOINTS.
2. DO NOT COVER BELLS OR FLANGES WITH CONCRETE.
3. WRAP ALL FITTINGS WITH VISQUEEN.
4. BACK ALL TEES ACORDING TO SIZE OF BRANCH.
5. BACKING FUTURE LINE EXTENSIONS SHALL BE SUCH THAT LATER REMOVAL IS POSSIBLE.
6. ALL BENDS WHERE FITTINGS ARE USED, BOTH HORIZONTAL OR VERTICAL, SHALL BE BACKED.
7. REACTION BACKING TABLE IS BASED ON 150 PSI AND SOIL BEARING PRESSURE OF 2,500 LB./SQ. FT. ADDITIONAL BACKING MAY BE REQUIRED IN SOME AREAS AS DIRECTLD BY THE ENGINEER.

REACTION BACKING TABLE				
SIZE	REQUIRED SQ. FT. OF UNDISTURBED EARTHWALL FOR REACTION BACKING			
	TYPE OF FITTINGS			
	TEE	90°	45°	22 1/2°
2"	1	1	1	1
3"	1	1	1	1
4"	1	2	1	1
6"	3	3	2	1
8"	4	4	3	2
10"	7	7	4	2
12"	10	10	5	3
14"	13	13	7	4
16"	17	17	9	5
18"	21	21	12	6
20"	26	26	14	7
24"	38	38	20	10
30"	59	59	32	16
36"	85	85	46	23

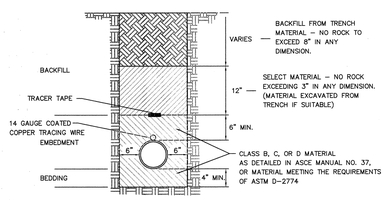
NOTES :
1) ALL HYDRANTS TO BE SET PLUMB W/ PUMPER NOZZLE FACING STREET.
2) COLOR OF HYDRANTS TO BE CHROME YELLOW.



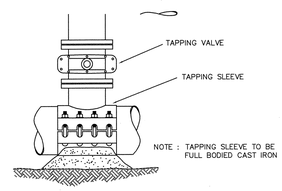
FIRE HYDRANT & GATE VALVE DETAILS



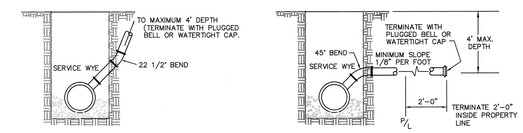
TYPICAL CONCRETE ENCASEMENT



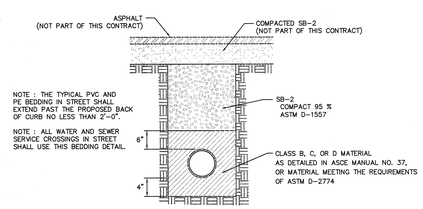
TYPICAL PVC BEDDING DETAIL



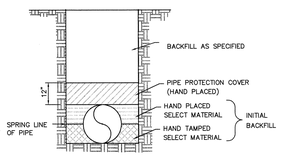
TYPICAL DETAIL OF TAPPING VALVE AND SLEEVE



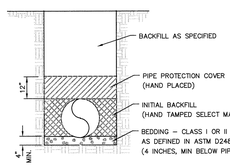
RISER FROM DEEP MAIN NORMAL DEPTH
SERVICE CONNECTIONS



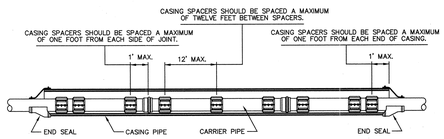
TYPICAL PVC & PE BEDDING IN STREET



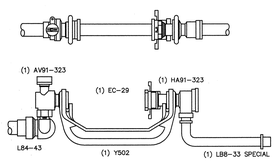
TYPICAL DUCTILE IRON PRESSURE PIPE TRENCH



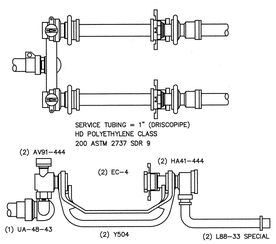
DUCTILE IRON SEWER PIPE TRENCH
(STANDARD LAYING CONDITION "TYPE 4")



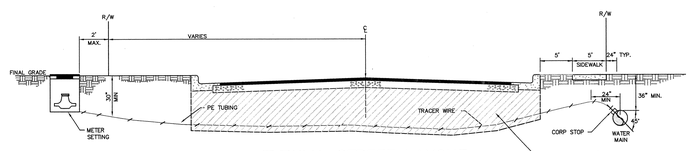
TYPICAL CASING SPACER CONFIGURATION
SEWER LINE SHOWN...WATER LINE SIMILAR



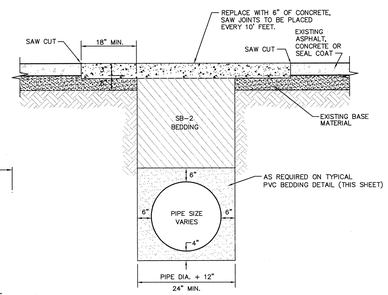
YOKE ASSEMBLY (SINGLE METER)



YOKE ASSEMBLY (DUAL METER)



TYPICAL STREET LAYOUT



CONCRETE AND ASPHALT DRIVEWAY/ROAD REPAIR
(FOR ALL PAVED ROADS & DRIVEWAYS)

NOTES:

1. SPACERS SHALL BE MANUFACTURED BY "ADVANCE PRODUCTS & SYSTEMS" AS SPECIFIED.
2. QUANTITY OF RUNNERS SHALL BE IN ACCORDANCE WITH CARRIER PIPE SIZE AS FOLLOWS:
   TO 14" DIAMETER – 4 RUNNERS
   16" TO 36" DIAMETER – 6 RUNNERS
   38" TO 48" DIAMETER – 8 RUNNERS
2. DIMENSIONS BETWEEN SPACERS SHALL BE AS FOLLOW:
   STAINLESS STEEL – 8 TO 12 FEET.
   CARBON STEEL – 8 TO 12 FEET.
3. WIDTH OF SPACERS SHALL BE IN ACCORDANCE WITH CARRIER PIPE SIZE AS FOLLOWS:
   TO 14" DIAMETER – 8" WIDTH
   16" AND LARGER DIAMETER – 12" WIDTH
4. A MINIMUM OF THREE SPACERS PER FULL JOINT OF PIPE.
5. WATER LINES SHALL BE "CENTERED" IN CASING.
6. SEWER LINES SHALL BE HELD TO SPECIFIED SLOPE.
7. ALL D.I. CARRIER PIPE MUST HAVE FIELD LOCK GASKETS INSTALLED WITHIN THE CASING PIPE.

ENCASEMENT / CARRIER PIPE SIZING CHART

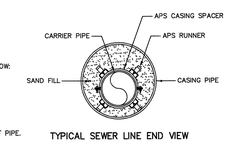
WATER MAINS
Ductile Iron Pipe (Class 50) Encasement Pipe *

Nom. Size	Pipe O.D.	Bell O.D.	Nom. Size
6"	6.90	8.66	12"
8"	9.05	10.82	16"
12"	13.20	15.05	20"
18"	17.40	19.74	24"
24"	25.80	28.16	36"

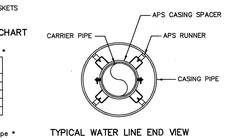
SEWER MAINS
P.V.C. Pipe SDR-26 (class 160) Encasement Pipe *

Nom. Size	Pipe O.D.	Bell O.D.	Nom. Size
4"	4.50	5.50	10.75*
6"	6.63	8.00	12"
8"	8.63	10.25	16"
10"	10.75	13.00	20"
12"	12.75	15.25	24"
16"	16.00	18.75	24"
18"	18.00	21.25	30"
24"	24.00	28.00	36"

* ALL ENCASEMENT PIPE SHALL BE NEW & HAVE A MINIMUM WALL THICKNESS OF .25

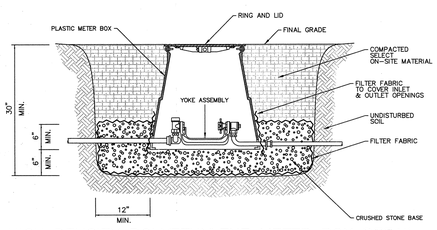


TYPICAL SEWER LINE END VIEW

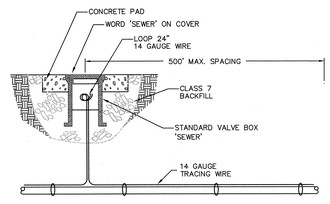


TYPICAL WATER LINE END VIEW

WATER/SEWER LINE ENCASEMENT DETAILS



HIGH DENSITY POLYETHYLENE METER BOX DETAIL
SPLIT 5/8" X 3/4" METER SETTER (SHOWN)



TRACING WIRE CONNECTION MARKER

ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764
S:\LIBRARY\DWG Files\Projects\2010\10-917\10-917-Sh 13 of 16.dwg

WATER AND SANITARY SEWER DETAILS
HARPS FOOD STORES, INC.
JONESBORO, ARKANSAS

REVISION	DATE	DESCRIPTION

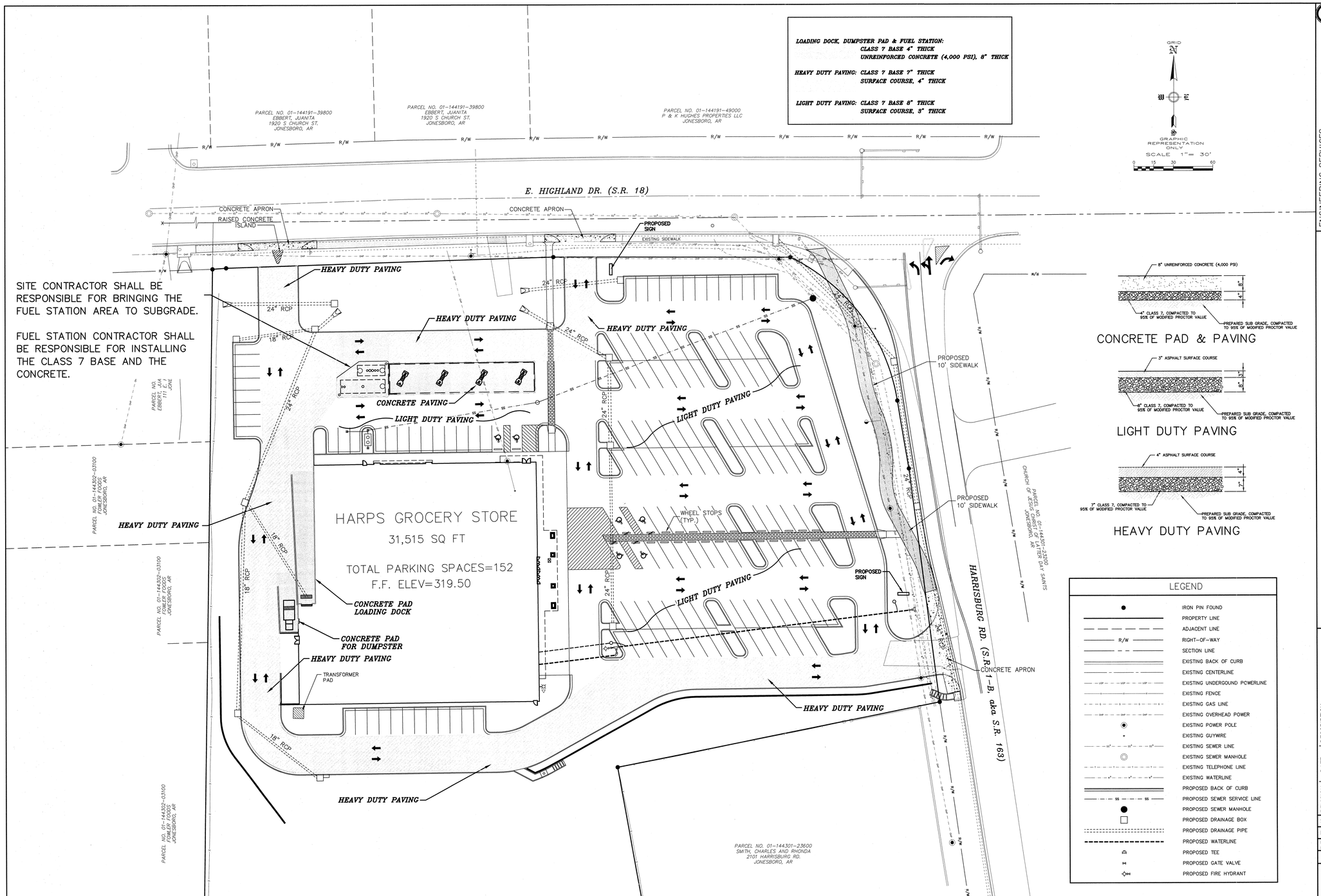
SCALE: NONE
DATE: JAN., 2011
ENGINEER: BBW
DRAWN BY: ---
W.O. #: 10917

13

LOADING DOCK, DUMPSTER PAD & FUEL STATION:
CLASS 7 BASE 4" THICK
UNREINFORCED CONCRETE (4,000 PSI), 8" THICK

HEAVY DUTY PAVING: CLASS 7 BASE 7" THICK
SURFACE COURSE, 4" THICK

LIGHT DUTY PAVING: CLASS 7 BASE 8" THICK
SURFACE COURSE, 3" THICK



SITE CONTRACTOR SHALL BE RESPONSIBLE FOR BRINGING THE FUEL STATION AREA TO SUBGRADE.

FUEL STATION CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE CLASS 7 BASE AND THE CONCRETE.

CONCRETE PAD & PAVING

LIGHT DUTY PAVING

HEAVY DUTY PAVING

LEGEND

- IRON PIN FOUND
- PROPERTY LINE
- ADJACENT LINE
- R/W — RIGHT-OF-WAY
- SECTION LINE
- EXISTING BACK OF CURB
- EXISTING CENTERLINE
- EXISTING UNDERGOUND POWERLINE
- EXISTING FENCE
- EXISTING GAS LINE
- EXISTING OVERHEAD POWER
- EXISTING POWER POLE
- EXISTING GUYWIRE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING TELEPHONE LINE
- EXISTING WATERLINE
- PROPOSED BACK OF CURB
- SS — PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED DRAINAGE BOX
- PROPOSED DRAINAGE PIPE
- PROPOSED WATERLINE
- PROPOSED TEE
- PROPOSED GATE VALVE
- PROPOSED FIRE HYDRANT

ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764
P: 479.751.7591 F: 479.751.7592
E: SERVICES@ESI-ENGINEERING.COM WEBSITE: ESI-ENGINEERING.COM

PAVING PLAN
HARPS FOOD STORES, INC.
JONESBORO, ARKANSAS

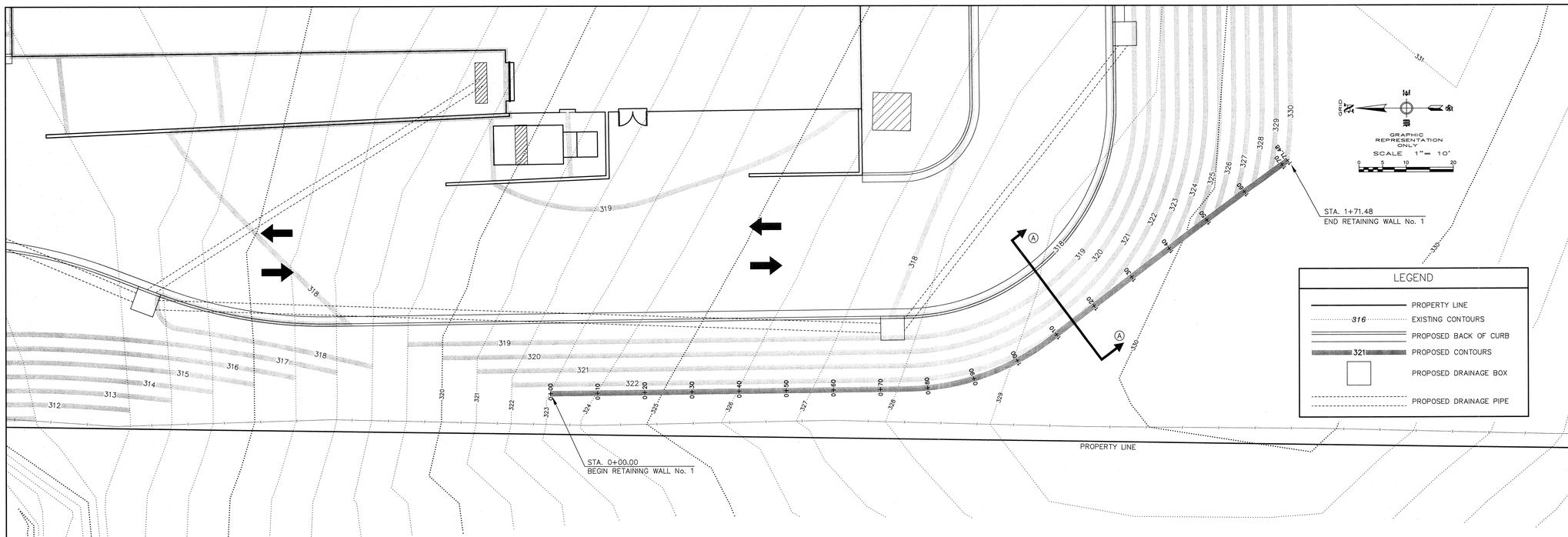
REVISION	DATE	DESCRIPTION

SCALE: 1"= 30'

DATE: JAN., 2011

ENGINEER: BBW
DRAWN BY: ---

W.O. #: 10917



NOTES:

-ALL INFORMATION FOR THE DESIGN OF THE RETAINING WALLS WAS TAKEN FROM THE PLAN PUT TOGETHER BY ENGINEERING DESIGN ASSOCIATES. ANY INACCURACIES IN THIS PLAN SHALL VOID THIS DESIGN.

-THESE WALLS WERE DESIGNED USING A LIVE LOADFOR LIGHT TRAFFIC/AUTO PARKING.

-PER THE REVISED PLANS FROM ENGINEERING DESIGN ASSOCIATES, FIBER OPTIC LINE NOW SHOWN NOT TO BE RELOCATED.

-THIS DESIGN IS FOR THE SEGMENTED BLOCK WALL ONLY.

FOUNDATION SPECIFICATIONS:

-THE FOUNDATION SHALL CONSIST OF AN AGGREGATE BASE WITH CRUSHED STONE OR GRANULAR FILL MEETING THE FOLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH ASTM D448:

SIEVE SIZE	PERCENT PASSING
1 INCH	100
No. 4	35 TO 70
No. 40	10 TO 35
No. 200	3 TO 10

-THE FOUNDATION SHALL BE COMPACTED TO 98% OF MODIFIED PROCTOR VALUE.

UNIT DRAINAGE FILL:

-UNIT DRAINAGE FILL SHALL CONSIST OF CLEAN 1" MINUS CRUSHED STONE OR CRUSHED GRAVEL MEETING THE FOLLOWING GRADATION TESTED IN ACCORDANCE WITH ASTM D-422

SIEVE SIZE	PERCENT PASSING
1 INCH	100
3/4-INCH	75-100
No. 4	0 TO 10
No. 50	0 TO 5

-DRAINAGE FILL SHALL BE PLACED WITHIN THE CORES OF, BETWEEN, AND BEHIND THE UNITS AS INDICATED ON THE DESIGN DRAWINGS. NOT LESS THAN ONE CUBIC FOOT, OF DRAINAGE FILL SHALL BE USED FOR EACH SQUARE FOOT OF WALL FACE UNLESS OTHERWISE SPECIFIED.

REINFORCED BACKFILL:

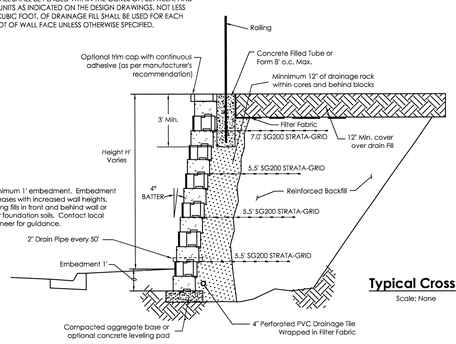
-REINFORCED BACKFILL SHALL BE FREE OF DEBRIS AND MEET THE FOLLOWING GRADATION TESTED IN ACCORDANCE WITH ASTM D-422.

SIEVE SIZE	PERCENT PASSING
2 INCH	100
¾ INCH	100 - 75
No. 40	0 - 60
No. 200	0 - 35

-THE MAXIMUM AGGREGATE SIZE SHALL BE LIMITED TO ¾ INCH UNLESS FIELD TESTS HAVE BEEN PERFORMED TO EVALUATE POTENTIAL STRENGTH REDUCTIONS TO THE GEOGRID DESIGN DUE TO DAMAGE DURING CONSTRUCTION.

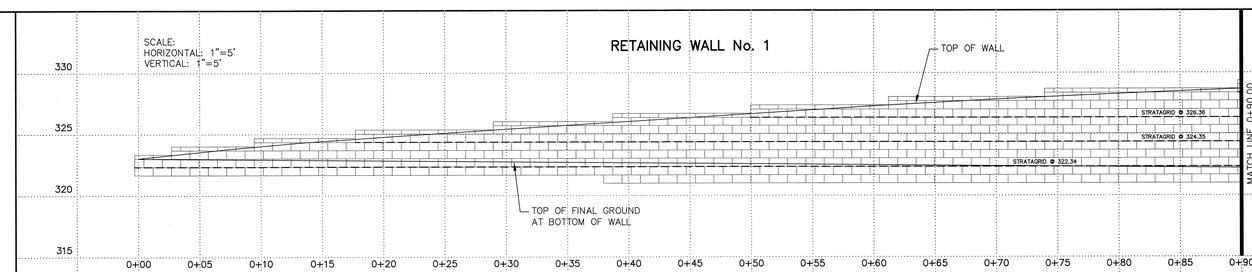
-MATERIAL CAN BE SITE-EXCAVATED SOILS WHERE THE ABOVE REQUIREMENTS CAN BE MET. UNSUITABLE SOILS FOR BACKFILL (HIGH PLASTIC CLAY OR ORGANIC SOILS) SHALL NOT BE USED IN THE BACKFILL OR IN THE REINFORCED SOIL MASS.

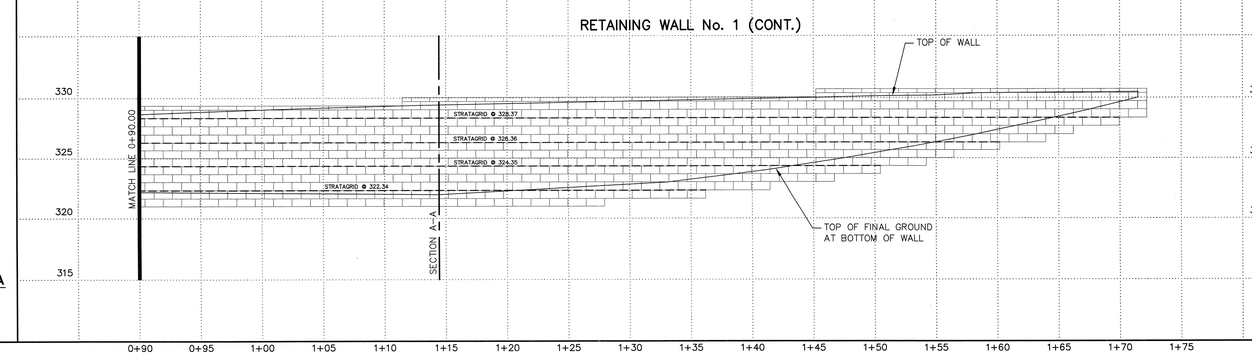
-CONTRACTOR SHALL SUBMIT REINFORCED FILL SAMPLE AND LABORATORY TEST RESULTS TO THE ARCHITECT/ ENGINEER FOR APPROVAL PRIOR TO THE USE OF ANY PROPOSED REINFORCED FILL MATERIAL.



Typical Cross Section A-A

Scale: None





ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

RETAINING WALL PLAN & PROFILE
HARPS FOOD STORES, INC.
JONESBORO, ARKANSAS

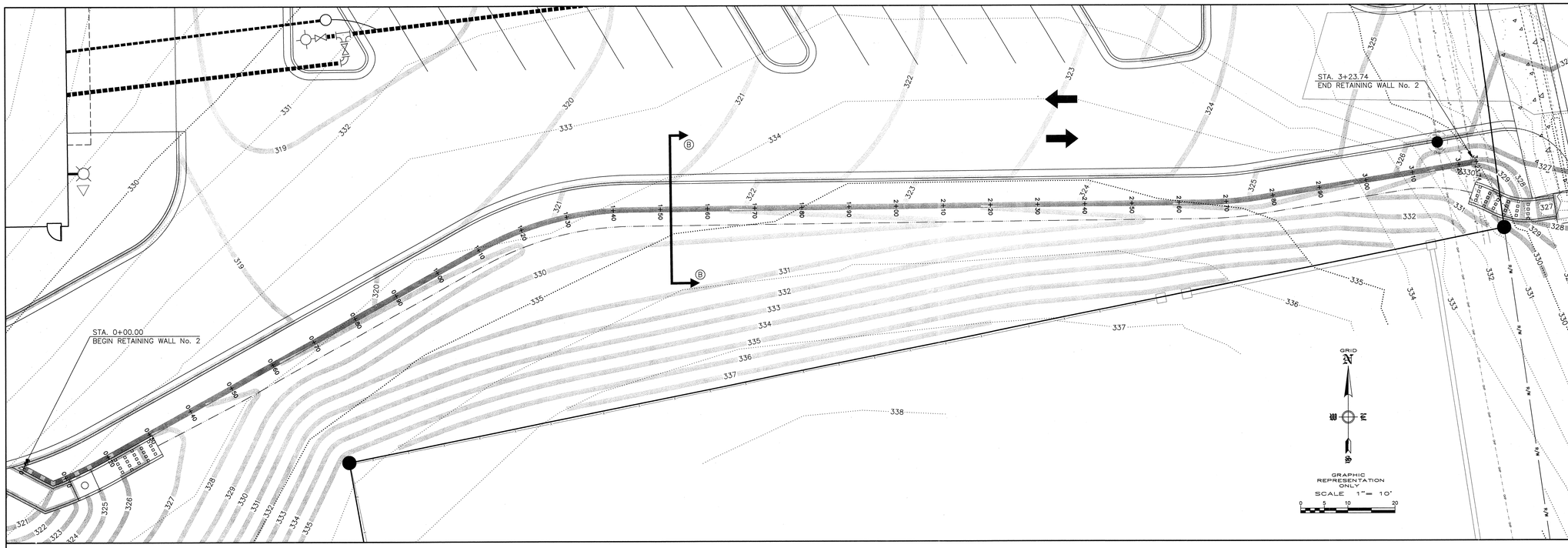
REVISION	DATE	DESCRIPTION

SCALE: SHOWN

DATE: JAN. 2011

ENGINEER: BBW
DRAWN BY: ---

W.O. #: 10917



LEGEND

- PROPERTY LINE
- 316 EXISTING CONTOURS
- PROPOSED BACK OF CURB
- 321 PROPOSED CONTOURS
- PROPOSED DRAINAGE BOX
- PROPOSED DRAINAGE PIPE
- R/W RIGHT–OF–WAY
- EXISTING UNDERGOUND POWERLINE
- EXISTING GAS LINE
- EXISTING OVERHEAD POWER
- EXISTING POWER POLE
- EXISTING GUYWIRE
- EXISTING TELEPHONE LINE
- EXISTING WATERLINE
- PROPOSED WATERLINE
- PROPOSED TEE
- PROPOSED GATE VALVE
- PROPOSED FIRE HYDRANT

NOTES:

-ALL INFORMATION FOR THE DESIGN OF THE RETAINING WALLS WAS TAKEN FROM THE PLAN PUT TOGETHER BY ENGINEERING DESIGN ASSOCIATES. ANY INACCURACIES IN THIS PLAN SHALL VOID THIS DESIGN.

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FOUNDATION SPECIFICATIONS:

THE FOUNDATION SHALL CONSIST OF AN AGGREGATE BASE WITH CRUSHED STONE OR GRANULAR FILL MEETING THE FOLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH ASTM D448:

SIEVE SIZE	PERCENT PASSING
1 INCH	100
No. 4	35 TO 70
No. 40	10 TO 35
No. 200	3 TO 10

-THE FOUNDATION SHALL BE COMPACTED TO 98% OF MODIFIED PROCTOR VALUE.

UNIT DRAINAGE FILL:

-UNIT DRAINAGE FILL SHALL CONSIST OF CLEAN 1" MINUS CRUSHED STONE OR CRUSHED GRAVEL MEETING THE FOLLOWING GRADATION TESTED IN ACCORDANCE WITH ASTM D-422

SIEVE SIZE	PERCENT PASSING
1 INCH	100
3/4-INCH	75-100
No. 4	0 TO 10
No. 50	0 TO 5

-DRAINAGE FILL SHALL BE PLACED WITHIN THE CORES OF, BETWEEN, AND BEHIND THE UNITS AS INDICATED ON THE DESIGN DRAWINGS. NOT LESS THAN ONE CUBIC FOOT, OF DRAINAGE FILL SHALL BE USED FOR EACH SQUARE FOOT OF WALL FACE UNLESS OTHERWISE SPECIFIED.

REINFORCED BACKFILL :

-REINFORCED BACKFILL SHALL BE FREE OF DEBRIS AND MEET THE FOLLOWING GRADATION TESTED IN ACCORDANCE WITH ASTM D-422.

SIEVE SIZE	PERCENT PASSING
2 INCH	100
¾ INCH	100 - 75
No. 40	0 - 60
No. 200	0 - 55

-THE MAXIMUM AGGREGATE SIZE SHALL BE LIMITED TO ¾ INCH UNLESS FIELD TESTS HAVE BEEN PREFORMED TO EVALUATE POTENTIAL STRENGTH REDUCTIONS TO THE GEOGRID DESIGN DUE TO DAMAGE DURING CONSTRUCTION.

-MATERIAL CAN BE SITE-EXCAVATED SOILS WHERE THE ABOVE REQUIREMENTS CAN BE MET. UNSUITABLE SOILS FOR BACKFILL (HIGH PLASTIC CLAY OR ORGANIC SOILS) SHALL NOT BE USED IN THE BACKFILL OR IN THE REINFORCED SOIL MASS.

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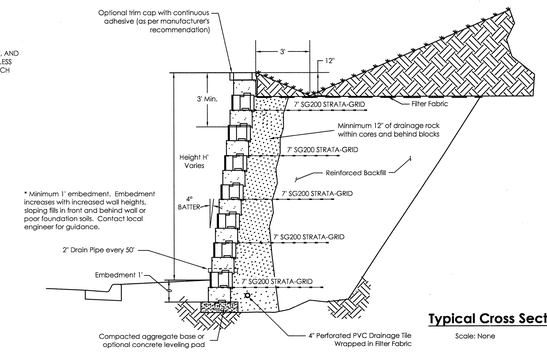


Typical Cross Section B-B

Scale: None

ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

RETAINING WALL PLAN & PROFILE
HARPS FOOD STORES, INC.
JONESBORO, ARKANSAS

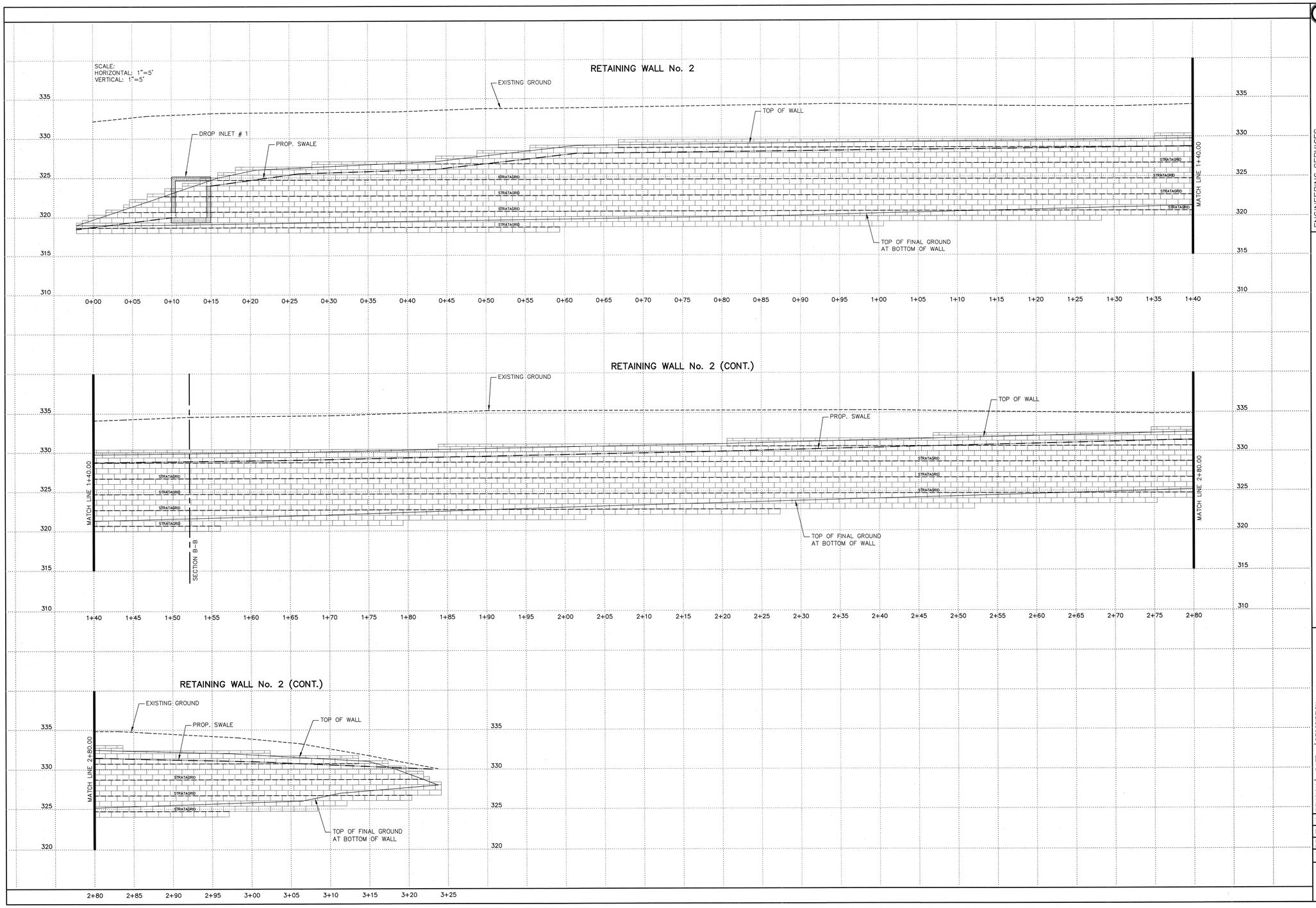
REVISION	DATE	DESCRIPTION

SCALE: SHOWN

DATE: JAN. 2011

ENGINEER: BBW
DRAWN BY: ---

W.O. #: 10917



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CONSULTING ENGINEERS AND SURVEYORS
1207 SOUTH OLD MISSOURI RD.
SPRINGDALE, ARKANSAS 72764

RETAINING WALL PROFILE
HARPS FOOD STORES, INC.
JONESBORO, ARKANSAS

REVISION	DATE	DESCRIPTION

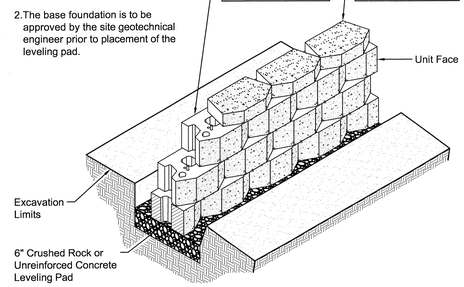
SCALE: SHOWN
DATE: JAN. 2011
ENGINEER: BBW
DRAWN BY: ---
W.O. #: 10917

Base Leveling Pad Notes:

1. The leveling pad is to be constructed of crushed stone or 2,000 psi± unreinforced concrete
2. The base foundation is to be approved by the site geotechnical engineer prior to placement of the leveling pad.

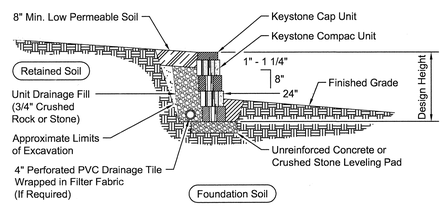
Compac Unit	
Width:	18"
*Depth:	12"
Height:	8"
*Weight:	85 lbs

Cap Unit	
Width:	18"
*Depth:	10 1/2"
Height:	4"
*Weight:	45 lbs



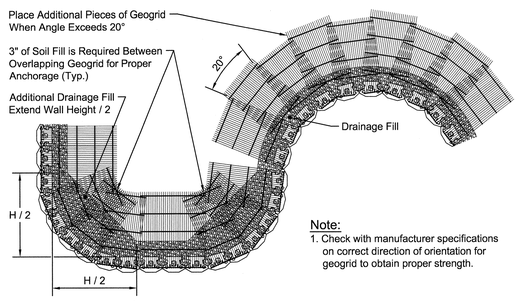
Compac Unit/Base Pad Isometric Section View

* Dimensions & Weight May Vary by Region



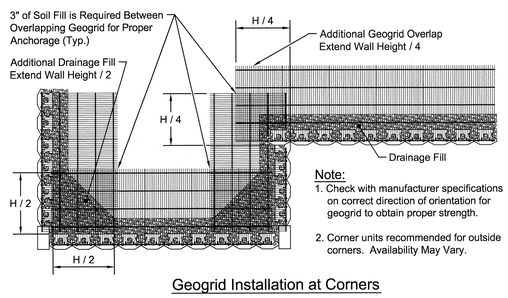
Typical Gravity Wall Section

Compac Unit - 1" Setback



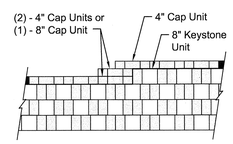
Note:
1. Check with manufacturer specifications on correct direction of orientation for geogrid to obtain proper strength.

Geogrid Installation on Curves



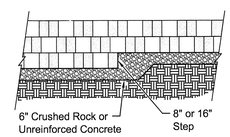
Note:
1. Check with manufacturer specifications on correct direction of orientation for geogrid to obtain proper strength.
2. Corner units recommended for outside corners. Availability May Vary.

Geogrid Installation at Corners



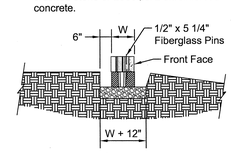
Note:
1. Secure all cap units with Keystone Kapseal or equal.

Top of Wall Steps



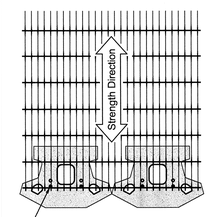
Elevation

Note:
1. The leveling pad is to be constructed of crushed stone or 2000 psi ± unreinforced concrete.



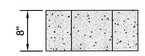
Section

Leveling Pad Detail

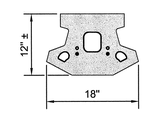


Geogrid is to be Placed on Level Backfill and Extended Over the Fiberglass Pins. Place Next Unit. Pull Grid Taught and Backfill. Stake as required.

Grid & Pin Connection



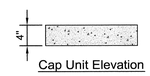
Compac Elevation



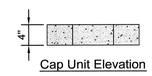
Compac Plan

Compac Unit

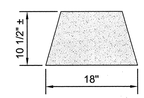
* Dimensions May Vary by Region



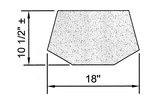
Cap Unit Elevation



Cap Unit Elevation



Cap Unit Plan



Cap Unit Plan

Universal Cap Unit Option

* Dimensions & Availability Will Vary by Region

3-Plane Split Cap Unit Option

* Dimensions & Availability Will Vary by Region

Design is for internal stability of the KEYSTONE wall structure only. External stability, including but not limited to foundation and slope stability is the responsibility of the Owner. The design is based on the assumption that the materials within the retained mass, methods of construction, and quality of materials conform to KEYSTONE's specification for this project.

ENGINEERING SERVICES INCORPORATED
CONSULTING ENGINEERS AND SURVEYORS
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501-750-0500 FAX 501-750-0505 E-MAIL esi@esi-ar.com
E:\ESI\2001 Files\ JOBNAME\Projects\01 Retaining Wall Details.dwg

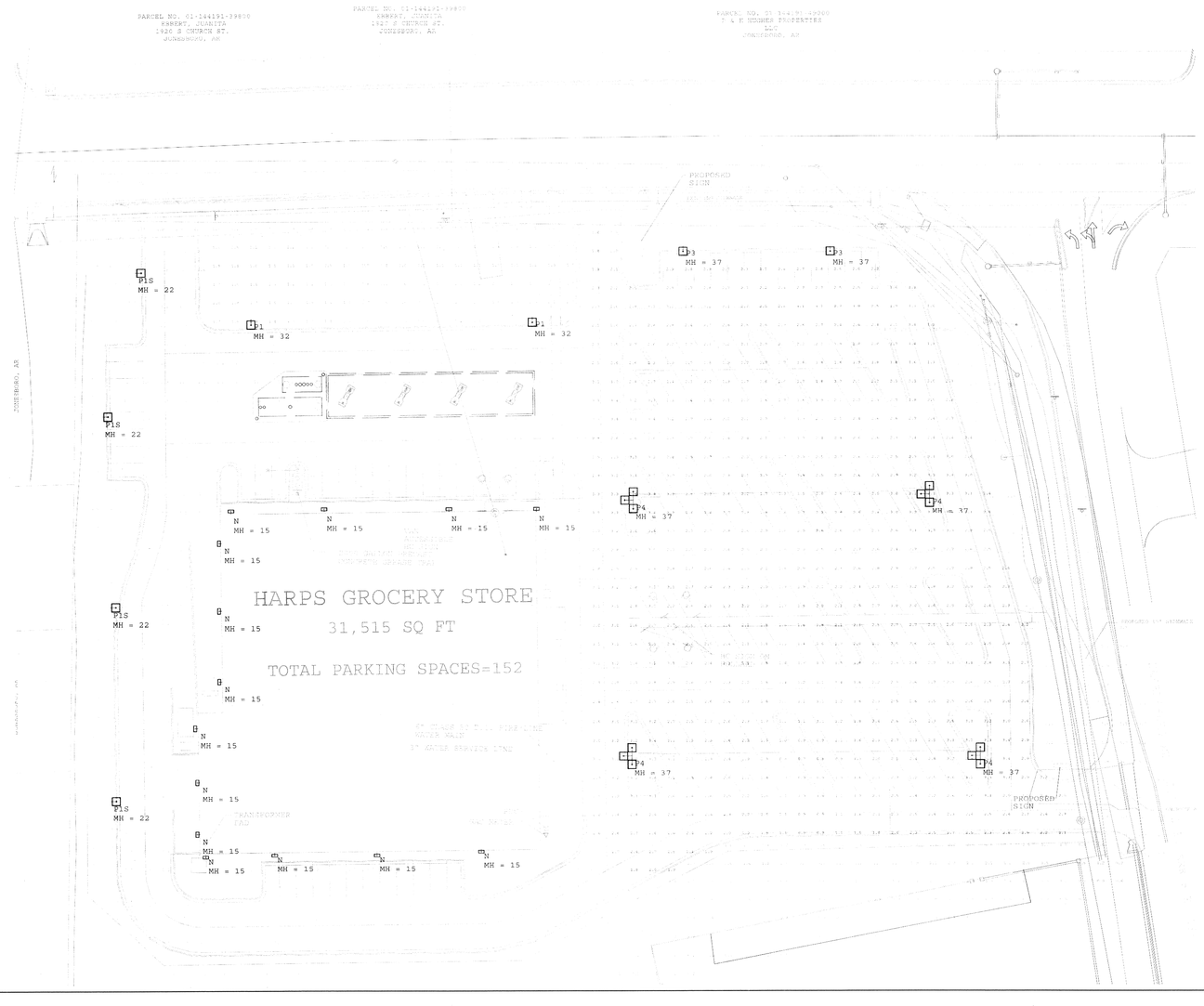
RETAINING WALL DETAILS
HARP'S FOOD STORES, INC.
JONESBORO, ARKANSAS

REVISION	DATE	DESCRIPTION

SCALE: N.T.S.
DATE: JAN. 2011
DESIGNED: BEW
DRAWN BY: ——
W.O. #: 10917

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	2	P1	SINGLE	37000	0.750	SPAULDING MSV-x-P35-V3P-F
	4	P1S	SINGLE	23750	0.750	SPAULDING MSV-x-P25-V4-F
	2	P3	SINGLE	37000	0.750	SPAULDING MSV-x-P35-V4-F
	14	N	SINGLE	13000	0.750	HUBBELL OUTDOOOR PGSA175H-x2x
	4	P4	3 @ 90 DEGREES	37000	0.750	SPAULDING MSV-x-P35-V3P-F

Calculation Summary							
Description	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
MAIN PARKING AREA	Illuminance	Fc	2.40	3.5	0.7	3.43	5.00
DRIVE AREA	Illuminance	Fc	1.85	10.6	0.1	18.50	106.00
POND AREA	Illuminance	Fc	1.08	2.8	0.1	10.80	28.00
SIDE WALK AREA AROUND BUILDING	Illuminance	Fc	3.89	11.9	0.3	12.97	39.67
SIDEWALK AREA IN FRONT OF PARKING LOT	Illuminance	Fc	1.33	3.1	0.1	13.30	31.00
SPILL LIGHT	Illuminance	Fc	1.09	5.0	0.0	N.A.	N.A.
SPILL LIGHT AREA	Illuminance	Fc	0.95	2.7	0.1	9.50	27.00



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P: 479.756.7400 F: 479.756.7401 www.sei-ar.com CERTIFICATE OF AUTHORIZATION NUMBER: 1-1-1-1 LICENSED: 1-1-1-1

LIGHTING PLAN
HARPS FOOD STORES, INC.
JONESBORO, ARKANSAS

REVISION	DATE	DESCRIPTION

SCALE: N.T.S.
DATE: JAN. 2011
ENGINEER: BBW
DRAWN BY: ---
W.O. #: 10917